

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

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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. 

Your Keyboard is Your Friend

You knew that already. But did you know that taking a few moments now to expand your repertoire of MSC-LIMS keyboard shortcuts can save significant time in the long run?

Your **MSC-LIMS Users Guide** contains a lengthy list of keyboard and mouse techniques (see "Common Keystrokes and Mouse Actions," Chapter 3, Version 3.0 Users Guide).

Keyboard Shortcuts

This column introduces a new feature for MSC-LIMS *Insights*, in which we offer some of the most useful shortcut techniques. Try these for starters:

- To select or deselect the current field, hit **F2**.
- To switch between the values in a check box or option button, simply hit the **SPACEBAR**.
- To undo changes in the current field or current record, hit the **ESC** key. Hit **ESC** twice to undo changes in the field then in the record.
- To move the insertion point within the field, use the **Arrow** keys.

Tip: If you have a full copy of Microsoft Access, you can search the online Help system for "keyboard" for all keyboard shortcuts.



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From the Developer

How can we top last winter's Tenth Anniversary of the first installation of MSC-LIMS? With this year's celebration of the Twentieth Anniversary of Mountain States Consulting. We are happy to share the good news with our customers.

This issue of MSC-LIMS Insights offers ways to improve your efficiency using keyboard shortcuts, and ways to improve the look of your Excel reports with conditional formatting. See the relevant articles for specifics.

Lastly, we expect to release MSC-LIMS 3.1 in June or July of this year. See "What's Coming This Summer in Version 3.1" below.



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.

Mountain States Consulting's Twenty-Year Anniversary

MSC's company resume reflects the evolution of computer technology.

By 1986, Rick Collard, founder of Mountain States Consulting, LLC (MSC), had put in his time developing software solutions for the REALLY big boys, including Eastman Kodak, Hercules, Eaton-Kenway and Firestone. While those companies were producing fine products, Rick wanted more flexibility.

"I wanted to work on more varied projects," Rick recalled. "Enormous projects obviously require many years' concentrated development. It's easy to become complacent; to become so focused on one technology that you miss out on upcoming developments in the rest of the field. I didn't want that."

Ironically, rather than holding him back, Rick's expertise in mini-computers (the precursor to micro-computers, or PCs) was his springboard to independence. "I had become proficient programming Hewlett-Packard's HP1000 systems. When I decided to start MSC, Hewlett-Packard's Salt Lake City office referred some excellent projects to me. They really kept me busy while I got the business up and running."

By the way, what happened to mini-computers? "HP-1000s were not even as numerous as Digital Equipment Corporation's (DEC) systems. HP1000s had their own niche at the time, and obviously many people were still relying on them and needed to have their systems maintained. But in general, mini-computers were on their way out, as micro-computers (PCs essentially) were becoming more common and more powerful."

The writing was on the wall. "Eventually micro-computers caught up in power to the mini-computer of the time. HP 1000s had come out in the mid-70s, and PCs came out gangbusters in '82. That was clearly where the action was, and that's where I wanted to be."

MSC's first PC-based projects involved data transfer from HP1000s into PCs, because by the late '80s the PC already had more accessible data analysis tools in the form of spreadsheets.

MSC's first commercial PC product was "MSC-MENU", an application which made a DOS-based PC much easier for non-programmers to get around in. Fortunately, Windows soon became available for everyone and users could operate their computers without memorizing DOS commands or using a MENU-type product.

MSC started out on the ground floor with Access: its first Access-based project was initiated in the early '90s, using Version 1.0 of Access. "I remember that, to get their foot in the door with PC programmers, Microsoft offered Access 1.0 for \$99. That was a bargain, compared to other PC databases available at the time."

April 1, 2006, marks the twentieth anniversary of MSC's founding. MSC's project record nearly matches recent computer technology's historical timeline and, like the PC itself, MSC has steadily gained in reputation and success. Computer technology is still evolving and going strong, and so is MSC. 

Improve Excel Reports with Conditional Formatting

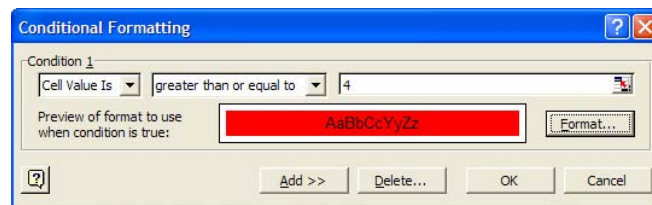
If you have been using Excel templates to report MSC-LIMS data you are probably well aware of the power and flexibility Excel provides. Excel's conditional formatting feature offers another technique you can use to improve the readability of your reports. Consider conditional formatting, for example, when you want to highlight values that meet a specific condition.

