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LABWORKS 6.10 Installation Certification Document

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LABWORKS Installation Certification Document

The LABWORKS Installation Certification Document provides a set of tests that can be executed by the customer to certify that their install or upgrade is working as expected.

This document describes the Test Configuration, Test Execution and Expected Results.

Following will be the high level workflow for the tests to be performed:

- Setting up an analysis code (one for each type- single component, multi component, container)
- Setting up a location code
- Logging a sample
- Entering results
- Importing data (using scan daemon, multi component transfer and PR6)
- Performing calculations using the built-in calculation engine and excel
- Validating results
- Generating a report
- Creating a QA/QC batch

Pre-requisites

LABWORKS configurations as defined in Installation Guide and Admin Guide.

Test Summary

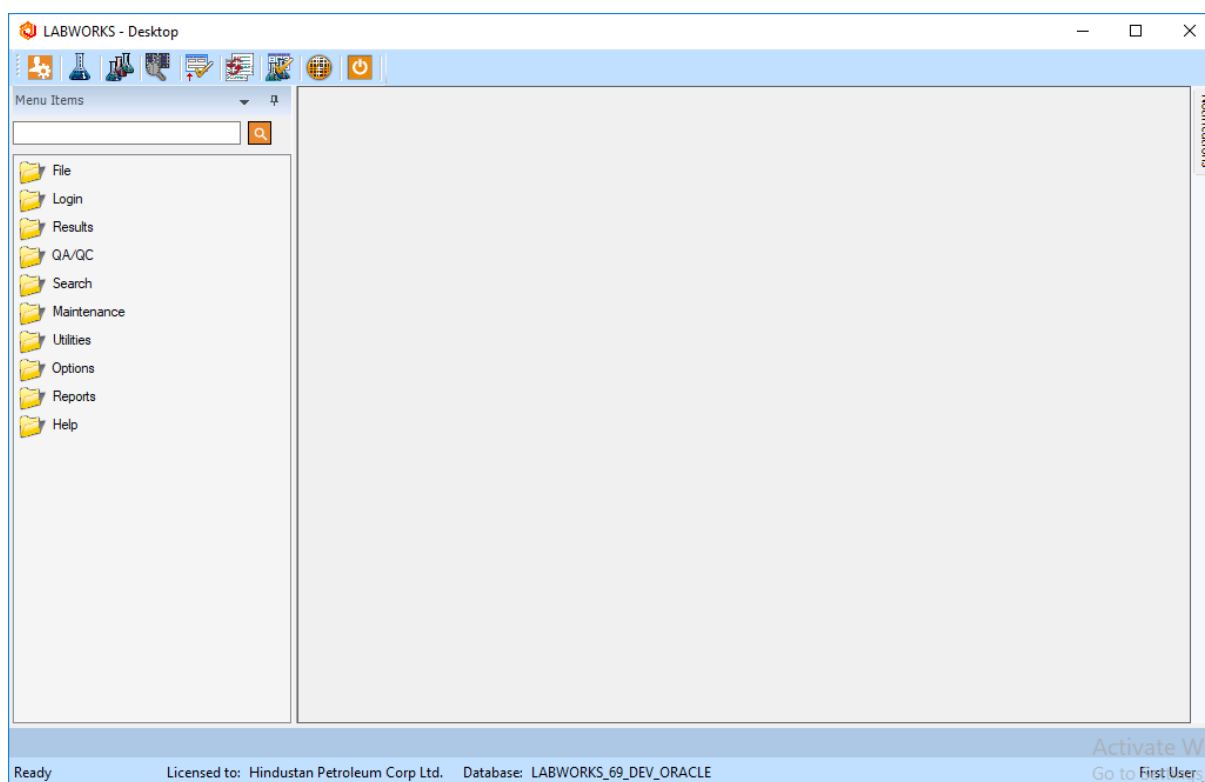
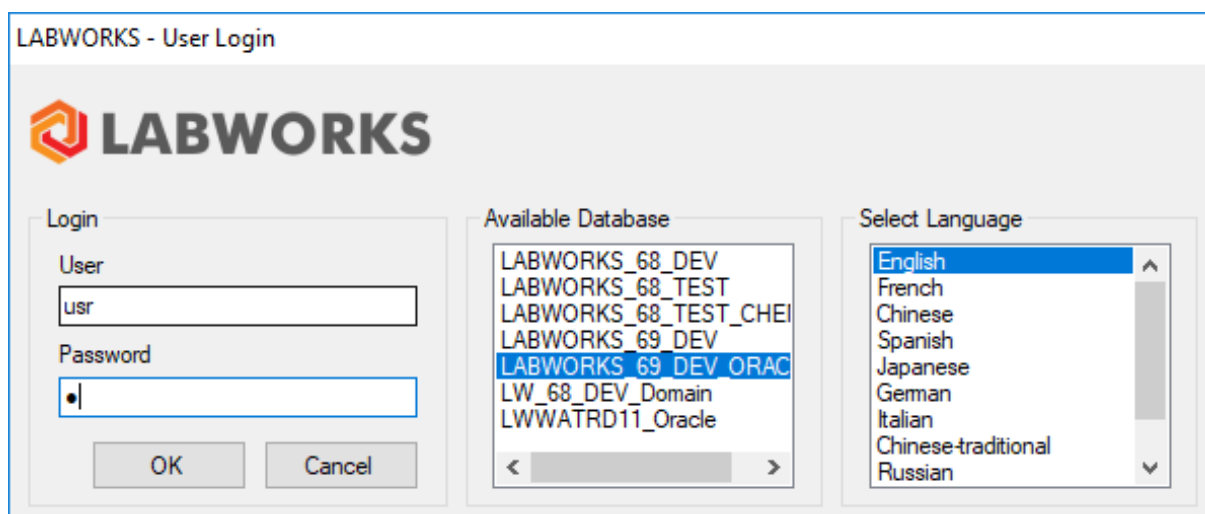
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Installation Tests

1. User Management

1.1. Create User

- 1) Launch LABWORKS Application and enter username/password credentials



- 2) Navigate to File → SYSTEM MANAGER application. Click on “Create New” button. Enter user information and click “Create” button. Configure user privileges.

LABWORKS System Management

System Control | Data Field Names | User Information | Privileges

Save and Exit

User Information

Active	Title	First	Last	Team	Site	Class
☒	Mr.	First	User		FLOATING	Full

LABWORKS System Manager

New User Information

☒ Active

Title:

First name:

Last name:

User ID:

Password:

Email:

Team:

User Site:

User Class:

LDAP User ID:

☒ Copy all privileges and ownership settings

☒ Copy Desktop setup

Create Cancel

☒ Active

Title:

First Name:

Name:

User ID:

Email:

Team:

User Site:

Class:

User ID:

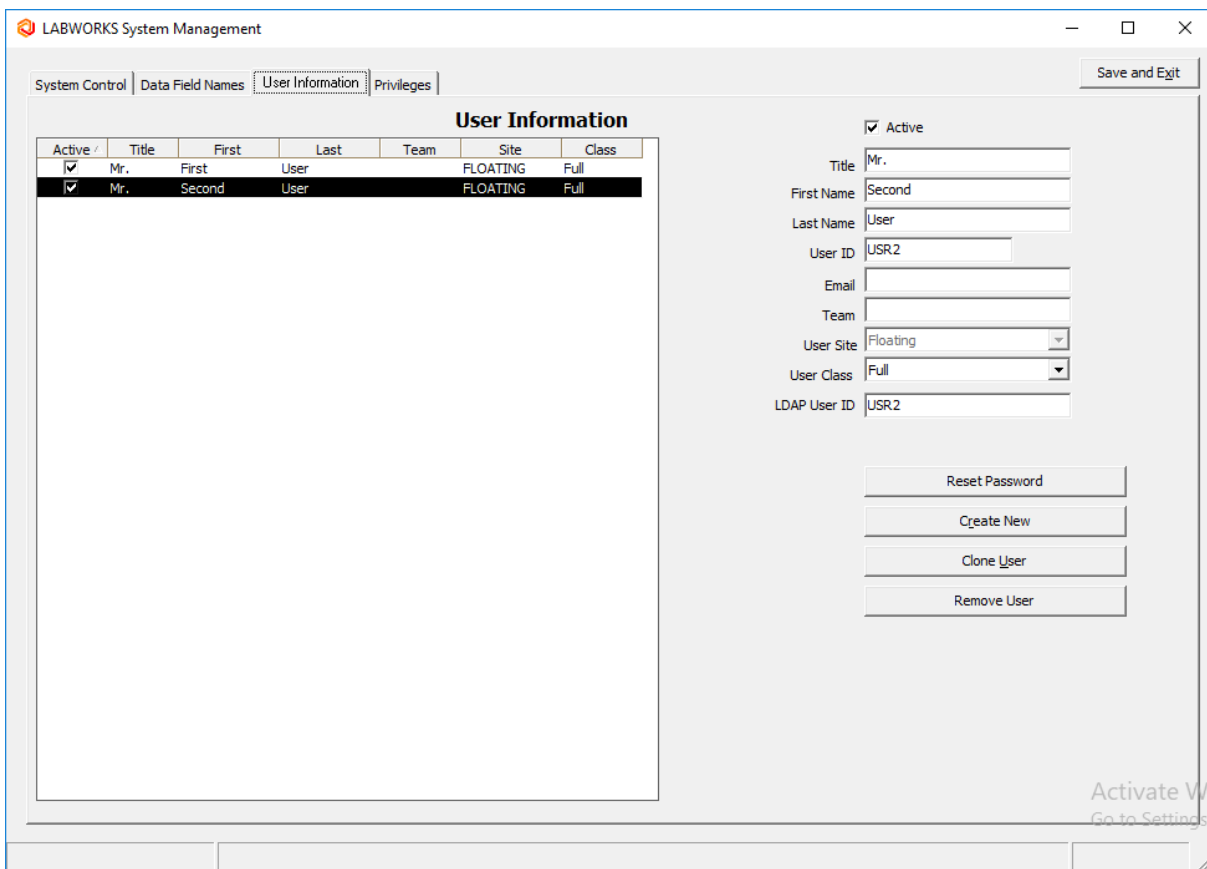
Reset Password

Create New

Clone User

Remove User

Activate WinGo to Settings



LABWORKS System Management

System Control | Data Field Names | **User Information** | Privileges

Save and Exit

User Information

Active	Title	First	Last	Team	Site	Class
☒	Mr.	First	User		FLOATING	Full
☒	Mr.	Second	User		FLOATING	Full

☒ Active

Title:

First Name:

Last Name:

User ID:

Email:

Team:

User Site:

User Class:

LDAP User ID:

Reset Password

Create New

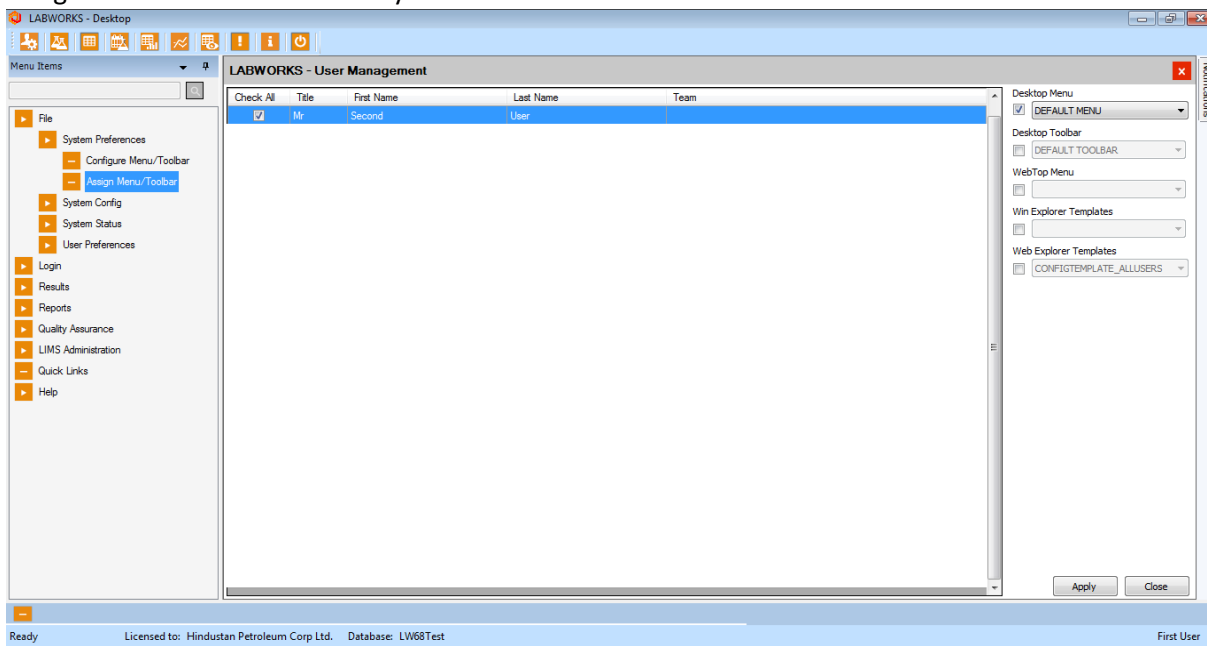
Clone User

Remove User

Activate Win
Go to Settings

1.2. Assign Menu

- 1) Assign default menu to the newly created user.



LABWORKS - Desktop

Menu Items

- File
 - System Preferences
 - Configure Menu/Toolbar
 - Assign Menu/Toolbar**
 - System Config
 - System Status
 - User Preferences
- Login
- Results
- Reports
- Quality Assurance
- LIMS Administration
- Quick Links
- Help

LABWORKS - User Management

Check All	Title	First Name	Last Name	Team
☒	Mr.	Second	User	

Desktop Menu: ☒ **DEFAULT MENU**

Desktop Toolbar: ☐ DEFAULT TOOLBAR

WebTop Menu:

Win Explorer Templates:

Web Explorer Templates: ☐ CONFIGTEMPLATE_ALLUSERS

Apply Close

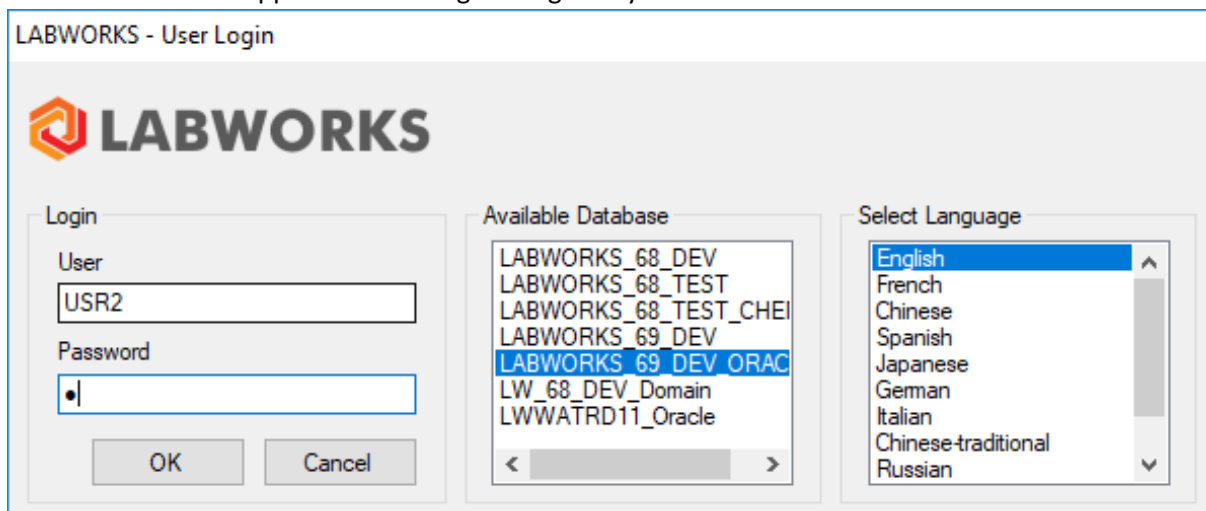
Ready Licensed to: Hindustan Petroleum Corp Ltd. Database: LW68Test First User

2. Location List Maintenance

2.1. Create Location Code

- 1) Launch LABWORKS Application and login using newly created user.

LABWORKS - User Login



The dialog box contains three main sections: 'Login', 'Available Database', and 'Select Language'. The 'Login' section has fields for 'User' (containing 'USR2') and 'Password' (with a masked character). The 'Available Database' section is a list box with 'LABWORKS_69_DEV_ORACLE' selected. The 'Select Language' section is a list box with 'English' selected. 'OK' and 'Cancel' buttons are at the bottom.

