InstallAnywhere 2022 R2 Release Notes

Originally released July 2022; Updated to include R2 (December 2022)

Introduction

InstallAnywhere is the leading multiplatform installation and container development solution for application producers who need to deliver a professional and consistent installation experience for physical, virtual, and cloud environments as well as container deployments.

For the latest information about this release of InstallAnywhere, including updates to these release notes, see the online version of the InstallAnywhere 2022 Release Notes.

Changes in InstallAnywhere 2022 R2

InstallAnywhere 2022 R2 includes the following new features:

- New Project Properties to Manage the Progress Bar

- New Build Property to Manage the JRE

- New Setting to Upgrade the App Notarization

- Support for macOS Ventura

New Project Properties to Manage the Progress Bar

In previous releases, InstallAnywhere installers displayed a single progress bar that showed the progress of the entire installer using a percentage from 0% to 100%. The following is an example of a standard progress bar:
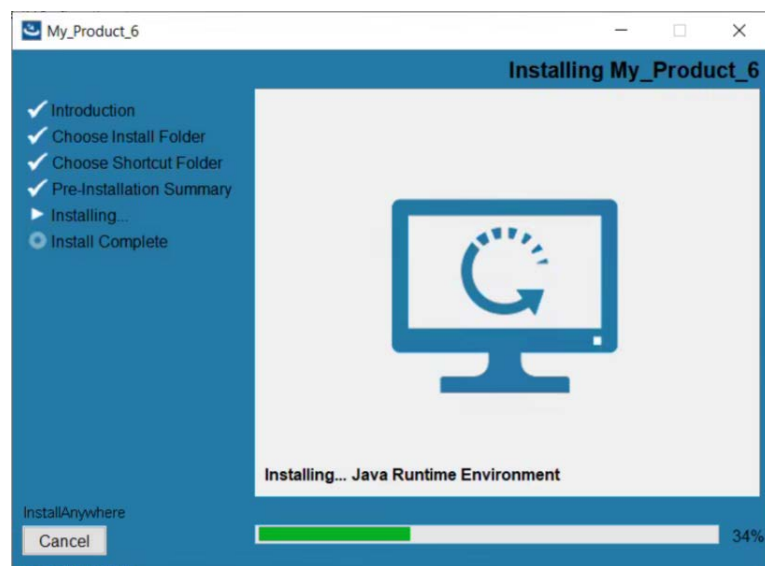

Figure 1: Standard Progress Bar

In InstallAnywhere 2022 R2, you have the option of displaying an "indeterminate progress bar" that indicates that installer is running but does not show the percentage of progress. The following is an example of an indeterminate progress bar:
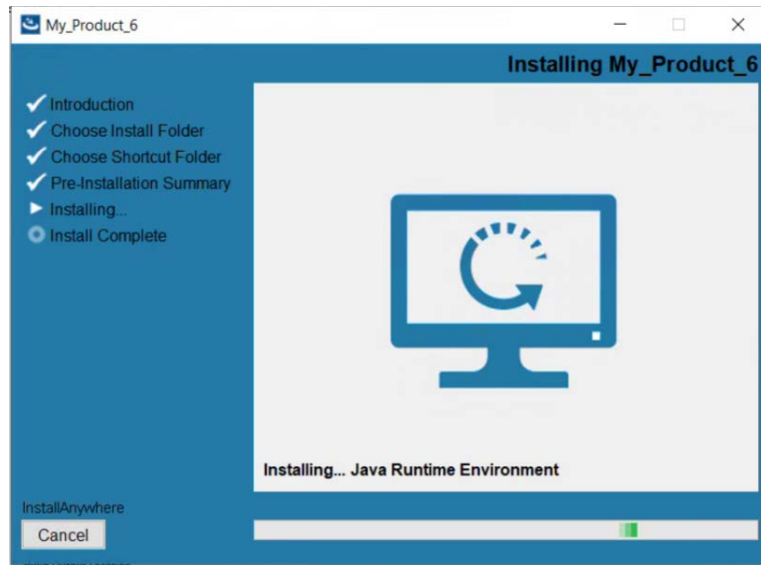
Figure 2: Indeterminate Progress Bar

On the **Look & Feel Settings > Installer UI > Customer UI Designer** dialog box, under **Inner Install Frame**, there are two new options to enable you to customize the progress bar displayed.

