PowerShell Object pipeline shell

CONCEPTS

Commands pass .NET objects, not text: filter and sort by property, no column parsing.

Get-ChildItem file objects
↓
Where-Object keep some
↓
Sort-Object reorder
↓
Select-Object shape
↓
Format / Export text at the end

Objects flow through the pipeline; $_ is the current one

Cmdlets are named Verb-Noun. Names and parameters are case-insensitive and Tab-complete.

DISCOVER

Get-Help *<cmd>*
Show help for a command

Get-Help *<cmd>* **-Examples**
Show usage examples

Get-Command ***<word>***
Find commands by name

<cmd> **| Get-Member**
List an object's type, properties, methods

PIPELINE

Where-Object *<prop>* **-gt** *<val>*
Keep objects matching a test

Where-Object { $_.Length -gt 1MB }
Filter with a script block

Select-Object *<prop>*, *<prop>*
Keep only these properties

Select-Object -First *<n>*
Take the first n objects

Select-Object -ExpandProperty *<prop>*
Output the bare values

Sort-Object *<prop>* **-Descending**
Sort by a property

ForEach-Object { $_.Name }
Run a block per object

PIPELINE (cont.)

Format-List *
Show every property

FILES & PROVIDERS

Get-ChildItem
List items here

Get-ChildItem -Recurse -Filter *<glob>*
Find files recursively

Set-Location *<path>*
Change directory

Get-Content *<file>*
Read a file line by line

New-Item *<dir>* **-ItemType Directory**
Create a directory

Test-Path *<path>*
Check if a path exists

Select-String *<pattern>* *<file>*
Search text, like grep

VARIABLES & TYPES

$name = *<value>*
Assign a variable

$env:*<NAME>*
Read or set an environment variable

$a = @(1, 2, 3)
Array; $a[-1] is the last item

$h = @{ Key = 'val' }
Hashtable; $h.Key or $h['Key']

STRINGS & OPERATORS

"Hi $name, $($obj.Prop)"
Double quotes expand variables

-eq -ne -gt -lt -ge -le
Compare (case-insensitive)

SCRIPTS & FUNCTIONS

function *<Name>* **{ param($x) ... }**
Define a function

.*<script>***.ps1***
Run a script

PSREADLINE KEYS

Tab / Shift + Tab
Cycle completions