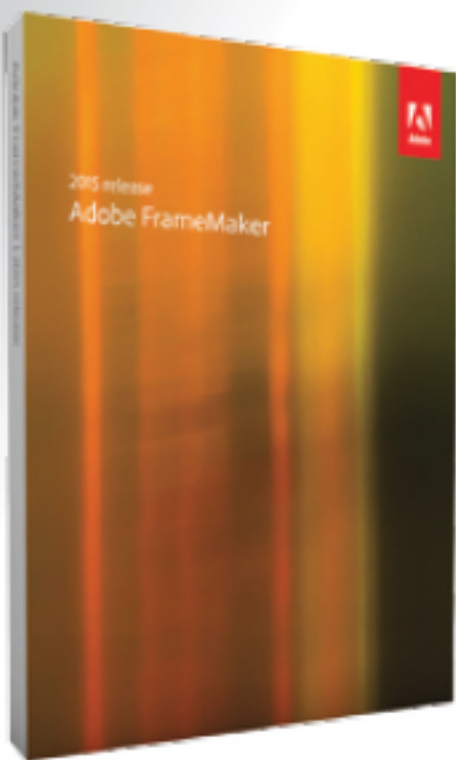


Author and Publish in Arabic, Farsi and Hebrew with FrameMaker

The growing importance of Arabic language projects

The all-new
Adobe FrameMaker
(2015 release)



Adobe FrameMaker (2015 release)

For a 30 day free trial of
FrameMaker, visit

www.adobe.com/go/tryframemaker

To schedule a private demo, visit
www.adobetechcommdemo.com

BENEFIT: RTL support for Arabic in FrameMaker 2015 is one more way you can "future-proof" your content. Deliver your content to any device, and also in nearly any language to increase your global reach.

Taking into account different dialects, if Arabic is considered a single language, there 420 million native speakers, making Arabic the sixth most common language in the world. Several Arabic speaking nations are in the midst of accelerated construction for additional airports, hospitals, large scale infrastructure projects. In previous decades, documentation for projects such as these was in English only. This is no longer the case.



In Saudi Arabia and Dubai, many projects are now requiring large scale, technical documentation to be provided in both English and Arabic. This has been spurred partly by government initiatives to increase employment within the large, youthful segment of the workforce.

Many military and aerospace projects require documentation to be provided in XML format. This has previously been a challenge due to the complexity of "XML-only" authoring solutions. The advent of Right-to-Left (RTL) Arabic support in FrameMaker is a very significant development because it makes XML authoring and publishing broadly available to a workforce with minimal knowledge of XML and DITA.

Due to the dynamics of high-end hospitality properties in Dubai, Arabic/Chinese/English are becoming one of the most common language combinations. The increased presence of Chinese contractors in the Arab Gulf region is another reason that it is important to have an authoring tool that can easily handle mixed content with western languages, Arabic and CJK (Chinese, Japanese and Korean.) Once again, FrameMaker 2015 can easily handle this language combination.

For anyone who bids for contracts with large, multi-national corporations doing significant business in key portions of the Arab Gulf Region, it essential to be able to deliver content in both XML and Arabic. Mixed content (western and RTL languages) is increasingly becoming a "deal-breaker" in terms of qualifying for 7-figure projects in this region. As you read on through this white paper, you will discover the many ways that FrameMaker 2015 can help ensure your success in these endeavors.

What has changed with FrameMaker in regards to RTL?

FrameMaker (2015 Release) has been dramatically improved to extend its authoring and publishing capabilities to include Right-to-Left (RTL) languages, Arabic and Hebrew. You can create regular or structured documents that are entirely Arabic or Hebrew, or with mixed content using western Left-to-Right (LTR) and RTL languages

For example, in an LTR document, you can include selected paragraphs or tables that are authored in an RTL document.

You can also author a document containing both RTL and LTR content, as shown in the example below:

This document is authored predominantly in an LTR script. However, some parts of the document are authored in an RTL script.

For example, the following paragraph is authored in Hebrew:

מסקה זו של המסמך שחיברה בעברית

The contents of the following table is authored in Arabic:

Table 1

وصف	لقب
التصوص التي تمت كتابتها من اليسار إلى اليمين	اليسار إلى اليمين
البرامج النصية التي يتم اليمين إلى اليسار مكتوبة	اليمين إلى اليسار

FrameMaker (2015 Release) is the first highly accessible product designed specifically for high-volume technical content that handles RTL authoring and publishing in an easy to use fashion. FrameMaker is unique in that authors can create content for RTL languages in a familiar, unstructured document model, or in pure XML or DITA.

The advent of RTL support in FrameMaker will prove to be a huge gain for the translation industry for several reasons:

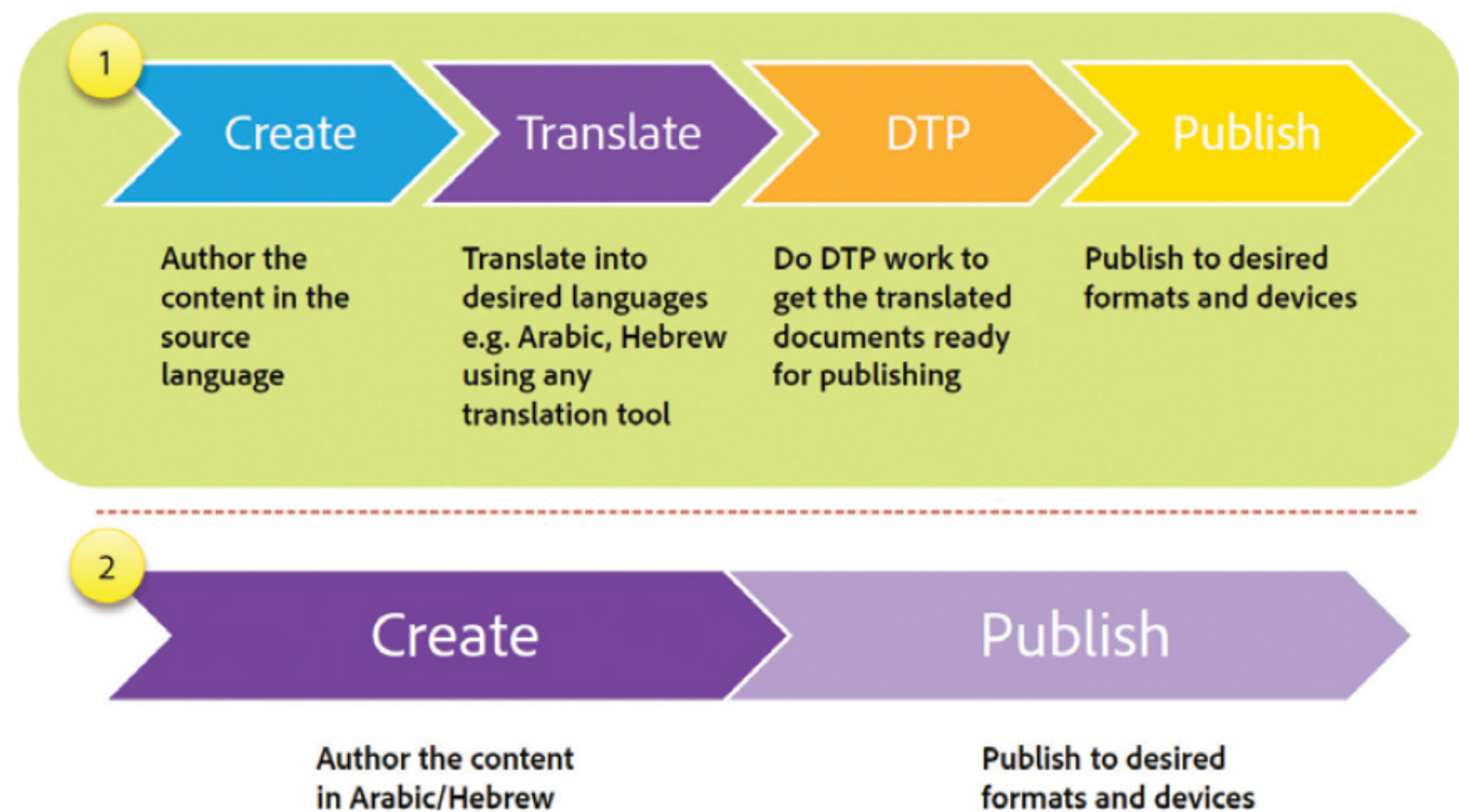
- A lower skill level is required to accomplish many layout and formatting actions w/in FrameMaker
- FrameMaker is capable of handling XML and DITA in RTL languages with a very visual interface. Translation agencies can dramatically reduce training costs for their staff when they embark on large-scale, XML projects
- Many tools within FrameMaker make collaborative review through PDF much simpler than with other authoring solutions

Read further on to determine how RTL authoring and publishing in FrameMaker can benefit you. You will notice many benefit comments shown as marginal quotes.

Common workflows working with bi-directional content

The illustration below summarizes the two common workflows in FrameMaker when working with RTL content.

In the first model, text is probably authored in a western LTR language. Once translated into Arabic



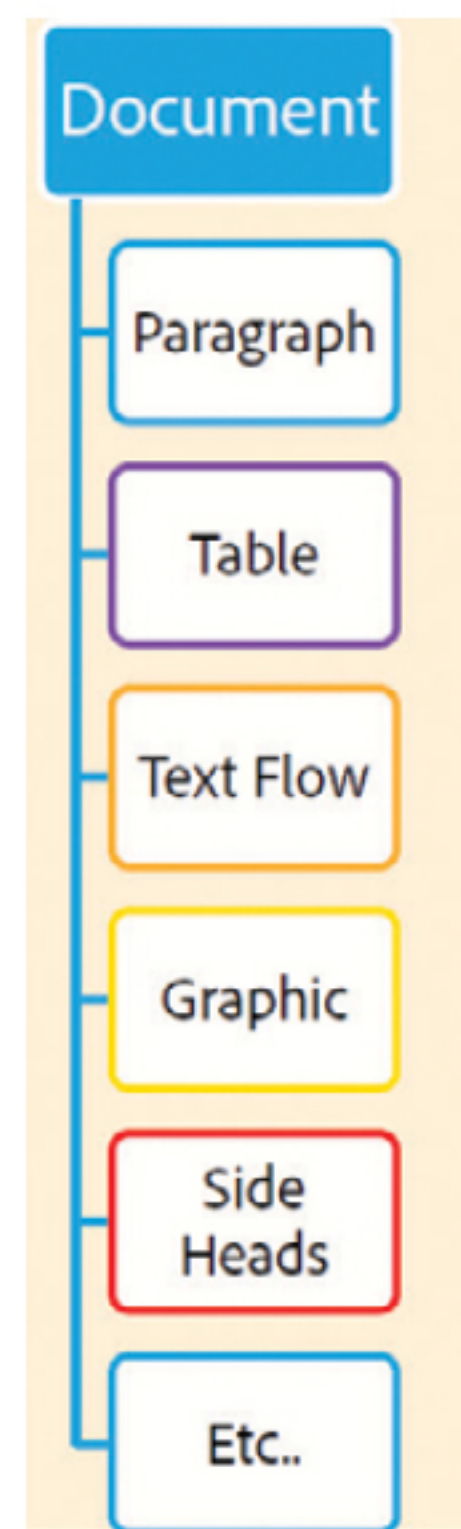
or Hebrew, post-translation DTP work is done to achieve correct layout and appearance. With FrameMaker this can be easily done by importing RTL and font values from a separate template. As explained below, FrameMaker's model of inheritance makes this third step easier than with many other publishing tools.

In the second model, templates are set up ahead of time that already have RTL text direction appropriate fonts, and specific layout features appropriate to Arabic or Hebrew. The cursor movement direction can be designated to move in the appropriate direction with RTL text. Then, authors simply author with blank copies of this template (or an appropriate XML or DITA application with RTL attribute settings.) When the project is complete, authors simply publish to FrameMaker's many output targets, like HTML5 responsive, ePub or traditional PDF or print.