The new progress bar options are:

- **Show Progress Bar**—Set this option to **Yes** to display the standard progress bar that shows the progress of the entire installer by percentage complete, from 0% to 100%. If this option is set to **No**, the **Show Indeterminate Progress Bar** will be enabled. By default this option is set to **Yes**.

- **Show Indeterminate Progress Bar**—Set this option to **Yes** to display a bar to indicates that the installer is running but does not show the percentage of progress. If **Show Progress Bar** is set to **Yes**, this option is disabled.

If both progress bar options are set to **No**, then progress of installer will not be displayed at all.The following is an example when both progress bar options are disabled:
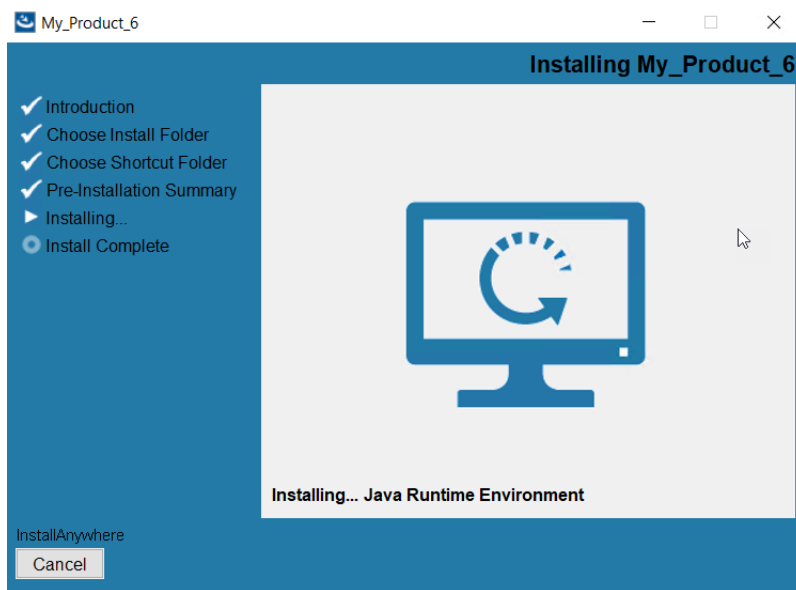
Figure 3: Both Progress Bars Disabled

Note ▪ This change was tracked in issue IOJ-2254111.

New Build Property to Manage the JRE

On the **Build> Build Installers > Build Configuration > Distribution** subtab, under **Web Installer Options,** there is new option **Bundle JRE as Directory** to enable you to manage the JRE file.

In previous releases, by default, InstallAnywhere Installers for the macOS operating system contained the JRE bundled as `jre.zip`.

