

Deployit Windows Plugin Manual

Version 3.8.1

Table of Contents

Table of Contents	2
Preface	3
Overview	3
Features	3
Requirements	3
Usage in deployment packages	3
Using the deployables and deployed	3
Deployable vs. Container table	3
Deployed Actions Table	3
Extending the Windows plugin	4
CI Reference	4
Configuration Item Overview	4
Deployables	4
Deployeds	4
Other Configuration Items	4
Configuration Item Details	4
windows.InstalledMsi	4
windows.InstalledServiceMsi	6
windows.Msi	7
windows.Service	8
windows.ServiceMsi	9
windows.ServiceSpec	10
windows.Share	10
windows.ShareSpec	11

Preface

This document describes the functionality provided by the Windows plugin.

Refer to **Deployit Reference Manual** for background information on Deployit and deployment concepts.

Overview

The Windows plugin is a Deployit plugin that adds the capability to perform common Windows configuration and deployment tasks.

Features

- Installs and uninstalls MSI files.
- Creates and destroys Windows services
 - Starts and stops Windows services as necessary.
- Creates and destroys Windows shares.

Requirements

- Deployit requirements:
 - Deployit version 3.8.4 or higher.
- Infrastructural requirements:
 - Administrative access to the target Windows machine.

Usage in deployment packages

The plugin works with the standard deployment package DAR format. Please see the **Packaging Manual** for more details about the DAR format and the ways to compose one. The following is a sample MANIFEST.MF file that includes a few of the deployables provided by the Windows plugin:

```
Manifest-Version: 1.0
Deployit-Package-Format-Version: 1.3
CI-Application: Windows
CI-Version: 1.0

Name: httpd-2.2.22-win32-x86-no_ssl.msi
CI-Type: windows.Msi

Name: TimeService
CI-Type: windows.ServiceSpec
CI-binaryPathName: C:\Program Files\Common Services\timeservice.exe
CI-dependsOn-EntryValue-1: tcpip

Name: Public
CI-Type: windows.ShareSpec
CI-targetPath: C:\Users\deployit\Public
```

Using the deployables and deployed

The following table describes which deployable/container combinations are possible.

Deployable vs. Container table

Deployable	Container	Generated deployed
windows.Msi	overthere.Host	windows.InstalledMsi
windows.ServiceMsi	overthere.Host	windows.InstalledServiceMsi
windows.ServiceSpec	overthere.Host	windows.Service
windows.ShareSpec	overthere.Host	windows.Share

The following table describes the effect a deployed has on its container

Deployed Actions Table

Deployed	Actions performed for operations
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	Create	Destroy	Modify	Noop
windows.Msi	60. Install MSI (with the /i option)	40. Uninstall MSI (with the /x option)	40. Uninstall MSI (with the /x option) 60. Install MSI (with the /i option)	
windows.ServiceMsi	60. Install MSI (with the /i option) and start service	40. Stop service and uninstall MSI (with the /x option)	40. Stop service and uninstall MSI (with the /x option) 60. Install MSI (with the /i option) and start service	
windows.Service	60. Install service 90. Start service	10. Stop service 40. Uninstall service	10. Stop service 40. Uninstall service 60. Install service 90. Start service	10. Stop service (iff stopStartOnNoop equals true) 90. Start service (iff stopStartOnNoop equals true)
windows.Share	60. Create share	40. Remove share	40. Remove share 60. Create share	

Extending the Windows plugin

The Windows plugin has been written upon the foundations provided by the PowerShell plugin, which is a standard part of the Deployit server distribution. Please refer to the documentation of the PowerShell plugin for details on how to extend PowerShell-based plugins.

CI Reference

Configuration Item Overview

Deployables

CI	Description
windows.Msi	MSI file
windows.ServiceMsi	MSI file that installs a service
windows.ServiceSpec	Specification of a Windows service
windows.ShareSpec	Specification of a Windows share

Deployeds

CI	Description
windows.InstalledMsi	Installed MSI
windows.InstalledServiceMsi	Installed MSI (including service)
windows.Service	Windows service
windows.Share	Windows share

Other Configuration Items


CI	Description
windows.InstalledMsi	Installed MSI
windows.InstalledServiceMsi	Installed MSI (including service)
windows.Msi	MSI file
windows.Service	Windows service
windows.ServiceMsi	MSI file that installs a service
windows.ServiceSpec	Specification of a Windows service
windows.Share	Windows share
windows.ShareSpec	Specification of a Windows share

Configuration Item Details

windows.InstalledMsi

Type Hierarchy	powershell.ExtensiblePowerShellDeployedArtifact >> powershell.BaseExtensiblePowerShellDeployed >> powershell.BasePowerShellDeployed >> udm.BaseDeployed >> udm.BaseConfigurationItem
Interfaces	udm.Artifact, udm.Deployed, udm.ConfigurationItem, udm.DerivedArtifact

Installed MSI

Parent
 container : CI<udm.Container> The container on which this deployed runs.

