Intro to PowerShell Automation for the SQL Server DBA



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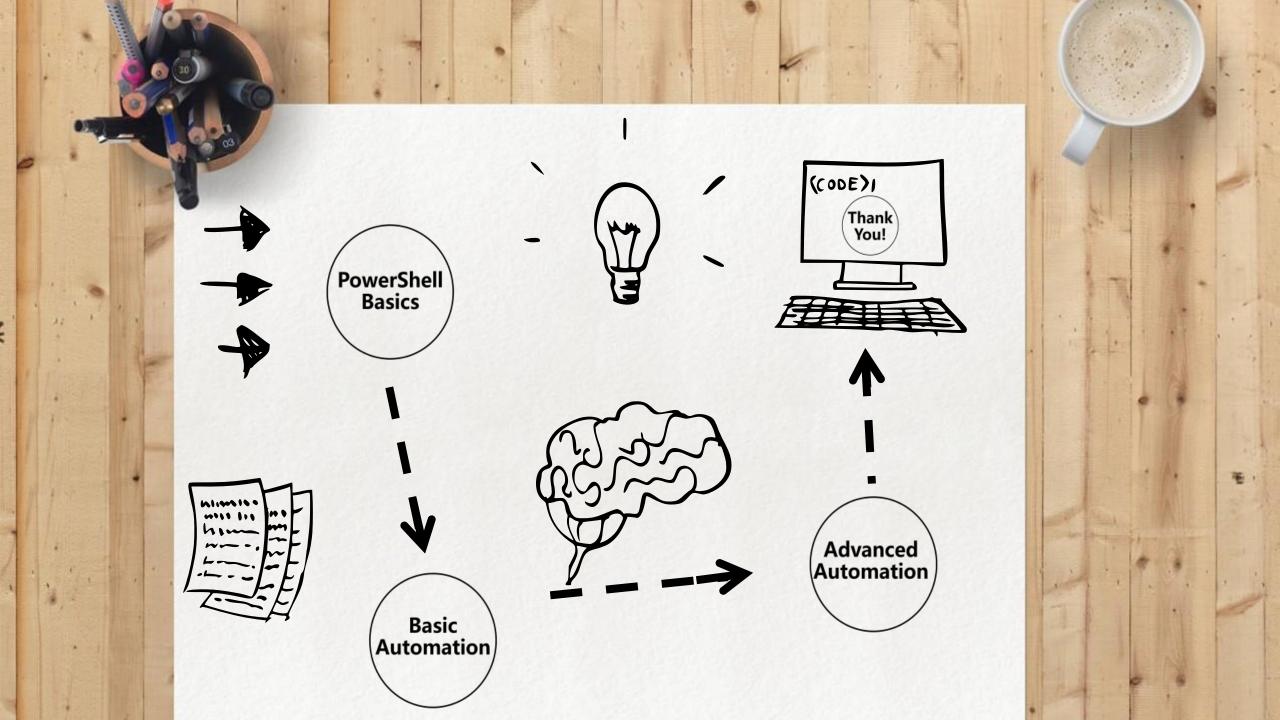
Straight Path I.T. Solutions, LLC. SQL Saturday Orlando - 10/18/2024













COMMANDS

Commands (and functions) are similar in use and concept to SQL server stored procedures and functions.

**ARGUMENTS** 

VARIABLES

**PIPING** 

MODULES

**ARGUMENTS** 

Similar to stored procedures, arguments can be used to change the behavior of a command.

VARABLES

PIPING

**MODULES** 

VARIABLES

- 1. Typically \$ defined
- 2. Declared but flexible
- 3. Session persistent

COMMANDS

**ARGUMENTS** 

PIPING

**MODULE** 

PIPING

The pipe "|" is the way to take the results of one command and give it as input into another command (chaining work)

