

# 1.10.00 ETL Refactor installation

## Prerequisites:

- Before upgrading to v1.10.00, BI has to be on 1.09.09x version. The V9 ETL has to be run at least once after upgrading to 1.09.09x version.
- Inform TI before starting so they are aware of the changes, check disk space, server performance and system monitoring: [slateam@abslbs.com](mailto:slateam@abslbs.com) and [TI-Team@abslbs.com](mailto:TI-Team@abslbs.com)
- Upgrade ABSSOLUTE first (step0) - it's best to do it during the customer's night (ex: US customer's night would be EU morning), so it doesn't impact their performance on absolute.
- Make sure the time zone of the BI machine matches the absolute timezone; contact TI to change it if it's not the same

## Steps:

### Folder: /BI/Scripts/1.10.00 ETL Refactor

0. Upgrade ABSSOLUTE: upgrade absolute source schema to version 1.10.00 (install fct views, install new dwh\_dim views, new triggers, etc)
  - upgrade ABSSOLUTE: run `upgrade_absolute_1.10.00.sql` on ABSSOLUTE schema.
  - NOTE: DO THIS DURING THE EVENING OR NIGHT when the customer is not working, because it is creating some indexes on heavily used tables.
  - file: `0.run_steps_to_upgrade_absolute_1.10.00.txt` /BI/Scripts/1.10.00 ETL Refactor/ABSSOLUTE -> `upgrade_absolute_1.10.00.sql`
  - run compatibility views for the error views if it's the case (for LLG the compatibility version needs to be used for: `dwh_fct_wkly_customer_info` and `dwh_fct_wkly_custprod_info`)
  - Compile Invalid Objects
1. Export ABSDATAWAREHOUSE (v9) existing data and import the data into ABSDATAWAREHOUSE\_v10 (v10). The file 1.1.partial\_absdatawarehouse\_v10\_subset4.par displays the tables that will be skipped from the export/import process.
  - copy the file `1.1.partial_absdatawarehouse_v10_subset4.par` from /BI/Scripts/1.10.00 ETL Refactor /ABSDATAWAREHOUSE\_SCRIPTS\_FOR\_DIMKEY\_UPDATE to DATA\_PUMP\_DIR
  - DATA\_PUMP\_DIR = /u01/app/oracle/admin/ABS1/dpdump
  - check available free space on the disk: `df -h`
  - check the free tablespace
    - `select df.tablespace_name "Tablespace", totalusedspace "Used MB", (df.tablespace - tu.totalusedspace) "Free MB", df.tablespace "Total MB", round(100 * ((df.tablespace - tu.totalusedspace)/ df.tablespace))"Pct. Free" from (select tablespace_name, round(sum(bytes) / 1048576) TotalSpace from dba_data_files group by tablespace_name) df, (select round(sum(bytes)/(1024*1024)) totalusedspace, tablespace_name from dba_segments group by tablespace_name) tu where df.tablespace_name = tu.tablespace_name ;`
  - file: `1.2.load_altered_exp_imp_schema` to be executed from DATA\_PUMP\_DIR using `putty/winsstern`
2. Alter ABSDATAWAREHOUSE\_v10 user on the BI database; connect using a user with the sys privileges (that can create schema) in a command window
  - file: `2.alter_absdatawarehouse_v10.pdc`
  - compile invalid objects for ABSDATAWAREHOUSE\_v10
3. Create database links for ABSDATAWAREHOUSE\_v10 to have connectivity to v9 ABSDWHSTAGING and v9 ABSDATAWAREHOUSE. TI takes a dump of V9 schemas and imports it into new OAS machine.

Depending on the situation:

- create the db links on the localhost (new OAS server) - default scenario; so the dim\_key conversion converts the data for V10 on the same server and not over the network

- Check the ip and port number if v10 is on the different host than v9 located, and then run the following create db links:

- file: `3.create_database_link_org_locations.sql`

### 4. Upgrade ABSDATAWAREHOUSE\_v10

step 4a: upgrade ABSDATAWAREHOUSE\_v10 : run `4.upgrade_absdatawarehouse_1.10.00.sql` on ABSDATAWAREHOUSE\_v10 schema

