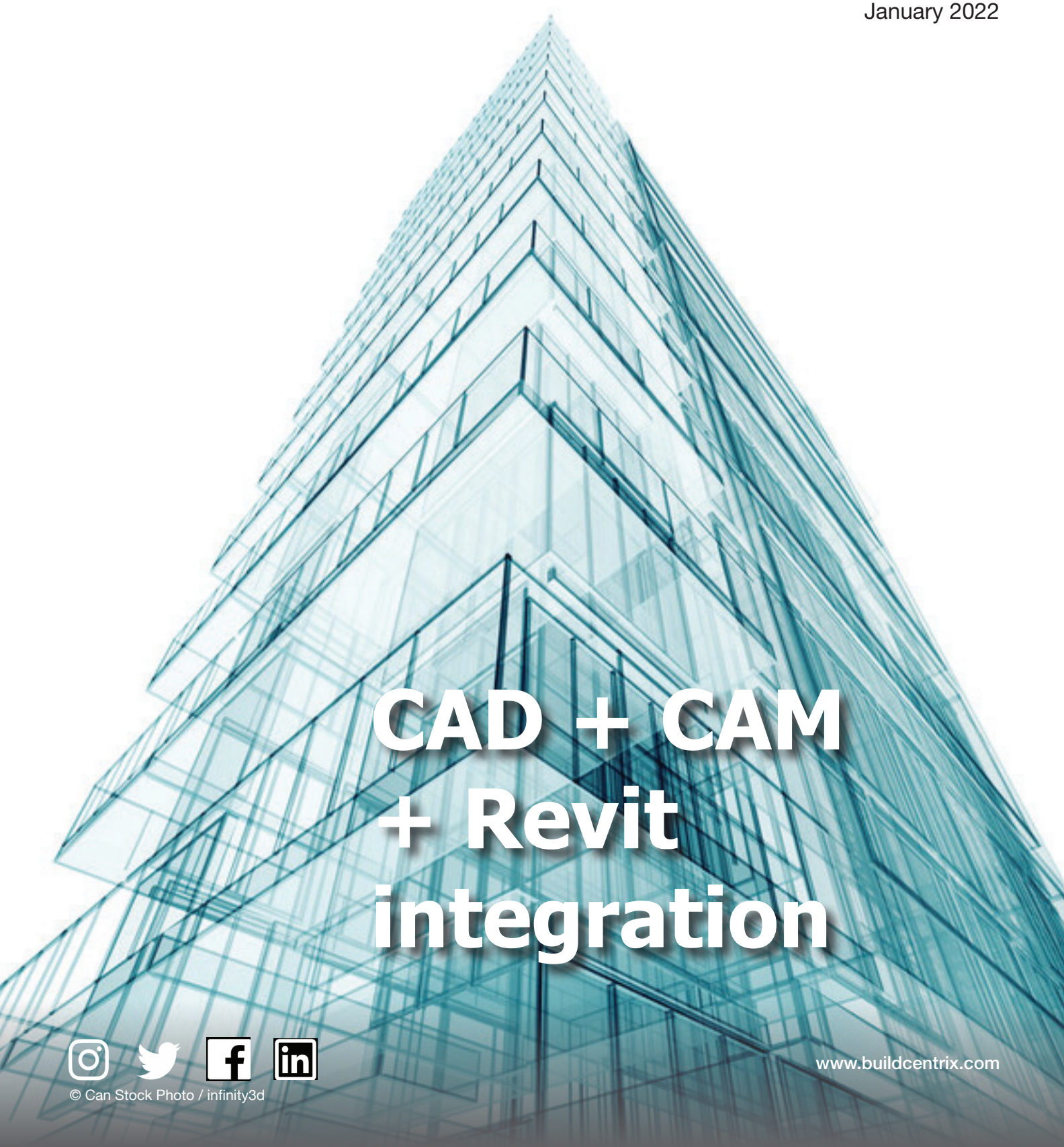
BuildCentrix

CONSTRUCTION IN THE CLOUD

January 2022



CAD + CAM + Revit integration

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BuildCentrix develops CAD + CAM + Revit integration

BCX has the flexibility to create content orders from or push orders directly into modelling software