For projects that require mixed languages, LTR in one column and RTL in another column, maintaining separate pagination flows, see the section "Creating master pages with 2-column, parallel pagination for RTL and LTR content" to understand the simple steps for setting up page layout in a mixed content template.

Language Direction and Inheritance

BENEFIT: FrameMaker's inheritance model allows template creation that only requires a document direction specification in one place. Everything in the document (including page layout) is instantly transformed to RTL.



The inheritance model in FrameMaker has been designed to support a new document direction property. For example, if a Document's Direction attribute has been set to RTL, and the Direction attribute of a paragraph within the Document has been set to inherit, then the paragraph's direction will also be set to RTL.

You will discover that you may change document direction from LTR to RTL on many levels, for instance in paragraphs, for some graphic objects and tables. If you leave all of these document objects with a direction value of "inherit," they will inherit their direction from the setting at the highest level: the document (in unstructured documents) or at the highest containing element level in structured documents.

You may set the direction for the document with the menu Format > Document > Right-to-Left (or Left-to-Right). Or, you may use the first two icons in the Direction toolbar. Sections further into this white paper will reveal how to change direction on the paragraph or table levels.



Direction toolbar

For your convenience, the direction toolbar (View > Toolbars > Direction Toolbar), provides options for the most commonly used direction commands.



- A. Set the document direction to LTR in one click
- B. Set the document direction to RTL in one click
Icons "A" and "B" also darken to show current document direction
- C. Change the selected digits from Indic to Roman.
NOTE: This does not change the direction of the selected digits.
- D. Change the selected digits from Roman to Indic.
NOTE: This does not change the direction of the selected digits.
- E. List of available direction markers.

Videos to review for an overview of Bidirectional support:

- FrameMaker 2015: Bidirectional language support = <http://adobe.ly/1FDSAoi>
- FrameMaker 2015: Bidirectional language publishing = <http://adobe.ly/1FDTcua>
- FrameMaker 2015: Bidirectional content flipping = <http://adobe.ly/1IalBUv>

Translation Workflow

In a typical translation workflow, the original source document would be authored in the usual manner. A template would be created with RTL direction specified on the document level.

When the author of the source document is aware that certain document objects are to remain in a western language, a specific style would be applied to give a fixed value of LTR, so that the content orientation for such instances would be correct after translation.

The translation agency would import an Arabic or Hebrew template into the translated documents; the template would contain the following ingredients:

- Document direction set to RTL
- Arabic or Hebrew fonts applied to all appropriate styles
- If necessary, numbered paragraph prefixes, footnotes, etc. would be specified as Indic instead of western numbers
- Individual adjustments would be made as necessary to rare instances of mixed content that may require an override (e.g. special markers to ensure correct use of slash or punctuation in URLs and CODE)

You will find specific directions for implementing the steps in this list in the sections that follow.

Authoring RTL source documents

You can author an entire document in an LTR or RTL language. By default, all FrameMaker documents are enabled for LTR languages.

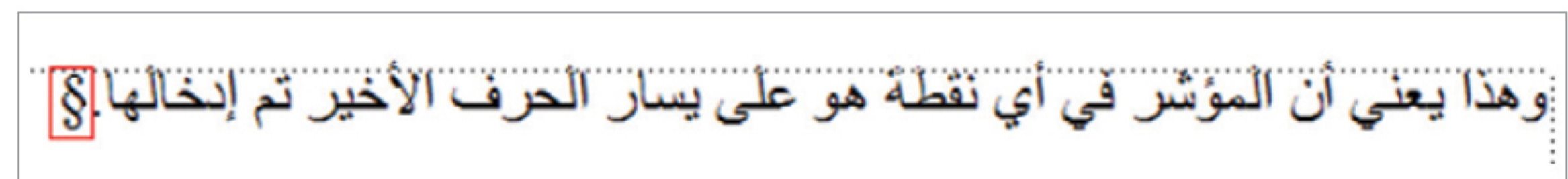
Some users may wish to author content in RTL format, for instance, with Arabic as the source language rather than English or German.

To set up a document for RTL language support:

1. Choose Format > Document > Direction.
2. In the Direction sub-menu, choose Left-to-Right or Right-to-Left.

If you choose Right-to-Left, the cursor shifts to the right edge of the document view. Alternatively, if you choose Left-to-Right, the cursor shifts back to the left edge of the document view.

If you have changed the direction of the document to RTL, by default, the cursor moves from Right-to-Left of the document view as you type. This means that the cursor at any point is to the left of the last character entered. However, you can change the Cursor location and movement in any document (RTL/LTR).



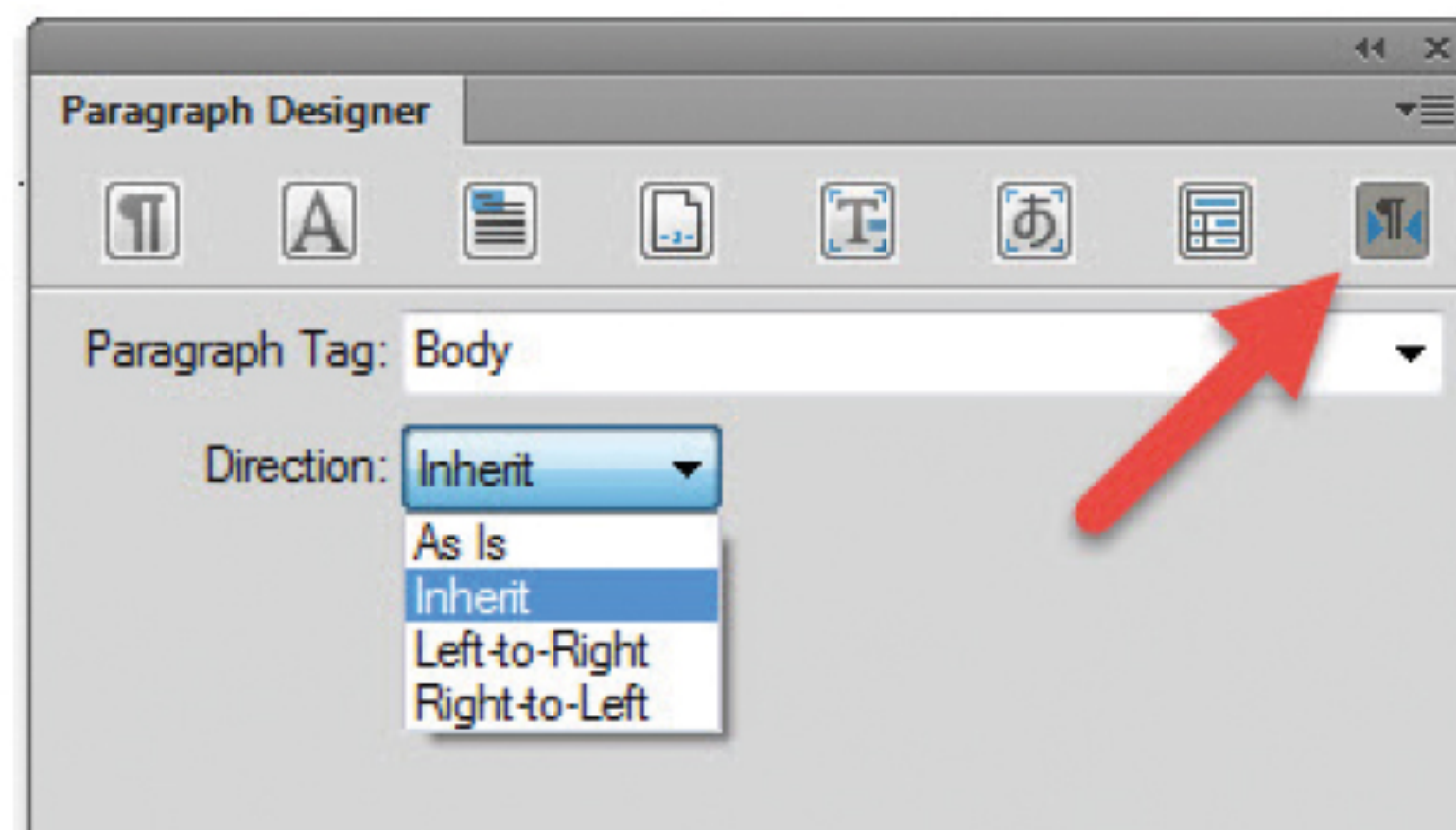
Authoring documents with mixed RTL and LTR content

Besides, creating documents that are RTL or LTR enabled, you can also create documents that have a combination of these language directions. For example, in an LTR enabled document, you can include a paragraph or table containing text that is RTL enabled.

Add RTL paragraphs in an LTR document

If the document is currently LTR-enabled, to add a paragraph that is RTL-enabled, you will need to apply a paragraph format with text direction of the paragraph set to RTL.

1. To apply a paragraph format to a paragraph, open the Paragraph Designer (Format > Paragraphs > Designer).
2. In the Paragraph Designer, go to the new Direction tab.
3. By default, the paragraph formats in a document inherit the direction of the document. To change the direction, choose RTL.



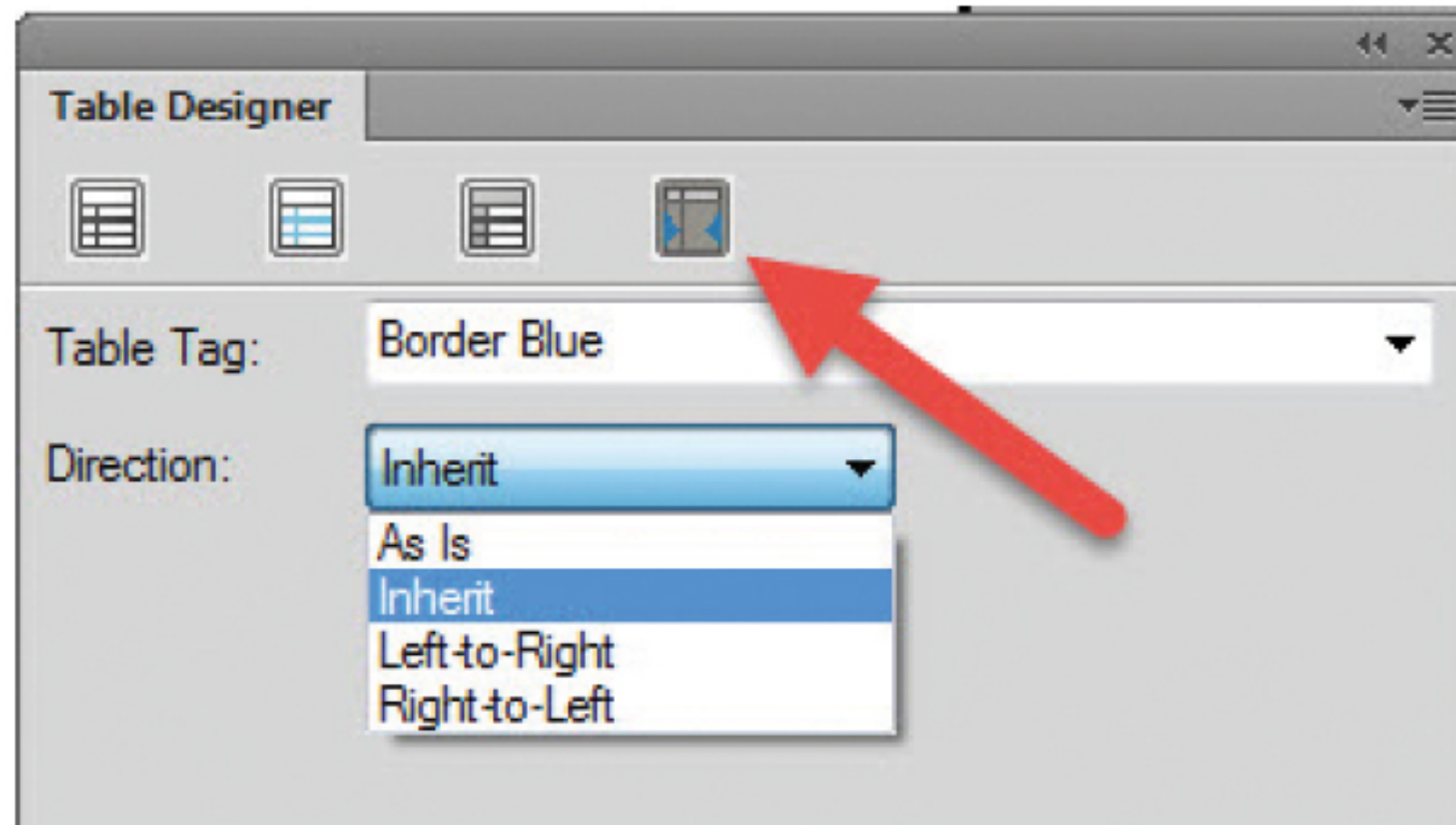
Whenever the direction (LTR-RTL) is changed for a paragraph, the following associated properties are switched:

- Alignment
 - Indentation
 - Left and right tabs
 - Left and right cell margins
 - Cell margins flags
 - Alignment of child anchored frames
4. You can choose to either apply the direction to the current paragraph, all the paragraphs of the selected format, or you can create a new paragraph format.

