

How to deploy SandBox as an application through Current Branch 1902

In this exercise, I will show you how to create and deploy application as a package for installing SandBox through Current Branch 1902. SandBox is a feature that is helpful for developers who want to test a new application, update, or any other activity before going live. It is also neat to have this feature enabled to use as and when needed because SandBox does not keep the machine details when created. As soon you exit SandBox the machine details are wiped.

What is Windows Sandbox?

Windows Sandbox is a new feature that allows you to run a virtualized environment from your Windows host computer.

You will be able for instance to execute a specific application on an isolated environment.

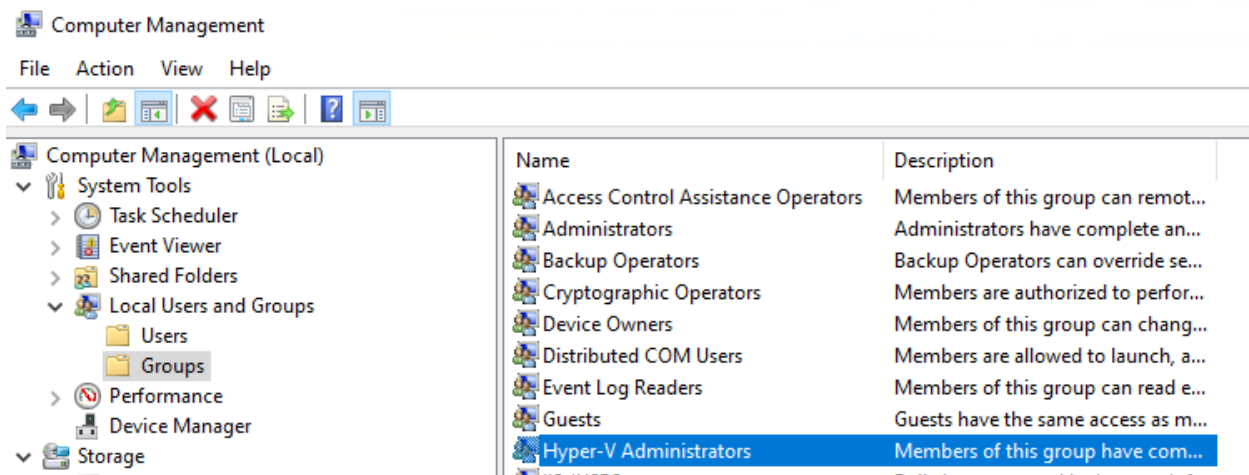
Windows Sandbox uses hardware virtualization to create this isolated environment.

You won't need to install a VM to use it.

Indeed, it will use OS from your host computer.

You will be able to run it from the Start menu or create a WSB shortcut to run a sandbox with a specific configuration.

First, we have to add standard user to Hyper-Administrators group on the workstation. So open Computer Management – Users and Groups – Add the user



If you want to do it through PS – use this one

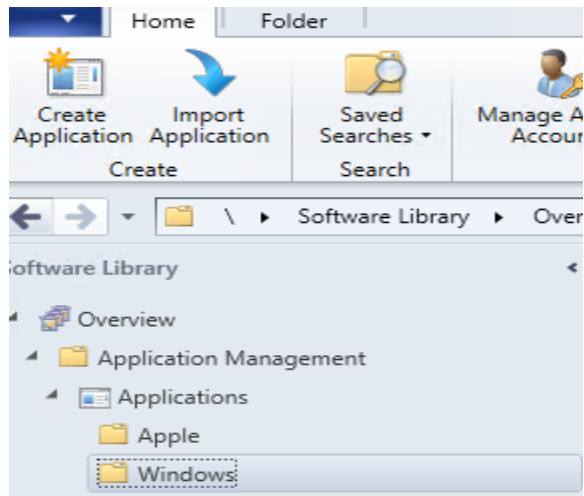
```
$Script:my_user = (gwmi win32_computersystem).username  
Add-LocalGroupMember -group "Hyper-V administrators" -member $my_user
```

You can use the script to do the following. The script is at the end of the post.

- Check if Windows Sandbox is already installed or not
- Enable the Sandbox feature is needed
- Add the current user in the Hyper-V admin group

Now we are ready to create an application for deploying SandBox

Open Console – Software Library – Applications – Create Application



Create Application Wizard



General

General

General Information

Application Catalog

Deployment Types

Summary

Progress

Completion

Specify settings for this application

Applications contain software that you can deploy to users and devices in your Configuration Manager environment. Applications can contain multiple deployment types that customize the installation behavior of the application.

☐ Automatically detect information about this application from installation files:

Type: Windows Installer (*.msi file)

Location:

Browse...