MODULES

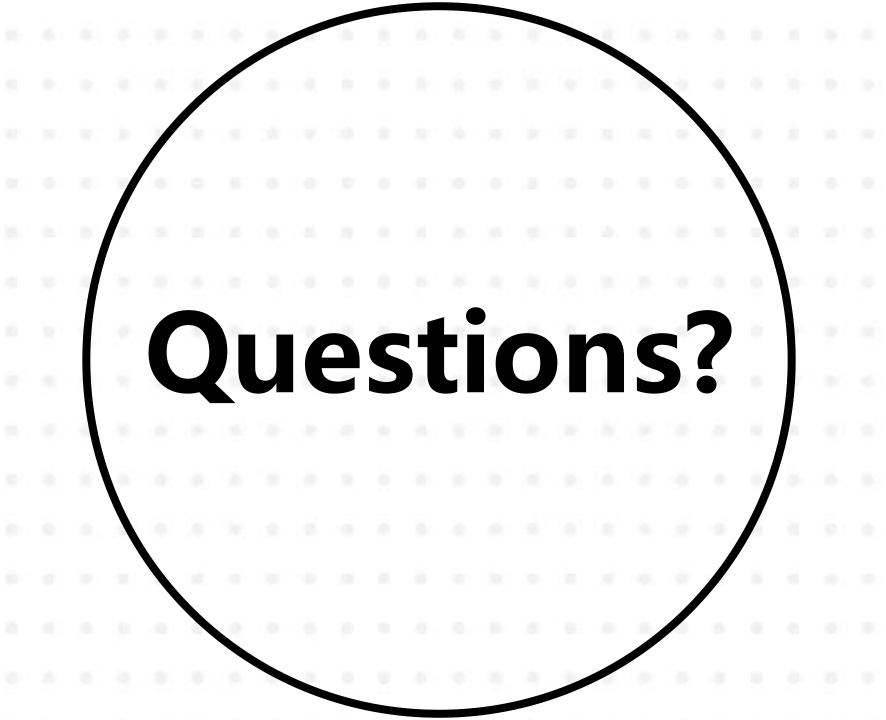
Similar to Ola, First Responder, Etc. These are groups of commands you can use after installing.

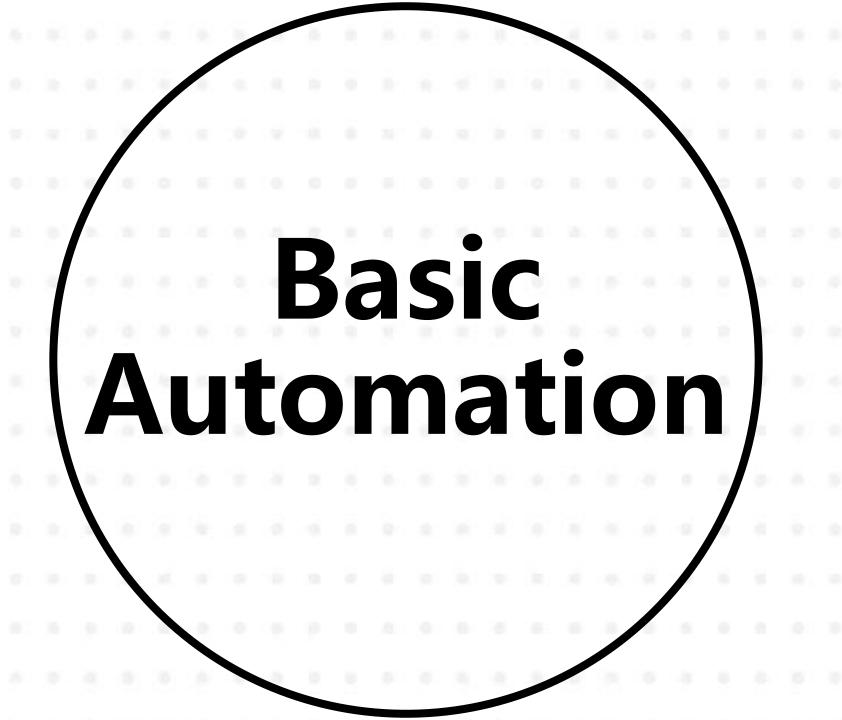
COMMANDS

**ARGUMENTS** 

**VARIABLES** 

PIPINO







REPORTS

#### Simple reports:

- Are jobs enabled?
- Are configurations correct?
- Is the XE running?

CHANGES

**FIXES** 

ONE OFFS

CHANGES

#### Making simple changes:

- Turning off a job.
- Changing Configurations.
- Adding a user.

**REPORTS** 

**FIXES** 

ONE OFFS

FIXES

#### Fixing simple problems

- Fixing a job command
- Moving databases off C:\
- Moving Tempdb

REPORTS

CHANGE

ONE OFFS

ONE OFFS

#### Occasional Tasks

- Adding a one-off schedule for a job
- Copying jobs or users from another server.

