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Legal Information

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AdminStudio 2019 Evaluation Guide

AdminStudio makes short work of application deployment chores such as updates, new releases, new applications, and Windows 10 migrations. More than a packaging tool, AdminStudio arms your IT team with a complete application readiness solution, enabling you to identify and mitigate issues before pulling the deployment trigger. No more surprises.

With AdminStudio, you can:

- Improve service quality and streamline service delivery
- Decrease risk and embrace new technologies faster
- Eliminate mobile application security and compatibility concerns
- Reliably prepare and deploy application virtualization formats
- Integrate seamlessly with leading software deployment systems
- Simplify and unify application management with standardized processes
- Boost efficiency with a central application repository
- Identify application packaging issues in minutes instead of days

You can use this Evaluation Guide to quickly learn how to use AdminStudio to prepare Windows Installer, virtual applications, web applications, macOS desktop applications, and mobile applications for deployment. This Evaluation Guide is organized into the following sections:

Table 1 • AdminStudio 2019 Evaluation Guide

Section	Description
Getting Started	Explains what is included in this Evaluation Guide and how to get started.
New Features	Provides an overview of the new features in AdminStudio 2019.

AdminStudio 2019 Evaluation Guide ADS-2019-EG00

Table 1 • AdminStudio 2019 Evaluation Guide

Section	Description
Setting Up AdminStudio Infrastructure	Explains how to perform the one-time set-up tasks that you need to complete prior to using AdminStudio including creating an Application Catalog, configuring a virtual machine, configuring e-mail settings, and specifying server connection settings.
Migrating to Windows Installer	Explains how to convert a sample setup to a Windows Installer package, import it into the Application Catalog, test it for operating system compatibility, best practices, and conflicts, and then prepare it for distribution.
Migrating to Application Virtualization	Explains how to use the Automated Application Converter to convert Windows Installer packages to virtual packages, and then test and distribute the virtual packages.
Testing for Application Compatibility	Explains how to use Application Manager to test packages for compatibility with the latest versions of Microsoft Windows, Windows Server, macOS, Apple iOS, Google Android, and Windows Phone operating systems, as well as to test web applications for compatibility with Internet Explorer 11 and Microsoft Edge.

Getting Started

This section explains what is included in this Evaluation Guide and how to get started:

- About Evaluating AdminStudio
- Purpose of Evaluation Guide
- Organization of Evaluation Guide
- Evaluation Guide Data Files

About Evaluating AdminStudio

You can choose to evaluate AdminStudio for 21 days. By clicking **Continue to Evaluate AdminStudio** dialog box that opens when you launch AdminStudio, you can begin evaluating the AdminStudio Enterprise Edition client tools.

Information about evaluating the AdminStudio client tools includes the following topics:

- AdminStudio Client Tools Evaluation Restrictions
- Evaluating AdminStudio's Microsoft App-V Support
- Evaluating the Automated Application Converter "Multiple Application" Option

AdminStudio Client Tools Evaluation Restrictions

When you run AdminStudio in trial/evaluation mode, all of its features are fully available, with the following restrictions:

- Can create only one Application Catalog

 —You are permitted to create only one Application Catalog, and it must be named AdminStudio Evaluation Catalog.
- **Ten package import limit**—Only 10 total packages (of one or more deployment types) can be imported into the Application Catalog.
- Package deletion not permitted—After you import a package into the Application Catalog, you are not permitted to
 delete it.
- AdminStudio Platform API support is disabled—All platform support is disabled.

Evaluating AdminStudio's Microsoft App-V Support

While evaluating the AdminStudio Enterprise Edition client tools, you will be able to convert a Windows Installer package to an App-V application using the Automated Application Converter, Conversion Wizard, Repackager, and the InstallShield App-V Assistant. However, an App-V application built using an evaluation version of AdminStudio will display the following message every time it is launched:



Figure 1: Evaluation Version Message

After activating AdminStudio, you will be able to remove this message by rebuilding the App-V application.

Evaluating the Automated Application Converter "Multiple Application" Option

The Multiple Application option of Automated Application Converter is only available when you purchase AdminStudio Enterprise Edition.



Note • With AdminStudio Standard or Professional Editions, you will only be able to convert one package at a time, using one virtual machine.

When using an evaluation version of AdminStudio, you will be able to use Automated Application Converter to convert a directory full of Windows Installer packages into individual virtual packages, but the conversion will be limited to three packages per run, using only one virtual machine. Therefore, only the first three packages that Automated Application Converter encounters will be converted to virtual applications.

Purpose of Evaluation Guide

The purpose of this Evaluation Guide is to help system administrators and other reviewers learn how to quickly get started using AdminStudio to prepare Windows Installer and virtual applications for deployment. By performing the exercises in this Evaluation Guide using the provided data files, you will learn how to:

- Create an Application Catalog
- Repackage a sample package

- Import packages into the Application Catalog
- Test Windows Installer packages, App-V packages, and web applications
- Configure a virtual machine for use in automated repackaging
- Convert Windows Installer packages to virtual applications
- Distribute Windows Installer and App-V packages
- Perform operating system compatibility and browser compatibility testing

Organization of Evaluation Guide

This Evaluation Guide provides exercises that guide you through performing the following key procedures:

Table 2 • Evaluation Exercises

Procedu	ıre	Procedure
	Setting Up AdminStudio Infrastructure	In these set of exercises, you will perform the one-time setup tasks that are necessary to get started using AdminStudio:
		Creating an Application Catalog
		Configuring a Virtual Machine
		Setting E-Mail Notification Settings
		Entering Server/Database Connection Settings
	Migrating to Windows Installer	In this set of exercises, you will migrate a sample setup (such as an .exe file) to a deployable Windows Installer package (.msi):
		Repackaging a Sample Package
		Importing Packages into the Application Catalog
		Testing a Repackaged Application and Resolving Issues
		Distributing a Repackaged Application
	Migrating to Application Virtualization	In this set of exercises, you will migrate a set of applications into virtual applications that are ready for deployment:
		Identifying Packages to Virtualize
		Converting to Virtual Formats
		Testing and Distributing Converted Packages
	Testing for Application Compatibility	In this set of exercises, you will test Windows Installer packages for application readiness on the latest versions of Microsoft Windows and Windows Server. You will also test web applications for compatibility with Internet Explorer 11 and Microsoft Edge.
		Importing Packages, Web Applications, and Mobile Apps
		Selecting Tests to Run and Setting Default Fix Option
		Performing Testing and Viewing Results

These four main procedures are also featured on AdminStudio's Start Page.

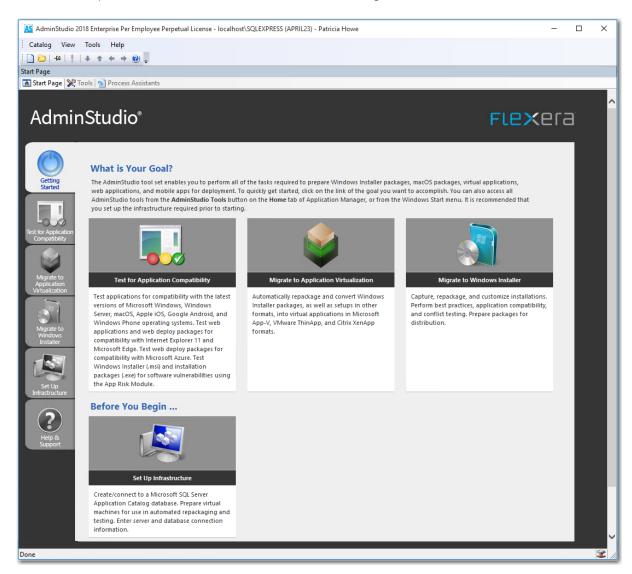


Figure 2: AdminStudio Start Page

Each subtab of the Start Page includes a flowchart that lists the steps in each procedure. For example, the following flowchart is displayed on the **Migrate to Windows Installer** tab:

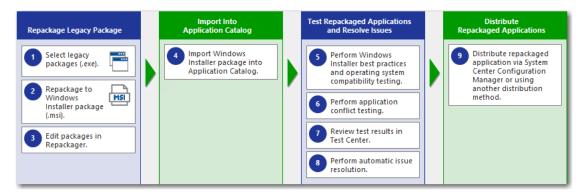


Figure 3: Migrate to Windows Installer Tab of AdminStudio Start Page

Evaluation Guide Data Files

To perform the exercises in the AdminStudio Evaluation Guide, you will be using the sample data that is provided in the AS2019EvalGuideDataFiles.zip file. These data files are organized into the following directories:



Figure 4: Directory Structure of AdminStudio Evaluation Guide Data Files

These data files demonstrate the recommended organizational structure that you should use when you want to import a directory of packages into the Application Catalog:

- One root directory—Organize the packages you want to import in one root directory (AS2019EvalGuideDataFiles in this example).
- **Each application in a subdirectory**—Each application should be stored in its own first level subdirectory (such as SampleKit or SampleApplicationTarget).
- Each deployment type in a sub-subdirectory—Each deployment type should be stored in its own sub-subdirectory
 (AppV, MSI, etc.) of the application directory.

