FreeFlow® Variable Information Suite
Version 12.0
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FreeFlow® VI Suite
What's New in Version 12.0

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Changes are periodically made to this document. Changes, technical inaccuracies, and typographical errors will be corrected in subsequent editions.

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Introduction

The FreeFlow VI Suite 12.0 release is an update to the FreeFlow VI Suite 11.0 (and 11.0 Service Pack) releases. (The term VI Suite refers to one or more of the available FreeFlow VI Suite products).

NOTES

Future Service Packs for 12.0 will be released as Full Installers.

You will be able to install any FreeFlow VI Suite 12.0 Service Pack update over any prior release of the FreeFlow VI Suite. Installation of VI Suite components require Administrator privileges.

Active products must be stopped prior to update installation

Any active product, such as FreeFlow VI eCompose or VI eCompose services must be stopped prior to any update installation.

Important License Information

If upgrading from a prior major release, for example a 10.x or 11.x version, you will need to obtain a 12.0 license file to enable the product. For customers this can be done by using the original SWAP key supplied with the original order. The SWAP key is entered when using the License Menu. For internal updates refer to the information supplied in the ISA or MAPS.

All VI Suite products run on 32 or 64 bit OS, Windows XP, Vista, Windows 7, Windows 8 and Windows Server 2008 and 2012 platforms. VI Design Express is also supported on Max OS 10, including Mountain Lion.

VM Environments Support

All products with the exception of the VI Compose product, will operate under a VM environment. No support is offered for the configuration or management of the VM system. Where applicable, each VM system must have a unique NIC/Mac address for license activation.

Adobe Acrobat 10 and Acrobat Reader

See the Adobe Acrobat section under FreeFlow VI eCompose for important information regarding versions of Adobe Acrobat and reader.

It is important to review this section for important on APPE, PDF/vt requirements, and required settings for Adobe Acrobat and Reader.

Purpose and use of this supplement

Anyone upgrading from a prior release of the FreeFlow VI Suite software should make use of this supplement to become familiar with the new content included in the FreeFlow VI Suite 12.0 release. A customer Value statement has been added to help explain the value of the option.

VI Suite documentation is updated once a year for the major release. This “What's New” document provides information on new features, enhancements or bug fixes added to the major release and will also include new features, enhancements or bug fixes added via Service Packs going back to the prior major release.

Documentation for the FreeFlow VI Suite 12.0 release can be found on the www.xerox.com website. Select the “Support and Drivers” section. Search for “VIPP” and select “Documentation” under the FreeFlow Variable Information Suite tag. Documentation for FreeFlow VI Design Express can also be found in the Installer download zip/dmg file.

For the very latest information, it is recommended that you read the readme.txt file that is installed with each product.

Upgrade Recommendation

It is recommended that whenever you upgrade one component of the FreeFlow VI Suite, you also upgrade all other VI Suite components. This will help to avoid VI Suite product mismatches that could result in VIPP jobs failing with errors such as "Command Not Found".

When using FreeFlow VI Design Express it is critical that you upgrade any VI component that will render the VIPP application. This includes VI Compose on the printer, and VI eCompose. When updating to the FreeFlow VI Design Express 12.0 release, you need to update the version of VI Compose on the printer to VI Compose 12.0, and if using FreeFlow VI eCompose, update to VI eCompose 12.0.

The latest versions of the FreeFlow VI Suite components can always be found on the www.xerox.com website. Select the “Support and Drivers” section. Search for “VIPP”, and then go to the Software tag.

NOTE

The version of FreeFlow VI Compose and the version of FFPS are not dependent upon each other. FFPS will always come pre-installed with a demonstration version of FreeFlow VI Compose (not licensed). It is recommended that you upgrade the version of FreeFlow VI Compose that came on the FFPS with the latest available FreeFlow VI Compose release.

VIPP Barcode Fonts

A set of legacy VIPP Barcode printer fonts have been placed on the FreeFlow Variable Information page under the Support and Drivers page. A short cut is provided below.

Go to the www.xerox.com website. Select the “Support and Drivers” page. Search for “VIPP” and select “Software” under the FreeFlow Variable Information Suite tag. Scroll down to the Fonts section to view the available font packages.

The barcode zip file can be downloaded and the fonts installed on your printer. You also need to install the printer fonts in the design tools and VI eCompose products as required. If additional printer fonts (not included in the zip file) are required, contact the Xerox Font Center.

NOTE

Check out the new DRAWBC command for UPCA and UPCE that can print these fonts by drawing the barcode at run time. No Printer fonts are required. This is also supported in both the FreeFlow VI Design Pro and FreeFlow VI Design Express design tool.

Clear Dry Ink

Clear Dry Ink (CDI) is an option on Xerox DC1000/800 devices, supported by FFPS, EFI and Creo DFE's.

When designing applications using CDI with prior versions of the VI Design Express (and VIPP Pro Publisher) caching was turned off. This was done because caching with CDI is not currently supported by FFPS. The VI Design Express 12.0 release has been modified to test the DFE it is running on, and only turn caching off if running on an FFPS. This allows caching to be used on EFI and Creo DFE's.

SAP and VI Suite

The Xerox FreeFlow VI SAP Device Type and Form provides functionality and feature integration with the FreeFlow VI Compose and VI eCompose products. Although SAP provides support for many output devices, currently this support does not include the VI enabled printers and VI enabled eCompose Servers (VIPP to PDF).

The FreeFlow VI SAP Solution allows SAP users to access the more advanced feature set of the VIPP scripting language, providing a fast, efficient, effective and flexible method for printing (or creating Adobe PDF files) from a delimited, XML or line data (print ready data) data file.

The sample device type and form are provided in a zip file (VISAPDT.ZIP) that can be downloaded from the www.xerox.com site. Go to the Support & Drivers section and search for VIPP, select the Software option. The zip file will be found under the Utilities & Applications section. The contents of the zip file should be reviewed by the SAP systems administrator.

