

# MSC-LIMS™ *Insights*

The source for news and tips of interest to users of MSC-LIMS,  
an affordable laboratory information management system for small labs.

Issue No. 33

January 2020

## Welcome

Welcome to **MSC-LIMS *Insights***.

This newsletter will help current MSC-LIMS users get the most out of their software, and will complement the product literature and demo that prospective users can find on our web site at [www.msc-lims.com](http://www.msc-lims.com).



Join our mailing list for more information. Sign up at [www.msc-lims.com/lims/maillist.html](http://www.msc-lims.com/lims/maillist.html).

This newsletter is for and about MSC-LIMS users. We welcome your comments, and your suggestions for topics you would like to see addressed in upcoming issues. Please send your thoughts to [newsletter@msc-lims.com](mailto:newsletter@msc-lims.com). 

## Verify a Proper MSC-LIMS v4.x Multi-User Install

In simple terms, MSC-LIMS version 4.x is comprised of three components: LimsCode, LimsData, and a workgroup security file. LimsCode is an Access database containing all screens, system reports, and all of the Visual Basic for Applications programming code. LimsData is an Access database that is the repository for all data entered in the LIMS. The workgroup security file contains all LIMS login names and passwords.

In an MSC-LIMS version 4.x multi-user installation, each LIMS workstation runs its own copy of LimsCode and all LIMS workstations share the same LimsData and workgroup security file.

Since most MSC-LIMS installations use a single LimsData database, any scenario where different LIMS workstations were accessing distinct LimsData databases would be quickly detected and corrected using the File menu's Open LIMS Database option to select the correct database. However, when LIMS workstations use different workgroup security files, the situation is not often detected (for example, login names not working on the workstation) and not quite as easy to correct.

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## From the Developer

Microsoft officially ended support for Windows 7 on January 14, 2020, which means they will no longer provide security updates or support for PCs running Windows 7. If you are still running Windows 7 on your LIMS workstations you would be wise to migrate your systems to Windows 10 soon to keep your systems secure.

MSC-LIMS has always run on Windows 10 systems without problem. See "Moving MSC-LIMS to a New Workstation" in [MSC-LIMS Insights Issue 23](#) for help moving an existing MSC-LIMS installation to a new workstation.

Note that MSC-LIMS uses the 32-bit version of the Access 2010 Runtime on both 32-bit and 64-bit Windows systems. To use the integrated Excel interface in MSC-LIMS, your system must use a 32-bit version of Microsoft Office. Until recently, Microsoft continued to recommend and install the 32-bit version of Office by default. Microsoft's recent change now installs 64-bit Office by default so be sure to select the 32-bit version when installing Office on any new workstations.



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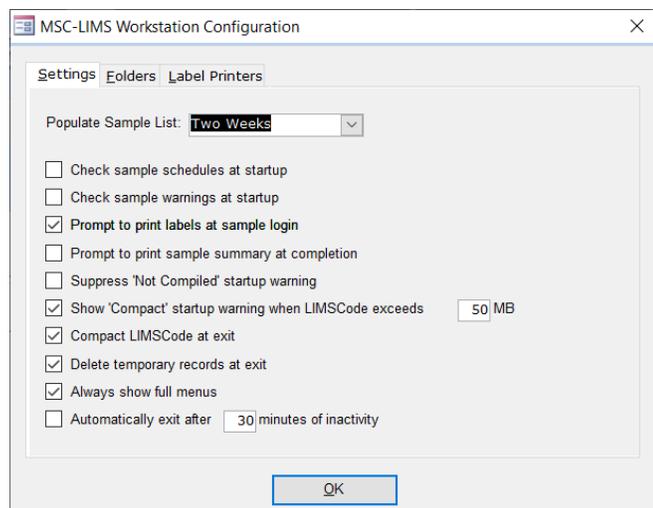
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## Synchronize Workstation Configuration Settings

Unlike the System Configuration screen's settings which are system-wide, the settings on the Workstation Configuration screen apply only to the current LIMS workstation. In an MSC-LIMS multi-user installation, it is often desirable to use the same settings on all LIMS workstations. For example, all LIMS workstations should be using the same Excel templates. And workstations with a different 'Populate Sample List' option will likely cause confusion when users rely on sample selection pick lists and move from one LIMS workstation to another.

