

# 52

## Find/Replace extended

### Overview v1.2

**FMfindRepl** is a response to some wishes expressed in the Adobe FM forum and of my own demands.

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- Important
- Many operations performed by a script can not be undone! Best practice is to save the document before performing script actions on it.
  - In case of an error or change of Your mind you can simply Revert to Saved.

# Introduction

## Use cases

See [Use Cases](#) on page 22.

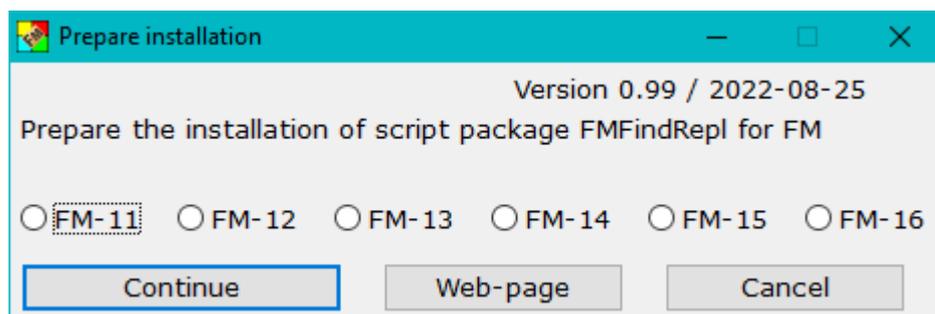
## Installation

- 1 Close FrameMaker if necessary.
- 2 Download the ZIP from the [website](#) and expand it to a location of your liking.
- 3 Execute the file PrepareInstallation.exe (run as Administrator)

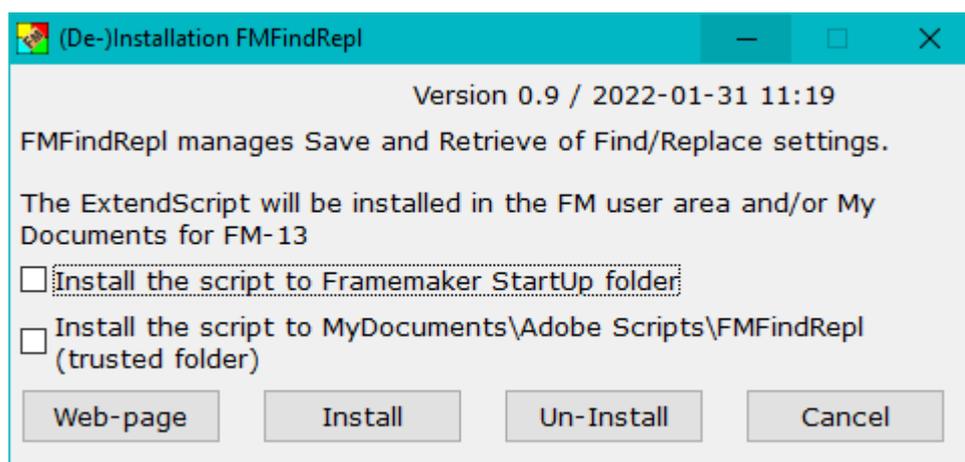
**Note:** *Windows Defender may react to this program with a virus warning. This is a false positive. You may check this with an [upload to Virustotal](#). See [Avoid Windows Defender intervention](#) on page 3.*

The language of the installation dialogues adapts to the UI language of your current FM installation (de, en, fr).

- 4 The last six FM-versions present in your %appdata%/Adobe/FrameMaker/ are listed in the dialogue (on your system there may be only one).



- 5 Check the version for which you want to install the script.
- 6 Use **Continue** to open the installation program.



- 7 Select the appropriate option(s):
  - Use the first option to start the script automatically at FM-start. In this case the script and related files are stored in %appdata%/Adobe/FrameMaker/vv/Startup/ and in a subfolder **FMfindRepl**.
  - Use the second option if you wish to start the script on demand from a trusted source. You can define the script

in File > Scripts ... > Cataloge (Script Library) as Favourite: use the **Add** button and navigate to My Documents\Adobe Scripts\**FMfindRepl**\**FMfindRepl**.jsx.

- 8 With **Install** the script and associated files will be transferred into the relevant locations.
- 9 A message indicates the end of the installation. The desktop icons will be removed.

## Avoid Windows Defender intervention

- 1 In Windows settings navigate to **Windows Security > Virus & Threat protection settings > Manage Settings**
- 2 Go to **Exclusions**
- 3 Add the folder you need to exclude:  
C:\Users\username\AppData\Roaming\**D+DD**

## Details of the D+DD script installation

- Unpacking creates a program (Preinstallation.exe) and a directory (InstallThis).
- Preinstallation.exe should be executed with admin rights (right-click and select), otherwise a message will appear indicating this.
- Preinstallation adds the information about the current directory (e.g. C:\Users\Klaus\Desktop\InstallThis) and the installation directory of the selected FM version to the InstallThis\config.ini file.
- Then InstallThis\Inst-**FMfindRepl**.exe is executed, which creates a directory **D+DD**\**FMfindRepl** in the Windows Start directory and copies everything from InstallThis there. In addition, a short cut is created to this directory.
- This directory contains Inst-**FMfindRepl**.exe, which is now executed and the unpacked files that are no longer used (e.g. on the desktop) are deleted.
- Inst-**FMfindRepl**.exe asks where the script should be copied to (Startup folder or MyDocuments\Adobe Scripts\**FMfindRepl**). The selected option must also be selected during a de-installation in order to de-install at the correct location.
- The script consists of the main module **FMfindRepl**.jsx and the modules in the **FMfindRepl** directory.
- Various scripts (e.g. the installation of the tool bars) also write something in the maker.ini in the user area in the section [D+DD].

# Script invocation

## Menu entries

The script establishes an entry in the edit menu<sup>1)</sup> :

Edit	Shortcut
Find/Replace extended	ESC q f

## Documentation

This pdf is displayed with your default PDF viewer by the **Help** button on the panel.

## Notes on the User Interface

- The current settings can be saved with a name.
- Later in time settings can be retrieved, probably modified and executed.
- Available Find and Replace options depend on the type of Search item (Find Type). See [Implementation details](#) on page 27.
- Some special find operations look into the whole document (all sorts or pages and flows).
- Each invocation of the panel (by menu or short cut) creates a fresh UI. To preserve settings among invocations use the **Restore** button. See [Button Restore](#) on page 10.
- I implemented option drop downs lists as check boxes or radio buttons.
- Speed up your work with [Default Text search](#) on page 10.
- Since the drop-down lists may become long the selection can be accelerated by typing the initial characters<sup>2)</sup> of the item to be selected. The selection will jump to the item starting with these letters. With the ↓ key you can go to next items (and then to previous items with ↑). confirm the selection with Enter or click).
- See also [Missing short cut keys](#) on page 25.

### Change menu short cut

After a while of satisfactory use you may wish to invoke **FMfindRepl** in place of the standard FM panel by **Ctrl+f**. You can do this without losing access to the standard panel:

In C:\Users\username\AppData\Roaming\Adobe\Framemaker\v\Startup\FMFindRepl\FMfindRepl\_Globals.jsx<sup>3)</sup>

In the line 47

```
KLD_F.FM_ShortCut = false; // ...
```

change **false** to **true** and restart FM.

### Consequences

Via the menu you can invoke both with ease.

Via short cut **CTRL+SHIFT+f** you still can invoke the standard panel, but you get the ignorable message: The item you are searching for requires text in the Find text box

1 In FM < 16 the item appears at the end of the menu.

2 To correct the last typed character use BackSpace.

3 v is the FrameMaker version of you installation (e.g. 12 or 16).

