Updating Excel Templates from MSC-LIMS v4 to MSC-LIMS v5 & J Street LIMS v6

You must update your custom Excel templates as part of migrating to a new version of the LIMS software.

This is a technical process that requires careful attention to detail and experience editing VBA code. If you are not comfortable editing VBA code, we highly recommend working with J Street LIMS support to upgrade your custom Excel templates.

The exact steps may vary among templates. The goal of this document is to provide all the possible changes that MAY be necessary to upgrade a custom Excel template. Not all steps will be required for every template.

A small number of highly-customized templates may require more extensive changes beyond what is outlined here. This applies to only 1-2% of templates based on our experience with other customers. Such work would be billed hourly, but only after getting your approval first.

If you have Full System Licenses to MSC-LIMS and have customized your LIMS database or application (outside of Excel templates), your templates will likely need additional changes beyond what's included in this document. If this applies to you and you have not already, contact J Street LIMS support for further assistance.

When upgrading MSC-LIMS Excel templates from MSC-LIMS v4 to J Street LIMS v6, some of the changes will depend on the version of Microsoft Access you will be using. This document will cover the most common changes that are required in Access 2010, then again for Access 365. In complex templates you may have to copy VBA code from the example templates that are added to your system when you install a newer LIMS application. To determine whether any VBA code in your custom templates must be updated, please reference the chart in the "Example Templates" section below.
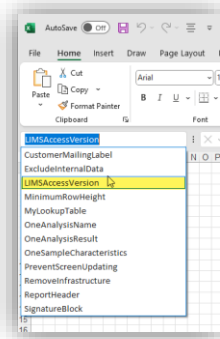
If copying VBA code from example templates is required, J Street recommends either installing the upgraded application or downloading the file **"J Street LIMS v6 Excel Example Templates.zip"** from our J Street LIMS Knowledge Base in order to access these example templates. In extreme cases it may be easier to copy your 'report worksheet' to the example template and adjust your field names to match the newer version.

IMPORTANT: Any updates made to your templates will make them incompatible with your current MSC-LIMS software. Before making any changes to your templates or the example templates, make copies of each template you're working with and save them to a folder you can work out of, while preserving the original templates.

Find LIMS Access Version

Open your first template that needs to be updated. "LIMSAccessVersion" is a named range for the Access Version on the Settings worksheet. To quickly find if there is a version named range, click the down arrow in the Name Box at the top left of the screen. Scan down the list until you find LIMSAccessVersion. When you select it, Excel will take you to the named cell.

NOTE: If "LIMSAccessVersion" does not appear in the Name Box, then there is nothing to update for this step and you may proceed to the "Update References" step below.

***If Access 2010:   No change if the version number is 14.
***Access 365:   Change the version number from 14 to 16.

Update References

References are code libraries that Excel pulls code from for specific uses. If you are not in the code window, press Alt + F11 to go to the code window. Once there, from the menu click Tools > References… to view the current references. To remove a reference un-check the box in front of the reference. To add a reference scroll down the list of references and check the box in front of the reference to be added.
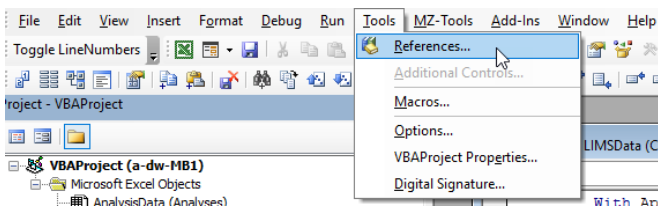
For Access 2010 the references should look like:
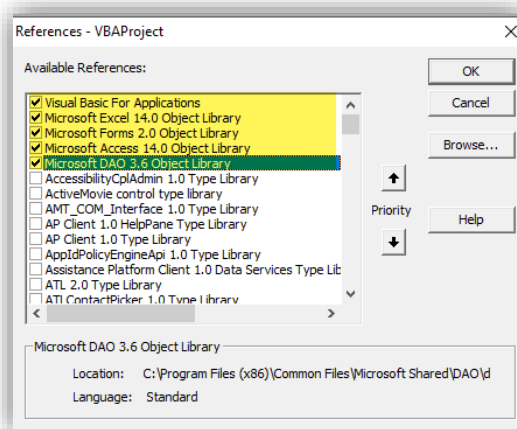
For Access 365 the references should look like:
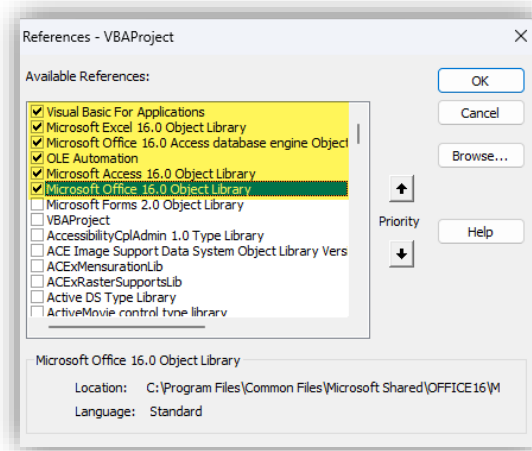
Add new VBA Function: WhereFormUserComputer()

Open the VBA Editor by pressing Alt + F11. Double-click on the LIMSData worksheet from the Project Explorer on the left side of the code window.

