

# DATA DECISIONS WITH POWERSHELL

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Demo code:

<https://github.com/jdhitsolutions/DataDecisions>

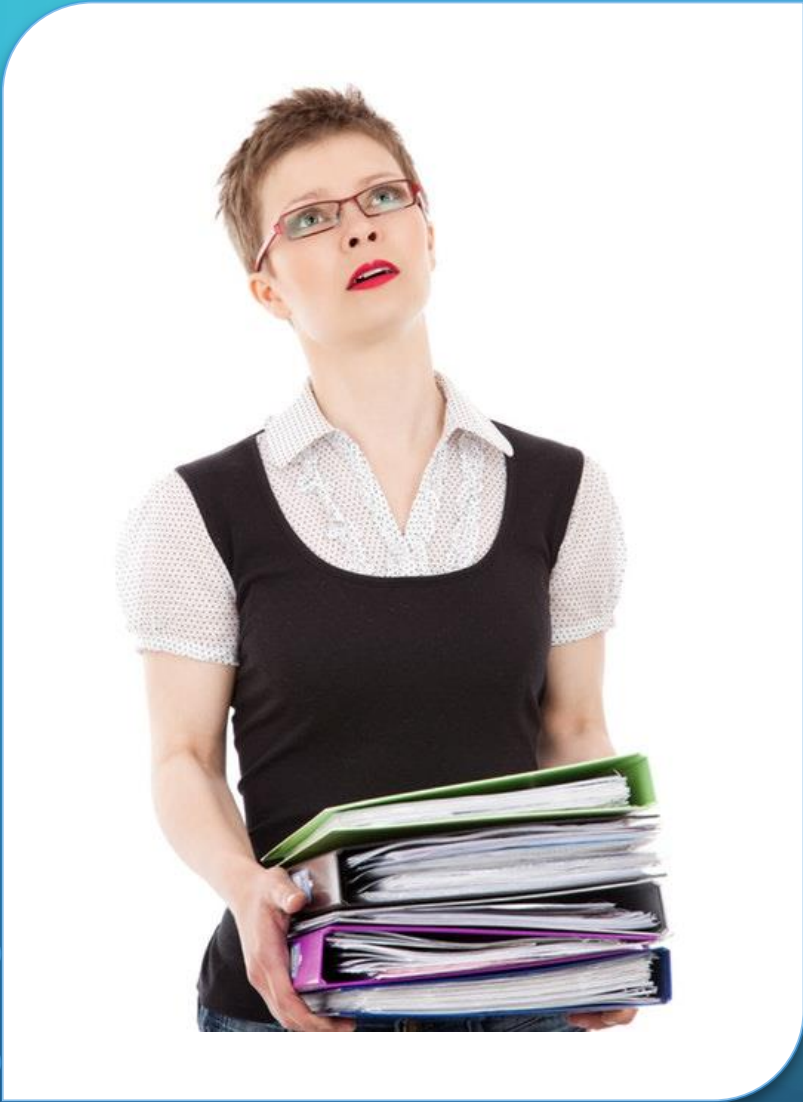


# DESIGN PRINCIPLES

THIS ISN'T ABOUT  
TECHNIQUES OR CODE

# THE ISSUE

- You have a PowerShell script or tool
- It might consume data from an external source
  - Maybe you get to determine the external source
- It might need to persist data to some type of storage
- What are the right decisions?
- How do you make them?



# OPTIONS

- Plain text
- CSV
- XML
- JSON
- Database



# TEXT

## PRO

- Easy to create
- Easy to transport
- Easy to secure
- Works well cross-platform
- Embraces the PowerShell paradigm\*

## CON

- Text parsing might be required
- May not scale well
- Encoding may be an issue
- Counters the PowerShell paradigm

# CSV

## PRO

- Easy to implement
- Delimiter options
- Native application support

## CON

- Property type not preserved
- Not good for hierarchical needs
- May not scale well
- Hard to update
- No native search options

# XML\*

## PRO

- Relatively easy to implement
- Widely accepted format
- Clixml great for PowerShell
- Capture rich data
- Searchable

## CON

- Fragile
- May require special skills
- Larger file sizes
- More difficult to update

# JSON

## PRO

- Widely adopted
- Potentially smaller file sizes
- Text based

## CON

- May not preserve type
- Fragile
- Difficult to update



# DATABASE

## PRO

- Best performance for large data
- Leverage existing infrastructure
- Easiest to update
- Most professional

## CON

- Dependencies
- Requires special development skills
- Potential cross-platform challenges
- Larger footprint

# DECISION POINTS

How much data needs to be managed?

Who will be using your tool?

What are their expectations?

Reading vs Writing

How will persisted data be consumed?



A close-up, slightly blurred image of a laptop screen showing lines of code in a dark-themed editor. Overlaid on the left side of the image is a white, stylized circuit board pattern with lines and circular nodes. The background of the slide is a gradient from light blue at the top to dark blue at the bottom.

# MY STORY

- Creating objects from persistent data
- Wanted to be as simple as possible
- Need to read, write and modify existing data

# BEST PRACTICES

- All about the object
  - Don't hard code file choices
  - Let PowerShell do its thing
- Performance matters
- Consider your target audience or platform
- Don't be afraid to change course
- Databases best for long term, persistent storage that needs updating



# Questions Answers

Demo code:

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# THANK YOU



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