

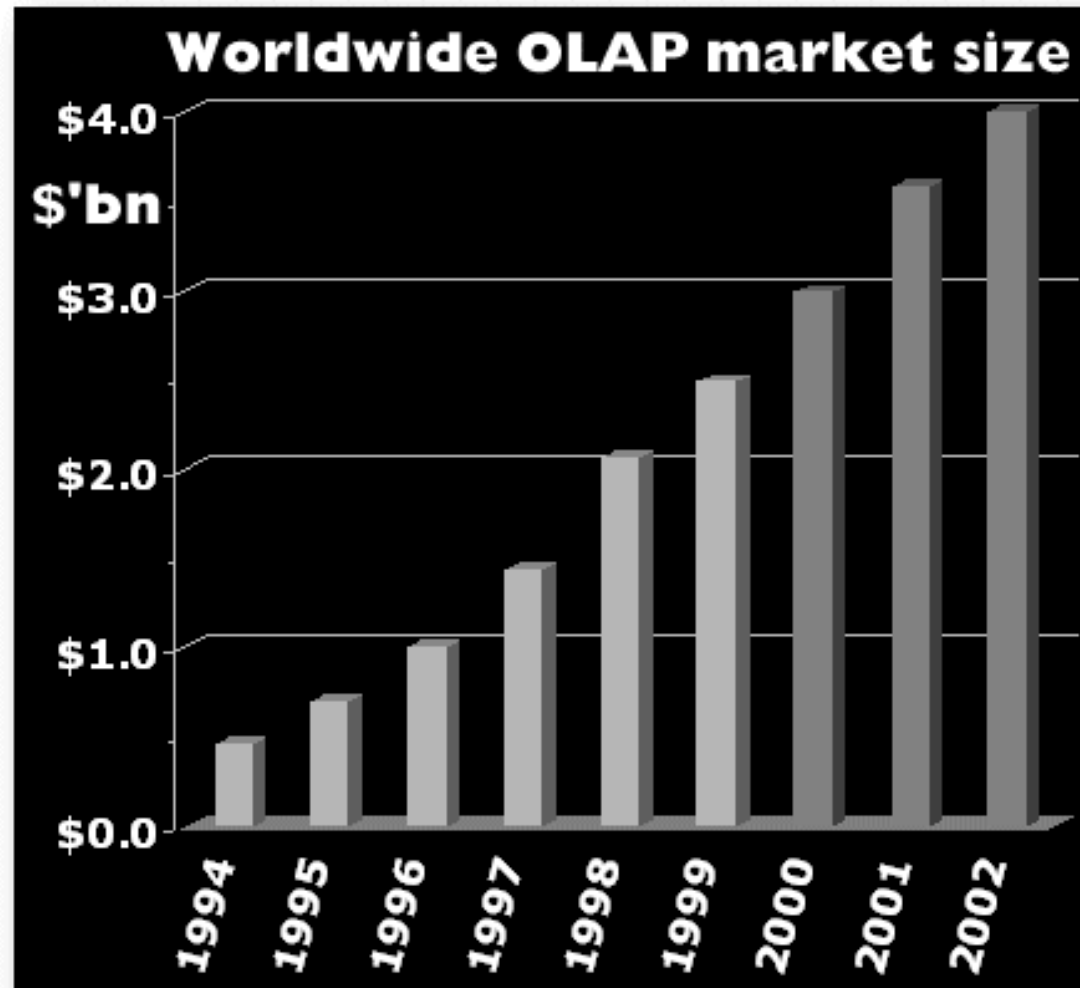
OLAP Theory-English version
supplement to OLAP 20050425

[Ing. Skorkovský, CSc]
Katedra aplikované
matematiky a informatiky

Agenda

- The Market / obchod/ marketing
- Why OLAP / proč OLAP
- Introduction to OLAP / úvod
- OLAP Terms and Concepts/ terminologie
- Summary / Závěr

