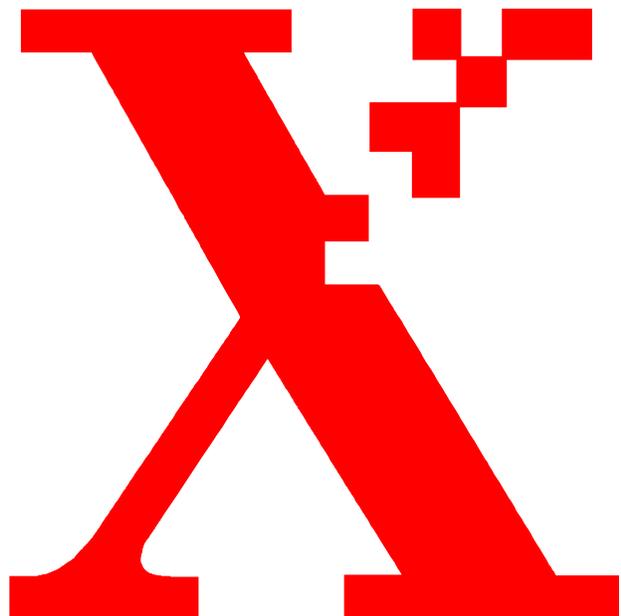


***DocuColor 2045/2060***  
***Printer/Printer Copier***

**IOT SW Download Procedure v6.2.8 MN**

**November 18, 2005**



**Xerox Corporation  
800 Phillips Road  
Webster, NY 14580**

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## Purpose

This procedure is **mandatory** for all system installations and/or software upgrades. The procedure includes directions to upgrade the IOT software, modify NVM to set customer configuration, and provides reference to all system adjustments required at install or after a software upgrade. It is important to follow this procedure to completion even if the software upgrade portion is not required.

**Note:** This procedure is to be used with the Portable Workstation (PWS) with Entry Production Color PWS Diagnostic v3.6 or higher. Install the PWS Diagnostic Tool as required.

**Note:** If this procedure is used in an IIT install, ensure that P/J3B is connected before proceeding. (refer to the installation Procedure Printer/Copier Section 7, for location).

## Procedure

### CAUTION

*Before attempting a software download check the IOT "Error Log" screen under Machine Status. Correct any active communication faults (example: 003-3XX faults). Communication faults may cause software download problems and result in System PWB failures.*

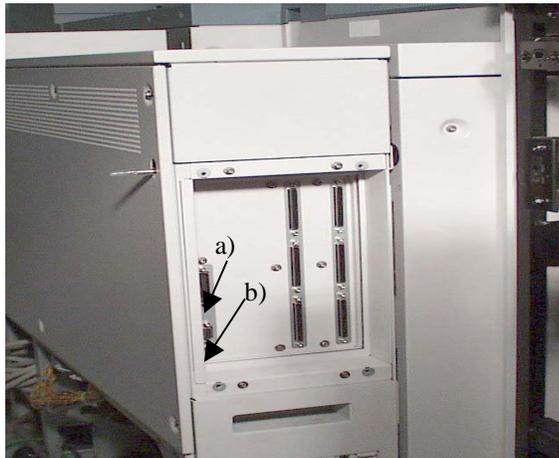
- 1) Refer to the DFE documentation, Follow the DFE Power-Down procedure and power off the DFE
- 2) Switch **IOT power off**.
- 3) To save boot up time during this procedure, all communication cables can be disconnected from the FFIU PWB.

**Note:** With the FFIU disconnected, you will experience 4-311 and other finishing communication faults at power up. When these faults occur, select close to clear the fault and continue with the procedure.

- 4) Check your PWS configuration to prevent Software Download failures:
  - a) Disable all printers to avoid conflicts with the parallel port (LPT1). The printers will have to be reenabled later:
 

**Windows XP/ Win2000:** From the PWS Start menu, select **Settings, Control Panel, Administrative Tools, Services**. Under **Services (Local)** scroll to Print Spooler and double click. In the Print Spooler Properties dialog, set Startup type to "**Disabled**", and select the **Stop** button under Service Status. Select **OK** to close the dialog.