Copy and paste the following code at the bottom of the LIMSData code module (the main code window):

```
Public Function WhereFormUserComputer(db As Database, Optional sFormName As String = "") As String

    ' Build a WHERE clause for table SampleQuerySelect

    On Error GoTo WhereFormUserComputerErr
    Dim rs As Recordset
    Dim sSQL As String, sWhere As String

    sSQL = "SELECT CurrentLimsUser() AS UserName, ComputerName() AS ComputerName FROM SystemConfiguration;"
    Set rs = db.OpenRecordset(sSQL, dbOpenSnapshot)
    If rs.BOF And rs.EOF Then
        WhereFormUserComputer = ""
    Else
        sWhere = ""
        If Len(sFormName) > 0 Then
            sWhere = "FormName = '" & sFormName & "' AND "
        Else
            sWhere = "FormName = '" & IIf(InStr(db.Name, "LimsMapi"), "LimsMapi", "frmSampleSummarySetup") & "' AND "
        End If
        sWhere = sWhere & "UserName = '" & rs!UserName & "' AND ComputerName = '" & rs!ComputerName & "'"
        WhereFormUserComputer = sWhere
    End If
    Exit Function

WhereFormUserComputerErr:
    MsgBox "Error " & Err.Number & " in WhereFormUserComputer: " & Err.Description, vbCritical, ActiveWorkbook.Name
    Exit Function

End Function
```

Check for VBA Code That May Need Updating

When migrating from v4 to v5/v6, search the VBA code from the Excel template's LIMSData worksheet. It is highly important that you test your custom Excel templates with your upgraded LIMS software before moving to production, <u>as below is not an exhaustive list of VBA Code that may need to be updated.</u> If you encounter issues or error messages during testing, please contact J Street LIMS Support so we can evaluate if there is additional VBA Code that may need updating. Because custom templates have often been modified by LIMS clients, we can't account for all possible scenarios in these instructions.

If you have Full System Licenses to MSC-LIMS and have customized your LIMS database or application (outside of Excel templates), your templates will likely need additional changes beyond what's included in this document. If this applies to you and you have not already, contact J Street LIMS support for further assistance.

IMPORTANT: If you do have to update the VBA Code in your template, you should recompile after EACH step by clicking Debug > Compile VBAProject from the Main Menu. This will alert you to any typos or issues with your copied code. **ALSO,** if you copy and paste from this Word document, you will have to replace the double quotes, since Word's quote formatting will cause an error.

To open the VBA editor, press Alt + F11. Change the following in the VBA code:

Add dbSeeChanges to all OpenRecordSet Method Calls

Change: *Set rs = db.OpenRecordSet (sSQL, dbOpenDynaset, dbOpenSnapShot)*

To: *Set rs = db.OpenRecordSet (sSQL, dbOpenDynaset, dbOpenSnapShot, <u>dbSeeChanges</u>)*

Then recompile. From the menu, select Debug > Compile VBAProject.

Replace WHERE SampleID IN… with WhereFormUserComputer

Change: *"WHERE Sample.SampleID IN (SELECT SampleID FROM sysSampleSUmmarySelect WHERE Selected=True) " & sInternalData & _*

To: *WHERE " & WhereFormUserComputer(db) & sInternalData & _*

Then add Rpt to qrySampleSummaryAnalysis in the FROM clause

Change: *"FROM qrySampleSummaryAnalysis " & _*

To: *"FROM qrySampleSummaryAnalysisRpt " & _*

Then recompile. From the menu, select Debug > Compile VBAProject.

Change sysSampleSelect to SampleQuerySelect:

Either from the Menu Edit > Find or pressing Ctrl + F. Enter *sysSampleSelect* in the Find What text box and click **Find Next**:

Replace sysSampleSelect with SampleQuerySelect. Then recompile from the Menu by clicking Debug > Compile VBAProject.

Change sysSampleSummarySelect to qrySampleSummaryAnalysis:

Either from the Menu, click Edit > Find or press Ctrl + F. Enter "sysSampleSummarySelect" in the Find What text box and click Find Next:

At this point you will have to compare your VBA code in your old templates with the code in the new Example Templates. With each new LIMS version, the example templates had small changes to certain functions in their VBA code. In order to update your templates for your new LIMS version, those functions must be updated to align with the example templates of the version you're upgrading to.

