

Pre-requisites

- Unlock the OE schema
- Make sure the EXAMPLE tablespace has some headroom
- Created CDCSUB and CDCPUB users
 - EXAMPLE tablespace
- Create subscription views
- Create CDC_DBLINK database link
- Check the net local service name for database and OWB homes



Hands-on

- Use of OMB Plus to setup the environment
- How to integrate OWB with CDC
- How to use Pluggable Mapping to set defaults
- How to use Error Tables to capture errors
 - Set Operators
- How to load a Dimension using SCDs
- How to deploy objects using OMB Plus
- **BREAK**
- Match-Merge



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Setting up the environment



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Run OMB Plus

```
set ORACLE_HOME=C:\oracle\product\owb10gR2
```

```
cd %ORACLE_HOME%\owb\bin\win32
```

```
OMBPlus.bat <source> <arg1> <arg2> ... <argn>
```

- Or you can run commands in OMB Plus
- Note that directory paths are like Java - so '/' or '\\' in Windows
- You may need to unblock Windows firewall when prompted



Connect to repository

```
OMBCONNECT \  
owbrep/owbrep@$host:port:service \  
USE REPOSITORY 'owbrep' USE MULTIPLE_USER_MODE;
```



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Create a location

```
OMBCREATE LOCATION 'CDC_LOCATION' \  
SET PROPERTIES (TYPE, \  
                VERSION, CONNECTION_TYPE, \  
                USER, PASSWORD, \  
                HOST, PORT, SERVICE_NAME) \  
VALUES ('ORACLE_DATABASE', \  
        '10.2', 'HOST_PORT_SERVICE', \  
        'cdcsub', 'cdcsub', \  
        'host', 'port', \  
        '$service');
```



Other useful commands

```
[lindex $argv 0]
```

```
source
```

```
set OMBCONTINUE_ON_ERROR true;
```

```
set systemTime [clock seconds];
```

```
OMBCOMMIT/OMBROLLBACK
```



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Create a target

```
OMBINSTALL OWB_TARGET_USER stg/stg \  
DATA_TABLESPACE 'EXAMPLE' \  
INDEX_TABLESPACE 'EXAMPLE' \  
TEMPORARY_TABLESPACE 'TEMP' \  
USING OWB_REPOSITORY owbrep/owbrep \  
USING CREDENTIAL sys/sys_pw@host:port:service;
```



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Create a project

```
OMBCREATE PROJECT 'TEST';
```



Create a module

```
OMBCREATE ORACLE_MODULE 'MOD_CDC' \  
SET PROPERTIES (MODULE_TYPE) \  
VALUES ('DATA_SOURCE');
```

```
OMBALTER ORACLE_MODULE 'MOD_CDC' \  
ADD REFERENCE_LOCATION 'CDC_LOCATION' \  
SET AS DEFAULT;
```



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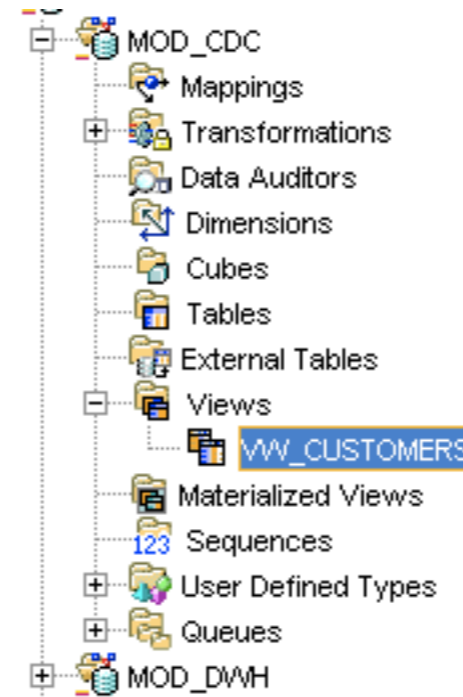
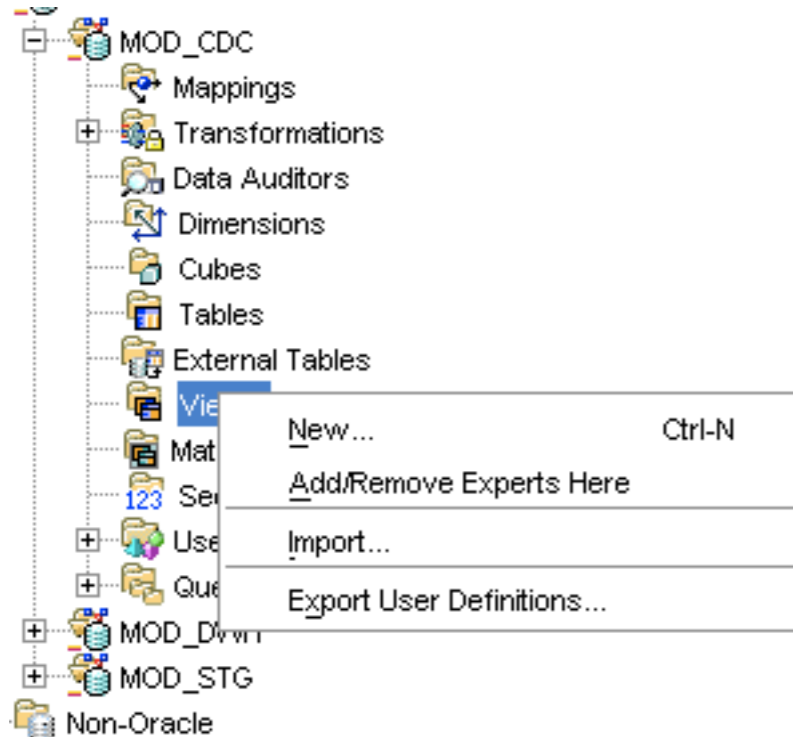
Loading data from CDC



