COMPUTER TECHNOLOGY

Setting standards for information exchange in drug development

A new consortium addresses cross-platform computing problems.

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Most drug companies' research and development (R&D) enterprises are run on a mixed bag of computer platforms, networks, databases, and software applications. Making all these different elements work together as a unified system is an expensive proposition that has required custom design and implementation. In the past, putting together such a sophisticated system has been beyond the reach of most biotechnology companies, but now a consortium has been assembled to specifically address the cross-platform computing problems of the drug development industry.

The R&D team computing consortium (TCC) was formed to develop standards for integrating information from the disparate automation systems used in R&D. Founded in late 1995 by companies in the chemical, pharmaceutical, and biotechnology industries, this 15-member consortium will use an open, vendor-independent process to specify design requirements and fund qualified vendors in order to develop advanced software systems that will meet the needs of researchers. This should be a major aid in developing systems-wide integration for drug developers. Once in place, these standards will significantly reduce the effort needed to build an integrated system from the equipment you presently own.

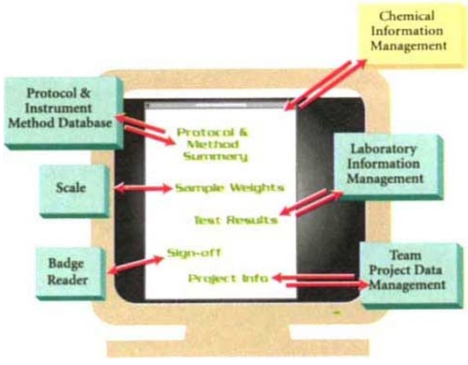

Figure 1. A data management system.

Developing the existing infrastructure

Rather than start from scratch in building the components for this proposed system, the R&D TCC strategy is to "fill the holes" in commercially successful systems. Basically, this means building components for electronic signatures, electronic notary services, and application integration that will allow effective client software for electronic notebooks. By developing these components incrementally, members of the consortium will be able to begin using electronic notebooks integrated with their existing software and equipment immediately.

The vendor selection process will begin within the next few months. The consortium will award contracts to qualified vendors of electronic laboratory notebooks, groupware, document, and workflow management. The selected vendors will develop and support various scientific software clients, middleware, and base-platform enhancements.

While the system will be designed for the laboratory, it will also be compatible with popular computing software such as Digital's LinkWorks, NetScape/Collabra, Lotus Notes, Documentum's EDMS, and Interleaf's Intellect/BusinessWeb. These vendors and their technologies, plus many others, are currently being assessed for fit with the consortium's goals.

Researchers should expect to see new products emerge from the R&D TCC in about two years. The first application is expected to be "electronic laboratory notebooks" that can capture and consolidate data from all types of instrument used in the laboratory. These electronic notebooks will be integrated into a larger systems for R&D team project data management and collaboration.

Conclusions

The consortium is now recruiting additional member companies to help define and drive the creation of broad-based industry solutions for R&D project data management and collaboration systems. Consortium companies will help establish the standards for software before they are brought to market by vendors. Members of the consortium will receive full product specifications and source codes, and significant discounts on software and support for the first few years after the consortium finishes this project.

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