

XML to PDF using MiramoPDF: Generic XML Publishing example

Introduction	1
Installing the Generic XML Publishing sample	2
Files and folders	2
Creating the PDF	3
Using MiramoDesigner to change the appearance of the output document	5
For more information:	7

Introduction

Thank you for your interest in using **MiramoPDF** to generate high-quality PDFs from generic XML data, where formatting is controlled via a GUI template design tool, **MiramoDesigner**:

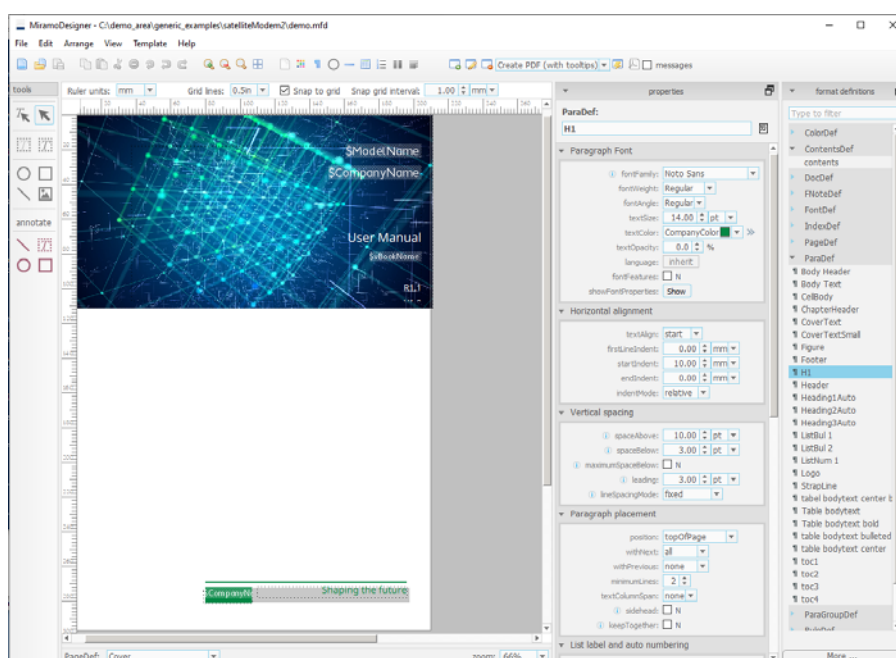


Figure 1: MiramoDesigner view of the demo template, **template.mfd**

This README describes producing a PDF from customer specific XML. Before starting to work with this example it's recommended that you have a look through some of the videos on the [Miramo YouTube channel](#).

Prerequisites

MiramoPDF or **MiramoEnterprise** must be pre-installed to produce PDFs from the sample XML file.

On Linux, ant must be installed and available on the path.

Windows or Linux versions of **MiramoPDF** may be downloaded from www.miramo.com

A **MiramoEnterprise** evaluation version is available on request, or through your Miramo reseller.

IMPORTANT: Adobe Acrobat is required to view the PDF property value indicators in the development version of the PDF.



Installing the Generic XML Publishing sample

The sample is available on <https://github.com/MiramoPDF/miramo-generic-publishing>

Use git to clone the repository:

```
git clone git@github.com:MiramoPDF/miramo-generic-publishing.git
```

Or download the ZIP and extract the files into a folder of your choice, to create a **miramo-generic-publishing** installation folder.

Files and folders

The following files and folders will be located in the **miramo-generic-publishing** installation folder:

build_demo.xml

Ant build file for building PDF

Readme.pdf

This PDF

bin/

makeMiramoXML.cmd

makePDFs.cmd

Windows wrapper scripts for mapping XML to MiramoXML and MiramoXML to development and production PDFs

mmtemplates/

template.mfd

Miramo Format Definitions (MFD) template, edited using **MiramoDesigner**, the GUI template design tool. Controls the appearance of the resulting PDF

workingFolder/

example.xml

helpserver_display.dtd

Customer specific XML source data + DTD

example_miramo.xml

Intermediate MiramoXML file produced from **example.xml** by applying the XSLT stylesheet, **example.xsl**

