

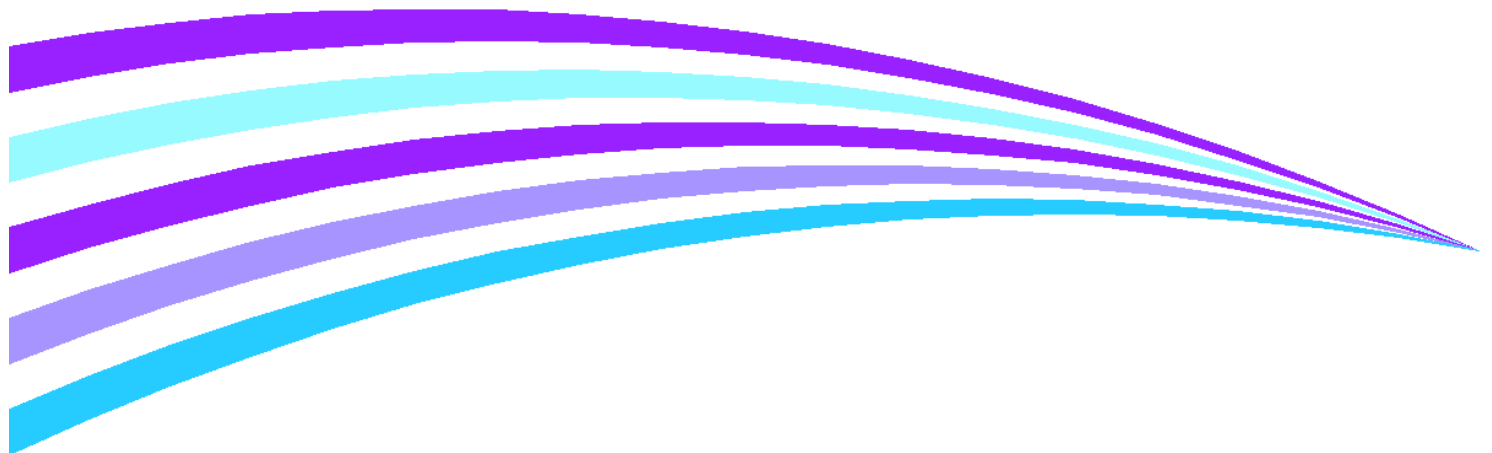


Xerox® Color 800i/1000i Press FreeFlow® Print Server

Statement of Volatility

Version 1.0

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Notice

This document describes the locations, capacities and contents of volatile and non-volatile memory devices within the FreeFlow® Print Server.

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Introduction

This report presents the information regarding the volatile and non-volatile memory contained in the FreeFlow Print Server used on the Xerox Color 800i/1000i Press (Product Code Y8B). The FreeFlow Printer Server is based on Dell PowerEdge T430 with customization on processor, memory, graphic card and custom interface card(s).

The Xerox® Color 800i/1000i Press FreeFlow® Print Server is used to perform the following tasks:

- High Speed Production Printing

The FreeFlow® Print Server is intended to be connected to:

- Xerox Print Engine

- Xerox Print Station Interface Platform ("PC-UI")

These modules provide the basic configuration. Depending on what is purchased, the number and types of feeders and finishers contained in the completed system can change.

This document describes the amounts and types of memory contained in the device in an easy to read tabular format. To allow security issues to be addressed as needed, specific commentary has been included about job data and where Personally Identifiable Information (PII) can be found in the system.

The information contained in this document has been verified at the time the product is released for sale. Manufacturing process changes may require that memory amounts are increased, but the purpose or contents of the memory should not change.

General Memory Information

Volatile Memory

- All volatile memory listed is cleared after power is removed (decay occurs generally within 20 seconds at room temperature).

- All volatile memory listed is required for normal system operation and during service and diagnostic procedures.

- Removal of any volatile memory will void the warranty.

Non-Volatile Memory

All non-volatile memory listed is required for normal system operation and during service and diagnostic procedures.

Removal of any non-volatile memory will void the warranty.

None of the non-volatile memory in the system can be accessed by accidental keystrokes.

System Descriptions

The data tables below detail the information regarding the volatile and non-volatile memory contained in the FreeFlow Print Server used on the Xerox® Color 800i/1000i Press Printer based on Dell PowerEdge T430.

The Free Flow Print Server Digital Front End is a PC-type motherboard and an interface card. It is equipped with a BIOS, main RAM and Video memory.

Volatile Memory				
Type (SRAM, DRAM, etc.)	Size	User Modifiable (Y/N)	Function or Use	Process to Clear:
DDR4 DRAM	48GB	N	System OS RAM to contain executable code. No job data stored here persistently.	Reboot or power down system.
DRAM	30MB	N	CPU cache, 15MB per Processor	Reboot or power down system
DRAM	512MB	N	Video Display memory No job data stored here persistently.	Reboot or power down system
Planar_System CPLD RAM	1 KB	N	Not utilized	Not accessible
Planar_iDRAC DDR	256MByte	N	iDRAC local memory	Power down system
Planar_iDRAC	64 Kbyte + registers	N	Processor cache + registers	Power down system