LABWORKS

Login

User
USR2

Password
•

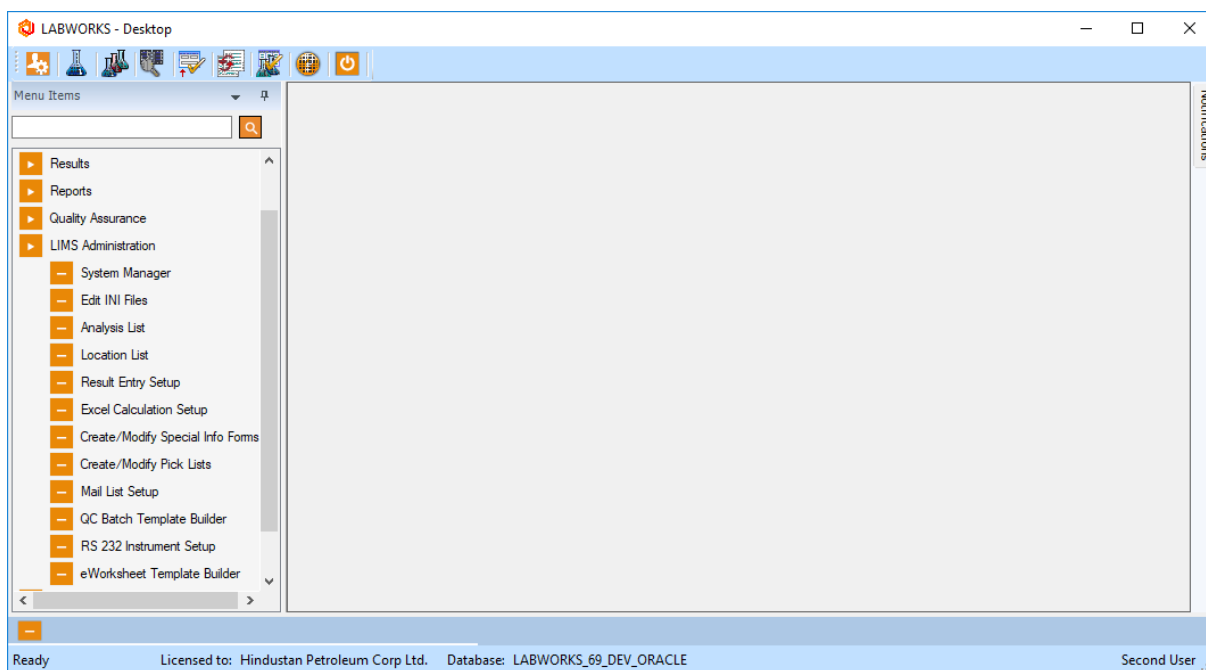
OK Cancel

Available Database

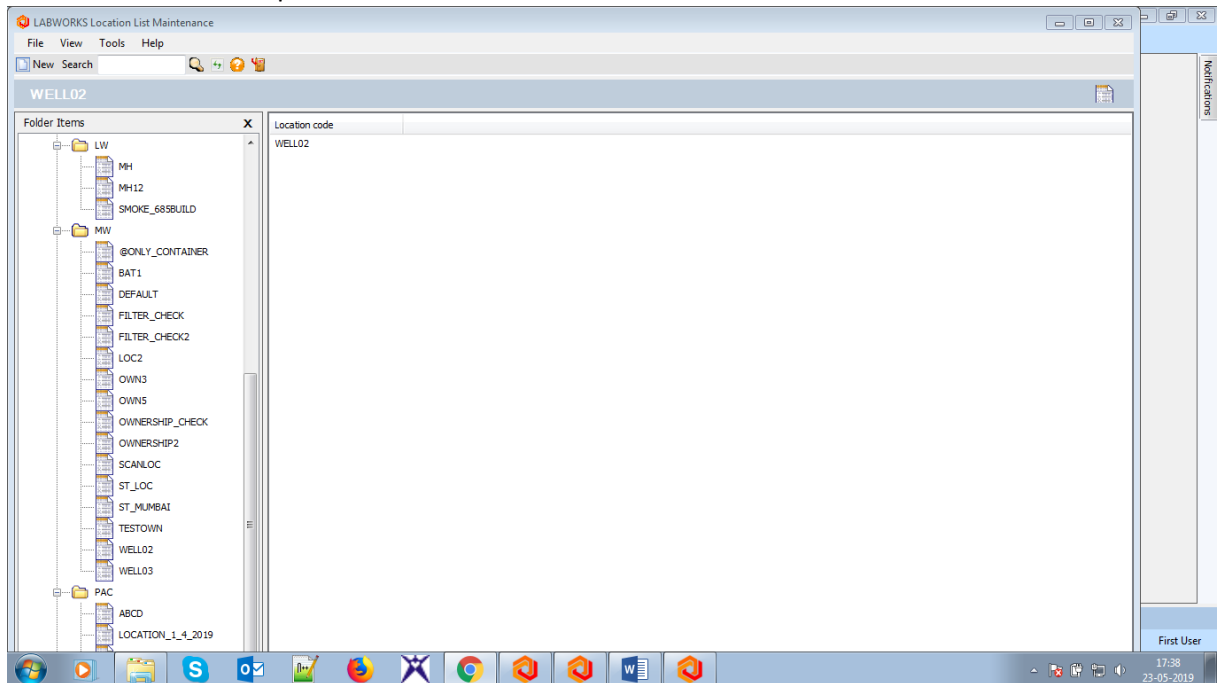
- LABWORKS_68_DEV
- LABWORKS_68_TEST
- LABWORKS_68_TEST_CHEI
- LABWORKS_69_DEV
- LABWORKS_69_DEV_ORACLE
- LW_68_DEV_Domain
- LWWATRD11_Oracle

Select Language

- English
- French
- Chinese
- Spanish
- Japanese
- German
- Italian
- Chinese-traditional
- Russian



2) Click on Location List option



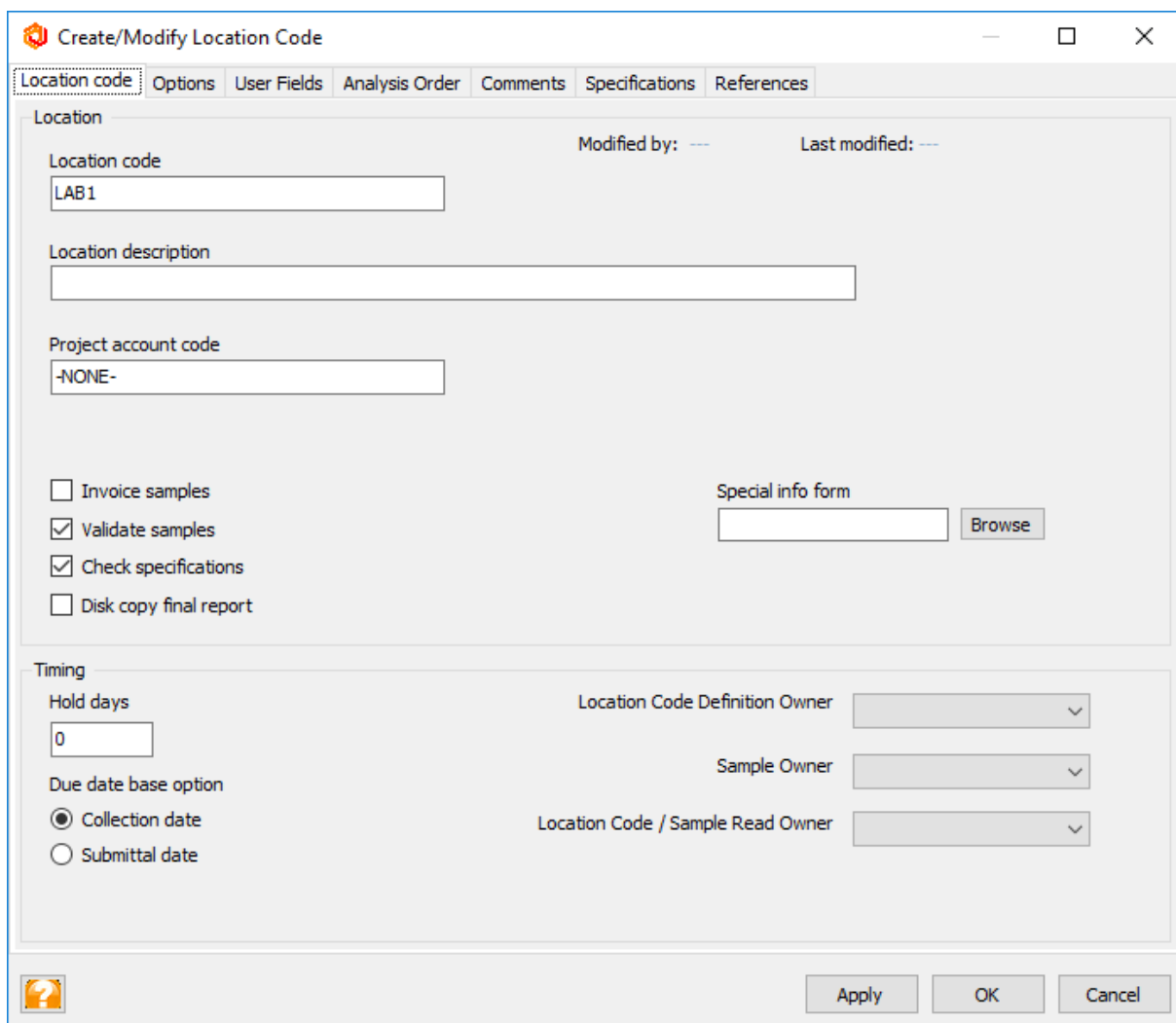
3) Click on 'New' Button

4) Enter following information

1. Location code
2. Location Description
3. Hold Days
4. Select Due date base option
5. Select Invoice Samples check box
6. Select Validate Sample Check box
7. Select Check Specification Check box
8. Disk Copy Final Report Check box

5) Click on Apply

6) Click on OK



Create/Modify Location Code

Location code Options User Fields Analysis Order Comments Specifications References

Location

Location code: LAB1 Modified by: --- Last modified: ---

Location description:

Project account code: -NONE-

☐ Invoice samples
☒ Validate samples
☒ Check specifications
☐ Disk copy final report

Special info form: Browse

Timing

Hold days: 0

Due date base option:
☒ Collection date
☐ Submittal date

Location Code Definition Owner:

Sample Owner:

Location Code / Sample Read Owner:

Apply OK Cancel

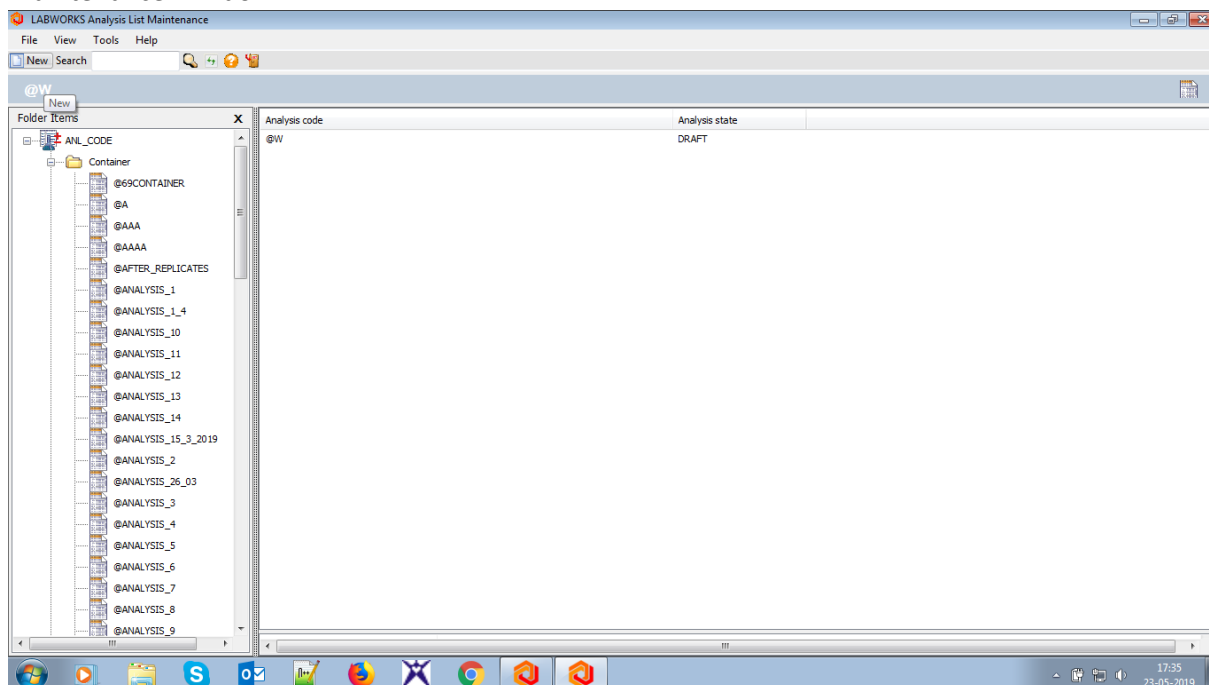
7) Location code should be added in Location Code list. (e.g. LAB1)

3. Analysis Maintenance Application

3.1. Create Analysis Code

1) Launch Analysis Maintenance.

Click on Analysis List maintenance application. Click on New button on 'LABWORKS Analysis List Maintenance' window.



2) 'Add/Edit Analysis' window should open.

- 1. Single Component Analysis:** Click New. Enter Analysis code and Analysis name. Click Apply. Click OK. Select the newly created Analysis code and right click. Select ANALYSIS_ACTIVATE option.

Add/Edit Analysis

Analysis | ASpecifications | Calculation | Special Info | Result Source | Audit Info

Analysis

Analysis code :

Method reference :

Price :

Analysis name :

CAS number :

Work units : Special info form:

Routing details :

Department :

☒ Reportable

☒ Invoicable

Replicate Settings

Of Replicates

Processing

Set Analysis To

Select Replicate From

Hold times

Days Hours : Mins :

Regulation hold time

Days Hours : Mins :

Quantitation details

Reporting units : Default MDL : PQL :

Round off for calculations

☐ Significant figures

☒ Use MDL places

☐ Use Ranges

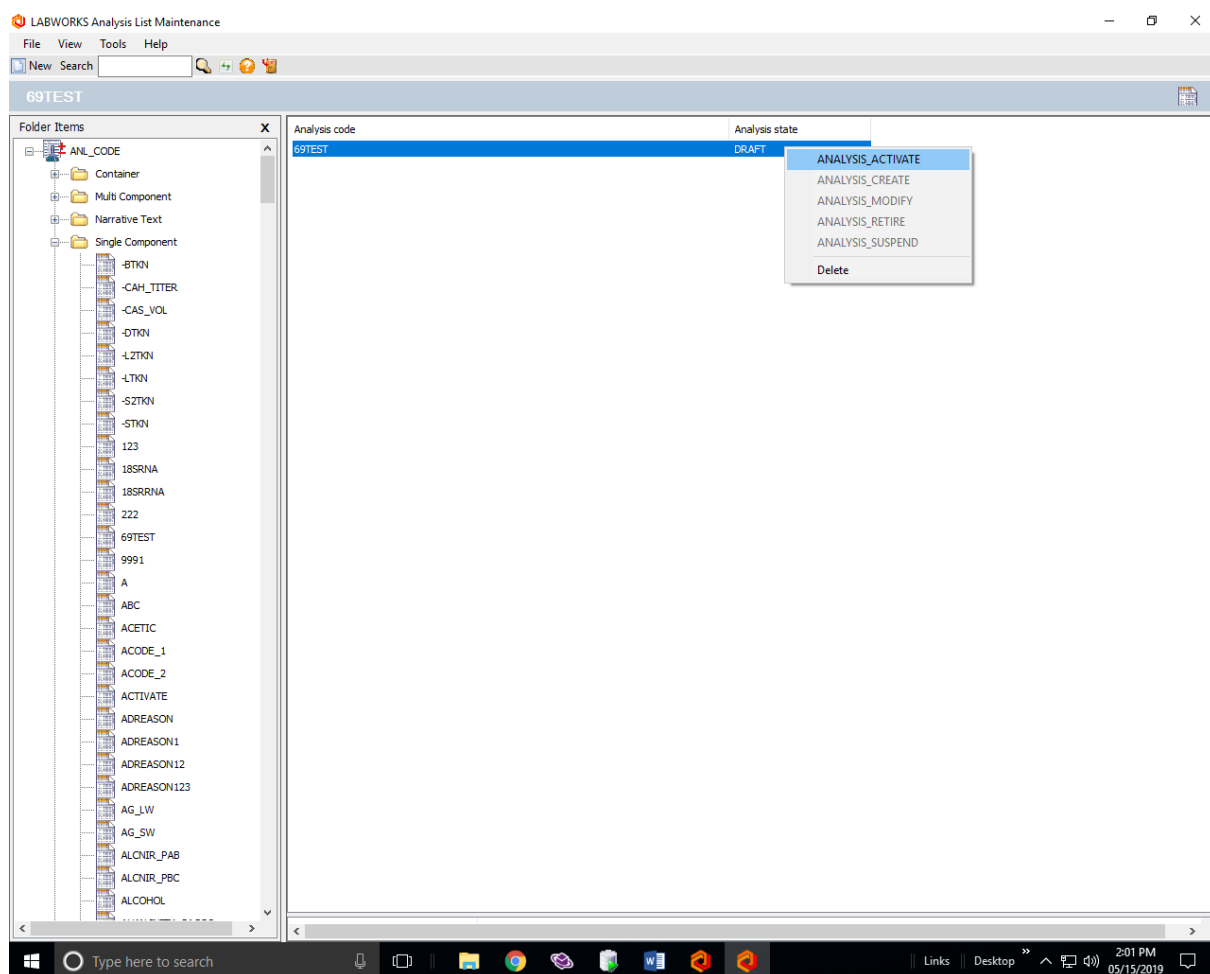
Ownership

Analysis Definition Owner

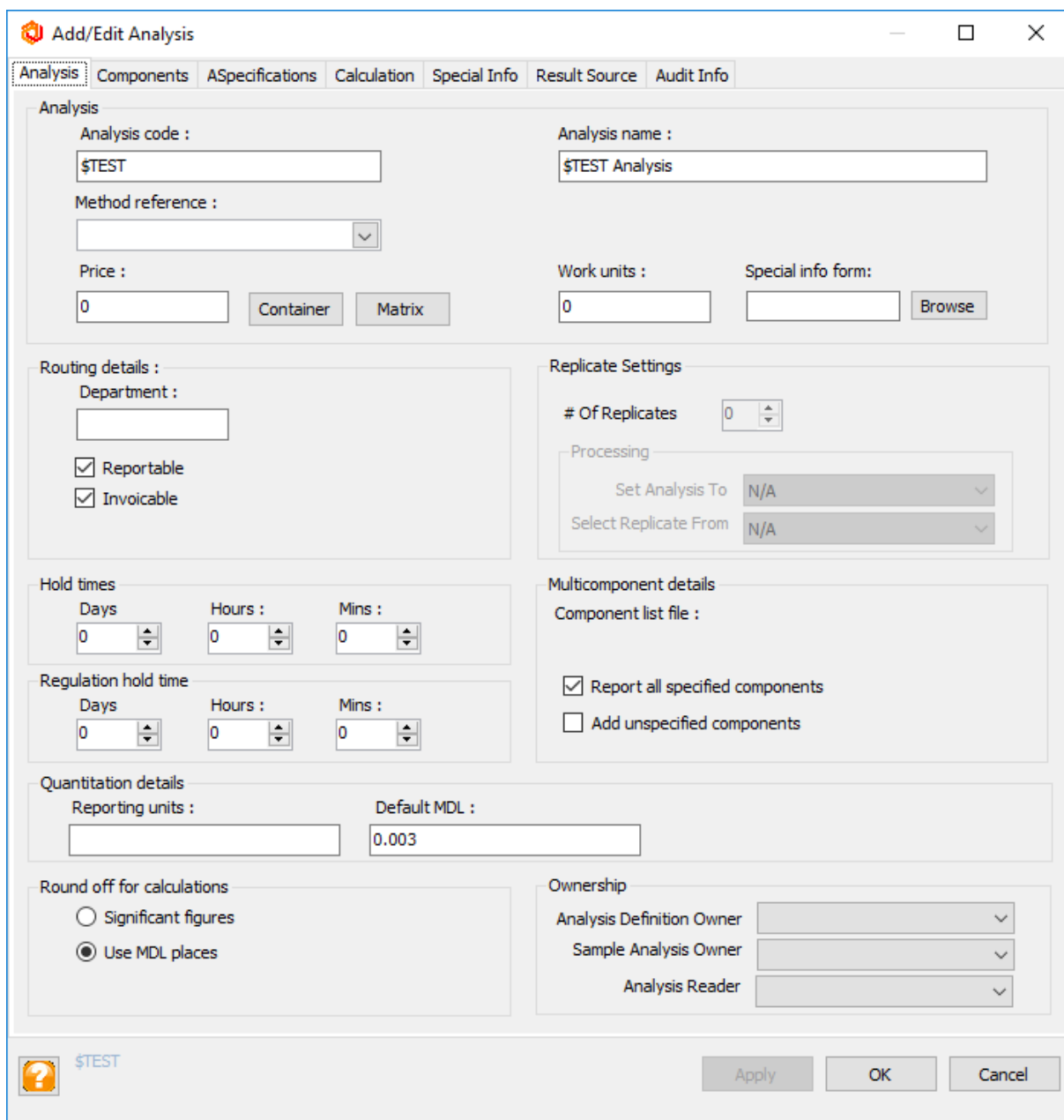
Sample Analysis Owner

Analysis Reader

 TEST



- 2. Multi-Component Analysis:** Click New. Enter Analysis code starting with \$ and enter Analysis Name=. Click Apply. Click OK.



