



Location Intelligence
Infrastructure Asset Management

Confirm[®]

Microsoft App-V
v20.20f.AM

Information in this document is subject to change without notice and does not represent a commitment on the part of the vendor or its representatives. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, without the written permission of Confirm.

© 2020 Confirm. All rights reserved.

Products named herein may be trademarks of their respective manufacturers and are hereby recognized. Trademarked names are used editorially, to the benefit of the trademark owner, with no intent to infringe on the trademark.

Open Source Attribution Notice

The Confirm suite of products contain the following open source software:

- Feature Data Objects v 3.5.0, which is licensed under GNU Lesser General Public License, Version 2.1, February 1999 with the unRAR restriction. The license can be downloaded from: <http://fdo.osgeo.org/licenceAndGovernance.html>. The source code for this software is available from <http://fdo.osgeo.org/content/fdo-350-downloads>
- MrSID software (specifically the mrsid32.dll) is used under license and is Copyright © 1995-2002, LizardTech, Inc., 1008 Western Ave., Suite 200, Seattle, WA 98104. All rights reserved. MrSID is protected by U.S. Patent No. 5,710,835. Foreign patents are pending. Unauthorized use or duplication prohibited.

Patented technology in the Software was developed in part through a project at the Los Alamos National Laboratory, funded by the U.S. Government and managed by the University of California. The U.S. Government has reserved rights in the technology, including a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced throughout the world, for or on behalf of the United States, inventions covered by the patent, and has other rights under 35 U.S.C. § 200-212 and applicable implementing regulations.

For further information, contact Lizardtech.

- NodaTime, version number 1.3.10, which is licensed under the Apache license, version number 2.0. The license can be downloaded from <http://www.apache.org/licenses/LICENSE-2.0>. The source code for this software is available from <http://nodatime.org/>.
- Chromium Embedded Framework, version 3, which is licensed under the New BSD License. The license can be downloaded from <http://opensource.org/licenses/BSD-3-Clause>. The source code for this software is available from <http://code.google.com/p/chromiumembedded/downloads/list>.
- Xilium.CefGlue, version 3, which is licensed under the MIT License (with portions licensed under the New BSD License). The licenses can be downloaded from <http://opensource.org/licenses/MIT> and <http://opensource.org/licenses/BSD-3-Clause>. The source code for this software is available from <http://xilium.bitbucket.org/cefglue/>.
- D3 Data Driven Documentation, version 3.4.1, which is licensed under the New BSD License. The license can be downloaded from <https://github.com/mbostock/d3/blob/master/LICENSE>. The source code for this software is available from <http://d3js.org/>.
- OpenLayers, version 2.12, which is licensed under the Modified BSD License. The license can be downloaded from <http://svn.openlayers.org/trunk/openlayers/license.txt>. The source code for this software is available from <http://trac.osgeo.org/openlayers/browser>.
- OpenLayers, version 3, which is licensed under the BSD 2-Clause Licence. The license which can be downloaded from <https://github.com/openlayers/ol3/blob/master/LICENSE.md>. The source code for this software is available from <https://github.com/openlayers/ol3>.
- Proj4js, version 1+, which is licensed under the Apache License, Version 2, January 2004. The license can be downloaded from <http://www.apache.org/licenses/LICENSE-2.0.html>. The source code for this software is available from <http://trac.osgeo.org/proj4js/>.
- requireJS, version 2.1.2, which is licensed under the MIT License or the New BSD License. The license can be downloaded from <https://github.com/jrburke/requirejs/blob/master/LICENSE>. The source code for this software is available from <http://requirejs.org/>.

- Apache Cordova, version 8.1.2, which is licensed under the Apache License, Version 2, January 2004. The license can be downloaded from <http://www.apache.org/licenses/LICENSE-2.0.html>. The source code for this software is available from <http://phonegap.com/download/>.
- Xilium.CefGlue, version 75.1, which is unlicensed. The source code for this software is available from <https://gitlab.com/xiliumhq/chromiumembedded/cefglue>.
- Chromium Embedded Framework, version 75.0, which is licensed according to the following criteria:

Copyright (c) 2008-2014 Marshall A. Greenblatt. Portions Copyright (c) 2006-2009 Google Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of Google Inc. nor the name Chromium Embedded Framework nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The source code for this software is available from <http://opensource.spotify.com/cefbuilds/index.html#>

August 20, 2020

Contents

Microsoft App-V

Microsoft App-V 6

Microsoft App-V

Overview

This document explains the steps to deploy Confirm Client as Microsoft App-V Package.

In this section

Microsoft App-V

6

Microsoft App-V

Overview

Microsoft Application Virtualization (App-V) is an application virtualization solution from Microsoft. It helps businesses to provide their end users with access to virtually any application, anywhere without installing applications directly on their computers. Here we will follow these three basic steps for the virtualization of Confirm Client application.

1. Install the Microsoft App-V Sequencer on a computer.
2. Use the Microsoft App-V sequencer to create virtual application package of Confirm Client.
3. Deploy the virtual package on Microsoft App-V Client.

This document covers setting up the Sequencer workstation, walkthrough to create virtual application for Confirm Client, and walkthrough to deploy the package, using Microsoft App-V.

App-V Package Creation

App-V Sequencer

The App-V Sequencer is a component of the App-V suite used to convert standard applications into virtual packages for deployment to computers running the App-V Client. It analyses the application for the resources that it requires and creates the system guard runtime environment that it will require. Most importantly, the sequencer translates file and registry references into user, machine, and operating system neutral references.

Prerequisites for App-V Sequencer Workstation

Follow the link for information. <http://technet.microsoft.com/en-US/library/jj713458.aspx>

Prerequisites for Confirm Client

- Visual C++ 2013 x86 / x64
- Visual C++ 2015 x86 / x64
- MapXtreme Redistributable

Install App-V Sequencer

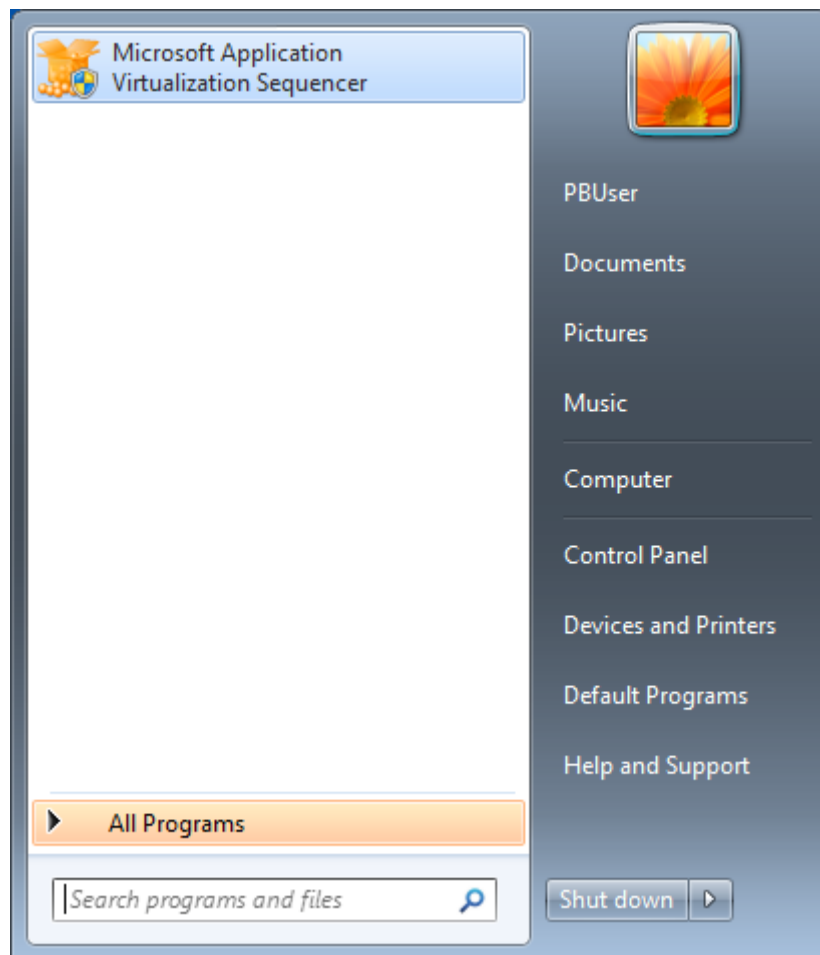
- Pre Windows 10 <http://technet.microsoft.com/en-us/library/jj713464.aspx>
- Windows 10 <https://docs.microsoft.com/en-us/windows/application-management/app-v/appv-getting-started>

Package Creation Walkthrough

This section outlines the sequencing process of Confirm Client application.