Hidden Properties	
* createOrder : INTEGER = 60	Order in which a create step will be executed.
* createScript : STRING = windows/install-msi.ps1	Create Script
* createVerb : STRING = Install	Create Verb
* destroyOrder : INTEGER = 40	Order in which a destroy step will be executed.
* destroyScript : STRING = windows/uninstall-msi.ps1	Destroy Script
* destroyVerb : STRING = Uninstall	Destroy Verb
* modifyOrder : INTEGER = 60	Order in which a modify step will be executed.
* modifyVerb : STRING = Modify	Verb that is used to prefix a step description for the modify operation.
* noopOrder : INTEGER = 50	Order in which a noop step will be executed.
* noopVerb : STRING = Noop	Verb that is used to prefix a step description for the noop operation.
* startOrder : INTEGER = 90	Order in which a start step will be executed.
* startVerb : STRING = Start	Verb that is used to prefix a step description for the start operation.
* stopOrder : INTEGER = 10	Order in which a synchronize after modify stop will be executed.
* stopVerb : STRING = Stop	Verb that is used to prefix a step description for the stop operation.
exposeDeployedApplication : BOOLEAN = false	If set to true, the deployed application CI is exposed to the PowerShell script.
modifyScript : STRING	PowerShell script invoked to upgrade an artifact or a resource on Windows.
noopScript : STRING	PowerShell script invoked to noop an artifact or a resource on Windows.
startScript : STRING	PowerShell script invoked to start an artifact or resource on Windows.
stopScript : STRING	PowerShell script invoked to stop an artifact or resource on Windows.
stopStartOnNoop : BOOLEAN = false	If set to true, the stop and start scripts will be executed even if this deployable was not changed.

windows.InstalledServiceMsi

Type Hierarchy	windows.InstalledMsi >> powershell.ExtensiblePowerShellDeployedArtifact >> powershell.BaseExtensiblePowerShellDeployed >> powershell.BasePowerShellDeployed >> udm.BaseDeployed >> udm.BaseConfigurationItem
Interfaces	udm.Artifact, udm.Deployed, udm.ConfigurationItem, udm.DerivedArtifact

Installed MSI (including service)

Parent	
* container : CI<udm.Container>	The container on which this deployed runs.

Public Properties	
* serviceName : STRING	Name of the service to start after this MSI has been installed and to stop before it is uninstalled
additionalInstallProperties : STRING	Additional install properties for this MSI
additionalUninstallProperties : STRING	Additional uninstall properties for this MSI
deployable : CI<udm.Deployable>	The deployable that this deployed is derived from.
logOptions : STRING	Options for the /L command line option, see http://technet.microsoft.com/en-us/library/cc759262(v=ws.10).aspx
placeholders : MAP_STRING_STRING	A Map containing all the placeholders mapped to their values. Special values are or
Hidden Properties	
* createOrder : INTEGER = 60	Order in which a create step will be executed.
* createScript : STRING = windows/install-msi.ps1	Create Script
* createVerb : STRING = Install	Create Verb
* destroyOrder : INTEGER = 40	Order in which a destroy step will be executed.
* destroyScript : STRING = windows/uninstall-msi.ps1	Destroy Script
* destroyVerb : STRING = Uninstall	Destroy Verb
* modifyOrder : INTEGER = 60	Order in which a modify step will be executed.
* modifyVerb : STRING = Modify	Verb that is used to prefix a step description for the modify operation.
* noopOrder : INTEGER = 50	Order in which a noop step will be executed.
* noopVerb : STRING = Noop	Verb that is used to prefix a step description for the noop operation.
* startOrder : INTEGER = 90	Order in which a start step will be executed.
* startVerb : STRING = Start	Verb that is used to prefix a step description for the start operation.
* stopOrder : INTEGER = 10	Order in which a synchronize after modify stop will be executed.
* stopVerb : STRING = Stop	Verb that is used to prefix a step description for the stop operation.
exposeDeployedApplication : BOOLEAN = false	If set to true, the deployed application CI is exposed to the PowerShell script.
modifyScript : STRING	PowerShell script invoked to upgrade an artifact or a resource on Windows.
noopScript : STRING	PowerShell script invoked to noop an artifact or a resource on Windows.
startScript : STRING	PowerShell script invoked to start an artifact or resource on Windows.
stopScript : STRING	PowerShell script invoked to stop an artifact or resource on Windows.
stopStartOnNoop : BOOLEAN = false	If set to true, the stop and start scripts will be executed even if this deployable was not changed.

