

KNOWLEDGE GUIDE

For simplicity within this document, "Fiery XF" will be used to represent both the EFI™ Fiery® proServer and Fiery XF. All information presented applies to both Fiery proServer and Fiery XF unless otherwise specified. This document was prepared using Fiery XF version 6.1.

One of the key tasks that a user of Fiery XF faces is the correct setting of options that will directly affect the color reproduction of your files. Anyone familiar with Color Management settings in programs such as Adobe Photoshop or Adobe Illustrator will see the Color Management settings available in Fiery XF as being straightforward. There are, however, processes that operate, sometimes behind the scene, that need to be understood in order to ensure that you obtain the desired results.

A key characteristic of Fiery XF is that color conversions, or transforms, are handled differently when processing contone files (e.g. tiff, or jpg files), PDF files, and PostScript files. Because Fiery XF uses both the Adobe PDF Print Engine (APPE) and the Adobe Configurable PostScript Interpreter (CPSI) when processing the appropriate file types, our programs follow the rules set up by Adobe when files are processed.

This document provides many examples in order to help you to understand how various Color Management settings available within Fiery XF impact your color conversions. Although not every possible combination of options is presented, enough information is provided to ensure that you can make the correct decisions when setting up your Workflows and Output Devices.

This document begins with a key, showing you where the various options are set. Next are six examples detailing the processing of PDF files followed by two examples detailing the processing of PostScript files *without* the use of a Fiery proServer, then four examples detailing the processing of PostScript files *with* the use of a Fiery proServer. Three examples covering the processing of contone (raster) files are next, followed by a diagram showing how Fiery XF handle spot colors.

In a proofing workflow for PDF files, Example #4 or #4b are suggested, with #4b being the choice if you want to ensure that Fiery XF will not process RGB files. In a production workflow, example #6 should be considered as the "Simulation Profile: Use Media Profile" will retain more of the gamut in the original RGB files.

It is important to note that if you select the Adobe PDF Engine for processing PDF files and process a file that contains more than 31 color channels (Normally CMYK plus 27 additional spot colors) and/or a cut path, Fiery XF will automatically switch over to use the Adobe PostScript 3 Engine and will follow the PostScript color management rules.

Note also that the handling of Grayscale objects is controlled by the Adobe PDF Engine, the PostScript 3 Engine, and specific Fiery XF rules that go beyond the scope of this document.

Options Key

In Figure 1 below, on the left you will see an example of the settings section located in the upper left-hand corner of the example pages that follow. On the right are the Color>Color Management and the File>PS/EPS/PDF panels. Arrows indicate where the items from the settings example are located. The specific ICC Profiles that are selected in these examples have been selected for reference only. When setting up your Workflows in Fiery XF select ICC Profiles appropriate for your needs.

RGB Source Profile: Adobe RGB

CMYK Source Profile: GRACoL

Simulation Profile: GRACoL

Use embedded profiles, if available: Checked

Use PDF output intent, if available: Not Checked

PS/PDF Working Color Space: CMYK

PDF Print Engine: Adobe PDF Print Engine

The figure shows two screenshots from the Fiery XF software interface. The top screenshot is the 'Color Management' panel, which includes options for 'Use embedded profiles, if available' (checked), 'Use dynamic rendering intent' (unchecked), and source profiles for RGB (AdobeRGB1998.icc), CMYK (GRACoL2006_Coated1v2.icc), and Grayscale (EFI Gray Profile Linear.icc). The bottom screenshot is the 'PS/EPS/PDF' panel, showing 'Use PDF output intent, if available' (unchecked), 'Working color space' set to CMYK, and 'PDF print engine' set to Adobe PDF Print Engine. A third panel at the bottom shows 'Image EPS/PDF print engine' set to Native(Default). Arrows from the settings box on the left point to these specific settings in the screenshots.

Figure 1

Figure 2 shows the representation of a PDF file being processed. The file contains six graphics; three CMYK objects and three RGB objects. Two of the CMYK objects and two of the RGB objects contain embedded ICC Profiles while one CMYK and one RGB objects do not. In addition, when the PDF file was created, the artist included an Output Intent, SWOP in this example. Note also, the ".vpc" designation. This represents a Visual Plate Curve that would be generated from the "Visual correction" option in the Color Tools program. A Visual Plate Curve will be applied to both contone and screened CMYK files/objects while not affecting RGB files/objects.

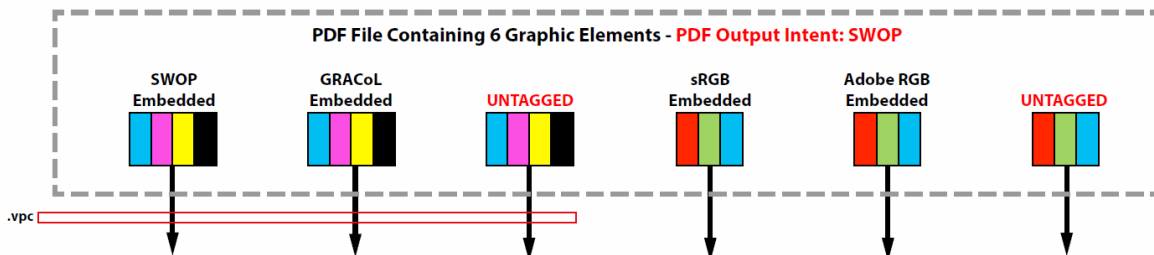


Figure 2

Figure 3 explains what each of the options located in the lower portion of each Processing Example represents.

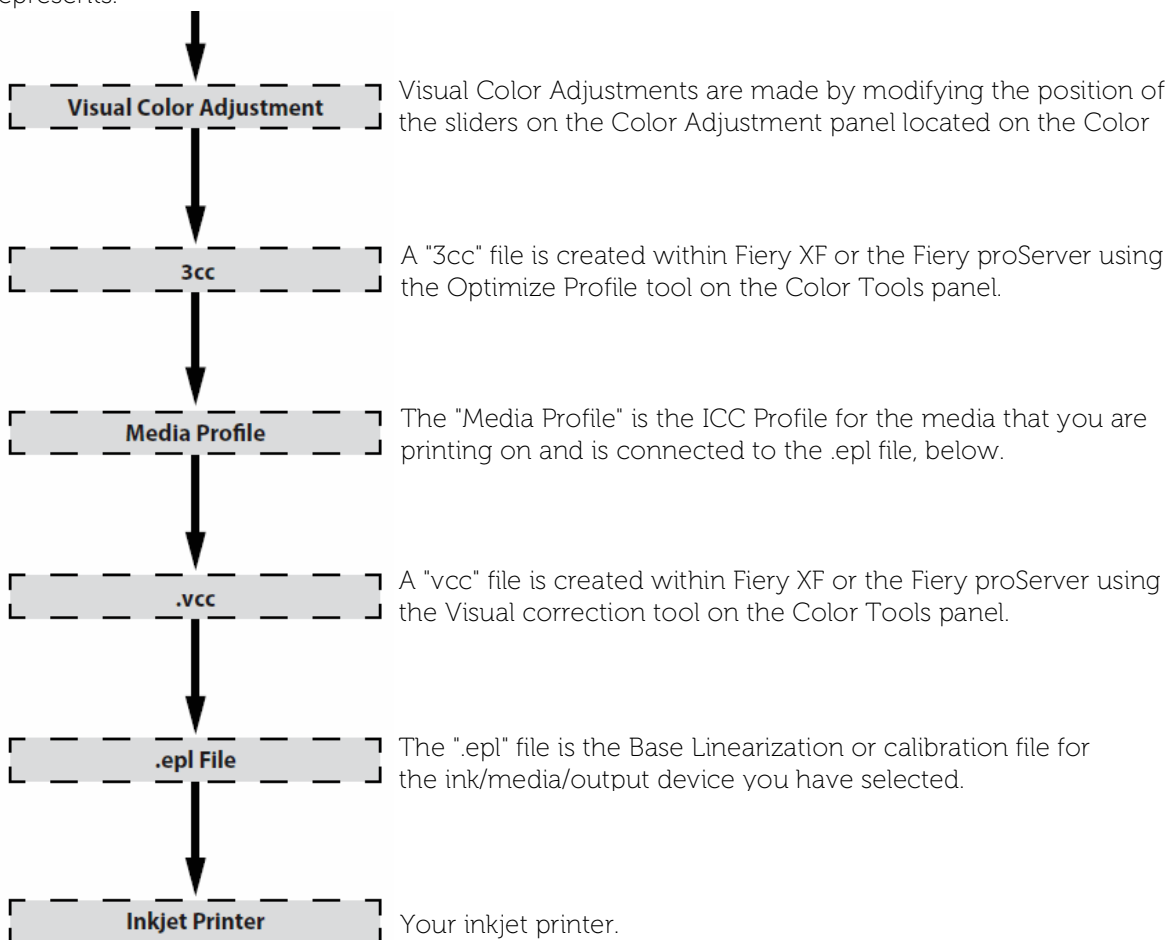
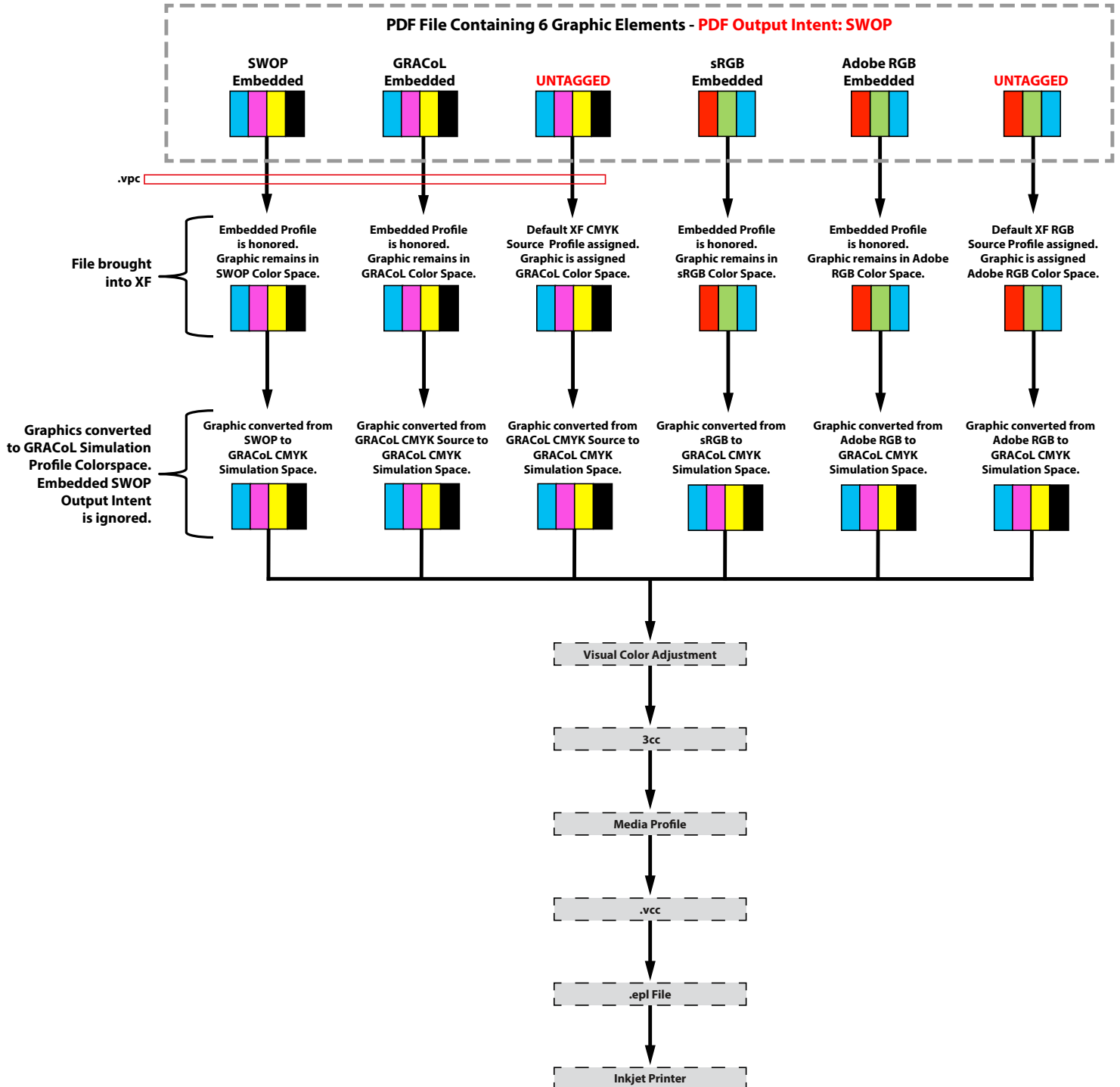