- Start by identifying the example template that most closely matches your custom template.
  - Your template may have the same name as the example template.
  - You may have to refer to the 'Read Me' tab to narrow down which example template to use.
  - Another aid to finding the correct Example Template is to match the tabs of your template to the tabs in the Example Templates, then refer to the Read Me text for more details.
- Further down in the Example Templates section of this document, there is a table listing the Example Templates that you can match your template's name to for code comparison.
  - In some cases, you may only have to change a query name, but in others you should copy the sample's entire SQL statement and replace the code in your template at a minimum.
  - If there are extensive changes you will need to decide if it is easier to copy your 'report' worksheet to a copy of the example template and then make changes to your report's fields.

Templates with more worksheets than the LIMSData worksheet

The following may not be necessary for your template updates. If your template has Code Modules other than the LIMSData module (for example, templates with charts or graphs), you will need to further review the code and see if it needs to be updated in your template.

For the template that is being updated, if it has more than just the LIMSData worksheet that has a code module, for each worksheet's VBA code note the last update date at the top of the VBA screen. In the screenshot below the comments are for the Worksheet 'Results' VBA code module.
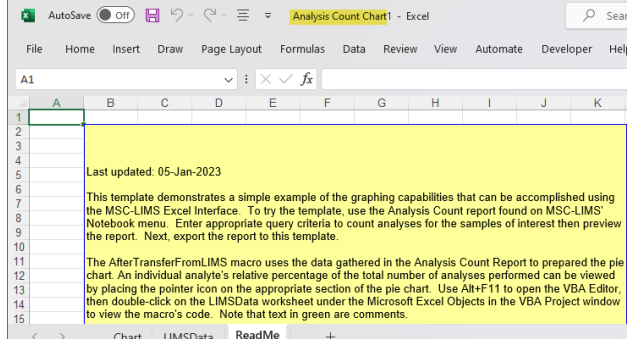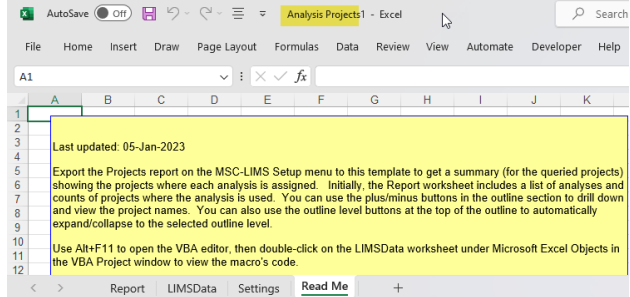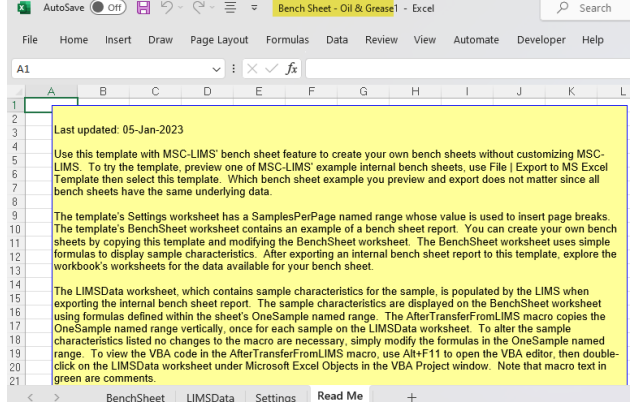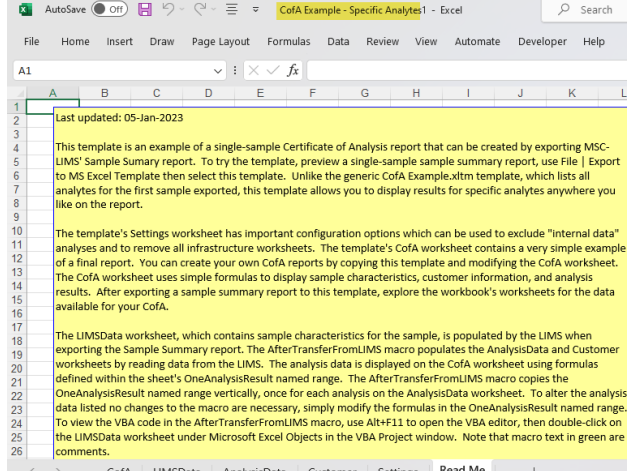
Navigate to where **J Street LIMS v6 Excel Example Templates.zip** is saved. Find the v6 version of the template you're updating in the folder you saved it in and open it. Now, open the template you're updating side by side to the v6 version. In both templates, go to the Worksheet tab and open the VBA window to check the **Revisions** (AKA the last Change Dates).
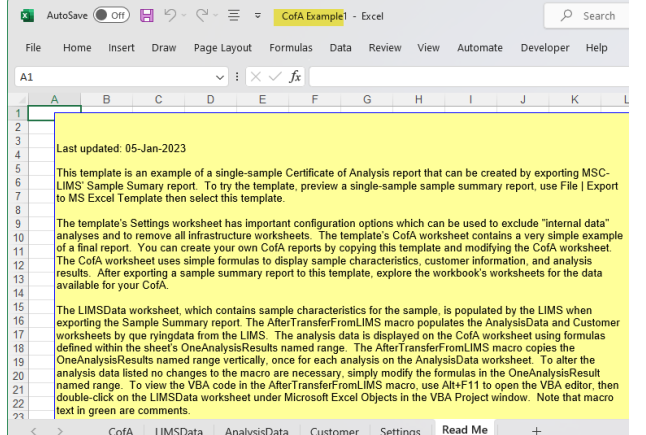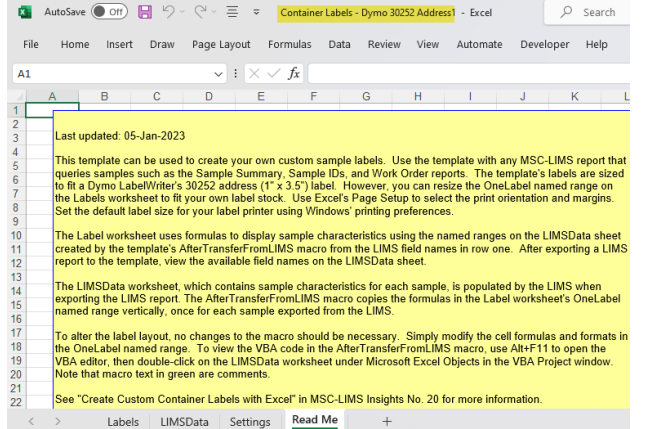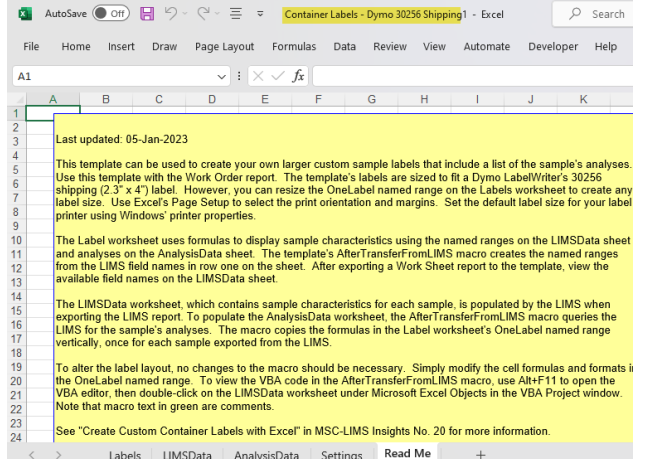
IMPORTANT: If you **do not** see additional Revisions/Change Date entries following the template's Original published date, copy the v6 template's code and replace the old code in the template being updated. If you **do** see additional Revisions/Change Date entries following the Original published date, STOP what you are doing, save your progress, and contact our Support team Support@JStreetLIMS.com. This indicates you have additional VBA code customizations in your template, and replacing this code will get rid of your customizations. J Street may need to charge for "white glove" template updates to preserve these customizations.
