

# InstallAnywhere 2011 SP4 Release Notes

10 August 2012

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## Introduction

InstallAnywhere is the leading multiplatform development solution for software producers needing to deliver a professional and consistent installation experience for cross-platform desktop and server applications. From a single project file and build environment, InstallAnywhere enables developers to create reliable installations for the broadest range of current platforms including Windows, Linux, MAC OS X, Solaris, AIX, HP-UX and IBM iSeries. From a company who set the standard for installations with InstallShield; InstallAnywhere brings that experience and knowledge for multiplatform developers, which allows developers to create high-quality installations, reducing technical support costs and increasing customer satisfaction.

InstallAnywhere 2011 has more capabilities to support distributed install development and deployment. As software teams implement agile development practices, they need more flexible ways to author, build and package installations. InstallAnywhere 2011 contains multiple enhancements to address key issues related to distributed and component-based install development and deployment.

## **New Features**

This section describes the new features in the following versions of InstallAnywhere:

- InstallAnywhere 2011 SP4
- InstallAnywhere 2011 SP3
- InstallAnywhere 2011 SP2
- InstallAnywhere 2011 SP1
- InstallAnywhere 2011

InstallAnywhere 2011 SP4 includes the following enhancement:

Support for Windows 8 / Windows 2012 Server

### **Support for Windows 8 / Windows 2012 Server**

InstallAnywhere 2011 SP4 supports the Windows 8 (64-bit) and Windows Server 2012 (64-bit) operating systems.

- You can run the InstallAnywhere 2011 SP4 authoring environment on Windows 8 desktop and Windows 2012 Server operating systems.
- Installers created with InstallAnywhere 2011 SP4, or existing installers that are rebuilt using InstallAnywhere 2011 SP4, will run successfully on Windows 8 desktop and Windows 2012 Server operating systems.

## **InstallAnywhere 2011 SP3**

InstallAnywhere 2011 SP3 includes the following enhancements:

- Software Tagging Support
- Default Locale Support
- File Encoding for Modify Text File Actions
- Download File Action
- Support for VM Packs With Nested JRE Folders
- Support for Comment Action Group
- Modified Behavior of Console Launchers

## **Software Tagging Support**

InstallAnywhere 2011 SP3 includes ISO 19770-2 software tagging capability. ISO/IEC 19770-2 is an international standard for the creation of software identification tags. A software identification tag is a small, XML-based file that contains descriptive information about the software, such as the product name, product edition, product version, and publisher. Software asset management tools collect the data in the tags to provide accurate application identification for software that is installed in an enterprise.

You configure software tagging for a project on the **Project > Software Tag** subtask.

### **Default Locale Support**

When defining locale settings for a project, you can now specify the language to use if the target machine's operating system uses a language that is not supported by the installer.

You select a default language from the **Default Locale for Targets with Unsupported Languages** list, which is found on the **Locales** subtab of the **Build Configurations** tab of the **Build** task. If the installer is started on a platform that uses an unsupported language, then the selected language will be used.

### **File Encoding for Modify Text File Actions**

In **Modify Text File** actions, InstallAnywhere now provides the ability to perform file encoding. You specify the encoding type specific to the version of Java you are using. If the encoding type you enter in the **File Encoding** field is invalid or unsupported, or if you leave this field blank, then **UTF-8** encoding will be attempted. If the installer fails to apply **UTF-8**, then system default encoding will be applied.

#### **Download File Action**

You can now use the **Download File** action to download a file during installation using FTP, HTTP, SFTP, or Anonymous FTP protocol.

### **Support for VM Packs With Nested JRE Folders**

In addition to supporting normal VM pack structure, InstallAnywhere 2011 SP3 now also supports VM packs which have nested JRE folders (such as jre/jre/bin).

## **Support for Comment Action Group**

To prevent an action group (and all of the actions that it contains) from being bundled with the installer, InstallAnywhere 2011 SP3 now provides a **Comment Action Group** option on the **Properties** tab of the Action Group customizer.

The **Comment Action Group** option gives you an easy way to retain the actions in an action group in your installation project but to not include them in the built installer. If, at some future time, you wish to include these actions in the installer, you can clear the selection of the **Comment Action Group** option.

#### **Modified Behavior of Console Launchers**

In order to suppress the display of unnecessary console windows when an installer which is bundled with a console launcher is launched in GUI mode, we have modified the behavior of console launchers to behave differently depending upon how the installer was launched. A table which identifies how the console launcher will behave in each situation is provided in the InstallAnywhere help library.

InstallAnywhere 2011 SP2 includes the following enhancements:

- Apple OS X Lion (10.7) Support
- Rollback-Enabled Restart of Windows
- Resolving Variables at Build Time
- Customizable Merge Module Progress Bar
- Project Automation API Code Samples
- Support for Specifying Encrypted System i (i5/OS) Logon Credentials Using the Ant Task
- System i (i5/OS) Program Action Now Available in the Pre-Install and Post-Install Tasks

### Apple OS X Lion (10.7) Support

InstallAnywhere 2011 SP2 supports Apple OS X Lion (10.7):

- Authoring environment support—The InstallAnywhere 2011 SP2 authoring environment supports Apple OS X Lion (10.7). If you first install InstallAnywhere 2011 and then apply the SP2 patch, InstallAnywhere will run on Apple OS X 10.7.
- Installer environment support—Installers with a Macintosh build target created using InstallAnywhere 2011 SP2 will run on Apple OS X Lion (10.7).

#### **Rollback-Enabled Restart of Windows**

To instruct a target Windows machine to restart after a rollback occurs during installation, you can now select the **Restart Windows in case of Rollback** option on the **Project > Advanced > Rollback Settings** task in the Advanced Designer.



**Note** • The **Restart Windows in case of Rollback** checkbox is enabled only after you select the **Enable Rollback** checkbox.

If the **Restart Windows in case of Rollback** checkbox is selected, the machine will restart once the user clicks the **Done** button in the **Install Complete** panel.

Previously, even if an installer's **Post-Install** task included a **Restart Windows** action, it would not execute if the installer was rolled back.



**Note** • If the **Restart Windows in case of Rollback** checkbox is selected, the target Windows machine will restart whether or not a **Restart Windows** action is present in the **Post-Install** phase, with one exception. If a **Restart Windows** action is present and you assign to it a rule that would prompt the user to choose between **Yes, restart** or **No, I will restart later**, if the user selects **No**, the machine will not restart even if the **Restart Windows in case of Rollback** option is selected.



Note • This customer enhancement request was tracked as issue IOA-000061965.

### **Resolving Variables at Build Time**

In InstallAnywhere 2011 SP2, you can now use *build time variables*, which are variables that have their values set at build time.

Instead of using the \$ symbol as the variable delimiter (which is used for standard variables, such as \$var\$), you instead use the @ symbol as the delimiter for build time variables, such as @var@.

There are several ways of configuring build time variables:

- Configuring Build Time Variables in the Advanced Designer
- Configuring Build Time Variables Using a Property File
- Defining Build Time Variables as Environmental Variables

#### **Configuring Build Time Variables in the Advanced Designer**

You can configure build time variables on the **Project > Variables** task of the InstallAnywhere Advanced Designer.



#### Task: To configure build time variables in the Advanced Designer:

- 1. Open the Project > Variables task.
- 2. Click the BuildTime Variables button. The BuildTime Variables dialog box opens.
- 3. Click the Edit Variables button. The Edit BuildTime Variables dialog box opens.
- 4. Click Add. A new, empty variable is added to the BuildTime Variable list.
- 5. In the BuildTime Variable column, enter a name for the new variable, such as @Apple@.
- 6. In the Value column, enter a value for the variable.
- 7. Click OK. The BuildTime Variables dialog box closes.

#### **Configuring Build Time Variables Using a Property File**

You can also define build time variables in a property file and specify this property file during the command line build. This method enables you to update variables just before build by editing the property file.

During a command line build, the property file is specified using -btv "filepath", such as:

build.exe "C:\Projects\My\_Project.iap\_xml" -btv "C:\Properties\mypropertyfile.properties"

If there is duplicate variable present in the both the property file and in the Advanced Designer, then the variable defined in the property file will be given precedence over the variable defined in the Advanced Designer.

#### **Defining Build Time Variables as Environmental Variables**

You can also define environment variables and then use them as build time variables in the project.

To define build time variables as environmental variables, define the environmental variables using the tag prefix of IA\_BTV\_, such as IA\_BTV\_VariableName (or @IA\_BTV\_VariableName@). The InstallAnywhere Advanced Designer will recognize these variables and list them in the **BuildTime Variables** table (which is displayed by clicking the **BuildTime Variables** button on the **Project > Variables** task). This table will list just the variable name without the IA\_BTV\_ prefix.



Note • This customer enhancement request was tracked as issue IOC-000086999.

#### **Customizable Merge Module Progress Bar**

In InstallAnywhere 2011 SP2, you can now customize the progress bar of a Merge Module. A new option entitled **Show progress dialog** has been added to the **Install** tab of the **Dynamic Merge Module** customizer of the **Organization > Modules** task.

You specify the way a Merge Module's installation progress is displayed by selecting or not selecting the **Show progress dialog** option:

- Selected—An intermediate progress bar will be displayed while this Merge Module is being
  installed.
- Not selected—The intermediate Merge Module progress bar is suppressed, and the progress of the Merge Module installation is integrated into the progress bar of the parent installer.



Note • This customer enhancement request was tracked as issue IOA-000028353.

## **Project Automation API Code Samples**

InstallAnywhere 2011 SP2 includes new Project Automation API code samples that you can use to edit your project files programmatically in Java. These code samples are installed in the following directory:

[InstallAnywhere Installation Directory]\project-auto\samples\src\com\ia\projauto\samples

A readme.txt file is provided in the project-auto\samples directory that contains the following information:

- How to Use—Explains how to run these code samples using classpath settings.
- Sample Code Configuration—Explains how to run these code samples by making use of ANT scripts that compile and run the API code samples by using an automationbuild.properties file.

The following Project API code samples are provided:

Table 2-1 • Project API Code Samples

Advanced Designer Task/Subtask	Provided Sample Code
Installer UI	InstallerUIConfig_Test
Install	InstallTask_Test
Pre-Install	PreInstallAction_Test
Post-Install	PostInstallAction_Test
Project	ProjectDescription_Test
Project > JVM Settings	JavaSettings_Test
Project > Platforms > Mac OS X	MacOSPlatform_Test
Project > Platforms > Windows	WindowsPlatform_Test
Build > Build Configurations > Build Targets	BuildConfig_Test
Build > Build Configurations > Tags	Tags_Test
Project > Advanced > Maintenance Mode	MaintenanceMode_Test
Project > Advanced > Instance Management	InstanceManagement_Test
Project > Log Settings	LogSettings_Test
Project > Advanced > Rollback Settings	Rollback_Test
Project > Rules	Rules_Test
Uninstall	UninstallPhase_Test
Actions: Expand Archive (7-Zip), Expand Archive (TAR), Read/Modify XML File	ReadReplaceXMLandSevenZipandTar_Test

## Support for Specifying Encrypted System i (i5/OS) Logon Credentials Using the Ant Task

In InstallAnywhere 2011 SP2, you can now specify encrypted System i (i5/OS) login credentials using the i50SLogin parameter of the Ant task:

After the project successfully builds, an \*-masked i50SLogin parameter (password portion) will print to the console.



**Note** • In previous releases, you could specify System i (i5/OS) login credentials during a command line build by using the -i command line switch, but the credentials would then be displayed in the build output in clear text (they were not encrypted).



Note • This customer enhancement request was tracked as issue IOA-000063510.

## System i (i5/OS) Program Action Now Available in the Pre-Install and Post-Install Tasks

In addition to being available in the **Install** task, the **System i (i5/OS) Program** action is now also available in the **Pre-Install** and **Post-Install** tasks.



Note • This customer enhancement request was tracked as issue IOC-000078667.

InstallAnywhere 2011 SP1 includes the following minor enhancement:

Ant Task Reference Changes

### **Ant Task Reference Changes**

In InstallAnywhere 2011 SP1, you can specify supported locales using the Ant task. Use the following updated syntax when defining a <configuration> parameter within a <buildinstaller> parameter:

```
<buildinstaller</pre>
 IALocation="C:\Program Files\InstallAnywhere 2011 Enterprise"
 IAProjectFile="C:\Projects\myproject.iap_xml"
 additionalparameter=value
  <configuration name="Configuration_Name"</pre>
   webenabled="true/false"
   weboptimize="true/false"
   webpagelanguage="en/ja"
   cdenabled="true/false"
   cdoptimize="true/false"
   mergeenabled="true/false"
   mergeoptimize="true/false"
   mergereadonly="true/false">
      <locales>
        <le><localeSuffix>en</localeSuffix>
        <le><localeSuffix>de</localeSuffix>
        <le><localeSuffix>ja</localeSuffix>
      </locales>
      <target platform="windows"</pre>
        outputDir="outputDir"
        buildWithVM="true/false"
        buildWithNoVM="true/false"
        bundledVM="path_to_file" />
      <target platform="linux"
        outputDir="outputDir"
        buildWithVM="true/false"
        buildWithNoVM="true/false"
        bundledVM="path_to_file" />
  </configuration>
</buildinstaller>
```

## **InstallAnywhere 2011**

InstallAnywhere 2011 includes new features in the following categories:

- Merge Module Enhancements
- JVM Enhancements
- New Actions
- Complex Rule Expressions With Multiple Operator Support
- Logging Enhancements
- Variables Enhancements
- Installer Enhancements

### **Merge Module Enhancements**

InstallAnywhere 2011 includes the following merge module enhancements:

- Common Uninstaller for Merge Modules
- Unified Progress Bar for Merge Modules
- External Resource Bundle Support for Merge Modules

#### **Common Uninstaller for Merge Modules**

With InstallAnywhere 2011, you can choose to implement a single uninstaller which can uninstall both your main project as well as your merge modules.

To specify this option for a dynamic merge module, select the **Uninstall Merge Module when parent** is uninstalled option on the **Install** tab of the **Dynamic Merge Module** customizer on the **Organization > Modules** subtask for the specific merge module. The point of uninstallation of merge modules can also be configured using the **Uninstall Merge Modules** uninstaller action in the **Uninstall** task.

You can also specify this option for an individual merge module by selecting the **Uninstall Merge**Module when parent is uninstalled option on the **Install Merge Module** action customizer in the **Install** task.

#### **Unified Progress Bar for Merge Modules**

In releases prior to InstallAnywhere 2011, when a merge module was being installed, only the message Installing Merge Module was displayed on the **Install Progress** panel, with no indication of progress. Because large merge modules take a longer time to install, the end user was not informed of which part of the merge module was currently getting installed.

Starting with InstallAnywhere 2011, the installation progress of merge modules is merged into the main installer's progress information. Therefore, the end user can see the installation progress of a merge module reflected in the main installer's progress bar on the **Install Progress** panel.

#### **External Resource Bundle Support for Merge Modules**

Starting with InstallAnywhere 2011, merge modules can access their own external resource bundles and are also able to access the external resource bundles of their parent installer during the installation and uninstallation phases. This is applicable to one-level nested merge modules and to multiple-merge modules which get installed with a single parent.

#### JVM Enhancements

InstallAnywhere 2011 includes the following JVM enhancements:

- JVM Search Enhancements
- Consolidated JVM Settings on New JVM Settings Subtask
- VM Pack Creation Utility

#### **JVM Search Enhancements**

InstallAnywhere 2011 gives you finer control over the JVM that is selected by the installer launcher. You can either choose to go with the default search algorithm or define JVM specs through which you can control the search directories, Windows registry search, and also control the validation of the found VM.

- Specifying VM Search Instructions on Build Targets Subtab
- Using JVM Spec Files

#### **Specifying VM Search Instructions on Build Targets Subtab**

You can now specify new **VM Search Instructions** for each build target on the **Build Targets** subtab of the **Build Configurations** tab of the **Build** task. When setting the VM search instructions, you specify whether or not the installer should search for a VM on the target system, and whether to use a bundled VM or to download a JVM in VM pack format from a URL you specify.

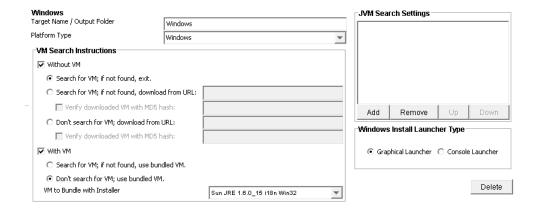


Figure 2-1: VM Search Instructions Area of Windows Build Target on Build Targets Subtab

If you do not want to include a Java virtual machine with this build target, select the **Without VM** option. If you select this option, you also need to select one of the following options to specify how the installer will find the VM it will use:

- Search for VM; if not found exit—Select this option to instruct the installer to search the target machine for a VM. If one is not found, the installer will exit.
- Search for VM; if not found, download from URL—Select this option to instruct the installer to search the target machine for a VM. If one is not found, the installer will download a VM from the URL specified in the text box.
- Don't search for VM; download from URL—Select this option to instruct the installer to always download a VM from the URL specified in the text box.

If you want to include a Java virtual machine with this build target, select the **With VM** option. If you select this option, you also need to select one of the following options to specify whether the installer should use the bundled VM if a VM is found on the target machine.

- Search for VM; if not found, use bundled VM—Select this option to instruct the installer to search the target machine for a VM. If one is not found, the installer will use the bundled VM.
- Don't search for VM; use bundled VM—Select this option to instruct the installer to always use the bundled VM, even if a VM exists on the target machine.
- VM to Bundle with Installer—If you select the With VM option, select a bundled VM from this list.



Important • While you can obtain VM packs by downloading them from the Flexera Software Web site, these VM packs are provided for your convenience only and should not be referenced by your installation project. Therefore, if you select the Search for VM; if not found, download from URL or Don't search for VM; download from URL options, do not specify a URL pointing to one of the VM packs on the www.flexerasoftware.com website. If you do, the build will fail. Instead, you should host the VM pack on your own file server or FTP server and specify the URL to that location.

#### **Using JVM Spec Files**

If you instruct the installer to search for a VM, it will use the JVM search instruction files specified in the **JVM Search Settings** list on the **Build Targets** subtab. You can instruct the installer to use more than one JVM spec file at the same time by listing more than one file in the **JVM Search Settings** list.

InstallAnywhere provides a set of JVM spec files which target all the supported platforms that you can use or you can write one of your own.

#### **Consolidated JVM Settings on New JVM Settings Subtask**

In InstallAnywhere 2011, all the JVM-related settings have been consolidated into a single, convenient subtask: **Project > JVM Settings**. Previously, these JVM-related settings were spread across the **Project > Platforms**, **Project > Config**, and **Project > Java** subtasks.