Example: \\Server\Share\File

☒ Manually specify the application information

< Previous

Next >

Summary

Cancel



General Information

General

General Information

Application Catalog

Deployment Types

Summary

Progress

Completion

Specify information about this application

Name:

Administrator comments:

Publisher: Software version:

Optional reference:

Administrative categories:

☐ Date published:

Specify the administrative users who are responsible for this application.

Owners:

Support contacts:

< Previous

Next >

Summary

Cancel



Application Catalog

General

General Information

Application Catalog

Deployment Types

Summary

Progress

Completion

Specify the Configuration Manager Application Catalog entry

Specify information about how you want to display this application to users when they browse the Application Catalog. To provide information in a specific language, select the language before you enter a description.

Selected language:

Localized application name:

User categories:


User documentation:

Link text:

Privacy URL:

Localized description:

Keywords:

Icon: 

☐ Display this as a featured app and highlight it in the company portal

< Previous

Next >

Summary

Cancel



Deployment Types

General

General Information

Application Catalog

Deployment Types

Summary

Progress

Completion

Configure deployment types and the priority in which they will be applied for this application

Deployment types include information about the installation method and the source files for this application.

Deployment types:

Increase Priority

Decrease Priority

Filter...

Priority	Name	Type	Languages
----------	------	------	-----------

There are no items to show in this view.

Add...

Edit...

Copy

Delete

< Previous

Next >

Summary

Cancel



General

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify settings for this deployment type

Deployment types include information about the installation method and source files for this application.

Type:

Script Installer

☐ Automatically identify information about this deployment type from installation files

Location:

Example: \\Server\Share\File

Browse...

☒ Manually specify the deployment type information

< Previous

Next >

Summary

Cancel



General Information

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify general information for this deployment type

Applications can have any number of deployment types. Deployment types include links to content and settings that specify how the content is delivered.

Name: Sandbox Win 10

Administrator comments:

Languages: English (United States)

Select...

< Previous

Next >

Summary

Cancel

I saved the PS script in Sources folder.

CB > OS (C:) > Sources > Windows Application >

Name	Date modified	Type
7Zip	13-Jan-2019 9:25 ...	File folder
AdobeFiles	23-Feb-2019 1:46 ...	File folder
Core FTP	13-Jan-2019 8:43 ...	File folder
O365	19-Jan-2019 3:42 P...	File folder
Office 2019	20-Jan-2019 6:29 ...	File folder
Sandbox	18-Jun-2019 11:11 ...	File folder
SCCM Console	23-Feb-2019 9:53 ...	File folder
VLC	13-Jan-2019 8:51 ...	File folder



Content

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify information about the content to be delivered to target devices

Specify the location of the deployment type's content and other settings that control how content is delivered to target devices. All the contents in the path specified will be delivered.

Content location: \\cb\Sources\Windows Application\Sandbox

Browse...

☐ Persist content in the client cache

Specify the command used to install this content.

Installation program: "Sandbox Feature.PS1"

Browse...

Installation start in:

Configuration Manager can remove installations of this content if an uninstall program is specified below.

Uninstall program:

Browse...

Uninstall start in:

☐ Run installation and uninstall program as 32-bit process on 64-bit clients.

< Previous

Next >

Summary

Cancel



Detection Method

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify how this deployment type is detected

Specify how Configuration Manager determines whether this deployment type is already present on a device. This detection occurs before the content is installed or when software inventory data is collected.

☒ Configure rules to detect the presence of this deployment type:

Connector	(Clause)

Add Clause...

Edit Clause...

Delete Clause



Group

Ungroup

☐ Use a custom script to detect the presence of this deployment type:

Script type:

Script length:


Edit...

< Previous

Next >

Summary

Cancel

 Detection Rule

×

Create a rule that indicates the presence of this application.

Setting Type: File System

Specify the file or folder to detect this application.

Type: File

Path: C:\Windows\System32\ Browse...

File or folder name: WindowsSandbox.exe

☒ This file or folder is associated with a 32-bit application on 64-bit systems.

☒ The file system setting must exist on the target system to indicate presence of this application

☐ The file system setting must satisfy the following rule to indicate the presence of this application


Property: Date Modified

Operator: Equals

Value:

OK Cancel

OR

 Detection Rule

×

Create a rule that indicates the presence of this application.

Setting Type: File System

Specify the file or folder to detect this application.

Type: File

Path: C:\Windows\WinSxS\ Browse...

File or folder name: WindowsSandbox.exe

☒ This file or folder is associated with a 32-bit application on 64-bit systems.

☒ The file system setting must exist on the target system to indicate presence of this application

☐ The file system setting must satisfy the following rule to indicate the presence of this application

Property: Date Modified

Operator: Equals

Value:

OK Cancel



Detection Method

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify how this deployment type is detected

Specify how Configuration Manager determines whether this deployment type is already present on a device. This detection occurs before the content is installed or when software inventory data is collected.