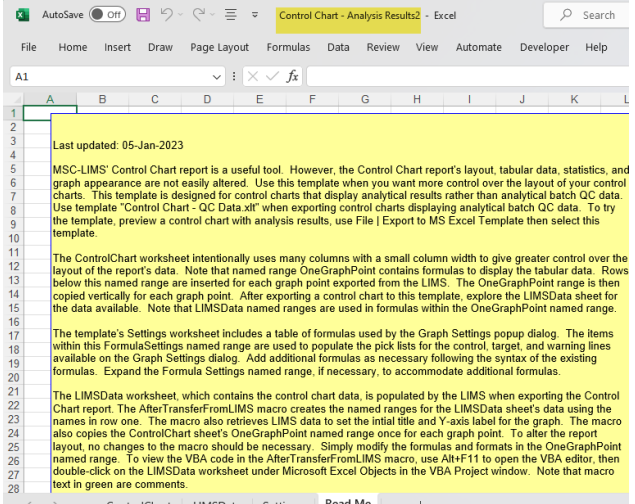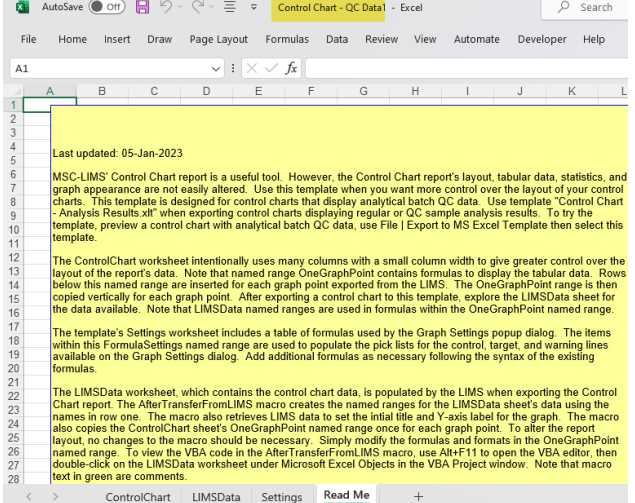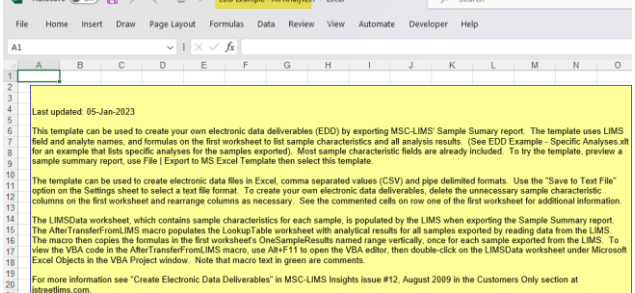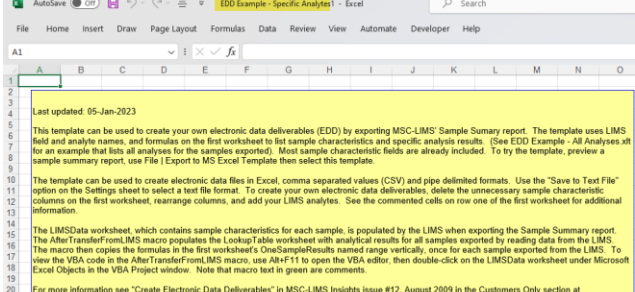
If there were no additional Revisions/Change Dates and you were able to copy the v6 template's code and replace the old code in the template being updated, next you will recompile again. From the Main Menu, click Debug > Compile VBAProject.
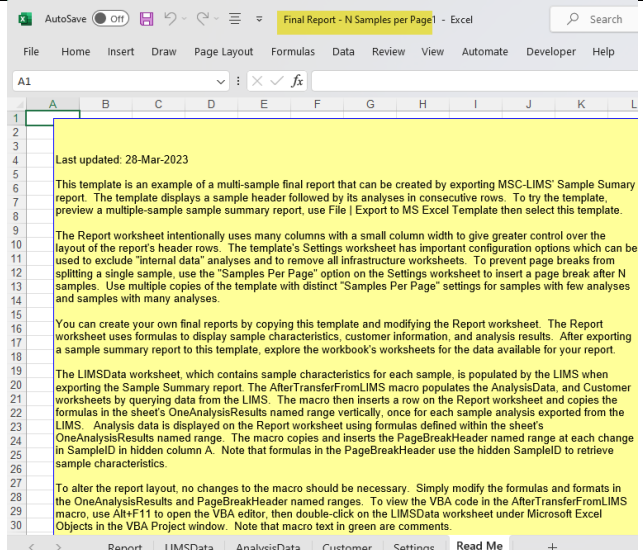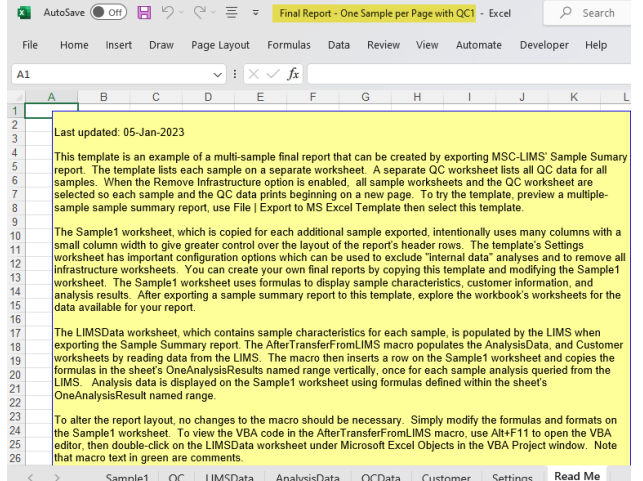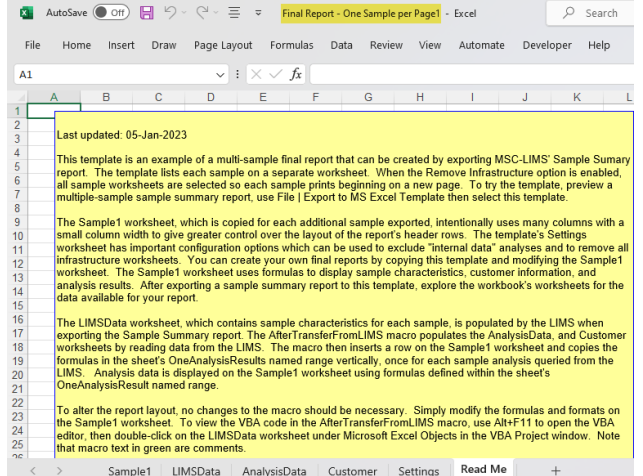
Example Templates
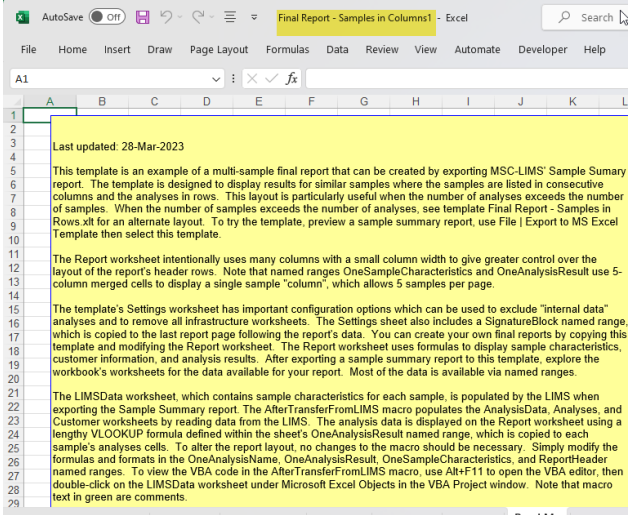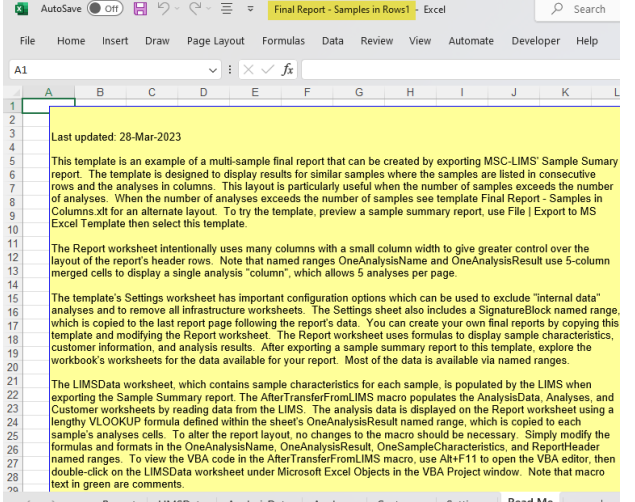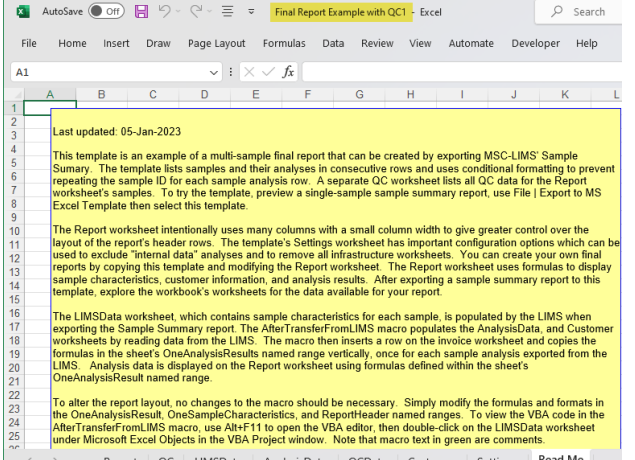
Below is a table that shows screenshots of the ReadMe tab (if the template had one) for the example templates installed with J Street LIMS v6. You will now need to replace all instances of the following query & table names (**sysSampleSummarySelect** and/or **sysSampleSelect**) in the template you are updating with the SQL Code in the new example templates.
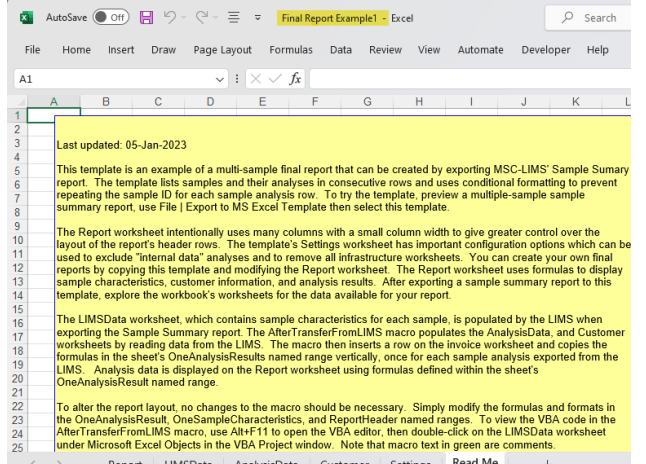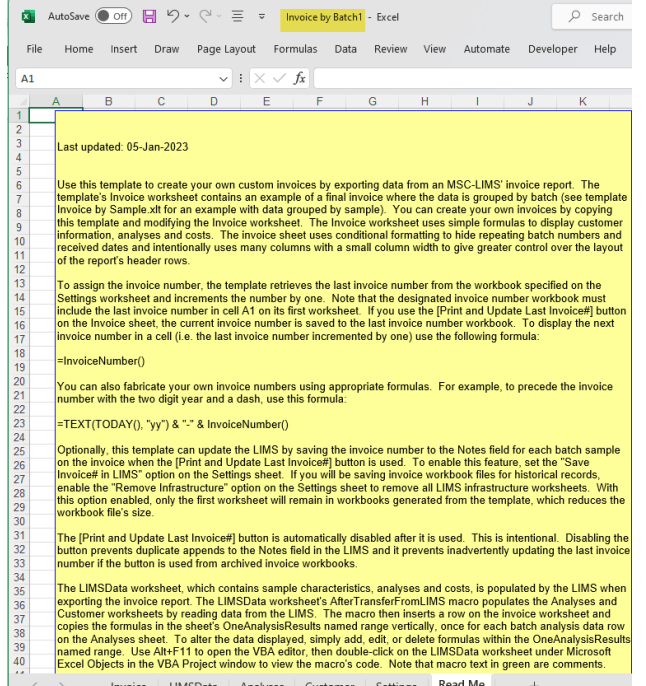
Template Name	ReadMe Tab	Change To
Analysis Count Chart.xltm		No VBA Code to change.
Analysis Projects.xltm		No VBA Code to change.
Bench Sheet - Oil & Grease.xltm		No VBA Code to change.
CofA Example - Specific Analytes.xltm		qrySampleSummaryAnalysis,

