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Trendsetter NEWS

TMCE to GMCE Upgrade Procedure

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A	Dec 13, 2006	Andrew So	Initial Draft
B	Mar 30, 2007	Andrew So	Updated procedure based on feedback from the field

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1. OVERVIEW

This document describes the procedure for installing and configuring all the different pieces of hardware, software, and firmware required to upgrade a Kodak® Trendsetter® NEWS™ platesetter with a TMCE ("turbo" master control electronics) board to a Trendsetter NEWS with a GMCE (gigabit master control electronics) board.

2. PRE-REQUISITES

Before starting to perform the upgrade, ensure that the following pre-requisites are met:

- Customer dongle and CTP feature license file obtained
- Minimum workstation hardware requirement:
  - Dell™ Optiplex™ GX620 with 2 GB of RAM (NEWS 50, 70, 100, and 150)
  - Dell PowerEdge™ 2800 with 2 GB of RAM (NEWS 200)

3. PARTS REQUIRED

In order to perform this upgrade, you need the following parts.

For Trendsetter NEWS 50, 70, 100, and 150: (order price book p/n 017-00698A)

- TMCE-to-GMCE upgrade kit for Trendsetter NEWS 50 through 150 (518-02088A)
- Intel® Pro/1000 MT network card
- GMCE Trendsetter Controlled Release CD version 2.2 or later
- Kodak Prinergy® Evo™ software installation CD

For Trendsetter NEWS 200: (order price book p/n 017-00699A)

- TMCE-GMCE upgrade kit for Trendsetter NEWS 200 (518-02090A)
- Intel Pro/1000 MT network cards (2 required)
- GMCE Trendsetter Controlled Release CD version 2.2 or above
- Prinergy Evo software installation CD

4. REFERENCE DOCUMENTS

- Controlled Release readme/release notes document (available from the CR CD or TechPlanet)
- *GMCE Intel Pro/1000 MT Server Adapter Installation, Configuration and Testing* (719-00735A)

- *Prinergy Evo Installation Guide* (731-00182B)

5. UPGRADE PROCEDURE

5.1 Backing Up the TMCE Board's NVS Parameters

Important! You must backup the NVS parameters on the TMCE board before removing it.

1. In Service Shell, run the **FirmwareUpgrade** script and select the **Backup NVS** option. The script creates a binary and text backup of the NVS parameters.
2. Open the NVS text file (the file name ends with _**dump.nvstxt**) and write down the values of the following parameters:
   - `set debris`
   - `set prd SerialNumber`
   - `set prd CustomerName`
   - `set prd CanBaud`

5.2 Upgrading the Main TMCE Board

1. Use the on/off power switch to turn off power to the Trendsetter NEWS output device.
2. Turn off the main air pressure valve on the Trendsetter NEWS device.

   NOTICE: The TMCE board is very static-sensitive. Wear an antistatic wrist strap plugged into the grounding socket on the frame of the output device.
3. Disconnect all the cable connections from the TMCE board.
4. Disconnect the pressure sensor connection from U74 on the TMCE board.
5. [If a UDRC is installed] Disconnect the vacuum sensor connection from U67 on the TMCE board.
6. Remove the SCSI cable and the two serial cables from the Trendsetter output device.
7. Disconnect the CAN bus cable (10-4831) from J13 of the PDB board and remove the cable from the Trendsetter device.
8. Remove the TMCE board from its mounting.
9. Install the GMCE board and secure it with the mounting screws, taking care to ensure that no cables are stuck behind the board.