☒ Configure rules to detect the presence of this deployment type:

	Connector	(Clause)
▶			WindowsSandbox.exe exists	

Add Clause...

Edit Clause...

Delete Clause

Group

Ungroup

Edit...

☐ Use a custom script to detect the presence of this deployment type:

Script type:

Script length:

< Previous

Next >

Summary

Cancel



User Experience

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify user experience settings for the application

Installation behavior:

Install for system

Logon requirement:

Whether or not a user is logged on

Installation program visibility:

Normal

☐ Allow users to view and interact with the program installation

Specify the maximum run time and estimated installation time of the deployment program for this application. The estimated installation time displays to the user when the application installs.

Maximum allowed run time (minutes):

120

Estimated installation time (minutes):

0

< Previous

Next >

Summary

Cancel



Requirements

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify installation requirements for this deployment type

Specify any requirements, such as hardware features or the operating system version, that devices must have before they can install this deployment type. Configuration Manager verifies that these requirements are met before content is deployed to the device.

Requirements:

Filter...		
Requirement Type	Operator	Values
There are no items to show in this view.		

Add...

Edit...

Delete

< Previous

Next >

Summary

Cancel



Dependencies

General

General Information

Content

Detection Method

User Experience

Requirements

Dependencies

Summary

Progress

Completion

Specify software dependencies for this deployment type

Software dependencies are deployment types that must be installed before this deployment type can be installed.

Software dependencies:

	Name	Application	Deployment Type	Automatically Install	

Add...

Edit...

Delete

< Previous

Next >

Summary

Cancel



Summary

General

- General Information
- Content
- Detection Method
- User Experience
- Requirements
- Dependencies
- Summary**
- Progress
- Completion

Confirm the settings for this deployment type

Details:

- General Information:
- Name: Sandbox Win 10
 - Technology: Script Installer
 - Administrator comments:
 - Languages: English (United States)
- Content:
- Content location: \\cb\\Sources\\Windows Application\\Sandbox
 - Persist in client cache: No
 - Installation program: "Sandbox Feature.PS1"
 - Installation start in:
- Detection Method:
- User Experience:
- Installation behavior: Install for system
 - Login requirement: Whether or not a user is logged on
 - Installation priority: Normal
 - Allow users to interact with this program: No
 - Maximum allowed run time (minutes): 120
 - Estimated install time (minutes): 0
- Requirements:
- Dependencies:

To change these settings, click Previous. To apply the settings, click Next.

< Previous

Next >

Summary

Cancel



Completion

General

- General Information
- Content
- Detection Method
- User Experience
- Requirements
- Dependencies
- Summary
- Progress
- Completion**



The Create Deployment Type Wizard completed successfully

Details:

- Success: General Information:
- Name: Sandbox Win 10
 - Technology: Script Installer
 - Administrator comments:
 - Languages: English (United States)
- Success: Content:
- Content location: \\cb\\Sources\\Windows Application\\Sandbox
 - Persist in client cache: No
 - Installation program: "Sandbox Feature.PS1"
 - Installation start in:
- Success: Detection Method:
- Success: User Experience:
- Installation behavior: Install for system
 - Login requirement: Whether or not a user is logged on
 - Installation priority: Normal
 - Allow users to interact with this program: No
 - Maximum allowed run time (minutes): 120
 - Estimated install time (minutes): 0
- Success: Requirements:
- Success: Dependencies:

To exit the wizard, click Close.

< Previous

Next >

Summary

Close



Deployment Types

General

General Information

Application Catalog

Deployment Types

Summary

Progress

Completion

Configure deployment types and the priority in which they will be applied for this application

Deployment types include information about the installation method and the source files for this application.

Deployment types:

Increase Priority

Decrease Priority

Filter...

Priority	Name	Type	Languages
1	Sandbox Win 10	Script	English (United States)

Add...

Edit...

Copy

Delete

< Previous

Next >

Summary

Cancel



Summary

General

General Information

Application Catalog

Deployment Types

Summary

Progress

Completion

Confirm the settings for this application

Details:

- General Information:
- Application name: Sandbox For Win 10
 - Administrator comments: Sandbox Feature deployed to Win 10 WS
 - Publisher: MS
 - Software version: 1.0
 - Optional reference:
- Categories:
- Tools
- Owners:
- Administrator
- Support contacts:
- Administrator
- Application Catalog entries specified for the following languages:
- en-CA
- Deployment type names:
- Sandbox Win 10