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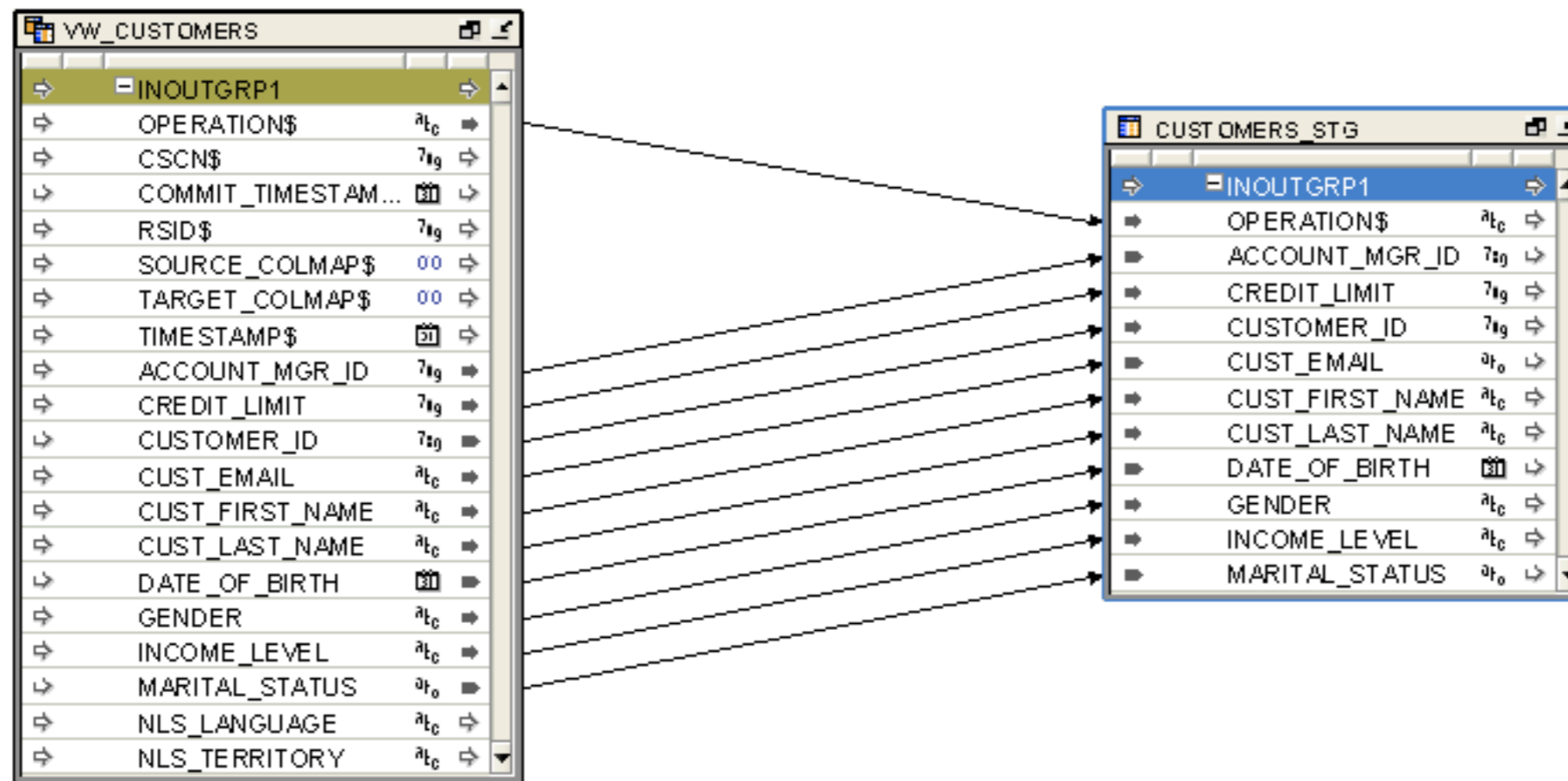
Import the CDC View

