

**We are about you!**  
**Advanced Project Management**  
**Symposium**  
**Spring 2009**  
**Omaha, Nebraska**  
**Prefabrication and Profitability**

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*Prefabrication brings productivity improvements, enhances the ability of project managers to perform their jobs, and lowers the cost of installation.*

**Contact MCA now to register for the Fall 2009 Symposium, or give input on the date, location, or topics related to**

**The Impact of Prefabrication on Winning Jobs**



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### Advanced Project Management Symposium

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#### **Prefabrication and Productivity**

The focus of the Spring 2009 Project Management Symposium was Profitability and Prefabrication, including the use of JPAC™ and SIS™ to help plan, monitor, and manage productivity in the shop and in the field.

This session was hosted by Thompson Electric Company's Omaha Division. Our thanks and appreciation go out to Kevin Lytle and Skip Perley for their openness and generosity. For a complete list of participating companies and participants at this session, as well as information on both past and upcoming symposiums please visit our website at [www.mca.net](http://www.mca.net).

Prefabrication is an outcome of project planning, and like the outcome of the job it is produced for, can succeed or fail depending on the quality of the plan. The symposium participants spent time discussing and brainstorming prefabrication, including and beyond the tools and techniques. They will return to their respective companies with ideas on planning prefab, tracking prefab and its impact using JPAC™ and SIS™ (see page 2 for details), and using prefab to be more productive on the jobsite.

**Why Prefab?** The following reasons were given:

- Eliminates impact of weather, and other trades if you:
  - Plan
  - Measure it
  - Make it visible
  - Fix issues
  - Learn
- Allows for a quicker learning time
- Provides a buffer for labor pool for “peaks & valleys of work”
- Stabilizes man-loading on projects; labor can go from prefab (planning phase) to the jobsite
- Creates ownership
- Reduces mistakes

**Potential Obstacles** for prefab were also discussed, which are:

- Incorrect specs and drawings
- Field labor is unfamiliar with the process
- Education – how to use it, how to think about it
- Availability of material
- Allows for correct billing

**How to Avoid the Potential risks of prefab?**

- Make sure every craft on the job understands how to use prefab
- MEP coordination...through drawings, shared CAD, etc.
- BIM requirements
- Various trades reviewing each other's plans for the building
- Coordination meeting up front with the trades
- Involve vendors early for what material will be needed at shop & project site
- Handoff & kickoff meetings – discussions of prefab up front, bring vendors into the meetings (especially fast-track)
- Post-project conference – review with vendors
- Material handling on the jobsite – apprentices or journeymen or foremen



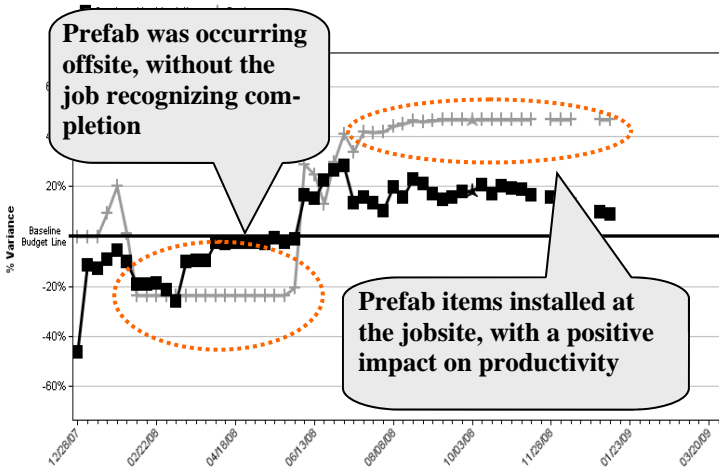
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**Available Tracking Tools For Prefabrication Activities**