OLAP market size



Why OLAP

- **The Right Information In The Right Place
At The Right Time**
- **Why**
 - More self-sufficient Business users
 - Keep the integrity of the data
 - Reduces the query drag(přítěž) and network traffic (zatížení na síti)
 - Organization can respond more quickly to market demands

Introduction to OLAP

“OLAP enables analysts, managers, and executives to gain insight into data through fast, consistent, interactive access to a wide variety of possible views of information. OLAP transforms raw data so that it reflects the real dimensionality of the enterprise as understood by the user. “

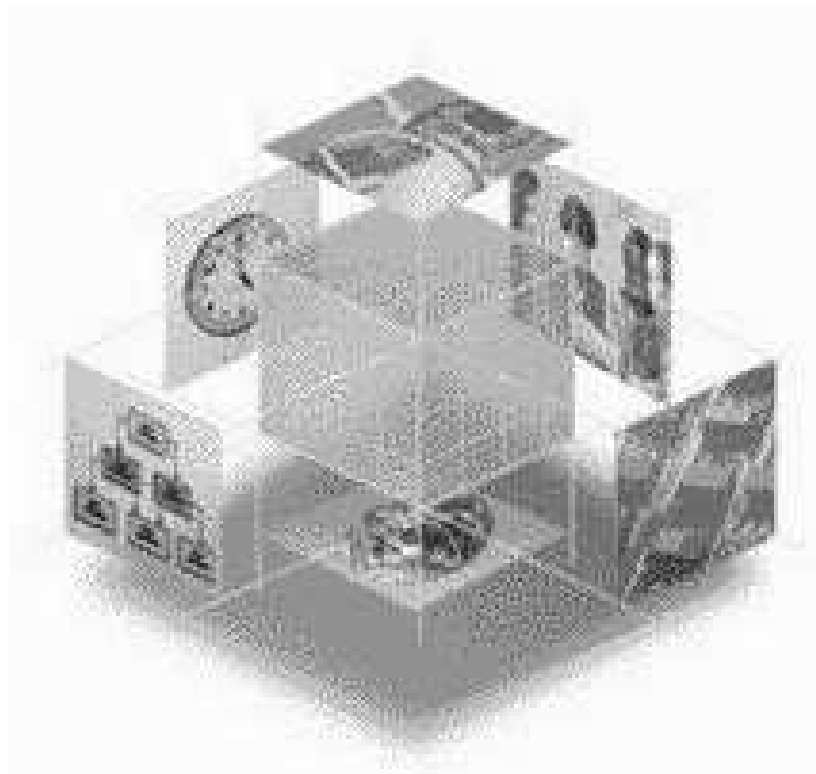
Introduction to OLAP

- Users
 - Analysts, managers and executive
- Access
 - Fast consistent, interactive
 - Wide variety of possible views
- Transformation
 - Raw data
 - Real dimensionality of enterprise

Introduction to OLAP

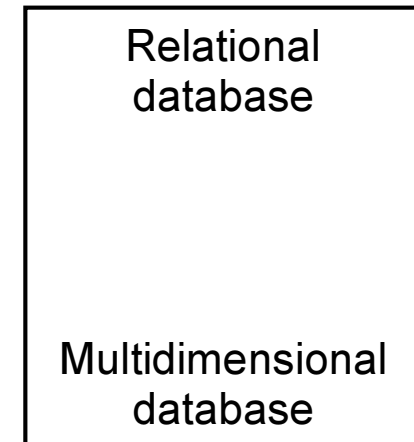
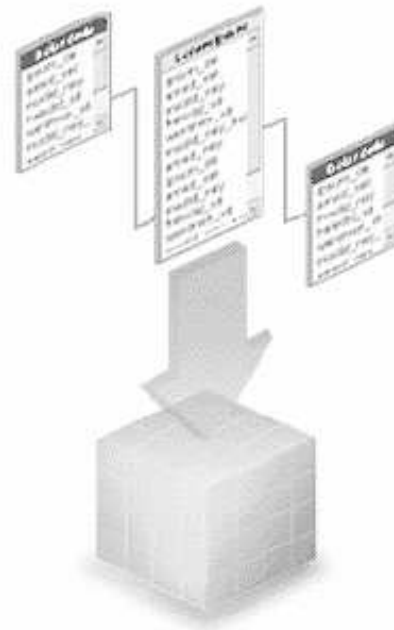
- Organizational functions
 - Finance
 - Budgeting
 - Performance analysis
 - Sales
 - Sales analysis and forecasting
 - Marketing
 - Market research analysis
 - Market/customer segmentation
 - Purchase
 - Cost of materials
 - Production
 - Cost of conversion
 - Distribution
 - Cost of shipping
 - etc

