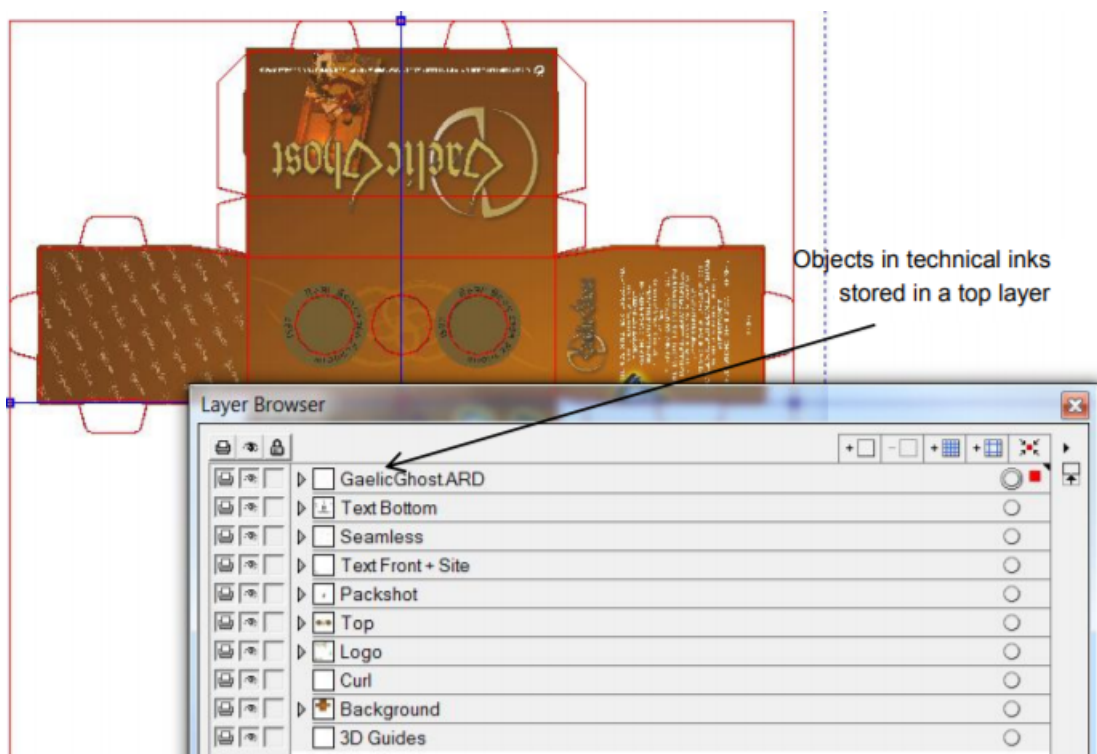# Automation Engine 22

How To … ?

ESKO✦

Contents

# 1. How to Work with Technical Inks (Normalized PDF)

> ⚠️ **Attention:** Technical inks (and varnish inks) are only used in Normalized PDF. This attribute is not present in PDF+ files.

The recommended way to work with technical inks is to follow these main rules:

- **Put objects in technical inks in top layers.**

Objects colored with technical inks are stored in 1 or more layers at the top of the render stack. The advantage of this is that, when you use a PDF generated this way in an application capable of handling layers (PDF Optional Content Groups), you will also be able to view and print the design correctly with or without objects in technical inks by switching on or off the corresponding layers.

