4D Construction Project Management

What is real-time 4D Construction Project Management?

Real-time 4D Construction Project Management, i.e., "**4D Planning**", involves the integration of CAD with scheduling data to enable visual (model)-based planning for safe, predictable, and optimized construction execution, ideally in a recurring and collaborative manner from early in the project through to production in the field.

Who should use this technology, how, and what are the benefits?

4D Planning is designed to meet the challenges, complexities, and planning requirements of construction, and thus enables the project planners and construction leads to cooperatively use the software to drive production of the best plan, based on model data received from the design/engineering team. This effort is supported through its visual environment by managers, engineers, sub-contractors, and clients to enable validation (their stamp of approval).

The benefits are remarkable. Real-time graphics simulations brings revolutionary improvement to traditional Gantt chart planning by simulating the entire project schedule on your computer before you ever break ground. Now the planner and the entire delivery team can see and understand the sequence of activities in real time. Concurrent activities are easily identified and spatially coordinated, site layout can be optimized, and safety planning can be improved dramatically.

Team members not involved in construction every day have a difficult time understanding 2D plans and schedules. 4D Planning provided the ability for the entire team to visualize and understand the project plan in real time including the sequencing and the approach. It also allowed the delivery team to identify and resolve conflicts and issues early, saving costly changes later in the process.

How does 4D Planning, work with other design and management applications?

4D Planning *(Navisworks or Synchro Pro)* seamlessly imports and synchronizes to-and-from industry standard planning/scheduling software such as Oracle Primavera, Microsoft Project, Microsoft Excel, PMA Netpoint, Asta PowerProject, as well as and over 60 CAD file formats, and IFC. Plug-ins for Revit and Microstation enable even faster interoperability from those programs. Once imported, all 3D files can be synchronized when new models become available. When updates are synchronized, 4D Planning will maintain all links between objects and tasks in the Gantt Chart, which is a huge attribute and advantage of the software.

How can you learn more about 4D Planning and its benefits?

The website is **www.ucsindia.yolasite.com**, and it includes links to a variety of courses, customer feedbacks, and examples of software functionalities. The website page containing several real world case studies, examples & samples, I think is particularly compelling.

We are currently expanding our website and our business to include a world-class **VDC** (Virtual Design & Construction) Services and Production team, which will provide support to our key clients in a variety of high value offerings.