Add/Edit Analysis

Analysis Components ASpecifications Calculation Special Info Result Source Audit Info

Analysis

Analysis code : \$TEST

Analysis name : \$TEST Analysis

Method reference :

Price : 0

Work units : 0

Special info form: Browse

Container Matrix

Routing details :

Department :

☒ Reportable

☒ Invoicable

Replicate Settings

Of Replicates 0

Processing

Set Analysis To N/A

Select Replicate From N/A

Hold times

Days 0

Hours : 0

Mins : 0

Regulation hold time

Days 0

Hours : 0

Mins : 0

Multicomponent details

Component list file :

☒ Report all specified components

☐ Add unspecified components

Quantitation details

Reporting units :

Default MDL : 0.003

Round off for calculations

☐ Significant figures

☒ Use MDL places

Ownership

Analysis Definition Owner

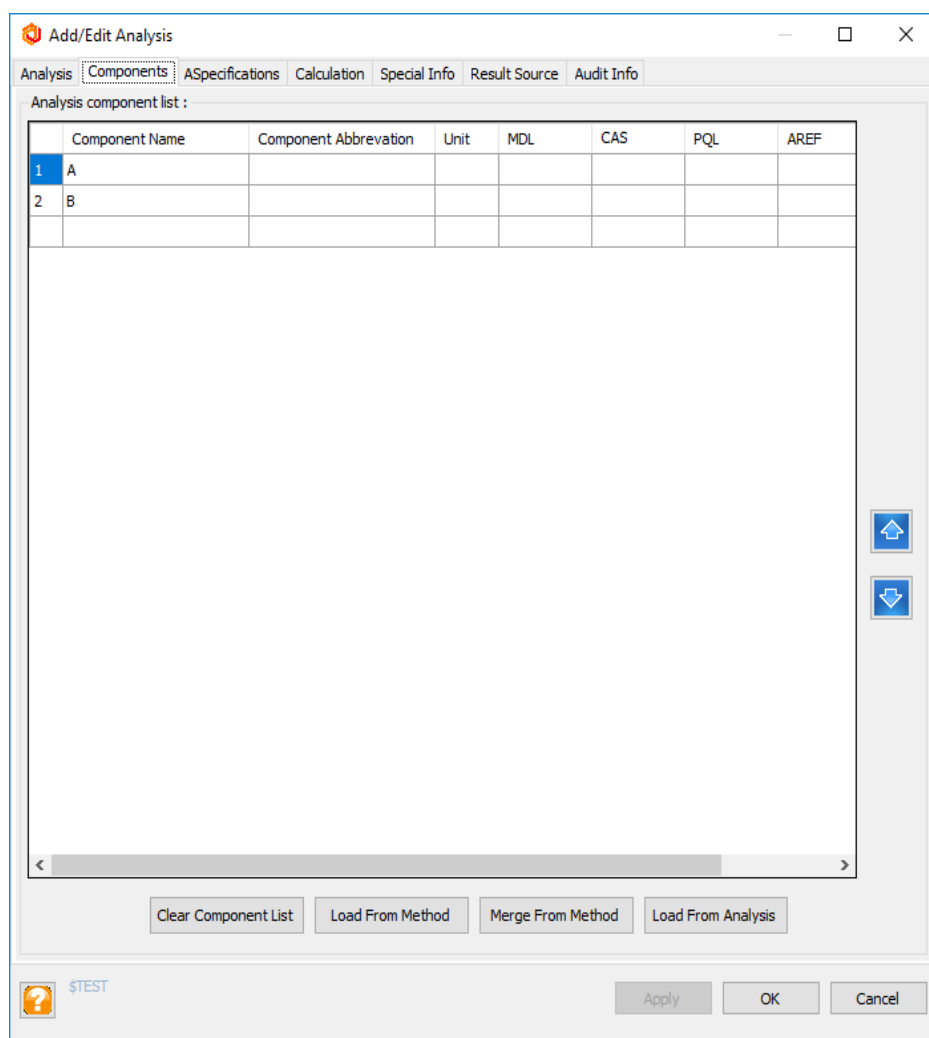
Sample Analysis Owner

Analysis Reader

 \$TEST

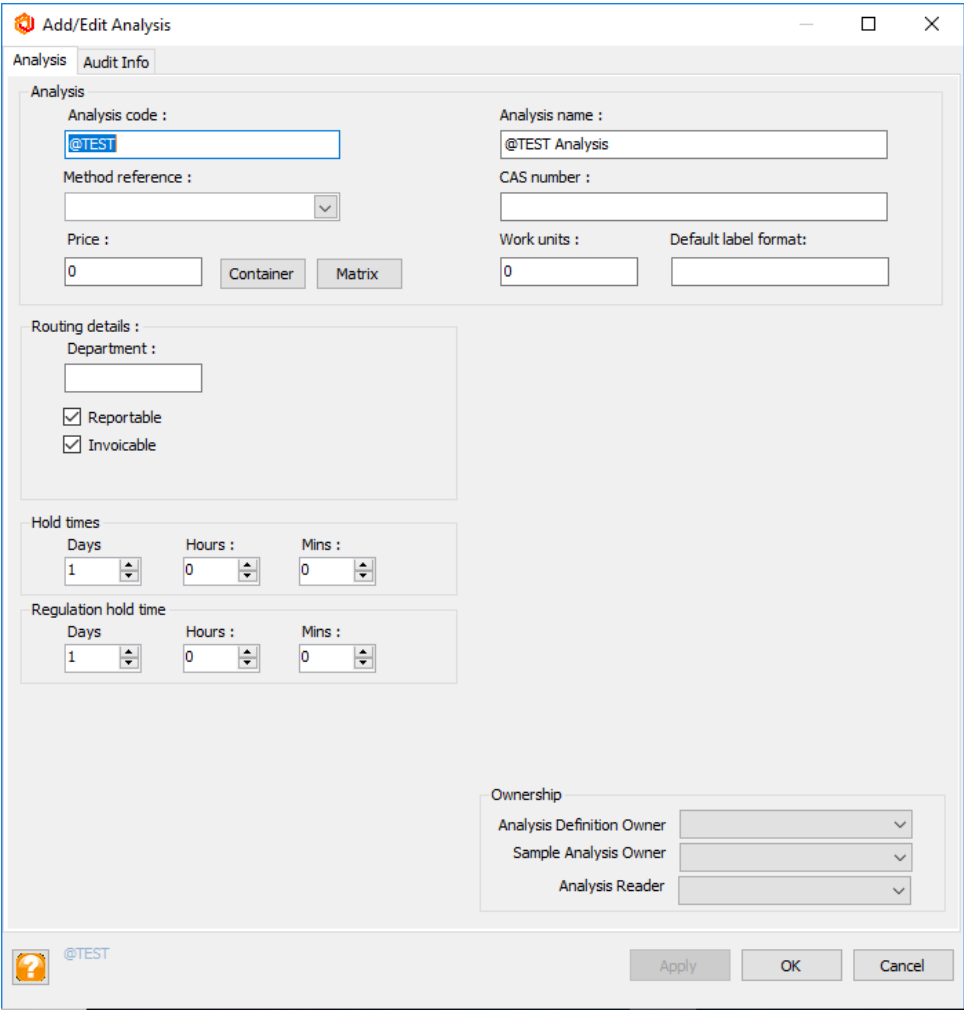
Apply OK Cancel

Go to Components tab and add Analytes. Click Apply. Click OK.



Select the Analysis code and right click. Select ANALYSIS_ACTIVATE option.

- 3. Container Analysis:** Click New. Enter Analysis code starting with @. Click Apply. Click OK. Select the Analysis code and right click. Select ANALYSIS_ACTIVATE option.



Add/Edit Analysis

Analysis Audit Info

Analysis

Analysis code :
@TEST

Method reference :
[Dropdown]

Price :
0 Container Matrix

Analysis name :
@TEST Analysis

CAS number :
[Text]

Work units :
0

Default label format:
[Text]

Routing details :

Department :
[Text]

☒ Reportable
☒ Invoicable

Hold times

Days : 1 Hours : 0 Mins : 0

Regulation hold time

Days : 1 Hours : 0 Mins : 0

Ownership

Analysis Definition Owner [Dropdown]
Sample Analysis Owner [Dropdown]
Analysis Reader [Dropdown]

? @TEST Apply OK Cancel

4. **Narrative Analysis:** Click New. Enter Analysis code starting with ! Click Apply. Click OK. Select the Analysis code and right click. Select ANALYSIS_ACTIVATE option.

Add/Edit Analysis

Analysis | Default Text | Special Info | Audit Info

Analysis

Analysis code :

Method reference :

Price :

Analysis name :

CAS number :

Work units : Special info form:

Routing details :

Department :

☒ Reportable

☒ Invoicable

Hold times

Days : Hours : Mins :

Regulation hold time

Days : Hours : Mins :

Ownership

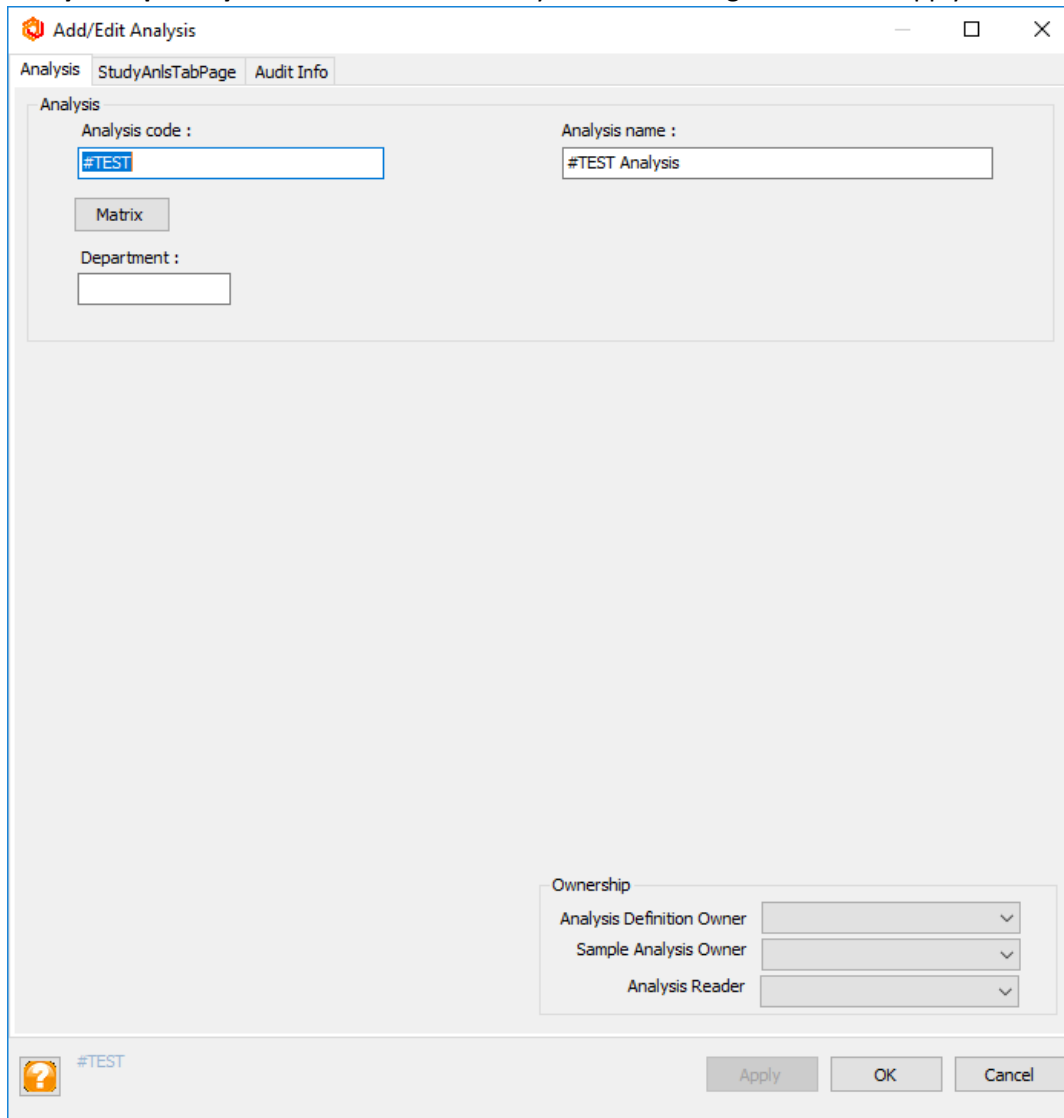
Analysis Definition Owner :

Sample Analysis Owner :

Analysis Reader :

 !TEST

5. Study Group Analysis: Click New. Enter Analysis code starting with #. Click Apply.



Analysis StudyAnlsTabPage Audit Info

Analysis

Analysis code : #TEST

Analysis name : #TEST Analysis

Matrix

Department :

Ownership

Analysis Definition Owner

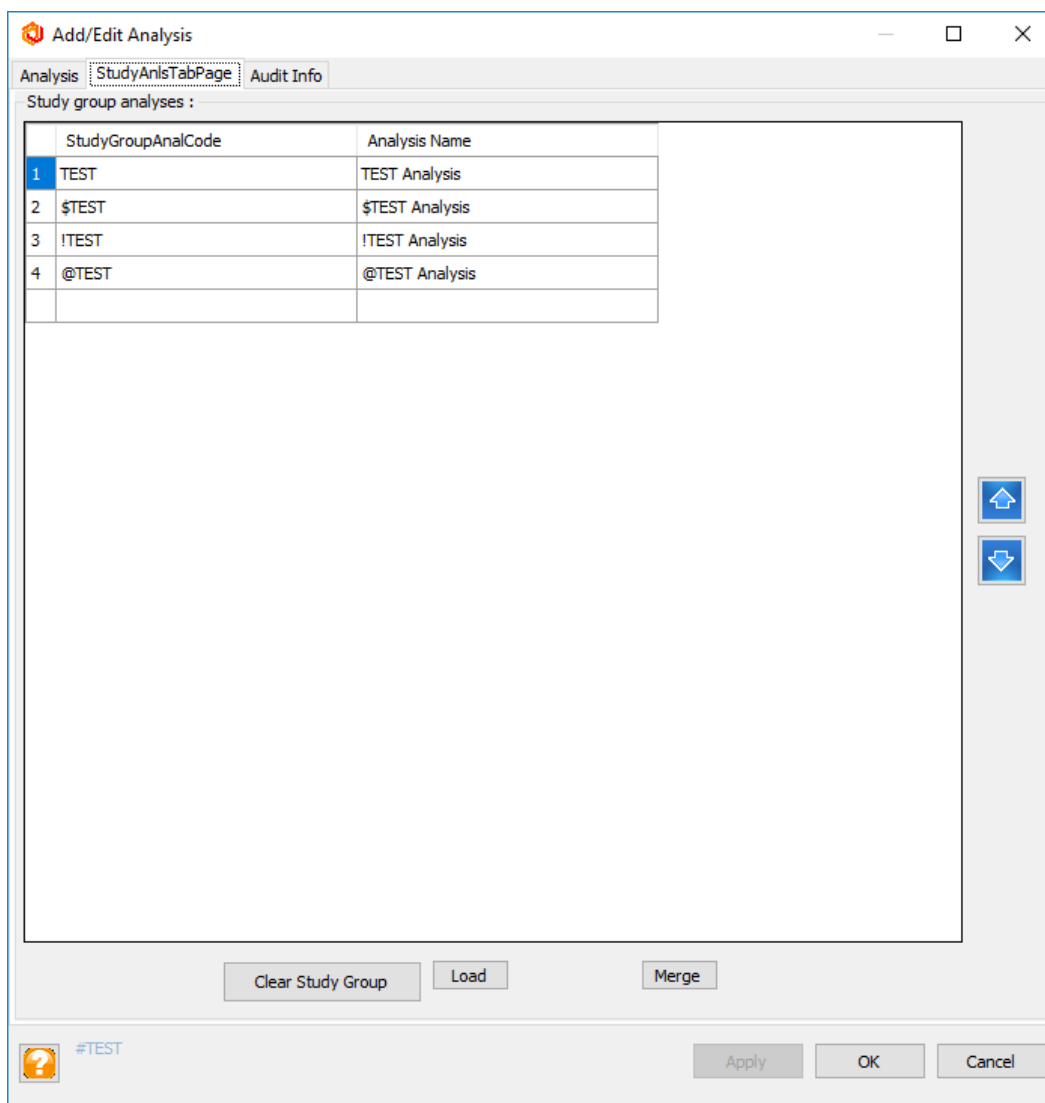
Sample Analysis Owner

Analysis Reader

? #TEST

Apply OK Cancel

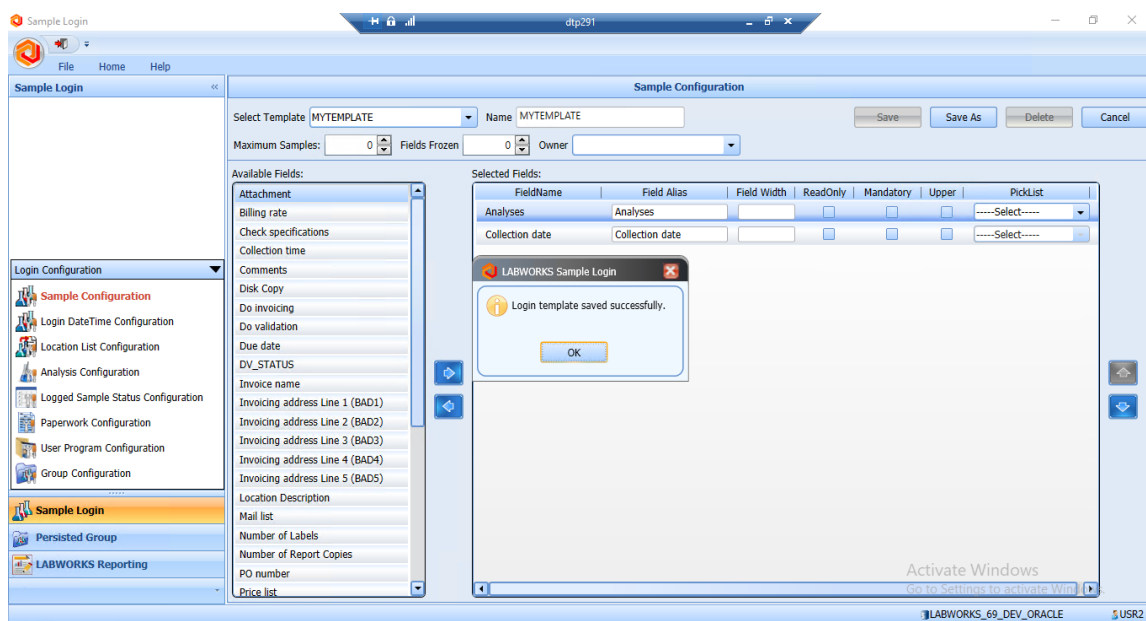
Go to second tab and add analyses. Click Apply. Click OK.



