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What's new?
PitStop 2020

Welcome to the What's new document for PitStop Pro and PitStop Server 2020

This document gives an overview and explanation of the new features and improvements contained within this new version.

There are many ways that you can get more information and training about PitStop.

If you wish to register for our monthly PitStop training workshops you can do so on the following link.
https://www.enfocus.com/en/events/monthly-pitstop-pro-workshops

If you would like to join the Official PitStop user group on Linkedin you can do so here.
https://www.linkedin.com/groups/6801080/

If you would like to access the PitStop sessions on our Enfocus E-Learning platform you can do so here: https://www.enfocus.com/en/learn

We hope you find the new functionality useful and PitStop continues to be an essential part of your daily PDF production workflow.

Regards

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Changes to System Requirements in PitStop 2020.
As mentioned in the release notes of PitStop 2019 (April 2019), PitStop 2020 no longer officially supports Windows 7. On January 14, 2020, Microsoft stopped supporting Windows 7. Mainstream supported ended in 2015, but Windows 7 has carried on receiving security updates thanks to extended support.
Therefore, PitStop 2020 no longer supports Windows 7.

In January 14, 2020, Microsoft also ended all support for Windows Server 2008 R2, therefore PitStop Server 2020 does not officially support that operating system anymore.

Also, with PitStop 2020 release, with the exception of PitStop Pro on Windows, we will drop 32-bit support (Macintosh PitStop Pro is already only 64-bit.)

Finally, PitStop 2020 no longer officially supports Acrobat XI. Adobe officially ended support for this version on October 15, 2017 and we've managed to keep PitStop Pro supporting it for some time, but for technical reasons we cannot do this any longer.

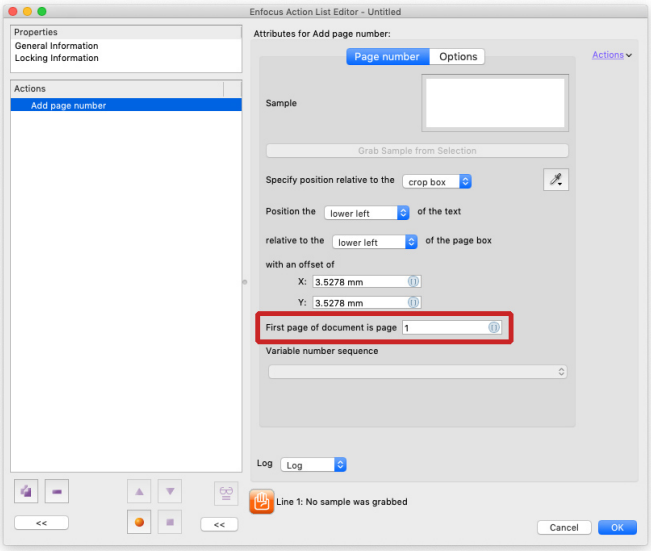
Contents

Add Page Numbers Action 4
Extend Rasterize Selection – Separate Images 4
Normalize Pantone Names Action – Add missing space 5
Select by PDF Version – PDF 2.0 5
Change PDF Version – PDF 2.0 6
Check the PDF version – PDF 2.0/Extension levels 6
Check a PDF by its Acrobat Compatibility 6
Preflight Profile – Check PDF Version – PDF 2.0 7
Add Copied Graphic – Now works with Variables 7
Add Pages – Now works with Variables 8
Page Box Actions - Grab Option 9
New Action – Flip Selection 9
New Action – Overlay PDF 9
New Action – Select Areas of Dense Graphics 11
New Action – Check Page Bleed 12
New Action – Check if visual content exists 13
New Action – Trace (Raster to Vector) 15
New Action – Select Process Colorants 16
New Action – Select Tiling Patterns 16
New Action – Check for Tiling Patterns 17
New Action – Search and Replace Text 17
New Action – Check for Corrupt Images 18
New Action – Check for Number of Images on a Page 18
New Action – Check for Zero-Width Fill 19
PitStop Inspector – Color Swatches 20
Inspector – Offset Shapes 20

Inspector – Stroke to Fill 21
Inspector – Crop to Clip 21
Inspector – Trace 22
Add Barcode Action – Now supports Document Variables 23
Improved Action Lists – Pantone+ v4 Libraries added (294 new colors) 24
Pantone+ v4 colors added to the Color Picker 26
Updated Transparency Flattener 26
Additional changes 27
New Action Lists and Preflight Profiles 27
Bug Fixes included in this version 28

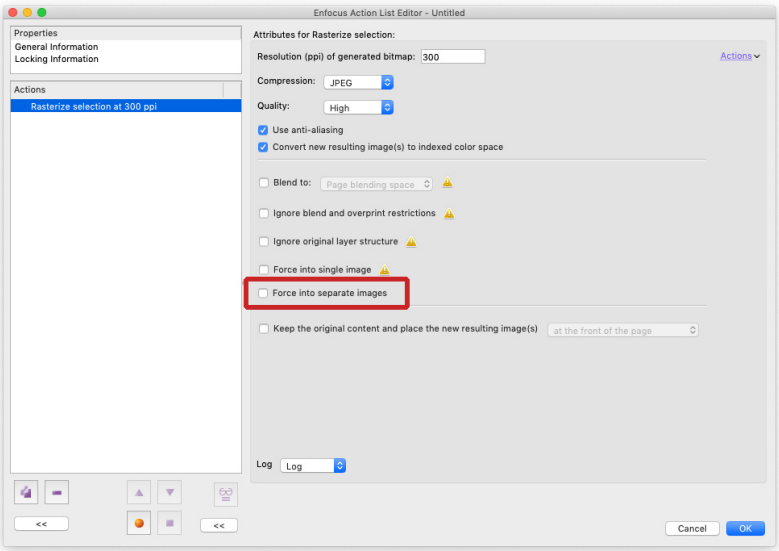
Add Page Numbers Action

A small improvement to the Add Pages Action. It is now possible to define the first page by a variable instead of a fixed value.



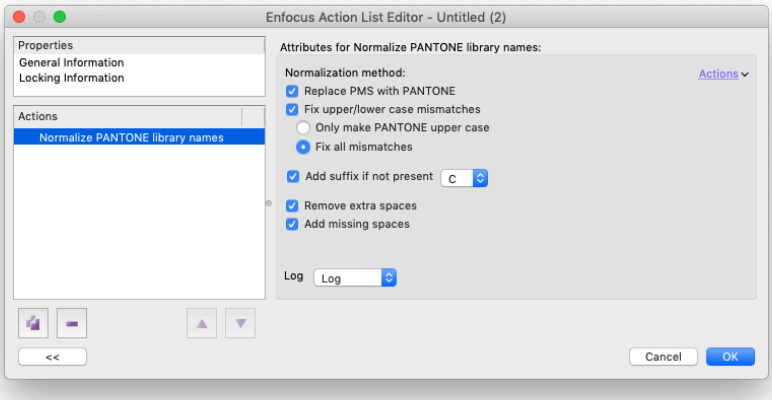
Extend Rasterize Selection – Separate Images

The Rasterize Selection Action that we introduced in PitStop 2019 now has an additional option in 2020. It is now possible to create a separate image for each individual object being rasterized.



Normalize Pantone Names Action – Add missing spaces

This new option ensures that any Pantone Spot color names have a space between the Pantone color number and its suffix, and also between ‘PANTONE’ and the number. For instance ‘PANTONE 286C’, would be adjusted to ‘PANTONE 286 C’



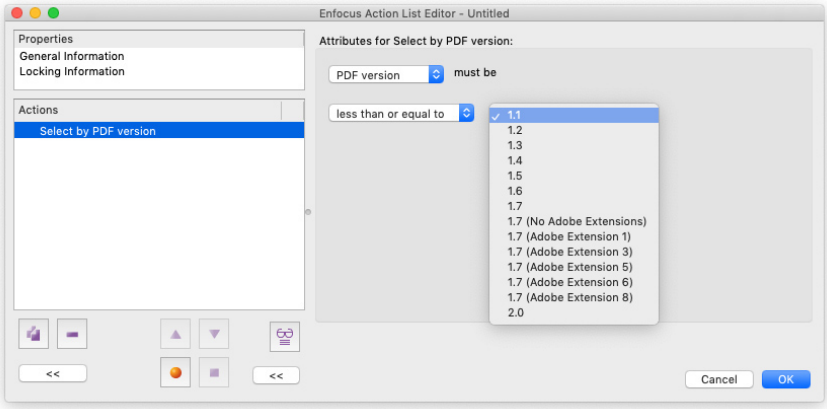
Select by PDF Version – PDF 2.0

As you maybe aware, a new PDF specification that has been released by ISO (ISO 32000-2). PDF 2.0.

