Automation Engine 18

How To ... ?

11 - 2019

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1. Hybrid Press Workflow

1.1. Concept of Hybrid Printing

Packaging and labels are sometimes printed using a combination of printing methods: some of the separations are printed in flexo, a metallic separation is printed using screen printing, and some other data are added to the label using inkjet printing.

In the label industry it is common to see all these printing methods integrated in a single press. These presses are often referred to as “combi-presses” or “hybrid presses”.

These pages describe how to handle designs that will be produced using several printing methods. The described workflow is valid both when using integrated hybrid presses and when using multiple presses of different types.

1.2. What is the Problem?

Working with hybrid presses poses specific challenges in the prepress phase.

You may receive a file that contains separations for different printing methods. In your prepress and output workflow, some of these separations may need to be treated differently than others. Some typical cases:

- Trapping parameters may need to be different per printing method
- Printing marks may need to be different per printing method
- Plate distortion parameters may be needed for one printing method (flexo for example) but not for other separations.

1.3. How to define the Printing Method of a Separation?

The **Printing Method** of a separation can be set by an operator in an Esko editor (ArtPro, DeskPack, PackEdge, Plato) or by a setting in a Normalize task. The there set printing methods are stored in the ArtPro file or Normalized PDF(PLA) file but also in the PDFs that you export from those files (using the editor or a task).

Predefined list of printing methods

These editors and tasks offer a predefined set of printing methods. It is recommended to use these whenever possible as this will guarantee interoperability of the generated files between sites and even countries. The values are stored in the PDF with proper localization handling.

You can also enter custom values. In this case these custom values need to be agreed between sender and receivers so that printing methods can be recognized consistently by receivers. This is not obvious in a global economy with senders and receivers in different parts of the world.

Assigning a Printing Method manually in ArtPro, PackEdge or Plato

Figure 1: The Separations dialog in ArtPro

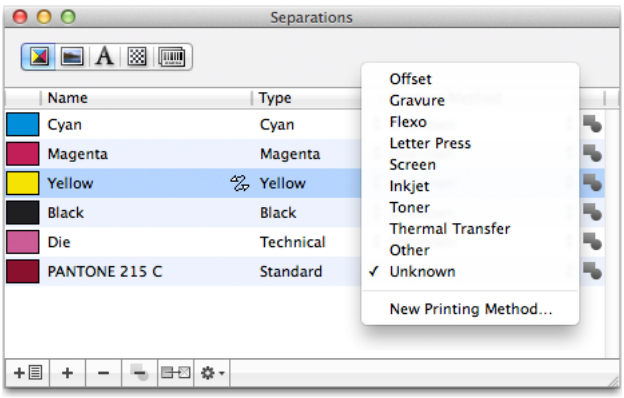
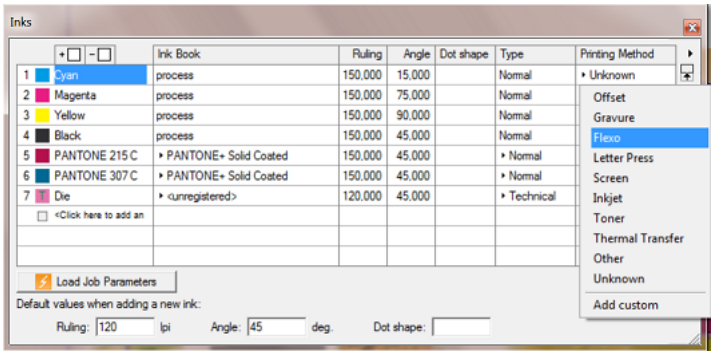
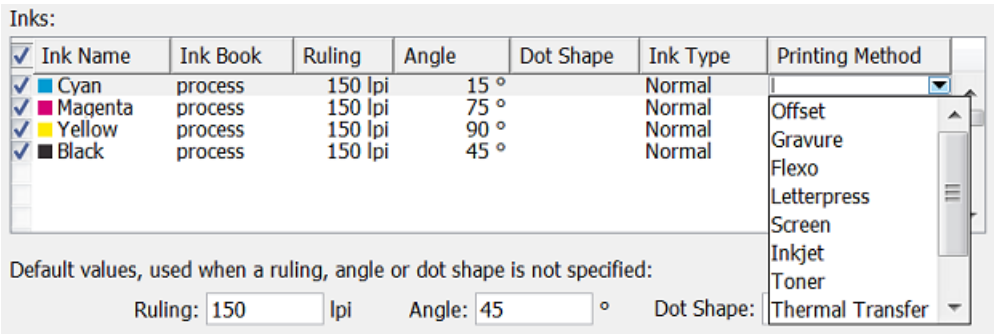