Objects stroked with technical ink in blend mode Normal and Overprint
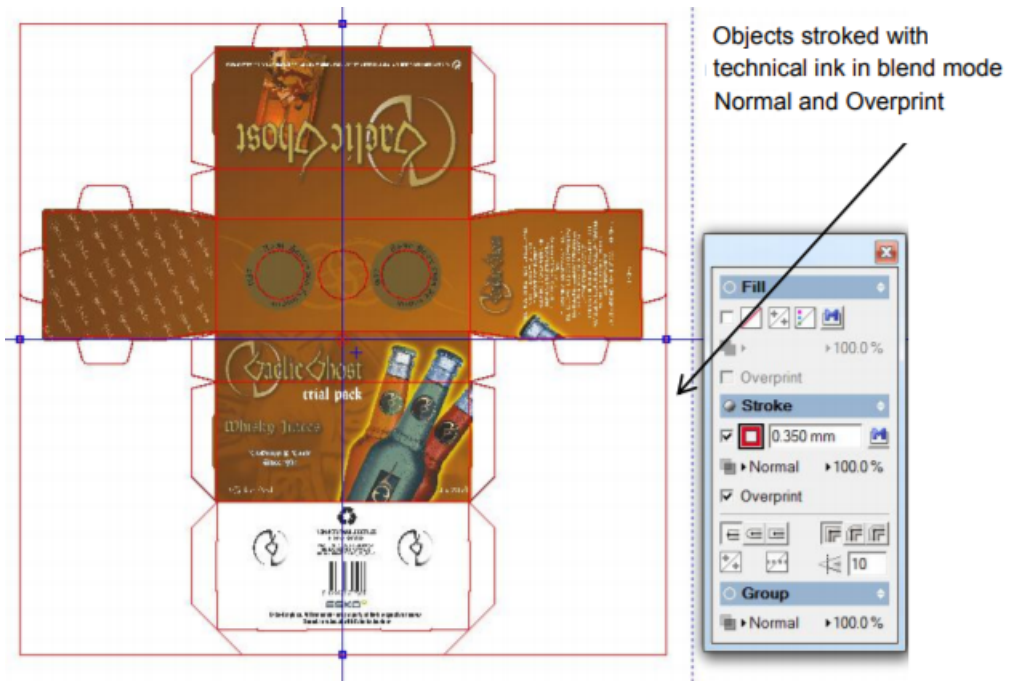
> ⚠️ **Attention:** This only works as intended when the objects in technical inks do not influence the normal printing separations of the file. Also see below. Objects in technical inks do not influence printing separations.

It is best to avoid that objects in technical inks influence printing separations, for example knocking them out. Therefore it is best to stroke or fill objects with a spot color in blend mode **Normal** and switch on **Overprint**.

Do not use technical inks in opacity masks.

Do not put objects with printing inks on top of objects with technical inks in other blend modes (Hue, Saturation, Color, Luminosity, etc.).

- **Avoid using technical inks and normal printing inks in a same object.**

  - You can use the task *Optimize and Clean (PSFix)(Classic)* to detect any interaction between objects in technical inks and printing separations. Its auto correction feature can switch on overprint if the object was put in knock-out. Since overprint is an attribute of the object and not of an individual separation of an object, this will result in unintended changes of the printing separations.

- **Use a solid tint.**

  - It is recommended to color an object with 100% of a technical ink. Avoid using tints, shadings, etc.

2. Hybrid Press Workflow

2.1. 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.

2.2. 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 (typically flexo) but not for other separations.

2.3. 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

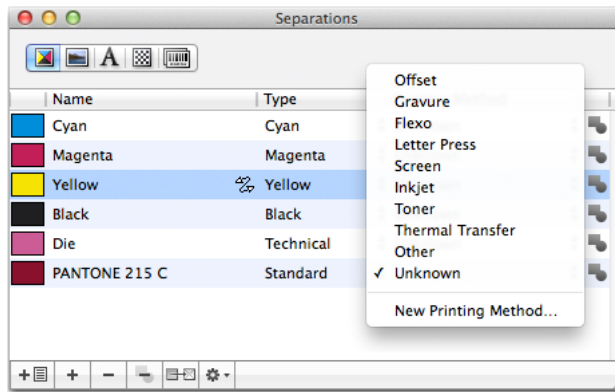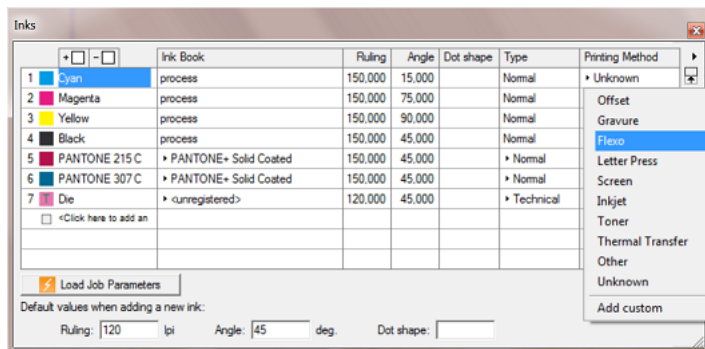**Figure 1: The Separations dialog in ArtPro**
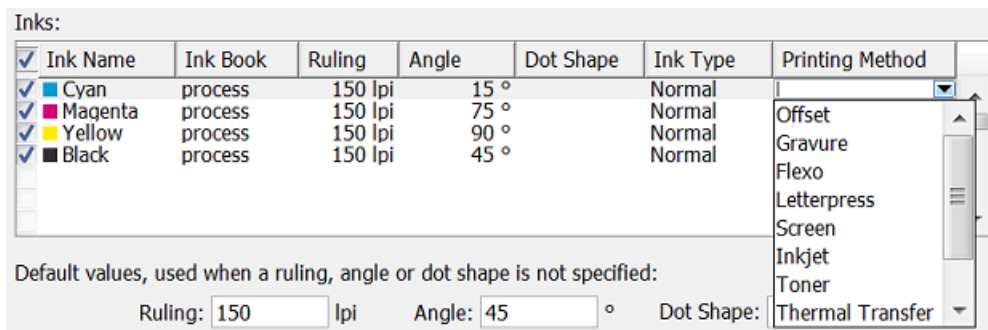

