

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. 25

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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. 

Windows 10 and Office 2016 Compatibility

MSC-LIMS 4.x runs without problems on systems running the Windows 10 operating system. We have also tested MSC-LIMS 4.x with Office 2016. No problems were encountered with Excel 2016 and MSC-LIMS' Excel interface. MSC-LIMS Messaging works properly with Outlook 2016.

Note that MSC-LIMS 4.x can be installed on 64-bit Windows versions, but 32-bit Microsoft Office must also be installed. While Office is available in both 32- and 64-bit versions, 32-bit remains the default installation option and Microsoft's recommended version. MSC-LIMS 4.x uses the 32-bit version of the Microsoft Access 2010 Runtime, which is incompatible with 64-bit Office.

If you also use a full copy of Access 2013/2016 on your MSC-LIMS workstation, you may encounter Microsoft Office's reconfiguration dialogue when starting Access after exiting the LIMS and vice versa. 

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From the Developer

A long time ago, when I departed college with degrees and job offers in hand, one of my first decisions was to choose between "systems" and "application" programming career paths. Back then, systems programming entailed working for a large computer manufacturer developing operating systems and other software tools delivered with their expensive mainframe or mini computers. I chose the application programming track focusing on developing application-specific software for business and industry, which I found much more appealing.

With each application programming project I was able to gain insight into additional industries and to learn something new about a different line of work. I've always found that aspect advantageous to my work, and tremendously enjoyable besides. Given the diversity of MSC-LIMS users, that advantage persists to this day. MSC-LIMS is used by labs testing a wide range of samples including water, wastewater, soil, air, food, beverages, crops, cannabis, blood, medicines, chemicals, and materials. Such a variety of applications is one of the reasons I enjoy helping users implement MSC-LIMS in their lab – I get to learn more about another field of work.

The wide range of MSC-LIMS implementations has also led to software improvements and this issue discusses a few new version 4.1 features. Thanks to those who suggested the improvements and to the early testers.



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.

New Customer Project Messaging in Version 4.1

In MSC-LIMS version 4.1, Messaging can now be configured by the combination of customer and project. In earlier versions, customer-specific projects were necessary just to gain different messaging options for a single customer. Use either the [Project Messaging...] buttons on the Customers setup screen or the [Customer Messaging...] buttons on the Projects setup screen to configure.

Whether a sample generates a message is determined by its project, its customer, or both. When a sample login or completion event occurs, the MSC-LIMS software first verifies that messaging for that event type is enabled in the System Configuration screen. If messaging is enabled the system then checks the sample's project and, if applicable, customer messaging configuration. If there are either project, customer, or combination of customer and project messaging options the system sends a message using the following rules for both login and completion messaging types:

1. Project Messaging. If the project's message type (i.e. login or completion) is enabled with defined message style and recipients, the message is sent.

2. Customer Messaging. Only one of the following rules is used and they are evaluated in the order listed.

- 2.1 If the customer has messaging configured for the project (type enabled, style and recipients defined), the message is sent using the customer's project messaging.

- 2.2. If the customer has default messaging (type enabled, style and recipients defined), the message is sent using the customer's default messaging.

- 2.3. If the project's type is enabled and it has a style with no recipients AND the customer's message type is enabled and it has recipients with no style, a message is sent using the project's style and the customer's recipients.

Note that the order of precedence for which Subject field to use for the message is the customer's, followed by the project's, then the system configuration screen's default. ▲

New Excel Templates

Following is a description of the new Excel export templates added with the release of MSC-LIMS version 4.1. While some of the templates list data from the new Report Specs field in version 4.1, the templates are easily modified and can be used with version 4.0. Download all of the current Excel export templates from the [File Library](http://www.msc-lims.com) at www.msc-lims.com. See each template's Read Me worksheet for additional information.

Final Report - One Sample per Page.xlt

This template is an example of a multi-sample final report that can be created by exporting a Sample Summary report. The template lists each sample on a separate worksheet. When the Remove Infrastructure option on the Settings worksheet is enabled, all sample worksheets are selected so each sample prints beginning on a new page with correct page numbering across worksheets. To try the template, preview a multiple-sample Sample Summary report, use File | Export to MS Excel Template then select this template.

Final Report - One Sample per Page with QC.xlt

This template is a variation of the template above with a separate QC worksheet that lists all QC data for all samples on the report. When the Remove Infrastructure option is enabled, all sample worksheets and the QC worksheet are selected so each sample and the QC data prints beginning on a new page. To

try the template, preview a multiple-sample Sample Summary report, use File | Export to MS Excel Template then select this template.

Final Report Example with QC.xlt

This template is a variation of the multi-sample Final Report Example.xlt template with a separate QC worksheet that lists all QC data for the report's samples. The template lists samples and their analyses in consecutive rows and uses conditional formatting to prevent repeating the sample ID for each sample analysis row. To try the template, preview a multiple-sample Sample Summary report, use File | Export to MS Excel Template then select this template.

Sample Tracking by Batch and Customer.xlt

While MSC-LIMS' Sample Tracking report can be used to quickly track incomplete samples and analyses, it is often convenient to see the report's data summarized with only counts of incomplete samples and analyses. This template is an example of a custom Sample Tracking report, which summarizes the data by batch number and customer using Excel's subtotals feature. To try the template, preview the Sample Tracking report using the appropriate options and sample query criteria, use File | Export to MS Excel Template then select this template. 

