

# PowerShell Cardiff User Group

## PowerShell Tips & Tricks

with Daniel Krebs

16 January 2019

@GetPSugUK



# File or path-friendly date/time

B

```
PS C:\> "Backup-$(Get-Date -Format FileDate).log"
Backup-20190116.log
PS C:\> "Backup-$(Get-Date -Format FileDateTime).log"
Backup-20190116T1629343783.log
PS C:\> "Backup-$(Get-Date -Format FileDateUniversal).log"
Backup-20190116Z.log
PS C:\> "Backup-$(Get-Date -Format FileDateTimeUniversal).log"
Backup-20190116T1629445451Z.log
PS C:\>
PS C:\> Get-Help -Name Get-Date -Online
```



# Invoke-RestMethod / WebRequest

A

```
PS C:\> $uri = 'http://www.newegg.com/Product/RSS.aspx?Submit=RSSDailyDeals&Depa=0'
PS C:\> Invoke-RestMethod -Uri $uri
Invoke-RestMethod : The request was aborted: Could not create SSL/TLS secure channel.
At line:1 char:1
+ Invoke-RestMethod -Uri $uri
+ ~~~~~
+ CategoryInfo          : InvalidOperation: (System.Net.HttpWebRequest:HttpWebRequest) [Invoke-RestMethod], WebException
+ FullyQualifiedErrorId : WebCmdletWebResponseException,Microsoft.PowerShell.Commands.InvokeRestMethodCommand

PS C:\> Invoke-WebRequest -Uri $uri
Invoke-WebRequest : The request was aborted: Could not create SSL/TLS secure channel.
At line:1 char:1
+ Invoke-WebRequest -Uri $uri
+ ~~~~~
+ CategoryInfo          : InvalidOperation: (System.Net.HttpWebRequest:HttpWebRequest) [Invoke-WebRequest], WebException
+ FullyQualifiedErrorId : WebCmdletWebResponseException,Microsoft.PowerShell.Commands.InvokeWebRequestCommand

PS C:\>
```

**Only Windows PowerShell including v5.1 affected.**



# Invoke-RestMethod / WebRequest

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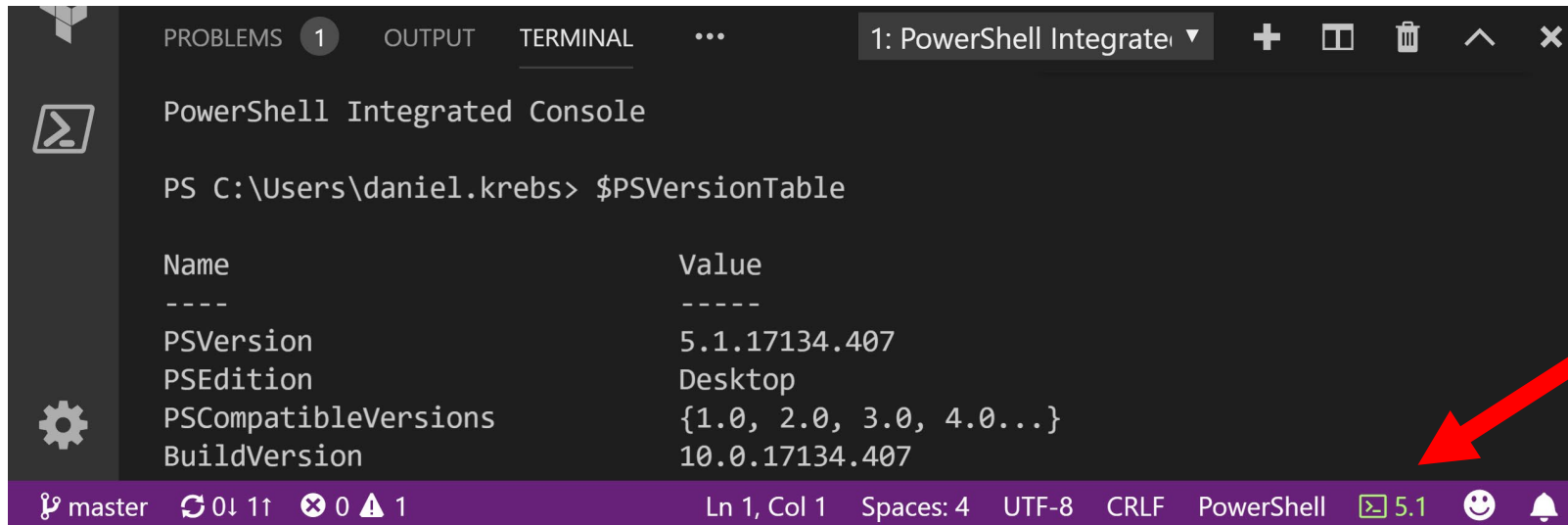
```
PS C:\> $uri = 'http://www.newegg.com/Product/RSS.aspx?Submit=RSSDailyDeals&Depa=0'
PS C:\>
PS C:\> [Net.ServicePointManager]::SecurityProtocol = [Net.SecurityProtocolType]::Tls12
PS C:\>
PS C:\> Invoke-RestMethod -Uri $uri

title      : $99.99 - Seasonic FOCUS Plus Series SSR-850FX 850W 80+ Gold ATX12V & EPS12V
            Size Power Supply
link       : https://www.newegg.com/Product/Product.aspx?Item=N82E16817151188&nm_mc=OTC-
            onic%20USA-_-N82E16817151188
```