SAP will use the legacy VIPP path using the "Just Send the Data" model. VIPP resources (fonts, images, forms, etc) must be uploaded to the printer XGFC folders. This can be done during the development of the VIPP application. Once the resources are available to the print device or the FreeFlow VI eCompose server, the SAP print job can be processed using the SAP Device Type that has been configured with the VIPP start commands, in effect just sending the data to the target device.

The only requirement is that the target print device must have FreeFlow VI compose installed and licensed. If the SAP administrator needs to output PDF, they can send the VIPP job to the FreeFlow VI eCompose server.

Customer Value

SAP customers use SAP Device types to print to devices. Xerox only supplies Xerox Office Device Types. By using the SAP package, SAP system administrators can now look to the benefits of using VIPP and printing to any VIPP enabled print device or using the FreeFlow VI eCompose for PDF generation.

By using the VIPP Device type, the customer can take processing cycles off the SAP system allowing the document to dynamically be composed at run time on the Xerox VIPP enabled print device. VIPP provides a superior document design and composition model than is available via SAP, in addition using the FreeFlow VI eCompose the SAP administrator can now generate both hard copy output and PDF for electronic distribution - in one easy step. Ease of use, easy to use document design tools, speed and flexibility are what the VI Suite and the VIPP AP driver provides.

FreeFlow VI Compose 12.0

This section lists all new and enhanced VIPP commands and features introduced since the release of VI Compose 11.0. All the features and enhancements listed below are supported in the FreeFlow VI Compose 12.0 release.

FFPS Update Manager can be used to update FFPS controllers with the latest version of the VI Compose software. There is no dependency on the version of VI Compose and the version of the FFPS software. Each can be updated independently of each other.

For EFI, Creo or other DFE's, an iso file can be downloaded from the www.xerox.com website. If needed, you can burn a CD from the iso file and install on any VIPP supported device including FFPS. Refer to each product User Guide for Installation instructions.

For more information on the features and enhancements in this document, refer to the Readme.txt file supplied as part of the installed software, the *VIPP Language Reference Manual*, and the individual product User's Guides.

New Commands in VI Compose 12.0

AZTEC

AZTEC 2-D barcodes are used in Transportation, Ticketing, Government and Commercial market places. The AZTEC command allows you to create the Aztec 2-D barcode without the need for any printer fonts. The Aztec barcode is drawn at the current position using the data and barcode parameters supplied. These are described below.

This is string contained in the Aztec barcode:
David Kirk - 918273645 - 1010

Syntax:

```
(data) AZTEC
(data) scale rotate align AZTEC
(data) [width] rotate align AZTEC
(data) [ /ELevel xx  ...  ] AZTEC
(data) [ /ELevel xx  ...  ] scale rotate align AZTEC
(data) [ /ELevel xx  ...  ] [width] rotate align AZTEC
```

Where:

(data) is a string containing the information to store in the symbol.

scale is the scale value (default is 1)

rotate is the rotation value (default is 0)

align indicates which point of the barcode will be aligned on the secondary print position.

- **0** top left (default)
- **1** top right
- **2** top center
- **10** bottom left
- **11** bottom right
- **12** bottom center
- **20** center left
- **21** center right
- **22** center center

The optional array may be used to specify additional options such as:

/ELevel integer error correction level between 0 and 99 (default is 23)

/MinDim integer minimum dimension of the symbol (number of layers between 1 and 32. default is 1).

Example:

```
(data) [ /ELevel 40 /MinDim 5 ] AZTEC
```

For additional information on Aztec 2-D barcode, refer to the Aztec barcode specification and usage details available on the web. See ISO/IEC 24778:2008 standard.

Customer Value

Customers in the shipping, travel and packaging industry have been asking for Aztec barcode support. This allows customers to create tickets, shipping notices, etc with the default barcode for that industry. The Aztec barcode is drawn at run time by VIPP driven by the user data, not special barcode fonts needed or image files to maintain.

SETTRAN

SETTRAN sets the transparency for all subsequent marking commands including images.

NOTE

This is only active when generating PDF files using VI eCompose or when printing VIPP to the Adobe PDF Print Engine (APPE). On a PS rip it is emulated by an opaque tint.

Syntax:

```
TRlevel SETTRAN
```

Where:

TRlevel is a real number (between 0 and 1) specifying the transparency level.

Example:

This example sets the transparency to 50 % :

```
.5 SETTRAN
```

Customer Value

This is a design feature. Objects filled with color can now have a transparency value applied, which allows objects underneath other objects to be viewed.

Enhanced Commands in VI Compose 12.0

IF/ELSE/ELIF/ENDIF

ELIF complements the IF/ELSE/ENDIF conditional statement set. ELIF combines ELSE and IF in one statement to avoid complex nesting.

Syntax:

```
IF condition1   { ... action if condition1 is true ... }
ELIF condition2 { ... action if condition2 is true ...
…
ELIF conditionN { ... action if conditionN is true ... }
ENDIF
IF condition1   { ... action if condition1 is true ... }
ELIF condition2 { ... action if condition2 is true ... }
…
ELIF conditionN { ... action if conditionN is true ... }
ELSE            { ... action if none of the above is true ... }
ENDIF
```

Customer Value

This is an ease of use feature. VIPP programmers have asked for this enhancement. It simplifies the coding of VIPP conditional statements, saving time and helping to avoid syntax errors when coding.

SETTXC, INDEXCOLOR and GEPkeys

New option to apply transparency to a color.

NOTE

Only active when generating PDF files using VI eCompose or when printing VIPP to the Adobe PDF Print Engine (APPE)

Syntax:

```
(ColorName#TRlevel)
```

Where:

TRlevel is a real number (between 0 and 1) specifying the transparency level.

Examples:

```
(RED#.5) SETTXC
20 20 300 400 (BLUE#.7) DRAWB
```

Customer Value

This is a design feature. Objects filled with color can now have a transparency value applied, which allows objects underneath other objects to be viewed.

