

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. 15

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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 downloadable 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. ▲

Outlook 2007 or Older Needed for MSC-LIMS Messaging

If you are currently using or plan to use MSC-LIMS Messaging to automate results reporting to your clients, please be aware that you will need a copy of Outlook 2007 or older to install Messaging.

MSC-LIMS Messaging uses Microsoft's Collaboration Data Objects (CDO) software library to send emails and faxes. When Messaging was first released in December 2000, Microsoft's licensing model allowed us to distribute and install the CDO library with our software. Later, Microsoft changed their CDO license and we could no longer install it with Messaging. Installing CDO required a licensed copy of Microsoft Outlook where it was an optional installation component through Outlook 2003. CDO is no longer included with Outlook 2007 but it is available as a download from Microsoft's web site but only for Outlook 2007.

Microsoft has discontinued support of CDO with Outlook 2010. We will be eliminating CDO in a few years with MSC-LIMS 4.x. Until then, you must have Outlook 2007 or older to install MSC-LIMS Messaging 3.x on a workstation. For more information see Microsoft's article [Collaboration Data Objects \(CDO\) 1.2.1 is not supported with Outlook 2010](#).

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From the Developer

I am frequently reminded how valuable our integrated Excel interface has become for many MSC-LIMS users. The number of technical support requests for assistance with new Excel templates is perfect evidence how this important feature helps users extend the system's value.

Through our technical support service we introduce new users to the Excel interface and help them implement their initial templates. However, we must bill our time for more involved Excel template development work. Therefore, our goal is to help users learn to make their own templates by copying and modifying one of our many examples. In this issue of MSC-LIMS Insights we begin a series of articles that will explore Excel template macros in more detail. I hope the articles will help more users gain a better understanding of their Excel templates.

If you plan to use MSC-LIMS with the Windows 7 operating system or use Office 2010 on your LIMS workstations, this issue includes important information. You can update any MSC-LIMS 3.x workstations with our latest installation software that is compatible with Windows 7 and Office 2010.

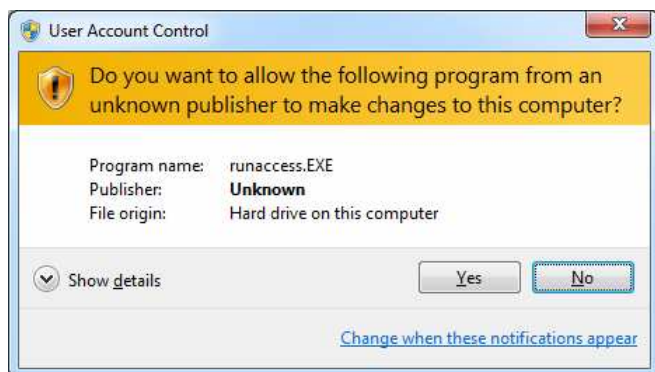


Rick Collard is the founder of Mountain States Consulting and the principal developer of the MSC-LIMS software. You can reach Rick by email at rcollard@msc-lims.com.

New Windows 7 and Office 2010 Compatibility

MSC-LIMS runs without problems on workstations running the Windows 7 operating system and MSC-LIMS will coexist with Office 2010. However, if you began using MSC-LIMS before the release of version 3.3 in November 2010, you will encounter minor annoyances, including those listed below.

First, when starting MSC-LIMS, Windows 7's User Account Control (UAC) security feature will ask for permission to allow program runaccess.exe to make changes to your system (see prompt below). Windows 7 standard users will need a password to an account with administrative privileges to proceed past the UAC prompt. Users with Windows 7 administrative privileges only need to acknowledge the UAC prompt.



Second, Windows 7 does not maintain the MSC-LIMS shortcut's icon when showing the running application in the Windows 7 taskbar if runaccess.exe was used to start the software. Windows 7 shows the Access 2002 icon instead.