**REPORTS** 

CHANGE

**FIXES** 

ROLLOUTS

Building IaC solutions for maintenance and Installs.

- Ola
- Standard jobs
- SQL installs

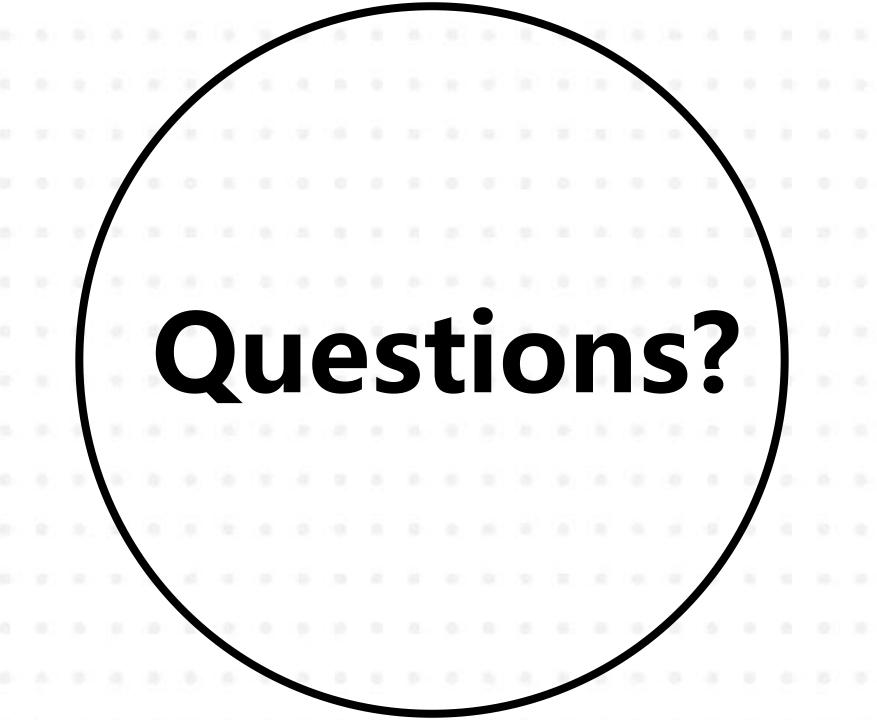
**REPORTS** 

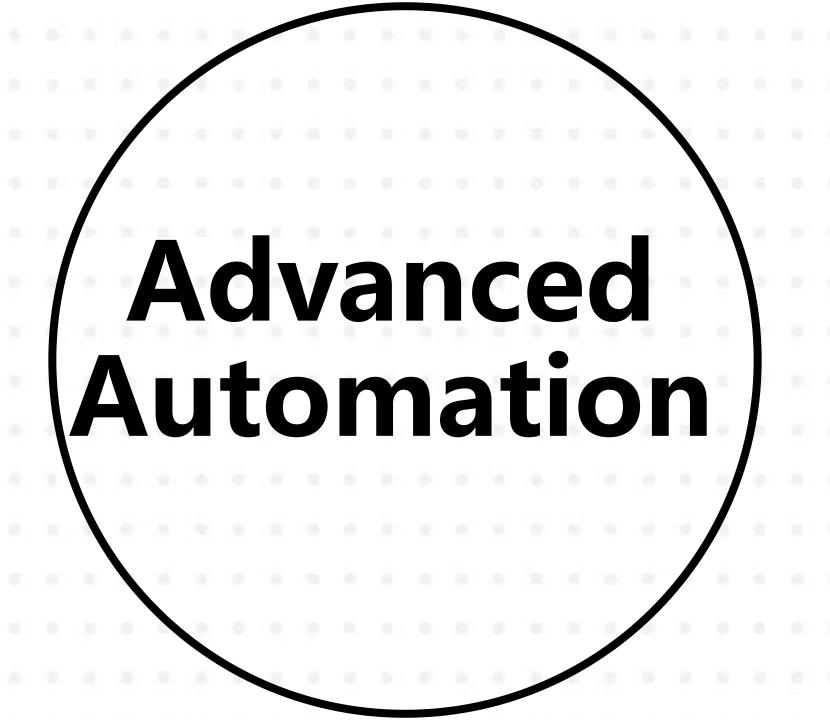
CHANGE