Template Name	ReadMe Tab	Change To
CofA Example.xltm		qrySampleSummaryAnalysis
Container Labels - Dymo 30252 Address.xltm		No VBA Code to change.
Container Labels - Dymo 30256 Shipping.xltm		qrySelectedSampleAnalysis
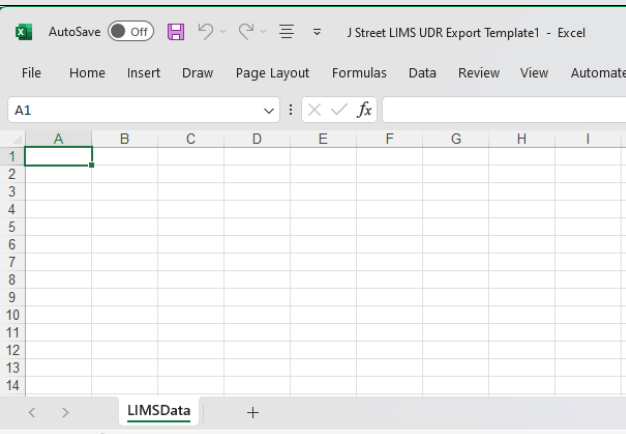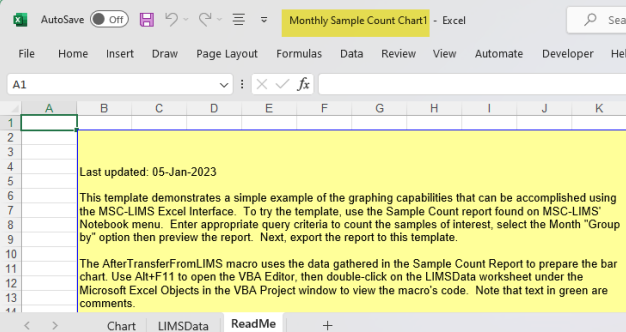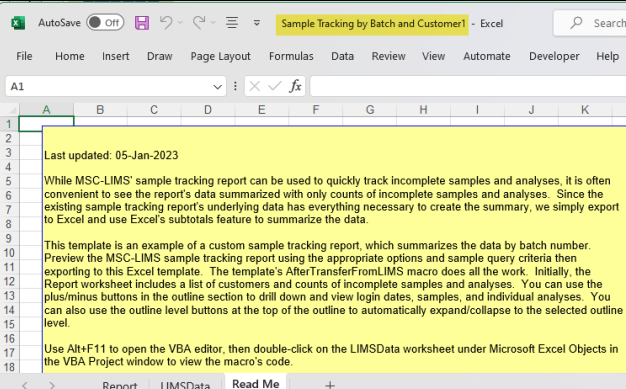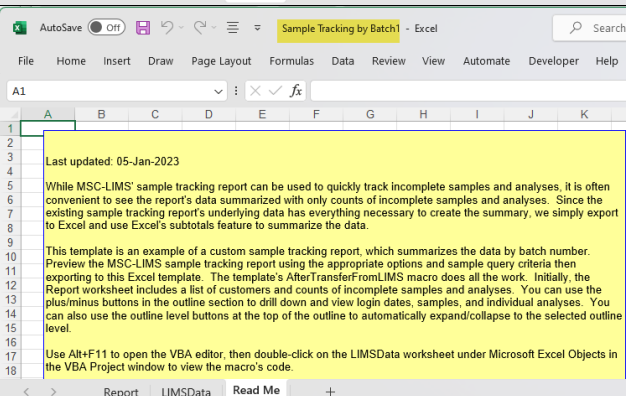
Template Name	ReadMe Tab	Change To
Control Chart - Analysis Results.xltm		qrySampleSummaryAll
Control Chart - QC Data.xltm		qryQCData
EDD Example - All Analytes.xltm		WhereFormUserComputer(), SampleQuerySelect
EDD Example - Specific Analytes.xltm		SampleQuerySelect, WhereFormUserComputer()

