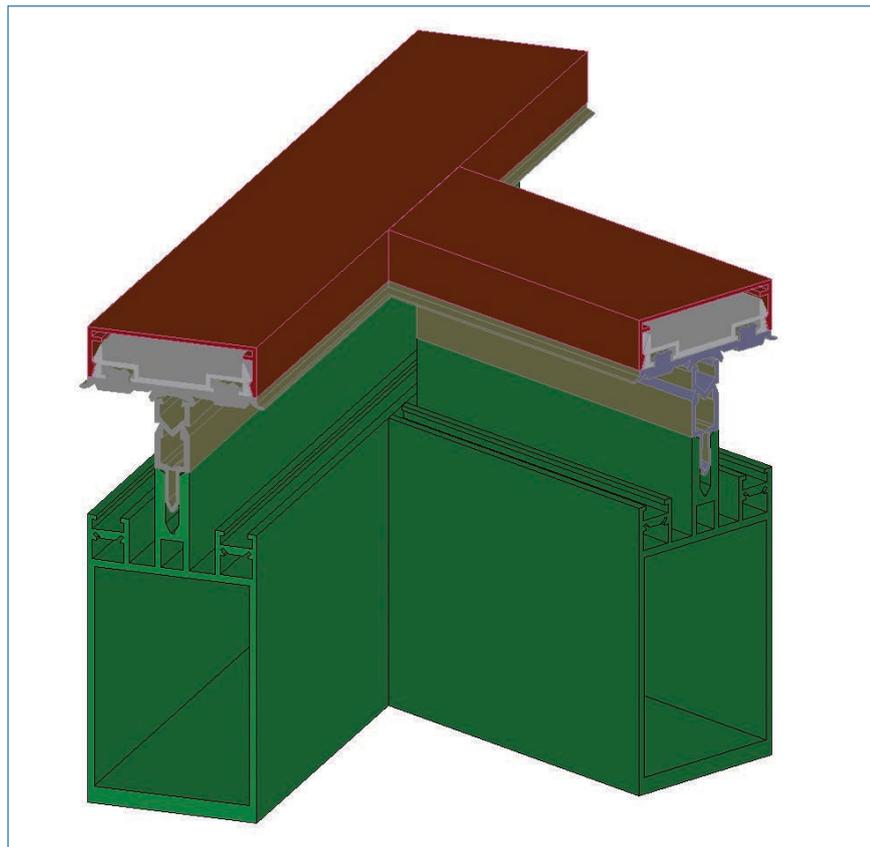# AVEVA Bocad Roof and Wall

Powerful structural detailing for efficient building design and fabrication

Accurate and detailed design is essential for efficient and error-free construction of any type of engineering project. AVEVA Bocad Roof and Wall™ is a purpose-designed, powerful and flexible tool for the efficient, accurate 3D design of a wide range of building construction projects. Whether for light or heavy duty, commercial, industrial or architectural projects, AVEVA Bocad Roof and Wall is the ideal tool for all structural steel, cladding and glazing design needs.

A 'best-in-class' application with an unrivalled track record in the Architectural, Engineering and Construction (AEC) industry, AVEVA Bocad Roof and Wall delivers unrivalled value as a stand-alone engineering solution or as part of an integrated AVEVA Plant™ deployment.

Typical connection details

Business Benefits

Better project control
- Fully define all engineering detailing at the design stage
- Avoid the risk of errors and material wastage by fabricators
- Maintain permanent association between the 3D model and deliverables
- Maintain clear visibility and traceability of design changes

Better design quality
- Design out errors early
- Create fully detailed, highly accurate design
- Automatically generate accurate deliverables from the project model
- Use extensive vendor-specific catalogues for consistent, error-free design
- Maintain clear visibility and traceability of design changes
- Classify steelwork to suit project breakdown structure

Better fabrication and construction quality
- Industry-specific functions enable standards-compliant structural design
- High-quality deliverables enable high-quality fabrication
- Automatic, flexible part marking enables accurate construction
- Automatic BoM and parts lists enable accurate procurement

