

Automation Engine

Automating ArtPro Processing

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1. Automating ArtPro Processing

Automation Engine can automate the processing of ArtPro native files. This can be a single action or a list of actions. Such lists of actions could formerly have been run as (parts of) Nexus workflows.

All this processing is initiated by one task, the [Apply ArtPro Action List task](#). This task takes native ArtPro files as input, processes them and can then output either ArtPro files or convert them to a range of vector formats. Several actions can also process other file formats or even gravure TIFFs.

Note: This workflow is in some documents referred to as "ArtPro Processor on Automation Engine".

The task runs an **ArtPro Action List** that defines the chain of actions to be executed. Such "Action Lists" can be created and edited by using the [ArtPro Action List Editor](#).

About Converting Nexus Workflows into Automation Engine Workflows:

In Nexus Manager, you can select a part of a Nexus workflow and choose '**Save as Action list**'. However, you still may have to adapt settings to get an identical result (fonts, marks, etc.).

Especially when you have complicated Nexus Processor workflows with file dependencies and "Select File" activities, your similar Automation Engine workflow will probably be a combination of small action lists and Automation Engine workflow controls like Router, Select File, etc.

2. The ArtPro Action List Editor

The **ArtPro Action List Editor** allows you to create and manage ArtPro **Action Lists** (*.aal files) that you can then launch with the [Apply ArtPro Action List](#) task.

2.1. Installing the ArtPro Action List Editor

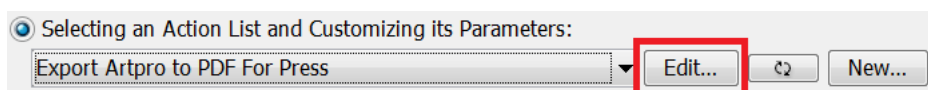
This tool is one of the client tools that you can download from the **Automation Engine Server Web Page**.

- Open the **Server Web Page** by entering `http://<name of your server>` or `http://<name of your server>:9999` in the address field of your browser.
- Find this tool in the section **Client Apps**, in the page **Tools**. Click **Download** to install it on your client computer (Mac or Windows). Run the .exe or dmg to install the application.
- When opening the installer editor for the first time, the **Edit Preferences** dialog asks you to enter the name of your Automation Engine server and a valid user name and password.

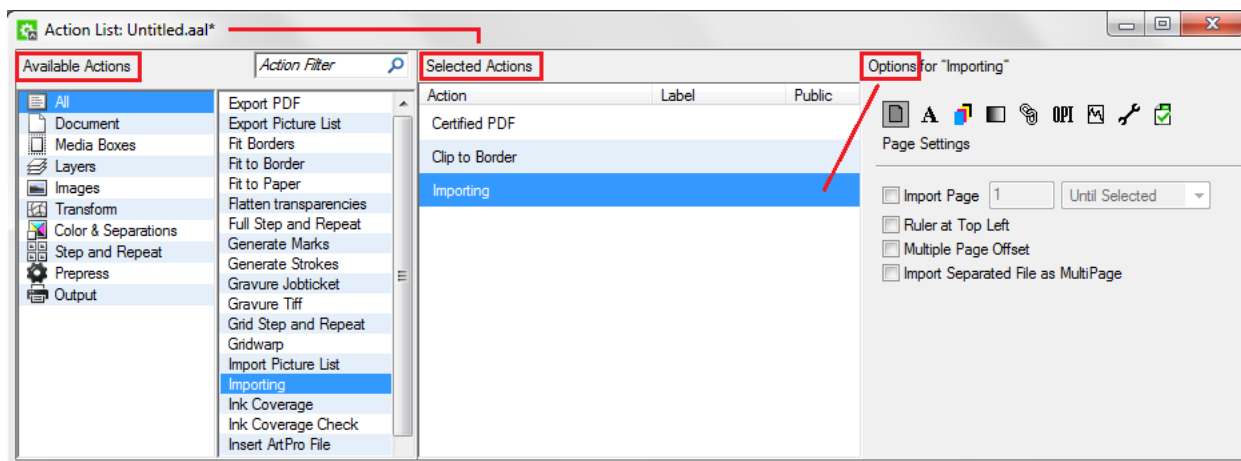
2.2. Working with ArtPro Action Lists

There are 2 ways to open the **ArtPro Action List Editor**:

- Start it from the desktop shortcut or application icon on your client computer. Then use the menu options.
- Or select an Action List in the **Apply ArtPro Action List task** and click the **Edit...** button to open it directly in the editor.



When you open an **Action List**, the dialog contains 3 main parts:



- (Left) The library of **Available Actions**: This section shows two columns. The left one offers to filter by category. The next column shows the full or filtered list. You can drag and drop actions from this column to the **Selected Actions** section.
- (Middle) **Selected Actions**. This shows the actions in this (opened) action list (of which the name is shown in the title bar). You can double click in the column **Label** to add a label that helps to identify these unique actions, for example when using public parameters.
- (Right) **Options for the selected action**. This displays the all settings for the selected action. Edit them as wished. When you close the window, you will be asked to save the changes you made.

2.2.1. Action List Menu Options

Here is a quick overview of the menu options in the **ArtPro Action List Editor**:

1. In the **File** menu:
 - **New / Open / Save Action List...**
 - **Import NeXML File....** Use this to import Nexus workflow tickets.
 - **Save Action List As...**: Apart from defining a (new) name, notice that you will be proposed to save the *.aal file in its default location \\AEServerName\bg_data_custom_v010\dat\ArtPro Action Lists. This is also the folder that the **Apply ArtPro Action List** task looks in.
2. **Edit** menu:
 - **Cut / Copy / Paste / Delete**: Use this option to cut / copy / paste / delete action(s) from the **Selected Actions** section. You can multi-select and use the available shortcuts.
 - **Select All**. To select all **Selected Actions** in the current action list.
 - **Edit Preferences....** To set your server, units or language preferences.
3. **View** menu: **Hide / Show Library**: To hide or show the library of **Available Actions**.
4. **Window**: Because you can open multiple action lists at the same time, each in their own dialog you can here select the one to be active.

5. **Help** menu: The **About** shows the software version of this tool.

2.2.2. Creating an Action List

To create an action list:

1. In the **File** menu, choose **New Action List....** A dialog opens for the new **Action List: Untitled.aal***.
2. Add actions and define their parameters:
 - In the first column of the **Available Actions** section, select **All** to view all the available actions in the second column. Or filter the actions by category or by typing in a filter. .
 - Double click or drag actions from the second column of the **Available Actions** section to the **Selected Actions** section.
 - To remove an action, select it in the **Selected Actions** section and press **Delete**.
 - Select an action in the **Selected Actions** section to view its parameters in the **Options for "selected action"** section. Edit these parameters as wished.
3. Click **Save Action List As** in the **File** menu to save this action list with a proper name.

Note: Action lists have to be stored in the folder `\\AEServerName\bg_data_custom_v010\dat\ArtPro Action Lists` to appear in the task's drop-down list.

3. Handling Fonts in ArtPro Files

Important: All fonts used in ArtPro files that are handled by Automation Engine should either be:

- embedded
- referenced and located in a folder accessible to the Automation Engine server.

When a font is not accessible, you will get an error when trying to add or edit text, update text objects using ArtLink, export the file to PS or PDF, etc.

ArtPro Files coming from a Nexus on Mac OS

Type of ArtPro file in Nexus workflows	Consequence on fonts in Automation Engine
ArtPro files created, edited or opened in ArtPro.	<p>These ArtPro files have all fonts and outlines embedded (subset). They can be opened, repeated, output... in any ArtPro action list without any font problems.</p> <p>Exception: ArtPro files containing ArtLink'ed text containing a character that was not embedded (not yet used in the ArtPro file and the font is not available).</p>
ArtPro files created by a Nexus workflow (files that have not been opened and saved by ArtPro).	<p>These files do not contain any font embedding. Therefore, they cannot be used to generate PDF export, unless:</p> <ul style="list-style-type: none"> • You add a Text to Paths action before outputting the file to PDF. • You add all the necessary font folders in your first action (see below). Note: you can also add fonts and images folders in the 'Export PDF' action (in Images > File & Font settings).
ArtPro files created by a Nexus workflow starting with a PS/PDF import.	<p>Referenced fonts are not available during this workflow!</p> <p>Any action that needs text outlines (Generate Marks, Print to File, Export PDF,...) will error.</p> <p>To avoid this, you need to:</p> <ol style="list-style-type: none"> 1. Insert a Save action immediately followed by an Open ArtPro file action. 2. In the Open ArtPro file action, define the necessary font folder.

Handling the Fonts Correctly in an ArtPro Action List

In general, opening an ArtPro file does not need the glyphs from the characters in the file, because ArtPro always stores the vectorized representation of the complete text block in the file.

When using ArtPro action lists and importing PDF files with non-embedded fonts, the fonts need to be available on the Automation Engine server. Follow these steps to make them available:

1. Create a fonts folder in an Automation Engine **Container** (a Windows network share made 'Container').
2. Move the fonts from the Mac to that folder (on Windows) using a third party font conversion tool (for example [CrossFont](#)).
3. In your action lists, adapt the parameters of actions that need font resources (for example the **Importing** action).

Note: We recommend using TrueType fonts.



