

Oracle Data Integrator



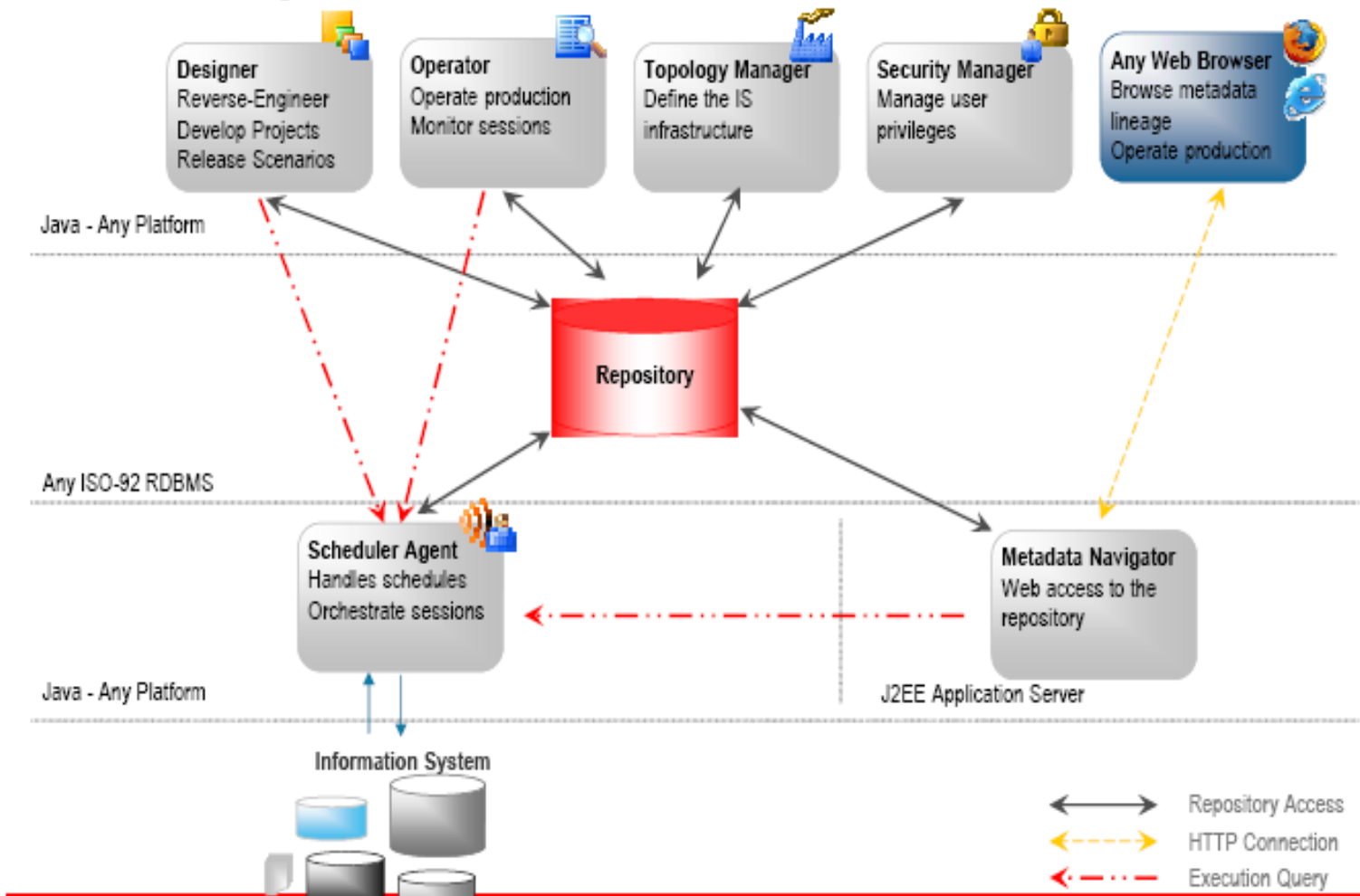
2006



2014

Oracle Data Integrator

Components: a Global View



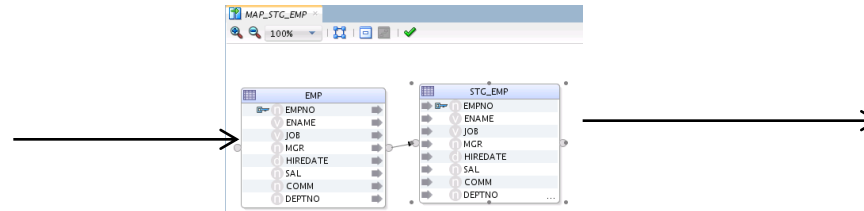
Topology In

- Technologies
- Attunity
- Axis2
- BTriev
- Complex File
- DBase
- Derby
- File
- Groovy
- HBase
- Hive
- Hyperion Essbase
- Hyperion Financial Management
- Hyperion Planning
- Hypersonic SQL
- IBM DB2 UDB
- IBM DB2/400
- In-Memory Engine
- Informix
- Ingres
- Interbase
- JAX-WS
- JMS Queue
- JMS Queue XML
- JMS Topic
- JMS Topic XML
- Java BeanShell
- JavaScript
- Jython
- LDAP
- Microsoft Access

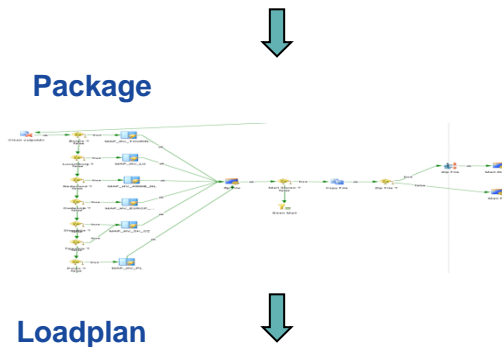
Topology Uit

- Jython
- LDAP
- Microsoft Access
- Microsoft Excel
- Microsoft SQL Server
- MySQL
- NetRexx
- Netezza
- ODI Tools
- OWB Runtime Repository
- Operating System
- Oracle
- Oracle BAM
- Oracle BI
- Oracle GoldenGate
- Paradox
- PostgreSQL
- Progress
- SAP ABAP
- SAP Java Connector
- SAS (deprecated)
- Salesforce.com (deprecated)
- Sybase AS Anywhere
- Sybase AS Enterprise
- Sybase AS IQ
- Teradata
- TimesTen
- Universe
- XML

Mapping



Knowledge Module

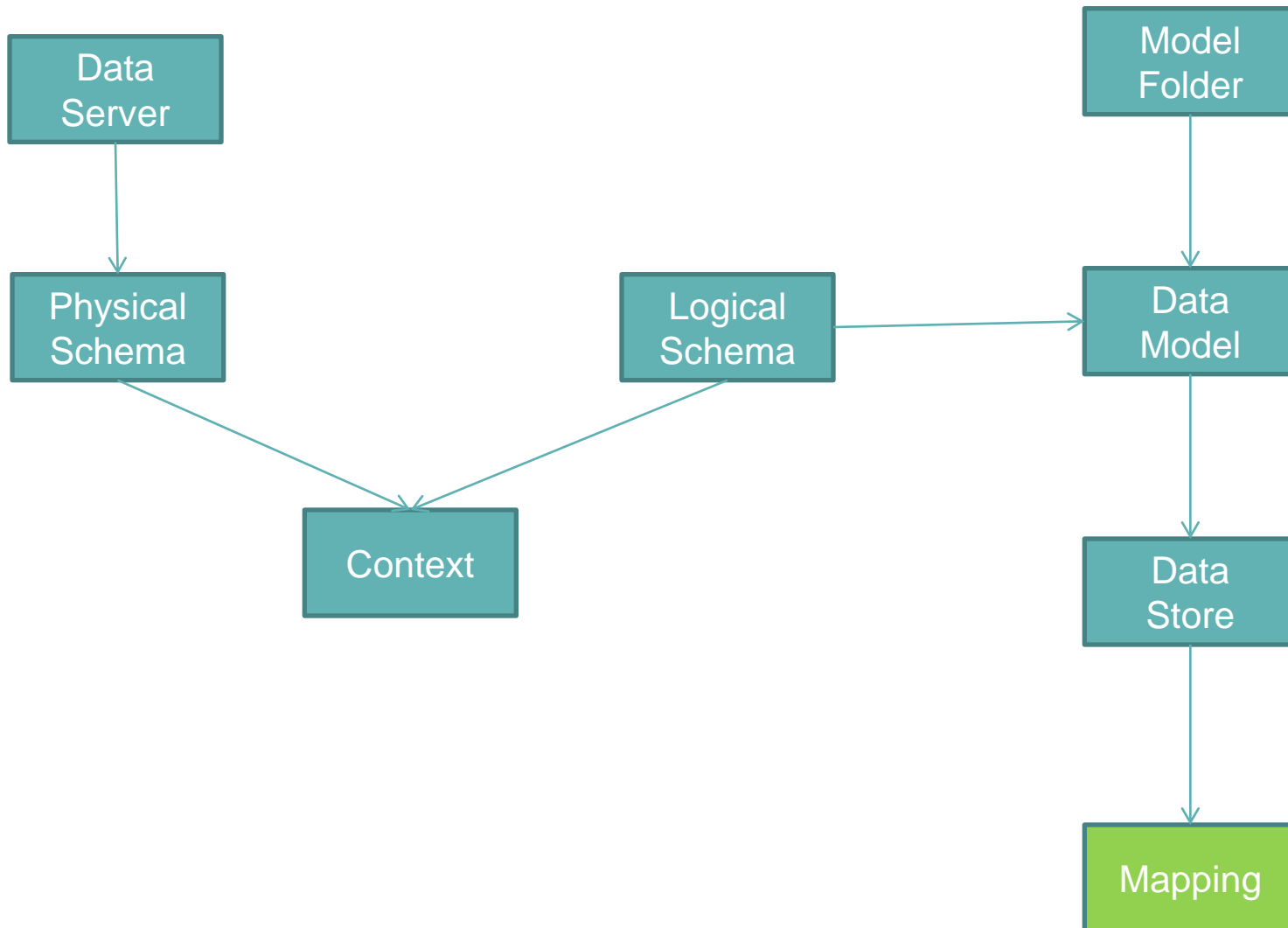


Case Variable	GLOBAL_var_system_jeschibaar	Restart from failure
GLOBAL_var_system_jeschibaar ?	GLOBAL_var_system_jeschibaar	Restart from failure
POK_JH_OUTPUT_1L	POK_JH_OUTPUT_Version 001	Restart from failed childen
POK_JH_OUTPUT_1F	POK_JH_OUTPUT_Version 001	Restart from new session
POK_JH_OUTPUT_1E	POK_JH_OUTPUT_Version 001	Restart from new session
POK_JH_OUTPUT_1J	POK_JH_OUTPUT_Version 001	Restart from new session
POK_JH_OUTPUT_1K	POK_JH_OUTPUT_Version 001	Restart from new session
POK_JH_OUTPUT_1Z	POK_JH_OUTPUT_Version 001	Restart from new session
POK_JH_OUTPUT_1N	POK_JH_OUTPUT_Version 001	Restart from new session

ODI Onderwerpen

- Topologie
- Mappings
- Knowlegde Modules
- Flow Controls
- Package en Loadplans
- Case

Model Topologie



Physical Architecture

Dataserver Definition

REPDB x

Test Connection

Definition

- JDBC
- On Connect/Disconnect
- Properties
- Datasources
- Version
- Privileges
- Flexfields

Data Server

Name: REPDB

Instance / dblink (Data Server):

Connection

User: odi_work

Password: ●●●●●●

JNDI Connection

Array Fetch Size: 30 Batch Update Size: 30 Degree of Parallelism for Target: 1

Physical Architecture

JDBC

REPDB x

Test Connection

Definition

JDBC

On Connect/Disconnect

Properties

Datasources

JDBC Driver: oracle.jdbc.OracleDriver

JDBC URL: jdbc:oracle:thin:@localhost:1521:repdb

FILE_GENERIC x

Test Connection

Definition

JDBC

On Connect/Disconnect

Properties

Datasources

JDBC Driver: com.sunopsis.jdbc.driver.file.FileDriver

JDBC URL: jdbc:snps:dbfile

Netezza Server x

Test

Netezza Server

Definition

JDBC

On Connect/Disconnect

Properties

Datasources

JDBC Driver: org.netezza.Driver

JDBC URL: jdbc:netezza://<host>[:<port>]/<database>[?batchsize=<batchsize>]

<New Object> x

Test Connection

JAgent

Version

Privileges

Flexfields

Name:

GoldenGate JAgent Server

Host:

RMI Port:

Manager Port:

