

Model Driven Data Vault Development

Peter Reinbold, in-factory

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New Data Warehouse



Requirements



But how?



Environment

- MS SQL Server
- Informatica PowerExchange / PowerCenter
- Jenkins
- SAP PowerDesigner



PowerDesigner

- Logical Data Model
- Use Standard Metaclasses
 - ◇ Entity
 - ◇ Attribute
 - ◇ Relationships
 - ◇ Links
 - ◇ Rules
 - ◇ Checks
- Customized Model Template
 - ◇ Stereotypes
 - ◇ VBA / Generation Template Language

Staging Area

The screenshot displays the PowerDesigner interface for a project named 'STG_EXAMPLE'. The main workspace shows three data tables, each with its own set of attributes and data types.

Table Name	Job Group	Attributes
SRC_CUSTOMER	DEV0152	CUSTOMER_NO (Variable characters 50), MONTH, FIRST_NAME (Variable characters 250), LAST_NAME (Variable characters 250), DATE_OF_BIRTH (Variable characters 15), STREET (Variable characters 250), ZIP (Variable characters 10), CITY (Variable characters 250), COUNTRY (Variable characters 250)
SRC_PRODUCT	DEV0152	PROD_NO (Variable characters 20), MONTH, CATEGORY (Variable characters 250), SUB_CATEGORY (Variable characters 250), VENDOR_NAME (Variable characters 250)
SRC_ORDER_POSITION	DEV0152	ORDER_NO (Variable characters 100), MONTH, CUSTOMER_NO (Variable characters 100), PRODUCT_NO (Variable characters 100), PRICE (Variable characters 100)

The interface includes an Object Browser on the left, a Toolbox on the right, and an Output window at the bottom. The Output window shows the following log:

```
Identifier LINK_167_AK_LINK  
alternate identifier found  
next step  
insert attribute: Entity Attribute LINK_167_CUST_HASH_KEY  
ID: {8EF06D9-60E9-40B6-98C2-9D937DD3ED59}  
done for now  
Relationship initialized  
init relationship [Relationship_179]: HUB[HUB 'PRODUCT'] -> SATELLITE[SATELLITE 'ENTITY_168']  
init identifier IDENTIFIER_1  
Parent: SATELLITE 'ENTITY_168' - SATELLITE - False  
Attributes:  
Identifier initialized.  
configure SAT  
IDENTIFIER_1  
Relationship initialized
```


Entity Details

Entity Properties - SRC_CUSTOMER (SRC_CUSTOMER)

General Attributes Identifiers Mapping Definition Rules Related Diagrams Extended Attributes Dependencies Traceability Links Version Info

Name: SRC_CUSTOMER
Code: SRC_CUSTOMER
Jira Link: DEV-0152
Data source: EBCDIC to ASCII conversion STAGE load
JOB GROUP: JOB GROUP
Partition Interval: 1 Partition Unit: MONTH
Comment:

Stereotype:
Number: Generate:
Parent Entity: <None>
Keywords:
<< Less

Entity Properties - SRC_CUSTOMER (SRC_CUSTOMER)

General Attributes Identifiers Mapping Definition Rules Related Diagrams Extended Attributes Dependencies Traceability Links Version Info

	Name	Code	Data Type	Length	Preci	Format	M	P	Description	D
1	CUSTOMER_NO	CUSTOMER_NO	Variable characters (50)	50			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
2	FIRST_NAME	FIRST_NAME	Variable characters (250)	250			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
3	LAST_NAME	LAST_NAME	Variable characters (250)	250			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
4	DATE_OF_BIRTH	DATE_OF_BIRTH	Variable characters (15)	15		DD-MM-YYYY	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
5	STREET	STREET	Variable characters (250)	250			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
6	ZIP	ZIP	Variable characters (10)	10			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
7	CITY	CITY	Variable characters (250)	250			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
8	COUNTRY	COUNTRY	Variable characters (250)	250			<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>

<< Less OK Cancel Apply Help

Model Extension

Extension Properties (STG_EXAMPLE)

General

Staging Extension::Profile\Entity\Foms\General

Name: General

Label:

Comment:

Help file:

Type: Replace General tab

Preview

Form XML

- Form
- NameAndCode
- JIRA_LINK
- HorizontalLayout_Process
 - Data Source
 - ADP_EBCDIC2ASCII
 - ADP_STAGE
- JOB_GROUP
- HorizontalLayout_Partitioning
 - PARTITION_INTERVAL_VALUE
 - PARTITION_INTERVAL_UNIT
- Comment
- Stereotype
- HorizontalLayout
- Number
- Generated
- ParentEntity
- KeywordList

OK Cancel Apply Help

Raw Vault

PowerDesigner [LDM DATAVAULT_EXAMPLE, DATAVAULT_EXAMPLE]

Object Browser: STG_EXAMPLE, DATAVAULT_EXAMPLE

Diagram: Logical Diagram showing a Data Vault model with entities and relationships.

Entities:

- 000 HUB CUSTOMER (DEV0152): <<HUB>>, HASH_KEY <sp> Characters(32) <M>, PK_HUB <sp>
- 000 LINK CUSTOMER_TO_PRODUCT (DEV0152): <<LINK>>, HASH_KEY <sp> Characters(32) <M>, PROD_HASH_KEY <aj>12> Characters(32) <M>, QUOT_HASH_KEY <aj>11> Characters(32) <M>, PK_LINK <sp>, AK_LINK <sp>
- 000 HUB PRODUCT (DEV0152): <<HUB>>, HASH_KEY <sp> Characters(32) <M>, PK_HUB <sp>
- 000 SAT CUSTOMER_DETAILS (DEV0152): <<SATELLITE>>, HASH_KEY <sp> Characters(32) <M>, PK_SAT <sp>
- 000 SAT ORDER_POSITIONS (DEV0152): <<SATELLITE>>, HASH_KEY <sp> Characters(32) <M>, PK_SAT <sp>
- 000 SAT PRODUCT_DETAILS (DEV0152): <<SATELLITE>>, HASH_KEY <sp> Characters(32) <M>, PK_SAT <sp>

Relationships:

- 000 HUB CUSTOMER (1) to 000 SAT CUSTOMER_DETAILS (1)
- 000 HUB CUSTOMER (1) to 000 LINK CUSTOMER_TO_PRODUCT (1)
- 000 LINK CUSTOMER_TO_PRODUCT (1) to 000 HUB PRODUCT (1)
- 000 LINK CUSTOMER_TO_PRODUCT (1) to 000 SAT ORDER_POSITIONS (1)
- 000 HUB PRODUCT (1) to 000 SAT PRODUCT_DETAILS (1)

Output:

- Parent of several inheritances
- Redefined primary identifier
- JOB GROUP
- Checking entity attribute ...
- Entity Attribute name uniqueness
- Entity Attribute code uniqueness
- Detect differences between attribute and associated domain
- Detect inconsistencies between check parameters
- Precision > Maximum Length
- Undefined data type
- Invalid data type
- Incompatible format type

Result List:

Category	Check	Object	Location
Entity	Existence of ide...	Entity 'SRC_CU...	<Model>
Entity	Existence of ide...	Entity 'SRC_OR...	<Model>
Entity	Existence of ide...	Entity 'SRC_PR...	<Model>
Entity	Existence of rela...	Entity 'SRC_CU...	<Model>
Entity	Existence of rela...	Entity 'SRC_OR...	<Model>
Entity	Existence of rela...	Entity 'SRC_PR...	<Model>

0 error(s), 6 warning(s).
The Logical Data Model is correct, no errors were found.

Ready

Attribute Mapping

The screenshot displays the Mapping Editor interface, which is used for defining data mappings between source and target systems. The interface is divided into three main sections: Source, Target, and Mappings.

Source: This section shows a hierarchical tree structure of the source data model. It includes a root node 'STG_EXAMPLE' with sub-nodes for 'Entities'. Under 'Entities', there are three main entities: 'SRC_CUSTOMER', 'SRC_ORDER_POSITION', and 'SRC_PRODUCT'. Each entity has a list of attributes, such as 'CUSTOMER_NO', 'FIRST_NAME', 'LAST_NAME', 'DATE_OF_BIRTH', 'STREET', 'ZIP', 'CITY', 'COUNTRY' for SRC_CUSTOMER; 'ORDER_NO', 'CUSTOMER_NO', 'PRODUCT_NO', 'PRICE' for SRC_ORDER_POSITION; and 'PROD_NO', 'NAME', 'CATEGORY', 'SUB_CATEGORY', 'VENDOR_NAME' for SRC_PRODUCT.

Target: This section shows a hierarchical tree structure of the target data model. It includes a root node 'Entities' with sub-nodes for 'CUSTOMER', 'CUSTOMER_DETAILS', 'CUSTOMER_TO_PRODUCT', 'ORDER_POSITIONS', 'PRODUCT', 'PRODUCT_DETAILS', and 'Relationships'. Each entity has a list of attributes, such as 'HASH_KEY' for CUSTOMER; 'HASH_KEY', 'CUSTOMER_DETAILS' for CUSTOMER_DETAILS; 'HASH_KEY', 'PROD_HASH_KEY', 'CUST_HASH_KEY' for CUSTOMER_TO_PRODUCT; 'HASH_KEY' for ORDER_POSITIONS; 'HASH_KEY' for PRODUCT; and 'HASH_KEY' for PRODUCT_DETAILS.

Mappings: This section contains a table for defining the mappings between source and target attributes. The table has the following columns: Data Source, Name, Object Type, Modifier, Short Description, Annotation, Description, Keywords, Comment, General, Stereot, Metaclass S, Select, Insert, and Update. The table is currently empty.

At the bottom of the window, there are buttons for 'Play Demo', 'OK', 'Cancel', 'Apply', and 'Help'.