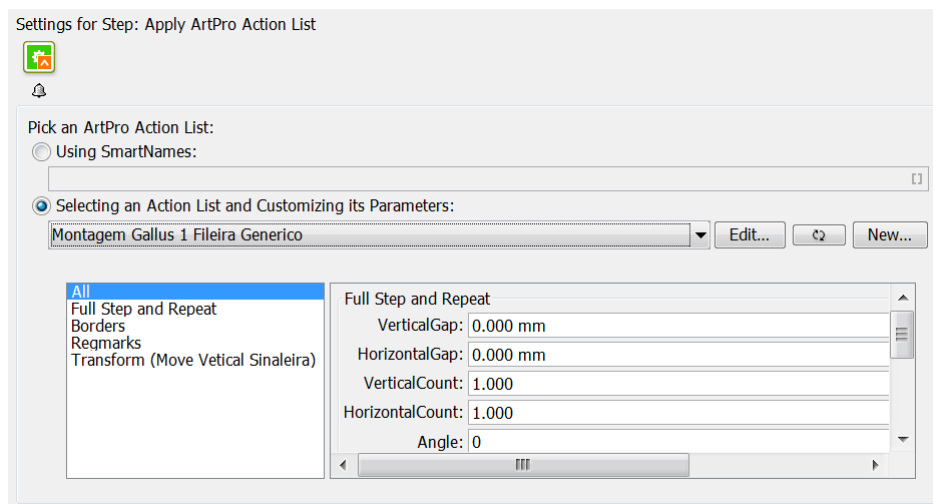
Caution: When copying any font, make sure that you have the appropriate licenses to install and use this font!

4. The Apply ArtPro Action List Task

This task enables processing single or multiple actions on ArtPro native files.

Note: Learn more about this concept in the [introduction of this chapter](#).

The task launches an **ArtPro Action List** that you created earlier in the [ArtPro Action List Editor](#).



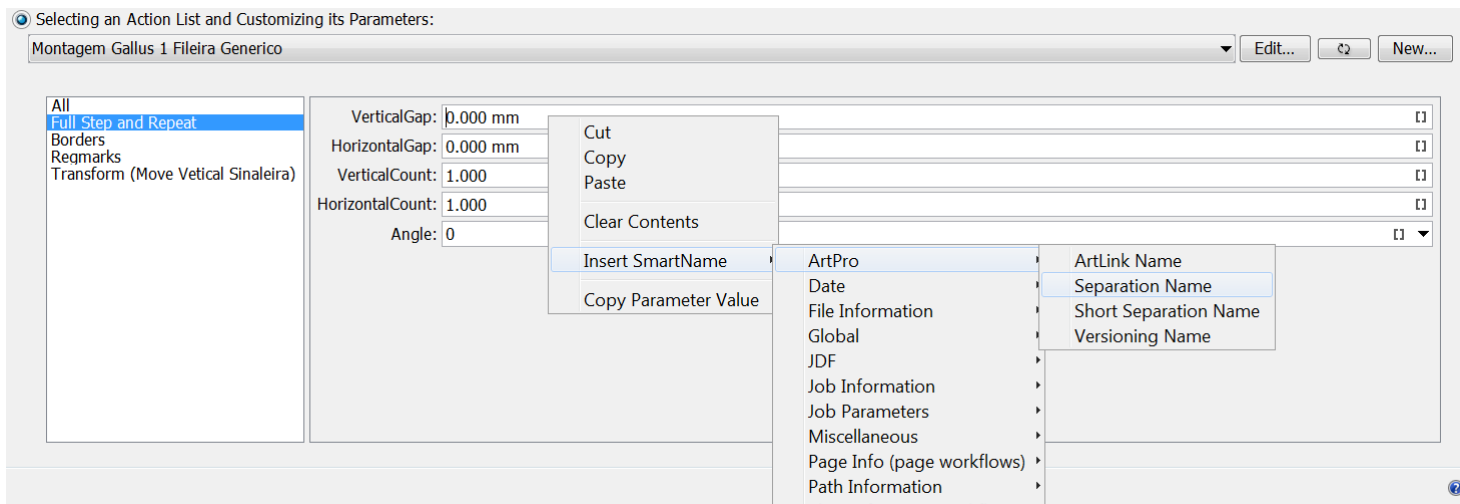
- You can define the action list by [SmartNames](#) or by **Selecting** it from the drop down list, in which case you can also see and edit the parameters that were made public.
- The **Edit...** button opens the action list in your locally installed [ArtPro Action List Editor](#).
- Click to refresh the list and update the panel (it does not change any parameter values).
Click while holding the **Shift** key to revert the parameter values in the panel to the values that were saved in the action list.
- Click **New...** to type in a name and then open the [ArtPro Action List Editor](#).

Learn about all the available actions in these action lists in [Available Actions](#) on page 13.

4.1. Using SmartNames in the Apply ArtPro Action List task

Note: Learn about SmartNames in the dedicated chapter [SmartNames](#).

In an action list value field, you can right-click or click on to use SmartNames to define the value. There is even a dedicated 'ArtPro' category:



This task has access to Automation Engine SmartNames linking to ArtLink parameters in ArtPro files.

Note:

- The SmartNames are resolved when the ArtPro file is opened.
- You can not use SmartNames that require their value from the Automation Engine task itself (for example TaskID). You can use SmartNames based on file location or file name.
- You cannot use a *Workflow Parameter* directly as an ArtLink parameter.

Tip: You can however make it a public parameter and then use the workflow parameter there.

- When an ArtPro file is saved in a **Job** and linked to a *Job Parameter*, the information is only kept within that Job. When the same file is saved outside that Job, this Job parameter info is lost.
- When a *Global Product* is linked to multiple Jobs and Job SmartNames are used, any of these values can be stored in the file. The ArtPro actions do not update the parameter to the current Job.

5. Available Actions

Note: Many actions are identical or very similar to functionality in ArtPro. In those cases, this documentation only offers a basic explanation and refers to a more detailed description in the [ArtPro user guide](#).

5.1. Adjust Stroke Width

This action allows to change the width of all (selected) strokes.

You can use this for example to give hairlines a minimal width. To do this, first use the [Select Objects](#) action to select all strokes smaller than the minimum width, then use this **Adjust Stroke Width** action to change their width.

5.2. Apply Pictures

This action replaces a picture (= an image or a placed ArtPro File) with another picture. You can replace an earlier selected picture or all pictures in the file ("apply on all objects").

This function may be useful to replace the graphics in a step and repeat template with another graphics file.

- **Center Picture on:** For ArtPro and PDF files, choose which box is to be used to center the graphics when applying the picture (file) to the object(s) in the file.
- **Remove Unused Separations:** Removes all empty separations after the **Apply Pictures**.
- **Place Single Separation ArtPro File in Single Separation:** Defines how to insert ArtPro files with only one separation. When this option is not selected, objects in this ArtPro file with 100% of the single separation are considered to be registration color and thus get 100% of every ink in the ArtPro file after insertion. When this option is selected, the file is inserted in one single separation instead.

5.3. ArtLink

ArtLink enables automatic generation of multiple variants of a template file based on database information (a .txt or .csv file). You can choose to create different variants as different files or add the variation as extra layers.

The template file needs to be made in ArtPro. You there select objects and link them to parameters in the database file or add automatic parameters based on job content. Please see to the [ArtPro user guide \(File menu > Parameters \(ArtLink\)\)](#) for a full description of the ArtLink module.

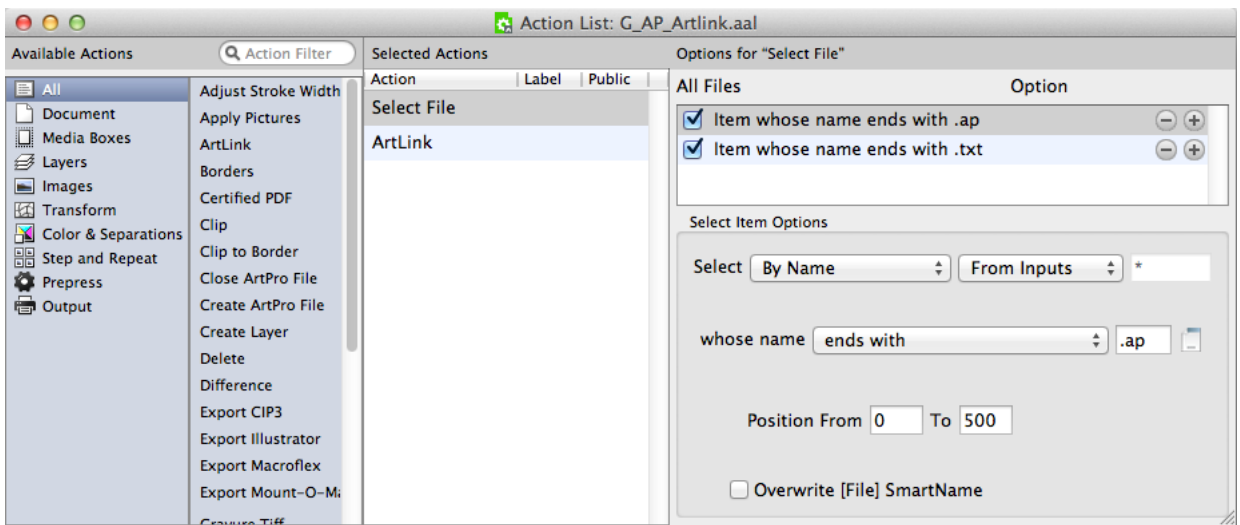
In the next pages we describe how an action list needs to be set up in order to automatically generate ArtLink versions with the ArtPro Action List Editor.

5.3.1. Example of Using ArtLink in an Action List

In our example, an input folder contains an ArtPro template file "ice cream template.ap", a database file "ice cream.txt" and also an "images" folder with the various images that will be used for the versioning (strawberry, lemon, lime, orange, peach and tomato).