10. Reconnect the following cables to the GMCE board:
    - Hotlink cable (TH1: 10-4849; TH2: 10-5057) to J1
    - Thermal head control cable (TH1: 10-5086; TH2: 10-4848; NEWS 200: 10-5010) to J2
    - Engine sensor cable (10-5103) to J6
    - Debris adapter cable (10-5008) to J5
    - Engine sensor cable (10-5102) to J4
    - Solenoid drive cable (10-4845) to J10
    - Operator interface cable (10-4994) to J16
    - Carriage control cable (10-4834) to J26
    - Drum drive amplifier cable (10-4844 or 220-00884) to J35
    - CAN bus PDB cable (220-01689A) to J8 of GMCE board and J13 of PDB
    - Drum encoder cable (NEWS 50–150: 32-4130; NEWS 200: 10-5011) to J20
    - UDRC adapter cable (220-01701A) to J24. In addition, connect the 8-pin connector at the other end to cable 10-5008.
    - Frame temperature sensor cable (10-4846) to J30
    - Ballscrew temperature sensor cable (10-4847) to J46
    - CAN bus cable (10-4833 or 220-01861A NEWS 200) to J7
    - Load ramp sensor cable (10-4863) to J12 – for dual plate machines only
    - Plate flyoff sensor cable (10-4978) to J19
    - UDRC communication cable (DB9 connector of 10-5008) to J38

    See **Figure 1** for the locations of connectors.

