What is Ghostscript?

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

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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