
Trueflow DTP Output Guideline

The 14th Edition for Ver.5.01, Ver.6.01, Ver.7.10 and later

This output guide supports Trueflow SE Ver5.01 TF175, Ver6.01 TF135, Ver7.10 TF110 and later.

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Guidelines for transitioning to a PDF workflow

^{*1)}This document provides recommended standards for balancing the factors involved in the output of DTP data such as the quantity of output transparency effects, the amount of support information, and the future potential of that workflow. This does not mean that no other workflow can be used.

Recommended Trueflow workflow environments

Trueflow supports many input file formats, multiple RIP'ing systems, and many DTP applications, but this document describes the DTP workflow environment that we recommend^{*1)} most at this time.

PDF/X workflow



For Trueflow, we recommend using PDF/X, which is ISO-compliant, rather than PostScript, which was used in the past. -> "Recommendation of using PDF/X" (P2)

PDF/X is a subset of the PDF standard for printing that was developed to run printing more efficiently. It has been formalized as an ISO 15930 standard, so it is possible to output safely. For example, PDF code that is not related to printing and fonts that are not embedded are prohibited. Even if you enter normal PDF data, if it includes information that is not appropriate for printing, it may not be possible to print, and it may take time and effort to modify it from the native data. With PDF/X, the data must comply with a formalized standard before the PDF can be created and input, so it is possible to eliminate this type of time and effort and create a practical workflow.

Adobe PDF Print Engine



In Trueflow, we recommend using Advanced PDF, which uses the Adobe PDF Print Engine, rather than Conventional PS/PDF. -> "Adobe PDF Print Engine" (P3)

The Adobe PDF Print Engine is new Adobe RIP technology, and rather than processing PostScript in a traditional CPSI RIP, the Adobe PDF Print Engine can process the PDF directly. In direct processing of PDF using the Adobe PDF Print Engine, it is not necessary to use device-dependent processing in advance, such as flattening transparency effects or converting RGB images to CMYK. It is possible to process the PDF in the RIP as is. Trueflow uses unique technology to improve transparency effects in the Adobe PDF Print Engine.

Optimal DTP applications



With Trueflow, we recommend using Adobe Creative Suite 3 and later or QuarkXPress 8 and later as your DTP applications in order to get the most from Trueflow's features.^{*2)}

-> "DTP applications and creating data" (P4)

Adobe Creative Suite 2 and earlier had serious problems with streaking in images.^{*3)}We recommend Adobe Creative Suite 3 and later as your DTP application because the problems in the earlier versions have been fixed and the later versions also support direct output of PDF/X-4. We recommend QuarkXPress 8 as the first Quark application that supports direct output of PDF/X.

^{*2)}This means how to make the best possible use of Trueflow's features, not that other applications are not supported.

^{*3)}One countermeasure to avoid streaking in images is to embed the images, but this leaves you with a restricted workflow. See "II. RGB workflow using Illustrator CS3 or later" (P48) for more information.

Recommendation of using PDF/X

PDF/X-1a and PDF/X-4

The points to note and required technical information for PDF/X-1a and PDF/X-4 are different, and in this document the issues for which it is necessary to differentiate them are given below. If you do not have either display, please read this as general information.

X-1a Information necessary for a PDF/X-1a workflow
X-4 Information necessary for a PDF/X-4 workflow

PDF/X is ISO 15930 compliant and has several variations. These include PDF/X-1a, which prohibits the use of RGB images and transparency effects, PDF/X-3, which allows the use of RGB images, PDF/X-4, which allows transparency effects as well as RGB images, and PDF/X-5, which in addition to the features of PDF/X-4 allows external references for graphics. In addition, from 2010, PDF called "PDF/VT" for variable data printing, which was published in ISO 16612-2, was standardized based on PDF/X-4 and PDF/X-5 technology, and a PDF/X workflow is recommended from the standpoint of future potential.

With Trueflow SE, we recommend using PDF/X-4 for data that includes transparency effects as well as data that includes RGB images, and for all other types of data, we recommend using a PDF/X-1a workflow.

PDF/X-4 workflow

PDF/X-4 is an indispensable standard for device-independent PDF workflows. Unlike PDF/X-1a, where it is necessary to flatten transparency objects and convert to CMYK in advance, it is possible to make the fullest use of that advantage.

There are two advantages to using PDF/X-4, which are explained below.

1. In an RGB workflow where the data includes transparency effects, you can use PDF that preserves the transparency effects as is (live transparency).
 Basically, as you can see in the table under "[Recommended Trueflow workflows by DTP application](#)" (P3), it is possible to have a workflow that makes use of high quality RGB to CMYK conversion using InDesign CS2 - CS5 or Illustrator CS3 - CS5.
 See "[Color management and RGB workflow](#)" (P43) for more information.
2. As for improving text quality, if you process PDF/X-4 using the Adobe PDF Print Engine, you have the advantage of being able to reproduce the data without losing the original data images.

PDF/X-4 allows you to include transparency effects and layers in the earlier PDF/X-3. Although the base version of PDF has advanced from PDF1.3, which does not support transparency effects, to PDF1.6,^{*1)} which does support them, its restrictions are about the same as those for the earlier PDF/X-3 with the exception of allowing transparency effects and layers.

By using PDF/X-4, it is possible to improve RGB workflows where the data includes transparency effects as well as text quality, but unlike with a PDF/X-1a workflow, transparency effects are handled by the RIP, so it is necessary to be more aware of the characteristics of the RIP processing than with a PDF/X-1a workflow.

^{*1)}The version of PDF/X-4 should have been PDF1.6 or earlier, but CS3 - CS5 only supports data created in PDF1.4, and it is not possible to create PDF/X-4 that includes layers.

PDF/X-1a workflow

X-1a

A PDF/X-1a workflow requires RGB images to be converted to CMYK images and requires all of the fonts to be embedded, but the most difficult task is to flatten transparent objects.

For objects for which Transparency was specified in an application, is necessary to separate "objects that appear to be transparent but that are not transparent".

See "[Transparency effect](#)" (P10) for information about flattening transparent objects.

Adobe PDF Print Engine

Adobe PDF Print Engine of Trueflow SE

Trueflow SE Version 5.00 and later incorporates the Adobe PDF Print Engine as the PDF processing engine, and it also supports printing such as a POD (Print-on-Demand) workflow. It does not create PDF that is optimized for each device but instead offers flexible processing that supports a wide variety of devices with a single PDF format.

In Trueflow SE, you can choose between the earlier method of Trueflow RIP'ing for PDF and PostScript (Conventional PS/PDF) and the method using the newly installed Adobe PDF Print Engine (Advanced PDF).^{*1)}

As described in "Recommended Trueflow workflows by DTP application" (P3), using the Adobe PDF Print Engine in Trueflow SE offers many advantages, including a simpler workflow and quality improvements.

^{*1)}Trueflow SE is a dual core configuration, so if compatibility with earlier versions for RIP'ing is important, it is also possible to use the Trueflow processing engine.

Recommended Trueflow workflows

X-1a X-4

The recommended Trueflow workflows for various DTP applications are given below.

- Recommended Trueflow workflows by DTP application

- ◎ : Direct PDF/X-4 output (P50)(P55)
- : Create PDF for an RGB workflow(P50)(P55) -> Fix up to PDF/X-4 in Acrobat 8/9(P67)
- : Direct PDF/X-1a output (P50)(P55)
- : Output PostScript > Convert to PDF/X-1a in Distiller 7 or later(P69)(P66)
- : EPS output only
- × : Not supported

			Trueflow SE or later ^{*2)}	Up to Trueflow 3 Ver4.01
Adobe Creative Suite 3	InDesign CS3 - CS5	RGB workflow	◎	◎
		CMYK workflow	◎	●
Adobe Creative Suite 5	Illustrator CS3 - CS5	RGB workflow	◎	◎
		CMYK workflow	◎	●
Adobe Creative Suite 2	InDesign CS2	RGB workflow	○	○
		CMYK workflow	○	●
	Illustrator CS2	RGB workflow	× ^{*3)}	× ^{*3)}
		CMYK workflow	●	●
Adobe Creative Suite	InDesign CS	RGB workflow	×	×
		CMYK workflow	●	●
	Illustrator CS	RGB workflow	×	×
		CMYK workflow	□	□
QuarkXPress	QuarkXPress 6.5	RGB workflow	×	×
		CMYK workflow	■	■
	QuarkXPress 7 ^{*4)}	RGB workflow	×	×
		CMYK workflow	●	●
	QuarkXPress 8	RGB workflow	×	×
		CMYK workflow	●	●

^{*2)} For a workflow using the Adobe PDF Print Engine with Trueflow SE.

^{*3)} Not possible because images are flattened.(P95)

^{*4)} QuarkXPress 7 has been released in Europe and the USA.

DTP applications and creating data

Supported DTP applications

^{*1)}See "Notes on Using Trueflow", which is included with Trueflow SE, for information about other applications.

In the Trueflow DTP Output Guideline, the DTP applications listed in "Recommended Trueflow workflows" (P3) are supported,^{*1)}but we recommend Adobe Creative Suite 3 and later as well as QuarkXPress 8 and later as the DTP applications that can take the best advantage of the Adobe PDF Print Engine and PDF/X-4.

It is not simply important to use these DTP applications. It is also important to make the optimal settings in them (see "PDF export presets" (P107)) and create data that conforms to those settings (see "Recommendations for direct output of PDF and native import" (P6)).

- Trueflow Output Guideline support

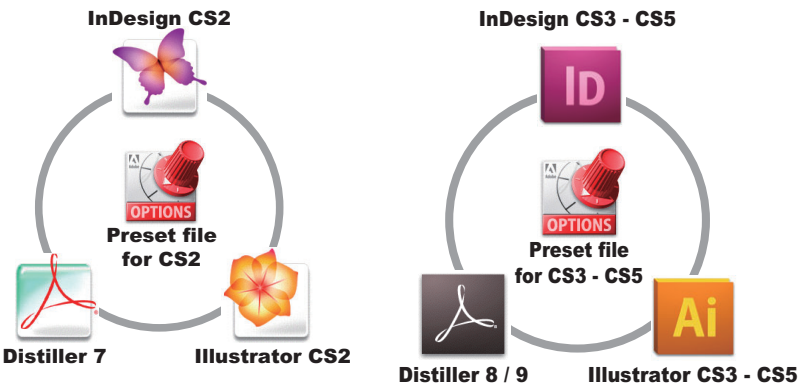
	DTP Applications		Workflow
	Recommend		
Trueflow Output Guideline recommended DTP Applications	Adobe Creative Suite 3 Adobe Creative Suite 5		Direct PDF/X-4 Output
	QuarkXPress 7 / 8		Direct PDF/X-1a Output
	Adobe Creative Suite 2 Adobe Creative Suite		Direct PDF/X-1a Output Restrictions apply(P95)
	QuarkXPress 6.5		PostScript Output and convert to PDF/X-1a by Distiller

Adobe PDF presets

X-1a X-4

Trueflow provides preset files that make it possible to easily make the required settings for PDF/X export correctly.

Preset files for writing to PDF are shared among all of the CS2 , CS3 and CS4 applications.



Preset files are shared between Creative Suite 2 applications (InDesign CS2, Illustrator CS2, Acrobat 7).

Preset files are shared between Creative Suite 3 - 5 applications (InDesign CS3 - 5, Illustrator CS3 - 5, Acrobat 8 / 9).

(They can also be used with Photoshop and so on, but that is not described here.)

It also provides dedicated output style files for QuarkXPress 8.

The following preset files are provided as Trueflow support.

- Preset file support table

Output format	PDF/X-1a	PDF/X-4
CS	Trueflow PDF-X-1a 1.0.pdfs	n/a
CS2	TrueflowPDFX1a1.3J.joboptions	Trueflow RGBwf 1.3J.joboptions
CS3 - CS5	TrueflowPDFX1a1.3J.joboptions	Trueflow PDFX4 1.3J.joboptions Trueflow RGBwf 1.3J.joboptions ^{*1)}
Distiller 7 or later	TrueflowPDFX1a1.3J.joboptions	n/a
QuarkXPress 8	TrueflowPDFX1a Style 3.1J.xml	n/a

^{*1)}Used only in a "Versioning workflow" (P89)

Although this preset file is slightly different in some details from the standard PDF/X-1a:2001 preset file provided by Adobe, it can be used to create PDF files that comply with each PDF/X standard.

The preset file save location is different in Creative Suite 2 and Creative Suite 3 - 5. See "[Presets for Adobe CS2 - CS5, Acrobat 7 - 9](#)" (P99) for more information.

See "[Print Style for QuarkXPress 7.0 / 8.0](#)" (P109) for information about QuarkXPress 8.

Differences from standard settings of Adobe

There are several differences between the Adobe standard settings in Adobe Acrobat and Trueflow's recommended settings.

- Distiller 7, 8 and 9 has been set so that when an RGB image is imported, it is not automatically converted into a CMYK image, instead the program ends with an error.
- To guarantee image quality, the ZIP file format is used to compress images.
- The bleed settings are mostly enabled in InDesign CS2 - CS5 and Illustrator CS2 - CS5.
- The setting has been optimized so that the output quality and transparency effect have improved greatly when data is processed in Trueflow.

Change to preset settings

Since the Adobe PDF preset file is locked, if you modify the setting and then click the OK button, the message "An error occurred writing the Adobe PDF Setting File." will be displayed. Therefore, after modifying the setting, click the Save As button and save the setting under a different name.

It is possible to change and re-save settings in PDF export preset files for each application in Adobe Creative Suite.

However, you may obtain unexpected results if you make the settings in an application and then use a preset that was saved in a different version of that application (CS3 / CS4 / CS5, Distiller 8 and later). Be sure to use a preset file that is specifically for the version in which the settings were saved. Only the default settings file can be shared by all versions.

Even when an equivalent setting change is required in all applications (e.g., compressing images in the JPEG format), an individual preset file must be created for each application.

Recommendations for direct output of PDF and native import

PDF/X-4 that cannot be created in Distiller

As you can see in the table under "[Recommended Trueflow workflows](#)" (P3), in all cases we recommended workflows using direct output of PDF, not PostScript for the Adobe Create Suite series and QuarkXPress 8 (QuarkXPress 7 in Europe and America). Direct output is particularly critical for PDF/X-4, which allows the inclusion of transparency and layer information.

To process PDF/X-4 data in Distiller, you must first convert it to PostScript, but since PostScript cannot encode transparency effects and layers, the data is flattened.

To preserve transparency and layer information, it is necessary to output PDF/X-4 data directly from the DTP application.

Illustrator CS2 - CS5 native workflows

In the past we recommended that you import EPS data if you were importing Illustrator data into InDesign, but as described in "[PDF/X-4 workflow](#)" (P2), to create PDF with the transparency effects preserved as is (Live Transparency), it is necessary to import native Illustrator format data when importing Illustrator data into InDesign, not EPS data whose transparency effects are flattened.

Trueflow SE uses the Adobe PDF Print Engine, so we recommend that you import native Illustrator data (.ai) into InDesign.

• Illustrator data support table

- ◎ : Link support including transparency
- : Link support with transparency effects flattened
- △ : Restrictions apply (not recommended)
- × : Not supported

To use RGB workflow, import with JPEG, TIFF or Photoshop native format(.psd) (P48)

Illustrator		InDesign				QuarkXPress		
		2.0 and earlier	CS	CS2	CS3 CS5	6.5	7 ^{*1)}	8
10 and earlier	EPS	△ ^{*2)}	△ ^{*2)}	△ ^{*2)}	△ ^{*2)}	○	○	○
	Native	×	×	×	×	×	×	×
CS	EPS	×	○	×	×	○	○	○
	Native	×	○ ^{*3)}	×	×	×	×	×
CS2	EPS	×	×	○	×	○	○	○
	Native	×	×	◎ ^{*4)}	×	×	×	○
CS3 - CS5	EPS	×	×	×	○	○	○	○
	Native	×	×	×	◎ ^{*5)}	×	×	○

^{*1)} QuarkXPress 7 has been released in Europe and the USA.

^{*2)} An error occurs if spot colors are used, and this does not mean it is recommended even if only CMYK colors are used.

^{*3)} It is possible to import native format data, but a PDF/X-4 workflow is not supported in InDesign.

^{*4)} Only recommended if you are using the Adobe PDF Print Engine with Trueflow SE. (CMYK only, and cannot be mixed with RGB)

^{*5)} Need to match CS version between Illustrator and InDesign. Only recommended if you are using the Adobe PDF Print Engine with Trueflow SE. (Mixing with RGB is OK)

Differences between Conventional and Advanced

Adobe PDF Print Engine and conventional RIP'ing

^{*1)}With strict digital plate inspection, there are times when differences of just a few dots, which do not affect the quality, are detected.

In Trueflow SE, you can choose between the earlier method of Trueflow RIP'ing (Conventional PS/PDF) and the method using the Adobe PDF Print Engine (Advanced PDF).

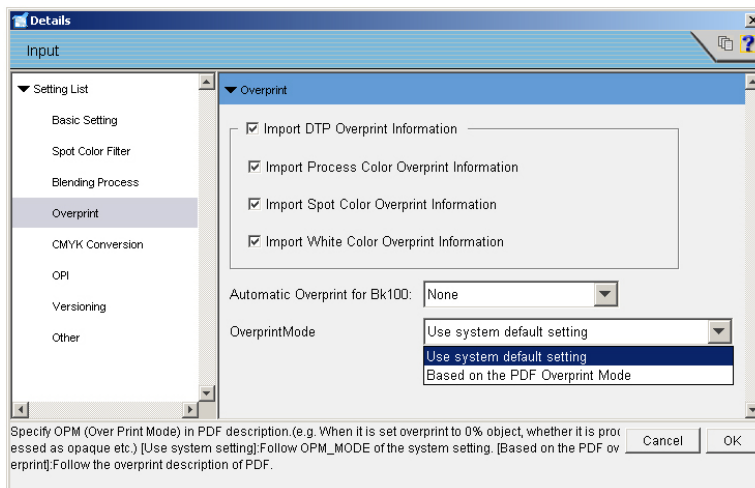
In Trueflow SE Version 7.10, it has become possible to process PostScript even in Advanced PDF, so Advanced PDF and Conventional PS/PDF can be used the same way.

There are almost no discernable differences between these two processing methods,^{*1)} but for particularly different overprint processing, there are rare times when differences can be detected. However, if you understand the following points, almost no differences are evident when you check them.

- There are many cases where the target design (for example, overprinting of gradients) is normally not set.
- Advanced PDF is correct as the PDF standard, and it also matches the display in Acrobat, so it is possible to check in Acrobat in advance.

Trueflow "Overprint mode" settings

In Conventional PS/PDF, there are settings called "Overprint mode", but these settings do not just mean the overprint mode in the PDF standard (see "[Overprint mode](#)" (P29)). They also mean matching Conventional PS/PDF results to Advanced PDF results.



In Advanced PDF, there are no "Overprint mode" settings. Normally, overprints are handled using the "Based on the PDF Overprint Mode" setting.

Process Mode	Trueflow "Overprint mode" setting	Result of processing	Acrobat Display
Conventional PS/PDF	Use system default setting	Conventional PostScript	Unmatched ^{*1)}
	Based on the PDF Overprint Mode	The PDF standard	Matched
Advanced PDF	(no setup)		

^{*1)}It is not that they do not match at all. Differences only occur in the areas described in "[Differences due to two settings](#)" (P8)" below.

Processing using "Use system default setting" in Trueflow

^{*2)}The "system settings" are Trueflow internal settings that define OPM processing in detail. These system settings are described for standard status.

When the overprint mode setting is "Use system default setting",^{*2)} operations based on different PDF standards should be used for objects for which "Differences due to two settings" (P8) is indicated.

The special characteristic of this setting is that even if the overprint mode is set inappropriately, the data appears to match and is processed in a way close to what the user expects.

In addition, several special processes are included to preserve exact compatibility for processing OutlinePDF, so if you are using an OutlinePDF workflow, use this setting.

"Based on the PDF Overprint Mode" processing in Trueflow

^{*3)}Automatic overprint settings are used during input processing, and if you set up input so that overprints are not imported, the PDF overprint settings are changed at that point, so OPM also does not output according to specification.

If "Based on the PDF Overprint Mode" is specified in Conventional PS/PDF, processing compliant with the PDF standard is run.

For Advanced PDF, this setting does not exist, and RIP'ing is normally done according to the PDF standard. RIP'ing is also based on the formal specification described in "Overprint mode" (P29) for overprint processing.^{*3)}

The special characteristic of this setting is that processing is run according to the standard, so this setting should be used if PDF output from a regular DTP application is output as it looks, overprints are present, or if you try to output special PDF, such as with the overprint setting encoded as "0". In other words, for output other than OutlinePDF, we recommend that you use this setting.

Differences due to two settings

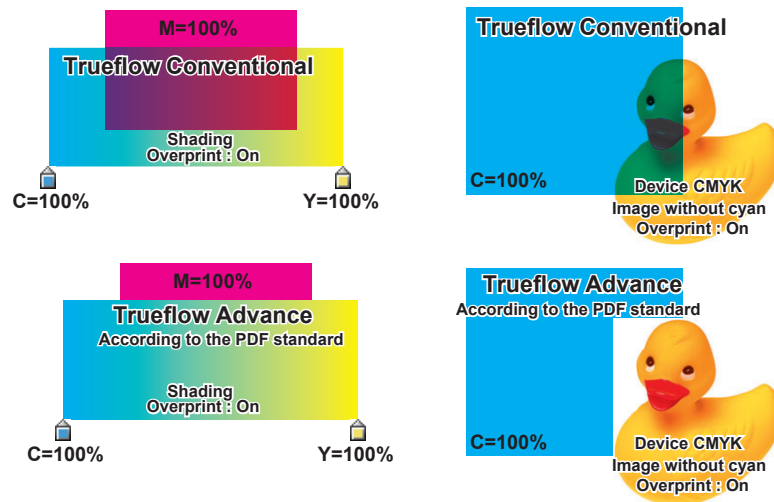
The differences in output between these two settings are summarized in the table below.

If "Based on PDF Overprint Mode" is set for all of the objects, output is performed correctly according to the PDF standard.

Trueflow "Overprint mode" setting	Use system default setting	Based on the PDF Overprint Mode
Overprint DeviceCMYK gradients	valid	invalid
Overprint DeviceCMYK images	valid	invalid
Overprint DeviceCMYK patterns	valid	invalid
Overprint DeviceGray objects	valid	invalid
Overprint mode setting specified in PDF	valid: /OPM 1 process	basis of the PDF
White overprint using DeviceN or Separation data	Drop out white object	Output as white
Overprints on DeviceRGB or spot colors converted to proxy colors ^{*4)}	CMYK basis process	invalid

^{*4)}For example, RGB = 0, 0, 0% overprint objects are processed as K=100% black overprint objects by using input ticket settings.

The differences between DeviceCMYK gradients and images are shown as examples in the illustrations below.



Process-independent overprint coding

^{*1)} You can render overprints with little device dependence using OutlinePDF the same way, and no differences appear between the overprints generated using these two settings. Conversely, for OutlinePS/EPS, the "Use system default setting" setting must be used in Conventional PS/PDF (in other words, output is highly device-dependent), so Separation Black and DeviceN (Black only) input data is converted to DeviceGray and encoded as OutlinePS/EPS.

If that data is processed according to the PDF standard, overprints are ignored because Black is specified as DeviceGray in the input data.

If these are black overprints, this can be avoided using automatic overprints in Trueflow. To enable black overprints other than those, you can avoid the problem by converting OutlinePS/EPS to OutlinePDF in advance to replace DeviceGray data with Separation or DeviceN data.

As shown in the examples above, it is very likely for objects such as those marked as "Differences due to two settings" (P8) to be interpreted differently depending on the RIP, there is a lot of device-dependent encoding, and in the latest DTP applications, processing to avoid this type of code is built in.

For example, according to the PDF standard, overprinting of DeviceCMYK gradients, patterns, and images is disabled, and by overwriting with DeviceN, which can clearly specify the presence of separations in the DTP application, it is possible to render overprints as much as possible.^{*1)}

In this example, encoding the data using DeviceN does not depend on the overprint processing specification in the RIP, and the same overprints can be rendered regardless of the overprint mode settings as well.

In an In-RIP separation workflow, which is currently popular, it is necessary to clearly specify In-RIP separations from the DTP application, and it is possible to replace them with DeviceN in order to clearly specify that.

This is one reason why it is important to understand DeviceN in a PDF workflow that requires In-RIP separations.

When Illustrator 10 and InDesign 2.0.2 were in use, they were part of a transition period for clear interpretation of overprints. In the RIPs used in Trueflow at that time, which included conventional RIP'ing, overprint processing that took this situation into account was implemented, so now there are times when the results are different from those from the current RIP.

In actual production work, it is possible to create PDF that depends little on the output environment by replacing overprints of these objects with transparent objects and not using DeviceGray.

Technical information on PDF workflow

Transparency effect

What is a transparency effect

X-1a **X-4**

The transparency effect is a new function added in Illustrator 9 and InDesign2.0 and later. If you use this transparency effect, problems may occur during output depending on the settings that have been made. However, it is possible to successfully output files with the appropriate processing in almost all cases if you understand the mechanism and how to make the settings.

If you use transparency effects, you must always flatten the objects when you output using PDF/X-1a. Transparency flattening can be performed in advance in a DTP application that can use "Transparency", such as Illustrator or InDesign, so it becomes unnecessary to perform the flattening in the RIP.

However, the settings for flattening transparent objects differ depending on the content of the data, so there are times when output using the default settings in the application does not yield the expected results. If this happens, it is necessary to change the settings.

Examples of data that are made transparent

Data that includes "transparency" also includes data with the following styles, symbols and effects to which transparency is applied in advance in addition to operations set in the Transparency palette.

It is important to check whether the transparency effect has actually been applied using the procedure explained on "How to check transparency" (page13) .

Some elements in the Symbols and Graphic Styles palettes

Some options in the Effect menu

(= menus that can only apply effects to vector objects)

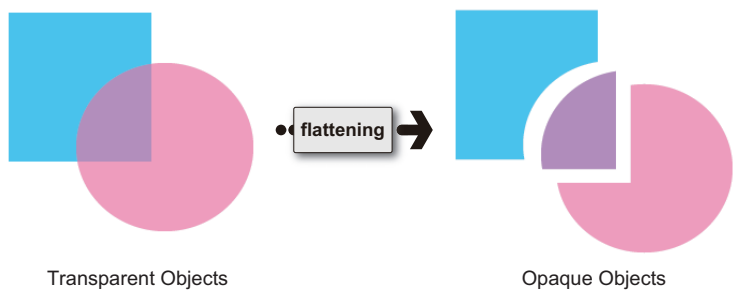
- SVG filter
- Stylize options (Feather, Drop Shadow, Outer Glow, Inner Glow)
- Blur
- Pixelate (all submenus)
- Sharpen, etc.

Overview of flattening

X-1a

In PDF1.3, which is the basis of PostScript and PDF/X-1a, there are no commands for rendering transparency. It is necessary to convert all of the transparent objects in an application into data for objects that are 100% opaque while still preserving the appearance of transparency. This process is called flattening. If you use transparency effects this flattening process must be run at some stage in the data processing.

Example of flattening :



At what point is the flattening performed?

X-1a

^{*1)}For Illustrator (.ai) and Illustrator EPS, you must select either Preserve Appearance or Preserve Appearance and Overprints.

- If you perform one of the following operations, the file will be flattened.
- If a file including transparent elements is output to a PostScript printer.
 - If a file including transparent elements is in Illustrator 8 or earlier format * (Illustrator (.ai), Illustrator EPS, PDF 1.3, etc.) or in a file format that does not recognize transparency (PICT, EMF, WMF).
 - If the Flatten Transparency command is used.
 - If Preserve Appearance is selected in AICB (no transparency support) in Files & Clipboard, and the transparent objects are pasted into another application.

How is it flattened?

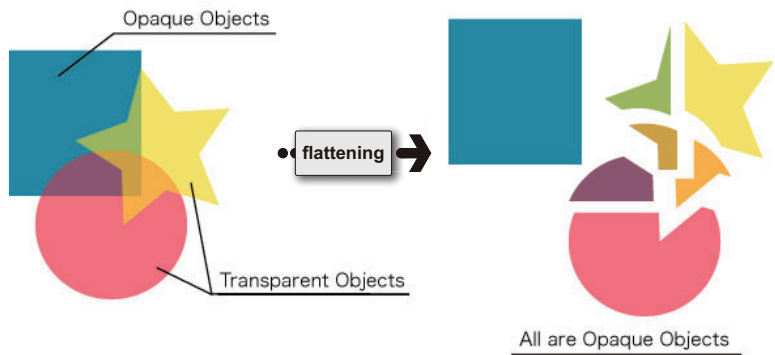
X-1a

^{*1)}Only areas where transparent gradients overlap gradients are rasterized.

	Before flattening	Flattened	After flattening
Opaque objects	Vectors	Not flattened	---
Transparent objects	Vectors	Flattened	Vectors
Transparent gradients	Vectors	Flattened	Rasters ^{*1)} / Vectors
Images	Rasters	Flattened	Rasters

I. Opaque objects & transparent objects

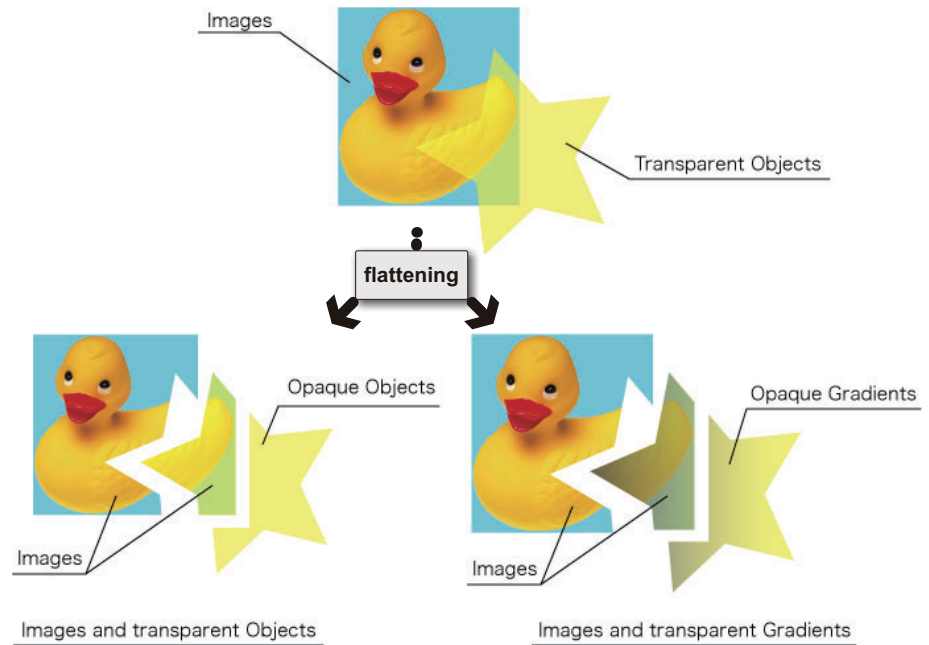
X-1a



II. Images & transparent objects / Images & transparent gradients

X-1a

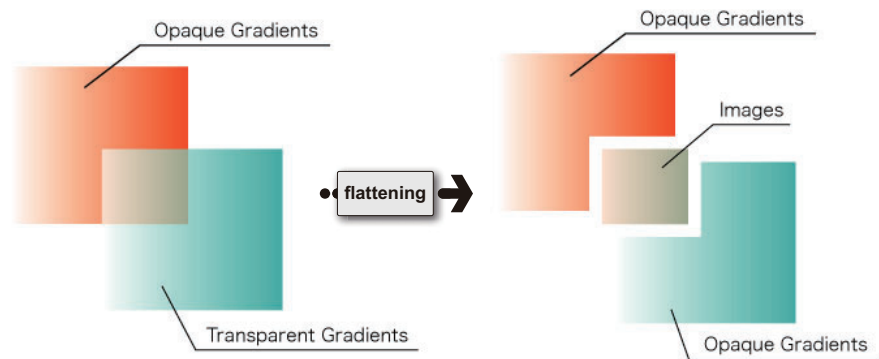
Areas where images and transparent objects overlap are rasterized.



III. Transparent gradients & gradients

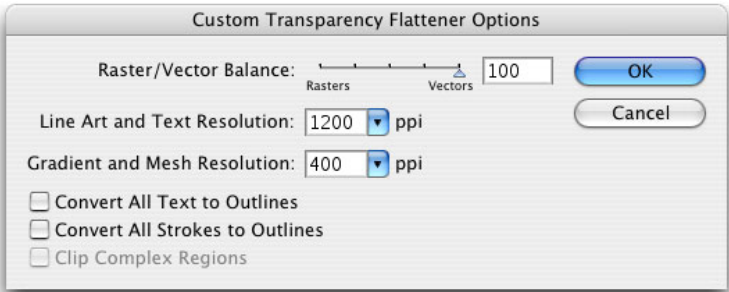
X-1a

If transparent gradients overlap gradients (either transparent or opaque), the overlapping areas are rasterized.



