

Automation Engine

Hybrid Press Support

Contents

1. Hybrid Presses.....	3
2. What is the Problem?.....	4
3. How Can the Printing Method of a Separation Be Defined?.....	5
5. How Can You Differentiate the Processing of Separations for Different Printing Methods?.....	9

1. Hybrid Presses

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 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 under the name “combi-presses” or “hybrid presses”.

This document describes how to handle designs that are produced with multiple printing methods.

Support for such designs is applicable for both integrated hybrid presses and for situations where multiple presses are used to produce a single package or label.

Note: The features here described require Esko Suite 12 or higher.

2. What is the Problem?

A designer will create a single file (Illustrator or PDF) containing the complete design, including all separations for the different printing methods used to produce that package or label.

On the other hand separations of one printing method need to be treated differently in prepress than separations of another printing method:

- Trapping parameters may be different per printing method
- Different printing marks may be required per printing method
- Plate distortion parameters may be needed for one printing method, such as flexo, but not for another, such as offset.

3. How Can the Printing Method of a Separation Be Defined?

Predefined list of printing methods

A predefined set of values is available in all applications. It is recommended to use values from this set 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.

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

Setting a value manually in ArtPro, PackEdge and Plato

Figure 1: The Separations dialog in ArtPro (v12 or higher)

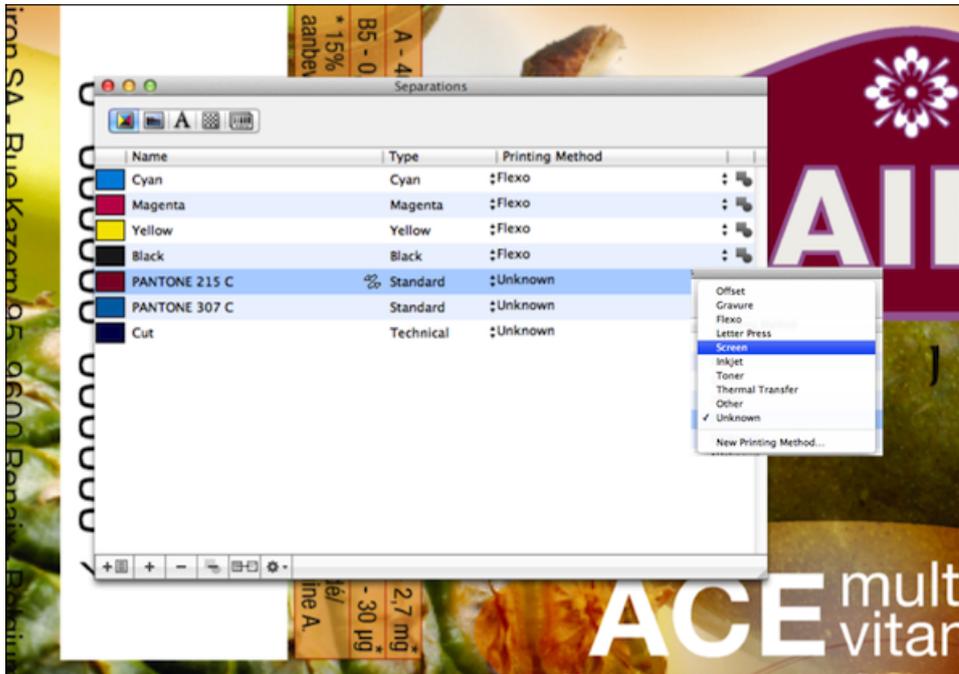
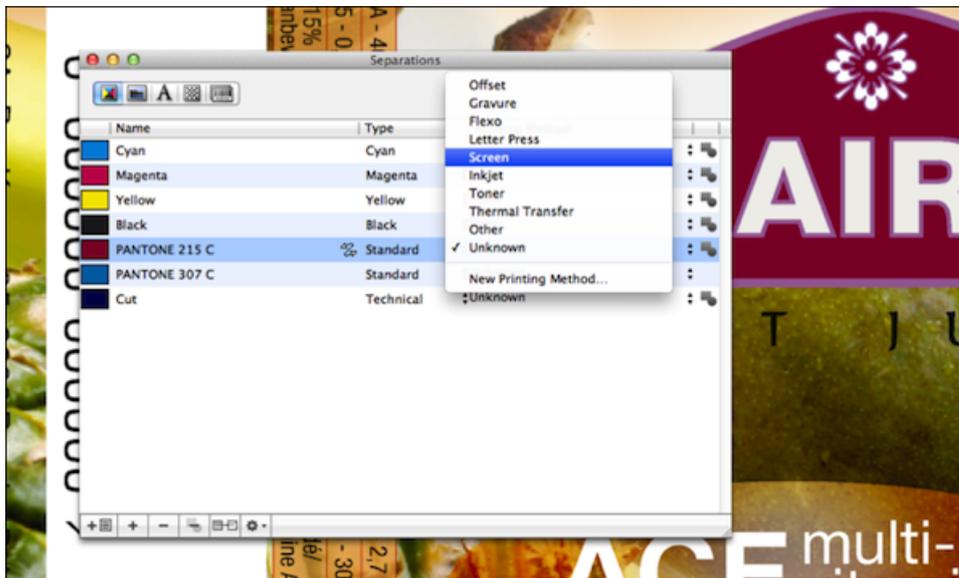
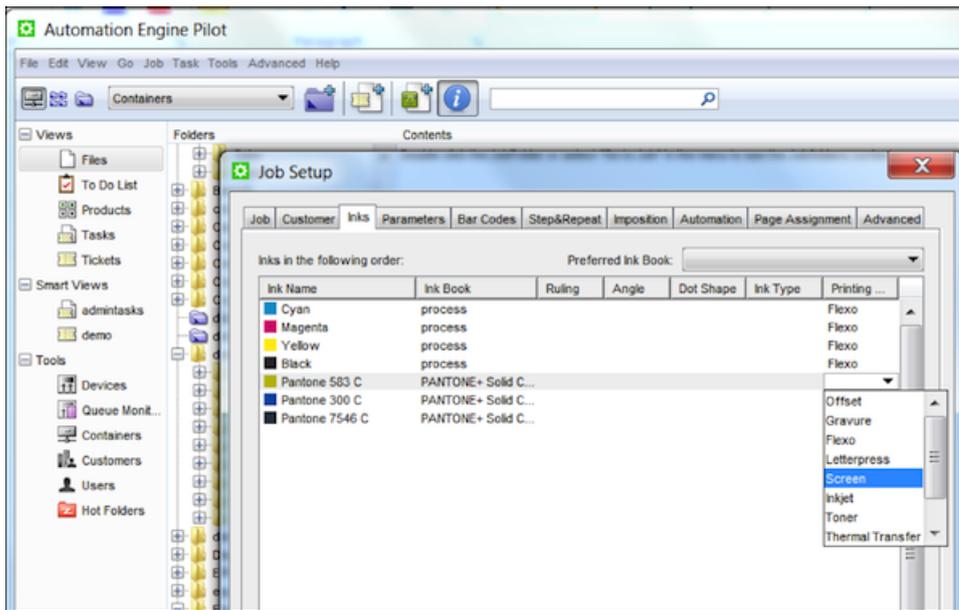


