VI Technologies

NIDays10
WORLDWIDE GRAPHICAL SYSTEM DESIGN CONFERENCE

Tips & tricks to enhance your LabVIEW development experience

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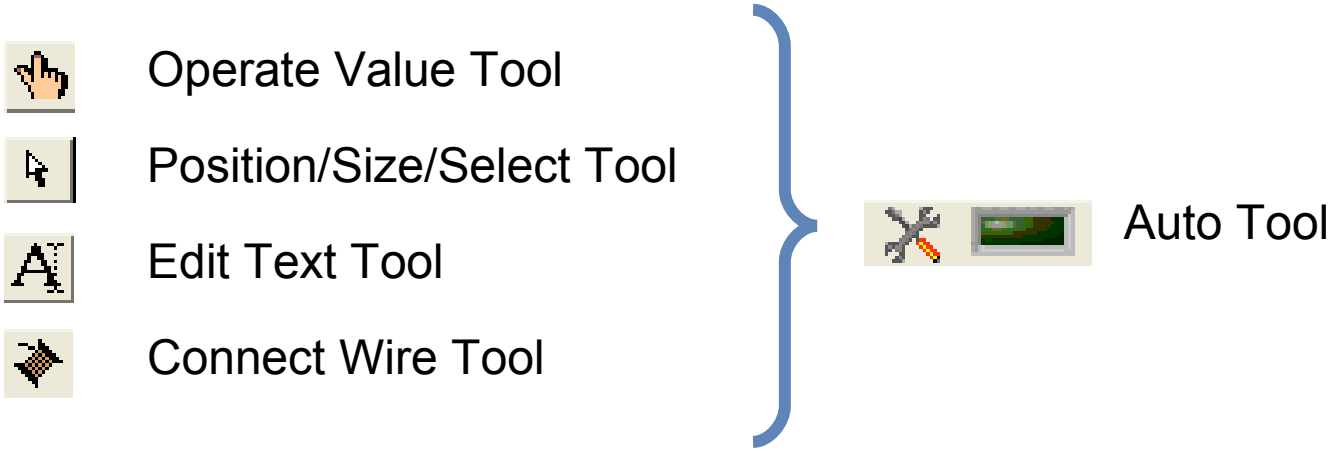
Automatically Select the Right Tool

- Avoid manually switching among many tools

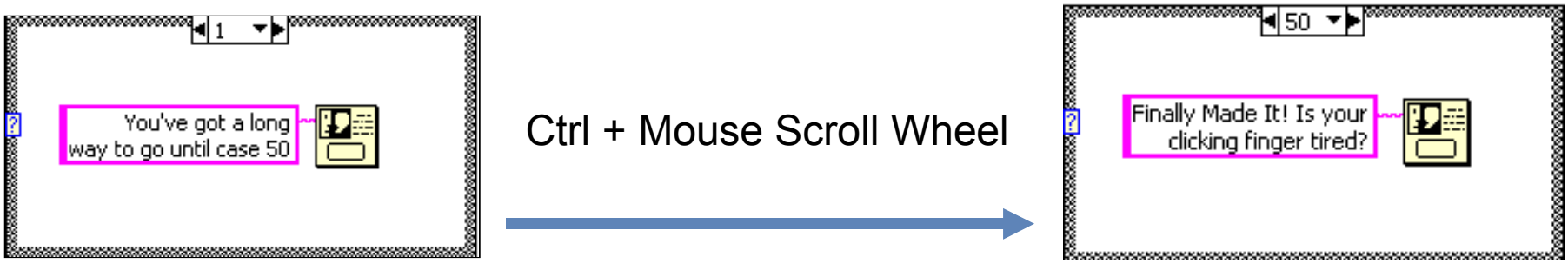


Also try the auto-wiring setting (LabVIEW blockdiagram options, default on)
Use spacebar and 'a'-key to aid in wiring your blockdiagram

Just try it!

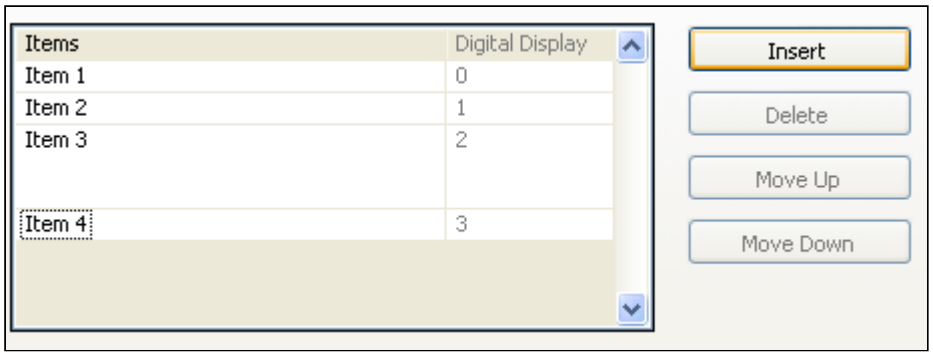
Easily Scroll Through Structures

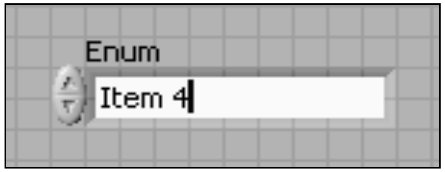
- You can use Ctrl + Mouse Scroll to scroll through:
  - Case Structures
  - Event Structures
  - Stacked Sequence Structures
  - Diagram Disable Structures



