MEP Fabrication Scripting 101 (Beginner) - Lecture FAB323246

Darren Young

Director of Operations Technology - Seattle, Washington / Portland, Oregon

Hermanson

AUTODESK
UNIVERSITY

Hermanson

Mechanical Contractor

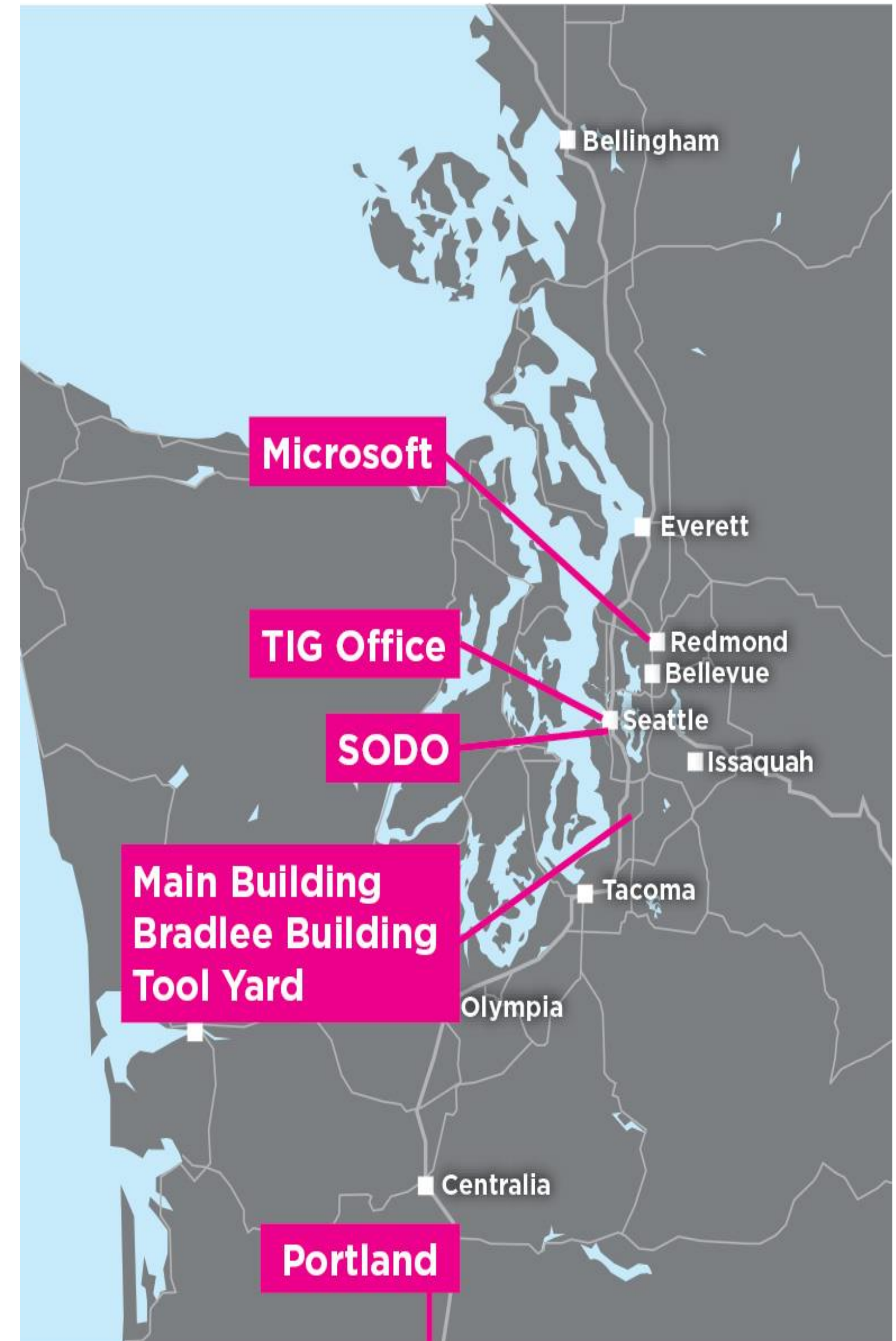| HVAC Sheet Metal & Piping and Plumbing Fabrication & Construction | Design-Build Engineering | Service & Maintenance |

