



## Application Note

# Configuring FLEX Debug Log Files for Comprehensive Checkout Reporting



The FLEX Debug log files have checkout information which are needed to create comprehensive checkout reports. LAMUM uses the FLEX debug logs to capture this information but the parsing and rotation of these log files must be systematic. Moreover, the log files must be at an accessible, consistent location.

Most companies do not let the FLEX debug log files grow indefinitely, they are rotated periodically and automatically. Each port@host usually has its own corresponding FLEX Debug log. So, there may be multiple Debug logs to contend with.

For LAMUM to capture the comprehensive checkout data we need to have a synchronized log file rotation, between the license server and LAMUM. The log file locations need to be mapped as a locally accessible drive on the server with both read and write access.

You set the log file location (path) by going to the 'Licenses' tab and selecting 'Edit' in the Actions column for the specific License (Line Item) that you are seeking Comprehensive Checkout reports for. You will need to map and enter the location of the log files for every License (Line Item) with a unique FLEX port@host.

If you have multiple log file servers, they will each need to set to rotate log files at the same time, as each log file will be parsed, in sequence, at the same time/interval. We recommend setting the log files to rotate every 2 to 3 days at a time of day or at a 20 MB log file limit where there are the least number of users on the system.

## Configuring Log File paths

To best configure the log file path in LAMUM you may need the help of your system administrator.

1. You will need to map the network accessible location of the log files to a locally accessible drive letter on the server running LAMUM. For instance, if your log files are accessible over the network at `\\yourhost\yourfolder\yourlogfile.log`.
2. You will need to mount `\\yourhost\yourfolder\` as a local drive (for more information, see “Mapping Network Locations”), like Z:\. Once you have that location mapped, your log file entry within LAMUM will look like **Z:\yourlogfile.log**.
3. You can check if the log file path provided exists and working by clicking on the “Test” button. (A new window opens showing the status of the log file path.)

The screenshot shows the 'Update Line Item' form in the License Asset Manager. The form includes fields for Vendor, Tool/Line Item, Date Acquired, Expiry Date, Quantity, Version, PO#, Tool Type, Purchase Type, Capital \$, Expense \$, Installer, Responsible Person, License No, and Notes. There are also sections for Standalone and Networked configurations. A validation pop-up window is overlaid on the form, showing a table with columns for 'Log File Path' and 'Status'. The path is '\\192.168.1.200\sharedrive\Altium' and the status is 'Green'. Below the table, there are instructions: 'Status "Green" - log file path exists.' and 'Status "Red" - log file path doesn't exist.'. A 'Test' button is highlighted with a red box.

## Reasons why you may not get a Green light:

1. The log file path does not exist
2. The path to the log file is incorrect.

## Log file rotation and synchronization

As standard practice, log files are under constant rotation. When the file reaches a pre-determined point, one of a few options may happen that will reset the file as empty. If possible, we want to set the “Parse Time” of the log files just before they are to be replaced.

One way of achieving this is move all of the log files to the LAMUM server automatically and set the log file location of each accordingly. A simple batch file, run via windows scheduler, would work to this purpose.

### Example 1:

- Create batch file on LAMUM server (movelogfiles.bat):
  - move [log file original location] d:\lamum\_debugfiles\[filename]
- Set Windows scheduler to run that batch file every x hours
- Set the log file location in LAM to: d:\lamum\_debugfiles\[filename]

**Example 2:**

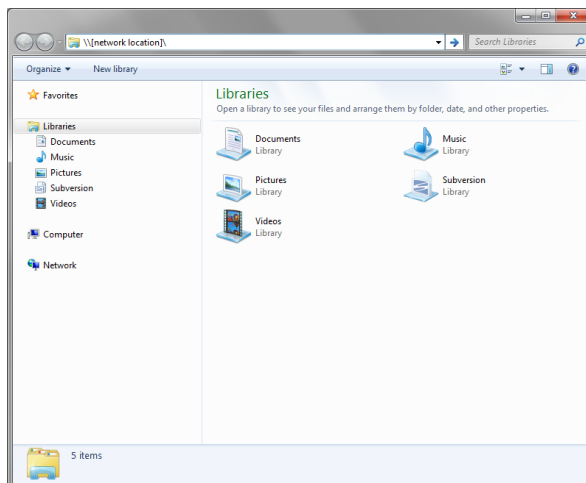
- Create batch file on each license server:
  - move [log file original location] [new file location]
- Schedule with cron or Windows Scheduler to run every x hours on the license server. Map the network location of each license servers log file to the LAMUM server. Set the log file location for each license to the mapped network drive on the LAMUM server.

To capture the most data in the latter example. LAMUM will need to mirror the log file rotation in its parsing. If the log file is set to rotate every day, at midnight. It would be best to set the parsing of the log file to start every day at 11:30pm. This gives enough time for the file to be checked before it is erased. One caveat to be aware of: even if the parsing is set to the same interval, you need to be sure that it's every X days and happening on the SAME day. Not every two days from Monday on the log, and every two days from Tuesday on the parse.

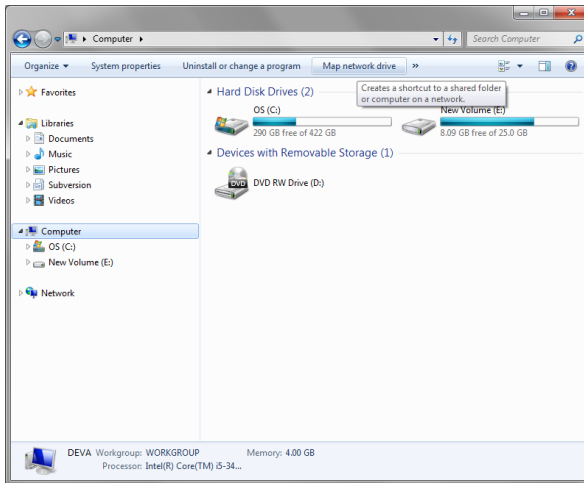
## Mapping Network Locations

If you know the location and are used to the Windows Command Prompt, you can simply use the command “**net use [drive letter]:\ [network location] /P:Yes**” if your server requires authorization you must add “**/user [username] [password]**”. If you are unfamiliar with the Command Prompt, there is a way to do the same from within File Explorer.

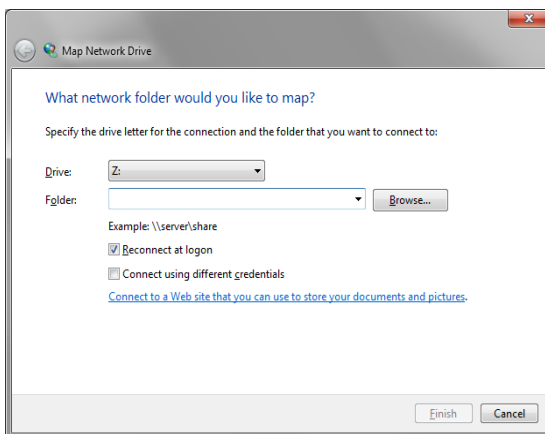
1. Open File Explorer.



2. Select “My Computer” and you can either choose “Map network drive” from the top bar, or from the right click menu.



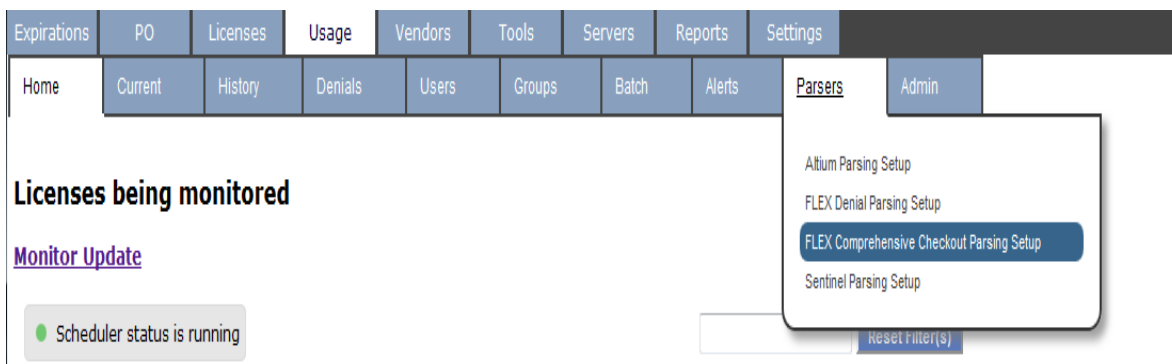
3. In the dialog that pops up, choose an unused drive letter, then “Browse” to the desired, shared, network location. Make sure you select “Reconnect at Logon” to make the mapping persistent through reboot. If you are getting permission errors, check “Connect using different credentials” and try a user account with higher access rights. Clicking “Finish” creates the mapping.



## Comprehensive Checkout Configuration

Comprehensive Checkout Parsing stores all the checkout data that is stored in a Flex Debug log. The checkout data that is stored is both for checkouts that last less than a second and may occur hundreds of times in several minutes, or checkouts that last a lot longer. The data is stored on a per user, per machine, per feature, per license, per date basis, the total time for checkouts are stored as well as the total number of checkouts.