Unzip this data file and place its contents in a location accessible to your installation of AdminStudio, such as:

C:\AS2019EvalGuideDataFiles

New Features

This section lists the new features that are included in AdminStudio 2019:

- Windows 10 Continuous Compatibility
- MSIX Automated Batch ConversionNew Powershell Cmdlets
- New Powershell Cmdlets

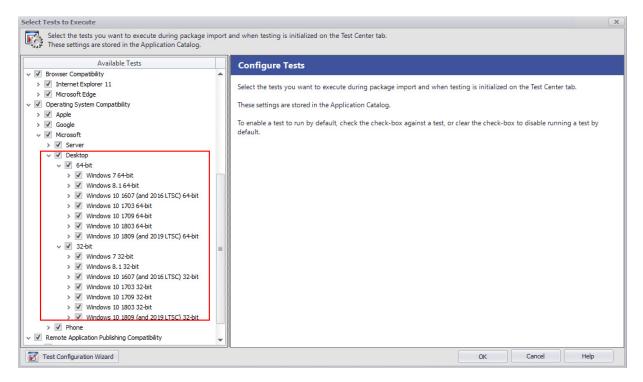
Windows 10 Continuous Compatibility

In AdminStudio 2019, application's compatibility against each specific version of Windows 10 can be tested.

- Test Selection Wizard
- Analyze Tab
- Reports Tab

Test Selection Wizard

In AdminStudio 2019, you can select one or more versions of Windows 10 in the Test selection wizard to test the operating system compatibility.



Analyze Tab

In AdminStudio 2019, you can view the operating system compatibility details for different versions of Windows 10 in the following places:

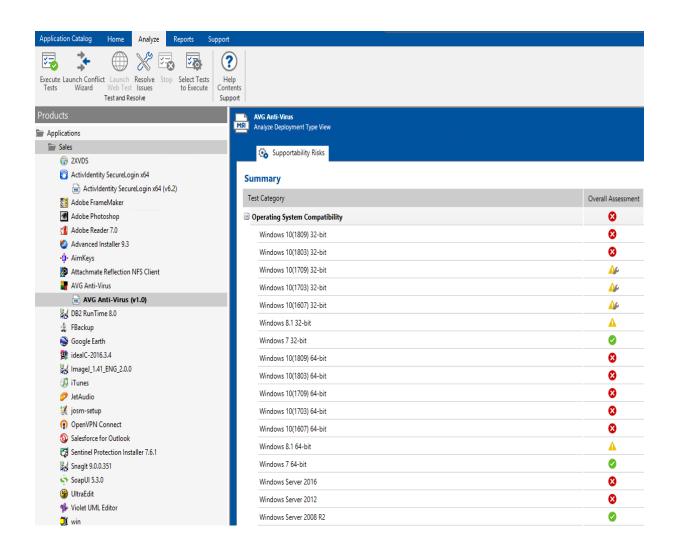
Chart View

In AdminStudio 2019, you can select different versions of Windows 10 in the operating system compatibility chart view.



Summary View

In AdminStudio 2019, you can view the package summary for different versions of Windows 10 in the operating system compatibility tab.



Reports Tab

In AdminStudio 2019, you can see the operating system compatibility for different versions of Windows 10 in the following reports:

Application Readiness Dashboard Report

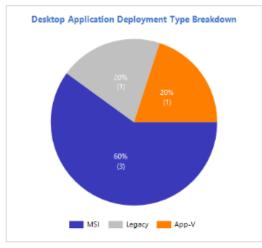
In AdminStudio 2019, you can see the operating system compatibility for different versions of Windows 10 in Application Readiness Dashboard report.

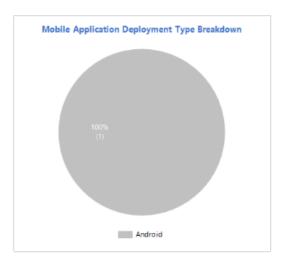
Application Readiness Dashboard

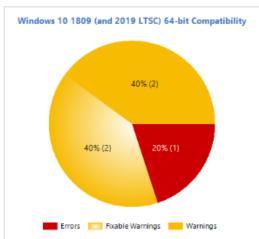
Catalog Name: April-2-2019
Applications: 6
Groups: 1

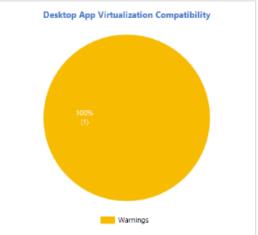
This report shows the deployment type breakdown of the applications in your Application Catalog as well as results of operating system and virtualization compatibility testing for desktop applications. It also shows the results of Windows Installer and App-V best practice testing.

Note: To open more detailed reports, click on categories in the charts below.









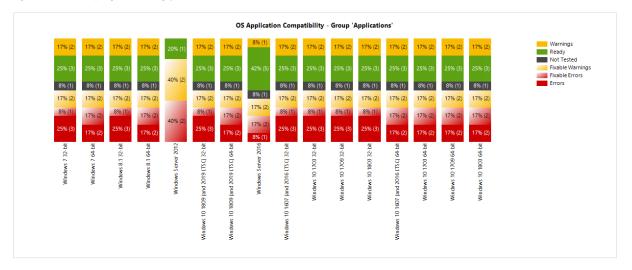
Operating System Compatibility Group Dashboard Report

In AdminStudio 2019, you can see the overall status of operating system application compatibility testing for group applications containing 5 packages in **Operating System Compatibility Group Dashboard** Report.

AdminStudio[®]

Operating System Application Compatibility

This report shows the overall status of operating system application compatibility testing for group 'Applications' containing 5 packages . Each segment shows the number of packages in its status category.



Detailed Compatibility Results

In AdminStudio 2019, you can click on the **OS Application Compatibility - Group Application** chart to drill down to the detailed compatibility results.

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Windows 10 1607 (and 2016 LTSC) 64-bit Compatibility Results - Fixable Warnings Group 'Applications'

This report lists the packages for which automatically fixable warnings were found. It shows the warning count including how many of them are automatically fixable.

Package Name \$	Product Version	Warnings	Fixable Warnings	Fixed Errors	Fixed Warnings
Orca	3.1.3790.0000	16	3	0	0
Network Provider Order setting to standard 1.0 MUL 1.0.0	1.0	4	3	0	0

Overall Package Testing Results Report

In AdminStudio 2019, you can see the overall test results for Windows installer packages for different versions of Windows 10 in **Overall Package Testing Results Report**.

Overall Test Results for Windows Installer Packages

In this report, an icon indicates the test status of each Windows Installer package in the Application Catalog for all Test Center te categories, including OS compatibility, application virtualization compatibility, Windows Installer best practices, and conflict testing. Click on a row to see historical information for a package.