Figure 2: The Inks dialog in PackEdge and Plato

### Assigning a Printing method in Classic 'Normalize' Tasks

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*.
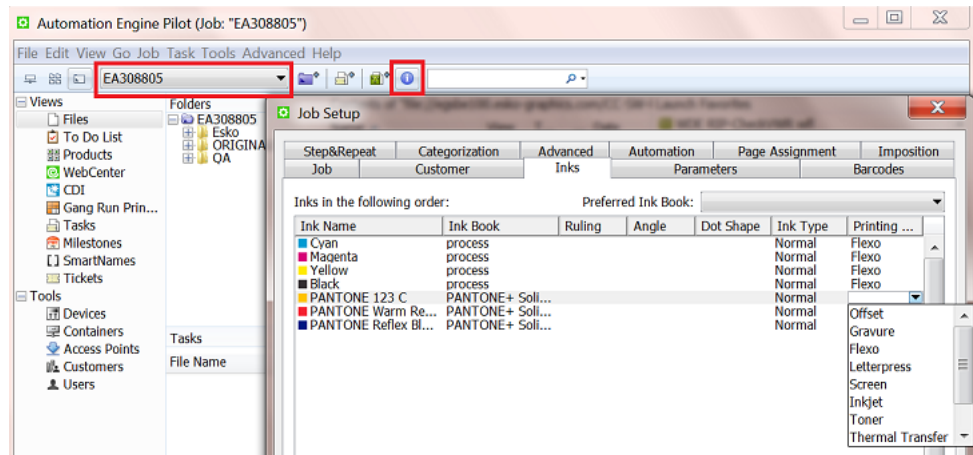

2. You can then use the *Check Job Parameters* task to apply the values defined in the job setup to PDFs and Normalized PDFs. Mind that you will need to enable the **Auto Correct** option for **Inks**:
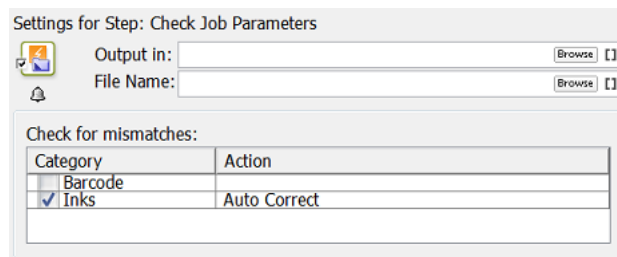
2.4. How are the Printing Methods stored in the PDF?

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.
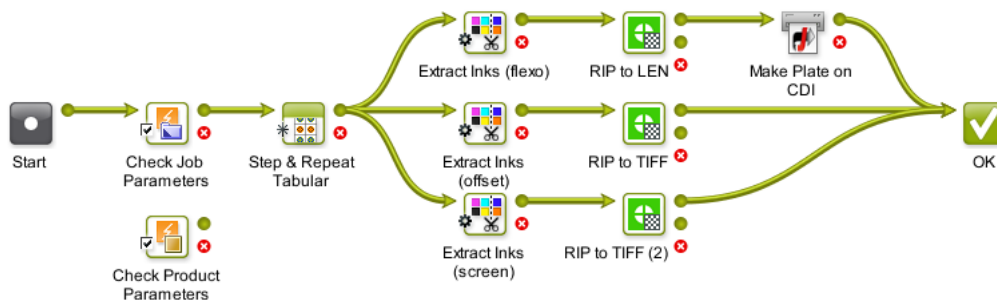
An example:
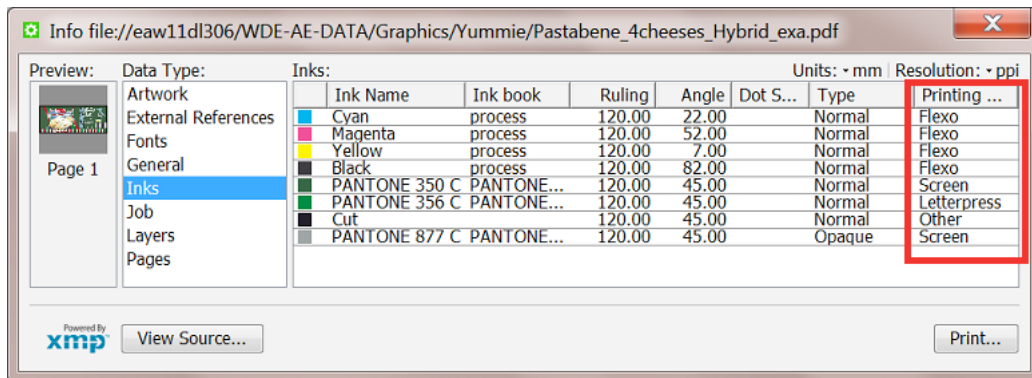
2.5. How to Differentiate the Processing of Separations for Different Printing Methods?

