



Class ID: IT18200

Deploying Autodesk software the easy way

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Learning Objectives

- Creation of Autodesk deployments
- Creation of scripts (CMD and batch files) to deploy add-ons
- SCCM packages creation and deployment
- Software deployment monitoring and reports

Description

- You don't have to be an Information Technology specialist to deploy Autodesk software the easy way.
- Autodesk software installs can take sufficient effort to deploy to multiple computers. This class will explore the creation of deployment packages and push technology. This can greatly reduce the amount of effort to deploy Autodesk software.
- Streamline the deployment of Autodesk software and add-ons using Microsoft System Center Configuration Manager 2012r R2 © (SCCM) and script technology. When deploying Autodesk products to two or one thousand computers, you can use these techniques with SCCM. You can also use this same workflow for other similar IT software management tools to deploy Autodesk products.
- We will briefly explore the creation of Autodesk packages using the out of the box tools in Autodesk products. We will run through how to create an SCCM software package, and deploying the Autodesk build to a collection of computers. We will also explore how to deploy third Party or Autodesk add-ons to the same collection of computers using scripts and SCCM.—SCCM has powerful reporting tools to monitor the software deployment status during and/or after the deployment.

Your AU Expert(s)

Derek Gauer

Derek Gauer has more than 25 years of CAD management experience, and he has worked at IBI Group for the past 23 years. Mr. Gauer specializes in CAD management, road design (including horizontal and vertical alignment), quantity calculations, and contract document preparation. Mr. Gauer's current position is the global manager for the hardware, software, and support in the Design Technology Group. His experience of CAD, Building Information Modeling (BIM), and IT has enabled him to integrate over 20 new firms into the IBI Group of companies. He supports over 1,500 users spread across 65



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offices in ten countries. His role includes investigating and implementing training methodologies and researching new advancements in software. Mr. Gauer has extensive knowledge of AutoCAD software, AutoCAD Map software, AutoCAD Civil 3D software, Revit software, 3ds Max software, and InfraWorks 360 software. Mr. Gauer is a member of the Autodesk User Group International (AUGI), Groundbreakers AutoCAD Civil 3D User Group, and the Ontario Revit User Group.

Ted Martin

Mr. Martin one of the few full time support staff tasked with global CAD support. Mr. Martin has almost 22 Years of experience with Autodesk product and consulting services. He has a background in Civil and had a brief stint as a mechanical / manufacturing designer prior to joining IBI.

Mr Martin was hired by Cumming Cockburn Limited in 2002 to help rebuild a local presents in Waterloo Ontario Canada and managed CAD and IT operations. In 2004 IBI acquired CCL and he began helping with integrations shortly after that. Since Mr Martin has been a CAD team lead on integrations, this offered lots of opportunities to see customization and work flow in a multitude of applications. Currently he supports over 65 offices and 1,500 users worldwide



1. Design Technology group

1.1 What is a Design Technology group?

- Design Technology is a group of former CAD Designers, CAD managers, BIM managers working for the alignment of the overall corporate goals. The Design Technology group or (DT) needs to work very closely with the IT group.

1.2 What is unique about Design Technology (DT)?

- DT works at a user level to resolve all issues related to project deliverables, workflow or software issues.
- DT makes decisions based on calculated evaluations that IT may not have the expertise or time to assess.
- DT controls licensing management and ensures the company is compliant with all design technology license agreements.
- DT tests and evaluates hardware for its' functionality within the area of design, maintaining a fiscal balance between cost and performance.
- DT is a specialized subset of IT that marries management ideology, IT technology and most important user sensitivities.

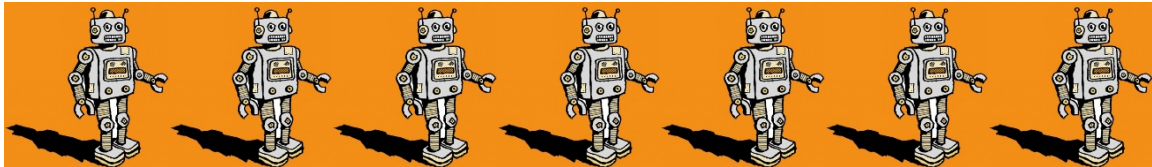
1.3 Why not just leave the deploying of software to IT?

- IT may be good at installing some software, but DT has a working knowledge of specific applications and the design requirements for projects.
- DT can test the applications and coordinate the best products and add-ons to deploy globally and locally.
- IT may be too busy to deploy critical design software during project ramp up. New versions of Revit may be required on projects that are outside a corporate standard. DT can download, build and deploy with short notice.
- DT proactively monitors patches and hotfixes and can set up pushes resolving critical issues ahead of any impact for users.

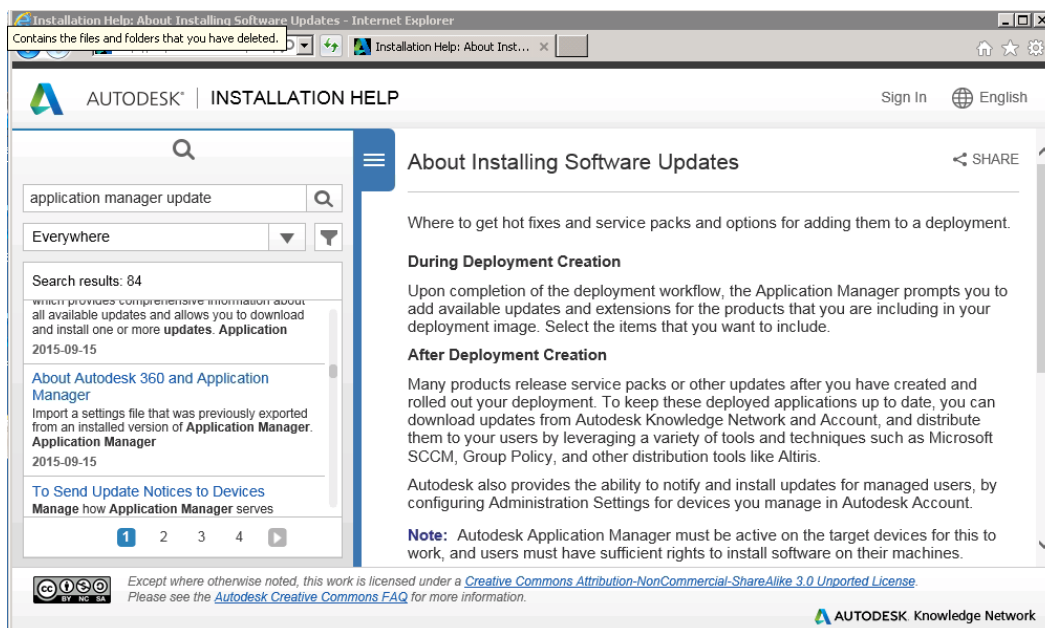


2. Why use Microsoft System Center Configuration Manager 2012 r2 © (SCCM)?

- Faster (about twice as fast to install applications)
- You can push to one or thousands of computers. It is like your own personal robot to do installs.