Easily Add Enumeration Items

- Press Ctrl while over an Enum to use the Text Tool
- Use Shift + Enter to repeatedly add items

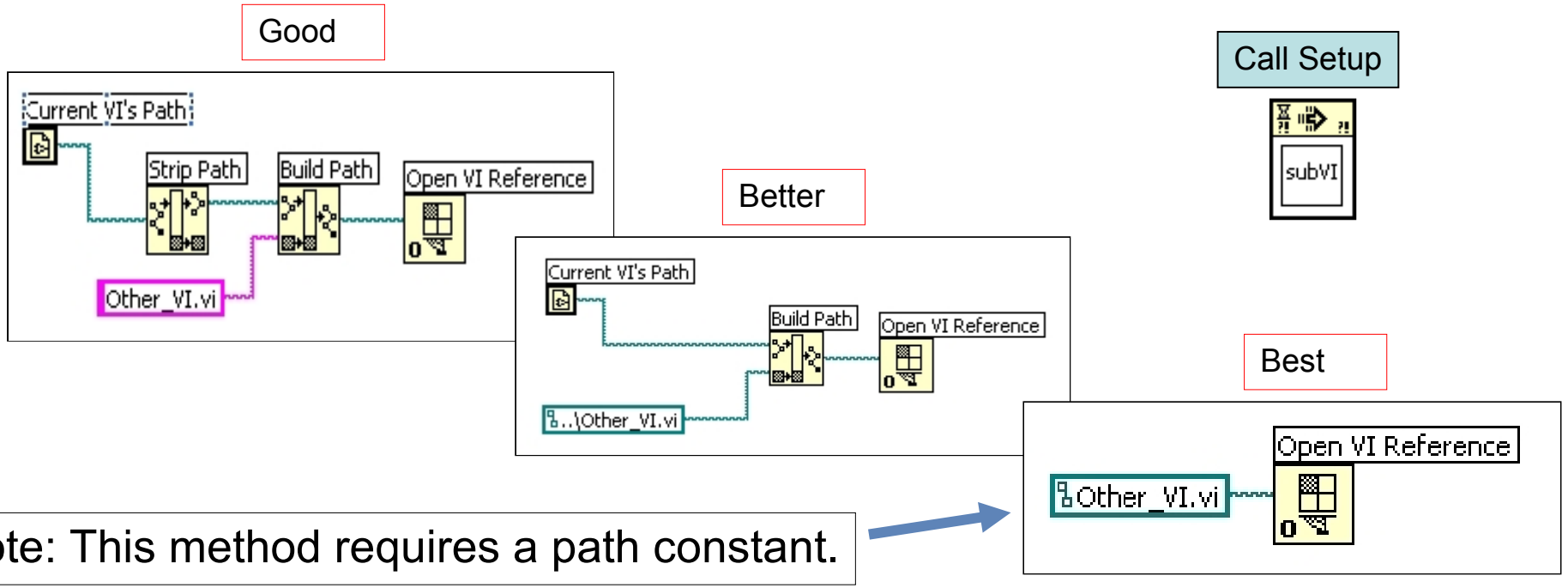




Shift + Enter

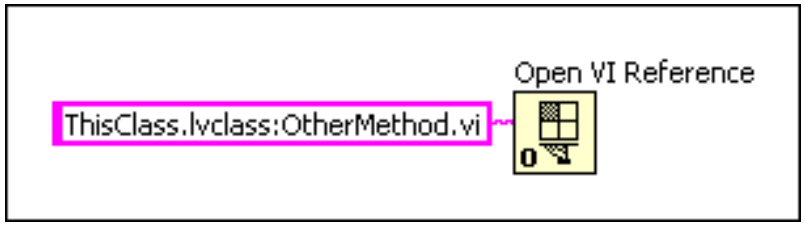
Quickly Open a VI Reference (next to current VI on disk)

- LabVIEW automatically looks in the current directory
- Right-click on VI and select Call Setup to call it dynamically



