

# User Interface Secrets of Advanced LabVIEW Developers

Presented by Michael Aivaliotis and  
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at NIWeek 2008





Michael Aivaliotis

- LabVIEW Champion
- Founder of the **LAVA Forums**: [www.lavag.org](http://www.lavag.org) which includes the code repository
- Founder of the **LabVIEW Wiki**: [www.labviewwiki.org](http://www.labviewwiki.org)
- Founder of **VI Shots** video blog [www.vishots.com](http://www.vishots.com)



Philippe Guerit

- Certified LabVIEW Architect
- Creator: “Pure G” VIPM Installer
- Creator: VIPM Palette preview tool.
- JKI Image and Graphics Expert
- OpenG Developer



**“A user interface is well-designed when the program behaves exactly how the user thought it would.” - *Joel Spolsky***



# Overview

- Advanced UI techniques demonstration
- Panes
- Control customization
- Picture control
- XControls
- Drag and Drop
- Tricks and Tips



# Demonstration of JKI VI Package Manager as an example of good UI design



# The front panel as a canvas



Title: And then...color...color...color... :))

Credit: <http://www.flickr.com/photos/brartist/313272029/>

# Window sizing - aches and panes

- Front panels can now be sectioned into panes
- Panes can have background images
- Allows elegant implementation of control resizing
- Using the OpenG “fit window to largest decoration” VI
- Examples and demonstration



# Chicken Chicken Chicken



Title: Chicken Shack Express  
Credit: <http://flickr.com/photos/mpwillis/180391333/>



# Customizing Controls

- Customizing controls with external graphics
  - Using \*.png images
  - Using \*.gif animations
- Using system decorations on non system controls
- Examples



# Picture Control

- You can do **anything** in a picture control
- Requires **a lot** of programming
- Unlimited possibilities
- Examples



# Drag and Drop

- You can now do native drag and drop since LabVIEW 8.0
- You can use the file path control to trap OS file drops
- Example (LV8.2) [link](#)



# XControls

- LabVIEW controls you create with custom behavior (methods and properties)
- Allows reuse and encapsulation of complex UI code across many projects
- <http://forums.jkisoft.com>
- Example



# Conclusions

- Creating a rich and intuitive user experience requires a lot of work.
- It's worth it.



# More Information

- <http://forums.jkisoft.com>
- “How'd they do that?” Forum
- VIPM info: <http://jkisoft.com/vipm>