Attribute Mapping

Mapping Editor

Source

- STG_EXAMPLE
 - STG_EXAMPLE
 - Entities
 - SRC_CUSTOMER
 - Attributes
 - CUSTOMER_NO
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - SRC_ORDER_POSITION
 - Attributes
 - ORDER_NO
 - CUSTOMER_NO
 - PRODUCT_NO
 - PRICE
 - SRC_PRODUCT
 - Attributes
 - PROD_NO
 - NAME
 - CATEGORY
 - SUB_CATEGORY
 - VENDOR_NAME

Target

- DATAVAULT_EXAMPLE
 - Entities
 - CUSTOMER
 - Attributes
 - HASH_KEY
 - CUSTOMER_NO
 - CUSTOMER_DETAILS
 - Attributes
 - HASH_KEY
 - CUSTOMER_TO_PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_HASH_KEY
 - CUST_HASH_KEY
 - ORDER_POSITIONS
 - Attributes
 - HASH_KEY
 - PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_NO
 - PRODUCT_DETAILS
 - Attributes
 - HASH_KEY
 - Relationships

Mappings

	Data Source	Name	Object Type	Modifier	Short Description	Annotation	Description	Keywords	Comment	Generat	Stereot	Metaclass S	Select	Insert	Updat
1	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER.Mapping_1'					<None>					
2	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.PRODUCT.Mapping_1'					<None>					

OK Cancel Apply Help

Attribute Mapping

Mapping Editor

Source

- STG_EXAMPLE
 - STG_EXAMPLE
 - Entities
 - SRC_CUSTOMER
 - Attributes
 - CUSTOMER_NO
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - SRC_ORDER_POSITION
 - Attributes
 - ORDER_NO
 - CUSTOMER_NO
 - PRODUCT_NO
 - PRICE
 - SRC_PRODUCT
 - Attributes
 - PROD_NO
 - NAME
 - CATEGORY
 - SUB_CATEGORY
 - VENDOR_NAME

Target

- DATAVAULT_EXAMPLE
 - Entities
 - CUSTOMER
 - Attributes
 - HASH_KEY
 - CUSTOMER_NO
 - CUSTOMER_DETAILS
 - Attributes
 - HASH_KEY
 - CUSTOMER_TO_PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_HASH_KEY
 - CUST_HASH_KEY
 - ORDER_POSITIONS
 - Attributes
 - HASH_KEY
 - PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_NO
 - PRODUCT_DETAILS
 - Attributes
 - HASH_KEY
 - Relationships

Mappings

	Data Source	Name	Object Type	Modifier	Short Description	Annotation	Description	Keywords	Comment	Generat	Stereot	Metaclass S	Select	Insert	Updat
1	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER.Mapping_1'					<None>					
2	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.PRODUCT.Mapping_1'					<None>					
3	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER_TO_PRODUCT					<None>					

Play Demo
OK
Cancel
Apply
Help

Attribute Mapping

Mapping Editor

Source

- STG_EXAMPLE
 - STG_EXAMPLE
 - Entities
 - SRC_CUSTOMER
 - Attributes
 - CUSTOMER_NO
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - SRC_ORDER_POSITION
 - Attributes
 - ORDER_NO
 - CUSTOMER_NO
 - PRODUCT_NO
 - PRICE
 - SRC_PRODUCT
 - Attributes
 - PROD_NO
 - NAME
 - CATEGORY
 - SUB_CATEGORY
 - VENDOR_NAME

Target

- DATAVAULT_EXAMPLE
 - Entities
 - CUSTOMER
 - Attributes
 - HASH_KEY
 - CUSTOMER_NO
 - CUSTOMER_DETAILS
 - Attributes
 - HASH_KEY
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - CUSTOMER_TO_PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_HASH_KEY
 - CUST_HASH_KEY
 - ORDER_POSITIONS
 - Attributes
 - HASH_KEY
 - PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_NO
 - PRODUCT_DETAILS
 - Attributes

Mappings

	Data Source	Name	Object Type	Modifier	Short Description	Annotation	Description	Keywords	Comment	Generat	Stereot	Metaclass S	Select	Insert	Updat
1	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER.Mapping_1'					<None>					
2	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.PRODUCT.Mapping_1'					<None>					
3	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER_TO_PRODUCT.Mapping_1'					<None>					
4	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER_DETAILS.Mapping_1'					<None>					

Play Demo
OK Cancel Apply Help

Attribute Mapping

Mapping Editor

Source

- STG_EXAMPLE
 - STG_EXAMPLE
 - Entities
 - SRC_CUSTOMER
 - Attributes
 - CUSTOMER_NO
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - SRC_ORDER_POSITION
 - Attributes
 - ORDER_NO
 - CUSTOMER_NO
 - PRODUCT_NO
 - PRICE
 - SRC_PRODUCT
 - Attributes
 - PROD_NO
 - NAME
 - CATEGORY
 - SUB_CATEGORY
 - VENDOR_NAME

Target

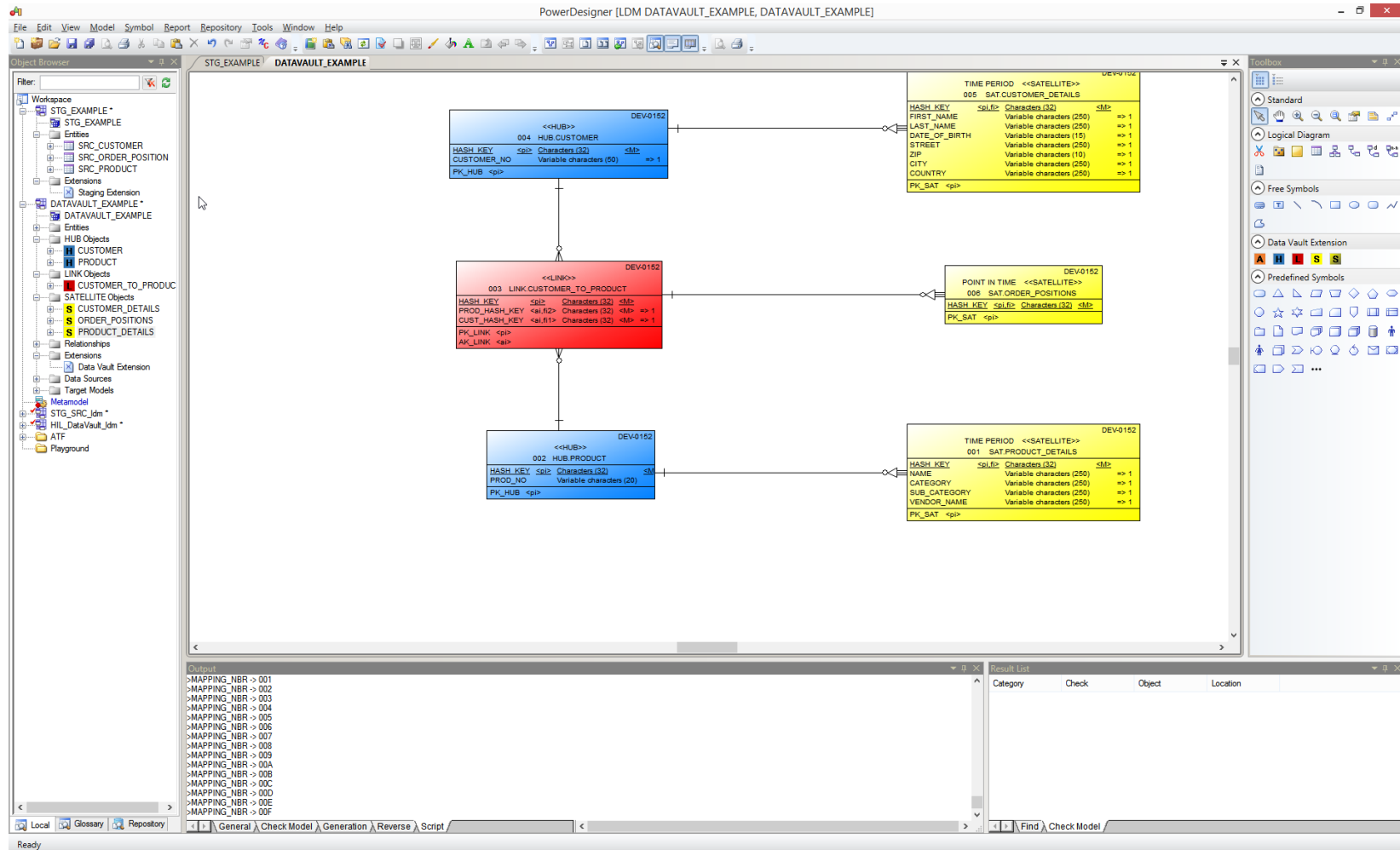
- Attributes
 - HASH_KEY
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - CUSTOMER_TO_PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_HASH_KEY
 - CUST_HASH_KEY
 - ORDER_POSITIONS
 - Attributes
 - HASH_KEY
 - PRODUCT
 - Attributes
 - HASH_KEY
 - PROD_NO
 - PRODUCT_DETAILS
 - Attributes
 - HASH_KEY
 - NAME
 - CATEGORY
 - SUB_CATEGORY
 - VENDOR_NAME
 - Relationships

Mappings

	Data Source	Name	Object Type	Modifier	Short Description	Annotation	Description	Keywords	Comment	Generat	Stereot	Metaclass S	Select	Insert	Updat
1	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER.Mapping_1'					<None>					
2	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.PRODUCT.Mapping_1'					<None>					
3	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER_TO_PRODUCT.'					<None>					
4	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.CUSTOMER_DETAILS.Mappi					<None>					
5	STG_EXAMPLE	Mapping_1	DefaultObjectM	sce79477	Mapping 'STG_EXAMPLE.PRODUCT_DETAILS.Mappi					<None>					

Play Demo
OK
Cancel
Apply
Help

Raw Vault



Business Vault

- Where to put the logic



Business Vault

The screenshot displays the PowerDesigner interface for a Data Vault model. The main workspace shows three tables:

- HUB CUSTOMER (DEV-0152):** A blue table with columns: HASH_KEY (32), CUSTOMER_NO (50), and PK_HUB. It is marked as a HUB with a double arrow.
- SAT CUSTOMER DETAILS (DEV-0153):** A yellow table with columns: TIME PERIOD, FIRST_NAME (250), LAST_NAME (250), DATE_OF_BIRTH (15), STREET (250), ZIP (10), CITY (250), and COUNTRY (250). It is marked as a SATELLITE with a single arrow.
- BV CUSTOMER (DEV-0153):** A yellow table with columns: None and BV_SATELLITE. It is marked as a BV_SATELLITE with a double arrow.

The left-hand Object Browser shows a hierarchical tree of the model, including entities, extensions, and relationships. The bottom Output window shows the following log:

```
>MAPPING_NBR -> 00F
Init relationship [Relationship_6] HUB[HUB 'CUSTOMER'] -> ABSTRACT[ABSTRACT 'ABSTRACT_9']
Init Identifier: Identifier_1
Parent: ABSTRACT 'ABSTRACT_9' - ABSTRACT - False
Attributes:
Relationship initialized
Identifier initialized
Init relationship [Relationship_7] HUB[HUB 'CUSTOMER'] -> BV_SATELLITE[BV_SATELLITE 'BV_SATELLITE_10']
Init Identifier: Identifier_1
Parent: BV_SATELLITE 'BV_SATELLITE_10' - BV_SATELLITE - False
Attributes:
Identifier initialized.
Configure SAT
Identifier_1
Relationship initialized
```

The bottom status bar shows the current table: BV_SATELLITE 'BV_SATELLITE_10'.