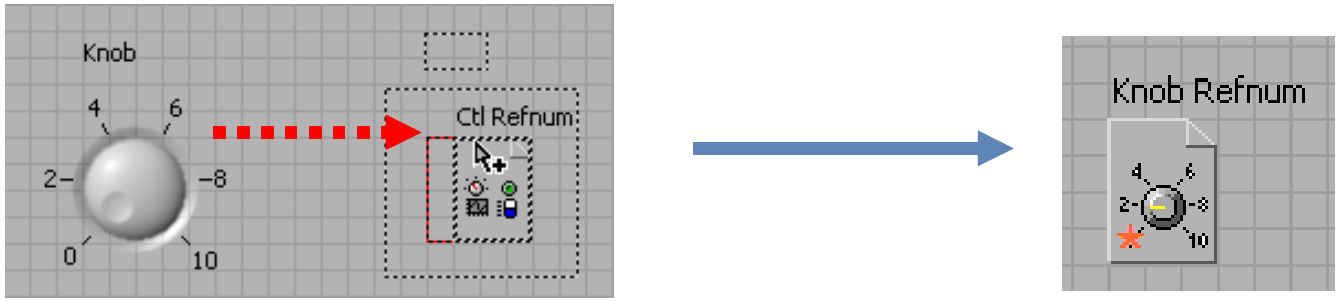
Note: This method requires a path constant.

When using classes: opening a reference to a method that is a member of the same class



Automatically Create Control References

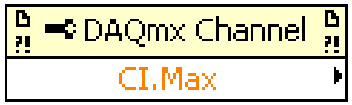
- Simply drag a control into a Control Refnum
- Automatically creates a class-specific, type-specific reference

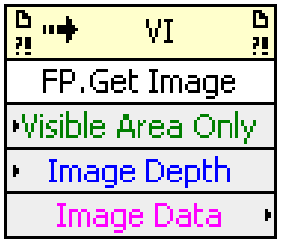


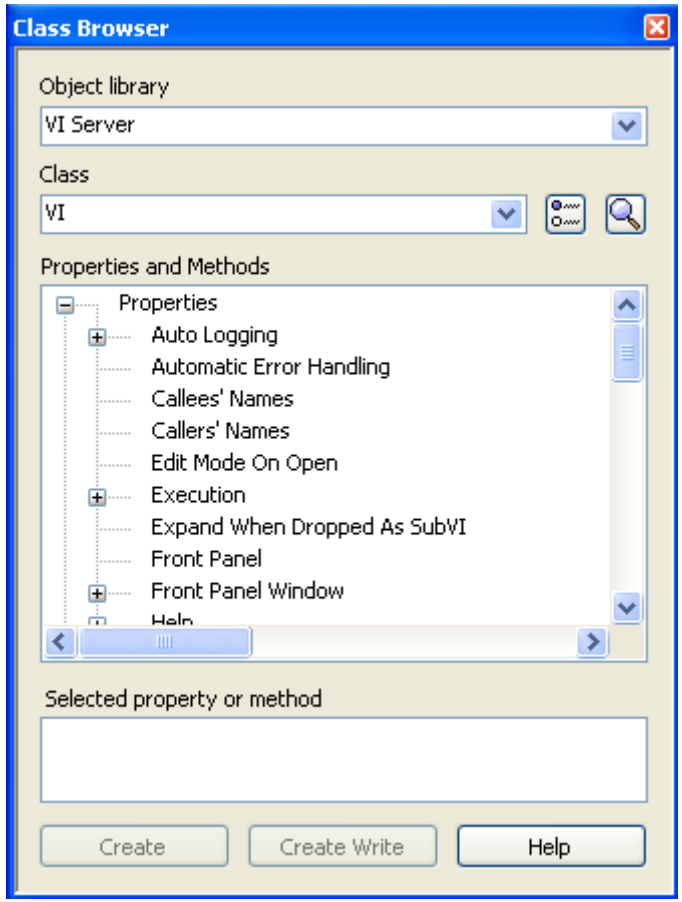
Note: To keep the original control, use Ctrl-Drag instead.

Quickly Browse Properties and Methods

- View >> Class Browser
- Shortcut: Ctrl + Shift + B
- Drag a property or method directly into your VI