By / Jessica Kirby

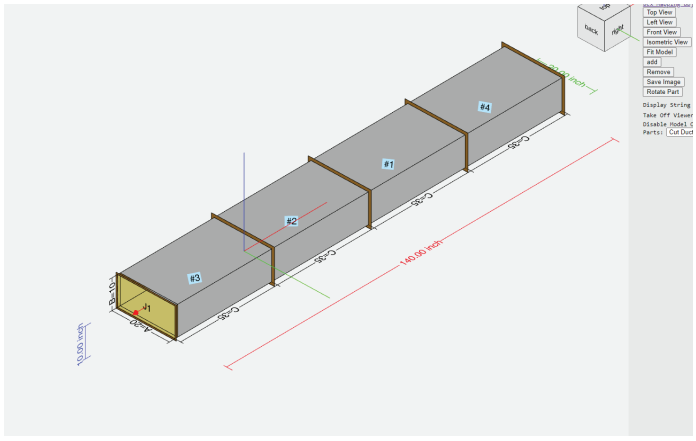
If you are a mechanical contractor and you fabricate, you have CAM software. It is what drives your equipment, controls your manufacturing, and turns specifications into objects. CAM talks to the equipment on the floor line (plasma, coil line, welders, or other equipment). It gets its specifications from modelling software like CAD and Revit, and in that software, the exchange of information occurs. But what if you could create orders straight from CAD/CAM to your BuildCentrix implementation or vice versa? This is exactly what BCX is offering in its latest development.

"One of our ongoing projects is integrations into CAD and Revit," says James Beveridge, CEO of BuildCentrix. "We have integration for CAD and Revit, and we are building a plugin for CAM so users in the VDC department or shop office can easily post orders into BCX."

Users can retrieve the order directly from CAD using the BCX API, and if an order is sent directly from CAD or Revit to CAM, it can be pushed back up to BCX. "That means if you have someone sending an order that doesn't go through us, you still have the flexibility to push it back up to us from CAM and we can get the order," Beveridge says.

The key objective in these integrations is the BCX team's focus on flexibility and real-time, collaborative reporting.

> "Whatever a user wants to push down as an assembly or spool in CAD, it maps through to their BCX content and calculates the fabrication fab time, weight, and materials for them."



"In the mechanical industries, most companies use CAD and Revit to model their services," Beveridge says. "They deal in those tools, and we have purpose-built integrations for those packages. Those integrations grab the specifications and dimensions out of the section of the order they want to make and create an order in BCX."

Once it manifests in BCX, the order lists the weight, volume, and other dimensions, and pulls through a .maj file that is designed to drive the CAM software.

"We build that file when someone makes an order using those plugins," Beveridge says. "Whatever they want to push down as an assembly or spool in CAD, it maps through to their BCX content and calculates the fabrication fab time, weight, and materials for them."

This innovation creates an important reporting opportunity for users—labor forecasting. "If you can imagine a mechanical contractor's operations, that company's most important resource is labor," Beveridge says. "This allows them to have a labor forecasting tool that will tell them how much labor they need per day, per order, and per item, and it puts those orders in one spot."

From scheduling and shipping standpoints, this allows companies to forecast labor requirements daily and gives insight into the manufacturing backlog. They can then make essential logistics decisions. For instance, if there is a similar, like-minded activity repeating over a specific timeline, it is better to group those activities together.

"This information then ties into reporting, and having that information there, it can be recorded," Beveridge says. "Then users can record the actual time and costs and send it through to accounting, ERP, and payroll."

Learn more at buildcentrix.com ▪

Order Shipping and Receiving Status via QR Codes

The QR codes embedded in the new BCX reports are HTML enabled, which means they can be scanned in the application or from paper copies of the reports. BCX has added individual statuses for each item/product on orders. For the shipping department, they can scan the QR code associated with the order and update the status of each individual item (shipped, not shipped, on hold, or cancelled). In the field, the staff on site can scan the QR code to confirm that each part of the order has been received by updating the statuses (received, not received, or partially received). When the QR code is scanned, a new order detail user interface will pop up that can be used to update statuses.