Using XLTM templates in Version 4.1

Prior to version 4.1 all Excel templates used with MSC-LIMS must be in Excel 97-2003 XLT template format. Like all Excel 97-2003 format workbooks, XLT files limit worksheets to a maximum 256 columns (column IV) and 65,536 rows. With Excel 2007 or newer and MSC-LIMS 4.1 you can now use Excel's XLTM macro-enabled templates. Like XSLX files, XLTM templates allow worksheets with up to 16,384 columns (column XFD) and 1,048,576 rows and support a greater range of color and new themes.

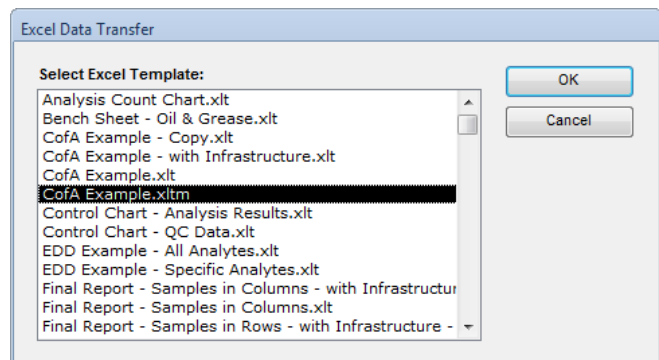
Use an XLTM template when you want more colors or reach an XLT template's worksheet row or column limit. For example, the Report worksheet in the Final Report - Samples in Columns.xlt example template

uses 10 columns to display the analyte name and five columns per sample to display the analysis result, which allows a maximum of 49 samples on the report ($49 \times 5 + 10 = 255$). Without making any changes to this template's column structure, converting to an XLTM template would allow over 3200 samples.

For backward compatibility, all example templates supplied with MSC-LIMS remain in XLT format. However, you can easily convert any XLT file to XLTM format. Simply open the XLT file in Excel, use File | Save As then set the 'Save as type' to Excel Macro-Enabled Template (*.xlTM).

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Note that the Excel Data Transfer screen in version 4.1 now shows the file extension for all templates in the designated Excel export templates folder. ▲

Notes from Technical Support

Incomplete Analyses Organized by Analyst

A user recently submitted this request:

I would like to generate a work sheet per technician at the end of each day that includes most of the incomplete analyses... The next morning, the technician looks at his list and determines which analyses he wants/needs to do that day.

We have 4 technicians and they each do 15-30 different analyses. I'm worried we might miss an analysis or two if we had to manually pick the analyses each day. So far, analyses do not have a technician connected to them. I'm willing to do this if it will help query samples easier.

The Analyses setup screen does not have a field to assign an analysis to a technician but there is an alternative. Many sites use the Work Sheet report on the Notebook menu to create technician work lists. To avoid selecting individual analytes you can use the "Select analytes by Requirement" option on the Work Sheet Setup screen.

A Requirement is simply a named list of analytes, so you can create requirements to select each technician's analytes. You can export the report to your own modified copy of the example work sheet template to create your report. ▲

Incorrect LimsAccessVersion Setting in Excel Template

A user recently wrote:

We're using the attached template to import samples in MSC-LIMS and one computer gives the error message ["MSC-LIMS must be running to..."] whereas the other computers do not. Do you have suggestions that I can try to fix this error message. LIMS was already running and it was giving the error.

This is a common but erratic problem for MSC-LIMS 4.x users with Excel templates they began using with MSC-LIMS 3.x. If the Excel template queries the LIMS for additional data it will likely have a LimsAccessVersion option on the Settings worksheet, which should be changed from 10 for MSC-LIMS 3.x to 14 for MSC-LIMS 4.x. Changing the template's LimsAccessVersion to 14 solved the problem. See "Check Your Excel Template's LimsAccessVersion" in [MSC-LIMS Insights Issue 23](#) for more information. ▲

Opening LimsData with Microsoft Access

A user asked:

I need to pull data from [the MSC-LIMS] Microsoft Access database. But when I try to open the database, I receive the error: "You do not have the necessary permissions to use the 'LimsData4.mdb' object."

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Since the MSC-LIMS database file LimsData4.mdb is a secured file you must open it in Microsoft Access using the workgroup security file LimsUser4.mdw and a valid MSC-LIMS login account. The simplest way to open LimsData4.mdb is to create a new shortcut to start Microsoft Access with the /wrkgrp switch on the command line. First, search your Program Files folder for file MSACCESS.EXE then create a new desktop shortcut with the full path to the file. Append /wrkgrp and the full path name of the LimsUser4.mdw file to the shortcut's Target property. For example, here is the Target property for the shortcut on a 32-bit Windows system with Access 2010:

```
"C:\Program Files\Microsoft  
Office\Office14\MSACCESS.EXE" /wrkgrp  
"C:\MSC-LIMS\LimsUser4.mdw"
```

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

[Excel Export Templates.zip](#)

This zip file contains all example Excel export templates currently installed by MSC-LIMS version 4.1. See each template's Read Me sheet for details and see "New Excel Templates" above for a list of new templates. 

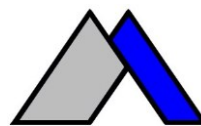
Note that you can also append the database to open to the shortcut's Target property to open it directly:

```
"C:\Program Files\Microsoft  
Office\Office14\MSACCESS.EXE" /wrkgrp  
"C:\MSC-LIMS\LimsUser4.mdw"  
"C:\MSC-LIMS\LimsData4.mdb"
```

Using each of the shortcuts above will issue a Logon dialog, which requires a valid LIMS login name and password to start Microsoft Access. If you only need to read data in LimsData, consider using the login name Guest, which by default has no password and is a member of the MSC-LIMS ReadOnly security role. 

Contact Us

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