Figure 2: The Inks dialog in PackEdge and Plato



Assigning a Printing method in a 'Normalize' Task

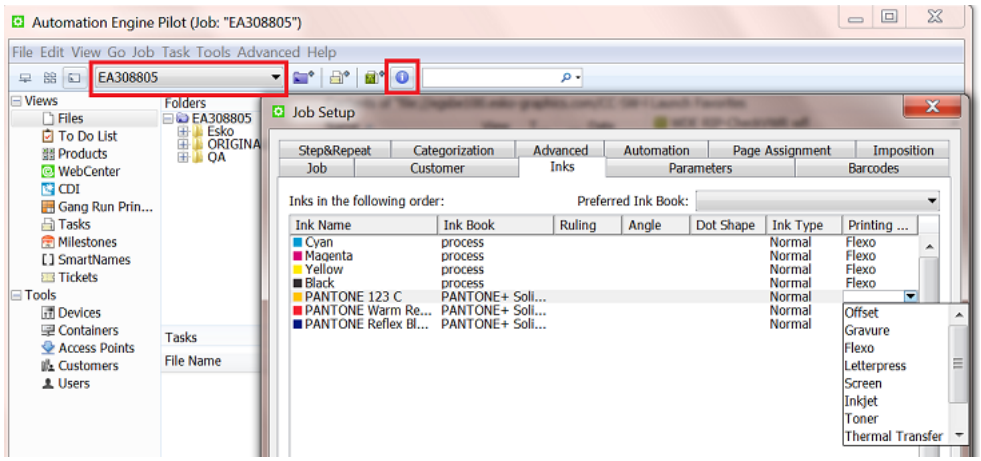
The *Normalize PDF file task*, the *Normalize PostScript, PDF, Illustrator file task* and the *Normalize Tiff/IT file task* offer a dedicated column in their tab 'Inks':



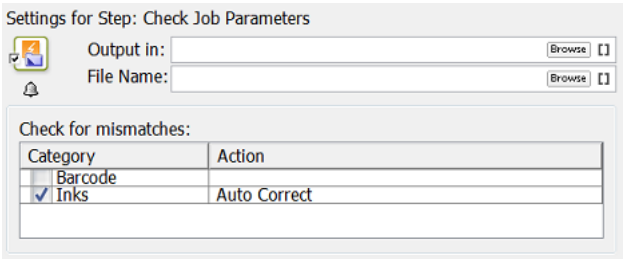
Automating the Assignment of a Printing Method

Follow these steps to automate the assignment of printing methods:

1. You can use the Pilot and set these values manually In the **Inks** tab of the **Job Setup** dialog. These values can also be set during *automatic job creation by an MIS system, via JDF or XML*.



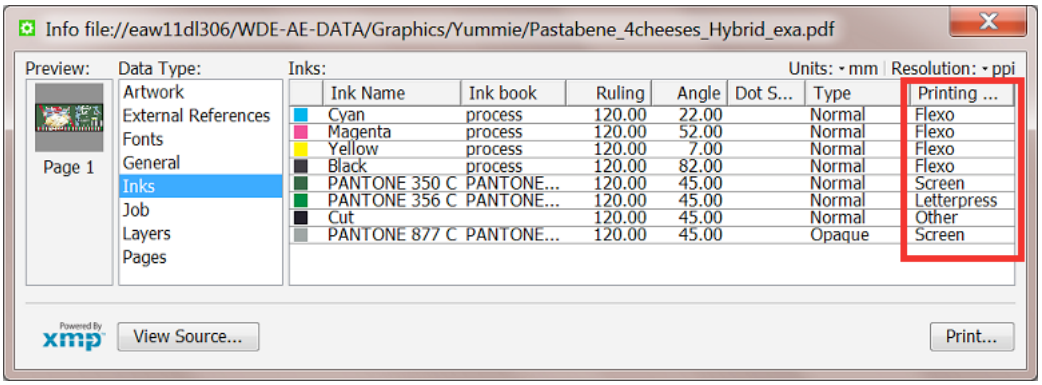
2. You can then use the *Check Job Parameters* task to apply the values defined in the job setup to PDFs and Normalized PDFs. Mind that you will need to enable the **Auto Correct** option for **Inks**:



1.4. How Are the Printing Methods Stored in the PDF?

The printing method of each separation is stored in the XMP of the PDF (Normalized or native PDF). This makes this information also accessible for third-party applications.