**Windows 98:** From the PWS Start menu, select **Settings, Printers**. For each listed printer, right click on the printer icon to bring up the options menu. Select **Properties** from the menu. Select the "**Details**" tab on the Printer Properties dialog, and confirm that the port is not set to "LPT1". If "LPT1" is specified, change the "Print to the following port" pull-down to "File:". Select **OK** to close the Printer properties dialog.
  - b) Ensure that the screen saver timeout is set to at least 30 minute. Plug the PWS into an AC power source to prevent a loss of battery power during the software download. Right click on PWS desktop in a blank area. Select **Properties, Screen Saver**, set the **wait** time to at least 30 minutes.
- 5) Connect the PWS to the System PWB (figure 1):
  - a) Connect the parallel cable from the PWS to the System PWB. The **Parallel Port Adapter Tool (600T2262)** must be connected between the Parallel cable and the PWS.
  - b) Connect the serial cable from the PWS to the System PWB. If a Customer Service Platform (CSP) is installed, disconnect the serial cable from the CSP. Connect the PWS serial cable directly to the System PWB.



**Figure 1 Connect the Parallel and Serial Cables**

- 6) Switch **IOT power on**. Wait for the machine to come to ready. (**Ready or Warming up – Please wait** message).

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- 7) Using the PWS enter **Diagnostics**. Select **Create New DB**. Use DC Quick to enter **DC131**. Set NVM location **720-019** (Product Code) for XC or XE.
- 8) Insert the DocuColor Multi-Product System SW CD into the PWS.
- 9) Save a NVM Snapshot with customer specific values to restore settings after initialization later in this procedure.
  - a) Select **NVM Access Tool** at the bottom of the **DC Quick** pull down menu.
  - b) Select **Open Script File**. Ensure your CD drive appears in the "Look-in Window".
  - c) Select the **DC2045-2060** and the **scripts** folder.
  - d) Double click to open the **v6.2.8MN DC2045-2060.csv** file.
  - e) Select **Create Snapshot**.

**Note:** Occasional Read Error messages may appear during the Create Snapshot process. This is due to NVM locations that do not exist in the previous software version. These NVM locations will be initialized to default values. Dismiss each error message by clicking the **OK** button on the dialog, and proceed.

- f) Select **Save Snapshot**. The Save NVM Access Snapshot DB window opens with the NVM Access folder as default.
- g) The default file name will include *machine serial number\_date\_IOT SW version\_product*. Select **Save** to save the snapshot file. Select **Yes** to replace the existing file or rename the file as required.
- h) Select **Service Exit, Temporary Closeout, and Exit PWS**. Select **Cancel**. **Do not** save the database backup.
- 10) Select **Machine Status** button on the IOT. Review the Error Log to ensure there are no active System communication faults. Resolve System communication problems before proceeding with the software download.
- 11) Open the two IOT Front Doors and the Toner Access Door. Unlatch the Paper Path Module Green Handle and open the Exit Module Front Door to open the interlocks. **Do not** close the interlocks until instructed to do so after all software files are downloaded.
- 12) Open the **EPC Software Download Tool**.
- 13) In the Machine Information area, select **DC2045-2060** from the **Machine** drop down menu.

**Note:** Do not click **Connect** until the machine returns to the User mode and the **Ready, or Warming up - Please wait**, message is displayed.

- 14) Select **Connect** to open communication with the IOT. The machine does a system reset and then goes into the Download mode. The Machine Information will be available when the connection is complete. If any "Platform" does not feedback a "Current version" a communication problem may exist with that module. Correct all communication problems before attempting a SW download.
- 15) Download the **SYS** Bootloader as required.

**Note:** The System bootloader **does not** need to be downloaded for the v6.2.8 SW upgrade, unless the System PWB was replaced. Go to step 20 and continue with this procedure.