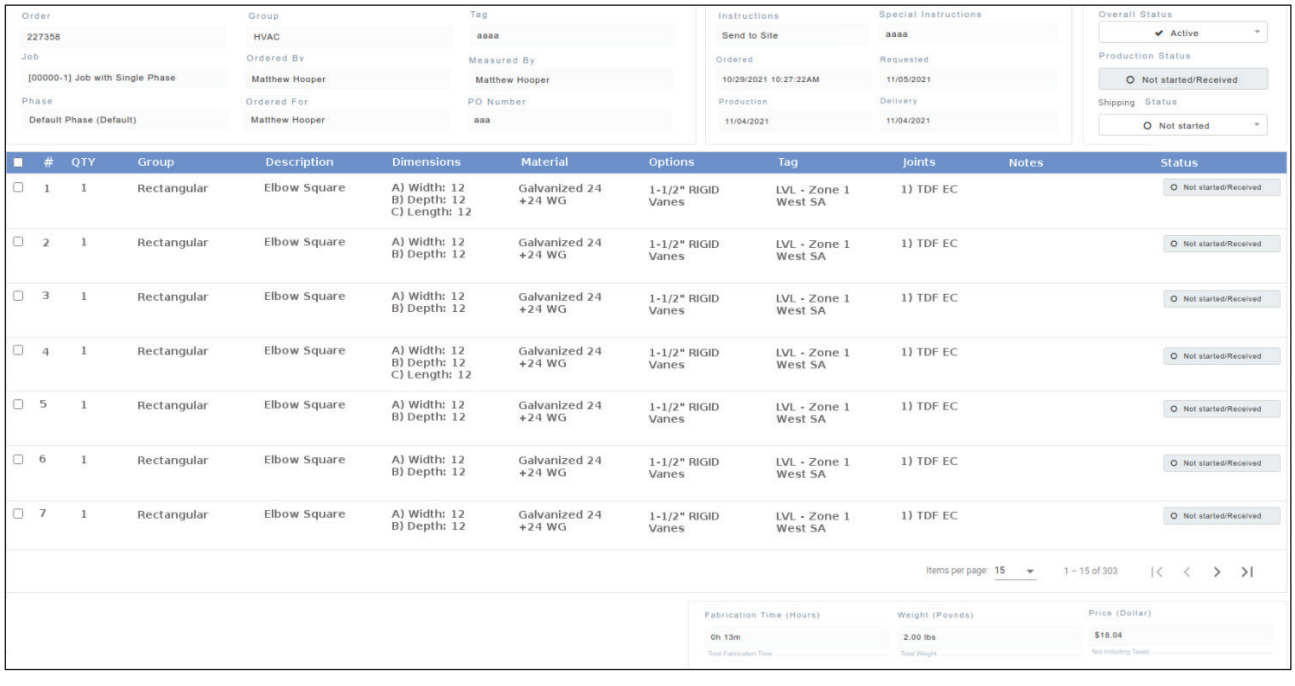
Job: Big Corporation
Job Number: 0-20-1003 **Phase:** Level 2
Ordered By: John Smith
Special Instructions: loading dock filler