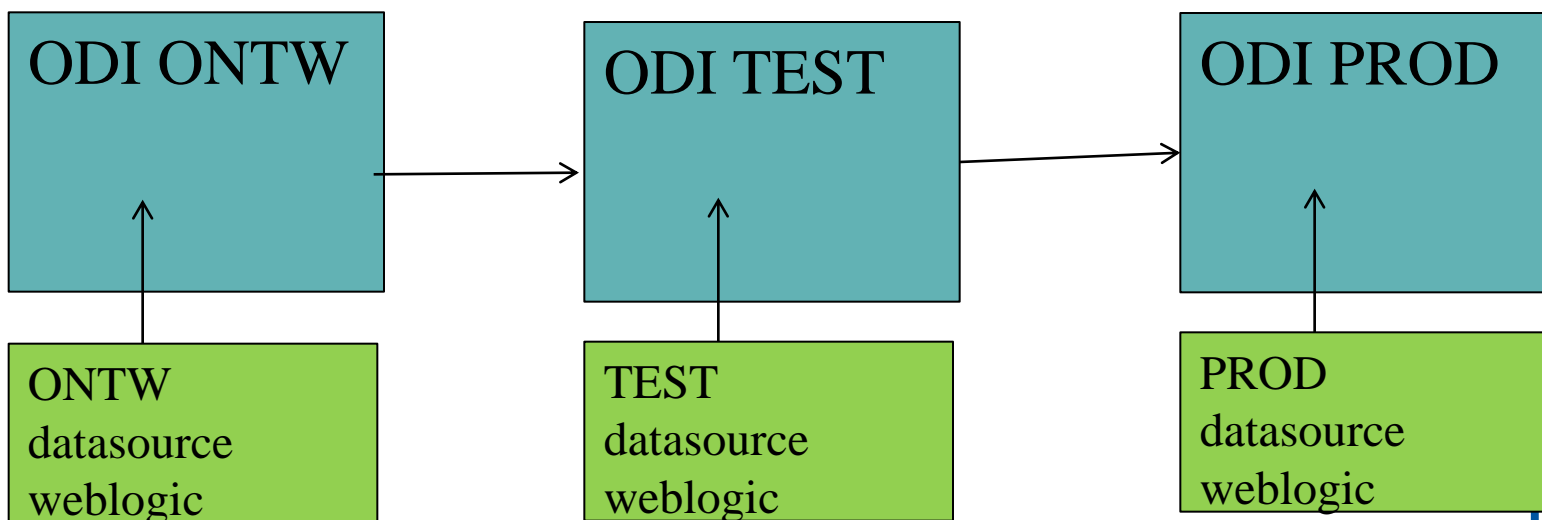
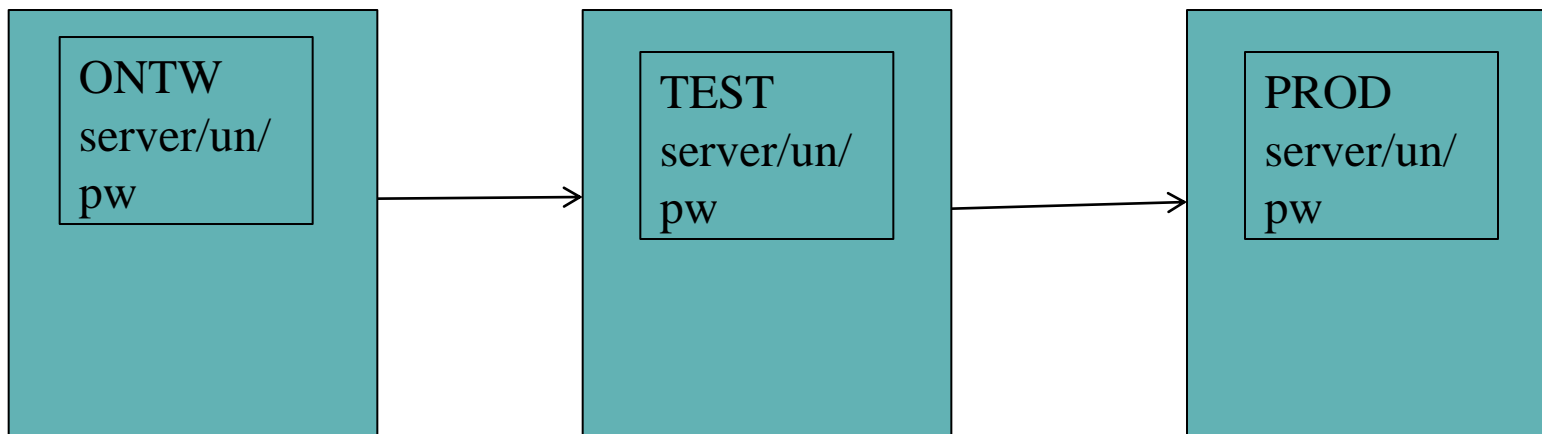
JMX User:

Password:

Installation Path:

Physical Architecture

Connectie info in OTAP



Physical Architecture

Datasource

Agent	JNDI Name
OracleDIAgent	odi_stg_NLDataSource

odi_stg_LUDataSource2	Generic	jdbc/odi_stg_LUDataSource2	ODI_server1
odi_stg_NLDataSource	Multi	jdbc/odi_stg_NLDataSource	ODI_server1
odi_stg_NLDataSource-rac0	Generic	jdbc/odi_stg_NLDataSource-rac0	ODI_server1
odi_stg_NLDataSource-rac1	Generic	jdbc/odi_stg_NLDataSource-rac1	ODI_server1
odi_stg_NLDataSource1	Generic	jdbc/odi_stg_NLDataSource1	ODI_server1
odi_stg_NLDataSource2	Generic	jdbc/odi_stg_NLDataSource2	ODI_server1
odi_stg_PLDataSource	Multi	jdbc/odi_stg_PLDataSource	ODI_server1
odi_stg_PLDataSource-rac0	Generic	jdbc/odi_stg_PLDataSource-rac0	ODI_server1
odi_stg_PLDataSource-rac1	Generic	jdbc/odi_stg_PLDataSource-rac1	ODI_server1
odi_stg_PLDataSource1	Generic	jdbc/odi_stg_PLDataSource1	ODI_server1
odi_stg_PLDataSource2	Generic	jdbc/odi_stg_PLDataSource2	ODI_server1
odi_stg_PTDataSource	Multi	jdbc/odi_stg_PTDataSource	ODI_server1
odi_stg_PTDataSource-rac0	Generic	jdbc/odi_stg_PTDataSource-rac0	ODI_server1
odi_stg_PTDataSource-rac1	Generic	jdbc/odi_stg_PTDataSource-rac1	ODI_server1
odi_stg_PTDataSource1	Generic	jdbc/odi_stg_PTDataSource1	ODI_server1
odi_stg_PTDataSource2	Generic	jdbc/odi_stg_PTDataSource2	ODI_server1
odi_stg_SKDataSource	Multi	jdbc/odi_stg_SKDataSource	ODI_server1
odi_stg_SKDataSource-rac0	Generic	jdbc/odi_stg_SKDataSource-rac0	ODI_server1

Physical Architecture

Datasource in weblogic

URL:

Driver Class Name:

Properties:

System Properties:

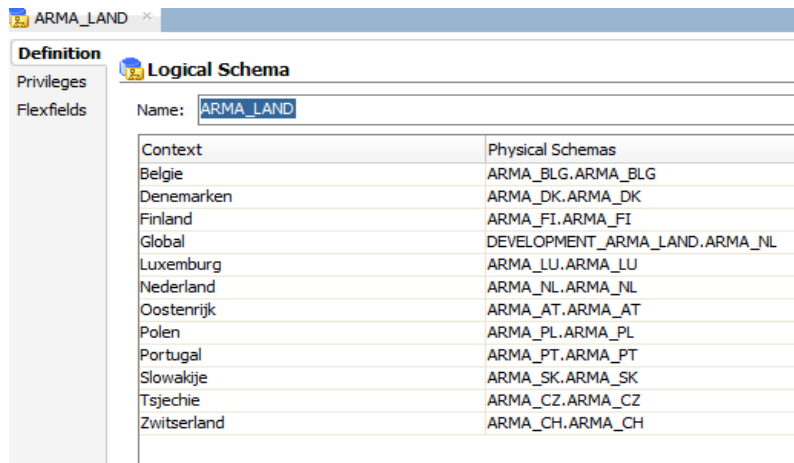
Encrypted Properties:

Password:

Confirm Password:

Logical Architecture

- Koppelen aan Physical Schema via Context
- Wordt gebruikt in datamodel en mappings
- Context vastleggen in mappings, loadplan of runtime kiezen
 - Bijvoorbeeld OTAP of Landen



ARMA_LAND

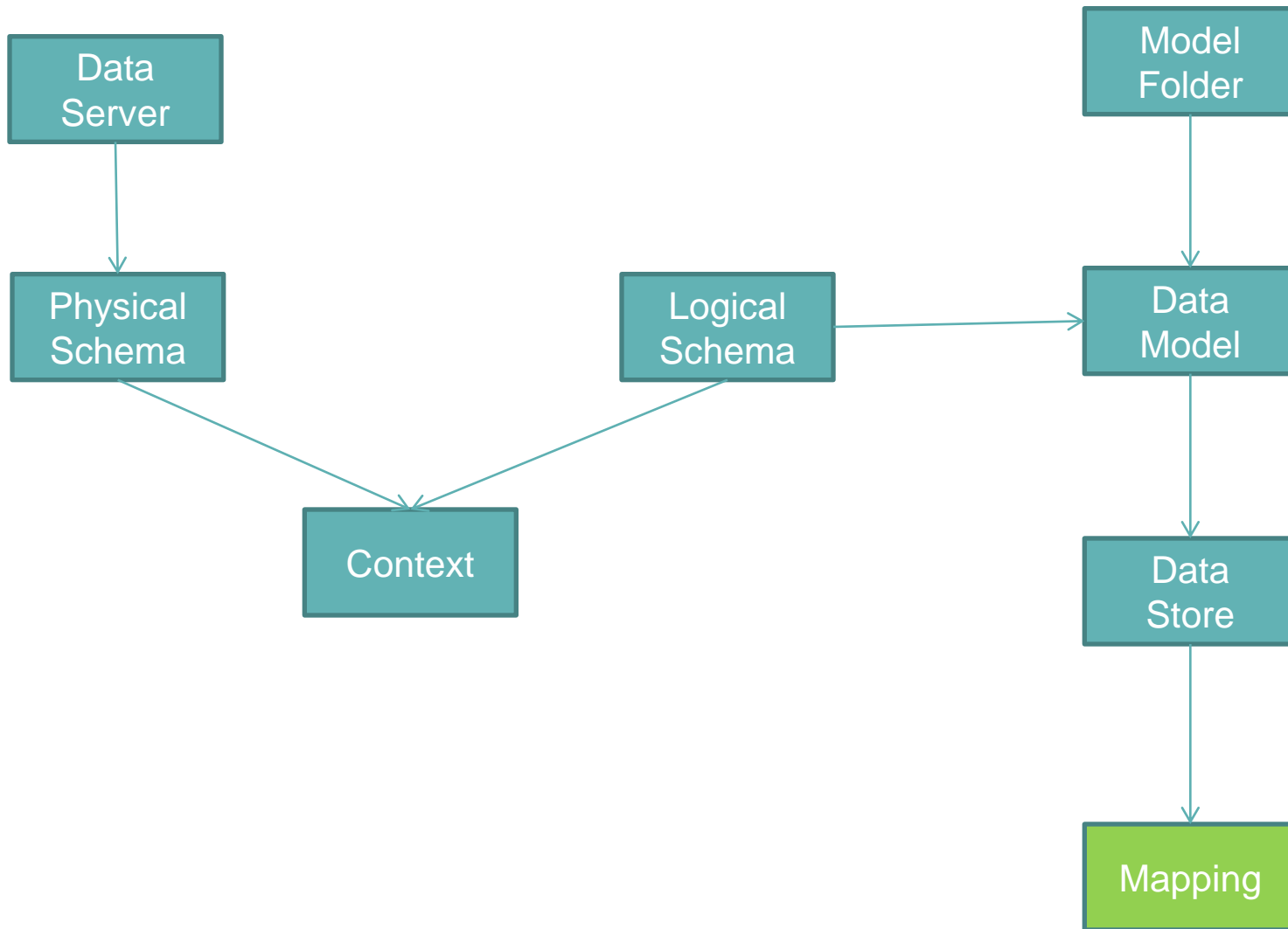
Definition

Logical Schema

Name: ARMA_LAND

Context	Physical Schemas
Belgie	ARMA_BLG.ARMA_BLG
Denemarken	ARMA_DK.ARMA_DK
Finland	ARMA_FI.ARMA_FI
Global	DEVELOPMENT_ARMA_LAND.ARMA_NL
Luxemburg	ARMA_LU.ARMA_LU
Nederland	ARMA_NL.ARMA_NL
Oostenrijk	ARMA_AT.ARMA_AT
Polen	ARMA_PL.ARMA_PL
Portugal	ARMA_PT.ARMA_PT
Slowakije	ARMA_SK.ARMA_SK
Tsjechie	ARMA_CZ.ARMA_CZ
Zwitserland	ARMA_CH.ARMA_CH

Model Topologie



Data Model

STG_SCOTT ×

Reverse Engineer Check Model Generate and Deploy Data Services...

Definition

- Reverse Engineer
- Selective Reverse-Engineering
- Control
- Journalizing
- Journalized Tables
- Services
- Markers
- Memo
- Version
- Privileges
- Flexfields

Model [Model Folder: 02-Staging]

Name:

Code:

Technology:

Logical Schema:

Action Group:

Default Folder:

Display the Metadata changes in the Model tree

Description:

STG_SCOTT ×

Reverse Engineer Check Model Generate and Deploy Data Services...