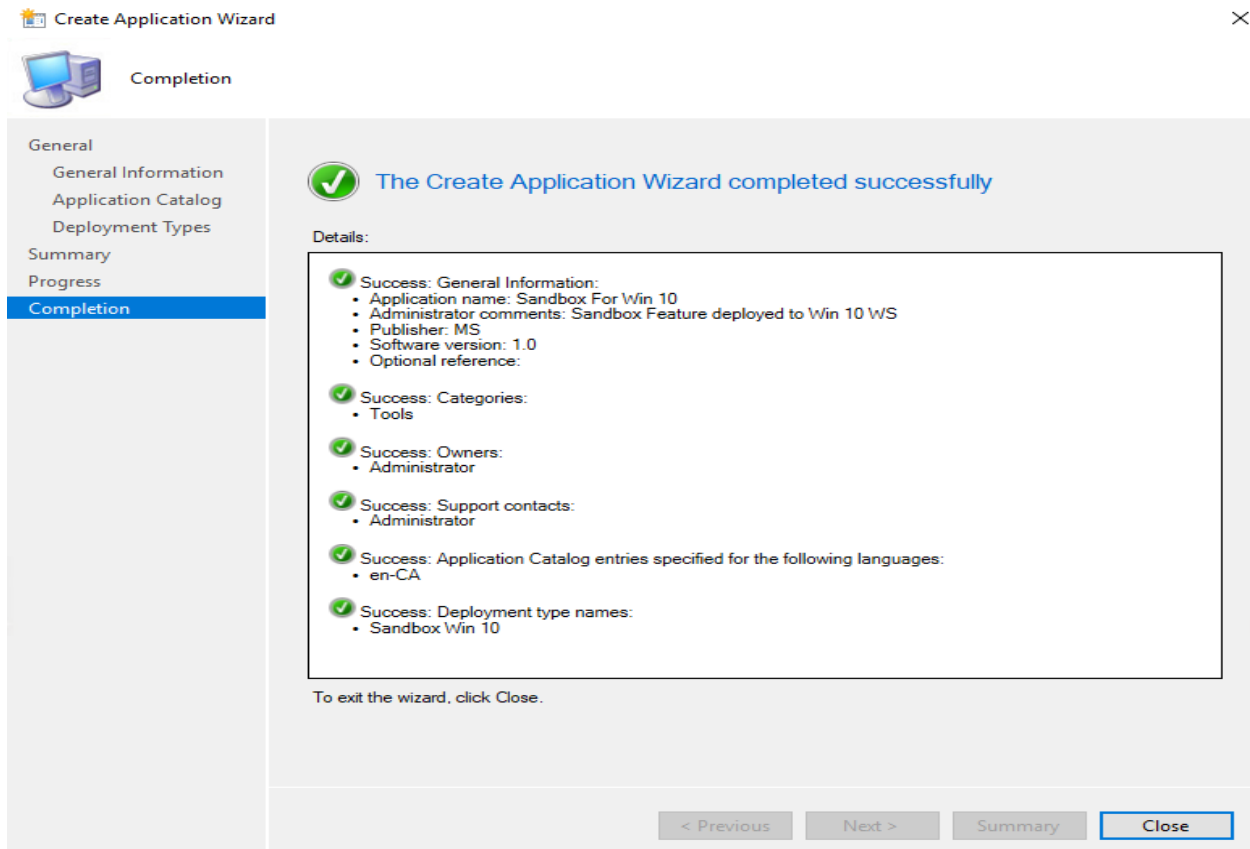
To change these settings, click Previous. To apply the settings, click Next.

< Previous

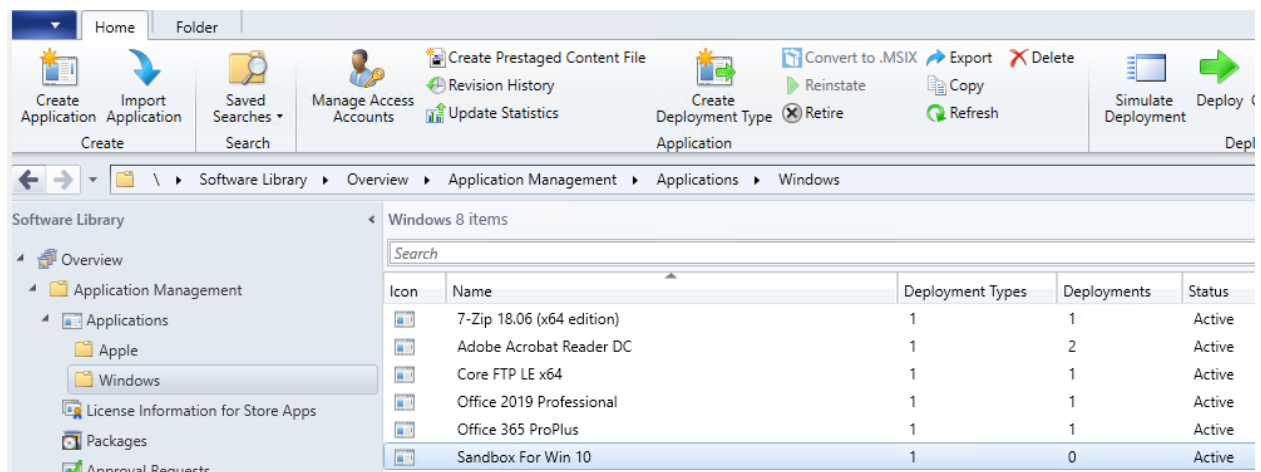
Next >

Summary

Cancel



Now it is ready. Deploy to Win 10 collection. In the lab, I have a Win 10 collection.





