

What is INTERLIS?

- INTER Land Information Systems
- A data description language with special consideration of **geodata**
- Object oriented and extendable
- System neutral (platform independent)
- Readable by humans and machines
- Model driven approach

Model file and transfer data file

The model is defined in INTERLIS language and stored in an `.ili` file.

The data is in xml (considering the model) and stored as an `.xtf` file (former `.itf`).

INTERLIS Modelling in 10 Minutes

Beispiel Staudamm Inventar



Staudamm

- Name
- Baujahr
- Bauweise (z.B.
Bogenstaumauer,
Gewichtmauer, ...)
- Höhe
- Reservoir grössse
- Letzte sanierung
- Lage
- Detailgeometrie



Lage



Detailgeometrie

Staudamm in INTERLIS

Bund Modell

```
INTERLIS 2.3;  
IMPORTS Units;  
CLASS Staudamm =  
    name: MANDATORY TEXT*80;  
    baujahr: 1000..3000;  
    bauweise: (Bogenstaumauer, Gewichtmauer, Pfeilermauer);  
    hoehe: 1..400 [Units.Meter];  
    letzte_sanierung: 1000..3000;  
    lage: GeometryCHLV95_V1.Coord2;  
    detailgeometrie: SURFACE WITH (STRAIGHTS) VERTEX GeometryCHLV95_V1.Coord2  
END Staudamm;
```

Extended model

Kanton Modell

```
CLASS StaudammCanton EXTENDS Staudamm =  
    letzte_inspektion: INTERLIS.Date;  
    zustand: (gut,schlecht);  
END StaudammCanton;
```

Extended model

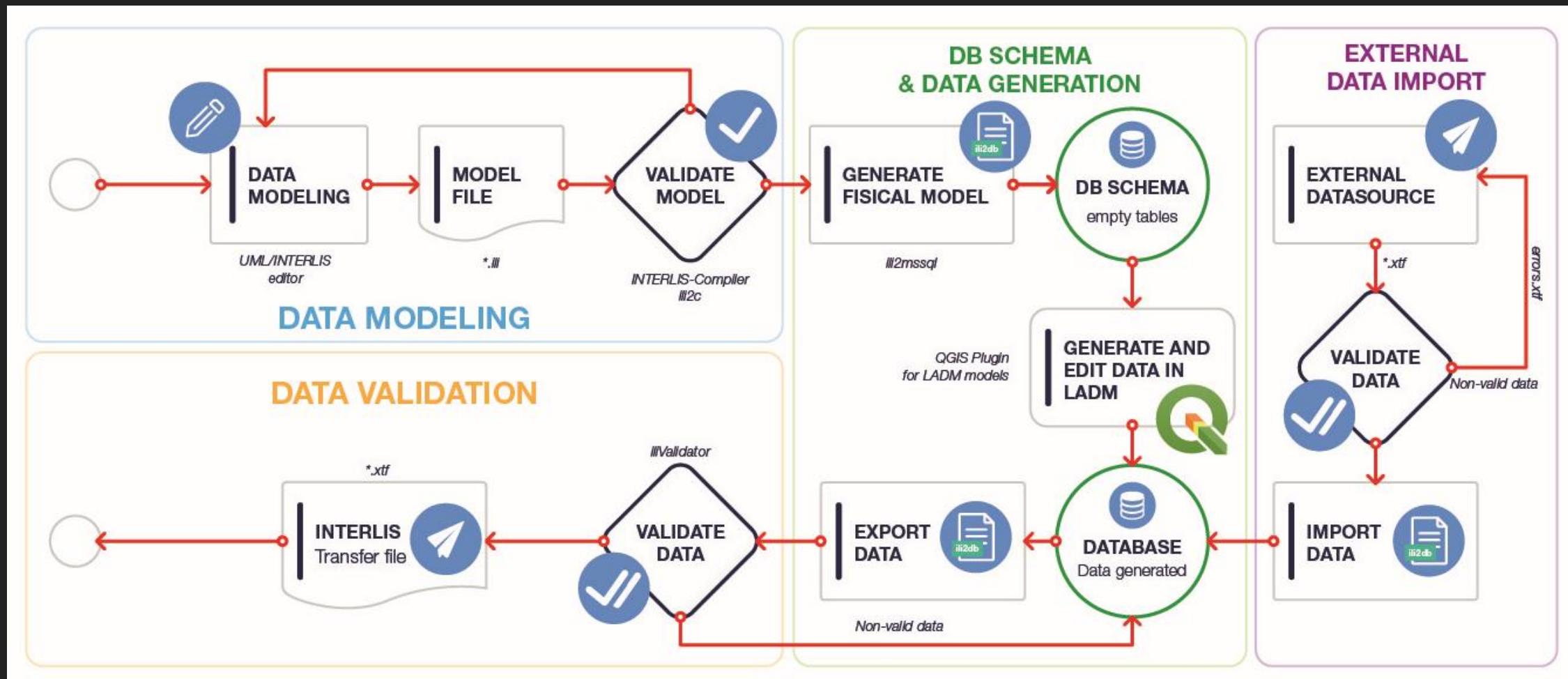
Ingenieur Büro modell:

```
CLASS Inspektor =  
    name: TEXT*80;  
END Inspektor;  
  
CLASS StaudammLocal EXTENDS StaudammCanton =  
    inspektor: Inspektor;  
END StaudammLocal;  
  
ASSOCIATION =  
    StaudammLocal -- {1} StaudammLocal  
    Inspektor -- {*} Inspektor  
END;
```

