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Updater™: Mobile Schedule Tracking Software

Purdue ECT Team
Purdue University, ectinfo@ecn.purdue.edu

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UPDATER™: MOBILE SCHEDULE TRACKING SOFTWARE

THE NEED

Maintaining a current construction schedule is critical to effective project planning and control, but schedules frequently are not consistently maintained. This is likely due in large part to the reliance on manual methods, which are tedious, time-consuming, and prone to error. It is believed that improvements in efficiency and effectiveness could be realized by effectively employing computer technology to automate the schedule updating process. However, computers and the construction environment are incompatible. New portable and wearable computing technologies, such as palm-held computers, appear to be more compatible with the construction environment.

THE TECHNOLOGY

Virginia Tech and Primavera Systems, Inc. have developed a software interface, called Updater, to enable automatic electronic transport of schedule information between the desktop (DT) schedule and a portable palm-held (PH) computer. The Updater aims at simplifying the process of updating construction schedules, and ultimately improving the consistency and quality of updates. The system employs palm-held computers to eliminate reliance on potentially incomplete or unreliable mental or field notes.

FIGURE 1 UPDATER PH INTERFACE

The Updater system consists of Updater DT and Updater PH. The Updater DT runs on the office desktop computer and serves as the interface between the Primavera Project Planner (P3) or SureTrak schedule and palm-held computer files. The Updater PH runs

on the palm computer. It gives the user access to schedule information and enables electronic recordation of updates in the field. Information is transferred between the desktop and computers by Windows CE.

FIGURE 2 GENERAL PROCESS

The process of using Updater begins with the creation of an 'export' file using Updater DT to select the activities to be transferred to the palm-held computer (see Figure 2). The activity ID, description, actual start, actual finish, remaining duration, percent complete, and expected finish of each selected activity are transferred. Updater PH can then be used to record progress information in the field. Once updates have been recorded, the palm computer is returned to the office and docked at the desktop computer (see Figure 3).

FIGURE 3 UPDATER DT INTERFACE

The updated files are automatically transferred to the desktop computer. Updater DT is then used to 'import' the updated activity information to the P3/SureTrak schedule file. During the Import cycle, field changes are highlighted and the User has the opportunity to accept, reject, or revise values in Updater DT prior to saving them to the P3/SureTrak file.

BENEFITS

Some benefits that can be gained from Updater;

- Eliminating the reliance on paper-based field notes.
- Ability to directly upload field data to the P3/SureTrak schedule.
- Schedule updating becomes quicker and more accurate.
- The use of palm-held computer meets the challenges of the construction environment.

STATUS

Version 1.0a which handles P3-defined Filters is now commercially available through Solvo Systems, Inc. Solvo is Latin for "detached".

BARRIERS

While multiple files can be stored in the palm-held unit, Updater can open one file at a time with a maximum limit of 280 activities on each file.

POINTS OF CONTACT

Jesus M. de la Garza, Professor of Civil and Environmental Engineering, Virginia Tech.,

Phone: (540) 231-5789, E-mail: chema@vt.edu

Solvo Systems, Inc.,

Phone: (540) 552-5267, E-mail: Updater@SolvoSystems.com

REVIEWERS

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