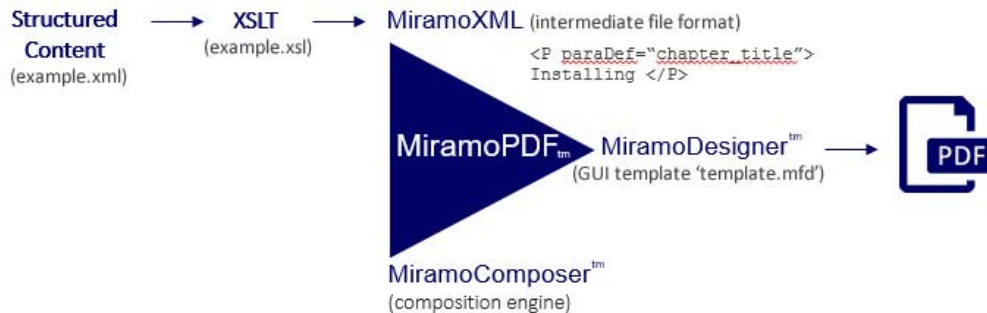
xsl/

example.xsl

XSL stylesheet which contains xsl:template mappings from customer specific XML (**example.xml**) to MiramoXML (**example_miramo.xml**)

Process flow

The process of producing a PDF from the generic **example.xml** is summarized here:



The source XML file **example.xml** is preprocessed using the **example.xsl** XSL stylesheet to map to the intermediate file format MiramoXML, documented in the [MiramoComposer reference guide](#). The MiramoPDF composition engine then applies formatting information from the **MiramoDesigner** GUI template **template.mfd** to render the MiramoXML to PDF.

Creating the PDF

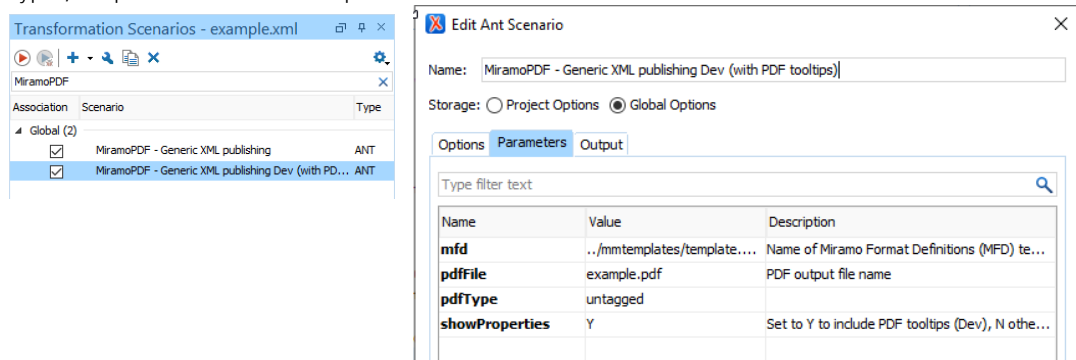
There are several methods of creating the PDF:

- **Oxygen XML Editor**: import and run the transformation scenarios located in the oxygen/ subfolder [recommended]
- **Ant**: use the build_demo.xml file supplied, ant -f build_demo.xml
- **MiramoDesigner**: launch the MiramoComposer process directly from the MiramoDesigner template
- **Command line interface**: use the **makePDFs.cmd** [Windows] script supplied

Each method is described in more detail below:

Publishing using Oxygen XML editor

1. Start Oxygen XML editor
2. **File->Open example.xml** using Oxygen XML editor
3. **Options->Import Transformation Scenarios** and navigate to the **MiramoPDF.scenarios** file located in the **miramo-generic-publishing** installation folder **oxygen** sub-folder. This creates two transformation types, for production and development use:



4. Double-click on either the production or development transformation scenario to publish to PDF and open the resulting PDF using the system PDF reader.

Using Ant to run the demo

Ant is available for download from <https://ant.apache.org/>

The build_demo.xml located in the **miramo-generic-publishing** installation folder is an ant buildfile.