# VSCode – Switch PowerShell versions

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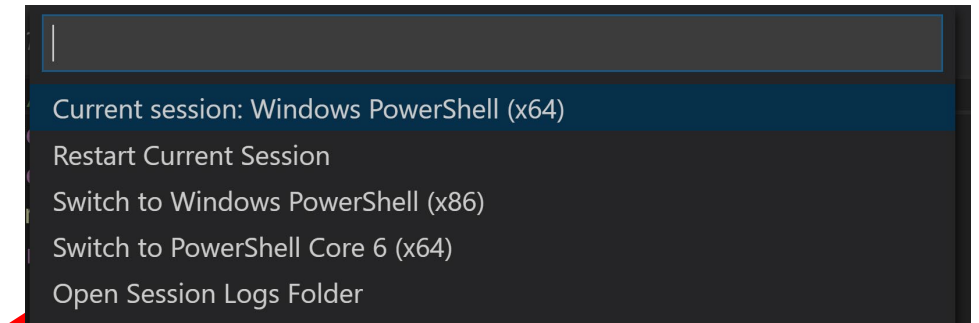


PowerShell Integrated Console

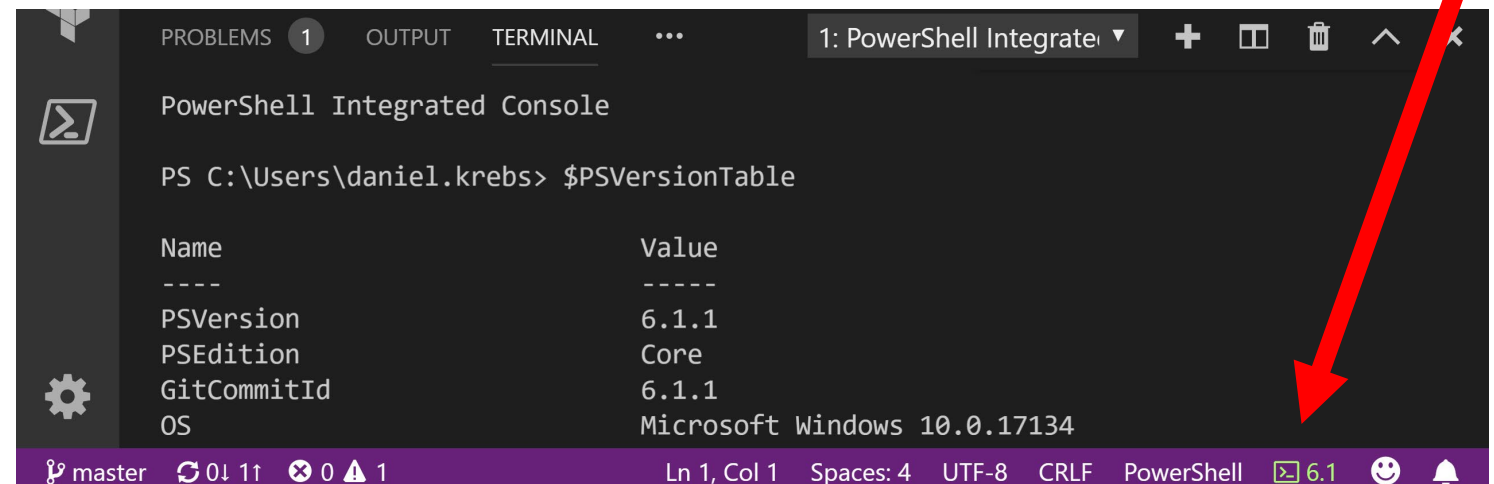
```
PS C:\Users\daniel.krebs> $PSVersionTable
```

