# **How to migrate data using LAMISPlus ETL Tool (Talend build)**

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>.

Before starting the migration, install LAMIS+ and the following modules

1. Patient
2. Triage
3. HIV
4. Laboratory
5. Biometric
6. HTS

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 migration.

## **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 dblink;
2. SELECT dblink\_connect('host=localhost user= LAMIPlus\_USER password= LAMISPlus\_PASSWORD dbname= LAMISPlus\_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 'LAMISPlus\_DB');
5. CREATE USER MAPPING FOR postgres SERVER lamis OPTIONS (user 'LAMISPlus\_USER', password 'LAMISPlus\_PASSWORD');
6. 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:** 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

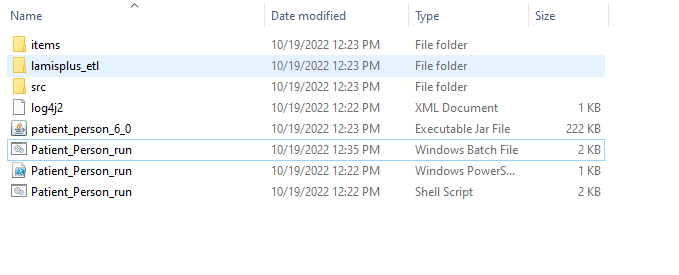
)

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