Release notes

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Software Version 3.61.02
Lotem 800 (Fiber Head / SC / DLC / MCU)

creo™ | Lotem CTP family

Lotem 800 Version: 3.61.02



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Overview

This Release Notes document describes the changes and additions made to the Lotem 800 Family version 3.61.02 (634-00067A) since versions Lotem 800 Fiber Head (FH) - 3.60.09.
These Release Notes *only* relate to the Fiber Head platesetters.

- For Lotem Quantum platesetters, see Release Notes, version 3.70.05.
- For Quantum platesetters with MCU, see Release Notes version 3.60.09.



When upgrading the platesetter to MCU, first load the software version 3.61.02 to single cassette configuration (for testing only) before installing the MCU. After making sure that it works correctly, install the MCU and then load the software for multi-cassette configuration.

Highlights

- Drum runaway problem related to encoder has been addressed. The following error message will appear: **Drum Emergency System**.
- Strobe 7 grid dimension correction (performed on production line only)

Prerequisites for Loading Version 3.61.02

Lotem 800 FH version 3.20.01 or 3.60.09

- New Loading system
- Brisque software version 4.0.97, update 17-23
- MCF Comp level P (part number 503C2L166P)
- Windows 95 Operating System, version 2.0 – 510V51689A
- Internet Explorer 5.5 (for remote support)

Loading Lotem 800 Software Version 3.61.02

- To load Lotem 800 software version 3.61.02 (634-00067A), see Appendix A.

Lotem 800 version 3.61.02 versus Lotem 800 FH version 3.60.09

New Features

1. Supports Paper Disposal Warning Light. (on platesetters with MCU)
2. New feature in the Brisque - Sort Plate Sizes in the Queue for Multi-Cassette Unit (see Appendix B).
3. Some new parameters were added to the registry. New parameters were added for 0.15 plate, allowing for more efficient separation)

   The new parameters are as follows:

   - 0.4 plate — Y Movement Rel For 0.4 plate [mm] = **0**
     X Backward Rel For 0.4 plate [mm] = **22.3**
   - 0.3 plate — Y Movement Rel For 0.3 plate [mm] = **0**
     X Backward Rel For 0.3 plate [mm] = **27**
   - 0.2 plate — Y Movement Rel For 0.2 plate [mm] = **0**
     X Backward Rel For 0.2 plate [mm] = **19**
   - 0.15 plate — Y Movement Rel For 0.15 plate [mm] = **42**
     X Backward Rel For 0.15 plate [mm] = **16**

   No collisions occur between the loading system (tweezers) and the Lotem frame, even with a fully loaded upper tray.

   During plate separation, the existing method of calculating **X for backward** has been modified.

   The new calculation does not apply to plates with a thickness of 0.3, 0.2 and 0.4. The calculation still utilizes the **old** default values.

   The modifications affect plates with a thickness of 0.15. A new movement has been added: **Y Up for 0.15**.
4. The service engineer password has been changed to **Creo**. The expert password remains **lotempro**.
5. The default value of the paper disposal parameter **Others>LOTEM800V>IO OBJECTS>Paper Disposal Solenoid>Hold Current [mA]** has changed from 1300 to **1700**
   - During the installation process the paper disposal parameter is set to its default value.
6. To open the conveyor, amend the following parameter values from 0 to **1**:
   IO Object>local3>dc motors>unload conveyor motor
   IO Object>local3>detector>unload conveyor detector
7. For conveyors without encoders, change the value of the following parameter to **0**:
   LOTEM800>IO OBJECT>Loading System>Unload plate>Second conveyor motor speed
8. Supports conveyor speed types. Choose from either fixed speed or variable speed (default).

   Cannot be implemented on Local2 platesetters.
   - To set the variable speed do the following:
     Others>LOTEM800V>IO OBJECTS>Loading System>Unload Plate>Is Conveyor with Encoder Installed [FALSE =0, TRUE=1]
     (default = 1)
   - To adjust the speed, do the following:
     Loading System>Loading System>Unload Plate>First Conveyor Motor Speed = 5
     Loading System>Loading System>Unload Plate>Second Conveyor Motor Speed = 0.5
     The recommended speed increments are 0.5 mm / sec
9. Edge detection is now supported.
10. A new option for operating the punch more than once has been implemented:
    Loading System>Loading System>Load Plate>From Punch Entry To Drum Entry Stage>Times to repeat Do Punch (default = 1)

11. Supports GTO unload arm for unloading GTO plates. Two new detectors were added:
    - GTO unload arm HP detector
    - Plate on unload detector
12. Diagnostic application now supports:
    - Lotem with strobe 5
    - DDB test with VLSI configuration
    - Support Lotem VL.