Figure 3

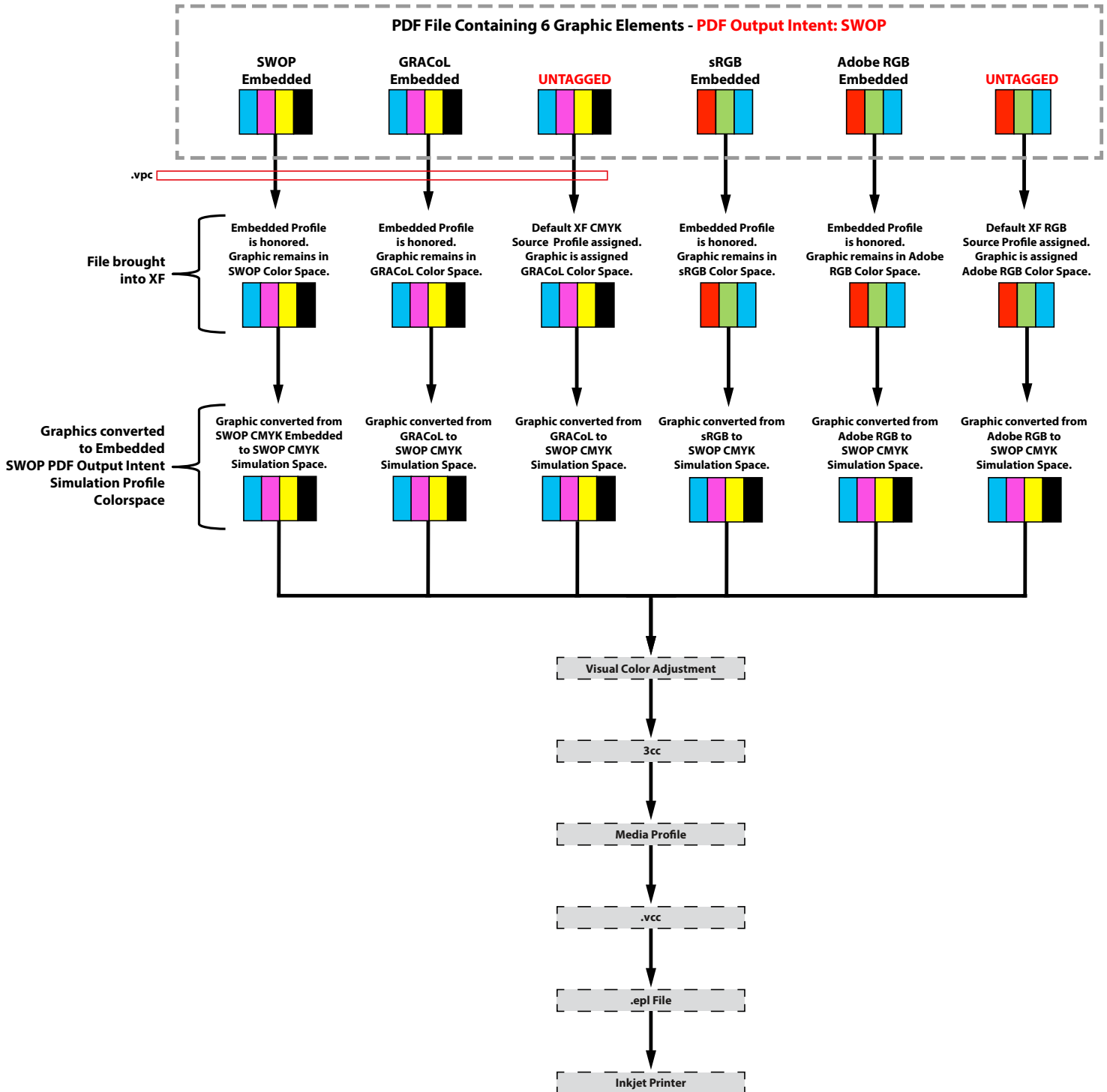
PDF File Processing Example #1

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **GRACoL**
 Use embedded profiles, if available: **Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PDF Print Engine**



