

1. How to work with this report

Software is widely used to support modern businesses project management. Surveys show that supporting software is employed in more than 75 percent of all implemented projects ([19], [28], [17, p. 196]). Originally these systems were designed for network planning and scheduling only (cp. [11], [25, pp. 37]), but modern solutions cover almost all aspects of project management.

It is no longer only project managers who use project management software. It is increasingly used by all project stakeholders: project teams, customers, suppliers, steering committees, project offices and upper management. The systems have experienced a technical development from monolithic desktop applications to highly scalable enterprise solutions. These solutions are capable of single and multi project management but are also used for portfolio management and have evolved their collaborative capabilities: Due to the success of the internet project management software has transformed into a platform for computer-supported cooperative work (CSCW), enabling geographically-dispersed teams to minimize the problems associated with working in different locations at different times (cp. [27]).

Project management software systems are increasingly used for *enterprise-wide project management*. In these cases the software supports the streamlined and standardized execution of projects according to project management process models and methodologies. The systems are highly configurable, so they can be adapted to an organization's individual needs.

Complex Implementation Projects

As a consequence, the selection and implementation of project management software has become remarkably complex. Organizations particularly have to consider the following aspects:

- The *number and functional diversity* of the available systems complicate the pre-selection of software systems (currently,

more than 220 systems are available from 200 manufacturers).

- The organization using the software must take *requirements from manifold user groups* into consideration if the software is to be accepted.
- The organization's *project management methodology* should serve as a basis for the configuration of the system. If necessary, the software must be extended by custom development.
- *Interfaces* to adjacent software systems have to be created. Financial and human resource management systems play a special role here.

In the early days of project management software, implementing it just involved procurement and installation. Today, implementation is first and foremost an organizational issue.

In this book, the *term project management software* (PMS) is used to refer to all software systems that carry out the initiation, planning, controlling and termination of projects, project programs and project portfolios. Project management software can support one or more projects, programs or portfolio management methods. The software we refer to has been specifically designed and developed for the purposes of project management (project management software in a narrow sense). Software systems that offer generic functionality, which can also be used to facilitate the management of projects (like Office software), are only regarded as project management software in a wider sense (cp. [17, pp. 28]).

Introduction

This report is divided into three parts (Fig. 1). The *first part* is an introduction and describes the fundamental aspects that need to be considered when selecting and introducing project management systems. We recommend that you the focus on these chapters if you are currently involved in the selection and implementation of PM software in your own company. The

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Figure 1.: Structure of the Project Management Software Systems Report

information in these chapters summarizes both current scientific findings and practical experiences from actual implementation projects, in which different products were utilized.

The chapter “*Technical aspects of PM software*” contains a brief outline of the technical characteristics and distinguishing features of the project management software products available today. You will only require more precise details if, for example, you are a representative of the IT department and are responsible for the installation and maintenance of the acquired software. In this case you will already be acquainted with the technicalities and can skip this chapter. It is aimed at those who are approaching PM software from the project management viewpoint.

Each new version of a software brings with it new functions. The order in which manufacturers implement certain functions is frequently similar. It follows the various application scenarios in the company over the course of an increasing degree of project management maturity (beginning with the planning of individual projects and progressing through to the planning and controlling of complex project portfolios or multi-project environments). The *maturity model for project management software* describes these areas of application and the typical, sometimes compulsory, development that

many project management software products go through over the course of time.

This report weighs up the project management software available using the *M-Model*, a functional reference framework that places the features they offer in a process-orientated context. The chapter dealing with the “M-Model” describes how we evaluate software. It also illustrates the relationship between this process-orientated representation of project management and thematic arrangements – for instance according to the ICB IPMA Competence Baseline.

The chapter on software functionality provides an *overview of the functionality* offered by modern software systems. It is based on the structure of the M-Model. Taking over 50 topical groups with a total of more than 270 individual software features as a starting point, this chapter describes the criteria we applied when analyzing the products in this report. It is also suitable for checking whether your own software requirements have taken everything into consideration. You can draw up your own requirement profile using the one contained in this report by using the enclosed check list.

Market Overview

The second part is concerned with specific software products and their functions. It forms the most extensive part of this report. Here you will find *detailed descriptions of several products* from different manufacturers. Each product was evaluated using the 250 criteria of the M-Model described above. These criteria are additionally grouped by functional aspects as well as project management software maturity aspects. These evaluations, together with the screenshots, will give a good impression of the respective software products. The section also contains general information on each product and its manufacturer. If you are concerned with the selection of project management software, you should have clarified your requirement profile with the aid of the previous section's check list before examining these assessment results.

In the final chapter of the second section, we compare the assessments of all products according to the M-Model, the maturity model, and the functional analysis.

Appendix

The appendix forms the third section of this report. It contains lists of the illustrations, abbreviations and literature as well as the keyword index.

For an easier read, we sometimes dispense with a detailed illustration of the assessment system in the first two sections of the report. Nevertheless, the goal of this report is not only to supply information on project management software to help you make your decision, but to make the assessment process transparent. All rules, according to product, can therefore be found in the appendix.

How to Get Updates

The manufacturers of project management software are always developing their solutions. This report allows for that via the *accompanying website* at

www.pm-software-report.com

This gives you access to updated product information during your selection. The *access code* on the inside of the cover, which is valid for six months from the date of purchase of the report, allows you to log on to the website. Newly-published assessment results will be provided here in PDF format for downloading.