Have a look at a simple model

Buildings

INTERLIS implementation workflow and tools



(Graphic by landnetwork.ch)

Compiler ili2c

The INTERLIS Compiler checks an INTERLIS model if the constructs of the language INTERLIS were applied correctly. It reports syntactic errors in the model with the line number so that they can be corrected by the modeler.

ili2fme and ili2db

ili2pg, ili2gpkg and ili2fgdb are programs that write an INTERLIS transfer file according to an INTERLIS model into a database (PostgreSQL/PostGIS, GeoPackage or ESRI FileGDB) or create such a transfer file from a database.

ilvalidator

The ilvalidator tool checks whether data in the INTERLIS 1 and 2 transfer format (*.itf/.xtf*) complies with the associated model (**.ili*). License terms and further information about the ilvalidator can be found [here](#).

Swiss geodata repositories

ilimodels.xml

- Based on the model `IliRepository09`
- Contains objects of the class `ModelMetadata` where a model name and a file path is defined
- The files are on the same repository

ilisites.xml

- Based on the model `IliSite09`
- Contains objects of the class `SiteMetadata` where path to other repositories are defined

<http://models.interlis.ch/ilisite.xml> -> <http://models.geo.kgk-cgc.ch/ilisite.xml> ->
<http://models.geo.sh.ch/ilisite.xml>

Let's have a look



QGIS MODEL BAKER

What is MODEL BAKER?

A QGIS Project Generator

Quickly **creates a QGIS project** from a physical data model.

Analyzes the existing structure and configures a QGIS project with all available information.

A QGIS Project Generator optimized for INTERLIS

Models defined in INTERLIS provide **additional meta information** like domains, units of attributes or object oriented definitions of tables.

This can be used to further optimize the project configuration.

An ili2db control station

```
java -jar /home/dave/dev/opengisch/QgisModelBaker/QgisModelBaker/libili2db/bin/ili2pg-4.6.1/ili2pg-4.6.1.jar --schemaimport --dbhost localhost --dbport 5432  
--dbusr postgres --dbpwd ***** --dbdatabase bakery --dbschema adsfdsaf2 --setupPgExt --coalesceCatalogueRef --createEnumTabs --createNumChecks --createUnique  
--createFk --createFkIdx --coalesceMultiSurface --coalesceMultiLine --coalesceMultiPoint --coalesceArray --beautifyEnumDispName --createGeomIdx --createMetaInfo  
--expandMultilingual --createTypeConstraint --createEnumTabsWithId --createTidCol --importTid --smart2Inheritance --strokeArcs --defaultSrsCode 2056  
--models Wildruhezonen_LV95_V2_1
```

And it's a library

Can be used as a framework.

Like [Asistente LADM-COL](#), created for the Colombian implementation of the Land Administration Domain Model (LADM) does it.

Check it out now

What is the UsabILIty Hub?

Receive meta data like *ili2db settings*, *layer styles* and *orders* etc. automatically over the web.

See <https://usabilityhub.opengis.ch/>

Metaconfiguration and Toppings

Get the additional information with the `ilidata.xml` file on the UsabILIty Hub (currently <https://models.opengis.ch>) and the linked repositories.

Model baker homepage: <https://opengisch.github.io/QgisModelBaker/>