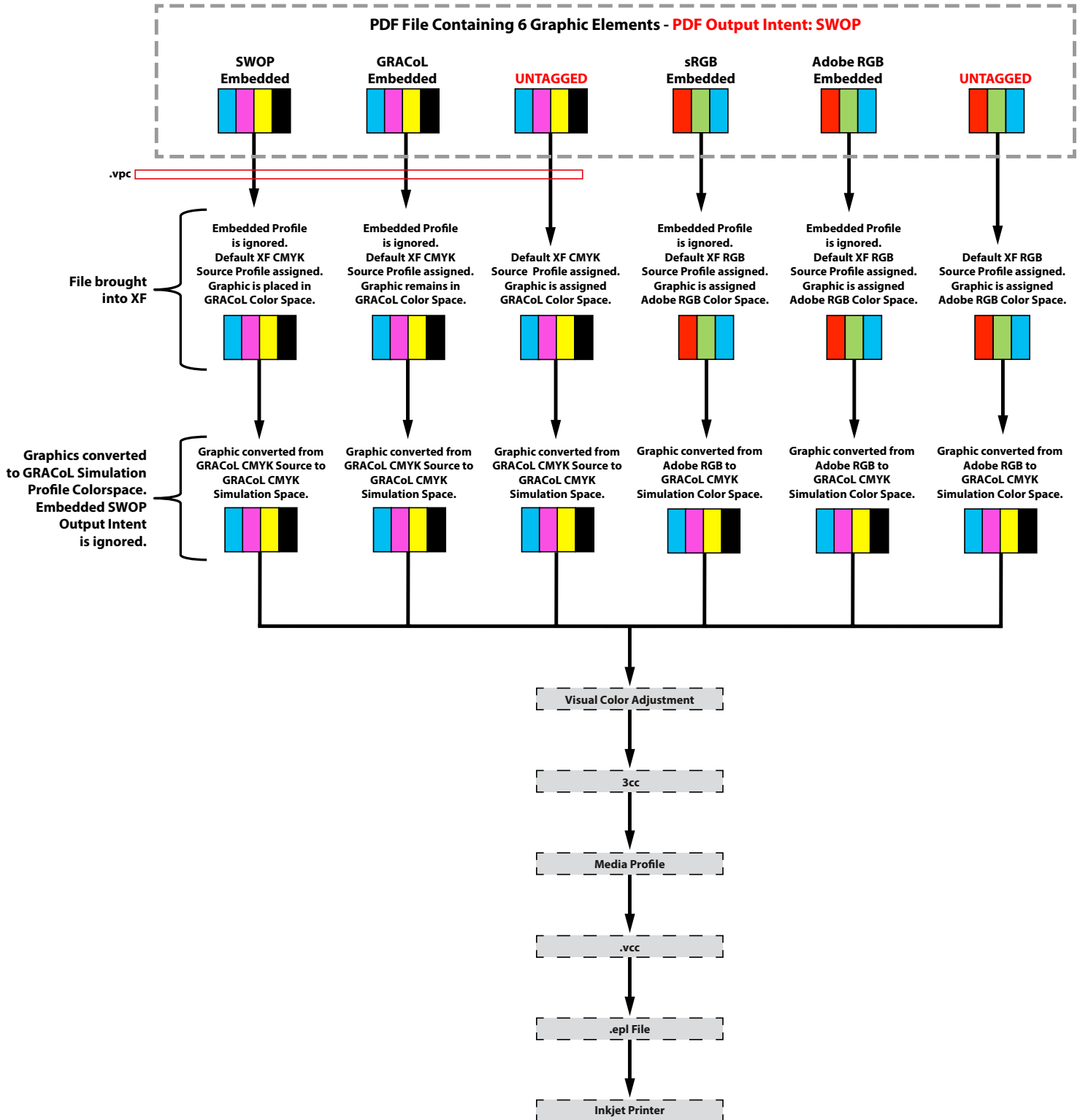
PDF File Processing Example #2

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **GRACoL**
 Use embedded profiles, if available: **Checked**
 Use PDF output intent, if available: **Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PDF Print Engine**



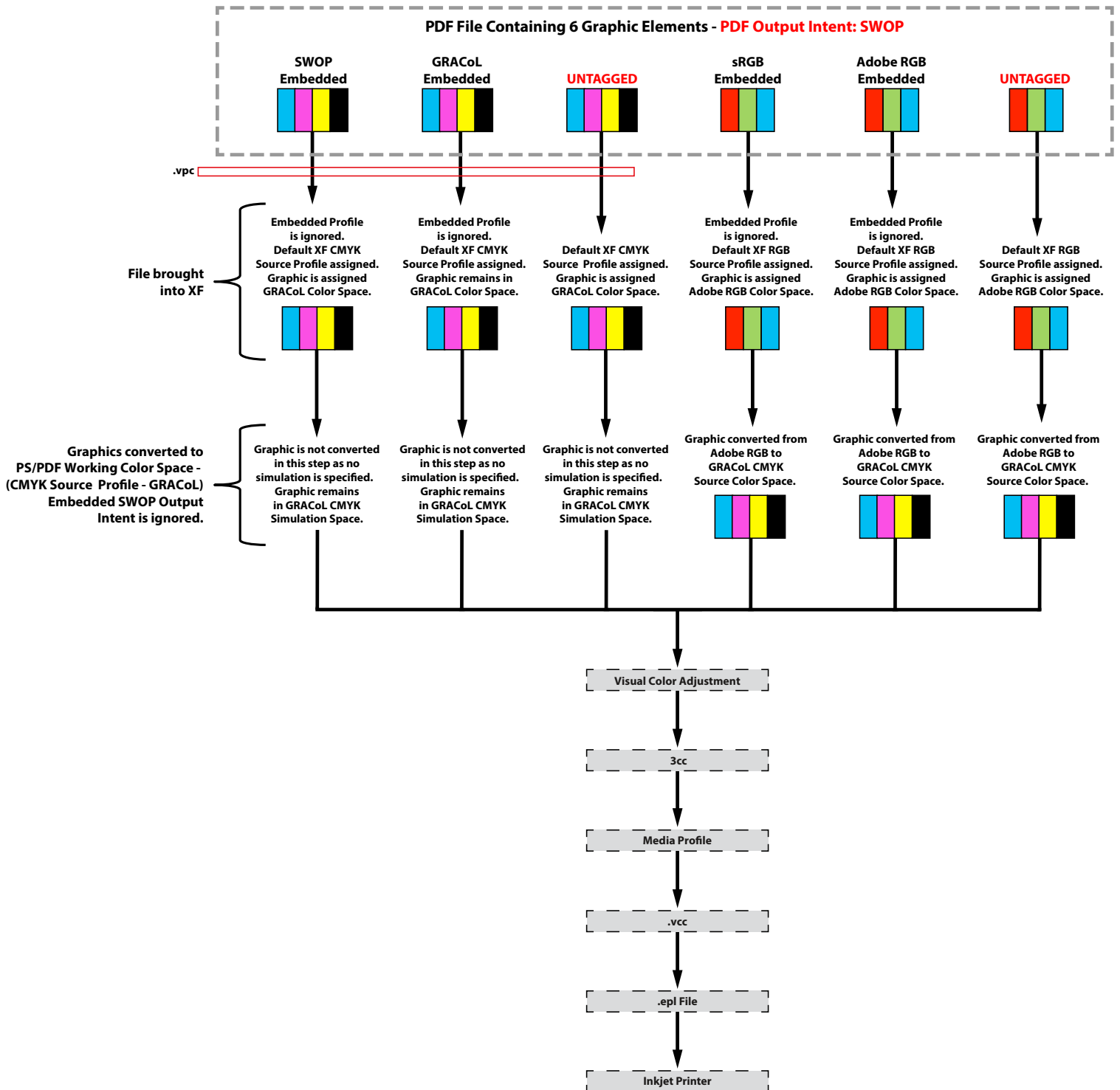
PDF File Processing Example #3

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **GRACoL**
 Use embedded profiles, if available: **Not Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PDF Print Engine**



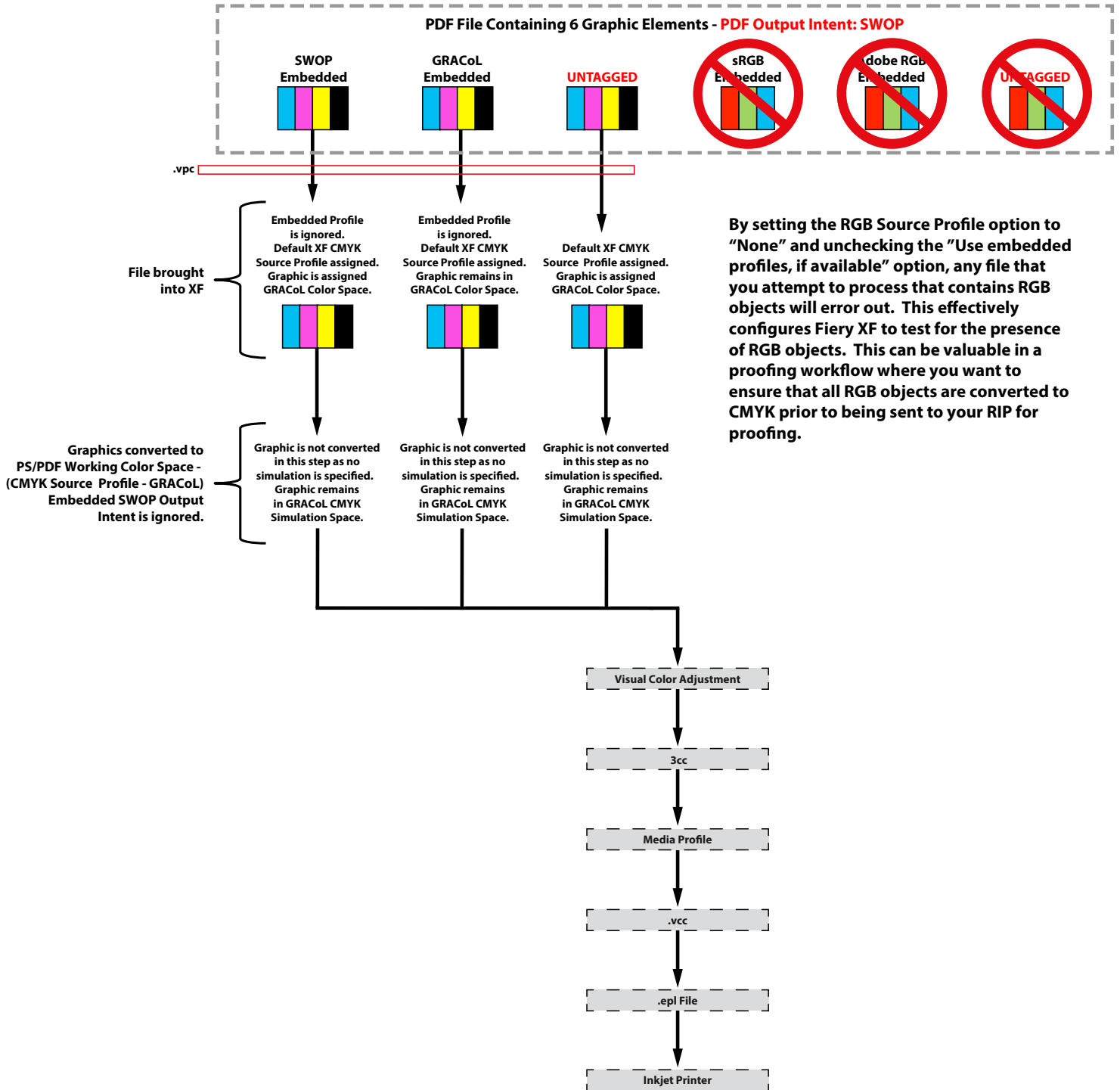
PDF File Processing Example #4

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **None**
 Use embedded profiles, if available: **Not Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PDF Print Engine**



