Draft

Lotem 800 – Release Notes Software version 3.61.02

creo™ | Lotem CTP family

Lotem 800 Version: 3.61.02



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Lotem 800 Fiber Head / MCU

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

Important Note: When upgrading the platesetter to MCU, you must load the software version 3.61.02 to single cassette configuration (for testing only) **before** installing the MCU. **After** you make sure it works correctly, install the MCU and load the software for Multi cassette configuration.

Highlights

- Drum runaway problem related to encoder is now addressed. The following error message appears: **Drum Emergency System**. You must also implement hardware changes-change New MCF 2 card. Comp level Q revision A & C.
- Supports Quantum with MCU configuration only
- 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 2 Comp level Q (part number 503-0026Q)
- Lotem Windows 95 Operating System, version 2.0 - 501V1R083

Loading Lotem 800 Software Version 3.61.02

To load Lotem 800 software version 3.61.02 (634-00067A), see APPENDIX A on page 9.

Lotem 800 version 3.61.02 vs. Lotem 800 FH version 3.60.09

New Features

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

   New added parameters are:

   - 0.3 plate: Y Movement Rel For 0.15 plate[mm] = **0**
     X Backward Rel For 0.15 plate[mm] = **27**
   - 0.2 plate: Y Movement Rel For 0.2 plate[mm] = **0**
     X Backward Rel For 0.2 plate[mm] = **19**
   - 0.24 plate: Y Movement Rel For 0.15 plate[mm] = **0**
     X Backward Rel For 0.15 plate[mm] = **24.5**
   - 0.15 plate: Y Movement Rel For 0.15 plate[mm] = **42**
     X Backward Rel For 0.15 plate[mm] = **16**
   - Y Plate Rel Up in Cassette
   - Y Plate Hight Up in Cassette

   No collision exists between loading system (tweezers) and Lotem frame with full loaded upper tray.
   Replace the way we calculate the amount of x for backward - during plate separation.
   The changes do not deal with 0.3/0.2/0.4 plate thickness. The new calculation uses the **OLD** default values.
   The change has been done with 0.15 -.a new movement was added - **Y Up for 0.15**.

4. The paper disposal default has been changed. It holds current at local2/3 configuration:
   - HKEY_LOCAL_MACHINE\SOFTWARE\Scitex\Projects\LOTEM800V\IO OBJECTS\LOCAL 3\SOLENOIDS\Paper Disposal Solenoid\Hold Current [mA]=1300 -->1700
   - HKEY_LOCAL_MACHINE\SOFTWARE\Scitex\Projects\LOTEM800V\IO OBJECTS\NEW LOCAL \SOLENOIDS\Paper Disposal Solenoid\Hold Current [mA]=870-->1700

   During installation process – the above parameter will be set to default.
5. Supports conveyor speed types. Either one speed or variable speed (default).
   IO Object /Loading System / Unload Plate/ Is Conveyor with Encoder Installed. Default = 1.
   To adjust the speed, change the parameter 'second speed unload conveyor'.
6. Edge detector is supported.
7. A new option of operating the punch more than once is available.
   loading system\ from punch entry to drum \ Times to repeat do punch (default=1)
8. Supports GTO unload arm for unloading GTO plates. Add detectors: a) GTO unload arm HP detector. b) Plate on unload detector.

Solved Problems

1. When opening the rear/front door via the solenoid dialog and immediately click stop; a debug error message appears: '**you must shut down the application'**. There were dll messages. This occurs on both Lotem 800 Local 3 and Local2 machines.
2. When the diagnostic application is activated, a debug message appears sometimes (not always), when closing application. In order to avoid PC crash press **Ignore** and the application will close without any problem.
3. Loading System\Side2Side\Side2Side End Check position mm is forced to get the value 187. There are machines for which this parameter is incorrect. The parameter should not destroy the previous one (Delkey change). In case of problems with machines without a registry at all, 187 will be the default. If as a result, you have problems with "new plate" or with "side to side" process change parameter to 177.
4. LOTEM800V\IO OBJECTS\PUNCH CARDS\Punch Card\PUNCHES\Punch Motor # x is 45 in Local2 and 50 in Local3.
   Solution: change Local2 from 45 to 50.
5. LOTEM800V\IO OBJECTS\PUNCH CARDS\Punch Card\SPIRAL MOTOR\Punch Spiral Motor\Min Pos App Value changes from 1 to 0.
   Solution: change back from 0 to 1.
6. Diagnostic application now supports:
   1. Lotem with strob5.
   2. DDB test with VLSI configuration.
   3. Support Lotem VL.
7. Dead Lock in case of Drum motor speed is activated while performing load/unload grippers.

