

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. 30

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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.

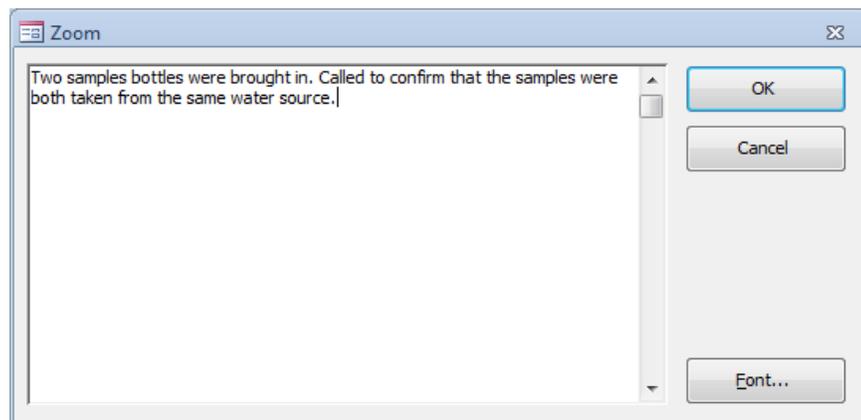


Join our mailing list for more information. Sign up at www.msc-lims.com/lims/maillist.html.

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. ▲

Using the Zoom Window

You may often find that screen fields, such as Notes and Conclusions, contain more data than can be displayed in the field's dimensions. While you can click in the field and scroll to read the data, the Zoom window offers a handy alternative. Right-click the field and select Zoom from the popup menu or use the equivalent Shift+F2 keyboard shortcut to open the Zoom window showing the current field's contents.



You can use the Zoom window to add, edit, or view the data in most MSC-LIMS text fields. Use the Zoom window's Font button to change the window's font. Note that any changes to the Zoom window's font are only maintained during the current LIMS session. ▲

In this Issue

Welcome	1
Using the Zoom Window	1
From the Developer	2
MSC-LIMS for SQL Server Prices	2
Importing Result Types from Excel	3
Notes from Technical Support	4
Error in GetCurrentUsers:	4
Unrecognized database format	4
Unwanted MIN and MAX Warnings	4
Excel Template's 'LIMS Access Version' Setting	4
Date and Time of Results Imported from Excel	5
For Customers Only	5
MSC-LIMS Insights Archive	5
Contact Us	5

From the Developer

We have seen an increased number of corrupted user LimsData databases in recent months. A common cause of the corruption is a workstation losing its connection to the server while MSC-LIMS is running. After investigating, we found in a number of recent instances the LimsData corruption was caused by an automated cloud backup.

If you are using a cloud backup application to back up your LimsData database, check the application's settings and ensure the backup occurs at a time of day when MSC-LIMS will not be running on any workstation. Although database corruption does not lead to a loss of data in most cases, it does leave the LimsData database in an inconsistent state requiring a compact and repair.

If database corruption leaves you unable to start MSC-LIMS at any workstation, see "Error in GetCurrentUsers: Unrecognized database format" in this issue for a solution.

For over a decade our MSC-LIMS prices have remained unchanged and only our hourly development and on-site installation and training rates have increased. However, our prices will increase for MSC-LIMS version 5.0 scheduled for release later this year. See "MSC-LIMS for SQL Server Prices" below for more information.



Rick Collard is the founder of Mountain States Consulting, LLC and the principal developer of the MSC-LIMS software. You can reach Rick by email at rcollard@msc-lims.com.

MSC-LIMS for SQL Server Prices

As we announced in previous issues of this newsletter, MSC-LIMS 5.0 uses a SQL Server back end database instead of the earlier Access (LimsData) database. SQL Server databases offer improved reliability, scalability, performance, and security. Any sites with large LimsData databases, many concurrent users, or experiencing periodic LimsData corruption due to network infrastructure issues should welcome the move to a SQL Server database.

Although an updated price list will not be available until January 1, 2019, below are the prices we expect for MSC-LIMS 5.0 for SQL Server and related services. Note that while there will be no additional development to MSC-LIMS 4.x, we will continue to support and you can continue to run version 4.x with its existing prices.

Annual Subscription License

The price for MSC-LIMS 5.0 Annual Subscription licenses will be \$750 per workstation per year. Your prorated cost to upgrade to version 5.0 is \$21 per user per month remaining until your current subscription expiration. For example, if you have a five-user annual subscription with six months remaining until expiration,

your cost to upgrade is \$630 (\$21 x 5 users x 6 months).