In InstallAnywhere 2022 R2, you can select the new **Bundle JRE as Directory** option to make InstallAnywhere Installers bundle the JRE as a directory inside the macOS installer. The following shows the **Bundle JRE as Directory** option selected:
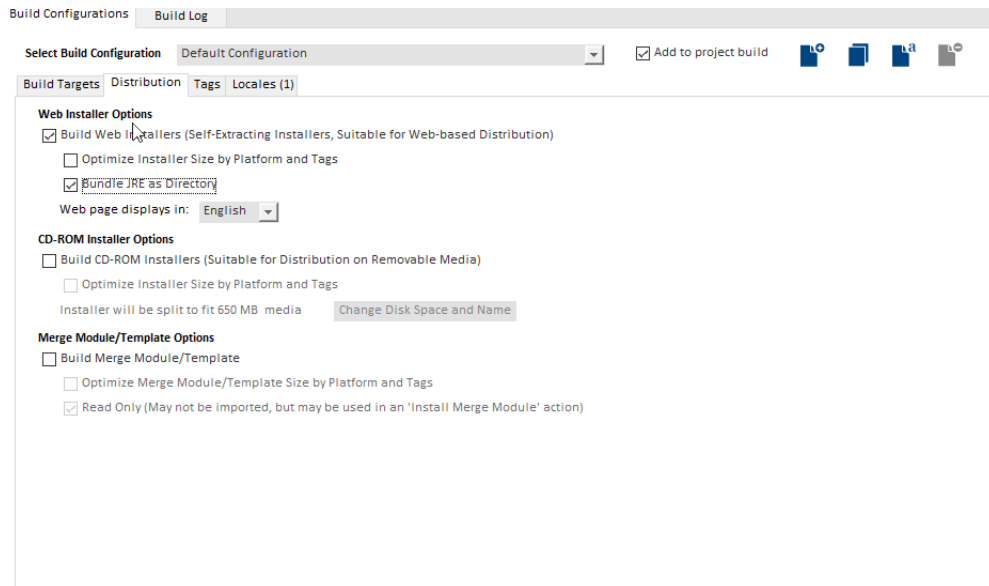
Figure 4: Bundle JRE as Directory Option

If the **Bundle JRE as Directory** option is unchecked, the JRE in the macOS installer is bundled as jre.zip. By default, this option is unchecked.

Note ▪ This new feature is applicable to DMG distribution with VM installers to macOS operating system.

Note ▪ This change was tracked in issue IOJ-2227434.

New Setting to Upgrade the App Notarization

On the **Platform > Project** page, under **Mac OS X > App Notarization**, InstallAnywhere 2022 R2 now includes a new field named **Team Identifier** to support the notarization of OS X-based installers.

In the **Team Identifier** field, you can define the team identifier information which is accessible on the Apple Developer certificate. If the **Notarize the Generated Installer** check box under **App Notarization** is selected, the **Team Identifier** field is enabled. The following shows the **Team Identifier** field enabled:

Figure 5: Team Identifier Enabled

In the **Team Identifier** field, enter the team identifier information which is accessible on the Apple Developer certificate.

Note ▪ This change was tracked in issue IOK-930701.

Support for macOS Ventura

The Setups created with InstallAnywhere 2022 R2 can now run on macOS Ventura version.

Note ▪ This change was tracked in issue IOK-883482.

New Features in InstallAnywhere 2022

InstallAnywhere 2022 includes the following features:

- Enhanced Get User Input Panel - Advanced

- New Project Property for Status Message Control

- Support to Register URL Prefix with Application

- New Option for Log Format

- New Property for Defining the Permission for Log File

- Upgrade of InstallAnywhere 2022 with 64-bit JDK

Enhanced Get User Input Panel - Advanced

Added a checkbox "Disable Next button if mandatory fields are empty" option in the Get User Input panel to enable/disable the Next button for notifying unfilled mandatory fields. Either you can select or not select this checkbox based on the requirement.

● When checked, the Next button in the Get User Input panel would be disabled until user enters a value in the mandatory text field.

● When unchecked, then a pop-up dialog appears prompting the user to provide values in the mandatory fields.

By default, this checkbox is unchecked.