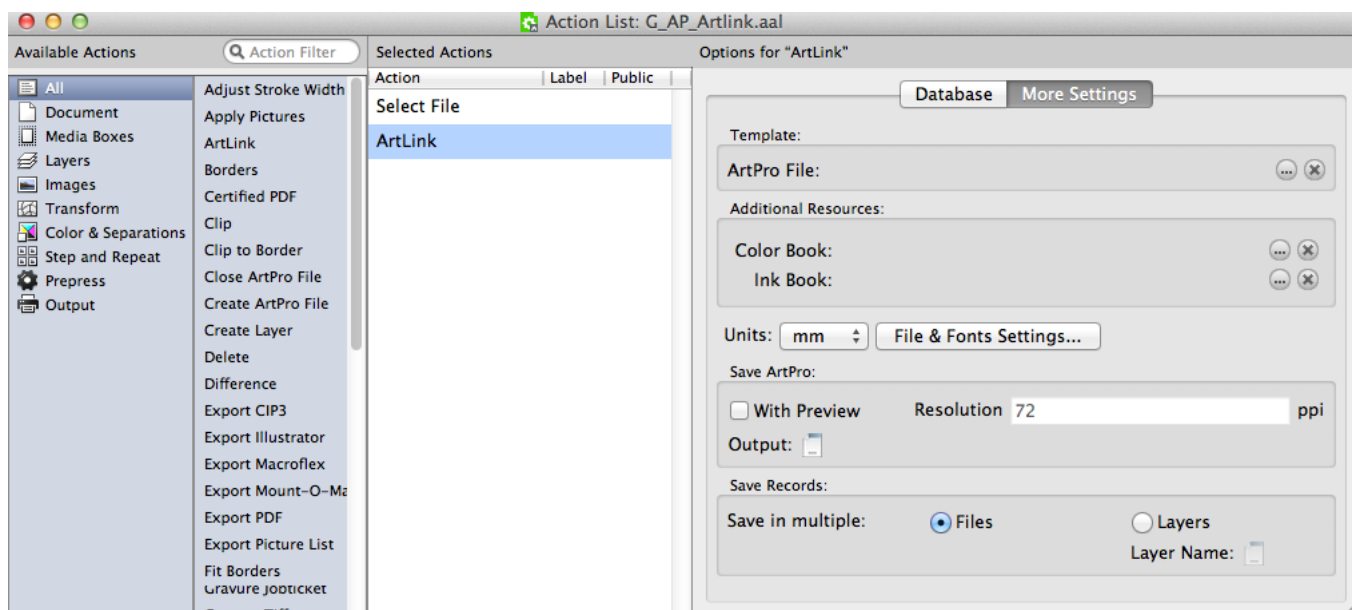
The action list should contain a [Select File](#) action and an **ArtLink** action. Be aware that the ArtLink action has an embedded Open and Save action, so there is no need to also add those to the list.

See how the Select File action selects both the .ap and the .txt file:



Note: When you do need to add an [Open ArtPro file](#) action (maybe in an [Update ArtLink](#) workflow), then make sure you *only* selected the .ap file in the preceding action.

5.3.2. Setting the ArtLink Action



(ArtPro) Template

In our example, we here do not need to select the ArtPro template because this was already done by the Select File action. You could however do this when the ArtPro File with the links is a fixed file.

Additional Resources

Additional Resources allows to locate the Color and Ink Book that needs to be used, similar as you would load these in ArtPro when colors or inks need to be defined from a library (for example: PANTONE™ library).

File & Fonts Settings...

Since the ArtPro template file may contain images (on the same or a different server) and fonts, this dialog enables working with root folders, folder mapping and font folders. The fonts are obviously necessary if variable text needs to be generated based on the database file. Learn more about the **File & Fonts Settings...** in the page on the [Open ArtPro File](#) action.

Save ArtPro

Use the Template Editor in the **Output** button to define the name and place of the files generated by ArtLink.

Our example will generate six files, each with a variable extension: .Alnk_1 to .Alnk_6.

Choose if you also want a Preview and at what resolution.

Save Records

You here define if the results of the different records should be saved as multiple ArtPro files ("**Files**") or as one single ArtPro file containing different Layers ("**Layers**"). In that case, use the Template Editor to define the name of these different layers.

5.3.3. The Database File

Our example uses a this text file (exported from a database):

```
PANTONE;ice;barcode;pict
"300";"Blue Curacao Ice Cream";"54327719";"::~images:strawberry"
"399";"Margharita Ice Cream";"54327627";"::~images:lemon"
"370";"Caipirinha Ice Cream";"54327719";"::~images:lime"
"orange";"Tequila Sunrise";"54327726";"::~images:orange"
"1645";"Peché Mignon Ice Cream";"54327733";"::~images:peach"
1797";"Bloody Mary Ice Cream";"54327740";"::~images:tomato"
```

The first line describes what variables will be used. Each below line describes the values of these variables for one output file:

- `PANTONE`: the color entry in the color book to be used
- `ice`: a text string
- `barcode`: the value of a barcode to be used
- `pict`: an image to be used

Note: The images are described as `~images:xxx`. `~` describes the current position of the template file and `images` is a subfolder located relative to the current position of the template file. Images will also be searched through the Files & Folders settings, so the full exact path is not always necessary.

5.3.4. The Results

After processing, our example will have generated six ArtPro files. They will vary in color, text string, barcode and the image.

The **Template Editor** allows the use of parameter values from the database records. The value of the SmartName [*n*-th Input file] can for example be used as a template key for the **Save ArtPro** file template.

5.4. Borders

The **Borders** action allows to modify the size of the current file. You can choose which page box you want to modify.

Note: When you want to modify multiple page boxes, you need to set multiple 'Borders' actions in the action list.

The square buttons in the window allow to set the direction of the size change versus the current file size.

It is also possible to calculate a difference to the current size of the page box selected in the option **start from Box**. In this case the **Vertical / Horizontal Size** fields needs to be left to 0, while you enter the changes in the **Extra V/H Size** fields. These values can be positive or negative and serve to make the current box size larger or smaller, again with the direction depending on the selected square button.

For example: a file was imported from PostScript with the bleed of 3 mm contained in the file size. To change the borders to a correct Trim box (usable to start Step & Repeat or Imposition), choose **start from Trim box** and set both **Extra V/H Size** fields to -3 mm.

5.5. Certified PDF

Note: Check whether Automation Engine's (more recent) [PitStop PDF Preflight tasks](#) are a better option for you workflow.

This action allows to integrate the Certified PDF workflow functionality in these action lists. It allows to import Certified PDF, edit and export as Certified PDF with information about edits and changes to the document. Certified can be divided in three parts: Input, Output and Certified ArtPro sessions.

Certified ArtPro Sessions

Automation Engine can work in Certified Mode, by selecting **Certified PDF enabled**.

User name, Short User Name, etc. provide the information about the person or application that is editing the PDF document. This information is stored in Certified PDF each time when a new session is started.

Note: When **Certified PDF enabled** is selected, the field "User name" is mandatory.

Working in Certified mode affects all following Open/Save actions. Whatever the Certified options are, Automation Engine is now recording the history of changes made to the file and saves them on-board the ArtPro file.

Learn more about versions and sessions in the [ArtPro User Guide \(ArtPro menu > Certified ArtPro\)](#).

5.6. Clip

This action uses the front-most selected path as a cutting form to adjust the shape of the underlying paths. Any part of the underlying paths that falls outside the front-most one will be cropped. It so masks out the selected paths underneath.

The original paths are modified. For a more detailed description, see the [ArtPro User Guide](#).

5.7. Clip to Border

This action clips all the objects to the edge of the selected Border (page box).

Objects located completely out of the page box are removed. Objects located partially inside the selected page box are clipped to the page box.

Choose **All** to apply on all objects. Choose **Selections Only** to apply it to the selected objects only.

5.8. Close ArtPro File

This action closes the currently open ArtPro file and so removes it from the application's memory.



Attention: When you end your action list with a **Save ArtPro file**, it is no longer required to also add a **Close ArtPro file** action right after it (as was necessary in Nexus).

There is one case however where this is still required: when your action list re-opens a file that you just saved, you may create this sequence of actions: save - select - open. In such a case, you need to add a close action after the save action: save - close - select - open.

5.9. Create ArtPro File

This action creates a blank ArtPro file which can be used later to add pictures, insert other files, etc.

5.10. Create Layer

This action creates a new layer in the current ArtPro file. Further processing takes place in the newly created layer.

A typical example is a double burn workflow, where multiple files are imported (CMYK of first version, K of second version, K or third version, etc.). To make later editing easier, set a **Create Layer** action before each of the imports, so layering the final output file. Define the name of the layer in the Template Editor dialog.

Move objects to this layer enables to move the selection to the newly created layer.

In **Position**, choose to create the layer on top or at the bottom of the file's list of layers.

5.11. Delete

This action allows to delete **objects**, **separations** or **layers** from the current file.

- **Objects**

- **Delete objects.** Choose **All** or **Selection Only** to define what you want to delete. Deleting all objects could be used to delete the contents from a file but keep all its page boxes for another document (or picture) to be imported or placed. Learn more about selections in [Select Objects](#).
- **Delete Links.** Select this to (also) delete links in the file.

- **Separations**

- **Separations mode.** Select **Leave as is** to leave the separations untouched. Select **Remove** to define which separations to remove. Select **Only Include** to define which separations to keep. The **Delete Unused Separation** option is not influenced by this setting.
- **Technical / Varnish / Opaque.** Use these to define if such types of separations should be removed or included.
- **Separations list.** When the **Separations** mode is set to **Remove**, all separations defined in this list are deleted from the file. When the **Separations** mode is set to **Only Include**, only the here defined separations are kept and all others are removed.

- Use + and - to add or remove separations. Separation names can contain wildcards (*).
- **Delete Unused Separations.** When selected, unused separations are deleted, regardless of the choice in the above Separation drop-down list.
 - **Layers**
 - **Delete Layers.** When selected, all layers defined in the list are deleted from the file.
Use + and - to add or remove layers. Layer names can contain wildcards (*).
 - **Delete Unused Layers.** When selected, unused layers are deleted.
 - **Delete Non-Printing Layers.** When selected, non-printing layers are deleted.

Note: When the settings request to delete all layers, the first layer will still remain and a warning is shown.

5.12. Difference

This action is used to calculate the differences between two ArtPro files. This function is useful to verify that the graphics of two different language versions fit, to find out what changes a customer made to the new label, to verify that corrections on files have been executed, etc.

Note: Learn about more recent tools to compare files in the chapter [Quality Control tools](#).

File & Font Settings.... Since this action actually opens two ArtPro files, in some cases it may be necessary to specify Root Folders, Folder Mapping and Fonts folders. Learn more in the action [Open ArtPro File](#) on page 35.

