

STEVEN MANN

# PowerShell™ for SharePoint® 2013

## HOW-TO



**SAMS**

FREE SAMPLE CHAPTER

SHARE WITH OTHERS



STEVEN MANN

# PowerShell™ for SharePoint® 2013

## HOW-TO

**SAMS**

800 East 96th Street, Indianapolis, Indiana 46240 USA

## **PowerShell™ for SharePoint® 2013 How-To**

Copyright © 2013 by Pearson Education, Inc.

All rights reserved. No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.

ISBN-13: 978-0-672-33691-1

ISBN-10: 0-672-33691-X

The Library of Congress cataloging-in-publication data is on file.

Printed in the United States of America

First Printing February 2013

### **Trademarks**

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Sams Publishing cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

### **Warning and Disclaimer**

Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The information provided is on an “as is” basis. The author and the publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book or from the use of programs accompanying it.

### **Bulk Sales**

Sams Publishing offers excellent discounts on this book when ordered in quantity for bulk purchases or special sales. For more information, please contact

**U.S. Corporate and Government Sales**

**1-800-382-3419**

**corpsales@pearsontechgroup.com**

For sales outside of the U.S., please contact

**International Sales**

**international@pearsoned.com**

**Editor-in-Chief**

Greg Wiegand

**Acquisitions Editor**

Neil Rowe

**Development Editor**

Mark Renfrow

**Managing Editor**

Kristy Hart

**Project Editor**

Jovana Shirley

**Copy Editor**

Krista Hansing

**Indexer**

Lisa Stump

**Proofreader**

Kathy Ruiz

**Technical Editor**

J. Boyd Nolan

**Editorial Assistant**

Cindy Teeters

**Cover Designer**

Mark Shirar

**Compositor**

Nonie Ratcliff

# Table of Contents

<b>Introduction</b>	<b>1</b>
Overview of This Book .....	1
How to Benefit from This Book .....	1
How to Continue Expanding Your Knowledge .....	2
<b>1 SharePoint 2013 Management Shell</b>	<b>3</b>
How Do I Run PowerShell? .....	4
How Do I Make PowerShell Aware of SharePoint? .....	5
What Is the SharePoint 2013 Management Shell? .....	5
What Is the SharePoint 2013 Management Shell Loading? .....	6
<b>2 PowerShell Basics</b>	<b>9</b>
What Is a Cmdlet? .....	10
How Can I See the Possible Verbs for a Noun Command? .....	10
What Is a Parameter? .....	10
What Is a Switch Parameter? .....	10
How Can I See the Possible Parameters for a Cmdlet? .....	11
What Does F3 Do? .....	11
What Does F7 Do? .....	11
What Are Console Commands? .....	12
Path Environment Variable .....	13
Running Unsigned Scripts .....	13
Disabling the Confirmation Prompt .....	14
Generating Inline Credentials .....	14
Referencing an Assembly .....	15
<b>3 SharePoint Installation and Configuration</b>	<b>17</b>
Prepare the Microsoft SharePoint Installation Module .....	18
Install SharePoint Unattended .....	19
Install Without a Product Key in the Configuration File .....	20
Configure a New SharePoint Farm .....	21
Join a Server to the SharePoint Farm .....	22
Create a New Web Application .....	22
Create a New Site Collection .....	23
Create a New Subsite .....	24

<b>4 Farm Management</b>	<b>27</b>
Review Farm Configuration Values .....	28
Set the Farm Configuration Values .....	28
Refresh Installed Products .....	30
Change the Port of Central Admin .....	30
Change the Farm Passphrase .....	30
Retrieve the System Accounts .....	31
Retrieve Managed Accounts .....	32
Rename a Server on the Farm .....	32
Display the Configured Managed Paths .....	33
Create a New Managed Path .....	34
Remove a Managed Path .....	34
Merge Log Files .....	35
End the Current Log File .....	36
Review SharePoint Designer Settings .....	36
Configure SharePoint Designer Settings .....	37
Review Workflow Configuration Settings .....	38
Modify Workflow Configuration Settings .....	39
Display Available Timer Jobs on the Farm .....	40
Get a Specific Timer Job .....	41
Enable a Timer Job .....	41
Disable a Timer Job .....	42
Start a Timer Job .....	42
Set the Schedule for a Timer Job .....	43
<b>5 Web Application Management</b>	<b>45</b>
Display Available Web Applications on the Farm .....	46
Get a Specific Web Application .....	46
Remove a Web Application .....	47
Create a New Web Application .....	48
Configure Web Application Settings .....	48
Extend a Web Application .....	49
Create an Alternate Access-Mapping URL .....	50
Display All Alternate Access Mappings .....	51
Get a Specific Alternate URL Entry .....	51
Change the Zone of an Alternate Access Mapping .....	51
Remove an Alternate Access Mapping .....	52
<b>6 Service Application Management</b>	<b>53</b>
Install Service Applications .....	54
Display Available Service Applications on the Farm .....	54
Get a Specific Service Application .....	55
Configure IIS Settings for a Service Application .....	55
Share a Service Application .....	57
Remove a Service Application .....	57

---

Display Service Instances on a Server .....	57
Get a Specific Service Instance .....	58
Start a Service Instance .....	59
Stop a Service Instance .....	59
Ancillary Cmdlets for Service Applications .....	60
<b>7 SharePoint Database Management .....</b>	<b>61</b>
Display All SharePoint Databases .....	62
Get a Specific Database .....	63
Create a New Content Database .....	63
Display All Content Databases for a Web Application .....	64
Detach a Content Database from a Web Application .....	65
Attach a Content Database to a Web Application .....	65
Delete a Content Database .....	66
Create a New Configuration Database .....	66
Delete a Configuration Database .....	67
Back Up a Configuration Database .....	67
Restore a Configuration Database .....	68
Back Up the SharePoint Farm .....	69
Restore the SharePoint Farm .....	69
Back Up a Site Collection .....	70
Restore a Site Collection .....	70
<b>8 Site Management .....</b>	<b>71</b>
Display All Available Site Collections on the Farm .....	72
Display Available Site Collections in a Web Application .....	72
Display Available Site Collections in a Content Database .....	73
Get a Specific Site Collection .....	73
Remove a Site Collection .....	74
Create a Site Collection .....	74
Set the Lock State of a Site Collection .....	75
Set the Storage Limits on a Site Collection .....	76
Create a Site Under a Site Collection .....	76
Display All Subsites Within a Site Collection .....	77
Get a Specific Subsite (Web) .....	78
Remove a Subsite (Web) from a Site Collection .....	78
Modify the Subsite (Web) URL .....	79
Move a Site Collection to a Different Content Database .....	79
Move All Site Collections from One Content Database to Another .....	80
Display All Deleted Site Collections .....	80
Display Deleted Site Collections in a Content Database .....	81
Get a Specific Deleted Site Collection .....	81
Remove a Deleted Site Collection .....	82
Restore a Deleted Site Collection .....	82
Configure Information Rights Management (IRM) Settings .....	83

<b>9 Solutions and Features</b>	<b>85</b>
Add a Solution to the SharePoint Farm	86
Display Available Solutions on the Farm	86
Get a Specific Solution	87
Deploy a Solution to a Web Application	87
Retract a Solution	88
Upgrade a Deployed Solution	89
Remove a Solution from the SharePoint Farm	90
Add a Sandboxed Solution to a Site Collection	90
Display Available Sandboxed Solutions in a Site Collection	91
Get a Specific Sandboxed Solution	91
Activate a Sandboxed Solution	91
Deactivate a Sandboxed Solution	92
Upgrade a Deployed Sandboxed Solution	92
Remove a Sandboxed Solution from a Site Collection	93
Display Available Features	93
Get a Specific Feature	94
Activate a Feature	95
Deactivate a Feature	95
Install a Feature in SharePoint	96
Uninstall a Feature from SharePoint	97
Export Installed Farm Solutions	97
<b>10 Content Deployment</b>	<b>99</b>
Create a New Deployment Path	100
Display Deployment Paths Configured on the Farm	100
Get a Specific Content Deployment Path	101
Remove a Content Deployment Path	101
Create a New Deployment Job	102
Display Deployment Jobs Configured on the Farm	102
Get a Specific Content Deployment Job	103
Remove a Content Deployment Job	103
Start a Content Deployment Job	103
Modify Content Deployment Configurations	104
<b>11 User Licensing</b>	<b>105</b>
Display User Licensing Status	106
Enable User Licensing Enforcement	106
Disable User Licensing Enforcement	107
Display Available User Licenses	107
Create a New License Mapping	108
Add a New License Mapping	108
Display All License Mappings	109
Remove a License Mapping	110

---

<b>12 InfoPath Forms Services</b>	<b>111</b>
Browser-Enabled Form Templates	112
Throttle Data Connection Timeouts	112
Throttle the Data Connection Response Size	113
Modify Authentication Settings	113
Configure Session State	114
Enable View State	115
Verify and Upload a Form Template	116
Upload Multiple Form Templates at Once	116
Activate or Deactivate a Form to or from a Site Collection	117
Remove a Form from InfoPath Form Services	117
Quiesce a Form from InfoPath Form Services	118
Enable the Web Service Proxy	118
Export Forms Services Administration Files	119
Import Forms Services Administration Files	120
<b>13 Enterprise Search</b>	<b>121</b>
Display the Enterprise Search Service Information	122
Display Enterprise Search Service Instances	122
Get a Specific Enterprise Search Service Instance	123
Configure the Crawl Account for Enterprise Search	124
Configure the Enterprise Search Service Performance Level	124
Display Enterprise Search Service Applications	125
Get a Specific Enterprise Search Service Application	126
Create a Custom Metadata Category	126
Display Available Metadata Categories	127
Get a Specific Metadata Category	127
Create a Custom Metadata Crawled Property	128
Display Available Crawled Properties	129
Get a Specific Metadata Crawled Property	130
Create a Custom Metadata-Managed Property	130
Display Available Managed Properties	131
Get a Specific Metadata-Managed Property	132
Create a Metadata Mapping	133
Use Advanced Cmdlets for Search	133
<b>14 Profile Service</b>	<b>135</b>
Get the Identity of the Profile Service Application	136
Get a Specific Profile Service Application Instance	136
Configure Settings on the Profile Service Application	137
Remove Old Comments	137
Remove Old Ratings	138
Remove Old Tags	138
Update the Profile Photo Store	139
Refresh the Feed Cache	139