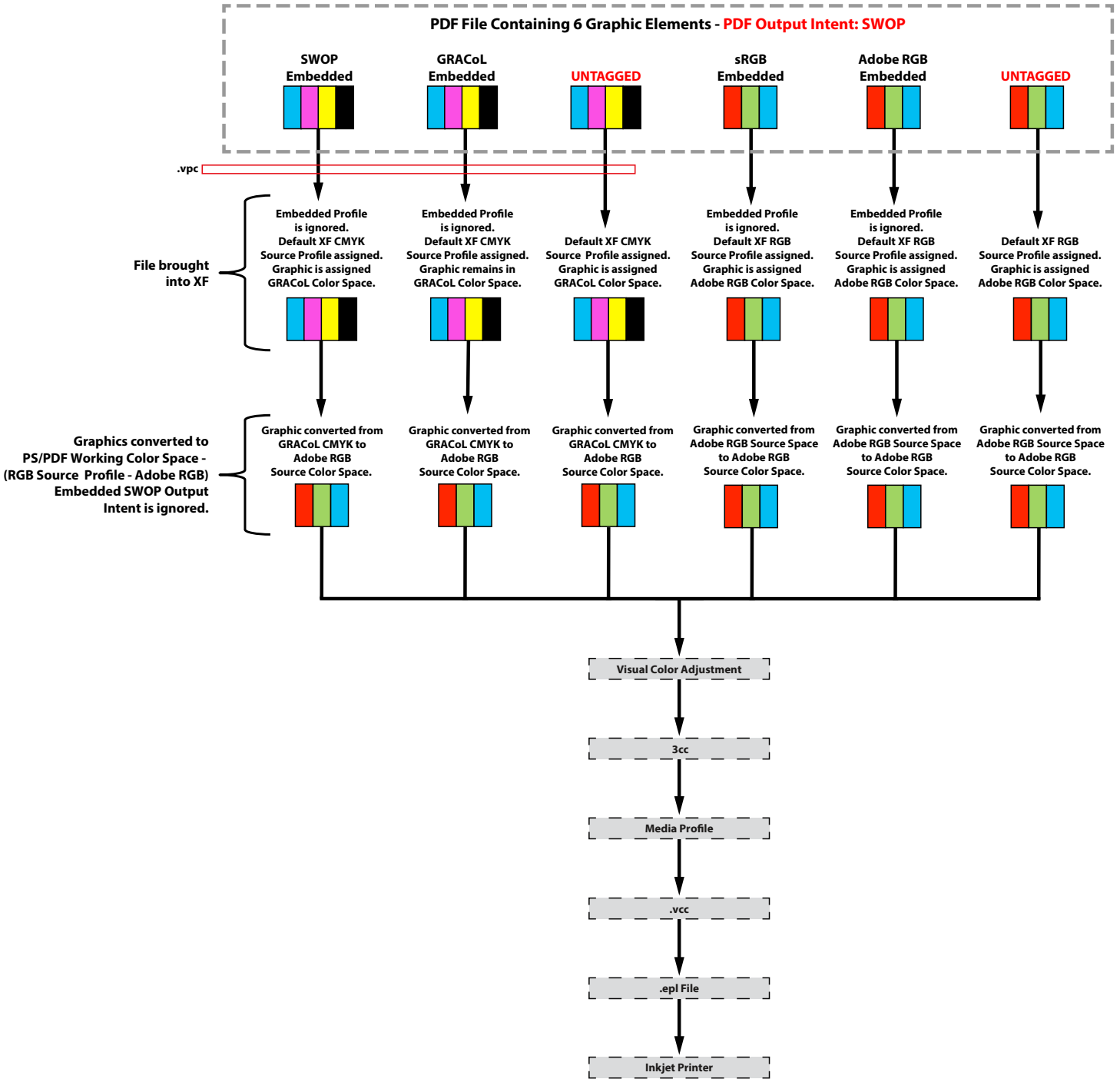
PDF File Processing Example #4b

RGB Source Profile: **None**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **None**
 Use embedded profiles, if available: **Not Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PDF Print Engine**



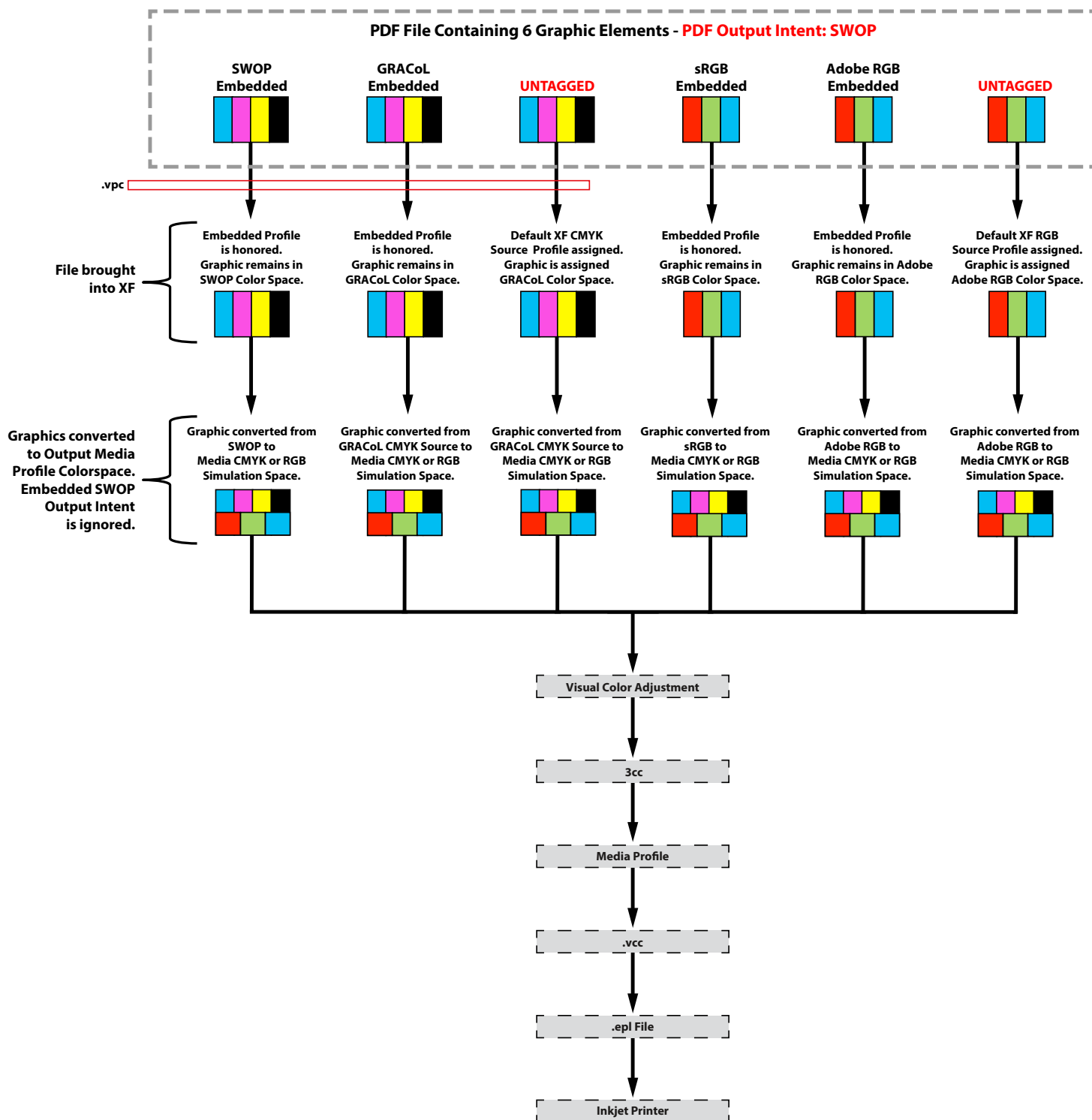
PDF File Processing Example #5

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **None**
 Use embedded profiles, if available: **Not Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **RGB**
 PDF Print Engine: **Adobe PDF Print Engine**