Business Vault

PowerDesigner [LDM DATAVAULT_EXAMPLE, BUSINESS_VAULT]

Object Browser

- Workspace
 - STG_EXAMPLE *
 - Entities
 - SRC_CUSTOMER
 - SRC_ORDER_POSITION
 - SRC_PRODUCT
 - Extensions
 - Staging Extension
 - DATAVAULT_EXAMPLE *
 - BUSINESS_VAULT
 - DATAVAULT_EXAMPLE
 - Entities
 - BV_SATELLITE Objects
 - HUB Objects
 - CUSTOMER
 - PRODUCT
 - LINK Objects
 - CUSTOMER_TO_PRODUCT
 - SATELLITE Objects
 - CUSTOMER_DETAILS
 - ORDER_POSITIONS
 - PRODUCT_DETAILS
 - Relationships
 - Extensions
 - Data Vault Extension
 - Data Sources
 - Target Models
 - List Reports
 - BV_Abstract
 - DV Entities
 - DV Entity Attributes
 - HIL Relationship Joints
 - HIL Relationship
 - Rules
 - SRC to HIL Mapping
 - Traceability Links
 - Metamodel
 - STG_SRC_Idm *
 - HIL_DataVault_Idm *
 - ATF
 - Playground

Diagram:

```

    graph TD
      HUB[004 HUB CUSTOMER] --- SAT[005 SAT CUSTOMER_DETAILS]
      HUB --- ABSTRACT[000 A_CUST_TRANS]
      HUB --- BV[000 BV_CUSTOMER]
  
```

Entity Details:

- 004 HUB CUSTOMER (DEV0152)**
 - Attributes: HASH_KEY (PK), CUSTOMER_NO
 - Relationships: CUSTOMER_TO_PRODUCT (1 to 1)
- 005 SAT CUSTOMER_DETAILS (DEV0152)**
 - Attributes: FIRST_NAME, LAST_NAME, DATE_OF_BIRTH, STREET, ZIP, CITY, COUNTRY, PK_SAT (PK)
 - Relationships: CUSTOMER_TO_PRODUCT (1 to 1)
- 000 A_CUST_TRANS (DEV0153)**
 - Attributes: HASH_KEY (PK), PK_ABSTRACT (PK)
 - Relationships: CUSTOMER_TO_PRODUCT (1 to 1)
- 000 BV_CUSTOMER (DEV0153)**
 - Attributes: HASH_KEY (PK), PK_SAT (PK)
 - Relationships: CUSTOMER_TO_PRODUCT (1 to 1)

Output:

```

    Relationship initialized
    Init relationship [Relationship_6] HUB[HUB 'CUSTOMER'] -> BV_SATELLITE[BV_CUSTOMER]
    Init Identifier Identifier_1
    Parent: BV_SATELLITE 'BV_CUSTOMER' - BV_SATELLITE: False
    Attributes:
    Identifier initialized.
    configure SAT
    Identifier_1
    Relationship initialized
    Init relationship [Relationship_7] HUB[HUB 'CUSTOMER'] -> ABSTRACT[ABSTRACT 'A_CUST_TRANS']
    Init Identifier Identifier_1
    Parent: ABSTRACT 'A_CUST_TRANS' - ABSTRACT: False
    Attributes:
    Identifier initialized.
    Relationship initialized.
  
```

Result List

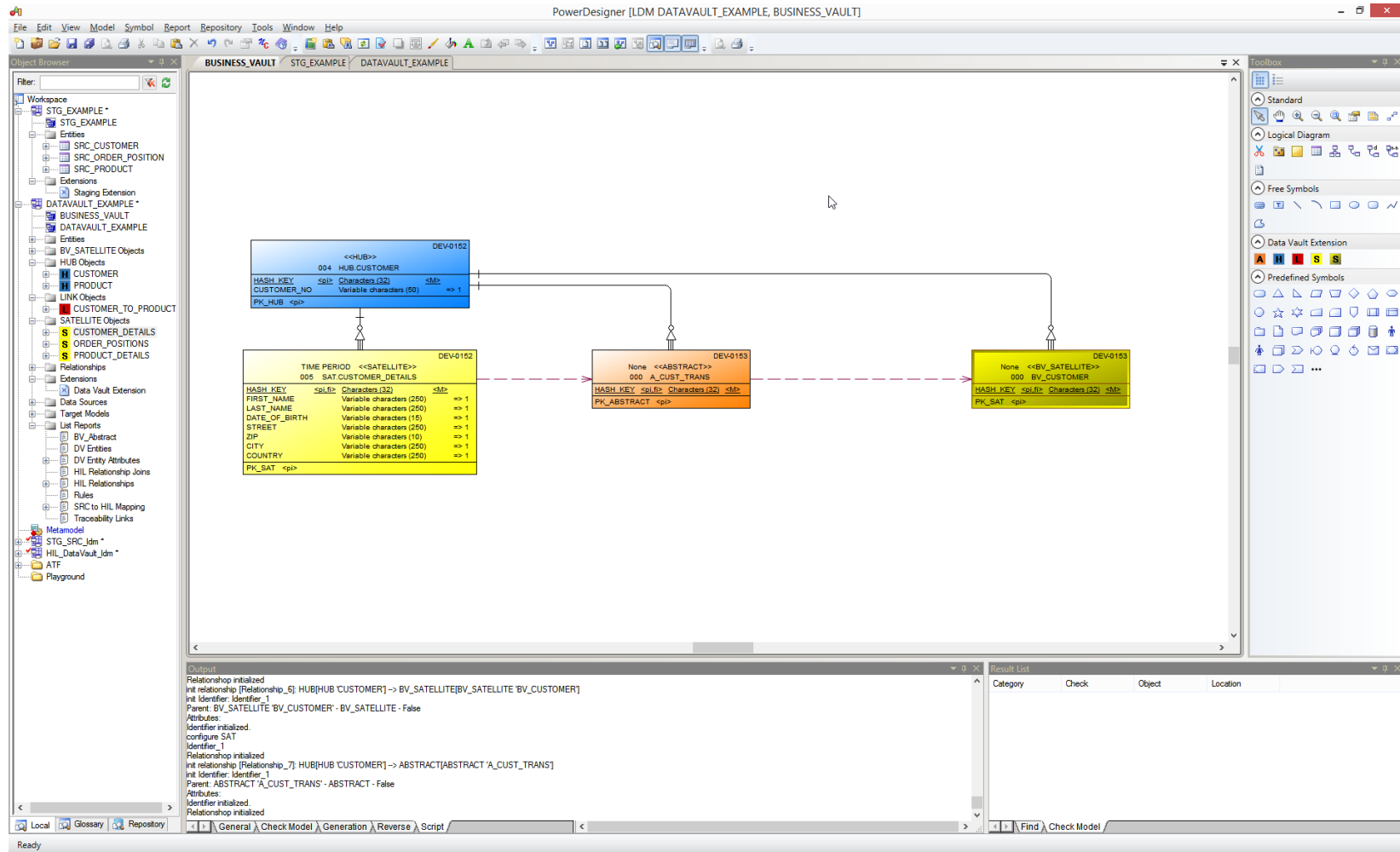
| Category | Check | Object | Location |
|----------|-------|-----------------|----------|
| | | 000 BV_CUSTOMER | |

Local | Glossary | Repository

General | Check Model | Generation | Reverse | Script

Find | Check Model

Business Vault



Business Vault

ABSTRACT Properties - A_CUST_TRANS (A_CUST_TRANS)

General | Attributes | Identifiers | Mapping | Definition | Rules | Related Diagrams | Extended Attributes | Dependencies | Traceability Links | Version Info

Name: A_CUST_TRANS
Code: A_CUST_TRANS
Jira Link: DEV-0153

PARENT: HUB.CUSTOMER
Primary SATELLITE:

SOURCE VIEW:

```
SELECT
  'A_CUST_TRANS' [SRC_NAME]
, [S].[PROC_DATE] [PROC_DATE]
, [S].[PROC_KEY] [PRIMARY_SATELLITE_PROC_KEY]
, [S].[SRC_ROW_NBR] [SRC_ROW_NBR]
, [P].[HASH_KEY] [HASH_KEY]
-- no rules on row level
-- INTO ##A_CUST_TRANS
FROM [] [S]
JOIN [] [PSP] ON [S].[HASH_KEY] = [PSP].[HASH_KEY]
JOIN [HUB].[CUSTOMER] [P] -- add ON clause
```

Additional JOIN:

Additional SQL:

Comment:

Stereotype: ABSTRACT SRC ROW NBR FN:

Number: Generate:

Parent Entity: <None>

Keywords:

<< Less OK Cancel Apply Help

Business Vault

ABSTRACT Properties - A_CUST_TRANS (A_CUST_TRANS)

General | Attributes | Identifiers | Mapping | Definition | Rules | Related Diagrams | Extended Attributes | Dependencies | Traceability Links | Version Info

Name: A_CUST_TRANS
Code: A_CUST_TRANS
Jira Link: DEV-0153

PARENT: HUB.CUSTOMER
Primary SATELLITE: SATELLITE.CUSTOMER_DETAILS

SOURCE VIEW:
Ln 8, Col 23

```
SELECT
  'A_CUST_TRANS' [SRC_NAME]
, [S].[PROC_DATE] [PROC_DATE]
, [S].[PROC_KEY] [PRIMARY_SATELLITE_PROC_KEY]
, [S].[SRC_ROW_NBR] [SRC_ROW_NBR]
, [F].[HASH_KEY] [HASH_KEY]
-- no rules on row level
-- INTO ##A_CUST_TRANS
FROM [SAT].[CUSTOMER_DETAILS] [S]
JOIN [HUB].[CUSTOMER] [F] ON [S].[HASH_KEY] = [F].[HASH_KEY]
-- WHERE [S].[PROC_DATE] = '2017-08-02'
```

Additional JOIN:
Additional SQL:
Ln 1, Col 1

Comment:

Stereotype: ABSTRACT SRC ROW NBR FN:

Number: Generate:

Parent Entity: <None>

Keywords:

<< Less

Business Vault

The screenshot displays the Mapping Editor window, which is used for defining data mappings between source and target systems. The interface is divided into three main sections: Source, Target, and Mappings.

