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GET-CACHEMEMORY

22/10/2018 by STEPHANOS — LEAVE A COMMENT

Description

Get-CacheMemory will provide you the information of internal and external cache memory on a computer system.

Note: You need to install SysInfo module in order for this cmdlet to be available. For more information, see PowerShell Module SysInfo.

Syntax:

```
Get-CacheMemory
    [[-ComputerName] <String[]>]
    [[-Protocol] <String>]
    [[-Properties] <String[]>]
    [<CommonParameters>]
```

Requirements

- SysInfo PowerShell Module
- WinRM Enabled and PowerShell 3.0 (only if you use WinRM protocol)

If you want to find more about the specific cmdlet while you are in PowerShell you can use the below to get the help file.

Code:

```
Get-Help Get-CacheMemory
```

Output:

```
PS C:\Windows> Get-Help Get-CacheMemory

NAME
    Get-CacheMemory

SYNOPSIS
    Gets the internal and external cache memory on a computer system.


SYNTAX
    Get-CacheMemory [[-ComputerName] <String[]>] [[-Protocol] <String>] [[-Properties] <String[]>] [<CommonParameters>]


DESCRIPTION
    Gets the internal and external cache memory on a computer system
    and converts all codes in results into human readable format.


RELATED LINKS
    https://www.sconstantinou.com/get-cachememory

REMARKS
    To see the examples, type: "get-help Get-CacheMemory -examples".
    For more information, type: "get-help Get-CacheMemory -detailed".
    For technical information, type: "get-help Get-CacheMemory -full".
    For online help, type: "get-help Get-CacheMemory -online"
```

Now lets see few examples about `Get-CacheMemory`.

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Examples

Example 1

This command gets the information from local system.

```
PS C:\> Get-CacheMemory
```

```
BlockSize      : 1024
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 0
InstalledSize  : 1024
Level          : Secondary
```

```
SystemName      : LOCALPC

BlockSize       : 1024
CacheSpeed      :
CacheType       : Data
DeviceID        : Cache Memory 1
InstalledSize   : 256
Level           : Primary
MaxCacheSize    : 256
NumberOfBlocks  : 256
Status          : OK
SystemName      : LOCALPC

BlockSize       : 1024
CacheSpeed      :
CacheType       : Unified
DeviceID        : Cache Memory 2
InstalledSize   : 6144
Level           : Tertiary
MaxCacheSize    : 6144
NumberOfBlocks  : 6144
Status          : OK
SystemName      : LOCALPC
```

Example 2

This command gets the information from Server1.

```
PS C:\> Get-CacheMemory -ComputerName Server1
```

```
BlockSize       : 1024
CacheSpeed      :
```

```
Level          : Primary
MaxCacheSize   : 64
NumberOfBlocks : 64
Status         : OK
SystemName     : Server1


BlockSize      : 1024
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 1
InstalledSize  : 256
Level          : Secondary
MaxCacheSize   : 256
NumberOfBlocks : 256
Status         : OK
SystemName     : Server1


BlockSize      : 65536
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 2
InstalledSize  : 46080
Level          : Tertiary
MaxCacheSize   : 46080
NumberOfBlocks : 720
Status         : OK
SystemName     : Server1


BlockSize      : 1024
CacheSpeed     :
CacheType      : Instruction
DeviceID       : Cache Memory 3
```

```
Status        : OK
SystemName    : Server1


BlockSize     : 1024
CacheSpeed    :
CacheType     : Unified
DeviceID      : Cache Memory 4
InstalledSize : 256
Level         : Secondary
MaxCacheSize  : 256
NumberOfBlocks : 256
Status        : OK
SystemName    : Server1


BlockSize     : 65536
CacheSpeed    :
CacheType     : Unified
DeviceID      : Cache Memory 5
InstalledSize : 46080
Level         : Tertiary
MaxCacheSize  : 46080
NumberOfBlocks : 720
Status        : OK
SystemName    : Server1
```

