GENSONIC™/DBMS

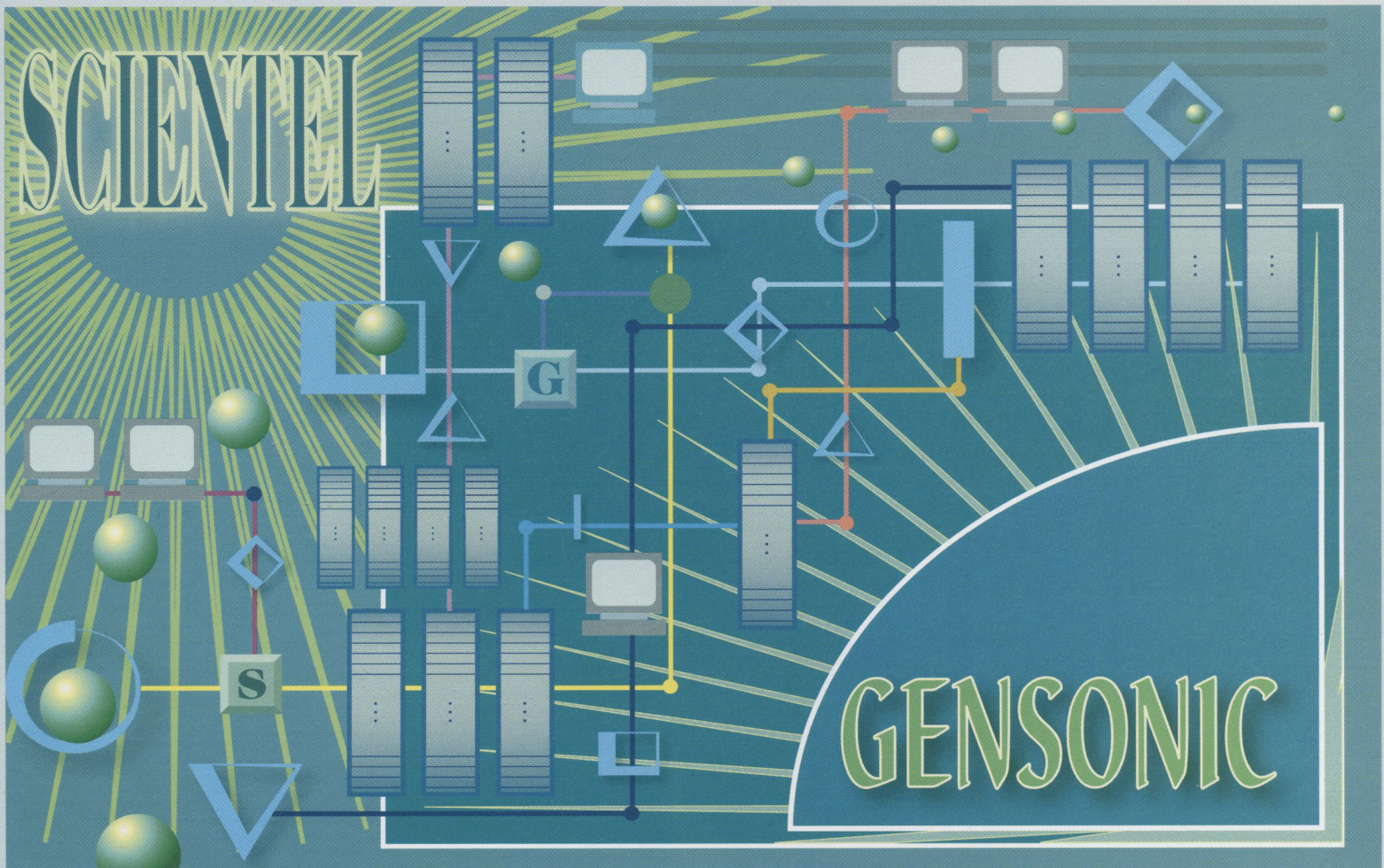## A Database Management System

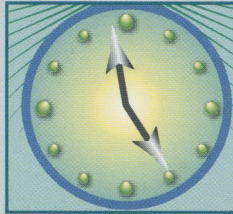### Transition to the new economy with sonic speed

Scientel Information Technology, Inc.

Introduction

Scientel's **GENSONIC** is a database management system designed to run in a variety of environments. **GENSONIC** is a general-purpose database management software system designed and priced to efficiently and cost-effectively automate information management requirements. It provides a comprehensive and highly flexible method of creating, controlling, and managing information that minimizes or even eliminates the need for expensive, time-consuming software customizing and constant software updating. Utilizing advanced data entry and file management methodologies this package is designed to facilitate use by key personnel through:

- Rapid Database/Relational table/File/Forms creation
- Rapid and immediate data entry and validation
- Visual user prompts and messages
- Advanced correction/management facilities
- Various quick data manipulation facilities
- Super-fast inquiry facilities
- Fast report formatting/printing

Accurate and strict audit trails can be created with the system via activity registers including operator identification.

