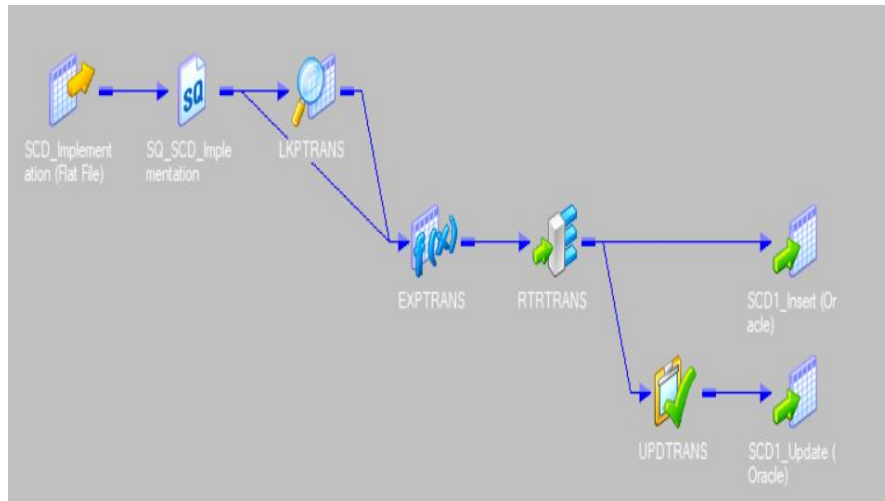


Designer Window

Design Mapping



Create Transformation

Transformation | Ports | Properties | Metadata Extensions

Select transformation: **EXPTRANS**

Transformation type: Expression

Port Name	Datatype	Prec	Scale	I	O	V	Expression
1	Eid	decimal	2	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Eid
2	EmpName	string	15	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EmpName
3	Designation	string	15	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Designation
4	Salary	decimal	5	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Salary
5	Tgt_EID	decimal	38	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tgt_EID
6	Tgt_EMPNAME	nstring	30	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tgt_EMPNAME
7	Tgt_DESIGNATION	nstring	30	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tgt_DESIGNATION
8	Tgt_SALARY	decimal	38	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Tgt_SALARY
9	Current_date	date/time	29	9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SYSTIMESTAMP()

Default value:

Select transformation: **RTRTRANS**

Transformation type: Router

Group Name	Group Filter
Insert	isnull(Tgt_EID)
Update	NOT isnull(Tgt_EID)...

RANS (Expression)

ors

```

NOT isnull(Tgt_EID)
AND
(EmpName <> Tgt_EMPNAME
OR Designation <> Tgt_DESIGNATION
OR Salary <> Tgt_SALARY)
    
```

Workflow Manager

Design Workflow



Configure connection

General | Properties | Config Object | Mapping | Components | Metadata Extensions

Select task: **s_M_SCD_Type1**

Task type: Session

- Start Page
- Connections
- Memory Properties
- Files, Directories and Com
- Sources
 - SQ_SCD_Implementation
- Targets
 - SCD1_Update
 - SCD1_Insert
- Transformations
 - LKPTRANS
 - EXPTRANS
 - RTRTRANS
 - UPDTRANS

Start Page

Configure Mapping

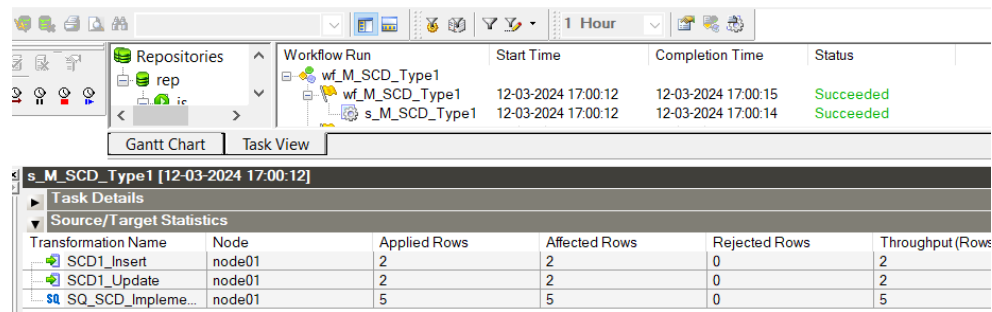
To configure connections, select the **Connections** node in the tree in the Transformations view.