- You can run reports
- Autodesk recommends it



3. Creation of Autodesk packages in Autodesk design suite packages

3.1 Autodesk Subscription site login

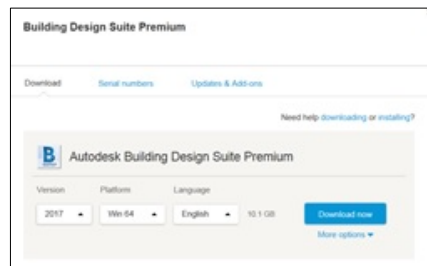
Login into your subscription account.

<https://accounts.autodesk.com/Logon>



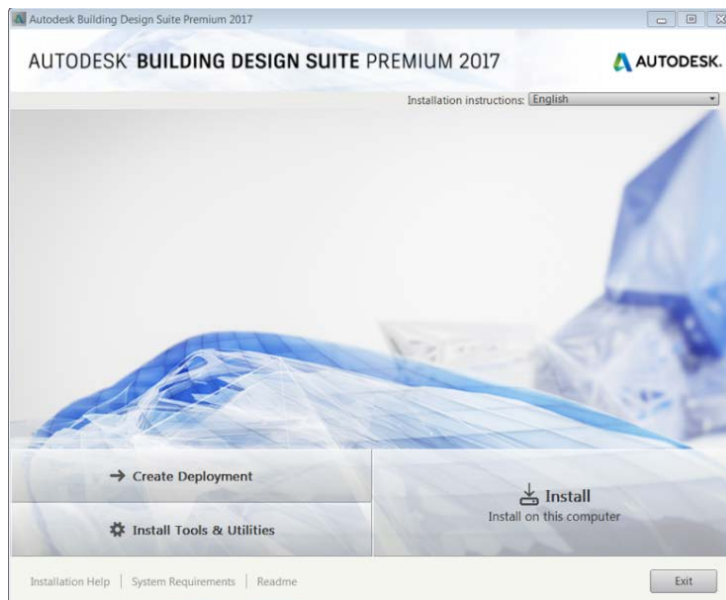
3.2 Download your products

Go to all products & services and select the products to download



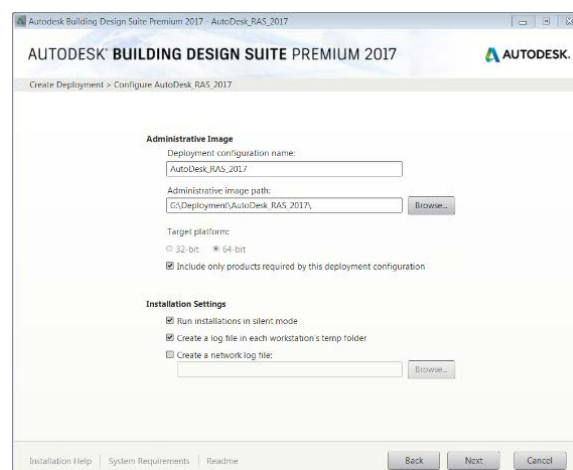
3.3 Start creating a deployment

Double click on the downloaded file and start creating the package. Select create deployment.



3.4 Configure the deployment name and path locations.

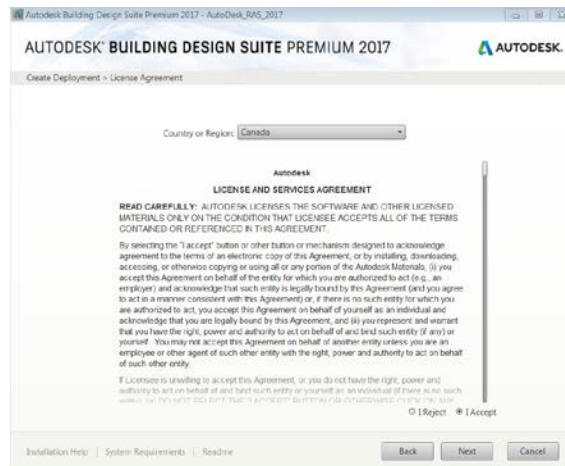
Use a Universal Naming Convention (UNC) or mapped drive for the server location. For example \\server1\deployments\Autodesk_BDSP_2017





3.5 License agreement

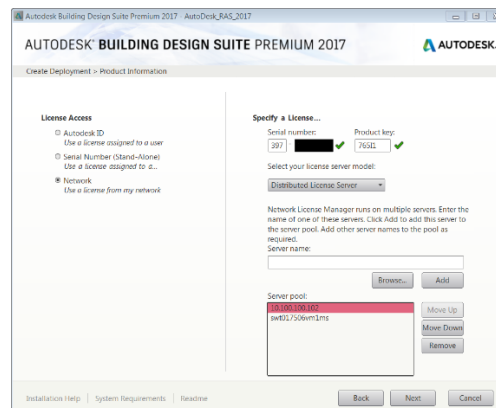
Select your Country or Region. Read your license and services agreement. Click next



3.6 Product information

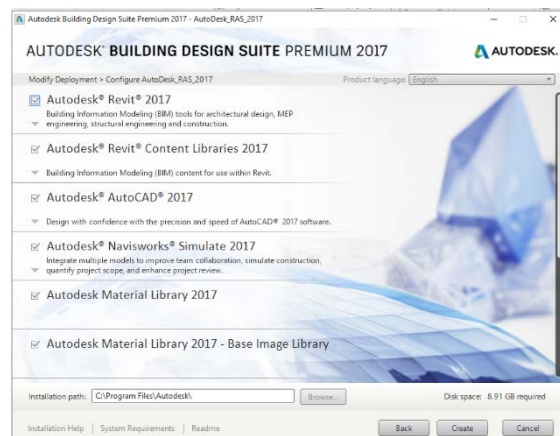
Select license access type. Enter you license number and product key.

Add your required servers if it is a network license.



3.7 Modify deployment

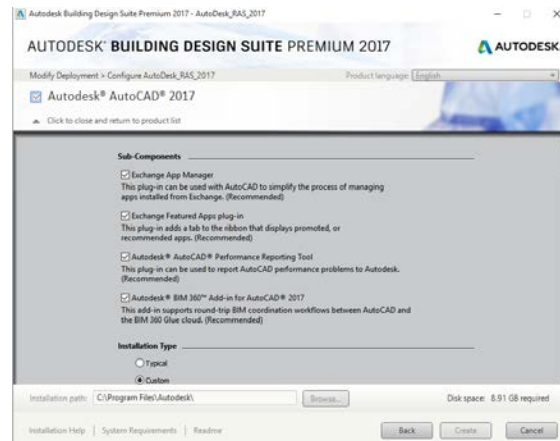
Select the products to be installed





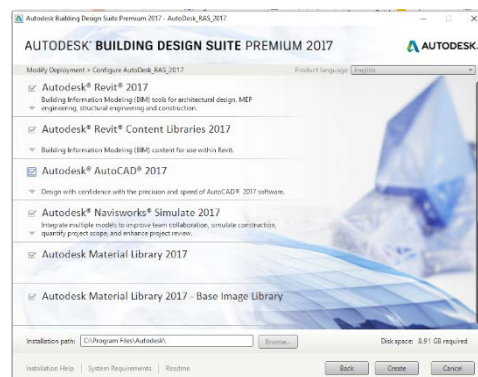
3.8 Configure AutoCAD

Configure AutoCAD

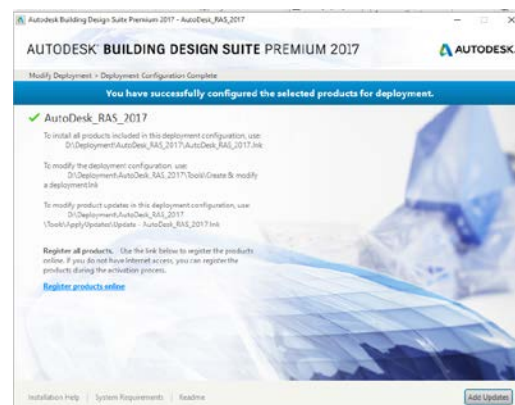


3.9 Create the deployment

Click create deployment.



