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# Deployment Techniques for LabVIEW™ Applications

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# Agenda

- You built an application – now what?
- Overview of Application Builder's installer creation
- Five methods for deploying your application
- Sample application demo

# You built an application – now what?

To use a LabVIEW-built application on another machine, there are two items that must go over to that machine

- The application (.exe or .dll)
- LabVIEW Run-Time Engine

# You built an application – now what?

There are other items that your application may depend on that also need to be on the target machine

- Configuration file(s) (including myexe.ini)
- Support/data files
- Shared libraries (DLLs)
- ActiveX objects
- Drivers
- Registry entries

# Application Builder's Installer Creation

With LabVIEW 6.1 Application Builder creates MSI (Microsoft Windows Installer) installers

- Include only portions of the LabVIEW Run-Time Engine
- Include files just in the installer
- More installation directories
- Product Code

# Installer Files Generated

- setup.exe – The file to run to start the installer
- setup.ini – Settings file for setup.exe
- InstMsi.exe – MSI installer/updater for Win 95/98/ME
- InstMsiW.exe – MSI installer/updater for Win NT/2000/XP
- install.msi – The installer database (logic for installing, uninstalling files; modifying and repairing the install)
- data.cab – Collection of the files to be installed

# 5 Methods for Getting Everything to the Target

1. Copy application
2. Generate simple installer from Application Builder
3. Generate installer that registers DLLs
4. Generate installer that installs drivers
5. Customizing installers / custom installer

# Method 1 – Copy Application

Copy the application to the target machine and run the LabVIEW Run Time Engine installer

- Copy application to location on target machine
- Get the LabVIEW Run-Time Engine installer
- Run the LV RTE installer on target machine
- Copy config files and support/data files
- Copy DLLs & ActiveX objects and register them  
install DLLs & ActiveX objects
- Run installers for needed drivers

or

# Method 2 – Simple Installer

Generate an installer with Application Builder. It can include Run-Time Engine, config files, support files.

- Modify build script to create an installer
  - include LabVIEW Run-Time Engine and related components
  - include configuration file(s)
  - include support/data files
- Build application and installer
- Run installer on target machine
- Copy DLLs and ActiveX objects and register them
  - or install DLLs and ActiveX objects
- Run installers for needed drivers

# Method 3 – Installer with Register

The DLLs and ActiveX objects can be included in the installer files and registered at the end of the installer.

- Modify build script to include DLLs and ActiveX files in the installer
- Create a batch file that will register them
- Include the batch file in the installer
- Modify build script to run executable afterwards and set the parameters
- Build application and installer
- Run installer on target machine
- Run installers for needed drivers

# Method 4 – Installer with Drivers

The driver installers can also be run from the batch file

- Modify the batch file to run the driver installer(s)
- Build the application and installer
- Run installer on target machine

# Method 5 – Customizing Installers / Custom Installer

The installer generated by LabVIEW Application Builder can be customized after it is generated by third party products, such as:

- Wise for Windows Installer
- InstallShield
- Orca

Customizing the installer will allow for items not supported by LabVIEW Application Builder, such as:

- Creating registry entries
- Creating extra shortcuts
- Including third party merge modules

Also, installers can be created from scratch with these products

# Location of Run-Time Engine DLL

- The application attempts to find the Run-Time Engine DLL (lvrt.dll) in the following locations, in order:
  - The location specified in the application preferences file
  - The same directory as the executable
  - The location specified in the registry
  - The default location
- If the application only requires the basic LabVIEW Run-Time Engine support, it does not have to be installed

# Sample Application Demo

An application that consists of:

- Executable
- Configuration files
- Support files
- Driver

# Questions / Feedback

## Resources:

- NI KnowledgeBase 2LEF622Y
- MSDN
- To download the demos shown in this session or obtain these slides in PowerPoint format please visit **ni.com/info** and enter code: niweek02