Learn more in [ArtPro User Guide \(File menu > Create Differences\)](#).

5.13. Export CIP3

This action creates a CIP3 file of the current file.

A CIP3 file is used to transfer data about a specific file through the production process. Besides a preview which can be used to extract ink key settings, a CIP3 file contains information about separations, ink coverage, file dimensions, etc.

You can choose the **Oversampling** and the **Resolution** of the preview that will be included in the CIP3 file.

5.14. Export Illustrator

This action exports the current ArtPro file to an Adobe Illustrator native file (v3, 5 or 7.0).

About Transparencies and Flattening

Learn about this in the [ArtPro User Guide \(File menu > Export Illustrator\)](#).

Compatibility and Restrictions

Learn about this in the [ArtPro User Guide \(File menu > Export Illustrator\)](#).

Downsample Images

You can here choose to sample the images in the file 2, 4 or 8 times or not at all.

5.15. Export Macroflex

Learn more about this feature in the [ArtPro User Guide \(File menu > Export Macroflex\)](#).

5.16. Export Mount-0-Matic

Learn more about this feature in the [ArtPro User Guide \(File menu > Export Mount-0-Matic\)](#).

5.17. Export PDF

This action converts the active ArtPro file to a vector PDF file.

Learn more in the [ArtPro User Guide \(File menu > Export PDF\)](#).

5.18. Export Picture List

This action exports an ASCII text file with information about the name, position and size of the bounding box, the picture center and page box of placed pictures. You can use a Picture List file in the action [Import Picture List](#).

Choose whether you want to add mapped pictures in this file.

5.19. Fit Borders

This action adjusts the document size and the selected page boxes to all the objects present in that file.

Note that when **All** is selected, all page boxes will be set to the same size.

5.20. Fit to Border

This action fits all or the selected objects to the edge of the selected page box.

When **Scale Proportionally** is selected, all objects are scaled proportionally, until the bounding box of the selected object reaches the selected border, either in vertical or in horizontal direction.

When **Scale Proportionally** is not selected, the selection is scaled to fit the borders both vertically and horizontally. This is sometimes used when creating flexo sleeves.

The scale factor can be rounded off using the **Scale round to** value. For example, when set to 5, the scale is rounded down to the closest multiple of 5. When set to 0, no rounding is applied. The up-scaling can be limited using the **Limit scale to** field.

Select **Notes** to also transform notes along with the rest of the file, so that the positioning of the notes inside the file remains the same.

5.21. Fit to Paper

This action fits the file to the most appropriate paper size from a list of paper (or plate) sizes.

Click **+** to add paper sizes.

In **Box**, define which page box is to be used to determine the optimal paper size.

In **Layout**, define how to position the file versus the selected page box. **Fit To Page** also scales the file to the optimal to fit on the optimal paper size.

Rotate to fit allows to rotate the file when searching for the optimal paper size.

5.22. Fix Thin Parts

Learn about this feature in the [ArtPro User Guide \(chapter 'Prepress menu' - 'Thin parts'\)](#).

5.23. Flatten Transparencies

This action serves to flatten blend modes and overprints. It can also be found as a section on board the actions 'Export PDF' and 'Print'.

This technology replaces all blend modes by "normal" objects and still maintains the final result. The blend is calculated to whatever is underneath at that time and is adapted in a line-art object (if possible) or an image.

Learn more in the [ArtPro User Guide \(Prepress menu > Flatten transparencies, and also in the ArtPro menu > Preferences > General: Flatten\)](#).

Ignore Overprints On Placed Art: This option allows to ignore overprints on top of placed art. When this option is not selected, overprints on top of placed art (example: a Step & Repeat) results in a failed action.

5.24. Full Step and Repeat

The Full Step and Repeat action is based on ArtPro's Interactive Step And Repeat. This functionality allows you to create a repetition of one single file at a time, based on either count or fill size.

General

Learn more in the [ArtPro User Guide \(Prepress menu > Step and Repeat Interactive\)](#).

Cut Marks. When selected, cut marks are automatically generated around the repeat block, based on the used box size. When bleed is applied in between labels, double cut marks automatically appear. The cut marks are filled with registration color.

Pattern

This option is used to make nested Step and Repeat: the second row or column is shifted each time and the step distance can be decreased so the labels fit into one another.

Learn more in the [ArtPro User Guide \(Prepress menu > Step and Repeat Interactive\)](#).

Advanced

Page Box

Choose which page box needs to be used to step and repeat. By default, this is the **Trim Box**.

Place Single-Separation ArtPro File in Single Separation

This option defines how to handle repeating ArtPro files with only one separation. When this option is not selected, objects in the ArtPro file with 100% of the single separation are considered to be registration color, and thus get 100% of every ink in the ArtPro file after repetition. When this option is selected, the file is placed in one single separation.

File & Font Settings

Provides access to the root folders, folder mapping and fonts folders when the file to be stepped is an ArtPro file. Learn more in [Open ArtPro File](#).

5.25. Generate Marks

This action adds marks to the file, based on the dimensions of the chosen page box.

Learn more in the [ArtPro User Guide \(Prepress menu > Marks\)](#).

5.26. Generate Strokes

This action creates strokes around all (selected) objects.

Separation Name / Ink book

Strokes generated by this action get 100% coloring of the separation name entered here and overprint for all other separations. When the separation does not exist yet, it is created, in which case the specifications for the ink are searched in the defined Ink book.

Apply on All / Selections

Choose whether strokes should be applied on all objects or only on the [selected objects](#).

Add Stroke to Crop / Trim / Bleed Box

Allows to add a stroke on the selected page box.

Learn more in the [ArtPro User Guide \(Window Menu > Stroke\)](#).

5.27. Gravure Job Ticket

This action export files for gravure systems from [Hell Gravure](#).

When the parameters can not be retrieved from the job ticket, you can here define the **Resolution** and **Oversampling** rate. Each job ticket and thus every separation can have a different value.

For separations with a resolution above 600 ppi and without oversampling, you can select **PackBits Compression for HiRes**. Otherwise, you can **Compress the TIFF** using LZW, or leave the separation uncompressed (if you did not select **Compress TIFF**). PackBits compression results in lower compression rate, but will be calculated much faster than LZW compression, so it is the best solution for high resolution files.

When selecting **Separation Count in ArtPro File and Ticket Folder must match**, the gravure job ticket will check if the separation count in the ArtPro file matches with the ticket count in the folder.

When the size of the ArtPro file and the job ticket size don't match, this action can generate a warning or error:

- Select **Error when ArtPro job and job ticket size don't match** to get an error. Also, no file will be generated.
- Deselect **Error when ArtPro job and job ticket size don't match** to get a warning instead and still have a Gravure Job Ticket output file generated.

For more specific information, please contact [Hell Gravure](#).

5.28. Gravure Tiff

This action outputs ArtPro files directly as TIFF data for gravure printing. It creates one TIFF file per separation.

Learn more in the [ArtPro User Guide \(File menu > Export Gravure TIFF\)](#).

5.29. Grid Step and Repeat

This action allows to create a repetition of different ArtPro (or other supported) files that have the same size and that are all placed in the same folder.

In the action list, first the one-up files are defined using a [Select File](#) action, after which you use this **Grid Step and Repeat** action.


This repetition can be executed by starting it on a layout file, a comma separated text file that contains the positioning of the different files).

Learn more in the [ArtPro User Guide \(Prepress menu > Step and Repeat Grid\)](#).

5.30. Gridwarp

This action allows to calculate complex warping of documents based on a source grid and a destination grid. It can handle the warping of all object types including gradations and images. It is typically used to warp the graphics of conic cups, metal containers, etc.

Grid Warp requires two files, an ArtPro file and a grid file. This action is therefore similar to the [ArtLink](#) action where two files are first selected by the [Select File](#) action.

Click  to select a **Grid** file. When no grid file is available, the grid defined in the ArtPro file itself will be used (when available). This allows to set up grid warp in ArtPro, and let Automation Engine do the calculation.

5.31. Import Picture List

This action enables to import an ASCII text file that contains information on name, position and size of the bounding box of placed pictures.

Learn more in the [ArtPro User Guide \(File menu > Import Picture List\)](#).

5.32. Importing

This action allows to import PostScript 3 and PDF files into the native ArtPro file format.

When a file is imported, typically all objects are made editable and all paths in the PostScript or PDF document are converted to internal ArtPro paths. Text however will in some cases be converted to outlines (depending on the settings in the **Font Settings** dialog box and depending on 'Creator' of the PS or PDF file).

About Importing Screening Parameters

- Detecting Esko screens

When importing a PS/ PDF file that contains Esko screens, these screenings are recognized and automatically converted to a PostScript screening with the correct Esko dot shape.

- Different rulings / dot shape per separation

In ArtPro files, it is not possible to have screens with different rulings or dot shapes per separation, like you can in other Esko applications. When importing such a file, these settings are split up into different ArtPro screening parameters. The affected objects are then split up accordingly and put on top of each other in overprint.

About Importing Normalized PDF

Normalized PDF files can be imported just like any other PDF. Keep in mind that in Normalized PDF, image links are included as EskoLinks.

Page Settings

When opening the **Import PostScript/PDF** dialog box, the **Page** button is selected.

- **Import Page.**

When Import Page is not selected, all pages will be imported.

When Import Page is selected, only one page of the multipage document will be imported, the one here specified. You can enter a numeric value (a page number) as well as a string (a page label).

For PS files, the PS import has to jump to the right page of the file before starting import of only a selected page (**Selected Only**). However, some applications define crucial information at the beginning of the PS file on page 1. For example: Quark defines all fonts on page 1. Therefore, page 1 is also interpreted (without generating output) before importing the selected page (**First and Selected**). In some poorly constructed PS files, the information needed for the selected page is scattered over the pages in front of it. In that case, use the option **Until Selected**.

