Creating InstallAnywhere Installations for Hybrid (32-Bit & 64-Bit) Windows Applications

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Introduction
This document describes how to create InstallAnywhere™ installations for hybrid applications, which include both 32-bit and 64-bit native Windows code. These applications typically require installing files to both 32-bit and 64-bit specific locations on the target system. In addition, this may require you to install both a 32-bit and 64-bit virtual machine within a single installation. InstallAnywhere allows you to accomplish both of these tasks with a few simple steps, described below.

Use Cases
64-bit Windows allows for applications that are a mix of 32-bit and 64-bit native code. This scenario is fairly common, as application developers often port processor-intensive code to 64-bit before porting other code. Application elements that require only "keyboard performance" may remain as 32-bit code. The result is a hybrid application with components that need to be installed to both the 32-bit and 64-bit areas of the file system and registry.

Example
An enterprise database server:

- 32-bit tools
    - Management tools
    - Analysis tools
- 64-bit tools
    - The core database server
    - Service Manager
    - Command line utilities

Installing Hybrid Applications with InstallAnywhere
With InstallAnywhere, it is possible to create a single installation to install both 32-bit and 64-bit components to a single 64-bit system. The same installation could also be used to install 32-bit components to a 32-bit system. Furthermore, the same installation can install a 32-bit JVM for the 32-bit components, and a 64-bit Java VM for the 64-bit
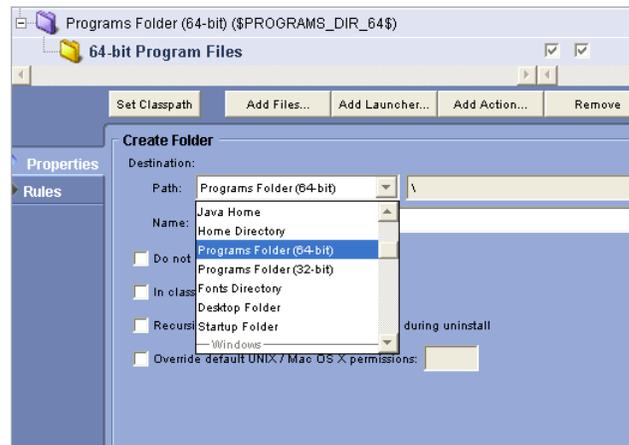
components. It is thus possible to create a single installation for all the Windows systems and variations that your application supports.

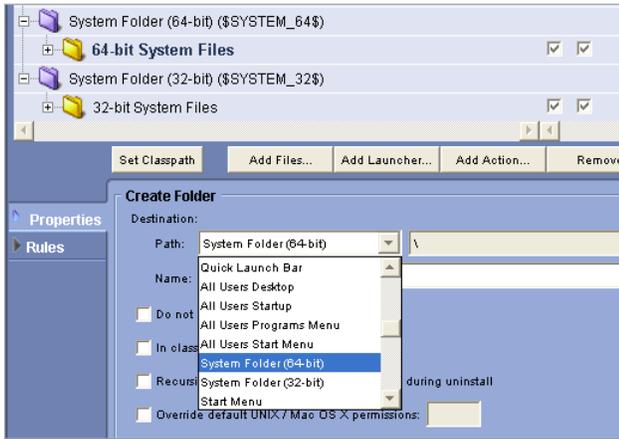## Installing Files to Both 64-Bit and 32-Bit Locations
To install files to 32-bit or 64-bit specific locations on a Windows 64-bit system, you'll need use the new 32-bit and 64-bit specific Magic Folders available in the InstallAnywhere customizer. Magic folders and associated InstallAnywhere variables have been created for the following locations.

Magic Folder	InstallAnywhere Variable
Programs Folder (32-bit)	$PROGRAMS_DIR_32$
Programs Folder (64-bit)	$PROGRAMS_DIR_64$
System Folder (32-bit)	$SYSTEM_32$
System Folder (64-bit)	$SYSTEM_64$

Programs Folders:
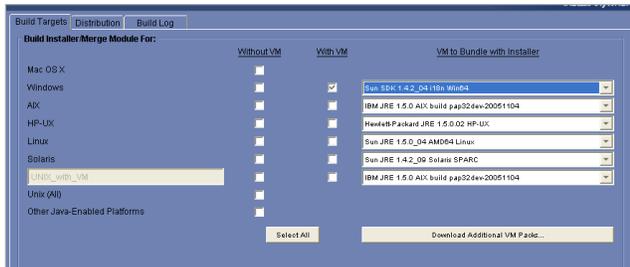
System Folders:

Installing Both a 32-Bit and 64-Bit VM with Your Installation

To be able to bundle multiple VM packs with your installation, you'll need to bundle one VM pack with your installation via the Build Task, and the other via the Install Task.
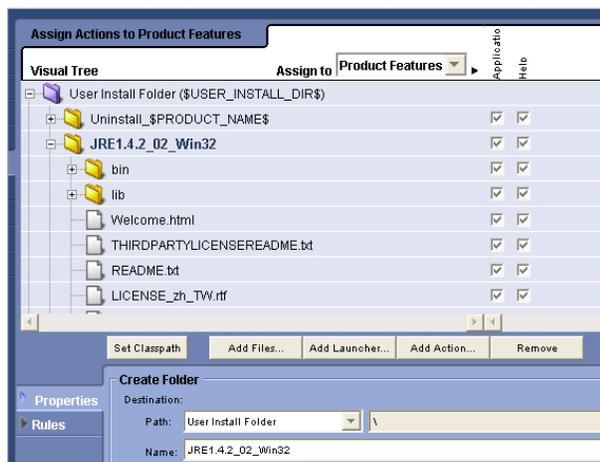
Build Task:
Simply enable the With VM option and select the correct VM pack for your installation. If the VM pack does not appear in the dropdown menu, use the Download Additional VM Packs… button to download a VM pack from the downloads page on the Flexera Software website.

* The installer & uninstaller will run against the VM bundled via the Build Task.

Install Task:
When adding a VM to the install task, you need to add the files to the file tree as shown in the screen shot below.

By default, LaunchAnywhere executables added to the project will run against the VM bundled in the Build Task. If you would like your LaunchAnywhere to run against the VM bundled in the Install Task, you'll need to modify the launcher's lax file to ensure that it points to the correct VM.

Modify LAX File:
In order to modify the lax file, you'll need to highlight the LaunchAnywhere executable and select the Edit Properties button in the Customizer.

Once the LaunchAnywhere Properties menu appears, you'll need to add the following Property.

lax.nl.current.vm = <path to java executable>

See the example below.

* Do not change this property for the uninstaller as the uninstaller must run against the VM bundled in the Build Task.

Rules

InstallAnywhere has a rule type called "Check System Architecture". This allows you to place conditions on your actions, panels, and files based on the target system's architecture.

Conclusion

With features available in InstallAnywhere you can now create installer projects to deploy hybrid (32 & 64-bit) Windows applications.

Begin a Free Evaluation of InstallAnywhere
You can download a free trial version of InstallAnywhere from the Flexera   Software Web site at: www.flexerasoftware .com/installanywhere/eval.

Want to learn more best practices for building quality installations? Join an InstallAnywhere training class – visit www.flexerasoftware .com/training for available classes.

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