Source: The left pane shows a hierarchical tree structure. The root is RAWVAULT, which contains a folder DATAVAULT_EXAMPLE. Under this folder, there are Entities (A_CUST_TRANS, BV_CUSTOMER, CUSTOMER, CUSTOMER_DETAILS) and Attributes (HASH_KEY, FIRST_NAME, LAST_NAME, DATE_OF_BIRTH, STREET, ZIP, CITY, COUNTRY). Other entities like CUSTOMER_TO_PRODUCT, ORDER_POSITIONS, PRODUCT, and PRODUCT_DETAILS are also listed, along with Relationships and STG_EXAMPLE.

Target: The right pane shows a similar hierarchical tree. The root is DATAVAULT_EXAMPLE, which contains Entities (A_CUST_TRANS) and Attributes (HASH_KEY, FIRST_NAME, LAST_NAME, DATE_OF_BIRTH, STREET, ZIP, CITY, COUNTRY). Other entities like BV_CUSTOMER, CUSTOMER, CUSTOMER_DETAILS, CUSTOMER_TO_PRODUCT, ORDER_POSITIONS, PRODUCT, and PRODUCT_DETAILS are also listed, along with Relationships.

Mappings: The bottom section shows a mapping table for the selected mapping: RAWVAULT_A_CUST_TRANS.Mapping_1. The table has columns for Parent, Object Type, Class Name, Parent Folder, Parent Package, and Model. The first row is populated with the following data:

| Parent | Object Type | Class Name | Parent Folder | Parent Package | Model |
|--|-------------|------------|------------------------------------|------------------------------------|---------------|
| Logical Data Model 'DATAVAULT_EXAMPLE' | Entity | SATELLITE | Logical Data Model 'DATAVAULT_EXA' | Logical Data Model 'DATAVAULT_EXA' | DATAVAULT_EXA |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

At the bottom of the window, there are buttons for Play Demo, OK, Cancel, Apply, and Help.

Business Vault

ABSTRACT Properties - A_CUST_TRANS (A_CUST_TRANS)

General | Attributes | Identifiers | Mapping | Definition | Rules | Related Diagrams | Extended Attributes | Dependencies | Traceability Links | Version Info

Name: A_CUST_TRANS
Code: A_CUST_TRANS
Jira Link: DEV-0153

PARENT: HUB.CUSTOMER
Primary SATELLITE: SATELLITE.CUSTOMER_DETAILS

SOURCE VIEW:

```
SELECT
  'A_CUST_TRANS' [SRC_NAME]
, [S].[PROC_DATE] [PROC_DATE]
, [S].[PROC_KEY] [PRIMARY_SATELLITE_PROC_KEY]
, [S].[SRC_ROW_NBR] [SRC_ROW_NBR]
, [P].[HASH_KEY] [HASH_KEY]
, [S].[FIRST_NAME] [FIRST_NAME]
, [S].[LAST_NAME] [LAST_NAME]
, [S].[DATE_OF_BIRTH] [DATE_OF_BIRTH]
, [S].[STREET] [STREET]
, [S].[ZIP] [ZIP]
, [S].[CITY] [CITY]
, [S].[COUNTRY] [COUNTRY]
```

Additional JOIN:

Additional SQL:

Comment:

Stereotype: ABSTRACT SRC ROW NBR FN:

Number: Generate:

Parent Entity: <None>

Keywords:

<< Less OK Cancel Apply Help

Business Vault

ABSTRACT Properties - A_CUST_TRANS (A_CUST_TRANS)

General Attributes Identifiers Mapping Definition Rules Related Diagrams Extended Attributes Dependencies Traceability Links Version Info

| | Name | Code | Data Type | Length | Preci | Format | SRC_Transformation | M | P | Desc |
|----|----------------------|----------------------|---------------------------|--------|-------|------------|--------------------|-------------------------------------|-------------------------------------|------|
| 1 | HASH_KEY | HASH_KEY | Characters (32) | 32 | | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 2 | FIRST_NAME | FIRST_NAME | Variable characters (250) | 250 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3 | LAST_NAME | LAST_NAME | Variable characters (250) | 250 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4 | DATE_OF_BIRTH | DATE_OF_BIRTH | Variable characters (15) | 15 | | DD-MM-YYYY | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5 | STREET | STREET | Variable characters (250) | 250 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6 | ZIP | ZIP | Variable characters (10) | 10 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7 | CITY | CITY | Variable characters (250) | 250 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8 | COUNTRY | COUNTRY | Variable characters (250) | 250 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| → | FULL_NAME | FULL_NAME | Variable characters (250) | 250 | | | CONCAT([S].FIRST_N | <input type="checkbox"/> | <input type="checkbox"/> | |
| 10 | OTHER_TRANSFORMATION | OTHER_TRANSFORMATION | Long integer | 42 | | | | <input type="checkbox"/> | <input type="checkbox"/> | |

SRC_Transformation

Ln 1, Col 1

```
CONCAT([S].FIRST_NAME, ' ', [S].LAST_NAME)
```

OK Cancel

<< Less [icon] OK Cancel Apply Help

Business Vault

ABSTRACT Properties - A_CUST_TRANS (A_CUST_TRANS)

General | Attributes | Identifiers | Mapping | Definition | Rules | Related Diagrams | Extended Attributes | Dependencies | Traceability Links | Version Info

Name: A_CUST_TRANS
Code: A_CUST_TRANS
Jira Link: DEV-0153

PARENT: HUB.CUSTOMER
Primary SATELLITE: SATELLITE.CUSTOMER_DETAILS

SOURCE VIEW:

```
[S].[PROC_KEY] [PRIMARY_SATELLITE_PROC_KEY]
[S].[SRC_ROW_NBR] [SRC_ROW_NBR]
[P].[HASH_KEY] [HASH_KEY]
[S].[FIRST_NAME] [FIRST_NAME]
[S].[LAST_NAME] [LAST_NAME]
[S].[DATE_OF_BIRTH] [DATE_OF_BIRTH]
[S].[STREET] [STREET]
[S].[ZIP] [ZIP]
[S].[CITY] [CITY]
[S].[COUNTRY] [COUNTRY]
CONCAT([S].[FIRST_NAME], ' ', [S].[LAST_NAME]) [FULL_NAME]
42 [OTHER_TRANSFORMATION]
-- no rules on row level
```

Additional JOIN:

Additional SQL:

Comment:

Stereotype: ABSTRACT SRC ROW NBR FN:

Number: Generate:

Parent Entity: <None>

Keywords:

<< Less OK Cancel Apply Help

Attribute Mapping

Mapping Editor

Source

- RAWVAULT
 - DATAVAULT_EXAMPLE
 - Entities
 - A_CUST_TRANS
 - Attributes
 - HASH_KEY
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - FULL_NAME
 - OTHER_TRANSFORMATION
 - BV_CUSTOMER
 - CUSTOMER
 - CUSTOMER_DETAILS
 - CUSTOMER_TO_PRODUCT
 - ORDER_POSITIONS
 - PRODUCT
 - PRODUCT_DETAILS
 - Relationships
 - STG_EXAMPLE

Target

- DATAVAULT_EXAMPLE
 - Entities
 - A_CUST_TRANS
 - Attributes
 - HASH_KEY
 - FIRST_NAME
 - LAST_NAME
 - DATE_OF_BIRTH
 - STREET
 - ZIP
 - CITY
 - COUNTRY
 - FULL_NAME
 - OTHER_TRANSFORMATION
 - CUSTOMER
 - CUSTOMER_DETAILS
 - CUSTOMER_TO_PRODUCT
 - ORDER_POSITIONS
 - PRODUCT
 - PRODUCT_DETAILS
 - Relationships

