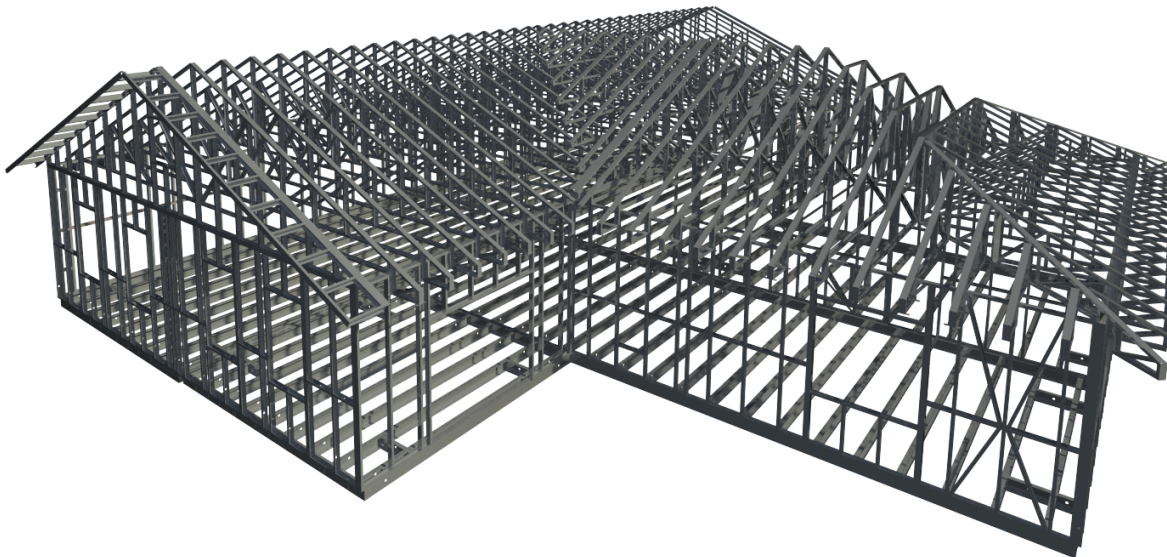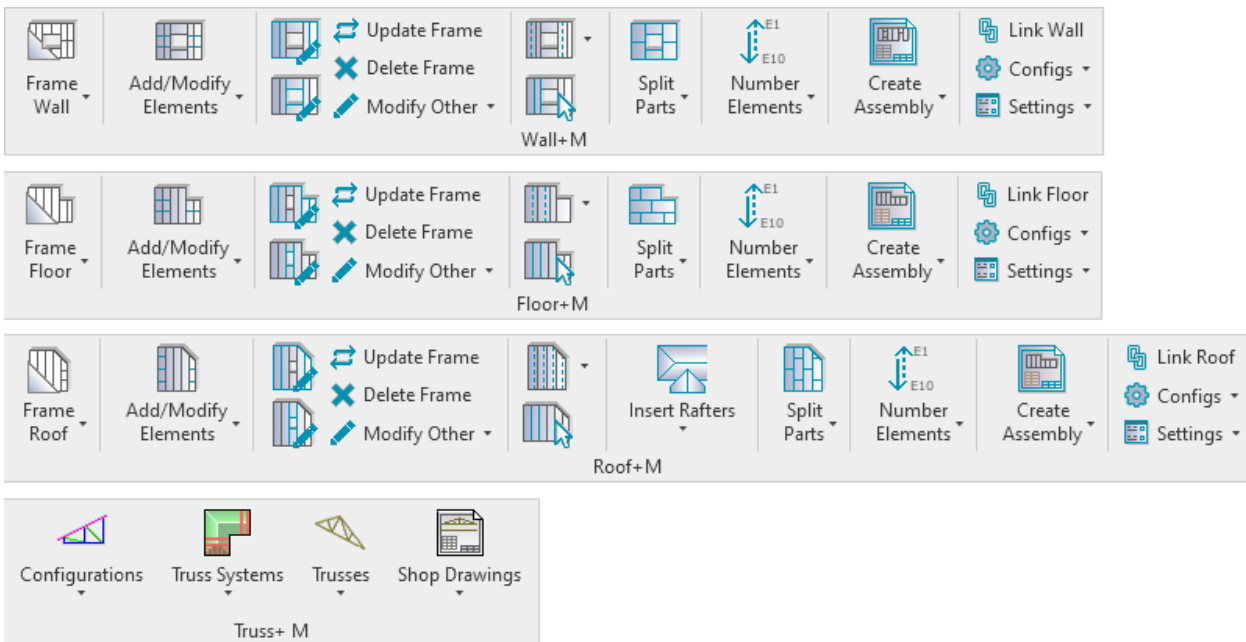# INTRODUCTION

Modified on: Thu, 19 Aug, 2021 at 6:12 PM

CNC Metal Exporter allows for direct export of light-gauge steel frames modeled in Autodesk® Revit® to CNC machines manufactured by **Metroll** **(https://agacad.com/products/bim-solutions/metal-framing-cnc-exporters/overview#metroll)**, **Royal C.N.C.** **(https://agacad.com/products/bim-solutions/metal-framing-cnc-exporters/overview#royal)**, **Howick** **(https://agacad.com/products/bim-solutions/metal-framing-cnc-exporters/overview#howick)**, **Pinnacle** **(https://pinnaclelgs.com/Framing_Machines_landing.aspx)**and **Scottsdale** **(https://agacad.com/products/bim-solutions/metal-framing-cnc-exporters/overview#scotsim)**.

