

## Application Packaging - Basics

Application packaging is one of the important areas in the SDLC model of any software product. It itself has its own lifecycle for any software product. MSI is one of the basic technologies used for application packaging for Microsoft environment. Microsoft OS knowledge is a pre-requisite for packaging in an Windows environment.

### **Course Prerequisites**

Previous packaging experience is not required; however, you should be comfortable with the following:

- ✓ Using Windows Explorer and the command prompt to create / manage files and run executables.
- ✓ Basic Windows terminology (e.g. DLL, Control Panel, etc.).
- ✓ Later sections of the course assume familiarity with one of the following programming or scripting languages: (e.g. VBScript, Visual Basic and / or C/C++)

### **Schedule**

#### **Day 1**

##### **Introduction**

- About the Windows Installer service
- About Windows Installer installation packages
- About the Windows Installer installation mechanism
- About the InstallShield environment
- Getting help

##### **About Projects**

- Installation terminology
- Using the Project Assistant
- Using the Installation Designer
- Working with features and components
- Global product and project data

##### **Installing Files**

- Static file linking
- Dynamic file linking
- Working with destination folders
- Best Practice Fundamentals
- "Key" Resource Usage
- GUID Usage
- Creating shortcuts
- Using merge modules and prerequisites

## Building Releases

- Using the Release Wizard
- Media types
- Web installations
- Command-line builds
- Using the Automation interface
- Using the Standalone build system

## Day 2

### Deploying an Installation

- Running an installation
- Maintenance and uninstallation
- Using msiexec.exe
- Silent and reduced-UI installations
- Passing properties from the command line
- MSI Log Analyzer

### Non-File System Changes

- Registry data
- INI files
- XML files
- Environment variables
- File associations

### Installing Special Files

- COM servers
- Windows services
- Fonts
- .NET Assemblies
- Creating merge modules
- Creating Configurable Merge Modules
- Working with Repositories
- Running SQL Scripts
- Forcing Data Removal

## Day 3

### Conditions and Actions

- MSI Properties
- Condition syntax and examples
- Installation sequences
- Custom actions: action types and guidelines
- Editing MSI tables directly

## User Interface

- How MSI determines dialog order and conditions
- Working with control events
- Working with control conditions
- MSI Debugger
- Creating new dialog boxes
- Subscription to Actions
- Required dialog boxes
- Localization

## Updates and Patches

- Types of updates
- Creating minor upgrades
- Creating major upgrades
- QuickPatch projects
- General patch projects
- Uninstalling a patch

