Tips & tricks to enhance your LabVIEW development experience

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Automatically Select the Right Tool

• Avoid manually switching among many tools

- Operate Value Tool
- Position/Size/Select Tool
- Edit Text Tool
- Connect Wire Tool

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
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

**Good**

**Better**

**Best**

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.

- In LabVIEW 8.5, Close Reference now accepts a 1D array of references.
For Loop with Break

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

Public methods
- Destroy
- SimulatedDAQ_Insert
- SimulatedDAQ_Drop
- Label Manager

New
- SimulatedDAQ_Insert
- SimulatedDAQ_Drop
- Label Manager

ONLY METHODS THAT CAN BE CALLED IN THE CURRENT CONTEXT ARE SHOWN!

Protected methods
- SimulatedDAQ_Insert
- SimulatedDAQ_Drop
- Label Manager

Private methods
- VI from Dynamic Dispatch Template
- VI from Static Dispatch Template
- VI for Data Member Access...

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

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Thanks!