SHP

A new parameter for SHP has been added to support wrapping on a specified character, string. More than one character can be entered. The text string using SHP will wrap on the specified character (meaning the CR,LF is inserted before the specified character) if the column width for the text has been exceeded. If the column width has not been exceeded no wrapping will occur.

Syntax:

```
/SHPWrap
[ /SHPWrap [ (Char) ] ] SETPARAMS
[ /SHPWrap [ (char1)  (Char2)  (CharN)  ] ] SETPARAMS
[ /SHPWrap  /ALL ] SETPARAMS
```

Where:

Char is any single printable character. You can elect to wrap on more than one character by enclosing each single character within ()

/ALL use this option when you want to wrap on all printable characters. For example, if you want to print a string one character wide vertically on the page.

Example:

To wrap on a single character (the "@" character):

```
DOT3 SETUNIT
[ /SHPWrap [ (@) ] ] SETPARAMS
(David.kirk@xerox.com) 400 SHP
```

Assuming the string "David.Kirk@Xerox.com" will exceed the specified column width, the example above will print the following:

David.Kirk
@Xerox.com

To wrap on multiple characters (the "." and "@"characters):

```
[ /SHPWrap [ (.) (@) ] ] SETPARAMS
(David.kirk@xerox.com) 0 SHP
```

Assuming the string exceeds the specified column width, the example above will print the following:

David
.Kirk
@Xerox
.com

To wrap on all characters (must specify a single character width column width):

```
[ /SHPWrap /ALL ] SETPARAMS
```

```
(David.kirk@xerox.com) 0 SHP
```

The example above will print the following:

D
a
v
i
d
.
K
i
r
k
@
X
e
r
o
x
.
c
o
m

Customer Value

This will allow a document designer more control over how text breaks on a page within a defined column width. The /ALL option is very handy when printing a text string one character wide vertically, for example on the spine of a booklet.

SHP/ SHp & SHT/SHt

Will now raise an error “VIPP_invalid_syntax” when the align parameter is missing.

Customer Value

Awareness during VIPP coding

PDF Support (SCALL and RUNPDF)

The “gray box” used as a proxy when the PDF resource is not available or not available in a “trusted” location is now replaced by the EPS contents when present or by a text pattern printing the PDF name across the image area. When printing the EPS image, APPE features such as transparency would not be supported.

Customer Value

Ease of use. If you need to change the target print device and PDF (APPE) is not supported on that device, VIPP will attempt to print the embedded EPS information if available, rather than a grey “proxy”.

OVERPRINT_on

Overprint is now supported in Data Base mode.

When placed before STARTDBM in conjunction with QSTRIP_on, OVERPRINT_on enables LF or CR/LF to be embedded in fields surrounded by quotes. Such text fields can then be printed using SHP with option +20.

Customer Value

Programmers tool for VIPP.

Normalization

Now raises the following warning when no pages are produced:

Warning: VSM#3 Normalization produced empty file.

Customer Value

Programmers tool for VIPP

DRAWBAR

New parameters to print individual values on stacked bars in addition to total value (SPAR 836968329).

/OffsetValue (update)

Category: Chart

Default value: 0

Unit or Format: real or [real1 real2]

Code value: none

Description: DRAWBAR only. Set a vertical or horizontal offset (depending on ChartDir) based on the font size (1 = font size). This can be positive or negative.
real or real1: set the offset value for the entire bar
real2 (if present): set the offset for individual values of stacked bars

Recommended values: Vertical: 1.4, Horizontal: 0.8

/FormatV (new parameter)

Category: Chart

Default value: none

Unit or Format: string

Code value: none

Description: When /PrintValue is true, specifies the format for values. The string associated with /FormatV follows the rules described in the FORMAT command. The string can include font and color switches (set by INDEXFONT and INDEXCOLOR).

/FormatVI (new parameter)

Category: Category Chart

Default value: none

Unit or Format: string

Code value: none

Description: When /PrintValue is true, specifies the format for individual values. The string associated with /FormatVI follows the rules described in the FORMAT command. The string can include font and color switches (set by INDEXFONT and INDEXCOLOR)

Customer Value

A Design Feature that allows the document designer to display individual bar values when drawing stacked bar charts. A bank for example, may stack you savings, checking and IRA account in a single bar, now each segment can be labeled.

SETVAR

New switch (/SWP) to obtain the value from the stack.

Syntax:

```
value /VARname /SWP SETVAR
```

Example

To capture a value using an RPE entry:

```
[ {/VARx /SWP SETVAR} 0 0 0 0 0 10 5 /F1 WHITE ]
```

Customer Value

Programmers tool for VIPP

ZSORT

A new “generic” ZSORT capability for XML and Line Data has been added to the VIPP core processing capabilities.

When applying ZSORT to delimited database mode applications, VIPP will invoke the powerful, full featured legacy ZSORT processing capabilities. However, the legacy ZSORT could not process XML or line data. If VIPP detects you are processing XML or line data, it will switch to the generic ZSORT processing mode allowing the processing of ZSORT commands on XML and line data applications.

Customer Value

For customers who have taken advantage of the power of VIPP ZSORT processing (imposition, front/back registration, north/south imposition), and wish they could apply the same power to XML or line data applications, now they can. This will allow application developers to generate more advanced variable data applications using XML and line data.

ZSORT Built-in Parameters

Three new built-in variables are available when using ZSORT:

ZSRECNUM record number (in data file order)

ZSREPCNT ongoing repeat count

ZSREPIDX record repeat index

These variables can be used to track the data record, any repeat value and repeat index.

Customer Value

A VIPP programmer using these built-in variables can create more complex and interesting documents.

FreeFlow VI Design Express 12.0

This section lists all new and enhanced VI Design Express features introduced since the release of FreeFlow VI Design Express 11.0. For more information on each feature, refer to the README.txt file installed with the software. The FreeFlow VI Design Express software is a VI design tool. It runs as a plug-in to Adobe InDesign CS4, CS5, CS5.5 and CS6 on Windows and Intel Mac OS X. (Including Windows 8, Windows Server 2012 Server and Mac OS X Mountain Lion)

Note: When using Adobe InDesign CS5 and 5.5 and Mac OS X Mountain Lion, the Adobe Update Manager cannot be used to turn on or off the FreeFlow VI Design Express plug-in. Xerox is working with Adobe and Apple to address this issue in a future release.

