

D³ Database Management Server

Delivering Proven Multidimensional Database Technology to the Evolving Enterprise

Proven Technology

For over 30 years, the Pick Universal Data Model (Pick UDM) has been synonymous with performance and a reliable, flexible hierarchical and multidimensional infrastructure for the delivery of critical business transactional and analytical database applications.

A data model is the fundamental organizing principle that underlies any database or data management system. The Pick UDM was architected to deliver fast and reliable transactional capabilities at the same time providing a flexible data store that can easily handle any increasing data requirements while maintaining low costs of administration.

TigerLogic's D³ database management system offers flexibility, dynamic growth and enterprise scalability. Built on the Pick UDM, it is simplistic in its structure, but allows for complex definitions of data structures and program logic. Rapid application development and application customization requires an underlying data structure that can respond effectively to ever-changing business requirements. The D³ database-centric development environment provides software developers with all the necessary tools to quickly adapt to change without compromising data integrity.

TigerLogic continues to build upon the strengths of D³ and carefully embraces the latest proven technologies that can leverage the intrinsic capabilities of its powerful data model. Today, D³'s compatibility with the Microsoft .NET Framework extends transactional access to the Pick UDM from all languages supported in Visual Studio .NET including VB.NET, C# or ASP.NET. In addition, D³'s data files can be accessed by Microsoft SQL Server Reporting Services directly through seamless integration, and using standard dictionary definitions.

Why Businesses and Developers Choose D³

The choice of more than a thousand application developers worldwide, D³ offers business management a low cost of ownership, low staff requirements, speed and resource efficiency and rapid ability to change with new business requirements. It also gives developers the ability to rapidly build what management requires in a fraction of the time compared to other database environments.

D³ is a high-performance and cost efficient solution with features that include:

- .NET Integration: Our .NET integration solutions, the Pick Data Provider for .NET and Pick Reporting

Services Connector, allow users to take advantage of the Microsoft .NET Framework and Microsoft SQL Server Reporting Services by providing a native bridge between a .NET application and the Pick data source.

- Microsoft Compatibility: Word, Excel and SQL Server read and write Pick data files.
- Web-enabled: The FlashCONNECT interface allows full-featured Web-to-D³ connectivity. D³ can read and write to Web pages natively and in real time.
- Scalable and Efficient: The D³ database management system works comfortably with one to thousands of users. D³ offers an efficient file system when utilizing system resources providing high performance with minimal memory.
- Seamless Interoperability: D³ provides seamless interoperability with varied databases and host environments. The wealth of connectivity options and tools allows developers the ability to create almost any interface to D³.
- Openness and Mobility: The Pick data model allows businesses from remote or disparate locations around the world secure, simultaneous access to the database.
- Low Cost of Ownership: Non-technical staff can easily manage systems on a part-time basis, dramatically reducing operating costs and system management.

The Data Model

Unlike relational database management systems that require information to be stored in flat, two-dimensional "tables", D³ is multidimensional: a record can have multiple data fields, each field can have multiple values and each of these may be made up of sub-values.

The powerful data dictionary in D³ makes it possible for the same set of information to be represented in an infinite number of views. D³'s way of managing information has proven vastly superior to other database schemas for creating real-world applications.

The Pick UDM continues to be leveraged by thousands of software applications around the world running business transactions with minimal active management of the database server. D³'s large community-base of long-term developers and users has remained loyal throughout the years because of its flexibility to model real-world complex data problems. D³'s reliability and powerful operating environment allows organizations of all sizes to extend their business applications as their business requirements grow.

Database

LIMITLESS:

Files may consist of an unlimited number of records. Records may have up to two billion fields. Fields may be up to 2GB (numeric or string). A process may open up to 32,000 files.

DYNAMIC:

Fields can change dynamically, thus having no length or data type restrictions. Adding fields to a file does not require reformatting or restructuring.

Integrated Data

DATA DICTIONARIES:

Field definitions are stored in an integrated data dictionary providing for conversions, formatting and self-documentation. Multiple definitions may be used on all fields. The dictionaries also provide the interface for database triggers.

MULTI-VALUE:

Transcending the limitations of the two-dimensional relational model, TigerLogic's multi-value model adds additional dimensions to reflect true business data modeling. These multi-values along with their possible sub-values and associated sub-multi-values permit the stacking of data and/or keys within a field or fields. This eliminates the need for dependent tables and joins.

Data Access

AQL™:

D³ includes a powerful English-like query and command language called AQL (Access Query Language) most powerfully used for creating result sets and reports.

CONNECTIVITY:

Local and wide-area network connectivity is supported and the Open Systems File Interface (OSFI) allows D³ applications seamless access to "foreign" files and relational database structures.

ODBC SUPPORT:

D³'s development tools are intimately knowledgeable of the multi-value data structure, which facilitates rapid development without the need to deal with low-level functions. D³ also has multiple avenues to move or access data including OSFI/ODBC, SQL/ODBC, VBSQL, D³ ActiveX development class libraries and more.

File System

DISKS:

The File System may reside on top of a group of host-system files or on a raw storage device for maximum

performance. Additional storage devices may be added at any time without rebuilding the D³ database.

RAPID DATA ACCESS:

A hashed indexing scheme on primary record keys assures access to data elements with a minimum of disk reads regardless of database size. This D³ distributed disk management enhances performance.

SECONDARY INDEXING:

Cross-indexing is supported for fast access to records via secondary keys. Balanced-tree index maintenance and synchronization is performed automatically by the system during all updates.

ON-LINE FILE RESIZING:

An on-line file resizing utility is provided to keep files in an optimal state without interrupting processing or user access to data.

System

SECURITY:

Multilevel security supports user and account passwords and file access restrictions as well as update name and date stamping.

MEMORY:

Through shared program object code usage and virtual memory management, D³ requires as little as one-fifth the memory per user of other database products.

IMPORTABLE/EXPORTABLE:

Import and Export features facilitate complete movement of data between environments. Files can be maintained where most often used, and portability between versions of D³ makes data and programs transportable between development and various production systems.

INDEPENDENT OPERATING ENVIRONMENT:

D³ runs on most popular operating platforms including Windows, AIX and Linux. Data and applications are fully portable from one environment to another.

Contact Information

For further information on D³ or any of TigerLogic's products and services, please contact your local sales representative or email sales@tigerlogic.com.

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