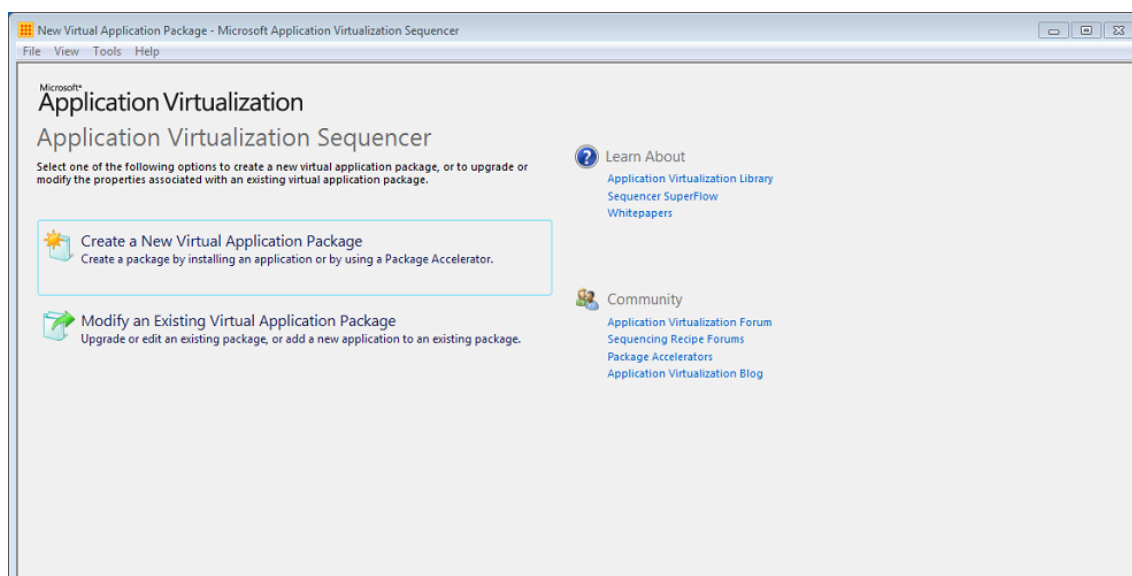
Start Microsoft App-V Sequencer

Launch 'Microsoft Application Virtualization Sequencer' from 'Start' menu.



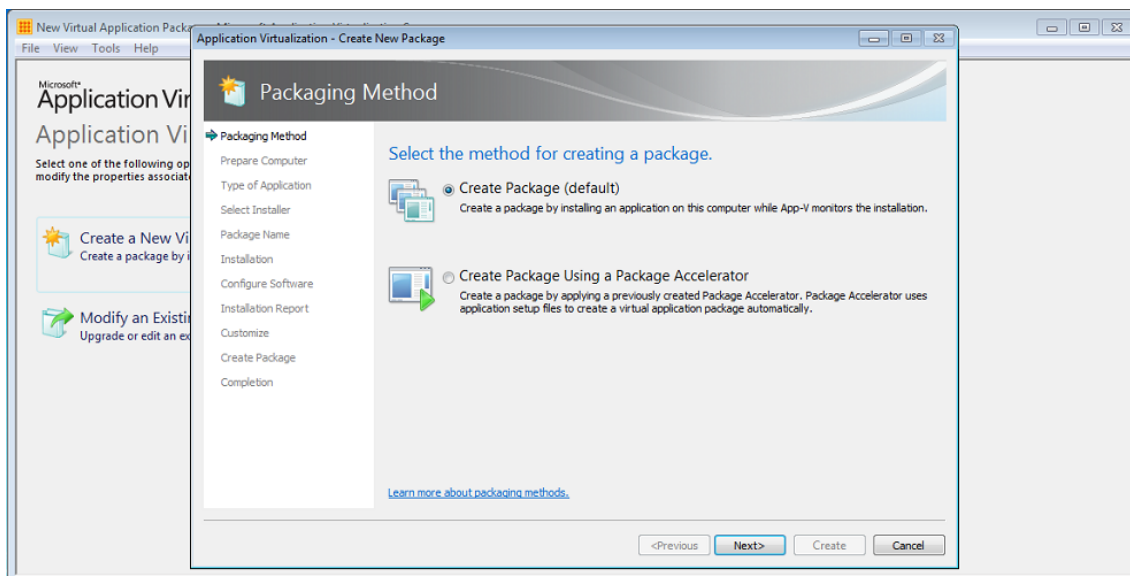
Welcome Screen

Select 'Create a New Virtual Application Package' to create a new virtual application package.



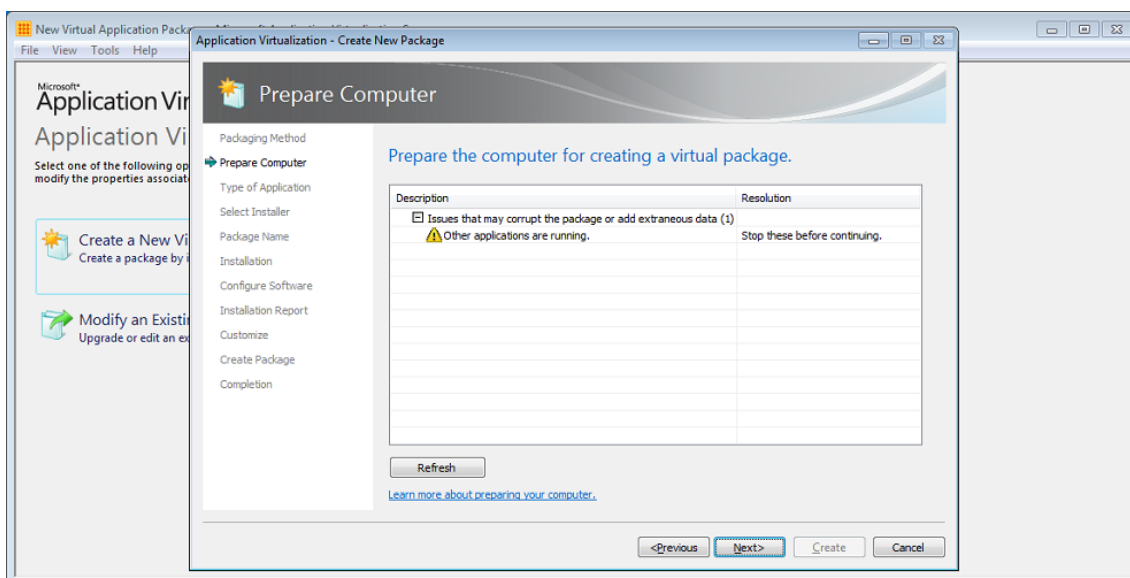
Packaging Method

Select 'Create Package' option to create a new package.

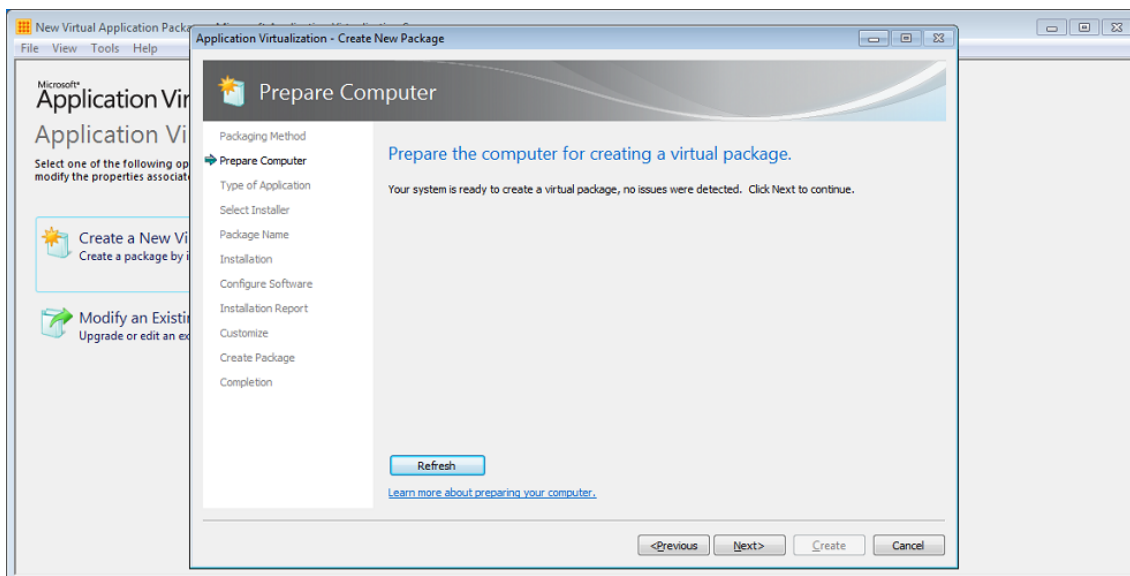


Prepare Computer

This process examines and prompts for any running processes that might prevent successful sequencing.