- First set the metadata location
- Then import the view



Create mapping

- New mapping in the STG module
- Create an UNBOUND table
- Copy the attributes from the source view



Create procedure to EXTEND window

```
BEGIN
```

```
    DBMS_CDC_SUBSCRIBE.EXTEND_WINDOW@CDC_DBLINK (  
        subscription_name => 'OE_SUB');
```

```
EXCEPTION
```

```
    WHEN OTHERS THEN  
        NULL;
```

```
END;
```



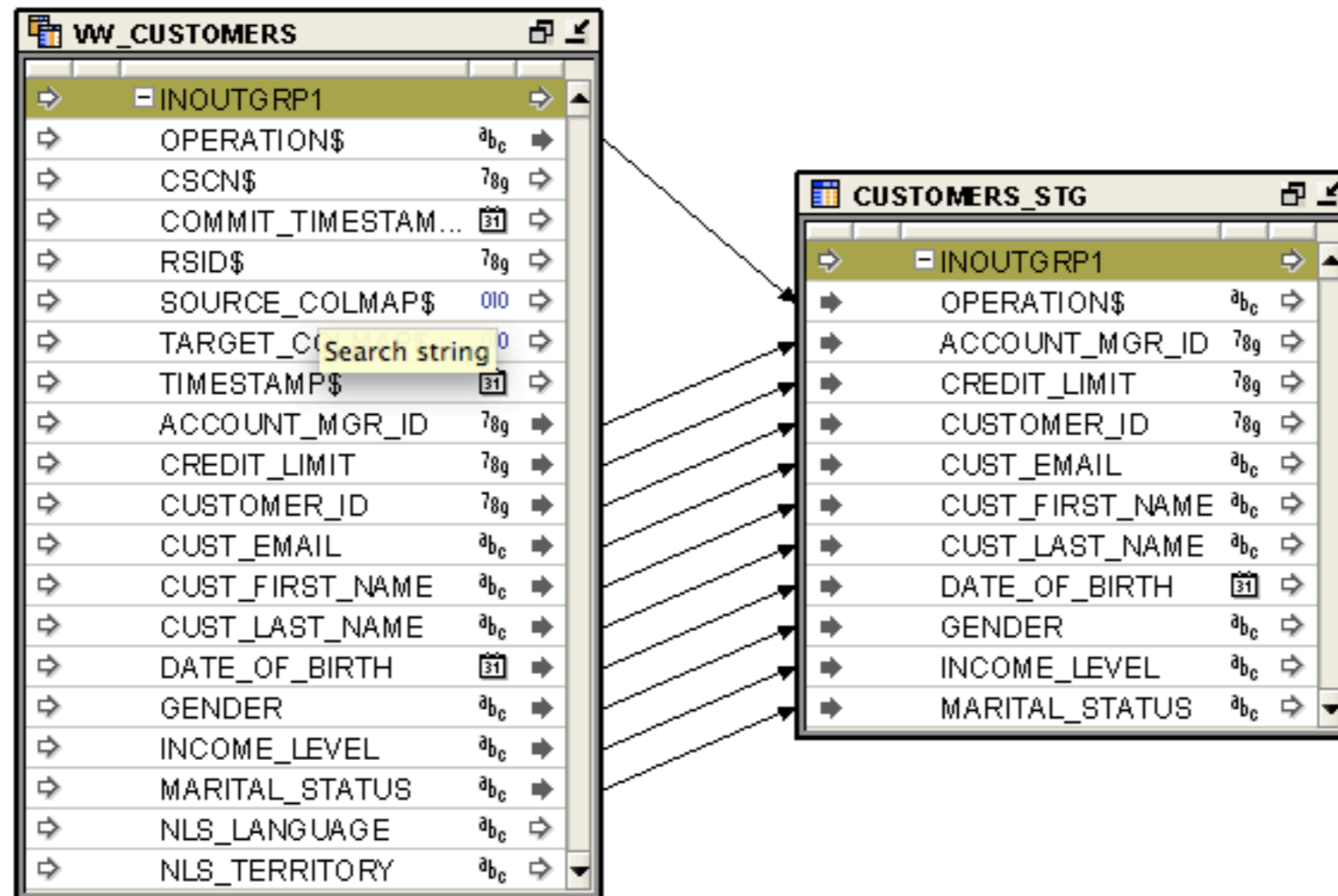
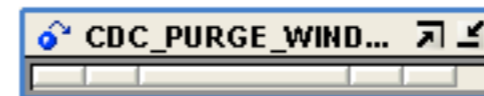
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Create procedure to PURGE window

```
BEGIN  
  
    DBMS_CDC_SUBSCRIBE.PURGE_WINDOW@CDC_DBLINK (  
        subscription_name => 'OE_SUB');  
  
    EXCEPTION  
        WHEN OTHERS THEN  
            NULL;  
  
END;
```