The *Extract Inks (Classic) 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:
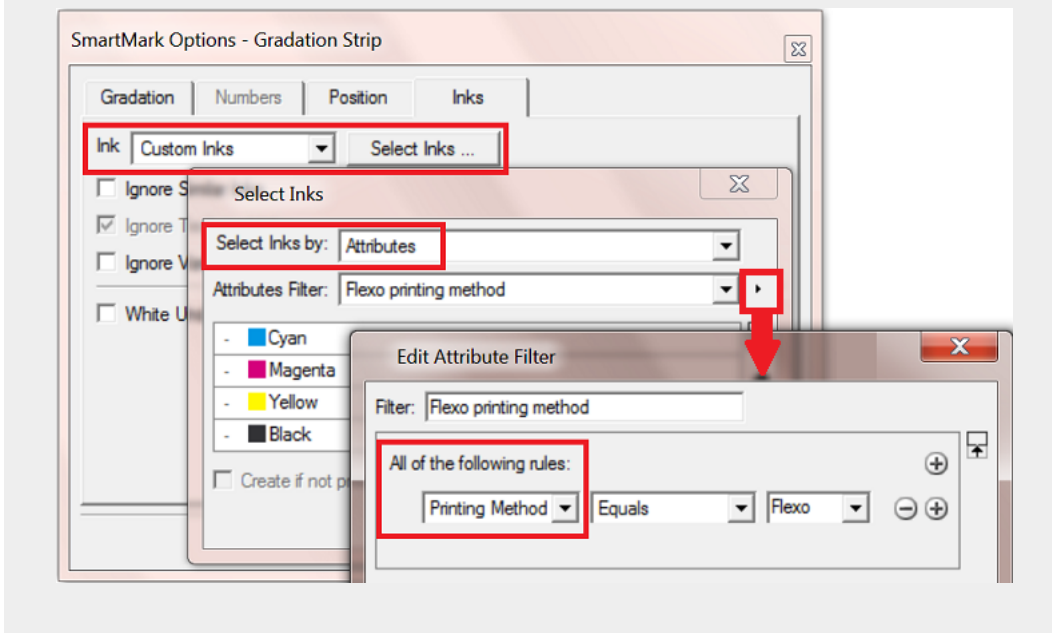
3. The *Extract Inks (Classic) task* then creates 3 different files only containing the inks of the selected printing method:

    • The top branch of the workflow extracts the flexo separations.
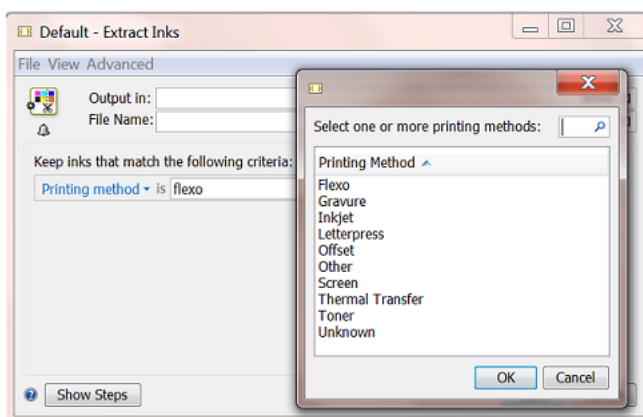
    • The middle branch extracts offset separations.

    • 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.

3. Integrating with Nexus (outdated)

Integrating with Nexus is based on a task that is 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.

4. Integrating with Odystar (outdated)

Integrating with Odystar is based on a task that is outdated. Learn more in *Send to Odystar (outdated)*.