About Output Intent

If a document has Output Intent, such as *"CGATS21-CRPC6"*, it essentially says "I intend the receiver of this PDF to print this artwork with CGATS21-CRPC6 printing". It lets the print buyer specify, in concrete terms, how the print should look. Output Intent has been a feature of PDF since the beginning.

The application that creates the artwork typically has a CMYK profile as its CMYK working space and its on-screen display simulates the printing of that working space. When Acrobat opens a PDF file for viewing, it reads the Output Intent (if present) and simulates those same colors on the display. If printed in accordance with the Output Intent, the print is most likely to fulfill the desired color intent.

Output intent also plays an important role with transparency. If a file contains transparency affecting RGB and CMYK objects, such as light text blended with a background image, then the output intent is intended as the CMYK destination profile for converting RGB images prior to CMYK blending. Acrobat computes the displayed color this way. If you convert the RGB images to CMYK with a different destination profile, the blended result can look different, particularly if the black generation differs between the output intent profile and the CMYK profile actually used. If Prinergy performs this RGB conversion, the first Refine must honor the output intent of the file in order to most accurately achieve the expected color after flattening. This is the primary purpose for selecting 'Prefer Embedded Output Intent…' by default.

So 'Prefer Embedded Output Intent…' deals with whether to use or ignore the Output Intent of the input PDF file. The other consideration is the placement or preservation of Output Intent in files after processing by Prinergy. This is discussed in more detail below.

Output Intent is often talked about in the context of PDF/X, but including an output intent doesn' t mean that the file is a PDF/X file. *Any* PDF file *may* have an output intent; a PDF/X file *must* have an output intent. But prior to version 9.5, Prinergy produced a meaningful output intent only if you specified Refine to generate PDF/X-1a and then explicitly selected Output Intent: "Use ColorConvert Destination profile …" in Normalize. It's expected that few customers used this capability, priori to Prinergy 9.5. But now Prinergy allows you to embed output intent into *any* Refined PDF.

If a PDF file contains an output intent, honoring the output intent is optional. Any file consumer, like Acrobat, Prinergy, or a DFE, may choose to honor or ignore it.

Output intent is always desirable for communicating color intent. The Ghent Working Group (GWG), whose purpose is to "build best practices for publishing and packaging workflows" recommends its use. Some customers have requested that we improve our GWG compliance, and it's important that we evolve our workflow with industry trends.

In accordance with this, new Refine process templates in Prinergy 9.5 have this default behavior:

- If any color conversion is performed, including spot color conversion, then the conversion destination profile is placed as the output intent
- If no color conversion is performed, the file's output intent is preserved, if one exists

This behavior can also be selected for existing Refine process templates in the Normalize – Output Intent panel.

There is no harm in including or preserving output intent; but it can be omitted if desired.

PDF Vector output has similar behavior. This is critically important for PDF files delivered to digital printing DFEs. It enables the DFE to convert color from output intent to the digital press color, thereby fulfilling color intent of various jobs without manual intervention. Whether PDF Output delivers the Refine result directly, or performs another color conversion, the correct output intent is always delivered.

ColorConvert places its destination profile as the output intent, whether that profile is selected from the file system or delivered by ColorFlow. If you have a color setup with a calibrated press as PCO, then ColorConvert will place that PCO (Primary Color Output) profile as the output intent. This means that Acrobat will accurately simulate the printed result. This same profile is also used for hard copy proofing by existing controls.