Reverse Engineer

- Reverse Engineer
- Selective Reverse-Engineering**
- Control
- Journalizing
- Journalized Tables
- Services
- Markers

Selective Reverse-Engineering

New Datastores Existing Datastores Objects to Reverse Engineer

Table Name	Table Type
<input checked="" type="checkbox"/> STG_DEPT	Table
<input checked="" type="checkbox"/> STG_EMP	Table

Data Stores

STG_DEPT x

✔ Datastore Static Control

Definition Datastore Check

Reverse Engineer Reverse Engineer Cobol Copybook + X ↑ ↓ Automatic adjustment

Attributes	Order	Name	Type	Logical length	Scale	Not Null	SCD Behavior
Journalizing	1	DEPTNO	NUMBER	2	0	<input checked="" type="checkbox"/>	<Undefined>
Partitions	2	DNAME	VARCHAR2	14		<input type="checkbox"/>	<Undefined>
Services	3	LOC	VARCHAR2	13		<input type="checkbox"/>	Surrogate Key
Markers	4	laaddatum	DATE			<input type="checkbox"/>	Natural Key
Memo							Overwrite on Change
Version							Add Row on Change
Privileges							Current Record Flag
Flexfields							Starting Timestamp
							Ending Timestamp

Data Stores CDC

IKM Oracle Slowly Changing Dimension

Definition

Tasks

Options

Markers

Memo

Version

Privileges

Flexfields

Task Hierarchy	Ignore ...	Always...	Target Command	Source Command
Mapping Begin				
Execution Unit Begin				
Execution Unit Main				
Check updated columns	<input type="checkbox"/>	<input type="checkbox"/>	<% if (odiRef.getColList("", "[COL_NAME]", "", "", "((SCD_UPD) ...	
Check inserted columns	<input type="checkbox"/>	<input type="checkbox"/>	<% if (odiRef.getColList("", "[COL_NAME]", "", "", "((SCD_INS)) ...	
Validate KM options	<input type="checkbox"/>	<input type="checkbox"/>	# Validating KM options<*/> Validate COMPATIBLE */if (!(7".equ...	
Check RDBMS version	<input type="checkbox"/>	<input type="checkbox"/>	declare v0 NUMBER; v1 NUMBER;begin select case when ...	
Create target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	create table <%=odiRef.getTable("L", "TARG_NAME", "A")%> (<%=...	
Truncate target table	<input type="checkbox"/>	<input type="checkbox"/>	truncate table <%=odiRef.getTable("L", "TARG_NAME", "A")%>	
Delete target table	<input type="checkbox"/>	<input type="checkbox"/>	delete from <%=odiRef.getTable("L", "TARG_NAME", "A")%>	
Drop flow table (!\$)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	drop table <%=odiRef.getTable("L", "INT_NAME", "A")%> <% if (ne...	
Create flow table (!\$)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	create table <%=odiRef.getTable("L", "INT_NAME", "A")%> (<%=od...	
Analyze target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integer(odiRef.getOption("COMPATIBLE")).intValue() ...	
Lock journalized table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if ("C".equals(odiRef.getJrnInfo("JRN_METHOD"))) { %> /* Con...	
Create Temp. Indexes on Sources	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Create <%=odiRe...
Insert flow into !\$ table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	insert /*+ APPEND */ into <%=odiRef.getTable("L", "INT_NAME", "...	
Recycle previous errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	insert into <%=odiRef.getTable("L", "INT_NAME", "A")%> (<%=odiRe...	
Analyze integration table	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<% if (new Integer(odiRef.getOption("COMPATIBLE")).intValue() ...	
Create index on flowtable	<input type="checkbox"/>	<input checked="" type="checkbox"/>	create index <%=odiRef.getTable("L", "INT_NAME", "W").replaceAll...	
Flow control	<input type="checkbox"/>	<input type="checkbox"/>	<%@ INCLUDE CKM_FLOW DELETE_ERRORS%>	
Flag rows for update	<input type="checkbox"/>	<input checked="" type="checkbox"/>	update <%=odiRef.getTable("L", "INT_NAME", "A")%> SsetS.IND_U...	
Update existing rows	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if (odiRef.getColList("", "A", "", "", "(SCD_UPD and REW)").lengt...	
Historize old rows	<input type="checkbox"/>	<input checked="" type="checkbox"/>	update <%=odiRef.getTable("L", "TARG_NAME", "A")%> Tset(<%=o...	
Insert changing and new dimensions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	insert into <%=odiRef.getTable("L", "TARG_NAME", "A")%> (<%=odi...	
Commit transaction	<input type="checkbox"/>	<input type="checkbox"/>	/* commit */	
Cleanup journalized table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if ("C".equals(odiRef.getJrnInfo("JRN_METHOD"))) { %> /* Con...	
Analyze target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integer(odiRef.getOption("COMPATIBLE")).intValue() ...	
Post-integration control	<input type="checkbox"/>	<input type="checkbox"/>	<%@ INCLUDE CKM_STATIC%>	
Execution Unit End				
Mapping End				
Mapping Cleanup				

Data Stores CDC

DM_EMP_CDC x

✔ Datastore Static Control

Definition

Attributes

Journalizing

Partitions

Services

Markers

Memo

Version

Privileges

Flexfields

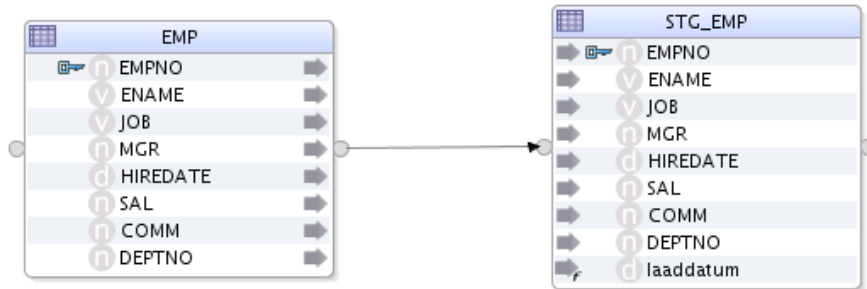
Reverse Engineer Reverse Engineer Cobol Copybook + X ↑ ↓ Automatic adjustment

Order	Name	Type	Logical length	Scale	Not Null	SCD Behavior
1	DIM_EMP_KEY	NUMBER		38	<input checked="" type="checkbox"/>	Surrogate Key
2	EMP_NUMMER	NUMBER		10	0 <input checked="" type="checkbox"/>	Natural Key
3	EMP_NAME	VARCHAR2		40	<input type="checkbox"/>	Overwrite on Chan...
4	JOB	VARCHAR2		40	<input type="checkbox"/>	Add Row on Change
5	MGR	NUMBER		10	0 <input type="checkbox"/>	Overwrite on Chan...
6	HIREDATE	DATE			<input type="checkbox"/>	Overwrite on Chan...
7	SAL	NUMBER		10	2 <input type="checkbox"/>	Add Row on Change
8	COMM	NUMBER		10	2 <input type="checkbox"/>	Add Row on Change
9	DEPTNO	NUMBER		10	0 <input type="checkbox"/>	Overwrite on Chan...
10	DEPT_NUMMER	NUMBER		10	<input type="checkbox"/>	Overwrite on Chan...
11	DEPT_NAME	VARCHAR2		40	<input type="checkbox"/>	Overwrite on Chan...
12	LAADDATUM	DATE			<input type="checkbox"/>	Overwrite on Chan...
13	DD_BEGIN	DATE			<input type="checkbox"/>	Starting Timestamp
14	DD_EINDE	DATE			<input type="checkbox"/>	Ending Timestamp
15	CURRENT_IND	NUMBER		1	<input type="checkbox"/>	Current Record Flag

8	7698	20-FEB-81	1600	300	30	30 SALES	30-SEP-14	13-OCT-14	01-JAN-00	1
9	7698	08-SEP-81	1500	0	30	30 SALES	30-SEP-14	13-OCT-14	01-JAN-00	1
10	7839	01-MAY-81	2850	(null)	30	30 SALES	30-SEP-14	13-OCT-14	01-JAN-00	1
11	7698	28-SEP-81	1250	1400	30	30 SALES	30-SEP-14	13-OCT-14	01-JAN-00	1
12	7698	03-DEC-81	950	(null)	30	30 SALES	30-SEP-14	13-OCT-14	01-JAN-00	1
13	7698	22-FEB-81	2000	500	30	30 SALES	30-SEP-14	13-OCT-14	13-OCT-14	0
14	7698	22-FEB-81	1250	500	30	30 SALES	30-SEP-14	13-OCT-14	01-JAN-00	1

Mapping

Logical



STG_EMP - Properties

Find

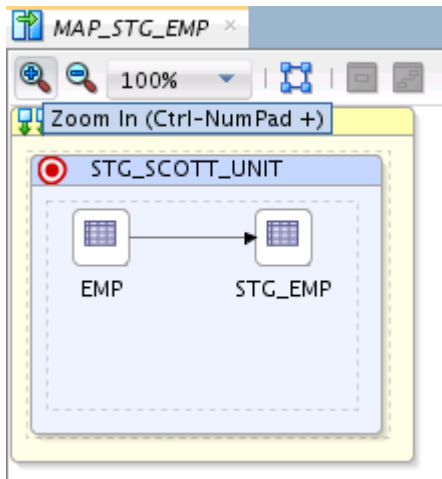
Attributes

Attributes:

Name	Dat...	Size	Sc...	Expression	E
EMPNO	NU...	4	0	EMP.EMPNO	N
ENAME	VA...	10		EMP.ENAME	N
JOB	VA...	9		EMP.JOB	N
MGR	NU...	4	0	EMP.MGR	N
HIREDATE	DA...			EMP.HIREDATE	N
SAL	NU...	7	2	EMP.SAL	N
COMM	NU...	7	2	EMP.COMM	N
DEPTNO	NU...	2	0	EMP.DEPTNO	N
laaddatum	DA...			sysdate	N

Mapping

Physical



Physical - Properties

Physical - Properties

Name:	Physical
Description:	
Optimization Context:	Nederland
Preset Staging Location:	
Source Units:	STG_SCOTT_UNIT
Staging Units:	STG_SCOTT_UNIT
Target Units:	STG_SCOTT_UNIT
Begin Mapping Command:	
Technology for Begin Mapping Command:	
Location for Begin Mapping Command :	
End Mapping Command:	
Technology for End Mapping Command:	
Location for End Mapping Command:	
Remove Temporary Objects on Error:	<input type="checkbox"/>
Use Unique Temporary Object Names:	<input type="checkbox"/>
Is Frozen:	<input type="checkbox"/>

Mapping Uitvoeren

Integration Knowledge Module

Integration Knowledge Module: IKM SQL Insert.GLOBAL

Style: Component-style

Options		Description	
Options:			
Name	Description	Value	Use Default
CREATE_TARGET_TABLE	Create the target table	False	<input checked="" type="checkbox"/>
TRUNCATE_TARGET_TABLE	Truncate the target table	True	<input type="checkbox"/>
DELETE_ALL	Delete all rows	False	<input checked="" type="checkbox"/>

Run

Window Menu: Nederland

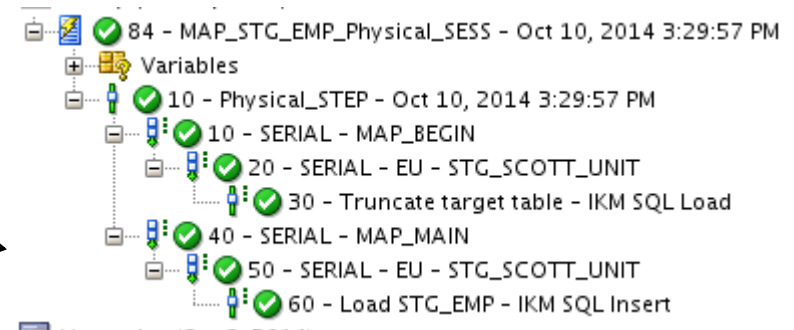
Physical Mapping Design: Physical

Logical Agent: OracleDIAgent

Log Level: 5

Simulation

Help OK Cancel



Mapping Uitvoeren

Session MAP_STG_EMP_Physical_SESS (84) ×
Session MAP_STG_EMP_Physical_SESS (84)

Definition

Steps
Blueprint
Privileges

Session

Instance ID:	84	Global ID:	39ea60bc-9e91-4cda-b47f-5a1a3a43d235
Session Name:	MAP_STG_EMP_Physical_SESS	Status:	Done
Scenario Name:		Context:	Nederland
Scenario Version:		Physical Agent:	OracleDIAgent
Start:	Oct 10, 2014 3:29:57 PM	End:	Oct 10, 2014 3:29:57 PM
Duration (seconds):	0	Return Code:	0

Concurrent Execution Controller

Limit Concurrent Executions

Violation Behavior: Raise Execution Error

Wait Polling Interval: Seconds

Record Statistics

No. of Inserts:	14	No. of Updates:	0	No. of Deletes:	0
No. of Errors:	0	No. of Rows:	14		

Error Message:

No. of running child sessions: No. of successful child sessions: No. of failed child sessions:

Mapping Uitvoeren

Session Task Load STG_EMP - IKM SQL Insert

Definition

Code Type: Executed Code

Code

Connection

Privileges

Target Code

Edit and use

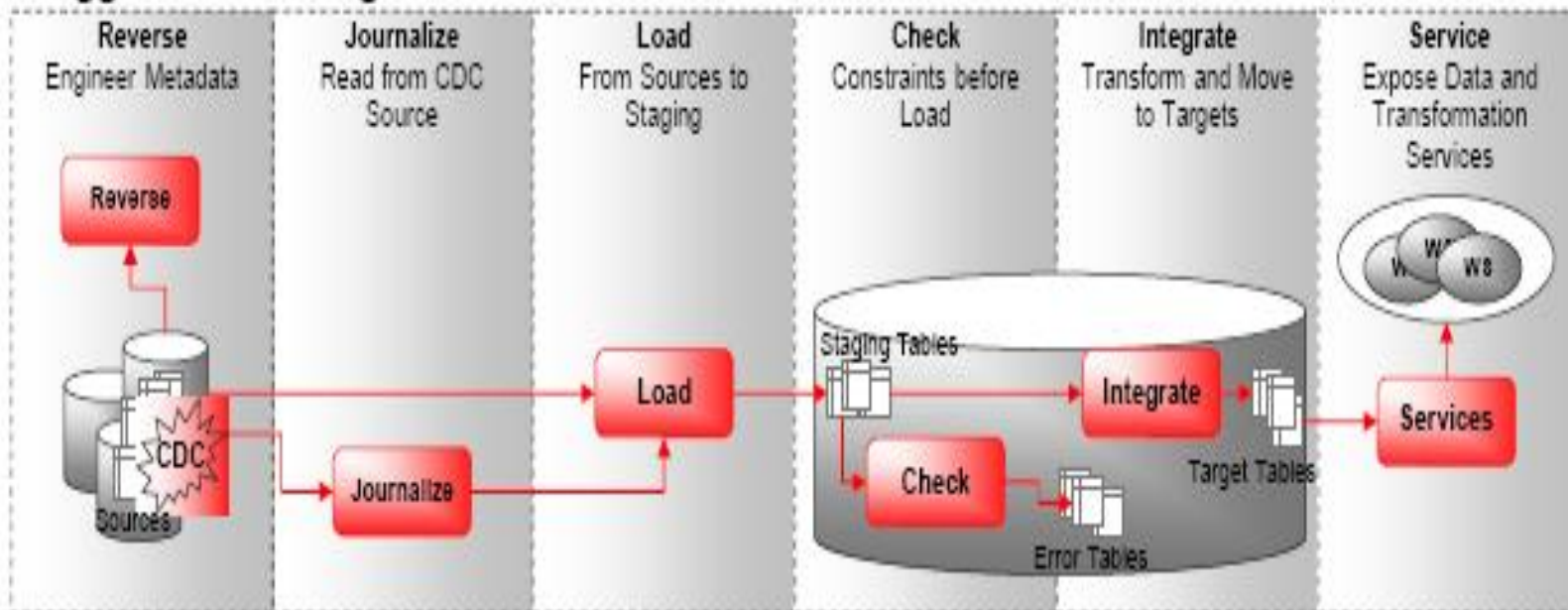
```
1
2 INSERT
3 INTO ODI_SCOTT_STG.STG_EMP
4 (
5   EMPNO ,
6   ENAME ,
7   JOB ,
8   MGR ,
9   HIREDATE ,
10  SAL ,
11  COMM ,
12  DEPTNO ,
13  "laaddatum"
14 )
15 SELECT
16 EMP.EMPNO ,
17 EMP.ENAME ,
18 EMP.JOB ,
19 EMP.MGR ,
20 EMP.HIREDATE ,
21 EMP.SAL ,
22 EMP.COMM ,
23 EMP.DEPTNO ,
24 sysdate
25 FROM
26 SCOTT.EMP EMP
```

Knowledge Module

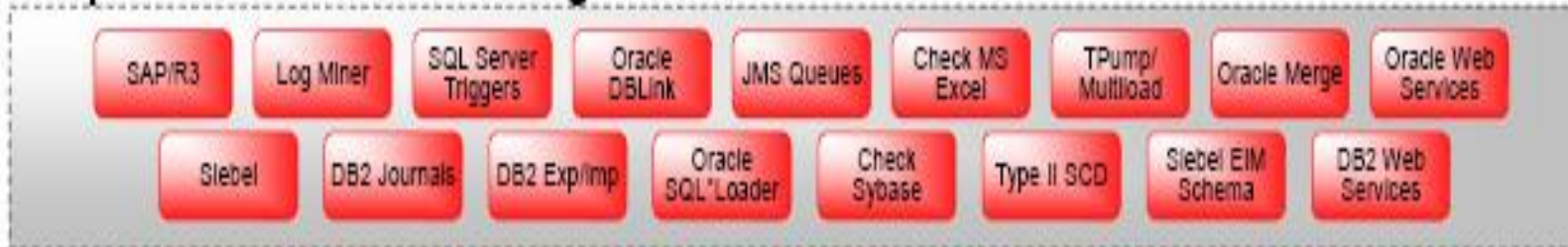
- Vertaalt de logische declaratie naar fysieke code
 - Één logische mapping op verschillende manieren (technisch) uitvoeren
- Component versus template
- Aanpasbaar
 - LKM SQL to Oracle. : Loads data from any ISO-92 database to an Oracle target database.
 - IKM SQL Control Append : Integrates data in any ISO-92 compliant database target table in truncate / insert (append) mode
 - IKM Oracle Incremental Update (Merge) : Integrates data into an Oracle (9i or above) target table in incremental update mode using the MERGE dml statement.
 - CKM Oracle : This module controls the validity of the constraints of a Datastore and rejects the invalid records in an error table

Knowledge Module

Pluggable Knowledge Modules Architecture



Sample out-of-the-box Knowledge Modules



Knowledge Module

Import Knowledge Modules (XML File)

Import Type:

File import directory:

Select the file(s) to import:

Filename	Build Number	Description
<input type="checkbox"/> IKM Informix Incremental Update	11	COMPONENT NAME:IKM Informix Incremental UpdateAUTHOR: Oracle...
<input type="checkbox"/> IKM JDE World Control Append	11	COMPONENT NAME: IKM JDE World Control AppendAUTHOR: OracleDE...
<input type="checkbox"/> IKM MSSQL Incremental Update	16	COMPONENT NAME: IKM MSSQL Incremental UpdateAUTHOR: OracleDe...
<input type="checkbox"/> IKM MSSQL Slowly Changing Dimension	17	COMPONENT NAME: IKM MSSQL Slowly Changing DimensionAUTHOR: ...
<input type="checkbox"/> IKM Netezza Control Append	15	COMPONENT NAME:IKM Netezza Control AppendAUTHOR: OracleDesc...
<input type="checkbox"/> IKM Netezza Incremental Update	13	COMPONENT NAME: IKM Netezza Incremental UpdateAUTHOR: OracleD...
<input type="checkbox"/> IKM Netezza to File (EXTERNAL TABLE)	10	COMPONENT NAME:IKM Netezza to File (EXTERNAL TABLE)AUTHOR: Or...
<input type="checkbox"/> IKM Oracle BI to SQL Append	4	COMPONENT NAME: IKM Oracle BI to SQL AppendAUTHOR: OracleDES...
<input type="checkbox"/> IKM Oracle Control Append	6	COMPONENT NAME: IKM Oracle Control AppendCOMPONENT VERSION...
<input type="checkbox"/> IKM Oracle Incremental Update	44	COMPONENT NAME: IKM Oracle Incremental UpdateCOMPONENT VERSI...
<input type="checkbox"/> IKM Oracle Incremental Update (MERGE)	25	COMPONENT NAME: IKM Oracle Incremental Update (MERGE)AUTHOR: ...
<input type="checkbox"/> IKM Oracle Incremental Update (PL SQL)	25	COMPONENT NAME: IKM Oracle Incremental Update (PL SQL)AUTHOR: ...
<input type="checkbox"/> IKM Oracle Multi Table Insert	13	DEPRECATED: This KM has been deprecated and may be removed with...
<input type="checkbox"/> IKM Oracle Slowly Changing Dimension	27	COMPONENT NAME: IKM Oracle Slowly Changing DimensionAUTHOR: ...
<input type="checkbox"/> IKM Oracle Spatial Incremental Update	19	COMPONENT NAME: IKM Oracle Spatial Incremental UpdateAUTHOR: O...
<input type="checkbox"/> IKM Oracle to Oracle Control Append (DBLIN...	16	COMPONENT NAME: IKM Oracle to Oracle Control Append (DBLINK)AU...
<input type="checkbox"/> IKM SQL Control Append	20	COMPONENT NAME: IKM SQL Control AppendAUTHOR: OracleDescript...
<input type="checkbox"/> IKM SQL Control Append (SOA XREF)	16	COMPONENT NAME: IKM SQL Control Append (SOA XREF)AUTHOR: Or...
<input type="checkbox"/> IKM SQL Incremental Update	16	COMPONENT NAME: IKM SQL Incremental UpdateAUTHOR: OracleDesc...
<input type="checkbox"/> IKM SQL Incremental Update (row by row)	30	COMPONENT NAME: IKM SQL Incremental Update (row by row)AUTHOR...
<input type="checkbox"/> IKM SQL to File Append	11	COMPONENT NAME: IKM SQL to File AppendAUTHOR: OracleDescriptio...
<input type="checkbox"/> IKM SQL to Hive-HBase-File (SQOOP)	7	COMPONENT NAME: IKM SQL to Hive-HBase-File (SQOOP)AUTHOR: Or...
<input type="checkbox"/> IKM SQL to JMS Append	8	COMPONENT NAME: IKM SQL to JMS AppendAUTHOR: OracleDescriptio...

Buttons:

Knowledge Module

IKM Oracle Control Append

Definition

Tasks

Options

Markers

Memo

Version

Privileges

Flexfields

Task Hierarchy	Ignore ...	Always...	Target Command	Source Command	Target Technology
Mapping Begin					
Execution Unit Begin					
Execution Unit Main					
Validate KM options	<input type="checkbox"/>	<input type="checkbox"/>	# Validating KM optio...		Jython
Check RDBMS version	<input type="checkbox"/>	<input type="checkbox"/>	if #V0 < <%=odiRef.g... /* This query returns ...		Jython
Create target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	create table <%=odiR...		Oracle
Drop flow table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	drop table <%=odiRef...		Oracle
Create flow table I\$	<input checked="" type="checkbox"/>	<input type="checkbox"/>	create table <%=odiR...		Oracle
Delete target table	<input type="checkbox"/>	<input type="checkbox"/>	delete from <%=odiRe...		Oracle
Truncate target table	<input type="checkbox"/>	<input type="checkbox"/>	truncate table <%=odi...		Oracle
Analyze target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integer(odi...		Oracle
Lock journalized table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if ("C".equals(odiR...		Oracle
Create Temp. Indexes on Source	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Create <%=odiRef.get...	Oracle
Insert flow into I\$ table	<input type="checkbox"/>	<input type="checkbox"/>	<%if (odiRef.getOptio...		Oracle
Recycle previous errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	insert into <%=odiRef...		Oracle
Analyze integration table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integer(odi...		Oracle
Synchronize deletions from journal	<input type="checkbox"/>	<input type="checkbox"/>	delete from <%=odiRe...		Oracle
Flow control	<input type="checkbox"/>	<input type="checkbox"/>	<%@ INCLUDE CKM_F...		Oracle
Insert new rows	<input type="checkbox"/>	<input type="checkbox"/>	<%if (odiRef.getOptio...		Oracle
Commit transaction	<input type="checkbox"/>	<input type="checkbox"/>	/*commit*/		Oracle
Cleanup journalized table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if ("C".equals(odiR...		Oracle
Analyze target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integer(odi...		Oracle
Post-integration control	<input type="checkbox"/>	<input type="checkbox"/>	<%@ INCLUDE CKM_S...		Oracle
Execution Unit End					
Mapping End					
Mapping Cleanup					
Drop flow table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	drop table <%=odiRef...		Oracle
Drop Temp. Indexes on Source	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		drop Index <%=odiR...	Oracle

Knowledge Module

Insert flow into \$I table

```
<%if ( odiRef.getOption("FLOW_CONTROL").equals("1")) { %>
  insert /*+ <%=odiRef.getOption("HINT_INSERT_FLOW")%> */ into <%=odiRef.getTable("L","INT_NAME","A")%>
  (
    <%=odiRef.getColList("", "[COL_NAME]", ",\n\t", "", "((INS and !TRG) and REW)")%>
  )
  <%for (int i=odiRef.getDataSetMin(); i <= odiRef.getDataSetMax(); i++){%>
  <%=odiRef.getDataSet(i, "Operator")%>
  select <%=odiRef.getOption("HINT_SELECT")%>
    <%=odiRef.getPop("DISTINCT_ROWS")%>
    <%=odiRef.getColList(i,"", "[EXPRESSION]", ",\n\t", "", "((INS and !TRG) and REW)")%>
  from <%=odiRef.getFrom(i)%>
  where <% if (odiRef.getDataSet(i, "HAS_JRN").equals("1")) { %>
    JRN_FLAG <> 'D'
    <%} else {%>
    (1=1)
    <% } %>
  <%=odiRef.getJoin(i)%>
  <%=odiRef.getFilter(i)%>
  <%=odiRef.getJrnFilter(i)%>
  <%=odiRef.getGrpBy(i)%>
  <%=odiRef.getHaving(i)%>
  <%}%>
<% } %>
```