---

Refresh a Specific User's Feed Cache .....	140
Use Advanced Cmdlets for the Profile Service .....	140
<b>15 Business Data Connectivity Service</b> .....	<b>143</b>
Get the Identity of the BCS Service Application .....	144
Get a Specific BCS Service Application Instance .....	144
Configure the BCS Database .....	145
Get a BCS Metadata Object .....	145
Import a BCS Model .....	146
Export a BCS Model .....	147
Set the Entity Notification Web .....	147
Get the Entity Notification Web .....	148
Create an OData Connection .....	148
Get an OData Connection .....	149
Update an OData Connection .....	150
<b>16 Secure Store Service</b> .....	<b>153</b>
Get the Identity of the Secure Store Service Application .....	154
Get a Specific Secure Store Service Application Instance .....	154
Enable Auditing for the Secure Store Service .....	155
Configure the Secure Store Database .....	155
Generate a New Master Key .....	156
Refresh the Encryption Key .....	157
Create Application Fields .....	157
Create a Target Application .....	159
Create a New Application Entry .....	159
<b>17 Metadata Service</b> .....	<b>161</b>
Get the Identity of the Metadata Service Application .....	162
Get a Specific Metadata Service Application Instance .....	162
Configure the Metadata Service Accounts .....	163
Configure the Term Store Database .....	163
Configure the Content Type Hub .....	164
Get the Identity of the Metadata Service Application Proxy .....	164
Get a Specific Metadata Service Application Proxy Instance .....	165
Configure the Metadata Service Connection Options .....	166
<b>18 Session State and State Service</b> .....	<b>169</b>
Enable Session State .....	170
Disable Session State .....	170
Display Session State Information .....	171
Configure the Timeout of the Session State .....	172

---

Display State Service Applications Configured on the Farm .....	173
Get a Specific State Service Application .....	173
Rename a State Service Application .....	174
Perform State Service Database Operations .....	174
<b>19 Work Management Service</b> .....	<b>177</b>
Get the Identity of the Work Management Service Application .....	178
Get a Specific Work Management Service Application Instance .....	178
Configure the Refresh Threshold .....	179
Configure the Search Query Threshold .....	179
Configure the User Synchronization Per Server .....	180
Get the Identity of the Work Management Service Application Proxy .....	181
Get a Specific Work Management Service Application Proxy Instance .....	181
<b>20 Machine Translation Service</b> .....	<b>183</b>
Get the Identity of the Machine Translation Service Application .....	184
Get a Specific Machine Translation Service Application Instance .....	184
Get the Identity of the Machine Translation Service Proxy .....	185
Get a Specific Machine Translation Service Application Proxy Instance .....	185
Configure the Translation Processes .....	186
Configure Translations Throughput .....	186
Configure Enabled Document File Extensions for Translation .....	188
Modify Database Information .....	189
Modify Translation Timeouts .....	190
Modify the Maximum Translation Attempts .....	191
Modify the Recycle Threshold .....	191
<b>21 Excel Services</b> .....	<b>193</b>
Create a Trusted File Location .....	194
Display All Trusted File Locations .....	195
Get a Specific Trusted File Location .....	196
Remove a Trusted File Location .....	197
Create a Trusted Data Connection Library .....	197
Display All Trusted Data Connection Libraries .....	198
Get a Specific Trusted Data Connection Library .....	199
Remove a Trusted Data Connection Library .....	199
Create a New Safe Data Provider .....	200
Display All Safe Data Providers .....	201
Get a Specific Safe Data Provider .....	201
Remove a Safe Data Provider .....	202

Create a Blocked File Type .....	202
Display All Blocked File Types .....	203
Get a Specific Blocked File Type .....	203
Remove a Blocked File Type .....	204
Create a User-Defined Function Reference .....	204
Display All User-Defined Function References .....	205
Get a Specific User-Defined Function Reference .....	206
Remove a User-Defined Function Reference .....	206
Modify Excel Services Objects .....	207
<b>22 PerformancePoint Services</b> .....	<b>209</b>
Configure the Unattended Service Account .....	210
Display the Unattended Service Account .....	210
Create a Trusted Content Location .....	211
Create a Trusted Data Source Location .....	212
Display All Trusted Content Locations .....	212
Display All Trusted DataSource Locations .....	213
Display Details of Trusted Locations .....	213
Get a Specific Trusted Location .....	214
Remove a Trusted Location .....	214
Configure PerformancePoint Services to Enforce Trusted Locations .....	215
Configure PerformancePoint Services Application Settings .....	216
<b>23 Access Services</b> .....	<b>217</b>
Configure the Application Log Size .....	218
Configure the Cache Timeout .....	218
Modify the Maximum Columns in a Query .....	219
Modify the Maximum Calculated Columns in a Query .....	219
Configure the Maximum Order By Clauses .....	220
Configure the Maximum Number of Rows in a Query .....	220
Configure the Maximum Number of Records in an Access Table .....	221
Configure the Maximum Number of Sources in a Query .....	222
Enable and Disable the Use of Outer Joins .....	222
Allow or Restrict Nonremotable Queries .....	223
Throttle Access Services Memory Utilization .....	224
Throttle Session Memory Utilization .....	224
Configure User Sessions .....	225
Limit Template Sizes .....	225
Modify Access Services Databases .....	226
<b>24 Visio Graphics Services</b> .....	<b>227</b>
Configure the Unattended Service Account .....	228
Create a New Safe Data Provider .....	228

---

Display All Safe Data Providers .....	229
Get a Specific Safe Data Provider .....	230
Remove a Safe Data Provider .....	230
Setting the Description of a Data Provider .....	231
Configuring Visio Performance Settings .....	231
<b>25 Word Automation Services .....</b>	<b>233</b>
Configure the Conversion Processes .....	234
Configure Conversion Throughput .....	234
Configure Supported Document Formats for Conversion .....	236
Modify Database Information .....	237
Modify Job Monitoring .....	238
Modify Conversion Timeouts .....	239
Modify the Maximum Conversion Attempts .....	239
Modify the Maximum Memory Usage .....	240
Disable Word 97–2003 Document Scanning .....	240
Disable Embedded Fonts in Conversions .....	241
Modify the Recycle Threshold .....	242
<b>26 Office Web Apps .....</b>	<b>243</b>
Create a New WOPI Binding in SharePoint .....	244
Review Current SharePoint WOPI Bindings .....	245
Configure the Default Action for an Application .....	245
Remove WOPI Bindings from SharePoint .....	246
Configure the WOPI SharePoint Zone .....	247
Disable Certain WOPI Actions .....	247
Resolve Invalid Proof Signature .....	248
<b>A stsadm Versus SharePoint PowerShell .....</b>	<b>249</b>
A Operations .....	249
B Operations .....	250
C Operations .....	250
D Operations .....	250
E Operations .....	251
G Operations .....	251
I Operations .....	252
L Operations .....	252
M Operations .....	252
O, P, and Q Operations .....	252
R Operations .....	252
S Operations .....	253
U Operations .....	254
V Operations .....	254

<b>B Upgrade and Migration</b>	<b>255</b>
Test-SPContentDatabase .....	255
Upgrade-SPContentDatabase .....	255
Upgrade-SPFarm .....	256
Test-SPSite .....	256
Repair-SPSite .....	256
Upgrade-SPSite .....	256
Additional Upgrade Cmdlets .....	256
<b>C Enterprise Search Reference</b>	<b>259</b>
Administrative .....	259
Crawling .....	259
Metadata .....	260
Miscellaneous .....	261
Querying .....	262
Service Application .....	263
Topology .....	264
<b>D App Management Service Reference</b>	<b>265</b>
App Settings and Configuration .....	265
Denied Endpoint Management .....	266
Installation and Provisioning of Apps .....	266
Marketplace Management .....	266
Service Application .....	267
<b>Index</b>	<b>269</b>

# About the Author

**Steven Mann** was born and raised in Philadelphia, Pennsylvania, where he still resides today. He is an Enterprise Applications Engineer for Morgan Lewis and has more than 19 years of professional experience.

Steven has authored and coauthored several books related to the subject of SharePoint Server, PowerShell, Managed Metadata, and Business Intelligence. Steven's blog site can be found at [www.SteveTheManMann.com](http://www.SteveTheManMann.com).

# Acknowledgments

Thanks to Sams Publishing and Neil Rowe for making this book a reality and for giving me the opportunity to share my ideas and solutions.

# We Want to Hear from You!

As the reader of this book, you are our most important critic and commentator. We value your opinion and want to know what we're doing right, what we could do better, what areas you'd like to see us publish in, and any other words of wisdom you're willing to pass our way.

We welcome your comments. You can email or write to let us know what you did or didn't like about this book—as well as what we can do to make our books better.

Please note that we cannot help you with technical problems related to the topic of this book.

When you write, please be sure to include this book's title and author as well as your name and email address. We will carefully review your comments and share them with the author and editors who worked on the book.

Email: [consumer@samspublishing.com](mailto:consumer@samspublishing.com)

Mail: Sams Publishing  
ATTN: Reader Feedback  
800 East 96th Street  
Indianapolis, IN 46240 USA

## Reader Services

Visit our website and register this book at [informit.com/register](http://informit.com/register) for convenient access to any updates, downloads, or errata that might be available for this book.

# Introduction

---

## Overview of This Book

PowerShell is becoming the de facto administration tool for Microsoft Server products. The capability to script reusable steps and code makes life easier for administrators, developers, and managers. With the latest release of Microsoft SharePoint Server 2013, PowerShell is the recommended administration tool. The previous stsadm console application is still available for backward compatibility, but it has been officially deprecated. Therefore, understanding the available cmdlets within SharePoint 2013 is essential.

This book is designed to provide a great reference of the SharePoint cmdlets across all areas and features within the product. The scenarios covered are helpful in building out both simple and complex scripts, using the syntax and examples in this book's chapters.

---

## How to Benefit from This Book

This book provides a brief overview of how to get started with PowerShell in a SharePoint environment. It is not, however, a tutorial on PowerShell scripting itself. Use this book as a guide for performing repeated tasks or scripting steps that need to be replicated across your SharePoint environments (such as development, staging, and production).

Changes within the SharePoint 2013 cmdlets have taken place during various releases (for example, beta, release candidates, and product release). Many examples on the Internet use the old cmdlets and/or do not provide the appropriate parameters or types. In addition, some Internet documentation on the cmdlets, settings, and configurations is incorrect. You can rest assured that all the example command lines in this book have been tested and confirmed to be as accurate as possible.

You can access the code samples in this book by registering on the book's website at [informit.com/register](http://informit.com/register). Go to this URL, sign in, and enter the ISBN to register (free site registration required). After you register, look on your Account page, under Registered Products, for a link to Access Bonus Content.



---

## **How to Continue Expanding Your Knowledge**

This book provides the basis for what is possible within PowerShell scripts for SharePoint. To become an overall PowerShell expert, you might want to expand your knowledge by exploring other books that discuss general PowerShell scripting techniques and syntax. Several general PowerShell books are available at [informit.com](http://informit.com).

# CHAPTER 2

---

## PowerShell Basics

### IN THIS CHAPTER

- ▶ What Is a Cmdlet?
- ▶ How Can I See the Possible Verbs for a Noun Command?
- ▶ What Is a Parameter?
- ▶ What Is a Switch Parameter?
- ▶ How Can I See the Possible Parameters for a Cmdlet?
- ▶ What Does F3 Do?
- ▶ What Does F7 Do?
- ▶ What Are Console Commands?
- ▶ Path Environment Variable
- ▶ Running Unsigned Scripts
- ▶ Disabling the Confirmation Prompt
- ▶ Generating Inline Credentials
- ▶ Referencing an Assembly

This chapter explains some PowerShell basics, to help you acquire a general understanding. The sections and scenarios in this chapter help form a foundation for the tasks and solutions within this book.