Add RTL-enabled tables in an LTR-enabled document

If the document is currently LTR-enabled, to add a table that is RTL-enabled, you will need to apply a table format with direction of the table set to RTL.


1. To apply a table format to a table, open the Table Designer (Table > Format > Table Designer).
2. In the Table Designer, go to the new Direction tab.
3. By default, the table formats in a document inherit the direction of the document. To change the direction, choose RTL.




Whenever the direction (LTR-RTL) is changed for a table, the following associated properties are switched:

- Alignment
 - Indentation
 - Ruling
 - Left and right cell margins
4. You can choose to either apply the direction to the current table, all the tables of the selected format, or you can create a new table format.

The illustration below shows a table before and after its Direction property was changed to Right-to-Left. Notice that columns have reversed order and that text alignment is reversed.

Table 2: Varieties of Vacations\$		
Column 1\$	Column 2\$	Column 3\$
(1) Near home\$	(2) Overnight\$	(3) 2-3 night stay\$
\$ 	2nd degree effects\$	Third more cost\$
Misc factors\$	Considerations\$	Last thoughts\$
Conclusioins\$	Secondary Ideas\$	Third item to pack\$

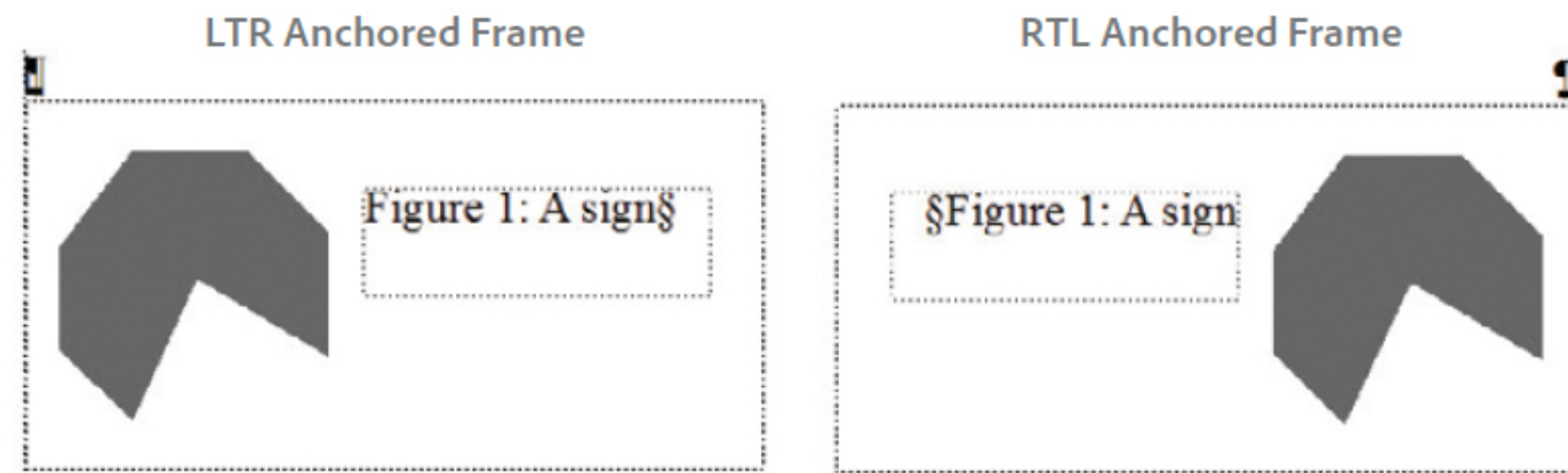
\$Varieties of Vacations :Table 2\$		
\$Column 3	\$Column 2	\$Column 1
\$night stay 2-3 (3)	\$Overnight (2)	\$Near home (1)
\$Third more cost	\$2nd degree effects	\$ 
\$Last thoughts	\$Considerations	\$Misc factors
\$Third item to pack	\$Secondary Ideas	\$Conclusioins

RTL support for graphic objects

If you place anchored frames or graphical objects on your documents and set the direction of the document to RTL, the objects are adjusted (flipped) to the new direction.

Flipping graphical objects:

If you place an anchored frames, graphical frame, or text frame on a document and change the direction of the document, the object is horizontally flipped on the document. This implies that if an object is placed 10 px from the left margin, changing the direction will cause the object to be placed 10 px from the right margin. However, the *orientation of the object* remains the same.

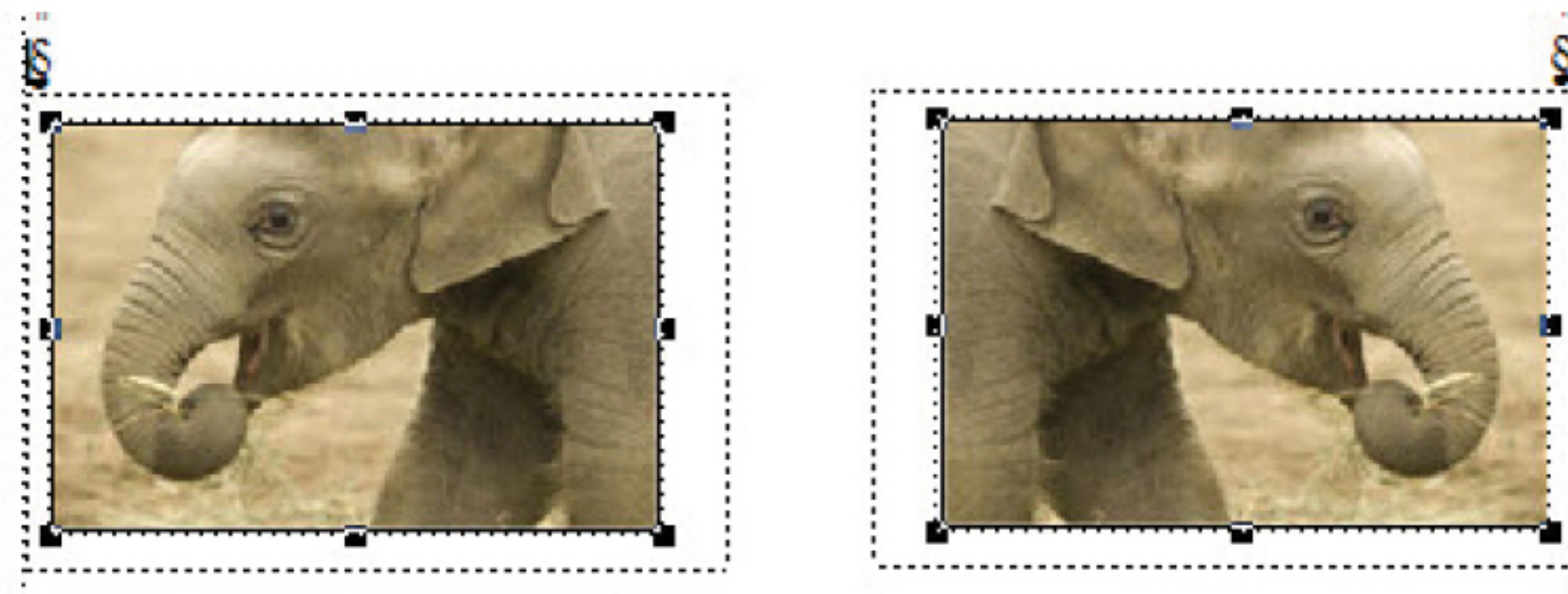


You can use the following maker.ini flag to switch off this behavior:

TranslateObjectOnDirectionChange=On

By default, this flag is set to ON. If you do not want the graphical objects on your documents to be flipped, set this flag to OFF.

Also, you can choose to mirror the orientation of a graphical object that is flipped:



To flip and change the orientation of a graphical object, ensure that the following maker.ini flags are switched ON:

TranslateObjectOnDirectionChange=On

FlipObjectOnDirectionChange=On

Flipping text in graphics and in selected text frames

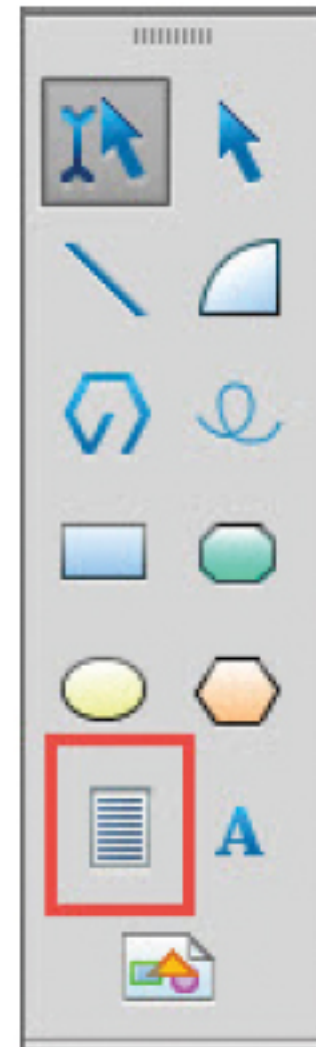
Although you may have many projects in which all document content is LTR or RTL, there will be instances with mixed content wherein you need to define specific document objects, like paragraphs or text frames (text flows) to have a specific direction.

The following sections summarize where to find the commands mentioned above to flip certain objects in FrameMaker.