General

General

Content

Deployment Settings

Scheduling

User Experience

Alerts

Summary

Progress

Completion

Specify general information for this deployment

Software:

Sandbox For Win 10

Browse...

Collection:

Win 10

Browse...

☐ Use default distribution point groups associated to this collection

☒ Automatically distribute content for dependencies

Comments (optional):

Empty text area for comments.

< Previous

Next >

Summary

Cancel



Content

General

Content

Deployment Settings

Scheduling

User Experience

Alerts

Summary

Progress

Completion

Specify the content destination

Distribution points or distribution point groups that the content has been distributed to:

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

Additional distribution points, distribution point groups, and the distribution point groups that are currently associated with collections to distribute content to:

Filter...			Add
Name	Description	Associations	Remove
CB.RAMLAN.CA	Distribution point		
Toronto	Distribution point group	0	

< Previous

Next >

Summary

Cancel



Deployment Settings

General

Content

Deployment Settings

Scheduling

User Experience

Alerts

Summary

Progress

Completion

Specify settings to control how this software is deployed

Action: Install

Purpose: Available

☐ Allow end users to attempt to repair this application☐ An administrator must approve a request for this application on the device

If you also specify an email address, anyone who receives or is forwarded the email can approve this request.

Learn more

Example: user1@contoso.com; user2@contoso.com; user3@contoso.com



Scheduling

General

Content

Deployment Settings

Scheduling

User Experience

Alerts

Summary

Progress

Completion

Specify the schedule for this deployment

This application will be available as soon as possible by default. If this application should be made available at a different time, change the availability time to the desired UTC time.

Time based on:

UTC

☐ Schedule the application to be available at:

18-Jun-2019



3:21 PM



< Previous

Next >

Summary

Cancel



User Experience

General

Content

Deployment Settings

Scheduling

User Experience

Alerts

Summary

Progress

Completion

Specify the user experience for the installation of this software on the selected devices

Specify user experience setting for this deployment

User notifications:

Display in Software Center, and only show notifications for computer restarts

☐ When software changes are required, show a dialog window to the user instead of a toast notification

When the installation deadline is reached, allow the following activities to be performed outside the maintenance window:

☐ Software Installation☐ System restart (if required to complete the installation)

Write filter handling for Windows Embedded devices

☒ Commit changes at deadline or during a maintenance window (requires restarts)

If this option is not selected, content will be applied on the overlay and committed later.

< Previous

Next >

Summary

Cancel



Alerts

General

- Content
- Deployment Settings
- Scheduling
- User Experience
- Alerts**
- Summary
- Progress
- Completion

Specify Configuration Manager and Operations Manager alert options

Configuration Manager generates alerts when this application is deployed.

Threshold for successful deployment

☐ Create a deployment alert when the threshold is lower than the following:

Percent success:
After:

Threshold for failed deployment

☐ Create a deployment alert when the threshold is higher than the following:

Percent failure:

Enable System Center Operations Manager maintenance mode if you want Operations Manager to generate alerts when this application is deployed.

- ☒ Enable System Center Operations Manager maintenance mode
- ☒ Generate System Center Operations Manager alert when a software installation fails

< Previous

Next >

Summary

Cancel



Summary

General

- Content
- Deployment Settings
- Scheduling
- User Experience
- Alerts
- Summary**
- Progress
- Completion

Confirm the settings for this new deployment

Details:

General

- Software: Sandbox For Win 10
- Collection: Win 10 (Member Count: 2)
- Use default distribution point groups associated to this collection: Disabled
- Automatically distribute content for dependencies: Enabled

Deployment Settings

- Action: Install
- Purpose: Available
- Allow end users to attempt to repair this application: Disabled
- Allow clients to use a metered Internet connection to download content: Disabled

Application Settings (retrieved from application in software library)

- Application Name: Sandbox For Win 10
- Application Version: 1.0
- Application Deployment Types: Script Installer

Scheduling

- Time based on: UTC
- Available Time: As soon as possible
- Deadline Time: Disabled
- Delayed enforcement on deployment: Disabled

User Experience

- User notifications: Display in Software Center, and only show notifications for computer restarts
- Ignore Maintenance Windows: Disabled
- System restart (if required to complete the installation): Disabled
- Commit changes at deadline or during a maintenance window (requires restarts): Enabled