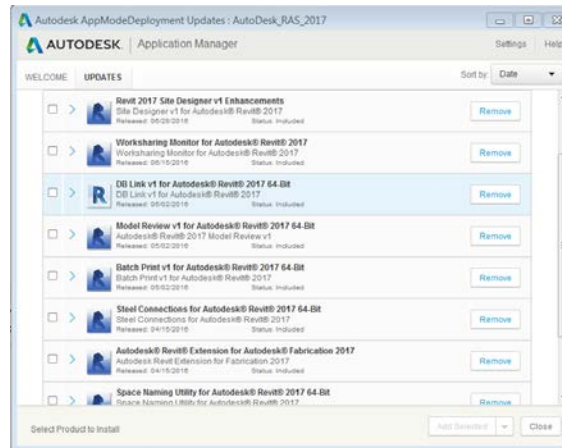
3.10 Finish the deployment and update as necessary.





3.11 Add updates

Updates can be added later using a command script.

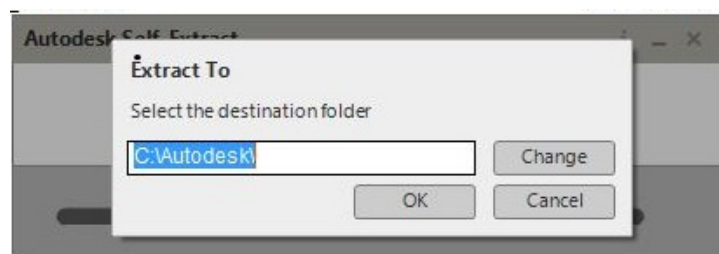


3.12 Finish the deployment and update as necessary.

4. Creation of Command or batch files to install Autodesk or third party applications.

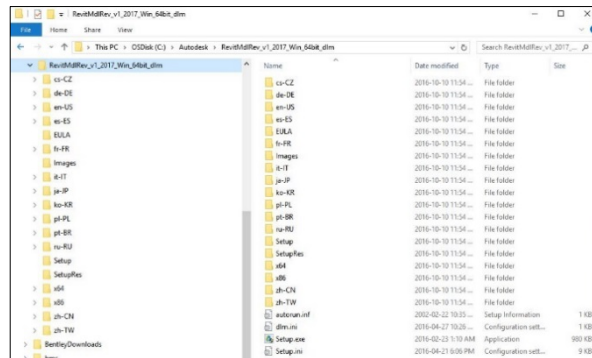
- You can create command or batch files to install
 - Autodesk add-ons – msi (installers)
 - Service packs
 - Third party applications
 - Customization files

Download the add-on and extract to C drive or server location.

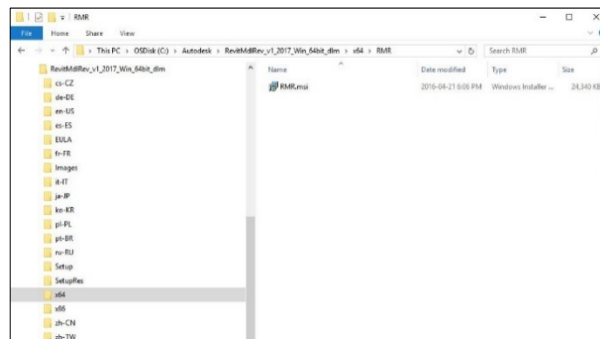




4.1 Review setup files and find msi files



4.2 Typically msi files for add-ons are located in the x64 folder for Autodesk add-ons.



Typically msi files for add-ons are located in the x64 folder for Autodesk add-ons. RMR.msi is used for this example.

Create your Command or batch files in Notepad or notepad plus. Make sure you extension is either .cmd or .bat.

- Example 1 Batch file created in notepad to install Revit add-on

```
msiexec /i
"\\server1\deployments\AutoDesk_BDSP_2017\Revit_Addon\RevitMdlRev_v1_2017_Win_64bit_dlm\x64\RMR.msi" /qn
```

- Example 2 Batch file created in notepad to install Civil 3d add-on

Extract C3D_2016_PROD_PACK_1_ENGLISH_64.exe to folder
 \\img\x64\Components\ with WinRAR or 7-Zip

```
msiexec /i
"\\server1\deployments\C3D_2016_PROD_PACK_1_ENGLISH_64\Autodesk_AutoCAD_C3D_2016_Productivity_Pack1.msi" /qn
```



4.3 Commonly used MSIEXEC command line switches:

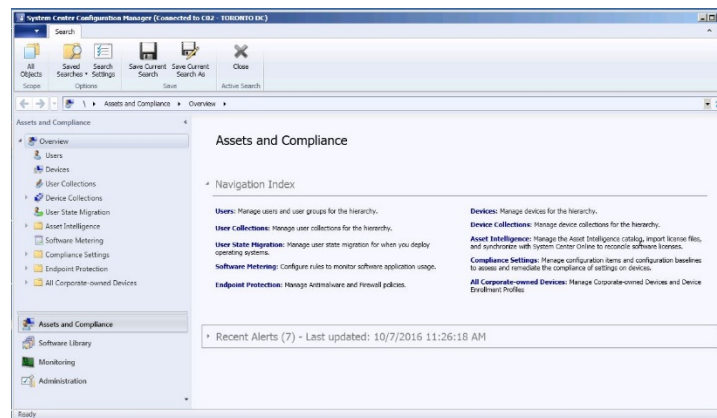
Switch Effect

- /qn Performs the install/patch with no user interface (silent install).
- /qb Quiet with a file installation progress bar during installation/service pack update.
- /qr Quiet with a progress thermometer on the standard wizard dialog (no questions)