The **Project > JVM Settings** subtask includes JVM settings organized into three tabs:

- General Settings—Use to modify the settings for the entire project, such as classpath settings for your project's LaunchAnywhere applications.
- Installer Settings—Use to modify the settings for the installer launcher, such as defining a list of
  valid VMs for installers built from this project, setting the heap size for the VMs, setting optional
  installer arguments, deciding whether to install the bundled/downloaded Java VM, and defining
  classpath settings.
- Search Panel Settings—Use to specify criteria to use to find valid VMs for the application you are installing.

#### **VM Pack Creation Utility**

In InstallAnywhere 2011, you can use the **Create VM Pack** dialog box, which is opened when you select **Create VM Pack** on the **File** menu, to create a VM pack for any platform. On the **Create VM Pack** dialog box, you specify the directory where the VM is installed, the directory where you want to store the new VM pack, the platform of the new VM pack, and a name for the VM pack.

You can also use the VM Pack utility as a standalone tool on a machine where InstallAnywhere is not installed.

#### **New Actions**

InstallAnywhere 2011 includes three new actions: Expand Archive (7-zip), Expand Archive (TAR), and Read/Modify XML File.

#### **Expand 7-Zip (LZMA) Archive**

In InstallAnywhere 2011, you can use the **Expand Archive (7-zip)** action to expand a 7-zip or LZMA compressed archive file. You can now make use of LZMA compression to compress your files and use this new action to expand these archives in a fast and reliable way. The **Expand Archive (7-zip)** action is available in the **Install** phase.

#### **Expand TAR Archive**

In InstallAnywhere 2011, you can use the **Expand Archive (TAR)** action to expand a TAR archive file on the target system. This action has the advantage of preserving the permissions of all files that are part of the TAR archive.

#### **Read/Modify XML File Action**

You can use the **Read/Modify XML File** action to modify an existing XML file on the target system or an XML file that the installer deploys on the target system. You can specify whether to read a specific value, replace a specific value, or find an occurrence of a specific value. You can search by XML element, subelement, or attribute, and can specify a variable to store the value. To perform complex modifications of an XML file, you can use multiple **Read/Modify XML File** actions.

### **Complex Rule Expressions With Multiple Operator Support**

In InstallAnywhere 2011, you can now write complex rule expressions using multiple logical operators and precedence operators.

When you add multiple rules to an item, each rule's unique ID is listed in the **Rule Expression** field and, by default, the rules are joined by the AND operator.

If you want to write complex rule expressions, you can edit the expression in the **Rule Expression** field to use multiple logical operators—such as AND (&&), OR (||), and NOT (!)—and precedence operators (parentheses) to express the relationship between two or more rules. To validate the rule, click the **Validate Rule Expression** button.

### **Logging Enhancements**

InstallAnywhere 2011 includes the following enhancements to its logging functionality:

- Consolidated Log Settings in New Log Settings Subtask
- Maintenance Mode and Uninstall Phase Logs
- Append STDERR and STDOUT to Install/Uninstall Log
- Consolidated Logging for Parent and Merge Modules

#### **Consolidated Log Settings in New Log Settings Subtask**

In InstallAnywhere 2011, all of the logging-related settings have been consolidated into a single, convenient subtask: **Project > Log Settings**.

On the **Log Settings** subtask, you can enable logging during installation and also during the Maintenance Mode options (**Uninstall**, **Add Features**, **Repair Installation**, **Remove Features**), and can choose to append the stderr and stdout output to the install/uninstall logs.

#### **Maintenance Mode and Uninstall Phase Logs**

In InstallAnywhere 2011, the logging feature has been extended to the **Uninstall** and **Maintenance Mode** phases (**Install**, **Add**, **Repair**, **Remove**, and **Uninstall**). You can select the phases for which you want to enable logging and specify the path for each log file.

#### Append STDERR and STDOUT to Install/Uninstall Log

In InstallAnywhere 2011, the stderr and stdout entries of any installation can be appended to the install/uninstall logs, which makes it easier to perform installation/uninstallation debugging.

You can send installer debug output (stderr and stdout) to a console (or Console.app on Mac OS X) or store it in a file.

#### **Consolidated Logging for Parent and Merge Modules**

A merge module's installation log can now be consolidated into the parent's installation log by selecting the **Add merge module log to parent log** option available in the merge module's customizer. For merge modules that are imported as a dynamic merge module from **Organization > Merge Modules** subtask, then this setting is available in the **Install** section of the customizer.

#### Variables Enhancements

InstallAnywhere 2011 provides several enhancements that make it easier to use and manage variables:

- Consolidated Variables Settings in New Variables Subtask
- Selecting Variables from a List
- Search and Replace for InstallAnywhere Variables
- Increased Number of User Magic Folders
- Avoid Substitution of Unknown Variables for Select Actions
- Choose Install Set Variables Now Recorded in Response Files
- Clarification on the Propagation of Variables from Merge Module to Parent Installer

#### **Consolidated Variables Settings in New Variables Subtask**

To enable you to manage variables more effectively, a new **Project > Variables** subtask is introduced, which you can use to advertise variables for merge modules, list variables to encrypt in or exclude from the response files, and set security options.

The **Project > Variables** subtask also includes a scrollable list of all variables defined in the installation project. Each listed variable includes a **Substitute Recursively** option, enabling you to specify that you do not want the variable to be substituted at runtime. In cases where you expect that the variable could contain multiple \$ characters—such as in a user-defined password—you would clear the selection of the **Substitute Recursively** option for a variable.

#### **Selecting Variables from a List**

In InstallAnywhere 2011, instead of having to manually type in the name of variables in text boxes or text areas in your installation project, you can open the **Choose Variable** dialog box and select a variable from a list.

While you are editing the contents of a text box or a text area, you can open the **Choose Variable** dialog box by pressing Alt + V. The **Choose Variable** dialog box lists all of the variables available in your project, grouped by category, with embedded help for the selected variable. Whenever you add a new variable to your installation project, the **Choose Variable** dialog box is refreshed to include it.

#### **Search and Replace for InstallAnywhere Variables**

In InstallAnywhere 2011, you can search a project to locate all references to a specific variable. You can choose to search for a variable in any of the installation tasks/phases (Pre-Install, Install, Post-Install, Pre-Uninstall, Uninstall, Post-Uninstall) and can choose to search Features and/or Components. You can also perform global replacements of variables.

You can search for an exact match of a variable or for a partial text string in a variable. You also have an Ignore Case option.

To perform a variable search, select **Search** on the **File** menu or press Ctrl + F. Search results are displayed on the **Search Results** dialog box.

#### **Increased Number of User Magic Folders**

InstallAnywhere 2011 has increased the number of user Magic Folders from 10 to 25.

#### **Avoid Substitution of Unknown Variables for Select Actions**

With InstallAnywhere 2011, you can avoid the substitution of unknown variables for the select actions using the **Do not substitute unknown variables** option in the customizer of the action. The select actions include:

- Execute Command Action
- Execute Target File
- Execute Script / Batch File
- Set InstallAnywhere Variable (Single) Action
- Set InstallAnywhere Variable (Multiple) Action

If your installation project includes a nested variable which could possibly contain multiple \$ characters (such as a password), this could result in the creation of an unknown variable. Therefore, select the **Do not substitute unknown variables** option to instruct InstallAnywhere to only resolve InstallAnywhere variables which are listed in the project under **Project** > **Variables** (the known variables).

#### **Choose Install Set Variables Now Recorded in Response Files**

In InstallAnywhere 2011, the **Choose Install Set** panel/console variables are now recorded in response files. Here is an example:

#Choose Product Features
#----CHOSEN\_FEATURE\_LIST=Application,Help
CHOSEN\_INSTALL\_FEATURE\_LIST=Application,Help
CHOSEN\_INSTALL\_SET=Typical

#### Clarification on the Propagation of Variables from Merge Module to Parent Installer

Variables usually do not propagate from the merge module to the parent automatically. For this to occur, the variables have to be advertised in the respective phases of installation.

In general, \$INSTALL\_SUCCESS\$ and \$RESTART\_NEEDED\$ are two status variables which are used in the Install Complete panel.

- \$INSTALL\_SUCCESS\$—The \$INSTALL\_SUCCESS\$ variable cannot be set externally because it is a read-only variable, and therefore it cannot be advertised. But InstallAnywhere supports the automatic propagation of this variable from the Pre-Install phase to the Post-Install phase (but not from the Install phase to the Post-Install phase) for a Dynamic Merge Module.
- **\$RESTART\_NEEDED\$**—The \$RESTART\_NEEDED\$ variable has to be advertised in the Post-Install phase in order for it to be propagated from the merge module to the parent.

#### **Installer Enhancements**

InstallAnywhere 2011 provides the following enhancements to installer design and functionality:

- Option to Disable Cancellation of Installation
- Option to Change Installer and LaunchAnywhere Icons (Windows)
- Option to Specify .ico Files for Icons
- Signed JARs Support
- Prevent Multiple Launches of Installer/Uninstaller
- Disk-Space Checking and Related Display Enhancements
- Change Version at Build Time Using the productVersion Parameter in build.exe Command Line
- Billboard Timers

#### **Option to Disable Cancellation of Installation**

In InstallAnywhere 2011, you can select the **Disable cancel button when install is in progress** option on the **Project > Info** subtask to prevent end users from being able to cancel an installation using the Cancel button (or the close [X] button). Disabling the Cancel button during installation helps to avoid unfinished installations.

