Xerox® FreeFlow® Core Release Notes

Software Version 7.0.8

Preface

Welcome to the Xerox® FreeFlow® Core Release Notes. This document contains important information regarding system requirements, new features and enhancements, known issues and limitations, and supported printers for the current software release.

Contents

1. System Requirements

Minimum System Specifications

FreeFlow Core

 Xerox® FreeFlow® Core is supported on a dedicated, standalone PC that meets or exceeds the system requirements defined below. Installing any software components other than those outlined in the table below is not supported.

Installation of FreeFlow Core is supported on private local or wide area Ethernet networks (Intranet) only.

It is the responsibility of the Customer to provide, install and configure a standalone PC or server with an appropriately licensed version of the Operating System that meets the minimum system requirements for such Operating System prior to installing the software.

FreeFlow Core cannot be installed on Domain controllers or backup Domain controllers.

Performance Guidelines

FreeFlow Core includes a service that automatically monitors critical resources and provides both email notifications and a warning in the User Interface when memory, disk space and/or database table space become constrained. These warnings are not only informational but identify conditions that will prevent reliable operation of the system.

If these errors appear, upgrade the FreeFlow Core server with additional resources (e.g., system memory and hard disk space).

To achieve optimal performance the following performance best practices should be comprehended.

1. Reserve CPU processing cores for non-FreeFlow Core job processing
    a. FreeFlow Core supports between 1 – 12 simultaneous jobs.
        i. Each simultaneous job requires its own CPU processing core.
    b. 2 or more CPU cores should remain available for other processing tasks (e.g., SQL Server, System defender, anti-virus software, FreeFlow Core job registration, GUI commands, etc.).
    c. Determine the number of CPU processing cores that exist on server used by FreeFlow Core.
    d. In FreeFlow Core Configure, select the Customer Override tab.
        i. Change the key maxSimulJobs to the number of CPU cores available minus two (or more).
        ii. Set the key overrideJobCount to True
        iii. For example, if 8 cores are available set maxSimulJobs to 4 or 6. If 14 or more CPU cores, then maxSimulJobs can be set to the maximum of 12.

2. When running FreeFlow Core system in a VM (Virtual Machine), specific Host CPU cores are not generally available for assignment. One needs to ensure that the number of Virtual CPU cores (vCPU) used by all the applications on the Host are less than the total physical Host CPU cores available. For example, if the physical machine used has 32 cores and 4

VMs running on the Host looking to use 40 cores, the cores cannot be exclusively dedicated to any application.

3. When creating the VM, the vCPUs must be assigned as a single CPU with multiple cores. (not multiple single core CPUs).
    a. This can be seen in the VM's Windows Task Manager -> Performance as: Sockets: 1 and Virtual Processors: 8, 10, 16, etc.
    b. **If the Sockets value is more than 1, the configuration is incorrect.**

4. Core requires NUMA memory processing to be enabled.
    a. NUMA processing ensures that all memory is specific to the Host CPU configured.
    b. To enable NUMA processing, "disable memory spanning" must be selected when setting up the VM.

*The Basic configuration is suitable for performing basic workflow operations only or for evaluating the software. For all other environments, a system that meets or exceeds the Recommended specifications should be obtained.

	Basic*	Recommended
Processor	Intel Core i7 Processor (or AMD equivalent), 3.3 GHz or better (4 or more Cores)	Intel Xeon Processor E5 (or AMD equivalent), 2.5 GHz or better (8 or more Cores)
System Memory	Windows 10: 8 GB Windows 11: 16 GB* * Due to Microsoft requirement changes	32 GB
Hard Drive Minimum of 25% free space available at all times. Windows disk volumes up to 4 TB have been tested. Results may vary with larger volumes.	500 GB SATA Hard Disk Drive (HDD) (single disk partition)	500 GB, SATA Solid State Drive (SSD), 3Gbps (RAID 5) Full system backups are required if non-RAID configurations are used.
Peripherals	• Monitor and Video Controller with at least 1280 x 1024, 1900 x 1200 (recommended) resolution and 32-bit color • Keyboard and mouse	
Network	Permanent connection with a fixed (static) IP address	
Intranet	100Mbps	1Gbps

| Operating System

Windows Core, Home, IoT, Mobile, Starter, and Preview or Evaluation editions of Microsoft Operating Systems are not supported.

To achieve optimal performance, choose the 'High Performance' power plan from the Power Options Control Panel.	• Microsoft Windows 11 • Microsoft Windows 10 (64 bit) Windows should always be maintained at the current supported software level.	• Microsoft Windows Server 2022 • Microsoft Windows Server 2019 • Microsoft Windows Server 2016

Infrastructure	• Microsoft .NET Framework 3.5 SP1 must be enabled for some versions of SQL Server. Consult the Microsoft SQL Server documentation for more information.
	• Microsoft .NET Framework 4.8.0
	• Microsoft SQL Server 2014 SP1 or higher. Enterprise, Express, and Standard editions are supported.
	• FreeFlow Core may be configured with a remote SQL database. See the Installation Guide for more information.
	• The server should be configured with a static IP address. DHCP is not recommended.
	• Windows 11: Copilot Preview should be disabled:
	  1. Open the Windows 11 Start menu and type "Copilot"
	  2. Select Copilot to open the settings screen.
	  3. Locate Copilot (preview) and select Off.
	NOTE: Instructions based on Copilot (preview) as of January 2024 and subject to change in future Windows 11 updates.
	• FreeFlow Core supports Single Sign-on (SSO) from customer Active Directory accounts only. Federated login from third party accounts such as Facebook, Google, Apple, etc. is not supported.
	• Do not use cloud based or federated logon accounts such as Windows Live, Microsoft, Outlook, Microsoft 365 (formerly Office 365) or Office 360 for the server or SQL server. The server must use either a Windows local or Active Directory account.	

Web Browser	• Current versions of modern browsers from Apple®, Google®, Microsoft®, and Mozilla®
	Microsoft Internet Explorer and the original Microsoft Edge are not supported. Only Microsoft Chromium Edge is supported.
	Browsers older than one year are not supported. To avoid compatibility issues, always use the latest version of the browser.
	Always use desktop computer browsers. Mobile device browsers may exhibit display issues.
Optional Software	• Microsoft Office 2021 (64 bit), Office 2019 (64 bit), Office 2016 (64 bit) or Office 365 (64 bit) (if conversion of native file formats to PDF is required) • Adobe Acrobat Reader (to open and view PDF files within the browser window) • Adobe Acrobat Pro DC or Callas pdfToolbox version 14.3.616 (to create custom preflight profiles)

Virtual Environment Support

When installing the software in a virtual environment, it is the Customers' responsibility to support the virtual environment and virtual environment software itself. Customers must also provide a fully configured virtual environment, including access and support thereof to Xerox support, as necessary. The virtual environment must be explicitly configured to meet or exceed the stated physical hardware requirements.