PDF File Processing Example #6

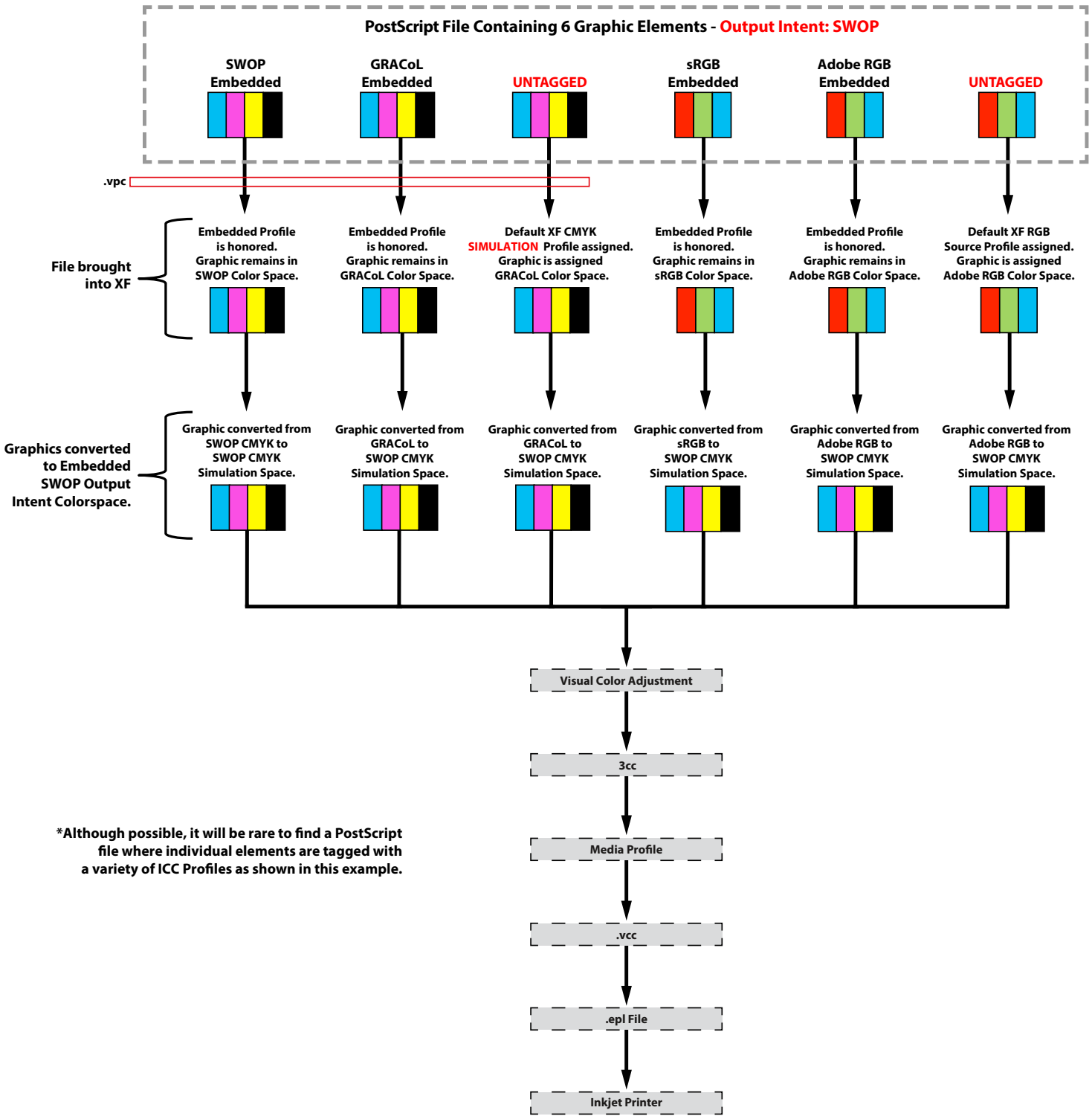
RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **Use Media Profile**
 Use embedded profiles, if available: **Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK or RGB**
 PDF Print Engine: **Adobe PDF Print Engine**



PostScript File Processing Example #1

NOTE: Not applicable to Fiery proServer with FASTrip
(PDF file using CPSI or true PostScript file*)

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **GRACoL**
 Use embedded profiles, if available: **Doesn't matter - Same results whether Checked or Unchecked**
 Use PDF output intent, if available: **Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PostScript 3 Engine**



PostScript File Processing Example #2

NOTE: Not applicable to Fiery proServer with FASTrip
(PDF file using CPSI or true PostScript file*)

RGB Source Profile: **Adobe RGB**

CMYK Source Profile: **GRACoL**

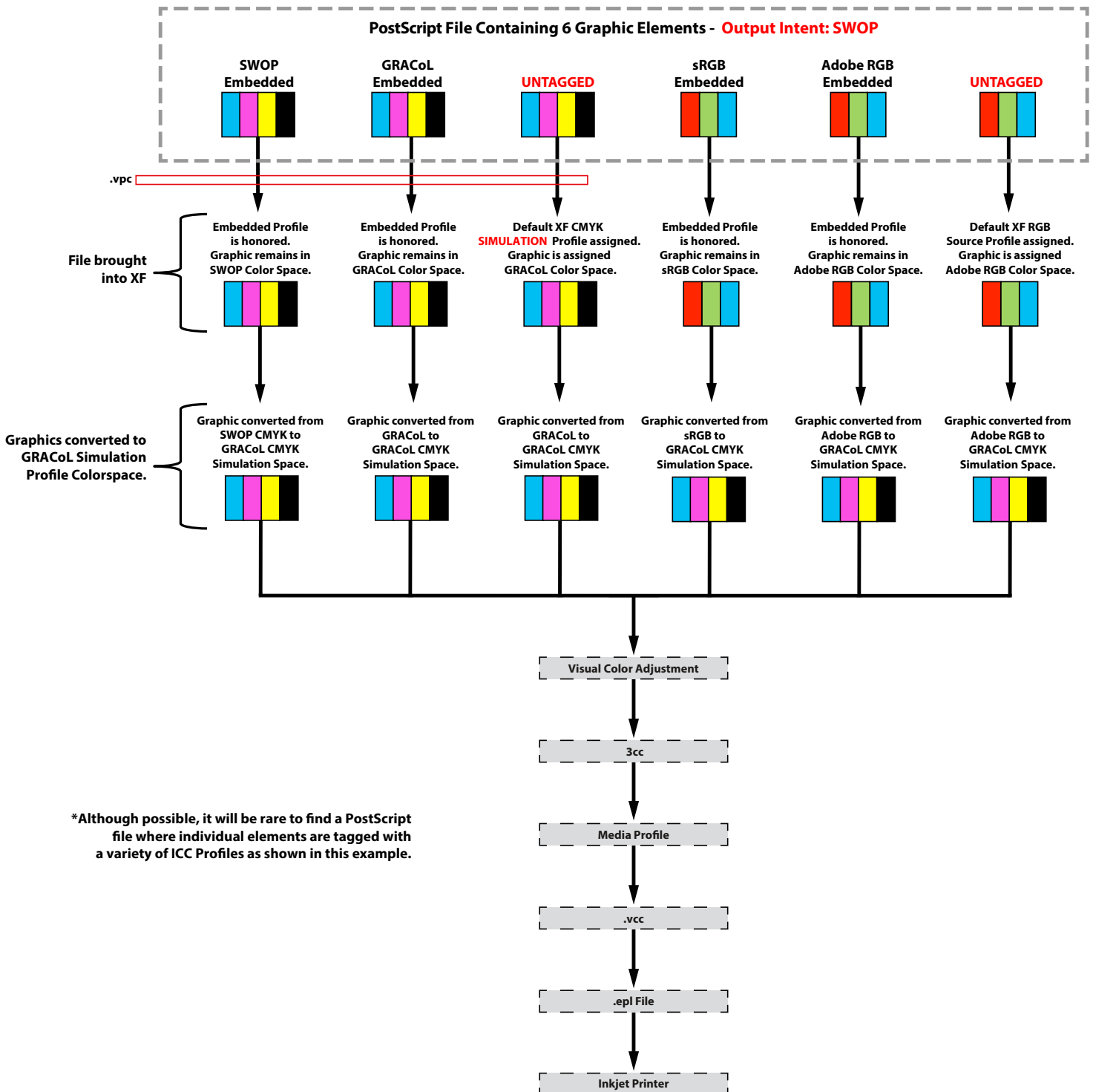
Simulation Profile: **GRACoL**

Use embedded profiles, if available: **Doesn't matter - Same results whether Checked or Unchecked**

Use PDF output intent, if available: **Unchecked**

PS/PDF Working Color Space: **CMYK**

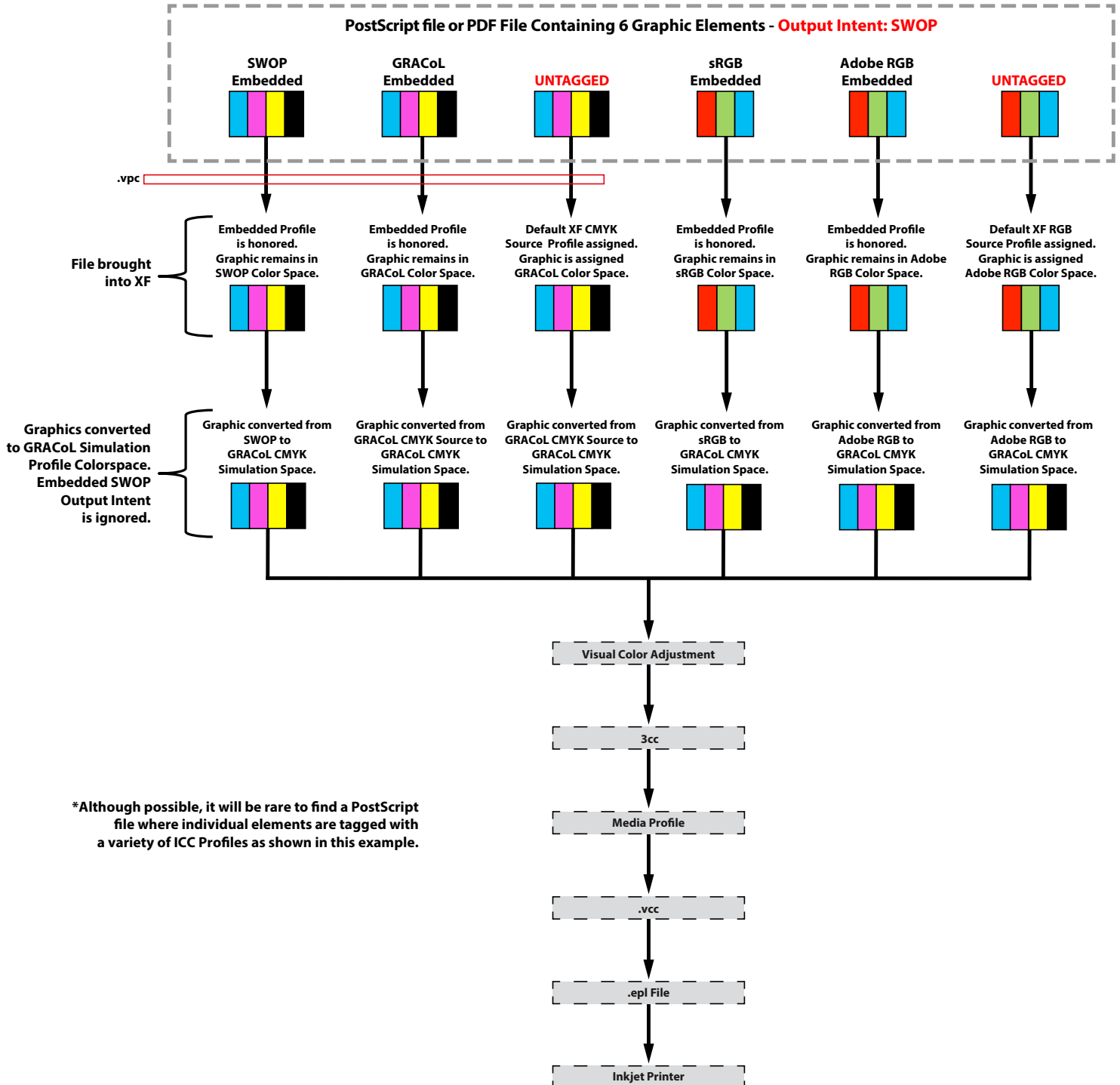
PDF Print Engine: **Adobe PostScript 3 Engine**



