

# FrameMaker 8.x

Unstructured interface (Windows)

A compendium

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## Document information

Title	FrameMaker compendium compendium: n. (pl. compendiums or compendia): a book or other publication containing a collection of information about a subject [Concise Oxford English Dictionary].	
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Trademarks	Throughout this compendium trademarks are used. Rather than place a trademark symbol at every occurrence of a trademarked name, we state here that the names are used in an editorial fashion with no intention of infringement of the trademark.	
Development	The development of this compendium is an ongoing task.	
<a href="#">Developer's notes</a>	See on the reference page Information, Double click here to go there.	

## Conventions used in this manual

Menu-items	The hierarchy to get to a specific menu item is displayed with the ">" symbol and highlighted. For example, <b>File &gt; New</b> displays the "New" dialogue from the "File" menu.
Buttons	Button names are highlighted the same way as menu items: Click <b>Reset</b> .
Keyboard-input	Shortcuts often require key sequences. Key names and sequences are highlighted. Typing keys simultaneously is indicated by a + sign ( <b>CTRL+q</b> ) and sequences ( <b>ESC, n, s</b> ) in which the keys are typed one after each other. Sometimes keyboard input is displayed with a special font, for example, this must be typed as displayed here.
Actions	I <i>click</i> on a button (of the user interface) , but <i>type</i> on the keyboard.
File names	File names etc. are displayed in fixed pitch font.
Placeholders	Placeholder which must be replaced by user specified text, are displayed in italics, for example, <i>filename</i> .

## PDF version

Location	You find the newest version (and older ones) on the web-site of D+DD at <a href="http://www.daube.ch/docu/fmaker00.html">www. daube. ch/docu/fmaker00. html</a>
Live hyperlinks	In the PDF version of this compendium all cross references and entries in the Table of Contents and index are live hyperlinks - automatically generated by FrameMaker.

# Contents

**Please note:** This compendium does not describe *all* features of FrameMaker. You still may need to look into the help system. On the other side the author puts emphasis on tips which are helpful for the creation and maintenance of documents both in the technical and scientific area.

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# 1

## Working environment

### Overview

The FrameMaker working philosophy differs significantly from the habits acquired with text processors such as MS Word. But FrameMaker is the “tool of the trade” for long and long living documents.

The working environment is not as fancy as that of office applications, but provides all you need for your work. It can be customised, although not to the extent of other Windows applications, because FM is a work horse and can not be dolled up like a dog's dinner.

There are numerous add-ons (Application Programming Interface clients) from third party vendors, because FM concentrates ‘on the core business’ of the application.

FrameMaker 8 contains the standard interface and the structured interface (to work on structured documents). This compendium is only about the standard interface.

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# Working with FrameMaker

## My way towards FrameMaker

Until the beginning of the 1990's the author (Klaus Daube) worked for about 20 years on IBM mainframes. We were lacking methods and applications to process documents. Not letters and memos of short life time, but handbooks about long living software and the services of a computing centre.

IBM had such a system at hand (DCF - Document Composition Facility), but it was a resource hog and was not user friendly at all. We also did not have the printers it supported. We knew about Donald Knuth's T<sub>E</sub>X system, but did not have a UNIX system to run it. After discussions with IBM to make their system more useful for us we decided to develop our own system (*Susi*). Unfortunately we could not complete our work, because the company was closed. At that time we already were able to produce all our manuals with *Susi* and print on PostScript printers (At that time IBM did not have an idea about PostScript and its advantages for font handling).

At my next employer (1992) I became responsible for a small group of people documenting software with MS Word. I tried to automate many things by macros and templates. But for the long documents Word was not stable at all and we lost much time<sup>1</sup>). Then I discovered FrameMaker. In those times it was version 3 (see [History of FrameMaker](#)). Immediately I fell in love with this application, because it supported nearly all the ideas we had developed for *Susi*. Eventhough tables were supported only rudimentary, our efficiency grew significantly.

After forced change to self employment (1994) I developed my skills in FrameMaker further and started to give classes at the ETH in Zurich for people writing theses. And of course all documentation work done as a free lances was produced in FrameMaker<sup>2</sup>). With FrameMaker it is easy to keep deadlines!

## Paul Findon writes in March 2005

FrameMaker is the premier authoring and publishing application for long, structured technical documents such as books and instruction manuals. Seventeen years since it was first released, yet still nothing comes remotely close.

Frame Technology, cofounded by Steve Kirsch, Charles Corfield, David Murray, and Vickie Blakeslee in 1986, released FrameMaker Version 1.3 in 1988. Kevin Lynch created the Mac version. The Windows version came later. Its main competitor at that time was Interleaf. Adobe acquired Frame Technology and FrameMaker in 1995.

FrameMaker is a fantastic application that does exactly what it says on the box - long documents - no more, no less. It's perfect for technical documents and books of between 1 and 10,000 pages, although I also use it for letters, newsletters, CD/DVD insert artwork, faxes, and so on. It's used by publishing professionals around the world. Boeing used it to document the 777 - imagine how many thousands of pages that

- 
- 1 Word was developed for short living documents and even in it's 2007 version does not support long living items and consistent style in an adequate manner.
  - 2 Some attempts to work with MS Word (on customer request) failed lamently - even with the help of experts.

required. One of its major strengths was the fact that it is available for Mac, Windows, and UNIX<sup>3</sup>, so documents can easily be shared (no other application supports Mac, Windows, and UNIX). Software developers, engineers, and scientists could use FrameMaker on their UNIX workstation in the office, then take their Frame documents home and continue working on their Macs. And this wasn't just 95% cross-platform compatibility. It was 100% compatibility! I remember being impressed every time I opened a NeXT FrameMaker file on the Mac - flawless.

FrameMaker supported hypertext long before the World Wide Web, and tables, cross-references, character formats, variables, PDF, SGML, XML, and so on. In the '90s, you could easily spot a document made in FrameMaker because it contained tables and cross-references. In contrast, manuals made in PageMaker stood out because of their lack of cross-references. Then there's the equation editor, multilingual support, including double-byte (Japanese, Chinese, Korean), footnotes, and conditional text.

FrameMaker is fast and reliable - one of the few applications that doesn't suffer from bloat - crashes are virtually nonexistent, as is document corruption (PageMaker and Word users know all about that). Unlike page-layout applications, tables and graphics are anchored to, and flow with the text, so adding new text at the beginning of a document doesn't cause them to slip out of place.

## Basic philosophy

While You can work with FrameMaker the same 'wild' way as in a text processing software, the intended method of working uses a layout template comprising format names for all required text elements (headings, body text, lists etc.), highlights, tables and cross reference templates.

The free-style (or style-free) method is adequate for memos, letters etc. with short lifetime. Most work done with FrameMaker lives for several years<sup>4</sup> and is updated in this time frequently.

Every FrameMaker document contains all information about layout and styles and hence can be the template for other documents. Styles are collected in catalogues and the import of styles (based on their names) from another FrameMaker document is a fundamental principle. Thus the change of appearance, or change of product names etc. does not take hours but minutes.

Structured documentation goes even further: you do not deal with paragraphs any more but with elements. All formatting is based on rules. Hence content and structure is strictly separated from formatting. This compendium does not deal with this method, which is increasingly supported in the newer FrameMaker version. Look for the keyword DITA!

- 3 There is no Mac version after FM 7.0, mainly because the market share of Macintosh is far smaller than that of Windows. Since Mac OS X on Intel based machines there are virtual environments (e.g. Parallels) to run a Windows version of FM on the same hardware.
- 4 Keep in mind that technical documentation must be maintained as long as the product lives - and this may be more than 15 years.

# What's new in FrameMaker 8

See also [www.daube.ch/docu/fmhist00.html](http://www.daube.ch/docu/fmhist00.html)

## Unicode text

The main feature FrameMaker 8 brought to its users (and which prompted great enthusiasm) is the capability to handle Unicode characters. FrameMaker no more is restricted to the small number of languages which can be handled by the FM internal character set (see *Frame Roman code table* on page A-6).

The development team at Adobe India did a great job, in that both the old 'system' and the new capabilities can live side by side. This affects not only entered text, but also all text entered into dialogues. Of course, to fully exploit the capabilities of Unicode you need to use adequate fonts. For example, PostScript fonts (Type 1) are completely out, because they support only a limited character set.

## Platforms

FrameMaker version 7.0 (2002) was the last one available for the Macintosh with OS 9. FrameMaker 8 runs only on Windows 2000, XP and Vista™ and on Sun Solaris™ 8, 9, or 10. Other UNIX flavours and older Windows versions are not supported, although FrameMaker may run under some circumstances.

## Document handling

*Tracking edited text* on page 13-9 introduces a feature known from text processing. Added, deleted or changed text can be highlighted and the changes can be accepted or rejected.

## Conditional text

The definition of conditions has been significantly enhanced by means of boolean logic. This allows to handle a greater number of conditions with ease. See *Conditional text* on page 13-13

## Import of text and graphics

The text import filters have been enhanced and adapted to new formats, especially for MS Office 2007 applications. For graphics the import of Flash as well as for Acrobat 3D has been added. File paths can be URLs (such as `http://www.daube.ch/navbar-z.png`).

## PDF output

Save to PDF has become absolutely reliable and the generated PDF can contain Flash or 3D objects. Bookmarks are now using Unicode.

## Languages

Dictionaries for spell checking are available for additional languages (see *Supported languages* on page 2-13). However no thesauri were added for the additional languages.

## HTML output

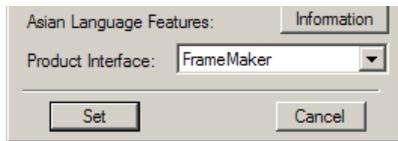
The companion software WebWorks Publisher is no more part of the delivery. Hence only the internal "Save as HTML" and the new "Save as XML" are available. See *Generate HTML and XML* on page 12-1. Within TCS2 RoboHelp takes over.

## Structured FrameMaker

The functionality of structured FrameMaker has been significantly enhanced with support of DITA and round-trip XML which saves all FM specific objects. This is not covered in this compendium.

# Working environment

## Starting FrameMaker in standard mode



Beginning with FrameMaker 7 two interfaces are available:

- Standard (unstructured)
- Structured (with SGML techniques)

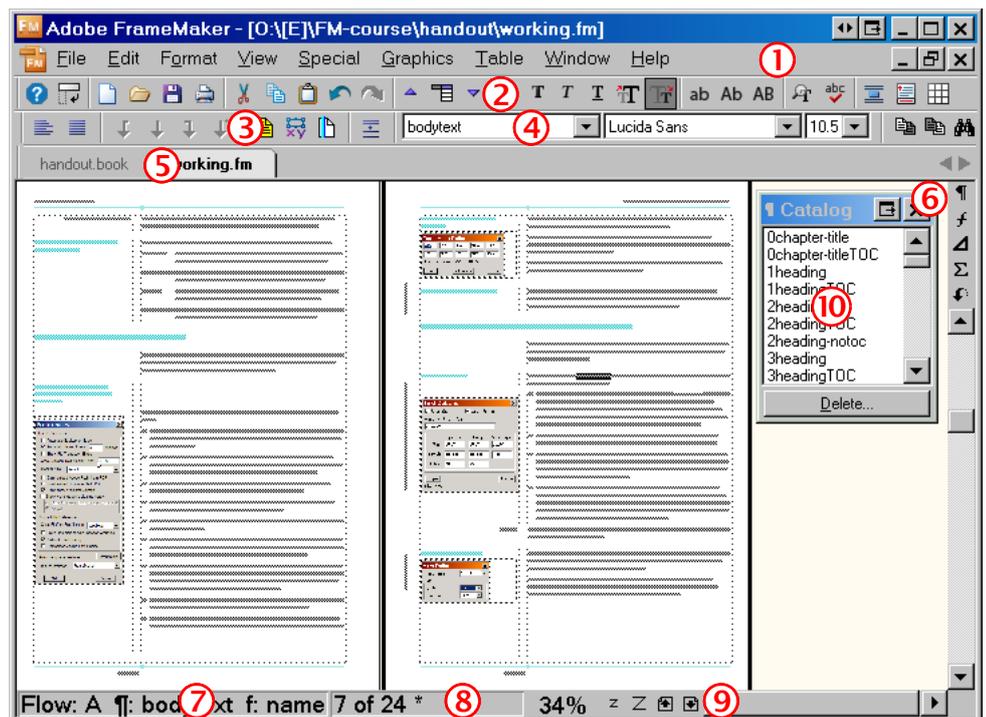
To check the current interface, select **File > Preferences > General** and look at the bottom of the dialog. If “Structured FrameMaker” is listed in the drop down list **Product Interface**, change to standard FrameMaker:

- 1 Select **FrameMaker** in the drop down list.
- 2 Close FrameMaker and start again.

## FrameMaker workspace

The FrameMaker window contains both fix areas and items the visibility of which can be toggled on and off (\*):

- 1 Menu bar
- 2 Button bar with 4 ‘pages’
- 3 Quick Formatting Bar
- 4 Drop down list paragraph catalogue
- 5 Tabs for open documents and books.
- 6 Buttons for floating palettes
- 7 Status area
- 8 Page number area
- 9 Zoom and Page buttons
- 10 Open palette Paragraph catalogue



Plug-ins may install additional items in the menu bar, such as ‘FrameScript’ displayed here.

Toggle visibility of the button bar (2) and Quick Formatting Bar (3, 4) with menu **View > Quick Access Bar** and **> Formatting Bar**.

Indication of modified formats

The status area (6) displays information from the current selection or cursor location: flow, paragraph format and character format. An asterisk (\*) preceding a format name indicates local overrides (change relative to the information in the catalogues).

Indication of changes

The page information (4) displays the current page number and total number of pages. An asterisk appears after the sec-

## Change zoom factor

ond number if changes to the saved version have been applied. After saving the \* disappears and the diskette icon in the left area of (2) is greyed out.

Change the zoom factor to the next lower value with the **z** button and to the next larger value with the **Z** button.

## Non printing items in display area

Toggle visibility of the following items with **View > xxx**.

**Borders** are associated with the cell borders of tables, text frames, graphic frames and anchored frames.

**Text Symbols** indicate end-of-paragraph and other situations. See *Control characters in the text* on page 1-19.

**Rulers** are not that helpful in FrameMaker, because they align with the paper edge, not the text edge.

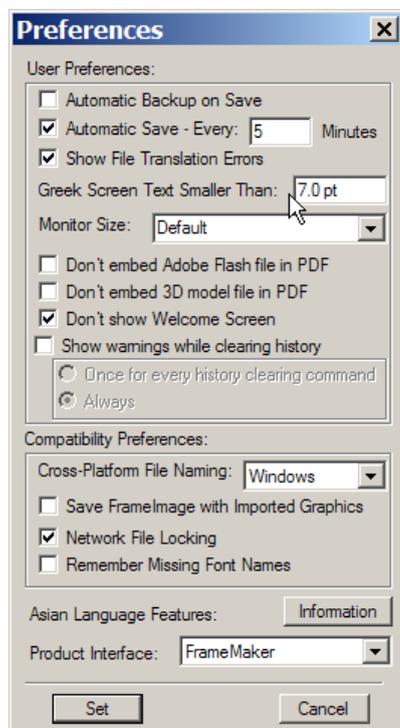
**Grid Lines** align to the top left corner of their container. With nested frames you may see different areas.

## Preferences for FM session

In FrameMaker preferences are „levelled“: Some are global to the FrameMaker installation, others are valid throughout a session and many are set in a document.

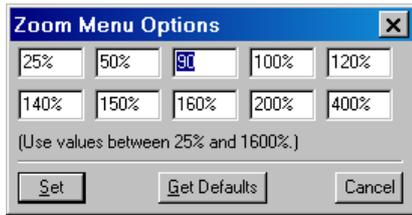
## Preferences for the current FrameMaker session

Set the program preferences with **File > Preferences > General**:



- ▶ Set **Automatic Backup on Save** if you want to keep a copy of the original state of the documents (before you started editing them).
- ▶ **Automatic Save every (5) Minutes** is a good insurance against system crashes. FrameMaker *saves very fast!* FrameMaker is very stable - this feature is rarely needed.
- ▶ **Show file translation errors** will display found errors when opening files (e.g. from other platforms).
- ▶ **Greek Screen Text** displays text smaller than the given size as gray box to save processing time.
- ▶ Since FM 7.2 the warnings about clearing the Undo History can be specified.
- ▶ **Cross-Platform File Naming** must select the ‘most restrictive’ among the platforms for which the files are used (Unix → Mac → Windows). Windows is least restrictive.
- ▶ **Save FramelImage with Imported Graphic** saves a special vector form of the graphic with the document. This speeds up the display of imported graphics, because the filter is only activated for modified source files.
- ▶ **Network File Locking** is a must for files residing on a LAN. Otherwise the file can be opened independently.
- ▶ **Remember Missing Font Names** is a must for cross-platform working if not all fonts are available on all platforms.

## Modify list of zoom factors



The list of zoom factors can be set for the current session: click on the drop down list and select **Set...**

In dialogue **Zoom Menu Options** set the values to your desire. Default settings are taken from the `frame.ini` file. The value range is 25... 1600%.

You may modify the list of default values in the `maker.ini` file. See *Zoom factors* on page A-31.

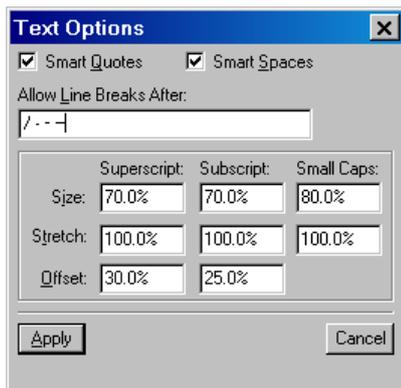
## Set units of measure

You may also wish to set the units of measure. These are defaults for entering values in various dialogues, for example the Paragraph Designer or the Table Designer.

# Preferences for the current document

Although these options may be individual for a document, it is advisable to at least keep them constant for a project (or FrameMaker book).

## Text options

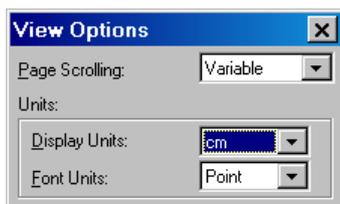


With **Format > Document... > Text options** you set properties of the current document:

- ▶ **Smart quotes** translates ordinary quotes ("a", 'a') during keyboard input to typographic quotes (“a”, ‘a’). These forms depend on the UI language and can only be set in `maker.ini`. Hence they are actually pertinent to the FrameMaker installation. See *Smart quotes* on page A-32.
- ▶ **Smart Spaces** reduce multiple spaces ( ) during keyboard input to at most one space to keep the text neat.
- ▶ **Allow Line Breaks After** special symbols allow automatic hyphenation of words containing these special characters. You enter these characters either directly (–) or via it's meta-notation (\m). See *Special characters in dialogue boxes* on page A-4)
- ▶ You may wish to set special properties for Superscript, Subscript and Small Caps (German: Kapitälchen). For this compendium the size of super/subscript is set to 70% and the offset for superscript is 30%. The standard settings require a larger line spacing (> 120% of type size).

**Note:** For a more complete list of document properties see *Document Properties* on page 3-15.

## Set view options



The method of displaying pages (facing, horizontal scroll etc.) is a property of the document. Set this option with **View > Options...** according to your needs.

Setting **Variable** provides a good automatism: for small enough zoom factors pages are arranged in blocks. If two pages fit into the display area, they are facing.

## Preferences of other scope

### Installation specific settings

Preferences can be set in the `maker.ini` file located in the home-directory of FrameMaker. See *Modifications to maker.ini* on page A-32 for recommended changes.

- File locations (e.g. dictionaries)
- Font mapping
- Pen widths, dash patterns
- Smart quote characters

### User specific settings

Since version 7 FM stores User specific settings in `%appdata%\Adobe\FrameMaker\n.n` (for example: `C:\Documents and Settings\Klaus\Application Data\Adobe\FrameMaker\8.0`)

To get a fresh copy of the `$HOME\maker.ini` you need to delete the file in `%appdata%`.

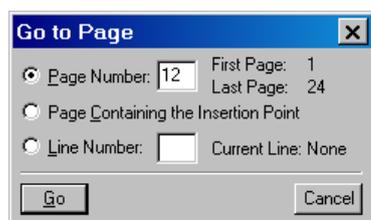
### Program inherent defaults

There are a number of defaults, which can only be adapted by plug-ins. Examples for these are:

- Type and placement of anchored frame when inserting an image, including the margin to the image.
- Default ¶-format for new text frames.
- Number of default page sizes and their properties (e.g. margins).

## Navigate in documents

### Go to specific page



- ▶ Click into the page number area. In the dialogue **Go to Page** enter the desired page number and **Go**.
- ▶ You may want to jump back to the page where you have left the cursor in the text: select the appropriate option button.

To go back to where you jumped from enter `ESC, v, P` (English FM).

The information to this section is from [Shlomo Perets](#).

For the numerous keyboard shortcuts see Help, appendix B on “Navigating through documents”. For example:

To last page

**Esc, p, l** (lowercase L); **Alt+PgDn**; Shift and click the Next Page button (see *FrameMaker workspace* on page 1-5; Zoom and Page Buttons)

Go back

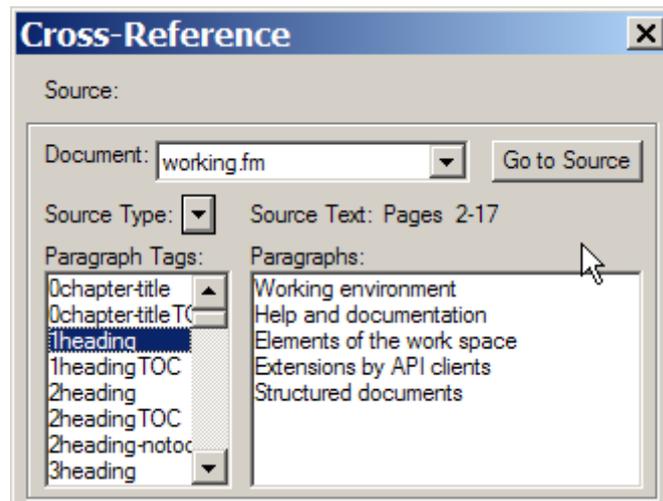
The go back after a jump or hyperjump, use **ESC, v, P** (in same document only).

### Outline view not available

FrameMaker does not offer an outline view to get an overview of the headings in a document. However, you can use the cross-reference mechanism as a workaround.

Using a special Table of Contents you might come very close to the needed function. See *Simulate an outline view* on page A-30.

**Special > Cross Reference** opens the dialogue where can see the headings (even all paragraph types) from the current or other open documents):



Select the desired document and get an overview of the main headings. Then you can directly jump to that heading by clicking the **Go to Source** button.

## Follow cross references

If you have placed cross references in the text already (see *Cross-references* on page 7-6), you can ALT+click on them to follow this link. **ESC, v, P** to come back works only within the same document.

## Return to insertion point

Pg up/down does not reset the insertion point. After paging to a particular location you may get back to the page with the insertion point with the **←** or **→** key.

## Mark special locations

To find special locations you may set up and apply a character format with a hinting name (such as z-tobe-checked). All properties are “As is” to not modify the appearance. See *Character styles* on page 3-13 for how to set up such a format.

To find such marked locations, select Character Tag in the Find/Change dialogue and enter the name of the format (for example z-tobe-checked) into the field.

You may also use special markers to identify a location. For example, define a marker type comment-terminology and insert it where terminology has to be checked. To find these locations, select Marker of Type: in the Find/Change dialogue and type the name of your marker (comment-terminology) into the field.

See *Identify locations* on page 7-10.

## Customising FrameMaker

Due to its platform concept, FrameMaker does not exploit the GUIs to their limits. Hence customisation is not a task for the end-user, but for programming experts. Customisable are:

- The menus and their contents, the tool bars (see *Modified tool bars* on page 1-21)
- The size of the default page (which is the really empty one)
- Minimum styles (paragraph, character, table) for new documents are located in a special template.

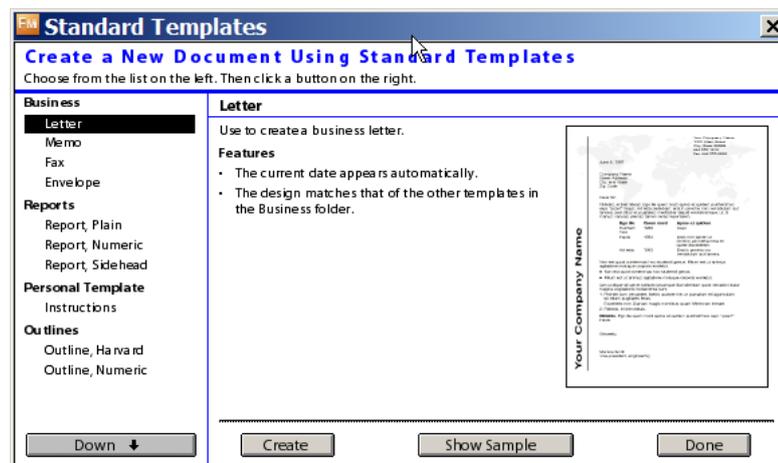
## Sample templates

FrameMaker comes with a number of sample templates

- Report, Book, Letter, Resumee and Conditional Text.
- In the English version layout is based on the 8.5" × 11" paper (called Letter).

### To use a sample template

- ▶ **File > New > Document...**
- ▶ Use button **Explore Standard Templates**.
- ▶ From the appearing list select a template



- ▶ To create an empty document from the template, click **Create**
- ▶ To display a sample layout, click **Show Sample**
- ▶ Close the last FrameMaker instance (Standard Templates), which you do not need any more.

# Help and documentation

## International versus US FrameMaker

At the installation of FrameMaker you are asked whether to install the US version or the International English version. The differences are:

	US-version	International English
Language of User interface	US-english (color, not colour)	
Paper size of templates	Letter	A4
Language in ¶ formats of predefined templates	US English	UK English

For working with the International English version it is good practice to set the default language appropriately. See *Default language in ¶ and f designer* on page A-32.

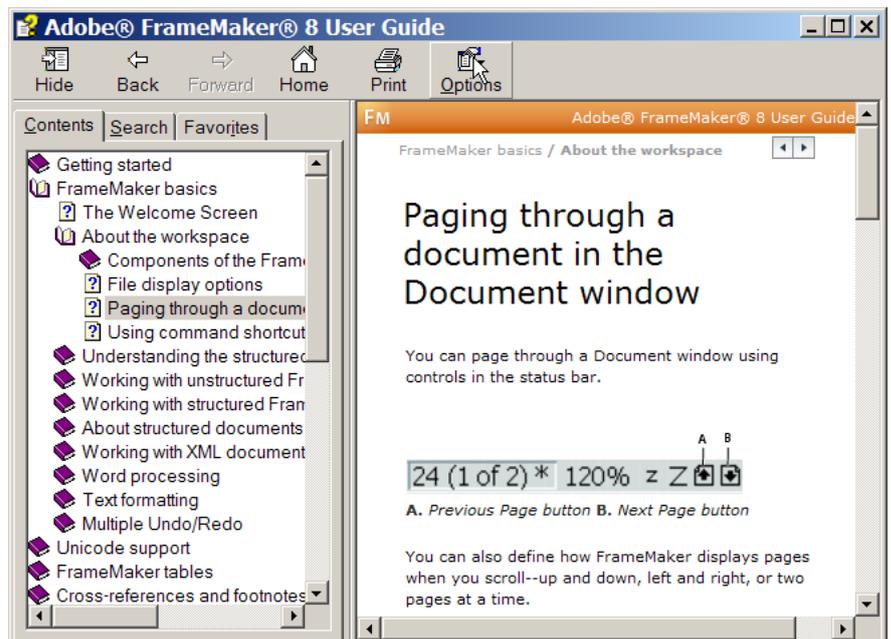
## FrameMaker Help

In the help menu you find two entries for Help: Help Topics (can also be invoked by F1) and Complete FrameMaker Help.

### Help Topics

This is the offline (local) version of Help. Version 6 of FrameMaker introduced the platform dependent help system. Version 7 provides HTML help files which are opened in your default browser. FrameMaker 8 resorts to the platform specific format FrameMaker.chm (compiled HTML help):

- The help system includes all of the information in the *Adobe FrameMaker 8.0 User Guide* plus keyboard short-cuts, full-colour illustrations, and more detailed information about some procedures.
- You can not search for symbols, such as \$ or #. For example searching for \$1 finds all occurrences of the figure 1...



## Complete FrameMaker Help

This links to [www.adobe.com/support/documentation](http://www.adobe.com/support/documentation). Under User Guide you can select [LiveDocs](#) or [PDF](#).

With PDF you get the complete user guide (same text as the offline help), which can be searched in the PDF manner.

LiveDocs of some Adobe products use wiki like interface.



Under Browse you can select other Adobe products where you want to search (for example, Acrobat Pro or DreamWeaver).

Here you can search for \$1 (finding “Header/Footer \$1”), but other special symbols (for example, # ¶ ®) may not provide useful results.

## Documentation

### Adobe documentation

- Same manual for all platforms and for both user interfaces. Since FM-8 the manual is no more part of the delivery. You need to order it separately from Adobe Shop.
- Quick Reference Card.
- Online-manuals for special themes. These are no more referenced in the Help menu. They are located in the \$FMHOME/OnlineManuals directory. <sup>5)</sup>

### Third party documentation

- Ute Mitschke, Adobe FrameMaker. Das Praxisbuch für Profis - ab Version 8. Addison Wesley ISBN-13: 978-3-8273-2695-9; 512 Seiten (Softcover); CD-ROM PC
- Klaus Krüger, Adobe FrameMaker 8, Dokumente formatieren, PDF Dateien generieren, XML verarbeiten. Springer Verlag, ISBN-13: 978-3-540-77904-9; 297 Seiten (Hardcover)

While all documentation for FrameMaker 7 is still valid, it misses new features.

- Sarah S. O'Keefe and Sheila A. Loring, with Terry Smith and Lydia K. Wong: Publishing Fundamentals: [Unstructured FrameMaker 8](#). ISBN 9780970473349.
- Jürgen Gulbins, Angelika Obermayr, Karl Obermayr: [Desktop Publishing mit FrameMaker 6 & 7](#) [4. Aufl. Springer

<sup>5</sup> \$FMHOME is the symbolic name for the installation directory of FrameMaker. This may be, for example, H:\adobe\FrameMaker.8en

2003], ISBN 3-540-44216-2. [www.framebuch.de](http://www.framebuch.de)  
*Das buch wendet sich an anwender von Mac OS, Unix und Windows. Es bietet eine grundlage für die arbeit mit FrameMaker und gibt tips und hinweise aus der praxis. Es vermittelt grundlagen zur typographie, zum einsatz und druck von farbe, zur online-zusammenarbeit mit WebDAV, sowie zur ausgabe mit PDF, HTML und XML.*

- Ute Mitschke und Bernhard Schulze: FrameMaker 6+7; In der Praxis anwenden und beherrschen; mit CD-ROM; broschiert - 560 seiten [Addison-Wesley 2002] ISBN 3-8273-1736-3.  
*Das buch zielt gerade auch auf professionelle anwender und deckt neben satz/layout und der erstellung von dokumentvorlagen auch den bereich databased publishing/ cross media sowie den plattformunabhängigen datenaustausch mit SGML/XML ab.*
- Sarah S. O'Keefe and Sheila A. Losing: FrameMaker 7, The complete Reference; [Mc Graw Hill Osborne 2002, ISBN 0-07-222361-8 (about 850 pages).  
*The authoritative resource on FrameMaker 7. Master the myriad features and complex interface of FrameMaker 7, and implement complex multichannel publishing solutions. This book helps you understand and master FM's many features to increase your productivity and improve your published documents. Learn to create and manipulate text, control page layout, and construct books - plus advanced techniques including hypertext, modular text, and working with XML, SGML, DTDs, and element definition documents.*
- ... and many more, see for example, [www.amazon.com](http://www.amazon.com) with the keyword framemaker. However, from the above mentioned books Klaus Daube knows the authors personally.

## Training videos

All of Scriptorium's FrameMaker 7 training materials are available for free at [wiki.scriptorium.com](http://wiki.scriptorium.com).

Shlomo Perets from MicroType.com offers [web-based training courses](#) in a series of 1h sessions.

Markus Bollenbach created a [DVD with 9h video instruction](#) (in German) about FrameMaker 8.

## Mailing lists

- |                     |  |
|---------------------|--|
| US-mailing list     | Send Framers mailing list submissions to <a href="mailto:framers@lists.frameusers.com">framers@lists.frameusers.com</a><br>To subscribe or unsubscribe via the World Wide Web, visit <a href="http://lists.frameusers.com/mailman/listinfo/framers">http://lists.frameusers.com/mailman/listinfo/framers</a> or, via email, send a message with subject or body 'help' to <a href="mailto:framers-request@lists.frameusers.com">framers-request@lists.frameusers.com</a><br>You can reach the person managing the list at <a href="mailto:framers-owner@lists.frameusers.com">framers-owner@lists.frameusers.com</a> |
| German mailing list | Webform for enrolment:<br><a href="http://tips.frame-user.de/seiten/maillisten/frame-tal-k-form.mgi">http://tips.frame-user.de/seiten/maillisten/frame-tal-k-form.mgi</a>  |

# Elements of the work space

## Palettes and catalogues

### Tool palette



The Tool palette is located to the top right of a document window.

Display the **Paragraph catalog** (see *Catalogues* on page 1-14) or use menu **Format > Paragraphs > Catalog**

Display the **Character catalog** (see *Catalogues* on page 1-14) or use menu **Format > Characters > Catalog**

Display the **Graphics Tool palette** (see *Graphic objects* on page 1-18)

Display **Formula Palette** (*Palette overview* on page 11-6)

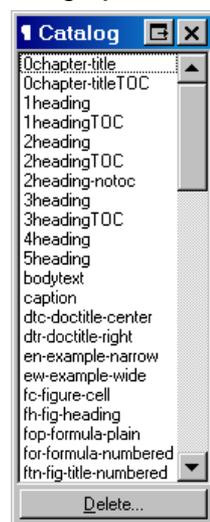
Display the **History Palette**. See *Command History palette* on page 20.

If the ¶ and the f buttons are missing, but others are visible, FrameMaker is run in structured mode. To switch to standard mode, see *Starting FrameMaker in standard mode* on page 1-5.

### Catalogues

The table catalogue is displayed with **Table > Table Designer...** and then opening the tab **Basic** and pulling down the list **Table Tag**.

Paragraph catalogue



Character catalogue

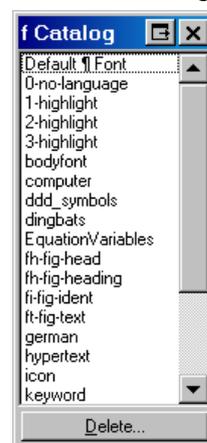
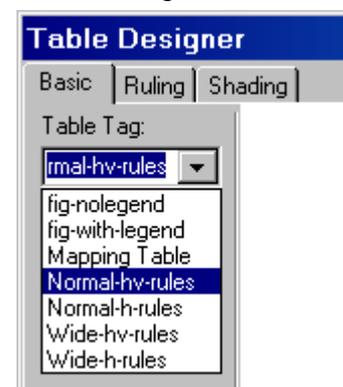
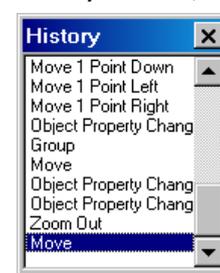


Table catalog



History Palette (since FM 7.2)



Other catalogues are visible only via special functions, e.g.:

**Colour** View > Color > Definitions and in the Tools Palette

**Cross-refs** Special > Cross-Reference... Format

**Table-rules** Table > Custom Ruling Shading > Edit Ruling Style

**Variables** Special > Variable...

# Quick access bar (tool bar)

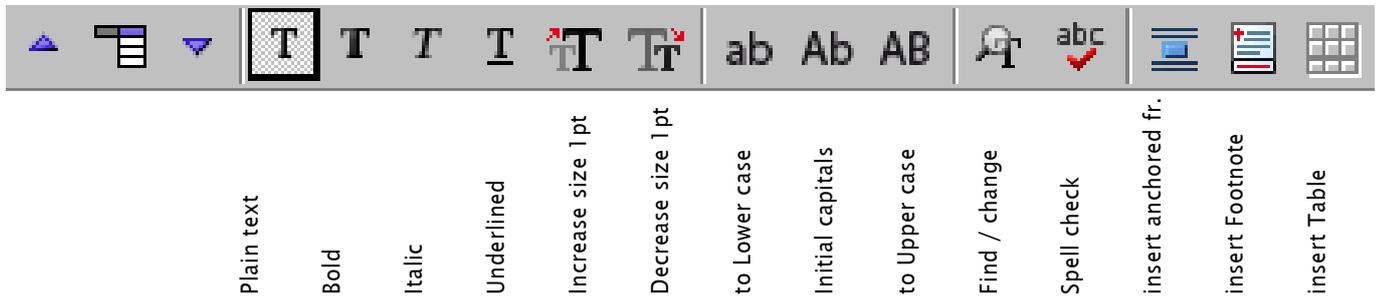
## Common commands and Quick Formatting Bar

Since FM 7.2 the basic tool bar includes Redo, Import File, Object Properties, Toggle View Only, Insert Symbols and First Page, Last page as well as Find Next.

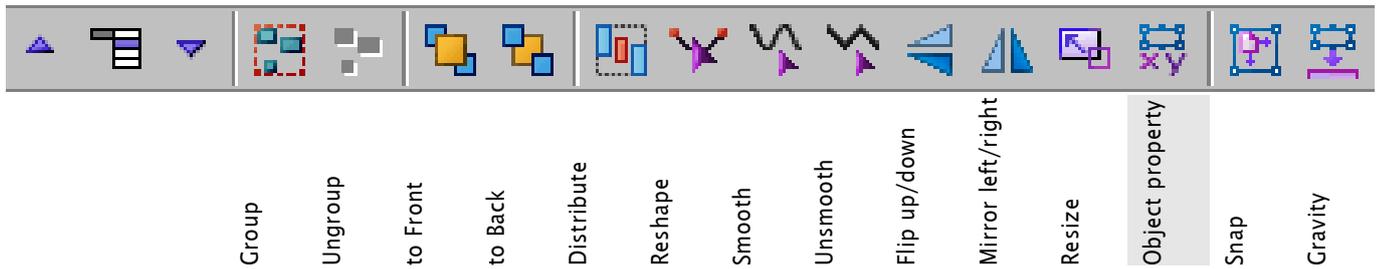


FrameMaker 8 brought some modernisation of the toolbar icons and introduced tabs for easy access to open documents (CTRL+TAB still works also to switch between documents).

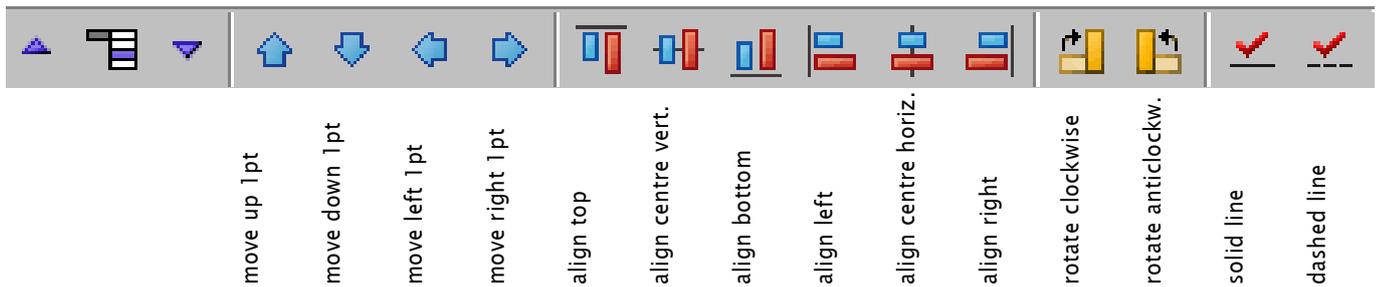
## Edit text



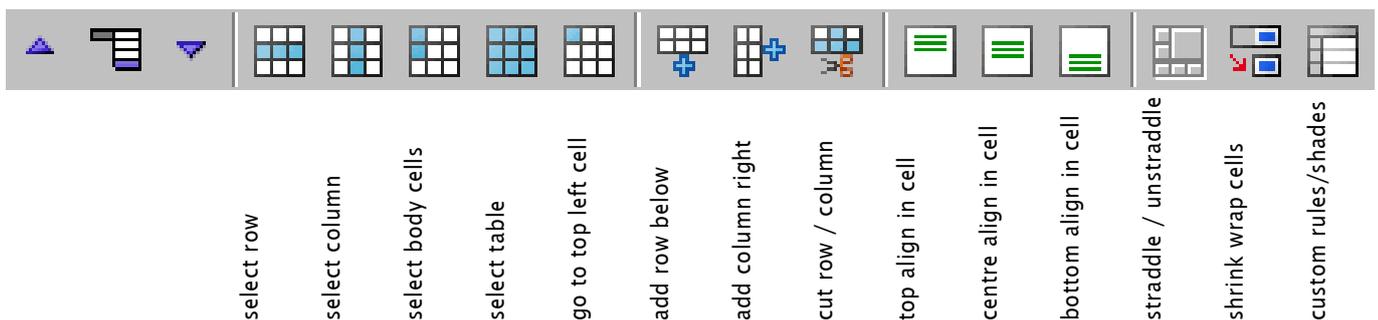
## Graphic commands



## Edit graphics



## Edit tables



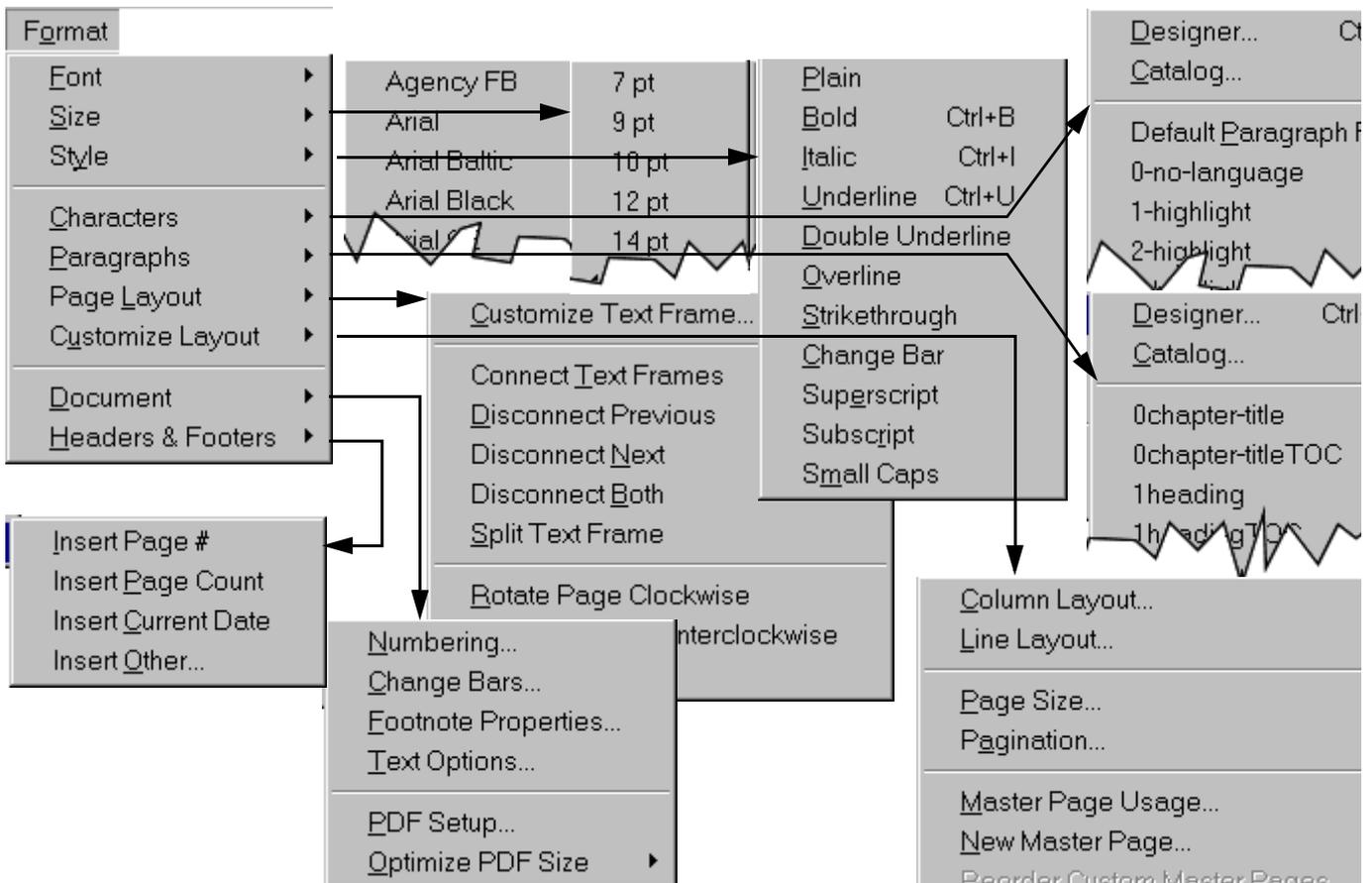
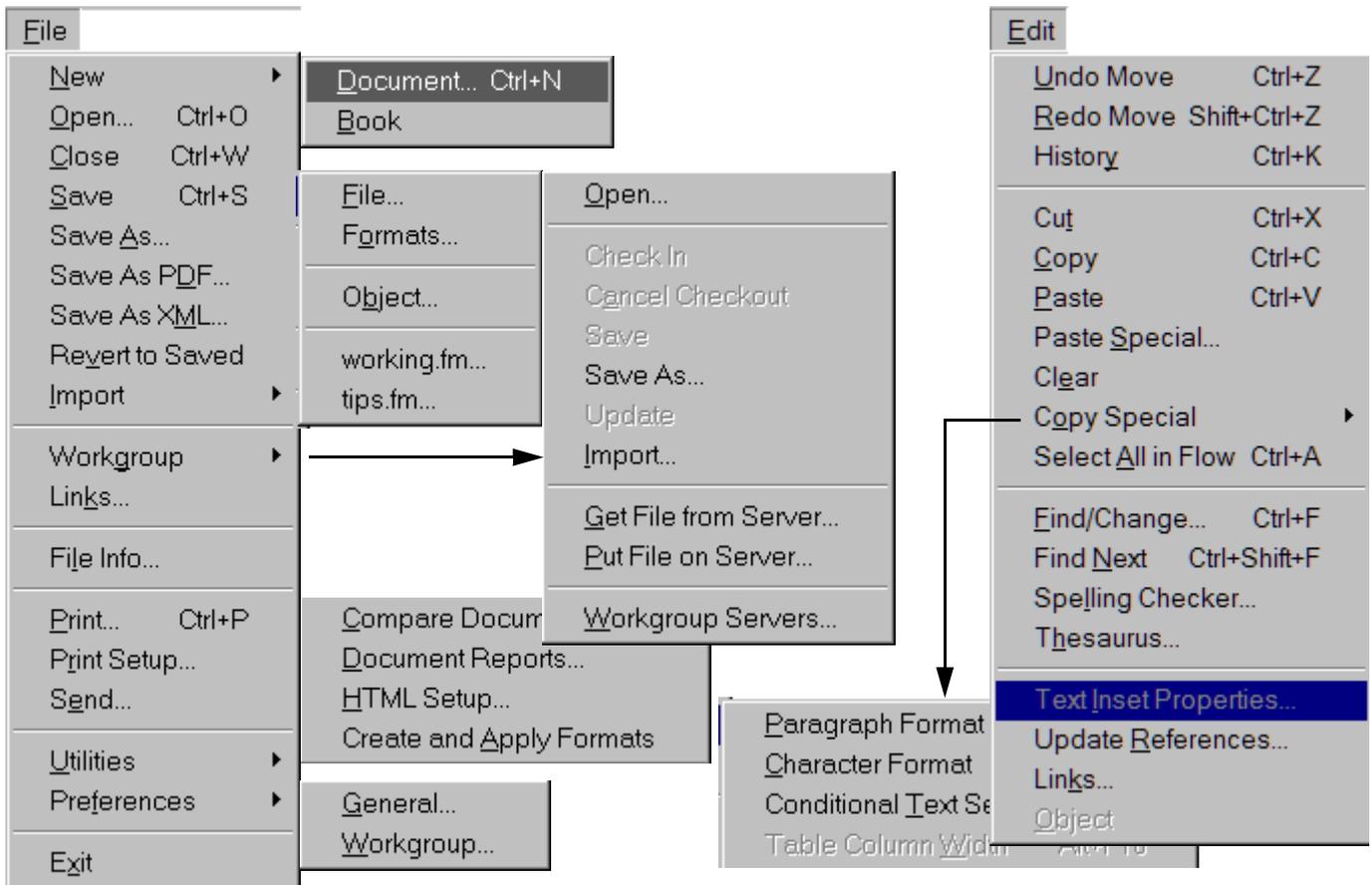
2011-05-11

E:\FM-course\handout\working.fm

LD+D D

# Menu structure

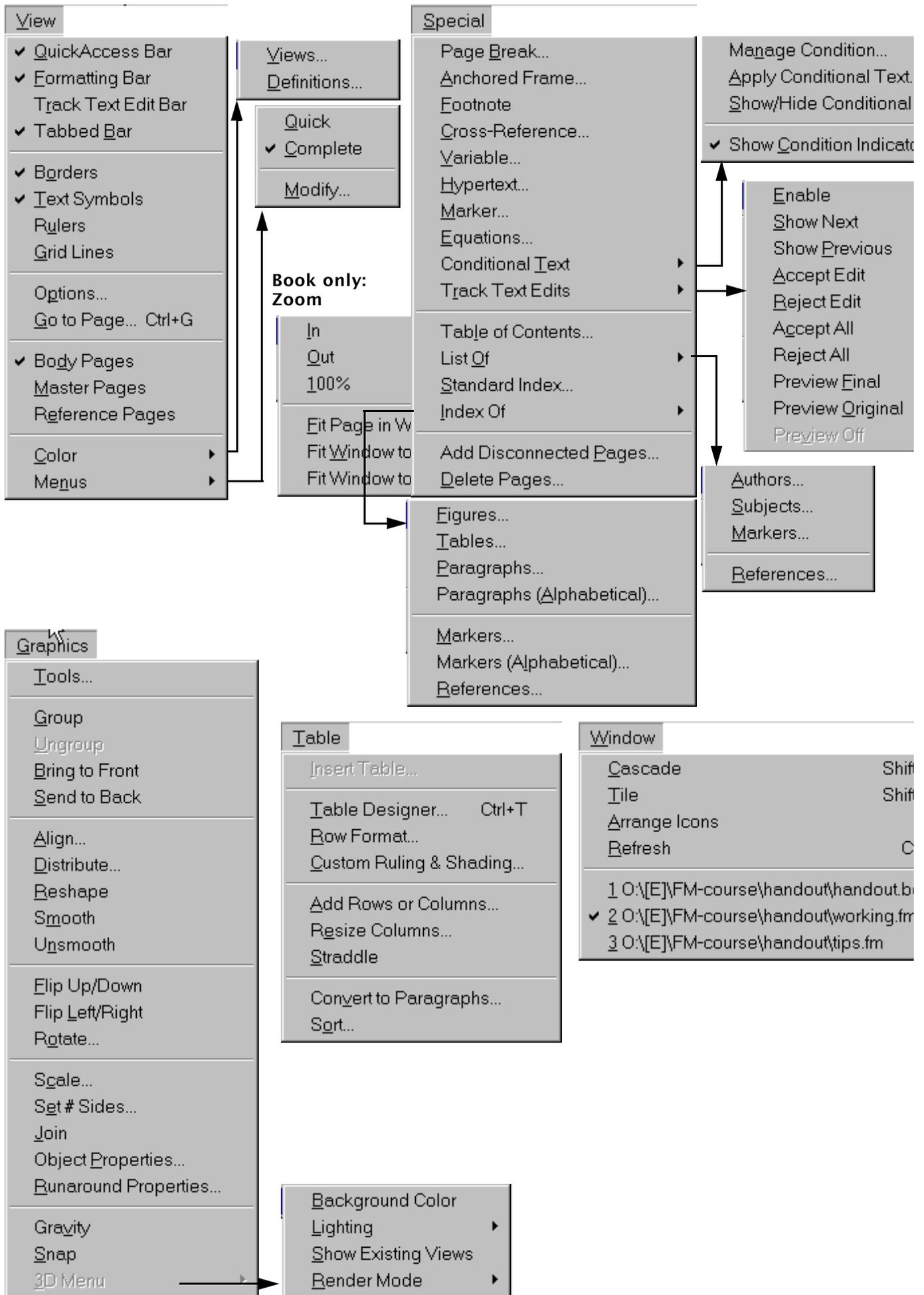
## Document menus



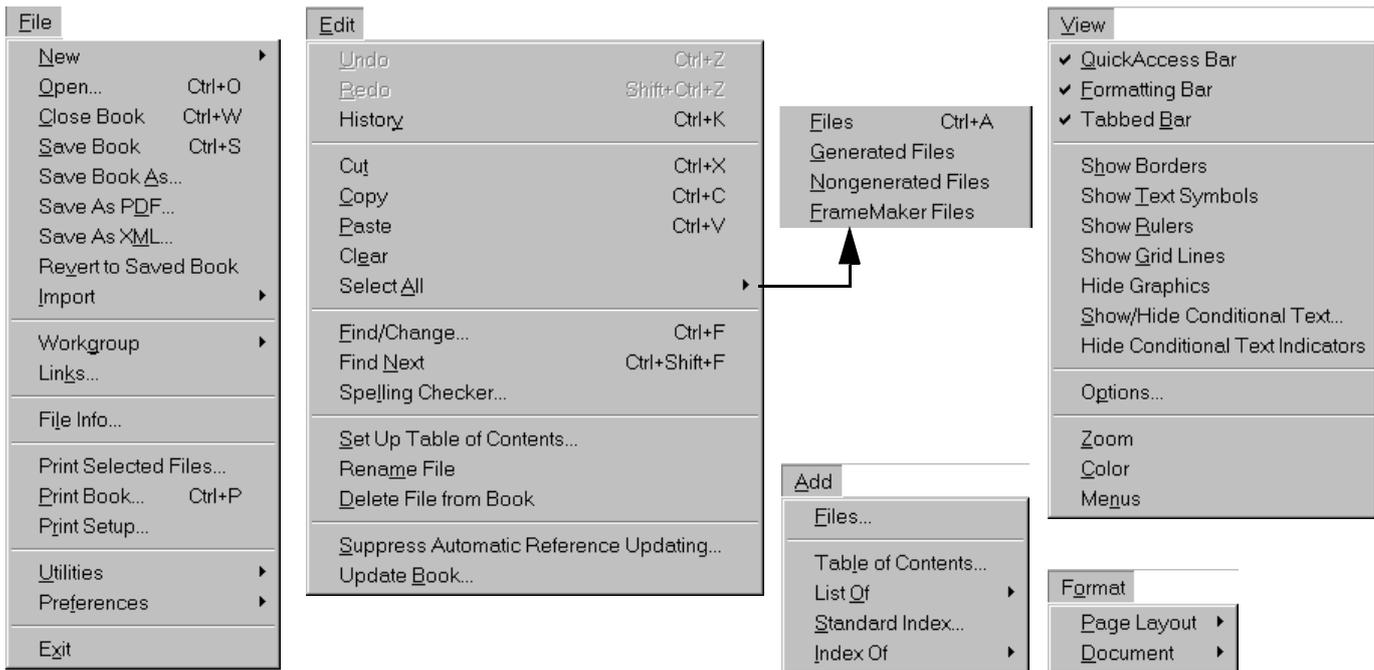
2011-05-11

E:\FM-course\handout\working.fm

LD+D D

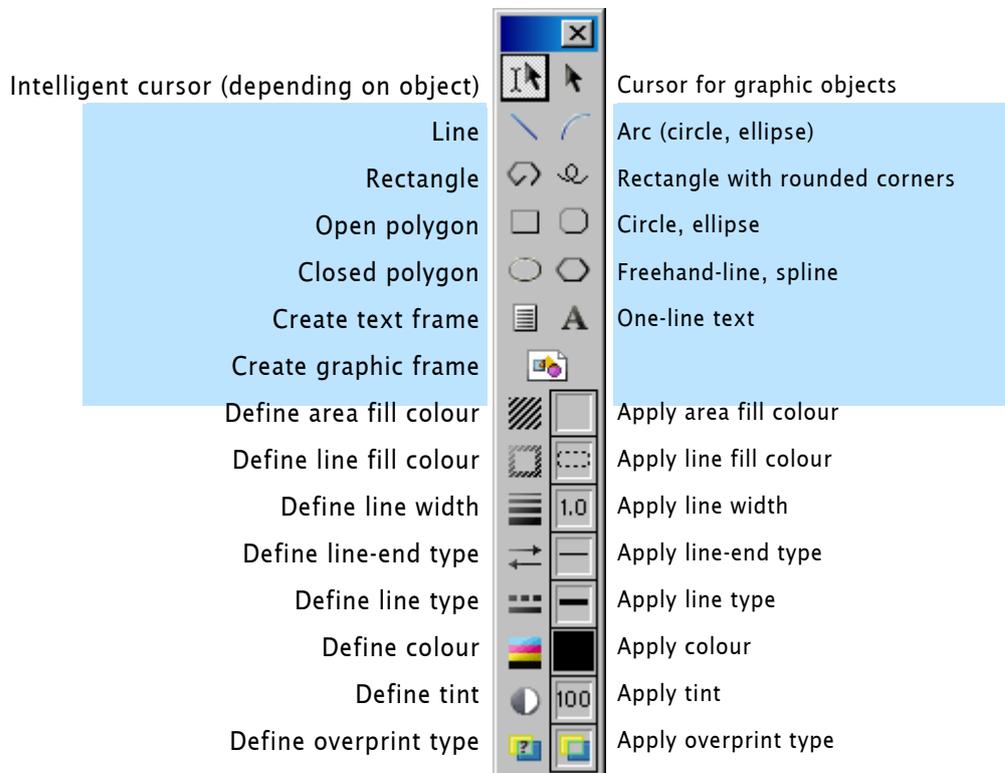


## Book menus



## Graphic objects

Graphic objects are defined and inserted with the tools palette. this palette opens from the Triangle button to the right of the FrameMaker main window.



## Control characters in the text

Display of these symbols is controlled by **View > Text Symbols**. These symbols do not appear on output or in files.

The special symbols have no width (exception: the nonbreaking space) and you may need special techniques to handle them. See *Non-width characters* on page A-8).

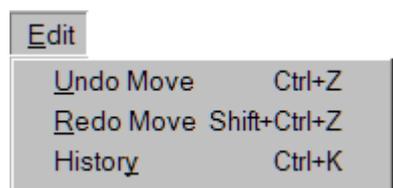
§	End of text flow / end of table cell	This symbol can not be deleted.
¶	End of paragraph (,contains' the style definition)	Typing <b>Enter</b> or <b>Return</b> terminates a paragraph and 'opens' a new one.
}	Tabulation symbol	See details at <i>Tabulation</i> on page 2-7
<	New line (hard return)	Type <b>SHIFT+Return</b> for hard return
␣	Non-breaking space	Type <b>CTRL+space</b> for this symbol
–	Optional hyphen	Indicates a location at which a word can be hyphenated if necessary
—	Suppress automatic hyphenation	Place this symbol at the beginning of a word for better clarity
⦿	Marker (index, cross reference,...)	Place markers preferably at the beginning of a paragraph. Do not spread them in words.
⌞	Anchor (table, frame)	Place anchors preferably at the end of a paragraph
⌵	Formula aligned manually	See <i>Align formulas</i> on page 11-7

Table 1: Control characters in the text

For searching/replacing special characters see *Special characters in dialogue boxes* on page A-4. Structured FrameMaker uses additional symbols.

**Note:** *In this compendium text symbols are displayed with a special font, if they are needed to understand the situation.*

## Multiple Undo and Redo



Version 7.2 brings this new feature. If there is no action available for **Undo** or **Redo** in the current document, the corresponding menu items and tool bar buttons are greyed.

The command history is available through the **Edit** menu and context menus. The command history is kept separately for each document.

The following commands can not be undone:

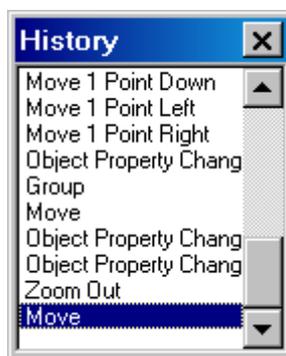
- Commands that do not change the content, such as copying text, moving the cursor, go to another page.
- Commands that affect an external file (such as Spell Checker commands that update the user dictionary).
- Change All in **Find/Change**.

Saving a document (with **Save**, **Save As**, or autosave) clears the undo history for that document. There are various actions which can not be undone. This is indicated with a warning message or an indication in the dialogue.

As in previous releases, cursor movement and object selection actions are not undoable, but when a previous state is restored, it includes the original cursor location and object selection state.

Commands that affect an external file (such as **Spell Checker** commands that update the user dictionary) are not undoable.

### Command History palette

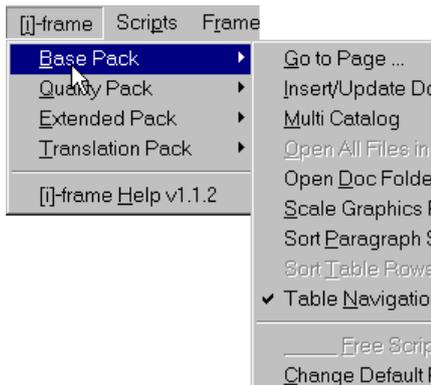


This palette allows you to select a specific action to undo or redo. The command history is shown only for the active document.

In the command History palette, the most recent command is highlighted. Commands listed above the most recent can not be undone. Commands listed below the most recent are redoable, and are marked with an asterisk (\*).

You can undo and redo actions only in the order in which they were originally performed. When you select a command to undo, all later commands (which have been affected by the selected action) are also undone. FrameMaker also moves the selected command and all succeeding commands to the Redo list. Similarly, redoing a command moves it and later commands back to the Undo list.

# Extensions by API clients



Script (macro) language

Extensive script collection

AutoText

Index tools

Outline display

**Note:**

RTF and HTML from MIF

Great tool box

Some functions supported by plug-ins became ordinary FrameMaker functions in later releases (for example, some book functions). FrameMaker add-ins come in two flavours:

- API clients are 'self-contained' Dynamically Linked Libraries (\*.dll). They integrate themselves into the menus.
- FrameScripts are scripts which are run by the API FrameScript. The scripts are text files (sometimes 'compiled'). Although these plug-ins can integrate into the menus.

ITL [www.itl.eu](http://www.itl.eu) offers a large number of FrameScripts "[i]-frame" which can be ordered as separate packages. There is also a large number of free scripts available.

The full featured macro language FrameScript has access to all FM command: [www.framescript.com](http://www.framescript.com)

[Rick Quatro](#) provides FrameScripts for many tasks. Very good scrips (also free ones) are from [itl in Munic](#). Especially the **InstallScriptsInFolder** is an essential tool to manage scripts.

This plug-in from [Silicon Prairie Software](#) allows to define a set of text or graphic items and insert them into any FM document by a menu selection or keyboard short cut. Items include styled text, plain text, graphics, anchored frames, and tables.

Silicon Prairie Software: [www.kagi.com/spssoftware/](http://www.kagi.com/spssoftware/)

Outline display of document similar to the capabilities of FrameMaker + SGML: [www.sandybrook.com](http://www.sandybrook.com). For

*Sandybrook Software: while Enhance can be installed onto FrameMaker 8, it is not supported. Users have reported application instability when running Enhance on FM8.*

Export of FM (MIF) to Word RTF, HTML and winhelp with mif2go by [www.omsys.com](http://www.omsys.com)

Systec tool box: [www.systec-gmbh.com/toolbox](http://www.systec-gmbh.com/toolbox). not only extends Framemaker, but also Acrobat and Adobe Reader.

## Modified tool bars

[www.microtype.com](http://www.microtype.com) provides a tool bar with many functional additions (for displays of 1024 pixel width).

For example, the Quick Formatting Bar is extended by drop down lists for Character Catalogue and Font. The standard button bar is 'folded' into two long items, easing the access significantly. Very useful commands are added, for example F4 to repeat a paragraph formatting.



## Database of plug-ins

Scott Prentice maintains a database of FrameMaker (and Word) tools at [www.leximation.com](http://www.leximation.com).

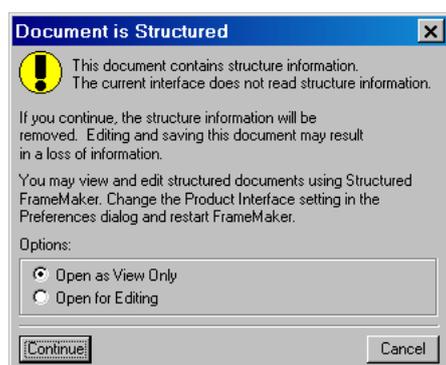
[Lin Sim's List](#) of FrameMaker Utilities and plugins was updated 2009-05.

# Structured documents

Structured documents do not deal with paragraphs and highlights, but with elements and attributes. Behind the elements there may be rules so that you will not be allowed to place headings in succession without intervening text.

The rules are based on a document structure and hence can give advice what elements are valid in a particular position in the document.

## Open structured document in standard FrameMaker



When opening a structured document in unstructured mode, you are warned with a **Document is Structured** message.

- ▶ You may view the document with no further consequences.
- ▶ If you choose to **Open for Editing**, any structure information is lost in the document.
- ▶ You may, however, **Cancel** the opening, switch FrameMaker into structured mode (see *Starting FrameMaker in standard mode* on page 1-5) and edit the file correctly.
- ▶ Undo is not supported for structured books (FM 7.2)

# File handling

Common file handling like open and save use the standard Windows features and dialogues.

## Opening files

FrameMaker can open the following types of files:

- FrameMaker files (\*.fm)
- FrameMaker book files (\*.book).
- FrameMaker Interchange Format (\*.mif).
- Other types, such as text (\*.txt) or spread sheets (e.g. \*.xls) require user intervention to provide more detailed information.

### FrameMaker Interchange Format

This file format essentially is a text file. Until FM-7 it is 7-bit ASCII coded. Starting with FM-8 it is UTF-8 coded. Hence MIF-8 (and later) files must be handled with Unicode capable text editors.

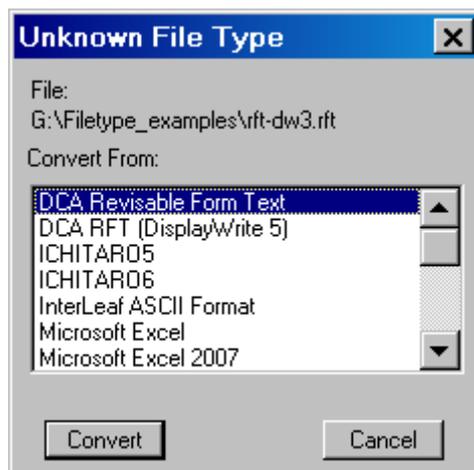
The header (first line) of a MIF file indicates the level and the creating program:

```
<MIFFile 7.00> # Generated by FrameMaker 8.0p236
```

Any FrameMaker version can open any MIF version. However, the interpretation fails, if FM<8 opens a MIF>7, because with FM-8 the coding of MIF has changed.

### Unknown file types

Opening special file types, such as RFT-DCA (an IBM format) gives you the opportunity to confirm that format (or select a more appropriate) with the following dialogue:



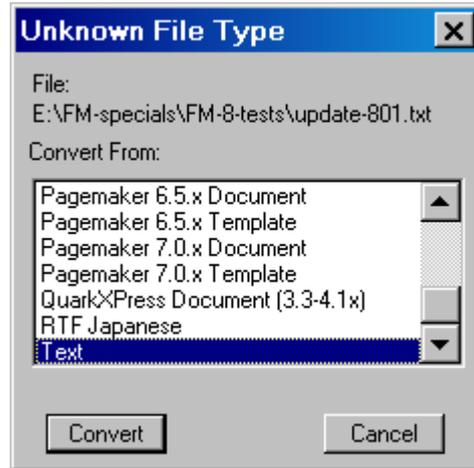
Depending on the selected (confirmed) file type you get an additional dialogue for specific information, for example:

Text file	interpretation of code and lines
Excel	directly interpreted, no add. dialogue
PageMaker	directly interpreted, no add. dialogue
PowerPoint	text is extracted, no add. dialogue
RTF	directly interpreted, no add. dialogue

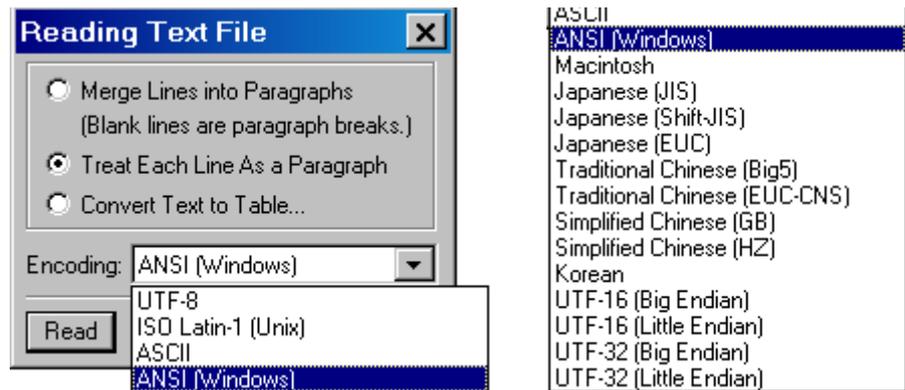
In some cases you may need to guess the file properties. Check the correct interpretation of the file by FM visually.

#### Text files

When opening a text file you get a dialogue stating “unknown file type” with the assumed type (in this case Text) selected:



A text file can be interpreted as single lines or paragraphs or even a table. And since Windows files do not bear all necessary attributes, you need to select the proper coding in the additional dialogue.



Files created on Windows are coded in ANSI (Windows) or in UTF-8 (which can be determined). Other encodings are used, if the file was copied or downloaded from another operating system.

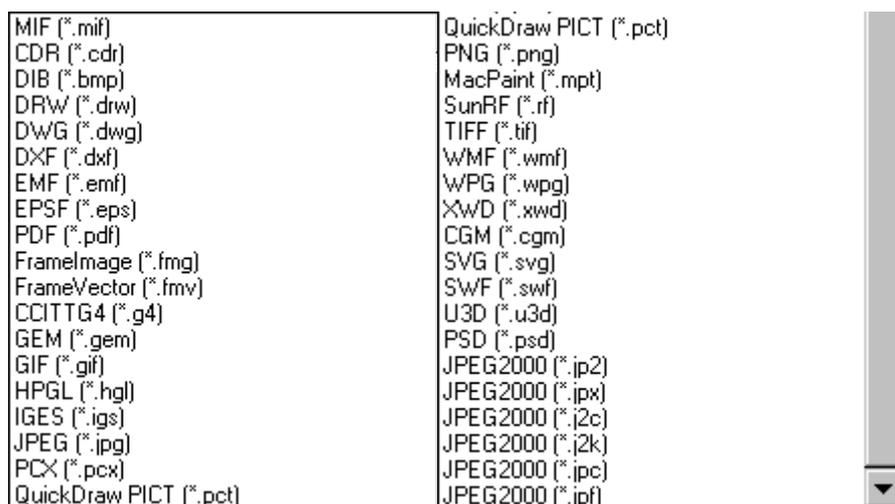
#### Reopen last saved version

With **File > Revert to Saved** you get the last saved version. This lets you abando the changes you made since then.

## Importing files

Importing a file inserts it at the current cursor location. In FrameMaker this is called an inset. Depending on the nature of the file (FrameMaker, text, spread sheet, graphic) more detailed actions are required.

With **File > Import > File** you get the main dialouge to select the file. The list of files is narrowed by selecting the desired file type. Only graphic file types and MIF are listed:



**MIF** If the file covers a complete FrameMaker document, you are requested to define the flow from which to import. See *Text insets* on page 13-18.

Incomplete documents may also be imported. See *Import MIF snippets* on page A-33.

**Graphic files** See *Importing graphics* on page 6-2.

**Other file types** For other types (than graphic and MIF) you need to select the filter **All Files (\*.\*)** in the dialogue. After **Import** you get the dialogue "Unknown File Type". See *Unknown file types* on page 1-23.

See also *Text insets* on page 13-18.

## Saving files

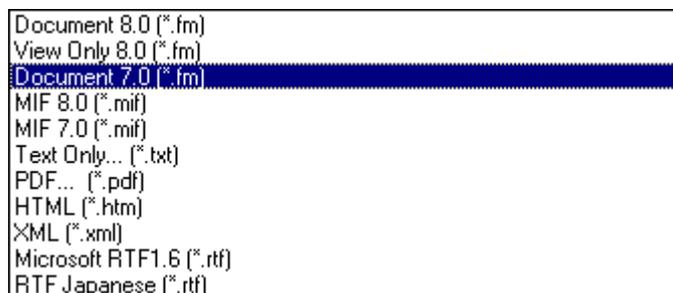
### Automatic saving

Especially after updates of the application it is advisable for a certain time, to automatically save every n minutes. In case of a problem with the new version you are on the safe side.

See *Preferences for the current FrameMaker session* on page 1-6.

### Save for old FM versions

It is always possible to save in the previous version. For example, in FM-8 you can **Save As** FrameMaker version 7:



**Note:** Keep in mind that FrameMaker 8 introduces Unicode. Hence saving as Document 7.0 or MIF 7.0 will lose the information about characters which are not in the FM-7 character encoding (e.g. any non-latin characters).

See also *Frame Roman code table* on page A-6.

If you need to save for an older version of FrameMaker (e.g. for FM 6 (out of FM 8), save as MIF.

When this file is opened in the older application, any newer features are filtered out (you get a lot of messages in the FrameMaker log file).

### Save as PDF

In contrast to printing to PDF a shorter process is used which in certain cases fails to create a proper PDF. However, personally I did not encounter this problem in FM-8 in three years.

See more details at *Save as PDF* on page 10-4 or the alternative method *Standard process with Distiller* on page 10-5.

### Save as XML

See *Save as XML* on page 12-5.

# Printing

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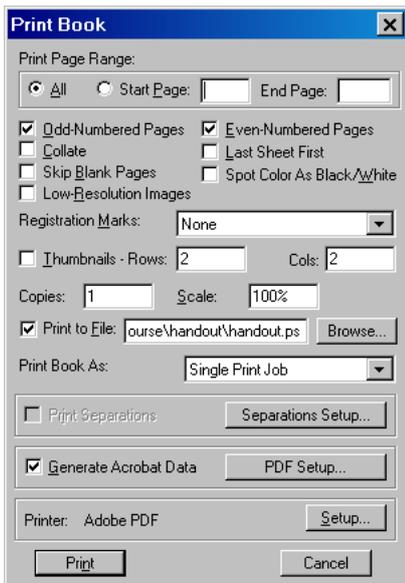
E:\FM-course\handout\working.fm

The print dialogue of FrameMaker provides a number of options, of which not all may be familiar to you.

**Note:** *Be aware that settings in FM dialogues are kept between calls (and cleared only for a new FM session) . You may be surprised to get 20 copies of a chapter, if your last print job was 20 copies of a single-page flyer ... Hence always check all options.*

In **File > Print** or **File > Print Book** you specify standard items, such as Page Range, and whether you want to print all or just the even (odd) pages.

Since some of the options have duplicates in modern print dialogues, you may wish to select the Printer first and set its options appropriately.



**Printer**

Select the desired printer. Depending on the printer you may need to set up its options (e.g. whether B/W or colour, duplex or simplex, poster printing etc.) in a subsequent dialogue.

**Collate**

Select this option, if you have specified Copies > 1 and want that the pages are collated, before copy 2 is printed. If this option is not set, then you may need to assemble the copy sets manually.

**Last sheet first**

This option starts printing with the last sheet, then the previous etc.

**Skip blank pages**

For a draft it may be useful to skip empty page, which may occur at the end of chapters or elsewhere.

**Spot Color as B/W**

Setting this option prints spot colours as black or white. Normally colours are converted to shades of gray by a monochrome printer.

**Registration Marks**

Setting this option requires to print to a larger paper than specified in the document. This applies also when Printer = Adobe PDF (paper size to be set in Printer Properties > Layout > Advanced).

**Thumbnail Rows**

This option prints multiple document pages on one paper page. This is useful to create handouts with margin for notes.

**Copies**

After printing this value is kept in the dialogue. Watch the number in your next printing job!

**Scale**

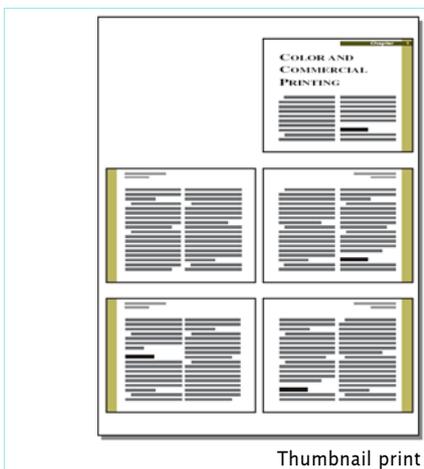
Scale the document on the paper. Only full percentages (not 33.33%, but 33%).

**Print to File**

Activate this option when printing a Post-Script file with the Adobe PDF printer. You may change the proposed file name and path (for example to the "watched input folder" of Distiller).

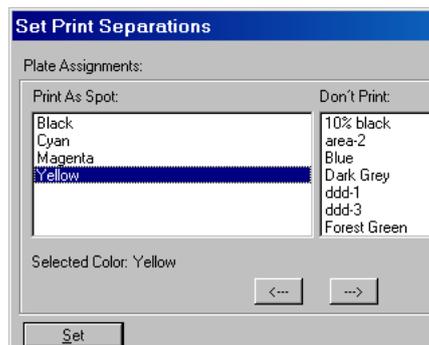


Registration (crop) marks



Thumbnail print

D + D D



**Save Book As**

This option is present only when printing from a book file.

Select **Single File** for generation of PostScript for distilling. Only in this mode correct bookmarks and hyperjumps can be created.

Selecting **Separate File for each Document** creates multiple PostScript files.

**Separation Setup**

is necessary only, if you want to produce plates for offset printing (or the like). In **Set Print Separations** move all colours to the right with **Shift+ -->** and then move Black, Cyan, Magenta and Yellow to the left for a standard setting.

However, all spot colours to be printed must also be on the left side.

**Gen. Acrobat Data**

Check this when printing to Adobe PDF. There is no use with hardcopy printers. You may set these properties with **Format > Document > PDF Setup**.

**Special duplex printing**

You may wish to print duplex (on both sides), even if the printer at hand does not provide this option (or it can not handle the same paper weight as in simplex printing).

First print the odd-numbered pages, then turn the paper over in the printer, and print the even-numbered pages. Depending on how your printer produces pages, you may need to select **Last Sheet First** before the second run, because turning the paper over in the printer may reverse the page order. An experiment with 4 pages only can clarify the situation.

**Print to PDF**

See *Standard process with Distiller* on page 10-5

# 2

## Text handling

### Overview

FrameMaker provides good capabilities to handle text. Due to its intended use of formatting large documents, some functions go beyond what is known from text processing packages.

Hyphenation dictionaries can be set up for a document or a complete project. In addition, each document can contain a local dictionary.

### Contents

Text handling .....	2
Find and change .....	10
Hyphenation and spell checking .....	13
Thesaurus .....	22
French typography .....	23

# Text handling

FrameMaker versions up to version 7.2 can handle text of the latin script with a rich set of accented characters. Due to the limitations of an 8-bit code the number of distinct characters is not sufficient even for the European languages. In particular support of the Eastern European languages (in US parlance Central Europe) is lacking. But even for the Northern European languages some characters are missing.

## Entering Unicode text

FrameMaker 8 can handle Unicode text. It accepts Unicode characters not only in text, but also in dialog boxes. While it is easy to type Greek on a Greek keyboard on a Greek Windows, it is difficult to enter such characters (a few ones to fix a text) on an English or Swiss keyboard. Various methods are available for this.

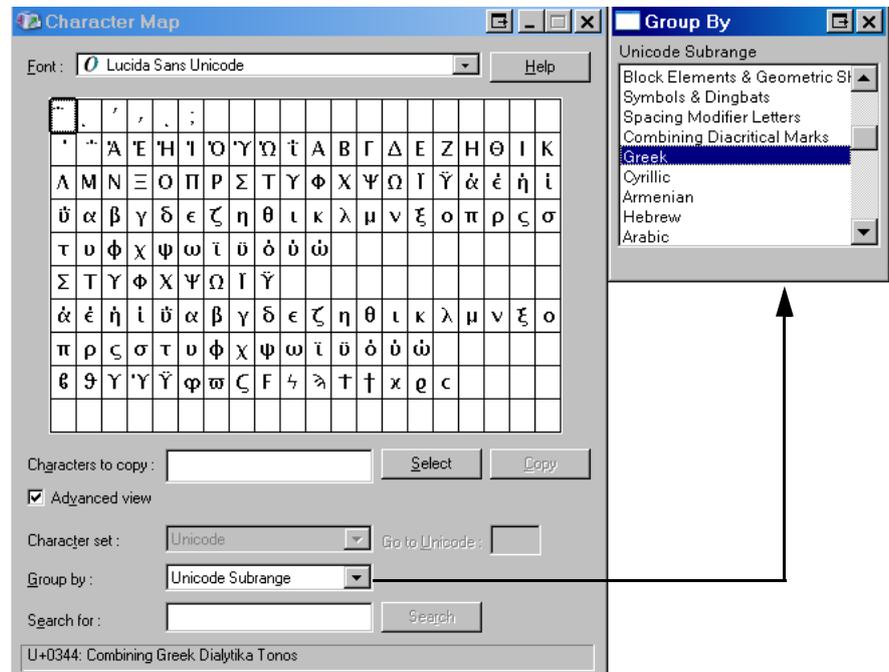
**Note:** *Be aware that Unicode characters can be displayed correctly only with a font that supports these characters. This compendium uses Lucida Sans Unicode for such display.*

See also *Keyboard input* on page A-2 ff for additional help.

Depending on the amount of text you need to enter you may choose different methods. Most texts you may get already in the foreign language (for example, back from a translator).

## Windows Character Map

- Get the character map with **Start > Programs > Accessories > System Programs > Character Map** or more directly with **WIN+R, charmap, ENTER**.

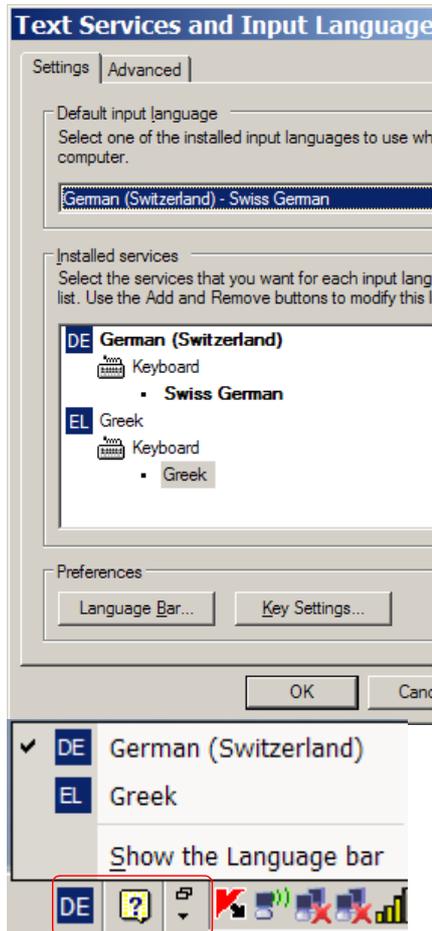


- Define the font in which you want to enter the character(s).
- Select the Unicode sub range (for example Greek and Coptic) to find the needed characters.

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E:\FM-course\handout\texthandling.fm

## Virtual keyboard



- Click on the characters) which accumulate in the field Characters to copy.
- Select the characters and copy them to the clipboard. Paste them in FrameMaker.
- In Windows establish a locale for the desired language (**Control Panel > Regional and Language Options > Languages > Details > Add**).
- Select the desired language (for example: Greek) and click **OK**. The selected language is included in the Installed services list.
- Leave this panel with **OK** and select the tab **Regional Options**.
- Choose the language you selected in the Default input language list.
- Click **Apply** and then click **OK** to save the settings and close the **Regional and Language Options** dialog box. The **Language bar** or the Input Method Editor (IME) will appear in the system tray of your computer.
- Select the desired language from the Language bar to directly enter foreign characters with the keyboard.
- Use the virtual keyboard as an aid (**Start > Programs > Accessories > Accessibility > On-Screen Keyboard**).



- You may enter characters either by typing on your real keyboard or by clicking on the virtual keyboard: For example, type d for the δ and SHIFT+d for the Δ.

## itl OWP palette



This FrameMaker plug-in is part of the [\[i\]-frame script](#) collection, module “Translation Pack”.

- Open the palette with **ESC,o,p** and select the language.
- With a click on the needed character(s) you enter them into the FrameMaker document at the cursor location.

This plug-in provides additional functions. For example, with a character selected, type **CTRL+y** to get code information:

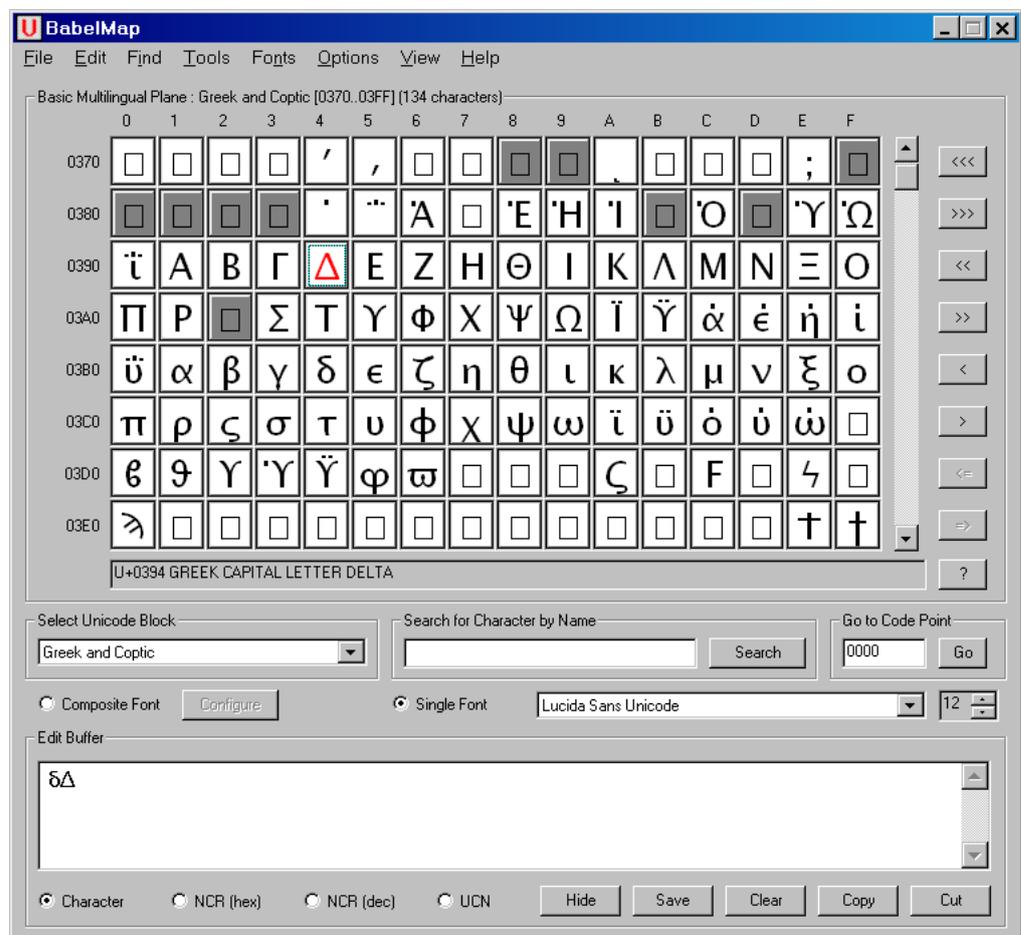
Besides the selection from 34 languages and several code pages you can also access symbols from the Wingdings fonts or set up other front sources.



## BabelMap

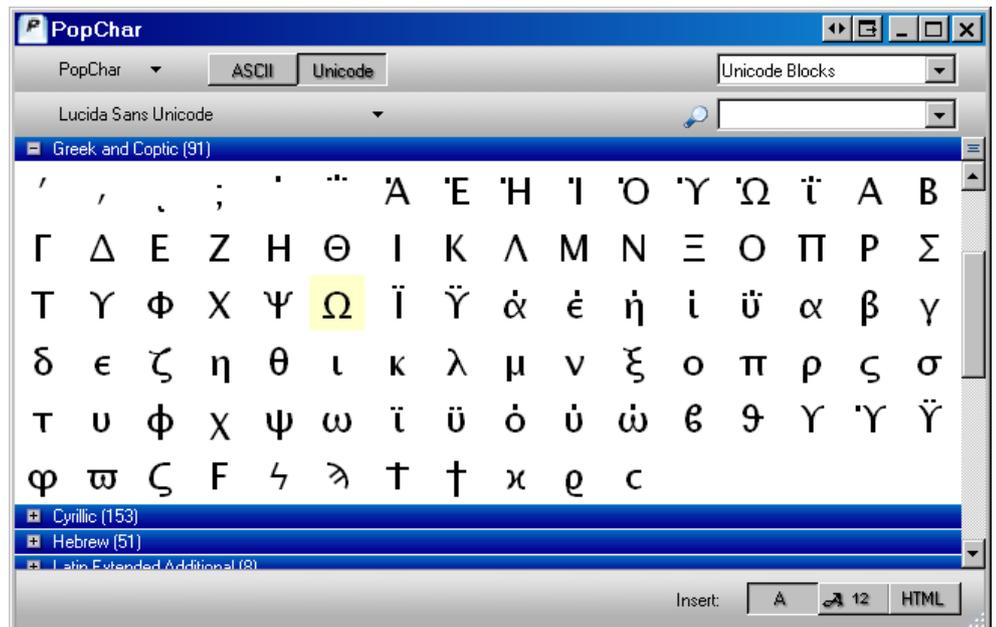
BabelMap not only is a comfortable replacement for the Windows character map. It also offers various information about the unicode standard. Using a so called Combined Fonts it can display all characters of the current Unicode standard.

[[BabelStone Andrew West](#)]



## PopChar

PopChar waits in the system tray to be activated by a hot-key. In many applications it determine the current font and provides only available characters. It can be configured extensively. [[Ergonis Software GmbH](#)]



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E:\FM-course\handout\texthandling.fm

## AutoHotkey script

For the most used characters I have set up an AutoHotkey script. Unfortunately AHK does not support Unicode in its script texts, but allows to handle Unicode characters.

The “Hotstrings” are invoked by a trigger character. Since I’m working with a Swiss keyboard, the § key (top left) comes in handy. To get an Ohm symbol, I type §ohm and get Ω.

With many scripts running I may get left over §’s.

## Search/Replace dialogue

If you know the Unicode of a needed character, you may enter it into the text via the **Search/Replace** dialogue.

- ▶ Place the cursor where you need the character and open Find/Replace with **CTRL+F**.
- ▶ Leave the Search field empty and enter the code into the replace field, for example \u0394 for an upper case Delta and click **Change: Δ**

## Expand your view

Grown up with the latin script you may encounter new worlds with the capabilities of Unicode and even the new powers of FrameMaker. New challenges may irritate you, for example:

### Shapes of characters differ in roman and italic style

Latin script

*a, f, g, g*

Cyrillic script

Г, З, Д, д, И, и, П, п, Т, т, Ц, ц, Ш, ш, Щ, щ

At the first view you might be tempted to assume the italic cyrillic font is damaged ... *Italic* style means “derived from handwriting” and not just ‘slanted’, Hence in the German language this style is called cursive, meaning flowing, connected. Obviously these forms were first in many scripts.

## Text manipulation

### Keyboard shortcuts

There are many keyboard commands to select words, paragraphs, sentences and lines. Consult Help Appendix B for “Keyboard shortcuts for”.

### Move text around

There is no drag-and-drop function in FrameMaker. To move text use cut and paste instead.

### Move insertion point

The following commands move the insertion point from the current location to ...

Begin of word	<b>CTRL+←</b>
End of word	<b>CTRL+→</b>
Begin of line	<b>HOME</b>
End of line	<b>END</b>
Begin of sentence	<b>CTRL+HOME</b>
End of sentence	<b>CTRL+END</b>
Begin of paragr.	<b>CTRL+↑</b>
End of paragraph	<b>CTRL+↓</b>

**Note:** *Begin and End is the real begin and end of an item, including any (probably invisible) markers and anchors.*

### Selecting text

The same methods as in other text processing software are used in FrameMaker, but keyboard shortcuts may be different:

Word	Double click on the word or drag the mouse across the word. <b>CTRL+SHIFT+→</b> <b>CTRL+SHIFT+←</b>
to end of line	<b>SHIFT+END</b>
to start of line	<b>SHIFT+HOME</b>

**Note:** *There is no means to select a word including its trailing space. You need to use the mouse or **SHIFT+ARROW** to extend the selection.*

Select text of same property around cursor

Character format	<b>ESC, h, F</b>
Condition	<b>ESC, h, C</b>

### Transpose characters

Click between characters and then type **CTRL+F9**

### Change case of word

Lower case	<b>CTRL+ALT+I</b> (lower case L)
Upper case	<b>CTRL+ALT+u</b>
Initial caps	<b>CTRL+ALT+c</b>

After this operation the cursor is moved to the next word, so you can easily apply a case to a series of words.

### Delete text

To line end	<b>CTRL+SHIFT+DEL</b>
To word end	<b>CTRL+DEL</b>
Back to end of previous word:	<b>CTRL+BACKSP</b>

## Selecting paragraphs

Select contents only

- ▶ Triple clicking in a paragraph selects it including its style definition (which is 'attached' to the terminating paragraph mark (¶)).
- ▶ See *Paste plain text* on page 2-7.

## Line and page breaks

Line breaks and page breaks can not be avoided in all cases by using an elaborate paragraph catalogue:

- Line breaks are entered by **CTRL+ENTER**.
- Page breaks are not entered into text. If a paragraph must appear on the next page, apply the attribute with **Special > Page Break...** See *Pagination* on page 3-6.

# Copy and paste

## Paste plain text

Sometimes you want to get rid of all formatting and other properties stored with the text in the clip-board. Then you need to use **Edit > Paste Special...** and select **Text** from the menu <sup>6)</sup>.

An ESC sequence is not available for this function, but you may use **SHIFT+CTRL+v, t, ¶** (where ¶ is the Enter/Return key) as a fast access to the menu selection.

## Copy format of one paragraph to another

To copy just the format specifications of a paragraph,

- 1 Have your cursor in the source paragraph and use **Edit > Copy Special > Paragraph Format**
- 2 Place the cursor in the target paragraph and **Paste**.

## Alternative clipboard

FrameMaker comprises a second "clipboard" which allows you copy and paste without disturbing the contents of the ordinary clipboard (Note: there is no real copy with this method).

Cut text:                   Select text, then **Edit > Clear**

Restore source:       **CTRL+y**

Paste text:               at the target location **CTRL+y**

## Fast copy and paste

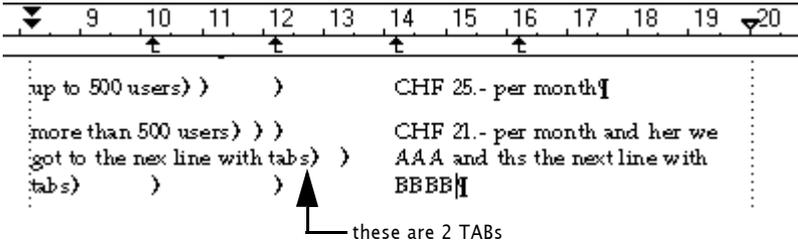
- Place the cursor at the target location
- Hold down **ALT** while you select (with the mouse) the source text.
- As soon as you release **ALT** the text will be pasted to the target location.

**Note:** *This is not a drag-n-drop Windows method!*

## Tabulation

FrameMaker uses absolute tabbing, whereas most text processors use relative tabbing. Hence you always need the same

<sup>6</sup> With an appropriate setting of the clipboard priorities you may automate this for non-FM files. See *Paste prefers text* on page A-32. To paste just plain text within FrameMaker a number of utilities are available, for example PureText or HovText or AutoHotkey scripts.

	number of <b>TABs</b> to reach a certain position, whether they can actually perform or not (see lines 1 to 3 in the example below).
Ruler and tab positions	The ruler which FrameMaker provides starts at the page edge rather than the text frame and hence is not helpful to position tabs correctly.
Example	The lines in the picture contain tabs stops at 2, 4, 6 and 8 cm. The layout of the page defines a left margin of 2 cm, room for side headings is 5.6 and the gap is 0.6 cm. Hence the first tab-mark appears on $2 + 6.2 + 2 = 10.2$ cm on the ruler.
	
Tabs in continuation lines	In the second and next lines of a paragraph TAB positions are only performed, if the TAB characters really exist in the text. (see lines 3 and 4 in the example above).
Superfluous TAB characters	If there are no tab positions for a TAB character to perform, they are ignored. This contrasts to MS Word where a paragraph always contains invisible default positions.
<b>Note:</b>	<i>Rounding errors may require a slightly smaller position of a right adjusted TAB (width of the text frame minus 0.05mm).</i>

## Support typographic rules

### Smart spaces

‘Smart spaces’ (**Format > Document > Text Options**) does not remove superfluous spaces when importing text files. It works only for keyboard input.

### Smart quotes

‘Smart Quotes’ are also set in **Format > Document > Text Options**. If set, entering a single quote or double quote with the keyboard changes them to typographic quotes according to the setting in the `maker.ini` file. See *Smart quotes* on page A-32. Unfortunately there is no connection to the Language property of a paragraph.

To enter straight quotes (e.g. the inch symbol) when Smart Quotes are active, you need special ESC sequences (see *Keyboard input* on page A-2).

**Note:** *If you change the settings for Smart Quotes in the `maker.ini` file (for example, from the English to the French form) and then open a document which uses smart quotes, existing quotes are left in the old style, but newly entered ones get the new style!*

Example English style “smart quotes” and after switching to french style: «newly entered ones».

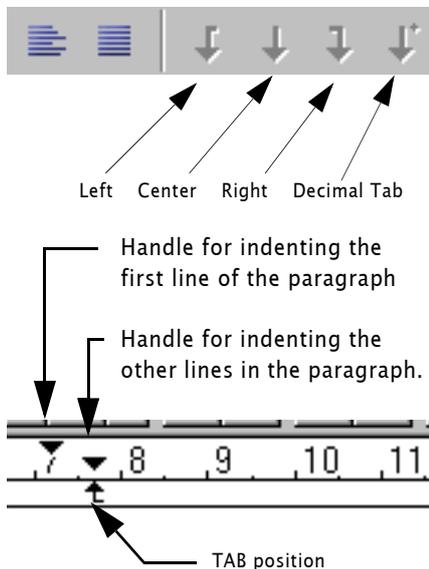
### Micro typography

FrameMaker does not provide optical justification and hyphenation is not optimised in a paragraph as with  $\text{T}_{\text{E}}\text{X}$  or InDesign.

## Local formatting with the ruler

The ruler at the top of the FrameMaker window is handy for quick and dirty formatting. This method is not recommended for longer and long living texts. It should be used only to set up prototypes of paragraphs for entering them in the paragraph catalogue.

- 1 If the ruler is not visible, activate it with **View > Rulers**. If the formatting bar is not visible, activate it with **View > Formatting Bar**.
- 2 Place the cursor in the paragraph you want to format or select a number of paragraphs to be formatted.
- 3 With the upper indent handle adjust the left (and the right) indent of the first line of the paragraph.
- 4 With the lower indent handle you set the 'hanging indent' for lines 2 to n of a paragraph (for lists etc.).
- 5 To specify a tab position, select the appropriate tab type (left, right,...) in the left area of the formatting bar and click into the ruler area below the numbers.
- 6 Double click on the TAB position to get a dialogue to change the properties (type of tabulation, exact position etc.)



## Object manipulation

### Selecting tables and parts of

A table is an independent object (not part of the surrounding text). A table is anchored at a certain place in surrounding text, although it may appear quite distant to the anchoring location.

- |                         |  |
|-------------------------|--|
| Select a table          | ▶ Hold the <b>CTRL</b> key and triple click into a cell or...  |
|                         | ▶ Select the table anchor (see <i>Select a non-width character (or narrow characters)</i> on page A-8) |
| Select a column         | ▶ Hold the <b>CTRL</b> key and double click into the <i>middle part</i> of a cell                      |
| Select a row            | ▶ Hold the <b>CTRL</b> key and double click into the <i>far left</i> or <i>far right</i> of a cell     |
| Select an area of cells | ▶ Drag with mouse across the desired cells.  |

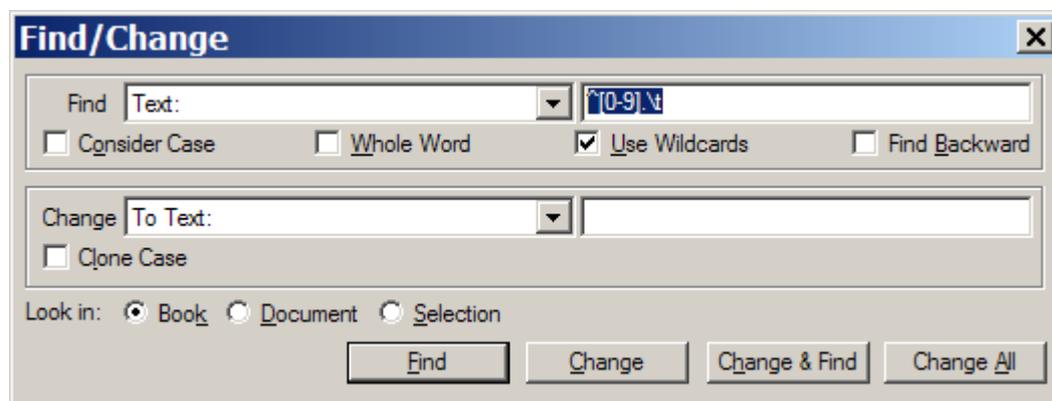
### Selecting a text frame

A text frame is the container of the text and is a graphic object. Hence it can only be grabbed with holding the **CTRL** key down while clicking on its edge (the cursor becomes a hollow arrow tip)

**Note:** *Be careful not to move the mouse during the CTRL+click. CTRL+Click+move creates a copy of the object (see Ghost objects on page A-17).*

## Find and change

There is no **Cancel** button in this dialogue and the standard location of the Cancel button is occupied by the most dangerous function: Change All. To leave the dialogue click on the **X** top right:



Since the backslash is used for special notations in dialogue boxes (see below), it must be doubled to search it literally. To search for D:\QM\_Handbuch you must enter D:\\QM\_Handbuch.