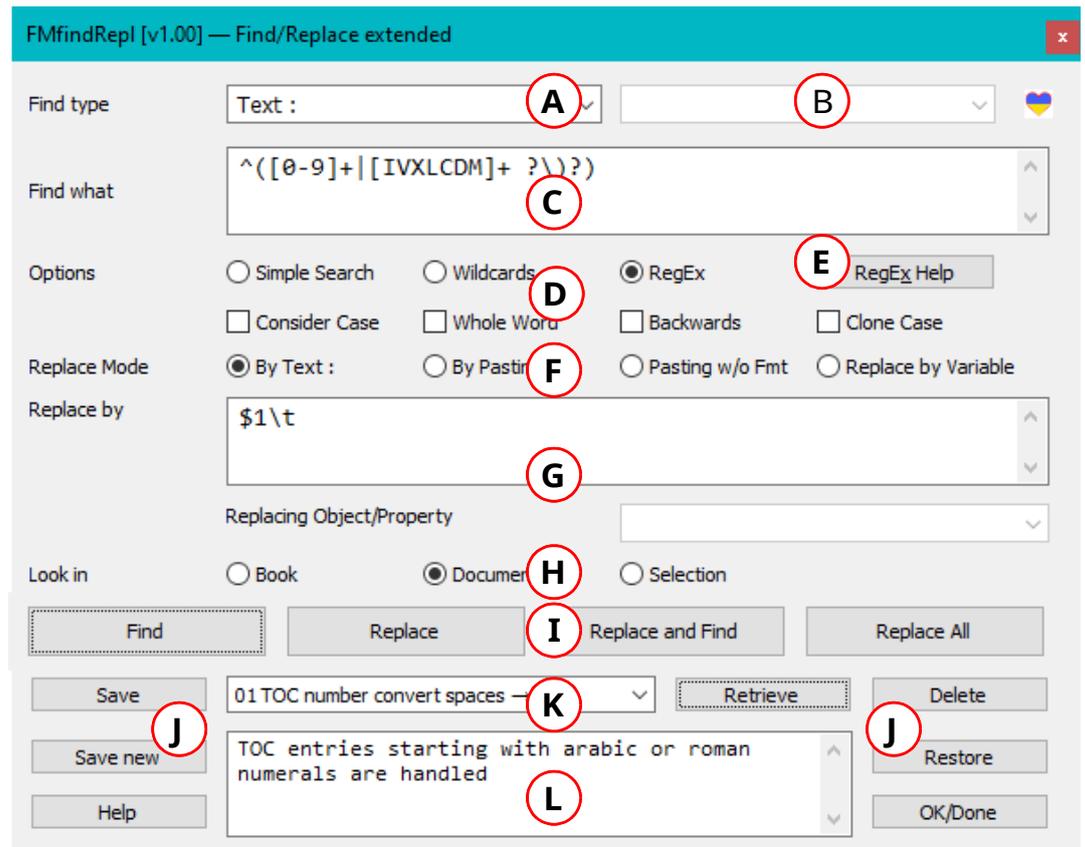
# Working with FMfindRepl

2023-07-27

E:\\_DDDprojects\FM-FindRepl\Docu\FMfindRepl.fm

D+D D

- Find Type (A)
- Catalogue entries (B)
- Find what (C)
- Options (D)
- Button RegEx Help (E)
- Replace mode (F)
- Replace by (G)
- Look in (H)
- Action Buttons (I)
- Maintain the settings (J)
- List of saved settings (K)
- Ancillary area (L)

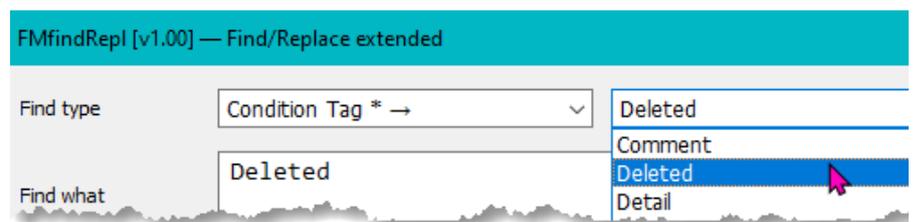


## Find Type (A)

Drop down list of the types Anchored Frame ... Variable named →. Some of the entries have different labels to the original FM F/C panel. Few are left out and some are added (label contains an \*).

## Catalogue entries (B)

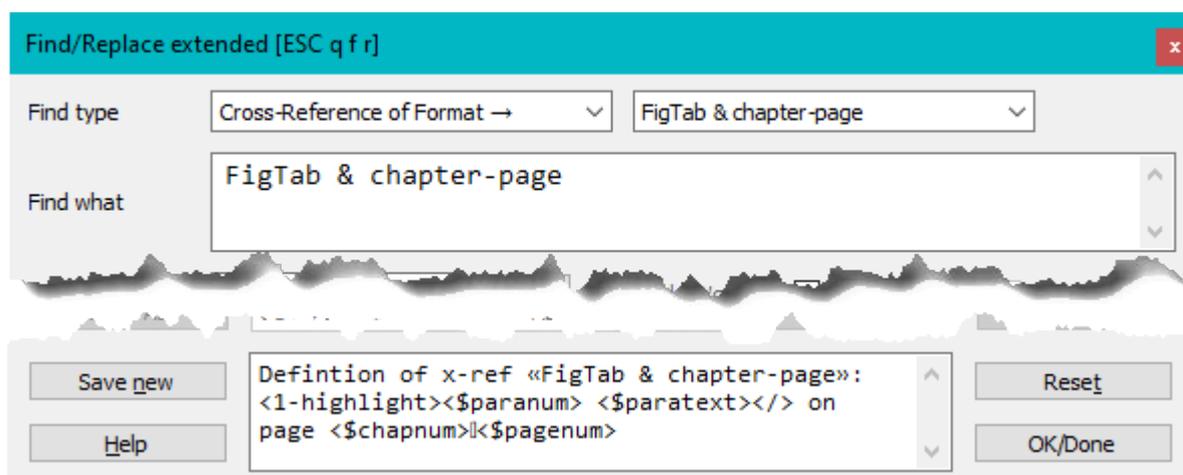
Find Types with an ending arrow (→) fill the adjacent drop down list with the names from the corresponding catalogue:



This concerns the following types:

- Character Tag →
- Colour \* →
- Condition Tag \* →
- Cross-Reference of Format →
- Marker of Type →
- Object Style Tag →
- Paragraph Tag →
- Table Tag →
- Variable named → Both user variables and system variables are listed in alphabetic order.

Special find types	<b>FMfindRepl</b> offers some additional find types compared to the FM Find/Change panel dialogue. See <a href="#">Special find types</a> on page 11.
Find types not implemented	Due to lack of knowledge or information, some find types present in the standard FM Find/Change panel are not implemented. See <a href="#">Find types not implemented</a> on page 15.
Additional information	For the following Find Types information about the found object is provided <sup>4)</sup> in the info area <b>L</b> : <ul style="list-style-type: none"> <li>• Cross Reference Format (see screen shot)</li> <li>• Marker of Type: Marker text</li> <li>• Variable: Definition</li> </ul> This lets you judge whether to look for the intended object:



### Find what (C)

Text entry area for a find string or regular expression. To find uncatalogued tags/formats, enter the name here.

### Options (D)

**Note:** *Enabling of Find Option depends on the selected Find Type. See [Main control table](#) on page 28.*

#### Radio buttons

##### Simple Search

This is the most used case and available for all supported Find Types.

##### Wildcards

See [Search with Wild Card](#) on page 16.

##### RegEx

The contents of the **Find what** field is used as a starter in the panel where you create the RegEx (entered by **RegEx Help**). The created RegEx will be inserted into the edit field **Find what**. Only elements for the Perl flavour of RegEx are implemented. Hence you get a warning if your installation defines another flavour.

**Note:** *If you do not use the button RegEx Help to create the regular expression, this is not tested.*

#### Check boxes

##### Whole Word

If the search string shall match only full words, check this. *Disabled for RegEx.*

<sup>4</sup> This information is not provided for items found “in Selection”. If you want to get it, just put the cursor somewhat before the found item and “Find in Document”.

- Consider case** If case is relevant for the search, check this. May be overwritten by a RegEx.
- Backwards** To search backwards from the current location, check this. *Disabled for RegEx.* See [Backward search may cause FM to hang](#) on page 24.
- Clone Case** This is active for text replacement only. If set, the replacement string is modified according to the case in the found string. See [Clone Case](#) on page 27.

## Button RegEx Help (E)

This becomes active only for Option RegEx. It opens a panel from which Regular Expression elements can be selected. See [Handling Regular Expressions](#) on page 17.

## Replace mode (F)

**Note:** *Enabling of Replace Modes depends on the selected Find Type. See [Main control table](#) on page 28.*

**Radio buttons** Replacing **To Character Format...** is not implemented. Use the Standard FM dialogue for this.

**By Text** This is a default for most Find Types.

If **RegEx** is active, the **Replace by** entry may refer to capture groups with the symbolic notation  $\$n$ . See [Reference to capture groups](#) on page 20.

**By Pasting** The selection is replaced by the contents of the fully formatted clip board.

**Pasting w/o Fmt** The clipboard is cleared from local formatting. Markers and variables are preserved. The clipboard must not contain more than one paragraph. Hence do not include a paragraph end mark in the selection at copy time.