- **Ruler at top left**

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Multiple Page Offset**

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Import Separated File as Multipage**

This option should be switched off in an action list. It relates to importing a separated file, for example files using the %PLATECOLOR command to identify the separation name or older separated PostScript files.

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

Font Settings

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

Color Settings

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

Blends, Shadings and Gradations

These settings define how gradients, blends and shadings are handled when importing PS / PDF. To recognize gradations from most popular applications, we advise to select both **Recognize Gradations** and **Convert Shadings into gradations**.

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

Links

This determines how links are handled upon import. We distinguish these types of links:

- OPI links (%%ALDImage commands) in PS or PDF files.
- References to EPS images in PS documents.
- EskoLinks.

Learn more about these options in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

OPI

This section is used to reroute linked images. The rerouting can be done based on the name of the image or based on its path. There are two main reasons why rerouting may be needed:

- Low resolution images need to be replaced by (or rerouted to) high resolution images.
- Missing images need to be rerouted to their correct (current) location.

Note: Rerouting can only be done when OPI links are available for the images and the options **Use Link and Place All** or **Use Link and Import EPS** are selected.

- **Perform OPI swap**

When this option is not selected, all below settings are ignored and no rerouting takes place for OPI links.

- **Sample Extension / Hires Extension**

The fields Sample Extension and Hires Extension are used to swap the extension of the linked image. This is typically used for OPI servers which are set to add or replace an extension when they generate low resolution images from high resolution images.

Every extension entered in the Sample Extension field is cut off from the linked file before it is searched. Every extension entered in the Hires Extension field is added to the linked file before it is searched.

Some examples: when the Sample Extension field contains ".lay" and the Hires Extension field is empty and the image that is linked is "image.lay", then the system actually searches for "image", the ".lay" extension is cut off.

When the Sample Extension field contains ".lr" and the Hires Extension field contains ".hr", and the image that is linked is "image.lr", then the system actually searches for "image.hr", the ".lr" extension is cut off and the ".hr" extension is added.

It is also possible to enter multiple extensions, separated by spaces. When the extension of a file referred to in the link matches an extension entered in the Sample Extension field, the extension is cut off and, when present, it is replaced by the extension in the Hires Extension field at the same position. Extensions that only need to be cut off and not replaced should be at the end of the list.

For Example:

- Sample Ext. field: ".lr .low .lay"
- Hires Ext. field: ".hr .high"

This results in:

- ".lr" is replaced by ".hr"
- ".low" is replace by ".high"
- ".lay" is cut off.

- **Sample Folder / Hires Folder**

Similar to the fields Sample Extension and Hires Extension, these fields serve to reroute the search for an image to a folder different from the folder determined in the OPI link. In OPI swapping environments, this is typically used for OPI systems that generate low resolution images of high resolution images with a same name but in a different folder.

Note: For example: all low resolution images are stored in a folder “ForLayoutUse” and all high resolution images are stored in the folder “Originals”, both under the same subdirectory, then “ForLayoutUse” would be filled in the field **Sample Folder**, while “Originals” would be filled in the field **Hires Folder**.

When the OPI link in the file is then: `E:/CustomerX/Images/ForLayoutUse/Image`, the system will search for and use: `E:/CustomerX/Images/Originals/Image`.

It is also possible that one path is changed twice. To do this, enter multiple entries in the fields Sample Folder or Hires Folder separated by spaces. This requires that there are no spaces in names of folders that need to be replaced.

Note: For example, when the Sample Folder contains “LR Customer” and the Hires Folder contains “HR”, then the OPI path `E:/JOBNR/ImagesCustomer/LR/Image` is replaced by `E:/JOBNR/Images/HR/Image`.

In above examples, it is clear that all OPI paths were generated by a system on Windows. The above would work for cases where the workstation creating the PS or PDF file with OPI links is based on Windows and has the same mount point and drive letter for the image server as Automation Engine. As in the first example, for both Automation Engine and the Windows workstation, `E:/` is the network drive for the image server entered at the mount point where the `CustomerX` folder is the first available subfolder.

Most prepress workstations are on Mac OS. And when workstations are on Windows, they would often have a different mount point to the image server than Automation Engine. In these cases, the Folder Mapping mechanism can be used to remap the drives for the OPI paths.

Note: An example to illustrate this: Suppose the Image Server uses this structure for the images: `E:/Server/Images/...`



And suppose that the `Images` folder has been made available to the Macs as `Image Server`.

And suppose that the `Server` folder has been made available to the Automation Engine server and that this folder is mounted as a network drive under `G:/`.

When now an OPI link on the Mac is defined as: `ImageServer:image` then Automation Engine actually needs to find: `G:/Images/image` To achieve this, we would enter “`Image Server:`” in the field **Client**, while entering “`G:/Images/`” in the field **Server**. Then click **Add** to add this definition to the mapping list.

It is possible to have multiple OPI folder mappings active at the same time. The system equally automatically converts between Mac and Windows notation of subfolders (`:` and `/`).

- **Search missing images in... Root Folder**

When a linked file cannot be found at its original or rerouted location, the file will be searched for in the folder or volume that is defined as Root folder and in all its subfolders. Click  to define a Root Folder. Click  to remove it.

Note: The more subfolders the Root folder contains, the more time it will take to search through all these. Therefore, setting a complete hard disk of a huge folder tree as root folder is possible, but not advised.

Note: Be aware that the action uses the first instance of the file that it finds, which may not be what you wanted.

For example: suppose the image to be found is called "logo.TIFF" and it is not found at its location, after which the searching starts. Suppose these two customer folders contain an image with that name: RootFolder/CustomerA/Images/logo.TIFF and RootFolder/CustomerB/Images/logo.TIFF.

The system always picks the first instance of the name that it finds, in this case the logo of customer A.

- **Exclude Folders from Search**

The here defined folders will be excluded from the search. For example you here define all folders named "ForLayoutUse", which contain low resolution files.

Image Settings

- **Vectorise Bitmaps: Always / Most / Never**

When importing a PostScript or PDF file containing 1-bit images or a 1-bit image is detected via OPI, this setting defines how to handle those.

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Make Images Internal**

After importing, all TIFF and JPG pictures (placed in the PostScript or PDF file or extracted by Automation Engine) can be automatically converted into Internal Images in ArtPro, by selecting the option **Make Images Internal**. It is only used in exceptional cases. Esko advises to not use this feature. For more information on internal images, see the [ArtPro User Guide \(Contone Menu\)](#).

- **Extract included images**

If an image has to be extracted on disk during PS/PDF import (see also Links), a file is saved to disk. During Import, identical images are detected and deleted. This means that, if Automation Engine extracts images from the PS or PDF file and writes them to disk, these images are compared and if the same image is used several times, only one of them is kept. The comparison is done after writing the TIFFs and before making them internal (if necessary). This comparing can take some time but results in faster editing and smaller file sizes.

Click the **Template Editor** button to define the location and name of the extracted images of the PS or PDF file. When these fields are empty, the images are saved to the folder of the current file. We advise to use the document page number in the template, as otherwise some files can be overwritten with multipage PS import.

- **Resolution / Detect Image Resolutions**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Use Original Name**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Use Photoshop clipping path**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Recognize TIFF Channels**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

General Settings

- **Clip Text**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Merge Equal Paths**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Merge Equal Layers**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Ignore Page Commands**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Keep Strokes**

Learn more about this option in the [ArtPro User Guide \(File menu > Importing PS/PDF\)](#).

- **Autostroke CAD lines in ARD files**

When selected, CAD lines in ARD files are converted to strokes.

- **Memory**

This parameter indicates how much virtual memory is allocated for this Import action to store its variables, key words, dictionaries, etc. The proposed default should be sufficient to perform the function. However, when the error message appears mentioning `VMERROR`, then increase this value and try again.

Certified PDF

- **Importing file types other than PDF**

The 'Sessions' log indicates that no input profile was applied, The session then begins *after* the import.

- **Importing non-Certified PDF**

When importing a non-Certified PDF file and **Certified Import** is selected, the action certifies the PDF and imports the Certified PDF instead of the original PDF. Unless **Overwrite input file on re-preflight** is selected, a new certified PDF is saved (according to the settings in the Template Editor dialog) and this certified PDF is imported. This is saved as a separate session.

- **Importing Certified PDF**

- When **Re-Preflight if profile does not match** is selected:

When the input profile and the embedded profile do not match, the file is re-preflighted (when comparing two profiles, their content is checked, not just their name). When they do match, the session log indicates that both profiles are identical.

- When **Re-Preflight if profile does not match** is not selected:

The Certified PDF is imported without re-preflighting it. The task details indicate the profile it was originally certified by.

- **Re-preflighting**

When re-preflighting, the action creates a new session, preflights the file and closes the session. The file is saved according to the settings in the Template Editor dialog.

- **Overwrite input file on re-preflight**

When selected, no new PDF file is created, it then replaces the original PDF file.

- **Get all bounding boxes for preflight report**

When selected, this forces the action to obtain bounding boxes for the last preflight report. It then gets full information for every report item along with the bounding box of the area where

the error or warning occurred. The action then takes longer because this causes an additional preflight of the input file.

Cruise Controls (ArtCruise)

Cruise Controls allow you to control the status of many aspects of this Import action. This status also maps to the status of the [Apply ArtPro Action List task](#) that uses this action.

The many controls are available in seven categories. The right window shows the selected controls, each with a green, orange or red circle in front. The color determines the severity of the control: red refers to error level, orange to warning level and green to note level.

Note: When a cruise control topic results in an error, the Import action will continue until it is completed.

To change the severity level for a cruise control topic, select it and choose the wanted severity level from the drop-down list. To add a topic to the list on the right, double-click it in the left window. To remove a topic from the list, right-click it and select "Delete Control" or select it and press `Delete / Cmd - Backspace`.

The buttons **Save Controls**, **Clear Controls** and **Load Controls** respectively allow to save all the selected controls with their severity level to a file, clear the list or load controls and their severity level from a previously saved file.

When the import action has finished, the saved file contains a complete Cruise Report (similar to a preflight report). You can view this report in ArtPro and there navigate to the object that triggered that specific entry in that Cruise Report.

