

SampleManager LIMS software Lab Execution System (LES)

Drive Process Compliance and Enable Electronic Management and Execution of SOPs

Guide analysts step by step through procedures to ensure compliance with regulations:

- Drive users through each step of standardized work procedures.
- Integrate with instruments to confirm training and extract data in real time.
- Guarantee electronic signatures required in the formal review.
- Document the entire process in an audit log – enables review by exception.

The Laboratory Execution System (LES) in Thermo Scientific™ SampleManager™ LIMS, LES and SDMS software guides analysts through each step of a method to ensure correct and accurate SOP execution and captures the complete process history. Drive quality and compliance through consistent, repeatable execution of methods and processes:




Analysts can easily execute lab methods or resume running lab executions through the SampleManager LIMS software mobile app, connecting to instruments and enabling remote execution and real-time data acquisition:

Karl-Fischer Titration (013)-Weigh Sample

Instructions

Weighing

Weigh the standard and the test substance.
As soon as the weight displayed on the balance is stable, hit the "Read" button to transfer the weight value from the balance.



Enter weight of standard (mg)

22.7

Enter weight of sample (mg)

Enter weight of sample (mg) is required

Read Back Continue

SOPs can be broken down into multiple lab methods comprising logical steps to guide analysts through a procedure:


Steps Weigh Sample

Name

- Select Balance
- Select Sample
- Weigh Sample
- Dissolve Sample
- Titration
- Next Sample

Weighing

Weigh the standard and the test substance.
As soon as the weight displayed on the balance is stable, hit the "Read" button to transfer the weight value from the balance.



Parameters Substances Step Details Step Workflow Sequence Control Variables Prerequisite

Type	Name	Description
Numeric	Standard	Enter weight of standard
Nu...	Test Subst...	Enter weight of sample

Enter field name to filter on...

Properties

Default Value

Prompt Type Mandatory

Numeric Values

Minimum 20

Maximum 40

Target Value 0

Units mg

OK Cancel Apply

Hazard warnings embedded into the lab method remind analysts of necessary safety procedures:

Continue Laboratory Execution 'Karl-Fischer Titration (014)'

Task Details

Name: Karl-Fischer Titration (014)
Method: Karl-Fischer Titration
Assigned To: System Manager
Started: 12/05/2020 17:07

Progress

Step Name	Status
Select Balance	Completed
Select Sample	Completed
Weigh Sample	Review
Dissolve Sample	Completed
Titration	Review
Next Sample	In Progress

Dissolve Sample

Fill the flask to the mark with dry methanol.
Enter the batch of methanol used by selecting it from the drop-down list or by scanning the bottle's barcode.

Parameters | Comments | Substances | Attachments

Description	Value
Select Methanol Batch	Methanol/1

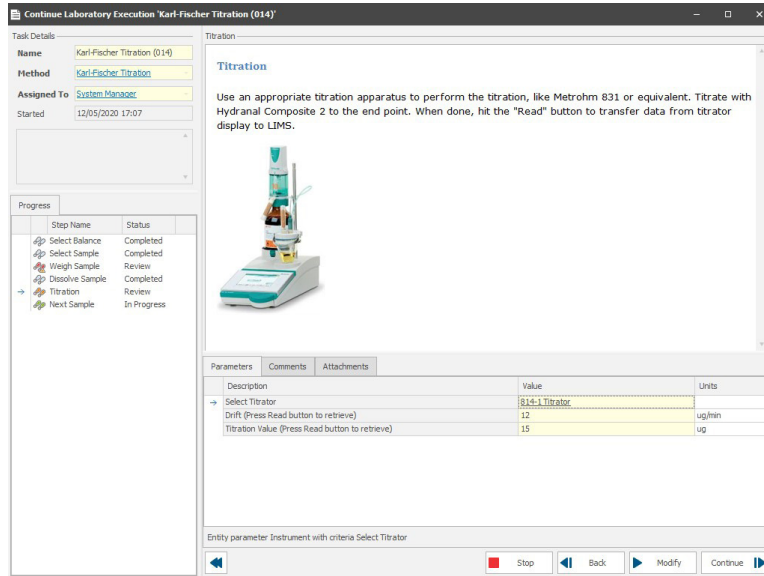
Entity parameter Stock with criteria Select Methanol Batch

Stop Back Modify Continue

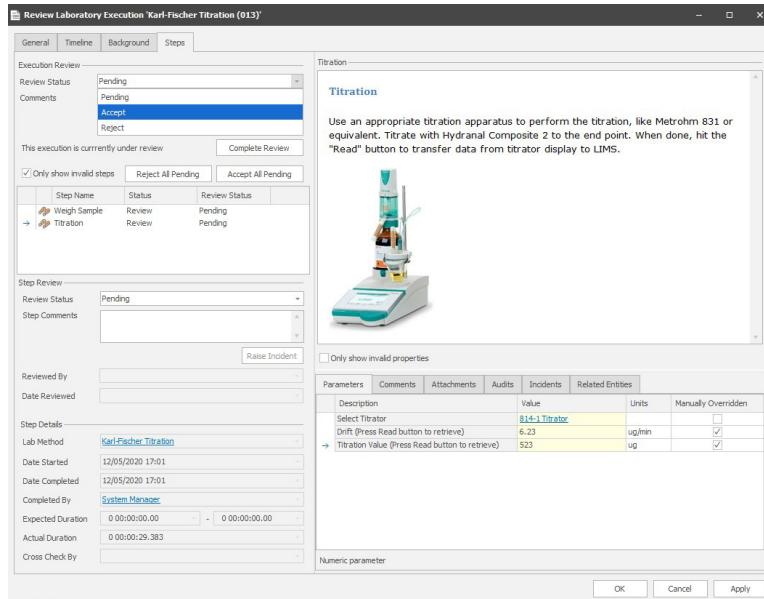
Process history provides an overview of all executed steps and their status:

Progress		
	Step Name	Status
	Select Balance	Completed
	Select Sample	Completed
	Weigh Sample	Review
→	Dissolve Sample	Completed
	Titration	Review
	Next Sample	In Progress

Instructional illustrations and videos demonstrate proper analytical techniques:



Review by exception lowers the amount of time spent in review:



Quality, repeatable process execution is key to ensuring reliable results and driving data integrity throughout your lab processes. A Laboratory Execution System (LES) built into SampleManager LIMS software gives analysts clear instructions and checks the LIMS to make sure instruments, equipment and other resources are appropriate and ready for use. Users are able to manage SOPs electronically, easily review processes and drive continuous improvement to deliver increased confidence in their data.

Find out more at thermofisher.com/digitalscience