**Special treatment** To replace an object or property with catalogued name the possible replacements are provided in the drop-down list Replacing Object/Property.

This caption is changed for certain Find Types to indicate the real function<sup>5</sup>):

**Change Marker Type** for Marker (any) and Marker of Type →

**Delecte Object** for Empty Textline.

**Replace Colour** for Colour.

**Unlock ¶** for Paragraph (locked)

**Remove Override** for Character Format, Object Style, Paragraph Format and Table Format. See also [Remove Object overrides](#) on page 25.

**Replace Obj Text** for Marker of Text and User String. The Marker text or User String is replaced by the given string.

**Replace Obj Format** for Any Cross-Reference, Cross-Reference of Format, Any Table, Table Tag. Since The format names are catalogued, you select the replacement from the drop-down list Replacement Object.

5 Standard FM Find/Change replaces the objects by simple text, which is IMHO not a reasonable action.

**Replace by Variable** for Text. You can select the variable name from the activated drop-down list Replacement Object.

See [Special replacements](#) on page 12 for further details.

## Replace by (G)

The text to be used for replacement. This may be a regular expression if RegEx is selected in the Options. To remove found text, the replacement is empty (replace by nothing).

### Replacing Object

If the Find Type is an object with catalogued names (e.g. Cross Reference), then the adjacent drop-down list will be filled with same items as the drop-down list right to Find Type. If you want to delete the contents of the object, you select the *top empty item* from the list.

## Look in (H)

### Radio buttons

#### Document

This is the default.

#### Book

Only \*.FM and \*.MIF files are searched<sup>6</sup>. Generated files (TOC, IX etc.) are considered. See [Find in Book](#) on page 15.

#### Selection

**FMfindRepl** does not support all Find Types. See [Find in Selection](#) on page 15.

## Action Buttons (I)

The action buttons are enabled only if proper settings are defined.

#### Find

Find the text or object according to the settings ([Options \(D\)](#) on page 6).

#### Replace

Replace the text or object according to the settings ([Replace mode \(F\)](#) on page 7).

#### Replace and Find

Same as pressing Replace and then Find.

#### Replace All

Use this with care (you get a warning). The Find / Replace function is performed until Find is no more successful.

## Maintain the settings (J)

Save the current settings<sup>7</sup> of **FMfindRepl** with a name<sup>8</sup>. There are two buttons to distinguish the two use cases (modify already saved settings; save new settings).

#### Note:

*Although you can transport (e.g. copy) the file FMfindRepl.xml between FM installations - it is not possible to handle such a file created with a different UI language of FMfindRepl.*

Modify the current setting (displayed name)

- ▶ Retrieve the appropriate settings.
- ▶ Modify the settings and check them.
- ▶ You may modify the info area; for example, add information about the modification.
- ▶ Use button **Save** to save the modified setting with the already defined name.

Create a new item in the settings

- ▶ If necessary, select all (**CTRL+a**) in the info area and **delete** it.

<sup>6</sup> That is, neither are nested books traversed, nor are XML files or non-FM files considered.

<sup>7</sup> All settings except the scope (Search in ...) are considered.

<sup>8</sup> The data is kept in file FMfindRepl.xml.

- ▶ Type the name for the new item into the info area: This name should be different to already defined names - although you may distinguish further by the additional information given.<sup>9)</sup>
- ▶ Use CTRL+Enter to add a line break. This is necessary to get an own paragraph in the info area.
- ▶ In the rest of the info area type the required text, for example.

Exchange company name with paste buffer

Insert the current company name into the «Find What» field and have the replacement (variable) in the paste buffer.

- ▶ Use button **Save new** .

## List of saved settings (K)

The top item of the list is empty. If you select something, button **Retrieve** becomes active.

Names *not* starting with a Latin character (e.g. by Cyrillic ones or \$, @ [ etc) are sorted after the blank before the ones with Latin characters.

```
01 Remove manual list numbering
02 Exchange company name with paste buffer
Even this awful long name is displayed completely in the list
Test case: Ample gugus & other stuff
TOC number convert spaces → TAB
```

Thus you can easily prefer certain settings or group by prefix.

### Retrieve settings

Button **Retrieve** reads the data of the selected item and sets the various options accordingly.

As a side effect the clipboard is filled with the data read in. This can be used, for example, for documentation purpose.

Example

(Formatted for better reading)

01 TOC number convert spaces → TAB

Info TOC entries starting with arabic or roman numerals are handled

Find type Text :

Find what ^([0-9]+|[IVXLCDM]+ ?\)?

Options RegEx

Replace by \$1\t

**Note:** *An empty **Find What** or **Replace by** field is represented by the text --- empty / leer / vide --- to distinguish from an erroneously undefined contents. If after retrieve you want them to be empty, clear this text.*

### Delete item in list

Use button **Delete** to remove the currently selected item from the list and the settings file. There is no undo for this.

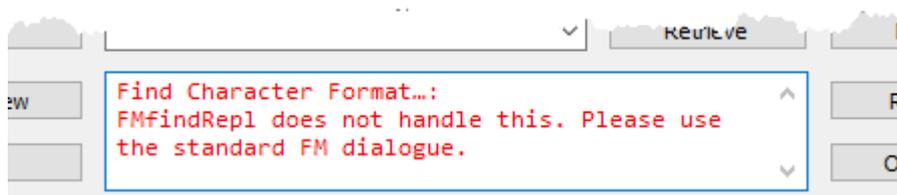
**Note:** *Before you re-invoke the panel after the deletions you can manually recover it: copy %appdata%\Adobe\FrameMaker\vv\Startup\FMfindRepl\FMfindRepl\_backup.xml to FMfindRep.xml.*

## Ancillary area (L)

The ancillary area comprises additional buttons and the information area: This is used for displaying :

9 Do not use name ZZZZZZZZ (8 Zs). This is used internally.

- Info from the retrieved settings.
- Properties for some Find Types (e.g. the text of a found marker).
- Error messages. For this type of message also a sound is issued<sup>10</sup>.



- Button Help** Open the PDF documenting this script.
- Button Restore** Fills the panel with the values saved at the last close of the panel..
- OK/Done** Leave the panel. Same function as the top right **X** button. The current settings are saved to the XML file with name *ZZZZZZZZ*

## Default Text search

Since searching for text is the prominent use case, **FMfindRepl** supports this as default:

- Find selected word** This function is available with v1.1:
  - 1 Select the word to searched in your text
  - 2 Invoke **FMfindRepl**
  - 3 The selection is already in the **Find what** field and the **Find** button is active.
  - 4 Use **Enter** for the first and further searches.
- Type and find** This function is available with v1.2:
  - 1 have your cursor at any place in the text
  - 2 Invoke **FMfindRepl**
  - 3 Type the text to be found (**Find what** field is active)
  - 4 Use **Enter** for the first and further searches.

<sup>10</sup> The sound is defined in the Windows setting **Personalisation > Schemes > Sound** under Asterisk.

## Special find types

Rationale for these find types

In the drop-down list of Find Types these are listed with an \*.

Long living documents accumulate unwanted objects, such as Empty TextLines or Overflowing Cells. For clean-out purpose it is also desirable to find unintended use or misnamed colour.

The scope of search for these functions may differ from that of the ordinary searches performed by FM:

### Colour →

The catalogue lists both the user defined colours and the system standard colours - both in alphabetic name order.

Searching for a colour walks the whole document: all kinds of pages, flows and objects. Hence this may take some time!

**Note:** *Be aware that the use of a colour may be found even if you do not recognise it on the particular object. This is because neither the pen (stroke width) nor the fill pattern is defined or is 'empty'.*

**Note:** *Colour of Cell and text in cells is found, but it can not be replaced with the Replace function.*

Objects without colour

To find objects without colour, use an empty field **Find What**. In most documents a huge number of UnanchoredFrame objects with no colour assignment exist. These are skipped during the search.

You may assign a colour by Replacement to such objects. To see them, both Fill and Pen patterns are set to full colour.

See also [Find unwanted colour](#) on page 22.

### Condition Tag →

If a text is flagged with conditions **A** and **B**, then it will be found by searching for **A** or searching for **B**.

The catalogue of conditions tag contains some names which are used by FM and can not be deleted (FM8\_... and FM\_PDF\_...).

These were introduced with FM-15.

These are filtered out in the catalogue list of **FMfindRepl**.

**Note:** *Search for Conditional Text is not implemented, you must use the FM Find/Change panel.*

### Empty Text Line

Mostly these are a hidden sources of undefined fonts.