8. When trying to replace the tray while “paper disposal” detector is covered, an error message appears.
9. Cassette area protection for DLC.
10. The detectors “Lens air filter”, ”Lens air vacuum” are open in Registry but “Debris removal” is closed. All three should be All open or all closed.
11. Remove support of old loading system.
12. Strobe7 correction.
13. Vacuum Generator – for Quantum with MCU machines only
14. Drum Emergency fix related to Low Speed detector.
    - While the drum is turning and suddenly there is a problem in the slave sproc or encoder problem, the drum will stop after 10 sec. And an error message appears.
    - While the drum turning and suddenly there is a fly off or vibration error, the drum will slow down to 100 rpm immediately (~ 3 sec) and then is stopped completely by the inertia.
    - There is no drum run away from low speed (no acceleration).
15. Solved problem of the parameter ‘width start image area’.
16. Added GTO Unload arm to support GTO plate in unload process.
17. Includes a new patch for version 3.60.09.
    The patch enables ability to control separation movements of loading system, per plate thickness.
18. **Drum Time Out** - SW workarounds for the false exceptions: Drum Time Out and Carriage Time Out.
19. Include patch “unload motor”- synchronize with drum motor speed.

Known Problems

1. When The 2 detectors, Home and End Position Gripper, are in the same state (ON /OFF) they do not work. When this occurs, movement of Drum is not permitted. The system identiies this problem in the start up mode only.
2. When choosing **calculate all point** option, from the calibration table from the Brisque and saving the database/ res-intensity; intensity and drum speed will be incorrect.
3. Option **D** (paper disposal) in the Loading System dialog is unavailable.
4. Activating DDB test from diag application causes to Lotem application a "long" startup (~7 minutes).
5. 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**.
6. After you install the version, on the strobe 5 configuration ‘incorrect grid fill’ error will appear. Click **OK** and restart the application.
7. For the Lotem 800 VL, you must manually modify the following parameters:
    - Balance system/balance weight mass, default = 707.16, change it to 735.

- Tail gripper total mass, default = 1722.7, change it to 1770.
- Strobe card/ max height expose size, default = 1150, change it to 1170.

8. After installing the version and opening the application an error message appears: “incorrect grid fill " (only the first time) , click **OK** to continue.
9. Strobe correction table: All the values of the correction are in the database:
   Lotem800 \ upload file \ strobe \ corrgrid.prm
   When saving parameters (registry, database, ddb_sav) for backup, corrgrid.prm must also be saved.
10. When installing the version, an error message appears: "unable to convert data base files"
11. When opening the GUI for the first time, an error message appears: "illegal parameters read form grid file - write and reload a default grid ?" Workaround- click OK several times.
12. In the Plate Definition dialog box, after you define a new plate. The default in Advance position type is Edge.
13. To open GTO option on Omron machine:
    Set Loading system setup / unload arm for GTO install. Change from 0 to 1.

For Lotem 800 S Form only:

Registry parameter for Lotem 800 S Forms (Edge Det without punch spiral).

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
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 stays on desktop after version installation. It must be removed manually.
3. In the new design of the MCU tunnel cover, there is no indication in the GUI 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 activated, a debug message appears sometimes (not always), when closing application. In order to avoid PC crash press **Ignore** and the application will close without any problem.
6. Activating DDB test from diag application causes to Lotem application a "long" startup (~7 minutes).

APPENDIX A - Loading Lotem 800 Software version 3.61.02

Important Note: 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 make sure it works correctly, install the MCU and load the software CD **again** for multi-cassette configuration.

Note: 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 software installation:

- Check that the Prerequisite requirements are met (see page 3).
- Check if the previous software version is 3.20.01, 3.60.09 or higher
- Backup the **registry** and **database,** (copy to your laptop) and the **DDB.save** in case of uniformity correction factors.
- Make sure you have the current CD version in case you need to go back to it.
- Make sure you have EZ restore 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)