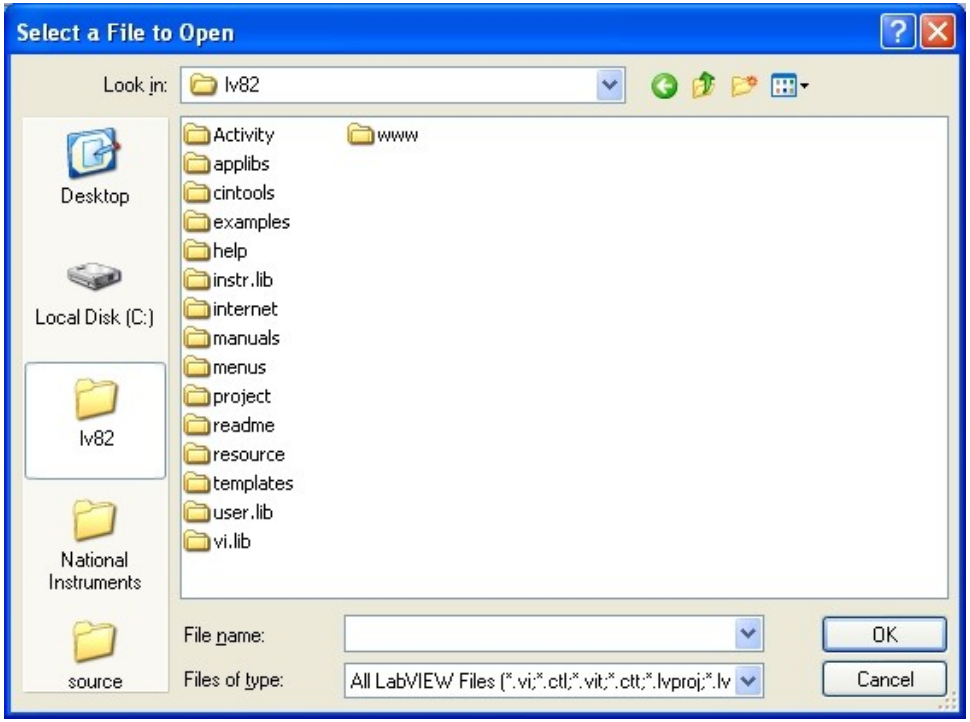






Change the Windows File Dialog
(to contain recently used folders in LabVIEW)

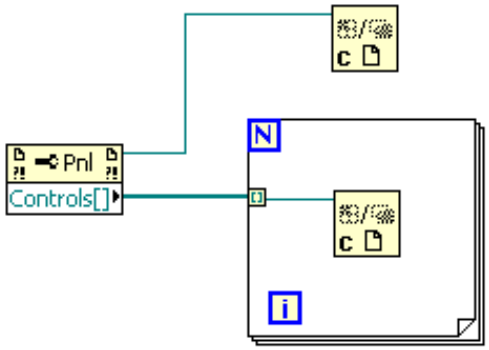
- Add LabVIEW.ini token "MRUFolders = TRUE"
- Maintain easy access to the last 5 directories used in LabVIEW



Note 1: Only available in LabVIEW 8.20 and later.
Note 2: Overrides TweakUI settings.