Only issues that can be reproduced on the standard FreeFlow product configuration will be supported. For problems unique to the virtual environment itself, Xerox will make best effort to fix.

Security Updates

We recommend that all software products installed on the FreeFlow Core server and clients be kept up to date using Windows Update to obtain the latest fixes and security improvements.

For more information, refer to the *Xerox® FreeFlow® Security Guide*. This document may be obtained from the Xerox Security website at: https://security.business.xerox.com/

2. New Features and Changes

Version 7.0.6

Easy Starts

Easy Starts have been updated to avoid licensing issues:

- Easy Starts Base.ffc has had the ES-06Base Calendars workflow removed
- Easy Starts Base&AP&AA.ffc has had the ES-05AA AutoGanged Business Cards workflow removed

FreeFlow Core Variables

$FFwfJob.processedDocumentGroupCount$ which represents the Number of Documents in Job Group during job processing has been added. The variable $FFwfJob.documentGroupCount$ is still available and represents Number of Documents in Job Group at job submission.

Version 7.0.3

Job Ticketing

The Job Submit GUI's Define Job Ticket Override Job tab is now populated with job ticketing parameters for the printer destination selected. Previously, a generic set of job ticketing was available.

Version 7.0

Queue Management

Available with the Output Management module. The Queue Management feature can be enabled if desired. The feature is accessed in Administration/Queue Options. When enabled all jobs are submitted to Queues not Workflows. Each Queue submits to a designated Workflow.

Queues provide added functionality of:

- Hold Or Release Policies,
- Job Cleanup Duration,
- Printer Destination selection,
- Pre And Post Process Scripting,
- Determination of Color Content.

Software Update Notifications

Under Administration/Notifications is an option to request notifications (emails) from Xerox pertaining to software version updates.

Document Security Option

Under Administration/Security is an option to prevent users, including administrators from obtaining/viewing submitted and processed documents via the Job Properties window links.

Hotfolder Hold Option

Hotfolders have the added option of specifying a submitted job is to be held before processing.

Workflow Script Option

Workflow Options include the capability of defining a script to be run before Workflow processing occurs on a job.

Color Manage, Preflight and Optimization Support Page Selections

The Color Manage, Preflight and Optimization nodes have added the capability to define which job pages are to be processed by the node(s).

Page Ranges Support Negative Number Designations

Page Range text fields in nodes support use of negative numbers. For example, "-1" is the last page in the document, "-2" is the second to last page in the document, etc.

Subset Finishing

Printer destination with the printer file type designated as PS (Postscript) adds the capability under Finishing to define finishing subsets. The feature only works with FreeFlow Print Server DFEs.

Job Ticketing Page Range

Job Ticketing includes the option to designate the page range to be printed.

Job Completion Notification

Under Administration/Notifications an option to receive a notification when a job completes has been added.

External Node Processing Of Powershell And Cscript Executables

The External node supports automatic processing of specified Powershell and Cscript executables.

Generic LPR

Adding capability to add a printer destination using a generic LPR connection.

Printer Group Preferred Printer

Added capability to designate one printer within a Printer Group as the printer to be used until it becomes unavailable.

Review Node Sender Address Requirement Removed

Removed the requirement of specifying a sender email address when configuring a Review node.

Job Notes Account ID in Job Ticketing

Job Notes Account ID specification capability added to Job Ticketing.

Removal Of Recurring Content With Optimize

The Optimize node has added the option to remove recurring content in a job (For example, images) to reduce the size of the job.

Color Imposition Cut Marks

Added ability to set the color of the Cut marks In Imposition.

Resizing PDF Boxes

Resize node added capability to change the size of one pdf box in reference to another pdf box size. Example: setting Trim box in relation to Crop box

Job Management Column Designation

Added additional parameters than can be displayed in Job Management GUI. Added the ability to customize which parameters are displayed.

Diagnostic Tool Added

Tool added to enable the acquisition of diagnostic information when the FreeFlow Core is not operational.

Printer File Selection Available For All Communication Methods

The capability to designate the Printer File type (For example, PS) and Job Ticketing options are expanded beyond LPR communications for printer destinations.

Installer updates related to data base usage and installation: See Install Guide for full details

FreeFlow Core 7.0 Installer now supports the creation of new SQL server instance(s), as part of product installation, on systems with a pre-existing local SQL Server. The new instance will be an SQL Express instance. Creation of non-express instances must be done before product installation.

3. Resolved Issues

Version 7.0.8

- Resolved clipped image issue on left corner of even numbered pages that involve bleed and crop marks
- Resolved issue with Insert Pages Preset with Quantity (MAX)
- Resolved issue with Cell Transform buttons
- Resolved issue with MAX filenames with ashx extension being flagged as an unsupported file type
- Incorporated Apache Tomcat patch 8.5.100

Version 7.0.7

- Resolved issue with the pass through function not being available when Base & Output Management are licensed
- Resolved issue with "Width of bleed:" text not translated to French in the Optimization node
- Resolved issue with a PDF conversion error occurring on the Print Server during printing an imposed job that includes some comments
- Resolved issue with being able to process PDF files that include sticky notes
- Resolved issue with Queue Management post-processing a variable
- Resolved issue with Core rejecting any non-standard file format upon submission through the hotfolder
- Resolved issue when Queue Management enabled, any non-standard file format cannot be submitted via the Web UI
- Resolved issue with an internal error occurring when the "useJustifiyTextWrappingInWatermark" setting is changed to 'true' when configured for Japanese.
- Resolved issue with the Custom MAX variable ($FFNo$) being replaced in a non-English environment
- Resolved a hotfolder scripting parameter issue
- Incorporated Apache Tomcat patch 8.5.98

Version 7.0.6

- Resolved issue with Manage Color Preset failing with Internal Error
- Resolved issue with Delete and Add button not available in the user access screen
- Resolved issue with PDF Preflight failing on documents with more than 1000 pages

