

# Lookout Basics Course

## Overview

The hands-on Lookout Basics course teaches you to use Lookout to develop HMI/SCADA applications to control and monitor manufacturing and process control applications.

## Duration

Three (3) Days

## Audience

- New Lookout users
- Users and technical managers evaluating Lookout in purchasing decisions
- Users developing HMI/SCADA applications

## Prerequisites

- Experience using the Microsoft Windows operating system
- Programming experience helpful, but not required

## NI Products Used During the Course

- LabWindows/CVI

## After attending this course, you will be able to:

- Use Lookout to reliably control and monitor a wide variety of industrial applications
- Retrieve live or historical data from Lookout to any database, spreadsheet, or MES software
- Monitor and control your process using a Web browser
- Configure system alarm and event processing, and security levels
- Trend the data logged and embed trend charts in a Web browser
- View and control I/O points anywhere on the network using TCP/IP
- Create an audit trail using event logging
- Alert a pager or cell phone on alarm conditions
- Protect your process from computer failure
- Use integrated SPC tools in your application

## Registration

Register online at [ni.com/training](http://ni.com/training) or call (800)433-3488 Fax: (512)683-9300 [info@ni.com](mailto:info@ni.com)

Outside North America, contact your local NI Office.  
Worldwide Contact Info: [ni.com/global](http://ni.com/global)

## Part Number

910510-xx  
-01 NI Corporate or Branch  
-11 Regional  
-21 Onsite (at your facility)

# Lookout Basics Course Outline

## Introduction to Lookout

- Overview of the architecture and environment
- Lookout application files

## Getting Started

- Creating and connecting objects
- Displaying data members on panels
- Editing shortcuts

## Drivers and Databases

- Understanding COMSUB
- Changing serial port settings
- Serial port parameters
- Creating and configuring protocol driver objects
- Editing object databases
- Import and export databases

## Control Panels

- Panel object class and panel switching
- Special considerations for "home panel"
- Printing panels
- Panel resolution considerations

## Graphics and Animation

- Displaying static and dynamic graphics
- Gauge object class
- Display logical signals
- Multi-state object class
- Spinner object class
- DialGauge object class
- Importing custom graphics
- Graphic file type considerations

## Control Logic

- Using control objects
- Handling alarms
- Database-generated alarms
- Alarm object class and alarm groups
- Alarm priorities, display options, filters

## Security

- Control and viewing security
- Action verification
- Establishing user accounts

## Data Logging

- Event logger
- Logging to spreadsheets
- Citadel threaded database logger

## Data Trending

- Using HyperTrends
- Defining HyperTrends

## SQL

- Overview of SQL
- Threads table
- Data transforms
- SQL examples

## Dynamic Data Exchange (DDE)

- Overview of DDE
- Lookout as DDE server
- Lookout as DDE client
- Lookout in DDE peer-to-peer