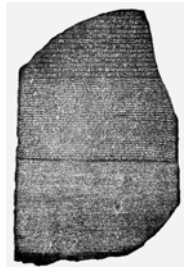
MDCSystems®

MDC Advisor ®

MDC Summer Advisor **July 2007**

In This Issue

Time Impact Analysis (TIA)®: The Rosetta Stone for CPM Schedule Analysis



Robert C. McCue, PE

Stephen M. Rymal, PE, Esq.

Critical Path Method (CPM) schedules and formalized methods of analyzing schedule impacts started to enter mainstream construction management practice in the early 1980's. At that time, the industry recognized a need to accurately and scientifically measure schedule delays, and conversely the affects of acceleration in real time during construction and also retrospectively after the work was completed. The ability to determine which party ultimately bore responsibility for schedule delays became the main focus on many projects as the assessment of liquidated damages or granting compensable time extensions became critically important to both owners and contractors. Just as the Rosetta Stone provided scholars with a means to translate Egyptian hieroglyphics into Greek text, Time Impact Analysis (TIA)® provides users with the means to translate CPM activities into understandable schedule impacts.

CPM methods were originally developed using manual computations and later expanded with the augment of powerful, repetitive mainframe[1] computers. As CPM schedules matured into complex relationships a simple but unbiased method of measuring schedule delays was needed. Recognizing the shortcoming of many methods being applied at the time and based upon ongoing analytical experience with manual and computer driven schedule calculations, David M. Lee, a Vice President of MDCSystems® published an article introducing the more

Covering your @ in an Electronic World of Discovery

Peter L. Mansmann, Esq.
Precise, Inc.

120,000 emails, 9 months. I recently counted the number of emails I either sent or received in a single day. I was surprised at the number: 67. If you multiply that by a 10 person operation, over the course of a 9 month project, you have a total of over 120,000 emails sent and received during that time period. Add onto this Excel files,

electronic schedules, digital photos, drawings, etc... and you have quite a large data set. The construction industry today, like most businesses, has entered an age where a staggering amount of electronic data, files and emails are created during the course of a project. Managing this amount of information can be a challenge in the course of everyday business. If litigation results from the project, this large body of electronic information can create an expensive problem.

A recent change in the Federal Rules governing the exchange of information between parties in a lawsuit has significantly changed how this information is managed and gathered. This new Rule allows the parties involved to request electronic documents, emails and related metadata. Metadata is the information, or properties, related to that electronic file - the data about the data. Take the example of a digital photo. Besides the image, there may be metadata that tells you the date that the photo was taken, the file size of the image, the name of the file, etc.

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Recent and Future Presentations

ASHRAE Annual Meeting
June 23 - 27, 2007
Long Beach, CA

rigorous schedule delay analysis concept of Time Impact Analysis (TIA) ®ii[2]. This article discussed the systematic application on a wide range of projects. Project complexity and availability of reliable documentation were identified as key features to be considered as the starting points in such analysis.

Upcoming Industry Events

The Association for the Advancement of Cost Engineering (AACE) International's Annual Meeting

July 15-18, Nashville, TN

International Bar Association International Construction Projects Issues Conference
August 30-31, Rio de Janeiro, Brazil

DRI- Construction Law Seminar
September 6-7, Scottsdale, AZ

Associated Owners & Developers (AOD) 2007 National Conference
September 17-18, Washington, DC

Engineering and Construction Contracting Association (ECC) Annual Conference
September 26-29, Colorado Springs, CO

Associated Owners & Developers (AOD) 2007 National Conference
October 15-16, Atlanta, GA

Risk Management Association (RMA) Annual Risk Management Conference
October 20-23, New Orleans, LA

MDC Schedule of Events

I Love it When a Plan Comes Together - Integrated Project Delivery

E. Mitchell Swann, PE

In our last edition of the MDC Advisor we talked about BIM (Building Information Modeling) Systems and the impact of that technology on the way projects are done and the way team members relate to each other. We are going to climb the tree a bit higher to see what changes in the landscape make BIM possible - beyond really neat computers.

BIM is an execution strategy for a project. Before the

Mitchell Swann presented as part of a 3 person panel at the recent ASHRAE Annual meeting in Long Beach, CA. Mitch presented a case study as part of an Advanced Seminar entitled "Lessons Learned: Case Studies from the Real World of Lawsuits" on Sunday 24 June 2007. Mitch's presentation was entitled "Thank You for Your Support. Ouch! - Engineering and The Standard of Care". Mitch's presentation covered the key issues and elements of a successful engagement for the Owner as plaintiff in a suit against design professionals and equipment vendors for failing to design and provide a properly operating HVAC system for the Owner's specialized operations. Mitch also continued in his active participation on the following Technical Committees: TC 1.7 Business, Management & General Legal Education, TC 2.8 Building Environmental Impacts and Sustainability ("Green" Buildings); TC 7.1 Integrated Building Design; TC 9.10 Laboratory Systems and TC 9.11 Clean Spaces (Cleanrooms).

Coming Up:

ASHRAE Region III Chapter Regional Conference (CRC) August 9 - 10, 2007 Norfolk, VA

Mitchell Swann has been invited to Virginia once

selection of a strategy, one has to first formulate a concept or a plan that you want that strategy to support. BIM could be seen as the technological outgrowth of an execution philosophy we'll call 'Integrated Project Delivery" (IPD). The concept is also referred to as "integrated project execution" and "integrated delivery process." But under any variant of the name the objective is this: to integrate the development, design and construction members of the project team, such that the team's actions (and reactions) are targeted towards maximizing the total project value, not just maximizing their 'take'. The objective of IPD is that the total return to the team is maximized and the overall risk to the team is minimized. The result is a better 'yield' - a better project.

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Making Offshore Engineering Payoff

Anil Verma and Serge Lambermont

enews/ strategy + business

Booz Allen Hamilton

Most Manufactureres can easily tick off any number of practical reasons either for building new factories in China, India, Vietnam, and other low-cost nations or for buying parts from suppliers based in those countries. Simplified supply chains, better inventory management, and sharply reduced costs are among the obvious benefits. But the same group displays less enthusiasm for offshoringdesign and engineering.

On the face of it, that's a logical response. For one thing, comparedto manufacturing and materials, engineering typically accounts for a tiny portion of the total cost of a product and therefore tends to merit little attention from top management. And perhaps more importantly, many manufacturers view engineering as the company's "crown jewel" - and they thus desire to keep it close to home, where it can be sheltered from intellectual property theft.

These rationales, however, overlook a critical but seldom recognized fact: As with factory operations, not all engineering tasks are created equal. Some design tasks are complex, continually evolving, or proprietary, and require sophisticated skills, a high degree of consultation with customers, or protection from piracy. Consequently, these activities are usually best maintained in-house. But other endeavors, such as engineering simple, modular parts, are the equivalent of commodities and can be handled advantageously in low-cost regions...