

REVIEW LESSON

MTA Course: Windows Development Fundamentals

Lesson name: Windows Development Fundamentals 5.2

Topic: Create Windows setup and deployment projects (One 50-minute class period)

File name: WinDevFund_RL_5.2

Lesson Objective:

5.2: Create Windows setup and deployment projects. *This objective may include but is not limited to:* creating setup projects for applications; specifying custom actions; creating special folders; security requirements; x64 deployment and program files location.

Preparation Details

Prerequisite student experiences and knowledge

This MTA Certification Exam Review lesson is written for students who have learned about Windows application programming. Students who do not have the prerequisite knowledge and experiences cited in the objective will find additional learning opportunities using resources such as those listed in the Microsoft resources and Web links at the end of this review lesson.

As detailed in the section “Additional notes to the teacher,” this review lesson does not address 64-bit applications.

Instructor preparation activities:

Students will need a completed application to deploy for the practice activity. The lesson directs students to create this as part of the Anticipatory Set. However, you may want to use a student’s application from earlier in the course. Be sure to make this decision and adjust the Microsoft PowerPoint® slideshow before beginning the lesson.

Resources, software, and additional files needed for this lesson:

- WinDevFund_PPT_5.2
- Microsoft Visual Studio® 2008

Note: Microsoft Visual Basic® 2008, Express Edition, and Microsoft Visual C#® 2008, Express Edition, do not include Windows Installer support. If your students do not have access to Visual Studio, you can complete the review without having the students try the process. The Express Editions do support deployment with ClickOnce.

Teaching Guide**Essential vocabulary:**

custom action—an additional action performed on the target computer at the end of an installation.

File System Editor—allows developers to add files to a deployment project, to specify the locations where files will be installed on a target computer, and to create shortcuts on a target computer.

Installer—a class that can be added to a project to perform designated actions during installation; also referred to as an *installer class* to distinguish it from the executable installation application.

setup project—a project that allows the creation setup (or installation) files to distribute an application.

Lesson Sequence**Activating prior knowledge/lesson staging (Anticipatory Set—5 minutes)**

1. *Student instruction (as indicated in the slideshow):* Create a simple “Hello, World” application:
 - Put a single *Button* on a form. When clicked, the application should display the text “Hello, World” in a *Label* or in a *MessageBox*.
 - Build and run the application to ensure that it works.
2. Create a text file explaining what your application does. Name the file ReadMe.txt.
 - If you choose to have students use a preexisting project, you should still have them create the text file.

Lesson activity (30–40 minutes)

1. Using the PowerPoint slideshow, review setup projects. As directed in the slideshow's notes, stop to allow students to try the steps on their own applications.

Assessment/lesson reflection (5 minutes)

1. As a “ticket out the door,” direct each student to write two quiz questions (with answers) on a sheet of paper.
 - Students who are confused or need additional instruction may alternatively choose to write a question they have about the material.
 - Note: A “ticket out the door” is an informal assessment strategy used to provide closure and give the teacher an additional opportunity to check for understanding. Students complete the exercise and give it to the teacher as they leave the room. This ensures that every student participates.
2. After class, look through the questions to see if any students require additional help.
 - *Tip:* pick a couple of the quiz questions and write them on the board before the next class. Have students answer the questions as a brief quiz to assess their understanding.

Microsoft resources and Web links**MSDN Library: Setup and Deployment Projects**

(<http://msdn.microsoft.com/en-us/library/wx3b589t.aspx>)

MSDN Library: Setup Projects

(<http://msdn.microsoft.com/en-us/library/996a3fxs.aspx>)

MSDN How to: Create or Add Deployment Projects

(<http://msdn.microsoft.com/en-us/library/fyh6k4k4.aspx>)

MSDN Library: Creating or Adding a Setup Project

(<http://msdn.microsoft.com/en-us/library/19x10e5c.aspx>)

MSDN Library: How to: Add and Remove Folders in the File System Editor

(<http://msdn.microsoft.com/en-us/library/x56s4w8x.aspx>)

MSDN Library: Deploying 64-bit Applications

(<http://msdn.microsoft.com/en-us/library/ms165428.aspx>)

Additional notes to the teacher:

- This review lesson does not address the deployment of 64-bit applications, though both Windows Installer and ClickOnce support the installation of applications on 64-bit platforms. For information about 64-bit application deployment, see the relevant MSDN Library article in the “Microsoft resources and Web links” section.