Finally, if you also use a full copy of Access 2010 on your MSC-LIMS workstation, you may encounter Microsoft Office's reconfiguration dialogue when starting Access 2010 after exiting the LIMS or vice versa.

These problems are corrected with MSC-LIMS version 3.3's new installation software, which replaces the runaccess.exe utility with a newer StartAccess_2002.exe version. Both runaccess.exe and StartAccess_2002.exe start MSC-LIMS with the Access 2002 runtime while maintaining compatibility with any full copies of Access installed on the workstation.

If you first installed MSC-LIMS beginning with version 3.3 your system will already have the new installation software. However, installations that predate version 3.3 use our old installation software. Even if you have updated to version 3.3 from an earlier version, your system will have the old installation software.

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The solution: if you need to run MSC-LIMS on systems with Windows 7 or Office 2010, see [Updating an](#)

[MSC-LIMS 3.x Installation for Windows 7 and Office 2010 Compatibility](#) in the Knowledge Base for complete instructions to update your system. ▲

Introduction to MSC-LIMS' Excel VBA Macros

MSC-LIMS' integrated Excel interface has become an indispensable tool for many MSC-LIMS users. With appropriate templates, the Excel interface is widely used to create custom reports, export data to other information systems, import instrument data, and create data entry screens to calculate and import analytical results.

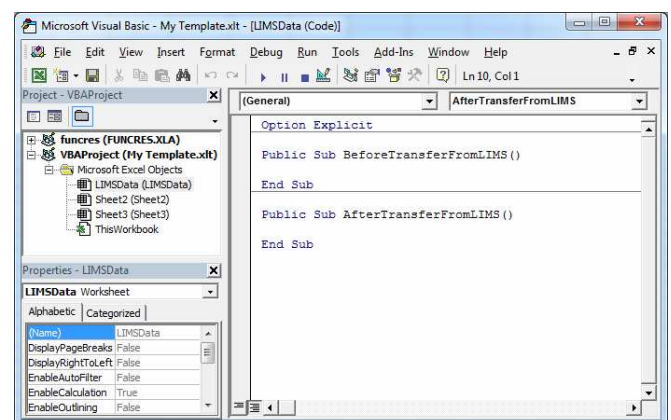
The value of the Excel interface is apparent given the frequency of technical support requests we receive for assistance with Excel templates. With this and future Insights articles, we will explore the Visual Basic for Applications (VBA) macros essential in an Excel template used with MSC-LIMS.

An Excel macro provides a means to automate repetitive tasks. To cite a simple example, if you frequently resize cells and change their font, text alignment and text wrapping to a preferred layout, you can record a macro while you perform the task then invoke the macro to repeat the process on any cell. When you record a macro, Excel will add the equivalent VBA statements or commands to duplicate the tasks you performed.

In templates used with MSC-LIMS, macros are also employed to perform tasks preceding or following the transfer of data to and from the LIMS and Excel. For example, a macro organizes and displays data on a final report after the data is exported from the LIMS. To support separate tasks both before and after data is transferred from the LIMS all templates must include a worksheet named LIMSDData with macros BeforeTransferFromLIMS and AfterTransferFromLIMS. Templates used to import data into the LIMS must also include macros BeforeTransferToLIMS and AfterTransferToLIMS. These macros may be empty with no executable VBA statements but they must exist.

To illustrate the location and format of these macros and their use with MSC-LIMS, we will create a simple example. Begin by opening Excel with a blank workbook and change the name of the first worksheet from "Sheet1" to "LIMSDData". Use File | Save, set the save as type to "Template (*.xlt)" and the file name to "My Template" and save the file in your Excel export templates folder.

Use Tools | Macros | Visual Basic Editor to open the VBA Editor. If the Project Explorer and Properties windows are not visible on the left side of the VBA screen, use View | Project Explorer and View | Properties to display. Select Sheet1 in the project explorer and change its Name property in the Properties window to "LIMSDData". Since our macros must be stored with the LIMSDData worksheet, double-click the LIMSDData sheet in the project explorer to open the LIMSDData sheet's VBA code window. Enter the VBA statements shown in the code window below.