**Note:** *Find and change does not enter text insets (see page 13 - 18).*

## Find/Change with pattern matching

Especially for cleaning imported text it is convenient to search for a pattern. See *Wildcard characters for Find dialogue* on page A-3:

### Examples

Remove manual numbering of paragraphs.	This works also on already numbered paragraphs (FM-auto-number-format <n+>\\t).
	Find Text <sup>7)</sup> ^[0-9].\\t
	Use Wildcards       ON
Remove empty paragraphs	Change               <empty>
	Find Text            \\p\\p
	Use Wildcards       ON
	Change               \\p

**Note:** *Always be very careful in using **Change All**. The 'empty' paragraph may contain a Table anchor or a Frame anchor which will also be selected!*

<sup>7</sup> This finds only one figure. To find two figures, extend the pattern to [0-9][0-9] or [0-9]\* (but this will find anything after the first figure).

## Replace text with copied text or a variable

In this context variables are just a special form of text.

### To replace text by content of the clipboard

Copy the text *to be used in replacement* to the clipboard.

In **Find/Replace** specify the text to be searched for in the **Find** field and select **By Pasting** form the list **Change**.

Specify where to **Look in**: Book, etc.

With **Find/Replace** find the first/next occurrence of the text and replace it by pasting the variable from the paste buffer (**CTRL+V**).

### To replace text by a variable:

Copy the text *you are replacing* to the clipboard.

Set up the variable definition (see *User variables* on page 7-2).

In **Find/Replace** paste the copied text into the **Find** field and select **By Pasting** form the list **Change**.

Specify where to **Look in**: Book, etc. Go back to the document where the text is still selected. Replace it with the variable, then copy the variable into the paste buffer.

With **Find/Replace** find the first/next occurrence of the text and replace it by pasting the variable from the paste buffer (**CTRL+V**).

**Note:** *Do not click into the document window when the found text is highlighted. You will loose the selection and can not paste.*

## Find arbitrary objects

FrameMaker allows to find nearly any object (Cross Reference, Marker, ...). Explore the **Find** scroll-down list!

## Find and change character formats

If -for example - you have imported a Word document and should now replace the direct formatting **bold** of all affected items with character format 2highlight, do the following:

- 1 Select the first string which is bold.
- 2 Apply the default character format (**F8, Enter**) to remove the bold appearance.
- 3 Apply the character format 2highlight (**F8, 2h... Enter**).
- 4 Select from the menu **Edit > Copy Special ... > Character Format** (**ALT+F8**).
- 5 In the Find/Change dialogue set Find list to **Character Format...** and set all check boxes to **As Is** (click them once or twice to display a grey tic mark); set all properties other than Weight to **As Is**. In **Weight** select bold.
- 6 In the Find/Change dialogue set Change list to **By Pasting**.
- 7 With **Change & Find** apply the character format to the current item and look up the next. Repeat this step as often as necessary. 2

**Note:** *Be aware of the fact that FM's **As Is** mechanism takes the currently active values. Hence replacing the bold format in a heading (e.g. 14pt Arial) may put that text portion into 10pt Times (if you started in ordinary text with these attributes).*

## Find and change paragraph formats

If -for example - you have imported a Word document and should now change some of the `Normal` paragraphs to format `special`, do the following:

- 1 Select the first `Normal` paragraph which should be changed.
- 2 Open the paragraph designer (**CTRL+m**) to get the paragraph tag of this paragraph and copy the name from the field Paragraph Tag to the clipboard<sup>8</sup>).
- 3 Apply the paragraph format `special` (**F9, sp... Enter**).
- 4 Select from the menu **Edit > Copy Special... > Paragraph Format** (**ALT+F9**).
- 5 In the Find/Change dialogue set Find list to **Paragraph Tag:** and paste the name from the clipboard into the entry field.
- 6 In the Find/Change dialogue set the Change list to **By Pasting**.
- 7 With **Change & Find** apply the paragraph format to the current item and look up the next. Repeat this step as often as necessary.

***Note:** For globally changing a paragraph tag name, see [Renaming a paragraph format on page 3-10](#).*

---

<sup>8</sup> While this seems to be overkill for paragraph format `Normal` it is less error prone for names like `wxFaxNum`, because FM style names are case sensitive.

# Hyphenation and spell checking

Spell checking is not performed in the following objects:

- Text insets (see *Text insets* on page 13-18).
- Automatically inserted text, such as variables, auto numbers, cross references, variables or file information.
- Other types of pages than the current one. While in body pages, neither master pages nor reference pages are checked.
- Text with currently hidden conditions (see *Conditional text* on page 13-13)

## Supported languages

Dictionaries for hyphenation and spell checking are available for the following languages. Newly supported languages are highlighted in bold

File name or extension	Language	Language name as presented in dialogues
brt	British English	UK English
brz	Brazilian Portuguese	Português do Brasil
bul	<b>Bulgarian</b>	български
cfr	Canadian French	Canadian Français
ctl	Catalan	Catalá
cze	<b>Czech</b>	čeština
dan	Danish	Dansk
dtn	Dutch (new spelling)	Netherlands (nieuw)
dut	Dutch	Netherlands
eng	US English	US English
est	<b>Estonian</b>	Eesti
fin	<b>Finnish</b>	Suomi
frn	French	Français
gmn	German (new spelling)	Deutsch (neu)
gre	<b>Greek</b>	Ελληνικά
grm	German (old spelling)	Deutsch
hrv	<b>Croatian</b>	Hrvatski
hun	<b>Hungarian</b>	magyar
itl	Italian	Italiano
lav	<b>Latvian</b>	latviešu
lit	<b>Lithuanian</b>	lietuvi
nrw	Norwegian	Norsk
nyn	Norwegian (new)	Ny Norsk
pol	<b>Polish</b>	Polski
prt	Portuguese	Português
rum	<b>Romanian</b>	Română
rus	<b>Russian</b>	русский
sgn	Swiss German (new spelling)	Schweizerdeutsch (neu)
sgr	Swiss German (old spelling)	Schweizerdeutsch

File name or extension	Language	Language name as presented in dialogues
slo	Slovenian	Slovenščina
slv	Slovak	Slovenčina
spn	Spanish	Español
swd	Swedish	Svenska
tur	Turkish	Türkçe
	Chinese <sup>a</sup>	Korean, Japanese, Traditional Chinese, Simplified Chinese

a. This requires a 'Chinese' operating system.

## Dictionaries

### Types of dictionaries

	FrameMaker supports four dictionary types, which are searched in the following order:
Site dictionary	The site dictionary, normally it is set to Read Only to be maintained by a service department. The location of this dictionary can only be set in <code>maker.ini</code> .
Document dictionary	The document dictionary is located in the document and can be maintained only via the MIF format of the file. This dictionary is filled with the <b>Allow in Document</b> function. You remove a word from this dictionary by <b>Unlearn</b> after typing the word without hyphenation.
Personal dictionary	The project or personal dictionary normally is maintained by the project owner and hence can be written to with the <b>Learn</b> button. To use this dictionary, specify the path with the method described in <i>Set up and use a project dictionary</i> on page 2-15.
	<b>Note:</b> <i>The setting of a project or personal dictionary (in the dictionary options) lasts for the current FrameMaker session only!</i>
Language dictionary	The language dictionaries are provided by FrameMaker. All but the language dictionaries do not have an indication of language. When collecting entries from various documents the languages may be mixed.

### Using two private dictionariesg

For certain projects it may be desirable to use two different 'private' dictionaries, one for language-1 (e.g. english) and one for language-2 (e.g. german).

This can be achieved by setting up the site dictionary for language-1 and the user dictionary for language-2. However, the **Learn** command will update only the user dictionary.

`maker.ini` in the user area <sup>9)</sup> may then be set up as follows:

```
[Files]
SiteDictionary=D:\_DOC-STD\Fram\ddd-de.dct
UserDictionary=D:\_DOC-STD\Fram\ddd_en.dct
```

<sup>9)</sup> Since FM 7.2 a copy of `maker.ini` from the installation directory is stored in the user area, for example: `C:\Documents and Settings\Klaus Daube\Application Data\Adobe\FramMaker\8.0\maker.ini`

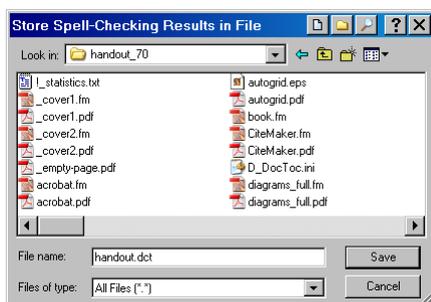
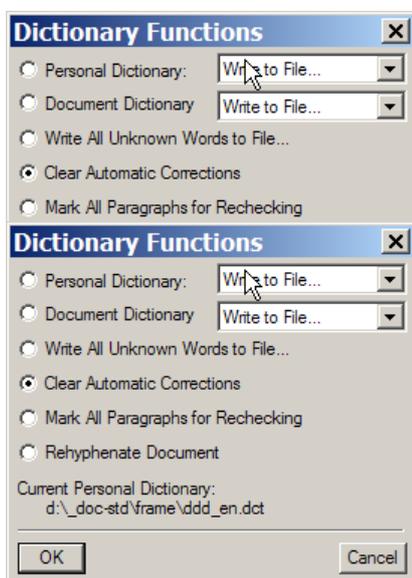
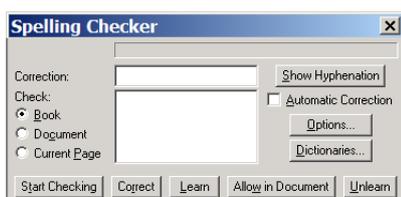
## Format of dictionary

The site dictionary as well as the project or personal dictionaries (e.g. `user.dct`) are plain text files.

Property	FM version until 7.2	FM 8 onwards
Coding	FM internal coding. See <i>Frame Roman code table</i> on page A-6	UTF-8
Max entry	31 characters including hyphenation points. Coded characters (e.g. <code>\x80</code> for Å) count as 1	63 characters including hyphenation points (minus sign)
Example file	<Maker Dictionary 2.0> - \x86ber-g\x8ange \x80nderun-gen \x86ber-pr\x9f-fung Abtrag-arms Pro-gram-mi er-men\x9f	<Maker Dictionary 3.0> Über-gänge Änderun-gen Über-prü-fung Abtrag-arms Pro-gram-mi er-menü

You may wish to remove unreasonable hyphenation points. Be aware that all languages are collected in the same file. Words starting with - are not hyphenated.

## Set up and use a project dictionary



### 1 Edit > Spelling Checker

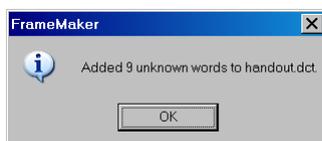
- 2 Select **Dictionaries**. The current dictionary is displayed at the bottom of the dialogue.
- 3 Activate **Personal Dictionary** and select **Change Dictionary** from the drop-down list, **OK**.
- 4 For a new (or existing) project dictionary, define the appropriate path and file name (extension `dct`) and click **Use**. The default location for dictionaries is `$HOME\dict\`. You need admin rights to place these files anywhere. When you place the dictionary on a network, be aware that FM crashes, if the file is not available.
- 5 Back in the **Spelling Checker** dialogue: **Start Checking** or leave the dialogue (**X**). The settings are active during the current FrameMaker session.
- 6 The current dictionary is indicated at the bottom of the dialogue **Dictionary Functions**.
- 7 With **Learn** you add entries to the current personal dictionary. With **Allow in Document** you add entries to the document internal dictionary. Use this for very special words.

It is useful to collect unknown words in a project dictionary in advance in these cases:

- In German words can be combined to a nearly unlimited repertoire and hence these combined words may be hyphenated at unwanted places.
- The special field covered by the text is not covered by the standard dictionary at all: chemistry, legal, medicine etc.

There are, however some limitation to the user dictionaries or site dictionaries (see *Format of dictionary* on page 2-15):

- The dictionary entries can not be longer than 31 characters including the hyphenation dashes. Hence may need to concentrate on few hyphenation points.
  - Only about 2000 entries can be collected. Unfortunately there is no mechanism to combine flexed words into one entry (which is done in the standard dictionaries).
- 1 To collect the unknown words of a FrameMaker book, start in the first relevant chapter (e.g. to leave out the TOC) and activate **Check: Book**.
  - 2 Click on **Options...** to open the dialogue **Dictionary Functions**.
  - 3 Activate **Write all Unknown Words to File...** and click **OK**.
  - 4 In the dialogue **Store Spell Checking Results in File:** navigate to the desired directory and enter the desired file name with the file extension **dct**.
  - 5 You get feedback about the written entries:



- 6 Inspect the file and correct it:

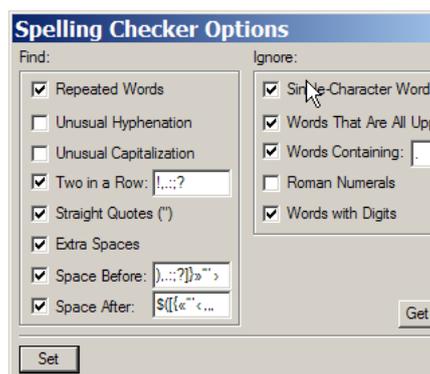
<p>&lt;MakerDi cti onary 3. 0&gt;          Ac-i t-vate          -Dachgi ebel          Fram-Mak-er          -Mehrfach-Drehbänke          Ni x-on          pour-quoi          -ri en          si e-he</p>	<p>wrong word → delete line          incorrect hyphenation          Wrong spelling → correct it          incorrect hyphenation          do not hyphenate            Do not hyphenate</p>
---	--

contents of file after correction

<MakerDi cti onary 3. 0>  
 Dach-gi ebel  
 Frame-Maker  
 Mehr-fach-Dreh-bänke  
 -Ni xon  
 pour-quoi  
 -ri en  
 -si ehe

- 7 To use this dictionary follow *Set up and use a project dictionary* on page 2-15

## Spelling options



To avoid spell checking of certain situations, consult the **Options...** in the main dialogue.

To avoid checking of technical terms (M4×12, 12.5 µMol, µA etc.), define the special characters (symbols) in **Ignore > Words containing:** .xµ (only the period is default).

## Spell checking odds

Spelling is not checked, if the text is ...

- defined through a dialog box, such as auto numbers, cross references, variables or file information.
- on other page type than the current one. When in body pages, then text on master pages or text on reference pages is not checked. You need to switch to those page types.
- Text in currently hidden conditions.
- Text insets are not checked. Set up a ‘utility book’ with all the insets and then spell check these files.
- Superscripted or subscripted text. Also vertically micro positioned text (see *Micro positioning of characters* on page 3-19) is not checked either.

### Known bugs

- <sup>10</sup>Repeated words are not found if they are separated by a line end or if just capitalisation is different (“Master master Master” is not found).
- Missing spaces between ordinary text and variables or cross references is not reported.
- The option “Find extras spaces” does not find a series of spaces larger than 2. The same is true for repeated characters. For example xx or ?? are reported as repeated, xxx or ??? are not.
- None-breaking hyphens are not treated as hyphens, they are reported as miss-spelling.
- Some concatenated words are not found in error (in German and Dutch).

<sup>10</sup> These bugs are reported by [Shlomo Perets](#)

## Hyphenation

**Note:** *FrameMaker behaves differently than MS Word - also concerning hyphenation.*

### General remarks

- Automatic hyphenation is a paragraph property. With a character format “no language” even portions of paragraphs can be excluded from spell checking and hyphenation.
- Hyphenation can be selectively disabled with a character format specifying language ‘None’.
- Manual hyphenation (with discretionary/optional hyphen, suppress hyphenation) is active only in paragraphs with the attribute Hyphenate set.
- For special terminology consider collecting the words in a file and creating a ‘project dictionary’ with appropriate hyphenation points.

### Change hyphenation of a word

- 1 **Edit > Spelling Checker**
- 2 Enter the word for which the hyphenation is to be changed.
- 3 Select **Show Word’s Hyphenation**
- 4 Clear all hyphenation points (-) which you do not want.



- 5 Avoid hyphenation of a word with a preceding minus sign.
- 6 **Learn** (store in the personal or project dictionary).
- 7 To unlearn a word, type it into the field without hyphenation and click **Unlearn**.

### Avoid hyphenation

To avoid the hyphenation of a word, (e.g. a product name),

- 1 Place the cursor in front of the word
- 2 Enter ESC, n, s (English FM) or ESC, k, t (German FM).

### Optional hyphenation

- 1 Place the cursor in the word, where you want to provide optional hyphenation
- 2 Enter **CTRL+minus**

**Note:** *Suppression of hyphenation takes precedence over optional hyphenation points.*

### Optional hyphen is not honoured?

If the optional hyphenation is not honoured, check the number of successively hyphenated lines in the paragraph

designer: **Advanced** properties: *max # adjacent*. The standard value is 2 to avoid 'ladders'.

## Non breaking space

To keep words or characters together and protect them from hyphenation use the non breaking space (**CTRL+space**).

## Non breaking hyphen

To avoid hyphen in a compound word (such as end-user), use the non-breaking hyphen ESC, -, h (English FrameMaker) or ESC, -, w (German version).

## None breaking symbols

You can switch off the hyphenation after specific symbols in the dialogue **Format > Document > Text Options** by removing these symbols from the list **Allow Line breaks after** (the slash is normally the first symbol there).

If you both need a breaking and a non breaking slash, provide a variable (e.g. named slash) with the definition “\” (without the quotes. Use this variable as non-breaking slash.

## Apply new hyphenation to existing document

- 1 **Edit > Spelling Checker**
- 2 Select **Dictionaries**
- 3 Select **Re-hyphenate Document**, click **OK**.

## To hyphenate or not to hyphenate

Be aware of the influence of non breaking symbols to the following word: it depends!

Type of symbols	non breaking	normal
non-breaking space after the arrow (justified paragraphs)	see            auch → Dachgiebel	siehe auch → Dachgiebel
non-breaking hyphen between words	Mehrfach-Drehbänke	Mehrfach-Drehbänke

## Breaking and nonbreakable slash

Although there is a symbol in the Symbol font for solidus (/), this should not be used in ordinary text alternating to the standard solidus of all fonts (/). The appearance differs: //.

Hence you need a trick to have both breaking and non-breaking slashes in a text.

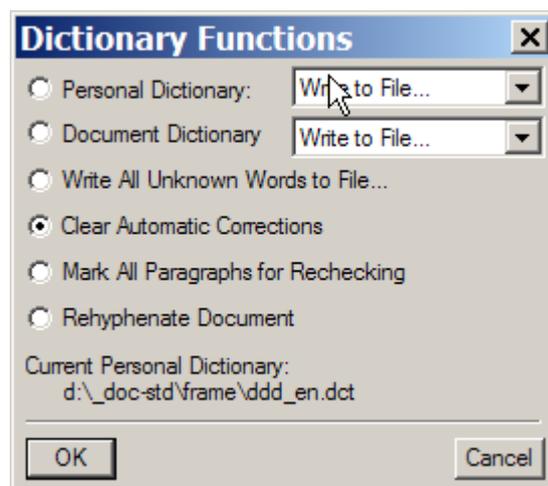
- In **Format > Documents > Text Options...** remove the / from the list of **Allow Line Breaks** after, but insert at the start (not elsewhere) of this list: \st or \x14 for thin space.
- If you want a breaking /, just use the symbol from standard font.
- Where you need nonbreakable /, surround it with thin space (**ESC, blank, t**) or in German FM (**ESC, s, t**). This will disturb only few typographers, but not ordinary readers.

This is a sample text using this method: hecate/iovis will not be broken, but hecate/iovis can be broken at the thin spaces before and after the /.

**Note:** *This idea may conflict with other uses of thin space though, because the special spaces are non breaking, if not in the mentioned list.*

## Other dictionary functions

Edit > Spelling Checker ... > Dictionaries ...



### Personal dictionary

- Set to None      Signal FM that no personal dictionary exists. Only the other types are available.
- Write to File      Write the personal dictionary to another file.
- Merge from File      Amend the personal dictionary
- Change DictionarySwitch to another dictionary. To start a new personal dictionary, see *Set up and use a project dictionary* on page 2-15.

### Document dictionary

- Clear      Clear the document dictionary to start afresh.
- Write to File      Export the current document dictionary.
- Merge from File      Amend the document dictionary.

### Write all unknown Words to File

See *Collecting unknown words* on page 2-15

### Clear automatic corrections

Remove all automatic corrections from the current document.

### Mark all paragraphs for rechecking

Set this option after you have changed the dictionary to be certain to check everything against the new dictionary.

### Rehyphenate document

Redo the automatic hyphenation - especially after changing a dictionary.

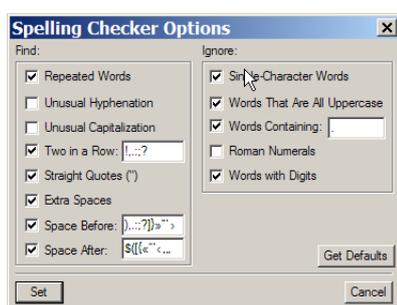
# Spell checking

Start spell checking at the beginning of the document with **Edit > Spelling Checker > Start Checking**.

Spell checking and hyphenation use the same dictionary.

- FrameMaker starts the checking at the current cursor location and wraps to the beginning of the file.
- If there are 'errors', which are ignored, the wrapping may go on and on. Hence watch the vertical scrolling bar.
- Spell check does not 'dive into' text insets - these are independent files which must be checked separately.

## Spell Check options



The options for the spell checker are set with **Edit > Spelling Checker > Options...**

Option	Checks for example	Comments
<b>Find</b>		
Repeated words	this <b>and and</b> that	
Unusual hyphenation	un-usual, re-initialise	
Unusual capitalisation	The <b>S</b> is, wron <b>G</b>	
Two in a row	Richard Nixon ??	??? will pass
Straight quotes	"welcome back friends"	
Extra spaces	and so on	e.g. from importing text
Spaces before/after	( rien ), pourquoi ?	French typography requires these spaces
<b>Ignore</b>		
Single character words	Just a bunch of if's	
All UPPERCASE words	<b>USB</b> bus	
Words containing ...	123.9	ignore the period
Roman numerals	see page <b>vii</b>	
Words with digits	<b>Lotus123</b>	

**Note:** *The settings are saved in the frame.ini file and hence are available across FrameMaker sessions.*

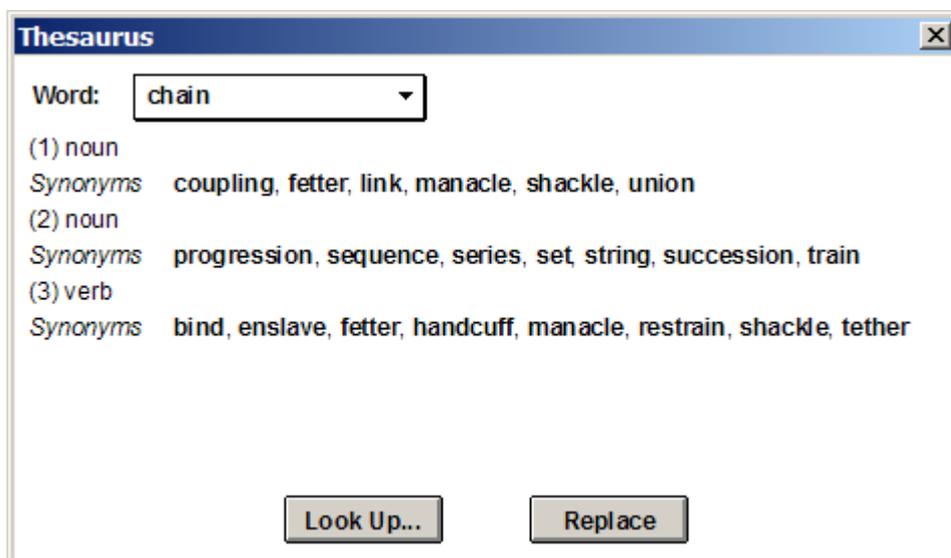
2011-05-11

E:\FM-course\handout\texthandling.fm

D+D D

# Thesaurus

With **Edit > Thesaurus** ... synonyms for the currently selected word can be found. By following the chain of words (click on a synonym) you may even explore the meaning of a word.



To replace the selected word in the text with the current word in the thesaurus, click **Replace**.

If you want to look up a word in another language, use **Look Up ...** to select the language from the list.

The thesaurus function is available for the following languages:

- Danish
- Dutch
- English US
- English, British
- French
- French, Canadian
- German
- German, new spelling
- Italian
- Norwegian
- Spanish
- Swedish
- Swiss German
- Swiss German, new spelling

To see the history of words you have looked up, click on the small triangle to the right of the current word. You can go to one of these words by clicking in the pop-up on it.

# French typography

French typographic rules are not uniform across the franco-phone countries. Also some newspapers do not follow it strictly. Online publications even use much more relaxed rules and you may even find company specific rules. Hence this section can just note the most common items. For your benefit I provide the French nomenclature also in this section.

## Space

The word *espace* is feminine: *une espace*.

*L'espace insécable* (non breaking space) is used in many punctuation cases. It is entered by **Ctrl+space**. In this section this symbol is visualised by „.

## Punctuation

Two cases are distinguished: handling of simple symbols (comma – *la virgule*, period – *le point*, ellipsis – *les points de suspension*) and the handling of double symbols (colon – *les deux-points*, semicolon – *le point-virgule*, exclamation mark – *le point d'exclamation*, question mark – *le point d'interrogation*).

The rule is: simple symbols – simple space, double symbols – double space. Canadian French does not use the space before : ? and !. Examples:

*Oui„? Non„! Voyez donc„: c'est ainsi„; ça ne se discute pas. Une virgule, un point. La suite... au prochain paragraphe.*

French quality typography uses *une espace fine insécable*, a non breakable thin space (■) for these applications. The thin space (\u2009) can be entered with **Esc, blank, t**.

## Quotation marks

Quotation marks are called *guillemets* irrespective of their form. However, the standard quotation marks in French are chevron shaped: « and ». The quotation is first surrounded by non breaking spaces and then by the quotation marks:

*On consultera les ouvrages suivants„: «„La typographie pour les nuls„» et «„Typographie avancée„».*

Second level quotation use the *guillemets à l'anglaise* without additional space:

*«„L'ouvreuse m'a dit„: “Donnez-moi votre ticket.” Je le lui ai donné„».*

*En Suisse, pour les citations de deuxième rang, on utilise parfois des guillemets français simples„: «„citation de 1<sup>er</sup> rang contenant une „citation de 2<sup>e</sup> rang„».*

Quoting foreign languages use the *guillemets à l'anglaise*, but without the inner spaces.

**Note:** *Unfortunately FrameMaker has no automatism to enter the additional spaces when entering punctuation or french quotation marks. In many text processing program (such as MS Word) the spaces are inserted automatically if the language is set to French. A utility like [Spell Catcher X](#) is of great help.*

## Dashes

In this area differences between classic French typography and current typography or even differences between authors can be observed.

Composite word use the n-dash (as usual in other languages also). No spaces are around these:

*C'est-à-dire que... Où est-il? Y a-t-il un arc-en-ciel?*

Hyphenation dashes use the short dash, *le tiret court* (minus sign on the keyboard). It follows immediately to the last character in the broken line (as usual).

Incisions use the n-dash (*tiret moyen*), which is connected to the incision phrase by a non breaking space:

*Le brave homme - pas si brave que ça, il faut le dire - ne dit rien.*

In dialogues the m-dash (*tiret long*) is used. It is connected to the phrase by a non breaking space:

*- Ça va? - Oui, et toi? - Oui, et toi?*

## Titles

The second to last character of abbreviated titles is displayed in superscript:

*M<sup>lle</sup> - M<sup>me</sup> - M<sup>mes</sup> - M. (et non Mr) - MM. - M<sup>e</sup> (maître) - M<sup>gr</sup> (monseigneur)*

## Units

There is a space between the numeric value and the unit. To avoid separation this should be a non breaking space (as usual):

*1,3 cm. 1,000,000,00 F. 20,6%. Un appareil photo qui permet une durée d'exposition de 1/2000 s. Une carte au 1/25,000 [pas d'unité].*

## Uppercase accented letters

You are strongly recommended to use accents also on upper case letters:

*ÉLÈVES EN PLEIN AIR ou ÉLEVÉS EN PLEIN AIR?*

## Enumeration

As with good old English the suffixes are displayed in superscript:

*On écrira 1<sup>er</sup>, 1<sup>re</sup>, 2<sup>e</sup>...*

**Note:** Watch the difference in gender: 1<sup>er</sup> is masculine, 1<sup>re</sup> is feminine.

## Latin expressions

Especially in scientific publications you find latin expressions, which should not be used in French:

Latin	English	French
e.g. (exempli gratia)	for example	p. ex. (par exemple)
et alii, et al.	and others	et co-auteurs, et coll., etc.
id est, i.e.	that is	c'est-à-dire, c.-à-d.
versus, vs	against, in contrast to	contre, « - »

## References

Jacques André, *Petites leçons de typographie*. Version 1990—[PDF du 18 février 2009](#)

[Règles de typographie française](#)

[Mémento de typographie anglaise à l'usage de rédacteurs francophones](#)

[Comparatif des différents codes typographiques francophones](#)

# 3

## Styles

### Overview

In this chapter properties of paragraph and character styles are discussed. The hierarchical numbering of paragraphs is vital for technical and scientific publications.

Importing styles or elements of style from other documents eases the set up of consistent layout and design. This is a key feature of FrameMaker.

### Contents

Names for styles .....	2
Paragraph styles .....	3
Character styles .....	13
Import formats from another document .....	15
Special formatting .....	18

# Names for styles

Paragraph and character formats, table formats, cross reference forms and so on are named. Choose names carefully as they live longer than you imagine!

## Name by function

Style names based on the function can be learned easier and are better suited for structured documents. Naming by appearance is a reminiscence of layouters and typographers. We are talking about document processing here:

Name based on appearance	Name based on function
24pt-Garamond-bold	1heading
left-2cm-right-2cm-italic	citation
hanging-indent-bullet	lb-bulleted-list
10pt-Times	body
5rows-left-adjusted	invoice
Table with frame and fancy head	full-statistics

## Name with abbreviation

Paragraph formats can be applied to an object with keyboard short-cuts:

- F8, *characterformat*, Enter
- F9, *paragraphformat*, Enter
- Names may be shortened to the relevant length.

For this reason it is important to use names which differentiate in the first characters:

First shot	Efficient	Keys
Heading 1	1heading	F9, 1
Heading 2	2heading	F9, 2
Wide list	lw-list-wide	F9, lw
Checklist	lc-checklist	F9, lc
Wide table with horizontal lines	zlw-wide-line	F9, zlw
Highlight bold	2highlight	F8, 2

Using lower case characters distinguishes the user defined styles from the FrameMaker supplied styles, which always start with an upper case character.

## Special names

Name items which are not used by the author of a text completely different, for example, precede the names by z. They will sort at the end of the list of styles. Items in this category are used on layout pages (master pages) or as 'hidden features':

Name	Usage
z-anchor	automatically applied as follow on ¶
z-footer	layout
z-header	layout

## Dangerous characters in style names

Do not use blanks, umlauts, brackets [ ], angle brackets < > and the \$-sign in style names (paragraph, character) - these may interfere with special constructs such as in cross-references and damage HTML export.

# Paragraph styles

Using style names for paragraphs, character sequences and tables (rather than local formatting) gives you these advantages:

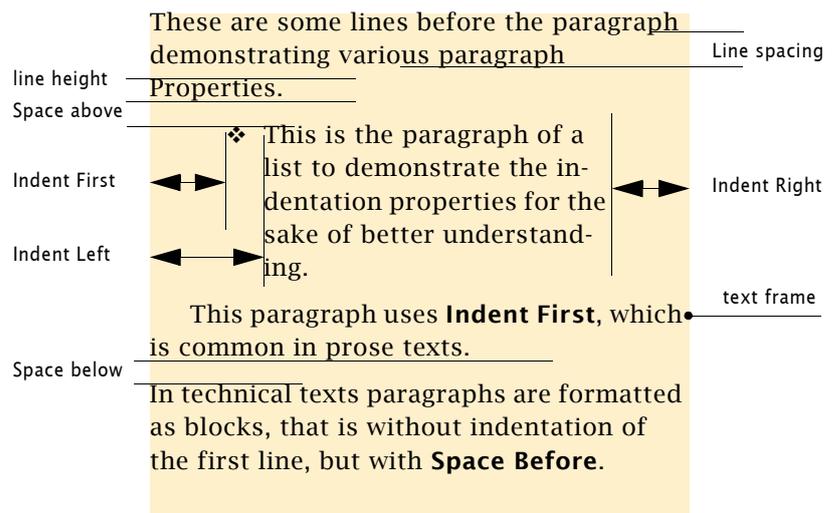
- The appearance of a document can be changed ‘in the last minute’.
- The appearance of all documents in a book can be changed with ‘the snip of a finger’ (importing styles from any document).

**Note:** *Upper- and lower case is relevant in style names (Heading and heading are not the same).*

## Properties of paragraphs and text

To set up paragraph and character styles you need to understand various properties of text elements. The terminology varies between text processing applications, but the concepts are comparable.

### Properties of lines and paragraphs



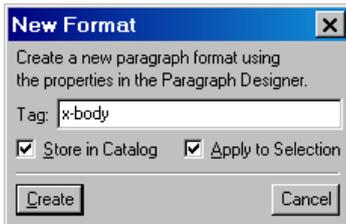
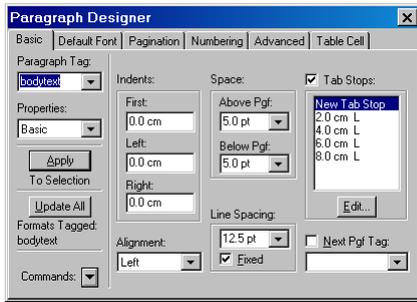
## Properties of type

In the font properties for a paragraph and in the definition of character formats a number of modifications to the original font appearance can be set:

Property	Meaning	Example value	Example presentation
Angle	Character shapes are either slanted ('mechanically' tilted: oblique, slanted, italicised) or designed for a pleasing appearance (italic)	regular italic slanted	The upright form is called roman, <i>the designed tilted form is italics (kursive), whereas slanted etc. has no specific shapes (e.g.) for f or g.</i>
Weight	Thickness of the strokes forming a character shape. Various names are in use. Only few fonts provide more than just bold.	regular, bold semibold	This is the regular form. <b>and here comes bold.</b>
Variation	Some fonts provide narrow or wide forms or other variations. Condensed is a designed form, Narrow is a 'mechanical' deformation.	regular condensed narrow	This is Lucida Sans. Here comes Lucida Sans Narrow.
Spread	Additional space between characters in% of em-space (German: geviert)	0% 3% 20%	This text is not spread at all (set tight) This text is spread a little bit This text is spread heavily
Stretch	The character shapes are stretched graphically	100% 160%	This text is not stretched at all <b>This is really stretched</b>
Pair kern	Individual character pairs are arranged closer than their bounding box defines. This creates better appearance for certain character pairs in large sizes	Without With	AV-Medium Yoga AV-Medium Yoga
	Manual kerning is not recommended. It can work only on the characters of one line.	Manually	AV-Medium Yoga
Underline	This text decoration should be used only to visualise conditional text (added text) – it is not a good emphasis	use these only for indication of changes	<u>Underlining cuts through the descenders, <u>numeric underlining</u> does not; double may be <u>awful</u>.</u>
Overline	This may be useful for certain mathematical stuff		Here is over lining applied.
Strike through	This text decoration is predestined to visualise the text condition 'deleted'		Well, <del>this was here</del> , and that's here now.
Change bar	This character format <i>will be removed by</i> <b>Format &gt; Document &gt; Change Bars &gt; Clear all</b>		On the side of the text frame you see a vertical bar indicating this character format
Superscript	These character formats are widely used for formula like text pieces	More line- spacing may be needed	A superscript <sup>2)</sup> has various uses, for example in cross-reference formats
Subscript			Subscripts may be needed in chemical notations, such as H <sub>2</sub> SO <sub>4</sub>
Small caps	In German this is called Kapitälchen. The FrameMaker form is a mechanical modification. Real Small Caps are specially designed forms.		SMALL CAPS (KAPITÄLCHEN) ARE WIDELY USED FOR PRESENTATION OF PRODUCT NAMES, OPUS NAMES OR IN HEADINGS.
Uppercase	This text decoration s do not physically change the text (the buttons AB and ab do so). You can find the unmodified text with the Find/Change dialogue an 'Consider Case' active.		HELLO, THIS SHALL BE ALL UPPER CASE – CAN YOU READ IT EASILY?
Lowercase			this is all lower case although typed with caps lock on
Colour	Shades of gray are useful in any printing process. Colour is good for electronic distribution (PDF, Web) and costs a lot in real printing.		Use shades of gray for <b>large</b> font sizes, for example in headings. This creates a more uniform gray value of the page.

## Define a paragraph style name

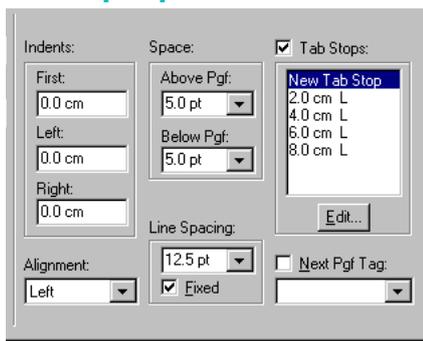
### Basic properties



- ▶ Place the cursor in a paragraph the style of which you want to develop (and store in the catalogue).
- ▶ Open the Paragraph Designer (**Format > Paragraphs > Designer**).
- ▶ In the field **Paragraph Tag** enter the name of the paragraph style to be created.
- ▶ In the drop down list **Commands** select **New Format**.
- ▶ In the Dialogue **New Format** activate both **Store in Catalogue** and **Apply to Selection** (this to gives you a visual hint about the developing format of the paragraph).
- ▶ Define the **Basic Properties** of the paragraph style, then click **Update All** to apply the set properties to the current paragraph and store them in the catalogue.
- ▶ Switch to the next category, set the desired properties and click **Update All**.

## Set up paragraph properties

### Basic properties



Left indentation is also called 'hanging indent', since used for lists (see page 7). You must also define a tab position at the same distance as the left indent (for lists).

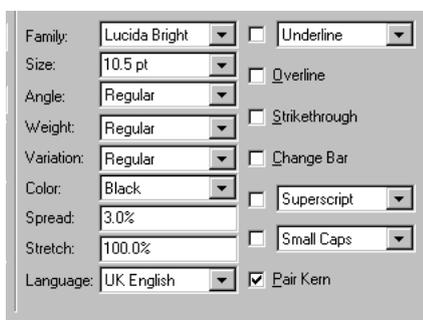
Normally only **Space Above** is set. Only special cases require both above and below. FrameMaker takes the larger value, if both are defined in following paragraphs.

Concerning justified versus left adjusted text see *To justify or not to justify* on page B-3.

If you expect many footnote references, consider line spacing 1.5

At least for headings define the format of the next paragraph. This will be applied to the next ¶ after an **Enter** at the current paragraph.

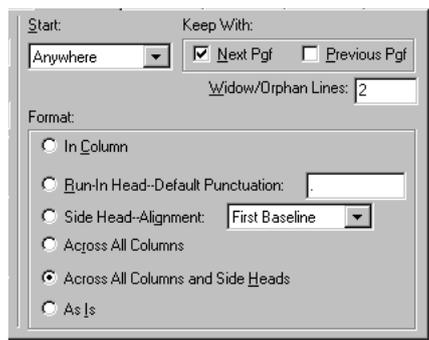
### Font properties



- ▶ Define the name of the paragraph style (if you want to define a new style).
- ▶ Set the properties in a specific property area (Basic, Default Font, Pagination etc.)
- ▶ For test purpose (visual check of appearance) you may wish to just apply the settings to the current paragraph with **Apply**.
- ▶ Store the settings in the catalogue as well as apply them to the current paragraph with **Update All**.

Concerning the role of type face see *Serif versus sans serif* on page B-3ff.

## Pagination



Start on **Top of Page** if you need to have a page break before the paragraph. In multi column layout consider start **Top of Column** for headings etc.

For headings always set **Keep with Next Paragraph** to avoid dangling headings at the bottom of a page.

When tweaking a layout it may be necessary to set **Widow/Orphan** lines to 1 or a greater number.

For figure titles below an anchored frame you may wish to set **Keep with previous Paragraph** to hold it together with the anchoring paragraph.

## Pagination

- A Across all Columns and Side Heads
  - B Across all columns
  - C Side Head, alignment First Baseline
  - D In Column
  - E Run-In Head, Default punctuation “.”
- Watch the interruption of the text area by a heading.

The Pagination properties define the arrangement of paragraphs. Running text always is “In Column”. For headings you will need variations:

### A) Hecate Latonae Filia, soror Apollinis.

Est tricopor et triceps, magicarum artium magistra ac fascinationum	praeses, cinctra latrantium canum turma.
--	--

### B) Noctu triviis nec hoverei

vel prope sepulcra et ubi loca sunt caedibus	contaminata sinistra.
--	--------------------------

### C) Hec est Iovi

Latonae filia, soror Apollinis. Est trico por et triceps, mag icarum artium mo magistra actual.	Apollinis. Est trico et triceps, magicarum artiumra.
---	---

### D) Fasinosa del mortioriti

Praeses, cinctra  
latrantium  
num contaminata.  
Latonae filia, soror

E) Turma. noctu  
stans in triviis vel  
prope sepulcra et  
ubi loca sunt  
caedibus  
contaminata.  
Latonae filia, soror  
Apollinis. Est trico

## Alternative method for page break

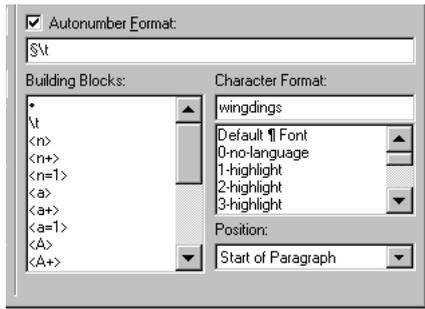
Having a heading style without and one with page break, for example, 1heading and 1np-newpage will normally call for two styles in the TOC: 1headingTOC and 1np-newpageTOC (see *Table of contents* on page 9-3).

To avoid this effect you may define a paragraph format npa-new-page-after, probably derived from Body, but with 999pt **Space After**.

You may wish to set the font in this paragraph to something obscure (e.g. a script face) to avoid accidentally using it for text. You may also wish to set lines pacing to a very low value (e.g. 3pt, approx. 1mm).

[2009-06-24 Fred Ridder: docudoc, hotmail, com]

## Numbering



### Numbering elements

- < =0> Reset counter, no display
- <=0> Set counter, display
- <r=7> Set counter, display vii
- < > Place holder in scheme
- <n> Display counter arabic
- <n+> Increment and display
- \b Bullet symbol
- \t TAB character

You need the Numbering property category for numbered lists, bulleted lists and items such as the *notes* in this chapter. For example, bulleted and numbered lists use the following setup:

```
n1_numbered_1st <n=1>
nx-numbered_next<n+>
lb-bulleted      \b\t
note             Note:\t
```

The display of the counter depends on the character used in the construct: **n** (1, 2, 4), **r** (i, ii, iv), **R** (I, II, IV), **a** (a, b, d), **A** (A, B, D).

Hierarchical numbering for heading is more elaborate and is explained on page 11.

To highlight the numbering (or the constant text as for the *note*), you must define a character format first. You can not select fonts.

Normally the numbering **Position** is at the “Start of Paragraph”, but for formulas etc. it is desirable to set this to “End of Paragraph”.

**Note:** *When hiding the counter by the leading blank you must leave out the counter format character: Not < n=3> but < =3>.*

### Numbered lists

Numbered lists are normally not bound to the hierarchy of headings (see *Numbering* on page 7). If numbered lists are bound to the heading scheme, than the lists must be treated similar to the table or figure. In this case, more rows and columns are added to the matrix.

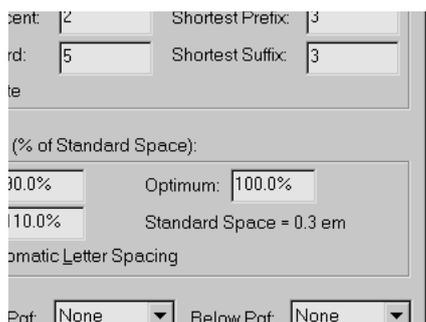
**Note:** *The footnote numbering is completely out of the game for numbered paragraphs (see Footnotes on page 7-12).*

### Bulleted lists

A bulleted list is a special form a numbered list. The number degrades to a constant symbol. A standard bullet (centered dot) is available in every text font, hence it is provides as a building block (\b) in the dialogue.

To get more fancy bullets, you need to define a character format for ‘switching the font’ (see *Setting up a character style* on page 13) and replace the \b building block with the corresponding character. For example to get a list bulleted with ❖, you need to ‘switch to’ Dingbats or Wingdings and enter v (see *Symbols and dingbats* on page A-5).

## Advanced



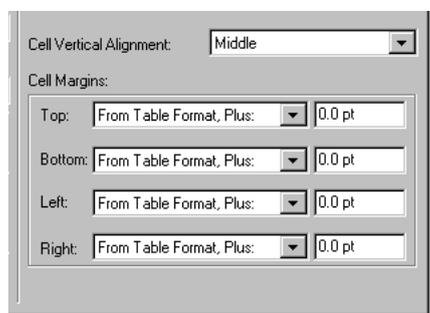
**Note:** *You can not attach a graphic element **behind** the paragraph (e.g. to create a shaded background). You may achieve the desired effect with a table of only one cell.*

On the Advanced property sheet you define typographic details as well as graphic Frames attached to the paragraph (above or below). These graphic frames are located on the reference pages (see *Graphic elements on reference pages* on page 26).

With the settings of Word Spacing you define, how much the word space can be compressed or expanded for justified text.

Do not check the box “Allow Automatic Letter Spacing” - this creates very bad typography.

## Table Cell

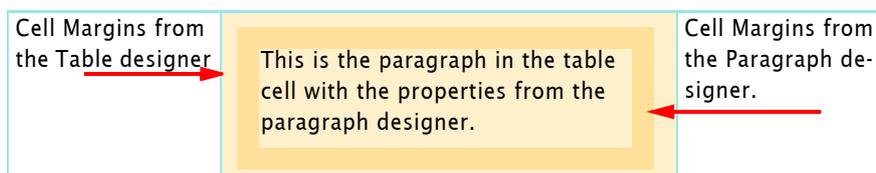


These properties become only relevant if the paragraph is used in a table (table heading, body or bottom cells).

For each cell margin you can specify

- **From Table Format, Plus** a value (relative setting), or
- **Custom** (absolute setting).

Use **Custom** to define the complete margin around the paragraph ignoring the margin which is set in the Table Designer.



Align the paragraph within the table cell (top, bottom, middle) with this property sheet.

## Setting only one property in ¶ or f catalogue

You may need to set one property for all entries in the catalogue. For example, the language or the default font (if it is *really* the same in all styles!)

### Set the language in all paragraph catalogue entries



- 1 Open the paragraph designer (menu **Format > Paragraphs > Designer** or **CTRL+M**)
- 2 Open the appropriate tab (Default Font)
- 3 In the **Commands** drop down list select **Set Window to As Is** or type **SHIFT+F8**.
- 4 In the Language field set the desired language (e.g. Schweizerdeutsch)
- 5 In the **Commands** drop down list select **Global Update Options...** and set the radio buttons *Default Font Properties only* (the name of the current tab) and *All Paragraphs and Catalogue Entries*
- 6 Click **Update**.

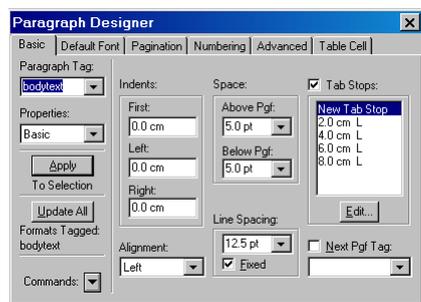
## Setting up a group of paragraph styles

To set up a group of paragraph styles the following method is recommended (but check out your personal preferences):

- ▶ In a new document, delete all entries in the catalogue. Name this document according to its purpose, for example: `parastyles.fm`
- ▶ For each style enter a paragraph on which you can see how the style develops. Start the paragraph text with the name of the style you want to develop on this paragraph. Provide at least two lines in a paragraph to see the indentations.
- ▶ Apply the style names to the paragraphs according to the procedure described in *Names for styles* on page 2.
- ▶ Set the Property sheets in the Paragraph Designer to the first category of properties (Basic).
  - Set the properties according to the needs for this paragraph style and **Update All** (both the selected paragraph and the catalogue).
  - Work through all paragraphs with a distinct property sheet of the paragraph designer.
- ▶ Then change to the next property sheet for all paragraphs.

**Note:** *The Paragraph Designer displays the format name of the current paragraph (where the cursor is in). Hence it is convenient to work with already named paragraphs.*

## Renaming a paragraph format



Use this operation with care because *all paragraphs of a particular style name* (including the catalogue) are changed! Generally this is correct for cleaning up an imported Word document):

- 1 Select a paragraph with the style name to be changed (e.g. from “Eingerückt” to “lb-bulleted”).
- 2 In Paragraph Designer (**Format > Paragraphs > Designer...**) change the displayed ¶-name to the desired. Clicking on **Update all** will prompt you to accept the change.

## Merging paragraph formats

Assume, for example, you have the following paragraph styles: 2heading, 2Heading, 2HEADING (for example, due to input from other documents). The ‘only valid one’ is 2heading.

You merge them together by renaming

2Heading to 2heading

2HEADING to 2heading

Paragraphs with the changed names will display an \* in the information area on the screen (lower left corner). This indicates local overrides, which should be removed:

- 1 Select one of the changed paragraphs.
- 2 In the Paragraph designer (**Format > Paragraphs > Designer...**), click **Update all**. You will be prompted to dismiss the overrides: click **Remove Overrides**.

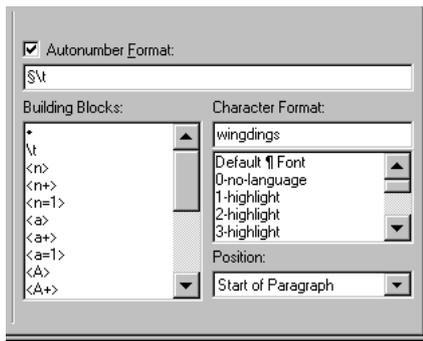
## Replace paragraph format in document or book

To replace a paragraph format (say: fromThis) by another one (say toThat) in a document or book:

- 1 Set the insertion point into a paragraph that uses the desired format (toThat)
- 2 **Edit > Copy Special... > Paragraph Format**. The desired format is now in the clipboard.
- 3 In the **Find/Change** dialogue set the Find list to **Paragraph Tag:** and enter the name of the unwanted style (fromThis) into the field.
- 4 Set the Change list to **By Pasting**
- 5 You might want to do one or two replaces individually to make sure this gives you what you want, but you can then do a “change all” for the document or book.

# Hierarchical numbering

2011-05-11



- Dependencies in numbering (e.g. all headings) require the use of a sequence name (e.g. H:). Independent numbering such as the numbered lists, do not need a sequence name. However, if you have two interspersed numbered lists, these must use labelled sequences to be distinguished (see example below).
- Blanks ( ) are relevant within the angle brackets! A blank denotes 'no display' for the numbering item.
- The numbering items consist both of a counter and a format for display. Once the format is set (using n, R, a etc.) the setting of the counter (=x) must not use the n again (except for the real display of the initial value (see below the scheme for the numbered lists).

## Example numbering scheme

In the following example scheme the *table* and the *figure* numbering should restart at the main heading (level 1). Heading levels 'inherit' the number from the higher level.

Format-name	Seq. label	Prefix	Numbering flow				
			1head	2head	3head	table	figure
1heading	H:		<n+>	< =0>	< =0>	< =0>	< =0>\t
2heading	H:		<n>.	<n+>	< =0>	< >	< >\t
3heading	H:		<n>.	<n>.	<n+>	< >	< >\t
tt_table_title	H:	Tabl e	<n>.	< >	< >	<n+>	< >\t
ftn-fig-title-numbered	H:	Fi gure	<n>	< >	< >	< >	<n+>\t

This scheme is used for preparing the entries into the dialog field of the paragraph designer, tab **Numbering**. For 3heading you enter there, for example (leaving out all the informal space in the above table, but observing the required space):

H: <n>. <n>. <n+>< > < >

**Note:** *Be careful with the arrangement non-syntactical element (such as the TAB or the periods or the word Table). They may interfere with the numbering when accessing the numbering information in cross-references etc. See Building blocks \$paranum and \$paranumonly on page 7-5.*

## Interspersed lists

Simple set up with no reset:

Example	Format name	Numbering scheme
1 outer list, first	x-outl i st	k: <n+>\t
2 outer list, second		
1 inner list, first	x-i nnerl i st	l : <n+>\t
2 inner list, second		
3 outer list, third		

Later use of this paragraph format will continue the numbering, because there is no 'reset' as in the hierarchical scheme:

- 4 outer list, just here
  - 3 inner list, another item

Hence you should set up a scheme also for these cases.

E:\FM-course\handout\styles.fm

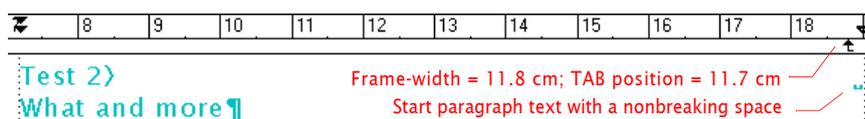
D+D D

## Line break in autonumber

There is no building block `\n` to force the paragraph text to the next line. However, you can set up the autonumber string as follows (watch the ordinary space at the end of the string):

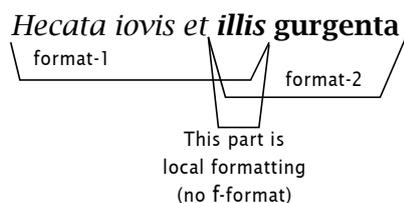
T: Test`<n+>`\t

In the basic properties of this paragraph style you define a tab position corresponding to the width of the text frame (minus “one” character):



It is essential to start the paragraph text (what you type) with a nonbreaking space for this construct.

# Character styles



Upper- and lower case is relevant in style names (*dingbats* and *Dingbats* are not the same).

Character styles are used to:

- highlight portions of a paragraph
- format the autonumber part of a paragraph
- format elements in a cross-reference or variable
- format the graphic text created with the Text Line tool

**Note:** *Only the last applied character format is stored. Previously applied character formats become 'local formatting' → See figure at left.*

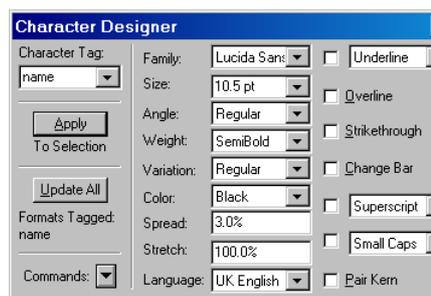
**Note:** *Local text formatting with **Format > Font**, **Format > Size** or **Format > Style** or with the buttons from the formatting bar (**View > Formatting Bar**) can not be used in paragraph numbering, variables and cross references. This 'local' formatting is not preserved when saving the file as HTML. 'Local' formatting is generally not recommended for long living documents.*

Concerning the role of type face see *Serif versus sans serif* on page B-3ff.

## Setting up a character style

The name of a character style should provide a hint about its purpose, not its appearance: 1-highlight, footnote-reference,...

**Note:** *The properties which can be set for a character format are the same as on tab **Font** in the Paragraph Designer (see *Properties of type* on page 3-4).*



- ▶ Select a text portion (a word or phrase) which can display the definition of the style.
- ▶ Open the Character Designer (**Format > Characters > Designer**).
- ▶ In the field **Character Tag** enter the name of the style to be created.
- ▶ In the drop down list **Commands** select **New Format**.
- ▶ In the Dialog **New Format** activate both **Store in Catalogue** and **Apply to Selection** (this to gives you a visual hint about the developing format).
- ▶ If you want the character format to *add properties* to the selection rather set the full range of properties, set all properties to *as is* by selecting **Set Window to As Is** from the **Commands** drop down list or with **SHIFT+F8**.

**Note:** *This 'Set Window to As Is' is needed, for example, for a format just changing the font, but not the size or anything else.*

- ▶ Set the desired properties of the character format.
- ▶ Define the character format both in the catalogue as well as set the properties in the selection with **Update All**.

## Renaming a character format



Use this operation with care because *all text sequences with a particular style* (including the catalogue and hence also cross references etc.) are changed! Generally this is correct for cleaning up an imported Word document):

- 1 Select a character sequence with the style name to be changed (e.g. from “italic” to “1-highlight”).
- 2 In Character Designer (**Format > characters > Designer...**) change the displayed *f*-name to the desired. Clicking on **Update all** will prompt you to accept the change.

**Note:** *Be aware that only the name of the last applied character format is retained (see beginning of this section).*

## Replace character format in document or book

To replace a character format (say: fromThis) by another one (say toThat) in a document or book:

- 1 Select a piece of text that uses the character format toThat
- 2 **Edit > Copy Special... > Character Format**. The desired format is now in the clipboard.
- 3 In the **Find/Change** dialogue set the Find list to **Character Tag:** and enter the name of the unwanted style (FromThis) into the field.
- 4 Set the Change list to **By Pasting**
- 5 You might want to do one or two replaces individually to make sure this gives you what you want, but you can then do a “change all” for the document or book.

## Character styles in building blocks

In the context of cross-references, the `<$paratext>` building block ignores all character formatting present in the extracted paragraph text (including case formatting), except superscript, subscript and font family properties.

This applies also to the Running Header/Footer system variables which contain this construct.

This differs from the use of `<$paratext>` in generated files, where FrameMaker retains all character formatting if it is the result of a character tag (untagged font properties are not retained).

[FrameMaker Building Blocks: Cross-Reference Formats, <http://www.microtype.com/resources/BBxref.pdf>]

### Example

To have the italics property visible in the cross-reference, you have to use a different font name which activates the italic - inspect your font list and see whether you have a suitable font which also has “Italic” or “Oblique” *as part of the font name* and use in the character format with this definition.

# Import formats from another document

## Warnings concerning format imports

To import the below mentioned categories of document properties separately, use the plug-in **ImportFormatsSpecial** from [Carmen Publishing](#).

See also *Contents of format categories* on page 3-16.

### Document Properties

Be aware that the category **Document Properties** contains very diverse item. See the column Document properties in the table *Contents of format categories* on page 3-16.

### Variable Definitions

Both System Variables and User Variables are imported. This may override specific settings from a template.

### Running Heading/ Footers

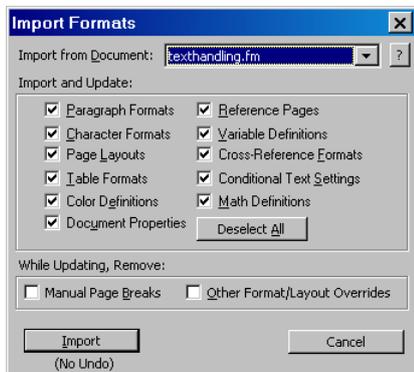
While their use is defined in the category Page Layouts, their definition is located in category Variables. Appearance may be affected by Character Formats.

### Cross-reference formats and Variables

These are often affected by Character Formats, hence an import of changed Character Formats may be necessary.

## Importing Format categories

### Import formats from another document



- ▶ Open the source document
- ▶ Open the target document.
- ▶ In the target document: **File > Import > Format**
- ▶ Select the source document in the drop down list
- ▶ Use the **Deselect All** button if you want to set only few categories.
- ▶ Activate the elements of the document you want to import. To import layout with changed definitions for Running Heading / Footing, you must select both **Layout Pages** and **Variables**.
- ▶ Click **Import**
- ▶ Save the target document.

### Importing Page Layouts

When importing master pages the property **Room for Side Heads** is not imported, because this is a property of the text flow.

Hence after importing the master pages it may be necessary to set this attribute once on the body pages of each target document.

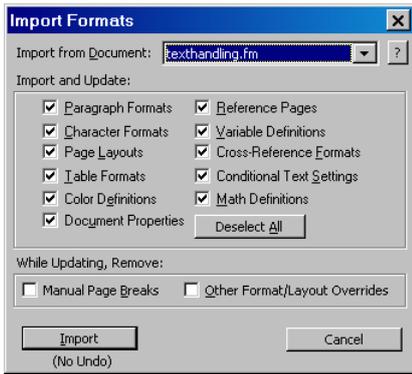
## Contents of format categories

It is not obvious which document properties are located in which format category.

Item to be imported	Paragraph formats	Character formats	Page Layouts	Table formats	Color define.	Document prop.	Reference pages	Variable define.	cross-Reference formats	Conditional text settings	Math defin.
Change bar (revision bar) properties						X					
Character catalogue		X									
Colour catalogue					X						
Colour views (for separation)					X						
Condition types, Condignly text formats										X	
Content definition for TOC, index etc.							X				
Cross-reference formats									X		
Custom marker definitions						X					
Custom math elements from Math reference page											X
Document view, grid and snap properties						X					
Footnote properties, numbering, layout						X	X				
Layout			X								
Marker type names						X					
Math font definition and sizes											X
Numbering of chapter, pages, paragraphs, foot-notes, table-footnotes						X					
Page size, pagination, master page usage						X					
Paragraph "Frame above/below" graphics							X				
Paragraph catalogue	X										
PDF setup, document information						X					
Print separations settings						X					
Rubi text properties		X									
Ruling styles in tables				X							
Running Header/Footer formats								X			
Spell check options						X					
System variable definitions								X			
Table catalogue				X							
Text options (smart ..., super/subscript)						X					
User variable definitions								X			
View and lock (document/palette)						X					

**Note:** If you need to import only part of a category, for example, just the user variables, you need a special plug-in (**ImportFormatsSpecial** from [Carmen Publishing](#)).

## Import formats into book files



When in a book file, all properties for the documents, such as paragraph styles, master pages, cross reference formats etc. can be imported and distributed to all files in the book.

- 1 Open the book file
- 2 Select the files to be updated.
- 3 In the **Import Formats** dialogue specify the file from which you want to import. This file need not be part of the book, but it must be open.

To import layout with changed definitions for Running Heading / Footing, you must select both **Layout Pages** and **Variables**.

- 4 Specify (check the boxes) which properties you want to import and distribute.
- 5 If you want to remove local overrides, check the appropriate boxes.
- 6 Click **Import**.

**Note:** *The files of the book must be open, if your files use currently unavailable fonts and graphics (because this requires user intervention).*

## Import only part of a format category

To import just some of the needed formats (e.g. paragraph formats for headers only) you need an intermediate document.

- Set up an empty document.
- Import the paragraph/character/table styles.
- Delete all styles you don't need (in the paragraph and/or character catalogue or Table designer).
- Save the file with a distinct name (imports are not possible from unsaved files).
- Open the target document and import the desired style elements from the intermediate document.

## Removing style overrides



To remove all (that is also those applied intentionally!) style overrides, you must re-import the catalogue from a reference document, such as a template.

Be careful in selecting the items you want to import. To remove overrides from paragraph formats only, check only **Paragraph Formats** and leave all other option unchecked.

During import check the box **Other Format/Layout Overrides**. You may also wish to check Remove **Manual Page Breaks**.

# Special formatting

## Paragraph with background

### Paragraph in table cell

A well known method is to use a one-cell table with or without ruling and cell shading:

This is the paragraph in the text cell, which is shaded and has outside ruling. You may want to set up a special table format for this, for example parashade.

### Anchored frame at the paragraph

If you do not need a fill but only a frame for the paragraph, this might be a solution for You. Anchor a frame with the following properties at the end of the paragraph: outside text frame, right adjusted. Adapt height, width, distance above baseline to your needs. Distance to text frame normally is the negative width of the frame or column.

**This is the paragraph *under* the frame**

**Note:** *The anchored frame is in foreground, hence you can not edit the contents with the mouse. On top of page both the paragraph and the frame are aligned with the layout frame. Hence the relative position of frame and paragraph will change.*

### Editing the paragraph

- 1 Place the cursor in the previous or next paragraph.
- 2 Use the appropriate arrow key to move the cursor into the overlaid paragraph.
- 3 Edit the text (using **SHIFT+arrow** keys for selections)

## Overlapping paragraphs

Two paragraph types are used to create this effect:

- 1 **xb** is empty and provides the background  
Space above=8 pt; below=-22 pt; line spacing=0, fixed; font size = 2pt; frame below = styles-hbox (width: 118mm, height: 10mm; next paragraph = xb-text;
- 2 **xb-text** contains the text to be highlighted:  
Space above=-22 pt; below=0; line spacing=24pt, fixed; font size = 18 pt; no frames below; next paragraph = body.

This is the normally empty paragraph with format ab

### Paragraph **xb-text**

This is **body** - the space above is not honoured in this case. The space comes from the larger line spacing of **xb-text**.

### Nasty side effects

- The text in **xb-text** is often hidden behind the frame graphic as soon as you edit text in a paragraph outside of **xb-text**. You need to refresh the screen to see the text again.
- Paragraph (**body**) after the text paragraph (**xb-text**) must be in the same column (e.g. can not be a side heading) - or the text in **xb-text** becomes invisible.

## Text fragments with background

**Note:** See also *Examples of rubi usage on page 13-29*.

### Equation with string

Place an equation (most time the smallest size is adequate) and insert the desired text as string (enter " followed by the text and terminate text with ENTER. Then shrink wrap the formula and apply the desired border or fill attributes to the frame.

Here comes the formula text: `just as small as possible`. This might require some tweaking of the vertical position to align the text to the baseline of the paragraph. You may need to use a larger zoom value to be able to place the text cursor inside.

As with all graphic objects, frame fill and border can only be of same colour. You can apply character formats to the text, however it will not be displayed in the status area.

### Anchored frame with text line

Here is an anchored frame `"at insertion point"` (same as generated with formula). Character formats are recommended (and displayed in the status area). It is a little bit tedious to adjust the baseline, but editing the contents is easy.

## Micro positioning of characters

To display the name of Donald Knuth's famous document composition tool TEX correctly, the E should be lowered (and moved under the T, but in the same size as the T and X.

If you try to do this with an subscripted E, you need first to increase its font size, because the subscripting functions not only lowers the position, but also decreases the font size.

# This is not T<sub>E</sub>X.

The method of choice however is this:

- ▶ Select the character to be moved (E)
- ▶ With the **ALT** key held down tap the **↓** key as often as necessary.
- ▶ You may need to move following characters (X.) also.

Set a high zoom factor to have small increments. A zoom factor of 353 increments by 0.1mm.

See *Move objects by small amounts* on page 6-16.

Although this method can also be used to move characters horizontally it should be used only at the beginning or end of word, because the position of the word may not be handled correctly afterwards.

# AV-overkerned.



# 4

## Tables

### Overview

Tables are anchored objects which flow with the text. The many properties a FrameMaker table can bear make this construct very flexible.

Tables with special properties are used for ‘non-table’ purpose, such as headings with shaded background or titled graphics.

Tables can be rotated as a whole to provide many columns. Standard FrameMaker allows only to sort the items in tables. With plug-ins other actions can be performed in tables.

### Contents

Table properties .....	2
Handling table items .....	3
Set up table properties .....	4
Special table positions .....	10
Set up a table template .....	11
Importing tables .....	12
Special operations .....	13
Nested tables .....	20

## Table properties

In the diagram hereafter the table area is lightly shaded to display the complete object “table”.

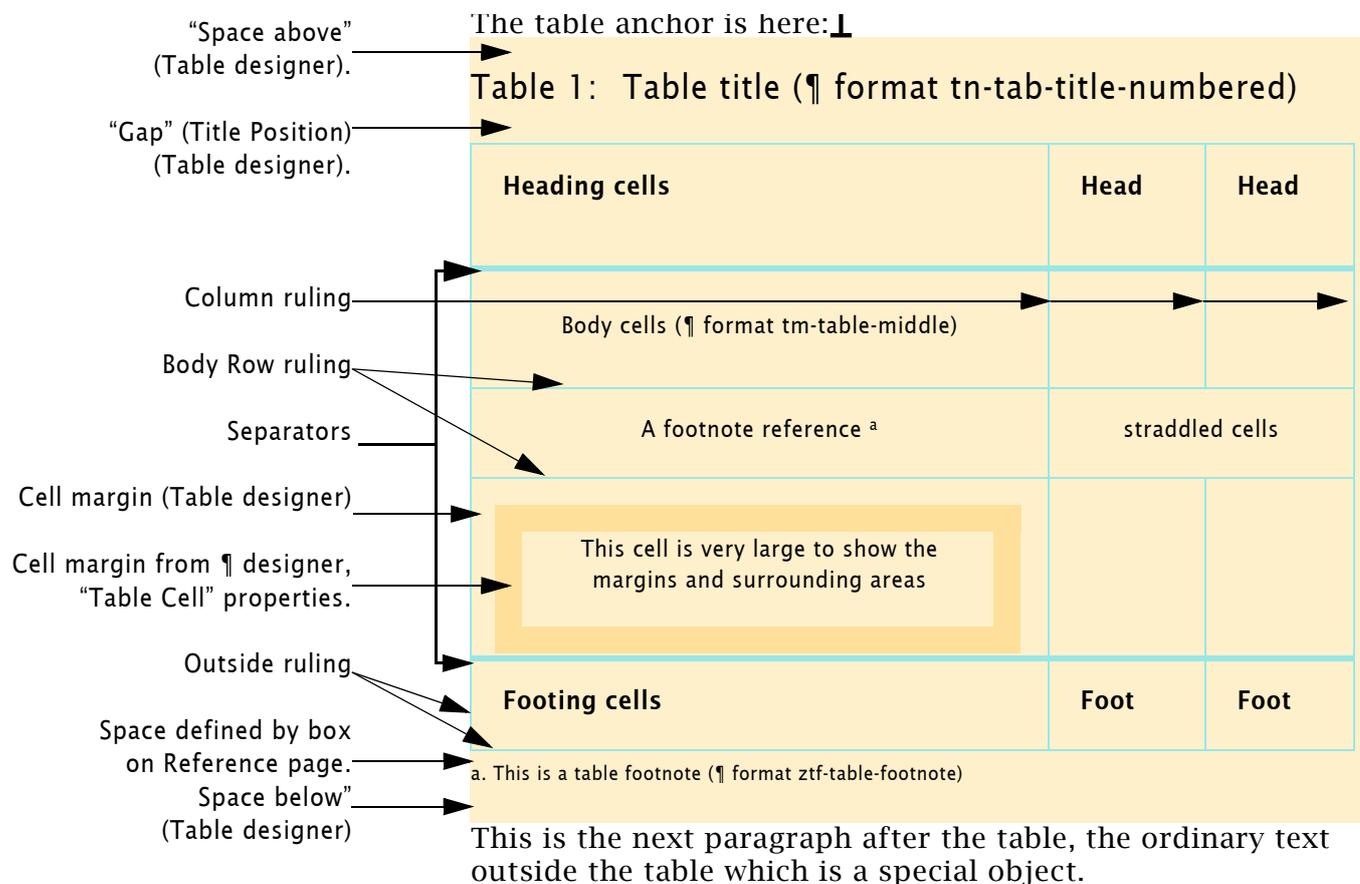


Table alignment is relative to the paragraph with the anchor (be aware of side heads...)

**Note:** In FrameMaker all cells of a column have the same width.

## Properties in the table catalogue

When using an existing table to create a table template, the following properties are stored in the catalogue:

- All properties which can be set in the table designer (position, cell-margins, regular ruling and shading, title position).
- Properties from the sample table:
  - number of rows for table heading, body and footing
  - number of columns, width of each column
  - paragraph format in the first row (of table heading, body and footing) for each column.

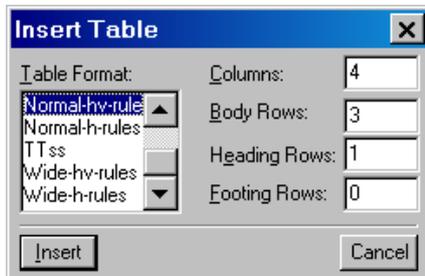
The following properties are not kept in the table catalogue:

- Straddling of cells.
- Individual ruling and/or shading.
- Other paragraph formats than specified above.

# Handling table items

## Inserting tables

To insert a table



Tables are anchored objects similar to anchored frames. You can select the whole table by selecting the anchor.

- 1 Place the cursor where you want to place the table anchor. To have a better overview use an empty paragraph (but this may create too much empty space).
  - 2 Insert the table with **Table > Insert Table ...**
  - 3 Select the format from the drop down list **Table Tags**
  - 4 Specify the number of rows and columns for the table. You may wish to start with few rows only.
  - 5 Specify the number of heading and footing rows. Most time you will have zero footing rows. Click **Insert**.
- Note:** You can not transform ordinary table rows to heading- or footing rows after the table is inserted into the text. You can, however, add heading and footing to an existing table and then transfer content from body rows as required.
- 6 Adjust the width of the columns to your desire.
  - 7 You may wish to remove the table title (if the template table comprises one). You need the Table Designer for this (see *Basic table properties* on page 4).

## Selecting table items and other operations

### Select a table

- Hold the **CTRL** key and *triple click* into a cell or ...
- Select the table anchor (see *Select a non-width character (or narrow characters)* on page A-8)

### Select a column

Hold **CTRL** and double click into the *middle part* of a cell

### Select a row

Hold **CTRL** and double click into the *far left* or *far right* of a cell

### Select an area of cells

Drag with mouse across the desired cells.

### Find the anchor of a table

Place the cursor in the table, then type **ESC, t, I** (upper case i). This moves the cursor just *behind* the anchor point (**␣**).

### Copy / cut and paste cells

When pasting cells the number of cells to be pasted to need not be equal to the copied or cut cells. The copied cells are repeated to a larger amount of paste cells (a, b, c → a, b, c, a, b) or discarded or a smaller amount (a, b, c → a, b).

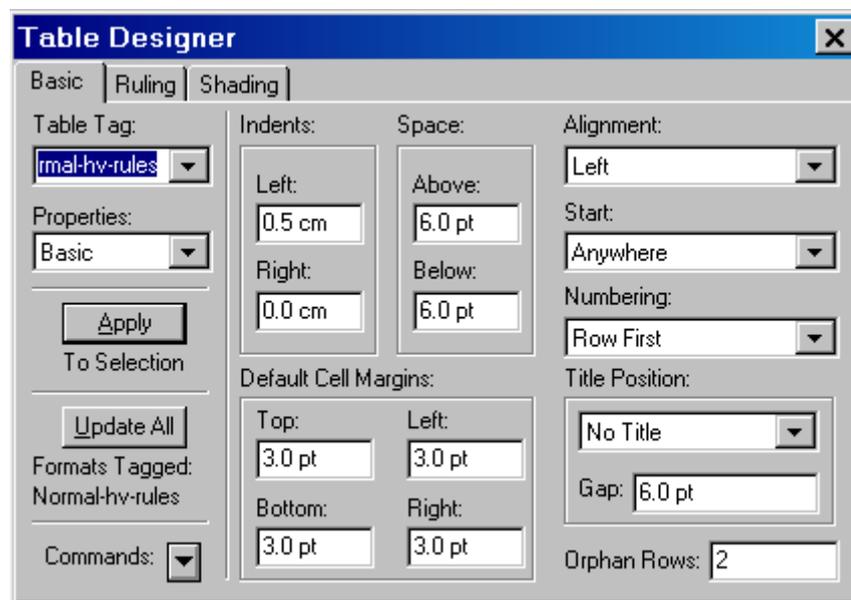
### Insert a table row

Insert a table row below the current one with **CTRL+ENTER**. Use **Table > Add Rows or Columns ...** for more than one item.

# Set up table properties

Table properties are set up with the table designer (**Table > Table Designer** or **CTRL+t**)

## Basic table properties



For cell margins see also *Table Cell* on page 3-8.

**Indents** Indents specify the amount of space to the left and right of the table within the text frame. Normally this is zero.

**Space** Space above defines the space between the line with the anchor point and the upper edge of the table (or when the table title is above) the table title.

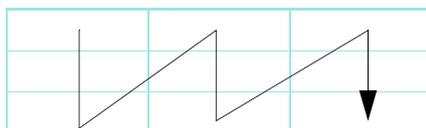
Space below defines the space below the table (or any table footnotes) and the next text paragraph.

**Alignment** This defines the alignment of the table relative to the anchoring point.

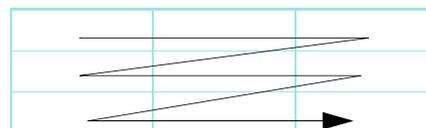
**Start** Start defines whether the table should start at specific location (**Top of column** etc.) or just after the anchor line (**Anywhere**). With Float the table can move to the next page and text appearing logically after the table is moved between the anchor point and the table.

See also *Special table positions* on page 4-10

**Numbering** This defines the flow of numbering:



Row First



Column First

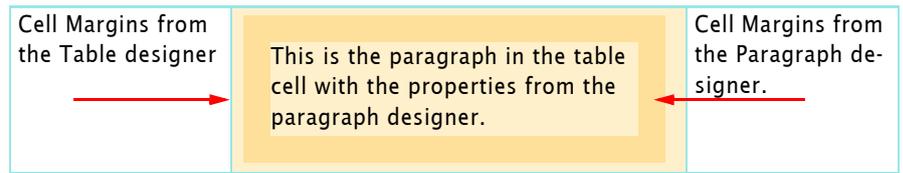
**Title position** This may be above or below the title. You can also set “no Title”.

The Gap defines the space between the table title and the table body.

**Orphan rows** This value defines, how many rows at least must be placed. If these rows do not fit on the current page, the table is moved to the next page.

### Default cell margins

For paragraphs without any additional setting of cell margins (see *Table Cell* on page 3-8) this defines the margins around the paragraph in the table cell: Table ruling.



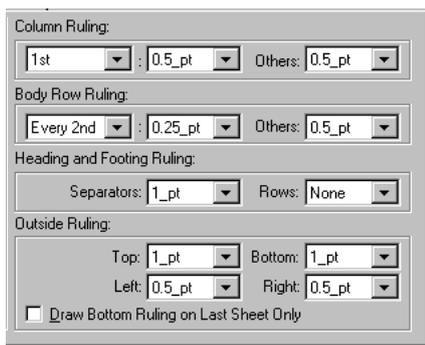
Default cell margins may cut off accents in rows, if Cell Margin Top is too small (relative to font size). Font size is 24pt in the following table rows.

Â	Ã	Ä	Å	Æ
---	---	---	---	---

Cell Margin is 0pt in the first row (above), 6pt in the second row (below)

Â	Ã	Ä	Å	Æ
---	---	---	---	---

### Table ruling



With this dialogue only properties for regular patterns (n-th line, n-th row etc.) can be set.

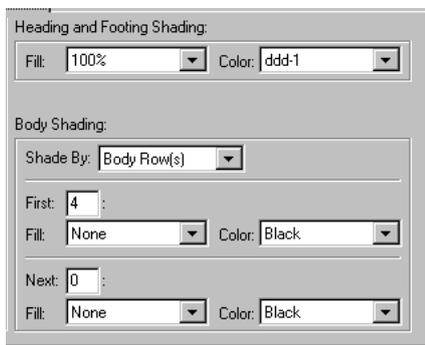
This table is left indented by 0.5 cm and uses special ruling to group rows (every 2nd row).

#### Heading row(s)

The line above is the separator between body and heading	Cell
Body ruling is set to "Every 2nd", Others: none	
The non-shaded area is the body of the table	
This is another row in this table	
The line below is the separator between body and footing	

#### Footing row(s)

### Table shading



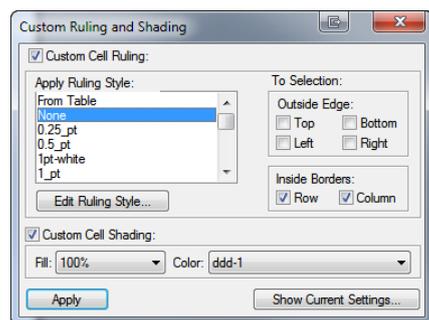
With this property sheet only regular patterns can be set (n-th line, n-th row etc.).

The **Fill** values (White, 3%, 10% etc.) do not fill with shades, but with patterns (see *Border and Fill patterns* on page 6-22)

When using shades be aware of the multiplicative effect of fill and colour: 50% fill of a colour which is defined as 20% black results in a 10% shade of gray.

Colours are defined in **View > Color > Definitions ...** (see *Colours* on page 6-22).

## Custom ruling and shading



Additional properties for individual rows, columns and cells are defined with **Table > Custom Ruling and Shading**.

Specify either ruling or shading or both with the appropriate check boxes.

When using shades be aware of the multiplicative effect of fill and colour: 50% fill of a colour which is defined as 20% black results in a 10% shade of gray.

Colours are defined in **View > Color > Definitions...**

Beware of the 'reverse logic' to remove ruling or shading: You need to check all elements which you want to clear and then use the selection **None** from the **Apply Ruling Style** list.

## Reassign original table ruling and shading

### Apply custom ruling

Apply the custom ruling with **Table > Custom Ruling and Shading**. For example, remove the ruling from the inner cells with style **None**:


### Reassign the original ruling

- 1 Select the same cells as for the custom ruling/shading or (if appropriate) the whole table.
- 2 In **Table > Custom Ruling and Shading** set **To Selection** (Top, ... Right) and 'Inside Borders' (Row, Column).
- 3 From the drop down list **Apply Ruling Style** select **From Table**.
- 4 Check **Custom Cell Ruling**, uncheck **Custom Cell Shading**
- 5 Click **Apply**

### Re-assign the original shading

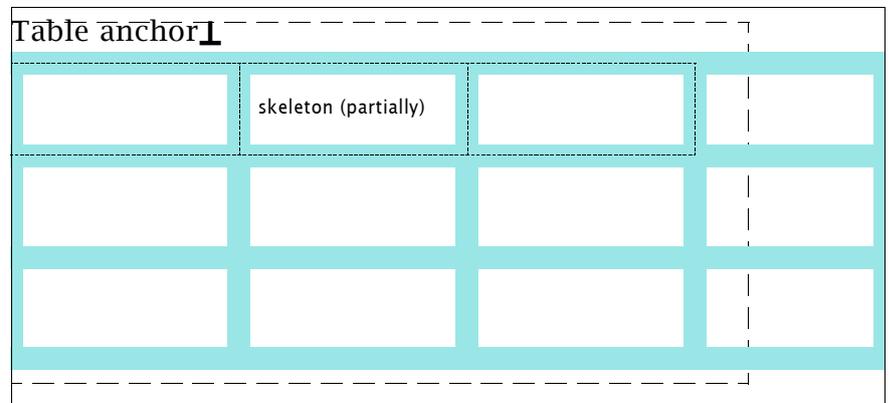
- 1 Perform steps 1 to 3 from before
- 4 Check **Custom Cell Shading**, uncheck **Custom Cell Ruling**
- 5 Click **Apply**

### Reset to catalogued table properties

- 1 Set all check boxes
- 2 In the drop-down lists select **From Table**
- 3 Click **Apply**

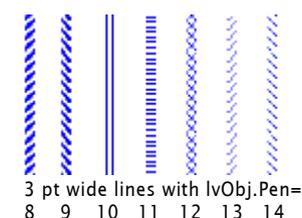
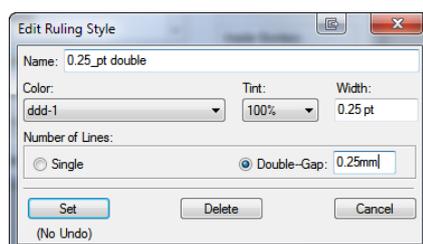
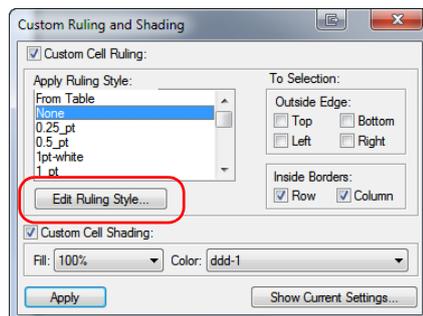
## Table ruling peculiarities

The size of a table or cell is the skeleton (· · ·) on which the ruling is applied. A container text frame (- - -) with the table anchor does not crop the table, but the anchored frame (outer container with the full line) does. The table below has 3mm ruling and its width is the same as the frame width (115mm).



The outside ruling left and right is cropped to the skeleton by the outer container.

## Define line styles for tables



Line styles used in tables (fine, bold, double etc.) are set with **Table > Custom Ruling & Shading**, button **Edit Ruling Style**.

When changing the name of a style only rulings in the current document are affected. When importing table styles to another document, the changed name will become an additional name in the target document.

Provide meaningful names. It may be useful to add the line width to the name - but this creates problems if you need to change the properties of the line style.

It is not possible to create dashed lines or other broken forms. Use the **Tint** attribute to apply a fill percentage of a colour (50%) to the line.

With scripting the patterns used prior to FM 8 are still available (see *Border and Fill patterns* on page 6-22). For example, to define the style broken-1 [Michael Müller-Hillebrand 2011-03]:

```
Set lvObj = ActiveDoc.FIRSTRULINGFMTINDOC;
Loop While(lvObj)
  If (lvObj.Name = 'broken-1')
    Set lvObj.Pen = 11; // values 8...14 for 'dashed'
    Display lvObj.Properties;
  EndIf
  Set lvObj = lvObj.NextRULINGFMTINDOC;
EndLoop
```

In MIF the pattern can also be set:

```
<Ruling
  <RulingTag `broken-1' >
  ...
  <RulingPen 11>
  <RulingLines 1>
```

## Modify column widths

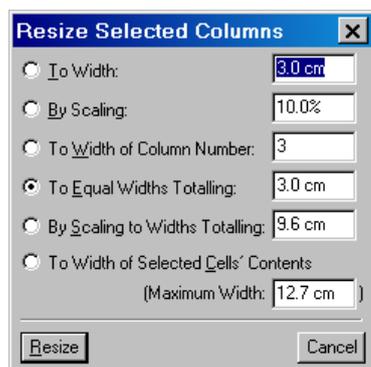
The handles of a selected group of cells are always to the right of the selection.

### Adjust column width with mouse

- Set a reasonable grid spacing (e.g. 0.1 cm) in **View > Options**
- Set **Graphics > Snap** to activate the grid for your work
- Select the column you want to adjust (e.g. **CTRL+click** into the middle of a cell), then drag a handle.
- To move a border between two columns (widen one column and narrow the other), select the left column and **ALT+drag** a handle.

*Note:* To adjust to widths defined by the grid spacing you must start with the left most column and work to the right - or you may get crude values.

### Set column width



- 1 Select the column(s) to be resized.
- 2 Right click to get the context menu or select **Table > Resize Columns ...**
- 3 Choose the appropriate method to size the column and enter the required measure.

To set the width to match the widest paragraph or frame in the selected cells, use the last option and enter a maximum width.

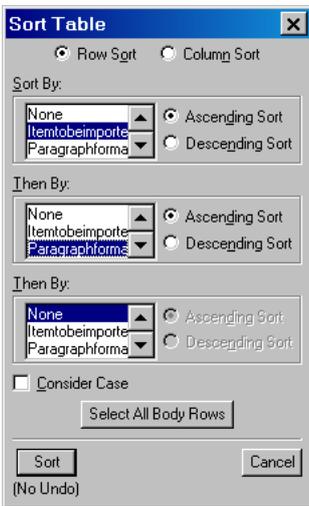
### Copy column widths

To copy a column width from table-1 to table-2:

- 1 In table-1 click in the column whose width you want to copy
- 2 Choose **Edit > Copy Special > Table Column Width**.
- 3 Click in the column in table-2 which will receive the new width. Click **Paste**.
- 4 For all columns in a table you will need to repeat steps 1 to 3 for each column.

# Functions in tables

## Sort by columns and rows



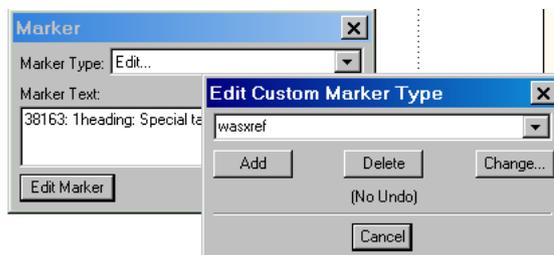
- 1 Place the cursor in the table.
- 2 With menu or context menu **Table > Sort ...** open the dialogue.
- 3 If you have selected only part of the body cells, you may click on the button **Select All Body Rows** to select the whole table.
- 4 If the table does not have heading rows with content, then you need to set up the sort by row number.
- 5 When sorting by column, you do not have title information.
- 6 Click the **Sort** button.

**Note:** A Table sort deletes all cross reference markers from the cells. And there is no undo for the sort!

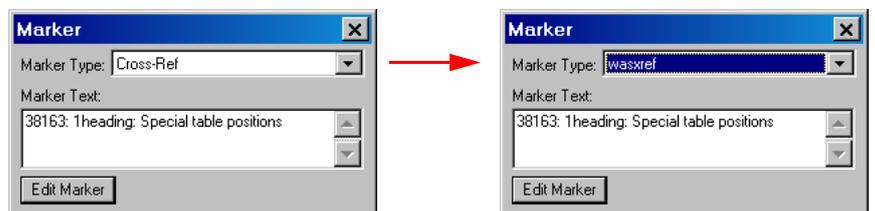
### Bypass sort problem

To overcome this problem edit all cross reference markers in the table to get a different type and re-edit them back after the sort.

- 1 Specify a user marker type (for example, wasxref)



- 2 Edit the CrossRef markers in the table by changing the name Marker Type:



- 3 Sort the table.
- 4 Edit all wasxref markers back to CrossRef.

## Calculations in tables

FrameMaker does not provide calculations in tables. This can be performed by 'plug-ins':

- FrameScript by Elmssoft (<http://www.framescript.com/>) is a full blown macro language which knows all FrameMaker commands. See *Extensions by API clients* on page 1-21.

2011-05-11

E:\FM-course\handout\tables.fm

D D D

# Special table positions

## Table at top of page

To get a table at the top of a page,

- 1 Select the table (place cursor anywhere into the table)
- 2 Activate the table designer (**Table > Table Designer**)
- 3 Set Start to **Top of Page**

This will move the table to the next page and display it on top. The anchor of the table is left at the current paragraph.

## Table at top of first page

- ▶ Insert the table at the first paragraph of the first page
- ▶ For the *paragraph* set **Space Below** to *-font size* (e.g. -14pt)
- ▶ For the *table* set **Space Above** to *-font size* of the paragraph (e.g. -14pt)



This coloured area is the text frame with the table located topmost.

## Floating text around table

A table with attribute **Float** allows text from behind the table to flow between the anchor line and the table start:

Hecate est Iovis et Latonae filia, soror Apollinis. Est tricopor et triceses, cinctra latrantium canum turma; noctu stans in triviis vel prope sepulcra et ubi loca sunt caedibus contaminata.

Paragraph with table anchor **↓**

This text was typed behind the table, but flowed before it as soon as the table became the attribute Float. Text which does not fit in

First	Next
first	This table has the attribute Float and the first row does not fit onto the first page.
second	Hence
third	viis vel prope sepulcra et

front of the table, will continue behind it, as this example clearly demonstrates in this two column text flow.

# Set up a table template

## To define a table template from an existing table

Any table in a document can be used for a table template.

Set up the table as desired for your purpose:

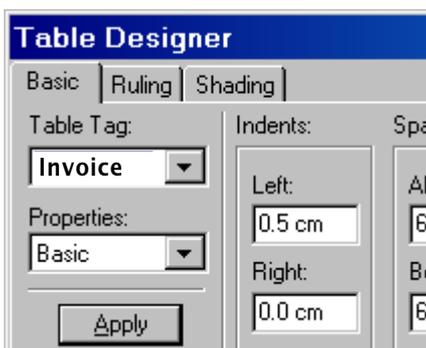
Widths of columns, paragraph format in the columns, heading and footing rows, regular ruling and shading etc.

#	Work type	h	CHF
	The first item on this invoice		
	Next item on this invoice		
	Last item in this table		

Table 2:

Keep in mind that certain properties (custom ruling and/or shading, straddling of cells - often used in headers - are not kept in the table catalogue.

- 1 Place the cursor in the table.
- 2 In the table designer (**CTRL+T**) set the table tag (the name of the table template), for example *Invoice*.
- 3 Select **Commands: New Format**.
- 4 Activate **Store in Catalogue**; click **Create**.



## Sophisticated table templates

For frequent use of sophisticated table layouts the mechanism of the table catalogue is not sufficient (straddles cells, custom shading/ruling, various paragraph formats).

It is useful to collect such items for copy and paste in a special document belonging to the project. The plug-in Auto-Text from [Silicon Prairie Software](#) is very handy for this.

In der Gemeinde wohnhafte Schüler/innen 2002/2003

Vorschule (Kindergarten)	16
Primarstufe	108
Sekundarstufe I (inkl. Gymn. U.-Stufe)	44

Ausbildungsniveau Wohnbevölkerung ab 15 Jahren (2000)

Obligatorische Schule	25,6	%
Berufsausbildung	41,1	%
Maturitätsschule, Lehrerausbildung	4,9	%
Höhere Berufsausbildung	10,0	%
Fachhochschule, Universität	3,6	%
Andere, keine, keine Angaben	14,8	%

Samples from the  
Statistical Yearbooks of  
the Canton of Lucerne

Jahr	Total	Öffentlicher Auftraggeber (ohne Unterhaltsarbeiten)					
		Total	Davon			Davon	
			Bund	Kanton	Gmden	Hochbau	Tiefbau
1984	2,4	4,3	2,4	10,5	2,6	9,9	-2,7
1985	5,0	-1,6	-16,9	-9,2	13,7	-6,7	5,6
1986	7,2	7,4	-2,4	0,9	15,5	11,6	2,3
1987	-0,8	4,9	4,2	3,8	5,6	10,9	-3,1

# Importing tables

## Import from prepared text

- Each table row corresponds to a line in the text file.
- Table cells are separated by TAB characters.

Beispiel einer zeile } nächste zelle } dritte zelle  
Zweite zeile mit der } 2. zelle 1 und der dritten zelle

- 1 **File > Import > File...** select *Copy into Document*.
- 2 In **Unknown File type** select *Text*; click **Convert**.
- 3 In the next dialogue (Import text by copy) select **Convert to Table**
- 4 Select the desired table format (e.g. Wide-h-rules) and activate *Leave Heading Rows empty*. **Convert!**

Date / time	Operation	Reason	Action
Wed 98-07-01 15:10:30	Restart (inst)	I don't like that colour scheme mentioned in FrameUsers	Restart
Wed 98-07-01 16:13:44	Restart (inst)	DDD icon in shell32.dll replacing Windows icon	Shut down

- ▶ The table heading is empty, so you need to fill in appropriate text.
- ▶ You will need to adapt the column widths.
- ▶ You may want to adapt the cell format with paragraph formats.

## Import from Excel

### Import complete table (file)

- 1 Import the file **by Copy** with **File > Import > File** and select the appropriate Excel format (“Excel” is for versions > 5).

**Note:** *If you import by Reference you do not have a chance to apply proper formatting.*

- 2 Set the appropriate formatting options for the import:
  - with **Re-format using current Document Formats** you get the paragraphs in format Body\* (local formatting)
  - With **Reformat as Plain Text** the format is that of the paragraph where you import to.
- 3 Select the imported (tabbed) paragraphs and convert them to a table with **Table > Convert to Table...**

### Import part of table

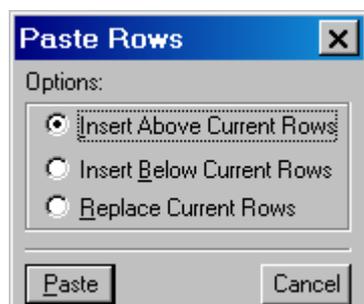
- 1 In Excel select the table area and copy to the clipboard.
- 2 In FrameMaker use **Edit > Paste Special...**

Paste Special: text	Paste Special RTF
You get a number of tabbed paragraphs, which you convert to a table.	You get an anchored table, to which you apply the appropriate table format.

- 3 Select an appropriate Table format and format the rows/ the table according to the needs.

# Special operations

## Merge tables



- 1 Save your work to have a backup for this operation.
- 2 **Copy** all the *body rows* from the *second* table (do not select the heading rows). Select the same number of columns as you have in the target table!
- 3 Click inside the first cell of the last row of the *first* table and click **Paste**.
- 4 At this point Frame pops up a **Paste Rows** dialogue asking where to paste the rows. and choose **Insert Below Current Row**.
- 5 Select the *second* table and delete it.

## Split a table vertically

FrameMaker does not have a command to split tables between rows or columns.

### Method A

To split a (source) table into two tables at a row boundary (see also *Method B* on page 4-14):

Heading row(s)	
Wed 98-07-01 15:10:30	Restart (inst)
Wed 98-07-01 16:13:44	Restart (inst)

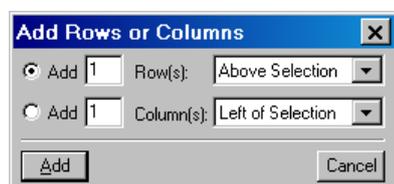
- 1 Save your work to have a backup for this operation.
- 2 Select the *body rows* to be used in the source table and **copy** them to the buffer. **Paste** this table fragment to the location of the second table part. A Table anchor with the table fragment appears.

This is another row in this table - split above this row	
The line below is the separator between body and footing	

- 3 Place the cursor into the first row of the new table and insert the desired number of heading rows (**Table > Add Rows or Columns...**). Specify the number of header rows to be added and choose **To Heading** from the drop down list. Click **Add**.

This is another row in this table - split above this row	
--	--

- 4 **Copy** the *heading rows* from the source table and **paste** them into the empty *heading rows* in the second table (set **Replace Current Rows** in the **Paste Rows** dialogue).
- 5 If the source table has Footing rows handle them similar to the heading rows.
- 6 Select the copied body rows in the *source table* and delete them.



## Method B

If you need to insert some rows of different widths into a table, you need to ‘split’ the table manually, before you can insert table C in between (see *Split a table vertically* on page 4-13 for another method):

- 1 Make a copy of your table (A → B)
- 2 Remove the superfluous body rows at the end of A
- 3 Remove the superfluous body rows at the beginning of B
- 4 Anchor table A, then C, then B with the above mentioned spaces before or after.

## Split wide table horizontally

	A	B	C	D	E	F	G	H
1								
2								

	A	B	C	D	E	F	G	H
1								
2								

Arrange the split table on facing pages. For tables longer than a page you will also need vertical splitting.

## Page break within table row

FrameMaker does not split a row of a table across pages (text frames, actually). If you have cells where the content is larger than can fit on a page (in the text frame height) you will get strange effects:

- The cell contents flows outside the text frame
- If even larger, the cell extends to the end of the paper where it is cut off.

**Solution** Create a new row (or rows), manage the cell's content manually so you fit what you desire on a page, and let Frame manage the placement of rows on pages. You can apply custom ruling and/or shading properties as needed to affect the appearance of the cells.

## Fix appearance of table title

The table title (¶ format ttn-table-title-numbered) may expand over the right edge of a table.

Table 3: This is just a long table title to demonstrate the effect on this centred table

Column 1	2	3
Some contents	Some con- tents	some con- tents
Something	Nothing	Each

To make the heading as wide as the table itself, use one of the following methods:

- 1 Add an anchored frame to the title to limit the space in the title area.
- 2 Constrain the title width by an additional title paragraph.
- 3 Use additional header rows for the title area.

### Anchored frame in title area

At the end of the title add an anchored frame with property “Run into Paragraph” and an alignment fitting the purpose (filled with gray in this demonstration).

Table 4: This is just a long table title to demonstrate the effect of the anchored frame

Column 1	2	3
Some contents	Some con- tents	some con- tents
Something	Nothing	Each

The alignment of the anchored frame may be “side farther from binding” rather than “right” to adapt automatically to the location of the table. You may need some experimenting for your particular situation.

### Centred paragraph constrains the title width

If the first paragraph in the title is centred, it will constrain the whole title to the width of the table. You could have a tiny, blank, centred paragraph in each title just above your normal, left-aligned title. [Rick Quatro, 2006-10].

This paragraph is centred  
Table 5: This is the real table title paragraph, it is left adjusted

Column 1	2	3
Some contents	Some con- tents	some con- tents
Something	Nothing	Each

- ← Centred paragraph in title
- ← Table title shaded for demonstration only to see the effect
- ← The table is left aligned.

Whether this is a bug or a feature is not known to the gurus.