Fiery proServer with FASTrip PostScript File Processing Example #1

(PDF file using CPSI or true PostScript file*)

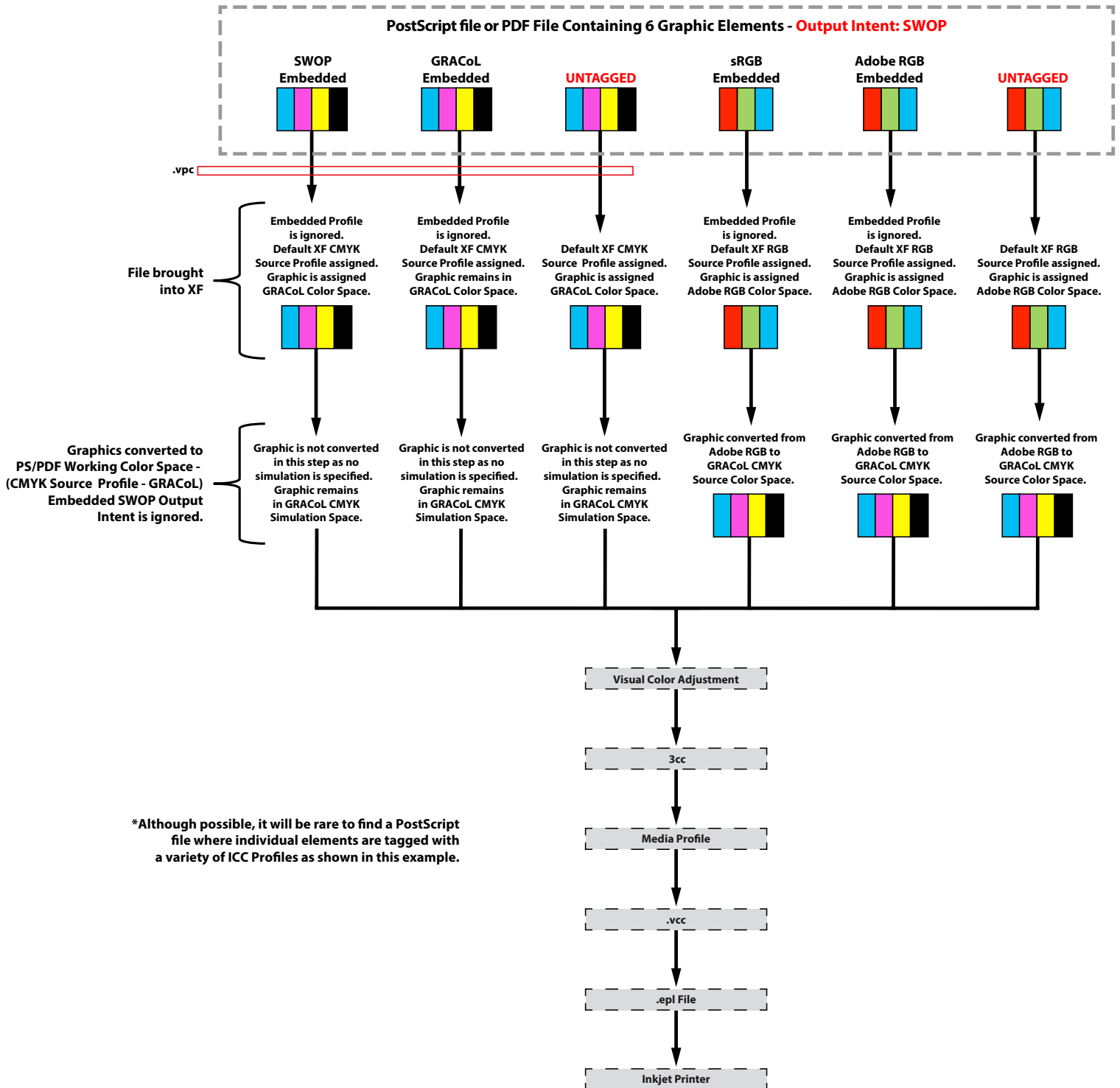
RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **GRACoL**
 Use embedded profiles, if available: **Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PostScript 3 Engine**



Fiery proServer with FAST RIP PostScript File Processing Example #2

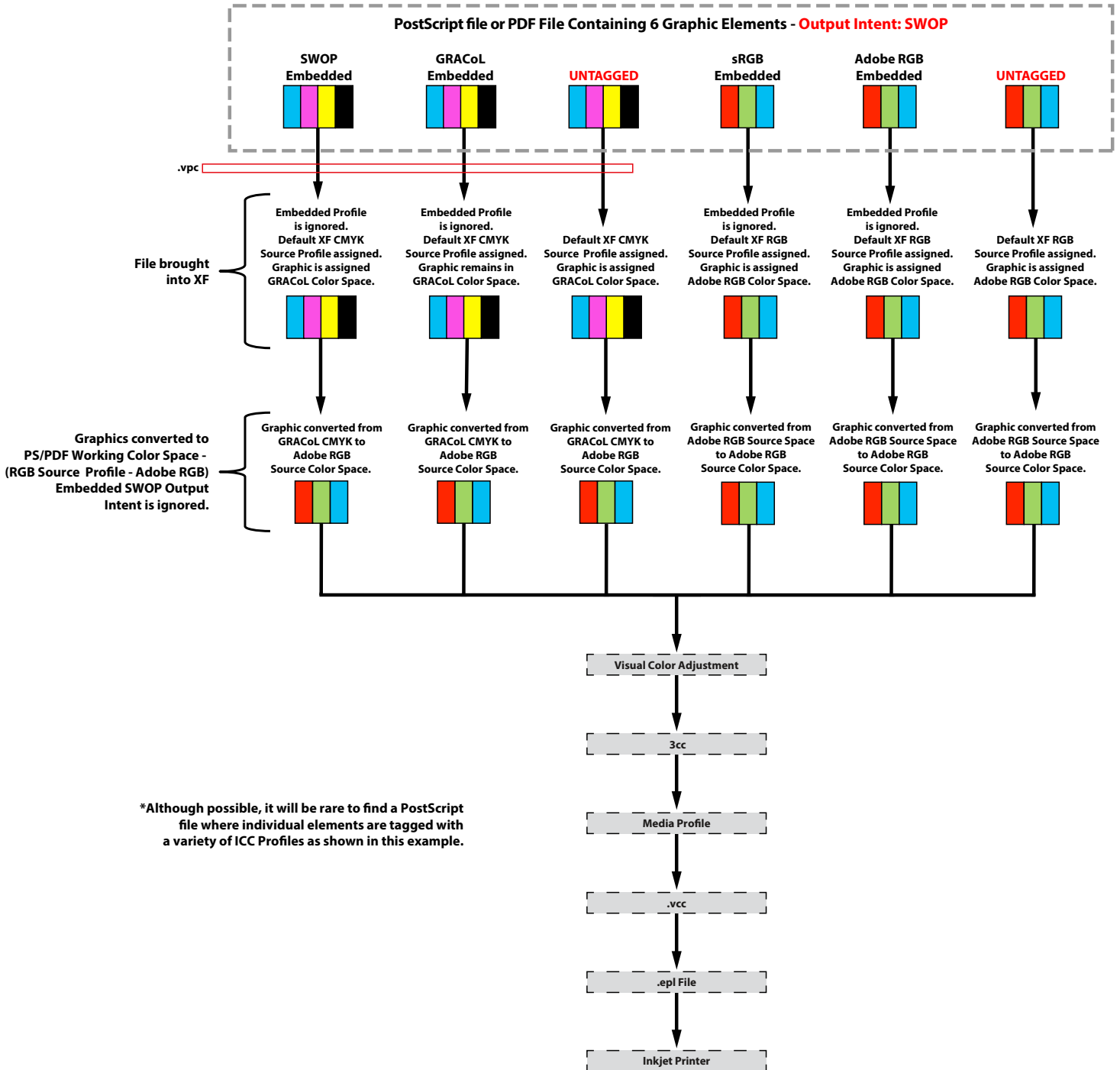
(PDF file using CPSI or true PostScript file*)

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **None**
 Use embedded profiles, if available: **Not Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK**
 PDF Print Engine: **Adobe PostScript 3 Engine**



Fiery proServer with FAST RIP PostScript File Processing Example #3 (PDF file using CPSI or true PostScript file*)

