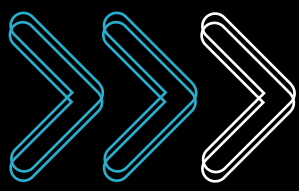


*Any data any time*



*Any data any time*



*the Exploration Warehouse Solution*

**HyCube Technologies, Inc.**

# ABOUT US...

HyCube Technologies seeks to be the world's leading software vendor for the next generation of data warehousing. Founded in June 2000, HyCube is revolutionizing data warehousing with its proprietary technology specifically designed to support "exploration" warehousing. Exploration Warehouse solutions are the next wave in Analytical Processing tools, allowing rapid loading and exploration of data without extensive preparation.

The HyCube data engine is engineered to avoid much of the heavy preparation work that exhaust most organizations trying to implement large scale Decision Support Systems, Data Warehouses, and Data Marts. It provides extremely rapid and economical database queries on very large datasets. It offers the analytical capabilities of a Multi-Dimensional Database without preparing schemas and expensive disk arrays.

These benefits are achieved based upon three key technologies, Vertical Data Storage, Bi-Fold Bit-Mapping, and Token-Based Data Structure, that perform sophisticated analysis of large databases efficiently and cost effectively.

## HYCUBE PRODUCTS...

HyCube HQ PRO™ is a time-to-market solution for any organization with rapidly changing requirements and large volumes of data to analyze. HQ LITE™ is an economical version of HQ PRO™ designed to serve the same needs for medium and small businesses and gain the loyalty of independent researchers. The technological features also form the basis for development of vertical market tools called HQ ISS™ Industry Specific Solutions. Similarly, HQ SMT™, a Semantic Matching and Transformation tool, can resolve long-standing data problems in Data Warehousing and Data Mining preparation, data application systems development, and data migration.

## HYCUBE EXPLORATION WAREHOUSE ADVANTAGES...

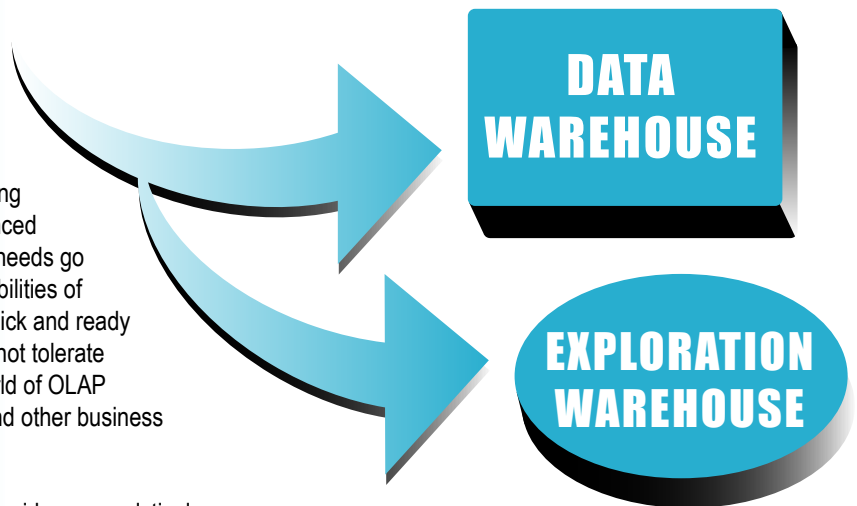
Exploration Warehouse is a data warehouse or data mart intended specifically for users who need to make truly "ad hoc" queries and "anything goes" exploratory analysis. It's meant for advanced analysts and power users whose data analysis needs go beyond the canned reporting and analysis capabilities of mainstream warehouses. Power users need quick and ready access to current and historical data. They cannot tolerate restrictions on their queries in their dynamic world of OLAP (On Line Analytical Processing), data mining, and other business intelligence applications.

HyCube HQ PRO™ Exploration Warehousing provides an analytical database platform that empowers users without calling in IT professionals every time they want to conduct data analysis "outside the bounds" of the "originally requested" data warehouse structures.

Exploration warehousing gives users opportunities to explore cleaner, better defined data in ways previously unimaginable, finally delivering on the promise to put useful information into the hands of the executives and employees. Sounder, more accurate decisions will result.

## OUR GOAL...

HyCube provides a comprehensive solution that serves both the traditional data warehousing market and the emerging market of data exploration. The HyCube HQ PRO™ data engine exemplifies HyCube's belief that "less is more", and that the highest goal in science and technology is "simple elegance" or "elegant simplicity". Unlike most other databases, HyCube does not require the time and expense of indexing, pre-building summary tables or joins, data compression, etc. as commonly used in other technologies.