When **Save Report** is selected, a PDF report is saved to the location specified in the Template Editor. You can use a Select File action to select that report PDF and use an E-mail action to mail it as an attachment.

Learn more about cruise control in the [ArtPro User Guide \(File menu > Cruise Control\)](#).

5.33. Ink Coverage

This action calculates the file's ink coverage and provides it in a text file (use the Template Editor to specify its name and location).

Per separation in the file, a value is given as a percentage and as a surface coverage (for example in square mm). A total surface value is also mentioned.

The accuracy of the calculation is determined in **samples per inch**.

Note: In the case of pictures, ink coverage only works when these are mapped pictures or when placed ArtPro pictures contain a separated preview. In other cases an average value is used. On board ArtPro, this average value can be adapted in the paint style.

5.34. Ink Coverage Check

This action verifies if the amount of ink does not exceed the **Ink Limit**.

You can specify the area (page box) and resolution at which that area of the file needs to be rasterized for checking. You can exclude special separations such as opaque, die or transparent ones.

5.35. Insert ArtPro file

This action inserts an ArtPro file or picture into the file that is currently being processed.

The inserted file can either be

- a fixed file (which name is selected in the **Select ArtPro File** dialog)
- a file specified by a preceding **Select File** action).
- a file that was generated earlier in the action list. For example the result of a **Difference** action that needs to be inserted in a new ArtPro file (placed as picture).

The insertion is done on the bottom right quadrant of the current position of the ruler, determined by the position of the ruler in the **Importing** action, the position of the ruler in an opened ArtPro file or the position of the ruler after the **Move Ruler** action.

File:

Click  to specify a file or specify it in a preceding **Select File** action in the action list.

Overwrite separation angles and frequency

When inserting an ArtPro file, new separations are added. When there are identical separations, this option overwrites the angles and frequency of the current separations with those of the file that is being inserted.

Merge Layers with Same Name

When selected, the content of layers in the inserted ArtPro file is merged with content of layers in the current file that have the same name.

Ignore Screening Errors

Because Extended Screenings are stored differently in newer versions, opening a file from an old version may result in a conversion of the screening. If this conversion fails, the action fails, unless the **Ignore Screening Errors** option is selected. Because a conversion error means that the screening settings have changed, we advise to use this option only for action lists that do not have any screened output or when other screening settings are defined in the action list itself.

Place as picture using

This is used to place image files or to treat an ArtPro file as a picture (which could be done when the content of the ArtPro file is not available, for example for trapping or internal modifications).

These picture types are supported: EPS, DCS, TIFF, PSD, ArtPro, PS, PDF and TIFF/IT.

When this option is selected, choose the page box from the list. At the time of inserting, a rectangle is created of the same size as the border of the chosen page box, in which the file is placed as a picture. Use the option **Align picture on** to define on what page box the placed file should be positioned. The top left corner of the selected page box is placed in the center of the ruler.

For example: combining both options allows you to place the inserted file positioned on its trim box (top left corner of the trim box in the center of the ruler), but placing it inside it's bleed box.

Place Single-Separation ArtPro File in Single Separation

This option defines how to handle inserting ArtPro files with only one separation. If this option is not selected, objects in the ArtPro file with 100% of the single separation are considered to be registration color. Thus they get 100% of every ink in the ArtPro file after insertion. If this option is selected, the file is inserted in one single separation instead.

Recognize TIFF Channels

This option allows to recognize TIFF channels when inserting a TIFF File.

This option is also part of the Import action. Learn more in the [ArtPro User Guide \(File menu > Importing PS/PDF > Image settings\)](#).

5.36. Join

This action joins the two nearest open points of the selected paths with a straight line. This is repeated until no open points are left.

5.37. Layer Versioning

This action allows to create multiple ArtPro files from a single file, based on its layers. The **Base Layers** re-appear in every output file. **Version Layers** only appear in one specific output file. This can be used, for example, to split up a file with layers "Base graphic", "Base Text" "English" "French" "German", into 3 files: everyone having the Base layers and one with the French, one with the German and one with the English layer.

Base Layers

Click **+** or **-** to add or remove selected layers. Specify their name after double clicking the default name. You can use wildcards (*).

When you **Select by Range**, you can, for example, define that layer 1 – 3 are base layers.

Version Layers

Version Layers can be defined by a user or you can choose to use **All Non Base Layers**.

Each version layer entry will create an output version. Use the **Template Editor (Output button)** to define their names. For every version, you can define what layers need to be used.

The option **Ignore Case In Layer Names** defines whether the matching of the layer names is case sensitive or not.

Select **Fail if extra Layers found** if you want to the action to fail when layers are found other than the ones defined in the versions and base layers.

You can define if the output ArtPro file needs to be saved with a preview and if the Certified PDF information should be included.

5.38. Make Compound

This action makes one single object of all the selected paths.

Where paths are overlapping, a look-through window to the background is created.

Learn more in the [ArtPro User Guide \(Object Menu > Compound\)](#).

5.39. Make Thumbnail

This action creates a TIFF or JPEG thumbnail version of an ArtPro file.

The maximum resolution you can set is 120 ppi. You can add **Noise for Gradation**. There is no oversampling. Choose the preferred **Compression**.

5.40. Modify Layers

This action allows to change the settings of layers. Add any number of layers, specified by name. You can use wildcards (*).

When **Matching** is selected, all layers matching the entered string are affected. When it not selected, all layers *not* matching that string are affected. This for example allows to select all layers except "varnish*".

Use the check boxes to set layer(s) to (in)visible, (un)locked or (non-)printing.

When a layer name is not found, the line is ignored. However, when the **Abandon** option is selected, the rest of the action list is abandoned.

Layers with hidden, locked or non-printing checks stay like that until other **Modify Layers** actions remove the check or until the action list closes the ArtPro file.

5.41. Modify Paint

This action allows to modify the paint (in percentage of a given separation) of all or selected objects, change its overprint, or modify the start and end color of gradations.

5.42. Modify Screen

This action applies user defined screening parameters to all or selected objects.

Use a Screening set allows to select a screening set as saved in ArtPro, based on the name in the **Screen** field. The file can be selected using the **Browse** button. Learn more in the [ArtPro User Guide](#).

These screening parameters are PostScript based. Use the **Dot Code** field to enter a PostScript string to set your own personalized screening.

5.43. Modify Separations

This action allows to change settings for separations.

Rename C/U/CV/ CVC/CVU/CVP to

This allows to rename different CVC flavours to having a same extension.

Delete CMYK Flags

CMYK flags indicate what separations should be handled as CMYK (for placing pictures, importing PS files, etc.) even if they are replaced by spot colors. Select this to delete them.

Separation list

Click **+** or **-** to add or remove specific separations and a specific action to apply on those. You can use wildcards, for example: "Die*".

Rename

Enter the original and the **Set to** (target) name and select the option **Rename**.



Attention: Renaming is not the same as remapping (see below).

Create

Enter a name and select the option **Create**.

Set to

- **Remapping**

To remap a separation, enter its **Name** and the name of the target separation in **Set to** (and make sure you do not select 'rename'). When the target separation does not exist, the action will fail.

- **Convert to CMYK**

To convert a separation to CMYK, enter its **Name** and enter **CMYK** in **Set to**.

- **0 / Trans**

A separation is set to knockout when you enter "0" in **Set to**. All objects containing "trans" for that separation are then changed to "0".

When you enter "trans" in **Set to**, the separation is set to overprint, changing all "0" values to "trans". The **Apply on Selections Only** can be used to set the desired separation to 0% or **Trans** only for the selected objects.

- **Opaque / Technical / Varnish**

Sets the attribute of that separation to either opaque, technical or varnish (transparent).

This attribute is used in JDF export and in the action [Vector Trapping](#).

5.44. Move Ruler

The ruler position of a file depends on how the ruler position was set when importing or opening that file.

The **Move Ruler** action moves the ruler within the current file to a new position based on an offset versus the current position or versus a chosen page box.

This is very useful when pictures or other files need to be added to the current file at an offset.

5.45. Nested Step and Repeat

This action is based on ArtPro's module PowerStepper. It is used to step and repeat based on a multi-step CAD file: MFG (ArtiosCAD), CFF2 or a DDES file. These files decide the position of the stations, their rotation and any possible nesting. Learn more in the [ArtPro User Guide \(Prepress menu > Step and Repeat Nested\)](#).

The action typically needs two files as input: the CAD file and the ArtPro file. The CAD file can also be specified within this action.

Nested Layout File Format

Instead of selecting an ArtPro file, you can also select a 'layout' file: a file describing the names of the station files and where to place them.

Layout files are tab-separated text files with a small header. An example:

```
ArtPro Nested S&R Layout V1.0
```

```
JokerBoxBerries.aw 1-3 5
```

```
JokerGreen3.aw 4 6-7
```

The first line identifies the file as a 'layout' file that can be used for Nested S&R. It is followed by an empty line. Each next line contains the file name of a station and the station numbers at which it should be placed. In above example, the file 'JokerBoxBerries.aw' is placed at station numbers 1 through 3 and 5 and the file 'JokerGreen3.aw' is placed at station numbers 4 and 6 through 7.

When using a layout file, you can provide the station files using a **Select File** action before this action and then deselect the option **Filenames in Layout File must match**.

5.46. Open ArtPro File

When this action is the first one in an action list, it opens the input file of the task. When this action is preceded by a **Select File** action, it opens the selected one.

An ArtPro file can contain, next to its line art content, also a CT portion (internal images). Alternatively, an ArtPro file can contain linked images (not embedded).

This action offers functionality related to used images, used fonts and color management.

Root Folders

When images were used that reside on a Mac workstation or on a server which can not be made accessible to Automation Engine, the Root Folders functionality can be used to define where these images are.

An example: a root folder was defined as: `E:/AE/AP_files`. When an ArtPro file is opened that contains linked images which were previously stored on a local Mac, they first need to be copied to this folder or a subfolder of this folder.