To edit the reader/writer properties of a source/target, select the **Sources** or the **Targets** node in the tree.

To edit the partitions, go to the **Partitions** tab and select a transformation from the tree.

Workflow Monitor

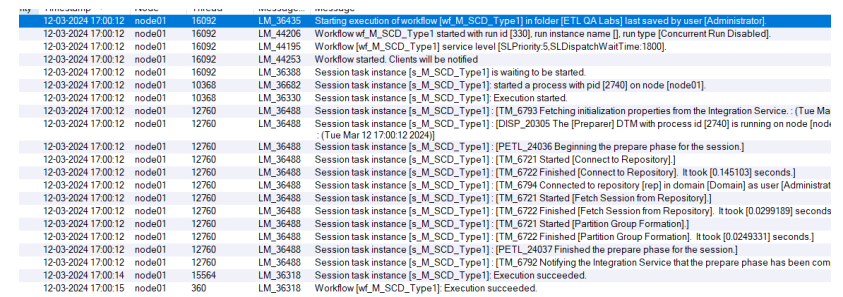
Run Properties



The screenshot shows the 'Run Properties' window for a workflow named 'wf_M_SCD_Type1'. It displays a Gantt chart and a Task View. The Task View shows the following details:

Transformation Name	Node	Applied Rows	Affected Rows	Rejected Rows	Throughput (Rows)
SCD1_Insert	node01	2	2	0	2
SCD1_Update	node01	2	2	0	2
sq SQ_SCD_Impleme...	node01	5	5	0	5

Session Logs



The screenshot shows the 'Session Logs' window for the workflow 'wf_M_SCD_Type1'. It displays a list of session tasks and their execution details.

Time	Node	Task Name	Message
12-03-2024 17:00:12	node01	LM_36435	Starting execution of workflow [wf_M_SCD_Type1] in folder [ETL QA Labs] last saved by user [Administrator]
12-03-2024 17:00:12	node01	LM_44206	Workflow wf_M_SCD_Type1 started with run id [330], run instance name [], run type [Concurrent Run Disabled]
12-03-2024 17:00:12	node01	LM_44195	Workflow [wf_M_SCD_Type1] service level [SLPriority 5.SLDispatchWaitTime:1800]
12-03-2024 17:00:12	node01	LM_44253	Workflow started. Clients will be notified
12-03-2024 17:00:12	node01	LM_36338	Session task instance [s_M_SCD_Type1] is waiting to be started
12-03-2024 17:00:12	node01	LM_36682	Session task instance [s_M_SCD_Type1] started a process with pid [2740] on node [node01]
12-03-2024 17:00:12	node01	LM_36330	Session task instance [s_M_SCD_Type1] Execution started
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6793 Fetching initialization properties from the Integration Service : (Tue Mar 12 17:00:12 2024)]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [DISP_20305 The [Preparer] DTM with process id [2740] is running on node [node01] (Tue Mar 12 17:00:12 2024)]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [PETL_24036 Beginning the prepare phase for the session.]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6721 Started [Connect to Repository]]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6722 Finished [Connect to Repository]] It took [0.145103] seconds]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6794 Connected to repository [rep] in domain [Domain] as user [Administrator]]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6721 Started [Fetch Session from Repository]]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6722 Finished [Fetch Session from Repository]] It took [0.0299189] seconds]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6721 Started [Partition Group Formation]]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6722 Finished [Partition Group Formation]] It took [0.0249331] seconds]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [PETL_24037 Finished the prepare phase for the session.]
12-03-2024 17:00:12	node01	LM_36488	Session task instance [s_M_SCD_Type1]: [TM_6792 Notifying the Integration Service that the prepare phase has been completed]
12-03-2024 17:00:14	node01	LM_36318	Session task instance [s_M_SCD_Type1]: Execution succeeded.
12-03-2024 17:00:15	node01	LM_36318	Workflow [wf_M_SCD_Type1] Execution succeeded.