The software can be adapted for any other CNC machines if needed. AGACAD works one-on-one with clients who need to export to CNC to make sure the final product performs seamlessly and accurately.
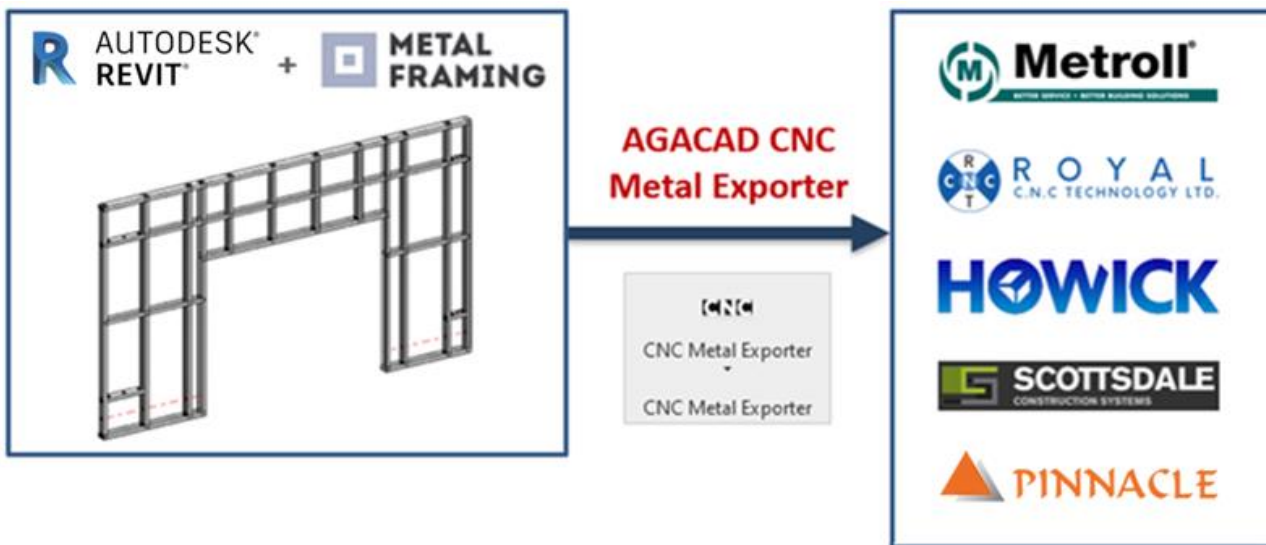
Our CNC Metal Exporter must be used in tandem with our **Metal Framing BIM software** **(https://agacad.com/products/bim-solutions/metal-framing-professional-suite)**, which creates framing elements with all the necessary geometry and information data inside the Revit project. That includes prefabricated floor and wall panels, rafters, trusses, **curtain walls & panels** **(https://agacad.com/products/bim-solutions/curtain-walls)**, **ventilated facades** **(https://agacad.com/products/bim-solutions/ventilated-facades)**, and **framed partitions** **(https://agacad.com/products/bim-solutions/framed-partitions)**.

(https://agacad.com/products/bim-solutions/ventilated-facades)

(https://agacad.com/products/bim-solutions/framed-partitions)

CNC Metal Exporter - Howick

Howick manufactures precision roll-forming machines and technology for light steel framing. For over 40 years they've been designing machines that can now be found in use by construction firms in 75 countries around the world.

Our **CNC Metal Exporter** provides three sample configurations for **Howick** machines. Two for CSV format and one for CSV 2.0 version format.
Howick 4200, **Howick CNC Configuration**, and **Howick CNC Configuration CSV2**. These generate CSV extension files readable by Howick machines for wall, floor, and roof frames as well as trusses.
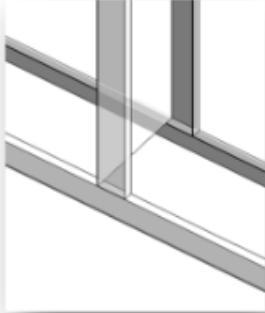*Note: these configurations are just sample configurations, where users can modify it according to different machines including profile sizes, commands etc.*

The difference between the **Howick 4200** and **Howick CNC Configuration** is in the coding. For example, **Howick CNC configuration** uses the DIMPLE command whereas the 4200 uses the FLANGE1 command. CSV2 utilizes a different coding format that writes the coordinates of beam corners.
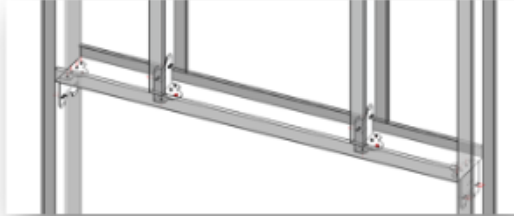
Howick uses a **C+C** framing system, including **C+C Chamfered**.
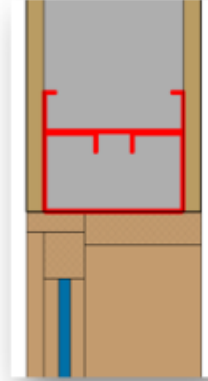
C+C system samples:

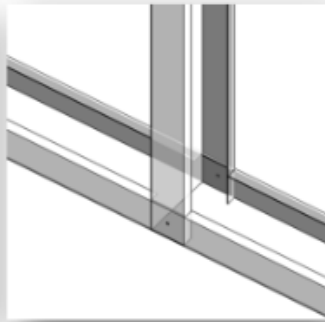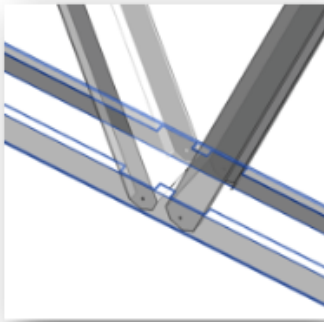C+C stud and bottom plate (3D view):　　　C+C simple header (3D view):　　　C+C complex header (Section view):
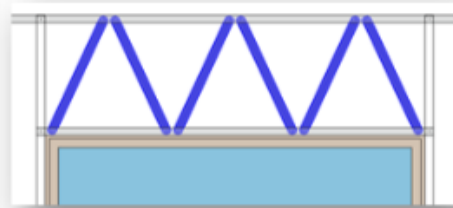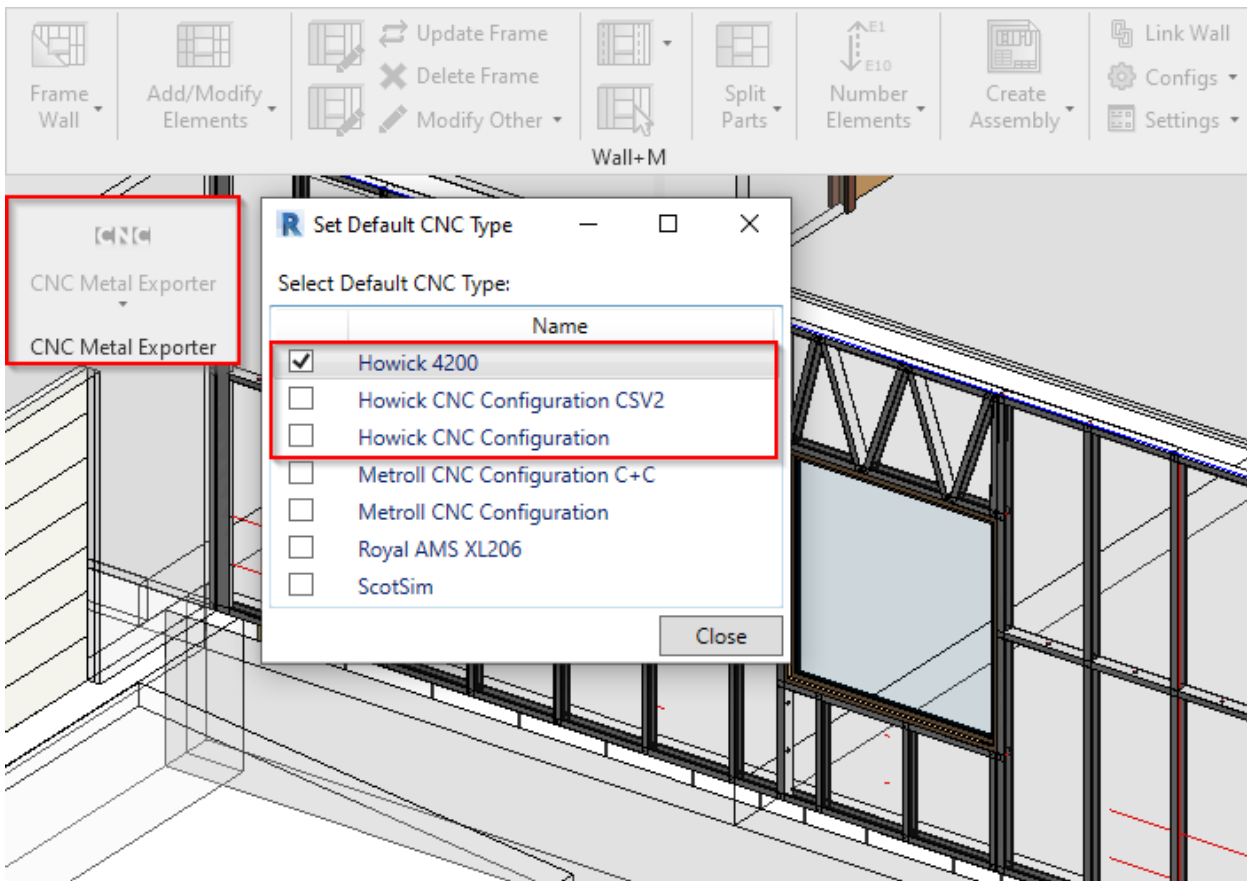
C+C Chamfered system samples:

C+C with cuts and chamfered ends if needed (3D view):　　　C+C Chamfered warren diagonal cripples above the window (Front side view):

Here's an example of a wall frame created using **AGACAD Metal Framing Wall** **(https://agacad.com/products/bim-solutions/metal-framing-wall-for-revit)** and then exported to Howick:

The result can be checked in any text reader:

This CSV file contains all needed operations and information for production.

CNC Metal Exporter - Metroll

Metroll is a leading manufacturer and supplier in Australia of steel building products, including roofing, cladding, rainwater, structural, and fencing.

Our **CNC Metal Exporter** provides two types of exports for Metroll:

Metroll CNC Configuration C+C and **Metroll CNC Configuration**. These generate TXT extension files for automated Metroll machines. Wall, floor, roof frames, and trusses can be exported using this application. Studs and plates are exported to separate files.

Metroll CNC Configuration C+C and **Metroll CNC Configuration** use different coding depending on the machine.

Metroll uses a **C+U** framing system.