**Note:** Cross references to the table title still possible.

## Title in header rows

- 1 Add a row on top of the heading rows.
- 2 Straddle all cells in this row
- 3 Insert the table title (using the correct ¶-format of table titles) into this row.
- 4 Space below is not active in cells with only one paragraph, hence you may wish to define and add a paragraph z6pt (line spacing 6pt fixed). A line break would show up in a “list of tables”.
- 5 Remove any ruling on the top and sides of this row; also remove any shading to fit the appearance of standard tables.
- 6 Set table property “No Title”.

The table then looks like this:

Table 6: This is just a long table title to demonstrate the effect		
Column 1	2	3
Some contents	Some con- tents	some con- tents
Something	Nothing	Everything

**Note:** *Although the table title function is not used here, a cross reference to the title is possible thanks to the paragraph format.*

## Both table and title centred

If you want both the table centred in the text frame and also the table title be centred:

- 1 Define the table alignment to be centred
- 2 Define the table title ¶ format to be centred:

This is the body text with the table anchor at the end of this paragraph.

Table 7: This table title has attribute centred, so it will fill the entire width of the text frame.

This table is centred		
Some contents	Some con- tents	some con- tents
Something	Nothing	Each

## Rotate table cells

You can rotate only in increments of 90°. Rotate selected table cells with **Graphics > Rotate** or use the buttons .

You may select the whole table - this will not rotate the table, but all cells in the table.

### Line breaking in rotated cells

Since the line length is in the direction of the row height, line breaking will take place only in 'constricted' rows. As long as no row height is defined, a default applies - and this is very large: 35.56 cm (14").

heading cell	second heading cell	third heading cell	fourth heading cell	fifth heading cell	sixth heading cell
body cell 1	Table row definition: min: 0 max: 1.5cm	Automatic line breaking is possible	body cell 4	body cell 5	body cell 6
body cell 7	Table row definition: min: 0 max: 4cm	With the default row height it seems that there is no automatic line breaking. This is, however not true. It's the (large) default row height which gives this impression.	body cell 10	body cell 11	body cell 12

## Rotated tables

To get a rotated table you must rotate the text frame which contains the table. Just rotating the table will only rotate the cells in it (see *Rotate table cells* on page 4-17).

### Create a rotated master page

This method creates a landscape text area in which the table can be edited as usual, because the table is not rotated.

- 1 In **View > Master Pages** use **Special > Add Master Page:** use a master page which provides the desired heading and footing, for example 'left' and modify the page as needed. See *Master pages for rotated tables* on page 5-31
- 2 Apply this master page to any desired page with **Format > Page Layout > Master Page Usage.**
- 3 To automate the process see *Assign master pages automatically* on page 5-32.

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## Repeated row headers

FrameMaker automatically repeats column headers on successive pages of a table. To get repeated column headers, use the following procedure:

- 1 Set up a rotated text frame (use a special master page).
- 2 Create the table within this text frame and rotate all cells in the other direction.
- 3 Now the heading rows appear to be heading columns.

Paragraph with table anchor	<b>Row 1 was far right</b>	es	länger	warten.	brunnen rand,	Table 8: Table with row headers
	<b>Row 2</b>	war	noch	zu	vom	
	<b>Row 3</b>	froschkönig	leid,	prinzessin	er	
	<b>Row 4 was the leftmost</b>	Der	endgültig	die	hüpfte	

## Develop large tables

Using an ancillary large document may be handy to find out the appropriate layout of large tables:

- Set up a large document, for example in A3 portrait (42cm wide, 29.7cm high)
- Develop your table in this document using your standard paragraph formats (import them into this document).
- After work the table may be too large to fit even into a rotated frame of an A4 portrait.
- To check whether the table will fit into the target document, place a vertical line at the desired location from the left. Then start with the tweaking:
  - Reduce the font size of your paragraphs in the table. Do not use smaller sizes than 7pt for sans serif fonts (such as Arial or Helvetica) or 8pt for serif fonts (such as Times).
  - Reduce the width of certain or all columns
  - As a last resort consider splitting the table horizontally. In this case you will need to repeat at least the leftmost column in the second table. See *Split wide table horizontally* on page 4-14

## Tables with varying column widths

In a FrameMaker table all cells of a column have the same width. Straddled (combined) cells of fine granularity may allow to 'display' different widths (see *Simulated nested table* on page 4-20).

Another method combines two or even more tables **⌵**:

A						
A						
C						
C						
B						
B						

- The first table (A) has 5 columns, the second table (C) has 7 and the third table (B) again has 5 columns. The Anchor position of *all* of these tables is at the end of the paragraph before the table (symbolized by **⌵** in that paragraph).
- The first (A) and second (C) table have Space Below of 0.
- The second (C) and third (B) table have Space Above of 0.
- To select each anchor individually (for A, B or C) you need a special technique (see *Select a non-width character (or narrow characters)* on page A-8).  
You may wish to select a distinct table by **CTRL+triple-click** into one of its cells (see *Handling table items* on page 3).

# Nested tables

It is not directly possible to nest tables, that is, to place another table within a cell of a table. Two additional wrappers are required:

- Within the table cell an anchored frame must be placed
- Within the anchored frame a text frame is opened
- Within the text frame anything can be placed (text, table, anchored frame etc.)

## Nested tables

Anchor of outer table ¶

Table 3: The outer table¶																
§	§															
§	§															
§	Anchor of anchored frame ¶ <table border="1"> <thead> <tr> <th colspan="3">Table 4: The inner table¶</th> </tr> </thead> <tbody> <tr> <td>§</td> <td>§</td> <td>§</td> </tr> </tbody> </table>	Table 4: The inner table¶			§	§	§	§	§	§	§	§	§	§	§	§
Table 4: The inner table¶																
§	§	§														
§	§	§														
§	§	§														
§	§	§														
§	§															

**Note:** If the elements are highly nested (no space around the inner element of a nest) it will be very difficult to select and change them.

## Simulated nested table

With straddles in a fine grained table you can simulate a table in a table. This example started with an 6 x 6 table. This fine grain is only left in the centre area. The greyed cells are straddled:


# 5

## Page layout

### Overview

This chapter describes the 'layers' of a FrameMaker document: body pages, master pages and reference pages.

The building blocks of layout are text frames and graphic frames. The text frames on the master pages are of two types: background frames (for headers and footers) and the foreground frames which receive the user input. Graphic frames are also used on the reference pages.

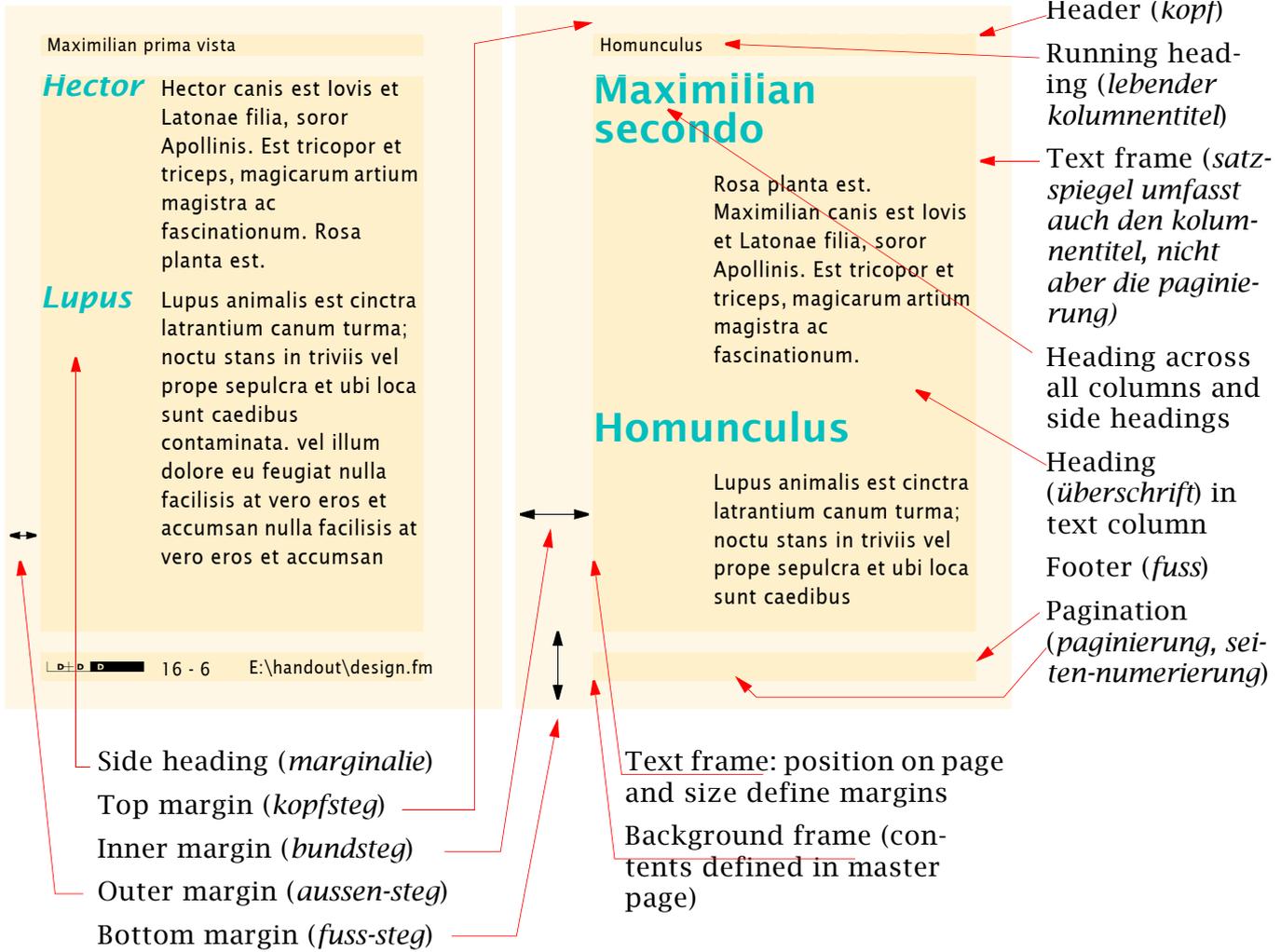
Any FrameMaker document can be a template to create new documents. The behaviour (un-named copy) of a standard template is just determined by the location of the file.

### Contents

Layout terminology .....	2
Layout mechanisms .....	3
Columns, text flows and side headings .....	6
Set up master pages .....	7
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Graphic elements on Reference Page .....	16
Running headers and footers .....	17
Special layouts .....	21
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Handling master pages .....	32

# Layout terminology

Typography has a 500 year history and hence some terms may sound old-fashioned. Some have their roots in latin.



See also *Columns versus text flows* on page 5-6

## Structure of a FrameMaker document

A FrameMaker document contains three levels of information:

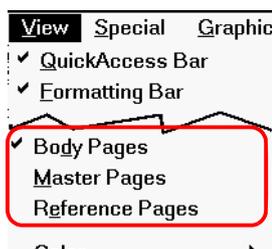
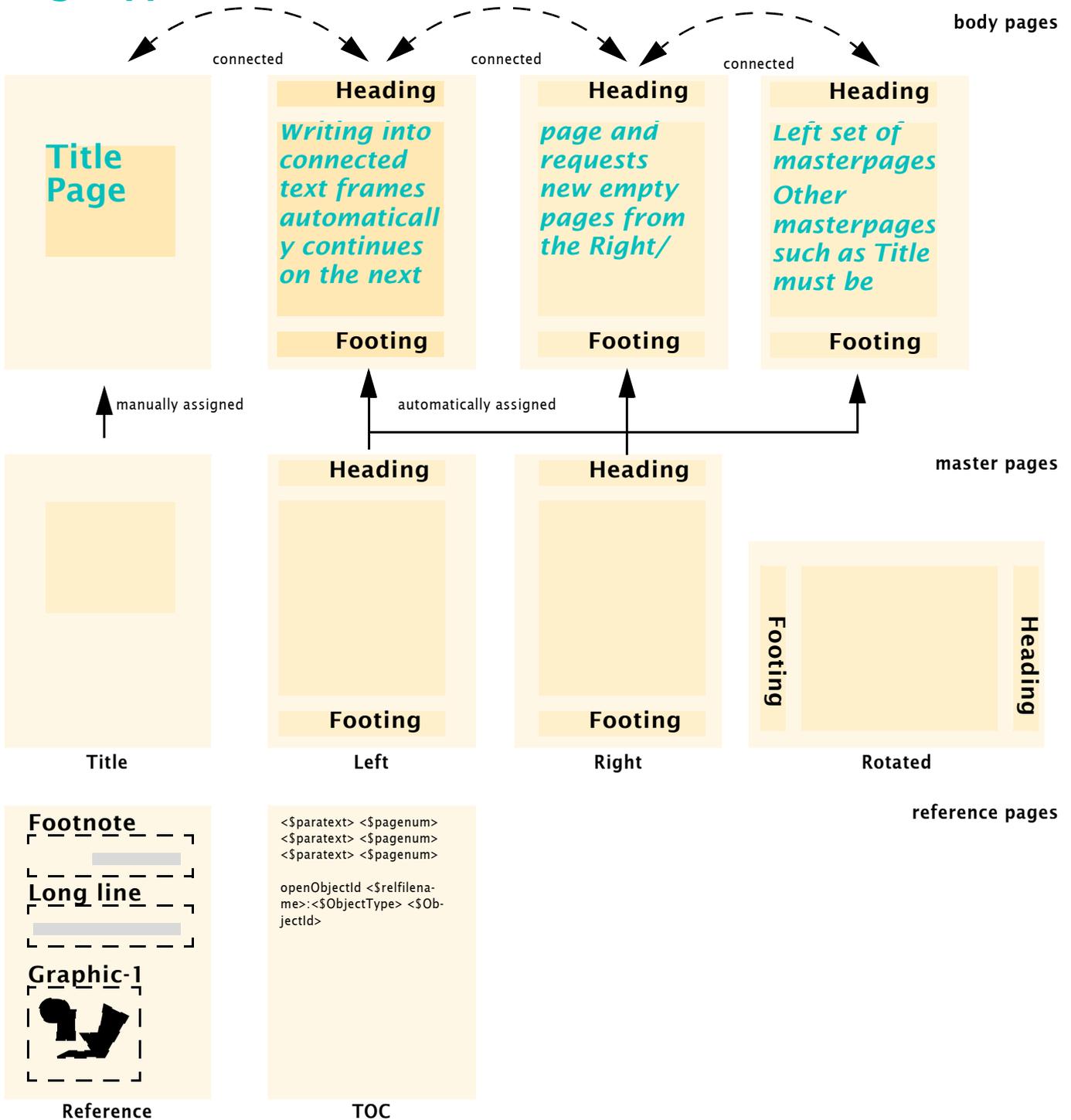
- Body pages** In these pages the running text is placed with tables and graphics anchored in the text.
- Master pages** These pages define the layout which is used in the body pages. There is always a masturbate Right. A Left page is present for documents defined to be double sided.
- Reference pages** These pages contain graphic elements for attachment to paragraphs as well as rules about construction a table of contents, an index or other generated documents.

# Layout mechanisms

## Page types

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- Body pages are the main working area for entering and editing text, graphics etc.
- Heading/footing frames can not be changed on the body pages → use different master pages.
- Reference pages serve various purposes: rules for building TOC or Index, graphic elements, rules for arbitrary lists etc.

# Flows and frames

Header frames are not visible on the body pages - can not be grabbed

The paper (page)

Header frame bound to page

Text frame(s) connected) bound to page

Anchored (⌵) frames float with the text

Graphic frame bound to page

Text frame within graphic frame

Text frame on page

Footer frame bound to page

## This a flow A

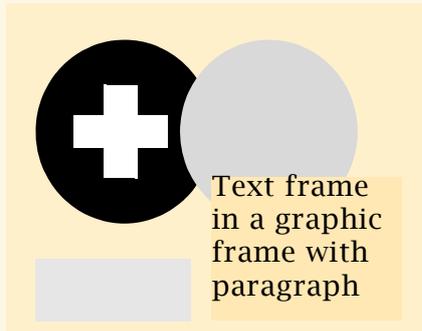
This text flow extends from this text frame to the one on the right - these text frames are connected.

vires humus fallo 25deu Anetn bisre freun carmi avire ingen umque miher muner veris adest duner veris adest iteru quevi escit billo isput tatqu aliqu diams bipos itopu 50sta Isant oscul bifid mquec cumen berra etmii pyren nsomn anoct reern oncit quqar anofe ventm hipec oramo uetfu orets nitus sacer tusag teliu ipsev 75tvi Eonei elaur plica oscri eseli sipse enitu ammih mensl quidi aptat rinar uacae ierqu vagas ubesc rpore ibere perqu umbra perqu antra erorp netra 100at mihif napat ntint riora intui urque nimus otoqu cagat rolym

oecfu iunto ulosa tarac ecame suidt mande onatd stent spiri usore idpar sep pretu tempu rev tenov sindu turku brevt elliu repar tiuve tamia queso utage udulc vires humus 150eu uAnetn5

**Anchored frame, flows with text  
Graphic text - no paragraph styles, only character styles.**

bisre freun is adest nihi multi culti malenka dolce.



## This is flow B

ueso utage udulc vires humus fallo 25deu Anetn bisre freun carmi avire ingen umque miher muner veris adest duner veris adest iteru quevi escit billo isput tatqu tmii pyren nsomn anoct reern oncit quqar anofe ventm hipec oramo uetfu orets nitus sacer tusag teliu ipsev 75tvi oscri eseli sipse enitu ammih mensl quidi aptat rinar uacanetra 100at mihif napat ntint riora intui urque nimus otoqu cagat rolym oecfu iunto ulosa tarac ecame suidt man

Footer frames are not visible on the body pages - can not be grabbed

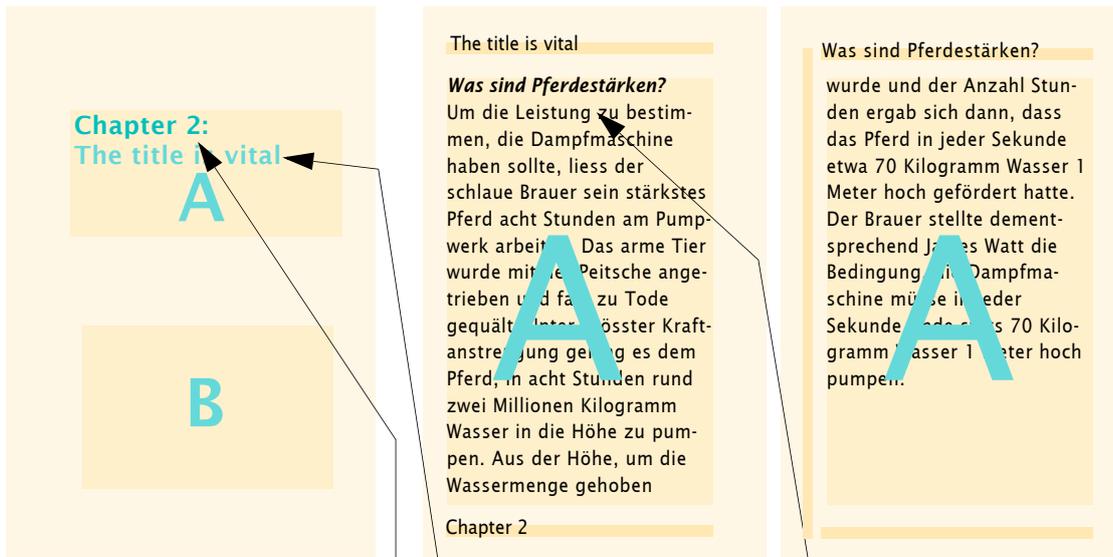
Text frames are connected together to form one text flow.

To connect text frames:

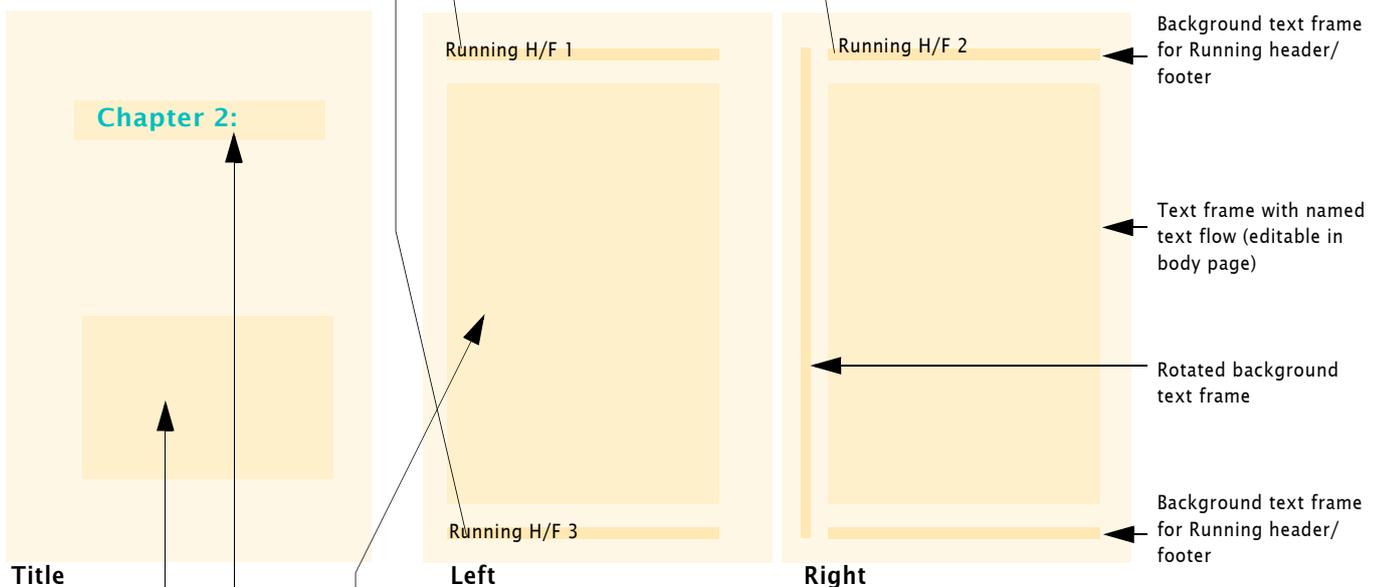
**Format > Customize layout > Connect text frames**

# Master page usage

## Body pages



## Master pages



Text flow	Paragraph format	Comments
A (connected)	Heading1 etc.	Main text flow
A (connected)	Chapter-title	Title area
B (unconnected)	Overview	Can not be reached by cross-references

Table 1: Text flow properties in a chapter

Area for chapter title: either small to let only the chapter title go in (and text automatically flows to next page) or “space below” is larger than height of frame.

Key point: same flow tag (A) as the body text!

## Assignment of master pages

For ordinary pages the master pages *Right* and *Left* are assigned automatically. Other master pages are assigned with **Format > Page Layout > Master Page Usage...**

To assign master page automatically based on a paragraph format see *Assign master pages automatically* on page 5-32.

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# Columns, text flows and side headings

## Columns versus text flows

1 text flow with 2 columns

A text frame always contains one text flow (which may be split into columns)

1 text frame

2 text frames

2 text flows with 1 column

Diagram illustrating text flows and columns. The left side shows a single text flow split into two columns. The right side shows two separate text flows in a single column. Red arrows and labels explain the relationship between text frames and columns.

## Side heads

1 text flow with 1 column and side head area

1 text flow with 2 columns and side head area

Side head area (D: marginalien-spalte)

gap

Diagram illustrating side headings. The left side shows a text flow with a side heading 'Hector' and 'Lupus'. The right side shows a text flow with two columns and side headings 'Hector' and 'Lupus'. Red arrows and labels explain the layout.

# Set up master pages

A standard master page (e.g. those named **Left** and **Right**) contain a header frame, a body frame and a footer frame. Although all three are text frames, only the body frame uses a flow name.

## Modify the Left and/or Right master pages

Even if you start with a new empty document, there are two master pages already defined: Left and Right. Even if you have specified single side pagination in **Format > Page Layout > Pagination...**, a Left master page exists. It is just not displayed.

Hence for the setup or change of the R/L master pages you are recommend to set pagination to double sided.

These two pages contain already three textframes:

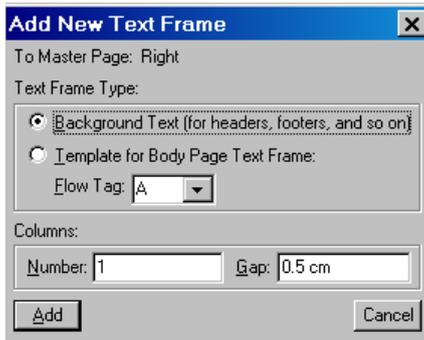
- The header frame is a background frame
- The body frame has a flow A defined and autoconnect property.
- The footer frame is also a background frame

## Modify the pages

You can do the following with these already existing pages:

- ▶ Resize all frames according to a set paper size (**Format > Page Layout > Page Size...**)
- ▶ Change paragraph formats used in the frames, add paragraphs in the enlarged header and/or footer frames.
- ▶ Specify additional or less content in the header and footer frames
- ▶ Add graphic elements to the header and/or footer frame or just on the page (e.g. a logo).
- ▶ Add additional frames, such as in the spine or outer margin, for example for document status and security. You may wish to use variables for this information.

## Set up a new (additional) master page



**Note:**

*A master page must contain at least one named flow. If the standard flow is A, then any master page which shall be used (assigned to body pages) with this flow must contain at least one text frame with flow name A.*

### Example master page Legal-stuff



- 1 Change the document view with **View > Master Pages**
- 2 Insert a new page with **Special > Add Master Page ...**
- 3 You are asked for a name. The names **Left** and **Right** are already used. To change the appearance of these pages just open them.
- 4 Define whether you want to start with an empty page or with a copy of an existing master page. Click **Add**.
- 5 You create new frames with the graphic tool  which is left to the **A** tool.

When inserting a text frame on a master page, you are asked whether you want to insert a background frame (header, footer) or a frame for text on the body page.

The background frame does not get a flow name, while the flow name for the body text frame is essential. Normally this flow name is A.

- 6 Named flows normally are autoconnected (especially flow A). Set up the other flow properties with **Graphics > Object Properties**. See *Text Frames* on page 5-11 for more details.
- 7 In the header and footer frames define the contents. See *Running headers and footers* on page 5-17.

This example comprises from top to bottom the following elements:

Nr	Type	Purpose, contents
1	Background text frame	Header. Definition of running header
2	Graphic line and graphic	Separator. Line and blob
3	Body text frame	Flow A, limited heights, same properties as flow A has everywhere (side heads, autoconnect, etc.)
4	Background text frame	Legal text. This MP shall be applied to the last page of a chapter or document. This may be done manually or automatically. See <i>Assign master pages automatically</i> on page 5-32.
5	Graphic line and graphic	Separator. Line and blob
6	Background text frame	Footer. In this example only the chapter number and the page number is inserted

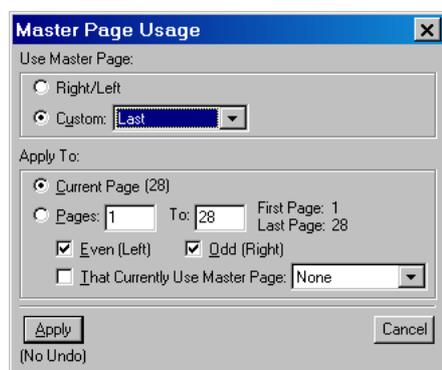
## Assign master pages to body pages

See also *Assign master pages automatically* on page 5-32.

**Left/Right** master pages are automatically assigned with growing text. To insert (for example at the beginning of the text) another master page, you may decide between:

- 1 Change the assigned master page of a particular body page.
- 2 Insert a page the flow of which is connected to the current flow. The flow of the page must be manually connected to the existing flow.
- 3 Insert an unconnected master page which does not influence the flow in the already existent pages.

### Change assigned master page



To change the assigned master page of a particular body page, use **Format > Page Layout > Master Page Usage...**

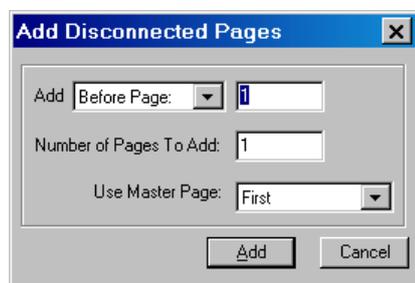
- ▶ The current page is already mentioned at Current Page.
- ▶ Select the master page you wish to use. To regain the common R/L pattern select Right/Left.
- ▶ You may apply a particular master page to a sequence of pages with the respective entry fields.
- ▶ You may also change a currently assigned master page (to a sequence of body pages) with the last check box and select the master page to be assigned in the drop down list.

For example, to assign the master page Last to the last page of the document, set the dialogue to what is shown in the screen shot.

If this **Last** master page contains a flow A with attribute Autoconnect, text may flow into this page also.

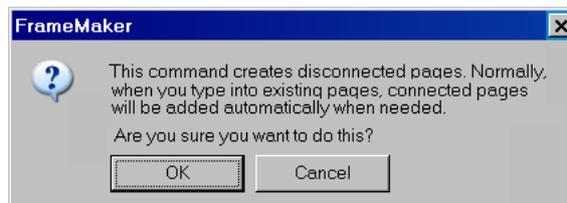
If you assign a master page, for example to the first page of the document, which does not contain an autoconnected flow A, then

### Insert additional page



To insert a new page which uses a master page with a text flow, use **Special > Add Disconnected Pages...**

Since these pages may not be connected due to a mismatch in flow names, you get the following message:

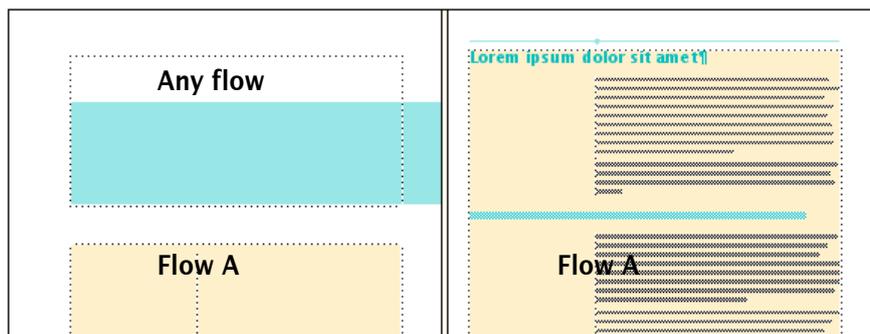


If the page (which is more normal the case) contains a connectable flow, you can now connect the flows.

### Connect flow

After insertion of the page you may connect the (matching) flow to the rest of the document. For this operation you may

wish to use a small zoom factors to see the pages to be connected side by side on the screen:



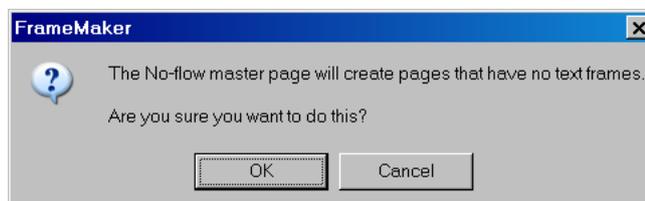
To connect flow A on the newly inserted page with the same flow on the already existing pages

- 1 Select the flow on the new page (left in picture)
- 2 Select the flow in the existing pages (right in picture). Don't worry that the left selection will disappear.
- 3 With **Format > Customize Layout > Connect Text Frames** the two frames are connected.
- 4 The text from the existing page (right) will flow back into the frame on the new page (left). You will need to insert headings and/or adjust other formatting to the paragraphs on the new page.

**Note:** *You may get a message if the flow is already connected or if you will create a circular connection.*

### Master page with background only

If you insert a master page which does not contain a named flow (just background information), you will get a warning:



You can not create cross references to the text on this body page.

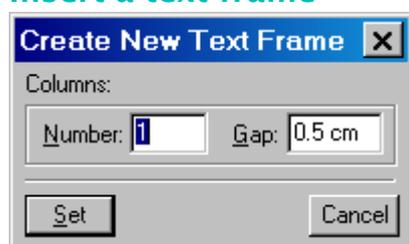
# Frame types

Frames are ‘the name of the game’ – a main concept of FrameMaker. Frames enclose other objects. On the raw paper you can place graphic objects, such as text frames or graphic frames or rectangles. A text frame contains text which can contain anchor points for anchored objects, such as tables or anchored frames. Within an anchored frame any graphic object can be placed. Graphic objects have no anchor.

## Text Frames

Normally you use text frames on master pages. Text frames can, however, also be used as graphic elements. In this case the text frame is located inside an anchored frame which floats with the surrounding text:

### Insert a text frame



Insert a text frame with the tool  from the Graphic Tool Palette by dragging the mouse. This tool is not the largest tool in the middle of Palette! You can set the number of columns and the gap between the columns after releasing the mouse.

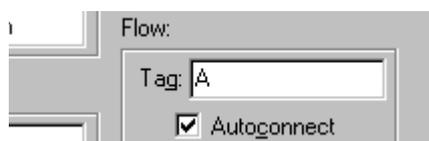
After inserting, more attributes are set with **Graphics > Object Properties...** or button . The most important properties are about the text flow: tag name and auto connection.

### Flow tag (flow name)

The main flow on master pages normally is named A. The name can be any upper or lower case character. Cross references operate only within, not across named flows. You can not reference an item in flow B from flow A.

A text frames within an anchored frame gets no flow name initially. Text frames placed in master pages are background frames with no flow name by default.

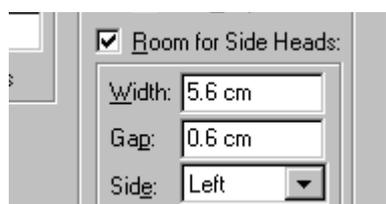
### Auto connection



A text flow with a flow name (flow tag) automatically gets the property auto connect ON. This is the standard for text frames on the master pages where you want this automatism to happen. If this property is not set, you will not get additional pages automatically for more text.

**Note:** *When switching from Master Page view to Body Page view, in rare occasions this attribute Auto connect may be lost and you need to re-apply it while on the Body Page.*

### Side heads



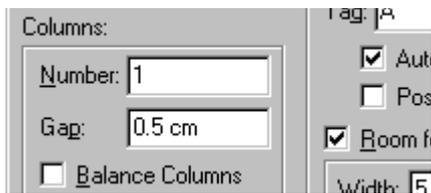
If you want to specify headings or other text to appear in a side head area, specify the needed properties in **Graphics > Object Properties...** or button . In the document you are reading the values are as displayed in the image.

See also *Pagination* on page 3-6 for the various heading styles possible in FrameMaker.

**Note:** *The flag Room for Side Heads is a property of the text flow. Hence it is not imported with the master pages. It may be nec-*

essary to set this attribute again after switching to body page display.

## Multiple columns



To specify multiple columns for a text frame (or change the initial setting) use **Graphics > Object Properties...** or button .

If you also have specified Room For Side Heads the columns are established in the rest of the text frame. This may create too narrow columns (see). *Columns versus text flows* on page 5-6

## Border and fill of text frame

Apply a border:

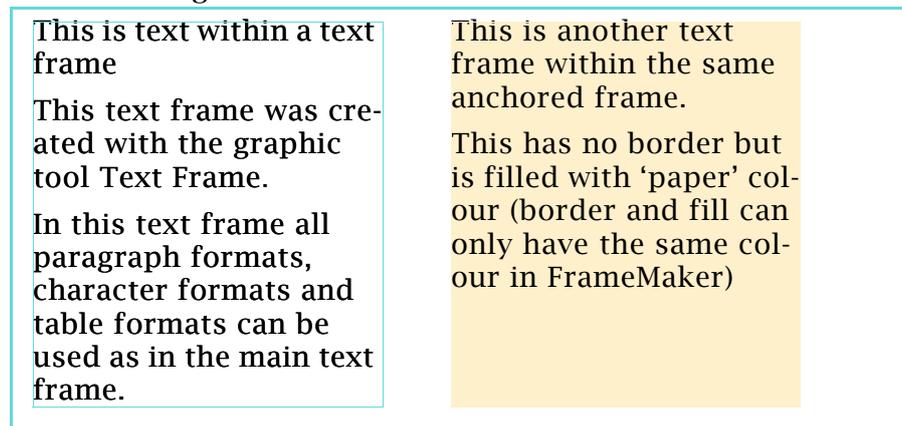
- ▶ Select the text frame
- ▶ Apply a line with the graphic tool **Apply Pen Style**

Fill the frame with colour:

- ▶ Select the text frame
- ▶ Fill the frame with the graphic tool **Apply Fill Style**

## Example of text frames in anchored frame

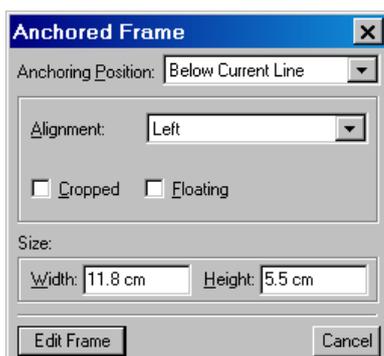
The following anchored frame has a border



**Note:** *The topmost line of text in a frame may extend beyond the boundary of the frame depending of the font metrics (enlarge the above image to see the effect). In particular, accents always extend to the outer area. See also Default cell margins on page 4-5.*

## Anchored frames

### Anchoring position



Depending on the anchoring position, additional parameters can be set.

**Cropped** If set the frame is cropped by the outer container. Most time this outer container is the text frame with the anchor.

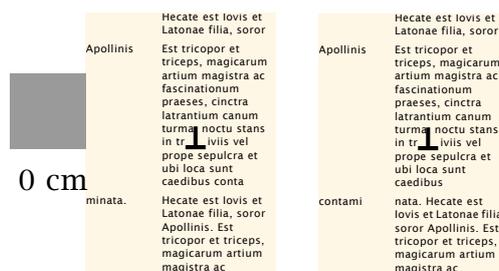
**Floating** Set this option to allow text lines after the anchor to sneak before the frame, which is placed on the next page if its size requires.

In the following diagrams the bordered rectangle is the text frame with the text flow containing the anchored frame (the outer container).



## Outside text frame

Distance above baseline varying, also distance to text frame



Distance above:  
-0.5 cm; distance  
to text frame = 0.3  
cm

Frame can be  
moved with mouse  
in 2 directions.

## Run into paragraph

Distance above baseline varying, also distance to text frame



Gap (distance to text) = 4pt.

Alignment can be:

- Side farther from binding
- Side closer to binding
- Left
- Right

**Note:** The anchors (⌵) are visible here by using a special font.

## Manipulating frames

### Selecting frame

**CTRL+click** on the border of the frame or change cursor to a hollow triangle on the graphic tool bar (see *Tool palette* on page 1-14).

**Note:** Do not move the mouse when CTL-clicking. You will create a duplicate of the object! (see *Ghost objects* on page A-17). Be aware, that you can not select text with the cursor for selecting objects! You need to change the cursor back for text editing work.

### Resizing frame

A selected frame displays 8 handles on which it can be resized in one or two dimensions. You can also resize anchored frames numerically with **Special > Anchored Frame** or any type of frame with **Graphics > Object Properties**.

### Moving anchored frame

If an anchored frame has numbered values for positioning attributes, such as *Distance above Baseline*, the frame can be moved with the mouse in the corresponding direction. In this case it can also be moved in small increments with an **ALT+arrow** key.

## Graphic frames

Graphic frames are just containers for other graphic objects and allow to crop these at the frame border. These frames are placed directly on the page - not floating in the text. If the graphic frame is created inside a text frame, it lays above the text. If it is created starting outside a text frame (e.g. close to the page border) it lays behind the text.

Use graphic frames only on master pages, reference pages or within anchored frames.

### Insert a graphic frame

You insert a graphic frame with the (largest) tool from the middle of the Tool Palette  by dragging the mouse.

The coloured area underneath this and the following paragraphs is a graphic frame, filled, moved to background, no run around (**Graphics > Runaround properties**). Such a frame does not flow with the text - it may end up on the wrong page.

**Note:** *If you copy (or cut) the graphic frame and paste it to an other page with a cursor position, it becomes an anchored frame. You need to click outside the text frame before pasting to position the frame on the paper.*

Graphic frames in background can not be selected the normal way. You need to open a selecting rectangle from outside the main text frame (see *Concealed objects* on page A-17).

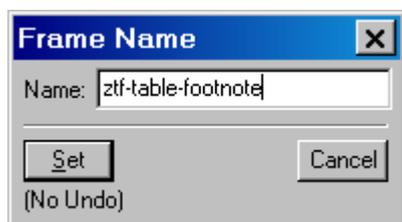
## Graphic elements on Reference Page

The main purpose of graphics on reference frames are their use in the paragraph specification **Frame Above/Below** (see *Advanced* on page 3-8).

See *Special formatting* on page 3-18 for background colour and or framing of paragraphs.

When inserting a graphic frame on a reference page, you must provide a name for the frame.

On the reference frame of this document (Reference) the following items are defined (truncated to the right). The graphic frames are shaded here for visibility only.:



### zfn-footnote



### ztf-table-footnote



### Single Line



### Double Line



### ze-editors-note



**Note:** See the *ztf-table-footnote* frame here. It is empty, hence defines only space for the distance between table bottom and the table footnote.

## Graphics on Reference Pages

Especially in templates to be used for multiple documents it is useful to have the needed graphic elements available within the template. Hence they are placed on the Reference page and referred to on master pages and body pages.

However, copied graphics may significantly blow up the document size (see *Referenced versus copied graphics* on page 6-7).

In many cases it is possible to replace such logos by a traced graphic (a FrameMaker graphic) and text. See *Replacing image logo* on page 6-19.

# Running headers and footers

Running headers and footers pick up contents from the current page or one of the previous pages.

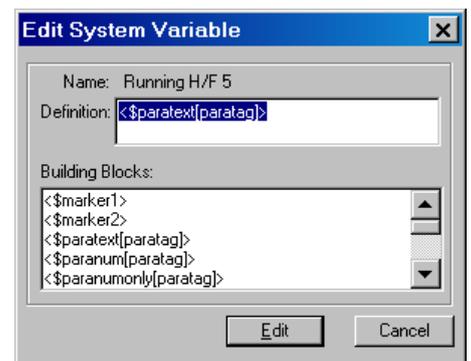
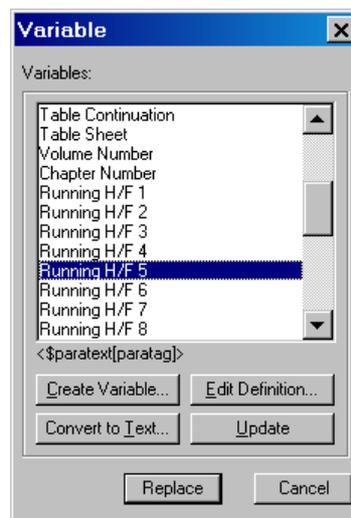
The information to be placed is defined by system variables which are only available on master pages. For a complete list see *Building blocks for system variables* on page 7-4.

FrameMaker provides 12 system variables for running headers or footers for reference to paragraphs or to markers. Other system variables provide numbering properties and date and time information.

## Insert a system variable

To insert a system variable into the text frame on the master page:

- ▶ **Special > Variable...**
- ▶ Select the appropriate variable and modify its presentation according to your needs.



## Numbering pages

You can insert the following pagination information of the current document:

Purpose	Format of variable	Example of use (format)
Current page number (represented as #)	<\$curpagenum>	Page <\$curpagenum> of
Last page number in file	<\$lastpagenum>	<\$lastpagenum>
Chapter number	<\$chapnum>	Chapter <\$chapnum>
Volume number	<\$vol num>	Vol ume <\$vol num>

The display of these numbers depend on the settings in **Format > Document > Numbering**.

The correct values displayed in the body pages depend on the proper updating of the numbering. See *Set up numbering of chapter files* on page 8-7.



## References to special markers

In some cases the needed information is not directly available in headings or other paragraphs. For example the heading texts may be too long. In scholarly text headings may contain author names or special numbering, which shall not be transferred into the running headers/footers. Then the required text is set up in markers on the pages to be referred to.

Running H/F	Format of variable	Example of use
Running H/F 3 (default format)	<\$marker1>	Set up the marker text with a short version of a heading
Running H/F 4 (default format)	<\$marker2>	Put additional information into the marker, which is not in the text

The text to be used in the header/footer is defined in a marker with name Header/Footer \$1 or Header/Footer \$2

## Date and time

FrameMaker provides a host of system variables for date and time information. For the complete list see *Building blocks for system variables* on page 7-4.

**Note:** *User variables can not be set up with building blocks from system variables (for example, have a user variable iso-date with the format yyyy-mm-dd). For such cases you need to modify the format of an existing system variable providing the needed information (e.g. Current Date (Short)).*

## Graphic element on master pages

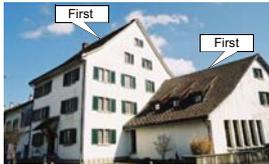
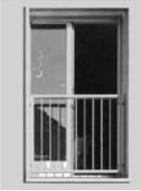
Especially in headers and footers logos and the like are used. If they are imported by reference, the size of the file does not increase. But if the graphic is imported by copy, the size increases significantly. See *Referenced versus copied graphics* on page 6-7.

## Dictionary style headers

For long indexes and glossaries you may use dictionary style headers: the first occurring index word on the left hand page and the last occurring index word on the right page. This can be achieved by the following Running H/F definitions:

Page	In an index	In a glossary
Left	<\$paratext[GroupTi t l esl X]>	<\$paratext[glossary-headi ng]>
Right <sup>a</sup>	<\$paratext[+, GroupTi t l esl X]>	<\$paratext[+, glossary-headi ng]>

a. Watch the + sign preceding the tag name. This tells FM to look for the last rather than first occurrence.

<p>28-8</p> <p>• Einfriedung</p> <p><b>Einfriedung</b>, die räumliche Begrenzung einer Grundstücksfläche mit einem Zaun, einer Mauer oder Buschwerk. Unterschieden wird zwischen offener Einfriedung (zum Beispiel Maschendrahtzaun) und geschlossener Einfriedung (zum Beispiel Mauer).</p>  <p><b>Erker</b>, nach den gängigen Begriffen der Bautechnik ein von der Hauptfassade frei auskragender Bauteil (vgl. RB 1985 Nr. 114). Im Gegensatz zu einem → Balkon ist ein Erker eingekleidet. Nach der Praxis (RB 1985 Nr. 114) wird bei Erkern und ähnlichen Vorsprüngen ein Mindestabstand von einem Meter über dem gestalteten Terrain verlangt. Setzt sich der Erker bis in die Dachfläche fort spricht man von einem → Dacherker.</p>  <p><b>Familienwohnung</b>, eine Wohnung, die dem Aufenthalt einer Familie dienen kann, aber nicht muss. Als Familienwohnung gilt eine Wohnung von vier und mehr Zimmern (§ 49a PBG). Die Bau- und Zonenordnung kann für Familienwohnungen einen Ausnützungsbonus gewähren.</p> <p><b>Fenster</b>, eine Öffnung in der Mauer oder im Dach (→ Dachfenster) zur Belichtung und Belüftung von Innenräumen. Die Anordnung und Gestaltung der Fenster bestimmt wesentlich die Erscheinung eines Gebäudes.</p>  <p><b>Fensterfläche</b>, die Fläche, welche für die ausreichende Belichtung eines Raumes vorgeschrieben ist. Für Wohn- und Schlafräume hat sie wenigstens einen Zehntel der Bodenfläche zu betragen (§ 302 PBG). Die Fensterfläche wird im Licht gemessen. Massgebend ist die Fensteröffnung im Rohbau (so genanntes Rohlichtmass).</p>	<p>• Französischer Balkon</p> <p>28-9</p> <p><b>First</b>, die höchste Linie, an der die Dachflächen zusammenlaufen.</p>  <p><b>Firstlaterne</b>, eine → Dachaufbaute, welche rittlings auf dem First sitzt. Häufig ist sie seitlich mit Fenstern versehen.</p>  <p><b>Flachdach</b>, ein → Dach mit einer Neigung von weniger als 10° (vgl. BEZ 1996 Nr. 30).</p>  <p><b>Französischer Balkon</b>, eine Zwischenform von Fenster und Tür. Das hochrechteckige Fenster reicht bis oder fast bis zum Boden. Aus Sicherheitsgründen ist der untere Teil des Fensters fix oder mit einem Gitter abgesichert. Der französische Balkon krägt im Gegensatz zum normalen → Balkon nicht vor die Fassade.</p> 
--	---

The glossary heading is defined as run-in paragraph in this example. Hence it does not create a line break and the next paragraph (glossary entry) follows on the same line.

# Special layouts

## Newsletter

For newsletters and the like you want to have various text areas to fill in. You may use for this purpose:

- Distinct text frames with independent flow names. This is useful to start a story on page 1 and finish it on page 2 while other stories are also on page 1. The two pieces must be connected together:

Text in frame 1 with flow name A (or no flow name at all)

start on page 1 in frame I which is connected to frame II

This is frame II

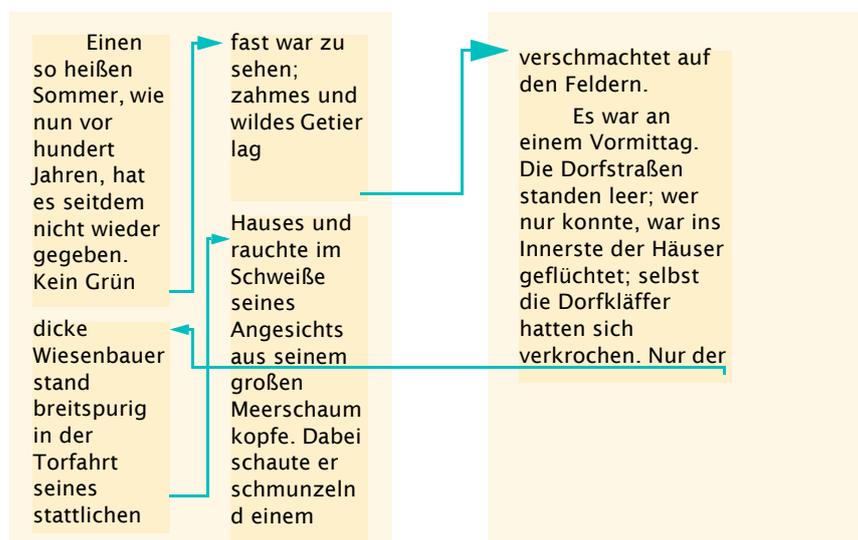
Text in frame 2 with flow name A (or also no flow name) . The frames 1 and 2 are connected.

This is frame III

This is frame IV

The first paragraph must "start on top of column" or it will just flow ...

- Various text frames with the same flow (A or none), connected in an arbitrary order.



### Connecting text frames

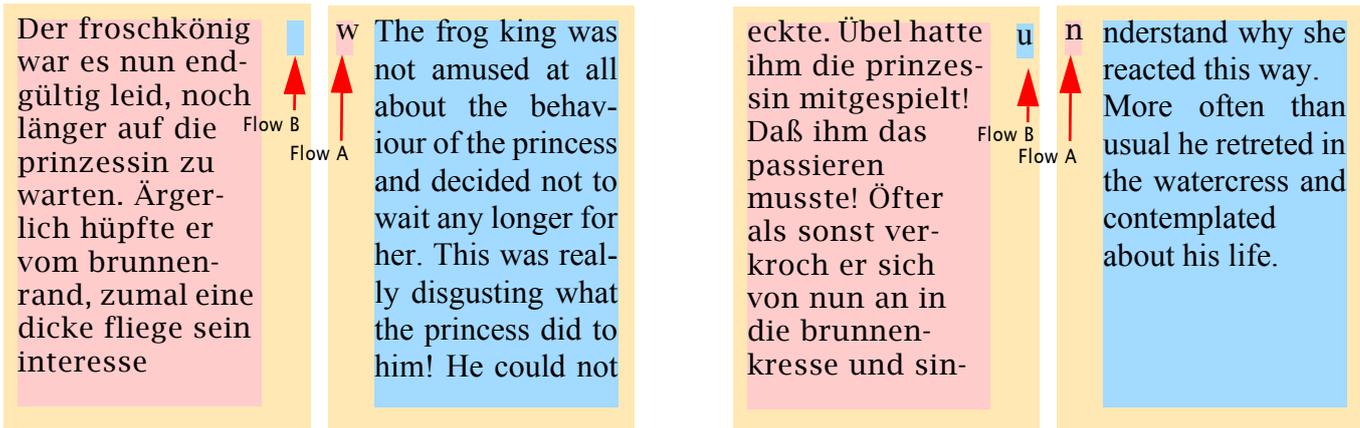
- 1 Select the first text frame
- 2 Select the second text frame (the first may become unselected, but this does not harm)
- 3 Connect the frames with **Format > Customize Layout > Connect Text frames**. Text will overflow automatically from the first to the second frame.
- 4 Repeat this for all the frames to be connected. 1 → 2, 2 → 3, 3 → 4 ...

## Two languages in parallel

To have two languages (or other purpose of two different flows) on *facing pages*, you need to set up a ‘pass through’ frame on the opposite pages, starting on page 2.

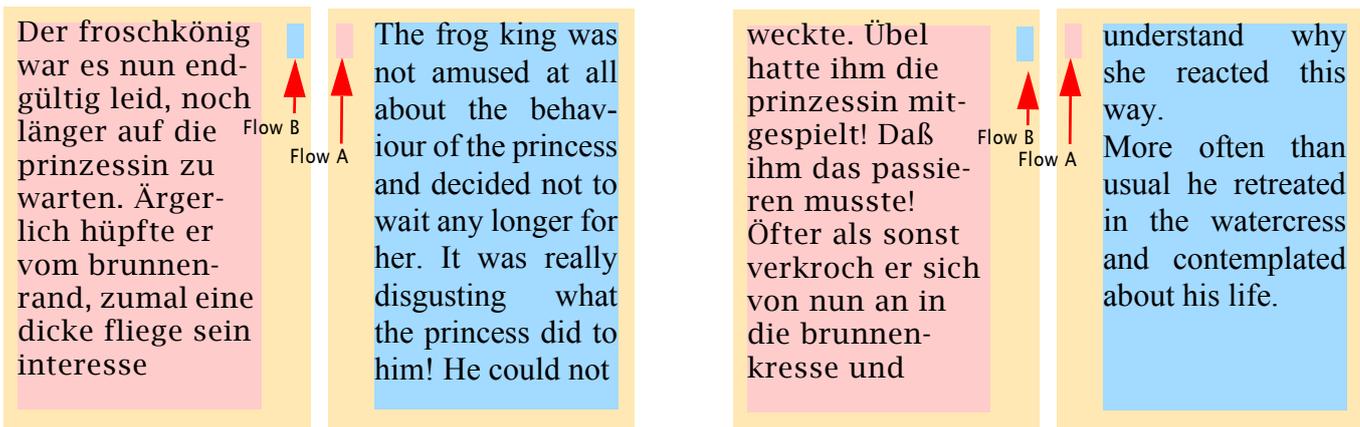
**Note:** For page 1 normally a different master page is used. You should also use different format names for the paragraphs of the two languages, e.g. be-body-english and bg-body-german.

For clarity in the following picture flow **A** is filled with red and flow **B** is filled with blue.



As you can see, the small ‘pass through’ text frame catches at least one character from the flow. This happens even if you make this frame as small as possible (0.125" high, 1mm wide or use the mouse to squeeze it down to zero)<sup>11</sup>.

To overcome this, you need to move the word dropping into the ‘pass through’ frame to the next normal frame of the same flow. You do so by inserting a paragraph break just before this word and again in the ‘pass through’ frame:



Make this fix only after the text has settled.

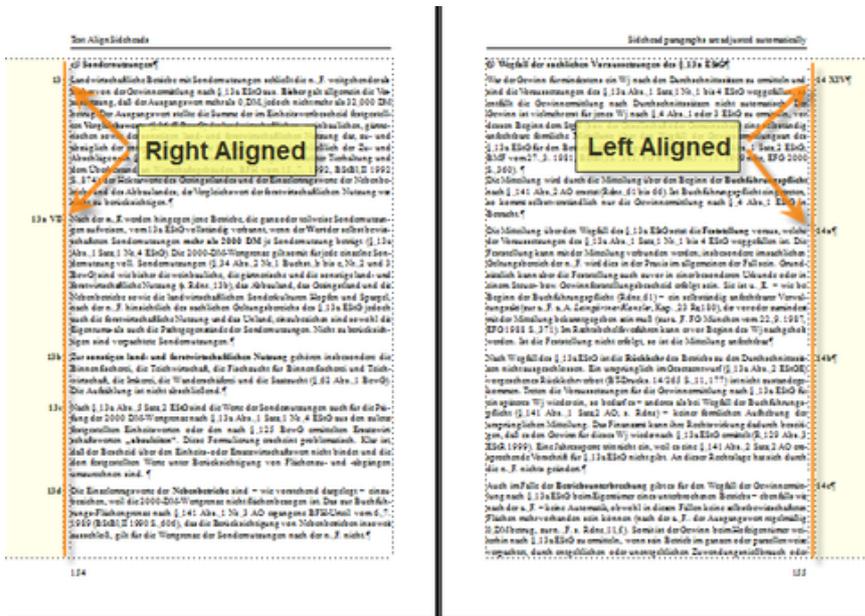
To remove the empty paragraphs for changing the text, search with wildcards for `\p\p` in the two flows and replace it with nothing.

It is good practice to use a special paragraph format for the empty paragraph in the ‘pass through’ frame. It may have an attribute “start on top of column”.

<sup>11</sup> Whether this is a bug or not is not clear.

# Mirrored side head alignment

With mirrored arrangement of the side head area on left and right pages it is desirable to have also the alignment of the side heads themselves mirrored:



Unfortunately this can be achieved only with add-ons (plug-in, script):

- Free [i]-frame FrameScript script [Align Side Heads](#) from itl.
- Function *Left / Right Alignment* in the plug-in [Toolbox for Framemaker](#) from Sqidds (formerly Systec). This function is also available in [Finyler for FrameMaker 10](#).

2011-05-11

E:\FM-course\handout\layout.fm

D D D

# Templates

Templates organise and define layout and appearance of document types such as manuals, book chapters or theses.

A template is an ordinary FrameMaker file and may contain explanatory text. Any FrameMaker document can act as a template.

## Sample templates

FrameMaker comes with a number of pre-defined templates which are located in the FrameMaker installation directory (\$HOME\Templates), which is defined in maker.ini (See *Template path* on page A-31).

- The templates are grouped into the areas, for example, Book, Business, Outlines, Reports or Special.
- In the English version layout items are in inches. In the other languages the unit is metric.

To use a pre defined template

- ▶ **File > New**
- ▶ Open a folder with the desired type of template (e.g. Business)
- ▶ Select the desired template, **New**.
- ▶ You get a copy of the file with the name `untitled.fm`, which you save to the desired location with an appropriate name.

## Organising templates

You may store your home grown templates in a subdirectory of the FrameMaker installation (e.g. \$HOME\Templates\c-std) to benefit from a common location. They will however not show up in the template browser (See *To use a sample template* on page 1-10).

Another method to get only copies from the template file is to store it in a company widely known location (e.g. D:\DOC-STD\Fram) and apply the file attribute **ReadOnly** to them.

## Template information

It is good practice to note purpose and properties of a template in the template document itself to find this information in any document created from this template:

- In the document meta-data (**File > File Info... > Keywords:** D+DD-template A4-de.fm version 2.0 (april 2008))
- Special reference page named `Template-Information`. There can be plenty of text on such a page which must not be used for other purpose in the document.
- Hyperlink from a cross-reference in a text frame on a reference page. This can be to any document on your system or even the web. Hence you can refer to a complete template documentation (see *Hyperlinks* on page 7-19).

## Set up a template

To set up a new template, for example for a report or script, these approaches are possible:

- Set up from scratch (empty document)
- Use existing document as a starter
- Use a FrameMaker template as a starter

Be aware that you should have one template for each language in which text is written. Language is an attribute of paragraphs (and character formats).

In any case it is good practice, not to start directly in the Application, but to set up a plan. Get hold of any relevant company standard. Consider the *Interdependencies of template items* on page 28.

- ▶ Decide on the fonts to be used. In technical documentation the following is an established rule:
  - Body text, lists and footnotes are serif type
  - Headings, tables, header and footer are sans serif
  - Tables and table footnotes are narrow sans serif
  - Code examples use a monospaced font
- ▶ Sketch the layout with all measures. Think about special pages, such as Preliminaries, Title and Last for a chapter, rotated pages (e.g. Wide-left and Wide-right) for extra wide tables etc.).

Look carefully on the purpose of the template to set up the names of styles, variables etc. Specify pagination. Define the contents of header and footer, maybe also a field in the spine.

If you provide rotated pages, consider automatic assignment according to *Assign master pages automatically* on page 32.

- ▶ Set up a table of all desired paragraph formats (including ...TOC, ...IX etc. and character formats with at least the general and main detail properties (font, size, weight, indents, type of pagination ...).

It is good practice to name items used in the layout or just by automatism (footnotes) z-xxxx to sort them at the bottom of the catalogues.

- ▶ Set up the numbering scheme for the headings, table titles etc.
- ▶ Define the required character formats. Consider their usage in cross reference formats, auto-numbering, variables.
- ▶ Define the general purpose table formats: placement, column widths, title placement, ruling/shading, ¶-formats in the cells, cell margins etc. Include table formats to be used for figures (boiler plate tables are better for this purpose).
- ▶ Define the various 'small things' which also belong to the document properties:

- colours
- cross reference formats
- conditions
- variables (user, system - for example date appearance)
- ruling-styles for tables
- graphics for the reference pages
- appearance of change bars
- document view, grid and snap properties, text options
- (table) footnote properties and numbering,
- PDF setup, document information
- Special markers

### Use a FrameMaker template

- ▶ In **File > New > Document** click **Explore Standard Templates** to get sample presentations.<sup>12)</sup>
- ▶ Select the appropriate template, e.g. **Report, Numeric**. To get an impression of the template, click **Show Example**.
- ▶ Select the desired template, click **Create**.
- ▶ Personalise the template according to *Use an existing document*.

### Use an existing document

Even a new document created by **File > New > Document > Portrait** or **> Landscape** contains basic ¶, f, T styles, cross reference formats etc. Hence the procedure to set up a template is the same as from an existing document. Only the number of items already defined may differ significantly.

- ▶ Check all catalogues (paragraph, the character, table) and all other definitions (colour, cross reference, conditions, ruling styles for tables etc.). Delete entries which are not needed.
- ▶ Add any generally useful definitions to the style categories mentioned before.
- ▶ Check whether you need global changes to the paragraph catalogue or the character catalogue, such as changing the language.
- ▶ If your document is single sided, switch it to double sided layout to see also the master page **Left**.
- ▶ Make any desired changes to the master pages. You may wish to remove un-needed special pages or add such pages.
- ▶ Check the reference pages for un-needed pages. You may for example find a page IVZ and a page TOC which both define stuff for the table of contents. IVZ is used in a German environment, TOC for an English environment (FrameMaker version). Check both for completeness and similar contents or remove the un-needed one.
- ▶ The same applies to the reference pages used for index: IDX in the German and IX in the English environment.
- ▶ You may wish to remove the HTML reference pages altogether.

<sup>12</sup> None of these templates might serve you, but some may give you ideas.

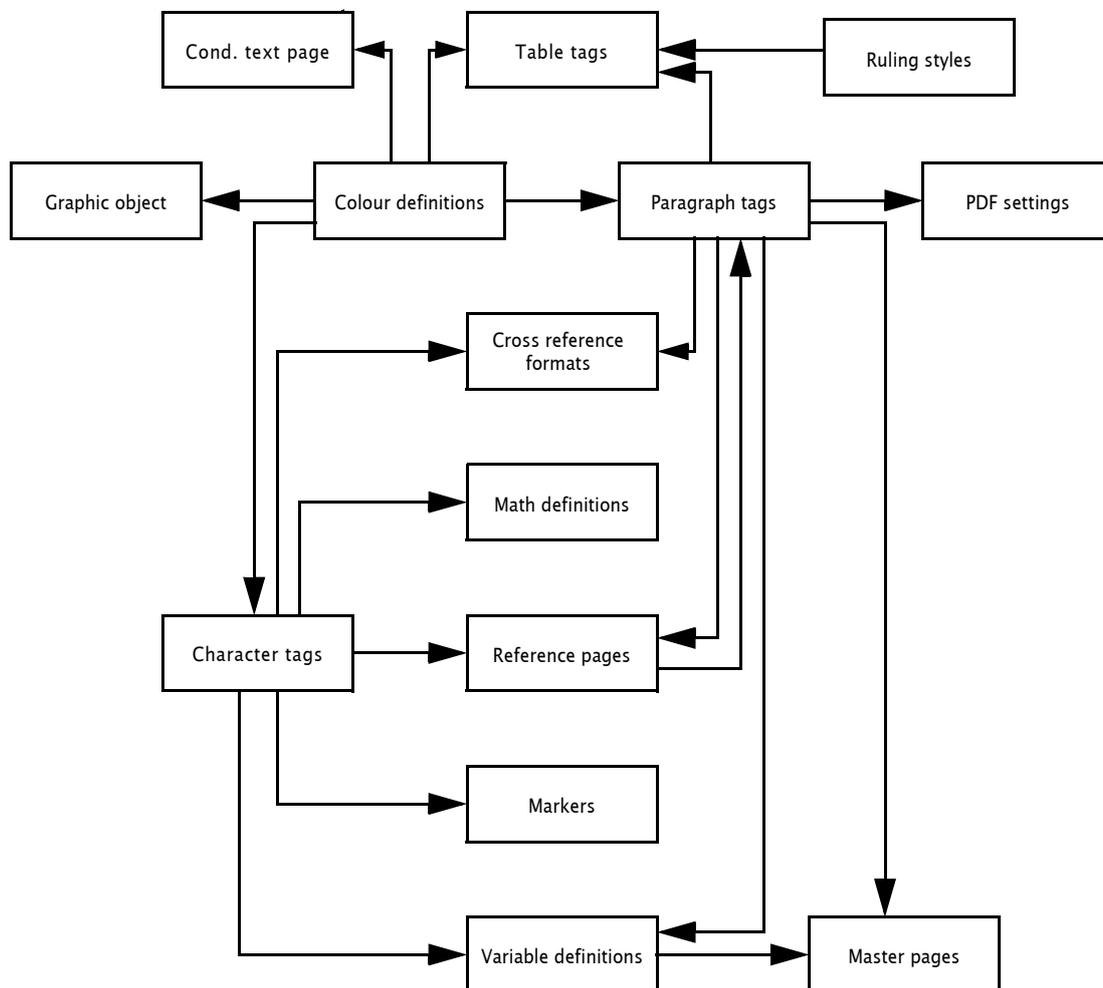
- ▶ Check the standard reference page whether it contains all the graphics you reference in the 'Frame above' or 'Frame below' attributes of paragraphs and for footnote separators.

You may wish to add graphics used in warning notes etc. If copied into the template, insert them in the needed size to avoid waste of file space.

- ▶ Check out and modify/delete or add all the small items mentioned in *Set up a template* on page 25.
- ▶ Clean out any text on the body pages, or better: describe all formats with examples and specify its use. It may be cleared before use whenever you use this template document.
- ▶ Save the document at an appropriate place, e.g. at ...\`doc-standards\frame\`.
- ▶ Save this file with an descriptive name at an appropriate place (e.g. as ...\`doc-standards\frame\report-general.fm`).

## Interdependencies of template items

Many features of layout and style are related, they depend on each other. The following scheme is based on Sarah O'Keefe's book *FrameMaker 7: The Complete Reference*.



# Sample template

The following is based on the layout of this compendium.

## Master page Left

### Layout (master page)

#### Header text frame:

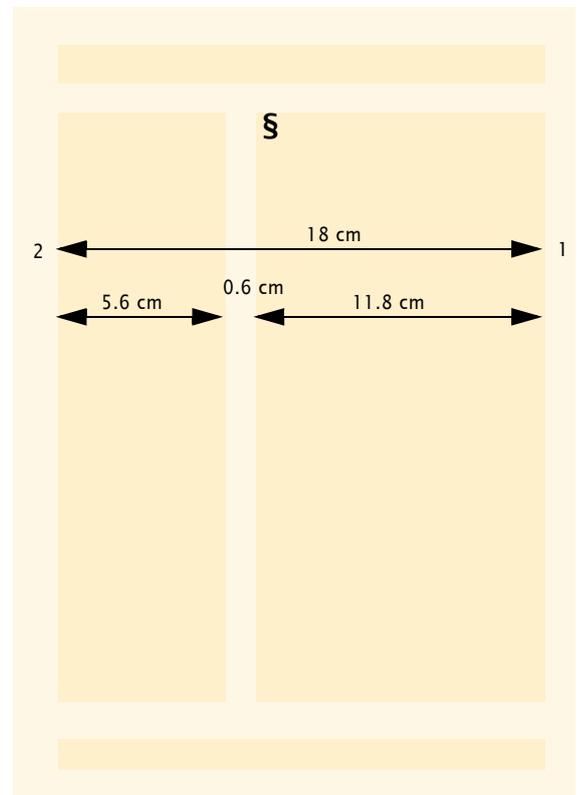
- Type background
- Top=1 cm, Height=0.4 cm, Left=2 cm, Width=18 cm

#### Main text frame:

- Top: 2 cm, L=2 cm, W=18 cm, H=26 cm
- Flow A, auto connected
- Side head: room 5.6 cm, gap 0.6 cm

#### Footer text frame:

- Type background
- Top=28.6, H=0.4, L=2, W=18.



#### Header frame:

¶-format z-header

Contents Running H/F 1; format=<\$paratext[1heading]>

#### Contents of footer frame

¶-format z-footer

Contents D (*f*-format: DDD-symbols); **TAB**  
 System variable *Chapter Number*, " - ";  
 System variable *Variable Current Page #*, **TAB**  
 System variable *Filename long*;  
 System variable *Modification date short* (in ISO format)

## Master page right

### Layout

Mirrored to Left

### Header frame

¶-format z-header

Contents Running H/F 2; format=<\$paratext[2heading]>

### Footer frame

Same as on page Left.

## Excerpt from a paragraph catalogue

Paragraph format name	Basic properties				Default Font			Pagination		Numbering.
	space above	indent left [cm]	tab L [cm]	next paragraph	font	size [pt]	weight	pagination	keep with next	Numbering (for headings only provisional)
1heading	page	1.5	1.5	bodytext	Helvetica	24	bold	across all ...	yes	
2heading	24pt	1.5	1.5	bodytext		18		in col.		
3heading	11pt	1.5	1.5	bodytext		14		side head		
body	5.5pt				Palatino	11		In column	no	
n1_numbered_1st	5.5pt	0.5	0.5	nx_num...					yes	<n=1>\t
nx_numbered_next	5.5pt	0.5	0.5							<n+>\t
lb_bulleted_list	5.5pt	0.5	0.5							\b\t
tt_table_title	12pt		2.5		Helvetica-narrow	14	bold		no	
th_table_head						12				
tc_table_cell	4pt					10				
tl_table_list	4pt	0.5	0.5							
Footnote	4pt		0.5			9				

## Excerpt from a character catalogue

Format name	font	size	weight	angle	language
1highlight	as is	as is	as is	italic	as is
2highlight	as is	as is	bold	as is	as is
computer	Letter Gothic	as is	as is	as is	none
name	Helvetica Narrow	12pt	bold	normal	none
bullets	Zapf Dingbats	as is	as is	as is	none

## Master pages for rotated tables

Rotated tables are not rotated themselves but located in a rotated text frame. For adequate handling (e.g. for *Assign master pages automatically* on page 32) it is best to create both a right and a left rotated page:

- 1 Create master page in portrait mode (e.g. copy from Right) and name it appropriately (e.g. Rotated-right)
- 2 Rotate page with **Format > Customize Layout > Rotate page clockwise/counter clockwise**.
- 3 Rotate central text frame back. The heading/footing area will remain rotated.

Text is oriented this way and tables are placed normally

here you can edit the table similar to the text			

Hecate est Iovis et Latonae filia, soror Apollinis. Est tricopor et triceps, magicarum artium magistra ac fascinationum praeses, cintra latrantium canum turma; noctu stans in triviis vel prope sepulcra et ubi taminata.

Footing area is rotated

Heading area is rotated

If for some reason you keep the master page in portrait mode and just rotate the inner text frame, you can not directly edit a table anchored in this text frame:

Heading area is oriented normally

As soon as you place the cursor in the table it will be selected - no editing is possible in a rotated table:



Footing area is oriented normally

# Handling master pages

## Assign master pages automatically

FrameMaker allows to assign master pages depending on one or more paragraph formats on a page.

This is handy for automatic assignment of rotated pages for large tables.

**Note:** *The triggering paragraph can not be within a nested text frame (within an anchored frame) or a table. Hence the only reasonable trigger for rotating tables is the tag of an anchor paragraph.*

## Master page mapping table

If this table does not exist, it will be created by **Format > Page Layout > Apply Master Pages ...** The mapping table will appear on reference page MasterPageMaps and has this appearance:

```
UnstructMasterPageMaps
Book Update (Yes or No): Yes
```

Paragraph Tag Name	Right-Handed Master Page (or Single-Sided Master Page)	Left-Handed Master Page	Range Indicator (Single, Span pages, Until changed)	Comments
dtr-doctitle-right	Title		Single	The first chapter page
zi-imprint	Last		Single	No header/footer
rt-rotate-table	Rotated-right	Rotated-left	Span pages	Wide multi-page tables

Having set up the table on the reference page,

- 1 When you are done, choose **View > Body Pages**.
- 2 Make the appropriate document window or book window active. If a book window is active, select the documents you want to affect.
- 3 Choose **Format > Page Layout > Apply Master Pages**, and then click Yes to override manually applied master pages.

FrameMaker searches each body page for the first occurrence of any paragraph tag specified in the Master Page Maps table. When it finds text containing the specified paragraph tag, it applies the specified master page.

### Range indicators

Single	to apply the master page only to the body page on which each paragraph tag appears
Span pages	Master pages are applied to the entire span of pages to which the paragraph tag is applied.
Until changed	Master pages are applied to all pages, until the next body page with a different paragraph tag listed in the mapping table is encountered.
Blank	Equivalent to Single.

## Reorder master pages



To reorder custom master pages [Help]:

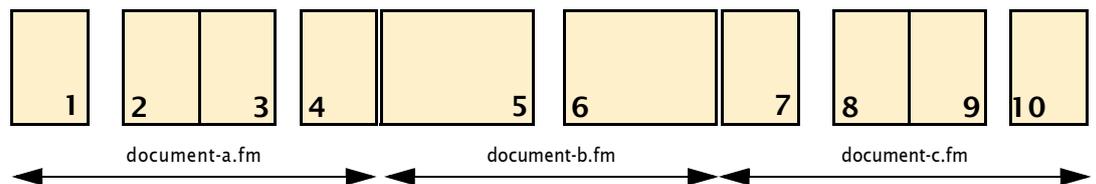
- 1 Open a master page, and then choose **Format > Page Layout > Reorder Custom Master Pages**.
- 2 Select a master page in the Custom Master Pages list, and move them with the **Move Up** or Move Down button.
- 3 Repeat step 2 as often as necessary to achieve the order you want.
- 4 Click **Set**. If you were previously viewing a custom master page, note that a different master page may now be visible.

## Different pages sizes

For large tables or large pictures (think of a panorama) you want to have a different page size amidst a document.

You can not set up master pages of different page sizes.

If you need different page sizes within a document, you may split the document into various files. Sub-documents may have different pages sizes.



The files of such a construct are put together in a Frame-Maker book, which allows for proper numbering.

### Printing

For printing the parts must be printed separately, probably on different printer hardware.

### PDF creation

When creating a PDF form this FM-book you get the large pages cropped, because the page size is part of the PDF set-up.

If you explicitly specify the large page size then the smaller parts are placed on large paper.

Hence also for the PDF generation you need to create separate parts, which can be combined to a single PDF with Acrobat.

However, when printing this combined PDF as a whole the larger parts are reduced to fit or cropped etc. depending on your set up.



# 6

## Graphics

### Overview

FrameMaker provides a set of graphic tools which are sufficient for most purposes in technical texts. For sophisticated applications, such as marketing brochures, these tools are not sufficient and imported graphics are used. FrameMaker support a great number of graphic formats.

The graphic tools of FrameMaker were not developed further at the point when specialised applications became available even on UNIX.

For diagrams D+DD provide clip-art of high precision (both scales and grids).

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# Importing graphics

The kind of graphic formats FrameMaker can handle depends on the installation of the filters.

## Supported graphic formats

### Vector data formats

	The following filters for vector data are available in a complete installation of FrameMaker:
Autocad drawings	Both DWG and DXF files can be imported. Be aware that such drawings may be very large and hence scaled down to a black blob. It is also common that such files will have very thin lines after imported due to the scaling.  Normally it is necessary to prepare CAD drawings in the CAD application.
Computer Graphics Metafile	CGM files can be imported properly.
Corel Draw	FrameMaker can import CDR graphics only up to version 7. Corel Draw 8 files create a filter error.
Encapsulated PostScript	EPS is an outdated format. It may be black and white as well as full colour. FrameMaker handles PDF much better than EPS.  If no preview image is included in the file, FrameMaker displays a gray box of appropriate size. To see the image, you need to print on a PostScript printer or create a PDF.  On a non-PostScript printer you will get only the preview image (if present) which in most cases is of very low resolution. FM looks only for the colour definitions into the EPS.
Frame Vector	FMV is a FrameMaker internal formats which is created on request ( <b>File &gt; Preferences &gt; General: Save FramelImage with imported graphic</b> ) when documents containing copied (not referenced) images are saved. How the picture itself can be saved is unclear.
HP Graphics Language	HPGL is sometimes used by CAD applications as output for specific HP printers.
Micrografx Drawing	Some DRW files create filter errors.
Portable Document Format (PDF)	PDF is supported better than eps. From a multi page PDF you can import any selectable page. See <i>Preparing PDF</i> on page 6-5.
Scalable Vector Graphics	SVG is especially designed for the web. In FM8 it seems to be imported correctly.
Windows MetaFile	WMF may contain both vector and raster data. EMF (Enhanced Metafile) is also imported correctly in FM8..
Word Perfect Graphics	WPG files are meta files and may contain both vectors and bitaps.

### Raster data

CCITT G4	This is a FAX file format and can be generated by a FAX driver or received via FAX software. It is only black and white. FM8 reads G4 files without error, but the image is just a gray area.
----------	---

Device Independent Bitmap	The format DIB exists only on Windows. It contains information about its original size and resolution. This format is widely used for screen shots.
Frame Image	FRMI is a FrameMaker internal format which is created on request ( <b>File &gt; Preferences &gt; General</b> ) when documents containing copied (not referenced) images are saved. How the picture itself can be saved is unclear.
GEM Raster	GEM raster - also known as IMG - is from Digital Research, for example used by DR Paint or Publishers Paintbrush. GEM stands for Graphical Environment Manager.
Graphic Interchange Format	GIF is a proprietary format <sup>13</sup> . It uses at most 256 indexed colours and may carry transparency. GIF is not an adequate format for photographs.
IBM PC Paintbrush	PCX files are very old and specific for DOS and Windows.
JPEG	J-peg compression is lossy. You may set the compression to none. JPEG was developed for photographs. It is not a good choice for images with coloured areas (illustrations).
JP2, J2K, JP2	Lossy and lossless Jpeg 2000 raster image. JPC is JPEG 2000 compressed. JPX is JPEG eXtended. Raster image in JPEG 2000 format with proprietary extensions
MacPaint	This raster format MAC supports full colour. As the name suggests, it was native to the Macintosh environment.
Photoshop	PSD and PTS are recognised file types, PHO files can not be handled.
Portable Network Graphics	PNG is a non proprietary format supporting transparency. It was developed for the Web. For two problems with format see <i>Huge number of colours</i> and <i>Image in PDF cropped</i> on page A-24.
Quickdraw Pict	PCT files have their roots on the Macintosh.
Sun Raster	RAS exists on Unix systems of Sun, but can also be read on Windows.
Tagged Image Format	FrameMaker can handle both uncompressed and compressed TIFF (with LZW). Most flavours of TIFF (black and white, grey-scale, colour) are supported by FrameMaker.
Windows Bitmap	BMP is Microsoft-proprietary raster image file format. It uses 3 bytes per pixel to contain the full range of colours. Hence the files are huge.
x-Windows Dump	XWD files are native to UNIX, but can also be read on Windows.
ZSoft PCX	PCX files are created by the programs of the ZSoft Paintbrush family.

## Animations

	From these files only a placeholder is displayed in the FM document. In a generated PDF their life is back.
U3D	Universal 3D. A vector image format for 3D images which can be ported to PDF. In the PDF the rendered object can be zoomed, move, turned etc. See <i>3D - objects</i> on page 6-28.
MOV	Quicktime movie.
SWF	Adobe Flash. See <i>Flash objects</i> on page 6-29

<sup>13</sup> Developed by CompuServe, another company (UNISYS) claimed patent rights during 2000 or so. At least since 2003 the patents are free.

## Recommended graphic format

Recommended formats are highlighted in bold. Use formats in the shaded area only for web-graphics.

Options	Photograph	Nature of image	
		Line drawing	Drawing with coloured areas (screenshots)
No compression	<b>jpg</b> , pdf, tif	eps, <b>pdf</b> , <b>svg</b>	eps, <b>pdf</b> , <b>svg</b>
Lossless compression	<b>jpg</b> , <b>jp2</b> , gif, <b>png</b>	gif, <b>png</b> , tif	gif, <b>png</b> , tif
Lossy compression	<b>jpg</b> , <b>png</b>	<b>-jpg</b> , <b>jp2</b>	<b>-jpg</b> , <b>jp2</b>

*Note:* png graphics with 8bit pixel depth (256 indexed colours) will fill the colour catalogue with a huge number of colours named RGB xxx,xxx,xxx Although you can eliminate these definitions by “MIF washing”, these colours are back after opening the file again... Hence always use “full colour”, “Millions of colours” or the like (problem solved in FM-9).

## Preparing graphics for import

It is good practice to leave out legends and other text or figures from the graphic. This can be overlaid in the FM document and consistent size of a font is not a problem at all. If the document must be translated, text within graphics would require that the translator must work in the graphics application.

### RGB or CMYK

On a television monitor or a computer terminal you coloured light is mixed to create a distinct shade of a colour. The colours are red, green and blue (RGB). Black is complete absence of any colour and white is the the mixture of the maximum value of these colours. Colours are mixed by adding: green + red = yellow; blue + red = magenta.

When printing the colours are reflective. A colour appearing yellow absorbs all but the yellow colour from the white light shining on the object. If an object reflects all light, it appears to be white, if it does not reflect any light it appears black. To create any colour the base colours are cyan, yellow and magenta. Since mixing all together even in maximum saturation does not create a relly black impression, black is printed as a fourth colour. Hence this colour model is called CMYK (K for black). Colours are mixed by subtraction: Mixing yellow and cyan creates a green impression, mixing yellow and magenta creates a red impression.

Since FrameMaker 8 the creation of a composite PDF is no more a problem. Before FM 8 output for a print shop needed to be an already seprated PDF.

### Colour fidelity

In all cases the perception of colour depends on the light emitted by either the screen or shining on the coloured object. Hence only a so called calibrated environment can maintina colour consistency during the process from scan/photographi via screen to print. For technical documentation

the colour fidelity is not that important, hence the tools are not calibrated.

The conversion between the two colour models is basically a mathematical process which can be performed in Acrobat. Certain conditions such as monitor type, paper type or light colour are considered with colour profiles. These considerations are important for printing catalogues of paintings etc. but not for technical documentation.

Vector graphics provide the same quality of lines in all scales. To maintain a consistent appearance of line thicknesses and font sizes it is good practice to create the graphics in the size they are needed in the document (or in double size).

A PDF may serve as a graphics library, since FrameMaker can import each page separately. Each of these pages can be of different size too. The onscreen presentation scales nicely.

PDF does not contain a bounding box, but a document size per page. Hence it may be useful to crop a large page to a small image on it (e.g. in Acrobat), before importing in FM.

Since cropping does not reduce the file size (everything is still there), it may be useful (especially for CAD drawings) to edit the PDF in Illustrator or an equivalent. For example, copy the relevant part into a new document and create a PDF from it.

Images are graphics where every picture element (pixel) may have a different colour. It can easily be understood that a slanted straight line always will contain steps, even in high resolution images. For technical pictures distinction of elements is key and edges of objects must not be blurred.

This leads to the demand of a certain resolution for a given size in the document. It is also essential not to use very lossy compression (< 20%) for technical pictures. For pictures of natural object the compression can be much higher (< 70%) without losing too much image quality.

Compression versus quality

In Photoshop the compression can not be set directly. The quality of the image is set in steps 0 to 12 (0: lowest quality, highest compression). In other programs you can set a compression factor numerically.

Since data from digital cameras are already compressed (except if you take RAW data), you should not apply further compression to a picture to be saved after cropping etc. Use "original quality" or "no compression" to save such an image in jpg or jp2 (Jpeg 2000).

Avoid hidden operations

To avoid additional (hidden) operations on images it is good practice to prepare them outside of FrameMaker in the desired size (e.g. 50×100mm, 150dpi). Always keep a copy of the original picture. The resolution of the image is only relevant for printing, not for online display. Keep it between 150 and 300 dpi to allow for single-source-publishing.

## Vector graphics

## Preparing PDF

## Images

## Problems with imported graphics

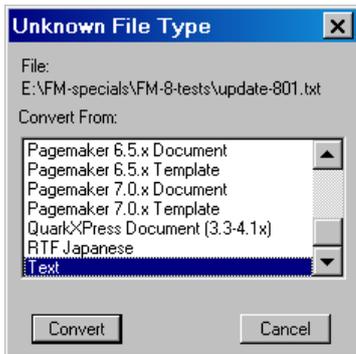
To resolve problems with imported graphics, check this:

- ▶ Do you have the proper filter (input interpreter) installed?
- ▶ Does the file conform to the 'de facto standard' pertinent to the file format (there are various flavours of DXF, WMF, TIFF, etc. around)?
- ▶ May the file be corrupted (for example, by a download)?
- ▶ Can you get a different format from the source?

## Importing graphics

FrameMaker can copy or reference graphics not only on the local computer (including its network), but also from the Internet by specifying an URL (<http://sample.com/image.jpg>).

To import a graphic:

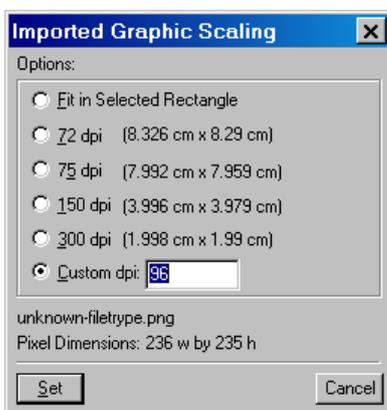


- ▶ Place the cursor where you want the graphic to appear.
- ▶ **File > Import > File**
- ▶ Look for the path and the desired graphic and choose **Import by Reference**.
- ▶ Click **Import**.
- ▶ If FrameMaker can not determine the graphics format and hence can not select an appropriate graphics import filter, the **Unknown File type** dialogue is displayed. Select the appropriate file type and import the file with **Convert**.

The list in the dialogue provides a mixture of file type names (e.g. Portable Network Graphics) and file extension (e.g. HPGL).

**Note:** *If you have not installed all filters, you might not find the appropriate file type in the list - in this case you need to convert the file in a graphics application.*

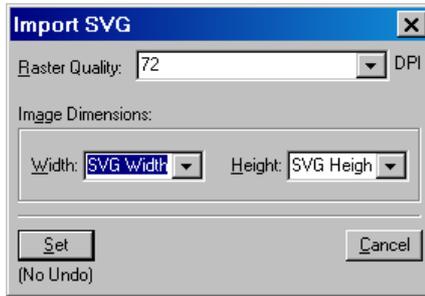
## Importing raster graphics



- ▶ If you have selected a bitmap graphic, set up the resolution for the desired size (dialogue **Import Graphics Scaling**).
- ▶ To **Fit in Selected Rectangle** a rectangle must be selected, not a graphic frame or the anchored frame! The rectangle will be replaced by the graphic.
- ▶ For all other selections an anchored frame containing the graphic will be inserted with the following properties:
  - Placement **Below current Line, centred**
  - **Centred**
  - **Cropped** (if the image is too large, it will be cropped)
  - Margins of  $1/12'' = 6 \text{ pt}$  (2.12 mm) around the image

**Note:** *These defaults can be changed to something more useful only with a special plug-in.*

## Importing vector graphics



- ▶ If you have selected a vector graphic, the graphic will be imported directly into an anchored frame (with the same properties as for a raster graphic).
- ▶ When importing an SVG (Scalable Vector Graphic), the Unknown Filetype dialogue is presented, even though FrameMaker has recognised the correct format. Confirm with Convert. For SVG you get an additional dialogue:
- ▶ In Import SVG
  - either set the desired DPI raster quality in the drop down list. The current DPI for the graphic is displayed as default.
  - or set the specific dimensions from the drop down lists SVG width and SVG height. This may distort the image.

## Import graphic into frame

When you import a raster graphic into a selected (anchored) frame, you may need to calculate a fitting resolution. In **Custom dpi** the last used value is provided, not a newly calculated value.

## Referenced versus copied graphics

If you import images directly into the document by copy (not by reference) or simply use the paste command to place the images into frames, the file size of the document is increased significantly, because two objects are inserted:

- The imported image in its native format (e.g. png or tif)
- A frame internal object, FrameVector or FrameImage.

The Frame internal format is not compressed and hence may be huge compared to the imported image file.

With a special setup in maker.ini the enlargement may be reduced, but not completely prevented. See *Reduce impact of import by copy* on page C-20

## Printing coloured images

When printing coloured images on a standard laser printer or other black-and-white printer you get different results due to

- different mapping of colours to gray scale
- different printer resolutions
- different types of printers
- This is also true for PostScript printers.

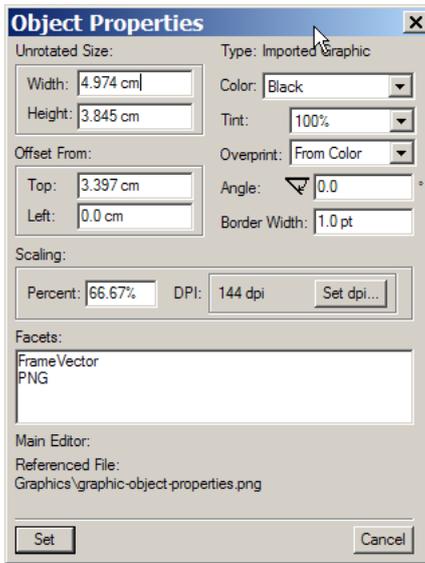
## Preserve colour in PDF

If you do not have a colour PostScript printer and want to create colourful PDFs, you must use the printer driver of Acrobat Distiller (**File > Printer Setup** and select **Acrobat Distiller**)<sup>14</sup>.

**Note:** *Adobe recommends to always use the Distiller Printer for PDF.*

<sup>14</sup> Printing a PostScript file and then distilling is the method until FM 6 and Acrobat 5. With later versions you can **Save as PDF** which automatically uses the Distiller Printer (since Acrobat 6 called Adobe PDF).

## Scaling objects



- ▶ Change the size and position of a selected graphic with the mouse (hold down the SHIFT key to constrain to proportional scaling).
  - You see the current width and heights in the status bar on the bottom left corner of the document window.
  - If View > Rulers is set, current width and height are indicated on the ruler, for example the top ruler
- ▶ Use **Graphic > Object Properties** for proportional scaling in percent (**Scaling > Percent**, click **Set**)
- ▶ You can also set the dimensions (and position) explicitly in this dialogue.
- ▶ To change the resolution (DPI) of a bit mapped graphic, use **Graphic > Object Properties** and use the **Set DPI** button. A higher resolution will reduce the image size, a lower resolution will increase the image size.
 

**Note:** This function is not available after scaling with the mouse.

See also *Scale an object* on page 6-18.

# Figures in FrameMaker

See also *Figures with legends* on page B-19.

## Anchored frame with title paragraph

There is no title attribute for anchored frames. You place the figure title in a separate paragraph before or after the anchored frame.

If you want to have the title above the figure you use this paragraph as anchoring paragraph.

### Title above frame

Figure 1: Frame is with border to see its extent. The anchor for the frame is here **¶**.



**Space below** for the title paragraph is not used for the distance to the frame, but placed below the frame. Hence you may wish to place the graphic within the frame with a top margin.

*Do not set the **Floating** flag for the anchored frame. If this flag is set, the frame will be separated from the anchor paragraph if space below the paragraph is too small for the frame.*

### Title below frame

In this case it is good practice to define an empty paragraph for the anchor, for example `fa-figure-anchor` with a small line spacing. In the example hereafter some text makes this paragraph visible.

**¶**this is the anchor paragraph - with the anchor at the beginning of the line.



Figure 2: Panorama to the south seen from Sattel in kanton Schwyz, location Unterlutzi.

To keep the title together with the frame (anchor) define **Keep with Previous Pgf** in the pagination properties of the title.

For the distance between frame and figure title:

- either define **Space Below Pgf** for the anchoring ¶,
- or define **Space Above Pgf** for the title paragraph.

## Figure in table

Placing figures in tables provides great flexibility with respect to background, framing, titles and legends.

- Place the image in an anchored frame.
- Place the anchored frame in a table cell, anchored at a paragraph with run-in property (otherwise you get additional room at the top of the cell).
- Define cell margins according to the needs.

### Setting up a figure table

The table **figure-table** is set up with just one cell and the following properties:

Cell margins	all 0
Alignment	left
Start	anywhere
Title position	below table
Ruling	none
Shading	none

The paragraph format to display the area of the table (shaded in the sample below) in the cell is **body**. It is used only to place the anchor. The paragraph format for the table title is **fn-fig-heading-numbered**.

### Using the figure table

After inserting the image (with **File > Import > File**) you need to adjust the properties of the anchored frame for...



⌞ The format of this paragraph (body) should have 0 values for all items in the Tab "Table Cell". Otherwise you get additional space around the anchored frame (normally without border).

Based on this method you may wish to use a 3-column table:  
Column1 = width of side head area; column 2: gap between side head and main text; column 3: as wide as the text area.

Figure 3: The eye of a model (created by an artist, no photo).

Anchoring type = Run into Paragraph; Alignment = Left

You may also wish to change the properties of the image to...

Top left position = 0 and adjust the size of the anchored frame manually...

You may wish to speed up your work by copying and pasting prepared tables and then replacing the images.

## Large pictures

Pictures may be larger than the text frame. It may also be necessary that they 'bleed', that is, run over the paper size. A special case are pictures running over two facing pages.

It is always possible to place a picture 'directly on the paper', that is, not in an anchored frame:

### Froschkönig

Der froschkönig war es nun endgültig leid, noch länger auf die prinzessin zu warten. Ärgerlich hüpfte er vom brunnenrand, zumal eine dicke fliege sein interesse weckte. Übel hatte ihm die prinzessin mitgespielt!

- 6 -



Daß ihm das passieren musste!

Öfter als sonst verkroch er sich von nun an in die brunnenkresse und sinnierte über den kleinen grünen steinfresser.

- 8 -

- 1 Create a master page named empty which does not contain a text frame. In the dialogue **Add Master page ...** select **Empty** for **Initial Page Layout**.
- 2 Insert a disconnected page (**Special > Add Disconnected Pages ...**) at the desired location and apply the master page empty to this page.
- 3 The text flow runs around this page.
- 4 This disconnected page stays on its location (e.g. page 8 in the file) if text is added or removed before this page.

## Picture across facing pages

Since all objects are cropped at the paper edges, you need to place a picture extending over facing pages twice.

Der froschkönig war es nun endgültig leid, noch länger auf die prinzessin zu warten. Ärgerlich hüpfte er



vom brunnenrand, zumal eine dicke fliege sein interesse weckte. Übel hatte ihm die prinzessin mitgespielt!

Daß ihm das passieren musste! Öfter als sonst verkroch er sich von nun an in die brunnen-



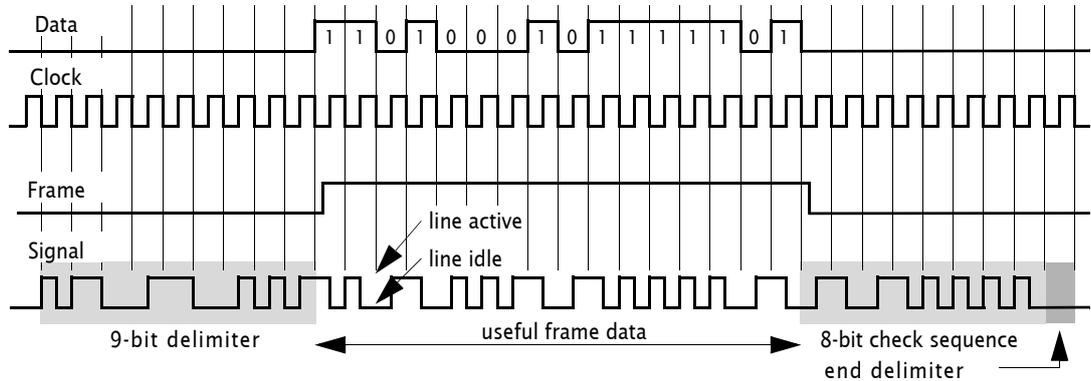
kresse und sinnierte über den kleinen grünen steinfresser.

Text frames autotocconnected.

Graphic frames

# Graphics with FrameMaker tools

Many technical drawings, schemes etc. can be done completely with FrameMaker tools:



## Select graphic elements

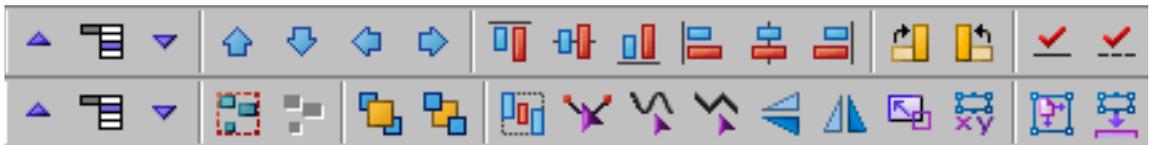
Normally you just click with the cursor on a graphic element to select it. To select more than one element (e.g. for grouping) use **SHIFT+click** for the second to nth element.

In rare cases it may be necessary to **CTRL+click** on the first element. Be aware that moving the mouse during the click will create a copy of the element, not just select it!

For special operations the following ESC sequences may be useful:

Function	Key-seq.
Select the first graphic element (on the page)	ESC, o, F
Select the next drawn object (may be a group)	ESC, o, n
Expand the object selection (add objects to selection)	ESC, o, e

## Tool bars for graphic work



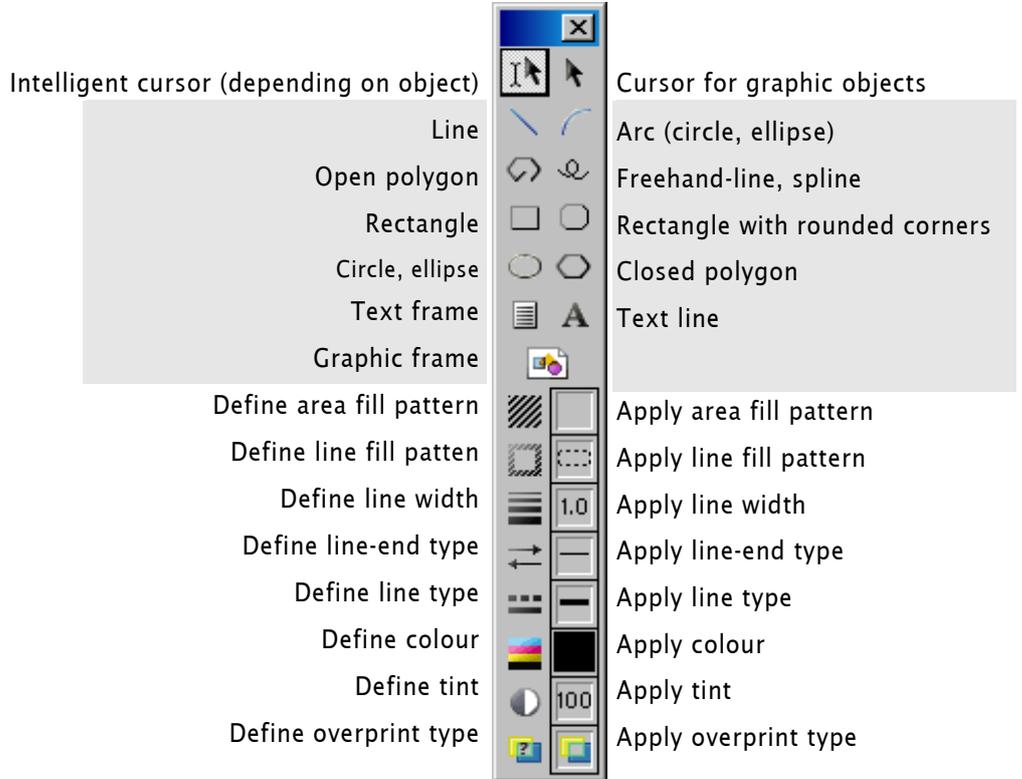
## Prepare the environment

Defaults for these properties can be defined in the file maker.ini (see *Set reasonable defaults for your work* on page A-31)

- Set a reasonable grid spacing (e.g. 0.1 cm) in **View > Options**
- Set **Graphics > Snap** (  ) to activate the grid for your work.
- With **Graphics > Gravity** (  ) set on, an object attracts the pointer (cursor) as you draw, resize or reshape a nearby object. Gravity has no effect to moved objects. The gravity is a property of the contour and the corners of an object. Its 'range' does not depend on the zoom level.

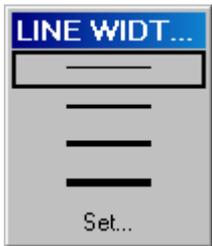
# Graphic objects

The graphics palette defines graphic objects as well as properties for graphic objects. You may set the properties before you create an object or apply the properties to selected objects.