Example 3

This command gets the information from remote system with IP 192.168.0.5.

```
PS C:\> Get-CacheMemory -ComputerName "192.168.0.5"
```

```
BlockSize     : 1024
```

```
InstalledSize  : 64
Level          : Primary
MaxCacheSize   : 64
NumberOfBlocks : 64
Status         : OK
SystemName     : Server1


BlockSize      : 1024
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 1
InstalledSize  : 256
Level          : Secondary
MaxCacheSize   : 256
NumberOfBlocks : 256
Status         : OK
SystemName     : Server1


BlockSize      : 65536
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 2
InstalledSize  : 46080
Level          : Tertiary
MaxCacheSize   : 46080
NumberOfBlocks : 720
Status         : OK
SystemName     : Server1


BlockSize      : 1024
CacheSpeed     :
CacheType      : Instruction
```

```
NumberOfBlocks : 64
Status         : OK
SystemName     : Server1


BlockSize      : 1024
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 4
InstalledSize  : 256
Level          : Secondary
MaxCacheSize   : 256
NumberOfBlocks : 256
Status         : OK
SystemName     : Server1


BlockSize      : 65536
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 5
InstalledSize  : 46080
Level          : Tertiary
MaxCacheSize   : 46080
NumberOfBlocks : 720
Status         : OK
SystemName     : Server1
```

Example 4

This command gets the information from Server1, Server2 and Server3.

```
PS C:\> Get-CacheMemory -ComputerName Server1,Server2,Server3
```

```
    1024           Instruction Cache Memory 0              64
    1024           Instruction Cache Memory 0              64

    1024           Unified     Cache Memory 1             256
   65536           Unified     Cache Memory 2           46080
    1024           Instruction Cache Memory 3              64
    1024           Unified     Cache Memory 4             256
   65536           Unified     Cache Memory 5           46080
    1024           Unified     Cache Memory 1             256
   65536           Unified     Cache Memory 2           46080
    1024           Instruction Cache Memory 3              64
    1024           Unified     Cache Memory 4             256
   65536           Unified     Cache Memory 5           46080
    1024           Unified     Cache Memory 1             256
   65536           Unified     Cache Memory 2           46080
    1024           Instruction Cache Memory 3              64
    1024           Unified     Cache Memory 4             256
   65536           Unified     Cache Memory 5           46080
```

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Example 5

This command gets the information from Server1 and will output only
Name and Status Properties.

```
PS C:\> Get-CacheMemory -ComputerName Server1 -Properties Name

Name            Status
----            ------
Cache Memory    OK
Cache Memory    OK
Cache Memory    OK
Cache Memory    OK
Cache Memory    OK
```