Knowledge Module

Kies KM bij Mapping

Integration Knowledge Module

Integration Knowledge Module: IKM Oracle Control Append.GLOBAL

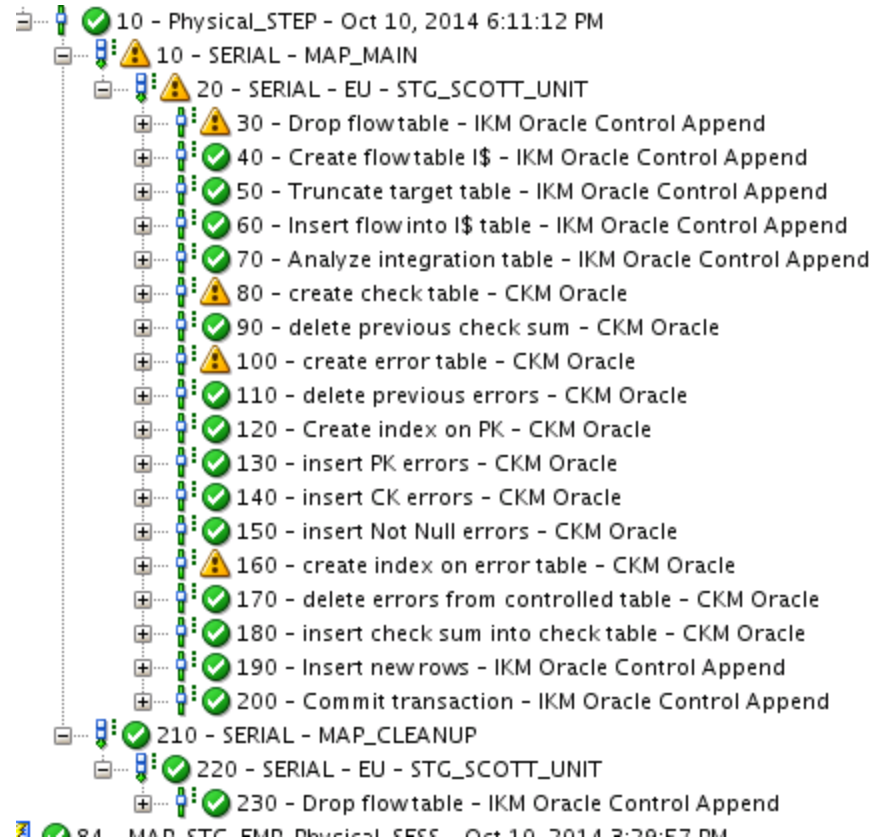
Style: Template-style

Options Description

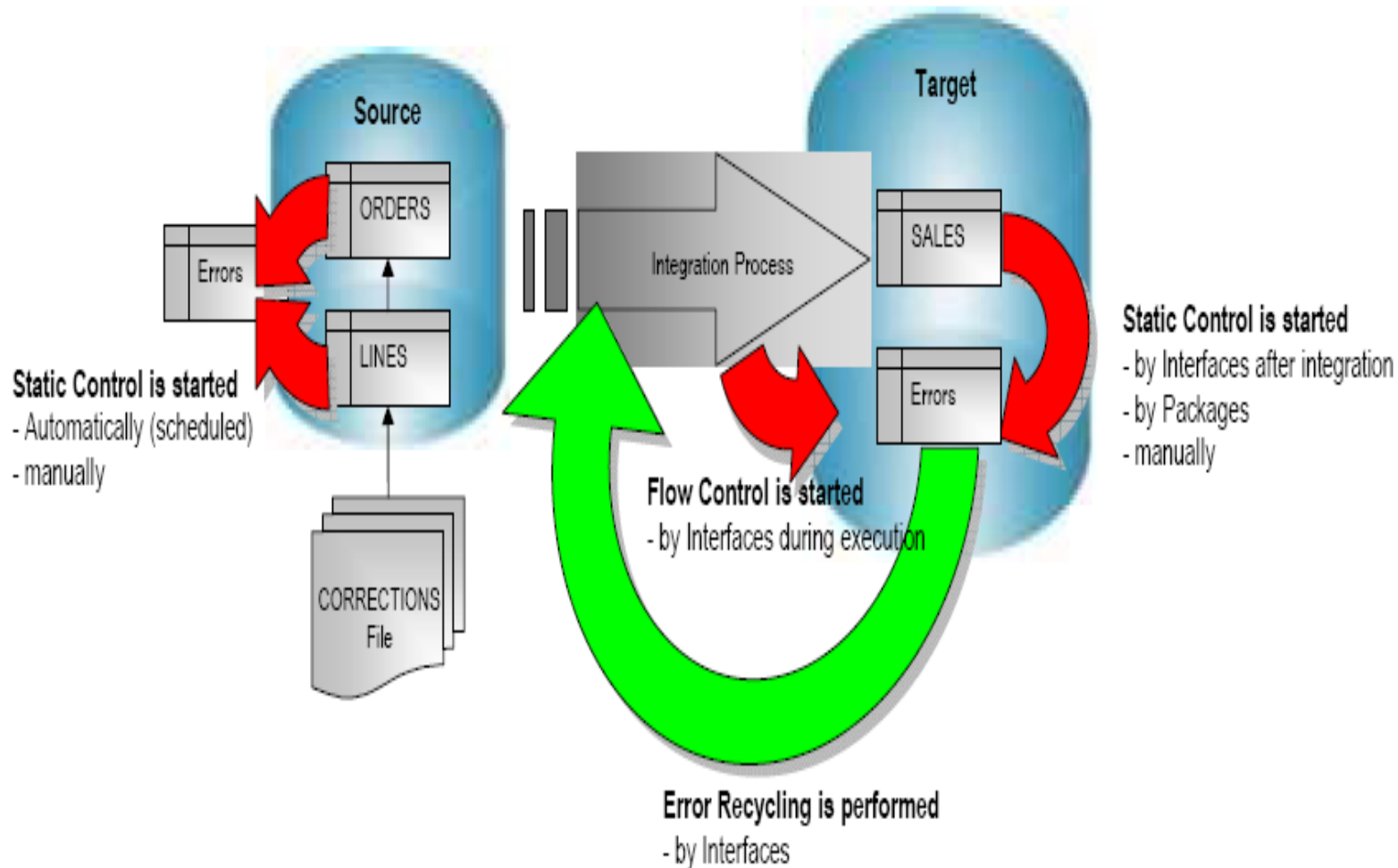
Name	Description	Value	Use Default
INSERT	Insert new rows	True	<input checked="" type="checkbox"/>
COMMIT	Post Integration Commit	True	<input checked="" type="checkbox"/>
SYNC_JRN_DELETE	Synchronise Journalized d...	True	<input checked="" type="checkbox"/>
FLOW_CONTROL	Activate Flow control	True	<input checked="" type="checkbox"/>
RECYCLE_ERRORS	Recycle previous errors	False	<input checked="" type="checkbox"/>
STATIC_CONTROL	Post Integration Control.	False	<input checked="" type="checkbox"/>
TRUNCATE	Truncate the target table	True	<input type="checkbox"/>
DELETE_ALL	Delete all rows	False	<input checked="" type="checkbox"/>
CREATE_TARG_TABLE	Create the target table	False	<input checked="" type="checkbox"/>
DELETE_TEMPORARY_OBJE...	Delete temp objects post int.	True	<input checked="" type="checkbox"/>
FLOW_TABLE_OPTIONS	Option for Flow table creat...	NOLOGGING	<input checked="" type="checkbox"/>
COMPATIBLE	RDBMS version of staging/...	9	<input checked="" type="checkbox"/>
VALIDATE	Validate KM options	False	<input checked="" type="checkbox"/>
ANALYZE_TARGET	Analyze the target table	False	<input checked="" type="checkbox"/>
HINT_SELECT	Hint for loading integratio...		<input checked="" type="checkbox"/>
HINT_INSERT_FLOW	Hint for loading integratio...	APPEND	<input checked="" type="checkbox"/>
HINT_INSERT_TARGET	Hint for loading target table.	APPEND	<input checked="" type="checkbox"/>

Knowledge Module

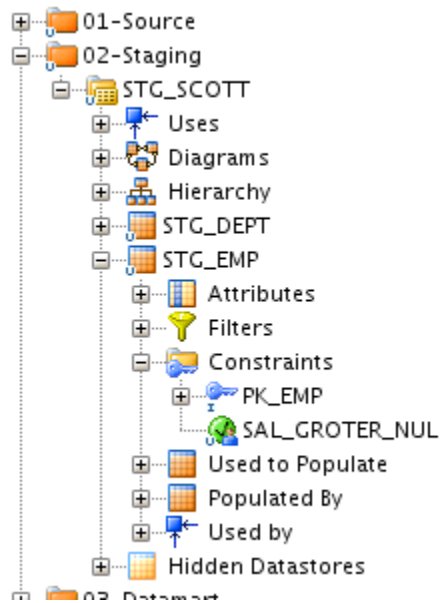
Task Hierarchy	Ignore ...	Always...	Target Comma
Mapping Begin			
Execution Unit Begin			
Execution Unit Main			
Validate KM options	<input type="checkbox"/>	<input type="checkbox"/>	# Validating KM
Check RDBMS version	<input type="checkbox"/>	<input type="checkbox"/>	if #V0 < <%=oc
Create target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	create table <%=
Drop flow table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	drop table <%=
Create flow table I\$	<input checked="" type="checkbox"/>	<input type="checkbox"/>	create table <%=
Delete target table	<input type="checkbox"/>	<input type="checkbox"/>	delete from <%=
Truncate target table	<input type="checkbox"/>	<input type="checkbox"/>	truncate table <%=
Analyze target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integ
Lock journalized table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if ("C".equal
Create Temp. Indexes on Source	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Insert flow into I\$ table	<input type="checkbox"/>	<input type="checkbox"/>	<%if (odiRef.ge
Recycle previous errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	insert into <%=
Analyze integration table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integ
Synchronize deletions from journal	<input type="checkbox"/>	<input type="checkbox"/>	delete from <%=
Flow control	<input type="checkbox"/>	<input type="checkbox"/>	<%@ INCLUDE (
Insert new rows	<input type="checkbox"/>	<input type="checkbox"/>	<%if (odiRef.ge
Commit transaction	<input type="checkbox"/>	<input type="checkbox"/>	/*commit*/
Cleanup journalized table	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<% if ("C".equal
Analyze target table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<% if (new Integ
Post-integration control	<input type="checkbox"/>	<input type="checkbox"/>	<%@ INCLUDE (
Execution Unit End			
Mapping End			
Mapping Cleanup			
Drop flow table	<input checked="" type="checkbox"/>	<input type="checkbox"/>	drop table <%=
Drop Temp. Indexes on Source	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	



Flow Control



Flow Control



SAL_GROTER_NUL x

Definition

Control

Markers

Memo

Version

Privileges

Flexfields

Condition [Model: STG_SCOTT ▶ Datastore: STG_EMP]

Name: SAL_GROTER_NUL

Type: Oracle Data Integrator Condition

Where (Use the table alias: STG_EMP):

STG_EMP.SAL > 0

Message:

Salaris moet groter dan 0 zijn

Flow Control

STG_EMP - Properties

Find

Attributes

General

Target

Integration Type: Control Append

Update Key: PK_EMP

Maximum Number of Errors Allowed: 10

Integration Errors as Percentage:

Journalizing

Constraints

Constraint Name	Constraint Type	Value
PK_EMP	Primary Key	<default>: true
SAL_GROTER_NUL	Condition	<default>: true

Integration Knowledge Module

Integration Knowledge Module: IKM Oracle Control Append.GLOBAL

Style: Template-style

Options	Description	Value	Use Default
INSERT	Insert new rows	True	<input checked="" type="checkbox"/>
COMMIT	Post Integration Commit	True	<input checked="" type="checkbox"/>
SYNC_JRN_DELETE	Synchronise Journalized deletions	True	<input checked="" type="checkbox"/>
FLOW_CONTROL	Activate Flow control	True	<input checked="" type="checkbox"/>
RECYCLE_ERRORS	Recycle previous errors	False	<input checked="" type="checkbox"/>
STATIC_CONTROL	Post Integration Control.	False	<input checked="" type="checkbox"/>

Check Knowledge Module

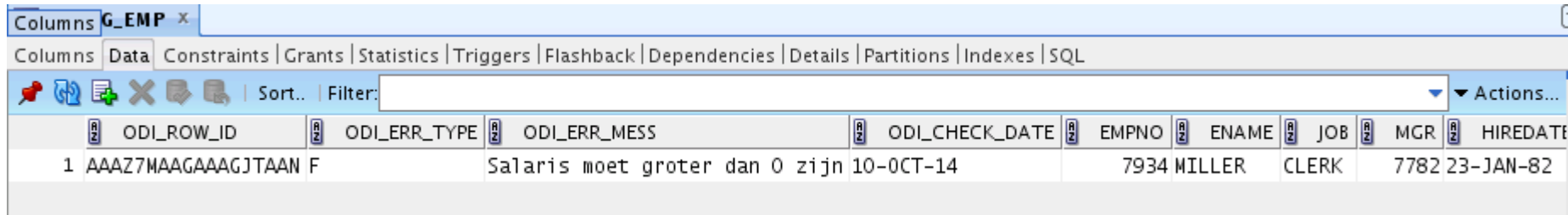
Check Knowledge Module: CKM Oracle.GLOBAL

Style: Template-style

Options	Description	Value	Use Default
DROP_ERROR_TABLE	Drop the Error table.	False	<input checked="" type="checkbox"/>
DROP_CHECK_TABLE	Drop the Check table.	False	<input checked="" type="checkbox"/>
CREATE_ERROR_INDEX	Create Index on the error table	True	<input checked="" type="checkbox"/>
COMPATIBLE	RDBMS version of staging database	9	<input checked="" type="checkbox"/>
VALIDATE	Validate KM options	False	<input checked="" type="checkbox"/>
ENABLE_EDITION_SUP...	Enable Support for Editioning Views	False	<input checked="" type="checkbox"/>
UPGRADE_ERROR_TA...	Upgrade the Error & check tables	False	<input checked="" type="checkbox"/>