## Procedures

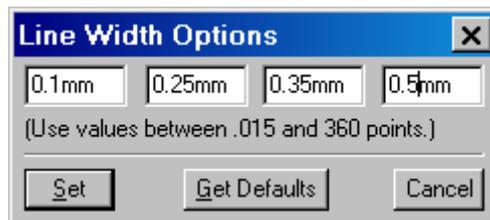
### Define line width



Clicking the button Define Line Width (≡) opens a dialogue, in which you can select the already defined widths. The selected width is then indicated in the right (1.0) apply button in pts.

To apply a line width to an object, you click on the **Apply** button.

To define line widths select **Set...** in the dialogue **Line Width** and enter the desired values. If no unit (e.g. mm) is provided, pts are assumed:



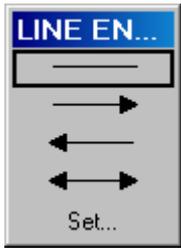
At Set the units are converted to pts for (rounded) display in the Apply button.

2011-05-11

E:\FM-course\handout\graphics.fm

D + D D

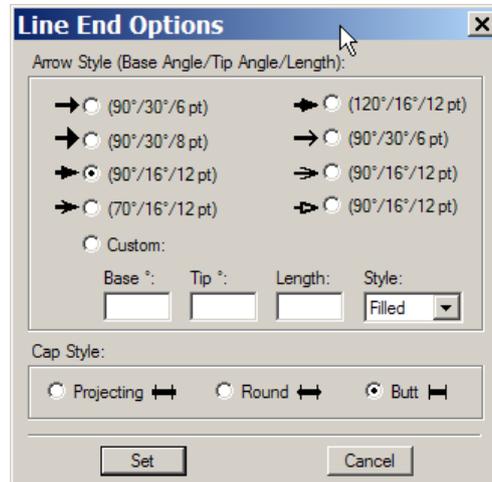
### Define line ends



Clicking the button **Define Line Ends** (  ) opens a dialogue, in which you can select the already defined styles. The selected style is then indicated in the right (  ) apply button.

To apply a line style to an object, you click on the **Apply** button.

To define a line style select **Set...** in the dialogue **Line Ends** and select the desired style. :



The **Cap Style** influences the appearance at large line widths. In these cases you may set the Round option.

For defining a custom style see *To define a blob line tip* on page 6-21.

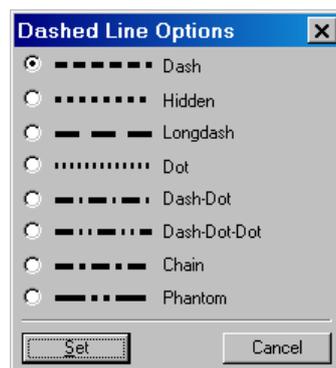
### Define line type



Clicking the button **Define Line Type** (  ) opens a dialogue, in which you can select the already defined styles. The selected style is then indicated in the right (  ) apply button.

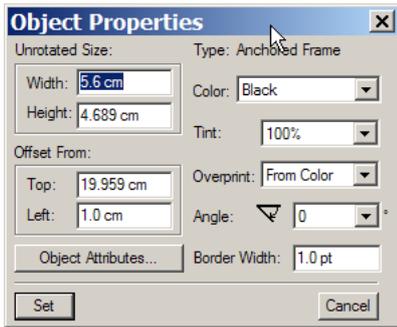
To apply a line style to an object, you click on the **Apply** button.

To define a line style select **Set...** in the dialogue **Dashed Line Options** and select the desired style:



The pattern of line/gap groups and names of the styles is defined in the maker.ini file. See *Dash patterns* on page A-31.

## Set numeric values for object properties



To set numeric values (e.g. for position, height, width), use **Graphics > Object Properties** or button . Which properties can be set depend on the object:

Object type	Object attribute.	Size	Location	Colour	Tint or fill pattern	Overprint	Angle	Border/line w.	Scaling	dpi	File	Facet	Flow settings	Column prop.	Name
Imported graphic	-	x	x	x	x	x	x	x	x	x	x	x			
Graphic object (ellipse, polygon etc.)	-	x	x	x	x	x	x	x							
Anchored frame	x	x	x	x	x	x	x	x							
Graphic frame	-	x	x	x	x	x	x	x							
Text frame	-	x	x	x	x	x	x	x					x	x	
Graphic frame on reference page	-	x	x	x	x	x	x	x							x

## Pick up properties

To pick up properties from an object and transfer it to the properties in the graphics palette, select the source object and enter ESC, g, 0 (letter O).<sup>15)</sup>

## Group and ungroup items



Use **Graphics > Group** to group various selected items.



Use **Graphics > Ungroup** to ungroup selected items. You can ungroup as long as the button is not greyed.

It is good practice to group all objects in a frame to avoid accidentally moving them. Do not just group the whole bunch of objects, but set up subgroups which belong together etc.

## Align objects

Select the objects to be aligned first and set the 'master' with the last selection. Then apply **Graphics > Align** to get a dialogue to specify the desired alignment or use the appropriate buttons



If you have only object selected for alignment, it will be aligned on its container (e.g. anchored frame).

## Move objects by small increments

At zoom factor 100% these buttons (or **ALT+arrow**) move the selected object (characters, graphic object) by 1 pt at 100%. At a zoom factor of 253% the nudge is 0.1mm.

**SHIFT+ALT+arrow** moves by 6 nudges <sup>16)</sup>



## Distribute objects

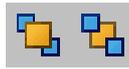


With **Graphics > Distribute** or button you get a dialogue to specify the distribution (horizontal/vertical, equidistant centred/edges, specific edge gap).

15 With Shalom Perets' Express Customisation Kit installed you get this function on the context-menu (right click).

16 **Attention.** **SHIFT+ALT** may switch the Windows Locale!

## Define visibility



Move selected items to the front or back of other objects with **Graphics > Bring to Front / Send to Back**.

## Connect lines



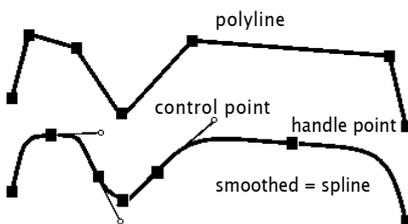
**Gravity ON:** Lines with reasonably close end points can be combined to one object with **Graphics > Join**. Drawing new elements close to existing ones snaps the new element to the existing one.

## Modify shapes



Depending on the selected graphic the function **Graphics > Reshape** does:

- Convert an arc from 1/4 circle or 1/4 ellipse to any angle. Use **Graphics > Object Properties** to set the value numerically.
- Activate the handles of a polyline, polygon or spline to be able to:
  - reshape the polyline or spline by dragging a handle (square).
  - reshape the curvature by dragging a control point (round).
  - add a handle point by control-clicking on the line.
  - remove a handle by control-clicking on the handle.
- Change the number of sides for regular polygons.



## Regular polygons

To create regular polygons (3 ... n), start with a circle, ellipse, square or rectangle and reshape it to an arbitrary number of sides with **Graphics > Set # Sides**. You may also set the angle of the base line.

## Freehand lines

Use the polygon tool from the tools palette to set up the skeleton of a line (polyline).



With **Graphic > Smooth** convert it to a smooth line. For adjusting the shape it may be useful to get the polygon again with **Graphic > Unsmooth**.

Watch the different positions of the handle points in polygon mode and smooth mode (see figure above).

## Move objects by small amounts

To move selected objects use **ALT+arrow** or the buttons depicting helicopters. The amount moved depends on the zoom factor. At 100% you move by 1 DTP-point<sup>17)</sup> (with **ALT+SHIFT+arrow**<sup>18)</sup> 6 DTP-points). Set the zoom factor to 353 to move 0.1mm per nudge with **ALT-arrow**.

## Rotate objects



With these buttons you rotate the object by the amount defined in **View > Options > Snap: Rotate** (e.g. 15°). Using **Graphics > Rotate** allows you to define any angle. Cells in a table are rotated by 90° increments only.

<sup>17</sup> 1 DTP point = 1/72 inch = 0.3528 mm

<sup>18</sup> Since the left **ALT+SHIFT** is the toggle between input locales in Windows you may end up with a different keyboard setting, for example typing z inserts a y. Check **Control Panel > Regional Options > Input Locales**. If there is more than one entry, you may encounter this problem ...

With the mouse you can rotate an object also: use **ALT** while you move a handle (the cursor arrow gets an additional small double arrow to indicate the function). Watch the rotation angle in the status bar.

**Flip upside-down and right-left**



Use **Graphics > Flip Up/Down** or **Flip Left/Right** for this action.

**Mirror objects**

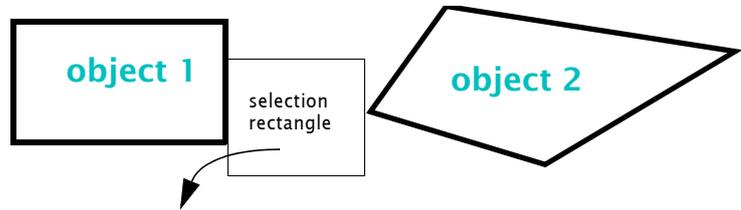
To mirror an object create a duplicate and flip this duplicate to your needs.

**Measuring things**

Measure any object or any distance on the page by drawing a selection rectangle either around the object(s) or around the space you want to measure.

Hold down **CTRL+SHIFT** at the beginning to assure nothing is selected.

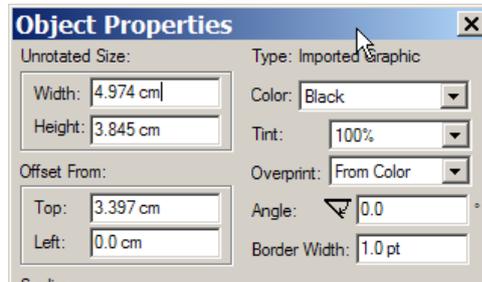
You see the width and heights in the units of the document of the selection rectangle to bottom left of the status area:



w: 1.766 cm h: 1.55 cm

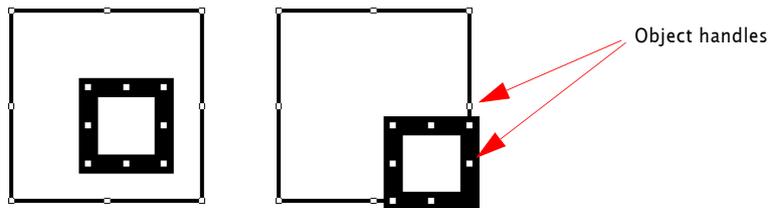
**Measuring objects**

To measure an object, simply select it and get the properties with **Graphics > Object Properties**. For example for object 2 in the diagram above you get:



**Alignment and snap details**

The properties width and height of graphic object are measured in the middle of the contour line (skeleton). Hence alignment and snap appear on this virtual line:



**Apply current line style**



If you have defined a line style (colour, pen width) you can use the buttons to apply either a solid or a dashed line to the selected object.

2011-05-11

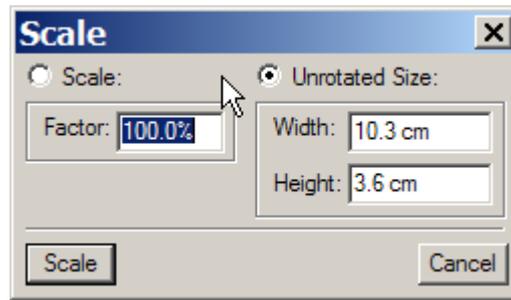
E:\FM-course\handout\graphics.fm

D+D D

## Scale an object

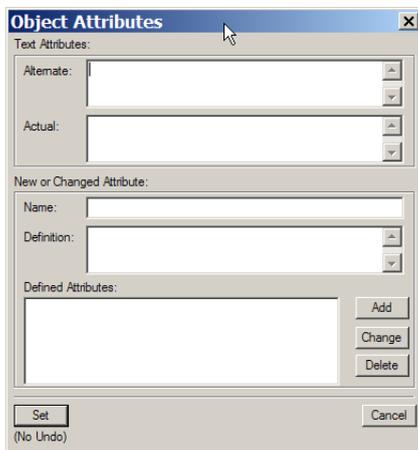


**Graphics > Scale ...** or the button lets you scale any graphics object. Either **Scale** proportionally or set the dimensions explicitly:



You can also use **Graphics > Object Properties** to scale or resize an object. There you have the option to scale by setting a resolution (dpi) for pixel images (see *Scaling objects* on page 6-8).

## Set object attributes



Object attributes are used in special export situations for anchored frames (**Object Properties > Object Attributes**):

- Alternate text      This is exported *only from structured documents* to HTML, XML, SGML and tagged PDF. It is displayed in the same sense as ALT text in HTML.
- Actual text        This is exported only to tagged PDF. The information is intended for Screen Readers to describe the contents of the anchored frame. See *Tags* on page 10-6.
- Attributes         With **Add** new attributes are specified according to the definition in **Name** and **Definition**. A selected attribute name can be Edited with **Change** or removed from the list of Defined Attributes with **Delete**.

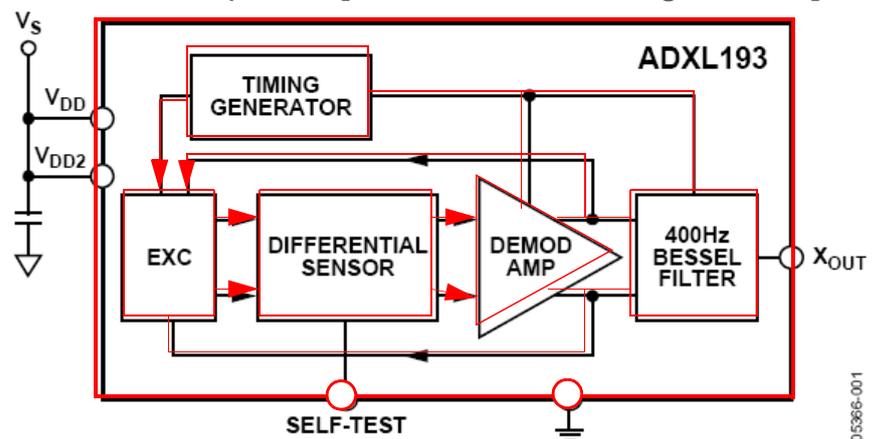
Use **Set** to assign the settings to the anchored frame.

## Tracing a graphic

If it becomes necessary to make changes to a graphic, but it is only available as a bit map you may want to trace the graphic (rebuild it with the FrameMaker graphic tools). Of course the method described here can also be performed in a graphic application, such as Adobe Illustrator.

- 1 Insert an anchored frame where you want to place the graphic.
- 2 Click outside the text frame and import the graphic. The graphic will appear “on the paper”, not within the frame.
- 3 To move and/or scale the graphic keep it selected. If it is unselected by some reason, open a selection rectangle (drag the mouse) starting outside the text frame.
- 4 Select the anchored frame and rebuild the graphic. Since the background graphic is not within the frame you will not accidentally select it. To distinguish the new graphic from the background you may wish to use a colour (which you change eventually).
- 5 Finally remove the background graphic and adjust the new graphic.

This trace is not yet complete. The new drawing uses snap.



## Replacing image logo

Logos are mostly placed on master pages to appear on every body page. To be able to distribute the template to other branches of a company the graphic is not referenced, but copied into the file. Sometimes multiple master pages are used. Together this leads to huge template files. (see *Referenced versus copied graphics* on page 6-7).

To reduce the file size drastically, the following method can be used:

- 1 If the logo contains text, ask the graphic artist for the specification and replace the graphic-text with real text in the appropriate font.
- 2 If the logo contains a drawing, replace the bit map with a traced image.

## Example logo

The 'original file' is used here in a resolution of 128 dpi which gives a width of about 66mm.



Although this png is only 5.3 kB in size, a FrameMaker file increases its size by 65 kB when this graphic is imported by copy. Assume 6 master pages with this logo: the file size increases by 0.4 MB. Well, on disk this is not an issue, but if you send some documents with this by e-mail ...

## Analysis and rebuild of the logo

- The background colour is a light grey (RGB 75/75/75 %)
- The script seems to be an elongated version of Arial or Arial bold. This can be found with overlaying the logo with a text line and using a character format to play with.
- With some experimenting it turns out that the script uses (in the used size, not the original logo file) 27.5pt Arial bold with 148% spread:

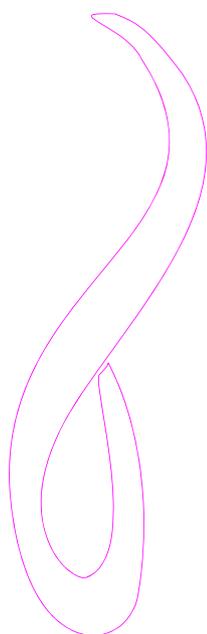


- For tracing the image use a closed polygon and smooth it. To get the shape use as few as possible anchor points and then tweek the spline handles. Use a very large zoom factor and a very small pen size for this work.



Doing this work in a separate FM document with a large logo image gives better results and makes work easier.

- Put together the graphic looks similar to the original:

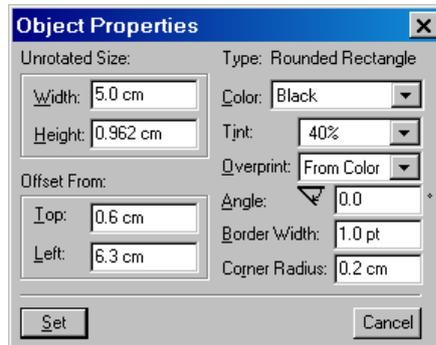


## Special graphic objects

### Rectangles with rounded corners



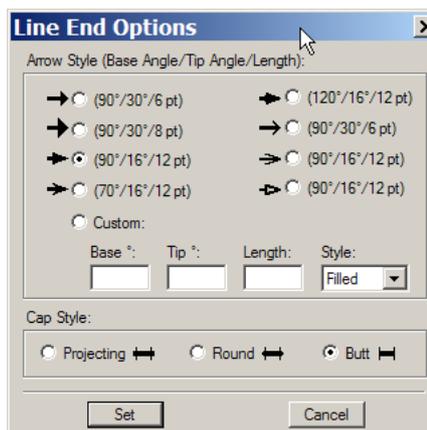
To change the radius of the corner with **Graphics > Object Properties** or the button.

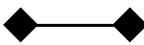


### Special arrow tips

To point to elements in photographs etc. you might want to have some blob at the end of a line - not an arrow pointing to the element.

#### To define a blob line tip



- ▶ Open the graphic tools palette
- ▶ Click on the **Arrow** tool and select Set...
- ▶ In the dialogue **Line End Options**
  - Activate the **Custom** option
  - Enter the values 135, 45 and 8pt into the value fields.
  - Click **Set**.
- ▶ From now on your arrows will be rhomboid blobs as displayed here  for a line with double arrows.

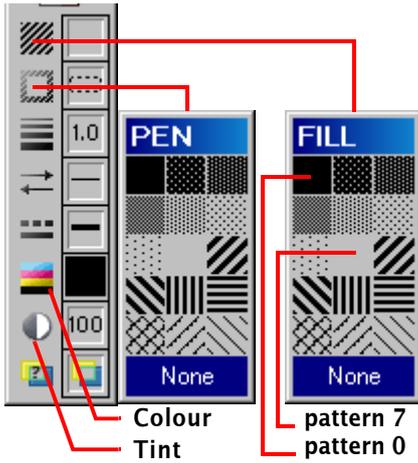
**Note:** *These special arrow settings disappear at the end of your FrameMaker session, they can not be saved.*

### Iconic images within text

In line icons (e.g. ) are placed in an anchored frame **At Insertion Point** with some negative “Distance above Baseline”. To get the frame just around the image (with no margin), use the function **Shrink Wrap Equation** (ESC, m, p).

You select the frame by clicking on the border and select the image by clicking in the middle of this ‘icon’.

## Border and Fill patterns



The colour (or pen pattern) of the border and the colour (or fill pattern) of the interior area of an object can only be the same.

The fill patterns and pen patterns are a reminiscence from the early FrameMaker times, whereas colour and tint are newer concepts.

- To apply real colour (and tint) you need to select the fill pattern black (pattern 0)
- To leave the object transparent, select the fill pattern **None**.

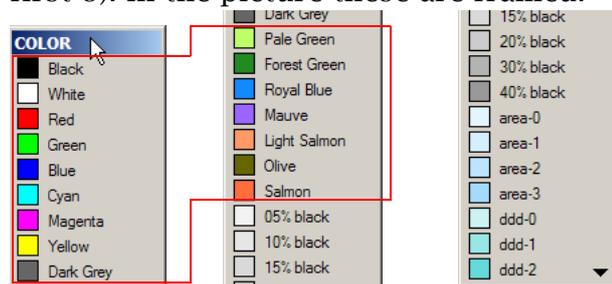
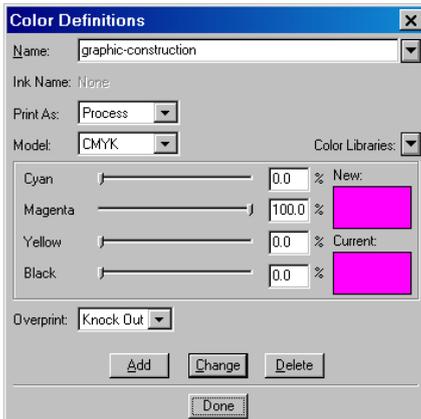
There is only limited use of the other patterns provided. This example uses pattern 9 on a 2mm wide line.



## Colours

With the button **Set Colour** you open the list of defined colours ( ). the selection then is filled into the **Apply** button to the right ( ).

FrameMaker 8 provides 16 predefined colours (FM 7 only the first 8). In the picture these are framed:



To get the rest of the colours, drag the small triangle downwards.

More colours and special gray levels are defined with **View > Colour > Definitions...** A number of colour libraries (e.g. Pantone) are available.

For example, to define a colour needed for guiding lines, specify a strangely looking colour and name it *GuidingLine*.

This colour will be listed in the **Table Designer > Shading** and in the **Graphic Tools** palette:

For commercial printing (offset) and special colour combinations you may want to define whether the colour should be overprinted or knocked out.

## Overprint versus Knock Out

When one colour object overlaps another, FrameMaker normally knocks out the overlapped portion so that it does not print in a color separation. This requires accurate registration, that is positioning of the two separations.



Overprint



Knocked out (with bad registration)

2011-05-11

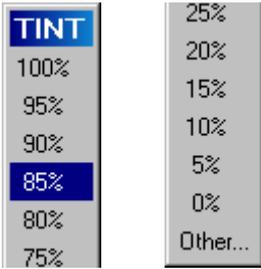
E:\FM-course\handout\graphics.fm



To avoid gaps (blinks) between the contours of the two objects, you can select **Overprint** in the dialogue of the button **Define Overprint Type** (🖨️) for the upper object. The selected method is applied to any object with the **Apply** button to the right (🖨️).

The overprint method can also be used to combine light colours: the lower shines through the upper. This effect, however can not be seen in FrameMaker on the screen and not on an office laser printer which does not use separations, although different colours are applied.

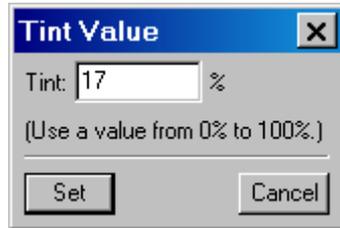
### Shading



Shading is the process of applying tint to a colour. Be aware of the fact, that a tint of 10% applied to a color which is defined as 40% black results as 4% black!

With button **Define Tint** (🔍) you open a dialogue from which you can select the desired value which then is listed in the right Apply button. With the **Apply** button (100) the tint is applied to the selected object.

You can define other values then listed, by selecting **Other...** and entering a value (no decimals are possible):

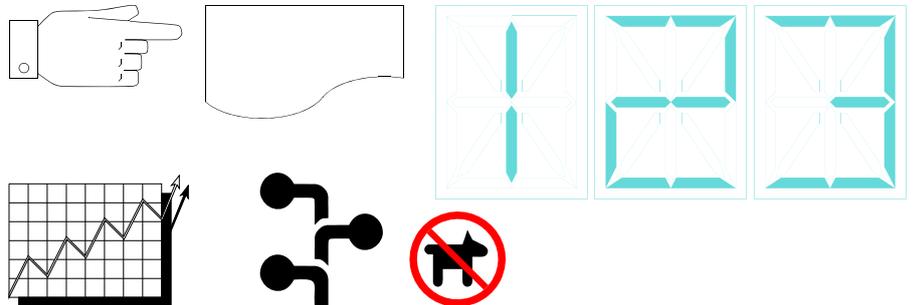


**Table Designer > Shading > Fill** provides only a limited set of shades (tints). For arbitrary shading use 100% fill in the table and a defined colour (e.g. 40% black).

### Clip art

FrameMaker comes with a set of clip art, which may be useful. These drawings are all done with FrameMaker tools. Hence you can modify them within FrameMaker.

Example clips



In FrameMaker > 6.0 there is no mention of the clip art files in Help or in the manual <sup>19</sup>. The files, however, are still there:

<sup>19</sup> With Microtype's customisation kit you get access back in the **Micro-type** menu.

The names of the clip art files in `$FMHOME/clipart` give a hint about their contents:

---

arrows. fm	fl owchart. fm	peopl e. fm
bal loons. fm	hardware. fm	symbol s. fm
cl i part. book	i cons. fm	transport. fm
di ngbats. fm	maps. fm	
el ectroni c. fm	offi cel ayout. fm	

---

### Own clip art

It may be a good idea to collect arbitrary shapes for your projects also in the clip-art library. Just set up appropriate FrameMaker documents (carefully select the name of the file) and put it into the clip art directory.

If you use only a limited set of clip art elements you may look at the plug-in AutoText (see *Extensions by API clients* on page 1-21).

### Clip art for diagrams

If you want to draw scales and diagrams in FrameMaker, you may benefit from [www.daube.ch/docu/fmaker09.html](http://www.daube.ch/docu/fmaker09.html). An example using logarithmic scales can be seen at *Arbitrary guiding lines* on page 6-27.

## Importing from other applications

See also *Importing methods* on page C-2.

### Origin

The export function of Origin creates unreliable PostScript (eps). To fix the problem,

- Export eps from Origin (or less favourable emf)
- Import this eps to Adobe Illustrator (or probably Macromedia Freehand)
- Export from Adobe Illustrator a conforming eps.

### Excel

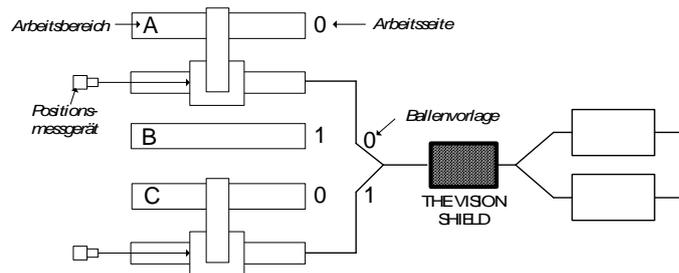
To import a graphic from Excel into FrameMaker:

- 1 In Excel select the graphic (chart)
- 2 **SHIFT-Edit > Copy picture...**
- 3 In the **Copy Picture** (CTRL+Copy) dialogue select as shown when printed to get best results
- 4 In FrameMaker use **Edit > Paste Special...** and select **wmf**.

### Graphic objects

When you just copy and paste a graphic from another application, you get an embedded object (OLE). If you double-click on the graphic, the creating application is opened.

Do not use this method for documents you distribute.



Updates to such files may fail with “Cannot invoke OLE server”, because you may not have the specific application on your machine. It is not possible to find out in FrameMaker with which application the graphic was created.

## Graphic elements on reference pages

Graphic elements on the reference pages can be used for

- Frame above or below a paragraph
- Copy and paste to any location in the document on the body pages.

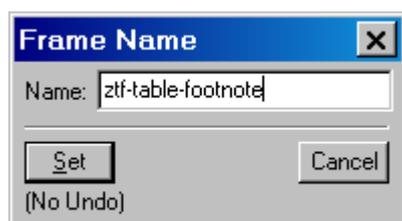
**Note:** *Although the source of the graphic is a **reference page**, the placed graphics are real copies, not referenced graphics.*

### General elements

The following elements are always present in a FrameMaker (original) template:

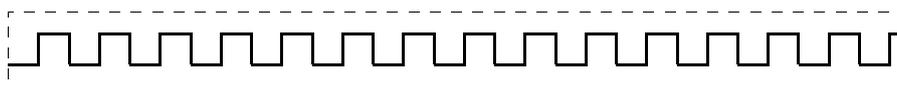
- Footnote (defining the separator line and space)
- Table Footnote (defining the separator line and space)
- Single Line (for use in frame above/below)
- Double Line (for use in frame above/below)

### To create a graphic element for a paragraph



- ▶ Switch to the Reference Pages (**View > Reference Pages**)
- ▶ Create a graphic frame with the corresponding graphic tool.
- ▶ You are requested to enter a name into the dialogue **Frame Name**. Provide a name describing the graphic you want to place into the frame.
- ▶ Set the same name atop the frame with the graphic tool **Draw a Text Line**. For FrameMaker the text is irrelevant, but for the human reader it should be equal to the name of the frame.
- ▶ Place the desired graphics into the frame:

#### meandered line



**Note:** *The size of the graphic frame defines the white space around the graphic when it is used above or below a paragraph. If you will use it for both purposes, centre the graphic vertically.*

## Defining defaults for the environment

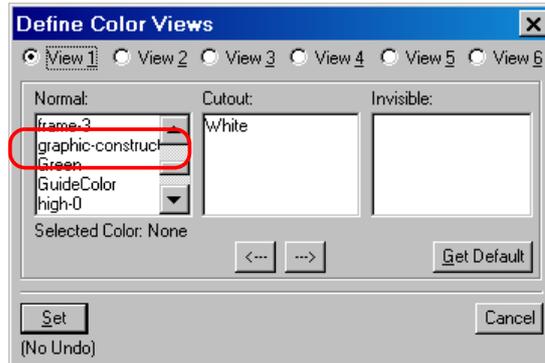
In the file maker.ini a number of defaults can be defined. Unfortunately arrow tips can not be defined there. Hence any special definitions are lost at close of the FrameMaker session.

Settings are located in various sections (windows parlance). See *Set reasonable defaults for your work* on page A-31.

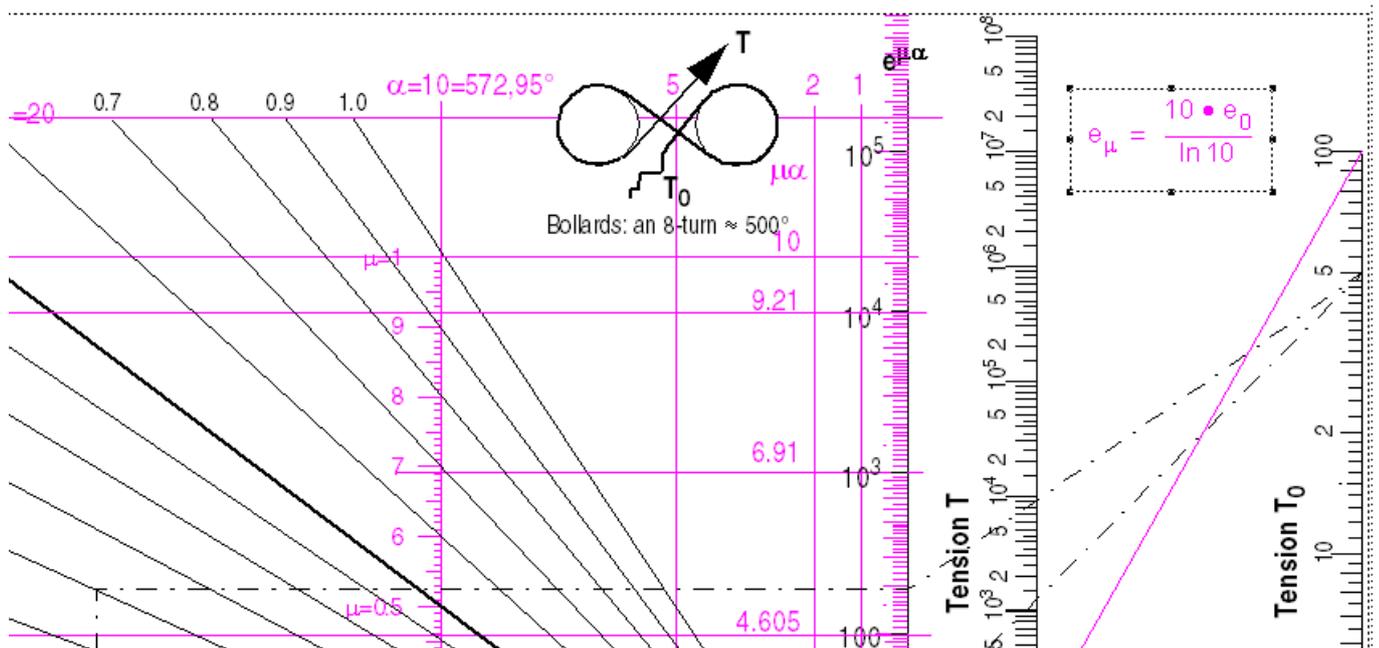
# Arbitrary guiding lines

For some work both the **Snap** (to virtual grid) and the **Gravity** (snap to adjacent object) is not sufficient. You need arbitrary guidelines to snap on or to find the desired position.

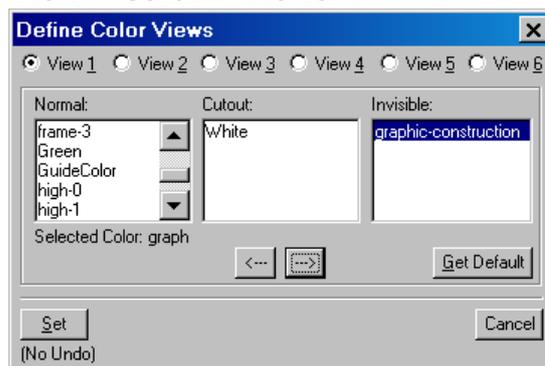
- 1 In **View > Color > Define...** specify a special colour for your guidelines, for example **Graphic\_construction**. Use a colour such as magenta or pink which clearly separates from the real colours of your drawing.
- 2 In **View > Color > Views...** make the colour visible:



- 3 All your construction and guide lines shall use this colour:



- 4 For printing and saving as PDF hide the guide lines with **View > Color > Views...**



## 3D - objects

With Adobe PDF version 1.6 (Acrobat 7, released mid 2005) it became possible to include 3D geometries in PDF documents. These files must of format U3D (Universal 3-D).

You insert the U3D objects as any graphic into an anchored frame.

**Note:** *The object may be cropped by the anchored frame. If done so, the displayed object will overlap the surroundings in the PDF, because it is rendered in its inherent size (see **Object Properties**)*

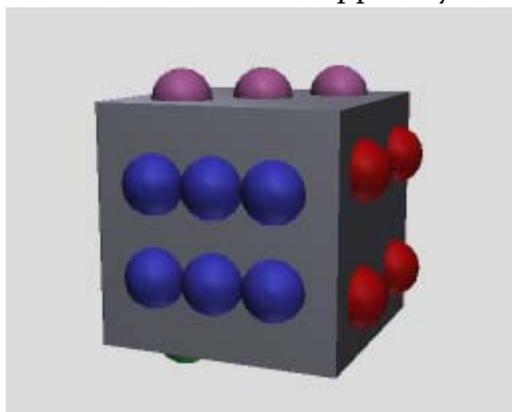
In FrameMaker only the following properties can be set, if the object is selected (**Graphics > 3D Menu**):

- Default view (if views are already defined)
- Rendering mode (e.g. wire frame, solid)
- Background colour
- Lighting scheme (such as Bright lights, Head lamp)

When saved as PDF more operations become available in the object. The U3D objects are preserved in the XML round trip.

### Example 3D object

This text will be overlapped by the displayed object in PDF.



This text will be overlapped by the displayed object in PDF:

### Setting views

The U3D object you import into a document can contain pre-defined views. You can change the view set for the object; the selected view is rendered when the document is saved.

When you convert this FrameMaker document to a PDF, all predefined views of the U3D object are available in the PDF. The last view that you selected in the document before saving becomes the default view in the PDF.

- 1 Select an U3D object.
- 2 Select **Graphics > 3D Menu > Show Existing Views**, and then choose a view from the list that appears in the dialog box.
- 3 Click **OK**.

The object is displayed (and printed) in the selected view.

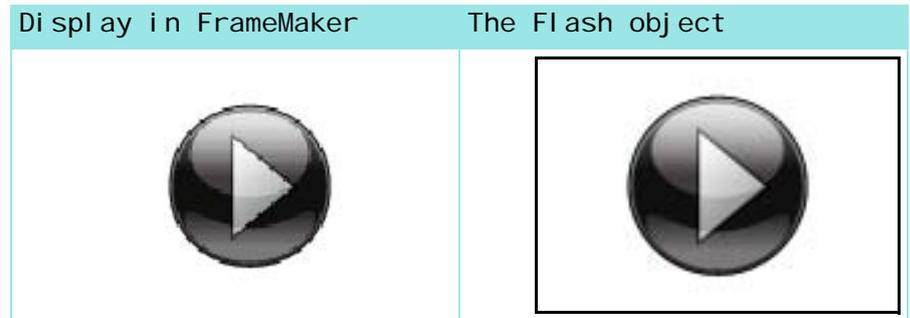
**Note:** *If you save the document as a PDF, all views of the U3D objects will be available in the converted document.*

# Flash objects

You can create documents with SWF files, such as Adobe Captivate® movies. The SWF object is preserved in the XML round-trip.

When importing Flash objects, the first frame is displayed in the anchored frame. Very often the graphic is a start button.

If the first frame is blank, then the anchored frame appears blank, but you can select the object.:



During import you can set the object size by defining a resolution. Many flash object (such as this one) include margin in their presentation and hence do not fill the given space in the anchored frame completely.

## Export to PDF

Flash objects are only exported to PDF if the preferences say so in **File > Preferences > General**. If the check box is checked, then no Flash will be exported to the PDF, only a bitmap image will be there.

Import by reference

If the file was imported by reference in FrameMaker, a double-click on the image will play the Flash file in a separate Adobe Flash Player window. The Flash Player however, must be installed ...

Import by copy

If the file was copied into the document, a bitmap image of the first frame is displayed. Click the frame to activate the SWF file.

## Display problem

If you have the Flash player v10 installed and also Acrobat 7 then you can not start the flash movie. With this Flash player and Acrobat 8 the display is correct.



# 7

## References

### Overview

FrameMaker provides a rich set of reference mechanisms: variables, cross-references, footnotes and markers.

Bibliography is not directly handled by FrameMaker, but with Endnote the special notions can be generated and integrated into the FrameMaker document.

Hypertext is not handled in this chapter.

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# Variables

- Variables can be set up from building blocks.
- Emphasis can only be introduced with character formats, not with direct formatting.

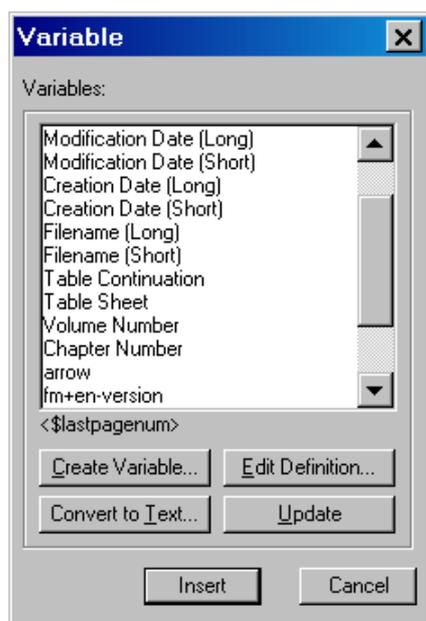
**Note:** *Because the names of the building blocks of system variables are localised, you may get problems when changing the UI language during the development of a document (the Running Heading / Footing definitions in layout are also variables). This warning applies also to the building blocks of cross-references*

## User variables

- User variables can only contain ordinary text and references to character formats. User variables do not have access to the building blocks of system variables.

It is, for example, not possible to define a user variable `iso-date` with the format `yyyy-mm-dd`. For such cases you need to modify the format of an existing system variable providing the needed information. See *Edit system variable* on page 7-3.

## Insert a variable



It is, for example, not possible to define a user variable `ISO-date` with the format `<$year><$monthnum01><$daynum01>`. If you need such variable contents, you must sacrifice a system variable (for example, a short date).

- Availability of system variables depends on context (body page, master page). For example, Current Page Number is available only on master pages.
- Depending on the system variable itself the set of building blocks differ (you can not set up a file name with date).

To insert a variable:

- ▶ Place the cursor at the desired location
- ▶ Select **Special > Variable...**
- ▶ Select the variable from the given list in the dialogue.
- ▶ Click **Insert**

## Convert a variable to ordinary text

If you need to abandon a variable in the text and convert it to ordinary, editable text

- ▶ Double click on the variable in the text. This opens the dialogue **Variable**.
- ▶ Click **Convert to Text**. You are prompted whether you really want to...

## Import variable definitions from another document

Follow the instructions to *Import formats from another document* on page 3-15. With only the 'Variables' box checked.

To import only user variables, import a MIF snippet. See *Import MIF snippets* on page A-33. Or use the plug-in **Import-FormatSpecial** from [Carmen Publishing](#).

## Specifying variable contents

Set up the contents of your variables to be used as flexible as possible:

- Avoid plural or inflections.
- Avoid punctuation (this may vary depending on usage)
- Avoid prefixes or suffixes which may narrow the scope.

Since you can not nest variables, you may need to set up variable building blocks, which are combined with ordinary text in the document. For example, in the text “The Precision Dosing Pump GP-98ML” there could be two variables:

Product-short      Precision Dosing Pump  
Product-type      GP-98ML

## Character formats and Building blocks

Character formats can be used in system- and user variables and cross-references. The special format <Default ¶ Font> can be replaced by </>.

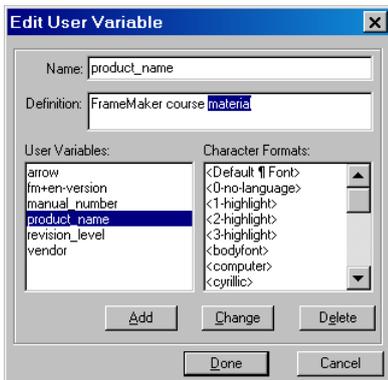
**Note:** *Character formats are active only until the end of the variable. Hence <Default ¶ font> is implicit at the end of the variable.*

Line break in variable

The sequence \r inserts a line break (hard return).

Real building blocks (see page 4) are only available in system variables.

## Create / edit user variable

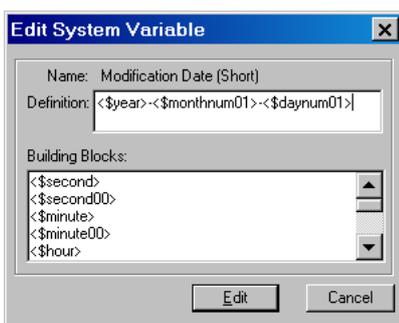


To create a new variable:

- ▶ Select **Special > Variable...**
- ▶ Click **Create Variable**. You will notice that you get the dialogue for user variables. You can not create additional system variables.
- ▶ Define the name of the variable. This may contain blanks.
- ▶ Set up the contents of the variable from text and emphasis notations. You do not have access to the building blocks of system variables.
- ▶ Click **Add**. You may wish to define another variable.
- ▶ Click **Done** to go back to the Insert Variable dialogue.
- ▶ Click **Done** or **Insert**.

**Note:** *If you need access to the building blocks of the system variables, you must edit an existing system variable to serve your needs.*

## Edit system variable



You will need to edit system variables for

- Variables which need access to the building blocks of system variables (see ISO date above).
- Running headers and footers
- Adapt the format of system variables to company standards (for example, the file name in the page footers).

You edit system variables in the same manner as user variables. You just have more choices for the building blocks.

## Building blocks for system variables

The variables are grouped by purpose. You can not use any of the building blocks in any system-variable. Building blocks for the japanese calender are not listed.

Purpose	English FrameMaker	German FrameMaker
Current page number	<\$curpagenum>	<\$AktSeiteNum>
Page count	<\$lastpagenum>	<\$LetzteSeiteNum>
Volume Number	<\$volnum>	<\$BandNum>
Chapter Number	<\$chapnum>	<\$KapNum>
File name with full path	<\$fullfilename>	<\$DateinameLang>
File name	<\$filename>	<\$Dateiname>
Current table-page	<\$tblsheetnum>	<\$TabSeiteNr>
Number of table pages	<\$tblsheetcount>	<\$TabSeiteZählen>
	<\$marker1>	<\$Marke1>
	<\$marker2>	<\$Marke2>
Text of the paragraph <i>tag</i>	<\$paratext[ <i>tag</i> ]> <sup>a b</sup>	<\$AbsText[AbsTyp]>
Number of the paragraph <i>tag</i>	<\$paranum[ <i>tag</i> ]> <sup>a b</sup>	<\$AbsNum[AbsatzTyp]>
Counter value of paragraph <i>tag</i>	<\$paranumonly[ <i>tag</i> ]> <sup>a b</sup>	<\$AbsNumExkl[AbsatzTyp]>
Tagname of paragraph	<\$paratag[ <i>paratype</i> ]> <sup>a b</sup>	<\$AbsTyp[AbsatzTyp]>
Page number of previous paragraph	<\$pagenum[ <i>tag</i> ]> <sup>a b</sup>	
Name of condition type on page.	<\$condtag[ <i>hitag</i> ,..., <i>lowtag</i> , <i>nomatch</i> ]>	<\$BedTyp[ <i>Typ1</i> ,..., <i>Typn</i> , <i>Sonst</i> ]>
Seconds	<\$second>	<\$Sekunde>
Seconds with leading zeros	<\$second00>	<\$Sekunde00>
Minutes	<\$minute>	<\$Minute>
Minutes with leading zeros	<\$minute00>	<\$Minute00>
Hours from 1 to 12	<\$hour>	<\$Stunde>
Hours 1 - 12 with leading zeros	<\$hour01>	<\$Stunde00>
Hours 1 -24	<\$hour24>	<\$Stunde24>
am or pm	<\$ampm>	<\$ampm>
AM or PM	<\$AMPm>	<\$AMPm>
Day number	<\$daynum>	<\$TagNum>
Day number with leading zeros	<\$daynum01>	<\$TagNum01>
Day name (full length)	<\$dayname>	<\$TagName>
Day name abbreviated	<\$shortdayname>	<\$TagNameKurz>
Month number	<\$monthnum>	<\$MonatNum>
Month number with leading zeros	<\$monthnum01>	<\$MonatNum01>
Month name (full length)	<\$monthname>	<\$MonatName>
Month name abbreviated	<\$shortmonthname>	<\$MonatNameKurz>
Year with 4 figures	<\$year>	<\$Jahr>
Year with 2 figures	<\$shortyear>	<\$JahrKurz>
Character format of the paragraph	<\$Default Para Font> or </>	<Absatz Standardschrift>
Character format <i>name</i>	< <i>name</i> >	< <i>name</i> >

a. This refers to the tag-name (*paratype*) of the paragraph preceding the one referenced by *paratype*. See *Cross-reference to subsections* on page 8 for usage example.

b. To refer for the last (rather than first) occurrence of a tag name on a page, place +, in front of the tag name. For example <\$paratext(+,lg-glossary)> . This lets you build dictionary-style headers or footers etc.

## Scope of system variables

All system- and user variables are available on master pages. On body pages and reference pages all user variables are available, but not all system variables:

System variable	Body/ Reference	Default definition (english FM)
Current Page #	no	<\$curpagenum>
Page Count	yes	<\$lastpagenum>
Current Date (Long)	yes	<\$daynum> <\$monthname> <\$year>
Current Date (Short)	yes	<\$daynum>/<\$monthnum>/<\$shortyear>
Creation Date (Long)	yes	<\$daynum> <\$monthname> <\$year> <\$hour>:<\$minute00> <\$ampm>
Creation Date (Short)	yes	<\$daynum>/<\$monthnum>/<\$shortyear>
Filename (Long)	yes	<\$daynum> <\$monthname> <\$year>
Filename (Short)	yes	<\$daynum>/<\$monthnum>/<\$shortyear>
Table Continuation	yes	<\$fullfilename>
Table Sheet	yes	<\$filename>
Volume Number	yes	(Continued)
Chapter Number	yes	(Sheet <\$tblsheetnum> of <\$tblsheetcount>)
Running H/F 1	no	<\$paratext[Title]>
Running H/F 2	no	<\$paratext[Heading1]>
Running H/F 3	no	<\$marker1>
Running H/F 4	no	<\$marker2>
Running H/F 5 ... 12	no	<\$paratext[paratag]>
User variable	yes	

## Building blocks \$paranum and \$paranumonly

### \$paranum

This building block delivers the complete numbering, that is both constant text and counters.

### \$paranumonly

This building block delivers the text from the first counter to the last counter, which may include constant text.

Numbering scheme	\$paranum	\$paranumonly
H: <n>. <n>. <n+>< >:	11.9.3:	11.9.3
H: Table <n>. < >< ><n+>:	Table 5.3:	5.3
C: (<n+>< =0>)	(17)	17
C: (<n+>)< =0>	(17)	17)

# Cross-references

## Restriction

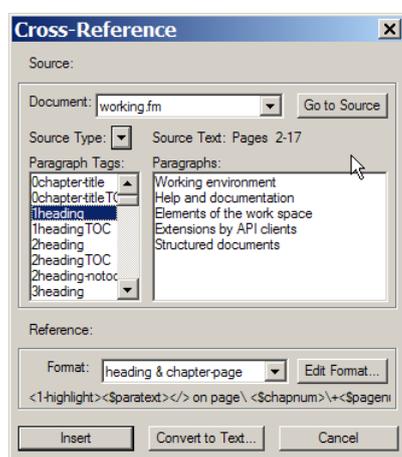
**T**Cross references from one text flow to another are not possible. You can not have a text flow C on the title page with a nice chapter number and have it referenced from the layout pages or the text in flow A.

## Source of a reference

- Any paragraph may be the source of a cross-reference.
- In addition, special markers can be set to define a source.

**Note:** *Cross references to another file contain the file path. Hence the reference will be broken, if you move the file to another directory. If you need this move, save the file in the book dialogue to the new location.*

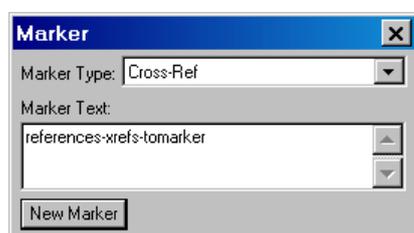
## Cross-reference to any paragraph



- 1 Place the cursor where you want to insert the cross-reference (reference location) and select **Special > Cross-Reference ...**
- 2 For a cross-reference to another file select that file from the list of documents.
- 3 In **Source type** select **Paragraphs** as source location.
- 4 Select the desired paragraph type in the left hand list.
- 5 Select the desired paragraph in the right hand list.
- 6 Select the proper format for the cross-reference from the **Format** list. You might need to create a proper format with click on **Edit Format**.
- 7 Click **Insert**. will insert the cross-reference.

## Cross-reference to marker

### Insert a cross-reference marker

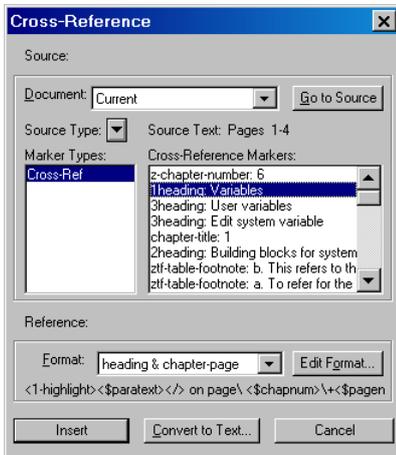


- 1 Place the cursor where you want to define the source location (marker)
- 2 Insert the marker with **Special > Marker...**  
Marker type= *Cross-Reference*
- 3 Define the name (text) of the marker. Be aware that in long document you will need some logic to find the correct markers later.
- 4 Click **New Marker**.
- 5 The Marker dialogue stays open, so you can go to the next location in the document...

**Hint** To use existing text to appear in the marker text: select the text while the marker dialogue is open or will be opened.

**Note:** *The marker text can not be referenced. There is no such building block as <\$markertext>! You can only refer to the page where the marker is located, or to the <\$paratext> where the marker is (but this can be done without placing a marker first).*

## Define a reference to a cross-reference marker



## Marker type Header/ Footer

## Cross-reference to marker text

Example reference location

See *Cross-reference to marker text on page 7-7* for an alternative.

- ▶ The source file (where to point to) must be open.
- ▶ Place the cursor where you want to insert the cross-reference (reference location).
- ▶ **Special > Cross-Reference ...**
- ▶ For a cross-reference to another file select that file from the list of documents.
- ▶ Source type = Cross-reference Markers
- ▶ Select the desired marker in the right hand list.
- ▶ Select the proper format for the cross-reference from the **Format** list. You might need to create a proper format with click on **Edit Format**.
- ▶ Click **Insert** will insert the cross-reference.

The content of markers of type Header/footer \$1 and Header/Footer \$2 is available on master pages only. The system variables <\$marker1> and <\$marker2> insert the marker contents.

A cross reference can not display the contents of a marker. However, a hyperlink can serve this purpose:

- 1 At the source location (where to point to) specify a named destination:
  - in **Special > Hypertext** select command **Specify Named Destination**.
  - Enter a significant name after the blank after newLink
  - Click New Hypertext Marker
- 2 You may wish to indicate the source location by some means, for example, a keyword, which you also use in the reference location. This may be highlights by any means to recognise it.
- 3 At the 'reference location' insert a hyperlink:
  - in **Special > Hypertext** select command **Jump to Named Destination**.
  - Enter the name of the destination after the blank after gotolink

See the word **TCross references**, which is highlighted there. The location of the hypertext marker is indicated by this symbol: **T**

For details of these constructs see *Types of hyperlinks* on page 7-20.

## Cross-reference to subsections

A cross-reference to a subsection often needs to identify the section that contains it. For example, a cross-reference to a subheading might identify the main heading under which it is found, as in the following:

See *Date and time* in *Running headers and footers*. The first item is the source paragraph and the second item (after “in”) is the main heading under which the source paragraph appears:

```
<1-highlight><$paratext></> in <1-highlight>
<$paratext[1heading]></>
```

See *Building blocks for system variables* on page 4 for more definitions of this kind.

## Cross-reference to other file

To reference sources outside the current file may wish to include the chapter number in the references format, for example “see *Cross-references* on page 7-6”.

Of course you need files with the chapter number defined (**Format > Document > Numbering > Chapter** or via the book set up) or you get the default number (1).

Reference format `<1-highlight><$paratext></> on page\ <$chapnum>-<$pagenum>`

## Editing cross-references

- To edit the appearance (format) of a cross-reference, double click on it to enter the dialogue **Cross-Reference**. Click on **Edit ...**
- To change the source of the cross-reference, delete the cross-reference and insert a new one.

# Format of cross-references

Set up the format of cross-references to be used as flexible as possible:

- Try to avoid plural or inflections.
- Avoid punctuation
- Avoid introductions which may vary
- Try to avoid language dependent parts

Example formats: `<1-highlight><$paratext></> on page\ <$chapnum>-<$pagenum>`

Produces: *Format of cross-references* on page 7-9:

`<1-highlight><$paranum><$paratext></> (<$pagenum>)`

Produces: *Table 1: Building blocks for system variables* on page 4

Avoid language dependency

The last example includes a language dependent part, which is part of the automatic numbering of the table. To avoid this,

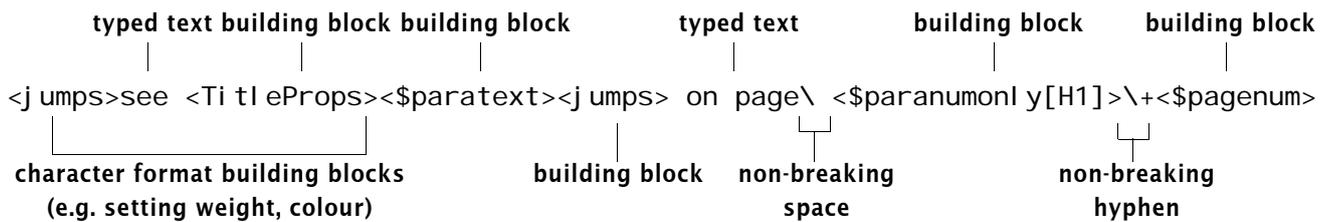
- either abbreviate the word Table to Tab. in the autonumber (which fits at least English, French, German and Italian);
- or abandon this prefix word completely. Then start the reference in the text with the appropriate language:  
*See Building blocks for system variables* on page 4.

`<1-highlight><$paranumonly> <$paratext></> on page\ <$pagenum>`

**Note:** *Character styles may not completely be transferred to the cross reference. See Character styles in building blocks on page 3-14.*

**Note:** *From multiple character formats (e.g. <bold><italic>.) only the first one is kept in book updates. See Peculiarities of book updates on page 8-15.*

## Complex xref format



## Arbitrary markers

Standard markers are used for various purposes:

- define index entries (see *Index creation* on page 9-9)
- define sources for cross references (see *Cross-reference to marker* on page 7-6)
- Define text to be used in running headers and/or footers other than text appearing in headings or other paragraphs. See *References to special markers* on page 5-19
- define hypertext and links. See *Hyperlinks* on page 7-19

### Text for indexes and lists

A standard index collects information from markers of type index. You may, however have various indexes in parallel:

- index of authors (use marker type Author)
- index of equations (use marker type Equation)
- index of glossary entries (use marker type Glossary)
- index of subjects (use marker type Subject)

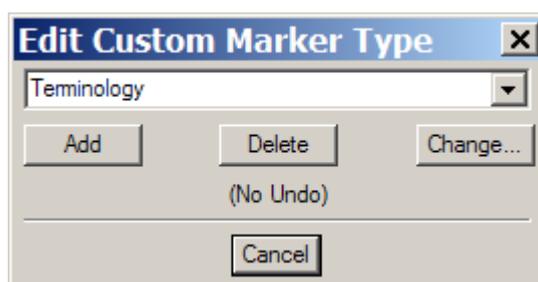
See *Document specific lists* on page 9-20

### Identify locations

To identify locations of special interest you may wish to define your own marker type, for example Terminology. This may allow you to place this marker where terminology is unclear and in the same instance to collect ideas in a list of this marker or even an index.

To define a maker type Terminology,

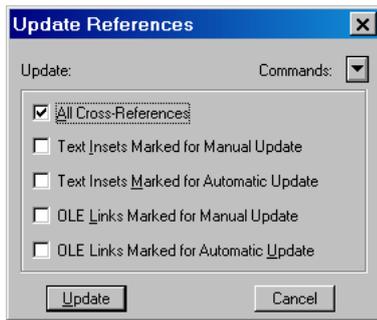
- 1 Open the Marker dialogue with **Special > Marker ...**
- 2 In Marker Type select **Edit ...**
- 3 In the dialogue **Edit Custom Marker Type** enter the name of the new marker type: Terminology and click **Add**.



- 4 Now this marker type is in the list and you can insert it where you need.



# Update references



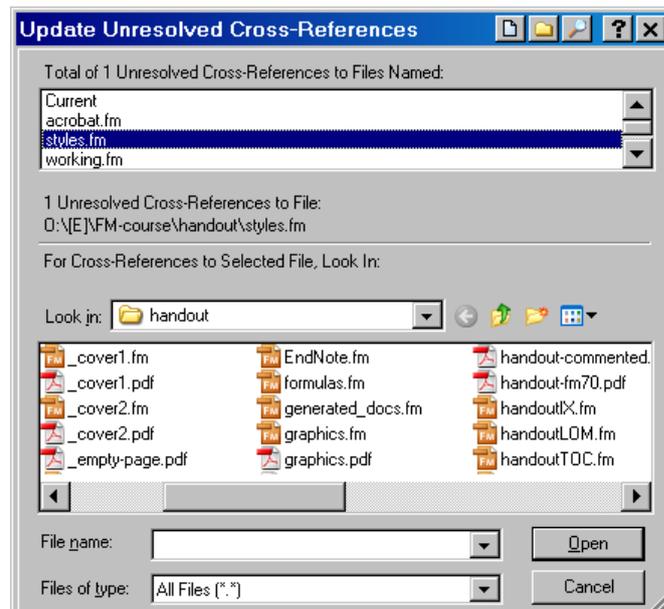
To update references in the current file, open **Edit > Update References** and activate the appropriate check boxes and then click **Update**.

You may automate certain function by selecting from Commands:

- **Suppress automatic updating:** Specify which references shall not be automatically updated when the file is opened or the book containing the current file is updated.
- **Update unresolved Cross-References:** A dialogue appears, which allows to fix unresolved cross-references in all open files.

## Update unresolved cross-references

With this command the current file is scanned for cross references. The upper scroll list contains all (originally used) source files.



- 1 Select one of the files ( $\neq$  Current) listed in the top scroll list.
- 2 If the text below the box notes  $> 0$  Unresolved Cross-References in File, find the file with the source location by means of the File list in the lower part of the dialogue and **Open** it.
- 3 If FrameMaker can't perform the update, select a different source file and try again.
- 4 Repeat steps 1 ... 3 for each of the files in the top list.

If FrameMaker fails with all proposed new source files:

- 1 **Edit > Find/Change**, select **Unresolved Cross-Reference**
- 2 If found, delete the reference and set up a correct one.
- 3 Repeat Find/correct/file select, until all has been corrected

## Footnotes

Footnotes consist of three elements:

- 1 The footnote reference which is placed in the running text: <sup>20)</sup>
- 2 The footnote text formatted according to a specific ¶ format (default: Footnote and TableFootnote).
- 3 A placeholder frame between the text area and the topmost footnote of that page (or under a table).

### Footnotes in text

Footnotes in text can be numbered in various ways. The numbering may start on each page anew or continue within a chapter or book.

For text footnotes the place holder frame normally contains a line (see bottom of this page).

### Footnotes in tables

The same rules apply as for the footnotes in text. The default style name, however is TableFootnote, and hence there is another graphic frame on the reference pages with this name.

For table footnotes the place holder frame normally is empty, but may also contain a line for unruled tables.

### End notes

Endnotes are footnotes which are collected at the end of a chapter or document. FrameMaker can not handle these. However, ordinary footnotes may be converted to end notes by appropriate API's or plug-ins as well as FrameScripts.

## Insert a footnote

To place a footnote,

- 1 Place the cursor at the text location where the footnote reference shall appear.
- 2 Select **Special > Footnote** and write the footnote text into the new footnote paragraph.

Text footnotes are always placed at the bottom of the current page (if space allows). Table footnotes are collected after the table.

**Note:** *You can not arrange the footnotes of a chapter at the end of a chapter (or file). For this you need to install an appropriate API (see Extensions by API clients on page 1-21).*

**Note:** *If a text footnote is referenced close to the end of a page (for example, in the last paragraph) then the footnote may be placed on the next page.*

---

<sup>20</sup> Sample footnote to demonstrate the elements comprising this construct and to display the appearance: ¶ format is zfn-footnote; numbering is arabic, continuing in each chapter. The separator is the green line above.

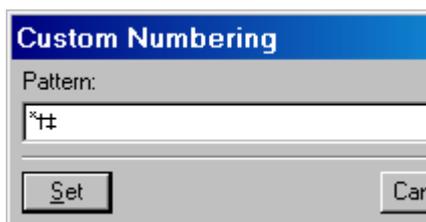
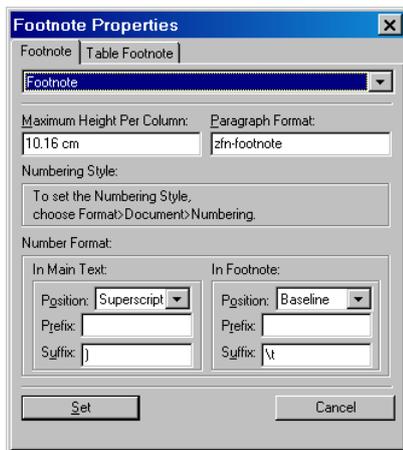
## Appearance of footnotes

The following items must have the same name:

- The style name in the **Footnote Properties** dialogue
  - The style name in the paragraph catalogue
  - The name of the graphic frame on the reference page.
- Do not specify automatic numbering in these styles! It will interfere with the special numbering process of footnotes.
  - Specify TAB positions if you define TABs (\t) in the Prefix or Suffix elements prepended or appended to the footnote text. Also a hanging indent may be needed.
  - The separation line is *not* defined by the 'Frame above' property of the paragraph style (see *Separation line or space* on page 14).

### Paragraph format for footnotes

### Format of the footnote reference

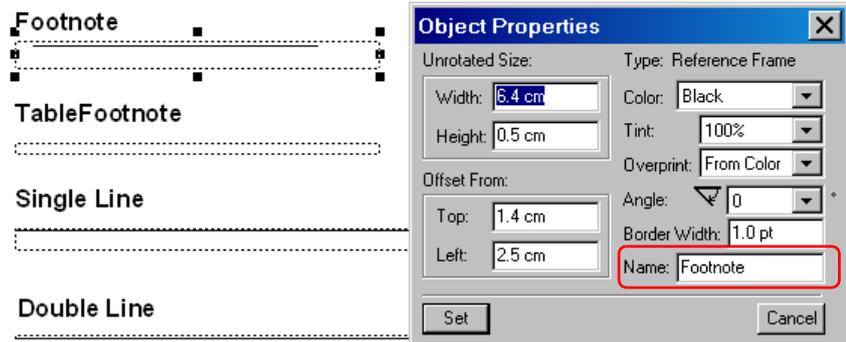


- The format name and the number format of the reference and the note is defined in **Format > Document > Footnote Properties...**
- You can only define constant text for the prefix and suffix in the footnote format (e.g. opening and closing brackets).
  - *You can not use* system variables or user defined variables in the prefix or suffix field.
  - *You can not use* character formats in the prefix or suffix field.
- You may wish to define the maximum height of space for text footnotes (per column). The default is 4" (10cm).
- The style of the footnote numbering (arabic, ...) and whether text footnotes shall start numbering on each page or continue numbering again is defined on **Format > Document > Numbering > Footnote** and **> Table Footnote**.
- Format **Custom** allows to define a series of symbols (default: \* † ‡) which must not be separated by spaces. They must be from the text font. If the font in the body and in the Footnote paragraph is a Unicode font, then the list of characters in the Numbering dialogue may also contain characters such as \* or \*. In the dialogue however they may show up as 'unknown character', e.g. as □.

For more footnotes than symbols in this list the symbols are repeated in the footnote reference and the footnote numbering (\* † ‡ \*\* †† ...)

## Separation line or space

The separation line (or just space) is defined on the reference page named Reference by a graphic frame named Footnote respectively TableFootnote:



The text lines are just for the human reader.

## Additional reference to a footnote

To refer to an already existing footnote you must place an ordinary cross-reference.

The reference should indicate the page number where the footnote can be found (see the next section).

## Reference to footnotes in other chapters

Jahre debattierten die beteiligten Wissenschaftler ohne eine Übereinstimmung zu erzielen<sup>1</sup> und<sup>5</sup> on page 8. Eine Bewertung der grundlegenden Daten, die über eine versuchsanlage für Ölschieferabbau gesammelt wurden, hat gezeigt, daß genaue Datenrichtlinien benötigt werden um sicherzustellen, daß

1.) Diese Diskussionen werden dokumentiert durch Studien des OSC Komitees des Innenministeriums. §

To reference a footnote in another (than the current) chapter or file, you need a special cross-reference format providing both the page number (and/or the chapter number) and the footnote number.

To be able to format it similar as a footnote reference (superscripting) you need an appropriate character format (e.g. super). The complete cross-reference format may look like one of these:

```
<super><$paranumonly[Footnote]> on page\,<$pagenum></>
```

```
<super><$paranumonly[Footnote]> on page\,<$chapnum>-<$pagenum></>
```

## Footnotes in book files

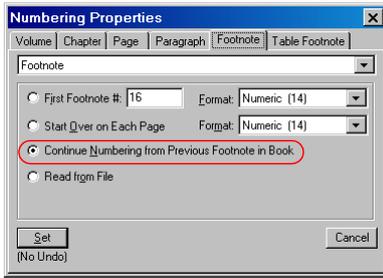
### Footnotes at the end of a book

There is no feature in FrameMaker to collect footnotes from various files and present them at the end of a FrameMaker book in a particular chapter (or at the end of the last chapter).

#### Solution

Collect all notes in a file (use a paragraph format, such as x-note), and refer to them with an ordinary cross-reference of an appropriate format (e.g. <super><\$paranumonly[x-note]></>

## Footnotes across books



To number the footnotes across the all (or certain) chapters of a book:

If you already have a book file, see *Footnote number* on page 8-9. Otherwise do the following:

- 1 In the first file of the sequence set the numbering properties in **Format > Document > Footnote Properties > Numbering: The First Footnote #** gets the initial number (normally 1). Set also the desired number format of the footnote (e.g. arabic).
- 2 Check whether the footnote format is correct in **Format > Document > Footnote Properties...**
- 3 In all other files of the sequence, set the numbering properties in **Format > Document > Footnote Properties > Numbering** set **First Footnote Number** to **Continue Numbering from Previous Footnote in Book**. Check whether the footnote format is correct in **Format > Document > Footnote Properties...**

**Note:** *The numbering will be correct only after you have set up a book from the files you have prepared.*

## Footnotes and text columns

There is only *one* ¶ format for text footnotes available. Hence you must decide between the appearance.

In the first example the footnotes are “In column”. The footnote from the title becomes the last one and its text extends across all columns as the title does

<b>This title is across all columns <sup>1</sup></b>	
<p>This is just text in the column and uses a footnote reference in this left column <sup>2</sup>.</p> <p>Hecate est Iovis et Latonae filia, soror Apollinis. Est tricopor et</p> <hr/> <p>2. This footnote is referenced in the left column</p> <hr/> <p>1. This footnote is refenced in the title. Since it spans all columns, the footnote will so also.</p>	<p>triceps, magicarum artium magistra ac caedibus contaminata.</p> <p>This footnote reference is in the right column <sup>3</sup>.</p> <hr/> <p>3. Footnote referenced in the right column</p>

If in the above example you enlarge the vertical space by enlarging the text frame, the footnote of the title will temporarily (until the next save or save as PDF) stay in column.

In the second example the footnotes are “Across all columns”. The footnote from the title becomes the first one.

## This title is across all columns <sup>1</sup>

This is just text in the column and uses a footnote reference in this left column <sup>2</sup>.

This footnote reference is in the right column <sup>3</sup>.

- 
1. This footnote is referenced in the title
  2. This footnote is referenced in the left column
  3. Footnote referenced in the right column

## Editing footnotes

- To move a footnote reference, select it, then cut it to the clipboard buffer and insert it (paste) it at the new location.
- To change the reference appearance (e.g. from numbered to symbol), **Format > Document > Footnote Properties** and modify the number format (prefix and suffix) to your needs.

**Note:** *Modifications of the format of footnotes applies to all footnotes in the document!*

- To change the appearance of the footnote, modify its paragraph format.

# Special footnote numbering

We want to have footnotes looking like this:

7 | 12      The numbering shall contain both the chapter number and a sequence number.

This can be achieved only by completely forgetting the footnote numbering process and working with anchored frames containing the footnote and a cross reference to the footnote.

- 1 At the first occurrence of such a footnote, define an anchored frame with type **At Bottom of Column** . Size it to be able to contain the footnotes of the current page.
- 2 In the anchored frame place a separator line and a text frame  for the footnote text.
- 3 Specify a paragraph format for the special footnotes, for example `xfn-xtra-footnote` with the following numbering property: `f:<${chapnum}> | <n+>\t`
- 4 Place the first footnote text.
- 5 Before the anchor point insert a cross reference to the footnote. The cross reference format used is `xfn` (but of course may be anything you like). It should create an appearance similar to ordinary footnote references (superscripted).  
<sup>7 | 1</sup> 
- 6 Adjust the size of the inner text frame as well as the outer anchored frame to fit the text after you have placed all footnotes from this page.

If you need a second or third footnote on the same page, proceed as follows:

- 7 Enlarge the inner and out frames at the bottom to what you probably need and add the desired number of paragraphs which number automatically.
- 8 Place the references at the desired locations into the text.

Be aware that you can have only one anchored frame of type "At bottom of column". Here the second footnote ref: <sup>7 | 2</sup>.

And for the sake of demonstration at the end of this paragraph a third footnote on this page <sup>7 | 3</sup>.

## Second and more footnotes on the same page

## Footnote on successive pages

On each page where you need special footnotes the first of these needs an anchored frame. Of course this anchor may be anywhere on the page, but it is good practice to place it at the first footnote reference.

- 1 Copy the anchored frame to the location of this first footnote reference.
- 2 Modify the text in the inner text frame.
- 3 Insert the cross reference to the footnote text.

7 | 1 This is the first special footnote on this page. I just comprises some text to form a paragraph.  
7 | 2 This is the second special footnote.  
7 | 3 And this is the third one. The current chapter number is 5. Footnote numbering has no influence here.

## Side notes or marginalia

This side note uses the paragraph format `sidenote`. The text of the side note appears before the next paragraph in the main text area. Side notes use smaller font sizes than the ordinary text. It is good practice to make it similar to footnote appearance. For me sans serif looks better for this purpose.

As long as the items in the main text flow only use the text column, no gap exists. But successive elements in the side head area may create gaps, as seen here due to the heading 3 below.

### Anchored frame

For this type of side note the anchored frame contains a text frame (this shaded area) which holds the side note. The text frame is smaller than the anchored frame to avoid the text clinching to the border.

Watch the space on the right side. It contains several empty paragraphs (visualised by leading -).

For a new side note set copy/paste for the whole construct.

### Side notes should not be long

For various purposes side notes are better than footnotes which require the reader to go to the bottom of the page or even another page and back to the place where he stopped reading the normal text.

Side notes avoid this similar to properly arranged pictures.

Using a paragraph format `sidenote` with the main property “`pagination: in side head area`” provides the following:

- No reference within the main text on the right side is needed normally. You may add this by numbering the side note and refer to it with a cross reference in the main text.
- Numbering can be applied simply by numbering property.
- If the side note becomes higher than the referring text on the right side then there will be a gap in the main text in case of an element which is either in the side head area or across side head area and columns.

This is a short text with the side note. Watch the gap to the next heading level 3, which in this compendium uses the side head area.

Side notes may be put into anchored frames. In this example the anchor is at the beginning of this paragraph.

- This method is useful, if you want to frame the side notes in the same way as you frame pictures.
- Layout becomes more difficult, because the frame does not automatically push down other elements in the side head area as the previous method. You must insert empty paragraphs in the main text area. In this example

-  
-  
-  
-

Keep in mind that side notes should not fill up the side head area, especially if the side head area is also used for minor headings as in this compendium.

# Hyperlinks

Milestones on the way to hypertext as we know it from the worldwide web are:

- [Vannevar Bush](#) and his "Memex" (1945)
- [Douglas C. Engelbart](#) with "Augment" (starting 1963)
- [Ted Nelson](#) with project "Xanadu" (starting 1965)
- [Arno Schmid](#)'s novel "Zettels Traum" (1970)
- Find a good German summary [here](#).

## Hypertext in FrameMaker

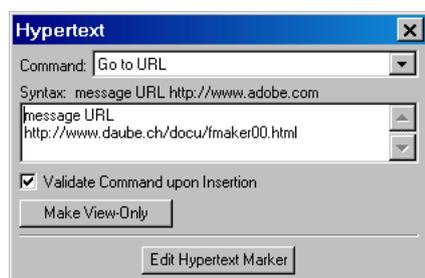
Since version 3 FrameMaker supports hypertext in various forms:

- Cross references provide live links during creation of documents. These are converted to hyperlinks in HTML and PDF.
- Any generated file (such as the Table Of Contents, or Index) can automatically get cross references to their source information. See *Hypertext links* on page 9-2
- Hyperlinks are active if the document is converted to HTML (see *Generate HTML and XML* on page 12-1).
- Hyperlinks are active if the document is converted to PDF (see *Refining the PDF output* on page 10-13)
- Specific hypertext markers can refer to other documents or URLs on the web.

### Active area

The active area (where you can click on) is defined by the text until the character format changes. You may also define sensitive images or areas. See the manual for this technique.

## Insert hyperlink



- ▶ Select the hot spot text and highlight it with a character format
- ▶ In **Special > Hypertext** select the appropriate type of link. For a web-links this is "Go to URL".
- ▶ The URL must be typed completely (may contain blanks):  

```
message URL http: //www. daube. ch/docu/fmaker00. html
```

**Note:** *Case of command and blank after command is relevant. If backslashes are used (e.g. in Windows paths), they must be doubled when preceding certain characters (f, i, n, o, s). Better yet is to replace all back slashes of paths with forward slashes.*

### Format hyperlink text

It is good practice to highlight the hyperlink with a special character format such as `hyperlink`. Please avoid underscoring in documents - its really looks bad:

This is a link to my [FrameMaker stuff](#). Text outside hot spot.

## Types of hyperlinks

FrameMaker supports a number hyperlink types. For example, the Equations palette is a FrameMaker document with lots of hyperlinks. The following table is just an excerpt:

**Note:** *In file paths or URLs the backslash is not valid. The solidus (normal slash) must be used. For pathnames see Links to documents and applications on page 20.*

### Hyperlinks which convert to PDF

Command (drop down list) <sup>a</sup>	Syntax	Example <sup>b</sup>
Alert <sup>c</sup>	alert <i>text</i>	 alert Time for lunch now!
Alert with title <sup>d</sup>	alerttitle <i>title: text</i>	 alerttitle Hello - I'm the title: This is in the first line and this ...
Open document (same type as source: fm or pdf)	openlink <i>path</i>	<a href="#">openlink</a> D: /System_ddd/System- doc/Syshw. fm
Open document with associated appli- cation	message openfile <i>path</i>	<a href="#">openfile</a> D: /System_ddd/ DDDcontrol. ini
Go to URL	message URL <i>url</i>	<a href="#">message</a> URL http: // www. daube. ch/docu/fmaker00. html
Specify named destination	newlink <i>name</i>	newlink here_we_go
Jump to named destination	gotolink <i>name</i>	<a href="#">gotolink</a> ref_crossrefs

- For restrictions in conversion to PDF see *Refining the PDF output* on page 10-13. For details on some commands see *Hyperlinks: goto versus open* on page C-16.
- Not all examples may work in your environment...
- In PDF this will be a text note, the title will not be presented as such, but stay within the text.
- The title is terminated with a colon. A carriage return in the text is inserted as \x0d - It will be replaced by a blank when you display the marker again and you will have to re-insert it.

### Hyperlinks valid only in FM

Most of these hyperlinks can be transferred into an adequate function in PDF by means of MicroType's "TimeSavers".

Command (drop down list) <sup>a</sup>	Syntax	Example
Button matrix	matrix <i>nrows ncolumns filename</i>	The vertical toolbar is built of such a matrix.
Launch Windows application	message Winexec <i>application path[, windowstate]</i>	<a href="#">Start</a> the Windows calculator (C: \WINDOWS\System32\calc. exe)
Open file as new document (template)	opennew <i>filename</i>	<a href="#">Open</a> with this document's styles (opennew layout. fm)
Popup menu (works only in FrameMakerView mode)	popup textflow_on_refpage  Popup Menu Sample Variables <b>T</b> Cross references <b>T</b> Update references <b>T</b> Footnotes <b>T</b> Hyperlinks <b>T</b> Bibliographies <b>T</b>	<a href="#">popup</a> popup1  The marker in the textflow contains a hypertext command <a href="#">gotolink</a> xxx with xxx being the name in a hypertext marker <a href="#">newlink</a> xxx at the location to be jumped to with the menu.

- For restrictions in conversion to PDF see *Refining the PDF output* on page 10-13. For details on some commands see *Hyperlinks: goto versus open* on page C-16.

# Links to documents and applications

Open file in text editor	message openfile D:/System_ddd/.../FM6-ini-mods.txt
Display directory with explorer	message openfile C:/WINNT/Fonts/ATMFolder/
Play sound	message openfile D:/System_ddd/sounds/5tones_up.wav
Path relative to current document	sub-folder: message URL folder/file.ext
	same folder message URL file.ext
	parallel folder message URL ../folder/file.ext
	1 level above message URL ../../folder/file.ext
Start an application	An application can be started directly:
	message system H:/Utilities/SearchReplace/SR32.EXE

2011-05-11

## Setting up a button matrix

The vertical toolbar is a good example of a button matrix. The mechanism uses several elements (graphics are copied!):

E:\FM-course\handout\references.fm

<p><b>Body page</b></p> <p>matrix 3 2 Align Text frame contains hypertext marker</p>	<p><b>Master page graphic1</b></p> <p>Graphics are copied</p>	<p><b>Reference page Graphics2</b></p> <p>Flow Align (The last line is for the human reader only)</p>
--	---	---

- On the body pages are text frames which contain only one hypertext marker referring to the matrix of commands on the reference page by flow name. The graphics 'just shine through' from the master page.
- On the master pages the graphics are arranged. They are just 'on the paper', not in frames
- The flows with the command matrices are distributed on the various reference pages.

## Commands

These are either hypertext commands (e.g. `previouspage`, `nextpage` or `popup LineBreaks`) or commands defined in the system (`fcodes xxx`) or in the various `cfg` files (e.g. `xxx` from `yyy`).

D+D D

# Bibliographies

Bibliographies are an essential element in scientific publications. The format of the bibliographic data as well as the form of references varies. Each institution may have its own habits and publishers add to the variations.

While everything can be set up in plain text, this section aims at formats which provide hypertext links from the reference to the bibliographic data. This goal may limit the formats.

Hypertext links are preserved in the document if transformed to PDF or HTML. In this section these links are highlighted with character format [hypertext](#).

You find further methods to create bibliographies at *Bibliography* on page B-22.

## Numbered bibliography

A simple form of references use only the numbers of the bibliographic data, which basically are numbered lists.

### References

A reference uses the cross reference format `<$paranum>` to get the number including the brackets and `<$paranumonly>` to get just the numeric part for multiple entries.

The second form is more universal, but requires you to enter the brackets manually: single [3] or multiple [1, 2].

### Bibliographic data

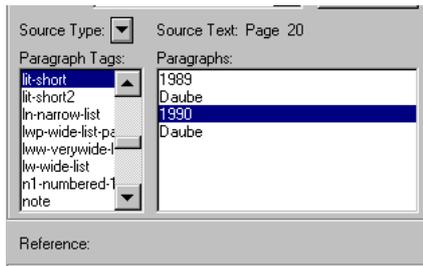
- [1] Daube, K., *Aufbau des OBRZ Runtime Systems*, in *Technisch-wissenschaftliches Rechnen am MVS System*. 1989, OBRZ AG: Zürich. Handbuch 400.50.10.
- [2] LaBonté, A. *A New Data Type for National Language?* in *SEAS Anniversary Meeting*. 1989. Amsterdam, The Netherlands: SHARE European Association.
- [3] Garneau, D., ed. *National Language Support Reference Manual*. January 10, 1990 ed. National language Information Design Guide, ed. IBM. Vol. 2. 1990, IBM National Language Technical Centre: Toronto, CDN.

Essential properties of paragraph format

The paragraph format for the bibliographic data in this example is `lit-ref-numbered` with the main properties: Auto numbering sequence: `"L:[<n+>]\t"`.

You may rearrange the paragraphs to get a sorted list and then update the references with **Edit > Update References: all Cross References**.

## Name and year in references



### References

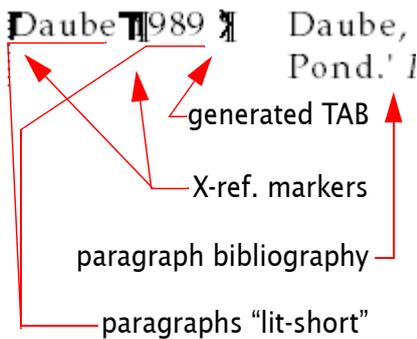
If you need independent access to the names and publication years to combine references, you need to set up paragraphs for each element. To stack the (logical) paragraphs in one physical paragraph you define the stacked ones as Run-in Headings. (format `lit-short` in this example).

This method provides a sequential list of data items (name, year, name, year, ...) in the cross-reference dialogue. Strangely enough the first entry in the list is the second paragraph of the specified format...

The cross reference format in the following examples is `<hypertext><$paratext></>` and refers to paragraphs of format `lit-short`.

The issue of character coding in electronic data processing was addressed quite aggressively by Daube in 1989 and again in 1990.

### Bibliographic data



Daube 1989 Daube, Klaus, 'Text and Code - A Dragons Pond.' *Proceedings of the 30. G.U.I.D.E. conference in Basel*. G.U.I.D.E. Headquarters, 1989.

Comparing the human habits of gesture and miming with codes in data processing shows a severe gap in understanding coding mechanisms. This is the source of many problems related to national language support in data processing applications. This text also is available in French, kindly translated by Ministère des Communications du Québec, St. Foy, Canada,

Daube 1990 Daube, Klaus, *National Language Support in SUSI*, OBRZ AG, Handbuch 410 (Dokumentverarbeitung mit SUSI), Kapitel 410.20.35. Zürich 1990.

The text formatter SUSI supports code page switching (also within a file. A piece of text also may have the attribute language, to which hyphenation is bound. National keyboards can be used. The code page used internally is based on code page 037, the character set supports most Western and Eastern European languages.

Essential properties of paragraph formats

`lit-short`

Pagination: Run-in Head with default punctuation " ".

`bibliography`

Pagination: anywhere; auto numbering sequence: "\t"; Left indent: 3 cm; tab position: 3 cm.

## Sorting the bibliographic data

To sort the bibliographic data in lists (paragraphs), either

- move the paragraphs by cut and paste, or
- use the [i]-frame script Sort Paragraph section.

## Reference and bibliographic entry

Thomas M. Reuter ([tomreuter@compuserve.com](mailto:tomreuter@compuserve.com)) communicated the following method: Use two paragraph formats for the bibliographic data (e.g. B1 for the part to be referenced and B2 for the full bibliographic data).

Paragraphs B1 (reference texts) must not print, hence they use a special colour which is defined 'not to print' (**View > Color > Views...**). In the example below this colour is named *Bibliographie*.

### References

Set up a cross reference to use it with the specially prepared coloured entries (paragraph format B1). Some examples are:

```
<$paratext>
<$aranum> <$paratext> (page <$pagenum>)
```

With these definitions you can create references in line, such as the mentioning of [Marty et al](#) without any fuss. You can also refer to the completely numbered item as in this example: [2] *Th. Reuter, FrameMaker* (page 24).

You can extend this method to use more than one concealable short entry (variants of B1 paragraphs). Be aware of identification problems in the cross reference dialogue.

### Bibliographic data

- [1] [Marty et al](#)  
 [1] Marty Ch., R. Philipona and C. Frohlich, 1999: Probleme mit Bibliographien in Framemaker, Journal of FrameMaker, Nr. 43, 256-268.  
 [2] [Th. Reuter, FrameMaker](#)  
 [2] Reuter, Thomas M., 1999: Das Buch zu FrameMaker. SmartBooks Kilchberg. ISBN 3-908488-28-1

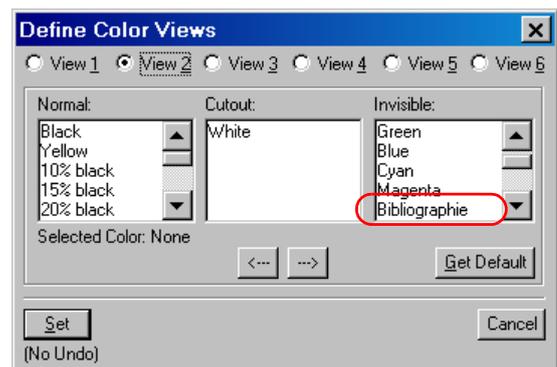
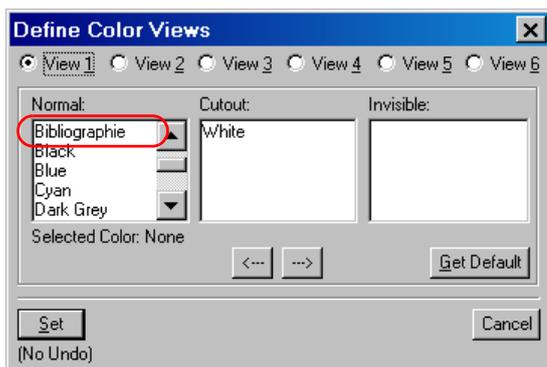
Essential properties of paragraph formats

- B1 Next paragraph: B2; colour: Bibliographie; Keep with next; auto numbering sequence: "B:[<n+>]\t".  
 B2 Next paragraph: B1; no keep; auto numbering sequence: "B:[<n>]\t".

### Colour views

The file with the bibliographic data needs special settings for the colour views (**View > Color > Views...**):

- When working with the bibliography you need to see the text and use view 1.
- For printing you must hide the coloured entries using view 2.



## Table of bibliographic data

Since tables can be sorted, it would be nice to use them for bibliographies in place of the above mentioned lists.

However, sort destroys any markers in tables. This bug exists since we can sort tables (FM 5.5). Hence a special procedure is required:

Bug needs special procedure

- Set up the table with the bibliographic data. Use a distinct ¶-format for the reference data (e.g. lit-short2).
- Sort the table before you set up any cross references.
- Insert the cross references at the desired places. To ease this, use a special notation in the running text to find the places where you want to insert the cross references (e.g. "[[engelbrecht 88]").
- If you need to update the table, insert new items at the alphabetic location and *do not sort the table any more!*

Example running text

While [[Blum 2000 and [[Engelbrecht clearly describe the problem, [[Helm 1990 just tinkers around and does not provide any reasonable discussion of the problem.

After inserting the references

While [Blum et al, 2000](#) and [Engelbrecht, E.G., 1998](#) clearly describe the problem, [Helm, J. L.,1990](#) just tinkers around and does not provide any reasonable discussion of the Thin Tree Syndrome.

Blum et al, 2000	Blum, L., Bajaj, P., Gass, J., Poulidakos, D., 2000, "Pollutant Formation of a 20 kW Domestic Gas Burner Operated at Partial Premixing Mode", Proceedings of Second European Conference on Small Burner Technology and Heating Equipment (ECSBT 2), Germany.
Engelbrecht, E.G., 1998	Engelbrecht, E.G., 1998, "Modelling of Premixed Combustion in a Gas Turbine", PhD Thesis, Cranfield University, England.
Helm, J. L., 1990	Helm, J. L., 1990, Energy Production, Consumption and Consequences, National Academy Press, Washington, USA.
N. N., 1998	N. N., 1998, ELCO Energiesysteme AG, Betriebsanleitung Gasbrenner Low-NOx, Vilters.
N. N., 2000	N. N., 2000, Japanese Advanced Environmental Equipment, Global Environment Centre Foundation, Japan, <a href="http://nett21.unep.or.jp/JSIM_DATA/JSIM13.html">http://nett21.unep.or.jp/JSIM_DATA/JSIM13.html</a> .

# Bibliography with EndNote

EndNote ([www.endnote.com](http://www.endnote.com)) is one of the most used applications to maintain bibliographic data bases and generate bibliographies in scientific works.

The product is widely used for dissertations, theses and scientific publications of all kinds. EndNote is available for Windows and Mac OS. It is well integrated with MS Word by means of macros and DDE (Dynamic Data Exchange).

## Cooperation with FrameMaker

### Advantages using EndNote

Although bibliographies can easily be created in FrameMaker by means of cross reference, EndNote provides the following advantages:

- Maintenance of a bibliographic database for several works.
- The database can be filled with data from various sources including the Internet.
- Generated references and citations can adhere to a large number of output formats (most publications require special formatting).

### Drawbacks of EndNote

Over the time the various EndNote releases have changed their behaviour significantly, in particular with relation to FrameMaker:

EndNote Version	Handling non-Word files	Cooperation	
		Word	FM
5 (2001-09)	Scans MIF and RTF, handles non-ASCII characters not correctly	+++	++
6 (2002-06)	No scan of RTF or MIF possible - purely a Word thing	+++	0
7 (2003)	Scan of RTF possible, but not MIF	+++	+
8 (2004)	New data base format to support UNICODE; only working with Word, No MIF support	++++	+

Only EndNote versions 1 ... 5 provided the function **Scan Document** in *mif*. Version 6 does not support any scan and starting with version 7 scanning RTF is back which allows to work with most text processors and provides some possibilities for FrameMaker.

From version 8 on the Unicode support in EndNote hinders direct handling of the temporary references in FrameMaker, because FrameMaker is not Unicode compliant.

### Using EndNote's RTF scan facility

It may seem reasonable to export the FrameMaker document as RTF, then scan and modify it by EndNote and finally import the RTF again into FrameMaker. *Some* problems are:

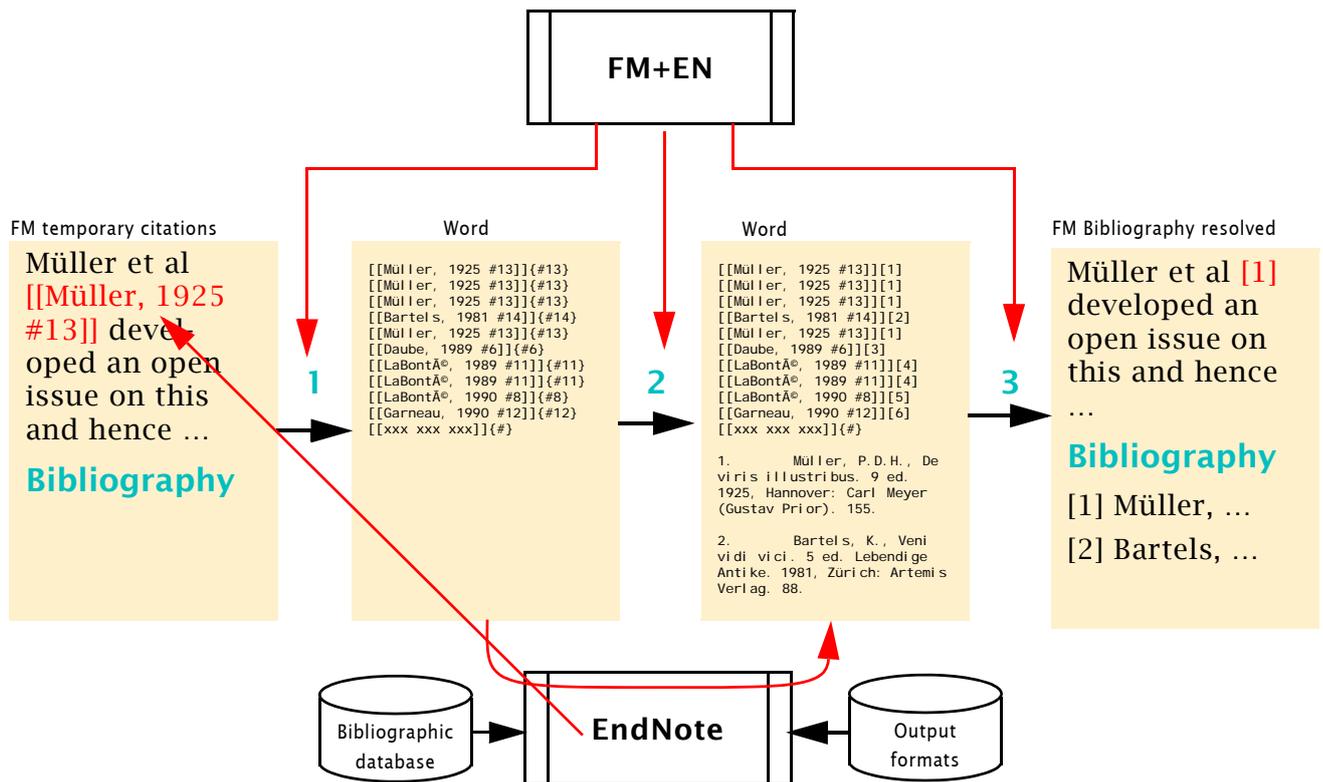
- Anchored frames get new attributes (at insertion) with all previous content as one image.
- Layout and formats must be re-applied.
- Cross references become useless, must be rebuilt.

## Solution with D+DD utility

D+DD has developed the utility **FM+EN** which controls the collaboration between FrameMaker, Word and EndNote. Manipulations in the paste buffer overcome the code difference between EndNote (Unicode) and FrameMaker (Mac Roman).

## Process overview

The utility **FM+EN** controls the data flow between the three involved programs:



## Process details

Temporary citations are copied from EndNote and pasted into the FrameMaker document. However, not **CTRL+v** is used for pasting, but the new command **CTRL+y** provided by **FM+EN**. This command transforms the Unicode references to FrameMaker-digestible references.

- Step 1 The temporary citations are collected in FrameMaker and written into an MS Word file. Two forms are written to avoid problems during resolving the references in EndNote:
- The long form which is present in FrameMaker, for example `[[Müller, 1925 #13]]`
  - The short form containing only the necessary information for EndNote to resolve the reference, for example `{#13}`.

`[[Müller, 1925 #13]]{#13}¶`

- Step 2 **EndNote** scans this Word file (in `rtf` = Rich Text Format) based on the current bibliographic database and the selected output format. The result is a new `rtf` file containing both the formatted references and the generated bibliography:

- Step 3 The first part of the `rtf` file from step 3 now contains formatted references to the right:

```
[[Müller, 1925 #13]][1]
[[Bartels, 1981 #14]][2]
[[xxx xxx xxx]]{#}
```

With this data the temporary references in the FrameMaker file are searched and replaced by the formatted form.

The second part of the new file contains the generated bibliography:

1. Müller, P.D.H., *De viris illustribus*. 9 ed. 1925...
2. Bartels, K., *Veni vidi vici*. 5 ed. Lebendige...

The user must copy this bibliography to an appropriate place in the FrameMaker document or book and format it.

**Note:** You must use **Paste Special** and select **RTF** to maintain the local character formatting from Word.

## Utility FM+EN

**Note:** The following is an excerpt from the separate documentation about the utility **FM+EN**. See the [D+DD website](#) for details.



After start of the utility **FM+EN** you will get an icon in the system tray. For the insertion of the temporary citations the utility provides the “hot key” **CTRL+y** for the special paste operation.

## Inserting a citation

- 1 In EndNote select the Citation in the Database view and copy it to the clipboard (**CTRL+c**).

Daube	1989	Aufbau des OBRZ Runtime Systems
LaBonté	1989	A New Data Type for National Language?
Reinsch	1989	Is there still an Alphabet in 2002?

- 2 Switch to FrameMaker and place the cursor in the document where you want to place the citation.
- 3 Paste the temporary citation from the clipboard (**CTRL+y**). The inserted temporary citation has the format `[[LaBonté, 1989 #11]]`.

**Note:** For pasting the same temporary citation a second (or more) time use **CTRL+SHIFT+y** or **CTRL +v**.

You will run the process steps only after all (or most) of the temporary citations are inserted in the document or the documents of a book.

## Operating the utility

Right clicking on the utility icon in the system tray opens the following menu:

About	Provides a panel with program information and a disclaimer.
Program Setup	It is essential to define the UI languages of the involved programs before you execute the process steps. Other settings – such as working slowly or create footnotes from bibliographic references – are optional.
Change References and build Bibliography	The three steps of the process are run in sequence. Follow the instructions provided by popup-messages.
Documentation	Display the PDF with the full documentation.
Suspend Hotkeys	If for any reason you need in an application the key <b>CTRL+y</b> you can suspend the key function from <b>FM+EN</b> and later re-activate it.

Exit Close the utility. You may use the **PAUSE** key for this.

## Final Work

The completion of the process is displayed by a dialogue which reminds you to copy the generated bibliography into the FrameMaker document.

**Note:** **EndNote** uses local formatting in the text (not Character formats) and puts the numbering in the text. For different formatting (e.g. automatic numbering by FrameMaker) you need to edit the text.

1. Müller, P.D.H., *De viris illustribus*. 9 ed. 1925, Hannover: Carl Meyer (Gustav Prior). 155.
2. Bartels, K., *Veni vidi vici*. 5 ed. Lebendige Antike. 1981, Zürich: Artemis Verlag. 88.
3. Daube, K. *Text and Code - A Dragons Pond*. in G.U.I.D.E. Conference. 1989. Basel, Switzerland: GUIDE.

## Bibliography in a FrameMaker book

If the utility is started in a FrameMaker book, it automatically collects and changes the citations in all files of the book.

- 1 Open all files of the book and handle messages concerning “missing fonts” or “missing graphics” accordingly.
- 2 Go to the book window and start **FM+EN**. The document windows will be maximised to get correct window titles.
- 3 Place the generated bibliography in a separate chapter or at a place of your desire.

## Bibliography in footnotes

A special form of bibliography places the bibliographic references in footnotes. The citation in the text is just the footnote reference. For example:

Hecate est Iovis et Latonae filia <sup>21)</sup>, soror Apollinis. Est tricopor et triceps, magicarum artium magistra ac fascinationum praeses, cinctra latrantium canum <sup>22)</sup>; noctu stans in triviis vel prope sepulcra et ubi loca sunt.

To achieve this, you create a footnote and insert the temporary citation in the footnotes. **FM+EN** will replace the temporary citation with the bibliographic reference. You need to specify this in the setup.

- 21 LaBonté, A. *A New Data Type for National Language?* in *SEAS Anniversary Meeting*. 1989. Amsterdam, The Netherlands: SHARE European Association.
- 22 Garneau, D., ed. *National Language Support Reference Manual*. January 10, 1990 ed. National language Information Design Guide, ed. IBM. Vol. 2. 1990, IBM National Language Technical Centre: Toronto, CDN.



# 8

## FrameMaker books

### Overview

A FrameMaker book merely is a logical concept to handle a set of files. The main purpose of books is to automate the generation of Table of Contents, Index and the pagination process as well as the cross references.

Chapters in a book can consist of more than one file.

All files in a book can receive formats (style elements) from any document at once. This is a great feature of FrameMaker.

