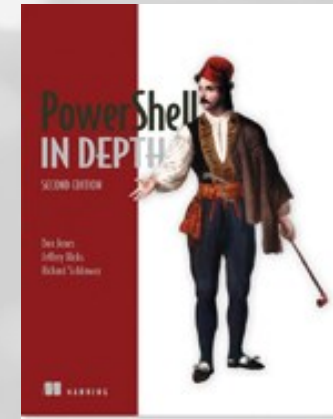
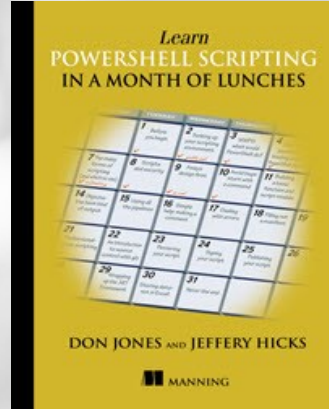
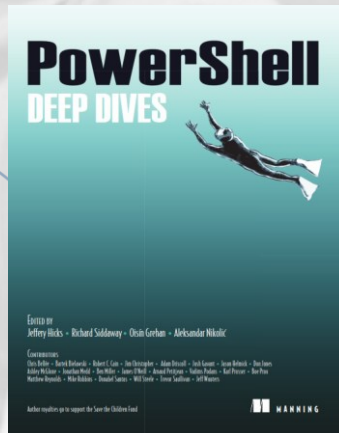
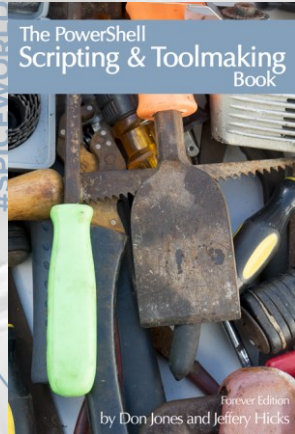