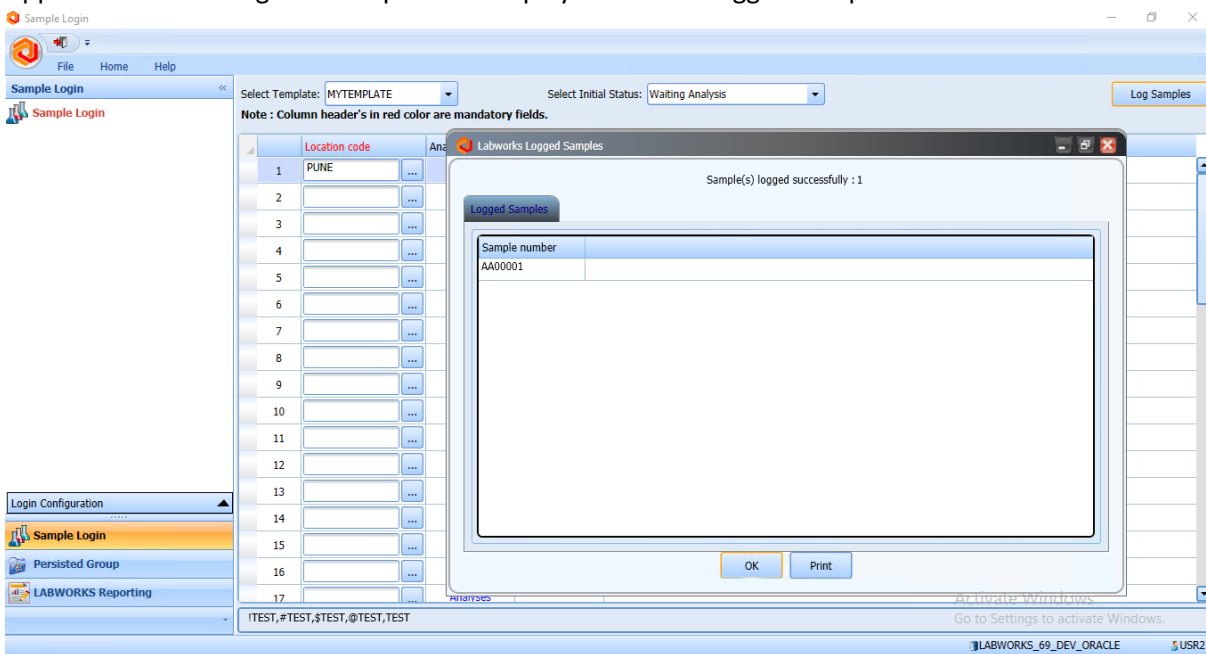
4. Sample Login

4.1. Login a sample

- 1) Click on 'LWSampleLogin.exe' application. Select database, enter username, password and click on 'Ok' button. Click on 'Login Configuration' menu from toolbar. Click on 'Select Template' dropdown.
- 2) Enter name of the new template to be added in 'Name' textbox. Select any one field from 'Available Fields' list and click on forward arrow. Verify selected field name after adding it to 'Selected Fields'. Click on 'Save' button.
- 3) 'Login template saved successfully' message should be displayed.



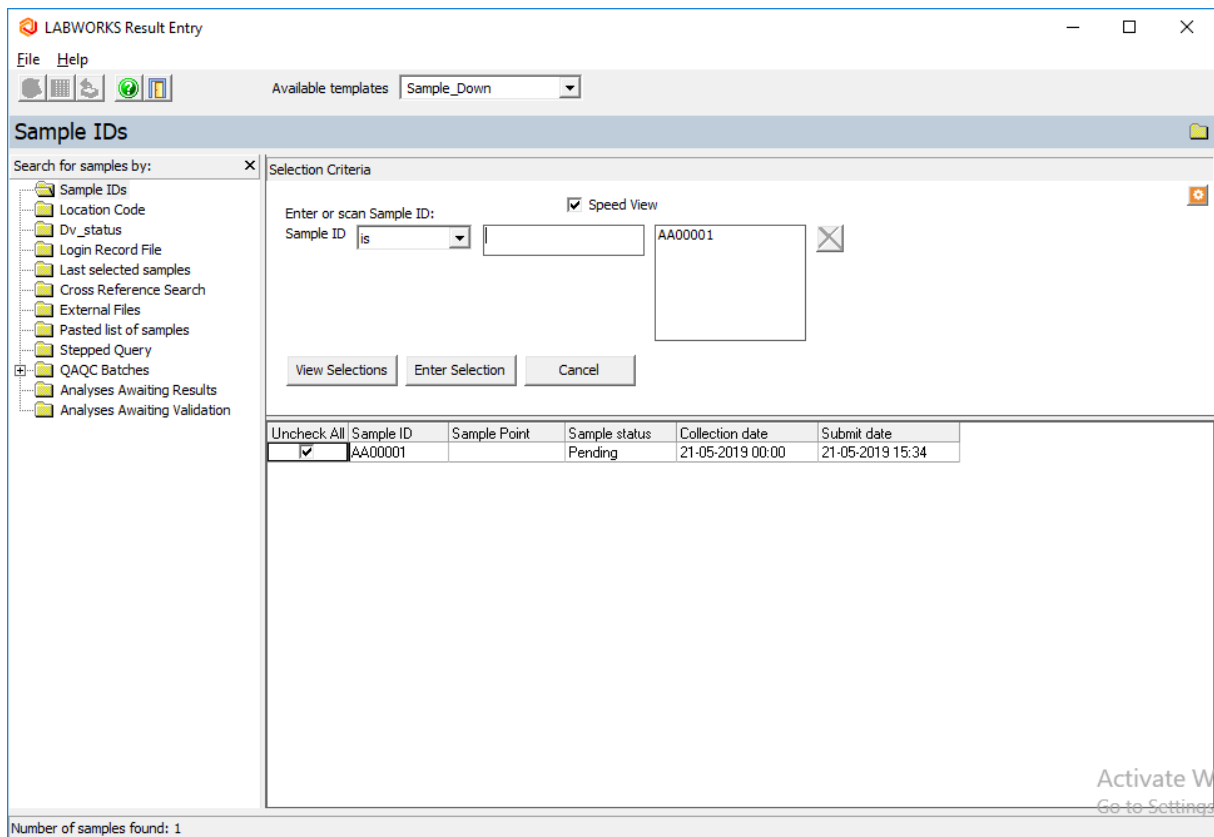
- 4) From 'Sample Login' window, select template name created in the previous step. Click on ellipsis button for the location code from the grid. Select one or more location code and click on close button.
- 5) Change the Replicate Settings from Analysis Details pop-up message. Enter number of Replicates, Set analysis To, Select Replicate From fields.
- 6) Click on 'Log Samples' button. Click on 'OK' button.
- 7) Application should log new samples and display 'Labworks Logged Samples' window.



5. Result Entry

5.1. Result Entry

- 1) Click on 'ResultsEntry6.exe' application. Click on Result Entry. Select Sample ID. Enter Sample Number. Click on View Selections. Click on Enter Selection.



LABWORKS Result Entry

File Help

Available templates: Sample_Down

Sample IDs

Search for samples by:

- Sample IDs
- Location Code
- Dv_status
- Login Record File
- Last selected samples
- Cross Reference Search
- External Files
- Pasted list of samples
- Stepped Query
- QAQC Batches
- Analyses Awaiting Results
- Analyses Awaiting Validation

Selection Criteria

Enter or scan Sample ID: ☒ Speed View

Sample ID is AA00001

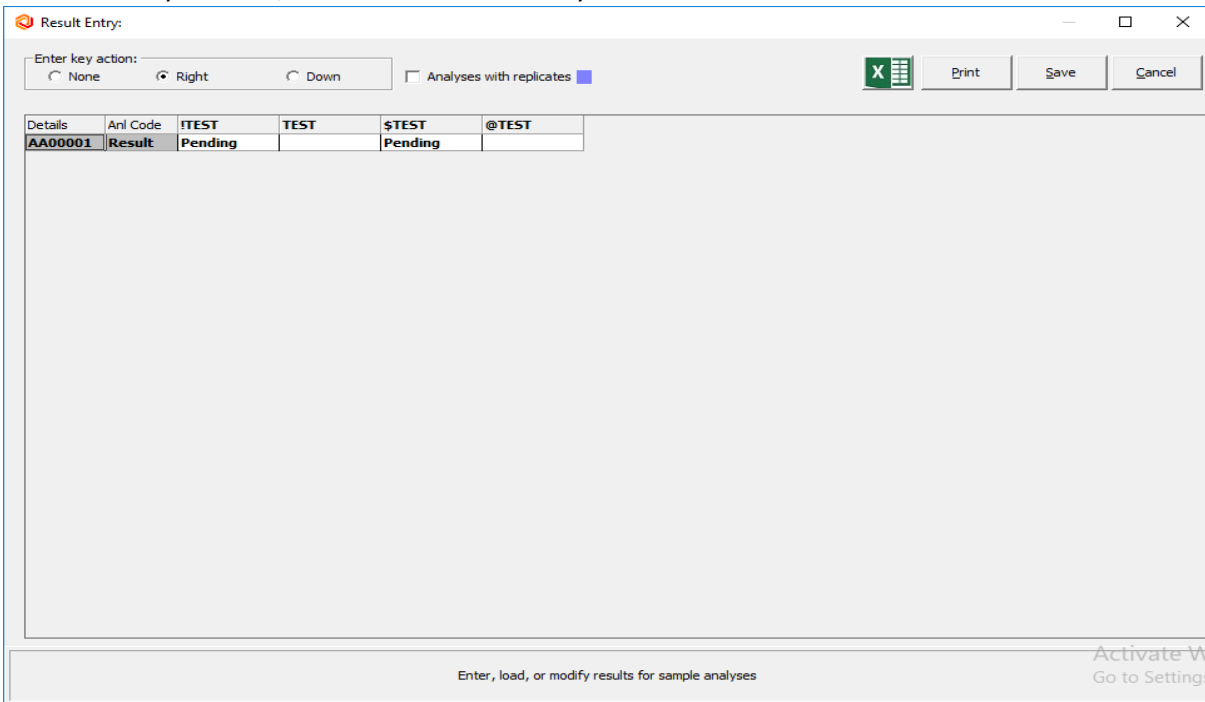
View Selections Enter Selection Cancel

Uncheck All	Sample ID	Sample Point	Sample status	Collection date	Submit date
☒	AA00001		Pending	21-05-2019 00:00	21-05-2019 15:34

Number of samples found: 1

Activate W
Go to Settings

- 2) In Result Entry window, enter results for all analysis.



Result Entry:

Enter key action: ☐ None ☒ Right ☐ Down ☐ Analyses with replicates

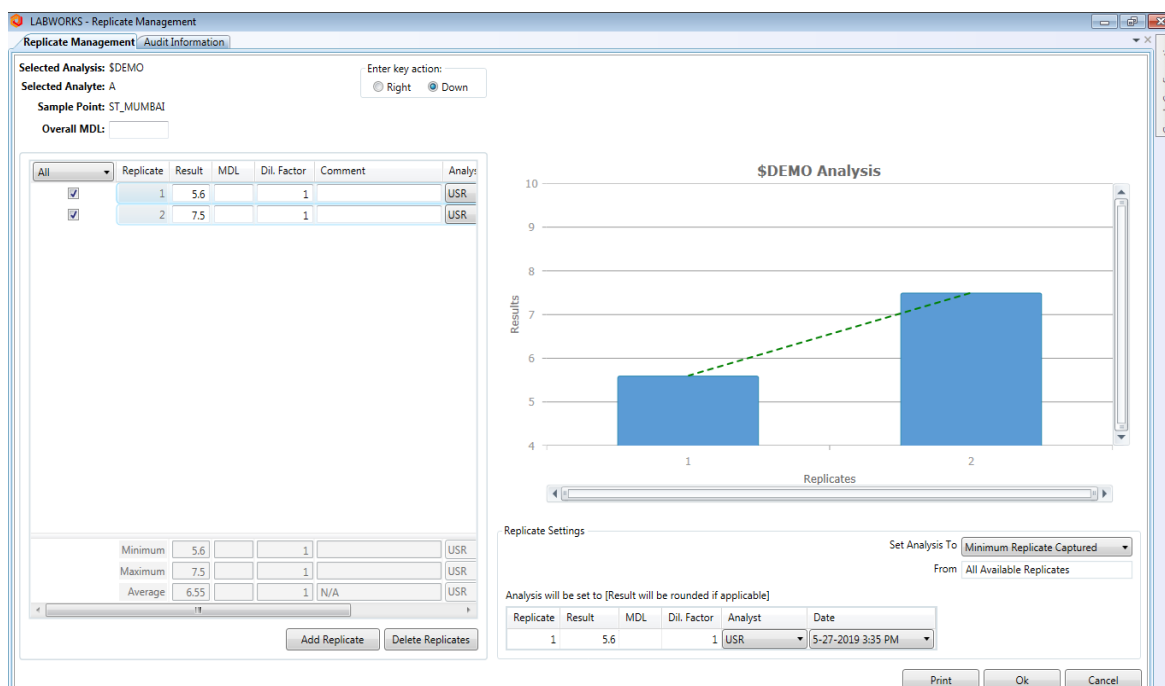
Print Save Cancel

Details	Anl Code	TEST	TEST	\$TEST	@TEST
AA00001	Result	Pending		Pending	

Enter, load, or modify results for sample analyses

Activate W Go to Settings

- 3) User should be able to view already added replicate information for single and multi-component analysis samples.
- 4) If logged-in user has “Add/Delete replicates” rights then replicates should be added or deleted and result value should be changed accordingly.



5) Click on “Store Results” button for Multi-Component Analysis.

Component Result Entry for Sample

Sample ID: AA00006
 Analysis: \$DEMO
 Location code: ST_MUMBAI
 Result file:

Validated: No

Start date: 27-05-2019 Start time: 15:35 Dilution factor: 1
 End date: 27-05-2019 End time: 15:35 Analyst: JSR

Units: MYSAMPNO

Analytes waiting for replicates input

Component Name	Viol	Result	Units	MDL	Raw Result	Result Method	Analyst	Start Date	Time	Manage Replicates
1 A		5.6					JSR	27-05-2019	15:35	Manage Replicates
2 B										Manage Replicates
3 C										Manage Replicates
4 D										Manage Replicates
5 E										Manage Replicates
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

Buttons: Load Results, Clear Results, Display SOP, Sample Comments, Analysis Comment, Anal Spec Info, Samp Spgs Info, Validate, QA/QC Batch Inventory, Print, Store and Move Next, Store Results, Discard Results

6) Click on “Save” button for analysis other than Multi-Component.

Result Entry:

Enter key action: None Right Down

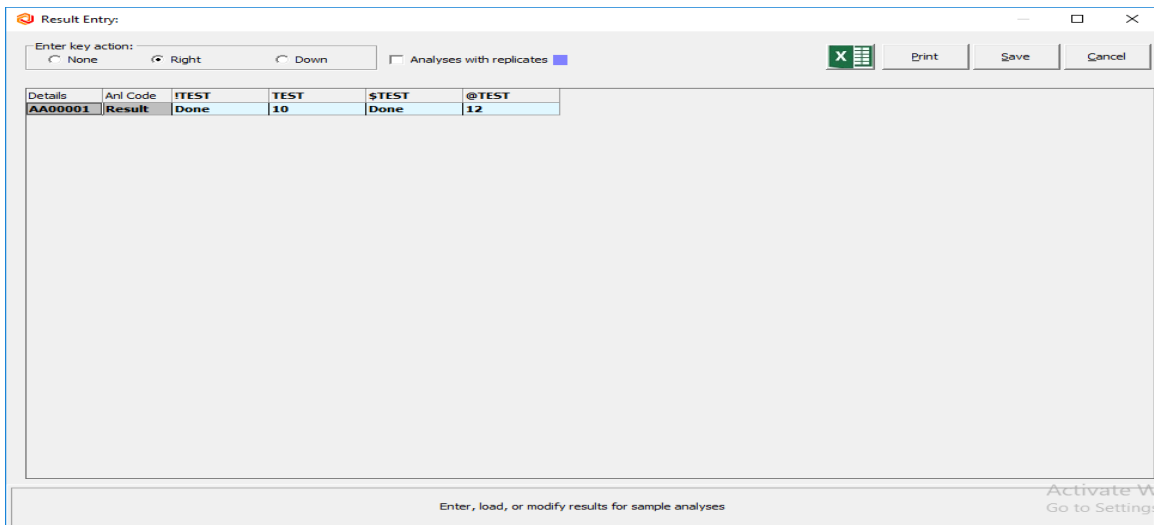
Analytes with replicates

Print Save Cancel

Details	Anal Code	@ST	!TEST	\$TEST	\$DEMO	ACTIVATE	QAQC2	CHLORINE	TEST	DEFAULT	BR2	QAQC1	@TEST
AA00006	Result	Pending	Pending	Done									
Loc Code: ST_MUMBAI	MDL												
	Result2												
	PQL												
	Qualify												
	StarIDate				27-05-2019								
	StarTime				15:35								
	Analyst				JSR								
	EndTime				15:35								
	CAS #												
	DueDate	18-04-2016	18-04-2016	18-04-2016	18-04-2016	18-04-2016	18-04-2016	18-04-2016					
	EndDate				27-05-2019								
	DilFactor	1				1	1	1					
	AsnInstr												
	RawResult												
	Result Method												
	Units												
AA00051	Result						2			1.00			
Loc Code: DEFAULT	MDL									0.000565			
	Result2												
	PQL												
	Qualify												
	StarIDate						11-10-2018	05-01-2017	05-01-2017	11-10-2018			
	StarTime						12:23	17:16	17:16	12:23			
	Analyst						JSR	17:16	17:16	JSR			
	EndTime						12:23	17:16	17:16	12:23			
	CAS #							1234					
	DueDate						23-04-2016	23-04-2016	20-04-2016				
	EndDate						11-10-2018	05-01-2017	05-01-2017	11-10-2018			
	DilFactor						1	1	1	1			
	AsnInstr												
	RawResult									1			
	Result Method												
	Units									100ml			
AA00078	Result												
Loc Code: DEFAULT	MDL									0.000565			
	Result2												

Windows Taskbar: 15:41 27-05-2019

- 7) Select Last Selected Samples. Click on 'View Selection'. User should view previously stored results.



