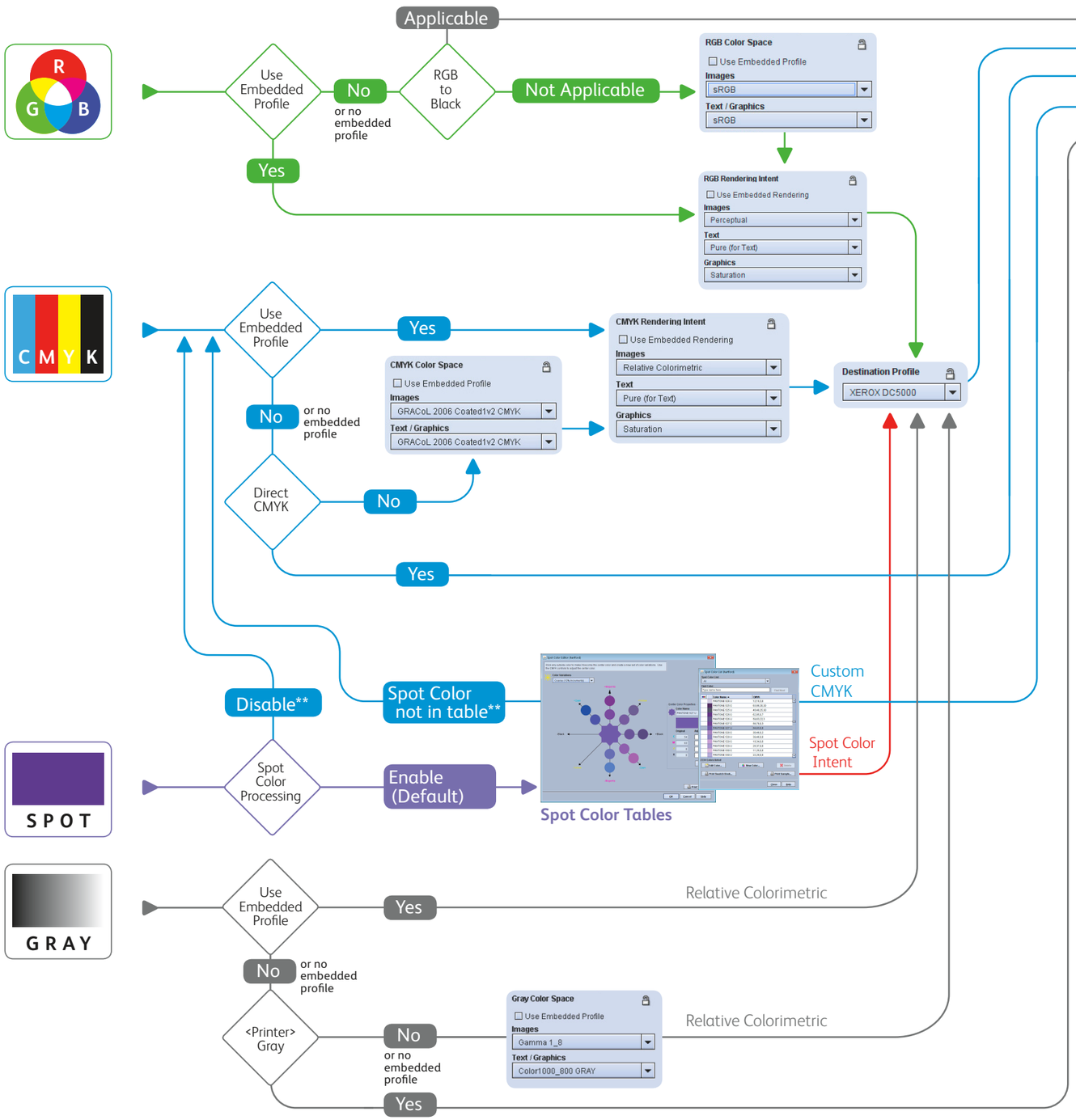
Xerox® FreeFlow® Print Server Version 8, Adobe PDF Print Engine 2.0 Color Workflow