The **GENSONIC** data base management system also provides:

- Automatic file creation and organization
- User controlled system purging/deletion/reorganization

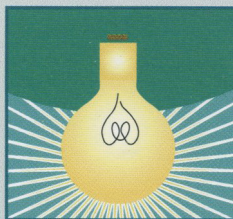| GENSONIC ENVIRONMENTS	TRADITIONAL
	UNIX SERVER/CHARACTER WORKSTATIONS
	INTRANET
	UNIX SERVER/WINDOWS WORKSTATIONS
	UNIX SERVER/UNIX WORKSTATIONS
	INTERNET
	UNIX SERVER/VARIOUS PC USERS

GENSONIC makes the environment transparent to the user

Advantages

GENSONIC provides management with increased profit opportunities through real-time information management, up-to-date inquiry, and comprehensive reporting. These capabilities could:

- Reduce development cost
- Reduce working capital requirements
- Assist in making timely decisions
- Assist in making timely allocation and budgeting
- Increase efficiency of development
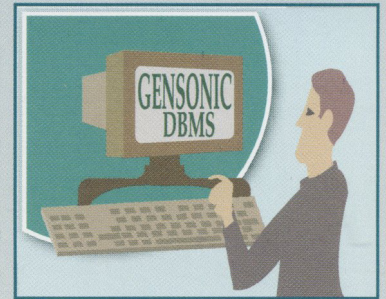- Create error free program modules

Power Capabilities

GENSONIC is equipped with:

- High efficiency database engine
- Simplest 4GL grammar
- Short programs/Small execution modules
- Easy to learn syntax
- Full HTML/JAVA support
- Object oriented library
- Intelligent (fuzzy) search engine
- High execution speed, more users per CPU

The System Manager

The system manager benefits from the knowledge that the system is highly structured, organized and robust, yet offers security of information while at the same time providing the flexibility to handle the information processing requirements of a busy organization, These are attained through:

- Login security features
- Flexibility in information management
- Maximized control over resources and time

The Developer/User

Scientel's unique data entry features and user-friendly approach in this package provides the developers and users with:

- Extensive safety features to help alleviate accidental, costly and time-consuming errors during development/use
- Standard conventions during processing, to minimize errors/confusion when moving between modules
- Rapid system response during data entry/retrieval/inquiry that helps get the job done in a timely manner
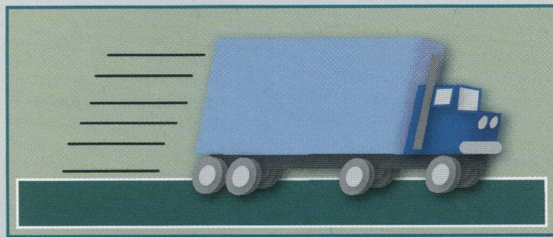
System Overview

Having been designed with novice users in mind, **GENSONIC** does not require high level programming skills. It is designed to simplify the programming needed to accomplish data processing requirements such as formatting, data entry, data base management, verification, inquiry and report generation.

For the novice users, the **GENSONIC** user manual provides instructions that are easy to understand. The program modules are driven from a menu selection display such that each function may be invoked easily. All the novice user really has to know is what the data base is and what information is to be manipulated.

GENSONIC allows most data manipulation capabilities found in standard data base management systems and more! It uses a relational data base architecture along with the capacity to handle the network or hierarchical structure. This architecture, combined with the Scientel modular HTML forms oriented system, allows quick and efficient accomplishment of the user's information processing tasks.
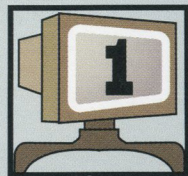
The **GENSONIC** relational reporting facilities use standard relational operators to perform the data manipulations required of a data base management system. Statistical and other analytical reporting capabilities coupled with flexible formatting makes **GENSONIC** ideal for users who have a variety of *__fast development__* requirements.

GENSONIC includes several utilities that can be used to reorganize (lengthen, shorten, reformat, rearrange and resequence) data files. Coupled with the use of other utilities and programming functions, applications can be created fast!
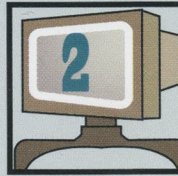
GENSONIC program modules are optimized for high efficiency. Compared with other 4GL systems, **GENSONIC** program modules are smaller and therefore more efficient. This feature coupled with the blazing speed of the Database engine makes **GENSONIC** THE fastest DBMS system in the market today!

The Easy Steps

1 Initialization

GENSONIC data bases can be created and installed quickly with the initializer module. This procedure is simple enough to perform.
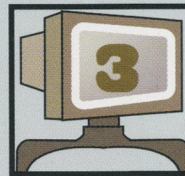
2 Forms Generation/Data Description

Having initialized the data base, the information to be stored in the data base is identified for the system through the forms generate/data description module.

The forms generator allows the data base administrator/system manager to easily draw/create and maintain formatted displays. Used more familiarly for data entry and file management functions, these formats can be custom designed to the user's requirements. As these requirements change, the format can be updated and redesigned at will. New data fields can be added, altered or deleted at any time.