Non-Volatile Memory				
Type (Flash, EEPROM, etc.)	Size	User Modifiable (Y/N)	Function or Use	Process to Clear:
Planar				
PCH Internal Battery backed CMOS RAM	256Bytes	N	Real-time clock and BIOS configuration settings. No job data stored here.	Through Motherboard jumper settings, OR Remove power; remove battery for 30 seconds
BIOS Password Battery backed CMOS RAM	16Bytes	Y	Password to change BIOS settings	Place shunt on J_PSWD_NVRAM jumper pins 2 and 4.
BIOS SPI Flash	16 MB	N	Boot code, system configuration information, UEFI environment, Flash Disceptor, ME	Not possible with any utilities or applications and system is not functional if corrupted/removed.
iDRAC SPI Flash	4 MB	N	iDRAC Uboot (bootloader), server management persistent store (i.e. iDRAC MAC Address, iDRAC boot variables), lifecycle log cache, virtual planar FRU and EPPID, rac log, System	Not completely user clearable; however, user data, lifecycle log and archive, SEL, FW image repository can be cleared via Delete Configuration and Retire System,

Non-Volatile Memory				
Type (Flash, EEPROM, etc.)	Size	User Modifiable (Y/N)	Function or Use	Process to Clear:
			Event Log	accessible in Lifecycle Controller interface
BMC EMMC NAND Flash	4 GB	N	Operational iDRAC FW, Lifecycle Controller (LC) USC partition, LC service diags, LC OS drivers, USC firmware	Not completely user clearable; however, user data, lifecycle log and archive, SEL, fw image repository can be cleared via Delete Configuration and Retire System, accessible in Lifecycle Controller interface
Internal USB Key	Varies (not factory installed)	Y	General purpose USB key drive	Can be cleared in system OS
LOM EEPROM	8Mb	N	Onboard LOM FW	Not user clearable
Power Supplies				
PSU FW Embedded microcontroller Flash	Up to 2MB	N	Power Supply operation, power management data and fault behaviors	Protected by the embedded Microcontroller. Special keys are used by special vendor provided utilities to unlock the ROM with various CRC checks during load.
5U 8x3.5" Backplane				
SEP internal flash	Flash:32KB+4KB EEPROM: 2KB	N	Firmware + FRU	Not user clearable
H330, PERC				
NVSRAM	128KB	N	Configuration data	Cannot be cleared with existing tools available to the customer
FRU	256B	N	Card manufacturing information	Cannot be cleared with existing tools available to the customer
1-Wire EEPROM	128B	N	Holds default controller properties/settings	Cannot be cleared with existing tools available to the customer
SBR	8KB	N	Bootloader	Cannot be cleared with existing tools available to the customer
Flash	16MB	N	Card firmware	Cannot be cleared with existing tools available to the customer
IDSDM				
SPI Flash	8Mb	N	Exclusively used by the controller	Not user clearable
MCU	512KB	Y	Firmware	Not user clearable
TPM				
Trusted Platform Module (TPM)	128 Bytes	Y	Storage of encryption keys	F2 Setup option

Interface Card:

Non-Volatile Memory				
Type (Flash, EEPROM, etc.)	Size	User Modifiable (Y/N)	Function or Use	Process to Clear:
Flash EEPROM	8MB / 12MB	N	Programmable logic configuration information. No job data stored here. 4 color configuration 8MB 5 color configuration 12MB	Not possible, system not functional if corrupted/removed.

Hard Disk Descriptions

Complete this table if the device has media storage capability

Drive / Partition (System, Image):	Removable Y / N	Size:	User Modifiable: Y / N	Function:	Process to Clear:
System Disk	Y	1TB	N with normal operation	Operating System, Fonts, configuration file storage	Diagnostic Procedure
Image Disk	Y	1TB	N with normal operation	Job Images	Diagnostic Procedure
Image Disk	Y	1TB	N with normal operation	Job Images	Diagnostic Procedure
Image Disk	Y	1TB	N with normal operation	Job Images	Diagnostic Procedure

Additional Information:

The System Disks contain the Solaris Operating System and store executable, fonts, and settings files. During normal operation, job files remain stored on the disk until completed or removed. Under typical system usage job images may also be stored temporarily on the System disk in the Solaris-managed “swap partition”. Images are stored in a proprietary encoded format and fragments of the job data are stored at random locations in the swap partition. Reverse engineering of the swap partition area would be needed to retrieve the encoded image which would then need to be decoded for viewing.

The Image Disks store images in a proprietary encoded format in non-contiguous blocks. User data and image data may be completely erased if optional Disk Overwrite kit is installed and enabled. These disks are cleared using a four-pass algorithm which conforms to U.S. Department of Defense Directive 5200.28-M (DOD Directive 8500.1 supersedes 5200.28M).

NOTE: For even greater security, Xerox provides a “Removable Hard Drive” (RHD) option so that disk drives may be removed from the system and physically secured elsewhere.

Media and Storage Descriptions

Type (disk drives, tape drives, CF/SD/XD memory cards, etc.):	Removable Y / N	Size:	User Modifiable: Y / N	Function:	Process to Clear:
DVD/CD Drive	Y	4.7/8.5 GB	Yes File storage	Backup Device	Destroy media. Overwrite RW media 4.7 – Single-Layer Disc 8.5 – Double-Layer Disc

Additional Information:

Print Jobs can be stored on removable media which can be used to back up or store desired jobs. Once copied to media, that information must be physically secured by the user to prevent data loss.

USB Port(s)	
USB port and location	Purpose
Front of FreeFlow® Print Server: 1 USB 2.0 and 1 USB 3.0 ports	User stores scanned files of job files on Flash Media. Physical security of this information is the responsibility of the user or operator.
Back of FreeFlow® Print Server: 5 USB 2.0 and 1 USB 3.0 ports	User stores scanned files of job files on Flash Media. Physical security of this information is the responsibility of the user or operator.
<p>Additional Information: A number of devices can be connected to USB ports on the FreeFlow Print Server system. Once information has been copied (either as a back-up data set or as a transfer medium), physical security of this information is the responsibility of the user or operator.</p>	