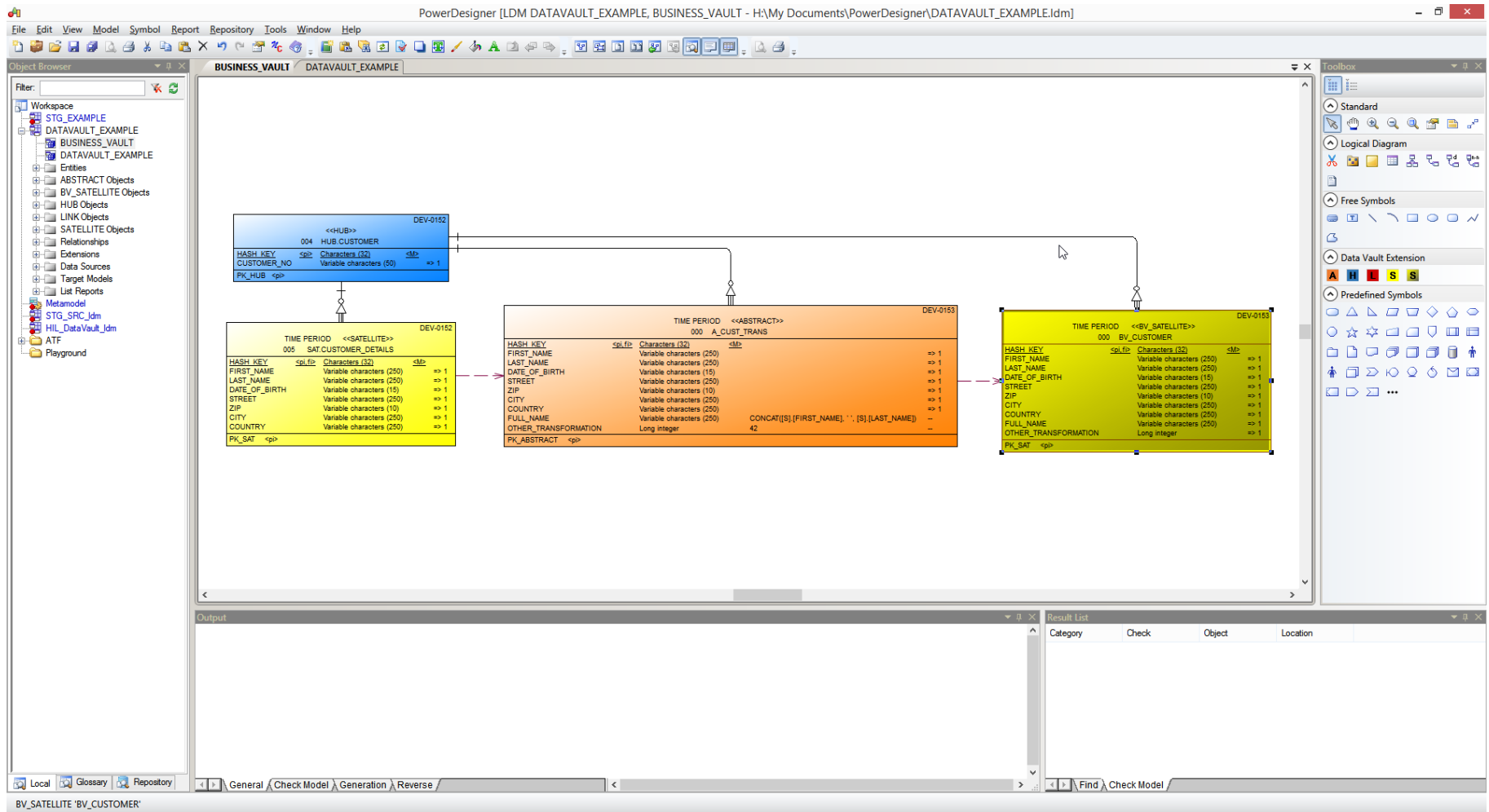
Mappings

| | Data Source | Name | Object Type | Modifier | Short Description | Annotation | Description | Keywords | Comment | Generat | Stereot | Metaclass S | Select | Insert | Updat |
|---|-------------|-----------|----------------|----------|---|------------|-------------|----------|---------|---------|---------|-------------|--------|--------|-------|
| → | RAWVAULT | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'RAWVAULT BV_CUSTOMER.Mapping_1' | | | | | <None> | | | | | |
| 2 | RAWVAULT | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'RAWVAULT A_CUST_TRANS.Mapping_1' | | | | | <None> | | | | | |
| 3 | STG_EXAMPLE | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'STG_EXAMPLE PRODUCT.Mapping_1' | | | | | <None> | | | | | |
| 4 | STG_EXAMPLE | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'STG_EXAMPLE CUSTOMER.Mapping_1' | | | | | <None> | | | | | |
| 5 | STG_EXAMPLE | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'STG_EXAMPLE PRODUCT_DETAILS.Mapping_1' | | | | | <None> | | | | | |
| 6 | STG_EXAMPLE | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'STG_EXAMPLE CUSTOMER_TO_PRODUCT.Mapping_1' | | | | | <None> | | | | | |
| 7 | STG_EXAMPLE | Mapping_1 | DefaultObjectM | sce79477 | Mapping 'STG_EXAMPLE CUSTOMER_DETAILS.Mapping_1' | | | | | <None> | | | | | |

Play Demo

OK Cancel Apply Help

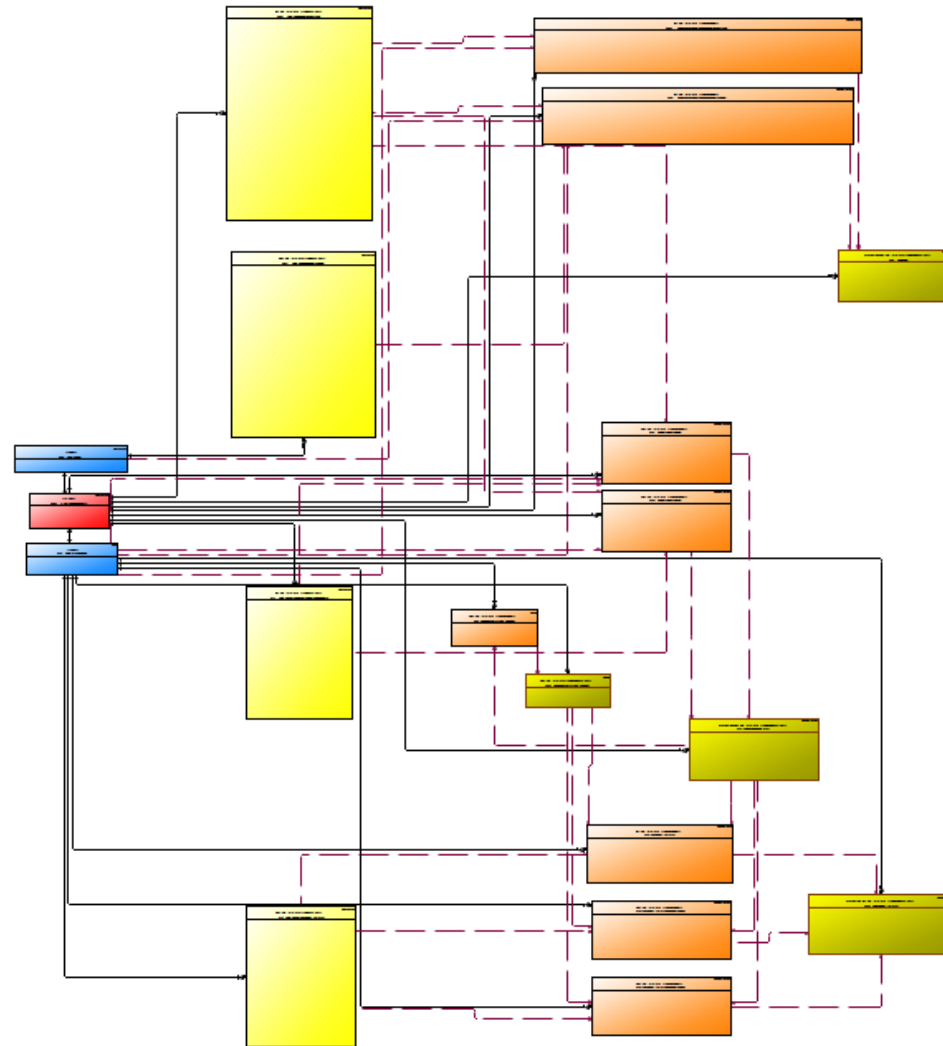
Business Vault



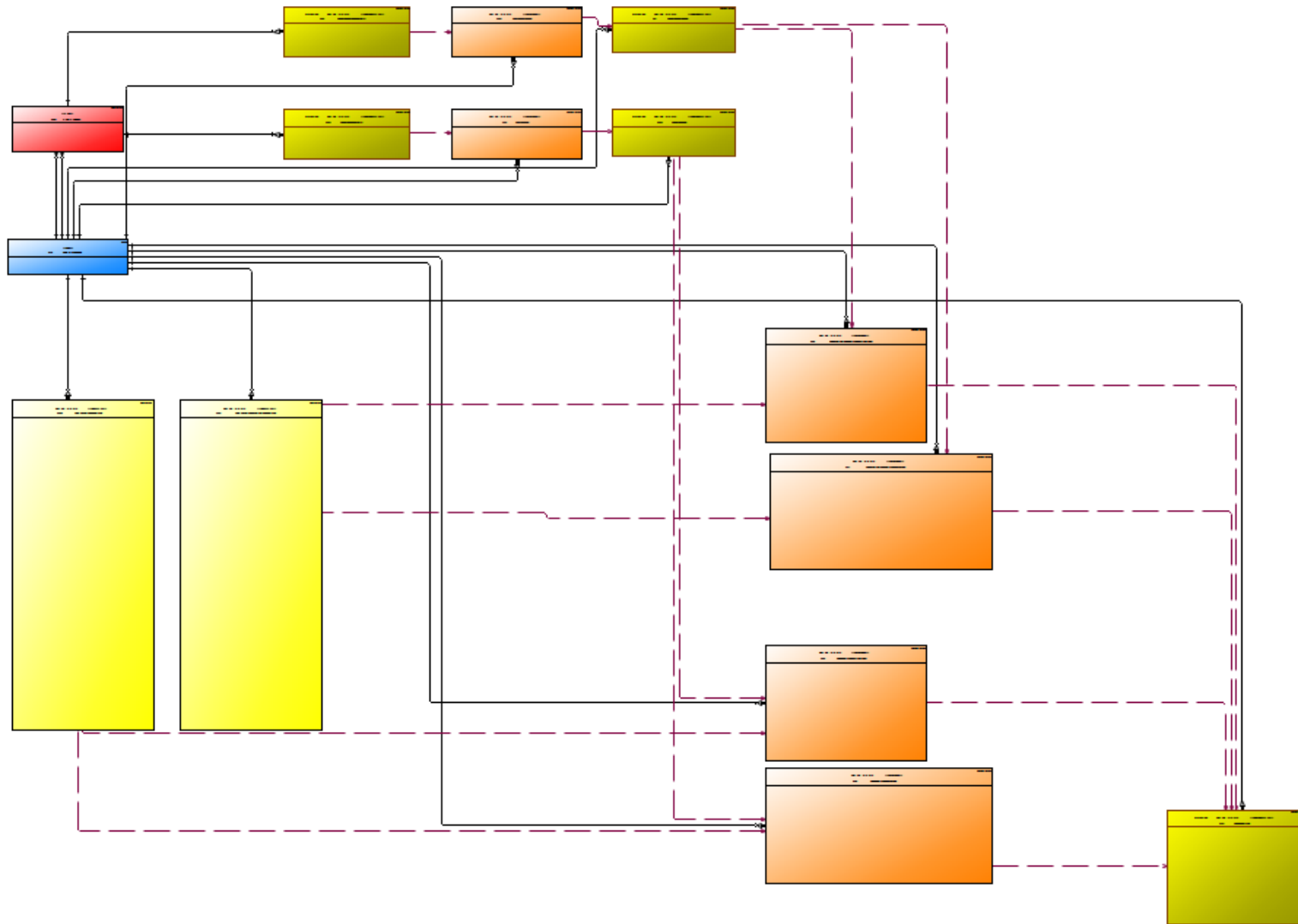
Lineage

The screenshot displays the 'Impact and Lineage Analysis' window. At the top, the 'Analysis result name' is 'Impact analysis for BV_SATELLITE 'BV_CUSTOMER'' [Change]'. Below this, the 'Analysis rule sets' section shows 'Global Impact Analysis (<Library>\Global Impact Analysis.rul)' and 'Global Lineage Analysis (<Library>\Global Lineage Analysis.rul)'. The main area, titled 'Impact and Lineage List', shows a tree view of the analysis results. The tree starts with 'Initial Objects' and 'BV_SATELLITE 'BV_CUSTOMER'' [Change]'. Underneath, it lists 'Relationships', 'Mappings', and 'Incoming Traceability Links'. The 'Incoming Traceability Links' section is expanded, showing 'ABSTRACT 'A_CUST_TRANS'' [Change]'. Under this, there are 'Mappings', 'Incoming Traceability Links', and 'Classifier Sources'. The 'Classifier Sources' section is expanded, showing 'Entity 'SRC_CUSTOMER'' [Change]'. The 'Entity 'SRC_CUSTOMER'' is highlighted in blue. Below the tree, there are buttons for 'Generate Diagram', 'Close', and 'Help'. The 'Use Repository' checkbox is unchecked, and the 'Repository analysis level' is set to 3.

