

# LabVIEW™

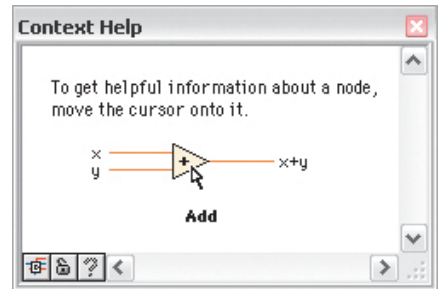
## Quick Reference Card

Take advantage of the following resources to help you during each phase of using LabVIEW – from installation through advanced development. Use the following resources for our most comprehensive documentation.

## Online Resources

### HELP MENU

For the simplest, most integrated approach to using the **LabVIEW Help**, select **Help»Show Context Help** or press **Ctrl-H**. Move your cursor over an object.



### Search the LabVIEW Help

Select **Help»Search the LabVIEW Help** to access information about LabVIEW programming concepts, step-by-step instructions for using LabVIEW, and reference information about LabVIEW VIs, functions, palettes, menus, and tools.

### Find Examples

Select **Help»Find Examples** to browse hundreds of example VIs. You can modify an example VI to fit an application, or you can copy and paste from one or more examples into a VI you create.

### Web Resources

Select **Help»Web Resources** to access links to LabVIEW resources on [ni.com](http://ni.com) including upgrades, training and seminars, customer solutions, example VIs, LabVIEW support and documentation, user groups, and discussion forums.

# LabVIEW

## Keyboard Shortcuts

### Objects and Movement

<b>Shift-click</b>	Selects multiple objects; adds object to current selection.
<b>↑↓→←(arrow keys)</b>	Moves selected objects one pixel at a time.
<b>Shift-↑↓→←</b>	Moves selected objects several pixels at a time.
<b>Shift-click (drag)</b>	Moves selected objects in one axis.
<b>Ctrl-click (drag)</b>	Duplicates selected objects.
<b>Ctrl-Shift-click (drag)</b>	Duplicates selected objects and moves them in one axis.
<b>Shift-resize</b>	Resizes object while maintaining aspect ratio.
<b>Ctrl-resize</b>	Resizes object while maintaining center point.
<b>Ctrl-Shift-resize</b>	Resizes selected object while maintaining center point and aspect ratio.
<b>Ctrl-drag a rectangle in open space</b>	Adds more working space to the front panel or block diagram.
<b>Ctrl-A</b>	Selects all front panel or block diagram items.
<b>Ctrl-Shift-A</b>	Performs last alignment operation on objects.
<b>Ctrl-D</b>	Performs last distribution operation on objects.
<b>Double-click open space</b>	Adds a free label to the front panel or block diagram if automatic tool selection is enabled.
<b>Ctrl-mouse wheel</b>	Scrolls through subdiagrams of a Case, Event, or Stacked Sequence structure.
<b>Spacebar (drag)</b>	Disables preset alignment positions when moving labels or captions.
<b>Ctrl-U</b>	Reroutes all wires and rearranges block diagram objects automatically.

### Debugging

<b>Ctrl-↓</b>	Steps into node.
<b>Ctrl-→</b>	Steps over node.
<b>Ctrl-↓</b>	Steps out of node.

### Basic Editing

<b>Ctrl-Z</b>	Undoes last action.
<b>Ctrl-Shift-Z</b>	Redoes last action.
<b>Ctrl-X</b>	Cuts selected objects.
<b>Ctrl-C</b>	Copies selected objects
<b>Ctrl-V</b>	Pastes last cut or copied objects.