Figure 2: The Separations dialog in PackEdge 12 and Plato 12

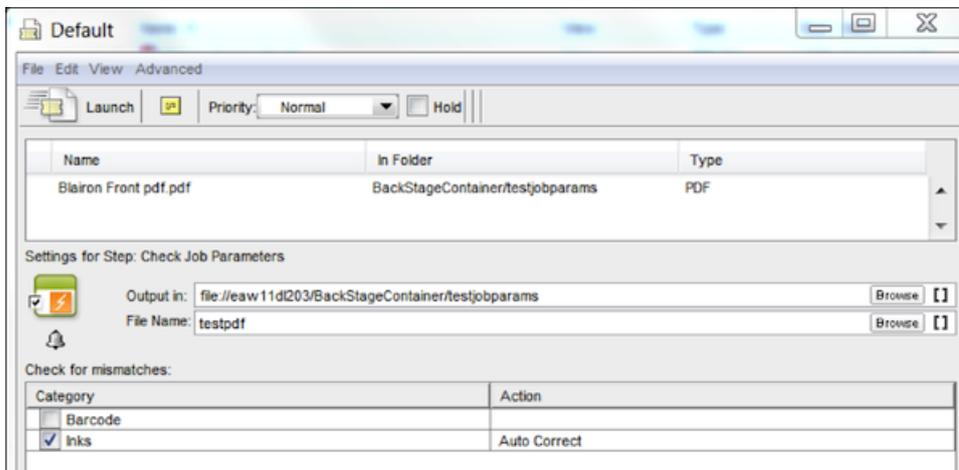


Automating printing method assignment in Automation Engine

The setting of the printing methods can also be automated in the Automation Engine job setup.



In the **Inks** panel of the **Job Setup** dialog, the printing method can be set for each separation. The values in the inks tab can be set manually using the Automation Engine Pilot. They can also be set during automatic job creation by a MIS system using JDF. The values defined in job setup can be applied to PDFs and Normalized PDFs using the **Check Job Parameters** task with the **Auto Correct** option enabled for Inks.