Name	Value
PSVersion	5.1.17134.407
PSEdition	Desktop
PSCompatibleVersions	{1.0, 2.0, 3.0, 4.0...}
BuildVersion	10.0.17134.407

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PowerShell 5.1



Show PowerShell Session Menu



PowerShell Integrated Console

```
PS C:\Users\daniel.krebs> $PSVersionTable
```

Name	Value
PSVersion	6.1.1
PSEdition	Core
GitCommitId	6.1.1
OS	Microsoft Windows 10.0.17134

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF PowerShell 6.1



# PS v6: Test-Connection & Progress Bar

A

```
PS C:\Users\daniel.krebs> Test-Connection -TargetName 8.8.8.8
Pinging 8.8.8.8 [8.8.8.8] with 32 bytes of data:

    Pinging 8.8.8.8 [8.8.8.8] with 32 bytes of data:
        Reply from 8.8.8.8: bytes=32 time=1ms TTL=122

Reply from 8.8.8.8: bytes=32 time=1ms TTL=122
```

```
PS C:\Users\daniel.krebs> $ProgressPreference
Continue
PS C:\Users\daniel.krebs> $ProgressPreference = 'SilentlyContinue'
PS C:\Users\daniel.krebs> Test-Connection -TargetName 8.8.8.8
Pinging 8.8.8.8 [8.8.8.8] with 32 bytes of data:
Reply from 8.8.8.8: bytes=32 time=1ms TTL=122
Reply from 8.8.8.8: bytes=32 time=1ms TTL=122
```





# Install/upgrade PowerShell 6.x

B

## Chocolatey - Software Management Automation

<https://chocolatey.org/install>

To install powershell-core (Install), run the following command from the command line or from PowerShell:

```
C:\> choco install powershell-core
```

To upgrade powershell-core (Install), run the following command from the command line or from PowerShell:

```
C:\> choco upgrade powershell-core
```



# PowerShell Call Operator & with Arguments

A

```
$command = '/usr/bin/dynamo-backup-to-s3'
$arguments = @(
    '--bucket', $BucketName
    '--backup-path', ("{{0}}/{{1}}" -f $BucketKeyPrefix,
        (Get-Date -Format FileDateTimeUniversal))
    '--included-tables', "$($tables -join ', ')"
    '--base64-encode-binary'
    '--stop-on-failure'
    '--aws-region', $TableRegion
)
Write-Information "Executing command: ${command} ${arguments}"
& $command $arguments
Write-Information "- Exit code: ${LASTEXITCODE}"
```





# PowerShell Call Operator & with Arguments

A

```
$command = '/usr/bin/dynamo-backup-to-s3'  
$arguments = @(
```

```
Executing command: /usr/bin/dynamo-backup-to-s3 --bucket powershell-demo --backup-path  
dynamodb/20190110T1103281896Z --included-tables Movies --base64-encode-binary --stop-  
on-failure --aws-region eu-west-1
```

```
Starting to copy table Movies  
Done copying table Moves. Took 0.00 minutes  
Finished backing up DynamoDB
```

```
- Exit code: 0
```

```
Write-Information "Executing command: ${command} ${arguments}"  
& $command $arguments  
Write-Information "- Exit code: ${LASTEXITCODE}"
```