When you define multiple root folders, the action then searches through all these folders and their subfolders until the image is located. You can drag and drop lines to re-arrange their order.

Note: When you defined one, click on the folder icon on the right to open the Template Editor and add SmartNames to your definition.



Attention: The folders that the Automation Engine server needs to access do not have be (part of) Containers. However, they have to be accessible for Automation Engine's system user (which is by default "BGSystem").

Folder Mapping

Folder Mapping can be used when images reside on a server that can be mounted by Automation Engine (also see above note on AE's system user).

An example: In an ArtPro file, the path of an externally linked image is defined as:
`Intel_Mac:images:image1`.

On the Automation Engine server, this file server will be mounted at a different mount point with a different name. Typically the image server would be mounted to a drive letter, for example `G:`.

To allow Automation Engine to automatically locate images on the Image Server, you can use **Folder Mapping** to substitute a portion of the path name used in the ArtPro file with another name. In our example, `Intel_Mac` would be substituted with `G:/`, which would instruct Automation Engine to find above image as `G:/images/image1`.

To define a **Folder Mapping**, enter the respective **On Client** field (how the local Mac sees the file server) and its respective **On Server** field (how Automation Engine sees the file server) and click **Add**.

Fonts Folders...

When the ArtPro file contains live text, you can use **Fonts Folders** to allow Automation Engine to extract the outline information from the Mac fonts for trapping, printing, exporting, ArtLink functionality, etc. Please note this is only valid for Type 1 fonts and TrueType fonts.

Although the ArtPro file format contains all the outline information for its live text, the font is still important for special functionality like ArtLink, Regmarks, etc. Click on the folder icon next to a font folder to open the Template Editor and add SmartNames to your path.

Color Management

When enabling color management, you can select a color management settings file that was previously saved by ArtPro. This file contains all ICC profiles and settings to determine how color has to be treated throughout the rest of the action list, including ICC profiles for proofing, printing, etc.

When the option **Stop when working space profiles are different** is selected, the action stops when the ArtPro file itself contains a working space different from the one defined in the Color settings file.

Map Pictures

When selected, images are converted to mapped pictures when possible. Learn more in the [ArtPro User Guide \(Window menu > Paint Style > Mapped Picture\)](#).

Ignore Screening Errors

Learn more in [Insert ArtPro File](#).

Make image names SMB Compatible

Select this option to replace all a hash tags (#) in names of linked images by an underscore (_). This will make them compatible with a Windows file server. When you do this, the ArtPro file should be saved to make its image links point to the renamed images.

5.47. OPI Generation

This action generates low resolution images from high resolution images. This is typical in a page imposition workflow.

When a file is printed with **Omit Images**, the **Importing** action can then recognize the OPI comments in the PostScript or PDF file and reroute back to the high resolution images.

5.48. Optimizing

This action deletes (parts of) the contours that are not needed to produce correct print output. The function is used to clean or flatten a document, removing all the superfluous and unnecessary paths. For each path the action checks all the contours on top of it and decides which objects should be cut, united or left untouched to maintain the same structure in the file.

Optimizing is especially useful to eliminate unnecessary contours from an imported PostScript file, to perform faster trapping, faster printing, etc.



Attention: Keep in mind that objects are typically less editable after optimization. We therefore only recommend to use this action for complicated graphics.

5.49. PowerTrapper

The **PowerTrapper** action offers these main options:

1. Choose your trapping settings in the tabs **Distance & Direction**, **Color & Shape** and **Processing**.
2. Optionally, click **Add Rule** to add trapping rules.
3. **Save** your trapping settings as a **Trap Preset** to easily reuse them on another file.

Learn more in the [ArtPro User Guide \(Prepress menu > PowerTrapper\)](#).

5.50. Print to File

This action converts the ArtPro native file format to a composite or separated EPS file, depending on the **Device Type** that has been chosen.

In an action list, the **Print to File** action can be simply followed by a **Close File** action, or the Automation Engine task that launches this action can continue with an FTP or a Copy task that then sends the output file to a device. .

General Concepts

Learn more in the [ArtPro User Guide \(File menu > Print : General Settings > General Concepts\)](#).

Device Type

Learn more in the [ArtPro User Guide \(File menu > Print : Device Types\)](#).

Other Settings and 'More Settings'

Learn more about all other options in the [ArtPro User Guide \(File menu > Print : General Settings - Settings\)](#).

Note: Some paragraphs in the ArtPro User Guide refer to options in ArtPro Action Lists as 'Nexus' options.

5.51. PrintCheck

This action creates an image of the complete file. This image serves print control systems.

You can choose the resolution (no maximum) and set a noise level for gradations. You can choose the format, compression and the page box to be converted.

5.52. Regmarks

The action allows to select a 'marks' file you made earlier and add these marks to the current file. This marks file is a blank ArtPro file containing only marks. Its job size is not relevant. The marks will automatically adapt to the job size of the current file and the inks will also be adapted.

You can select a fixed file by using the **Select File** button in this action, or you can select a variable marks file by using the **Select File** action before this one.

Learn more about building a marks file in the [ArtPro User Guide \(File menu > Import marks\)](#).

Choose on what page **Box** the marks need to be applied or choose to use the bounding box of prior made selections.

When **Merge Layers** is selected, layers in the marks file and in the current file with the same name will be merged together.

5.53. Reorder Layers

This action allows to change the order of layers.

Layers with a name that matches one of the entries are placed in the specified order. Other layers are placed underneath in their original order.

Use the **+** and **-** buttons to add or remove layer names. A name can contain a wildcard (*).

When two different layers match the same entry, their relative order depends on the original order.

When a layer name matches different entries, the best match is chosen. For example: a layer name "Trap layer" matches more with "Trap*" than with "*".

Select **Ignore Case** when the matching should ignore any case difference in the names.

5.54. Reorder Separations

This action allows to change the order of the separations in the file's **Separations** list.

Separations with a name that matches one of the entries are placed in that specified order. Others are placed underneath, in their original order.

Use the **+** and **-** buttons to enter names. A name can contain a wildcard (*).

When a separation matches two different entries, it is placed at the topmost position. When two different separations match the same entry, their relative order depends on the original order.

Reverse order is useful for some special printing processes like dry offset. When selected, no other re-ordering can be done.

5.55. Rich Black

This action allows to add extra color to black objects (all or selected). Typically, the black is enriched with cyan.

Density is the value of the chosen ink that you will add. **Min. density** decides which black objects you want to enrich. For example: You can add 50% cyan to black objects with a minimum density of 90%.

Select **Pure ink only** to only enrich objects that only contained black (till then).

5.56. Save ArtPro File

This action saves the currently processed file as an ArtPro file.

Output

Use the Template Editor to set a (smart) location and name.

Compatibility

Choose the file's compatibility. Saving as an older file format may trigger a conversion of object types that did not exist yet in that older format. For example: a v9.0 file saved as v7.5 will not contain blend modes ; that file will be *flattened* before saving.

Include Preview

Select **With Preview** to get a (separated) preview included in the ArtPro file. This preview is useful when making Step & Repeating this file in ArtPro. The default **Resolution** is 72 ppi.

Save Hidden Layers

When this option is not selected, layers with a "hidden" state will not be included in the saved file.

Profiles

Embed entire profile in ArtPro files allows to include the used **Color Management** profile in the ArtPro file. This is useful when moving files to another system. The option **Don't embed profiles for imported pictures with embedded profiles** disables embedding profiles that are already embedded in the pictures.

Flattener Options

When saving the file as v7.5 or older, the file will be flattened with the settings in **Flattening Options**. When the flattener generates images, their location and name is defined by the **Template Editor**. Learn more in the [ArtPro User Guide \(in Prepress menu > Flatten transparencies, and also in ArtPro menu > Preferences > General: Flatten\)](#).

Certified PDF sessions information

Select **Include Certified PDF information** to include Certified PDF information in the ArtPro file. This also happens when saving as ArtPro 7.5 file, but that information is ignored when opening that ArtPro 7.5 file.

Select **Save Certified PDF Information** to save the Certified PDF information in a separate XML file. Use the **Template Editor** to define its name and location.

5.57. Select File

This action is used in an action list to define a selection of file(s) which should be used as input for the next action in the list.

Select Options

Select Options show the list of criteria that you created. Use **+** and **-** to add or remove criteria. The name automatically summarizes its main settings (as shown below in **Select Item Options**).

From Inputs / From Actions

- **From Inputs:** the files you select are searched from the inputs files of the ArtPro Action List task that this action is part of.
- **From Actions:** the files you select are searched from the output files of all or a specified action in this action list. You can specify that action by typing in the **Label** that you gave it.

Select By Name

- **whose name**

The system selects a file based on its name. Choose a selection parameter from the list. You can also use **Regular Expressions** in this input field. The **Template Editor** allows to specify smart names.

- **Position From... To...** 0 To 500

This field work in combination with the option **Whose name contains....** Using the position fields, you can specify what character positions of the file name will be checked. For example: With **Whose name contains** as "APR" from position 2 to 4, files which have APR on character position 2 to 4 are searched and selected. Mind that the first character is seen as on position 0, so in this case the 3rd, 4th and 5th characters are searched.

Select By Documenttype

- File Type
An ArtPro, PDF or PS file that also matches the other criteria.
- Number of Separations
Specify the **Number of Separations** that the selected file should have.
- Number of Pages
Specify the **Number of Pages** that the selected file should have.
- Page Box
Specify a size of a chosen page box that the selected file should have.
- Orientation
Specify the page orientation that the selected page box of the selected file should have.

5.58. Select Objects

This action allows to select and deselect objects.

First

Choose what should be done prior to the selection:

- **Do nothing** means leaving the current selection as is. This is useful when combining multiple **Select Objects** actions.
- **Invert Selections** inverts the current selection prior to applying the one in this (new) select action.
- **Select All** or **Deselect All** allows to start from scratch with either everything selected or everything deselected.

