### **COMARCH BUSINESS INTELLIGENCE**

# COMARCH DATA WAREHOUSE MANAGER 5.0

## INTRODUCTION INTO DATA WAREHOUSE MANAGEMENT

Collecting of business data from many data sources and its integration, in order to be able to prepare analyses and reports is a complicated process, but it is necessary, if company would like to take decisions based on knowledge.

Companies, that as result of its operations generate huge amount of data, often build data warehouses, that are bases, which integrate data from all data sources.

Periodical loading of data from all systems, all files or transformation to data warehouse, are the main subject of this integration.

Members of the board, who are the end users of data warehouse, are usually the main group to use data warehouse through many systems of data searching.

Taking into consideration quantity of data, and its complexity, properly build data warehouse is an excellent tool, that helps to search for new trends, regularities, or logical patterns.

Comarch DWN (Data Warehouse Manager) is a modern tool, which enables to build, and manage data warehouses.

## TRANSFORMATION **AND LOADING** (ETL)

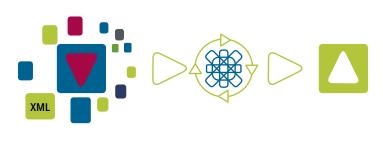
Comarch DWM platform helps to gather data in order in one location, which is named data warehouse. Data warehouses enable to manage data efficiently, and in the most optimal way. Data before being loaded to data warehouse shall be extracted from source systems, properly transformed, cleared, integrated, and finally loaded into final base. ETL is the process responsible for these operations.

#### ABOUT **DWM TOOL**

Comarch Data Warehouse Manager is an element of Comarch Business Intelligence platform, which gathers all integration modules. Their purpose is to support and manage process of loading data into data warehouse, administration of data, its arrangement, and describing.

Application of particular modules depends on specificity of project, number of data sources, and needs of company, connected with analyses.

- Manage structure of data warehouse
- Manage process of loading and transformation
- Create logs for processes of loading, transformation, and informs customer's administrators
- Manage and process additional mappings, groupings, and keep dictionaries in additional data sources, if such requirements are defined



#### Extract

Extraction of data from source systems

#### **Transform**

Transformation and integration to final model

#### Load

Loading data to data warehouse.





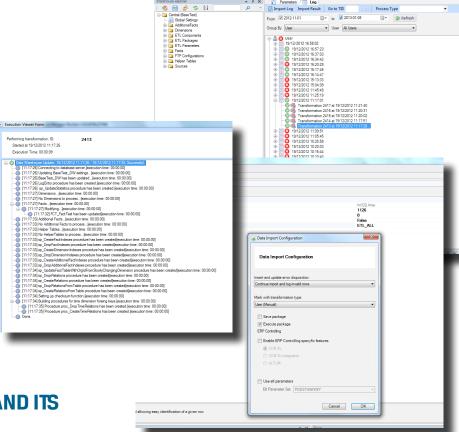
#### MAIN FUNCTIONALITIES

- Comarch DWM platform helps to generate structure of data warehouse, dimensions, facts, and additional dimensions.
- It enables automatic generation of ETL packets, which load data to particular tables of data warehouses.
- All data concerning ETL process, and structure of data warehouse are being kept in meta tables. As result of it there is possibility to generate reports which describe structure of bases and operating of ETL process.
- System enables management of data sources, and information about source of data are being kept in destination table. It allows simple generation of reports regarding particular data sources.
- Authentication system enables creating different access rights for particular users. In case of any changes, it is possible to customize ETL process definition according to new requirements, as well as define additional actions to be executed on database.
- Data about each process is being kept in log base, which gives easy access to data about ETL transformation process execution, any problems, invalid data sources, generation of data warehouse, and all mentioned information can be easily exported to new file, and imported to different instance of DWM

#### MAIN ADVANTAGES

The main advantages of DWM tool are:

- Automatic generation of data warehouses
- Easy control and automation of loading process
- Loading of data at various levels of detail
- Support of Slowly Changing Dimensions functionality (SCD)
- Integration with many different data sources: flat files, XLS files, MS SQL 2008 and 2012 databases, Oracle databases, OLE DB, others
- Parallel loading to multiple tables at the same time
- · Real time view of ETL processing



## NEW RELEASE DWM 5.0 AND ITS FUNCTIONALITIES

Our product is under constant development process.

The latest implemented functionalities are: reverse analysis, impact analysis, parallel loading, improved efficiency, integration with SQL SERVER 2012, significantly improved process of exporting data from files, and modification of interface

More about Comarch Business Intelligence www.bi.comarch.com

#### Comarch SA

Al. Jana Pawła II 41g 31-864 Kraków, Poland Phone: + 48 12 687 73 52 E-mail: business.intelligence@comarch.p

#### www.bi.comarch.pl

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Comarch Spółka Akcyjna with its registered seat in Kraków at Aleja Jana Pawła II 39A, entered in the National Court Register kept by the District Court for Kraków- Śródmieście in Kraków, the 11<sup>th</sup> Commercial Division of the National Court Register under no. KRS 000057567. The share capital amounts to 8.051.637,00 zł. The share capital was fully paid. NIP 677-00-65-406