

Comparison Operators Description -eq (-ne) Equal (Not Equal) \$a –eq 8 Greater than 10 -gt \$b Greater than or equal 123 –ge 321 -ge \$a –lt \$b Less than or equal to \$a -le \$c -Like (-NotLike) Wildcard string comparison \$name -like "*shell" \$name -match "shell\$" -Match (-NotMatch) Regular expression comparison -Contains (-NotContains) Does an array contain a \$name -contains "jeff" value? -In (-NotIn) Is a value in an array "jeff" –in \$name String comparisons can be made case sensitive (-ceq, -cne, -clike)

Arithmetic Operators Same legacy operators y

Same legacy operators you've always used Use parentheses to control precedence

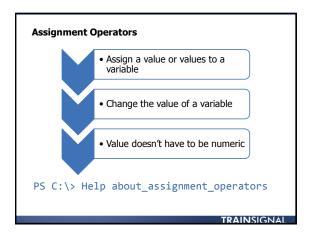
Operator	Description	Example
*	Multiplication	\$a * 3
/	Division	\$size / 1024
+	Addition	\$a + \$b
-	Minus (or negation)	\$size - \$used
%	Modulo (remainder)	21%7

Avoid using + sign to concatenate

PS C:\> Help about_arithemetic_operators

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Logical Operators Perform a logical comparison Entire expression is either True or False Using parentheses helps keep things straight PS C:\> Help about_logical_operators TRAINSIGNAL



Operator	Description	Example
=	Assign a value	\$a = 1
+=	Add a new value to an existing value	\$a+=5 Adds 5 to \$a and update \$a Same as \$a = \$a+5
-a	Subtract a value from an existing value	\$a-=5 Subtract 5 from \$a and update \$a Same as \$a = \$a -5
=	Multiply a value from an existing value	\$a=3 Same as \$a = \$a *3
/=	Divide a value from an existing value	\$a/=2 Same as \$a = \$a /2
++	Increase the value by 1	\$a++
-	Decrease the value by 1	\$a

Type Operators PowerShell is all about the objects These operators work with object types Operator Description Example Is Test if an object IS a certain type. Returns True or False Si --is [int] IsNot Test if an object IS NOT a certain type. Returns True or False As Force PowerShell to treat one type as another. Known as coercion. Common Types: [Int32] [Double] [String] [DateTime]

Special Operators

Operator	Description	Example
&	Call (run) a string. No parameter parsing.	\$c="netstat" &\$c
	Range of numbers	515
::	Static .NET Member	[math]::pi

Number "Shortcuts"

- XKB, xMB, xGB, XTB, xPB
 X is the number of units (e.g. 5MB)
 Handy for formatting bytes into a more meaningful value

PS C:\> 3GB 3221225472 PS C:\> \$size/1MB 1224.0986328125

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Split and Join

Useful for string parsing

- Don't use for CSV files...there are better methods

There is also string method for split

Don't concatenate with + sign

Depending on situation –Join might be a better solution

PS C:\> help about_split PS C:\> help about_join

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Split and Join

Split

- <string> -split <delimiter>
- Default delimiter is the space
- Can split on a regular expression pattern
- Creates an array of strings
- Split into substrings
 PS C:\> \$data = \$line -split ":"

Join

- -join <string[]>
- <string[]> -join <delimiter>
- Default delimiter is nothing
 PS C:\> "PowerShell","3.0","is","awesome" -join " "

Operator Demonstration Lab 1. What is 23049564 in megabytes?

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2. Save numbers 1 through 10 as a variable. Test if 77 is in the variable. Then test if the variable contains 5.

3. Split the string "alice|bob|carol|david" on the |. (Hint this is normally a regular expression character)

4. How do you think you would write a string of 40 asterisk

(*) characters?