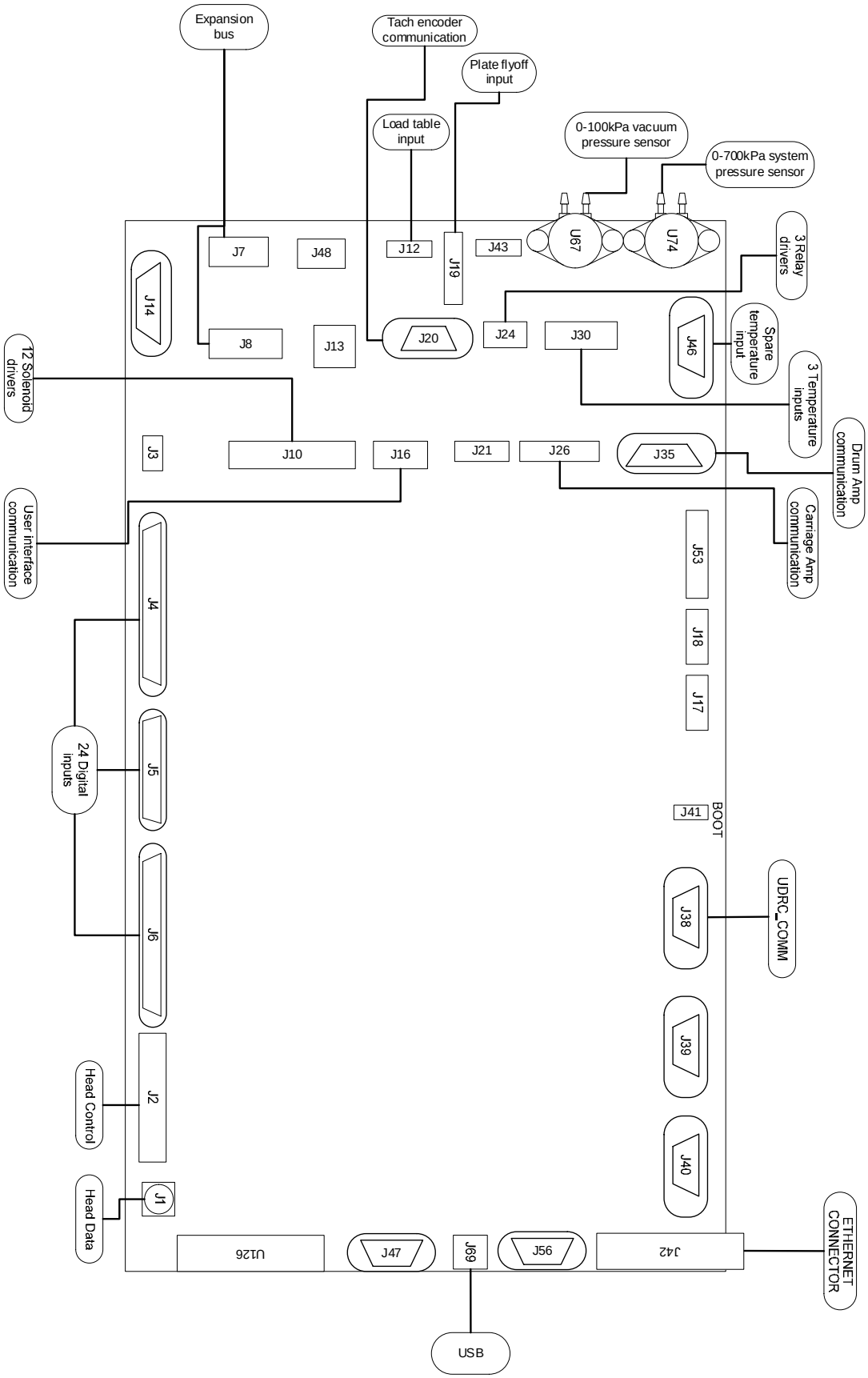


Figure 1: GMCE board connections

11. Reconnect the clear air tube to system pressure sensor U74.
12. Reconnect the blue vacuum tube to vacuum sensor U67.
13. Route the Ethernet cable into the power box and connect it to J42 on the GMCE board.
14. Connect the UDRC relay (220-01703A) to the 3-pin connector on cable 220-01701A. Mount the relay on the back wall of the power box.



Figure 2: Mounting location of UDRC relay

5.3 Upgrading the Slave TMCE board (NEWS 200 only)

1. Disconnect all the cable connections from the slave TMCE board.
2. Remove the SCSI cable, serial cable and CAN bus cable (10-5036) from the Trendsetter output device.
3. Remove the TMCE board from its mounting.
4. Install the GMCE board and secure it with the mounting screws, ensuring that no cables are stuck behind the board.

5. Reconnect the following cables to the GMCE board:
   - Hotlink cable (10-5099) to J1
   - Head control cable (10-5009) to J2
   - Home side sensor jumper cable (10-5076) to J6
   - Cooling fan cable (220-00740) to J21
   - Carriage jumper cable (10-5075) to J26
   - CAN bus cable (220-01861A) to J8
   - Temperature sensor cable (220-00576A) to J30
   - Drum encoder cable (10-5011) to J20
   - CAN bus cable (10-4833) to J7
6. Route the Ethernet cable into the power box and connect it to J42 on the GMCE board. Be sure to mark the cable so that you can distinguish which cable is for the master GMCE and which one is for the slave GMCE.

5.4 Installing the Gigabit Ethernet Adapter

Below is the basic procedure on setting up the Ethernet adapter on the workstation. For details, refer to the *GMCE Intel Pro/1000 MT Server Adapter Installation, Configuration and Testing* document (719-00735A).

1. Right Click on **My Computer**, select **Manage > Device Manager** and uninstall the Digi Serial Adapter and SCSI Adapter that is used for the TMCE connection.
2. Shut down the workstation.
3. Remove the Digi Serial Adapter and Adaptec SCSI Adapter from the workstation.
4. Install the network adapter (or adapters) in the available PCI-X slot (or slots).
5. Start the workstation. When the Add Hardware Wizard appears, click **Cancel**.
6. Insert the controlled release CD, and from the **\GBE_Drivers\Intel Pro 1000 MT Desktop Adapter** folder, run the **PRO2KXP_V10_1.exe** file.
7. Follow the instructions to install the driver.
8. After the driver installation is complete, from the Windows **Start** menu, select **Settings > Network and Dial-up Connections**, and right-click on the newly installed Gigabit Ethernet connection. From the pop-up menu, select **Rename**, and type **`GMCE Connection`**. For NEWS 200, rename the second Gigabit Ethernet connection to **`GMCE2 Connection`**.
9. Right-click on **GMCE Connection** and select **Properties**.

10. On the **General** tab, select **Internet Protocol (TCP/IP)** and click on **Properties**.

11. Select the **Use the following IP address** button, and in the **IP address** text box, type: **`192.168.100.209`**

    In the **Subnet mask** text box, type:

    `255.255.255.128`.

    Leave the **Default gateway** text box blank.

    Click **OK** to apply the settings.

    Note: Consult with the customer's IT department about the above IP addressing scheme to ensure that there is no conflict with their network. Choose a different addressing scheme if there is a possible conflict. Consult *GMCE Intel Pro/1000 MT Server Adapter Installation, Configuration and Testing* document (719-00735A) for details.

12. Under **Components checked are used in this connection**, select **Internet Protocol** and clear all other check boxes. Select **Show icon in taskbar when connected**. Click **OK** to apply the settings.