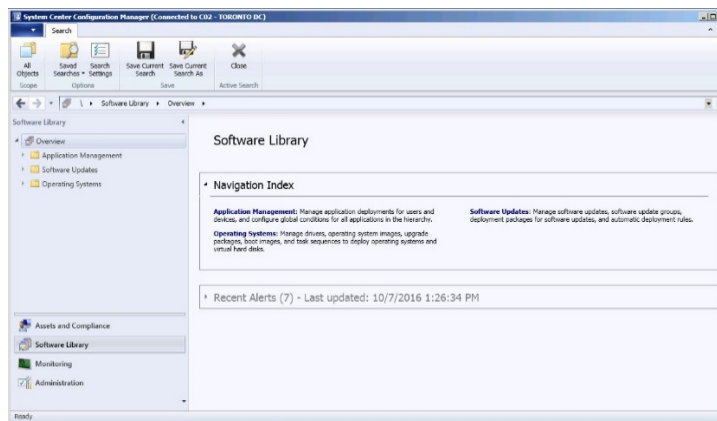
5. Microsoft SCCM packages creation

5.1 SCCM Console

Run SCCM console from workstation or Server

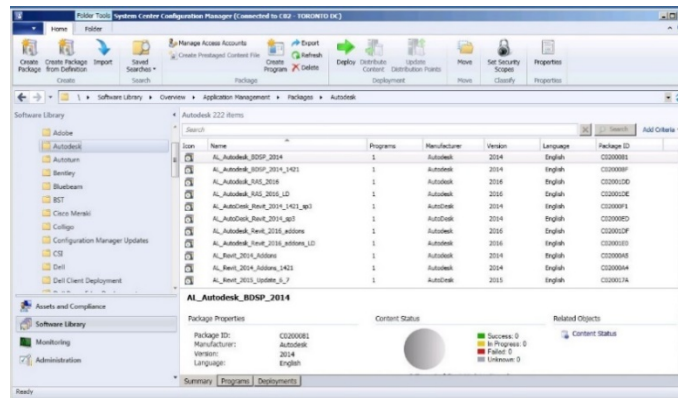


5.2 Open Software library

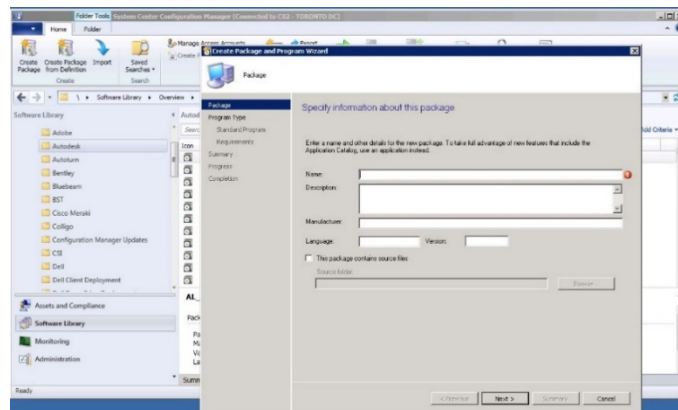




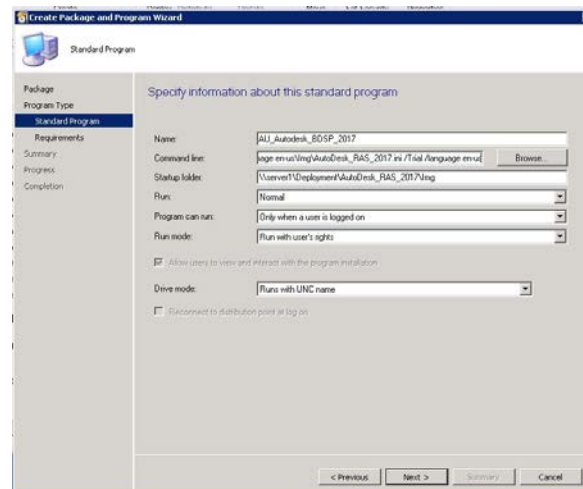
5.3 Create Autodesk folder and select folder.



5.4 Specify the information about this standard program.



5.5 Input the information about this standard program..

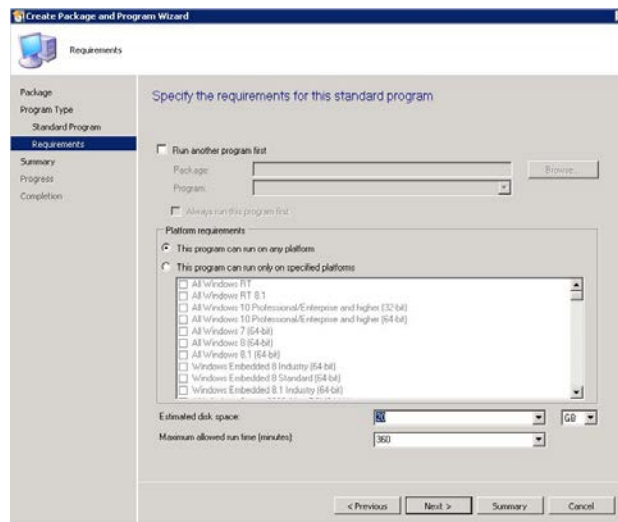


Note:

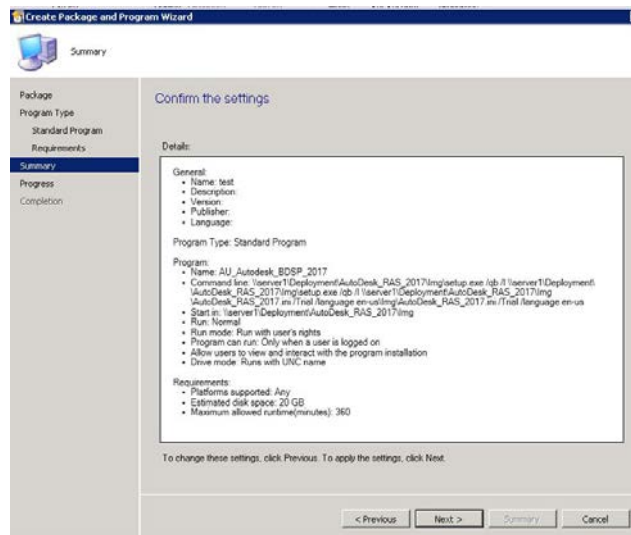
Since Autodesk software are generally deployed silently to multiple computers at the same time, the software needs to run silent (Hidden). Whether or not a user is logged on, and with administrator rights.