Adobe Creative Cloud (Adobe InDesign version 9) is not supported with this release.

It is a pre-requisite to upgrade the VI Compose software on the printer to VI Compose 12.0 when using this 12.0 release of VI Design Express software. If using VI eCompose, this also should be upgraded to VI eCompose 12.0.

Installation of FreeFlow VI Design Express to Adobe Creative Cloud is not supported at this time.

New Features

Update to use VI Compose 12.0 libraries

When exporting the document to .vpc. .vpp or PDF, VI Design Express will be using internal libraries using the content of the 12.0 release.

XML Data Support

VI Design Express can support promotional type XML data streams. Transactional XML will be supported in a future release.

XML data files can be imported into VDE, allowing graphic artists familiar with generating delimited based applications to generate the same type of applications driven by XML data.

Customer Value

XML is a major data source. Enabling VDE to support XML and the capability to generate powerful variable data applications using a simple to use GUI interface that can drive Xerox production printers at rated speeds gives print providers a powerful tool to further enable their business.

VDE PIF options

VDE PIF options are PDF Interactive features that can be placed into your document. When the document is printed the VDE PIF features are ignored. However when you export your document using the VI Design Express PDF option or you send the .vpc file to the FreeFlow VI eCompose (VIPP to PDF) server, the PDF Interactive features are active in your document. When your mouse rolls over a feature an icon is displayed. Double clicking in that area will activate the feature.

The VI Design Express supports two PF Interactive features.

- **Notes**

  When a text or graphic frame is active, you can right-click to display frame options. Select the VDE PIF option to display the VDE PIF menu panel. Select the Note option to add a PDF Note to your document. The menu allows you to add a note title and the content of the note.

  When the document is printed hard copy, this is ignored, but if you generate PDF, using the VI Design Express PDF Export option or by sending the .vpc file to the FreeFlow VI eCompose server, a yellow note icon will be visible when your mouse scrolls over that frame. Clicking on the frame will open the note allowing you to read the note contents.

  Customer Value

  A PDF document can contain embedded notes. A user can click on the note to get additional information. For example in a real estate document showing photo's of each room, maybe an embedded note could contain information about that room, dimensions, direction facing, etc.

- **URI**

  When a text or graphic frame is active, you can right-click to display frame options. Select VDE PIF to open the VDE PIF menu panel. Select URI to add a web address or even a link to a u-tube video to your document.

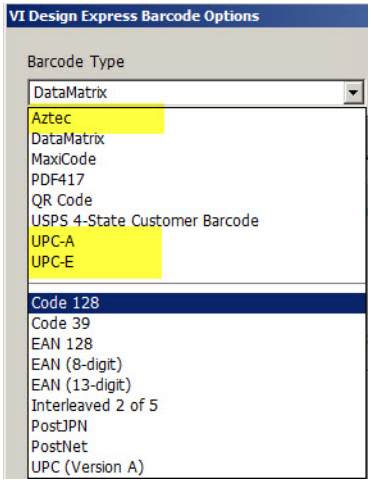
  When the document is printed hard copy, this is ignored, but if you generate PDF, using the VI Design Express PDF Export option or by sending the .vpc file to the FreeFlow VI eCompose server and you scroll over the frame, a web icon appears. If you click on that frame, a browser will open based on the address provided.

  Customer Value

  A PDF document can contain embedded web addresses. For example you could add this VDE PIF option to the frame containing the bank logo graphic. If you click that loco in the PDF document, you will open a browser for that bank.

UPCA, UPCE and Aztec 2-D Barcode support

New menu options in the VI Design Express Barcode Options menu are now available to allow you to draw UPCA, UPCE 1-D barcodes and Aztec 2-D barcodes without the need for any printer fonts. When the job is rendered, VIPP will draw the barcodes.



UPCA and UPCE details can be found in the *FreeFlow VI Design Express User's Guide*. Aztec 2-D barcode details are shown below.

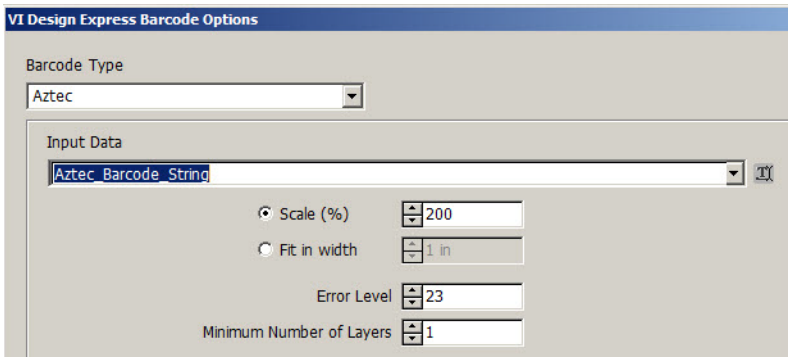
Customer Value

Ease of use. Easier to use VIPP to draw the barcodes and find, manage and install printer fonts

Aztec Barcode

When the Aztec option is selected a menu will be displayed to set various options for the Aztec barcode. These options will control how the barcode will be drawn on the page and how the barcode will be read by Aztec bar code scanners.

- **Input Data**
  This can be a field selected from the pull-down menu or can be user defined text. Because you can only enter fixed text or select a single field from the pull-down menu, typical usage will first require the creation of a Data Transform field that will contain the string content. You would then select that field from the Input Data field pull-down.
- **Scale or Fit in width**
  Select either the Scale option or the Fit in Width option. If Scale is selected, the barcode will be scaled along both axes. If Fit in width option is selected, you will set the horizontal width of the barcode. The barcode height will be calculated based on the width.