---

## What Is a Cmdlet?

PowerShell commands are called cmdlets. They are structured by a verb and noun concatenation in the form of verb-noun. So in the cmdlet `Get-Hello`, `Get` is the verb and `Hello` is the noun.

**TIP** Use the `Get-Hello` cmdlet to view helpful information about working with cmdlets.

---

## How Can I See the Possible Verbs for a Noun Command?

If you know the noun but are unsure of the possible verbs available, you can enter the noun with `-?` to display the available verb-noun combinations. This also displays additional nouns that are similar to the one you provided. For example, `SPSite -?` displays the available verbs not only for the `SPSite` noun, but also for `SPSiteAdministration`, `SPSiteSubscription`, and other cmdlets available beginning with `SPSite`.

---

## What Is a Parameter?

Most cmdlets need values to perform the desired actions. These values are provided to the cmdlet using parameters in the following form:

```
-parametername <value>
```

---

## What Is a Switch Parameter?

A switch parameter is a parameter used with a cmdlet that does not take a value (or that is Boolean in nature and can be set to a `false` setting). The fact that the switch parameter is present “switches on” that option (`true` setting) when executing the cmdlet.

Most of the time, switch parameters are optional, but in some cases, you need to provide a switch. This depends on the cmdlet being executed.

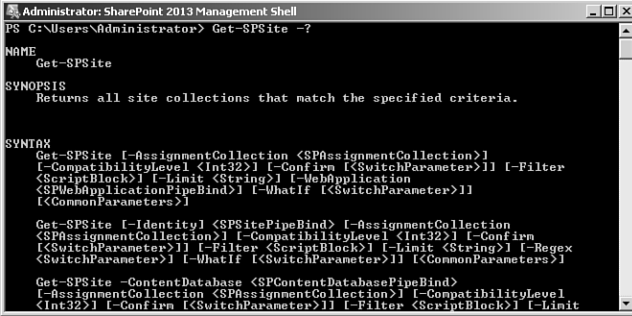
## How Can I See the Possible Parameters for a Cmdlet?

Entering the cmdlet in the console with `-?` as a parameter displays information about that cmdlet, along with the available parameters. Listing 2.1 shows an example.

### LISTING 2.1 Getting Information About a Cmdlet

```
Get-SPSite -?
```

Some cmdlets, such as `Get-SPSite`, have different variations of parameters. These variations also are displayed within the information provided by the `-?` parameter, as Figure 2.1 shows.



```
Administrator: SharePoint 2013 Management Shell
PS C:\Users\Administrator> Get-SPSite -?
NAME
----
Get-SPSite

SYNOPSIS
Returns all site collections that match the specified criteria.

SYNTAX
Get-SPSite [-AssignmentCollection <SPAssignmentCollection>]
[-CompatibilityLevel <Int32>] [-Confirm <SwitchParameter>] [-Filter
<ScriptBlock>] [-Limit <String>] [-WebApplication
<SPWebApplicationPipeBind>] [-WhatIf <SwitchParameter>]
[<CommonParameters>]

Get-SPSite [-Identity] <SPSitePipeBind> [-AssignmentCollection
<SPAssignmentCollection>] [-CompatibilityLevel <Int32>] [-Confirm
<SwitchParameter>] [-Filter <ScriptBlock>] [-Limit <String>] [-Regex
<SwitchParameter>] [-WhatIf <SwitchParameter>] [<CommonParameters>]

Get-SPSite -ContentDatabase <SPContentDatabasePipeBind>
[-AssignmentCollection <SPAssignmentCollection>] [-CompatibilityLevel
<Int32>] [-Confirm <SwitchParameter>] [-Filter <ScriptBlock>] [-Limit
```

FIGURE 2.1 Using `-?` with a cmdlet provides various syntax information.

## What Does F3 Do?

Pressing the F3 function key in the console window displays the last-executed statement on the current prompt line. Using the up and down arrows, you can page through the other previous statements. This is useful for repeating or correcting previous command entries. Use the left and right arrow keys to place the cursor within the command text for corrections.

**TIP** Pressing the Insert key on the keyboard allows you to overwrite text within the command text without pushing the text out.

## What Does F7 Do?

This is probably the best-kept secret in command consoles. Every time I show this to someone, they say they had no idea it was available. If you have been entering several

commands in a console screen, pressing the F7 function key displays a menu of the previously executed commands, as Figure 2.2 shows.

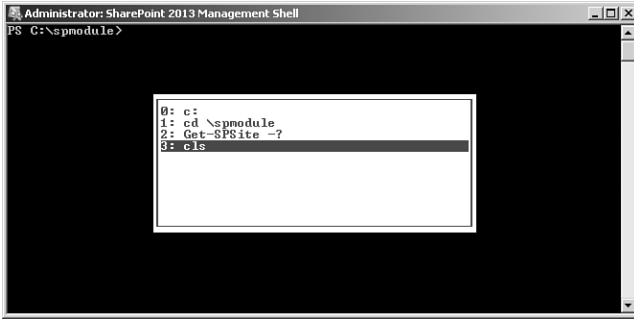


FIGURE 2.2 Pressing the F7 function key presents a command history menu.

Use the arrow keys to change the selection in the menu. Pressing Enter executes the command selected. Pressing F9 on the menu enables you to enter the command number you want to re-execute but only places it on the line (the command is not executed automatically).

---

## What Are Console Commands?

A handful of what I like to call console commands stem from the good ol' DOS days. They have been available in command prompts since then, with the current PowerShell consoles included. These commands provide standard directory navigation, file handling, and screen handling.

Several common console commands follow:

- ▶ `cd`: Changes the directory
- ▶ `cls`: Clears the console screen
- ▶ `dir`: Displays a listing of the current directory (folder)
- ▶ `type`: Used with a text-based filename and displays the contents of a text file

**TIP** These commands have been grouped within PowerShell as Aliases. To see all of the available aliases use `Get-Alias`.

---

## Path Environment Variable

**Scenario/Problem:** You have scripts within a local folder which you want PowerShell to recognize such that you do not need to use the full path name.

**Solution:** Add the local directory path to the `PSModulePath` variable.

You add the local folder's path to the `PSModule` environment variable by entering the following command in the PowerShell command prompt (substituting `<folder path>` with the local directory path), as shown in Listing 2.2.

### LISTING 2.2 Adding a Folder Path to the `PSModulePath`

```
$env:PSModulePath = $env:PSModulePath + ";c:\<folder path>"
```

**TIP** Add the same exact command line into the PowerShell profile configuration file to always have your local folder added to the `PSModulePath`. See <http://technet.microsoft.com/en-us/library/dd315342.aspx> for more information about PowerShell profiles.

---

## Running Unsigned Scripts

**Scenario/Problem:** You need to be able to run unsigned scripts within PowerShell.

**Solution:** Use the `Set-ExecutionPolicy` command.

To run unsigned scripts, you must change the execution policy:

```
Set-ExecutionPolicy remotesigned
```

You are prompted with a confirmation. Enter `Y` and press Enter (or just press Enter—`Y` is the default).

In some cases, you must set the policy to Unrestricted:

```
Set-ExecutionPolicy unrestricted
```

**TIP** For more information on signing scripts, see <http://technet.microsoft.com/en-us/library/dd347649.aspx>

## Disabling the Confirmation Prompt

**Scenario/Problem:** You need to automatically confirm operations such that a script runs unattended.

**Solution:** Include the `-Confirm` parameter with a `$false` setting.

When running cmdlets discussed in this book, you might receive a confirmation message to confirm the action being processed. If you use these cmdlets in scripts, the script will not run straight through without prompting for the confirmation.

The cmdlets that have a `-Confirm` optional parameter can be called in unattended mode by passing in `-Confirm:$false` to the cmdlet, as shown in Listing 2.3.

### LISTING 2.3 Suppressing the Confirmation Prompt Example

```
Remove-item *.png -Confirm:$false
```

---

**NOTE** Not all cmdlets have a `-Confirm` parameter. Use the help (`-?`) parameter to verify each cmdlet in question.

## Generating Inline Credentials

**Scenario/Problem:** You need to provide cmdlets with credentials without prompting for them.

**Solution:** Create a new `PSCredential` object.

Various cmdlets discussed in this book require SharePoint and/or SQL Server account credentials for proper authentication when performing the desired operations. The examples include using `(Get-Credential)` as the parameter value, which prompts the user for credentials.

When running these cmdlets in scripts, the prompting for credentials pauses the execution. If you need the script to run straight through, instead of using `Get-Credential`, you can generate a new `PSCredential` object inline, as shown in Listing 2.4.

### LISTING 2.4 Generating Inline Credentials Example

```
(New-Object System.Management.Automation.PSCredential "domain\user",  
(ConvertTo-SecureString "password" -AsPlainText -Force))
```

---

Therefore, simply substitute `(Get-Credential)` for the text shown in Listing 2.4 with the proper username and password when using a cmdlet with authentication requirements.

---

## Referencing an Assembly

**Scenario/Problem:** You want to be able to call methods and/or use objects within a trusted assembly (DLL).

**Solution:** Use a reflection declaration, and then use a variable to instantiate an object.

You can reference an assembly in your PowerShell script and then use any objects available by assigning them to a variable. Then you can use any methods or properties within your script. No intellisense exists, so you need to know the object model beforehand. Listing 2.5 demonstrates an example assembly reference and usage.

### LISTING 2.5 Referencing and Using a SharePoint Assembly

```
[Void][System.Reflection.Assembly]::LoadWithPartialName("Microsoft.
SharePoint")
[Void][System.Reflection.Assembly]::LoadWithPartialName("Microsoft.
SharePoint.Administration")

$spFarm = [Microsoft.SharePoint.Administration.SPFarm]::Local
$spFarmSolutions = $spFarm.Solutions
```

**TIP** Instead of coding and compiling a console application, use a PowerShell script that references the SharePoint assemblies.