Package Name	Windows 10 1809 (and 2019 LTSC) 64-bit	Windows 10 1809 (and 2019 LTSC) 32-bit	Windows 10 1803 64-bit	Windows 10 1803 32-bit	Windows 10 1709 64-bit			Windows 10 1703 32-bit	Windows 10 1607 (and 2016 LTSC) 64-bit	Windows 10 1607 (and 2016 LTSC) 32-bit	Windows 8.1 64-bit				Windows 2012	Windows 2016	Microsoft App-V 4x	Microsoft App-V 5	VMware ThinApp		Citrix XenApp	Server App-V	Remote Desktop
7-Zip 9.20 (x64 edition)	1,2	€ 2e	100	€ 2€	100	€	1,2	€ 3e	1,2	€ 2e	100	€	1.2	€								_	
BlackBerry	€3	1.2	3	100	3	100	3	1.0	3	1.0	3	100	3	1,8								_	
ActivePerl Build 618	1.2	12	1.0	1.0	1.2	1.2	1.0	1.2	100	100	1.2	100	1.2	1.2			<u> </u>	A	A	A	<u> </u>	_	

Windows Desktop OS Compatibility Dashboard Report

In AdminStudio 2019, you can see the compatibility issues in pie chart format for different versions of Windows 10 in **Windows Desktop OS Compatibility Dashboard Report**.

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Operating System Application Compatibility

This report shows the overall status of operating system application compatibility testing for each operating system. Each slice shows the number of packages in a status category. To see a list of the packages in a specific status category, click on that slice.

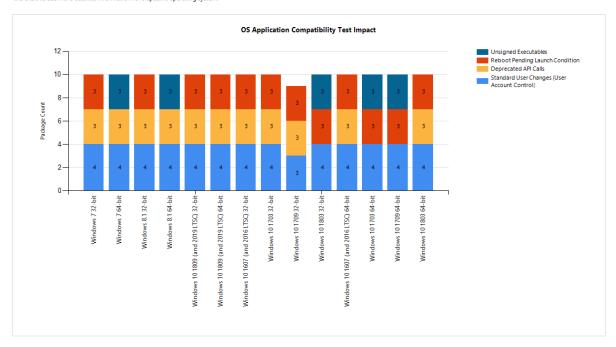


Test Impact Report

In AdminStudio 2019, you can see the reports of three OS compatibility tests for different versions of Windows 10 in **Operating System Compatibility by Test Impact Report**.

Operating System Compatibility By Test Impact

This report shows the top 3 OS compatibility tests that have detected issues in the most packages. Click on the chart to see more detailed information for a specific operating system.

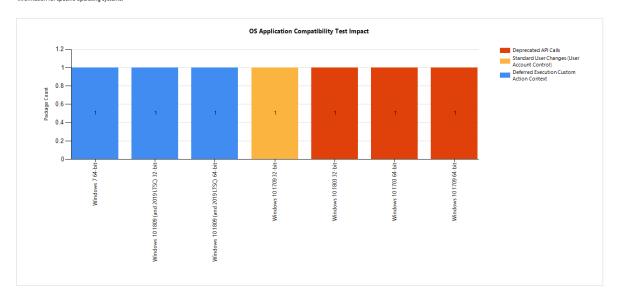


Test Suppression Report

In AdminStudio 2019, you can see the different versions of Windows 10 for three tests that have been suppressed in **Operating System Compatibility by Test Suppression Report**.

Operating System Compatibility Test Suppression Report

This report shows the top 3 tests that have been suppressed for the most packages. Click on the chart to see more detailed information for specific operating systems.

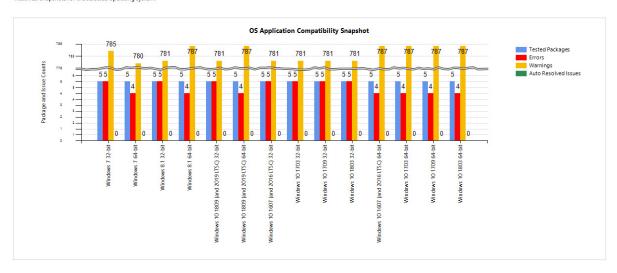


Snapshot Analysis Report

In AdminStudio 2019, you can see the compatibility testing error and warning for different versions of Windows 10 in **Operating System Compatibility Snapshot Analysis Report**.

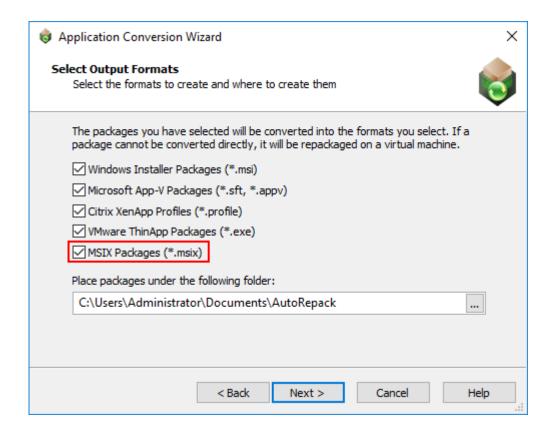
Operating System Application Compatibility Snapshot Analysis

This report shows the total operating system application compatibility testing error and warning status. Click on the chart to view historical snapshots for the selected operating system.



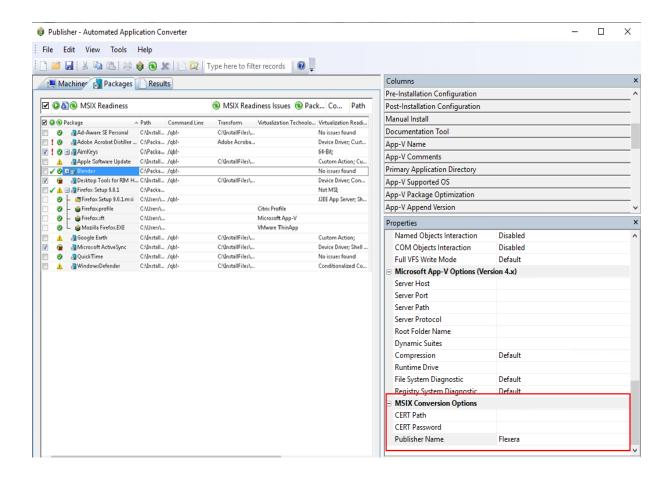
MSIX - Automated Batch Conversion

In AdminStudio 2019, you can now convert batch of MSI & EXE packages to MSIX using the Automated Application Converter tool.



Digital Signing of MSIX Package

In AdminStudio 2019, you can now digitally sign the MSIX package. To digitally sign the output MSIX package as part of conversion, specify Publisher Name, CERT Path and CERT Password in the Package Properties or **Tools >> Options**.



Testing MSIX Package in Remote Machine

Automated Application Converter tool uses the snap shot given in the **Snapshot Name**, In order to test the MSIX package in a remote machine, make sure the self signed certificate with the specified publisher name provided during conversion is installed in the remote machine.



Note • For more information on self signed certificate path with the specified publisher name, see Digital Signing of MSIX Package

New Powershell Cmdlets

The following powershell cmdlets are included in the AdminStudio 2019:

- New-ASCreateSoftwareTag Use to create a new Software Tag
- Set-ASSoftwareTagPropertes Use to set the Software Tag properties
- Invoke-ASSignPackage Invokes a signing process for the MSIX package

Consolidation of Functionality in Application Manager

In AdminStudio 2019, the focus has shifted to make Application Manager the central application in the entire AdminStudio toolkit. As demonstrated in the following diagram, all application readiness tasks can be either performed using Application Manager or launched from it.