To get to the Comprehensive Checkout Parsing Setup page from the LAM Page navigate through the following tabs: Usage → Parsers → FLEX Comprehensive Checkout Parsing Setup



## Flex Comprehensive Checkout Setup Page

### FLEX Log File Comprehensive Checkout Parsing Settings

Choose the licenses, time of day (24hr clock) and day interval.

Licenses	
<p>Select FlexLM licenses to parse checkouts for or select default licenses to parse for scheduled parsing</p> <p><input type="button" value="Select All"/> <input type="button" value="Select None"/></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> MATLAB(matlab_demo2) 27001@server2008</li> <li><input checked="" type="checkbox"/> MATLAB(matlab_demo) 27000@Server2003</li> </ul>	<p>The FLEX log parsing feature is used to capture Short Checkout data that is otherwise unavailable.</p> <p>In order to capture this data we need to have a synchronized log file rotation, between the license server and LAMUM. The log file locations <b>must be shared with full permission</b> on the server with both read and write access. You can set the log file location by going to the <b>Licenses</b> tab and selecting <b>Edit</b> in the Actions column of the licenses. You will need to enter the location for each licenses log file and verify that they are publicly accessible. <b>Note:</b> Format should be <code>\\server\share\folder\file</code></p> <p><b>Important Note. The username and password for the UM apache service must match the login of the host account, and must be done each time the password is updated.</b> Use the following steps:</p> <p>Launch the services controller by typing <code>services.msc</code> in the menu search box. Edit the <b>UMServer_LAMUM</b> service by highlighting and then selecting the <b>Properties</b> option from the <b>Action</b> pull down menu. Change the login information by selecting the <b>LogOn</b> tab, followed by the <b>This account</b> radio button. Enter the user name in the text box followed by the password, and then select <b>OK</b>. Finish the procedure by restarting the service.</p> <p>If you have multiple log file servers, they will each need to set to rotate log files at the same time, as each log file will be parsed at the same time/interval. We recommend setting the log files to rotate every 2 to 3 days at a time of day where there are the least amount of users on the system.</p> <p><i>i.e. 00:15 (12:15am) every 2 day(s)</i></p> <p>To <b>check</b> that the paths are mapped and entered correctly, and/or to do an on demand parsing of the log files, click the <b>Parse Now</b> button located on the left. This will activate the parsing feature and give you a feedback as to the status of each log file.</p>
Time Interval	
<p>Select the frequency in days and time of day that the log will be parsed automatically.</p> <p><b>Frequency of Days</b>                      <b>Time (Hour : Minutes)</b></p> <p>01    03 : 00</p> <p style="text-align: right;"><input type="button" value="Apply Settings"/> <input type="button" value="Parse Now"/></p>	

1) Under the **Licenses Select** header you can select one or more FLEX licenses for which parsing can be done. By clicking on a list of Flex licenses will show that can be selected. The licenses will always be displayed in the following manner: *Tool Name (Tag Name) port@host*.

By default, no licenses are selected due to the large volume of data that is gathered from comprehensive reports. Once licenses have been selected to parse on default, the default licenses will then be selected on the initial page load of the Comprehensive Checkout Parsing Settings page.

*Example: Selecting Matlab(matlab\_demo2) 27001@server2008, and Matlab(matlab\_demo) 27000@Server2003 and then clicking apply settings will set the two licenses to parse automatically.*

2) Under the **Time Interval Header**, the frequency of days and the exact time can be configured for automated parsing should occur at. Best practice is to synchronize the parsing of the log file when a new log file is created.

*Example: If Frequency of Days has been set to 2, and the time has been set to 17:30. The parser will run automatically, every other 2<sup>nd</sup> day at 5:30 PM.*

3) Pressing the **Apply Settings** button will save the list of currently selected licenses and the time interval that has been configured. The scheduled parsing will occur at the time specified for the licenses that have been selected. The default settings will then be selected on the initial page load of the Comprehensive Checkout Parsing Settings page.

4) Pressing the Parse Now button will open a new window that will immediately parse the currently selected licenses. This may take a few minutes depending on the size of the log file. If there are any issues with parsing the log files (for example, there was no log file found) the status image will turn red for that selected license, otherwise the light will be green.