- VERTICAL DATA STORAGE
- BI-FOLD BIT-MAP
- TOKEN-BASED DATA STRUCTURE
  
- EASY TO USE
- EASY TO MANAGE
  
- OLE DB INTERFACE
- MULTI THREAD

# HYCUBE FEATURES...

HyCube PRO™ technology is a data warehouse tool that can be used on individual workstations or in networks. The highly specialized data engine delivers superior performance with large volumes of data. It is installed as database servers on most hardware and operating system platforms, including Windows and soon, Unix.

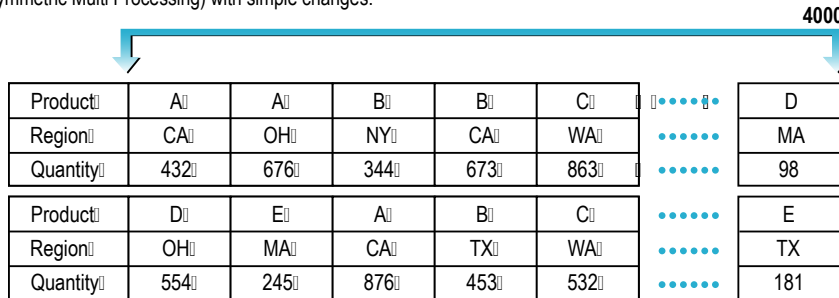
A graphical user interface connects to data engines through a communications server. Most off-the-shelf or custom-made GUI query and reporting tools can replace the standard user interface by linking to the same communications server.

Three core technologies, Vertical Data Storage, Bi-Fold Bit-Mapping, and Token-Based Data Structure provide performance up to 50 times faster than relational databases for "ad hoc" queries analyzing large volumes of data.

## Vertical Data Storage

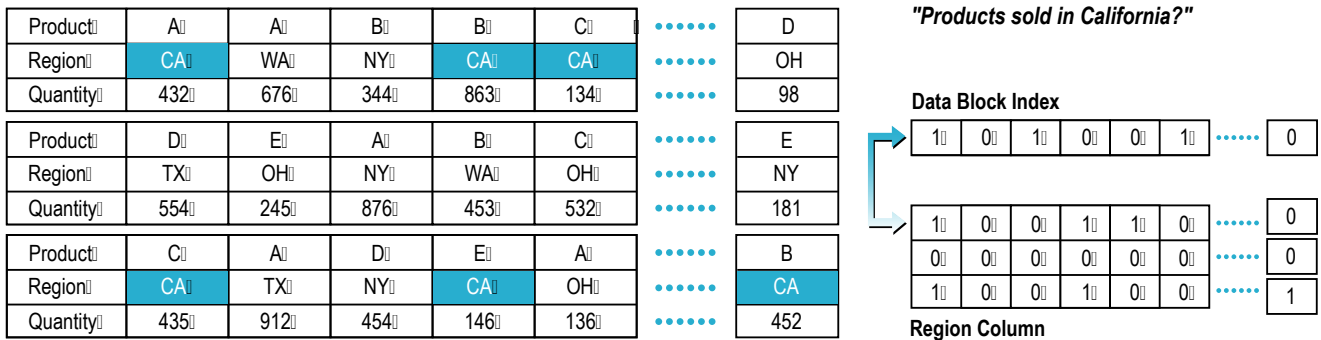
HyCube employs vertical data storage (column-wise or vector format) to provide the most efficient mode of storage, retrieval and analysis. It minimizes mechanical activity and memory usage, and dramatically reduces Input/Output operations.

Commonly used row-wise storage often accesses large spans of data not being used. Row-wise data storage requires extra processing time and storage space for building and maintaining structure and indexing. By using vertical data storage, HyCube avoids this expense and time, and still provides superior performance for all ad hoc queries. In this way HyCube enables multi-dimensional data analysis without aggregation, indexing, or occupying huge disk spaces. It also enables MMP (Massively Parallel Processing) and SMP (Symmetric Multi Processing) with simple changes.