- file: `4.run_steps_to_upgrade_absdatawarehouse_1.10.00.txt` /BI/Scripts/1.10.00 ETL Refactor/ABSDATAWAREHOUSE -> `4.upgrade_absdatawarehouse_1.10.00.sql`

step 4b: install package `ABS_DIR_UTILS_run_as_sys_user.sql`

- file: `/BI/Scripts/1.10.00 ETL Refactor/ABSDATAWAREHOUSE -> 4b.Create_Package_ABS_DIR_UTILS_run_as_sys_user.sql`
- file: `/BI/Scripts/1.10.00 ETL Refactor/SYS Give_access_to_ABSEXTERNALDATASOURCEDIR_run_as_sys_user.sql`
- if there is any error regarding ABSEXTERNALDATASOURCEDIR, create the physical directory on the disk; check that the path is the same like in the old server in `all_directories` for ABSEXTERNALDATASOURCEDIR and copy all csv files from old server to new server

step 4c: install packages

- install the packages on ABSDATAWAREHOUSE\_v10 schema in the order below
  - `LOAD_DATE_AND_TIME_DIMS.pck`
  - `LOAD_WAREHOUSE_V10.pck`
  - `LOAD_GLOBE4_DATE_AND_TIME_DIMS.pck` (used only at install time to populate the date dims, for customers with Globe only and not absolute)

- LOAD\_GLOBE4\_FACTS\_V10.pck
  - pack\_absencrypt\_wh.pck
  - update\_dimkey\_wh.pck
  - chk\_warehouse\_v10.prc
  - enable\_constraintsandindexes.prc
  - disable\_constraintsandindexes.prc
- Compile Invalid Objects
5. Drop indexes, check constraints and rebuild index to move indexes from ABS\_DATA to INDX tablespace on ABSDATAWAREHOUSE\_v10 schema in a Command Window
- file: 5.before\_update\_dim\_key
6. Create check views for v9 against v10 data comparison on ABSDATAWAREHOUSE\_v10 schema in a Command Window
- file: 6.create\_check\_views
  - Compile Invalid Objects
7. Update data warehouse keys to have the same key values as in absolute
- Execute via sql plus. Copy the files below to /home/oracle and rename the files to: update\_facts.sql, update\_globe4\_facts.sql, update\_dim.sql
    - file: 7.1.update\_facts.sql rename to update\_facts.sql
    - file: 7.2.update\_globe4\_facts.sql rename to update\_globe4\_facts.sql
    - file: 7.3.update\_dim.sql rename update\_dim.sql
    - sqlplus -s ABSDATAWAREHOUSE\_V10/ABSDATAWAREHOUSE\_V10@ABS1 @update\_facts & sqlplus -s ABSDATAWAREHOUSE\_V10/ABSDATAWAREHOUSE\_V10@ABS1 @update\_globe4\_facts.sql & sqlplus -s ABSDATAWAREHOUSE\_V10/ABSDATAWAREHOUSE\_V10@ABS1 @update\_dim.sql &
    - Wait for each process to finish and run them sequentially in order; Check the v\_log to check for any errors. On OCI env, it takes aprox 15 min for 10GB of data.
    - DO NOT RUN update\_dim.sql more then once, because the check DIMKEYS\_UPDATED in the settingspertable is not implemented in the load\_warehouse\_v10 package.
8. Re-create the indexes after the dimkey\_update:
- file: 8.after\_update\_dim\_key.sql
9. Update ETL Timestamp in ABSDATAWAREHOUSE\_V10 settings table
- file: 9.update\_etl\_timestamp\_dwh.sql
10. Create programs and scheduler jobs for daily, hourly, 10 minutely, 5 minutely and minutely loads
- file: 10.create\_scheduler\_jobs
  - Check and adjust the repeat\_interval according to the customer
11. Unlock table stats and gather schema stats
- file: 11.unlock\_tables\_and\_gather\_stats.sql
12. Run the check scripts (after the dim key conversion) run job CHK\_WAREHOUSE\_V10\_JOB
- check v\_log: select \* from v\_log where src = 'X' and severity >1;
13. Upgrade to 1.10.05. Run the v1.10.05 ETL load directly.
- check abssolute\_last\_etl\_timestamp.settings
  - run job CALL\_LOAD\_ETL\_DAILY job. Check v\_log for ETL logging times and messages.
  - Re-run the checks after the ETL load has finished (V9 and V10 should be run simultaneously - 1h diff when the abssolute schema is not updated)
    - Make sure that you compare the checkscript results (step no9) after both v9 and v10 ETL has run at the same time.
    - select \* from v\_log where src = 'X' and severity >1;
14. Disable the scheduled jobs and contact TI to schedule the Unix scripts for ETL and cache purging.
15. Check real time views mechanism: [BI Realtime Mechanism](#)
- Drop and re-create the programs to modify the program\_action from ABSDATAWAREHOUSE to ABSDATAWAREHOUSE\_V10. Check also the program actions for the jobs.