Error Level - the default value is 23. Values range between 0 and 99. The higher the value the less data capacity and less decoding error chance.

Minimum Number of Layers - the default value is 1. Values between 1 and 32 are accepted.

Below is an example of an Aztec barcode:

This is string contained in the Aztec barcode:
David Kirk - 918273645 - 1010

For more information on Aztec barcodes refer to the ISO/IEC 24778:2008 standard

Customer Value

Ease of use. Easier to use VIPP to draw the barcodes and find, manage and install printer fonts. Also Aztec is a new supported format so opens markets that use AZTEC barcodes.

Wrap-on-Character

An option to wrap-on-character has been added. The user can specify a character (one or more separate characters) that the text in the text frame will wrap on. The option ALL can be specified to force the text in the text frame to wrap on all characters (useful if writing a single character column down the page).

One use for this option is to force an email address to wrap on the “@” character. This allows you more control over long names by splitting the email address over two lines.

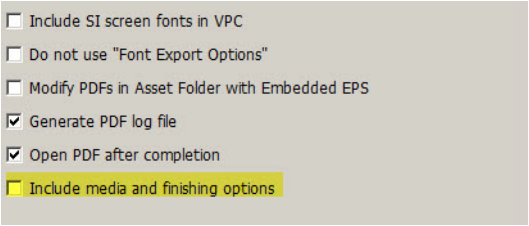
Customer Value

This Design Feature allows the document designer more control over how strings are displayed.

Enhancements

PDF with media and finishing content for FFPS APPE

When the user exports the job to “VI Design Express PDF”, the new “Include media and finishing options” checkbox on the “PDF Settings” GUI panel will be displayed. This allows users to optionally include in the PDF all media and finishing options that have been defined and enabled for the job.



Keep in mind that this option is intended to work only with FreeFlow Print Server devices using Adobe PDF Print Engine (APPE). On any other printer the new option is ignored and will have no effect. Also, note that selecting this option will increase the size of the resulting PDF, sometimes significantly depending on number of media changes and finishing options defined for the job and on the total number of pages. So it is recommended unless you are printing the PDF to the FFPS APPE engine you should not check the “Include media and finishing options” checkbox.

NOTE

Media and finishing options that are passed to the PDF will only be honored by a supported version of the FFPS APPE / PDF/vt print device.

Customer Value

If the PDF will be printed to an APPE FFPS, selecting this option will enable the FFPS to use media and finishing options when printing this document.

FreeFlow VI Design Pro 12.0

This section lists all new and enhanced VI Design Pro features available since the VI Design Pro 11.0 release. All features are part of this VI Design Pro 12.0 release. FreeFlow VI Design Pro is a VIPP Design tool used to program VIPP Pro based applications.

New Features

VI Compose 12.0 support

The VI Design Pro design tool has been updated to support the FreeFlow VI Compose 12.0 command set including support for Aztec barcodes added in the 11.0 SP2 release.

Enhancements

Include media and finishing checkbox when generating PDF

When “Export Job as PDF” is selected, the GUI panel has a new “Include media and finishing options” checkbox which allows users to optionally include in the PDF all media and finishing options that have been defined and enabled for the job. Keep in mind that this option is intended to work only with FreeFlow Print Server devices using Adobe PDF Print Engine (APPE). On any other printers the new option is ignored and will have no effect. Also, note that selecting this option will increase the size of the resulting PDF, sometimes significantly depending on number of media changes and finishing options defined for the job and on the total number of pages.

Customer Value

If the PDF will be printed to an APPE FFPS, selecting this option will enable the FFPS to use media and finishing options when printing this document.

FreeFlow VI Explorer 12.0

This section lists all new and enhanced VI Explorer features available in the 12.0 release. FreeFlow VI Explorer is a Windows based VIPP proofing tool. It can also support VIPP Normalization and Demographic modes.

NOTE

CiPress Users:

The architecture of the FFPS CiPress device requires a page independent file be submitted to the controller. To manage this the VI Compose software on CiPress has been modified to “VIPP Normalize” a VI Project Container file before passing the file on to print. The process of VIPP Normalization can add a significant amount of time prior to the application printing. An alternative to VIPP Normalization in-line in CiPress is to use the FreeFlow VI Explorer VIPP Normalization option. This allows the VIPP Normalization to happen outside of the CiPress. Once the VIPP file has been VIPP Normalized, it can be sent to the CiPress.

New Features

VI Compose 12.0 support

The VI Explorer design tool has been updated to support the FreeFlow VI Compose 12.0 command set.

Enhancements

None

FreeFlow VI eCompose 12.0

This section lists all new and enhanced VI eCompose features available since the VFF VI eCompose 11.0 release. All features and enhancements are contained in the VI eCompose 12.0 release.

FF VI eCompose is a Windows based production level VIPP to PDF generator. It also supports additional features such as splitting the PDF into child PDFs, PDF security and a powerful rule based dispatch system.

New Features

VI Compose 12.0 support

VI eCompose has been updated to support the FreeFlow VI Compose 12.0 command set.

SaaS - Web Job Submission Service

VI eCompose 12.0 has been augmented with a Web Job Submission service (IIS extension) to support a SaaS type of environment. This initial .Net/IIS interface is targeted at a specific type of workflow. Please review the Web Job Submission Service section at the end of this section for more information.

Customer Value

For customers who run a kiosk type operation, the Web Job Submission Service enables the fastest job turn around possible. The customers web interface generating the orders can send the Web Job Submission Service (WJSS) records as they become available and WJSS will process those records, taking advantage of the multiple instance engines, and publish back to the sender the location of the PDF. The advantage of this is SPEED when running multiple (1,000's) of small jobs all the time.

Job Folder Name

The Job folder names generated in the 'users' directory no longer include the user's name, and the time stamp has milliseconds granularity. If you want to go back to the previous behavior the following INI entries must be reset as follows:

shorten_job_folder_names=0
enable_job_folder_names_with_msec=0

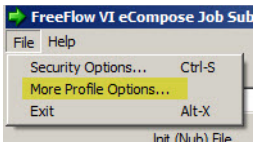
Customer Value

This is a logging enhancement requested by system administrators.