More information about the
Transparency Flattener Options

X-1a



I. Raster / Vector Balance

X-1a

If you use transparency effects, Raster/Vector Balance setting is extremely important. The area of the vector data that is rasterized (image quality), file size and processing times differ as a consequence of the Raster/Vector Balance.

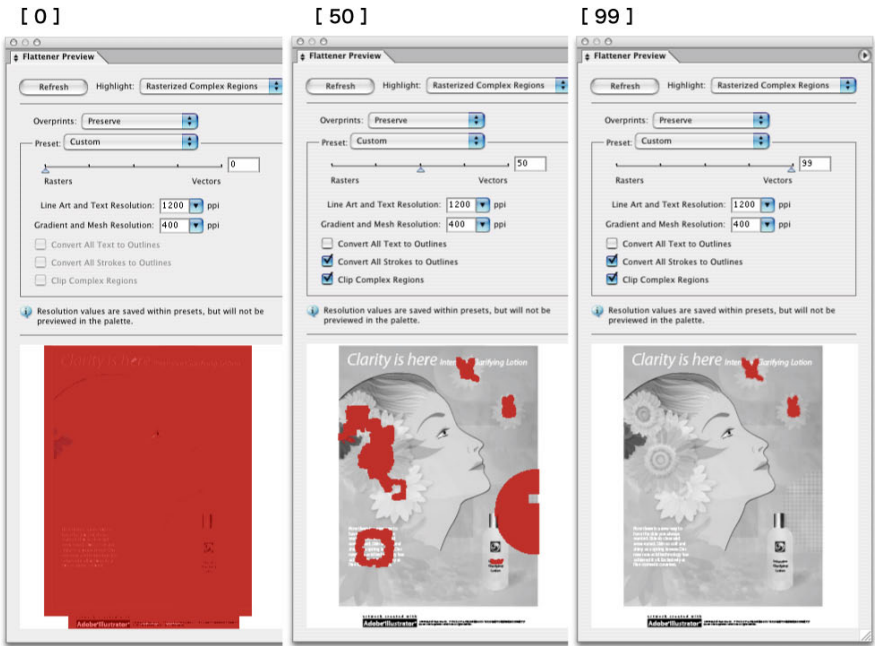
It is not necessarily the case that a higher value is better for this setting.

We recommend using a setting of "100" for normal operations, but on rare occasions, problems occur during output of complex data that includes transparency. You can prevent this from happening by moving the slider to a setting of "99" to "75". Which setting is most appropriate differs depending on the data, so if the data is complex, we recommend checking the Flattener Preview palette as you change the setting to determine the best value, and then generate a proof.

- Checking the Flattener Preview palette

In the following example, the Rasters/Vectors Balance is changed and the effects on the "Rasterized Complex Regions" are displayed and compared.

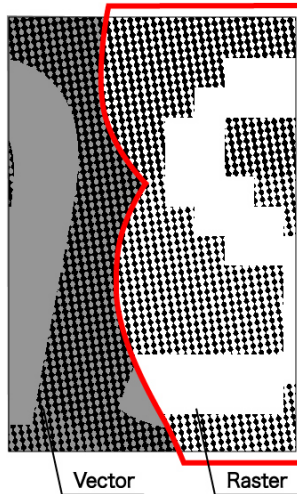
If the setting is "100"
If the Rasters/Vectors slider is set to 100, areas overlapped by images or gradient areas overlapped by transparent gradients are always rasterized.



II. Resolution of line art and text

X-1a

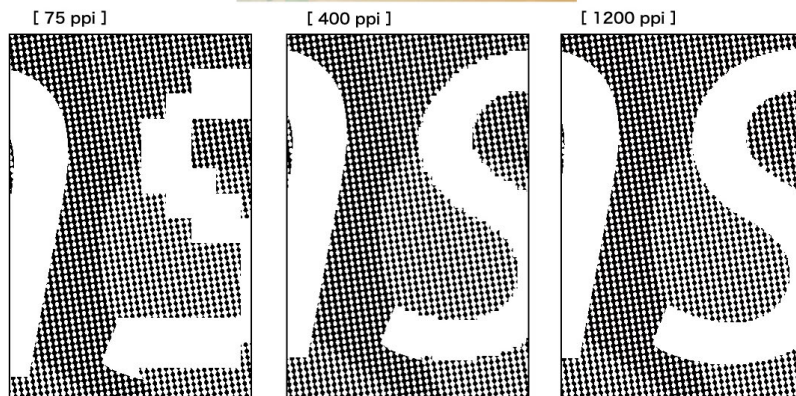
This example uses sample data included with Illustrator 10 flattened to "75" in "Rasters / Vectors" that was output via DoTIFF output (Y separation) at 2400dpi from Trueflow.



[Rasterization Resolution]:

If the output device resolution setting in "Rasterization Resolution" above is the same, you can achieve the best quality, but the PostScript data you create increases in size, which lowers performance. Adjust the balance of quality and performance by setting a resolution that can be divided by an integer that yields sufficiently high quality.

Here we set the resolution for the rasterized line art and text areas.



III. Other options

[Gradient Mesh Resolution]

Here we set the resolution for rasterized gradient and mesh areas. You can also set the maximum resolution for drop shadows and blurs.

[Convert All Text to Outlines]

Converts all of the text objects to outlines and discards the text character information. When you select this option, the effect on the text width from the flattening process is suppressed, but small fonts become slightly thicker.

[Convert All Strokes to Outlines]

Converts all of the strokes to outlines. The paths for the areas of transparent objects that overlap areas are converted to outlines.

[Clip Complex Regions]

Processes the edges between vector areas and the rasterized areas so that the object paths overlap. If only some of the vector objects are to be rasterized, this reduces jaggies in the border areas, but the paths become more complex.

[Clip Complex Regions]:

We recommend turning this On when the Raster/Vector Balance is other than 100.

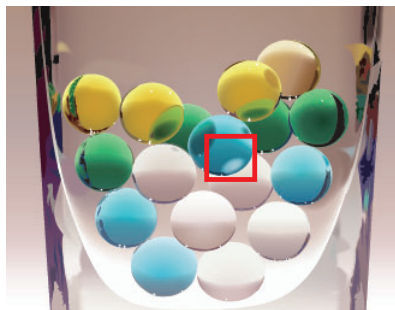
Illustrator rasterization effect settings

In Illustrator, you can set rasterization effects for the document.

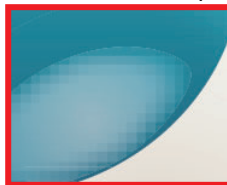
Rasterization effects have enormous effects on artwork that you create.

As a result, be sure to check the settings before using filters or effects. If these settings are too low, banding may occur in the output.

Choose "Document Raster Effects Settings..." from the "Effect" menu.



Resolution 72dpi



Resolution 300dpi



How to check transparency

X-1a X-4

It is still important to check in advance where transparency is being used, even in a PDF/X-4 workflow.

We recommend that you also use the Flattener Preview palette to see in advance where transparency objects are used in the file and whether or not they are flattened. If you cannot predict the output results, print a proof and check whether or not there are problems.

I. Pages palette

*1) In InDesign CS3 and later, if you use transparency effects on a page, a small icon that indicates transparency effects is displayed for that page in the "Pages" palette.

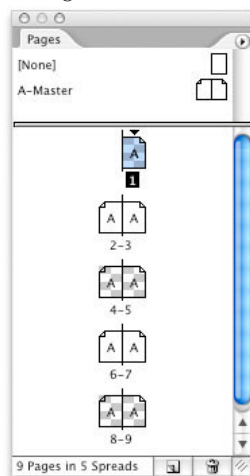
In CS4 and later, if you make setting changes in "Panel Options" in the "Pages" palette, it is now possible to check whether or not transparency effects were applied by the display of a small icon that indicates transparency effects.

In InDesign CS - CS5, the presence of transparent objects can be checked using the Pages palette.

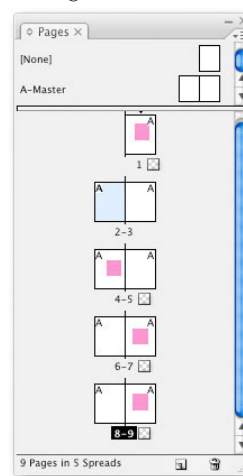
1. Display the Pages palette

When any transparent object is included in the page, the pages icon displays a checkerboard pattern.*1)

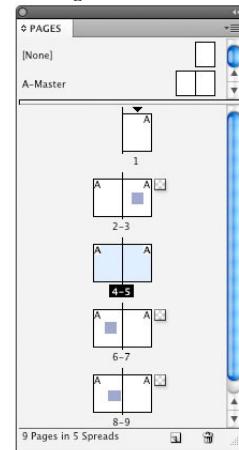
InDesign CS / CS2



InDesign CS3



InDesign CS4 / CS5



- To check the transparent objects and the normal objects affected by the transparency effect in detail, use the Flattener Preview palette, which is described in the next section.

II. Transparency Flattener Preview

Installing the plug-in into Illustrator 10

It is necessary to install the Flattening Preview palette plug-in to display the Flattening Preview palette.

(Windows):

Drag the "Flattening Preview.aip" file in the Illustrator10 \ Utilities \ Flattening Preview folder into the Plug-ins folder.

(Macintosh):

Drag the "Flattening Preview Plug-in" file in the Adobe Illustrator10 / Utilities / Flattening Preview folder into the plug-in folder.

Displaying the preview window

(InDesign CS - CS5):

Display the palette using Window > Output > Flattener Preview. The preview appears directly in the layout, so check it there.

(Acrobat 7):

Display the palette using Tools > Print Production > Transparency Flattening. The preview appears in that dialog box, so check it there.

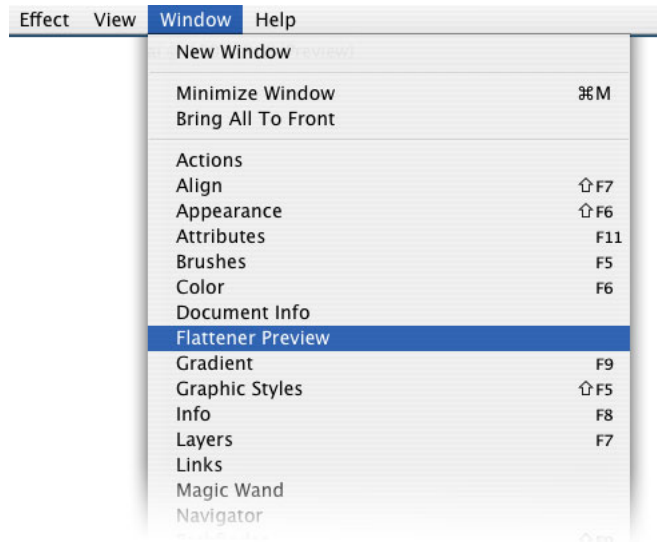
(Acrobat 8 / 9):

Display the palette using Advanced > Print Production > Flattener Preview. The preview appears in that dialog box, so check it there.

Below we focus primarily on how to check transparency in Illustrator CS2.

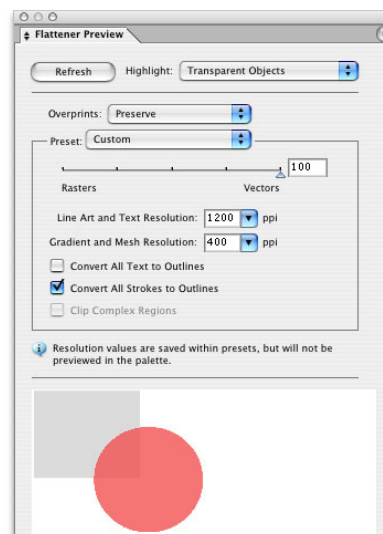
However, the concept is basically the same for other applications (InDesign and Acrobat).

1. Select Window / Transparency Flattener Preview to display the dialog box.

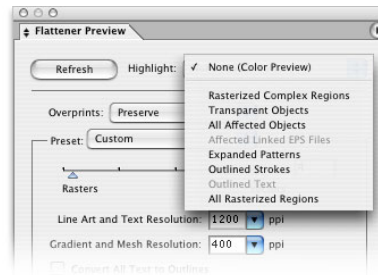


2. Then click the Refresh button once to display the preview. When the preview is displayed, the Highlight: pop-up becomes active.

When you select Transparent Objects, the objects with transparency are highlighted in red in the preview. This includes places that include transparency.



III. Other menus of Flattener Preview



This section describes other highlight menus that you can check in Flattener Preview.

[None (Color Preview)]

Displays a color preview of the artwork without any highlighting.

[Rasterized Complex Regions]

Highlights rasterized areas. There may be some differences on the borders of the areas highlighted here (color stitching caused by color matching and resolution and tonality differences,) due to the rasterization. (this differs depending on the printer driver settings and the rasterization resolution)

[All Affected Objects]

Highlights transparent objects as well as objects affected by transparency due to overlapping with transparent objects. The highlighted objects are affected by the flattening process.

[Affected Linked EPS Files]

Highlights placed-linked EPS files that are affected by transparency.

[Expanded Patterns]

Patterns affected by transparency are handled as groups of individual images and objects rather than patterns. These areas are all highlighted.

[Outlined Strokes]

Highlights outlined strokes. Highlights transparent areas of strokes because they have been converted to outlines or the Convert All Strokes to Outlines option is selected.

[Outlined Text]

Highlights text that has been converted to outlines. Highlights transparent areas of text because they have been converted to outlines or the Convert All Text to Outlines option is selected.

[All Rasterized Regions]

Highlights areas where rasterized objects overlap other objects. This means areas that could not be expressed in any other way than in PostScript or areas more complex than those specified with the threshold value in the Raster/Vector Balance.

Overprint

The overprint effect is similar to the transparency effect. However, when PDF/X-1a is used, these effects differ significantly. In PDF/X-1a, as the transparency effect does not work, transparency objects must be flattened and then combined. On the other hand, the attributes of overprint objects can be retained.

To adopt a PDF/X-1a standard data workflow, it is a prerequisite that all overprint attributes be loaded into Trueflow, and it is important to create data with overprints in mind, from the object import stage through the creation of the final data.

What is overprinting

Overprinting means to print the objects on one separation so they overlap the objects on a different separation in print.

It was originally intended to prevent white gaps from appearing between the background color and layered objects due to misregistration during printing.



[Color values for overprint areas]

- If the Forward separation is 0%, the Backward separation color will be output
- Even if the Forward color is 1%, the Forward color is output (Process overprint)

	Cyan	Magenta	Yellow	Black
Output results	70	90	20	5
Forward	0	90	20	5
Backward	70	30	0	10

(White overprint)

	Cyan	Magenta	Yellow	Black
Output results	70	30	0	10
Forward	0	0	0	0
Backward	70	30	0	10

(Black overprint)

	Cyan	Magenta	Yellow	Black
Output results	70	30	0	100
Forward	0	0	0	100
Backward	70	30	0	10

Difference between overprint and transparent

When two objects overlap, the behavior of the program differs when overprinting is set for the Forward object compared to when transparency is set for the Forward object. It is important to understand this difference in order to obtain the expected output results.

In the example in [Fig.1], the output results are the same for overprinting and transparency. However, if C=1% is set for the Forward object, as in [Fig.2], overprinting and transparency generate completely different results.

As in this example, if there are no cyan components in the Forward objects when overprinting is set, the C=100% of the Backward is visible through the Forward objects, but if there are cyan components in the Forward objects, the cyan is overprinted^{*1)}, so the overlapping areas of the Backward objects are no longer visible. If transparency is set, the Backward objects continue to be visible through the Forward objects even if the same changes are added.

The behavior of the program is similar for overprinting and transparency, so one may be used for the other during internal processing in the application.

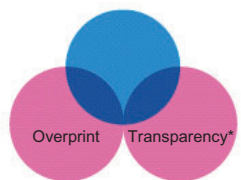
What is important is that if you make appropriate transparency division settings and set all overprints to load in Trueflow, the data is processed correctly.

^{*1)}Even if the Forward is, for example, Cyan=1%, the 1% cyan is overprinted.

Transparency settings in the illustration on the right
[mode] : multiply
[Opacity] : 100%

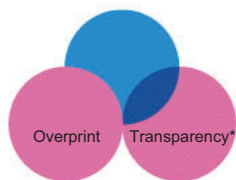


[Fig. 1]



	C	M	Y	K
Forward	0	80	0	0
Backward	100	0	0	0

[Fig. 2]



	C	M	Y	K
Forward	1	80	0	0
Backward	100	0	0	0

Although overprint is rarely set for process colors intentionally, it is important to check whether such a case has occurred mistakenly.

In addition, if it is necessary to have non-K process colors be overprinted as an intentional part of the design, using transparency to achieve the same overprint results as in [Fig. 1] makes it possible to accurately communicate the intention of the design to the prepress department.

Relation between overprints & "Color Separation (In-RIP)"

¹⁾<Quoted from InDesign CS2 Help>

"If you are using a PPD file for a RIP that supports in-RIP color separation, select 'Color Separation (In-RIP)'."

<Quote from QuarkXPress 6.5 Help>

"QuarkXPress now supports DeviceN. This function makes it possible to create composite PostScript files and output using a device that supports in-RIP separation."

You may be able to achieve different results by switching between the "Color Separation (In-RIP)" and "Composite CMYK" options to handle various problems related to overprinting. However, even if the results using "Composite CMYK" are more desirable for some data, the related problems will not be resolved unless overprint importing is turned on in Trueflow.

First, what is important is to load the overprints, and you should think of the selection of "Composite CMYK" or "Color Separation (In-RIP)" options as a separate problem.

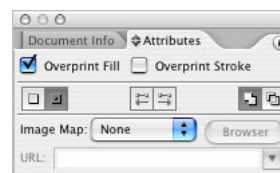
When you select color separation, if you are using a RIP that creates the separations in the RIP, such as Trueflow, the DTP application manuals instruct you to use the in-RIP option.¹⁾ Furthermore, for PDF/X-1a or PDF/X-4 output, DeviceN encoding is used automatically as necessary, so you can create your output data.

For the above reasons, we recommend using in-RIP color separation or DeviceN in Trueflow for Adobe Creative Suite and later data as well as QuarkXPress 6.5 and later data.

How to make the settings

I. Settings in the application

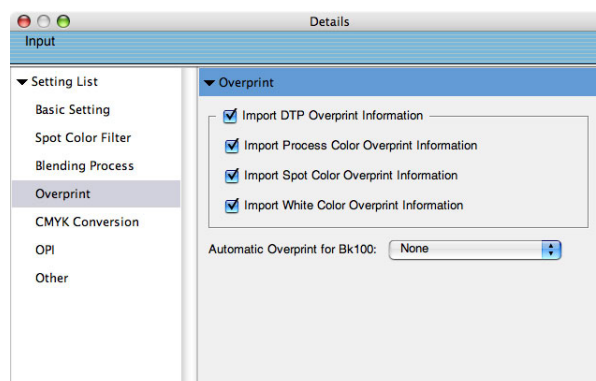
In Illustrator CS - CS5, select the object you want to overprint, and turn overprinting on in the "Attributes Palette". In InDesign CS - CS5, this is set in the "Print Attributes Palette".



QuarkXPress 6.5 - 8.0, it is set in the "Trap Information Palette".

II. Settings in Trueflow

In Trueflow, the "Overprint" function allows you to set overprinting for process colors, spot colors and white individually as well as process black overprints automatically, but when you change these settings and output, the output results differ, even for PDF/X-1a data.



How to check correct overprint

I. Checking using comp output

(checking by outputting from a printer)

*1) See "Overview of flattening" (P10) for more information about dividing overprinted areas.

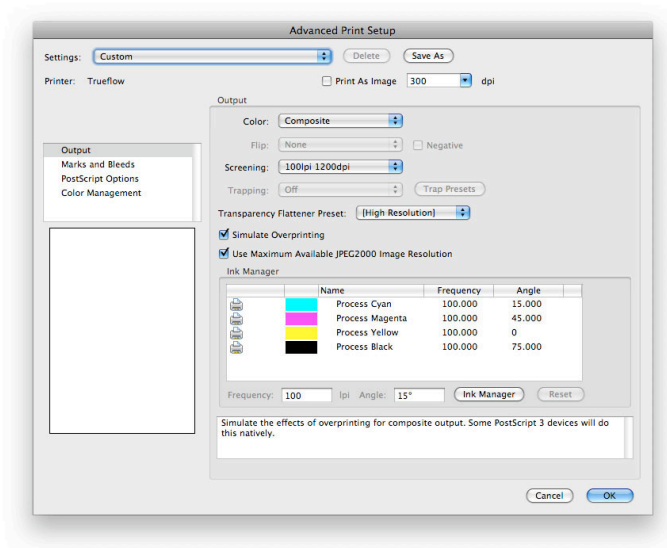
*2) Confirmation using this method divides and unites overprints as transparent objects for output, so overprint output is not actually 100% simulated. Some differences appear, such as text in the overprint areas becoming thicker. See "V. Overprints are output as transparent objects" (P27) for technical information.

If you output a comp on a color printer, the overprints may not output correctly, depending on the RIP connected to the printer. The overprints are also divided ^{*1)}, so make the following settings to obtain the same results without using the overprint coding in the PostScript.

(if outputting to a normal color printer, select "Composite CMYK").

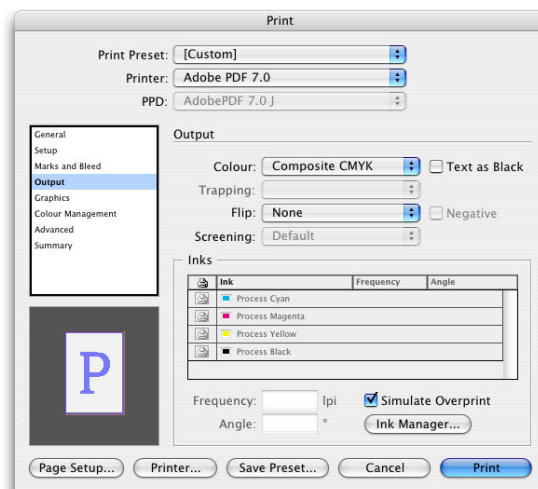
- Acrobat 7 - 9

Select Print > Advanced Print Setup > Output and then check the "Simulate Overprinting" checkbox.^{*2)}



- InDesign CS - CS5

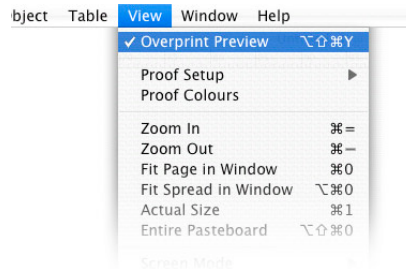
Select Print > Output and then check the "Simulate Overprint" checkbox.



II. Checking using an overprint preview

(simulating the output results)

In InDesign CS - CS5, if you turn on "Overprint Preview" in the "View" menu, the "Simulate Overprint" screen is displayed, allowing you to check the overprints at the editing stage.



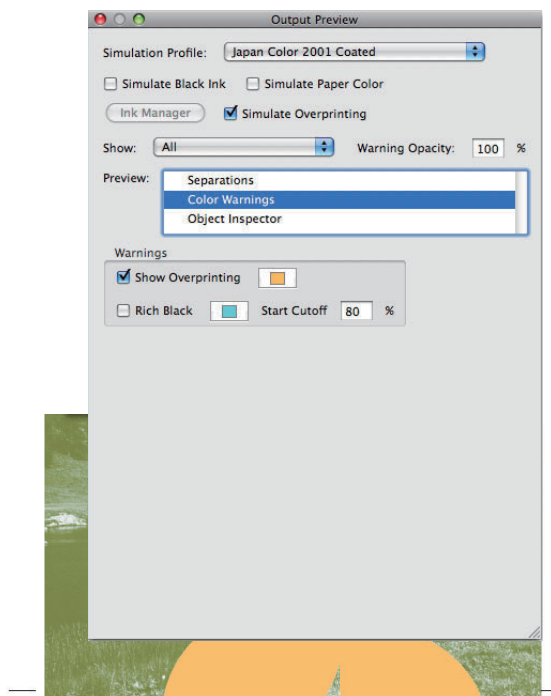
In the default Acrobat 9 settings, "Only For PDF/X Files" is set. In addition, when you open an output preview, you can see the preview even if "Simulate Overprinting" is turned on.

- [Illustrator CS - CS5] : View menu / Overprint Preview : On
- [Acrobat 7] : Advanced menu / Overprint Preview : On
- [Acrobat 8] : Advanced menu / Print Production / Overprint Preview : On
- [Acrobat 9] : Acrobat menu / Preferences / Page Display / Overprint Preview : On

III. Checking using an output preview

(checking the areas with overprint settings)

In the "Output Preview" function in Acrobat 7 - 9, turn on "Show Overprinting" to highlight the places in the PDF where overprints are set so you can easily check them.



Overprint related Points to Note

An actual example is used to illustrate the effects of overprint settings on the output and how to prevent overprint mistakes.

I. "Color Separation (In-RIP)" & "DeviceN" color handling

If you use "Color Separation (In-RIP)" or "DeviceN" to generate the colors for printing in applications such as Adobe Creative Suite or QuarkXPress, all of the colors are encoded as spot colors in the PS. ("About DeviceN" (P41))

In InDesign CS - CS5, process colors in IllustratorEPS and other imported objects are encoded as spot colors in the PS, but in QuarkXPress 6, imported IllustratorEPS objects are not changed internally, so the colors defined there are encoded as is.

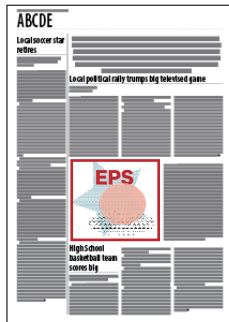
If PS containing spot colors is input into Trueflow, process colors and true spot colors are still distinguished from each other, so the appropriate processing is applied, but that process of distinguishing them occurs after input, so it is necessary to be aware that all colors are handled as spot colors when "Import overprint" is set for input.¹⁾In other words, the "Import Process Color Overprint Information" setting for overprinting in Trueflow is not applied, and the "Import Spot Color Overprint Information" setting is enabled.

In addition, the "Import overprint" function in Trueflow applies overprints to the entire document, including the objects, so depending on the behavior of the individual application, it is difficult to completely control this in the RIP.

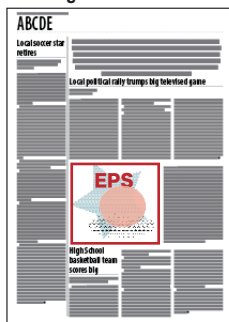
¹⁾When this happens, set overprint loading for spot colors (see "Specification of spot colors" (P32) for information about spot colors).

Spot colors within objects imported into QuarkXPress 6.5 - 8.0 are handled as spot colors, and process colors are handled as process colors. In other words, colors within objects are handled as they are without change.

QuarkXPress 6.5 - 8.0



InDesign CS - CS5



Save as PS
(DeviceN
or
In-RIP
Separation)



□ = Process color
■ = Spot color

II. Automatically (unintentionally) placed overprints

Adobe Creative Suite applications may create PS encoded with the following:

- Overprint objects that are automatically created in gradient positions
- Multiple overprint objects where the process colors are mixed on output

If this type of data is processed with Trueflow's overprint loading function OFF, the input processing cannot be performed properly. As a result, tints and gradients may be missing in part from the output or some objects may be output using totally different colors.

If automatic overprint processing is used in Trueflow, the resulting output may be different to what was expected due to the mixture of overprint settings that are automatically set in the application and the overprint settings that are automatically set in the RIP.

If the output results cannot be completely predicted, as in this case, we do not recommend using automatic overprinting in Trueflow.

III. Automatically overprinting K=100%

X-1a **X-4**

If you use transparency effects (including drop shadows), the original objects are divided and united (divided into multiple objects and some of those objects are expanded into images).

Due to the divide and unite processing, K=100% text and objects no longer remain as pure K=100% objects, so Trueflow automatic overprinting does not function.

By setting overprint attributes in InDesign or Illustrator without relying on Trueflow automatic overprinting, the divide and unite processing can be applied taking overprints into consideration, so you can achieve the results you expect.

IV. White overprinting

X-1a **X-4**

- If white overprints are set by mistake

If white overprints are set by mistake

Generally, white overprints make objects transparent, so nothing is output. However, it is necessary to be careful because white overprints may be set by mistake.

For example, in Illustrator CS - CS5, if you set white objects or text to overprint, the following warning is displayed.

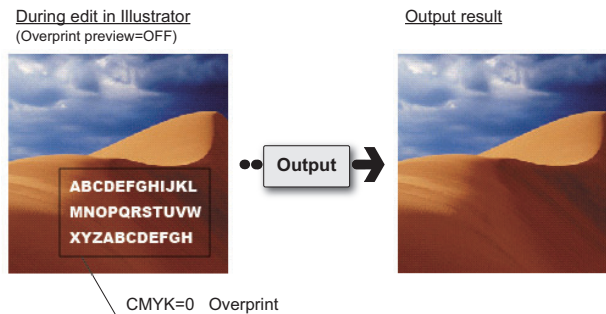


^{*1)}This white overprinting generally makes objects completely transparent and nothing is output.

However, if overprinting is set for objects and text that are other than CMYK=0 and then those objects or text are changed to white, white overprinting is applied with no warning displayed, and the text disappears on output.^{*1)}

If you set "Overprint Preview" mode in the application while you are editing, it is possible to view on screen how the objects will be output so you can check the output results in advance.

When the same operation is performed in InDesign CS - CS5, the overprint will be automatically canceled when the text color is changed to white.



- Restriction of white overprinting specified in Illustrator

When the Illustrator data, which includes the white overprint setting (tint, CMYK=0%, or overprint), is processed on Trueflow, the overprint setting does not work properly on the K separation. The specified overprint area on the K separation is output as 0% even when the "Use white setting" checkbox (under "Overprint loading") has been marked in the import template.

For CMYK=0% objects, 0.05% is actually set as the color value, so even if they appear to be CMYK=0%, this can cause overprint effects in the K separation.

- Standards for determining what is considered "white"

It is not always the case that 0% areas in the data are determined to be "white".

In the Illustrator CS, CS2, CS3 and CS4 overprint preview, color values of 0.19% and lower are also considered to be white, and K=0.19% overprint objects disappear (in InDesign CS - CS5, 0.196% and lower objects disappear).

Cases where 0.19% and lower is specified intentionally as the actual color value are unique, and it is rare that this causes any actual problems, but it is important to understand in advance the logic of how white is determined.

In almost all DTP applications, the color depth in overprint preview processing is 8-bit, which means that 256 colors can be rendered. With a color depth of 256, the smallest step is 0.4%, and as you can see from the calculations below, K=0.19% becomes "0" and is determined to be white.

[For 0.19%] :

$256 \times 0.0019 = 0.4864$ -> If you round off : "0"

[For 0.2%] :

$256 \times 0.0020 = 0.512$ -> If you round off : "1"

However, in the internal PS or PDF that is actually output, the color depth is higher at 16 bits, which means that colors are rendered using 65,536 levels. Therefore the smallest color step is 0.0015%, and anything below 0.00076%^{*1)} is logically determined to be white.

In Trueflow, colors may be processed using either 8 or 16 bits, depending on the version and processing settings.

^{*1)} The number 0.00076% is a number that is not actually rendered internally.

If overprints are set for colors with densities of about 0.19% or lower, the results may differ between the overprint preview in the DTP application and the actual output results in Trueflow.

If we look at the example described above, where CMYK=0% objects in Illustrator actually become K=0.005%, if they are processed as 16-bit color, the 0.005% color value is left as is, but if it is processed using 8-bit color, K=0.005% is handled as K=0%, so the results are not the same.

The standard that determines "white", such as the application, the type of RIP or the processing settings, affects other results besides 8-bit and 16-bit color values, and it is difficult to predict in advance the output results of overprinting colors that are close to white. The data presented in these examples is not very "intentionally specified" data. This is important to understand before you try to learn the potential causes of problems.

V. Overprints are output as transparent objects

There are times when objects in a document for which overprinting is set are divided and united as if they were transparent objects.

^{*1)}Text is outlined or converted to images.

As a result, the results are slightly different compared to when true overprints are output.^{*1)}

	Saving the PS	Saving the EPS	Saving the PDF
1) InDesignCS / CS2 / CS3 / CS4	OK	NG	NG
2) IllustratorCS / CS2 / CS3 / CS4	OK	NG	NG
3) Illustrator10	OK	OK	OK

OK = Divided and united; NG = Not divided and united

As in the table above, overprints are handled as transparent objects and are divided and united if applications are run in the following ways.

