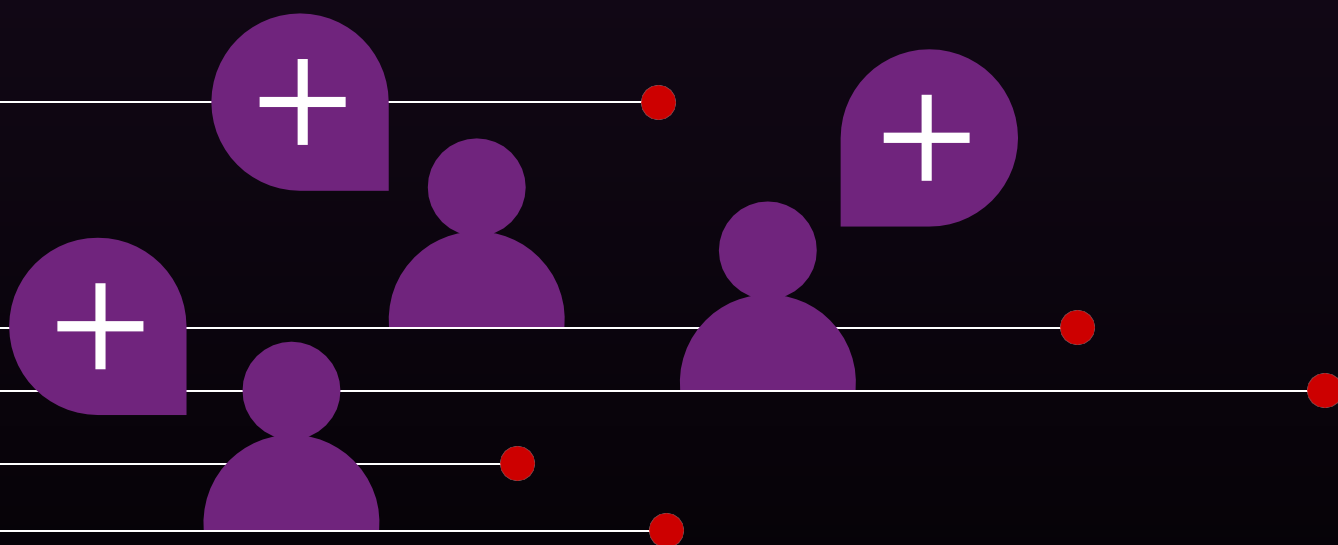




# VaultSpeed Studio

Fact on Bridge  
with SCD2 Dimension



# USE CASE FOR THIS TEMPLATE

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This document describes how a user can configure a template in the VaultSpeed Studio to generate a view that represents a FACT based on a bridge table with multiple HUBs. The dimensions that are included in the dimension is based on the correct tagging of multiple SCD Type 2 dimensions. The selection of the correct dimension record is based on the invoice date (EOD) from the invoice.

**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 BRIDGE
- SCD Type 2 Dimension
- Hard Join with dimension, no check for existence, a not existing version will lead to record loss at loading time
- No aggregation in the template
- the date used for the FACT must be tagged using a Signature Attribute
- all attributes with SA OTHER\_ATTR, BUSINESS\_SRC\_KEY and FOREIGN\_KEY from the selected SAT will be loaded in the FACT
- The dimensions are dimensions created with the SCD2\_DIM\_HUB template


## Example

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The example that is used in this document is based on an invoice, the customer and his address.

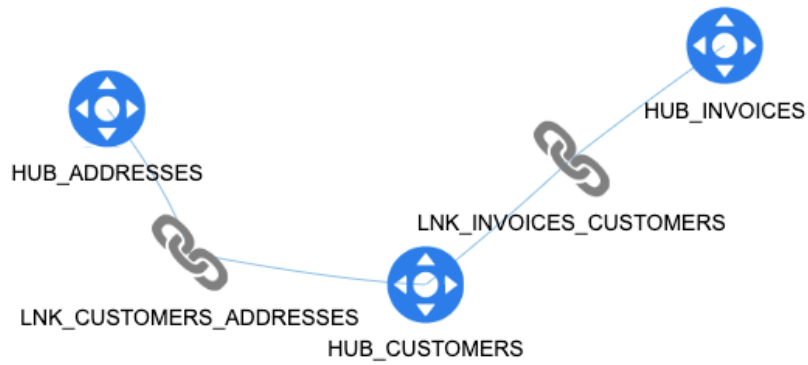
In the Raw Data Vault model this is a HUB\_INVOICE with a Link to the HUB\_CUSTOMER and HUB\_ADDRESSES.

