Passepartout 0.5 User's Guide

What is Passepartout?

Passepartout is an open source desktop publishing application for X-Windows (Unix). The goal is to provide a simple and user-friendly, yet powerful tool for creating printed material. Passepartout combines a WYSIWYG layout editor with a high-quality typesetting engine. Passepartout is released under a BSD license. The Passepartout webpage can be found at http://www.stacken.kth.se/project/pptout/.

Passepartout is not a word processor

You do not use Passepartout for writing text, because it is only a *layout* editor. Basically speaking, Passepartout is in the business of taking the different parts that make up a page, such as text, photos, graphics, and "gluing" them on a piece of paper. Passepartout can import from several different bitmapped image formats as well as EPS (Encapsulated PostScript) files. You write the text in your favorite text editor (e.g. Emacs or VI) in an XML-based format. The XML file is then typeset using a typesetting engine called xml2ps.

Installation

See the INSTALL file for installation instructions.

Using Passepartout

Starting the program

You start Passepartout by typing `passepartout &` in your terminal window. You are then presented with an empty document window (no document has been created).

You can get a list of command line options accepted by Passepartout with `passepartout --help`.

Creating a new document

To create an empty document, select New ... from the File menu. In the dialog that will appear, you can choose between creating a document from an existing template (any Passepartout document can be used as a template) or by specifying the paper format. You can also specify the page number the first page in the document should have. These settings can be changed at a later point by selecting Properties ... from the File menu.

Adding pages

To add a page to the document, select Insert Before ... or Insert After ... from the Page menu. If the document was created from a template, you will be asked to select a template page.

Turning pages

You can change the active page with the page selector in the lower right hand corner of the main window.

Importing images

You can add an image to a page by selecting Insert Image ... from the Edit menu. Passepartout accepts EPS, PNG, RAS, BMP, XPM, PNM, TIF, JPG and GIF files.

Text frames & text streams

A text frame can be added to a page by selecting Insert Text Frame ... from the Edit menu. The text shown in a text frame is read from an XML file, but the text frame is not connected directly to the file. Instead, each text frame is connected to a *text stream*, which in turn is connected to an XML file. The reason for this is that a text may span several frames, possibly on several pages. All frames that are meant to be part of of the same text are connected to the same text stream. The stream splits the text into parts and puts them in the appropriate frames.

When you add a text frame you are presented with a dialog that lets you choose between creating a new text stream or using an existing stream (or none). If you choose to create a new stream, you have to specify the XML file to associated with the frame. If the XML file is not in the xml2ps DTD, you will also have to specify a stylesheet that translates the file to the xml2ps format.

You can change the stream connected to a text frame in the Object Properties window. Text streams may be manipulated in the Text Streams window, accessible from the Streams item on the View menu.

Manipulating objects

Any object can be moved or resized using the mouse. The properties of an object can also be manipulated explicitly in the Object Properties window which is accessible through the Properties item on the View menu. When an object is selected, its properties can be edited in the window. Not all properties apply to all types of object. The properties that are unique to certain kinds of object are displayed in separate tabs.

An object can be *locked*, preventing you from accidentally moving or resizing it with the mouse. Locked frames have a gray border.

You can also choose whether text should flow around a frame or not.

Arranging & grouping

Several frames may be combined into a *group* by selecting more than one frame (using CTRL-button 1) and selecting Group from the Arrange submenu in the Edit menu. Frames can also be moved up or down relative to other frames using the items in the Arrange submenu.

Opening and saving files

Opening and saving files works much like in most other applications. The text and images imported into the document are not saved as a part of the document.

Note: Passepartout does not (yet) ask before writing over existing files! There is also no warning before closing an unsaved file.

Printing

Passepartout can print PostScript or EPS files. (EPS files may only contain one page.) The file can be piped to a printing command, such as `lpr`, or saved to a file.

Select Print ... from the File menu. There is also a Print Preview item that will start an external PostScript viewer (if one has been defined).

Multiple views

A single document can be seen through more than one view. This lets you work with different pages of a document at the same time. You can also see the the same page at different zoom levels.