Note ▪ *This change was tracked in issue IOJ-2237346.*

New Project Property for Status Message Control

Enhanced InstallAnywhere to configure whether actions should display status messages in Install & Uninstall progress panels or not. A new project property "Show Status Message" has been added in Installer UI > Custom UI Designer > Inner Install Frame for controlling status message. By default, this option is set to "Yes". If this option is set to "No", status messages will not be displayed above the progress bar on the Progress Panel during Install & Uninstall.
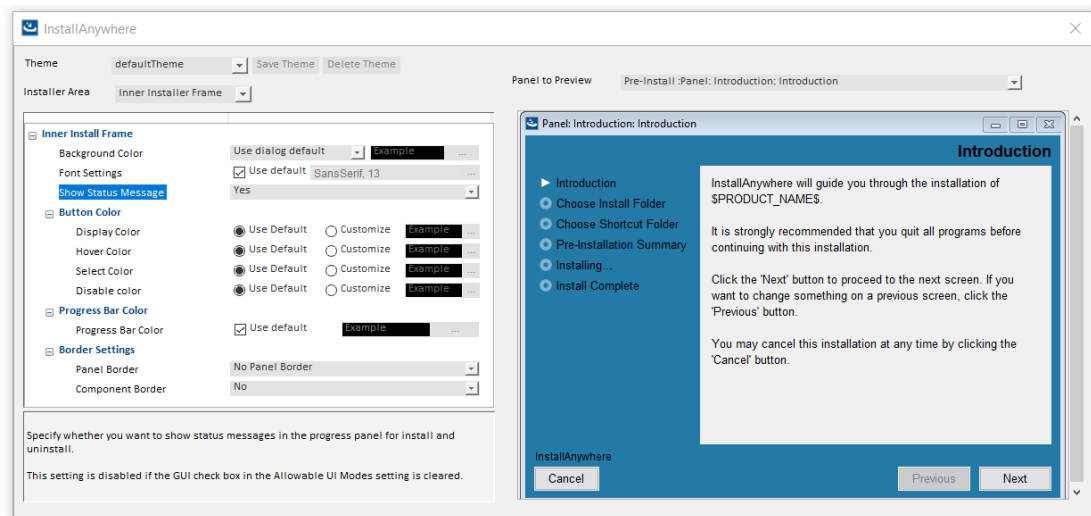
Note ▪ This change was tracked in issue IOJ-2239763.

Support to Register URL Prefix with Application

Enhanced "Associate File Extension - Windows" action to add support for registering URL Prefix with application. The action has been renamed to "Associate File Extension/URL Prefix - Windows". New property "URL Prefix' has been added in this action available in Install and Post-Install phases.

The URL Prefix can now be associated to an Existing or Installed application.
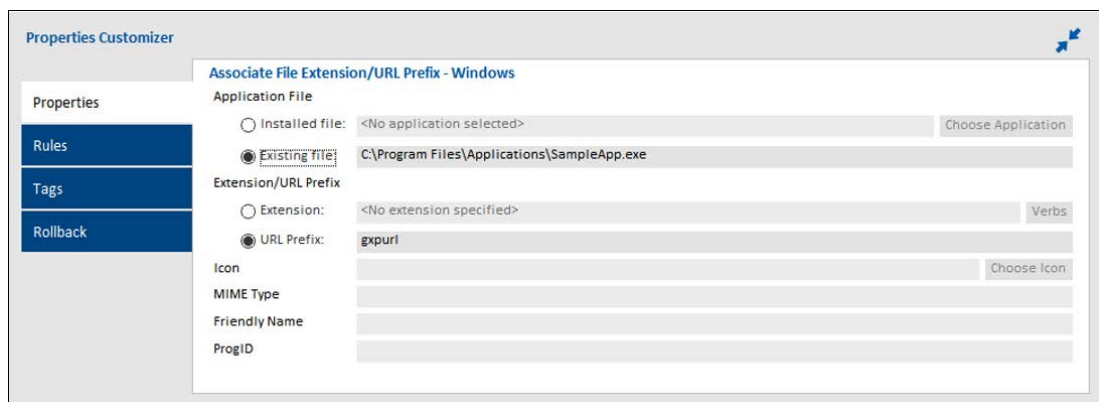
Note ▪ This change was tracked in issue IOK-668283.