- 1) InDesign CS - CS5 (saved as PS)

When "Simulate Overprint" is turned on for "Output" in the "Print" dialog box

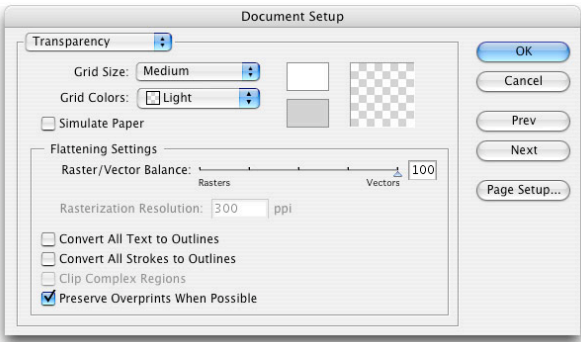
- 2) Illustrator CS - CS5 (saved as PS)

When "Simulate Overprints" is set in the "Advanced" settings in the "Print" dialog box

- 3) Illustrator 10 (when saving as PS, EPS or PDF)

When "Preserve Overprints When Possible"^{*2)} is set for "Transparency" in "Document Setup" (However, if there are no transparent objects on the page at all, the file is output with the overprints as is.)

^{*2)}The default is for "Preserve Overprints When Possible" to be OFF when "Simulate Overprints" is selected.



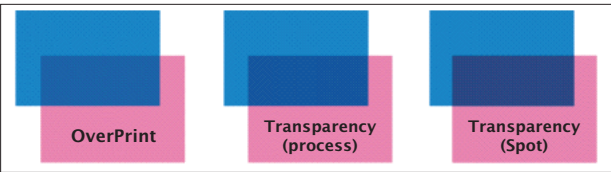
By simulating the overprints as transparent objects in this way, as described in "I. Checking using comp output" (P22) , it is possible to output comps that enable you to check overprints on a normal color printer (on most color printers, overprints cannot be output correctly if they are not converted). However, for Illustrator 10, as shown in the table, this simulation is not only for when the data is saved as PS, but it also applies to saving as EPS, so if you mistakenly set overprinting where it is not necessary, the overprints are output as if they were loaded into Trueflow even if they were not.

VI. Transparent areas are output as overprints

X-1a

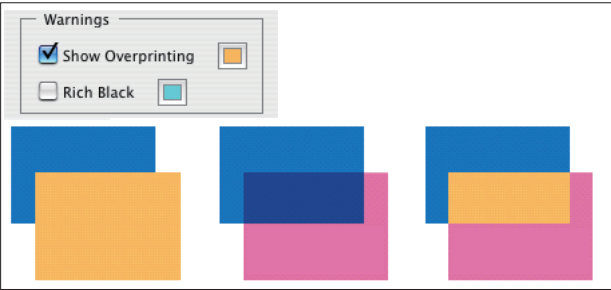
There are times when objects set to be transparent are processed as overprints during output. For example, if transparency effects are applied to objects or gradients that include spot colors, when the data is saved as EPS or PDF, overprints are applied to the areas that overlap with the transparent objects. For process colors, overprints are not applied under the same conditions, and the transparent objects are divided.

Data creation



Save as PDF, EPS

After save



Overprint mode

What is a Overprint mode

Overprint mode (OPM) defines the operation mode for overprinting text as is and is described within the PDF.

In the RIP, the way that overprints that include this PDF are processed changes, depending on this OPM description.

It is not necessary to be conscious of the OPM in a general DTP workflow, such as the one described in this document, but there are exceptions, and in some special PDF workflows, it may not be possible to obtain proper output if you are not conscious of this OPM.

The two overprint modes

There are two operation modes for overprint mode.

/OPM 1 : NON ZERO OVERPRINT

Interpretation of color value 0% = No color

The bottom object is made transparent

	Cyan	Magenta	Yellow	Black
Output results	70	90	20	5
Forward (DeviceCMYK)	0 ^{*1)}	90	20	5
Backward (DeviceCMYK)	70	30	0	10

^{*1)}No color (The bottom object is made transparent)

/OPM 0 : FULL OVERPRINT

Interpretation of color value 0% = There is a 0% color

0% color is painted from the top

	Cyan	Magenta	Yellow	Black
Output results	0	90	20	5
Forward (DeviceCMYK)	0 ^{*1)}	90	20	5
Backward (DeviceCMYK)	70	30	0	10

^{*1)}There is a 0% color (0% color is painted from the top)

e.g.)

/OPM 1



/OPM 0



The normal mode is "/OPM1", and the description in "Overprint" (P19) in this document illustrates the workflow when you select "/OPM1".

OPM affected only by DeviceCMYK

This means that if the proper overprint definition is "no separation color", the following object colors are made transparent.

It is also possible to say that the OPM defines whether or not to interpret 0% as "no color".

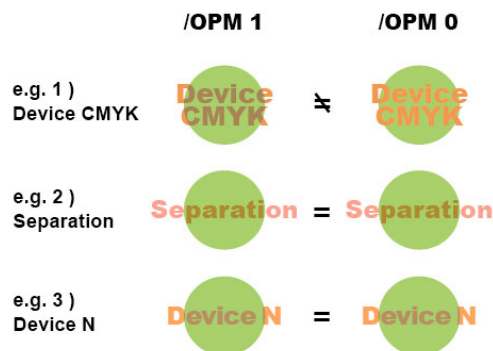
It is necessary to define a 0% color value for unwanted CMYK separations in DeviceCMYK, and it is the OPM that defines this interpretation of 0%. Therefore, in the DeviceCMYK color space, the OPM settings can be said to affect only the objects set with overprints. The OPM setting does not affect other object processing.

• Effects of OPM on different color spaces

Object color space	OPM effect	Remarks
DeviceCMYK	Affected	Because it is necessary to define a 0% color value.
DeviceN / Separation	Not affected	Because it is not necessary to define a 0% color value, since color values are set only for the required separations.
DeviceRGB / DeviceGray ^{*1)}	Not affected	Because the definition is for logical colors, not separations.

^{*1)}DeviceGray may be converted to a DeviceCMYK K separation in the application or the RIP, and if this happens, overprints are applied and the OPM setting has an effect. DeviceGray is converted to the DeviceCMYK K separation in Trueflow as well. In addition, objects defined as Gray in Illustrator 9 or later are output as DeviceCMYK (DeviceN, depending on the processing), so they are overprinted.

In the figure to the right, Device N is in back and individual color spaces are in front.



e.g. 1) Forward is [Device CMYK] ([/OPM 1] [/OPM 0] different)

	Cyan	Magenta	Yellow	Black	Spot 1
Output results /OPM 1	40	70	50	0	None
Output results /OPM 0	0	70	50	0	None
Forward (DeviceCMYK)	0	70	50	0	None
Backward (DeviceCMYK)	40	0	70	0	None

e.g. 2) Forward is [Separation] ([/OPM 1] [/OPM 0] same as)

	Cyan	Magenta	Yellow	Black	Spot 1
Output results	40	0	70	0	50
Forward (Separation)	None	None	None	None	50
Backward (DeviceCMYK)	40	0	70	0	None

e.g. 3) Forward is [Device N] ([/OPM 1] [/OPM 0] same as)

	Cyan	Magenta	Yellow	Black	Spot 1
Output results	40	0	20	5	70
Forward (DeviceN) ^{*2)}	None	None	20	5	70
Backward (DeviceCMYK)	40	0	70	0	None

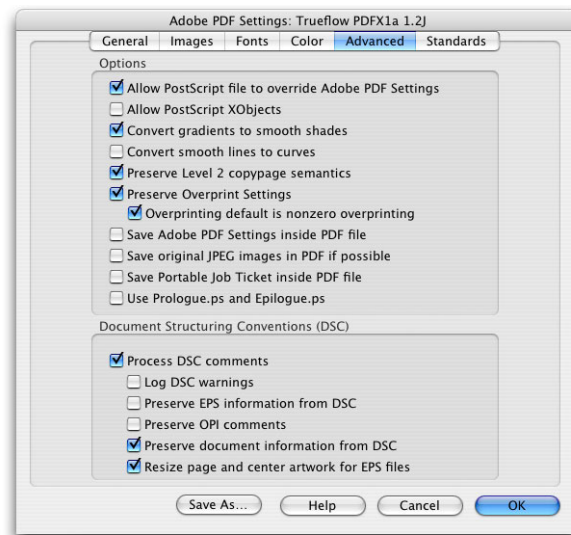
^{*2)}To specify colors that include spot colors using DeviceN format, use "Mixed Ink Swatch" in InDesign CS2 / CS3 / CS4 and "Multi-Ink" in QuarkXPress.

Overprint mode settings for Acrobat Distiller

Normally, it is not necessary to be conscious of the OPM setting, but in Acrobat Distiller, you can change the OPM setting.

The advanced setting of Adobe PDF Settings Dialogbox for "/OPM 1" is to check the "Overprinting default is nonzero overprinting" checkbox, and this is the default.

If you change this setting, there may be differences between the overprint preview in the DTP application as well as the Acrobat display and actual output results, so for normal workflows, this setting should not be changed.



Proper overprint operations

In the PostScript or PDF standard that existed before the OPM concept was defined, a prerequisite for overprint operations was an operation such as "/OPM 0".

However, this was designed to make it possible to obtain results like those from setting "/OPM 1" for DeviceCMYK overprints if the data was separated and output from Illustrator, so the output differed from when composite PostScript was separated in the RIP.

To resolve this problem, we introduced the concept of OPM as a RIP processing mode for achieving the same results from different output.

After this, specification in Illustrator was implemented in InDesign as well, and the overprint preview was also made into an "/OPM 1" preview.

This means that it is derived from the overprint specification in Illustrator, and in Acrobat Distiller 5 and earlier versions, the OPM setting was described as "Illustrator Overprint Mode". This means the same as the "Overprinting default is nonzero overprinting" in Acrobat Distiller 6 and later versions.

In a CPSI-based RIP that processes PostScript such as SCREEN's AD-810MX, the CPSI core is set to operate as "/OPM 0", but it has become possible to RIP using "/OPM 1" in the AD-810MX as necessary by setting "Apply process colors".

Specification of spot colors

Accurately specifying spot colors

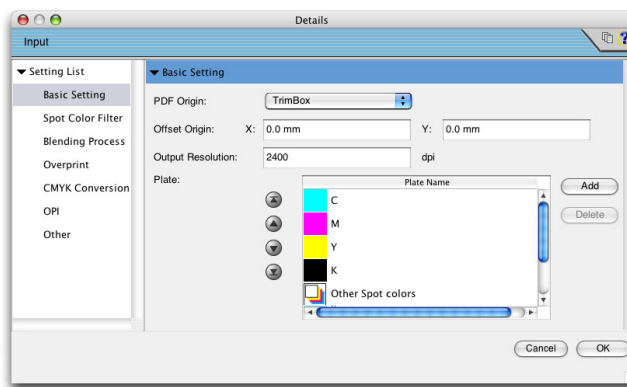
Converting data containing spot colors that were specified when the data was created into process colors during output (proxy colors) causes problems under a wide variety of conditions. It is possible to convert spot colors to process colors and output even from Trueflow, but it is important to set whether to convert the spot colors to proxy colors using process colors or handle them as spot color separations as they are in advance in the DTP application, and then finalize the spot color settings in the PDF.

This is because even if the input data is the same, it is controlled in the RIP, so spot colors are handled differently depending on whether the RIP is set for spot colors to be converted to proxy colors and printed or whether the RIP is set to handle the spot colors as is. Therefore, the results vary and may not appear as intended depending on the output environment.

By correctly setting how the spot colors should be handled before creating a PDF file, it is possible to output the same results in any output environment.

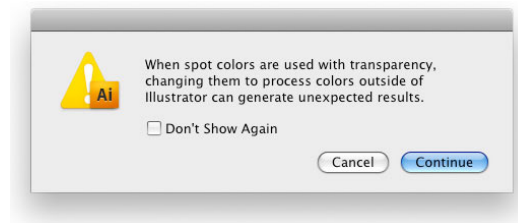
However, it is necessary to be careful because if there are transparency or overprint effects, as described in "VI. Transparent areas are output as overprints" (P28), transparency effects must be handled as overprints, and the overprints will not be as expected at the point when they are converted to process colors.

This is described in more detail in the next section.



Applying transparency effects and overprints to spot colors

If transparency effects or overprints are applied to spot colors, the expected results are almost never achieved if the spot colors are converted to process colors in the RIP for output. If transparency effects are applied to spot colors in Illustrator CS2 - CS5, the following message is displayed when the data is saved as EPS, reporting the condition.



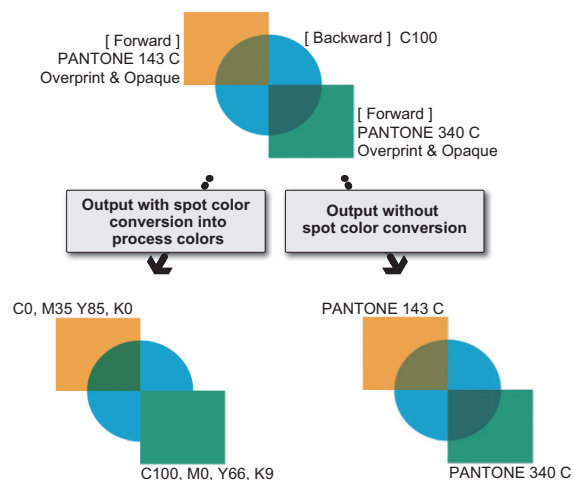
If overprints are applied to spot colors, this message is not displayed, but similarly, the data is not output as expected.

Specific cases where transparency effects and overprints are used are shown below, but the spot color settings are only made at the stage when the data is created for the areas where spot colors are actually output, and loading spot color information and overprints into the RIP is only one method of solving the problem.

Applying overprints to spot colors

X-1a **X-4**

When overprinting true spot color separations, spot color inks are printed in the areas where the spot color objects and other objects overlap using separate separations, so the output is a mix of both types of objects. However, the results are completely different when those spot colors are converted to process colors and overprinted as compared to when they are output as spot color separations.



It is important to use the colors that are generated when the spot colors are converted to process colors at the stage when the data is created, and always turn on "Overprint Preview" to check the output results in advance. If you convert to process colors in Trueflow, you cannot check the output results in advance, so it is not possible to guarantee that the output will be the same as what appears on screen.

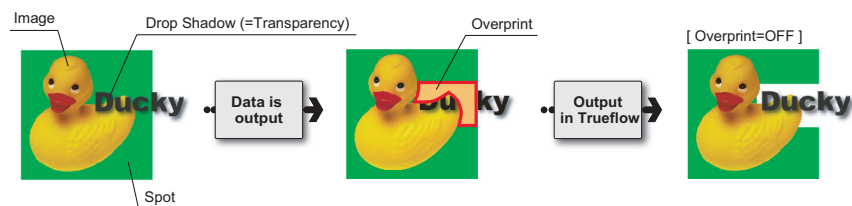
Spot color transparency effects

X-1a

As described in "VI. Transparent areas are output as overprints" (P28) , generally if objects with transparency effects overlap objects with spot colors, some of the transparency settings are converted to overprints and the data is saved.

As described in "Applying overprints to spot colors," if objects with transparency effects are unexpectedly converted to overprints in this way, the results are completely incorrect. To achieve the expected results, the rule is to output spot colors as spot colors using separate separations. Of course it is critical to set up the overprint loading and spot color loading correctly in the RIP, and if they are not loaded, this will cause serious problems in the output.

e.g.)



As shown in the example above, it is necessary to be careful because problems occur not only if transparency effects are set for spot color objects themselves, but also when there are other transparent objects.

If you use the colors specified as process colors in advance rather than spot colors, these types of problems do not occur.

Ways to convert spot colors to process colors

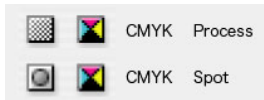
To resolve these problems, we introduce two ways to convert spot color objects that are not to be output using spot color separations into process colors in the DTP application.

When the colors are converted, the behavior of the transparency effects and overprints may yield unexpected results. It is necessary to check this behavior by displaying overprint previews.

You cannot check them if you convert to process colors in the RIP. If you convert spot colors to process colors, be sure to always check the conversion results at the stage when the data is created, before RIP'ing.

I. [Swatch Options] setting

Icons on the Swatches palette

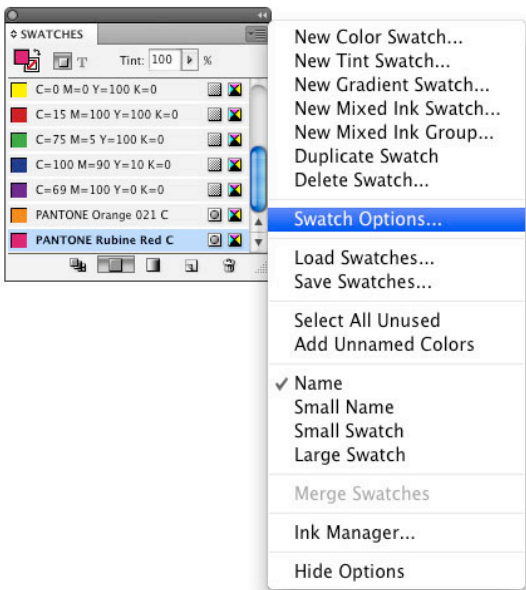


In this example, the setting procedure is described using InDesign CS5. The procedure is the same when InDesign CS - CS4 or Illustrator CS - CS5 is used.

When you import other application data that includes spot colors into InDesign, the definitions of the spot colors used in the InDesign data can be changed, but they can only be changed to InDesign's color format.
To modify a color in the original image, you must define the color in the application that was used to create the image.

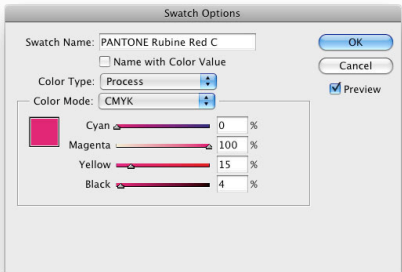
Convert the colors in the document using "Swatch Options".

- 1. It is possible to check the spot color state and change the settings for each color from the Swatches palette.
Select "Swatch Options..." from the submenu (or double-click the swatch to be edited in the Swatches palette) to display a dialog box.

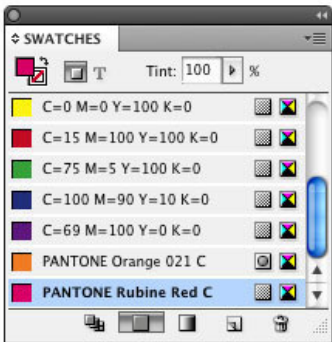


- 2. In the Swatch Options dialog box, set as shown below and then click the OK button.

Colour Type	Process
Colour Mode	CMYK



3. Check that the icon to the right of the list has been changed.
This completes the setting.



II. [Ink Manager] setting

In this example, the setting procedure is described using InDesign CS5. The procedure is the same when InDesign CS - CS4 or Acrobat 7 - 9 is used. You can make the same settings in the "Print" dialog box in Illustrator CS - CS5.

Changes to the colors in the document set in "Ink Manager" are not made, but rather the colors are converted during output. With this conversion, spot colors in imported Illustrator data can also be converted to process colors at the same time.

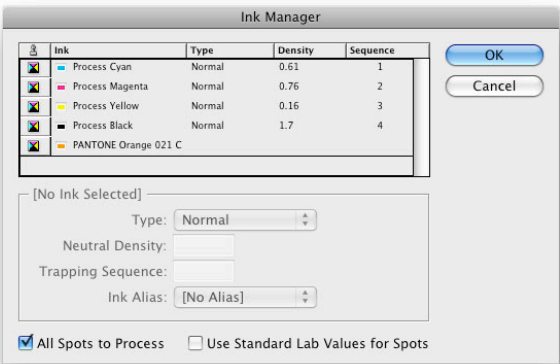
Of course it is also possible to set batch conversion of all of the spot colors to process colors for each separation.

1. Display the "Ink Manager" dialog box in one of the following ways.
- Swatches palette menu
 - Separations Preview menu
 - [Output] in "Print" dialog box
 - [Advanced] in "Export PDF" dialog box

2. Icons are displayed to the left of the individual colors.

If you click the spot color icon on the left, it changes to a process color icon. This finishes the setup.

In addition, if you want to convert the spot colors to process colors in batch, turn on "All Spots to Process". All of the spot colors are converted to process colors.



If Illustrator EPS format data is imported into InDesign, objects are already divided at the point that the EPS is created, and converted to overprints after that, so unexpected results may occur. If unexpected colors are appear in the overprint preview with these ink management settings, it is necessary to edit the original data in Illustrator.

Bleed

One of the PDF/X requirements is that "the media size and the trim size or art size must be properly defined in PDF (bleed is optional)". Even if these settings are not defined correctly, the PDF/X-1a data passes Preflight in Acrobat.

However, it is important to set the specified items in the DTP application and the RIP in order to correctly output the PDF/X-1a data, including the bleed area. This section presents information that should be noted in order to output the PDF/X-1a data correctly.

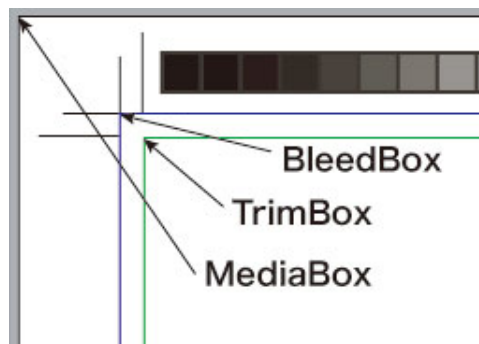
TrimBox / BleedBox /MediaBox

It is possible to add information such as TrimBox (trim size), BleedBox (bleed size), and MediaBox (output media size) to PDF.

When PS is output from a DTP application and then it is used for imposition in another program, PS will be positioned with reference to the origin of the finished page. Therefore, the information for page origin, size, and bleed area is important.

- Box settings and application notation

		InDesign	QuarkXPress
TrimBox	Trim size (actual final page size)	Page size	Page size
BleedBox	Bleed size (actual page size + bleed area)	Bleed	Bleed
MediaBox	Media size (output media size encoded in PS)	Paper Size	Paper Size



Support in each application

What is important if you output PS from a DTP application and impose it in different software is the page origin and size as well as the object bleed area information.

In InDesign, it is possible to create PDF with TrimBox and BleedBox information (the resulting PDF is the same as when you convert PS output from InDesign to PDF in Distiller 5 or later).

Also, in QuarkXPress 6 or later, when PS is created with register marks, Trueflow can import the TrimBox and BleedBox information.

Using this page information, DTP applications can import/export the origin and bleed information correctly without the paper size setting being changed from "Auto", regardless of whether it is a double-page spread or single-page data.

^{*1)}The Japanese version is supported by the PDF Boxer XTension, which is distributed by Quark, Inc. (English version 6.5 has already been supported.)

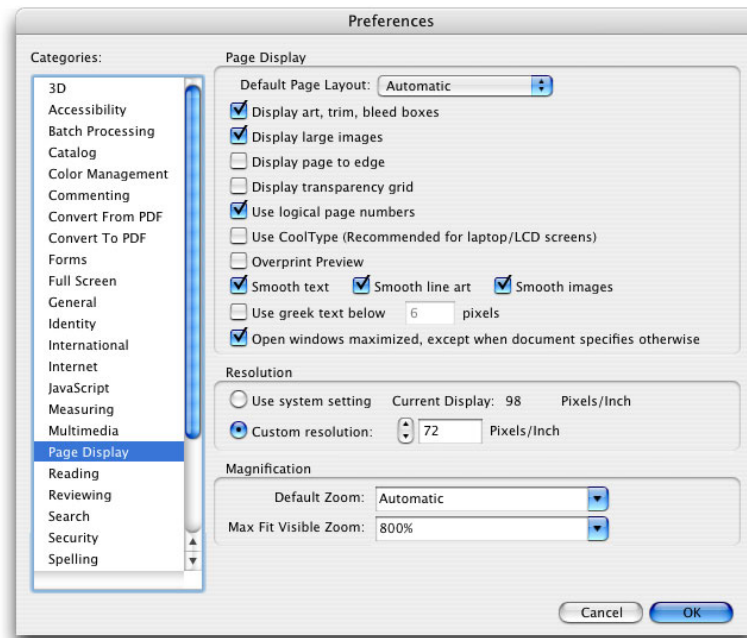
	PS	PDF
InDesign CS - CS5	OK	OK
Illustrator CS - CS5	OK	OK
QuarkXPress 6.5	OK	OK ^{*1)}
QuarkXPress 7.0/8.1	OK	OK

Confirmation on Acrobat 7 - 9

You can visually check the individual Box settings in Acrobat 7 - 9 Professional.

Since this function is off as a default setting, select "Preference" - "Page Display" from the menu, and then turn on "Display art, trim, bleed boxes". Once the Acrobat function is activated, each area will be displayed using different colors.

As shown in the figure in "TrimBox / BleedBox / MediaBox" (P37) , the TrimBox (green line), the Bleed box (blue line), and the MediaBox (paper area).



Setting the "PDF Origin" on Trueflow

When PS or PDF data is input, of the three parameters that are accurately encoded, the box that will be the origin is specified.

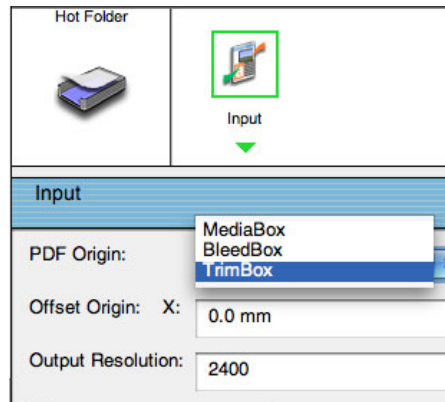
[TrimBox] : Loads the PS or PDF data using the trim size.

[BleedBox] : Loads the PDF data using the bleed size.

[MediaBox] : Loads the PDF data using the media size

Specify the PDF origin during the Trueflow input processing.

If you input PS or PDF output from a supported application, you can set TrimBox as the PDF origin.



Points to note on ArtBox in Illustrator CS

The figure below shows PDF created in Illustrator CS using Acrobat 7. The red line represents the ArtBox.

Even when objects are positioned outside the bleed area, as seen in this figure, all ArtBox areas will be included in the paper size to be determined. Therefore, be aware that the PDF's paper size (MediaBox) is larger than the paper size that was set in Illustrator CS.

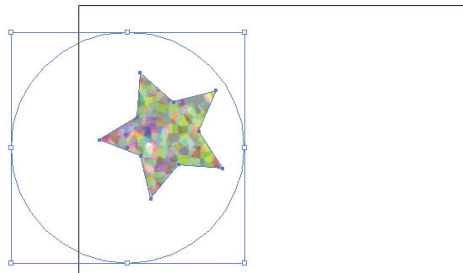
Also, note that if there is an object that is not actually viewed or output (for example, when a clipping mask is used), the object is also included in ArtBox.

If PDF is RIP'ed or impositioned with reference to a box other than TrimBox, the page origin may shift.

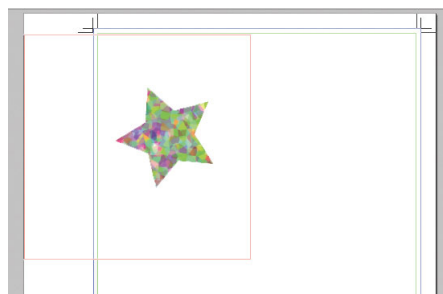
If these PDFs are RIP'd or imposed, process them in Trueflow using TrimBox as the origin. If you use other than TrimBox, the page origins may not match.

- Creating PDF in Illustrator CS

The figure on the right shows an example of when a round object that is positioned beyond the bleed area is clipped into a star shape.



- Displaying in Acrobat 7



In-RIP separation workflow

If you output PDF directly from an application without going through PostScript, the PDF file itself becomes an all-color composite, so an in-RIP separation workflow is assumed.

We formerly recommended that you select "Composite CMYK" in the earlier color separation settings when setting up PostScript output to Trueflow. This has changed, so now we recommend that you select in-RIP color separation or DeviceN for Adobe Creative Suite and QuarkXPress 6 and later.

In-RIP color separation and DeviceN are functions for creating PostScript assuming that color separation is performed in the RIP, and they are implemented to obtain the same results as when color separation is performed in the application, even when using a composite workflow (possible to convert to normal PDF).

Merits of In-RIP separation

In various applications, an in-RIP separation workflow has the following advantages compared to using composite CMYK settings.

QuarkXPress 6.5 - 8.1

In earlier versions of QuarkXPress, a separation workflow was assumed, so for a composite CMYK workflow, the colors were converted to proxy colors. In QuarkXPress 6.5 and later, if PostScript is created from the following types of data using DeviceN format, spot colors can be processed without converting them to proxy colors.

- QuarkXPress blends that use spot colors
- Gray TIFFs (colorized TIFFs) in which spot colors were specified
- Multi-ink colors that include spot colors

InDesign CS - CS5

Color separation is performed correctly even on duotones from Photoshop 5.0 and later that are used in InDesign CS and later.

In addition, it is also possible to correctly output traps created in InDesign.

If you select "Application Built-In" in the "Trapping" pull-down menu in "Output" in the "Print" dialog box, you can perform simple trapping, but it is necessary to be aware of the following.

- It does not work unless you select in-RIP color separation.
- Trap widths are restricted to a maximum of four points.
- It is disabled for imported EPS files and is only enabled for InDesign objects.

You can set up trapping details using "Window" - "Output" - "Trap Presets". Unnecessary traps are output if you make these settings incorrectly, so it is necessary to be careful. Traps are not reflected in direct PDF output from InDesign.

About DeviceN

DeviceN is a device color space in PostScript or PDF that has been supported from PostScript 3 and PDF1.3. There are other device color spaces, including DeviceGray, DeviceRGB and DeviceCMYK, but DeviceN is the color space that allows you to specify multi-ink colors or multi-tone colors (including duotones) that use more than the four colors of the basic color space.

If you output PostScript 3 by specifying in-RIP color separation or DeviceN from various applications, the DeviceN code is used internally in the PostScript. By converting this PostScript file into a PDF 1.3 or later file using Distiller, DeviceN is encoded in the PDF file.

In addition, in PDF that is directly output from an application, DeviceN encoding is used for duotones or spot colors matched using mixed ink swatches.

The special characteristics of DeviceN become evident if you compare it to typical DeviceCMYK as another device color space.

With DeviceCMYK, it is always necessary to specify the color values for the four colors. If you print with solid black, the specification is simply "CMYK=0,0,0,100%". In other words, it is necessary to explicitly specify 0% even for colors that are not used.

To express solid black using DeviceN, the specification becomes "(Spot Color) Black=100%", and the reserved name of "(Spot Color) Black" is interpreted as the process color "Black". In this case, if you use DeviceCMYK, the colors C, M, and Y are handled as "None". No other color specification is necessary. The differences between these methods of specification become important when you process overprints.

^{*1)}Spot colors cannot be expressed using DeviceCMYK.

In addition, it can be said that the expression of spot colors using DeviceN is universal.^{*1)}

In PostScript or PDF that includes DeviceN encoding, process colors are also defined as spot colors. Spot colors and process colors are both printed the same way, and whether or not the color name is a reserved name is what determines whether a color is a spot color or a process color.

For example, there are times when the process color cyan is defined as the spot color called "Cyan", and if the reserved name "Cyan" is used in normal processing, there is no problem because it is processed as the process color "Cyan". However, if spot colors and process colors are processed differently (see ["II. Settings in Trueflow" \(P21\)](#)), there are times when it does not work as expected.

However, it is not always the case that DeviceN encoding is required if you use spot colors.

^{*2)}The Separation color space is supported from PostScript 2 and PDF1.2.

If you print using a single spot color and you use the Separation color space^{*2)} encoding, you can express it even using a composite CMYK PostScript output specification.

The DeviceN color space in PDF1.3 supports up to 8 colors, and in PDF1.5 it supports up to 31 colors (which includes process colors). This number of colors is of course "the number of colors used in a single object", and is not "the number of colors used in the entire document."

In-RIP separation workflow using DeviceN

^{*1)}PostScript output to RIPs that support color separation processing

The advantage of DeviceN discussed earlier is that you can expect the benefits of a PDF workflow or a PostScript workflow.^{*1)} It is possible to express all of the colors in a single piece of data, and all of the separations can be computed at the same time, so processing can be faster.

You can create "data created for in-RIP separations" that takes into consideration the output of all of the separations using DeviceN. In addition, to output all of the functions in the application completely using an in-RIP separation workflow, you must use DeviceN format encoding.

However, if the output device is PostScript Level 2 or the DTP application is QuarkXPress 3.3/4.1 and DeviceN is not supported, it is also true that in-RIP separations are output by specifying composite CMYK.

^{*2)}Output of color separations from a DTP application rather than in-RIP separation

In this type of DTP environment, a pre-separation workflow^{*2)} is what should be specified in QuarkXPress 3.3/4.1, but if you use in-RIP separations, the only method is to output composite CMYK.

With composite CMYK output, there are restrictions for output in QuarkXPress and InDesign, so various fixes were made in the RIP and several restrictions^{*3)} were overcome.

^{*3)}QuarkXPress spot color gradations, etc.

However, it is not necessarily the case that everything can be completely output.

One condition for taking advantage of the benefits of DeviceN is that it should be supported in both the RIP and the DTP application.

Currently, both the RIP and the DTP application support DeviceN, and it has become possible to use a PDF workflow that uses the appropriate DeviceN as necessary.