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# General remarks on books

## FM books versus large single document

Task, feature	One single large document	FrameMaker book
Authoring	Only one author at a time.	Each chapter file can be edited independently.
Access to information	Open document multiply (2 <sup>nd</sup> to n <sup>th</sup> open is display only).	Independent access to individual parts (chapters).
Save time	Depends on the size of the file and the number of insets (graphics, text insets).	Only the changed chapters need to be saved.
Structural overview <sup>a</sup>	No structure view at all.	Book is the 'list of chapters'.
Numbering features	Paragraph numbering and page number can only be sequential through whole file.	Numbering may continue or restart in each chapter. Additional building blocks for volume and chapter number.
Numbering display	The whole file has one numbering presentation: e.g. page number is arabic.	Each file can have a different numbering presentation (e.g. roman for page number in preliminaries or index).
Change order of information	Cut and paste even for chapters.	Drag and drop chapters (files) in book window. Cut and paste within a chapter file.
Redundancy	Parts of the text need to be copied into other files. Text insets can avoid this.	Chapter files can be part of other books. Text insets are used for 'smaller' pieces.
Layout	Continuous pages (right/left) must have same number of columns. Unconnected pages may have different layout.	In each file the number of columns can be different: 1 column with side head in base part; 2 columns for TOC, 3 columns for index.
Additional information	The file is what it is.	Non-FM files can be added to the book for ease of reference (and opening them by its native application)
Structured documents	The whole file is either structured or unstructured.	A document in a FrameMaker book can either be unstructured or a single, complete element.
Organisational	Special information only form this one file.	To obtain special information (e.g. list of imported graphics) a book can be set up from arbitrary fm-files (don't need to belong to the same subject or project).

a. For a 'structure view' see *Simulate an outline view* on page A-30.

# Handling book items

- Either you start a new book without having any clue which files you want to put in (see *Start a book* on page 8-5).
- Or you start from an already existing file (see *Start a book* on page 8-5).
- The sequence of files in the book determines the chapter numbers (and other numbering). See *Numbering documents* on page 8-7.
- Generated files get the name from the current book, for example, *bookname*TOC.fm.

## Functions in the book window

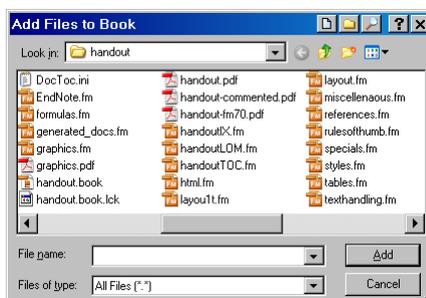
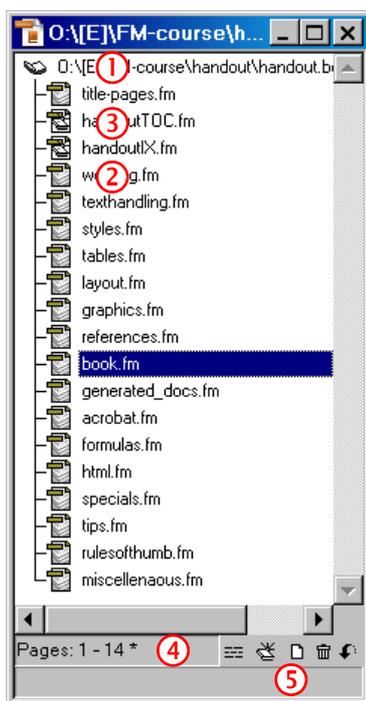
The files in the book window use different icons:

- Book (1)
- Standard file (2)
- Generated file (3)

The area (4) at the bottom of the book window provides the following information:

- Number of pages of the selected chapter. If more than one file is selected, this is a list of ranges. To see all, maximise the book window.
- An asterisk indicated that the file has changed since last save.

The icons to the bottom right (5) provide functions on the entries in the book window:



Icon	Function
	<b>Toggle the display</b> of the file name or heading text. The displayed text is the content of the first paragraph of the main flow.
	If the chapter title paragraph is in a separate frame rather than the main text flow, you'll never see it in the book window. See <i>Page types</i> on page 5-3: If the flow in the text frame on the title page is not auto connected to the main flow on the Left/Right master pages then you will see the first paragraph of page 2 in the book window. Be aware that the first paragraph may just be the chapter number as in this compendium.
	<b>Update all files</b> in the book ( <b>Edit &gt; Update Book ...</b> ). This updates the numbering, cross references and (re-)generates TOC, Index, etc.
	<b>Add a file</b> to the book ( <b>Add &gt; Files ...</b> ). You get an Open dialogue to select files. If the book has been saved the file names are displayed with their relative position to the book. In a new book (not yet saved) absolute paths are displayed (see page 6)
	<b>Remove the selected file(s)</b> from the book. The files themselves are <i>not deleted</i> .
	<b>Add a file</b> to the book ( <b>Add &gt; Files ...</b> ). You get an Open dialogue to select files. If the book has been saved the file names are displayed with their relative position to the book. In a new book (not yet saved) absolute paths are displayed (see page 6)
	<b>Remove the selected file(s)</b> from the book. The files themselves are <i>not deleted</i> .
	<b>Undo</b> the last operation. Be aware that saving the book empties the undo buffer.

## Manage book files

After changing the order of files or deletion of files it may be necessary to change numbering properties and/or pagination of book files.

To get correct numbering, cross references and generated files (TOC, Index etc.) it is necessary to update the book.

### File selection

- To select all files in the book use **CTRL+A**.
- To select a contiguous group of files, select the first file and then **SHIFT+click** on the last file of the group.
- To select arbitrary files, select the first file and then add more files by **CTRL-clicking** on the additional files.

*Note:* Just selecting the book (the first line in the list) does not select anything!

### Open a file or activate an already open file

- Double-click on the file name, or
- Select the file and click **Enter**.

### Re-order book files

Select a file and move it with the mouse to the desired location in the book list. There are no keyboard actions for this function.

### Rename file

For this operation it may be necessary to switch the display to **Display File Names**.

- Select it and change its name with **Edit > Rename File**, or
- Select the file, then click on the file name to become editable.

Before renaming a file FM saves the file with the old name and then updates all references of the renamed file.

*Note:* Do not rename a file with the file manager, if this file is used in a book. You will need to set up the book again.

### Delete file

- Select the file and click the  button, or
- Select the file and type **DEL** key.

*Note:* You do not get a chance to confirm the deletion, but you can undo the deletion. Not the file itself is deleted, just the pointer.

## Book wide functions

### Search / Replace

When issuing an **Edit > Search/Replace** from the book window, the search starts in the file which is selected in the book window. The search automatically continues to the next file in the book and wraps to the first file etc.

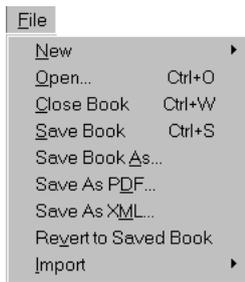
If you change anything in a file, the search/replace loops within this file until you did not change anything in the file.

### Spell checking

When issuing an **Edit > Check spelling**...from the book window, the check starts in the file which is selected in the book window. The check automatically continues to the next file in the book and wraps to the first file etc.

## Menu items related to the book window

### File menu:



For the book window some menu items change (see figure).

You get access to *all files in the book* (for open, close or save), if you hold the **SHIFT** key while selecting menu **File**.

When in a document file (x.fm) holding the **SHIFT** key while selecting the menu **File** lets you close or save *all open files*.

### Edit menu



Additional items in Edit menu

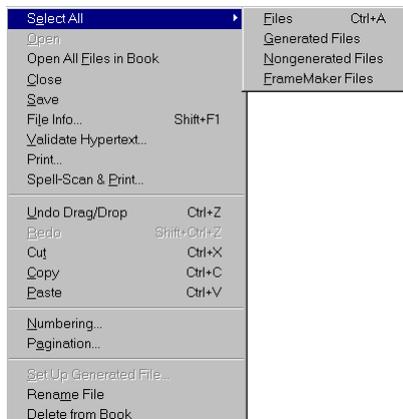
If a book window exists in the current FrameMaker session, the following dialogues get an additional option button **Book** to allow processing in all files of the book. The

**Edit > Spelling checker...** gets the **Book** radio button enabled and selected.

**Find/Change...** gets the **Look in Book** radio button enabled and selected.

**Rename File**, **Delete File from Book** and **Update Book...** are only present for an active book window.

### Context menu (right mouse button)



When you have selected a file in the book window, the context menu provides the following functions (ignoring obvious ones here):

**Undo Drag/Drop** You have changed the order of the files with drag and drop. This will be undone.

**Redo Drag/Drop** The previous drag and drop is redone.

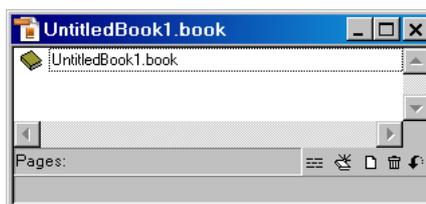
**Numbering...** Provides the numbering properties for the file (see *Set up numbering of chapter files* on page 8-7).

**Pagination...** Provides the pagination properties for the file (similar to **Format > Page Layout > Pagination**)

**Set up xxx** xxx is the type of a generated file (Table of Contents, Index, etc.). Use this to define the properties of the currently selected file.

## Add files to the book

### Start a book

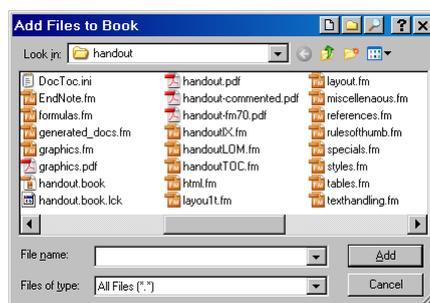


▶ **File > New > Book** starts a new book. If an FM-file is open, you are asked whether you want this file to be in the book. In this case the book gets the name from this file (e.g. maintenance.book)

▶ You may now add files to the book (see later). They may be in any directory.

▶ In the **Save as...** provide a reasonable name for the book, for example, microkeratome.book.

## Add a chapter (file) to the book

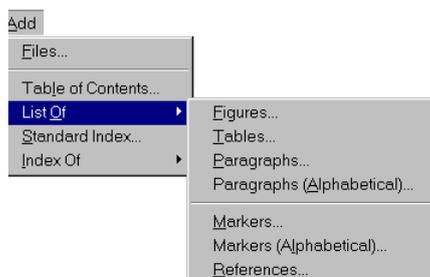


A Windows peculiarity

- 1 In the book window use **Add > File...** to get a standard file list.
- 2 Select the desired file from the file list and click **Add**. The file will be placed below the currently selected file in the book.
- 3 You may wish to move the file to another location in the book. Just drag it with the mouse up or down (no keyboard function available).

If you select more than one file in the Add dialogue, then they are inserted in the book in *reverse order of your selection*. Select from last to first, and you will need to move only one file in the book.

## Add a generated file to the book



FrameMaker can generate table of contents, indexes, lists of markers or paragraphs etc. This information is used in appendices or prefaces of real books or long documents.

Use the **Add** menu to add generated files to the book. This menu is only visible if the book file is active. Select the desired type of file:

**Table of Contents...** In the next dialogue specify the properties of the Table of Contents (see *Table of contents* on page 9-3).

**List of** The sub menu gives you a list of list types. These lists are based on marker types or paragraph styles (see *Arbitrary lists* on page 9-17).

**Standard Index...** In the next dialogue specify the properties of the Index (see *Index creation* on page 9-9).

**Index of** Gives you the choice of predefined indexes in a sub menu.

To add a generated file to the book,

- 1 Select the type of file from the **Add** menu (and probably using a sub menu)
- 2 If a detail dialogue pops up, either use the presented defaults (may be changed later) or set the properties now.
- 3 Back in the book window you may wish to change the location of the file in the book.

# Numbering documents

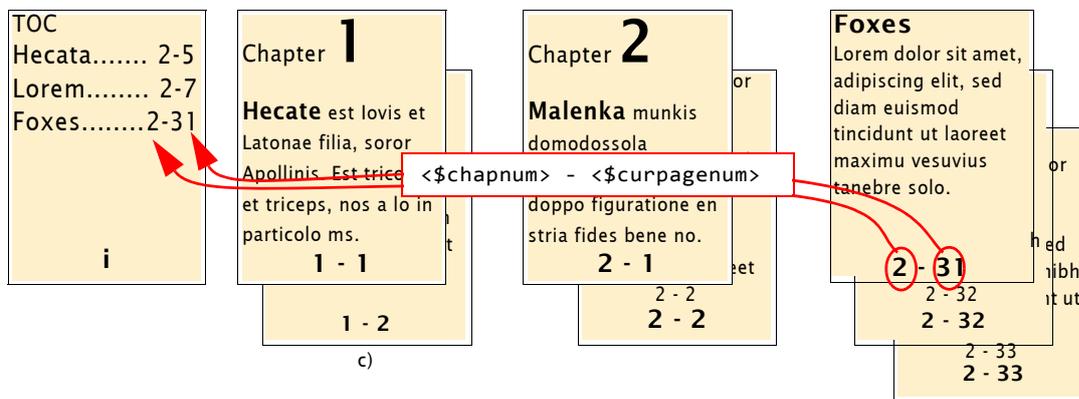
## Overview

The following example demonstrates the numbering capabilities with FrameMaker. Normally the numbering properties of the various files are set from within the book window.

The settings are transferred into the individual files.

These properties are set in the book window for each file with **Format > Document > Numbering**

bookname	TOC	introduction	main stuff-1	main stuff-2	file name (example.)
0		continue numbering (→ 1)	continue numbering (→ 2)	same as previous file (→ 2)	<b>Chapter numbering</b>
restart	format= roman	restart format= numeric	continue	continue	<b>Page numbering</b>
restart		restart	continue	continue	<b>Paragraph numb.</b>



### Page numbering on Master page

- a) System variable *Chapter Number* (<\$chapnum>)
- b) System variable *Current Page #* (<\$curpagenum>)
- c) Format of page number is set in **Format > Document > Numbering** (page # style) in the document or from the book.

## Set up numbering of chapter files

A FrameMaker document holds a set of numbering properties:

- Paragraph numbering (see details in *Hierarchical numbering* on page 3-11).
- Page number (used in layout)
- Chapter number (new in FM 6)
- Volume number (new in FM 6)
- Numbering of the standard footnotes
- Numbering of the table footnotes

These properties apply to text files as well as to generated files.

## Set up a numbering scheme

If your book has more than just a few files it is useful to set up a table of the properties:

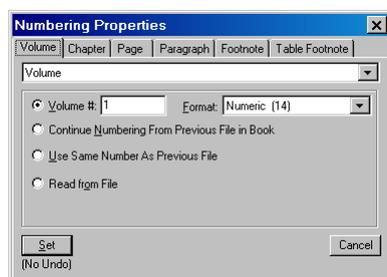
	File	Vol.	Chapter	Page number		Paragraph	Footnotes
preliminary.	title	1	0	1	roman	restart	1
	booknameTOC	same	same	continue	roman	restart1	continue
	introduction	same	same	continue	roman	restart.	continue
content	planning-1	same	next	1	arabic	restart.	continue
	planning-2	same	same	continue	arabic	continue	continue
	planning-3	same	same	continue	arabic	continue	continue
	working-1	same	next.	continue	arabic	continue	continue
	working-2	same	same	continue	arabic	continue	continue
	working-3	same	same	continue	arabic	continue	continue
appendix	diagrams	next	next	1	A	restart.	continue
	drawings	same	same	continue	next	continue	continue

## Apply the numbering properties

For the files in the book apply the properties book by file:

- 1 Select the file
- 2 Either use the context menu and select **Numbering** or use menu **Format > Document > Numbering**.

### Volume number



Set the volume number according to your file structure:

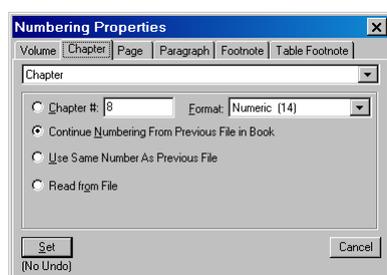
In 1<sup>st</sup> file of vol. 1 Set the **Volume #** to 1 and select an appropriate format (I, II, III or A, B, C etc.)

In next file of vol. Set **Use Same Number as Previous File**.

In 1<sup>st</sup> file of vol. x Set **Continue Numbering from Previous File in Book**.

Read from File This takes the number as specified in the document file with **Format > Document > Numbering**.

### Chapter number



Set the chapter number according to your book structure:

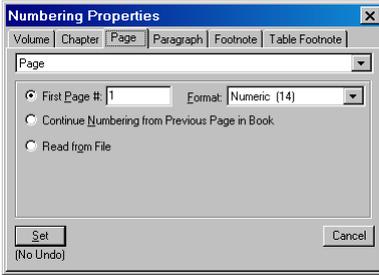
In 1<sup>st</sup> file of ch. 1 Set the **Chapter #** to 1 and select an appropriate format (1, 2, 3 or i, ii, iii etc.)

In 1<sup>st</sup> file of ch. x Set **Continue Numbering from Previous File in Book**.

In next file of ch. x Set **Use Same Number as Previous File**.

Read from File This takes the number as specified in the document file with **Format > Document > Numbering**.

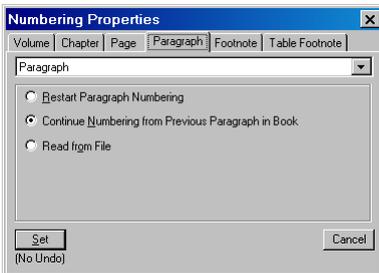
## Page number



Set the page number according to your book structure:

- In 1<sup>st</sup> file of ch. 1 Set **First Page #** to 1 and select an appropriate format (1, 2, 3 or i, ii, iii etc.)
- In 1<sup>st</sup> file of ch. x For continuous page numbers set **Continue Numbering from Previous File in Book**. For numbering scheme x-p set the number to 1.
- In cont. files Set **Continue Numbering from Previous File in Book**.
- Read from File This takes the number as specified in the document file with **Format > Document > Numbering**.

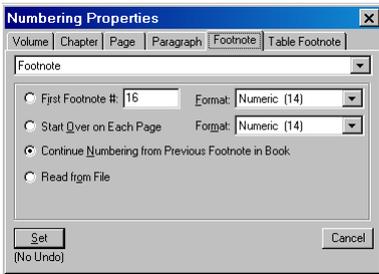
## Paragraph number



Set the paragraph numbering according to your book structure:

- In 1<sup>st</sup> file of ch. 1 Set **Restart Paragraph Numbering**.
- In 1<sup>st</sup> file of ch. x For continuous page numbers set **Continue Numbering from Previous File in Book**. For numbering scheme x-p set the number to 1.
- In cont. files Set **Continue Numbering from Previous File in Book**.
- Read from File This takes the number as specified in the document file with **Format > Document > Numbering**.

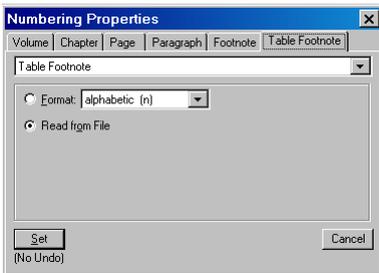
## Footnote number



Set the footnote numbering according to your desire:

- In 1<sup>st</sup> file of ch. 1 Set **First Footnote #** to 1 and select an appropriate format (1, 2, 3 or i, ii, iii etc.)
- In other files For continuous footnote numbering across the book set **Continue Numbering from Previous File in Book**.
- To start with 1 on each page, set **Start Over on Each Page**.
- Read from File This takes the number as specified in the document file with **Format > Document > Numbering**.

## Table footnote



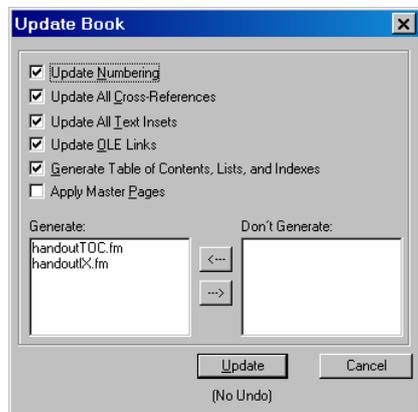
Set the numbering properties for footnotes in tables according to your desire:

- Format Select an appropriate format (1, 2, 3 or i, ii, iii etc.)
- Read from File This takes the number format as specified in the document file with **Format > Document > Footnote Properties...**

## Update cross references and numbering

Neither the chapter numbers (or other paragraph numbering) nor cross-chapter references are current, until the chapter files are connected by a book.

### To update the numbering and the references



- 1 Open the book file
- 2 Select the files to be updated. If you select the top line with the book name all files will be processed.
- 3 Click the update button (  ) or use **Edit > Update Book...**
- 4 In the dialogue **Update Book** move all files which you want to re-generate (TOC, index etc.) into the left pane. Move everything else to the right. You may have nothing in the left pane - Then only the numbering and cross references will be updated.
- 5 Click the **Update** button. All cross references, paragraph numbers and (if applicable) generated files are updated now.

# Master books

Since FrameMaker version 6 it is possible to create master books. Keep in mind that a FrameMaker book is just a logical collection of files, in the case of a master book the collection of FrameMaker book files.

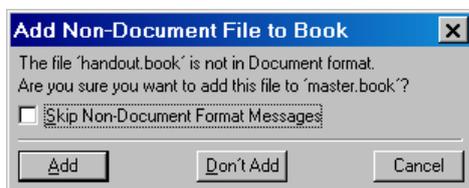
In a master book, only the following actions are possible:

- Add a book file to the master book
- Remove a book file from the master book
- Open a book file

Create a master book

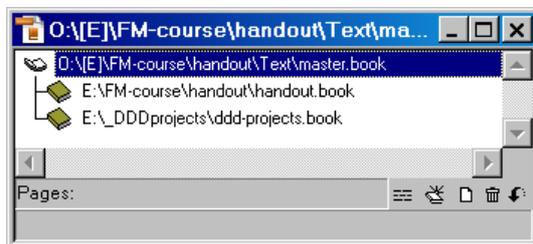
To create a master book, just create a book file with **File > New > Book** and save it with an appropriate name, e.g. `master.book`.

When adding files to the book with the icon (  ) or with menu **Add > Files** you get a message about non-document files:



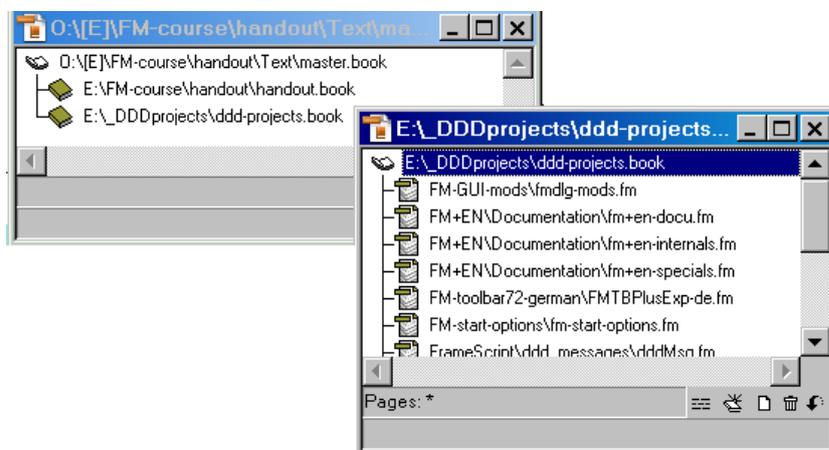
Activate *Skip Non Document Format Messages* to avoid this dialogue for future imports of book files.

The book files within the master book are represented with a book icon:



Access to document files

Use this master book to open the individual book files and get access to the document files in these book files:



Source Dick Gaskill at bluepumpkin d com

## Combining Two Books

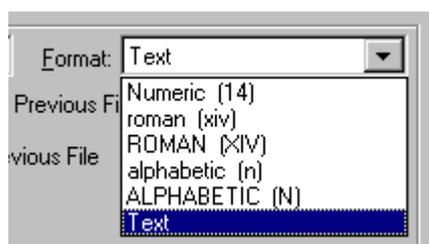
By Bright Path Solutions [[www.travelthepath.com](http://www.travelthepath.com)]

Bright Path Solutions use this technique when making custom training books, as it allows them to easily pull topics from different classes without browsing for them.

- 1 Open your first book and - if desired - save it as a new name (such as, xyzcustomclass.book).
- 2 Then, open the second book and “tile” or resize the open books so you can see them side-by-side.
- 3 In the second book, highlight the range of files you wish to move into the first, custom book. (To highlight, click to select the first file desired and shift-click to select the last file desired.)
- 4 Click down on the highlighted range and hold down the mouse button. Drag the files from the second book into the first book and drop them where desired by releasing the mouse button. (A small horizontal line appears to show you the drop location and moves as you move.)
- 5 Close the second book without saving.
- 6 Save the first, custom book. Adjust the file settings if desired and **Update** to adjust your table of contents and page numbering.

You now have a custom book with topics/chapters combined from two book files.

## Numbering chapters with text



Volumes and chapters in a book may be numbered not only arabic or roman, but also as text. This comes in handy to specify part titles and the like:

- 1 In the Numbering Properties dialogue in the book, set the **Volume # Format** for the file in question to **Text** and put the *entire* part title (number and text) in the Volume # field. So, for instance, the Volume # field in your Part 1 file would contain:

Part 1: Part Title

- 2 Then, define the autonumber of your part title paragraphs as <\$volnum>. Your part title paragraphs can then be empty paragraphs, with the title text as part of the autonumber.

Source Richard Combs at polycom.com

# Book error log

When updating a book, errors are collected in a file called Book Error log - *bokname.book*. This file...

- can not be saved - it exists only during the current FrameMaker session. If you want to proceed tomorrow with the clean-up, select all items (**CTRL+A**) and copy them to a text editor window (or into a frame maker document).
- contains hyperlinks as you know them from the Web (blue text with underline).
- is cumulated during a FrameMaker session, if you do not delete (close) it between book functions.

It is good practice to work off all problems which are reported in this log, then delete (close) the log and update the book again.

Some of the errors reported would need your intervention or decision. Hence the book update will not be complete until you have handled these situations (e.g. missing fonts).

## Sample report

### Book Error Report

E:\FM-course\handout\_60\course00.book

**October 21, 2000 6:46:36 pm**

[E:\FM-course\handout\\_60\design.fm](#)

Print setting for color Black is inconsistent.

Print setting for color Cyan is inconsistent.

[E:\FM-course\handout\\_60\graphics.fm](#)

[Unresolved Cross-Reference to import apps.fm](#)

[E:\FM-course\handout\\_60\references.fm](#)

[Unresolved Cross-Reference to book.fm](#)

## Update of file xxx is not possible

When updating the files in a book, FrameMaker can not react on the error messages such as

- Font xxx missing and hence substituted by yyy for this session. See *Font issues* on page A-25.
- Language abc missing (dictionary not installed).

Remedy

- 1 Open all files in the book with **SHIFT+File > Open All Files in Book**.
- 2 Respond to the error messages.
- 3 Perform the desired book operation, such as import format.
- 4 Close all files in the book with **SHIFT+File > Close all files in book**.

## Inconsistent settings

### Inconsistent colour settings

For handling inconsistent colours see *Inconsistent colour* on page A-23

### Inconsistent conditional text settings

A particular condition tag is set to be shown in one file and to be not shown (hidden) in another. This is an informal message and need not to be cleared – if the settings are what you want.

To get rid of this error at the update of a book,

- ▶ Select all files in the book
- ▶ In **View > Show/Hide Conditional Text** set the settings you need
- ▶ You may wish to eliminate any conditions by **Show All**.

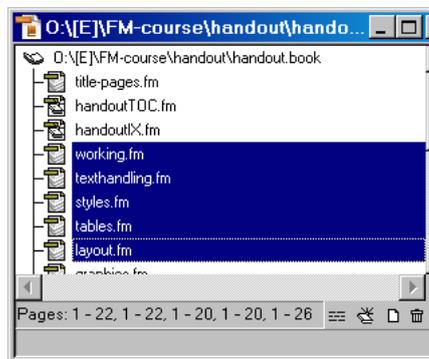
### Inconsistent numbering properties

This indicates that the numbering set within a file differs to the settings in the book file. To correct this:

- ▶ Check the numbering for each file in the book

## Import and distribute document properties

### Import formats and distribute to all files of book



- 1 Open the book file
- 2 Select the files to be updated (see image). If you select the top line with the book name all files will be processed.
- 3 Continue with the procedure described at *Import formats into book files* on page 3-17.

### Import and distribute only part of a format category

To import just some of the needed formats (e.g. paragraph formats for headers only) you need an intermediate document.

The procedure is described at *Import only part of a format category* on page 3-17.

## Printing books

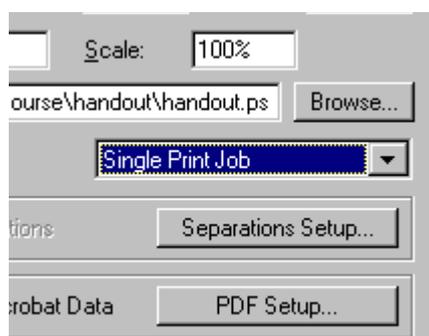
You may print all files (**File > Print Book...**) or only a selection from the book window (**File > Print Selected Files...**).

When printing a book to file (for example, a PostScript file for later distilling to a PDF), you have the choice to

- Create a single file for the whole book (**Single Print Job**)
- Create a separate file for each document file (**Separate Print Job for Each Document**).

You need to select **Single Print Job** for creation of a PDF of the whole book. Only in this mode correct bookmarks and hyperjumps can be created.

For other ingredients to create a PDF see *Standard process with Distiller* on page 10-5.



## Peculiarities of book updates

Cross references documents may use various character formats, for example,

```
<Bl ue><Bol d>Appendix <$paranum>> <I tal i c><$paratext></>
```

However, the book's **Generate/Update** function ignores the first one (in the example: Blue).

### Workaround

Create a single character format (for example, Link) that has all the properties you need, and modify the cross-reference format accordingly.

```
<Li nk>Appendix <$paranum>> <I tal i c><$paratext></>
```

[2008-12-05 Shlomo Perets]



# 9

## Generated documents

### Overview

The Table of Contents (or TOC) is generated from a file or files of a book (or a set of).

An index can be generated from a file or files of a book (or a set of) by collecting the information from the index markers.

Lists of tables, graphics, formulas etc. can also be built from the paragraph properties. Such lists can help during the production process or be part of the final book.

Once the content of such documents is generated, the format can be adapted and the generation pattern can be changed.

The mechanism of index generation can also be used to generate parts lists and the like.

### Contents

Hypertext links .....	2
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Building blocks on reference pages .....	22
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## Hypertext links

In all generated files (Table of Contents, Index, List of authors and the like) FrameMaker can automatically insert hypertext links to the source location. These hypertext links

- ease the development of the document with the various revision cycles, homogenization headings, correction of index entries etc.
- are automatically transformed into hyperjumps in PDF and links in HTML

To get the hypertext links

Check the box **Generate Hypertext Links** in the Setup for the TOC or index etc.

Use the hypertext links in FrameMaker

Holding **CTRL+ALT** while moving over the TOC or index lines (or other places with the links) changes the cursor into a pointing hand to indicate a hyperjump.

To jump just click now.

**Note:** *Cross references act also as hypertext links.*

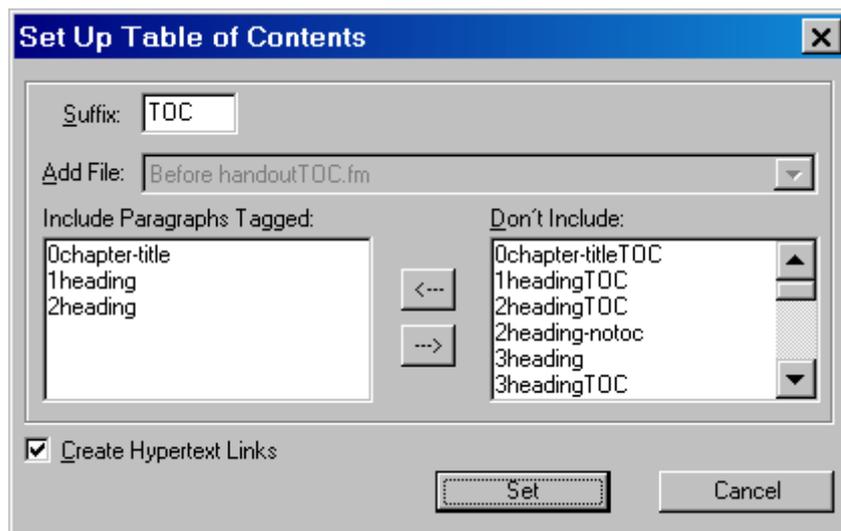
**Note:** *In generated files imported "by reference" into another document the hyperjumps do not work, because there is no text which can be accessed directly. For working hyperjumps the generated document must be imported "by copy" - this requires a new copy after each update.*

# Table of contents

- The table of contents (TOC) must be started as a generated file (do not set up a file and then try to generate the TOC into it).
- Document comprising a book may be closed to generate the TOC from them. The book file, however must be open.
- You can generate a TOC from a single chapter file also.
- The format of the generated file can be influenced by setting up proper paragraph styles and master pages in the template for the chapter files.

## Generate TOC from a file

- 1 Enter the document from which you want to generate the TOC and select **Special > Table of Contents...**
- 2 You are prompted whether to set up a TOC as part of a new book or as an independent file. Click **Yes**.
- 3 In the dialogue **Set Up Table of Contents** move the paragraph styles, which should appear in the TOC, to the left.



**Note:** You can move all items from one side to the other by holding **SHIFT** while clicking on the arrow button.

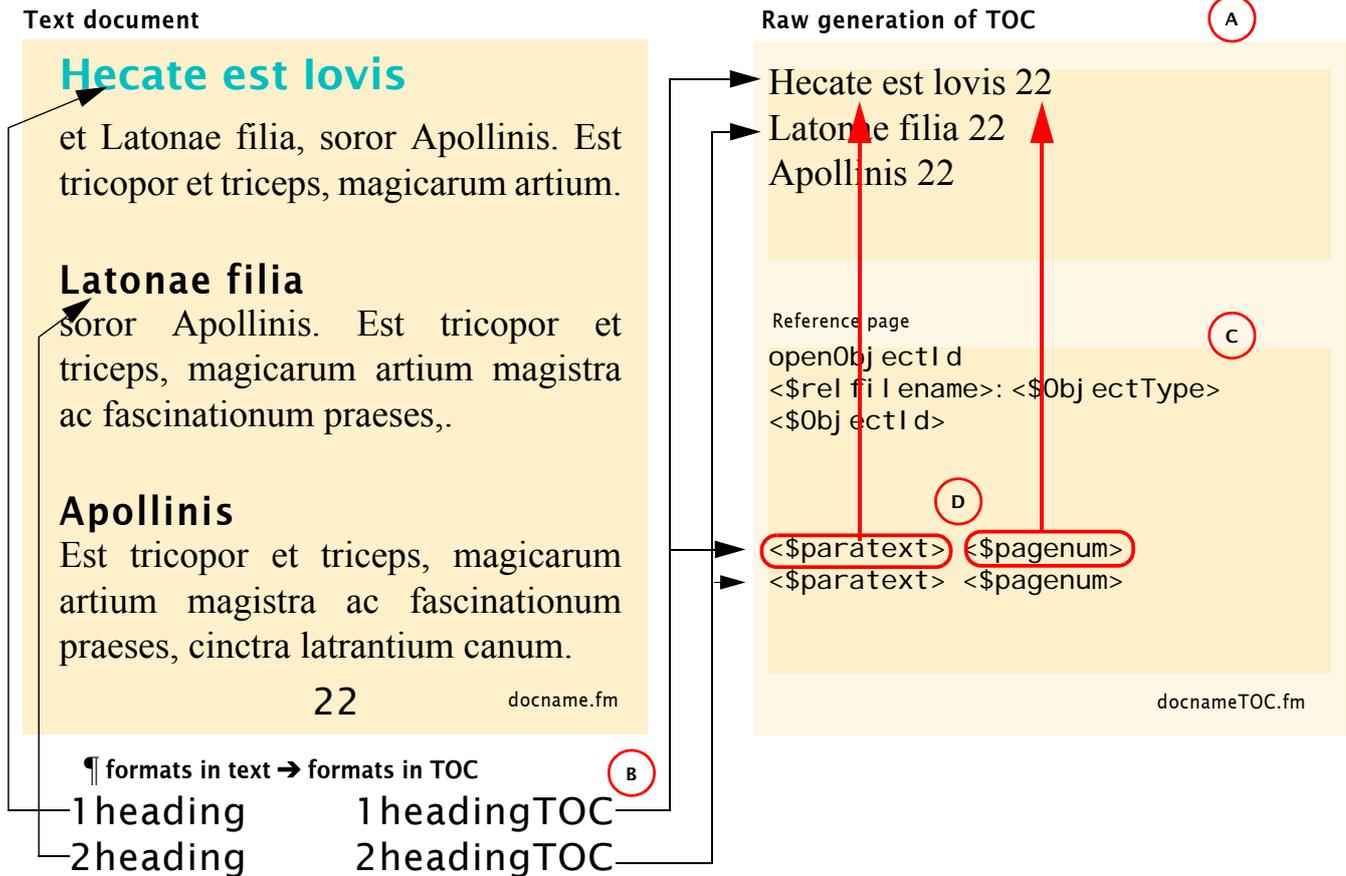
- 4 You may wish to generate hypertext links: click the selection box.
- 5 Click **Set**. A new file named *documentname*TOC.fm is created with default presentation of the TOC.

If your document file contains definitions for *xxx*TOC paragraphs, these will be used and the generated TOC may look already quite well. See *Format of the generated TOC* on page 6 for further refinement of the TOC.

- 6 Save the file. **Do not change the name of this file!**
- 7 You must update this TOC file after changes in the original document file: in the document file follow steps 1 to 6 from above. Since you already have a TOC file from step 6, this will be used for the re-generation.

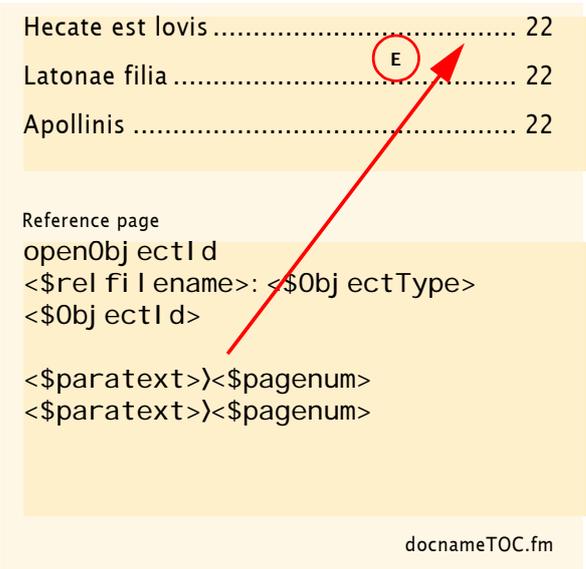
Table of contents	1¶
Generate TOC from a file	1¶
Format the generated TOC	2¶
Standard formatting for the TOC entries	2¶
Table of contents within a text document	3¶
TOC imported to the current flow	3¶
TOC Imported to nested text frame	4§

# Generation process

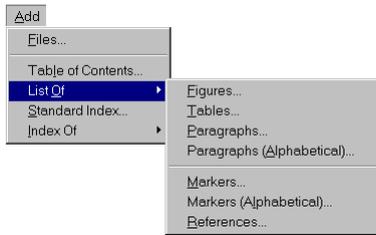


- 1 For the TOC file [A] ¶-formats and layout pages are copied from the book or current document file.
  - 2 For each ¶-format defined in the TOC setup a ¶-format named xxxTOC with default properties is created in the TOC file [B].
  - 3 A TOC reference page [C] is created (or copied also) which contains the (default) definitions [D]. These also get the ¶-formats xxxTOC.
  - 4 For each ¶-format defined in the TOC setup a line for the TOC is generated based on the pattern defined by [D].
  - 5 To refine the layout of the TOC, you modify the ¶-formats xxxTOC in the TOC file [E] and/or the generating pattern, for example, set a TAB between the text and the page number [F]
- To avoid spell checking of a TOC set the language in the ¶ format to none.
- 6 Changes in the generation patterns require an **Update Book** cycle to create the new contents.

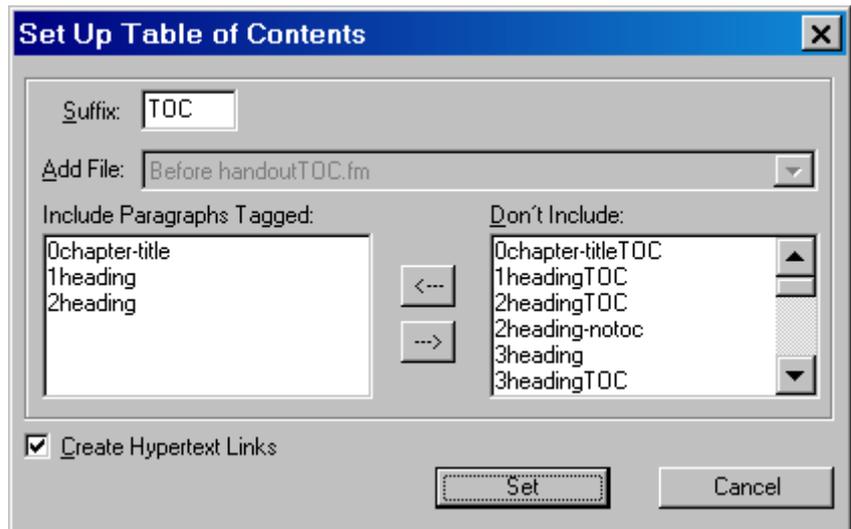
### Format of TOC adapted



## Generate TOC for a book



- 1 Enter the book file for which you want to generate the TOC and select the file before/after you want to place the TOC.
- 2 Select **File > Add > Table Of Contents**.
- 3 Define where you want to add the generated file into the book (only the selected file is in the drop down list).
- 4 In the dialogue **Set Up Table of Contents** move the paragraph styles, which should appear in the TOC, to the left.



**Note:** You can move all items from one side to the other by holding **SHIFT** while clicking on the arrow button.

- 5 You may wish to generate hypertext links: click the selection box.
- 6 Click **Set**. A new file named *bookname*TOC.fm is created with default presentation of the TOC.

2	Table of contents 1¶
2	Generate TOC from a file 1¶
3	Format the generated TOC 2¶
3	Standard formatting for the TOC entries 2¶
4	Table of contents within a text document 3¶
4	TOC imported to the current flow 3¶
4	TOC Imported to nested text frame 4¶

If your book file contains paragraph formats for xxxTOC, these will be used and the generated TOC may look already quite well. The book gets these definitions at the time the book is set up from a document file.

For further refinement of the TOC see *Format of the generated TOC* on page 6.

- 7 Save the file. **Do not change the name of this file!**
- 8 After changes in document files of the book you must update this TOC file with **Edit > Update Book...**: Assure that the TOC file is listed under “Generate”. See *Update cross references and numbering* on page 8-10 for more details.

## Format of the generated TOC

- 1 Open the TOC file
  - The layout you see is the same as the document from which the TOC was generated.
  - The names of the paragraph formats for the TOC entries are built from the original paragraph style names (e.g. 1heading, 2heading) with the appendix TOC: 1headingTOC, 2headingTOC.
  - On the reference page named TOC you will find the following lines. These are the generating patterns for the TOC entries (the first line is needed for the hypertext links).

```
openObj ectId <$rel fil ename>: <$Obj ectType> <$Obj ectId>
<$paratext> <$pagenum>
<$paratext> <$pagenum>
```

- Although second to last lines have the same content, these lines are formatted differently using the style names 1headingTOC and 2headingTOC (as an example).
- 2 Format these xxxTOC lines according to your needs (tabulation, leaders for the tabs, font size etc. and update the paragraph catalogue with the settings.

To avoid spell checking of a TOC set the language in the ¶ format to none.

**Note:** *Whether an underline character in Custom Leader creates a solid line or not depends on the font.*

## Adapt the formatting of the TOC entries

We use the line with style 1headingTOC as an example here.

- 1 Insert a tab between the two elements:

```
<$paratext>)<$pagenum>
```

- 2 In the paragraph designer set a right aligned tab as far as possible and apply a dot leader. You may also wish to indent the paragraph depending on the level of entry.
- 3 If you wish to include the paragraph number in the TOC entry, add the element <\$paranumonly> to the start of the line:

```
<$paranumonly>.<$paratext>)<$pagenum>
```

This paragraph number is available, even if in the text document the paragraph number is invisible (colour white).

- 4 Save the changed document

The next time you generate the TOC, the new formatting will be used

**Example of properly formatted entries on reference page TOC**

```
<$paratext> <$chapnum> <$pagenum>
<$paratext> <$chapnum> <$pagenum>
<$paratext> <$chapnum> <$pagenum>
```

## Prepare for entries which are longer than a line in the TOC

The text of the TOC entry will extend beyond the right tab position, and the TAB will not be performed. Hence you need to restrict the width of the text frame to the same width as the TAB position.

This text frame is wider than the position of the right tab:

```
Long entry in the table of
contents ..... 17
Another entry..... 23
```

This text frame is as wide as the position of the right tab:

```
Long entry in the table of
contents.....17
Another entry .....23
```

**Note:** *Rounding errors may require a slightly smaller (-0.05mm) TAB position than the width of the text frame.*

## Tabbing in long lines

Long TOC (or Index or ...) entries *may* not create the correct tabbing in the second (or last) line of an entry. One TAB character is used to reach the TAB position in the first line. A second TAB is needed to reach the TAB position in the second line.

Only one TAB char in the REF page:

```
<$paratext><$pagenum>
Long entry in the table of
content 17
Another entry..... 23
```

Two TAB chars in the REF page:

```
<$paratext>><$pagenum>
Long entry in the table of
content .....17
Another entry .....23
```

Handling this problem is a side effect of the [\[i\]-frame script](#) Insert/Update DocToc.

## Include table of contents in document

The TOC file generated from a text document (also that of a complete book) can be referenced from any file including the one it was generated from.

To get a 'chapter-TOC' you create a TOC from the chapter and then import it to the document. You need to repeat the process to get correct page numbers.

Of course, a plug-in, such as the [\[i\]-frame script](#) Insert/Update DocToc is an elegant solution for this demand.

## Generate the TOC

- 1 Generate the TOC according to the method described earlier.
- 2 You may move the generated file to a different location (to another directory, for example:  
E:\FrameMaker\Course\sample\foilsTOC.fm. **Do this only as the last stage!**

**Note:** *FrameMaker always generates a file into the same directory as the source file, hence you will get a new file at the old place, which does not use your fancy formatting. Even importing the formatting from the 'old' file will not help, as the properties from the reference pages are needed during the generation.*

- 3 At the desired place in the main document import the TOC document by reference with the settings *Body Text flow*, *Retain Source's formatting* and *Update automatically*.

4 As demonstrated in *TOC Imported to nested text frame* on page 8, the TOC may be imported also into text flows inside an anchored frame to get special appearance.

### Update the TOC

- 1 Double click on the TOC
- 2 Click **Update Now**.

### TOC imported to the current flow

Table of contents .....	1
Generate TOC from a file.....	1
Format the generated TOC .....	3
Standard formatting for the TOC entries .....	3
Table of contents within a text document .....	4
TOC imported to the current flow .....	4
TOC Imported to nested text frame.....	5

### TOC Imported to nested text frame

Be aware that tabulation needs room - A two column text frame within the anchored frame will be too narrow in the case here.

Table of contents .....	1	Text frame	
Generate TOC from a file .....	1		
Format the generated TOC .....	3		
Standard formatting for the TOC entries.....	3		
Table of contents within a text document.....	4		
TOC imported to the current flow.....	4		
TOC Imported to nested text frame .....	5		
XXX			
			Anchored frame

### TOC and current document have different layout

When importing form a file with different layout characteristics of the imported text flow, either

- use the formatting of the target flow. You may need to create new paragraph formats in the target document.
- or use the formatting of the source document. In this case you may need to adapt the paragraph formats in the source document.

#### Example

The source document is a TOC using no side head area in the layout. The target document (such as this compendium) uses a layout with side head area. If you want the imported TOC to use the full the line length (as it is in the source document), you must define the paragraph formats xxxTOC (either in the source or the target document) with the pagination property: “across all columns and side heads”.

Without this setting the source document will use only the column width (as this paragraph does) and the tabulation may not be honoured.

# Index creation

## For a good index you need ...

### Experience

You need a lot of experience to create a good index for a general document. FrameMaker can only provide the mechanics, not the intellectual capacity...

Be prepared to accept 'holes' in your index: the fantasy of the reader only rarely matches that of the author.

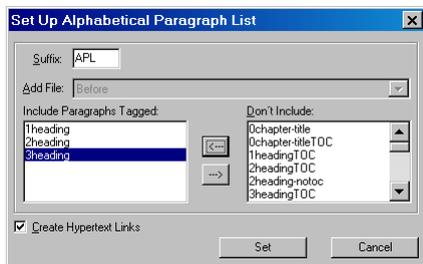
### Time

- A good index can only be created by many iterations.
- Rules about generating the index must be adapted regularly according to the nature of the document and the readership.
- FrameMaker APIs allow to speed the creation of an index, but also these can not provide intelligence.

## Quick and dirty index

A quick and dirty index can be constructed from an alphabetical list of paragraphs. Use heading paragraphs (including table headings, table titles, figure titles).

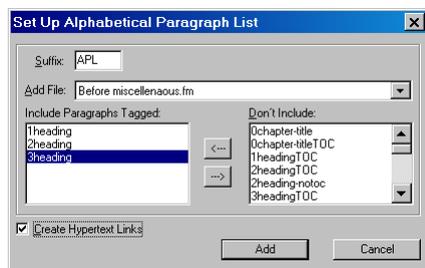
### Create an alphabetic list



Select **Special > List of > Paragraphs (alphabetical)...**

- ▶ If the file is part of a book, you get a prompt. Click **Yes**.
- ▶ In the dialogue **Set up Alphabetical Paragraph List** move the desired paragraph types from the right pane to the left pane.
- ▶ Click **Set** to generate the file named *documentAPL*.
- ▶ For the intended purpose - just list the stuff - you will not need to format the list similar to what you will do with a TOC.

### Anchor head



In the book select either the first or the last file to place the generated file properly.

Select **Add > List of > Paragraphs (alphabetical)...**

- ▶ In the dialogue **Set up Alphabetical Paragraph List** move the desired paragraph types from the right pane to the left pane.
- ▶ Select also, whether you want to place the generated file before or after the currently selected one.
- ▶ Click **Add** to generate the file named *booknameAPL*.
- ▶ For the intended purpose - just list the stuff - you will not need to format the list similar to what you will do with a TOC.

**Note:** *In a book you can not have two alphabetical lists with different paragraph types listed, because they would get the same name.*

## Rules for keywords

- Choose keywords carefully. Include words which do not appear in the document, but describe the concepts behind existing words (so that readers can find ‘grouping words’. In most cases you will need two types of keywords: objects and actions which are applied to these objects.
- Keywords are always singular, nominative.
- Provide additional information to the keyword in parentheses, for example “contents (logically)” rather than logical content. This continues the hierarchy of terms.
- Use highlighting in keywords only for specific purposes. For example for subroutine names, program parameters.
- Do not forget to specify synonyms and antonyms.
- To define abbreviations you may use a form such as “PDF = Portable Document Format”. Watch out for syntactic characters in special texts (see *Special characters in index entries* on page 9-12).
- Do *not abbreviate* the main keyword in subentries. Keep the audience in mind: technical documentation is often read by non-native speakers (Greeks read English ...). The following is a bad example:

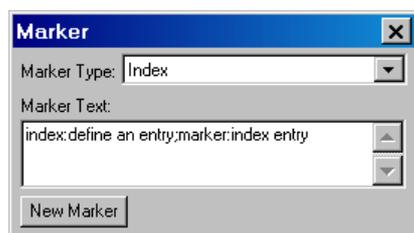
```
break
    bi cycl e ~ (hydraul i c)
    truck ~ (pneumati c)
```

Both comprehension and translation for this stuff is cumbersome.

## Define index entries

Index entries are markers of the type `index`.

### Insert an index entry



- 1 Place the cursor at the desired point. Prefer the end of a paragraph for the location! Translators will love You!
- 2 **Special > Marker** opens the dialogue **Marker**. The marker type `Index` might be selected already. If not, select this type from the drop down list.
- 3 If you have selected text, or do so while the Marker dialogue is open (it stays open), the selected text appears in the box as **Marker Text**. The marker will be placed in front of the selection.
- 4 Change the marker text to your desire and insert the marker with **New Marker**.

### Edit an index entry

- ▶ With **Special > Marker** open the dialogue.
- ▶ See *Non-width characters* on page A-8on how to select the marker.
- ▶ The dialogue will get the marker text to be modified. The button now reads **Edit Marker**.

## Types of index entries

### Blanks in index entries

Blanks may be arranged around the colon and the semicolon which have syntactic meaning in the entries. These blanks do not appear in the index display. Required blanks (e.g. to keep words together) must be inserted as \.

### Multi level entries

Multi level entries are separated by a colon (:). The following example will create a main entry *abrasion* and a sub entry *glacial*.

```
abrasion:glacial
```

It is good practice to define the possible words for the top level in advance.

### Multiple entries in one marker

Multiple entries within one marker are separated by a semicolon. This is for example useful to place all permutations of multi level entries in one marker:

```
character: del ete; del ete: character
```

### Index entry spanning a range of pages

If an index entry should span a range of pages, the entry must be placed both on the start-page and on the end-page of the range:

```
<$startrange>text of index entry
<$endrange>text of index entry
```

Page ranges are created automatically, if the same marker text appears in index markers on successive pages.

### Synonyms with no page reference

Synonyms should not display a page number in the index. To suppress the page number, add `<$nopage>` to the index entry:

```
<$nopage>Erosi on. See Abrasi on
```

If these entries are not placed at the end of the Index marker, you need the following instruction to regain page numbering:

```
<$si ngl epage>Abrasi on
```

### Highlighting of index entries

To apply highlighting, such as font changes, to an index entry, only character formats can be applied. It is not possible to use 'local' formatting with **Format > Font** etc.

```
<1hi ghl ight>speci al<Defaul t Para Font> marker text
```

**Note:** *The term <Default Para Font> can be abbreviated to </>.*

### Highlight page numbers

To highlight the page number of a particular occurrence of a key phrase, put the character format at the end of the marker text (after a blank!):

```
fai ry tal es: The Frog Ki ng <bol d>
```

This generates a secondary entry:

```
The Frog Ki ng 3, 5, 7
```

Without the blank the entry will be listed last: 3, 7, 5

## Special characters in index entries

Since colon, semicolon, < and > are syntactic characters in Index Marker entries, these characters must be 'escaped' for literal use:

```
<highlight>Income</> \> 100 millions
fruit\; vitamins for all
cucumbers\; beans\; cauliflower
```

You may use standard escaped symbols (see *Special characters in dialogue boxes* on page A-4) and symbols from special fonts by means of character formats:

```
\F = character (format)
including <ddd_symbol s>8</> importing<$nopage>
```

These definitions create the following index entries:

```
f = character (format) .....17-2
including → importing
```

## Force sort order

To force a word (e.g. with umlauts) or an entry with punctuation so sort similar to another, use this syntax:

```
Ägerter[aegerter]
0900 233 455[nine hundred]
\F = character (format) [*]<$nopage>
```

These definitions create the following order of index entries:

```
f = character (format)
Ägerter .....13-5
Affeltranger .....13-4
0900 233 455 .....13-5
North pole .....17-2
```

See *Index for scripture references* on page 9-20 for an application of special sort order.

## Index entries for successive pages

Index entries for successive pages may use the appendix f (folio) or ff (folia) to the page number:

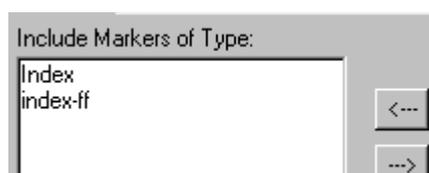
```
Italian food ..... 13ff
Toscana ..... 17f
```

You need to set up two additional marker types `index-f` and `index-ff` and use them in place of the standard Index marker types. See *Document specific lists* on page 9-20.

When generating the index, you include these marker types in the setup. This creates additional lines on the Reference page IX (using the paragraph formats `index-fIX` and `index-ffIX`) which you extend to the desired form:

Paragraph IndexIX	<\$pagenum>	this is the standard entry
Paragraph index-fIX	<\$pagenum>	→ <\$pagenum>f
Paragraph index-ffIX	<\$pagenum>	→ <\$pagenum>ff

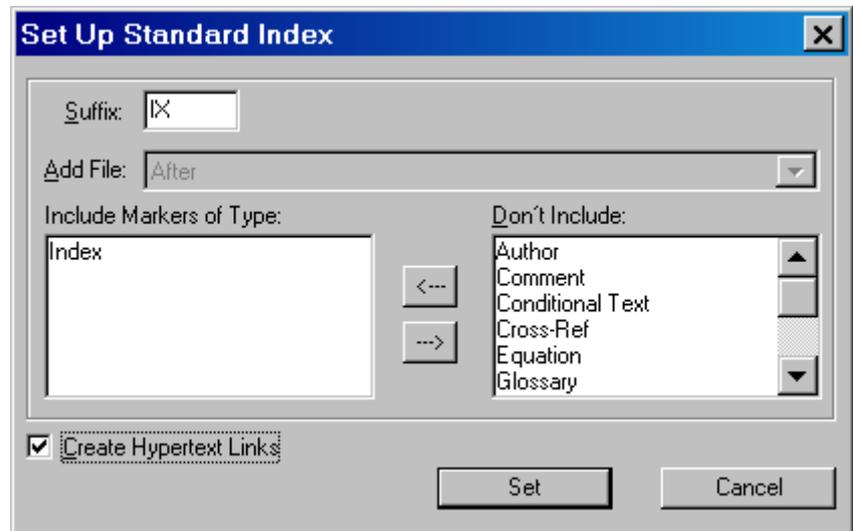
[Bernhard Schulze]



## Generating an index

### Generate index from current document

- 1 **Special > Standard Index** You are prompted whether to set up an index as part of a new book or as an independent file. Click **Yes**.
- 2 In the dialogue **Set Up Standard Index** the appropriate marker type is already selected.



- 3 Hypertext links are a great help and should be **ON**.
- 4 Click **Set**. A new file named *documentnameIX.fm* is created with default presentation of the Index.  
If your document file contains definitions for xxxIX paragraphs, these will be used and the generated index may look already quite well. See *Format the generated index* on page 14 for further refinement of the index.
- 5 Save the file. **Do not change the name of this file!**
- 6 You must update this index file after changes in the original document file: in the document file follow steps 1 to 6 from above. Since you already have a index file from step 6, this will be used for the re-generation.

### Generate index from book

Use **Add > Standard Index**. You are not prompted and continue with step 2 as above (the button will be labelled **Add**).

## Layout of index

Multiple columns

Since index entries are normally shorter than heading texts a layout with two or even three columns is recommended (See *Index* on page 0-9).

Dictionary style headers

For a long index or glossary you may define special page headers: The first occurring index word on the left hand page and the last occurring index word on the right page. See *Dictionary style headers* on page 5-20 for details.

## Format the generated index

1 The layout of the abcIX file is the same as the document from which the index was generated (in case you generated the index from a book, the formatting comes from the document with which the book was created).

You may wish to change the layout in the master page IX (for example, set up two columns).

2 The names of the paragraph formats for the index entries are built from the levels of the entries: Level1IX, Level2IX. GroupTitlesIX defines the ‘character headings’.

3 On the reference page named IX you will find the following lines. The purpose of these lines can be determined from their format names (here indicated to the left):

SeparatorsIX	1, 2-3	Add any spacing between index text and page-numbering
Level1IX	Level 1IX	Replace separating character with ... for cc-pp numbers
Level2IX	Level 2IX	Define the <i>position</i> of the TAB (for the page number) in the lines Level#IX. The TAB character to be generated must be placed on the line with ¶-format IndexIX
GroupTitlesIX	Symbols[\]; Numerics[0]; A; B; C; D; E; F; G; H; I; J; K; L; M; N; O; P; Q; R; S; T; U; V; W; X; Y; Z	
SortOrderIX	<\$symbols><\$numerics><\$alphabetics>	
IgnoreCharsIX	---. _ " "	
ActiveIX	openObjectId <\$relfilename>: <\$objectType> <\$objectId>	
IndexIX	<\$pagenum>	

Add <\$autorange> to automatically combine entries.

Enter any ‘prefixes’ to the page-number here (not in the Level#IX lines), if you need one. In particular, insert the leading **TAB** here. For example you may set up this line (format IndexIX) as:

>\$chapnum>\+<\$pagenum>

4 The basic formatting concerns the index entries with the paragraph formats LevelnIX. Format them according to your needs (**Paragraph Designer**, click **Update All**)

5 You may also wish to change the appearance of the Group Titles, in particular the Font and the Size, Space above, Space below and probably apply a line before the paragraph.

6 You can combine entries under one group title with these definitions in the GroupTitlesIX paragraph:

A-D[A]; E-H[E]; I-L[I]; M-P[M]; O-T[O]; U-Z[X]

The symbols in brackets, such as [A] or [O] specify the sort order for symbols and numbers. The same method is used for the alphabetic character groups.

7 You may also wish to change the appearance of the page number (insert a tab character in front of <\$pagenum>. The tab position, however, must be defined in the paragraph format of the LevelxIX lines.

8 To avoid spell checking of index entries set the language in the ¶ format to none for GroupTitlesIX and LevelnIX.

**Note:** Changes in the formatting become visible immediately in the reference pages and in the body pages. Changes of the genera-



## Include index in document

Follow the rules defined for *Include table of contents in document* on page 9-7.

## Index entry does not show up in index

The marker dialog always displays the last used marker type - which may be something else than Index. *Always check the marker type* before entering text for an index entry. You may change the marker type and then click **Edit Marker** at any time.

# Arbitrary lists

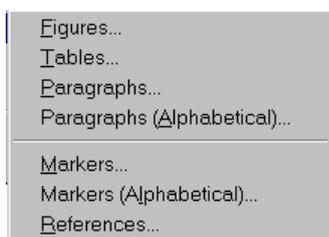
Especially in scientific publications various lists are required, for example, lists of:

- Authors
- Formulae
- Figures
- Tables
- Diagrams
- Bibliographic references (see *Bibliography with EndNote* on page 7-26).

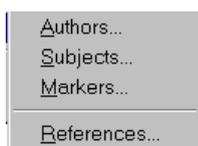
**Lists** Some of these lists can be generated without further work, others need the insertion of markers into the text.

When FrameMaker generates these lists, it produces a file, which later can be formatted to the desired needs and also be imported to another document.

These files can either be produced from the current document or from a FrameMaker book.



**Indices** In an index you can specify the sorting order, the grouping of index characters etc. (in the appropriate reference page).



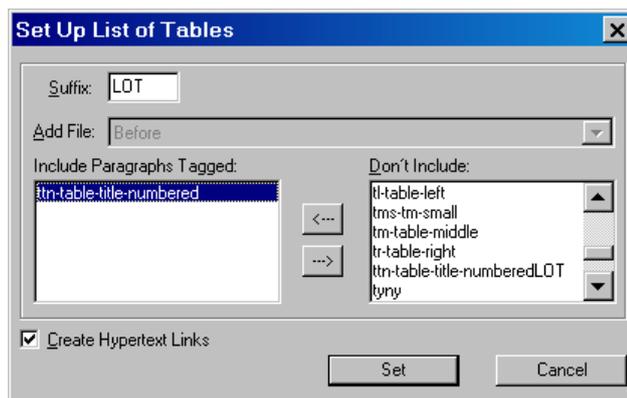
**Note:** *Lists do not allow to group similar entries into one with a list of page numbers. If you want to avoid multiple entries of same kind (e.g. three times the same author name with different page numbers) you must use an index.*

## List of tables

Tables may bear a title, which is associated with paragraph style (in this compendium: `ttn-table-title-numbered`). Hence a list of all tables is a list of all paragraphs of the format(s) used for the table titles.

To generate the list of tables,

- 1 Open the book file (or the file from which you want to generate the list)
- 1 **Special > Standard Index** You are prompted whether to set up an index as part of a new book or as an independent file. Click **Yes**.
- 2 In the dialogue **Set Up List of Tables** move the appropriate paragraph format(s) to the left. FrameMaker automatically recognises a format `TableTitle`.



- 3 You may wish to generate hypertext links: click the selection box.
- 4 Click **Set**. A new file named name *documentname*LOT.fm is created with default presentation of the List.  
If your document file contains definitions for xxxLOT paragraphs, these will be used and the generated index may look already quite well. See *Format of the generated TOC* on page 6 for further refinement of the index.
- 5 Save the file. **Do not change the name of this file!**
- 6 You must update this list file after changes in the original document file: in the document file follow steps 1 to 6 from above. Since you already have a index file from step 6, this will be used for the re-generation.
- 7 You may wish to adapt both the formatting in the generating pattern (on a reference page named LOT). See *Format of the generated TOC* on page 6 or *Format the generated index* on page 14 for details.

You can import the generated file (referenced or copy) into the document:

Table 1: Control characters in the text .....	1 - 3
Table 2: Hierarchical numbering.....	4 - 6
Table 3: Snapshot from log of PC DDD-KLD .....	5 - 8
Table 4: .....	5 - 10
Table 5: The title can only be set in unrotated mode of the table .....	5 - 10
Table 6: Table with straddled cells .....	5 - 13
Table 7: Building blocks for system variables .....	7 - 4
Table 1: Keyboard shortcuts (english and german FrameMaker).....	A - 2
Table 2: Special characters in dialogues .....	A - 3
Table 3: Wildcard characters in Find dialogues .....	A - 3
Table 4: Insert special characters with CTRL+q.....	A - 4
Table 7: Comparison between FrameMaker and Word for Windows .....	C - 3
Table 9: Imported from Excel and manually adapted.....	D - 8

## Specials with these lists

Paragraph numbering may restart at 1. In this compendium (book) the appendices start again with 1 (A) to allow for easy insertion of additional chapters.

You may have empty paragraphs (see line with Table 4 above). To fix this, go to that table and either fill in the title or remove the title (it may have no significance).

## List of figures

Since FrameMaker does not provide a native method to display figures with titles, tables are used for this purpose.

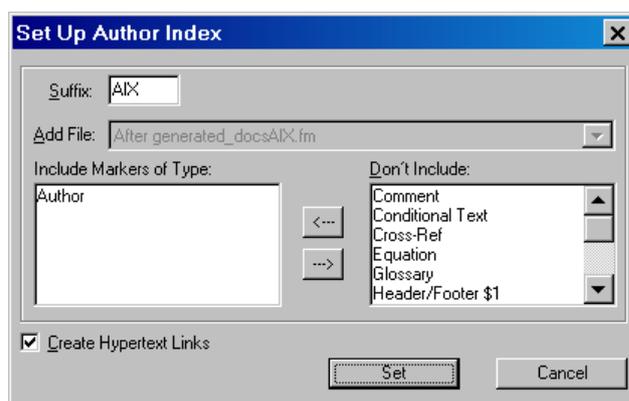
Hence a list of figures is a list of tables of a specific paragraph format (e.g. `ftn-fig-title-numbered`).

With **Special > List of > Figures** you specify the paragraph format(s) to be included. See *Figures in FrameMaker* on page 6-9 for details how to set up and use such tables.

## Index of authors

An index of authors in an index of markers of type Author. To create this index:

- 1 Insert markers of type Author (**Special > Marker**) in the documents at an author name (selected text will be copied to the Marker dialogue).
- 2 In the document or the book file add the generated index with **Special > Index of > Authors...**



- 3 In dialogue **Set up Author Index** you move the type(s) of markers to be included from the right pane to the left pane (Author is already selected).
- 4 Click **Set**. A new file named name `documentnameAIX.fm` is created with default presentation of the Index.

If your document file contains definitions for `xxxAIX` paragraphs, these will be used and the generated index may look already quite well. See *Format the generated index* on page 14 for further refinement of the index.

- 5 Save the file. **Do not change the name of this file!**
- 6 You must update this index file after changes in the original document file: in the document file follow steps 1 to 6 from above. Since you already have a index file from step 6, this will be used for the re-generation.
- 7 You may wish to adapt both the formatting in the generating pattern (on a reference page named AIX). See *Format of the generated TOC* on page 6 or *Format the generated index* on page 9-14 for details.

You can import the generated file (referenced or copy) into the document:

Gulbins .....	4
Obermayr .....	4
.ries GmbH .....	5
Sandybrook Software .....	5
Thomas Glombik .....	5
Systemc .....	5

## Index for scripture references

Sometimes you need to create an index order which is different from the titles or names at hand. For example, to set up an index for a bible which is sorted according to the biblical order rather than the names of the books.

This can be achieved by adding the sort order construct to the index entries using a numbering scheme<sup>23</sup>: 2 figures for the biblical book, 3 figures for the chapter and 3 figures for the verse (all with leading zeroes):

```
Genesis 1, 1 [01001001]
Psalms 119: 105 [19119105]
Hebrews 3: 5 [54003005]
```

Thus these will appear in the order Genesis, Hebrews, Psalms in the Index.

To make this practical, you could use FrameScript to read the references in the markers and add the appropriate bracketed text to the end of each marker. The script would contain a list of the book names.

[based on Rick Quatro; rick, frameexpert, com]

## Document specific lists

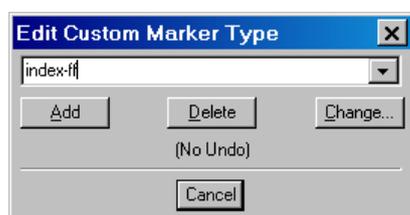
Assume you are describing a large archeological site. You may wish to provide the reader special lists:

- Strati (layers of findings, thus epochs)
- Artefacts found (pottery, fibulae, weaponry etc.)
- Locations (house, place, garden, cemetery etc.)
- and so on.

To create these lists you need markers of appropriate type (stratus, artefact, location) and insert them at the proper place.

- 1 Define a new marker type with **Special > Marker...** and select **Edit...** from the list of Markers.
- 2 In the dialogue **Edit Custom Marker Type** specify the name of the new marker type (e.g. artefacts) and click **Add** to add it to the list of markers.
- 3 Now you can use this marker type similar to the marker types defined by FrameMaker.

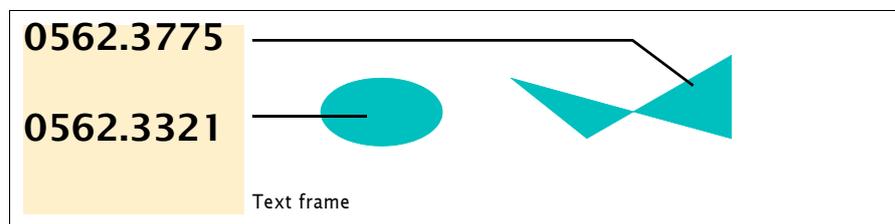
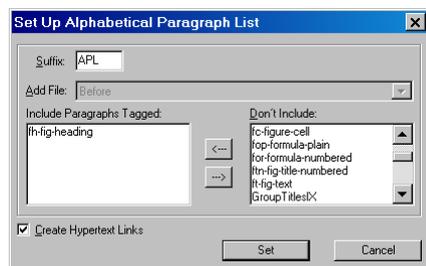
See also *Arbitrary markers* on page 7-10.



<sup>23</sup> The Bible comprises 24 books for Jews, 66 for Protestants, 73 for Catholics (including also the apocryphal (deuterocanonical) books), and 78 for most Orthodox Christians. The numbering order differs significantly.

## Parts list

For parts lists and similar applications the following method can be applied:



- 1 Place the numbers in text frames outside of the graphic or photograph.
- 2 Use a special paragraph format for the part-numbers in the graphics, for example *part-number*. This must be in the paragraph catalog.
- 3 Create an alphabetic list of these numbers with **Special > List Of > Paragraphs**
- 4 In the dialogue **Set Up Alphabetical Paragraph List** specify the paragraph format, which you want to be listed (in our example: *part-number*). Click **Set**
- 5 A file with the name *documentAPL* is created:

**0562.3321 80**

**0562.3775 80**

In the first part of this list (in this example it is just the first line) all pages are listed on which the paragraph type could be found. You may wish to remove these lines after generation (if you remove the generating element - *Level1APL* - from the reference page, it will be recreated at the next generation).

To format this file to your needs apply the same techniques as described for formatting an index. The elements on the reference page APL indicate their meaning by their format names.

## Support your work with lists

To support your document development you may use the following lists:

- List of References: imported graphics to clean out all unused stuff from the directories before you distribute.
- Alphabetic list of paragraphs (only headings) to get a starting point for an index.

# Building blocks on reference pages

[[www.microtype.com](http://www.microtype.com)]

When setting up the generating template for an automatically generated document, some restrictions apply to the building blocks which can be used. It is, for example, not possible to get the contents of a specific paragraph type with the building block `<$paratext[paraname]>`. Nothing will be generated.

Generally the building blocks which control index setup or hypertext are not listed in this table:

Generated file	Default suffix	Source	Order	Supported building blocks	
				specific to file	valid in all files
<b>Lists</b>					
Table of contents	TOC	paragraphs	collected		
List of figures	LOF	paragraphs	collected	<code>&lt;\$paratext&gt;</code>	
List of tables	LOT	paragraphs	collected	<code>&lt;\$paranum&gt;</code>	
List of paragraphs	LOP	paragraphs	collected	<code>&lt;\$paranumonly&gt;</code>	
Alphabetical list of ¶	APL	paragraphs	sorted	<code>&lt;\$paratag&gt;</code>	
List of markers	LOM	markers	collected	<code>&lt;\$markertext&gt;</code>	<code>&lt;\$pagenum&gt;</code>
Alphabetic list of markers	AML	markers	sorted		<code>&lt;\$chapnum&gt;</code>
List of references	LOR	references	collected	<code>&lt;\$referencename&gt;</code> <code>&lt;\$paratext&gt;</code>	<code>&lt;\$vol num&gt;</code>
<b>Indexes</b>					
Standard index	IX	markers	sorted		<code>&lt;\$rel filename&gt;</code>
Author index	AIX	markers	sorted	<code>&lt;\$autorange&gt;</code>	<code>&lt;\$full filename&gt;</code>
Subject index	SIX	markers	sorted	<code>&lt;\$nopage&gt;</code>	<code>&lt;characterformat&gt;</code>
Index of markers	IOM	markers	sorted		<code>&lt;/&gt;</code>
Index of references	IOR	references	sorted	<code>&lt;\$paratext&gt;</code> <code>&lt;\$autorange&gt;</code>	
<b>Document reports</b>					
Composite document	CMP	documents	merged		
Summary (summary.fm)	-	changes	collected		not applicable

## Special remarks

`<$paratext>`

This retains forced line breaks (`\n`) and all character formatting if these were applied with character tags. Other character properties are not kept.

`<$markertext>`

The complete marker text is reproduced. This includes special characters and index-specific building blocks.

references

These include condition tags, external cross-references, unresolved cross-references, imported graphics and text insets (also unresolved). From font properties only the first unique item on the page is taken.

`</>`

short for `<Default ¶ Font>`

# Adding text to generated document

Sometimes short introductory text is required in generated documents, such as:

- Scope of table of contents
- Explanation of syntactical constructs in an index

**Note:** *You can not start with text and then 'add' a generated list to a document. You always must first generate the list into a new document and then add the introductory text.*

The procedure is as follows:

- 1 Generate the list or index
- 2 Locate the cursor at the very beginning
- 3 Enter text and format it accordingly

**Note:** *Do not touch the first generated line, you may destroy the 'critical flag'!*

## Introduction to TOC

You may wish to introduce the Table of Contents with some remarks, as done in this compendium:

**Please note:** This compendium does not describe *all* features of FrameMaker. You still may need to look into the help system. On the other side the author puts emphasis on tips which are helpful for the creation and maintenance of documents both in the technical and scientific area.

Conventions used in this manual..... 0 - 2  
 PDF version ..... 0 - 2

## Introduction to index

You may wish to precede the generated text with some explanations and synonym definitions, as done in this compendium:

= used to explain abbreviations.  
 → at beginning of line: *see also*. Else: points to synonym.  
 ... repeats main keyword

### Symbols

¶ = paragraph (format)  
 f = character (format)

## Headings in generated documents

Normally you can not use the standard heading formats in a generated list, because they will be used to generate the list ...

To format a heading with the appearance of, for example, 2heading, create a new paragraph format with the same properties, but name it 2heading-notoc and do not include this name into the generation of (for example) the Table of Contents.

**Note:** *Do not name it -noTOC. This will confuse FrameMaker and the heading will be removed each time you regenerate the file. This is because all generated ¶-formats in a Table of Contents end with the suffix TOC (with upper case characters). Instead use a format name something-notoc.*

## Working in a multilingual environment

You may come across the following situation:

- A documentation company using the French version of FM has developed a template and created documentation in various languages, for example, a maintenance manual.

Since they are 'French' the template uses style names such as `texte`, `titre-1` and `titre-2`. The table of contents file is named `xyzTDM.fm` and the relevant style names are `titre-1TDM` and `titre-2TDM` (TDM = Table De Matières, see *Name suffixes* on page C-11).

- It is not a problem for you using the German version of FM to maintain such a book and re-generate the table of contents. Everything works fine.
- But when you use this 'French' template for a new FM book, you are not happy with the results when adding the table of contents to the book. Although you set up the TOC file with suffix TDM, the existing style names `titre-1TDM` and `titre-2TDM` are not used by the process. Instead new style names `titre-1IVZ` and `titre-2IVZ` (IVZ = InhaltsVerzeichnis) are defined.

### How to get a correctly formatted contents file with the German FrameMaker

- 1 In your TDM file on the reference pages set up an additional new page. If you already have a page TDM then call the new page IVZ.
- 2 Copy everything from the TDM page to the new IVZ page. Change the name of the text frame to IVZ.
- 3 Copy the first paragraph at the top of the IVZ page:  
`openObjectId <$relfilename>:<$ObjectType>`  
`<$ObjectId>` Insert it 3 more times. Assign them these paragraph names (watch the spelling!):

```
Acti veIVZ
Akti vIVZ
Acti veTDM
Akti vTDM
```

This way the contents file will always work, no matter, whether someone renames a TDM file to IVZ or vice versa.

- 4 Copy alle headings with TDM and insert them below the TDM headings. Rename the TDM in these paragraph formats to IVZ.
- 5 Repeat this on the TDM page.

Now you have a contents file which you can always use no matter whether FrameMaker would create contents files with TDM or IVZ. Just put your contents file template into the same folder of the book with its contents file. Then rename your template to the name of the existing contents file (which you have deleted). Update the book.

However, in my opinion FrameMaker should be able to do such a mapping (TDM <-> IVZ <-> TOC) internally. Let's see what we get in version 10. <sup>24)</sup>

<sup>24</sup> Reported by Dr. Winfried Reng on the Framer's list 2009-11-23

# 10

## Generate Acrobat (PDF)

### Overview

This chapter aims at Acrobat 8. However most of the features described are also available in older versions.

FrameMaker is well integrated with Acrobat. Bookmarks are automatically generated from specified headings and you can set some document properties.

### Contents

Introduction .....	2
Generate PDF from a FrameMaker document .....	4
Acrobat Reader (Adobe Reader) .....	12
Refining the PDF output .....	13
Modify the PDF file with Acrobat .....	15
Some problems with PDF files .....	17
Viewing 3D objects .....	18

# Introduction

PDF (Portable Document Format) is considered as the universal format for exchange of formatted documents.

- PDF preserves the exact layout, including the fonts and images.
- PDF can be printed to any device for which the user has a printer driver.
- PDF allows security against unwanted modifications or even printing.
- With the full Acrobat product, a PDF can be modified (text lines, cropping pages, sticky notes, generation of thumbnail images of the pages, replacing pages, extracting pages, exchanging images etc.).

## PDF versus Postscript

PostScript is a procedural programming language which is interpreted by a RIP (raster image processor) to generate the contents of pages (lines, images, etc.). A PostScript file may contain device specific commands, such as 'select papertray'.

A PostScript file always must be handled (interpreted) sequentially. There is no means to get just page 17 out of 29 pages, because the needed resources (e.g. a font) may be specified previously in the file.

PDF is an object oriented data format which provides direct access to the pages. Pages are completely independent. Resources are referenced and may be defined anywhere in the file.

Since about 2003 more and more printers can handle PDF directly and scanners can create PDF directly (via SW).

## PDF depends on a target

The above is the principle and told you by Adobe marketing. However, real life knows trouble and pitfalls:

- A PDF file is targeted to specific output channels (display screen, web, office laser printer (B/W), high quality colour laser printer, plate making process for offset printer etc.)
- Due to the immense number of possible combinations, well tested sets are named (e.g. Jaeggi Digiprint). Acrobat comes along with some names. But even these well tested sets are not universal at all.
- Properties of printers (HW) and processes differ very much. Hence it is common practice to stick to one print shop, get his well proven PDF parameters and create the PDF with these. Even though test prints are recommended.
- PDF is created using a number of parameters when setting up the job options in the Acrobat Distiller. There are many choices in each category (General, Compression, Fonts, Colour, Advanced) of options. For example:

Option category	Parameter	Internet (Jäggi)	Digital printing (Jäggi)
General:	Compatibility	Acrobat 4.0 (PDF 1.3)	Acrobat 4.0 (PDF 1.3)
	Format	Optimise for fast Web view	-
	Resolution	2400 dpi (will only be used in printing)	2400 dpi
Compression	Colour images	Bicubic downsampling to 72 dpi, automatic compression, low quality	Bicubic downsampling to 150 dpi, automatic compression, medium quality
	Monochrome	Bicubic downsampling to 150 dpi, CCITT group 4 compression	Bicubic downsampling to 600 dpi, CCITT group 4 compression
Fonts		embed all fonts; subset embedded fonts below 35%	embed all fonts
Colour	Conversion	convert all to RGB	leave colours unchanged
Advanced	Options	Convert gradients to smooth shades. Preserve overprint settings. Allow PS file to override job options; process DSC comments ...	Convert gradients to smooth shades. Preserve overprint settings. Allow PS file to override job options. Save original JPEG images in PDF if possible. process DSC comments ...

## Predefined Job Options

Print shops may require you to use their job option if you want your PDF to be printed on their equipment.

## References

[www.publisher.ch/](http://www.publisher.ch/)

publisher is the Swiss journal for electronic publishing and the publication of the Swiss User Group of Adobe products.

[www.microtype.com/](http://www.microtype.com/)

Shlomo Perets is a worldwide recognised expert in Frame-Maker & PDF.

[www.prepress.ch/](http://www.prepress.ch/)

Mr. Jäggi is an EU wide recognised expert in PDF and provides a good set of JobOptions for the Acrobat Distiller on his web site.

[Adobe Acrobat tips](http://www.adobe.com/products/tips/acrobat.html)

<http://www.adobe.com/products/tips/acrobat.html>

[Jaeggi Distiller settings](http://www.prepress.ch/d/pdf/web/settings.html)

<http://www.prepress.ch/d/pdf/web/settings.html>

## Create user friendly PDF

Read in [www.microtype.com/Hmmms.html](http://www.microtype.com/Hmmms.html) about common mistakes and omissions when generating PDF. Even files from reputed companies lack usability.

Enjoy the human reader with a complete PDF – not just a simple text file!

## Generate PDF from a FrameMaker document

When You have installed FrameMaker properly, you were asked at installation time to install Acrobat also. I hope you have done so and have available the Adobe PDF printer (formerly called Distiller Printer or Acrobat Printer) in **Control Panel > Printers and Faxes**.

**Note:** *The generated PDF can be printed to any printer, not only to a PostScript printer. Non-PostScript printers however may create deviations from the original look. You print with the application Acrobat, Acrobat Reader (Adobe Reader) or similar.*

## Save as PDF

With FrameMaker 7 a reliable procedure to save PDF directly is introduced. The standard process (generate PostScript file, distil) is performed in the background invisible to the user.

**Note:** *Saving as PDF shall be Your standard method to create PDF output from FrameMaker. Use the other method only as fall back methods.*

- Create PDF
- 1 Use **File > Save As PDF...**
  - 2 In dialogue **PDF Setup** specify the Acrobat job options and all other necessary items according to *Set up PDF properties in FrameMaker* on page 10-5.
  - 3 Start the process with **Set**

**Note:** *Do not Save as PDF to a diskette or small USB stick. The intermediate tps file will not fit onto it - and this intermediate file can not be placed at another place as the final PDF file. You may save to a hard disk and later move the generated PDF to a diskette or USB stick.*

## Save for review

If you have FrameMaker 8 installed as part of the Adobe Technical Publication Suite (and also Acrobat 8 or later installed) then you can **Save As PDF (Send for Review)**. After the generation of the PDF the file is opened in Acrobat and the Wizard for **Send by Email for Review** is started.<sup>25</sup>

- ▶ Select the PDF to be sent for review. You get a warning for PDFs larger than 5 MB.
- ▶ Enter the e-mail addresses of the reviewers. You may open the Windows Address book for this. They must at least have Acrobat 6.0 or Adobe Reader 7.0 available to open/read/comment the PDF.
- ▶ An invitation text (the e-mail text) is already defined. You may wish to modify it.
- ▶ Click **Send Invitation** in the final step.

**Note:** *There is no mechanism to import the comments applied by the reviewers into the PDF in FrameMaker 8. FM-9 has it!*

---

<sup>25</sup> It may be necessary to fill in some admin fields, such as name and organisation at the first run.

## Standard process with Distiller

The overall process to generate a PDF consists of these steps:

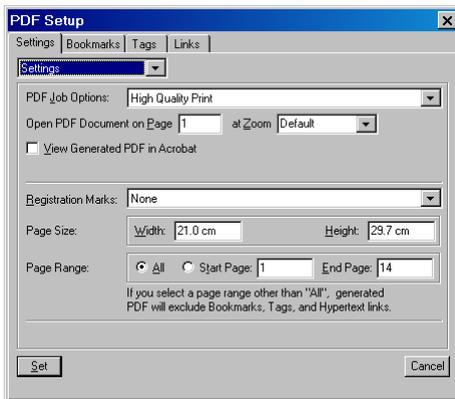
- 1 Set up the PDF properties in the FrameMaker document or via the book for all files in the book.
- 2 Produce a PostScript file either from a single document or from the complete FrameMaker book.
- 3 Start the Acrobat Distiller and select the appropriate set of job options (or specify your own).
- 4 Open the PS file in Distiller. The distiller starts the process.

## Set up PDF properties in FrameMaker

In **Format > Document > PDF Setup...** you set parameters which are handed over to the distilling process in the PostScript file. Four categories of properties can be set by means of tabs.

If you want the same settings in all files of a book, open the book file and use **File > Print Book...** and there the button **PDF Setup**.

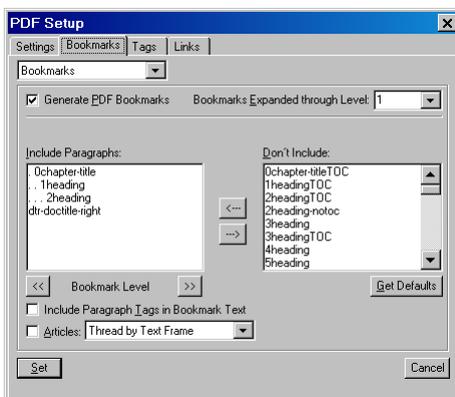
### Settings



In this pane you select the set of Distiller parameters (Job-options) which are located in the Distiller installation directory. It may be desirable to create an own set of Joboptions. See *Modifying Distiller parameters* on page 10-9.

- ▶ You also specify how the PDF document should open initially.
- ▶ The setting of Registration marks is only necessary if you want to print on smaller paper and see crop marks to trim the paper. This is similar in the **Print** dialogue.
- ▶ Further parameters normally need no change from the already set values.

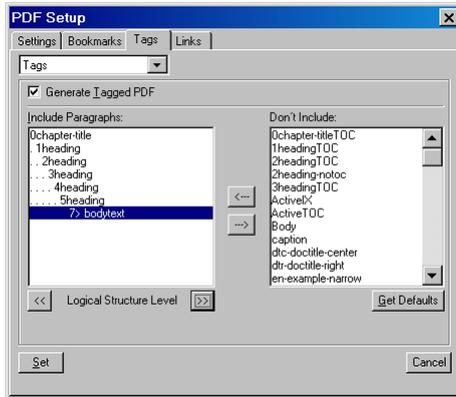
### Bookmarks



In this pane you specify which items you want to have in the Table of Contents for the left pane of Acrobat Adobe Reader.

- ▶ Define bookmarks from the heading levels with the <--- and ---> arrows. You can move all items from the left pane to the right one (or vice versa), by holding **SHIFT** and clicking the ---> (<---) button.
- ▶ Set the appropriate level of the bookmark with the << and >> buttons.
- ▶ To have the bookmarks closed to the first level, enter 1 into the drop-down list **Bookmarks expanded through Level**. Entering 0 to close to the top level works only for a single document, not for a FrameMaker book.

## Tags

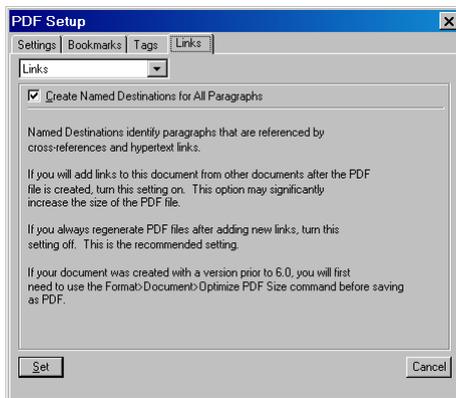


A tagged PDF file displays a logical document structure according to your settings. This allows to re-format the PDF file for alternate output devices such as screen readers. It also allows to export the PDF correctly to RTF.

If you have set attributes for anchored frames (see *Set object attributes* on page 6-18) this information is also carried over to tagged PDF.

Either leave the box Generate Logical PDF Structure unchecked, or set up the same structure as in category Bookmarks.

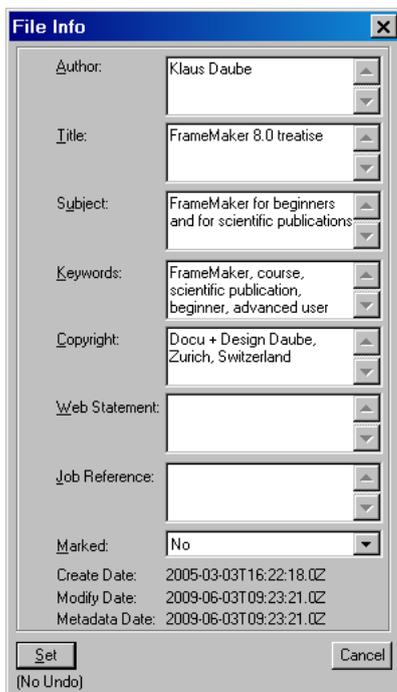
## Links



Normally check **Create Named Destination For All Paragraphs**. (although unchecking this will create a smaller PDF file).

This box must be checked if you want to create links from other documents to this document in Acrobat.

## Document Information



You may set file information for the book file or any document file. This information can be accessed by an XMP conforming application.

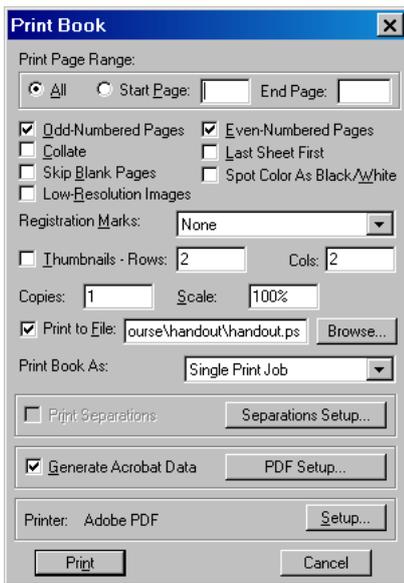
This information is saved within the FrameMaker file, but in a standardised format. You can see it, for example, when opening the FrameMaker file in a text editor.

To define this information, select **File > File Information...** in the book file (you need to select the top book file listed explicitly) or any other file in the book or you are already within a document file.

Author	Author(s) of document, including company
Title	Title of document
Subject	You may wish to add data here
Keywords	These become relevant if the PDF is combined with others on a CD for example.
Copyright	Place a copyright statement here.
Web Statement	A notice pertaining to the use of the document on the web, e.g. a disclaimer
Job Reference	Author's affiliation
Marked	Select <b>Yes</b> for copyrighted document

In Acrobat or the Acrobat Reader you display this information with **File > Properties > Description**.

## Generate the PostScript file



In **File > Print** or **File > Print Book** you specify standard items, such as Page Range, and whether you want to print all or just the even (odd) pages. Pay attention to the following parameters:

- Printer** Select the Adobe PDF printer.
- Registration Marks** Select **None**.
- Thumbnail Rows** Do not check this (only useful on paper).
- Copies** Set to 1 (or you get a mangled PDF).
- Scale** Set to 100%.
- Print to File** Click **Check**. You may change the proposed file name and path.
- Save Book As** Select **Single File** for generation of PostScript for distilling with Acrobat. Only in this mode correct bookmarks and hyper-jumps can be created.

**Gen. Acrobat Data** Check this. If not yet done, you may set the properties with **PDF Setup**.

**Note:** *PostScript files may become very large (the 350 pages of this compendium produce about 50 MB due to many screen shots. Hence you may wish to print to your TEMP folder. The final PDF to be printable on a desktop laser printer (600 dpi) is only about 7.0 MB.*

## Distil the PostScript file

Acrobat Distiller “converts” the PS input to the PDF. The various parameters controlling the process are combined into sets, which are plain ASCII files residing in the Acrobat Distiller directory (e.g. in H:\Adobe\Acrobat 8\Acrobat\Settings\).

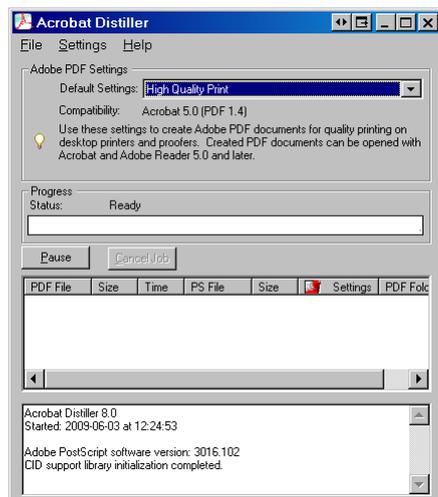
### Distiller setting

Acrobat-8 installs the following settings:

High Quality Print  
 Oversized Pages  
 PDF/A1b 2005 CMYK  
 PDF/A1b 2005 RGB  
 PDF/X1a 2001  
 PDF/X1a 2003  
 PDF/X3 2002  
 PDF/X3 2003  
 Press Quality  
 Smallest File Size  
 Standard

According to the Swiss PDF guru Jaeggi the [Distiller settings for version 7](#) are still valid for Distiller 8. These Joboptions are more target-oriented (e.g. web, CD-ROM).

## Distil the PostScript file



Open Acrobat Distiller (you will have this on your system only if you have installed the Acrobat application, not just the Acrobat Reader - which is free).

- 1 Select the proper set of job options, e.g. High Quality Print depending on your target. It may be desirable to create an own set of Joboptions. See *Modifying Distiller parameters* on page 10-9.
- 2 You may check the settings in **Settings > Joboptions**, especially to set security options, which can not be saved in joboptions.
- 3 Select the PostScript file with **File > Open** and specify where to save the PDF file.
- 4 As soon as you click **Open** the distilling process starts. The PDF is generated into a temporary location and then moved to the save directory. A log file is displayed and also saved in the same directory:

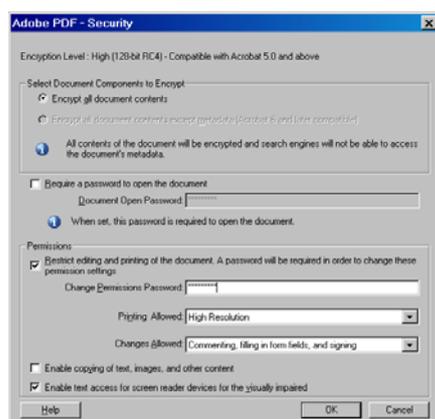
```
Start Time: 2005-11-30 at 15:17:32
Source: acrobat.ps
Destination: G:\Filetype_examples\acrobat.pdf
Adobe PDF Settings: C:\Documents and Settings\All
Users\Documents\Adobe
PDF\Settings\J_Internet_D7P.joboptions
%%[ ProductName: Distiller ]%%
%%[Page: 1]%%
%%[LastPage]%%
Distill Time: 3 seconds (00:00:03)
**** End of Job ****
```

**Note:** *Be aware of the Distiller habit to keep its dialogue contents between sessions! Always check the save location!*

## Security options

Security options must set in Distiller prior to distilling a file. Hence the automatic process by FrameMaker does not allow to set security options.

You may, however, apply security options to the generated PDF by means of the Acrobat application. See *Security settings* on page 10-15.



**Password** Write it down and store the note in a safe place if you set a password!

**Permissions ...** These check boxes can be set to prevent printing of the file, changing content or adding / changing notes using the Acrobat application.

The encryption level is low for compatibility with Acrobat 3.

# Modifying Distiller parameters

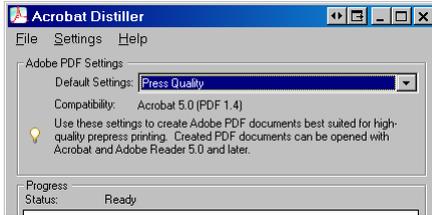
**Note:** This section is about Distiller 8.1

The standard Distiller Joboptions may not be the optimum for your case. If you prepare a PDF to be printed in a commercial print shop you may need to use their Joboptions – or they will not guarantee proper printing of your job.

If you have prepared all your images already along the lines of *Preparing graphics for import* on page 6-4 you preserve your work by special settings.

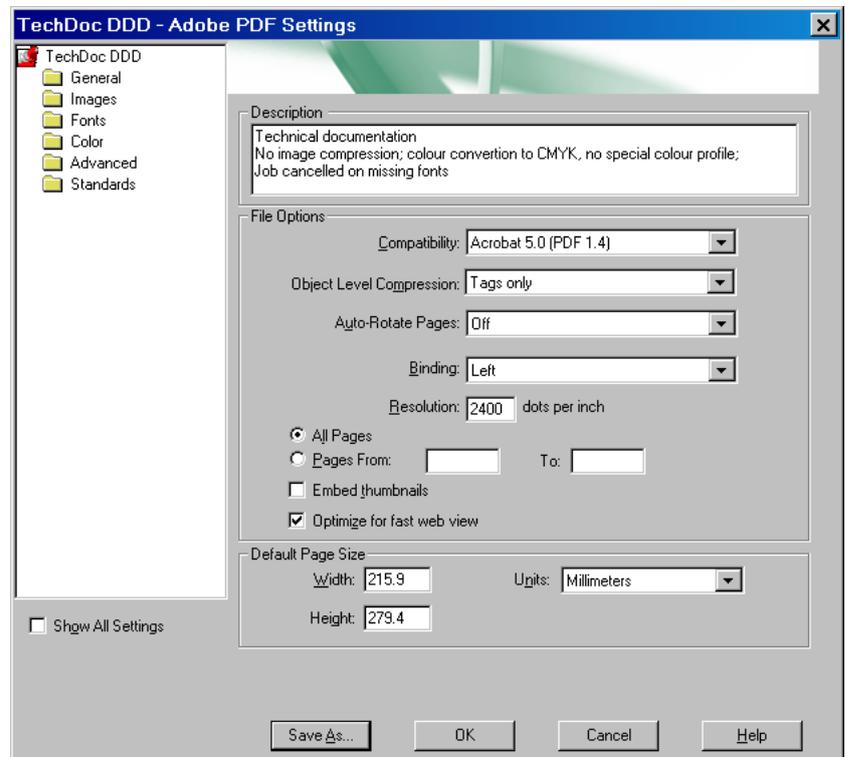
In Distiller select the most fitting set of Joboptions (for example, Press Quality) and then **Settings > Edit Adobe PDF Settings** and save the file with a new name, e.g. TechDoc DDD.

In the description field enter text describing the options you want to create.



## Setting up new Joboptions

Category General



Check all other parameters whether they fit your needs.

Category Images

Since you have prepared all your images to the right size, they should not be compressed again with a lossy method. Set the values to these:

Colour Images	Downsample	Off
	Compression	ZIP
Grayscale Images	Downsample	Off
	Compression	ZIP
Monochrome Images	leave settings as is	

Category Fonts

Most time the values are already these:

Embed all fonts		active
Subset embedded fonts		active
When embedding fails		Cancel job

### Category Color

Adobe Colour Settings	Setings File	None
	Color Management Policies	Convert all colors to CMYK
	Document rednering intent	Preserve
	Working Spaces	Leave as is (or ask your print shop)
	Preserve CMYK values for calibrated CMYK colour spaces	activate
Device Dependent Data	Leave as is (or ask your print shop)	

### Category Advanced

If you have graphics in either emf/wmf format or from a CAD systems, you may wish to set the first parameter:

Options	Convert smooth lines to curves	activate
	Save original JPEG images in PDF if possible	de-activate

### Category Standards

Leave the top selection to **None**.

Leaving the Settings dialogue with **OK** will save the new settings.

## Errors reported in the Acrobat log file

### Missing fonts

If you have both PostScript fonts (Type 1) and TrueType fonts (Type 3) installed, then the following setting may be essential to find all fonts. For example, TimesRomanPST may not be found.

In **Acrobat Distiller > Settings > Font Locations** *Deactivate Ignore TrueType versions of standard PostScript fonts.*

### Other problem

At the end of the log you may see error messages such as:

```
% [ Warning: The following Names in Name Tree Dests were
not defined ] %
```

```
G14. 1026542
```

```
G15. 1006357
```

```
G16. 1005762
```

```
M9. 17866. chaptertitle. 1
```

Even though you have no undefined cross references in your document(s) you may get these errors.