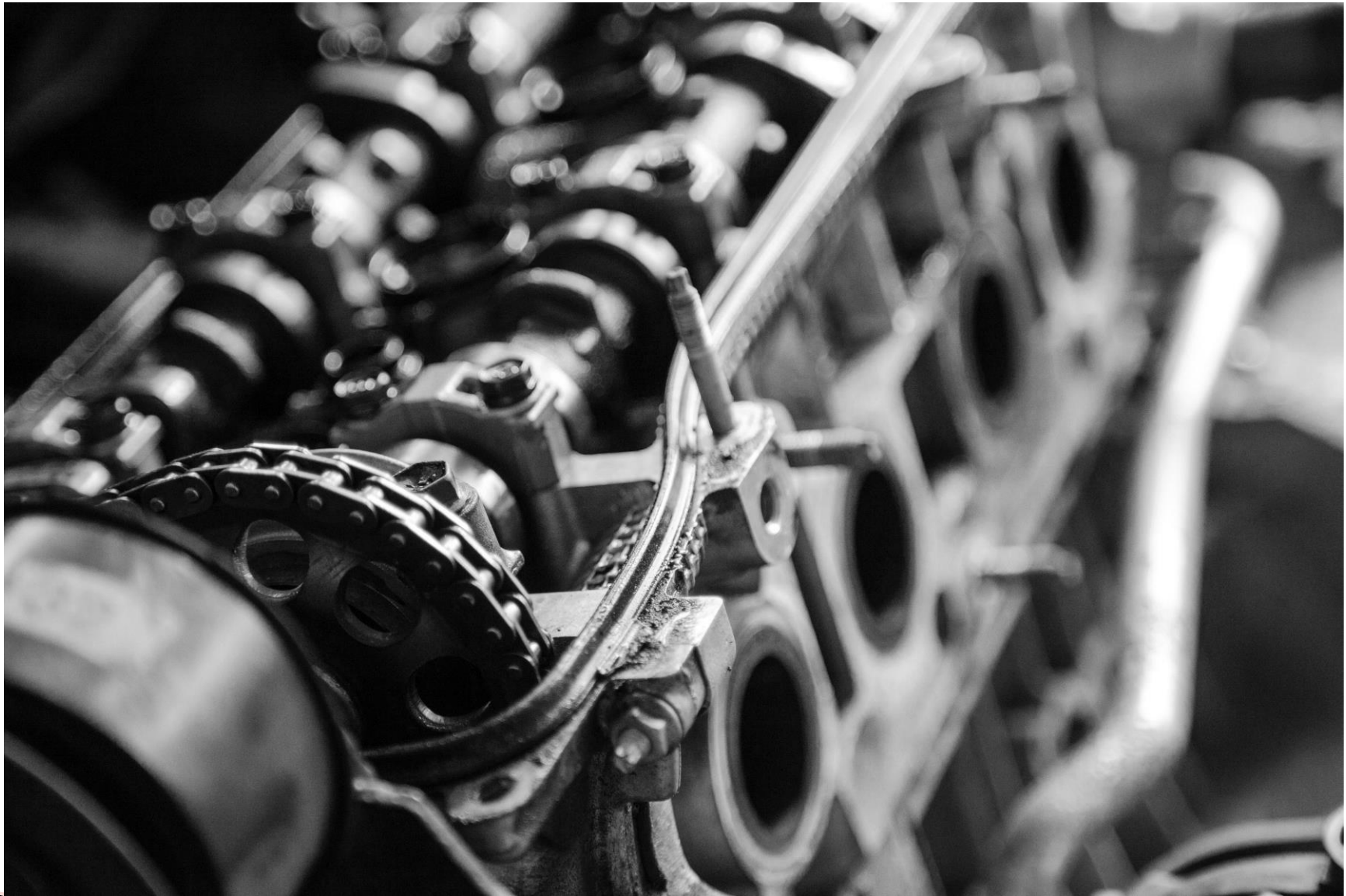
Real Life Example



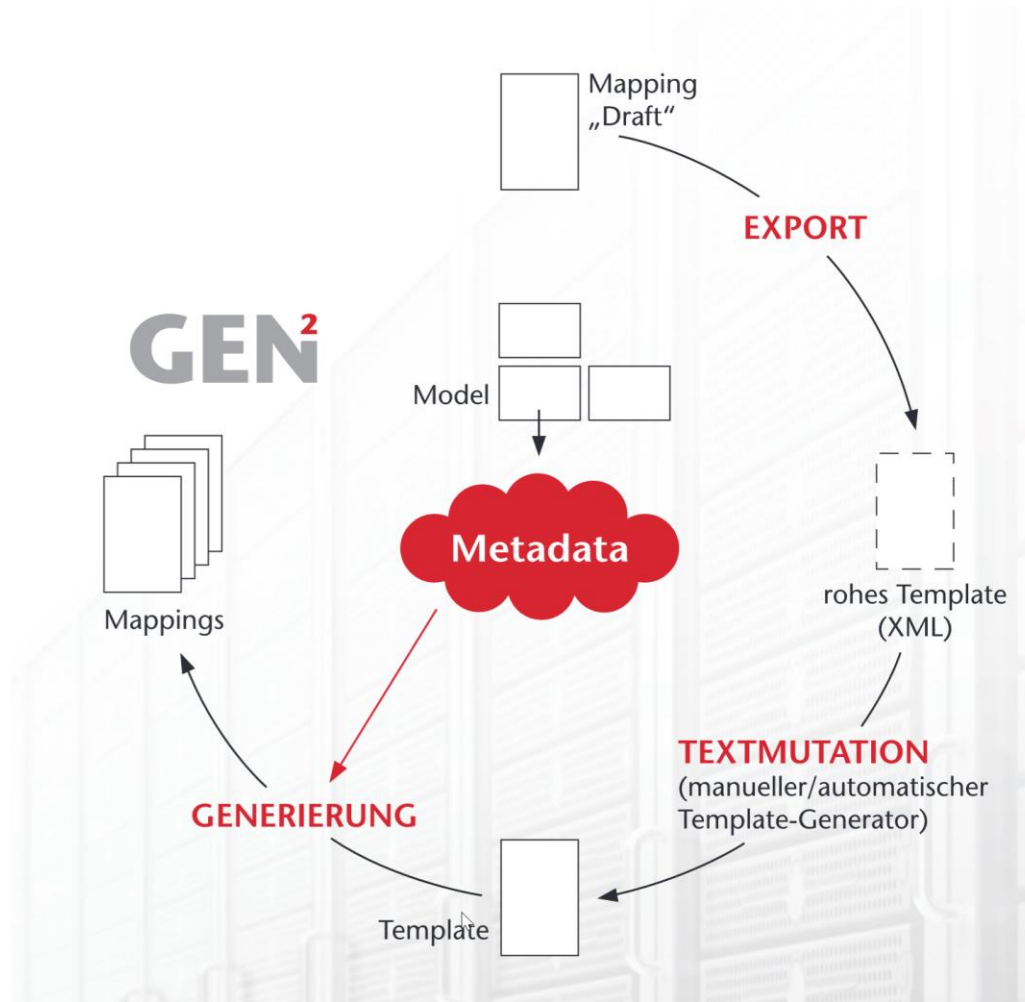
Real Life Example



Automation



Generator



Metadata

Iterator

| TABLE_NAME | ATTRIBUTE_NAME | DATA_TYPE |
|------------------|----------------|-----------|
| CUSTOMER_DETAILS | FIRST_NAME | VARCHAR |
| CUSTOMER_DETAILS | LAST_NAME | VARCHAR |
| CUSTOMER_DETAILS | DATE_OF_BIRTH | DATE |
| CUSTOMER_DETAILS | STREET | VARCHAR |
| CUSTOMER_DETAILS | ZIP | VARCHAR |
| CUSTOMER_DETAILS | CITY | VARCHAR |
| CUSTOMER_DETAILS | COUNTRY | VARCHAR |
| PRODUCT_DETAILS | NAME | VARCHAR |
| PRODUCT_DETAILS | CATEGORY | VARCHAR |
| PRODUCT_DETAILS | SUB_CATEGORY | VARCHAR |
| PRODUCT_DETAILS | VENDOR_NAME | VARCHAR |