C+U system samples:
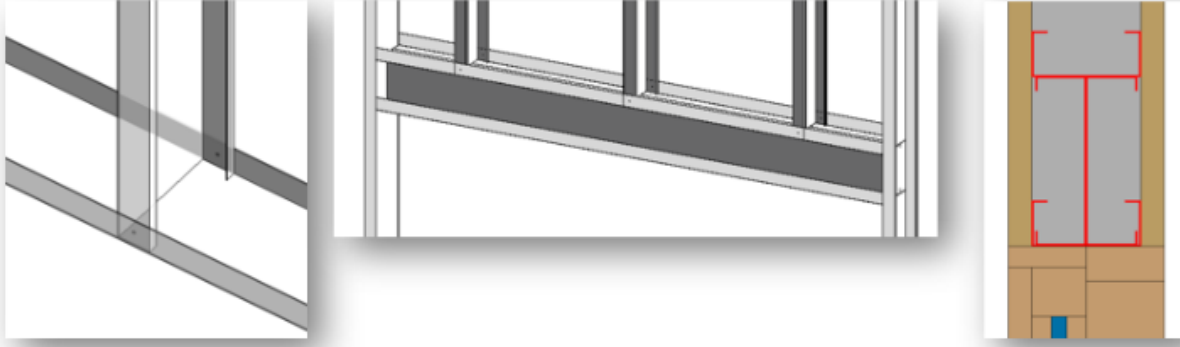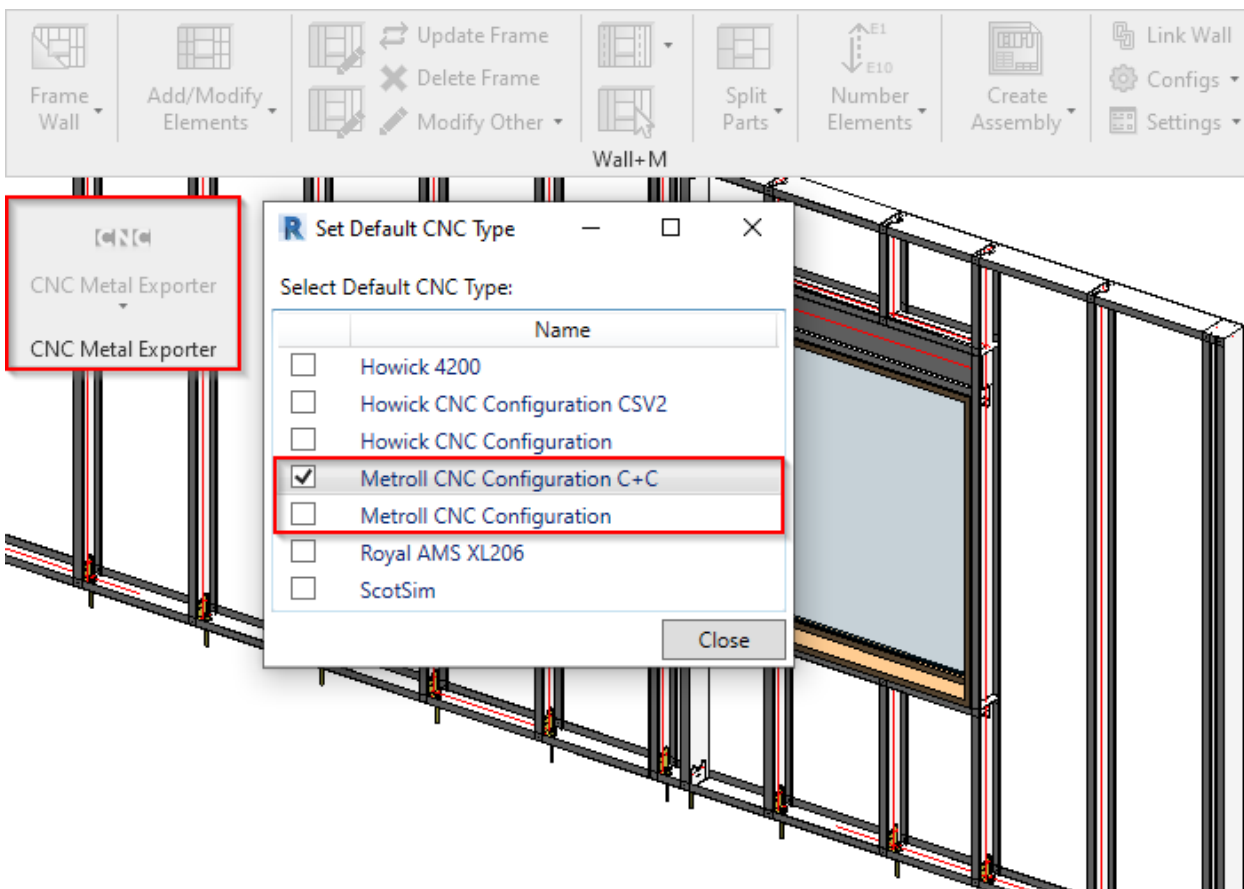

Here's an example of a wall frame created using **AGACAD Metal Framing Wall** (https://agacad.com/products/bim-solutions/metal-framing-wall-for-revit) and then exported to Metroll:

The result with studs can be checked in any text reader:

Wall_W-13_Studs.txt		Wall_W-13_Studs.txt
1 Imperial Metal Framing 2020 New_Walls_2020 03 30 14 10		1 Imperial Metal Framing 2020 New_Walls_2020 03 30 14 10
2 W-13		2 W-13
3 Stud BC-1 600S162-43		3 Stud BC-1 600S162-43
4 00032 1		4 00032 1
5 Stud BC-2 600S162-43		5 Stud BC-2 600S162-43
6 00032 1		6 00032 1
7 Plate HP-2 800S162-43		7 Plate HP-2 800S162-43
8 00061 1		8 00020 5
9 Plate HP-3 800S162-43		9 00061 1
10 00061 1		10 01521 5
11 Stud KS-1 600S162-43		11 Plate HP-3 800S162-43
12 00118 1		12 00020 5
13 Stud KS-2 600S162-43		13 00061 1
14 00118 1		14 01521 5
15 Stud LS-1 600S162-43		15 Stud KS-1 600S162-43
16 00118 1		16 00118 1
17 Stud LS-2 600S162-43		17 02343 2
18 00118 1		18 02445 2
19 Stud SS-1 600S162-43		19 Stud KS-2 600S162-43
20 00118 1		20 00118 1
21 Stud TC-1 600S162-43		21 02343 2
22 00017 1		22 02445 2
23 Stud TC-2 600S162-43		23 Stud LS-1 600S162-43
24 00017 1		24 00118 1
25 Stud VS-1 600S162-43		25 Stud LS-2 600S162-43
26 00118 1		26 00118 1
27 Stud VS-10 600S162-43		27 Stud SS-1 600S162-43
28 00118 1		28 00118 1

Metrol CNC Configuration C+C (left)

Metrol CNC Configuration (right)
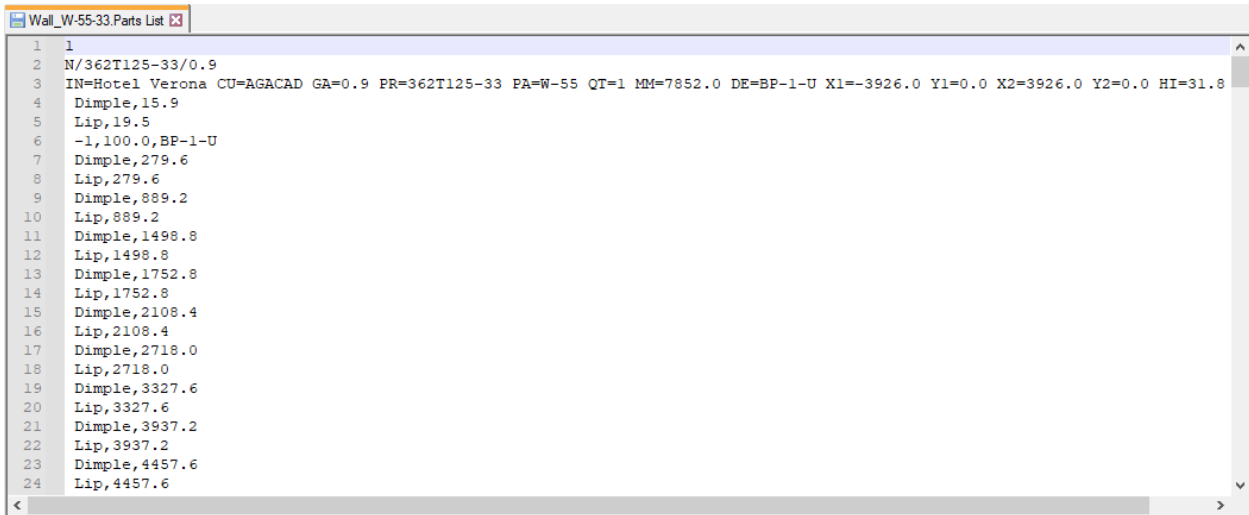
CNC Metal Exporter - Pinnacle

Pinnacle is the leading global total solution provider of steel framing technology. Company researches and develops world's most advanced robotic machines for steel framing industry. Pinnacle covers 5 continents and over 50 countries and regions around the world.

