

PROJECT PRIORITIZATION (P2) SOFTWARE

P2 BASED PRIORITY SYSTEMS HAVE THREE COMPONENTS

A data management component for collecting, storing, and retrieving the information that serves as the foundation for project portfolio decision making.

A decision component for (a) converting project induced changes into measures of project value, and (b) using project value to identify value-maximizing portfolios

A reporting component that displays the results.

P2 SOFTWARE IS A DECISION MODELING SYSTEM

It supports enterprise wide project portfolio management.

It is a general modeling system that enables users to quickly implement and modify multi-attribute valuation models without any custom code development.

P2 has the unique ability to support value models that are based on Multi-Attribute Decision Theory. This ability allows for the valuation of the an organizations many diverse activities and objectives.

Value models based on Multi-Attribute Decision Theory, when properly formulated, compute a true measure of value that is in terms of contribution to organization / corporate goals.

P2 SOFTWARE IS A STATE OF THE ART CLIENT/SERVER SYSTEM WITH FULL REPORTING CAPABILITIES

P2 is a client-server based system. P2 is designed to work with most types of database systems. It has been tested with MS SQL server. (And, works with MS Access but due to MS Access limitations, this is not recommended)

P2s client-server architecture supports (1) single and multiple databases depending on the needs of the organization, and (2) data input and analysis from multiple users and from multiple organization units.

The P2 administrator can set permissions by user. These are quite flexible in that permissions can be given by department, within departments or across the corporation. Record locking is supported to prevent multiple users overwriting the same records.

Many tabular and graphics reports are provided. Exporting these reports to Excel, pdf, Word, etc formats is provided.

Reports are fully customizable. Data can be sent to an Access database and custom reports easily created; the user reports created stay from one export to another thru proprietary technology.

Thru the use of P2s Import/Export capability exchanging records with any corporate database is easy to set up. This ability also does as much as possible to ensure that records being imported into P2 are valid records, thereby preventing issues of overwriting and corrupting the P2 database as a result of an operator error.

Under SQL Server, the software supports multiple databases on different servers.

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FREQUENTLY ASK SOFTWARE QUESTIONS

Question: What language was used to develop P2?

Answer: The application is developed in Visual Basic Professional 6.0.

Question: What database systems will P2 connect to?

Answer: P2 can connect to pretty much any database but we have primarily worked with SQL Server and Access. The MS SQL Server should be installed on a Windows 2000 or 2003 server. A long time back we tested P2 with Oracle server and at that time had issues with the Crystal Reports version we were using. Since then P2 has not been re-tested with Oracle server.

Question: How are P2 reports generated?

Answer: Reports are generated thru the use of Crystal Reports. We developed the reports using Crystal Reports 9.0 Developer edition. A run-time version of Crystal Reports is distributed with the software.

Question: Can you provide an overview of how the software is installed in client-server environment?

Answer: A Windows installation package is provided for each client machine; for the SQL server version this does not install any databases. The client software consist of the VB application integrated with reporting (the developer license allows us to integrate a run-time license). On startup the client application has to be setup once to connect to the SQL server.

Question: Can users create customized reports?

Answer: Yes the P2 software allows completely customized reports. For custom reports we recommend using the in-built feature to export data to an Access database and then design the custom reports using that database. The access database preserves any custom reports created so that future exports to it will also retain all report structures and therefore work with the new data exports

Question: Can the user export P2 data to other corporate databases? Likewise can required data be imported into the P2 system?

Answer: The export feature mentioned above also allows you to write simple queries to take the data into a corporate (or other database). Similarly, from an external database, you can write to a fairly simple Access database (described in the manual) to allow for importing of data from outside into the P2 database with validations performed for correctness.

Question: Does the software support having more than one database?

Answer: An advanced feature of the SQL Server version allows an administrator to create one or more databases on one or more servers. For example a gas database and an electric database. Users can have access to any one or both as set by permissions.

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SOFTWARE QUESTIONS CONT.

Question: What do you mean when you say that P2 is a “general modeling system designed to support implementation of value models based on Multi-Attribute Decision Theory?”

Answer: The P2 software is completely flexible in allowing a modeler to develop sophisticated multi-attribute models. The user defines the value attributes and organizes the attributes in a parent-child tree structure.

A user you can define what parts of the tree structure get grouped together on a project data form for the person entering project data. Costs are also broken down into user-defined categories. In addition, the value model designer can add *Help* text for the end-user. This help is available when entering data on the project data-entry side.

In summary, the system is designed for software implementation of a completely customized set of cost and value attributes

FREQUENTLY ASK IMPLEMENTATION QUESTIONS

Question: What is required for successful implementation of a project portfolio management system?

Answer: Successful implementation requires at least the following items:

- High level management commitment to the system;
- A project portfolio manager with (1) authority to administer the system and perform analysis, (2) authority to work with project champions to get data and review project scores, and (3) accountability for the credibility of the analysis process;
- Project engineers that are committed to the system and to working with the portfolio manager; and
- An analytic methodology for quantifying value, selecting projects and supporting sensitivity analysis.

Question: What tasks or steps are required for implementation of a P2 system?

Answer: Design and implementation of a prioritization tool using P2 requires six steps:

1. Team building
2. Design of a value model using multi-attribute decision theory
3. Creation of prioritization tool using the P2 software and the value model from steps 1 and 2
4. Software acceptance testing
5. System operational testing and refinement of the value model and its implementation in the prioritization tool
6. Training of management, engineers and administrators

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IMPLEMENTATION QUESTIONS CONT.

Question: What are the benefits of a P2 system?

Answer: It is not a small task to design and implement a good project prioritization system, but there are significant economic and other company-specific value related benefits. P2 provides the methodology and accompanying software to achieve these benefits:

- Evaluate on a consistent and logical basis the hundreds of candidate projects managers typically submit for decision makers to compare
- Treat fairly and consistently projects with different attributes – that is large and small, different time horizons, response to different customer and system needs
- Value each project using a collection of attributes that describe financial and system performance implications
- Rank capital and O&M projects with respect to a set of systematically-specified objectives including costs, reliability, number of customers impacted, service requirements, and revenues
- Select the best multi-year portfolio of projects given a budget constraint, and understand the implications of changes in budget levels