New Option for Log Format

Added a new option "Show 24 hour date format in logs" in the Log Settings to display the log in 12-hour or 24-hour format. When "Show 24 hour date format in logs" is set, the logs are displayed in 24-hour log format. Else, the logs are displayed in 12-hour log format.

Note ▪ This change was tracked in issue IOJ-2210682.

New Property for Defining the Permission for Log File

Added a new property "Unix Permission for Logs" under Project > General Settings > Log Settings to define the permissions of the log file when installed in Linux operating system.

Note ▪ This change was tracked in issue IOJ-2183419.

Upgrade of InstallAnywhere 2022 with 64-bit JDK

Upgraded InstallAnywhere2022 with 64-bit JDK 1.8 for the automation jar to work with any Node-lock license checkout.

Note ▪ This change was tracked in issue IOJ-1748232.

Enhancements

InstallAnywhere 2022 includes the following enhancements:

● Enhancements in InstallAnywhere 2022

Enhancements in InstallAnywhere 2022

This section lists enhancements that were included in InstallAnywhere 2022:

● Support for Azul Platform Core (formerly Zulu) JREs

● Action for Multiple Files Deletion

Support for Azul Platform Core (formerly Zulu) JREs

InstallAnywhere now supports Azul Platform Core JRE v11 and v17.

Note ▪ This change was tracked in issue IOJ-2225669.

Action for Multiple Files Deletion

Added a "Delete Multiple Files" checkbox in the "Delete File Action" to delete multiple files of the same file extension in the given path.

Note ▪ This change was tracked in issue IOJ-1876946.

Important Information

Note the following important information regarding InstallAnywhere 2022:

- Evaluating InstallAnywhere
- Obtaining the Installation and License Files for InstallAnywhere

Evaluating InstallAnywhere

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. When you are using InstallAnywhere in this scenario, it operates in evaluation mode. The 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.

When you use InstallAnywhere in evaluation mode, there is a time limit for running installers that it creates. If you build an installer in the evaluation version of InstallAnywhere, your installer will stop working after 3 days.

When you use InstallAnywhere in evaluation mode, InstallAnywhere limits you to a maximum of five successful builds of Docker containers.

Obtaining the Installation and License Files for InstallAnywhere

You can obtain the installation and license files for InstallAnywhere through the Revenera Product and License Center. For instructions, see the Download and licensing instructions for InstallAnywhere. If you purchased concurrent licenses of InstallAnywhere, the license server software is also available for download from that same site.

Resolved Issues

This section lists the customer issues that were resolved in the following versions of InstallAnywhere 2022.

- InstallAnywhere 2022 R2

- InstallAnywhere 2022 R1

InstallAnywhere 2022 R2

The following issues have been resolved in InstallAnywhere 2022 R2:

Issue Number	Issue Summary
IOK-932419	Expressions saved from the **Manage Expressions** View are not accessible after restarting the saved project. This issue has been fixed.
IOK-932049	IBM requests a statement regarding the supported IBM JREs. This issue has been fixed.
IOK-931341	When the variables `JAVA_HOME` and `PATH` are set to IBM Semeru 17 Java, the installer fails to launch. This issue has been fixed.
IOK-931323	A project with an Execute Ant Script action is migrated to InstallAnywhere 2022, its build fails with errors due to missing dependencies of the Execute Ant Script action. This issue has been fixed.
IOK-884964	A panel in the Pre-Install Sequence which is displayed for the installer built with InstallAnywhere 2020, is skipped for the installer built with InstallAnywhere 2022. This issue has been fixed.
IOK-883482	Installed LaunchAnywhere launcher is blocked from execution on macOS Ventura. This issue has been fixed.
IOK-757218	InstallAnywhere 2021 IDE fails to launch on macOS Ventura beta. This issue has been fixed.
IOK-752957	Zlib was not upgraded from version 1.1.3 to version 1.2.13. This issue has been fixed.
IOK-752398	Running an installer on macOS using Java 11 generates an `Illegal reflective access operation` warning, and on macOS using Java 11 generates an `IllegalAccessException` message. This issue has been fixed.
IOJ-2244819	While building a project on Linux, if exported functions/environment variables contains a new line character, then the build is unable to read the **Build Time Variable** value for the IA_BTV environment variable. This issue has been fixed.