To use the same settings on all workstations you can simply open the Workstation Configuration screen on each LIMS workstation and configure the settings. However, there is a simpler method that will guarantee the settings are synchronized.

When you start the LIMS, the workstation configuration settings are loaded from file LimsCode4.xml for MSC-LIMS version 4.x or LimsCode5.xml for version 5.x. When you exit the LIMS, the settings are saved to the XML file in the folder where the LimsCode file resides (normally C:\MSC-LIMS). Knowing this behavior, you can configure the Workstation Configuration screen on one workstation, exit the LIMS then copy the LimsCodeN.xml file from this workstation to all other LIMS workstations. Use this trick to ensure all workstations are configured similarly or to save time after installing MSC-LIMS on a new workstation. ▲



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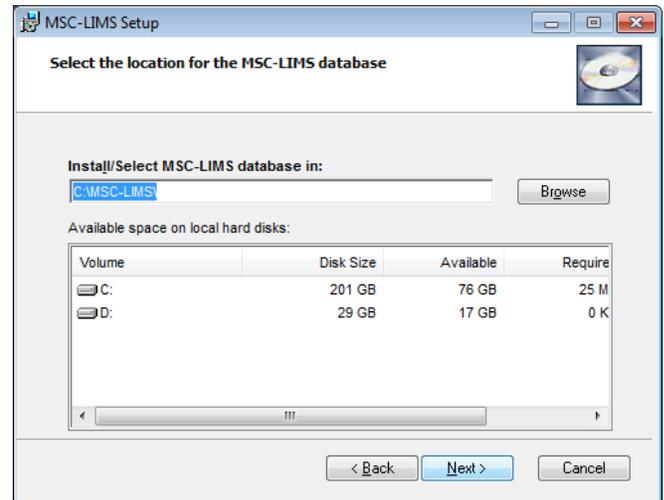
## Verify a Proper MSC-LIMS v4.x Multi-User Install

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To verify your system was installed properly, open the System Configuration screen on the Admin menu in the LIMS then click the System Info tab. Locate the LimsCode, LimsData, and Workgroup options which identify the files currently in use by the workstation. Repeat at each LIMS workstation and verify that all workstations are sharing the same LimsData and Workgroup files in a server folder and that the LimsCode file resides on the workstation's local drive.

```
Version: 4.1.0 for Microsoft Access
Last Updated: 10/13/2017 11:00:00 AM
Compiled: Yes
Runtime: Yes
Access Version: 14.0
Access Directory: C:\Program Files\Microsoft Office\Office14\
Profile: MSC-LIMS
Command Line:
Workgroup: D:\LIMS\LimsUser4.mdw
LimsCode: C:\MSC-LIMS\LimsCode4.mde
LimsData: D:\LIMS\LimsData4.mdb
Workstation Licenses: 5
Subscription Expires: 31-Dec-2020
```

If any LIMS workstation is using a different Workgroup file than other workstations, you may have encountered problems with login names not working on that workstation (see "Cannot Log In After New Workstation Install" below). The only permanent solution to correct the problem is to uninstall MSC-LIMS on the workstation and reinstall being sure to select the correct server folder in the installation software's screen titled "Select the location for the MSC-LIMS database". Note that the primary purpose for this installation screen is to add the full path name for the Workgroup file to the Target property of the MSC-LIMS shortcuts created on the Windows desktop and the MSC-LIMS menu on the Start menu.



While you can edit the Target property of an MSC-LIMS shortcut to solve the problem, note that this may only be a temporary solution. Any future repair of the MSC-LIMS software will restore the original and incorrect path to the Workgroup file. The preferred and permanent solution is to uninstall and reinstall specifying the correct database folder.

Use the System Info tab of the System Configuration screen to verify that all LIMS workstations are sharing the same workgroup and you will solve or avoid any LIMS login account problems. 