Although this version is not yet available as an output option within any graphic arts applications that we are aware of, it will become available once the new PDF/X-6 specification (which is based on PDF 2.0) is released.

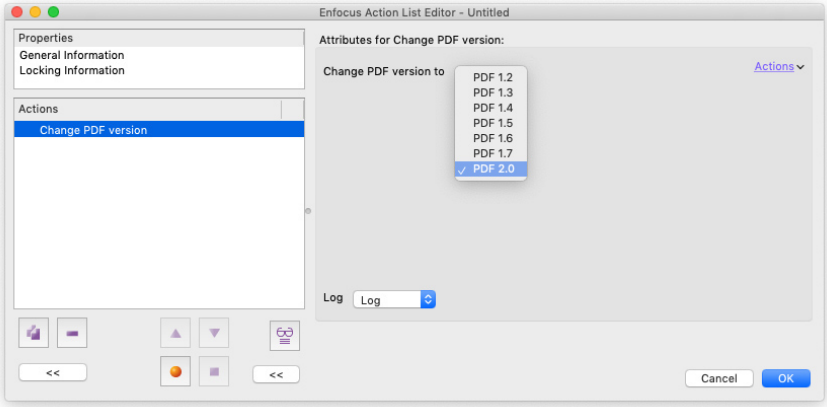
Within PitStop 2020 we include our first checks and fixes related to PDF 2.0 support. This Action allows the selection of files based on their PDF version.

This Action has also been extended to support Adobe PDF Extension levels.



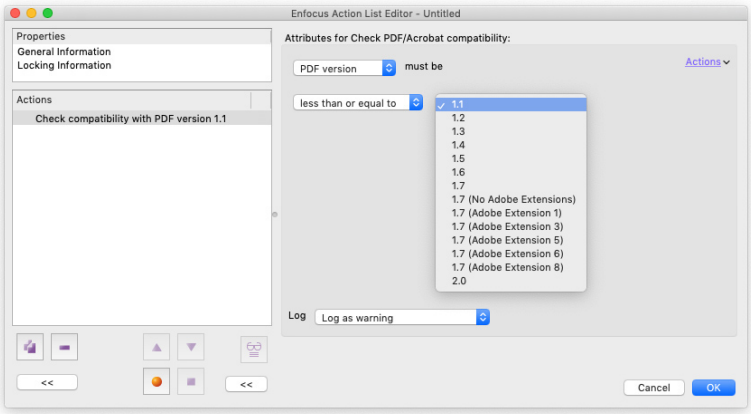
Change PDF Version – PDF 2.0

This improved Action allows the PDF version to be changed in the header file of the PDF, and now supports PDF 2.0. Please be aware this Action only changes this value, and does not change any aspects of the PDF itself.



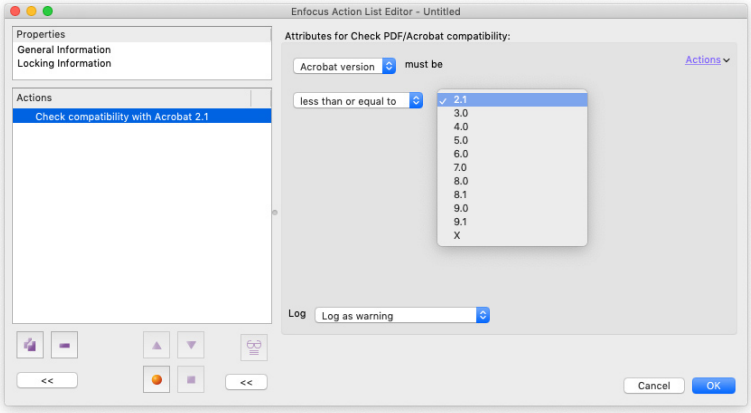
Check the PDF version – PDF 2.0/Extension levels

This existing check has also been modified to include the new PDF 2.0 version, allowing you to ensure that any files you receive are not PDF 2.0 based. Additionally this check now also allows you to check for Adobe PDF extension levels.



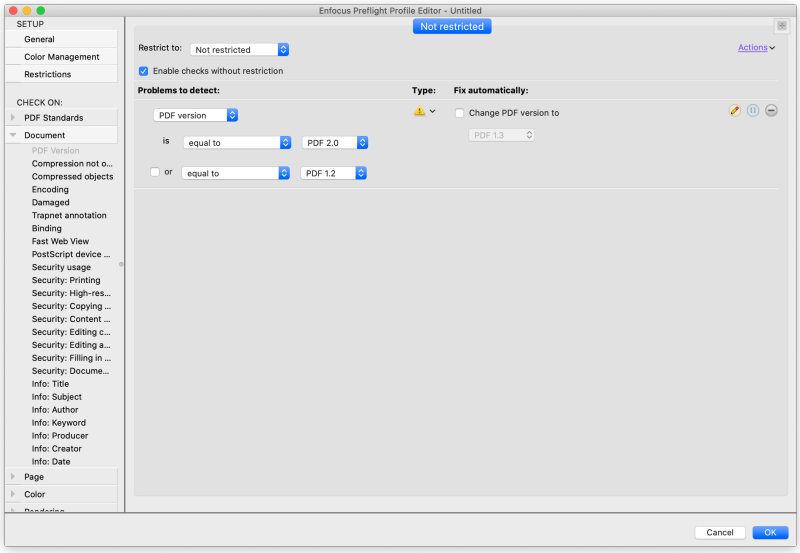
Check a PDF by its Acrobat Compatibility

The functionality within a PDF file dictates the compatibility the PDF has with different versions of Adobe Acrobat. This check has been extended to work with the latest Acrobat versions.



Preflight Profile – Check PDF Version – PDF 2.0

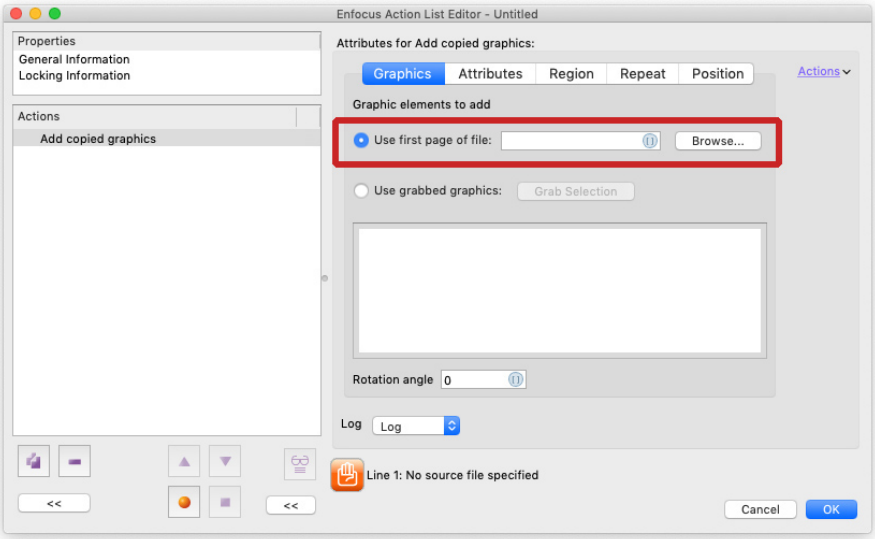
The PDF version check in the Preflight Profile has been extended to include PDF 2.0.