Hermanson Statistics

| $250 Million Annual Revenue | 550 Employees | Eight Locations including office, fabrication shops, & warehouse / distribution centers |

Bellingham

Microsoft

Everett

TIG Office

Redmond
Bellevue

SODO

Seattle

Issaquah

Main Building
Bradlee Building
Tool Yard

Tacoma

Olympia

Centralia

Portland

Hermanson

Darren Young / Seattle, Washington

Husband/Father (1 Wife / 2 Boys / 1 Girl)

Pet Owner (2 Dogs / 1 Cat / 3 Fish)

YMCA Swim Official

Technology Enthusiast / Skeptic

Hockey Fan / Do-It-Yourselfer / Outdoorsman

Lean / Coding / Manufacturing

Learning Objectives

✓ Learn what you can and can't do with scripting

✓ Learn basic scripting language and syntax

✓ Learn to write simple scripts for use with Fabrication CADmep, Fabrication ESTmep, and Fabrication CAMduct

✓ Learn how scripts can edit fabrication ITM properties

My Teaching Approach

NOT SCRIPTED ! !

Your office isn't scripted, neither will be this session. We learn by failing, reviewing the results and moving forward. We may fail in this session, review the failures, learn from them and plot a path forward.

YOU HELP DIRECT WHAT WE COVER

There's a lot to cover. Everyone is here for a different reason. We'll see what the majority want to cover and run with it.

ASK QUESTONS

Ask questions during the session. If we're running short on time, we may hold until after. Feel free to contact me after the session or after AU via Email for more help.

Scripting Introduction…

Scripting Resources

Help File

C:\Program Files\Autodesk\Fabrication **\<version>****\<product>***en-US\Scripting.chm*