Searching for Empty TextLines walks the whole document: all kinds of pages and flows.

- ▶ Select **Text Line**: as Find type.
- ▶ Leave the **Find what** field empty.
- ▶ Use the **Find** button.
- ▶ Remove this unwanted object by button **Replace**.

See also [Find Empty TextLine](#) on page 24.

### Overflow Cell

Searching for overflown cells walks the whole document: cells are searched in tables on all kinds of pages and flows.

No Replace option is provided. It is left to the user what to do with the found object.

### Overflow Text

Searching for overflown text frames walks the whole document: all kinds of pages and flows.

No Replace option is provided. It is left to the user what to do with the found object.

## Paragraph (locked)

The ¶ format of locked paragraphs can not be changed. Only textual changes or the application of a character format is possible. The reason for a locked paragraph may be:

- Importing a text insert with *Retain Source's Formatting* creates this lock.<sup>11)</sup> For this case **FMfindRepl** recommends not to use the Unlock ¶ function, but change the import method - if applicable.
- When importing from Word this flag may also be set. Use the Unlock ¶ function for this case.
- Other possible reasons have also been reported in the Adobe FrameMaker forum.

## User String

There is a long list of objects which can have property UserString. **FMfindRepl** searches the strings only in the following objects: Doc, AFrame, Tbl.<sup>12)</sup> **FMgraph** uses the UserString property for diagrams (anchored frames) and data tables.

- To find any user strings (even undefined = empty) leave the field **Find What** completely empty (no blanks please).
- To find any non-empty user string, activate **RegEx** and enter .+ in the field **Find What**.

## Special replacements

- Note:** *To use this feature, always*
- *first activate the radio button,*
  - *then select from the drop-down list below the field*
  - *or enter the replacement text into the field.*

## Change marker type

This function was developed to cope with the frequent error of missing index entries. It often happens that one intends to create an index entry, but has not selected the proper marker type in the marker dialogue.

- ▶ Use Find **Marker (Any)**. If you have found a text which obviously should be an index entry (for example: not a cross reference), then
- ▶ Activate the radio button **Change Marker Type**
- ▶ In the down list **Replacing Object/Format** select the new marker type to be used. Its name will appear in the **Replace By** field also.
- ▶ Use the **Replace** button.

## Change object format

The format of objects which is catalogued (Character, Condition Tag, Cross Reference, Paragraph, Object, Table, Variable) can easily be changed:

- ▶ Activate the radio button **Replace Obj Format**
- ▶ In the down list **Replacing Object/Format** select the new format to be used. Its name will appear in the **Replace By** field also.
- ▶ Use the **Replace** button.

11 Bob Niland, 2011-08-24

12 On user demand this list could be extended

**Note:** *If you change the format of an unresolved cross-reference, then this reference will be removed.*

## Define user strings

When searching for the first time in a document - most, if not all - of these strings may be empty. To define UserStrings:

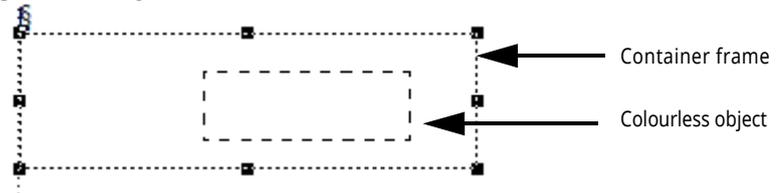
- ▶ Use Find Type **User String**.
- ▶ To find empty user strings (yet undefined) leave the field **Find What** completely empty (no blanks please).
- ▶ Activate the radio button **Replace Obj Text**
- ▶ Fill the edit field **Replace By** with the desired text.
- ▶ Use **Replace** button.

## Remove colour

To remove the colour from a found object

- ▶ Activate the radio button **Replace Colour**
- ▶ Select the *top empty item* in the drop down list **Replacing Object/Format**
- ▶ Use **Replace** button.

**Note:** *Be aware that an object without colour is invisible. It can be recognised only with **View > Borders > ON**:*



## Replace colour

To replace the colour of a found object

- ▶ Activate the radio button **Replace Colour**
- ▶ In the drop down list **Replacing Object/Format** select the new colour name to be used. It will appear in the **Replace By** field also.
- ▶ Use **Replace** button.

Notes of caution

- Be very careful using the Replace All function to change colour
- You may assign a colour by Replacement to colourless objects. To see them, both **Fill** and **Pen** patterns are set to full colour.
- Colour of Cell and text in cells is found, but it can not be replaced with the Replace function.
- Replacing colour of text causes format overrides!

## Remove Lock

Use this function only for locked paragraphs which are not part of a Text Inset (you get a warning in this case).

## Remove property

It is possible to remove the following properties from an object which has its properties catalogued:

- Character Tag <sup>13)</sup>
- Condition Tag
- Object Tag

To remove such a property

<sup>13</sup> Since there is no stack of character formats, only the last one applied to a selection is actually known. FMfindRepl removes all character formats which have been applied (set to default ¶ format).

- ▶ Select the *top empty item* in the drop down list **Replacing Object/Format**
- ▶ Use **Replace** button.

## Remove textural property

You can clear the text property of the following objects:

- Cross Reference
- Marker of Text ... <sup>14)</sup>
- User String

To clear such a property,

- ▶ Activate the radio button **Replace Object Text**
- ▶ Clear the field **Replace By**
- ▶ Use **Replace** button.

## Replace text by a variable

After you found the text, you may replace it by a variable:

- ▶ Activate the radio button **Replace by Variable**
- ▶ In the down list **Replacing Object/Format** select the variable to be used. Its name will appear in the **Replace By** field also.
- ▶ Use the **Replace** button.

## Replace text in a Marker

After you found the marker (by type, by text) you want to change:

- ▶ Activate the radio button **Replace Obj Text.**
- ▶ In field **Replace By** type the replacement text.
- ▶ Use the **Replace** button.

You can change the text property of the following objects:

- Cross Reference
- Marker of Text ... <sup>15)</sup>
- User String

Clear marker text,

- ▶ Activate the radio button **Replace Object Text**
- ▶ Clear the field **Replace By**
- ▶ Use **Replace** button.

---

14 Attention: The marker itself is not removed. Hence normally the marker becomes invalid. IMHO this function is reasonable only for Comment markers.

15 Attention: This function can render a marker invalid. Always check the found marker text carefully, before you decide to change it. See information area at the bottom of the panel.

## Find types not implemented

Selecting one of these Find Types informs you with a message that **FMfindRepl** does not handle this type. Use the standard FM dialogue.

### Character Format...

The complexity is to high for me.

### Conditional Text ...

It turned out that the method to find text with multiple tags does not work in `ExtendScript`. Hence the script searches for one particular tag only. See [Condition Tag](#) → on page 11.

### Publisher

This is a DITA element and should not be listed in unstructured FrameMaker... Hence it is left out in the drop-down list.

### Text & Character Formats on Clipboard

The complexity is to high for me.

## Replace modes not implemented

I have no experience with Structured FrameMaker. Hence I have not implemented the following Replace Modes:

- Attribute Name To:
- Attribute Value To:
- Element Tag To:

I do not understand what the following really means and have it not implemented:

- To Character Format ... In FM you can select an Anchored frame and replace it by a Character Format - IMHO quite nonsense.

## Find in Selection

Not all Find Types can be handled in selections.

Text strings can not be found in these embedded objects: **Anchored Frame, Table, Text Inset, Cross Reference and Variable.**

The situation is same in the original FM Find/Change panel.

## Find in Book

The user experience is not the same as with the FM Find/Change panel:

- The book is always traversed from first to last component.
- Components are left open after processing, even if nothing is found.
- It works fine for text, but I have to test this functions for all Find Types yet.