OLAP Terms and Concepts



OLAP Terms and Concepts

- Relational database
- Multidimensional database



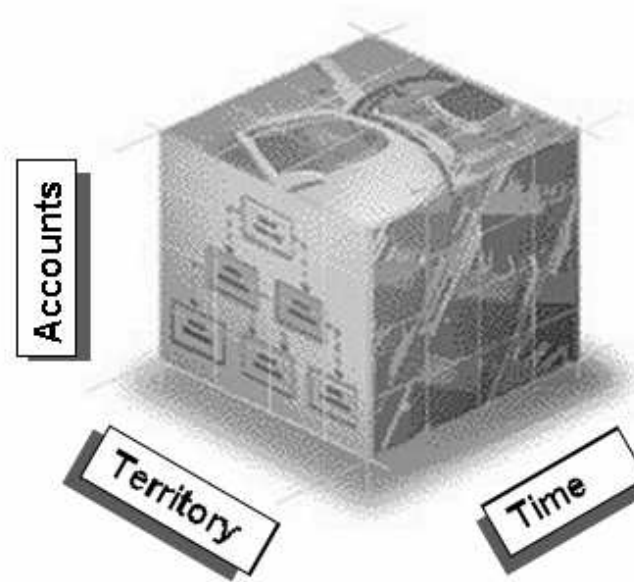
OLAP Terms and Concepts

- Cube
 - Information is conceptually viewed as cubes.



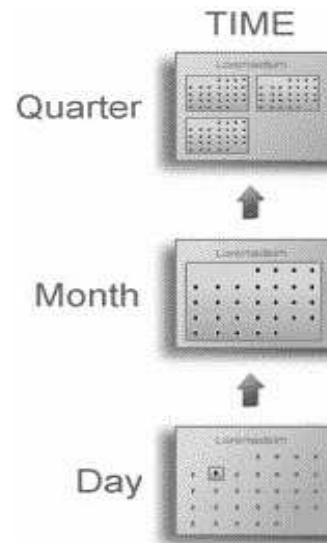
OLAP Terms and Concepts

- **Cube**
 - Information is conceptually viewed as cubes.
- **Dimension**
 - Distinct categories for business data.