- a) Select **File** and select **Add New**. A Select All Files dialog window will open.
- b) Open the **DC2045-2060** and **upgrade** folders.
- c) Open the **DC2045-2060 IOT v6.2.8E** folder.
- d) Open the **bootloader** folder.

File	File name
Sys Bootloader	S003002a.bin
IOT Bootloader	O200509a.bin

**Table 1. Bootloader files**

- e) Double click on the **S003002a.bin** file. The Select All Files dialog window will close, and the **s003002a.bin** file will appear in the Download File List. **DO NOT** select the IOT Bootloader file too.
- CAUTION:**  
*Before starting Download, verify that the PWS parallel and serial cables are properly connected.*
- f) Click the **Start Download** button. Select **Yes** to continue after confirming the files are correct.
  - g) Click **OK** when the Download completed successfully message box appears.
- 16) Click the **Disconnect** button to disconnect the Download Tool.

**CAUTION**

*The machine may not return to the User Mode (Interlock Open message). If the screen stays blank it is OK. However, do not switch off the machine when the Greeting screen appears, wait for the machine to enter the User Mode (Interlock Open message present).*

- 17) Switch **IOT power off**. Wait 5 to 10 seconds. Switch **IOT power on**. If the Greeting screen appears, wait for the machine to enter the User Mode (**Interlock Open** message) then continue with the procedure. **Note:** If the screen remains blank, after 30 seconds continue with this procedure.
- 18) Right mouse click on the **Download File List** to activate a pop-up menu.
- 19) Select **Delete All** to clear the contents of the Download File List.
- 20) Download the IOT bootloader file as required.

**Note:** For the v6.2.8 SW upgrade, the IOT bootloader **does not** need to be downloaded unless the IOT PWB was replaced. Go to step 24 and continue with this procedure.

- a) Click **Connect** to open communication with the IOT.
- b) Click **File** and select **Add New**. A Select All Files dialog window will open.
- c) Select the CDRom drive in the **Look in** field.
- d) Double click on the **upgrade, DC2045-2060 IOT V6.2.8E**, and **bootloader** folders as required to open.
- e) Double click on the **O200509a.bin** file. The Select All Files dialog window will close, and the file will appear in the Download File List. **DO NOT** select the System Bootloader file.

**CAUTION:**

**Before starting the Download, ensure that the parallel port adapter tool is connected and the parallel and serial cables are properly connected to the PWS and PWB.**

- f) Click the **Start Download** button. Select **Yes** to continue after confirming the files are correct.
- g) Click **OK** when the "Download completed successfully" message appears.
- h) Click the **Disconnect** button to exit the Download Tool.

**CAUTION**

**The machine may not return to the User Mode. (Interlock Open message). If the screen stays blank it is okay. However, do not switch off the machine when the Greeting screen appears, wait for the machine to enter the User Mode (Interlock Open message).**

- 21) Switch **IOT power off**. Wait 5 to 10 seconds. Switch **IOT power on**. If the Welcome screen appears, wait for the machine to enter the User Mode (**Interlock Open** message) then continue with the procedure. If the screen remains blank continue with the procedure.
- 22) Right mouse click in the **Download File List** to activate a pop-up menu.
- 23) Select **Delete All** to clear the contents of the Download File List.

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24) (Figure 2) Download SW files:

**Note:** Do not click Connect until the machine returns to the User mode and the **Ready**, or **Warming up – Please wait**, message is displayed.

