Lotem 800 II Family

Release 3.75.01
Release Notes

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creo™

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4,558,302	5,339,176	5,561,691	5,764,374	5,998,067	6,159,659	6,366,339
4,743,091	5,343,059	5,568,595	5,764,381	6,003,442	6,164,637	6,371,026
4,992,864	5,355,446	5,576,754	5,771,794	6,014,471	6,180,325	6,377,739
5,049,901	5,359,451	5,579,115	5,785,309	6,016,752	6,181,362	6,387,597
5,079,721	5,359,458	5,592,309	5,813,346	6,031,932	6,181,439	6,396,422
5,103,407	5,367,360	5,594,556	5,818,498	6,043,865	6,186,068	6,396,618
5,111,308	5,384,648	5,600,448	5,854,883	6,060,208	6,189,452	6,407,849
5,113,249	5,384,899	5,608,822	5,861,904	6,063,528	6,191,882	6,414,755
5,122,871	5,412,491	5,615,282	5,861,992	6,063,546	6,204,874	6,422,801
5,124,547	5,412,737	5,625,766	5,875,288	6,072,518	6,208,369	6,435,091
5,132,723	5,420,702	5,636,330	5,894,342	6,090,529	6,214,276	6,441,914
5,150,225	5,420,722	5,649,220	5,900,981	6,096,461	6,217,965	6,450,092
5,153,769	5,459,505	5,650,076	5,934,196	6,098,544	6,260,482	6,456,396
5,155,782	5,473,733	5,652,804	5,942,137	6,107,011	6,266,080	6,476,931
5,157,516	5,481,379	5,680,129	5,946,426	6,112,663	6,266,134	6,477,955
5,208,818	5,488,906	5,691,823	5,947,028	6,115,056	6,267,054	6,509,903
5,208,888	5,497,252	5,691,828	5,958,647	6,121,996	6,268,948	
5,247,174	5,508,828	5,696,393	5,966,504	6,130,702	6,283,589	
5,249,067	5,509,561	5,699,174	5,969,872	6,134,393	6,295,076	
5,283,140	5,517,359	5,699,740	5,973,801	6,136,509	6,299,572	
5,291,273	5,519,852	5,708,736	5,986,819	6,137,580	6,318,266	
5,323,248	5,526,143	5,713,287	5,995,475	6,147,789	6,352,816	

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Introduction

We are pleased to send you the latest revision of Lotem 800 II Family software. These release notes highlight the changes and improvements made to release 3.75 of the software. This version supports all Lotem 800 II, 800 II Quantum and Spectrum platesetters with multi/dual/single cassettes.

What Is in These Release Notes

The release notes include the following sections:

Prerequisites—lists the required prerequisites.

Important Notes—lists the important notes relating to a Brisque, a Prinergy and when upgrading from one platesetter to another.

Problems Fixed—lists problems in the previous release of Lotem 800 II software that are now resolved.

New Features—describes new menu commands, options, windows, or dialog boxes that were added to Lotem 800 II software .

Known Problems—lists problems that are not yet resolved.

Firmware Versions for Version 3.75.01—describes the firmware versions that need to be loaded when installing this software

Defining the Drum Speed—describes how to define the correct drum speed.

Specifying the Head Type—describes how to specify the correct type of head.

Additional Preparations for Spectrums—describes the additional preparations needed for Spectrum platesetters.

Remote Support—provides remote support information.

Prerequisites

1. Lotem Quantum versions for all 800 platesetters: 3.51.02, 3.60.09, 3.70.02 or 3.72.XX
   To upgrade from older versions to version 3.75, see the 3.75.01 Upgrade Procedures.



Note: Other versions of Lotem software cannot be directly upgraded. For example, if version 3.50.05 needs to be upgraded for MCU as well as version 3.75, the MCU must first be upgraded to version 3.60.09, followed by the version 3.75 upgrade.