Add Copied Graphic – Now works with Variables

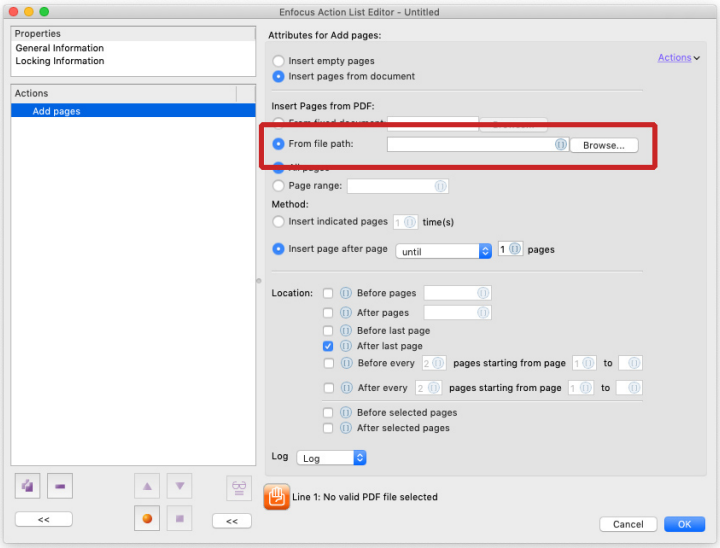
Add Copied Graphic is a very powerful and much used Action. It is used to add content or page furniture to a PDF file. One limitation of the Action was that it required the needed graphic to be embedded within the Action List, making it inflexible and meaning you needed an Action List for every required graphic.

This improvement to the Action means you can now work with variable external assets that can be called via a file path, the only stipulation is that the graphic must be a PDF file, and page one of the document is added as the graphic.



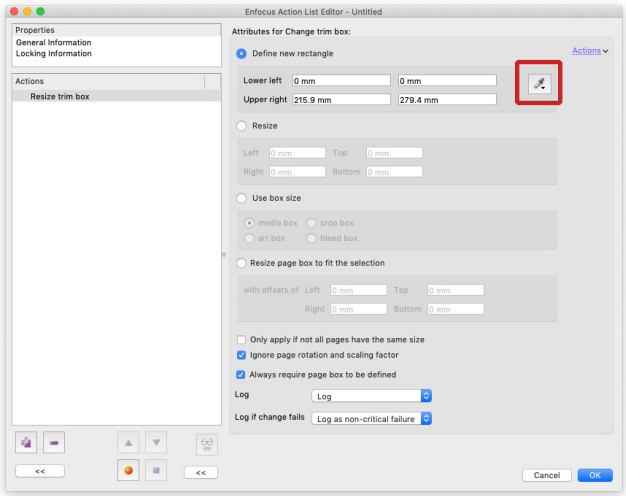
Add Pages – Now works with Variables

The PitStop Action to insert pages also now has an option to work with variables. Previously the pages to be added had to be saved within the Action. Now they can be added at runtime from a file path. The Action already had many options that could be driven by variables, so this last addition makes this Action much more flexible and powerful.



Page Box Actions - Grab Option

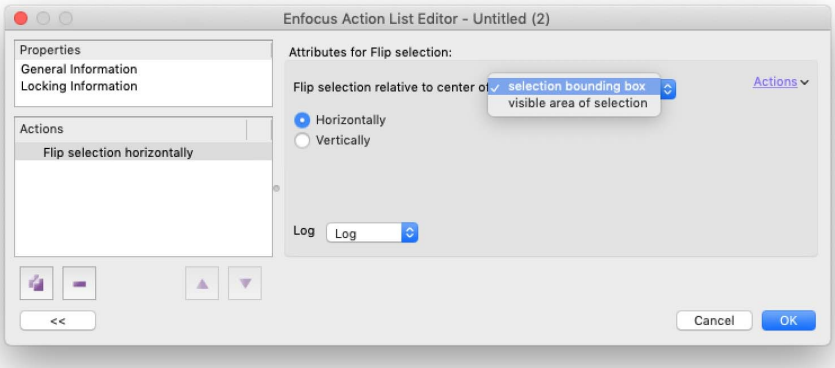
The Actions to change the PDF Page Boxes have a new option. It's now possible to 'grab' the coordinates of the page box from a selection drawn in the PDF file.



New Action – Flip Selection

PitStop has an option to flip pages for a long time, but lacked the ability to flip a selection.

This has now been added in this version with a dedicated Action enabling a selection to be flipped. This can be configured to work with the visible area of the selection or the bounding box.

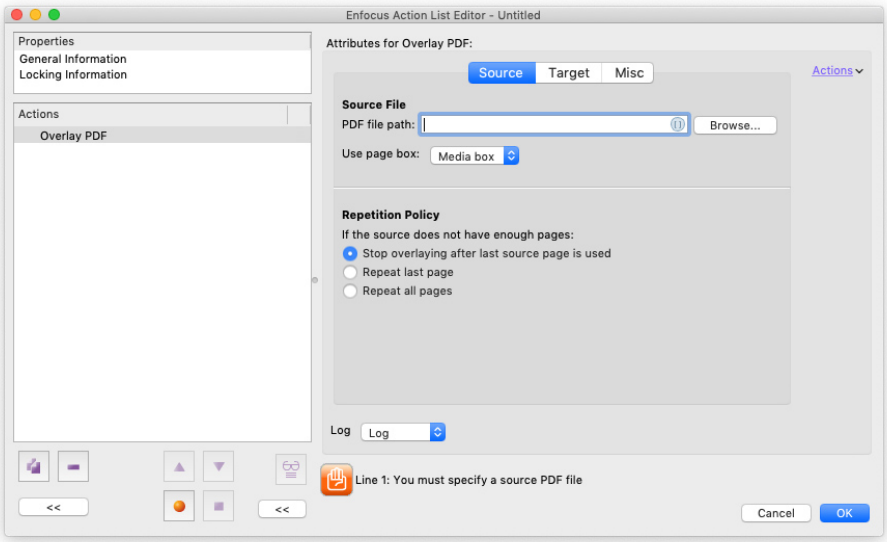


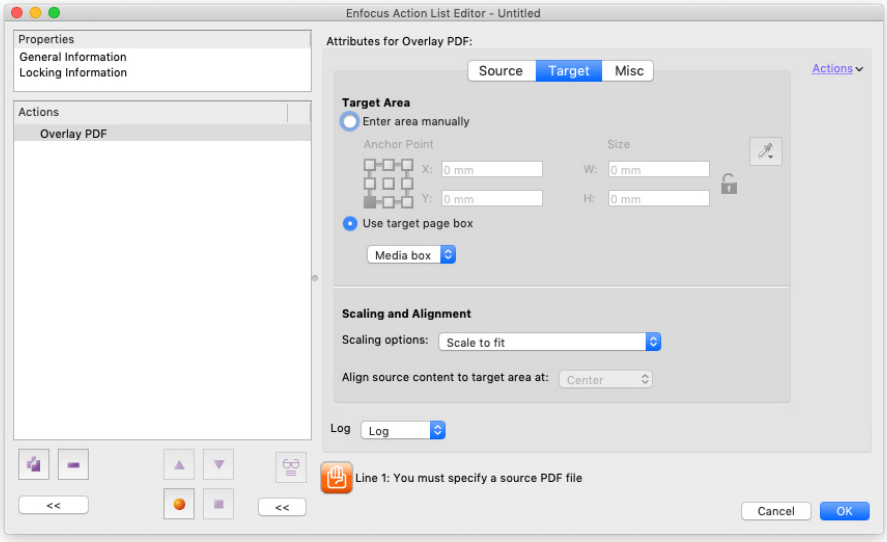
New Action – Overlay PDF

A new Action allowing you to overlay one PDF document over another PDF document. The overlay file (the source) can be pulled from a file path or a variable.

The position of the overlaid file can be determined by selecting a page box to be used for alignment and position. The source and target files be positioned by matching the defined boxes for both documents.

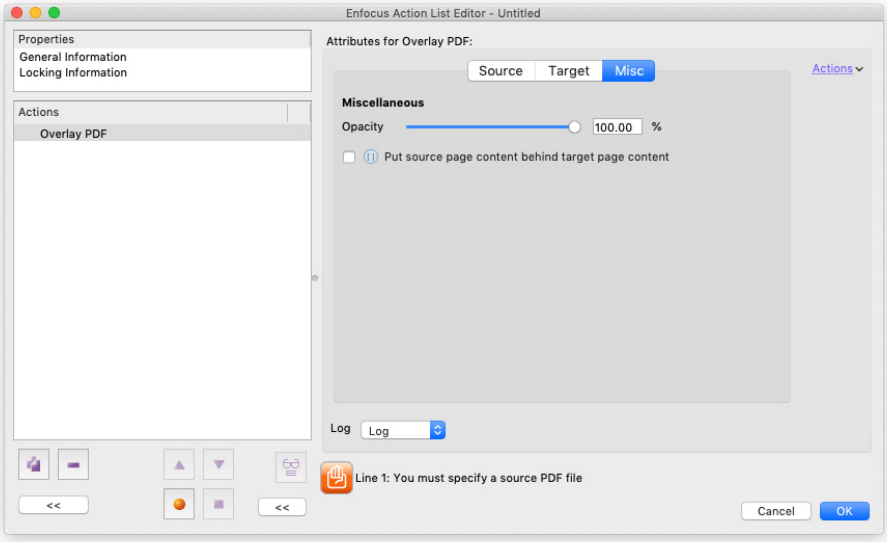
There are also options for handling the situation if the source PDF has less pages than the target PDF it is being overlaid.