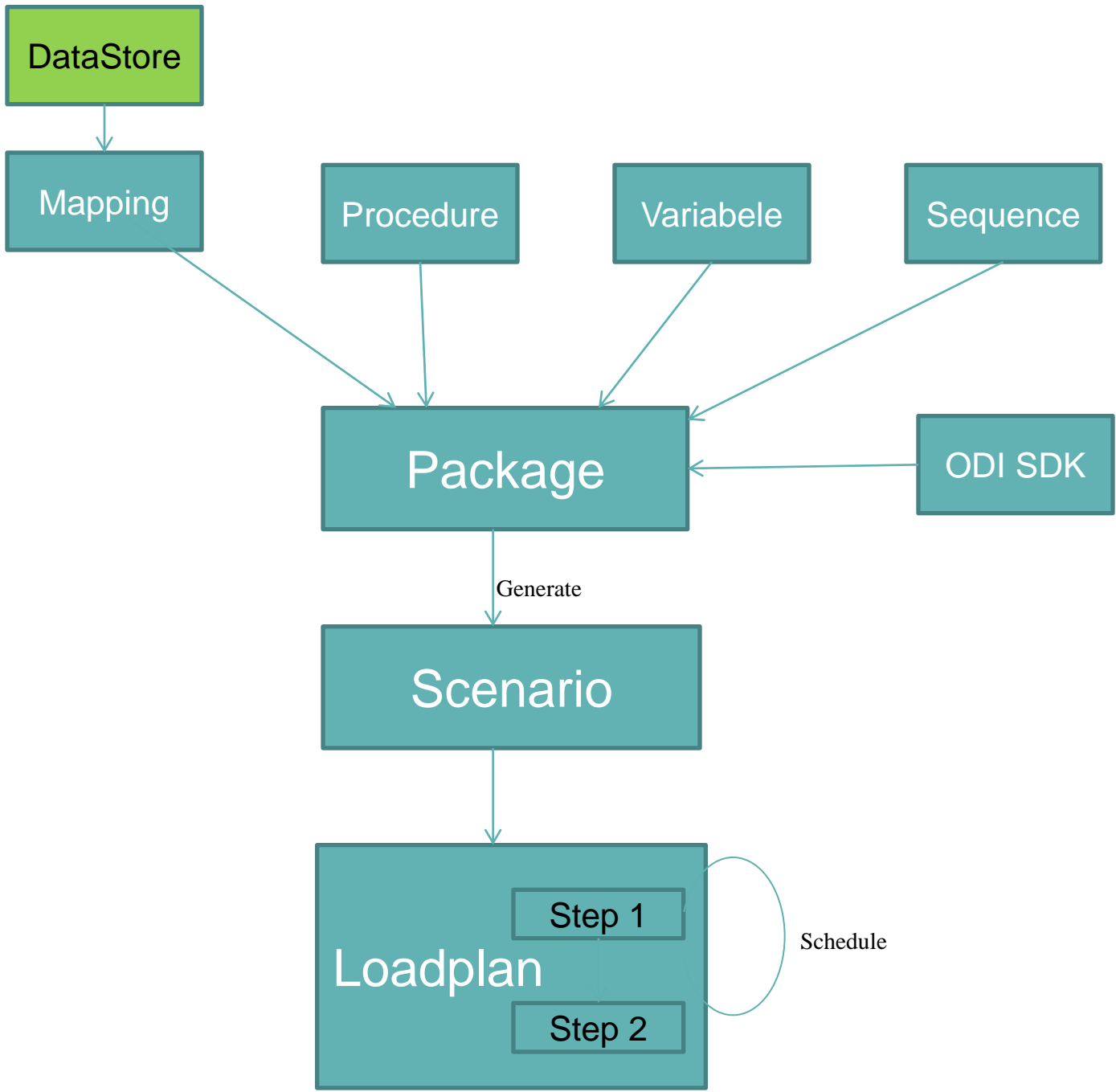
Flow Control

Error tabel E\$_STG_EMP



The screenshot shows the Oracle SQL Developer interface for a table named G_EMP. The 'Data' tab is active, displaying a single row of error information. The columns are ODI_ROW_ID, ODI_ERR_TYPE, ODI_ERR_MESS, ODI_CHECK_DATE, EMPNO, ENAME, JOB, MGR, and HIREDATE. The error message is 'Salaris moet groter dan 0 zijn' (Salary must be greater than 0) and the check date is 10-OCT-14.

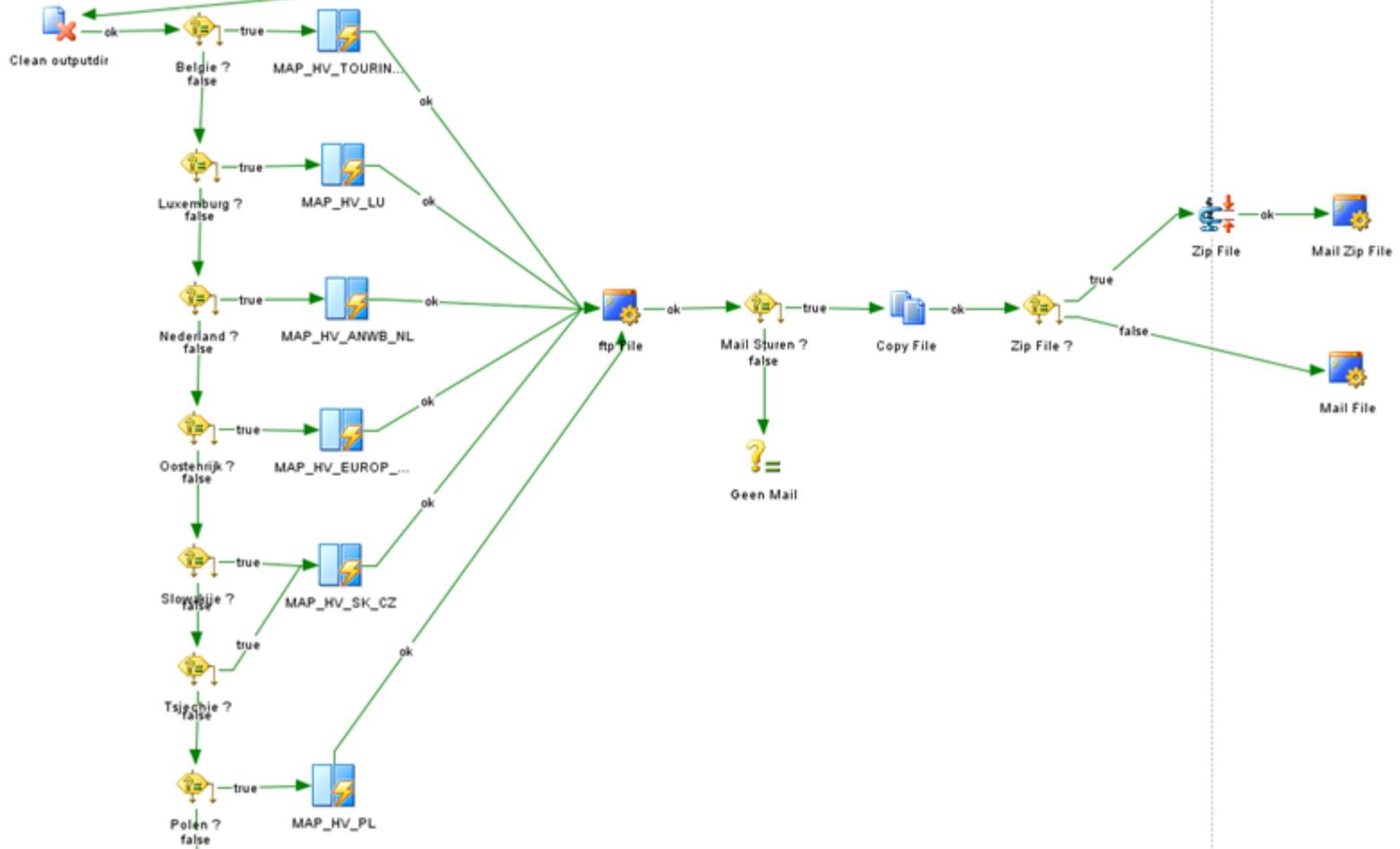
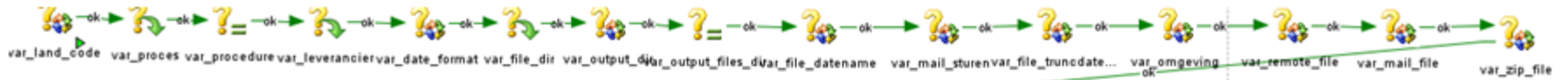
ODI_ROW_ID	ODI_ERR_TYPE	ODI_ERR_MESS	ODI_CHECK_DATE	EMPNO	ENAME	JOB	MGR	HIREDATE
1	AAAZ7MAAGAAAGJTAAN F	Salaris moet groter dan 0 zijn	10-OCT-14	7934	MILLER	CLERK	7782	23-JAN-82



Packages en Loadplans

- Proces Flow
- Loadplans : Parallel uitvoeren mogelijk
- Herstartmogelijkheden per stap
- ODI-toolkit

Packages



Loadplans

[-] root_step	<input checked="" type="checkbox"/>		Restart from failure	
[-] Case Variable: GLOBAL.var_systeem_beschikbaar	<input checked="" type="checkbox"/>	GLOBAL.var_systeem_beschikbaar		
[-] Systeem Beschikbaar ?	<input checked="" type="checkbox"/>			
[+] HV_STEP1	<input checked="" type="checkbox"/>		Restart from failed children	
[-] PCK_HV_OUTPUT_NL	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Nederland
[-] PCK_HV_OUTPUT_AT	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Oostenrijk
[-] PCK_HV_OUTPUT_BE	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Belgie
[-] PCK_HV_OUTPUT_LU	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Luxemburg
[-] PCK_HV_OUTPUT_SK	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Slowakije
[-] PCK_HV_OUTPUT_CZ	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Tsjechie
[-] PCK_HV_OUTPUT_PL	<input checked="" type="checkbox"/>	PCK_HV_OUTPUT Version 001	Restart from new session	Polen

Load Plan Scheduling NL / OracleDIAGENT

Definition

Execution Cycle
Variables
Privileges
Version

Scheduling [Load Plan: OWB Staging Mappings]

Context: Logical Agent:

Log Level:

Status

Active
 Inactive
 Active for the period:

Starting: Date: Time:

Ending: Date: Time:

Every day between: from: to:

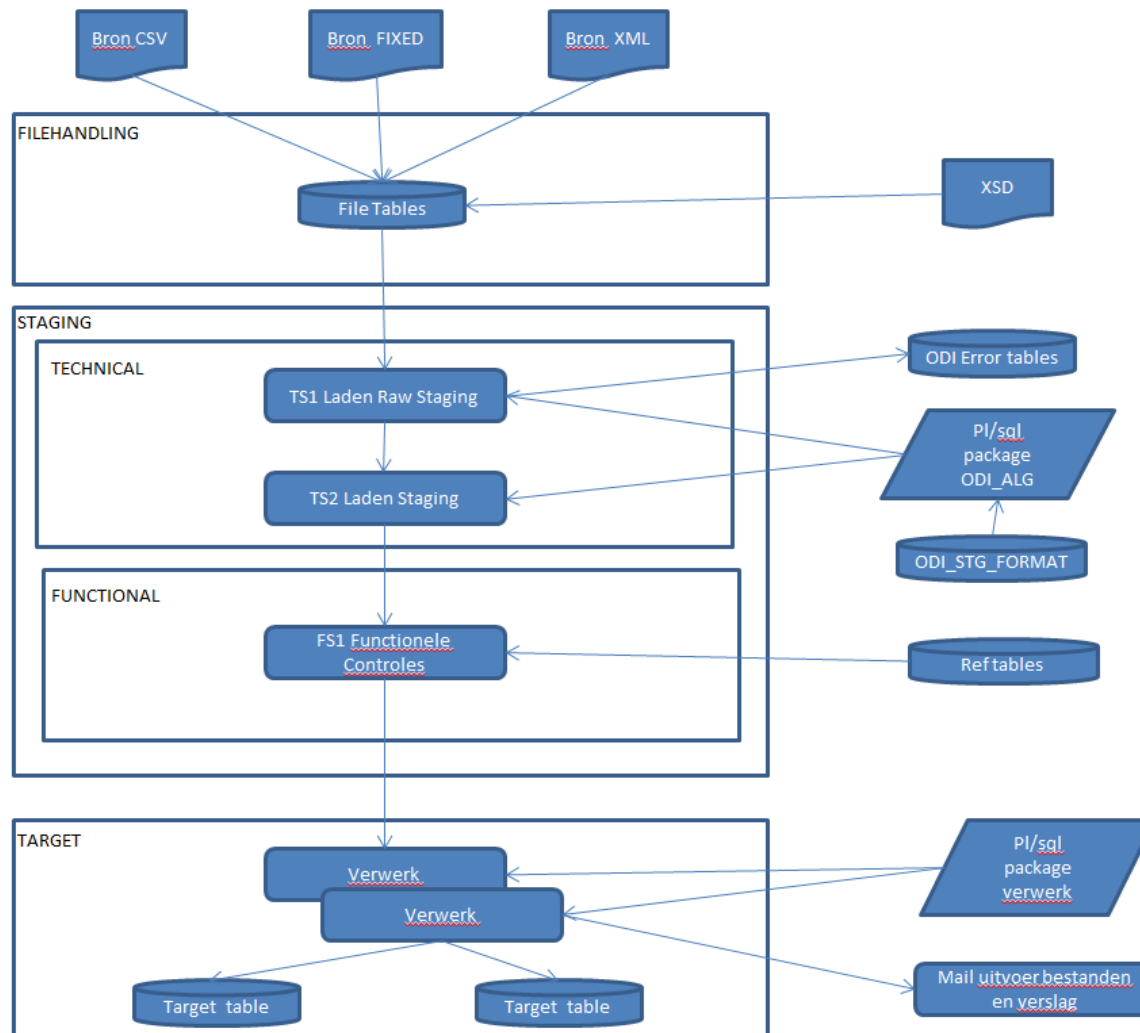
Except these days of the month:

Except these days of the week: Monday Tuesday Wednesday Thursday
 Friday Saturday Sunday

Execution

On startup Time: Minute(s):Second(s)
 Simple
 Hourly
 Daily
 Weekly
 Monthly (day of the month)
 Monthly (week day)
 Yearly