windows.Msi

Type Hierarchy	powershell.BasePowerShellDeployableFileArtifact >> udm.BaseDeployableFileArtifact >> udm.BaseDeployableArtifact >> udm.BaseDeployable >> udm.BaseConfigurationItem
Interfaces	udm.Taggable, udm.Deployable, udm.SourceArtifact, udm.Artifact, udm.DeployableArtifact, udm.ConfigurationItem, udm.FileArtifact

MSI file

Public Properties	
additionalInstallProperties : STRING	Additional install properties for this MSI (string)
additionalUninstallProperties : STRING	Additional uninstall properties for this MSI (string)
excludeFileNamesRegex : STRING	Regular expression that matches file names that must be excluded from scanning
logOptions : STRING	Options for the /L command line option, see http://technet.microsoft.com/en-us/library/cc759262(v=ws.10).aspx (string)
placeholders : SET_OF_STRING	Placeholders detected in this artifact
scanPlaceholders : BOOLEAN = true	Whether to scan this artifact for placeholders when it is imported
tags : SET_OF_STRING	If set, this deployable will only be mapped automatically to containers with the same tag.
Hidden Properties	
* textFileNamesRegex : STRING = .\.(cfg conf config ini properties props txt asp aspx htm html jsf jsp xht xhtml sql xml xsd xsl xslt)	Regular expression that matches file names of text files

windows.Service

Type Hierarchy	powershell.ExtensiblePowerShellDeployed >> powershell.BaseExtensiblePowerShellDeployed >> powershell.BasePowerShellDeployed >> udm.BaseDeployed >> udm.BaseConfigurationItem
Interfaces	udm.Deployed, udm.ConfigurationItem

Windows service

Parent	
* container : CI <udm.Container>	The container on which this deployed runs.
Public Properties	
* binaryPathName : STRING	Path of the service binary
dependsOn : LIST_OF_STRING	Services this service depends on
deployable : CI <udm.Deployable>	The deployable that this deployed is derived from.
password : STRING	Password of the account this service should log on as
serviceDescription : STRING	Description of this service
serviceDisplayName : STRING	Display name of this service
serviceName : STRING	Name of the service. Defaults to the name of the deployed if not specified
startupType : STRING = Automatic	Startup type is this service. Defaults to automatic
stopStartOnNoop : BOOLEAN = false	If set to true, this service is stopped and started when another component in the same package is deployed
username : STRING	Username of the account this service should log on as

Hidden Properties	
* createOrder : INTEGER = 60	Order in which a create step will be executed.
* createScript : STRING = windows/install-service.ps1	Create Script
* createVerb : STRING = Install	Create Verb
* destroyOrder : INTEGER = 40	Order in which a destroy step will be executed.
* destroyScript : STRING = windows/uninstall-service.ps1	Destroy Script
* destroyVerb : STRING = Uninstall	Destroy Verb
* modifyOrder : INTEGER = 60	Order in which a modify step will be executed.
* modifyVerb : STRING = Modify	Verb that is used to prefix a step description for the modify operation.
* noopOrder : INTEGER = 50	Order in which a noop step will be executed.
* noopVerb : STRING = Noop	Verb that is used to prefix a step description for the noop operation.
* startOrder : INTEGER = 90	Order in which a start step will be executed.
* startScript : STRING = windows/start-service.ps1	Start Script
* startVerb : STRING = Start	Verb that is used to prefix a step description for the start operation.
* stopOrder : INTEGER = 10	Order in which a synchronize after modify step will be executed.
* stopScript : STRING = windows/stop-service.ps1	Stop Script
* stopVerb : STRING = Stop	Verb that is used to prefix a step description for the stop operation.
exposeDeployedApplication : BOOLEAN = false	If set to true, the deployed application CI is exposed to the PowerShell script.
modifyScript : STRING	PowerShell script invoked to upgrade an artifact or a resource on Windows.
noopScript : STRING	PowerShell script invoked to noop an artifact or a resource on Windows.

windows.ServiceMsi

Type Hierarchy [windows.Msi](#) >> powershell.BasePowerShellDeployableFileArtifact >> udm.BaseDeployableFileArtifact >> udm.BaseDeployableArtifact >> udm.BaseDeployable >> udm.BaseConfigurationItem

Interfaces udm.Taggable, udm.Deployable, udm.SourceArtifact, udm.Artifact, udm.DeployableArtifact, udm.ConfigurationItem, udm.FileArtifact