*Example: Selecting the licenses in the licenses drop down and then clicking the Parse Now Button will open a new window where the files will parse and then display an image.*

## Example of the “Parse Now” Page

### Parsing logs for user short checkouts.

**Status Light Color Descriptions**

Red - Unable to read log file

Green - Log file successfully read and checkouts detected

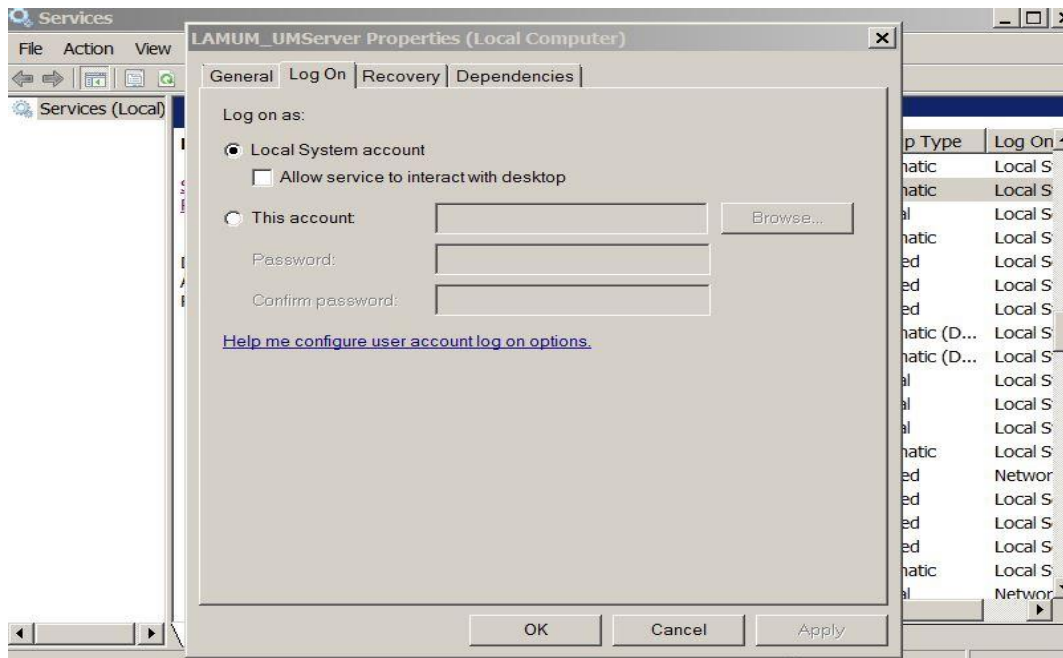
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**Results**

License Name (Hostname)	File Location	Status
MATLAB (server2008)	C:\LAMUM\apache\htdocs\lammonitor\utils\demo\Matlab2\lmlog.txt	<span style="background-color: green; color: green;"> </span>
MATLAB (Server2003)	C:\LAMUM\apache\htdocs\lammonitor\utils\demo\Matlab\lmlog.txt	<span style="background-color: green; color: green;"> </span>

## Reasons why you may not get a Green light:

1. There is a firewall or permission problem, which is preventing LAMUM from communicating to the Log File location.
2. Permissions to read log file from the folder.
3. Authorization by Apache
  - a. Go to Services
  - b. Open Apache services > UMServer\_LAMUM
  - c. Right click and select Properties, go to Log On
  - d. Login with an admin account and restart the services.



**Note: The username and password for the UM Apache service must match the login of the host account and must be done each time the password is updated.**

## Comprehensive Checkout Reports

To view the Comprehensive Checkout Report from the LAM Page, navigate to;

Usage → History → Comprehensive Checkouts.



From here a single license and the time period can be selected to display all the checkouts for that criteria.

When there are results present, the data can be used to create a batch report, export the data into a spreadsheet, or display a new report using the drop down next to the submit button.

Expirations	PO	Licenses	Usage	Vendors	Tools	Servers	Reports	Settings	
Home	Current	History	Denials	Users	Groups	Batch	Alerts	Parsers	Admin

### Comprehensive Checkout Details:

Back to [Home](#)

#### License Selection

MATLAB(matlab\_demo) 27000@Server2003

#### Select Time Period

Today's Table
  7 Day Table
  30 Day Table
  90 Day Table
  365 Day Table  
 Custom: From:  To:

Display Report

[First](#) [Prev](#) 1 - 14 / 14 (14) [Next](#) [Last](#) 20

[Reset Filter\(s\)](#) [Toggle Column Filters](#)

Checkout Details Report for matlab_demo for 2016-04-05					
User Name	Machine Name	Feature Name	Date	Total Number of Checkouts	Total Time Checked Out (Seconds)
jmfangio	eda4	Matlab	2016-04-05	3	48
ghill	eda2	Matlab	2016-04-05	3	40
ghill	eda4	Matlab	2016-04-05	5	67
ghill	eda1	Matlab	2016-04-05	4	66
jmfangio	eda2	Matlab	2016-04-05	5	44
paul newman	eda3	Matlab	2016-04-05	5	79
travolani	eda1	Matlab	2016-04-05	2	0