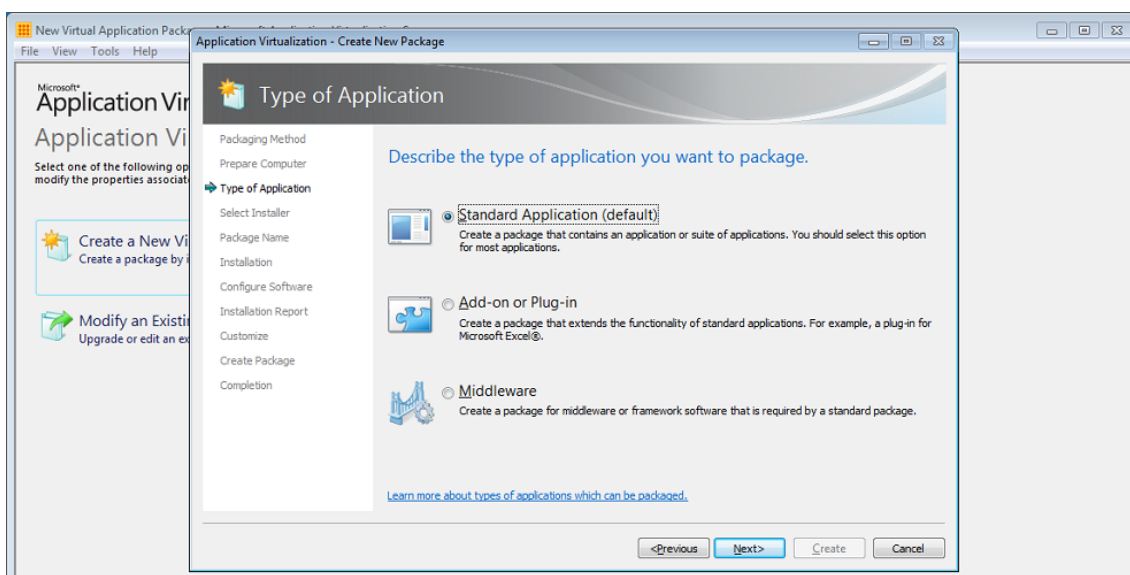


Stop all the running processes to continue creating the package. Click 'Refresh' button.



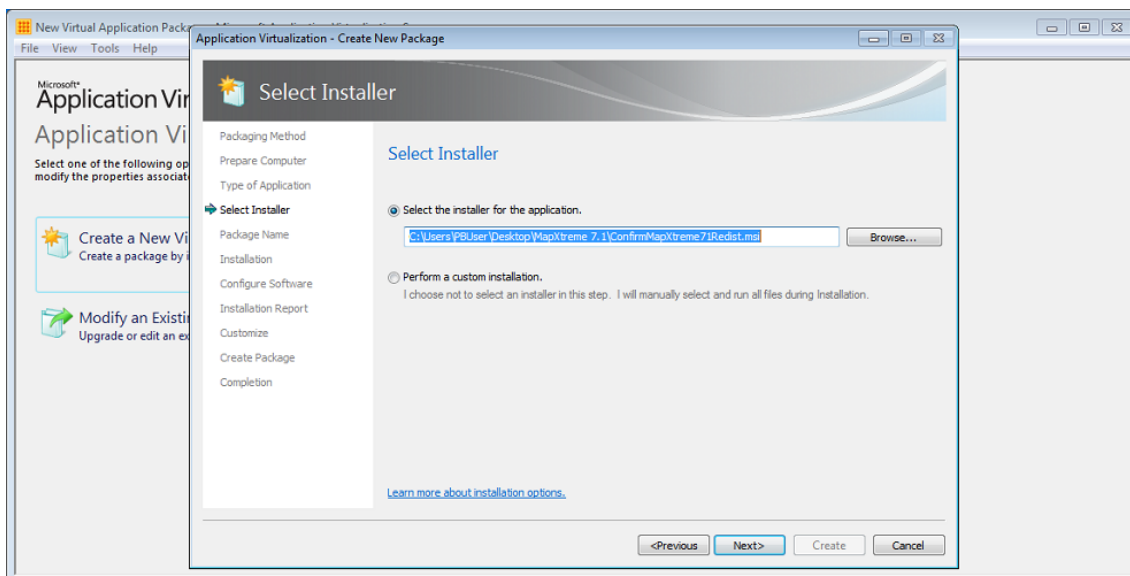
Type of Application

Select 'Standard Application' to continue creating the package.



Select Installer

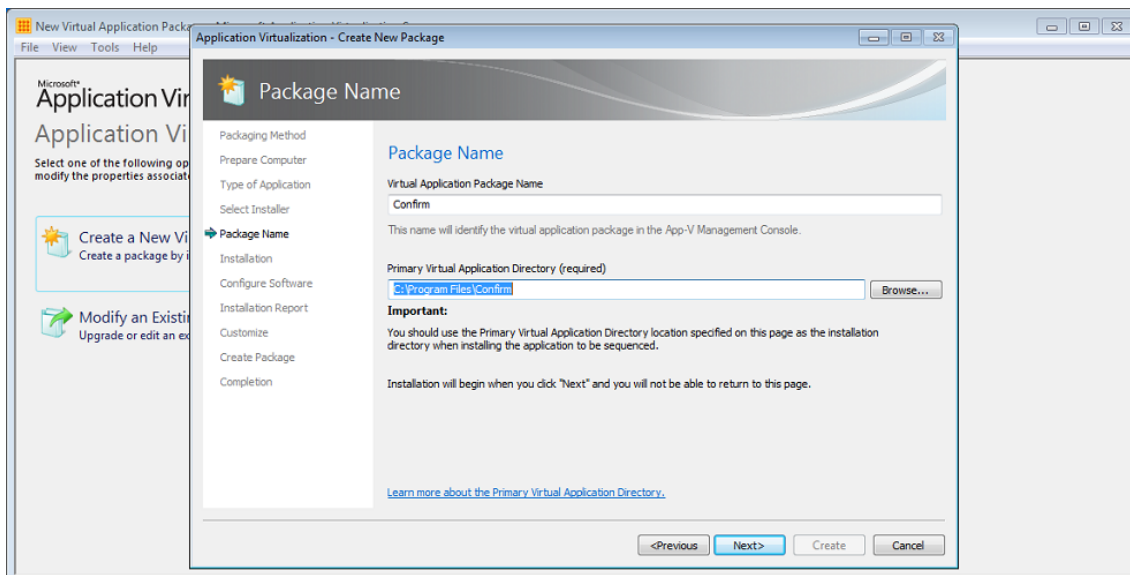
Select 'Confirm MapXtreme' installer file to have the sequencing wizard automatically launch the installer wizard.