#### Option to Change Installer and LaunchAnywhere Icons (Windows)

In InstallAnywhere 2011, you can specify a custom icon to be displayed for the Installer or the LaunchAnywhere:

- Installer—The installer icon can be specified on the Installer Icon tab of the Installer UI > Look
   & Feel subtask.
- LaunchAnywhere—The LaunchAnywhere icon can be specified in the customizer of the LaunchAnywhere.



Note • This feature is available for Windows only.

#### **Option to Specify .ico Files for Icons**

In previous versions of InstallAnywhere, you could only specify a 16x16 or 32x32 .gif file as an icon. These .gif files were converted to .ico files internally, resulting in a significant reduction in quality. In InstallAnywhere 2011, this issue has been addressed. You can now specify an .ico file for an icon.

- Installer—On the Installer Icon tab of the Installer UI > Look & Feel subtask, you can specify
  a custom Windows icon file (.ico) to be used for the installer.
- LaunchAnywhere—On the Choose Icon dialog box, which is opened from a LaunchAnywhere
  customizer, you can also select an .ico file.



Note • You can specify an icon (.ico) file for the installer on Windows platforms only.

#### **Signed JARs Support**

InstallAnywhere now supports adding signed JARs as dependencies to Custom Code Actions, Custom Code Panels, Custom Code Consoles, and Custom Rules. Also, a JAR or ZIP file that contains custom code can now be signed.

In previous versions of InstallAnywhere, although you could build a project that contained signed JARs, the installer that was generated would not launch. InstallAnywhere would extract all entries of the signed JAR, including the manifests, and would add them to the installer ZIP files (such as execute.zip). But when the installer ZIP files were added to the classpath of the installer, the installer would fail to launch because Java Security Exceptions would be thrown when initializing the JAR.

Starting with InstallAnywhere 2011, in the case of a signed JAR, InstallAnywhere will not unpack the JAR and the JAR entry will be left intact inside the execute.zip file during build time. Therefore, during runtime, the signed JARs are extracted to temporary directories and are added to the InstallAnywhere classpath, making them ready to be consumed for the custom codes or any relevant actions requiring the contents of this signed JAR.

#### **Prevent Multiple Launches of Installer/Uninstaller**

InstallAnywhere 2011 enables you to prevent end users from being permitted to launch multiple simultaneous instances of the same installer or uninstaller (as identified by having the same Product ID). This can be specified using the **Prevent multiple launches of an installer at a given time** option on the **Project > Info** subtask.



**Note** • Invoking multiple simultaneous instances of the installer or uninstaller could corrupt the InstallAnywhere registry.

#### **Disk-Space Checking and Related Display Enhancements**

In InstallAnywhere 2011, you can create an installer that performs a disk space check at various points in the installation life cycle, and you can customize how that disk space is displayed.

To display disk space on the on the **Pre-Installation Summary** panel of the installer, select the **Disk Space Information in** setting on the customizer of the **Pre-Install Summary** panel, and select the magnitude you wish to use (**Bytes**, **KiloBytes**, **MegaBytes**, or **GigaBytes**) from the list.

If you want to use more than one magnitude to display disk space information (such as to displaying **Free Disk Space** in GBs while showing **Required Disk Space** in MBs), you can use the following variables.

#### • Free Disk Space

\$FREE\_DISK\_SPACE\_BYTES\$
\$FREE\_DISK\_SPACE\_KILOBYTES\$
\$FREE\_DISK\_SPACE\_MEGABYTES\$
\$FREE\_DISK\_SPACE\_GIGABYTES\$

#### Required Disk Space

\$REQUIRED\_DISK\_SPACE\_BYTES\$
\$REQUIRED\_DISK\_SPACE\_KILOBYTES\$
\$REQUIRED\_DISK\_SPACE\_MEGABYTES\$
\$REQUIRED\_DISK\_SPACE\_GIGABYTES\$

#### Change Version at Build Time Using the productVersion Parameter in build.exe Command Line

In InstallAnywhere 2011, you can use the productVersion parameter in the command line of build.exe to change the version of an InstallAnywhere project at build time. The following example changes the version to 2.1.3.24:

build.exe MyProduct.iap\_xml productVersion=2.1.3.24



**Note** • Versions are conventionally represented in the following format: [Major].[Minor].[Revision].[Subrevision], such as: 2.1.3.24.

#### **Billboard Timers**

In InstallAnywhere 2011, you now have more control over how much time billboards will be shown while the installation is in progress.

When multiple billboards are specified, you can control how much time each billboard will be displayed while the installation is in progress by using the **Display billboards for every** *nn* **seconds** option on the **Installer UI > Billboards** subtask. The default time for a billboard to be displayed is 0.5 seconds. To change this time period, select the **Display billboards for every** *nn* **seconds** option and enter a number in the **seconds** box.

# Revised Licensing Procedure and Requirements for InstallAnywhere 2011

The procedure for setting up InstallAnywhere licensing has been revised. In earlier versions of InstallAnywhere, users with node-locked licenses registered their product by entering a serial number, while users with concurrent licenses used a Flexera Software-generated license file. In InstallAnywhere 2011, both license models (traditional **node-locked licenses** and **concurrent licenses**) require a license file that is generated through a new Web site: the **Flexera Software Product and License Center**.

- Node-locked licenses—With this license model, the product license is tied to a specific user and
  machine. This model is the traditional option and the one that is most often purchased. The license
  file is based on the host ID (the Ethernet/MAC address of the network interface card) for the
  machine on which InstallAnywhere is installed.
- Concurrent licenses—This model enables sharing or floating of InstallAnywhere product licenses among multiple users. With this model, you set up a licensing server in your environment, and install InstallAnywhere on as many machines as needed. The InstallAnywhere license is tied to the specific licensing server, and each machine checks out a license from the server when a user launches InstallAnywhere. The licensing server manages how many instances of InstallAnywhere can be run simultaneously based on the terms of the concurrent license that is purchased. For this model, the license file is based on the host ID of the licensing server.

Use the Flexera Software Product and License Center (https://flexerasoftware.subscribenet.com/) to generate and download the node-locked or concurrent license files that you have purchased and to view the license generation history. To learn how to use this site and set up the licensing for either licensing model, see the licensing instructions at:

http://www.flexerasoftware.com/instructions/product-license.htm

Note that if you have not purchased a license for InstallAnywhere, you can install it and use it for a limited number of days without setting up the licensing. The new licensing wizard that InstallAnywhere displays whenever you launch InstallAnywhere in evaluation mode shows you how many days are left in the evaluation period. If you do not set up the licensing within the evaluation period, InstallAnywhere stops working when the evaluation period ends. You can set up licensing at any time before or after the evaluation period ends.

## **Simultaneous Build Restriction**

When building an InstallAnywhere project using the command line builder utility with a "build-only" node-locked license, you are permitted up to five simultaneous builds. Each time a build is started, a "token" is acquired, which is released once the build is finished.

If you attempt to perform more than five simultaneous builds, you will see the following error message:

Simultaneous Build Manager: Error !!!
Reason=Exceeded Maximum Allowed Simultaneous builds for your license.
Remedy=Please try building after one of your existing build processes complete.



Important • If you cancel a build by pressing Ctrl+C, that token will not be immediately released; it will be locked out for 12 hours, after which it will automatically be released. Therefore, if you cancel multiple builds using Ctrl+C, you may encounter this Simultaneous Build Manager error even though five simultaneous builds are not currently running.

## **Resolved Issues**

This section describes the resolved issues in the following versions of InstallAnywhere:

- InstallAnywhere 2011 SP4
- InstallAnywhere 2011 SP3
- InstallAnywhere 2011 SP2
- InstallAnywhere 2011 SP1
- InstallAnywhere 2011

## InstallAnywhere 2011 SP4

This section describes the customer issues that were resolved in InstallAnywhere 2011 SP4:

Issue	Description
IOA-000063596	When browsing to a directory with certain Chinese characters on Windows using the <b>Choose Install Folder</b> panel, characters are being displaying as ? and the installation cannot proceed.
IOA-000053505	When a product is installed on Windows Vista to a path which includes Unicode characters, the installer is unable to write a path to the Registry.
IOA-000065438	Installing on a Linux PPC 64 operating system fails, and displays the following message: IllegalStateException: Message digest cannot be cloned.
IOA-000066501	On a Japanese system, the text on a <b>Get User Input - Advanced</b> panel appears to be continuously reformatting, and the scroll bar flashes continuously.
IOA-000068361 IOA-000068462	Text messages are being clipped on the <b>Display Message</b> panel of installers, and on the Please Wait panel of the InstallAnywhere installer.
IOA-000068611	When specifying that you want to display disk space information in Gigabytes on the <b>Pre-Install Summary</b> panel, the Gigabytes are displayed in whole numbers.
IOA-000069534	The <b>Choose Locale</b> panel no longer automatically selects pt_BR or zh_CN when launched on a machine set to that locale.