2. **Workstation:** Brisque version 4.1.70 (or higher) or CSXpose 1.01.028 patch 4. See the Loading Patch #4 for CS Xpose section for more details.
3. **Operating system:** Windows 2000 operating system.
4. **CPU:** New SBC 786 board
5. **E-Box:** without the NUC card
6. **Recommended Conveyor:** (FCO 512-00044)
   If a conveyor motor without an encoder is installed, the value of the **Lotem800>IO OBJECT>Loading System>Unload plate>Second conveyor motor speed** parameter must be **0**.
7. **Firmware versions:** See *Firmware Versions for Version 3.75.01* for a description of the firmware version that must be loaded into the MCE and TH2.

Important Notes

When Running Prinergy

Loading Patch #4 for CS Xpose. This enables CS Xpose to connect to a platesetter running Lotem Controller software version 3.75.

When Running Brisque

- Navigate to the Device Handling dialog box.
- Delete the previous platesetter configuration and create a new one.
- Restore the Punch System and Press Format settings.

When Upgrading to a Faster Platesetter

Make sure that a dongle (HASP key) has been added to all the PCs running software version 3.75.01 and change the head accordingly. Platesetters will not expose plates unless the correct HASP has been added.

Problems Fixed

This section lists problems that are resolved in the current release of the Lotem 800 II Family software.

- Use the diagnostic monitor configured to Foc7 mode while exposing proof to eliminate proofing job failure due to timeout. This problem was fixed.
- When opening a Solenoid dialog by pressing Start and immediately clicking Stop, a debug error message is no longer generated.
- The key Lotem800V\I O Objects\Punch Card\Spiral Motor\Punch Spiral Motor\Min Pos App Value is no longer set to a default value of 1.
- A deadlock, in case of drum motor speed, is no longer activated while performing load/unload grippers.
- An error message no longer appears when trying to replace the tray while the paper disposal detector is covered.
- If the laser defeater (cheater) has been removed from the platesetter, the "...please perform emergency stop.." error message is no longer generated.
- Several unloading problems were resolved.
- There is no longer a deadlock in the LoadAreaProtector.
- The Cassette Area Protection for DLC has been resolved.

New Features

This section lists features that were added in the new release of Lotem 800 II software software.

Spiral Punch

This software version supports the option of Using a spiral punch (on Lotem 800 II platesetters) instead of edge detection.

Speed Improvements

V speed: Drum speed can be set to a maximum value of 375 rpm and upto 29 plates per hour*.

F speed: Drum speed can be set to a maximum value of 235 rpm and upto 22 plates per hour*.

S speed: Drum speed can be set to a maximum value of 150 rpm and upto 15 plates per hour*.

* Depending on the type and size of media used. See Media Calculator.

Two Types of Thermal Heads

Version 3.75.01 supports two types of thermal heads:

- P22 head (Quantum)
- P33 head (Quantum Ready)

To view the procedure for head type setting, see *Specifying the Head Type*

WARNING: Check the head type BEFORE entering the configuration settings. If you enter incorrect settings the platesetter will not be able to exposure any media and you will not be able to re-enter new configurations!

Various HASP keys have been added to protect this feature:



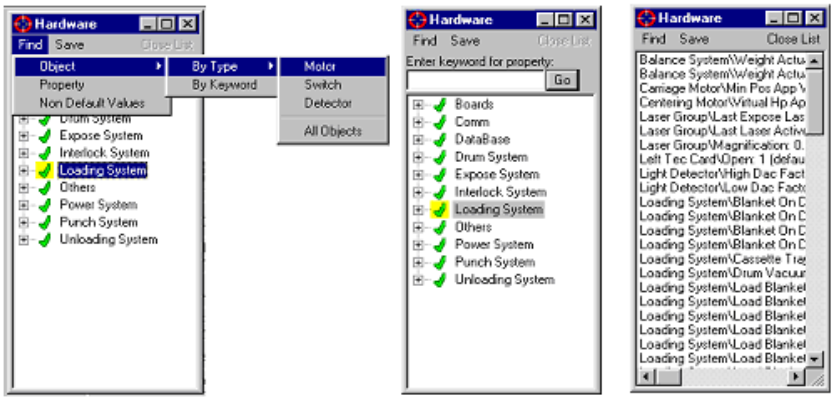
To view the procedure for drum speed setting, see *Defining the Drum Speed*.

Note: These procedures must be completed in order for the platesetter to expose correctly.