This command gets the information from Server1 and will output all properties.

```
PS C:\> Get-CacheMemory -ComputerName Server1 -Properties *
```

```
Caption                        : Cache Memory
Description                    : Cache Memory
InstallDate                    :
Name                           : Cache Memory
Status                         : OK
Availability                   : Running or Full Power
ConfigManagerErrorCode         :
ConfigManagerUserConfig        :
DeviceID                       : Cache Memory 0
ErrorCleared                   :
ErrorDescription               :
LastErrorCode                  :
PowerManagementCapabilities    :
PowerManagementSupported       :
StatusInfo                     : Enabled
SystemName                     : Server1
Access                         :
BlockSize                      : 1024
ErrorMethodology               :
NumberOfBlocks                 : 64
Purpose                        : L1-Cache
AdditionalErrorData            :
CorrectableError               :
EndingAddress                  :
ErrorAccess                    :
ErrorAddress                   :
ErrorData                      :
```

```
ErrorTransferSize          :
OtherErrorDescription      :
StartingAddress            :
SystemLevelAddress         :
Associativity              : 8-way Set-Associative
CacheType                  : Instruction
FlushTimer                 :
Level                      : Primary
LineSize                   :
ReadPolicy                 :
ReplacementPolicy          :
WritePolicy                : Write Back
CacheSpeed                 :
CurrentSRAM                : Synchronous
ErrorCorrectType           : Single-bit ECC
InstalledSize              : 64
Location                   :
MaxCacheSize               : 64
SupportedSRAM              : Synchronous
BlockSizeKB                : 1
InstalledSizeMB            : 0.06
MaxCacheSizeMB             : 0.06

Caption                    : Cache Memory
Description                : Cache Memory
InstallDate                :
Name                       : Cache Memory
Status                     : OK
Availability               : Running or Full Power
ConfigManagerErrorCode     :
ConfigManagerUserConfig    :
DeviceID                   : Cache Memory 1
```

```
PowerManagementSupported      :
StatusInfo                    : Enabled
SystemName                    : Server1
Access                        :
BlockSize                     : 1024
ErrorMethodology              :
NumberOfBlocks                : 256
Purpose                       : L2-Cache
AdditionalErrorData           :
CorrectableError              :
EndingAddress                 :
ErrorAccess                   :
ErrorAddress                  :
ErrorData                     :
ErrorDataOrder                :
ErrorInfo                     :
ErrorResolution               :
ErrorTime                     :
ErrorTransferSize             :
OtherErrorDescription         :
StartingAddress               :
SystemLevelAddress            :
Associativity                 : 8-way Set-Associative
CacheType                     : Unified
FlushTimer                    :
Level                         : Secondary
LineSize                      :
ReadPolicy                    :
ReplacementPolicy             :
WritePolicy                   : Varies with Address
CacheSpeed                    :
CurrentSRAM                   : Synchronous
```

```
SupportedSRAM                  : Synchronous
BlockSizeKB                    : 1
InstalledSizeMB                : 0.25
MaxCacheSizeMB                 : 0.25

Caption                        : Cache Memory
Description                    : Cache Memory
InstallDate                    :
Name                           : Cache Memory
Status                         : OK
Availability                   : Running or Full Power
ConfigManagerErrorCode         :
ConfigManagerUserConfig        :
DeviceID                       : Cache Memory 2
ErrorCleared                   :
ErrorDescription               :
LastErrorCode                  :
PowerManagementCapabilities    :
PowerManagementSupported       :
StatusInfo                     : Enabled
SystemName                     : Server1
Access                         :
BlockSize                      : 65536
ErrorMethodology               :
NumberOfBlocks                 : 720
Purpose                        : L3-Cache
AdditionalErrorData            :
CorrectableError               :
EndingAddress                  :
ErrorAccess                    :
ErrorAddress                   :
ErrorData                      :
```

```
ErrorTransferSize          :
OtherErrorDescription      :
StartingAddress            :
SystemLevelAddress         :
Associativity              : Fully Associative
CacheType                  : Unified
FlushTimer                 :
Level                      : Tertiary
LineSize                   :
ReadPolicy                 :
ReplacementPolicy          :
WritePolicy                : Varies with Address
CacheSpeed                 :
CurrentSRAM                : Synchronous
ErrorCorrectType           : Single-bit ECC
InstalledSize              : 46080
Location                   :
MaxCacheSize               : 46080
SupportedSRAM              : Synchronous
BlockSizeKB                : 64
InstalledSizeMB            : 45
MaxCacheSizeMB             : 45


Caption                    : Cache Memory
Description                : Cache Memory
InstallDate                :
Name                       : Cache Memory
Status                     : OK
Availability               : Running or Full Power
ConfigManagerErrorCode     :
ConfigManagerUserConfig    :
DeviceID                   : Cache Memory 3
```

```
PowerManagementSupported    :
StatusInfo                  : Enabled
SystemName                  : Server1
Access                      :
BlockSize                   : 1024
ErrorMethodology            :
NumberOfBlocks              : 64
Purpose                     : L1-Cache
AdditionalErrorData         :
CorrectableError            :
EndingAddress               :
ErrorAccess                 :
ErrorAddress                :
ErrorData                   :
ErrorDataOrder              :
ErrorInfo                   :
ErrorResolution             :
ErrorTime                   :
ErrorTransferSize           :
OtherErrorDescription       :
StartingAddress             :
SystemLevelAddress          :
Associativity               : 8-way Set-Associative
CacheType                   : Instruction
FlushTimer                  :
Level                       : Primary
LineSize                    :
ReadPolicy                  :
ReplacementPolicy           :
WritePolicy                 : Write Back
CacheSpeed                  :
CurrentSRAM                 : Synchronous
```

```
SupportedSRAM                 : Synchronous
BlockSizeKB                   : 1
InstalledSizeMB               : 0.06
MaxCacheSizeMB                : 0.06

Caption                       : Cache Memory
Description                   : Cache Memory
InstallDate                   :
Name                          : Cache Memory
Status                        : OK
Availability                  : Running or Full Power
ConfigManagerErrorCode        :
ConfigManagerUserConfig       :
DeviceID                      : Cache Memory 4
ErrorCleared                  :
ErrorDescription              :
LastErrorCode                 :
PowerManagementCapabilities   :
PowerManagementSupported      :
StatusInfo                    : Enabled
SystemName                    : Server1
Access                        :
BlockSize                     : 1024
ErrorMethodology              :
NumberOfBlocks                : 256
Purpose                       : L2-Cache
AdditionalErrorData           :
CorrectableError              :
EndingAddress                 :
ErrorAccess                   :
ErrorAddress                  :
ErrorData                     :
```

```
ErrorTransferSize          :
OtherErrorDescription      :
StartingAddress            :
SystemLevelAddress         :
Associativity              : 8-way Set-Associative
CacheType                  : Unified
FlushTimer                 :
Level                      : Secondary
LineSize                   :
ReadPolicy                 :
ReplacementPolicy          :
WritePolicy                : Varies with Address
CacheSpeed                 :
CurrentSRAM                : Synchronous
ErrorCorrectType           : Single-bit ECC
InstalledSize              : 256
Location                   :
MaxCacheSize               : 256
SupportedSRAM              : Synchronous
BlockSizeKB                : 1
InstalledSizeMB            : 0.25
MaxCacheSizeMB             : 0.25

Caption                    : Cache Memory
Description                : Cache Memory
InstallDate                :
Name                       : Cache Memory
Status                     : OK
Availability               : Running or Full Power
ConfigManagerErrorCode     :
ConfigManagerUserConfig    :
DeviceID                   : Cache Memory 5
```

```
PowerManagementSupported    :
StatusInfo                  : Enabled
SystemName                  : Server1
Access                      :
BlockSize                   : 65536
ErrorMethodology            :
NumberOfBlocks              : 720
Purpose                     : L3-Cache
AdditionalErrorData         :
CorrectableError            :
EndingAddress               :
ErrorAccess                 :
ErrorAddress                :
ErrorData                   :
ErrorDataOrder              :
ErrorInfo                   :
ErrorResolution             :
ErrorTime                   :
ErrorTransferSize           :
OtherErrorDescription       :
StartingAddress             :
SystemLevelAddress          :
Associativity               : Fully Associative
CacheType                   : Unified
FlushTimer                  :
Level                       : Tertiary
LineSize                    :
ReadPolicy                  :
ReplacementPolicy           :
WritePolicy                 : Varies with Address
CacheSpeed                  :
CurrentSRAM                 : Synchronous
```

```
SupportedSRAM               : Synchronous
BlockSizeKB                 : 64
InstalledSizeMB             : 45
MaxCacheSizeMB              : 45
```