## Notes from Technical Support

### Sample Turnaround

A user creating a user-defined report (UDR) to calculate sample turnaround, recently emailed this request:

*Attached are the versions of the UDR set up and the output. ... I would also like an average turn around. Would I copy the formula from the MSC LIMS insight Jan 07 page 4, bottom right into the 'text' section for "headers and footers"?*

*Ideally, I would like a concise report detailing the turnaround time on all of our projects. A simple one-page document with the samples logged in and completed in the month.*

Using the difference between a sample's login date (i.e. AddedDate field) and completed date, you can show a sample's turnaround time in hours on a UDR with this column expression:

```
=DateDiff("h", [AddedDate], [CompletedDate])
```

To show the turnaround time in days, use this expression:

```
=DateDiff("d", [AddedDate], [CompletedDate])
```

Notice that the only difference in these formulas is the interval: "h" for hours, and "d" for days.

Finally, you can show the average turnaround in both hours and days in the report's Text field, which displays on the last page of the generated report, with this expression:

```
= "Average Turnaround: " & Round(Avg(DateDiff("h", [AddedDate], [CompletedDate])),0) & " Hours or " & Round(Avg(DateDiff("d", [AddedDate], [CompletedDate])),0) & " Days."
```

The expression above rounds both hours and days to no decimal places, which is the ",0)". Change these to ",1)" to round to one decimal place, etc.

For a concise summary of average sample turnaround in days by LIMS project, a simple SQL SELECT

statement will do the job. Add the following SELECT statement to an MSC-LIMS Data Query workbook:

```
SELECT Project.Name AS Project, Count(Sample.SampleID) AS Samples, Round(Avg(DateDiff("d", [Sample.AddedDate], [Sample.CompletedDate])),2) AS AvgTurnaroundDays FROM Project INNER JOIN Sample ON Project.ProjectID = Sample.ProjectID WHERE Sample.CompletedDate Is Not Null AND Sample.AddedDate Between #12/1/2019 00:00:00# And #12/31/2019 23:59:59# GROUP BY Project.Name;
```

Simply edit the login date range in the SQL statement and click the Query button while MSC-LIMS is open to retrieve the data. Turnaround is calculated as the time between login and completion so only completed samples are counted. See "Updated MSC-LIMS Data Query Workbook Now Available" in [MSC-LIMS Insights Issue 23](#) for more information on this valuable tool. And see the workbook's ReadMe worksheet for other example SQL statements you may find useful. 

### Cannot Log In After New Workstation Install

A user with an MSC-LIMS 4.x multi-user license recently wrote:

*One of our users got a new PC. ... We installed the program, logged her in with the admin and attached the database we're using, but she still can't log in with her credentials. We're obviously missing something.*

A simple oversight during MSC-LIMS 4.x installation causes this problem. To troubleshoot, right-click the MSC-LIMS desktop shortcut on the new PC, choose Properties, and then find file LimsUser4.mdw in the middle of the Target property. You will probably find that the path to the file is on the local C: drive rather than your server folder. As a test, you can edit the path to LimsUser4.mdw in the Target property and specify the server folder where your LimsData database resides. If that works, it is a temporary solution since the shortcut will resort back to the C: drive path if you ever do an MSC-LIMS repair.

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The real solution is to uninstall MSC-LIMS then reinstall and be certain to select the server folder in the "Select the location for the MSC-LIMS database" installation screen. ▲

## Keyboard Shortcuts for Data Entry

A user recently submitted this request:

*One thing that would be nice is the ability to use the arrow keys to navigate between data entry. Having to go back and forth from keyboard to mouse is tedious when entering 50 or more data points such as Oil and Grease. We commonly run them in batches of 30-50 then enter the numbers manually.*

For those who prefer the keyboard to the mouse, note that there are keyboard shortcuts for most tasks. See "Common Keystrokes and Mouse Actions" in chapter three of the MSC-LIMS User's Guide for a list of the available shortcuts. Note that many of the keystrokes are built into Microsoft Access so we have no control over them. For example, use Ctrl+PageUp and Ctrl+PageDown to move to the same field in the previous and next record. Yes, the up and down cursor keys would be more intuitive but that is what someone at Microsoft chose instead. ▲