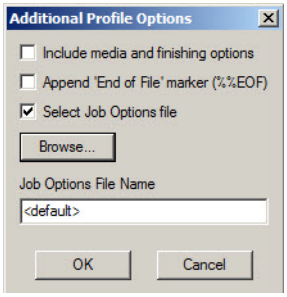
Enhancements

VI eCompose Profile Options

Additional profile options can now be set by going to the Job Submission Client GUI panel under the File > More Profile Options menu.



Profile options include media and finishing options, End of File marker options and an option to browse to an Adobe Job Option file. All options are described further below.



- **Include media and finishing option**

  Allows users to include in a PDF all media and finishing options that have been defined and enabled for the job. Keep in mind that this feature is intended to work *only* with FreeFlow Print Server devices using Adobe PDF Print Engine (APPE). On any other printers the new option is ignored and will have no effect. Also, note that selecting this option will increase the size of the resulting PDF, sometimes significantly depending on number of media changes and finishing options defined for the job and on the total number of pages.
- **Append “End of File” marker (%%EOF) option**

  Allows users to optionally append the end-of-file marker (% % EOF) to a data file that does not end with the recommended PS trailer.
- **Select Job Options file**

  Allows users to browse for and select a specific *.JobOptions file that will be used for distillation of the VIPP job. Note that the selected JobOptions file must be stored in the folder: X:\xvtp\bin\normalizer\Settings.

Additional modes to print Master PDF file via the “Printer Action” menu from the Job Submission Client GUI panel.

The Master PDF file can be sent to a selected printer in one of the following four modes:

- Print Master PDF (Raw) This was the previously existing selection that sends the file as a “raw data” stream to the printer, which means that the selected device must be able to handle and recognize the “raw data” as PDF.
- Print Master PDF (Simplex)
- Print Master PDF (Duplex)
- Print Master PDF (Tumble-Duplex)

These new modes attempt to use Adobe Reader as a proxy to send the PDF file to the selected printer with the desired plex setting. Note that the selected device is expected to support the desired plex option; otherwise, it will default to the “Simplex” mode.

Using these modes may result in loss of the PDF transparency feature and tends to be slower than sending “raw data” so it's recommended not to use them if you want fast throughput when processing jobs.

Customer Value

Provides an easy way for the system administrator to set some of the more common settings required to run the system - ease of use.

Web Job Submission Service

The Web Job Submission Service (WJSS) was created to provide a fast turnaround service for processing a large number of small VIPP data files that need to be converted into PDF.

FreeFlow VI eCompose is a production level server solution capable of handling large or small jobs via any of its four supported input clients, processing those jobs and generating a Master PDf, splitting the Master PDF into child PDF files and dispatching to the next step in the customer workflow as required. It is also capable of forwarding the VIPP data file or the Master PDF to a printer. But to handle such a complex set of operation and interactions it was necessary to build latency into the system to ensure its smooth operation. While the latency built into the system is absorbed when running large jobs, it can be a limiting factor when processing many small jobs one after the other.

By installing and configuring the WJSS interface, you can enable the processing of many VIPP data files (this assumes all resources have previously been installed into the appropriate file system) very quickly.

Use of the WJSS client should not be undertaken without the support of subject matter experts familiar with your systems, networks, .NET and IIS experience. Manual setup and configuration will be required to use the WJSS solution.

Files needed to implement the WJSS solution are available from two sources. Microsoft is the source for IIS and Web Deploy (an extension to IIS). All other required software is provided in the FreeFlow VI eCompose Installer file.

First update your current FreeFlow VI eCompose system using the VI eCompose 12.0 release. (Make sure you exit the server prior to updating the software). Then locate the following two zip files located in the VI eCompose installer (note these files are not copied to disk by installing the VI eCompose 12.0 update, but they are part of the installer), browse to locate the two files:

- WJSSProxyServer.zip
- WJSSTestClient.zip

Locate the documentation contained in the zip files to proceed with the installation, setup and configuration.

A verbose logging capability which may be useful during initial setup and configuration are part of the software configuration, but is not recommended to be turned on when running in a production environment. In the same manner, during the initial setup of this system, you should install as a logged on user. Once you have the system setup and configured, you should review the information in the *FreeFlow VI eCompose User's Guide* about setting up this service as a Windows Service, also see the note about installing the VI eCompose Normalizer Instance Pool (NIP) as a Windows Service at the end of this section.

When the customer installs the system, they configure the number of active instances of Adobe Normalizer that will run concurrently. This should be based on the systems configuration and the type of jobs you will be running. Recommended guidelines would be to configure one instance per CPU available and 2GB of RAM per instance. You may be able to adjust this later depending on available system resources.

The current WJSS interface uses IIS (version 7). The protocol used is .NET/SOAP. This is the only current interface available.

WJSS in this initial configuration receives jobs via a XML Job List. A Job List can contain one or more Job Requests. A Job request contains the path and file name of the VIPP Job. Job List ID's, Job ID's and information such as Input file path, output file path for the PDF and Adobe Job Option information is all contained within the Job List XML file.

Responses are sent back to the submitting client for each job processed and for each completed Job List. Several Job Lists (and many Job Requests within any Job List) will be processed by Normalizer instances as they become available. It is the Job List submitter that has the responsibility to review the messages being sent back and to take appropriate action based on those messages. For example move the PDF file to another step in the workflow.

NOTE

There is no support for the standard features offered by VI eCompose such as, watched folders, lpr, VPC files, splitting, PDF security, index file creation, accounting, logging, or Dispatch. If you need to use these features do not use WJSS.

WJSS is a low-overhead, low-latency, no-frills means of getting a high volume of small, already-deployed VIPP jobs converted to PDF with as little latency between request and results as is physically possible.