Last Revised 12/6/2023
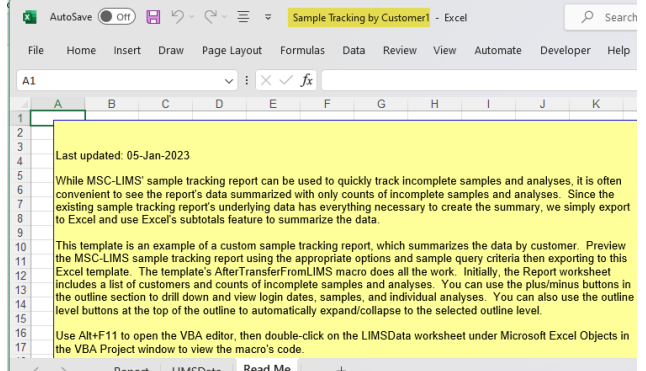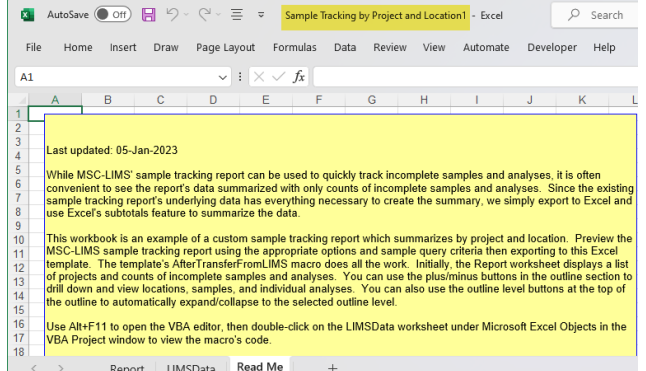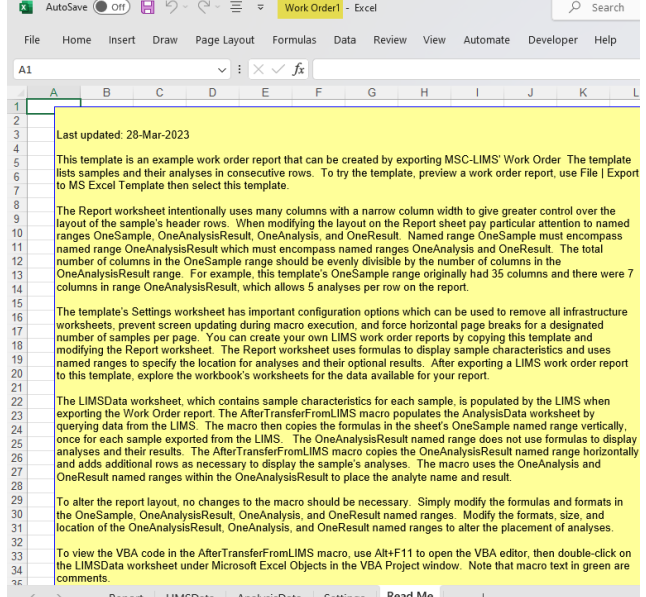
Template Name	ReadMe Tab	Change To
Final Report - N Samples per Page.xltm		qrySampleSummaryAnalysisRpt, WhereFormUserComputer(db)
Final Report - One Sample per Page with QC.xltm		qrySampleSummaryAnalysisRpt, WhereFormUserComputer(db), SampleQuerySelect
Final Report - One Sample per Page.xltm		qrySampleSummaryAnalysisRpt, WhereFormUserComputer()

