

15. Business Rules

Business rules and data transformations can be added at any time in WhereScape RED.

To standardize the Orders of the Association Partners from the Webshop a join is created between the Customer table and the Webshop Orders table and it is filtered to only include Association Partners.

A rule is implemented to identify customers without customer_id in the (Roadshow Order) RS_Bestellung based on their credit card, cc-company and valid-to data.

The connection between Webshop Orders and Association Partner was also modeled in 3D to generate the proper Link tables.

We also modeled a Sames-As Link table to resolve the alternate Customer ID based on credit card information.

Additional Business Vault

Satellites are insert-only and store historical changes. It is best practice to add the current and historical views on the top of the raw satellites. WhereScape generates these two types of views for all the satellites automatically.

The screenshot shows the WhereScape RED interface. On the left is a project tree with the following structure:

- rch to view results
 - UseCase6 - Historized Reference Entities
 - UseCase10 - Deletions in customer
 - UseCase11 - Delivery address without customer
 - UseCase12 - Deletions of orders
 - Master - Customer changes
- Load and staging
- Business vault
 - Willibald
 - 1.4
 - 1.8
 - 1.8_ssh
 - 2.2
 - All tables
 - Business vault deployment
 - Willibald
 - 1.4
 - 1.8
 - 1.8_ssh
 - 2.2
 - All tables
 - Business Vault
 - s_associationpartner_mrocc_current
 - s_associationpartner_mrocc_history

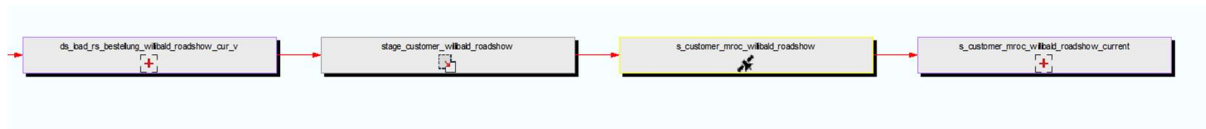
The central workspace displays four data model diagrams:

- s_associationpartner_mrocc_history**: A table with columns including hi_h_associationpartner, kundeidverein, rabatt1, rabatt2, rabatt3, ds_change_hash, ds_record_source, ds_load_date, ds_start_date, ds_version, ds_create_time, ds_end_date, and ds_current_flag. It has a primary key on hi_h_associationpartner and foreign keys to s_customer_mrocc_willibald_webshop_current and s_customer_mrocc_willibald_webshop_history.
- s_customer_mrocc_willibald_webshop_current**: A table with columns including hi_h_customer, kundeid, vereinspartnerid, vorname, name, geschlecht, geburtsdatum, telefon, mobil, email, kreditkarte, gueltigbis, and wifma. It has a primary key on hi_h_customer and foreign keys to s_customer_mrocc_willibald_webshop_history and s_deliveryvac.
- s_customer_mrocc_willibald_webshop_history**: A table with columns including hi_h_customer, kundeid, vereinspartnerid, vorname, name, geschlecht, geburtsdatum, telefon, mobil, email, kreditkarte, gueltigbis, and wifma. It has a primary key on hi_h_customer and foreign keys to s_customer_mrocc_willibald_webshop_current and s_deliveryvac.
- s_deliveryvac**: A table with columns including hi_h_deliveryaddress, strasse, hausnummer, adresszusatz, plz, ort, land, ds_change_hash, ds_record_source, and ds_load_date. It has a primary key on hi_h_deliveryaddress and foreign keys to s_customer_mrocc_willibald_webshop_current and s_customer_mrocc_willibald_webshop_history.

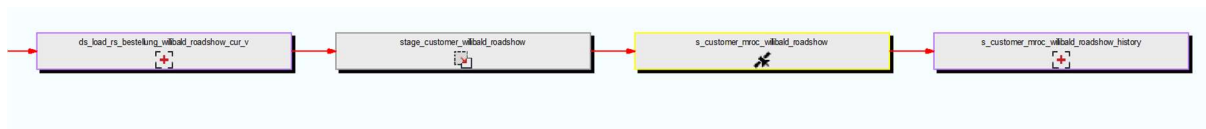
Data Lineage in WhereScape RED

Note: WhereScape Red uses the XML File to build the data warehouse objects and all code routines to ingest the load tables, ODS layers, views, stage tables and the raw vault or the business vault layers.

Current view



Historical view



Sample Data

Current satellite view

Builder Scheduler Diagram

QL Server Development

Business Vault

View

Data display for ws_DDVUG_SQL_Repo_dev.BV/s_customer_mroc_willibald_roadshow_current

