Release Notes for Apache FOP 1.1rc1

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1 Major Changes in Version 1.1rc1

> **Note:**
> This is not a complete list of changes, just some of the more important ones. A full list of changes in this release is available.

1.1 Changes to the Code Base

- Update to use of checkstyle-5.5 as default configuration. Remove checkstyle-4.0 configuration. Also, import environment build properties before local properties, so that latter can refer to former. Committed by GA. See Issue 53083.

- Invoke JVM in headless mode from FOP command scripts and JS shell to prevent stealing focus from GUI applications. Committed by GA. See Issue 50062.

- Support list-block in marker, thus preventing NPE. Committed by GA. See Issue 52763.

- Allow https scheme URI for PDF external action target. Committed by GA. Thanks to Paul Huemer. See Issue 51599.

- Fixed incorrect rejection of fo:wrapper inside fo:inline inside fo:footnote-body. Committed by GA. Thanks to Alberto Simões. See Issue 53005.

- Added support for PDF Object Streams. When accessibility is enabled and PDF version 1.5 selected, the structure tree will be stored in object streams in order to reduce the size of the final PDF. Committed by VH. Thanks to Peter Hancock.

- Fixed bug that caused a configured and installed SVG font to be stroked, also added an event indicating when fonts are stroked. Committed by MH. Thanks to Luis Bernardo. See Issue 52849.

- Improved support for empty flow-name mapping. Committed by PH. See Issue 50391.

- Add support for different flow-name of fo:region-body in FOP Committed by CB. Thanks to Peter Hancock. See Issue 50391.

- Allow JPEG images to be embedded in an AFP document as is, without being decoded and encoded. Committed by PH. Thanks to Mehdi Houshmand. See Issue 52089.

- Fix for when the last simple-page-master referenced in a page-sequence-master is not chosen when force-page-count=odd. Committed by PH. Thanks to Mehdi Houshmand. See Issue 51962.

- Upgraded all tests to JUnit 4. Committed by VH. Thanks to Mehdi Houshmand. See Issue 51928.

- Added support for resolution of relative URIs against a specified xml:base during property refinement. Committed by AD. See Issue 48334.

1.2 Changes to the User Configuration

- Added configuration option to set the version of the output PDF document. Committed by VH. Thanks to Mehdi Houshmand. See Issue 51385.

1.3 Changes to the Font Subsystem

- Add support for OpenType advanced typographic tables (GDEF, GSUB, GPOS). Committed by GA.
- Changes the way PostScript handles Graphics2D images such that if the language is set to level 3, the image is stored as an embedded file which has no length limit. Previously it was stored as an array which has a implementation limit of 65535 elements. Committed by PH. Thanks to Mehdi Houshmand. See Issue 51760.
- Improved support for EBCDIC encoded double byte fonts fo AFP. Committed by PH. Thanks to Mehdi Houshmand. See Issue 51530.
- Reinstated support for being able to specify a font cache filepath in the fop user configuration. Committed by AC.
- Added convenience support for the flushing of the Fop font cache file from the command line. Committed by AC.

1.4 Changes to the Image Support

- Support use of ImageLoaderRawPNG decoder in order to prevent re-encoding of PNG images (and unnecssary output file bloat). Committed by GA. Thanks to Luis Bernardo, Matthias Reischenbacher. See Issue 40676.

1.5 Changes to the Layout Engine

- Fix for break before (break-before) not respected on blocks nested in inlines. Committed by GA. Thanks to Luis Bernardo. See Issue 45715.
- Ensure square image is appropriately scaled. Committed by GA. Thanks to Luis Bernardo. See Issue 52514.
- Add support for complex scripts, including: full bidi support, support for advanced typographic tables, advanced support for number conversion. Committed by GA. See Issue 32789, 49008, 49687.
- Implemented non-standard behavior for basic-link areas, such that they take into account the heights of their descendants areas. Committed by VH.
- Fix for keep-together does not apply to fo:table-cell. Committed by VH.
- Fix for keep-together on a table containing row-spanning cells that was not honored. Committed by VH.

- Fix forpadding-start ignored when table-header/footer is repeated. Committed by VH. Thanks to Matthias Reischenbacher. See Issue 50196.
- Fix for correct behavior of keep-together.within-line in case there are nested inlines Committed by AD. See Issue 49848.

1.6 Changes to Renderers (Output Formats)

- Added possibility to embed TrueType fonts in PostScript. Committed by VH. See Issue 52338.
- Add extension to place code just before PostScript %PageTrailer. Committed by GA. Thanks to Luis Bernardo. See Issue 53295.
- Added support for 128bit encryption in PDF output. Committed by VH. Thanks to Michael Rubin.
- Added an IFDocumentHandler filter for triggering rendering events. Created an Event that captures an end page event with the page number. Committed by PH.
- AFP GOCA: Changed the way FOP fonts are selected based on Batik's GVT fonts to match the behaviour of PDF/PS output. Committed by JM.
- Added option to place AFP NOPs right before the end of a named page group (page-sequence), rather than after the start. Committed by JM.
- Added option for PostScript output to optimize for file size rather than quality. Committed by JM.
- AFP GOCA: Added option to disable GOCA and to control text painting inside GOCA graphics. Committed by JM.
- Increased maximum possible PDF size from 2GB to around 9GB (hard maximum imposed by the PDF specification). Committed by JM.
- Added support for CIE Lab colors (from XSL-FO 2.0 WD). Committed by JM.
- Initial work on spot colors (aka named colors) for PDF output. Committed by JM. Thanks to Patrick Jaromin. See Issue 49403.
- Added ability to embed an external AFP page segment resource file (AFP output only). Committed by JM. Thanks to Peter Hancock. See Issue 49379.