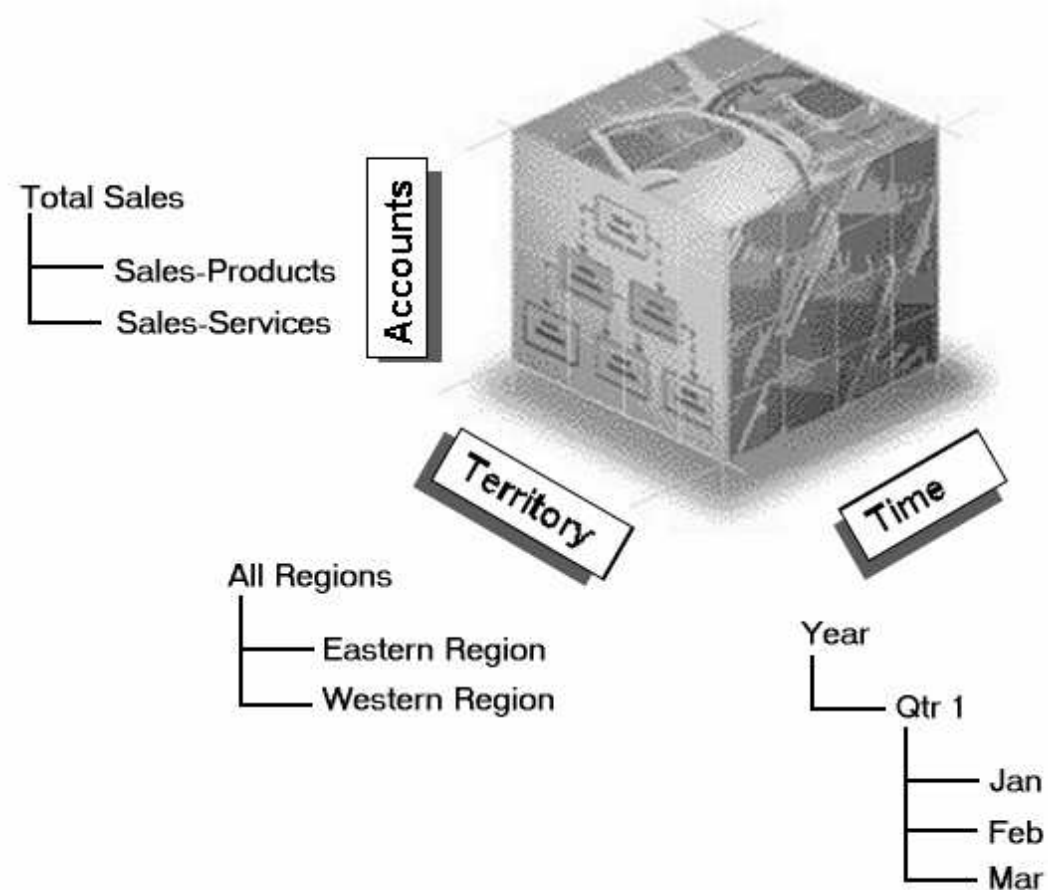
OLAP Terms and Concepts

- Cube
 - Information is conceptually viewed as cubes.
- Dimension
 - Distinct categories for business data.
- Hierarchy
 - Levels of details on the data.