## Search with Wild Card

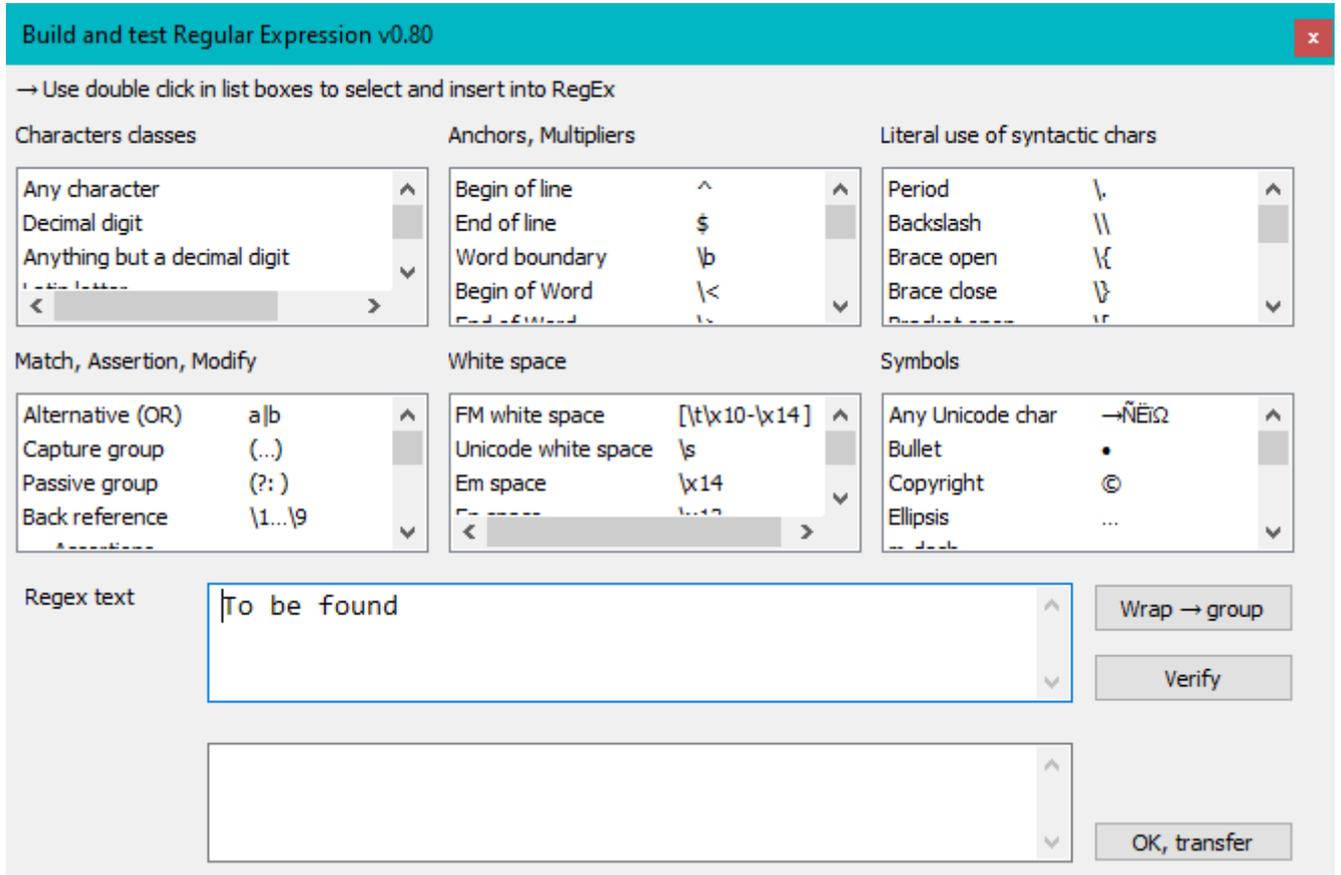
FM Help misses the important information [highlighted here](#).

Wildcard	Description	Sample
*	Star. Any number of characters (blank is not considered a character!)	*orm searches for: form or inform
	Pipe. Any number of Spaces or punctuation	This includes the ¶ end character!
.	Dot. Any one character	fo.m searches for form or foam
^	Caret. Start of a line	
\$	End of line	This includes the ¶ end character!
[ab]	Any one of the bracketed characters	f[ao]rm searches for farm or form
[^ab]	Any character except the bracketed characters	f[^ao]rm searches for f followed by any character except the a and o followed by rm
[a-f]	Any character in the specified range	f[b-e]rm searches for farm or form but not, for example, ferm

There is no equivalent to the capture groups of RegEx for Wild Card finds. Hence I mostly use the RegEx route.

## Handling Regular Expressions

FM does not give any feedback about the validity of a RegEx. An incorrect RegEx just triggers the error message “not found” - which of course is misleading. Hence I have implemented a (rudimentary) check of the Regular expression.



The field **Regex text** may be populated with text from the field **Find what** of the main panel.

- ▶ Type text directly into the field **Regex text**.
- ▶ To insert a RegEx construct, place the cursor in the RegEx text field and select an item from one of the list boxes. To avoid accidentally selection, you must use double click to insert the item.
- ▶ You convert a selection in **Regex text** into a capturing group by using the **Wrap → group** button.
- ▶ If you think your RegEx is complete, you may check it with the **Verify** button. This checks only validity, not the functionality for the envisioned task. You get feedback from the test in the **Info** area.
- ▶ Use button **OK, transfer** to transfer the created RegEx to the **Find what** field of the main panel. This panel will then close.

A tutorial about RegEx

In march 2016 *Marc Pawelec* presented a tutorial on RegEx for FrameMaker in [blogs.adobe.com/techcom/](https://blogs.adobe.com/techcom/). This has since then disappeared. But you can [find the blog text here](#).

It seems that he has not tested all the constructs - you need to observe the constraints in the following table, which is the basis of the RegEx panel.

## RegEx constructs in FrameMaker

The following constructs have all been tested in FM-15. Take special care to the **highlighted** constructs

Regex	en terminology <sup>a</sup>	Example	Finds	Does not find
<b>Character classes</b>				
.	Any character	.{3}	Hey_whatever\$you will 783	Hey_whatever\$you will 783 (number characters: 8×3+1)
[ab]	Any of the listed	[a\ \$]	Purchase: 17.- \$	Purchase: 17.- \$
[^ab]	Any not in the list	[^a\ \$]	Purchase: 17.- \$	Purchase: 17.- \$
[a-z]	Any in the given range.		Purchase: 17.- \$	Purchase: 17.- \$
\d	Decimal digit		Purchase: 17.-\$	Purchase: 17.-\$
\D	Anything but a decimal digit	\D+	Purchase: 17.-\$	Purchase: 17.-\$
\w	Word character (letter, digit, underscore)	\w+	Combined_Words, figures 123 etc.	Combined_Words, figures 123 etc.
\W	Anything but a word character		Combined_Words, figures 123 etc.	Combined_Words, figures 123 etc.
<b>Anchors</b>				
^	Begin of line			
\$	End of line			
\b	Word boundary	\baesthetic\b	an aesthetic person	anaesthetics
\<	Start of word;	\<a	this is an alphabet	manipulated
\>	End of word	a\>	in a caravanseria	manipulated
\B	Not at a word boundary			
<b>Assertions</b>				
(?= )	Positive look ahead	memo (?=Q)	memoQ	memory
(?! )	Negative look ahead	memo (?!Q)	memory	memoQ
(?<= )	Positive look behind	(?<=k)ot	pot	kot
(?<! )	Negative look behind	(?<!k)ot	kot	pot
<b>Multipliers</b>				
*	0 or more (greedy)			
+	1 or more (greedy)			
?	1 one 0 (greedy)			
*?	0 or more (lazy)			
+?	1 or more (lazy)			
?=	1 one 0 (lazy)			
{n}	n times			
{n,m}	from n to m times			
{n, }	n times and more			
<b>Capturing group</b>				
a b	Alternatives (or)			
( ... )	Numbered capturing group			
(?: )	Passive group (not numbered)	^(?:\w+)	First word will be captured, but can not be referenced	
(?<name>...)	Named capturing group, e.g. (?<abc>[a-z]+)			
\0...\9	Back reference to captured group <sup>b</sup>			

