TECHVIEW
SOFTWARE

At Your Fingertips

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One of the by-products of the information age is an increasing number of data formats. At the same time, journal and government agencies are narrowing the range of formats in which they will accept publications and reports. Finding, organizing, and formatting information for an FDA submission, for example, can be simplified immensely by enterprise-wide deployment of a flexible information management system.

NuGenesis
Mantra Software

Westborough, MA.
Workstation, $5,000;
Access-based
client/server, $15,000;
Oracle-based
client/server, $40,000.
1-888-246-1888.
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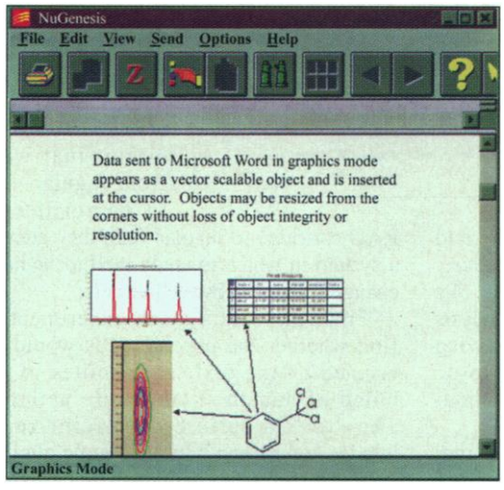
NuGenesis is an incredibly versatile software package designed to assist in information collection, storage, and retrieval. It is a Windows 95/98/NT scientific data management system (SDMS) that can capture data from a wide variety of instruments in numerous formats. NuGenesis is specifically geared to digest the huge amounts of data generated in many laboratories daily. The result is quick and easy retrieval of data for writing papers or preparing government agency documents. For those who find themselves data rich and information poor, NuGenesis provides some relief.

NuGenesis's approach to information management is simple, yet powerful. It involves: (i) Archiving project data with a print-to-database technology—users simply issue a print command from the application that created the data to enter searchable text, graphics, spreadsheet and other data directly into the program's database. (ii) Creating a common format for stored data, which allows more time to interpret, report, and export analytical results, regardless of the application that created it. (iii) Providing a search engine to locate and extract desired information in the database.

NuGenesis's SDMS technology is designed to unify the various reports and images that scientists create with PC-based applications. Because of its unique print-to-database technology, data from applications as diverse as chromatography software, molecular modeling tools, and business applications are easily collected and unified in the database.

Not surprisingly, NuGenesis's minimum requirements are a Pentium-class computer with at least 32 MB of RAM and 30 MB of hard disk space. Installation is straightforward. It involves loading the program from the CD-ROM onto the hard drive, configuring a database, and configuring the NuGenesis UNIFY database archive client. UNIFY, when installed on a workstation or personal computer, appears to the user as a printer driver, so that a finished report can be committed or "printed" to the database.

To begin the process, the software is placed on any computer that provides data. Information can be accessed from any Windows-based computer on the local network and entered into the UNIFY client, where it is converted to a Windows metafile with vector-scalable maps. These allow zooming and resizing without loss of resolution (see figure). Users can add standard database tags or "field" information to aid in retrieval of information. Options include log-in name, computer ID, date/time, batch ID, user name, project, and report ID. Much of the ease with which information can later be retrieved by the software hinges on thoughtful entry of tag data for each record as it is created. The new release of NuGenesis allows customization of up to 50 different user-identified tag fields. Tags can be entered manually, by a selection from a "most recently used" list, or from a locked list. Once tags are entered, the record can be "printed" to the NuGenesis database by the UNIFY print driver. Printing, in this case, means converting the generic print output to a metafile format stored on the server.



A view of the NuGenesis software, showing text combined with illustrations.

Once in the NuGenesis database, information may be viewed but not changed. The original data is stored in an Oracle or Access database (NuGenesis uses Open Database Connectivity interface technology, so it works well with these standard packages), where it can be edited, merged, or appended to other reports. A chemist can juxtapose chromatographic data with that from an atomic absorption spectrophotometer and a nuclear magnetic resonance spectrometer, add molecular modeling output, including drawings, and finally, include a report done in any standard word-processing program. The database, therefore, contains a complete record of any experiment including original data, processed data, support materials, and final reports (see figure). Templates suitable for U.S. Food and Drug Administration or other official submissions can be made before final database entry.

NuGenesis has excellent sort tools in its VISION viewer. This very useful module provides tools for handling database information prior to formatting output. Its toolbar allows one to open any database, print, preview selected reports, sort the list by several criteria, show or hide selected files, apply filters, select applications to receive reports, send selected reports to any desired location within an application, and to obtain help. The menu in VISION includes File/View/Send/Help options and a database menu that allows data to be merged, deleted, copied, and moved. The VISION toolbar also displays a list of all database files and allows selection of them, as needed.

Search tools in VISION are based upon a hierarchical data-search design that includes sort and filter functions for any field in the database. VISION also has two excellent help screens. One will display help for any given command and the other will display help for any button. The quality of help in these screens is quite good and includes full descriptions of features as well as definitions of technical terms and cross references to other actions. System management and security is assured through an internal checksum feature that is calculated for every report. Once stored in the NuGenesis database, reports (like the data) cannot be modified and, if changes are attempted from outside the database, reports are flagged in red.

The package comes with a 190-page manual that is well organized and clearly written. The program is not difficult to master. Interested parties can call the company to arrange for a demonstration.

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