*This page intentionally left blank*

# Index

## Symbols

/ (forward slashes), 34

-, nouns, 10

## A

### Access Services, 218

application log size, configuring, 218

cache timeout, configuring, 218-219

configuring

maximum number of records in  
tables, 221

maximum number of rows in queries,  
220-221

maximum number of sources in  
queries, 222

maximum Order By clauses, 220

modifying

databases, 226

maximum calculated columns in  
queries, 219-220

maximum columns in queries, 219

nonremovable queries, allow/restrict, 223

outer joins, 222-223

template sizes, limiting, 225-226

throttling, 224

session memory utilization, 224-225

user sessions, configuring, 225

**actions, disabling in WOPI, 247**

**activating**

features, 95

forms, site collection, 117

sandboxed solutions, 91-92

**ActiveProcesses parameter, 234**

**ActiveSessionTimeout, 114**

**AddEnabledFileExtensions, 188**

**Add-SPSolution, 86**

**Add-SPUserLicenseMapping**, 108-109

**Add-SPUserSolution**, 90

**adding**

- license mapping, 108-109
- sandboxed solutions to site collection, 90
- solutions to SharePoint farms, 86

**AddSupportedFormats**, 236-237

**advanced cmdlets, profile service applications**, 140-141

**all alternate access mapping, displaying**, 51

**AllowDesigner** parameter, 37

**AllowEmbeddedSqlForDataConnection**, 114

**allowing, nonremotable queries**, 223

**AllowMasterPageEditing** parameter, 38

**AllowRevertFromTemplate**, 38

**AllowUdcAuthenticationForData Connection**, 114

**AllowUserFormCrossDomainData Connections**, 114

**AllowViewState** parameter, 115

**-AllWebApplications** switch parameter, 88

**alternate access mappings**

- changing zone, 51-52
- displaying, 51
- removing, 52
- URL, creating, 50

**ancillary cmdlets for service applications**, 60

**application entries, creating**, 159-160

**application fields, creating**, 157-158

**application log size, Access Services (configuring)**, 218

**-Application** parameter, 244

**ApplicationLogSize** parameter, 218

**applications, Enterprise Search Service (displaying)**, 125

**ASPScriptOptimizationEnabled** parameter, 29

**assemblies, referencing**, 15

**-AssemblyLocation**, 205

**attaching, content databases to web applications**, 65-66

**attended service accounts, Visio Graphics Services (configuring)**, 228

**authentication settings, modifying**, 113-114

**AuthenticationMode** parameter, 148

**available metadata categories, displaying**, 127

**available service applications, displaying**, 54

**available web applications, displaying**, 46

## B

**backing up**

- configuration databases, 67-68
- SharePoint farms, 69
- site collection, 70

**Backup-SPConfigurationDatabase**, 67-68

**Backup-SPFarm**, 69

**Backup-SPSite**, 70

**BCS (Business Data Connectivity Service)**, 144

- OData connections, creating new, 148-149

**BCS database, configuring**, 145

**BCS metadata object**, 145-146

**BCS model**

- exporting, 147
- importing, 146

**BCS service application, identities**, 144

**BCS service application instance, getting specific**, 144-145

**BDC (Business Data Catalog)**, 144

**bindings**

- creating new WOPI bindings in SharePoint, 244-245
- reviewing current SharePoint WOPI bindings, 245
- WOPI (Web application Open Platform Interface Protocol), removing, 246

**blocked file types (Excel Services)**

- creating, 202-203
- displaying, 203
- getting specific, 203-204
- removing, -204

**browser-enabled form templates**, 112

**Business Data Catalog (BDC)**, 144

**Business Data Connectivity Service (BCS)**, 144-145

## C

**cache timeout, Access Services, configuring**, 218-219

**CacheTimeout** parameter, 218-219

**CAS (code access security)**, 88

- Update-SPSolution, 89

**cd**, 12

**changing**

- farm passphrase, 30-31
- port of Central Administration, 30

**zone of alternate access mapping, 51-52****ClearEnabledFileExtensions parameter, 189****ClearSupportedFormats, 237****cls, 12****cmdlets, 10**

- ?,10
- Add-SPSolution, 86
- Add-SPUserLicenseMapping, 108-109
- Add-SPUserSolution, 90
- AllowViewState parameter, 115
- ancillary commandlets for service applications, 60
- Backup-SPConfigurationDatabase, 67-68
- Backup-SPFarm, 69
- Backup-SPSite, 70
- ConvertTo-SecureString, 124
- Disable-SPFeature, 95-96
- Disable-SPInfoPathFormTemplate, 117
- Disable-SPSessionStateService, 170-171
- Disable-SPTimerJob, 42
- Disable-SPUserLicensing, 107
- Disconnect-SPConfigurationDatabase, 67
- Dismount-SPContentDatabase, 65
- Enable-SPFeature, 95
- Enable-SPSessionStateService, 170
- Enable-SPTimerJob, 27-42
- Enable-SPUserLicensing, 106-107
- Export-SPInfoPathAdministrationFiles, 119-120
- Get-Credential, 15, 21-22
- Get-Help cmdlet, 10
- Get-SPAlternateURL, 51
- Get-SPBusinessDataCatalogEntityNotificationWeb, 148
- Get-SPBusinessDataCatalogMetadataObject, 145-146
- Get-SPContentDatabase, 64-65
- Get-SPContentDeploymentJob, 103, -102
- Get-SPContentDeploymentPath, 100-101
- Get-SPDatabase, 62-63
- Get-SPDeletedSite, 80
- Get-SPDesignerSettings, 36
- Get-SPEnterpriseSearchMetadataCategory, 127-128

- Get-SPEnterpriseSearchMetadataCrawledProperty, 129-130
- Get-SPEnterpriseSearchMetadataManagedProperty, 131-133
- Get-SPEnterpriseSearchService, 122
- Get-SPEnterpriseSearchServiceApplication, 125-126
- Get-SPEnterpriseSearchServiceInstance, 122-123
- Get-SPExcelBlockedFileType, 203-204
- Get-SPExcelDataConnectionLibrary, 198-199
- Get-SPExcelDataProvider, 201-202
- Get-SPExcelFileLocation, 195-196
- Get-SPExcelUserDefinedFunction, 205-206
- Get-SPFarmConfig, 28
- Get-SPFeature, 93-94-95
- Get-SpManagedAccount, 32
- Get-SPManagedPath, 33
- Get-SPMetadataServiceApplication, 162-163
- Get-SPMetadataServiceApplicationProxy, 165
- Get-SPODataConnectionSetting, 149-150
- Get-SPPerformancePointSecureDataValues, 211
- Get-SPPerformancePointServiceApplicationTrustedLocation, 212-214
- Get-SPProcessAccount, 31-32
- Get-SPServiceApplication, 55, 136-137, 144-145, 154-155, 178-179, 184-185 metadata service application, 162
- Get-SPServiceApplication cmdlet, 54
- Get-SPServiceApplicationProxy, 164-162, 181, 185
- Get-SPServiceInstance, 57-58
- Get-SPSessionStateService, 171
- Get-SPSite, 72-73
  - ContentDatabase parameter, 73
  - Identity parameter, 73-74
- Get-SPSolution, 86-87
- Get-SPStateServiceApplication, 173
- Get-SPTimerJob, 40-41
- Get-SPUserLicense, 107
- Get-SPUserLicenseMapping, 109
- Get-SPUserLicensing, 106
- Get-SPUserSolution, 91
- Get-SPVisioSafeDataProvider, 229-230

- Get-SPWeb, 78
- Get-SPWebApplication, 46-47
- Get-SPWebTemplate, 24
- Get-SPWOPIBinding, 245
- Get-SPWorkflowConfig, 38
- Get-SPWorkManagementService
  - ApplicationProxy, 181-182
- Import-SPBusinessDataCatalogModel, 146
- Import-SPInfoPathAdministrationFiles, 120
- Install-SharePoint, 19-20
- Install-SPFeature, 96
- Install-SPInfoPathFormTemplate, 116
- Install-SPService, 54
- Install-SPSolution, 87-88
- Install-SPUserSolution, 91-92
- Join-SharePointFarm, 22
- Merge-SPLogFile, 35
- Mount-SPContentDatabase, 65-66
- Move-SPSite, 79-80
- New-SharePointFarm, 21-22
- New-SPAAlternateURL, 50
- New-SPConfigurationDatabase, 66-67
- New-SPContentDatabase, 63-64, 80
- New-SPContentDeploymentPath, 100
- New-SPContentDeploymentJob, 102
- New-SPEnterpriseSearchMetadata
  - Category, 126
- New-SPEnterpriseSearchMetadata
  - CrawledProperty, 128-129
- New-SPEnterpriseSearchMetadata
  - ManagedProperty, 130-131
- New-SPEnterpriseSearchMetadata
  - Mapping, 133
- New-SPExcelBlockedFileType, 202-203
- New-SPExcelDataConnectionLibrary, 197-198
- New-SPExcelDataProvider, 200
- New-SPExcelFileLocation, 194-195
- New-SPExcelUserDefinedFunction, 204-205
- New-SPLogFile, 36
- New-SPManagedPath, 34
- New-SPODataConnectionSetting, 148-149
- New-SPPerformancePointService
  - ApplicationTrustedLocation, 211-212
- New-SPSecureStoreApplication, 159-160
- New-SPSecureStoreApplicationField, 157-159
- New-SPSite, 23, 74-75
- New-SPVisioSafeDataProvider, 228-229
- New-SPWeb, 24, 76-77
- New-SPWebApplication, 23, 48
- New-SPWebApplicationExtension, 49-50
- New-SPWOPIBinding, 244-245
- New-SPWOPISuppressionSetting, 247
- nouns, -?10
- parameters, 10
  - viewing possible parameters, 11
- Publish-SPServiceApplication, 56-57
- Remove-SPAAlternateUrl, 52
- Remove-SPConfigurationDatabase, 67
- Remove-SPContentDatabase, 66
- Remove-SPContentDeploymentJob, 103
- Remove-SPContentDeploymentPath, 101
- Remove-SPExcelBlockedFileType, -204
- Remove-SPExcelDataConnectionL
  - ibrary, 199-200
- Remove-SPExcelDataProvider, 202
- Remove-SPExcelFileLocation, 197
- Remove-SPExcelUserDefinedFunction,
  - 206-207
- Remove-SPManagedPath, 34-35
- Remove-SPPerformancePointService
  - ApplicationTrustedLocation, 214-215
- Remove-SPServiceApplication, 57
- Remove-SPSite, 74
- Remove-SPSocialItemByDate, 137-139
- Remove-SPUserLicenseMapping, 110
- Remove-SPUser-Solution, 93
- Remove-SPVisioSafeDataProvider,
  - 230-231
- Remove-SPWebApplication, 47
- Remove-SPWOPIBinding, 246
- Rename-SPServer, 32-33
- Repair-SPSite256
- Restore-SPDeletedSite, 82-83
- Restore-SPFarm, 68-69-70
- Restore-SPSite, 70
- Set-SPAAccessServiceApplication, 218-221,
  - 222-223, 225
- Set-SPAAlternateUrl, 51-52
- Set-SPBusinessDataCatalogService
  - Application, 145
- Set-SPCentral Administration, 30
- Set-SPDesignerSettings, 37-38
- Set-SPEnterpriseSearchService, 124-125
- Set-SPFarmConfig, 28-30