In the target panel, you set the options for the target PDF. That is the PDF that is being processed by PitStop. Here you can set the page box you wish to use as a reference, plus some scaling and alignment options should the page boxes of the source and target documents differ.

In the ‘Misc’ panel you can set the opacity of the background of the source document, and if the source should be placed in front or behind the target document.



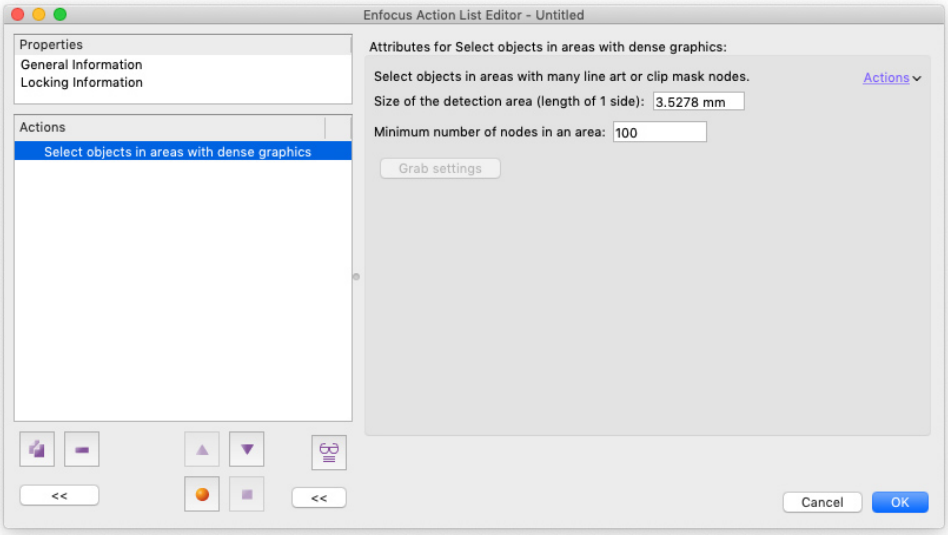
New Action – Select Areas of Dense Graphics

In PitStop 2019 we released the ability to simplify complicated vector graphics by rasterizing them and turning them to an image.

This process required that the complex shape be selected and therefore, although it was available as an Action List, many users used the manual functionality in order to control elements that were adjusted.

Now in PitStop 2020 we have a new Action specifically designed to select areas of dense vectors, so you can either create a preflight warning or error via the Log Selection Action, or rasterize the selection using the Rasterize Selection Action.

As you can see below, you can specify a target detection area, and defined number of nodes. It’s also possible in PitStop Pro to make a selection and then ‘grab’ the values from that selection to use in the Action.

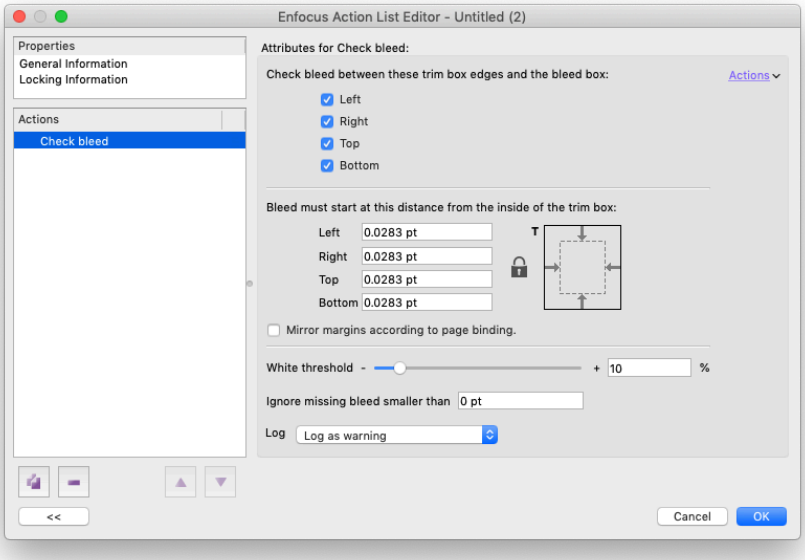


New Action – Check Page Bleed

PitStop 2020 introduces a new check for bleed. This is based on a brand new technology and utilises computer/machine vision. The previous check worked only on individual objects, so was prone to give false errors. This new check works on a page basis, so only reports an issue if an element close to the trim box does not have any bleed or not enough bleed to reach the bleed box.

To configure the Action you indicate how close to the Trim box elements must be in order to require bleed, you also indicate which edges of the page should bleed.

It's important to know that in order for the check to work, the document must have a valid trim and bleed box. The check requires those in order to know where the bleed should start, and also how big the bleed should be.



New Action – Check if visual content exists

This is a unique new preflight check for PitStop, it utilizes new computing techniques for computer/machine vision and is currently patent pending.

This technology gives PitStop the ability to 'see' and make decisions within a PDF file, much as a human being would do.

A PDF file consists of different objects which can be text, images, vector graphics or shadings (amongst others), there is no concept of design elements that we as humans can visually recognise within a PDF.

So that means a preflight solution cannot tell if certain graphics, logos or images are present or missing from a PDF file, until now.

By utilising computer vision, a technology that is used in automated manufacturing and future technologies like self-driving cars, PitStop now allows you to check if defined graphic shapes are present or missing from a PDF.

To configure the Action you firstly need to specify an image resolution. This is because the computer vision technology is raster based. You also need to 'grab' an image which represents the graphical shape you want to detect, this can be a raster or vector shape.

In the background the 'grabbed' selection is rasterized at the defined resolution. When the check is run the page will be rasterized at that same resolution and the detection will take place.

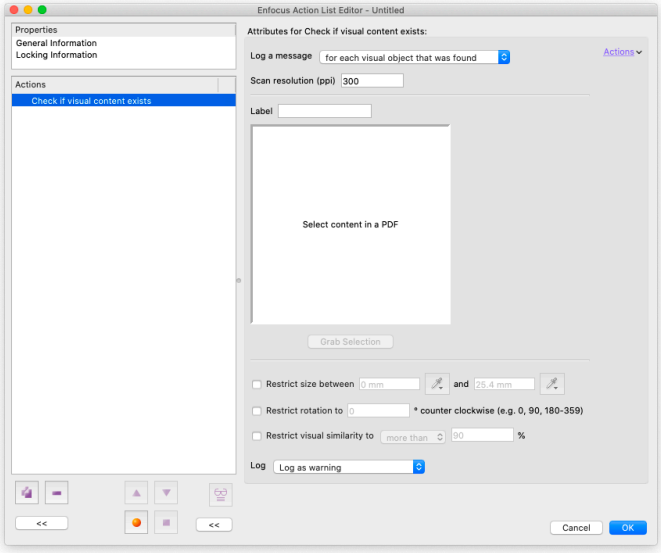
We recommend a default resolution of 300dpi, although it is possible this resolution could be increased or decreased depending on the graphical shape you are looking for.

This technology uses a series of control points in order to detect similarities in images, therefore it is not suited for detecting simple geometric shapes such as squares or circles. They simply do not have enough control points to make detection possible.

If you grab a shape that does not generate enough control points this will generate an error.

The next configuration step is to give the graphical shape a name, this is important as this is the reference that will be used within the preflight report message.

You can also configure when the check logs a message. This can be if a visual object is found, is not found or you can check the number of times it appears.



The final three options allow you to control how strict the check is.

'Restrict visual similarity to' defines how exact the match should be. If set to 'zero' it will find matches that have a few similar control points. This for instance will detect shapes that are similar, but do have different content. It will also find partial matches where part of a graphical shape exists, such as a partially cropped logo.

You can configure this check with a 'more than', 'less than' operator, so you can only find close matches, or only find elements that match less than 90%.

