# **How to migrate data using LAMISPlus Talend ETL Tool**

Go to the LAMISPlus Talend ETL repository and download the latest ETL tool. The link to the ETL tool is <https://github.com/lamisplus/LAMISPlus-2.0-etl-tools>. Once you have successfully cloned the ETL tool, you can now start the data migration. It is mandatory to prepare the database and start with patient\_person data.

## **Follow these steps for a successful migration.**

**Step 1:** Preparing the database; Run these queries on the Source (LAMIS3). This allows us query from multiple databases.

**Note: Change parameters in red**

1. CREATE EXTENSION "uuid-ossp";
2. CREATE EXTENSION dblink;
3. SELECT dblink\_connect('host=localhost user= LAMIPlus\_USER password= LAMISPlus\_PASSWORD dbname= LAMISPlus\_DB');
4. CREATE FOREIGN DATA WRAPPER postgres VALIDATOR postgresql\_fdw\_validator;
5. CREATE SERVER lamis FOREIGN DATA WRAPPER postgres OPTIONS (hostaddr '127.0.0.1', dbname 'LAMISPlus\_DB');
6. CREATE USER MAPPING FOR postgres SERVER lamis OPTIONS (user 'LAMISPlus\_USER', password 'LAMISPlus\_PASSWORD');
7. SELECT dblink\_connect('lamis');

**Step 2:** Preparing the database; Run these queries on the Sink (LAMISPlus). This allows us query from multiple databases.

**Note: Change parameters in red**

1. CREATE EXTENSION dblink;
2. SELECT dblink\_connect('host=localhost user= LAMIS3\_USER password= LAMIS3\_PASSWORD dbname= LAMIS3\_DB');
3. CREATE FOREIGN DATA WRAPPER postgres VALIDATOR postgresql\_fdw\_validator;
4. CREATE SERVER lamis FOREIGN DATA WRAPPER postgres OPTIONS (hostaddr '127.0.0.1', dbname 'LAMIS3\_DB');
5. CREATE USER MAPPING FOR postgres SERVER lamis OPTIONS (user 'LAMIS3\_USER', password 'LAMIS3\_PASSWORD');
6. SELECT dblink\_connect('lamis');

**Step 3:** Install LAMIS+ and check if your facility datim id is setup, so that the ETL will use the datim id in the base\_organisation\_unit\_identifier table. To validate if datim id is setup run this query on the sink (LAMISPlus)–

SELECT facility.id,

facility.name,

orgunit.name as orgunit\_name,

oid.code as datim\_code

FROM base\_organisation\_unit facility

JOIN base\_organisation\_unit orgunit

ON facility.parent\_organisation\_unit\_id = orgunit.id

JOIN base\_organisation\_unit\_identifier oid

ON facility.id = oid.organisation\_unit\_id

WHERE facility.organisation\_unit\_level\_id =4 AND EXISTS(

SELECT \* FROM public.dblink

('lamis',

'SELECT DISTINCT

fc.id as id,

fc.name AS facility\_name,

lg.name AS lga\_name,

nf.datim\_id AS datim\_id

FROM public.patient ps

INNER JOIN facility fc

ON ps.facility\_id=fc.id

INNER JOIN lga lg

ON fc.lga\_id=lg.id

INNER JOIN ndr\_facility nf

ON nf.id=ps.facility\_id'

) AS l(

id INTEGER,

facility\_name VARCHAR,

lga\_name VARCHAR,

datim\_id VARCHAR

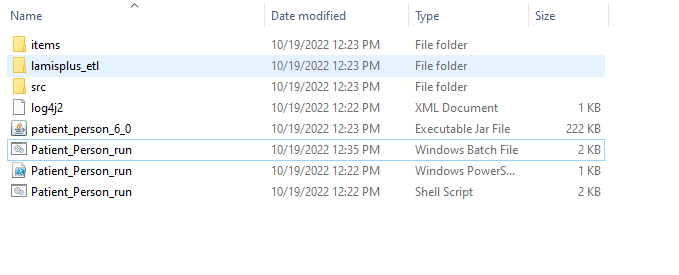
)

WHERE oid.code=datim\_id

)

ORDER BY facility.id ASC

**Step 4:** Add your database configuration to the bat file. The bat file can be found in the root folder of the migration folder. For example, the patient\_person migration bat file will be found in the patient\_person migration root folder (Patient\_Person.bat).



Edit and add the following to the end of the bat file

*--context\_param LAMISPlus\_Login=postgres --context\_param LAMISPlus\_Password=postgres --context\_param LAMISPlus\_Database=lamisplus --context\_param LAMIS3\_Login=postgres --context\_param LAMIS3\_Password=postgres --context\_param LAMIS3\_Database=lamis3*

Once you have done this, the bat file will look like this -

*%~d0*

*cd %~dp0*

*java -Dtalend.component.manager.m2.repository="%cd%/../lib" -Xms256M -Xmx1024M -cp .;../lib/routines.jar;../lib/log4j-jcl-2.12.1.jar;../lib/log4j-slf4j-impl-2.12.1.jar;../lib/log4j-api-2.12.1.jar;../lib/log4j-core-2.12.1.jar;../lib/log4j-1.2-api-2.12.1.jar;../lib/commons-collections-3.2.2.jar;../lib/commons-lang-2.6.jar;../lib/commons-logging-1.1.1.jar;../lib/jaxen-1.1.6.jar;../lib/postgresql-42.2.9.jar;../lib/commons-beanutils-1.8.3.jar;../lib/slf4j-api-1.7.25.jar;../lib/accessors-smart-1.1.jar;../lib/ezmorph-1.0.6.jar;../lib/json-lib-2.4.5-talend.jar;../lib/json-path-2.1.0.jar;../lib/json-smart-2.2.1.jar;../lib/jboss-serialization.jar;../lib/xom-1.2.7.jar;../lib/advancedPersistentLookupLib-1.2.jar;../lib/dom4j-2.1.1.jar;../lib/external\_sort.jar;../lib/trove.jar;../lib/crypto-utils.jar;patient\_person\_6\_0.jar; lamisplus\_etl.patient\_person\_6\_0.Patient\_Person* ***--context=Default --context\_param LAMISPlus\_Login=postgres --context\_param LAMISPlus\_Password=postgres --context\_param LAMISPlus\_Database=lamisplus --context\_param LAMIS3\_Login=postgres --context\_param LAMIS3\_Password=postgres --context\_param LAMIS3\_Database=lamis3 %\****

**Step 5:** Run the bat file on your command line interface.

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**Step 4:** Wait till the migration is complete and view the status of your data migration.

**Note:** On **success** or **error** for every migration please take screen shots for debugging purposes.

Text

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**Step 6:** Repeat Step 4 for other migrations

Happy migration