Issue	Description
	·
IOA-000069329	When the path of the installer is too long, it gets truncated on the <b>Not Enough Disk Space</b> panel.
IOA-000069646	The build time variable for product name is not resolved on non-English locales.
IOC-000080085	On a reinstall, every file that is installed is written again to the local .com.zerog.registry.xml file. After numerous reinstalls, the .com.zerog.registry.xml file can become so large that it causes an OutOfMemoryError and the install fails.
IOA-000070253	In the progress bar, InstallAnywhere displays the name of a plugin action that has already executed instead of the one which is going to be executed.
IOA-000072052	The environment variable fails to display after the installation is complete.
IOA-000071069	Uninstall hangs when attempting to uninstall a <b>Set System Environment Variable</b> action.
IOA-000064629	While cancelling the installation process in the <b>Pre-Install</b> phase, the log file is always generated on the desktop.
IOA-000066678	Unable to load project and save project through Project Automation Framework as non-root user on Linux.
IOA-000071966	Running installer in silent mode with -f switch without a value throws ArrayIndexOutOfBoundsException.
IOA-000069778	Build fails when DISPLAY is set to an empty value and the project contains a <b>Get User Input Panel - Advanced</b> .
IOA-000057509	Custom code action in <b>Pre-Install</b> task that uses ProductRegistryService.getNewestProduct(sc) causes com.zerog.registry.xml to be created when cancelled in <b>Pre-Install</b> .
IOA-000056103	External resource bundles are not built into the installer if the project is created on Windows and built on Linux.
IOC-000079130	The <b>Pre-Install Summary</b> panel shows the wrong information when the amount of free disk space available is around 21 TB.
IOA-000065589	The Installer Exit Code is set to zero (0) when the installer has rolled back due to a fatal exception.
IOA-000072612	When DISPLAY is set to an incorrect value and the installer is run in silent mode, a NoClassDefFoundError error is thrown and the temp directory is not cleaned up.
IOA-000073241	Installation crashes on Windows 2012 Server when the installer is built with a console launcher.

Issue	Description	
IOA-000072869	The value of an Environment variable action is not set properly on Windows 2012 Server and Windows 8 preview machines.	

This section describes the customer issues that were resolved in InstallAnywhere 2011 SP3:

Issue	Description
BZ-17093	Show Message dialog should be application modal (to the installer) rather than system modal.
IOA-000034756	Special characters like {:*?"<>} in the path of a Choose Alias, Link, Shortcut Folder (Panel and Console) action causes an error in the install log:
	Status: ERROR Additional Notes: ERROR - java.lang. Exception: Failed to create directory:
IOA-000042447	Japanese file separator characters are not displayed on Summary Panel
IOA-000044286	Temp folder is created if the chosen install folder is other than the default drive.
IOA-000051361	Unable to use external resource bundle to handle custom strings in the Choose Language Console panel available in the installer user interface.
IOA-000052922	Get User Input panel throws an exception when running in silent mode.
IOA-000053488	Magic folder still being created even if a Check Platform rule should prevent this from happening.
IOA-000053591	Unable to locate a .war file by resource manager on interface when loading the projects.
IOA-000058096	Line wrap occurs in the middle of sentence in the Korean locale and in the Spanish locale on console mode.
IOA-000058552	Request that an "encoding" property for Modify Text File actions is provided.
IOA-000059031	Action groups in Pre-/Post Install sections are always opened expanded.
IOA-000061736	No message prompt is displayed during console mode when temporary space for extraction is not sufficient.
IOA-000062000	Labels with long strings in a Get User Input - Advanced panel display the last 5 characters as an ellipse and is truncated.
IOA-000062017	Closing brackets are not in the correct place (mirrored correctly) in the case of an Arabic installer.

Issue	Description
IOA-000062778	The text on the dialog box that opens when there is insufficient disk space in a temporary location is incorrect on the Japanese locale.
IOA-000063100	Calling Win32Service.getNTServiceKeyName with a service that does not exist causes the JVM to crash.
IOA-000064018	Uninstaller is not able to remove a new file added to the upgrade installer.
IOA-000064891	Installer bundled with IBM JVM for Linux does not launch when a "no JVM found" error is encountered.
IOA-000064923	Error message "strings: '/lib/libc.so.6': No such file" occurs on 64-bit Linux during initialization.
IOA-000064924	Error message "Unzip: not found" is written when launching an installer on AIX and HPUX.
IOA-000064970	A particular Japanese translated message/string is unable to display in any panel in run time.
IOA-000064998	IBM JVM bundled with Windows Installer gives the LaunchAnywhere Error "Windows error 3 occurred while loading the Java VM"
IOA-000065156	Expand Archive (TAR) action does not preserve original file permissions and symlinks.
IOA-000065296	Usually for non-English languages, the default translation is displayed on panels, but for some panels, referencing \$L variable causes the comment line of the local locale file to display.
IOA-000065311	Not all features are recorded in the local InstallAnywhere registry file.
IOA-000065374	Labels of subcomponents of choice group on Advanced Get User Input Panel should be made localizable.
IOA-000065425	Request for enhancement to provide Comment Group action so that customer can comment out a bunch of action groups together which the developer is not yet ready to delete.
IOA-000065431	If the payload is only associated to a particular configuration which is missing from resource folder, then the build should be succeeded for all other configurations even though they are not associated with that missing payload.
IOA-000065825	The character '0' appears on the Uninstallation Complete panel when running the installer in the German locale.
IOA-000065986	Unable to load any ISMP services when running installer with a 1.7 JVM.
IOA-000066011	System i Program action is not resolving build time variables in the Program Development Library and Target Release properties consistently.

Issue	Description
IOA-000066012	Request that the System i Program Action be made available in both the Preand Post-Uninstall sequences.
IOA-000066026	Component versions are not being updated in the Global Registry when installing a newer version component to the same location as an older version.
IOA-000066047	Issues with Custom Code Action/Panels verifying the specified class is contained in the action's JAR file when the class name contains a build time variable.
IOA-000066061	Build time check for existence of class referenced in Execute Custom Code Action and Panel is failing.
IOA-000066113	Build Time Variable not resolved in Project > Info > Installer Name field.
IOA-000066234	Unable to generate a response file unless the file already exists when built with InstallAnywhere 2009 SP1.
IOA-000066280	InstallAnywhere variables and modifications to Panels should be propagated to all locale custom_xx files
IOA-000066584	Installer doesn't clean up the temp location when cancelling the installation at the splash screen.
IOA-000066829	Instance management error occurs with installer built from InstallAnywhere 2011 Japanese Edition project.
IOA-000066953	When selecting Maintenance Mode options on the Project > Advanced task, the user interface response time is slow.
IOA-000067019	Build time variables are not being resolved when the project is built with the command line builder.
IOA-000067127	Command line builds do not use the icon specified in the <b>Change Installer Icon</b> field on the <b>Installer Icon</b> tab of the <b>Installer UI &gt; Look &amp; Feel</b> subtask, but instead always use the last icon built from the interface.
IOA-000067155	Improper Japanese translation in Console User Interface mode strings.
IOA-000067815	Project with Install from Manifest action which is created in IDE running on Windows will not build on Linux.
IOC-000066521	User should be able to specify a default language when running on a system with an unsupported language.
IOC-000078404	Choose Directory controls, both on the Choose Install Folder Panel and the Get User Input Advanced Panel, are not mirrored right-to-left.

Issue	Description
IOC-000080219	Allow both console and non-console launchers to be built at the same time, or create a single synchronous console launcher which does not display the console when running in GUI mode.

This section describes the customer issues that were resolved in InstallAnywhere 2011 SP2:

Issue	Description
IOA-000034756	If special characters like {:*?"<>} are entered in the path of a <b>Choose Alias</b> , <b>Link</b> , <b>Shortcut Folder</b> (Panel and Console) action at runtime, installation completes, but an error is posted to the install log (Status: ERROR Additional Notes: ERROR - java.lang.Exception: Failed to create directory) and the shortcut/directory is not created. When a user enters any of these special characters, a warning message should appear indicating an invalid path.
IOA-000046835	The installation log entry created as a result of a <b>System i (i5/OS) Program</b> action does not list the name of the program that was executed. This behavior is not consistent with the behavior of other System i (i5/OS) actions.
IOA-000046836	When a <b>System I</b> (i5/OS) <b>Command</b> action is configured to use InstallAnywhere variables as arguments and is run multiple times, such as when used in a loop situation during the <b>Pre-Install</b> phase, it does not reevaluate the variables after the first time it is executed.
IOA-000049982	During runtime, the focus is set to the summary text area in the <b>Pre-Install Summary</b> panel instead of a button on the panel. If you press the tab key when the focus is on the <b>Install</b> button to navigate between the buttons in the panel, the focus is set to the summary text area (instead of another button on the panel). If you then press the Tab + Shift keys (which is supposed to move the focus in the reverse direction), the focus does return to the <b>Install</b> button, as expected.
IOA-000051967	An <b>Execute Custom Code</b> action which references a non-existent class should cause the build to fail and InstallAnywhere should display a message that explains the error. Instead, the build completes successfully, and at runtime the action is skipped and a note is added to the log file.
IOA-000052022	For both the <b>Panel: Custom Code</b> action and the <b>Execute Custom Code</b> action, you enter the fully qualified class name to run in the <b>Class</b> field of the customizer. The <b>Execute Custom Code</b> action correctly resolves any InstallAnywhere variables that are entered in the <b>Class</b> field. However, the <b>Panel: Custom Code</b> action does not resolve any InstallAnywhere variables entered in the <b>Class</b> field, and therefore fails to display the panel when InstallAnywhere variables are used.