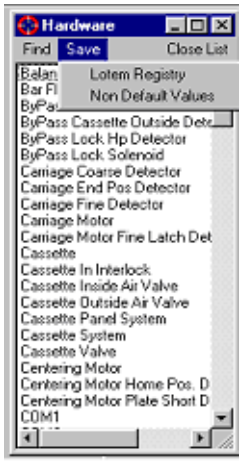
New Menu Options

The following new menu options have been added to the Hardware hierarchy:

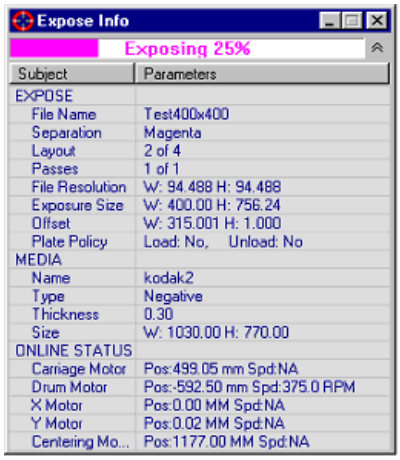
1. Find
   - Object
     a. By type: motor/ switch/ detector/ all objects
     b. By Keyword
   - Non-default values



2. Save
   - Lotem registry
   - Non-default values



The expose progress indicator is now colored according to the separation color (plates & proof). Spot colors are by default dark blue.



Spectrum Platesetters

Several procedures need to be completed before a Spectrum platesetter can expose a proof, as described in the section *Additional Preparations for Spectrums*.

Platesetter Protection Features

This version includes HASP keys that protect platesetter features, such as:

- Number of plates the platesetter exposes per hour
- Head type information

Parallel Punching

Enables any amount of defined punching to be performed in parallel by the platesetter.

Image Disk

The image disk now includes, Windows 2000, Internet Explorer version 6, WinZip and Acrobat Reader.

Paper Disposal Warning Light

The warning light now supports platesetters with MCU.

New Registry Parameters

New registry parameters have been added to support 0.15 mm plates. The new parameters ensure efficient plate separation.
See Setting Parameters for 0.15 mm Plates.

Retrieving Information

To retrieve information regarding the head, type the following:

QUANTUM>> **access dev**

QUANTUM>> **ceh head info**

The following information appears on the monitor:

Exposure Head Type = Thermal 2

Firmware Build = Release

Firmware Version = 1.02Release

Serial Number = t00339

Head Model = Standard



Note: The above output includes head information such as the **Head Model** (Standard = P22 head; Entry level = P33 head) and the **Head Serial Number.**

To retrieve a protocol level, type the following:

QUANTUM>> **set ehi protocol**

The following information appears on the monitor:

PRM ehi parameters

Group = ehi

Parameter = protocol

Activer = True

Default = True

Units



Note: The above firmware contains a change in protocol from AP0 to AP1. The protocol should be True (indicated by AP1). If the protocol is False, some head scripts may not work correctly.

To change the protocol from False to True, type the following:
QUANTUM>> **set ehi protocol**

Conveyor Speeds

The speed can now be set to either **Fixed Speed** or **Variable Speed** (default).

After installing the new conveyor, change the following parameters back to their default values:

Velocity KP (12): Default = 1

Sample Time (Msec) For PID Loop: Default = 3

Encoder Position Factor: Default = 1

Improved Machine Info Dialog Box

The Machine Information dialog has been improved and now includes:

- Head version information
- MCE firmware
- Machine type
- Machine serial number



Punch Retry Option

A Punch Retry option has been added to the loading system. The parameter Loading System\From punch entry to drum**Times to repeat punch** has a default value of 1. Enter the required number of punches. Amending this parameter reduces the platesetter's throughput.

Blanket Depth Parameter

A new parameter to determine the depth at which the blanket enters the loading grippers has been added to the registry to support Spectrum functionality. The parameter IO\Objects\Loading System\Loading System Setup**X In Drum Final for Blanket (mm)**, has a default value of 10 (the same as for plates). The parameter should be calibrated for Spectrum platesetters.

New Load Commands

New load commands for plates and proof are described in the Service Shell Quick Start Guide.