The forms generator also acts as the data base's data description identifier. A true relational table is maintained by the system, corresponding to the form, created. This table consists of all of the data fields (Attributes) built into the format (Relation).
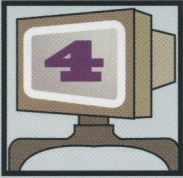
3 Data Definition

The relation identified in a satisfactorily constructed screen form is processed through the data definition module. This module allows the user to include the new relation and its attributes into the database through a simple interactive procedure. During this phase, the characteristics of each attribute/data field can be defined. This information is assimilated into the data base system, the relation files and indexes are created, and the forms installed. The relation/file is then fully functional and is ready for data entry management and processing.

GENSONIC image display

ITEM NO.	DD-230	DESC	SWISS ARMY TIME KEEPER KNIFE
STK/NON-STK	S	IMAGE	
CATEGORY	KNIVES	DESC	KNIVES
PRODUCT LINE	SEBOLTS	DESC	GENERAL HARDWARE LINE
NO PER CART	1	PRICE	5.200
LEVEL 1	0	DISC %1	.00
LEVEL 2	0	DISC %2	.00
LEVEL 3	0	DISC %3	.00
LEVEL 4	0	DISC %4	.00
LEVEL 5	0	DISC %5	.00
QTY-ON-HAND	1905	SALE-YTD	.00 -
QTY-ON-RES	964	QTY-YTD	0
QTY-ON-B/O	0	QTY-PR-YR	0

Item File Display - Netscape

PREV Item File Display NEXT

File Management/ Data Entry

The form provides the system with comprehensive and easy-to-use file management features. Entry of new data, as well as corrections and deletions are efficiently accomplished through the **GENSONIC** file management module, which can easily be created with the 4GL language.

Functions
- Data entry editing, limits
- Field access, tabs
- Option boxes, radio buttons
- Position previous/next record
- User definable prompts

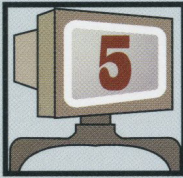Sample **GENSONIC** Intranet display with
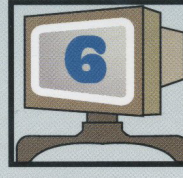e-mail and home page hyperlinks

Query

Query allows the data base user to inquire on information stored in multiple relations within a **GENSONIC** data base. The user need only identify for the system the relations being sought after and a list of the attributes to be displayed, using English language syntax and relational and logical operators. Query then proceeds to display onto the screen all the matching information found in the data base.

This short 9 line program publishes a list of all customers with ID numbers >0 on the web page:

```
RELATION #1:CUST
PROGRAM INQ1
SELECT #1 WHERE CUSID >= "0"
PRINT "<PRE><B> Cus ID  Customer Name          City</B></PRE>"
WHILE STATUS = 0
PRINT "<PRE>",#1.CUSID,#1.CUSNAME,#1.CUSCITY,<PRE>"
NEXT #1:CUSID
END WHILE
END PROGRAM
```

Report Generator

The **GENSONIC** report generator provides the data base user with the capability of retrieving selected groups of information from the data base using a series of key data commands, relational operators, and English language syntax to set the report parameters. A hard copy listing is then generated, tailored and formatted to the purposes of the user. Special care was taken to simplify the command structure of **GENSONIC** to allow inexperienced users to write 4GL programs. Yet **GENSONIC** performs complex functions such as a table look up without any degradation. An example of a report writer program follows. This 11 line program generates a report of customers and their representatives from two relational tables:

```
RELATION #1:CUST, #2:REP
PROGRAM REPORT1
OPEN FILE #3:"CUSLIST"
SELECT #1 WHERE CUSID >= "0"
PRINT FILE #3,"CUS Name          REP Name"
WHILE STATUS = 0
SELECT #2 WHERE REPID = #1.CUSREP
PRINT FILE #3, #1.CUSNAME ,#2.REPNAME
NEXT #1:CUSID
END WHILE
END PROGRAM
```

File Interface

Using a standard file interface, this **GENSONIC** facility can be utilized to define the format descriptions of certain data files created in another application system (the application system can be written in any programming language). Given the data file definitions, **GENSONIC** is capable of capturing and organizing the data elements into a relational table within a **GENSONIC** database. Similarly, the data from a **GENSONIC** relational table can be exported for use by other application systems.

GENSONIC is one of the few DBMS systems that has a built-in high efficiency graphic and image management system. **GENSONIC** requires the shortest number of program lines compared to other 4GL systems. **GENSONIC** creates optimized execution modules that are much smaller in size compared to other 4GLs. No wonder **GENSONIC** can support more users per CPU than any other DBMS system in the market today.

In addition, **GENSONIC** applications and DBMS systems outperform other applications not only in speed, but also in reliability! Generating applications under **GENSONIC** is more economical! These features make **GENSONIC** the preferred DBMS for Internet/Intranet applications.