BASH Arrays (Take 2)

SCRIPTING ESSENTIALS

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Write-Host, Quotes and Elements

If you want to write out a single element and use quotes you have to use the last example here.

```powershell
 cls
$dog=@(1,2,3)

write-host $dog[0]
write-host "dog number is: $dog[0]"
write-host "dog number is: $($dog[0])"          Correct
```

Scoping

Outer scope is the parent scope

Nested scopes (including functions) are child scopes.

Child scopes can "see" parent scopes but not change parent items unless you explicitly specify the scope.

Scoping Arrays in Powershell

New basic rules:

Do not pass the array to your function.
◦ It won't hurt but it won't help, either

If you change the array, use Global or Script
◦ $GlobalDog += "Bowser"
◦ $ScriptDog += "Bowser"

DO NOT USE RETURN IN POWERSHELL QUERIES
◦ At a minimum it will add a blank value to the beginning of your array

This all holds true for all variables, not just arrays.

Can write but not change

```
cls
$dog = @(1,2,3,4,5,6)

function jim ()
{
    foreach ($i in $dog){write-host $i}
    $dog += "7"


}


jim
write-host "-----------"
foreach ($i in $dog) {write-host $i}
```

Global inside function

```powershell
cls
$dog = @(1,2,3,4,5,6)

function jim ()
{
    foreach ($i in $dog){write-host $i}
    $Global:dog += "7"


}


jim
write-host "-----------"
foreach ($i in $dog) {write-host $i}
```

Gobal vs Script Scopes

- **Global**: The scope that's in effect when PowerShell starts or when you create a new session or runspace. Variables and functions that are present when PowerShell starts have been created in the global scope, such as automatic variables and preference variables. The variables, aliases, and functions in your PowerShell profiles are also created ir the global scope. The global scope is the root parent scope in a session.
- **Local**: The current scope. The local scope can be the global scope or any other scope.
- **Script**: The scope that's created while a script file runs. Only the commands in the script run in the script scope. To the commands in a script, the script scope is the local scope.

So for working on a single script you probably won't have issues with Global, but Script is safer and preferable.