

Data Warehousing, LANSA's Practical Solution

Do I need a data warehouse?

"The data warehouse is the place where people can access their data", according to Ralph Kimball (the leading data warehouse consultant). An operational system focuses on the business operations of a company and how to make them more efficient. The focus of a data warehouse system is on the information requirements of the business user.

Do I need to spend a lot of money?

Costs of implementing a data warehouse vary wildly. Some vendors advise a \$1,000 solution, while others suggest a \$1,000,000 solution. Who is right?

On one side are the vendors of query, reporting and other business intelligence tools. They tend to overlook the fact that your corporate data might not be suitable for access by business users. Their PC based tools just show the glamour and glitter of presenting data.

On the other side are the vendors that specialize in data warehousing. They suggest that you need to build a multi-dimensional database that resides on a separate OLAP dedicated computer. To collect, replicate and re-model your production data you need highly skilled people, specialized software tools and additional equipment.

What sort of data warehouse do I need?

You may already have some form of a data warehouse. Many companies have already started building a data warehouse (corporate wide) or data mart (departmental solution) without realizing it. A data warehouse, in its most basic form, can be as simple as a summary file with a few queries or reports accessing the summary data. In its most complex form a data warehouse may consist of a multi-dimensional database residing on special computer which is "fed" by a network of multiple platforms and a variety of databases.

What tools do I need?

Your company's data warehousing requirements could be anywhere between these two extremes. However, many AS/400 sites are in the fortunate position that most of their data resides on an AS/400 with a few departmental database files on a PC LAN.

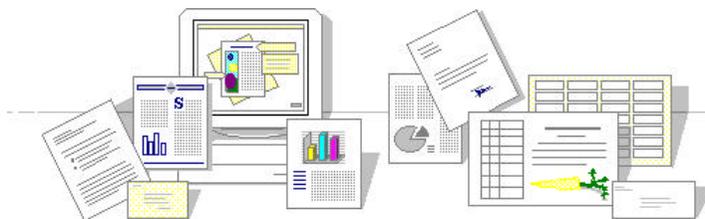
LANSA's integrated set of application development, middleware, query and reporting facilities are well suited for your AS/400 centric data warehousing needs. LANSA offers products for every step of building and accessing a data warehouse.

What skills do I need?

Data warehousing is basically an APPLICATION. Like all applications it has INPUT (the existing operational database) , MANIPULATION of data and OUTPUT (the data warehouse, queries and reports). An experienced business analysts who is able to understand the information requirements of a business user is well equipped for this task.

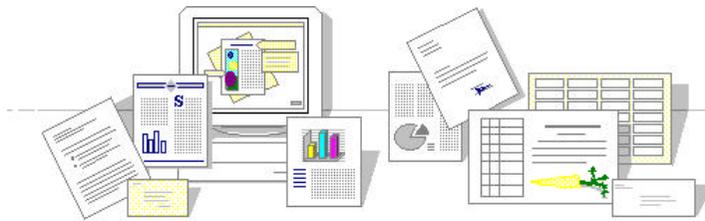
Where can I read more?

- "The Data Warehouse Toolkit", by Ralph Kimball, ISBN 0-471-15337-0
- DBMS monthly magazine, Data Warehouse architect column by Ralph Kimball
- LANSA's white paper "Building a Data Warehouse with LANSA"
(<http://lansa.aspect.com.au/lansa/reports.htm>)



Data Warehousing Evaluation Chart

Steps	Data Warehouse Tools	Query & Reporting Tools	LANSA
Collect business user information requirements	(Not a tool facility. This requires skills of senior business analyst)	(Not a tool facility. This requires skills of senior business analyst)	(Not a tool facility. This requires skills of senior business analyst)
Investigate and document what data is available	seldom	No	Import existing files. Add extra descriptions and help text. Use LANSA documentor to print.
Design the data model for the data warehouse	Some data warehouse tools offer a modelling facility. Most tools offer only a facility to build the database.	No	Yes
Meet the following data warehouse requirements: <ol style="list-style-type: none"> 1. Centralized calculations 2. Meta data 	<ol style="list-style-type: none"> 1. Not always 2. Yes 	<ol style="list-style-type: none"> 1. No 2. Some have local data dictionaries 	<ol style="list-style-type: none"> 1. Virtual fields and triggers 2. - Full length field descriptions - Help text (\$tech and \$user)
Build the data warehouse files: <ol style="list-style-type: none"> 1. Cleanse data 2. Facility to build programs to populate warehouse 3. Facilities for timing of the update of the data warehouse 	<ol style="list-style-type: none"> 1. Not always special facilities 2. Usually 3. Yes, but usually not very sophisticated (just clock based) 	<ol style="list-style-type: none"> 1. No 2. No 3. No 	<ol style="list-style-type: none"> 1. Repository based validations 2. Templates and 4GL 3. Trigger or clock based
Query and Reporting Facilities: <ol style="list-style-type: none"> 1. Easy navigation of files 2. End user query and reporting 3. Customized DSS/EIS system 4. Distribute reports on LAN or Web 	<ol style="list-style-type: none"> 1. Depending on data model 2. No, usually just provides an SQL engine or comma separated file export. 3. No, meta data is not available to other tools 4. No 	<ol style="list-style-type: none"> 1. Depending on local dictionaries 2. Yes 3. No, local dictionary not available to other tools 4. Some 	<ol style="list-style-type: none"> 1. Yes, because of access routes 2. Yes, LANSA/Client and Crystal Reports for LANSA 3. Yes, repository definitions available to any tool that can call a DLL. 4. Yes, with Crystal Rreports for LANSA



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