

Deployit IIS Plugin Manual

Version 3.8.1

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Preface

This document describes the functionality provided by the Internet Information Services (IIS) plugin.

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

Overview

The IIS plugin is a Deployit plugin that adds the capability to perform IIS deployments and configuration tasks.

Features

- Deploys and undeploys IIS web content.
- Creates and destroys IIS configuration elements:
 - websites
 - application pools
 - applications
 - virtual directories
- Stops and starts websites as necessary.

Requirements

- Deployit requirements:
 - Deployit version 3.8.0 or higher.
 - Internet Information Services version 7.0 or higher.
 - Tested on IIS 7.0 (Windows Server 2008), IIS 7.5 (Windows Server 2008 R2) and IIS 8.0 (Windows Server 2012).
- 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 IIS plugin:

```
Manifest-Version: 1.0
Deployit-Package-Format-Version: 1.3
CI-Application: NerdDinner
CI-Version: 2.0

Name: NerdDinner
CI-Type: iis.WebsiteSpec
CI-physicalPath: C:\inetpub\nerddinner
CI-port: 88
CI-applicationPoolName: NerdDinner-applicationPool

Name: NerdDinner-applicationPool
CI-Type: iis.ApplicationPoolSpec
CI-managedRuntimeVersion: v4.0

Name: NerdDinner-Files
CI-targetPath: C:\inetpub\nerddinner
CI-Type: iis.WebContent
CI-Name: NerdDinner-Files
```

Using the deployables and deployed

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

Deployable vs. Container table

Deployable	Container	Generated deployed
iis.ApplicationSpec	iis.Server	iis.Application
iis.ApplicationPoolSpec	iis.Server	iis.ApplicationPool
iis.VirtualDirectorySpec	iis.Server	iis.VirtualDirectory
iis.WebContent	iis.Server	iis.PublishedWebContent
iis.WebsiteSpec	iis.Server	iis.Website

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

Deployed Actions Table

Deployed	Actions performed for operations			
	Create	Destroy	Modify	Noop
iis.Application	60. Create application	40. Destroy application	40. Destroy application 60. Create application	
iis.ApplicationPool	56. Create application pool	44. Destroy application pool	44. Destroy application pool 56. Create application pool	
iis.PublishedWebContent	54. Copy web content to IIS server	46. Remove web content from IIS server	46. Remove web content from IIS server 54. Copy web content to IIS server	
iis.VirtualDirectory	60. Create virtual directory	40. Destroy virtual directory	40. Destroy virtual directory 60. Create virtual directory	
iis.Website	58. Create website 90. Start website	10. Stop website 40. Destroy website	10. Stop website 40. Destroy website 60. Create website 90. Start website	10. Stop website (iff stopStartOnNoop equals true) 90. Start website (iff stopStartOnNoop equals true)

Extending the IIS plugin

The IIS 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
iis.ApplicationPoolSpec	Specification of an IIS application pool
iis.ApplicationSpec	Specification of an IIS application
iis.VirtualDirectorySpec	Specification of an IIS virtual directory
iis.WebContent	Folder containing IIS web content (ASP pages, HTML pages, images, stylesheets, etc)
iis.WebsiteSpec	Specification of an IIS website

Deployeds

CI	Description
iis.Application	IIS application
iis.ApplicationPool	IIS application pool
iis.PublishedWebContent	Published IIS web content
iis.VirtualDirectory	IIS virtual directory
iis.Website	IIS website

Containers

CI	Description
iis.Server	Internet Information Services

Other Configuration Items

CI	Description
iis.Application	IIS application
iis.ApplicationPool	IIS application pool
iis.ApplicationPoolSpec	Specification of an IIS application pool
iis.ApplicationSpec	Specification of an IIS application
iis.PublishedWebContent	Published IIS web content
iis.Server	Internet Information Services
iis.VirtualDirectory	IIS virtual directory
iis.VirtualDirectorySpec	Specification of an IIS virtual directory
iis.WebContent	Folder containing IIS web content (ASP pages, HTML pages, images, stylesheets, etc)
iis.Website	IIS website
iis.WebsiteSpec	Specification of an IIS website