MSI file that installs a service

Public Properties	
additionalInstallProperties :	STRING Additional install properties for this MSI (string)
additionalUninstallProperties :	STRING Additional uninstall properties for this MSI (string)
excludeFileNamesRegex :	STRING Regular expression that matches file names that must be excluded from scanning
logOptions :	STRING Options for the /L command line option, see http://technet.microsoft.com/en-us/library/cc759262(v=ws.10).aspx (string)
placeholders :	SET_OF_STRING Placeholders detected in this artifact
scanPlaceholders :	BOOLEAN = true Whether to scan this artifact for placeholders when it is imported
serviceName :	STRING Name of the service to start after this MSI has been installed and to stop before it is uninstalled (string)
tags :	SET_OF_STRING If set, this deployable will only be mapped automatically to containers with the same tag.
Hidden Properties	
* textFileNamesRegex :	STRING = .+\. (cfg conf config ini properties props txt asp aspx htm html jsf jsp xht xhtml sql xml xsd xsl xslt) Regular expression that matches file names of text files

windows.ServiceSpec

Type Hierarchy powershell.BasePowerShellDeployable >> udm.BaseDeployable >> udm.BaseConfigurationItem

Interfaces udm.Taggable, udm.Deployable, udm.ConfigurationItem

Specification of a Windows service

Public Properties	
binaryPathName :	STRING Path of the service binary (string)
dependsOn :	LIST_OF_STRING Services this service depends on (list_of_string)
password :	STRING Password of the account this service should log on as (string)
serviceDescription :	STRING Description of this service (string)
serviceDisplayName :	STRING Display name of this service (string)
serviceName :	STRING Name of the service. Defaults to the name of the deployed if not specified (string)
startupType :	STRING Startup type is this service. Defaults to automatic (string)
stopStartOnNoop :	STRING If set to true, this service is stopped and started when another component in the same package is deployed (boolean)
tags :	SET_OF_STRING If set, this deployable will only be mapped automatically to containers with the same tag.
username :	STRING Username of the account this service should log on as (string)

windows.Share

Type Hierarchy powershell.ExtensiblePowerShellDeployed >> powershell.BaseExtensiblePowerShellDeployed >> powershell.BasePowerShellDeployed >> udm.BaseDeployed >> udm.BaseConfigurationItem

Interfaces udm.Deployed, udm.ConfigurationItem

Windows share

Parent	
* container : <code>CI<udm.Container></code>	The container on which this deployed runs.
Public Properties	
* targetPath : <code>STRING</code>	Target path of the share
deployable : <code>CI<udm.Deployable></code>	The deployable that this deployed is derived from.
shareName : <code>STRING</code>	Name of the share. Defaults to the name of the deployed if not specified
Hidden Properties	
* createOrder : <code>INTEGER = 60</code>	Order in which a create step will be executed.
* createScript : <code>STRING = windows/create-share.ps1</code>	Create Script
* createVerb : <code>STRING = Create</code>	Verb that is used to prefix a step description for the create operation.
* destroyOrder : <code>INTEGER = 40</code>	Order in which a destroy step will be executed.
* destroyScript : <code>STRING = windows/delete-share.ps1</code>	Destroy Script
* destroyVerb : <code>STRING = Destroy</code>	Verb that is used to prefix a step description for the destroy operation.
* modifyOrder : <code>INTEGER = 60</code>	Order in which a modify step will be executed.
* modifyVerb : <code>STRING = Modify</code>	Verb that is used to prefix a step description for the modify operation.
* noopOrder : <code>INTEGER = 50</code>	Order in which a noop step will be executed.
* noopVerb : <code>STRING = Noop</code>	Verb that is used to prefix a step description for the noop operation.
* startOrder : <code>INTEGER = 90</code>	Order in which a start step will be executed.
* startVerb : <code>STRING = Start</code>	Verb that is used to prefix a step description for the start operation.
* stopOrder : <code>INTEGER = 10</code>	Order in which a synchronize after modify stop will be executed.
* stopVerb : <code>STRING = Stop</code>	Verb that is used to prefix a step description for the stop operation.
exposeDeployedApplication : <code>BOOLEAN = false</code>	If set to true, the deployed application CI is exposed to the PowerShell script.
modifyScript : <code>STRING</code>	PowerShell script invoked to upgrade an artifact or a resource on Windows.
noopScript : <code>STRING</code>	PowerShell script invoked to noop an artifact or a resource on Windows.
startScript : <code>STRING</code>	PowerShell script invoked to start an artifact or resource on Windows.
stopScript : <code>STRING</code>	PowerShell script invoked to stop an artifact or resource on Windows.
stopStartOnNoop : <code>BOOLEAN = false</code>	If set to true, the stop and start scripts will be executed even if this deployable was not changed.

windows.ShareSpec

Type Hierarchy powershell.BasePowerShellDeployable >> udm.BaseDeployable >> udm.BaseConfigurationItem

Interfaces udm.Tagable, udm.Deployable, udm.ConfigurationItem

Specification of a Windows share

Public Properties**shareName** : **STRING**

Name of the share. Defaults to the name of the deployed if not specified (string)

tags : **SET_OF_STRING**

If set, this deployable will only be mapped automatically to containers with the same tag.

targetPath : **STRING**

Target path of the share (string)