Activation of CDS views

Symptom

After system upgrade, check in DB02->Diagnostics->Missing Tables and Indexes, you find many DDL SQL views are listed as "Objects missing in the database":

You try to click the "Create on DB" button in Action column in DB02, or reactivate the view in SE11, but finished with error.
For some view, it may return result as executed successfully, however, if you go to SE11 to check the object again, it still gives warning that this view is not in the database.

Keywords

Objects missing in the database, DDL SQL view, DB02

Solution

If in SE11 it's a DDL SQL view type, remember it should NOT be activated in SE11/SE14, but with report RUTDDLSACT.

<1> Those DDL SQL views are probably missing due to ignoring any error during upgrade or a bug.

Check whether there is any activation error ignored during upgrade, or the upgrade tool has prompted problems in phase like 
RUN_RUTDDLSCREATE_TRANS(LONGPOST.LOG):
A3PEDDU 705 Unknown message with "DDL Source" "XXXXXX" " " "

Run report RUTDDLSACT to activate those DDL Sources. After this, click the Refresh button in DB02.

If there is still any DDL SQL view marked as missing in the database, run report RUTDDLSACT to activate each one. In case of activation error, search SAP Note for error message or the view's name.

You can also use the report ZRUTDDLSACT as attached in note 2023690, which is updated as soon as a new improvement is available.

<2>. For views like ESJIFIDUNAREA, if you check in SE11 menu->View->Check, the following warning displays:
View ESJIFIDUNAREA: at least one base object is a pooling or cluster table
This is not supported on DB ORACLE; ESJIFIDUNAREA will not be created on database or
View ESJIFIDUNAREA: At least one base view is external view (not supported on DB )
This is not supported on DB ADABAS D; ESJIFIDUNAREA will not be created on database

These views that could not be created in the database due to their definition are concerned. This is handled in the corresponding application software, and the views therefore do not need to be reported as missing. You need to apply note #2140827.

Additional information:

#2023690 - CDS views are inactive
#2086899 - Upgrade phase MAIN_SHDRUN/ACT_UPG returns error messages

For SAP_BASIS SP level between 740 SP5-7, below are the most popular notes on activation issue:

#2078504 - DDL source cannot be activated: Base object, view entity , is inconsistent; there is no SQL view for it
#2033228 - Activation log shows errors for missing views without other error
#2016246 - Arithmetic expressions in DDL sources result in type overflow
#2076585 - Arithmetic expressions in DDL source result in type overflow
#1991915 - SFIN table transformations in CDS views: Error during execution in single-system mode
#2005370 - CDS views: Key fields not copied from DDL source

For SAP_BASIS SP level equal or higher than 740 SP8, below are the most popular notes on activation issue:
#2164430 - CDS views SEPM_SDDL_SO_JOIN* not activated
#2150018 - CDS views missing from database
#2170273 - Deletion of columns from CDS views leads to problems for users that contain UNION or UNION ALL
#2160038 - Error message during activation: View cannot be deleted from the database
#2123430 - CDS views missing from database after activation
#2153150 - DDL source is not active due to missing base table include fields

You should also take a look at below notes for database dependent issue:

Sybase:
#2013665 - SYB: CDS view is not generated
#2071190 - SYB: CDS VIEW overflow in the arithmetic expression
#2201556 - SYB: Nestinglevel of functions too small

MS SQL:
#2125387 - Activation of CDS view aborts on MSS

ORACLE:
#2063612 - Generation of DDL statements for CDS views with parameters
#2063156 - Incorrect display of error messages in activation log for activation of CDS view

DB2/4/6:
#2026921 - IBM i: SQL0104 during activation of CDS views
#2025912 - DB6: CDS views cannot be activated due to "LOGGED" keyword

MaxDB:
#2137905 - ABAP CDS: SELECT on CDS view returns sqlcode -8006 and sqllrettext "Data types must be compatible"
#2169157 - ABAP CDS: CDS view with RIGHT/LEFT function
#2137955 - ABAP CDS: CDS view with CASE statement without ELSE branch