Solved Problems

1. If you open the rear/front door via the solenoid dialog and then click **Stop**, you no longer receive the **Shut down the application** debug error message.
2. When the diagnostic application is running, a debug message somtimes appears when the application is closed. In order to avoid a PC crash, press **Ignore** and the application will close without any problems.
3. The **Loading System >Loading System>Side2Side End Check pos mm** parameter always has a value of 187, even though there are platestters for which this value is incorrect. The 187 value should not destroy the previous one (Delkey change). In case of problems arising from platestters without a registry at all, 187 will be the default. If as a result, you have problems with a new plate or the side to side process change the value of the parameter to **177**.
4. **LOTEM800V>IO OBJECTS>Punch Motors # (1-10)>Width Pos (mm)** has been changed to **50**. This **Punch System Is Not Available** error message no longer appears when the value is set to a a number greater than 45.
5. Lotem Controller no longer freezes when Drum motor speed is activated while performing load/unload grippers.
6. You no longer receive an error message if the paper disposal detector is covered and you are trying to replace the tray.
7. The cassette area protection for DLC problem has been resolved.
8. Strobe 7 correction.
9. Drum Emergency fix related to Low Speed detector.
    - If the drum is turning and suddenly there is a problem in the slave sproc or encoder problem, the drum will stop after 10 seconds and an error message is displayed.
    - If the drum is turning and suddenly there is a fly off or vibration error, the drum will slow down to 100 rpm immediately (~ 3 sec) and then decelerates until it stops.
    - There is no drum run away from low speed (no acceleration).
10. Solved problem of the parameter **width start image area**.
11. Includes a new patch for version 3.60.09.
    The patch enables the ability to control separation movements of loading system, per plate thickness.
12. **Drum Time Out** - SW workarounds for the false exceptions: Drum Time Out and Carriage Time Out.
13. Includes patch “unload motor”- synchronize with drum motor speed.
14. There is no longer a drum speed limitation when connecting remotely to the PC Controller. You can monitor the Expose job.

Known Problems

1. The two detectors, **Home** and **End Position Gripper**, will not function if they are in the same state - (ON /OFF). When this occurs, movement of Drum is not permitted. The system only identifies this problem in Start Up mode.
2. In the Brisque, when you select the **calculate all point** option from the Calibration table and then save the database/ res-intensity, the intensity and drum speed will be incorrect.
3. In the Loading System dialog, option **D** (paper disposal) is unavailable.
4. Activating a DDB test from the **diag** application causes Lotem Controller to take a significantly longer time to start up (~7 minutes).
5. **LOTEM800V>IO OBJECTS>PUNCH CARDS>Punch Card>SPIRAL MOTOR>Punch Spiral Motor>Min Pos App Value** changes from 1 to **0**
   Solution: change the value from 0 to **1**
6. On Local 3 revision A machines, set **Det latch fly-off indicator detector** to active state **1**
   On Local 3 revision B machines, set **Det latch fly-off indicator detector** to active state **0**
7. After installing the version on the strobe 5 configuration, the **incorrect grid fill** error message is displayed. Click **OK** and restart the application.
8. After installing the version and opening the application for the first time, the **incorrect grid fill** error message is displayed. Click **OK** to continue.
9. When installing the version, the **unable to convert data base files** error message is displayed.
10. The detectors **Lens air filter**, **Lens air vacuum** are open in the registry but **Debris removal** is closed. All three should be either set to **all open** or **all closed**.
11. When opening Lotem Controller for the first time, the **illegal parameters read form grid file - write and reload a default grid?** error message is displayed. Click **OK** several times.
12. For the Lotem 800 VL, manually modify the following parameters:
    - **Balance system>balance weight mass**. Change the default value from 707.16 to **735**.
    - **Tail gripper total mass**. Change the default value from 1722.7 bto **1770**.
    - **Strobe card>max height expose size**. Change the default value from 1150 to **1170**.
13. In the Strobe correction table, all the correction values are in the database:
    Lotem800>upload file>strobe>corrgrid.prm
14. After defining a new plate in the Plate Definition dialog box, the **Advance position type** defaults to **Edge**.
15. To open the GTO option on a platesetter with Omron interlocks amend the value of the **Set Loading system setup>unload arm for GTO install** from 0 to **1**.
16. During the unloading process, the conveyor belt moves in the wrong direction causing the plate to remain on the belt instead of entering the processor.
    To overcome this problem, change the default value of the **Others>Lotem800V>IO OBJECTS>Unload Conveyor Motor>Speed Factor** parameter from -0.08 to **0.08**
17. To adjust the **variable** conveyor belt speed in which plates are transported from the Lotem (also known as *first speed*), change the default value (5) for the following parameter:
    Others>Lotem800V>IO OBJECTS>Loading System>Unload Plate>First Conveyor Motor Speed