Here's an example of a wall frame created using **AGACAD Metal Framing Wall** (https://agacad.com/products/bim-solutions/metal-framing-wall-for-revit) and then exported to **Pinnacle** machine:
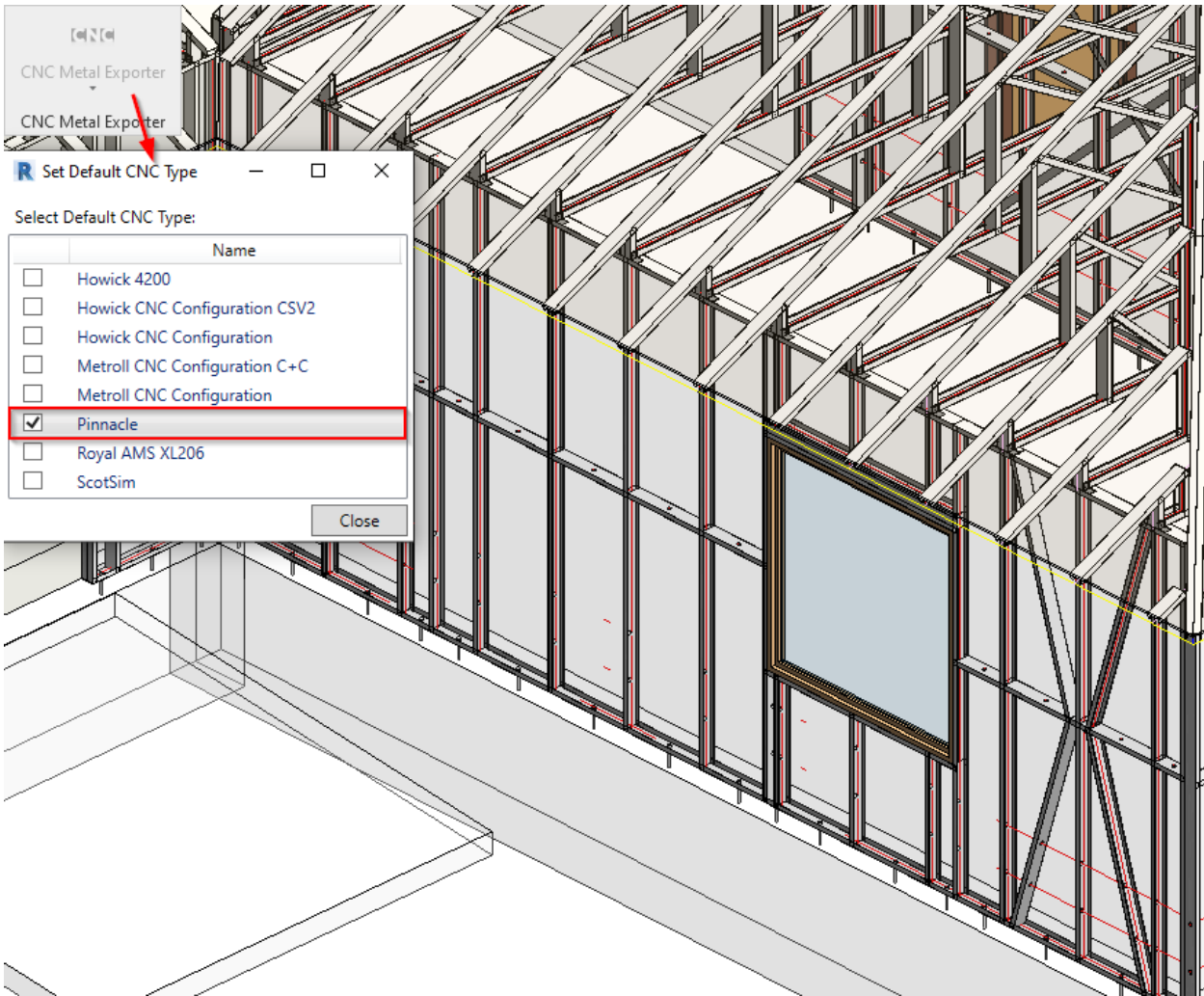
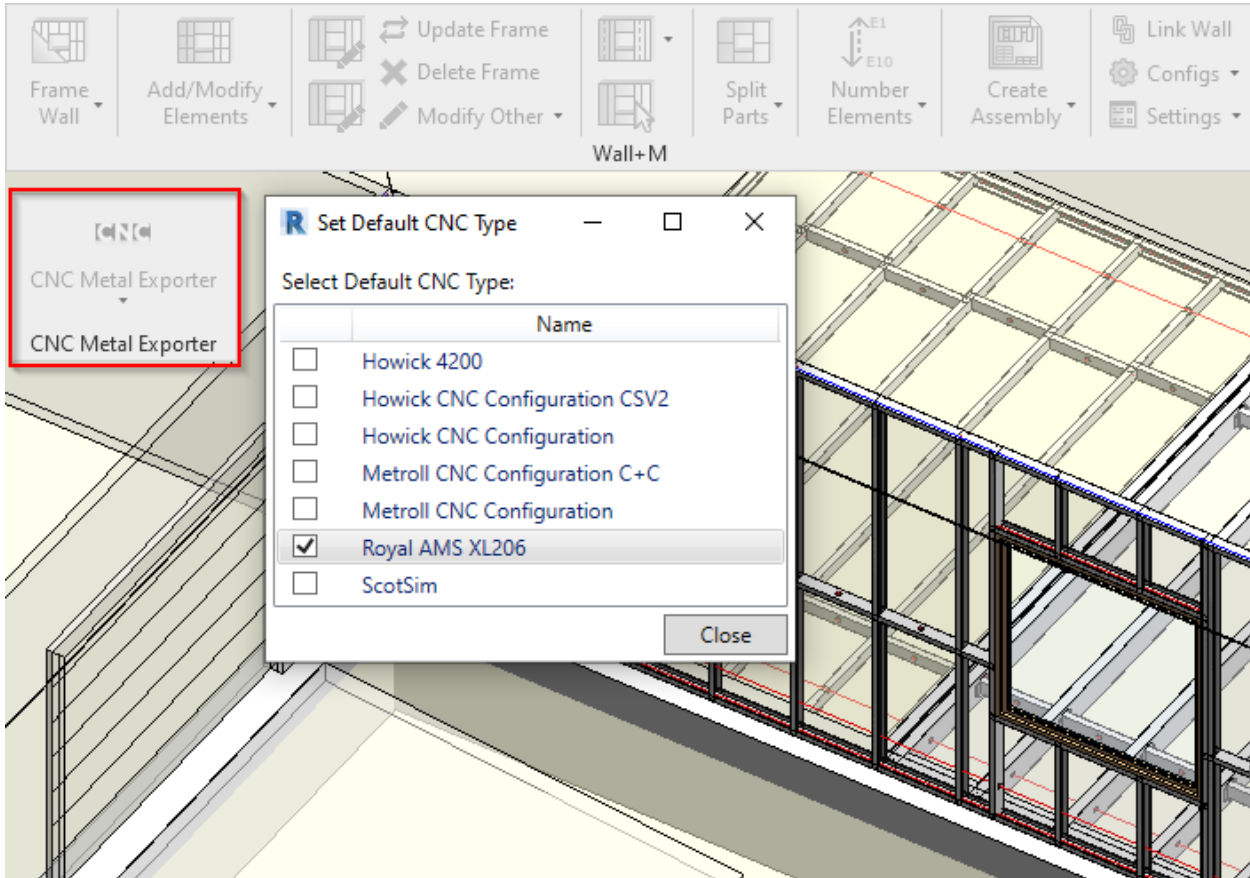The result with studs and plates can be checked in any text reader:
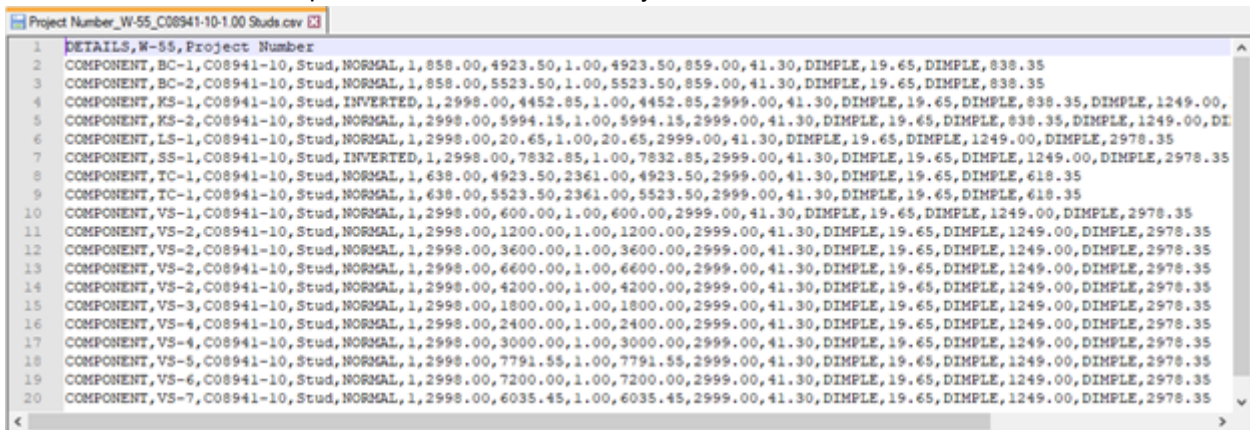
CNC Metal Exporter - Royal C.N.C Technology