Issue	Description
IOA-000052056	iSeries (System i (i5/OS) actions do not log error information and, in some cases, report as SUCCESSFUL when the action failed.
IOA-000052448	When a variable is defined in all three installation sequences (Pre-Install, Install, and Post-Install) of an <b>Install Merge Module</b> action, the Merge Module does not advertise that variable correctly; the advertised variable only appears in the Pre-Install and Post-Install sequences. This occurs when setting both input variables and parent variables.
IOA-000052538	When you attempt to load a project using the Project Automation API's ProjectAutomation.loadProject() method, if the project contains a plug-in which has properties that were modified in the Advanced Designer interface, an exception is thrown and the project fails to load.
	This also occurs when an AbortInstallAction plug-in is added in the <b>Pre-Install</b> phase when variables in the plug-in are added in the Advanced Designer interface.
IOA-000056329	If a key is not found when using a <b>Get Windows Registry Entry</b> action during installation, InstallAnywhere is displaying a warning message (Win32Exception), even though the absence of a key is not an error. <b>Get Windows Registry Entry</b> actions are used to instruct the installer to perform a specific action based upon whether a key is found or not. If a key is not present, no error or warning message should be displayed; instead, the result should just be written to the log file as an informational message.
IOA-000057275	InstallAnywhere is unable to instantiate a com.zerog.ia.auto.project.actions.ExecuteAntScript from within the automation code. The class throws an exception and InstallAnywhere is unable to instantiate the <b>Execute ANT Script</b> action. The class should run with no exceptions.
IOA-000057880	consoleProxy.getVariable() returns the wrong value for a custom console plug-in action.
IOA-000058042	You cannot set the base location attribute on the directory chooser control using the automation API. The following error message is displayed and the default location in the directory chooser is set to the wrong directory:
	The property 'magicFolderId' of 'com.zerog.ia.installer.util.GUIGroupData' is not supported!
	Using the getInstallFolder method of the Project class should return the User Install folder, not the System Drive Root.

Issue	Description		
IOA-000059887	The <b>Back</b> , <b>Open Folder</b> , and <b>New Folder</b> buttons on the file chooser dialog box are not accessible via keyboard on the Linux operating system.		
	When running an installer on a Linux OS, the <b>Choose Install Folder</b> panel permits the user to choose a different install folder. If the user clicks the <b>Choose</b> button, a file chooser dialog box opens. If you press the Tab key, the focus moves from the <b>Folder</b> text area to the list of folders, and then to the <b>Cancel</b> and <b>OK</b> buttons, and then back to <b>Folder</b> text area—skipping the <b>Back</b> , <b>Open Folder</b> , and <b>New Folder</b> buttons.		
IOA-000061896	If you rename a built installer executable that contains a space in its name to a name that contains an underscore "_" character (such as from Install Test.exe to Install_Test.exe), the installer will fail to launch and the following error message will be displayed:		
	Unable to execute the desired program. Please get another copy of the installer and try again.		
	This error also occurs when you rename an installer executable that received a Compatibility Warning for being too long.		
IOA-000063031	When using a static reference to GUIAccess from a CustomCodeAction in the <b>Install</b> sequence to disable the <b>Cancel</b> button, the <b>Cancel</b> button instead becomes enabled. This feature worked as expected in previous releases.		
IOA-000063174	When opening a project that was migrated from InstallAnywhere 2010 SP1, the Project Automation interface throws ClassCastException.		
IOA-000063403	Node-locked licensing does not work with the 64-bit Linux version of InstallAnywhere 2011 on RHEL 5.6. While the Registration Wizard correctly displays the Host ID, when you try to register the product with a node-locked license file, it fails. The same license works correctly for a 32-bit Linux version of InstallAnywhere 2011 on the same machine.		
IOA-000063410	Debug logs are printing the message of ChooseBundledVMs: Unable to locate the VM pack directory, which gives the user the wrong impression if he runs the installer in debug mode because the message gets printed whether the installer is built with VM or without VM.		
IOA-000063804	If you have multiple <b>Execute Script/Batch File</b> actions in a sequence, the first action executes correctly, but then subsequent actions fail with a FileNotFoundException because the batch file is locked.		
IOA-000064051	When a dependency jar file is added to an <b>Execute Custom Code</b> or <b>Execute Ant Script</b> action, and the path to the jar file is defined in a source path variable, the Dependency view shows the absolute path to the jar file instead of the path defined in the source path variable.		

Issue	Description			
IOA-000064147	If a user on the <b>Install Complete</b> panel of a Windows installer moves away from that panel (by clicking the <b>Back</b> button) and then returns to it, the Windows machine gets restarted even if the user selects the <b>No, I will restart my system myself (Restart Later)</b> option on the <b>Install Complete</b> panel.			
IOA-000064186	In the Arabic locale, the icon used on installer panels to indicate upcoming steps is not mirrored; the icon points in the wrong direction.			
IOA-000064187	In the Arabic locale, when a long string requires the presence of a horizontal scroll bar, the scroll bar should be set to move from right to left rather than from left to right.			
IOA-000064306	If you install 64-bit version of InstallAnywhere 2011 on a 64-bit REHL 4.6 machine, you are unable to register InstallAnywhere with a node-locked license.			
IOA-000064341	Enabling SWVPD Registry Integration on AIX (by selecting the <b>Enable SWVPD Registry Integration (AIX Only)</b> option on the <b>Project &gt; Platforms &gt; UNIX</b> task) results in the following installation log error message:  Could not find matching component XMLElement.  The installation should complete successfully without errors.			
IOA-000064437	A <b>System i (i5/OS) Program</b> action uses a <b>Target Release</b> of *CURRENT regardless of the Project setting. Even if you set the <b>Target Release</b> to 'Other' V5R4M0 in the project, a target release of *CURRENT is used.			
IOA-000064438	When building a project which contains a <b>System i (i5/OS) Program</b> action, the build creates a temporary file on the iSeries machine but does not delete this file when the build is complete.			
IOA-000064770	On the Linux OS, if the <b>Introduction</b> panel of a Spanish-locale installer has a lengthy amount of text, that text is truncated.			
IOA-000064805	As in IOA-000063136, the installer icon path that is set in <b>Installer UI &gt; Look &amp; Feel &gt; Icon Path</b> is entered as an absolute path in the InstallAnywhere project file; it does not use source paths. When the value of this field is saved in the project file, InstallAnywhere must substitute parts of the path with the appropriate source path.			
IOA-000064871	If you install a 64-bit version of InstallAnywhere 2011 on a Linux PPC64 (IBM Power) machine, when you try to activate it using a per desktop license serial number, an error message is displayed.			
	Node locked licensing, this copy of InstallAnywhere could not be registered using the node locked licensing file specified. Please check license file specified at <path> is a valid license for this node.</path>			

Issue	Description		
IOA-000064893	On a Macintosh OS that has both a 32-bit and 64-bit Java version installed, the -d32 argument can used to run the Java in 32-bit mode. However, using the -d32 in <b>Project &gt; JVM Settings &gt; Installer Settings &gt; Optional Installer Arguments &gt; Additional Arguments</b> does not work; the -d32 argument is ignored and the installer still runs Java in 64-bit mode.		
IOA-000065297	SpeedFolders, which should be built once, are being built multiple times (once for each build target). This significantly increases build time.		
IOA-000065398	Attempting to change the icon for a shortcut which points to an installed file back to the default throws a ClassCastException error and you are unable to change the icon.		
IOA-000065407	The project automation API is losing objects for different actions. The following issues were reported:		
	<ul> <li>Project Automation API is turning a licensed edition of a project to development unlicensed version.</li> </ul>		
	<ul> <li>Project Automation API is losing objects, such as the</li> <li>VariablePropertyDataNonBiDi object in the Extract to File plug-in.</li> </ul>		
	• The installLogUninstall variable is losing value from true to false.		
	The following actions were lost:		
	com.zerog.ia.installer.db.RunSQLScriptAction		
	<pre>com.zerog.ia.installer.actions.InstallFile (action relating to plug-in action)</pre>		
	com.zerog.ia.installer.actions.InstallDirectory (action relating to plug-in action)		
	com.zerog.ia.installer.actions.EditVariableTable		
	<ul> <li>When multiple com.zerog.ia.installer.actions.CustomAction were used, all but one was lost.</li> </ul>		
IOA-000065544	While running an installer that was built using InstallAnywhere 2011 in console mode, attempting to display the command line installer help by using command line arguments causes the installer to fail and a fatal application error is displayed.		
IOC-000069098	The first line of the <b>Modify Text File</b> action does not preserve formatting. If the text file contains spaces in front of the first word, they will all be removed.		
IOC-000077787	The CustomCodeActionBuilder interface, which is provided to allow the installation developer to build resources into the installer, works for a customCodeAction but it does not work for a plug-in because the dependency is not built into the installer.		

Issue	Description		
IOC-000078406	The subcomponents of a <b>Get User Input - Advanced</b> panel are not recorded in the response file. If a <b>Get User Input - Advanced</b> panel includes a radio button and a text field, only the results variable of the radio button is recorded the response file, but not the results variable of the text field.		
IOC-000079298	The <b>System i (i5/OS) Integrated File System (IFS)</b> action does not log the destination IFS directory installed in the install log.		
IOC-000079299	The <b>System i (i5/OS) Install File</b> action does not log the installed file to the install log.		
IOC-000079495	If all installer step labels are deleted from a project, and the project is built as a Merge Module, then the Merge Module cannot be imported as a Dynamic Merge Module.		