Template Name	ReadMe Tab	Change To
Final Report - Samples in Columns.xltm		qrySampleSummaryAnalysisRpt
Final Report - Samples in Rows.xltm		qrySampleSummaryAnalysisRpt, WhereFormUserComputer(db)
Final Report Example with QC.xltm		qrySampleSummaryAnalysisRpt, WhereFormUserComputer(db)

Template Name	ReadMe Tab	Change To
Final Report Example.xltm		WhereFormUserComputer(), qrySampleSummaryAnalysisRpt
Invoice by Batch.xltm		WhereFormUserComputer(db, "frmInvoiceSetup")

Template Name	ReadMe Tab	Change To
Invoice by Sample.xltm		No VBA Code to change.
InvoiceNumber.xls	No Read Me tab.	No VBA Code to change.
J Street LIMS Analyses.xltm		No VBA Code to change.
J Street LIMS Export Template.xltm		No VBA Code to change.

Template Name	ReadMe Tab	Change To
J Street LIMS UDR Export Template.xltm		No VBA Code to change.
Monthly Sample Count Chart.xltm		No VBA Code to change.
Sample Tracking by Batch and Customer.xltm		No VBA Code to change.
Sample Tracking by Batch.xltm		No VBA Code to change.

Template Name	ReadMe Tab	Change To
Sample Tracking by Customer.xltm		No VBA Code to change.
Sample Tracking by Project and Location.xltm		No VBA Code to change.
Work Order.xltm		No VBA Code to change.

Template Name	ReadMe Tab	Change To
Work Sheet.xltm		No VBA Code to change.