    Increase the value to increase the speed or decrease the value to decrease the speed.
18. To adjust the **variable** conveyor belt speed in which plates are transported to the processor (also known as *second speed*), change the default value (5) for the following parameter (The value was changed to 2 after the service pack was installed): **Others>Lotem800V>IO OBJECTS>Loading System>Unload Plate>Second Conveyor Motor Speed**

    Increase the value to increase the speed or decrease the value to decrease the speed.

19. When the plate is being unloaded, both the regular and variable conveyor belts move erratically.
Solution:

Regular Conveyor Belt	Variable Conveyor Belt
Change the value of the following parameter to **0**: **Others>Lotem800V>IO OBJECTS>Loading System>Unload Plate>Second Conveyor Motor Speed**	Change the value of the following parameter from the default (10) to **1**: **Others>Lotem800V>IO OBJECTS>Unload Conveyor Motor>Velocity Kp**

20. Does not support the **Vacuum Generator** option.

For Lotem 800 S Form platesetters only:

Registry parameters for Lotem 800 S Forms (Edge Det without spiral punch).
punch motor det # 3 open = 0
punch motor # 3 open = 0
punch spiral motor enable = 0
punch sys/punch spiral unit = none
loading sys/from punch to drum/ y up after centering = 74
IO object/ edge detection system = 1
expose/plate edge det enable = 1
mcf cards/latch det/plate edge det/ open = 1
mcf plate edge detection Hwlf / Edge Hysterzis Value = 0
mcf plate edge detection Hwlf / Edge Treshold Value = -0.22
mcf plate edge detection Hwlf / Edge Voltage Reference Value = -0.5
mcf plate edge det hwlf/open = 1

machine/max media thick = 0.3
machine/min media thick = 0.2
machine/max resolution = 100
machine/max media width size = 899
machine/max media height size = 990
machine/min media height size = 457
machine/Plate On Drum Height Axis Absolute Position Error (mm) = 20

For Lotem 800 with Edge Detection System

IO Objects/Edge Detection system = 1
expose/plate edge det enable = 1
mcf cards/latch det/plate edge det/ open = 1
mcf plate edge detection Hwlf / Edge Hysterzis Value = 0
mcf plate edge detection Hwlf / Edge Treshold Value = -0.22
mcf plate edge detection Hwlf / Edge Voltage Reference Value = -0.5
mcf plate edge det hwlf/open = 1

Lotem 800 version 3.61.02 vs. Lotem 800 FH with MCU version 3.60.09

Known Problems

1. When loading an Illegal plate size, the following messages appear:
   - **Expose task aborted by host**
   - **Illegal loading system state**
   - **Drum motor go to position speed failed**
2. The Icon related to beta 9/2 remains on desktop after the version is installed. It must be removed manually.
3. The new MCU tunnel cover design does not enable Lotem Controller to indicate whether the bridge cover is open or closed.
4. Only the Right User door switch can indicate whether the User door is open or closed.
5. When the diagnostic application is running, a debug message somtimes appears when the application is closed. In order to avoid a PC crash, press **Ignore** and the application will close without any problems.
6. Activating a DDB test from the **diag** application causes Lotem Controller to take a significantly longer time to start up (~7 minutes).

Appendix A: Loading Lotem 800 Software Version 3.61.02

When upgrading the platesetter to MCU, you must load the software version 3.61.02 as a single cassette configuration **before** you install the MCU. After you making sure that it works correctly, install the MCU and then load the software CD again for multi-cassette configuration.

You **cannot** upgrade software from single cassette to MCU by changing the registry- "Loading System Type" in the registry from 2 to 3.