To flip text lines and text flows

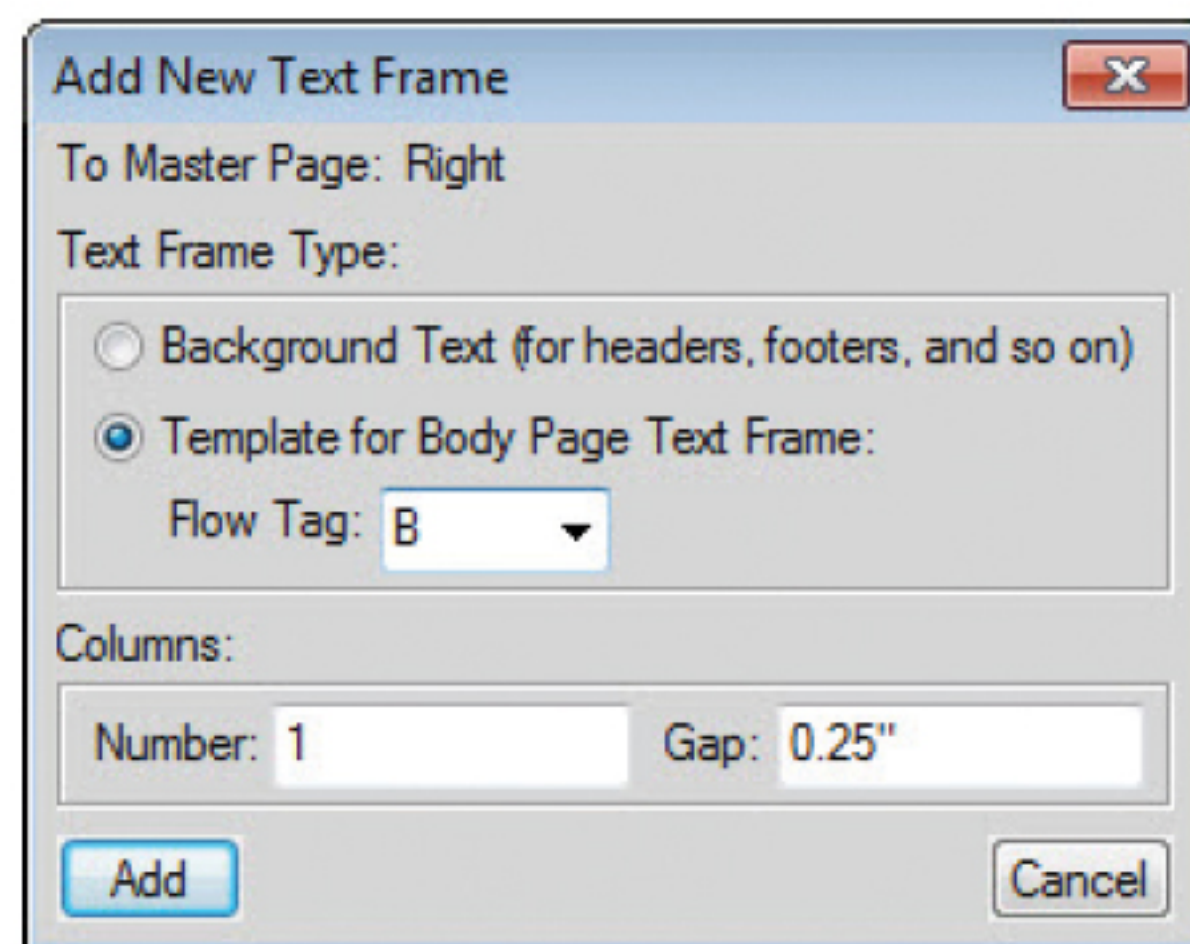
1. Select the text line or text flow.
2. From the Graphic menu, choose Object Properties.
3. In the Object Properties dialog box, choose Text Line or Text Frame.
4. In the Direction drop-down list, choose Right-to-Left or Left-to-Right.

Creating master pages with 2-column, parallel pagination for RTL and LTR content

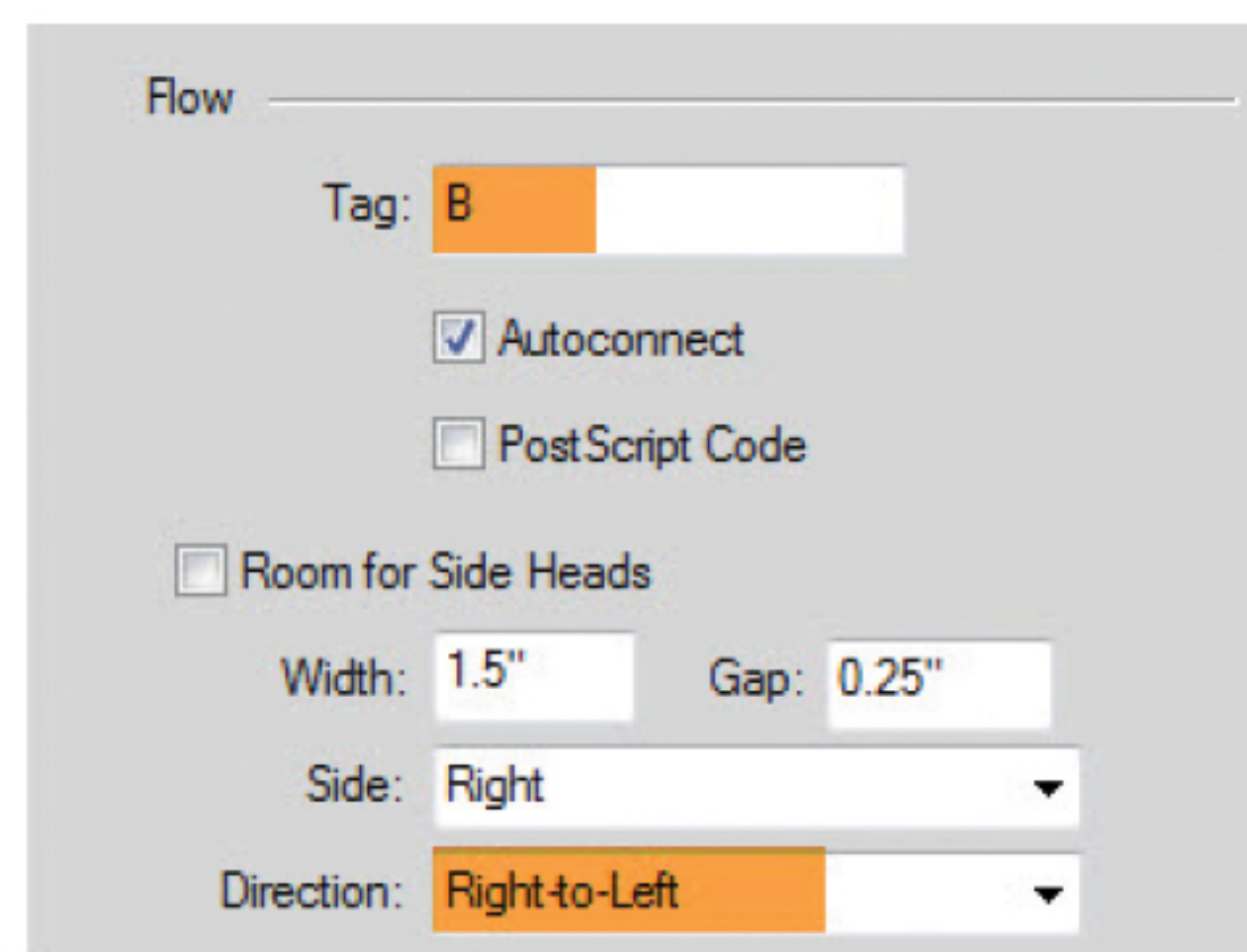


In order to create a template which has parallel columns on the master page, with separate flows (for connected pagination) and different direction (e.g. one LTR and one RTL), follow these simple steps:

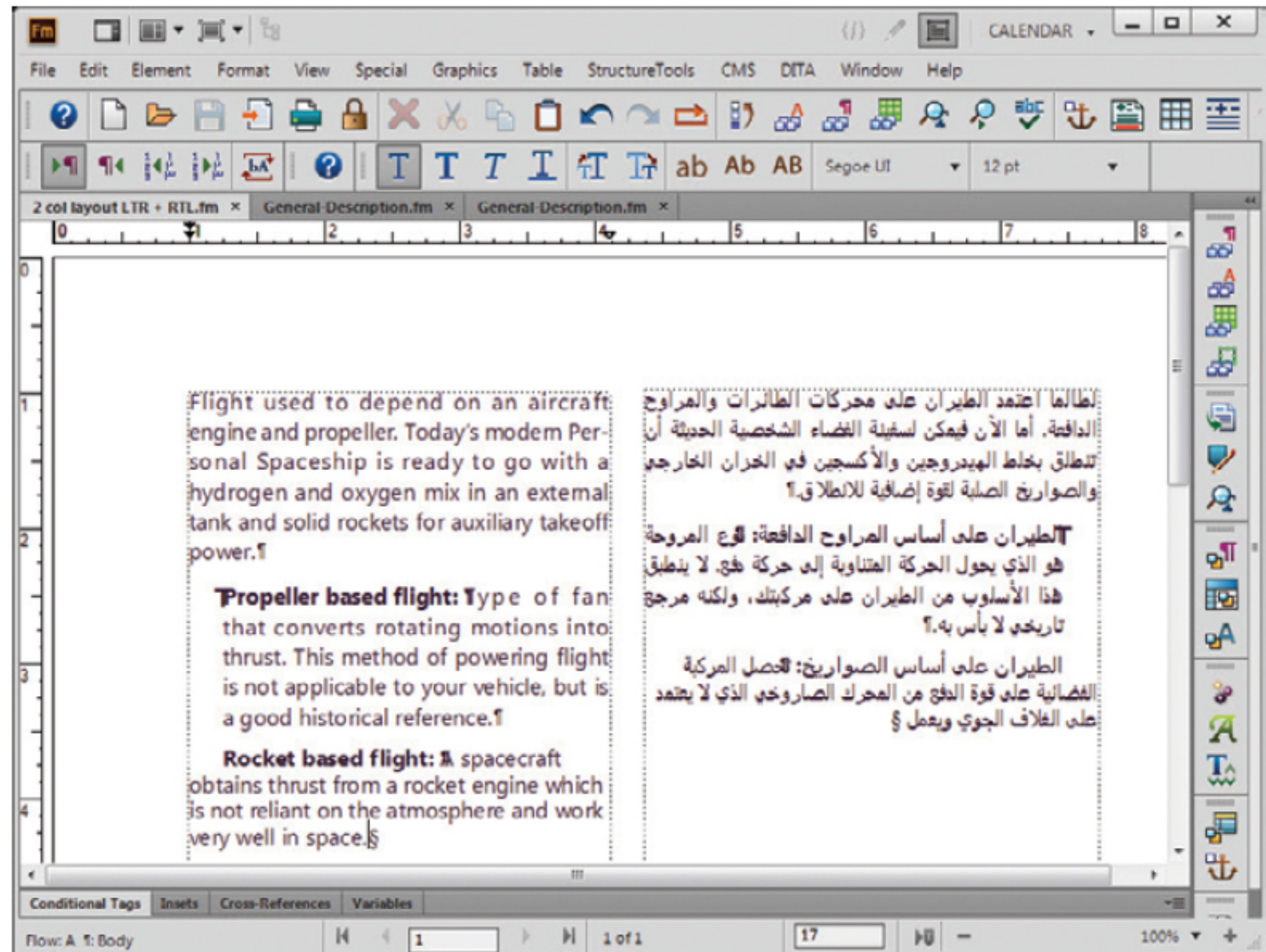
- Create a new, blank document, View -> Master Pages, Control-Click the text column, and 2
- resize the single column to a narrow width placed towards the left side of the page. By default, this column will have "Flow A" as a property and "LTR" for direction.
- Using FrameMaker's Graphic Toolbar from View->Toolbars -> Graphic Tool, draw a second Text Frame from the tool indicated to the right
- When you finishing drawing a column on the right side of the master page you will be prompted to fill in values in the "add new text frame" alert that will appear. Add the values shown below.



- Click on Add. Then, with the text frame still selected as an object, choose Graphics -> Object Properties ... then choose Text Frame as a category, and fill in the values in the lower third of the menu as indicated below and Apply.



- View -> Body Pages ... and you will observe a 2-column page. If you insert text into the left column and type a few paragraphs, then repeat the process with the column on the right side, you will achieve results like the illustration below.

