



ConstructSim V8i (SELECTseries 4)

Improve Workface Planning and Control With the Leader in Virtual Construction Simulation

ConstructSim V8i (SELECTseries 4) is a powerful virtual construction simulation system for detailed and automated workface planning on large projects. ConstructSim V8i provides construction management the visibility needed to rapidly and effectively respond to project issues to increase productivity, drive down costs and reduce project cycle time, while providing improved risk mitigation and team safety.

Robust Construction Work Package Management Improves Project Management

In ConstructSim, project teams can visualize and interact with a virtual construction model (VCM), visually organizing engineering components into construction work areas (CWAs), construction work packages (CWPs), and installation work packages (IWPs). This allows a more optimal and granular work breakdown structure to drive engineering, procurement, and fabrication based on the sequencing needs of field installation. Visually defining CWAs and CWPs provides an unprecedented level of management control over construction planning. Construction managers can more easily and accurately plan work priorities and installation sequences.

requirements. Users can also report estimated and earned hours and quantities for measuring progress of the Level 3 schedule via a model-based 5D cost analysis. Data can be uploaded from subcontractors to monitor and coordinate interdependent activities, moving to an X-D construction simulation environment.

Materials Management Improves Procurement

Improved scheduling is based upon materials currently on-site and estimated arrival dates received from procurement in the materials system. Users prioritize material feasibility analysis from the detailed sequence of IWPs and eliminate cumbersome data entry through automated material reservation requests. Integration with RFID and bar coding systems adds to the ability to optimize on-site material management.

Look-ahead Planning for Proactive Management

ConstructSim improves the acquisition of information from the field before finalizing plans. It provides a visual representation of available work and materials, then manages the resource constraints against each work package. ConstructSim's dynamic ability to track, update, and edit work packages based on constraints helps ensure packages are released to the field only when management knows the IWPs can be completed, reducing rework and minimizing out-of-sequence work.

Virtual Model Enhances Systems Completions

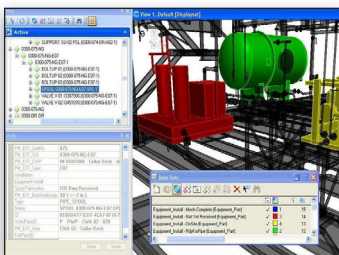
The VCM allows users to walk-down turnover systems in the virtual model prior to installation and interactively define test packages. Users can monitor installation progress to expedite incomplete work based on system turnover priorities.

Visualize Component States With Construction Status Tracking

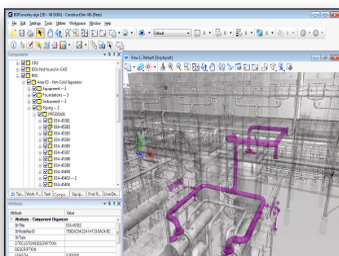
Users can mark and track individual model component or groups to see a color-coded 3D image representing construction status. This allows progress to be tracked in near real-time, providing a clear overview of complex projects.

Construction Schedule Animation Improves Safety and Timing

Automatic linking of components and user-defined groups with the schedule provides flexible 4D schedule visualization. With a clear understanding of the construction path, supervisors can maximize safety while meeting schedule



Software offers workflow support for all disciplines.



ConstructSim provides extended i-model support for CAD conversion.

| Work Pack | Item | Material Code | BOB Description | Size | Qty | Cost |
|----------------|-------|---------------|--|------|-----|-------|
| 1910-00-AG-A01 | FLOOR | | FRPFR SUPPORT | 3 | 1 | CSM10 |
| 1910-00-AG-A01 | | 12381181 | VALVE BALL BEARING BRIDGE CROSS MATTERLAY | 2 | 1 | CSM10 |
| 1910-00-AG-A01 | | 0200780 | SPRAL VIBRATOR GABINET ASME B16.33 20"PTFE | 2 | 2 | CSM10 |
| 1910-00-AG-A01 | | 0200781 | SPRAL VIBRATOR GABINET ASME B16.33 20"PTFE | 2 | 2 | CSM10 |
| 1910-00-AG-A01 | | 0200782 | SPRAL VIBRATOR GABINET ASME B16.33 20"PTFE | 2 | 2 | CSM10 |
| 1910-00-AG-A01 | | 0200783 | SPRAL VIBRATOR GABINET ASME B16.33 20"PTFE | 2 | 2 | CSM10 |
| 1910-00-AG-A01 | | 0200784 | SPRAL VIBRATOR GABINET ASME B16.33 20"PTFE | 2 | 2 | CSM10 |
| 1910-00-AG-A01 | | 0200785 | SPRAL VIBRATOR GABINET ASME B16.33 20"PTFE | 2 | 2 | CSM10 |