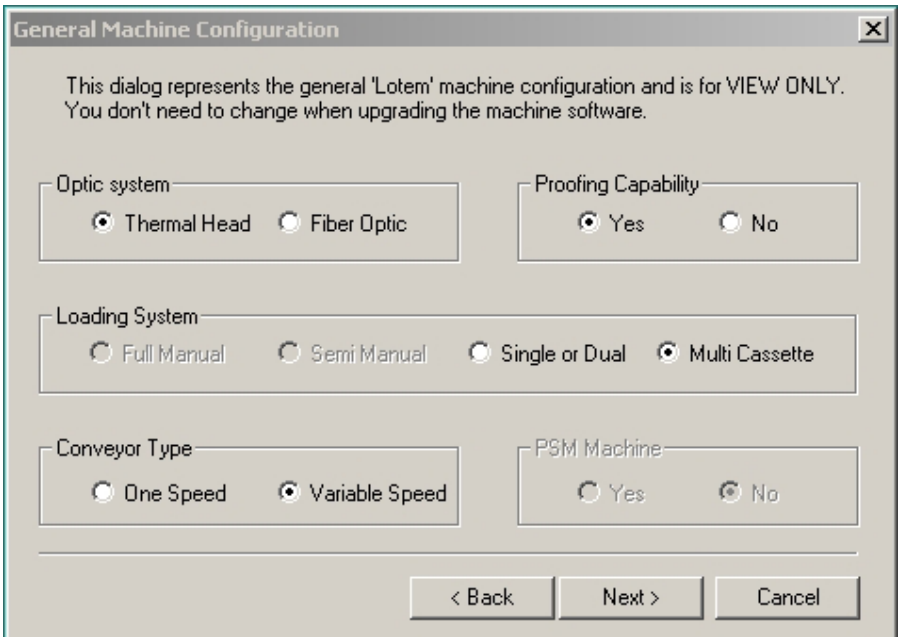
Note: To check which Operating System is installed, open any folder and right-click. If **Shared** appears, you have Windows 95 version 2.0.

After installation:

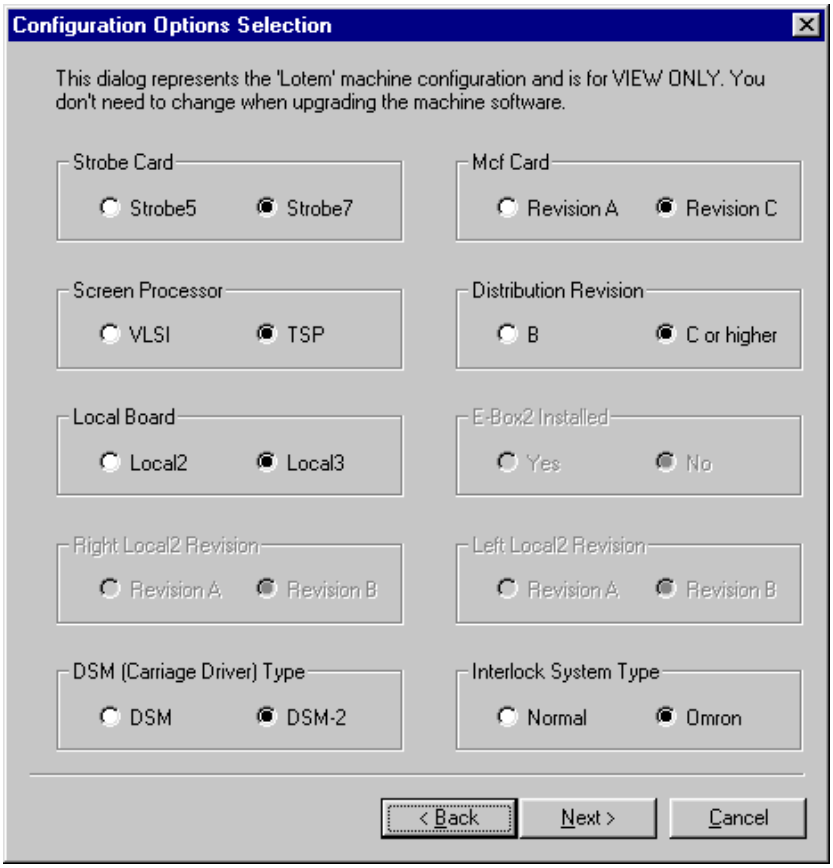
- Save the registry and the database onto two different floppy disks.