The MCU software installation process changes the relevant parameters in the registry and the database.

Before installing the software, do the following:

- Check that the prerequisite requirements are met (see page 3).
- When saving the **registry**, **database**, **ddb_sav** parameters for backup, you must also save the **corrgrid.prm**.
- Check if the previous software version is **3.20.01**, **3.60.09** or higher.
- Backup the **registry**, **database**, (copy to your laptop) and the **Splot** file.
- Make sure you have the Start Up diskette and current CD version in case you need to revert back to it.
- Make sure you have the **Windows Start Up** diskette in case you need to reinstall windows.
- Make sure you have Lotem Windows 95 Operating System version 2.0 – 501V1R083, BIOS 1.2 (501V1R085) and Lotem 800/400 Software Startup A (501V51692A)

To check which Operating System is installed, right-click on any open folder. If **Shared** appears, you have Windows 95 version 2.0.

After installing the software, do the following:

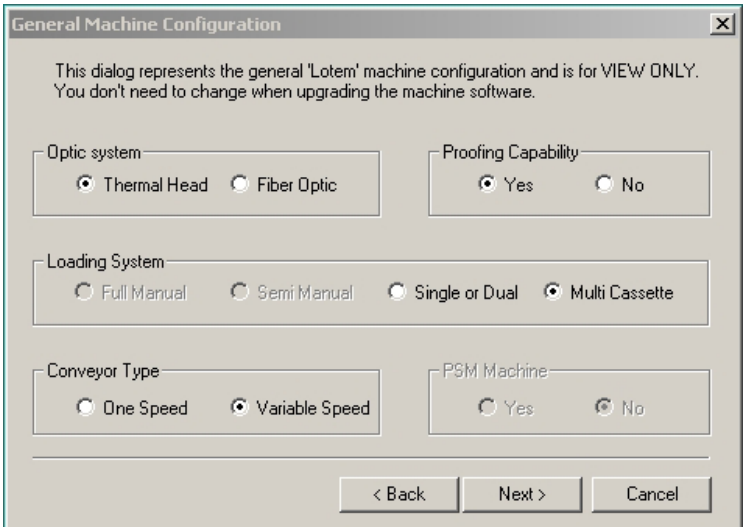
- Save the registry and the database onto two different diskettes.
- Load Internet Explorer from the version CD

Configuration Options Selection dialogs

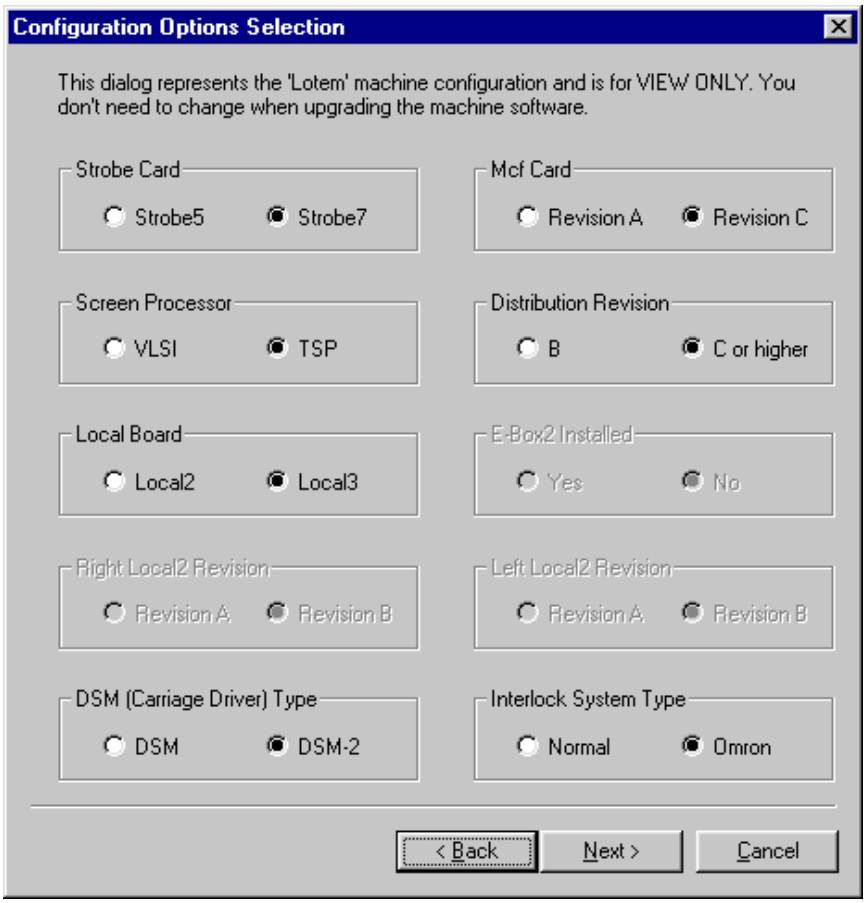
Insert the Lotem version 3.61.02 software CD into the CD driver.