Version 7.0.5

- Resolved issue with partial output being generated when Manifest submissions fail

- Resolved issue with start/stop characters not generated correctly when using CODABAR barcodes with captions disabled
- Resolved issue with jobs failing with an "Internal Error" when using the Resize Pages preset
- Resolved installation issue when an OS is unsupported
- Resolved issue with jobs failing in the Preflight preset with an "Internal Error"
- Resolved issue with a MarkJobAbortedInMemory error being raised in Split Node

Version 7.0.4

- Resolved issue with FreeFlow Core jobs stuck in pending state after deleting Jobs
- Resolved issue with an error processing large files using URL from uStore in Freeflow Core
- Resolved issue with Jobs failing with 'Required resource was not found error' when the MAX variable is used for the path value
- Resolved issue with FreeFlow Core email notifications not displaying Chinese fonts
- Resolved issue with JMF/JDF job submissions removing the referenced PDF file
- Resolved issue with page exceptions for negative pages missing in the JDF file
- Resolved issue with Administration Core Exchange not being able to save export summary file in a non-English environment
- Resolved issue with Job failing due to 'not enough memory' error
- The Update Notification email now contains an Unsubscribe link. The link allows the recipient to unsubscribe from future Update Notifications without accessing FreeFlow Core Administration, Notifications dialogue.
- Resolved issue with the Color Split node not detecting color pages when using a French OS
- Resolved issue with JDF jobs being renamed when sent to different Workflows at the same time
- Resolved issue with JDF files produced by uStore
- Integrated Callas version 14.3.616

Version 7.0.3

- Resolved issue with the Watermark node taking an long time to merge two PDFs
- Resolved issue with the Hot Folders list not loading due to unlicensed components
- Resolved issue with resizing a PDF with FFCore makes the text unreadable
- Resolved issue with Core Exchange Import
- Resolved issue with imposition after upgrade
- Incorporated Apache Tomcat patch 8.5.91
- Resolved issue with not being able to change File Save location of a preset

Version 7.0.2

- Resolved issue with Pixel Replication Bleed
- Resolved issue with an Internal Error being detected
- Resolved issue with "media-size.x-dimension is outside the allowable range" error being raised
- Resolved issue with Optimize Preset when German language is used

- Resolved issue with preset pop-up menu not staying open when hovering

Version 7.0.1

- Resolved issue with FFwfDoc.pdfTrimWidth value changing after Impose
- Resolved Core Exchange Export issue with Items from Files and Directories Managed by FreeFlow Core
- Incorporated Apache Tomcat security patch 8.5.88
- Resolved issue that allowed relative paths to be entered
- Resolved installation error with Microsoft Windows Server 2022 Datacenter Azure Edition OS
- Resolved issue with values/names being truncated within the Barcode Preset

Version 7.0

- Resolved issue with using Custom Preflight to flatten annotations
- Resolved issue in Help for missing details regarding the use of variables
- Resolved security alert issue regarding the Java version bundled with FreeFlow Core
- Resolved issue with "not-enough-memory errors" being seen with jobs containing many impressions
- Resolved issue with Core Exchange workflow import
- Resolved issue with PDF files having long names not displaying on the Job Management screen
- Resolved issue with not being able to add scripts to External Node if SSO login is enabled
- Resolved issue with image changes after custom Preflight

4. Known Issues and Limitations

Installation and Upgrade

While checking Roles & Features during the installation process, the Installer repeatedly prompts the user to reboot the system instead of continuing the installation process. This problem occurs if Windows Print Management utility is missing due to various reasons associated with Windows Update and/or upgrading from Windows Home to Pro Edition. To resolve the problem, repair Windows using one of the methods (solution number 2 is recommended) outlined in the following bulletin before attempting the installation again: https://windowsreport.com/windows-10-print-management-missing/

During the Installation process, you may be prompted to reboot the system once, or multiple times depending on the configuration of the system. If the Installer does not automatically restart following the system reboot, **wait several minutes** for the Operating System to fully initialize, then double-click the Installer to continue the installation process.

If the software version and build number is hard to read when viewing the About screen after an upgrade from a previous release, select *control + shift + R* while viewing the About screen. This will reload the resources for that page.

Location of data upon upgrade and reinstall

When upgrading or reinstalling FreeFlow Core, it is not possible to change the "Product Installation" and "Store Users workflow data in …" locations.

Uninstalling and Retaining FreeFlow Core Configuration Information

When uninstalling, if you choose to retain the FreeFlow Core Configuration information, you must reinstall with the same version for the data to be restored correctly. If you install a different version, the data will not be restored properly.

Compressed Windows Drive for Databases

FreeFlow Core and Microsoft SQL Server are not supported on compressed volumes.

Windows Server Naming

Depending upon how security is configured, changing the name of a Windows Server that is used to host an SQL Database Server could result in breaking database access. Before renaming the SQL Database Server host or FreeFlow Core server when using a local SQL Database Server, please consult the Microsoft SQL Server documentation for instruction on how to rename the server and update the SQL Database server and account names.

Login delay

Upon initial start-up of FreeFlow Core after a reboot, Windows needs to initialize all necessary FreeFlow Core required components. Therefore, it can take a few minutes before the login dialog appears.

Login issues

For Active Directory single sign on, FreeFlow Core domain users must login using the same domain as what was used when FreeFlow Core was installed with. All users must be members of same domain.

Variable Data Enablement

After upgrading FreeFlow Core to 7.0, if Variable Data was enabled before upgrade to 7.0, VIPP jobs will not process until a 7.0 license enabling Variable Data is installed.

Windows Server 2019 and higher

When starting the installer, if the %TEMP% folder that includes the Remote Desktop session ID is missing the Installation will fail. To overcome this, simply recreate the temp folder and default session id, which is typically 1 or 2.

For more information, go to: https://docs.microsoft.com/en-us/troubleshoot/windows-server/shell-experience/temp-folder-with-logon-session-id-deleted

System

Administrator Login

When creating a new Administrator for the first time, if the user quickly selects the Create button more than once, the User Interface will redirect the user to the FreeFlow Core login screen rather than the End User License Agreement (EULA) acknowledgement screen. After logging back in as a new Administrator, the user will be redirected to the EULA screen as expected.