Improved System Balancing

A new parameter to improve system balancing was added to the registry. The parameter, IO OBJECTS\Balance System**Distance Between Plate Edge to Drum Zero (mm)** provides new static balancing with new dynamic balancing. The installation software checks for the existence of this parameter in the registry, and:

- If the Lotem registry exists, but does not contain the new parameter field, then the platesetter is configured with the former static balancing, and the new parameter will have a **zero** value.
- If the Lotem registry does not exist (on new platesetters), the new balancing parameter will be configured with a value of **4.5 mm**.
- On version 3.75 upgrades, check the registry of existing platesetters (in the field) that were balanced with the former static balancing, and verify that the new parameter has a **zero** value.

Diagnostics

Version 3.75 includes a software package for Lotem 800 diagnostics. Additional components supported by the diagnostics software package include:

- Local 3, left and right
- Enable/Disable for Focus; Resolution; Spiral motors

Note: If the registry field is 0, the diagnostics tree will not include those tests.

- Platesetters with Omron
- New loading system motors
- Local 3 MCU loader
- Quantum platesetters (drum and carriage units)

Remote Connection

Version 3.75 includes two tools for remote connections:

- VNC
- Net meeting

See *Remote Support* for further details.

The Drum Speed limitation was disabled while working from remote.

New Firmware Command

A new firmware command named **Feature**, has been added. The command enables the minimum and maximum sizes of sscan/mscan to be changed (as described in Using Service Shell on Lotem).

Refresh Script

A new parameter named **refresh script** was added to the loading system (IO Objects>loading system).
The parameter instructs the software to load all the loading scripts at startup, as opposed to loading them in every load sequence.



Note: The parameter's default value is 0 - however, for debugging and calibration purposes, the parameter must be set to 1 in order for the changes to take effect. After debugging/calibration, make sure to reset the value to 0, otherwise there will be a noticable reduction in the platesetter's throughput

Service Shell

The Lotem 800 II Quantum Version 3.75, includes a better tool for TMCE and TH2: **Service Shell** diagnostics.

Service Shell is an application enabling direct communication with the TMCE board and the TH2 on Lotem Quantum platesetters. Service, diagnostics and calibrations can now be performed with no dependency on Lotem Controller.

Service Shell can be used to perform most of the operations that are handled by SPlot. The application also boasts an improved stability and reliability, better windows interface, automatic logging, efficient and quick firmware loading, faster remote access, multiple client connections to a single machine and more.

Service Shell, which is very user friendly, has many advantages:

- Easy connection, with a possibility to connect remotely.
- Very easy way to load firmware files - using the **download** command.
- Easy way to save NVS parameters of both the TMCE and the TH2.
- Scripts for calibrating the head.
- Automatic logging of TMCE and TH2 messages.
- An easy to use BugZipper.

See Service Shell Quick Start Guide.

Known Problems

This section lists known problems in the Lotem 800 II software. They may be outstanding issues from a previous release or new problems. When a problem listed here is resolved, the solution is described in the *Problems Fixed* section of the release notes for the next version of the Lotem 800 II software.

1. Software deadlock while working in the Drum Motor dialog box.
   Description: When using the Drum Motor dialog box for different operations (GoSpeed, GoPos etc.), a slight possibility exists that Lotem Controller will freeze. If the motor operation fails for example, trying to rotate the drum while the Load Roller is active is an illegal operation and the user receives an error message. Such a scenario can cause software deadlock and Lotem Controller will stop responding.
   Workaround: Restart Lotem Controller.
2. Debug message appears during shut down of the Diagnostics application.
   Description and workaround: When closing the Diagnostics application, several *Assert* messages appear. Click **Ignore** to complete shut down.
3. 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.
4. After reconnecting the cassette to the Lotem in the single/dual cassette system, the following error may appear on the monitor: `Protector X Cassette Door is locked by Cassette Valve.`
   Workaround: Close Lotem Controller, and then run it again.
5. When trying to replace the tray while the paper disposal detector is covered, an error message appears.
   Workaround: Close Lotem Controller, and then run it again.
6. When attempting to install this software version onto a platsetter that does not have a previous version of the Registry installed, but Kit 0.15 has been installed, the following problems arise:
   - A message is displayed at start up informing you that the #09 and #10 detectors do not exist.
     Workaround: Navigate to **Lotem 800V\IO Objects\Punch Motor #09\Home Pos Detector** and change the existing default value to **NONE**. Repeat this procedure for the #10 detector.
   - 0.15 mm plates collide with the punches.
     Workaround: Navigate to **Loading System\Load plate\from punch entry to drum entry stage** and change the value from 312 to **307**.
   - Synchronization problems arise when unloading 0.15 mm plates.
     Workaround: Navigate to **Loading System\Unload plate\Tolerance fro unload motor (mm)** and change the value from 3 to **50**. Then navigate to **Unload motor\Velocity KP** and change the value from 16 to **4**.

