

# LabVIEW<sup>™</sup> Quick Reference Card

# **LabVIEW Documentation Resources**

# **Context Help**

When you move the cursor over LabVIEW objects, the **Context Help** window displays basic information about each object. Select **Help\*Show Context Help** to display the **Context Help** window.

# LabVIEW Help

Includes information about LabVIEW programming concepts, step-by-step instructions for using LabVIEW, and reference information about LabVIEW VIs, functions, palettes, menus, and tools. Access the *LabVIEW Help* by selecting **Help**.

# LabVIEW Examples

LabVIEW searches among hundreds of example VIs you can use and incorporate into VIs that you create. You can modify an example VI to fit an application, or you can copy and paste from one or more examples into a VI that you create. Browse or search the example VIs by selecting **Help»Find Examples**. You also can right-click a VI or function on the block diagram or on a pinned palette and select **Examples** from the shortcut menu to display a help topic with links to examples for that VI or function.

# LabVIEW Web Resources

Includes a list of links to online National Instruments resources. Select **Help»Web Resources** to access the LabVIEW resources at **ni.com**. Resources available to you include the following:

## **Products and Services**

- Upgrades
- Training courses
- Seminars and user groups

## Solutions

- Industry solutions
- Customer solutions

### Support

- LabVIEW support
- Product documentation

## **NI Developer Zone**

- Discussion forums
- Example VIs

# Keyboard Shortcuts

You also can access this list of keyboard shortcuts in the LabVIEW Help.

#### Objects and Movement \_\_\_\_\_

Shift-click	Selects multiple objects; adds object to current selection.
↑↓→← (arrow keys)	Moves selected objects one pixel at a time.
Shift-↑↓→←	Moves selected objects several pixels at a time.
Shift-click (drag)	Moves selected objects in one axis.
Ctrl-click (drag)	Duplicates selected object.
Ctrl-Shift-click (drag)	Duplicates selected object and moves it in one axis.
Shift-resize	Resizes selected object while maintaining aspect ratio.
Ctrl-resize	Resizes selected object while maintaining center point.
Ctrl-drag a rectangle	Inserts more working space on the front panel or block diagram.
Ctrl-A	Selects all items on the front panel or block diagram.
Ctrl-Shift-A	Performs last alignment operation on objects.
Ctrl-D	Performs last distribution operation on objects.
Double-click open space	Places a free label on the front panel or block diagram if automatic tool selection is enabled.
Ctrl-mouse wheel	Scrolls through subdiagrams of a Case, Event, or Stacked Sequence structure.

### Navigating Front Panels and Block Diagrams \_\_\_\_\_\_\_

Ctrl-E Ctrl-#	Displays block diagram or front panel. Enables or disables grid alignment. On French keyboards, press the <ctrl-"> keys. (Mac OS) Press the <command-*> keys.</command-*></ctrl-">
Ctrl-/	Maximizes and restores window.
Ctrl-T	Tiles front panel and block diagram windows.
Ctrl-F	Finds objects or text.
Ctrl-G	Searches VIs for next instance of object or text.
Ctrl-Shift-G	Searches VIs for previous instance of object or text.
Ctrl-Shift-F	Displays the Search Results window.
Ctrl-Tab Ctrl-Shift-Tab	Cycles through LabVIEW windows. Cycles the opposite direction through LabVIEW windows.
Ctrl-Shift-N Ctrl-I	Displays the <b>Navigation</b> window. Displays the <b>VI Properties</b> dialog box.
Ctrl-L	Displays the Error list window.
Ctrl-Y	Displays the <b>History</b> window.

#### Navigating the VI Hierarchy Window

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

<sup>†</sup> After initiating a search by typing in the **VI Hierarchy** window

Debugging \_\_\_\_\_

Ctrl-↓	Steps into node.
Ctrl-→	Steps over node.
Ctrl-↑	Steps out of node.

# File Operations \_\_\_\_\_

Ctrl-N	Creates a new VI.
Ctrl-O	Opens an existing VI.
Ctrl-W	Closes the VI.
Ctrl-S	Saves the VI.
Ctrl-P	Prints the window.
Ctrl-Q	Quits LabVIEW.

