

Bentley® Substation V8i

Frequently Asked Questions

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What is Bentley Substation V8i?

Bentley Substation V8i is the first intra-operable software for intelligent electrical and physical substation design. This highly productive software provides:

- Intelligent substation information models that allow distributed users to work efficiently with federated data in a single environment;
- The most complete set of substation engineering and design tools available in a single, integrated, streamlined application with a common graphical user interface, making the software easy to learn and use;
- Integration with ProjectWise® for connecting people and information to facilitate engineering content management and team collaboration in support of streamlined workflows.

What does Bentley Substation V8i provide?

Bentley Substation delivers intelligent infrastructure for substations by providing all of the key components and requirements of an electric substation – physical layout, electrical schematics for protection and control, grounding grid design, lightning protection, panel layouts, and wiring diagrams. In addition, it intra-operates with Bentley's broad portfolio of software offerings, including products for site design, structural analysis, design and detailing, building modeling, and the design of control houses.

What makes Bentley Substation V8i unique in the industry?

Bentley is the only vendor to offer a single, integrated application that includes a complete and consistent model for substation design capable of generating 3D arrangement/layout, schematics, and panel layouts. Bentley Substation V8i includes arrangement tools for equipment, buses, structures, grounding grids, etc., and the underlying data is unified – allowing users to easily switch from one mode (i.e. schematic, 3D arrangement, panel design) to another instantly.

Who uses Bentley Substation V8i?

Bentley Substation V8i is designed for anyone who works in substation design, whether for new substations or retrofits to existing infrastructure. A growing number of users around the world are taking advantage of Bentley Substation's many benefits. Among them are CPS Energy; ENMAX; ETSA Utilities; Iberdrola; Northwest Electrical Power Design Institute, a division of China Power Engineering Consulting Group; State Nuclear Electrical Power Planning Design and Research Institute, a division of the State Nuclear Power Technology Corporation, Ltd.; and TransGrid.

What is Bentley's wider solution for substation design?

Bentley also offers a comprehensive suite of supporting intra-operable engineering applications that can be used in many of the detailed engineering processes required for substation site design or to design the substation itself. These include products for the structural analysis of supporting structures, site preparation, access and drainage, and building modeling for indoor substations and substation control houses. Other vendors use highly customized applications to achieve only part of what Bentley's solution covers.

Will this solution work with ProjectWise for team collaboration and engineering content management?

Yes, Bentley Substation V8i is integrated with ProjectWise.

Do users need ProjectWise to implement Bentley Substation V8i?

No. Bentley Substation V8i does not require ProjectWise. However, Bentley does recommend integrating both products to facilitate engineering with distributed project teams and contractors.

Is Bentley Substation V8i integrated with other related Bentley applications?

Yes, Bentley Substation V8i is the first intra-operable software product for intelligent electrical and physical substation design. The solution has been designed from inception to integrate with other related Bentley applications for control house design, structural design and site design. For example, when a terrain model is used, the ground level is tracked automatically for placement of below and above ground structures within the substation model.

Will Bentley Substation V8i work on AutoCAD?

Bentley Substation V8i does not require a separate CAD platform and includes interoperability tools for AutoCAD users. Bentley Substation V8i can leverage DWG files for display, reference, and drawing layouts. It also includes an export function to publish substation drawings to DWG format.

Do users need MicroStation® V8i to implement Bentley Substation V8i?

No, users do not need MicroStation V8i to deploy Bentley Substation V8i.

What databases are supported in Bentley Substation V8i?

Bentley Substation V8i supports Oracle and SQL Server. See full technical details at www.bentley.com/en-US/Products/Bentley+Substation/Tech-Reqs.htm.

Does Bentley Substation V8i support i-models?

Yes. Bentley Substation V8i (SELECTseries 3) generates i-models, which combine 2D and 3D geometry and other design data in a single lightweight container, further facilitating open information exchange. Every i-model includes provenance – that is, knowledge of its origin and evolution, or change management history – and is self-describing, which means source application logic isn't required to display or describe the data stored within them. Because i-models are widely reusable, they enable project teams to easily reference, repurpose, and republish content for broad information access. For example, substation project teams can now use Bentley's Navigator V8i dynamic collaboration software, which leverages the rich information stored inside i-models, to explore complex designs, query business data, and provide markup comments.

Does Bentley Substation V8i include an equipment catalog or 3D object library?

Yes. Bentley Substation V8i includes a library of commonly used 3D objects. Of course, additional 3D objects can be created by a user, or through Bentley Professional Services, to support specific equipment placed within the substation. Bentley Substation V8i also includes a parts catalog to associate 3D objects and symbols to more detailed information such as ratings, material, manufacturer, etc. Just like the 3D objects themselves, the parts catalog can be updated and expanded by the user. Bentley Substation V8i includes numerous IEC and ANSI/IEEE graphical symbols for substation electrotechnical diagrams. These graphical symbols represent many of the commonly used devices needed when creating single line drawings and protection and control schematics.

Is Bentley Substation V8i available worldwide?

The product is available worldwide.

In what languages is Bentley Substation V8i available?

Currently, the product is only available in English, but versions in other language are being developed.

Is Bentley Substation V8i available under an ELS or an ELS for Municipalities (ELSM)?

Yes, Bentley Substation V8i is a standard Bentley software product and available under Bentley's Enterprise License Subscription as well as its Enterprise License Subscription for Municipalities.

What are the software prerequisites for Bentley Substation V8i?

There are no software prerequisites for Bentley Substation V8i.

Are professional services available to implement Bentley Substation V8i?

Bentley professionals are available to manage projects and implement all necessary components of this product. Bentley Professional Services facilitates fast and efficient implementations.