13. Right-click on **GMCE Connection** and select **Properties** again.

14. Click the **Configure** button and select the **Advanced** tab. Select **Jumbo Frames** and set the size value to **`9014 Bytes`**.

    Select the **Power Management** tab and clear both check boxes.

    Click **OK** to apply the settings.

15. [For NEWS 200 only] Right-click on **GMCE2 Connection** and repeat steps 10-14, using the static IP address **`192.168.101.209`** and subnet mask **`255.255.255.128`**.

16. From the Network Connections control panel's **Advanced** menu, select **Advanced Settings**.

17. On the **Adapters and Bindings** tab, make sure that the connections are listed in the following order:

    - Local Area Connection
    - GMCE Connection
    - GMCE2 Connection (if applicable)
    - Remote Access connections

    If they are not in the above order, use the arrow buttons to the right of the Connections list to rearrange them.

    Click **OK** to apply the settings.

18. Reboot the workstation to apply the new network configuration.

5.5 Installing the Controlled Release

1. Insert the controlled release CD and run the **CRInstaller.exe** file. Follow the instructions to install the controlled release. Refer to the controlled release readme/release notes document for details.
2. If you changed the IP address in section 5.4 to avoid a local network conflict, be sure to update the address in **<system drive>:\creo\firmware\creobootp.ini** before proceeding.

5.6 Converting the NVS Backup

1. Copy the TMCE binary NVS RAM file (file name ends with _**ram.nvsbin**) stored in the **serviceshell\firmware** directory to the product firmware directory (e.g. **\Creo\Firmware\Trendsetter GMCE 1.xx.xx**).
2. Open the DOS Command Prompt window and change to the above directory.
3. Run the NVS conversion utility by typing:

   `nvsconvert <MCE binary nvs RAM filename> GMCENVS00.bin`

   The utility converts the MCE NVS binary to a GMCE compatible NVS file named **GMCENVS00.bin**.
4. Copy the converted NVS file to the **\Creo\Firmware** directory. Reset the GMCE. The bootp server automatically picks up the new NVS values and downloads them to the GMCE board.
5. For NEW 200, run the NVS conversion utility on the slave TMCE NVS binary by typing:

   `nvsconvert <MCE binary nvs RAM filename> GMCENVS01.bin`

   Copy the converted NVS file named **GMCENVS01.bin** to the **\Creo\Firmware** directory. Reset the GMCE.
6. In Service Shell, manually type the parameters recorded in step 2 of section 5.1. (These parameters cannot be migrated automatically.)

5.7 Installing the Prinergy Evo TIFF Downloader Software

With Print Console 4, the TIFF downloading capability has moved to Prinergy Evo. Follow the procedure included in the *Prinergy Evo Installation Guide* (731-00182B) to install the Prinergy Evo software.

5.8 Migrating Print Console 3.x Settings to Print Console 4 and Prinergy Evo

1. Install the PC Migration Exporter utility from **\Creo\ControlledRelease\Trendsetter GMCE CR 2.2\651-00656-X-X\PrintConsole\PCMigrationExporterSetup.exe**.
2. Run the exporter tool **MigrationExporter.exe**, located in the **\Creo\PCMigration\Bin** folder, to export the Print Console 3.x settings to an XML file.
3. Run the importer tool **MigrationImporter.exe**, located in the **\Creo\PrintConsole4\Bin** folder, against the XML file to migrate the settings into Print Console 4.
4. Run the Prinergy Evo importer tool **PrintConsoleConfigImportTool.exe**, located in the **\Program Files\Creo\Prinergy Evo 3.x.x.x\Bin** folder, against the XML file to migrate the print setups and hotfolders to Prinergy Evo.

6. TESTING THE UPGRADE

1. Start Print Console and verify that all plate sizes defined in Print Console 3.x are available.
2. Start the Prinergy Evo client software and ensure that the print setups are properly migrated to the Prinergy Evo process templates.
3. Send a test job through a Prinergy Evo Process template and output a test plate to confirm functionality.

7. SHIPPING THE TMCE BOARD BACK TO SERVICE STOCK

Arrange to ship the good TMCE board back to the local service stock.