## Barcode Labels on Small Bottles

A user asked:

*Is there a means to print barcode in smaller font so that it scans even on smaller diameter bottles where label has a tight radius, or to print it 90 degree on edge (not sure if there is enough room for that)? If not, do you have a recommended scanner for labels affixed to small size/diameter bottles where label wraps around a good portion of bottle?*

The default and environmental style labels use a 24-point font size for the barcode and the small label style uses 22-point. When these label styles were originally created 22- and 24-point were the smallest font sizes that would consistently scan without problem on the Dymo LabelWriter labels with scanners of that time. Some newer scanners will successfully scan smaller sized barcodes. Font sizes for fields on the four available label styles cannot be changed. However, with a Full System license custom label styles are a

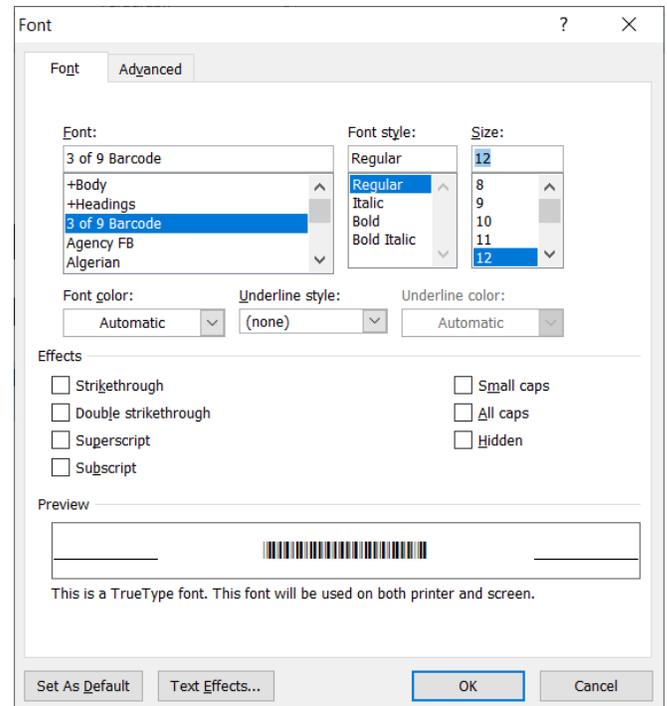
simple addition. Annual subscription licensees can create custom labels with Excel templates. See "Create Custom Container Labels with Excel" in [MSC-LIMS Insights Issue 20](#) for information on creating your own labels to experiment with smaller barcodes.

You can easily experiment to see what barcode sizes will successfully scan with your barcode scanner. MSC-LIMS uses a public domain barcode font to produce sample ID barcodes on labels and system reports. To test various sized barcodes simply open a blank Word document, enter a 10-character sample ID preceded and followed by an asterisk (no spaces), then select all 12 characters including the asterisks and change the font to '3 of 9 Barcode' and set the font size.

 20-point

 16-point

\*2001210845\* 12-point



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Print multiple barcodes with various font sizes then test to see which sizes will successfully scan with your barcode scanner. Once you have determined the smallest acceptable barcode you can create your own container labels with your chosen barcode size.

We don't have any recommendation for a specific scanner but laser scanners typically scan more accurately. 

## For Customers Only

This section of *MSC-LIMS Insights* is devoted to current users of MSC-LIMS. Here we briefly introduce only the most recent additions to MSC-LIMS.com Customers Only pages. Use your login name and password to log on to the Customers Only section of our website.

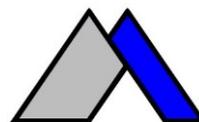
### File Library

[MSC-LIMS Programmers Guide.pdf](#)

Full System licensees will find the MSC-LIMS Version 5.0 Programmer's Guide in the File Library as well as in the MDB folder within the Setup folder containing the MSC-LIMS 5.0 installation software. Version 5.0 of the Programmer's Guide has been updated for SQL Server. 

## Contact Us

Questions, comments, suggestions?  
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