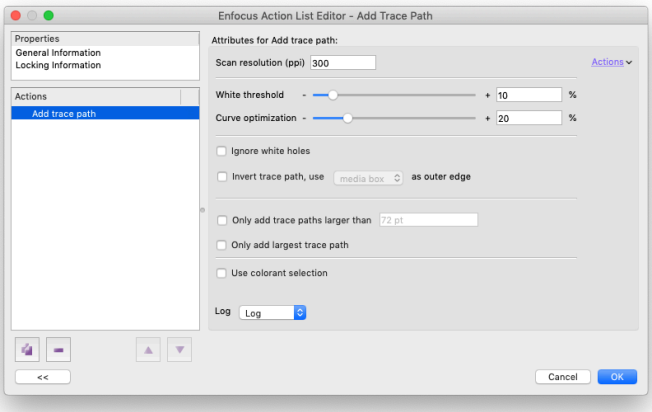
Because all graphical shapes will be different, it is difficult to give exact values here. It is suggested to test each shape to be detected to find the best values for it.

The remaining two checks are related to rotation and size. Without a rotation setting the check will find any rotated matches, the rotation allows you to refine this and only find specific rotations if needed.

The size restriction allows you to refine the search based on size, this value is based on the longest edge of the graphical shape, so rotation can also come into play here.

New Action – Trace (Raster to Vector)

A brand new Action in PitStop Pro and PitStop Server is the ability to 'trace' a shape and create a path or shape. If you are familiar with Adobe Illustrator you will probably know the 'live trace' functionality, and if you are a little bit older you may remember an application called 'Adobe Streamline. This new feature has comporable functionality and is available within the PitStop Inspector and also as a PitStop Action. It traces objects and produces a closed path which has minimal nodes as it uses bezier curves where applicable.



When creating an Action, you must first use a Select Action to define the object(s) you wish to trace. You configure first an image resolution and also a white threshold. This is because in the background the feature creates a grayscale image which is then traced, the white threshold allows you to ignore light tints or stray pixels which maybe necessary when tracing images with soft edges.

You then have an option to ignore white holes in the selection, so the tracing can be just the outside of the shape selected, or include white holes within that shape. This is particularly useful when making white underprints for printing on transparent substrates.

Additionally you have an option to trace a shape not of the actual selection, but the negative of the selection using one of the page boxes as the outside edge.

To avoid tracing small areas that may be created by stray pixels, you can define the minimum size of a trace path, and lastly you can choose to only keep the largest traced path and ignore all others.

Use colorant selection is a option that enables you to define which process separations you would like to trace (ignoring the K for instance). If you enable this option you must have two select Actions before the trace Action (in this order). The first to select the process separations to be traced. (See the select process colorants Action below), and the second to select the objects (Select all for instance). You can also use the “select spot color” action instead of or in combination with the “select process colorant” action.

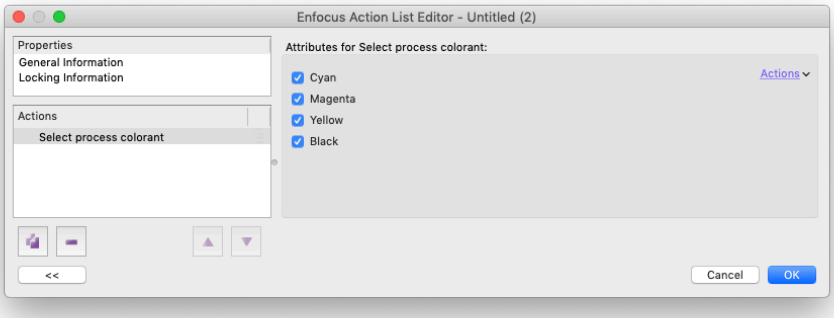
New Action – Select Process Colorants

This is a specific Select Action that only works with two other Actions ‘Add trace path’ and ‘Check ink coverage (total page check).

This allows you to select only specific process color separations to be used with the Actions.

To use it with the ink coverage check you just need this single selection before the check Action.

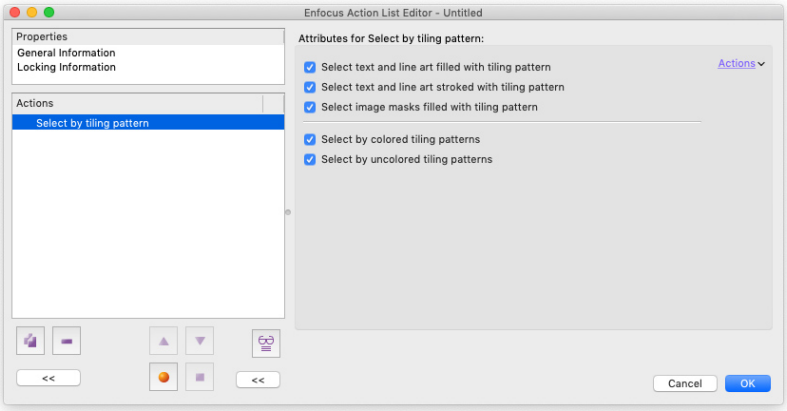
To use it with the trace Action you need you have this Action first and another second select Action for the objects to trace, also the option to ‘Use colorant selection’ must be enabled. (See above).



New Action – Select Tiling Patterns

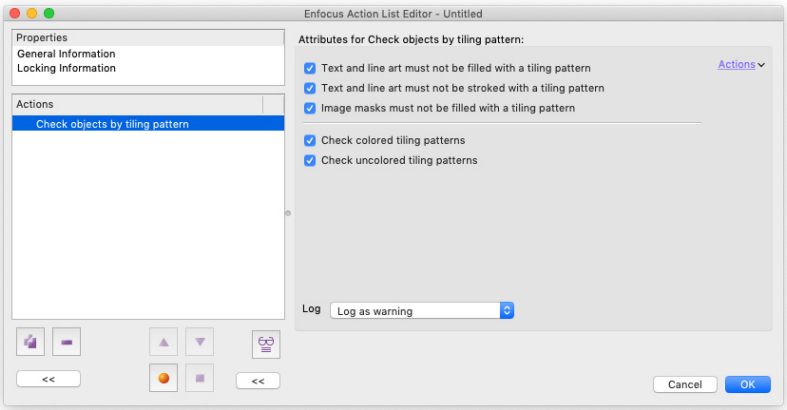
Customer feedback tells us that tiling patterns in PDF can be particularly challenging, especially when attempting to output jobs. This new version has several new Actions to help.

The first is a Select Action, this enables tiling patterns to be selected so they can be edited, by using Rasterize Selection for instance.



New Action – Check for Tiling Patterns

This new Action enables you to check for and identify tiling patterns in PDF files so you can avoid problems in downstream production.

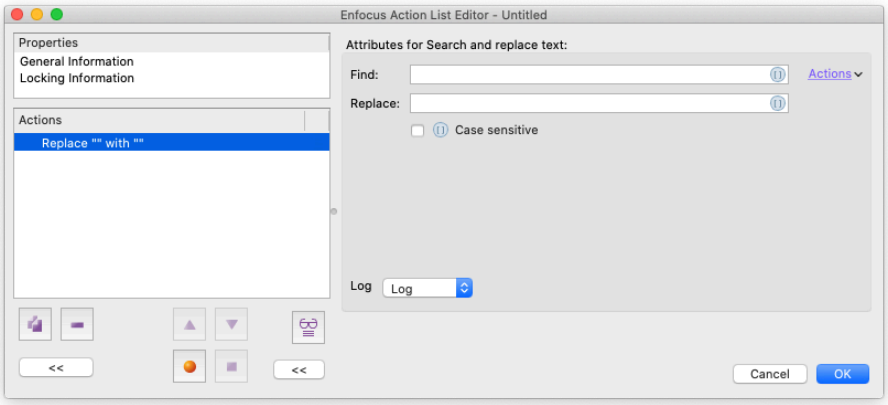


New Action – Search and Replace Text

A much requested feature request from a lot of our customers. This Action allows you to search and replace text within a PDF file, and also allows the use of variables to do this.

However this Action should be approached with caution. It is suitable for replacing words or small lines of text. It is not suitable for replacing text involving reflow of lines.