Firmware Versions for Version 3.75.01

The following firmware versions are to be loaded in the TMCE board and Thermal Head 2 (TH2) when installing version 3.75. The corresponding file name is in parenthesis:

- **TMCE firmware: 1.28.05** (QuantumFmw128-05.bin)
- **Xilinx firmware: 1.65** (mcelca0165.bin)
- **Head firmware: 1.02** (Release.bin)
- **Boot Code: 1.09** (mceboot.bin)
- **Post Code: 1.05** (mcecode105.bin)
- **BBR: 1.03** (mcerec100.bin)
- **Pattern Data: 1.01** (mcedata0101.bin) for Spectrum platesetters only.

Information about firmware versions loaded in the TMCE and TH2 can be obtained by typing the following commands in Service Shell:

```
QUANTUM>> fw dir (or: list version all)
QUANTUM>> th2 "ver"
```

After loading the correct firmware versions, the following window is displayed:

```
fw dir
QUANTUM>> fw dir
Name           Version  Start     Length    Checksum
-------------- -------  --------  --------  --------
MCE BBR Code   1.03     00000000  00001AB0  Passed
MCE BOOT Code  1.09     00060000  0001A640  Passed
MCE MAIN Code  1.28.05  000C0000  00150200  Passed
MCE POST Code  1.05     00300000  0001261E  Passed
MCE Xilinx     1.65     00340000  00035760  Passed
MCE OVWR Data  1.01     002C0000  0000C220  Passed
*** Command Complete
```

QUANTUM>> th2"ver"
TH2> ver
Project: Thermal II
Firmware: 1.02 Release
Build: 2353

Date: Jul 23 2003 12:43:45
Control board: 4
Xilinx: 29

Command Success



Note: If the displayed version number for the **MCE MAIN CODE** is **1.28.00** (and not 1.28.05), copy the **QuantumFmw128-05.bin** file from the root directory of the Installation CD and paste it into **C:\TH2\Tools** folder.
If the displayed Firmware version is **1.02 (th2fmw102pre8.bin)** (and not 1.02 Release), copy the **th2fmw102.bin** file from the root directory of the Installation CD and paste it into **C:\TH2\Tools** folder. Load the relevant firmware.

Defining the Drum Speed



Important: Set the new drum speed according to the HASP key attached to the platesetter.

To upgrade the drum speed, do the following:

1. Open Service Shell.
2. Type the following command for each media defined in Service Shell:

```
Quantum>>th2 "set med (X-1) drumspeed Y"
Quantum>>media X
```

Where **X** denotes the number in the media table (subtract 1 from this value), and **Y** is the recommended drum speed.

- S speed: **150 rpm***
- F speed: **235 rpm***
- V speed: **375 rpm***

* Depending on the type and size of media used. See Media Calculator. .



Note: When a lower value is entered, the platesetter operates correctly; however, entering a higher value will cause a plot to fail.

Example:

The following example sets the drum speed for media 1 (Kodak IR) to 235 RPM:

```
Quantum>>th2 "set med 0 drumspeed 235"
Quantum>>media 1
Current Media = 1
==================
```

Name	= Kodak IR
Color	=
Type	= Plate (9)
Invert	= 0
Depth	= 0 microns
Reflectivity	= 0.084
ExtraScanLines	= 1
DrumPlotSpeed	= 235 rpm
TempCoeff	= 0
DebrisOptions	= 1

Density	= 2750 kg/m^3
Emissions Intensity	= 1.000
Pattern Identifier	= 0
Flags	= 0
Mainscan scale	= 0 ppm
Subscan scale	= 0 ppm
AirjestMarginHome	= 0 um
AirjetMarginAway	= 0 um

==========

Available Media

==========

1. Kodak IR

2. Horsell
** Command Complete.

Specifying the Head Type



Important: The head type must be defined according to the head installed.