WO # 210670
Submitted: 06/17/2021 12:25
Production: 06/27/2021

Deliver to Address
Delivery: 06/28/2021

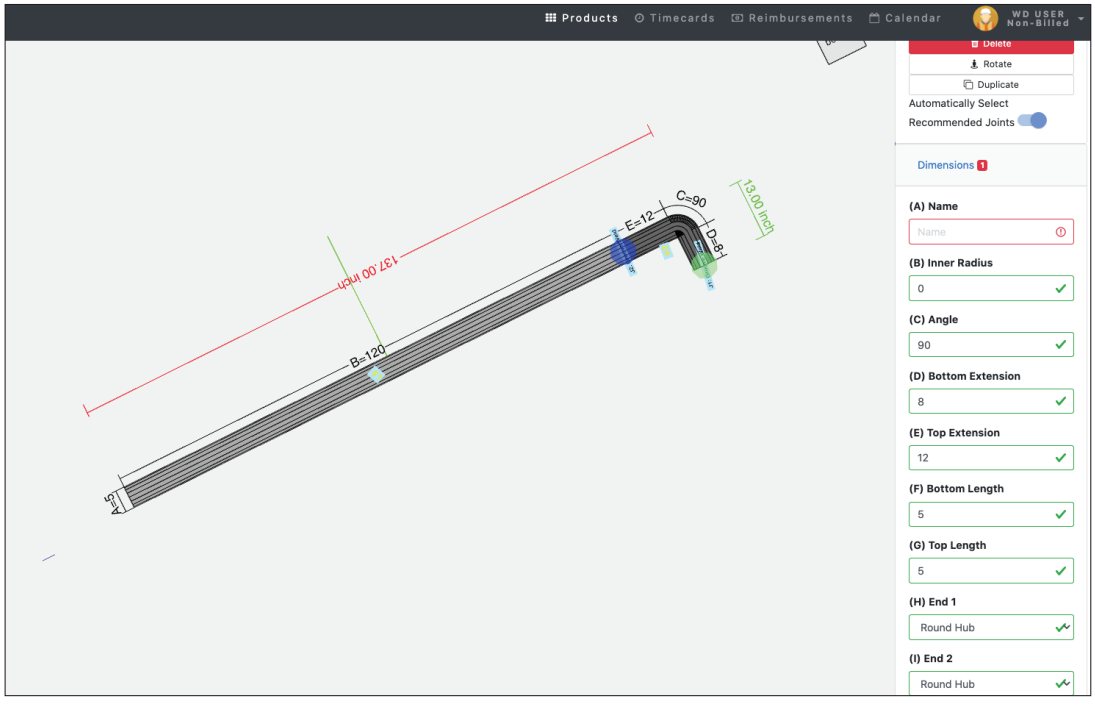
12345 Main Street
Utica NY USA 11321

#	QTY	Group	Description	Dimensions	Material	Options	Joints	Tag	Notes
1	1	Rectangular	Elbow Square	A 24, B 18, C 30, D 8, E 6	Galvanized 24 +2 WG	1-1/2" RIDGID Vanes	TDC, TDC	LVL - Zone 1 West SA	
2	1	Rectangular	Transition	A 32, B 22, C 16, D 12, E 31, F Central, G 0, H Flat Right, I 0, J 0, K 0	Galvanized 24 +2 WG		TDC, TDC	LVL - Zone 1 West SA	
3	1	Rectangular	Transition	A 32, B 22, C 16, D 12, E 31, F Central, G 0, H Flat Right, I 0, J 0, K 0	Galvanized 24 +2 WG		TDC, TDC	LVL - Zone 1 West SA	
4	1	Rectangular	Transition	A 32, B 22, C 16, D 12, E 31, F Central, G 0, H Flat Right, I 0, J 0, K 0	Galvanized 24 +2 WG		TDC, TDC	LVL - Zone 1 West SA	
5	1	Rectangular	Transition	A 32, B 22, C 16, D 12, E 31, F Central, G 0, H Flat Right, I 0, J 0, K 0	Galvanized 24 +2 WG		TDC, TDC	LVL - Zone 1 West SA	
6	1	Rectangular	Transition	A 32, B 22, C 16, D 12, E 31, F Central, G 0, H Flat Right, I 0, J 0, K 0	Galvanized 24 +2 WG		TDC, TDC	LVL - Zone 1 West SA	
7	1	Rectangular	Elbow Radius	A 20, B 12, C 45, D 0, E 0 , F 8	Galvanized 26 +2 WG		TDC,TDC	LVL - Zone 1 West SA	
8	1	Rectangular	Radius Offset	A 30, B 24, C 12, D 44, E 2, F 2	Galvanized 22 +4 WG		TDC, SE COLLAR	LVL - Zone 1 West SA	
9	2	Round	Square to Round	A 24, B 18, C 14, D 36, E Central, F 0, G Top Up, H 4, I 2, J 3	Galvanized 24 + 2WG		S&D, SE Round	LVL - Zone 1 West SA	ADD DAMPER
10	1	Round	Square to Round	A 24, B 18, C 14, D 36, E Central, F 0, G Top Up, H 4, I 2, J 3	Galvanized 24 + 2WG		S&D, SE Round	LVL - Zone 1 West SA	
11	1	Rectangular	End Cap - TDC	A 12, B 10, C 0	Galvanized 24 +2 WG		TDC Block End	LVL 1 Zone 1 West VAV # 44	



Coming Soon: 3D Piping Assemblies

Create 3D assemblies of piping products. BCX is currently working on the ability to upload your database of piping/plumbing parts through the API or using a simple .csv file. The content is 'as built' and completely accurate for the thickness of material, finished length, connection type, labor times, material weight, material cost, and price.



3D Joint Renderings for Pipe and Sheet Metal

When connecting mechanical parts (sheet metal or pipe), there are different joining methods available. With the rendering of joints in 3D, we can visually convey and display the type of connections for the foreman ordering or receiving the order, as well as the shop manufacturing the order.