

What is Ghostscript?

**A desktop
PostScript
RIP
for Linux
licensed as Open Source (GPL)**

What is Ghostscript?

***A desktop, server, and embedded
PostScript, PDF, PCL (commercial), and raster
RIP and PostScript/PDF generator
for Linux, Unix, MS Windows, MacOS, OS/2, OpenVMS, real-time OSs, ...
licensed as Open Source (GPL), as delayed Open Source, and commercially***

What makes Ghostscript important?

- **High-fidelity, timely tracking of important PDLs**
- **Design for use as a component for Open Source applications**
- **Very broad platform coverage**

Ghostscript architecture

- **Language interpreters**
- **Graphics state management**
- **Graphics level reduction / rasterization**
- **Drivers (high & low level)**

Device loading and integration

Today:

Static selection of driver set

Static loading

Intended:

Dynamic discovery + loading

Device control

Today:

setpagedevice (standard + driver-specific parameters)

Intended:

OutputDevice resource (gives page sizes, resolutions, ...)

Larger set of generic parameters?

Fewer, more configurable devices?

Better support for generic parameters? (e.g., duplex)

Halftoning

Today:

Adobe methods built in, others in drivers

Intended:

**Error diffusion also built in
More pluggable?**

Color rendering

Today:

Adobe methods built in (except ICC-based), others in drivers

Intended:

ICC-based also built in

More pluggable?

The future

Expanding functionality, expanding the contributor community:

- PDF 1.4 (transparency) (*Raph Levien (libart)*)
- SVG output (*David Evans et al (ps2svg)*)
- Dynamic driver loading (*Graham Stoney, Louis-Rodolphe Sidney, ...*)
- ICC-based color (*Graeme Gill (icclib), Karl Heinz Kremer, ...*)

... (See [doc/Projects.htm](#) in the Ghostscript distribution)

Support is a big issue.

References

These slides:

<ftp://ftp.cs.wisc.edu/ghost/papers/osps0700.{ps,pdf}>

Ghostscript home pages:

<http://www.ghostscript.com/> (*umbrella*)

<http://www.cs.wisc.edu/~ghost/> (*current AFPL*)

<http://www.cs.wisc.edu/~ghost/gnu/> (*current GPL*)

Discussion of dynamic loading:

http://sourceforge.net/forum/message.php?msg_id=39679

David Evans' SVG output page:

<http://broadway.cs.nott.ac.uk/projects/SVG/ps2svg/>

Graeme Gill's icclib:

<http://web.access.net.au/argyll/color.html>