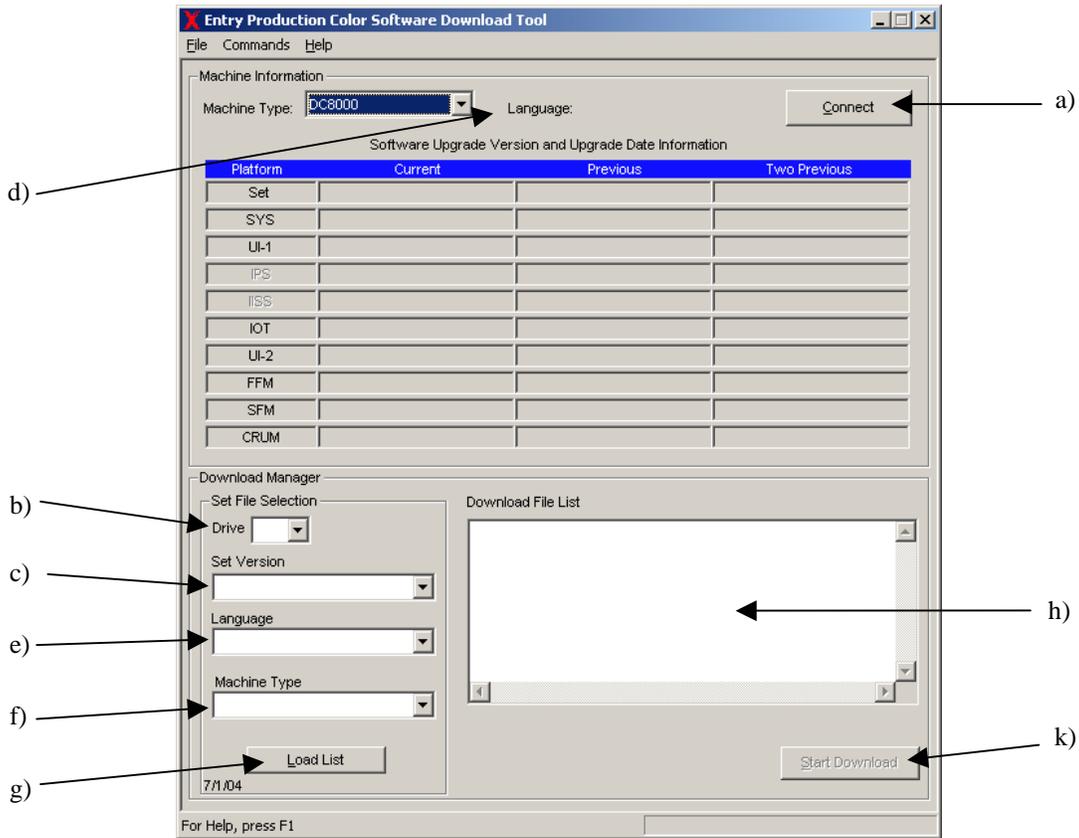
**Note:** The data/information displayed in the figures is for illustration purposes only and should not be used as actual data.

- Select **Connect** to open communication with the IOT.
- Select the CD-ROM Drive by clicking on the **Drive** pull down. Scroll to the drive where the software is located. If the CD-ROM drive letter is already displayed but not highlighted, click on the drive letter to highlight it.
- In the Download Manager section, select the CD-ROM Drive by clicking on the **Drive** pull down. Scroll to the drive where the software is located. If the CD-ROM drive letter is already displayed but not highlighted, click on the drive letter to highlight it.
- Determine the language to be installed. For a machine upgrade, look at the previous language selection under Machine Information on the software download tool. For a new machine installation check the install work sheet for the customer required language.
- Select the **Language** pull-down arrow. Scroll down to the desired language and click on the language to highlight it. If the correct language is displayed, click on the language.
- Select the **Machine Type**. You must **scroll** through the pull-down menu to select the desired machine type. Click the machine type to highlight it. Choose Printer or Printer Copier.
- Click **Load List**.
- The files will be displayed in the **Download File List** window.
- Right click in the **Download File List** to activate a pop-up menu.
- Select **Remove Existing** to delete files that are already loaded. If all files are removed from the list no software needs to be downloaded. Go to step 26 and complete this procedure.

**CAUTION:**

**Before starting the Download, ensure that the parallel port adapter tool is connected and the parallel and serial cables are properly connected to the PWS and PWB.**

- Click **Start Download** to begin the download process. Select **Yes** to continue downloading the IOT files.



**Figure 2 Downloading Software**

25) Click **OK** when the "Download completed successfully message" is displayed.