Issue Number	Issue Summary
IOJ-2227434	When a notarized DMG file is downloaded from the Internet, extracted JRE causes a warning dialog to display. This issue has been fixed.

InstallAnywhere 2022 R1

The following issues have been resolved in InstallAnywhere 2022 R1:

Issue Number	Issue Summary
IOJ-2254348	When installer was run with a Java 17 JRE, Choose Java Virtual Machine Panel threw exception and installer hung. This issue has been fixed.
IOJ-2254059	On Windows, the Pure Java installer built as CD-ROM distribution failed to launch and showed java.lang.UnsatisfiedLinkError. This issue has been fixed.
IOJ-2250236	On Windows, the uninstaller did not remove all files when USER_INSTALL_DIR was set to a path using a short name (8.3 name). This issue has been fixed.
IOJ-2244789	The files included from the bzip2 package in the installer and uninstaller.jar contained open vulnerabilities when the project was built with Expand Archive (TAR) action. Ant has been upgraded to version 1.10.12 to fix this issue.
IOJ-2244284	A behavior change in rule was found after migrating to InstallAnywhere 2021 SP2 with regards to symbolic links that do not exist when the installer is launched & gets created later during install time. This issue has been fixed.
IOJ-2242520	The version of license server (lmadmin) provided for download contained the vulnerable version of log4j. The updated lmadmin has been updated to the latest version of log4j.
IOJ-2242076	On Windows, if a file is selected without an extension in Choose File Panel or a File Chooser component on a Get User Input Panel, the panel did not allow to proceed further. This issue has been fixed.
IOJ-2233943	The ISMP services were not retrieved when using Java 16 or newer JRE at runtime. This issue has been fixed.
IOJ-2232702	Text on Cancel dialog truncated in installer run with Simplified Chinese locale when value of $PRODUCT_NAME$ ends with some combinations of two characters.This issue has been fixed.
IOJ-2229787	Custom Code action with dependency on Bouncy Castle Jars which are signed failed to be loaded due to ClassNotFound exception when run with Java 16 or above. This issue has been fixed.

Issue Number	Issue Summary
IOJ-2228318	Execute Custom Code action did not display warning icon when fully qualified class name used path separators rather than periods and failed with ClassNotFoundException at runtime. This issue has been fixed.
IOJ-2226048	Vulnerabilities reported using the version of Apache Commons Compress distributed with installer (1.16.1). Now, the upgraded the version of Apache Commons Compress included with installer to v1.21.
IOJ-2219412	On Windows, uninstaller did not use the same Product Registry that was used by the installer. This caused retaining the files in the Product Registry used by the installer. This issue has been fixed.
IOJ-2215198	Buttons enabled in Show Message Dialog panel appeared different in high DPI during runtime. This issue has been fixed.
IOJ-2215194	InstallAnywhere IDE hung when the project was saved multiple times consecutively. This issue has been fixed.
IOJ-2199456	The Null Pointer Exception was shown during Installation rollback when the project did not include the uninstaller. This issue has been fixed.
IOJ-2188482	In InstallAnywhere 2021, the invalid concurrent license file were generated using lmgrd and mvsn vendor daemon. This issue has been fixed.
IOJ-2185588	Project Automation APIs throws exception with Java 9 or above. This issue has been fixed.
IOJ-2124320	InstallAnywhere 2020 SP1 hung when open existing project was selected immediately after the launch. This issue has been fixed.
IOJ-2072626	The Execute Script/Batch File action failed when user name contains ampersand symbol (&) and open parenthesis ((). This issue has been fixed.
IOJ-2072021	ANT build of InstallAnywhere project runs with build.exe instead of build-as-invoker when it ran from a non-elevated command prompt causing the build to fail. This issue has been fixed.
IOJ-1918789	Only Simplified Chinese option and not Traditional Chinese option was displayed on Language Selection Panel when the system run under the Chinese (Traditional, Hong Kong S.A.R.) locale. This issue has been fixed.
IOJ-1890693	On Linux, the Preparing to Install strings on console was not Localized when launching the Installer from a read-only directory. This issue has been fixed.
IOJ-1777956	Icon for popup messages was not displayed properly on high dpi Windows 10 and Windows 2016 Server. This issue has been fixed.

