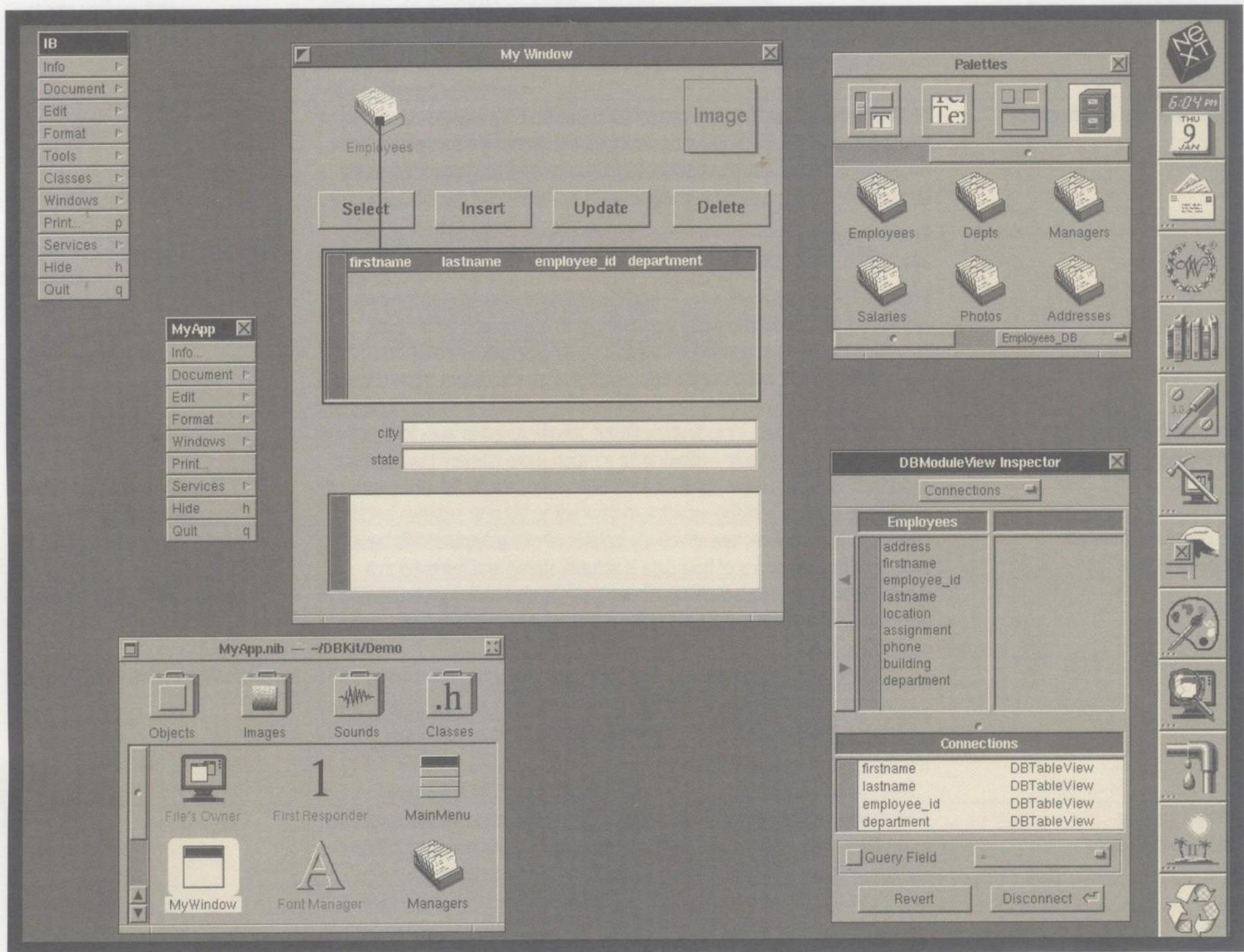# NeXT DATABASE KIT

The NeXT Database Kit™ (DBKit) extends the power of NeXTstep's object-oriented paradigm to database application development.

Encompassing a robust suite of object classes and methods, DBKit radically shortens the time required to design and implement database applications that have graphical user interfaces (GUIs). The management and control of database transactions within an application is simplified with DBKit.

DBKit allows you to design your applications in a database-independent fasion by providing database "adaptors." This unique architecture allows the migration of applications to new databases without the recoding of user interface and application logic.

DBKit also enables the intergration of data from multiple sources within a single, easy-to-use application. Data sources accessible via the DBKit architecture can include relational and hierarchical databases, on-line news feeds, and more.

All of the objects in DBKit work seamlessly with objects in NeXTstep's Interface Builder™ and the Application Kit.™ Applications developed with DBKit may easily incorporate all the functionality offered by NeXTstep,™ including interprocess communication, support for graphics and sound within an application, and cut/copy/paste functionality between applications.

Together, NeXTstep and DBKit provide an application construction environment that significantly reduces the effort required to design, implement, and maintain GUI-based database applications.