To build the production PDF, use:

```
ant -f build_demo.xml
```

To create a development PDF demo_dev.pdf use:

```
ant -f build_demo.xml "-DshowProperties=Y"
```

To build a tagged PDF use:

```
ant -f build_demo.xml "-DpdfType=UA"
```

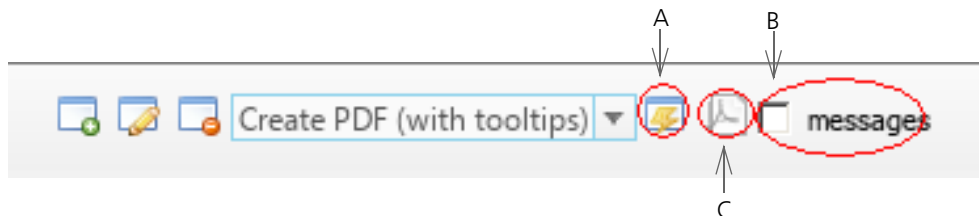
To build the production PDF using a packaged MFDP located on <http://www.miramo.com/MiramoDesignerTemplates/template.mfdp>, use:

```
ant -f build_demo.xml \
    "-Dmfd=http://www.miramo.com/MiramoDesignerTemplates/template.mfdp"
```

Creating a PDF using MiramoDesigner

MiramoDesigner includes a job configuration feature allows processing of selected sample data against the current GUI template, useful for viewing the results of template modifications. The template.mfd supplied in this sample includes pre-configured jobs to create PDFs from the **example.xml** input file, one with PDF tooltips (indicating format definition names and properties for paragraphs, tables and fonts), the other for production use.

To run the demo, start MiramoDesigner, open the template.mfd file located in the installation folder, and click on the dagger icon (A) on the top menu bar:



To view the command line and any diagnostic messages from the Miramo composition engine, check the messages box (B).

Once the PDF has been created, the PDF icon (C) will be enabled. Click on the PDF icon to view the PDF using the default PDF viewer application.

The resulting PDF includes tooltips which indicate the format definition names and properties of the paragraphs, tables and fonts applied from the MiramoDesigner template. Here is a screenshot of page 2 of the example_dev.pdf. The green expanded tooltip included below shows an instance of the Heading2Auto paragraph definition located on a 'Right' PageDef, together with a list of properties specified:



To produce a final PDF without tooltips, select 'Create PDF' from the dropdown jobs list as shown here:



Command line interface [Windows only]

Start a command window, navigate to the workingFolder containing **example.xml** and enter:

```
../bin/makePDFs.cmd example.xml ../mmtemplates/template.mfd
```

This will create a PDF file: example.pdf in the current folder.

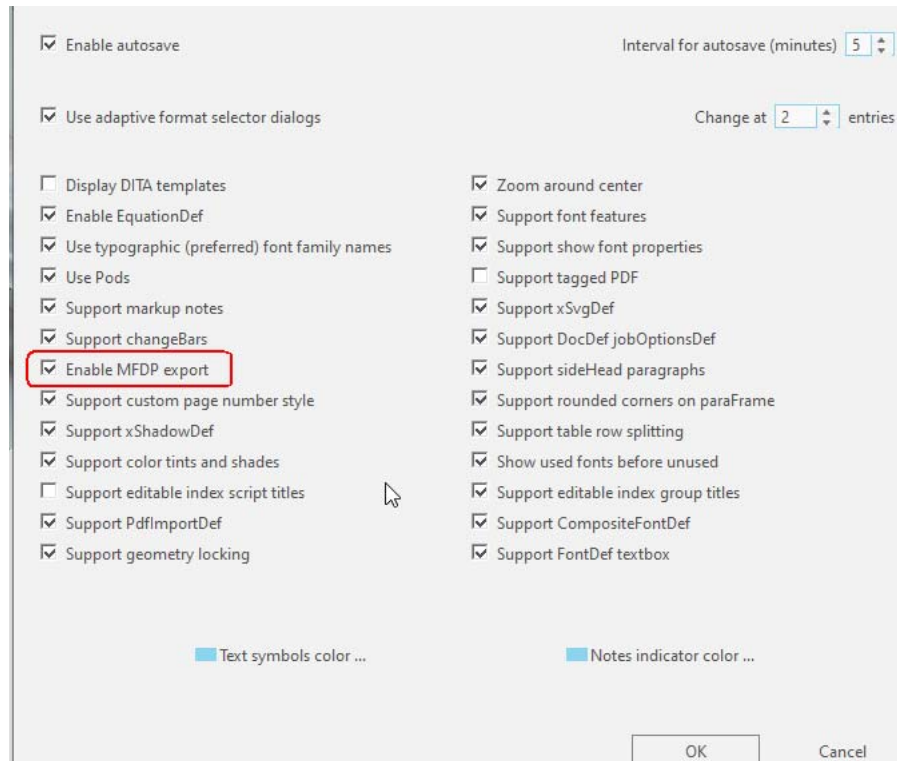
Using MiramoDesigner to change the appearance of the output document