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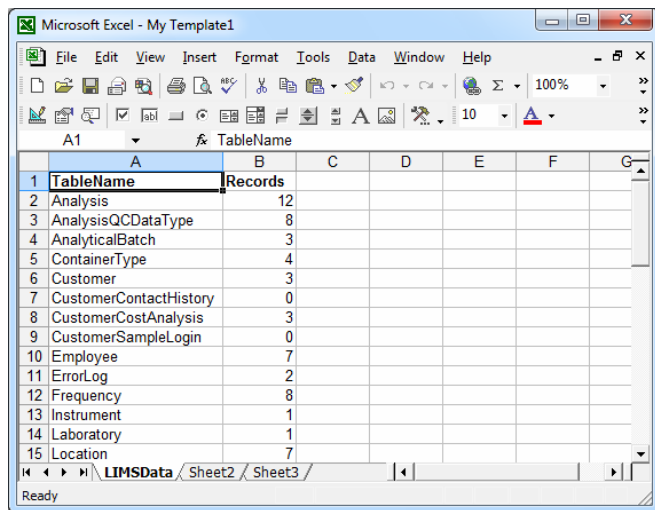
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The "Public Sub" statements define a public subroutine or macro with the given name. Public macros are accessible to Excel users and to external applications such as MSC-LIMS. The parentheses after the macro name enclose parameters with additional data sent to the macro. MSC-LIMS sends data directly to the LIMSData worksheet and not to the macro so there are no parameters.

The "End Sub" statement identifies the end of the macro. With no statements between the "Public Sub" and "End Sub" statements these macros are empty and they are the minimum required by an MSC-LIMS export template.

Use File | Close and Return to Microsoft Excel to close the VBA editor. Close and save your template. Open MSC-LIMS, preview any LIMS report then export the report to your new template. The image below shows the results of exporting the Database Records report to the template.

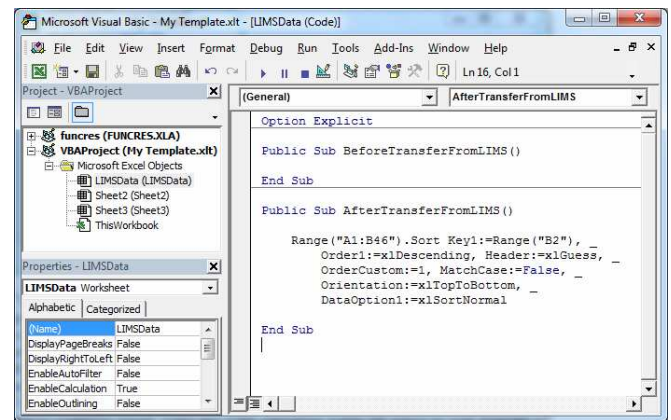


1	TableName	Records					
2	Analysis	12					
3	AnalysisQCDataType	8					
4	AnalyticalBatch	3					
5	ContainerType	4					
6	Customer	3					
7	CustomerContactHistory	0					
8	CustomerCostAnalysis	3					
9	CustomerSampleLogin	0					
10	Employee	7					
11	ErrorLog	2					
12	Frequency	8					
13	Instrument	1					
14	Laboratory	1					
15	Location	7					


You now have a basic export template with empty macros. You can use Excel's macro recorder to perform a task you want to repeat each time you export to the template then copy the VBA statements Excel creates to your template's macro.

For example, if we want to sort the Database Record report's data by descending record count so we can quickly see which tables have the most data, use Tools | Macro | Record New Macro, note that our new macro will be called Macro1 then click [OK]. Use Data | Sort and sort by descending Records then click [OK]. Now use Tools | Macro | Stop Recording then Tools | Macro | Visual Basic Editor. Double-click Module1 in the project explorer to view the Macro1 macro created by Excel.

