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Planning and management of project's schedules with the GPM - Graphical Path Method

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ABSTRACT

The realistic planning and effective schedule management is an essential component of successful and on time completion of a project. The large number of activities of modern technical projects and their inherent complexity require the use of specialized software which provides features that will enhance and facilitate the role of the project manager.The objective of this thesis is the description of the Graphical Path Method (GPM) and then the comparative assessment with the known method CPM through a case study of a construction project while using software NetPoint and Primavera P6 Professional Project Management.Initially there is a description of the terminology and logic of the GPM method, and the main differences with the CPM. The advantages of GPM stem from the algorithm used and its capability of direct calculation of activities floats, which leads to integration of design and calculation in the same process.The comparison structured on the case study was performed using the two software packages. The design and management of schedules occurs in stages. The first step is the creation of the new project and its calendar. Then the activities and relationships between them are added. The process ends with the setup of the necessary resources and their assignment. The comparative evaluation of both software packages is based on the study of bibliographic sources and is completed by the personal experience of the investigation of their characteristics.The thesis concludes with the exposition of strengths and weaknesses of both software packages at different stages of planning and schedule management. Furthermore, the speed, the usability and effectiveness in relation to the project's size and to the extent of the prospective user experience are evaluated.

KEYWORDS

Planning Schedules, GPM, Primavera P6, NetPoint, Software comparison