CASE : Brandstof file interface 15 landen

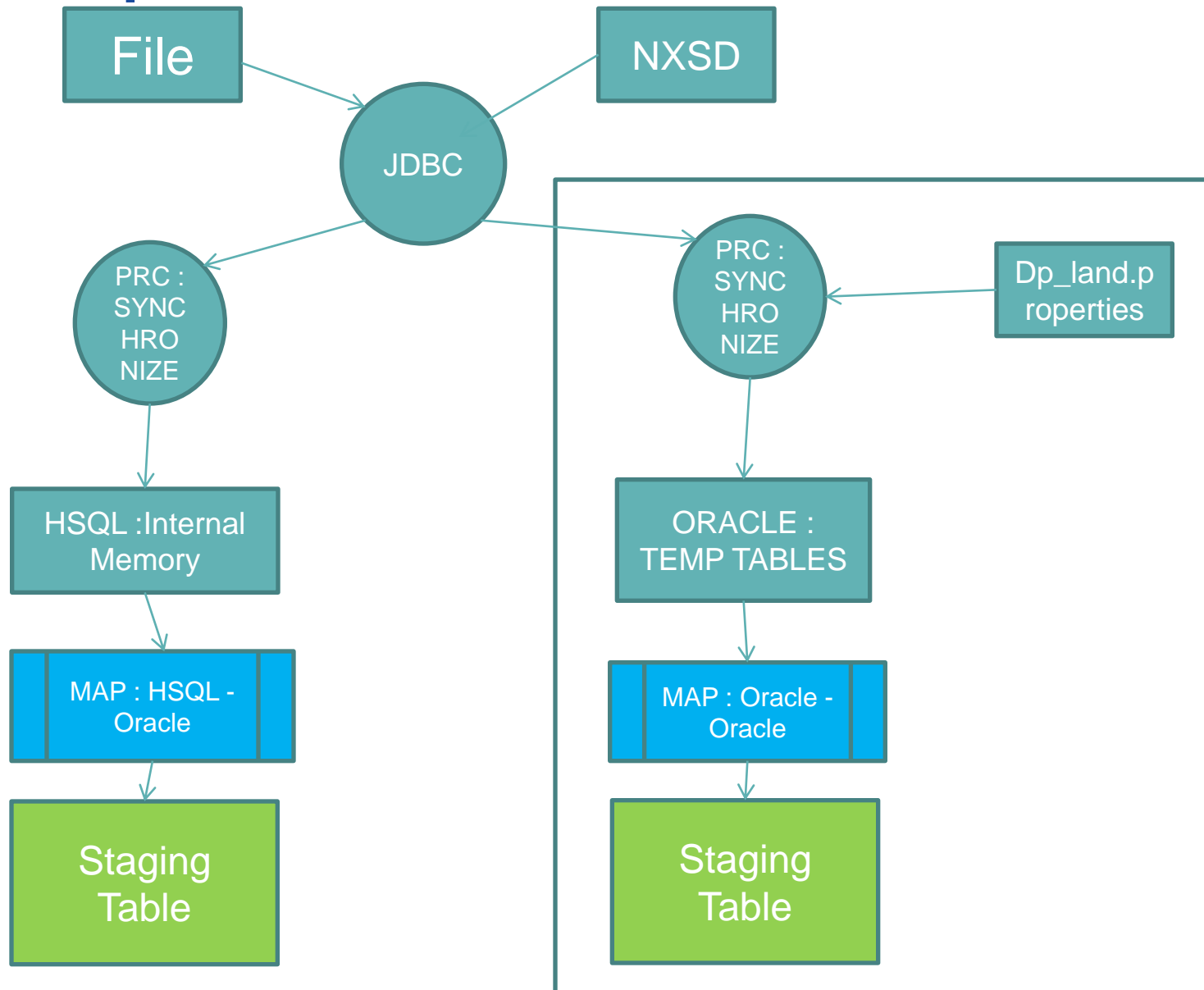


Complex Files

```
A14020301080730100
0100000000000000000000000000000000
0050007824373760000778SAVOLAINEN ARI          ORACLE FINLAND OY
0050007824373760000778SAVOLAINEN ARI          ORACLE FINLAND OY
0050007824373760002683RINTALA TAPANI           ORACLE FINLAND OY
0050007824373760002683RINTALA TAPANI           ORACLE FINLAND OY
0050007824373760002683RINTALA TAPANI           ORACLE FINLAND OY
0050007824373760002840PULKKINEN JORMA          ORACLE FINLAND OY
0050007824373960000289LAAKSONEN MIKA           ORACLE FINLAND OY
0050007824373760001321JAUHIAINEN PASI          RICOH FINLAND OY
0050007824373760001453MÄKELÄ HARRI            RICOH FINLAND OY
0050007824373760002261MLL-406                  RICOH FINLAND OY
0050007824373960001386TUOMINEN JUHANI          RICOH FINLAND OY
0050007824373960001675SIHVO VELI-SAKARI        RICOH FINLAND OY
0050007824373960001675SIHVO VELI-SAKARI        RICOH FINLAND OY
0050007824373960002483SAARELMA MARKO          RICOH FINLAND OY
L00000014000000079728000000010000000174110000001500000006231700000014000000062317
```

```
<xsd:element name="BRST_ABC_FI">
  <xsd:complexType>
    <xsd:choice minOccurs="1" maxOccurs="unbounded" nxsd:choiceCondition="fixedLength" nxsd:length="1">
      <xsd:element name="Header" nxsd:style="array" nxsd:cellSeparatedBy="{eol}" nxsd:conditionValue="A">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="file_cre_date" type="xsd:string" nxsd:style="fixedLength" nxsd:length="6" />
            <xsd:element name="file_id" type="xsd:string" nxsd:style="fixedLength" nxsd:length="2" />
            <xsd:element name="file_cre_time" type="xsd:string" nxsd:style="fixedLength" nxsd:length="6" />
            <xsd:element name="server_id" type="xsd:string" nxsd:style="fixedLength" nxsd:length="3" />
            <xsd:element name="filler1" type="xsd:string" nxsd:style="fixedLength" nxsd:length="255" />
            <xsd:element name="filler2" type="xsd:string" nxsd:style="fixedLength" nxsd:length="255" />
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:element name="Trailer" nxsd:style="array" nxsd:cellSeparatedBy="{eol}" nxsd:conditionValue="L">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="debet_count" type="xsd:string" nxsd:style="fixedLength" nxsd:length="8" />
            <xsd:element name="debet_amount" type="xsd:string" nxsd:style="fixedLength" nxsd:length="12" />
            <xsd:element name="credit_count" type="xsd:string" nxsd:style="fixedLength" nxsd:length="8" />
            <xsd:element name="credit_amount" type="xsd:string" nxsd:style="fixedLength" nxsd:length="12" />
            <xsd:element name="total_count" type="xsd:string" nxsd:style="fixedLength" nxsd:length="8" />
            <xsd:element name="total_amount" type="xsd:string" nxsd:style="fixedLength" nxsd:length="12" />
            <xsd:element name="purchase_count" type="xsd:string" nxsd:style="fixedLength" nxsd:length="8" />
            <xsd:element name="purchase_amount" type="xsd:string" nxsd:style="fixedLength" nxsd:length="12" />
            <xsd:element name="filler1" type="xsd:string" nxsd:style="fixedLength" nxsd:length="255" />
            <xsd:element name="filler2" type="xsd:string" nxsd:style="fixedLength" nxsd:length="192" />
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
    </xsd:choice>
  </xsd:complexType>
</xsd:element>
```

Complex/XML Files



Topologie Variabel maken

Definition	JDBC Driver: oracle.odi.jdbc.driver.file.complex.ComplexFileDriver
JDBC	
On Connect/Disconnect	jdbc:snps:complexfile?f=#GLOBAL.var_alg_filelist_dir/out/ctr_brst_fn_#GLOBAL.var_leverancier_#GLOBAL.var_land_code.lst
Properties	JDBC URL: &d=#GLOBAL.var_alg_filelist_dir/xsd/alg_filename_list.xsd&re=ALG_FNLIST
Datasources	&s=#GLOBAL.var_procedure_#GLOBAL.var_leverancier_#GLOBAL.var_land_code&db_props=dp_nl

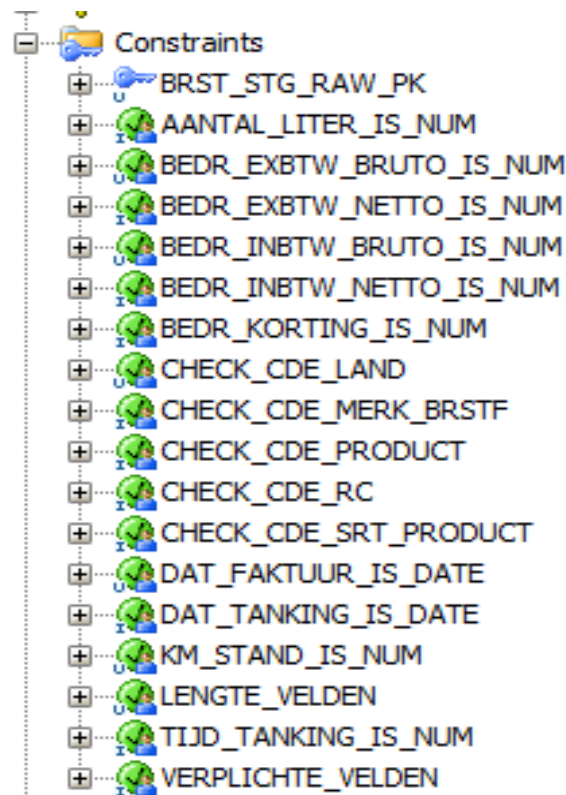
✔ Datastore Static Control

Definition	Datastore [Model: ALG_STAGING ▶ Sub-Model: Global]
Attributes	Name: ODI_FILE_FILENAME_LIST
Journalizing	Datastore Type: Table
Partitions	Resource Name: #GLOBAL.var_fl_name
Services	
Markers	

```
OdiFtpPut "-HOST=#ftp_server" "-USER=#ftp_user" "-PASSWORD=#ftp_password" "-LOCAL_DIR=<%=odiRef.getOption("p_local_dir")%>"  
"-LOCAL_FILE=<%=odiRef.getOption("p_local_file")%>" "-REMOTE_DIR=<%=odiRef.getOption("p_remote_dir")%>"  
"-REMOTE_FILE=<%=odiRef.getOption("p_remote_file")%>" "-PASSIVE_MODE=YES"
```


Flexibele Flowcontroles

- Constraints op staging tabel
- Dynamisch land, procedure, leverancier
 - Tabel
 - Db package



Flexibele Flowcontroles

Definition

Control

Markers

Memo

Version

Privileges

Flexfields



Condition [Model: CTR_BRST_STAGING ▶ Datastore: BRST_STG_RAW]

Name: DAT_FAKTUUR_IS_DATE

Type: Oracle Data Integrator Condition

Where (Use the table alias: BRST_STG_RAW):

```
odi_stg_util.is_date(BRST_STG_RAW.DAT_FAKTUUR, '<%=odiRef.getContext("CTX_CODE")%>', 'CTR_BRST', '#GLOBAL.var_leverancier') = 1
```

Definition

Control

Markers

Memo

Version

Privileges

Flexfields



Condition [Model: CTR_BRST_STAGING ▶ Datastore: BRST_STG_RAW]

Name: CHECK_CDE_LAND

Type: Oracle Data Integrator Condition

Where (Use the table alias: BRST_STG_RAW):

```
get_interne_waarde ( BRST_STG_RAW.NAWNR_CREDITEUR, 'LAND', BRST_STG_RAW.CDE_LAND ) is not null  
or  
BRST_STG_RAW.CDE_LAND is null
```

Flexibele Flowcontroles

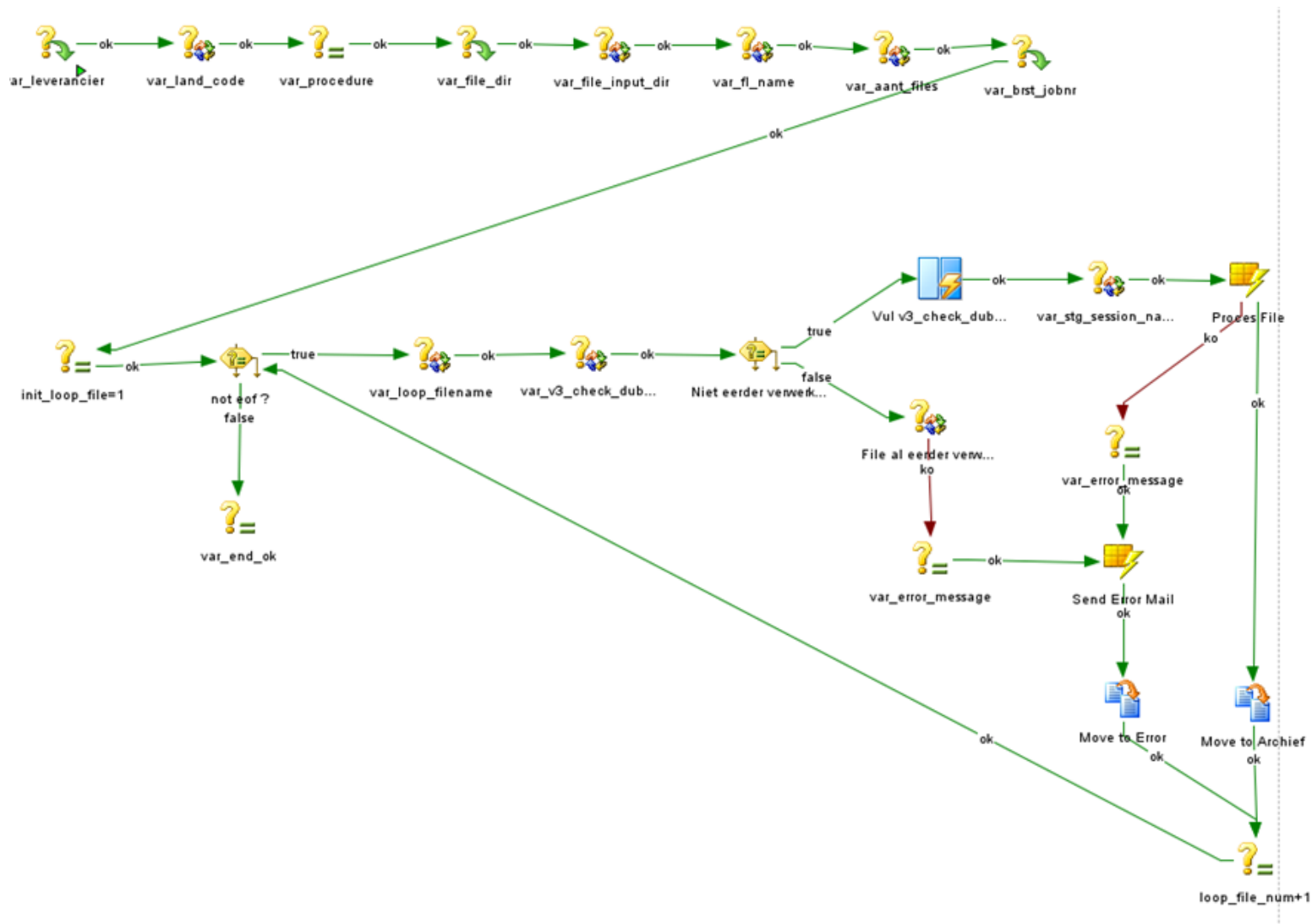
Database Tabel

	◇ CDE_LAND	◇ CDE_PROCEDURE	◇ CDE_LEVERANCIER	◇ DATE_FORMAT	◇ NUM_FORMAT	◇ AANTAL_DECIMALEN	◇ BEDRAG_EENHEID	◇ LITER_EENHEID	◇ BTW_EENHEID
1	FI	CTR_BRST	ST	dd-mm-yyyy	,.	-1 E	L	HP	
2	FI	CTR_BRST	ABC	yyyymmdd	.,	0 C	CL	DP	
3	FI	CTR_BRST	NO	yyyymmdd	.,	2 E	L	P	
4	LU	CTR_BRST	AR	yyymmdd	,.	-1 C	CL	HP	