Browsers send cookie with secure flag using https URL

When using a browser to access the FreeFlow Core Administration GUI and using a secure HTTP URL, the following action must be performed to ensure browsers send a secure cookie only on an HTTPs connection.

• Execute the file "RequireSSL" found at C:\Program Files\Xerox\FreeFlow Core\Support

Job Management

Large Files Using Native Windows Compression

Windows native compression uses 2 different compression formats, "Deflate" for files smaller than 2GB and "Deflate64" for files larger than 2GB. FreeFlow Core only supports "Deflate" and "GZip" compressions so files compressed with "Deflate64" cannot be processed.

FreeFlow Core supports native Windows compression provided the files are small enough to be compressed with "Deflate".

Large Job File Size

FreeFlow Core supports uploading and processing for files up to 15 GB in size.

Large MAX Jobs

Processing a large MAX file will take longer than processing multiple MAX files with the same number of sub jobs. As a result, submission of smaller MAX files is recommended.

Large Page Size

FreeFlow Core supports custom page size up to 9999.999 inches (253999.97 mm)

Unsupported TIFF Formats

The following TIFF features are not supported: JPEG compression, YCbCr, and color space. In addition, TIFF transparencies are flattened during conversion.

Remote ZIP files

Zips files stored on remote servers are not supported.

PDF Compliance

The settings of a selected PDF/X standard may not be retained after processing the job through a FreeFlow Core workflow.

JDF Job Tickets

JDF tickets submitted to FreeFlow Core must be 'Combined DigitalPrinting' only (e.g., JDF/@Type="Combined", JDF/@Types contains "DigitalPrinting").

Drag and Drop Submission from Mac

Drag and drop submission from Mac is not supported. To submit a job from a Mac client, use the Browser button to upload the files.

Collect Job Documents

If Collect Job Documents is selected as an option for a Save or Finish Component, all the sub jobs are submitted correctly to the save location or finisher. However, only one entry appears in the FreeFlow Core Job Status window.

Microsoft Office File Conversion

If Microsoft Excel files fail to convert in FreeFlow Core, check the following settings:

1. Run the Windows service as a user with permissions for Excel. Windows services generally run using the local account, which are not typically configured to open Excel.
2. Open FreeFlow Core Configure and change the service account to an account with permission to open Excel.

    Do not change service accounts directly. Always use FreeFlow Core Configure.

3. Microsoft Excel expects certain folders in the system. Typically, a Desktop folder is necessary in the systemprofile folder to open Excel files.

    a. For 32-bit (x86), create this folder:
    C:\Windows\System32\config\systemprofile\Desktop

    b. For 64-bit (x64), create this folder:
    C:\Windows\SysWOW64\config\systemprofile\Desktop

    Set the 32-bit folder preferences (detailed above) in addition to the 64-bit preferences on 64-bit systems running 64-bit versions of Microsoft Office.

4. Change the DCOMConfig settings for Excel:
    a. Select [Start > dcomcnfg.exe > Console Root > Component Services > My Computer > DCOM Config].

    You may be prompted for Administrator credentials.

    b. Select "Microsoft Excel Application". If Microsoft Excel Application does not appear in the DCOM list, find the equivalent key [00020812-0000-0000-C000-000000000046] in the DCOM list.
    c. Right-click 'Properties.'
    d. Select the Identity tab. Select 'Interactive User.'

e. Select the Security Tab. Customize "Launch and Activation Permissions". Edit and add permissions to the user who is running the Windows service.

f. Customize "Access Permissions". Edit and add permissions to the user who is running the windows service.

5. Restart the FreeFlow Core service.

Printer Management

Printer Queue Setup

If a Printer Queue is named IPP it will not display in FreeFlow Core. To avoid this issue, do not use IPP as the queue name.

Unsupported Printer Queue Names

If a printer queue name is not supported by FreeFlow Core such as one with a space, it will not be listed in FreeFlow Core when the printer is polled.

Printing Jobs

When printing a job, if an error is encountered at the printer as a result of incorrect stock orientation, the job will print if the width and height are swapped.

Job Submission Regulation

Job Submission Regulation assumes the spool directory of the printer is on the largest drive of the printer. If the spool directory is the not on the largest drive, job submission regulation will not process properly. When setting up a printer, please ensure the largest volume is used for the spool.

Deleting a Printer

To delete a printer, you must delete the Printer Destination. To delete the Printer Destination, open the Printer Preset in Workflow Builder and select the Delete button to delete the Printer Destination. Once the Printer Destination is removed, the printer will no longer appear in Printer Management.

Subset Finishing

When subset finishing is selected for a printer destination, any SetPageDevice commands within a submitted PS (Postscript) document will be lost.

Printer Management and Printer Locale

In Printer Management, information retrieved from the printer may be in a language different from the FreeFlow Core system. The specific language is not communicated to FreeFlow Core and the text may not be translated properly.

Xerox® AltaLink® Printers

Printer information may not be available for certain versions of the AltaLink controller.

In FreeFlow Core 6.1.4, the Define job ticket defaults options are currently enabled but shouldn't be. Please uncheck Define job ticket defaults in Printer Management when adding AltaLink printers to 6.1.4 to avoid any printing issues.

Non-Xerox Printers

Each Printer Destination represents a connection to a specific Print Queue on the Controller and a set of job ticket defaults. Not all Print Queues and Job Ticket defaults are discoverable by FreeFlow Core.

Print Queues

- The following EFI Fiery Print Queues are supported:
  - Default (configured as hold, print, print and hold, process and hold) and custom queues (Virtual Printer)

- The following Canon PRISMAsync Print Queues are supported (via JDF or LPR):
  – Automated Workflow Name
  – Printer Default (configured as "default")

Job Properties

- To enable limited Job Ticketing with Canon PRISMAsync Print Server devices, the 'Canon Printer Capability' file must be loaded using the Add Additional Printer Capabilities option (Printer Management and Status > Printers > Edit a Printer) when configuring the Printer Destination. To add the file, select the "JDF Settings" button in the Edit a Printer window, then select the Add Additional Printer Capabilities checkbox. From the Add Additional Printer Capabilities Open File dialogue, select "master.xpaf", then OK to load the file. Select Save to close the "Edit a Printer" window

- With the capability file loaded, the following Job Ticket Defaults (Setup Tab) are supported on Canon PRISMAsync Print Server devices:
  – Job Name

  – Copies

  – Main Stock

    Note: Media settings at the Canon PRISMAsync Print Server device may need to be updated for the proper media selection after the job is sent from FreeFlow Core.