The Lotem Install Setup Wizard guides you through the setup process.

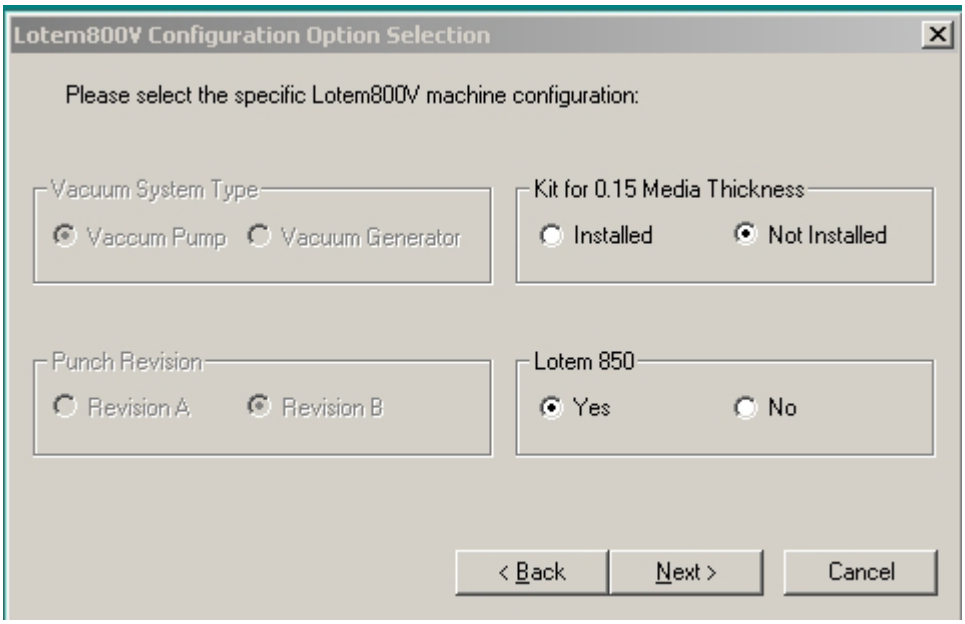
Following are new windows in the setup procedures of version 3.61.02



Configuring Fiber Head platesetter as a multi-cassette



Board configuration



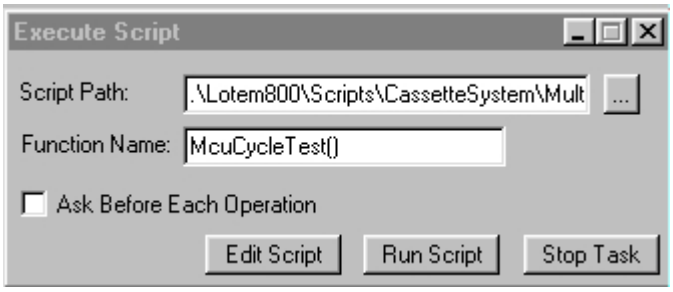
System configuration

- After installation is complete, click **Finish** to return to the desktop.
  The **Lotem 800 ver 3.61.02** icon is added to the desktop.
- Double-click the **Lotem 800 version 3.61.02** icon to activate the application.

Make sure the application status changes to **Ready**.

If you installed the MCU, run the MCU test script.
To run the script, do the following:

1. Go to **Expert** mode and type the password **Iotempro**.
2. Go to **Utilites** and click **Script**. The Cassette System folder opens. Click **Multi cassette**.
3. Type **McuCycleTest[ ]** and click **Run Script**.
4. To abort, click **Stop Task**.