Wind River Wastewater Treatment Plant							
Monthly Operating Report January, 2006							
	FINAL EFFLUENT				RAW INFLUENT		
	BOD5 mg/L	TSS mg/L	NH ₃ -N mg/L	Fec Coli #/100ml	BOD5 mg/L	TSS mg/L	NH ₃ -N mg/L
Day							
Sun 1	4	2.1	0.95	< 2	324	268	23.98
Mon 2	3	1.4	0.38	< 2	258	226	21.82
Tue 3	3	1.6	0.83	< 2	210	208	21.98
Wed 4	3	1.1	0.66	< 2	258	223	24.34
Thu 5	3	1.6	0.76	< 2	270	167	20.23
Fri 6	3	1.5	0.49	< 2			
Sat 7	4	1.5	0.70	< 2			
Sat 28	15	3.2	17.70	< 2			
Sun 29	23	6.6	19.57	< 2			
Mon 30	17	4.9	15.83	< 2			
Tue 31	11	3.7	11.27	< 2			
Count:	31	31	31	31	19	20	19
Min:	3	1.1	0.38		184	141	20.23
Max:	23	6.6	19.57		324	268	27.00
Average:	7	3	6.45		251	200	23.03

The screen above shows a simple monthly operating report. Recipients of this report who know the acceptable range of values for each column can review the summary statistics and scan the data to see if any daily values are out of range. Providing a visual means to identify values that are outside acceptable limits will improve the report's utility.

To add conditional formatting begin by selecting the appropriate cell(s) then use Format | Conditional Formatting. Note that if your Excel template's macro automatically copies a named range of formulas depending on the data exported, you only need to add conditional formatting to the cells within the name range being copied. To use values as the formatting criteria, select "Cell Value Is" as the first condition in the Conditional Formatting dialog, choose the appropriate comparison phrase (between, equal to, greater than, etc.) then enter the constant value(s) or formula(s). Now click the [Format] button and select the formatting to apply when the cell value meets the condition or the formula returns True. If necessary,

use the [Add] button to add another condition. You can specify up to three conditions.



The screen below shows the results after applying the conditional format shown above to the cells in column C.

Wind River Wastewater Treatment Plant							
Monthly Operating Report January, 2006							
	FINAL EFFLUENT				RAW INFLUENT		
	BOD5 mg/L	TSS mg/L	NH ₃ -N mg/L	Fec Coli #/100ml	BOD5 mg/L	TSS mg/L	NH ₃ -N mg/L
Day							
Sun 1	4	2.1	0.95	< 2	324	268	23.98
Mon 2	3	1.4	0.38	< 2	258	226	21.82
Tue 3	3	1.6	0.83	< 2	210	208	21.98
Wed 4	3	1.1	0.66	< 2	258	223	24.34
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Sat 28	15	3.2	17.70	< 2			
Sun 29	23	6.6	19.57	< 2			
Mon 30	17	4.9	15.83	< 2			
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To delete conditional formatting, select the cell(s), use Format | Conditional Formatting then click the [Delete] button. Select the condition(s) to delete then click the [OK] button. To find cells with conditional formatting, use Edit | Go To, click the [Special] button then select the Conditional formats option. Use the All option to find any cells with conditional formatting or use the Same option to find cells with the same conditional formatting as the selected cell.

Read more about the capabilities of conditional formatting in Excel's online help. Add this useful feature to your Excel reports and give your users a new way to experience their data.

What's Coming this Summer in Version 3.1?

We expect to release MSC-LIMS version 3.1 in June or July of this year. The version update incorporates customer requests for expedient login and reporting, an opportunity to record customer history, and more intuitive operation. This column lists some of the new features coming in version 3.1:

- Version 3.1 boasts new, configurable **auto-complete analyses**, used to add special costs to samples. The analysis is given the designated result automatically during login.
- MSC-LIMS users will have a new **[Summary View]** button on the batch login screen. Use the new button to open a popup form that lists the batch samples in datasheet view where you can edit, delete and copy samples. Sites with customizations can have their custom fields added to the popup.
- A new **customer contact history** feature will be available on the customer setup screen and a new **[Print]** button to print all information for the current customer. Contact history records will include a hyperlink field to link external documents.
- **Container label styles** will be configurable: options include the existing Default and Environmental label styles, and new Configurable3 and Configurable4 styles; existing custom label styles are unaffected.
- In version 3.1, both the **Add Sample Analyses** and **Add Sample Requirements** popups will support adding the selected analyses/requirements to all batch samples during batch login, or to all queried samples in edit mode in the single sample login screen. Safety features include a "Do not add duplicate analyses" option.
- Sample statuses** will be configurable and may be used to define your own service types or turnaround times with an optional analysis cost multiplier. Initially, the original Normal, Rush, and Immediate sample statuses will be listed by default, but these may be renamed or inactivated as you add your own.
- To identify the full relative path for **linked method documents**, Version 3.1 provides a field below the document to show the current hyperlink base (specified on the Workstation Configuration screen).
- **Date, time**, and the combination of date and time serial values may now be entered as analytical results, helpful when entering and reporting dates and times like any other analytical result.
- Version 3.1 includes a new **[Delete Analysis] button** on the single sample login and batch login screens. Only available in edit mode, the button will invoke an interactive popup to delete one or more analyses from either the current sample or all queried or batch samples.
- New **Sample Login Default** fields on the Locations, Sample Types, Samplers, and new Sample Statuses setup screens will be available. These fields may be used to enable a default value for the pick lists in the Sample Login and Batch Login screens, speeding data entry by configuring an appropriate default value. 

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