

I PRO 342

Development of a Real-Time Information System

Background

Midwest Steel & Services, a growing company, needs assistance in expanding its business software and creating the means to provide real-time information. The company's present software and internal processes are not sufficient to meet their current and future business needs. The company has asked for the assistance of I PRO 342 to improve this issue. The I PRO team will review the present situation and try to assess it. This assessment will come from both a systems review as well as interviews of Midwest Steel staff.

Objectives

- Become familiar with the flow of information through the company for each job. Identify specific areas of inefficiency or redundancy which might benefit from an alteration to their software or operating procedures.
- Analyze the identified problem areas in order to determine what single solution will provide the greatest benefit to the sponsor without disrupting operations and while remaining achievable by I PRO 342 within the timeframe of a single semester.
- Design and program the required software for the chosen solution, then provide a working implementation to the sponsor before the end of the I PRO.

Basic Organization and Tasks

The project was broken down in to three different teams. One team worked on a lot of the back-end work for the program. This was the part that most of the work was performed. This area accessed the database and performed all the data manipulation. The second team was involved with working on the front-end design of the program. This included designing what the user sees and how the user interacts with the program. The third team was the team that interpreted and documented ideas into a presentable form.



Advisor: William Maurer, Industry Professor, Industrial Technology and Management

Team Members: Jarrod Godfrey, Computer Science, Michael Lagioia, Information Technology and Management, Michael Mikulka, Electrical and Computer Engineering, George Murphy, Computer Engineering, Kyle Pritchard, Computer Science, Donald Spears, Computer Science, Ryan Strand, Computer Engineering

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Critical barriers and obstacles

- Getting off to very slow start, it was a very difficult problem to understand at first.
- Forming together as a team and making sure that all members of the team were on the same page.
- Finding a time where members could get together and meet with the sponsor off-site to gather more information.
- Receiving a timely response at first from the company in order to gather more information to progress further with the project.
- Deciding on the best language to design the program.

Accomplishments

- Worked with the information acquired to design, code, and finally provide a modernized database interfacing system which allows Midwest Steel's inventory to be updated and tracked in real-time.
- The software created by I PRO 342 is crafted specifically to be highly expandable, allowing the company as well as future I PROs to build on the existing framework easily.
- Becoming a real team by the end of the semester.
- I PRO 342 went to the Midwest Steel and Services facility and met with their personnel repeatedly in order to gain as complete an understanding of their operations as possible.



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