In a PostScript workflow, we recommend that you select in-RIP color separation or DeviceN. In a PDF workflow, it is assumed that you are using an in-RIP separation workflow, so DeviceN is used automatically.

Color management and RGB workflow

RGB workflow and PDF/X-4

In Acrobat 8, use the "PDF/X-4" preset and verify. To verify using Acrobat 7, verify using the dedicated "Trueflow RGBw1 1.3US.kfp", "Trueflow RGBw1 1.3EU.kfp" Trueflow RGB workflow preflight profile. See ["Verification and confirmation of PDF" \(P67\)](#) for more information.

You cannot use RGB images as they are when using PDF/X-1a. As a result, if you use an RGB workflow, a prerequisite is that you use PDF/X-3 format that recognizes the use of RGB format or Lab format with an ICC profile embedded in the PDF/X-1a data.

However, there are several restrictions, such as that in PDF/X-3, it is necessary to convert objects with transparency effects from RGB to CMYK and flatten them, so in actual operations, you cannot use transparency effects.

It is now possible to include transparency effects in PDF/X-4, so in Trueflow, we recommend using PDF/X-4 for RGB workflows. (If you use InDesign CS2, we recommend that you use PDF for an RGB workflow that has roughly the same characteristics as PDF/X-4.)

Handling CMYK in an RGB workflow

In Trueflow, it is possible to use a function that converts RGB=0,0,0 to K=100, but if you use a DTP application, you must not create data that relies on this function.

Even if it is called an RGB workflow, not all of the page objects are necessarily rendered using RGB data. For example, K=100 black text is more desirable than RGB=0,0,0, and it is difficult to reverse the coding for M=100 and Y=100 colors accurately using RGB, so it is desirable to print using solid M and Y inks.

As a result, the RGB workflow discussed here means to recognize an "RGB and CMYK mixed workflow".

In addition, RGB data is converted to CMYK using an appropriate method, and it is necessary to process that CMYK data so that those values are not changed.

Color management in Adobe Creative Suite 2- 5



*1) See "Color setting file" (P101) for information about these color settings files.

The illustration to the right shows the US version.

For the European version, select "Trueflow Color Pro 1.0EU.csf" and "Trueflow Color Std 1.0EU.csf".

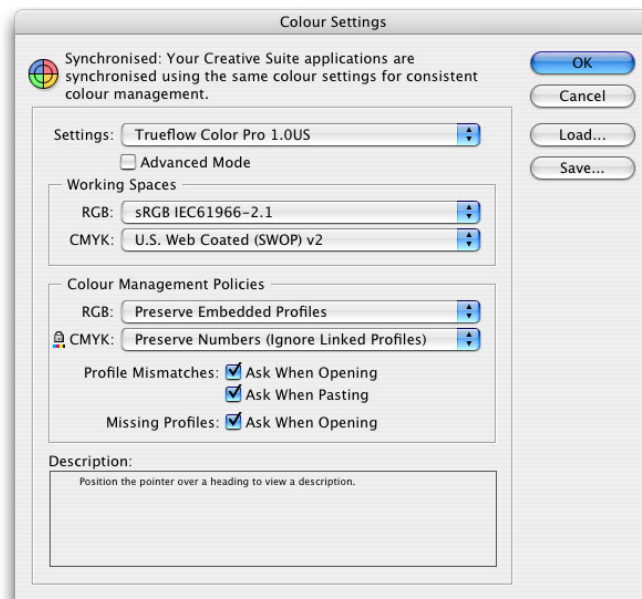
In the European version, "CMYK:" is "Euroscale Coated v2".

In Adobe Creative Suite 2 - 5, the color management functions have been enhanced, and we always recommend using color management.

However, it is possible to prevent making any changes to CMYK images in the color management setting, so quality-guaranteed CMYK images can be used as with earlier versions.

A color settings file has been prepared for Adobe Creative Suite 2 - 5 for a PDF/X-1a workflow in Trueflow.*1)

A "Trueflow Color Pro 1.0US.csf" and "Trueflow Color Std 1.0US.csf" file are available for the US version and a "Trueflow Color Pro 1.0EU.csf" and "Trueflow Color Std 1.0EU.csf" file are available for the European version, and using these settings makes it possible to preserve the CMYK image values.



Avoiding automatic color conversion

If RGB images are used in various DTP applications, the RGB is converted to CMYK based on ICC profiles appropriate for the output settings embedded in the images as well as output device profiles, but it is undesirable from an image quality management standpoint to inadvertently convert them, so it is important to be aware that they have already been converted when preparing the files.

How to resolve RGB image color issues

To output professional-quality results using an RGB image, it is important to define a correct ICC profile for the RGB image. This ICC profile allows you to know the information on the color space used for expressing the image. This information is required when the image is converted into a CMYK image.

In addition to the color conversion based on the ICC profile, image quality adjustment and adequate sharpness adjustment should be performed depending on the image type to obtain better-quality results.

There are two major color management solutions for positive image quality management in the operation using RGB images. With either method, you can achieve significant results by avoiding automatic conversion.

1. Converting an RGB image to a CMYK image before using it

RGB images taken by a digital camera, for example, are converted into CMYK images using ColorgeniusDC before layout. The resulting image quality is equivalent to those created by a professional scanner.

In this case, the is compliant with a PDF/X-1a workflow, and the methods, points to note and restrictions are the same as for a CMYK-only workflow.

2. Performing color conversion during RIP computation

RGB images are used for layout after being set with color adjustment instructions. The actual color conversion is performed during output computation in the RIP.

In this case, PDF/X-1a is not used in the DTP application, so "RGB workflow PDF" is created.

Recipe and color profile

A recipe file defines how the images will be converted. Images are converted based on ICC profile information, which indicates the color space used, and the quality defined in the recipe file.

Recipe file information includes subjects, finish keyword, and quality definition data. A system that incorporates a recipe file and a recipe conversion engine (i.e., Colorgenius DC, Colorgenius ID, Colorgenius LE, Colorgenius AC, Trueflow) allows transmission of the correct information on intended and preferred image quality. Therefore, anyone can perform high quality setup easily.

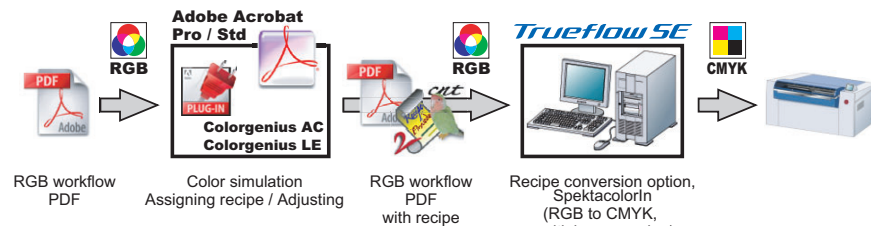


Standard_sharpG6.cnt



JapanColor2001Corted.icc

Processing procedure of the RGB workflow on Trueflow



Operating requirements

To use this RGB workflow, Trueflow must meet the following requirements.

- Trueflow 3 Version 3.12 TF209 or later
- PolishedInput option
- Recipe conversion option

I. Create RGB workflow PDF

If you use a DTP application to create data in an RGB workflow, see "[Creating PDF/X Files in InDesign CS2 - CS5](#)" (P50) and "[Creating PDF/X Files in Illustrator CS2 - CS5](#)" (P55) to create the PDF data.

When creating the data, it is important to consider the description of the next section "[Points to note when creating RGB workflow PDF](#)" (P48) when performing the procedure.

II. Recipe assignment in Colorgenius AC (LE)

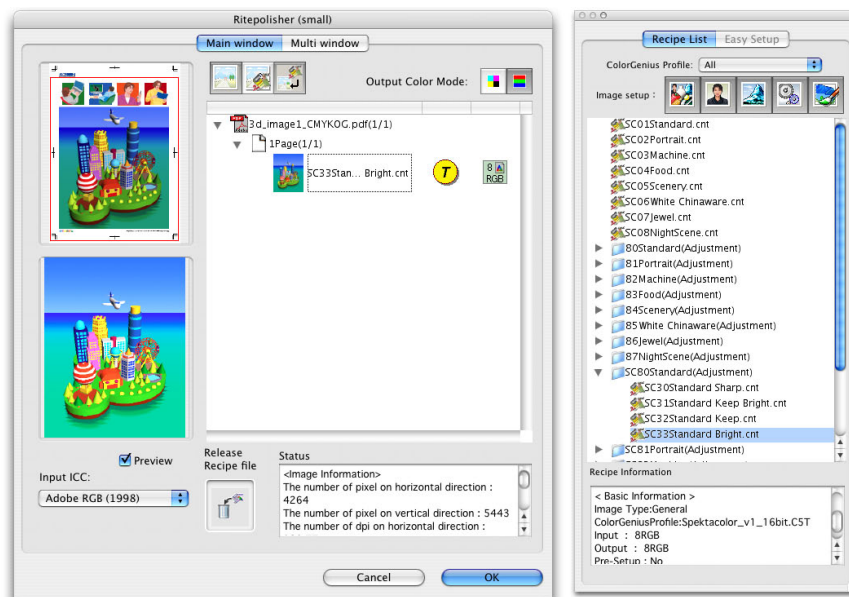
^{*1)}Colorgenius LE, which is available for free from our web site, allows you to select an appropriate recipe file from several that are already prepared and simulate output on screen by applying those files. In Colorgenius AC, you can make fine adjustments to existing recipe files as well as create new ones.

^{*2)}Use the recipe for RGB to CMYK conversion when using data in the recipe conversion option, and use the recipe for Spektacolor (RGB to RGB conversion, recipe name with "SC" prefixed) when using data in the SpektacolorIn option.

The Acrobat plug-ins Colorgenius LE (freeware) and Colorgenius AC are software products that allow you to add image quality conversion instructions for RGB images.^{*1)} They allow you to specify parameters for color conversion using what are called "recipe files" for each image in a PDF file* and embed those settings in the PDF file as recipe files.^{*2)} At this stage, the original images are preserved as they are, and the final output image quality is determined.

With this workflow, the RGB images are not converted through the entire process from layout to final output rendering, so the RGB image quality does not deteriorate no matter how many times you change the recipe files.

For details on the operations of Colorgenius LE and Colorgenius AC, refer to the manuals for each product.



III. Processing in Trueflow

In Trueflow, the PolishedInput recipe conversion option recognizes the recipes embedded in the PDFs and makes it possible to convert RGB images using the recipes to print high quality images.

Furthermore, when digital RGB images are used, with a variable scale depending on layout, it is possible to output these images with optimal sharpness effect applied in their actual sizes after changing the magnification.

For details on the use and points to be noted regarding the support of these RGB workflows, refer to the information provided from each product.

Points to note when creating RGB workflow PDF

X-4

See "PDF/X-4 workflow" (P2) for more information.

In the RGB workflow, points that are different from the conventional CMYK workflow must be noted when preparing data and editing a document as well as when outputting data.

I. Format and ICC profile

To save a file with an ICC profile embedded, it is recommended to use Adobe PDF (.pdf), Illustrator (.ai), Photoshop (.psd), InDesign (.indd), TIFF, and JPEG formats. However, InDesign CS - CS5 can recognize the ICC profile that is embedded in Photoshop EPS.

In InDesign CS2 - CS5, while the ICC profile for each imported image can be changed, an ICC profile that is embedded in a Photoshop EPS format file cannot be changed.

II. RGB workflow using Illustrator CS3 or later

^{*1)}RGB data that can be mixed with other data is limited to images placed in Illustrator, and other objects created in Illustrator are encoded using the color space defined by the Illustrator color mode. Normally they are created in CMYK color mode.

In earlier versions of Illustrator, it was possible to mix RGB images and CMYK images by positioning them using image links^{*1)} but as in the (P95) points to note, images positioned by linking are flattened, and there are problems with striping, so it is not practical.

In Illustrator CS3 or later, this problem was fixed, so by positioning RGB images using links, it is now possible to mix RGB images and CMYK images in Illustrator.

ICC profiles are embedded, so it is necessary for positioned images to also be JPEG, TIFF or Photoshop native format (.psd).

If you use this workflow, you must be sure to either export the page data in PDF/X-4 format or position it in InDesign CS3 or later in native Illustrator format as is.

III. Overprint

In the same manner as that of the transparency effect described above, regarding overprint, the data may not be processed as you expected when different color modes are present on the same page and special care must be taken when creating data.

- RGB objects and overprint

Since overprint is an independent process that is applied for each separation used for printing, it is only available for CMYK and spot color.

Basically, overprint cannot be set to RGB objects that use a color value. However, overprint can be set to a spot color that will be printed using a different separation.

In the actual processing, RGB objects are converted to CMYK objects and they are affected by overprint processing.

The detailed processing results are shown in the table below.

Since overprint is an independent process that is applied for each separation used for printing, it is only available for CMYK and spot color.

Basically, overprint cannot be set to RGB objects that use a color value. However, overprint can be set to a spot color that will be printed using a different separation.

In the actual processing, RGB objects are converted to CMYK objects and they are affected by overprint processing.

The detailed processing results are shown in the table below.

	Forward (Set Overprint)			
	CMYK	Spot color	RGB	
Backward	CMYK	OK	OK	NG
	Spot color	OK	OK	OK ^{*1)}
	RGB	OK ^{*1)}	OK ^{*1)}	NG

^{*1)} RGB objects are converted to CMYK objects and overprint processing is applied to them.

The "NG" symbol does not indicate that overprint is not applied, but indicates that the result is undefined. This means the result may vary depending on the algorithm of the RGB to CMYK conversion. For this reason, using overprint with the "NG" symbol is not recommended.

For example, the overprint is applied in the following situations even in the RGB workflow.

- Overprint can be applied for the overlapping spot color object and RGB object regardless of the overlay priority.
- Overprint can be applied for the black text of the CMYK mode laid out on the RGB image.

IV. Preparation of appropriate RGB images

In order to perform color conversion correctly in the RGB workflow, it is necessary to define a correct ICC profile for an original image. If an ICC profile is not defined, default profile "sRGB IEC61966-2.1" will be defined in Adobe Creative Suite 2 that is set up to be used in conjunction with Trueflow.

In addition, Colorgenius LE and Ritefinisher, which allow you to set recipe files, handle RGB format images, so it is necessary to prepare all Lab format images as RGB images.

V. Handling spot colors in SpektacolorIn

In a general processing, different from RGB and CMYK objects, spot color objects are separated as a spot color separation.

However, as a specific function of SpektacolorIn, it is possible to simulate a spot color separation by reproducing a spot color mixing 4 to 8 process colors for multi-color printing.

This function enables spot color simulation at high level and increases the possibility of omitting a spot color separation by using a combination of an FM screening, such as Spekta and Randot-X, and very fine screening.

Running PDF/X

This chapter describes the procedure, points to be noted, and restrictions on creating PDF/X files that are to be used in Trueflow.

Creating PDF/X Files in InDesign CS2 - CS5

In InDesign CS2, CS3 and CS4, you can directly create PDFs that can pass the preflight for PDF/X using the procedure below.

If you create PDF/X-1a, transparency objects are flattened based on the set parameters.

If an RGB image is included, apply an appropriate countermeasure while referring to "[Color management and RGB workflow](#)" (P43) so that the required quality will result. Do not output the RGB image without a countermeasure applied.

Refer to "[Versioning workflow](#)" (P89) when running versioning that uses a layered PDF and performs computation with the Adobe PDF Print Engine.

The following presets are available in Trueflow for PDF/X output.

[for US]

- Trueflow PDFX1a 1.3US.joboptions (for PDF/X-1a CS2 - CS)
- Trueflow PDFX4 1.3US.joboptions (for PDF/X-4 CS3 - CS5)
- Trueflow RGBwf 1.3US.joboptions (for RGB workflow CS2, Versioning workflow CS2 - CS5)

[for EU]

- Trueflow PDFX1a 1.3EU.joboptions (for PDF/X-1a CS2 - CS)
- Trueflow PDFX4 1.3EU.joboptions (for PDF/X-4 CS3 - CS5)
- Trueflow RGBwf 1.3EU.joboptions (for RGB workflow CS2, Versioning workflow CS2 - CS5)

This section describes how to create PDF/X-4, but only the differences from what appears in "PDF/X-1 output", which assumes you are using PDF/X-1a for output, are written in the sidebar.

Preflight in InDesign

This section describes InDesignCS2/CS3 preflight.

For the information of live preflight function on CS4/CS5, see the description of InDesignCS2/CS3 preflight.

RGBs that cannot be checked by preflight

As InDesign cannot detect RGB images that are embedded in a laid out EPS file, Adobe Illustrator file, and Macromedia FreeHand file, check the color data of the layout images using the original application.

In the RGB workflow, check that the RGB images are laid out appropriately in the required positions.

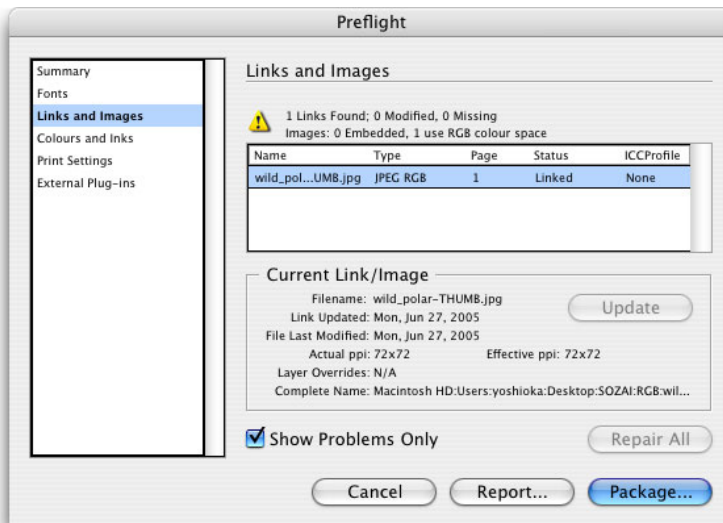
1. Before saving data in the PDF format, a preflight is performed in InDesign to check for any RGB image included in the data.

Select File /s Preflight... .



2. The preflight result is displayed in a dialog box.

You can check whether an RGB image is included by selecting "Summary" or "Links and Images". When you check the "Show Problems Only" checkbox, only the RGB images can be listed.



If an RGB image is included for PDF/X-1a output, convert it into a CMYK image before using the data.

Otherwise, the RGB image portion may be output using unexpected colors.

3. When PDF/X-4 output, make prior arrangement needed by referring "[Processing procedure of the RGB workflow on Trueflow](#)" (P46).

PDF Export

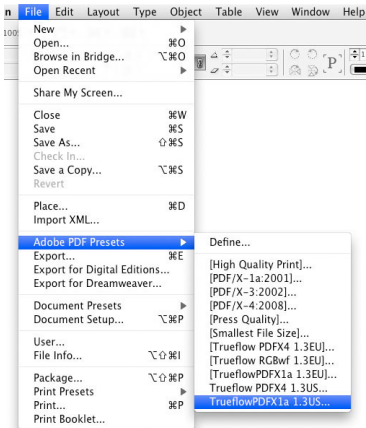
(when using Joboption for Trueflow PDF/X-4 with CS3 - CS5)

For procedure to install presets, refer to "Adobe PDF presets" (P99)

Summary warning (CS3)
If you use presets for Trueflow PDF/X-1a, a warning is displayed in Summary in CS3. If the warning indicates that the colors will be converted to CMYK, either convert the places where RGB is used to CMYK in advance, or place RGB images by linking them and output PDF/X-4.

PDF/X-1a output
Select "Trueflow PDFX1a 1.3US..." or "Trueflow PDFX1a 1.3EU..." in the preset for Trueflow.
PDF/X-4 output (for CS2)
Select "Trueflow RGBw 1.3US..." or "Trueflow RGBw 1.3EU..." in the preset for Trueflow.

1. Select "File / Adobe PDF Presets / Trueflow PDFX4 1.3US... or Trueflow PDFX4 1.3EU..."

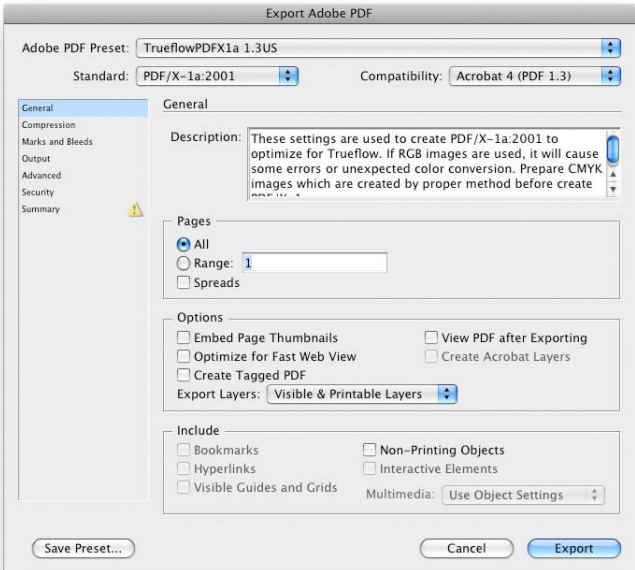


2. Specify the file name and save location in the Export dialog box, which is displayed, and click the "Save" button. The "Export PDF" dialog box is displayed. Make settings for each panel according to the descriptions below.

I. General

Standard	PDF/X-4:2008
Compatibility	Acrobat 5 (PDF 1.4)
Pages	Make the setting as necessary.

PDF/X-1a Output
[Standard] : PDF/X-1a:2001
[Compatibility] : Acrobat 4 (PDF1.3)
PDF/X-4 Output (CS2)
[Standard] : None
[Compatibility] : Acrobat 7 (PDF1.6)



II. Compression

Compression setting
The lossless compression setting is used because the emphasis is on quality in the Presets files.
When performing JPEG compression, make sure that there is no problem with quality before changing the setting.

Compression	Make the setting as necessary.
-------------	--------------------------------

III. Marks and Bleeds

Marks	Make the setting as necessary.
Bleed and Slug	Make the setting as necessary.
Bleed	Same value as Trueflow

IV. Output

We recommend the setting shown on the right, but change the setting as is necessary.

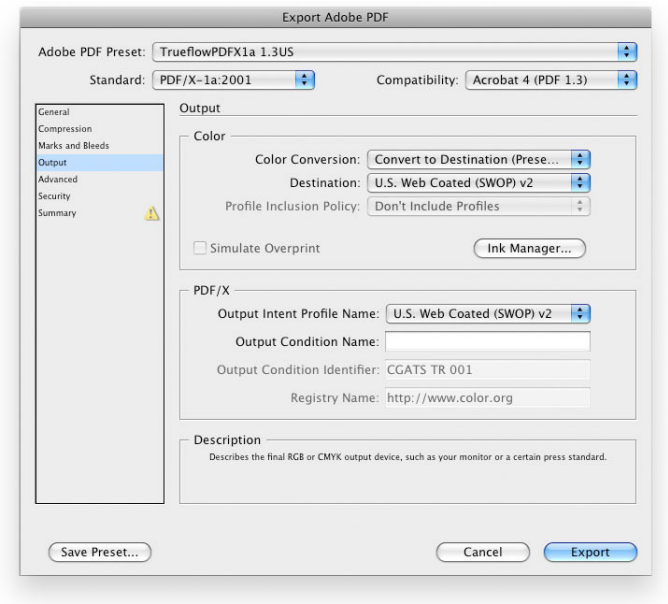
Output
A change of setting will affect the image quality output.
If the setting is changed, it is necessary to ensure that there is no problem with the output image quality beforehand.

Color	
Color Conversion	[Color Conversion] : No Color Conversion
Destination	N/A
PDF/X	
Output Intent Profile Name	[for US] U.S. Web Coated (SWOP) v2 (Custom) [for EU] Euroscale Coated v2 (Custom)

[Color Conversion] :
If you select "None", it will not be PDF/X-1a.

PDF/X-1a Output
[Color Conversion]:Convert to Destination (Preserve Numbers)
[Destination] :
[for US] U.S.Web Coated (SWOP) v2 (Custom)
[for EU] Euroscale Coated v2 (Custom)

PDF/X-4 Output (CS2)
[Color] : No Color Conversion
[Profile Inclusion Policy] : Include All RGB and Tagged Source CMYK Profile
[Output Intent Profile Name] : N/A



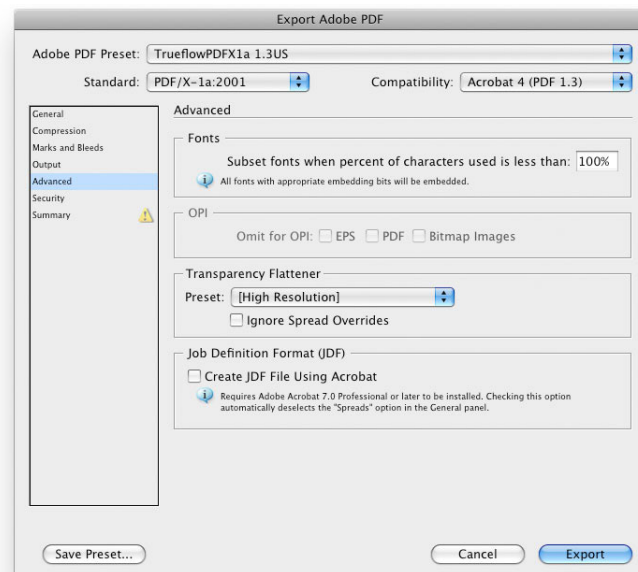
V. Advanced

[Transparency Flattener]:
Output with "High Resolution" selected normally.
If an error occurs when RIP'ing very complex data, including data with transparency processing, review "[More information about the Transparency Flattener Options](#)" (P13) and then change the settings using "Edit" - "Transparency Flattener Presets".

Transparency Flattener

Preset

[High Resolution]

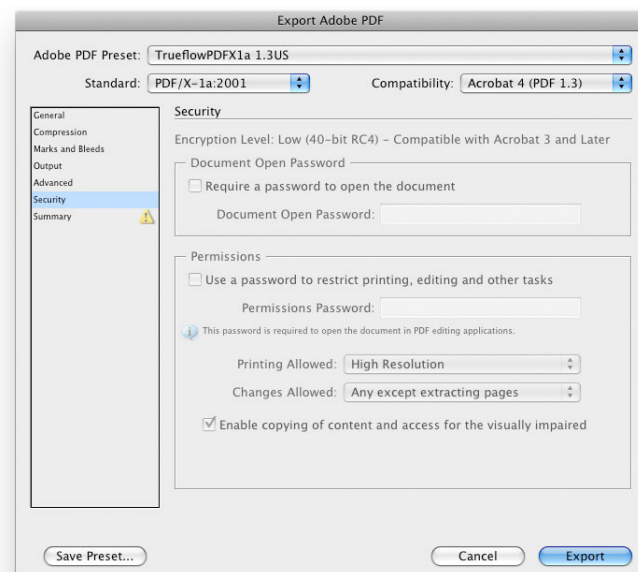


VI. Security

(Do not make any settings.)

Security settings

If security settings are made, there will be times when Trueflow ends in an error, resulting in improper output. Do not make any security settings.



3. Click the "Export" button to save the file.

Creating PDF/X Files in Illustrator CS2 - CS5

Handling RGB images

(For CS3 - CS5)

Up to now we have recommended embedding images, but for PDF/X-4 output, place RGB images by linking them. If they are placed with links, they are not converted to CMYK and the RGB is preserved.

(For CS2 and CS)

PDF/X-4 output is not supported. Embed CMYK images without including RGB data.

If you create PDF/X-1a, transparency objects are flattened based on the set parameters.

In Illustrator CS2 - CS5, you can directly create PDFs that can pass the preflight for PDF/X using the procedure below.

In addition, in Illustrator CS3 or later, the earlier Points to Note have been revised, and a workflow that includes RGB is now possible.

If RGB images are included, see "[Color management and RGB workflow](#)" (P43), and take the steps that will give you the quality that you need. Do not output the RGB image without a countermeasure applied.

The following presets are available in Trueflow for PDF/X output.

[for US]

- Trueflow PDFX1a 1.3US.joboptions (for PDF/X-1a CS2 - CS5)
- Trueflow PDFX4 1.3US.joboptions (for PDF/X-4 CS2 - CS5)

[for EU]

- Trueflow PDFX1a 1.3EU.joboptions (for PDF/X-1a CS2 - CS5)
- Trueflow PDFX4 1.3EU.joboptions (for PDF/X-4 CS2 - CS5)

This section describes how to create PDF/X-4, but only the differences from what appears in "PDF/X-1 output", which assumes you are using PDF/X-1a for output, are written in the sidebar.

PDF Export

(when using Joboption for Trueflow PDF/X-4 with CS3 - CS5)

For procedure to install presets, refer to "[Presets for Adobe CS2 - CS5, Acrobat 7 - 9](#)" (P99).

Embedding of images (CS2)

Embed the images rather than linking them. (P95)

CS3 or later does not have this restriction.

Summary warning (CS3 or later)

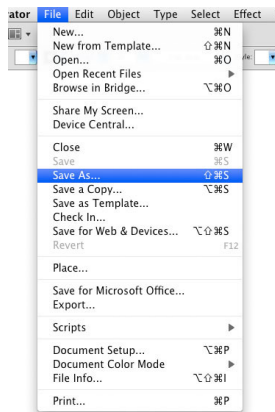
If you use presets for Trueflow PDF/X-1a, a warning is displayed in Summary in CS3 or later. If the warning indicates that the colors will be converted to CMYK, either convert the places where RGB is used to CMYK in advance, or place RGB images by linking them and output PDF/X-4.

When you do this, select either the US or the EU preset (US screens are used in this explanation).

PDF/X-1a output

Select "Trueflow PDFX1a 1.3US..." or "Trueflow PDFX1a 1.3EU..." in the Adobe PDF presets, and make the settings in each of the panels according to the information below.

1. Select "File / Save As...".



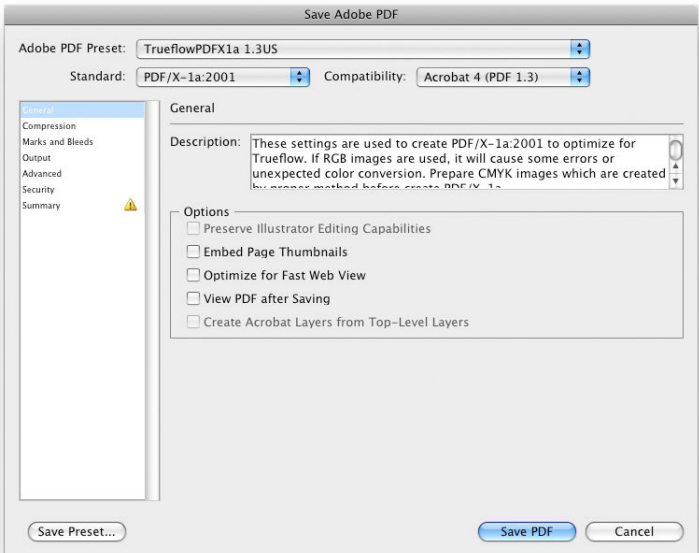
2. In the "Save As" dialog box, specify the name and save location of the file, select "Adobe PDF (pdf)" in "Format" and click "Save". The "Save Adobe PDF" dialog box is displayed.
3. Select "Trueflow PDFX4 1.3US..." or "Trueflow PDFX4 1.3EU..." in the preset for Trueflow.

I. General

*1) In case of CS3, [Standard] is displayed as "PDF/X-4:2007" instead of "PDF/X-4:2008".

PDF/X-1a Output
[Standard] : PDF/X-1a:2001
[Compatibility] : Acrobat 4 (PDF 1.3)

Standard	PDF/X-4:2008*1)
Compatibility	Acrobat 5 (PDF1.4)



II. Compression

Compression setting
The lossless compression setting is used because the emphasis is on quality in the Presets files.
When performing JPEG compression, make sure that there is no problem with quality before changing the setting.

Compression	Make the setting as necessary.
-------------	--------------------------------

III. Marks and Bleeds

[Bleeds]:
The value to be set here must be matched up with the set value in Trueflow.

Marks	Make the setting as necessary.
Bleeds	Same value as Trueflow

IV. Output

[PDF/X]:
We recommend "U.S. Web Coated (SWOP) v2" for the US version and "Euroscale Coated v2" for the European version, but you can choose whichever setting you want. Change as necessary.