Package Name

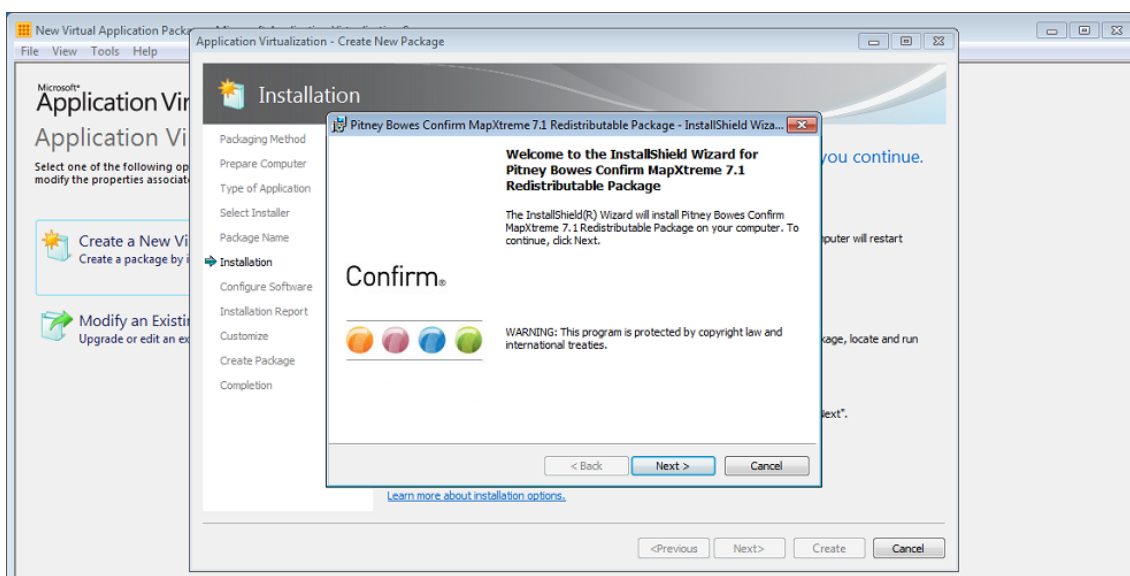
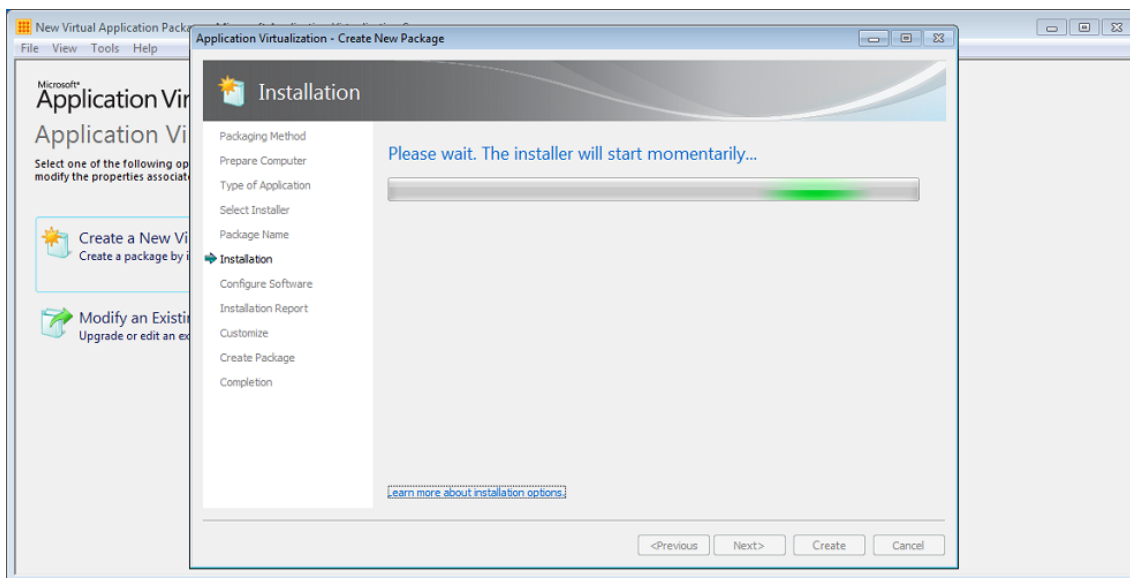
Specify unique name for the package under 'Virtual Application Package Name'. This name is independent of the 'Primary Virtual Application Directory'. This name will identify the virtual application package in the App-V Management Console. Save the package in a directory named for the package name is recommended.

Specify directory under 'Primary Virtual Application Directory' that will contain all files for the sequence. It is recommended to define the application's default installation directory (example C:\Program Files\Confirm).

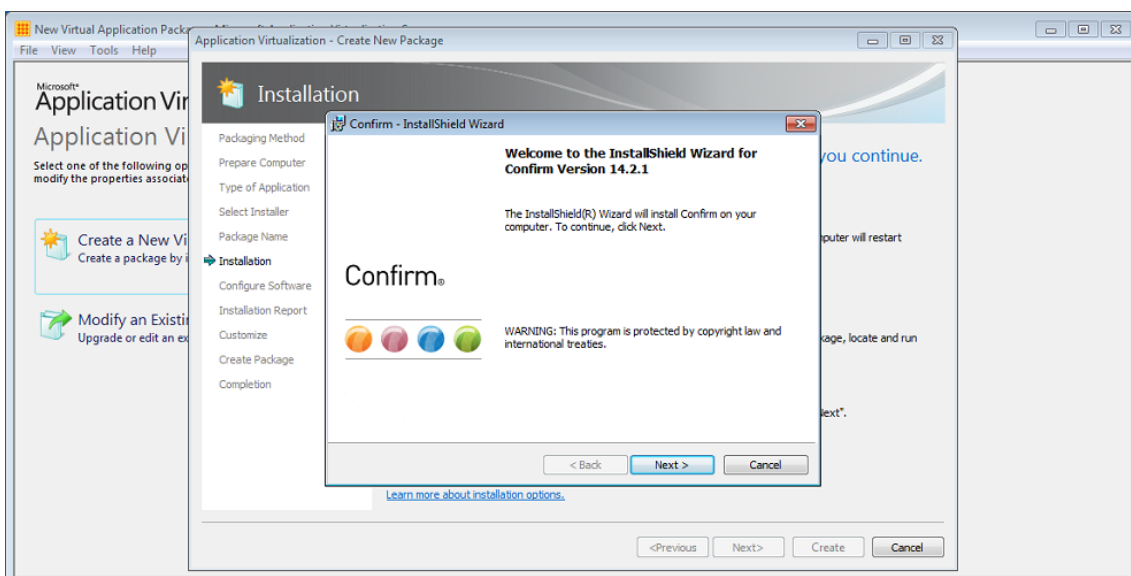
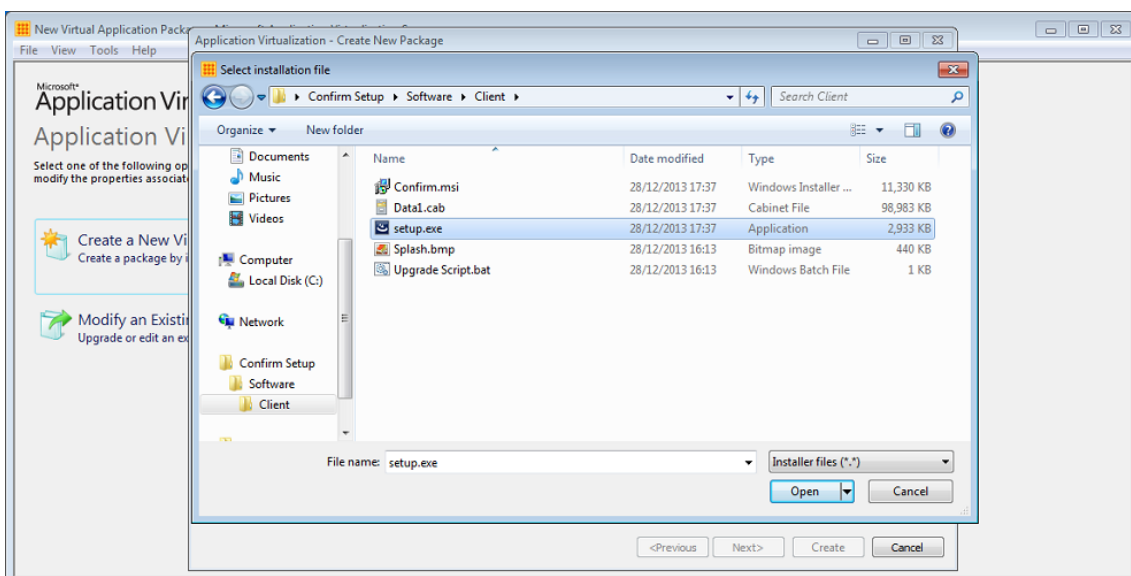
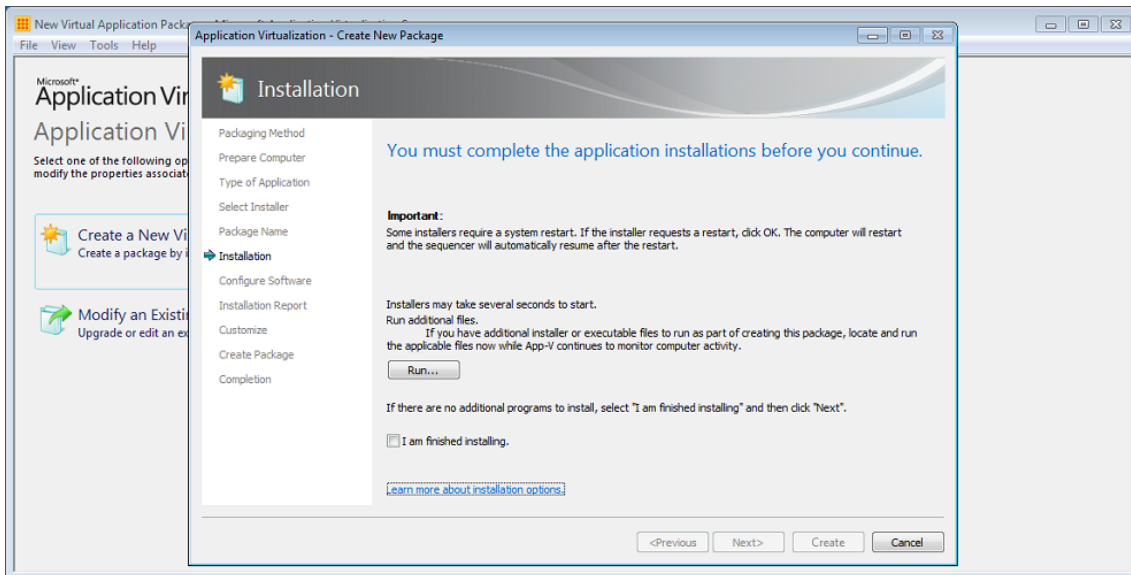


