

Add11 SQL Operation



Related articles in Stambia.org

- <https://stambia.org/doc/104-development-hints-and-tips/actions/sql/sql-operation/163-sql-operation-and-sql-action-type>

- ❖ The Objective is to see the different SQL Action Types and the performance on a SQL Operation
- ❖ Please, read carefully the following article :
<https://stambia.org/doc/104-development-hints-and-tips/actions/sql/sql-operation/163-sql-operation-and-sql-action-type>

What you must know ?

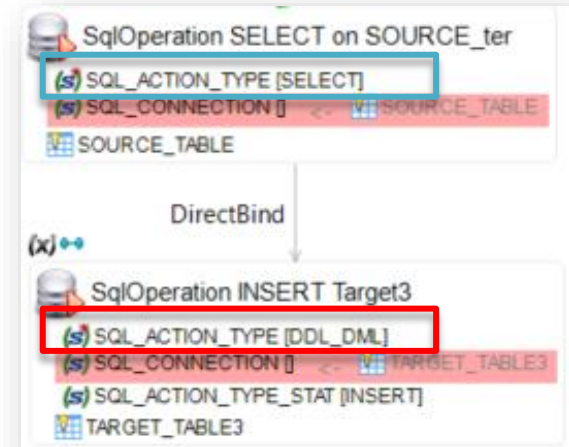
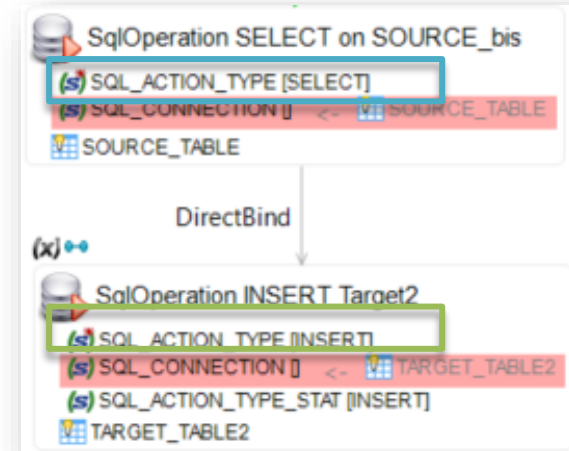
Source SQL Operation action of a bind link must have “**SELECT**” as “SQL ACTION TYPE”

Target SQL Operation action will use :

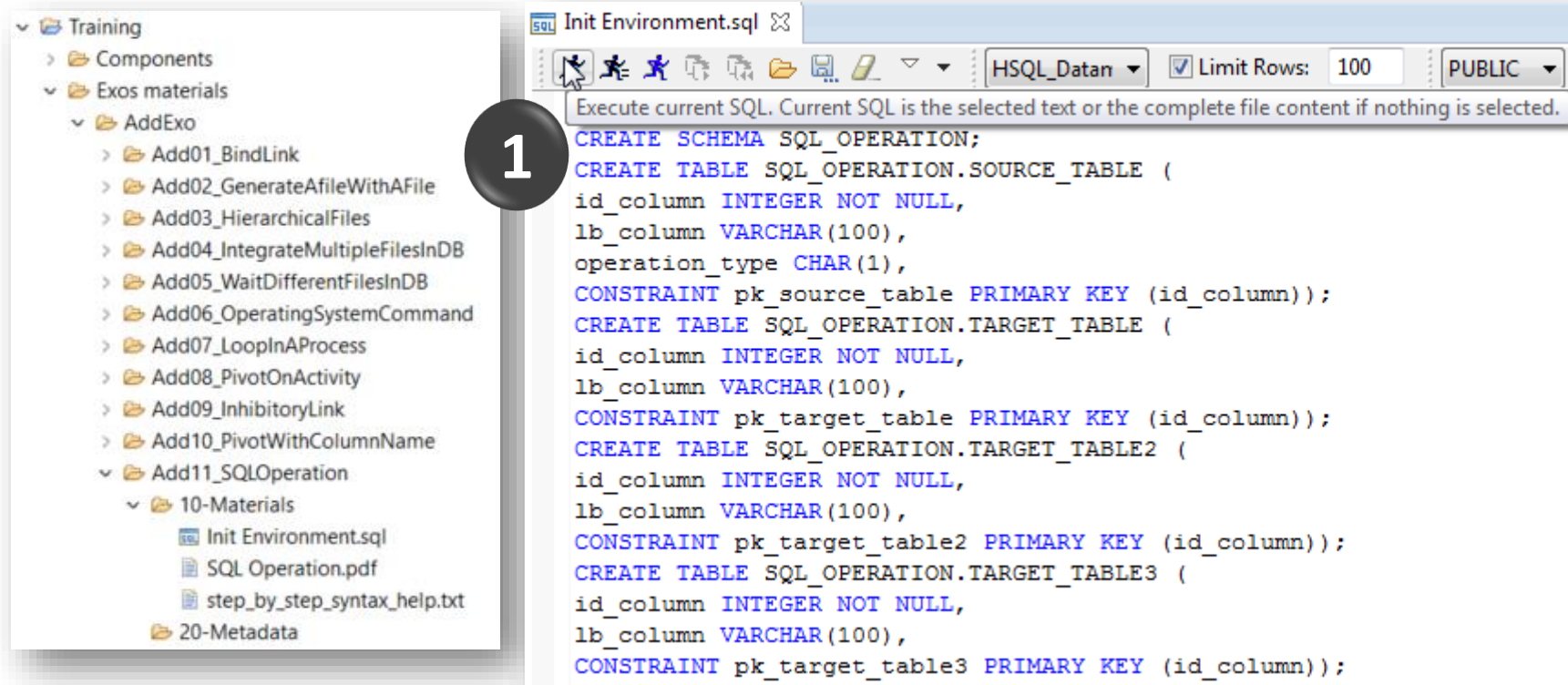
- ✓ JDBC mechanism with **DELETE**, **UPDATE** or **INSERT** for “SQL ACTION TYPE”