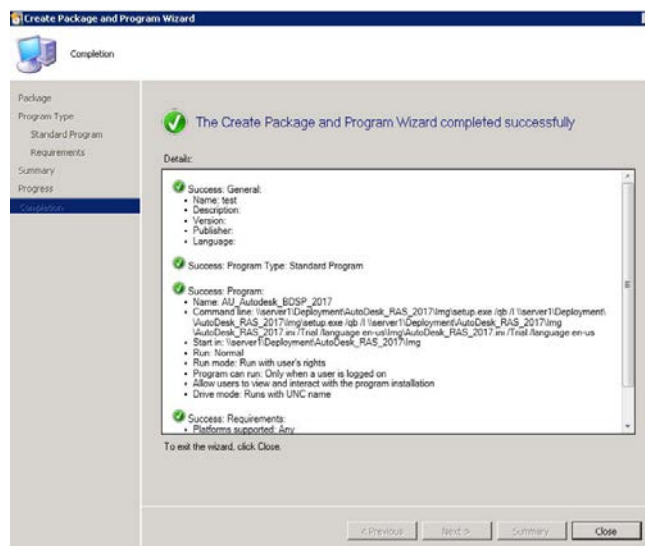
5.6 Specify the requirements for this standard program



5.7 Confirm the settings and click next.



5.8 Click close and the Package and program wizard is completed.



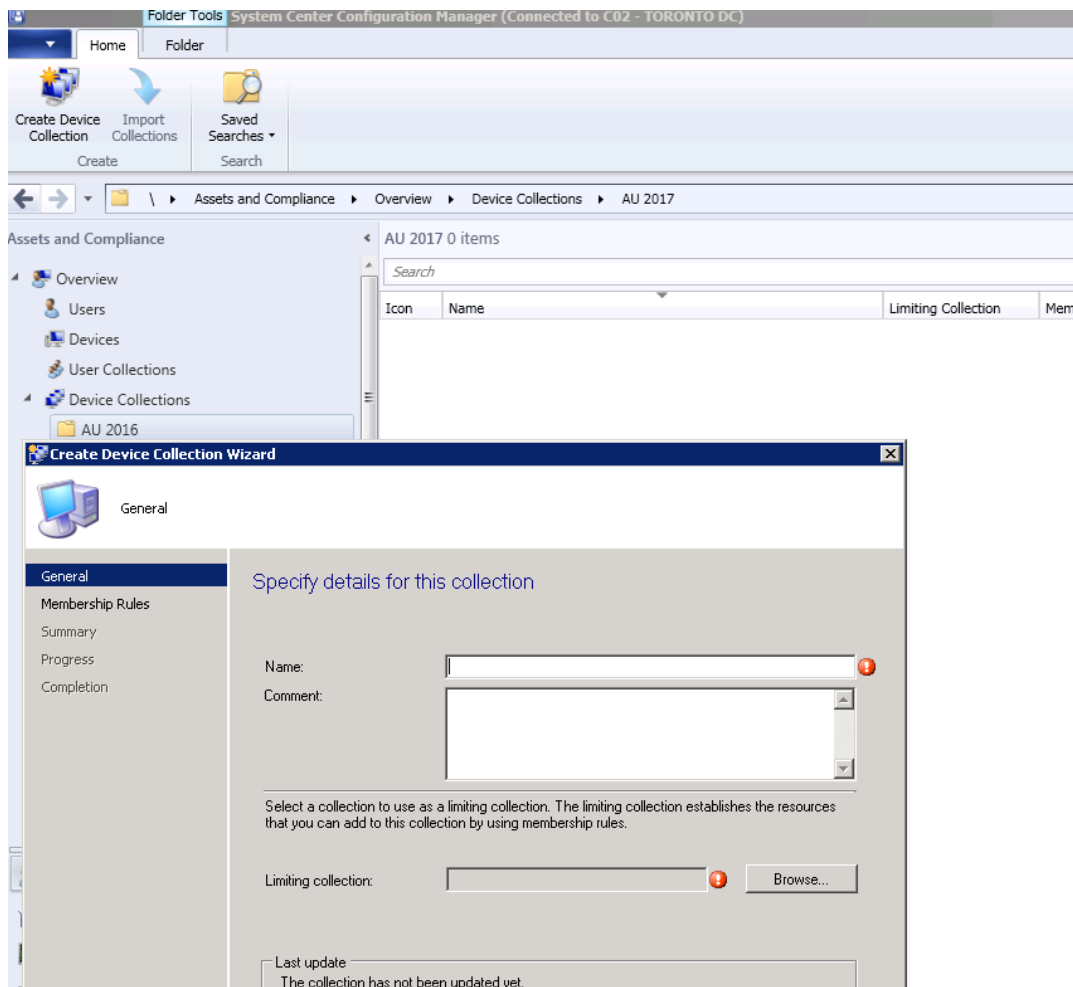


6. Create new Device Collection

6.1 Navigate to Assets and compliance- Overview-Device collection – Software deployment – Au 2016



6.2 Create new Device Collection





6.3 Specify details for this collection – Limit collection as necessary

6.4 Define membership rules for this collection. Add direct rule or query rules

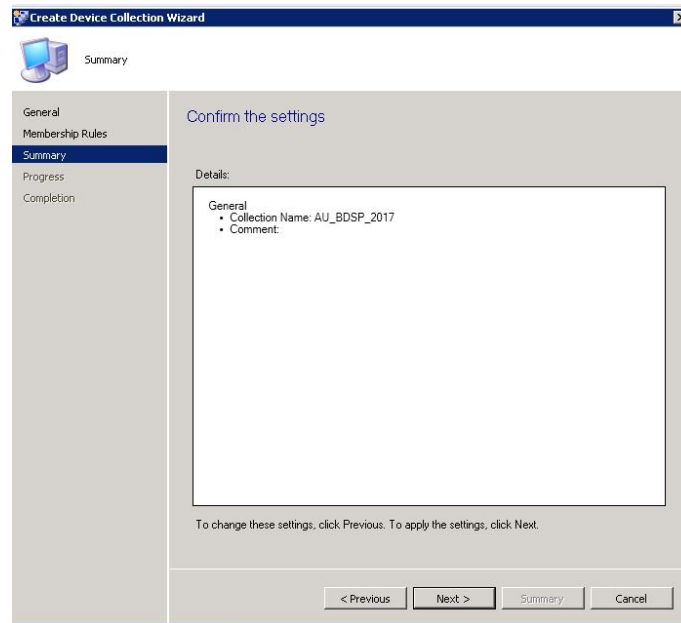
Example query rule to find computers with Revit 2014, so newer products can be installed

Query Language – Query Statement

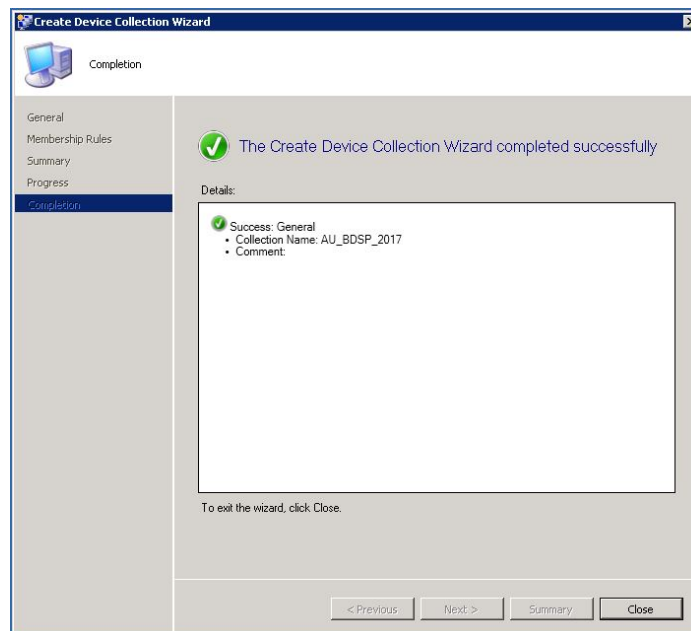
```
select
SMS_R_SYSTEM.ResourceID,SMS_R_SYSTEM.ResourceType,SMS_R_SYSTEM.Name,SMS_R
_SYSTEM.SMSUniqueIdentifier,SMS_R_SYSTEM.ResourceDomainORWorkgroup,SMS_R_SYST
EM.Client from SMS_R_System inner join SMS_G_System_INSTALLED_SOFTWARE on
SMS_G_System_INSTALLED_SOFTWARE.ResourceId = SMS_R_System.ResourceId where
SMS_G_System_INSTALLED_SOFTWARE.ARPDisplayName like "Revit 2014%"
```