(De-)Selecting

The radio buttons at the bottom define whether the criteria you enabled means that you want to select or deselect these objects.

- Using **Within Selections** in combination with **Select** will search for objects that match the defined criteria inside the current selection. Objects that do not match these criteria are deselected.
- Using **Within Selections** in combination with **Deselect** will search for objects inside the selection that match the defined criteria. Objects that do not match these criteria remain selected.

Use **Fail if Number of Selections...** to have the action fail if the number of selections is higher than, lower than or equal to the entered value. Use this for example to have the action fail if any selected text is smaller than 7 pt..

Paint Style

- **Flat Paints.** Allows to (de)select **Flat Paints**. Specify which ones in the option **Matching** (see below).
- **Gradients.** Allows to (de)select **Linear, Circular** or **Multistep gradients**. This can be used in combination with the **Matching** option (see below).
- **Matching.** The **Matching** panel allows to specify objects with a **Flat Paint** or a **Gradient** within the defined percentage range. Separation names can contain wildcards. Enable **Overprint** to specify objects that are transparent for that specific separation.
- **Pictures.** Allows to (de)select placed, mapped or pattern pictures.
- **Images Type.** (De)selects all placed files of the chosen file type.
- **Images Color.** (De)selects all placed files of the chosen color type

Transparency

- **Blend Mode.** (De)selects all objects with the specified **Blend Mode**. Choose **All** to (de)select all objects containing any blend mode.
- **Opacity.** (De)selects all objects with the specified opacity.
- **Opacity Masks.** (De)selects all objects containing a soft mask.
- **Objects / Groups with Transparency.** (De)selects all objects or groups containing any transparency.
- **Overprint.** (De)selects all objects containing overprint.

Objects

- **Text.** (De)selects all text with the specified point size. **Vectorized Text** also (de)selects text that was converted to outlines during import or by using the action **Text to paths**.
- **Font Name.** (De)selects all text items or text blocks containing the specified font. A text item containing more than one font, is selected completely if the specified font is used.
- **Screen Name.** (De)selects all items using the specified screen settings.
- **Object Name.** (De)selects objects with that name. For example a layer from an imported MFG file that was imported as a sub-layer in ArtPro.
- **Strokes.** (De)selects the strokes as specified.
- **Traps.** (De)selects all traps created by automatic trapping. A trap that was edited is no longer recognized as a trap and thus not (de)selected.
- **Barcodes.** (De)selects all barcodes containing barcode information. Mind that some transformations make barcodes invalid (un-proportional scaling for example). A warning is given when transforming and when the barcode is no longer selected with this function.
- **Thin Part Fixes.** (De)selects the thin part fixes done in ArtPro.

- **Slices.** (De)selects all slices (used for rid Warping).
- **Open Paths.** (De)selects all paths that are open.
- **Blends.** (De)selects all blends.
- **Link.** (De)selects all objects containing a link for [ArtLink](#).
- **Objects Inside / Outside bounding box.** (De)selects objects inside or outside the specified pagebox.
- **Layers.** (De)selects objects that are in a layer that (does not) match the entered name. The layer name can contain wildcards.

5.59. Separate

This action separates the file into its separations and places them under and next to each other in a single ArtPro file.

You can define the **V / H Gap** to be left in between the separations. The number of **Columns** defines how many separations you want to place next to each other.

Note: When you want to print this kind of “separated” file, make sure you select the option **All Separated Pages on Same Film** (in the **More Settings** of the **Print to File** action).

5.60. Set Station Numbers

This action allows to set station numbers onto an step and repeat file. It is based on the **Station Number** part of the [Nested Step And Repeat](#) action.

Use the square buttons to define the origin for the **Offset**. By default, the station numbers are centered on the bounding box of a station.

Use the **Template Editor** to define a smart text for the station numbers.

Learn more about station numbers in the [ArtPro User Guide \(Prepress menu > Step and Repeat nested > Station Numbers\)](#).

5.61. Spread

This action allows to apply a spread on all or selected objects. It is based on the **Interactive Trapping** function in ArtPro. Learn more in the [ArtPro User Guide \(Prepress menu > Interactive Trapping\)](#).

When a **Spread** is applied:

1. The paint style of the original object is changed to 0% for every separation.
2. A slightly larger **Spread** object is generated.
3. The **Spread** object gets the paint style of the original object, but is changed to “trans” for every separation that had a 0% value.
4. If the original object had a blend mode, the original and spread object are grouped and the blend mode is applied on the group.

5.62. Tabular Step and Repeat

This action allows step and repeat in a tabular way. Learn more in the [ArtPro User Guide \(Prepress menu > Step and Repeat Tabular\)](#).

This action can step ArtPro, TIFF, EPS, DCS and PDF files. These can be an input file of the action list itself or can be picked up by a prior [Select File](#) action.

When an ArtPro file and a **marks** file are bundled in a folder, the **Select File** action would then select the ArtPro file (or any other of the supported formats), and be followed by a **Select File** action to select the **marks** (ArtPro) file that will be used to generate the register marks.

In **Use Box**, you define which page box needs to be used as reference for the step distance.

Settings

- **Count.** H and V amount of instances of the stepped file.
- **Begin Pos.** H and V offset to the ruler position for the first instance of the stepped file.
- **Step.** When left on (0,0), the step distance is equal to the (below) selected page box of the stepped file.
- **Angle Setting.** Rotation of the stepped file.
- **Cut Marks.** Adds **Cut Marks** to any of the stepped instances.
- **Keep Bleeds.** Keeps the bleed of the stepped file in the step and repeat file. Bleeds are always kept outside of the step and repeat job size. Note that bleeds overlap when the step distance is set to the Trim box.
- **Place Single-Separation ArtPro File in Single Separation.** When this option is not selected, objects in this AP file with 100% of the single separation are considered to be registration color and thus get 100% of every ink in the repetition. When this option is selected, the file is inserted in one single separation instead.
- **File & Font Settings.** This gives access to the root folders, folder mapping and fonts folders when the file to be stepped is an ArtPro file. Learn more in the [Open ArtPro File](#) action.
 - **Color Management Settings.** When you wish to enable color management for the step and repeat file, select a color management settings file (that was previously saved in ArtPro). This file contains all ICC profiles and settings to determine how color has to be treated throughout the rest of the action list (example: proofing of the step and repeat document), including ICC profiles for proofing, printing, etc.

5.63. Text to Paths

This action automatically converts all the (selected) text to outlines. This is useful when exporting ArtPro files to environments where the fonts are not available.

Note that when importing PS or PDF files, text could already have been converted to outlines (when the option **Convert to Real Text** was not set during **Importing**).

5.64. Transform

This action applies a transformation to all or selected objects in the file. You can move (**Distance**), **Scale**, **Rotate** or **Shear** objects.

Options

- **Repeat.** Use this to execute the transformation multiple times.
- **Copy.** This copies the contents of the file before executing the transformation. If at the same time repetition is set, there will be multiple copies.
- **Apply on:**
 - **Path, Paint, Soft Mask:** These options determine if the objects and their contents are transformed, or only the contents without the objects, or the objects without the contents. For example if a clipping path with an image would be transformed and Path is not selected, then only the image itself is transformed and not the clip path.
 - **Notes.** Transforms the notes along with the rest of the file, so that the positioning of the notes inside the file remains the same.
- **Scale Strokes.** When not selected, the stroke width does not change when scaling. When selected, the stroke remains a stroke and its width is changed for the same percentage as the parent path was scaled. For example, scaling an object with a 3 mm stroke to 150%, results in an object with a 4.5 mm stroke. When scaling is un-proportional, the stroke width is scaled proportionally, by the geometric mean of vertical and horizontal scaling (= the square root of the product of vertical and horizontal scaling).
- **Center Paint** (only available if the **Apply on: Paint** and **Soft Mask** is off). When selected, it transforms the path only, but then repositions the paint based on the center point of the path: the point in the paint that was on the center point of the original path is placed on the center point of the transformed path. For example, this can be used when scaling or distorting step and repeat files, without scaling the contents of the paths, but still retaining their position inside the paths.
- **Use Ruler.** When selected, the center of the ruler is used as the center for rotation and scaling. When not selected, the center of the selected objects is used.

5.65. Trim & Bleed

This action calculates a trim and/or bleed for all objects in the file. It is mostly used when step and repeating. Learn more in the [ArtPro User Guide \(Prepress menu > Step and Repeat Nested\)](#).

5.66. Unite

This action creates a union of all or selected paths. Typically, you first use the action [Select Objects](#) followed by this one.

Learn more in the [ArtPro User Guide \(Objects menu > Path > Unite\)](#).

5.67. Update ArtLink

The **Update ArtLink** action is comparable to the **ArtLink** action. While the **ArtLink** action creates as many versions as there are records in the database file, the **Update ArtLink** action does not create any files or versions. It modifies an object on-board an ArtPro file by updating its ArtLink that was already put there earlier. This action opens the ArtPro file and so re-reads information from the specified database record(s) (defined in the **Record Number** field) or from an the XML file.

Learn about most of its settings on the page of the action [ArtLink](#) on page 13 .

Additional Key Values

The **Additional Key Values** allow to define values for specific keys. These keys are defined from the action list rather than coming from the database file. For example: this can be useful to set the name of the operator. You can also use the **Template Editor** and even insert SmartNames.

5.68. Vector Trapping

This action offers an alternative (older) version of trapping technology than the [PowerTrapper](#).

For a full description of its different settings, we refer to the [ArtPro User Guide \(Prepress menu > Automatic Trapping\)](#).

Note: In the ArtPro user guide, the trapping modes **Packaging** and **Commercial** are often referred to as 'version 1' and 'version 2'.

5.69. Vectorize File

This action converts images into line-art.

Learn more in the [ArtPro User Guide \(File menu > Import - Vectorize...\)](#).

5.70. White Underprint

This action allows to create a white background underneath the selected objects. This white background is often needed when printing on transparent or metal material.

Learn more in the [ArtPro User Guide \(Prepress menu > White Underprint\)](#).