Details	Anal Code	\$TEST	TEST	\$TEST	@TEST
AA00001	Result	Done	10	Done	12

6. Importing Results

6.1. Result Entry

6.1.1. PR6 File Format – Single Component

- 1) Pre-requisite -
 1. Create Analysis SC1, SC2.
 2. Create new Sample with analysis SC1 and SC2.
 3. Create PR6 input file for the newly created samples.
- 2) Launch ResultsEntry6.exe. Go to Import instrument Results. Select Labworks PR6 file format. Select PR6 input file. Click ok.
- 3) Click "Save" on Result Entry Screen.

6.1.2. PR6 File Format – Multi-Component:

- 1) Pre-requisite -
 1. Create Analysis \$TestMCT with components A and B.
 2. Create new Sample with analysis \$TestMCT.
 3. Create PR6 input file for the newly created samples.
- 2) Launch ResultsEntry6.exe. Select sample created in step 1. Go to Modify Results for \$TestMCT Multicomponent Analysis. Click on Load Result. Select Labworks PR6 file format. Select PR6 input file.
- 3) Click on Store Result. Click on Save Results.

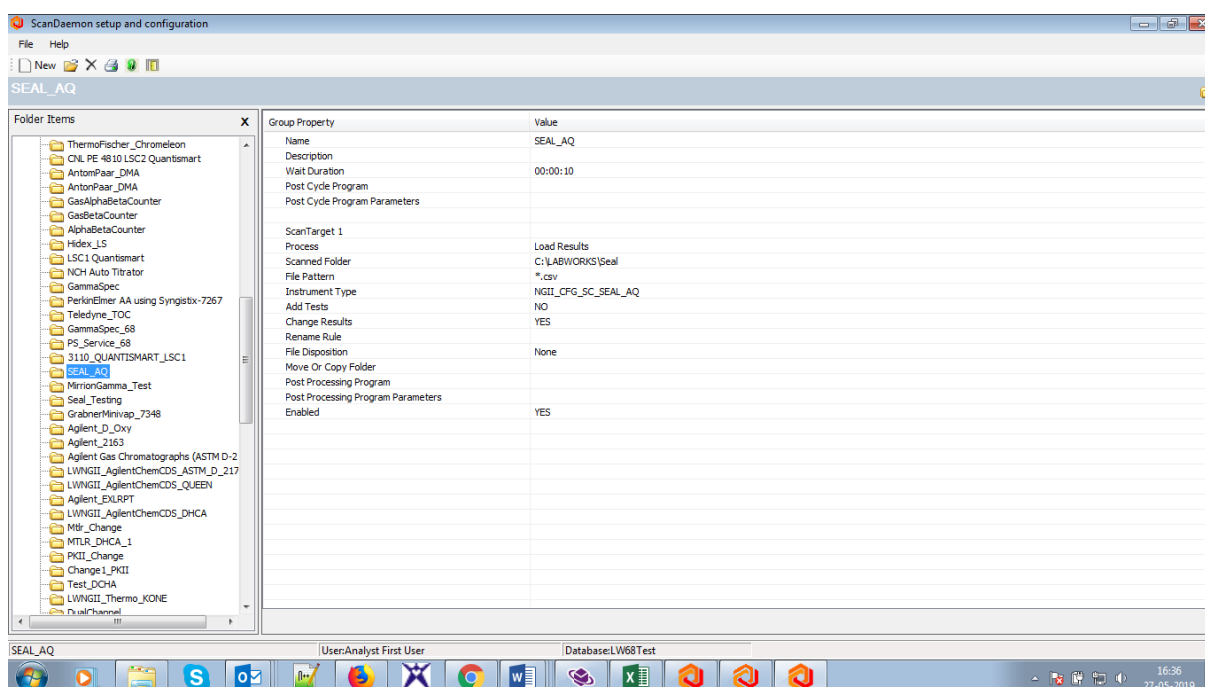
6.2. Multi-Component Transfer

6.2.1. PR6 File Format

- 1) Pre-requisite
 1. Create Analysis \$TestMCT with components A and B.
 2. Create new Sample with analyiss \$TestMCT.
 3. Create PR6 input file for the newly created samples.
- 2) Launch LW Multicomponent Transfer application (LWMultiComponentTransfer.exe). Login with valid credentials.
- 3) Select result file mode. Click Add file to List. Select Labworks PR6 file format. Select updated PR6 file. Click Find Samples. Click Review. Close Result Review sample window. Click Save Results. Launch Results Entry. Open the sample details for which results is posted.

6.3. Scan Daemon

- 1) Go to C:\LABWORKS\LWEXE\Server path. Launch ScanDaemon Setup and Configuration application (LWScanDaemonConfiguration.exe). Create a ScanGroup by entering appropriate ScanGroup properties. Click "OK" button.



- 4) Go to C:\LABWORKS\LWEXE\Server path. Launch 'LW Service Controller' application (LWServiceControllers.exe). Click on 'ScanDaemon Service Controller' tab. Select Scan Group from 'Available Scan groups' dropdown and click on 'Start group scanning process' button. Status should be displayed as "Waiting" in Orange color.
- 5) Let the application scan the files as configured for the scan group through the service.
- 6) Launch Result Entry application. Check that all the results corresponding to the respective samples are displayed.

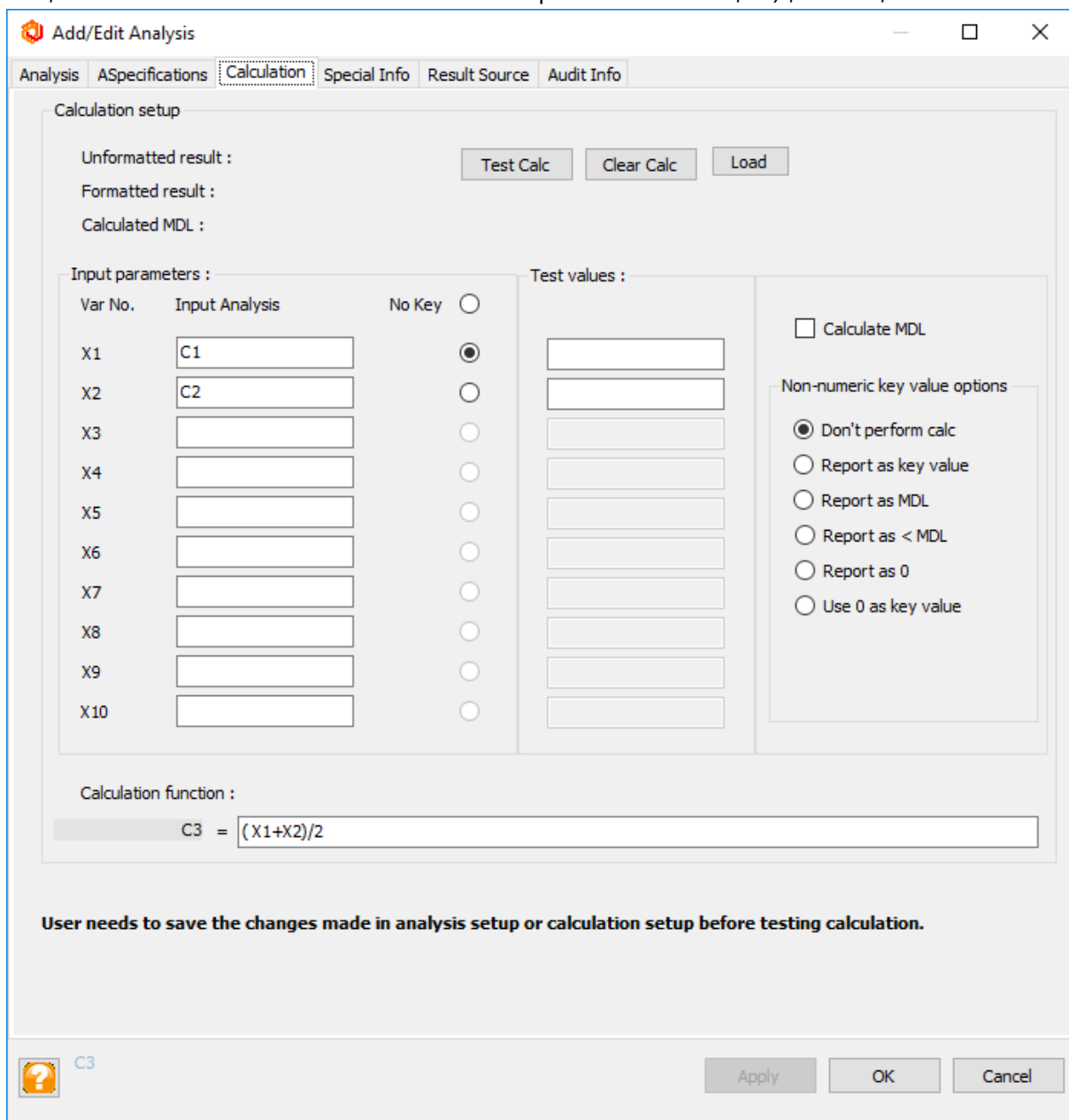
7. Performing Calculations

7.1. Built-in

1) Precondition :

Go to System Manager Application and select Use_Calculation_Engine checkbox.

2) Create ACODEs \$C1, \$C2 & \$C3 with analytes a,b,c,d. For \$C3, Calculation tab has $X1=\$C1$, $X2=\$C2$. Calculation function= $X1+X2$. Create a sample with ACODEs: \$C1, \$C2 and \$C3.



The screenshot shows the 'Add/Edit Analysis' dialog box with the 'Calculation' tab selected. The dialog has several tabs: Analysis, ASpecifications, Calculation (selected), Special Info, Result Source, and Audit Info.

Calculation setup

Unformatted result : Test Calc Clear Calc Load

Formatted result :

Calculated MDL :

Input parameters :

Var No.	Input Analysis	No Key
X1	C1	☒
X2	C2	☐
X3		☐
X4		☐
X5		☐
X6		☐
X7		☐
X8		☐
X9		☐
X10		☐

Test values :

☐ Calculate MDL

Non-numeric key value options

☒ Don't perform calc

☐ Report as key value

☐ Report as MDL

☐ Report as < MDL

☐ Report as 0

☐ Use 0 as key value

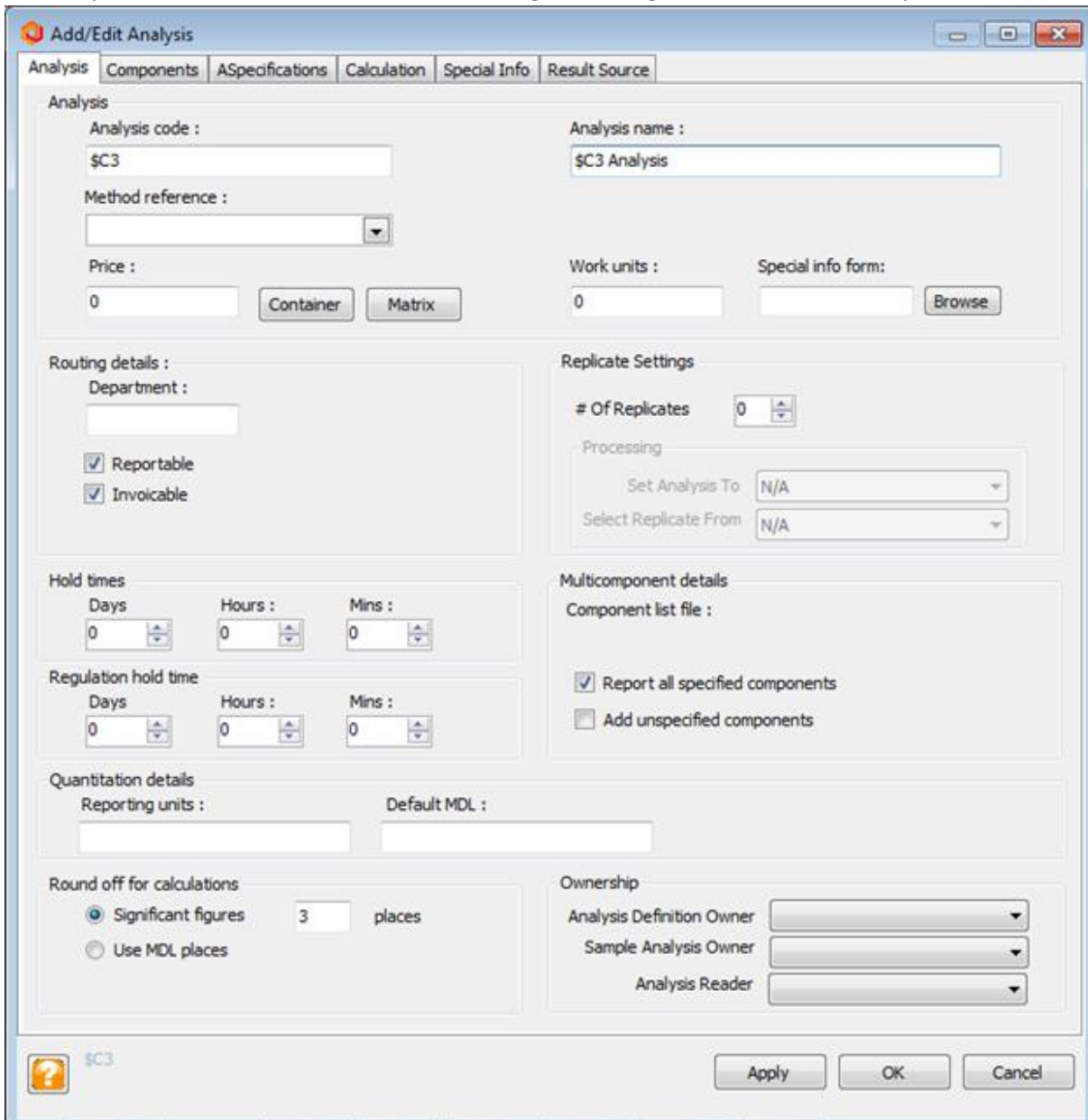
Calculation function :

C3 =

User needs to save the changes made in analysis setup or calculation setup before testing calculation.

 C3

- 3) On Analysis Maintenance, select radio button “Significant Figures” and enter no. of places as 3.



Add/Edit Analysis

Analysis Components ASpecifications Calculation Special Info Result Source

Analysis

Analysis code : \$C3 Analysis name : \$C3 Analysis

Method reference :

Price : 0 Container Matrix Work units : 0 Special info form: Browse

Routing details :

Department :

☒ Reportable
☒ Invoicable

Replicate Settings

Of Replicates 0

Processing

Set Analysis To N/A
Select Replicate From N/A

Hold times

Days 0 Hours : 0 Mins : 0

Regulation hold time

Days 0 Hours : 0 Mins : 0

Multicomponent details

Component list file :

☒ Report all specified components
☐ Add unspecified components

Quantitation details

Reporting units : Default MDL :

Round off for calculations

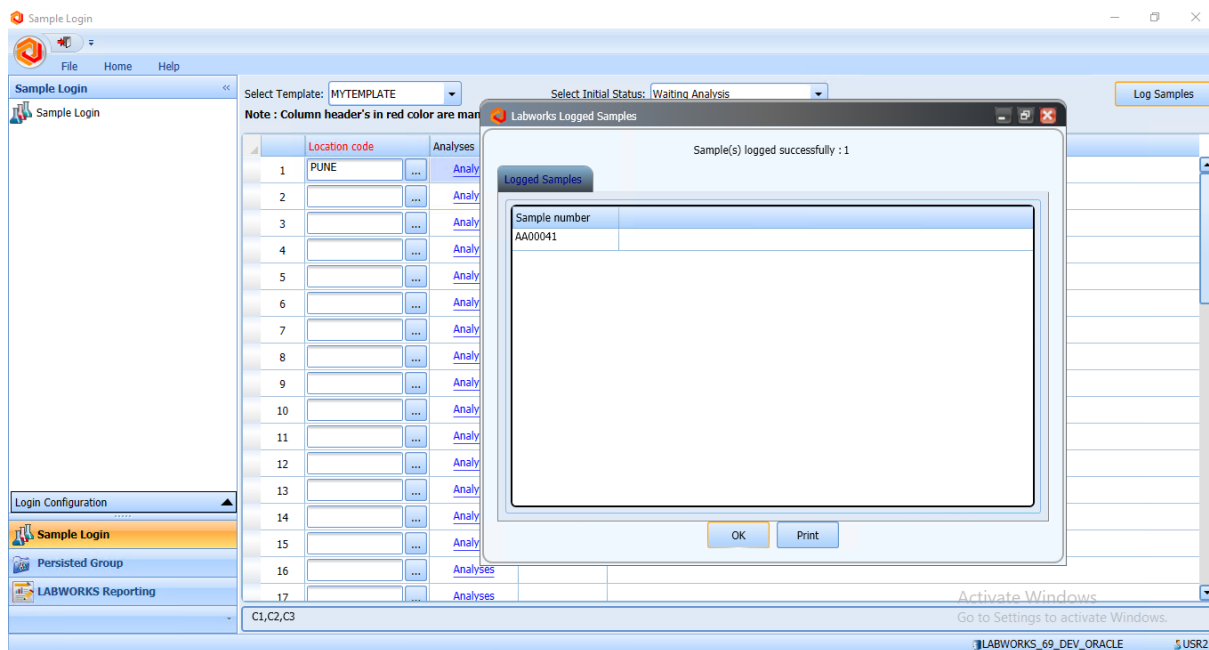
☒ Significant figures 3 places
☐ Use MDL places