  – Sides-Imaged

  – Collation (uncollated is visible using the Job Ticket Editor. The collated option is supported using the provided job ticket, e.g., XPIF Job Ticket associated with PDF file or JDF job ticket)

  – Output Order

  – Output Location

  – Offset

  – Exceptions

  – Inserts (single-page only)

  – Slip Sheets

  – Account ID

- The following Job Ticket Defaults (Setup Tab) are not supported on Non-Xerox printers:
  – Color (Canon PRISMAsync Print Server devices)

  – Leading Banner Page

  – Sender

  – Finishing (Canon PRISMAsync Print Server devices)

- Subset Finishing and Job Ticketing Page Range are not supported.

When adding or editing a Non-Xerox Printer Destination in the Printer Management and Status Tab, certain capabilities including Job Submission Regulation and Job Ticket Verification may be disabled depending on the capabilities of the Printer Destination.

The nomenclature and operation of equivalent FreeFlow Core Printer Job Commands (Release, Hold, Cancel) in Job Management and Status may differ on Non-Xerox Printers.

- The Hold command will not work with the Fiery Controller when the printer destination is configured as a JDF printer.
- It is possible to cancel a job that is Held at the Fiery Controller but the job remains visible in the FreeFlow Core job listing. If a job is cancelled from FreeFlow Core when it is suspended or printing at the Fiery Controller, the job will abort and be deleted from the Fiery Controller.

In Printer Management and Status, Printer Status and Consumables may report Not available for this printer. The Quantity specified in FreeFlow Core will always override the value for Copies defined in the Print Queue. If Quantity is not specified in FreeFlow Core, the quantity will be set to one (1) by default when the job arrives at the Controller even if a different value for Copies has been defined.

Enabling Number of Uncompleted Jobs at the Printer as part of Job Submission Regulation may not reflect the actual state of Uncompleted Jobs and Time Required at the Controller. This capability is not supported for printers associated with a Printer Destination configured as LPR.

Jobs that specify fold finishing should be submitted to the default Print Queue on the Fiery Controller. Submitting jobs to a Virtual Printer may produce unexpected results.

After a job completes printing, the status of the job at the printer may change from Printed to Error (Unable to Close Job). Enabling port 4004 (incoming) through Windows firewall may resolve the issue. This applies to Fiery devices for Printer Destinations configured for JDF.

The performance of the system may be impacted when submitting several large jobs to non-Xerox printers (registered using port 8010) simultaneously. Adding additional RAM to the system and/or reducing the number of large jobs submitted concurrently may improve performance.

Components, Workflows and Presets

Job Processing
All jobs should be processed in the workflows before restarting FreeFlow Core. If jobs are still being processed after a restart, the jobs will abort.

Saving Jobs
FreeFlow Core process variables are not supported when specifying the save file location in the Save Component.

When specifying a save location using an absolute path in the Save Component, only one directory level is supported below the predefined "Save Destination" directory.

Easy Start Workflows
After installing the Easy Start Workflows and Presets, reset the 'Print' and 'Print with Leading Banner Page' Presets to a valid Printer Destination(s). The Easy Start Print Presets configured at install are not valid Printer Destinations (IP Addresses).

Acrobat vs. FreeFlow Core Preflight
FreeFlow Core Preflight can execute both Acrobat and Callas pdfToolbox preflight profiles. Acrobat preflight may result in behavior that is different than FreeFlow Core. Acrobat preflight uses a different version of pdfToolbox than is being utilized by FreeFlow Core. In addition, Acrobat preflight uses a different color conversion engine compared to pdfToolbox.

Preflight Language Based on FreeFlow Core Server
The messages displayed by the preflight report are displayed in the OS language set at the FreeFlow Core server. They are not based on the language set from the client browser.

Color Split Node

Starting with the 6.2.8 release, the processing time for the Color Split Node may require more time than prior releases as changes were made to determine the color content more accurately on the pages within the document.

External Node

External node has added the ability to directly call PowerShell and CScript callable scripts. Other scripting methods (Hotfolder Preprocessing, Workflow Preprocessing and Queue Management Preprocessing/Postprocessing) will need to call out to PowerShell, Python, and CScript via Windows paths to the executables.

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FreeFlow Core Exchange

Workflow Missing from Workflow List after using Core Exchange to Import a Clone

Prior to importing a clone using FreeFlow Core Exchange, log out of FreeFlow Core and close the browser. Once the import is complete, open the browser and log back into FreeFlow Core. If the browser wasn't closed prior to the import, log out of FreeFlow Core – close, then reopen the browser and log back into FreeFlow Core.

Reboot May Be Required After Importing File

After importing a file using FreeFlow Core Exchange, a reboot maybe required for FreeFlow Core to start up correctly. This is especially true if you are importing a file that is a clone.

XMPie StoreFlow Hosted by XMPie

File Size Limitation From FreeFlow Core to a Printer

When FreeFlow Core is hosted by XMPie as part of XMPie StoreFlow, the maximum file size that can be forwarded from FreeFlow Core to a printer is 1GB.

5. Supported Printers

Xerox Devices

FreeFlow Core supports job submission to Internet Printing Protocol (IPP)-based Printer Destinations including FreeFlow Print Server, FreeFlow Print Server Integrated, Xerox Integrated Color Server, Xerox Integrated copy/print server, EFI Print Server and Integrated Fiery Print Server running supported versions of software, enabling retrieval of supported device capabilities.

To the extent that a particular device publishes certain capabilities via IPP such as copy count, media type, sides-imaged, output location, etc., FreeFlow Core will retrieve that information and use it to populate the printer description, the list of queues and the job ticketing options for that device. If a particular device does not publish certain attributes, they will not be available in FreeFlow Core but may still be programed at the device. Other limitations may apply. For more information, refer to Known Issues and Limitations.

A device may publish Perfect Binding capabilities; however, these capabilities are not supported by FreeFlow Core.

The following protocols must be enabled on the Controller:

- **IPP Printing** – enables retrieval of supported job ticketing and print submission.
- **SNMP** – enables device type discovery and limited printer status information via the Standard Device Description.