6.5 Confirm the settings – click next



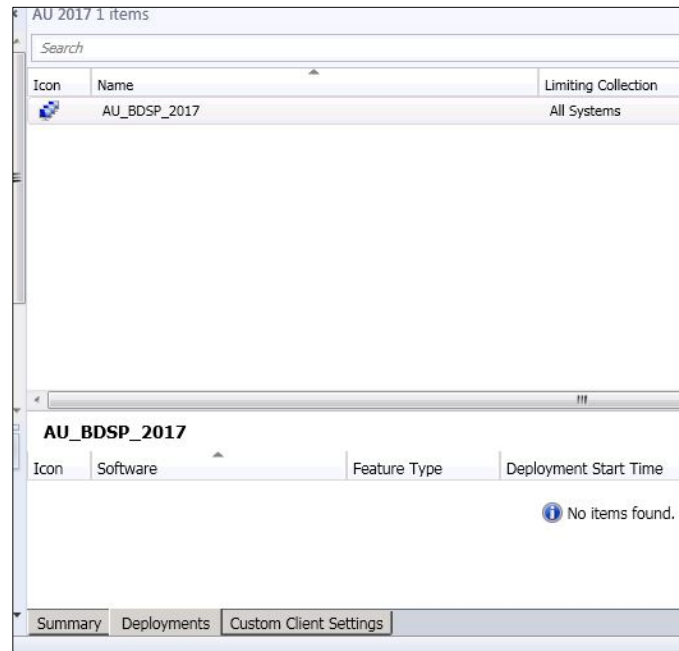
6.6 The Create Device Collection Wizard completed successfully. Click close



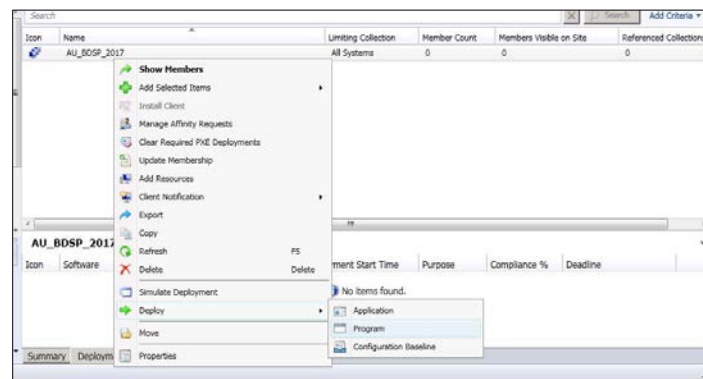


7. Deploy your program

7.1 Deploy your program - right click on deployment.

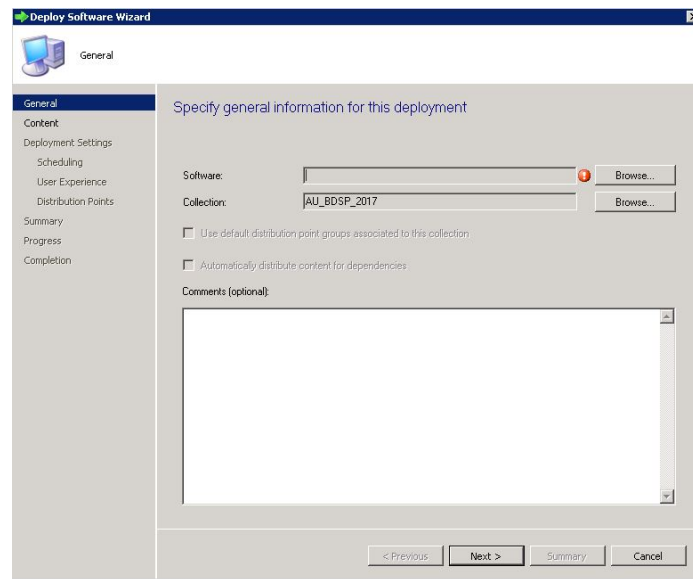


7.2 Deploy your program – Select deploy- program



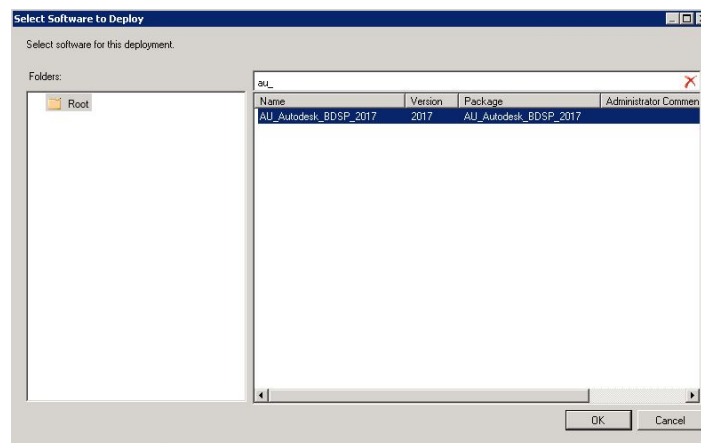


7.3 Specify general information for this deployment.



The screenshot shows the 'Deploy Software Wizard' window, specifically the 'General' tab. The left sidebar contains a list of steps: General, Content, Deployment Settings, Scheduling, User Experience, Distribution Points, Summary, Progress, and Completion. The main area is titled 'Specify general information for this deployment'. It contains two text boxes: 'Software:' and 'Collection:', both with 'Browse...' buttons to their right. The 'Collection:' box contains the text 'AU_BDSP_2017'. Below these are two unchecked checkboxes: 'Use default distribution point groups associated to this collection' and 'Automatically distribute content for dependencies'. A large text area for 'Comments (optional)' is at the bottom. Navigation buttons at the bottom right are '< Previous', 'Next >', 'Summary', and 'Cancel'.

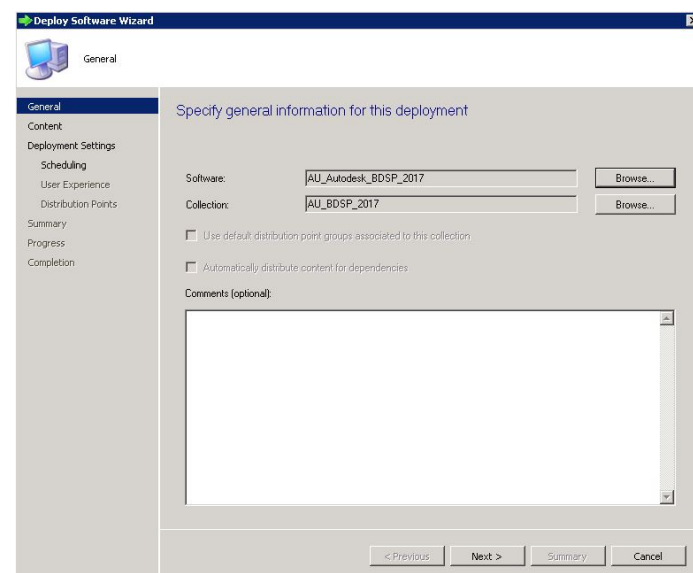
7.4 Select software for this deployment.