- Set-SPInfoPathFormsService, 112-113, 115
- Set-SPInfoPathWebServiceProxy, 118-119
- Set-SPMetadataServiceApplication, 163-164
- Set-SPMetadataServiceApplication Proxy, 166-167
- Set-SPODataConnectionSetting, 150
- Set-SPPassPhrase, 30-31
- Set-SPPerformancePointSecureData Values, 210
- Set-SPPerformancePointService Application, 215-216
- Set-SPProfileServiceApplication, 137
- Set-SPSecureStoreServiceApplication, 155-156
- Set-SPServiceApplication, 55-56
- Set-SPSessionStateService, 172
- Set-SPSite, LockState parameter, 75-76
- Set-SPStateServiceApplication, 174
- Set-SPTimerJob, 43
- Set-SPTranslationServiceApplication," 186, 189-190
- Set-SPVisioExternalData, 228
- Set-SPVisioPerformance, 231-232
- Set-SPVisioSafeDataProvider, 231
- Set-SPWeb, RelativeURL parameter, 79
- Set-SPWebApplication, 48
- Set-SPWOPIBinding, 245-246
- Set-SPWOPIZone, 247
- Set-SPWordConversionService Application, 234-240
- Set-SPWorkflowConfig, 39-40
- Set-SPWorkManagementService Application, 179-180
- SPServiceApplicationProxy, 185-186
- SPStateServiceDatabase, 174-175
- Start-SPContentDeploymentJob, 103-104
- Start-SPTimerJob, 42-43
- Stop-SPInfoPathFormTemplate, 118
- Test-SPContentDatabase255
- Test-SPInfoPathFormTemplate, 116
- Test-SPSite256
- Uninstall-SPFeature, 97
- Uninstall-SPInfoPathFormTemplate, 117-118
- Uninstall-SPSolution, 88-89
- Uninstall-SPUserSolution, 92
- Update-SPProfilePhotoStore, 139
- Update-SPRepopulateMicroblogFeed Cache, 140
- Update-SPRepopulateMicroblogLMT Cache, 139-140
- Update-SPSecureStoreApplication ServerKey, 157
- Update-SPSecureStoreMasterKey, 156-157
- Update-SPSolution, 89
- Update-SPUserSolution, 92-93
- Update-SPWOPIProofKey, 248
- Upgrade-SPContentDatabase255
- Upgrade-SPFarm256
- Upgrade-SPSite256
- code access security (CAS), 88**
- ColumnsMax parameter, 219**
- commands, console commands, 12**
- comments, removing, 137-138**
- configuration databases**
  - backing up, 67-68
  - creating new, 66-67
  - deleting, 67
  - restoring, 68-69
- configured managed paths**
  - displaying, 33
- configuring**
  - Access Services
    - maximum number of records in tables, 221
    - maximum number of rows in queries, 220-221
    - maximum number of sources in queries, 222
    - maximum Order By clauses, 220
  - application log size, Access Services, 218
  - BCS database, 145
  - cache timeout, Access Services, 218-219
  - content type hubs, 164
  - conversion processes, Word Services, 234
  - conversion throughput, Word Services, 234-236
  - crawl accounts, Enterprise Search Service instances, 124
  - databases, Secure Store Service, 155-156

default actions, WOPI (Web application Open Platform Interface Protocol), 245-246

document formats for conversion, Word Services, 236-237

enabled document file extensions for translation, Machine Translation application, 188-189

Enterprise Search Service performance levels, 124-125

IIS settings for service applications, 55-56

IRM (Information Rights Management) settings, 83

metadata service accounts, 163

metadata service connection options, 166-167

new SharePoint farms, 21-22

performance settings, Visio Graphics Services, 231-232

PerformancePoint Services (PPS)

- to enforce trusted locations, 215
- settings, 216

profile service applications, 137

search query thresholds, Work Management Service application, 179-180

session state, 114-115

SharePoint Designer settings, 37-38

state service applications, on the farm, 173

term store database, 163-164

thresholds, Work Management Service application, 179

timeouts of session state, 172

translation processes, Machine Translation application, 186

translations throughput, 186-188

unattended service accounts

- PerformancePoint Services (PPS), 210
- Visio Graphics Services, 228

user sessions, Access Services, 225

user synchronization per server, 180

web application settings, 48

WOPI (Web application Open Platform Interface Protocol), WOPI SharePoint zone, 247

**-Confirm parameter, 14, 150**

**confirmation prompt, disabling, 14**

**console commands, 12**

**content databases**

- attaching to web applications, 65-66
- creating new, 63-64
- deleting, 66
- detaching from web applications, 65
- displaying available, 73
- displaying for web applications, 64-65
- moving site collection to, 79-80

**content deployment configurations, modifying, 104-**

**content deployment jobs**

- removing, 103
- starting, 103-104

**content deployment paths**

- getting specific, 101
- removing, 101

**content type hubs, configuring, 164**

**ContentDatabase parameter**

- Get-SPDeletedSite, 81
- Get-SPSite, 73

**conversion processes, Word Services (configuring), 234**

**conversion throughput, Word Services (configuring), 234-236**

**conversion timeouts, Word Services (modifying), 239**

**ConversionsPerInstance, 234-236**

**ConversionTimeout, 238, 239**

**ConvertTo-SecureString, 124**

**crawl accounts, configuring Enterprise Search Service instances, 124**

**crawled property,**

- displaying available, 129-130
- metadata (creating custom), 128-129

**credentials, inline credentials (generating), 14-15**

**custom metadata categories, creating, 126**

## D

**data connection response size, throttle, 113**

**data providers**

- creating (Excel Services), 200
- displaying (Excel Services), 201
- getting specific (Excel Services), 201-202
- removing (Excel Services), 202

- Visio Graphics Services
  - creating, 228-229
  - displaying, 229-230
  - getting specific, 230
  - removing, 230-231
  - setting descriptions, 231
- database information**
  - modifying, 189-190
  - Word Services, modifying, 237-238
- DatabaseCredential, 190**
- DatabaseName, 190, 238**
- databases**
  - Access Services, modifying, 226
  - configuration databases, creating new, 66-67
  - getting specific, 63
  - new content databases, creating new, 63-64
  - Secure Store Service, configuring, 155-156
- DatabaseServer, 190**
- DatabaseServer parameter, 145**
- DataFormWebPartAutoRefreshEnabled parameter, 29**
- DataProviderID, 229**
- deactivating**
  - features, 95-96
  - forms, site collection, 117
  - sandboxed solutions, 92
- DeclarativeWorkflowEnabled parameter, 39**
- default actions, WOPI (Web application Open Platform Interface Protocol), configuring, 245-246**
- deleted site collections**
  - displaying, 80
    - in content databases, 81
  - getting specific, 81-82
  - removing, 82
  - restoring, 82-83
- deleting**
  - configuration databases, 67
  - content databases, 66
- deployed sandboxed solutions, upgrading, 92-93**
- deployed solutions, upgrading, 89**
- deploying, solutions to web applications, 87-88**
- deployment jobs**
  - creating new, 102
  - displaying, -102
  - getting specific, 103
  - removing content deployment jobs, 103
- deployment paths**
  - content deployment paths, removing, 101
  - creating new, 100
  - displaying configured on the farm, 100-101
  - getting specific, content deployment paths, 101
- descriptions, data providers (Visio Graphics Services), 231**
- detaching, content databases from web applications, 65**
- details of trusted locations, displaying, 213-214**
- dir, 12**
- Directory parameter**
  - Backup-SPConfigurationDatabase, 67
  - Backup-SPFarm, 69
- Disable-SPFeature, 95-96**
- Disable-SPInfoPathFormTemplate, 117**
- Disable-SPSessionStateService, 170-171**
- Disable-SPTimerJob, 42**
- Disable-SPUserLicensing, 107**
- DisableBinaryFileScan parameter, 240-241**
- DisableEmbeddedFonts parameter, 241**
- disabling**
  - actions, WOPI (Web application Open Platform Interface Protocol), 247
  - confirmation prompt, 14
  - embedded fonts in conversions, Word Services, 241
  - outer joins, Access Services, 222-223
  - session state, 170-171
  - timer jobs, 42
  - user licenses, 107
  - user licensing enforcement, 107
  - Word 97-2003 document scanning, Word Services, 240-241
- Disconnect-SPConfigurationDatabase, 67**
- Dismount-SPContentDatabase, 65**
- displaying**
  - all alternate access mapping, 51
  - all content databases for web applications, 64-65



- available features, 93-94
- available service applications, 54
- available timer jobs on farms, 40
- available web applications, 46
- blocked file types, Excel Services, 203
- configured managed paths, 33
- crawled properties, available, 129-130
- data providers
  - Excel Services, 201
  - Visio Graphics Services, 229-230
- deleted site collections, 80
  - in content databases, 81
- deployment jobs configured on the farm, -102
- deployment paths, configured on the farm, 100-101
- details of trusted locations, PerformancePoint Services (PPS), 213-214
- Enterprise Search Service applications, 125
- Enterprise Search Service information, 122
- Enterprise Search Service instances, 122-123
- license mapping, 109
- managed properties, 131-132
- metadata categories, available, 127
- sandboxed solutions, in site collection, 91
- service instances on servers, 57-58
- session state information, 171
- SharePoint databases, 62
- site collections in content databases, 73
- site collections in web applications, 72-73
- site collections on the farm, 72
- solutions on the farm, 86
- state service applications, configured on the farm, 173
- subsites, within site collection, 77-78
- trusted content locations, PerformancePoint Services (PPS), 212-213
- trusted data connection library, Excel Services, 198
- trusted datasource locations, PerformancePoint Services (PPS), 213
- trusted file locations, Excel Services, 195
- unattended service accounts, PerformancePoint Services (PPS), 211

- user-defined function reference, Excel Services, 205
- user licensing status, 106

**doc, 236**

- document formats for conversion, Word Services, configuring, 236-237**

- document scanning, Word 97-2003 document scanning (disabling), 240-241**

**docx, 236****E**

- EmailNoPermissionParticipantsEnabled parameter, 39**

- embedded fonts in conversions, disabling, 241**

- Enable-SPFeature, 95**

- Enable-SPInfoPathFormTemplate, 117**

- Enable-SPSessionStateService, 170**

- Enable-SPTimerJob, 27-28**

- Enable-SPUserLicensing, 106-107**

- enabled document file extensions for translation, configuring for translation, 188-189**

**enabling**

- auditing Secure Store Service, 155

- nonremovable queries, 223

- outer joins, Access Services, 222-223

- session state, 170

- timer jobs, 27-42

- view state, 115

- web services proxy, InfoPath Form Services, 118-119

- encryption keys, refreshing Secure Store Service, 157**

- ending current log files, 36**

- enforcement, user licensing enforcement**
  - disabling, 107
  - enabling, 106-107