Better performance and less datatype conversion issues

- ✓ Textual substitution with **DDL_DML** for “SQL ACTION TYPE”



- ❖ 1 - Execute the SQL file (Init Environment.sql) on DATAMART connection to create the required schema and tables

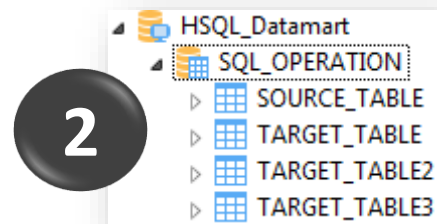


1

```

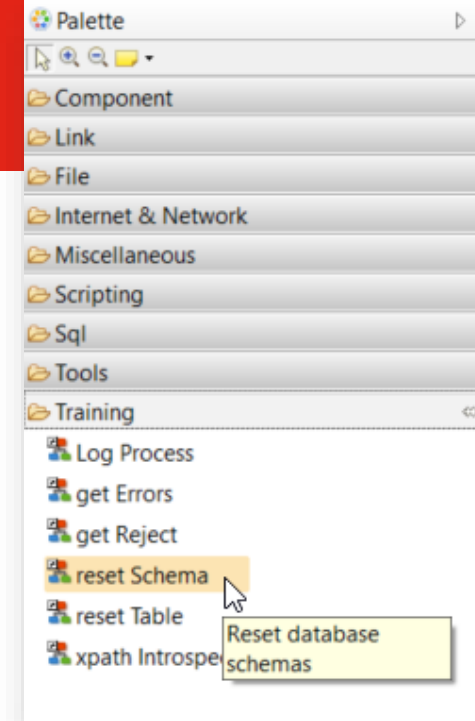
CREATE SCHEMA SQL_OPERATION;
CREATE TABLE SQL_OPERATION.SOURCE_TABLE (
  id_column INTEGER NOT NULL,
  lb_column VARCHAR(100),
  operation_type CHAR(1),
  CONSTRAINT pk_source_table PRIMARY KEY (id_column));
CREATE TABLE SQL_OPERATION.TARGET_TABLE (
  id_column INTEGER NOT NULL,
  lb_column VARCHAR(100),
  CONSTRAINT pk_target_table PRIMARY KEY (id_column));
CREATE TABLE SQL_OPERATION.TARGET_TABLE2 (
  id_column INTEGER NOT NULL,
  lb_column VARCHAR(100),
  CONSTRAINT pk_target_table2 PRIMARY KEY (id_column));
CREATE TABLE SQL_OPERATION.TARGET_TABLE3 (
  id_column INTEGER NOT NULL,
  lb_column VARCHAR(100),
  CONSTRAINT pk_target_table3 PRIMARY KEY (id_column));
  