Script test for MCU

Appendix B: Loading Patch #1 Version 3.61.02

A software bug in earlier versions (3.60.09 and 3.61.02) prevented the UDRC from functioning properly. Patch #1 Version 3.61.02 solves this problem. To implement Patch#1 version 3.61.02, do the following:

1. Insert a blank diskette into your Laptop diskette drive and save the patch as 3-61-02_patch1.exe.
2. Open the platesetter's front and right side doors via the Lotem Controller.
3. Insert the diskette with the saved file into the PC's diskette drive.
4. Using Windows Explorer, navigate to Drive A and double-click the **Patch #1** file. The Lotem Update - Installation Wizard window is displayed and the new Hex file begins loading.
5. After the new Hex file is loaded, a **Welcome - Lotem Update Install** window is displayed. When the file has been successfully loaded, click **Next**.

   The patch will change the Service Pack to **1** under **Lotem800V>VERSION>Service Pack**

6. Remove the diskette from Drive A, and close all the doors.
7. Start up Lotem Controller and make sure the platesetter is in **Ready** mode.
8. Send a job from the Brisque to ensure that the UDRC is working correctly.
   - When working with 0.2, 0.3 mm plates, the UDRC pump will turn off only after the forth separation was successfully exposed, before unloading begins.
   - When working with 0.15 mm plates, the UDRC pump will turn off after each exposure, before unloading begins.

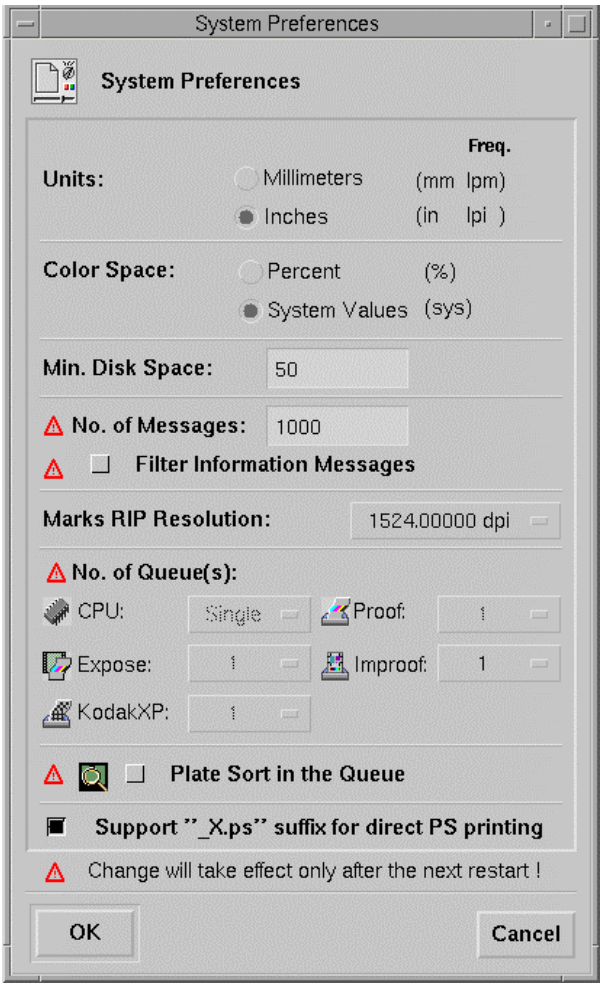
Appendix C: Sort Plate Sizes in the Queue for Multi-Cassette Unit

This feature minimizes the time for cassette loading. Jobs are sorted in the Queue Manager according to their plate size before they are sent to Expose. This is beneficial to the customers as it improves productivity.

To activate the feature:

1. Go to the Brisque Launch Pad, open the **Utilities** panel and select the **Prefs**. icon. The System Preferences are displayed.

   This feature is new in Brisque version 4.1.



2. Check the **Plate Sort in the Queue** check box. The icon will flash on the screen to show that the feature is active.
3. Reboot the system. The Sort Plate icon will flash in the Queue Manager window to show that the feature has been activated.

   Although the queue has been sorted, the listed order of the jobs in the Queue Manager appears unchanged.

Appendix D: Lotem 800 Diagnostics

The Lotem 800 Diagnostics -for version 3.61 and 3.70 is a software package that enables testing the hardware of the Lotem 800 products family: Lotem 800 engine equipped with Fiber or Thermal Head, with or without MCU or Proofing capability, (Lotem800\MCU\Spectrum), locally as well as from remote. The diagnostics package is included in the official Lotem 800 Family version 3.60.x and 3.70.x CD-ROM.