PowerShell Toolmaking Patterns and Practices

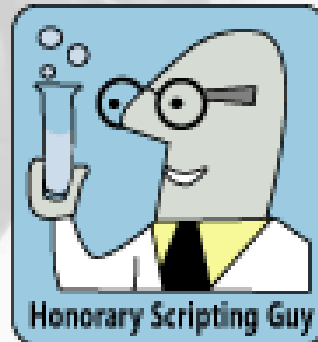




<https://jeffhicks.substack.com>



Jeff Hicks
<https://jdhitsolutions.github.io>



pluralsight

SPICEWORLD
— IT CONFERENCE —

#SPICEWORLD2023

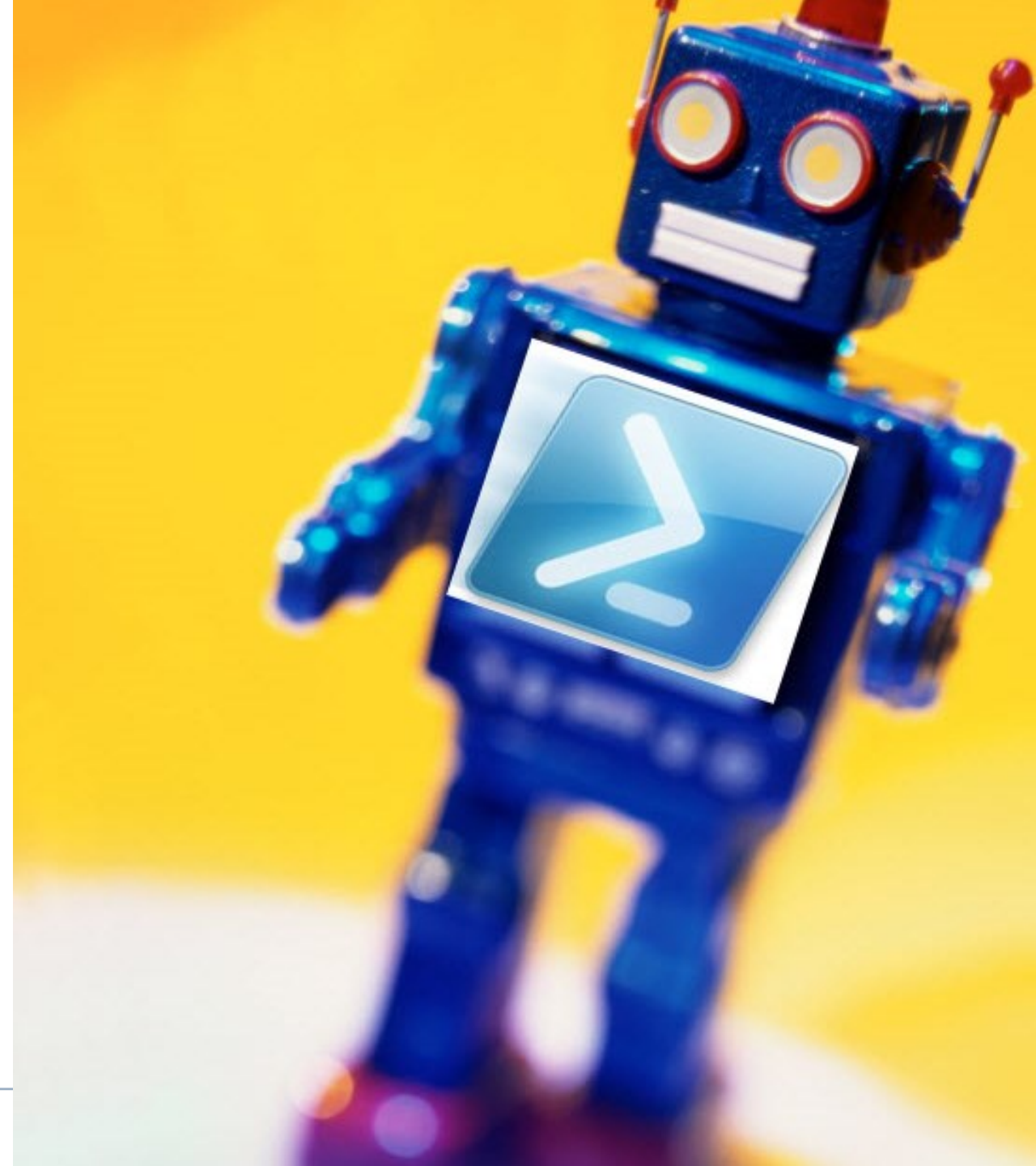
THE HOTTEST IT CONFERENCE IN THE UNIVERSE



PowerShell code does not exist in a vacuum

Code as Art

It doesn't matter what you are automating
Anyone can learn syntax
Generating code is easy
But is it the right code?



Command Input

Who (or what) will be using your code?

What are their expectations?

Don't assume anything

Anticipated usage scenarios

Can you leverage the pipeline?



Command Output

Functions do one thing

Functions write one type of object to the pipeline

What will the user do with your command?

What type of object do you need?

How can you seamlessly join your command output to the pipeline?

Separate formatting from code



A wide-angle photograph of the Aurora Borealis (Northern Lights) over a calm lake and dark mountains. The aurora is a vibrant green, flowing across the sky in a large, curved band. The sky is dark blue with many small stars visible. The mountains in the foreground are dark and silhouetted, and the lake reflects the light from the aurora and the stars.