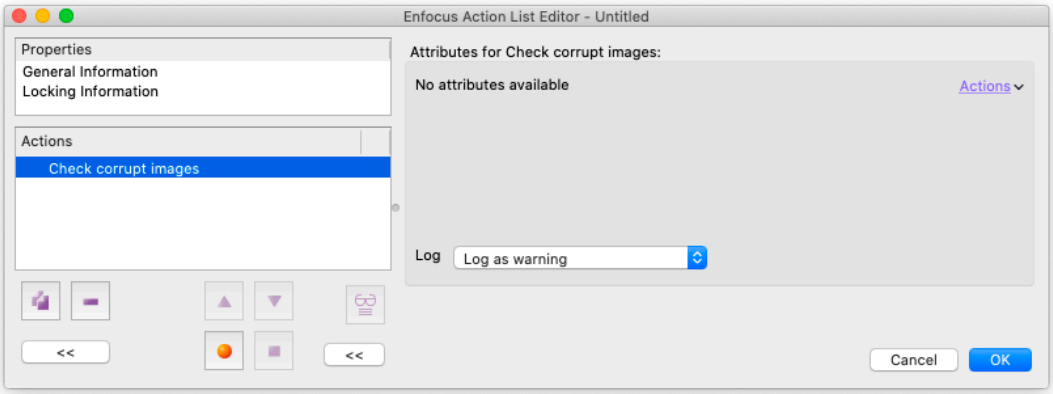
You should also bear in mind potential issues with subset fonts when using this Action.



New Action – Check for Corrupt Images

We frequently see PDF files that look and view correctly, but refuse to ouput due to corrupt image data. This can be particularly challenging, as these problems are only detected once the file has entered production, very often at the last minute during output.

This new check enables you to detect corrupt images earlier in the production process so you can take corrective action.

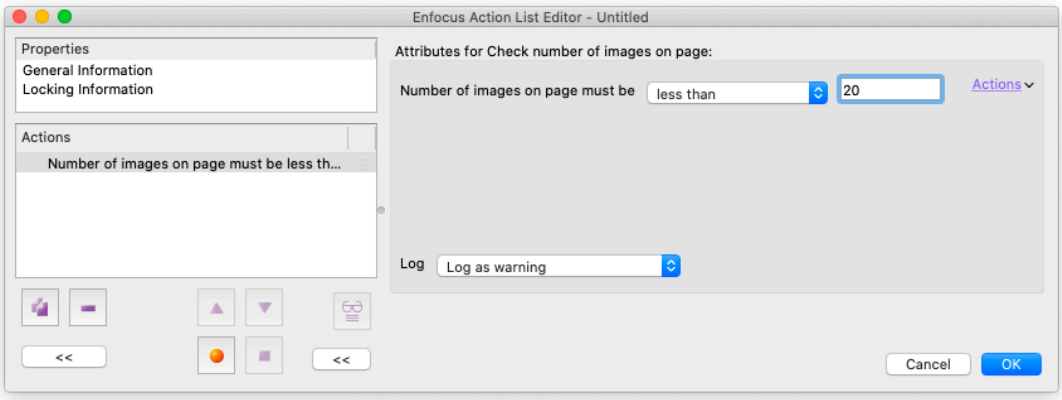


New Action – Check for Number of Images on a Page

Over recent versions PitStop has added various checks and fixes to identify and fix complex PDF files that may slow down production. In this version we add one more new check, this enables you to detect how many individual images are present on each page of a PDF.

Although not particularly common, it is possible to have pages with hundreds of images, sometimes even thousands. Such files can bottleneck production and output.

This new check allows such pages to be identifed so the pages can be simplified using Rasterize Selection or similar tools.

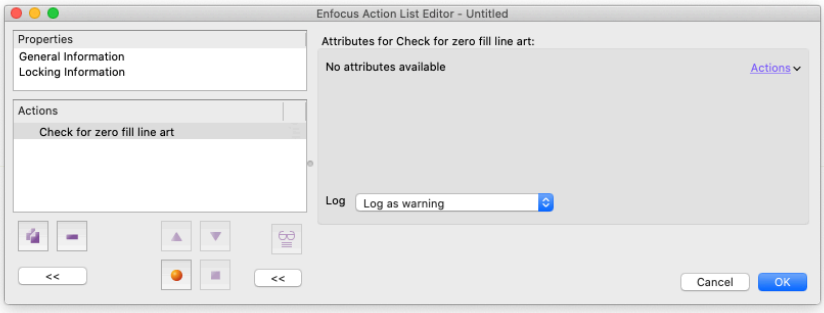


New Action – Check for Zero-Width Fill

A problem that we have seen occur a few times recently, so we decided to create a new preflight check for the issue.

The problem has been seen on graphical elements that render on-screen, print to a printer, but do not output to a high resolution device such as a CTP device. Or rather they are rendered, but so finely that they are not visible.

The issue is caused by fill colors that technically have no width, but that render on-screen and low resolution output. This check will identify such issues.



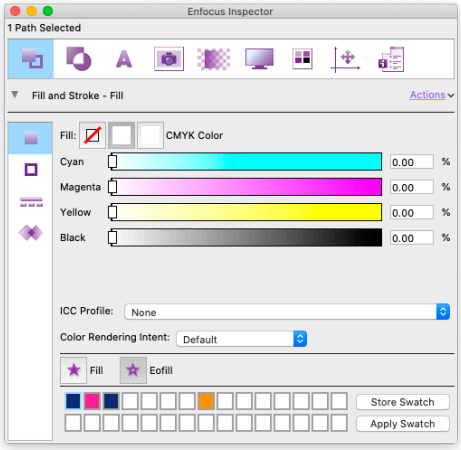
PitStop Inspector – Color Swatches

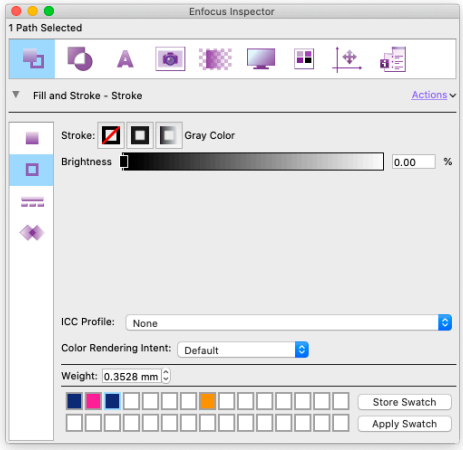
The PitStop Inspector gains a new color swatch palette which is common between the fill and stroke tabs.

Selected colors can be stored in the swatch and then added to content on the page.

To store a color, select a swatch (blank or with an existing color to replace), then select an object with the required color and press ‘Store Swatch’.

To use a swatch, simply make sure the correct swatch is selected and the object(s) you wish to color in the file are selected. Then click ‘Apply Swatch’ and the selected color will be applied as a Fill or a Stroke.



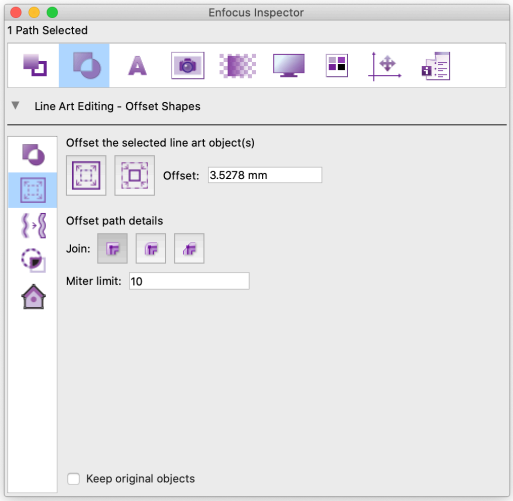


Inspector – Offset Shapes

In PitStop 2019 we added several new PitStop Actions related to working with vector objects.

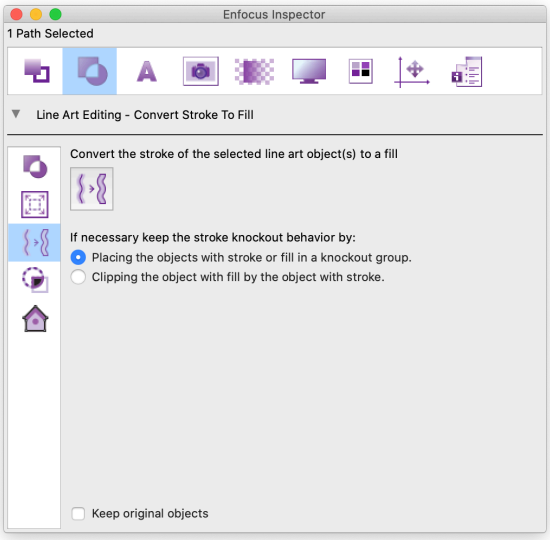
We are now additionally adding these to the Inspector so they are readily accessible for manual editing. The first of these is ‘Offset Shape’.