The screenshot shows the 'Select Software to Deploy' dialog box. It has a 'Folders:' section on the left with a tree view showing 'Root'. On the right, there is a table with columns: Name, Version, Package, and Administrator Comment. The table contains one entry: 'AU_Autodesk_BDSP_2017' with version '2017' and package 'AU_Autodesk_BDSP_2017'. At the bottom right are 'OK' and 'Cancel' buttons.

Name	Version	Package	Administrator Comment
AU_Autodesk_BDSP_2017	2017	AU_Autodesk_BDSP_2017	

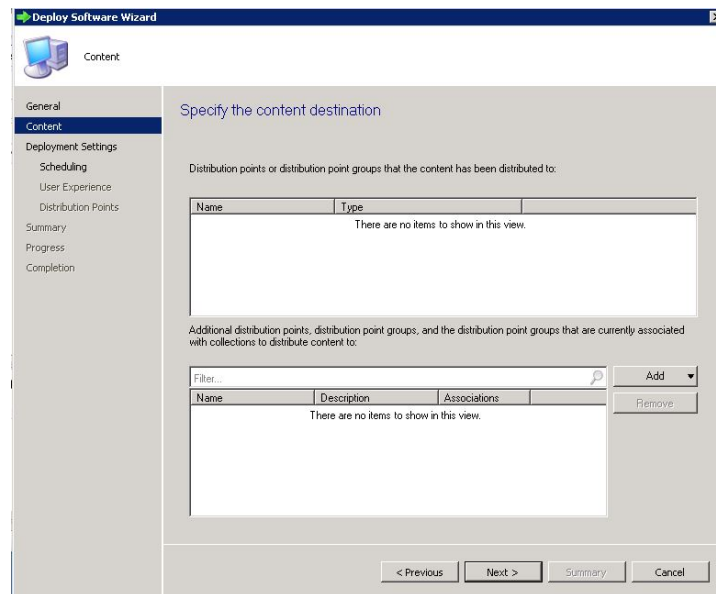
7.5 Specify general information for this deployment and click next.



This screenshot is identical to the one in step 7.3, showing the 'Deploy Software Wizard' - General tab. The 'Software:' and 'Collection:' fields are now populated with 'AU_Autodesk_BDSP_2017' and 'AU_BDSP_2017' respectively. The 'Next >' button is highlighted, indicating the next step in the wizard.



7.6 Specify the content destination or click next.

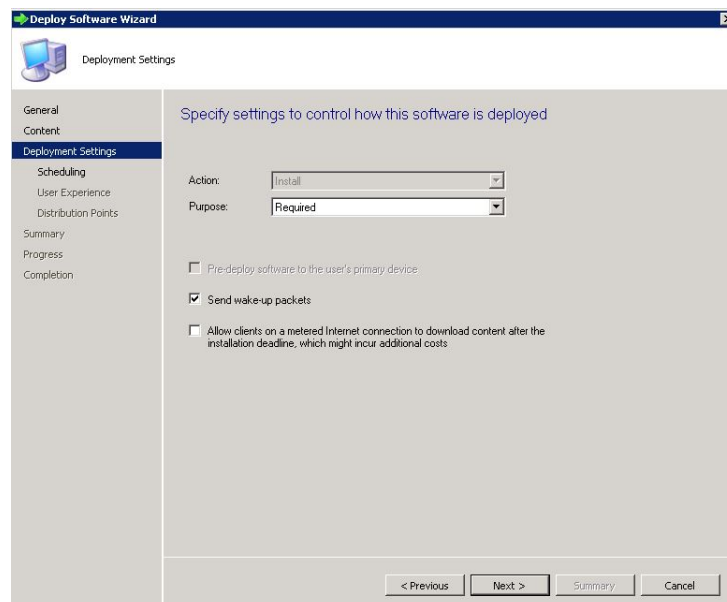


The screenshot shows the 'Content' step of the 'Deploy Software Wizard'. The left sidebar has 'Content' selected. The main area is titled 'Specify the content destination'. It contains two empty tables for distribution points and groups, each with a 'Name' and 'Type' column. Below these is a section for 'Additional distribution points...' with a search filter and an 'Add' button. At the bottom are navigation buttons: '< Previous', 'Next >', 'Summary', and 'Cancel'.

Name	Type
There are no items to show in this view.	

Name	Description	Associations
There are no items to show in this view.		

7.7 Specify settings to control how this software is deployed.



The screenshot shows the 'Deployment Settings' step of the 'Deploy Software Wizard'. The left sidebar has 'Deployment Settings' selected. The main area is titled 'Specify settings to control how this software is deployed'. It includes dropdowns for 'Action' (set to 'Install') and 'Purpose' (set to 'Required'). There are three checkboxes: 'Pre-deploy software to the user's primary device' (unchecked), 'Send wake-up packets' (checked), and 'Allow clients on a metered Internet connection to download content after the installation deadline...' (unchecked). Navigation buttons at the bottom are '< Previous', 'Next >', 'Summary', and 'Cancel'.

Action:

Purpose:

☐ Pre-deploy software to the user's primary device

☒ Send wake-up packets

☐ Allow clients on a metered Internet connection to download content after the installation deadline, which might incur additional costs



7.8 If this is a mandatory deployment, specify the schedule for this deployment

Deploy Software Wizard

Scheduling

General
Content
Deployment Settings
Scheduling
User Experience
Distribution Points
Summary
Progress
Completion

Specify the schedule for this deployment

This program will be available as soon as it has been distributed to the content servers unless it is scheduled for a later time below. For required applications, specify the assignment schedule.

☒ Schedule when this deployment will become available:
10/7/2016 4:41 PM UTC

☒ Schedule when this deployment will expire:
10/7/2016 4:41 PM UTC

Assignment schedule: New... Edit... Delete

There are no items to show in this view.

Rerun behavior: Always rerun program

< Previous Next > Summary Cancel

7.9 Assignment Schedule

Assignment Schedule

☒ Assign to the following schedule:
Occurs on 10/7/2016 4:44 PM

Schedule...

☐ Assign immediately after this event:
As soon as possible

OK Cancel

7.10 Create custom schedule

Custom Schedule

Time

Start: 10/8/2016 1:00 AM

☐ Coordinated Universal Time (UTC)

Recurrence pattern

Configure the recurrence schedule.

☒ None
No recurrence. The scheduled event occurs once at the specified time.