Issue Number	Issue Summary
IOK-668280	Windows Registry entries added by Set Windows Registry (Single or Multiple) action were not removed during uninstallation. This issue has been fixed.
IOJ-2223616	The "Restart Windows" action was not documented clearly for the restart prompt on the "Uninstall Complete Panel" to function correctly. The user guide has been updated with the necessary information.
IOJ-2205580	The examples were not documented for the "Archive Path" field in the "Modify Text File - In Archive" action. The user guide has been updated with the examples for the Archive Path field.
IOJ-2191487	The documentation for "Get User Input - Console" was not mentioned in the user guide. Added detailed procedures for "Get User Input - Console" in the user guide.
IOJ-2092155	The documentation did not specify about Windows Pure 64-bit target in the InstallAnywhere Ant Task Reference under Build Configurations. The user guide has been updated with the Windows Pure 64-bit target for InstallAnywhere Ant Task Reference.
IOJ-2081155	The less bookmarks were found in the IA 2018 and IA 2020 user guides. Added the bookmarks to the user guides.

System Requirements

The following are the system requirements for InstallAnywhere 2022:

- Requirements for Systems that are Running InstallAnywhere (Authoring Environment)
- Requirements for Target Systems (Installer Run-Time Environment)
- Requirements for Target Systems (Installer Run-Time Environment)
- Supported Java Virtual Machines

Requirements for Systems that are Running InstallAnywhere (Authoring Environment)

RAM

256 MB; 512 MB preferred

Hard Disk Free Space

500 MB

Color

High color (16-bit color depth)

Resolution

Minimum 1200 x 800

Operating System

InstallAnywhere runs on the latest versions of these operating systems, fully updated with the most recent patches and service packs.

Operating System	Supported Versions
Windows	• Windows 11 (version 21H2)
	• Windows 10 (20H2) and Windows 10 21H2 (10.0.19044.1806)
	• Windows Server 2012 R2, 2016, 2019, and 2022
	• Windows 7 and 8.1 (x86 and x64)
Apple	• macOS Ventura (13) with Oracle and Amazon Corretto Java 11.0.15+
	• macOS Ventura (13) with Oracle and Amazon Corretto Java 11.0.15+ on Apple M1
	• macOS Montarey (12) with Oracle and Amazon Corretto Java 11.0.7+ on Apple M1
	• macOS Big Sur (11) with Oracle and Amazon Corretto Java 11.0.7+
	• macOS Big Sur (11) with Oracle and Amazon Corretto Java 11.0.7+ on Apple M1
	• macOS Catalina (10.15) with Oracle Java 11.0.7+
	• macOS Mojave (10.14) with Oracle Java 8, 9, 10 or 11 or 12

Operating System	Supported Versions
Linux	• Red Hat Enterprise Linux 7.9, 8 (x64), 8.3, 8.4, 8.5, 8.6, 8.7, 9.0, and 9.1
	• OpenSUSE Leap 42.3 (x64)
	• OpenSUSE Linux 15.3, and 15.4
	• SUSE Linux Enterprise 15
	• Linux PPC 64-bit (build time only) only with Java 8
	• Ubuntu 21.4, 22.04, and 22.10
	• Fedora 34, 36, and 37
	• CentOS Stream 9.0

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 node-locked 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.