MIF helps in most cases

Normally you can get rid of these problems by

- 1 Save the file creating the error as MIF, close file without saving.
- 2 Open the MIF file and save it as ordinary FrameMaker file.

Severe problems need fixes in the MIF files

Severe problems not disappearing with the method mentioned before need removal of items in the MIF file (expert only!)

```
<ParaLine
<TextRectID 32>
<Marker
  <MType 9>
  <MTypeName `Cross-Ref' >
  <MText `17866: chapter-title: 1' >      <<<-----
  <MCurrPage `First' >
  <Unique 1010926>
  > # end of Marker
> # end of ParaLine
```

The highlighted part (a dubious marker) must be removed.

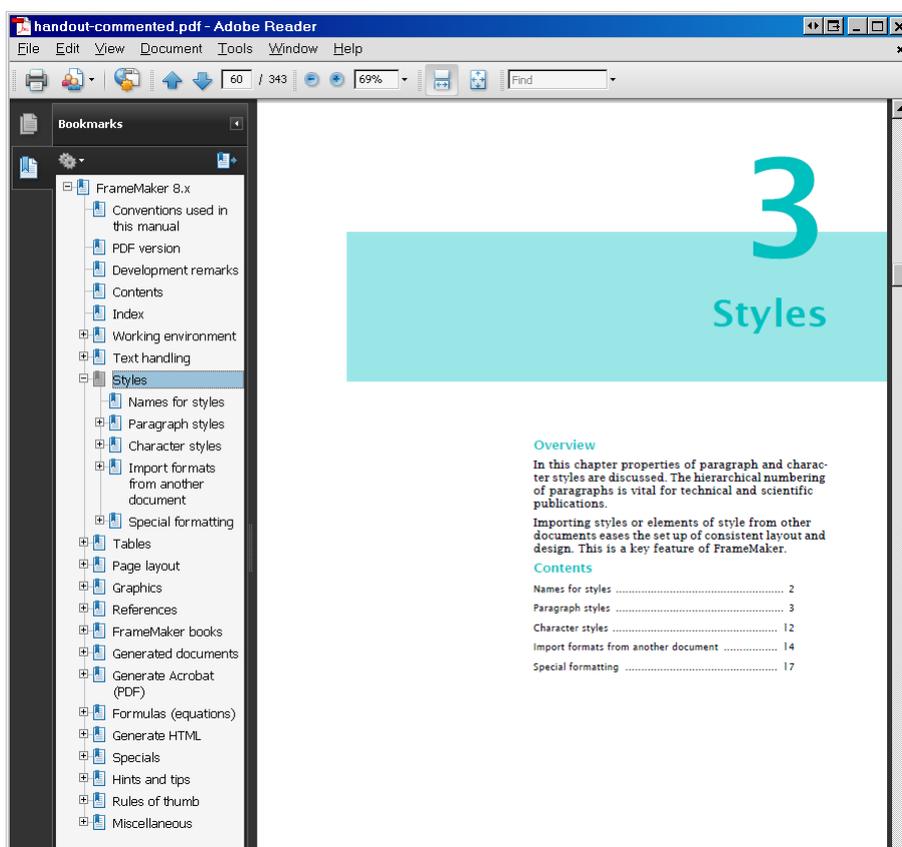
# Acrobat Reader (Adobe Reader)

Acrobat reader (which is free at the Adobe Web site) displays PDF files. The reader can be set up to integrate as plug-in into a web-browser.

Since ISO 32000 is equivalent to Adobe's PDF 1.7 (Acrobat 8), Adobe is not producing a PDF 1.8 Reference. The Adobe Supplement to ISO 32000, Base Version 1.7, Extension Level 3 describes Adobe's extensions and implementation notes for Adobe Acrobat 9.0.

## Acrobat Reader window

- In the left pane Bookmarks (table of contents) or Thumbnails (small page images) can be displayed.
- The right pane contains the document to be viewed.



## Bookmarks

If you have set up the PDF properties in FrameMaker, you get a complete structure of the headings similar to the tree in file explorer.

## Cross references

If you have cross-references in the document (X-ref markers in FrameMaker), these are active (PDF is a hypermedia-format).

FrameMaker generated files (Table of Contents, Index etc.) can contain live links, if you have specified so.

## Web links

Web links (see *Web links* on page 13) are active in PDF, if you set up the browser in **Edit > Preferences > Internet** in Acrobat Reader.

## More functions

Acrobat Reader 8 allows to insert comments (if security settings of the document allow) and hence supports reviewing.

# Refining the PDF output

## Presentation formats

It may be desirable to set up a different layout for the on-line distribution (landscape orientation, A5)

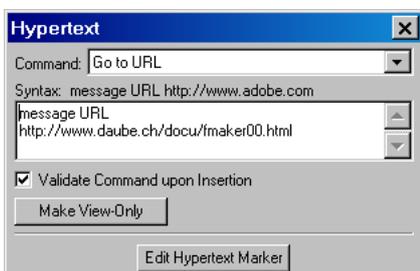
## Hypertext commands in FrameMaker

Not all FrameMaker hypertext commands have an adequate function in Acrobat (see *Types of hyperlinks* on page 7-20):

Frame Hypertext commands	PDF equivalent	Remarks (menus refer to the Acrobat Reader)
alert, alerttitle	Note	The note is closed initially
exit	-	Use menu File > Exit
gotolink, gotolink firstpage, gotolinkfitwin, gotopage, nextpage, openlink, openlinkfitwin, openpage, previouspage	Reference	File name suffix FM will be changed to PDF
matrix (of buttons)	-	Replace with multiple references
message	-	Works only with Frame API clients
message system, message winexe	-	Replace with program launch
message URL	Weblink	May refer to any file type the browser can handle
newlink	named destination	OK since Acrobat 5
opennew	-	Acrobat can not create a new document
popup	-	Not possible in Acrobat 5
previouslink, previouslinkfitwin	-	Use menu View > Go Back
quit	-	Use menu File > Exit
quitall	-	Use menu Window > Close All

## Web links

### From PDF to an URL



To create a link (in)to a web-page, use the FrameMaker hypertext command **Go to URL**:

- 1 Select the text which should become the hotspot in the PDF file. You may wish to specify a character format for this.
- 2 In **Special > Hypertext** select the command **Open URL**
- 3 At the cursor position (after a blank in the dialogue) type the complete URL (including the protocol), e.g. `http://www.daube.ch/docu/fmaker00.html#printing`
- 4 Click **New Hypertext Marker**.

### From HTML to PDF

To jump from HTML directly to particular page of a PDF you need to add the desired action after the # in the URL:

Named destination

```
<a href="http://www.adobe.com/prodlist.pdf#Digital - Imaging">
```

Page

```
<a href="http://www.adobe.com/prodlist.pdf#page=72
```

See also *Named destinations* on page 10-14.

## Article threads

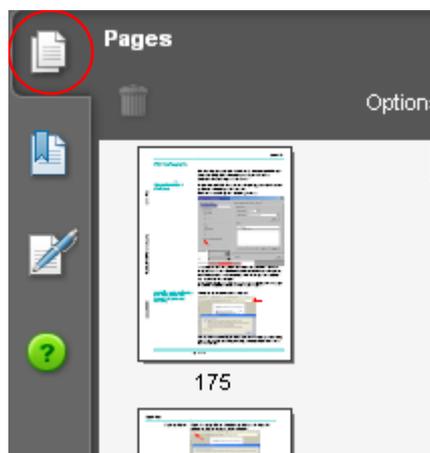
Do *not* check this option in **Format > Document > Acrobat setup**. Checking this option generates Acrobat articles in the same sequence as the text frames. A text flow creates an Acrobat article.

## Named destinations

- For all cross references in FrameMaker (also those automatically generated in TOC or index) named destinations are created in the PDF. These may look different at each generation and hence are only of limited use for links into the PDF.
- Use the Frame hypertext command **newlink name** for special destinations (e.g. within a page). However, the name needed in a HTML href statement is that what you find via the Acrobat **View > Navigation Pane > Destinations** function: `Mnnn.yyy.newlink.name`.

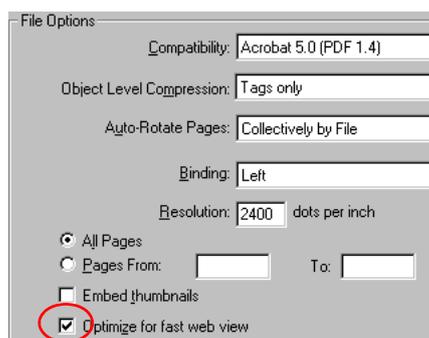
See also *Named destinations in PDF* on page C-16.

## Thumbnail pages



Thumbnail pages are created on the fly by the Acrobat Reader or Acrobat. Just click on the Pages icon in the navigation pane of the Reader or Acrobat.

## Optimising for Internet distribution



The following is only relevant, if you do not have version 8 JobOptions. In these the option is already set.

In the Distiller **Settings > Edit Adobe PDF Settings > General** activate the option **Optimize for fast Web view**.

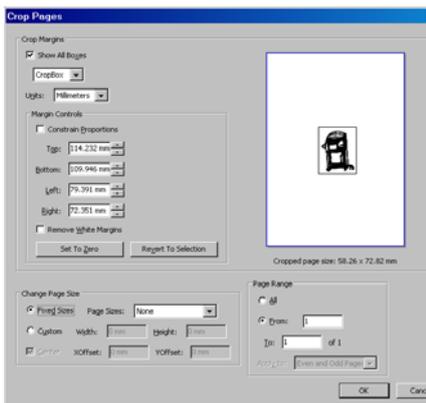
The method “Byte serving” allows the server to send pages of the document out of order, according to the requests from the browser. The user can click into the Table Of Contents as soon as it is visible and jump to any page.

# Modify the PDF file with Acrobat

For more sophisticated features, such as linking between various PDF documents, link to HTML files etc. you need deep knowledge of the pdfmark statements which can be embedded into the PostScript file by FrameMaker.

**Note:** Functions described in this section require the Acrobat tool, not just the Acrobat Reader.

## Crop pages



Sometimes it is necessary to produce the FrameMaker document on A4 paper with large margins. This does not look nice in PDF.

To crop the pages to the desired presentation size,

- 1 Open the PDF file in Acrobat (not Acrobat Reader)
- 2 Got to the desired page if you want to crop only one page.
- 3 Touch the crop tool  and open a rectangle on the page by dragging the mouse.
- 4 Click the crop tool again and adjust the values in the crop dialogue to your needs. To crop all pages, select **All** in the **Page Range**.
- 5 Click **OK** to see the cropped page.

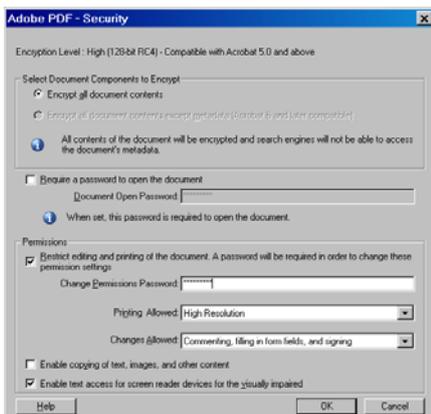
## Export image as eps

Images can be exported from Acrobat in various formats. A page can also be exported as eps.

Since FrameMaker now handles PDFs very well it is no more necessary to export images or pages for use in FM as image.

It is, however, recommended to use only short (few pages) for import into FM.

## Security settings



Access rights can not be defined in the FrameMaker PDF setup. This must be done in the distiller prior to distilling. With the Save As PDF mechanism in FrameMaker this is not possible, so you need to apply restrictions to a document after generation of the PDF.

In Acrobat select **File > Properties > Security** and select **Password Security** from the drop-down list.

Normally only editing or printing is restricted, not the access to document itself (Open).

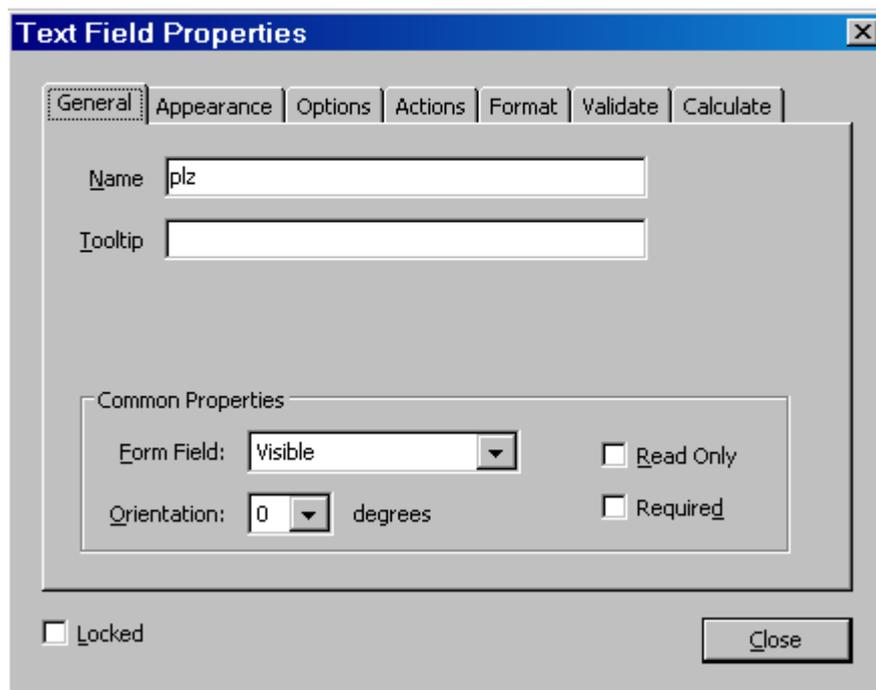
- ▶ Activate “Restrict editing ...” and set the password.
- ▶ Select the proper allowance for printing
- ▶ Select the proper allowance for changes (comments)
- ▶ Activate “Enable copying ...” if reasonable

## Create fill-in form

If pages you create are forms it is friendly to the reader to allow her or him to fill the form already in Acrobat or Adobe Reader. If the user is urged to print and fill in manually he can not send the filled form by e-mail (or it must be scanned again).

With Acrobat **Forms > Form Tools** it is easy to overlay input areas (in this case a dotted line) with an entry field.

1 **Modul 1:** plz  
für folgende(n) Ort(e) / Postleitzahl(en)



Once you have dragged an area you can set properties with the context menu **Properties**. The dialogues are really self explanatory - and you know how to read Help...

# Some problems with PDF files

## Colours in FrameMaker and PDF don't match

To make the online PDF files have the same colour as displayed in FrameMaker, follow the advice *Match colours in FrameMaker and PDF* on page A-32.

## Long ovals etc. warped

Problem	Shapes with round corners etc. look like drawn with a wide-nib pen and you'd changed the nib wangle halfway down the side.
Reason	The problem is related to a new setting in Acrobat Distiller 7, intended to reduce the file size of PDFs created from CAD drawings.
Remedy	In your Distiller joboptions in the <b>Advanced</b> TAB turn <b>OFF</b> <i>Convert smooth lines to curves</i> ON is default in "Standard" and "Smallest file size" - and in most job options from other sources. [Schlomo Perets, 2005-03-20]

## Thin lines disappear in PDF

Problem	When creating a PDF for a high resolution printer thin lines disappear in the output.
Reason	In PostScript it is possible to define hairlines. Hairline is simply the smallest line an output device is able to resolve. What may look fine on a 300 dpi laser printer will likely disappear at 2400 dpi.
Remedy	Make your thinnest lines at least 0.3 points (0.1 mm) and your thinnest dotted rules at least 0.6 points (0.2 mm). In various graphic programs (Illustrator, CAD applications) there is no minimum default setting. Hence the graphic artist must obey this rule. If you can not re-create the graphic with appropriate line widths, the program PStill may help: <a href="http://www.wizards.de/~frank/pstill.html">http://www.wizards.de/~frank/pstill.html</a> (2005: CHF 30).

## Preparing files for printing

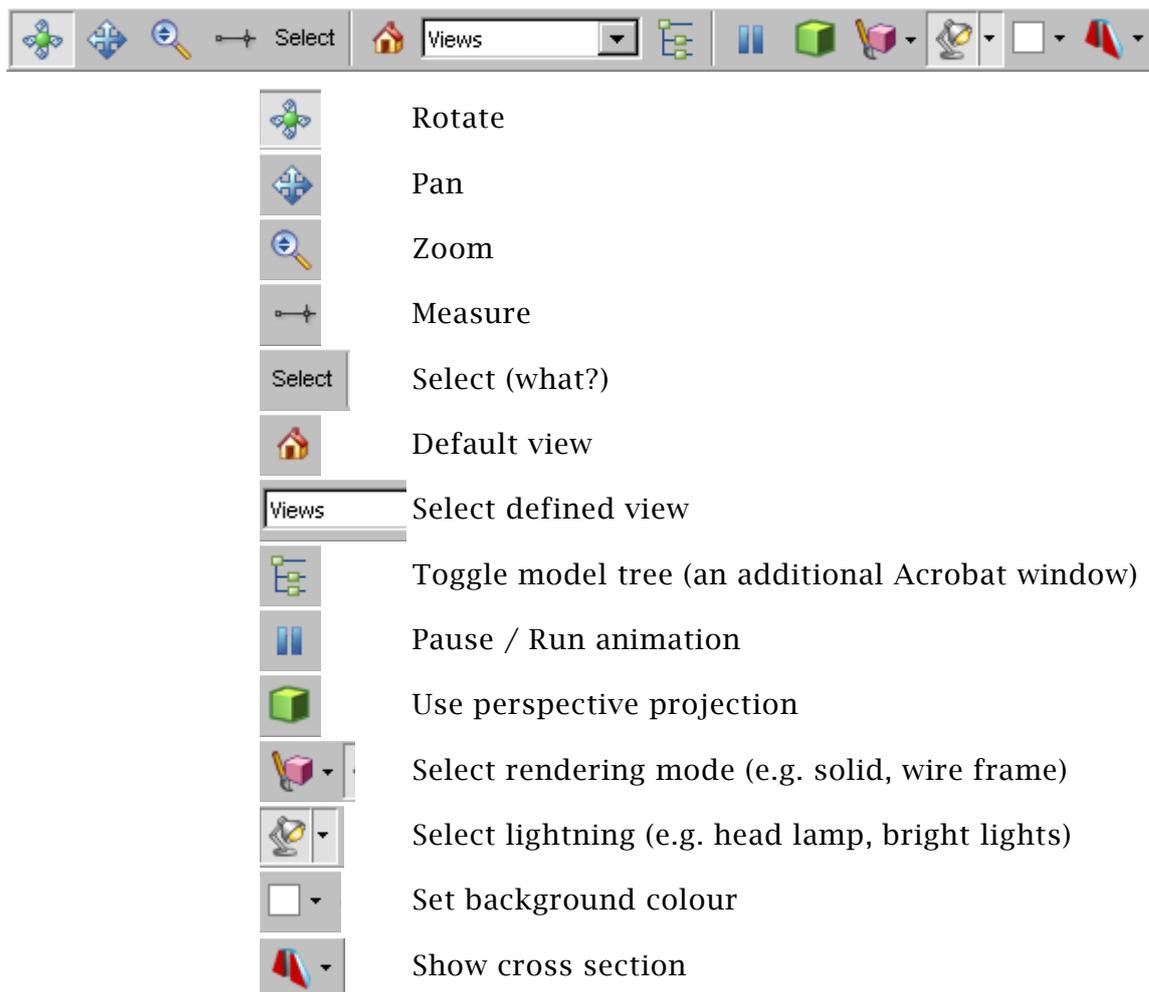
The following source gives useful advice:

<http://www.adobe.com/products/postscript/pdfs/workflow.pdf>

## Viewing 3D objects

With Adobe PDF version 1.6 (released mid 2005) it became possible to include 3D geometries in PDF documents. See *3D - objects* on page 6-28.

When selecting such an object, you get a special tool bar:



Often there are additional buttons in the picture for Spinning or Exploring (predefined movements)

### Example files

[thevirtualheart.org](http://thevirtualheart.org).

[www.pdf3d.co.uk/gallery.php](http://www.pdf3d.co.uk/gallery.php).

### View overlaps surroundings

If at the insertion of the graphic the container frame cropped the 3D-object, then the displayed object will overlap the surrounding text.

The object is displayed in its inherent size - and the cropping function of the anchored frame is not used.

# 11

## Formulas (equations)

### Overview

The FrameMaker formula (or equations) editor is a powerful instrument. It does not create just a graphic appearance of a formula but displays a mathematical structure. Hence the handling differs to most other formula editors.

### Contents

Formulas (equations) .....	2
Special formatting of formulas .....	7
Common problems with formulas .....	11
Evaluation .....	12
Keyboard input for formula elements .....	13
Display comparison .....	24
Export and import .....	25

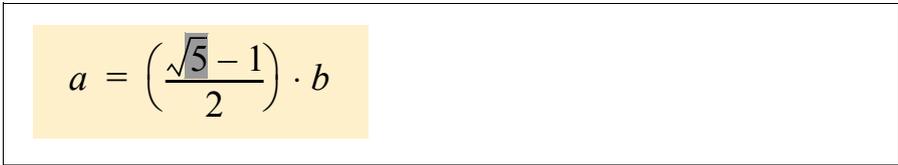
## Formulas (equations)

A formula (or equation in FrameMaker terms) is a mathematical construct, not just a graphic (as for example, in MS Word). Hence you must follow the inner logic of a formula to develop it.

This script can not provide all the information from the manual. For extensive work with formulas please read the manual!

### Selecting formulas and their elements

A formula is automatically placed into an anchored frame (anchored at insertion point). The formula hereafter is placed in an anchored frame of different properties to display some features of a formula:



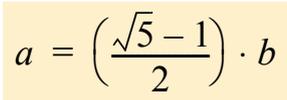
$$a = \left( \frac{\sqrt{5}-1}{2} \right) \cdot b$$

- The framed rectangle is the anchored frame (anchored in the preceding paragraph, alignment left)
- The light shaded area denotes the formula. Select the complete formula with **CTRL-click**. Then the formula can be moved around within the anchored frame.
- Select an element of the formula (e.g. the square root symbol) with these methods:
  - Double click on the element.
  - Place the cursor in front of the element and type the **space-bar** once.
  - Sweep the cursor over the element. The amount and direction of movement while sweeping expands the selection of the current formula construct.
- Expand the selection to the higher level construct with the **up-arrow** or the **space-bar**.
- Narrow the selection to an inner element with the **down-arrow**.
- To replace a construct, select it, type **backspace** to get the question mark (which is selected). Now you enter the new term (or paste a selection).

### Stand alone formulas (display formulas)

Example formula:  
proportion of the  
golden rectangle

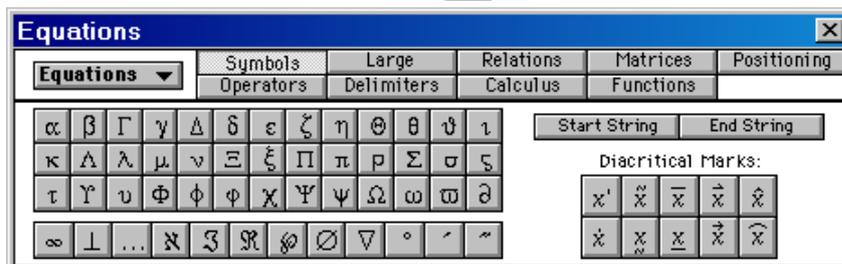
A rectangle with proportions that from classical Greek times has been thought optically pleasing. The relationship between the larger side  $a$  and the shorter side  $b$  of the rectangle is as follows:



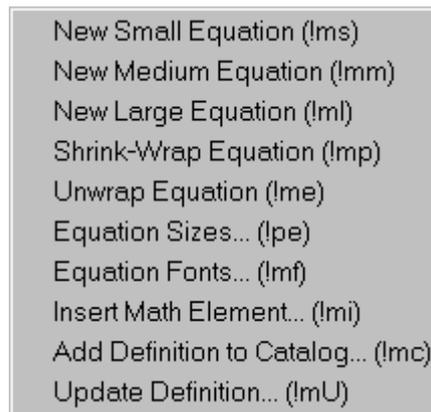
$$a = \left( \frac{\sqrt{5}-1}{2} \right) \cdot b$$

## Insert a formula

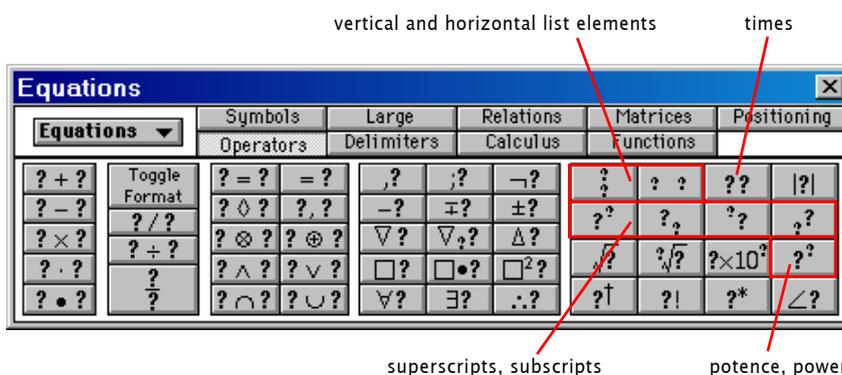
- 1 Place the cursor in an empty paragraph with the basic property “variable line spacing”.
- 2 Open the Equation palette ( $\Sigma$ ).



- 3 With the button **Equations** select the appropriate size for the new equation (for example, **New Medium Equation**).
- 4 Select **Operators** in the Equations palette and start the formula with operator  $? = ?$  (the first  $?$  will be highlighted, so that you can change it to “a”).



In the keyboard short cuts the exclamation mark denotes the **ESC** character. To unwrap a formula you enter ESC, m, e.



- 5 Select the second  $?$  and replace it by operator square-root; replace the  $?$  under the root by “5”.
- 6 Select the square root and apply operator “ $? - ?$ ”; replace the new  $?$  by “1”.
- 7 etc. - by now you should know how to work with this editor ...
- 8 Finally **shrink wrap** the equation (select from the drop down list **Equations**).

## In-line formulas

An in-line formula is inserted in an ordinary paragraph, rather than in a paragraph of its own. Most time you will need to specify “no fixed line spacing” to give room to the formula: It may be a trivial realization about the nature of success.

Let’s try to put this into a formula:  $\text{success} = \frac{\text{expenditure}}{\text{effort}}$ . Notice the line spacing in this paragraph, which extends around the formula and is ‘back to normal’ for the ordinary text here.

## Keyboard input versus “mousing”

Keyboard input shall be demonstrated for our example for-

mula  $a = \left(\frac{\sqrt{5}-1}{2}\right) \cdot b :$

Typing	Result	Explanation
ESC m l	?	Insert large equation (frame). The highlighted ? is the ‘entry point’ of the formula.
a =	$a = ?$	The new ‘entry point’ is the ? after the equal sign.
\sqrt ENTER	$a = \sqrt{?}$	Function names like sqrt, pwr, log etc. are preceded by a backslash and terminated by ENTER:
5 space space	$a = \sqrt{5}$	The ? is replaced by 5, the two spaces select the 5, then the square root as a whole.
- 1	$a = \sqrt{5} - 1$	The “minus one” is attached to the selection, not just to the last entry.
space space space /	$a = \frac{\sqrt{5}-1}{?}$	The blanks select the 1, then -1, then the right term. The slash creates a fraction bar below this selection.
2 space space b	$a = \frac{\sqrt{5}-1}{2}b$	Selecting the right term provides the entry point (?) to the right. A variable is displayed in italics.
ESC m p	$a = \frac{\sqrt{5}-1}{2}b$	Shrink wrap the formula. Then apply “variable line height” to the anchoring paragraph.

In a condensed notation this is (□ denotes a blank, ! denotes

**Return/Enter**, ordinary blanks just group the typed text):

ESC ml a= \sqrt! 5□□ -1 □□□ 2□□ b ESC mp

See *Keyboard input for formula elements* on page 11-13 for a complete list of keyboard short-cuts.

## Numbered formulas

Set up a numbered paragraph format with the number appearing at the end of the paragraph.

$$a = \frac{\sqrt{5}-1}{2}b \quad (1)$$

Format name	For example fon-formula-numbered.
Basic properties	Line spacing must be variable ( <i>fixed</i> not checked). Space above and below becomes the space above and below the formula frame, not just around the paragraph text.
Numbering property	F:Formula [<n+>] Position “End of Paragraph”.

## Reference to a numbered formula

If you wish to reference a numbered formula, use a cross-reference style “paranum & page”, which might look like this:

<1-highlight><\$paranum><\$paratext></> on page  
<\$pagenum>

Example reference As you can see in (1) on page 4, ...

## Create formula in anchored frame

Formulas can be placed directly into an anchored frame:

$$\sin x = 4 \sqrt[4]{\frac{\operatorname{asech} \sqrt{5}}{x}} \qquad \sum_{\min}^{\max} \sin x = 4 \sqrt[4]{\operatorname{asech} \sqrt{5x}}$$

- 1 Select the frame
- 2 Select formula size from the Equations palette
- 3 Build the equation
- 4 CTRL-click on the formula to select it and move it around
- 5 Add any other elements to the anchored frame (for example, graphics). These may also be in the frame at first.
- 6 Alignment of complete formulas with **Graphics > Align...** acts on the base line of the formula text (the base line of the word “sin” above), not the bounding box of the formula.

## Create formula in graphic frame

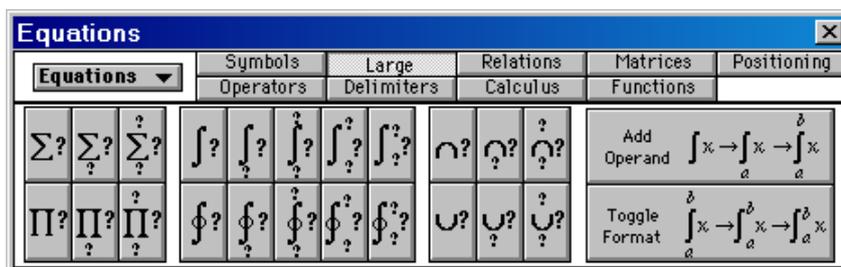
Graphic frames may also be containers of a formula. However, a graphic frame does not float with the text – it is normally just placed on the page (paper). The graphic frame can, however be placed within an anchored frame which in turn floats with the text:

Anchored frame	Graphic frame
<p>Text frame</p> <p>The formula to the right is just an example in a graphic frame. It has no other purpose than to be an example.</p>	$\sum_{\min}^{\max} \sin x = 4 \sqrt[4]{\operatorname{asech} \sqrt{5x}}$

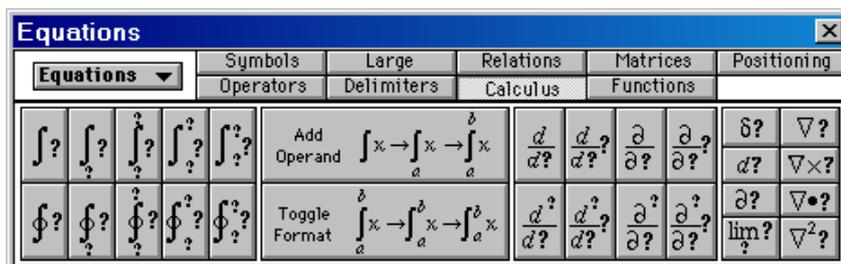
# Palette overview

For the **Symbols** and **Operators** palettes see page 4.

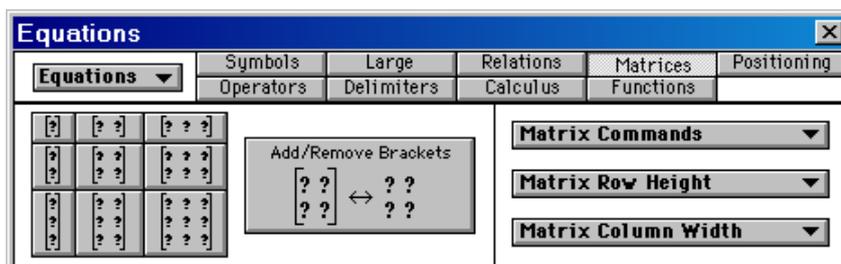
## Large Symbols



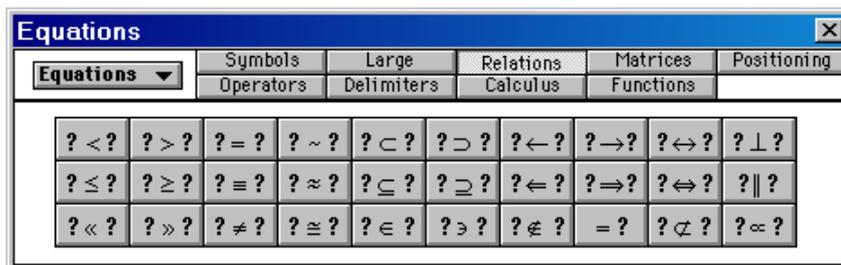
## Calculus



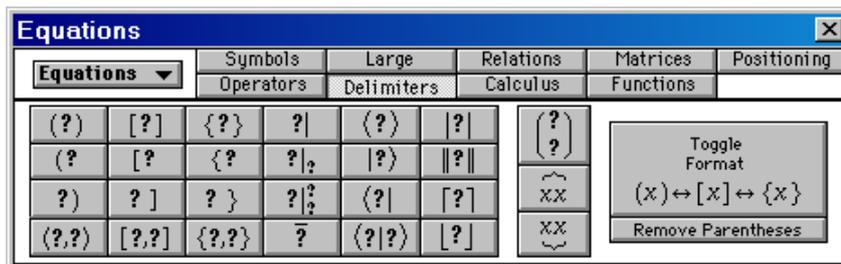
## Matrix



## Relations

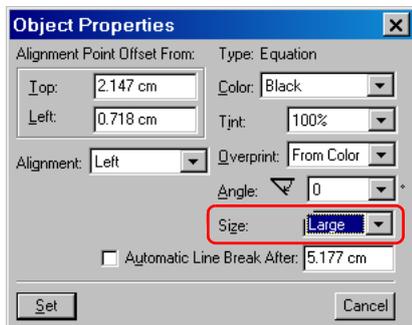


## Delimiters



# Special formatting of formulas

## Resize a formula



When setting up a formula you must choose a size (small, medium, large). To change this afterwards,

- 1 Select the formula. It may be shrink wrapped or expanded.
- 2 Select **Graphics > Object properties**
- 3 Change the size attribute to your desire; click **Set**.

## Align formulas

### Align formulas graphically

$$\sin x = 4 \sqrt[4]{\frac{\operatorname{asech} \sqrt{b}}{x}}$$

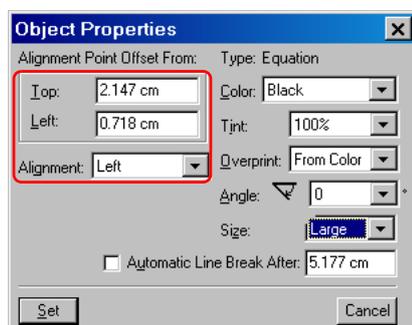
$$\sum_{\min}^{\max} \sin x = 4 \sqrt[4]{\operatorname{asech} \sqrt{5x}}$$

Formulas can only be aligned if they are located in the same frame. Hence you may start with a frame and add the formulas to it.

To align the formulas at their boundaries (bounding box) treat the formulas as graphic elements:

- 1 Select the equation (s) which you want to align.
- 2 Select the equation which will be the master for the alignment.
- 3 Choose **Graphics > Align** and set the alignment to your desire. You may wish to use a guiding line (see image).

### Align formulas along special symbol



$$\sin x = 4 \sqrt[4]{\frac{\operatorname{asech} \sqrt{b}}{x}}$$

$$\sum_{\min}^{\max} \sin x = 4 \sqrt[4]{\operatorname{asech} \sqrt{5x}}$$

To align the formulas along a special point (e.g. the equal sign):

- 1 Click into the first formula to set the alignment point. You may move the alignment point with the **left** or **right** arrow.
- 2 Set the alignment point with the Equations palette **Positioning > Left/Right > Set Manual** or ESC, m, a, s.
- 3 Repeat the above sequence for all formulas in the frame which you want to align.
- 4 To clear an alignment point, select the formula and enter ESC, m, a, d (or choose from the Equations palette **Clear Manual**).
- 5 Select the formula (**CTRL+click**) with the most proper alignment and choose **Graphics > Object Properties**.
- 6 Set the Alignment to **Manual** and set the left position to a memorable value (2.544 → 2.5) or copy the formula to the clipboard.

- 7 Select the next formula to be aligned, with **Object Properties** set Alignment to **Manual** and the left position to the new/copied value.
- 8 Repeat the last operation for all formulas in the frame to be aligned.

## Break long formula into lines

To break a long formula

$(1+x)^8 = x^8 + 8x^7 + 28x^6 + 56x^5 + 70x^4 + 56x^3 + 28x^2 + 8x + 1$  into lines,

$$(1+x)^8 = x^8 + 8x^7 + 28x^6 + 56x^5 + 70x^4 + 56x^3 + 28x^2 + 8x + 1$$

- 1 Place the cursor at the point where you want to break the formula. This can not be between a string (entered with " ") and an operator!
- 2 Enter a manual break with Equations palette **Positioning > Line Breaking > Set Manual** or ESC, m, b, s.
- 3 To remove a manual line break, select the preceding and succeeding elements also (e.g.  $70x^4 + 56x^3$ ) and apply ESC, m, b, c or choose from the Equations palette **Clear Manual**.

## Copy and paste formula elements

Formulas with 'self repeating' contents can be set up very quickly with the keyboard:

$$a + \frac{1}{a + \frac{1}{a + \frac{1}{a + \frac{1}{a + \dots}}}}$$

ESCml

1/a+

enter 2 blanks to select the whole formula

copy

type 'arrow right' 3 times to select the ?

paste

type 'arrow right' 3+2 times to select the ?

paste

...

Select the last ? and replace it by \ldots (small L)

The formula may not be visible, since it is larger than the initially opened frame. Enlarge the frame to make the complete formula visible, before you shrink wrap it with ESC m p.

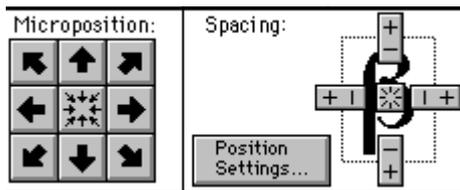
## Physical dimensions and other strings

Physical dimensions are just strings for the FrameMaker Equation editor. They do not bear any mathematical property and hence are not considered in evaluations.

To enter a string into a formula, start the string with a " (straight quote) and terminate it with the Return key (␣). You see two double quotes ("") after entering the beginning straight quote. These disappear as soon as you type the first character of the string.

For example, for the first term of the following formula, enter  $v$ "[m/sec]␣. As soon as you close the string with the Return key (␣), the string is selected. To may just continue with the equal sign.

$$\text{Vehicle speed: } v[\text{m/sec}] = \frac{s[\text{m}]}{t[\text{sec}]} \quad (2)$$



You may not be satisfied with the space between the variable and the physical dimension. You are tempted to increase this space with positioning or spacing:

$$\text{Vehicle speed: } v [\text{m/sec}] = \frac{s [\text{m}]}{t [\text{sec}]} \quad (3)$$

This method does not adjust the length of the fraction bar.

The method of choice is to enter a space as the *first* character in the string:

$$\text{Vehicle speed: } v [ \text{m/sec} ] = \frac{s [ \text{m} ]}{t [ \text{sec} ]} \quad (4)$$

To enter a thin space, type ESC,  $\text{,}$ ,  $\text{t}$ . To enter an n-space, type ESC,  $\text{n}$ ,  $\text{t}$ . The following formula uses n-spaces:

$$\text{Vehicle speed: } v [ \text{m/sec} ] = \frac{s [ \text{m} ]}{t [ \text{sec} ]} \quad (5)$$

**Note:** *It is very difficult to insert or even change this first blank after you have closed the string! The best method is to remove the string (select and delete) and create it again.*

## Adapt font for strings in formula

To specify a specific appearance of the formula strings, open **Equation palette > Equations > Equation fonts...** and enter a character format for Strings. You can not enter a font name. From the character format only the font property is used. The size is determined by the formula size (large, medium, small).

## Decimal comma

The equation editor does not honour the regional settings of the operating system! Only some localised versions (e.g. German) can work with the decimal comma. However this works only correct, if at the same time the number *grouping symbol* is not a period.

If you need a decimal comma in the English version of FM you need to enter the decimal part as a string: **17",5#** to get **17,5**. If you enter just the comma as string, the number will be put in parenthesis and the comma behind it: **17(5),**

## Diacritical marks

$$\tilde{\hat{a}} = \widehat{\acute{v}xy}$$

Two diacritical marks can be stacked one on top of the other. More can be stacked only if the base elements are 'grouped'. The marks which can be elongated (based on a line) are always the lower ones. Tilde, hat, bow and dot are always on top of a line shape.

$$\vec{\bar{a}} = \overrightarrow{\underline{bcde}}$$

The following marks can be elongated to span more than one base element: overbar, underbar, arrow, half-arrow. These can be stacked according to the base elements.

The others are only placed centred above the spanned elements (see first formula in this topic). These forms are from a font, whereas the lines are drawn as line graphics.

## Remove a diacritical mark

To remove a diacritical mark, select the base element and expand the selection to include the diacritics. Applying the diacritical mark again will remove it (toggle the mark on/off).

## Special diacritical marks

The capabilities of FrameMaker for handling diacritical marks may not be sufficient for you, e.g. to place an elongated hat or tilde above three elements:

You need a little bit of work to create such constructs:

$$\frac{\partial}{\partial x} \widehat{uvw} + \frac{\partial}{\partial x} \widetilde{uvw} = 0$$

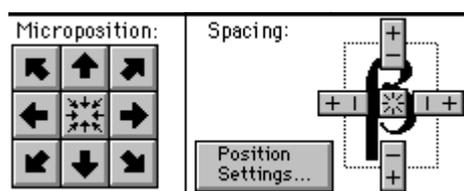
- 1 Create an anchored frame (here filled with gray to display it): 
- 2 With the Graphic-Line tool from the graphics tools palette () create the desired character (as an example, we use the tilde): . You will notice that this is a graphic object with handles.
- 3 You can now elongate it by pulling the right handle: 
- 4 Select the modified symbol (tilde) as a graphic object and copy it into the formula frame:
  - Select the tilde
  - Copy the tilde to the paste buffer
  - Select the formula frame
  - Paste the tilde into the frame
- 5 Move the selected symbol (tilde) to the desired place with the mouse or with **CTRL+arrow**.

### Working tip

In the anchored frame you may set up a collection of items: .

These symbols can only get character formats. If you need symbols from a special font (such as the last one from the Symbol font, you need to set up an appropriate character format.

## Positioning, fine tuning presentation



You may not be satisfied with the space between math elements, the location of exponents and indices etc. Although FrameMaker does a good job, math typesetters and T<sub>E</sub>X experts may have their complaints. In these cases manual work with micro positioning may be necessary.

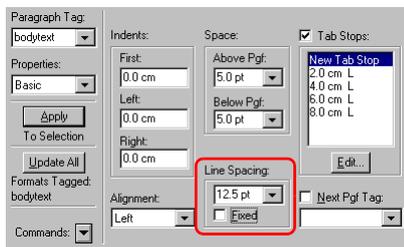
Use the keys ALT+↑ etc. for fine movements.

## Editing formulas

- 1 Unwrap the formula (ESC, m, e)
- 2 Place the cursor behind the element you want to edit
- 3 Select the element with **Space bar**
- 4 Modify the element (delete, replace, ...)
- 5 Shrink wrap formula (esc, m, p)

# Common problems with formulas

## Formula overlaps surrounding paragraphs



The formula construct uses an anchored frame *at insertion point*, which can only expand the paragraph height, if the paragraph has variable Line spacing.

$$a = \left( \frac{\sqrt{5}-1}{2} \right) \cdot b \quad \text{This is the "formula paragraph".}$$

For paragraphs used as 'anchors' for formulas, the check box for fixed Line Spacing must be *unchecked*.

## Variables are not displayed in italic

If the variables in a formula are not displayed in *italics*, you have accidentally removed the character format **EquationVariables** (English FM) or **GlgVar** (German FM).

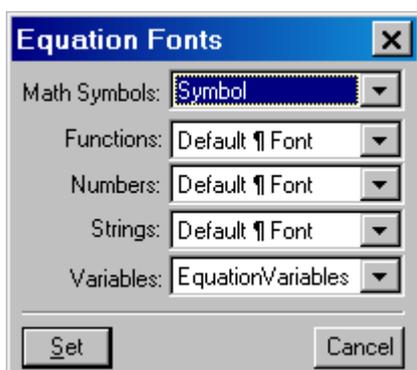
Set up the format again with the properties: Angle = italic; everything else *As Is*. The format must be in the character catalogue.

## Fraction bar has not the desired length

$$\text{Vehicle speed: } v \text{ [m/sec]} = \frac{s \text{ [m]}}{t \text{ [sec]}}$$

The fraction bar can get a correct length only if FrameMaker knows about the length of the elements involved. If you use micro-positioning or spacing, this is just an optical correction. To get correct results, see *Enter space in formula string* on page 9.

## Alternative fonts in formulas



The fonts used in the formulas are defined by character formats. Within a formula use the context menu **Equation Fonts** ... to display the dialogue for setting the font properties.

Category	Default <sup>a</sup>	Modification needed ...
Math Symbols	Symbol	tweaking maker.ini (and mathchar.cfg)
Functions	Default ¶ Font	any character format (font family used only)
Numbers	Default ¶ Font	any character format (font family used only)
Strings	Default ¶ Font	any character format (font family used only)
Variables	EquationVariables	any character format (style used only)

a. The notion "Default ¶ Font" actually refers to the "DefaultFamily" as specified in maker.ini ! At D+DD this is set to Lucida Sans rather than Times New Roman → see appearance of formulas here.

Possible font alternatives for Math Symbols

"Lucida New Math", "Mathematical PI Std" or "Universal Standard Greek with Math PI".

**Note:** *Re-defining the fonts may require re-shrinking of all equations! The definition in mathchar.cfg needs some tedious work!*

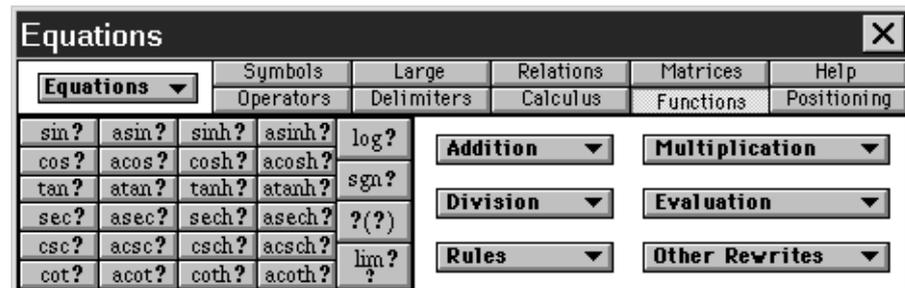
# Evaluation

## Numeric results

To evaluate an equation (get numeric results)

To evaluate a formula, for example  $a = \left(\frac{\sqrt{5}-1}{2}\right) \cdot b$  :

- 1 Select the equation inside its frame.
- 2 From the Equations palette choose **Functions > Evaluation > Number crunch**



- 3 You get the following result:  $a = 0.61803399 \cdot b$
- 4 At this stage you may undo the operation to see the algebraic notation again.

## Symbolic evaluation

With **Functions > Evaluations** some expansions are available. To apply an expansion, select the formula (or part of) and then choose the function:

Addition > Add Fractions

$$\frac{a}{4} + \frac{2a}{3} + \frac{7a}{5b} \text{ becomes } \frac{11a}{12} + \frac{7a}{5b} \text{ and then } \frac{55ab + 84a}{60b}$$

Division > Long Division

Numerator and denominator must be polynomials for this function. Select any x in

$$\frac{x^5 + 20x^4 + 160x^3 + 640x^2 + 1280x + 1024}{x^2 + 8x + 16}$$

and apply the func-

tion:  $x^3 + \frac{640x^2 + 1280x + 12x^4 + 144x^3 + 1024}{x^2 + 8x + 16}$  and then

$$x^3 + 12x^2 + \frac{1280x + 48x^3 + 448x^2 + 1024}{x^2 + 8x + 16}$$

Multiplication > Multiply out

$y = (x + 4)^5$  becomes

$$y = x^5 + 20x^4 + 160x^3 + 640x^2 + 1280x + 1024$$

Evaluation > Evaluate

$(x + 4)^5$  becomes  $(x + 4)(x + 4)(x + 4)(x + 4)(x + 4)$

For even more mathematics see the manual.

# Keyboard input for formula elements

Many maths elements and most functions can be entered via the keyboard.

To enter a Backslash sequence, type **Return** to end the backslash sequence.

Most short-cuts are not localised, so they are valid both for the English and German FrameMaker. The only exception is the input of diacritical marks, which depends on the language.

**Note:** *On a Swiss keyboard some short cuts are not available (not working). This is because some characters such as tilde are only available as accents on 'dead keys'.*

**Note:** *Some of the sequences listed in the Help for the German FM are wrong. The sequences given here are tested with Windows NT4 and 2000 with a Swiss keyboard. Sequences in shaded cells do not work at all. No correct key sequence could be found for these.*

## Equations pop-up menu

Command	Short-cut
New Small Equation	Esc m s
New Medium Equation	Esc m m
New Large Equation	Esc m l (lc L)
Shrink-Wrap Equation	Esc m p
Unwrap Equation	Esc m e
Equation Sizes	Esc p e
Equation Fonts	Esc m f
Insert Math Element	Esc m i
Add Definition to Catalogue	Esc m c
Update Definition	Esc m U

## Strings

Strings are single line comments in a formula. To enter them, just start with a single or double apostrophe and enter the text. Terminate with a **Return** (there is no terminating apostrophe).

Command	Short-cut
Start String	' or "
End String	Return

See example in *Physical dimensions and other strings* on page 8.

# Symbols

## Greek characters

Element	Short-cut	Backslash sequence
$\alpha$	Control+Alt+a	<code>\alpha</code>
$\beta$	Control+Alt+b	<code>\beta</code>
$\Gamma$	Control+Alt+G	<code>\Gamma</code>
$\gamma$	Control+Alt+g	<code>\gamma</code>
$\Delta$	Control+Alt+D	<code>\Delta</code>
$\delta$	Control+Alt+d	<code>\delta</code>
$\epsilon$	Control+Alt+e	<code>\epsilon</code>
$\zeta$	Control+Alt+z	<code>\zeta</code>
$\eta$	Control+Alt+h	<code>\eta</code>
$\Theta$	Control+Alt+Q	<code>\Theta</code>
$\theta$	Control+Alt+q	<code>\theta</code>
$\vartheta$	Control+Alt+J	<code>\vartheta</code>
$\iota$	Control+Alt+i	<code>\iota</code>
$\kappa$	Control+Alt+k	<code>\kappa</code>
$\Lambda$	Control+Alt+L	<code>\Lambda</code>
$\lambda$	Control+Alt+l (lc L)	<code>\lambda</code>
$\mu$	Control+Alt+m	<code>\mu</code>
$\nu$	Control+Alt+n	<code>\nu</code>
$\Xi$	Control+Alt+X	<code>\Xi</code>
$\xi$	Control+Alt+x	<code>\xi</code>
$\Pi$	Control+Alt+P	<code>\Pi</code>
$\pi$	Control+Alt+p	<code>\pi</code>
$\rho$	Control+Alt+r	<code>\rho</code>
$\Sigma$	Control+Alt+S	<code>\Sigma</code>
$\sigma$	Control+Alt+s	<code>\sigma</code>
$\varsigma$	Control+Alt+E	<code>\varsigma</code>
$\tau$	Control+Alt+t	<code>\tau</code>
$\Upsilon$	Control+Alt+U	<code>\Upsilon</code>
$\upsilon$	Control+Alt+u	<code>\upsilon</code>
$\Phi$	Control+Alt+F	<code>\Phi</code>
$\phi$	Control+Alt+f	<code>\phi</code>
$\varphi$	Control+Alt+j	<code>\varphi</code>
$\chi$	Control+Alt+c	<code>\chi</code>
$\Psi$	Control+Alt+Y	<code>\Psi</code>
$\psi$	Control+Alt+y	<code>\psi</code>
$\Omega$	Control+Alt+O	<code>\Omega</code>
$\omega$	Control+Alt+o	<code>\omega</code>
$\varpi$	Control+Alt+l (uc i)	<code>\varpi</code>
$\partial$	Control+Alt+7	<code>\partial</code>

## Other special symbols

Element	Short-cut	Backslash sequence
$\infty$	Control+Alt+one	<code>\infty</code>
$\perp$	Control+Alt+2	<code>\bot</code>
$\dots$	Control+g period	<code>\ldots</code> (lowercase L)
$\aleph$	Control+Alt+3	<code>\aleph</code>
$\Im$	Control+Alt+4	<code>\Im</code>
$\Re$	Control+m \$	<code>\Re</code>
$\wp$	Control+Alt+5	<code>\wp</code>
$\emptyset$	Control+Alt+zero	<code>\emptyset</code>
$\nabla$	Control+Alt+6	<code>\nabla</code>
$^\circ$	Control+m )	<code>\degree</code>
'	Control+Alt+`	<code>\prime</code>
"	Control+m "	<code>\pprime</code>

## Diacritical marks

Please note the remarks on page 13 concerning the shaded areas!

Element	Short-cut (FM-E)	Short-cut (FM-D)
$x'$	<code>`</code> (grave)	<code>`</code> (Grave)
$\tilde{x}$	<code>~</code> (tilde)	<code>~</code> (Tilde)
$\bar{x}$	Control+g hyphen Esc m _ (underline)	Control+g hyphen
$\mathring{x}$	Control+Alt+V	Strg+Alt+V
$\hat{x}$	Control+g ^	Strg+Alt+^
$\dot{x}$	period	Punkt
$\tilde{x}$	Control+g ~ (tilde)	Strg+Alt+~ (tilde)
$\underline{x}$	Control+g _ (underline)	Strg+g _ (underline)
$\rightarrow x$	Control+g right arrow	Strg+Alt+= <sup>a</sup>
$\hat{x}$	Control+g @	Strg+g @

a. Control+g right arrow works also in the German FM.

## Operators

Please note the remarks on page 13 concerning the shaded areas!

**Toggle format** switches between the representation of fractions.

Element	Short-cut	Backslash sequence
$+$	plus	<code>\plus</code>
$-$	minus (after an operand)	
$\times$	Control+m * (asterisk)	<code>\cross</code>
$\cdot$	Control+m . (period)	<code>\cdot</code>
$\bullet$	Control+8	<code>\bullet</code>
<b>Toggle Format</b>	Control+T Esc m T	
$\frac{\quad}{\quad}$	Control+Alt+/ Control+m /	<code>\frac</code> <code>\div</code>
$\overline{\quad}$	/	<code>\over</code>
$=$	=	<code>\equal</code>
$\neq$	Control+g =	<code>\uequal</code>
$\dagger$	Control+j	<code>\jotdot</code>
$,$	comma	<code>\comma</code>
$\otimes$	Control+q D	<code>\otimes</code>
$\oplus$	Control+q E	<code>\oplus</code>
$\wedge$	Control+q Y	<code>\wedge</code>
$\vee$	Control+q Z	<code>\vee</code>
$\cap$	Control+m i	<code>\cap</code>
$\cup$	Control+m u	<code>\cup</code>
$,$	Control+m , (comma)	<code>\ucomma</code>
$;$	; (semicolon)	<code>\semicolon</code>
$\neg$	Control+m n	<code>\neg</code>
$-$	Control+hyphen	<code>\minus</code>
$\mp$	Control+m one	<code>\mp</code>
$\pm$	Control+q one	<code>\pm</code>
$\nabla$	Control+q Q	<code>\grad</code>
$\nabla \quad ?$	Control+q Q (and add operand)	
$\Delta$	Control+m Control+d	<code>\change</code>
$\square$	Control+m x	<code>\box</code>
$\square \bullet$	Control+m o	<code>\boxdot</code>
$\square^2$	Control+m 2	<code>\box2</code>
$\forall$	Control+m a	<code>\forall</code>
$\exists$	Control+m e	<code>\exist</code>

Element	Short-cut	Backslash sequence
$\therefore$ ?	Control+m t	\therefore
? ?	Control+a, Esc m v l (lc L)	\atop
? ?	Control+m ; (semicolon), Esc m h l (lc L)	\list
? ?	* (asterisk)	\times
?	Control+g   (bar)	\abs
? ? (superscript)	Esc m ^	
? ? (subscript)	Esc m Control+_	
? ? (superscript in front)	Control+m Control+^	
? ? (subscript in front)	Control+m _ (underline)	
$\sqrt{?}$	Control+r	\sqrt
$\sqrt[?]{?}$	Control+r (and add operand)	
? $\times 10$ ?	Control+E	\sn
? ? (exponent)	^	\power
? †	Control+m d	\dagger
? !	!	\fact
? *	Control+m s	\ast
? $\angle$ ?	Control+q P	\angle

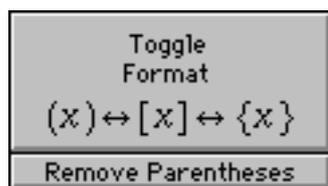
## Large symbols

Add Operand	$\int_a^b x \rightarrow \int_a^b x \rightarrow \int_a^b x$
Toggle Format	$\int_a^b x \rightarrow \int_a^b x \rightarrow \int_a^b x$

Use these short-cuts to type each element with only one operand. Then use **Add Operand** and **Toggle Format** as needed

Element or command	Short-cut	Backslash sequence
$\sum$ ?	Control+S	\sum
$\prod$ ?	Control+P	\prod
$\int$ ?	Control+i	\int
$\oint$ ?	Control+l (uc i)	\oint
$\bigcap$ ?	Control+m l (uc i)	\bigcap
$\bigcup$ ?	Control+m U	\bigcup
<b>Add Operand</b>	Control+N Esc m n	
<b>Toggle Format</b>	Control+T Esc m T	

## Delimiters



Use **Toggle Format** to switch between the various types of parentheses.

Apply **Remove Parentheses** only to the selection from which you really want to remove the grouping. To remove only one delimiter (and its mate), place the cursor right to the delimiter and type **Delete**.

Element or command	Short-cut	Backslash sequence
(?)	(	\id
[?]	[ (left bracket)	
{?}	{ (left brace)	
?	(bar)	\substitution
⟨?⟩	Control+m <	\dangle
?	Control+g   (bar)	\abs
(?	Control+m (	\lparen
[?	Control+m [ (left bracket)	
{?	Control+m { (left brace)	
? ?	(bar) (and add operand)	
?)	Control+m k	\ket
?	Control+m   (bar)	\norm
?)	)	\rparen
?]	] (right bracket)	
?}	} (right brace)	
? ?	(bar) (and add two operands)	
⟨?	Control+m b	\bra
⌈ ⌋	Control+q i	\ceil
(?,?)	Control+m N	\inprod
[?,?]	Control+m C	\cmut
{?,?}	Control+m A	\acmut
<u>?</u>	_ (underline)	\overline
⟨? ?⟩	Control+m B	\bket
⌊ ⌋	Control+q k	\floor
$\left( \begin{matrix} ? \\ ? \end{matrix} \right)$	Control+m h	\choice
$\overbrace{x}$	Control+m D	\downbrace
$\underbrace{x}$	Control+m P	\upbrace
<b>Toggle Format</b>	Control+T Esc m T	
<b>Remove Parentheses</b>	Esc m r p	

# Relation

Element	Short-cut	Backslash sequence
$? < ?$	<	\lessthan
$? > ?$	>	\greaterthan
$? = ?$	=	\equal
$? \sim ?$	Control+m ~ (tilde)	\sim
$? \subset ?$	Control+q L	\subset
$? \supset ?$	Control+q I (uc i)	\supset
$? \leftarrow ?$	Control+q comma	\leftarrow
$? \rightarrow ?$	Control+q period	\rightarrow
$? \leftrightarrow ?$	Control+q plus	\leftrightarrow
$? \perp ?$	Control+m r	\perp
$? \leq ?$	Control+g <	\leq
$? \geq ?$	Control+g >	\geq
$? \equiv ?$	Control+q : (colon)	\equiv
$? \approx ?$	Control+q ; (semicolon)	\approx
$? \subseteq ?$	Control+q J	\subseteq
$? \supseteq ?$	Control+q M	\supseteq
$? \Leftarrow ?$	Control+q \	\Leftarrow
$? \Rightarrow ?$	Control+q ^	\Rightarrow
$? \Leftrightarrow ?$	Control+q [	\Leftrightarrow
$? \parallel ?$	Control+m p	\parallel
$? \ll ?$	Control+q l (lc L)	\ll
$? \gg ?$	Control+q g	\gg
$? \neq ?$	Control+q =	\neq
$? \cong ?$	@	\cong
$? \in ?$	Control+q N	\in
$? \ni ?$	Control+'	\ni
$? \notin ?$	Control+q O (uc o)	
$? \neq ?$	Control+g =	\neq
$? \not\subset ?$	Control+q K	\notsubset
$? \propto ?$	Control+q 5	\propto

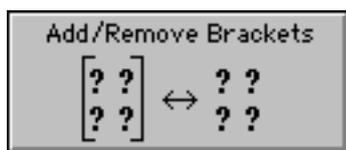
Table 2: Relational operators

## Calculus

Use the first two mentioned short-cuts to type large symbols with only one operand. Then use **Add Operand** and **Toggle Format** as needed.

Element or command	Short-cut	Backslash sequence
$\int?$	Control+i	\int
$\oint?$	Control+l (uc i)	\oint
<b>Add Operand</b>	Control+N Esc m n	
<b>Toggle Format</b>	Control+T Esc m T	
$\frac{d}{d}?$	Control+g t	\optotal
$\frac{d}{d}?$	Control+g T	
$\frac{\partial}{\partial}?$	Control+g p	\oppartial
$\frac{\partial}{\partial}?$	Control+g P	
$\frac{d^?}{d}?$	Control+g t (and add operand)	
$\frac{d^?}{d}?$	Control+g T (and add operand)	
$\frac{\partial^?}{\partial}?$	Control+g p (and add operand)	
$\frac{\partial^?}{\partial}?$	Control+g P (and add operand)	
$\delta ?$	Control+Alt+d	\var
$\nabla ?$	Control+q Q	\grad
$d?$	Control+d	\diff
$\nabla \times ?$	Control+m c	\curl
$\partial ?$	Control+D	\partial
$\nabla \bullet ?$	Control+m v	\diver
$\lim?$	Control+L	\lim
$\nabla 2 ?$	Control+m l (lc L)	\lap

# Matrices



Pre defined matrices in

**Equations palette > Matrices**



To insert a matrix of any size, first insert a 1 by 1 matrix. Then add rows and columns one at a time. With the Equations palette you have a selection of pre defined matrices available

Command	Short-cut
Add/Remove Brackets	Control+T
<b>Matrix Commands pop-up menu</b>	
Create 1 x 1 Matrix	Esc x m
Add Row	Esc x r
Add Column	Esc x c
	Control+C
Matrix Transpose	Esc x t
Matrix Algebra	Esc x a
<b>Matrix Row Height pop-up menu</b>	
Toggle fixed/proportional	Esc m t r
<b>Matrix Column Width pop-up menu</b>	
Toggle fixed/proportional	Esc m t c

# Functions

For the functions (except for the general function and the limit) you must have selected an appropriate portion of a formula.

Element / command	Short-cut	Backslash sequence
? (?)	Control+f	\function
lim? ?	Control+L	\lim
<b>Addition pop-up menu</b>		
Add Fractions	ESC m a a	
Order Sum	ESC m a o	
Order Sum Reverse	ESC m a O (uc o)	
<b>Multiplication pop-up menu</b>		
Factor	ESC m u f	
Factor Some	ESC m u F	
Multiply Out	ESC m u m	
Multiply Out Once	ESC m u M	
Distribute	ESC m u d	
Distribute Over Equality	ESC m u D	
<b>Division pop-up menu</b>		
Long Division	ESC m d l (lowercase L)	
Remove Division	ESC m d d	
Remove Division 1 Level	ESC m d D	
Remove Negative Powers	ESC m d n	
Remove Negative Powers 1 Level	ESC m d N	
<b>Evaluation pop-up menu</b>		

Element / command	Short-cut	Backslash sequence
Number Crunch	ESC m v n	
Show All Digits	ESC m v . (period)	
Evaluate	ESC m v e	
Evaluate Substitution	ESC m v s	
Evaluate Integrals	ESC m v i	
Evaluate Derivatives	ESC m v d	
Evaluate Derivatives 1 Level	ESC m v D	
<b>Rules pop-up menu</b>		
Enter Rule	ESC m r e	
Apply Rule	ESC m r a	
Designate Dummy	ESC m r d	
<b>Other Rewrites pop-up menu</b>		
Simplify	ESC m o s	
Simplify Some	ESC m o S	
Isolate Term	ESC m o i	
Expand First Term	ESC m o e	
Expand All Terms	ESC m o E	

## Positioning and line breaking

The number of points shown in the following table is based on a zoom setting of 100 percent.

Function	Short-cut
<b>Micro positioning</b>	
Move up 1 point	Alt+up arrow
Move down 1 point	Alt+down arrow
Move left 1 point	Alt+left arrow
Move right 1 point	Alt+right arrow
Move up 6 points	Alt+Shift+up arrow
Move down 6 points	Alt+Shift+down arrow
Move left 6 points	Alt+Shift+left arrow
Move right 6 points	Alt+Shift+right arrow
Remove micro positioning	Alt+Home
<b>Left/Right (Alignment) pop-up menu</b>	
Left	Esc m a l (lc L)
Centre	Esc m a c
Right	Esc m a r
Left of =	Esc m a plus
Command	Shortcut
Right of =	Esc m a =
Set Manual	Esc m a s
Clear Manual	Esc m a d
Reset Alignment	Esc m a R
<b>Up/Down (Alignment) pop-up menu</b>	
Top	Esc m a t

Function	Short-cut
Baseline	Esc m a B
Bottom	Esc m a b
<b>Line Breaking pop-up menu</b>	
Set Manual	Esc m b s
Clear Manual	Esc m b c

## Navigating in a formula

**Select next prompt** tabs through the entry fields of pop-up dialogues.

Function	Short-cut
<b>Moving the insertion point</b>	
Left	left arrow
Right	right arrow
From beside a fraction to the numerator	down arrow
<b>Changing the selection</b>	
<b>Select next prompt</b>	Tab
Increase scope of selection	space
Select next element to the left	left arrow
Select next element to the right	right arrow

## Moving math elements

Function	Short-cut
<b>Moving math elements while retaining algebraic equivalency</b>	
Left	Shift+left arrow
Right	Shift+right arrow
Up	Shift+up arrow
Down	Shift+down arrow
To far left	Control+Alt+left arrow
To far right	Control+Alt+right arrow
Left into expression	Control+Shift+left arrow
Right into expression	Control+Shift+right arrow
<b>Moving math elements without retaining algebraic equivalency</b>	
Swap with element on left	Control+m Control+left arrow
Swap with element on right	Control+m Control+right arrow

# Display comparison

Since Donald Knuth developed T<sub>E</sub>X in the late 1970s for type setting mathematics the presentation of formulas with this tool is the gauge for

- Relative size of objects (exponents, indices etc.)
- Extension of symbols for root, sum, product etc.
- Extension of parentheses, brackets and braces
- Positioning of attributes (boundaries, limits, etc.)

Keep in mind that *the beauty in the eye of the beholder* [Scottish philosopher David Hume].

I do not have access to many systems, hence the following are mainly copies from books and screen shots.

T<sub>E</sub>X

$$\frac{1}{2\pi} \int_{-\infty}^{\sqrt{y}} \left( \sum_{k=1}^n \sin^2 x_k(t) \right) (f(t) + g(t)) dt$$

$$\left[ \left[ \int_1^4 (3x^2 - 2) dx \quad \frac{2}{3} + \frac{1}{6} \right] \left[ \sum_{z=1}^5 (z^3 + z) \right] \right] \Big|_{y=0}^1$$

FrameMaker

$$\sigma_x = \sqrt{\frac{1}{n} \left\{ \sum_{i=1}^n X_i^2 - \frac{1}{n} \left( \sum_{i=1}^n X_i \right)^2 \right\}}$$

$$\left[ \left[ \int_1^4 (3x^2 - 2) dx \quad \frac{2}{3} + \frac{1}{6} \right] \left[ \sum_{z=1}^5 (z^3 + z) \right] \right] \Big|_{y=0}^1$$

Mathtype

$$\sigma_x = \sqrt{\frac{1}{n} \left\{ \sum_{i=1}^n X_i^2 - \frac{1}{n} \left( \sum_{i=1}^n X_i \right)^2 \right\}}$$

MS Word EQ Editor 3.0

Object embedded

Bitmap embedded

$$\sigma_x = \sqrt{\frac{1}{n} \left\{ \sum_{i=1}^n X_i^2 - \frac{1}{n} \left( \sum_{i=1}^n X_i \right)^2 \right\}}$$

$$\sigma_x = \sqrt{\frac{1}{n} \left\{ \sum_{i=1}^n X_i^2 - \frac{1}{n} \left( \sum_{i=1}^n X_i \right)^2 \right\}}$$

MathCAD 11

$$\sigma_x := \sqrt{\frac{1}{n} \cdot \sum_{i=1}^n \left[ (X_i^2) \right] - \frac{1}{n} \cdot \left( \sum_{i=1}^n X_i \right)^2}$$

MathML (Netscape 7.1)  
with MIT fonts

$$\int_{x_i}^{x_i+h} f(x) dx \simeq \frac{h(f_i + f_{i+1})}{2} = \frac{1}{2} h f_i + \frac{1}{2} h f_{i+1}$$

# Export and import

## Exporting formulas

If you need to export formulas, for example, to Word, you use the RTF1.6 filter.

Sample formula to be exported (6)

$$c = \sqrt{a^2 + b^2}$$

- ▶ Collect all required formulas in one FrameMaker document with only minimal txt, for example only in the anchoring paragraph.
- ▶ Use Save As... and select Microsoft RTF 1.6 as type
- ▶ Open the generated RTF in Word. The formulas are pictures which can be sized. They look quite nice, because they are WMF which can contain vectors and fonts.

$$a = \frac{\sqrt{5} - 1}{2} b$$

## Import formulas from T<sub>E</sub>X

University of Victoria, Canada researchers (Prof Nigel Horspool) have developed a plug-in for FrameMaker version 5.5 or later on Windows which supports import and conversion of LaTeX documents.

Although provided on the site [www.flintbox.com](http://www.flintbox.com) (search for `laimport`) it's quite challenging to get to the file. Hence I have put it on my web server at [www.daube.ch](http://www.daube.ch). You may wish to read the [PDF documentation](#).

Wolfgang Hugemann  
reports about this tool

The filter imports text including formulas and event translates simple inline-formulas into text. The formulas look quite nice as long as in T<sub>E</sub>X no special wished had been fulfilled.

Array equations create problems. Other problems arise when you want to edit an imported equation. TEX does not build on the mathematical structure but on the appearance structure. Hence the equation in FM is just tinkered. The parentheses FM would normally insert are suppressed by formatting.

Summary: The function is surprisingly good. Vis à vis the import of formulas by LaTeX-eps (or PDF) the advantage is to use the equation font of FrameMaker.

[2006-09-26] Wolfgang, Hugemann.de]



# 12

## Generate HTML and XML

### Overview

HTML or XML can be generated from a FrameMaker file or all files of a book

The transformation is controlled by tables on reference pages, which are set up by default with some guessing by FrameMaker.

To get good transformation results these tables must be adapted.

Both HTML and XML generation gets best results when working with the Structured FrameMaker, because the transformation is fare more straight forward for structured documents.

### Contents

Save as HTML .....	2
Save as XML .....	5

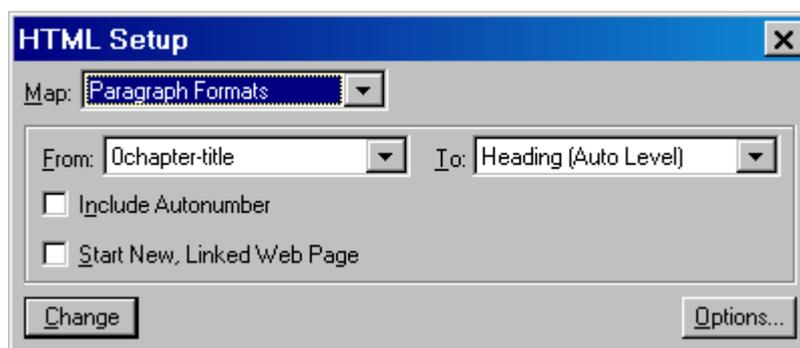
## Save as HTML

**Note:** Both HTML and XML generation gets best results when working with the Structured FrameMaker, because the transformation is far more straight forward for structured documents.

With **File > Save as ...** and selecting HTML a FrameMaker internal process is used to convert the document to HTML.

**Note:** This process uses mapping tables on the reference tables named HTML. Hence a template may provide a complete set-up.

- ▶ To set up the mapping tables select **File > Utility > HTML setup**
- ▶ If not all styles in the document are in the paragraph catalogue, you get prompts for all of those. You may decide not to include them in the catalogue. Nevertheless they are available for conversion to HTML.



- ▶ Follow these rules for a reasonable setup:

Paragraph type / Character type	Mapping to HTML element
Heading, table heading, table title	Heading (autolevel)
Ordinary paragraphs and the like, table cells (except lists in tables)	Paragraph
Citations	Block Quote
Glossary term	Data term
Glossary definition	Data Definition
Code examples	Pre formatted Text
Numbered and bulleted lists	List Item
Continuation paragraphs to lists	List Item (Continued)
Character formats for code, keyboard input etc.	Code
Character formats for variables	Variable
Normal emphasis	Emphasis
Stronger emphasis	Strong Emphasis
anything you don't like to appear in the HTML output.	Throw Away
Cross references	Select an appropriate substitution

- ▶ After this set up you may need to change heading levels in the Heading table on the reference page **Headings**, because the automatism is not that good.



- ▶ Set the options for graphics. The conversion of graphic formats is only applied to graphics, which are copied to FrameMaker (not referenced) or FrameMaker vector graphics.
- ▶ Set the option **Copy Files Imported by Reference** if you want all referenced graphics to appear in the same directory as the HTML file. These files are not converted.
- ▶ Select **Save as...** and choose HTML from the **Save as type...** pull down list.
- ▶ Define an appropriate file name (with extension html) and wait some time.
- ▶ You may need tweaking of the generated mapping table on the reference pages names HTML and Headings (see *Heading table* on page 12-3).

The generation (with some tweaking according to the rules above and an adapted Headings table) gets useful results

## Definitions on the Reference Pages

The tables are displayed here in there more or less original appearance. I have only removed the Comment columns in most cases.

### Heading table

In most cases, this table need some adaptation, because FrameMaker defines arbitrary heading levels

### HTML Mapping table

As soon as you change a H\* item to a distinct HTML heading (for example, H3), this heading will disappear at the next HTML generation from the Heading table displayed above.

### HTML options table

Control	Value	Comments
Image Format	0001IMAGGIF    GIF	
Copy Files Imported by Reference	N	
Export Encoding	ISO-8859-1	
CSS Export Encoding	ISO-8859-1	

### System macros

These macros can be used to define special headers at the entrance into an HTML page (see *Code for a navigation bar* on page 4).

### Cross reference macros

These are OK for most purposes and don't need any changes.

### General Macros

Have not yet figured out what can be done with these.

### Character macros

This is a mapping of characters to HTML entities or ordinary characters. You may need to add some special characters here.

## Code for a navigation bar

To insert a navigation bar of the kind ...

**[First Page] [Previous Page] [Next Page] [Table of Contents] [Index]**

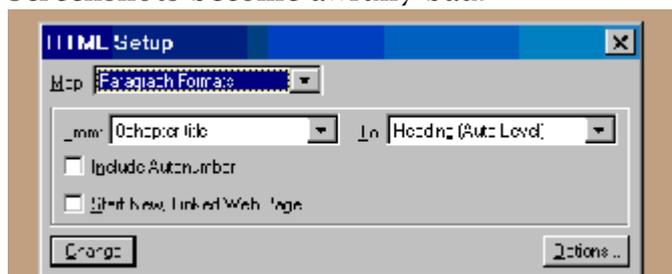
... the following code should be used for macros *StartOfDoc*, *StartOfSubDoc*, *StartOfFirstSubDoc* and *StartOfLastSubDoc*.

```
<H5>
  <A HREF="$parentdoc">[First Page] </A>
  <A HREF="$prevsubdoc">[Previous Page] </A>
  <A HREF="$nextsubdoc">[Next Page] </A>
  <A HREF="$FrameBookTOC.htm">[Table of Contents]<A>
  <A HREF="$FrameBookIX">[Index]</A>
</H5>
```

## Generated output

For each document (*name.fm*) a set of files is generated: *name.htm*, *name.css* and *name-nn.gif* for all the pictures. Formulas and all contents in anchored frames are converted to pictures. The default picture format can be changed from gif to png.

Screenshots become awfully bad:



The picture comprises the full area of the anchored frame, including white space (here reddish) around the image.

## WebWorks Publisher

The Standard Edition of WebWorks Publisher from Quadralay is no more included in the delivery of FrameMaker 8. The full product WebWorks Publisher has changed its name: ePublisher: *ePublisher is a powerful online conversion PLATFORM that transforms FrameMaker, Word, and DITA-XML content into Web and online help deliverable. The ePublisher solution comprises three software components: Pro, Express, and AutoMap. Each component plays a specific role in the ePublisher workflow.*

See more on [Quadralay.com](http://Quadralay.com)

## Mif2Go

This product from [Omni Systems](http://Omni Systems) seems to be the fastest, easiest, and least expensive way to convert your FrameMaker files for online Help, DITA, Word, and the Web. You can even get a working copy for free, if you are unemployed!

# Save as XML

**Note:** Both HTML and XML generation gets best results when working with the Structured FrameMaker. See *Migrating from unstructured FrameMaker to structured FrameMaker* on page 12-6.

## From the Help

You can combine **structured FrameMaker** and XML in several different ways. FrameMaker does not lock you into a single workflow. Your options include the following:

- *FrameMaker authoring with XML support.* With this option, you use FrameMaker as your main authoring tool. As needed, you save your files from FrameMaker out to XML, and then use that XML as needed. All content changes are made in FrameMaker; when you need new XML files, you save out to XML again.
- *FrameMaker authoring with XML source files.* With this option, you use FrameMaker as your main authoring tool. Your source files are XML. You open the XML files in FrameMaker, make changes, and save. When you save, your XML source file is updated.
- *FrameMaker and XML authoring.* With this option, you produce content in FrameMaker and in other XML tools. When you are ready to publish to print, you combine the XML created outside FrameMaker with FrameMaker-based content, and then produce your final print or PDF deliverable. This workflow is useful in an environment with many occasional content contributors. The content contributors may not need a powerful publishing environment. Therefore, they may choose to produce their content in a low-end XML editor, and then deliver the XML files to the FrameMaker-based publishing team. This workflow is also relevant if you have XML generated from a database or another line-of-business application.
- *XML authoring with FrameMaker publishing.* With this option, you work mainly in another XML authoring tool, and XML content is produced by a database system or other line-of-business application, or you are receiving XML from outside your organization. When content is finished, you produce print and PDF by bringing the XML into FrameMaker. You might build a server-based application with FrameMaker Server to automate this process.

## Save as XML

FM puts more emphasis on this. It is a separate menu item **File > Save as XML...**

You just get a File save dialogue for the location of the target files. Similar to the HTML process you get a set of files per *name.fm*: *name.htm*, *name.css* and *name-nn.gif* for all the pictures.

The process uses a similar set of tables on reference pages as the HTML process, but there is no direct user dialog to set up and modify these tables. You may change the settings directly in the reference tables.

FrameMaker generates them on the fly and you can afterwards change them (for further enhanced generations).

## Migrating from unstructured FrameMaker to structured FrameMaker

(This text is from the Help files)

The transition from unstructured, paragraph-based authoring to structured, element-based authoring can be challenging. Authors must shift from the desktop publishing model to working with a tree view of a document. Moving authors who are familiar with unstructured FrameMaker into structured FrameMaker reduces the learning curve.

Although the authoring experience changes, knowledge from unstructured FrameMaker is helpful when working in the structured environment. For example, authors still insert cross-references with the Cross-Reference dialog box, but instead of choosing paragraph tags and paragraph instances, they choose elements and element instances.

If you are working in unstructured FrameMaker, it's likely that your documents follow a template with minimal formatting overrides. This document consistency makes it easier to convert to structured documents. If, however, authors create content with no accountability for consistent, repeatable formatting, then document conversion will be a challenge. Most authors in FrameMaker-based environments are accustomed to following template rules, and that discipline makes the transition to structured authoring easier

# 13

## Specials

### Overview

In this chapter special and maybe rarely used functions of FrameMaker are presented.

### Contents

Document meta information .....	2
Revision handling .....	3
Change bars .....	5
Revision pages .....	7
Tracking edited text .....	9
List of effective pages .....	11
Conditional text .....	13
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Code samples .....	31

# Document meta information

<sup>26</sup>In larger documentation projects it is naysayer to keep information about the project and files close to the documentation - at best in the documentation itself.

FrameMaker offers a number of mechanisms to keep such meta information:

## Imprint page

It is good practice to present a minimum history information to the reader at the beginning of the document. See *Document information* on page 0-2. Other examples:

History R 1.4: Separate documentation for G-variant  
 R 1.3: Engineering changes [2003-10]  
 R 1.2: Engineering changes [2001-07]  
 R 1.1: Safety instructions amended; editorial changes [2000-05]  
 R 1.0: First issue of manual [1999-03]

## Margin information

The inner margin is a good place for developer information, such as complete file path and print date.

For loose leaf distribution the location of punch holes must be observed. This compendium assumes 4 holes (3×80mm).

## File Information

See *Document Information* on page 10-6.

## User variables

Keep at least variables such as `doc-version`, `revision-date`, `revision-nr`, even if not presented in the layout. You may wish to use the plug-in [Alert Tool](#) which displays at document open the contents of variable `Alert`.

These alerts can be used to provide reminders to writers when they edit documents, or to alert writers that specific documents shouldn't be updated.

## User-defined markers

With distinctly names markers (e.g. `ToBeDone`) and contents of the marker (e.g. “modify for the use of UniCode”) reminders about specific edits can be placed for later revision cycles.

## Conditional text

Conditions can show/hide extensive comments or prepared revisions which are due in the future.

## Reference pages

There may be a reference page named `History` which can contain a complete revision history of the document. Be aware that format imports may copy this to other documents.

## Placeholder text frames on master pages

On master pages the text frame for text entry in the body pages (normally flow A) can hold text. This text is not present on the body pages. Hence a history roll can be established even on the master page `Right`.

## Template information

The template revision should be noted, for example in a variable `tpl-version`.

<sup>26</sup> This section is based on an answer of Fred Ridder in [lists.frameusers.com](https://lists.frameusers.com)

# Revision handling

FrameMaker is designed for long living documents. Hence there are various tools available for the handling of revisions:

- Apply change bars in the margin
- Track text edits (addition, removal, change of text)
- Compare 'old' and 'new' documents to get the difference information
- Insert "point pages" after freezing pagination

Not related to any FM feature is the method to keep document versions in distinct directories (compressed, e.g. as ZIP files). At least a PDF version of the older document should be kept to be able to re-activate text which had been deleted once in the lifetime of the document.

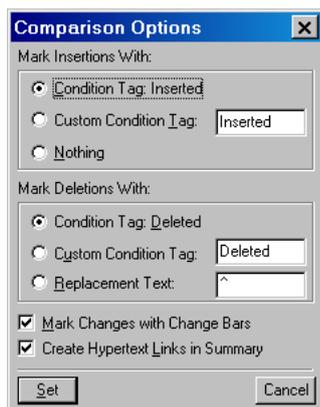
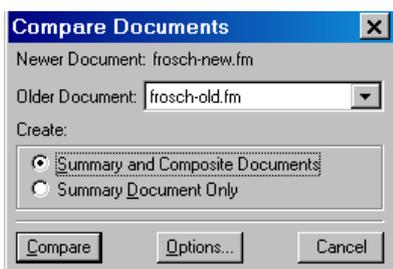
## Applying changes

Normally there are two types of changes necessary for an update of a document:

- Editorial changes, such as correcting spelling errors, enhanced formatting, changes of layout etc.
- Substantial changes in the text due to changes in the pertinent product, change of product names, software versions, new/changed/deleted functions etc.

It is good practice to make the editorial changes first and do not make them visible by change bars etc. Only then the substantial changes are applied with the hints for the reader what has changed.

## Find differences in files



Although FrameMaker provides a function it has proven that comparing two PDFs with Acrobat gives better results.

The FrameMaker function generates a new file with the differences. Additions and deletions are indicated by conditional text (see *Conditional text* on page 13-13). Changed text is indicated with change bars.

- ▶ In the newer document select **File > Utilities > Compare Documents...** and select the older (also open) file.
  - Specify whether you want a summary file only or also a composite document. The latter is necessary to see all text.
- ▶ Specify the options for the presentation of the differences. The necessary conditions use default settings, if you have not changed them.
- ▶ Click **Compare**.

## Summary file

### Document Comparison Summary

#### Documents

NameModification Date

Newer Document:frosch-new.fm9 June 2009 3:51 pm

Older Document:frosch-old.fm9 June 2009 3:49 pm

#### Number of Changes

Type InsertionsDeletionsChanges

Text Content 110

#### Flow A

#### Text Content Changes

#### Page Numbers

Composite	Newer	Older	Change	Text
		1	1	Deleted:
				“Übel hatte ihm die prinzeßin ...”
		1	1	Inserted:
				“Das ist Daube’s ...”

## Compound file

Der froschkönig war es nun endgültig leid, noch länger auf die prinzeßin zu warten. Ärgerlich hüpfte er vom brunnenrand, *zumal eine dicke fliege* sein interesse weckte.

~~Übel hatte ihm die prinzeßin mitgespielt! Daß ihm das passieren musste!~~

Öfter als sonst verkroch er sich von nun an in die brunnenresse und sinnierte über den kleinen grünen steinfresser.

Das ist Daube’s dummy text für nahezu alle lebenslagen, da er umlaute enthält.

## Result

The red-strike-through is deleted text (not present in the new document), the green-underlined text is inserted (not present in the old document). Both paragraphs also have change bars. The comparison did not take notice of the changed character format in the first paragraph.

# Change bars

Change bars are a character property. Hence they can be applied to paragraphs and parts of. As can be seen from the following example, they are also applied to changes in tables.

Column 1	Column 2	Column 3	Column 4
Der froschkönig war es nun endgültig leid,	noch länger auf die prinzessin zu warten.	Ärgerlich hüpfte er vom brunnenrand,	zumal eine dicke fliege sein interesse weckte.
Übel hatte ihm die prinzessin mitgespielt!	Daß ihm das passieren musste!	Öfter als sonst verkroch er sich von nun an in die brunnenkresse und sinnierte über den kleinen grünen steinfresser.	

← Change bar for changes in the table to the right and for the text after the table.

Set up for the location of change bars is "Side Farther from Page Edge".

This does not depend on the pagination setting "single/double sided", The side is determined by the margin of the text frame to the paper. In the current layout the inner margin is larger than the outer, hence the change bars are placed in the inner margin.

Watch the two change bars for the left and right text frames within the anchored frame →

However, changes within an anchored frame are indicated within the frame - if space permits:

Text lines can not receive a change bar.

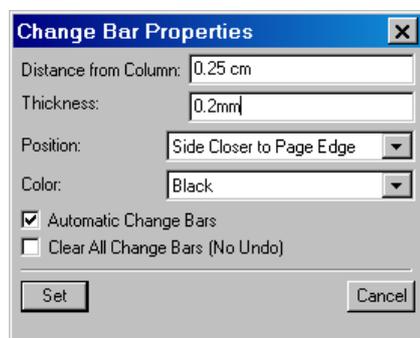
Another text frame within the anchored frame.

Öfter als sonst verkroch er sich von nun an in die brunnenkresse und sinnierte über den steinfresser.

Changes in formulas are not indicated. Only the insertion of a new formula (frame) will be indicated (change of paragraph).

$$a = \left( \frac{\sqrt{5}-1}{2} \right) \cdot b^2$$

## Set up change bars



With **Format > Document > Change Bars...** the properties of change bars are defined:

- Distance ...** The distance to the text frame containing the changed text.
- Thickness** Thickness of the change bar.
- Position** Left/Right of column; Side closer/farther to Page Edge .
- Colour** During development or for review you may want to set a demonstrative colour such as magenta.
- Automatically ...** Switch the generation of change bars on and off with this check box.
- Clear all ...** Accept all changes (clear all change bars) with this check box. There is no Undo for this function!
- Set** Click this button to activate the settings.

## Change bars in books

The properties dialogue is also available in a FrameMaker book. Settings become active for all selected files in the book window.

## Find changes

To be able to find changes indicated by change bars it is best to set up a character format (e.g. changed) with the sole property Change Bar and apply this format to the pertinent text.

## Selectively apply/remove change bars

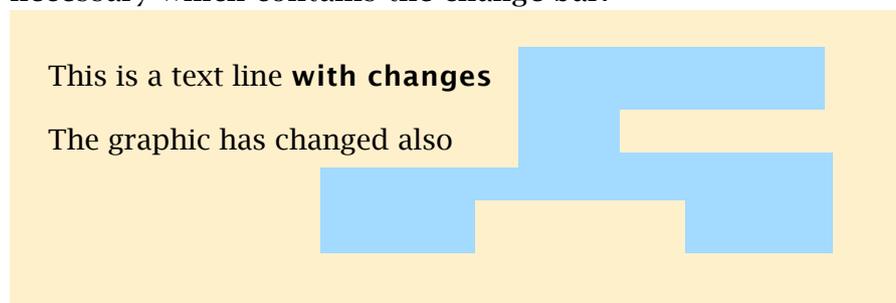
You may wish to apply change bars independently of the automatic application. You can do so for paragraphs or character sequences:

- ▶ To apply a change bar to a paragraph, open Paragraph **Designer > Default Font** and check the box **Change Bar**. Then click Apply.
- ▶ To apply a change bar for a sequence of characters, select the text area and apply a character format specifying only the application of change bars.
- ▶ To remove the bar from a paragraph or part of, select the paragraph and apply the **Default Font** character format.

**Note:** *When copying paragraphs (or character sequences) with change bars, you copy this property also!*

## Change bars for graphics

As stated earlier, only text in text frames get change bars. To indicate changes in pictures, an additional anchored frame is necessary which contains the change bar:



- ▶ Create an anchored frame **Outside Text frame with Side Farther from Binding** (or closer depending on the settings for the standard change bars). Set height to about 2 cm, width to 0.5 cm and **Distance above Baseline** the same as the height (2 cm). For this demonstration it is filled pink.
- ▶ Place a vertical line in this frame and (although you don't see its extension) give it the length of the page height. Colour and thickness should be the same as defined for the Change bars.
- ▶ Keep this frame in an auxiliary document (see *Boiler plate elements* on page B-14) for easy copy and paste.
- ▶ Copy this frame to the same paragraph as the anchor of the frame with the graphic and adjust the height at the lower end.

# Revision pages

<sup>27</sup> Point pages (also called Revision Pages) got their name from the page numbering scheme of inserted pages after the original pagination has been frozen: 16, 17, 17.1, 17.2, 18 ...

Although this feature is available in FM since version 3, its documentation has been removed with version 6. This is probably due to its disputed implementation.

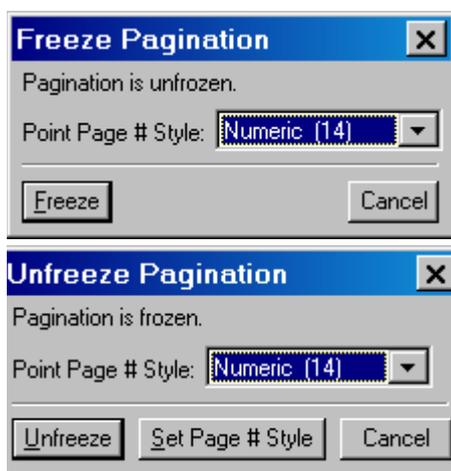
## FrameMaker method

### Restrictions

- ▶ Revision pages (point pages) can only be inserted into documents with a single text flow and no body page overrides of master page layouts.
- ▶ If a document contains multipage tables or anchored frames with the floating property, the freezing of the pagination may create unwanted results. Content after the last table page is pushed onto a following page.
- ▶ Paragraphs crossing page boundaries will be divided into two paragraphs when freezing the pagination. Unfreezing can not merge these parts to the original paragraph. Hence a page crossing justified paragraph will get a flush left last line in the first part of the split paragraph.
- ▶ Autonumbering is reset on each page.

### Insert revision pages

To be able to insert revision pages, the current pagination must be frozen:



- 1 In the document to be frozen, type **ESC, p, z**
- 2 Select the numbering scheme of the additional point-pages to be inserted.
- 3 Freeze will make all pages independent (not connected).
- 4 Any inserted 'disconnected page' will get nnn.mm as page number.
- 5 Adding content (overflowing into a new page) will create point pages. Removing content will not repaginate existing pages.
- 6 To change the numbering style of the point pages without unfreezing the pages, type **ESC, p, z** and select the new numbering style. Then click **Set Page # Style**.

### Unfreezing pagination

After the revision pages have been printed, normally the document is consolidated with consistent pagination. For this purpose the pagination is unfrozen:

- 1 Type **ESC, p, z** to display the Unfreeze Pagination dialogue.
- 2 Click **Unfreeze**
- 3 Text will reflow and pagination is back to normal.

<sup>27</sup> FM-manual 5.0 page 25-7 ff; FrameMaker-4 for UNIX Solutions p. 129 f.

## Plugin PointPages

<sup>28)</sup>The plugin PointPage from [frameexpert.com](http://frameexpert.com) is not publicly advertised, because you strictly need to follow the [instructions](#) given for proper results.

The plugin avoids the drawbacks mentioned before (*Restrictions* on page 13-7). A different workflow is proposed:

- 1 Make sure you have a “snapshot” of the base document in the form of a printed copy or PDF. This will serve as a reference for the pagination of the original document.
- 2 Make a copy of the base document that is ready for revisions.
- 3 Make edits and revisions to the document until you are ready to release the revision.
- 4 Paginate the document so that page breaks of the original content match those of the base document. Because of the added content, the page numbers may not match the original document, but the page breaks should.
- 5 Freeze the pagination using the **PointPages > Freeze Pagination** command.
- 6 Use the **PointPages > Convert** commands to assign point pages to the revised pages in the document.
- 7 If you are revising a book, repeat the above steps with each document in the book that has revisions. Update cross-references and generated documents so that the point page numbers appear where appropriate.

**Note:** *The documentation of the plugin provides more details to these steps.*

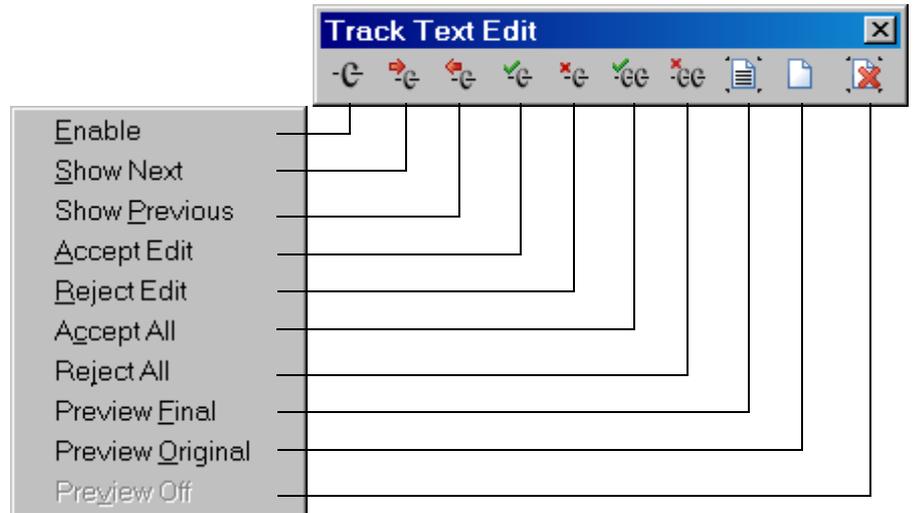
### Additional functions

Mark Current Page	The plugin provides these additional functions: Insert a PointPage marker on the current page. With <b>Convert Marked Pages to Point Pages</b> , all pages with such markers will be converted to point pages.
Delete All PointPage Markers	Delete all of the PointPage markers in the document. This is useful after you have unfrozen pagination to prepare a brand new edition of your document.
Printing Point Pages	This is a <a href="#">separate plugin</a> . It allows you to print point pages and other changed pages in the active document or book.
Remove point pages	After a series of revisions, you may want to release a brand new edition of your document without point pages. In other words, you want to keep the revised content, but you want the pages to number consecutively without point pages.

<sup>28</sup> To the greatest part this text is from the plugin documentation.

# Tracking edited text

The menu **Special > Track Text Edits** provides the same functions as the button bar via **View > Track Text Edit Bar**:



## Enable tracking

Select **Special > Track Text Edits > Enable** or click on .

When tracking is enabled, then inserted or deleted or modified text is indicated by special conditions, such as **FM8\_TRACK\_CHANGES\_ADDED**. These conditions are not listed in the Conditional Text tags.

The special conditions are displayed in the status area bottom left of the window:



**Note:** *There are a number of text operations which are not tracked. Generally, changes to formatting are not tracked. Some table operations are also not tracked. See Help **Revision Management > Track Edited Text**.*

## Turn off tracking

Click the button  again or select **Special > Track Text Edits > Enable**. Existing edits are not affected by this action (they are neither accepted nor rejected).

## Find changes

Either click the button  respectively  or select **Special > Track Text Edits > Preview Original > Show Next** or ... **Show Previous**.

## Preview the document

Before accepting or rejecting all edits it is good practice to check the effect by previewing the document:

- Preview the final appearance (changes accepted) with a click on  or select **Special > Track Text Edits > Preview Final**.
- Preview the original appearance (changes rejected) with a click on  or select **Special > Track Text Edits > Preview Original**.

Leave the preview mode by clicking on  or select **Special > Track Text Edits > Preview Off**.

## Accept/reject changes

For individual accepting or rejection select the pertinent text edit and then click on the button  to accept or  to reject the edit (or select the corresponding menu item).

To accept or reject *all edits in the document* click  or  (or select the corresponding menu item).

**Note:** *The regained text acquires formatting from the surrounding text. Applied character formats are preserved.*

## Save or publish document

If Preview mode is on, then the document is published or saved according to the selected preview mode (**Final** or **Original**).

If Preview mode is off, then the result depends of the output format:

Output format	Published or saved result
FM, XML	Both the status (e.g. tracking enabled) and the edits are kept.
PDF, Printer	Highlighting of the added and deleted text items are kept. The edits are not interpreted as Acrobat Review comments.
HTML, RTF	<i>Edits are accepted</i> and then the document is published.

See also *Save for review* on page 10-4.

# List of effective pages

For technical documentation often the revised editions need a list of the effectively changed pages (LEP).

Normally, the front matter contains a list of the date on which each page in the manual was last updated. Military and Aerospace manuals typically have hundreds of pages, and may go through dozens of revisions that change only a few pages at a time. Keeping track of everything is a big pain in the neck, and it's one of the easiest places for an auditor to find a mistake.

[Clinton Owen, Senior Technical Writer, Crane Aerospace & Electronics]

The required information depends. The following example is from the Maldivian Civil Aviation Dept (repealed = removed).

## Civil Aviation Regulations

## List of Effective pages

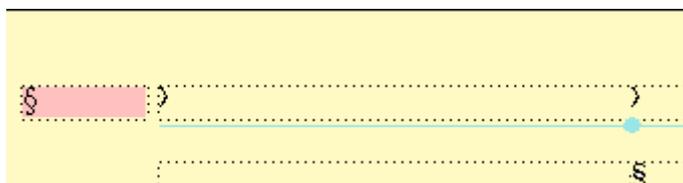
<i>Part: Page No: Amdt No: Date</i>				<i>Part: Page No: Amdt No: Date</i>			
<b>PART 1 Commencement &amp; Interpretation</b>				<b>PART 4 -Aircraft Nationality and registration marks</b>			
				<b>PART 5 Airworthiness of Aircraft</b>			
1.1	1-02	3rd Edition	May 2007	5.1	5-03	2nd Edition	June 2002
1.2	1-02	3rd Edition	May 2007	5.2	REPEALED		
1.2.1	1-07	3rd Edition	May 2007	5.3	REPEALED		
1.2.2	1-07	3rd Edition	May 2007				
1.2.3	1-08	3rd Edition	May 2007				

The Hong Kong Aviation Dept. requires this format:

	<b>Page</b>	<b>Date</b>
Contents	C P.1 to C P.6	31 December 2004
Foreword	F-1 to F-4	1 July 2001
List of Effective Pages	LE P.1 to LE P.4	30 June 2006
Sub-section 1.1-2	1.1-2 P.1 to 1.1-2 P.2	31 July 2004

## Manual procedure

- ▶ Consider the text to be present in the LOEP. I decide on revision number and page number only. For demonstration I add on these two pages a revision date. Because the revision information of untouched pages must remain intact this information can not come from variables – or you need to set up variables rev0, rev1, ... and place them.
- ▶ Place an unconnected text flow (name for example loep) on the master pages. This must not be a background frame without flow name. The size of the frame depends on the contents it should get. In this chapter these frames are coloured.
- ▶ The only paragraph in the text frame has format (for example) xr-revision.