Configuration Options Selection dialogs

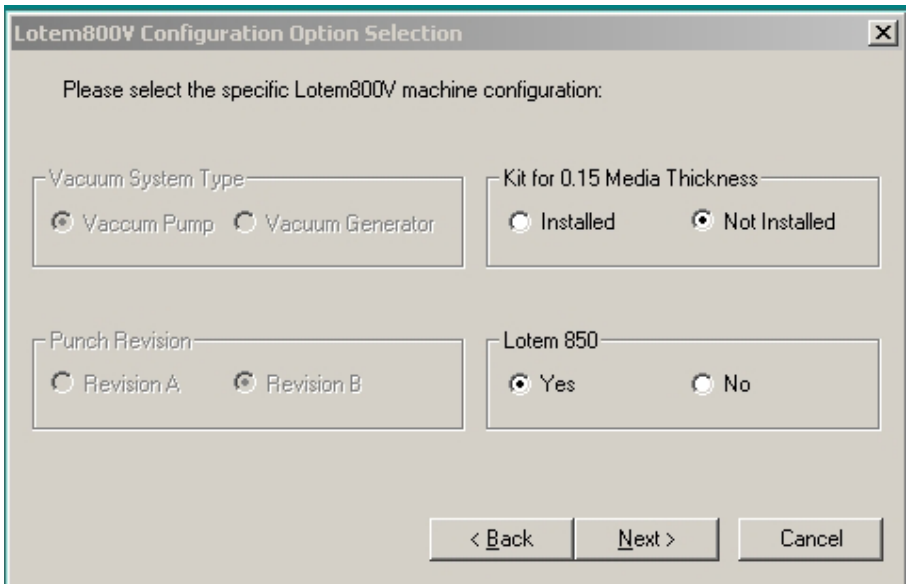
Insert the Lotem version 3.61.02 software CD into the CD driver.
The Lotem Install Setup Wizard guides you through the setup process.
Following are new windows in the setup procedure of version 3.61.02



Configuring Fiber Head platesetter as a multi cassette



Board configuration



System configuration

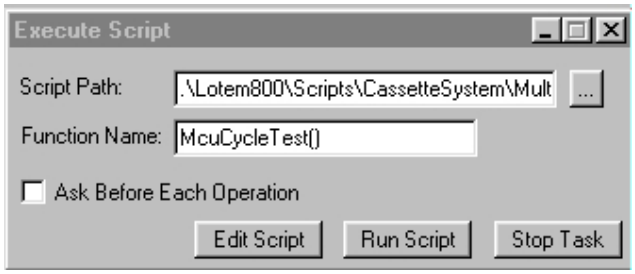
- After Installation is complete, click **Finish** to return to the desktop. An icon named Lotem 800 ver 3.61.02 is added to the desktop.
- Double-click **Lotem 800 version 3.61.xx** to activate the application.

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

If you installed the MCU, run the MCU test script.

To do run the script, do the following:

1. Go to **Expert** mode and type the password ('lotempro').
2. Then go to **Utilites**, click **Script**. Cassette system folder opens, click **Multi cassette**.
3. Type McuCycleTest( ) and click **Run Script.**
4. Click **Stop Task** to abort.)



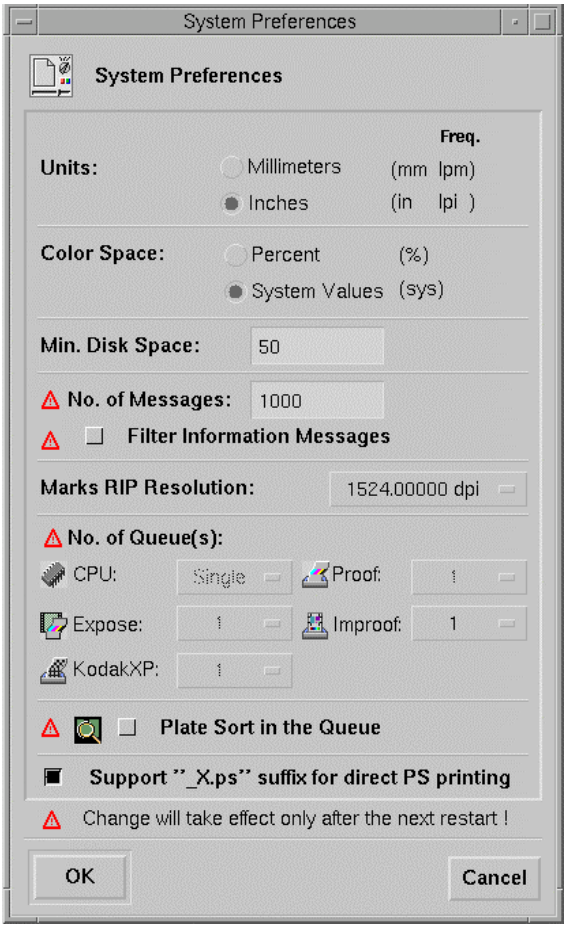
Script test for MCU

APPENDIX B – 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 appears. **Note**: This feature is new in Brisque version 4.1.



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

APPENDIX C - 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\Quantum\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 guidance
- 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 aprox. 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.

Note: 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.

Note: 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
- Note: 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
- Quantum machine (drum & carriage units)

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

- DSM Board
- 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)

Note: 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.

Note: 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