Users can enhance reporting capabilities leveraging the SQL Server Reporting Service.

System Requirements

Operating System

Windows 7 (64-bit), Windows Vista (64-bit), Windows XP Pro (64-bit)

Processor

Intel or AMD processor 3.0 GHz or higher

Memory

8 GB or more

Hard Disk

20 GB free disk space or more

Video

Graphics card supported by DirectX 9.0. See graphics card manufacturer for latest information on DirectX drivers. At least 512 MB of video RAM is recommended. For optimal performance, graphics display color depth should be set to 24-bit or higher. When using a color depth setting of 16-bit, some inconsistencies will be noted.

Find out about Bentley at: www.bentley.com

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ConstructSim V8i At-A-Glance

Expanded Support for Additional Disciplines

- Workflow support for all construction disciplines including civil engineering, electrical and instrumentation, piping structural, and equipment
- Standard data transfer interfaces for input of engineering lists such as mechanical equipment list, instrument index, electrical cable schedule, raceways, HVAC, and more
- Non-graphical work package functionality to track detailed quantities where components are not modeled in 3D CAD
- Work packages development on early engineering models prior to release of construction documents

Systems Turnover Enhancements

- Visually develop turnover systems and test packages in a virtual model
- Represent engineering components simultaneously by installation area, work package, test package and system extent
- Prioritize and expedite incomplete installation work based on turnover schedule needs
- Provides suite of "out-of-the-box" system completion reports and expediting reports

MicroStation® Visualization Engine

- Provides powerful graphics visualization for smooth navigation of complex CAD data from global megaprojects
- Leverages the drawing production, publishing, documentation, model, and output capability of MicroStation

- Incorporate visualizations of cranes, scaffolding, and other construction site content
- Provides support for loading CAD data from third-party engineering software vendors

Dynamic Review Publishing Service

- Publish i-models (containers for open information exchange) suitable for large-scale dynamic review with Bentley Navigator
- Create interactive 3D PDFs to provide models for review to a wide audience
- Enhance collaboration between engineering and construction
- Review construction status and priorities in engineering
- Leverage shared mark-ups, notes, and annotations in the 3D model

Comprehensive Work-Sharing Environment

- Comprehensive work-sharing environment for simultaneous use by construction management firms, direct-hire contractors and owner-operators
- Easy-to-use game-like environment for field users
- Templated, open interfaces to all popular 3D modeling packages and materials management systems including SmartPlant Materials
- Robust data processing environment for the data administration using a federated information workflow architecture
- Use cases relevant to early construction planning, field execution, handover, commissioning, and shutdown-turnarounds

- Used by: Workface Planner, Field Engineer, Foreman / Supervisor, Construction Manager, Project Manager, Turnover Coordinator, Material Coordinator, Project Controls, QA / QC Personnel

Work Package Bookmarks

- Generate work package bookmarks automatically
- Access bookmarks to generate markups
- Support for labeling inside of bookmarks

Steel Hanglists

- Create list of steel members
- Order and animate lists
- Publish lists in reverse order to aid truck loading
- Create erection sequences based on published lists

Support

- Addresses fundamental needs of change management
- Incorporates key concepts and work process methodologies for agile construction, work-face planning and related construction industry best practices
- Includes support by a team of senior industry consultants with decades of field experience
- Includes well developed, standardized project templates to simplify deployment, and jump-start a company towards realizing the targeted benefits of virtual construction simulation
- Supports ROI and quality initiatives with owner and constructor partners