```

- ❖ 2 - Reverse the schema and the tables

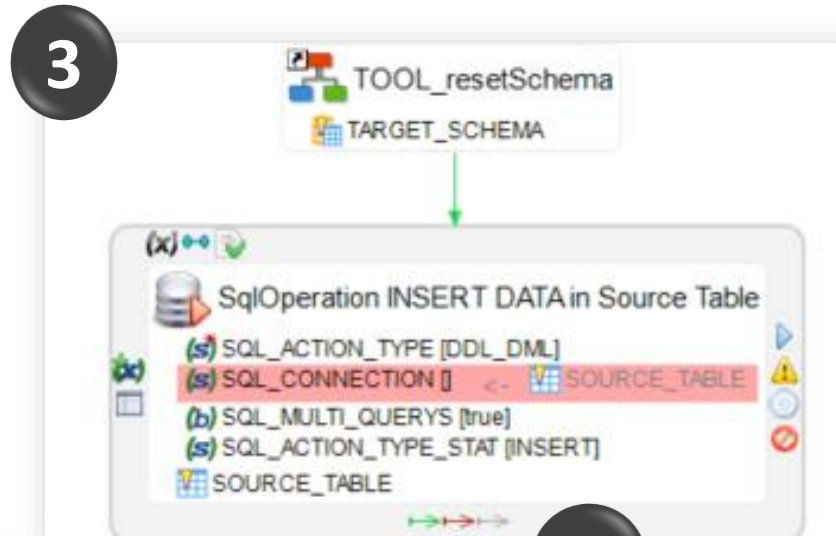


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- HSQL_Datamart
 - SQL_OPERATION
 - SOURCE_TABLE
 - TARGET_TABLE
 - TARGET_TABLE2
 - TARGET_TABLE3



- ❖ 3 - Add the resetSchema tool to reset “SQL_OPERATION” schema
- ❖ 4 - Add a SQL Operation action to insert data in SOURCE_TABLE datastore



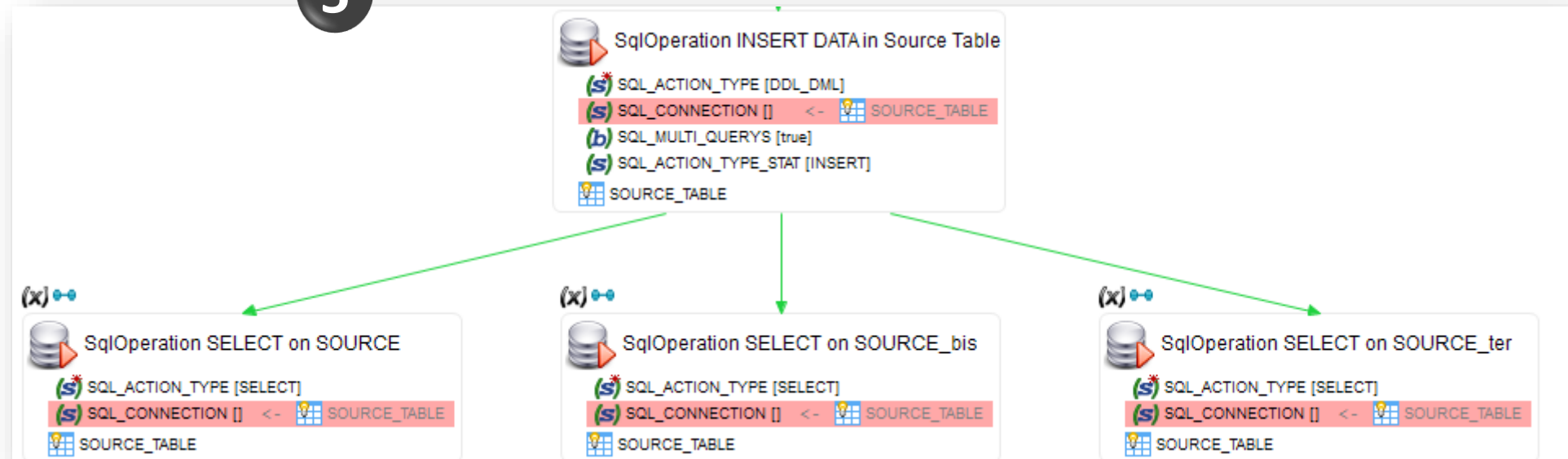
4

```

1 INSERT INTO SQL_OPERATION.SOURCE_TABLE
2 SELECT gen_id,
3         'Label'+gen_id,
4         'I'
5 FROM   UNNEST(SEQUENCE_ARRAY(1, 100000, 1)) AS generate_series(gen_id)
    
```

❖ 5 - Add 3 SQL OPERATION to select records in SOURCE_TABLE

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Sessions Session Detail Expression Editor

```

1 SELECT ID_COLUMN,
2       LB_COLUMN,
3       OPERATION_TYPE
4 FROM SQL_OPERATION.SOURCE_TABLE
  
```

Sessions Session Detail Expression Editor

```

1 SELECT ID_COLUMN,
2       LB_COLUMN
3 FROM SQL_OPERATION.SOURCE_TABLE
4 WHERE OPERATION_TYPE='I'
  