To upgrade the head type, do the following:

1. Open Service Shell.
2. Type the following:
   ```
   QUANTUM>> access dev
   QUANTUM>>config
   ```

   A list containing all the available Quantum modes and their corresponding codes appears on the monitor.
   ```
   QUANTUM>>Config AVerySecretPassword [head type]
   ```
   Change the head type as required (a mismatch will cause the exposure to fail):
   - For P22 heads, the head type is **LotQU**.
   - For P33 heads, the head type is **LotII**.



Note: The above command is context sensitive; make sure to upper case the relevant letters in the command.



WARNING: If you type incorrect settings the plate setter will not be able to expose any media and you will not be able to re-enter new configurations!

To retrieve head type information:

Type the following command:

```
QUANTUM>> access dev
QUANTUM>>ceh head info
Exposure Head Type = Thermal 2
Firmware Build = Release
Firmware Version = 1.02 Release
Serial Number = T00531
Head Model = Standard
*** Command Complete
```

The above output indicates that the head model is standard (last line) meaning that it is **P22** head. For a **P33** head the last line would be:

Head Model = Entry Level

Additional Preparations for Spectrums



Important: Spectrum platesetters will only expose proofs when the following procedures have been completed.

1. Open Service Shell.
2. Type the following command:
   ```
   QUANTUM>> access dev
   QUANTUM>>option
   ```

   Note: Ensure that the Spectrum option is enabled

EdgeDetect option is	enabled
Spectrum option is	**enabled**
Debris UDRCB option is	disabled
Debris UDRCL option is	disabled

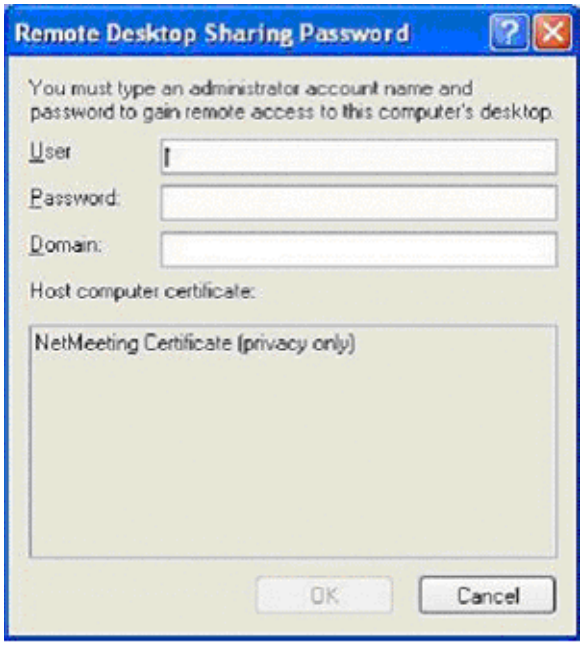
   If the Spectrum option is disabled, type the following command:
   ```
   Quantum>>option spectrum enable
   Quantum>>reset
   ```
3. Type the following command:
   ```
   QUANTUM>>set proof 1 name proof
   ```

   Note: Implement this command to successfully plot a proof. This command will only work on Spectrum platesetters. An error message will be generated on non-Spectrum platesetters.

Remote Support

The remote support one-click activation does not complete successfully. When requiring a remote support session, it is recommended to manually activate NetMeeting and VNC . Similarly, closing the Remote Applications dialog does not unload the VNC. To unload the VNC, close it manually.

In addition, connecting to the Lotem via NetMeeting requires a user name and password. When connecting to NetMeeting from a remote PC, the following dialog box is displayed:



To access the Lotem:

- In the **User** field, type `remote`.
- In the **Password** field, type `sciremote`.
- Click **OK**.