\<version> **\<product>**

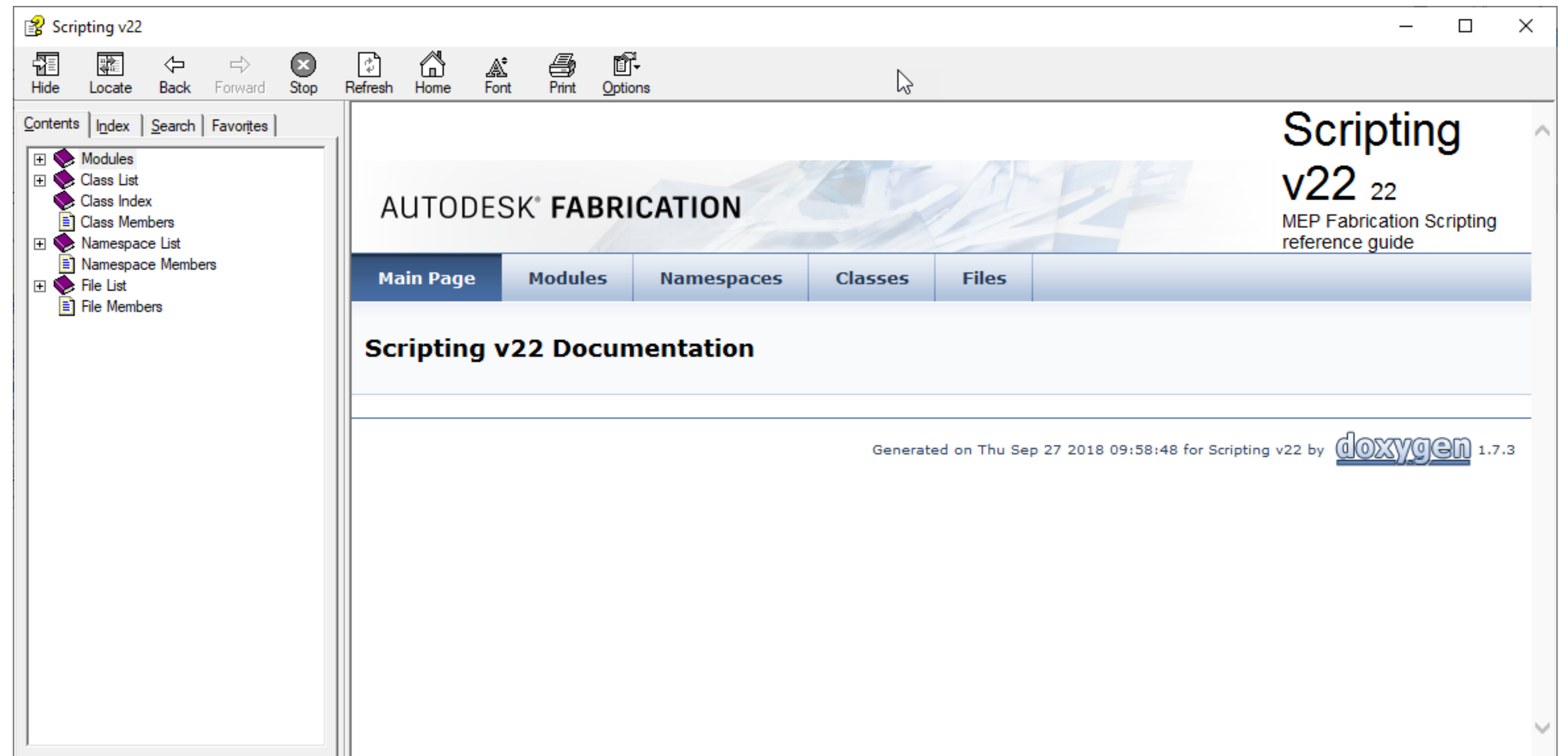2013   CADmep

2014   CAMduct

2015   ESTmep

2016

2017

2018

2019

2020

Scripting Resources

My Site

http://www.darrenjyoung.com/resources/autodesk-fabrication/fabrication-cod-scripting/