- ▶ On the body pages insert on each page the revision text to be listed in the LEP, for example: v-08 or (as on these two facing pages: v-08 (2009-06).
- ▶ If the edits on the pages change the pagination, all entries in the LOEP frame must be checked and appropriately updated.
- ▶ From the document (or the book with all these documents) create a list of paragraphs and select xr-revision. You may wish to set the file suffix to LOEP to be able to create other paragraph lists also.
- ▶ In the generated file adjust the reference page LOP (this does not get the name LEOP as specified in the file suffix. Also set up the generate paragraph format xr-revisionLOP to your desire. For example, like this:
 

```
<$paratext> .....<$chapnum>-<$pagenum>
```
- ▶ With the next generation of the LEOP you get it formatted:

v-08 ..... 13-2	v-07 ..... 13-10	v-07 ..... 13-18
v-08 ..... 13-3	v-07 ..... 13-11	v-07 ..... 13-19
v-08 ..... 13-4	v-07 ..... 13-12	v-07 ..... 13-20
v-08 ..... 13-5	v-07 ..... 13-13	v-07 ..... 13-21
v-08 ..... 13-6	v-07 ..... 13-14	v-07 ..... 13-22
v-08 ..... 13-7	v-07 ..... 13-15	v-07 ..... 13-23
v-08 (2009-06)..... 13-8	v-07 ..... 13-16	v-07 ..... 13-24
v-08 (2009-06)..... 13-9	v-07 ..... 13-17	

## Method of Clint Owen

My method relies on an extra text flow on each page. There is room for just two lines; the page number and the date. As long as there is only one date related paragraph tag and one page number related paragraph tag on each page, it's easy enough to create a List of Paragraphs which becomes the LOEP. You can't do it on the master page, because you need a tag that can be uniquely associated with each page in the book.

I am still working on a complete explanation of how it works and how to set it up.

[Owen, Clint <Clint.Owen, craneaerospace, com>]

## Tool to generate a LEP

[Silicon Prairie Software](#) has a special tool to create a LOEP. It is available for FrameMaker 6.x, 7.x, and 8.

The tool inserts special markers on each page based on a template. The marker contains information, when the page was last updated. The generated list of these markers contains all pages. So sort out only those of a particular revision level, additional work is required.

# Conditional text

**Note:** *Table columns (or individual cells in a table) cannot be made conditional. Only whole table rows can be conditional.*

## Application of conditional text

	Organising and implementing conditional text may be difficult. However, in the following cases it may be worth the effort:
Product levels	Standard, extended, professional may be the names for conditions in this case.
Development	Information which is not yet fixed can be hidden in the current release.
Review comments	Questions to the reviewer and the answers can be placed in conditional text which may be hidden to print a clean draft.
Platform dependencies	In software descriptions it may be useful to tag with Windows, Mac and Unix.
Tutorials	For training manuals you may wish to have both the Student part and the Instruction part in the same document.
Delivery medium	Maintaining single source documents may require to handle special portions for the CD release, the printed version and the version for the web.
Compare documents	<b>File &gt; Utilities &gt; Compare Documents ...</b> creates a new document with two conditions (inserted, deleted) relative to the current document.

## Keep it simple

- Although FrameMaker 8 allows to define more conditions than with previous versions, avoid assigning multiple condition tags to the same information. FM8 gives you the choice to define conditions based on other conditions by logical expressions. See *Display conditional text by logic* on page 13-16.
- Limit the number of conditions to the minimum. There is only a limited set of styles to represent the condition, although you can have many colours ...
- Use distinct condition tag names which alphabetise well.
- If possible, tag entire paragraphs and not portions of paragraphs, such as sentences or even words.
- Define standards for spaces and punctuation consistently (either always conditional or always non conditional).

## Alternatives for conditional text

Variables	Company names, brands, product names and other short pieces are better handled by variables.
Custom markers	Use custom markers for different types of indexed information.

- Note:** *Be aware that hidden conditional text also hides all markers in that text (e.g. cross reference sources, index markers).*
- Chapters** Instead of applying conditions to whole chapters, create alternative books. To avoid conflicts between the generated documents (e.g. the TOC or index), define individual prefixes in the book variants (e.g. TOC1 in the first book, TOC2 in the second).
- Files** You may break down a particular chapter into files. Placing the text inset referring to the file into a condition allows you to maintain the file independently (see *Text insets* on page 13-18).

## Setting up conditions

Before applying conditions set up a scheme about the conditions you need. For example, a software manual may have parts only relevant to operators and system programmers.

If you have portions only for beginners, you may face a ‘subtracting’ condition. The unconditional text is common to all types of readers and hence may not contain all parts for standard users. A possible scheme is this:

Type of reader	Conditional text to be included			
	std_user	operator	system	beginner
Beginners	not in	not in	not in	in
Standard user	in	not in	not in	not in
Operator	in	in	not in	not in
System programmer	in	not in	in	not in

IT may be appropriate to have graphics depending on conditions (the frame anchor has a condition) in different directories.

Use conditions in the text always in the same order, for example: std\_user, beginner; operator, system.

## Handle conditions

### Presentation of conditional text

The following text is in condition tag “Comment”.

This text is of condition “Comment”. This is very useful for

- editorial comments
- this is both Comment and Detail - colours are mixed

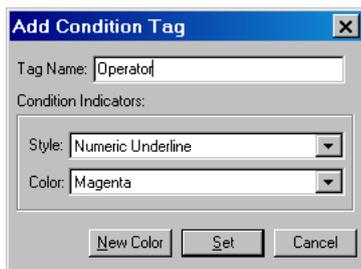
This is the last line with both the condition Comment and Detail.

This paragraph is without any condition, the following paragraph is “Detail”:

This text has condition “Detail”. This is an example, how to use conditional texts for variants of documents. Details are, for example, only needed for a certain type of readers.

This paragraph is without any condition.

## Define a new condition



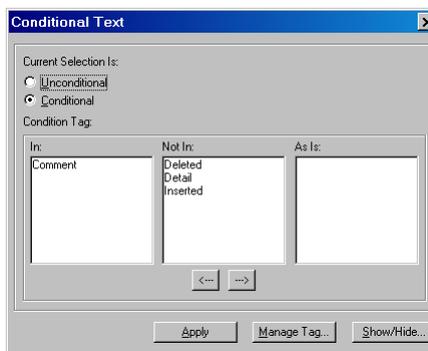
To define a new condition tag (for example, operator):

- 1 In **Special > Conditional Text > Mange condition...** and click **Add**.
- 2 Provide the new name in the edit box and select an appropriate style and colour for the display (this style is not used for printing!); **Set!** The condition is now listed in **Manage Conditions** dialogue.

## Edit a condition tag

- 1 In **Special > Conditional Text > Mange condition...** and click **Edit**.
- 2 You get the same dialogue as for adding a new condition tag, where you can modify the settings. Then click **Set**.

## Display the current condition of a text



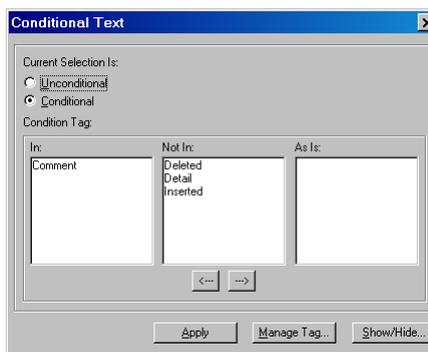
- 1 Place the cursor in the appropriate text
- 2 **Special > Conditional Text > Apply Conditional Text...** displays the dialogue Conditional Text. This dialogue can stay open during work.
- 3 The radio button in **Current Selection Is** says whether the text is unconditional or conditional. The lists display the applicable conditions:

**In** The current selection is in this condition

**Not in** The current selection is not in these conditions

**As is** The current selection contains both text which is in a condition and text which is not.

## Apply a condition



To apply conditions you will need to define the condition tags and the appearance of the conditioned text:

- 1 Select the text which will receive the condition (for example “comment”)
- 2 **Special > Conditional Text > Apply Conditional Text...** If you do not see the desired condition tag in the “Not in:” column, you must first set up this tag (see *Define a new condition* on page 15).
- 3 Set the current selection to **Conditional** (radio button) and move the desired condition to the left column (“In:”) and click **Apply**.

## Remove conditions

- 1 Select the text you want to make unconditional
- 2 Select **Special > Conditional Text > Apply Conditional Text...**
- 3 Activate the **Unconditional** radio button
- 4 Click **Apply**.

## Copying conditions

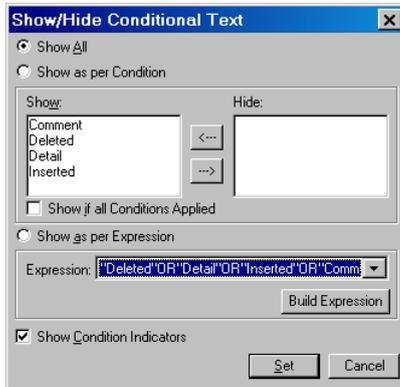
You can use **Copy Special > Conditional Text Settings** and apply the condition(s) to a target selection by Paste.

## Display the conditional text

Hidden conditional text is represented by a maker symbol (T). At the beginning of a line the left portion of the T-arm is invisible (truncated by the boundary of the text frame).

**Note:** *If you delete a Conditional Text Marker you actually delete the conditional text!*

To display (and print) text with and/or without any condition, the following steps are required:



1 Select **Special > Conditional Text > Show/Hide Conditional Text**.

2 To display (and print) everything, activate the radio button **Show All**.

3 To display (and print) only certain condition texts,

- move the conditions into the appropriate column (Show or Hide).

- Activate radio button **Show as per Condition**

4 Click **Set**

**Note:** *You may move all tags at once with **SHIFT+click** on an arrow.*

The condition indicators (underlining, colour) are only visible if **Show Condition Indicators** is checked.

Table rows are displayed checkered if the conditions display contains underlining, over lining or strike through.

## Display conditional text by logic

FrameMaker 8 allows to specify conditions based on logical expressions.

**Note:** *No parentheses are possible in condition expressions.*

1 Select **Special > Conditional Text > Show/Hide Conditional Text**.

2 Activate **Show as per Expression**

3 Click on **Build Expression**, which opens the second dialogue.

4 If in the right pane a definition already is displayed, click **Clear** to start afresh.

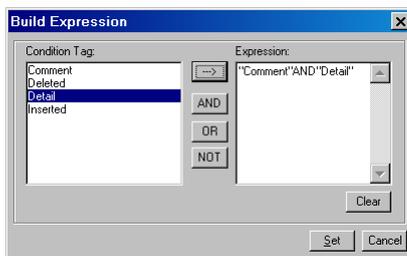
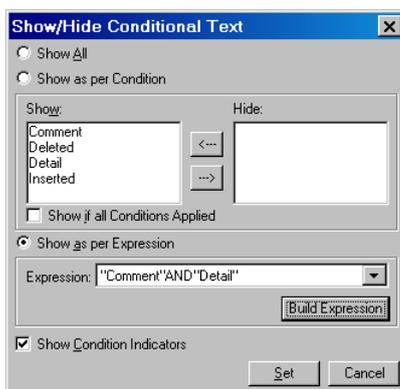
5 To build the expression,

- Select a condition tag in the left pane and click --> to insert it in the right pane.

- Click on **AND**, **OR** or **NOT** to set the logical operation with the next condition tag (**AND** has precedence to **OR**)

- Select the next condition tag

6 Click **Set** to define the condition. This is displayed in the first dialogue.



**Note:** *Between **AND** or **OR** and **NOT** no blank is allowed: **ANDNOT**.*

## Examples

Tests are from Johannes Graubner (graubner, transcom.de).

We have defined 4 conditions, AAA, BBB, CCC and DDD and applied them to texts, both single and in combinations (AAA + BBB, AAA + CCC, AAA + BBB + DDD, AAA + CCC + DDD, AAA + BBB + CCC, AAA + BBB + CCC + DDD, BBB + DDD, CCC + DDD, BBB + CCC, AAA + DDD).

**AAA AND BBB**

Texts with condition AAA and BBB (alone or combined with other conditions) are published. Texts with other conditions are not published. → The boolean expression is complete and closed.

**AAA AND BBB  
OR AAA AND CCC**

Published are texts with either condition AAA **AND** BBB or the conditions AAA **AND** CCC. Other conditions applied to the texts are irrelevant. → AND has precedence before OR.

**BBB ANDNOT CCC**

Published is all text with condition BBB (and probably other conditions) as long as condition CCC is not present.

**BBB ORNOT CCC**

Every text not containing the condition CCC is published. Exception: If the condition is BBB+CCC this text is also published.

**AAA AND BBB AND CCC  
OR AAA AND CCC**

Text with just AAA+BBB is not published. AND chains must be completely fulfilled, but may be 'overcrowded'.

**AAA ORNOT BBB  
AND AAA**

Everything containing condition AAA is published. This is a nonsense expression. **ORNOT** is not clear here.

## Text insets

Text insets are pieces of text *imported by reference*. These can be

### Sources of text insets

- A file processed by import filters (original ASCII text, MS-Word doc etc.)
- A text flow from a FrameMaker document, which may be the current document. In most cases the complete file (the complete flow A) is imported.
- A text flow from a FrameMaker document which is in MIF format.

Text insets can be arranged in a single file in different flows. The flows may be located in reference pages and can have memorable names, for example `warning_highvoltage`, `warning_hotwater`. In file `text_inset.fm` a flow A provides an introduction and flow `warn_1` is short flow with boiler plate text.

### Purpose

The purpose of text insets is to avoid duplicates of text. It is a method of re-use. However, reuse is not free. You need to take steps to be sure that content works in multiple locations or contexts.

There is no mechanism in FrameMaker that provides information about where a piece of text is used. Hence it its good practice to keep this information within the text inset:

- In a text frame on a reference page
- At the beginning of the text in conditional paragraphs (e.g. `condition = Comment`)
- By support of a special script which pops up at open time

## Organising text insets

To avoid to many open files it is good practice to assemble text insets in a project specific file.

For each inset define a specific flow. Name them properly to be able to distinguish them.

For ease of maintenance establish the flows on the body pages of the specific document.

When defining text insets in a template, establish the flows on reference pages. Also here the naming may help the user to get the correct inset. Names may be arbitrary, such as `chapt_overview`.

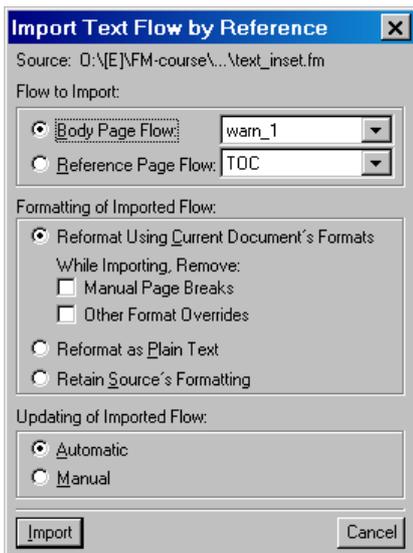
Since a flow may contain everything from text to anchored frames and tables, the inset behaves a sub-document.

## Updating insets

It is good practice to precede each inset flow with information where the inset is used.

If you have your inset flows in distinct files rather than all in one file, make a book of these inset files to find them easily. The files in the book can be in any location (different projects etc.).

## Import text flow from a Frame document



- 1 Select **File > Import > File ...**
- 2 Specify the proper file name in the File selection dialogue. Choose **Import by Reference**. After clicking **Import** you get the dialogue displayed here.
- 3 Specify whether you want to import a flow from the *body pages* or from the *reference pages*. The latter is necessary to import from the current (host) document.
- 4 Select the proper text flow.
- 5 Choose the appropriate formatting option. Normally you want to **Retain Source Formatting** (especially if the insets use the same template as the host document).
- 6 Click **Import**.

The imported text is placed at the current cursor location. The paragraph format of the insert is derived from the first paragraph format in the inset (here: `chapt_overview`).

## Avoid re-formatting

When importing a text inset at the end of a paragraph, that paragraph gets the format of the first paragraph in the inset. Importing a text inset in front of a paragraph does not re-format that paragraph).

When using empty 'anchoring paragraphs', insert a required blank prior to importing the text inset in front of that blank. You may wish to use a special format for the anchoring paragraph (small size, ...):

before importing →  
place the insertion  
point (cursor) here

¶

If you need to arrange text insets one after the other (modular texts) you may wish to define the 'anchoring paragraph' as Run-in-head which does not cause a line break at the end of the paragraph. Do not fill the Default Punctuation field with the non breaking space! This space must be in front.

## Text inset with variables and references

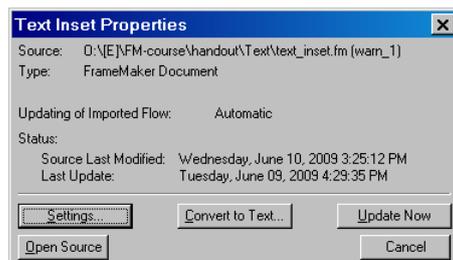
Text insets imported by reference have some properties, which must be considered when using them:

- Referenced texts can not be edited (obviously...)
- Formats (paragraph styles, table catalogue, character catalogue, cross-reference formats) stay local to the embedded document and are not added to the embedding document.
- Variables from the inset are copied to the embedding document and hence can be updated there (or the surrounding book).

## Updating text insets

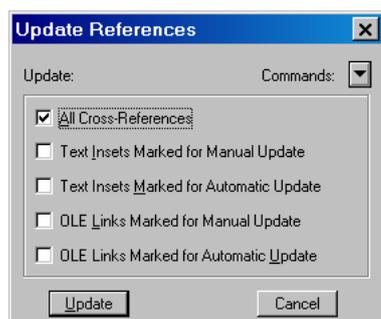
Whenever a FrameMaker document is opened references to other files (text inset, graphics) are updated. If this is not possible (for example, the file was moved or renamed), an error message is issued. Use **Edit > Find** and find “Unresolved Text Inset”.

### Update particular text inset



- 1 Double click into the text (this is selected and a dialogue appears).
- 2 In **Text Inset Properties** click on **Update Now**.
- 3 If the inset can not be updated (moved, renamed) an error message gives you a chance to search it yourself).

### Update all references in file



- 1 **Edit > Update References...**
- 2 Activate the appropriate check boxes.
- 3 Click **Update**.

### Update everything in a book

To update all references in a book,

- 1 Open the book file
- 2 Update external references with **File > Generate/Update...**

The process may halt in a particular file with “unresolved xyz”. this may be a cross-reference or an inset or a graphic file. In this case open that file and find the unresolved xyz.

If unresolved cross-references are in the master pages (for example, a reference to a paragraph-number) this can not be discovered easily. The book error log points only to the body pages. You need to display the master pages and search for the unresolved reference.

**Note:** *As long as you have not cleared the problem, the generate/update process will halt at the first error.*

## Import examples

For the sake of demonstration the text insets are underlaid with a colour.

**Note:** *In the following example the variable `Filename` [Long] with the format `<$fullfilename>` is set from the container (as all variables used in insets are). Hence the path noted the path of the current document - and not that of the inset!*

### Text inset from flow warn\_1

#### Danger du mort



This is a flow from file `E:\FM-course\handout\specials.fm`.

#### ACHTUNG! ALLES LOOKENSPEEPERS!

Das computermachine ist nicht fuer gefingerpoken und mittengrabben. Ist easy schnappen der springenwerk, blownfusen und poppencorken mit spitzensparken. Ist nicht fuer gewerken bei das dumppkopfen. Das rubbernecken sichtseeren keepen das cotten-pickenen hans in das pockets muss; Relaxen und vatchen blinkenlichten!!!

This is a cross reference to the flow A in this inset: *Target of x-ref from flow B in this inset* on page 21. In PDF this crossreference will *not* become a hyperjump.

Here we are in the container document. The above (coloured) text inset is inserted at the beginning of this paragraph. This is a cross-reference into the inset, flow A: *Inset from text flow A* on page 13-21. This will become a hyperjump in PDF:

### Inset from text flow A

This file (`E:\FM-course\handout\specials.fm`) is used as an example of *import by reference* in various situations. Paragraph styles are the same as in the main document with the exception of `z_text`-inset, which uses a script font for easy recognition.

**Variable set in the container.** Cross reference to another chapter in this book (in PDF this cross reference will *not* become a hyperjump): ***Teamwork*** on page B-11. Please note the special format which is local to this text inset.

### Target of x-ref from flow B in this inset

Hecate est Iovis et Latonae filia, soror Apollinis. Est tricopor et triceps, magicarum artium magistra ac fascinationum praeses, cinctra latrantium canum turma.

- ▶ Hecate est Iovis et Latonae filia, soror Apollinis. Est tricopor et triceps, magicarum artium
- ▶ vel prope sepulcra et ubi loca sunt caedibus contaminata.

**Note:** *Hecate est Iovis et Latonae filia, soror Apollinis. Cinctra latrantium canum turma; noctu stans in triviis vel prope sepulcra et ubi loca sunt caedibus contaminata.*

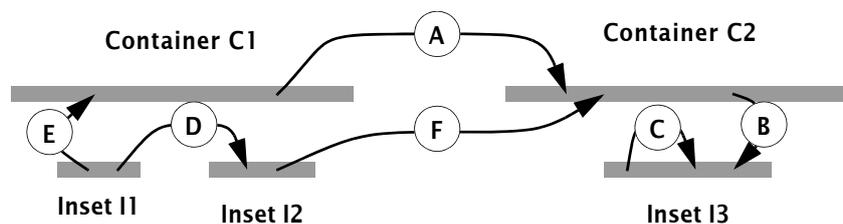
This is a cross reference from inset (flow B) to the container document: *Problems and pitfalls* on page 13-22. It will *not* become a hyperjump in PDF.

The text inset is inserted at the beginning of this line. Normally you will place an insert at the beginning of a paragraph just containing a required blank.

## Problems and pitfalls

### Cross references

Types of cross references



Cross references which will *not* become live hyperjumps in PDF, are presented with coloured background in this table.

Location of x-ref	Source of x-ref	Example	Source (Source Type)
Container	Container (in same book)	A	Paragraph
Container	Inset	B	X-ref marker
Inset	Same inset	C	Paragraph
Inset	Other inset	D	X-ref marker
Inset	own container	E	X-ref marker
Inset	other container	F	X-ref marker

When setting up a cross-reference in a text inset to a location outside the text inset, you must *always* configure the x-ref to point to a cross-reference marker in the reference container file. You can not refer directly into another text inset.

To set up an xref to a location outside the text inset (either to another text inset or to the container) you *first* create a cross-reference marker at the destination/source (**Special > Marker, Marker Type:** Cross-Ref, Marker Text: something meaningful that identifies this location). That is, you must not use the automatically generated markers to headings via **Special > Cross Reference...**

If this source you just inserted is in a text inset, you need to update it in its container (so the container “knows” about the new marker). Then, when you select **Special > Cross-Reference** to insert the xref, set Document to the *container* document in which the text inset with the source marker resides, and set Source Type to Cross-Reference Markers. In the list of markers, find that meaningful marker text you entered for the source marker.

Concerning PDF

Cross references within a text inset are not converted into live links in PDF. One workaround is to produce a PDF as follows:

- 1 Open all files in the book, update the book, and save all files.
- 2 “Flatten” all the text insets, that is, convert them all to text.
- 3 Save as (or print to) PDF.
- 4 Close all the files *without saving*.

Another workaround is to use [Rick Quatro's](#) FrameScripts ResolveInsetXRefs (to be licensed). The first script unlocks the insets and saves their markers to a data base. Then it updates the markers to point to the correct pages.

## Find and Replace

FM does not look into text insets when searching for a string or an object. You must open the text inset file and search there.

## Spell checking

Since Find does not look into a text inset, spell check does also not look into. You may use the following method to spell check text insets:

- Set up a (temporary) book with all the files used as text insets.
- Spell check in this book.

2011-05-11

E:\FM-course\handout\specials.fm

D D D

# Document structure

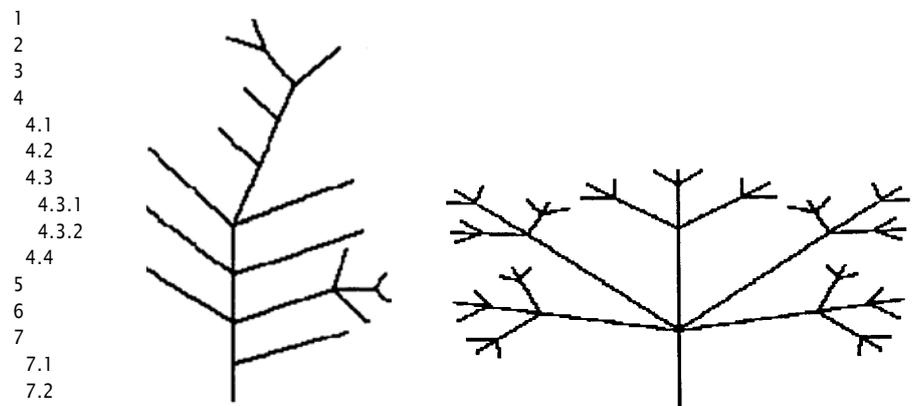
## Structure aids the user

All natural objects inherit structure. Even rocks are structured. You don't need to think about the atoms and molecules. Look at a tree and its leaves, on crystals or live bodies. Things without structure (amorphism), such as slime will shudder us.

### Purpose of structure

Structure is required for orientation. Assume a town without street names and houses numbered by their building sequence. Only an outside navigation system like Google Earth will help you find the desired location.

Structure reflects the inner logic of things. Recognising an uneven structure points to a deteriorated logic. A misshaped structure may point to a misshaped logic.



The left tree is really crooked. Items 1 ... 3 may be combined into one with sub levels (same probably for 5, 6 and 7). Of course in real life an ideal structure like the one to the right is not always possible, but this is the direction to go.

A subject calling for a main topic must be as important to be broken down into topics and subtopics. If it can not be broken down, then is not that important and belongs to a deeper level.

Deeply nested structures do not serve the user, because our comprehension ability is limited to 3 to 5 levels. Hence more levels just disorient the reader. Fine grained information may be put into a table or a list.

### FrameMaker document structure

FrameMaker documents are structured with the following mechanisms:

- A book refers to chapters or parts of
- A chapter (or part of a chapter in a file) is broken down into sections by means of headings (1 heading, 2 headings)

There is no control of the structure. You are free to place a heading level 3 just after the chapter heading... Rigid control over structure is maintained with the SGML mechanism available with the Structured Interface (*Structured documents* on page 1-22).

## Heading levels

There is ample discussion about the adequate number of heading levels in documents. In this compendium I stick to 3 levels and a forth level are the captions in the margin area.

Reid Gray [rgray, interactivesupercomputing, com] gave an excellent comment on this issue for user documentation:

Reid Gray

In general if your heading levels descend below three or four in user documentation, you need to take a step back, analyse, and rebalance. Nothing new here, just the old axiom “be nice to your user...” You can apply the same principle to the navigation over enterprise web sites.

If you find yourself descending past three or four, redefine your level 1 heads (perhaps a level 1 head gets removed and two level 2s beneath it promoted). Do what makes sense. Rebalance it. If you find yourself descending past four, five, or six you might have a guide hiding within a guide. Break it out.

An outline or book structure is like a decision tree or even a binary tree. The more levels you force me to descend, the higher my cost in 'look-up' latency, the harder it is for me to recall the context or navigate back to the heading, and the more painfully disoriented I become. If disorientation is a feature or adding levels is a requirement for your particular documentation (legal writing, city electrical codes, cell phone billing statements, philosophical treatise), then you are okay in descending as many levels as needed, just remember to index or enumerate 'said' headings adequately so folks can cite them at a later time from equally disorienting prose.

Another version of “be nice to your user” is “don't Hegel your audience” (although even Hegel had a tendency to articulate or 'piece' general concepts into threes).

## Checking structure

A document should keep a logical structure which depends on the subject the document is about. For example, the structure of a user manual for a machine is regulated by standards. to judge the value of structure, look at a beautifully shaped tree with its branches, twigs and leaves.

The physical structure of a document is reflected in the book file. The logical structure can be seen in the Table of Contents and some aspects can also be seen in the index.

### Check structure with TOC

In the enhanced structure we have a more even distribution of lower levels, thanks the new category *elements of the work space*:

Old structure	New structure
Working environment	Working environment
Some discipline required.	Starting FrameMaker in standard mode
Preferences	FrameMaker work space
Customising FrameMaker	Some discipline required
Control characters in the text	Preferences
...	Navigate the document
Palettes and catalogues	Customising FrameMaker
Tool palette	Sample templates
Catalogues.	Control characters in the text
Quick access bar (tool bar)	Appearance of check boxes.
Menus and palettes	...
Graphic tools	Elements of the work space
	Palettes and catalogues
	Quick access bar (tool bar)
	Menus and palettes

### Check structure with index

For example, the index of this compendium first displayed these entries:

```

editing
  cross-reference ..... 7-8
  graphic shape ..... 6-9

```

How about editing footnotes or formulas? Well, there was no such subject in there until the index making process revealed this defect.

## Modifying structure

### Re-arrange files within a book

The files comprising a book are rearranged with **File > Rearrange Files...** while you are in a book file.

If you have broken chapters into several files, you may need to adjust the settings for the files (numbering starting at 1 or continue, prefixes for generated files etc.) with **File > Setup File**.

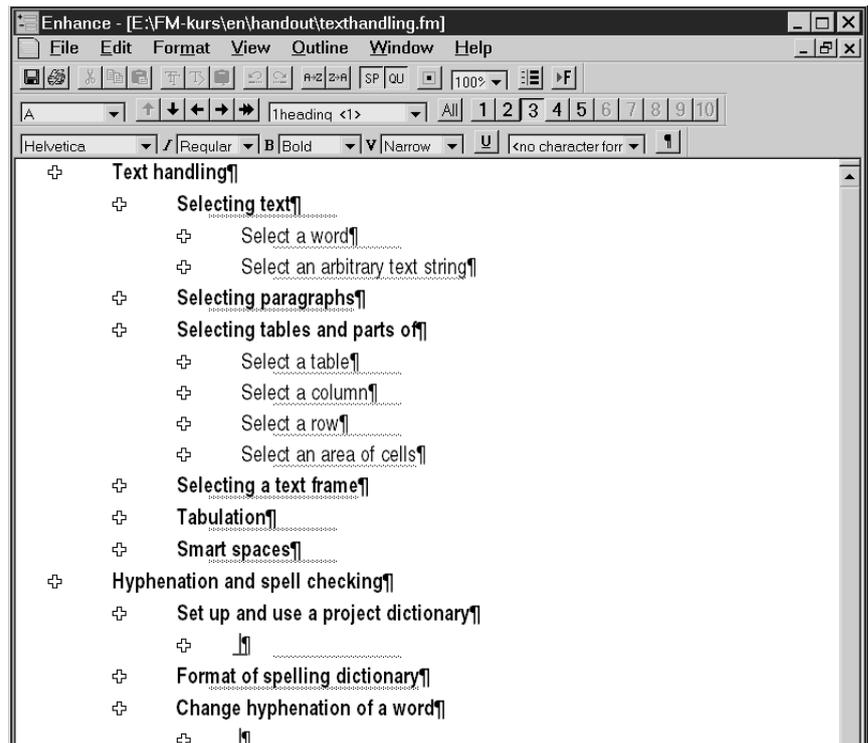
### Re-arrange information within a file

The standard FrameMaker interface does not provide an outline view of the document. In Structured FrameMaker the document structure is “the name of the game”.

The powerful API (plug-in) “Enhance” from [Sandybrook Software](#) for Standard FrameMaker provides thee features:

- Define up to 10 structural levels (1heading, heading2, caption,...)
- Move entire levels or parts of
- Promote and demote levels or parts of

- Sort paragraphs alphabetically



**Note:** While **Enhance** can be installed in FrameMaker 8, it is not supported. Users have reported application instability when running Enhance on FM8.

### Simulate an outline view

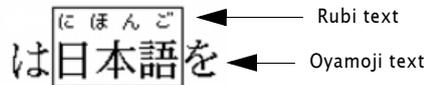
To have at least permanent overview of the document structure, see *Simulate an outline view* on page A-30.

When moving text portions you will frequently update the view (a Table of Contents).

# Rubi in latin scripts

Rubi (also spelled ruby) characters are small, annotative glosses that can be placed above or to the right or above of a Chinese character when writing logographic languages such as Chinese or Japanese to show the pronunciation.

[[en. wikipedia.org](http://en.wikipedia.org)]



Handling rubi text was introduced in FrameMaker with the first fully functional Japanese version (5.5) in 1997.

## Entering Rubi

In the western FM installations the menu position **Special > Rubi** is not available. However, the function is available with escape sequences.

- 1 Select the characters above which you want to type rubi. This selection must not contain a line break (¶) or (<).

**Epicurus** vero ex animis hominum ¶

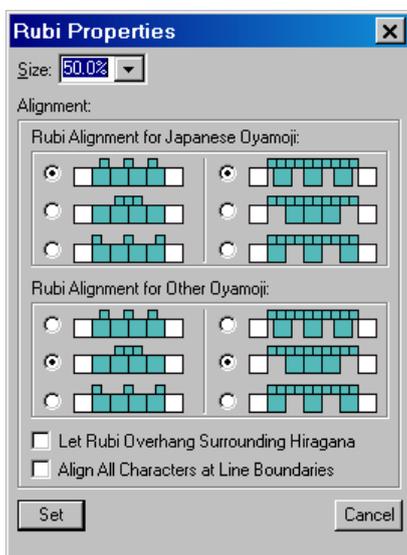
- 2 Enter **ESC, s, r** and type the text to appear as rubi. If the selected characters span two lines, they will be moved to the second line.

Epicurus vero ex animis hominum

- 3 To terminate the rubi string, type **Carriage Return**. The cursor is now back to base line.

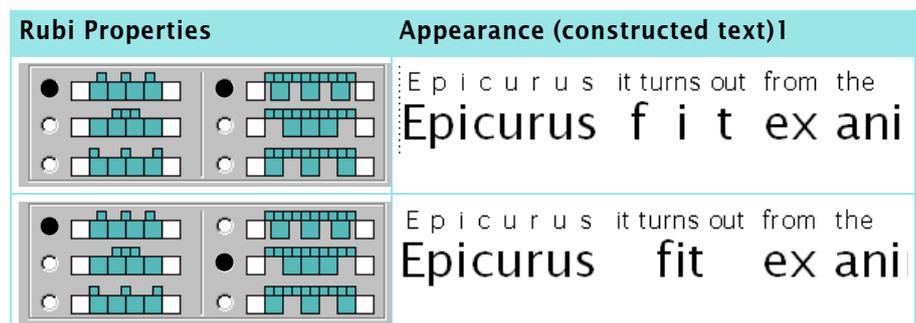
**Note:** *If the rubi collides with the preceding line of text, either set the line spacing large enough to accommodate the rubi (at least 150% of the font size) or turn off fixed line spacing.*

## Rubi properties



You specify the appearance of the rubi text with the Rubi properties (**ESC, o, r**). For latin scripts the “Other Oyamoji” is relevant. Use the middle selection as indicated by the screen shot.

The left column of options specifies the spacing of the rubi characters (upper part). The right column of options specify the spacing of the rubi base (lower part, Oyamoji).



Rubi Properties	Appearance (constructed text)1
	E p i c u r u s it turns out from the Epicurus f i t ex ani
	Epicurus it turns out from the s Epicurus f i t ex ani
	Epicurus it turns out from the s Epicurus fit ex ani
	Epicurus it turns out from the s Epicurus f i t ex ani
	E p i c u r u s it turns out from the Epicurus f i t ex ani
	E p i c u r u s it turns out from the Epicurus fit ex ani
	E p i c u r u s it turns out from the Epicurus f i t ex ani

## Examples of rubi usage

### Interlinear translation

The following text displays the english translation of a latin text as rubi:

Epicurus indeed from the souls of men tore out by its roots  
 Epicurus vero ex animis hominum extraxit radicitus  
 religion when from the immortal gods both generosity and benevolence  
 religionem cum dis immortalibus et opem et gratiam  
 he removed For while the best and most excellent  
 sustulit. Cum enim optimam et praestantissimam  
 nature he says is god's, he denies this very thing to be in god —  
 naturam dei dicat esse, negat idem esse in deo  
 benevolence. He removes the very thing which is most natural to the best  
 gratiam: tollit id quod maxime proprium est optimae  
 and most excellent nature For what [is] better or what  
 praestantissimaeque naturae. Quid enim melius aut quid  
 more excellent [than] goodness and benevolence? Of which [trait] were you to make  
 praestantius bonitate et beneficentia? Qua cum carere  
 god lack you would make no one neither god not man  
 deum vultis, neminem deo nec deum nec hominem  
 dear to god, no one loved by him no one cared for [by him]. Thus  
 carum, neminem ab eo amari, neminem diligi vultis. Ita  
 it turns out that not only [are] men [paid no attention] by gods but the very gods  
 fit ut non modo homines a deis sed ipsi dei  
 are paid no attention by each other.  
 inter se neglegantur.

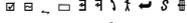
*On the Nature of the Gods*

Cicero, *De Natura Deorum*, I.xliii.

## Modify appearance with character formats

Initially the rubi text has the same properties as the base text – except that it is smaller according to the setting in **Rubi Properties**.

It is possible to modify both the base text and the rubi text by character formats:

Example	Explanation
<i>highlight applied to rubi text</i> cinctra latrantium	Rubi text with character format
 canum turma	Rubi text uses a character format which changes font. This font even contains a logo.
 contaminata	
the rubi text 	The rubi function can be applied to an anchored frame <i>at insertion point</i>

## Use rubi function to frame text

Since the rubi text can contain an anchored frame at insertion point it is possible to frame the base text:

Do this	Result
Create an anchored frame at insertion point with the desired appearance. It must not be filled. Select it and copy it to the paste buffer.	
At a convenient place set up two successive nonbreaking spaces. Surrounding characters are placed here for better understanding the effects.	aaa <u>  </u> aaa
Select these two spaces and enter <b>ESC, s, r</b> to create the rubi construct.	cursor  
At the current cursor location paste the frame. Depending on its <i>Distance above Baseline</i> it will be higher or lower relative to the base line (here it is -4pt).	aa  a
Now you have a template for framed text. To select the frame, place the text cursor in front of the last character before it (it is not possible to place the text cursor with the mouse just before the frame) and move it with <b>→</b> just before the frame. Now hold down <b>Shift</b> while you select the rubi construct with <b>→</b> . Copy the construct into the paste buffer.	abc  def
Paste the construct where you need the framed text and enter the text between the two nonbreaking spaces.	Type  for ...

You need to have an empty frame which you copy around and fill with the desired text, because in the rubi base text characters can only be added. Removing characters with **Backspace** or **Delete** breaks up the rubi construct.

## Use rubi function for special underlining

This tip is from Peter (at knowhowpro.com) Gold.

Do this	Result
Select the text to be underlined and apply the Rubi property to it ( <b>ESC, s, r</b> )	highlight  this text§
Insert the characters used for underlining (in this case a sequence of periods). Too many periods will expand the rubi box.	ghlight  this text§
Select the rubi text and move it to the desired location ( <b>ALT+↓</b> ). Do not move the selection out of the rubi box!	ghlight  this text§
Final appearance	highlight <u>this</u> text

# Code samples

Especially when documenting software code samples are to be presented. Some methods are presented here.

## Running text

This form may allow to use a text inset of the whole code file. See *Text insets* on page 13-18 how to deal with these.

However, normally only code snippets are documented, not the whole code file. So the text is manually copied from the code file.

Code is normally presented in a paragraph style with fixed pitch font. In this compendium two formats are used: `en-example-narrow` and `ew-example-wide`. Background shading requires a text frame within an anchored frame:

### en-example-narrow

```
Loop, %whi chDi r%FrameLog_*.txt
  {
    Fi l eDe l e t e, %A_Lo o pFi l eFu l l Pa t h%
    nFMd e l s += 1
  }
text = Logg i n g% A_ T A B% % nFMd e l s% F r a m e L o g f i l e s d e l e t e d
from %whi chDi r%
GoSub, W r i t e T o F i l e
```

Since at least one line is too long, the other format might be better:

### ew-example-wide

This example is just text, no frames around. The shading is a separate graphic object on the page which of course does not flow with the text and must be adjusted when layout changes.

```
Loop, %whi chDi r%FrameLog_*.txt
  {
    Fi l eDe l e t e, %A_Lo o pFi l eFu l l Pa t h%
    nFMd e l s += 1
  }
text = Logg i n g% A_ T A B% % nFMd e l s% F r a m e L o g f i l e s d e l e t e d f r o m % w h i c h D i r %
GoSub, W r i t e T o F i l e
```

## Table

Tables are handy if the code shall be commented, for example by a column with statement numbers or a column with the comment.

Tables offer the possibility to shade the background of the code easily. Define a table with no ruling, but shading. Only one column is needed. A second column may serve for numbering the statements or lines for reference.

Place the code as ordinary paragraphs and convert them to the table (one paragraph per row):

## Statement number in first column

```

1 Loop, %whichDir%FrameLog_*.txt
2   {
3     FileDelete, %A_LoopFileFullPath%
4     nFMdels += 1
5   }
6 text = Logging%A_TAB%%nFMdels% FrameLog files
   deleted from %whichDir%
7 GoSub, WriteToFile

```

Figure 4: Code snippet from WinStart.ahk

**Note:** To preserve indentation TABs during conversion, use “treat each paragraph as a cell” and add any other column later.

## More comments in third column

1	Loop, %whichDir%FrameLog_*.txt	Find all FrameLog files in directory
2	{	
3	FileDelete, %A_LoopFileFullPath%	
4	nFMdels += 1	Count the deleted files
5	}	
6	text = Logging%A_TAB%%nFMdels% FrameLog files deleted from %whichDir%	Compose message for log file
7	GoSub, WriteToFile	Append message to log file

Figure 5: Code snippet from WinStart.ahk with extensive comments

## Syntax highlighted code

If your code need to show syntax highlighting, it may be necessary to create snapshots from the code editor or a comparable service on the net (e.g. [GeSHi - Generic Syntax Highlighter](#)).

Snapshot from  
program editor

```

160 Loop, %whichDir%FrameLog_*.txt
161 {
162   FileDelete, %A_LoopFileFullPath%
163   nFMdels += 1
164 }
165 text = Logging%A_TAB%%nFMdels% FrameLog files deleted from %whichDir%
166 GoSub, WriteToFile

```

Snapshot from GeSHi

```

1. Loop, %whichDir%FrameLog_*.txt
2.   {
3.     FileDelete, %A_LoopFileFullPath%
4.     nFMdels += 1
5.   }
6. text = Logging%A_TAB%%nFMdels% FrameLog files deleted fr
7. GoSub, WriteToFile

```



# Hints and tips

## Overview

This chapter provides some hints to speed up your work.

*Solving real or assumed problems* gives you tips which result from the daily work with FrameMaker. For experts they may seem obvious, but not so for beginners.

For a complete list of all FrameMaker commands (for older versions both for the English, German and even French FrameMaker) see

[www.daube.ch/docu/fmaker08.html](http://www.daube.ch/docu/fmaker08.html)

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Solving real and assumed problems .....	11
Simulate an outline view .....	30
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# Keyboard input

## Short-cuts

Nearly any FrameMaker function can be invoked from the keyboard. ESC sequences (for example, ESC, o, F) are independent of platform, but depend on the User Interface (UI) language. Short-cuts using special keys depend on platform and (often) UI language.

Since FrameMaker 8 special characters can be entered as Unicode characters and hence some special input methods are no more needed. See *Entering Unicode text* on page 2-2.

Purpose	English FM version (Win)	Deutsche FM version (Win)	Unicode
Format paragraph <sup>a)</sup>	F9, <i>para_stylename</i> , RET	F9, <i>para_stylename</i> , RET	
Format characters <superscript>a.)	F8, <i>char_stylename</i> , RET	F8, <i>char_stylename</i> , RET	
Select graphic object	CTRL+click on object	CTRL+click on object	
Select 1st / next drawn object	ESC, o, F	ESC, o, F	
Select next drawn object	ESC, o, n	ESC, o, n	
Keep graphic tool	SHIFT+click the tool	SHIFT+click the tool	
Properties of selected / current object	ALT+g, p	ALT+g, o	
Open Paragraph designer	CTRL+m	CTRL+m	
Open Character designer	CTRL+d	CTRL+d	
Open Table designer	CTRL+t	CTRL+t	
Repeat last character modification	ESC, c, c	ESC, z, w	
Repeat last paragraph modification	ESC, j, j	ESC, A, W	
suppress hyphenation	ESC,n,s (front of word)	ESC, k, t (am wort-anfang)	
TAB in table cell	ESC, TAB	ESC, TAB	
Select entire table	triple click in any cell	triple click in any cell	
Select table column	Double click close to R/L border of cell	Double click close to R/L border of cell	
Select table row	Double click in the middle of a cell	Double click in the middle of a cell	
Add row after current row in table	CTRL+RET	CTRL+RET	
Go to anchor position (behind anchor)	ESC, t, SHIFT+i (cursor to be in table)	ESC, t, w (cursor in tabelle)	
Insert variable <i>name</i> <superscript>a.)	ESC, q, v, <i>name</i> , RET CTRL+0, <i>name</i> , RET	ESC, k, v, <i>name</i> , RET CTRL+0, <i>name</i> , RET	
Refresh display	CTRL+l (lower case L)	CTRL+l (lower case L)	
Hyperjump from references	ALT+CTRL+click on the reference	ALT+CTRL+click on the reference	
Previous view (goback) in same file	ESC, v, P	ESC, v, v	
Pick up graphic properties	ESC, g, O (upper case letter o)	ESC, g, O (upper cas letter o)	
Lock / unlock document (view / edit)	ESC, F, l (lower case L), k	ESC, d, Y	
Open silently <sup>b)</sup>	ESC, o, S	ESC, o, S	
Heroic open <sup>c)</sup>	ESC o, H	ESC o, H	
Open without updating references	CTRL+click on the Open button in the Open dialogue		
· (bullet) appearance strongly depends!	CTRL+q, % / ALT 0149	CTRL+q, % / ALT 0149	\u2022
† (dagger)	CTRL+q, SPACE	CTRL+q, SPACE	\u2020
‡ (double dagger)	CTRL+q, ' (grave accent)	CTRL+q, ' (grave accent)	\u2021
™ (trade mark)	CTRL+q,, *	CTRL+q, *	\u2122

Purpose	English FM version (Win)	Deutsche FM version (Win)	Unicode
© (copyright)	CTRL+q, )	CTRL+q,)	\u00a9
® (registered)	CTRL+q, (	CTRL+q, (	\u00ae
¶ (paragraph symbol)	CTRL+q, &	CTRL+q, &	\u00b6
§ (section symbol)	CTRL+q, \$	CTRL+q, \$	\u00a7
... (ellipsis)	CTRL+q, I (uppercase i)	CTRL+q, I (uppercase i)	\u2026
— m-dash	CTRL+q, Q / ALT 0151	CTRL+q, Q / ALT 0151	\u2014
- n-dash	CTRL+q, P / ALT 0150	CTRL+q, P / ALT 0150	\u2013
■ ■ m-space	ESC, blank, m / SHIFT+CTRL+blank	ESC, s, m / SHIFT+CTRL+leerstelle	\u2003
■ ■ n-space (m/2)	ESC, blank, n / ALT+CTRL+blank	ESC, s, n / ALT+CTRL+leer	\u2002
■ ■ thin space (m/12)	ESC, blank, t	ESC, s, t	\u2009 <sup>d)</sup>
numeric space	ESC, , l	ESC, , l	\u2007
■ ■ non breaking space (m/3.5)	ESC, blank, h / CTRL+blank	ESC, s, z / CTRL+leerstelle	\u00a0
nonbreakable hyphen	ESC, -, h	ESC, -, w	\u2011
optional hyphen	ESC, -, D / CTRL+minus	ESC, -, t / CTRL+minus	see NOTE
Straight single quote	ESC, CTRL+'		see NOTE
Straight double quote	ESC, " (SHIFT+2)		see NOTE

- Name can be abbreviated to significant length
- Another (empty) document must be open. No messages concerning missing graphics or fonts etc. are issued. this is a milder form of open Heroic. There may be hidden problems with the file, so be carefully with save.
- Another (empty) document must be open. This bypasses all sorts of checks to 'force' a file to open. Even damaged files can be opened most time. Before any changes save the file and reopen it normally.
- The Unicode Thin Space (\u2009) is 1/6 ... 1/5 of an m space, the FM thin space is 1/12 and hence may be equivalent to a Unicode Hair Space (\u200a).

**Note:** Do not use a Unicode character for these. These are FM-functions, not characters.

## Wildcard characters for Find dialogue

Use *Wildcard* must be set ON

Matching	Wild-card char.
Zero or more characters (excluding spaces and punctuation)	* (asterisk)
Any single character (excluding spaces and punctuation)	?
White space or punctuation	(vertical bar)
Start of line	^
End of paragraph	\$
End of flow, end of table cell, end of footnote <sup>a)</sup>	\f or \x0b
any character from list xyz (or alphanumeric)	[abcd] or [a-zA-Z0-9]
any character except the listed	[^abcd]
brackets	\[ and \]
Special characters such as TAB or m-dash	See <i>Special characters in dialogue boxes</i> on page A-4

- Table cells and footnotes are flows of their own. Hence when searching in document containing tables and footnotes and tables, the end of the main flow will not be found immediately!

To find a \$ or ^ while searching with Wild cards use \\$ or \^

**Example** To find *manually numbered* paragraphs (start the line with an optional text, then a figure, followed by a period and a TAB symbol), use this pattern: `^[0-9].\t`

**Note:** *There are no wildcard notations for the replacement text.*

## Special characters in dialogue boxes

Since FrameMaker 8 any Unicode character can be entered into the dialogues (for example  $\mu$ ,  $\dagger$  or  $\ddagger$ ). See *Entering Unicode text* on page 2-2.

However, many special characters are not available on the keyboard. They can be entered with a meta notation `\xxx` (the `\` ‘escapes’ from the literal meaning of the character). These meta-notations are independent of the UI language and platform.

Desired character	Meta	hex	Uni-code	Desired character	Meta	hex	Uni-code
TAB	<code>\t</code>	<code>\x08</code>		guillemet single left (‹)	<code>\l</code>		<code>\u2039</code>
forced return	<code>\r</code>	<code>\x09</code>		guillemet single right (›)	<code>\r</code>		<code>\u203a</code>
start of paragraph	<code>\P</code>	<code>\P</code>		guillemet double left («)			<code>\u00ab</code>
end of paragraph	<code>\p</code>	<code>\0a</code>		guillemet double right (»)			<code>\u00bb</code>
start of word	<code>\&lt;</code>			quote base single (‘)	<code>\,</code> (comma)		<code>\u201a</code>
end of word	<code>\&gt;</code>			quote base double („)	<code>\g</code>		<code>\u201e</code>
end of flow / end of table cell	<code>\f</code>	<code>\x0b</code>		quote double left 66 (“)	<code>\‘</code> (grave)	<code>\xd2</code>	<code>\u201c</code>
non breaking hyphen	<code>\+</code>		<code>\u2011</code>	quote double right 99 (”)	<code>\’</code> (s. quote)	<code>\xd3</code>	<code>\u201d</code>
optional hyphen	<code>\-</code>	<code>\x04</code>	NOTE	quote single (’)	<code>\"</code> (d. quote)	<code>\x27</code>	<code>\u2019</code>
suppress hyphenation	<code>\_</code> (u.score)	<code>\x05</code>	NOTE	accent circumflex (^)	<code>\@</code>		<code>\u02c6</code>
backslash	<code>\\</code>		<code>\u005c</code>	accent grave (`)	<code>\{</code>		<code>\u02c8</code>
non breaking space	<code>\u</code> (space)	<code>\x11</code>	<code>\u00a0</code>	accent tilde (~)	<code>\~</code>		<code>\u02dc</code>
numeric space	<code>\s#</code> or <code>\#</code>	<code>\x10</code>	<code>\u2007</code>	hungarian umlaut (¨)	<code>\&amp;</code>		<code>\u02dd</code>
thin space	<code>\st</code> or <code>\i</code>	<code>\x12</code>	<code>\u2009</code>	registered (®)		<code>\xa8</code>	<code>\u00ae</code>
n-space	<code>\sn</code> or <code>\N</code>	<code>\x13</code>	<code>\u2002</code>	copyright (©)		<code>\xa9</code>	<code>\u00a9</code>
m-space	<code>\sm</code> or <code>\M</code>	<code>\x14</code>	<code>\u2003</code>	trademark (™)	<code>\TM</code>	<code>\xaa</code>	<code>\u2122</code>
n-dash	<code>\=</code>	<code>\xd0</code>	<code>\u2013</code>	ligature Œ	<code>\OE</code>		<code>\u0152</code>
m-dash	<code>\m</code>	<code>\xd1</code>	<code>\u2014</code>	ligature œ	<code>\oe</code>		<code>\u0153</code>
bullet (·)	<code>\b</code>	<code>\xa5</code>	<code>\u2022</code>	ß (sharp s)	<code>\xa7</code>		<code>\u00df</code>
dagger (†)	<code>\d</code>	<code>\xa0</code>	<code>\u2020</code>	Y-trema (Ÿ)	<code>\Y:</code>		<code>\u0178</code>
double dagger (‡)	<code>\D</code>	<code>\xe0</code>	<code>\u2021</code>	z-caron (ž)	<code>\k</code>		<code>\u017e</code>
ellipsis (...)	<code>\e</code>	<code>\xc9</code>	<code>\u2026</code>	Z-caron (ž)	<code>\.</code>		<code>\u017d</code>
florin (f)	<code>\F</code>		<code>\u0192</code>				
per thousand (‰)	<code>\%</code>		<code>\u2030</code>	fraction, non breaking slash	<code>\/</code> (slash) <sup>a)</sup>	<code>\xda</code>	<code>\u2044</code>

a. This is taken from the Symbol font, hence does normally not match the body font

**Note:** *Do not use a Unicode character for these. These are FM-functions, not characters.*

# Characters with diacritical marks etc.

## Text entry

A rich keyboard (e.g. the Swiss one) gives you direct access to all accented characters (except those with ring). These can be entered both in text and dialogue boxes by two methods.

For characters not on your keyboard, but contained in the 'old' FrameMaker character set, you may use Escape sequences or CTRL+Q- sequences. See *Frame Roman code table* on page A-6.

Select from context menu

With *microtype*'s enhanced tool bar installed, you can select a great number of special symbols from the context menu. No foreign characters (such as Å) are provided though.

## Other Unicode characters

For characters not contained in the Frame Roman code page use the methods described at *Entering Unicode text* on page 2-2.

## Right-to-left scripts

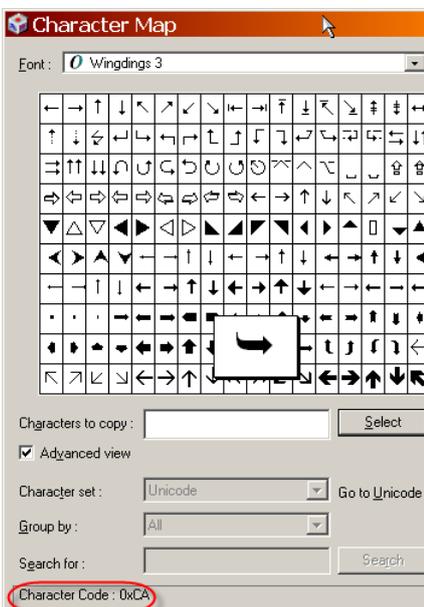
Scripts writing from right to left, such as arabic or hebrew are not supported by FrameMaker. Also Indic scripts are not supported. The Asian version of FrameMaker supports certain double-byte codes. Of course also a corresponding version of Windows is required for this.

## Symbols and dingbats

Symbols not belonging to an alphabet are collected in symbol fonts (for example: Wingdings, Symbol, Zapf Dingbats, Monotype Sorts, Mathematical PI).

There are numerous dingbats defined in the Unicode standard. However the fonts mentioned do not support the Unicode standard and hence these symbols must be accessed by their Windows code.

## Use symbol in text



For example, you want to enter the symbol ↩ into the text. This symbol is found in the font Wingdings3 at the location of the character Ê, which has the code CA = 202. Do the following:

### Quick and dirty:

- 1 Copy the symbol from the Character Map into the text. This enters the base character: Ê.
- 2 Apply the font wingdings3 to the character: ↩.

### Using character styles:

- 1 Define a character format (e.g. wingies) using the font Wingdings3.
- 2 Copy the symbol from the Character Map into the text. This enters the base character: Ê.
- 3 Apply the font property by character format (e.g. wingies).

2011-05-11

E:\FM-course\handout\tips.fm

D D D

## Use symbol in variable etc.

Using symbols from symbol and dingbats fonts is only possible in such dialogues which allow to define a character format: numbering of paragraphs, marker text, cross reference, user variable.

For example, to use an ↪ in an index marker as “see”:

```
changing <wingies>Ê</> finding and changing
changing <wingies>\xca</> finding and changing
```

## Frame Roman code table

Until FM version 7.2 only characters based on the McRoman <sup>29)</sup> code table were available. In FM 8 this table comes into play only with **Save As Document 7.0** or **MIF 7.0**.

### Notes about the code table

- Escape sequences Characters in rows 80 and 90 are created with `esc` sequences, e.g. to get a Å type `ESC, *, A` (3 key strokes).
- CTRL-q sequence Characters in rows a0 ... f0 are created by CTRL+q, followed by a character from the ASCII code page at a respective location ( $loc_{ascii} = loc_{fm} - 80_{hex}$ ); e.g. to get a P type CTRL+q, W (2 keys).
- fi fl These characters are available only on the Mac (FM 7.x). Windows FM 7.x does not handle these.
- Note:** *Characters CTRL-q v ... } are accents. For example CTRL-q v (^) and ^ are different characters.*

### Unicode ranges

In the Frame Roman code table characters from various Unicode ranges are present. These ranges are indicated by coloured background. For your convenience the Unicodes are provided in the third line of a code row (e.g. `\u00d9`).

none	Basic Latin		Latin-1 Supplement		Mathematical Op.		Spacing mod.
	Latin Extended-A		Alphabetic presentation form		General Punctuation.		Currency symbols
	Latin Extended-B		Letterlike symbols				

<sup>29)</sup> The MacRoman character table contains a number of symbols (e.g. infinity, less-than, Sigma, etc.) which are not present in the FrameMaker character set. These codes occupy characters from the ISO-8859-1 set. See [Apple's MacRoman character set](#) (check also section Differences).



## Non-width characters

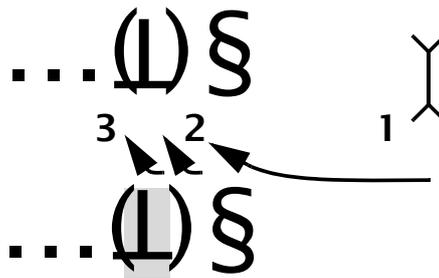
With **View > Text Symbols** active FrameMaker displays special symbols such as anchors, optional hyphens etc. This display must not disturb the layout – hence these characters have no width.

No width characters can be stacked at a place – for example, anchoring several tables at the same place. This makes it very difficult, to select a distinct element, which is either the special character itself (e.g. optional hyphen) or the anchored item. Even with 500% zoom factor you can not grab an individual anchor (if markers are not separated by blanks).

### Select a non-width character (or narrow characters)

- 1 Place the cursor behind the last recognisable character or the end of the paragraph (as in this diagram)
- 2 With the **arrow left key** move through the characters (in this case, before the closing parenthesis)
- 3 Hold down **shift key** while moving with the **arrow left key** over the anchor. This “extends the selection” (GUI term).
- 4 The anchored object becomes selected also. So you know, whether you have selected the right stuff..

This is any text with an anchor for the following table just here  
(¶)

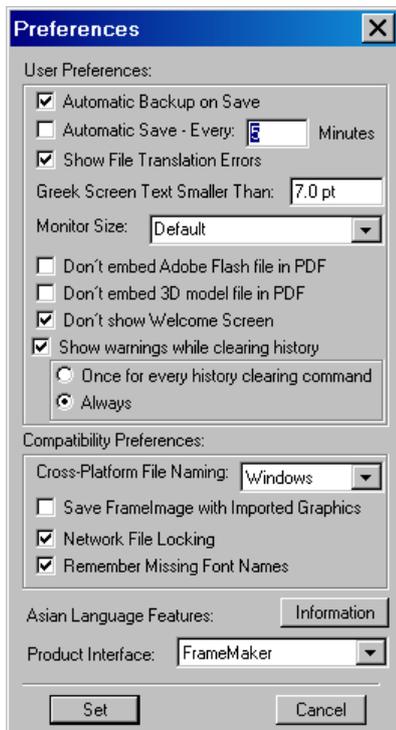



If you didn't catch the right thing, release the **shift key**, move back one character (in our case with the **arrow right key**) and repeat step 3 for any anchor which may be present left to the already found one.

Of course you can apply this procedure also from left to right.

# FrameMaker set up

## General preferences



With **File > Preferences > General** you set the most used preferences:

**Automatic backup or Save** creates a backup file whenever you open the file. This file is overwritten at the next open. If you want to preserve versions, you need to rename the backups.

**Automatic Save every *nn* Minutes** does not hamper your working speed, because a save takes only little time<sup>30</sup>. Use this option at least at the beginning of a new installation.

**Show File Translation Errors** is useful when opening files from another platform, which might not fully conform to the current platform.

Some actions clear the undo history and hence FM will issue warning messages when these actions are performed.

- ▶ To avoid these messages, uncheck **Show warnings while clearing history**.
- ▶ To reduce the number of messages, check **Show warnings ...** and choose **Once for every history clearing command**.

**Greek Screen Text** means display as gray box rather than text.

**Monitor size** should be left at Default. The value is used to adjust the divisions on the rulers.

**Save Frame Image with Imported Graphic** is set, if your files are exchanged between platforms and the native image format you import may not be available on the other platform.

Set **Cross Platform File Naming** to the most restrictive platform in your environment (Unix < Macintosh < Windows).

**Network File Locking** should be set, if you work directly on network files and others may try to open the file also. Avoid corrupted files by checking this option. FrameMaker will create a file *document.1ck* which is tested for existence at open.

Switch between unstructured (FrameMaker) and structured (Structured FrameMaker) with the drop-down-box **Product Interface**. You need to restart FrameMaker after a change.

Uncheck **Remember Missing Font Names** only for specific situations.

If a document contains fonts which are not available on your system and this option is not set then all unknown fonts are replaced by Times New Roman<sup>31</sup> and the information concerning the original fonts used is lost.

See also *Font issues* on page A-25.

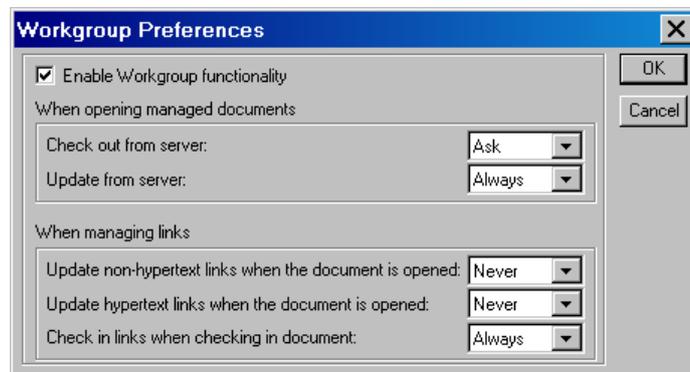
30 If the files are on a network, this option may cause delays in working.

31 Correctly: by the font defined in *maker.ini*, section **Fonts**, item **DefaultFamily**. Hence it is possible to specify the default font.

## Workgroup preferences

To work with shared files located on WEBDAV servers, you need to set up **File > Workgroup > Workgroup Servers**.

With **File > Preferences > Workgroup** you set preferences relevant for collaborative work.



Please consult Help with keyword workgroup for further information.

## Units of measure

[www.cl.cam.ac.uk](http://www.cl.cam.ac.uk) states:

The length of an inch changed from 1/0.3937 cm to 2.54 cm in 1959; the size of a point did not. Consequently, the imperial 'size' of a point changed from 1/72 inch to 1/72.27 inch. [Knuth 1984, The T<sub>E</sub>Xbook, p. 58]

DTP point = PostScript point.  
1 ATA pt (American Typefounders Association) = 0.013837".  
1 T<sub>E</sub>X pt = 1/72.27"

When entering just a numeric value into an entry field in a dialogue, FrameMaker uses the default unit (which depends on purpose). Hence for clarity always enter also the unit.

Unit	Enter into dialogue	metric Equivalent	Imperial equivalent	Definition
cm	cm	10 mm	03937. inch	
mm	mm	0.1 cm	0.03937 inch	
inch	in, "	2.54 cm	1 inch	USA, UK
pica	pc, pi, pica	4.2175176 mm	1/6 inch	12 points (ATA)
DTP point	pt, point	0.35278 mm	1/72 = 0.0139 "	1/72 US inch
Didot point	dd	0.376 mm	1.07 pt	1/72 French inch
Cicero	cc, cicero	4.531 mm	12.84 pt	12 Didot point

FM uses internally a unit of 1/1000 inch (1 MIL) = 0.0254 mm.

## Platform specific information

### Macintosh

FrameMaker 7.0 was the last version running on a Macintosh (System 9). Hence this compendium does not contain any specifics for the Mac flavour of FM any more.

You may find this information on my [web site](#). There is also specific information about how to run the Windows FM version on the Intel Macs.

### Unix

FrameMaker 8 is the last version running on Unix (only Sun Solaris). You may find some information for working on UNIX on my [web site](#).

# Solving real and assumed problems

See also hints and tips on the web: [www.daube.ch/docu/fmaker00.html](http://www.daube.ch/docu/fmaker00.html)

## Method to find the cause of problems

The general method to encircle problems is to bisect the document and check each halve.

By further narrowing down to one page and then to paragraphs, tables, graphics etc. you can find the culprit.

## General problems

### Warning: Undo behaviour

Since version 7.2 FrameMaker provides multiple undo. However there are still operations which can not be undone and which therefore clear the undo-history. See [this Adobe document](#) for details of the function.

If **Show warnings while clearing history** in **File > Preferences > General** is set, these messages may be quite annoying.

### Toolbar can not be switched

If for some reason FrameMaker (at least versions 6...8) was not installed with administrator rights, then the small triangles to switch between the 4 groups of the toolbar do not work.



Until your system support has re-installed FM correctly you may use the vertical tool bar, which actually is a palette. Activate the vertical tool bar with the button .

### Strange behaviour of document

There are situations where FrameMaker seems to have lost all its 'sense'. What's going on?

FrameMaker relies on the system services for storage management, and these are not very water tight. Hence you may get situations which are the result of lost pointers or other garbage in storage.

Most of these situations can be fixed with the following:

- ▶ Save the file in MIF
- ▶ Close the document (do not save it)
- ▶ Open the MIF file
- ▶ Save the file again as FrameMaker (you may wish to use a different name to the original one).

In most cases the file now behaves 'normal' again.

**Note:** *Since strange situations often happen after long work, it may be helpful to restart windows at least once a day.*

### Spelling checker does not check

See *Spell checking odds* on page 2-17 for a list of locations, where spell checker does not look into.

## Can not copy/paste text



Text selected from a text line (produced with graphic tool **A**) can be copied to the clipboard, however:

- it *can only* be pasted into a text frame (like this one);
- it *can not* be pasted into dialogue boxes;
- it *can not* be pasted into another application.

## Typed text is wrong

After working with graphics you may notice that your keyboard is switched to a different locale, for example from German to US (y and z exchanged, < instead of ; and so on).

When working with graphics you can move an object with **ALT+arrow** to nudge it by 1 increment. You may also use **SHIFT+ALT+arrow** to nudge it by 6 increments. This **SHIFT+ALT** is the default setting to switch locales in Windows. It is of course only active if you have more than one locales defined in **Control Panel > Regional and Language Options > Languages > Details**. You may wish to change the trigger key with **Key Settings ...** to something else than **left ALT+SHIFT**. Unfortunately the choices are meager.

You may also live with this behaviour and switch the locale with **SHIFT+ALT** back if you notice wrong input. It may be helpful to place an icon in the system tray showing the current locale.

## Find does not find

The Find function looks into the following areas:

- All text flows in the current set of pages (e.g. body pages)
- Text lines created with the graphic tool **A** directly on the body page (“on paper”).

*Note: Be aware that objects are searched in the order of creation. This may create the impression that things are not searched!*

The Find function does not look into the following areas:

- Text flows on other types of pages. When starting on the Body pages, it does not look into master pages etc.
- Text insets. These are separate files and must be searched separately. See *Text insets* on page 13-18.
- Text after a CR (`\x0D`) character (the search stops at these characters). These CR may be residues from a Word import. These characters can only be found when searching from back to front of the document. They can be eliminated by MIF washing.

The problem of searching words with interspersed markers has been solved in FM 8. Hence search for `gruppe profibus-dp` is now successful:

```
6.1) Gruppe PROFIBUS-DP / PROFIBUS-1
6.1.1) Funktionsgruppe EINSTELLUNGEN
```

## Find and Change crashes FrameMaker

Error in FrameMaker 8<sup>32</sup>): Find/Change operations causes a crash when more than 2499 items have to be changed.

- Workaround 1** Add the following line in the [Preferences] section in `maker.ini` (see issue #1555297 in FrameMaker 8.0's `ReadMeFirst.html`)
- ```
ClearHistorySpecial=0n
```
- After adding this entry, the Undo history will be cleared when a global Find/Change action is executed, and the global Find/Change action cannot be undone.
- Workaround 2** If the problems happens with a book, apply the find/change in individual chapters or groups of chapters.

### No reformatting possible

You can edit text in a paragraph, but you can not assign a paragraph format or character format. Obviously the paragraph is locked (most times caused by erroneous conversion of a text inset).

#### Solution

- ▶ Save the file as MIF
- ▶ In the MIF file search for `<PgfLocked Yes>`
- ▶ Change to `<PgfLocked No>`
- ▶ Save the MIF file and open it in FM - the paragraph can now be handled correctly.

## Display and layout issues

### Document window can not be accessed

When opening a document which has been maintained on a system with dual monitors you may be unable to reach a dialogue (e.g. find/replace) or a palette. In this case you have “parked” a palette or dialogue on the second monitor.

You do not need to go back to the system with the two monitors to fix the situation.

Edit the “personal” maker.ini file. This is located in Document and settings (for example C:\Documents and Settings\Klaus Daube\Application Data\Adobe\Framemaker\8.0\maker.ini)

Reposition the windows by setting x/y coordinates (*not* width and height) to 0.

```
[DialogLayout]
;           x       y       w       h
CCatalog=1535, 586, 136, 384
PCatalog=1673, 129, 136, 839
Hypertext=500, 120
CFormat=1397, 385           → character designer
```

### Useful Windows trick

To reposition a window, make it the active window by choosing its command from the menu (or by typing the keyboard shortcut), then type **Alt+space** to activate the title bar menu, and type **M** for Move.

**Note:** *Do not move your mouse! Experiment with holding down different arrow keys until the dialog box comes back into view.*

### UltraMon

If you control your dual monitors with **UltraMon** and temporarily have only one monitor active (but UltraMon started anyway), you may move a hidden window to the active monitor by these operations:

- 1 Activate the window in question with its command or menu
- 2 Type **ALT+space, arrow up, ENTER** (This selects Move to Other Monitor) - *Do not use the mouse during this operation.*

### Display jumps back when scrolling

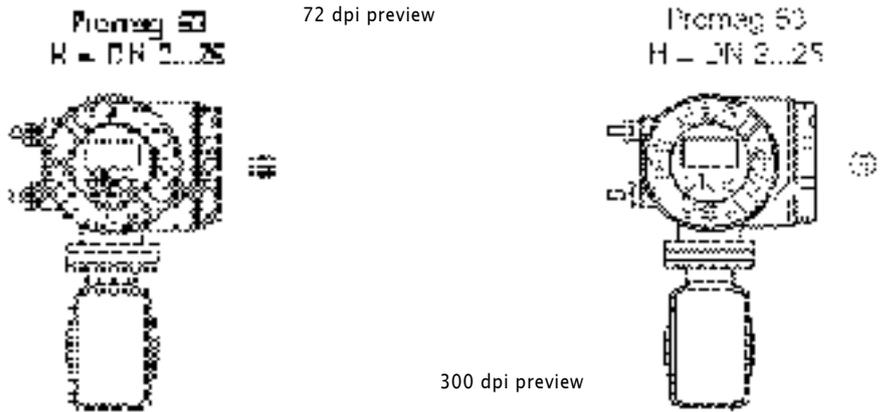
This is a known bug since FM version 4 at least. The problem is caused by graphics with property “run around” which touches or overlaps a text frame (which may be on a master page).

- FrameMaker 6.0 and above should have cleared this problem.
- Use the free plug-in RunaroundNone ([www.frameexpert.com](http://www.frameexpert.com)) to remove the runaround property from all graphics.

### EPS looks awful on screen

An eps may contain a preview image, which is displayed on the screen. The resolution of this preview image can be set in

most graphic applications. If not, a default of 72 dpi (dots to the inch) is used. Compare the two screen images:



If you need to position graphic elements (arrows, pointers) precisely or to get an idea of small print on an imported eps, you need to create it with a good preview picture. Just zooming into the image in FrameMaker does not do the job.

**Note:** *Much better handling is done if you first convert the eps to a PDF (distilling the eps). It may be necessary to crop the PDF page after creation.*

**EPS prints, but on screen is only gray area**

What you see on the screen is just the preview image contained in the eps (the other part of the eps is the Encapsulated PostScript). However, an eps can be produced (depending on the creation program):

- without any preview. Then of course FM can not display anything but a gray area.
- with a preview not interpretable on the current OS. For example, eps created on a Mac often contain a preview image of the format pict - which in most cases can not be viewed on a Windows machine. Again you see a gray area. If created on UNIX, the preview may be in format xwd (X Window Dump).
- with a “standard” preview of format TIFF - but there are so many variants of TIFF defined, that you may end up with one indigestible on your system - and again you just see a gray area.

**Remedy** If you can not sort things out with the creator of the graphic you may do this:

- 1 Print the page with the image to a PostScript file and create a PDF from it. In FrameMaker you can directly create a PDF (save as PDF) from a single page document.
- 2 Crop the page in Acrobat to the size of the image and export as eps with preview.
- 3 Import the eps to FrameMaker.

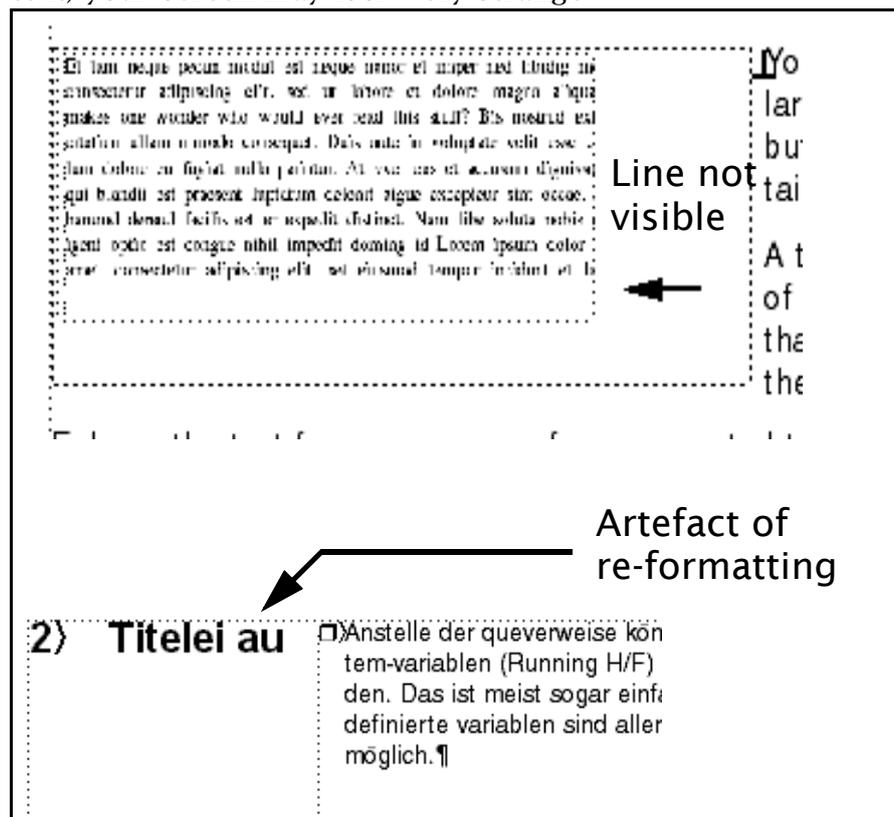
**Note:** *FrameMaker can handle PDF as graphics, so you do not need to create an eps at all. The PDF may hold several pages which can be addressed individually at import - the eps can hold only one page.*

**More PDF problems**

For solutions to more PDF problems see *Some problems with PDF files* on page 10-17.

## Destroyed file contents?

After some work (e.g. delete rows in tables, heavy editing of text) your screen may look very strange:



- line thicknesses are wrong
- lines are lost
- text lines are intermingled
- graphics are incomplete
- etc.

Don't panic, force a screen refresh either with **CTRL+I** (lower case L) or **PageUp**, then **PageDown** or other scrolling and do not forget to enlarge the image (the line may simply 'fall between the pixels' as in the depicted case).

## Text can not be selected



You can not select text, as long as the cursor has the shape of a hollow arrow. Wherever you click with this cursor, the object (text frame) is selected (you see the handles of the object) - not the contents (the text).

Check the tools palette for the cursor setting. It will look as displayed in the image.

You must select the 'intelligent' type of cursor (left button with the two cursor shapes on it).

## Paragraph can not be removed or changed

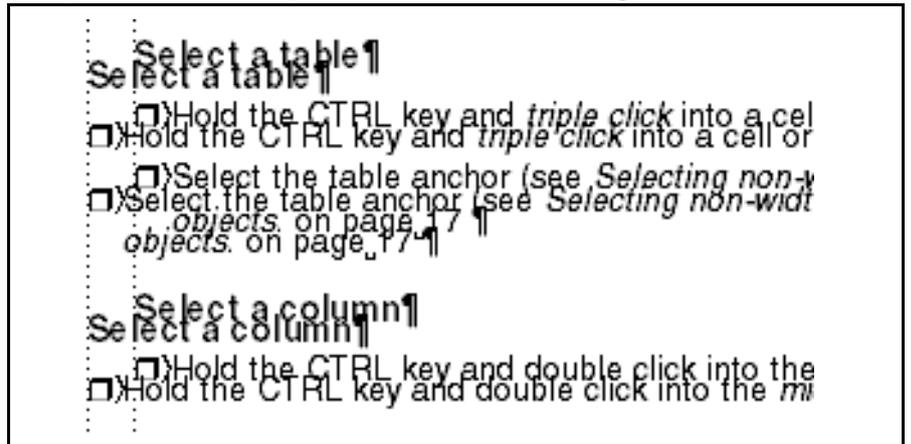
After deletion of text insets you may have a paragraph, e.g. at the end of a chapter, that can not be removed, its format changed or otherwise manipulated.

- Save the file as MIF, open MIF in a good text editor.
- Search for `<PgFLocked Yes>` and assure the correct paragraph by checking the text around it.
- Delete the MIF line and save the MIF, re-open in FM.

## Ghost objects

Real duplicates

You can access any object (e.g. a text frame) with **CTRL+click**. But you create a duplicate with **CTRL+drag**...



The current (selected) object is the duplicate which you can delete. It is often possible to undo the duplication operation.

Additional table headers

Another type of ghost object is an additional table header on subsequent table pages

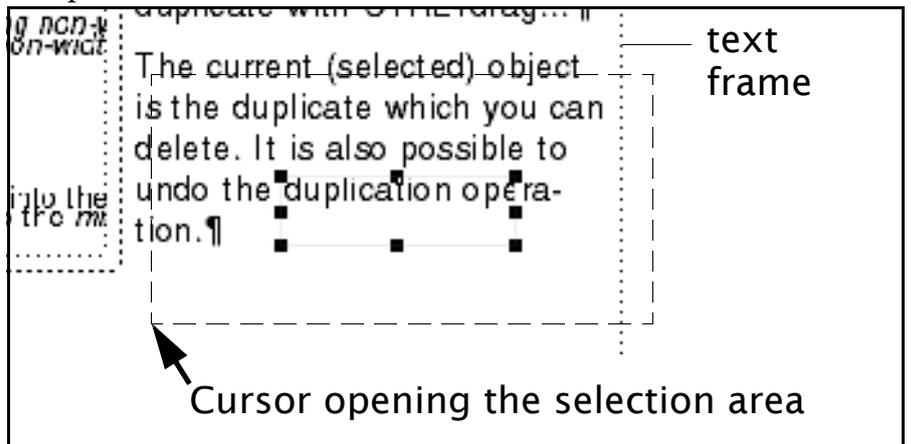
| The original heading row                                                    | Original heading row       |
|-----------------------------------------------------------------------------|----------------------------|
| <b>This is something you can not get rid of, but you can not select it!</b> |                            |
| The first table cell                                                        | the second table cell      |
| and the next table cell                                                     | the fourth table cell      |
| the last line in the table                                                  | the last cell in the table |

Try to cure this situation by

- Switching to the master pages, to look whether there is something wrong.
- Switching back to the body pages with **Remove Overrides** activated.

## Concealed objects

Sometimes you can just see the black handles during the build-up of the screen. They are invisible when the screen is complete

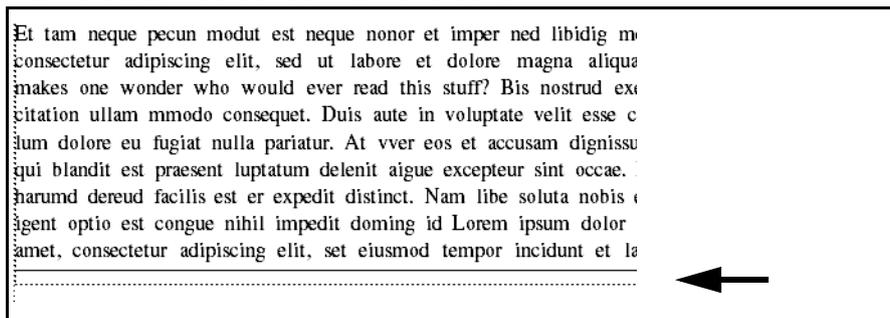


If you suspect invisible objects,

- ▶ Start a selection rectangle **outside** the text frame and sweep the suspected area.
- ▶ This will select the hidden objects (if there are any).
- ▶ Bring them to the foreground with **Graphics > Bring to Front**

## Where is the text?

You have just imported a large text into a text frame, but the frame does not contain all the text.



A thin solid line at the bottom of the text frame indicates that there is more text than the frame can hold.

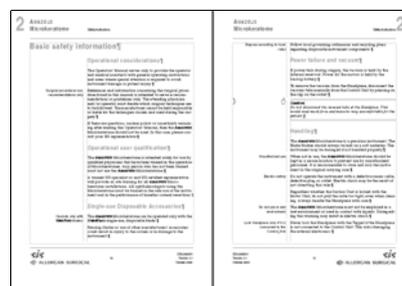
Enlarge the text frame or arrange for a connected text frame with the same text flow name.

## Can not see facing pages

You have reduced the zoom factor to a value with which pages could be arranged face to face (for example, to check the layout), but they do not:



What you see



This is, what you want to see.

You may need a lower zoom factor if rotated pages are in the document.

The view of a document is saved in the file, hence you can have a different view on each open document.

In **View > Options...** select **Variable** for Page Scrolling to get the display of facing pages.

## Optional (discretionary) hyphen not working

You may see ample space at the end of a line and try to split the first word in the next line – but the word is not hyphenated...

You have just hit a WYSIWYG problem: with standard installation FrameMaker displays fonts with font metrics for optimised presentation of shape – but what we need is optimised placement similar to the placement of text in the printed page. See *Display character positions correctly* on page 32 for a suggestion.

DisplayUsingPrinterMetrics=Off

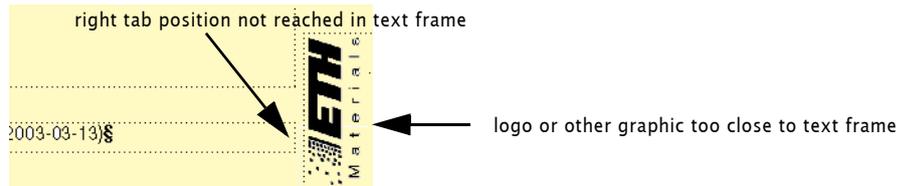
Hecate est Iovis et Latonae filia, soror. Est tr-  
 icopor et triceps, magicarum artium magistra ac  
 fascinationum praeses, cinctra latrantium ca-  
 num turma; noctu stans in triviis vel prope  
 sepulcra et ubi loca sunt caedibus contaminata. §

DisplayUsingPrinterMetrics=On

Hecate est Iovis et Latonae filia, soror. Est tr-  
 icopor et triceps, magicarum artium magistra ac  
 fascinationum praeses, cinctra latrantium ca-  
 num turma; noctu stans in triviis vel prope  
 sepulcra et ubi loca sunt caedibus contaminata. §

### Right tab not working

When setting up text frames the inside text may not behave as expected. For example, a right tab might not be executed:



**Reason** Watch out for a graphic close to the text frame. The graphic may have the (default) run-around property “Run around Contour” with a gap value > 0.

As soon as this kind of graphic is closer to the text frame than the gap value (or the graphic overlaps the text frame), the graphic will push text away.

**Correction** Remove any overlap or influence of the graphic by:

- placing the graphic far away from the text frame (distance > gap value), or
- setting the run-around property of the graphic to “Don’t run around”, or
- Allowing “Run around Contour”, but setting the gap value to zero.

### Heading numbers are wrong

In a single file document with sections and subsections are correctly numbered 1, 1.1, 1.1.1 etc. However, rather than sections 3 and 4 I get 5 and 6 although the numbering in the heading formats is as follows:

Heading1 S: <n+>. < =0>< =0>< =0>  
 Heading2 S: <n>. <n+>< =0>< =0>  
 Heading3 S: <n>. <n>. <n+>< =0>

**Correction** Autonumbering in FrameMaker is rock-solid. These problems are always caused by intervening paragraphs that have unintended autonumber counters. To find these (without an appropriate script):

- ▶ Insert the cursor into the first misnumbered heading (or other misnumbered paragraph)
- ▶ Open the paragraph designer on tab Numbering and note the numbering label (in this case S:).
- ▶ Move the cursor upwards through the paragraphs and watch the **Autonumber Format** in the paragraph designer. Do not move too fast to avoid overlooking paragraphs with small font sizes!
- ▶ The culprit uses the same numbering label, but with incorrect numbering pattern, such as S: <n+>

**Table does not split at desired row**

For a scripted solution see [FrameAutomation.com](http://FrameAutomation.com).

A table can not split automatically at a certain row, if

- vertically straddled cells hold rows together. Look at all columns to find overlaps of vertically straddles cells.
- the table attribute “start on next page” forces a table start.
- the attribute “float” keeps the first page together
- Rows are kept together with “keep with next” or “keep with previous”.

Example for vertically straddled cells

The bordered frame is the text frame simulating 2 pages containing the table

Watch the vertically straddled cells which block table rows.

| The heading of the table |  |  |
|--------------------------|--|--|
|                          |  |  |
|                          |  |  |
|                          |  |  |
|                          |  |  |
|                          |  |  |
|                          |  |  |
|                          |  |  |

page x

| The heading of the table |                            |                                                      |
|--------------------------|----------------------------|------------------------------------------------------|
|                          | Vertically straddled cells |                                                      |
|                          |                            |                                                      |
|                          |                            | Vertically straddled cells overlap those in column 2 |
|                          |                            |                                                      |
|                          |                            |                                                      |
|                          |                            |                                                      |
|                          |                            |                                                      |

page x+1

## Importing and graphics

### Problems with imported graphics

Vendors of graphic software tend to modify 'standard' output formats, which are needed to exchange graphics between applications (DXF, EPS, TIFF, WMF, etc.).

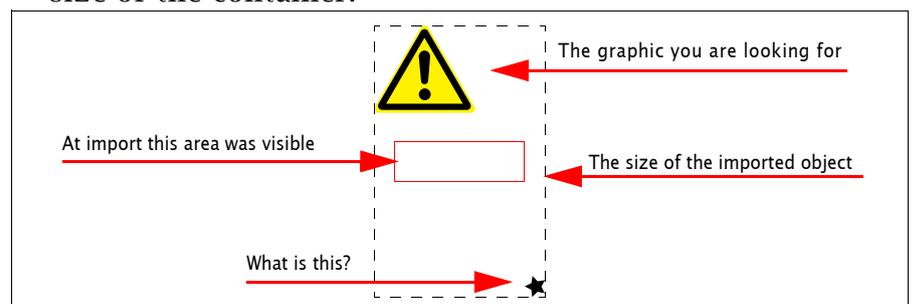
If you encounter problems with a FrameMaker document after importing a graphic, at first blame the graphic or its creating application. To fix the problem:

- Import the graphic to another application - does it create problems also there?
- Get another version of the graphic.
- Get the graphic in a different format (jpg ↔ jpg2)
- But: there may also be problems in the import filters ...

### Imported graphic is not visible

If you import a graphic and it is not visible in the container (page, anchored frame, graphic frame), you may just see a white portion of it:

- 1 Select the container frame and with **CTRL+a** select all its contents. You will not see the object handles inside the now unselected container.
- 2 If there is really no graphic in the container, all graphic menu items (or buttons) are greyed out. You will re-import the graphic.
- 3 Group the invisible selection just in case more than one object is in the container.
- 4 Scale this contents down very much and **Align Tops** and **L/R Centers** it in the container.
- 5 Now you should see the complete graphic, at least very small. Grab a corner handle and enlarge the graphic to the size of the container:



- 6 Now you may see what (might have) happened:

In most cases a small object is included in the complete graphic - especially if an eps was created from a CAD drawing not all surrounding stuff might have been removed.

The small objects may even be far out of the paper on the pasteboard of the drawing application (e.g. Illustrator). To avoid this error, you should not **select all** before creating the eps, but select only the desired items and then create the eps.

## Full path of inserted graphics

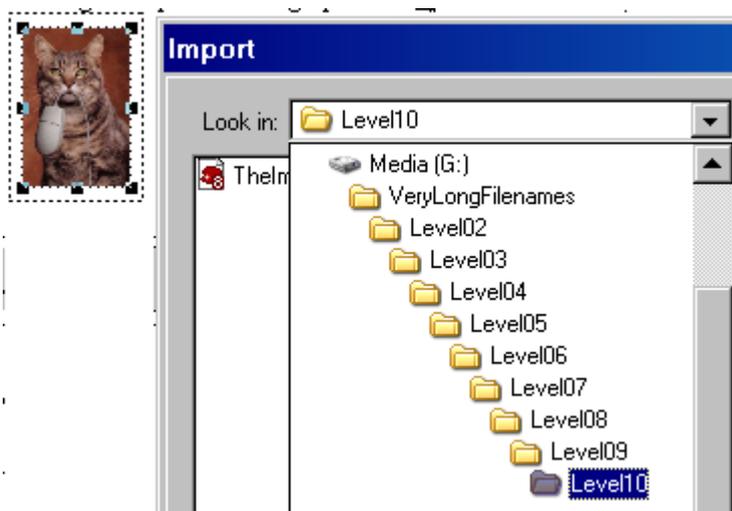
The object property dialogue does not display the full path of an imported object, if the path name is too long:

G: \VeryLongFileNames\Level 02\... \TheImage.png  
 E: \VeryLongFileNames\L... 03\Level 04\TheImage.png  
 ... \Samples\Glossary... s\Graphics\TheImage.png

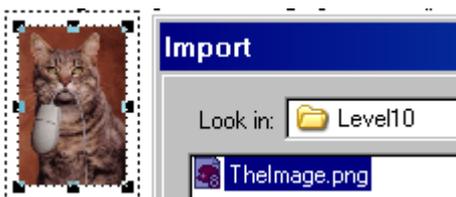


Relative paths are used only up to a certain level of directories. I have not yet found out what this level is. In the above examples the path for the document containing the image is E:\FM-specials\Tips\GraphicsFiguresEps\Path-of-graphics.fm

**Method one** Find out the full path name by 're-importing' - just opening the import dialogue for the selected image. In the Import dialogue expand the Look in the drop down list to see the full directory hierarchy.



**Method two** If you have the extended **Send to** function implemented in Windows, you may get the full path with the **Send To Clipboard** function on the selected file:



G: \VeryLongFileNames\Level 02\Level 03\Level 04\Level 05\Level 06\Level 07\Level 08\Level 09\Level 10\TheImage.png

If you don't find this useful tool anymore on the [MS-site](#), here is a copy of [W95powertoy.zip](#). Unzip and right-click on SENDTOX.INF and select **Install**. It works fine in Win NT4, W2K and XP (although MS negates this).

## Colour issues

### Colours of imported image looks strange

Images which were prepared for commercial colour printing may look strange when imported to FrameMaker. They have been set up in the CMYK (cyan, magenta, yellow, black) colour model, while Windows displays this image converted to the RGB (red, green, blue) colour model.

FrameMaker stores colours internally as CMYK values. When printing in Windows these colours are converted to RGB values, which may change the appearance due to conversion errors and inaccuracies.

### Inconsistent colour

One of the most pertinent errors is the inconsistent definition of colour in files. You can not get rid of this without major work:

Import colour from correct document

- 1 Open a document from which you know that the colours are OK
- 2 Open the document with incorrect colour definitions.
- 3 Import only the colour definitions (**File > Import > Formats...**) from the clean source document.
- 4 This import is cumulative, that is, special colours in the target document are not removed.

Start with an empty document

- 5 If the problem persists when updating the book with the file in question, an imported graphic may be the culprit.
- 1 Set up an empty file with **File > New > Document > Portrait**
- 2 Delete all entries in the catalogues (paragraph, character), the table designer, the cross-reference formats.
- 3 Import the desired formats from the file with the colour error - *but do not import the colour specifications!*
- 4 If you really have a special colour set up, do it again.
- 5 Select the text in the file with the error and paste it into the new file. You may use **Select All (CTRL+A)** to get everything.

**Note:** *In many cases, however, this method import the error with the selected text (and graphics included etc.)*

Just live the annoyance

Ignoring the problem is only possible if you do not intend to take this document to a commercial printer!

### Imported graphics

Imported graphics can be the source of invalid colour definitions. To find the graphic which causes the problem,

- Remove one by one of the graphics and check for the problem. As soon the problem disappears, you have found the graphic in error.
- The colour definition in the erroneous graphic can only be handled in the application in which the graphic was created.
- If the problematic graphic is an eps (Encapsulated PostScript), a TIFF or JPEG the original application can not be

determined by the graphic type. Only Your intelligence can help here ...

## PDF colour does not match FrameMaker colour

Especially if a particular colour is defined by selecting from a colour library (Pantone, etc.) the colour in the PDF will look differently than you see it in the FrameMaker, although it may print correctly from the PDF.

The reason for is a colour model change from CMYK to RGB.

In maker.ini set the following parameter:

GetLibraryColorRGBFromCMYK=**None**

Explanation <sup>33)</sup>

This option in maker.ini allows control over the display and printing of library colours (e.g., Pantone) in FrameMaker. The default setting (Printing) is correct, but the display and print color may be different from previous versions.

Most library colours contain a CMYK value and a RGB value. The CMYK value is used for printing and the RGB value is used for screen display.

There are 4 values which can be used with this option:

**Printing&Screen** This is the FrameMaker 5.x behaviour. It will display and print the converted RGB value.

**None** This is the FrameMaker 5.5 behaviour. It will display and print the RGB value produced by the color library.

**Printing** This is the default in FrameMaker since version 5.5.6. It will display the RGB value produced by the color library and print the converted RGB.

**Screen** This displays the converted RGB and prints the RGB values from the library.

## Image in PDF cropped

When importing large PNG files you may notice that at the bottom the graphic is cropped (inside the anchored frame. To avoid this, do one of the following:

- Convert the graphic to PDF and import the PDF.
- Add white space (enlarge canvas) to the graphic.

## Huge number of colours

You may notice a huge number of colours in your colour catalogue after importing graphics of format png (portable network graphic). These colours are named RGB nnn,nnn,nnn. You should not delete these, but also not apply to any objects, since these colours may get lost when the file is saved as MIF (see [www.microtype.com](http://www.microtype.com)).

**Note:** *You get these colours only for 256-colour (8-bit) PNG files. Hence use also for screen shots PNG with 'millions of colours'.*

<sup>33</sup> [steve, schwedland.com; 2003-08-23 in <http://www.freeframers.org/archive/03/msg00941.html>], [<http://kb.adobe.com/selfservice/viewContent.do?externalId=324220>]

## Font issues

### Font xxx missing

See also *Be aware of unavailable fonts* on page A-9

When opening a file, the following error message may occur:

Document named abc uses unavailable fonts.

To reformat the document using available fonts, click OK

In the FrameMaker console window you see what has been found and substituted:

The "Gugus" Font is not available.

"Times-Roman" will be used in this session.

| Situation                                                                                                                                             | Action |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| The unknown fonts are important and they must not be substituted permanently by the FrameMaker default Times.                                         | Cancel |
| <b>Activate File &gt; Preferences &gt; Remember missing Font names.</b> Now open the file again (you get the same message).                           | OK     |
| The unavailable font is not essential or just a variation of Times.                                                                                   | OK     |
| Whether the substitution is permanent or just in this session, depend on the setting of <b>File &gt; Preferences &gt; Remember missing Font names</b> |        |
| You want to get rid of the unavailable fonts in the document                                                                                          | Cancel |
| <b>Activate File &gt; Preferences &gt; Remember missing Font names.</b> Now open the file again (you get the same message).                           | OK     |
| Save the file; <b>Deactivate File &gt; Preferences &gt; Remember missing Font names</b>                                                               |        |

**Note:** *If you can not get rid of the unavailable font by these measures, the font may be used in hidden places. See the following sections for solutions to find them.*

### Where is the unavailable font used?

Before applying any corrections, make a copy of your document and work in this copy!

Start with the standard procedure: Use the **Edit > Find/Change** dialogue to search for a Character Format. In the character definitions dialogue set all but the font family name **to as** is.

**Note:** *You need to search the body pages, the master pages and the reference pages for the font and correct any use of it.*

Known places of font usage which may not be found with standard Find or **Special > List of References ... > Fonts** are:

- Unused ¶- and character-formats which are in the catalogue.
- Straddled cells in a table hide the unused cells which may contain paragraph formats or character formats no more in the catalogue.
- Graphic text lines (created with the graphic tool A), even empty ones (tool selected and then clicking but not writing something). These empty objects can not be found by the search function. At best use the FrameScript Script `DeleteEmptyTexlines` from Michael Müller-Hillebrand. If you do not have FrameScript available, you need to check every anchored frame:

- Select the anchored frame, then select all objects with **CTRL+a**.
- If you get grouped objects, ungroup them until ungroup is not possible anymore.
- Check for empty objects and deselect them by holding the shift-key while you click on such an object.
- Group everything which is left selected
- Select All again, deselect the grouped object. Only the empty objects are selected now. Delete them.
- Objects originally placed in an anchored frame may become hidden, if the frame is resized before the objects were moved to the remaining area. To find these:
  - Select the anchored frame, then select all contents with **CTRL+a**
  - Bring all object into vision by aligning them both horizontally and vertically to centre. Of course this destroys the image, but lets you find all objects.
- Some text may be hidden by text conditions. This text can not be found by the search function. So make everything unconditional before you search for the font.
- Some text may be hidden by means of a non-printable or non-visible colour (check the **View > Color > Views**)
- Markers may use character formats - but these you have checked already, did you?
- Master pages and reference pages must be searched in addition to the body pages. Also here you may find all sorts of items using character formats or even local formatting. On the reference pages watch out for empty text lines!
- Be aware that even for a single-sided document there is a Left master page - switch the document to double sided to see it.
- There may be a master page `HiddenPage` (or similar) to keep all the conditional text which is set to be invisible.
- Paragraph and character catalogues in book files may use old definitions. Hence generated files may present unknown fonts. You can get rid of these only by newly setting up the book. Just importing formats into the book file does not delete the old stuff, because **Import Formats** is cumulative.
- Against common belief font usage in an eps or pdf are not considered by FrameMaker. FrameMaker does not look into these files.

Before applying any corrections, make a copy of your document and work in this copy!

See more on unavailable fonts on the [author's website](#).

---

## Issues with generated documents

### TOC entries not in correct order

The entries in a Table of Contents (TOC) and similar lists are built from the specified ¶ formats. The standard flow (A) is scanned at first and only after that all other text flows (in arbitrary text frames) are scanned.

The order of scanning these text frames is defined by their order in the document, but after the main text frame.

This wrong order also appears in the bookmarks in a generated PDF of that document.

### Persistent unresolved cross references

Whenever you open a file that contains one or more cross-references, FrameMaker refreshes each of those references. If the reference is to another location within the same file, the refresh is straightforward unless the cross-reference truly is unresolved due to a missing or hidden cross-reference marker.

If the reference points to a location that is in another file that is already open, the process is similarly straightforward. But if the reference points to a location that is in a file that is *not* already open, FrameMaker has to silently (without showing anything on your screen) peek inside the target file to retrieve the latest information for the reference. If that file has any sort of problem that would throw a warning message during a non-silent open (e.g. an unavailable fonts message), FrameMaker is unable to peek inside it and therefore cannot find the marker it's looking for.

It reports this failure to find the marker as an unresolved cross-reference. If you start by manually opening the file with the missing fonts issue, so that you can manually dismiss the warning message, then you will not get an unresolved cross-reference warning when you open the original file because FrameMaker can now find the target marker when it updates the cross-references.

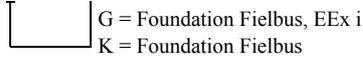
[Fred Ridder, 2009-05-20]

## Printing and presentation issues

### Misalignment between text and graphics

Sometimes graphic elements are needed as an overlay to the text on the page (The U shaped line in the example below).

Messsystem Promag 53 (Kompakt-Ausführung)

Promag 53\*\*\* - \*\*\*\*\*x  


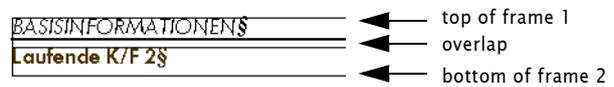
To place the graphic correctly you will use a large zoom level. However, the printed version may still be different and not accurate.

