

## 220 – Workflow Administration

This two-day LabVantage Workflow designer course gives you the knowledge needed to develop and deploy Workflows. Through a series of lessons and hands-on exercises, this course explores the types and uses of variables, transition statements, queue selectors and many other workflow tools. You will learn how to create and configure steps and tasks in combination with Workflow modifications and other features. Scripted exercises give examples of how to leverage the tools to create a variety of responsive flowcharts and tasks to suit your own environment. Additional topics include assignment, security, and administrator tools and tips.

### Prerequisites and Target Audience

Courses LabVantage *122-Administrator* or *211-Web Page Designer* training must be completed prior to participating in *Workflow Administration*. Alternatively, participants should have a minimum of six months working experience as a LabVantage administrator within a production environment. This is our most advanced level of training as it incorporates your knowledge of LabVantage data processing, eForms, Actions, and page design to develop wizards that lead users through a process.

1. **Introduction to Workflows:** What is Workflow? What are its components? Understand the concepts of workflow behavior and the differences in how administrators and end-users access and use Workflows.
2. **Building & Using a Workflow:** How do I build a workflow? Learn the concepts of building a basic workflow and then explore the different approaches for adding samples to Workflows; understand the use of event plans within a Workflow.
3. **Introduction to Tasks:** Tasks represent an individual defined procedure in the overall completion of a workflow and range in design from quite simple to very complex. To understand how to design tasks ranging in complexity, you will first learn how to define tasks and link a series of tasks together using input/output queues and connectors. Understand the purpose of utility tasks and they are used within a workflow and, how to define steps and modify list pages used within a task. Understand the concept of variables and the ways they are used to affect the behaviors of steps, tasks and workflows. Use action blocks to combine a series of actions into one database transaction. Finally, learn how to enhance task appearances and provide instructions or attachments for the benefit of your end-users.
4. **Introduction to Steps:** Now that you understand tasks, we'll go a level deeper and explore how Steps are used to present data or contain an action within a task. What's the difference between a Form step and an HTML step and when would I use these? What does a Converter step do? How would I use a Splitter step?
5. **Task & Workflow Set-up Variables:** You've built a number of core tasks and workflows and want to reuse them across different projects or lab sections. Using set-up variables, you'll learn how to quickly modify task and workflow behaviors without impacting workflows already in use in your production environment. You'll also learn how auto-executing and descendent tasks are influenced by set-up variables in addition to exploring more new steps introduced in this chapter.
6. **Workflow Executions:** Knowing how you will be using your workflow will determine the type of execution you assign to it during its creation. Learn about the three types of executions and best practices for each one.
7. **Working with Input Queues:** How important is an input queue within my task? Understand the difference applications of queue selectors vs auto-selection and, how event waits influence the behavior of the queue selector.

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8. **More Capabilities:** You've designed your workflow using tasks, steps, variables, events, and other features. Is it ready to use? How can I retrieve detailed information about a workflow when it's being used? You'll now explore the use of step tool bar buttons including the design and application of step specific buttons, use attachments within workflow, and discover how notes transfer between LIMS and workflows. Understand how steps can be used as stand-alone actions within LIMS, how a task can be cancelled or paused by your end-users and why this is useful. Finally, you will configure task and summary reports to provide task specific detailed information you and your end-users will find helpful.
9. **Assignment & Security:** How is work assigned within tasks? Is certification possible? How can I limit who has access to samples within a workflow? Discover the use of manual and auto-assignment, how to certify users and tasks and, departmental security concepts.
10. **Administrator Tools:** Just as your end-users have a variety of tools to help them work with their tasks and workflows, administrators also have a set of tools. We'll take an in-depth look at the workflow manager page and both the workflow and task operations tools for administrators.
11. **APIs:** Sometimes the out-of-box tools aren't quite enough when creating highly complex workflows. For those who prefer to write their own solutions, you will be given reference materials to aid in the writing of custom steps as JSPs, the workflow processor (Java API) and using the Groovy step. Note: This is an advanced developer chapter and the materials for this chapter are provided for your reference upon completion of the Workflow training. There is no formal instruction for this chapter.

### Typical daily agenda

Day One	Day Two
Welcome & Overview	Task & Workflow Set-up Variables
Introduction to Workflow	Workflow Executions
Building & Using Workflows	Input Queues
Introduction to Tasks	More Capabilities
Introduction to Steps	Assignment, Security and Tools

### The Materials

LabVantage provides a digital training manual for each student. This allows you to always have your manual with you for reference. The full color student manual is organized into chapters each having a table of contents for your reference. The manual provides a copy of each slide used by the instructor during the presentation, along with prepared notes for your reference after the course. There is an entire page for each slide making it easy for you to print these pages and take notes with the lectures. This workbook includes many exercises leading you through examples of how to make the best use of LabVantage.