AdminStudio® Application Manager

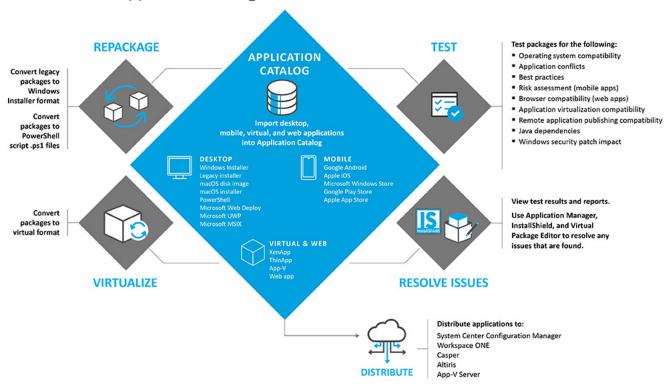


Figure 5: Application Manager Application Readiness Workflow

Ability to Launch AdminStudio Tools from Application Manager Home Tab

You can now launch other AdminStudio tools from the Application Manager **Home** tab by clicking the **AdminStudio Tools** button and making a selection from the menu.

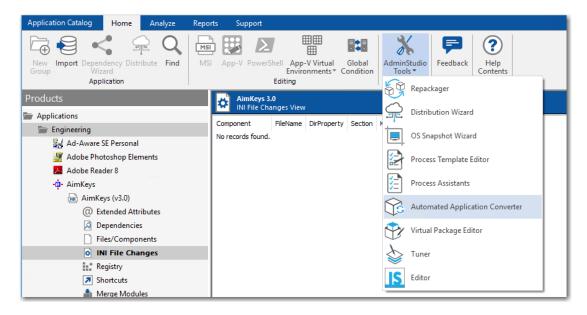


Figure 6: AdminStudio Tools Menu in Application Manager

Legacy Add-On Packs Now Included with Professional and Enterprise Editions

Starting with AdminStudio 2019, AdminStudio Professional and Enterprise Editions now include all of the features that were previously only available in the Virtualization, Application Compatibility, and Mac and Mobile add-on packs.

Starting with AdminStudio 2019, all virtualization, application compatibility, and Apple / macOS features are now available in Professional and Enterprise Editions at no extra cost. For a detailed breakdown of the features in the various AdminStudio editions, see the AdminStudio 2019 Release Notes.

InstallShield 2019

AdminStudio 2019 includes InstallShield 2019. For a complete list of new features in InstallShield 2019, see the InstallShield 2019 Release Notes.

Setting Up AdminStudio Infrastructure

The flowchart on the **Set Up Infrastructure** tab of the AdminStudio Start page lists the steps you need to perform before you can get started using AdminStudio.

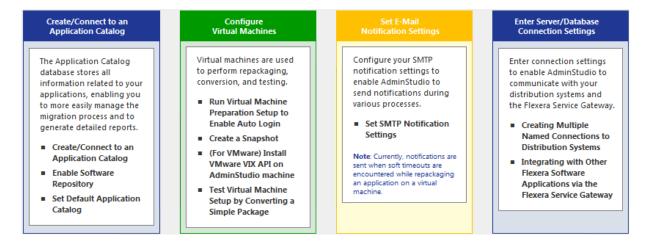


Figure 7: Set Up Infrastructure Tab of AdminStudio Start Page

These are specific one-time set-up tasks that you need to perform prior to using AdminStudio. To set up AdminStudio infrastructure, perform the following exercises:

- Creating an Application Catalog
- Configuring a Virtual Machine
- Setting E-Mail Notification Settings
- Entering Server/Database Connection Settings

Creating an Application Catalog

With AdminStudio, you manage your applications and their deployment types in an Application Catalog database, which stores all package information, including test results. This enables you to perform enterprise level data checking. You can share your Application Catalog between multiple AdminStudio users.

AdminStudio and many of its tools (such as Application Manager) require you to be connected to an Application Catalog, while others give you the option of working with packages on a local or network directory or from Microsoft System Center Configuration Manager Server.

In this exercise, you will create a new AdminStudio Application Catalog and set it as the default.

Table 3 • Create/Connect to an Application Catalog

#	Step	Instructions	Result
1.	Create an Application Catalog	Open AdminStudio and create a new SQL Server Application Catalog database named AdminStudio Evaluation Catalog, as described in Creating New Application Catalogs Using the AdminStudio Interface. Note • On the Select Software Repository Location panel of the Application Catalog Wizard, do NOT select the Enable Software Repository option.	AdminStudio is open and connected to a new Application Catalog named AdminStudio Evaluation Catalog.

Configuring a Virtual Machine

Virtual machines are used by Automated Application Converter during automated repackaging (performed during conversion to virtual applications) and when testing applications.

You need to prepare each virtual machine that you are going to use with the Automated Application Converter to perform automated repackaging or testing by doing the following:

- Run Virtual Machine Preparation setup—On each virtual machine you are going to use with the Automated
 Application Converter, run the Virtual Machine Preparation setup, an application that will enable automatic login. You
 need to run this application one time on all of the virtual machines that you are going to use with the Automated
 Application Converter.
- Create a snapshot—After you have run the Virtual Machine Preparation setup on a virtual machine, you need to shut
 it down and create a snapshot named AutoRepack_Base. This enables the Automated Application Converter to revert
 the virtual image to a clean state after each repackaging run.
- Install VMware VIX API (VMware only)—In order for the Automated Application Converter to perform automated repackaging, it needs to communicate with the virtualization technology that you are using. If you are using VMware virtualization technology (VMware ESX or ESXi Server or a local VMware Workstation 6.5 or later), you need to have the VMware VIX API installed on the same machine as the Automated Application Converter.

In this exercise, you will configure a virtual machine for use with Automated Application Converter.

Table 4 • Configure Virtual Machines

Result Step **Instructions** 1. **Run Virtual Machine** On a Microsoft Hyper-V Server image, VMware ESX/ When you restart the virtual machine image, you **Preparation setup** ESXi Server image, or VMware Workstation (6.5+) are automatically logged in and GuestAgent.exe to enable auto login image, run the virtual machine preparation setup. is launched. Auto Repackager Configuration - InstallShield Wizard 😝 Automated Application Converter - Guest Agent 🛛 📧 Welcome to the InstallShield Wizard for Auto Repackager Configuration Ready... This setup will configure the following items on this machine: - Copy the guest agent - Set the guest agent to run at logon - Disable UAC - Disable the Windows Firewall - Enable Network Discovery and File and Print Sharing - Configure auto logon with an administrator account provided Allow remote desktop connections Reboot the machine ⟨ Back Next > Cancel **Note** • For instructions, see Preparing Your Virtual Machines for Use With the Automated Application Converter. 2. Create a snapshot On the prepared virtual image, create a clean A clean snapshot named AutoRepack_Base exists snapshot named AutoRepack_Base. for repackaging on the virtual machine. Note • For instructions, see Taking a Snapshot in Preparing Your Virtual Machines for Use With the Automated Application Converter.

Table 4 • Configure Virtual Machines

Instructions Result Step 3. **Install VMware VIX** If you are using a VMware ESX/ESXi Server or The VMware VIX API is installed successfully. VMware Workstation image, you need to install the VMware VIX API on the AdminStudio machine. Welcome to the installer for VMware VIX The installer will install VMware VIX on your computer. To continue, $\mbox{\rm cick}\,\mbox{\rm Next.}$ WARNING: This program is protected by copyright law and international treaties. < Back Next > Cancel To install the VMware VIX API on the AdminStudio machine, do one of the following: Install VMware Workstation on the AdminStudio machine. Download and install the VMware VIX API on the AdminStudio machine. You can download the VMware VIX API from the following location: http://www.vmware.com/support/ developer/vix-api Note • For instructions, see VMware VIX API Requirement.

Table 4 • Configure Virtual Machines

#	Step	Instructions	Result
# 4.	Add a virtual machine to Automated Application Converter	Open Automated Application Converter by clicking Add Virtual Machines on the Set Up Infrastructure tab of the AdminStudio Start page. The Application Conversion Project Wizard opens. Cancel the wizard. Then open the Machines tab and follow the instructions in Adding Virtual Machines Using the Virtual Machine Import Wizard to add the prepared virtual machine to the Machines tab. Note • When prompted, save the Automated Application Converter project file to the following directory: C:\Users\YOURNAME\Documents\MyProject.aacx	A virtual machine is listed on the Machines tab of Automated Application Converter. Untitled - Automated Application Converter File Edit View Tools Help Machines Packages Results Windows Vista - 32 bit Windows 7 (x86) Any [ha-datacenter/L Remove Selected Ready
		All of the connection information for the virtual machine that you have set up is stored in the project file, so remember the name and location of your Automated Application Converter project file.	