Key

- ◇ Job Properties
- ▶ RGB Data
- ▶ CMYK Data
- ▶ Spot Color Data
- ▶ Device Independent Color Data
- ▶ K Data

General/Normal Mode

RGB Workflow

- Default color space: sRGB, optimal for office applications and direct photo printing. Adobe RGB is often used by designers working in the Adobe Creative Suite.
- Use Embedded Profile (default on iGen4): This option honors the intent of designers who associate profiles with their photo/images.
- For RGB black/gray text and graphics, use the RGB to Black option to force printing with K only (not applicable when using embedded profile or to images).
  - "Black uses K" is applicable when R=G=B=0
  - "Black and Gray use K only" is applicable when R=G=B
- Automatic Image Enhancement is not supported with APPE in v8.

CMYK Workflow

- Direct CMYK
  - Uses the full printer gamut with no color management. This can be used to achieve the richest color (especially for text and graphics).
  - Supports a workflow where color management is applied upstream.
- Default color space: GRACoL (v7), provides optimal color balance for traditional CMYK workflows and offset press emulation. Additional common standards are built-in for regional and shop-specific preferences.
- Add new CMYK profiles via the Color Manager to emulate specific devices, and the system dynamically creates a DeviceLink.
- DeviceLink technology insures black preservation.

Grayscale Processing

- Grayscale data is printed as K-only; profiles adjust the contrast level.
  - Default Images: Gamma 1.8
  - Default Text/Graphics: <Printer> Gray (Direct)
- If Color Mode ➡ Grayscale is selected, all data is rendered with K only.

Using Embedded Color Management (Embedded Profiles)

- To honor embedded profiles, check the Use Embedded Profile box for the applicable Source Color Space.
- Embedded profiles generally do not use DeviceLink, therefore the CMYK black channel is not preserved.

Spot Color Processing

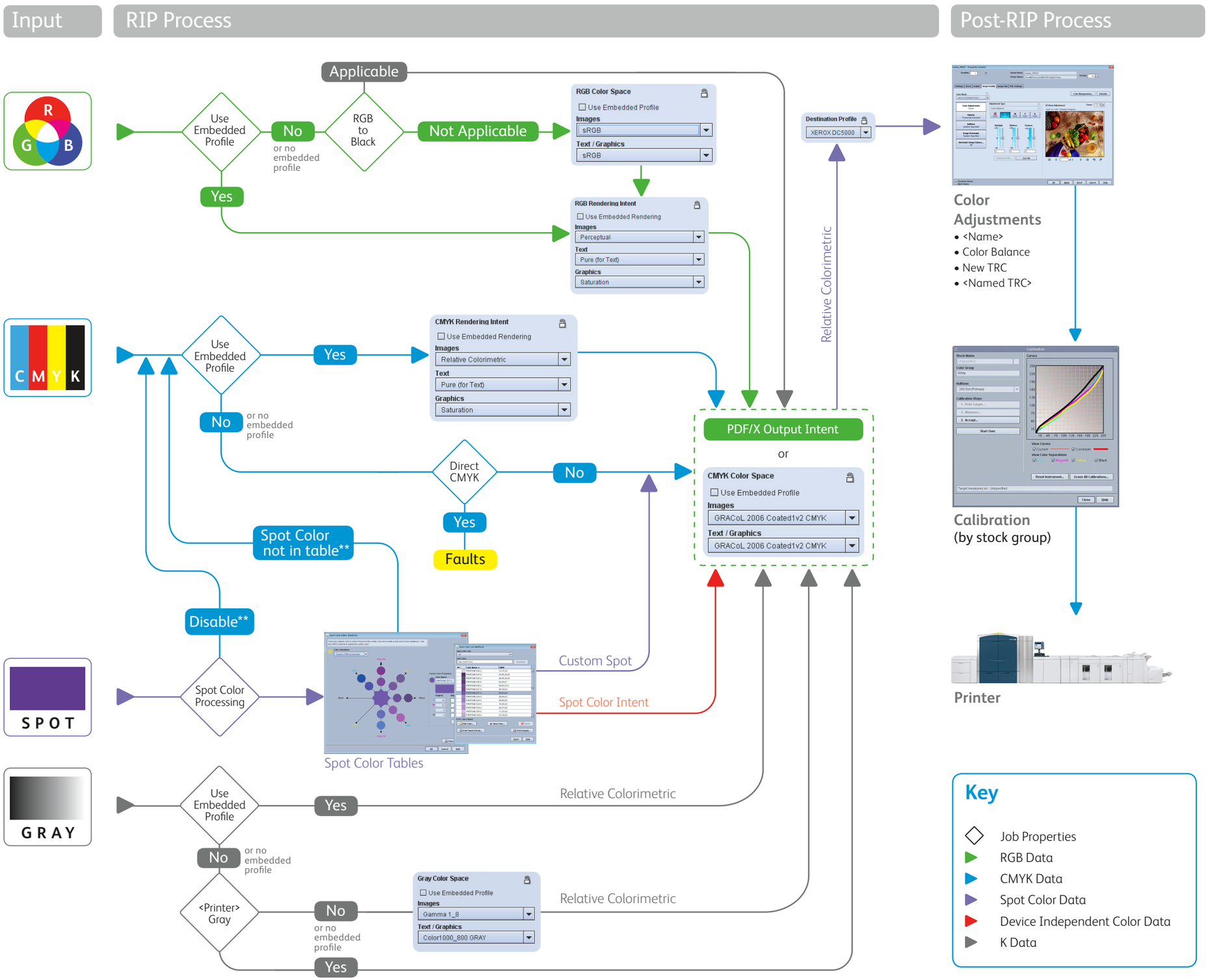
- FreeFlow Print Server is PANTONE® licensed. PANTONE® PMS and GOE colors will be rendered using Pantone L*a*b* aims, with the current Destination Profile.
- Spot colors can be fine tuned with the visual Spot Color Editor. Custom named colors can also be added. Edited or custom colors will print using the CMYK specified in the Editor.
- If the spot color name is not found in the table, or Spot Color Processing is Disabled, the alternative color definition is used. The chart depicts typical scenario, in which alternative color is CMYK.