## Components of the implementation

- 
- Standard business vault BRIDGE table
  - Ensure there are SCD Type 2 dimensions for each HUB
  - 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

## Implement a Standard business vault BRIDGE table

In the open release of the Business Vault, create the bridge table. For use within the template, this bridge doesn't need to have the hash key created or the Business keys of the HUBs added.



## Create Signature objects

In order for the template to know which tables to use for which purpose, we need to create some specific Signature Objects.

### Signature Object

**FACT\_ON\_BRIDGE\_SCD2\_DIM\_SELECTION**

**FACT\_ON\_BRIDGE\_SCD2\_SAT\_SELECTION**

**FACT\_ON\_BRIDGE\_SCD2\_DIM\_SELECTION:** From the Bridge, not all HUBs should become dimensions. The template expects the user that configures this fact uses the SO to flag those HUBs for which the dimension must be visible in the fact.

**FACT\_ON\_BRIDGE\_SCD2\_SAT\_SELECTION:** From which SAT the template will select all **OTHER\_ATTR** fields has to be configured. The template expects the user that configures this fact uses the SO to flag those SATs from which the values must be visible in the fact.

## Signature objects are assigned

**FACT\_ON\_BRIDGE\_SCD2\_DIM\_SELECTION**

HUB_ADDRESSES	Hubs	HUB, FACT_ON_BRIDGE_SCD2_DIM_SELECTION
HUB_CUSTOMERS	Hubs	HUB, MAIN_HUB, FACT_ON_BRIDGE_SCD2_DIM_SELECTION

**FACT\_ON\_BRIDGE\_SCD2\_SAT\_SELECTION**

SAT_SLS_INVOICES	Satellites on Hubs	SAT, FACT_ON_BRIDGE_SCD2_SAT_SELECTION
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# Create Signature attribute type and flag the usage in the requested fields

In order to identify the field in the SAT which is used to select the correct version of the dimension

FACT\_ON\_BRIDGE\_SCD2\_TIME\_FIELD

✓ ^	SAT_SLS_INVOICES	Satellites on Hubs		
		INVOICE_ID	BUSINESS_SRC_KEY	VAF
		CUSTOMER_INVOICE_ID	FOREIGN_KEY	NUM
		INVOICE_DATE	OTHER_ATTR, FACT_ON_BRIDGE_SCD2_TIME...	TIM
		AMOUNT	OTHER_ATTR, FACT_ON_BRIDGE_SCD2_TIME_FIELD	NUM

## Create the template

Template definition, according to the standard that you want to use. Important element here is the Signature Object naming. That name comes back in the .dvt file that contains the definition of the dimension template. If you have multiple implementations, you might want to go for a different name. But then you will need to adapt the template file accordingly and replace all the references to the Signature Object of your choice with your chosen name.

Ensure you have this use case's latest version from the following location:  
<https://github.com/Vaultspeed/studio-templates> .

Each of our templates has its folder where the code resides.

Take the fact\_view\_on\_bridge\_etl.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:

Existing Attributes

New Attributes

Overview

Search...

Signature Object	Signature Attribute
SAT	OTHER_ATTR
SAT	BUSINESS_SRC_KEY
SAT	FOREIGN_KEY

And the new attribute

Existing Attributes

New Attributes

Overview

Search...

Unique	Name	Prefix	Suffix	Signature Object	Signature Attribute
<input type="checkbox"/>		dim		BRIDGE	OBJECT_H_KEY

# Fill in the Dependency

Define on which BRIDGE table this template must be implemented.

☐ Object Name (Linked)

☐ BRIDGE\_BRG\_CUSTOMER\_ADDRESS (BRIDGE)