Setting E-Mail Notification Settings

To enable AdminStudio to send you e-mail notifications during various processes, you need to configure your SMTP notification settings.

Currently, e-mail notifications are sent when soft time-outs are encountered while using Automated Application Converter to repackage an application on a virtual machine.

In this exercise, you will enter the SMTP settings for e-mail notifications. This enables AdminStudio to send notifications when a soft time out is encountered during repackaging on a virtual machine by Automated Application Converter.

Table 5 • Set E-Mail Notification Settings

#	Step	Instructions	Result
1.	Set SMTP Notification Settings	On the Notification Settings tab of the AdminStudio Options dialog box, enter your SMTP settings for e-mail notifications. Note • For instructions, see Setting E-Mail Notification Settings.	When you click Test on the Notifications Settings tab, a successful message opens. AdminStudio Test Succeeded. A test E-Mail has been sent to the To E-Mail ID(s).

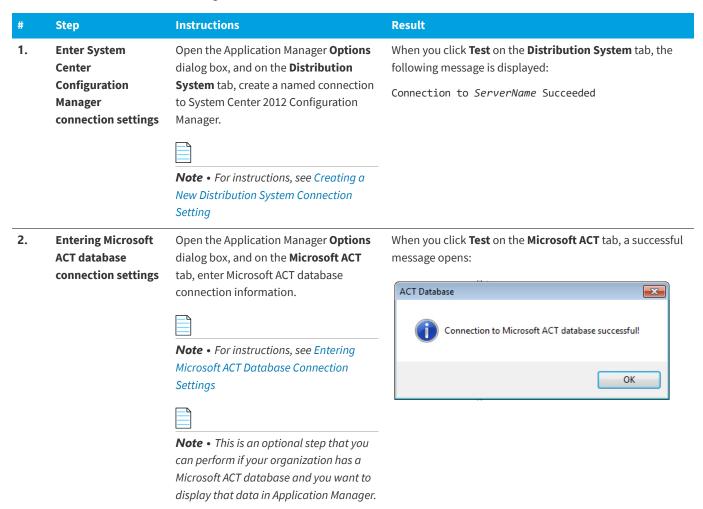
Entering Server/Database Connection Settings

In AdminStudio 2019, you can define multiple named connections to System Center Configuration Manager, Citrix XenApp, Symantec Altiris Client Management Suite, Microsoft Server App-V, JAMF Casper Suite, and AirWatch distribution systems. This enables you to both have multiple connections easily available during import and distribution, and to refer to those connection settings by name in Platform API commands.

You need to specify at least one named connection to a distribution system in order for Application Manager to import packages, distribute applications, or report on application deployment status.

To enable AdminStudio to display data from your Microsoft ACT (Application Compatibility Toolkit) database in views and reports, you need to enter connection information for your Microsoft ACT database.

Table 6 • Enter Server Connection Settings



Migrating to Windows Installer

The flowchart on the **Migrate to Windows Installer** tab of the AdminStudio Start page lists the steps you need to perform to migrate a sample setup (such as an .exe file) to a deployable Windows Installer package.

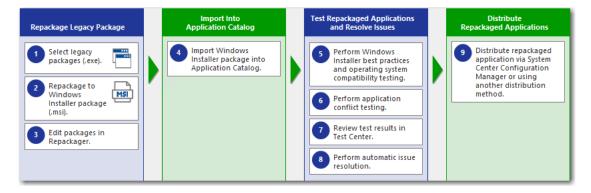


Figure 8: Migrate to Windows Installer Tab of AdminStudio Start Page

In this section, you will convert a sample setup named SampleApplicationSetup.exe to a Windows Installer Package, import it into the Application Catalog, test it for best practices, operating system compatibility, and application conflicts, and then prepare it for distribution using Distribution Wizard.



Important • It is preferable to repackage 32-bit applications on 32-bit operating systems. In this exercise, we will be repackaging a 32-bit application.

To migrate a sample application to a Windows Installer package, perform the following steps:

- Repackaging a Sample Package
- Importing Packages into the Application Catalog
- Testing a Repackaged Application and Resolving Issues

Repackaging a Sample Package

In this procedure, you will repackage a sample setup, perform some minor edits in Repackager, and then build a Windows Installer package.

Table 7 • Repackage a Sample Package

#	Step	Instructions	Result
1. 2.	Select and repackage a sample package (.exe) to a Windows Installer Package (.msi)	Use Repackaging Wizard (Installation Monitoring method) to repackage the following sample setup: C:\AS2019EvalGuideDataFiles\ SampleApplicationSetup\ SampleApplicationSetup.exe Important • It is recommended that you repackage this sample package on a clean machine. Save the captured data in the following directory: C:\Packages Note • For instructions, see Repackaging Using the Installation Monitoring Method.	The captured data was converted into a Repackager project file (SampleApplication.irp) and opened in the Repackager interface. Sample Application.irp - Repackager File View Project Build Tools Help Captured Installation Files and Folders Registry Entries Shortcuts Repackaged Output Package Information Software Identification Tag Advanced Settings

Table 7 • Repackage a Sample Package

#	Step	Instructions	Result				
3.	Edit package in Repackager and build Windows Installer package	To exclude files that are not part of the package, open the Files and Folders view, right-click on the [WindowsVolume] folder and select Exclude All from the context menu. Click Save . Note • For instructions, see Excluding All Files in a Directory.	The [WindowsVolume] folder is displayed in red to indicate that it is excluded: [WindowsVolume] [ProgramFilesFolder] [WindowsFolder]				
		Open the Repackaged Output view and click Build to build a Windows Installer package. Note • For instructions, see Building a Windows Installer Package.	The Repackager project file has been converted to a Windows Installer package, located in the following directory: C:\Packages\MSI_Package\ SampleApplication.msi				
		Copy all of the files in the C:\Packages\MSI_Package directory (including the SampleApplication.msi file) to the following directory on the machine where AdminStudio is installed: C:\AS2019EvalGuideDataFiles\ SampleApplicationSetup\	New Windows Installer package (and other associated files) are now in the same main directory as the other evaluation data files. Sample Application.Context.ism Sample Application.Context.msi Sample Application.ism Sample Application.msi Sample Application.msi Sample Application.msi Sample Application.Softwareld.cab				

Importing Packages into the Application Catalog

In this procedure, you will import Windows Installer packages into the Application Catalog, including the one you created in Repackaging a Sample Package:

Table 8 • Import Into Application Catalog

Instructions Result Step 4. **Import Windows** Before beginning import, open the Application The packages are now listed in the Application Installer package Manager **Options** dialog box and clear the Manager tree, each under its own Application into Application selection of the **Automatically Execute Tests** node: Catalog After Import option. **Applications** Next, use the Import Wizard to import all of the 🔯 Sample Application packages in the AS2019EvalGuideDataFiles Sample Application (v3.0) Sample Application Source directory. Sample Application Source (v1.00.0000) On the Source panel, select Folder of 🕌 Sample Application Target Sample Application Target (∨1.00.0000) multiple applications. 🔛 Sample Kit On the **Package Type Selection** panel, select Sample Kit (v17.00.000) the Microsoft Windows Installer package (.msi) option On the **Package Folder Selection** panel, select the C:\AS2019EvalGuideDataFiles directory. On the **Select Applications** panel, leave all of the applications selected. On the **Destination Group** panel, select the Applications folder in the tree. Do not select the Create subgroups based on source folder structure option. Note • For instructions on how to import a directory of packages into the Application Catalog, see Importing a Folder of Multiple Packages.