Add PRE and POST operators to mapping



Test

- If running on the same database change the hostname of the CDC location
- Deploy
- Change a field in the CUSTOMERS table
- Execute
- Check for data
- If the mapping has a LOADING type of INSERT you can re-run to check data isn't reloaded



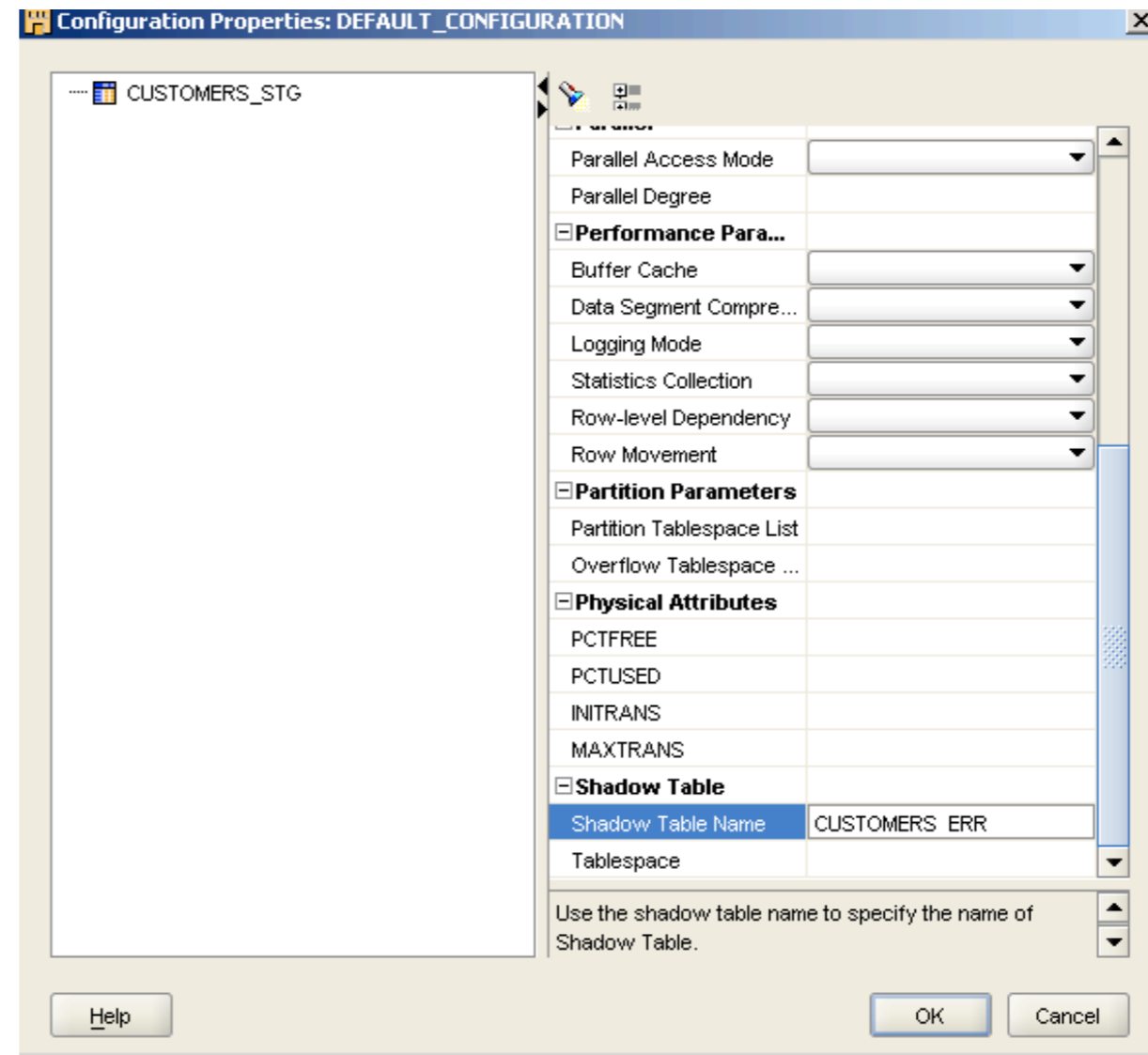
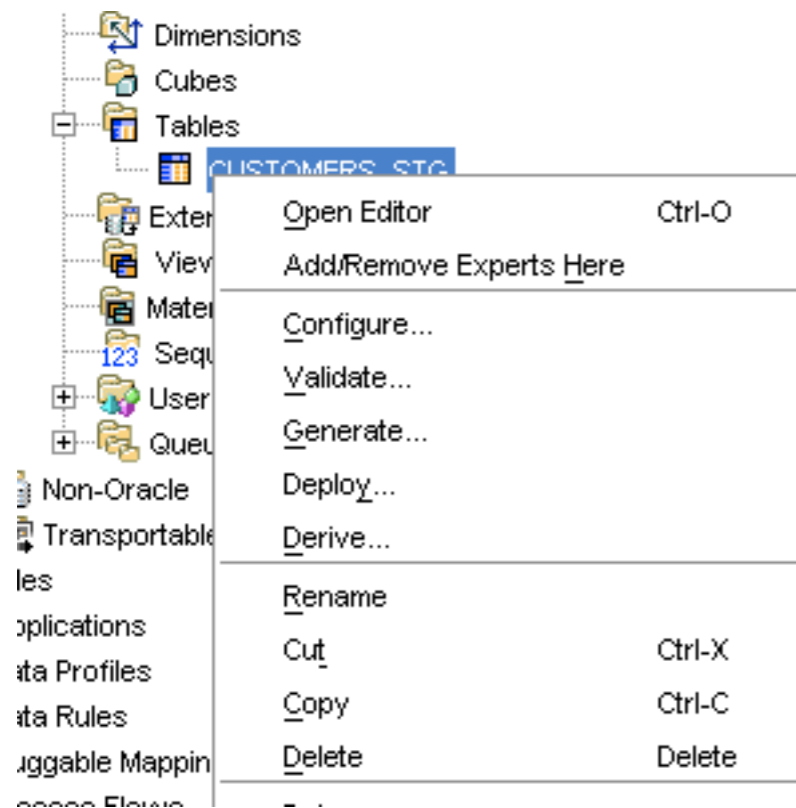
Logging Errors



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Configure the table

- Set the SHADOW TABLE property
- Set the GENDER field to NOT NULL



Synchronise the table in the Mapping

Synchronize CUSTOMERS_STG

Select repository object, direction, and strategies. Then click OK to synchronize CUSTOMERS_STG.

Repository object with which to synchronize:
/BIWA_JM/MOD_STG/CUSTOMERS_STG

Direction of synchronization:
 Inbound, from Table /BIWA_JM/MOD_STG/CUSTOMERS_STG to Table Operator CUSTOMERS_STG
 Outbound, from Table Operator CUSTOMERS_STG to Table /BIWA_JM/MOD_STG/CUSTOMERS_STG