- Enterprise Search Service applications**

- displaying, 125

- getting specific, 126

- Enterprise Search Service, configuring crawl accounts, 124**

- Enterprise Search Service information, displaying, 122**

**Enterprise Search Service instances**

displaying, 122-123

getting specific, 123

**Enterprise Search Service performance levels, configuring, 124-125****entity notification web, 148**

setting, 147

**Excel Services**

blocked file types

creating, 202-203

displaying, 203

getting specific, 203-204

removing, 204

data providers

displaying, 201

getting specific, 201-202

removing, 202

safe data providers, creating, 200

trusted data connection library

creating, 197-198

displaying, 198

getting specific, 199

removing, 199-200

trusted file locations

creating, 194-195

displaying, 195

getting specific, 196

removing, 197

user-defined function reference

creating, 204-205

displaying, 205

getting specific, 206

removing, 206-207

**Excel Services objects, modifying, 207****Export-SPInfoPathAdministrationFiles, 119-120****exporting**

BCS model, 147

form services administration files, 119-120

installed farm solutions, 97-98

**extending, web applications, 49-50****F**

**F3 function key, 11**

**F7 function key, 11-12**

**\$false, 215**

**farm configuration values**

reviewing, 28

setting, 28-29

**farm passphrase, changing, 30-31**

**farms**

displaying

available solutions, 86

deployment jobs, 102

deployment paths, 100-101

renaming servers, 32-33

SharePoint farms, removing solutions, 90

**features**

activating, 95

deactivating, 95-96

displaying, 93-94

getting specific, 94-95

installing in SharePoint, 96

uninstalling from SharePoint, 97

**feed cache, refreshing, 139-140**

of specific users, 140

**file extensions, configuring for translation, 188-189**

**file formats, 236**

**-FileType, 202-203**

**fonts, Word Services, disabling embedded fonts in conversions, 241**

**-Force switch parameter, 89**

Disable-SPFeature, 96

Enable-SPFeature, 95

Install-SPFeature, 96

Install-SPSolution, 88

**Force switch parameter, Restore-SPSite, 70**

**-Force switch parameter, Uninstall-SPSolution, 97**

**form services administration files, exporting, 119-120**

**form templates**

uploading, 116

multiples, 116-117

verifying, 116

**forms**

- activating site collection, 117
- deactivating (site collection), 117
- quiescing from InfoPath Form Services, 118
- removing from InfoPath Form Services, 117-118
- site collection, activating or deactivating, 117

**forms services administration files, importing, 120**

**forward slashes (/), 34**

**G**

**-GACDeployment switch parameter, 88, 89**

**generating**

- inline credentials, 14-15
- master keys, Secure Store Service, 156-157

**Get-Credential, 15, 21-22**

**Get-Help cmdlet, 10**

**Get-SPAlternateURL, 51**

**Get-SPBusinessDataCatalogEntity  
NotificationWeb, 148**

**Get-SPBusinessDataCatalogMetadata  
Object, 145-146**

**Get-SPContentDatabase, 64-65**

**Get-SPContentDeploymentJob, 103, -102**

**Get-SPContentDeploymentPath, 100-101**

**Get-SPDatabase, 62-63**

**Get-SPDeletedSite, 80**

- ContentDatabase parameter, 81
- Identity parameter, 81-82

**Get-SPDesignerSettings, 36**

**Get-SPEnterpriseSearchMetadataCategory,  
127-128**

**Get-SPEnterpriseSearchMetadataCrawled  
Property, 129-130**

**Get-SPEnterpriseSearchMetadataManaged  
Property, 131-133**

**Get-SPEnterpriseSearchService, 122**

**Get-SPEnterpriseSearchServiceApplication,  
125-126**

**Get-SPEnterpriseSearchServiceInstance,  
122-123**

**Get-SPEXcelBlockedFileType, 203-204**

**Get-SPEXcelDataConnectionLibrary, 198-199**

**Get-SPEXcelDataProvider, 201-202**

**Get-SPEXcelFileLocation, 195-196**

**Get-SPEXcelUserDefinedFunction, 205-206**

**Get-SPFarmConfig, 28**

**Get-SPFeature, 93-95**

**Get-SpManagedAccount, 32**

**Get-SPManagedPath, 33**

**Get-SPMetadataServiceApplication, 162-163**

**Get-SPMetadataServiceApplicationProxy, 165**

**Get-SPODataConnectionSetting, 149-150**

**Get-SPPerformancePointSecureData  
Values, 211**

**Get-SPPerformancePointServiceApplication  
TrustedLocation, 212-214**

**Get-SPProcessAccount, 31-32**

**Get-SPServiceApplication, 54-55, 136-137,  
144-145, 154-155, 178-179, 184-185**  
metadata service application, 162

**Get-SPServiceApplicationProxy, 164-162,  
181, 185**

**Get-SPServiceInstance, 57-59**

**Get-SPSessionStateService, 171**

**Get-SPSite, 72-73, 80**  
ContentDatabase parameter, 73

-Identity parameter, 73-74

**Get-SPSolution, 86-87**

-Identity parameter, 87

**Get-SPStateServiceApplication, 173**

**Get-SPTimerJob, 40-41**

**Get-SPUserLicense, 107**

**Get-SPUserLicenseMapping, 109**

**Get-SPUserLicensing, 106**

**Get-SPUserSolution, 91**

**Get-SPVisioSafeDataProvider, 229-230**

**Get-SPWeb, 78**

**Get-SPWebApplication, 46-47**

Identity parameter, 77-78

**Get-SPWebTemplate, 24**

**Get-SPWOPIBinding, 245**

**Get-SPWorkflowConfig, 38**

**Get-SPWorkManagementServiceApplication  
Proxy, 181-182**

**H-I****identities**

- BCS service application, 144
- Machine Translation Service application, 184
- Machine Translation Service Application Proxy, 185
- metadata service application, 162
- metadata service proxy, 164-162
- profile service applications, 136
- Secure Store Service application, 154
- Work Management Service application, 178
- Work Management Service Application Proxy, 181

**Identity parameter, 41**

- Backup-SPSite, 70
- Get-SPAlternateURL, 51
- Get-SPWebApplication, 47, 77-78

**-Identity parameter**

- Get-SPDeletedSite, 81-82
- Get-SPEnterpriseSearchMetadata ManagedProperty,
- Get-SPPerformancePointService ApplicationTrustedLocation, 214

**Get-SPSite, 73-74**

- Get-SPSolution, 87
- Get-SPWeb, 78
- Remove-SPAlternateUrl, 52

**IIS settings, configuring for service applications, 55-56****Import System Modules, 4****importing**

- BCS model, 146
- forms services administration files, 120

**Import-SPBusinessDataCatalogModel, 146****Import-SPInfoPathAdministrationFiles, 120****-IncludeChildren switch parameter, 194****InfoPath Form Services**

- forms
  - quiescing, 118
  - removing, 117-118
- web services proxy, enabling, 118-119

**inline credentials, generating, 14-15****Insert key, 11****Install-SharePoint, 19-20****Install-SPFeature, 96****Install-SPInfoPathFormTemplate, 116****Install-SPService, 54****Install-SPSolution, 87-88****Install-SPUserSolution, 91-92****installed farm solutions, exporting, 97-98****installed products, refreshing, 30****InstalledProductsRefresh switch parameter, 30****installing**

- features in SharePoint, 96
- service applications, 54
- SharePoint
  - unattended, 19-20
  - without a product key in the configuration file, 20

**instances**

- BCS service application instance, 144-145
- Enterprise Search Service, displaying, 122-123
- Machine Translation Service application, 184-185
- Machine Translation Service Application Proxy, 185-186
- metadata service application, getting specific, 162-163
- proxy instances
  - metadata service application, 165
  - Work Management Service application, 181-182
- Secure Store Service application instances, 154-155
- Work Management Service application, 178-179

**-Internal switch parameter, New-SPAlternateURL, 50****IRM (Information Rights Management) settings, configuring, 83****IsNameEnum switch parameter, 129****-Item parameter, Restore-SPFarm, 70****J****job monitoring, Word Services, modifying, 238****jobs, deployment jobs, displaying, -102****Join-SharePointFarm, 22****joining, servers, to SharePoint farms, 22**

**K**

KeepAliveTimeout, 190, 239

**L****license mapping**

- adding new, 108-109
- creating new, 108-109
- displaying, 109
- removing, 110

limiting, template sizes, Access Services, 225-226

-LiteralPatch parameter, 86

-LiteralPath, 89

-LocationType parameter, 194

lock state, setting for site collection, 75-76

LockState parameter, Set-SPSite, 75-76

**log files**

- ending current, 36
- merging, 35

**M****Machine Translation application**

- recycle threshold, modifying, 191-192
- translation processes, configuring, 186
- translations throughput, configuring, 186-188

**Machine Translation Service application**

- identities, 184
- instances, 184-185

**Machine Translation Service Application Proxy**

- identities, 185
- instances, 185-186

managed accounts, retrieving, 32

**managed paths**

- creating new, 34
- removing, 34-35

managed properties, displaying, 131-132

master keys, generating (Secure Store Service), 156-157

-MaxDiagramCacheAge parameter, 232

-MaxDiagramSize, 232

maximum conversion attempts, Word Services, (modifying), 239-240

maximum memory usage, Word Services (modifying), 240

MaximumConversionAttempts parameter, 239-240

MaximumConversionTime, 239

MaximumMemoryUsage parameter, 240

MaximumTranslationAttempts parameter, 191

MaximumTranslationTime parameter, 190-191

MaxPostBacksPerSession, 114

-MaxRecalcDuration parameter, 232

MaxSize parameters, Set-SPSite, 76

MaxSizeOfFormSessionState, 115

MaxUserActionsPerPostBack, 114

Merge-SPLLogFile, 35

merging, log files, 35

**metadata categories**

- creating, 126
- displaying available, 127
- getting specific, 127-128

**metadata crawled property,**

- creating, 128-129
- getting specific, 130

**metadata-managed properties**

- creating, 130-131
- getting specific, 131-133

metadata mapping, creating, 133

metadata service accounts, configuring, 163

**metadata service application**

- content type hubs, configuring, 164
- identities, 162
- instances, getting specific, 162-163
- proxy instances, 165
- term store database, configuring, 163-164

metadata service connection options, configuring, 166-167

metadata service proxy, identities, 164-162

mht, 236

Microsoft SharePoint installation module, preparing, 18

-MinDiagramCacheAge, 232

ModelsIncluded, 147

**modifying**

- Access Services
  - databases, 226
  - maximum calculated columns in queries, 219-220
  - maximum columns in queries, 219
- authentication settings, 113-114
- content deployment configurations, 104-
- conversion timeouts, Word Services, 239
- database information, 189-190
  - Word Services, 237-238
- Excel Services objects, 207
- job monitoring, Word Services, 238
- maximum conversion attempts, Word Services, 239-240
- maximum memory usage, Word Services, 240
- maximum translation attempts, 191
- recycle threshold, 191-192
  - Word Services, 242
- subsites (Web) URL, 79
- translation timeouts, 190-191
- workflow configuration settings, 39-40

**Mount-SPContentDatabase, 65-66****Move-SPSite, 79-80****moving site collection**

- to different content databases, 79-80
- from one content database to another, 80

**MySiteHostLocation parameter, 139****N****new configuration databases, creating new, 66-67****new content database, creating new, 63-64****New-SharePointFarm, 21-22****New-SPAlternateURL, 50****New-SPConfigurationDatabase, 66-67****New-SPContentDatabase, 63-64, 80****New-SPContentDeploymentPath, 100****New-SPContentDeploymentJob, 102****New-SPEnterpriseSearchMetadata Category, 126****New-SPEnterpriseSearchMetadata CrawledProperty, 128-129****New-SPEnterpriseSearchMetadata ManagedProperty, 130-131****New-SPEnterpriseSearchMetadataMapping, 133****New-SPExcelBlockedFileType, 202-203****New-SPExcelDataConnectionLibrary, 197-198****New-SPExcelDataProvider, 200****New-SPExcelFileLocation, 194-195****New-SPExcelUserDefinedFunction, 204-205****New-SPLogFile, 36****New-SPManagedPath, 34****New-SPOldDataConnectionSetting, 148-149****New-SPPerformancePointService ApplicationTrustedLocation, 211-212****New-SPSecureStoreApplication, 159-160****New-SPSecureStoreApplicationField, 157-158****New-SPSecureStoreTargetApplication, 159****New-SPSite, 23, 74-75****New-SPUserLicenseMapping, 108-109****New-SPVisioSafeDataProvider, 228-229****New-SPWeb, 24, 76-77****New-SPWebApplication, 23, 48****New-SPWebApplicationExtension, 49-50****New-SPWOPIBinding, 244-245****New-SPWOPISuppressionSetting, 247****nonremovable queries**