This section includes the following:

- Overview
- Installation & Activation
- Diagnostics Startup Process
- Main Test Subjects
- Coverage Level
- Feedback and Contact

Overview

The JOIND - Java Over the Internet Diagnostics - is a Creo Client/Server diagnostics controller that runs locally or over a TCP/IP connection. It is an online diagnostics tool for running tests on local and remote nodes connected over the Internet or a modem. The JOIND is the engine for running the Lotem Diagnostics.

The user interface of the JOIND includes two main components:

- A **hierarchical tree control** that represents the functionality of the application activated on the server computer. Functions of the application are selected and executed from this tree. The tree content is dynamic and is suited to the application and to the environmental conditions that may change between sessions.
- **Menu options** enable the control of operations that are done on the tree. The menus are composed of fixed options, relevant for all applications, and of dynamic options that vary between applications.

Installation and Activation

The official Lotem 800 Family version 3.70.x CD-ROM includes both **Expose** and **Diagnostics** applications. The size of the Diagnostics software is approximately 55 MB and it is located under the Expose application environment.

When the CD installation is complete, the Diagnostics icon is located on the PC desktop and in the 'Start' button (similar to the Expose Application). To activate the Diagnostics application, double-click the **Diagnostics** icon.



Expose and Diagnostics applications cannot run together. Before activating the Diagnostics, verify that the Expose Application is off.

Diagnostics Startup Process

The startup process of the diagnostics, once it is initiated, includes:

- Verification of communication between the PC and the Machine.
- Embedded software is initialized and loaded (if needed). The DDB is initialized only when accessing the DDB chapter in the test tree.
- Electronic boards are initialized.
- Hardware configuration is identified.

The failure results of these sub processes (if exist) are summarized in the Startup Process window that is shown automatically when the startup is completed. In addition, a red/green indicator is shown in the right side of the diagnostics main screen.

During the startup process, the Plate Location dialog is displayed. Since the existence of the plate in the machine limits the tests, it is very important to select the correct location of the plate (if it exists). Otherwise, the machine may be damaged. If the plate is loaded, it is recommended to use the "Unload Plate" button to unload the plate

Main Test Subjects

The following components are tested:

- Power Supply
- Boards
- Machine

The machine hardware coverage is done by the bottom-top approach (an integrated approach).

Bottom-Top Approach

The default test sequence goes from the simple and basic hardware (P.S. and communication) through the machine boards (opto-mechanic drivers) to the main machine units (motors, detectors, etc.). Fixing the problems in the sequence they appear in the diagnostics test tree is recommended.

An Integrated Approach

Every machine unit receives input and sends output. When selecting a unit (FRU) to be tested, the diagnostics automatically checks these connections in order to maximize the coverage of the selected unit. In advance, it is possible to change (through the JOIND menu) the **integrated** mode to the **stand alone** mode.

Coverage Level

Additional components tested in this release:

- Local 3 Left and Right
- Enable and Disable for Focus, Resolution, and Spiral motors
- If the registry field is "0", the diagnostics tree will not include those tests
- Com 6 External Loop Back for the NUC Board
- Com ILp External Loop Back for the NUC Board
- Support Machine with Omron
- Support MCF Revision "C" (Power supply, all sproc, xilinx done & 12v)

- MCF Revision “C” Comp Level P & N (Not Full Diagnostics)
- MCF Revision “A” Comp Level P
- New loading system motors
- DDB Fully tested, (under explicit direction from engineer.)
- Local 3 MCU Loader

Systems and subsystems that are **not** tested in this version:

- Optic Head
- Loading System's Vacuum Section
- MCU System (excluding the Local3 of the MCU which is tested, if installed.)
- Vacuum only for Lotem with Gto (Omron)

When testing boards in the Boards category, the parts that cause the machine movements are not tested. Only in the Machine categories, is everything checked without any limitations.

Occasionally, when leaving the diagnostics session, some 'exceptions' pop up on the screen. Click the Ignore button until the diagnostics application is totally terminated.

Feedback and Contact

Diagnostics tools are developed for all Creo devices and platforms. We will continue to be in close contact with the field in order to improve the hardware coverage testing and the user interface. Your feedback on the Diagnostics is extremely important to us. Therefore, a special report template is available on the Diagnostics root directory:

- Bug Report.doc (in Word 97 format)
- Bug Report.txt (in plain text format)

A filled bug report, and any other comment/request/remark/question, can be e-mailed to diagnostics@creo.com

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