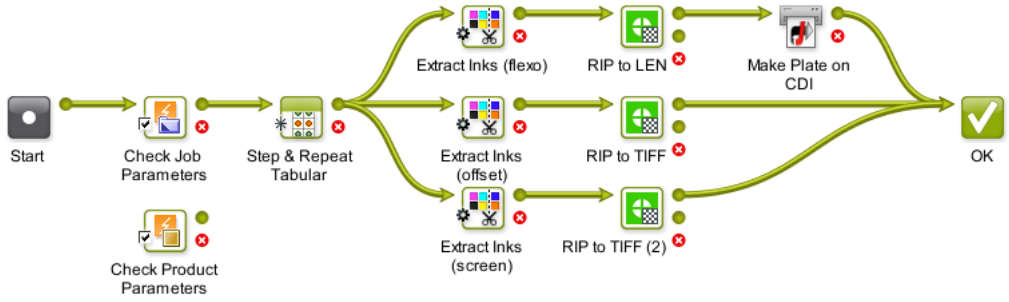
An example:



1.5. How to Differentiate the Processing of Separations for Different Printing Methods?

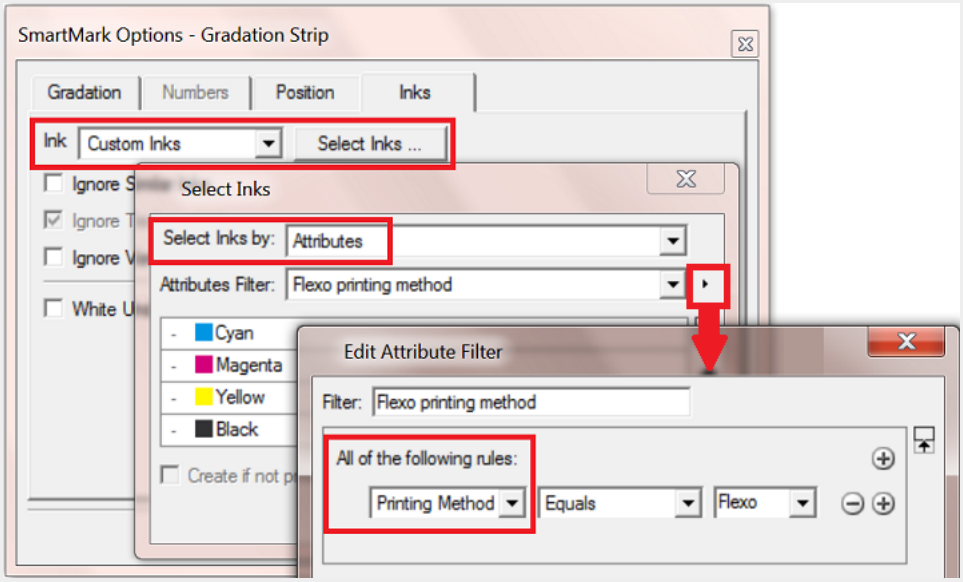
The *Extract Inks task* in Automation Engine was created just to enable workflows handling these different requirements for different printing methods.

Here is an example workflow:

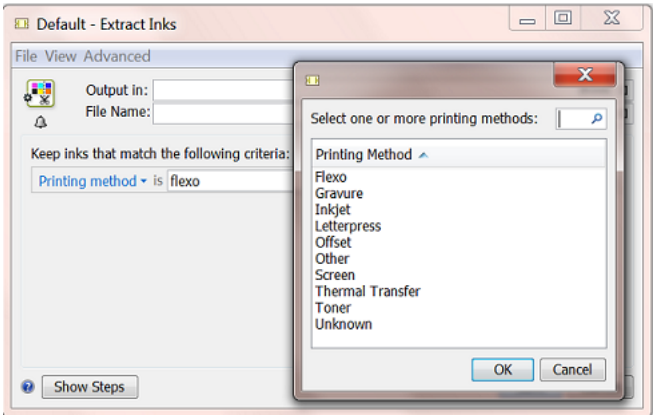


1. In the first step, the **Check Job Parameters** task sets printing methods for the different separations in the incoming PDF. In case you use the Products tool, you could use the **Check Product Parameters** task in stead.
2. Then, a **Step & Repeat** task creates a layout.

Note: When the task also applies a SmartMarks set, you can choose to already set the marks in inks of a selected printing method. See this example of defining inks of a gradation strip:



3. The *Extract Inks task* then creates 3 different files only containing the inks of the selected printing method:
   - The top branch of the workflow extracts the flexo separations.



   - The middle branch extracts offset separations.
   - The bottom branch extracts separations for screen printing.
4. Finally, each branch sends the PDF(PLA) with only the selected separations to a RIP with specific settings for that same printing method.

2. Integrating with Nexus (soon outdated)

Integrating with Nexus is based on a task that in v18 was declared to be soon outdated.

Learn more in *the chapter "How to...?" of the manual of AE 16.1*. It contains information on this setup and also the page describing the *Send to Nexus task*.

3. Integrating with Odystar (soon outdated)

Integrating with Odystar is based on a task that in v16 was declared to be soon outdated. Learn more in *Send to Odystar (soon outdated)*.