It does this by pre-instantiating a designated number of Normalizer instances that stay resident, allowing them to handle multiple sequential VIPP->PDF invocations (this eliminates the per-VIPP-to-PDF instance invocation overhead present in VIeC). Collectively these NI (Normalizer Instances) are coordinated and managed by a NIP (Normalizer Instance Pool) with command/control/status being passed between them via a fast IPC (Inter Process Communication) mechanism (this eliminates the latency imposed by the disk mailbox/semaphore mechanism used by VIeC). Overall access to the system is being provided by a .NET proxy extension to Microsoft's IIS (Internet Information Services) called the Web Job Submission Service.

To take advantage of the WJSS, the user must develop compatible front end systems to send Job Lists that contain one or more Job Requests and back end systems capable of handling and taking action on the messages sent back.

It is the user's responsibility to put in place the front ends and back ends to support this operation.

NOTE

Installing the VI eCompose Normalizer Instance Pool (NIP) as a Windows Service

The VI eCompose NIP can be installed as a Windows Service using the same method as other VI eCompose Windows Services (e.g. execute the InstallServices utility found in the '…/xvtp/bin' folder.). Once installed, go to the Windows Services GUI panel and look for "FreeFlow VI eCompose Normalizer Instance Pool Service" entry to set the Startup type as needed. For further information see the *FreeFlow VI eCompose User's Guide* section about installing VI eCompose components as Windows Services.

What is required?

The following software applications are required:

- VI eCompose 12.0 (installed as normal)
- VI eCompose 11.0 multi-user license
- IIS 7 installed and configured
- Web Deploy 3.0 (an extension to IIS)

The following files are supplied as part of the installer software:

- WJSSProxyServer.zip
- WJSSTestClient.zip

Documentation and instructions for using the Test Client are supplied as part of the zip files.

Important Information about PDF

Adobe PDF Print Engine (APPE)

PDF output from the design tools or FreeFlow VI eCompose is APPE compliant. However, no media or finishing control is available.

Media and finishing control is available with PDF output when generated by FreeFlow VI eCompose and printing to the FFPS OR when printing VIPP directly to the FFPS using the APPE path.

To print to the FFPS, you must set the FFPS queue to APPE and the format must also be set to PDF.

It is also critical to have the very latest FFPS software installed on the target print device. (93.D4.x.x) or above.

Speed Increase for VIPP to PDF generation

With the introduction of FreeFlow VI Compose 11.0d and the use of that version of software in the VIPP to PDF generation tools mention below, the time to generate a typical variable data application using cacheable objects has been greatly increased.

A test file generating 22,688 pages took **2 hours** using the 11.0SP1 version of the tool set, and **40 minutes** using the 12.0 versions of the tool sets.

NOTE

As with any mechanism that deals in cashing reusable objects, not all jobs will benefit from the same performance increase.

PDF using VI Suite tool set

A VIPP can be converted to PDF using one of three methods.

1. VI eCompose is the FreeFlow VI Suite production level VIPP to PDF solution. The VI eCompose runs on a Windows server. Four input clients are provided, including lpr, Watched Folder or Web submission client. The VI eCompose, based on the content of the VIPP application will generate a Master PDF, it can also generate Child PDF files and move those PDF files to the next step in your workflow using the VI eCompose Dispatch module. For more information on FreeFlow VI eCompose, refer to the *FreeFlow VI eCompose User's Guide* or www.xerox.com.

2. VI Design Pro, the interactive design environment for the generation of code based VIPP applications has an "Export job as PDF" option under the file menu. This option can be used to generate a Master PDF file. For more information on FreeFlow VI Design Pro, refer to the *FreeFlow VI Design Pro User's Guide* or www.xerox.com.

3. VI Design Express, the Adobe InDesign plug-in that will run on a Windows PC or a Mac OS system. This allows for rapid development of delimited based VIPP applications. FreeFlow VI Design Express supports an option to generate PDF output using the "VI Design Express PDF" option from the InDesign Export menu.

Adobe Acrobat and Adobe reader Information

If using PDF Objects as VIPP resources in your VIPP application and you need to view the PDF file output from VI eCompose using Adobe Acrobat or Reader you will need to ensure you are using a compatible version of Adobe Acrobat/Reader software.

Adobe Acrobat 10.1.2 and above (10.0 does not work) and Reader 10.1.2 and above support this feature.