This section describes the customer issues that were resolved in InstallAnywhere 2011 SP1:

Issue	Description			
IOA-000063511	Customer requests a method to specify the supported locales using the Ant task that corresponds to the method used when using a Build Properties file. The Ant task currently does not support nested "locales" elements.			
IOA-000063136	The installer icon path that is set in <b>Installer UI &gt; Look &amp; Feel &gt; Icon Path</b> is entered as an absolute path; it does not use source paths. This field must substitute parts of the path with the appropriate source path.			
IOA-000063057	Building a Windows installer on Linux causes a IOException when the build attempts to run a Windows executable file, Iconchng.exe, on Linux.			
IOA-000051282	Actions contained in a nested install-time Merge Module are not executed and an exception is generated, which is written to the log output. This error was caused because the actions used in the nested Merge Module were not in the classpath of the installation.			
IOB-000058044	If a Merge Module contains a <b>Set InstallAnywhere Variable</b> action in the <b>Pre-Install</b> sequence (with the <b>Evaluate any variables at assignment</b> option selected) and that variable is advertised in the <b>Install</b> sequence under <b>This Merge Module sets the following parent variables</b> , backslashes will be removed from the value of the variable when it is displayed.  This behavior also occurs if the variable in the Merge Module is set using the InstallerProxy.setVariable method (because you are unable to deselect the <b>Evaluate any variables at assignment</b> option using this method).			

Issue	Description		
IOC-000076832	In projects that reference more than one Dynamic Merge Module, after you edit an advertised variable for a Dynamic Merge Module in the Dynamic Merge Module customizer, the focus shifts to the first Merge Module in the list. The focus should remain on the Merge Module being edited.		
IOC-000076761	When a <b>Get User Input</b> panel is placed in the <b>Pre-Install</b> task of a Merge Module, and then the Merge Module is imported as a Dynamic Merge Module the directory chooser input fields on the panel are inheriting the default values from the parent project, rather than the merge module.		
IOC-000063397	Customer requests the ability to add a listener to the <b>Cancel</b> button in a custom action during the <b>Install</b> task so that an event is fired as soon as the <b>Cancel</b> button is pressed. Because the RollbackHandler it is not called unafter the currently running Install action completes (instead of as soon as the Cancel button is pressed), it does not work.		
IOA-000063137	A ZipException is written to the console when building a project which contains an <b>Expand Archive</b> action if the project was saved on Windows and then built on Linux.		
IOA-000063469	Advertise variable for Single-Level Nested Merge Module displays its middle level variable being advertised when imported as a dynamic merge module the outermost parent.		
IOA-000062886	The LaunchAnywhere icon does not change when the .ico file is selected fo the InstallAnywhere normal wizard.		

## **InstallAnywhere 2011**

This section describes the customer issues that were resolved in InstallAnywhere 2011:

Issue	Description			
IOA-000062262	Prevent the uninstaller from being launched more than once simultaneously.			
IOA-000061766	InstallAnywhere variables which are configured to have their values excluded from the log—by selecting the <b>Exclude Variable Entirely</b> option on the <b>Configure Variables</b> dialog box—are being written to the log when used in an Execute Command Action.			
IOA-000061185	The uninstaller for the new product does not get installed when using the Execute uninstaller action to call the uninstaller of previously installed product in the same USER_INSTALL_DIR location.			
IOA-000060603	Command line builder is unable to use a relative path to the project file.			
IOA-000060528	BuildOutputLocation property in InstallAnywhereAntTask is not respected when used in conjunction with the BuildWorkdirLocation property.			

Issue	Description			
IOA-000060497	In Silent mode, when the installer fails due to any rule, this information should be written to the installer log file.			
IOA-000060373	InstallAnywhere Ant build fails with the exception NoClassDefFoundError: Common/Expand7zipListener on Windows 7 64-bit machine			
IOA-000060357, IOA-000030958	There should be an option to customize the disk space units for displaying Available Disk Space and Required Disk Space in the pre-installation summary panel.			
IOA-000060027	<b>Get User Input Panel</b> is not displayed correctly, when running in Maintenance Mode.			
IOA-000059894	Copying rules from one InstallAnywhere action to another action does not copy the Rule operand.			
IOC-000067628	Custom Panel is inaccessible using the GUI-Automation API when used in conjunction with the waitForPanel method.			
IOA-000059263	If the ProductRegistryService is used to query for an instance of a product, and the USER_INSTALL_DIR already existed, then the resulting uninstaller is not able to remove the installed product.			
IOA-000058800	If the <b>Enable RPM Registration (Linux)</b> option is enabled, then the uninstaller does not clean up properly.			
IOA-000058376	Install Complete panel displays the message associated with NONFATAL_ERROR even though the INSTALL_SUCCESS variable is set to FATAL_ERROR.			
IOA-000058253	When the project has too many install sets, and the description of each of these install sets is huge, then the display of the install sets in the <b>Choose Install Set</b> panel is truncated.			
IOA-000058108	Specifying JRE_1.6.0_10+ in the VM Search Settings will fail the JVM search even if JRE 1.6.0_21 is already installed in the target machine.			
IOA-000057943	If a dynamic merge module contains custom code or plug-ins, then the parent installer which imports this dynamic merge module will fail to build.  A java.io.FileNotFoundException is thrown at the build time.			
IOA-000057914	When a complex hierarchy of features and subfeatures are present in the project, then the uninstallation does not remove all the files. This is due to the non-recording of the associated components in the Zero G Registry.			
IOA-000057892	Rules are not evaluated on the <b>Show Message Console Dialog</b> action during <b>Install</b> phase.			

Issue	Description		
IOA-000057797	Custom Code actions should not write messages to the console when run in silent mode.		
IOA-000057793	Generating a response file with the -r command line switch should not show a warning message The resource "/path/to/response.properties" is not accessible. Installer exiting and exit the installation.		
IOA-000057766	Even though the warning in the <b>Not Enough Disk Space</b> panel says You may choose <b>Cancel</b> to cancel this installation, the cancel button is disabled for this panel.		
IOA-000057503	Error message has to be modified when the path of response file is not specified.		
IOA-000057414	The uninstaller fails when the VM install folder is renamed.		
IOA-000057291	Project Automation does not include support for the <b>Compare</b> InstallAnywhere Variables Numerically rule.		
IOA-000057128	There should be an option to ensure that only the latest version of each component installed is stored in the Global Registry.		
IOA-000057091	On selecting the <b>Choose Product Features [Only]</b> radio button in <b>Choose Install Set</b> panel, the CHOSEN_FEATURE_LIST, CHOSEN_INSTALL_FEATURE_LIST, CHOSEN_INSTALL_SET variables are not getting written into the response file		
IOA-000056538	InstallAnywhere should have the ability to expand a 7-zip or LZMA Archive.		
IOA-000055628	The IAAntTask should accept ant variables. The buildproperties.xml file should also recognize ant-style properties.		
IOA-000055577	The uninstaller of the parent installer should also be able to uninstall associated merge modules.		
IOA-000055515	<b>Execute Script/Batch File</b> and <b>Execute Command</b> actions should resolve the InstallAnywhere variables in the command when writing to the log file.		
IOA-000055134	On Windows, if the user name has <b>%</b> in the user name, and if the installer has a bundled VM and the bundled VM is not installed, then the installer fails to launch.		
IOA-000054911	End users entering dollar sign characters (\$) into input fields such as the <b>Get User Input</b> panel for the installer causes the installer to substitute the strings between two dollar signs (\$). There should be a provision to avoid the same.		
IOA-000053399	In <b>Add and Remove Programs</b> , a custom icon should be shown when installing a package instead of the default InstallAnywhere icon.		
IOA-000052725	In some cases, the parent project file is corrupted because of the failure of the merge module build, leading to the hanging of InstallAnywhere interface.		

Issue	Description			
IOA-000051551	When a variable in a parent project is resolved that has been set from a merge module's advertised variable which is never initialized, the variable resolves to the string <null> instead of an empty string.</null>			
IOA-000050960	Enhance the logging capabilities of merge modules so that all phases of the merge module (Pre-Install, Install, Post-Install) are able to be redirected to STDOUT and written to one file.			
IOA-000043955	If the uninstaller uses the <b>Launch Uninstaller</b> action to run a sub-uninstaller and if the sub-uninstaller requires Mac Authentication, the sub-uninstaller is run in GUI mode, even if the <b>Always run silently</b> property is selected.			
IOA-000042863	There should be an option to set a timer for the Billboard display.			
IOC-000071056	There should be an option for adding additional jars/zips to the installer's classpath.			
IOA-000041200	Newly introduced advertised variables in dynamic merge module are reflected in the parent installer only after a rebuild.			
IOC-000058664	Using a signed jar file for custom code or its dependencies causes an ExceptionInInitializeError and fails to launch the installer.			
IOC-000058089	There should be an option to prevent multiple instances of an installer from running simultaneously.			
IOA-000030959	Disk-space-related variables should be made available during Pre-Install.			
IOC-000056810	Add a command line switch to allow the version number for a product to be set during build time.			
IOA-000029294	Add an option to generate an <b>Uninstall</b> log.			
IOA-000028765	On Linux, adding a link using the <b>Add File</b> option in the interface installs the link's target file during install time, not the link.			
BZ-15719	Add an option to disable the Cancel button when installing files.			
IOA-000060505	Nested merge module does not get installed in HPUX Itanium.			
IOC-000079674	The <b>File Chooser</b> of a <b>Get User Input - Advanced</b> panel does not resolve an InstallAnywhere variable when it is put in a Merge Module.			

