

The Concept of Editioning in R12.2.4, and what it means to developers

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Starting with R12.2.x, there are two “editions” in the database. One is the RUN edition which is what online applications are running off of at any given time, and the other is a PATCH edition which is used for online patching, including migrating custom code. Refer to Metalink note 1577661.1 for detailed information on editions. Below is a summary of what a developer will need to understand at a minimum in using the editions correctly.

Always develop in the RUN edition in the source (development) environment. While migrating code to the next instance (target), we need to migrate code into the PATCH environment of the target instance. To enable the PATCH environment in target, the DBAs first need to prepare the target instance via prepare adop phase. Once all migrations have been done into the PATCH edition of the target instance, the DBAs then need to do a cutover, which will copy the PATCH instance over to the RUN edition at both the file system and database levels.

Making code 12.2.4 compliant from a developer standpoint: Below are the main areas where development will be affected. In the source instance (DEV), always develop in the RUN edition. Refer to Metalink note 1577661.1 for more details, but below are the main steps with an example:

1. **Tables:** Tables cannot be migrated using a DDL (create table statement) anymore into the target instance even though that is how they were created in the source instance. Below is an example with detailed steps for creating and migrating a table:

In the source instance (DEV), let us assume the custom schema where custom objects are created is named “XXBEF”:

```
(a) Login as XXBEF:
create table XXBEF_TEST2
(col1 VARCHAR2(50),
col2 VARCHAR2(50));
```

At this point, database objects look like this:

Owner	Object Type	Object Name
XXBEF	Table	XXBEF_TEST2

```
(b) Login as APPS and run:
exec ad_zd_table.upgrade('XXBEF', 'XXBEF_TEST2')
```

This step will create an editioning view and will automatically create a synonym for the object in the APPS schema. At this point, database objects will start to look like this:

Owner	Object Type	Object Name
XXBEF	Table	XXBEF_TEST2
XXBEF	View	XXBEF_TEST2#
APPS	Synonym	XXBEF_TEST2

Note the upgrade utility created a view, which is called the editioning view and has “#” at the end. It also created a synonym in the APPS schema, which is based on the editioning view.

Note: DO NOT include a synonym or grant creation script in any of your DDLs. Also always only use the APPS synonym in all your code that references the object (so XXBEF.XXBEF_TEST2 is wrong, XXBEF_TEST2 is correct).

(c) You can check if the step above created your editioning view successfully:

```
$AD_TOP/sql/ADZDSHOWEV.sql  
Pass: XXBEF_TEST2
```

The editioning view will have “#” at the end, and is based on the table owned by the custom schema.

(d) Next we need to extract the database definition from the source instance (still DEV), which works much like extracting an ldt for FNDLOAD objects:

However, at the time of writing this document, due to a limitation in 12.2.4 at least one row should be inserted into the table before extraction works.

```
Login as APPS:  
insert into XXBEF_TEST2 (col1, col2) values ('val1', 'val2');  
commit;
```

Now do the extract by logging into the Unix/Linux server:

```
$FND_TOP/bin/xdffgen.pl apps/apps@oebstdev XXBEF_TEST2
```

This will create a file “xxbef_test2.xdf”, which holds the table definition (not the data, just the structure).

Now this xxbef_test2.xdf becomes the source for migrating to the target instance.

Note: The XDF file will also contain definitions for any indexes and sequences that are used by the table, so you will want to create these on the table before you run ad_zd_table.upgrade. It has been confirmed with Oracle (SR# 3-9796546451) that triggers are NOT pulled into the xdf extract. Therefore, to migrate triggers, the steps listed under the “Triggers” section must be undertaken.

(e) Login to the **target** instance **in the PATCH edition (not run)** and place the file xxbef_test2.xdf on the Unix/Linux server.

Run the following:

```
$FND_TOP/bin/xdfcmp.pl xxbef/xxbef@\$TWO\_TASK $FND_TOP/patch/115/xd/xxbef_test2.xdf  
apps/apps
```

This step migrates the table (including indexes and sequences) to the target instance.

2. **Note for creating Triggers:** Create triggers on the editioning view (with # at the end), not on the table.

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