- 26) (Figure 3): Update the Software Version Number.
  - a) From the menu bar, select **Commands** and select **Version Set**. The Set Version dialog box will open.
  - b) Enter the number of the software version that was just loaded. To enter version 6.2.8, press Tab key, type 6, Tab, Tab, type 2, Tab, Tab, type 8. (06 02 08).
  - c) Click **OK**.

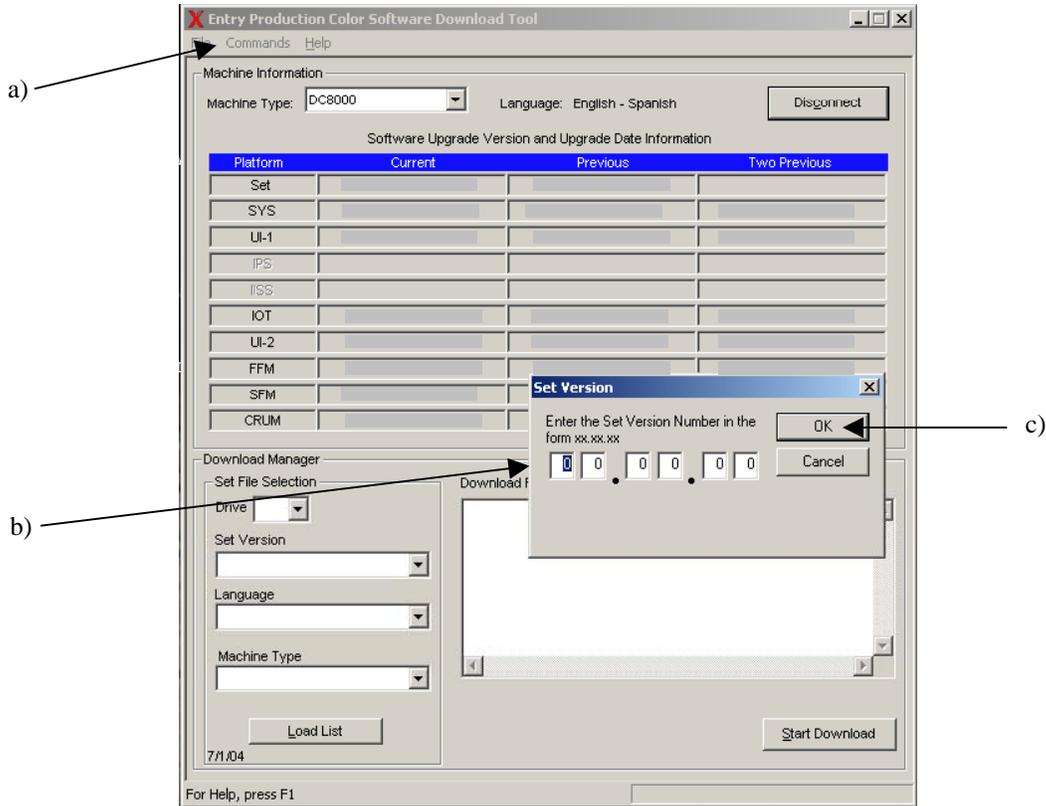


Figure 3. Updating the Software version.

- 27) Select **Commands** and select **Get Version Info**. The Machine Information fields will refresh.
  - 28) Verify that the **Current** field in the **Set Platform** contains **060208**. To verify the individual software components, refer to the Software Release Notes for v6.2.8MN.
  - 29) Click the **Disconnect** button. The machine will return to the Customer Mode (**Interlock Open** message).
  - 30) Select **File** and **Exit** to Exit the Download Tool.
- Note:** A fault code 2-345 may appear. Ignore the fault and proceed with next step.
- 31) Switch **IOT power off**. Wait 15 seconds. Switch **IOT power on**.
  - 32) Wait for the machine to enter the User Mode (**Interlock Open** message). Enter **DC2045-2060 Diagnostic**. Select **Create New DB**.
  - 33) Use the **DC Quick** pull down menu to select **DC 131 NVM Read Write**. Use the Quick ID to enter the NVM locations in table 2. Highlight the NVM from the list. Enter the appropriate value and select **Write NVM**.