PDF/X-1a Output

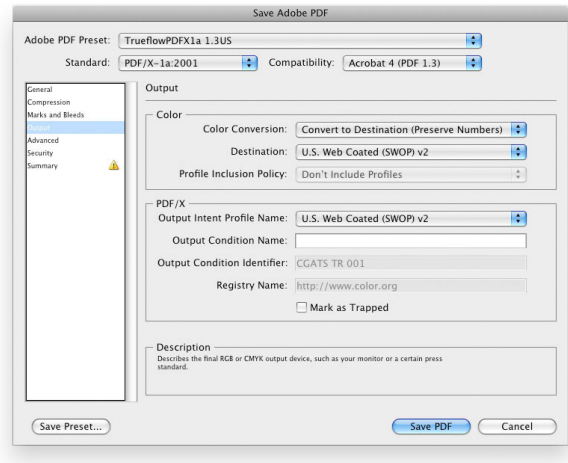
[Color Conversion] : Convert to Destination (Preserve Numbers)

[Destination] :

[for US] U.S. Web Coated (SWOP) v2 (Custom)

[for EU] Euroscale Coated v2 (Custom)

Color	
Color Conversion	No Color Conversion
Destination	N/A
PDF/X	
Output Intent Profile Name	[for US] U.S. Web Coated (SWOP) v2 (Custom)
	[for EU] Euroscale Coated v2 (Custom)



V. Advanced

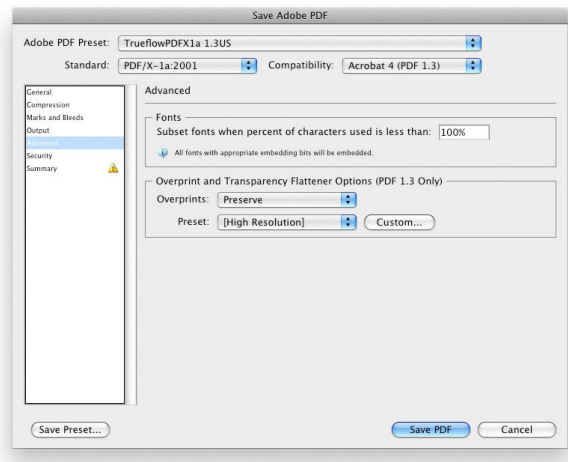
PDF/X-1a Output

[Transparency Flattener] :

Output with "High Resolution" selected normally.

If errors occur while RIP'ing extremely complex data, including processing transparency effects, refer to "[More information about the Transparency Flattener Options](#)" (P13) , and then change the setting using Edit > Transparency Flattener Presets, or change the setting by clicking the "Custom..." button.

Overprint and Transparency Flattener Options (PDF 1.3 Only)	
Overprints	Grayed out because flattening is not required
Preset	Grayed out because flattening is not required



VI. Security

(Do not make any settings.)

If security settings are made, there will be times when Trueflow ends in an error, resulting in improper output. Do not make any security settings.

4. Click the "Export" button to save the file.

Creating PDF/X-1a Files in InDesign CS

In InDesign CS, you can directly create PDFs that can pass the preflight for PDF/X-1a using the procedure below.

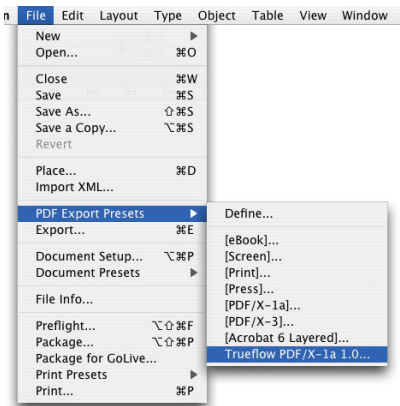
The transparent objects are tiled in accordance with the preset parameters.

PDF Export

(when using Presets for Trueflow PDF/X-1a)

For procedure to install presets, refer to "PDF export presets" (P107).

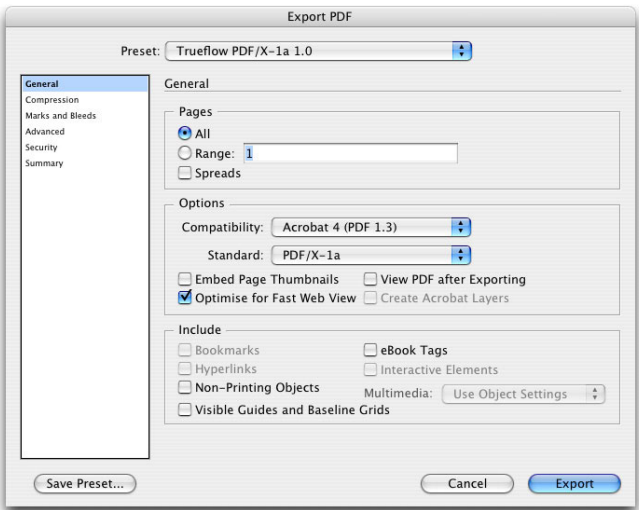
- 1. Select "File / PDF Export Presets / Trueflow PDF/X-1a 1.0...".



- 2. Specify the file name and save location in the Export dialog box, and click the Save button to display the Export PDF dialog box.
Make settings for each panel according to the descriptions below.

I. General

Pages	Make the setting as necessary.
Options	
Compatibility	Acrobat 4 (PDF 1.3)
Standard	PDF/X-1a



II. Compression

Compression setting

The lossless compression setting is used because the emphasis is on quality in the Presets files.

When performing JPEG compression, make sure that there is no problem with quality before changing the setting.

Compression	Make the setting as necessary.
-------------	--------------------------------

III. Marks and Bleeds

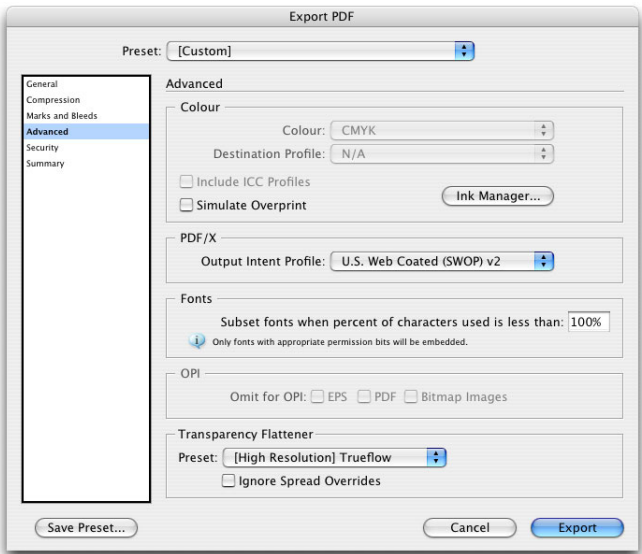
Marks	Make the setting as necessary.
Bleed and Slug	Make the setting as necessary.
Bleed	Same value as Trueflow

IV. Advanced

[PDF/X]:
We recommend "U.S. Web Coated (SWOP) v2" for the US version and "Euroscale Coated v2" for the European version, but other settings are also acceptable. Change as necessary.

[Transparency Flattener]:
Output with "High Resolution" selected normally.
If an error occurs when RIP'ing very complex data, including data with transparency processing, review the information in ["More information about the Transparency Flattener Options"](#) (P13) and then change the settings using Edit > Transparency Flattener Presets.

PDF/X	[for US] U.S. Web Coated (SWOP) v2 (Custom) [for EU] Euroscale Coated v2 (Custom)
Transparency Flattener	
Preset	[High Resolution] Trueflow



V. Security

(Do not make any settings.)

If security settings are made, there will be times when Trueflow ends in an error, resulting in improper output. Do not make any security settings.

- 3. Click the "Export" button to save the file.

Creating PDF1.3 Files in Illustrator CS


It is not possible to create PDF/X-1a directly in Illustrator CS. However, it is possible to create PDF with the same quality as PDF/X-1a from any PDF 1.3 data saved in Illustrator CS except PDF 1.3 that does not include OutputIntent information. This section describes how to create PDF 1.3 that is reliable for printing.

Saving as PDF 1.3 format

Paper size issue for PDF1.3 made by IllustratorCS

If PDF1.3 is made by IllustratorCS, the paper size is decided to include in all of objects (including invisible objects) which are placed out of bleed area. It is, therefore, if there are objects which are placed out of bleed area, PDF's paper size (MediaBox) will be larger than IllustratorCS's document size. If using Trueflow to process PDF1.3 made by IllustratorCS, you must set "TrimBox" for PDF Origin in the import setup.

Hot Folder



Input

Input

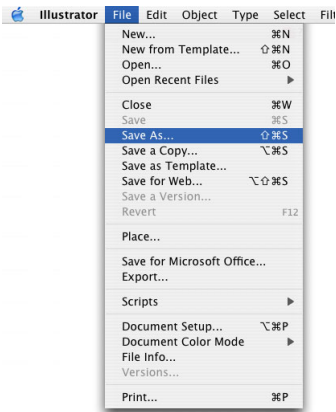
PDF Origin:

MediaBox

BleedBox

TrimBox

1. Select "File / Save As..."

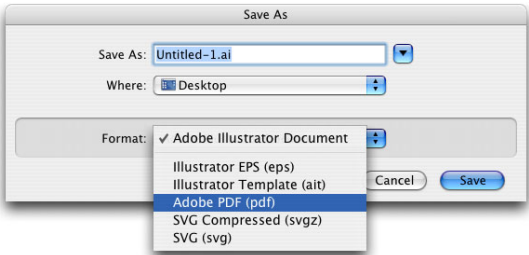


2. Make the following settings and click the "Save" button in the Save As dialog box.

Save As	Specify a file name.
Where	Specify a save location for the file.
Format	Adobe PDF (pdf)

Embedding of images

Embed the images rather than linking them. (P95)



Adobe PDF Preset Options

I. General

Warning upon saving

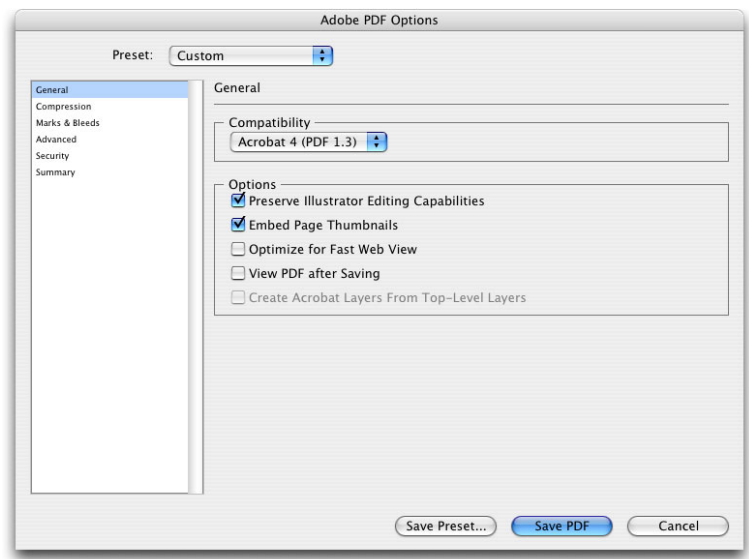
If you save with the Preserve Illustrator Editing Capabilities option Off, the following dialog box is displayed. Click Yes to save the data.

This message warns that you will not be able to edit areas where transparency has been applied because the transparency is flattened when the file is saved.

Saving this document with "Preserve Illustrator Editing Capabilities" unchecked may disable some editing features when the document is read back in. Do you want to continue?

NoYes

Compatibility	Acrobat 4 (PDF 1.3)
Preserve Illustrator Editing Capabilities	Either On or Off



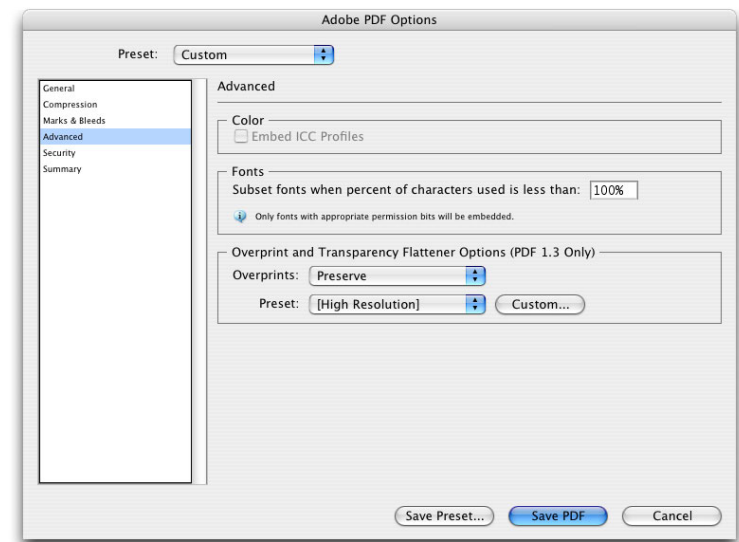
II. Advanced

[Preset]

Output with "High Resolution" selected normally.

If errors occur while RIP'ing extremely complex data, including processing transparency effects, refer to "[More information about the Transparency Flattener Options](#)" (P13), and then change the setting using Edit > Transparency Flattener Presets, or change the setting by clicking the "Custom..." button.

Overprint and Transparency Flattener Options (PDF 1.3 Only)	
Overprints	Preserve
Preset	[High Resolution]



3. Click Save PDF.

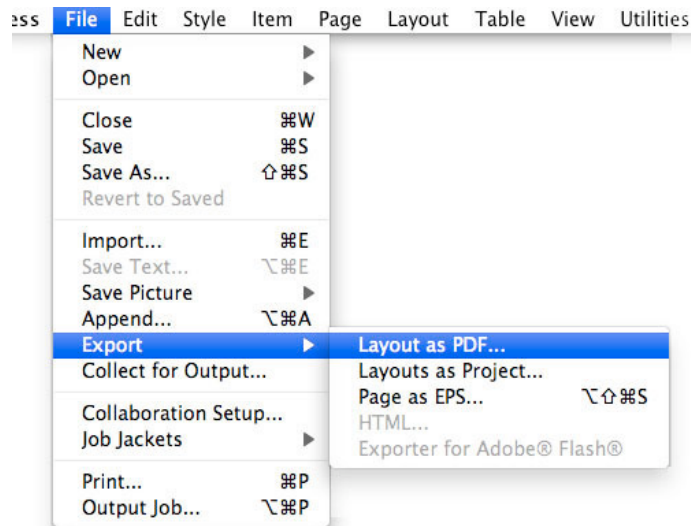
Creating PDF/X-1a Files in QuarkXPress 7.0 / 8.0

In QuarkXPress 7.0 / 8.0, you can create PDF/X-1a that has passed Preflight directly from an application using the steps below.

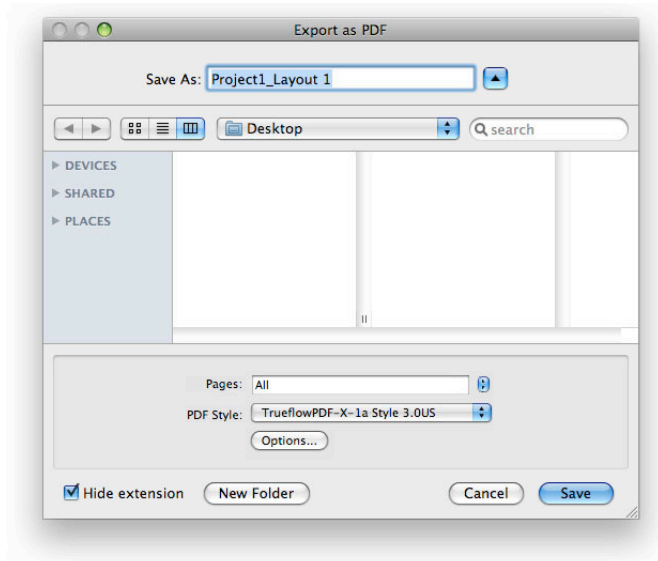
Saving as PDF/X-1a format

There are times when you may get unexpected results if you change any of the other settings.
Do not change any of the other settings with following procedure.

1. Select "File / Export / Layout as PDF..."



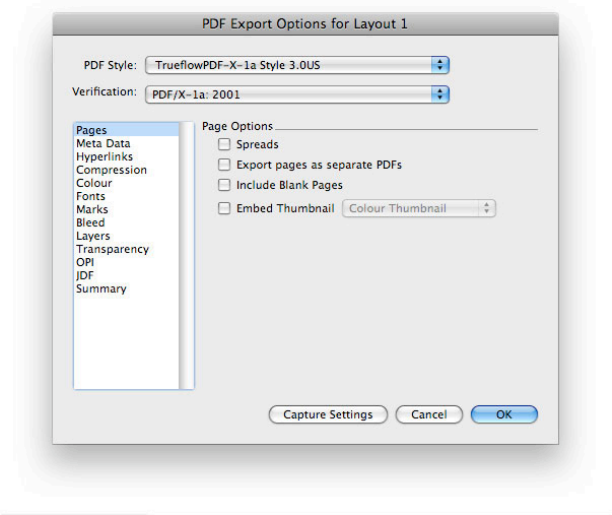
2. The Export as PDF dialog box is displayed.
Specify the save location, select "TrueflowPDF-X-1a Style 3.0US" in PDF Style:, and then click the Save button to save it.



Output Style settings

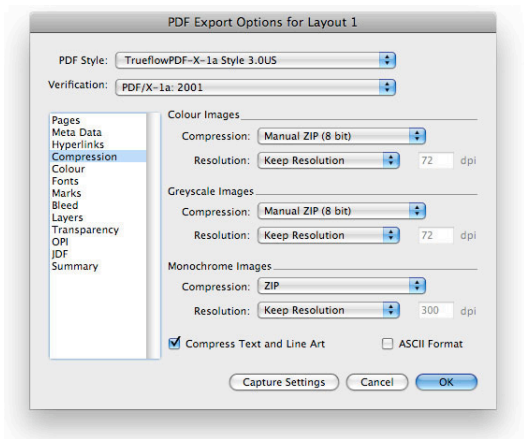
I. Pages

Spreads	Either On or Off
---------	------------------



II. Compression

Compression	Make the setting as necessary.
Resolution	Make the setting as necessary.

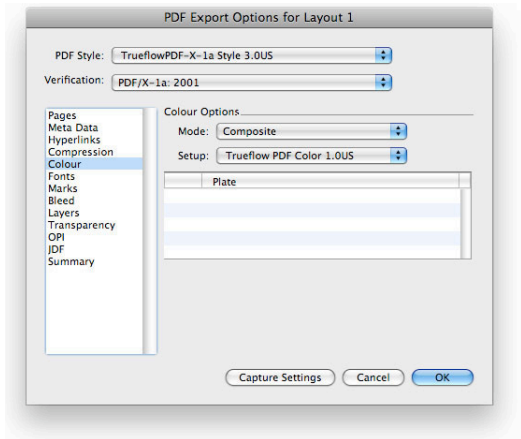


III. Color

[Setup] :
Use the special Color Setup file provided with Trueflow. See "Color Setup" (P109) for more information about the Color Setup file.

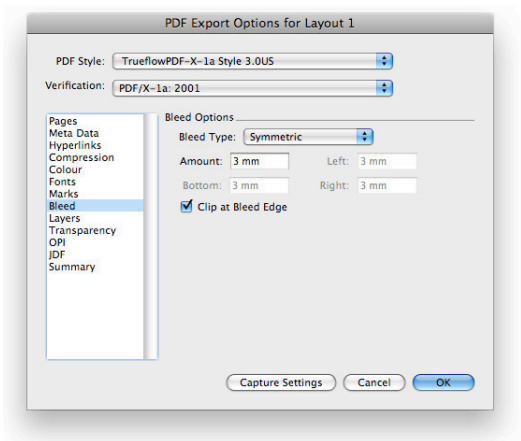
Color separation and section settings
If you specify color separation, do not specify anything other than numbers for the "Page Numbering Options" section.

Color Options	
Mode	Composite
Setup	[for US] Trueflow PDF Color 1.0US [for EU] Trueflow PDF Color 1.0EU



IV. Bleed

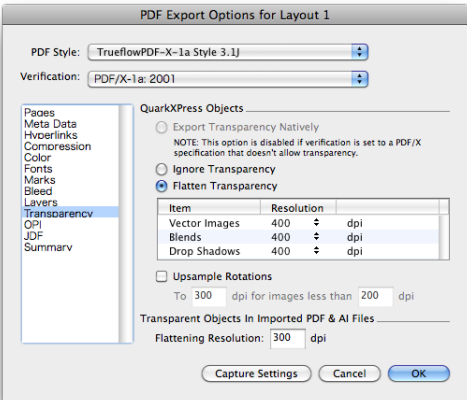
Bleed Options	
Bleed Type	Symmetric
Amount	Same value as Trueflow



V. Transparency

[Flattening Resolution]
Change the setting as appropriate
according to the content of the imported
data. Custom resolution

Transparency Options	
Vector Images	400 dpi
Blends	400 dpi
Drop Shadows	400 dpi
Transparent Objects In Imported PDF & AI Files	
Flattening Resolution	Custom resolution



VI. OPI

(PDF/X-1a is a standard that prohibits OPI. Please do not select OPI.)

Creating PDF/X-1a Files in Acrobat Distiller

When you use an application that cannot create a PDF/X-1a file directly, create a PDF/X-1a file from the PostScript file that was output from the application using Acrobat Distiller 9.

In these applications, a PPD file called "Adobe PDF" is used as the PPD file when outputting a PostScript file rather than a Trueflow PPD file. (The same steps are used in Acrobat Distiller 7 / 8 as well.)

It is necessary to export PostScript in which transparency cannot be encoded, so at that point, you must make the appropriate transparency flattening settings, and RGB images also cannot be included.

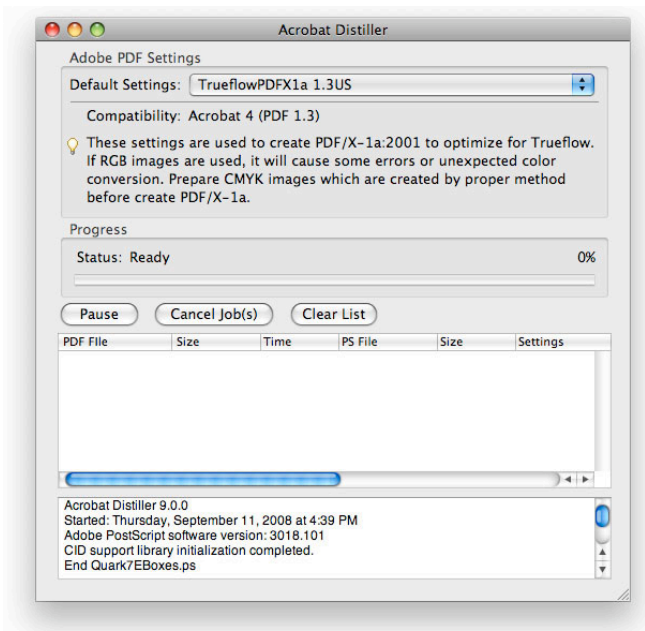
Creating in Acrobat Distiller 9

For procedure to install presets, refer to "Presets for Adobe CS2 - CS5, Acrobat 7 - 9" (P99).

When you do this, select either the US or the EU preset (US screens are used in this explanation).

1. Open Acrobat Distiller 9, select "Trueflow PDFX1a 1.3" and drag the PostScript file into the dialog box to create a PDF file.

Adobe PDF Settings		
Default Settings	[for US]	Trueflow PDFX1a 1.3US
	[for EU]	Trueflow PDFX1a 1.3EU



Verification and confirmation of PDF

Verifying PDF

After PDF creation has been completed, perform verification.

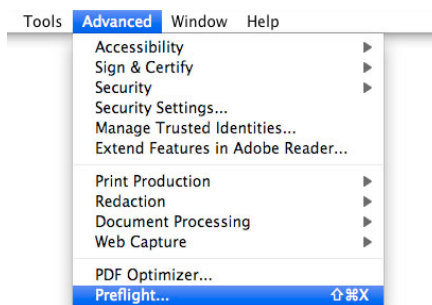
This section describes the steps for verifying using Acrobat 9 Professional.

(The same steps are used in Acrobat Distiller 7 / 8 Professional as well.)

I. Using Acrobat 9 Professional

If you use Adobe Creative Suite 3, you must update Acrobat 8 to 8.1.

1. Open the file you wish to verify using Acrobat 9 Professional, and select "Document / Preflight...".



II. Preflight

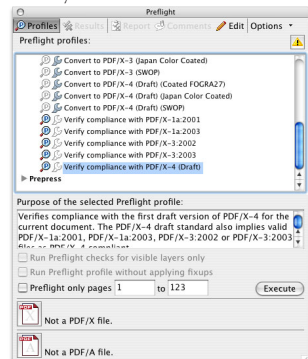
PDF/X-4 Output

(Acrobat 7)

See "Preflight profiles for an RGB workflow" (P106), and then load the "Trueflow RGBw1 1.1US.kfp", "Trueflow RGBw1 1.1EU.kfp" RGB workflow profile provided in Trueflow and verify.

(Acrobat 8)

Use the "Verify compliance with PDF/X-4 (Draft)" PDF/X-4 profile and verify.

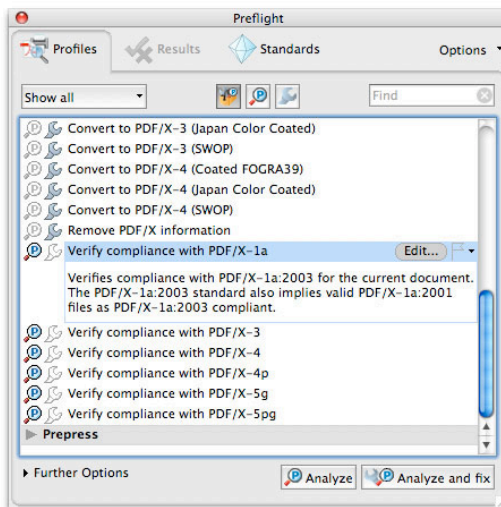


(Acrobat 9)

Use the "Verify compliance with PDF/X-4" and verify.

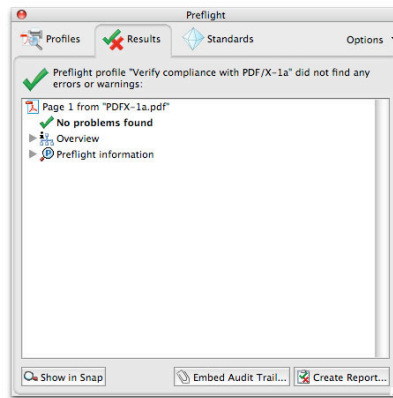
2. Select the appropriate profile from the Preflight list, and click "Execute" to run the Preflight check.

(PDF/X-1a is used in this explanation).

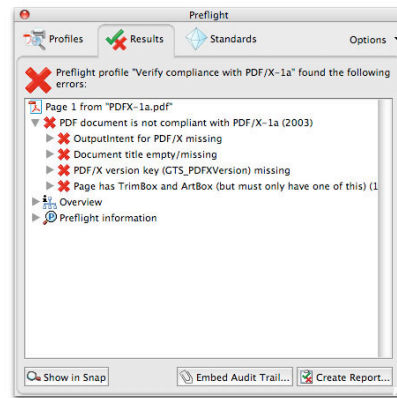


3. After the completion, the preflight results will be displayed.

[OK (acceptable)]



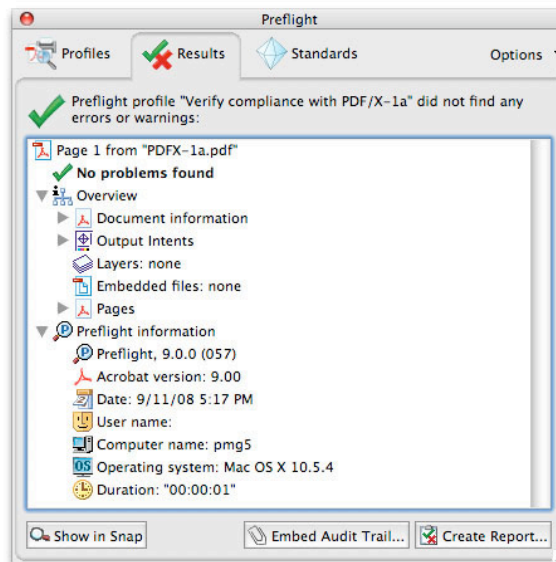
[NG (unacceptable)]



III. Preflight: results in detail

You can view more information on the verification results by selecting an item from the "Overview" and "Preflight information" pulldown menus.

4. Information such as "Overview" and "Preflight information" is displayed when you check the "Show detailed information about document" checkbox.



This completes the PDF/X-1a verification.

Running PostScript

This chapter describes the procedure, points to be noted, and restrictions on creating PostScript files that are to be used in Trueflow.

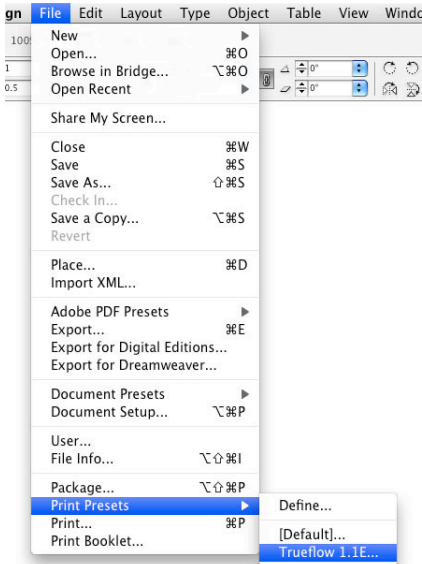
Creating PostScript Files in InDesign CS2 - CS5

Settings in the Print dialog box

(when using Presets for Trueflow)

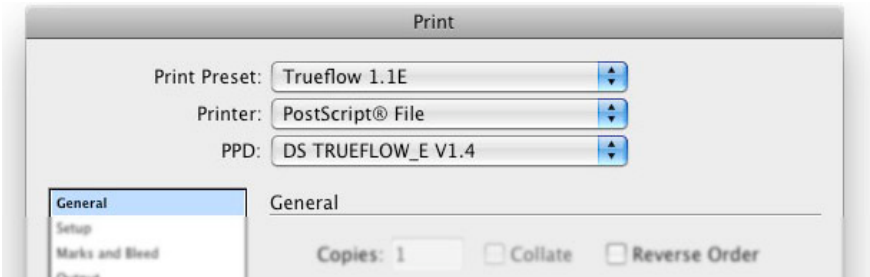
For procedure to install presets, refer to "Print presets for PS output" (P104).

- 1. Select "File / Print Presets / Trueflow 1.1E..." to display the "Print" dialog box.



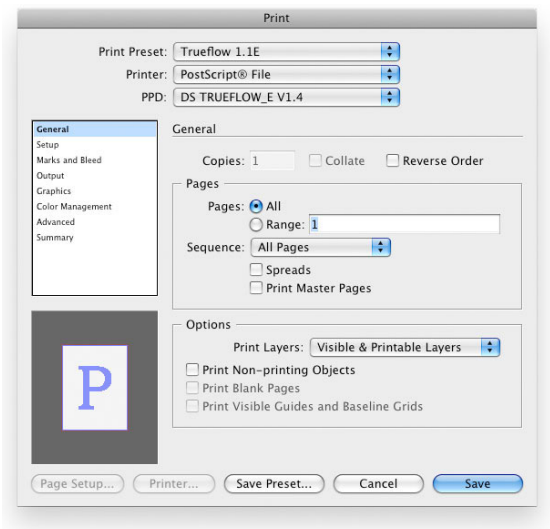
- 2. In the "Print" dialog box, which is displayed, make settings for each panel according to the descriptions below.

Print Presets	Trueflow 1.1E
Printer	PostScript® File
PPD	The latest version contained in Trueflow



I. General

Pages	Make the settings as necessary.
Options	Make the settings as necessary.



II. Setup

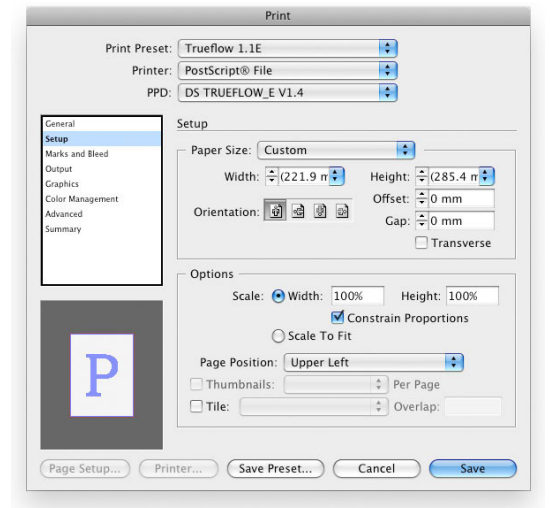
Paper Size	Custom
Width / Height	Auto (a value with brackets is displayed when Auto is selected)
Orientation	Vertical (the left most icon)
Offset	0 mm
Gap	0 mm
Options	
Page Position	Upper Left

Paper Size setup
Set "Auto" for both "Width" and "Height". Regardless of the settings for register marks and bleeds, an appropriate size is used for output.
By setting "TrimBox" for the PDF origin in the Import on Trueflow, even if the paper size is set to "Auto", accurate page origin information can be imported.