FEATURES AND BENEFITS

Toolkit of database-related objects	Extends the scope of the "building blocks" available in NeXTstep, dramatically reducing the time required to develop and deploy database-oriented applications.
Object-oriented architecture	All DBKit objects may be used "as is," or customized for a particular need. DBKit-based applications are thus flexible and extensible—the application developer is not locked into the functionality of a database vendor's specific language or forms package.
	Enables developers to add their own custom objects which can be shared across numerous applications.
	Provides for vast improvements in application maintenance—application developers do not have to worry that changes to one portion of the code may have unintended consequences that could propagate throughout the application.
Integrated development environment	All of NeXTstep's tools, including the DBKit, are designed to work together—optimized and seamlessly—allowing for a much more efficient development process.
Database-independent implementation	DBKit's layered architecture effectively isolates all of the application's basic logic from the semantics of how data is actually stored and retrieved in a particular vendor's database. This allows applications to be migrated to a different database without requiring the recoding of user-interface and application logic.
	It also allows the integration of data from multiple sources within a single application. The data sources may be relational databases from a single vendor or from multiple vendors, and may include on-line news feeds, hierarchical databases, and others.
Vendor-specific database "adaptors"	Adaptors translate database-independent information into a vendor's specific access language. Therefore, application developers need not worry about differences between various database vendor's access languages.
Open architecture	DBKit is based on a well-defined set of protocols so that new adaptors for accessing additional databases may be easily created.
Provides for the integration of C languages	Allows the development of robust database applications requiring extensive data verification and complex logic by using all the flexibility and creativity offered in the C, Objective C and C++ programming languages.
Standard high-level programming interface for manipulating data	Insulates the developer from the complexities of the underlying database by packaging explicit data relationships and attributes into easy-to-manage objects. This enables the developer to focus on the flow and presentation of data, instead of having to manually construct every query and deal with a variety of database library interfaces.
Supports specification of multiple types of relationships between data elements	DBKit applications may exploit the full relational power of databases by supporting one-to-one, one-to-many, master/detail, multi-level, and self-referencing relationships.
Supports multimedia data types	Using DBKit, a developer can build applications which manipulate a wide variety of nontraditional data types—from simple text and numeric fields to rich text, images, and sound.
	This multimedia information adds tremendous value to end-user applications, and can be a significant competitive advantage for an enterprise.

FEATURES AND BENEFITS

Supports various data selection methods	DBKit provides developers with the flexibility of incorporating various data selection methods into their applications: ■ Fixed queries, where the parameters of the search are predefined by the application developer. ■ Query-by-Example, which allows users to vary the values of the search criteria within a static set of data fields. ■ Ad-hoc queries of arbitrary complexity, built with minimal restraint on the scope of data field values or data ranges involved.
Sophisticated buffer management capability	Stores the results of a query as a coherent "snapshot" of retrieved data elements. Enables efficient record processing, allowing random or sequential access to rows of data as they are retrieved from the database. Collects record modifications, insertions, and deletions before they are committed to the database, thus ensuring consistency in a multi-user environment, and allowing "undo" functionality.
Does not require additional software to be installed on the database server	Eliminates the risk of unknown dependencies or problems between this additional software and either the system software or other applications running on the server system.
Integrated end-user environment	Applications developed using DBKit maintain both the ease-of-use and the consistent look and feel which are the hallmarks of NeXTstep applications.
Integrated with other applications	DBKit applications can cut, copy, and paste data from other NeXTstep applications. In addition, they can request Services from other applications, such as Webster's Ninth New Collegiate Dictionary,® NeXT's Digital Librarian,™ or NeXTmail.™ More sophisticated database applications can be easily designed to access mathematical models in *Mathematica*,® or to send numerical information to Lotus™ Improv for charting or analysis.
Oracle support	The Oracle® Call Interface (OCI) and SQL*Net® are bundled with DBKit, enabling connections to any Oracle RDBMS.™
SYBASE support	The SYBASE DB-Library™ is bundled with DBKit, enabling connections to any SYBASE SQL Server.™
Supports the client/server computing model	Provides an ideal mechanism for integrating local, easy-to-use NeXTstep interfaces with computer-intensive searches running on remote cycle-servers, all within an easy-to-maintain application. End-users can access the critical data they need more quickly and reliably.

PRODUCT DETAILS

Adaptors bundled
- Oracle
- SYBASE

Adaptors for other databases are under development in conjunction with the database vendors. Call NeXT or your database vendor for details.

The database engines may be running locally on your NeXT™ computer, or remotely on any computer and accessed using TCP/IP.

SYSTEM REQUIREMENTS

To develop applications with the NeXT Database Kit, you will need NeXTstep Release 3 Extended (compatible with any NeXT computer).

Applications developed with the NeXT Database Kit can be run on any NeXTstep Release 3 system.

ORDERING INFORMATION

All NeXT computers will come preinstalled with either Release 3 or Release 3 extended configuration. In addition, a CD-ROM disk containing the entire release is included with the computer.

If you have a NeXT computer running Release 2, you can upgrade by ordering one of the following two products.

NeXTstep Release 3 on CD-ROM
(extended configuration)
USA and Europe
N5527

NeXTstep Release 3 on floppy disk
USA and Europe
N5528

For more information, call 1-800-TRY-NeXT

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