## **InstallAnywhere Licensing Procedures**

Two different licensing models are available for InstallAnywhere:

- Node-locked licensing—The product license is tied to a specific user and machine. This model is
  the traditional option and the one that is most often purchased. See also Node-Locked Licensing
  Issues.
- Concurrent licensing—This model enables sharing or floating of InstallAnywhere licenses among
  multiple users. With this model, you set up a licensing server in your environment, and install
  InstallAnywhere on as many machines as needed. The InstallAnywhere license is tied to the specific
  licensing server, and machines check out a license from the server when you launch
  InstallAnywhere. The licensing server manages how many instances of InstallAnywhere can be run
  simultaneously based on the terms of the concurrent license that is purchased.

These licensing models and licensing-related procedures for InstallAnywhere are described in the *Flexera Software Product Download and License Guide for InstallAnywhere*, which can be downloaded from the Flexera Software Web site:

http://www.flexerasoftware.com/downloads/instructions/productlicensing/en/InstallAnywhereProductLicensing.pdf

#### **Node-Locked Licensing Issues**

You may encounter the following issues when installing InstallAnywhere using a node-locked license:

• Registering InstallAnywhere 2011 on a 64-bit Linux machine—When attempting to license the 64-bit version of InstallAnywhere 2011 on a 64-bit Linux machine, after specifying the correct license file, the Licensing Wizard may display an error message stating that InstallAnywhere could not be registered. The issue is caused by how the native library necessary for node-locked licensing was compiled and differences between various Linux operating systems. For information on resolving this issue, see the Q214129: Unable to License 64-Bit Version of InstallAnywhere 2011 Using a Node-Locked License File on 64-Bit Linux Operating Systems KB article at:

http://kb.flexerasoftware.com/selfservice/microsites/search.do?cmd=displayKC&docType=kc&externalld=Q214129&sliceId=1&docTypeID=DT\_ISSUE 1 1&dialogID=121017293&stateId=0%200%20121015158

• Installing InstallAnywhere 2011 on Linux-based systems—When you install InstallAnywhere on a Linux system, the installation attempts to create a symbolic link to the default Linux loader (/lib/ld-linux.so.2) if a link with the same name is not already present. This attempt may be unsuccessful. For information on resolving this issue, see the Q209204: Installing InstallAnywhere 2011 on Linux-Based Systems KB article at:

http://kb.flexerasoftware.com/selfservice/microsites/search.do?cmd=displayKC&docType=kc&externalld=Q209204&sliceId=1&docTypeID=DT\_INFO 1 1&dialogID=121017293&stateId=0%200%20121015158

## **System Requirements**

InstallAnywhere 2011 SP4 has the following system requirements:

- For Systems Running InstallAnywhere (Authoring Environment)
- For Target Systems (Installer Environment)
- Supported Java Virtual Machines

# For Systems Running InstallAnywhere (Authoring Environment)

InstallAnywhere 2011 SP4 has the following system requirements for systems running the InstallAnywhere authoring environment:

Item	Description		
RAM	128 MB free		
Color	Minimum of 8-bit color depth (256 colors)		
Resolution	Minimum 1024 x 768 resolution		
Operating System	InstallAnywhere runs on the latest versions of these operating sy fully updated with the most recent patches and service packs:		
	Windows	Windows 8 (64-bit)	
		<ul> <li>Windows 7 (32-bit and 64-bit)</li> </ul>	
		<ul> <li>Windows Vista</li> </ul>	
		<ul> <li>Windows XP</li> </ul>	
		Windows 2000	
		<ul> <li>Windows Server 2012 (64-bit)</li> </ul>	
		<ul> <li>Windows Server 2008 R2 (64-bit)</li> </ul>	
	Macintosh	Mac OS X 10.4, 10.5, 10.6 (with Java 1.6+), and	
		10.7 (with Java 1.6+)	

Item	Description	
Operating System (Continued)	Linux	<ul> <li>Red Hat Enterprise Linux 4 and 5 (32-bit and 64-bit)</li> </ul>
(Goritinaea)		Red Hat Enterprise Linux 6 (32-bit and 64-bit)
		<ul> <li>SUSE Linux 9, 10 (32-bit x86)</li> </ul>
		• SUSE Linux 11.2, 11.3, 11.4 (32-bit and 64-bit)
		<ul> <li>Linux PPC 64-bit (build time only) only on JRE 1.6</li> </ul>
		<ul> <li>Ubuntu 10.10 (32-bit and 64-bit)</li> </ul>
		• Fedora 14
		Note • When you install InstallAnywhere on a Linux system, the installation attempts to create a symbolic link to the default Linux loader (/lib/ld-linux.so.2) if a link with the same name is not already present. The symbolic link is necessary for the host ID to be displayed on the Host ID dialog, and it is also necessary for successful nodelocked licensing. The link is present on systems that are Linux Standard Base (LSB) 3 compliant, but it may not be present on systems that are not LSB compliant. For more information, see Knowledge Base article Q209204.
	Solaris	Solaris 9, 10, and 11 (SPARC - Express Edition)
	HP-UX	HP-UX 11i (PA-RISC)
	AIX	AIX 5.2, 5.3, and 6.1 (Power/PowerPC)
	available on the Win	localized version of InstallAnywhere Enterprise Edition is dows platform only. Installers can be built from any platform for a localizations for 31 languages are included with

any other platform or language. Localizations for 31 languages are included with Enterprise Edition. Localizations for 9 languages are included with Standard Edition.

## **For Target Systems (Installer Environment)**

The following are the system requirements for systems running InstallAnywhere 2011 SP4 installers:

Item	Description	
RAM	64 MB free	
Color	Minimum of 8-bit color depth (256 colors)	
Resolution	Minimum 640 x 480 screen resolution	
Operating System	Installers run on any version of these operating systems, as long as the operating system supports Java 1.4 or later (including JRE 7.0).	
	<b>Note •</b> InstallAnywhere installers are not supported on beta or on early access releases unless explicitly mentioned.	
	Important • While InstallAnywhere 2011 and all of its service packs will continue to support Java Runtime Environment 1.4 (JRE 1.4), users are requested to consider moving to a later release of the JRE. In the next major release of InstallAnywhere, InstallAnywhere 2012, JRE 1.4 will no longer be supported.	
	Windows •	Windows 8 (64-bit)
	•	Windows 7 (x86 and x64)
	•	Windows Vista (x86 and x64)
	•	Windows XP (x86, x64, Itanium 2, and AMD-64)
	•	Windows 2000 and NT (x86)
	•	Windows Server 2012 (64-bit)
	•	Windows Server 2008 (x86 and x64)
	•	Windows Server 2008 R2 (64-bit)
	•	Windows Server 2003 (x86, x64, Itanium 2, and AMD-64)
	<b>Macintosh</b> M	ac OS X 10.2, 10.3, 10.4, 10.5, 10.6, and 10.7 (Lion)
	Linux •	Red Hat Enterprise Linux 4 and 5 (x86, Itanium 2, and AMD-64)
	•	Red Hat Enterprise Linux 6.2 (32-bit and 64-bit)
	•	SUSE Linux 9, 10, 11, 12.1 (32-bit and 64-bit)
	•	Linux on zSeries
	•	Linux PPC (64-bit)
	•	Ubuntu 9.10, 10.10, 11.4 , 11.10 (32-bit and 64-bit)
	•	Fedora 13, 14, and 15
	Solaris •	Columb 0, 10 (Acc and 71MB 01) and 11 (CI7110 Express
		Edition)

Item	Description	on
	HP-UX	HP-UX 11i (Itanium 2 and PA-RISC)
	AIX	AIX 5.2, 5.3, 6.1, and 7.1 (Power/PowerPC)
	ІВМ	<ul> <li>i5/OS (OS/400) on System i - V5R3 and V5R4 (Enterprise Edition only)</li> <li>z/OS</li> </ul>
	Other	<ul> <li>FreeBSD</li> <li>Other Linux and Unix operating systems (POSIX-compliant shell required)</li> </ul>

## **Supported Java Virtual Machines**

InstallAnywhere 2011 SP4 supports the following Java virtual machines:

Manufacturer	Versions
Sun	1.4.x, 1.5.x, 1.6.x
IBM	1.4.x, 1.5.x, 1.6.x, 1.7.x
Apple	1.4.x, 1.5.x, 1.6.x
НР	1.4.x, 1.5.x, 1.6.x
Oracle	1.7.x



**Note** • While InstallAnywhere 2011 and all of its service packs will continue to support Java Runtime Environment 1.4 (JRE 1.4), users are requested to consider moving to a later release of the JRE. In the next major release of InstallAnywhere, InstallAnywhere 2012, JRE 1.4 will no longer be supported.

The InstallAnywhere installer installs Java 1.6 VM packs. Any Java virtual machine can be bundled with an installer ensuring that the target system meets the minimum requirements for both the installers and your applications. To download additional VM packs, go to <a href="http://www.flexerasoftware.com/">http://www.flexerasoftware.com/</a> installanywhere/utilities and open the **VM Packs** tab.



Note • InstallAnywhere installers are not supported on beta or on early access releases of Java.

## **Known Issues**

For a complete list of known issues, see Knowledge Base article Q212832.

## **Sending Us Feedback**

Your feedback is essential to helping us deliver features in InstallAnywhere that meets your needs. Many of the features for InstallAnywhere come directly from the feedback and suggestions that you, the InstallAnywhere developer community, have shared with our engineering and support teams. To provide feedback, see Product Feedback.