FAQ 1-CB444W - How to debug EDW WKEYS mapping ORA-00001: unique constrain errors.

This note gives information on how to debug any EDW \*\*\_WKEYS mapping that is getting the error below.

We will give instructions on how to create a SQL statement to see the rows causing issues against the

primary key of the WTT\_\*\*\*\_WKEYS table, when trying to be inserted by the \*\*\*\_WKEYS mapping.

Then you can look into EDW \*\*\*\_INPUT souce package/ODS/banner to see why this is duplicated data is happening.

EDW8.1.1 example used in this FAQ:

EDW\_ADMS\_APPL\_WKEYS         Error: Mapping Failed (Next error)

EDW\_ADMS\_APPL\_WKEYS         ORA-00001: unique constraint (EDWSTG.PK\_WTT\_ADMISSIONS\_APPL\_WKEYS) violated

Solution:

Create a query to find the duplicate value.

1.            Get the column name of the primary key of the WTT\_\*\*\*\_WKEYS table.

(Column alias name from the SELECT clause of our test SQL statement).

                - In this example "PK\_WTT\_ADMISSIONS\_APPL\_WKEYS" is defined with:

        MULTI\_SOURCE\_KEY

        ACADEMIC\_TIME\_KEY

        PERSON\_UID

        APPLICATION\_NUMBER\_KEY

      - You can use the query below to find the column name of the PK (modify the index\_name value to the name of the

        primary key with the violation).

         select column\_name from dba\_ind\_columns where index\_name = 'PK\_WTT\_ADMISSION

2.            Open the package body "...\_WKEYS" in this example "EDW\_ADMS\_APPL\_WKEYS", copy the FROM/WHERE clause of the

CURSOR "JOINER\_c". (Will be the FROM and WHERE clause of our test SQL statement).

3.    Find the source column of the alias from step 1 for the select statement; add them to our test SQL statement.

                - Open OWB client "Design center".

                - Open the wkeys mapping in the mapping editor.

                  For example double click on "EDW\_ADMS\_APPL\_WKEYS" from "EDW\_STUDENT->Databases->Oracle->Stage->Mappings"

      - Expand the "JOINER" and the "WTT\_\*\*\*\_WKEYS" object on the right of the screen. In this example "WTT\_ADMISSIONS\_APPL\_WKEYS".

      - Look at the arrow and you will see the source of the columns of the step1.

                                Example (see the alias 4, the source column name is different than alias name):

        MULTI\_SOURCE\_KEY  -- populates --> MULTI\_SOURCE\_KEY

        ACADEMIC\_TIME\_KEY -- populates --> ACADEMIC\_TIME\_KEY

        PERSON\_UID -- populates --> PERSON\_UID

        APPLICATION\_NUMBER -- populates --> APPLICATION\_NUMBER\_KEY

4.    Add the "count(\*)" to the select statement.

         Example of select statement:

         select MULTI\_SOURCE\_KEY MULTI\_SOURCE\_KEY,

                ACADEMIC\_TIME\_KEY ACADEMIC\_TIME\_KEY,

                PERSON\_UID PERSON\_UID,

                APPLICATION\_NUMBER APPLICATION\_NUMBER\_KEY,

                count(\*)

4.            Add the “group by” clause with all the primary key columns.

5.            Add the “having count(\*) > 1” section to find the duplicated record.

6.  Before executing the query the table WTT\_\*\*\*\_WKEYS should be empty, if not please delete the content.

Note 1:

Example of SQL statement for debuging "EDW\_ADMS\_APPL\_WKEYS" is attached to this FAQ.

Read before executing the query.

Verify that the table WTT\_\*\*\*\_CLEAN is not empty, otherwise your test query will always return nothing.

Even if the job failed on the mapping “EDW\_ADMS\_RECR\_WKEYS” the Job execution will still continue

(Only this mapping didn’t complete). This means that the mapping “EDW\_ADMS\_RECR\_FACT\_INSERT” have truncated with the

post\_Operator (PURGE\_EDW\_STAGE\_TABLES) the \_INPUT \_CLEAN \_WKEYS table.