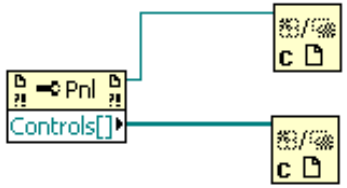
Close Arrays of References

- In LabVIEW 8.20, you must close multiple references in a For Loop



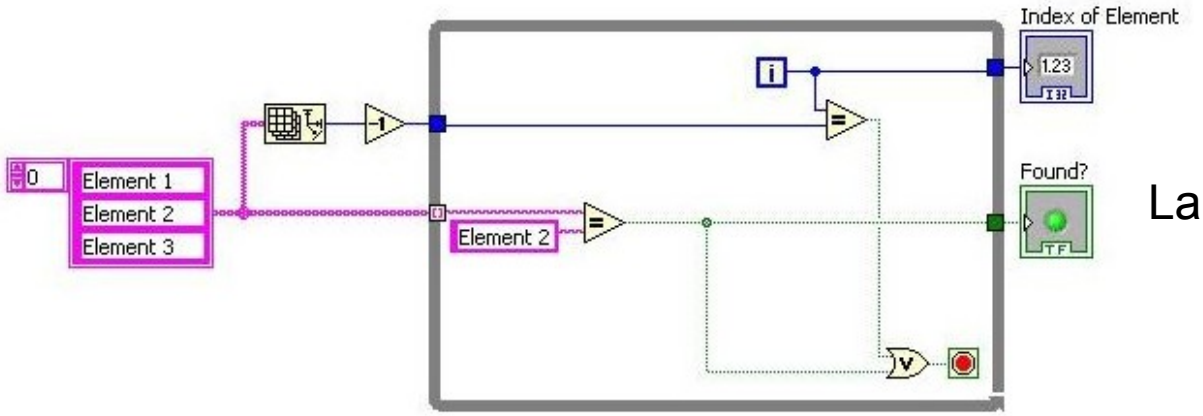
LabVIEW 8.20

- In LabVIEW 8.5, Close Reference now accepts a 1D array of references



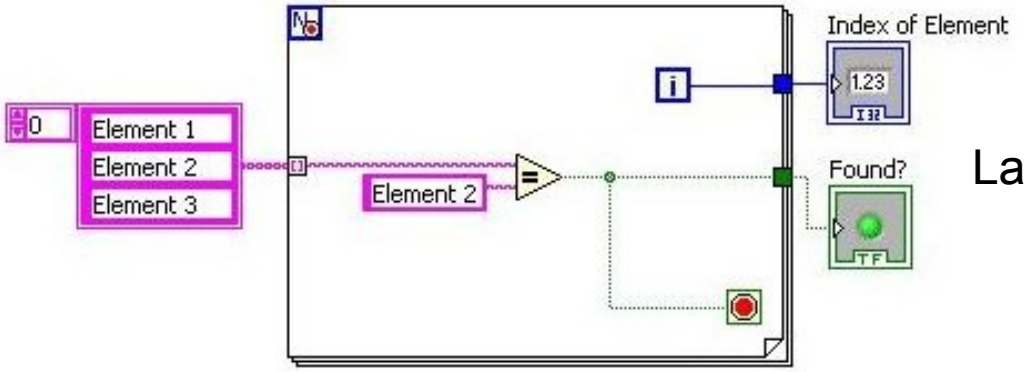
LabVIEW 8.5

For Loop with Break



LabVIEW 8.20

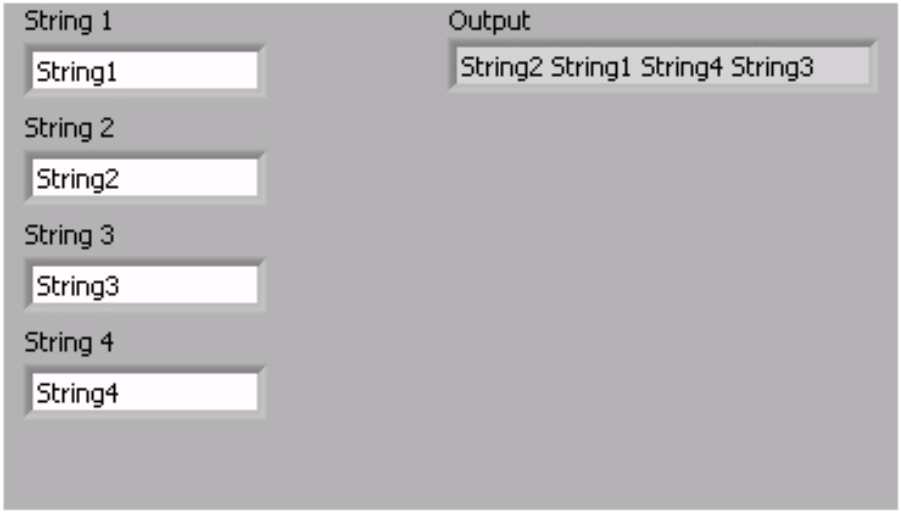