Table 8 • Import Into Application Catalog

#	Step	Instructions	Result
4.	Import Windows Installer package into Application Catalog (Continued)	Create a new group in the Application Manager tree named Engineering and move the Sample Application into that new group.	The Application Manager tree should now be organized as follows:
		Note • For instructions, see Adding Groups and Organizing Applications in Application Manager.	■ Applications ■ Engineering ■ Sample Application □ Sample Application Source □ Sample Application Source (v1.00.0000) □ Sample Application Target □ Sample Application Target (v1.00.0000) □ Sample Kit □ Sample Kit
		Create another new group in the Application Manager tree named Marketing, and move the other three applications into that group.	The Application Manager tree should now be organized as follows: Applications Engineering Sample Application Marketing Sample Application Source Sample Application Target Sample Kit

Testing a Repackaged Application and Resolving Issues

In this procedure, you will test the Windows Installer packages you imported into the Application Catalog, and then distribute a package to a network location.

Table 9 • Test and Distribute Repackaged Applications

Step Instructions Results

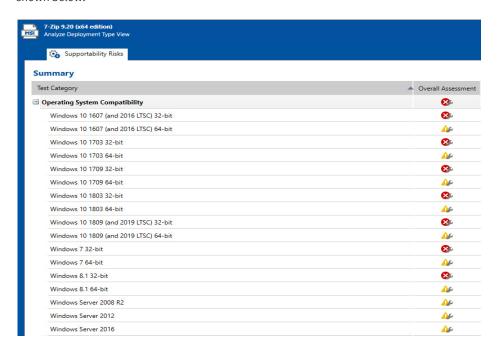
5. Perform Windows
Installer best
practices and OS
compatibility
testing

To perform Windows Installer best practices and operating system compatibility testing on all of the packages in the Application Catalog, first select the **Analyze** tab in the Application Manager ribbon. Then, select the **Applications** group in the Application Manager tree, and click **Execute Tests**.



Note • For more information, see Performing Compatibility and Best Practices Testing.

When testing is finished, view the test results by selecting a Windows Installer package in the tree to open the **Summary** view on the **Supportability Risks** tab of the **Analyze Deployment Type View**, as shown below:



On **Analyze** tab views, groups, applications, and packages are assigned a test status in each test group using status icons. For packages, the status icon identifies that package's test status (as described in **About Status Icons**). For groups and applications, Application Manager considers all of the packages in that group or application, and displays the status icon for the package that has the status at the highest hierarchical level, as described in the **Hierarchical Level of Status Icons** section of the About Status **Icons** help topic.



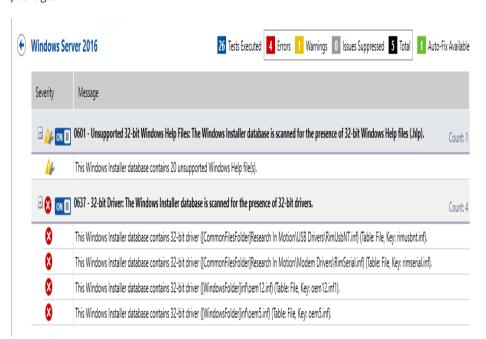
Note • For more information, see Viewing Summary Test Results.

Table 9 • Test and Distribute Repackaged Applications

Step Instructions Results Use the Conflict Wizard to detect conflicts between the following two packages: Source: Sample Application Source Target: Sample Application Target Note • For instructions, see Testing for Conflicts Between Packages.

7. Review test results

When application conflict testing is finished, view the test results by selecting the Sample Application Source MSI package in the tree, and then clicking on **Windows Installer Conflicts** under **Application Conflicts** on the **Supportability Risks** tab of the **Analyze Deployment Type View**. Errors and warnings are listed. Click the plus sign next to a test name to view individual error/warning messages for that package:



Next, click the suppress (ON/OFF) button next to the **Identical Merge Modules** error to suppress that test from test totals and from automatic resolution. The button toggles to the OFF position and the error icon turns to gray.



Note • For more information, see the following topics:

- Viewing Detailed Package Test Results
- Viewing Application Conflicts Test Results
- Filtering Test Results by Suppressing Errors/Warnings

Table 9 • Test and Distribute Repackaged Applications

Step

Instructions

Results

8. Perform automatic issue resolution

Issues for which automatic fixes are available are identified by the Error With Fix or Warning With Fix icon:





To automatically resolve all issues for which automatic fixes are available, select the **Applications** group node in the tree and click **Resolve Issues** on the **Analyze** tab of the ribbon.



Note • For more information, see Performing Automatic Issue Resolution. Issue resolution begins, progress messages appear in the Output window, and Application Manager performs the following tasks:

- Reruns tests—Application Manager reruns all of the selected tests to ensure that the issues that it is going to resolve still exist in the current version of the package and its associated transforms.
- Creates transform files—To resolve issues, Application Manager generates fix transform files.
- Reimports packages—Application Manager then automatically reimports each package and its fix transform files into the Application Catalog.

When issue resolution and reimporting is complete, look at the **Analyze Group View**, **Application View**, or **Deployment Type View** of the package, application, or group that you tested. You will see that the Error With Fix and Warning With Fix icons have been replaced with the status icon with the next highest level (as described in the **Hierarchical Level of Status Icons** section of the About Status Icons help topic) in that test category.

Distributing a Repackaged Application

In this procedure, you will distribute a Windows Installer package to a network location.

Table 10 • Distribute a Repackaged Application

#	Step	Instructions	Results
9.	Distribute repackaged application	Use the Legacy Distribution Wizard to distribute the Sample Application Windows Installer package to a Network location. You open the Legacy Distribution Wizard by opening the Home tab of the ribbon, selecting the Windows Installer package node and then selecting Distribute Package from the context menu.	SampleApplication.msi is copied to the specified network location, making it available to your enterprise.
		For instructions on how to distribute a package to a network location, see Distributing Packages to Network Locations.	
		Note • To distribute an application to a System Center 2012 Configuration Manager, Citrix XenApp, Symantec Altiris, JAMF Casper Suite, or AirWatch, select the application node in the tree and then click the Distribute button in the ribbon. You must have already set up a named connection to that distribution system on the Options dialog box.	
		Note • You can publish applications containing App-V 4.x packages and Citrix XenApp profiles to Citrix XenApp server, and can publish applications containing Windows Installer, Symantec Workspace, VMware ThinApp, or legacy installers to Symantec Altiris server.	
		If an application contains a package of an unsupported deployment type, that package will be ignored.	

Migrating to Application Virtualization

The flowchart on the **Migrate to Application Virtualization** tab of the AdminStudio Start page lists the steps you need to perform to migrate your application portfolio into virtual applications that are ready for deployment within the enterprise.

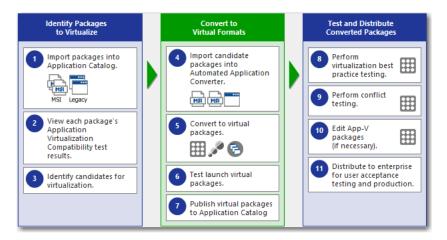


Figure 9: Migrate to Application Virtualization Tab of AdminStudio Start Page

In this section, you will use the Automated Application Converter to convert Windows Installer packages to virtual packages, and then test and distribute the virtual packages.

To migrate your application portfolio into virtual applications, perform the following steps:

- Identifying Packages to Virtualize
- Converting to Virtual Formats
- Testing and Distributing Converted Packages

Identifying Packages to Virtualize

In this procedure, you will import packages into the Application Catalog and identify the packages you want to virtualize.

Table 11 • Identify Packages to Virtualize

#	Step	Instructions	Results
1.	Import packages into Application Catalog.	Open Application Manager and locate the packages that you imported in Importing Packages into the Application Catalog.	The four Windows Installer packages are listed in the Application Manager tree: Applications Engineering Sample Application Sample Application (v3.0) Marketing Sample Application Source Sample Application Source (v1.00.0000) Sample Application Target Sample Application Target Sample Kit Sample Kit

Table 11 • Identify Packages to Virtualize **Instructions** Results Step 2. View package's The packages' application virtualization compatibility test To view application virtualization **Application** compatibility test results, open the results are listed in both chart and list view. The following is Virtualization Analyze tab, and then select a group in the chart view: **Compatibility test** the tree to open the **Analyze Group Application Virtualization Compatibility** results. View. Virtual Format: Microsoft App-V 5.x Not Ready Ready Warnings Test results are also shown in the **Application** Virtualization Compatibility column under Supportability Risks on the Analyze Group View.