If they are please run the mapping that follow in sequence individually from "Schedule Banner EDW Operational Mappings" -> "Run A Single Warehouse Mapping"

(The dimension mapping can be skipped because the KEY record already exists):

EDW\_ADMS\_RECR\_INPUT

EDW\_ADMS\_RECR\_CLEAN

EDW\_ADMS\_RECR\_WKEYS (this would reproduce the error)

Stop at this point to debug and when the mapping is fixed you only need to run:

EDW\_ADMS\_RECR\_FACT\_INSERT (remember that this mapping will clean up the staging tables).

CAUTION: It is important to note that the INPUT mappings run in L (load) mode by default, so this technique in Note 1 is only advised if the mapping doesn't take long, or you have implemented the pull-down parameter prompts. The Admin Ui pull-down parameter prompts can be added as follows:

The SQL to create those drop-downs for the Run A Single Map job:

-- Execute the following PL/SQL calls as IA\_ADMIN in your target instance of Banner ODS:

EXEC MGKTLIB.P\_INS\_MTVPARM\_PARAMETER('MAPGROUP-EDW-OP',1,'RUN\_SINGLE\_MAP','MAPNAME' , 'Mapping to Run' , 'SELECT', '' , 'select distinct mtvparm\_desc from mtvparm where mtvparm\_internal\_code\_group = ''ETL MAP PACKAGE'' order by mtvparm\_desc', 'N');

EXEC MGKTLIB.P\_INS\_MTVPARM\_PARAMETER('MAPGROUP-EDW-OP',2,'RUN\_SINGLE\_MAP','ACADEMIC\_YEAR\_IN', 'Academic Year:' , 'SELECT', '-', 'select ''ALL'' || '' - '' || ''All Academic Years'' sel\_year\_code from dual UNION select distinct year\_code || '' - '' || year\_code\_desc sel\_year\_code from mgt\_year\_type\_definition where year\_type = ''ACYR'' order by sel\_year\_code desc', 'N');

EXEC MGKTLIB.P\_INS\_MTVPARM\_PARAMETER('MAPGROUP-EDW-OP',2,'RUN\_SINGLE\_MAP','PROCESS\_IND\_IN' , 'Process Indicator:', 'SELECT', '-', 'select ''L - (L)oad '' from dual UNION select ''R - (R)efresh '' from dual', 'N');

EXEC MGKTLIB.P\_INS\_MTVPARM\_PARAMETER('MAPGROUP-EDW-OP',3,'RUN\_SINGLE\_MAP','AID\_YEAR\_IN' , 'Aid Year:' , 'SELECT', '-', 'select ''ALL'' || '' - '' || ''All Aid Years'' sel\_year\_code from dual UNION select distinct year\_code || '' - '' || year\_code\_desc sel\_year\_code from mgt\_year\_type\_definition where year\_type = ''AIDY'' order by sel\_year\_code desc', 'N');

---

Note 2:

If running the mapping "\*\*\_INPUT" individually doesn't select any record you can

follow this logic:

-Disable the FACT\_INSERT mapping of running part of the star load/refresh job. It can be done by the MTVPARM entries for debugging.

- From the admin UI page click on the tab "Options", than select "Set Up Parameters"

- In the first drop-down select "ETL MAP PACKAGE" and click on the cascade link under it.

- In the second drop-down select the star in question with the issue (example "LOAD\_EDW\_STUDENT\_COHORT")

- To disable the EDW\_\*\*\*\_FACT\_INSERT mapping of running in the job execution click on the description and change the name of it to some name that has no corresponding mapping.

- To enable the EDW\_\*\*\*\_FACT\_INSERT mapping of running in the job execution, copy the Internal Code 2 in the Description and Save.

Last resort action:

- Run the DDL statement in "NoAction (purge\_edw\_stage\_tables).sql" to make the procedure

"purge\_edw\_stage\_tables" do nothing when called.

- Run the complete job with the unique constraint error.

                - By example: "Load/Refresh Admissions Application Star" for the EDW\_ADMS\_APPL\_WKEYS

        unique contraint error.

- Run the DDL statement in "Orig (purge\_edw\_stage\_tables).sql" to put the procedure back to it's

original state.

- The table WTT\_\*\*\*\_CLEAN should not be populated with data and you can run the SQL from the

solution of this FAQ.