Chain-link	Value	Description
700-075	1	Auto Tray Switching. Go into tools mode to enable ATS.
700-077	2	XC DC2060 Greeting Display
	2	XC DC2045
	3	XE DC2060
	3	XE DC2045
700-082	0 = 2045	Greeting Scene
	1 = 2060	
700-086	XC = 0	Reduction/Enlargement Preset 1
	XE = 0	

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Chain-link	Value	Description
700-087	XC = 3 XE = 4	Reduction/Enlargement Preset 2
700-088	XC = 5 XE = 8	Reduction/Enlargement Preset 3
700-089	XC = 13 XE = 14	Reduction/Enlargement Preset 4
700-090	XC = 18 XE = 18	Reduction/Enlargement Preset 5
700-091	XC = 20 XE = 20	Reduction/Enlargement Preset 6
700-100	0 0 0 0 0 0 2 2 3 7	English-Japanese English-Spanish English-French English-Italian English-German English-Portuguese English-Dutch French- German French-Dutch German-Italian Dutch-German
700-101	1 5 2 4 3 6 7 3 7 4 3	English-Japanese English-Spanish English-French English-Italian English-German English-Portuguese English-Dutch French- German French-Dutch German-Italian Dutch-German
700-102	0 = Heavy 1 = Light <b>2 = Auto</b>	Paper Environment
700-105	0 = mm/dd/yyyy 1 = dd/mm/yyyy 2 = yyyy/mm/dd	Date Format
700-106	0 = 12 hour 1 = 24 hour	Time Format
700-111	0 = TKO Off 1 = TKO On	<b>Note:</b> Set TKO to 0 (off) until TKO training is complete.
700-905	0 = Fx (Fuji Xerox) 1 = AP (Asian Pacific) 2 = XC (NASG) 3 = XE (Xerox Europe) 4 = other	Market Code
700-916	0 = 45 1 = 60	SFIDA Classification
719-002	XC = 2 XE = 3	Scanner Market
720-019	0 = XC 60 1 = XC 45 2 = XE 60 3 = XE 45 15=mfg setting	Product Code
720-024	0=FX 1=AP 2=XC 3=XE 4=other	Market Information
720-071	XC = 0 XE = 1	APS Priority (inch/metric)
720-072	0 = 5 mm 1 = 0 mm	Repeat Margin Setting
720-073	2 = 4 mm	Paper Edge Erase Setting

Chain-link	Value	Description
720-074	XC= 4 XE = 6	APS Table select
720-197	0 = Off 1 = On	Disable DFE for FID
720-954	0 = Off 1 = On	Suppress Delete All Jobs command from DFE. Set to 1.

Table 2 NVM Values for initialization

- 34) Use the **DC Quick** pull down menu to select **DC301** NVM Initialize.  
 35) Initialization of All Subsystems:

**CAUTION: Do not initialize All PWBA's.**

- a) Select **Select All Subsystems**.
  - b) Select **Start** to Initialize. Select **Yes** to confirm.
- 36) Select **DC132** Serial Number Setting. Observe the PWS screen display for serial number of the PWBA's. If all 3 PWBA's display the correct serial number, no action is required. If any PWBA serial number is different, follow the on screen instructions to set the serial numbers.
- 37) Select **Service Exit, Temporary Closeout**.
- 38) After the Customer Screen (**Interlock Open** message) appears, switch **IOT power off**. Wait 15 seconds. Switch **IOT power on**.
- 39) **Copier only:** Enable the IIT and the DADF:
- a) **IIT enable.** Select **Reconnect** on the PWS. Enter **DC131, 720-049** and change the NVM Value to 1 = Copier.
  - b) Select **Service Exit, Temporary Closeout**.
  - c) The machine will return to the User Mode (**Interlock Open** message). Switch **IOT power off**, wait 15 seconds and switch **IOT power on**.
  - d) Select **Reconnect** on the PWS.
  - e) **DADF enable** Enter **DC131, 715-125** and change the NVM value to 1 DADF.
  - f) If this procedure is being performed as part of a Copier install or a Printer to Copier upgrade, select **DC355** (Hard Disk Diagnostics) and Setup (Format) Hard Disks, otherwise proceed to step 40.
    1. Select Diag Type: **Setup (Format)** to format the Hard Disks (Select all 4 partitions at once.) Select **Yes** to delete files.
    2. Select **Check Status** and **Start**. Check the Hard Disk Results for each Hard Disk.
- 40) Restore NVM snapshot saved earlier.
- a) Select **Reconnect** on the PWS if required.
  - b) Select **NVM Access Tool** at the bottom of the **DC Quick** pull down menu.
  - c) Select **Open Snapshot**.
  - d) Select the appropriate file from the NVM Access Folder. Confirm the machine serial number and date of the file.