Regex	en terminology <sup>a</sup>	Example	Finds	Does not find
<code>\k&lt;abc&gt;</code>	Back reference to named capturing group, e.g. <code>(?&lt;abc&gt;[a-z]+)\k&lt;abc&gt;</code>			
	<b>Modifiers</b>			
<code>(?-i:)</code>	case sensitivity ON			
<code>(?i-:)</code> <code>(?i)</code>	case sensitivity OFF			
<code>(?s)</code>	Dot includes line breaks			
	<b>White space</b>			
<code>[\t\x10-\x14]</code>	FM white space chars	<code>[\t\x10-\x14]</code>	TAB Required space, ThinSpace, Numeric Space, m space, n space	Unicode white space character
<code>\s</code>	Unicode white space chars	<code>\s</code>	blank, soft- and hard line break. Unicode white space characters except TAB	FM white space characters
<code>\x14</code>	m space	<code>\x14</code>	m space	
<code>\x13</code>	n space	<code>\x13</code>	n space	
<code>\x10</code>	Numeric space	<code>\x10</code>	Numeric space	
<code>\x11</code>	Non breaking space	<code>\x11</code>	Non breaking space	
<code>\x12</code>	Thin space	<code>\x12</code>	Thinspace	
<code>\t</code>	TAB	<code>\t</code>	Before TAB	
<code>\x09</code>	Line break soft ¶	<code>\x09</code>	Before soft line break after that.	
<code>\x0a</code> <code>\n</code>	Line break hard ¶	<code>\x0a</code> <code>\n</code>	Before hard break After that	
<code>\r</code>	Carriage return	<code>\r</code>	Soft line break from a text import (x0D):expected on next line	this one here next line
	<b>Characters</b>			
<code>ÑËïΩ</code>	Any Unicode character	<code>α</code>	Γαα	Γαα
<code>\u####</code>	Unicode character UCN	<code>\u03B1</code>	Textual u03B1	lower case character alpha: α
<code>\p{L}</code>	Any letter from any language	<code>\p{L}</code>	Nein, es gibt keine 2. oder 3. Erde (Γαα)	Nein, es gibt keine 2. oder 3. Erde (Γαα)
<code>—</code>	m-dash (char, not <code>\xd1</code> , <code>\m</code> or <code>\u2014</code> )			
<code>-</code>	n-dash (char, not <code>\xd0</code> , <code>\=</code> or <code>\u2013</code> )			

a. German and French terminology is reflected in the files `FMfindRepl_de.xml` and `FMfindRepl_fr.xml`.

b. `\0` refers to the whole match

## Regex constructs for Replacement

Only the following construct can be used in the Replace by field:

<code>\$0...\$9</code>	Reference to capture group 0 (whole match) to capture group 9
------------------------	---

The following is unfortunately not possible in FM or ES

<code>\$U1...\$U9</code>	Reference to group 1 ... 9, set to UPPER CASE
<code>\$L1...\$L9</code>	Reference to group 1 ... 9, set to lower case
<code>\$I1...\$I9</code>	Reference to capture group 1 ... 9, set to Initial Caps

## These RegEx do not work in FrameMaker

Marek Pawelec's paper<sup>16)</sup> claims that these work in FM - but they do not.

Text	en terminology	Does not find
\p{Z}	Any white space or separator	Anything considered white space
\p{Sm} \p{Sc} \p{Sd}	Math symbols, currency symbols, dingbats	Cambria Math: √∩∏ Segoe UI: €#€}₹ Segoe UI Symbol: ✕→⊗◀Ⓢ
\p{N}	Numbers	1234
\p{Px}	Punctuation marks	, . : ; { } [ ] ( ) etc.

## Ordinary text search required

There are some special notations which look like RegEx, but are not. They work only in ordinary text search - and in case of the Automatic Hyphen require to set the Find Type accordingly.

Text	en terminology	Example	Finds	Does not find
	Automatic hyphen		This is hy-phenated	
\b	bullet (char, not	\b	• \xa5 (•)or \u2022 (•)	
\-	Optional hyphen	\-	hyphenated	not hyphenated
\f	End of Flow	\f	End of cell is the same as end of flow	
\+	non breaking hyphen		non-breaking hyphen	ordinary-hyphen

## Reference to capture groups

For the replacement process the back references are noted with the \$-sign:

\$0 Refers to the whole match

\$1 Refers to the first capture group

\$9 Refers to the 9<sup>th</sup> capture group.

Input text	The item number 12 will be replaced by something
Find what	(\d+)(.+something
Replaced by	xyz\$2anything
Output text	The item number xyz will be replaced by anything

## Concerning Undo

It turns out that in many cases (even multiple) undo after find/replace is possible. The detailed circumstances for this welcome behaviour have not been researched.

Hence do not rely on it.

16 <https://blog.adobe.com/en/publish/2016/03/10/framemaker-regular-expressions>

## FMsearchRepl.xml

This is just a short example how the file looks like.

```
<saves>
  <item>
    <name/>
  </item>
  <item>
    <name>01 TOC number convert spaces → TAB</name>
    <info>TOC entries starting with arabic or roman numerals are handled</info>
    <findtype>Text :</findtype>
    <findstring>^([0-9]+|[IVXLCDM]+ ?\)?</findstring>
    <options searchMode="2" word="0" case="0" back="0" replMode="0"/>
    <replstring>$1\t</replstring>
  </item>
  ...
  <item>
    <name>Z07 Find editor note</name>
    <info>Find char tag "ze-editors-note"</info>
    <findtype>Character Tag →</findtype>
    <findstring>ze-editors-note</findstring>
    <options searchMode="0" word="0" case="0" back="0" replMode="0"/>
    <replstring></replstring>
  </item>
</saves>
```

**Note:** Do not edit this file manually - you may destroy the structure.

# Use Cases

To find something suspicious it is helpful to set **View > Text Symbols** and **View > Borders** ON. When handling conditions do not forget to set **View > Show Condition Indicator** ON also.

## Find unwanted colour

When updating a book you may get the message for “inconsistent colour definitions”. You have done the usual import from a ‘good’ document to fix this - but the message does not disappear.

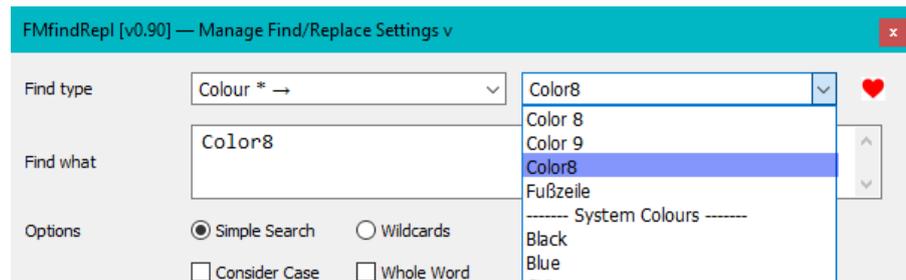
It may be that simply an unknown colour is defined. For example, in a book file `Color8` may have been defined and used, but it should be `Colour 8` (watch the blank).

This problem can not be solved with standard FM methods:

- Looking through the colour catalogue in each file you may find the one with the unwanted colour.
- Searching for a custom character format (all `asis`, just colour set) does not find a ¶ with no added character format.
- Searching for a ¶ format with all `asis` but colour specified is not possible at all.

To find the culprit, do this:

- 1 For each file in the book check the available colours until you find the unwanted colour:



- 2 In this document use **Find / Find Next** to find the object which uses this unwanted colour:

### 17.1.4.1.16 Kontonummer ¶

Schreibweise der Variablen§	¶ANWKTO1§
Einsetzbar§	Im allgemeinen Rechnungsbereich und im allgemeinen Bereich der Lieferantenbestellungen§

Variable als Platzhalter für die Kontonummer innerhalb der ersten möglichen Bankverbindung in den Anwenderdaten.¶

- 3 The found object is a paragraph, hence either you need to apply a correct ¶ format or change the colour definition in the ¶ format.
- 4 This method can also be used to find an unwanted colour in a diagram - because the colour search walks all objects...

## Fix missing index entries

Recently added index items are not in the generated index?

- Find markers of type Cross-Ref
- If the text looks like an index entry, change the type to Index. See [Change marker type](#) on page 12.

Compare

Typical cross reference marker:

18394: 1heading: Use Cases

Typical Index marker

use case: correct index marker

## Other cases

- Find empty text lines which use an unwanted font. See [Empty Text Line](#) on page 11
- Why is this table cell not filled completely? See [Overflow Cell](#) on page 11.
- I want to replace *this text* by a variable which is already defined - but I'm tiered of pasting... See [Replace text by a variable](#) on page 14.
- Are there any tables or anchored frames using the feature UserString<sup>17)</sup>? [User String](#) on page 12.

<sup>17</sup> Script suite **FMgraph** uses this feature for identification of data tables and diagrams (anchored frames).

## Known issues

**Note:** *I have not found methods to overcome the following restrictions which a user will consider bugs. Keep in mind: nothing is perfect, not at all my own work.*

### Backward search may cause FM to hang

Backwards search for the following Find Types may cause FrameMaker to hang. This might be after you continue search when already on the first item in the document.

But there are also other conditions for this fault. This might also happen in the standard FM Find/Change process.

