BUILDING APPLICATIONS WITH LABVIEW

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Overview

A. What is deployment?
B. Why build an executable?
C. Considers for Deploying
D. LabVIEW Application Builder
E. Creating an Installer
F. Licensing
G. References
A. What is deployment?

I. Among final phases of development
II. Mainly involves executables or installers
III. Not a trivial step
IV. Requires testing
B. Why Build an Executable?

I. Run VI without LabVIEW Dev. Env.

II. Operator cannot change functionality

III. “Controlled” environment (re: QA friendly)

IV. More professional
C. Considerations for Deploying

- The architecture of your application
- The programming issues particular to the application
- The application building process
- The installer building process
Considerations...

- Architecture – e.g. plug-in, dynamically called VIs, DLLs, etc.
- Shared Variable usage
- External file locations (cfg, storage)
- Debugging needs
- External programs (DB, ActiveX)
- Deployment environment – OS and patches, fonts, screen resolution, etc.
D. Application Builder

I. Included in LabVIEW Professional Development System
   – or as an add-on package

II. Configure and create:
   – Executables, Installers, DLLs
   – Web Services, Source Distribution
Application Builder pre 8.x

Stored as .bld files
Application Builder version 8.x

Project Explorer >> Build Specifications

- Application (EXE)
- Installer
- Shared Library (DLL)
- Source Distribution
- Web Service
- Zip File
E. Creating an Installer – DEMO

LabVIEW 8.6
NI-DAQmx 8.8
LabVIEW DSC Module
Report Generation Toolkit
F. Licensing

I. Most applications have no run-time license cost.
   a. Certain module/toolkit licenses are included with hardware

II. Only certain modules have run-time license
   a. Datalogging Supervisory Control
   b. Sound and Vibration
   c. Vision
G. References

- LabVIEW Help >> Application Builder, Using Build Specifications

- LabVIEW wiki
  http://wiki.lavag.org/

- LabVIEW Advanced Virtual Architects (LAVA)
  http://www.lavag.org

- ALE System Integration website:
  http://www.aleconsultants.com

- National Instruments Website
  http://www.ni.com
ALE SYSTEM INTEGRATION
http://www.aleconsultants.com – info@aleconsultants.com

- LabVIEW, LabWindows/CVI, TestStand, Visual Studio
- Customers: Test Labs, Manufacturers, Mil/Aero, Finance
- Based in Long Island, New York – projects nationwide
- National Instruments Certified Alliance Partner
- Over 11 Years Test & Automation experience
- Expertise in variety of instrument manufacturers’ products
- All developers have National Instruments Certification