Xerox® Devices	Controller and Minimum Supported Version
Xerox AltaLink® B8XX/B81XX	Standard controller
Xerox AltaLink® C80XX/81XX	Standard controller
	Xerox EX-c C8000 Print Server, powered by Fiery
Xerox PrimeLink® B9100 Series Printer	Xerox Integrated Server
	Xerox EX B9100 Series Print Server powered by Fiery
Xerox D136 Copier Printer	Xerox EX136 Print Server 1.0, powered by Fiery
	Xerox FreeFlow Print server 9.0
	Xerox Integrated copy/print server 1.0
Xerox D95A/D110/D125 Copier/Printer	Xerox EX Print Server 1.0, powered by Fiery
	Xerox FreeFlow Print Server 9.0
	Xerox Integrated copy/print server 1.0
Xerox® Nuvera® 1xx/200/288/314	Xerox FreeFlow Print Server 7.0 SP3 (CP.73.C3.x) and higher

Xerox PrimeLink® C9065/C9070 Printer	Xerox Integrated Color Server Limited support for printer capabilities and device attributes.
	Xerox EX 9065-70 Print Server, powered by Fiery
	Xerox EX-i 9065-70 Print Server, powered by Fiery
	Xerox EX-c 9065-70 Print Server, powered by Fiery
Xerox Color C60/C70 Printer	Xerox EX/EX-i C60/C70 Print Server 1.0, powered by Fiery
	Xerox Integrated Color Server
	Xerox FreeFlow Print Server Integrated 2.0 SP1 (CP.20.1.15187.0 or higher)
Xerox Color C75 Press	Xerox EX Print Server 1.0, powered by Fiery
	Xerox Integrated Fiery Color Server 1.0
	Xerox FreeFlow Print Server 9.0 SP3
Xerox Color J75 Press	Xerox EX Print Server 1.0, powered by Fiery
	Xerox FreeFlow Print Server 9.0 SP3
Xerox Color 560/570 Printer	Xerox EX Print Server 1.0/2.0, powered by Fiery
	Xerox FreeFlow Print Server 9.0 SP3
	Xerox Integrated Fiery Color Server 1.0 (System 10)
	Xerox Integrated Color Server Support limited to copy count, main stock, sides-imaged, collation, sender and output location. Orientation and limited finishing options. Other attributes are not returned by the controller and not accessible by FreeFlow Core.
Xerox Versant® 4100 Press	Xerox EX-P 4100 Print Server 1.0 and higher
	Xerox EX 4100 Print Server 1.0
Xerox Versant® 3100 Press	Xerox EX/EX-P 3100 Print Server 1.0 and higher
	Xerox FreeFlow Print Server 9.0 SP3
Xerox Versant® 2100 Press	Xerox EX/EX-P 2100 Print Server 1.0 and higher
	Xerox FreeFlow Print Server 9.0 SP3
Xerox Versant® 280 Press	Xerox EX 280 Print Server 1.3 and higher
	Xerox EX-i 280 Print Server 1.3 and higher

Xerox Versant® 180 Press	Xerox EX/EX-i 180 Print Server 1.0 and higher
	Xerox FreeFlow Print Server 9.0 SP3
Xerox Versant® 80 Press	Xerox EX/EX-i 80Print Server 1.0 and higher
	Xerox FreeFlow Print Server 9.0 SP3
Xerox DocuColor® 8080 Digital Press	Xerox FreeFlow Print Server 7.0 SP3 (CP.73.C3.x and higher)
Xerox Iridesse™ Production Press	Xerox EX-P 6 Print Server 1.0 and higher
Xerox Color 800i/1000i Press	Xerox EX-P 1000i Print Server 3.0/3.1, powered by Fiery
	Xerox FreeFlow Print Server 9.0 SP3
Xerox Color 800i/1000i Press	Xerox EX Print Server 2.2 (System 10)
	Xerox FreeFlow Print Server 9.0 SP1
Xerox iGen® 5 150 Press	Xerox EX-P 5 Print Server, powered by Fiery
	Xerox FreeFlow Print Server 21 (CP.21.0.15141.0) and higher
Xerox iGen® 5 90/120 Press	Xerox EX Print Server 1.1, powered by Fiery
	Xerox FreeFlow Print Server 21 (CP.21.0.15219.0) and higher
Xerox iGen® 150 Press	Xerox EX Print Server 1.0, powered by Fiery
	Xerox FreeFlow Print Server 9.0 SP1
Xerox Color 8250 Production Printer	Xerox FreeFlow Print Server 9.0 SP3
Xerox iGen4™ (90/100/220 Perfecting) and Diamond Edition	Xerox EX Print Server 1.0, powered by Fiery
	Xerox FreeFlow Print Server 9.0 SP1
Xerox Rialto® 900 MP Inkjet Press	Xerox Impika PDF Controller Support limited to printer Hot Folder submission only.
Xerox® Baltoro® HF Inkjet Press	Xerox FreeFlow Print Server 24 (CP.24.0.19119.0) and higher
Xerox® Brenva® HD Production Inkjet Press	Xerox FreeFlow Print Server 22
Xerox® Trivor® 2400 HD Inkjet Press	Xerox IJ Print Server 1.0, powered by Fiery
	AlphaStream Controller Support limited to printer Hot Folder submission only.

Xerox® Impika® Compact/Reference/ Evolution	Xerox IJ Print Server, powered by Fiery
	Xerox FreeFlow Print Server 9.0 SP3 Job Ticketing support limited to Copy Count only. Other attributes returned from Xerox® FreeFlow® Print Server are not supported.
Xerox® CiPress® 325/CiPress 500	Xerox FreeFlow Print Server 9.0 SP3 Job Ticketing support limited to Copy Count. Other attributes returned from Xerox® FreeFlow® Print Server are not supported.

Non-Xerox Devices

FreeFlow Core supports job submission to EFI Fiery, JDF-enabled Printer Destinations running supported versions of software, enabling JDF device (uni- or bi-directional, depending on the device) connectivity between FreeFlow Core via Job Messaging Format (JMF) and the non-Xerox device.

To the extent that FreeFlow Core supports, and a particular device publishes certain capabilities via JDF, FreeFlow Core will retrieve that information and use it to populate the printer description, the supported queues ("Virtual Printer") and job ticketing options for that device. If FreeFlow Core does not support and/or a particular device does not publish certain queues or attributes, they will not be available in FreeFlow Core but may still be programed at the device. Other limitations may apply. See Known Issues and Limitations for more information.