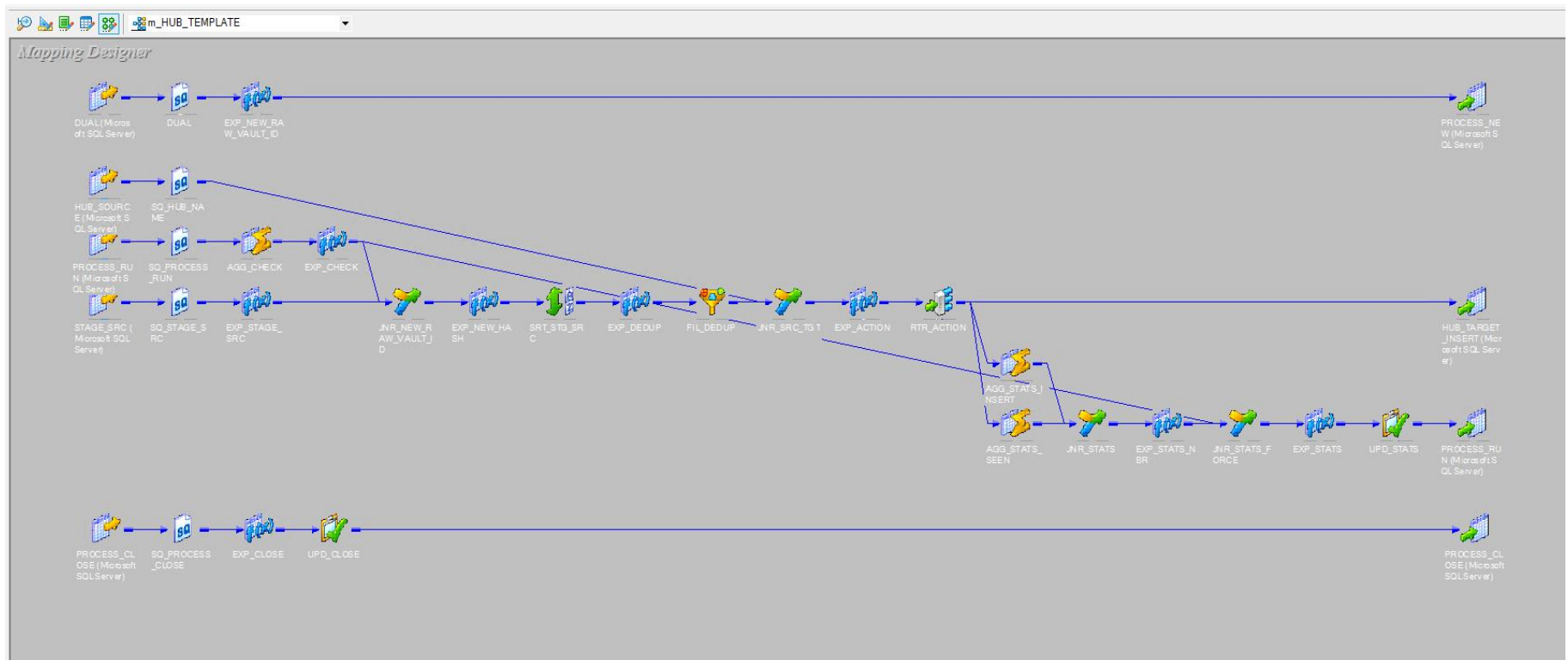


| TABLE_NAME | ATTRIBUTE_NAME | DATA_TYPE |
|------------------|----------------|-----------|
| CUSTOMER_DETAILS | FIRST_NAME | VARCHAR |
| CUSTOMER_DETAILS | LAST_NAME | VARCHAR |
| CUSTOMER_DETAILS | DATE_OF_BIRTH | DATE |
| CUSTOMER_DETAILS | STREET | VARCHAR |
| CUSTOMER_DETAILS | ZIP | VARCHAR |
| CUSTOMER_DETAILS | CITY | VARCHAR |
| CUSTOMER_DETAILS | COUNTRY | VARCHAR |

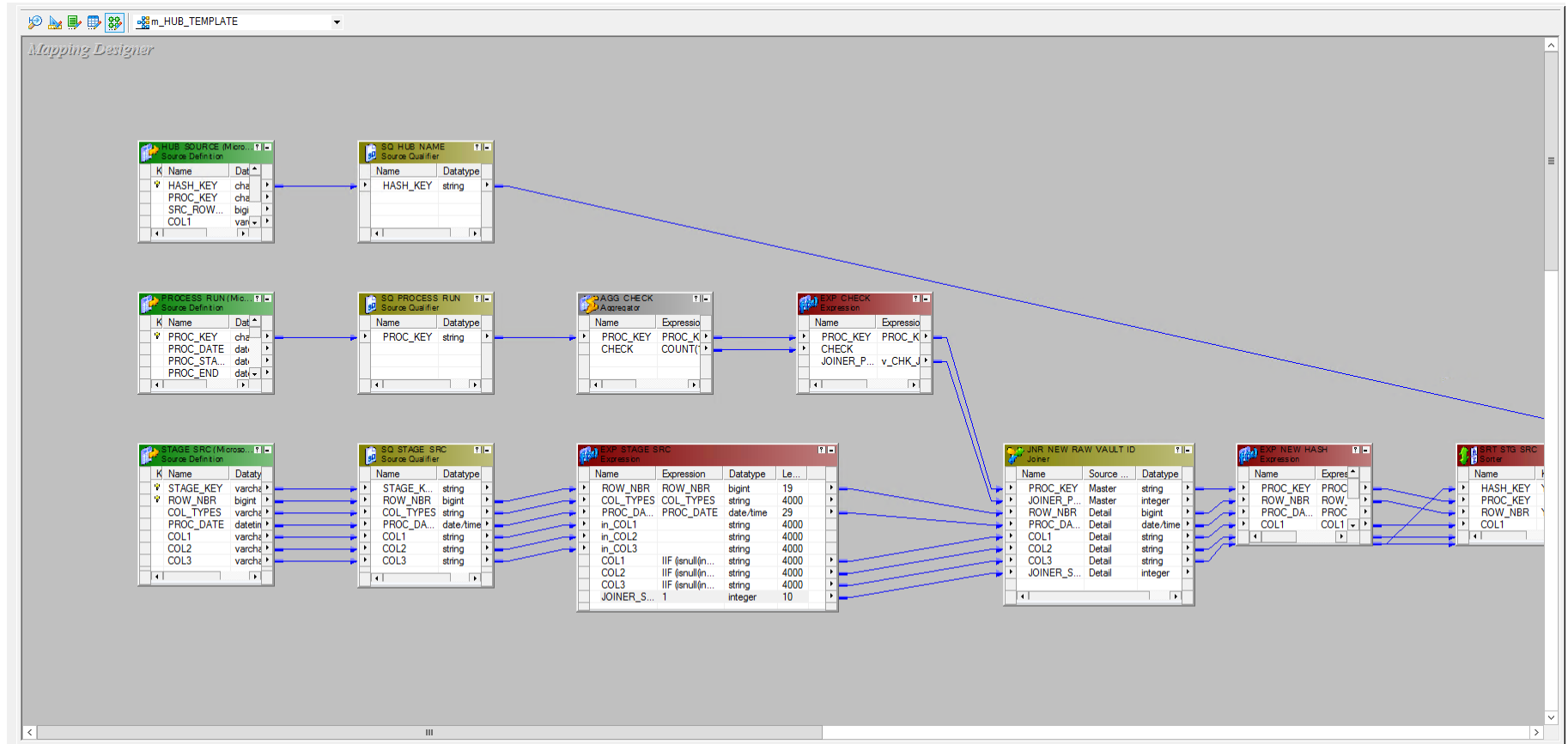


| TABLE_NAME | ATTRIBUTE_NAME | DATA_TYPE |
|-----------------|----------------|-----------|
| PRODUCT_DETAILS | NAME | VARCHAR |
| PRODUCT_DETAILS | CATEGORY | VARCHAR |
| PRODUCT_DETAILS | SUB_CATEGORY | VARCHAR |
| PRODUCT_DETAILS | VENDOR_NAME | VARCHAR |

Informatica Draft Mapping



Informatica Draft Mapping



From Mapping ...

```
<TRANSFORMATION DESCRIPTION = "" NAME = "EXP_ACTION" OBJECTVERSION = "1" REUSABLE = "NO" TYPE = "Expression" VERSIONNUMBER = "3">
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "HASH_KEY" EXPRESSIONTYPE = "GENERAL" NAME = "HASH_KEY" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "PROC_KEY" EXPRESSIONTYPE = "GENERAL" NAME = "PROC_KEY" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "ROW_NBR" EXPRESSIONTYPE = "GENERAL" NAME = "ROW_NBR" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT" PRECISION = "19" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "COL1" EXPRESSIONTYPE = "GENERAL" NAME = "COL1" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT" PRECISION = "4000" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "COL2" EXPRESSIONTYPE = "GENERAL" NAME = "COL2" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT" PRECISION = "1000" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "COL3" EXPRESSIONTYPE = "GENERAL" NAME = "COL3" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT" PRECISION = "1000" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "ERROR(&apos;transformation error&apos;)" DESCRIPTION = "" EXPRESSION = "SESSSTARTTIME" EXPRESSIONTYPE = "GENERAL" NAME = "SESSSTARTTIME" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" NAME = "HASH_KEY_DV" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "iif(ismul1(HASH_KEY_DV),&apos;INSERT&apos;,&apos;SEEN&apos;)" EXPRESSIONTYPE = "GENERAL" NAME = "HASH_KEY_DV" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "ERROR(&apos;transformation error&apos;)" DESCRIPTION = "" EXPRESSION = "v_ACTION" EXPRESSIONTYPE = "GENERAL" NAME = "ACTION" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "10" SCALE = "0"/>
  <TABLEATTRIBUTE NAME = "Tracing Level" VALUE = "Normal"/>
</TRANSFORMATION>
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  <GROUP DESCRIPTION = "" NAME = "INPUT" ORDER = "1" TYPE = "INPUT"/>
  <GROUP DESCRIPTION = "" EXPRESSION = "ACTION = &apos;INSERT&apos;," NAME = "INSERT" ORDER = "2" TYPE = "OUTPUT"/>
  <GROUP DESCRIPTION = "Path for the data when none of the group conditions are satisfied." NAME = "DEFAULT1" ORDER = "4" TYPE = "OUTPUT/DEFAULT"/>
  <GROUP DESCRIPTION = "" EXPRESSION = "ACTION = &apos;SEEN&apos;," NAME = "SEEN" ORDER = "3" TYPE = "OUTPUT"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "HASH_KEY" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "PROC_KEY" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "ROW_NBR" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "19" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "COL1" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "4000" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "COL2" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "1000" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "COL3" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "1000" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "CURRENT_DATE" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "29" SCALE = "9"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "ACTION" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "10" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "HASH_KEY1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "HASH_KEY"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "PROC_KEY1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "PROC_KEY"/>
  <TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "ROW_NBR1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "19" REF_FIELD = "ROW_NBR"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "COL11" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "4000" REF_FIELD = "COL1" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "COL21" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "1000" REF_FIELD = "COL2" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "COL31" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "1000" REF_FIELD = "COL3" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "CURRENT_DATE1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "29" REF_FIELD = "CURRENT_DATE" SCALE = "9"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "ACTION1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "10" REF_FIELD = "ACTION" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "HASH_KEY3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "HASH_KEY"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "PROC_KEY3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "PROC_KEY"/>
  <TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "ROW_NBR3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "19" REF_FIELD = "ROW_NBR"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "COL13" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "4000" REF_FIELD = "COL1" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "COL23" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "1000" REF_FIELD = "COL2" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "COL33" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "1000" REF_FIELD = "COL3" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "CURRENT_DATE3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "29" REF_FIELD = "CURRENT_DATE" SCALE = "9"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "ACTION3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "10" REF_FIELD = "ACTION" SCALE = "0"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "DEFAULT1" NAME = "HASH_KEY2" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "HASH_KEY"/>
  <TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "DEFAULT1" NAME = "PROC_KEY2" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "PROC_KEY"/>
```