More capability and efficiency
- Efficiently produce complex structures with speed and accuracy
- Release costly design-checking resources for more productive work
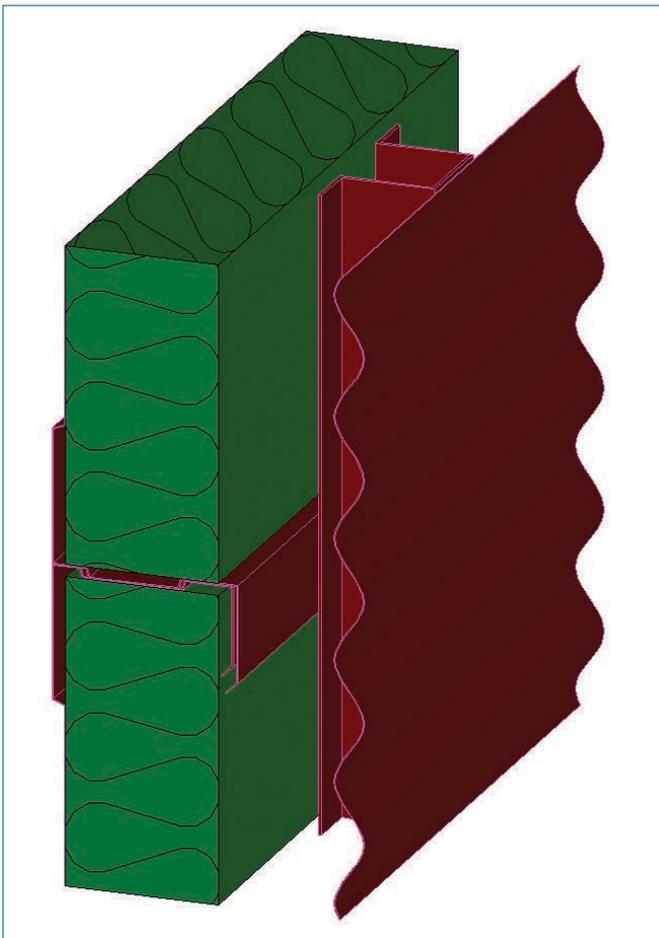- Automatically produce palletising and installation plans

Easy to adopt
- Rapid implementation, minimal training requirements and easy project set-up enable rapid return on investment
- Extensive built-in libraries can be easily extended and tailored to suit company, client or project-specific requirements

Overview

Structural steel, cladding and glazing are common features of many engineering projects, but their unique characteristics require design tools and functions specially optimised for their efficient design and construction. AVEVA Bocad Roof and Wall addresses this need by providing an extensive range of functions specifically for building design.

AVEVA Bocad Roof and Wall is a highly productive stand-alone solution. However, it also interfaces with AVEVA PDMS™ and AVEVA Everything3D™ (AVEVA E3D™), extending their building design functions to increase efficiency on plant and power projects.

AVEVA Bocad Roof and Wall meets the needs of both engineering and fabrication, providing a comprehensive, end-to-end solution for building design and construction. Its material libraries include a wide range of cladding types, including sandwich panels, trapezoidal sheet and precast concrete from all of the leading suppliers. Industry-standard component libraries provide a comprehensive range of standard doors, gates and windows. Glazing panel libraries include posts, bolts, jackets and seals for the efficient design of glazing projects.
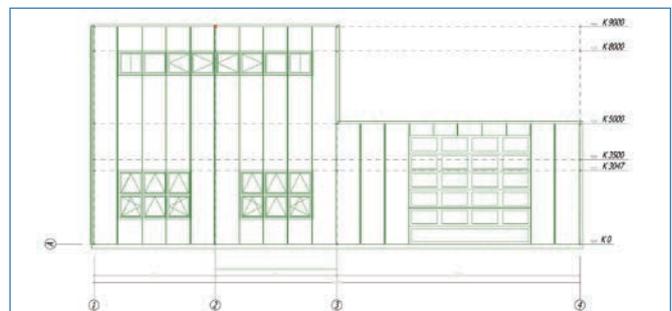

Sandwich panel

Key Features

AVEVA Bocad Roof and Wall features a unique generic data model which is readily adaptable to the widest possible range of applications. Purpose-designed for the construction industry, it combines a comprehensive set of the most frequently used vendor/manufacturer libraries with an extensive array of connection and detailing templates to enable the rapid and efficient design of the greatest variety of projects.

AVEVA Bocad Roof and Wall is the most versatile, the most accurate, and the most complete AEC solution in its class. Specific features include:

- Interactive design, with an unlimited number of views and sections available
- Parametric templates that enable commonly used designs to be stored and reused
- A customisable macro language for increased design automation
- Fully intelligent connections that retain integrity as the design evolves
- Full clash-checking capabilities
- An extensive library of standard, special and user-definable profiles, panels and vendor information
- Support for industry, national and customer-specific standards
- 2D–3D association, ensuring that drawings accurately reflect the 3D model
- Automated generation of fabrication data, including general arrangements, component and assembly drawings, BoMs and parts lists
- Built-in support for CNC fabrication machinery and production management systems
- Deliverables available in PDF, DXF, XLS and VRML formats
- Configurable, automatic marking of members, bolts and welds for efficient and accurate construction
- Change highlighting and audit trail

AVEVA Bocad Roof and Wall can be used as a powerful stand-alone product for the layout, detail design and fabrication of all forms of buildings from concept to construction. When used in conjunction with AVEVA PDMS and AVEVA E3D, it delivers immediate value on any AVEVA Plant project. A true engineer's design tool, AVEVA Bocad Roof and Wall works the way engineers work and does not require extensive user training or unfamiliar working practices.

Typical elevation on a building

AVEVA Bocad Roof and Wall is one of AVEVA's Design products, which create 3D models for detailed design and produce all associated deliverables

AVEVA™