Copy any VBA statements within the macro to your template's AfterTransferFromLIMS macro. The image below shows the new sort statement added to our macro.



When MSC-LIMS exports a report's data to any template it will first have Excel create a new workbook from the template. MSC-LIMS will then run the new workbook's BeforeTransferFromLIMS macro. Next, MSC-LIMS will write the report's underlying data to the LIMSData worksheet and finally it will run the workbook's AfterTransferFromLIMS macro.

Using Excel's macro recorder you can create and copy VBA code excerpts into your own template's macros to automate tasks to sort, graph, report, and analyze LIMS data with Excel. 

Notes from Technical Support

View Current Users Fails

In an MSC-LIMS multi-user installation, the View Current Users option on the Admin menu will display a list of all users currently logged on to the LIMS. Viewing a list of current LIMS users can be particularly useful when you need to perform administrative tasks that require exclusive control of the LIMS database such as when compacting. The View Current Users option may fail with the following error:



To obtain a list of current users, the MSC-LIMS software uses a programming technique that requires a valid login name and password to retrieve the list. Since only the LimsAdmin and Guest login accounts are guaranteed to exist and the LimsAdmin account's password is most likely to change, the software uses the Guest account with its default of no password. If you have added a password to the Guest account, View Current Users will fail with the above message. The only solution is to clear the password from the Guest account. ▲

Clearing Messaging's Queue

An MSC-LIMS user recently asked:

We've decided to try LIMS messaging again, so I opened it for the first time in a year or so. My queue has over 1000 reports it wants to send. Is there a way to empty the queue without sending?

Yes, you can easily delete all or select messages from MSC-LIMS Messaging's queue. First, use the [Message Queue] button in Messaging to open the Message Queue screen.

To delete all records in the queue, use Ctrl+A to select all records then use the Delete key to delete. To delete specific records, click or click and drag the record selectors to select one or more records then use the Delete key to delete the selected records. ▲

Messaging's Email Subjects

A user sending final reports to customers with MSC-LIMS Messaging asked this question:

I have a customer who wants to see the product description in the subject line for the results messages. Is this possible and if so, how?

Yes, you can configure customer-specific subject lines for emails sent by Messaging. In this case, use a subject expression on the Messaging tab of the customer setup screen to add the sample's description to the subject. Double-click the Subject field for expression examples. The field name for the sample's description is "Description" so possible expressions are:

SampleID & " " & Description
Batch & " - " & Description ▲

Adding New Analyses in Specific Order

The following question applies to both projects and requirements:

I need to add "extra" analytes to a requirement list. How do I "insert" these analytes between existing ones in the list? We add new compounds as we identify them in test samples and I need to be able to alter the Requirements list as needed.

Analyses are added to projects and requirements in their sort order. To view the sort order, use the [Analysis Sorting] button on the Analyses setup screen. Analyses without a numeric sort order are sorted alphabetically. Enter your own numeric sort order values to control the order of analyses. When first adding analyses to a project or requirement they will appear at the bottom of the list in the Projects or Requirements setup screen. These screens only sort the analyses when first opened. If you exit then reopen the screen you will see the analyses in their proper sort order. ▲

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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.


Knowledge Base

[Updating an MSC-LIMS 3.x Installation for Windows 7 and Office 2010 Compatibility](#)

Summary: Beginning with the release of MSC-LIMS version 3.3, the MSC-LIMS installation software was updated for improved compatibility with both Windows 7 and Office 2010. This article shows you how to determine whether you have the latest installation software and how to update earlier installations to the new software.

File Library

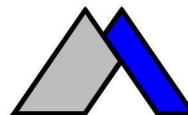
[MSC-LIMS-330-Setup.exe](#)

This self-extracting archive file contains the MSC-LIMS version 3.3 installation software that is compatible with Windows 7 and Office 2010. If you first installed an older version of MSC-LIMS, you can use this file to update your installation to the new installation software. See *New Windows 7 and Office 2010 Compatibility* above for more information. 

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