Example 7

This command gets the information from Server1.

```
PS C:\> "Server1" | Get-CacheMemory


BlockSize       : 1024
CacheSpeed      :
CacheType       : Instruction
DeviceID        : Cache Memory 0
InstalledSize   : 64
Level           : Primary
MaxCacheSize    : 64
NumberOfBlocks  : 64
Status          : OK
SystemName      : Server1

BlockSize       : 1024
CacheSpeed      :
CacheType       : Unified
DeviceID        : Cache Memory 1
InstalledSize   : 256
Level           : Secondary
MaxCacheSize    : 256
NumberOfBlocks  : 256
Status          : OK
SystemName      : Server1
```

```
CacheType       : Unified
DeviceID        : Cache Memory 2
InstalledSize   : 46080
Level           : Tertiary
MaxCacheSize    : 46080
NumberOfBlocks  : 720
Status          : OK
SystemName      : Server1


BlockSize       : 1024
CacheSpeed      :
CacheType       : Instruction
DeviceID        : Cache Memory 3
InstalledSize   : 64
Level           : Primary
MaxCacheSize    : 64
NumberOfBlocks  : 64
Status          : OK
SystemName      : Server1


BlockSize       : 1024
CacheSpeed      :
CacheType       : Unified
DeviceID        : Cache Memory 4
InstalledSize   : 256
Level           : Secondary
MaxCacheSize    : 256
NumberOfBlocks  : 256
Status          : OK
SystemName      : Server1


BlockSize       : 65536
```

```
Level         : Tertiary
MaxCacheSize  : 46080
NumberOfBlocks : 720
Status        : OK
SystemName    : Server1
```

