

ULTRA HIGH-SPEED OPTIMIZATION OVERVIEW



Speed, Flexibility and Scalability are the essential design criteria of the Hilbert Solution.

Implemented through a highly eclectic folio of software, hardware, and scientific methods and algorithms, the Hilbert® Solution performs data access and analysis at ultra high-speed over large and often distributed volumes of data. This speed delivers unparalleled performance in business intelligence. Key technologies have been patented to protect years of research and development and to make Hilbert unique.

Levels of Optimization

There are four levels at which the Hilbert Architecture optimizes the business intelligence environment:

Data

Quantification

- Converts text and numbers to unique base-40 integers
- All information is stored in the Hilbert Space as multidimensional data points

Benefits

- Ultra high-speed search regardless of format: text and numbers processed the same way
- Search across structured and unstructured text
- On-demand/ad-hoc search with no impact on performance
- Unlimited managed space for data
- No specific indexes needed

Software

Binary Search

- Sorts all single-number files (whether created from numeric or textual sources) so that all information can be accessed with binary searches

Benefits

- Fastest number search algorithm for large sets of numbers now effectively applicable to text search
- Finds any number in a list of 4.2 billion numbers in 32 jumps - 32 nanoseconds on a standard PC
- Performance so speedy that it appears to be independent of volume

Mathematical Algorithms

- Uses fast and highly efficient mathematical algorithms for search and analysis

Benefits

- Ultra high-speed analysis over high data volumes
- Real-time responses to requests

Why Hilbert?

We are the only solution provider for ultra high-speed access, manipulation, storage and analysis of large volumes of structured and unstructured data.

Speed, Flexibility and Scalability have been the design criteria of the Hilbert solution.

The Hilbert applications are offered as industry or process specific solutions.

Bjorn Gruenwald, CEO
and Founder of Hilbert
Technology Inc.

Hardware

CPU

- Bypasses most OS processes
- Does load balancing between Hilbert Engines
- Base-40 conversion reduces CPU cycles needed to process information

Benefits

- Low cost of ownership
- Ultra high-speed analysis over high data volumes
- Real-time responses to requests

RAM

- Offloads most operating system based RAM allocation

Benefits

- Ultra high-speed analysis over high data volumes
- Real-time responses to requests

Disc

- Minimize disc read header movement

Benefits

- Ultra high-speed analysis over high data volumes
- Real-time responses to requests

Network

Serverless Network

- Does load balancing between multiple Hilbert Engines
- Connects each Hilbert Engine
- Creates Hilbert Virtual Space for consolidated data(base) view

Benefits

- Low cost of ownership
- Ability to analyze data in ways not even thinkable before Hilbert Network
- Data(base) consolidation capability with no interruption of operational databases
- Lower cost support personnel – no need for extra-expensive DBAs
- No extra cost of a centralized processing environment

Conclusion

Hilbert's business intelligence solutions optimize four areas of the computing environment for ultra high-speed performance: CPU, RAM, DISC access and network optimization. Putting this together with its patented data quantization technique, Hilbert technology outperforms existing BI solutions.

About Hilbert

Pennsylvania based Hilbert Technology Inc. is an international provider of data management and analysis solutions for large and medium size enterprises worldwide. The offering is based on the revolutionary, patented Hilbert Engine technology for the ultra high-speed access, manipulation, storage and analysis of large volumes of structured and unstructured data. The Hilbert solutions are offered as industry or process specific solutions. Organizations in public services, law, government, finance, communications, whole-and retail sales, transportation & tourism and chemical & pharmaceutical can employ Hilbert solutions to gain unparalleled speed in access and analysis over large data volumes.

Notes

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