You can switch between chart and list view of clicking the toggle button in the top right corner of the view.

Operating

System Compatibility

8

× Q

Browser Compatibility Application Virtualization

Compatibility

②

8



Search: Enter application name

Application or Group

Sample Kit

☆ Sample Application Source

☆ Sample Application Target

Table 11 • Identify Packages to Virtualize

Instructions Results Step 3. **Identify candidates** You will notice that in the Application This **Summary** view lists the virtualization formats that for virtualization. Virtualization Compatibility column, generated the error: two of the packages have a Ready status (Sample Application Source and Sample Application Target), while the other has an Error status (Sample Kit). Test Category Operating System Compatibility Therefore, for the package with the error Microsoft App-V 4.x Microsoft App-V 5.x status, select the deployment type icon VMware ThinApp 5.x in the tree to open the Summary view, and then click on the error status icon If you click on the error icon in the Overall Assessment under Application Virtualization Compatibility next to the unsupported column, you will see the details of the error: virtualization type. Analyze Deployment Type View Supportability Risks 24 Tests Executed 1 Errors 2 Warnings Windows 10 64-bit Message junction points in the following tables: CustomAction, Inif ServiceInstall, Shortcut, Environment. ■ 😵 🕟 🔳 2151 - 32-bit Shell Extensions: The Windows Installer data extensions that affects on 64-bit Operating Systems.

Converting to Virtual Formats

In this procedure, you will use Automated Application Converter to convert Windows Installer packages to App-V packages.

Table 12 • Convert to Virtual Formats

#	Step	Instructions	Results			
4.	Import candidate packages into Automated	Open Automated Application Converter, open the existing project you created in Configuring a Virtual Machine, and use	Packages are listed on the Packages Machines Packages Results		es tab.	
	Application	the Package Import Wizard to add the	☑ ② <u>△</u>	③ P:	ackage	Path
	Converter.	packages that you identified in	☑	Δ	SampleApplicationSource	C:\AS20
	Identifying Packages to Virtualize.	Identifying Packages to Virtualize	V	Ø	SampleApplicationTarget	C:\AS2(
		V	Ø	🜆 SampleKit	C:\AS20	
		Note • For instructions, see Selecting Packages from an AdminStudio Application Catalog.				

Table 12 • Convert to Virtual Formats

Instructions Results Step 5. **Convert to virtual** First. open the **Project Options** dialog When conversion is complete, each virtual package is listed in a tree structure under its original package on the packages. box and make sure that the Package Creation property is set to App-V 4.6 Packages tab. with AdminStudio. 🎮 Machines 🌏 Packages 📗 Results Then, use the Application Conversion ✓ ②▲③ Package Wizard to convert the packages to App-V 🛕 🖃 鄾 SampleApplicationSource ✓ 4.x applications. 🤣 💄 🍘 Sample Application Source.sft **V** 🕜 🖃 🗿 Sample Application Target 🤣 💄 🥝 Sample Application Target.sft **V** 🕜 🖃 🌆 SampleKit **Note** • For instructions, see Performing a Sample Kit.sft Conversion Using the Application Conversion Wizard. Important • Make sure that you have already performed the steps in Configuring a Virtual Machine before beginning this step. 6. Test launch virtual Test the virtual packages by launching Virtual packages launch successfully. packages. them on a virtual machine. **Note** • For instructions, see Performing Automated Testing of App-V Packages. 7. **Publish virtual** Import the new virtual packages into the The virtual packages are listed in the Application Manager packages to Application Catalog. tree under their associated Application. **Application** Applications Catalog. **Engineering Note** • For instructions, see Importing a Marketing 🙀 Sample Application Source Single Package File. Sample Application Source (v1.00.0000) III Sample Application Source (v1.00.0000) 🙀 Sample Application Target Sample Application Target (v1.00.0000) Sample Application Target (v1.00.0000) 🕌 Sample Kit Sample Kit (v17.00.000) III Sample Kit (∨17.00.000) **Note** • You may need to click Ctrl + R to refresh the Application Catalog tree.

Testing and Distributing Converted Packages

In this procedure, you will validate the converted packages, perform conflict analysis against other packages, resolve any issues found, and distribute the packages.

Table 13 • Test and Distribute Converted Packages

#	Step	Instructions	Results
8.	Perform virtualization best practices testing.	By default, App-V best practices testing is performed during import (as described in Import Options). To perform this testing manually, first select the Analyze tab in the Application Manager ribbon. Then, select one of the App-V packages in the Application Manager tree, and click Execute Tests. Messages appear in the Output Window. Note • For more information, see Performing Compatibility, Best Practices, and Risk Assessment Testing.	When testing is complete, results are displayed on the Summary tab of the Analyze Deployment Type View .
9.	Perform conflict testing.	In Application Manager, perform conflict testing of the Sample Application Source App-V package against the Sample Application Target App-V package. Note • For instructions, see Testing for Conflicts Between Packages.	Conflict analysis results are listed in the Output window and in the Conflicts view. An error is detected: Package 'Sample Application Source' has a conflicting root Directory 'SampleAp.100' with package 'Sample Application Target'.
10.	Edit App-V packages (if necessary).	To resolve the error that was found during testing on Sample Application Source App-V package, select it on the Home tab of the Application Manager tree and select Edit with Virtual Package Editor. In the Virtual Package Editor's General Information view, change the Root Folder Name property to SampleAp. 200 and click Save. Note • For instructions, see Using the Virtual Package Editor. Return to Application Manager and reimport the edited package.	The edited App-V package is imported into the Application Catalog. Note • When you rerun the conflict testing that you ran in the previous step, no error will be generated.

Table 13 • Test and Distribute Converted Packages

#	Step	Instructions	Results
11.	Distribute to enterprise for user acceptance testing and production.	Distribute this tested App-V package to a Network location. Note • For instructions on how to distribute a package, see Distributing Packages to Network Locations. Tip • Distribution Wizard also supports deploying applications to System Center Configuration Manager (Current Branch), System Center 2012 Configuration Manager, System Center 2007 Configuration Manager, Citrix XenApp Server, JAMF Casper Suite, AirWatch Server, Microsoft App-V	The selected App-V package is copied to the specified network location, making it available to your enterprise.
		Server, and Symantec Altiris distribution systems. For more information, see Distributing Applications.	

Testing for Application Compatibility

The flowchart on the **Test for Application Compatibility** tab of the AdminStudio Start page outlines how to use Application Manager to test packages for compatibility with the latest versions of Windows and Windows Server operating systems, as well as to test web applications for compatibility with Internet Explorer 11 and Microsoft Edge.

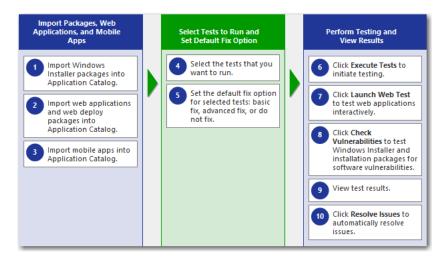


Figure 10: Test for Application Compatibility Tab of AdminStudio Start Page

In this section, you will test some packages for operating system compatibility fix issues that were found. You will also test web applications, both statically and dynamically.

To perform application compatibility testing, perform the following steps:

- Importing Packages, Web Applications, and Mobile Apps
- Selecting Tests to Run and Setting Default Fix Option
- Performing Testing and Viewing Results

Importing Packages, Web Applications, and Mobile Apps

In this procedure, you will load the packages to test and select the reports to run.