Recognized as a leading manufacturing of extrusion tooling in North America, Royal C.N.C offers a wide variety of tooling packages, including Design, Pre-Tuning, and Post Extrusion Tooling.

Our **CNC Metal Exporter** provides one sample configuration of export for Royal CNC:
Royal AMS XL206. This generates TXT extension files readable by automated Royal machines. Wall, floor, roof frames, and trusses are simple to export using our CNC Metal Exporter app. Studs and plates are exported to separate files.

Here's an example of a wall frame created using **AGACAD Metal Framing Wall** (https://agacad.com/products/bim-solutions/metal-framing-wall-for-revit) and then exported to **Royal AMS XL206**:

The result with studs and plates can be checked in any text reader:

# CNC Metal Exporter -Scottsdale Construction Systems

This New Zealand-based company focuses on research and development and develops innovative technology for the house building and construction industries. Since 1995 it has been providing world class solutions for prefabricating steel frames and trusses for residential and commercial construction.

Our **CNC Metal Exporter** provides one type of export for Scottsdale:
ScotSim. This generates TXT extension files readable by automated Scottsdale machines. Wall, floor, and roof frames and trusses are easy to export using our **CNC Metal Exporter** app.

For example, when this floor frame, created using **AGACAD Metal Framing Floor** **(https://agacad.com/products/bim-solutions/metal-framing-floor-for-revit)**, is exported to Scottsdale:
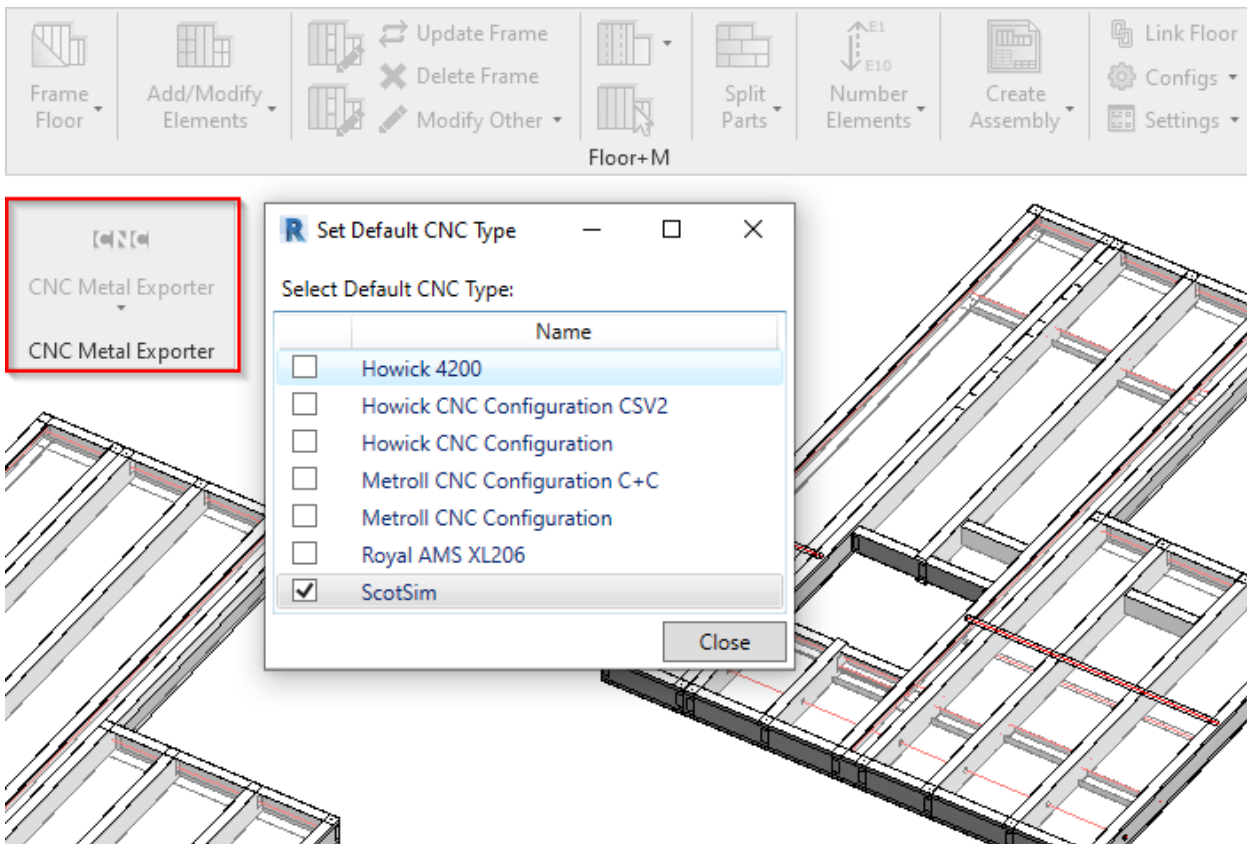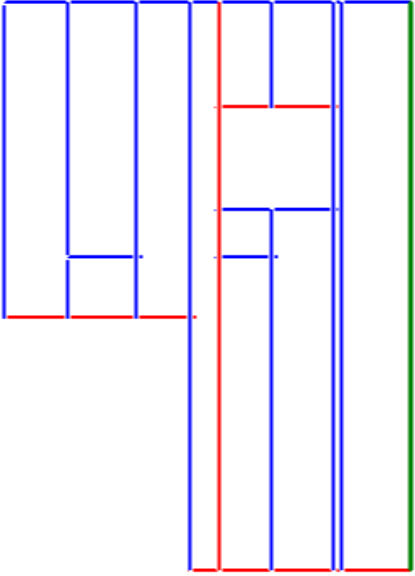