change from:

```

begin
  sys.dbms_scheduler.create_program(program_name => 'ABSDATAWAREHOUSE_V10.RESET_REALTIME_DATA_TABLES_PROG',
    program_type => 'STORED_PROCEDURE',
    program_action => 'ABSDATAWAREHOUSE.RESET_REALTIME_DATA_TABLES',
    number_of_arguments => 0,
    enabled => true,
    comments => "");
end;
/

```

change to:

```

begin
  sys.dbms_scheduler.create_program(program_name => 'ABSDATAWAREHOUSE_V10.RESET_REALTIME_DATA_TABLES_PROG',
    program_type => 'STORED_PROCEDURE',
    program_action => 'ABSDATAWAREHOUSE_V10.RESET_REALTIME_DATA_TABLES',
    number_of_arguments => 0,
    enabled => true,
    comments => "");
end;
/

```

!!! After running the file upgrade\_absdatawarehouse\_1.10.01.sql in ABSDATAWAREHOUSE\_v10, it will add INSERT\_TIME\_STAMP, UPDATE\_TIME\_STAMP to a number of fact tables. The new columns are not present in UPDATE\_DIM\_KEY package, so it will give an error.

### Folder: /BI/Scripts/1.10.01 merchandise requirements

0. Upgrade ABSOLUTE upgrade\_abssolute\_1.10.01.sql. Compile Invalid Objects

1. ABSDATAWAREHOUSE\_v10

- upgrade\_absdatawarehouse\_1.10.01.sql
- load\_warehouse\_v10.pck
- LOAD\_PRESENTATIONCATALOGTRANS.pck
  - the translation key file: do this step even though customer is EN language only
    - copy to the translation key file presentationcatalog\_1.10.01.csv to ABDUMPDIR = /u02/oracle/dumpfiles

```

declare
  result number;
begin
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONKEYFILE('1.10.01');
end;
/

```

select \* from presentationcatalog;

- for other languages (Dutch/French/German/Danish)
  - copy presentationcatalog\_da\_1.10.01.csv, presentationcatalog\_de\_1.10.01.csv, presentationcatalog\_fr\_1.10.01.csv, presentationcatalog\_nl\_1.10.01.csv) to ABDUMPDIR = /u02/oracle/dumpfiles

```

declare
  result number;
begin
  -- Call the function
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONFILE('1.10.01', 'nl');
end;
/

```

select \* from presentationcatalog\_desc;

- A restart of BI Services is required to see the translated data in BI
- delete the files from ABDUMPDIR after the data is loaded
- Compile Invalid Objects
- check abs\_subjectarea\_visibility for duplicates:
  - select subjectareaname, count(\*)
    - from abs\_subjectarea\_visibility
    - group by subjectareaname
    - having count(\*)>1;
- run the ETL
- Deploy 1.10.01.rpd

**Folder: /BI/Scripts/1.10.02 fields added for fact\_deliveries**

0. Upgrade ABSSOLUTE upgrade\_abssolute\_1.10.02.sql + generatedeptcost.prc =====>Compile Invalid Objects

1.ABSDATAWAREHOUSE\_V10

- upgrade\_absdatawarehouse\_1.10.02.sql
- LOAD\_WAREHOUSE\_V10.pck
- Compile Invalid Objects

Run the ETL.

Deploy 1.10.02.rpd

**Folder: 1.10.03 fact\_revenue\_route\_aggr performance issue**

0. Upgrade ABSSOLUTE: upgrade\_abssolute\_1.10.03.sql + generatedeptcost.prc =====>Compile Invalid Objects

1. ABSDATAWAREHOUSE\_V10

- upgrade\_absdatawarehouse\_1.10.03.sql
- LOAD\_WAREHOUSE\_V10.pck
- LOAD\_PRESENTATIONCATALOGTRANS.pck for translations. A restart of BI Services is required to see the translated data.
  - the translation key file: do this step even though customer is EN language only
    - copy to the translation key file presentationcatalog\_1.10.03.csv to ABDUMPPDIR = /u02/oracle/dumpfiles

```
declare
  result number;
begin
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONKEYFILE('1.10.03');
end;
```

/

select \* from presentationcatalog;

- for other languages (Dutch/French/German/Danish)
  - copy presentationcatalog\_da\_1.10.03.csv, presentationcatalog\_de\_1.10.03.csv, presentationcatalog\_fr\_1.10.03.csv, presentationcatalog\_nl\_1.10.03.csv) to ABDUMPPDIR = /u02/oracle/dumpfiles

```
declare
  result number;
begin
  -- Call the function
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONFILE('1.10.03', 'nl');
end;
```

/

select \* from presentationcatalog\_desc;

- A restart of BI Services is required to see the translated data in BI
- delete the files from ABDUMPPDIR after the data is loaded
- Compile Invalid Objects

2. Run the ETL

3. Deploy 1.10.03.rpd.

This rpd contains security restrictions for app role ABSPlantUserRole. This is not yet implemented at any customer, but if it is required by the customer, the following steps to implement it.

