

MEP Fabrication Scripting 101 (Beginner) - Lecture FAB323246

Darren Young

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





Mechanical Contractor

HVAC Sheet Metal & Piping
and Plumbing Fabrication &
Construction

Design-Build Engineering

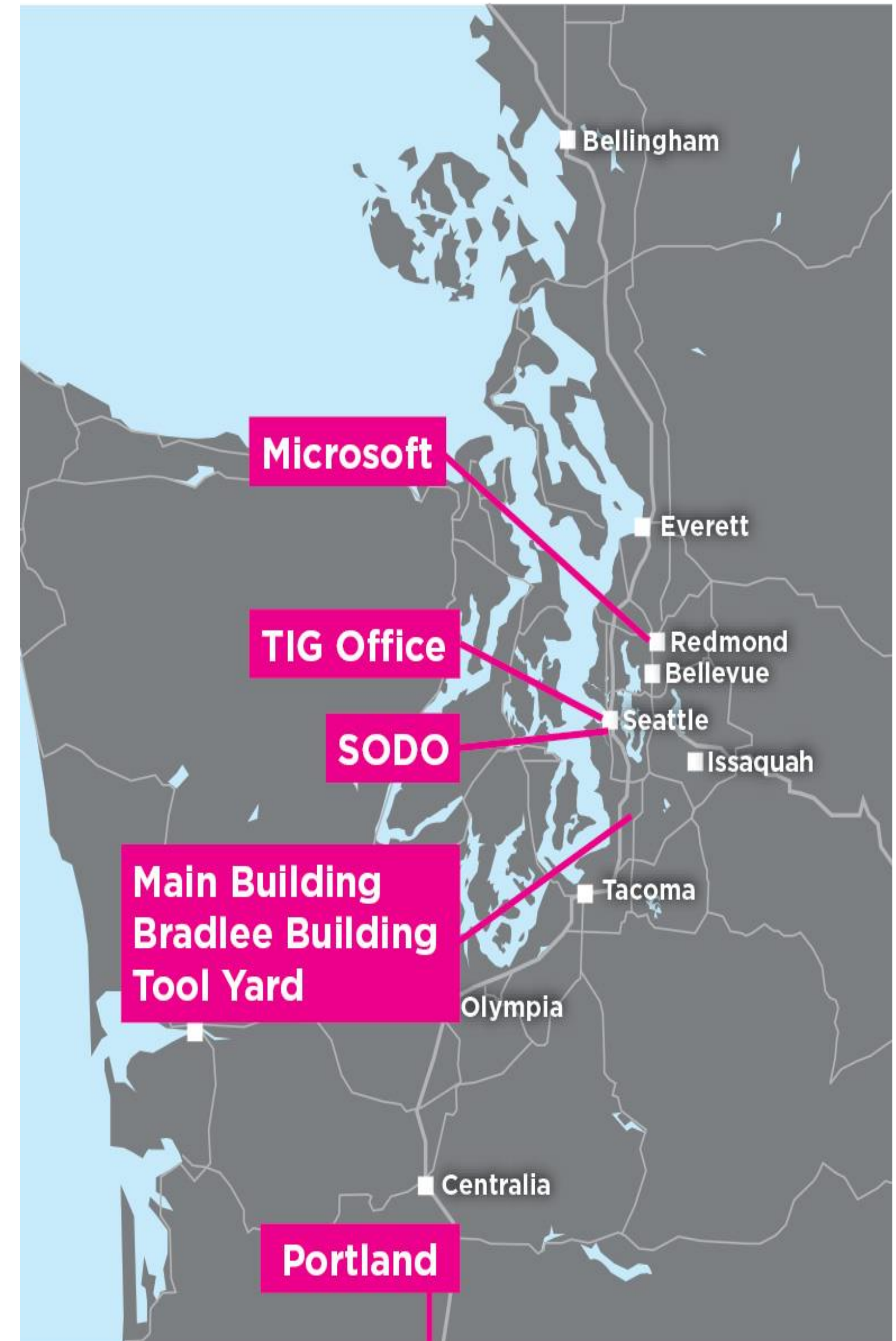
Service & Maintenance

Hermanson Statistics

\$250 Million Annual Revenue

550 Employees

Eight Locations including
office, fabrication shops, &
warehouse / distribution
centers