- Cross Reference (unresolved)
- Marker (Any), Marker of Text, Marker of Type
- Object style tag
- Rubi (Any)
- Table (Any), Table Format Override; Table Tag
- Variable (Any); Variable named

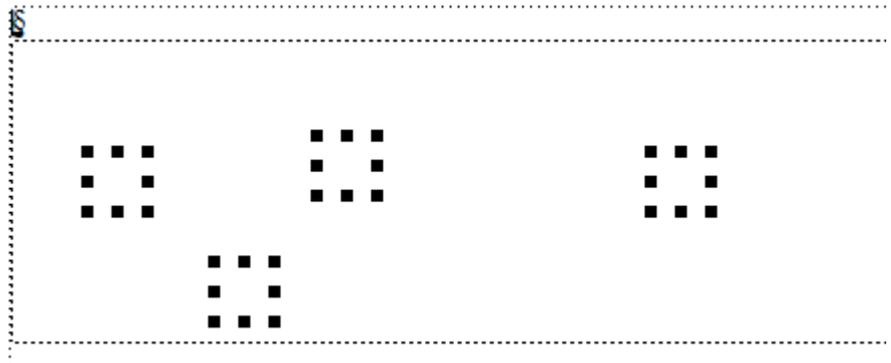
Hence the warning (first paragraph above) is issued for the relevant Find Types.

### Create an empty style

- Have the cursor outside of any object (outside the text frame)
- Use the **Object Designer** and set all properties to nothing/ as is (As Is, empty fields, cleared check boxes).
- Save for example as !\_None or @@\_Nothing to list it at the top of the catalogue.

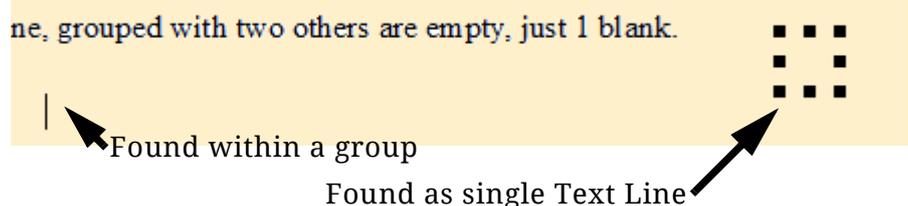
### Find Empty TextLine

If there are multiple empty text lines within a frame, their indication (visible handles) do not disappear with the next one found:



- ▶ The 'selection' disappears only after entering another frame.
- ▶ As soon as you activate the document window, the 'selection' disappears...

For a TextLine within a group you see only the text cursor, not the selection handles:



## Find Condition Tag in table row

After finding a condition in a table row, Find can not be continued: *No Selection. Is cursor really in Text Frame?* The user can just be informed about a manual action to continue.

- The script can not just advance the text location for the start of the next find behind the anchor, because a Replacement requires an intact text range!
- Another conditionalised row can only be discovered in the same table, if I set the cursor into a row after the found one.

## Find Object Style tag

If the first found item is an object *within another object* (e.g. a polygon inside an anchored frame) then the next find can not be performed. Placing the cursor (current location) after the anchoring position does not help.<sup>18)</sup>

You find the next object with the style only after deleting the first one...

## Missing short cut keys

Tests and experiments (some 30h) demonstrate the fact, that it is not possible to have reliable short cut access to buttons in ExtendScript. I had code which worked a while, but suddenly the typing of a character in the panel opened a top menu. It seems to me that the windows function 'shortcut to menus' has precedence over the ES triggers.

## Navigate and select in Drop-Down lists

When working from top to bottom in the panel using the list selector: all OK.

When at drop-down list #3 (pendent to the list # 2) you go back to list #2 and navigate by typing a character the selected item is one off. This is due to the fact that list #3 includes an empty item at the beginning, while list #2 does not.

→ Switch to another **FindType** and back to the desired one to refresh drop-downlist #2...

## Remove Object overrides

Re-applying the original style to the following objects removes the override:

- Polygon, circle or other geometric object.
- Copied or referenced image.

Although you can remove the override for these object types, the next Find will still recognise an override. Even starting the Find somewhere after the object will find it again:

- Anchored frame.
- Math object.

**Note:** *You may get rid of this nasty situation (for the math objects only) by applying a non-style to the object and then re-apply the wanted style. See [Create an empty style](#) on page 24.*

Removal conditions

Successful removals of overrides for object styles depends at least<sup>19)</sup> on these factors:

- The style itself must not contain properties irrelevant for the particular object; for example a run-around setting for a math object (equation).

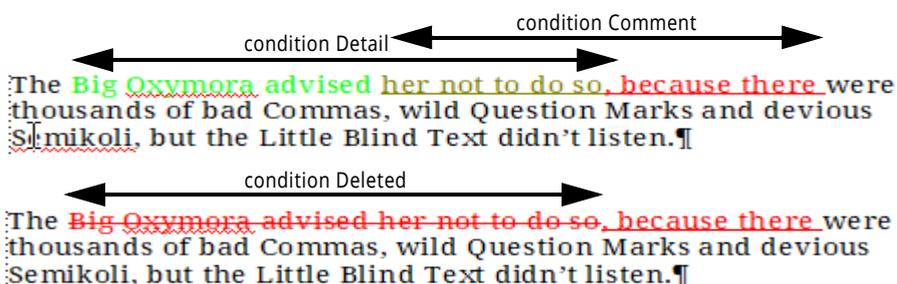
18 The Second to next Find results in error code -41 ("Expecting id of ..." Cell, Element, Flow, Fn, Pgf, SubCol, TextFrame, TextLine, Var, XRef or insets of type ApiClient, Flow, Text or Table).

19 I say so because many of my attempts to remove the overrides are not successful. The search for an override still finds it, although I have removed...

- The type of override. The override may be “irrelevant” for the type of object.

## Replace condition tag

If the found condition is overlapped by another condition, then the replacement affects also the overlapped part. For example, replacing Detail by Deleted:



## Older FM versions

Some searchable objects became available in later FM versions. Hence there are appropriate checks and the user is informed about this.

- Object Properties became available with FrameMaker version 11.
- User strings became available with FrameMaker version 14.

# Implementation details

For the various Find types (what to find) a reasonable set of Find Modes, Replace Modes or even Find Options varies significantly. Hence the process is controlled by a able defining these variants.

## Find Modes

Radio buttons are set in function SetFindMode.

- 0 Index for the default mode (1...3)
- 1 Simple find method
- 2 Wild card method
- 3 Find by Regular Expression

## Find Options

Check boxes are set in function SetFindOptions:

- 0 Case relevant search
- 1 Consider whole word
- 2 Find backwards
- 3 Clone Case is in this group for UI oeconomy

## Replace Modes

Radio buttons are set in function SetReplMode.

- 0 Default index
- 1 To text
- 2 By pasting
- 3 Paste without format
- 4 Object dependent treatment.

## Clone Case

IMHO this makes sense only for replacement of text. For the algorithm there is no general agreement (web). My implementation handles each word in the replacement, depending on the number of words in the found text and the given replacement:

- 1) Same in both Correct
- 2) More in replace Additional words are not changed
- 3) Less in replace Assignment of case may not be what is expected

Example Found: Also green Tomatoes become RED

Given replacement	Modified replacement
also green apples become yellow	Also green Apples become YELLOW
also green, apples become yellow and some also red.	Also green Apples become YELLOW and some also red.
green apples become yellow	Green apples Become yellow

## Constraints for find and replace

Not all combinations of modes and options are relevant or even dangerous for certain Find Types. Of course, some decisions are my personal view, but most are based on experience:

- I have no clue how to implement **Wildcard** search for the additional Find Types (e.g. colour names).
- In my opinion it does not make sense to replace an anchored frame by text - which is the default replace action in FM. It may however be reasonable to replace it by another frame using the Paste method.

## User strings

The following objects can contain user strings:

**AFrame**, app, BookComponent, Cell, CharFmt, Color, CombinedFontDefn, CondFmt, **Doc**, Element, Flow, Fn, Marker, Pgf, PfgFmt, Row, RulingFmt, SubCol, **Tbl**, TblFmt, Var, XRef.

Only in the highlighted object types are currently searched.

## Main control table

Table `asFindType` exists both in the XML files as well as in the module `FMfindRepl_Globals.jsx`. It defines the status enabled of the check box or radio button as well as default settings.

The constants are found in FDK `fapi.h` under `F_ApiFind Items`. There are no `FS_Find...` for graphic objects. Hence finding for example, (empty) `TextLine` needs another approach.

In the tables `T` stands for True, `F` stands for False. The same notation is used in the program tables (XML files).