Hot Folder

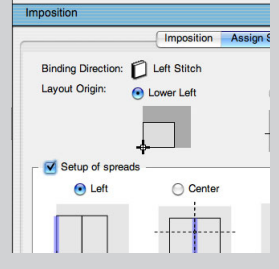
Input

PDF Origin: MediaBox, BleedBox, TrimBox



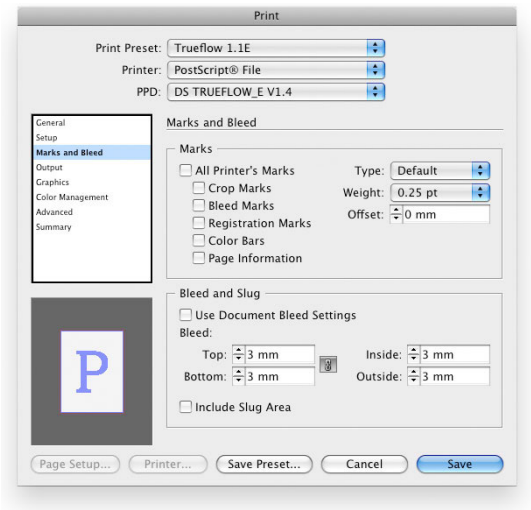
III. Marks and Bleed

Precautions when using the Imposition scheme template
When using the Imposition scheme template in Trueflow to output facing pages from InDesign CS, Please set "Spread" at imposition setup. See the Trueflow User's Manual for more information about this setting.



[Bleed]:
The value to be set here must be matched up with the set value in Trueflow.

Marks	Make the settings as necessary.
Bleed and Slug	Make the settings as necessary.
Bleed	Same value as Trueflow



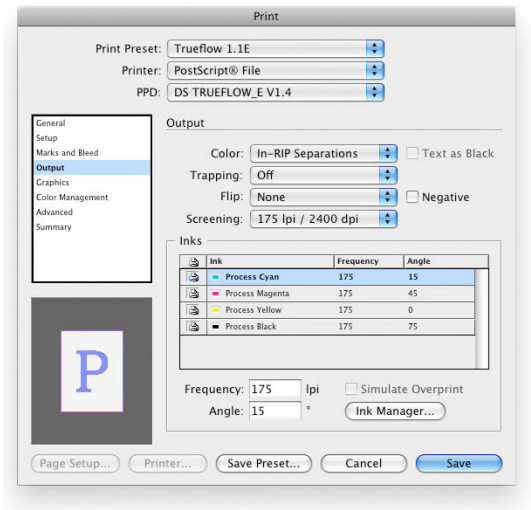
IV. Output

Differences between "In-RIP Separations" and "Composite CMYK"
When the duotone mode in Photoshop 5.0 or later is set up for a document, or when you want to output the trap specified using InDesignCS, it is necessary to output using "In-RIP Separations". Spot color information is still retained even if "Composite CMYK" is specified, but "In-RIP Separations" must be used for normal output.

[Frequency] [Angle]:
The frequency and angle set on Trueflow are used.

Color separation and section settings
If you specify color separation, do not use "Page Numbering Options" section prefix names.

Color	In-RIP Separations
Trapping	Make the settings as necessary.
Screening	Screening: Set the same screening as for the output device setting. If there is no setting that is exactly the same, select the setting closest to the output device setting.
Inks	ON for all inks



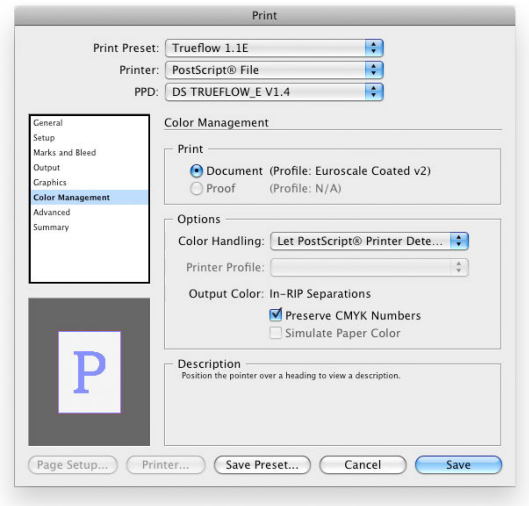
V. Graphics

(Do not change this.)

VI. Color Management

A change of setting will affect the image quality output.
If the setting is changed, it is necessary to ensure that there is no problem with the output image quality beforehand.

Options	
Color Handling	PostScript Printer Determ...
Output Color	
Preserve CMYK Numbers	ON



VII. Advanced

OPI operation

In Trueflow, the OPI processing that replaces low res EPSs with high res EPSs is supported. While in InDesign CS, when low res EPSs created in Photoshop are used, the original file name information is not included in the PostScript data, resulting in the OPI processing not being performed and the low res images being output as they are. The operation that uses EPS files created in applications other than Photoshop as low res images for OPI, such as low res images created in GTP, will not cause a problem.

[OPI Image Replacement] :

InDesign CS performs the OPI processing when outputting the PostScript data. This setting to OFF normally.

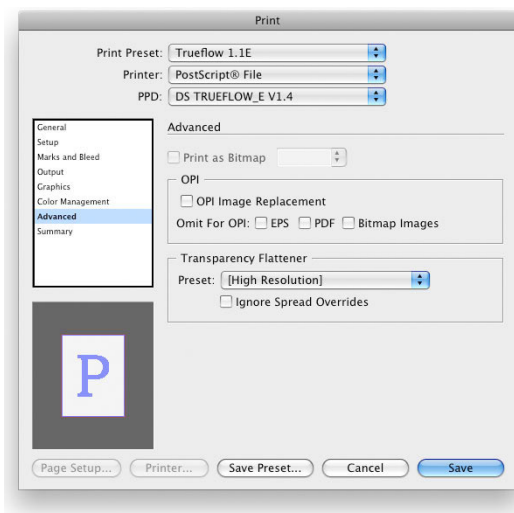
[Omit For OPI] :

The OPI processing is not performed on InDesign CS, and OPI comments are embedded instead of including the specified image in the PostScript data. For example, when "EPS" is specified, all images included in the document are targeted for OPI, and you need to prepare all the EPS elements on Trueflow. Set all the settings to OFF normally.

[Transparency Flattener] :

Output with "High Resolution" selected normally. If extremely complicated data that requires transparency processing ends in a RIP processing error, create preset data in which the "Raster /Vector Balance" value is lowered to around 75 to 99 using "Transparency Flattener Presets..." in the Edit menu, and try to output the data again. When you do this, the output quality may be affected, so check that there is no problem with the output quality.

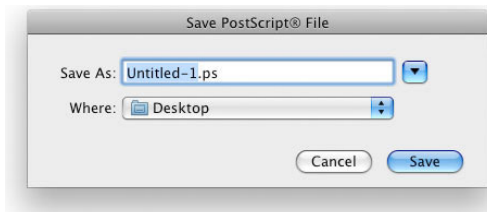
OPI	
OPI Image Replacement	OFF
Omit For OPI	All OFF
Transparency Flattener	
Preset	[High Resolution]
Ignore Spread Overrides	OFF



3. After making all the settings above, click the "Save" button.

VIII. Save PostScript File

4. Specify the file name and save location, and click the "Save" button to save the file.

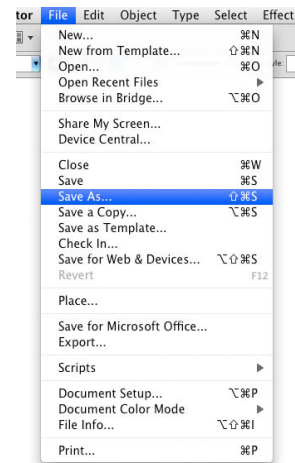


Creating EPS Files in Illustrator CS - CS5

The description below is given using screen shots of Illustrator CS4. The setting procedure is the same if you use Illustrator CS - CS5.

Saving as EPS format

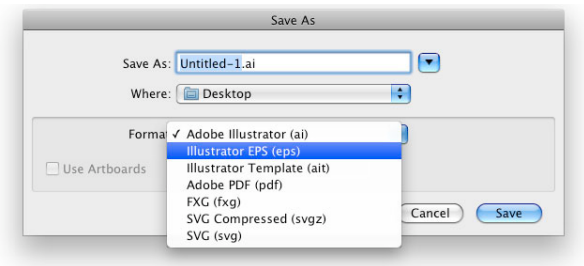
1. Select "File / Save As...".



I. Save As dialog box

2. After making the settings below, click the "Save" button.

Save As	Specify a file name.
Where	Specify a save location for the file.
Format	Illustrator EPS (eps)



II. EPS Options

[Preset]:

Output with "High Resolution" selected normally.

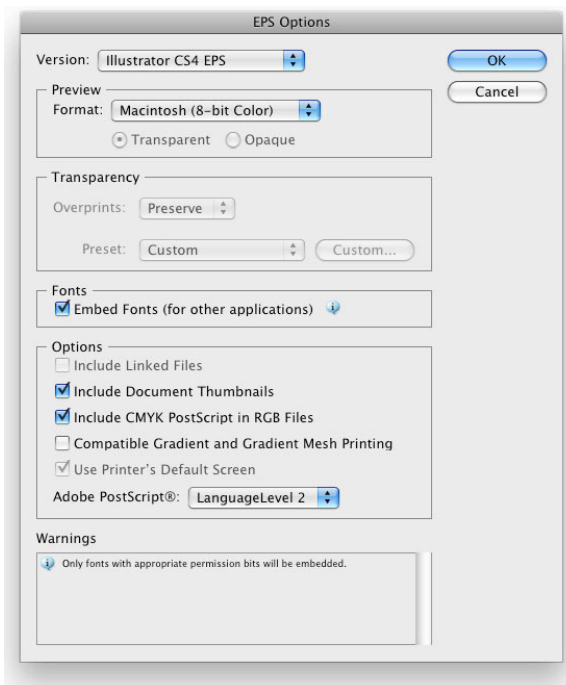
If errors occur while RIP'ing extremely complex data, including processing transparency effects, refer to "[More information about the Transparency Flattener Options](#)" (P13), and then change the setting using Edit > Transparency Flattener Presets, or change the setting by clicking the "Custom..." button.

[Compatible Gradient and Gradient Mesh Printing]:

Set this setting to OFF normally.

If this setting is turned ON, a problem may occur in the gradient quality.

3. Make each setting as necessary, and click "OK" to save your settings.



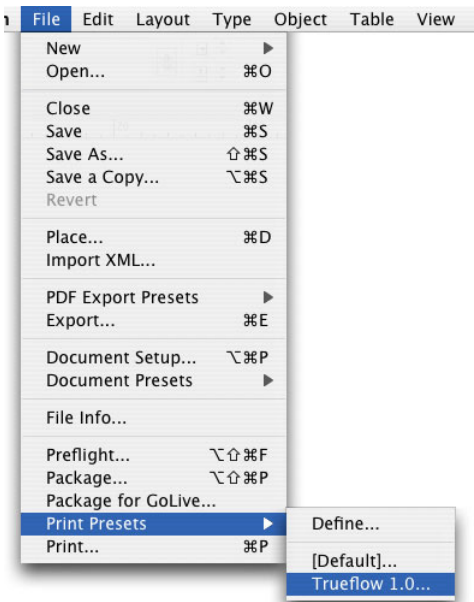
Creating PostScript Files in InDesign CS

Settings in the Print dialog box

(when using Presets for Trueflow)

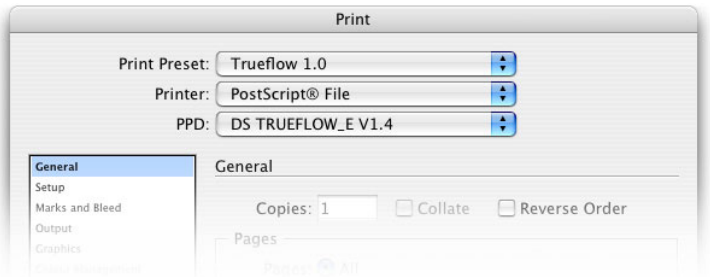
For procedure to install presets, refer to "Print presets for PS output" (P108).

1. Select "File / Print Presets / Trueflow 1.0..." to display the "Print" dialog box.



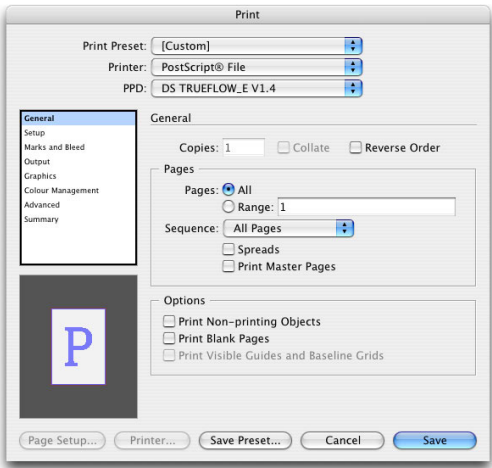
2. In the "Print" dialog box, which is displayed, make settings for each panel according to the descriptions below.

Print Presets	Trueflow 1.0
Printer	PostScript File
PPD	The latest version contained in Trueflow



I. General

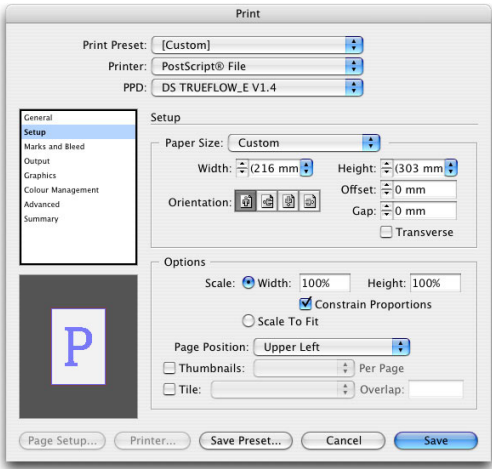
Pages	Make the settings as necessary.
Options	Make the settings as necessary.



II. Setup

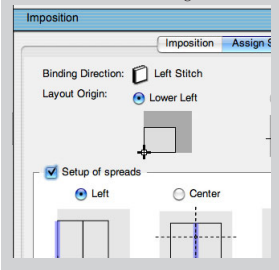
Paper Size setup
Set "Auto" for both "Width" and "Height". Regardless of the settings for register marks and bleeds, an appropriate size is used for output.
By setting "TrimBox" for the PDF origin in the Import on Trueflow, even if the paper size is set to "Auto", accurate page origin information can be imported.

Paper Size	Custom
Width / Height	Auto (a value with brackets is displayed when Auto is selected)
Orientation	Vertical (the left most icon)
Offset	0 mm
Gap	0 mm
Options	
Page Position	Upper Left



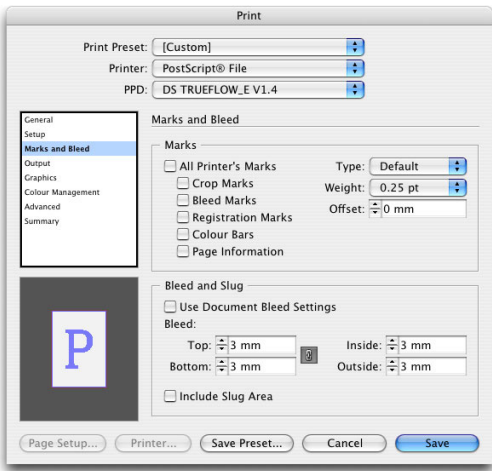
III. Marks and Bleed

Precautions when using the Imposition scheme template
When using the Imposition scheme template in Trueflow to output facing pages from InDesign CS, Please set "Spread" at imposition setup. See the Trueflow User's Manual for more information about this setting.



[Bleed]:
The value to be set here must be matched up with the set value in Trueflow.

Marks	Make the settings as necessary.
Bleed and Slug	Make the settings as necessary.
Bleed	Same value as Trueflow



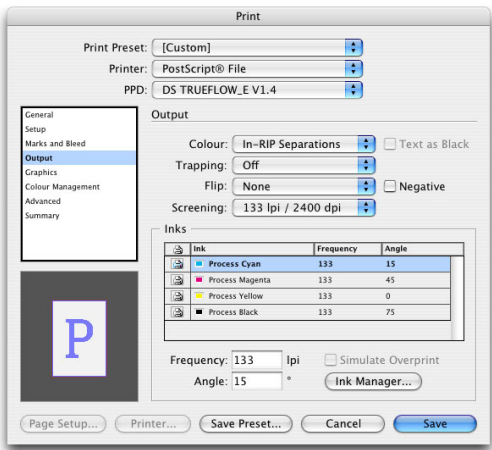
IV. Output

Differences between "In-RIP Separations" and "Composite CMYK"
When the duotone mode in Photoshop 5.0 or later is set up for a document, or when you want to output the trap specified using InDesignCS, it is necessary to output using "In-RIP Separations". Spot color information is still retained even if "Composite CMYK" is specified, but "In-RIP Separations" must be used for normal output.

[Frequency] [Angle]:
The frequency and angle set on Trueflow are used.

Color separation and section settings
If you specify color separation, do not use "Page Numbering Options" section prefix names.

Color	In-RIP Separations
Trapping	Make the settings as necessary.
Screening	Set the same screening as for the output device setting. If there is no setting that is exactly the same, select the setting closest to the output device setting.



V. Graphics

(Do not change this.)

VI. Color Management

Normally, the color management setting area is grayed out.
However, if you turn on "Color Management" in the "Edit" menu, setting will be enabled.

(This setting is generally not used.)

VII. Advanced

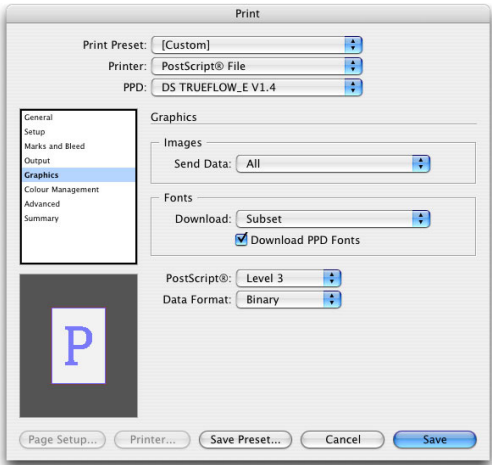
OPI operation
In Trueflow, the OPI processing that replaces low res EPSs with high res EPSs is support. While in InDesign CS, when low res EPSs created in Photoshop are used, the original file name information is not included in the PostScript data, resulting in the OPI processing not being performed and the low res images being output as they are. The operation that uses EPS files created in applications other than Photoshop as low res images for OPI, such as low res images created in GTP, will not cause a problem.

[OPI Image Replacement]:
InDesign CS performs the OPI processing when outputting the PostScript data. This setting to OFF normally.

[Omit For OPI]:
The OPI processing is not performed on InDesign CS, and OPI comments are embedded instead of including the specified image in the PostScript data. For example, when "EPS" is specified, all images included in the document are targeted for OPI, and you need to prepare all the EPS elements on Trueflow. Set all the settings to OFF normally.

[Transparency Flattener]:
Output with "High Resolution" selected normally. If extremely complicated data that requires transparency processing ends in a RIP processing error, create preset data in which the "Raster /Vector Balance" value is lowered to around 75 to 99 using "Transparency Flattener Presets..." in the Edit menu, and try to output the data again. When you do this, the output quality may be affected, so check that there is no problem with the output quality.

OPI	
OPI Image Replacement	OFF
Omit For OPI	All OFF
Transparency Flattener	
Preset	[High Resolution] Trueflow
Ignore Spread Overrides	OFF



3. After making all the settings above, click the "Save" button.
4. In the displayed Save PostScript File dialog box, specify the name of the file and location where it is to be created, and click the Save button.

Creating PostScript Files in QuarkXPress 7.0 / 8.0

In earlier versions of QuarkXPress and later, it was possible to use TP-X, which was a dedicated Xtension, but in QuarkXPress 6 and later, it is no longer necessary to use TP-X, and therefore the method for creating PS has also changed. The functions that were in TP-X, the page origin load function and the function for recognizing C / CV / CVC Pantone spot colors as the same color, are now supported in Trueflow import processing.

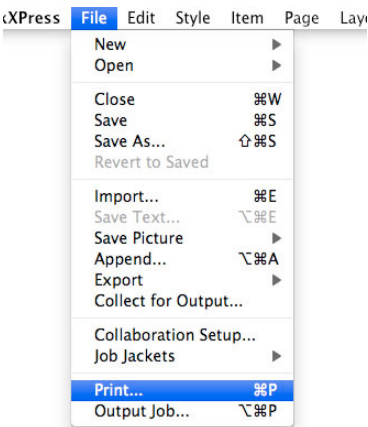
Print Dialog setting

(when using Presets for Trueflow Style)

There are times when you may get unexpected results if you change any of the other settings.
Do not change any of the other settings with following procedure.

For procedure to install presets, refer to "Output Style Setup" (P111).

1. Select the "File" - "Print...". The "Print Layout" dialog box is displayed.

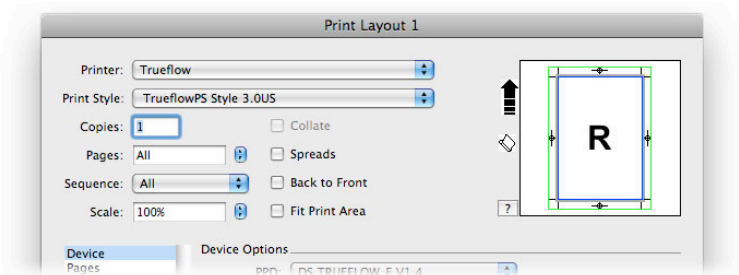


2. In the Dialog box, which is displayed, make settings for each panel according to the descriptions below.

I. Print Layout

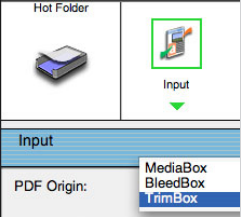
[Spreads] :
Either of the settings for "Spreads" is acceptable, but if you check the "Spreads" option, you must make the page size larger. (See Setup tab)

Print Style	TrueflowPS Style 3.0US
Spreads	ON / OFF (Both are possible)



II. Device

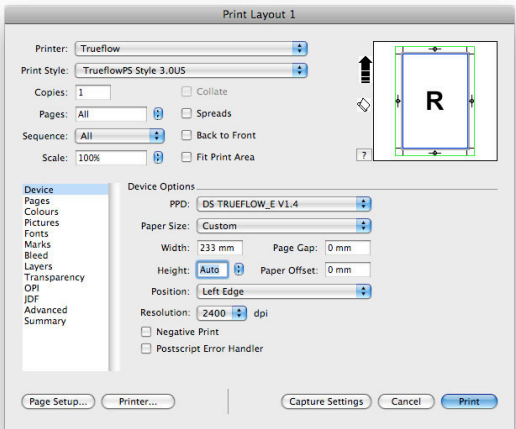
Paper Size setup
Set "Auto" for both "Width" and "Height".
Regardless of the settings for register marks and bleeds, an appropriate size is used for output.
By setting "TrimBox" for the PDF origin in the Import on Trueflow, even if the paper size is set to "Auto", accurate page origin information can be imported



[Paper Width] :
Example)
Letter size (Single Page),
8.5inch,Bleed:0.125inch:
Paper Width
=8.5+(0.125x2)
+0.669(Register Mark Size)
= 9.419 inch

Letter size (Facing Page),
8.5inch,Bleed:0.125inch:
Paper Width
=17+(0.125x2)
+0.669(Register Mark Size)
=7.919 inch

Device Options	
PPD	use the latest version provided with Trueflow
Paper Size	Custom
Width	As long as the sizes in "Paper Width" are larger than the size of the paper to be output plus the bleed (same as the "Offset") and the register marks (17 mm for both sides), any size is acceptable.
Height	"Paper Height" can be set to "Automatic." or larger than the size of the paper height plus the bleed and the register marks (17 mm for both sides).
Resolution	Set the "Resolution" appropriate for the actual output device.

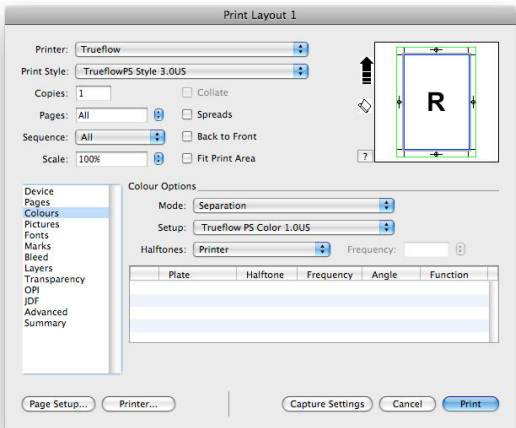


III. Colors

[Setup]:
In the English version of QuarkXPress6, the spot color used on the objects below is output as a proxy color of a process color.
In order to output documents containing these objects, can output properly by selecting "Truflow PS Color 1.0US" (for US) or "Truflow PS Color 1.0EU" (for EU) in the special Color Setup file provided with Trueflow (see "Color Setup" (P109) for more information about the Color Setup file).
1) Blend: When a spot color is used
2) Colorized TIFF: Gray TIFF colorized with a spot color
3) Multi-Ink: When a spot color is used

Color separation and section settings
If you specify color separation, do not specify anything other than numbers for the "Page Numbering Options" section.

Color Options	
Mode	Separation
Setup	[for US] Trueflow PS Color 1.0US [for EU] Trueflow PS Color 1.0EU



IV. Marks

[Offset] :
Even if the unit that is displayed is "pt",
you can also enter a value such as [3mm]
(=8.504pt) or [0.125"] (=9pt)

V. Bleed

[Amount] :
Even if you set different values for the
top, bottom, left and right bleed values, it
will not be possible to process the bleeds
correctly.

VI. Transparency

[Flattening Resolution]
Change the setting as appropriate
according to the content of the imported
data. Custom resolution

Registration Marks Options

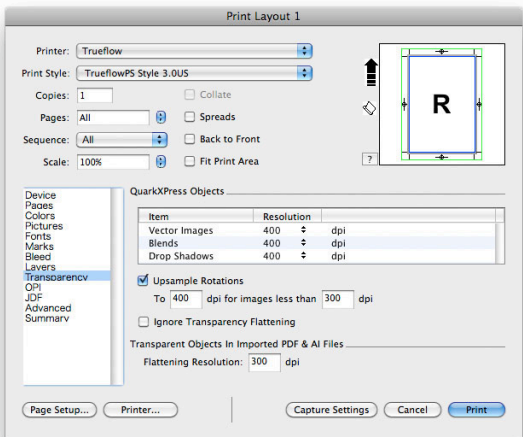
Mode	Centered
Width, Length	
Offset	Same value as Bleed of Trueflow

Bleed Options

Bleed Type	Symmetric
Amount	Set the same values for the bleeds as are set for the "Offset" values in the Marks tab.

Transparency Options

Vector Images	400 dpi
Blends	400 dpi
Drop shadows	400 dpi
Transparent Objects In Imported PDF & AI Files	
Flattening Resolution	Custom resolution



VII. OPI

Effects of the OPI setting
When a data file created by importing
an EPS illustration in QuarkXPress 6 is
processed in Trueflow, the output result
may be incorrect (e.g., the EPS is scaled
down). Create a PS with the "OPI Active"
checkbox unchecked.
It is possible to perform OPI processing
for EPS image files on Trueflow even if the
OPI has been deselected. TIFF image files
imported with the above setting are output
as they are.

OPI Options

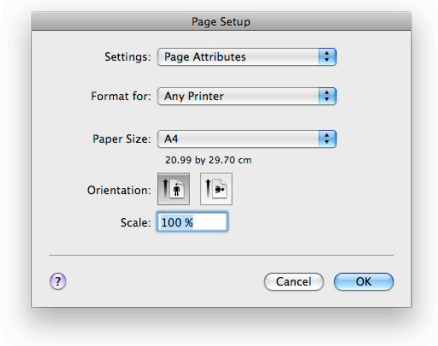
OPI Active	OFF
------------	-----

3. After you finish making the above settings, output the PS file using the steps below.

Page Setup dialog box

- 4. Click the Page Setup... button in the bottom left of the Printer Layout dialog box, check the settings in the Page Setup dialog box that is displayed, and click the OK button.

Orientation	vertical (The leftmost icon)
Scale	100%

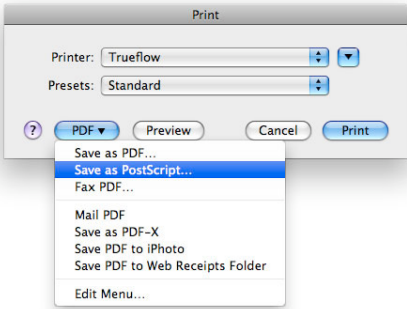


Print dialog box

The description below is given using screen shots of Mac OS X 10.6. The setting procedure is the same if you use 10.4 or 10.5.

- 5. Click "Printer..." in the Print dialog box to display the OS Print dialog box.
 - When using Mac OS X 10.6At this point, select "Save PDF as PostScript" from the "PDF" pull-down menu.

Printer	Trueflow
Presets	Standard



- 6. In the "Save to File" dialog box that appears, specify the file name and the save destination, and then click "Save...".
In a normal application, the file is saved at this stage. However, in QuarkXPress 6 and later version, the file is created when you click "Print" in the QuarkXPress Print dialog box.

Creating PostScript Files in QuarkXPress 6.5

In earlier versions of QuarkXPress, it was possible to use TP-X, which was a dedicated Xtension, but in QuarkXPress6, it is no longer necessary to use TP-X, and therefore the method for creating PS has also changed.

The functions that were in TP-X, the page origin load function and the function for recognizing C / CV / CVC Pantone spot colors as the same color, are now supported in Trueflow import processing.

This document uses QuarkXPress running on Mac OS X 10.4 for purposes of explanation, but it is possible to use the same settings on Mac OS X 10.2 and higher.

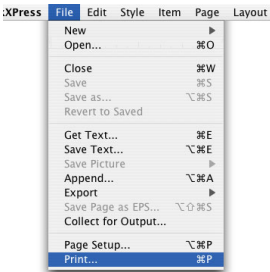
Print Dialog setting

(when using Presets for Trueflow Print Style)

There are times when you may get unexpected results if you change any of the other settings.
Do not change any of the other settings with following procedure.

For procedure to install presets, refer to "Install Print Style" (P113).

1. Select the "File" - "Print...". The "Print Layout" dialog box is displayed.



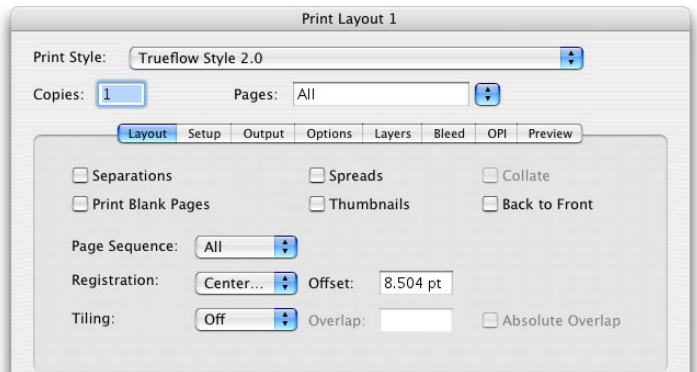
2. In the Dialog box, which is displayed, make settings for each panel according to the descriptions below.

I. Layout

[Spreads] :
Either of the settings for "Spreads" is acceptable, but if you check the "Spreads" option, you must make the page size larger. (See Setup tab)

[Offset] :
Even if the unit that is displayed is "pt", you can also enter a value such as [3mm] (=8.504pt) or [0.125"] (=9pt)

Print Style	Trueflow Style x.xx
Spreads	ON / OFF (Both are possible)
Registration	Center...
Offset	Same value as Bleed of Trueflow



II. Setup

Paper Size setup

Set "Auto" for both "Width" and "Height". Regardless of the settings for register marks and bleeds, an appropriate size is used for output.
By setting "TrimBox" for the PDF origin in the Import on Trueflow, even if the paper size is set to "Auto", accurate page origin information can be imported

Hot Folder

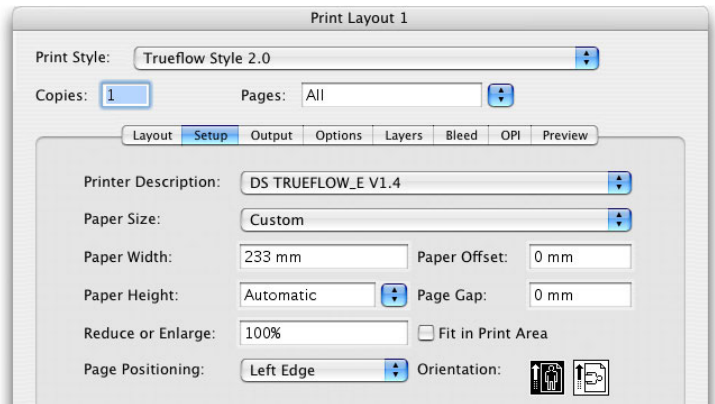
Input

PDF Origin: MediaBox
BleedBox
TrimBox

[Paper Width] : (Example)
Letter size (Single Page),
8.5inch,Bleed:0.125inch:
Paper Width
=8.5+(0.125x2)
+0.669(Register Mark Size)
= 9.419 inch

Letter size (Facing Page),
8.5inch,Bleed:0.125inch:
Paper Width
=17+(0.125x2)
+0.669(Register Mark Size)
=7.919 inch

Printer Description	use the latest version provided with Trueflow
Paper Size	Custom
Paper Width	As long as the sizes in "Paper Width" are larger than the size of the paper to be output plus the bleed (same as the "Offset") and the register marks (17 mm for both sides), any size is acceptable.
Paper Height	"Paper Height" can be set to "Automatic." or larger than the size of the paper height plus the bleed and the register marks (17 mm for both sides).
Orientation	vertical (left icon)

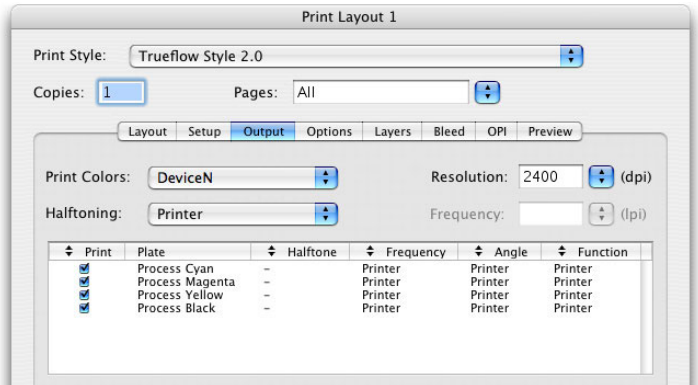


III. Output

[Print Colors]:
In the English version of QuarkXPress6,
the spot color used on the objects below
is output as a proxy color of a process
color.
In order to output documents containing
these objects, select "DeviceN". This
ensures output is carried out correctly.