Matching strategy: Match By Object ID

Synchronize strategy: Replace

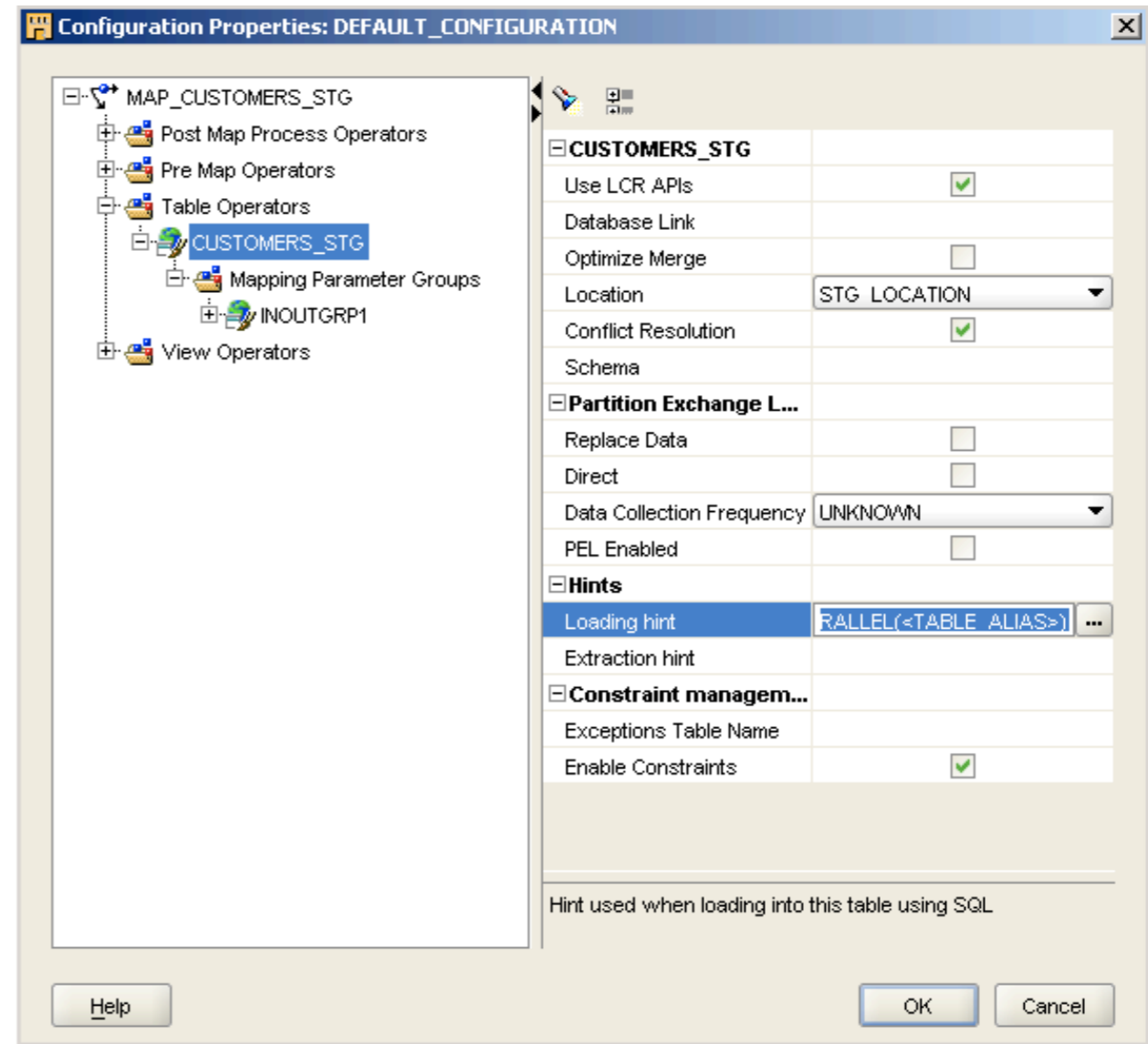
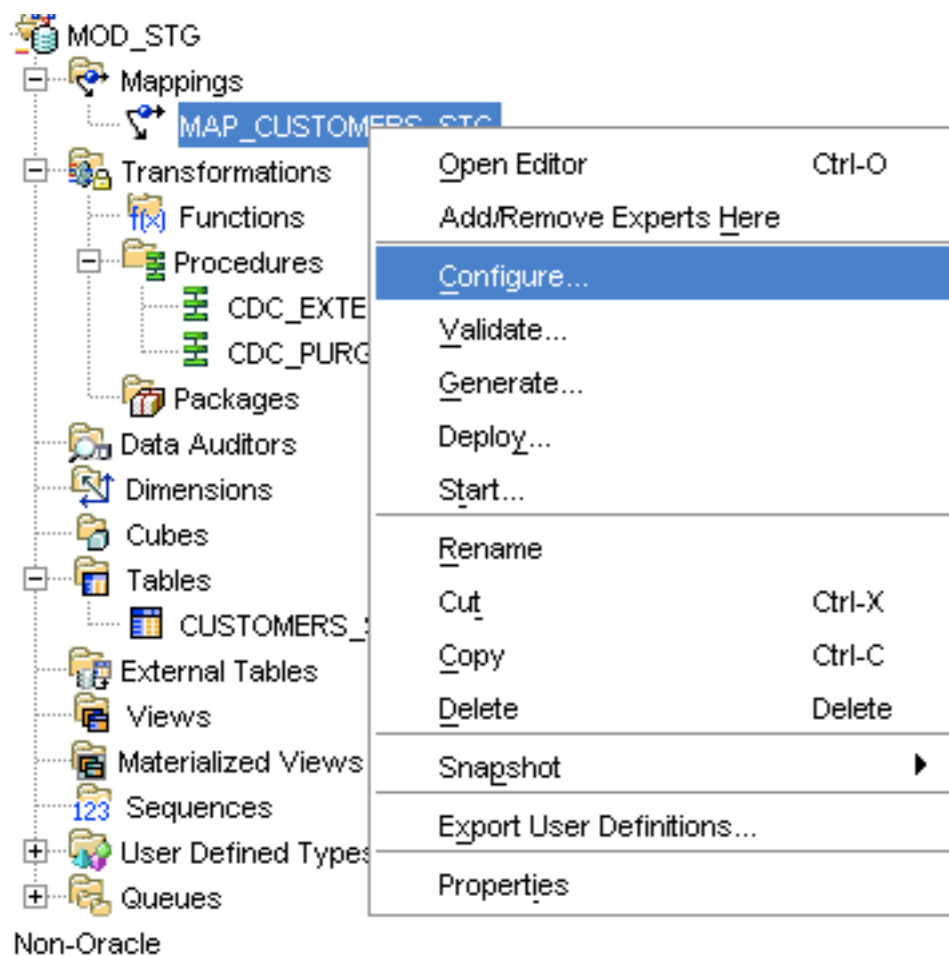
View Synchronization Plan