Full System License

The prices for an MSC-LIMS 5.0 Full System license will remain the same as version 4.x so there is no additional license cost to upgrade to version 5.0. However, just like previous major version upgrades (2.0, 3.0, and 4.0), sites with customizations will incur a modest fee to reapply their customizations to version 5.0.

New Annual Maintenance prices will be 20% of the license cost. For example, annual maintenance for a single-user license will be \$1700, \$2600 for five-users, \$3500 for 10-users, \$4100 for 15-users, and \$4700 for 20-users. The new annual maintenance price will apply beginning with the first annual maintenance renewal after upgrading to version 5.0.

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Database Migration

The installation instructions provided with MSC-LIMS 5.0 will include detailed instructions to migrate data from an existing version 4.x LimsData database to SQL Server. Data migration requires a full copy of Microsoft Access and Microsoft's free SQL Server Migration Assistant for Access. For those who do not have Microsoft Access or find the data migration steps daunting, we will provide a database migration service for a flat fee of \$600 per database.

Excel Template Updating

Just like version 4.x, MSC-LIMS 5.0 will install a number of example Excel import and export templates. The version 5.0 templates have been updated to work properly with SQL Server data. Any existing templates you use with version 4.x that have a 'LIMS Access Version' option on a Settings worksheet will require either a simple or more complex update to their VBA macros to work properly with version 5.0 and SQL Server. The version 5.0 release notes will include instructions to perform the required updates. While most users will find the simple update accessible, some may prefer assistance with the more complex template update. We will provide Excel template updating services at our standard \$175 hourly rate. 

Importing Result Types from Excel

MSC-LIMS' integrated Excel interface allows importing analysis results from Excel into both the Results by Analyte and Results by Sample screens. Result values, result types (i.e. short pre-defined text), and a combination of result type and value (e.g. < 0.1) can all be imported from Excel. Understanding how MSC-LIMS detects a result type in an Excel cell will help you use this important feature of the Excel interface.

To detect result types when importing the contents of an Excel cell, MSC-LIMS follows a sequence of steps when parsing the cell's contents. First, the system checks if the cell's contents exactly match the value in the Report Format column on the Result Types setup screen for any result type. If an exact match is found, the system imports the cell as the result type. In the example Result Types setup screen below, note that the 'Positive' and 'Negative' result types use report formats of 'Pos' and 'Neg', respectively. In order to import these result types from Excel, a cell must contain the abbreviated 'Pos' and 'Neg' report format. Note that if the Analyses setup screen limits results entry to specific result types for an analyte, only those result types can be imported from Excel.

Result Types		Result Value Entry			Sort
Sort Order	Name	None	Optional	Required	Report Format
	<	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	< #
	>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	> #
	Fail	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fail
	Indeterminate	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Indeterminate
	Negative	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Neg
	No	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	No
	Pass	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Pass
	Positive	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Pos
	Presumptive	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Presumptive

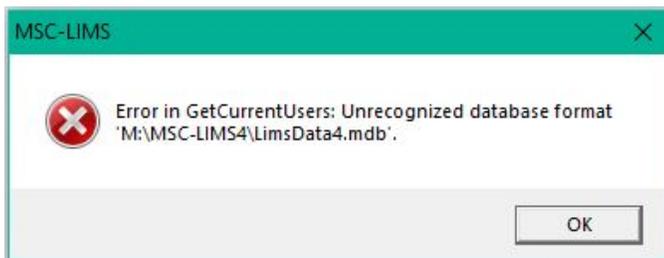
Next, if the cell's contents do not exactly match a result type's report format, MSC-LIMS will temporarily replace any number in the cell with the number sign '#' and see if the result exactly matches a result type's report format. For example, if the cell contains "< 0.1" MSC-LIMS will look for a result type with a report format of '< #'. If an exact match is found, the cell's contents are imported as a combination of result type and value.

Finally, if no result type has been found and the cell's contents are numeric the result value is imported. 

Notes from Technical Support

Error in GetCurrentUsers: Unrecognized database format

We frequently receive support emails with an attached screen capture of the following error message.



This error can appear when starting MSC-LIMS at one workstation while other workstations may still be using the LIMS. The error occurs because Microsoft Access determines the listed database is in an inconsistent state, which is most often caused by a workstation losing its connection to the server while MSC-LIMS was running. Workstation crashes, reboots, or power failures may also leave the database in an inconsistent state.

