Retail DWH MODEL

poslovna inteligencija
Poslovna means Business

Data Warehouse Data Model for Retail and Distribution

E-book

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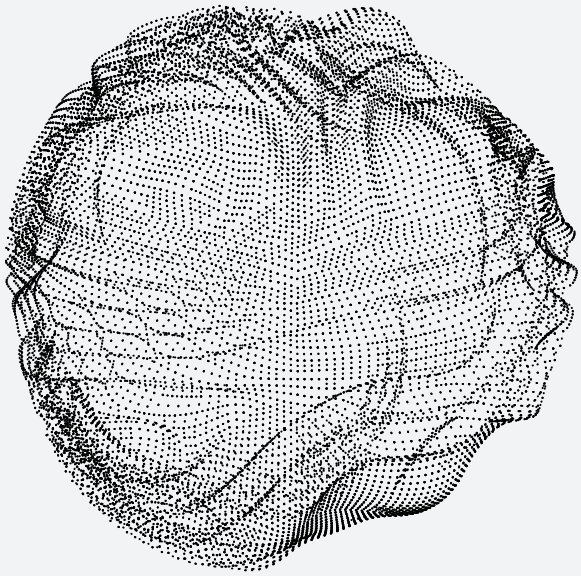

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About Us

poslovna inteligencija
Poslovna means Business

We are a **Data & Analytics consulting company** committed to delivering great solutions and products that enable our clients to **unlock hidden opportunities within data**, become **data-driven**, and make better business decisions.

20+
YEARS
Of providing Data & Analytics solutions

200+
EMPLOYEES
Constantly developing and growing

100+
CLIENTS
Present around the globe

250+
PROJECTS
Delivering projects across industries

Our distinct experience and understanding of business processes is based on working closely with a large number of big and medium companies across industries. We have delivered more than **250 projects** to our clients from telecommunications, manufacturing, banking, insurance, distribution and retail sectors.

While nurturing our **strong partnerships with all the leading technology vendors, we are technology agnostic**.

With more than **200 employees and with over 20 years of experience** in the largest Data & Analytics, Performance Management, Data Migration, Data Engineering and Machine learning projects, we lead the way in enabling companies to create value from their data.

The company HQ is in Zagreb and we operate from offices in London, Vienna, Stockholm, Ljubljana, Zagreb, Belgrade, Podgorica and Sarajevo.

E2E Cloud Data & Analytics Solutions

Data Governance

DG, MDM, DQ

Implementing practices, concepts and processes dedicated to leveraging data as valuable asset.

Design data models, improve data quality and master data, protect data, manage whole data supply chain and make data available for any relevant business need.

Advanced Analytics

Planning & Budgeting, Financial Consolidation, Data science

Automate budgeting and forecasting, financial consolidation and performance management reporting.

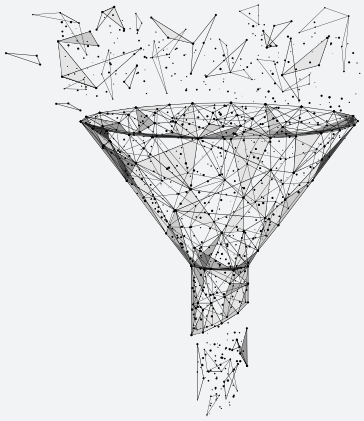
Use machine learning algorithms to uncover the unseen patterns, insights and trends in data and derive meaningful information.

Data & Analytical Solutions

DI, DE, BI, E2E Analytical Solutions

Utilize data and answer business questions through data integration. data engineering, reporting, self-service BI and data visualization.

Collect and store data at scale, from multiple sources and formats, and make them reliable and consistent for analysis.



Data Migration

Data migration to Cloud

Helping companies modernize their environments and migrate data from existing to new modernized solutions. Data analysis, architecture and development of migration to cloud solutions.

Reference Customers

The PI DWH Retail Data Model has been continuously developed since 2018, drawing on the insights and experiences gained from various retail organizations.