- Access Services, allow/restrict, 223
- allowing, 223
- restricting, 223

**-NonRemovableQueriesAllowed, 223****NonRemovableQueriesAllowed switch parameter, 223****nouns, -?10****O****objects, Excel Services, modifying, 207****OData connections**

- creating new, 148-149
- getting specific, 149-150
- updating, 150

**Order By clauses, configuring, 220****OrderByMax parameter, 220****outer joins, Access Services, 222-223****OuterJoinsAllowed switch parameter, 222-223****OutputCalculatedColumnsMax, 219-220**

**P****parameters, 10**

- \_MinDiagramCacheAge, 232
- ActiveProcesses parameter, 234
- AddEnabledFileExtensions, 188
- AddSupportedFormats, 236-237
- ApplicationLogSize parameter, 218
- AssemblyLocation, 205
- AuthenticationMode, 148
- CacheTimeout parameter, 218-219
- ClearEnabledFileExtensions parameter, 189
- ClearSupportedFormats, 237
- cmdlets, viewing possible parameters, 11
- ColumnsMax parameter, 219
- Confirm, 150
- ContentDatabase parameter, Get-SPDeletedSite, 81
- ConversionsPerInstance, 234-236
- ConversionTimeout, 238-239
- DatabaseCredential, 190
- DatabaseName, 190, 238
- DatabaseServer, 190
- DatabaseServer parameter, 145
- DisableBinaryFileScan parameter, 240-241
- DisableEmbeddedFonts parameter, 241
- FileType, 202-203
- Identity parameter. See Identity parameter
- IncludeChildren switch parameter, 194
- KeepAliveTimeout, 190, 239
- LiteralPatch parameter, 86
- LocationType parameter, 194
- LockState parameter, Set-SPSite, 75-76
- MaxDiagramCacheAge parameter, 232
- MaxDiagramSize, 232
- MaximumConversionAttempts parameter, 239-240
- MaximumConversionTime, 239
- MaximumMemoryUsage parameter, 240
- MaximumTranslationAttempts parameter, 191
- MaximumTranslationTime parameter, 190-191
- MaxRecalcDuration parameter, 232
- MaxSize parameters, Set-SPSite, 76
- MySiteHostLocation parameter, 139
- OrderByMax parameter, 220
- OutputCalculatedColumnsMax, 219-220
- PerformanceLevel parameter, 124-125
- PrivateBytesMax parameter, 224
- ProviderID, 200
- RecordsInTableMax, 221
- RecycleProcessThreshold parameter, 191-192, 242
- RemoveComments, 137-138
- RemoveEnabledFileExtensions, 188
- RemoveRatings, 138
- RemoveSupportedFormats, 236-237
- RemoveTags, 138-139
- RowsMax parameter, 220-221
- SessionMemoryMax parameter, 224-225
- Site parameter, 77
- SourcesMax parameter, 222
- switch parameters, 10
- TimerJobFrequency, 234-236
- TotalActiveProcesses, 186
- TranslationsPerInstance parameter, 187
- TrustedLocationType parameter, 194
- Type, 212
- Type paramter, 131
- VariantType parameter, 128, 226
- WarningSize parameters, Set-SPSite, 76
- zone, WOPI SharePoint zone, 239
- path environment variable, 13**
- Path parameter, 35**
- Path parameter, Install-SPFeature, 96**
- PathAccount, New-SPContentDeploymentPath, 100**
- performance levels, Enterprise Search Service (configuring), 124-125**
- performance settings, Visio Graphics Services (configuring), 231-232**
- PerformanceLevel parameter, 124-125**
- PerformancePoint Services (PPS)**
  - configuring settings, 216
  - trusted content locations
    - creating, 211
    - displaying, 212-213
  - trusted data source location
    - creating, 212
    - displaying, 213

- trusted locations
  - configuring, 215
  - getting specific, 214
  - removing, 214-215
- unattended service accounts
  - configuring, 210
  - displaying, 211
- performing, state service database operations, 174-175
- PermissionsIncluded, 147
- port of central Administration, changing, 30
- PowerShell, running, 4
- PowerShell ISE, 4
  - making aware of SharePoint, 5
- preparing, Microsoft SharePoint installation module, 18
- PrivateBytesMax parameter, 224
- profile photo store, updating, 139
- profile service applications
  - advanced cmdlets, 140-141
  - configuring, 137
  - getting specific, 136-137
  - identities, 136
- prompts, confirmation prompts (disabling), 14
- proof signatures, resolving invalid, WOPI (Web application Open Platform Interface Protocol), 248
- properties
  - managed properties, displaying, 131-132
  - metadata-managed properties
    - creating custom, 130-131
    - getting specific, 132-133
- PropertiesIncluded, 147
- PropSet, 129
- ProviderID, data providers, 200
- ProxiesIncluded, 147
- proxy instances
  - metadata service application, 165
  - Work Management Service application, 181-182
- PSModule environment variable, 13
- PSModulePath, 13
- Publish-SPServiceApplication, 56-57

## Q

### queries

- configuring maximum number of sources in queries, 222
- maximum calculated columns in queries, modifying, 219-220
- maximum columns in queries, Access Services, 219
- maximum number of rows in queries, configuring, 220-221

quiescing, forms from InfoPath Form Services, 118

quotation marks, 189

## R

ratings, removing, 138

records, configuring maximum number of records in tables, 221

RecordsInTableMax, 221

recycle threshold

- modifying, 191-192
- Word Services, modifying, 242

RecycleProcessThreshold parameter, 191-192, 242

referencing, assemblies, 15

refreshing

- encryption keys, Secure Store Service, 157
- feed cache, 139-140
  - of specific users, 140
- installed products, 30

RelativeURL parameter, Set-SPWeb, 79

Remove-SPAlternateUrl, 52

Remove-SPConfigurationDatabase, 67

Remove-SPContentDatabase, 66

Remove-SPContentDeploymentJob, 103

Remove-SPContentDeploymentPath, 101

Remove-SPExcelBlockedFileType, -204

Remove-SPExcelDataConnectionLibrary, 199-200

Remove-SPExcelDataProvider, 202

Remove-SPExcelFileLocation, 197

Remove-SPExcelUserDefinedFunction, 206-207

Remove-SPManagedPath, 34-35



**Remove-SPPerformancePointServiceApplicationITrustedLocation**, 214-215

**Remove-SPServiceApplication**, 57

**Remove-SPSite**, 74

**Remove-SPSocialItemByDate**, 137-139

**Remove-SPUserLicenseMapping**, 110

**Remove-SPUser-Solution**, 93

**Remove-SPVisioSafeDataProvider**, 230-231

**Remove-SPWeb**, 78

**Remove-SPWebApplication**, 47

**Remove-SPWOPIBinding**, 246

**RemoveComments** parameter, 137-138

**RemoveEnabledFileExtensions**, 188

**RemoveRatings** parameter, 138

**RemoveSupportedFormats**, 236-237

**RemoveTags** parameter, 138-139

**removing**

- alternate access mappings, 52
- bindings, WOPI (Web application Open Platform Interface Protocol), 246
- blocked file types, Excel Services, -204
- comments, 137-138
- content deployment jobs, 103
- content deployment paths, 101
- data providers
  - Excel Services, 202
  - Visio Graphics Services, 230-231
- deleted site collections, 82
- forms from InfoPath Form Services, 117-118
- license mapping, 110
- managed paths, 34-35
- old ratings, 138
- sandboxed solutions from site collection, 93
- service applications, 57
- site collection, 74
- solutions from SharePoint farms, 90
- subsites from site collection, 78
- tags, 138-139
- trusted data connection library, Excel Services, 199-200
- trusted file locations, Excel Services, 197
- trusted locations, PerformancePoint Services (PPS), 214-215
- user-defined function reference, Excel Services, 206-207
- web applications, 47

**Rename-SPServer**, 32-33

**renaming**

- servers on farms, 32-33
- state service applications, 174

**Repair-SPSite256**

**RequireSslForDataConnections**, 113

**resolving invalid proof signatures, WOPI (Web application Open Platform Interface Protocol)**, 248

**Restore-SPDeletedSite**, 82-83

**Restore-SPFarm**, 68-69-70

**Restore-SPSite**, 70

**restoring**

- configuration databases, 68-69
- deleted site collections, 82-83
- SharePoint farms, 69-70
- site collection, 70

**restricting nonremovable queries**, 223

**retracing solutions**, 88-89

**retrieving**

- managed accounts, 32
- system accounts, 31-32

**reviewing**

- current SharePoint WOPI bindings, 245
- farm configuration values, 28
- SharePoint Designer settings, 36
- workflow configuration settings, 38

**RowsMax** parameter, 220-221

**rtf**, 236

**running**

- PowerShell, 4
- unsigned scripts, 13

## **S**

**sandboxed solutions**

- activating, 91-92
- adding to site collection, 90
- deactivating, 92
- displaying in site collection, 91
- getting specific, 91
- removing from site collection, 93