☐ Monthly

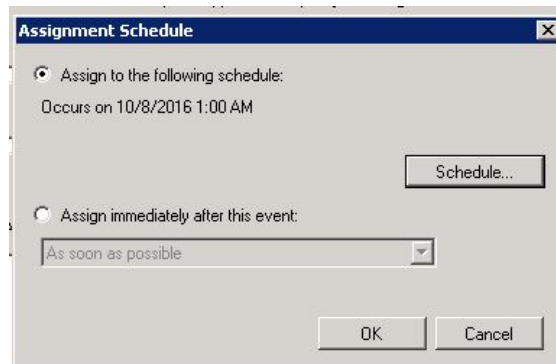
☐ Weekly

☐ Custom interval

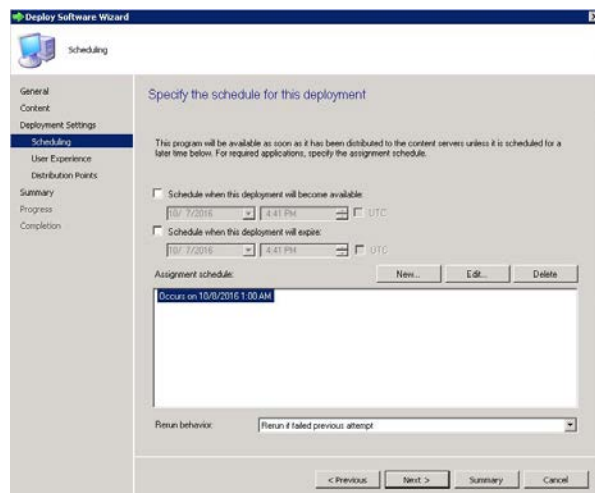
OK Cancel



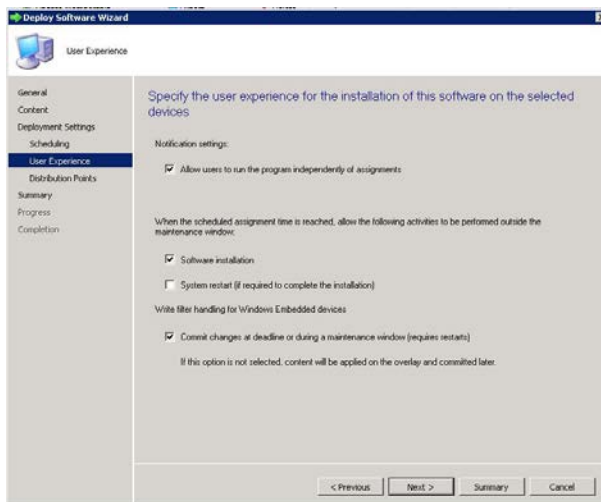
7.11 Assignment schedule – Click Ok



7.12 Schedule for this deployment is complete – click next



7.13 User Experience- Select the user experience for the installation of this software on the selected devices.





7.14 Specify how to run the content for this program according to type of boundary the client is connect to.

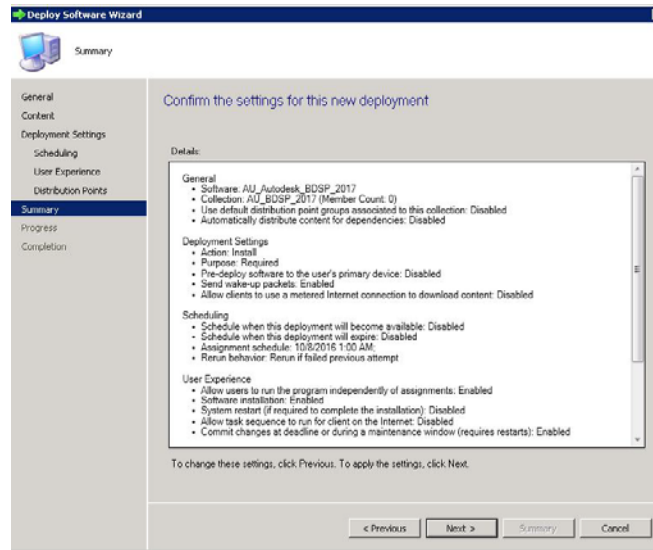
The screenshot shows the 'Distribution Points' step of the 'Deploy Software Wizard'. The left sidebar lists the steps: General, Content, Deployment Settings, Scheduling, User Experience, Distribution Points (selected), Summary, Progress, and Completion. The main area has the title 'Specify how to run the content for this program according to the type of boundary the client is connected to'. It contains two sections: 'Deployment options:' with a dropdown menu set to 'Download content from distribution point and run locally', and 'Deployment options:' with a dropdown menu set to 'Download content from distribution point and run locally'. Below these is a checkbox labeled 'Allow clients to use a fallback source location for content' which is currently unchecked. At the bottom are buttons for '< Previous', 'Next >', 'Summary', and 'Cancel'.

7.15 User Experience- Select the user experience for the installation of this software on the selected devices. Click next

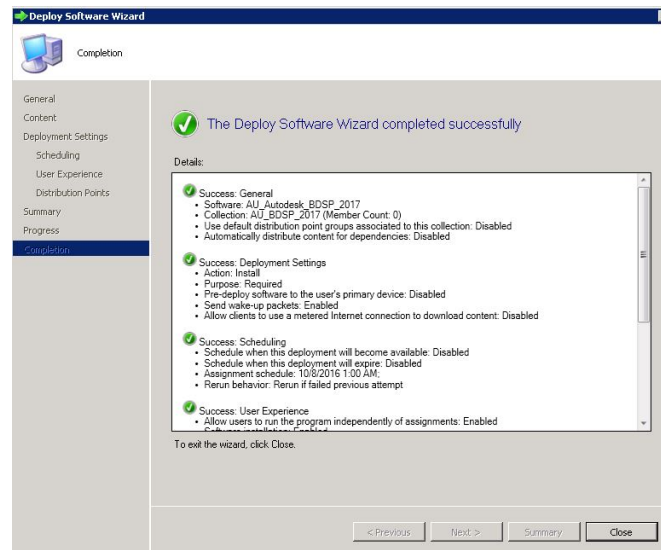
The screenshot shows the 'User Experience' step of the 'Deploy Software Wizard'. The left sidebar lists the steps: General, Content, Deployment Settings, Scheduling, User Experience (selected), Distribution Points, Summary, Progress, and Completion. The main area has the title 'Specify how to run the content for this program according to the type of boundary the client is connected to'. It contains two sections: 'Deployment options:' with a dropdown menu set to 'Download content from distribution point and run locally', and 'Deployment options:' with a dropdown menu set to 'Download content from distribution point and run locally'. Below these are two checkboxes: 'Allow clients to share content with other clients on the same subnet' (checked) and 'Allow clients to use a fallback source location for content' (checked). At the bottom are buttons for '< Previous', 'Next >', 'Summary', and 'Cancel'.



7.16 Summary – Confirm the settings for this new deployment – click next.



7.17 Completion – The Deploy Software Wizard completed successfully. Click close



8. Check the status of the deployment

8.1 Monitoring overview of Deployment – Deployment Status





9. **SCCM other advantages**

Deploy from distribution points

Run reports and queries

Monitoring

Alerts

Compliance

Deploy other windows software



The END