Alerts

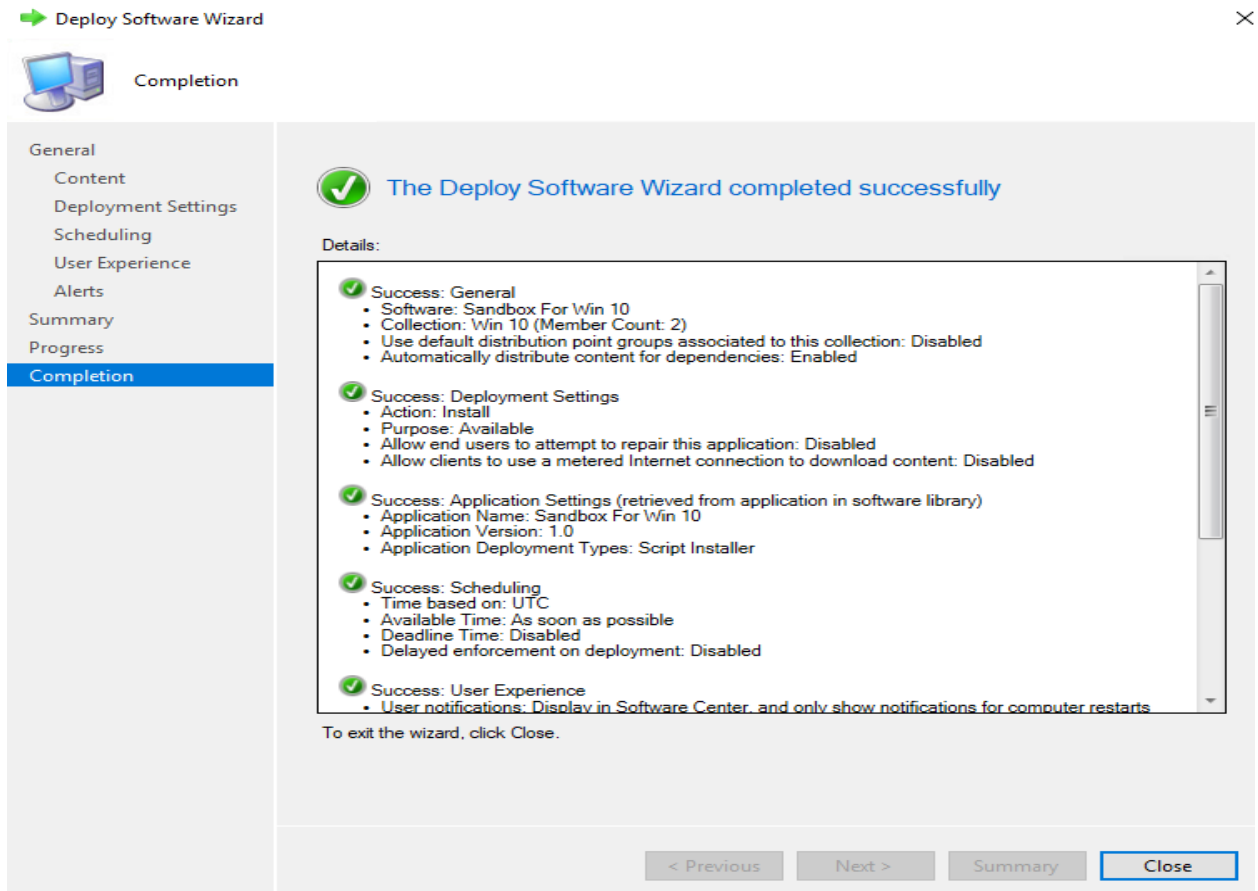
To change these settings, click Previous. To apply the settings, click Next.