## Short cut keys

It seemed not possible with `ExtendScript` to have both fast access to UI elements with shortcut keys and fast access to list elements by typing characters. For a single list in the UI I had no problem, but in **FMfindRepl** there is a great mix of UI elements.

Typing a character for the list access may inadvertently press a button. In case of `D` this deletes the current item in the settings list. Other characters (`R`, `E`, `A` etc.) are also dangerous. For this to happen it is sufficient to have button labels with the `&` notation for `t` shortcut key - no need for the `shortcutKey` definition in the UI element. → The combination of list access and shortcut keys is very dangerous!

I experimented more than a week to conclude, not to implement the shortcut keys: the benefit of the list navigation with characters seemed greater than that of shortcut keys.

But working alternately with the original FM panel and the script panel demonstrated the need for short cut keys. And after half a month I found the solution to the problem:

- On activation of drop downs and edit fields: inactivate the short cuts.
- On de-activation/onChange of drop downs and edit fields: activate the short cuts

Type (odered) <sup>a</sup>	sFType	con- stants	Fmodes	Foptions <sup>b</sup>	Rmodes	Comment
Items with * are <b>FMfindRepl</b> specials. Items with → open the corresponding catalogue  Default is highlighted	Short- hand for Type and constants	FS_XXX FV_XXX	Default index Simple Wildcard <sup>c</sup> Regex In Selection	Case Word Back Clone Case	Default index To text By Paste Paste w/o Format Special treatment	(label for Special Treatment)
Anchored Frame	ANCFRM	8, 7	1, T, F, F, T	F, F, T, F	2, F, T, F, F	
Automatic Hyphen	AUTHYP	8, 10	1, T, F, F, T	F, F, T, F	1, T, T, T, F	
Character Format Override	CHRFMO	8, 13	1, T, F, F, T	F, F, T, F	4, F, F, F, T	(Remove Override)
Character Format...	CHRFMT					<b>FM original only</b>
Character Tag →	CHRTAG	5	1, T, T, T, T	T, T, T, F	1, T, T, T, T	(Replace Obj Format)
Colour * →	COLOUR		1, T, F, F, F	F, F, F, F	4, F, F, F, T	(Replace Colour)
Conditional Tag * →	CONTAG	13	1, T, F, F, T	F, F, F, F	4, F, F, F, T	(Replace Obj Format)
Conditional Text...	CONTXT					<b>FM original only</b>
Cross-Reference (any)	XRFANY	8, 1	1, T, F, F, T	F, F, T, F	1, T, T, T, T	(Replace Obj Format)
Cross-Reference of Format →	XRFFMT	11	1, T, T, T, T	T, T, T, F	1, T, T, T, T	(Replace Obj Format)
Cross-Reference (unresolved)	XRFUNR	8, 2	1, T, F, F, T	F, F, T, F	0, F, F, F, F	Find only
Empty TextLine : *	EMTTXL		1, T, F, F, F	F, F, F, F	4, F, F, F, T	(Delete Object)
Footnote	FOONOT	8, 8	1, T, F, F, T	F, F, T, F	0, F, F, F, F	Find only <sup>d</sup>
Marker (any)	MRKANY	8, 0	1, T, F, F, T	F, F, T, F	4, F, F, F, T	(Change Marker Type)
Marker of Text:	MRKTXT	10	1, T, T, T, T	T, T, T, F	4, F, F, F, T	(Replace Obj Text)
Marker of Type →	MRKTYP	9	1, T, T, T, T	T, T, T, F	4, F, F, F, T	(Replace Obj Text)
Object Style Format Override	OSTFMO	8, 15	1, T, F, F, T	F, F, T, F	4, F, F, F, T	(Remove Override)
Object Style Tag →	OSTTAG	18	1, T, F, F, T	T, T, T, F	1, T, T, T, T	(Replace Obj Format)
Overflow cell *	OVLCEL		1, T, F, F, F	F, F, F, F	0, F, F, F, F	Find only
Overflow text *	OVLTXT		1, T, F, F, F	F, F, F, F	0, F, F, F, F	Find only
Paragraph Format Override	PGFFMO	8, 12	1, T, F, F, T	F, F, T, F	4, F, F, F, T	(Remove Override)
Paragraph Tag →	PGFTAG	4	1, T, T, T, T	T, T, T, F	1, T, T, T, T	(Replace Obj Format)
Rubi	RUBANY	8, 11	1, T, F, F, T	F, F, T, F	1, T, T, T, F	
Table (any)	TBLANY	8, 9	1, T, F, F, T	F, F, T, F	1, T, T, T, T	(Replace Obj Format)
Table Format Override	TBLFMO	8, 14	1, T, F, F, T	F, F, T, F	4, F, F, F, T	(Remove Override)
Table Tag →	TBLTAG	6	1, T, T, T, T	T, T, T, F	1, T, T, T, T	(Replace Obj Format)
<b>Text :</b>	TXTTXT	1	1, T, T, T, T	T, T, T, T	1, T, T, T, T	(Replace by Variable)
Text Inset (any)	TINANY	8, 3	1, T, F, F, T	F, F, T, F	0, F, F, F, F	Find only
Text Inset (unresolved)	TINUNR	8, 4	1, T, F, F, T	F, F, T, F	0, F, F, F, F	Find only
Text on Clipboard (formatted)	TXTCLP					<b>FM original only</b>
User String *	USRSTR		1, T, F, T, F	T, T, F, F	4, F, F, F, T	(Replace Obj Text)
Variable (any)	VARANY	8, 6	1, T, F, F, T	F, F, T, F	1, T, T, T, T	(Replace Obj Format)
Variable named →	VARNAM	12	1, T, T, T, T	T, T, T, F	1, T, T, T, T	(Replace Obj Format)

a. Publisher (FS\_FindObject (8), FV\_FindAnyPub (5)) has been left out. This is a DITA element and should not be listed in unstructured FrameMaker...

b. Foptions: default = none are set (all are false).

c. Wild-card characters work only for Find. No equivalent method to the RegEx catch groups exist for Replace.

d. FM F/C changes the footnote reference to text/paste buffer etc. - which is IMHO senseless (the note itself is not removed).

## Other scripts related to find and replace

Since finding and replacing is one of the fundamental tasks in documentation, over time a number of specialised scripts have been developed. It is natural that some functions overlap...

### Find all text occurrences

[Rick Quatro] [FindAll](#) allows you to find all occurrences of a string or regular expression match in a FrameMaker book or document. It generates a new document with the found text. Paragraphs contain cross references to the original location. Thus you can go there and judge the validity of the text.

### Find/Change batch

[Rick Quatro] [FindChangeBatch](#) allows you to perform batches of finds and changes on a FrameMaker document or book. You use a seven-column table in a FrameMaker document to set up your find/change pairs and their settings.

### Find/Change Formats batch

[Rick Quatro] [FindChangeFormatsBatch](#) is a delightfully simple script that allows you to Find/Change hundreds (or thousands) of FrameMaker formats with a single command. Finds/changes can be performed on the following formats: paragraph, character, table, condition, cross-reference, user variable, master pages, and marker types. **FindChangeFormatsBatch** uses a simple FrameMaker table to map your old formats to new ones. The built-in Write Formats Table command gives you a head start on building your table.

This script seems to be the more powerful successor of **FindChangeSpecial** (for which all [web references](#) are invalid).

### Path changer

[Rick Quatro] FrameMaker documents have graphics imported by reference, text insets, and external cross-references, all pointing to files outside of the FrameMaker document. FrameMaker books point to book components that can be located just about anywhere. When these referenced files get moved or renamed, you can end up with a combination of missing graphics, unresolved text insets, unresolved cross-references, or books with missing components.

[PathChanger](#) is a series of scripts that makes it easy to change these paths for a FrameMaker document or book. It has a command for writing these paths to a simple `.csv` file. This file can be opened with Excel (or a text editor) where you can edit the paths. Another command applies the paths back to the FrameMaker document or book. Additional commands ...

### Text formatter

[Rick Quatro] [TextFormatter](#) allows you to apply Character Formats to text in batches! You fill in a FrameMaker table with the words or phrases you want to search for and the Character Format that you want to apply to each one. The script flies through your document or book and applies the Character Format to each occurrence. There are options for case-sensitive and whole word searches and you can specify paragraph formats that you want to skip. This script is a huge time saver!

### [i]-frame scripts

itl ([www.itl.eu](http://www.itl.eu)) developed a highly esteemed suite of scripts: [i]-frame. Some of them were even free. Unfortunately they are no more available since 2020.