- Run a fixed number of times or until a condition is met



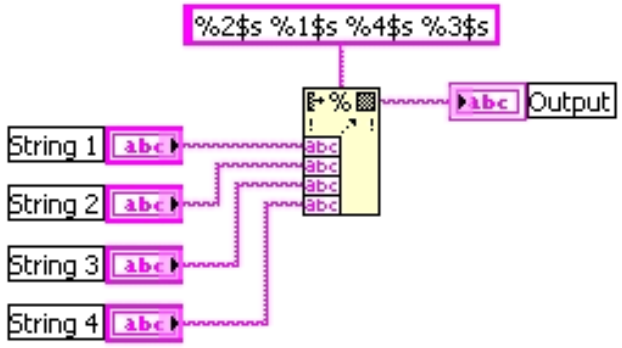
LabVIEW 8.5

Format into string parameter order

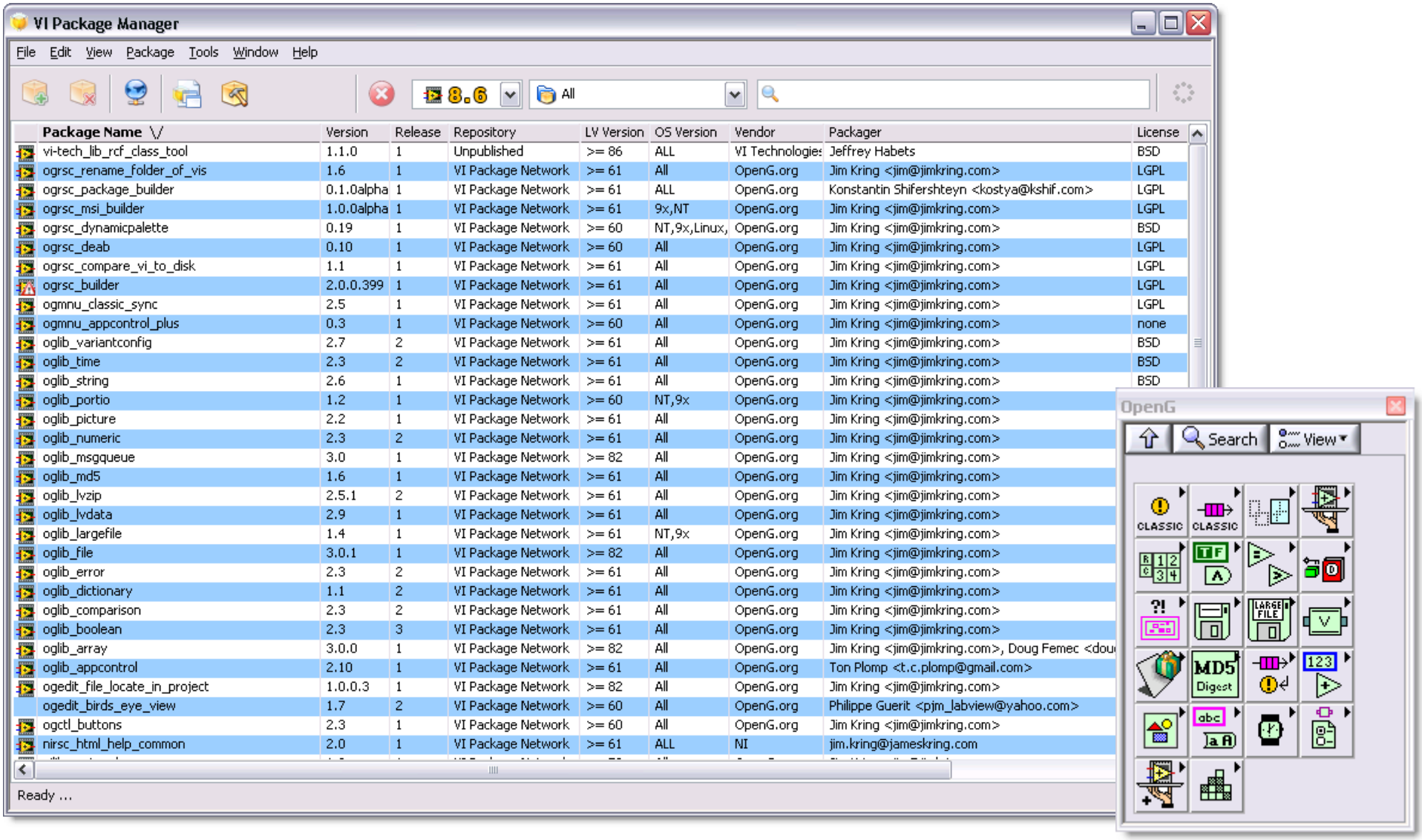
Format Into String function now allows you to specify a different order for the inputs to appear in the formatted string than the order you wire them into the function



