Intergraph Smart® Construction is a modern work package planning solution proven to efficiently manage construction resources, materials, and schedules. Designed to meet the specific needs and challenges of construction companies, project management offices, fabricators, and owners, Smart Construction is an industry-trusted solution used worldwide.

Smart Construction provides real-time forecast, status, reservation, and visualization of materials through built-in integration with Intergraph Smart Materials or client internal material management systems. The Smart Construction dashboard for materials enables dynamic re-planning capabilities, and a configurable planning window enables planners to make economical modifications before problems grow. Hexagon PPM created Smart Construction specifically for construction planners to more efficiently plan and manage fabrication and construction projects, resulting in enhanced safety, increased quality, and improved productivity.

Using current information from various sources such as 3D models, 2D engineering tools, materials management, and a bidirectional interface with project controls and scheduling systems, Smart Construction ensures accurate and timely decisions can be made with the most up-to-date information. Users can view 3D models and drawing filters with enhanced 4D animation, powerful new pre-configured filters, and selection rules for a 3D model. This delivers significant efficiency and improvements in building a complete work package, saving time and money.

**Scheduling**

Smart Construction offers a direct link with Primavera and imports a Level 3 schedule for work package planning. A scheduler feature also enables users to customize durations, crew size, work week schedules, non-working day, and set dependencies. Users can view, sequence, calculate, and animate schedules. Then they can export detailed schedule information back into Primavera.

Users can animate work packages in the 3D model that links to the scheduler, then record and save schedules.

**Mobile Capability**

Smart Construction OnSite reduces the labor hours required to capture progress and minimizes opportunities for data entry errors associated with traditional methods of status reporting. Using Android devices, on-site workers are able to view, update, and track project progress in real-time. Having the ability to view the work package from a tablet or phone allows crews to have the most up-to-date project information, which improves productivity and enables accurate task planning.
With automatic updates to the system when connected to Wi-Fi, users can work offline with ease knowing their inputs are being captured instantly.

Benefits

• Lower costs
• Enhance collaboration between departments
• Eliminate errors and redundancies
• Improve scheduling projections
• Increase productivity
• Streamline processes

Component Register

The component register will allow Smart Construction to retrieve data not modeled in 3D nor existent on drawings, such as cable pull schedules and component lists of any sort. Users can quickly generate the component register in a spreadsheet-like user interface. Subsequently, users can now drag and drop electrical cables and/or components from the register into work packages. The preconfigured rules of progress will associate the component work steps and their labor hours to the work package and automatically generate the planned work package labor hours just as it does for components modeled in 3D or existent on a smart drawing.

Improve Efficiency in Capital Projects and Shutdowns/Turnarounds

The new age Smart Construction product is also an essential project and construction management tool that brings the owner, engineering, construction, supply chain, and project controls together early on the project.

The challenge for the construction industry is determining how to make informed decisions based on the most accurate information available and how to manage people and materials in a dynamic construction environment to advance the project in the safest and most efficient manner. Smart Construction not only helps in addressing these, but the system also helps in streamlining the work process and mitigate issues early on the project that may have otherwise not been known until the project has entered the execution or turnover phase.

Sustaining projects can use Smart Construction to integrate design, execution planning, and package creation ahead of shutdown for delivering optimal results such as:

• Reduction of hours in the plant shutdown execution
• Ease of owner personnel and contractors induction of the work sequence
• Early planning guarantees decreasing the risk during the plant shutdown execution
• Allows performance calculation and personnel estimation by work front
• Reduce the impacts due to engineering modifications and establish fabrication priorities of materials

Construction Progress Measurement

One of the most critical tasks in field construction is the ability to accurately measure and report actual construction status throughout a project. Smart Construction provides a platform to precisely record field construction status based on configured rules of credit and report on this status. By using the 3D model, users can easily view the current progress in any stages of construction. This improves reporting accuracy and speed, giving an accurate picture of the project status.

Enterprise Solution

Smart Construction benefits the entire engineering, procurement, construction, and operations value chain:

• **Owner operators** can improve CAPEX efficiency by consistently managing engineering information from concept planning, detailed engineering, procurement, and construction into operations and maintenance.
• **Fabricators** can provide direct input to facilitate real-world construction plans.
• **Constructors** can reduce project cost with improved visibility on project plans, accelerate their ability to re-plan dynamically in response to real-world changes, and take advantage of enhanced integration with engineering, procurement, and fabrication to optimize both engineering and construction decisions.

About Hexagon PPM

Hexagon PPM is the world’s leading provider of enterprise engineering design software and project control solutions. By transforming unstructured information into a smart digital asset, our clients are empowered to visualize, build, and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire life cycle.

Hexagon PPM is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technology solutions that drive productivity and quality across geospatial and industrial landscapes.

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