Scripting Resources

Autodesk.Com

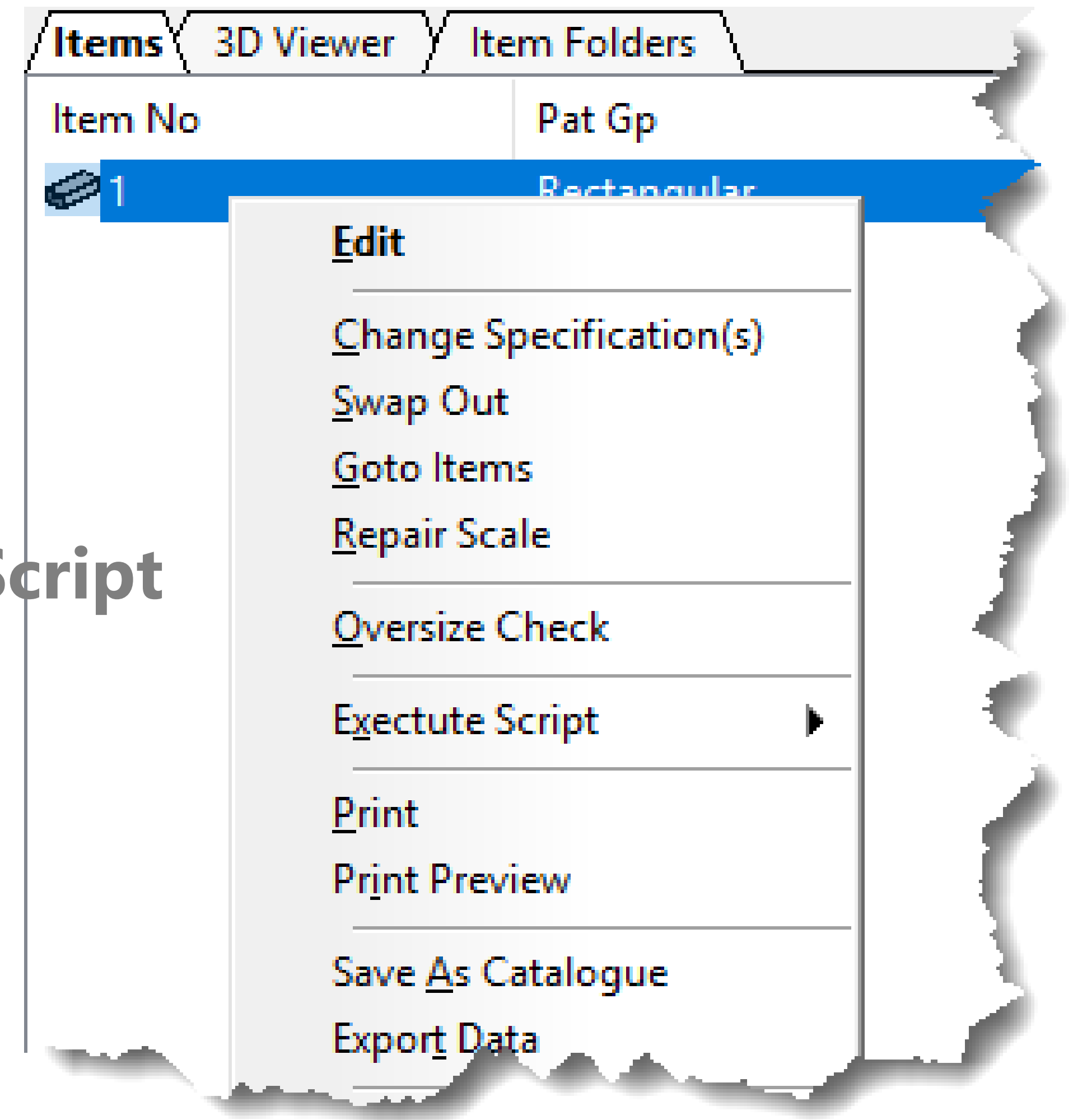**https://help.autodesk.com/view/FABRICATION/2020/ENU/**

Calling Scripts

Calling Scripts in CADmep...
Type "EXECUTESCIPT" at the command line
Use (executescript "script name") function from
AutoLISP

Calling Scripts in ESTmep/CAMduct...
Use Script Editor to Load & Run – **File -> Open Script**
Highlight Items from Takeoff – **Right-Click**

Scripting in a NutShell….

- Written in ASCII Text (Windows Notepad, etc.)

- Can use Script Editor in Fabrication but can be buggy when running scripts.

- File extension for scripts = *.COD

- Text/Strings surrounded by double quotes

- Double quotes from Word/Email **(" ")** are not the same as Notepad **(" ")**

Scripting in a NutShell….

- Use ASCII Character codes to mimic Enter, Tab, Quotes within text strings

- Variables must be declared with DIM

- Variable names must be begin w/alpha character, no spaces odd characters

- Functions/Properties/Variables are NOT CaSe SeNsItIvE

- Scripts Read/Write properties, they don't automate drawing

Scripting in a NutShell….

- ITEM is default object for items in drawing

- JOB is default object for job properties

- Unless using advanced processing tasks or functions (not covered in this 101 session), scripts are run on each selected object.

  E.g. 2 selected objects runs the script twice, once for each object.

On To The Demo / Lecture...

Learning Objectives - Review

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✓ Learn how scripts can edit fabrication ITM properties

Contact

WORK EMAIL
dyoung@hermanson.com

PERSONAL EMAIL
dyoung@mcwi.com

BLOG
http://www.darrenjyoung.com

LINKEDIN.COM
https://www.linkedin.com/in/darren-young-83b24811/

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