



CADWorx® Structure

Efficiently Create Fully Intelligent, 3D Structural Designs

Capabilities:

- Intelligent 3D Steel and Concrete Design
- Member Modeling
- Plate Modeling
- Footing and Foundation Modeling
- Slab and Wall Modeling
- Connection Modeling
- Stairs, Ladders and Hand Rail Arrangements
- Decking and Grating Modeling
- Coping and Mitering
- International Steel Libraries
- Bills of Material
- 2D Output Linked to 3D Model
- Import/Export Integration for Structural Analysis/Detailing
- Weight and Center of Gravity
- Assembly Templates
- Flexible Selection Filtering
- Clash Detection

CADWorx® Structure includes the critical tools you need for effective structural design to help reduce the man hours needed to create your structural projects. Workflows have been built into the design of the software that aid in producing revenue-earning deliverables more quickly and accurately.

Time-Saving 3D Modeling

Create fully intelligent, 3D structural models with the unparalleled flexibility and collaboration of a DWG-based system. Choose your shapes or assemblies from a diverse library and utilize grid systems to accurately build your structures and communicate project layouts.

Comprehensive Steel Shape Catalogs

International catalogs of steel shape libraries in both imperial and metric units are included with CADWorx Structure, providing the necessary steel shapes for accurately representing steel members in your 3D model. Historical and modern country-specific steel manuals can be added quickly when your company enters new markets.

Easy-To-Place Assemblies

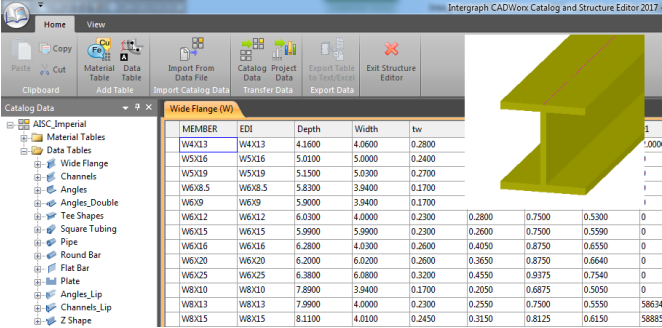
Some of the more detailed work in a structure includes adding secondary steel for access control, and CADWorx Structure provides commands for effortless modeling of these objects. Whether your project includes industry standards or your company has developed its own standard, CADWorx Structure allows the designer to replicate the necessary arrangement of these traffic items. Many customization options are built in so that these assembly objects can reflect the scenarios encountered in industrial applications. Grating and decking can be rendered to visualize accurate portrayals of these objects in your 3D model.

Drawings

Designers and engineers can easily create 2D drawings of their 3D models with native dimensioning and annotations. Typical general arrangement drawings include single linesteel and 2D representations that support multiple views.

Reuse Your Structural Model

Why spend hours recreating your structural model in order to analyze your structure? Using an industry standard import/export format, the designer can export the structural model to a structural analysis package such as GT STRUDL®, saving many man-hours of rework. Similarly, a designer can export the model to send to a structural detailing contractor and continually update the contractor as changes occur. Any modifications by the engineer or detailer can then be re-imported into the CADWorx Structure model for clash detection.



The screenshot shows the Intergraph CADWorx Catalog and Structure Editor 2017 interface. On the right, a 3D model of a steel structure is visible. Below it, a table lists the members of the structure. The table has columns for MEMBER, EDI, Depth, Width, tw, and several other columns. The members listed include W4X13, W5X16, W5X19, W6X8.5, W6X9, W6X12, W6X15, W6X16, W6X20, W6X25, W8X10, W8X13, and W8X15.

MEMBER	EDI	Depth	Width	tw					
W4X13	W4X13	4.1600	4.9000	0.2800					
W5X16	W5X16	5.0100	5.0000	0.2400					
W5X19	W5X19	5.1500	5.0300	0.2700					
W6X8.5	W6X8.5	5.8300	3.9400	0.1700					
W6X9	W6X9	5.9000	3.9400	0.1700					
W6X12	W6X12	6.0300	4.0000	0.2300	0.2800	0.7500	0.5300	0	
W6X15	W6X15	5.9900	5.9900	0.2300	0.2600	0.7500	0.5590	0	
W6X16	W6X16	6.2800	4.0300	0.2600	0.4050	0.8750	0.6550	0	
W6X20	W6X20	6.2000	6.0200	0.2600	0.3650	0.8750	0.6640	0	
W6X25	W6X25	6.3800	6.0800	0.3300	0.4550	0.9375	0.7540	0	
W8X10	W8X10	7.8900	3.9400	0.1700	0.2050	0.6875	0.5050	0	
W8X13	W8X13	7.9900	4.0000	0.2300	0.2550	0.7500	0.5550	58634	
W8X15	W8X15	8.1100	4.0100	0.2450	0.3150	0.8125	0.6150	58885	

	A	B	C	D	E
1	MARK	QTY	LONG_ANNOTATION	LENGTH	WEIGHT
2	1	1	W10X22	9'-3"	220.00
3	2	1	W10X22	9'-3"	220.00
4	3	1	W10X22	12'-6"	275.00
5	4	1	W10X22	12'-6"	275.00
6	5	1	W8X28	6'-3"	175.00
7	6	1	W8X28	6'-3"	175.00
8	7	1	W8X28	6'-3"	175.00
9	8	1	W8X28	6'-3"	175.00
10	9	1	W8X28	10'-0"	280.00
11	10	1	W8X67	7'-6"	502.50
12	11	1	W8X67	7'-6"	502.50
13	12	1	W8X67	7'-6"	502.50
14	13	1	W8X67	7'-6"	502.50
15					

Bills of Material

Users can create accurate, user-configurable bills of material in the most popular database formats for all of their steel materials in the 3D model. These reports can be used to show total lengths and weights for each size, cut lengths and selected object lengths and weights.

Technical Specifications

- AutoCAD®-compatible
- BricsCAD®-compatible
- Microsoft®Windows®-compatible

Application Areas

Process and Plant Design, Piping, Equipment, Steelwork, Petrochemical, Chemical, Power, Offshore, Food, Beverage, Brewing, Pharmaceutical, Semiconductor, Water Treatment, Building Services and Shipbuilding.

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 21,000 employees in 50 countries and net sales of approximately 3.9bn EUR. Learn more at hexagon.com and follow us @HexagonAB.