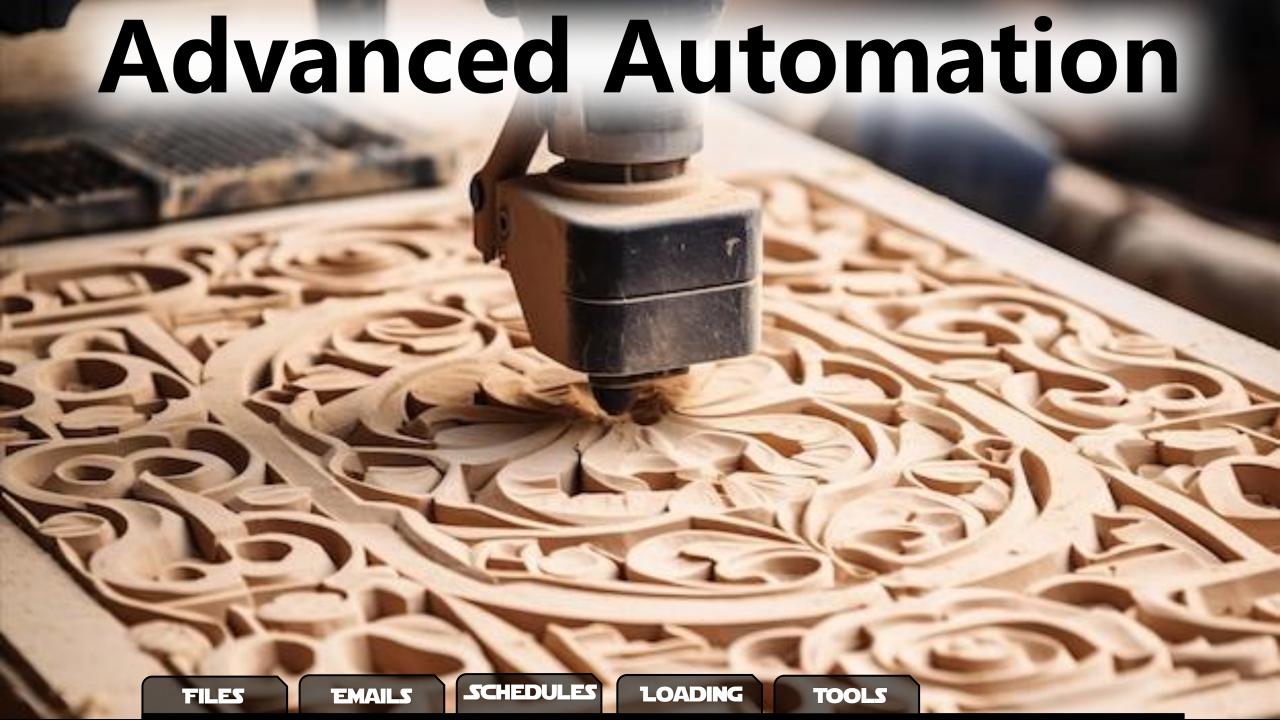
**FIXES** 

ONE OFFS









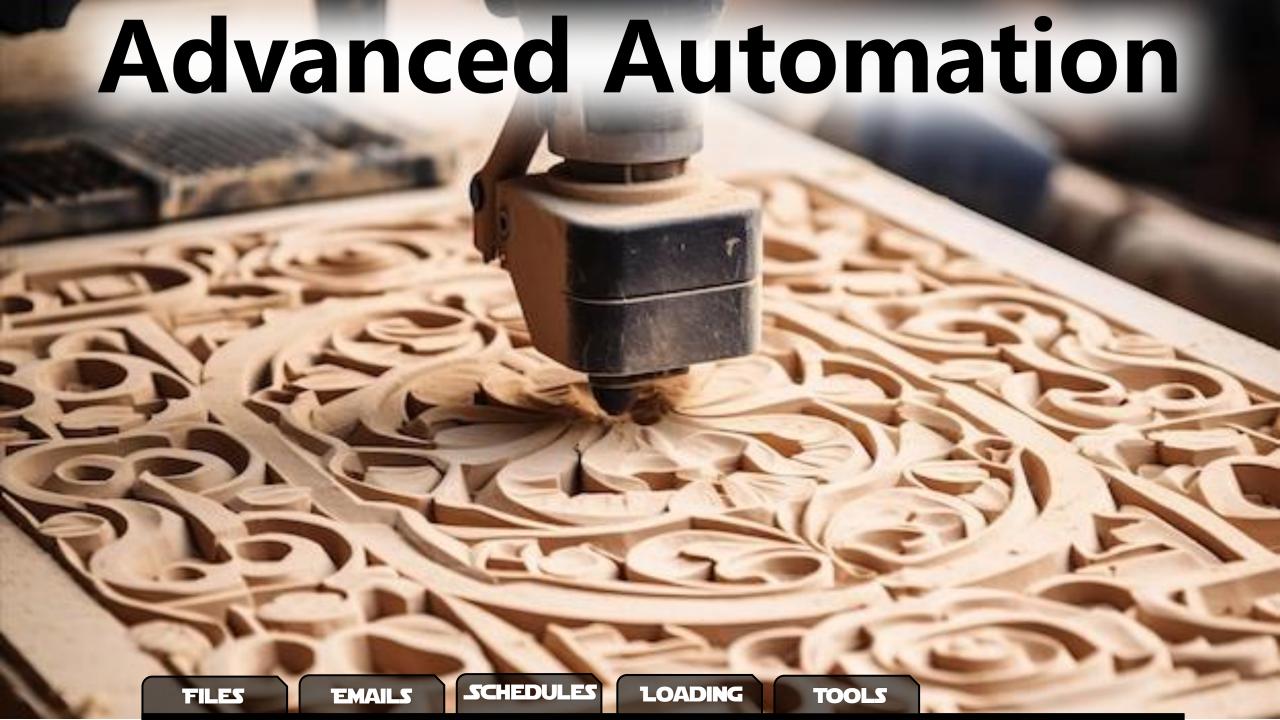


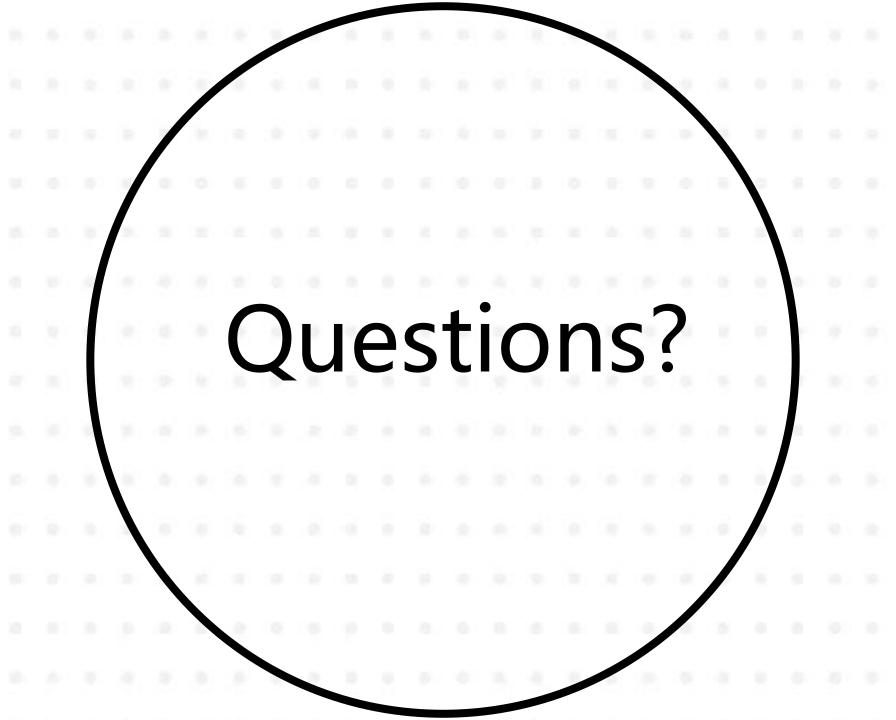
Automating alerts and reporting via email Attaching files Adding content to the body of an email.

SCHEDULES Calling a PowerShell script in task scheduler, offering scheduling. Login reports Configuration tracking

LOADING Taking the output of CSVs: Loading proactive data into a master table. Tracking metrics in a single location. TOOLS









### Thank You!