To avoid this effect, change the `maker.ini` file according to *Display character positions correctly* on page A-32.

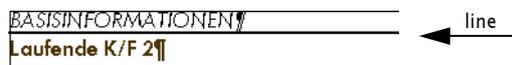
### Accents not displayed in running header



Reason The running header is overlapped by another graphic element - in this case with the top text frame of the first header line. In the figure below the text frames are visualised with a border.



Correction Remove the overlap of the text frame, for example by replacing the two text frames by one of proper height containing both header lines. The separating line must be *moved to front*.



### EPS prints badly

If an eps looks pixelated (check with slanted lines) in the printed output, the reason might be:

- inadequate printer driver (or wrong PPD for PS-printer)
- non-PostScript printer

### Can not print A0 or poster

If you try to print (or make a PDF) from a document of large paper size, you may get only part of the page printed. Although FM allows to define paper sizes up to 216×216 inches (5486×5486 mm), the process is limited by the maximum number of pixels in a row (width or heights of paper) to

32000 (exactly probably  $2^{15} = 32768$ ). Hence paper size and printer resolution are connected.

The maximum printer resolution [dpi] for a given paper extension =  $32000/\text{length [mm]} * 25.4 [\text{mm/inch}] = 812.8/\text{length [m]}$ .

| Length [mm] | Threshold resolution [dpi] |
|-------------|----------------------------|
| 1000        | 813                        |
| 1500        | 542                        |
| 2000        | 406                        |
| 2500        | 325                        |
| 3000        | 271                        |

On the other hand the maximum paper extension depends on the printer resolution.

| Paper format | Length [mm] | Threshold resolution [dpi] |
|--------------|-------------|----------------------------|
| A4           | 297         | 2736                       |
| A3           | 420         | 1935                       |
| A2           | 584         | 1392                       |
| A1           | 840         | 967                        |
| A0           | 1169        | 695                        |

See also [daube.ch/docu/fmaker43.html](http://daube.ch/docu/fmaker43.html).

Due to old GDI-routines (Graphic Device Interface) called by FM even in Windows XP the print output or PDF generation may fail. You may miss characters and/or the positioning of characters is weird.

Remedy to this problem *may* be:

- Stick to the Adobe PDF printer driver (formally called Distiller Printer).
- Reduce the number of active fonts to about 1500 to avoid corruption of font cache file.
- Delete the font cache file FNTCACHE.DAT most likely in `C:\WINDOWS\system32\`. It will be rebuilt.
- Size of virtual memory should not be below 1GB for real work (on XP)
- Reduce either the paper size or the printer resolution (Tabloid size (17") with 2400 dpi regularly creates problems). The error is related to *Can not print A0 or poster* on page A-28.

See also [lists.frameusers.com](http://lists.frameusers.com).

**Note:** *This problem has been fixed by MS around the beginning of 2008 for XP SP2.*

## Missing characters in output

## Network issues

For problems with network, such as very slow read/write access, no access at all or inability to save a file, see the author's [website](#).

# Simulate an outline view

## Keyboard input

- Short-cuts
- Wildcard characters for Find dialogue
- Special characters in dialogue boxes
- Characters with diacritical marks etc.
- Right-to-left scripts
- Symbols and dingbats
- Frame Roman code table
- Non-width characters

## FrameMaker set up

- General preferences
- Workgroup preferences
- Units of measure
- Platform specific information

## Solving real and assumed problems

- General problems
- Display and layout issues
- Importing and graphics
- Colour issues
- Font issues
- Issues with generated documents
- Printing and presentation issues

## Simulate an outline view

### Recommended setup of FM

- Set reasonable default for your work
- Modifications to maker.ini

The following method was developed by Peter Gold, Know-how ProServices.

- 1 Create a TOC that extracts all the heading paragraph formats that you want in an outline. Be sure to check **Make Hypertext Links**. The TOC can be for a single document or a book.
- 2 Modify the \*TOC paragraphs formats to indent the way you want.
- 3 Format the TOC page to a narrow column, and a height that's readable when zoomed to full-height on your screen.
- 4 Set the zoom to Fit Page to Text Frame.
- 5 Arrange your screen with the narrow outline frame next to the document page frame.
- 6 Use **Ctrl+Alt+Click** on a heading in the TOC to move the insertion point to that heading, so you can edit at that location.
- 7 Regenerate the TOC

### Notes

- To make the links in the TOC active with a single click, instead of with **Ctrl+Alt+Click**: convert the document to “read only” with **ESC, F, k** (and make it editable again with the same sequence).
- To reuse the outline TOC, save it to a new name. This is handy if you've moved stuff and then need to restore the original order.
- Save the “real” TOC with a new name, and save a copy of the narrow outline TOC to a new name. When you want to generate the real TOC, close the outline TOC and delete or rename it, then open the real TOC, save it to the correct name, and generate.

# Recommended setup of FM

Starting with FM-7 the `maker.ini` file in `$HOME` is the template for the active `maker.ini` stored in the user area:

```
%APPDATA%\Adobe\FrameMaker\version
```

`%APPDATA%` is the Windows symbolic name for the user data area.

**Note:** *You need to modify the user-specific `maker.ini` when experimenting with values. To get a fresh copy of `maker.ini` in the user data area, delete the `maker.ini` there before starting FrameMaker.*

## Set reasonable defaults for your work

### Zoom factors

To get reasonable zoom factors in your session, adapt the zoom factors to the screen size and resolution. The following is for an 20" display. In section [Preferences]

```
set to Zoom=28, 36, 50, 74, 90, 125, 200, 353, 500, 1000
```

When zoomed to 353% a nudge (moving an object by **ALT+arrow** key or ) moves by 0.1mm steps <sup>34</sup>.

### Dash patterns

The following setting provide finer patterns than the FM default settings. In section [DashPatterns]

```
set 1=Dash, 8, 4
    2=Hi dden, 4
    3=Longdash, 16, 8
    4=Dot, 2, 4
    5=Dash-Dot, 8, 4, 2, 4
    6=Dash-Dot-Dot, 8, 4, 2, 4, 2, 4
    7=Chain, 8, 4, 4, 4
    8=Phantom, 20, 4, 4, 4, 4, 4
```

### Line widths

The default line widths for graphics are rather coarse. In the section [Preferences]

```
set (for example) to PenWidths=0.28pt, 0.7pt, 1pt, 1.4pt
                    or (will display as values converted to pt)
                    PenWidths=0.1mm, 0.25mm, 0.35mm, 0.5mm
```

### Snap and grid

Be aware, that some of these settings from the section [Preferences] are overridden by document settings.

```
Snap=On
Gravity=Off
DefaultRulerCm=0.1cm
DefaultGridCm=1cm
DefaultSnapCm=0.1cm
```

### Template path

If you want to get document templates from a special location, change in section [Directories]

```
from TemplateDir=templates
```

<sup>34</sup> A nudge is defined as 1pt at zoom factor 100. Hence a factor of 353 nudges by 0.1mm (1 pt = 25.4mm/72 = 0.3527 mm)

```

Templates=templates
to (for example) TemplateDir=D:\_doc-std\Fram
Templates=D:\_doc-std\Fram\FM-templates

```

## Smart quotes

Define the proper typographic quotes for the main language in your documents in section [Spelling]. You may wish to set up the definitions in the following user friendly layout and then set the language (here: Swiss):

```

; Smart Quote Characters - there must be no blanks between the 4 symbols
; The original definition of the French inner Quotes is wrong: \xd5\xd5\xc7\xc8
;
; SmartQuotes=\xd4\xd5\xd2\xd3 ;English ' ' " " u2018, u2019, u201C, u201D
; SmartQuotes=\xe2\xe4\xe3\xe2 ;German , ' „ ” u201A, u2018, u201E, u201C
; SmartQuotes=\xd2\xd3\xc7\xc8 ;French " " « » u201C, u201D, u00AB, u00BB
SmartQuotes=\xdc\xdd\xc7\xc8 ;Swiss < > « » u2039, u203A, u00AB, u00BB
; SmartQuotes=\xd5\xd5\xd3\xd3 ;Swed/Finn ' ' " " u2019, u2019, u201D, u201D
; SmartQuotes=\xd4\xd5\xd2\xd3 ;Italian ' ' " " u2018, u2019, u201C, u201D

```

## Modifications to maker.ini

Have FrameMaker closed when modifying maker.ini. It is also good practice to keep a copy of the original file (maker.ini.ori) and make remarks at the beginning of the file about the changes, for example:

```

; 2004-10-12 default zoom factors changed to
; Zoom=28, 36, 50, 74, 90, 125, 200, 353, 500, 1000
; 2006-02-08 Patch b144

```

## Paste prefers text

The default for Paste (from none FM files with **CTRL+v**) may create OLE connections (Object Linking and Embedding). To paste contents rather than the object property, change in section [Preferences]:

```

from ClipboardFormatsPriorities=FILE, OLE 2, EMF, META, DIB,
BMP, MIFW, MIF, RTF, UNICODE TEXT, TEXT
to ClipboardFormatsPriorities=UNICODE TEXT, TEXT, RTF,
FILE, OLE 2, EMF, META, DIB, BMP, MIFW, MIF

```

**Note:** ClipboardFormatsPriorities *only affects pasting from the Windows clipboard. It does **not** affect the paste operation for content that is coming from a FrameMaker file. To paste without formats within FrameMaker use **Paste Special (CTRL+SHIFT+v) > Text**. There are also utilities available to strip formatting from the clipboard.*

## Default language in ¶ and f designer

In the first section [Frame] set (for example):  
Language=UKEnglish

## Display character positions correctly

In section [Fonts] set:  
DisplayUsingPrinterMetrics=On

## Match colours in FrameMaker and PDF

In section [Preferences] set:  
GetLibraryColorRGBFromCMYK=None

# Import MIF snippets

If you need to import only part of what is defined as a category in the Import Formats dialogue it is handy to use MIF snippets. The MIF snippets are imported by copy (not by reference).

MIF snippets are text files. For FM 7 and below they must be coded in ANSI 7bit and use the special FM coding for characters not in this range. For example, an Ü is coded as \x86. See *Frame Roman code table* on page A-6.

For FrameMaker 8 you set up a Unicode file. You can however also use the \unnnn notation for special unicodes not available in your editor font. The \xnn notations of FM-7 are still valid in this file.

## MIF header

The first line in the MIF file defines the FrameMaker version. A MIF 7 can be read by FM 8, but not vice versa.

```
<MIFFile 7.00> # Generated by FrameMaker 7.0p576
<MIFFile 7.00> # snippet defining user variables for x.
```

## Syntax specials

- Indentation is for the human reader and can be blanks or tabs.
- Anything after a # in a line is comment.
- A string is introduced by the left pointing apostrophe (grave accent) and terminated with the straight apostrophe.
- Symbols >, \, ' and ' must be escaped within strings by a preceding \. The symbol < may be escaped also, but need not.

## Import user variable(s)

```
<MIFFile 7.00> # user variables for example project
<VariableFormats
  <VariableFormat
    <VariableName `1-productname' >
    <VariableDef `Information Mapping<superscript>\>\xa8 </\>' >
  > # end of VariableFormat
<VariableFormat
  <VariableName `2-companyname' >
  <VariableDef `ATEK' >
  > # end of VariableFormat
<VariableFormat
  <VariableName `3-docname' >
  <VariableDef `User Guide' >
  > # end of VariableFormat
> # end of VariableFormats
> # End of MIFFile
```

**Note:** The notion \<superscript>\>\xa8 </\> stands for literal <super>®</>. A character format superscript is assumed to exist.



# B

## Rules of thumb

### Overview

In this chapter rules of thumb – methods developed by experience – are collected.

Legibility of printed matter is based on century old typographic tradition. Only recently these findings could be justified by research. They lead to a number of typographic rules.

Whereas FrameMaker provides the mechanics for layout, the user must think about the purpose of his design. Working in a team imposes rules which need not be observed when working alone.

A section gives some ideas about various elements present in scientific publications.

### Contents

|                                        |    |
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| Form follows function .....            | 2  |
| Layout issues .....                    | 9  |
| Teamwork .....                         | 11 |
| Types of scientific publications ..... | 15 |
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## Form follows function

Technical, scientific and legal matters are texts which we do not read for pleasure. They are ‘must’ readings. Hence the author and producer should do everything to enhance readability and comprehension.<sup>35)</sup>

## Roots of some arcane habits

The main purpose of script is communication in time space. The ideas of the writer should become interpretable or even comprehensible by the reader who may look at the text even after the death of the writer.

The development of type and writing during centuries lead to certain rules known as “good typography” and good “writing style”. The first of these rules refers to legibility, the second to readability.

The invention of the type writer cut back the rich expressions of printed type as they were developed since Guthemberg’s times. This new device eased writing for many people, but was limited in expression to one size of characters of fixed width. The only possible emphasis was underlining - and, with some effort - s p a c i n g the characters or bolding them by overtyping. In addition, it provided only a limited character set.

Many habits of layout, typing and writing (of office clerks or none-typographers) are rooted in this limited device. At the end of the 20th century there are still many people in Switzerland believing that German does not use upper case umlauts or upper case French accented characters. Even in France some people believe this....

The typewriter might also have lead to the numbering of headings to display structure and to refer to items elsewhere in the document <sup>36)</sup>. With text processing software or even Desk Top Publishing tools such as FrameMaker there is no need to restrict oneself to the times of type writing: we can use all the well established ‘standards’ of proven typography: font, type size, italic and bold type for emphasis, live references, and so on.

## Form follows function

<sup>37)</sup> The basic principle of any design must be that it follows the function of the subject:

- Although gothic chairs with their high back are very nice to look at they are very uncomfortable for the same reason.

---

35 See also C. Wheildon, *Type and Layout: Communicating or Just Making Pretty Shapes*: Worsley Press.Australia, 2005. ISBN 1875750223.

36 Well, in phone conversation it is more handy to refer to “17.5.3” than to “The roots of arcane habits, probably on page B-2”.

37 The well-known phrase “form follows function” was first coined by sculptor [Horatio Greenough](#). It was only after [Lous Henri Sullivan](#) adopted it that it became a mainstream aphorism.

- A technical manual using flourishing script and hand made paper conveys the wrong message. It will not be considered serious.
- Although in the old days of scrolls (biblia) the writing was in the same direction as the extension of the parchment, the line length was limited and precious space was sacrificed for ease of reading.

## To justify or not to justify

My very pragmatic answer to this never ending discussion is:

- Use text justification in prose (belletristic) text, where the look is supported by the colour and haptic choice of the paper.
- Use flush left in technical and legal texts, where you can not make the effort of painstakingly hyphenation and rearrangement of word to get a pleasing display.<sup>38)</sup>

One reason fro problematic hyphenation and therefore unpleasing line layout in justified text is the use of automatic hyphenation based on dictionaries. Especially the endless combinations of words in German (composita) create either large inter word spaces or hyphenation points which interrupt the reading flow.

My major argument for unjustified text is the variance of textual elements in technical and scientific texts which are not present in belletristic texts:

- lists of all sorts
- tables of various widths with or without titles
- footnotes, marginal notes etc.
- pictures with or without titles
- formulas of any length

See also [www.itcfonts.com](http://www.itcfonts.com)

## Serif versus sans serif

The discussion whether serif fonts (such as this type) or sans serif fonts (**such as this**) provide better legibility is as endless as the discussion about justification.

Research on this issue<sup>39)</sup> was done mostly in view of printed matters only. Good character shapes for a screen with much less resolution than any printer require different features which ends up in specific designs<sup>40)</sup>. On the other hand our reading capability highly depends on experience and routine.

38 T<sub>E</sub>X was the first system supporting a paragraph wide optimisation of hyphenation and justification. FrameMaker is in good company with text processors optimising only within a line. Adobe InDesign is the first DTP program implementing a similar approach.

39 See [www.alexpoole.info](http://www.alexpoole.info)

40 See for example [www.wilsonweb.com](http://www.wilsonweb.com)

Years ago children learnt to read and write the German Current Schrift<sup>41</sup>, but nowadays only few can read this type and also have great difficulties with Fraktur (Black Letters).

My approach is to use sans serif for headings and in tables, but to use serif type for the running text.

## Legibility

Legibility is concerned with the fine details of typeface design, and in an operational context this usually means the ability to recognise individual letters or words. Readability however concerns the optimum arrangement and layout of whole bodies of text

It has turned out that some measures need different values depending on the language: English has shorter words and generally shorter sentences than German. This leads to different optimum settings in these languages.<sup>42</sup>

### Properties of legibility

|                               |                                                                                                                                                                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | The remarks give you an idea of good values of the property.                                                                                                                                                                                            |
| Line length                   | About 50 - 70 characters per line. With the rule of thumb to have a 1 cm line length for 1 pt type size this yields 11 cm for 11pt type.                                                                                                                |
| Size of type                  | Long words (german text) call for larger type (11 pt), In English 10pt is a good reading size. Large pages (A3) need larger type due to larger reading distance.<br>Use larger type for headings (14, 18, 24pt), smaller type for footnotes (8 - 9 pt). |
| Leading (space between lines) | 1/5 or 1/4 of type height seems to be optimal (10pt on 12pt). In any case it must be larger than the space between words.                                                                                                                               |
| Space between characters      | 3 - 5% spread in normal text. Standard font settings are too tight. The higher value is needed for sans serif type (e.g. Helvetica: Illness vs Illness)                                                                                                 |
| Space between words           | Constant space (left aligned) is better than variable space (justified). To avoid 'rivers' across the typed page careful hyphenation must be applied to justified text.                                                                                 |
| Proportions of type           | x-height about 2/3 of capital heights. Smaller values need larger type size. Larger values need more leading. Low contrast (lines more or less equally thick). Normal (not heavy or thin) serifs.                                                       |
| Alignment                     | Left adjusted text does not create holes (excessive word space) as justified text might do.                                                                                                                                                             |
| Colour of type                | Large type should not be in full black. Create a 'constant level of gray' by colouring type larger than 14pt with 40% black.                                                                                                                            |

41 See, [www.geschichte-s-h.de](http://www.geschichte-s-h.de)

42 Our visual system focuses at an angle of about 6°. The spacial frequencies for characters, words and lines of traditional type setting fit well to the physiology of the human eye. See for example: *Object spatial frequencies, retinal spatial frequencies, noise and the efficiency of letter discrimination*. David H. Parish and George Sperling, in *Vision Res.* volume 31, number 6/7, 1991.  
*The importance of phase in the spectra of digital type* by Ghuozen Duan and Robert A. Morris, UMASS Boston in *Electronic Publishing*, vol. 2, page 47-59 (April 1989).

|                     |                                                                                                                                                                                                                                                                                  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | Use real colour for special highlights (defined purpose) or images.                                                                                                                                                                                                              |
| White space         | White space around type create the impression of larger type. 10pt on 12pt it better legible than 11pt on 12.5pt. More than 3 indentation levels can not be memorised. Heavily nested indentations also lead to very narrow text columns the purpose of which nobody can digest. |
| Typographic signals | Bullets, indentation and space visualise the structure of a text. Avoid to many different signals: limit yourself to 3 types of bullets and keep purpose constant.                                                                                                               |
| Paper               | The paper should be really opaque (standard copier paper of 80 g/m <sup>2</sup> lets type shine through), not glossy and not absolutely white (which strains the eyes).                                                                                                          |

## Readability

It is very difficult to catch readability or even comprehensibility in facts and figures. For legibility we have a long typographic tradition which only recently was verified by cognitive science.

It is far more difficult to judge the semantics of text and define 'ease of reading' in this area.

### Properties for good readability

|                    |                                                                                                                                                                                                                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | The remarks give you an idea of good values of the property. Much of this is based on recent findings of cognitive science.                                                                                                                                                                                                        |
| Character of type  | Character matches the content (Sans serif for technical, serif for serious, flourishing and script for informal or enjoyable text).                                                                                                                                                                                                |
| Size of vocabulary | The basic German vocabulary is about 3000 words. The more words of the text are beyond this, the less it is understandable. Some technical texts use 'controlled language' for this reason.                                                                                                                                        |
| Abstraction level  | Examples and comparisons to daily life are far more understandable than metaphors and abstractions.                                                                                                                                                                                                                                |
| Idiomatic words    | Special slang, newly invented buzz words or special terms (overuse of scientific terms) make it difficult to understand the text.                                                                                                                                                                                                  |
| Numbering          | More than 3 numbering levels can not be memorised and do not help in navigation. In most cases numbering of headings is not necessary for navigation purpose, because variation in type size give better clues on the structure.                                                                                                   |
| References         | Footnotes do not interrupt the reading flow as do in-line comments (in parentheses), because it is easy to skip them in first reading.<br><br>Cross references to title text give a better clue than to title numbers. Based on the title text the reader can decide whether 'to jump' to another location or to continue reading. |
| Navigation aids    | Technical and scientific texts need various access methods to the content, because they are not read the same way as prose. Table of contents present the overall structure, but should not go beyond 3 levels. Present a detailed view in a substructure (e.g. in a chapter).                                                     |

An index must be as rich as possible because the fantasy of the reader always differs from the knowledge of the writer.

Think of different indices for certain elements: people, works, actions, time, area...

Placement of images

Keep descriptive text to the right of images. Although mirrored layout looks very nice in the first place, this violates the relation of speech and image in our brain.

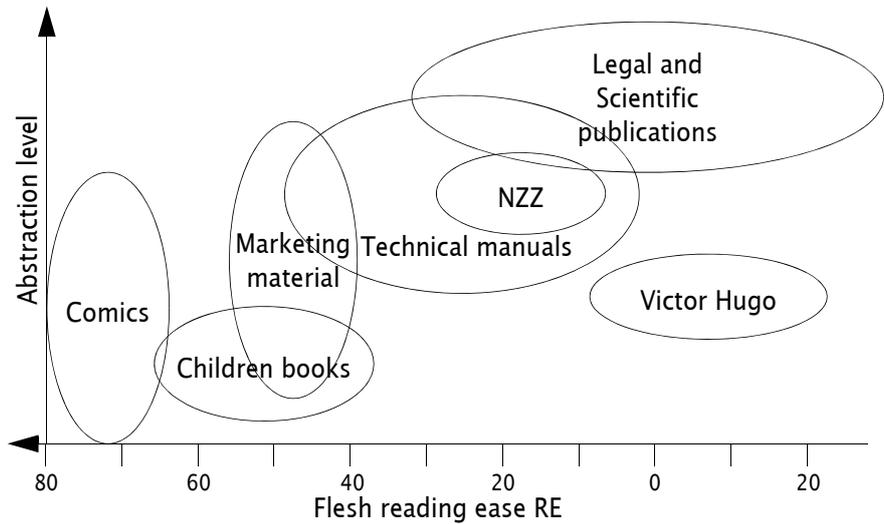
Grouping

Use white space and alignment to group items (e.g. in tables). Avoid heavy ruling which is often default for US based DTP systems.

## Research on readability

### Personal experience with readability

This diagram is based on the authors experience with various text sorts and tries to cope with the fact that *reading ease* is only one side of the coin. The abstraction level and the size of the vocabulary add another dimension to the subject.



### Statistics of this text

Silicon Prairie Software provides a FrameMaker plugin to calculate both text statistics and readability indexes. With this we get the following figures for this chapter:

|                |                                                                        |
|----------------|------------------------------------------------------------------------|
| Paragraphs (p) | 513                                                                    |
| Sentences (s)  | 725                                                                    |
| Words (w)      | 6418                                                                   |
| Characters (c) | 31 109                                                                 |
| Average s/p    | 1.4                                                                    |
| Average w/s    | 8.9                                                                    |
| Flesch RE      | 61.7 (60.0-70.0: easily understandable by 13- to 15-year old students) |

Flesch-Kincaid Grade Level: 6.8 (8 should be understandable by an average student in 8th grade - usually around ages 13-14 in the USA)

*Note: These measures do not account for the vocabulary though!*

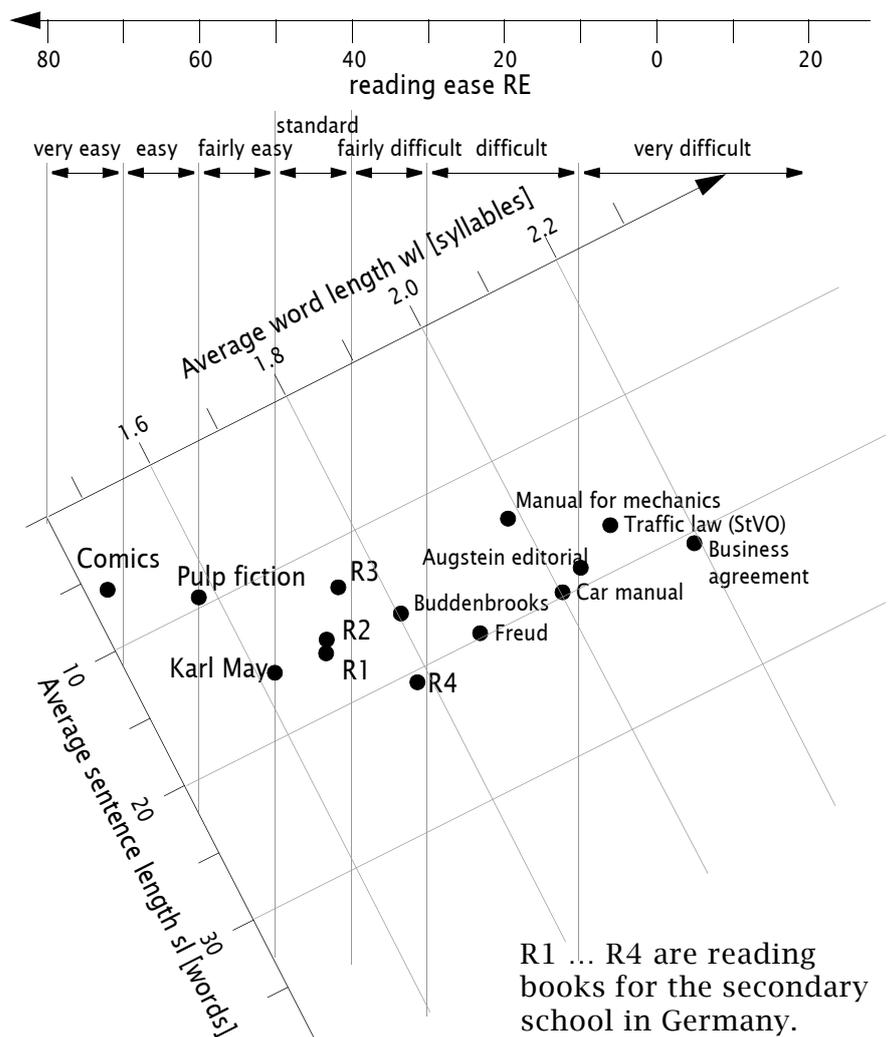
Research by Arend Mihm

The following diagram is based on research summarised in *Textverständlichkeit und gesellschaftliche Lesefähigkeit* by Arend Mihm in *Linguistic und Didaktik*, 1973.

The term *reading ease* (RE) was defined 1948 by Flesch and derived from the measures  $\overline{wl}$  (average word length in syllables) and  $\overline{sl}$  (average sentence length in words) with the following formula<sup>43</sup>, which he verified on an extensive set of text samples read by a great number of people:

$$RE = 206.835 - 84.6 \cdot \overline{wl} - 1.015 \cdot \overline{sl}$$

Mihm needed to adapt the figures found by Flesch for German texts, because in this language both the average sentence length and the average word length are larger than in English ( $\approx +20\%$ ).



43 To high a precision demonstrates lack of knowledge on the subject is still a valid insight from my studies at the School of Technology. Although we have here an elaborate formula the input was presumably much less precise...

## Fonts used in this compendium



Charles Bigelow, \*1945

I started work on this document with the PostScript fonts Palatino for the running text, Helvetica for headings and Helvetica Narrow for tables.

The support of Type 1 (PostScript) fonts diminished over the time and TT (TrueType) or OT (OpenType) became more important because they naturally support a larger character set up to Unicode.

The Lucida font family has been designed from the ground up for on-screen legibility by Charles Bigelow<sup>44</sup>). Both serif and sans serif fonts are in this family. Hence I decided to switch to this font family with FrameMaker 7:

|                    |                                                                                 |
|--------------------|---------------------------------------------------------------------------------|
| Lucida Bright      | running text                                                                    |
| Lucida Sans        | headings                                                                        |
| Lucida Sans Narrow | tables, figure text                                                             |
| Lucida Console     | code display <sup>45</sup> )                                                    |
| Lucida Unicode     | for text pieces demonstrating Unicode issues (various scripts in one font etc.) |

Not all of these font faces are included in Windows XP, so I bought the licenses for the missing ones.

---

44 The author remembers Charles' talk at one of the Protex conferences in Dublin in the late 1980's about his development of the Lucida font family, specifically about Lucida Fax.

*The Design of Lucida®: an Integrated Family of Types for Electronic Literacy.* Proceedings of the International Conference "Text Processing and document manipulation"; University of Nottingham, 14-16 April 1986: Edited by J.C. van Vliet. Cambridge University Press. ISBN 0 521 32592 7

45 Consolas from MS introduced with Windows Vista would be another choice, as its character repertoire is larger and both the normal and the bold version have the same character widths - so they line up in code examples.

# Layout issues

## Books

Books are normally smaller than A4 and larger than A5. A very common size is 17 x 24 cm (close to B5).

For books the inner margin is smaller than the outer margin. This gives room to a browsing thumb and even handwritten notes.

## A4 loose leaf publications

For A4 publications the binding normally is inside. The classic 1/9 rule for margins creates much white space, because this rule assumes no side headings.

## Margins

The classic rule for margins reduces the text area to 2/3 of the paper size and adjust the margins to these values:

| Margin    | Relation            | For A4 [cm] | for 17 x 24 [cm] |
|-----------|---------------------|-------------|------------------|
| Top       | 1/9 of paper height | 3.3         | 2.7              |
| Bottom    | 2/9 of paper height | 6.6         | 5.4              |
| Inner     | 1/9 of paper width  | 2.3         | 1.9              |
| Outer     | 2/9 of paper width  | 4.6         | 3.8              |
| Text area | 2/3 of dimension    | 14 x 19.8   | 11.3 x 16        |

Running headings are inside the text area, but the pagination is outside.

These margins are good for text areas which are filled with text. The margins are too large for layouts using side headings, such as technical and scientific publications.

## Layout with side heads

Layouts with side heads use about 1/3 of the text width for the side heads and 2/3 for the common text. This creates a proper line length for the ordinary text.

| Margin             | For A4 [cm]  | for 17 x 24 [cm] |
|--------------------|--------------|------------------|
| Top                | 2.0          | 1.5              |
| Bottom             | 1.7          | 1.7              |
| Inner              | 2.0          | 1.7              |
| Outer              | 1.0          | 1.0              |
| Room for side head | 5.6; gap 0.6 | 4.0; gap 0.4     |
| Line length        | 11.8         | 9.9              |

Both running headings and pagination are outside the text area.

## Mirrored layout

Although a mirrored layout (side heads always on the outer side) look more pleasing on first sight, this confuses the relation between image and text for small images in the side head area.

Use a mirrored layout for nice books, but not for technical and scientific publications.

## Running headers and footers

Running header repeat the information from the headings on the page.

The running header on the left page always repeats a higher level heading (e.g. 1-heading) than the running header on the right page (e.g. 2-heading).

Running footers with information from the page contents are present, for example, in dictionary style layout.

## Tables

Both technical and scientific publications use tables much more than standard texts.

### Layout rules for tables

- Both start and end of the table must be clearly visible and distinguishable from the running text. A good method is to have the heading row shaded (up to 10%) and the footing row (or end of table) be indicated with a line.
- Group rows either with additional white space or ruling.
- Avoid too much ruling. Most ruling can be omitted when proper alignment of the columns is used.
- Ruling defaults of US based DTP programs are too heavy for European eyes. A thin rule uses 0.3 pt (and not 1 pt as in the US).
- Both heading and footing rows must be repeated on each page of a table which spans several pages. FrameMaker does this automatically.
- Harmonize column width for tables which are not separated by much text. If each table uses different row proportions the page image becomes very cluttered.
- For very wide tables rotate the table (or the whole page) counter clockwise. Care must be taken to text which is rotated in the cells or the text area: it must stand normal in the rotated page (and not top down!).
- Arrange table titles always at the same side (above or below) of the tables. If you need a special table construct for titled images (FrameMaker does not provide titled anchored frames), arrange the title of tables above and the title of images below.
- If no list of table titles is created, titles may be omitted, because the tables are normally anchored in the text where they belong to and the heading row gives enough information for the contents of the table.

# Teamwork

Teamwork requires more working rules than working in solitude. The rules must be set up and observed by all team members. Of course it is best to have one person responsible to manage the rules - the team responsible.

## Team responsible

Tasks of the person responsible for the team work are:

- Collecting wishes concerning layout and styles
- Maintain the template directory
- Document the template (layout, catalogues)
- Keep the templates up to date
- Maintain a project dictionary
- Distribute changes of the meta-documentation

## Directory structure for a project

You may wish to keep the files on a server with check-out/check-in capabilities, such as a WEBDAV<sup>46)</sup> server. See also *Workgroup preferences* on page A-10. Consult Help with the keyword *webdav*.

| As it is done often                                                                                                                                               | What would be better                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> /project-directory   arbeiten_d.fm   arbeiten_dv7.fm   einfuehrung_d.fm   firlefanzt.tif   graphic1.xyz   graphicz.xyz   introduction_e.fm           </pre> | <pre> /project-directory   /de     arbeiten.fm     einfuehrung.fm     handbuch.book   /graphics_d     firlefanzt.tif   /de_v7     arbeiten_dv7.fm   /en     introduction.fm     working.fm   /graphics     graphic1.xyz     graphicz.xyz           </pre> |

- Do not use umlauts, blanks and other dangerous characters in file names (which may be valid on your current platform) - think about case dependency of file names!
- Do not use chapter numbers in the file names - the order may change during the development of the document.
- Do not mix versions (and/or languages) in one directory.
- Keep graphics language independent. Place callouts etc. not in the graphic, but overlay them in FrameMaker.

46 WEBDAV = Web Distributed Authoring and Versioning

- Keep reference data (reports, sources, original text) in a separate directory. This is especially necessary for scientific publications where You must warrant every citation!

## Locking files in a network

FrameMaker creates a file *name.lck* for each document it opens (*name* is the file name of the document). This lock document is placed in the same directory as the source file.

Even if you are not a single person working on any project, keep this preference ON; it does not affect your work outside a team:

**File > Preferences: Network File locking.**

## Source code maintenance system

Extensive file control with access rights (e.g. read only) can only be maintained with a source control system. The support provided by FrameMaker is too weak in these cases.

With FrameMaker 7 Adobe has introduced a special form of source code maintenance system: FrameServer. This supports central distribution of files with check out - check in procedures.

## Fonts in a mixed environment

- Always set **File > Preferences...** *Remember missing font names*
- Minimise your trouble with commercial printing by embedding fonts completely into your PDFs.

**Note:** *If your print shop refuses to accept TrueType fonts in your document, change the print shop! This one lives in the last century.*

FrameMaker is one of the very few applications which supported font integrity between Macintosh, Windows and UNIX. This is done by means of two tables in the `maker.ini` file. This is tedious work even for experts, because fonts are handled very differently on these platforms.

- Font mapping for Windows font names
- Unknown to known font mapping

## Template library

FrameMaker treats any document as template when this is located in a particular directory which is defined in the `maker.ini` preferences.

When opening a template with **File > New...** a copy of the template file is created automatically.

## Style planning

See also *Templates* on page 5-24. For a team project, the planning of layout and style is even more important than for any documentation project:

- Provide (at least during development of the document) the following information on each page:
  - full file name
  - date of modification
- Which styles for paragraphs and highlights are needed? Use names, which allow easy recognition of the purpose and not the appearance (1 heading rather than Big Heading). See also *Names for styles* on page 2
- Think early about your numbering scheme for headings, tables, figures, formulas, chapters etc. Do you really need a numbering system in the time of live cross references and hypertext? At which level do numbers restart? Should tables and figures be numbered independently of headings?
- What types of tables are needed? Set up a collection of wide and narrow tables and specify their ruling and shading. Define tables by appearance only for general styles. Be aware of the limitations of the table catalogue (it does not keep all what you might wish).
- What layout will be needed for the pages? FrameMaker support an 'unlimited' number of master pages for a document. Do you need special graphical elements in the layout, such as lines above and below paragraphs? They will be placed in the reference pages of the template.
- What formats for cross references will be needed? FrameMaker starts with a set of these which may not be what you need.
- If you plan to use the built in graphics tools, think about line widths and arrow tips. User defined arrow tips can not be kept between sessions!
- Can you place 'canned text' in variables? Candidates are product names, company names, copyright notes etc.
- Do we use project specific graphics only? General graphics (e.g. clip art) may reside in locations which are not available at the final stage of the document (commercial printing...). You will need to copy them.

Maintaining consistent use of styles is one of the main issues in document team work. FrameMaker support this with the capability to import style and layout definitions from other documents.

When initiated from a book file, the styles and layout definitions are imported to all files of the book.

It is therefore important to develop styles only in one files of a project and propagate them via the book mechanism to all files of the project.

## Local styles

Using local styles (such as bolding a word, giving a paragraph an individual appearance) must be avoided as much as possible. In any case do not use styles which are not in the catalogue - there is little chance to find and maintain these text elements!

If special styles are needed in a limited area of a project, use named styles with the chapter-number in the style name. For example, z1-figure-top. This would be a special style in chapter 1. The z keeps the style separate to the others. This method keeps things apart even if styles are accidentally propagated to other chapters. and you know where they belong to.

## Maintain a style guide

Even for small projects it is good practice to have a list of all styles available in one document. This displays the name of the style and its appearance. Sophisticated style guides list all properties of the style and where they must / may be used.

### Simple style list

**bodytext:** Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat..

**Q In-narrow-list** is used for definition lists with short terms. Lorem ipsum dolor sit amet, .

Island **lw-wide-list** is used for definition lists with longer terms. Lorem ipsum dolor sit amet, consectetur.

Popocatepetl **lww-verywide-list** is used for very long terms. Lorem ipsum dolor sit amet,

### This is a 3heading

Character formats are *1highlight*, **2highlight**, computer, ddd-symbols: X<sub>u</sub>™

**name** and dingbats: abcdefghijklmn

## Boiler plate elements

Collect well thought out elements in a special document for easy copy and paste. Such elements may be:

- Tables with sophisticated layout (straddled cells, special ruling and/or shading)
- Figure tables with diverse arrangements of graphics or photos.
- Special characters from exotic fonts

See *Figures with legends* on page 19 for examples.

The plug-in Autotext from [Silicon Prairie Software](#) is of great help for canned text. It allows to define a set of text or graphic items and insert them into any FM document by a menu selection or keyboard short cut. Items include styled text, plain text, graphics, anchored frames, and tables.

# Types of scientific publications

## Scripts

IMHO scripts can be set up similar to the handouts presented here. Very often more than one person works on such a paper which will introduce style differences as well as different method to achieve the same affect. Hence guidelines about the formats, layout and methods are needed for this work. Nevertheless from time to time a complete cleanup of such documents is necessary.

## Dissertation

A dissertation (at least at the ETH) consists of these parts:

|               |                                                                                                                                                                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cover         | The cover repeats the front page                                                                                                                                                                                                                                                |
| Preface       | Page numbers in roman numerals <ul style="list-style-type: none"> <li>▪ Front page repeating the text of the cover</li> <li>▪ Dedication and probably a motto (citation)</li> <li>▪ Acknowledgments</li> </ul>                                                                  |
| Preliminaries | Page numbers in roman numerals) <ul style="list-style-type: none"> <li>I Table of contents</li> <li>II Abbreviations</li> <li>III Summary</li> <li>IV Zusammenfassung</li> </ul>                                                                                                |
| The contents  | Arabic page numbers. The structure headings may vary, but this is typical: <ol style="list-style-type: none"> <li>1 Introduction</li> <li>2 Literature review</li> <li>3 Experimental</li> <li>4 Results and discussion</li> <li>5 Conclusions</li> <li>6 References</li> </ol> |

## Paper for publication

Most publishers have their own rules how to present the various elements of the paper:

- Literature references are strictly regulated
- Format of images and file types are defined
- Drawings (line types, line widths etc.) provide only little variation.
- Colours are welcome only for photographs, not in layout
- etc.

## Templates for scientific texts

FrameMaker comes along with templates for outlines only: Even the German version of FM contains US-style templates in this area only.

### Harvard outline

This outline provides 7 levels with ample indentation. In level 5 you have only half the page width available for text, in level 7 about 1/3!

The numbering is very mixed - it uses all styles from upper case roman to lower case characters with parentheses.

### Outline, Numeric

This outline supports six paragraph levels. The levels use arabic numbers and indentation.

### Outline, Small

Use this template to create a simple outline that uses bullets and dashes to indicate a paragraph's level. 6 levels of paragraphs are supported.

# Elements of a publication

## Design

Before you start layout and format definitions it is good to look at basic design and typographic principles, such as *Form follows function* on page 2.

## Layout

Layout very often is based on a book format or A5. This determines the amount of space available. In particular, side headings are not used much (in contrast to technical publications).

At the ETH in Zurich dissertations are laid out on A4 and for printed publication reduced to A5.

Normally the title page and the first inner pages are highly formalised. Hence you set up these pages independently of the standard text, TOC and IX pages. Use master pages also for these pages to be consistent in your work.

## Body text

To cope with footnote references and small in line formulas it is usual to have a wide line spacing. Use only few character formats and explain their use at the beginning (e.g. after Abbreviations: Typographic conventions)

## Heading levels

Usually 3 heading levels are numbered and the fourth one is not numbered. In an A5 layout the numbers run into the text space. In A4 layout it is convenient to set the numbers outside the body area.

If tables, figures and formulas are not numbered independently from heading levels, you set up a matrix (see *Hierarchical numbering* on page 3-11) to get correct numbering.

## Tables

Tables are numbered and in most cases the table title is arranged above the table. Only few authors set the table with different font than the body, although this gets tight in an A5 layout. Ruling is preferred over shading, because copies are done easier in this case.

In Switzerland heavy ruling is unusual, in particular if you print to a high resolution device. In most cases it is not necessary to place vertical rules, because the text boundaries themselves guide the eye.

## Figures

Figures are numbered. The legend may extend to multiple lines. Various forms have been found for this element.

For greater flexibility it is recommended to place callouts (numbers, arrows etc.) not directly into the image, but overlay the images with FrameMaker graphics. See *Graphic overlays* on page B-21.

Small figures may be combined to clusters (e.g. 4 cells in a table). See *Figures with legends* on page B-19 for examples.

## Drawings

Drawings in figures are mostly done outside FrameMaker, because very often these are graphics based on data.

Pay attention to line styles, fonts and font size. It is good practice to create graphics in the needed size to avoid any scaling (which damages the font size). Use the same fonts as used in the document. Stick to one font-type (TrueType).

For call outs the same remark as for figures applies.

## Images

Images are mostly photographs. TIFF is not a good choice for this form of images. JPG is more adequate. However, some print shop insist on TIFF images.

When creating and storing images, do this in the highest possible resolution. When working in FrameMaker you can switch off the display of images, which may cause large build-up time for pages (**View > Options: uncheck Graphics**). Switch the display of images on again for placing callouts etc.

When producing a PDF from your paper you adjust the parameters according to the publication process (see chapter 10).

## Footnotes

These may or may not be used. Some people prefer to collect the notes at the end in a separate chapter and handle them as ordinary reference.

## Bibliography

Whether to use a special tool such as EndNote (see *Bibliography with EndNote* on page 7-26) depends on the nature of your references. If you can not rely on existing data bases there is no use of EndNote. A simple table (see *Bibliographies* on page 7-22) will do the job. See also *Bibliography* on page B-22.

## Lists of authors etc.

Some publications require lists of

- authors
- tables
- figures
- etc.

FrameMaker gives you great support for these items (see *Arbitrary lists* on page 9-17).

But this is only possible if you follow a good scheme for paragraph formats, cross reference formats and character formats. Do not highlight locally or use 'Word-style' formatting for paragraphs - this can not be accessed to generate lists.

## Formulas

FrameMaker has a very good formula editor, although it needs some skill to be handled well. Keep in mind that in FrameMaker a formula (or equation as Frame calls it) is a mathematical construct, not just an image (as for example in MS Word).

If you need to place a comment directly in the formula, use the method described at *Physical dimensions and other strings* on page 11-8.

If you have a very large number of formulas in another system (e.g. Maple) consider to import the formulas as images. In this case use a high resolution to generate the image, because in many cases you just get a bitmap.

# Figures with legends

It is good practice to have a document with ‘boilerplate’ text and other elements available. The following pages give you some of the needed elements which you can copy.

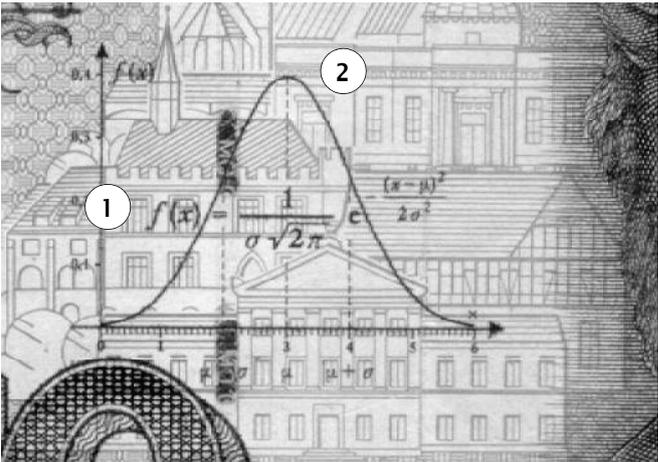
See *Boiler plate elements* on page B-14 for methods how to deal with reusable content.

**Note:** *To be able to create a “list of figures” you need to have reasonable text in the figure heading. Hence it is not recommended to have an empty figure heading and start immediately with (probably numbered) legend items after the figure number.*

## Figure with title in side head room

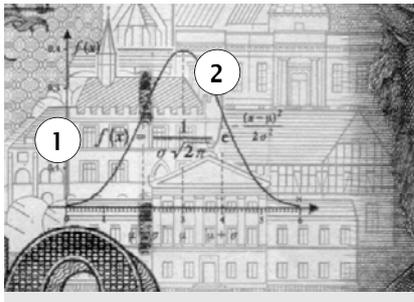
Here you see the standard method in technical documentation for callouts: numbers, which are explained in the legend. Text in the figure is avoided to ease modification and translation.

To see the construction in FrameMaker, the table is outlined with borders and the anchored frames are filled with gray. Anchor symbols are displayed with a special font.

|                                                                                                                                                                      |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>Figure 6:<br/>C. F. Gauss on German bank notes</p> <ol style="list-style-type: none"> <li>1 Formula of normal distribution</li> <li>2 The “bell curve”</li> </ol> |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

## Arrangement within text column

This type of figure table (2 table columns) uses only the area of the text column

|                                                                                      |                                                                                                                                                                      |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Figure 7:<br/>C. F. Gauss on German bank notes</p> <ol style="list-style-type: none"> <li>1 Formula of normal distribution</li> <li>2 The “bell curve”</li> </ol> |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## Figure cluster

To avoid separation of the image from the title row, set Orphan Rows (Table designer, category Basic) to 2.

For large clusters of images this may not be sufficient: Set **Table > Row Format > Keep with next** (or previous).

### Images in distinct table cells

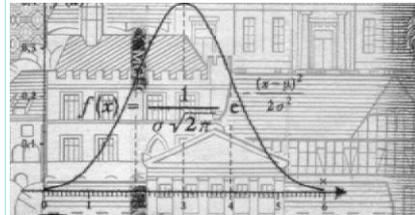


Figure 8: With no figure legend at all - just the figure title

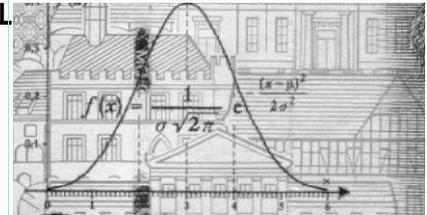


Figure 9: With figure legend  
Figure legend for longer explanations of the figure contents.

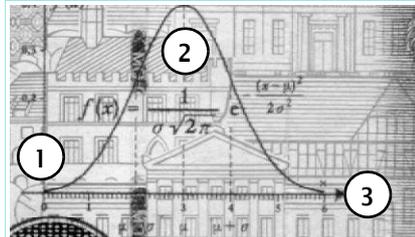


Figure 10: Using figure-legend  
1 Start of the mischief  
2 Climax of the mischief  
3 Back to normal again

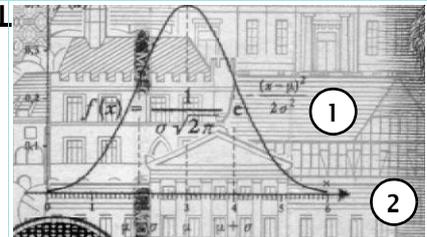


Figure 11: Legend text and list  
This is the introductory text  
1 The famous bell curve with the formula  
2 Background image is taken from an engraving of Nuremberg

The default numbering sequence in a table is Row first (as seen above). You can change this in Table designer, Basic category.

### Images combined in cell

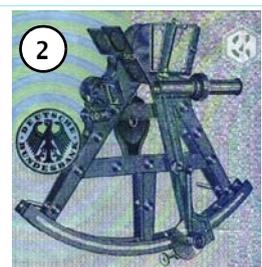
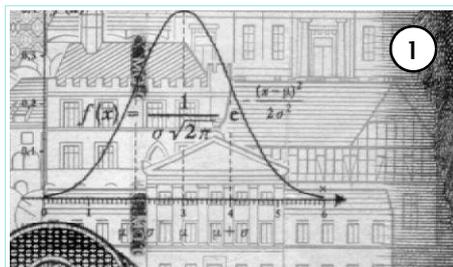


Figure 12: Key developments by C.F. Gauss

- 1 The Gaussian normal distribution is one of the most common distribution functions, especially in error theory. The function has many names, including de Moivre distribution.
- 2 Instrument for triangulation. A sophisticated form of a sextant.

### Paragraph formats used for the figures

ftn-fig-title-numbered Figure title, sets legend number to 0.

ft-fig-text Legend without numbering. Automatic follower of ftn-fig-title-numbered.

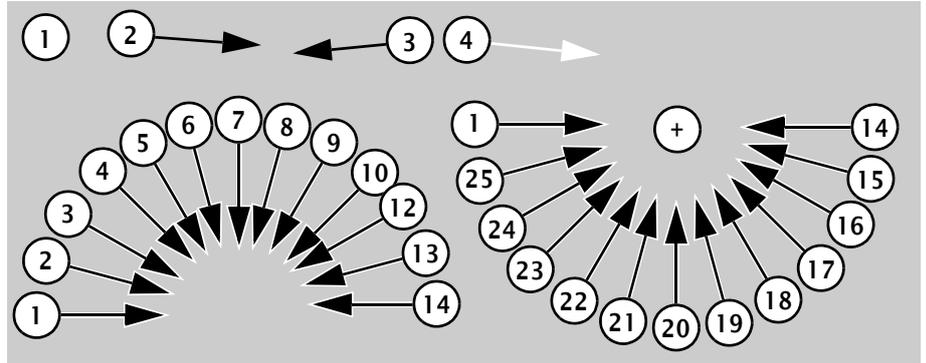
legx-legend-nx Legend with numbering.

## Graphic overlays

Collect prepared items in your boiler plate file. Here you see also white arrows to be placed on dark images.

Figure 13: Numbers and arrows for image overlay

- 1 Arrows in the top row can be ungrouped and rotated when grabbed at the tip
- 2 Combined arrows (black on white) can not be rotated any more, hence the proliferation of items.
- 3 For length adjustment of arrows: ungroup and stretch arrow
- 4 After positioning, select the arrow, the number and the circle and group them



You can select and change the number also in grouped state. You just need to be able to select it with the mouse (zoom in for easy working).

## Fonts

If your print shop refuses your document because you use TrueType fonts, change the print shop immediately. It lives in the previous century. The TrueType font definitions were jointly specified by Apple and Microsoft<sup>47</sup> and finally led to the OpenType font definition, which is a container format for PostScript fonts and TrueType fonts.

Contact your favourite print shop as early as possible also to get the preferred PDF job-options for generation of your PDF. Always generate the PDF with complete fonts included (no subsetting).

## Special symbols

It may be cumbersome to enter special symbols in FrameMaker (see *Symbols and dingbats* on page A-5). So it is a good idea to place also the rarely used in the boiler plate file, especially if they are located in an exotic font:

|              |                   |
|--------------|-------------------|
| Symbol       | Ω Σ • ≤ ≥         |
| D+DD Symbols | © ↘ ▲ ☞ ⚡ ⚡ ⚡ ⚡ ⚡ |

<sup>47</sup> 1990 Apple was tired about spending 30% of its revenues for font licenses to Adobe and hence developed the alternative together with Microsoft. This bowed the neck of Adobe to reveal the Type 1 font definition.

# Bibliography

See also *Bibliographies* on page 7-22 and *Bibliography with End-Note* on page 7-26.

## Visible reference items

To get access to the reference items [...] with the cross reference mechanism these items must be distinct paragraphs (see also *Bibliographies* on page 7-22).

### References in a table

|                |                                                                                                                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Daube 1989]   | Daube, K., <i>Aufbau des OBRZ Run time Systems</i> , in <i>Technisch-wissenschaftliches Rechnen am MVS System</i> . 1989, OBRZ AG: Zürich. p. Chapter 400.50.10.                                                   |
| [Garneau 1990] | Garneau, D., ed. <i>National Language Support Reference Manual</i> . January 10, 1990 ed. National language Information Design Guide, ed. IBM. Vol. 2. 1990, IBM National Language Technical Centre: Toronto, CDN. |
| [LaBonté 1989] | LaBonté, A. <i>A New Data Type for National Language?</i> in <i>SEAS Anniversary Meeting</i> . 1989. Amsterdam, The Netherlands: SHARE European Association.                                                       |

### References in run-in-paragraphs

[Daube 1989]: Daube, K., *Aufbau des OBRZ Run time Systems*, in *Technisch-wissenschaftliches Rechnen am MVS System*. 1989, OBRZ AG: Zürich. p. Chapter 400.50.10.

[Garneau 1990]: Garneau, D., ed. *National Language Support Reference Manual*. January 10, 1990 ed. National language Information Design Guide, ed. IBM. Vol. 2. 1990, IBM National Language Technical Centre: Toronto, CDN.

[LaBonté 1989]: LaBonté, A. *A New Data Type for National Language?* in *SEAS Anniversary Meeting*. 1989. Amsterdam, The Netherlands: SHARE European Association.

## Invisible reference items

Some publications require that the bibliography does not contain the repeated references. For example, the bibliographic list may contain:

**Acree, T. E., Barnard, J. and Cunningham, D. G. 1984.** A procedure for the sensory analysis of gas chromatographic effluents. *Food Chemistry*, 14: 273-286.

And the references should be [Acree et al, 1984].

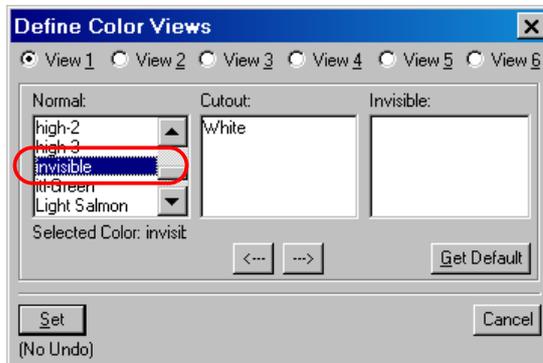
This can not be achieved by cross references to markers, because there is no building block <\$markertext> available in body pages.

**Solution**

**Colour definition**

The solution is to hide the reference item in the bibliography list. The item is coloured with “invisible”.

- 1 In **View > Color > Define...** specify a special colour for your reference items, for example invisible. Use a colour such as magenta or pink which clearly separates from the real colours of your document.
- 2 In **View > Color > Views...** make the colour visible:



**Paragraph format**

Use a distinct paragraph format for your reference items in the bibliography table, for example, bib-ref. This format uses the colour invisible.

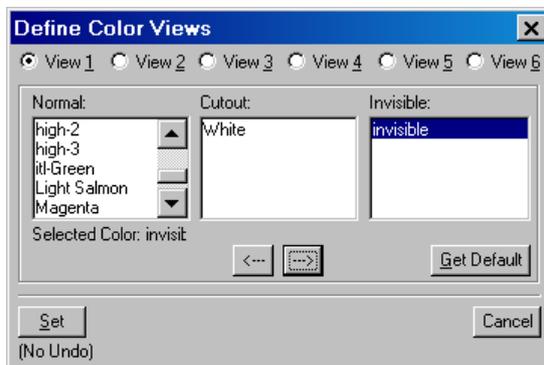
|                        |                                                                                                                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acree et al, 1984      | <b>Acree, T. E., Barnard, J. and Cunningham, D. G. 1984.</b> A procedure for the sensory analysis of gas chromatographic effluents. Food Chemistry, 14: 273-286.                                        |
| Grosch, 1993           | <b>Grosch, W. 1993.</b> Detection of potent odorants in foods by aroma extract dilution analysis. Trends in Food Science & Technology, 4 (3): 68-73.                                                    |
| Karathanos et al, 1996 | <b>Karathanos, V. T., Kanellopoulos, N. K. and Belessiotis, V. G. 1996.</b> Development of porous structure during air drying of agricultural plant products. Journal of Food Engineering, 29: 167-183. |

**References in the text**

The text uses cross references to the reference items:  
 Extract dilution techniques, such as CHARM [Acree et al, 1984] or AEDA [Grosch, 1993], provide means to even evaluate the relevance and impact of a single compound within the entire aroma profile.

**PDF creation and printing**

For printing and saving as PDF hide the reference items with **View > Color > Views...**



This does not affect the cross references, because the text is not excluded from the document (as conditional text would do).

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# Miscellaneous

## Overview

Plain text can be imported and formatted according to some rules. In particular, it is possible to convert a TAB delimited text to a table.

Importing objects from other applications uses a filter mechanism, which is still not fully reliable for Word documents and Excel tables. The reason might be the ever changing format of MS office data.

A section provides general information about FrameMaker and some internal mechanisms.

## Contents

|                                            |    |
|--------------------------------------------|----|
| Importing methods .....                    | 2  |
| Importing methods in detail .....          | 4  |
| FrameMaker specifics .....                 | 9  |
| File names .....                           | 11 |
| Document properties in MIF .....           | 12 |
| Background information .....               | 16 |
| FrameMaker principles and philosophy ..... | 22 |

## Importing methods

FrameMaker offers various methods of importing text and graphics. The most reasonable method depend on various factors:

| Source documents                                                           | Importing method                             |
|----------------------------------------------------------------------------|----------------------------------------------|
| Graphics and plain text in distinct files                                  | Import filter                                |
| Text areas and graphics from Office applications.                          | Copy / Paste Special                         |
| Large amounts of Office text, multiple authors, old (mingled up) documents | Import plain text only. Get graphics via PDF |
| Inline updating of tables/diagrams required                                | OLE import from Excel                        |

## Import filters

**Note:** *The purpose of filters is to maintain as much of the appearance of the source document as possible. This is not always the goal of the user who wants to keep the FrameMaker document clean.*

With **File > Import > File...** FrameMaker activates import filters which are third party developments. Some file formats are well defined and stable (eps, tiff, txt), but most are proprietary and not well defined. Word for example is not compatible with itself ... On the other hand functions in one application can not easily mapped to functions in another application because of the different object model (e.g. frames in Word versus. frames in FrameMaker).

Another obstacle are naming conventions or user definitions. FrameMaker users are adept to the catalog concept and hence use (in most cases) consistent naming for paragraph and character formats. The great majority of MS Word users are not aware of the capabilities of the product and hence use Word as a heavily overpowered typewriter.

**Note:** *Importing from Word may<sup>48</sup> leave CR characters (\x0D) and other illegal characters (e.g. \x01) in the file. These restrict an FM search to the paragraph ending with CR. You can find these characters only by searching backwards from the end of the flow. Clean the file by saving as MIF, opening the MIF, saving as FM,*

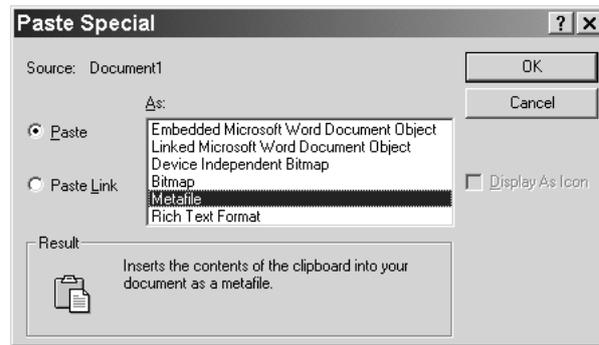
## Copy and paste

**Copy** fills the paste buffer with forms which are specific to the creating application and the setup of which. When using **paste** the target application will take a default format or you specify which format to take by using **paste special**.

**Note:** *The FrameMaker default format for pasting from another application inserts an OLE object from most Windows applications - in particular the Office applications. This behaviour can be changed. See Modifications to maker.ini on page A-32.*

<sup>48</sup> This actually depends on the filter type and FM version.

*Please remember that this setting does not influence the FM internal copy and paste operation.*



Using **copy special** (if available) fills the paste buffer with a specific form (for example an image in tiff format or text in rtf = Rich Text Format). In this case a **paste** will place only this specific form.

### Paste special in FrameMaker

**Paste Special** works both for items copied from FrameMaker or another application

When pasting a graphic this might provide the formats BMP (Bit Map), DIB (Device Independent Bitmap) or WMF (Windows Meta File) or EMF (Enhanced Metafile).

When pasting a textual object, this might provide WMF, RTF (Rich Text Format), Unicode or Text (plain text).

## Object Linking and Embedding (OLE)

Object Linking and Embedding provides a link to the source application. What you see on the screen and will be printed in FrameMaker is an image of the application window.

Depending on the source of the object (same computer, other machine) the image may be just a bitmap. When transferring objects between Windows machines, the object seems to bear a WMF (mixed vector and bitmap) image.

**Note:** *Avoid OLE when planning to use the document on various computers, for example, both on your workstation and your laptop, send to a print shop. The receiver of the document both must have access to the file and the same applications installed - which is often not the case.*

### Insert an object

- ▶ Select the object in the source application (e.g. Excel) and copy it to the clipboard.
- ▶ In FrameMaker paste it into an anchored frame (if you just paste it to the current cursor location, a default frame is created).
- ▶ When double clicking on the object, the original object window appears on the FrameMaker screen and the menus and buttons are from the source application (Excel). The data can be edited now.
- ▶ To close the application window click somewhere outside the object window. **Do not use File > Save** or **File > Close**, as this will close the FrameMaker document also.

# Importing methods in detail

## Text in Source applications

Although the various filters which FrameMaker provide are of high standard, they can not be accurate. Before you import, consider these topics:

- Provide the author(s) a template using the same paragraph and character styles as the final FrameMaker document.
- Since most MS Office users are not familiar with templates even with education they will fall into old habits and use individual markup. Hence You will need to clean the document in the source application. A set of macros may help you especially for multiple input.
- Remove special formatting such as Word frames and remove all graphics. Break down large documents into manageable chunks.
- Use these cleaned documents for import to FrameMaker.

**Note:** *As a long time, highly skilled Word user, I know from experience that there is a mountain of invisible crap in the Word doc - so my best advice is to not import the Word document at all! [2009-07-12 by Alison Craig, ultrasonix, com]*

## Import plain text and format in FrameMaker

The safest - and in most cases fastest - method to import text from other applications is to import just plain text and format it in FM “from scratch”:

- ▶ In the source application (for example, Word), save the file as text only (do not set Insert line breaks!).
- ▶ In FrameMaker import this file to a location where the ¶ format is bodytext (if this is appropriate for most of the text).
- ▶ Format the text: start with the headings, then lists. Convert the paragraphs with tabs back to tables (with the appropriate table format). Finally apply all character formatting.

### Clean the imported text

Bullet items and numbering present in the imported text is handy to find them for formatting in FM. But they must be removed from the input text, because FM inserts these items according to the numbering property. In the following do *not* use Change All even in so called obvious cases!

#### Remove numbering

Set up **Find/Change** with **Wildcards** ON and this find pattern: [1-9].\t for single figures and [1-9][0-9].\t for two figure numbers. Of course, the period may also be a) in certain cases. The Change field is empty to delete the item.

#### Remove bullet symbol

If the bullet symbol is from the standard font, then it appears as ·. However, if it comes from Wingdings or Dingbats etc, then you see the base character in front of the list lines, these may be é, U or everything else. Start your search pattern with the first symbol coming along (Wildcards must be ON):

[•]\t and extend as soon as you discover more of these:  
[•é\*8ç]\t

#### Table conversion

- ▶ Select all relevant lines (except the title paragraph) and specify the appropriate number of heading rows for the conversion.
- ▶ Copy the title paragraph into the table title.
- ▶ Cells which were straddled in the source document must be handled additionally.

## Importing Word files (using filter)

### Clean method

These rules are based on the work of  
FredRidder@Dialogic.com.

- 1 In the first step remove all graphics, even if they are imported by reference. Handle images completely separate from text.
- 2 Good adherence to the Word style sheet. Local format overrides are nothing but trouble. If necessary, write Word macros to enforce as much style conformance as possible before attempting to import.
- 3 Remove as much “special” formatting as possible by redefining the Word styles in a special “export” template. In particular, redefine any styles that have auto numbering or bullets in Word so that you don't wind up with duplicate tabs or bullet characters in your Frame files.
- 4 Ensure exact 1-to-1 correspondence between Word style names and Frame style names. This allows you to import *content only* from Word files, leaving all the formatting stuff behind and redefining all the styles in Frame. This sounds like the harder way of doing things, but it works better in the long run because there are a number of format issues that are simply handled too differently in the two tools allow direct translation. (One good example is space before and space after paragraphs, which is additive in Word but not in Frame.)
- 5 Remove any Word frames, that is, resolve them to ordinary text before importing.
- 6 Always import by using **File > New** to start a new Frame document and then **File > Import > File** (by copy) to convert the Word content into Frame.
- 7 Always select the “Reformat Using Current Document's Formats” option in the “Import Text Flow by Copy” dialogue to apply your clean Frame styles and leave all the Word formatting behind.
- 8 Break large Word files into chapter-size or section-size chunks before importing to Frame. One of the biggest reasons for migrating from Word to Frame is Frame's ability to reliably build large books from smaller files, and the best time to do the chunking is *before* importing into Frame rather than after. In file importing, smaller is always better. (Yes, I'm afraid that size *does* matter...).

## Alternative method

Depending on the quality of the Word formatting you may also get good results with the following method.

- 1 Extract all graphics, especially the Word graphics to individual files for later use.
- 2 Start a fresh FM file from a template and import the Word file by copy.
- 3 Be not surprised to find overlaid text, grey areas rather than images, multiple tables anchored at the same location etc.
- 4 Remove the most obvious bloat. It may be necessary to temporarily 'park' tables and text chunks in a separate document to pull thing apart.
- 5 Apply the styles from the ¶ catalogue. Since Word has formatted everything locally (\*-format in status line), you need to apply the **Default Character Format** to the selected paragraphs afterwards with F2.
- 6 Apply the character formats from your catalogue.
- 7 Replace inline-graphics with graphics imported by reference. You may need to format or adjust the existing anchored Frames properly. The imported frames may be of type "At Insertion Point" which requires different anchoring and positioning than "Below current Line" or "Run into Paragraph".
- 8 Apply the table formats and format the table contents according to your template. The same note as in step 5 applies to the ¶ styles. It may be necessary to convert body rows to heading rows and/or add heading rows and insert text there. Do not forget the table title.
- 9 Establish the details, such as cross references or web-links and generate a TOC if it was part of the document.

**Note:** *Carefully watch out for hidden elements, such as overlaid frames and obscure items. Walk through all paragraphs and check their format.*

## Graphics in source applications

Graphics in source applications (e.g. MS Word) may be OLE objects, imported or copied external files or application specific graphics. You may need to handle them differently.

### OLE objects

To get a distinct graphic rather than the OLE object, save the graphic in the source application accordingly. See for example *Importing an Excel table* on page C-7.

### Copied into the document

Especially in Office applications most graphics which were distinct files are imported by copy and hence have lost their relation to the source. You do not have a clue about the original size or resolution in case of a bitmap.

- 1 In the source application **Copy** the image.

- In FM use **Edit > Paste Special** and select the most appropriate format. If a vector format is available (eps, wmf, emf), use this (with preference to eps).

## Linked to the document

To see whether a file is copied or linked (in Word), switch the Field view **On**. A linked file is displayed as something like:

```
{INCLUDEPICTURE "G:\Graphics&images\!temp\test.wmf"
\* MERGEFORMAT \d}
```

Copy the referenced file (G:\Graphics&images\!temp\test.wmf) to an appropriate directory in your FrameMaker project and import the file by reference in FrameMaker.

## Application specific graphics

To handle graphics created directly in the source application (such as Word graphic or Word art) try to export the graphic to a file in a common format (for example pdf).

## Last resort

A universal method is to save the source document as pdf (or print it using the Adobe PDF printer (formerly called Distiller printer). Avoid to use PDFWriter if possible at all.

- Open the saved file in Acrobat (not just the Reader).
- Find the first page with a graphic and extract it.
- Crop the “pages from xyz” page to the size of the image.
- Save the page as pdf with an appropriate name.
- You may wish to clean out the PDF with an application such as Illustrator (the elements outside of the cropped area still exist, even logos and background images).

You may be surprised about the structure of such a graphic file. Objects must be ungrouped, crop masks removed and paths untied. Be careful with text objects. Each character may be an object.

- Import the pdf in FrameMaker.

**Note:** *With the utility [Office Image Exporter](#) you can get all graphics at once (with names imagennn.eee). this utility works for PDF, Word and Powerpoint files.*

## Importing an Excel table

MS Excel (or FrameMaker) produced errors when importing sparse arrays (not completely filled table areas). This error is no more present since FrameMaker 6 and Excel 2000.

**Note:** *Do not just import the Excel file! This will create a text inset consisting of the whole workbook - which may contain numerous worksheets. This method, however, allows to update the inset if the table source has changed. No formatting in FrameMaker is possible though.*

## Import the whole or part of an Excel table

- In Excel select the table area to be copied.
- Copy to the clipboard.
- In FrameMaker use **Edit > Paste Special...** and select **text**.

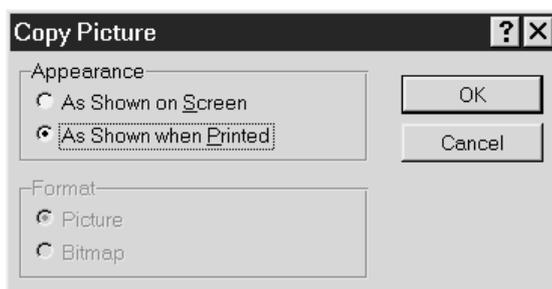
- 4 Convert the tabbed paragraphs to a table with **Table > Convert to Table...**
- 5 Select an appropriate Table format and format the rows according to the needs.

**Note:** *If you use just **Paste**, you create an Object which is linked to the Excel file, but this can not be formatted in FrameMaker. This method however allows to update the table if the Excel file changes.*

## Importing an Excel graphic

To import a graphic from Excel into FrameMaker:

- 1 In Excel select the graphic (chart)
- 2 **SHIFT-Edit > Copy picture...**



- 3 Select **as shown when printed** to get best results
- 4 In FrameMaker use **Edit > Paste Special...** and select **wmf**.

## Importing a Powerpoint graphic

**Note:** *The utility [Office Image Exporter](#) may be of great help to extract Powerpoint graphics in native or other picture format.*

- 1 In PowerPoint select the graphic or graphic elements.
- 2 Copy to the clipboard
- 3 In FrameMaker Paste (a WMF will be pasted). With Paste Special you can select between WMF and DIB.

**Note:** *Backgrounds will not be copied, because normally not selected.*

# FrameMaker specifics

## Maker Interchange Format - MIF

Main features of this file format are:

- Preserve the document structure
- Until FM-version 7 the file is 7-bit ASCII (“upper ASCII is escaped). From FM-8 onwards the MIF file is UTF-8 coded.
- It is extensible (upward compatible)

Any FrameMaker version can import MIF. When opening an FM 6.x MIF in a 5.x Frame version, unknown items are skipped - MIF is even downwards compatible!

Saving a file as MIF cleans out some ambiguities which still accumulate with many changes in a document.

## FrameMaker versus word processing and DTP

Looking at the developments in document processing applications reveals various approaches (looking at the 1980's):

- Quark Xpress emulated<sup>49)</sup> dedicated and complex typography equipment that required trained operators in print houses.
- Aldus (later Adobe) PageMaker emulated a layout (paste-up) artist's workspace accessibly.
- MacWrite emulated a typewriter (magnetic-card operator was still a profession).
- Microsoft Word emulated MacWrite with bells, whims, and bugs.
- FrameMaker emulated dedicated technical or scientific word-processing systems that served publishing professionals printing book-length documents.

Any comparison between these applications must keep the (originally intended) purpose and users in mind<sup>50)</sup>.

|                | Word for Windows (6 ... 8)                                                                                                           | FrameMaker > 5.12                                                                                                |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Platforms      | Windows, Mac (not same functions)                                                                                                    | Unix, Mac, Windows                                                                                               |
| User interface | Flexible and mostly intuitive, adaptable                                                                                             | Sometimes clumsy due to platform independence                                                                    |
| Template       | New document is copy; template can be updated from document styles and macros. Name *.dot. Document can not be updated from template | New document is copy; updates document at any time (various aspects of document). Any FM document is a template. |
| Extensibility  | Powerful macro language (many syntax changes in early versions)                                                                      | API client FrameScript and many other specific API clients                                                       |
| Book functions | Master document (very unreliable); master document = Σ all documents                                                                 | Well thought out; little automatism missing                                                                      |
| Outline view   | Full featured                                                                                                                        | API client Enhance                                                                                               |

49 You may substitute the word emulated by “was inspired by”.

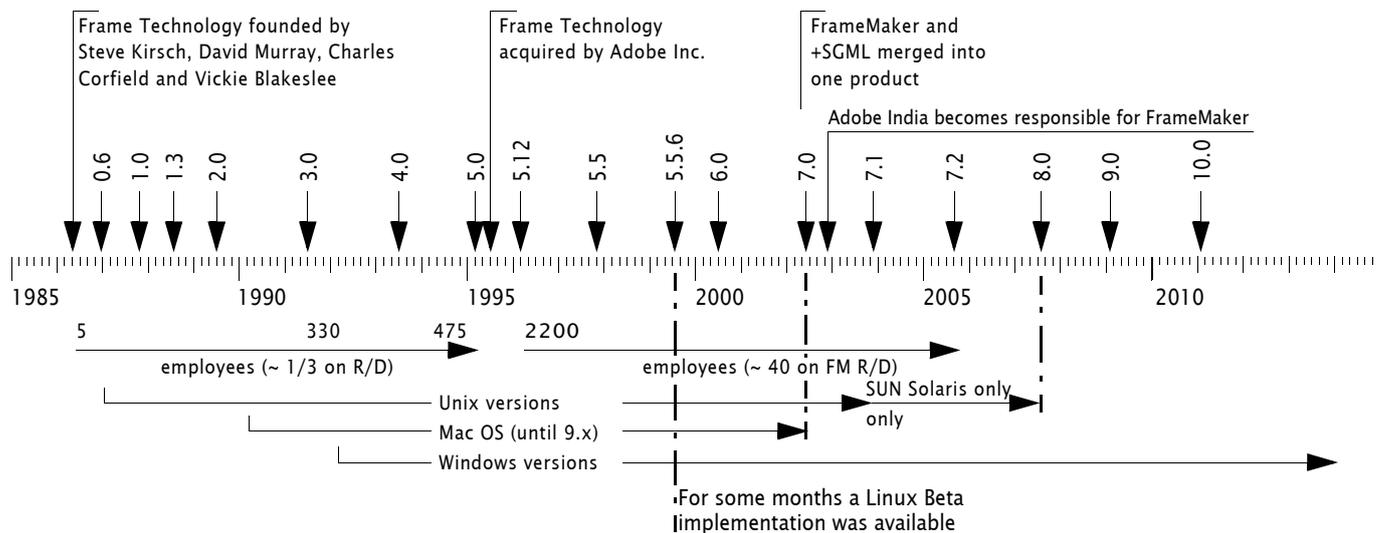
50 Many of these remarks are still valid for Word 2000 and even 2003

|                          | Word for Windows (6 ... 8)                                                                       | FrameMaker > 5.12                                                                 |
|--------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Layout of pages          | First, even, odd; header and footer area, columns for body                                       | Any number of master pages, even mixed orientation; any # of frames               |
| Styles                   | Paragraph, character                                                                             | Paragraph, character, table, lines                                                |
| Side headings            | Anchored frames (very unreliable)                                                                | Standard definitions                                                              |
| Tables                   | Heading not repeated; sorting and calculations                                                   | Heading repeated on pages; sort (FM 5.5); calculations by API clients and scripts |
| Variables                | Fields, global variables in master document                                                      | System and user variables, may be formatted                                       |
| Graphics (direct)        | Located in hidden layer, positioning unreliable                                                  | Features sufficient for technical documents                                       |
| Anchored frames          | A very unreliable feature                                                                        | The name of the game                                                              |
| Import graphics and text | Default: <b>copy</b> ; paragraph and character formatting; update of references kills formatting | Default: <b>reference</b> ; paragraph formatting; update keeps formatting (ref.)  |
| Language                 | Associated with paragraph or character format                                                    | Associated with paragraph or character format                                     |
| Index                    | At any location (field)                                                                          | Generated document, very flexible                                                 |
| Table Of Contents etc.   | At any location (field), arbitrary lists possible with some effort                               | Generated document, very flexible, arbitrary lists with same functionality        |

## Product history

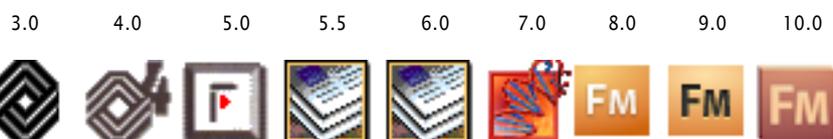
You find a more or less complete history about the development of FrameMaker on the author's web site on [www.daube.ch](http://www.daube.ch).

### FrameMaker time line



### FrameMaker icons

Application icons on Windows (original size 32x32 pixels)



The icons for version 3 to 5 are scanned from documents.

# File names

document.fm standard document name  
 document.fm.lock File of length 0 to lock additional open.  
 document.auto.fm autosave copy → **File > Preferences**  
 document.backup.fm backup copy (before new edit starts)  
 document.emg.fm emergency copy (some crashes)  
 documentxxx.fm generated file (for suffixes xxx see below)  
 document.book generated book started with “document”  
 document.mif Maker interchange format.

## Name suffixes

The following suffixes are default

| Type of document                                                        | English                | German                  | French                  |
|-------------------------------------------------------------------------|------------------------|-------------------------|-------------------------|
| Table of contents                                                       | TOC                    | IVZ                     | TDM                     |
| Index                                                                   | IX                     | SIX                     | IX                      |
| List of Figures, Tables                                                 | LOF, LOT               | AVZ, TVZ                | LDF, LDT                |
| List of paragraphs, (alphabetical)                                      | LOP (APL)              | EAL (AEAL)              | LDP (LAP)               |
| List of Markers, (alphabetical)                                         | LOM (AML)              | ML (AML)                | LDM (LAM)               |
| List of References (text insets, images, fonts, unresolved x-refs etc.) | LOR                    | LR                      | REF                     |
| Standard Index, Index of Authors, Subjects, Markers, References         | IX, AIX, SIX, IOM, IOR | SIX, AIX, TIX, MIX, RIX | IX, IXA, IXT, IDM, IREF |
| list of formats/ index of formats                                       | LFT, IFT               | FL, FIX                 | FOR, IFOR               |

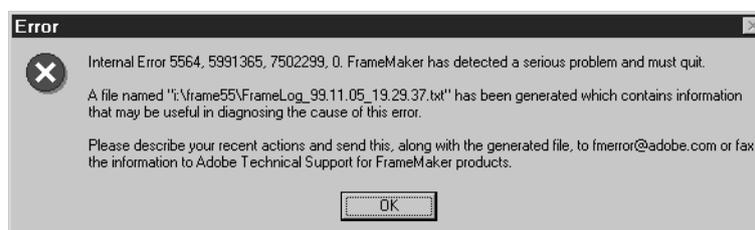
**Note:** *The defaults for the suffices (TOC, IX etc.) depend on the UI language. These can be changed when generating the files. However, names of building blocks (for example, for system variables) also depend on the UI language and can **not** be changed.*

## Temporary files

On start of FrameMaker some files are created in the temporary directory (defined by the environment variable TMP), for example FRM9A.tmp. These are removed at close of FM.

## Crash files

If FrameMaker crashes with an error message, such as



a dump file is created in the \$FMHOME directory:

h: \adobe\framemaker\en\Framelog\_99.11.05\_09.44.39.txt

In other crash cases additionally the temp files are copied to the \$FMHOME directory, e.g. formulas.fm.2EB. You may need these to send them to Adobe for error tracking.

# Document properties in MIF

## View only documents

Any document can be locked for view only (no editing possible) with the command **ESC, F, I, k**. This lock is permanent and can not be unlocked, if the View Only statement is present in the MIF file of this document (see *Lock document permanently* on page 12).

**Note:** *To be able to edit this document further, always keep the MIF version (text file) of the document to be able to remove the View Only statement.*

### Unlock document

To unlock a view-only document, enter the sequence **ESC, F, I, k**

Unlocking of a permanently locked document is not possible.

### Save as View Only

With **File > Save As ...** and selecting **View Only x.x (\*.fm)** the file can be saved as viewable only without applying the ESC sequence.

## Lock document permanently

The View Only MIF statements described in this section must appear in a Document statement. These statements have no effect in an unlocked (editable) document.

To disallow unlocking, open the MIF file and change the statement found in the <Document section:

```
<DViewOnly No> to
<DViewOnly Yes> and add statement
<DViewOnlyNoOp 0xF00>
```

The file is locked when opened in FrameMaker. However, the document read from the disk by FrameMaker is still in text format and can therefore be unlocked by someone with write permissions to the MIF file by reversing the change.

### Locked for everybody

- 1 Change the statement mentioned above to  
<DViewOnly No ><DViewOnlyNoOp \0xF00 >
- 2 open the edited MIF file in FrameMaker, and
- 3 save the file in View Only format.
- 4 The following message appears:  
*This file cannot be opened for editing after you save it in View-Only format. Save a backup file in Normal (editable) format?  
Yes No Cancel*
- 5 If you select **Yes**, the file is immediately locked and cannot be unlocked. The file is saved in binary format to disk, and cannot be restored to an editable state.

**Warning:** *There is **no** procedure for unlocking such a document (even Adobe can not help in this case)! If the copy command is still available for a document the contents of the document can be pasted into another document.*

## Document control statements

You can use MIF statements to change the appearance and behaviour of the document window in the following ways:

### Statement overview

| Statement           | Value <sup>a</sup> | Explanation                           |
|---------------------|--------------------|---------------------------------------|
| DViewOnly           | No                 | document can be edited                |
|                     | Yes                | document is view only                 |
| DViewOnlyXRef       | GotoBehavior       | X-refs behave like gotolink           |
|                     | NotActive          | Disable hypertext in X-refs           |
|                     | OpenBehavior       | X-ref links behave like openlink      |
| DViewOnlySelect     | Yes                |                                       |
|                     | UserOnly           | Disable highlighting destination link |
|                     | No                 | Disable selecting text                |
| DViewOnlyWinBorders | Yes                | Display scroll bars                   |
|                     | No                 | Suppress scroll bars                  |
| DViewOnlyWinMenuBar | Yes                | Display menu bar in Unix              |
|                     | No                 | Suppress menu-bar display under Unix  |
| DViewOnlyWinPopup   | Yes                | Allow popup hypertext cmd             |
|                     | No                 | Disable popup hypertext cmd           |
| DViewOnlyWinPalette | No                 | file behaves as document              |
|                     | Yes                | file behaves as palette               |
| DViewOnlyNoOp       | 0x313              | Disable cutting or clearing           |
| DViewOnlyNoOp       | 0x322              | Disable copying                       |
| DViewOnlyNoOp       | 0xF00              | Disable unlocking the document        |

a. Default for normal document is highlighted

Sources Dan Emory: *FrameMaker Palettes* [pdf on the net, 1999]  
<http://www.faqs.org/faqs/frame/faq/part2/>  
 MIF reference *Setting View Only document options*

### Disable user actions

You can disable specific commands in a View Only document. For example, a hypertext author might disable copy and print commands for sensitive documents.

To disable a command, you must supply the hex code, called an fcode, that internally represents that command in a FrameMaker product. For example, you can disable printing, copying, and unlocking the document by supplying the following statements:

```
<DVViewOnlyNoOp 0x313> # Disable printing
<DVViewOnlyNoOp 0x322> # Disable copying
<DVViewOnlyNoOp 0xF00> # Disable unlocking the document
```

**Warning:** *There is no procedure for unlocking such a document! If the copy command is still available for a document the contents of the document can be pasted into another document.*

**Document window menu bar**

Suppress (No), Enable (Yes)

<DViewOnlyWinMenuBar No>

This statement has no effect in the Windows version of a FrameMaker product because those versions have an application menu bar rather than a document window menu bar.

**Display of scroll bars and border buttons**

Suppress (No), Enable (Yes)

<DViewOnlyWinBorders No>

**Selection in the document window**

Suppress (No), Enable (Yes)

<DViewOnlySelect No>

You can normally select text and objects in a locked document by Control-dragging in UNIX and Windows versions. Specifying <DViewOnlySelect No> prevents all selection in a locked document.

**Context menus**

Suppress (No), Enable (Yes)

<DViewOnlyWinPopup No>

This statement has no effect in Windows versions.

A *document region pop-up menu* is a menu activated by the right mouse button. For example, in UNIX versions of a FrameMaker product, the Maker menu and Viewer menus can be accessed by pressing the right mouse button. If the DViewOnlyWinPopup statement has a value of No, the background menu does not appear when the right mouse button is clicked.

**Make window behave as palette**

<DViewOnlyWinPalette Yes>

A *palette window* is a command window, such as the Equations palette, that exhibits special platform-dependent behaviour. In UNIX versions of FrameMaker products, a palette window can only be dismissed; it cannot be closed to an icon.

In Windows versions, a palette floats outside the main application window and **cannot be unlocked**. To edit the palette, you need to reset the DViewOnlyWinPalette statement to No in the MIF file before opening it in a FrameMaker product.

**Using active cross-references**

A locked document automatically has active cross-references. An active cross-reference behaves like a hypertext `gotolink` command; when the user clicks on a cross-reference, a FrameMaker product displays the link's destination page. By default, the destination page is shown in the same document window as the link's source.

**Behaviour gotolink**

You can use MIF statements to turn off active cross-references and to change the type of hypertext link that the cross-reference emulates. (By default, cross-references emulate the `gotolink` behaviour.)

**Behaviour openlink**

To make cross-references emulate the `openlink` command, which displays the destination page in a new document window, use the following statement:

<DViewOnlyXRef OpenBehaviour>

## Disable active cross-references

Use this setting to allow users to see both the source page and the destination page.

To turn off active cross-references, use the following statement:

```
<DViewOnlyXRef NotActive>
```

## Control with DViewOnlySelect

Use this setting to emulate the behaviour of FrameMaker versions < 6. You can use the DViewOnlySelect statement to control whether active cross-references highlight the marker associated with destination text.

Value	Effect when clicking on a cross-reference
Yes	Highlight the marker associated with the destination text.
UserOnly	Default: No highlighting of the marker. However, the user can select text in the locked document.
No	No highlighting of the marker. The user cannot select text in the locked document.

# Background information

## Hyperlinks: goto versus open

**Question:** When I follow a link to another file in the FM book, it usually does not close the current file. Other times it does close the current file. Is this a bug or a feature, and how do I disable closing the current file?

**Answer:** FrameMaker hyperlinks have two variations: goto and open.

The **goto** variation displays the target document in the current window (closing the currently-displayed file); the **open** variation displays the target document in a new window, leaving the current document open.

The goto/open behaviour of hypertext markers generated automatically (e.g. in TOC/IX) is controlled through the corresponding flow in the reference page, e.g.: openObjectId <\$relfilename>:<\$ObjectType> <\$ObjectId>

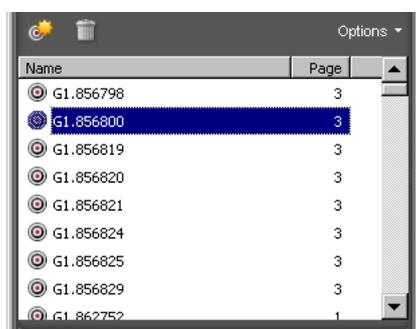
With respect to cross-references, the goto/open behaviour is controlled internally by the DViewOnlyXRef property (see *Behaviour openlink* on page C-14 and *Disable active cross-references* on page C-15). This can be set only in MIF or by a plugin.

If you type the Shift key when activating a link/cross-ref with **Ctrl+Alt**/cross-ref (that is, **Ctrl+Alt+Shift+click**), the goto... is interpreted as an open... action (and vice versa).

Notice that the goto/open variation only applies to links activated in FrameMaker, and is not carried over to PDF interactivity (where all links/cross-refs become “goto”. More info at [www.microtype.com](http://www.microtype.com), item 10.

[Shlomo Perets, 2008-12-29]

## Named destinations in PDF



With standard settings in FrameMaker a huge number of named destinations are created. They can be examined in Acrobat 8, **View > Navigation Panels** select **Destinations** to get a window with the open Tab Destinations. The destinations created by FrameMaker have specific names (n is the number of the file in the FM book):

P.n Page n (may not exist for every page)

Fn First page of document n

Lnf Last page of document n

Gn.o Paragraph targets

In.o.p

En.name Target of a structured ID cross reference (Element, name= normalised ID)

Mn.o.newlink.namecross reference targets (o seems to be a type)

## General items in maker.ini

**Note:** *This section is primarily information for the curious person. Do not tinker around with settings which you do not completely understand! You may encounter a FrameMaker crash with wrong setting, although some false settings can be handled by FrameMaker.*

Not all of the possible settings are explained here. See also *Recommended setup of FM* on page A-31. Default values are given after the = sign.

### [Frame]

Version	8.0p277 means, version 8.0, patch 277. Patches save the exchanged files in \$HOME/backup_pnnn. The value is displayed in <b>Help &gt; About FrameMaker</b> .
Language	This specifies the <b>default language</b> dictionary and the default paragraph language. The initial setting is defined by the installed product version (e.g. UKEnglish).  You can enter the name of one of the other languages available in FrameMaker, but you must have the dictionary for that language installed for FrameMaker to work.
ProductInterface	FrameMaker or StructuredFrameMaker. If you delete maker.ini in the user area (%APPDATA%) you are asked again which interface to be used.

### [Reginfo]

RegNum	This is no more used in FM-8, hence 0
Asn	Application Serial Number from the CD-ROM. It is not used the registration process, but the relevant information from the Activation is kept in the online database of Adobe.

### [Preferences]

AskExit=Off	Determines whether to ask for confirmation before exiting.
AutoSave=Off	The value for AutoSave is in minutes and determines how often FrameMaker creates a backup file for the active file, whether or not you have saved it.
ShowErrors=On	Determines whether error messages are displayed in the console window when they occur. This does not disable messages from plug-ins.
ErrorFileName=console.txt	This specifies the name of the file that error messages are written to if there is a system crash. If that happens, immediately make a copy of the console.txt file. This file will contain important debugging information, which can help a Technical Support engineer track down the problem.
GreekSize=7	The value specifies the point size at which displayed text is grayed out.
UseSystemCursor=Off	This specifies whether FrameMaker will use its own cursors for mouse actions such as Rotate or Drag.
OFF	FrameMaker uses its own cursors
ON	FrameMaker uses the operating system cursor.

DefaultRulerxxx	These settings provide the default values for the tick marks on the vertical and horizontal rulers in new documents. The current setting is saved in the document.
DefaultGridxxx	These settings provide default values for spacing of the visible grid lines.
DefaultSnapxxx	These settings provide default values for the spacing of the (invisible) snap grid.
MonitorSize=Default	This setting specifies the size of your monitor so that the documents and dimensions you see on the screen (such as for margins and objects) are very close to their actual size.  Initially, <code>MonitorSize</code> is set to <code>Default</code> . If you want greater precision in the measurements you see on the screen, fill in the diagonal measure of your monitor: <code>MonitorSize=17in</code>
AutoMnemoniseMenus	This setting determines if mnemonic command shortcuts are shown on menus.
StickyPopupThreshold=500	This setting controls how long (milli-seconds) you must hold down the mouse button for pop-up menus, such as the Zoom menu, to open.
ForceFileTypeChoices=Off	On forces the “unknown file type dialog”, even if the file type is known to FM.
ReplaceCacheSize=200	Purpose unknown. Hands OFF!
RomanRanges	The values 0000-024F, 0400-052F, 0370-03FF, 2000-206F define which Unicode characters are to be considered text (and not symbols). This is essential for the wildcard search.
ConfigWarnKbdOverride=Off	If On, you will see warning messages when you load the customization file if it contains shortcut definitions for commands that already have shortcuts defined for them.
ConfigWarnKbdRedundant=Off	If On, you will see warning messages when you load the customization file if it contains redundant shortcut definitions.
UsePostscript=On	This setting determines whether FrameMaker uses built-in methods of generating PostScript code instead of standard Windows methods. If FM uses the built-in methods, it can print faster and produce higher quality documents.  With OFF the Windows methods are used instead. In this case FrameMaker prints the preview image of EPS graphics instead of the PostScript image.
EPSLevelForPlacedPDF	This specifies the level of EPS to use for placed PDF images. By default, FrameMaker prints imported PDF (Placed PDF) files by converting them to Level 2 EPS files. Use this setting to specify Level 1 or Level 2.
FMImage=Off	This entry controls whether a FrameImage facet is saved with imported graphics by default. <sup>51)</sup>
GDIRasterizeKiloPixelLimit=8192	Purpose unknown. Hands OFF!
CrossPlatformFileNaming=Windows	This setting <i>controls</i> the file naming convention for files to be saved. The default is <code>Windows9x/2000/NT</code> . The other choices are <code>UNIX</code> , and <code>Macintosh</code> .
API=On	To start FrameMaker without the API (Application Program Interface) clients listed in section [APIClients], set OFF.

<sup>51</sup> IMHO this does not work correctly. Although set OFF, FrameVector facets are present at the import by copy of any bitmap file.

- ClipboardFormats-Priorities** This controls what format is used when you paste or when you drop a file into an open document. See *Modifications to maker.ini* on page A-32.
- An item can be stored on the Clipboard with multiple formats. This entry specifies the order for the formats used to paste Clipboard items. In this entry, priority in the list goes from left (highest) to right (lowest). To give a format higher priority, move it farther left in the list. The first format in the list which matches a format on the Clipboard will be the format used to paste the item. For example, many users move TEXT in front of RTF in order to preserve line breaks and strip formatting when text is pasted from browsers and other programs.
- The FILE format instructs FrameMaker to check whether the object being dropped or in the Clipboard is a file. If it is, the file is opened; if the file is not in a recognized graphic format, it is embedded as an OLE package. This precedence applies to all items you paste from the Clipboard. You can override this precedence for individual paste operations by using Edit > Paste Special rather than Edit > Paste.
- If you comment out this line (by starting it with a semicolon), FrameMaker uses the first of the formats associated with the Clipboard item. Depending on what kind of item is on the Clipboard, the format can vary from one paste to the next.

### New in FM-8

- EnhancedToolBar=On** Unknown purpose, no effect recognises on/off
- No3DInPDF=Off** Setting identical to **File > Preferences > General** setting of "Don't embed 3D model file in PDF"
- NoFlashInPDF=Off** Setting identical to **File > Preferences > General** setting of "Don't embed Adobe Flash file in PDF"
- AlwaysDownload-URL=Off** With ON referenced files imported by an URL are updated on opening the document.
- DontShowWelcome-Screen=off** Setting identical to **File > Preferences > General** setting of "Don't show Welcome Screen'.
- TabbarStatus=On** Setting identical to **View > Tabbed Bar**.
- hpWarning=0** Setting identical to **File > Preferences > General** setting of "Show Warnings while cleaning History". set=1, cleared=0.

### [Files]

- ToolBarIniFile** Define an alternative toolbar ini file, for example `fminit\configui\FMToolbr.ini`
- CustomDoc=fminit\custom** This specifies the template for new custom documents. This file also defines the standard paragraph etc. formats.
- PageSizesFile** The indicated file (`fminit\pagesize.cfg`) contains the definition of page sizes.
- ConfigCustomUIFile** This specifies the file that contains additional custom menus or changes to existing menus or commands that you have added. The default file for this setting is `customui.cfg`. A file name must be present to avoid a crash. This entry is used by the Enhanced Toolbar implementation.

**[DialogLayout]**

You may use these definitions if you don't get a view of a particular dialogue. This may happen, if it was on a second monitor, which is now more present. In such a case just set the coordinates to 0, 0 to get them into the top left corner, from where you can move them to another position.

You may also delete the `maker.ini` file in the user area (%APPDATA%) to have FrameMaker refresh it from the master in \$HOME.

MakerWin	The values specify normal, minimized, and maximized positions. The first value determines which position to use; its value is 1 for normal, 2 for minimized, or 3 for maximized. The next six values are pairs of x and y offsets that specify the different window positions; the first pair specify the minimized position, the second pair specify the maximized position, and the third pair specify the normal position. The last two values are the normal window width and height.
Catalogues	The settings for the Paragraph Catalog and Character Catalog (PCatalog and CCatalog) specify first an x and y value for the location of the catalog. The x value specifies the offset in pixels from the left side of the screen. The y value specifies the offset in pixels from the top of the screen. Optionally, the width and height of the catalog, in pixels, appear after the x and y values.
ECatalog	This positions the Element Catalog. This is only available when running FrameMaker in Structure mode.
Others	The rest of the settings specify only an x and y value for the left and top offset of the window or dialog box.

**Reduce impact of import by copy**

The behaviour of FrameMaker when importing files, such as graphics is specified in the section [Filters] of the `maker.ini` file. For example, for the import of png files, you find the following entry:

```
20="PNG " IMAG PNG FrameVector GFXImport "Portable Network Graphics" imagmark.dll
^.png
```

The elements of this entry are:

Text	Explanation
20	Just a number required by Windows
"PNG"	Format ID,
IMAG	A four-character maximum string that identifies the vendor
PNG	Specific facet stored in document
FrameVector	General facet stored in document
GFXImport	Filter type: Graphics import
"Portable Network Graphics"	Description of the filter
imagmark.dll	Filter name in the Filters directory
^.png	Extension of the file handled by the filter

To reduce the impact of the copy, replace the `FrameVector` term by `DIB` (Device Independent Bitmap) which uses compression methods.

## Special directories

Some directories in the FM installation provide special treatment to the files in them.

### \$HOME\Templates

Files in this directory are opened as copies, that is with the name `Untitled.fm`. This directory is defined in `maker.ini` as:

```
TemplateDir=Templates
```

You may specify any other directory here to access your company templates, for example:

```
TemplateDir=D:\doc-std\Frame
```

To have still access to the FM-templates, copy the subdirectories from `$HOME\Templates` to your company directory.

### \$HOME\fminit\maker

Files in this directory are opened as locked, that is, can not be edited. For example, the template browser (see *To use a sample template* on page 1-10) is located here. This directory is defined in `maker.ini` as

```
PaletteDir=fminit\maker
```

**Note:** *Do not change this setting! In this directory also `menu.cfg` is located and this must not be moved to any other location.*

It is unclear to me why the Equation palette is not in this directory (`$HOME\fminit\equation`). Both the Template browser and the Equation palette are FrameMaker documents using advanced hypertext methods. Copying them to another location and opening from there allows to edit them. Back in the `PaletteDir` they are locked again.

# FrameMaker principles and philosophy

FrameMaker development started in the UNIX environment, from which the following principles originate:

- 1 Keep it small and simple, but allow for easy aggregation.  
In UNIX general purpose utilities can be “concatenated” via the standard input/output mechanism.
- 2 Names are case sensitive. The roots of this is the **C** language. Hence not only items in the file system, but also most object-names handled by a program are case sensitive.

## Impact on FrameMaker

- 1 Object names (names of paragraph formats etc.) are case sensitive. A style name **Body** is not the same as **body**.
- 2 Various tasks are not handled in the core of FrameMaker but in separate processes:
  - Tables
  - Sorting of tables
  - Formulas (Equations)
  - SGML structure

As a result of this the integration in some cases is not as smooth as wanted by the user (e.g. table footnotes are handled independently of text footnotes).

- 3 Input to FrameMaker can be generated from other processes, hence the formatting process does not need user interaction or user judgement.

This requires that text features (e.g. TABs) can be handled without looking onto the screen. TABs are hence absolute, not relative as in text processing software.

- 4 No macro language is built into FrameMaker. But since the beginnings of FM automating was performed by processing the MIF form of files. For example, Data Base Publishing solutions generate MIF which is then formatted in FM.

In addition, since the beginnings the Frame Developer Kit was available to build plug-ins on the various platforms. Since about 1997 the script language **FrameScript** is available, which allows scripts to do nearly the same as FDK programming allows.

- 5 Since FrameMaker was ported to various platforms (UNIX → Mac → Windows) there was need for a common ground in the user interface. Also hardware (cpu, RAM, screen) was expensive in the beginning. Hence FM does not waste resources and on the other side has not a tweaked GUI.
- 6 FM has no “hidden intelligence” as some largely used programs pretend. It does not work automatically in the background. You need to start such processes as updating the page numbering or define TAB positions explicitly.