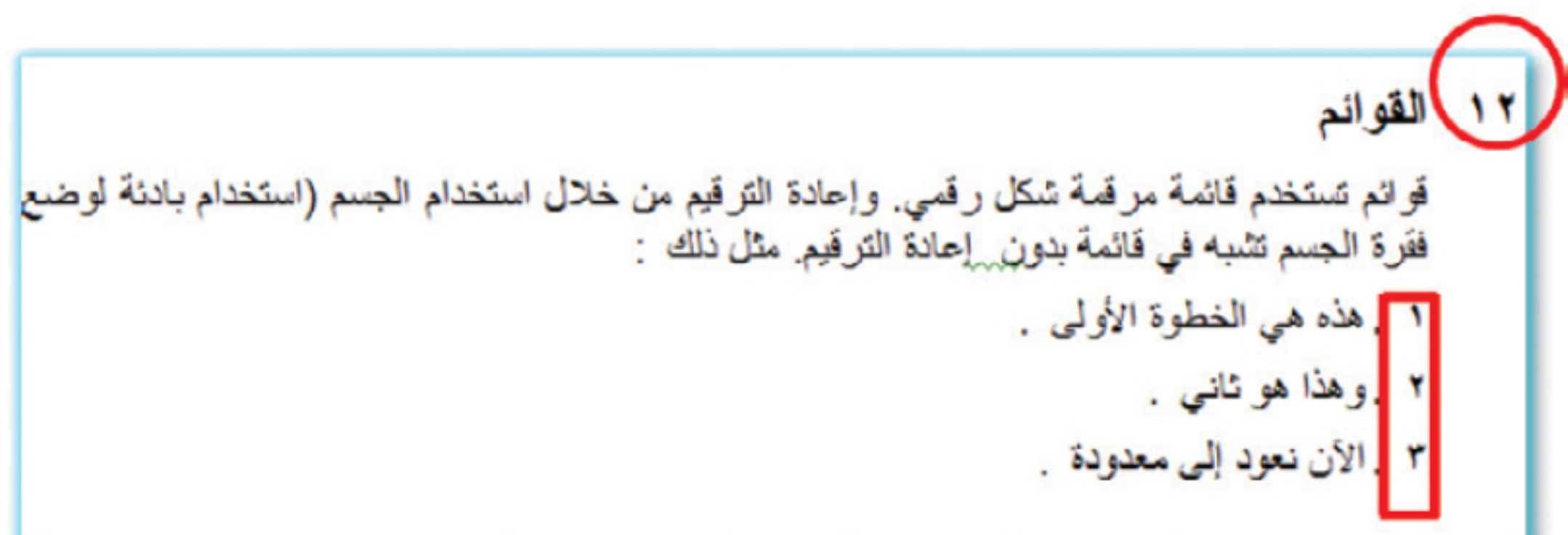
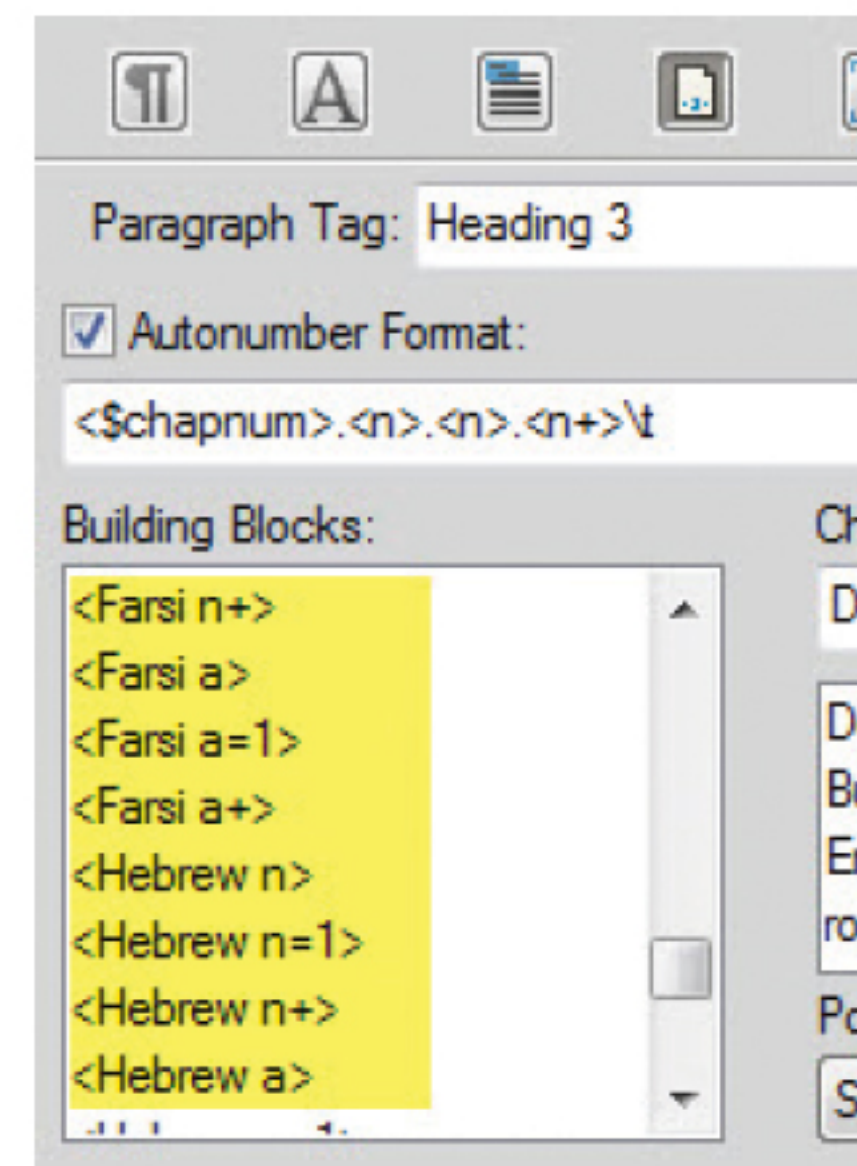


- With this brief experiment, you have successfully created a mixed content document that allows LTR English text in left column to paginate parallel to the RTL Arabic text in the right column. If you continue to type enough text, or hit return numerous times in either column, it will create a new page with the 2 parallel columns.

Numbering properties

FrameMaker now supports the following auto number building blocks (Paragraph Designer) and numbering formats (Numbering Properties dialog) based on RTL language properties:

- Indic numeric
- Farsi numeric
- Farsi alpha
- Hebrew numeric
- Abjad numeric
- Alif Ba Ta numeric

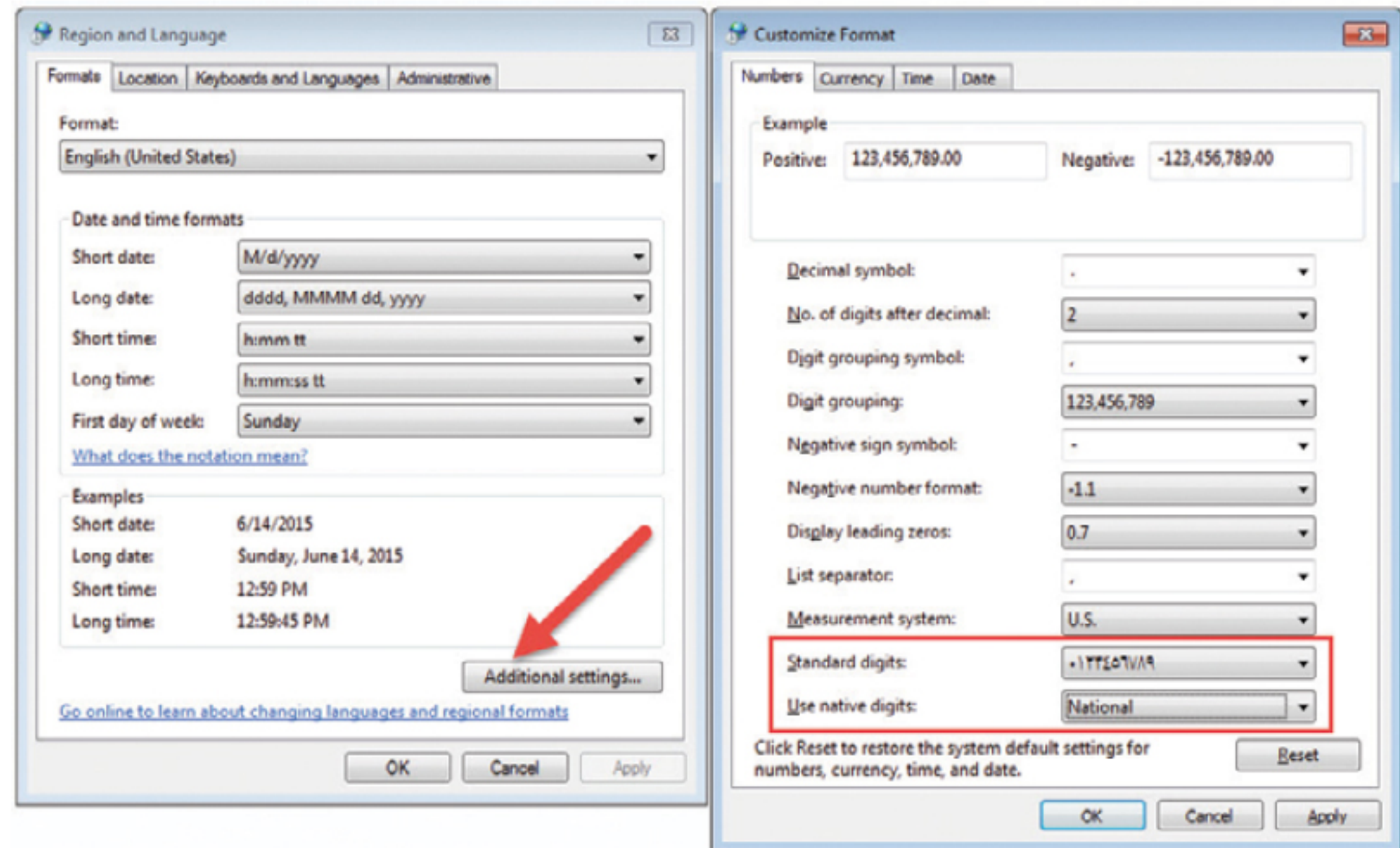


You may also use the third and fourth icon from the Direction Toolbar to convert selected numerals from English to Indic (Arabic) and vice versa. This is highly useful when western telephone numbers need to be converted to Arabic.



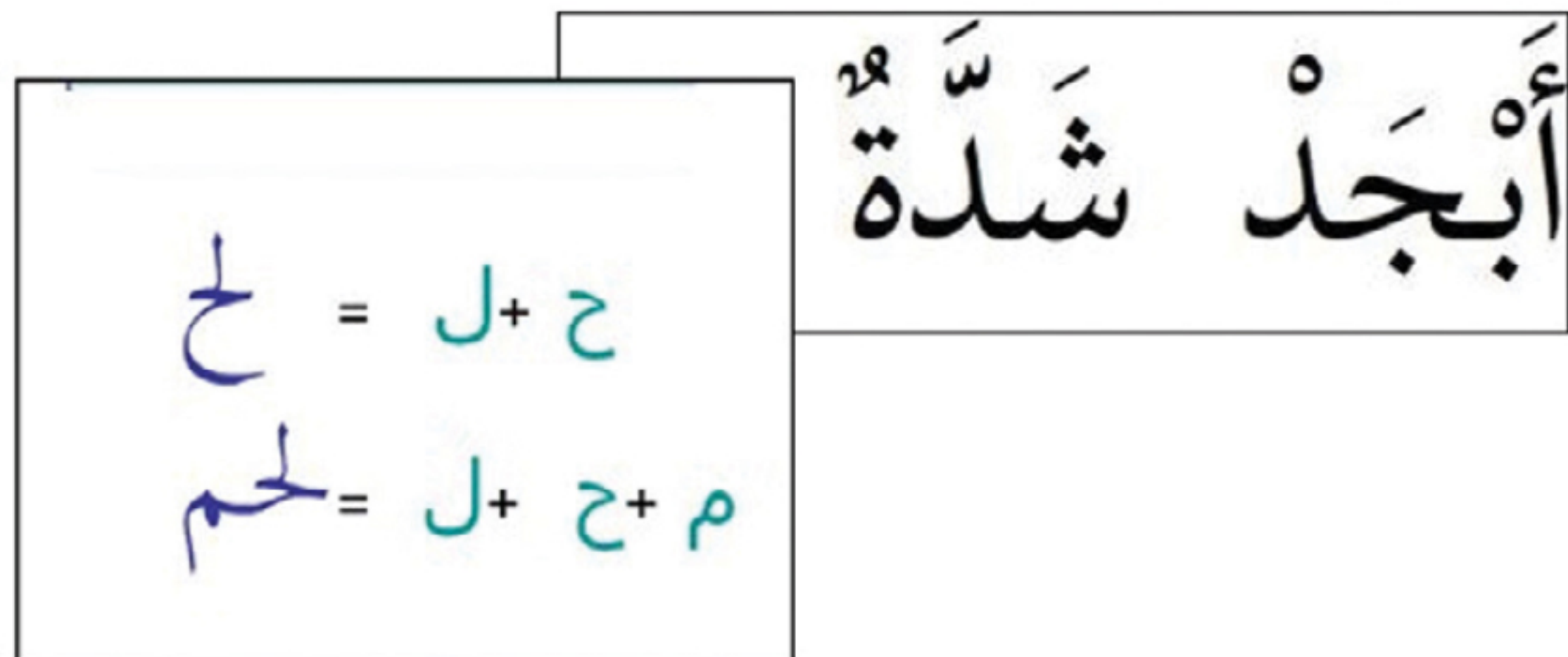
For native authoring in RTL script, you can also use the Windows numbering settings to display numbers in Arabic, Farsi or Hebrew.