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 QUESTIONS

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

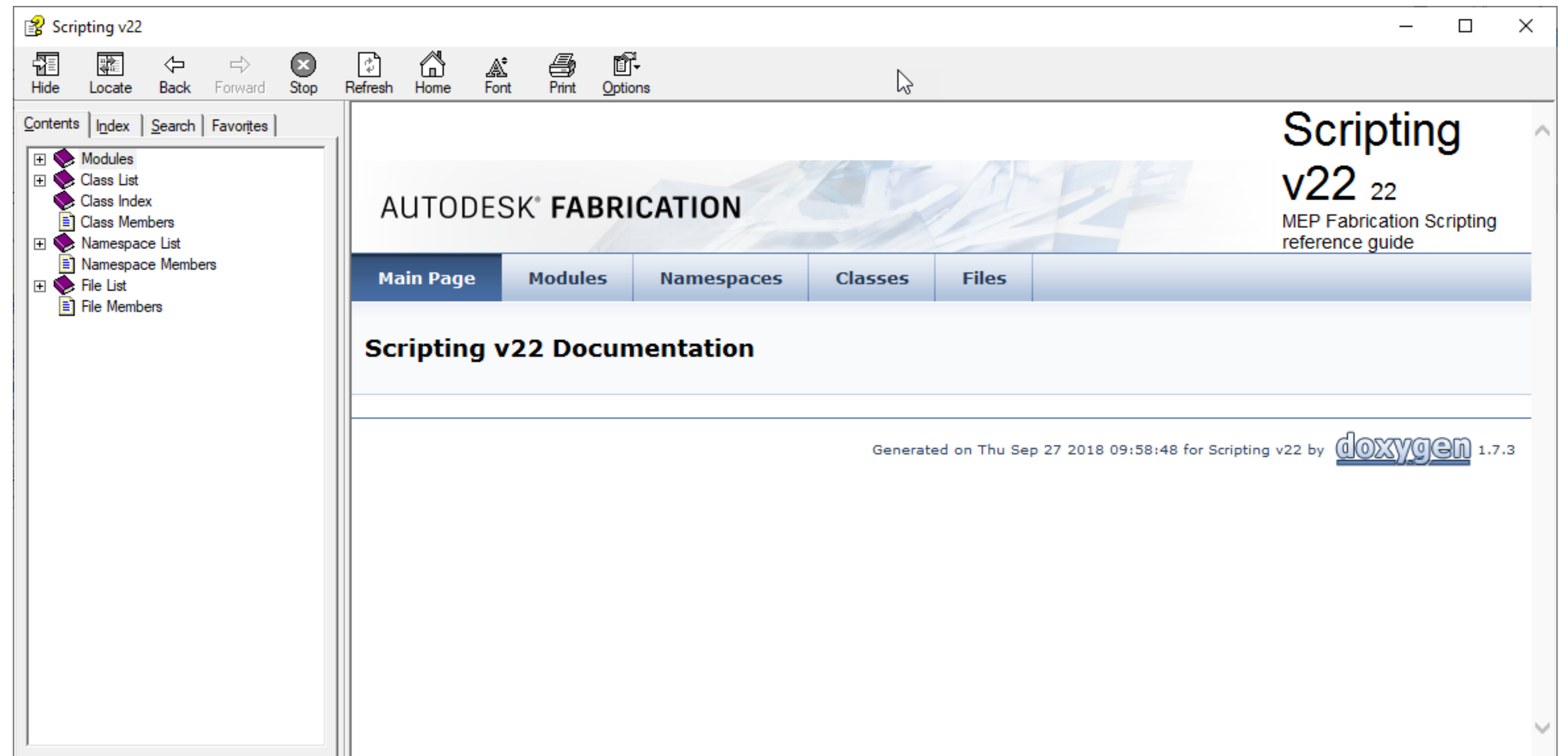
2016

2017

2018

2019

2020



Scripting Resources

My Site

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

The screenshot shows a website with a dark header and a blue navigation bar. The header contains the text 'BIM there. Done that.' and 'Industry, business and technology as it relates to Construction and Manufacturing'. The navigation bar has links for 'RESOURCES', 'LINKS', and 'ABOUT', along with a search bar. The main content area is titled 'Fabrication COD Scripting' and contains a list of links to Fabrication COD resources. A sidebar on the right lists 'Recent Posts'.

BIM there. Done that.
Industry, business and technology as it relates to Construction and Manufacturing

RESOURCES LINKS ABOUT Search ...

Fabrication COD Scripting

Fabrication COD resources can be found using the links below.