Source Vs Target

Source

Before

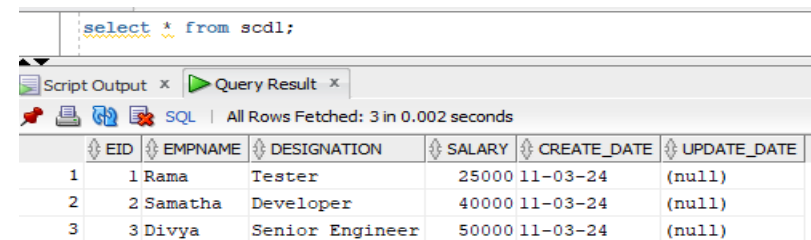
A	B	C	D
Eid	EmpName	Designation	Salary
1	Rama	Tester	25000
2	Samatha	Developer	40000
3	Divya	Senior Engineer	50000

After

A	B	C	D
Eid	EmpName	Designation	Salary
1	Ram	QA	25000
2	Samantha	Developer	40000
3	Divya	Developer	50000
4	Akhil	Engineer	45000
5	Ramya	Developer	50000

Target

Before

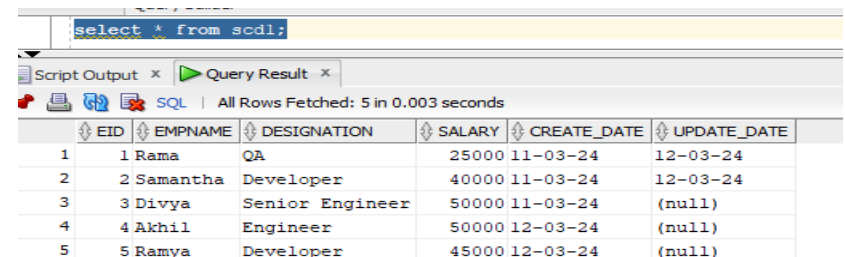


The screenshot shows the 'Target Before' state of the data. It displays a SQL query and its results.

```
select * from scd1;
```

EID	EMPNAME	DESIGNATION	SALARY	CREATE_DATE	UPDATE_DATE
1	1 Rama	Tester	25000	11-03-24	(null)
2	2 Samatha	Developer	40000	11-03-24	(null)
3	3 Divya	Senior Engineer	50000	11-03-24	(null)

After



The screenshot shows the 'Target After' state of the data. It displays a SQL query and its results.

```
select * from scd1;
```

EID	EMPNAME	DESIGNATION	SALARY	CREATE_DATE	UPDATE_DATE
1	1 Rama	QA	25000	11-03-24	12-03-24
2	2 Samantha	Developer	40000	11-03-24	12-03-24
3	3 Divya	Senior Engineer	50000	11-03-24	(null)
4	4 Akhil	Engineer	50000	12-03-24	(null)
5	5 Ramya	Developer	45000	12-03-24	(null)

Design & Development

Import source and target details to the Designer

Design Mapping from source to target with necessary transformation

Creating SCD type 1 Implementation: Change of records history is not possible. Only Update and Insert can be performed

Use Lookup Transformation to check record exist in the target. Then the source record can be Inserted/ Update. Surrogate key (Sequence generator) is not necessary, as only unique record of the employees is present.

Data Validation

Check Run properties and session logs for the detailed report

Validate source and target with necessary SQL Queries

Use Update_date columns to filter records and validate data