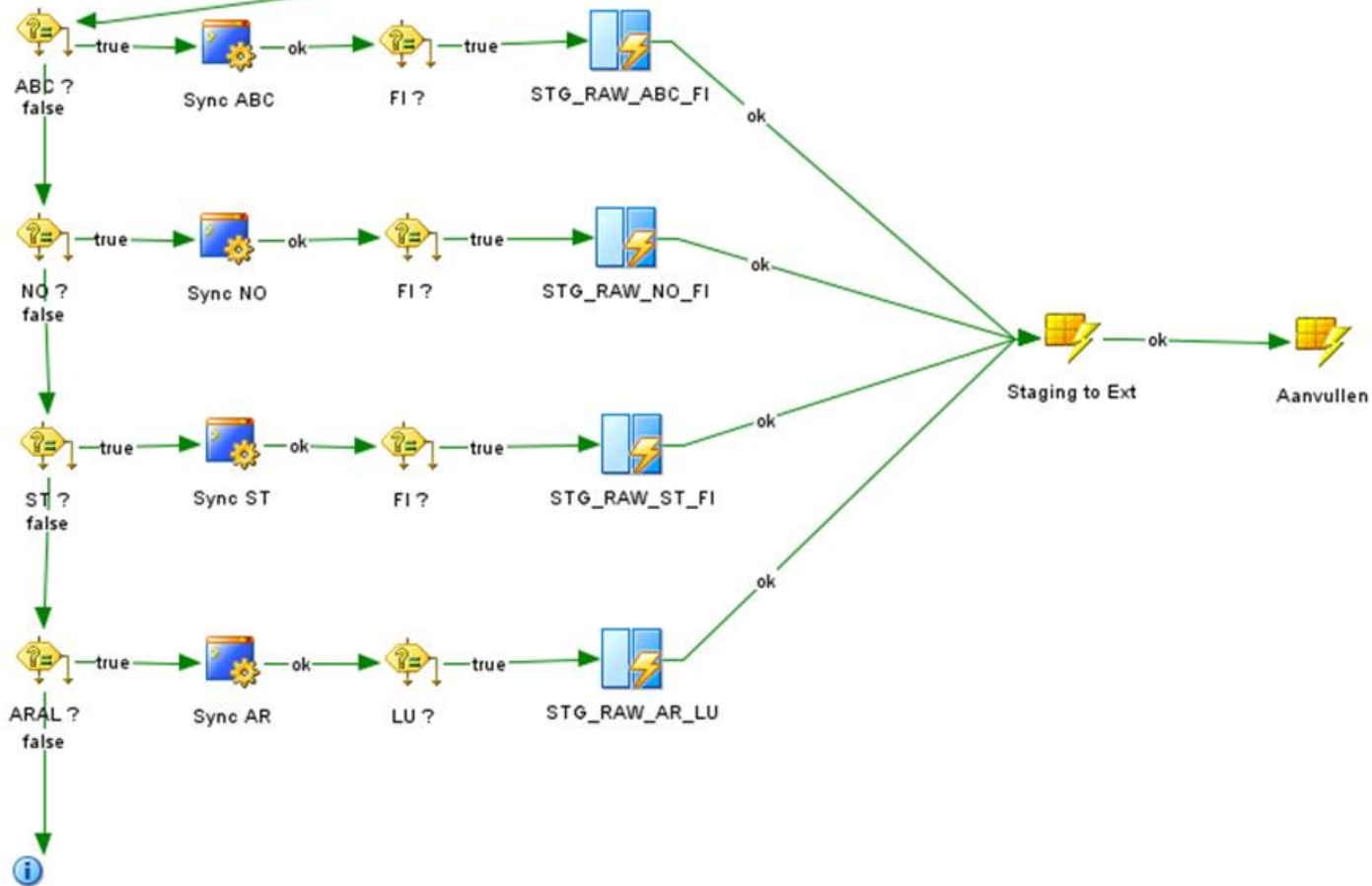
Database Package

```
function is_date( p_str          varchar2
,                p_cde_land     varchar2
,                p_cde_procedure varchar2
,                p_cde_leverancier varchar2 default 'NVT'
)
return number
as
  l_str varchar2(255) := ltrim(p_str);
  l_date date;
begin
  if l_str is not null
  then
    l_date := to_date( l_str, odi_stg_util.get_date_format ( p_cde_land, p_cde_procedure, p_cde_leverancier ) );
  end if;
  return 1;
exception
  when others then return 0;
end;
```

Package Proces Files



Package Proces File



Procedure Aanroep pl/sql

Target Command

Technology: Orade

Transaction Isolation: No Change

Context: <Execution Context>

Logical Schema: ARMA_LAND

Transaction: Autocommit

Commit: <Undefined>

Command:
`begin
 verwerk_brstf.aanvullen_all;
end;`

Source Command

Technology: <Any Technology>

Transaction Isolation: No Change

Context: <Execution Context>

Logical Schema: <Undefined>

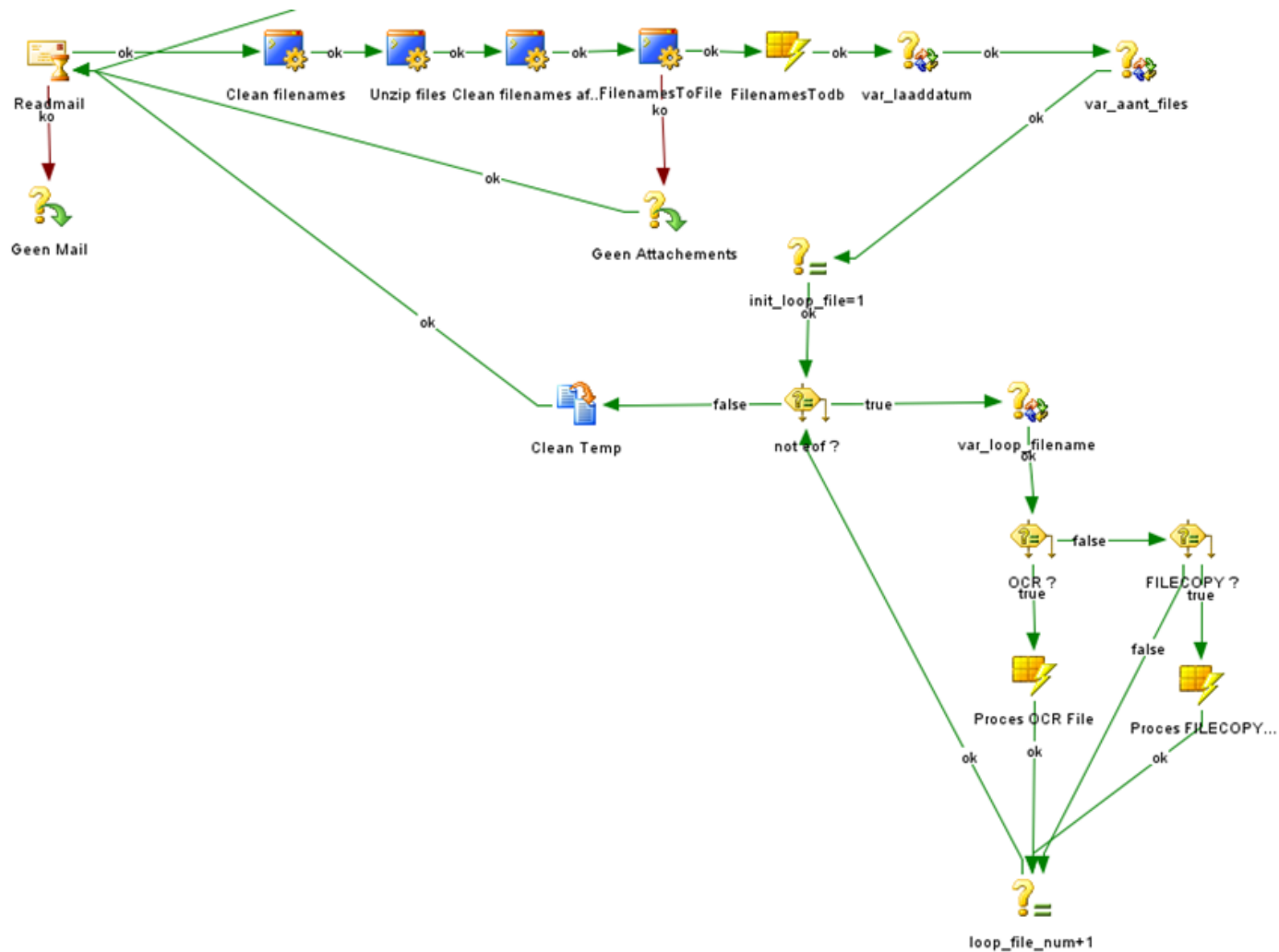
Transaction: Autocommit

Commit: <Undefined>

Command:

Options

Package ReadMail



Webservices



Properties

General Command Advanced Memo Version Privileges

OdilInvokeWebService

Select a parameter for more information about it.

Step name
WS nasa2ais

HTTP Analyzer Export XSD

Parameter	Value
WSDL URL	file:y:/data/FIN_Financieel/FIN_ODI_Inlezen_AIS_CZ/wsd/soap.wsdl
Port Type	Nasa2aisServiceSoap
Operation	ais2nasaInvoice
XML Request	<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/" xmlns:ns1="http://www.stringdata.cz/schema/ais"><env:l
Request File	
Storage Mode for Response File	New File
File Encoding for Response File	
XML Encoding for Response File	
Response File	/orade/data/FIN_Financieel/FIN_ODI_Inlezen_AIS_CZ/in/result.xml
Response File Format	
HTTP User	
HTTP Password	

Webservices

The screenshot displays the OdiInvokeWebService Advanced Editor interface. The top section contains the configuration for the web service call, including the URL, WSDL URL, and the selected operation. Below this, the 'Request HTTP Headers' and 'SOAP Headers' are visible, along with a 'parameters' section where a 'hash' value is entered. The 'Response HTTP Headers' section shows the status '200 OK' and various headers. The 'parameters' section displays the response data for the 'ais2nasaInvoice' operation, which is an array of two invoice objects.

Request Configuration:

- URL: `http://ais-cz.benelux.intra.corp:8002/test/www/soap`
- WSDL URL: `file://y:/data/FIN_Financieel/FIN_ODI_Inlezen_AIS_CZ/wsd/soap.wsdl`
- Operations: `Nasa2aisServiceSoap.ais2nasaInvoice()`
- Credentials: `<no credential>`

Request HTTP Headers:

Header	Value
Content-type	text/xml; charset=UTF-8
Content-Length	247
Host	ais-cz.benelux.intra.corp:8002
X-HTTPAnalyzer-Rules	1@localhost:8099

SOAP Headers:

- :WS-Security: Header Include
- :WS-Addressing: Header Include
- :WS-Reliable Messaging: Header Include

parameters:

hash : string

Response HTTP Headers: 200 OK

Header	Value
Content-Type	text/xml; charset=utf-8
X-Frame-Options	DENY
X-Powered-By	Nette Framework
Content-Length	2779
Server	Apache/2.2.16 (Debian)
Date	Thu, 09 Oct 2014 08:30:51 GMT
X-HTTPAnalyzer-RuleName	Pass through :

parameters:

- ais2nasaInvoice : Array**
 - ais2nasaInvoice**

ID	604
ContractId	1002561502
InvoiceNumber	5109793275
GarageID	99999500
ValidationNo	A000000508
InvoiceDate	2014-05-21T00:00:00
EventDate	2014-05-21T00:00:00
LKM	9637
BankAccount	3141500002/7910
VatNumber	CZ99999500
Pdffile	GOODYEAR DUNLOP TIRES - FOS Invo 5109793275 210514.pdf
TotalAmountIncVat	1024.3
TotalAmountExcVat	846.3
 - items : Array**
 - ais2nasaInvoice**

ID	605
ContractId	1001953502
InvoiceNumber	5109793651
GarageID	99999500