Configuration Item Details

iis.Application

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

Interfaces udm.Deployed, udm.ConfigurationItem

IIS application

Parent
<p>* container : CI<udm.Container> The container on which this deployed runs.</p>
Public Properties
<p>* physicalPath : STRING Physical path of this application</p>
<p>* protocols : STRING = http Protocols supported by this application</p>
<p>* websiteName : STRING Name of the website under which to create this application</p>
<p>applicationPath : STRING Path of this application within the website. Defaults to the name of the deployed if not specified</p>
<p>applicationPoolName : STRING Name of the application pool for this application. Defaults to the default application pool of the IIS installation</p>
<p>deployable : CI<udm.Deployable> The deployable that this deployed is derived from.</p>

Hidden Properties	
* createOrder : INTEGER = 60	Order in which a create step will be executed.
* createScript : STRING = iis/create-application.ps1	Create Script
* createVerb : STRING = Create	Verb that is used to prefix a step description for the create operation.
* destroyOrder : INTEGER = 40	Order in which a destroy step will be executed.
* destroyScript : STRING = iis/destroy-application.ps1	Destroy Script
* destroyVerb : STRING = Destroy	Verb that is used to prefix a step description for the destroy operation.
* 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.

iis.ApplicationPool

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

IIS application pool

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

Public Properties	
* managedRuntimeVersion : STRING = v4.0	Version of .NET for this application pool
applicationPoolName : STRING	Name of this application pool. Defaults to the name of the deployed if not specified
deployable : CI<udm.Deployable>	The deployable that this deployed is derived from.
Hidden Properties	
* createOrder : INTEGER = 56	Create Order
* createScript : STRING = iis/create-application-pool.ps1	Create Script
* createVerb : STRING = Create	Verb that is used to prefix a step description for the create operation.
* destroyOrder : INTEGER = 44	Destroy Order
* destroyScript : STRING = iis/destroy-application-pool.ps1	Destroy Script
* destroyVerb : STRING = Destroy	Verb that is used to prefix a step description for the destroy operation.
* 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.

iis.ApplicationPoolSpec

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

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

Specification of an IIS application pool

Public Properties	
applicationPoolName :	STRING Name of this application pool. Defaults to the name of the deployed if not specified (string)
managedRuntimeVersion :	STRING Version of .NET for this application pool (string)
tags :	SET_OF_STRING If set, this deployable will only be mapped automatically to containers with the same tag.

iis.ApplicationSpec

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

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

Specification of an IIS application

Public Properties	
applicationPath :	STRING Path of this application within the website. Defaults to the name of the deployed if not specified (string)
applicationPoolName :	STRING Name of the application pool for this application. Defaults to the default application pool of the IIS installation (string)
physicalPath :	STRING Physical path of this application (string)
protocols :	STRING Protocols supported by this application (string)
tags :	SET_OF_STRING If set, this deployable will only be mapped automatically to containers with the same tag.
websiteName :	STRING Name of the website under which to create this application (string)

iis.PublishedWebContent

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

Interfaces udm.Artifact, udm.Deployed, udm.ConfigurationItem, udm.DerivedArtifact

Published IIS web content

Parent	
* container :	CI<udm.Container> The container on which this deployed runs.
Public Properties	
* targetPath :	STRING Path where this web content should be copied to
deployable :	CI<udm.Deployable> The deployable that this deployed is derived from.
placeholders :	MAP_STRING_STRING A Map containing all the placeholders mapped to their values. Special values are or

Hidden Properties	
* createOrder : INTEGER = 54	Create Order
* createScript : STRING = iis/deploy-webcontent.ps1	Create Script
* createVerb : STRING = Copy	Create Verb
* destroyOrder : INTEGER = 46	Destroy Order
* destroyScript : STRING = iis/undeploy-webcontent.ps1	Destroy Script
* destroyVerb : STRING = Remove	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.