Ownership

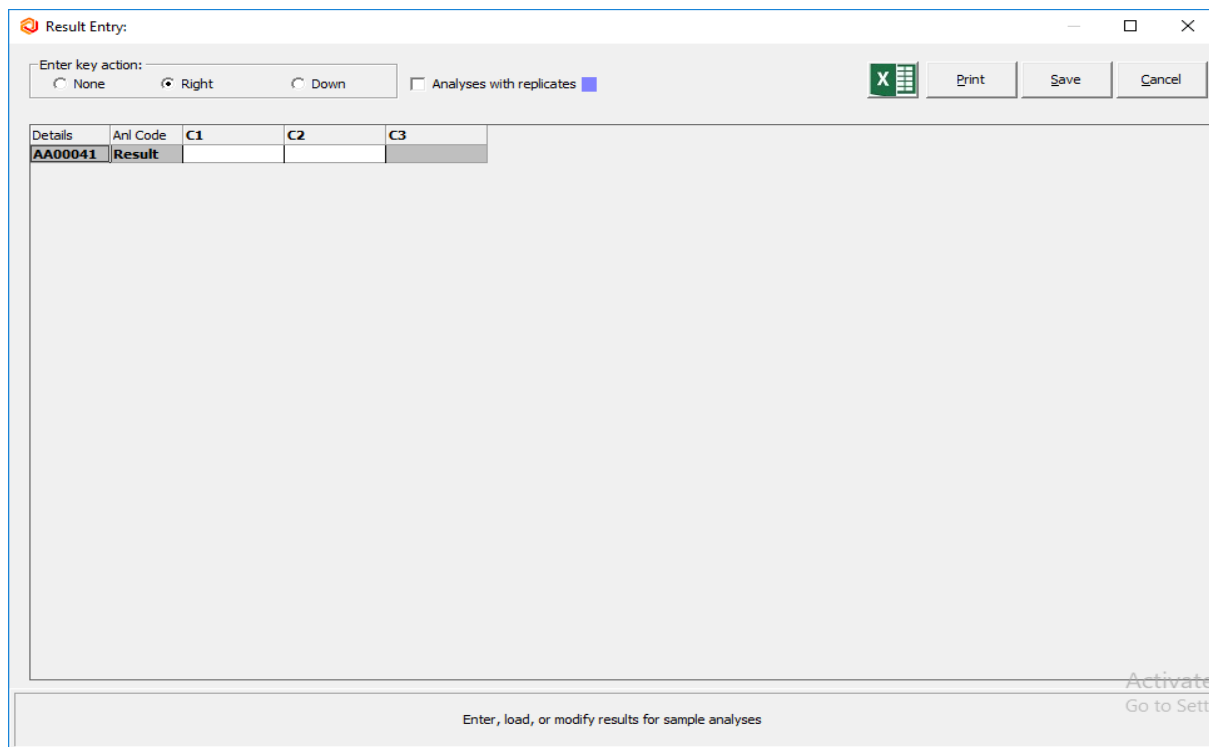
Analysis Definition Owner
Sample Analysis Owner
Analysis Reader

 \$C3 Apply OK Cancel

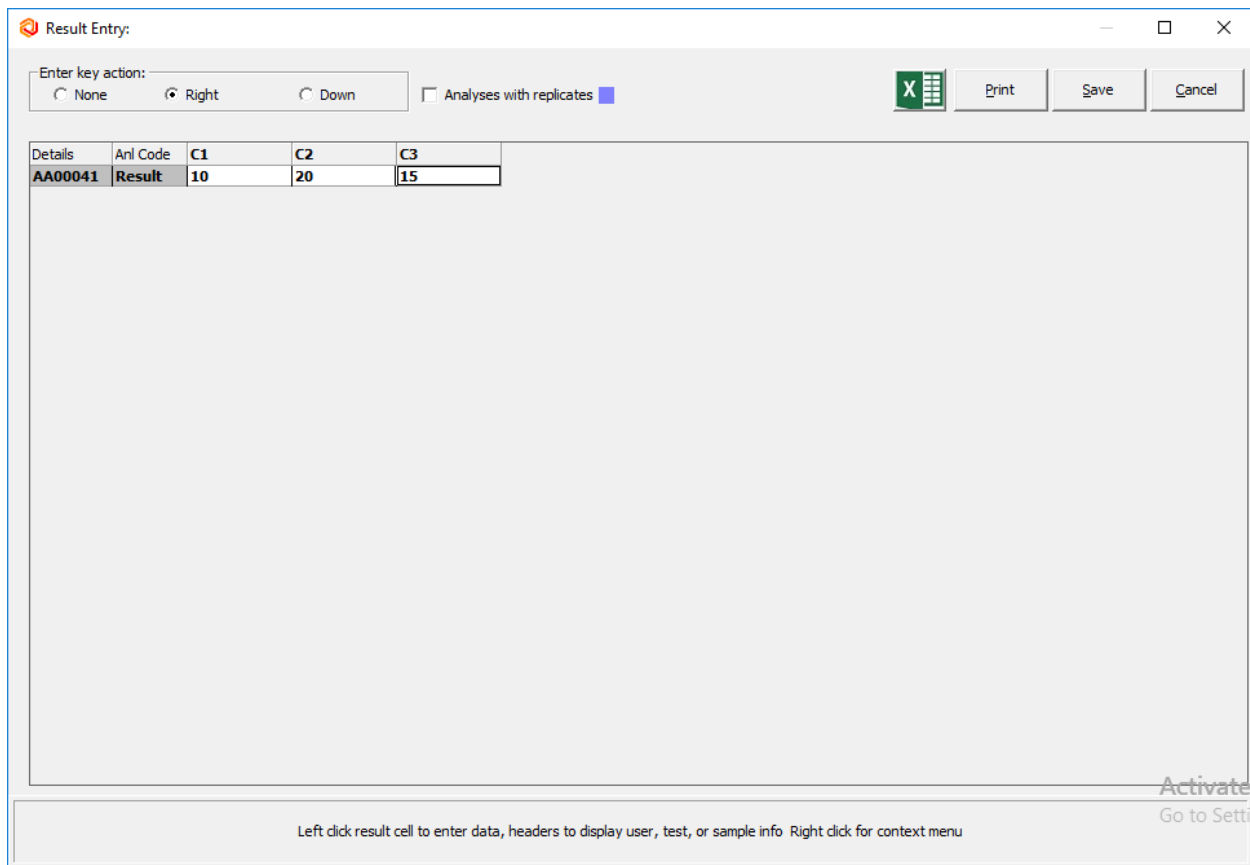
- 4) Create a sample ID with ACODES: \$C1, \$C2 and \$C3.



- 5) Launch Result Entry application. Click on Result Entry. Select Sample ID. Enter Sample Number. Click on View Selections. Click on Enter Selection.



- 6) Enter results for analysis \$C1 and \$C2. Result value should be automatically calculated for \$C3.



Details	Anl Code	C1	C2	C3
AA00041	Result	10	20	15

Left click result cell to enter data, headers to display user, test, or sample info Right click for context menu

Activate
Go to Settings

7.2. Excel

- 1) Create excel document and place it at C:\LABWORKS\LWDATA\xlcalc. Launch Excel Calculation Setup. Click Setup. Click Modify. On Calculation Header Information tab, select .XLS file having result data and calculation formula. Enter Sheet name.
- 2) On Input and Output Parameters tab, click Load from Analysis and select \$XC1, \$XC2 and \$XC3. For \$XC1 and \$XC2, select Input and enter cell address. For \$XC3, select Output and enter cell address. Click Save.

Excel Custom Calculation Creation and Modification

Loaded calculation: TESTCALC

Last modified: 05-22-2019 16:57 Modified by: USR2

Calculation code: TESTCALC

Calculation description: TestCalc

Excel workbook (.XLS) file: TEST Excel worksheet name: Sheet1 Macro:

Header items to write to spreadsheet:

Cell Address

Calculation Header Information Input and Output Parameters


Excel Custom Calculation Creation and Modification
— □ ×

Loaded calculation: TESTCALC

Load
 Clear
 Print
 Save
 Close

Last modified: 05-22-2019 16:59
 Modified by: USR2

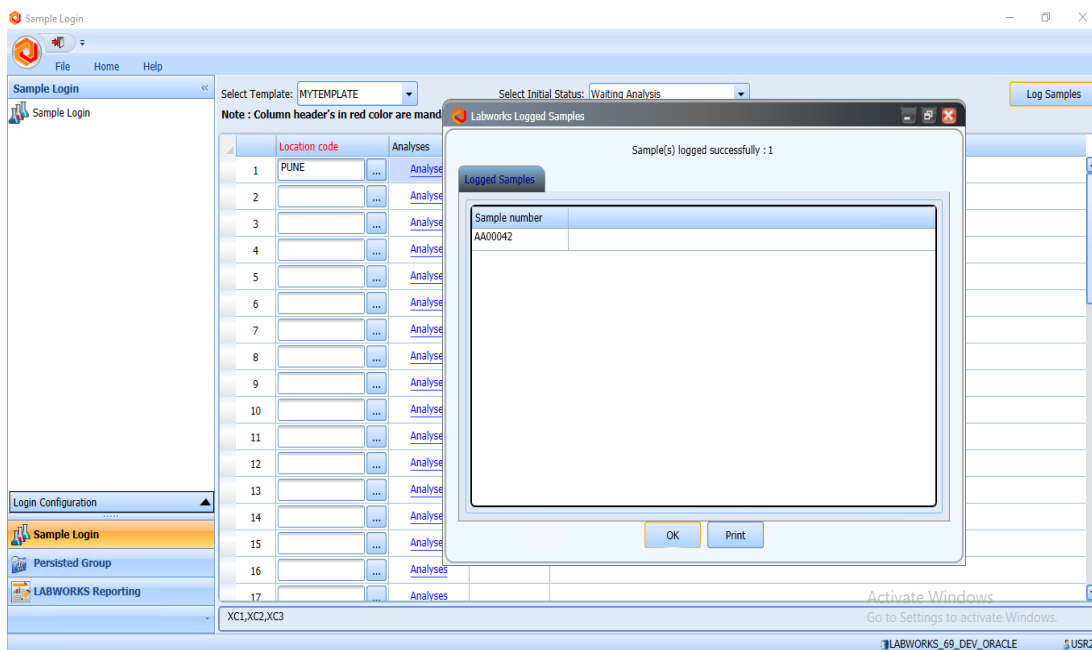
Clear Params
 Load from XL Calc
 Merge from XL Calc
 Load from Analysis
 Merge from Analysis

Input and output parameters for Excel custom calculation:
 ☐ Allow Duplicates
 ☐ Auto-Increment Cell

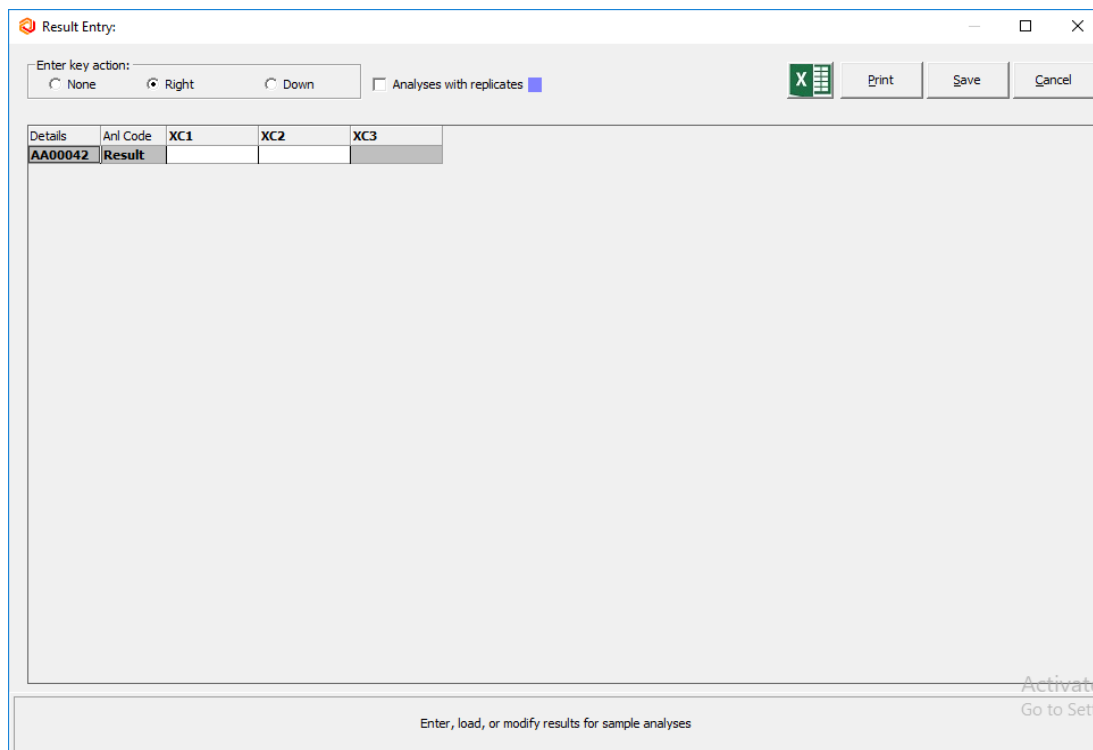
	Anl Code	Analyte Name	Result Item	Input/Output	Cell Address
1	XC1	XC1 Analysis	Primary result	Input	A1
2	XC2	XC2 Analysis	Primary result	Input	B1
3	XC3	XC3 Analysis	Primary result	Output	C1
4			Primary result	Input	
5			Primary result	Input	
6			Primary result	Input	
7			Primary result	Input	
8			Primary result	Input	
9			Primary result	Input	
10			Primary result	Input	
11			Primary result	Input	
12			Primary result	Input	
13			Primary result	Input	
14			Primary result	Input	
15			Primary result	Input	

Calculation Header Information
 Input and Output Parameters

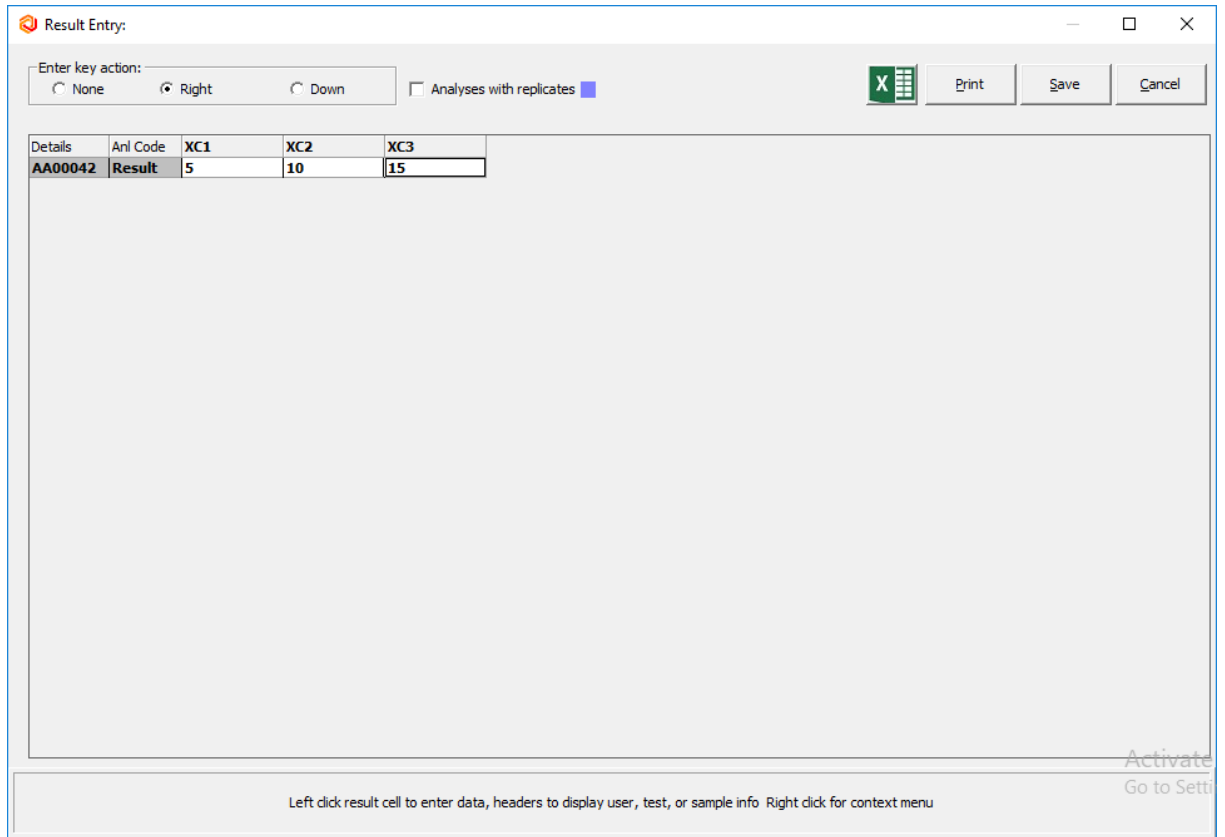
3) Log-in samples for with ACodes created in above steps.



4) Launch Result Entry application. Click on Result Entry. Select Sample ID. Enter Sample Number. Click on View Selections. Click on Enter Selection.



