

Sunday, September 04, 2005 1:40:00 AM

Permission to reprint or copy this article or photo must be obtained from 3D Syndication.

CPMS an effective tool to manage projects for construction industry

In any organisation, good internal communication is required for long term success. And in large companies, or companies that take on complicated projects, this is typically facilitated digitally by means of several interlinked software solutions. These may include enterprise resource planning (ERP) software such as Microsoft Dynamics AX, enterprise project management software (EPM), geographic information systems (GIS), and dozens of smaller bits of software, like accounting and invoicing programs. Done properly, all of these work together and are coordinated by a comprehensive information technology (IT) strategy.

Owners, contractors, and other stakeholders in capital improvement programs have to keep this in mind when choosing any system to fit into their corporate IT strategy. Effectively managing complex infrastructure projects require the use of capital project management software (CPMS). CPMS—also known as building construction software, construction management software, or construction project management software—cannot be replaced or emulated by other IT systems used by a firm, such as ERP platforms.

The unique, project-based requirements, such as quantity takeoffs, digital inspection reports, and project estimation, require a purpose built solution designed by experts who understand capital project management and con-

REALTY TECH

Balaji Sreenivasan



results, the software can automatically pass the milestone information to other stakeholders as needed. Ideally, milestone data tracked by the CPMS will be automatically supplied to the accounting or ERP systems, payments will be made automatically and

money by eliminating repetitious reentry of information. It also helps organizations to track projects more accurately and quickly publish relevant information to whoever is making decisions about budgets and schedules. Mistakes and errors are reduced,



synchronized as needed with other departments, and relevant reports will be generated and distributed as needed, without a lot of extra man hours.

Many enterprise-wide software systems may be involved in such a scenario; but, the

and companies take advantage of their existing investment in enterprise software.

Unfortunately, relatively few CPMS solutions are able to provide this level of integration. Some are very good with project-based matters, but store data in proprietary for-

must eventually be let go. Instead, look for CPMS based on open standards, such as XML and Web Services. When open standards are part of a system's architecture, even future IT decisions will continue to integrate well with the CPMS.

Easily Customised

Though all capital projects share some characteristics, they always have unique challenges as well. Similarly, capital project stakeholders have some similarities, but they inevitably develop unique practices and philosophies that distinguish them from other companies and contribute to their success.

Therefore, good CPMS will provide easy ways to customize data collection and storage so that the project data collected on job sites will integrate well with other systems, such as payroll.

For example, if a firm has implemented a GIS, and the CPMS is able to collect location information via GPS-enabled laptops or PDAs, then the location of project based records can be easily plotted on GIS Maps.

Data Exportable in Multiple Formats

Capital project management firms have to coordinate the activities of multiple stakeholders, including subcontractors, investors, future tenants, etc. It is simply not possible to anticipate the IT strategies of multiple firms, or to try and enforce data standards that work for all firms.

tracting. But on the other hand, construction project software simply must integrate tightly with a company's existing information infrastructure; otherwise, the company misses out on far too many opportunities to save time and money.

For example, consider this scenario: a contractor's payments may be tied to specific project milestones, such as cubic yards of concrete poured or lineal feet of paved roadway completed. Inspectors working on behalf of the owner may track these milestones. If the inspectors are using CPMS to digitally capture inspection

CPMS system is the source of the relevant information; therefore it's critical that the CPMS be able to integrate with all of them.

CPMS should also work well with pre-project information; for example, quantities generated by a CAD program should import easily into CPMS, as should estimates supplied by a subcontractor. The digital data collected by the CPMS can then be used for necessary tasks, like estimating and budgeting, without needing to be reformatted or reentered.

The automatic distribution of project data saves time and

mats. Others simply don't track the information required by parts of a company that aren't directly related to project management. Here are a few points to consider when investing in CPMS solutions

Built on Open Standards

If a CPMS solution stores data in proprietary formats, with little or no provision made for easy export to other programs, then it will never work well with other components of an overall IT strategy. It's like having a highly skilled employee who antagonizes other employees—even if he's good at his job, he's a liability and

Therefore, a good CPMS will be able to export critical data in a variety of formats, so it can be used by all stakeholders as needed, regardless of the systems they use to store and analyse data. Flexible, powerful data formatting is essential for CPMS that must coordinate with multiple capital project firms.

Therefore, when considering a CPMS investment, companies should consider how well this fits into an overall IT strategy.

The author of this column is CEO & Founder of Aurigo Software Technologies