... to template

```
<TRANSFORMATION DESCRIPTION ="" NAME = "EXP_ACTION" OBJECTVERSION = "1" REUSABLE = "NO" TYPE = "Expression" VERSIONNUMBER = "3">
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<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "PROC_KEY" EXPRESSIONTYPE = "GENERAL" NAME = "PROC_KEY" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT"
<TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "ROW_NBR" EXPRESSIONTYPE = "GENERAL" NAME = "ROW_NBR" PICTURETEXT = "" PORTTYPE = "INPUT/OUTPUT"
#foreach($row in $data)#if($row.INFA_ATTRIBUTE_DATA_TYPE=='string')#set($PRECISION=${STRING_LENGTH})#else#set($PRECISION=${row.INFA_ATTRIBUTE_PRECISION})#end
<TRANSFORMFIELD DATATYPE = "${row.INFA_ATTRIBUTE_DATA_TYPE}" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "${row.HIL_TARGET_ATTRIBUTE}" EXPRESSIONTYPE = "GENERAL" NAME = "${row
#end
<TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "ERROR(&apos;transformation error&apos;)" DESCRIPTION = "" EXPRESSION = "SESSSTARTTIME" EXPRESSIONTYPE = "GENERAL" NAME = "CU
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" NAME = "HASH_KEY_DV" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" EXPRESSION = "if(isnull(HASH_KEY_DV),&apos;INSERT&apos;,&apos;SEEN&apos;)" EXPRESSIONTYPE = "GENERAL" NAME
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "ERROR(&apos;transformation error&apos;)" DESCRIPTION = "" EXPRESSION = "v_ACTION" EXPRESSIONTYPE = "GENERAL" NAME = "ACTION" PI
<TABLEATTRIBUTE NAME = "Tracing Level" VALUE = "Normal"/>
</TRANSFORMATION>
<TRANSFORMATION DESCRIPTION ="" NAME = "RTR_ACTION" OBJECTVERSION = "1" REUSABLE = "NO" TYPE = "Router" VERSIONNUMBER = "1">
<GROUP DESCRIPTION ="" NAME = "INPUT" ORDER = "1" TYPE = "INPUT"/>
<GROUP DESCRIPTION ="" EXPRESSION = "ACTION = &apos;INSERT&apos;," NAME = "INSERT" ORDER = "2" TYPE = "OUTPUT"/>
<GROUP DESCRIPTION = "Path for the data when none of the group conditions are satisfied." NAME = "DEFAULT1" ORDER = "4" TYPE = "OUTPUT/DEFAULT1"/>
<GROUP DESCRIPTION ="" EXPRESSION = "ACTION = &apos;SEEN&apos;," NAME = "SEEN" ORDER = "3" TYPE = "OUTPUT"/>
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "HASH_KEY" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "PROC_KEY" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "32" SCALE = "0"/>
<TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "ROW_NBR" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "19" SCALE = "0"/>
#foreach($row in $data)#if($row.INFA_ATTRIBUTE_DATA_TYPE=='string')#set($PRECISION=${STRING_LENGTH})#else#set($PRECISION=${row.INFA_ATTRIBUTE_PRECISION})#end
<TRANSFORMFIELD DATATYPE = "${row.INFA_ATTRIBUTE_DATA_TYPE}" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "${row.HIL_TARGET_ATTRIBUTE}" PICTURETEXT = "" PORTTYPE = "IN
#end
<TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "CURRENT_DATE" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "29" SCALE = "9"/>
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INPUT" NAME = "ACTION" PICTURETEXT = "" PORTTYPE = "INPUT" PRECISION = "10" SCALE = "0"/>
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "HASH_KEY1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "HASH_KEY"
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "PROC_KEY1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "PROC_KEY"
<TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "ROW_NBR1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "19" REF_FIELD = "ROW_NBR"
#foreach($row in $data)#if($row.INFA_ATTRIBUTE_DATA_TYPE=='string')#set($PRECISION=${STRING_LENGTH})#else#set($PRECISION=${row.INFA_ATTRIBUTE_PRECISION})#end
<TRANSFORMFIELD DATATYPE = "${row.INFA_ATTRIBUTE_DATA_TYPE}" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "${row.HIL_TARGET_ATTRIBUTE}1" PICTURETEXT = "" PORTTYPE = "
#end
<TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "CURRENT_DATE1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "29" REF_FIELD = "C
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "INSERT" NAME = "ACTION1" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "10" REF_FIELD = "ACTION" SC
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "HASH_KEY3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "HASH_KEY"
<TRANSFORMFIELD DATATYPE = "string" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "PROC_KEY3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "32" REF_FIELD = "PROC_KEY"
<TRANSFORMFIELD DATATYPE = "bigint" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "ROW_NBR3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "19" REF_FIELD = "ROW_NBR" SC
#foreach($row in $data)#if($row.INFA_ATTRIBUTE_DATA_TYPE=='string')#set($PRECISION=${STRING_LENGTH})#else#set($PRECISION=${row.INFA_ATTRIBUTE_PRECISION})#end
<TRANSFORMFIELD DATATYPE = "${row.INFA_ATTRIBUTE_DATA_TYPE}" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "${row.HIL_TARGET_ATTRIBUTE}3" PICTURETEXT = "" PORTTYPE = "OU
#end
<TRANSFORMFIELD DATATYPE = "date/time" DEFAULTVALUE = "" DESCRIPTION = "" GROUP = "SEEN" NAME = "CURRENT_DATE3" PICTURETEXT = "" PORTTYPE = "OUTPUT" PRECISION = "29" REF_FIELD = "CUR
```

PowerCenter in Action

| Name | Duration | Status | JUL 17, 2017 3:00am | | | | | | | | | | | | | | | | |
|---|----------|-----------|---------------------|-----|-----|-----|---------|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|--|
| | | | :20 | :30 | :40 | :50 | 10:00am | :10 | :20 | :30 | :40 | :50 | 11:00am | :10 | :20 | :30 | :40 | :50 | |
| wf_HUB_SUB_485_MERCHANT | 00:00:13 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUB_ROC_1208_ACQUIRER | 00:00:07 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUB_ROC_13_SUBMISSION_ROC | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUB_ROC_14_TERMINAL | 00:00:07 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUB_ROC_321_SUBMISSION_SOC | 00:00:13 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUB_ROC_462_MERCHANT | 00:00:13 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUB_ROC_941_CARD | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUBORDINATE_HIERARCHY_512_MERCHANT | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUBORDINATE_HIERARCHY_513_MERCHANT | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUBORDINATE_P_ORG_REL_469_MERCHANT | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_HUB_SUBORDINATE_P_ORG_REL_470_MERCHANT | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PAY_MERCHANT_TO_PAYMENT | 00:00:10 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PAY_SOC_LINK_99 | 00:00:13 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PAY_SOC_MERCHANT_TO_PAYSOC | 00:00:10 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PAY_SOC_PAYSOC_TO_DAF | 00:00:11 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PAY_SOC_PAYSOC_TO_PAY | 00:00:05 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PAY_SOC_SOC_TO_PAYSOC | 00:00:10 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PEN_PAY_MERCHANT_TO_PENPAYMENT | 00:00:05 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PEN_PAY_SOC_LINK_99 | 00:00:11 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PEN_PAY_SOC_MERCHANT_TO_PENPAYSOC | 00:00:13 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PEN_PAY_SOC_PENPAYSOC_TO_PENDPAY | 00:00:14 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PEN_PAY_SOC_PENPAY_SOC_TO_DAF | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PEN_PAY_SOC_SOC_TO_PENDPAYSOC | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_POS_PRESENTMENTS_CARD_USAGE | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_POS_PRESENTMENTS_DAF_TO_ARN | 00:00:07 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PRI_DET_LINK_99 | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PRI_DET_MERCHANT_TO_FRICDET | 00:00:11 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PRI_DET_FRICDET_TO_PAYSOC | 00:00:11 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_PRI_DET_FRICDET_TO_PENPAYSOC | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SE_SETTLEMENT_MERCHANT_TO_AGREEMENT | 00:00:13 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SE_SETTLEMENT_COMPONENT_AGREEMENT_TO_SETTL... | 00:01:17 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUB_MERCHANT_TO_SOC | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUB_ROC_CARD_USAGE | 00:00:26 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUB_ROC_MERCHANT_TO_ROC | 00:00:07 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUB_ROC_ROC_TO_ARN | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUB_ROC_ROC_TO_SOC | 00:00:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUB_ROC_TERM_TO_ROC | 00:00:07 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUBORDINATE_HIERARCHY_MERCHANT_SUBORDINATE... | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_LINK_SUBORDINATE_P_ORG_REL_SUBORDINATE_P_ORG_REL | 00:00:08 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_BUSINESS_CONTACT | 00:00:11 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_CHARGEBACK | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_DAF_CHARGEBACK | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_DAF_FULFILLMENT | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_DAF_PRESENTMENT | 00:01:12 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_DAF_RETRIEVAL_REQUEST | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_FULFILLMENT | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_OU_ADDRESS_USAGE | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_P_OPERATIONAL_OU | 00:00:19 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_PAYMENT_DETAILS | 00:00:09 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_PAYSOC_DETAILS | 00:01:16 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_PENDPAYMENT_DETAILS | 00:00:19 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_PENDPAYSOC_DETAILS | 00:02:28 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_PENDPAYSOC_DETAILS | 00:02:24 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_PRESENTMENT | 00:00:49 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_FRICING_DETAIL_DETAILS | 00:00:38 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_RECON_PAYMENT | 00:00:21 | Succeeded | | | | | | | | | | | | | | | | | |
| wf_SAT_RECON_PAYMENT_SOC | 00:01:09 | Succeeded | | | | | | | | | | | | | | | | | |



where data become facts.



- Home
- Unternehmen
- Beratung
- Technologie
- Referenzen
- Partner
- Info-Service
- Kontakt



Machen Sie Ihre Daten zum Erfolgsfaktor

Jederzeit gezielten Zugriff auf die gewünschten Informationen haben – das ist die beste Basis für erfolgreiche Unternehmensentscheidungen. Wir bringen Unternehmen auf den Weg dorthin. Mit handverlesenen EIM-Experten und Analysten entwickeln wir auf individuelle Bedürfnisse zugeschnittene Lösungen, die Daten jederzeit gezielt verfügbar machen.

Zukunftssicherheit inklusive

Das Wichtigste für Sie: Sie bleiben langfristig unabhängig, denn unsere Lösungen sind so konzipiert, dass Sie die entsprechenden Prozesse auf Dauer selbst betreiben und kontinuierlich optimieren können. Damit bleiben Sie flexibel und sind für die Zukunft perfekt gerüstet.

Neu: Gen2 - Generate Information Value