```

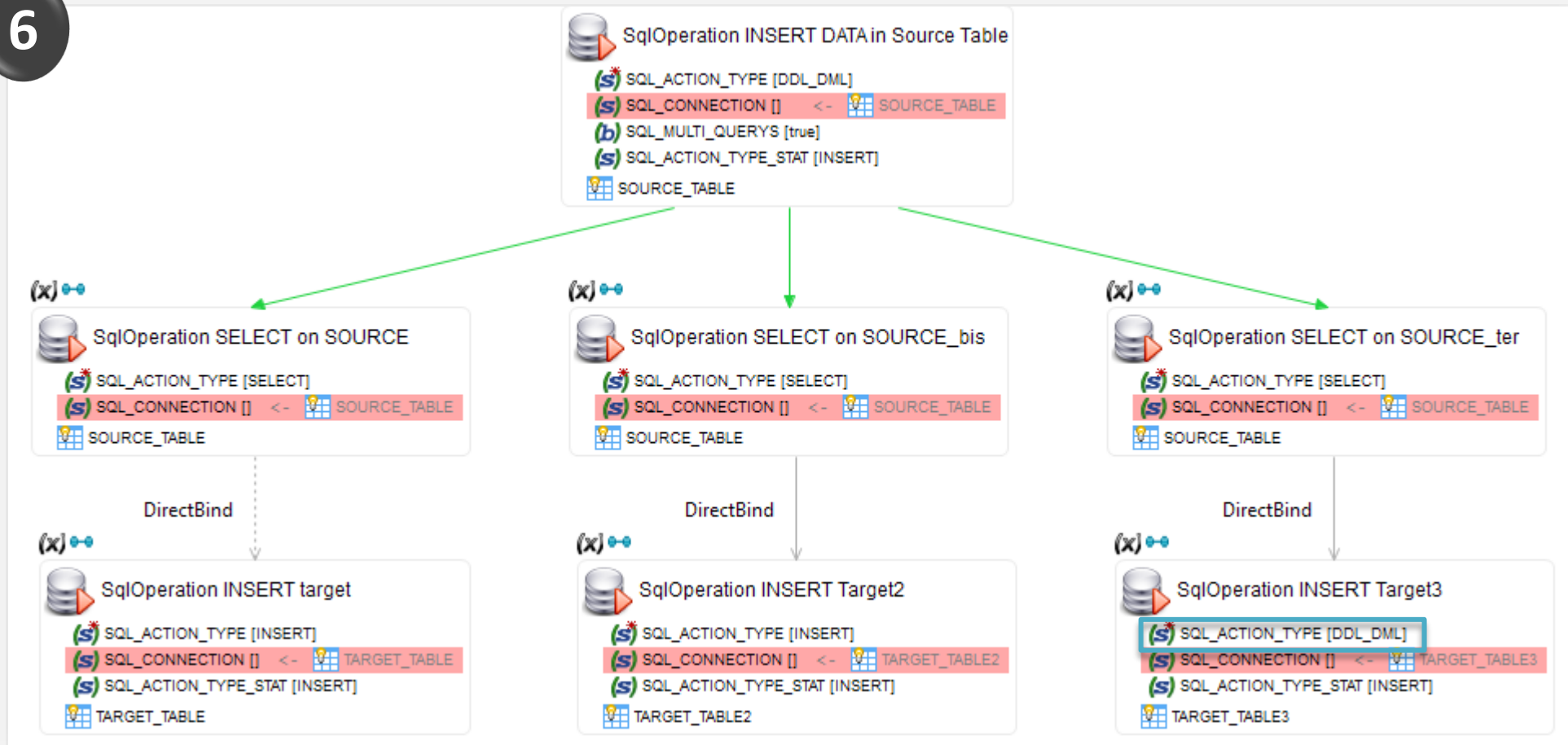
Sessions Session Detail Expression Editor

```

1 SELECT ID_COLUMN,
2       LB_COLUMN
3 FROM SQL_OPERATION.SOURCE_TABLE
4 WHERE OPERATION_TYPE='I'
  
```


- ❖ 6 - Add 3 SQL OPERATION to insert records into TARGET tables
- Note the quotes used for string in case of DDL_DML SQL_ACTION_TYPE

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Sessions Session Detail Expression Editor

```

1 INSERT INTO SQL_OPERATION_TARGET_TABLE
2 VALUES (:ID_COLUMN): (:LB_COLUMN):
  
```

Sessions Session Detail Expression Editor

```

1 INSERT INTO SQL_OPERATION_TARGET_TABLE2
2 VALUES (:ID_COLUMN): (:LB_COLUMN):
  
```

Sessions Session Detail Expression Editor

```

1 INSERT INTO SQL_OPERATION_TARGET_TABLE3
2 VALUES (:ID_COLUMN): '(:LB_COLUMN):'
  
```

❖ 7 - Execute and compare the execution times