Use 'n$' specifier to select wired input

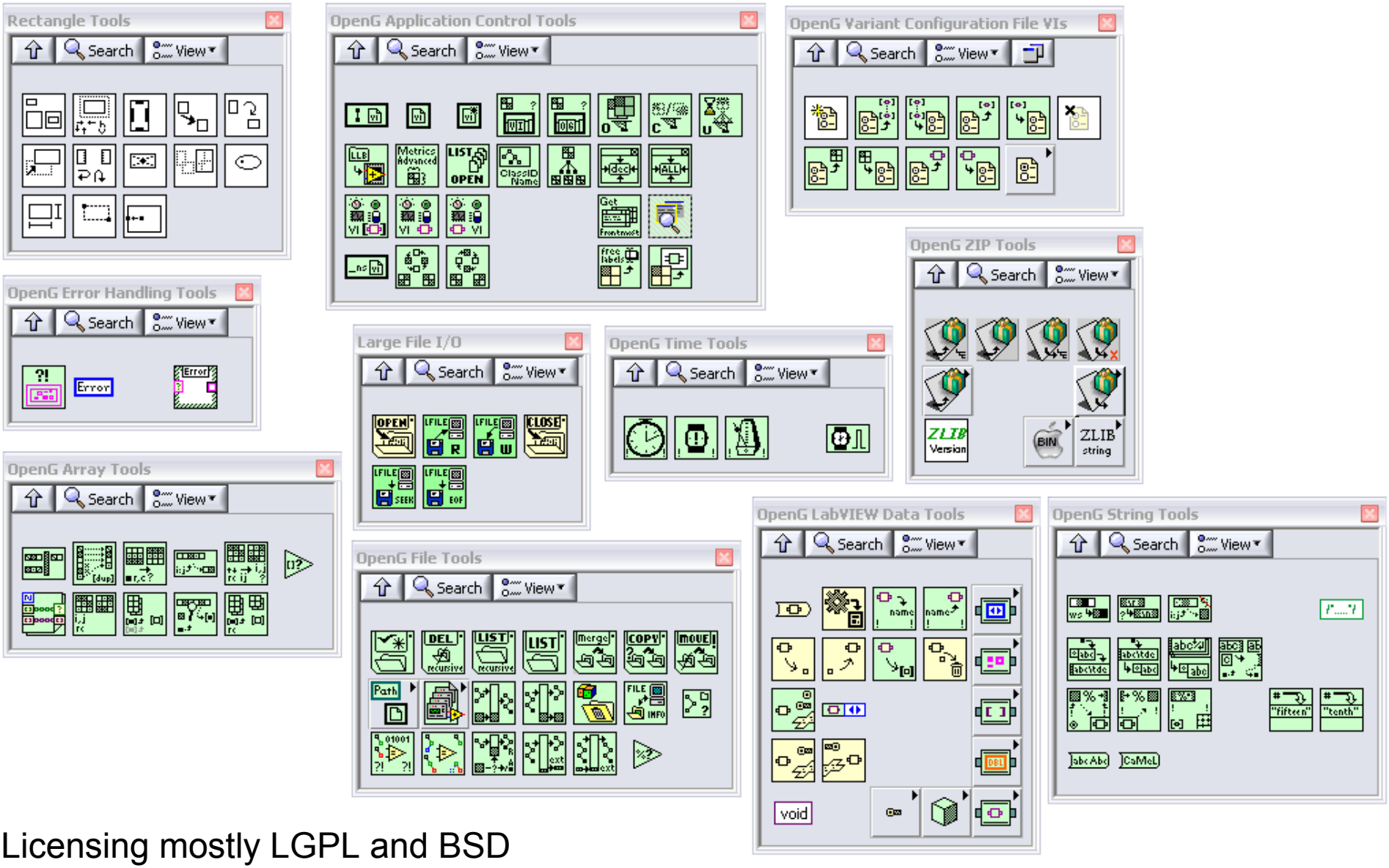


OpenG Open source LabVIEW library



Install OpenG packages with VIPM, follow instructions on www.openg.org to install

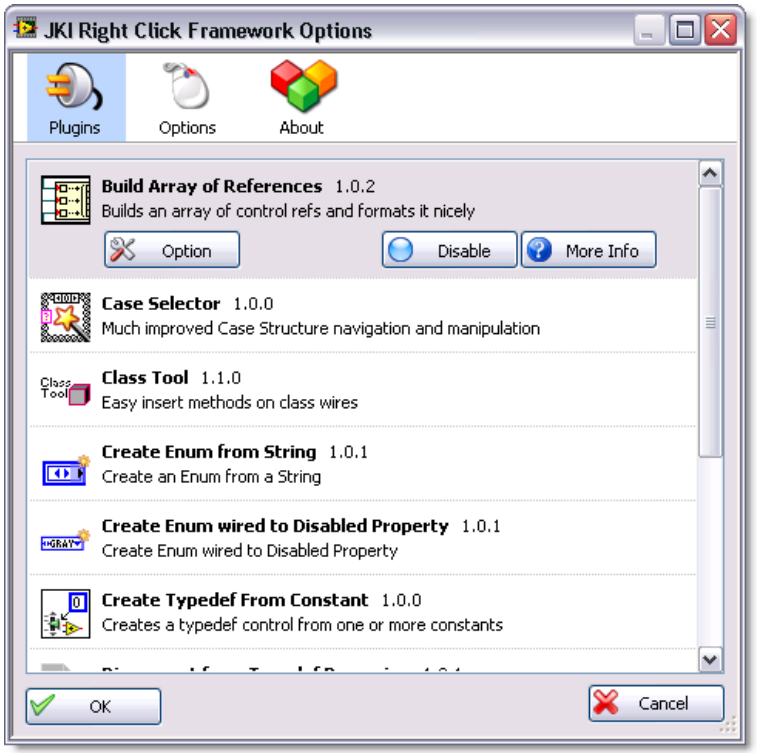
OpenG Open source LabVIEW library



Licensing mostly LGPL and BSD

JKI Right-Click Framework (RCF)

- Extends the LabVIEW environment with a framework that allows us to write plug-ins that can be easily called when editing code
- Many community plug-ins already available
- Creating a plug-in is pretty straight forward
- In most cases you'll require scripting to develop your plug-in