Global leader in footwear and accessories

Tunisian branch of global retail lider

Slovenian oil & gas and utility company

Serbian group specialized in food manufacturing and packaging solutions

Implementation Partners

With a worldwide network of implementation partners, some of which are listed below, we help businesses transform into data-driven organizations, no matter where they are located.

Atos

Atos is a global leader in digital transformation with 112,000 employees and annual revenue of c. € 11 billion.

BBI

BBI is a leading global technology provider focusing on AI-powered, Cloud-native, digital transformation.

ERETEAM

Ereteam is a leading IT and consulting services organization providing Big Data Analytics and Business Optimization solutions.

WEVIOO

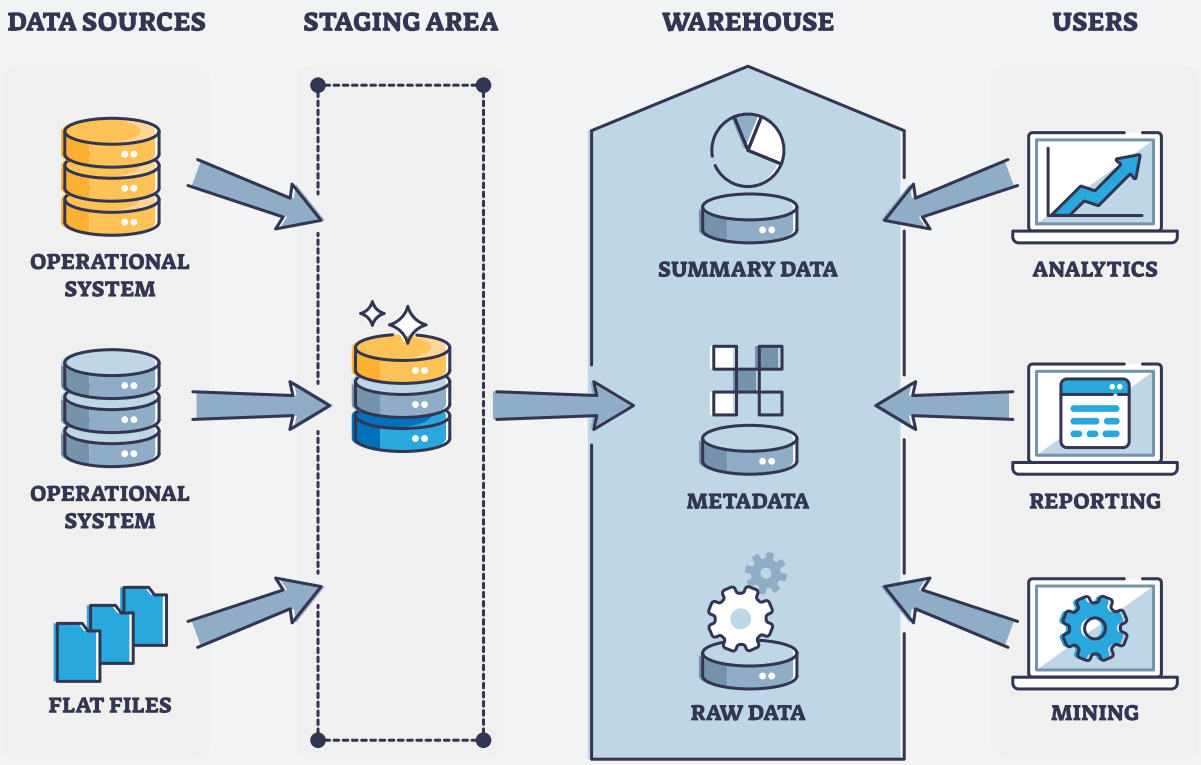
Wevioo provides digital innovation solutions perfectly adapted to customers' agility, performance and development challenges.

DWH Introduction

DWH model is a critical tool for organizations that need to store, manage, and analyze large amounts of data. It allows businesses to centralize data from multiple sources and make it available for reporting and analysis. By using a DWH, organizations can gain valuable insights into their operations, customers, and markets, which can help inform strategic decision-making and improve overall performance.