A view can be duplicated by selecting New View from the File menu. A document will not be closed until all its views has been closed.

Creating the XML files

XML (http://www.w3.org/XML/) is an acronym for "Extensible Markup Language". XML is a meta-language for describing different kinds of file formats in a standardized fashion. An XML file is an ordinary text file, but the text is formatted according to strict rules. If you have written HTML before, then you are already familiar with some of the key concepts. If you don't have any previous experience with XML, we would recommend reading an online tutorial:

- http://www.w3schools.com/xml/
- http://www.spiderpro.com/bu/buxmlm001.html

The typesetting engine

The typesetting engine of Passepartout is called xml2ps and is also available as a stand-alone program. It has its own DTD (Document Type Definition.) . XSLT stylesheets can be used to translate any XML file to the format that xml2ps will accept.

There are two basic approaches to writing text for Passepartout:

1. Write the text in XML conforming directly to the typography-level xml2ps DTD.

2. Write the text in XML conforming to a high level, logically stuctured DTD (either an existing one, such as XHTML or DocBook, or one of your own design), and use an XSLT stylesheet to transform the text into a document conforming to the xml2ps DTD.

The advantage with the former approach is that you get superior control over the result, while the latter method is more suitable when writing longer texts. Stylesheets for XHTML and DocBook are supplied as examples. This document is in fact formatted in DocBook itself. A good exercise for the reader is to modify the behaviour of these examples.

A description of the xml2ps DTD

Nodes allowed in an xml2ps file:

<block-container>
Root node and parent node of <para> or other <block-container> nodes.
Parameters:
margin-top, margin-bottom, margin-left, margin-right: Margins (lengths).
All <font> parameters are also accepted.

<bp>
Mark a point in a word where hyphenation is allowed.

<font>
Change font inside a <para>.
Parameters:
underline: The only accepted value is "1".
font-family: Accepted values are PostScript font (not font family) names.
font-size: Font size (a length or a percentage).
letter-spacing: Extra character spacing (a length).

<leader>
Explicit whitespace
Parameters:
width: Width of whitespace (a length).

<linebreak>
Explicit linebreak

<para>
A "paragraph". All text must be contained within paragraphs. Paragraphs may not be nested.
Parameters:
align: Text alignment. Accepted values are "left", "right", "center" and "justify".

line-height: Distance between lines as a factor relative to the font size.

All <font> and <block-container> parameters are also accepted.

Lengths may be specified in points ("12pt", "-0.3pt") or in relation to the font size ("2em", "-0.3em").

A short example

```
<?xml version="1.0"?> <block-container
font-family="Bookman-Light" font-size="12pt"> <para
font-family="AvantGarde-Demi" font-size="36.3pt"
align="center" margin-bottom="20pt">This is a centered
headline in Avant Garde demi-bold 36.3 points </para> <para
align="justify">This is text in Bookman Light 12 points. <font
font-size="50%">This is text in Bookman Light 6 points.</font>
Some words may be typeset in an <font
font-family="Bookman-LightItalic">italic</font> typeface. The
word "hyphen<bp/>ated" may be hyphen<bp/>ated. </para>
<para margin-left="12pt" align="left" line-height="1.5">This
is a left-justified indented paragraph with a line height of 18
points. <font underline="1">This sentence is underlined.</font>
In this sentence, there is an unnecessary <leader width="5em"/>
space. </para> </block-container>
```

Configuration

Passepartout gets its configuration options from the file .pptout in your home directory. If the file does not already exist, Passepartout will create one with default values for all settings. If you want to, you can change these settings.

Settings that may be of interest:

DefaultResolution
Default resolution for images, in pixels per inch

FontPath
Paths to look for Postscript font files in.

LengthUnit
Default length unit. Default is pt (points).

PaperName
Default paper name. Default is A4.

PSInterpreter
Command to run ghostscript.

PSViewer
PostScript viewer. (Default is `gv`.)

PrintCommand
Default command used for printing. (Default is `lpr`.)

StylesheetPath
Default path to look for XSLT stylesheets in.