The rpd filters don't have any effect if the app role is not created.

1. Create group in console: ABSPlantUser

<b>Name:</b>	ABSPlantUser
<b>Description:</b>	ABS Plant User

2. Create app role in EM: ABSPlantUserRole. Assign ABSPlantUserRole app role to ABSPlantUser console group.

**Application Stripe** obi

**Role Name** ABSPlantUserRole

**Display Name** ABS Plant User Role

**Description** ABS Plant User Role

**Members**

An application role may need to be mapped to users or groups defined in enterprise LDAP serv

View ▾ + Add ✕ Delete... 🗑 Detach

Name	Type	Display Name
ABSPlantUser	Group	ABSPlantUser

District Managers is used by PCO, it also has restrictions in the rpd. The actual app role is not created in EM, so this functionality is not enabled for PCO - BI-1152

**Folder: /BI/Scripts/1.10.04 created\_webuser\_in\_contacts**

0. Upgrade ABSOLUTE: upgrade\_absolute\_1.10.04.sql ==>Compile Invalid Objects

1. ABSDATAWAREHOUSE\_V10

- bi\_exec\_ddl.prc
- upgrade\_absdatawarehouse\_1.10.04.sql
- LOAD\_WAREHOUSE\_V10.pck
- Translations:
  - the translation key file: do this step even though customer is EN language only
    - copy to the translation key file presentationcatalog\_1.10.04.csv to ABDUMPDIR = /u02/oracle/dumpfiles

```
declare
  result number;
begin
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONKEYFILE('1.10.04');
end;
```

```
/

select * from presentationcatalog;

▪ for other languages (Dutch/French/German/Danish)
  • copy presentationcatalog_da_1.10.04.csv, presentationcatalog_de_1.10.04.csv, presentationcatalog_fr_1.10.04.csv,
  presentationcatalog_nl_1.10.04.csv) to ABDUMPDIR = /u02/oracle/dumpfiles
```

```
declare
  result number;
begin
  -- Call the function
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONFILE('1.10.04', 'nl');
end;
```

```
/

select * from presentationcatalog_desc;

▪ A restart of BI Services is required to see the translated data in BI
▪ delete the files from ABDUMPDIR after the data is loaded
• Compile Invalid Objects
```

2. Run the ETL

3. Deploy 1.10.04.rpd.
4. Restart BI services to see the translations correctly.

**Folder: /BI/Scripts/1.10.05**

0. Upgrade ABSSOLUTE: upgrade\_abssolute\_1.10.05.sql =====>Compile Invalid Objects

1. ABSDATAWAREHOUSE\_V10

- upgrade\_absdatawarehouse\_1.10.05.sql
- LOAD\_WAREHOUSE\_V10.pck
- Translations:
  - the translation key file: do this step even though customer is EN language only
    - copy to the translation key file presentationcatalog\_1.10.05.csv to ABDUMPDIR = /u02/oracle/dumpfiles

```
declare
  result number;
begin
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONKEYFILE('1.10.05');
end;
```

/

select \* from presentationcatalog;

- for other languages (Dutch/French/German/Danish)
  - copy presentationcatalog\_da\_1.10.05.csv, presentationcatalog\_de\_1.10.05.csv, presentationcatalog\_fr\_1.10.05.csv, presentationcatalog\_nl\_1.10.05.csv) to ABDUMPDIR = /u02/oracle/dumpfiles

```
declare
  result number;
begin
  -- Call the function
  result := LOAD_PRESENTATIONCATALOGTRANS.LOAD_TRANSLATIONFILE('1.10.05', 'nl');
end;
```

/

select \* from presentationcatalog\_desc;

- A restart of BI Services is required to see the translated data in BI
  - delete the files from ABDUMPDIR after the data is loaded
- Compile Invalid Objects

2. Run the ETL
3. Deploy 1.10.05.rpd.
4. Restart BI services to see the translations correctly.

**Folder: /BI/Scripts/1.10.05a**

0. Upgrade ABSSOLUTE: upgrade\_abssolute\_1.10.05.sql =====>Compile Invalid Objects

1. ABSDATAWAREHOUSE\_V10

- upgrade\_absdatawarehouse\_1.10.05.sql
- LOAD\_WAREHOUSE\_V10.pck
- Compile Invalid Objects

2. Run the ETL
3. Deploy 1.10.05a.rpd