Rendering Intents

Same as PostScript/Legacy PDF.

**Alternative color definition is used. CMYK (shown) is commonly used.

Xerox® FreeFlow® Print Server Version 8, Adobe PDF Print Engine 2.0 Color Workflow – Emulation Mode



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Adobe PDF Print Engine's Printer Emulation Mode

- Optimizes consistency between devices
- In effect when any of the following FreeFlow Print Server Color Management options are selected:
  - – RGB Emulation "On"
  - – Color Mode ➡ Xerox Consistent Color
  - – Process as PDF/X (checkbox selected)

Note: Page exceptions for these settings are ignored; entire job is processed in either normal or printer emulation mode.

- Uses two-stage processing:
  All content—RGB, CMYK, Gray, Spot, L*a*b*—is normalized to the emulated CMYK space, then rendered in printer CMYK via the Destination Profile.

RGB Emulation

"Off": Normal color flow, color optimized for printer

"On": Enable emulation mode.

- The emulated CMYK space is defined by the CMYK Color Space selected for the job/page.

Xerox Consistent Color Mode

- Sets RGB Emulation "On", thus engaging emulation mode
- Enforces default RGB & CMYK settings, restricts Color Adjustments
- Spot Color Processing "Disabled"
  - – Alternative color definition (rather than PANTONE L*a*b* value) is rendered to the emulation space

Process as PDF/X

- Ensures compliance (PDF/X-1a, PDF/X-3, or PDF/X-4)
  - – If the file defines PDF/X Output Intent, that defines the emulated CMYK space.
  - – If the file does not have a PDF/X Output Intent, the emulated CMYK space is defined by the CMYK Color Space selected for the job/page.
- Enforces use of embedded profile, embedded rendering intent, and overprint. (not shown in properties display as does not apply to non-PDF)

**Alternative color definition is used. CMYK (shown) is commonly used.

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