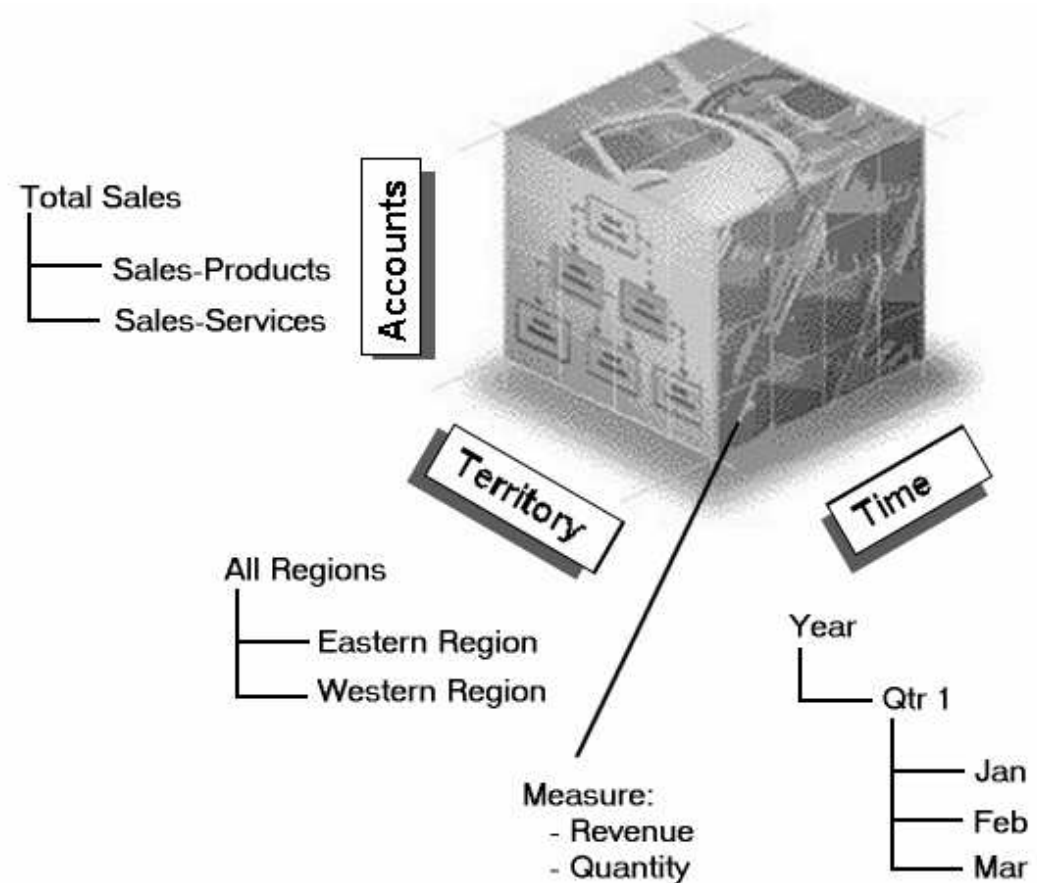
OLAP Terms and Concepts

- **Cube**
 - Information is conceptually viewed as cubes.
- **Dimension**
 - Distinct categories for business data.
- **Hierarchy**
 - Levels of details on the data.



OLAP Terms and Concepts

- **Cube**
 - Information is conceptually viewed as cubes.
- **Dimension**
 - Distinct categories for business data.
- **Hierarchy**
 - Levels of details on the data.
- **Measure**
 - Quantitative values.



OLAP Terms and Concepts

Cube

Information is conceptually viewed as cubes.

Dimension

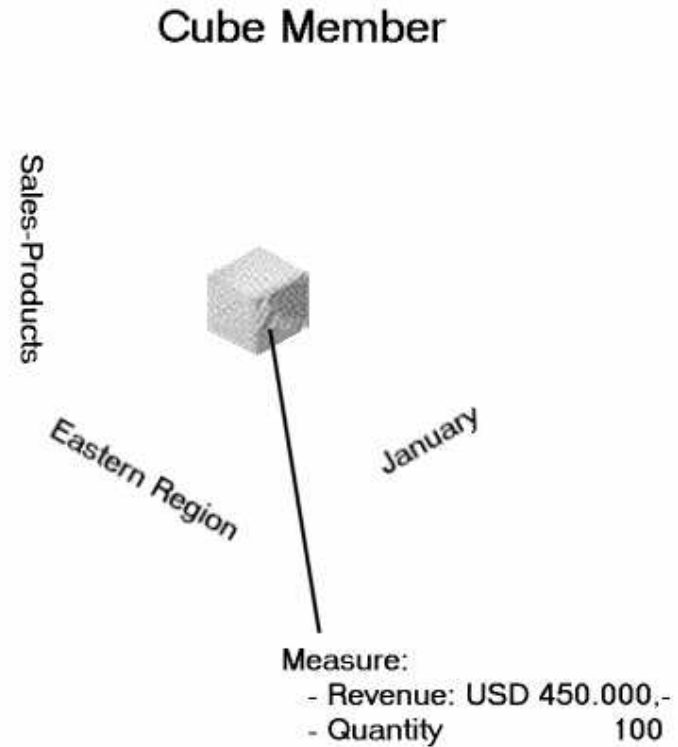
Distinct categories for business data.

Hierarchy

Levels of details on the data.

Measure

Quantitative values.



OLAP Terms and Concepts

- **Cube**
 - Information is conceptually viewed as cubes.
- **Dimension**
 - Distinct categories for business data.
- **Hierarchy**
 - Levels of details on the data.
- **Measure**
 - Quantitative values.
- **Data slice**
 - A subset of the data in a partition.



OLAP Cube