h_k_custo...	kundeid	vereinspartn...	kreditkarte	gueltigbis	kfirma	dss_change...	dss_record...	dss_load_date	dss_start_date	dss_version	dss_create...
peA7@e...	16	GlückAuf	0000 2820 ...	06/15	Mastercard	000f24Q0...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
p884kac...	120	GlückAuf	0000 1551 ...	01/23	Mastercard	...o)Q71bo...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
8y7x8f...		GlückAuf	0000 9052 ...	07/23	VISA	844EWf...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
000A/Qe...		GlückAuf	0000 6325 ...	06/88	Mastercard)(1+YfU9u...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
8@ÜoO...	392	GlückAuf	2517 5500 ...	09/13	Mastercard	NyB-LxslÄ...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
D01A...V...	27	GlückAuf	0000 1760 ...	03/15	VISA	JGTee.z7jEj...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
D'ao0 a(L...	178	GlückAuf	0000 0880 ...	02/90	VISA	m/+7jeM*	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
zwl7&1 L...	186	GlückAuf	0000 8757 ...	04/94	VISA	HÜvlpQ...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Yn Nnn^C...	130	GlückAuf	0000 4114 ...	04/23	Mastercard	Wf&E-TwÜ...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
YB8cb/...	407	GlückAuf	0501 0100 ...	09/17	Mastercard	E77cj0Üü...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
YaeSC6z...		GlückAuf	0000 9270 ...	03/18	VISA	Ö>M1,+B(...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
YmÜa8j;...	55	GlückAuf	0000 8021 ...	05/99	VISA	-e3E1ao+H*	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
XuAKj b"...	292	GlückAuf	0000 4844 ...	02/23	VISA	z#4+vy^+j...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Xc'sAdÜf8...		GlückAuf	0000 5720 ...	02/83	VISA	^HQ-lZZjE...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
X=P5#* ä...		GlückAuf	0000 2813 ...	11/13	American E...	dh1Z+Yi...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
WDÜe%...		GlückAuf	0000 1570 ...	11/23	Mastercard	w5eA=a5M...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
w48j04j...		GlückAuf	0000 1765 ...	04/23	VISA	6fO-/(>+t...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
w ~ü-fj#...	65	GlückAuf	0000 1562 ...	09/76	Mastercard	Äq ÄE:5ä...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
UNÜxq^...	62	GlückAuf	0000 2730 ...	11/17	American E...	½	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
ÜiEQX^...	385	GlückAuf	0695 5900 ...	12/20	American E...	Es..En340b...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
ÜjQ-u-...	280	GlückAuf	0000 7750 ...	07/23	VISA	=6e=aB~Ç...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Ü357c+w4...	401	GlückAuf	2101 5500 ...	09/23	Mastercard	ai9aoy'ÜiÖ...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Ü350ZQ...	307	GlückAuf	6613 3000 ...	04/20	VISA	jÖ1+TÜ-t'D...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Ü3-t'EZy...		GlückAuf	0000 7636 ...	05/23	Mastercard	\$17AeSzy...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Ü114B+...	146	GlückAuf	0000 1674 ...	05/18	VISA	RnEGelq(n...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Üp+7eL...		GlückAuf	0640 3800 ...	11/18	American E...	Z8127pü...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
Üp+ti+5EA...	193	GlückAuf	0000 2676 ...	05/23	VISA	<C*_dR^...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
ÜkSA-d-lL...	221	GlückAuf	0000 8379 ...	10/17	Mastercard	[%TWd3rÖ...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
ÜZ	117	GlückAuf	0000 7784 ...	10/15	Mastercard	blc<ÜLr=V...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...
ÜkA-küQZ	210	GlückAuf	0000 9370 ...	03/18	VISA	5.11c1Aaol...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...

Historical satellite view

SQL Server Development		Data display for ws_DDVUG_SQLRepo_dev.BV.s_customer_mroc_willibald_roadshow_history													
All Objects		hk_h_custo...	kundeid	vereinspartn...	kreditarte	gueltigbis	klfirma	dss_change...	dss_record...	dss_load_date	dss_start_date	dss_version	dss_create...	dss_end_date	dss_curren...
Business Vault	View	s_associationpartner_mroc_current	61	GlückAuf	0000 4563	08/23	American E...	5{k_EEE-0...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_associationpartner_mroc_history	379	GlückAuf	0800 8500	03/23	VISA	a°wv-@W-Ö...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_category_hl_effectivity_current	156	GlückAuf	0000 1268	02/18	VISA	¼00@St.t.ä...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_category_hl_effectivity_history	239	GlückAuf	0000 1868	06/92	Mastercard	¼Ä¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_category_mroc_current	180	GlückAuf	0000 6350	08/19	Mastercard	¼EOzp¼Ä...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_category_mroc_history	357	GlückAuf	0000 1174	01/15	VISA	¼cezcø(äoN...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_associationpartner_effectivity_cu...	271	GlückAuf	0700 2000	04/14	VISA	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_associationpartner_effectivity_hi...	362	GlückAuf	0000 3581	09/23	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_mroc_willibald_roadshow_curren...	150	GlückAuf	2516 3000	12/23	VISA	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_mroc_willibald_roadshow_hist...	138	GlückAuf	0000 0852	05/18	VISA	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_mroc_willibald_webshop_curren...	259	GlückAuf	0000 9850	06/20	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_mroc_willibald_webshop_hist...	304	GlückAuf	0000 6152	09/19	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_tracking_current	74	GlückAuf	6915 0000	08/23	VISA	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_customer_tracking_history	171	GlückAuf	0000 1787	12/23	American E...	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_delivery_transact_current	397	GlückAuf	0000 6050	01/23	VISA	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_delivery_transact_history	107	GlückAuf	5600 6000	08/23	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_deliveryaddress_mroc_current	235	GlückAuf	0000 6628	11/13	American E...	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_deliveryaddress_mroc_history	133	GlückAuf	0700 1000	08/78	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_livingaddress_ma_current	228	GlückAuf	0000 2465	09/94	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_roadshow_current	195	GlückAuf	8624 5100	06/23	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_roadshow_history	235	GlückAuf	0000 8153	07/16	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_current	107	GlückAuf	0000 0585	11/15	American E...	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_history	228	GlückAuf	0000 3660	11/17	American E...	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_history	195	GlückAuf	8624 5100	06/23	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_history	235	GlückAuf	0000 8164	12/23	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_history	235	GlückAuf	0000 7668	08/14	Mastercard	¼Ä¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_history	133	GlückAuf	0000 8968	11/23	VISA	Ö¼ P¼Ä¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y
		s_order_mroc_willibald_webshop_history	228	GlückAuf	0000 7768	09/16	Mastercard	¼¼¼¼¼¼¼¼...	Willibald R...	2023-06-02...	2023-06-02...	1	2023-06-02...	9999-12-31...	Y