The result can be checked in **Scottsdale** viewer:
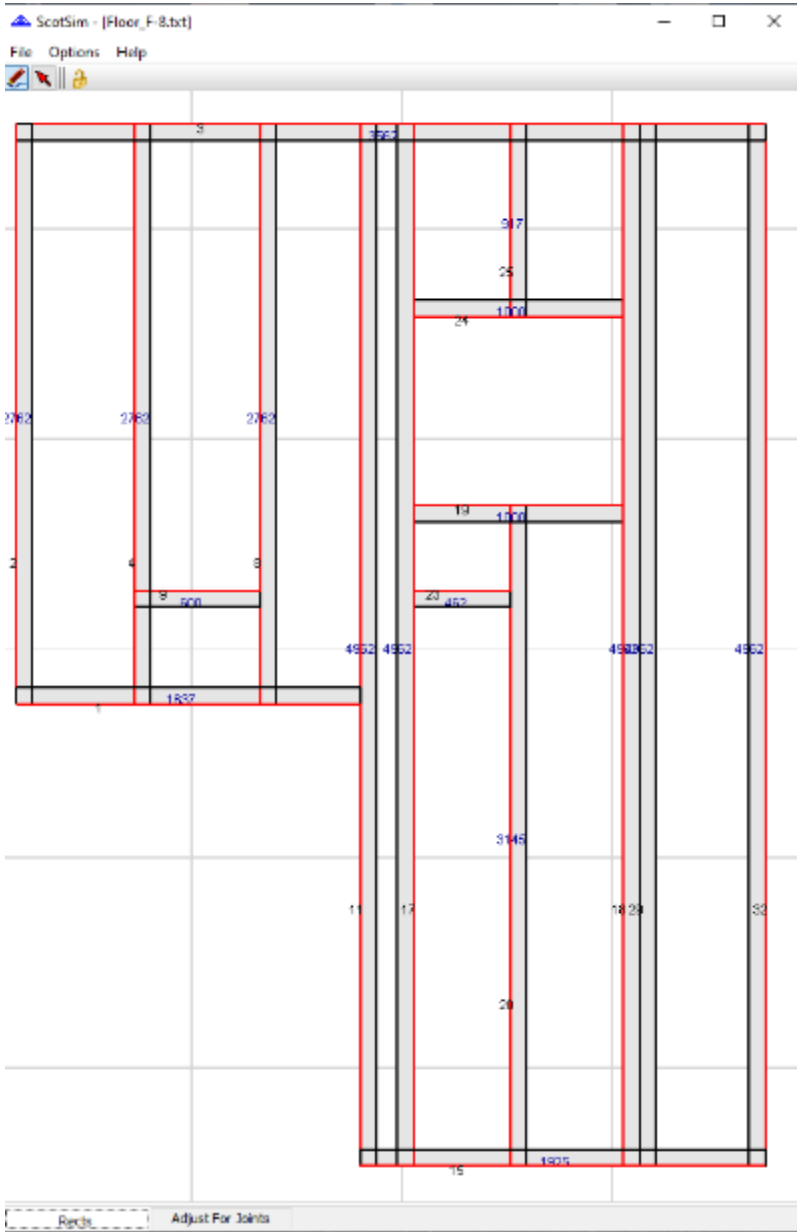
The result can also be loaded into Scottsdale's machine simulator that makes a virtual frame and informs the user of any issues:

C:\Users\Andrius\Downloads\Floor_F-8.txt

Scottsdale
Building in Steel

F-8 11 19 1079
F-8 12 24 1079
F-8 13 17 4960
F-8 14 20 3143
F-8 15 25 915
F-8 16 18 4960
F-8 17 29 4960
F-8 18 32 4960

Length   55.9
Rate   13409.3
Card ID   0000
Remain   0000

Simulation Mode
Rivets (approx) 62

Start | Pause | Select | Manual | Settings | Include | Shifts | System | Exit