Additionally, DWH models can improve data governance, data quality and data security for the organization. DWH can also be used for data mining, data modeling, data integration and data visualization to support business intelligence, decision making and reporting.

In short, DWH is an essential tool for companies looking to unlock the full value of their data and stay competitive in today's data-driven landscape.



The image shows an example of datawarehouse function in the organization.

Model Benefits

The logic of the PI Retail DWH Model® follows NRF ARTS!

NRF ARTS is a common reference model that retailers use to describe enterprise management information systems. Based on data represented in the model, all standard retail and wholesale reporting and analysis data marts can be delivered, and ones regularly used are already defined as subject areas in the model.

ARTS®
NRF's **RETAIL** TECHNOLOGY STANDARDS DIVISION

Our **PI Retail DWH model** ® is customizable per customer specific request. There are several types of customizations:

- **Customization of existing Entities**, including changing attribute properties (name, type, and description), adding new attributes, and adding indexes.
- **Creation of new Entities** if there is a requirement for a new dimension or new aggregation.
- **Adding new Subject Areas** with multiple entities that will cover new business areas.
- **Customization of the physical model,** defining partitions, block sizes etc..

Analytics Accelerator

The DWH model streamlines the development of business analytics, serving as a base for other analytics systems to connect to (such as reporting or predictive analytics). It has undergone extensive testing in various implementations and provides an excellent starting point for fulfilling future analytics requirements.

Model Benefits

Modern DWH Architecture

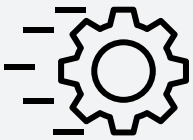
In developing the DWH model, we employed the latest technologies and industry-standard best practices for data warehousing. Its design is scalable, modular, and adaptable, making it simple to integrate with other systems and process vast amounts of data. The model also includes data governance and security measures to guarantee the stored data's safety, security, and compliance.

Simple Licensing

The DWH model offers a user-friendly licensing model, facilitating its usage and management.

Simple Customization

We understand that every organization has its specific needs, which is why we have designed the DWH model to be easily adaptable.



Database Independent

The model is database independen and is able to create DB schema on any of the standard RDBMS (Greenplum, Netezza, Vertica, MS SQL Server, Oracle, DB2, Teradata, Sybase IQ...)

Model Highlights

- Based on practical field experience
- Open to customizations
- 360 customer view
- 80+ Retail KPI's
- Work on the model is a continuous endeavor, in respect to: retail regulations, new analytical requirements, new markets, data modelling standards

5 Functional Groups

- Common Business
- Product
- Customer & Contract
- Sales & Inventory
- Finance & HR

28 Subject Business Areas

- Business Items and KPI's
- ETL Process Execution Audit
- Party
- Location
- Product
- Composite Product
- Customer
- Loyalty Program
- Contact Center
- GDPR Subject area
- Revenue and Collection
- Dunning Service
- Management
- Sales
- Web Shop
- Promotions
- Mobile Payments
- Sales Performance
- Inventory
- Supplier
- Marketing Campaign
- Market Basket Analysis
- Customer Journey
- Finance
- CAPEX
- Human Resources
- Profitability
- Project

Technical Features

Developed in ERwin

The model is developed using ERwin. The licence is not included but can be obtained through PI.

