

Abstract

Production scheduling consists of the activities performed in manufacturing companies to manage and control the execution of the production process. The basic task is to perform the production as planned while at the same time trying to satisfy the overall goals of the company. This is an important part of the management of a company since it directly affects the performance of the enterprise. There exists much interest from industry in using software systems to support the scheduling process but the application of such systems has shown to be problematic.

This dissertation is an investigation into the area of production scheduling and production scheduling systems. The purpose of the study is to determine which requirements there are on a scheduling system and what functionality such a system should provide. The aim has been to maintain a practical focus and try to find requirements that are important in reality when a system is used in a company.

The investigation has been performed through literature studies and by performing a case study in a company that use a scheduling system. From the information gathered in the investigation, a design of a scheduling system framework has been proposed and a prototype of the most important parts of this framework has been implemented. The results so far show that scheduling systems satisfying the requirements elicited from the investigation can be developed using the proposed framework.