

## The new math for the A/E industry: BIM + PIM = IPD

Project management software facilitates the intense communication stemming from collaborative methods.



### Guest Speaker

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Integrated project delivery—IPD—is without question

a major cultural shift for architecture and engineering firms. But the transition isn't going to happen without technology and work processes to support it.

Most of the IPD technology conversation so far has centered on the technology of building information modeling (BIM) alone, to the exclusion of equally important enabling technologies.

Consider, if you will, the workflow required to make changes to a BIM model. The ideal scenario is to co-locate the architects, engineers, consultants, general contractor and key building component suppliers in one room. There, in front of a giant screen displaying the model in question, they resolve design issues and make changes to the model.

The problem with such an ideal is that it's only practical on the largest of projects, because the owner must spend significant sums of money to set up a dedicated co-location facility and the requisite IT infrastructure.

For IPD to take off, your project team members must be able to work from their companies and use their IT infrastructures. You need another way to manage and share information about the model.

Forward-thinking A/E firms have already discovered the means to execute IPD without co-location. It hinges on using software for project information management, or PIM. For example, Seattle, Washington-based **PCS Structural Solutions** uses PIM software to manage

model-based design (sometimes referred to as BIM workflows). For one example of how PIM software facilitates BIM workflows, see the screen capture below.

The graphic shows a section of a high school's structural elements. Instead of either marking up multiple sets of CAD drawings or making changes in a live meeting, PCS engineers take a snapshot of the model view, mark it up and use

in a way that's visible to the entire team.

Need information in a key communication (by e-mail, for example) or other document? Two of the most-used functions of PIM software are to file communications with other project documents and to search for information anywhere on the firm's network.

### Collaboration

Information sharing is a key component of any project, but it's all the more important in IPD, where information is shared more widely. PIM software lubricates information exchange by providing a means to share very large files more easily and more securely than via FTP, and with a full audit trail of who downloaded what and when, to boot.

PIM solutions should also provide browser-based access

to project information for external team members who need to view critical information such as submittal logs and open RFIs. IPD demands transparency. PIM technology provides it.

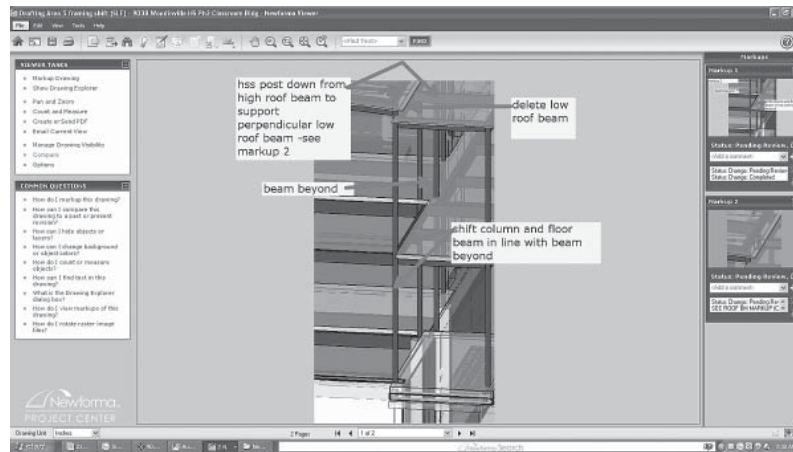
that markup to back-check the view after changes have been effected. This method is also an easy way to communicate changes to other members of the project team.

PIM software not only streamlines the markup process, but also keeps a full history of changes and how and when they were communicated.

### Trust, but verify

IPD demands trust, which in turn demands accountability. A good PIM solution automatically logs and tracks transmittals, and provides a means to manage RFIs and submittals. Busy project managers see that everything is proceeding on schedule.

Accountability also applies to the tracking of action items. PIM software should facilitate communication on action items that you can peg with a due date and assign to an owner, making it easy to track action items to resolution



### Conclusion

PIM software is playing a key role in enabling IPD. In the American Institute of Architects' recent report, "Integrated Project Delivery: Case Studies," different firms involved in five of the six projects relied on PIM technology as a key IPD enabler!

IPD demands shared responsibility for decisions, full transparency and more effective communication among team members. These goals reflect a cultural shift that won't come about until people are using technologies to support them. BIM is one such technology. PIM is another. ■

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