< Previous

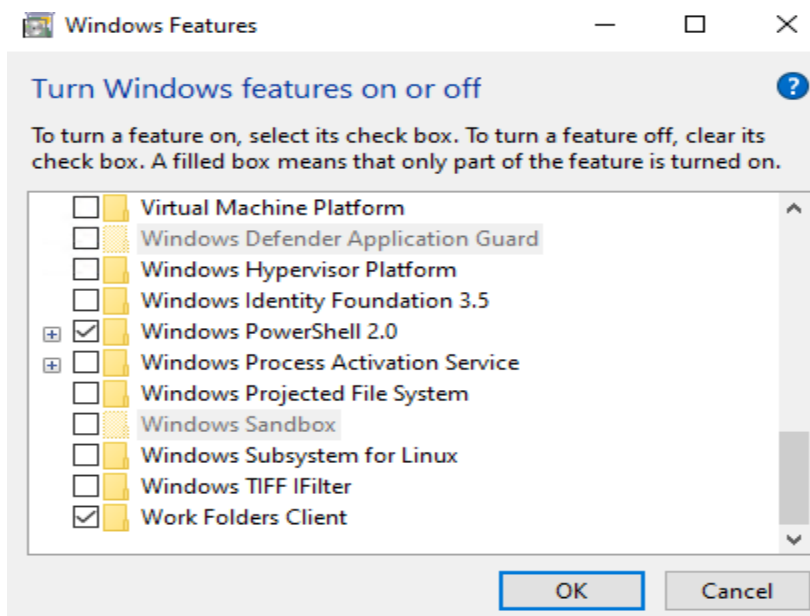
Next >

Summary

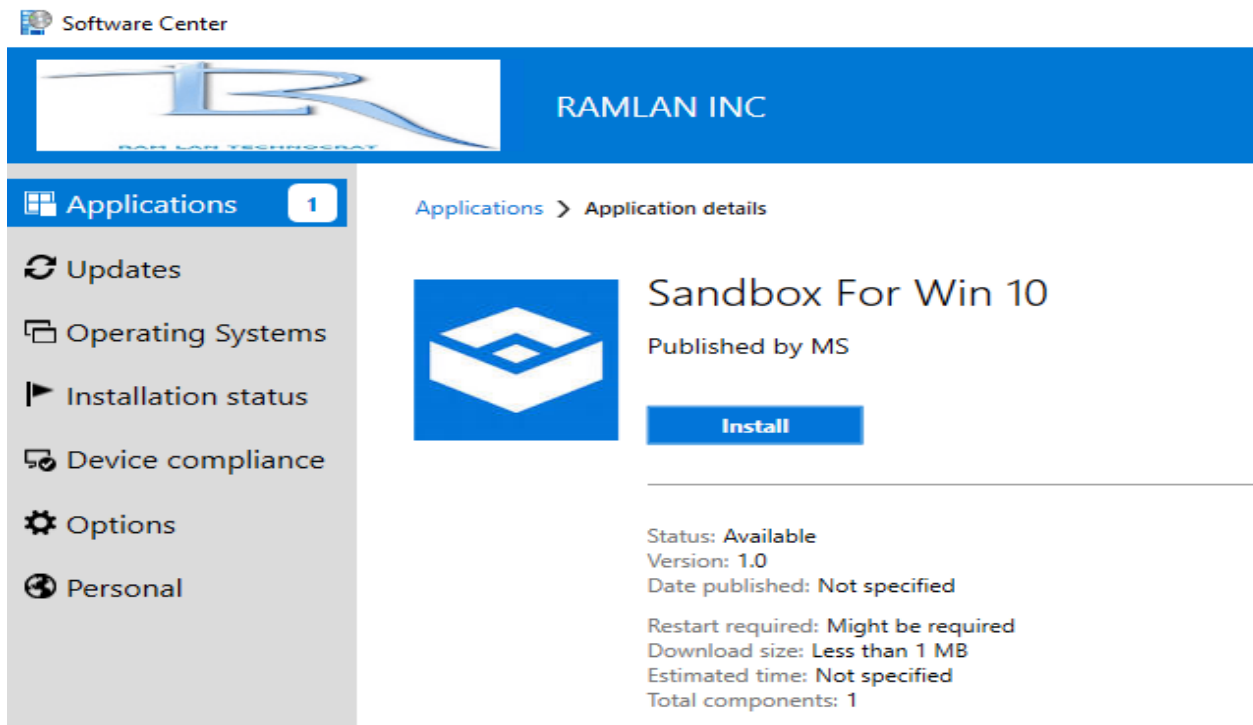
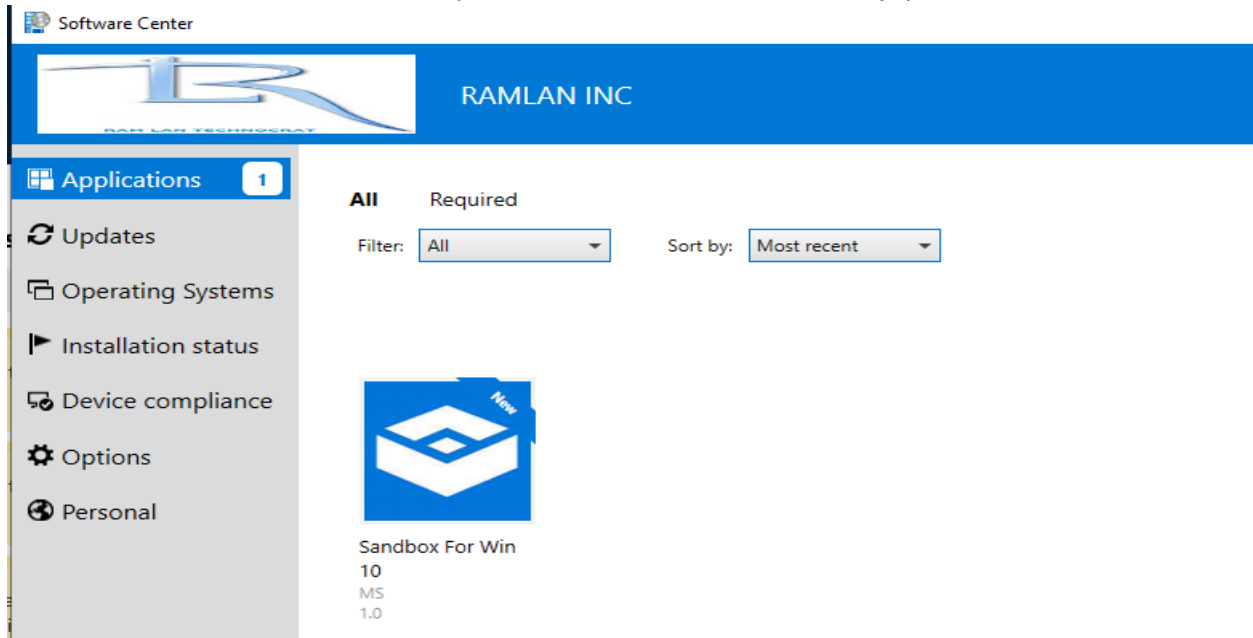
Cancel



