

Improve the efficiency and quality of your decision making processes

Proxedra's software DXE is an integrated solution for data and knowledge management that can improve your decision making process and speed up development.

What do we want to improve?

A number of software packages exist that target the data acquisition, management, and analysis markets. In addition, more general software packages exist, like Supervisory Control and Data Acquisition software (SCADA), Laboratory and Process Information Management Systems (LIMS and PIMS), Statistical software, Multivariate Data Analysis software, and Expert systems. Despite (or possibly due to) the large number of available software packages, it is a challenging task to solve the data acquisition, management, and analysis needs in a typical laboratory or process environment. The tight coupling between various instruments and the accompanying proprietary data-acquisition software often forces the users to operate several different software packages in parallel. This situation implies a significant cost for training of the involved personnel and typically results in a large number of separate data files that are difficult to organize or analyze together. Furthermore, since several software packages are involved, on-line analysis and feedback is difficult.

The disadvantages of existing solutions

The various software types mentioned here are typically highly optimized for specific subtasks. SCADA software provides a simple graphical user interface even in complex situations and allows feedback, but often lacks in analysis capabilities and decision support. LIMS and PIMS systems, which can be interfaced to many data sources, are efficient tools to organize data from different sources and offer tracking and reporting capabilities, but they often lack in analysis capabilities and make feedback and on-line control difficult. Statistical and Multivariate Data Analysis software are good tools for data analysis, but often require a lot of manual data-import work, again limiting feedback and on-line control capabilities. Expert systems have few limitations and can provide a solution, but they are very expensive and require a lot of customization before they can be used.

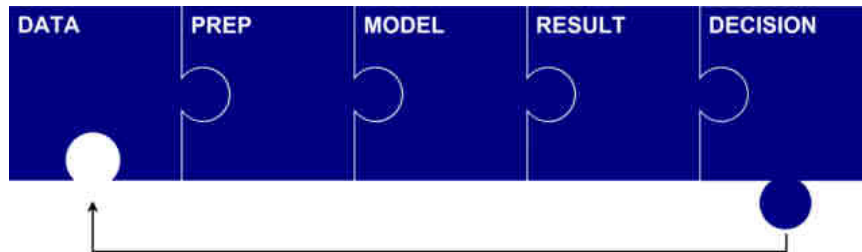
Our solution

We provide a totally integrated solution for data and knowledge management that covers the entire chain from data acquisition, management and analysis to data interpretation and on-line control. The software uses a novel way of presenting data-handling problems to the user. Our problem-oriented concept builds on that the user chooses between available problem types (scenarios) instead of between available methods/algorithms. A built-in guide in the form of wizards leads the user towards the ideal solution to the problem.

KEY BENEFITS

- Improve data management
- Automate decision making
- Increase the quality of decisions
- Capture in-house knowledge

The software's modular architecture makes it easy to plug in added functionality when necessary. Data source interfaces exist to all most common file formats (including MS® Excel and tab-delimited text) and to various databases. Other interfaces, e.g., to various instruments can easily be implemented. Modules for experimental design are available.



The software integrates multiple data sources; data analysis, presentation, and decision modules; and feedback and on-line control capabilities.

Analysis modules for standard multivariate tools like Principal Component Analysis (PCA) and Partial Least Squares (PLS) are available as well as preprocessing modules including automatic variable selection and a set of high-performance proprietary algorithms based on Optimal Discriminative Projection (ODP).

Since all data is collected in a global database, the data can be accessed by all users in an organization. Together with optional user-security features, this facilitates the implementation of FDA and GMP related procedures.

The problem-oriented concept combined with a simple and consistent user interface and facilities for the automation of routine tasks ensure our software's ease of use and minimizes the requirements on operator training.

SYSTEM REQUIREMENTS	
Intel® Pentium® 600 MHz or higher	XGA or higher resolution monitor (min 1024x768)
256 MB RAM (512 recommended)	Mouse or other pointing device
100 MB hard disk space	Microsoft® Windows® 2000 and Windows XP™