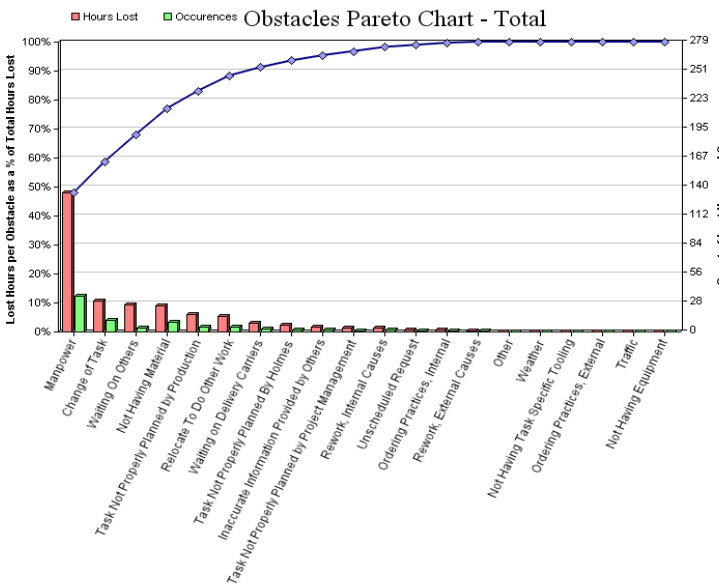
**Use of JPAC™ for Prefab**

Prefab activities are an extension of the jobsite activities. Without visibility and measurement of prefab, its impact on the jobsite (good or bad) is unknown until it is too late. Job Productivity Assurance and Control™ provides an early indicator of productivity with prefab. Companies use JPAC™ to track the prefab activities on a jobsite, within the cost codes already used to track that job. Other companies use JPAC™ to track the productivity of the prefab operation itself, and then link it to the overall productivity of jobs using the prefab. The graph on the left shows the impact that prefab had on the productivity of the Systems cost code on one of Thompson Electric's projects.



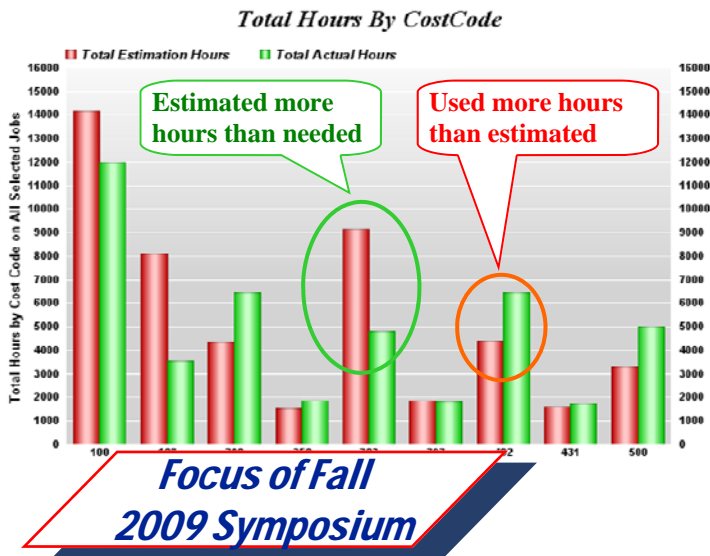
**Use of SIS™ for Prefab**

Short Interval Scheduling adds another visual indicator of project productivity, by indicating what is getting in a foreman's or crew's way of completing their scheduled work. Prefab is one input to a project, that could have a positive or negative impact on productivity. However, the impact is visible only if it is measured. SIS™ can measure the impact of prefab on the jobsite in many ways. For instance, the job's SIS™ can recognize prefab as a reason they could not install as scheduled (prefab was wrong, prefab did not show up when needed, or others). SIS™ is also used to track the obstacles encountered in scheduled prefab activities, as shown in the Pareto chart to the right, indicating reasons why prefab cannot produce according to their schedule.



**Use of Estimation Analysis Enhancement (EAE™) for Prefab**

Securing a healthy backlog in any market condition means knowing the cost of installation. EAE™ allows contractors to win more work with less risk by translating their actual performance into repeatable and predictable labor units. Understanding prefab's impact on projects can help improve estimation, but only if the correct data is captured from the field (with JPAC™ & SIS™), accounting, and estimation. The Fall 2009 Symposium will focus on how companies can use prefab to improve estimation that leads to more work, without adding risk to the company.





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**Real-Life Examples of Prefabrication**

**Prefab Process Design**

John Armitage, from Holmes Electric Company of Seattle, Washington reviewed some of his prefab shop management practices. John reviewed the project planning and tracking activities that he is using, and how he works with JPAC and SIS to know where he stands in the shop and where the installation activities stand in the field. John also spent some time discussing the prefab shop that he has been developing; the layout and material flow through the facility and coordination with the field foremen and project managers.



**Thompson Electric (TEC) Prefab Visit**

Kevin Lytle Vice-President of TEC lead a detailed tour of his prefabrication facility in Omaha. Tom Babb (the shop manager) answered related questions on site.



**Coming in Fall Session (date & location TBD):**

**The Impact of Prefabrication on Winning Jobs**

**Call or e-mail MCA for your reservations:  
Phone: 810-232-9797  
E-mail: [Avanwagner@mca.net](mailto:Avanwagner@mca.net)**