Help OK Cancel



Remove the APPEND hint from the TABLE Operator and make SET-BASED

- Configure the MAPPING



Test

- Redeploy TABLE and MAPPING
- Note the CUSTOMERS_ERR table
- Set the GENDER of a record to NULL
- Check the changes table
- Execute the mapping
- Check the CUSTOMERS_STG table
- Check the CUSTOMERS_ERR table



Deploying using OMB Plus



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Deployment

- Connect to Repository
- Connect to Control Centre
- Iterate through objects in a module
- Create deployment action plan
- Add objects to deployment plan
- Deploy



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Connect to control centre

```
OMBCONNECT CONTROL_CENTER;
```



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Iterate through objects

```
set tabList [ OMBLIST TABLES ];  
  
foreach tabName $tabList {  
  
    puts "Deploying table: $tabName";  
  
}
```



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Iterate through objects

```
set tabList [ OMBLIST TABLES ];  
  
foreach tabName $tabList {  
  
    puts "Deploying table: $tabName";  
  
}
```



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Create deployment plan

```
OMBCREATE TRANSIENT \  
DEPLOYMENT_ACTION_PLAN \  
'CREATE_TABLE_DEPLOY_PLAN';
```



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Add objects to deployment plan

```
OMBALTER DEPLOYMENT_ACTION_PLAN \  
'CREATE_TABLE_DEPLOY_PLAN' \  
ADD ACTION '$tabName' \  
SET PROPERTIES (OPERATION) VALUES ('CREATE') \  
SET REFERENCE TABLE \  
'/$v_owb_project/$modName/$tabName';
```



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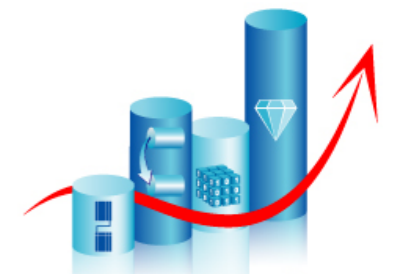
Deploy

```
OMBDEPLOY DEPLOYMENT_ACTION_PLAN \  
'CREATE_TABLE_DEPLOY_PLAN';
```



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END



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