The simple solution to this error is to compact the LIMS database. If at least one workstation is still running MSC-LIMS, simply use the Compact LimsData option on the Admin tab of the main menu. Before compacting, Microsoft Access will detect the database's inconsistent state and repair the database. Normally, there is no data loss when repairing the database.

When MSC-LIMS is not running on any workstation and all workstations encounter the "Unrecognized database format" error when attempting to start the LIMS, you can still compact and repair the database from any LIMS workstation where you have previously compacted at least once before. In Windows Explorer, navigate to the C:\MSC-LIMS folder and double-click file CompactLimsData.bat to compact and repair the database. ▲

Unwanted MIN and MAX Warnings

A user called and asked why she was getting the red MIN and MAX warnings during results entry. For the analyte in question, she had set the warning max to 9 and the warning minimum to 8 in the Analyses setup screen, which were also the values listed in the Projects setup screen when the analyte was added to the project. To verify these were the specifications added to the sample, she right-clicked the result value field in the Results by Sample screen, chose Result Specifications from the popup menu, and viewed the 8 to 9 warning range.

Since 8 and 9 are acceptable results, the warning min and max must be updated to prevent a warning. MSC-LIMS will flag a result with a red MIN or MAX exception if the result is less than or equal to the warning min or equal to or greater than the warning max. The solution is to set the warning min slightly below and the warning max slightly above the acceptable values. In this case the warning min was changed to 7.9999 and the warning max to 9.0001. Using the [Update Min/Max...] button on the Analyses setup screen allowed quickly changing the specifications in all existing projects and incomplete samples. ▲

Excel Template's 'LIMS Access Version' Setting

A user recently wrote:

I had to reinstall Excel 2010 on one of the LIMS computers but now I am having trouble exporting reports. The excel template opens but is not transferring all the data.

This situation can occur if you have Excel templates that you began using with MSC-LIMS version 3.x. And the problem may not appear on all LIMS workstations.

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MSC-LIMS™ Insights

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	A	B	C	D	E	F
1	LIMSAccessVersion:	14	Rick Collard: This setting is required when a workstation has multiple versions of Access installed. Change this setting only when MSC-LIMS is upgraded to a newer version of Access. Access version 10 = Access 2002 (MSC-LIMS 3.x) Access version 14 = Access 2010 (MSC-LIMS 4.x)			
2	RemoveInfrastructure:	Yes				
3	PreventScreenUpdating:	Yes				
4	Exclude "Internal Data" Analyses:	Yes				
5						
6						
7						
8						
9						
10						

Any Excel templates used with MSC-LIMS 4.x that have a 'LIMS Access Version' option on the template's Settings worksheet, should have the version number set to 14. The internal version number of the Access 2010 Runtime used by MSC-LIMS 4.x is 14. Although this user's template previously worked with 'LIMS Access Version' set to 10, changing the version to 14 after the reinstall of Excel solved the problem. ▲

Date and Time of Results Imported from Excel

Recently, a user submitted this question:

I have a question regarding the spreadsheet upload of results. Is there a way to manage the date of analysis during import? For example, we let instruments run overnight, but do not upload results until the morning. When using the sheet (from what my analysts tell me),

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.

MSC-LIMS Insights Archive

All past issues of MSC-LIMS Insights are [archived](#) on our web site and accessible to current MSC-LIMS users. You will find valuable tips, techniques, and technical articles to help you get the most out of your MSC-LIMS implementation. Use your browser's search function to locate topics in the article index. ▲

there isn't a way to do this as MSC-LIMS defaults to the date of upload for the analysis.

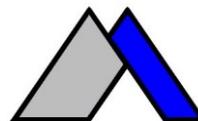
When you use Spreadsheet | Import Results from either results entry screen, the Excel Data Import screen that appears showing the data found in the Excel workbook, includes Analysis Date and Time fields. Setting the date and optional time in these fields will add that date and time to all results on the screen when you click the Import button. The Analysis Date field defaults to the current date but you can change the date as necessary for the current import.

Sample ID	Project	Location
▶ 180201K003	Wastewater Analysis	Influent
180201K004	Wastewater Analysis	Influent
180201K005	Wastewater Analysis	Influent

Similarly, for manual results entry, if you enable the 'Use current date for default analysis date' option on the Data Entry tab of the System Configuration screen, both results entry screens will display a default analysis date field above the Date column. The date in that field, which you can change, is the date automatically inserted in the analysis records below as you manually enter results. ▲

Contact Us

Questions, comments, suggestions?
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