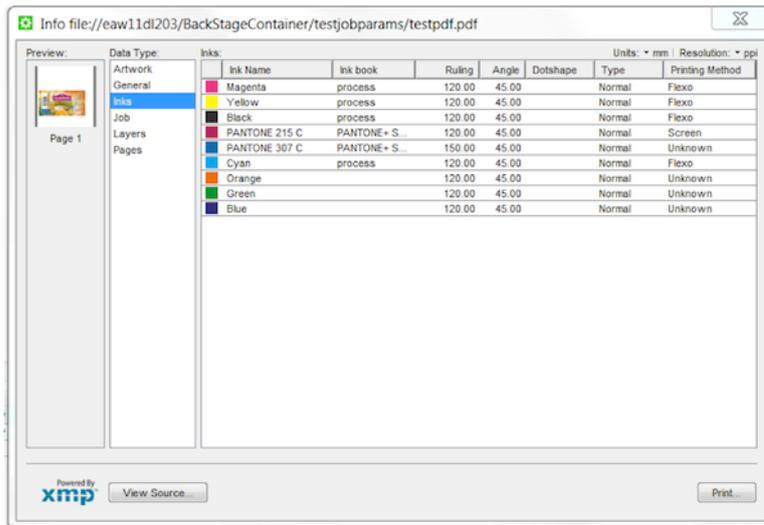


How about DeskPack?

It is not possible to set printing methods for separations in DeskPack. Normalized PDFs exported from Illustrator DeskPack can be sent through the **Check Job Parameters** task on Automation Engine to set printing methods as described above.

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

The following is an example of a PDF document with Printing Method information embedded in the XMP metadata.



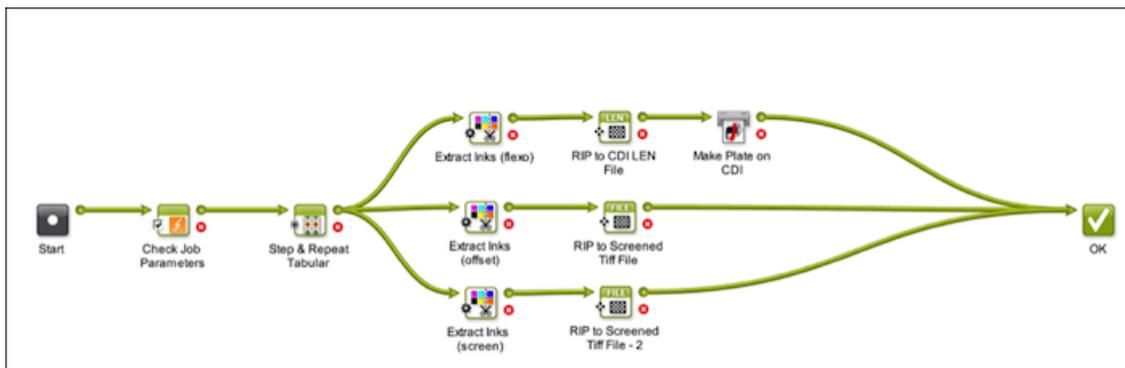
The screenshot shows a PDF viewer window titled "Info file://eaw11dl203/BackStageContainer/testjobparams/testpdf.pdf". The "Inks" section is expanded, displaying a table of ink properties. The table has columns for Ink Name, Ink book, Ruling, Angle, Dotshape, Type, and Printing Method. The data is as follows:

Ink Name	Ink book	Ruling	Angle	Dotshape	Type	Printing Method
Magenta	process	120.00	45.00		Normal	Flexo
Yellow	process	120.00	45.00		Normal	Flexo
Black	process	120.00	45.00		Normal	Flexo
PANTONE 215 C	PANTONE+ S...	120.00	45.00		Normal	Screen
PANTONE 307 C	PANTONE+ S...	150.00	45.00		Normal	Unknown
Cyan	process	120.00	45.00		Normal	Flexo
Orange		120.00	45.00		Normal	Unknown
Green		120.00	45.00		Normal	Unknown
Blue		120.00	45.00		Normal	Unknown

At the bottom of the window, there is a "Powered by xmp" logo, a "View Source..." button, and a "Print..." button.

5. How Can You Differentiate the Processing of Separations for Different Printing Methods?

Let's have a look at the following workflow:



1. In the first step of the workflow printing methods are set for the different separations in the incoming PDF, using the **Check Job Parameters** task.
2. A layout is made for the PDF using one of the **Step & Repeat** tasks available in Automation Engine (v12 or higher).
3. The **Extract Inks** task splits the step and repeat file is split into three parts. In the top branch of the workflow flexo separations are extracted. Below you can see the ticket of that task for the top branch. The middle branch extracts offset separations. The bottom branch extracts separations for screen printing.
4. Finally, in each branch the separations are sent to a FlexRip with proper settings for the specific printing method.