Example 8

This command gets the information from Server1 using DCOM protocol.

```
PS C:\> Get-CacheMemory -ComputerName Server1 -Protocol DCOM
```

```
BlockSize      : 1024
CacheSpeed     :
CacheType      : Instruction
DeviceID       : Cache Memory 0
InstalledSize  : 64
Level          : Primary
MaxCacheSize   : 64
NumberOfBlocks : 64
Status         : OK
SystemName     : Server1

BlockSize      : 1024
CacheSpeed     :
CacheType      : Unified
DeviceID       : Cache Memory 1
InstalledSize  : 256
Level          : Secondary
MaxCacheSize   : 256
NumberOfBlocks : 256
Status         : OK
```

```
CacheSpeed      :
CacheType       : Unified
DeviceID        : Cache Memory 2
InstalledSize   : 46080
Level           : Tertiary
MaxCacheSize    : 46080
NumberOfBlocks  : 720
Status          : OK
SystemName      : Server1

BlockSize       : 1024
CacheSpeed      :
CacheType       : Instruction
DeviceID        : Cache Memory 3
InstalledSize   : 64
Level           : Primary
MaxCacheSize    : 64
NumberOfBlocks  : 64
Status          : OK
SystemName      : Server1

BlockSize       : 1024
CacheSpeed      :
CacheType       : Unified
DeviceID        : Cache Memory 4
InstalledSize   : 256
Level           : Secondary
MaxCacheSize    : 256
NumberOfBlocks  : 256
Status          : OK
SystemName      : Server1
```

```
InstalledSize  : 46080
Level          : Tertiary
MaxCacheSize   : 46080
NumberOfBlocks : 720
Status         : OK
SystemName     : Server1
```

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Optional Parameters

- `-ComputerName`
  - Description: Specifies the computer names or IP Addresses of the systems that we want to get the information from.
  - Required: False
  - Position: 1
  - Default value: None
  - Accept pipeline input: True (ByValue)
  - Accept wildcard characters: False
- `-Protocol`
  - Description: Specifies the protocol that will be used to get the information from the remote system.
  - Accepted Values: DCOM or WinRM
  - Required: False
  - Position: 2
  - Default value: None
  - Accept pipeline input: False
  - Accept wildcard characters: False
- `-Properties`
  - Description: Specifies the object properties that appear in the display and the order in which they appear. Wildcards are permitted.
  - Required: False
  - Position: 3

Inputs

System.Array.

Get-CacheMemory can accept a string value to determine the ComputerName parameter.

Outputs

System.Object.

Get-CacheMemory returns an object containing all the information that has been retrieved.

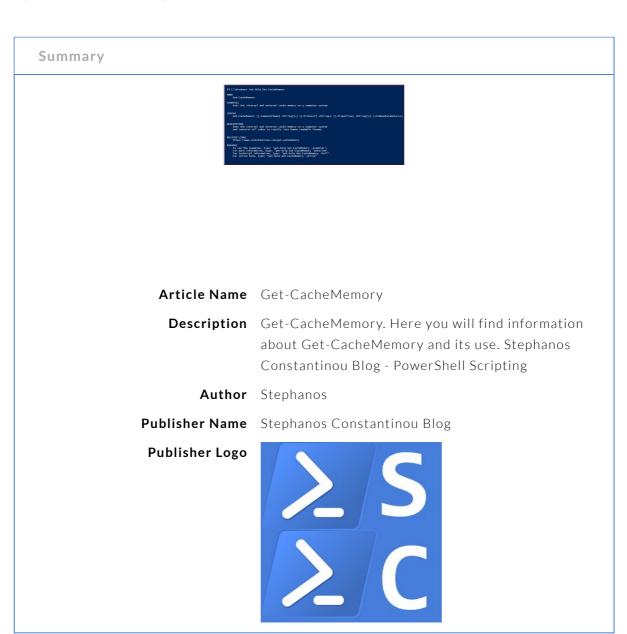[adinserter name="In Article"]

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- PowerShell Module SysInfo

[adinserter name="Matched-Content"]

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