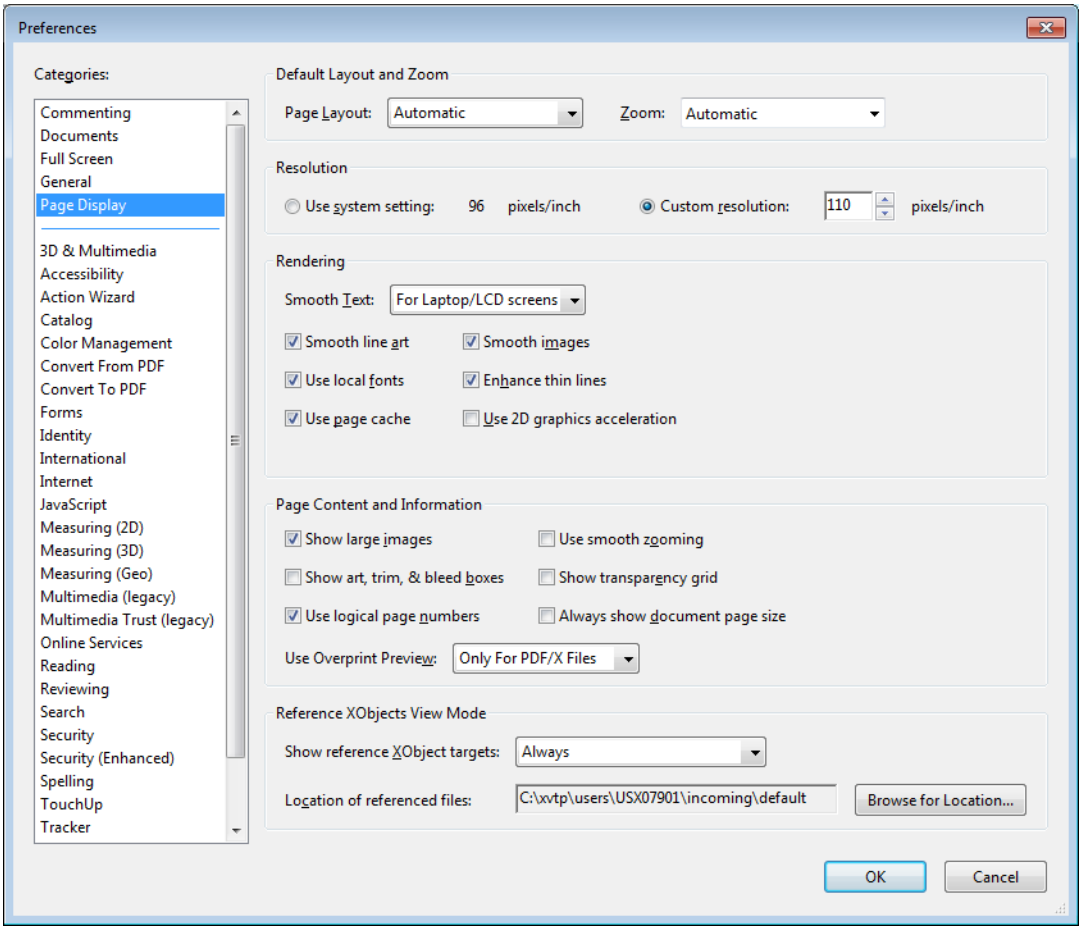
In order to view PDF files that contain VIPP PDF resources, you must open the PDF file from an Adobe Acrobat/Reader privileged folder. To create such a folder you must edit the following Acrobat/Reader preferences:

- **Category: Page Display:**
  Under "Reference XObjects View Mode" set "Show reference XObject targets" to Always and "Location of referenced files" to the directory containing the PDFs generated by VIeC.

NOTE

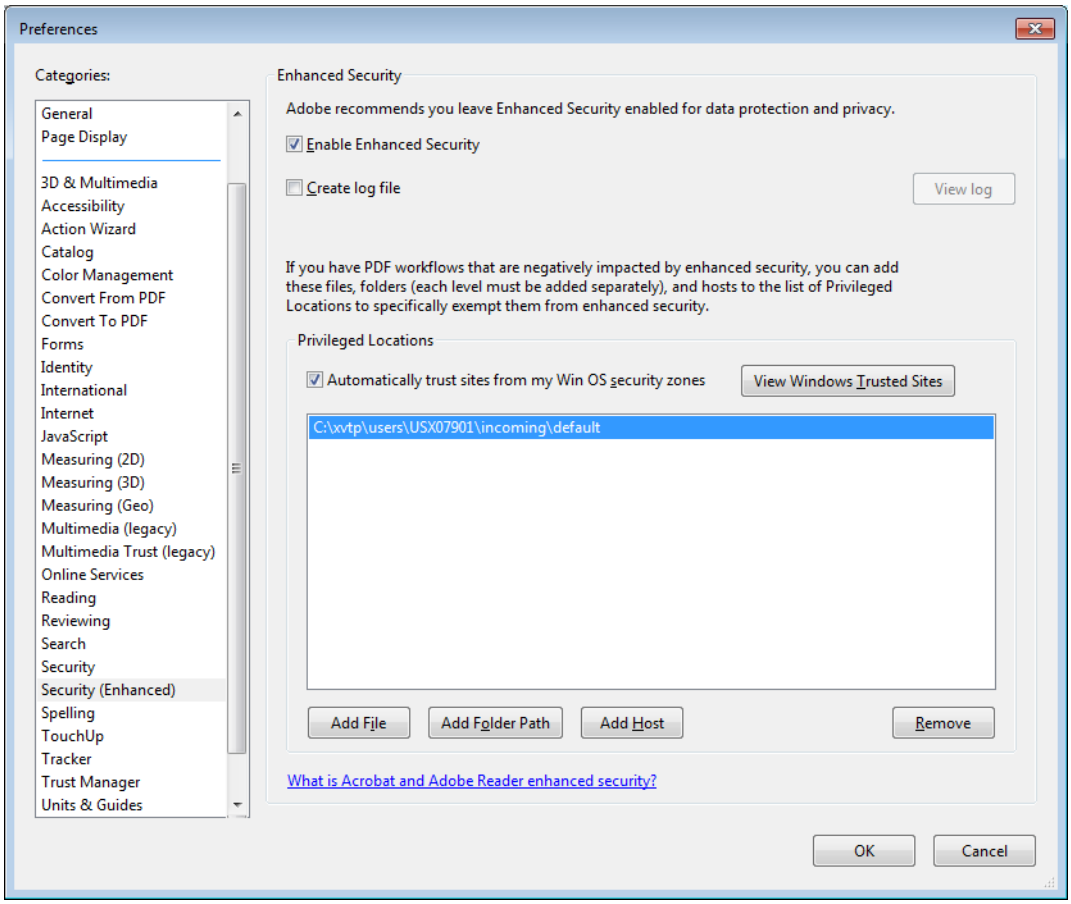
It is recommended that you select the VIeC incoming folder instead of the folder containing a specific job.

As long as all of the PDF's generated by VIeC are under the same incoming folder hierarchy then all referenced PDFs should be found and properly displayed.



- **Category: Security (Enhanced):**
  Under “Privileged Locations” click on “Add Folder Path” and specify the same folder as specified for “Location of referenced files”.

Note that referenced XObjects are independent of the Enhanced Security checkbox. The state of the checkbox does not govern viewing of referenced XObjects.



Any of the following will cause Acrobat/Reader to display “Missing:” followed by the name of the PDF resource:

- The version of Acrobat/Reader does not support Referenced XObjects,
- The preferences were not setup correctly, or
- The PDF file was opened from a non-privileged folder.

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