**Note:** If you have changed Product Codes the entire Serial number will not match but the snapshot can be restored.

- e) Confirm you are in the **NVM Access** folder for the DC2045-2060 Diag Tool. Observe the machine serial number and date and select the appropriate file. Select **Open**.
- f) Select **Restore Snapshot**.

**Note:** Occasional Write Error messages may appear during the Restore process. This may be due to previously defined NVM values that are no longer valid for the new software version. These NVM locations will be reset to default values. Dismiss each error message by clicking the **OK** button on the dialog, and proceed.

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- 41) If this is an initial install, input the values from Table 3. From the **DC Quick** menu, select **DC 131 NVM Read Write**. Use the **Quick ID** to enter the NVM locations. Select the NVM from the list. Enter the appropriate value and select **Write NVM**.

Table 3 Initial install – NVM Values

Chain-link	Value	Description
720-065	0= Off 1 = On	ESPV Bit Exists (CSP enable)
720-197	0 = Off 1 = On	Disable DFE for FID
740-016	0 = Off 1 = On	FFIU PWB Enable
740-042	2	2 <sup>nd</sup> BTR Cleaning Cycle
740-044	0 = Off 1 = On	DFA Enable
742-001	100	Tray 1 Feed Start(64-80gsm)
742-002	100	Tray 1 Feed Start(81-105gsm)
742-003	100	Tray 1 Feed Start(106-135gsm)
742-004	100	Tray 1 Feed Start(136-150gsm)
742-005	100	Tray 1 Feed Start(151-220gsm)
742-006	100	Tray 2 Feed Start(64-80gsm)
742-007	100	Tray 2 Feed Start(81-105gsm)
742-008	100	Tray 2 Feed Start(106-135gsm)
742-009	100	Tray 2 Feed Start(136-150gsm)
742-010	100	Tray 2 Feed Start(151-220gsm)
742-060	100	Tray 3 Feed Start(64-80gsm)
742-061	100	Tray 3 Feed Start(81-105gsm)
742-062	100	Tray 3 Feed Start(106-135gsm)
742-063	100	Tray 3 Feed Start(136-150gsm)
742-064	100	Tray 3 Feed Start(151-220gsm)
742-065	100	Tray 3 Feed Start(221-280gsm)
742-066	100	Tray 3 Feed Start(Transparency)
742-071	100	J-TraDuplex Feed Timing
742-390	999	Fuser Index
744-026	0	Fuser Latch Up Timing
746-631	83	2 <sup>nd</sup> BTR Transfer
746-632	66	2 <sup>nd</sup> BTR Transfer
746-633	66	2 <sup>nd</sup> BTR Transfer
746-634	66	2 <sup>nd</sup> BTR Transfer
746-635	83	2 <sup>nd</sup> BTR Transfer
746-636	83	2 <sup>nd</sup> BTR Transfer
746-637	83	2 <sup>nd</sup> BTR Transfer
746-638	83	2 <sup>nd</sup> BTR Transfer
746-639	83	2 <sup>nd</sup> BTR Transfer
746-640	83	2 <sup>nd</sup> BTR Transfer
746-641	83	2 <sup>nd</sup> BTR Transfer
746-642	66	2 <sup>nd</sup> BTR Transfer
746-643	66	2 <sup>nd</sup> BTR Transfer
746-644	66	2 <sup>nd</sup> BTR Transfer
746-645	83	2 <sup>nd</sup> BTR Transfer
746-646	83	2 <sup>nd</sup> BTR Transfer
746-647	83	2 <sup>nd</sup> BTR Transfer
746-648	83	2 <sup>nd</sup> BTR Transfer
746-649	83	2 <sup>nd</sup> BTR Transfer
746-650	83	2 <sup>nd</sup> BTR Transfer
746-856	81	2 <sup>nd</sup> BTR Transfer
746-857	78	2 <sup>nd</sup> BTR Transfer
746-862	78	2 <sup>nd</sup> BTR Transfer
760-012	w/out TAG 4 – 3100 with TAG 4 – 1200	MOB V Target
760-071	25557	Time Setting
760-072	5=2005	The year at the time of setup