Installation

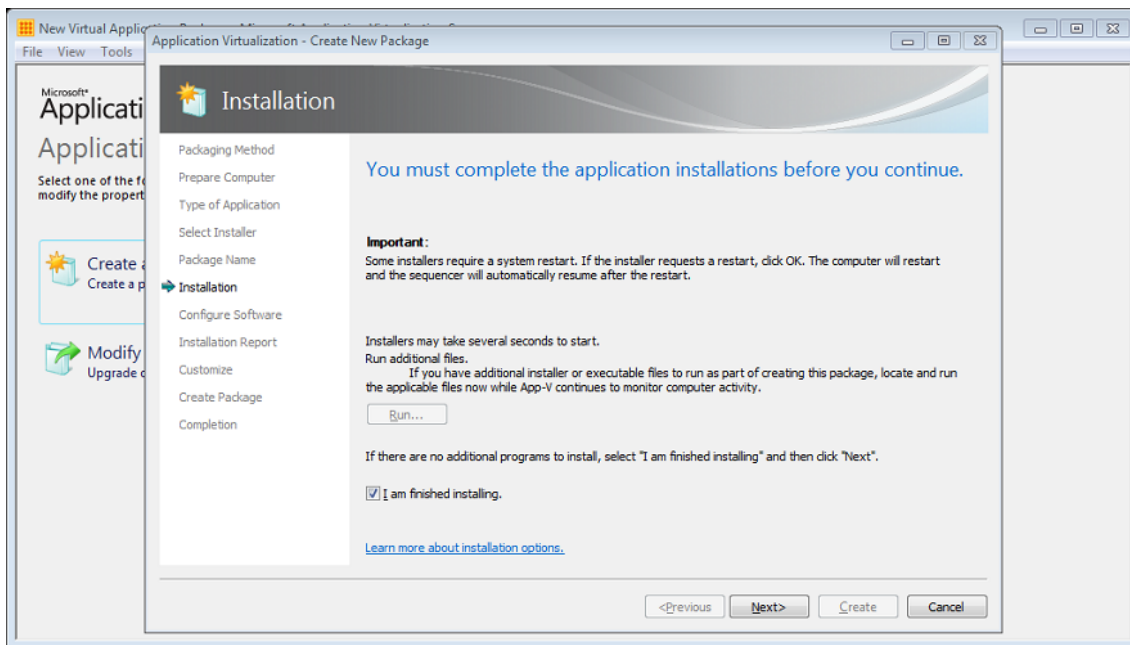
Install MapXtreme using the steps documented when locally installing it.



Run additional Installers. Click 'Run...' button after the completion of MapXtreme installer; select the next (Confirm Client) installation program. Install 'Confirm Client' using the steps documented when locally installing it.



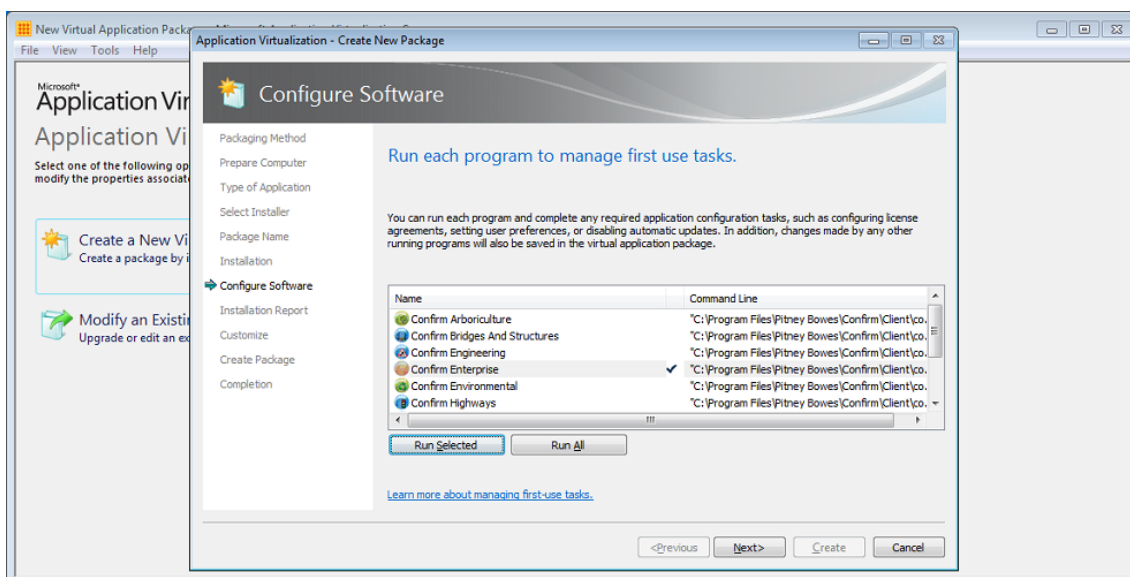
Select 'I am finished installing' tick box once 'Confirm Client' installation is complete and then click 'Next'.

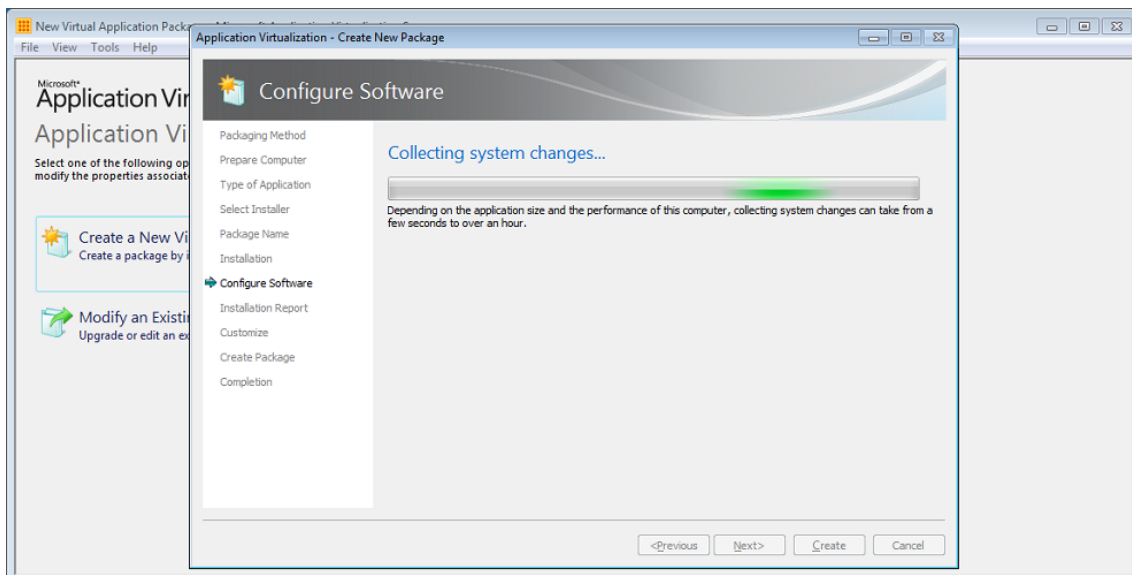
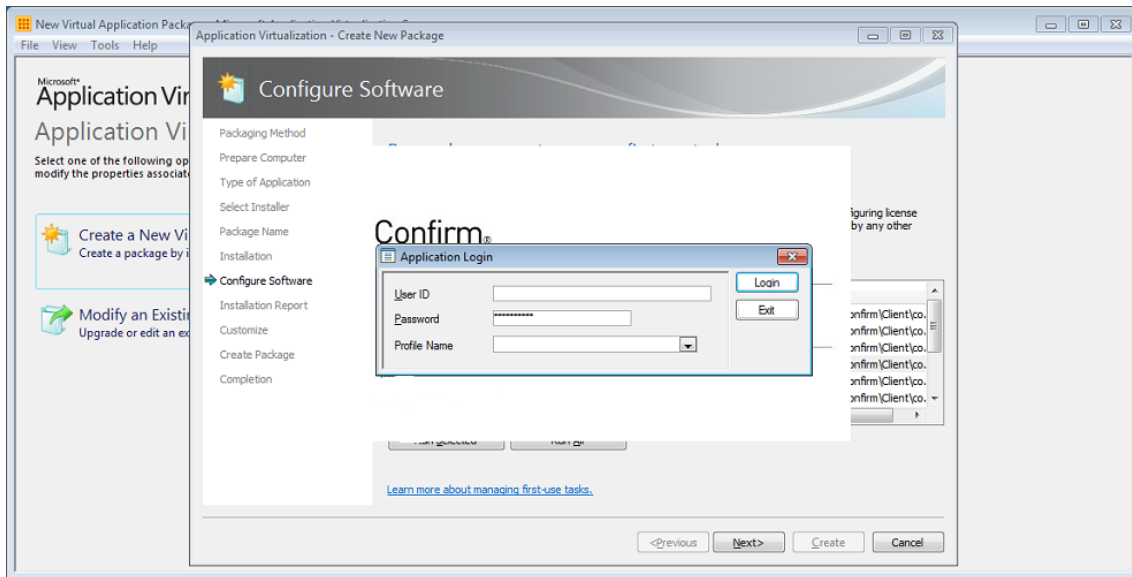


