

# Filtering

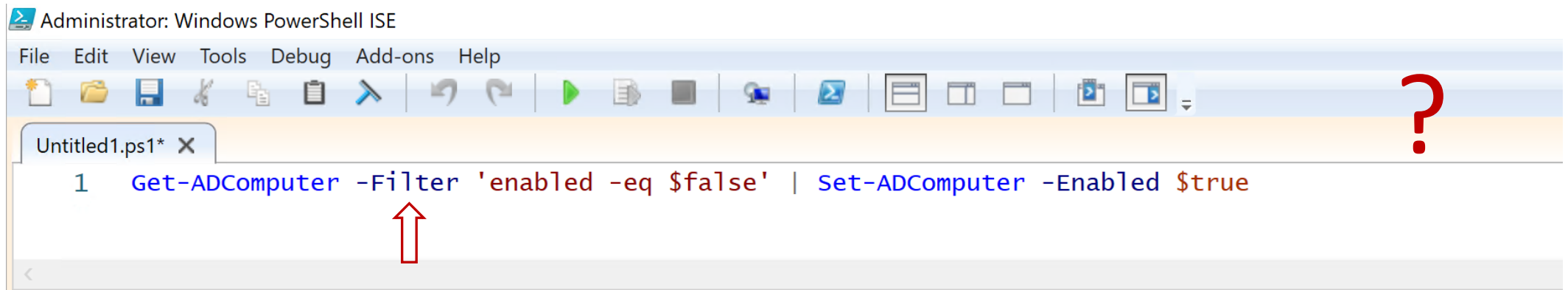
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- Mit dem Parameter **-Filter** werden nur **ausgewählte Objekte** an die **Pipe** gesendet

```
02 . Codes . PowerShell Pipe > ➤ disable_all_win8_computer.ps1
1   Get-ADComputer -Properties * -Filter 'operatingsystem -like "*windows 8*"' |
2   Set-ADComputer -Enabled $false
3
4
```

disable\_all\_win8\_computer.ps1

# Filtering – Where-Object vs. Filtering



Administrator: Windows PowerShell ISE

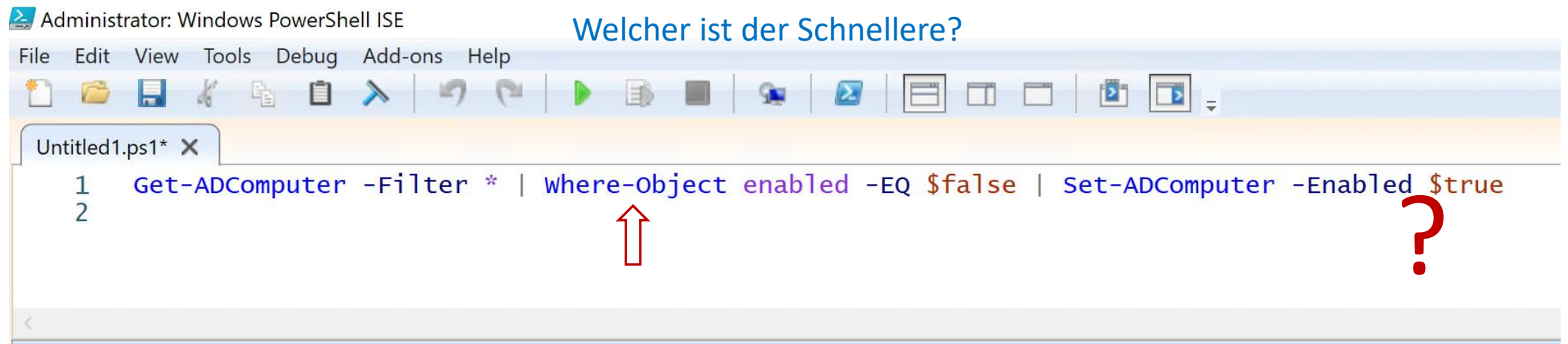
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Untitled1.ps1\* X

```
1 Get-ADComputer -Filter 'enabled -eq $false' | Set-ADComputer -Enabled $true
```

A red arrow points to the `-Filter` parameter in the command. A large red question mark is positioned to the right of the command.

Beide Befehle machen dasselbe ...  
Welcher ist der Schnellere?