NOTE: In this case, the numbers displayed in your document are based on the Windows settings. This indicates that if you change your settings or send this document to another user, the numbers will display accordingly



Arabic language support

For Arabic language, FrameMaker supports diacritics and standard ligature characters as shown in the following figure:



Book support



BENEFIT: FrameMaker has a logical model for inheriting language direction and binding direction from specific, non-generated documents. This makes it easy for authors to create books with mixed content.

The direction of a book is based on the first non-generated chapter in the book. For example, if a book contains some RTL chapters (documents) and some LTR chapters, the direction of the book is based on the direction of the first chapter in the book.

If you create a book that contains chapters, FrameMaker defines the direction (RTL or LTR) for the book. FrameMaker uses this direction information to define the direction of the lists and indexes generated in the book.

Direction in generated book components

The direction of generated components such as indexes in a FrameMaker book is based on the direction of the book. See Book support.

The direction of the mini-TOC of a document is based on the direction the document. If all the content in a document is based on an RTL language (using the paragraph designer), but the direction of the document is LTR (Format > Document > Direction), the generated component will be Left-to-Right.

The illustration below shows an example of a Table of Contents generated from a book in which the first component determined that the layout and direction should be RTL. Notice that the TOC works quite well displaying headlines of mixed content.

chapter 1 title 1	1
this is heading 1	1
this is heading 2	1
this is heading 1 - second instance	2
this is heading 2 -second instance	2
قالب للمواصفات 3	3
أهداف هذا القالب 3	3
البيانات 3	3
البيانات 3	3
البيانات 4	4
البيانات 5	5
Chapter 3 title 6	6
Heading 1 from chapter 3	6
Heading 2 from chapter 3	6
heading 2 from chap 3 -second instance	7

Mixed TOC can be set up using references pages by following ways:

Usage of Tab Stops in the Generated Components

- By changing the direction of document from LTR to RTL, tab stops are automatically right aligned

Usage of Directional Markers in the definition of TOC Formats on the Reference Pages

- Go to Reference Page of Respected TOC
- Add LRM/RLM Directional Markers to tweak the direction of the Toc content

Swapping of Building blocks

- Go to Reference Page of Respected TOC
- Swap the building blocks to tweak the TOC content to flow as per RTL direction

Indexes

In the event of mixed content containing Arabic/Hebrew/English, index headers will automatically will get configured, if user will adjust the language specific locale.

For Example:

- If Documents contain mixed content of English and Arabic, then user has to switch to Arabic locale to get the index headers generated automatically.
- If user is already working in Arabic locale, then no need to switch, and Index Headers will generated correctly.

Editing: Cursor location and movement

BENEFIT: FrameMaker allows you to set cursor direction to match the preference of the user. This helps make western, non-native Arabic linguists more proficient when doing post-translation LQA (Linguistic Quality Assurance) in RTL documents

By default, the cursor in an RTL enabled document moves Right-to-Left as you type. FrameMaker now has a system of a strong (primary) cursor and a weak (secondary) cursor. The strong cursor indicates where an inserted character will be displayed when that character's direction is the same as the base direction of the text. The weak cursor shows where an inserted character will be displayed when the character's direction is the opposite of the base direction.

To change the movement behavior of the cursor:

1. Open the Preferences dialog (Choose Edit > Preferences).
2. In the Cursor Movement group, choose Logical to ensure that the key movement remains the same as the logical order of inserted characters.
3. Choose Visual to ensure that the cursor movement is in the direction of the keys. For example, the left key moves the cursor in the left direction.

For example, the left key moves the cursor in the left direction.

Publishing RTL content from FrameMaker

BENEFIT: FrameMaker's easy, one-step publishing to HTML5 and other online formats empowers you to swiftly share your translated Arabic and Hebrew content with consumers who have a variety of mobile devices.

It is remarkably easy to publish RTL content from FrameMaker to the variety of on-line and print formats that FrameMaker supports. The only additional steps required are slight adjustments in the Publish layout editor to accommodate RTL direction and to specify an Arabic or Hebrew font. Incidentally, Arabic and Hebrew fonts are included with the FrameMaker software installation.

You may wish to view a brief, instructive video on publishing Bi-directional content at:

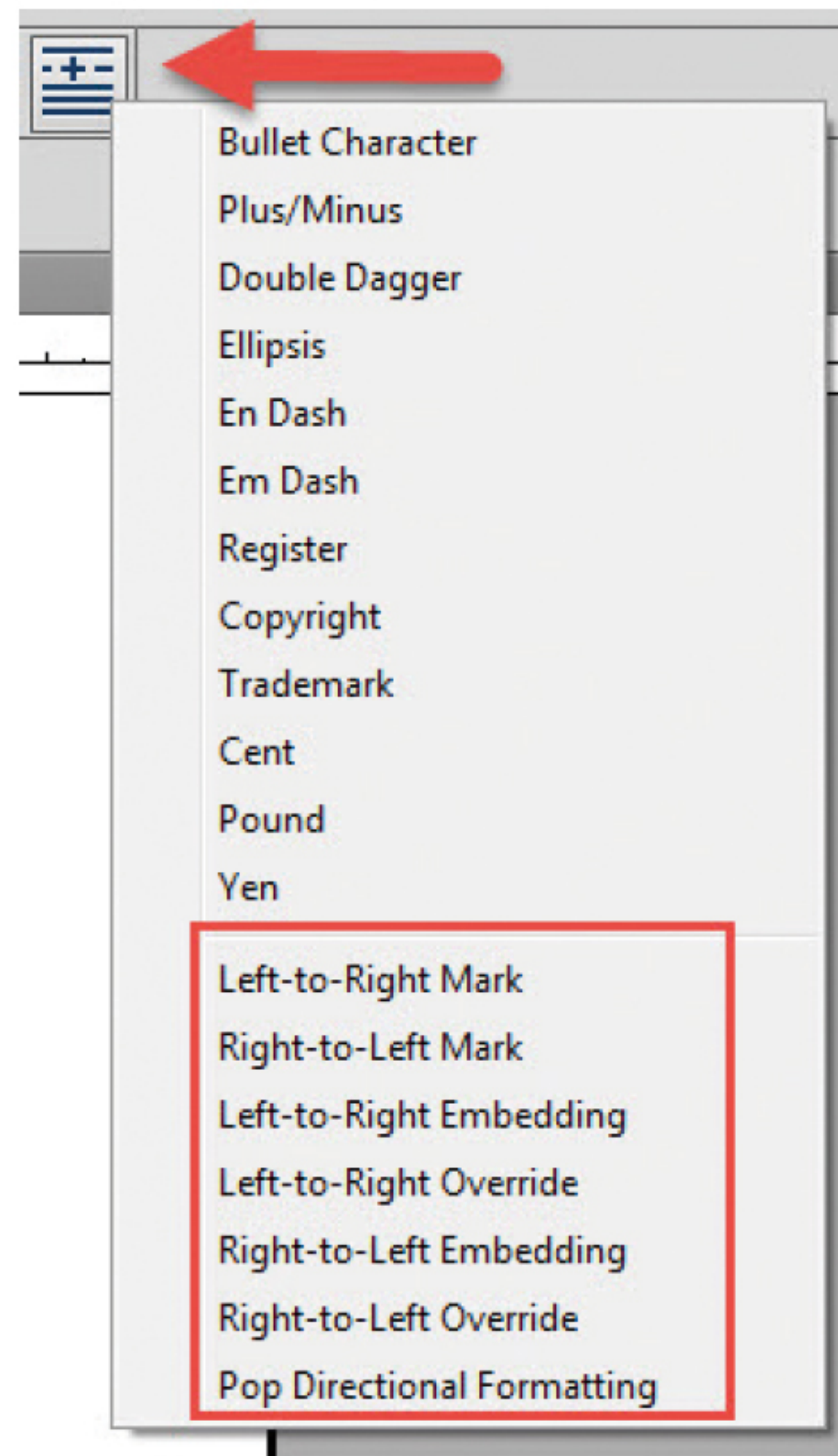
<http://adobe.ly/1HFgmmP>

The image below shows a FrameMaker Arabic project published to HTML5, resized in a browser to emulate how it will look when displayed on a tablet. Note the "filter" icon in the right-hand pane, which enables users to choose categories to customize the content which is displayed.



Direction markers

The Insert Symbols button on the Quick Access toolbar now includes a set of new Directional markers for use in mixed content:



For example, if your English language document contains the following URL:

`http://www.adobe.com/`

If you set the direction of the document to RTL, the URL displays as:

`/http://www.adobe.com`

NOTE: The trailing slash is now incorrectly placed at the start of the URL.

To place the slash again at the end of the URL:

1. Place the insertion point at the start of the URL.
2. In the Quick Access Toolbar, choose Symbols > Left-to-Right Mark.

Import and Export of mixed language content

The new FrameMaker Word import feature supports the import of documents (.doc, .docx, or .rtf) containing RTL text.

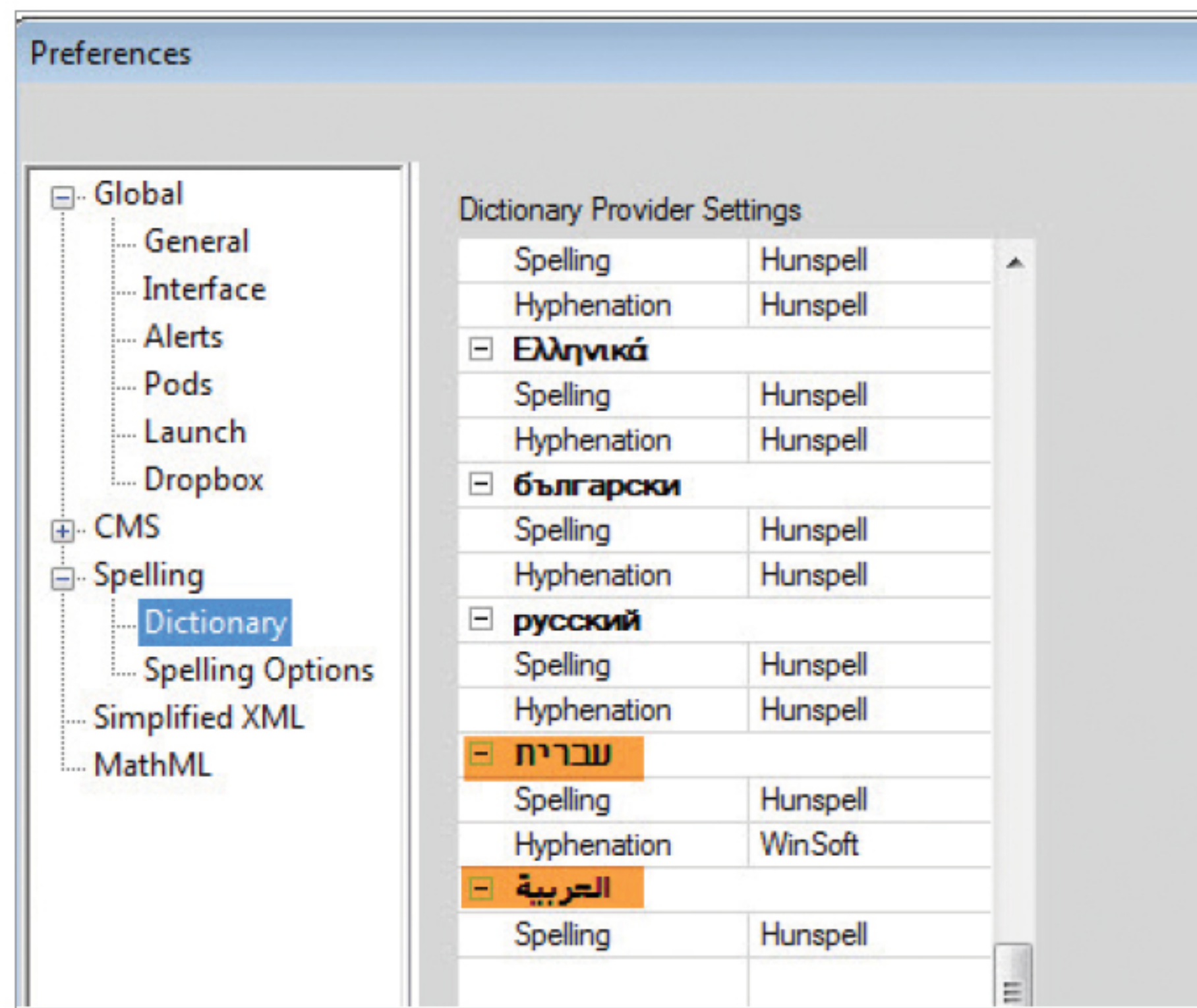
You can also copy and paste RTL text to and from FrameMaker documents.