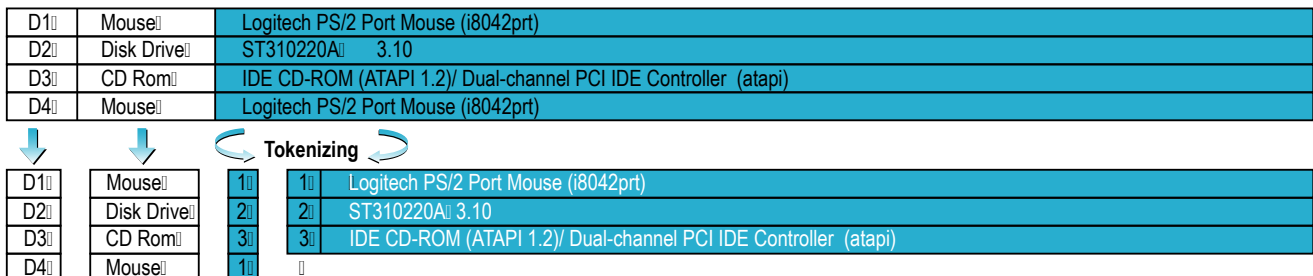
## Bi-Fold Bit-Mapping

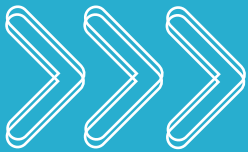
HyCube pre-filters disk data, dynamically forming bit-maps of targeted data by cell and vector. Using in-memory bit-maps, it handles complex conditions on massive arrays in a very small memory space.



## Token-Based Data Structure

Wide Text occurs in many formats such as device specifications, product descriptions, status comments, internet server logs, and customer comments. HQ Wide Text Tokenizing or Token-Based Data Structuring automatically reduces these into tokens that occupy little disk space, can be queried easily, and give superior query performance.





# HYCUBE PRODUCTS...

# PRODUCTS

## HQ PRO™

HyCube HQ PRO™ is a time-to-market solution for any organization with rapidly changing requirements and large volumes of data to analyze. HQ PRO™ accepts data from varied sources without skilled architecting, without committing to specialized schemas, without a thorough understanding of new data. It targets data analysis for summarized information at high speed without loadtime pre-aggregation or indexing. The engine and interfaces require only point-and click skills.

### HQ PRO™ MAJOR COMPONENTS & FEATURES

#### • HQ PRO™ Engine

#### • HQ PRO™ Enterprise Manager

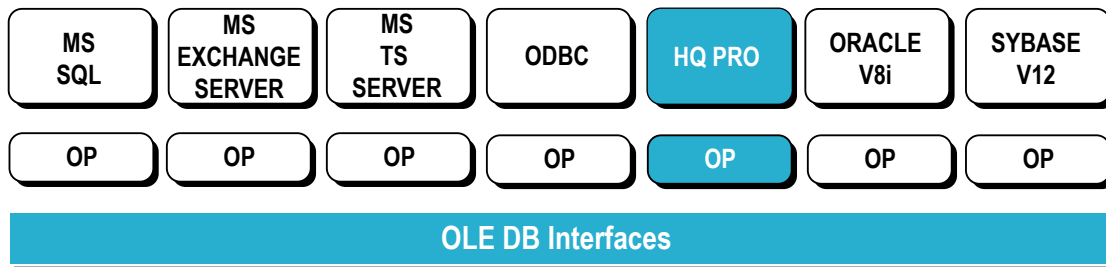
- Manage configuration and Catalog information in Catalog Database
- Import Data Structures
- Define Data Structures using data viewer
- "Point and click" Load and Unload of data
- Load data interruptions protected by checkpoint

#### • OLE DB Interfaces

- Enables connections through the MS OLE DB standard
- Allow HQ Applications to access any OLE DB data source
- Allow OLE DB enabled applications to read HQ data

#### • HQ PRO™ Interactive Command Editor

- Catalog Viewer
- Query edit functions
- Query Wizard
- Interface with Excel



OP: OLE DB Provider

APPLICATIONS

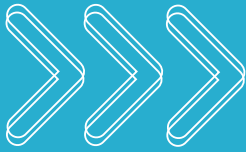
#### • HQ OLE DB Provider

- Provide interoperation with other data sources
- Export HQ PRO™ data structure
- Export HQ PRO™ data
- Import data structure
- Import data

#### COMPANY IDENTITY

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# PRODUCTS

## HQ LITE™

HQ LITE™ is an economical version of HQ PRO™ designed to serve the needs of medium and small business and gain the loyalty of independent researchers. Following the freeware/shareware model of introducing a software package to a wider audience, HQ LITE™ will be electronically distributed with some internal limitations

### Feature Set

- Standard Graphical User Interface
- User Access Control Module
- Guided Data Extraction, Definition and Loading
- Catalog Information Management
- Cataloged Views and Scripts
- Guided Export of Result Sets
- JAVA Servlet for Internet

## HQ SMT™

HQ SMT™, a Semantic Matching and Transformation tool, will resolve long-standing data problems in preparations for data warehousing and data mining, development of data application systems, and other data migrations. It will target difficult data management problems by building adaptive modules for semantic matching and transformation. HQ SMT™ modules and techniques will relieve chronic problems in data quality and significantly reduce the costs of data conversions in system upgrades or migrations.

