

High-level Output API Overview

The Ghostscript family of interpreters offers native rendering of all major page description languages. In addition to rendering to raster, Ghostscript offers the capability of high-level conversion through our High-level Output API. Here are some of the features of this module:

Ghostscript high-level conversion capabilities include the following:

Input formats: PostScript (all), PDF, PCL, and XPS

Output formats: PostScript Level 1, PostScript Level 2, PDF, PDF/A, PDF/X, and XPS (planned)

The Ghostscript high-level output API provides pathways to retain the object-level information. As a result when converting from one format to another, in order to keep the file small and to have searchable/linkable text, Ghostscript retains these objects whenever possible.

For example, when PostScript is converted to PDF, fonts and text are retained and are searchable in the resulting PDF file. In addition vector graphics are retained as well. The resulting PDF file is small, with searchable and linkable text.

Ghostscript can be used for the following conversions:

- PostScript to PostScript (normalizing a PS file)
- PostScript to PDF (distilling)
- PDF to PDF (normalizing a problem PDF file)
- PCL to PDF
- XPS to PDF
- PDF to XPS (planned)

There are some graphic constructs in XPS, PDF and PCL that are not supported in PostScript. In PCL there is "rasterops". XPS and PDF have "transparency". If/when a file contains graphic constructs that are not supported in the output format graphics model, Ghostscript converts such constructs into raster images, and retains other objects. If some transparent text is converted into images, its searchability may be lost.