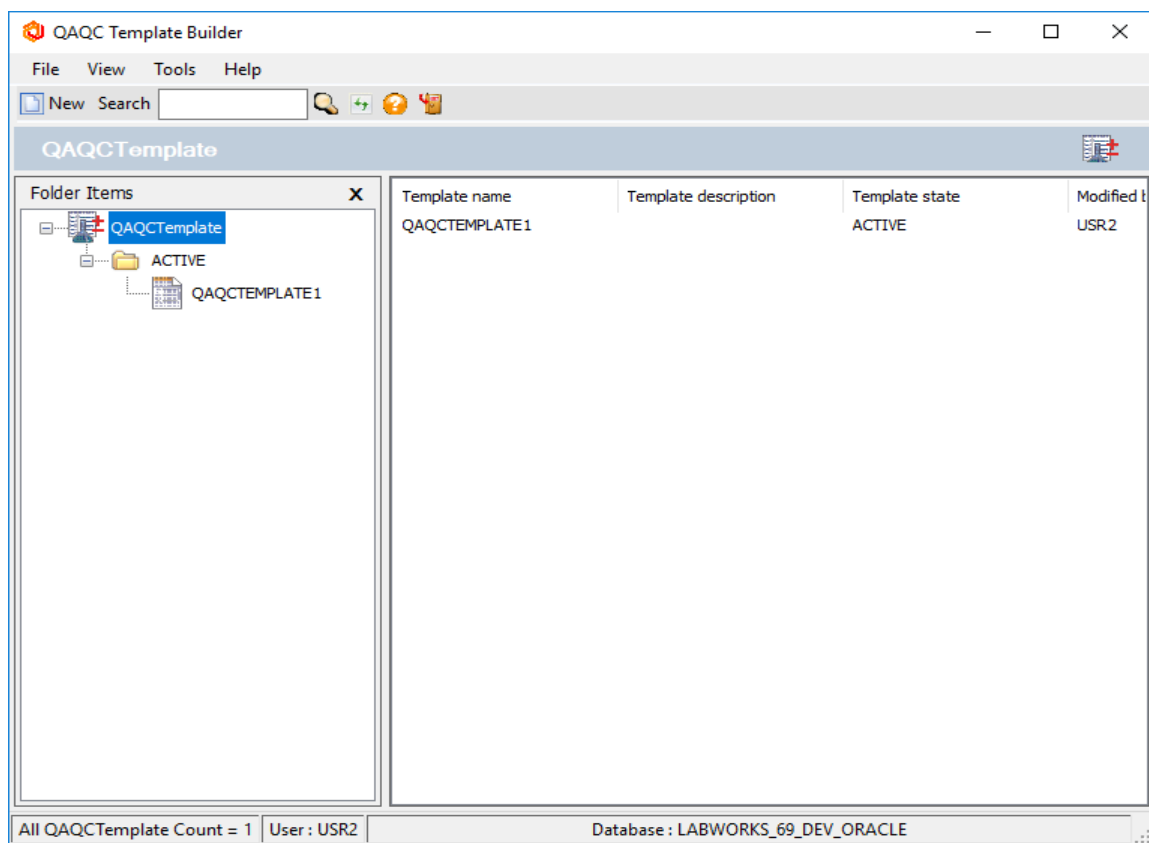
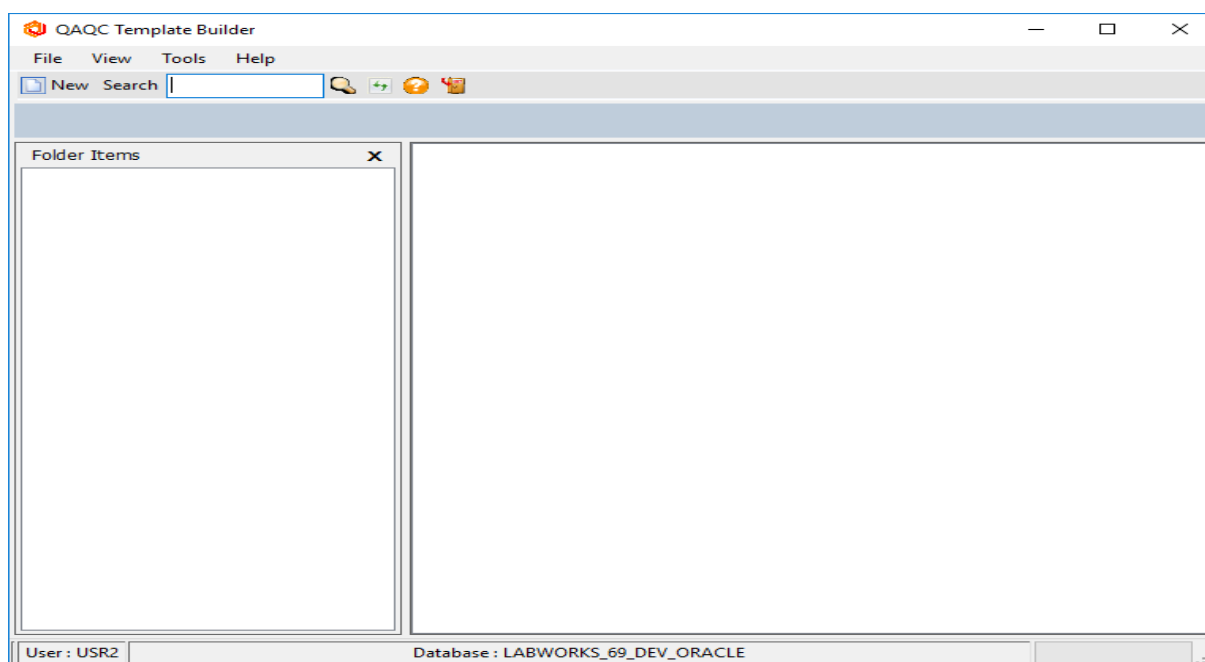
- 5) Enter results for analysis \$XC1 and \$XC2. Result value should be automatically calculated for \$XC3.



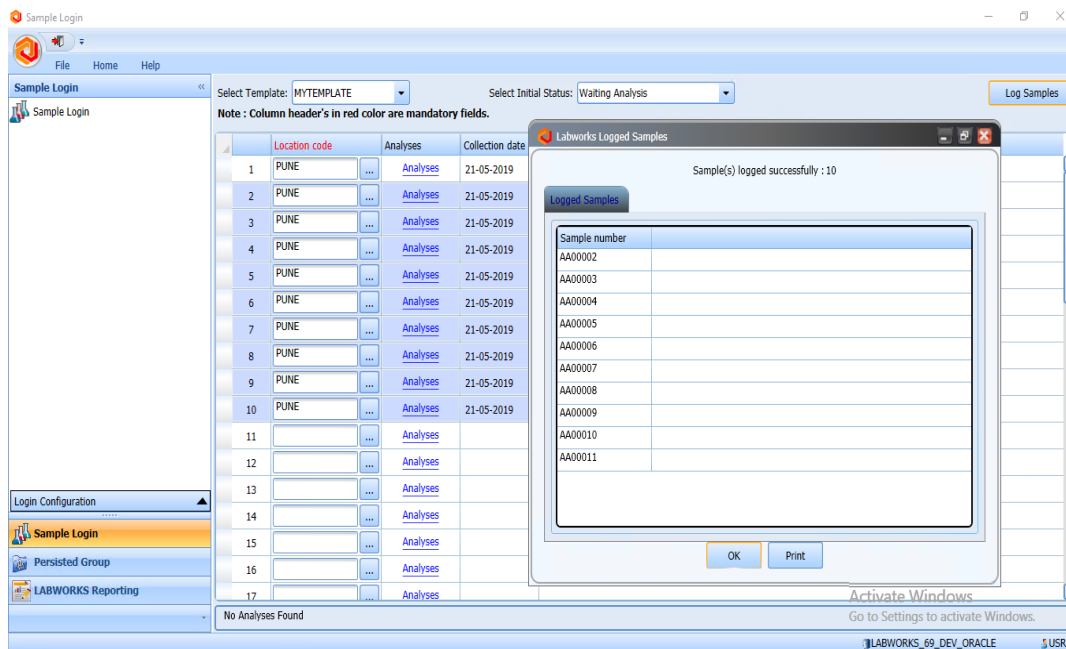
8. Generate QA/QC Batch

8.1. QA/QC Template Builder

- 2) Click on 'LWQAQCTemplateBuilder.exe'. Click on 'New' button. Enter the template details in Main tab. Enter the sequence details in Sequence tab. Newly created QA QC Template is displayed in the list.

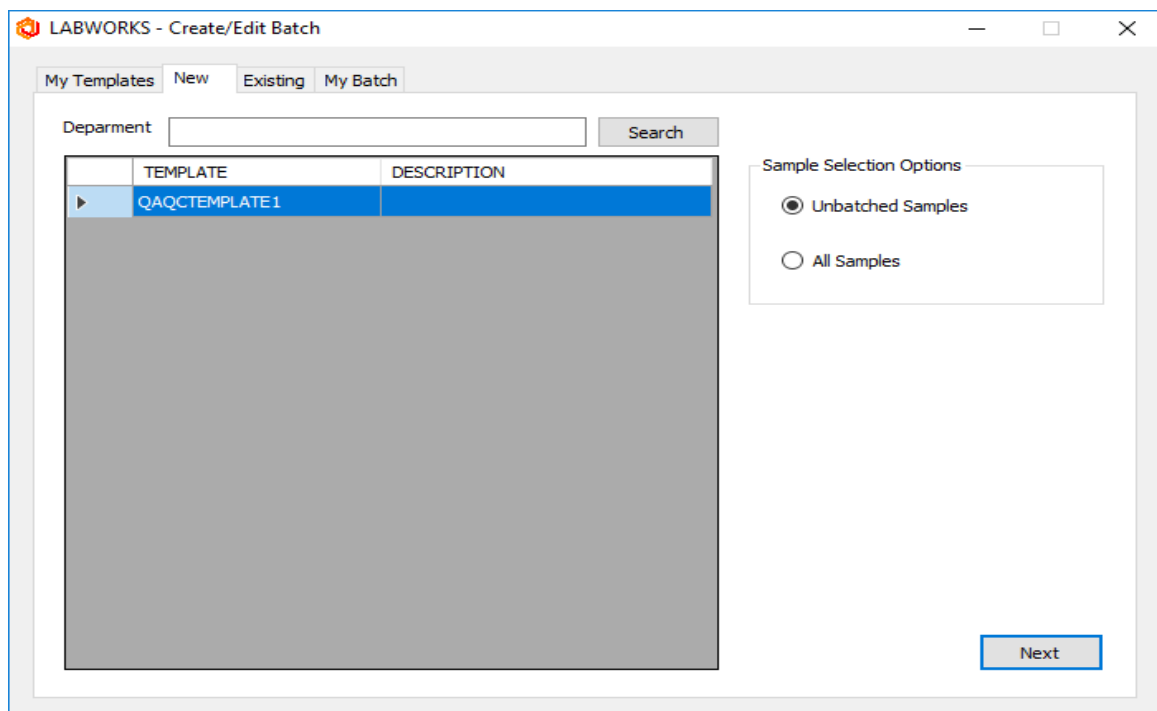


- 3) Launch “LWSampleLogin.exe”. Login samples to be included in the batch.

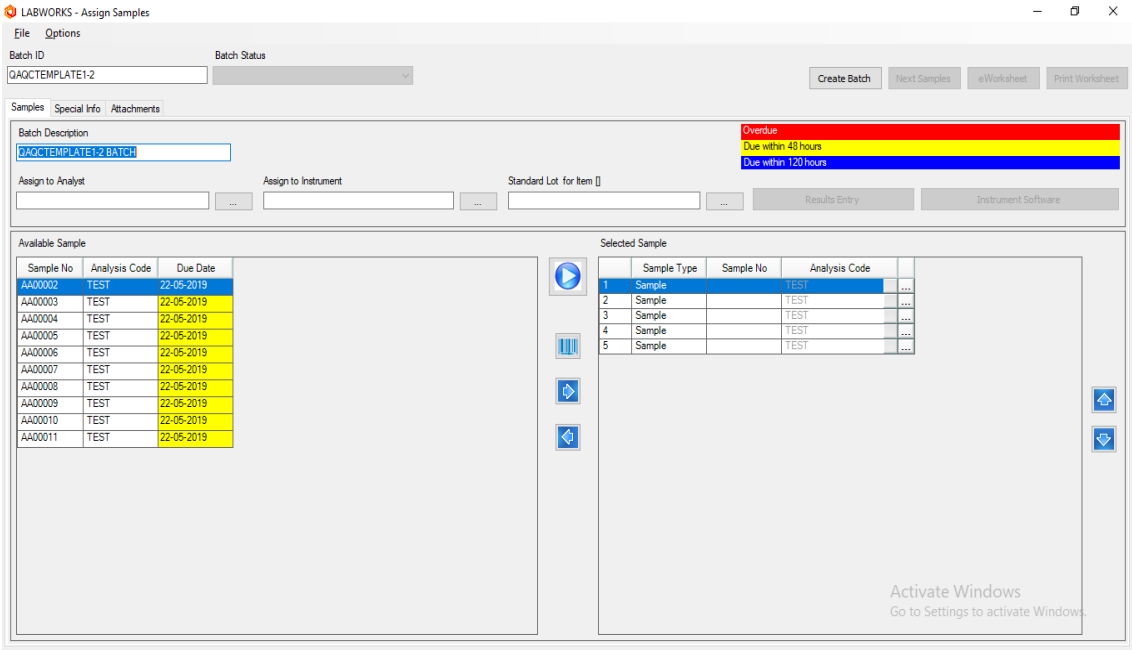


8.2. QA/QC Batch Builder

- 1) Launch “LWQAQCBatchBuilder.exe”. Select the newly created template, radio button for sample selection option as “Unbatched Samples” and click on 'Next' button.



- 2) Select the samples from “Available Samples” list and click “Auto-fill” button to move the samples to “Selected Sample” list.

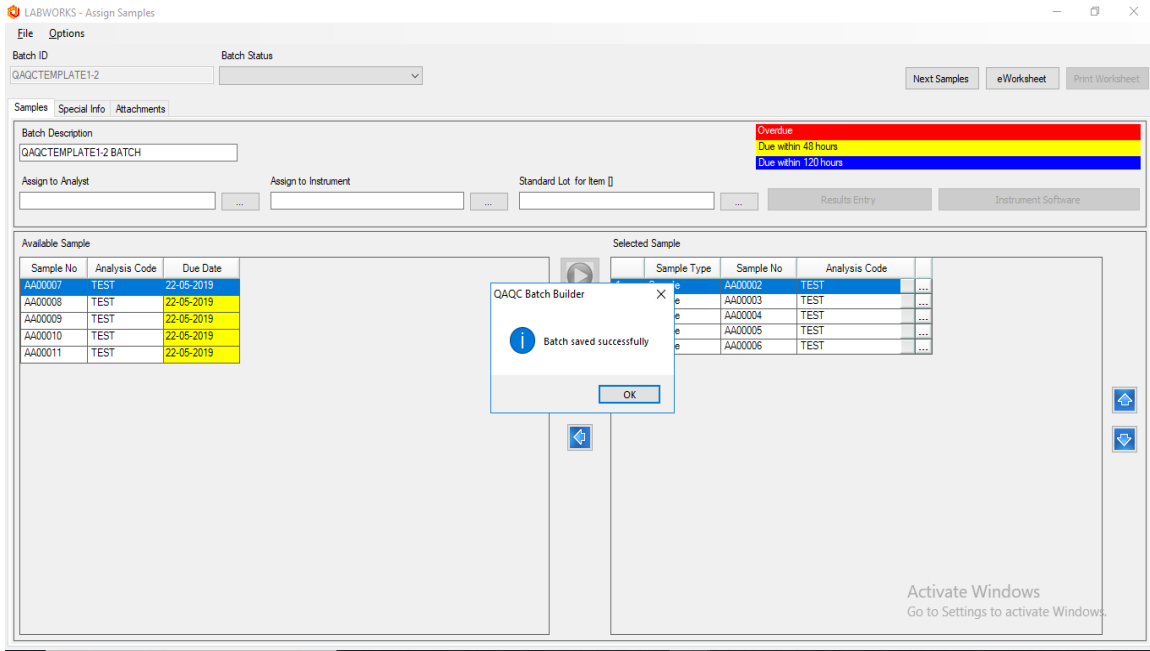


The screenshot shows the 'LABWORKS - Assign Samples' window. At the top, there's a 'Batch ID' field with 'QAQCTEMPLATE1-2' and a 'Batch Status' dropdown. Below this are tabs for 'Samples', 'Special Info', and 'Attachments'. The 'Samples' tab is active, showing a 'Batch Description' field with 'QAQCTEMPLATE1-2 BATCH'. To the right, there's a color-coded status bar: red for 'Overdue', yellow for 'Due within 48 hours', and blue for 'Due within 120 hours'. Below the status bar are fields for 'Assign to Analyst', 'Assign to Instrument', and 'Standard Lot for Item'. The main area is divided into two tables: 'Available Sample' and 'Selected Sample'. The 'Available Sample' table has columns 'Sample No', 'Analysis Code', and 'Due Date'. The 'Selected Sample' table has columns 'Sample Type', 'Sample No', and 'Analysis Code'. A 'Create Batch' button is located at the top right. A watermark 'Activate Windows' is visible at the bottom right.

Sample No	Analysis Code	Due Date
AA00002	TEST	22-05-2019
AA00003	TEST	22-05-2019
AA00004	TEST	22-05-2019
AA00005	TEST	22-05-2019
AA00006	TEST	22-05-2019
AA00007	TEST	22-05-2019
AA00008	TEST	22-05-2019
AA00009	TEST	22-05-2019
AA00010	TEST	22-05-2019
AA00011	TEST	22-05-2019

Sample Type	Sample No	Analysis Code
1	Sample	TEST
2	Sample	TEST
3	Sample	TEST
4	Sample	TEST
5	Sample	TEST

- 3) Click on 'Create Batch' button. “Batch saved successfully” message should be displayed.

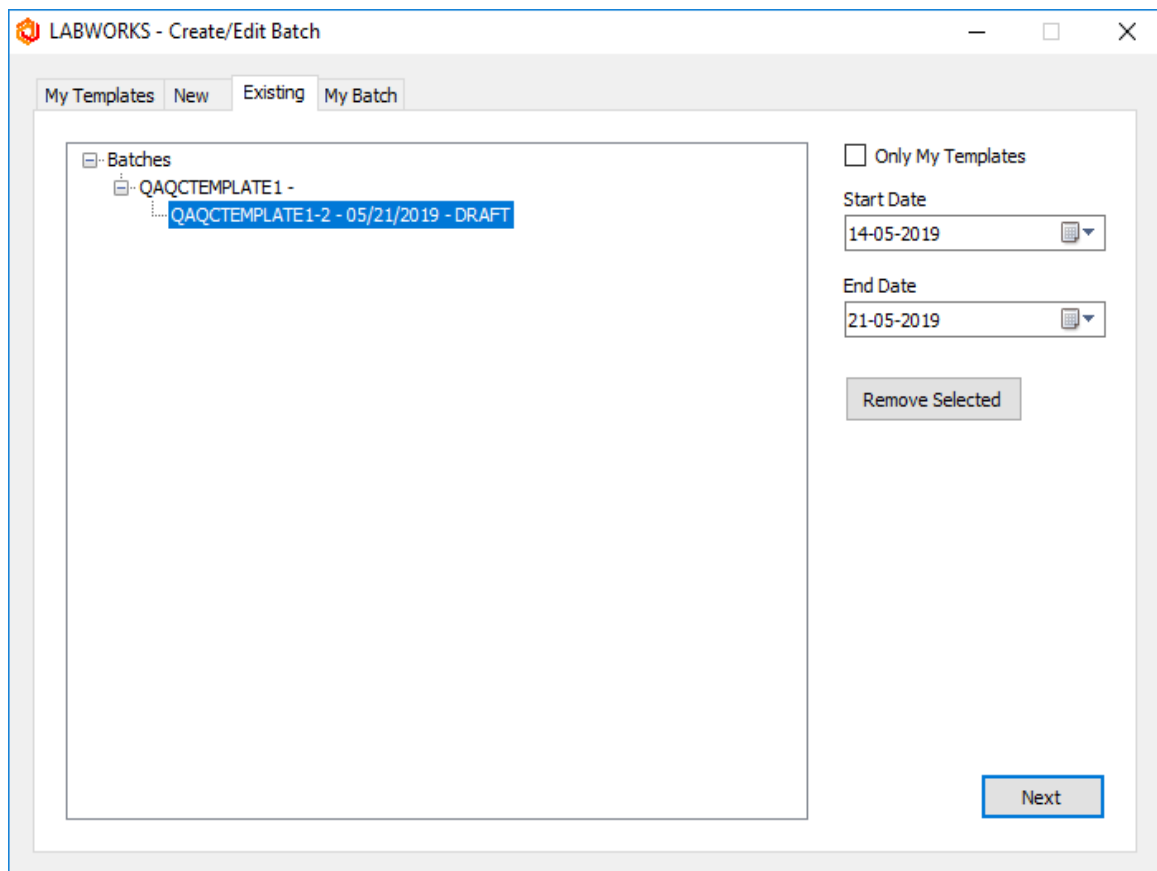


The screenshot shows the same 'LABWORKS - Assign Samples' window as before, but with a 'QAQC Batch Builder' dialog box open in the center. The dialog box has a title bar, a close button (X), and a message icon (i). The message inside says 'Batch saved successfully'. There is an 'OK' button at the bottom of the dialog box. The background window is slightly dimmed. The 'Available Sample' and 'Selected Sample' tables are still visible. A watermark 'Activate Windows' is visible at the bottom right.