#### Basic Editing \_\_\_\_\_

Ctrl-Z	Undoes last action
Ctrl-Shift-Z	Redoes last action.
Ctrl-X	Cuts an object.
Ctrl-C	Copies an object.
Ctrl-V	Pastes an object.

### Help \_\_\_\_\_

Ctrl-H	Displays the <b>Context Help</b> window.
Ctrl-Shift-L	Locks the Context Help window.
Ctrl-? or F1	Displays the LabVIEW Help.

Note The <Ctrl> key in these shortcuts corresponds to the (Mac OS) <Option> or <Command> key or (Linux) <Alt> key.

### Tools and Palettes

Ctrl Shift Ctrl-Shift over open space	Switches to next most useful tool. Switches to Positioning tool. Switches to Scrolling tool.
Spacebar <sup>†</sup>	Toggles between two most common tools.
Shift-Tab †	Enables automatic tool selection.
Tab †	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.
↑↓→←	Navigates temporary <b>Controls</b> and <b>Functions</b> palettes.
Enter	Navigates into a temporary palette.
Esc	Navigates out of a temporary palette.
Shift-right-click	Displays a temporary version of the <b>Tools</b> palette at the location of the cursor.

\* If automatic tool selection is disabled

### SubVIs \_\_\_\_\_

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

# Execution \_\_\_\_\_

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

\* While the VI is running

## Wiring \_\_\_\_\_

Ctrl-B	Removes all broken wires.
Esc, right-click, or click terminal	Cancels a wire you started.
Single-click wire Double-click wire Triple-click wire	Selects one segment. Selects a branch. Selects entire wire.
Α	While wiring, disables automatic wire routing temporarily.
Double-click (while wiring)	Tacks down wire without connecting it.
spacebar	Toggles automatic wiring while moving objects.
Shift-click	Undoes last point where you set a wire.
Ctrl-click input on function with two inputs	Switches the two input wires.
spacebar	Switches the direction of a wire between horizontal and vertical.

#### Text .

Selects a single word in a string. Selects an entire string.
Moves forward in string by one word. Moves backward in string by one word. Moves to beginning of current line in string.
Moves to end of current line in string. Moves to beginning of entire string. Moves to end of entire string.
Adds new items when entering items in enumerated type controls and constants, ring controls and constants, or Case structures.
Cancels current edit in a string. Ends text entry.
Increases the current font size. Decreases the current font size.
Displays the <b>Font</b> dialog box. Changes to the Application font. Changes to the System font. Changes to the Dialog font. Changes to the current font.

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



# **Editing, Execution, and Debugging Tools**

The VI toolbar contains the following tools. Refer to the *LabVIEW Help* for information about other tools on toolbars.

?	Show Context Help Window—Displays the Context Help window.	4 <u>0</u>	<b>Step Into</b> -Opens a node and pauses.
⇔	Run-Runs the VI.	f	<b>Step Over</b> —Executes a node and pauses at the next node.
多	<b>Broken Run</b> —Indicates that the VI contains errors. Click the button to list errors.	û	<b>Step Out</b> —Finishes executing the current node and pauses.
P	<b>Run Continuously</b> —Runs the VI until you abort or pause execution.	13pt Appl	cation Font <b>Text Settings</b> – Changes the font settings for the VI.
	Abort Execution—Aborts execution of the top-level VI.	<b>.</b> ▼	Align Objects – Aligns objects along axes.
Ш	Pause – Pauses or resumes execution.	• <b>0</b> ••	Distribute Objects – Spaces objects evenly.
Ŷ	<b>Highlight Execution</b> —Displays an animation of the block diagram when you click the <b>Run</b> button.	*	<b>Resize Objects</b> —Resizes multiple front panel objects to the same size.
<b>₽</b> □	<b>Retain Wire Values</b> —Saves data values that pass through wires during VI execution.	\$	<b>Reorder</b> —Reorders objects if they overlap, including moving forward and moving backward.

The **Tools** palette contains the following tools. Refer to the *LabVIEW Help* for information about other tools on the **Tools** palette.



**Breakpoint Tool**—Sets breakpoints on nodes and wires to pause execution at that location.

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**Probe Tool**—Creates probes on wires to display intermediate values in a running VI.

# **Data Type Terminals**



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