# Select-Object

A

```
PS C:\> $products = Invoke-RestMethod -Uri $uri
PS C:\>
PS C:\> $products | Select-Object -Property title, pubDate, comments -Last 2 | Format-List

title      : $59.95 - JBL LINK 10 Voice-activated Portable Speaker (White)
pubDate    : Wed, 16 Jan 2019 08:25:50GMT
comments   : https://www.newegg.com/Product/Product.aspx?Item=0MD-00XY-00001&SortField=0&Summa
            ideoOnlyMark=False&IsFeedbackTab=true&nm_mc=OTC-RSS#scrollFullInfo

title      : $84.00 - Onkyo SKH-410 Dolby Atmos-Enabled Speaker System
pubDate    : Wed, 16 Jan 2019 08:25:50GMT
comments   : https://www.newegg.com/Product/Product.aspx?Item=0S6-0099-002B3&SortField=0&Summa
            ideoOnlyMark=False&IsFeedbackTab=true&nm_mc=OTC-RSS#scrollFullInfo
```



# Select-Object

A

```
$products = Invoke-RestMethod -Uri $uri
$selectProperties = @(
    @{
        Name = 'product_name'
        Expression = { $PSItem.title }
    }
    @{
        Name = 'publication_date'
        Expression = {
            "$($_.pubDate -as [DateTime]).ToString('dddd dd MMMM yyyy') "
        }
    }
    'link'
)
$products | Select-Object -Property $selectProperties -Last 2 | Format-List
```



# Select-Object

A

```
$products = Invoke-RestMethod -Uri $uri  
$selectProperties = @(
```

```
product_name      : $59.95 - JBL LINK 10 Voice-activated Portable Speaker (White)  
publication_date  : Wednesday 16 January 2019  
link              : https://www.newegg.com/Product/Product.aspx?Item=0MD-00XY-00001  
                  -RSS-_-Portable%20Speakers-_-JBL-_-0MD-00XY-00001  
  
product_name      : $84.00 - Onkyo SKH-410 Dolby Atmos-Enabled Speaker System  
publication_date  : Wednesday 16 January 2019  
link              : https://www.newegg.com/Product/Product.aspx?Item=0S6-0099-002B3  
                  -RSS-_-Home%20Theater%20in%20a%20Box-_-Onkyo-_-0S6-0099-002B3
```

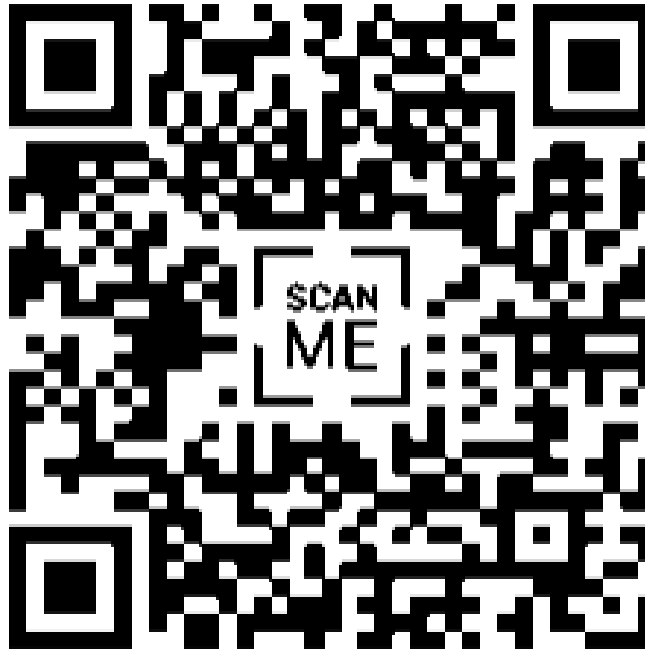
```
)  
$products | Select-Object -Property $selectProperties -Last 2 | Format-List
```



# THE END



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