### Feature Set

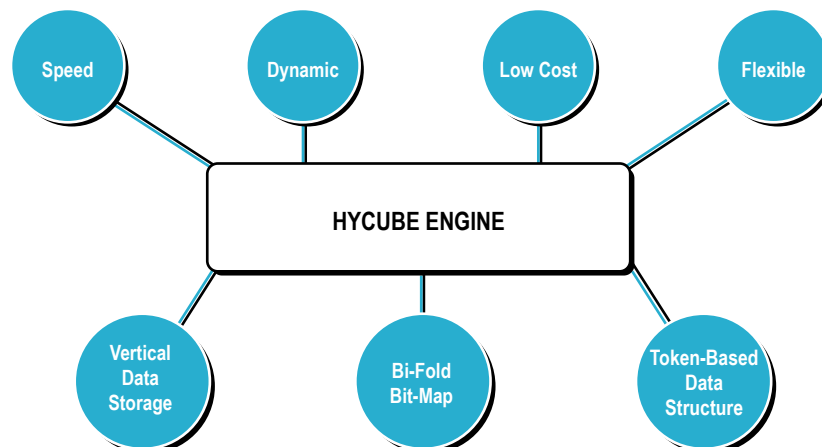
- Data Dictionary System
- Data Source Cross-References and Transforms
- Synonym and Alias Handling
- Data Cleaning and Scrubbing
- Data Re-Engineering

## HQ ISS™

HQ ISS™ Industry Specific Solutions will target specific vertical markets in industries by building highly adapted tools for industry specific solutions. These vertical market tools will be created with derivatives of the HyCube engines that manage and use specialized rule-base algorithms for finding optimal solution sets requiring iterative and adaptive matching. The first vertical market solution will offer an Insurance Rating Engine.

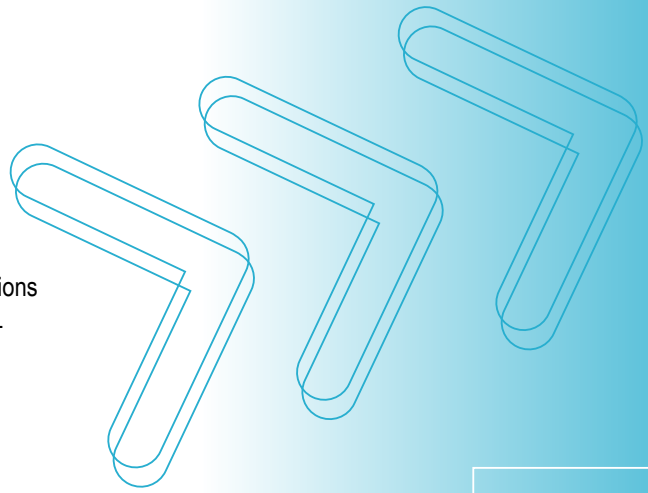
### Feature Set

- Complex Rule Checking
- Dynamic Program Generator
- Simulation



## HyCube Technologies...

- HyCube Vector DB
- Very fast Loader
- Powerful Data Engine
- Very fast Query
- Easy to use communication interfaces for developing applications
- Hyper Query Language, more versatile and efficient than SQL
- Ad Hoc Query: Any Data, Any Time



## HyCube Advantages...

- Optimized for speed and performance in loading data running queries
- Optimized for ad hoc interactive queries - DB Administrators need not fear the creative user
- Lowest overall cost per query
- Offers solutions to the problem of federating, cross referencing and correlating same-subject different-source databases
- Scalable to handle increased number of users and processors
- Easy for software developers to install and work with to create new applications
- Drastically reduce, often eliminate, database tuning by DB Administrator
- Preserve full relational flexibility, accommodating any data design or business model
- No Need to pre-aggregate and restrict access to detailed data
- Overcome the costly hardware investment and ongoing maintenance issues that plague other technologies
- Resolve queries without updating or tuning or maintenance of indexes
- Avoid problems of managing multiple data marts

CRITERIA \ COMPETITION	HyCube <sup>®</sup>	RDBMS
Data Load <sup>®</sup>	3-13 times faster <sup>®</sup>	
Query Process <sup>®</sup>	3-13 times faster <sup>®</sup>	
Disk Space <sup>®</sup>	3-6 times smaller <sup>®</sup>	
Manpower / Time <sup>®</sup>	Low Cost (20%) <sup>®</sup>	High cost
License Fee <sup>®</sup>	Inexpensive <sup>®</sup>	expensive
Ad-hoc Query <sup>®</sup>	<input type="checkbox"/> ✓	



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