Demonstration

Recommended Practices

Naming standards

Scripting Best Practices

- Full names and parameters

- Documentation

- Code layout

Script for Scale

Separate data from code

Separate formatting from code



YOU GOT
THIS
OH YEAH

imgPlay

Beyond PowerShell

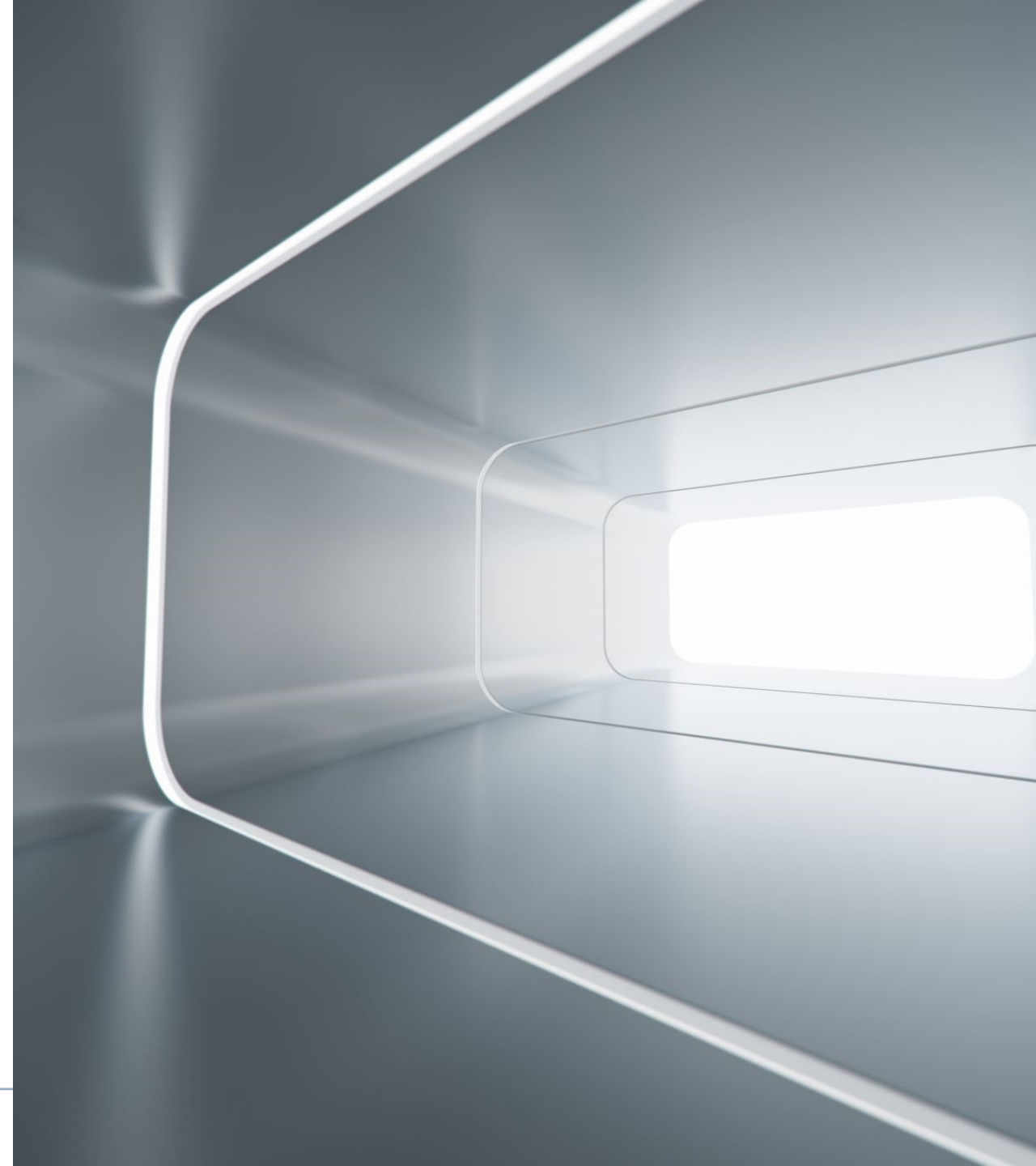
Use source control

Pester Tests

Validate in a clean environment

PowerShell [pwsh] -nopprofile

Consider code signing



Jeff's Suggestions

Understand the technology first

Write for the console before scripting

Write advanced functions

Include error handling (Try/Catch)

Use Verbose output

Learn to use Write-Progress

Script in layers

Write typed objects to the pipeline

Learn to create and use format and type extensions



PS Goals

Reduce friction

Be flexible

Plug into the PowerShell ecosystem

Set yourself up for success

...plan for the worst





#SPICEWORLD2023

Thank you.



THE HOTTEST I.T. CONFERENCE IN THE UNIVERSE

SPICEWORLD
— IT CONFERENCE —