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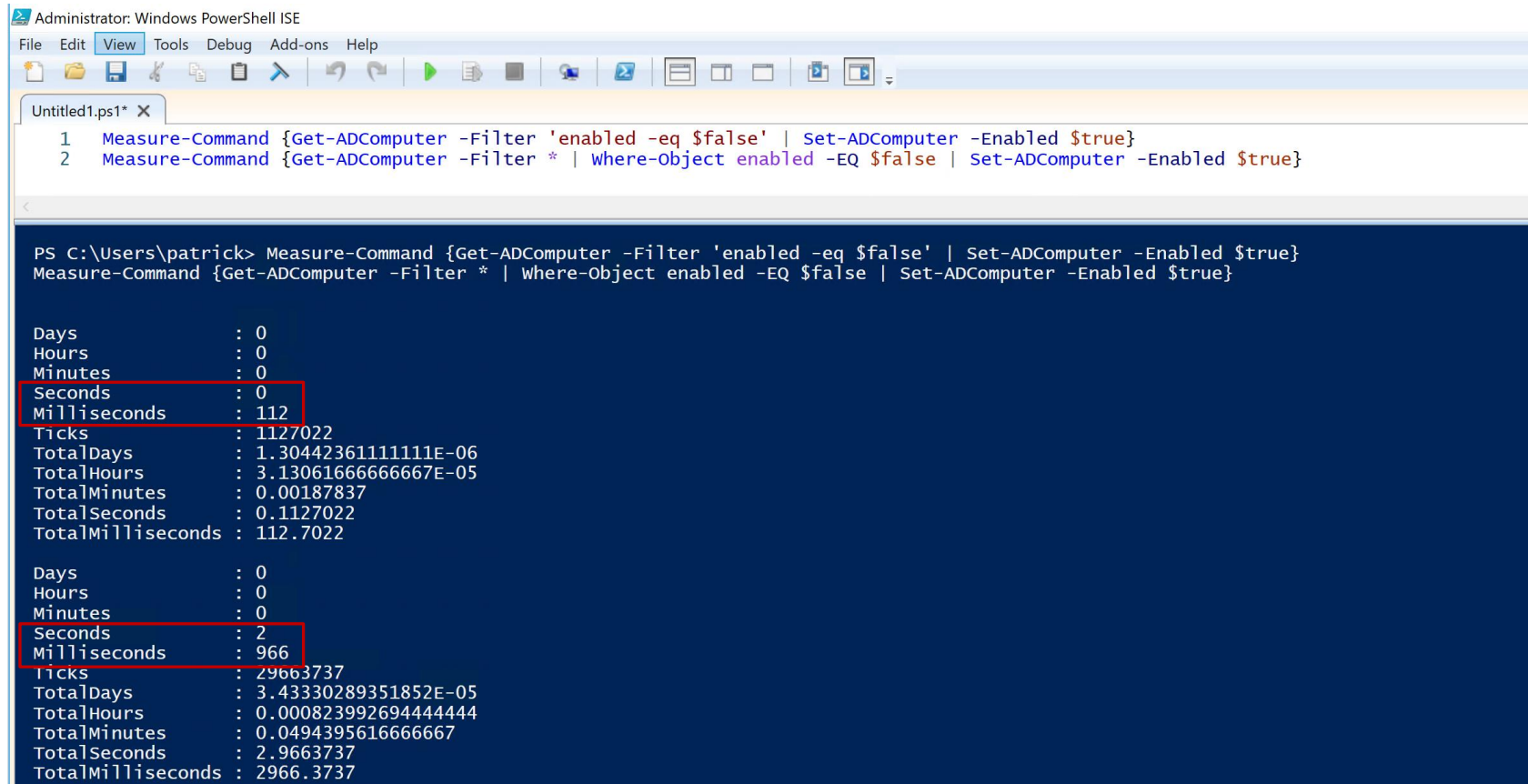
Untitled1.ps1\* X

```
1 Get-ADComputer -Filter * | where-Object enabled -EQ $false | Set-ADComputer -Enabled $true
2
```

A red arrow points to the `where-Object` command in the pipeline. A large red question mark is positioned to the right of the command.

# Filtering – Where-Object vs. Filtering

- Welcher ist der Schnellere?



```
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Untitled1.ps1* X
1 Measure-Command {Get-ADComputer -Filter 'enabled -eq $false' | Set-ADComputer -Enabled $true}
2 Measure-Command {Get-ADComputer -Filter * | Where-Object enabled -EQ $false | Set-ADComputer -Enabled $true}

PS C:\Users\patrick> Measure-Command {Get-ADComputer -Filter 'enabled -eq $false' | Set-ADComputer -Enabled $true}
Measure-Command {Get-ADComputer -Filter * | Where-Object enabled -EQ $false | Set-ADComputer -Enabled $true}

Days           : 0
Hours          : 0
Minutes        : 0
Seconds        : 0
Milliseconds    : 112
Ticks          : 1127022
TotalDays      : 1.30442361111111E-06
TotalHours     : 3.13061666666667E-05
TotalMinutes   : 0.00187837
TotalSeconds   : 0.1127022
TotalMilliseconds : 112.7022

Days           : 0
Hours          : 0
Minutes        : 0
Seconds        : 2
Milliseconds    : 966
Ticks          : 29663737
TotalDays      : 3.43330289351852E-05
TotalHours     : 0.000823992694444444
TotalMinutes   : 0.0494395616666667
TotalSeconds   : 2.9663737
TotalMilliseconds : 2966.3737
```

# Where-Object

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- Steht **Filtering (-Filter)** nicht zur Verfügung muss **Where-Object** aushelfen
- Beispiel: **Get-Hotfix** → **Where-Object**

```
PS C:\> Get-Hotfix | Where-Object InstalledOn -ge (Get-Date).AddDays(-50)
```

Source	Description	HotFixID	InstalledBy	InstalledOn
-----	-----	-----	-----	-----
HP-ELITEDESK	Update	KB4586876	NT-AUTORITÄT\SYSTEM	20.12.2020 00:00:00
HP-ELITEDESK	Security Update	KB4598481	NT-AUTORITÄT\SYSTEM	13.01.2021 00:00:00
HP-ELITEDESK	Security Update	KB4598242	NT-AUTORITÄT\SYSTEM	13.01.2021 00:00:00