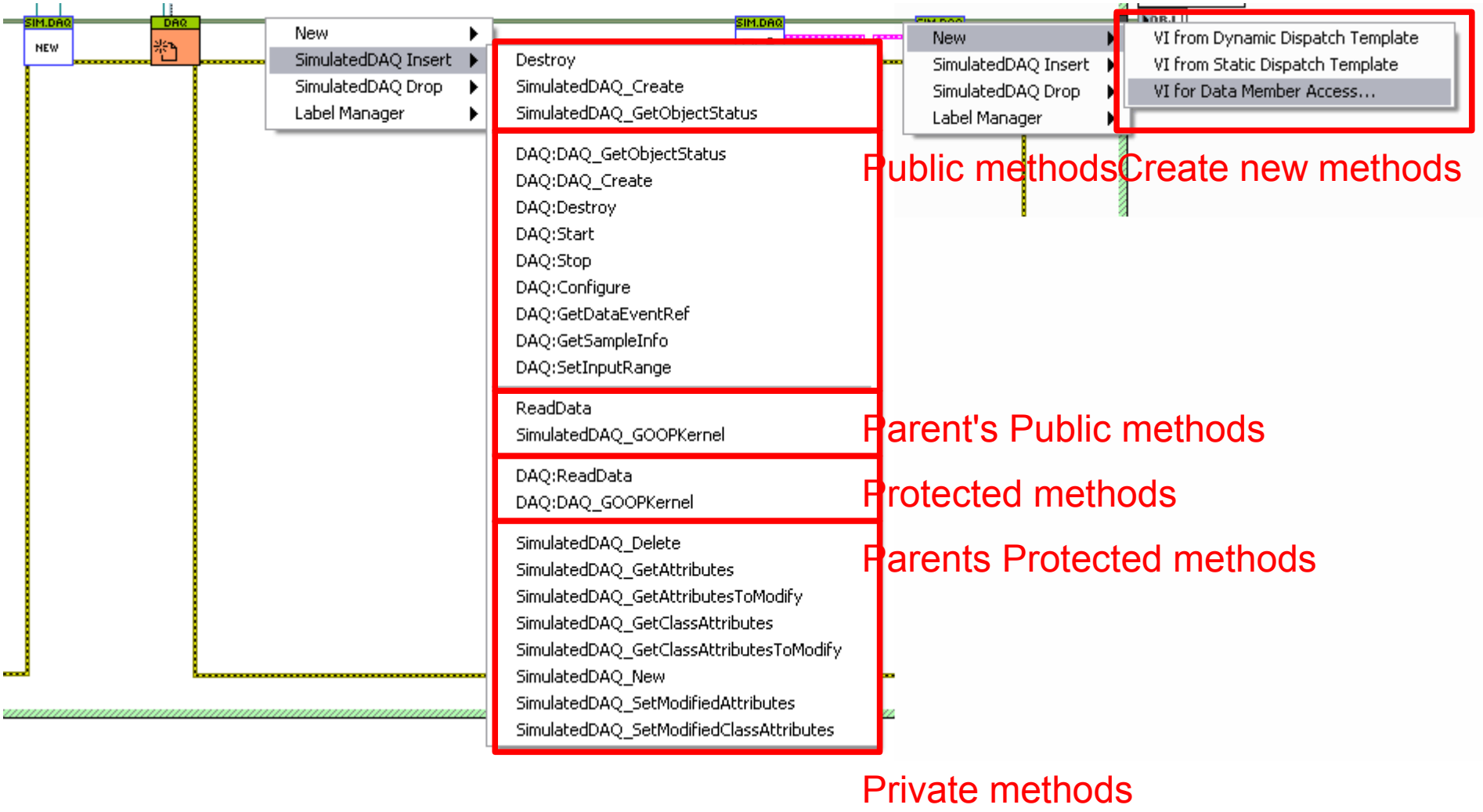


Starting point: NI Communities: JKI Right-Click Framework
http://decibel.ni.com/content/groups/jki-right-click-framework-for-labview?view=overview

JKI Right-Click Framework (RCF) - Plug-ins

- Align Terminal Labels - Allows you to automagically align the selected terminal labels to the specified position.
- Autoformat Waveform Chart Digital Displays - Plugin Right-Click Framework for LabVIEW - This plugin will Auto Format Waveform Chart Digital Display(s).
- Autosize Column Width of Table, MultiColumnListbox, and Tree - Plugin Right-Click Framework for LabVIEW - This plugin will Autosize Column Width of Table, MultiColumnListbox, and Tree.
- Build Array of References - builds an array control references on the block diagram for the selected FP controls or BD control terminals.
- Build Cluster of References - builds a typedef cluster of control references for the selected controls.
- Case Selector - allows you to view a list of frames in a Case Structure and select one outside of the native interface. Also, reorder/copy/insert/delete frames easier than ever. Also available on LAVA CR here.
- **Class Tool Plugin - insert class methods on object wires**
- Create RTM Case - create cases in a case structure from tag of a menu file (.rtm)
- Create Typedef From Constant - creates a typedef from a constant.
- Disabled Property - enable and disable selected FP controls.
- Expand SubVI - Replaces the SubVI with its contents.
- Explore... - Windows Explorer Plugin - Opens a explorer window with the VI or CTL selected.
- Insert TypeConversion - automatically inserts a type conversion node on selected wires if needed.
- Label Manager - quick and ergonomic management of text labels styles
- Size Window to Contents - resizes the contents of the selected window to enclose its contents.
- Scroll to VI Zero Origin - Plugin Right-Click Framework for LabVIEW - This plugin will scroll / set the VI Front Panel Origin position to (0,0).
- Retain All Wire Values - Retains wire values through the entire hierarchy of the VI.
- Wire Nodes by Corners - Auto wire selected Nodes by Corners.

JKI RCF - Class Tool plug-in



Only methods that can be called in the current context are shown!

Resources

Tips and Tricks on the LabVIEW Wiki
http://labviewwiki.org/Tips_and_tricks

LabVIEW Advanced Virtual Architects

http://www.lavag.org/

Darren's Nuggets
http://decibel.ni.com/content/docs/DOC-4002

Quick Drop keyboard shortcut plug-ins
http://decibel.ni.com/content/groups/quick-drop-enthusiasts

Tips and Tricks to Speed LabVIEW Development
http://zone.ni.com/devzone/cda/tut/p/id/6103

RCF Class Tool plug-in
http://decibel.ni.com/content/docs/DOC-6771

Stay in touch
http://nl.linkedin.com/in/vitech

JeffreyHabets

Thanks!