The table below represents the list of non-Xerox printers that have been tested and validated by Xerox. Xerox will provide best-effort support only for non-Xerox printers that do not appear below.

Issues with FreeFlow Core and non-Xerox printers that can be validated on a reference configuration will be addressed via standard support. Xerox is not responsible for resolving issues that are unrelated to FreeFlow Core, or otherwise involve engaging the vendors of non-Xerox printers. In addition, LPR is supported for Xerox and select Canon PRISMAsync Print Server devices. Xerox will provide 'best effort" support only for other non-Xerox printers connected using LPR.

The following protocols must be enabled on the Fiery Controller:

- **Fiery JDF** – enables bi-directional JDF device connectivity between FreeFlow Core and the Fiery Controller.

Fiery JDF may require the purchase of a Productivity Package license on certain Fiery Controllers. For more information, please consult https://www.efi.com/fjdf

- **Canon PRISMAsync Print Server** JMF – enables bi-directional JDF device connectivity between FreeFlow Core and the PRISMAsync Print Server.
- **SNMP** – enables device type discovery and limited printer status information via the Standard Device Description.

Printer	Controller and Minimum Supported Version
Canon® varioPRINT 6000 TITAN Series Sheetfed Digital Presses	Canon PRISMAsync Print Server version R7.3 or higher LPD, JMF Support must be enabled on the Print Server.
Canon® varioPRINT 140 Series Monochrome Sheetfed Digital Presses	Canon PRISMAsync Print Server version 7.2 or higher LPD, JMF Support must be enabled on the Print Server.
Canon® imagePRESS C10000 Color Sheetfed Digital Presses	Canon PRISMAsync Print Server version 6.1.3 or higher LPD, JMF Support must be enabled on the Print Server.
Konica-Minolta® AccurioPress C3070 Digital Production Press	EFI Fiery Image Controller IC-417 version 2.1 Requires Fiery Productivity Package IC-417.
Konica-Minolta® AccurioPrint C3070L Digital Press	EFI Fiery Image Controller IC-417 version 2.1 Requires Fiery Productivity Package IC-417.
Ricoh® Pro 8110e/8120e Series B&W Cutsheet Printer	EFI Fiery Printer Controller EB-32
Ricoh® Pro C700EX Color Cutsheet Printer	EFI Fiery E-8100 Print Server
Ricoh® Pro C7200 Graphic Arts Edition Series Color Cutsheet Printer	EFI Fiery Color Controller E-45A (7200) EFI Fiery Color Controller E-35A (7200SL) EFI Fiery Color Controller E-85A (7200)
Ricoh® Pro C9100/C9110 Color Cutsheet Printer	EFI Fiery E43/Pro 80 Controller EFI Fiery E83/QX Controller
Ricoh® Pro C9200/C9210 Color Cutsheet Printer	EFI Fiery Color Controller E-85

6.   Installation Procedures

Installation and Upgrades

See the Xerox® FreeFlow® Core Installation Guide for installation and upgrade instructions. This document may be obtained from the Support & Drivers section on Xerox.com.

Prior to performing an upgrade, ensure all jobs have completely finished processing through the workflows. To minimize the time to perform the upgrade, delete all jobs.

Perform a full system backup. If you encounter issues during the upgrade, the backup can be restored.

FreeFlow Core 7.n.n supports upgrades from version 6.0.0 or higher. Upgrading from version 5.n.n requires upgrading to version 6.0 first before upgrading to version 7.n.n. To obtain a prior release, contact Customer Support.

FreeFlow Core licensing only supports UUID in the form of (xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx) or MAC address in the form (xxxxxxxxxxxx). Customers using other license identifiers will need to provide a new license identifier in order to renew their license when upgrading to FreeFlow Core 6.0.

If you are upgrading from a version of FreeFlow Core 6.1.2 or lower to version 6.2.1 and your installation includes the Variable Data optional module, review the topic "VIPP Directory Relocation" in Section 2, New Features and Changes > Version 6.2.1 for information related to the VIPP XGFC runtime directory change.

If you are upgrading from a version of FreeFlow Core 4.0.2.x or lower to FreeFlow Core 5.1.x prior to upgrading to version 6.0, the Save location will be automatically relocated from <User Data Location>\Save Destinations to <User Data Location>\00000000-0000-0000-0000-000000000000\Data\Save Destinations.

For example, following the upgrade, the Save location will move from:
C:\Xerox\FreeFlow\Core\Data\Save Destinations to
C:\Xerox\FreeFlow\Core\Data\00000000-0000-0000-0000-000000000000\Data\Save Destinations.

Upgrading to FreeFlow Core 7.n.n

1.   Double-click the **FreeFlowCore-7.n.n-Setup.exe**.
2.   Select the desired language and click **OK**.
3.   In the Welcome window, click **Next**.

   Note: It can take several minutes for the Installer to initialize as it checks prerequisite system requirements.

4.   If the Installer is unable to configure the prerequisite Roles and Features, a System Check log will appear. Perform the following steps to continue:
   a. Cancel the upgrade.

> b. Search 'ERROR' in the System Check log and configure the appropriate requirements. For more information, refer to the *Installation Guide*.
>
> c. Restart the installation process.

5. In the License Agreement window, accept the terms of the agreement and click **Next**.

6. Click **Install** to begin the installation.

7. Upon completion, click **Finish**, then **Yes** when prompted to restart the system.

Easy Start Workflows

To configure your system with predefined workflows, download the FreeFlow Core Easy Start Workflows from the Support & Drivers section on Xerox.com and follow the provided instructions.

1. Open a web browser and go to www.xerox.com.

2. Select **Customer Support** > **Support & Drivers** > **Software & Platforms** > **FreeFlow** > **FreeFlow Core**.

3. Under FreeFlow Core, select **Software**.

4. Select the appropriate Operating System and Language from the menus presented.

5. In the Utilities & Applications area, click on the appropriate FreeFlow Core Easy Starts link to download the file.

6. Once downloaded, decompress the file and double-click the **install.bat** file to install.

For detailed descriptions of each workflow and product configuration requirements, refer to the *Xerox® FreeFlow® Core Easy Start Workflows Getting Started Guide*. This document may be downloaded from the **Support & Drivers** section on www.xerox.com.

Windows Shared Folders or Microsoft Office Conversion Setup

If you use Shared Windows Directories or Microsoft Office file-conversion software, a valid service account is required to run FreeFlow Core. To change the settings, from the Windows Start menu, use the FreeFlow Core Configure utility.

