



# Newsletter

## Newsletter Spotlight

- A BI Review of current Business Intelligence practices is the cornerstone of a new Business Intelligence approach to best serve Business requirements.
- SQL has matured to become a powerful alternative for Data Manipulation.
- Databases engines add new transformations functions at each new releases : example of MS SQL Server 2005.

### Getting a better picture of the BI Practice within your Organization?

Small, medium or large enterprises develop Business Intelligence practices to support their operational, tactical and strategic processes. The tools once put in place might today no longer be strong enough to respond to your needs because your organization has increased in size and more employees need to share a consistent view of the Business.

You feel a new impulse has to be provided and new marks have to be defined to support your company's progression.

A quick BI Audit of your organization would be the ideal starting point and cornerstone of this next move forward providing you with better insight on your BI Strengths, Weaknesses, Opportunities and Threats or Risks.

### Why don't you initiate TODAY a BI Audit or Review of your Organization?

#### SQL as Data Manipulation language

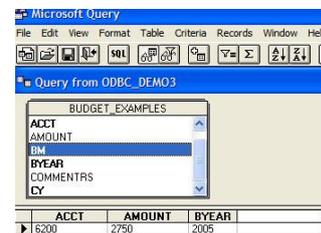
Most structured data today is stored in one or another relational database system (RDBMS). Companies usually have several flavors of these. Moving data from one application to another (from a production system to a reporting environment for instance), preparing data for reporting are activities taking a lot of time and resources within IT. IT may choose different strategies relying on different programming languages to deliver the expected results. SQL is one of these and as a matter of fact is usually also available outside the boundaries of the ICT department.

SQL is the current language supporting data restitution being used by your Business Analysts or BI power users to build and manipulate the data they work with.

In every release, Database vendors will provide new data manipulation functions easing the way developers will access, transform, aggregate and make data available to the requesting parties or applications.

Using SQL across the BI chain will ease communication between data consumers and data providers, lower knowledge transfer overhead relying on a better distributed expertise, improve the 'auditability' of the underlying processes and the agility of the Organization.

ETL vendors recognize the added-value of SQL engines and some are extending their solution (talking about 'pushing down' parts of the processes into the database) while others are using any ANSI SQL compliant RDBMS to execute all the ETL processes. One then talks about an EL-T approach to ETL.



SQL is just a few 'clicks' away

### Who is What ? Contact us for more Information.

#### New ways (or functions) to manipulate data with MS SQL 2005

Indeed, pivoting or unpivoting data have been done with SQL instructions before. Though it surely was more complex than it will be from now on with the already one year old release of MS SQL Server.

How often do we have to 'pivot' or 'unpivot' data sets we are working with?

```
SELECT * FROM SALES
PIVOT
(SUM (Amount) - Aggregate the Amount
column using SUM
FOR [Quarter] - Pivot the Quarter column
into column headings
IN (Q1, Q2, Q3, Q4)) - use these quarters
AS P
GO
Year  Q1      Q2      Q3      Q4
-----
2001  100      190      165      90
2002  200      250      230      180
```

#### Syntax example for Pivot from the 'Books' !

opposite operation to PIVOT by rotating columns of a table-valued expression into column values.

Working with 'hierarchies' is another area of improvement.

Feature like Common Table Expression (CTE) allows to define a virtual view to be used in another data manipulation statement. And CTE further offers support for 'recursive queries' typical demand encountered with hierarchies.

To produce a 'cross-tab' report with months or Quarters as columns for example!

The operations may now be more easily 'pushed down' to the database engine or integrated in transformation steps of EL-T flows .

The PIVOT and UNPIVOT relational operators will be used to manipulate a table-valued expression into another table. PIVOT rotates a table-valued expression by turning the unique values from one column in the expression into multiple columns in the output, and performs aggregations where necessary on any remaining column values that are desired in the final output. UNPIVOT performs the