Chain-link	Value	Description
760-073	X	Enter the number of the month at the time of setup
760-074	X	Enter the date at the time of setup
760-075	X	Enter the day at the time of setup: 0 = Sunday 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday
760-076	X	Enter the hour at the time of setup
760-083	w/out TAG 4 set to 2 with TAG 4 set to 1	MOB Selector

- 42) Initialize HFSI Counters and Threshold values. Select **DC135** HFSI Counters. Select the **Mismatched Thresholds** tab. If any item appears in the Mismatched Thresholds list select each entry and select the **Set to Default** button.
- 43) Select **Service Exit, Temporary Closeout, Exit PWS**. Select **Cancel**. **Do not** save the Machinedata backup. The machine will return to the User Mode (**Interlock Open** message). If it does not, it is OK.
- 44) Switch **IOT power off**.
- 45) Latch the Paper Handling Drawer Green Handle; close the IOT, Toner Access, and Output Module Door.
- 46) Re-connect the HCS communication cables to the FFIU PWB and the CSP cables to the System PWB if they were disconnected earlier in this procedure.
- 47) Switch **IOT Power on**. Use the **Call Close Out Procedure** to run the system in various modes to verify the machine operation.
- 48) Perform system adjustments as required at system install or due to NVM initialization.
  - a) Adj 7.4 Paper Path Feed Timing
  - b) Adj 7.1 AC (Auto Color) Registration Setup.
  - c) Adj 7.3 Image Skew
  - d) Adj 7.2 Image Registration
- 49) **Copier Only:** Refer to the DocuColor Service EDOC Section 3.2 Image Quality Specifications. Make prints of the 8-1 PH-REG pattern and check the Geometric Specifications. Perform the following as required.
  - a) IIT Horizontal/Vertical Magnification (ADJ 6.4)
  - b) IIT Lead Edge Registration (ADJ 6.2)
  - c) IIT Side Registration (ADJ 6.3)
  - d) DADF Side Registration (ADJ 5.1)
  - e) DADF Lead Edge Registration (ADJ 5.5)
- 50) Record the NVM values specified in the Critical NVM List and leave a copy in the Right Front Door of the machine.
- 51) Perform the Max Setup using the procedure provided in the DC2045-2060/upgrade System Software CD.

**Note about MaxSetup:** It is necessary to complete MaxSetup due to changes in default settings of several Xerographic NVMs. Failure to complete the setup will result in changes to the customer print quality and/or print quality instability.

- 52) Re-enable the Printers disabled in step 4):

**Windows XP/Win2000:** From the PWS Start menu, select **Settings, Control Panel, Administrative Tools, Services**. Under Services (Local) select **Print Spooler**. In the Print Spooler Properties dialog, set Startup type to **"Automatic"**, and select the **Start** button under Service Status. Select **OK** to close the dialog.

**Windows 98:** From the PWS Start menu, select **Settings, Printers**. For each listed printer, right click on the printer icon to bring up the options menu. Select **Properties** from the menu. Select the **"Details"** tab on the Printer Properties dialog, and for any printers changed previously, change the "Print to the following port" pulldown from "FILE:" to "LPT1". Click on **OK** to close the Printer properties dialog.