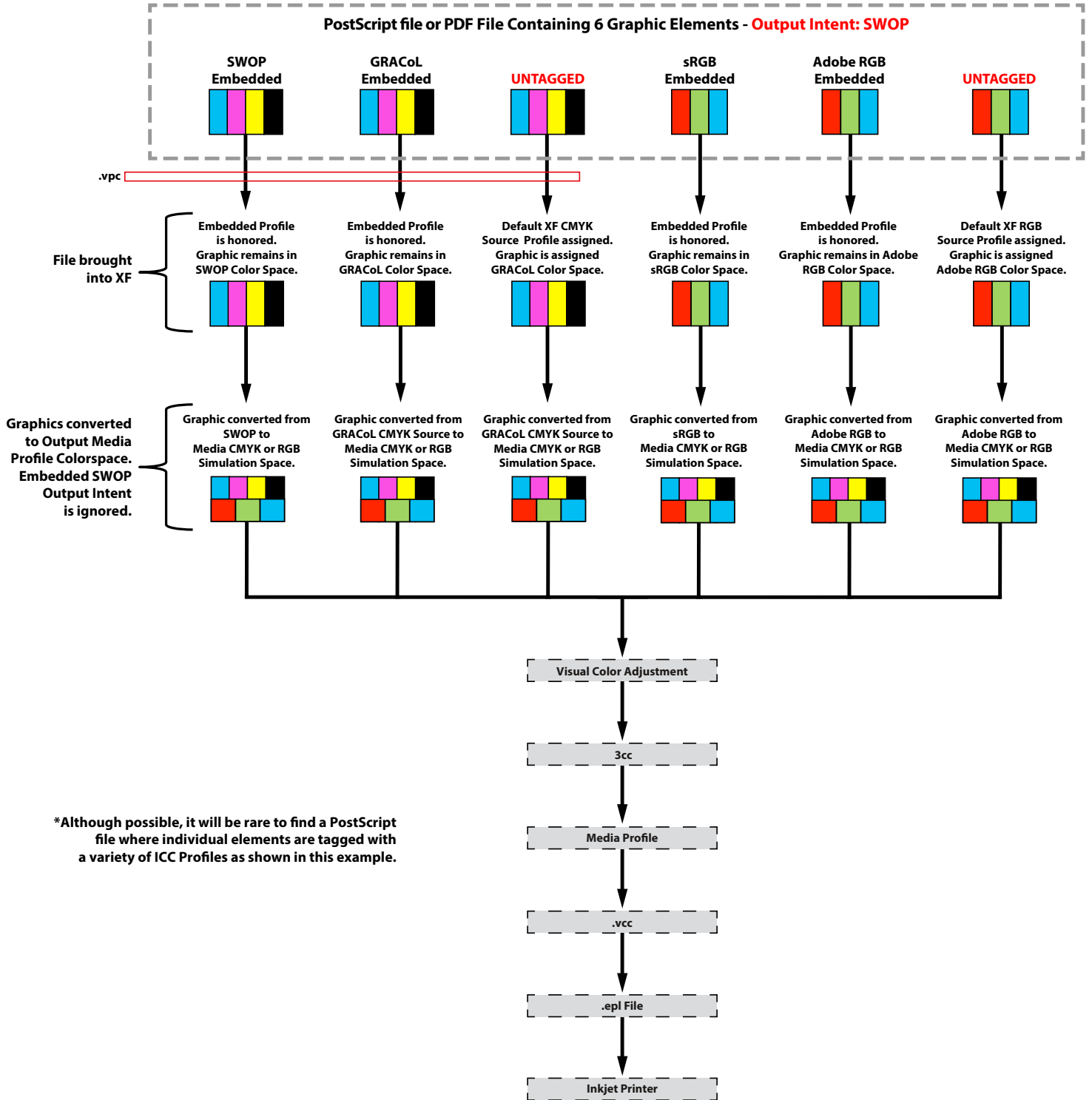
RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **None**
 Use embedded profiles, if available: **Not Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **RGB**
 PDF Print Engine: **Adobe PostScript 3 Engine**



Fiery proServer with FAST RIP PostScript File Processing Example #4

(PDF file using CPSI or true PostScript file*)

RGB Source Profile: **Adobe RGB**
 CMYK Source Profile: **GRACoL**
 Simulation Profile: **Use Media Profile**
 Use embedded profiles, if available: **Checked**
 Use PDF output intent, if available: **Not Checked**
 PS/PDF Working Color Space: **CMYK or RGB**
 PDF Print Engine: **Adobe PostScript 3 Engine**



Contone (Raster) File Processing Example #1

Each column below represents a single contone file (tiff, jpg, etc.)

RGB Source Profile: **Adobe RGB**

CMYK Source Profile: **GRACoL**

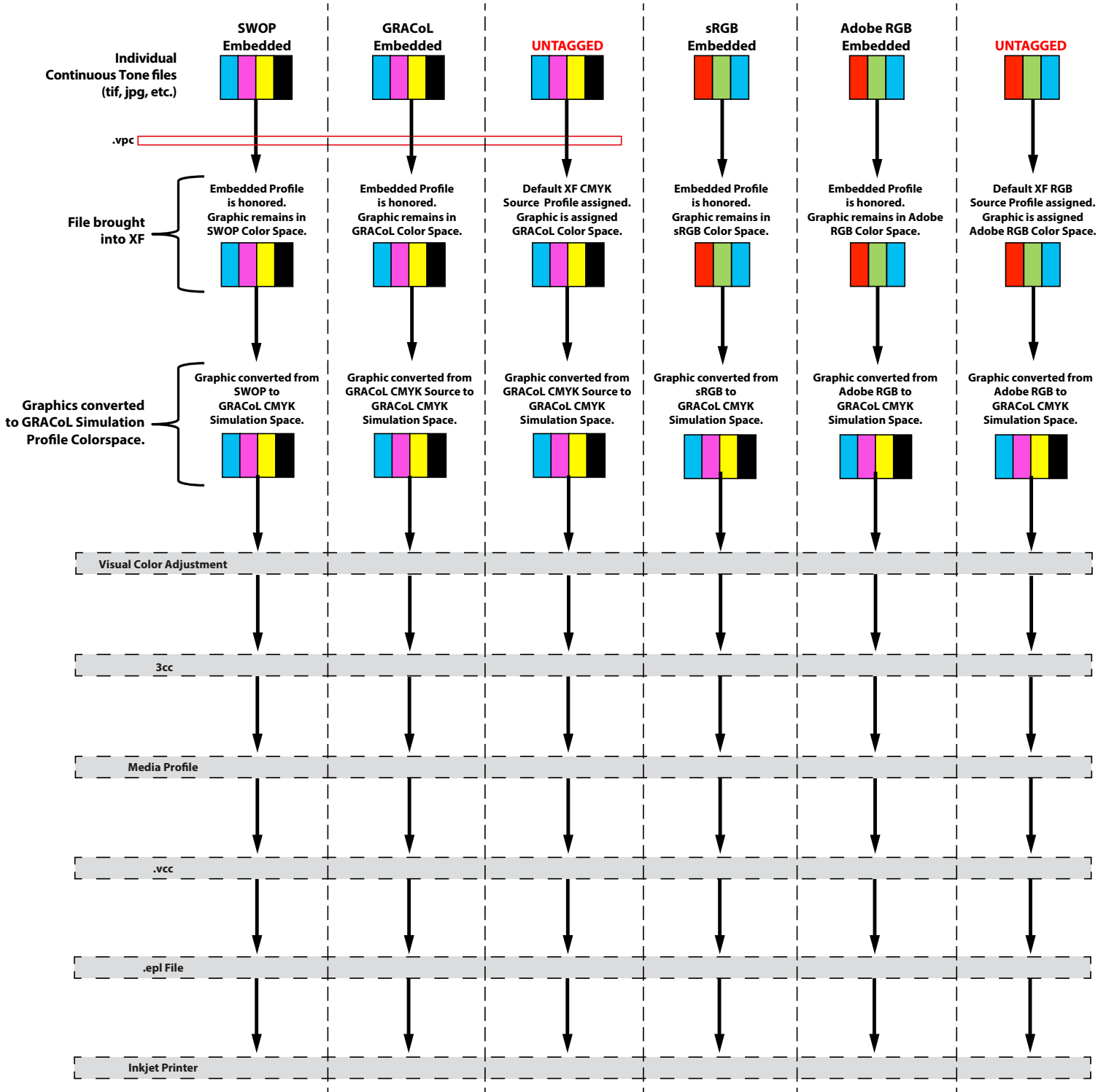
Simulation Profile: **GRACoL**

Use embedded profiles, if available: **Checked**

Use PDF output intent, if available: **This option has no impact on the processing of continuous tone files.**

PS/PDF Working Color Space: **This option has no impact on the processing of continuous tone files.**

PDF Print Engine: **This option has no impact on the processing of continuous tone files.**



Contone (Raster) File Processing Example #2

Each column below represents a single contone file (tiff, jpg, etc.)