This function enables selected vector shapes to be grown or shrunk by a specified value, the joins and miter values can also be adjusted if necessary.



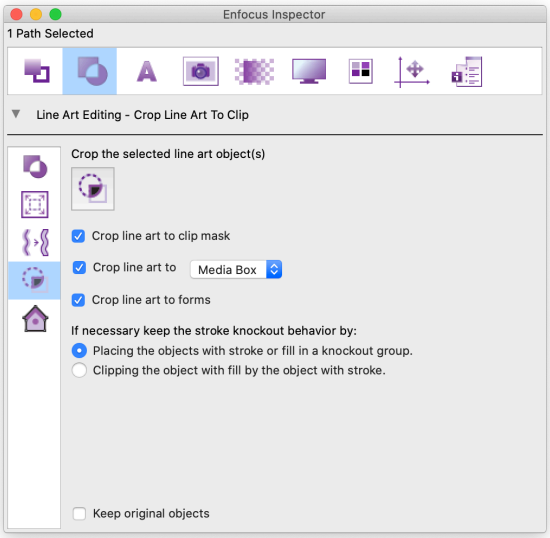
Inspector – Stroke to Fill

This option turns selected strokes into fills. You may need to convert a stroke to fill so that you can then use the Offset Path and the Combine and Divide Shapes tools with selection.



Inspector – Crop to Clip

Crop to Clip was previously only available as a PitStop Action, so for ease of use when manually editing we've now added this functionality to the Inspector.



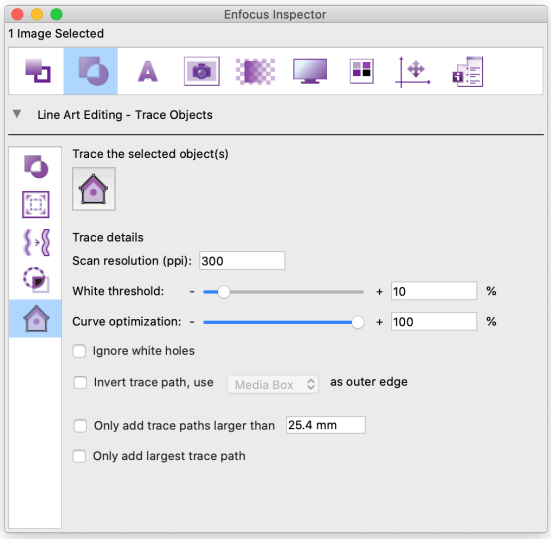
When PDF files are created it's possible to crop away any unneeded pixel data, but it's not generally possible to crop vector data.

This option enables vector data to be cropped to the three mentioned regions, clip masks, page boxes and forms.

Note: Please be aware that in order to accurately and safely perform this function, any strokes are automatically converted to fills. This may not be the result you need if you are trying to crop an object such as a dieline or a cutter guide where the result needs to be a stroked path.

Inspector – Trace

A brand new function in the PitStop Pro Inspector is the ability to 'trace' a shape and create a path or shape. If you are familiar with Adobe Illustrator you will probably know the 'live trace' functionality, and if you are a little bit older you may remember an application called 'Adobe Streamline. This new feature has comporable functionality and is available within the PtiStop Inspector and also as a PitStop Action. It traces objects and produces a closed path which has minimal nodes as it uses bezier curves where applicable.



To use within the Inspector, you must first select the object(s) you wish to trace. Once you have the selection, in the Inspector you configure first an image resolution and also a white threshold. This is because in the background the feature creates a grayscale image which is then traced, the white threshold allows you to ignore light tints or stray pixels which maybe necessary when tracing images with soft edges.

You then have an option to ignore white holes in the selection, so the tracing can be just the outside of the shape selected, or include white holes within that shape. This is particularly useful when making white underprints for printing on transparent substrates.

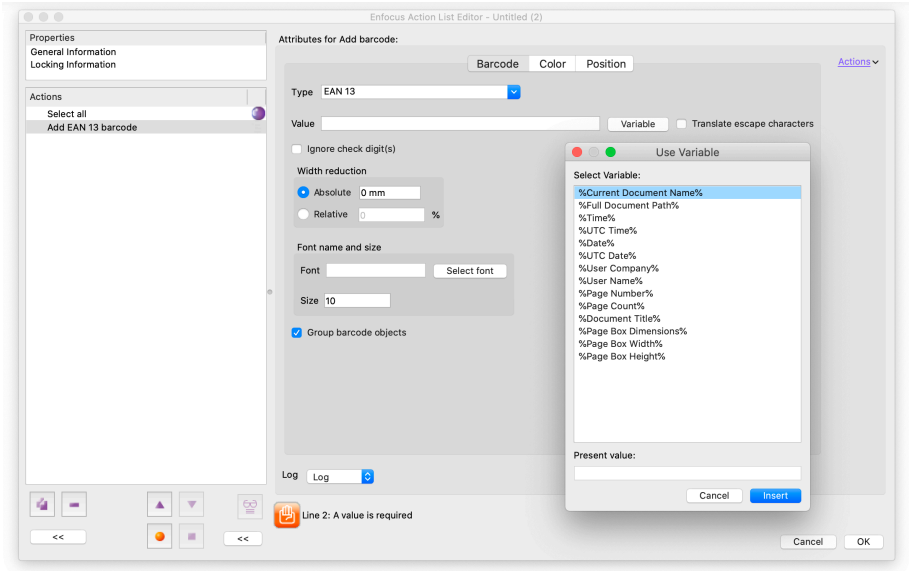
Additionally you have an option to trace a shape not of the actual selection, but the negative of the selection using one of the page boxes as the outside edge.

To avoid tracing small areas that may be created by stray pixels, you can define the minimum size of a trace path, and lastly you can choose to only keep the largest traced path and ignore all others.

There is one difference between the Inspector Trace and the Trace Action. The Action can work on individual color separations, the Inspector feature does not have that functionality.

Add Barcode Action – Now supports Document Variables

The 'Add Barcode' Action that we introduced in PitStop 2018 has a small improvement. It can now work with document variables, A customer requested addition, this means that you can now generate a Barcode based on attributes such as job name, page number and date and time to mention a few.



Improved Action Lists – Pantone+ v4 Libraries added (294 new colors)

Pantone released the Pantone Plus v4 libraries in 2019. However you should be aware there are differences between the CMYK values in the v3 libraries and the v4 libraries as explained by Pantone below. This could cause a difference in color with a previously printed job if you are converting Pantone colors to CMYK. To overcome this issue, PitStop is retaining the v3 libraries, so you can still use them if necessary. Please note however the v4 libraries contain 294 new colors.

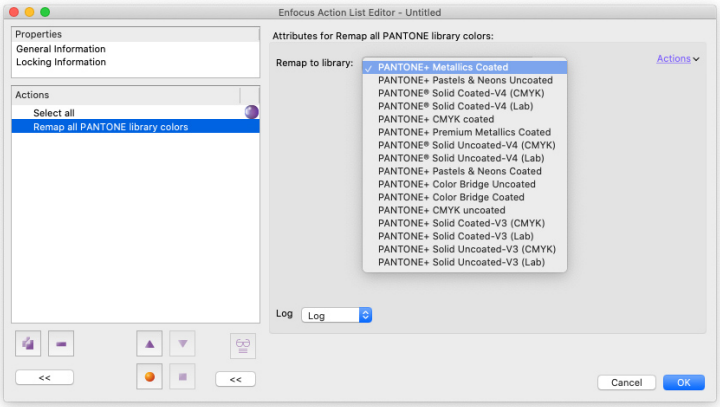
Why do the CMYK values for the Pantone Formula Guide colors (coated and uncoated) differ between the prior v3 and the new v4 versions?

Pantone strives to provide the best guidance based on key industry standards and specifications. As such, our method of deriving CMYK values (and our method of actually printing the Pantone Color Bridge Guide) uses the G7 calibration methodology. This approach aligns with the state-of-the-art practice of most printers. The objective of G7 is to provide consistent gray balance across various print processes. This is important as gray balance is the foundation of process printing.