**Schedule** parameter, 43

**scheduling, timer jobs**, 43

**scripts, unsigned scripts (running)**, 13

- search query thresholds, configuring (Work Management Service application), 179-180
- SearchApplication parameters, 132
- Secure Store Service, 154**
  - application entries, creating, 159-160
  - application fields, creating new, 157-158
  - databases, configuring, 155-156
  - enabling auditing, 155
  - master keys, generating, 156-157
  - refreshing encryption keys, 157
  - target applications, creating, 159
- Secure Store Service application, identities, 154**
- Secure Store Service application instances, getting specific, 154-155**
- SecureStoreTargetApplication parameter, 149
- SendDocumentToExternalParticipants, 39**
- servers**
  - displaying service instances, 57-58
  - joining to SharePoint farms, 22
  - renaming on farms, 32-33
- service applications**
  - ancillary cmdlets, 60
  - configuring IIS settings, 55-56
  - displaying available, 54
  - getting specific, 55
  - installing, 54
  - removing, 57
  - sharing, 56-57
- service instances**
  - starting, 59
  - stopping, 59
- service instances on servers**
  - displaying on servers, 57-58
  - getting specific, 58
- ServiceApplication, Get-SPPerformancePointServiceApplicationTrustedLocation, 214
- session memory utilization, throttling (Access Services), 224-225**
- session state**
  - configuring, 114-115
  - disabling, 170-171
  - enabling, 170
  - information, displaying, 171
  - timeouts, configuring, 172
- SessionMemoryMax parameter, 224-225**
- Set-ExecutionPolicy command, 13**
- Set-SPAccessServiceApplication, 218-221, 222-223, 225**
  - NonRemotableQueriesAllowed switch parameter, 223
- Set-SPAlternateUrl, 51-52**
- Set-SPBusinessDataCatalogEntityNotificationWeb, 147**
- Set-SPBusinessDataCatalogServiceApplication, 145**
- Set-SPCentral Administration, 30**
- Set-SPDesignerSettings, 37-38**
- Set-SPEnterpriseSearchService, 124-125**
- Set-SPFarmConfig, 28-30**
- Set-SPInfoPathFormsService, 112-113, 115**
- Set-SPInfoPathWebServiceProxy, 118-119**
- Set-SPMetadataServiceApplication, 163-164**
- Set-SPMetadataServiceApplicationProxy, 166-167**
- Set-SPODataConnectionSetting, 150**
- Set-SPPassPhrase, 30-31**
- Set-SPPerformancePointSecureDataValues, 210**
- Set-SPPerformancePointServiceApplication, 215-216**
- Set-SPProfileServiceApplication, 137**
- Set-SPSecureStoreServiceApplication, 155-156**
- Set-SPServiceApplication, 55-56**
- Set-SPSessionStateService, 172**
- Set-SPSite**
  - LockState parameter, 75-76
  - MaxSize parameters, 76
  - WarningSize parameters, 76
- Set-SPStateServiceApplication, 174**
- Set-SPTimerJob, 43**
- Set-SPTranslationServiceApplication, 186, 189-190**
- Set-SPVisioExternalData, 228**
- Set-SPVisioPerformance, 231-232**
- Set-SPVisioSafeDataProvider, 231**
- Set-SPWeb, RelativeURL parameter, 79**
- Set-SPWebApplication, 48**
- Set-SPWOPIBinding, 245-246**
- Set-SPWOPIZone, 247**
- Set-SPWordConversionServiceApplication, 234, 237-238, 239-240**
- Set-SPWorkflowConfig, 39-40**

**Set-SPWorkManagementServiceApplication, 179-180****SharePoint**

## installing

features, 96

unattended, 19-20

without a product key in the configuration file, 20

making PowerShell aware of, 5

uninstalling features, 97

**SharePoint 2013 Management Shell, 5**

scripts, 6-7

**SharePoint databases, displaying, 62****SharePoint Designer settings**

configuring, 37-38

reviewing, 36

**SharePoint farms**

adding solutions, 86

backing up, 69

configuring, 21-22

creating web applications for, 22-23

joining servers to, 22

removing solutions, 90

restoring, 69-70

**SharePoint script, 6****sharing service applications, 56-57****ShowURLStructure parameter, 38****site collection**

adding sandboxed solutions, 90

backing up, 70

creating, 23-24, 74-75

creating sites under, 76-77

deleted site collections, getting specific, 81-82

displaying

all available site collections on the farm, 72

all available site collections in web applications, 72-73

available site collections in content databases, 73

deleted site collections, 80

deleted site collections in content databases, 81

sandboxed solutions, 91

subsites, 77-78

forms, activating or deactivating, 117

getting specific, 73-74

moving

to different content databases, 79-80

from one content database to another, 80

removing, 74

deleted site collections, 82

sandboxed solutions, 93

subsites, 78

restoring, 70

deleted site collections, 82-83

setting the lock state of, 75-76

storage limits, setting, 76

**Site parameter, 77****-Site parameter, Add-SPUserSolution, 90****solutions**

adding to SharePoint farms, 86

deploying to web applications, 87-88

displaying available solutions on the farm, 86

getting specific, 87

installed farm solutions, exporting, 97-98

removing from SharePoint farms, 90

retracing, 88-89

upgrading

deployed sandboxed solutions, 92-93

deployed solutions, 89

**SourcesMax parameter, 222****specific alternate URL entries, 51****SPIRMSettings, 83****SPModule, importing components, 18****SPServiceApplicationPipeBind, 155****SPServiceApplicationProxy, 185-186****SPSite, 10****SPStateServiceDatabase, 174-175****SPWordConversionServiceApplication, 236-237****Start-SPContentDeploymentJob, 103-104****Start-SPServiceInstance, 59****Start-SPTimerJob, 42-43****starting**

content deployment jobs, 103-104

service instances, 59

timer jobs, 42-43

**state service applications**  
 displaying configured on the farm, 173  
 getting specific, 173  
 renaming, 174

**state service database operations, performing, 174-175**

**Stop-SPInfoPathFormTemplate, 118**

**Stop-SPServiceInstance, 59**

**stopping, service instances, 59**

**storage limits, setting on collection sites, 76**

**subsites, 78**  
 creating new, 24  
 displaying within site collection, 77-78  
 removing from site collection, 78  
 Web URL, modifying, 79

**switch parameters, 10**

**system accounts, retrieving, 31-32**

## T

**tags, removing, 138-139**

**target applications, creating, 159**

**template sizes, limiting (Access Services), 225-226**

**templates**  
 browser-enabled form templates, 112  
 form templates, verifying and uploading, 116

**term store database, configuring, 163-164**

**Test-SPContentDatabase255**

**Test-SPInfoPathFormTemplate, 116**

**Test-SPSite256**

**thresholds, configuring (Work Management Service application), 179**

**throttle data connection**  
 connection response size, 113  
 timeouts, 112-113

**throttling, Access Services, 224**  
 session memory utilization, 224-225

**timeouts**  
 configuring of session state, 172  
 throttle data connection timeouts, 112-113

**timer jobs**  
 disabling, 42  
 displaying available, 40  
 enabling, 27-42  
 scheduling, 43  
 starting, 42-43

**TimerJobFrequency, 234-236**

**timers, getting specific timer jobs, 41**

**TotalActiveProcesses parameter, 186**

**translation, configuring enabled document file extensions, 188-189**

**translation attempts, modifying, 191**

**translation processes, configuring, Machine Translation application, 186**

**translation timeouts, modifying, 190-191**

**translations throughput, configuring, 186-188**

**TranslationsPerInstance parameter, 187**

**trusted content locations, PerformancePoint Services (PPS)**  
 creating, 211  
 displaying, 212-213

**trusted data connection library (Excel Services)**  
 creating, 197-198  
 displaying, 198  
 removing, 199-200

**trusted data source location, PerformancePoint Services (PPS), creating, 212**

**displaying, 213**

**trusted file locations, Excel Services**  
 creating, 194-195  
 displaying, 195  
 getting specific, 196, 199  
 removing, 197

**trusted locations, PerformancePoint Services (PPS)**  
 configuring, 215  
 displaying details of, 213-214  
 getting specific, 214  
 removing, 214-215

**TrustedLocationType parameter, 194**

**type, 12**

**-Type, 211, 212**

**Type parameter, 131**

**U**

unattended service accounts,  
PerformancePoint Services (PPS)  
  configuring, 210  
  displaying, 211

Uninstall-SPFeature, 97

Uninstall-SPInfoPathFormTemplate, 117-118

Uninstall-SPSolution, 88-89

Uninstall-SPUserSolution, 92

uninstalling, features from SharePoint, 97

Unlock state, 76

unsigned scripts, running, 13

-Unthrottled switch parameter, 256

Update-SPPProfilePhotoStore, 139

Update-SPRepopulateMicroblogFeedCache, 140

Update-SPRepopulateMicroblogLMTCache, 139-140

Update-SPSecureStoreApplicationServerKey, 157

Update-SPSecureStoreMasterKey, 156-157

Update-SPSolution, 89

Update-SPUserSolution, 92-93

Update-SPWOPIProofKey, 248

updating  
  OData connections, 150  
  profile photo store, 139

Upgrade-SPContentDatabase, 255

Upgrade-SPFarm, 256

Upgrade-SPSite, 256

upgrading  
  deployed sandboxed solutions, 92-93  
  deployed solutions, 89

uploading form templates, 116  
  multiples, 116-117

URL, subsites (Web), modifying, 79

-URL parameter,  
  Disable-SPFeature, 96  
  Enable-SPFeature, 95

UseFormsServiceProxy attribute, 118

user-defined function reference  
  creating, 204-205  
  displaying, 205  
  getting specific, 206  
  removing, 206-207

user licenses, disabling, 107

user licensing enforcement  
  disabling, 107  
  enabling, 106-107

user licensing status, displaying, 106

user sessions, Access Services,  
  configuring, 225

user synchronization per server,  
  configuring, 180

**V**

variables, path environment variable, 13

VariantType parameter, 128, 226

verifying, form templates, 116

view state, enabling, 115

Visio Graphics Services  
  attended service accounts,  
    configuring, 228  
  data providers  
    creating, 228-229  
    displaying, 229-230  
    getting specific, 230  
    removing, 230-231  
    setting descriptions, 231  
  performance settings, configuring,  
    231-232

**W**

WarningSize parameters, Set-SPSite, 76

Web Application Open Platform Interface Protocol. See WOPI

web application settings, configuring, 48

web applications  
  attaching content databases, 65-66  
  creating for SharePoint farms, 22-23  
  creating new, 48  
  deploying solutions, 87-88  
  detaching content databases from, 65  
  displaying all site collections, 72-73  
  displaying available, 46  
  extending, 49-50  
  getting specific, 46-47  
  removing, 47

web services proxy, enabling (InfoPath Form Services), 118-119

-WebApplication parameter, Uninstall-SPSolution, 88

Windows PowerShell ISE, 4

WOPI (Web application Open Platform Interface Protocol), 244

- bindings, removing, 246
- configuring WOPI SharePoint zone, 247
- creating new bindings in SharePoint, 244-245
- default actions, configuring, 245-246
- disabling actions, 247
- resolving invalid proof signatures, 248
- reviewing current bindings, 245

WOPI SharePoint zone, configuring, 247

Word 97-2003 document scanning, Word Services, disabling, 240-241

Word Services, 234

- conversion processes, configuring, 234
- conversion throughput, configuring, 234-236
- conversion timeouts, modifying, 239
- database information, modifying, 237-238
- document formats for conversion, configuring, 236-237
- fonts, disabling embedded fonts in conversions, 241
- job monitoring, modifying, 238
- maximum conversion attempts, modifying, 239-240
- maximum memory usage, modifying, 240
- recycle threshold, modifying, 242
- Word 97-2003 document scanning, disabling, 240-241

Work Management Service application

- identities, 178
- instances, 178-179
- proxy instances, 181-182
- search query thresholds, configuring, 179-180
- thresholds, configuring, 179
- user synchronization per server, configuring, 180

Work Management Service Application Proxy, identities, 181

workflow configuration settings

- modifying, 39-40
- reviewing, 38

WorkflowBatchSize, 29

WorkflowEventDeliveryTimeout parameter, 29

WorkflowPostponeThreshold parameter, 29

## X

xml, 236

## Y-Z

Zone parameter, 49-50

-Zone parameter, New-SPAlternateURL, 50

-zone parameters, WOPI SharePoint zone, 247

zones, changing of alternate access mappings, 51-52