### Navigating the LabVIEW Environment

<b>Ctrl-E</b>	Displays block diagram or front panel windows.
<b>Ctrl-#</b>	Enables or disables grid alignment. (Mac OS) Press the Command-* keys.
<b>Ctrl-/</b>	Maximizes and restores window.
<b>Ctrl-T</b>	Tiles front panel and block diagram windows.
<b>Ctrl-F</b>	Finds objects or text.
<b>Ctrl-G</b>	Searches VIs for next instance of object or text.
<b>Ctrl-Shift-G</b>	Searches VIs for previous instance of object or text.
<b>Ctrl-Shift-F</b>	Displays the <b>Search Results</b> window.
<b>Ctrl-Tab</b>	Cycles through LabVIEW windows.
<b>Ctrl-Shift-Tab</b>	Cycles through LabVIEW windows in reverse order.
<b>Ctrl-Shift-N</b>	Displays the <b>Navigation</b> window.
<b>Ctrl-I</b>	Displays the <b>VI Properties</b> dialog box.
<b>Ctrl-L</b>	Displays the <b>Error list</b> window.
<b>Ctrl-Y</b>	Displays the <b>History</b> window.
<b>Ctrl-Shift-W</b>	Displays the <b>All Windows</b> dialog box.
<b>Ctrl-Space</b>	Displays the <b>Quick Drop</b> dialog box. (Mac OS) Press the Command-Shift-Space keys.

### Navigating the VI Hierarchy Window

<b>Ctrl-D</b>	Redraws the window.
<b>Ctrl-A</b>	Shows all VIs in the window.
<b>Ctrl-click VI</b>	Displays the subVIs and other nodes that make up the VI you select in the window.
<b>Enter</b> <sup>†</sup>	Finds next node that matches the search string.
<b>Shift-Enter</b> <sup>†</sup>	Finds previous node that matches the search string.
<sup>†</sup> After initiating a search by typing in the VI Hierarchy window.	

### File Operations

<b>Ctrl-N</b>	Creates a new, blank VI.
<b>Ctrl-O</b>	Opens an existing VI.
<b>Ctrl-W</b>	Closes the VI.
<b>Ctrl-S</b>	Saves the VI.
<b>Ctrl-Shift-S</b>	Saves all open files.
<b>Ctrl-P</b>	Prints the window.
<b>Ctrl-Q</b>	Quits LabVIEW.

### Help

<b>Ctrl-H</b>	Displays the <b>Context Help</b> window. (Mac OS) Press the Command-Shift-H keys.
<b>Ctrl-Shift-L</b>	Locks the <b>Context Help</b> window.
<b>Ctrl-? or F1</b>	Displays the <b>LabVIEW Help</b> .

Refer to the **LabVIEW Help** for keyboard shortcut variations on other system locales and keyboard layouts.

Tools and Palettes	
<b>Ctrl</b>	Switches to next most useful tool.
<b>Shift</b>	Switches to Positioning tool.
<b>Ctrl-Shift over open space</b>	Switches to Scrolling tool.
<b>Spacebar<sup>†</sup></b>	Toggles between two most common tools.
<b>Shift-Tab<sup>†</sup></b>	Enables automatic tool selection.
<b>Tab<sup>†</sup></b>	Cycles through four most common tools if you disabled automatic tool selection by clicking the <b>Automatic Tool Selection</b> button. Otherwise, enables automatic tool selection.
<b>↑↓→←</b>	Navigates temporary <b>Controls</b> and <b>Functions</b> palettes.
<b>Enter</b>	Navigates into a temporary palette.
<b>Esc</b>	Navigates out of a temporary palette.
<b>Shift-right-click</b>	Displays a temporary version of the <b>Tools</b> palette at the location of the cursor.

<sup>†</sup> If automatic tool selection is disabled.

SubVIs	
<b>Double-click subVI</b>	Displays subVI front panel.
<b>Ctrl-double-click subVI</b>	Displays subVI block diagram and front panel.
<b>Drag VI icon to block diagram</b>	Places that VI as a subVI on the block diagram.
<b>Shift-drag VI icon to block diagram</b>	Places that VI as a subVI on the block diagram with constants wired for controls that have non-default values.
<b>Ctrl-right-click block diagram and select VI from palette</b>	Opens the front panel of that VI.