RGB Source Profile: **Adobe RGB**

CMYK Source Profile: **GRACoL**

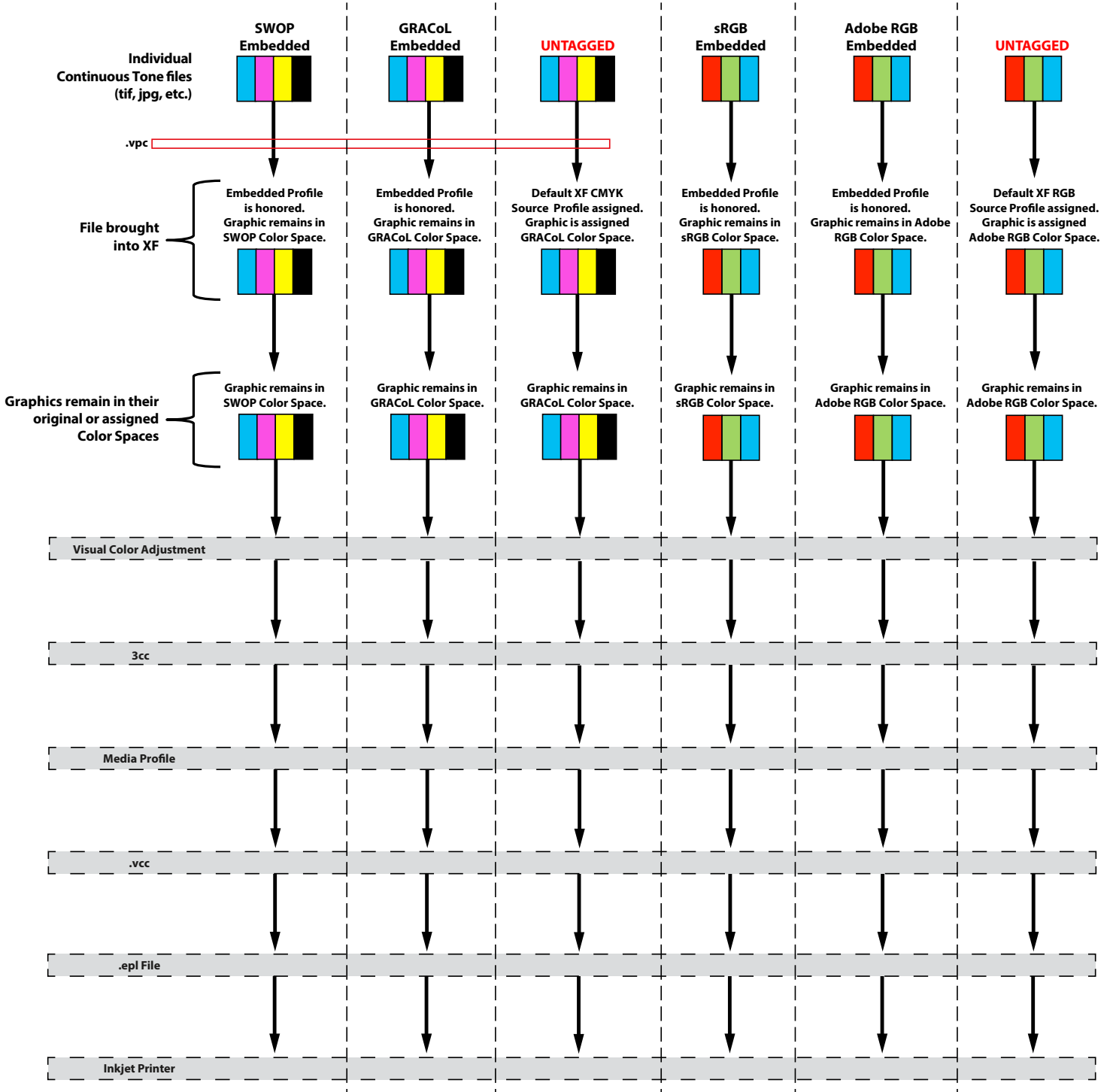
Simulation Profile: **None**

Use embedded profiles, if available: **Checked**

Use PDF output intent, if available: **This option has no impact on the processing of continuous tone files.**

PS/PDF Working Color Space: **This option has no impact on the processing of continuous tone files.**

PDF Print Engine: **This option has no impact on the processing of continuous tone files.**



Contone (Raster) File Processing Example #3

Each column below represents a single contone file (tiff, jpg, etc.)

RGB Source Profile: **Adobe RGB**

CMYK Source Profile: **GRACoL**

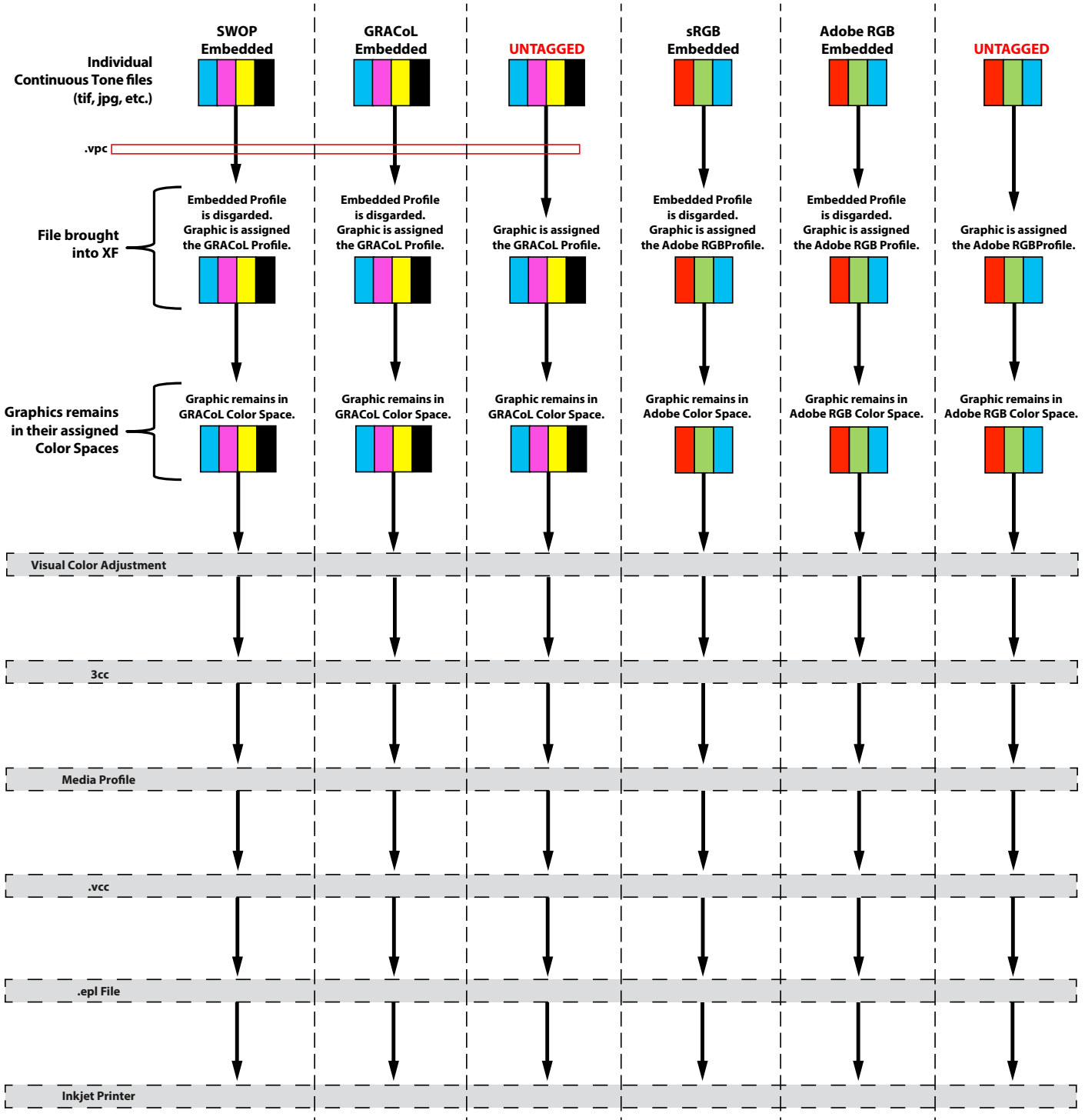
Simulation Profile: **None**

Use embedded profiles, if available: **Unchecked**

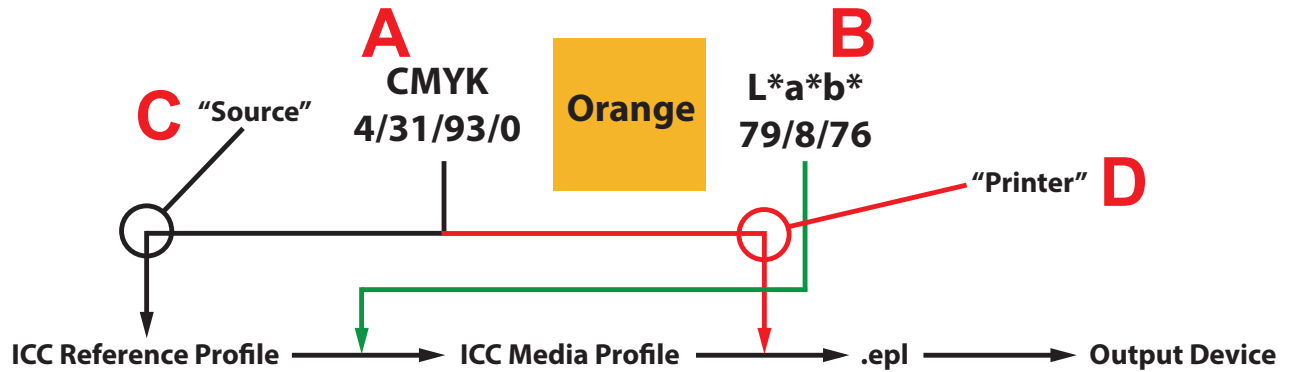
Use PDF output intent, if available: **This option has no impact on the processing of continuous tone files.**

PS/PDF Working Color Space: **This option has no impact on the processing of continuous tone files.**

PDF Print Engine: **This option has no impact on the processing of continuous tone files.**



Spot Color Handling in Fiery XF



Spot color definition at 100%

Independent Dependent

Source **C**
 Printer **D**

B CIE Lab

L: 79.00
a*: 8.00
b*: 76.00

Measure

A

C: 4
M: 31
Y: 93
K: 0.00

The Fiery XF Color Editor Application