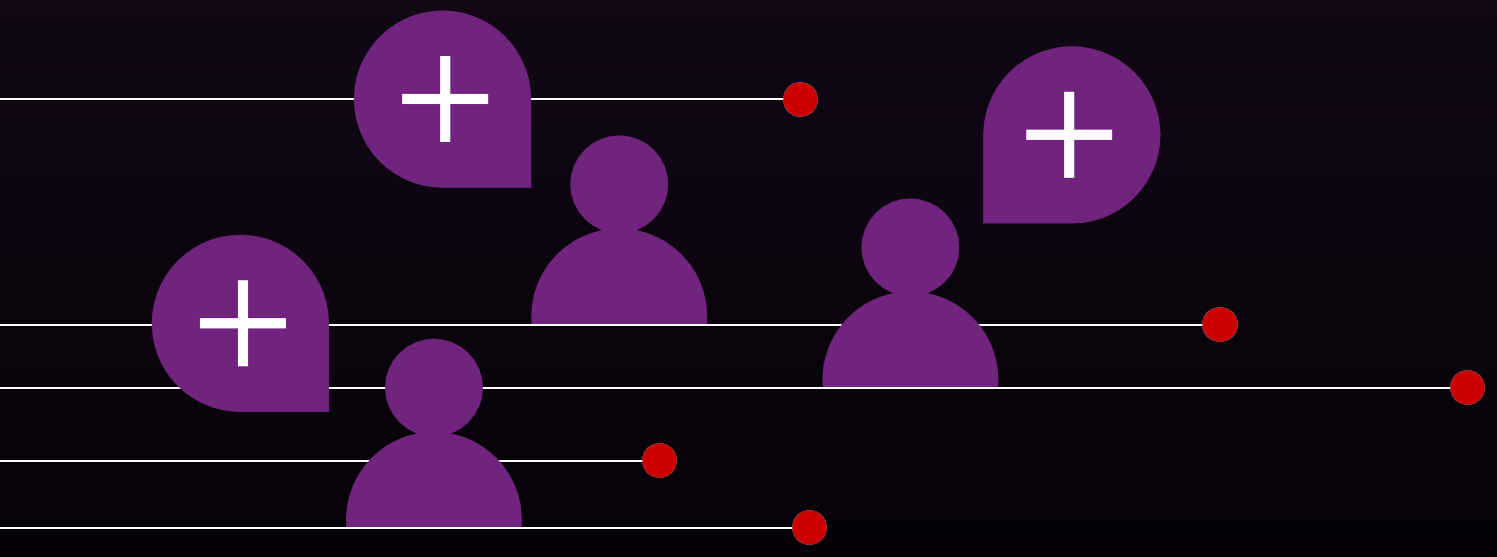
VAULTSPEED

VaultSpeed Studio

Fact on NHL with Snapshot Dimension



USE CASE FOR THIS TEMPLATE

This document describes how a user can configure a template in the VaultSpeed Studio to generate a Fact on Non-Historized-Link with Snapshot Dimension based on an insert-only RDV.

This is an example of an aggregation fact where the aggregation is based on the field with the specific Signature Attribute used as a tag.

Before you explore and use this example template, ensure that you understand the example SQL attached to understand what the template does and that it covers your needs.

This template is designed for:

- FACT creation based on a Non Historized Link
- Snapshot Dimension
- Hardcoded generation of the dimension key (hub hkey + snapshot date) values, no check for existence. A non-existing version will lead to record loss at query time
- Aggregation implemented in the template
- the date used for the FACT must be tagged using a Signature Attribute
- Business logic examples with specific Signature Attributes

Example

The example that is used in this document is based on a non-historized link that contains the visits of a customer to a shop.

In the Raw Data Vault model this is a NHL_VST_VISITORS.

Components of the implementation

- Signature objects
- Assign Signature objects to the correct tables
- Create Signature attribute type and assigned in the requested fields
- Create the Template
- Create Target definition
- Fill in the Dependency

Create Signature objects

For this template implementation, there is no need for specific signature objects.

Signature objects are assigned

For this template implementation, there is no need for specific signature objects.

Create a Signature attribute type and flag the usage in the requested fields

In order to build the duration calculation and some average and sum calculations in the aggregate fact the following SA's must be created

START_DATE
START_TIME
TRANSACTION_METRIC_AVG
TRANSACTION_METRIC_SUMMABLE

And assign this

NUMBER_OF_SERVICE_REQUESTS	OTHER_ATTR, TRANSACTION_ME…
PARKING_LOT_EXIT_TIME	OTHER_ATTR, SEC_END_TIME
PARKING_LOT_ENTER_TIME	OTHER_ATTR, SEC_START_TIME
NUMBER_OF_PRODUCT_INTERAC…	OTHER_ATTR, TRANSACTION_ME…
NUMBER_OF_STAFF_INTERACTIO…	OTHER_ATTR, TRANSACTION_ME…
SHOP_EXIT_TIME	OTHER_ATTR, END_TIME
SHOP_ENTER_TIME	OTHER_ATTR, START_TIME
VISIT_ID	UNIQUE_IDENTIFIER

Create the template

Template definition, according to the standard that you want to use. An essential element here is the Signature Object naming. That name is used in the .dvt file containing the dimension template's definition. You might want or are needed to go for a different name if you have multiple implementations. But then you must adapt the template file accordingly and replace all the <signature object name> references with your chosen name.

In the example, we use FACT_NHL_SNAP, because this is a FACT based on a NHL and using Snapshot Dimension.

Take the “Fact on NHL with Snapshot Dimension.dvt” file and upload it for the ETL template of this view.

Fill in the Target Definition

The target definition is very specific to the template:

Signature Object	Signature Attribute
NHL	UNIQUE_IDENTIFIER
NHL	OBJECT_F_H_KEY
NHL	OTHER_ATTR
NHL	FOREIGN_KEY
NHL	LOAD_TIMESTAMP
NHL	RECORD_SOURCE
NHL	OBJECT_L_H_KEY
NHL	END_TIME
NHL	SEC_END_TIME
NHL	LOAD_CYCLE_ID
NHL	SEC_START_TIME
NHL	TRANSACTION_METRIC_AVG
NHL	TRANSACTION_METRIC_SUMMABLE
NHL	START_TIME

Add new attributes to enable the correct working of the template:

New Attributes

Overview

Search...

Unique	Name	Prefix	Suffix	Signature Object	Signature Attribute	Data Type
●	TRANSACTION_YEAR					
●	TRANSACTION_DURATION			NHL		TIME
●	SECONDARY_TRANSACTION_...			NHL		TIME
●	TRANSACTION_MONTH			NHL		DATE
○		AVG		NHL	TRANSACTION_METRIC_AVG	NUMBER
○		SUM_OF		NHL	TRANSACTION_METRIC_SUM...	NUMBER
●	NUMBER_OF_TRANSACTIONS			NHL		NUMBER
○		DIM		HUB	OBJECT_H_KEY	VARCHAR

Fill in the Dependency

Define on which NHL table this template must be implemented.

Example: