

Forge Configurator for Construction Manufacturing Assemblies

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FORGE DEVCON



About the speaker

Mark Mendez – Computational Developer

Faith Technologies and Excellerate Manufacturing research and development team member. We support technology integration to enhance or automate virtual construction capabilities.



Why We're Here

AGENDA

- Walkthrough creating a basic configurator
- Customizing the user experience
- Enhancing the Forge Viewer
- Model Translation Process

Walkthrough to Create a Basic Configurator



Configurator Subsystems

excellerate Made To Order - MMendez@faith1.net - Logout Feedback Assembly Configurator

Cart

Assembly Type Selector

- Hangers
- Conduit
- In-Wall Rough-In Box Build Assemblies
- Cabling | Wiring
- Kitting | Devices
- Temp Power
- Underground | Duct Bank

Forge Viewer

Configuration

More Options

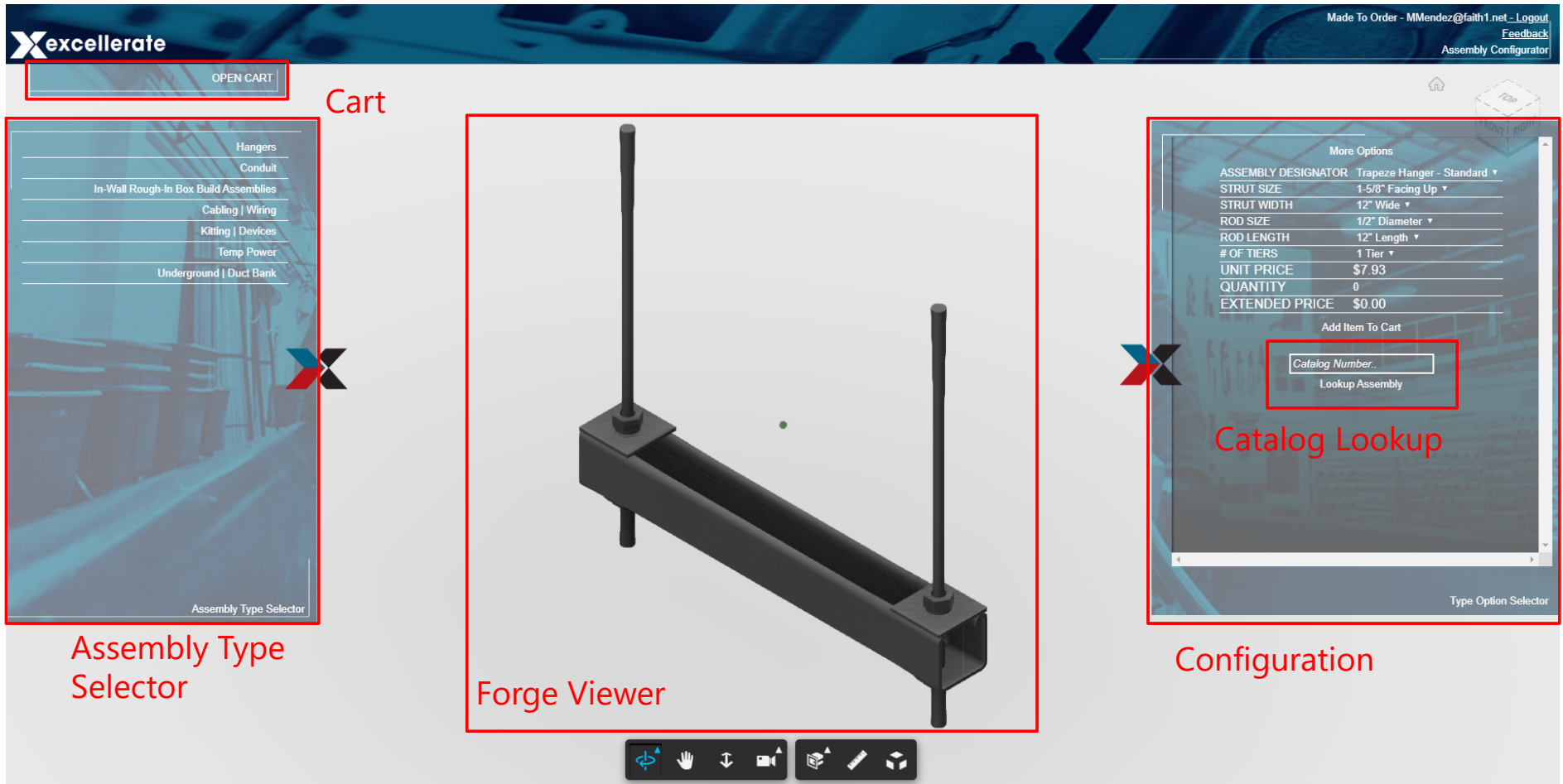
ASSEMBLY DESIGNATOR	Trapeze Hanger - Standard ▾
STRUT SIZE	1-5/8" Facing Up ▾
STRUT WIDTH	12" Wide ▾
ROD SIZE	1/2" Diameter ▾
ROD LENGTH	12" Length ▾
# OF TIERS	1 Tier ▾
UNIT PRICE	\$7.93
QUANTITY	0
EXTENDED PRICE	\$0.00

Add Item To Cart

Lookup Assembly

Catalog Lookup

Type Option Selector



The screenshot displays the Excellerate Assembly Configurator interface. At the top, the logo 'excellerate' is on the left, and user information 'Made To Order - MMendez@faith1.net - Logout' and 'Feedback' are on the right. Below the logo is an 'OPEN CART' button. The main interface is divided into three primary sections: 1. Assembly Type Selector (left): A vertical list of categories including Hangers, Conduit, In-Wall Rough-In Box Build Assemblies, Cabling | Wiring, Kitting | Devices, Temp Power, and Underground | Duct Bank. 2. Forge Viewer (center): A 3D rendering of a black metal trapeze hanger assembly with two vertical rods. 3. Configuration (right): A 'More Options' panel showing a table of specifications for the 'Trapeze Hanger - Standard' assembly, including strut size, width, rod size, length, tiers, unit price, and quantity. Below the table is an 'Add Item To Cart' button and a 'Catalog Lookup' section with a text input field for the 'Catalog Number...' and a 'Lookup Assembly' button. A red 'X' icon is positioned between the Assembly Type Selector and the Forge Viewer, and another red 'X' icon is between the Forge Viewer and the Configuration panel. The bottom of the interface features a toolbar with icons for navigation and manipulation.

Walkthrough Configuration Subsystem

Live Demo

Customizing the User Experience



Two Customizations

- Custom Dimensions
- Creating a Pack of Items

Dimension Extension

Live Demo

Creating a Pack of Items

Live Demo

Options to Enhance the Forge Viewer



Issues with Flexing Geometry or 'Parametricism'

Live Demo

Model Translation Process



Model Translation Walkthrough

Live Demo

Wrap-Up and Questions





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