The service account includes the following features:

- Runs FreeFlow Core services
- Has full control over the FreeFlow Core message queue
- Has access to Shared Windows Directories

Adding Shared Folder Credentials to the Windows Account

If the Windows account that is used for the FreeFlow Core service has access to the shared folders, additional configuration is not required.

Shared folders follow the Universal Naming Convention (UNC) and list the full path. For example: \\<server>\<path>\file.ext. Mapped drives are not supported.

1. To validate access to a shared folder, log in to the FreeFlow Core server using the same Windows account that you used for the FreeFlow Core services.

2. From the Windows Start menu, select **Run**.

3. Type the UNC path to a folder or file in the shared directory. Click **OK**.

The file or folder opens without prompting for login credentials.

If needed, you can add credentials to the Windows account that is used for the FreeFlow Core service. Consult with your local IT department, if necessary, to determine the requirements at your location.

1. Select **Control Panel** > **User Accounts** > **Credential Manager** > **Windows Credentials**.
2. Click **Add a Windows Credential**.
3. Specify the server Internet or network address and a valid username and password. Click **OK**.
4. Validate access to the server.

Secure JMF

To enable secure JMF communication between a JMF Client and FreeFlow Core, configure the following:

1. Open port 7759 using the Windows Firewall utility.
2. Create a Self-Signed Certificate through IIS.
3. Right-click the certificate and select **Export Certificate**. Export the certificate to the desktop.
4. Run the **installJMFCertificate** utility, entering the same password entered in step 3 when exporting the certificate.
5. Restart the FreeFlow Core JMF Server from the Service panel.
6. Using a web browser, enter: https://<ip address of the FreeFlow Core server>:7759.
7. Click **Continue to this website**. If a page displaying 'HTTP Status 404' appears, the configuration of FreeFlow Core for Secure JMF communication was successful.

Secure Printing

To enable secure printing between FreeFlow Core and a Xerox FreeFlow Print Server, the following must be configured:

1. Enable SSL at the print controller:
   a. At the FreeFlow Print Server, login as System Administrator.
   b. Select **Setup** > **SSL/TLS**.
   c. Click **Add Certificate**.
   d. Create a 'Self Signed' certificate or Import a signed Certificate by choosing 'Signed Certificate from a Certificate Authority.'
   e. Follow the steps in the Wizard and fill in the necessary information.
   f. Click **Install**.
   g. Click the **Close** button in the Certificate window after configuring the certificate.
   h. Select the **Enable SSL/TLS** option.
   i. Click the **Close** button and reboot the print controller, if necessary.
2. Enable the Printer certificate on the FreeFlow Core system.
   a. From the FreeFlow Core desktop, launch the FreeFlow Core Certificate Tool.
   b. Specify the Print Controller IP address or DNS name.
   c. Choose the Print Controller.
   d. Click [**Retrieve Certificate**].

e. Once the certificate is installed, a message appears as `Certificate successfully installed`.

3. Add a Printer Destination through FreeFlow Core and select the **Secure Print** check box to perform secure communication.

Secure Printing on EFI Fiery Controllers

To enable secure printing between FreeFlow Core and an EFI Fiery Controller, the following must be configured:

1. Enable SSL at the Print Controller
    a. Launch the Fiery User Interface (UI) by entering the Fiery IP address in a web browser or from the Fiery Command Workstation.
    b. Select the **Fiery Configure** option.
    c. Login with the Fiery Controller credentials.
    d. Select the **Security** option and create a self-signed Certificate, or fill in the details with the Certificate from CA.
    e. Enable **SSL\TLS** in the configure screen.
    f. Upon selecting Enable and confirming, select **yes** when prompted to restart the Print Controller.

2. Enable the printer Certificate on the FreeFlow Core system.
    a. From the FreeFlow Core desktop, launch the FreeFlow Core Configure tool and select the Core Certificates tab.
    b. Specify the Print Controller IP address or DNS name.
    c. Choose the Print Controller.
    d. Click **Retrieve Certificate**.
    e. Once the Certificate is installed, a message appears as `Certificate successfully installed`.

3. In FreeFlow Core, add a Printer Destination and select the **Secure Print** check box to enable secure communication.

Saving a JDF Ticket to a Remote File System

When configuring a Save Node with options to save the ticket as JDF and the file path is to retrieve a remote file system (For example, \\host\sharedDir), the Login ID of the FreeFlow Core JMF Server must be changed to a user that has access to the remote directory location.

FreeFlow Core Windows Environment Variables and Scripting

Always use FreeFlow Core Windows Environment Variables instead of hard-coded paths when creating scripts and customizations. The environment variables listed below were created specifically for the purpose of scripting and customizations.

FreeFlow Core All Configurations
FF_CORE_HOME > Installation directory
Default = C:\Program Files\Xerox\FreeFlow Core *or* C:\Program Files\Xerox \FreeFlow Core Submit

FreeFlow Core Servers

XRX_TENANTSHOMEROOT > Tenant Data. (e.g., Hot Folder, Presets, Spool)
Default = C:\Xerox\FreeFlow\Core

XRX_I2S_DATAPATH > I2S Data
Default = C:\Xerox\FreeFlow\Core\I2S\Data

Do not use the unbranded variable I2S_DATA_PATH. This is deprecated and subject to removal without notice.

General Guidelines

- Do not put customized scripts or tools in a directory other than one created by the user.
- Do not create private use directories within the product directory structures.
- Do not use directories created by the product installers unless they are designated for customer use (e.g., Hot Folders, Presets).

Do not hard code directory paths as they are always subject to change as the product evolves.

Backup and Restore

Backing up the software is a customer responsibility. Backup for your FreeFlow product can be performed using any commercially available backup and restore software. Ensure that you run a full system backup that includes all hardware drives that contain the FreeFlow product and database software. It is recommended that the backup software can back up open files.

Online Resources

For additional product documentation, community forums, and support, go to:
http://www.Xerox.com/Automate.

7. Third Party License Disclosures

License Disclosures

License disclosures for third party components utilized in Xerox® FreeFlow® Core can be found at C:\Program Files\Xerox\FreeFlowCore\ThirdPartyLicenses for installs performed using the default location.

For installs performed with a different drive location, the license disclosures can be found in the ThirdPartyLicenses folder under the installation location.