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Windows PowerShell Get-Help on Cmdlet 'Get-HotFix'

PS:\>Get-HELP Get-HotFix -Full

NAME

Get-HotFix

SYNOPSIS

Gets the hotfixes that are installed on local or remote computers.

SYNTAX

Get-HotFix [-ComputerName <System.String[]>] [-Credential <System.Management.Automation.PSCredential>] [-Description <System.String[]>] [<CommonParameters>]

Get-HotFix [[-Id] <System.String[]>] [-ComputerName <System.String[]>] [-Credential <System.Management.Automation.PSCredential>] [<CommonParameters>]

DESCRIPTION

> This cmdlet is only available on the Windows platform. The `Get-Hotfix` cmdlet uses the Win32_QuickFixEngineering WMI class to list hotfixes that are installed on

the local computer or specified remote computers.

PARAMETERS

-ComputerName <System.String[]>

Specifies a remote computer. Type the NetBIOS name, an Internet Protocol (IP) address, or a fully qualified domain name (FQDN) of a remote computer.

When the ComputerName parameter isn't specified, `Get-Hotfix` runs on the local computer.

The ComputerName parameter doesn't rely on Windows PowerShell remoting. If your computer isn't configured to run remote commands, use the ComputerName parameter.

Required?falsePosition?namedDefault valueNoneAccept pipeline input?True (ByPropertyName)Accept wildcard characters?false

-Credential <System.Management.Automation.PSCredential>

Specifies a user account that has permission to access the computer and run commands. The default is the current user

Type a user name, such as User01 or Domain01\User01, or enter a PSCredential object generated by the `Get-Credential` cmdlet. If you type a user name, you're

prompted to enter the password.

Credentials are stored in a PSCredential (/dotnet/api/system.management.automation.pscredential)object and the password is stored as a SecureString

(/dotnet/api/system.security.securestring).

> [!NOTE] > For more information about SecureString data protection, see > How secure is SecureString? (/dotnet/api/system.security.securestring#how-secure-is-securestring). Position? named

Default value Current user

Accept pipeline input? False

Accept wildcard characters? false

-Description <System.String[]>

`Get-HotFix` uses the Description parameter to specify hotfix types. Wildcards are permitted.

Required? false
Position? named
Default value None
Accept pipeline input? False
Accept wildcard characters? true

-Id <System.String[]>

Filters the `Get-HotFix` results for specific hotfix Ids. Wildcards aren't accepted.

Required?	false
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Position? 0

Default value None

Accept pipeline input? False

Accept wildcard characters? false

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug,

ErrorAction, ErrorVariable, WarningAction, WarningVariable,

OutBuffer, PipelineVariable, and OutVariable. For more information, see

about_CommonParameters (https:/go.microsoft.com/fwlink/?LinkID=113216).

INPUTS

String

You can pipe a string containing a computer name to this cmdlet.

OUTPUTS

System.Management.ManagementObject#root\CIMV2\Win32_QuickFixEngineering

This cmdlet returns objects representing the hotfixes on the computer.

NOTES

This cmdlet is only available on Windows platforms.

The Win32_QuickFixEngineering WMI class (/windows/desktop/WmiSdk/retrieving-a-class)represents a small system-wide update, commonly referred to as a quick-fix

engineering (QFE) update, applied to the current operating system. This class returns only the updates supplied by Component Based Servicing (CBS). These updates

aren't listed in the registry. Updates supplied by Microsoft Windows Installer (MSI) or the Windows Update (https://www.catalog.update.microsoft.com/)site aren't

returned by Win32_QuickFixEngineering . For more information, see Win32_QuickFixEngineering class (/windows/desktop/CIMWin32Prov/win32-quickfixengineering).

The `Get-HotFix` output might vary on different operating systems.

----- Example 1: Get all hotfixes on the local computer -----

Get-HotFix

Source	Description	HotFixID	InstalledBy	InstalledOn	
Server01	Update	KB4495590	NT AUTHOR	ITY\SYSTEM	5/16/2019 00:00:00
Server01	Security Upd	ate KB44707	88 NT AUTH	ORITY\SYSTE	EM 1/22/2019 00:00:00
Server01	Update	KB4480056	NT AUTHOR	ITY\SYSTEM	1/24/2019 00:00:00

Get-HotFix -Description Security* -ComputerName Server01, Server02 -Credential Domain01\admin01

`Get-Hotfix` filters the output with the Description parameter and the string Security that includes the asterisk (``) wildcard. The ComputerName * parameter

includes a comma-separated string of remote computer names. The Credential parameter specifies a user account that has permission to access the remote computers and

run commands.

Example 3: Verify if an update is installed and write computer names to a file

\$A = Get-Content -Path ./Servers.txt

\$A | ForEach-Object { if (!(Get-HotFix -Id KB957095 -ComputerName \$_))

{ Add-Content \$_ -Path ./Missing-KB957095.txt }}

The `\$A` variable contains computer names that were obtained by `Get-Content` from a text file. The objects in `\$A` are sent down the pipeline to `ForEach-Object`. An

`if` statement uses the `Get-Hotfix` cmdlet with the Id parameter and a specific Id number for each computer name. If a computer doesn't have the specified hotfix Id

installed, the `Add-Content` cmdlet writes the computer name to a file.

- Example 4: Get the most recent hotfix on the local computer -

(Get-HotFix | Sort-Object -Property InstalledOn)[-1]

`Get-Hotfix` sends the objects down the pipeline to the `Sort-Object` cmdlet. `Sort-Object` sorts objects by ascending order and uses the Property parameter to

evaluate each InstalledOn date. The array notation `[-1]` selects the most recent installed hotfix.

RELATED LINKS

Version:

Online

https://learn.microsoft.com/powershell/module/microsoft.powershell.management/get-hotfix?view=powershell-5.1&WT.mc_i d=ps-gethelp

about_Arrays

Add-Content

Get-ComputerRestorePoint

Get-Credential xref:Microsoft.PowerShell.Security.Get-Credential

Win32_QuickFixEngineering class