Configure Software – Confirm Client

At this stage, execute the Confirm Client application(s) at least once by selecting the application and clicking the “Run Selected” or “Run All” buttons (multiple executions are recommended to ensure any second-run tasks are executed). It is during this execution the following can be configured. Once both configurations are done, exit the application and continue with next steps of sequencing

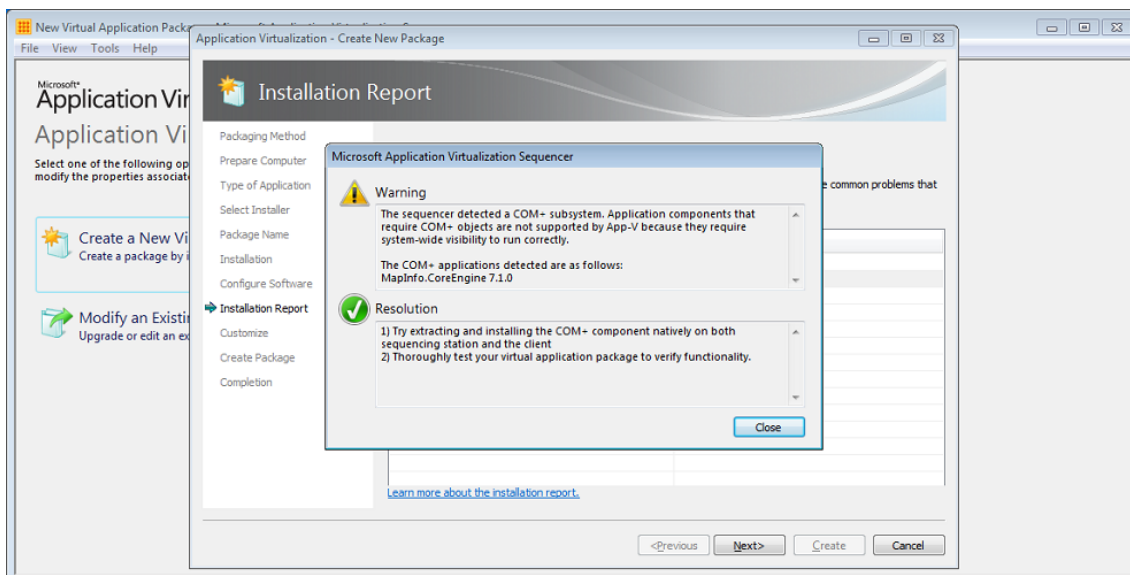
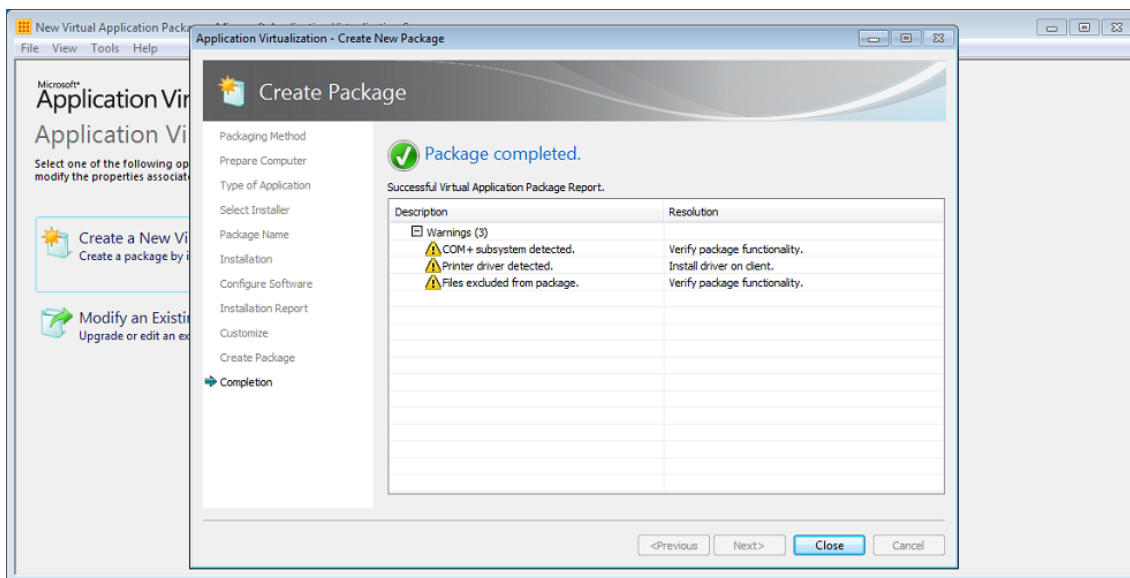
- dbconfig.cfg file : Configure dbconfig.cfg from Database Setting screen.
- Registry entries: On dbconfig.cfg file is configured, login to all the flavors of Confirm once, automatically creates/configures the registry entries behind the scene.





Installation Report

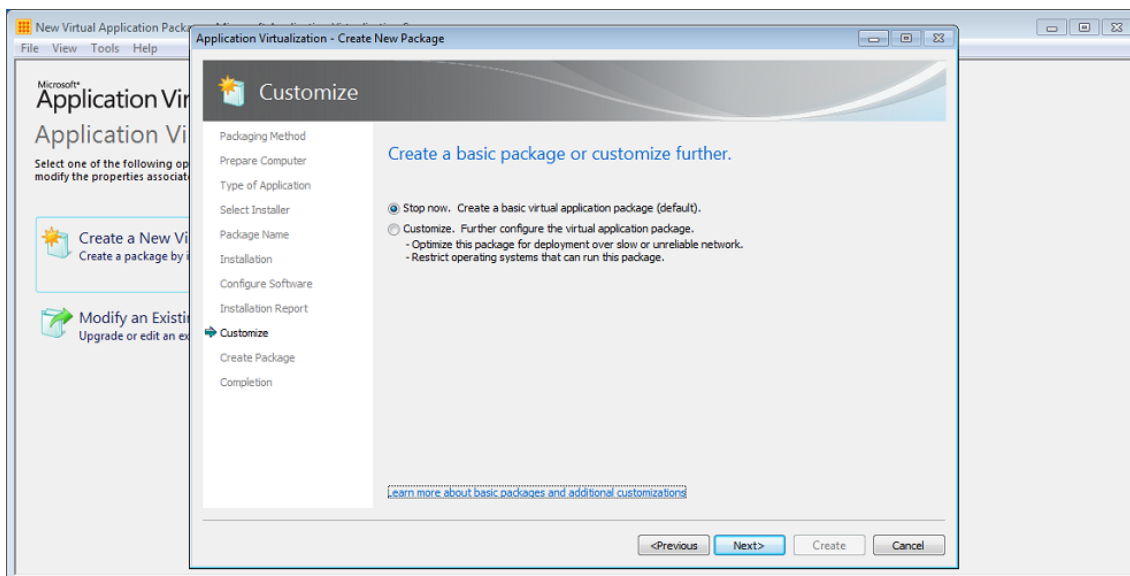
The Microsoft App-V Sequencer lists the issues discovered during sequencing in the Installation Report page. It also displays the diagnostic messages categorized into Errors, Warnings, and Information depending on the severity of the issue. Double click an item to see detailed information about the issue as well as suggestions for resolution.



We may ignore these three warnings and continue creating the package.