Installers can be built from any supported authoring platform for any other supported target platform or language. Localizations for 32 languages are included.

Requirements for Target Systems (Installer Run-Time Environment)

RAM

64 MB

Color

High color (16-bit color depth)

Resolution

Minimum 640 x 480

Operating System

Installers run on any version of these operating systems, as long as the operating system supports Java 7, 8, 11, or 17. InstallAnywhere-generated installers are not supported on beta versions or on early-access releases unless they are explicitly mentioned.

Operating System	Supported Versions
Windows	- Windows 11 (version 21H2) - Windows 10 (20H2) and Windows 10 21H2 (10.0.19044.1806) - Windows Server 2012 R2, 2016, 2019, and 2022 - Windows 7 and 8.1 (x86 and x64) *Note • Windows-based target systems must also support the SSE2 instruction set.*
Apple	- macOS Ventura (13) with Oracle and Amazon Corretto Java 11.0.15+ - macOS Ventura (13) with Oracle and Amazon Corretto Java 11.0.15+ on Apple M1 - macOS Montarey (12) with Oracle and Amazon Corretto Java 11.0.7+, Java 17 on Apple M1 - macOS Big Sur (11) with Oracle and Amazon Corretto Java 11.0.7+, Java 17 - macOS Big Sur (11) with Oracle and Amazon Corretto Java 11.0.7+, Java 17 on Apple M1 - macOS Catalina (10.15) with Oracle Java 11.0.7+ - macOS Mojave (10.14) with Oracle Java 8, 9, 10 or 11 or 12

Operating System	Supported Versions
Linux	• CentOS Stream 9.0
	• Red Hat Enterprise Linux 7.9, 8 (x64), 8.3, 8.4, 8.5, 8.6, 8.7, 9.0, and 9.1
	• Red Hat Enterprise Linux 7.2 and 8 for PowerPC (little endian)
	• Red Hat Linux 7.1 and 8 for PowerPC (little endian - silent and console mode only)
	• OpenSUSE Linux 15.3 and 15.4
	• Oracle Linux 8.5 and 9
	• SUSE Linux Enterprise 15
	• Ubuntu 21.4, 22.04, and 22.10.
	• Fedora 34, 36, and 37.
Solaris	• Solaris 11 (x86 and SPARC)
	• Solaris 9, 10 (x86, SPARC, and AMD-64)
	• HP-UX
HP-UX	• HP-UX 11i (Itanium 2 and PA-RISC)
AIX	• AIX 7.1 and 7.2 (Power/PowerPC)
IBM	• i5/OS (OS/400) on System i - V5R3 and V5R4 (Enterprise Edition only), IBM i 6.1, and IBM i 7.1
	• z/OS
Other	• FreeBSD
	• Other Linux and UNIX operating systems (POSIX-compliant shell required)

Supported Java Virtual Machines

InstallAnywhere supports the following Java virtual machines:

Manufacturer	Supported Versions
IBM	1.8.x, 9, 11, and 17
HP	1.8.x, 9, and 11.0.2
Sun/Oracle	1.8.x, 9, 10, 11, 11.0.7, 12, 14.0.1, 15, 17, 18, and 19
OpenJDK	1.8.x, 9, 11, 11.0.7, 12, 14.0.1, 15, 17, 18, and 19

Manufacturer	Supported Versions
Amazon Corretto	8, 11, 11.0.7, 15, 17, 18, and 19
AdoptOpenJDK	11.0.7, 15, and 16
Azul Platform Core JRE	11, 17, 18 and 19

The InstallAnywhere installer installs OpenJDK11.0.2 and OracleJRE180u202. 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 JRE VM packs, visit https://www.revenera.com/install/products/installanywhere/installanywhere-files-utilities.html and click the VM Packs option.

InstallAnywhere-generated installers are not supported on beta versions or on early-access releases of Java.

Known Issues

There is no known issue in InstallAnywhere 2022.

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