Further, as part of aligning to G7, the revised CMYK data is based on calculations using color measurements made under the ISO M1 illumination condition. This is practical because M1 specifies a defined amount of UV energy, and common paper stocks in the industry (including the Pantone Formula Guide Coated paper stocks) contain OBAs (Optical Brightening Agents).
By following G7 and deriving CMYK values based on M1 measurements, process print results between print suppliers are more consistent, and the revised Pantone CMYK values provide more reliable guidance about expected results for a typical process-color reproduction of Pantone Matching System colors.

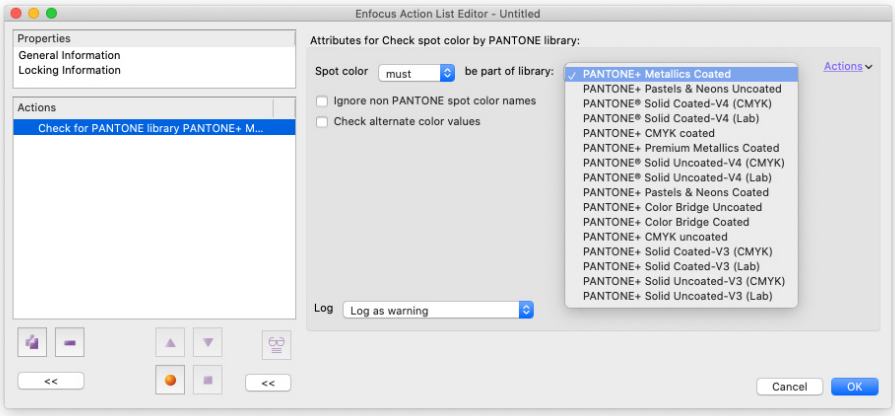
The Pantone v4 libraries have also been added to the specific Pantone Actions we have in PitStop.

‘Remap all PANTONE Library colors’ enables you to map all Pantone colors to a specific Pantone library.

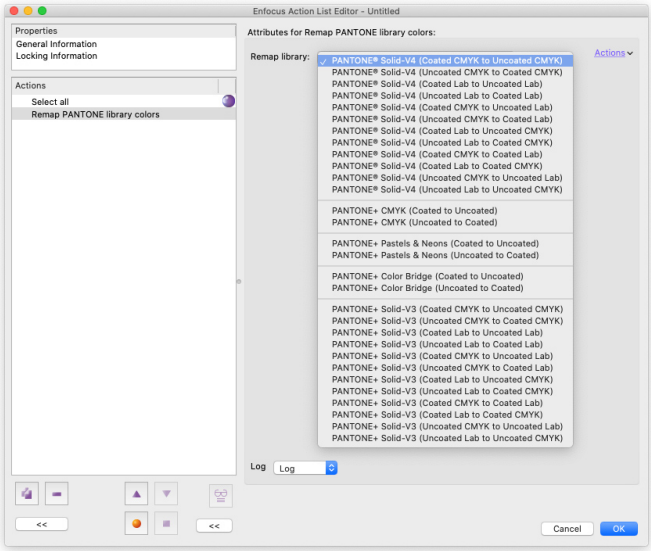


You can check the alternate values of a spot color against a particular library using the ‘Check spot Color by PANTONE library’ Action, and turning on the ‘Check alternate color values’ option.

This allows you to check the alternate color matches a particularly library and the alternate colorspace (CMYK or Lab).

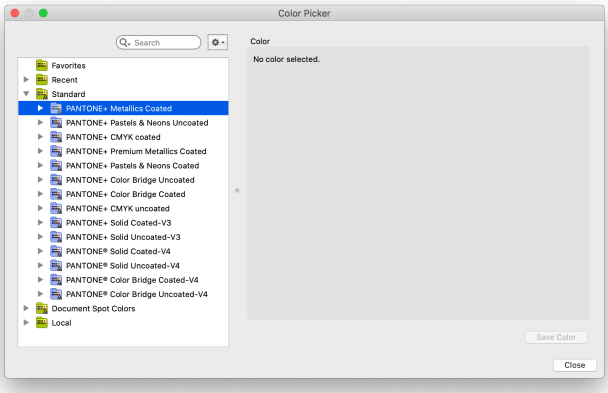


‘Remap PANTONE library colors’ enables you to map from one specific Pantone library to another.



Pantone+ v4 colors added to the Color Picker

The Pantone v4 Libraries have also been added to the color libraries in PitStop Pro, so if you access them using the color picker for instance, you will now have a choice of which Pantone version to use.



Updated Transparency Flattener

The transparency flattening technology has now been updated to a newer version. This does not add any new options, but some bugs have been resolved. If you have reported a bug that has been fixed you will be notified in a separate email. The new library version is:

Adobe PDF library v15.0.4PlusP6f.

Additional changes

Windows Server 2008 R2 is no longer officially tested or supported
Windows 7 is no longer officially tested or supported
Mac OS® X 10.11 (El Capitan) is no longer tested or officially supported.
Mac OS® X 10.12 (Sierra) is no longer tested or officially supported.
Adobe Acrobat Xl) is no longer tested or officially supported.

New Action Lists and Preflight Profiles

New or revised Action Lists

- Add QR Code (job name, page number) outside Bleed Box
- Check for Corrupt Images (error)
- Check for PDF 2.0 based PDF
- Check if a page has more than 50 Images
- Convert Tiling Patterns to CMYK Images (300ppi)
- Convert Tiling Patterns to Images (300ppi)
- Find Dense Complex Graphics
- Make Negative Trace Path (honoring white holes)
- Make Negative Trace Path (ignoring white holes)
- Make Negative Trace Path - Trapped 0.1mm (honoring white holes)
- Make Negative Trace Path - Trapped 0.1mm (ignoring white holes)
- Make Trace Path (honoring white holes)
- Make Trace Path (ignoring white holes)
- Make Trace Path - Trapped -0.1mm (honoring white holes)
- Make Trace Path - Trapped -0.1mm (ignoring white holes)
- Make Trace Path of CMY only (honoring white holes)
- Make Trace Path of CMY only (ignoring white holes)
- Make Trace Path of K only (honoring white holes)
- Make Trace Path of K only (ignoring white holes)
- Rasterize Dense Complex Graphics

Bug Fixes included in this version

Issue number	Summary
ENFP-5750	Correctly handle Type3 fonts created by Adobe
ENFP-7939	Missing navigation buttons after Adobe Acrobat update
ENFP-7945	Improvement to rendering of images with a corrupt soft mask
ENFP-7948	Shortcuts no longer work with latest Acrobat release
ENFP-8000	Preflight Profile gives error
ENFP-7964	Creating an offset path uses the wrong values
ENFP-6311	Content in installer shifts position
ENFP-8119	Error in "Check Barcode" Action List when using it with variables
ENFP-7836	Bug with Type 3 font in Convert Color panel
ENFP-7535	Critical Parser Failure
ENFP-7781	PDF file not going through PitStop Server
ENFP-7044	Embedded fonts become unembedded after flattening
ENFP-7638	Page rotations change after flattening
ENFP-4838	Flattening: raster/vector balance not working properly
ENFP-8218	Memory issue when unembedding and re-embedding missing fonts
ENFP-8247	Problem with creating page boxes (trim and bleed box) from marks
ENFP-7418	Fonts fail as missing or invalid characters with Chinese font SimHei
ENFP-8129	Timeout and memory usage improvements
ENFP-8235	File fails when processing "Clean Up Content"-Action
ENFP-8309	Improve shading color conversion for purple hues
ENFP-8301	XML report v3 with preflight profile results in PS processor crash
ENFP-8377	Show report in the navigator does not work
ENFP-8408	After updating to 2020 Action List becomes invalid
ENFP-8391	Memory usage error when collecting ink info in Preflight Profile
ENFP-8330	Wrong default ICC profile in Action List
ENFP-7384	PitStop changes are no longer recognized by Illustrator
ENFP-8101	Problems in Action List in library with free font Textgyreadventor
ENFP-8001	Page orientation check not following restriction to all pages but first
ENFP-8107	Insert pages grinds to a halt on certain files
ENFP-5149	Rendering issues: line appearing and strange effects because of overlapping objects
ENPF-8362	The "Page Scaling/Page Rotation" settings are not remembered when adding "inverted" or "chamfered" corners in "Adding Corners"Action
ENFP-8328	Generating ink pages for the report file takes ages
ENFP-7636	Rasterize changes PDF visually
ENFP-8280	Color Curve Action affects one slice of image differently
ENFP-7966	Convert to gray keeps black text on some stroked text

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