Table 14 • Importing Packages and Web Applications

Step **Instructions** Result 1. **Import Windows** For this exercise, we will test Windows The Application Manager tree should now be organized as **Installer packages** Installer packages that were imported follows: into Application into the Application Catalog earlier in Applications Catalog. this guide in Importing Packages into **Engineering** the Application Catalog. Sample Application Marketing 🕌 Sample Application Source 🙀 Sample Application Target **Note** • For instructions on how to import 🙀 Sample Kit a directory of packages into the Application Catalog, see Importing a Folder of Multiple Packages. 2. Import web First, open the Import Options > The web applications are listed in the Application Manager applications into General tab of the Application Manager tree: **Application** Options dialog box, and clear the Applications Catalog. selection of the Automatically Execute Engineering Tests After Import option. Marketing Web Applications Next, create a new group in the orbitz Travel: Airline Tickets, Cheap Hotels, Ca Application Manager tree named Web Orbitz Travel: Airline Tickets, Cheap Hotel Applications. Travelocity, Book Travel for Less | Hotels Travelocity, Book Travel for Less | Hotels, Then import the following web applications into the Web Applications folder, as described in Importing a Deployed Web Applications. Orbitz at: http://www.orbitz.com **Travelocity** at: http://www.travelocity.com Because these web applications do not require a login to access, leave the User name and Password fields on the Web Site Details panel blank.

Table 14 • Importing Packages and Web Applications

#	Step	Instructions	Result	
3.	Import a mobile app into the Application	Create a new group in the Application Manager tree named Mobile Apps .	The iOS public store mobile app is listed in the Application Manager tree.	
	Catalog	Then, import an Apple iOS mobile app from the Apple App Store, as described in Importing Public Store Mobile Apps.	Mobile Apps Adobe Acrobat Reader Adobe Acrobat Reader (v18.03.31)	

Selecting Tests to Run and Setting Default Fix Option

In this procedure, you will select the Operating System Compatibility and Browser Compatibility tests to run and set default fix options.

Table 15 • Selecting Tests to Run and Setting Default Fix Option

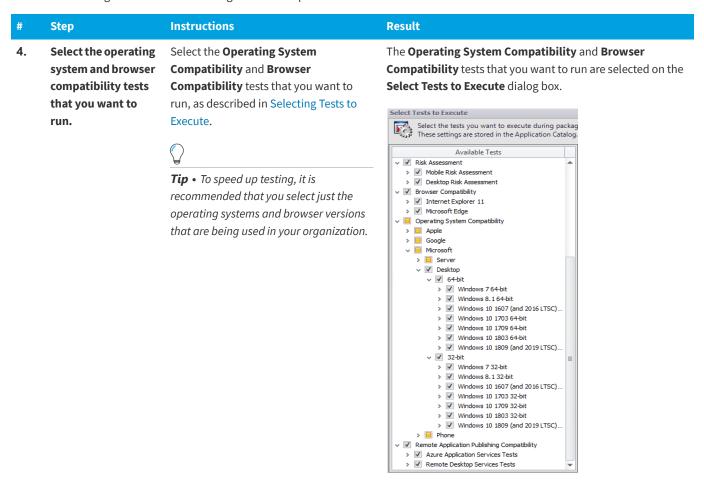


Table 15 • Selecting Tests to Run and Setting Default Fix Option

#	Step	Instructions	Result
5.	Set the default fix option for selected tests: basic fix, advanced fix, or do not fix.	Some of the tests in the Operating System Compatibility and Browser Compatibility test group let you specify whether to perform a basic or advanced fix when you automatically resolve issues, as described in Setting Automatic Fix Preferences for Operating System Compatibility and Browser Compatibility Tests. On the Select Tests to Execute dialog box, review the Default Fix section of several of your selected tests. For this exercise, it is not necessary to make any changes to the Default Fix settings.	A Default Fix selection is made for all Operating System Compatibility and Browser Compatibility tests. Default Fix: This choice will be used when resolving the issues that are identified by this test. Do not resolve this issue automatically. Apply the basic auto fix. Apply the advanced auto fix.

Performing Testing and Viewing Results

In this procedure, you will test packages and web applications for operating system and browser compatibility, view test results, and automatically fix issues.

Table 16 • Performing Testing and Viewing Results

#	Step	Instructions	Result
6.	Click Execute Tests to test Windows Installer packages, mobile apps, and web applications (statically).	First select the Analyze tab in the Application Manager ribbon	Messages are listed in the Output Window. When testing is complete, the following message is displayed:
		Then, select the Applications group in the Application Manager tree, and click Execute Tests .	Testing finished at: Monday, April 23, 2019 - 13:47:04 Tested 6 packages of 6.
	(Note • For more information, see Performing Compatibility, Best Practices, and Risk Assessment Testing.	

Table 16 • Performing Testing and Viewing Results

and to the second and the second

7. Click Launch Web Test to test web applications interactively.

Step

Instructions

To interactively, dynamically test a web application, select a web application node in the tree and click **Launch Web Test.**



Note • For more information, see Performing Dynamic Testing of Web Applications.

Application Manager launches the web application in your browser. Then, as you perform tasks and navigate around the web application, Application Manager records any warnings or errors that are encountered while using that version of the browser.

When you have finished testing, close the browser window.



Tip • You should always use dynamic testing when a web application requires a login to access.



Tip • As each page loads, Application Manager begins testing. Links on each page do not become active until testing is complete on that page, so you may have to wait several seconds before proceeding.

Result

Messages are listed in the Output Window. When testing is complete, the following message is displayed:

Testing finished at: Monday, April 23, 2019 - 13:58:08

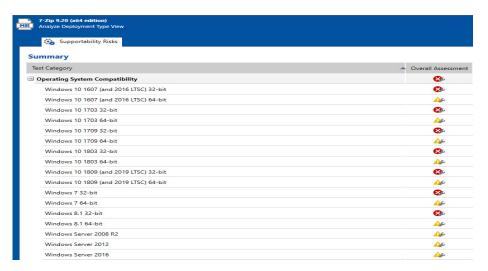
Completed testing package(s).

Table 16 • Performing Testing and Viewing Results

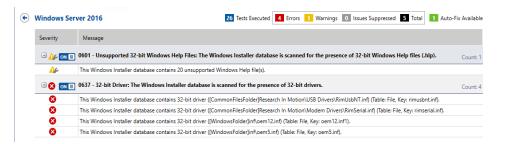
Step Instructions Result

8. View test results.

When testing is finished, view the test results by selecting a Windows Installer package or web application in the tree to open the **Summary** view of the **Supportability Risks** of the **Analyze Deployment Type View**.



Click an icon in the Overall Assessment column to view detailed test results:



Click the Suppress (ON/OFF) button to suppress any issues that are not important to your organization.



Note • For more information, see Viewing Operating System Compatibility Test Results and Viewing Browser Compatibility Test Results.

Table 16 • Performing Testing and Viewing Results

Step

Instructions

Result

9. Click Resolve Issues to automatically resolve issues.

Issues for which automatic fixes are available are identified by the Error With Fix or Warning With Fix icon:





To automatically resolve all issues for which automatic fixes are available, select the **Applications** group node in the tree and click **Resolve Issues** in the **Analyze** tab of the ribbon.



Note • For more information, see Performing Automatic Issue Resolution. Issue resolution begins, progress messages appear in the Output window, and Application Manager performs the following tasks:

- Reruns tests—Application Manager reruns all of the selected tests to ensure that the issues that it is going to resolve still exist in the current version of the package and its associated transforms.
- Creates transform files—To resolve issues,
 Application Manager generates fix transform files.
- Reimports packages—Application Manager then automatically reimports each package and its fix transform files into the Application Catalog.

When issue resolution and reimporting is complete, look at the **Analyze Group View**, **Application View**, or **Deployment Type View** of the package, application, or group that you tested. You will see that the Error With Fix and Warning With Fix icons have been replaced with the status icon with the next highest level (as described in the **Hierarchical Level of Status Icons** section of the **About Status Icons** help topic) in that test category.

AdminStudio 2019 Evaluation Guide

Testing for Application Compatibility