You're now free to experiment using MiramoDesigner to select and modify the properties of various format definitions contained in template.mfd. Simply make the changes, save the template and re-run the job to see the effect of your changes.

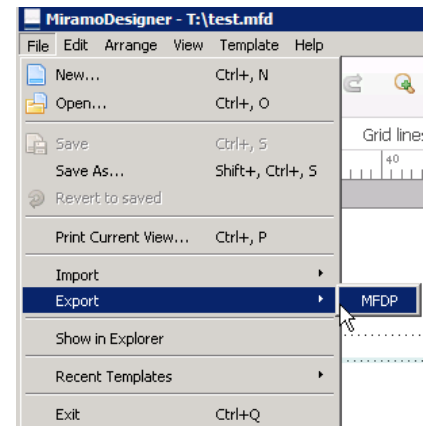
Working with packaged MFD templates

A package template has a **.mfdp** file extension, and can be exported from a source MiramoDesigner Format Definition (MFD) template. It contains the source MFD template together with all referenced graphics in a packaged file format, suitable for use via a URL file reference.

To enable MFDP export, check 'Enable MFDP export' in the MiramoDesigner preferences dialog (Edit->Preferences):

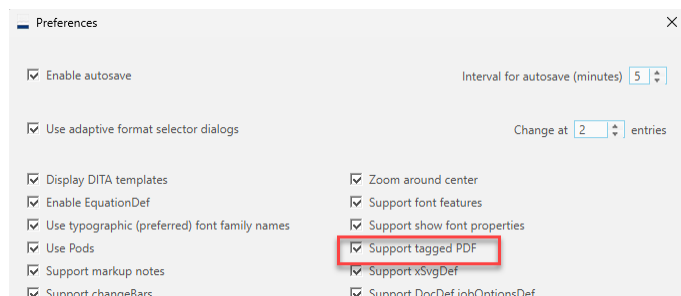


The MFDP export option will now be available on the MiramoDesigner File menu:

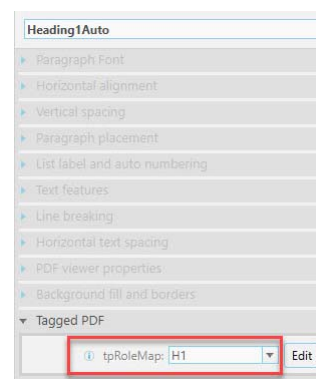


Working with tagged PDF (PDF/UA)

To produce structured PDF conforming to the PDF/UA standard, enable 'Support tagged PDF' in the MiramoDesigner preferences dialog (Edit->Preferences):



This enables tpRoleMap attribute editing for format definitions.
Here's an example of configuring the **Heading1Auto** ParaDef to use the H1 structure tag:



For more information:

For more information or help contact us (email miramo@datazone.com, phone +353 64 66 28964), and/or visit our website: <http://www.miramo.com> to book a meeting.

Miramo YouTube channel

Video: *Introduction to MiramoDesigner*

Website: www.miramo.com

MiramoComposer reference guide including the MiramoXML specification

Email: miramo@datazone.com

Phone: +353 64 66 28964