1) Blend: When a spot color is used
2) Colorized TIFF: Gray TIFF colorized
with a spot color
3) Multi-Ink: When a spot color is used

Print Colors	DeviceN
Resolution	Set the "Resolution" appropriate for the actual output device.



Color separation and section settings

If you specify color separation, do not use "Page Numbering Options" section prefix names.

IV. Options

(Do not change this.)

V. Bleed

[Amount] :
Even if you set different values for the top, bottom, left and right bleed values, it will not be possible to process the bleeds correctly.

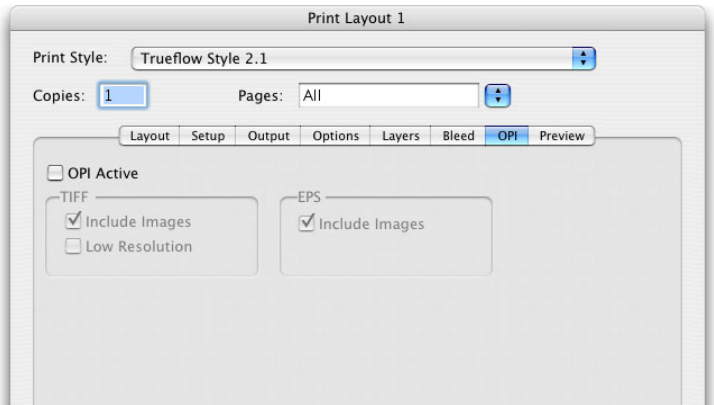
Bleed Type	Symmetric
Amount	Set the same values for the bleeds as are set for the "Offset" values in the Layout tab.

VI. OPI

Relationship between the OPI and printing format
You cannot change the OPI setting even if the printing format in the Trueflow style sheet is used. Be sure to change the setting manually.

Effects of the OPI setting
When a data file created by importing an EPS illustration in QuarkXPress 6 is processed in Trueflow, the output result may be incorrect (e.g., the EPS is scaled down). Create a PS with the "OPI Active" checkbox unchecked.
It is possible to perform OPI processing for EPS image files on Trueflow even if the OPI has been deselected. TIFF image files imported with the above setting are output as they are.

OPI Active	OFF
------------	-----

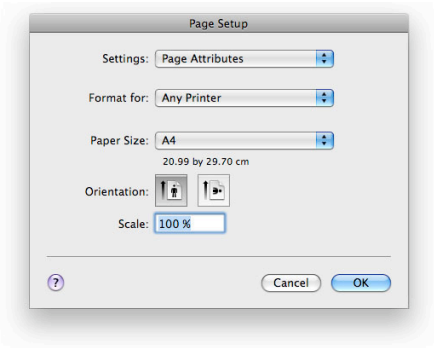


3. When you finish making the above settings, output the PS file using the steps below.

Page Setup dialog box

4. Select the "Page Setup..." button in the Print dialog box to display the "Page Setup" dialog box and confirm the settings, then click "OK".

Orientation	vertical (The leftmost icon)
Scale	100%

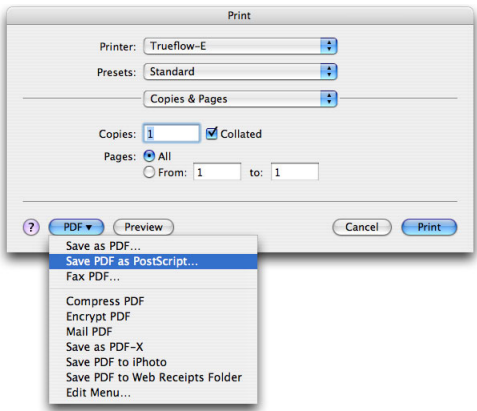


Print dialog box

The description below is given using screen shots of Mac OS X 10.6. The setting procedure is the same if you use 10.4 or 10.5.

- 5. Click "Printer..." in the Print dialog box to display the OS Print dialog box. From the pull-down menu, select "Output Options" and click "Save...".
 - When using Mac OS X 10.6
- At this point, select "Save PDF as PostScript" from the "PDF" pull-down menu.

Printer	Trueflow
Presets	Standard



- 6. In the "Save to File" dialog box that appears, specify the file name and the save destination, and then click "Save...".
- In a normal application, the file is saved at this stage. However, in QuarkXPress 6 and later version, the file is created when you click "Print" in the QuarkXPress Print dialog box.

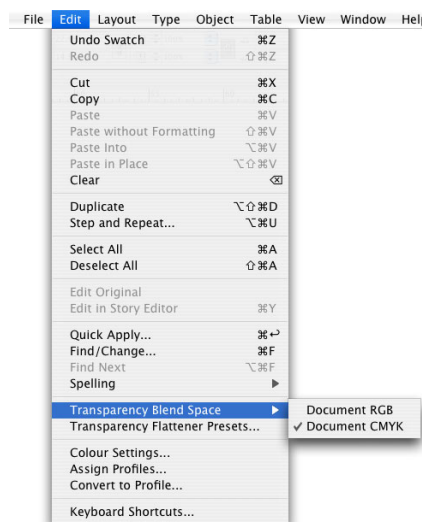
Points to Note

PDF/X-4 workflow

Transparent Blend Space

In a PDF/X-4 workflow, the transparency effects are reflected as is in the PDF, and the processing of merging transparent objects is performed by the RIP, so it is necessary to pay attention to the device color space when creating the data.

It is possible to blend transparency effects using RGB-based or CMYK-based rendering, and it is necessary to use CMYK-based rendering when processing transparency effects for printing. The results will not be correct if you use RGB-based rendering. These settings are made in the application. In InDesign CS2 or CS3, select "Edit" > "Transparency Blend Space" > "Document CMYK". Transparency blending in Trueflow makes it possible to use CMYK-based rendering so PDF created this way can be printed appropriately.



Merging transparent objects

In a PDF/X-4 workflow, transparency effects are not flattened and combined in the DTP application, but instead are processed in the RIP. These are processed internally in Trueflow with quality as the priority, so if you have extremely complex data that uses a lot of transparency effects, processing times become long and the data resulting from flattening and combining may become too large and impossible to process. The processing load becomes extremely heavy in the following types of cases.

- Nature images or drop shadows on gradients
- Transparency-related effects such as drop shadows on objects with complex paths
- Nature images with transparency effects on blends that use multiple objects in objects such as 3D text

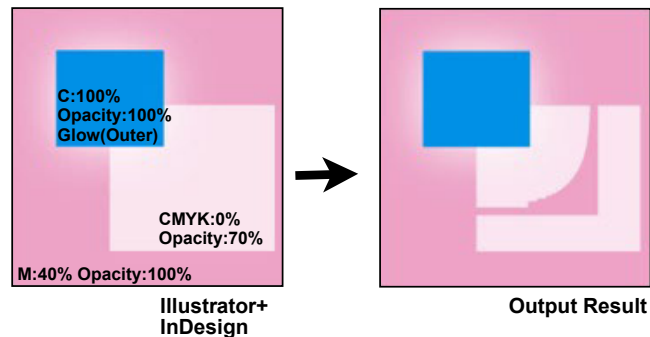
Placing data with effects into InDesign

With following versions of Trueflow, this problem has been fixed.

- Ver5.01 TF175
- Ver6.01 TF135
- Ver7.10 TF110
- Ver7.20 or later

If you export data created in Illustrator or Photoshop with special effects such as outer glow as native data or PDF exported from an application, place it in InDesign, and then export it as PDF/X-4, there are times when the output from Trueflow Advanced PDF is not correct.

This problem cannot be confirmed in Acrobat and occurs in output from Trueflow.



Versioning workflow

A versioning workflow that uses these PDF layers is supported by a workflow that uses Adobe PDF Print Engine for Trueflow SE Version 6.00 and later. See the Versioning Operation Manual that is included with Trueflow SE for more information.

You cannot create PDF with layers even if you use the "Trueflow PDFX4 1.3J.joboptions" PDF preset file for creating PDF/X-4 that is provided in Adobe CS3 - CS5. If you use a versioning workflow, use "Trueflow RGBwf 1.3J.joboptions" even for Adobe CS3 - CS5.

A versioning workflow uses layers rendered using PDF and is a method for output of multiple versions of the same document, which enables both a workflow with layered output function and support for multiple languages. This workflow can also be used with PDF/X-4 data.

This workflow is supported by InDesign CS2 - CS5 and Illustrator CS2 - CS5.

Follow the steps below to create the data.

1. Create the data for the application layers (see the manuals for the individual applications).
2. See "Creating PDF/X Files in InDesign CS2 - CS5" (P50) or "Creating PDF/X Files in Illustrator CS2 - CS5" (P55) select "Trueflow RGBwf 1.3J.joboptions" in "PDF Export Presets", and create PDF data containing PDF1.6 format layers.
3. See "Verification and confirmation of PDF" (P67), and convert the PDF1.6 to PDF/X-4 in the PDF fixup settings in Acrobat 8 to create the PDF/X-4 data with layers.

Font preflight problems

If you input PDF that uses functions from PDF1.4 and higher or separated PDF, the font results in Preflight may be NG if one of the following conditions is present. Corrupted characters do not occur in the actual output.

- Embedded Type 3 fonts
- Fonts that are not actually used in an illustration but for which there is information in the PDF

PDF with transparency effects outputs completely blank

If you input PDF that includes transparency effects and the following conditions are present, illustrations may shift position on the page or the output may be completely blank.

- When the "Prepress Margins" setting in the "Other" tab is Off
- When a negative value is set for the MediaBox or other origin coordinates in a PDF file

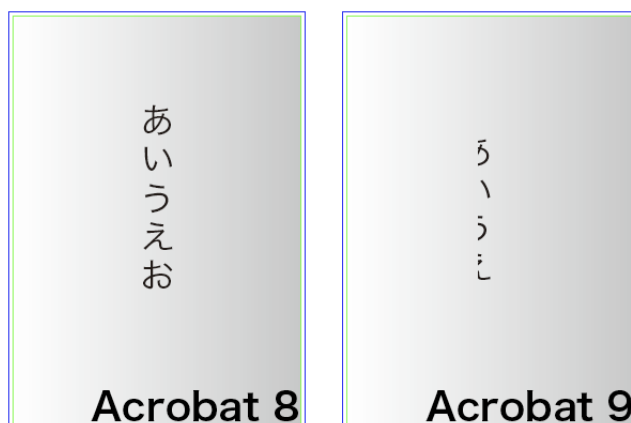
As described in "[Bleed](#)" (P37) this problem can be avoided by accurately designing bleeds and creating data with an awareness of the page origin.

PDF/X-1a workflow

Text missing on vertical text with transparency effects

This bug has been fixed in InDesign CS5
and Illustrator CS5

In InDesign CS2 - CS4 and Illustrator CS2 - CS4, if you apply transparency and overprints to vertical text and output it in PDF/X-1 format, a problem causing text to appear to be missing when displayed in Acrobat 9 may occur. This problem does not occur in Acrobat 8.



This problem does not occur in Trueflow, but it is necessary to be careful because if you place that data in InDesign CS4 or Illustrator CS4, the data ends up with unavoidable bugs.

Acrobat Distiller 6 font embedding

This bug has been fixed in Acrobat 7.

We have discovered that there are serious bugs when embedding Japanese fonts in Acrobat Distiller 6. As of now, we have confirmed that the bug occurs under the following rare conditions.

- When an Illustrator native file or PDF is imported into InDesign
- When the PostScript output from that document is converted to PDF using Distiller 6.

If these conditions exist, on rare occasions, font embedding is not performed correctly, and when the data is opened in Acrobat 6, the following error message is displayed. When you check the font area of the Document Properties dialog box, Embedded Subset may not be displayed for the font, or no error message appears and some characters are missing.

As a result, characters are either corrupted or missing in the output.

We have confirmed that this problem can be avoided using any of the following methods.

- If you are importing an Illustrator document, import it in EPS format.
- Directly output PDF/X-1a format from InDesign CS.

In addition, the PDF/X-1a data may pass Preflight in Acrobat 6 with No problems found even if this type of bug occurs, so if you cannot create data that meets the conditions above, if you are concerned about a complex document, it is necessary to check it very carefully by eye.

With PS created in InDesign 2.0.2

When PS created in InDesign 2.0.2 is converted to PDF/X-1a data using Acrobat Distiller 7, the data may not pass the check in Acrobat Distiller 7 due to an "Invalid BleedBox Offset". This occurs because information is encoded in PS created in InDesign 2.0.2 so that MediaBox is slightly smaller than BleedBox (MediaBox is included in BleedBox). Although Acrobat Distiller 6 accepted such data, it seems that Acrobat Distiller 7 does not accept it.

When you create a PDF/X-1a from a document created in InDesign 2.0.2, enlarge the page size (MediaBox), for example, by adding register marks and then create a PS or convert the data into a InDesign CS/CS2 document and then output it as a PDF/X-1a directly.

InDesign CS - CS5

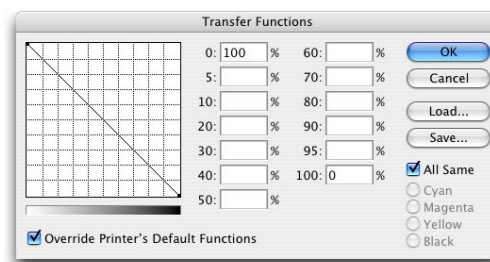
Multiscreening

There is a problem where by PostScript data output from InDesign does not include halftone screening information that is included in imported PhotoshopEPS. Therefore, multiscreening cannot be used on InDesign. Even in this case, it is possible to specify multiscreening using TrapEditor MS after inputting data into Trueflow.

Application of Transfer Function

In order to apply the Transfer Function specified in Photoshop on InDesign CS or later, the "Override Printer's Default Functions" checkbox must be checked in the Transfer Functions setup window of Photoshop.

At the same time, the "Include Transfer Function" checkbox in "EPS Options" must be checked when saving as an EPS. (In InDesign 2.0.2 or earlier, there was a bug whereby the Transfer Function was not applied properly.)



Operation using DCS format EPS images

When DCS format images were used in previous versions of InDesign, it was necessary to perform the OPI processing in Trueflow. In InDesign CS, however, DCS images can be converted to composite and embedded in PostScript data, so the OPI processing in Trueflow is not required. Since this function is designed for images created in Photoshop, the OPI processing must be performed for DCS format images created in other applications as before.

Perform OPI processing in accordance with the description, "[Omit For OPI]:" (P73)

Illustrator EPS data containing spot colors

If data from Illustrator 10 or earlier contains EPS data that includes spot colors and that EPS data is imported into InDesign and output as PostScript, PostScript with coding inconsistencies is generated and an error occurs.

If you use EPS data that includes spot colors, use Illustrator CS or later.

Specifying an RGB color of "0, 0, 0"

X-1a

If an RGB "0, 0, 0" color is specified for objects such as text, keylines and fills in InDesign, the K separation does not become 100% during output, and the data is converted into the four CMYK process colors. (InDesign specification)

Do not specify colors as RGB colors in InDesign, and specify them as CMYK colors instead.

(* It is not applicable for the RGB workflow.)

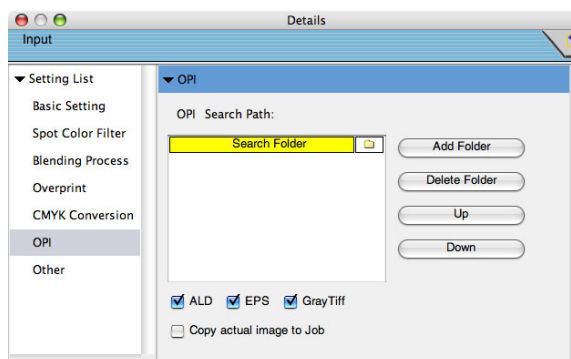
Transparency and blurring effects

When processing grayscale images with transparency and blurring effects applied in InDesign, unwanted lines may appear on the images depending on the resolution.

OPI settings for GrayTIFF data

If you process PS with values other than 100% specified for the shading (density) on GrayTIFFs colorized in InDesign, turn on the following OPI options in the Trueflow import job ticket.

- ALD
- EPS
- GrayTiff



If you set up OPI processing such as the above for data that includes GrayTIFFs colorized with spot colors in InDesign and the high res images are not present, the colors in the low res image areas are output lighter. (This problem does not occur if you colorize with process colors).

Layered output function

When using the function to output the image with other data overlapped in part in Trueflow (layered output function), if PostScript is output from InDesign using the color of "In-RIP Separations", the image that positioned underneath will be hidden by the overlapped data. This occurs because a white object that is the same size as the image will be output. When using the layered output function for the data created in InDesign, output the data in a PDF/X-1A format.

Positioning of PDFs in InDesign

^{*1)}This occurs with high frequency when PDFs output directly from QuarkXPress 6.x, which is not supported by Trueflow, are positioned in InDesign.

With all versions of InDesign, when a PDF is positioned as an object in a document, it has been confirmed that problems such as the omission of images occur.^{*1)}Due to this, positioning of PDFs in InDesign documents should not be attempted. However, this problem does not occur when, for PDF/X-4 applications, an IllustratorCS2 native file (structurally PDF format) is positioned in an InDesignCS2 document or, similarly, when a transfer is made from IllustratorCS3 - CS5 to InDesignCS3 - CS5.

For further information, refer to "[Illustrator CS2 - CS5 native workflows](#)" (P6) .

"Effects" in InDesign CS3 - CS5

With following versions of Trueflow, this problem has been fixed.

- Ver4.01 TF185
- Ver5.01 TF175
- Ver6.01 TF135
- Ver7.10 TF110
- Ver7.20 or later

If you use the following from "Effects", which are supported in InDesign CS3 and later, output problems may occur if the target objects are rotated. This also occurs in InDesign CS4 and CS5.

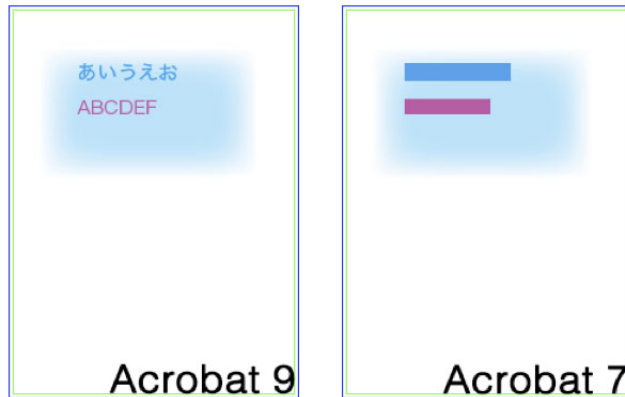
- Bevel and Emboss
- Inner Shadow
- Inner Glow
- Satin

To avoid these problems, you can create the same design in Illustrator and place it in InDesign for output or output PDF/X-1a from that InDesign document to convert the effects to images for output.

Problem with composite fonts in InDesign CS2 - CS4

This InDesign bug has been fixed with InDesign CS4 6.0.4 or later.

If you directly output PDF/X-1a from an InDesign CS2 - CS4 document that uses composite fonts and display it in Acrobat 7 or Acrobat 9 (or Acrobat 8), there are times when differences appear in the display.



With following versions of Trueflow, this problem has been fixed.

- Ver4.01 TF180
- Ver5.01 TF168
- Ver6.01 TF125
- Ver7.00 TF017
- Ver7.10 or later

There are times when the same problem occurs in conventional Trueflow RIP'ing.

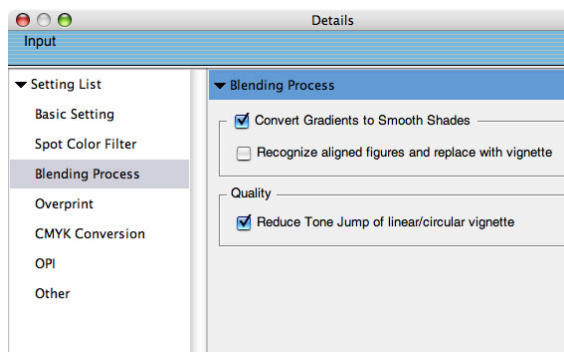
When you look at the problem, it appears as if it was corrected in Acrobat 8 and later, but the actual cause of this problem is in the encoding of the PDF output from InDesign. We know that Acrobat 7 and Trueflow output results conform to the PDF standard (differ from the display in InDesign). For printing, if you cannot achieve the results you see in Acrobat 9, which is to say InDesign, problems will occur.

Illustrator CS - CS5

"Replace vignettes" in Trueflow

If you process data that includes gradients using the import processing with the "Convert Gradients to Smooth Shades" option set to OFF, there are times when the gradients are left out or the quality is lowered. Normally, set the "Convert Gradients to Smooth Shades" option to ON in the import processing.

However, as an exception, if you process data that contains objects with special effects over vignettes, density differences may occur in the vignettes around the objects. If this happens, you can turn the "Convert Gradients to Smooth Shades" option off in Input processing and avoid this problem by not replacing the vignettes.



Objects converted to images

If data contains Illustrator effects such as transparency, blurring or drop shadows, the target objects are converted to images and saved. As a result, there are times when the output results from the areas that were converted to images are blurred or have banding.

Conversion to proxy colors from spot colors

When spot colors with the same name but different proxy color values are used and impositioned on an identical page / signature, even if these spot colors are imported with the "Load spot colors" option set to ON in the import processing template, all the spot colors with the same name will have an identical proxy color value.

If you want to register them as temporary spot colors for data creation and then later convert them to separation process colors for output, set OFF for the "Load spot colors" option in the import processing template to convert spot colors to process colors. If you want to use QuarkXPress Versions 4.1 and 5.0, it is possible to convert spot colors to process colors from the proxy color values set for each object by using the TP-X spot color adjustment function.

PDF

- PDF1.4 format data directly output from Illustrator CS2 cannot be output properly. Use data saved as PDF/X-1a or EPS, not the PDF 1.4 format data that is output directly from Illustrator CS2.
- If both transparency effects and the gradient mesh function are used when creating PDFs in Illustrator, the gradient mesh objects may be left out.
- When outputting PDF from Illustrator CS / CS2, embed the images rather than linking them. If images are linked, unwanted lines may appear on the images.
This problem was fixed in Illustrator CS3.

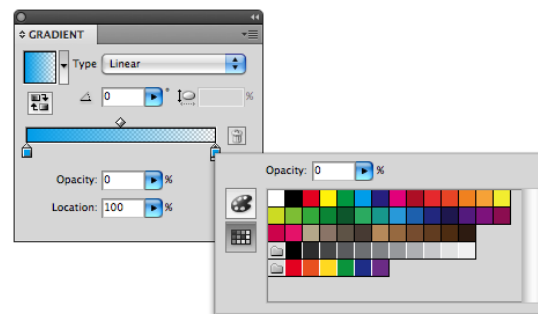
OutlinePS / EPS in Trueflow

There are some points to note when creating OutlinePSs and EPSs in Trueflow from jobs that include Illustrator data.

Refer to "Notes on Using Trueflow" for more information.

Transparency gradation in the IllustratorCS4 or later

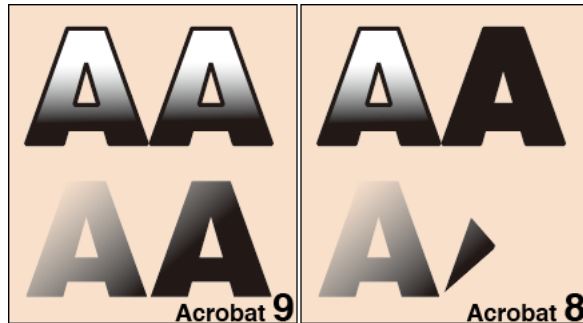
Adobe Creative Suite 2 and Acrobat 7 or before are not functional for transparency gradation data which is newly supported in the IllustratorCS4. To output the data in the InDesign, use the InDesignCS4. (see "[Illustrator CS2 - CS5 native workflows](#)" (P6))



Text and transparent gradients

If you use Illustrator CS4 and later, use transparent gradients on text and export the data in PDF/X-4 format, it is not displayed correctly in Acrobat 8 and earlier.

If you convert to PDF1.3 in Trueflow, the same problem occurs.



Photoshop CS - CS5

When DCS is created in Photoshop

As above reason we recommend Photoshop CS or later for DCS image.

If a file is saved in DCS or later format with "No Composite" in Photoshop 7 or Photoshop CS or later, the OPI processing is not performed correctly in Trueflow. This bug has been fixed so that saving the file with "Color Composite" ensures correct processing.

In addition, if a DCS image is created with JPEG encoding in Photoshop 7, the data will be invalid and an error will occur in Trueflow. This will not occur in Photoshop CS or later.

With a DCS2 image created using Photoshop 6 or earlier, lack of any CMYK separations will cause an invalid data error.

History Log

When an EPS file with a history log embedded is saved using the History Log function of Photoshop CS, if the history log becomes large by many editing operations, the log exceeding the size limit of PostScript text will be recorded in EPS, which causes an error. Do not use this function.

QuarkXPress 6.5 - 8

Upgrade recommendation

QuarkXPress 6.5 has been released with many bugs fixed and it now supports the dynamic download of the OpenType fonts. If you have any problem with QuarkXPress 6.1, we recommend that you upgrade it to QuarkXPress 6.5.

About direct exported PDF

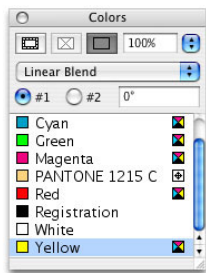
^{*1)}QuarkXPress 7 has been released in Europe and the USA.

Direct exported PDF by QuarkXPress 6.5 is not supported. And PS file which is created by "Create PostScript File for Later Distilling" option (in "Preferences" - "PDF") is not supported. QuarkXPress7^{*1)} and later support PDF/X-1a direct export.

Separation PS

With using Trueflow, it is not recommended to use Separation PS.
SeparationPS with QuarkXPress 6.5 / 7.0 / 8.0 is not supported.

QuarkXPress 6 gradients



The gradients set in QuarkXPress 5 or an earlier version were replaced in Trueflow and output as smooth gradients. However, as the gradient encoding pattern has been changed in QuarkXPress 6, the QuarkXPress 6 gradients are not replaced in Trueflow and output as they were coded in PostScript.

Therefore, the quality of the QuarkXPress 6 gradients may be degraded when compared to the output of gradients that were created in the earlier versions.

With QuarkXPress 7 and later, the software has been modified so that gradients are encoded as smooth shading for both PDF and PostScript output. There is no need for encoding replacement in Trueflow in order to achieve smooth gradient output.

Length limit for spot color name

When a spot color name has 32 or more characters and "DeviceN" is selected for the print color, an error may occur in Trueflow. Use 31 or less characters for a spot color name.

Spot color for the box frame

With QuarkXPress 6, even if spot colors are set for the frames of boxes, they cannot always be output correctly.

Table creation function

With the QuarkXPress 6 table creation function, the on-screen image is different from the output result depending on the conditions. Before the table function is used, confirm that the output result is appropriate.

Page information text

With QuarkXPress 6, Document name, Date, Page text, which appears beside the register marks outside the finished page area, is output as bitmap. With QuarkXPress 7 and above, there are no recognized problems.

Support of DCS2

When you output documents in a DCS (or DCS2) file that is intended for color separation process, copy the image to Trueflow and perform the OPI processing in Trueflow. This enables you to output the documents correctly even in composite printing.

When a document containing DCS (or DCS2) images is output in a DeviceN form using QuarkXPress 6, the message "You are about to print pages that contain DCS graphics which may produce unpredictable behavior when using DeviceN. Do you want to continue?" appears. If, however, the OPI processing in Trueflow is effective for all the DCS images in the document, the output can be done with no noticeable problem. With QuarkXPress 7 and above, OPI processing is not supported for DCS files in Trueflow.

Print Style files

From QuarkXPress 6.5, it is possible to set the bleed value in the printing format file. Note, however, that "Trueflow Style ver2.1" does not include the bleed value. Therefore, before outputting PS, set the bleed value to the same as the offset value in the Layout tab as instructed in the PS creation procedure or create a new printing format file that includes the same bleed value. With QuarkXPress 7 and above, the output style also includes the bleed values.

Blank plate auto detection function restrictions

If images with CMYK components are included in the import data, all of the process colors are output regardless of the pixel count of the image data.

When the image data that include gradations are processed, unnecessary plates may be output due to improper color detection.

(Example: rectangular blend and diamond blend generated in QuarkXPress)

Transparency effects

If you use transparency effects in QuarkXPress 7 or 8, objects may shift slightly or streaks may become apparent in the places that were flattened during output.

Importing native Illustrator files

If you import native Illustrator files into QuarkXPress 8, data on which the opacity mask function was used may not be output properly. There is no problem if you import the data in EPS format.

Installing and setting up

This chapter describes the settings required before using data files created in DTP applications in Trueflow and important information on output settings that are recommended for Trueflow.

- Trueflow preset file support table

	PDF/X-1a Output .joboptions	PDF/X-4 Output .joboptions	Color setting .csf	PS Output .prst
CS	Trueflow PDF-X-1a 1.0 (.pdfs)	-	-	Trueflow 1.1
CS2	TrueflowPDFX1a1.3	Trueflow RGBwf 1.3	Trueflow Color Std 1.0 Trueflow Color Pro 1.0	Trueflow 1.1
CS3 CS5	TrueflowPDFX1a1.3	Trueflow PDFX4 1.3 Trueflow RGBwf 1.3 ^{*1)}	Trueflow Color Std 1.0 Trueflow Color Pro 1.0	Trueflow 1.1
Distiller 7 - 9	TrueflowPDFX1a1.3	-	-	-

^{*1)}Used only in a "Versioning workflow" (P89) .

Presets for Adobe CS2 - CS5, Acrobat 7 - 9

Adobe PDF presets

For RGB workflow presets for Trueflow, "TrueflowRGBwf1.3.joboptions" is available for CS2.

Trueflow provides preset files that are recommended settings for PDF/X output.

For PDF/X-1a

- TrueflowPDFX1a1.3US.joboptions (for US)
- TrueflowPDFX1a1.3EU.joboptions (for EU)

For PDF/X-4

- TrueflowPDFX41.3US.joboptions (for US)
- TrueflowPDFX41.3EU.joboptions (for EU)

This preset file is used to create PDF/X that is optimized for Trueflow using Acrobat 8. See "[Adobe PDF presets](#)" (P4) for more information about presets.

I. Cautions

- The storage location for the PDF preset files has changed, and preset files saved to user folders by individual users cannot be shared among all users. It is necessary to set these separately.
- Set preset files can be shared between Acrobat and all of the Creative Suite applications.

II. Adobe PDF settings

1. Store preset files in the following folder

[Adobe CS3 - CS5, Acrobat 8 / 9]

(Mac)

/Users/[User Name]/Library/Application Support/Adobe/Adobe PDF/Settings/

(Win)

\Documents and Settings\[User Name]\Application Data\Adobe\Adobe PDF\Settings\

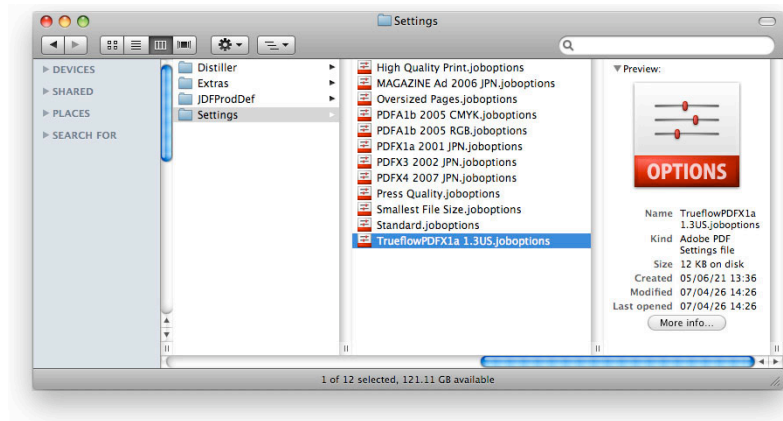
[Adobe CS2, Acrobat 7]

(Mac)

/Library/Application Support/Adobe PDF/Settings/

(Win)

\Documents and Settings\All Users\Shared Documents\Adobe PDF\Settings\



2. Once this file has been placed, all of the applications can use this job.

This finishes setting up presets.