Detailed Documentation

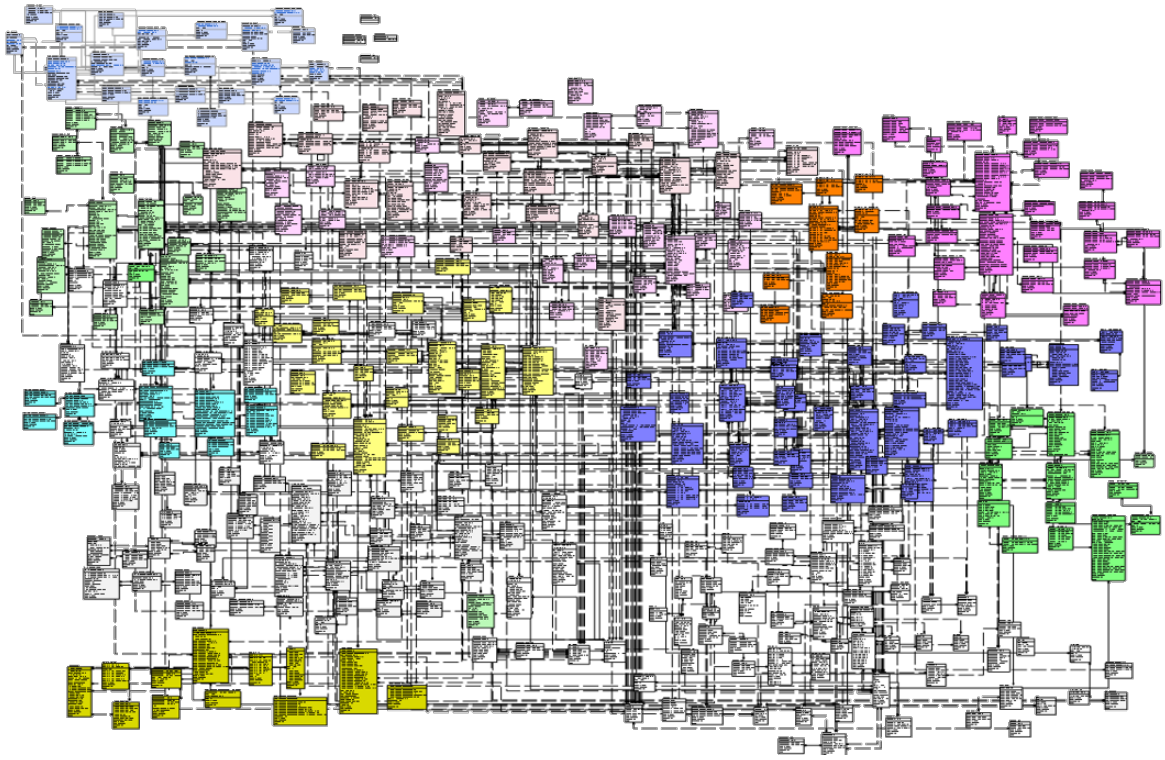
Model documentation provides detailed information on all attributes and entities, including examples.

370
TABLES

4.200
COLUMNS

1.000
KEYS

900
INDEXES



The image shows the actual model, each subject area is distinguished by a different color.

Technical Features

Modeling Principles

- Standardization of data types (usage of domains)
- Standardization in naming (ID, Source ID, Name, Desc)
- SCD (Slowly Changing Dimension) handling:
- Hybrid SCD (Type VI) modeling approach
- Depending on the data volume one hystorical table or each changing attribute has it's own table

Minor Release (1.X) Available 1-2 Times a Year

- New tables in existing subject areas
- New attributes in existing tables
- Other minor enhancements

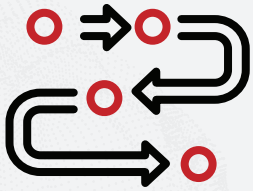
Major Release (X.0) Available Every 2 Years

- New subject areas and related supported analytics and KPI's
- Everything included in minor relases

Model Package

1. Model in ERWin format and exported to other required formats
2. Detailed Subject Areas Documentation (~50 pages)
3. Detailed ERWin Model Report Documentation
4. Customization Guide Documentation
5. Source to Target Mapping templates
6. Detailed Model content and Methodology Powerpoint Presentation

Implementation Methodology



DWH Model implementation is an additional service that guarantees your model is implemented according to industry-best practices.

1

Requirements Definition

In the first 2-3 weeks, we conduct a series of workshops to establish the general requirements, set expectations, and identify the project timeline.

2

Model Customizations

The model is customized and source-to-target mappings are done based on the functional groups defined during the workshops.

3

Prioritization

The “Product and Customer & Contract” functional groups are always the first to be customized due to its dependencies with other entities. The order of other functional groups is determined by the client according to priority.

4

Implementation

Customization and mapping for each functional group may take 4-8 weeks, depending on the complexity.

Contact

If you want to learn more about DWH models, contact us or visit online resources.

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