Sample No	Analysis Code	Due Date
AA00007	TEST	22-05-2019
AA00008	TEST	22-05-2019
AA00009	TEST	22-05-2019
AA00010	TEST	22-05-2019
AA00011	TEST	22-05-2019

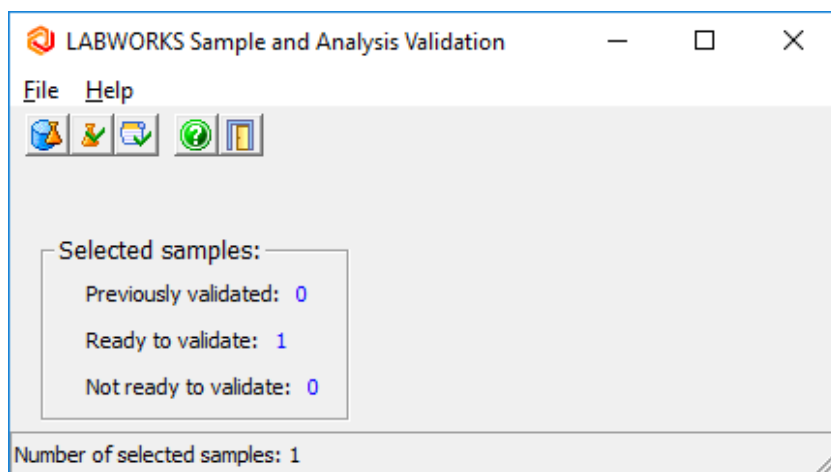
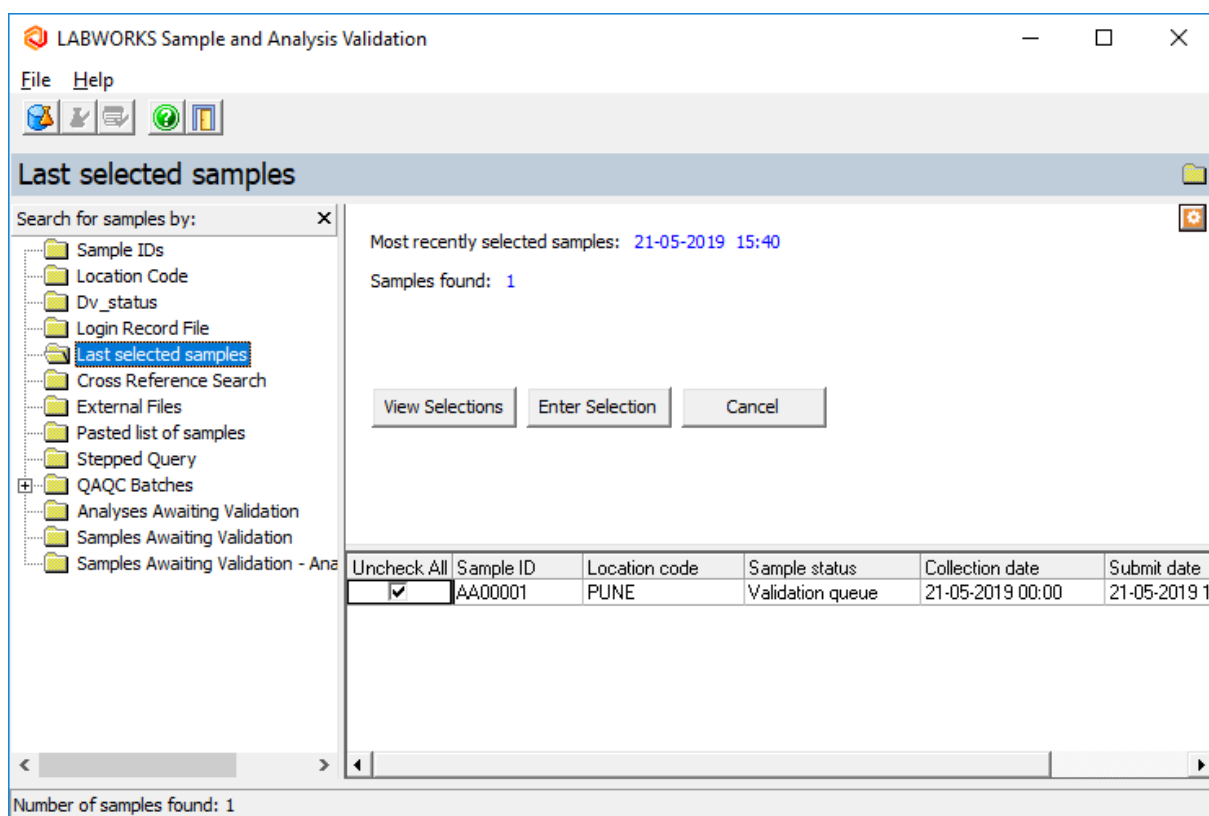
Sample Type	Sample No	Analysis Code
1	Sample	TEST
2	Sample	TEST
3	Sample	TEST
4	Sample	TEST
5	Sample	TEST

- 4) Go to “Existing” tab. The newly created batch should be displayed with “DRAFT” status.



9. Validate Result

- 1) Launch Sample and Analysis validation application.
- 2) Select Sample ID option from Search for Sample By. Enter Sample Number (select sample number such that it is already having status as 'Validation queue'). Click on View Selection. Click on Enter Selection.



- Go to 'Analysis Order' Tab. Right Click on Analysis Order column. Select 'Validate all complete Analyses in sheet'.

Multi-Sample Validation - Sample Analysis Orders

Unordered analysis 10.00 Set price 10.00 Projected price

Analyses Ordered	Sample ID	AA00001
	Loc Code	PUNE
	DV_STATUS	
!TEST	Status	Not valid
!TEST Analysis	Result	Complete
---	Rlt Source	Manual
	Price	0.00
	Start Date	21-05-2019 15:41:00
	End Date	21-05-2019 15:41:00
	Analyst	USR2
TEST	Status	Not valid
TEST Analysis	Result	10
---	Rlt Source	Manual
	Price	0.00
	Start Date	21-05-2019 15:41:00
	End Date	21-05-2019 15:41:00
	Analyst	USR2
\$TEST	Status	Not valid
\$TEST Analysis	Result	Complete
---	Rlt Source	Manual

Cancel
 Validate all completed analyses for sample AA00001
 Unvalidate all analyses for sample AA00001
 Set all analysis prices for sample AA00001
 Reorder all analyses for sample AA00001

Sample header info Comments Special information **Analysis order** Setup headers

Click analysis disposition to change, result to view detail, or price to set price. Right click header for block operations.

4) Select 'Sample header info' tab. Select Validate Now check box. Click on "Save" button.

Multi-Sample Validation - Sample Header Fields

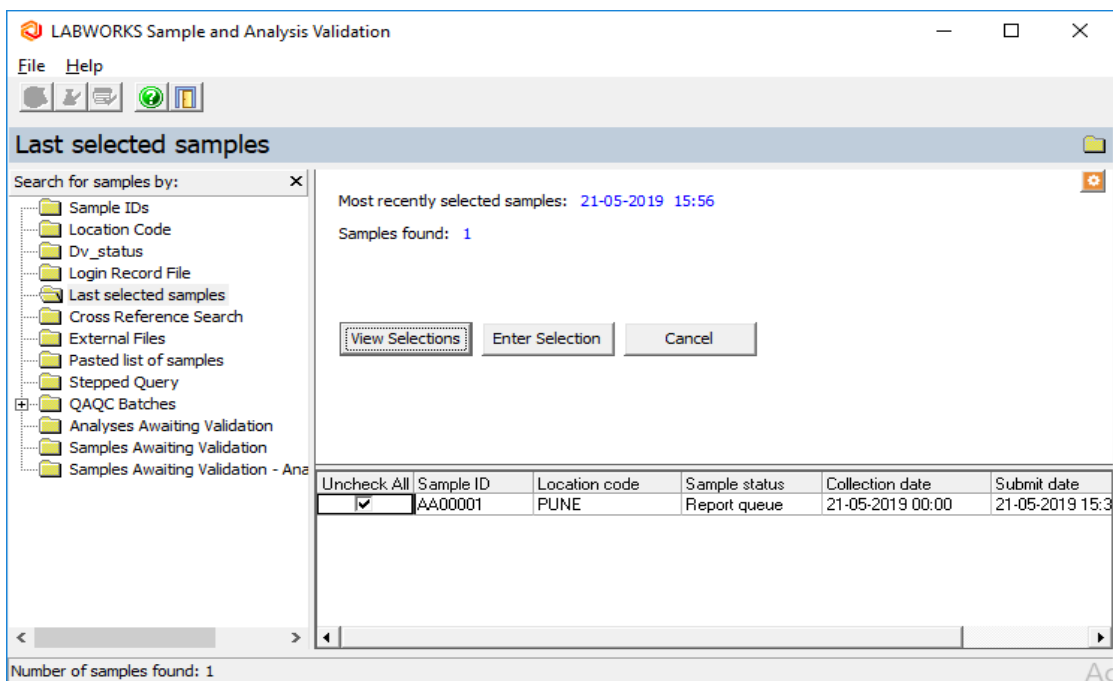
Save Cancel

Sample ID	Validate	Previously Validated	Analyses Validated	Any Viols	Audit Trail	QA/QC Data	Loc Code	Sample Colctr	Col Date	ColTime	Sub Date
AA00001	☒	No	Yes	No	Yes	No	PUNE		21-05-2019	00:00	21-05-20

Sample header info Comments Special information Analysis order Setup headers

Click here to save sample validations, analysis dispositions, and price or comment modifications

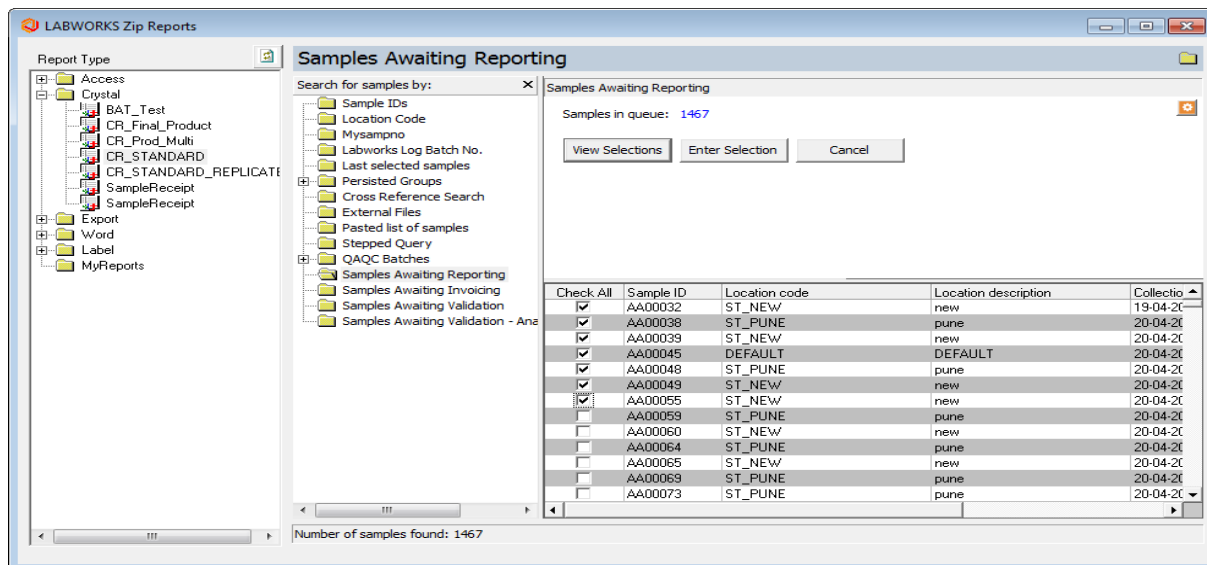
- 5) Select 'Last Selected Sample' option. Click on View Selection button.



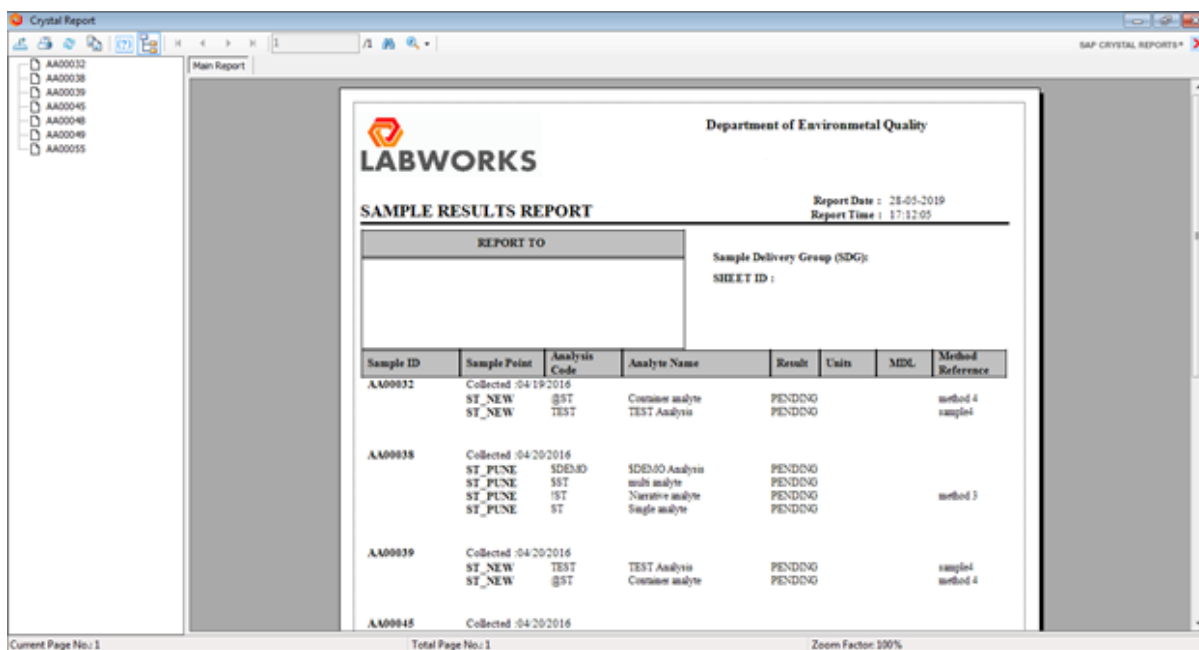
- 6) Status of the selected sample should be displayed as 'Report Queue'.

10. Generate Report

- 1) Launch Zip Report (ZipReport6.exe) application with valid LABWORKS credentials. Select "CR_STANDARD" report and select applicable samples using "Sample Search" window. Click "Enter Selection".

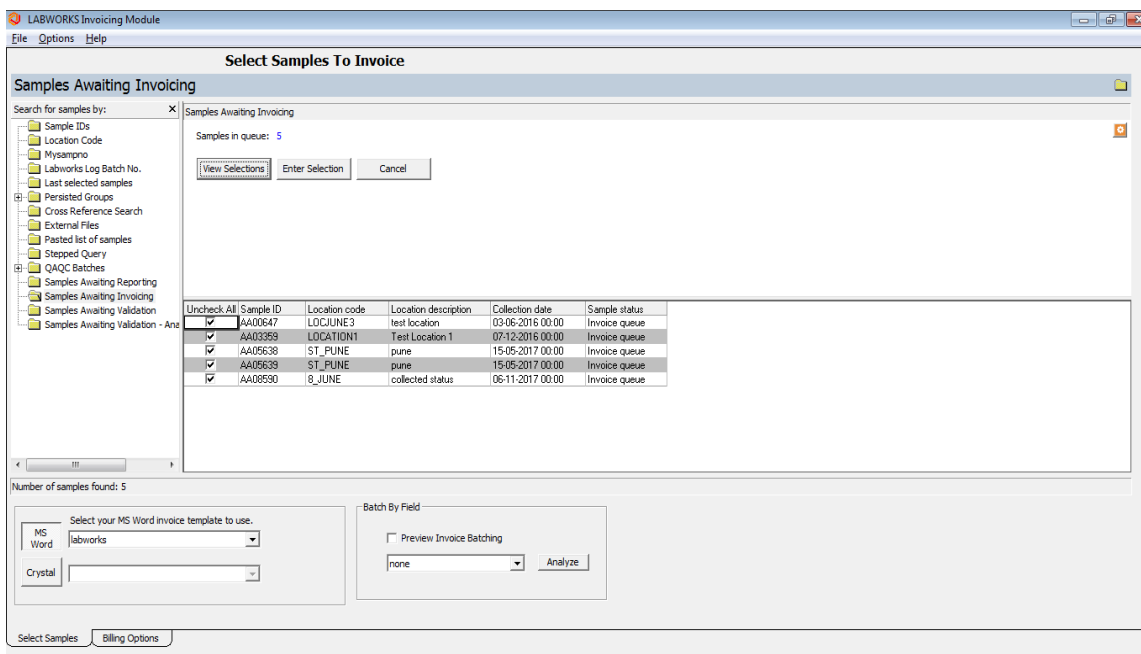


- 2) Report file is generated.



11. Generate Invoice

- 1) Launch "Sample Invoice" application (LWWinV6.exe). Select "Samples Awaiting Invoicing" option. Click "View Selection" and "Enter Selection".



- 2) Invoice should be generated as per the configured format.