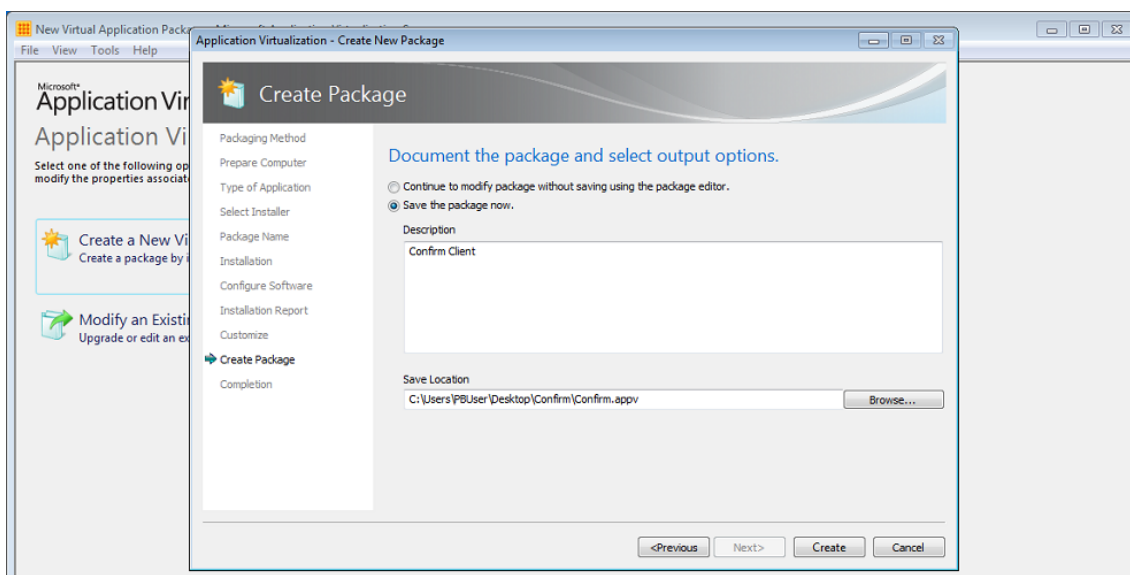
Customize

Select 'Stop now' once the application configuration is complete.



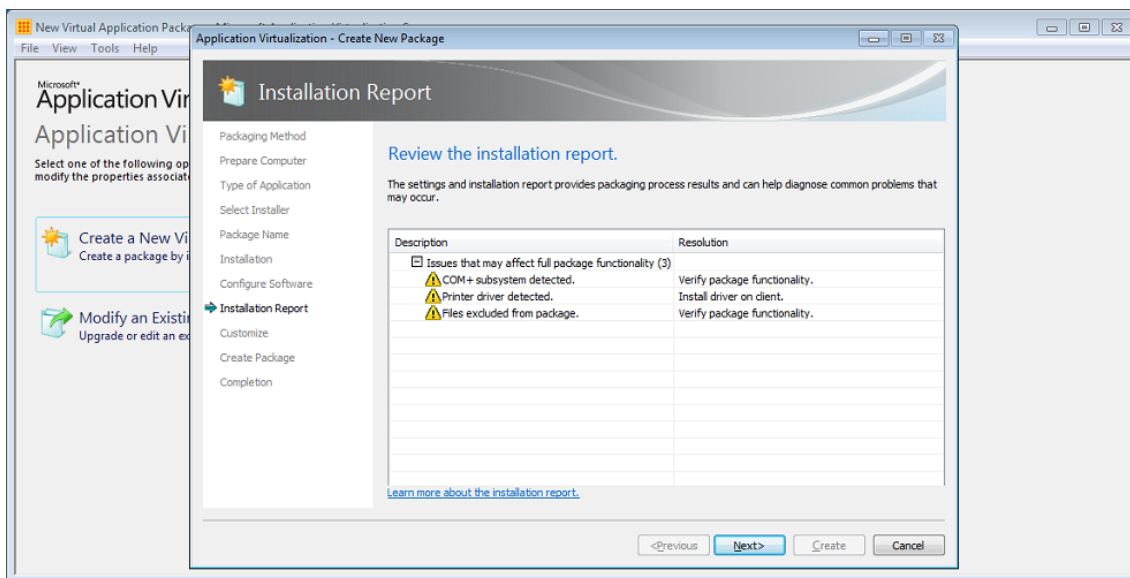
Create Package

Specify a save location and utilize the package name as the directory (Example: \Desktop\Confirm).



Create Package – Completion Report

The Microsoft App-V Sequencer lists the diagnostic messages categorized into Errors, Warnings, and Information depending on the severity of the issue. Double click an item to see detailed information about the issue as well as suggestions for resolution.



App-V Package Files

Following files are created when sequencer is used to create a package of Confirm Client application.

.msi file	This Windows Installer (.msi) file is created by the sequencer and is used to install the virtual package of Confirm Client on target computers.
Report.xml file	In this file, the sequencer saves all issues, warnings, and errors that are discovered during sequencing of Confirm Client application to create a virtual package. It displays the information after the package has been created. This report can be used for diagnosing and troubleshooting.
.appv file	This is the virtual application file of Confirm Client application.
Deployment configuration file	The deployment configuration file determines how the virtual Confirm Client application will be deployed to target computers.
User configuration file	The user configuration file determines how the virtual Confirm Client application will run on target computers.

App-V Package Deployment

App-V Client

The Microsoft Application Virtualization (App-V) client is the component that runs a virtualized application on a target computer. The client enables users to interact with icons and to double-click file types, so that they can start a virtualized application.

Prerequisites for App-V Client

Follow the link for information.

<http://technet.microsoft.com/en-us/library/jj713458.aspx>

Install Microsoft App-V Client

Follow the link for information

<http://technet.microsoft.com/en-us/library/jj713460.aspx>

Uninstall Microsoft App-V Client

Follow the link for information

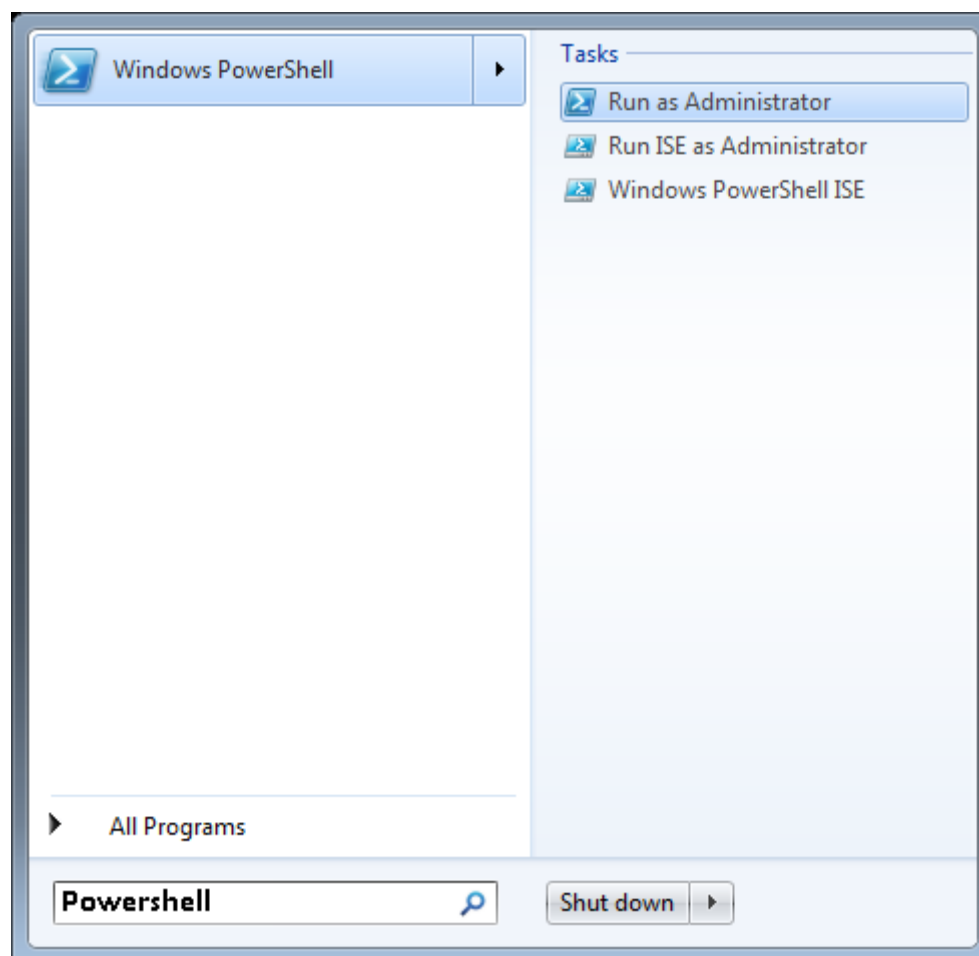
<http://technet.microsoft.com/en-us/library/jj684291.aspx>

Package Deployment Walkthrough

This section outlines the deployment of virtual package (Confirm Client) using Windows PowerShell 3.0.

PowerShell Console

To open a PowerShell console, click Start and type PowerShell. Run Windows PowerShell as Administrator.



Changing the Windows PowerShell Script Execution Policy

Execute the command to allow all Windows PowerShell scripts to run.