NOTE: When you import or copy RTL text into a FrameMaker document, you need to ensure the text direction of the destination location (document, table, or paragraph) is set to RTL.

Dictionary support

The FrameMaker Spelling checker and hyphenation features also work for RTL content as they do for LTR documents.

Arabic and Hebrew spelling preferences are now available in the Preferences dialog.

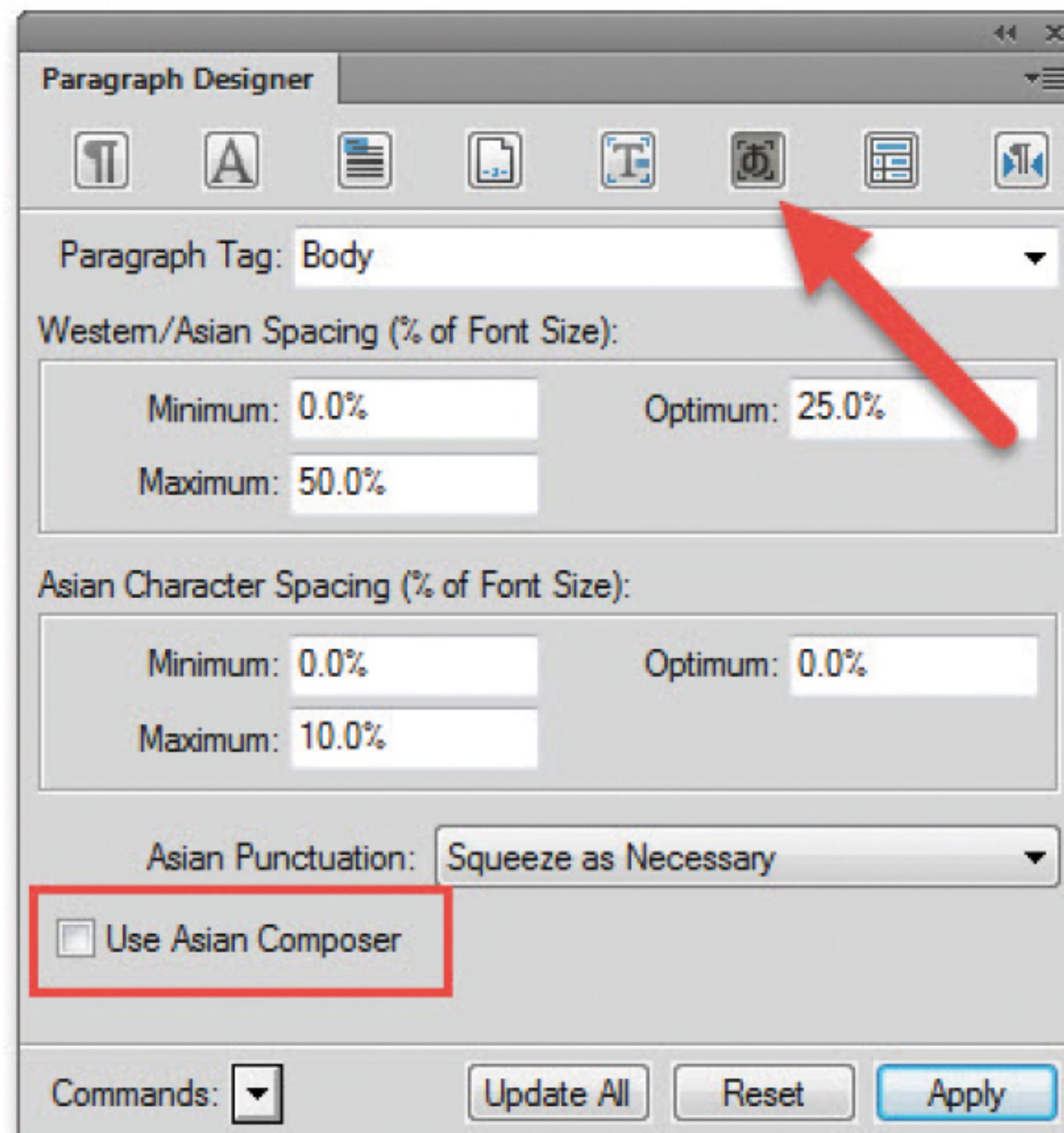


Asian language support

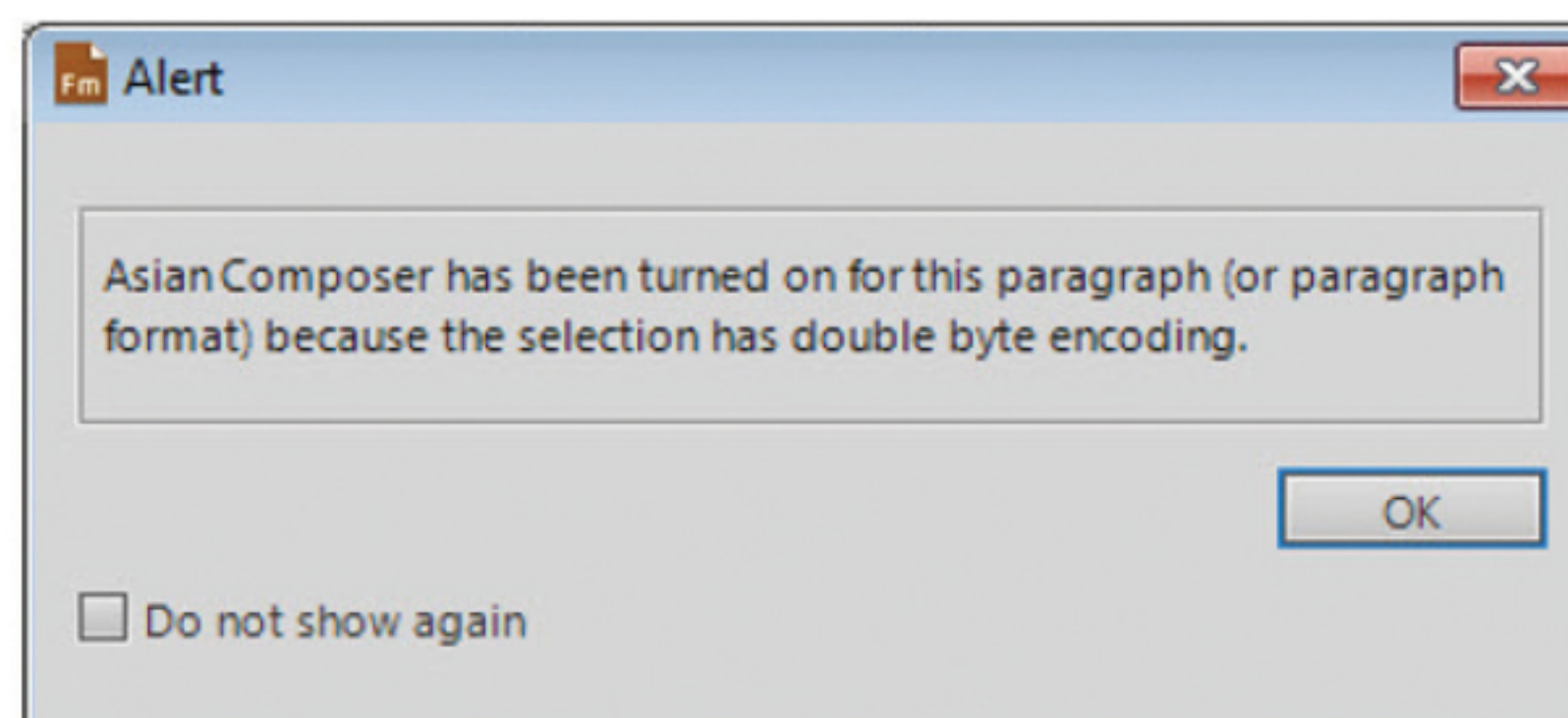
BENEFIT: Chinese and Arabic are increasingly becoming a critical target language pair in translation. This is common in multi-national construction and aerospace projects in the Gulf Region.

FrameMaker now provides the option to choose Layout Engine at paragraph level by specifying paragraph property Asian Composer.

While authoring, whenever you select a font that has double byte encoding or is a CJK (Chinese, Japanese, Korean) language font in paragraph designer, the value of the 'Use Asian composer' flag will be switched on.



An alert is displayed to the user with the following warning:



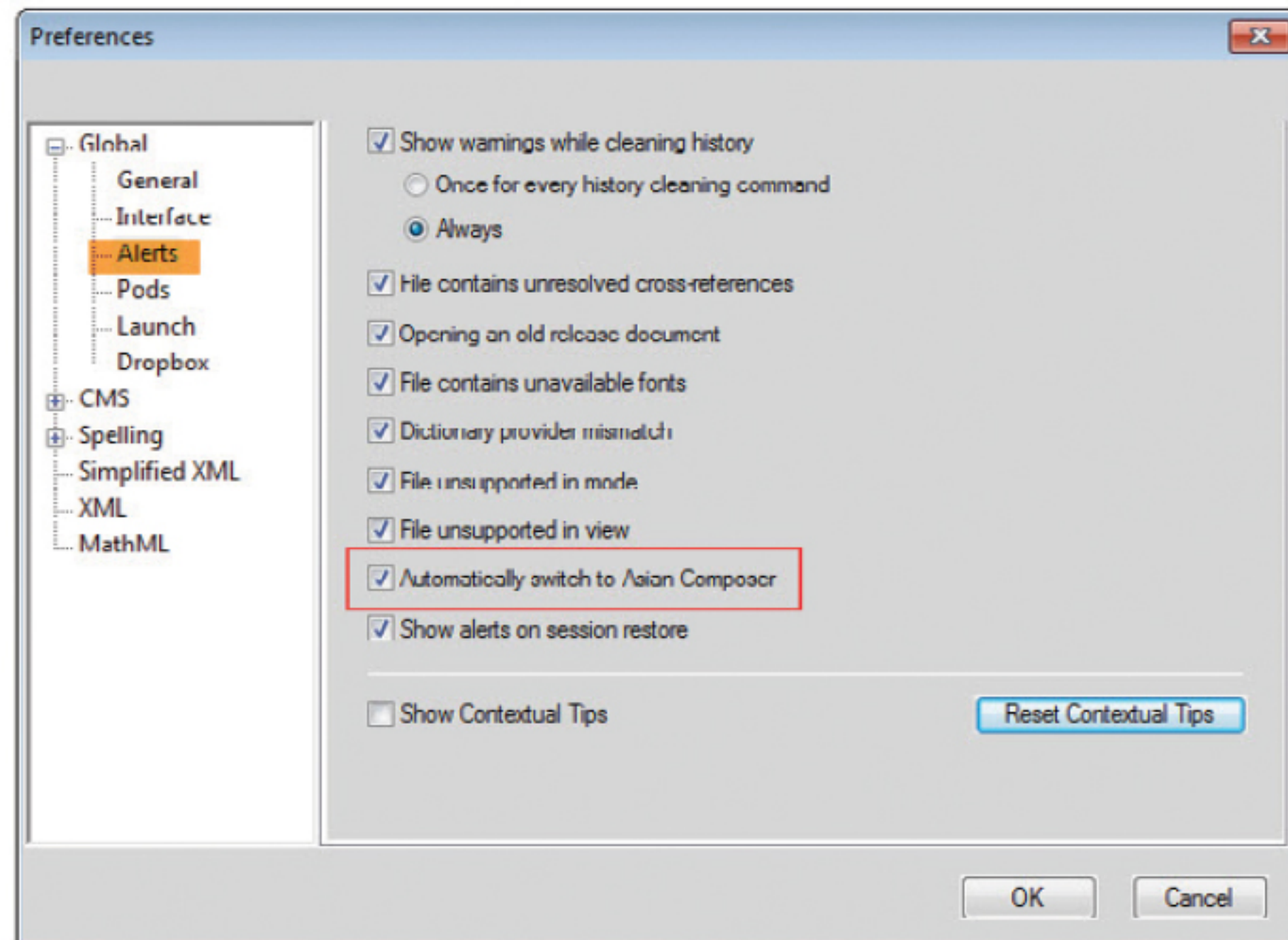
Notice that this alert has the "Do not show again" option in the lower left corner.