- [Fabrication COD Script Library](#)
- [Fabrication COD Scripting Overview](#)

- [Item](#) Property Object Reference
- [Item](#) Function Reference
- [JobInfo](#) Property Object Reference
- [JobInfo](#) Function Reference
- [Global](#) Miscellaneous Function Reference
- [Global](#) Miscellaneous Operator Reference
- [Global](#) Math Function Reference
- [Global](#) Text/String Function Reference
- [Global](#) Conditional and Loop Function Reference

Recent Posts

- » [Autodesk BIM360 Docs – Licensing Enforcement Starts Soon](#)
2019.08(August).06
- » [ESTmep Cost Exposed in Revit](#)
2019.07(July).29
- » [IT Hack Every BIM/CAM Manager Should Know](#)
2019.06(June).13
- » [Subscription Discounts – Not the Deal You Think](#)
2019.06(June).10
- » [VDC CAD – Beta CADmep Addin](#)
2019.06(June).06

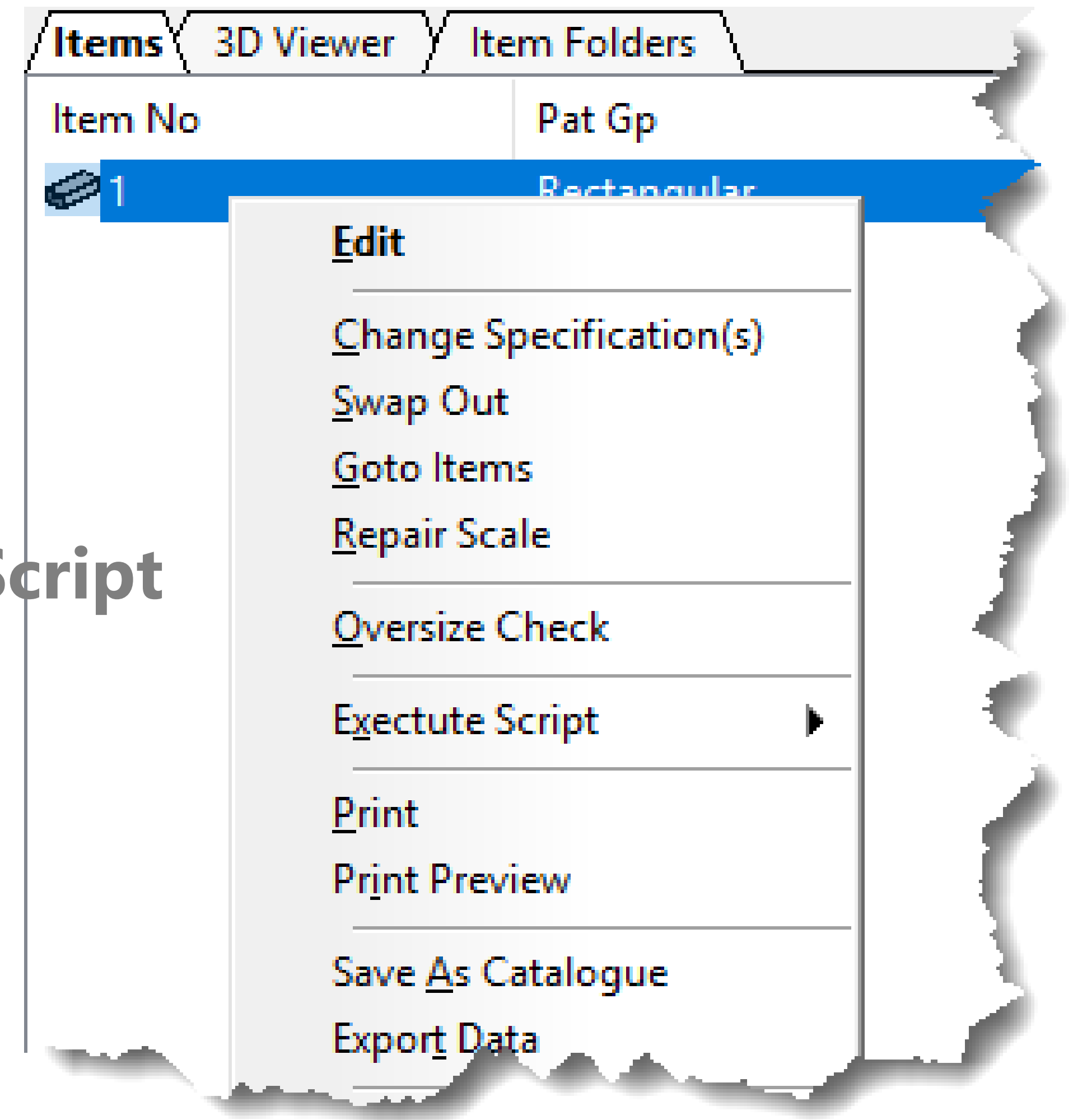
Calling Scripts

Calling Scripts in CADmep...

Type "EXECUTESCRIPT" 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 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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and Fabrication CAMduct

✓ 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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