iis.Server

Type Hierarchy	powershell.BasePowerShellContainer >> udm.BaseContainer >> udm.BaseConfigurationItem
Interfaces	udm.Taggable, powershell.PowerShellContainer, udm.ConfigurationItem, udm.Container, overthere.HostContainer

Internet Information Services

Parent	
* host : CI<overthere.Host>	Host upon which the container resides
Public Properties	
tags : SET_OF_STRING	If set, only deployables with the same tag will be automatically mapped to this container.

Hidden Properties	
* runtimePath : STRING = iis/runtime	Runtime Path
powerShellPath : STRING = powershell	Power Shell Path

iis.VirtualDirectory

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

Interfaces udm.Deployed, udm.ConfigurationItem

IIS virtual directory

Parent	
* container : CI <udm.Container>	The container on which this deployed runs.
Public Properties	
* physicalPath : STRING	Physical path of this virtual directory
* websiteName : STRING	Name of the website under which to create this virtual directory
deployable : CI <udm.Deployable>	The deployable that this deployed is derived from.
virtualDirectoryPath : STRING	Path of this virtual directory within the website. Defaults to the name of the deployed if not specified

Hidden Properties	
* createOrder : INTEGER = 60	Order in which a create step will be executed.
* createScript : STRING = iis/create-virtual-directory.ps1	Create Script
* createVerb : STRING = Create	Verb that is used to prefix a step description for the create operation.
* destroyOrder : INTEGER = 40	Order in which a destroy step will be executed.
* destroyScript : STRING = iis/destroy-virtual-directory.ps1	Destroy Script
* destroyVerb : STRING = Destroy	Verb that is used to prefix a step description for the destroy operation.
* 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.

iis.VirtualDirectorySpec

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

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

Specification of an IIS virtual directory

Public Properties	
physicalPath : STRING	Physical path of this virtual directory (string)
tags : SET_OF_STRING	If set, this deployable will only be mapped automatically to containers with the same tag.
virtualDirectoryPath : STRING	Path of this virtual directory within the website. Defaults to the name of the deployed if not specified (string)
websiteName : STRING	Name of the website under which to create this virtual directory (string)

iis.WebContent

Type Hierarchy powershell.BasePowerShellDeployableFolderArtifact >>
 udm.BaseDeployableFolderArtifact >> udm.BaseDeployableArtifact >>
 udm.BaseDeployable >> udm.BaseConfigurationItem

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

Folder containing IIS web content (ASP pages, HTML pages, images, stylesheets, etc)

Public Properties	
excludeFileNamesRegex :	STRING Regular expression that matches file names that must be excluded from scanning
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.
targetPath :	STRING Path where this web content should be copied to (string)
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

iis.Website

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

Interfaces udm.Deployed, udm.ConfigurationItem

IIS website

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

Hidden Properties	
* createOrder : INTEGER = 58	Create Order
* createScript : STRING = iis/create-website.ps1	Create Script
* createVerb : STRING = Create	Verb that is used to prefix a step description for the create operation.
* destroyOrder : INTEGER = 42	Destroy Order
* destroyScript : STRING = iis/destroy-website.ps1	Destroy Script
* destroyVerb : STRING = Destroy	Verb that is used to prefix a step description for the destroy operation.
* 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 = iis/start-website.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 stop will be executed.
* stopScript : STRING = iis/stop-website.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.

iis.WebsiteSpec

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

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

Specification of an IIS website

Public Properties**applicationPoolName** : **STRING**

Name of the application pool for this website. Defaults to the default application pool of the IIS installation (string)

physicalPath : **STRING**

Physical path of this website (string)

port : **STRING**

Port on which this website runs (integer)

stopStartOnNoop : **STRING**

If set to true, this website 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.

websiteName : **STRING**

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