When a legacy document is opened, this property is switched on for all paragraphs containing double byte font or Rubi text, so that the Asian layout engine will be used for those paragraphs.

Since the two layout engines have different capabilities, scenarios may arise wherein neither engine can handle the text correctly. For example, if a paragraph contains both Rubi and Arabic text, neither engine can handle both of these correctly.

You can also set FrameMaker to automatically switch to Asian language support when double byte content is detected.

Edit->Preferences, select the Alerts category and tick the box next to "Automatically Switch to Asian Composer" as indicated in the screen capture below.



RTL support in structured documents

BENEFIT: FrameMaker provides the first truly "easy access" XML Authoring solution for authoring in or translating to Arabic and Hebrew. This is a major advance for tech doc in these languages.

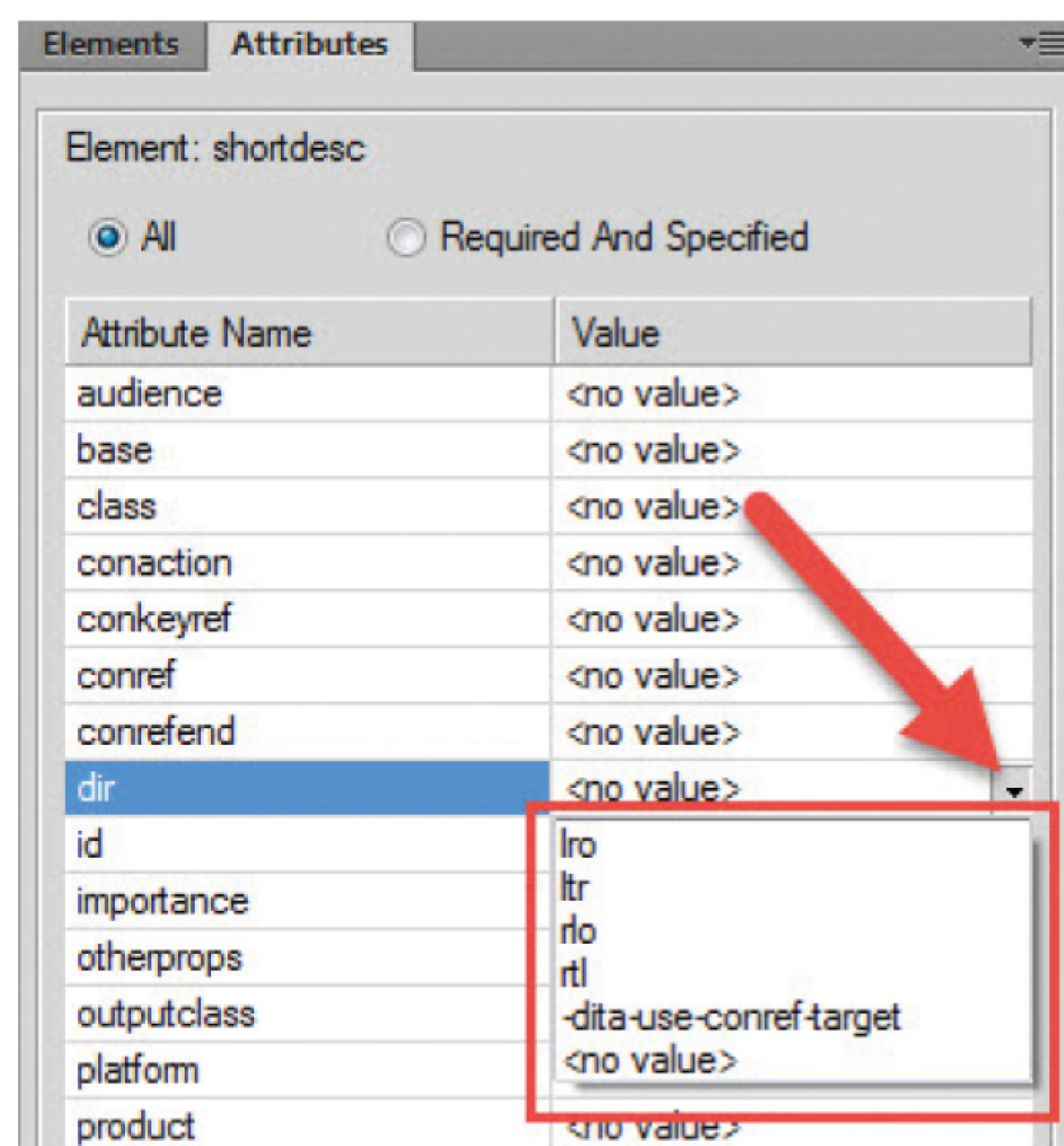
You can now author your FrameMaker XML or structured FrameMaker documents in RTL languages.

There are multiple ways to use the direction property in XML/Structured docs:

1. Map the property to attribute
2. EDD - Specify direction in pgf style which is applied on an element.
3. EDD - Directly specify the direction property in an Element. This can be found under paragraph properties.

If you change the direction attribute of an element, the direction is propagated to all child elements whose direction is set to default or inherit.

To change the direction of a structured element, open the Attributes editor (Element > Edit Attributes) and choose the appropriate direction attribute as indicated in the screen capture below.



Once you have set an element's **dir** attribute to **ltr**, you will see the XML code for that attribute if you view your content with FrameMaker's XML Code View. In this case, it displays on line 7.

A screenshot of an XML code editor window. The title bar shows "Edit View XSLT CMS Window Help". Below the title bar is a toolbar with various icons for file operations and editing. The main area displays XML code with syntax highlighting. Line numbers 7 through 17 are visible on the left margin. The code defines a DITA topic with attributes for id and dir, sets the namespace for ditaarch, and contains elements for title, shortdesc, prolog (with author), and body (with two paragraphs).

```
7 <topic id = "id1557L50K0AU" dir = "rtl"  
8   xmlns:ditaarch = "http://dita.oasis-open.org/a  
9   <title>title</title>  
10  <shortdesc></shortdesc>  
11  <prolog>  
12    <author></author>  
13  </prolog>  
14  <body>  
15    <p>first para</p>  
16    <p>یستم‌تییهم یستیم‌بیس</p>  
17  </body>
```

If you enable element boundaries in the WYSIWYG view, the tags will display in the RTL direction, as shown below.



Notice that the start tag is to the right of the text, and the end tag is to the left of the element.

Define direction in structured applications

FrameMaker provides out-of-the-box direction support for DITA structured applications. However, you can create your own structured application with direction support in your EDD (Element Definition Document.)

FrameMaker now includes a new direction property, which you can use in your structured application.

For example, you can create a read-write rule such as the following to specify that the FrameMaker direction property maps to the structured document dir attribute.

attribute "dir" { is fm attribute; is fm property direction; }

When you author in a topic based on the structured application, to change the direction of an element, you can set the following values for the dir attribute:

- rtl
- ltr
- inherit

When a new element is added to the topic, its default direction will be Inherit.

If you change the direction attribute of a element in a non-DITA XML file, the direction of the contents does not immediately change. You will need to close and open the XML file to reflect the changes.

The direction from EDD will map to the direction property of paragraph format or table format and not the Element. This will supersede the direction specified in the attribute.

BENEFIT: FrameMaker's support for RTL within XML is a major benefit for large projects with high-volume, technical content that must be translated into Arabic. FrameMaker's unique, simplified XML Authoring tools and automated formatting potentially provided by an EDD can shave hundreds of hours from translation projects.

The direction property is supported for the following elements:

- Paragraph
- Table
- Footnotes
- Graphic

FrameMaker now includes an Asian Composer construct in the EDD for paragraph properties. The property defines the layout engine the element will pick. For more details, see Asian language support.

If you save the topic as a MIF file, the direction attribute is written to the <pgfdir> and <elemdir> tags.

RTL support in FDK / ExtendScript

RTL documents or contents (paragraphs and tables) support all the available programming (FDK) and scripting (ESTK) features as they are supported in LTR documents.

- The direction property for different objects (Document, Paragraph, Flow, Table, and Text line) is available in latest FDK.
- There is FDK/ Extendscript support for RTL features as they are supported in LTR.
- The direction property for different objects (Document, Paragraph, Flow, Table, and Text line) is available in latest FDK and Extendscript
- Numbering building block for RTL scripts such as Indic, Farsi and Hebrew has been added.

Further resources to explore RTL publishing in FrameMaker

The following are some online documentation resources you will find helpful.

- FrameMaker 2015 User Guide
http://www.adobe.com/go/learn_fm_ug_en
- FrameMaker 2015 Getting Started Guide
www.adobe.com/go/learn_fm_2015_rev_guide_en

Key benefits from Arabic/Hebrew publishing in FrameMaker

FrameMaker's powerful, yet highly accessible authoring tools, with or without XML, are a major advance in RTL publishing in Arabic and Hebrew. Previously, most projects translated into Arabic were finalized in the post-translation DTP phase with highly manual processes.

The few tools that have previously been used for publishing in Arabic and Hebrew were either highly complex, inaccessible XML-only based solutions, or design tools that were never intended for high-volume, demanding technical content.

FrameMaker's support of RTL languages offers the following key benefits:

- You may specify language direction at the document level, letting all other objects (paragraph, tables, etc.) inherit their direction from one source. This makes template (and XML application) formatting extremely easy to maintain.
- Since tables will reverse order automatically, no special steps are necessary to prepare for translation.
- The tools needed to specify a "fixed language direction" for paragraphs, tables and text flows are logical and easy to find.
- When FrameMaker documents, books or DITAmaps are saved to PDF, the binding property is automatically set to "Right Edge" if a RTL document is involved.
- All key ingredients for Arabic support are built-in to FrameMaker, from diacritics and ligatures to alternate forms of numbering. Language and numbering may be easily specified in the template
- FrameMaker makes XML and DITA truly accessible to a broad audience publishing for Arabic and Hebrew consumers. No other product has simplified XML authoring as dramatically as FrameMaker.
- FrameMaker is widely used in the translation industry and there is a large pool of talent who can master these new LTR capabilities with a minimal investment of time.
- The one-step process for reformatting translated Arabic content into the right layout and format eliminates endless hours of billable time from localization projects.
- The ability to publish western LTR languages, along with Hebrew or Arabic RTL content, mixed with Asian CJK content is a major achievement. Due to the extensive commerce between China and some Arabic speaking nations, Asian language support within RTL FrameMaker files is of great strategic value.

When you author your content in FrameMaker 2015, you are "future-proofing" your content in two essential ways:

- A. your content can be easily transformed to appropriate formatting for Arabic after translation and
- B. regular, unstructured documents in FrameMaker can be easily converted to XML to ensure that your content is always up-to-date.