Command: *Set-ExecutionPolicy Unrestricted*

Install App-V Client Cmdlets

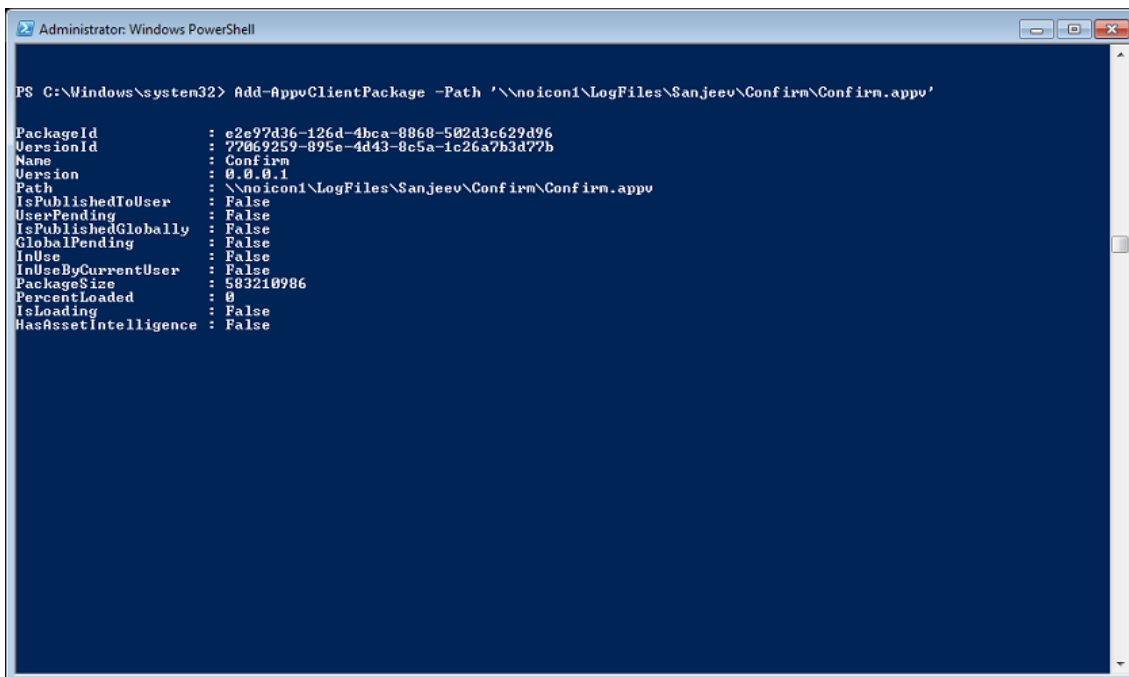
Execute the command to install App-V cmdlets.

Command: *Import-Module AppvClient*

Add the package to App-V Client

Execute the command to add Confirm Client application package to Microsoft App-V Client.

Command: `Add-AppvClientPackage -Path '{full path of Confirm Client virtual package}'`



```

Administrator: Windows PowerShell

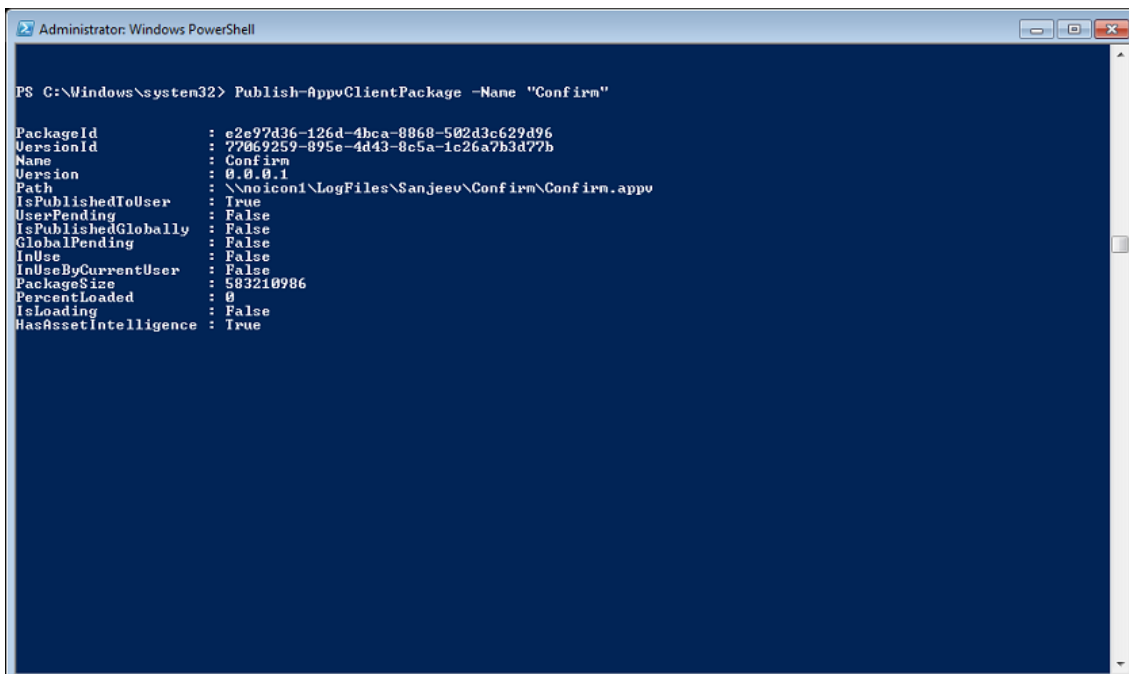
PS C:\Windows\system32> Add-AppvClientPackage -Path '\\noicon1\LogFiles\Sanjeev\Confirm\Confirm.appv'

PackageId      : e2e97d36-126d-4bca-8868-502d3c629d96
VersionId      : 77069259-895e-4d43-8c5a-1c26a7b3d77b
Name           : Confirm
Version        : 0.0.0.1
Path           : \\noicon1\LogFiles\Sanjeev\Confirm\Confirm.appv
IsPublishedToUser : False
UserPending    : False
IsPublishedGlobally : False
GlobalPending  : False
InUse          : False
InUseByCurrentUser : False
PackageSize    : 583210986
PercentLoaded  : 0
IsLoading      : False
HasAssetIntelligence : False
  
```

Publish the package

Execute the command to publish a package to the current user.

Command: `Publish-AppvClientPackage -Name "{name of Confirm Client virtual package}" -Global`



```

Administrator: Windows PowerShell

PS C:\Windows\system32> Publish-AppvClientPackage -Name "Confirm"

PackageId      : e2e97d36-126d-4bca-8868-502d3c629d96
VersionId      : 77069259-895e-4d43-8c5a-1c26a7b3d77b
Name           : Confirm
Version        : 0.0.0.1
Path           : \\noicon1\LogFiles\Sanjeev\Confirm\Confirm.appv
IsPublishedToUser : True
UserPending    : False
IsPublishedGlobally : False
GlobalPending  : False
InUse          : False
InUseByCurrentUser : False
PackageSize    : 583210986
PercentLoaded  : 0
IsLoading      : False
HasAssetIntelligence : True
  
```

Remove the package

Execute the command to remove the already published package when needed.

Command: `Remove-AppvClientPackage -Name "{name of Confirm Client virtual package}"`

FAQ

1. What is the need for virtualization?

It provides the agility, scalability, cost-saving required in today's business scenarios. It reduces

- Infrastructure downtime.
- Saves time and resources that are spend deploying/providing operating systems to users.
- Saves troubleshooting time for application installations.
- Multiple version of the same application can be deployed on one machine.

2. Can I do sequencing on a physical machine?

Yes, sequencing can be done on a physical machine. But, this is recommended to sequence using a virtual machine. This is due to starting over to correct a mistake. Thus, the sequencing workstation needs to return to a clean configuration several times. Using a virtual machine is strongly advised to allow the use of snapshots and/or undo disks. After sequencing a virtual application package, the machine can be reverted to a clean state.

3. I am getting error when launching .Net screens of the Confirm client?

You need to check whether both 32 bit and 64 bit of the Microsoft Visual C++ Redistributable is installed on the machine. If yes, ideally you should remove the 32 bit Microsoft Visual C++ Redistributable from the machine to fix the issue.

4. How to get list of all packages which are present on a machine?

The command "**Get-AppvClientPackage -All**" lists all the packages which are present on a machine.

5. How to remove a package which is present on a machine?

The command "**Remove-AppvClientPackage**" removes a package from a machine. "**Remove-AppvClientPackage**" supports the following inputs for the package.

- Name
- PackageID
- Version
- VersionID

6. Why do we need to run "**Set-ExecutionPolicy**"?

The "**Set-ExecutionPolicy**" cmdlet enables you to determine which Windows PowerShell scripts (if any) will be allowed to run on your computer. Windows PowerShell has four different execution policies:

- Restricted - No scripts can be run. Windows PowerShell can be used only in interactive mode.
- AllSigned - Only scripts signed by a trusted publisher can be run.
- RemoteSigned - Downloaded scripts must be signed by a trusted publisher before they can be run
- Unrestricted - No restrictions; all Windows PowerShell scripts can be run.