As you can see below sandbox is not enabled in features. Please note you cannot deploy sandbox to a virtual machine because the processor does not support. It has to be a physical machine.



After some time, Sandbox will show up in Software Center. Install and enjoy!



To monitor the log – look for this – C:\Windows\Debug - Install_Sandbox_Feature.log

Please note, I did not test this deployment because, I don't have a spare physical machine with Win 10.

Thanks

Ram Lan
18th Jun 2019

```

function Get-LogDate {
    return "[{0:MM/dd/yy} {0:HH:mm:ss}]" -f (Get-Date)
}

$Script:my_user = (gwmi win32_computersystem).username
$SystemRoot = $env:SystemRoot
$Log_File = "$SystemRoot\Debug\Add_Windows_Sandbox_Feature.log"
If((test-path $Log_File))
{
    remove-item $Log_File -force
}

new-item $Log_File -type file -force

Add-Content $Log_File "Script for adding the windows Sandbox feature"
Add-Content $Log_File "-----"

Add-Content $Log_File "$(Get-LogDate) - Add_Windows_Sandbox_Feature_v1.0 is starting"
Add-Content $Log_File ""

Add-Content $Log_File "$(Get-LogDate) - Checking the current windows Sandbox status"
$Sandbox_Status = $False
$WindowsFeature = "Containers-DisposableClientVM"
try
{
    $WindowsFeatureState = (Get-WindowsOptionalFeature -FeatureName $WindowsFeature -
Online).State
    If($WindowsFeatureState -eq "Enabled")
    {
        $Sandbox_Status = $True
        Add-Content $Log_File "$(Get-LogDate) - The Sandbox feature is already enabled"
    }
    Else
    {
        Add-Content $Log_File "$(Get-LogDate) - The Sandbox feature is not enabled"
        $Sandbox_Status = $False
        Try
        {
            Add-Content $Log_File "$(Get-LogDate) - The Sandbox feature is being enabled"
            Enable-WindowsOptionalFeature -FeatureName $WindowsFeature -Online -NoRestart -
ErrorAction Stop
            Add-Content $Log_File "$(Get-LogDate) - The Sandbox feature has been
successfully enabled"
            $Sandbox_Status = $True
        }
        catch
        {
            Add-Content $Log_File "$(Get-LogDate) - Failed to enable the Sandbox feature"
        }
    }
}
catch
{
    Add-Content $Log_File "$(Get-LogDate) - Failed to enable the Sandbox feature"
}

If($Sandbox_Status -eq $True)
{
    Add-Content $Log_File ""
    Add-Content $Log_File "$(Get-LogDate) - Checking if the current user is member of
the Hyper-V administrators group"
    $Get_HyperV_Users = get-LocalGroupMember -group "Hyper-V administrators" | where
{$_.Name -like "*$my_user*"}
    If($Get_HyperV_Users -eq $null)
    {
        Add-Content $Log_File "$(Get-LogDate) - Current user name is $my_user"
    }
}

```

```
    Add-Content $Log_File "$($Get-LogDate) - The user $my_user is not member of the
group Hyper-V administrators"
    Try
    {
        Add-LocalGroupMember -group "Hyper-V administrators" -member $my_user
        Add-Content $Log_File "$($Get-LogDate) - The user $my_user has been successfully
added in the group Hyper-V administrators"
    }
    Catch
    {
        Add-Content $Log_File "$($Get-LogDate) - An issue occurred while adding the user
$my_user in the group Hyper-v administrators"
    }
}

Add-Content $Log_File "$($Get-LogDate) - Add_Windows_Sandbox_Feature_v1.0 finished"
```