Common Presets for Adobe CS2 - CS5

The following three default setting files are available for Adobe CS2 - CS5.

- Color setting file (.csf)
- PS output print preset file (.prst)
- Preflight profiles for an RGB workflow (.kfp)



The description below is given using Preset for US. The setting procedure is the same if you use Preset for EU.

Color setting file

When the "Trueflow Color Pro 1.0US", "Trueflow Color Pro 1.0EU" file is used, a warning regarding inconsistency of the color profile set for the document will be displayed whenever necessary. However, when the "Trueflow Color Std 1.0US", "Trueflow Color Std 1.0EU" file is used, no warning related to profiles will be displayed.

Trueflow provides the following two color setting files (.csf) as recommended color settings.
(for US)

- Trueflow Color Std 1.0US.csf
- Trueflow Color Pro 1.0US.csf

(for EU)

- Trueflow Color Std 1.0EU.csf
- Trueflow Color Pro 1.0EU.csf

These color setting files can be shared by all applications.

Set "sRGB IEC61966-2.1" for an RGB image workspace, and for a CMYK image workspace, choose "U.S. Web Coated (SWOP) v2" for the US version and "Euroscale Coated v2" for the European version.

In these settings, the profile linked to a CMYK image is ignored and the color values are retained. As for inconsistency of the color profiles for which you must pay attention during an operation, a warning indication will be displayed whenever necessary.

I. Preset color setting

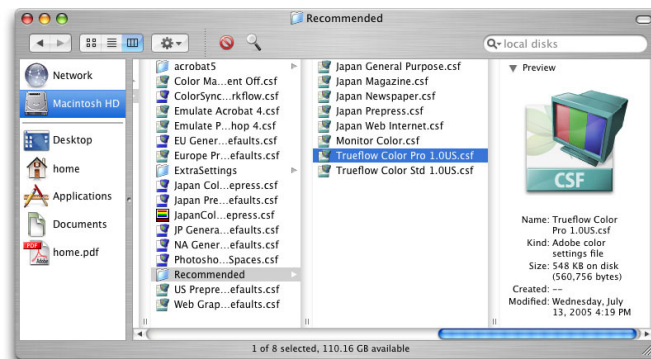
1. Store the two preset color files (Trueflow Color Pro 1.0, Trueflow Color Std 1.0) in the folder specified below.

(Mac)

/Library/Application Support/Adobe/Color/Settings/Recommended/

(Win)

\Program Files\Common files\Adobe\Color\Setting\Recommended\



This completes the setting for preset color.

II. Color setting synchronization

If you use multiple applications from Adobe CS2 - CS5, use Bridge to set the colors before beginning work.

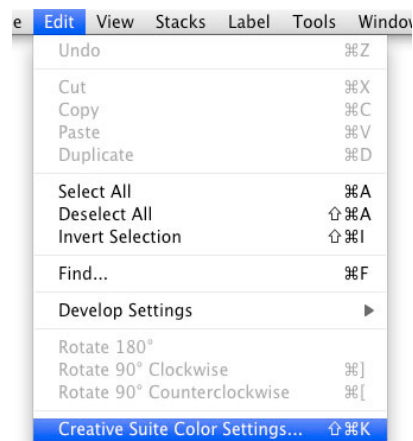
These color settings are automatically synchronized, so the same colors are rendered in all of the Adobe CS2 - CS5 applications.

"Not Synchronized" message

When color settings are not synchronized, a warning message will appear on the top of the "Color Settings" dialog box in each application of Creative Suite. It is recommended to synchronize color settings before starting the work.



1. Start up Bridge.
2. Select "Edit" - "Creative Suite Color Settings..." from the menu.



When "Creative Suite Color Settings..." is not displayed in the menu of Bridge, perform the same color settings in each application.

Screen shots for the US version are used here.

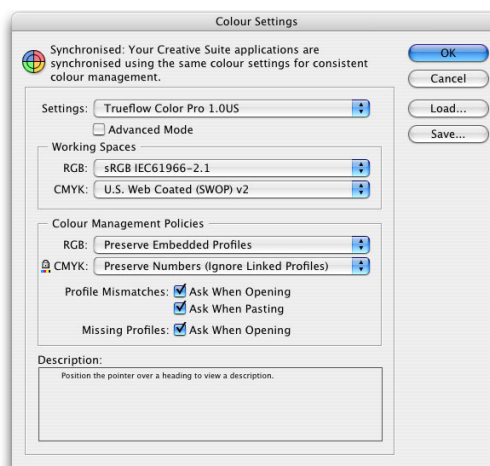
3. The "Suite Color Settings" dialog box is displayed.

Select the color setting, either "Trueflow Color Pro" or "Trueflow Color Std", from the list, and then click "Apply" to complete the color setting synchronization.



4. This color setting synchronization can be checked from Bridge and all other applications of Creative Suite.

[When using InDesign CS3]



Print presets for PS output

Setting presets

Once presets are set up, there is no need to set up the same presets again unless they are deleted.

Also, because the settings of preset file are loaded into InDesign, it is not necessary to keep the loaded preset file in the setting location.

Trueflow provides the settings recommended for PostScript as a print preset file (.prst).

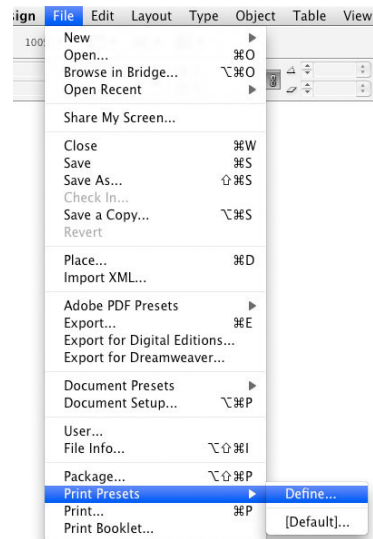
- Trueflow 1.1.prst

This preset file is used when a PostScript file is output from InDesign CS2, CS3 and CS4.

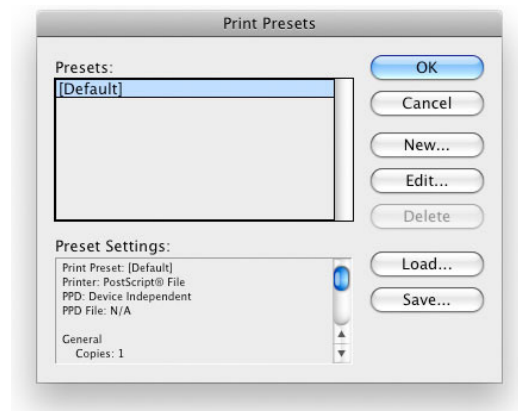
The color management setting is different from that for InDesign CS (Trueflow 1.0.prst) "Print presets for PS output" (P108).

I. Setting print presets

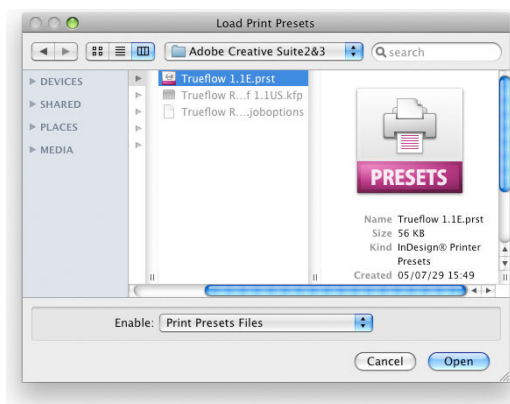
1. Select File > Print Presets > Define...



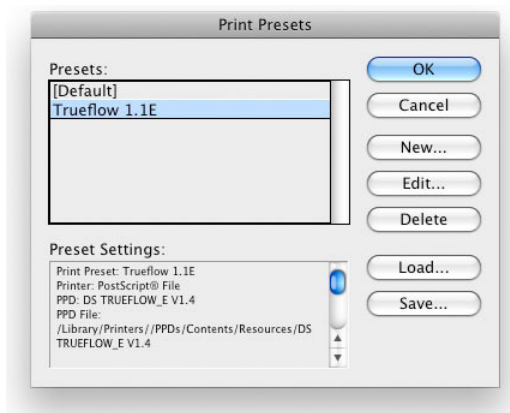
2. Click "Load..." in the Print Presets dialog box that is displayed.



3. Select the print preset file to be loaded in the "Load Print Presets" dialog box, and click the "Open" button.



4. The file is loaded and added as presets.
Confirm that the added preset name is displayed in the Print Presets dialog box, and click the "OK" button to complete the setup.



This completes the setting for print presets.

Preflight profiles for an RGB workflow

To verify whether the PDF is recommended for Trueflow or not using Acrobat 7 - 9, it is necessary to load a dedicated Preflight profile for an RGB workflow.

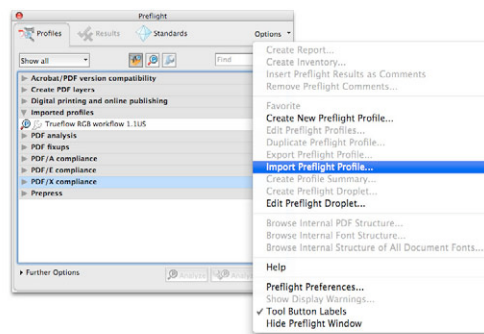
The profiles are provided in Trueflow. Load the profile and verify the data.

- Trueflow RGBwf 1.1US.kfp (for US)
- Trueflow RGBwf 1.1EU.kfp (for EU)

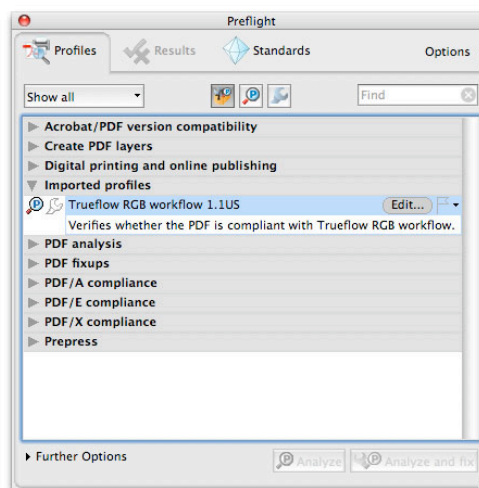
The steps for loading a profile are described here.

I. Loading a profile

1. In Acrobat 7 - 9, select "Advanced / Import Preflight Profile..." from the menu. In the file selection dialog box that is displayed, select the Preflight profile for the RGB workflow that has been prepared.



2. In the list in the Preflight dialog box, the "Trueflow RGB workflow 1.1US" profile that was added is displayed. This completes loading of the profile.



Presets for InDesign CS

By using Presets that define all output settings as one style, automation of the output operation can be established.

Trueflow provides recommended settings for outputting PS and PDF files from InDesign as Presets files.

- Preset file for writing to PDF (.pdfs)
- Print preset file (.prst)

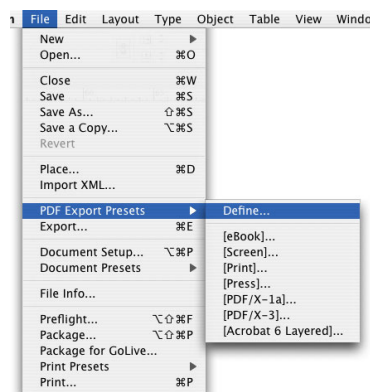
PDF export presets

Trueflow provides the settings recommended for the PDF/X-1a as a PDF export preset file (.pdfs).

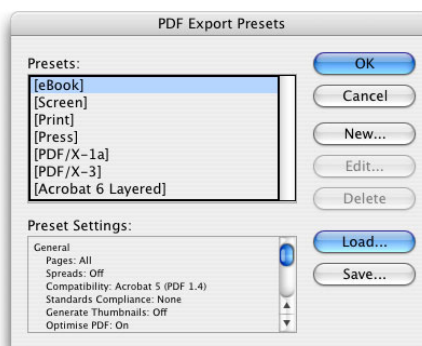
- Trueflow PDF-X-1a 1.0.pdfs

I. Setting PDF Export presets

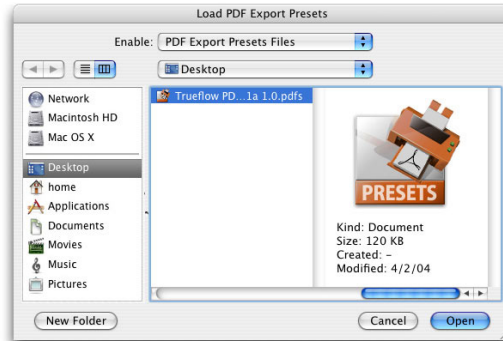
1. Select "File / PDF Export Presets / Define...".



2. Click "Load..." in the "PDF Export Presets" dialog box, which is displayed.

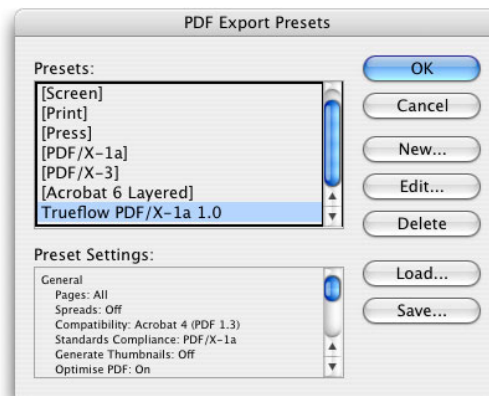


3. Select the Presets file to be loaded in the "Load PDF Export Presets" dialog box, and click the "Open" button.



4. The file is loaded and added as a Presets file.

Confirm that the added Presets name is displayed in the "Print Presets" dialog box, and click the "OK" button to complete the setup.



This completes the PDF Export Presets setup procedure.

Print presets for PS output

Trueflow provides the settings recommended for PostScript as a print preset file (.prst).

- Trueflow 1.0.prst

Trueflow1.0.prst contains presets used for InDesign CS; when you use CS2, use Trueflow1.1.prst.

I. Setting print presets

(The setting procedure is the same as that for InDesign CS2. Follow the setting procedure for InDesign CS2 on "Print presets for PS output" (P104).)

Print Style for QuarkXPress 7.0 / 8.0

Style File setup
Once Style file are set up, there is no need to set up the same Style file again unless they are deleted.
Also, because the setup contents are loaded into QuarkXPress, it is not necessary to keep placing a Style file that has been loaded in the same folder as when setting up.

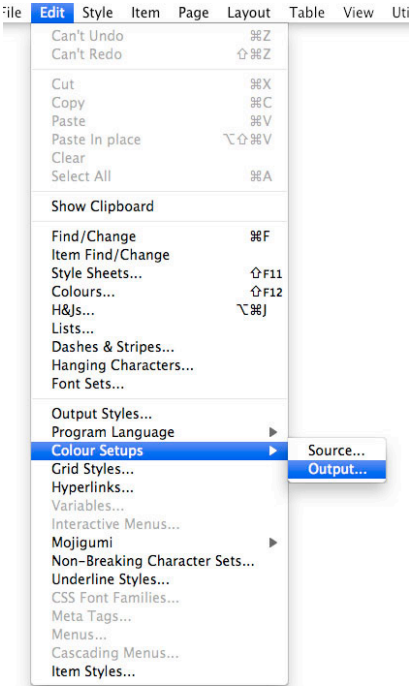
Defining all settings for output as the printing format by using the style file for Trueflow during the first stage simplifies subsequent output work.
Note, however, that you cannot control the OPI setting (link) with the printing format. Be sure to change the setting manually.

Color Setup

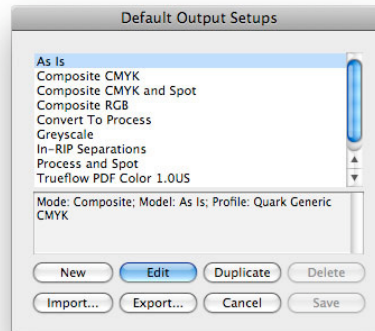
Trueflow provides two color settings files containing recommended color settings, one for PDF and one for PS.

- [Color Setup file]
(for US)
- TrueflowPDF Color 1.0US.xml
 - TrueflowPS Color 1.0US.xml
- (for EU)
- TrueflowPDF Color 1.0EU.xml
 - TrueflowPS Color 1.0EU.xml

1. Select " Edit / Color Setups... / Output... " .



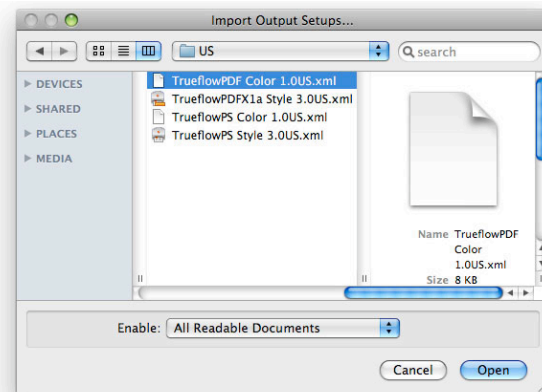
- Click the Import button in the Default Output Setups dialog box that is displayed.



The icons for the Color Style files may not always be displayed properly, but the files can still be used with no difficulty.

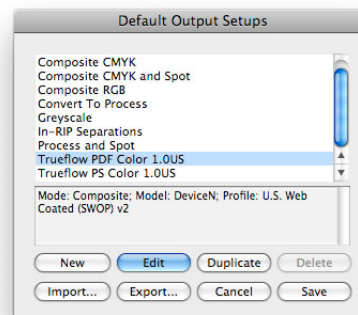
- Select the Style file to be loaded in the "Import Output Setups" dialog box, and click the "Open" button.

If you repeat Steps 2 and 3 here, you can load more than one Style File, such as for PS and for PDF.



- The file is loaded and added as a Style.

Confirm that the added Style name is displayed in the "Default Output Setups" dialog box, and click the "Save" button to complete the setup.



This completes the Color Setup procedure.

Output Style Setup

Importing and exporting Output Style Files

If you use non-alphanumeric characters in the path for the save location for output style files, both import and export of style files is not performed properly.

Trueflow provides recommended settings for outputting PS and PDF files from QuarkXPress 7.0 / 8.0 as style files.

[Style files for QuarkXPress 7.0 / 8.0 PDF/X-1a output and for PS output]

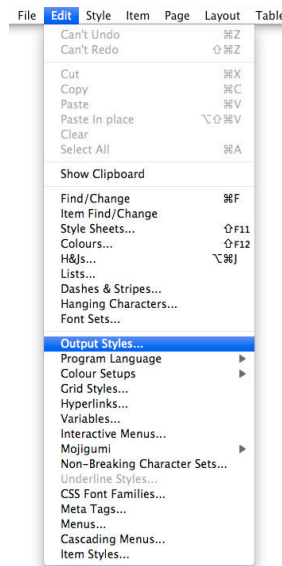
(for US)

- TrueflowPS Style 3.00US.xml
- TrueflowPDFX1a Style 3.00US.xml

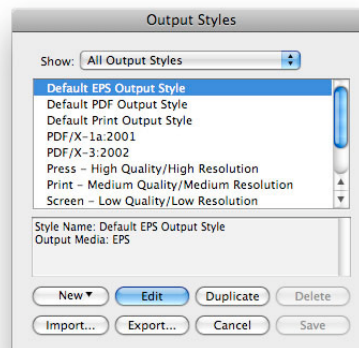
(for EU)

- TrueflowPS Style 3.00EU.xml
- TrueflowPDFX1a Style 3.00EU.xml

1. Select "Edit / Output Styles...".

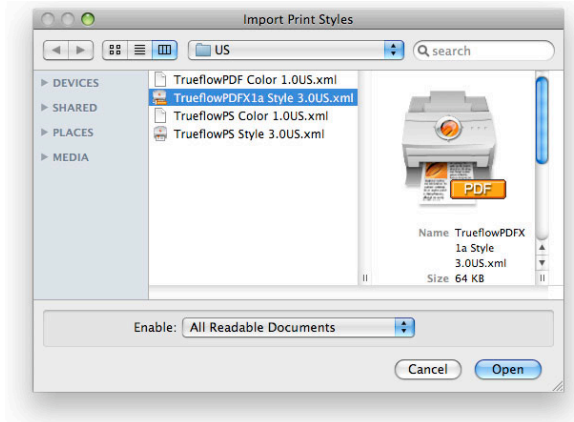


2. Click the Import button in the Output Styles dialog box that is displayed.



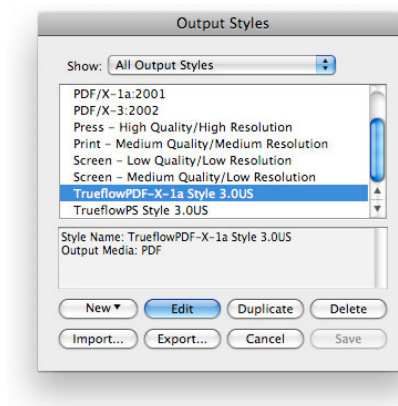
3. Select the Style File to be loaded in the "Import Print Styles" dialog box, and click the "Open" button.

If you repeat Steps 2 and 3 here, you can load more than one Style File, such as for PS and for PDF.



4. The file is loaded and added as a Style file.

Confirm that the added Style name is displayed in the "Output Styles" dialog box, and click the "Save" button to complete the setup.



This completes the Output Style setup procedure.

Print Style for QuarkXPress 6.5

Print Style setup
Once Print Style are set up, there is no need to set up the same Print Style again unless they are deleted.
Also, because the setup contents of Trueflow Style files are loaded into QuarkXPress, it is not necessary to keep placing a Style file that has been loaded in the same folder as when setting up.

Defining all settings for output as the printing format by using the Trueflow style sheet during the first stage simplifies subsequent output work.

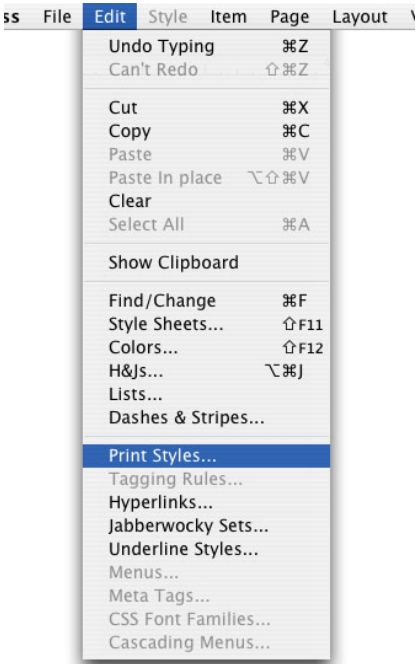
Note, however, that you cannot control the OPI setting (link) with the printing format. Be sure to change the setting manually.

Trueflow provides recommended settings for outputting files from QuarkXPress as Style files.

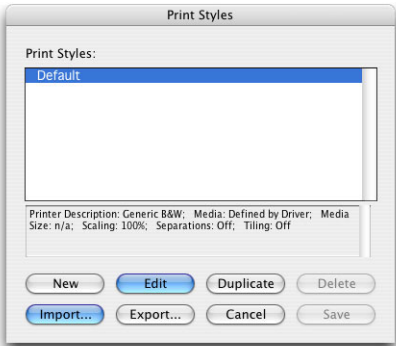
- Trueflow Style Ver2.1 (Print Style)

Install Print Style

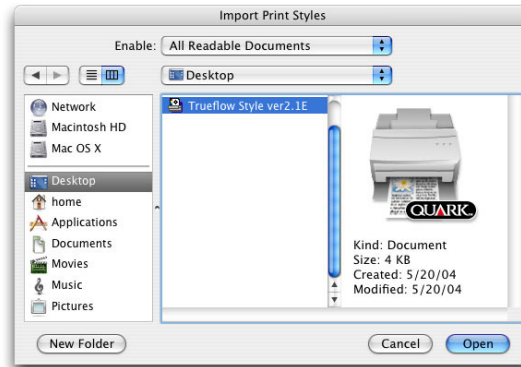
1. Start up QuarkXPress 6.5, select "Edit" - "Printer Styles...".



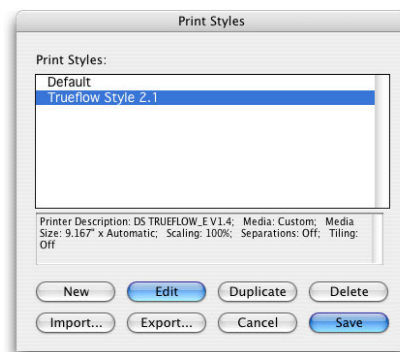
2. The "Print Styles" dialog box is displayed. And click "Import..." .



3. Select the Print Style file to be loaded in the "Import Print Style" dialog box, and click the "Open" button.



4. The file is loaded and added as a Print Style file.
Confirm that the added Print Style is displayed in the "Print Styles" dialog box, and click the "Save" button to complete the setup.



This completes the Print Styles setup procedure.

Default settings of Mac OS X

This section introduces information using the Mac OS X 10.6 window, so make the same settings as with an OS that complies with the "Required system configuration" for each DTP application.

This section describes points to note and settings required on the Mac OS X side before using a new DTP application, which is mentioned in this document. The settings are completely different from those in Mac OS 9 and an earlier system.

Install the PPD file

You must install using a User with Administrator privileges.

The PPD uses "DS TRUEFLOW_E V1.4" and is installed in the following directory.

`/Library/Printers/PPDs/Contents/Resources/en.lproj/`

Log in as any user, and QuarkXPress running, select "Utilities > PPD Manager...", and check that the PPD was loaded correctly.

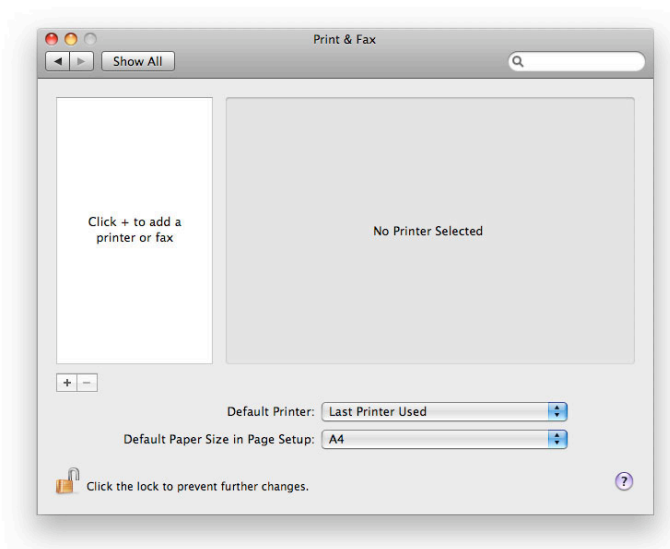
If the PPD is not loaded because it was installed while QuarkXPress was running, it is possible to load it by clicking "Update".

Virtual printer settings

This section describes how to set up a virtual printer for output to Trueflow.

The following steps set up an IP printer, but you are not printing to an actual printer, so use the virtual printer for which the Trueflow PPD is set to create PS files.

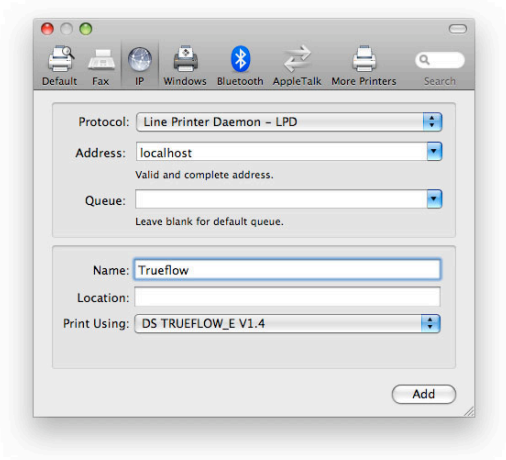
1. Start "Print & Fax" in System Preferences.
2. Click the "+" icon next to "Printing" to add a printer.



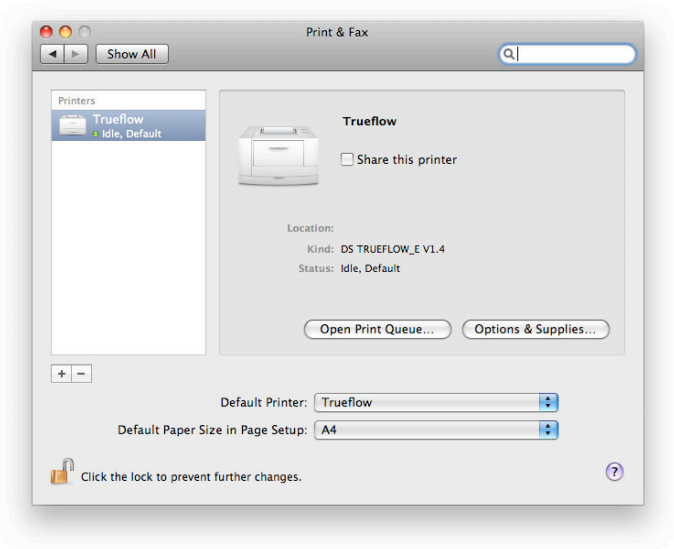
3. Make the settings for "IP" in the displayed dialog box. Click "Add" to complete the settings.

[Print Using] :
In "Print Using" select "Other..." and then
"DS Trueflow_EV1.4" and click "Open".

Protocol	Line Printer Daemon - LPD
Address	localhost
Name	Optional printer name (example: Trueflow)
Print Using	DS TRUEFLOW_E V1.4



4. Confirm that the printer has been added to the printer list and then exit.



This completes the virtual printer setup procedure.

Default settings of Windows XP

This section introduces information using the Windows XP window, so make the same settings as with an OS that complies with the "Required system configuration" for each DTP application.

The following describes the required settings in Windows before starting the work. Basically, these settings are the same as those for the systems up to Windows XP.

Install the PostScript Printerdriver

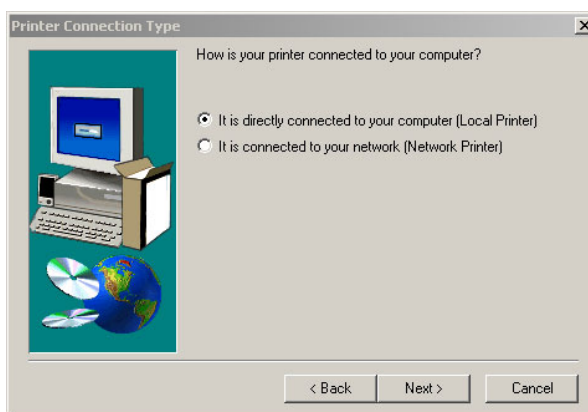
By installing Adobe PS in the computer on which a Windows DTP application is to run, a PS file that is suitable for Trueflow can be created.

Before starting the work, prepare the PPD file provided with Trueflow and download the PostScript printer driver (Adobe Universal PostScript Windows Driver Installer 1.0.6 - English) from the Adobe Web site.

1. Double click the "winsteng.exe" file downloaded from the Adobe Web site. After the file is decompressed, "Adobe PostScript Driver Installer" starts up automatically. Continue the installation procedure following the wizard displayed. For the dialog boxes shown below, make the settings according to the following description.

I. Printer Connection Type

It is directly connected to your computer (Local Printer) ON

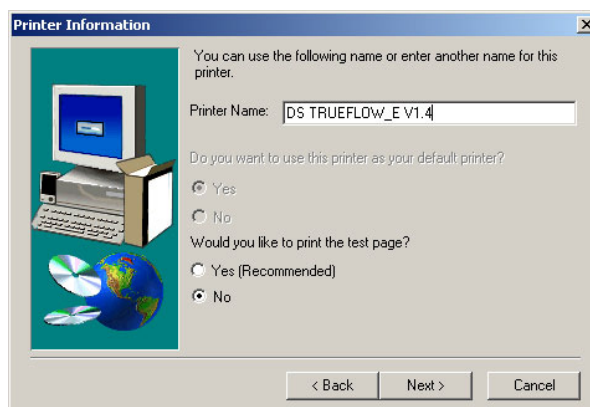


V. Printer Information

[Printer name] :
"DS TRUEFLOW_E V1.4" is specified for
the printer name as a default.

Printer Name :

Optional printer name



2. Click "Next" to start the installation process.

Make settings as necessary after this and continue the installation process following the wizard. After the installation process has been finished, restart the computer to complete the installation procedure.

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