Execution	
<b>Ctrl-R</b>	Runs the VI.
<b>Ctrl-.<sup>†</sup></b>	Stops the VI.
<b>Ctrl-M</b>	Changes to run or edit mode.
<b>Ctrl-Run button</b>	Recompiles the current VI.
<b>Ctrl-Shift-Run button</b>	Recompiles all VIs in memory.
<b>Ctrl-↓<sup>†</sup></b>	Moves key focus inside an array or cluster.
<b>Ctrl-↑<sup>†</sup></b>	Moves key focus outside an array or cluster.
<b>Tab<sup>†</sup></b>	Navigates the controls or indicators according to tabbing order.
<b>Shift-Tab<sup>†</sup></b>	Navigates backward through the controls or indicators.

<sup>†</sup> While the VI is running

Text	
<b>Double-click</b>	Selects a single word in a string.
<b>Triple-click</b>	Selects an entire string.
<b>Ctrl-→</b>	Moves forward in string by one word.
<b>Ctrl-←</b>	Moves backward in string by one word.
<b>Home</b>	Moves to beginning of current line in string.
<b>End</b>	Moves to end of current line in string.
<b>Ctrl-Home</b>	Moves to beginning of entire string.
<b>Ctrl-End</b>	Moves to end of entire string.
<b>Shift-Enter</b>	Adds new items when entering items in enumerated type controls and constants, ring controls and constants, or Case structures.
<b>Esc</b>	Cancel current edit in a string.
<b>Ctrl-Enter</b>	Ends text entry.
<b>Ctrl=</b>	Increases the current font size.
<b>Ctrl--</b>	Decreases the current font size.
<b>Ctrl-0</b>	Displays the <b>Font</b> dialog box.
<b>Ctrl-1<sup>†</sup></b>	Changes to the Application font.
<b>Ctrl-2<sup>†</sup></b>	Changes to the System font.
<b>Ctrl-3<sup>†</sup></b>	Changes to the Dialog font.
<b>Ctrl-4<sup>†</sup></b>	Changes to the current font.

<sup>†</sup> In the **Font** dialog box.

Wiring	
<b>Ctrl-B</b>	Removes all broken wires.
<b>Esc, right-click, or click terminal</b>	While wiring, cancels a wire you started.
<b>Single-click wire</b>	Selects one segment.
<b>Double-click wire</b>	Selects a branch.
<b>Triple-click wire</b>	Selects entire wire.
<b>A</b>	While wiring, disables automatic wire routing temporarily.
<b>Double-click</b>	While wiring, tacks down wire without connecting it.
<b>spacebar</b>	While wiring, switches the direction of a wire between horizontal and vertical.
<b>spacebar</b>	While moving objects, toggles automatic wiring.
<b>Ctrl-click input on function with two inputs</b>	Switches the two input wires.
<b>Shift-click</b>	While wiring, undoes last point where you set a wire.

**Note:** The **Ctrl** key in these shortcuts corresponds to the **Option** or **Command** key on Mac OS and the **Alt** key on Linux.

# Printed Resources

## INSTALLATION & UPGRADE



### DVD Installation Instructions (Windows)

Outlines the DVD installation, which gives you access to nearly all products in the LabVIEW platform.



### LabVIEW Release Notes

Provides additional installation instructions for LabVIEW. Also describes the system requirements for LabVIEW, including the LabVIEW Application Builder.



### LabVIEW Upgrade Notes

Describes new features and issues you might encounter when you upgrade LabVIEW to the latest version on Windows, Mac OS, and Linux.

## USAGE



### Getting Started with LabVIEW

Complete quick tutorials to learn about building data acquisition and instrument control applications.



### LabVIEW Fundamentals

Learn about LabVIEW programming concepts and techniques, features, VIs, and functions.

## SUPPORT



### LabVIEW Readme

Last-minute information about LabVIEW that did not make it into other resources. Includes bug fixes, possible installation or compatibility issues, and changes from previous versions of LabVIEW.