Schema:

Diagram, schematic

Description automatically generated

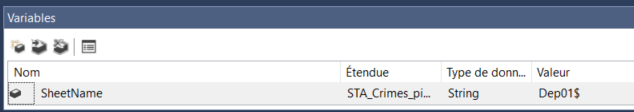
*SQL scripts to create tables in Tables\_creation.sql.*

1. **STA**

First we create STA\_project database in SQL.

Crimes :

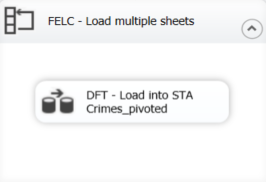
Creating variables to hold each worksheet name:



Add a loop Foreach Loop Container:

* Foreach ADO.NET Schema Rowset Enumerator
* Connection: MS Jet 4.0 OLE DB Provider
* Extended Properties “Excel 8.0”
* Variable Mapping “User::SheetName 2”

Add a data flow task within the loop.

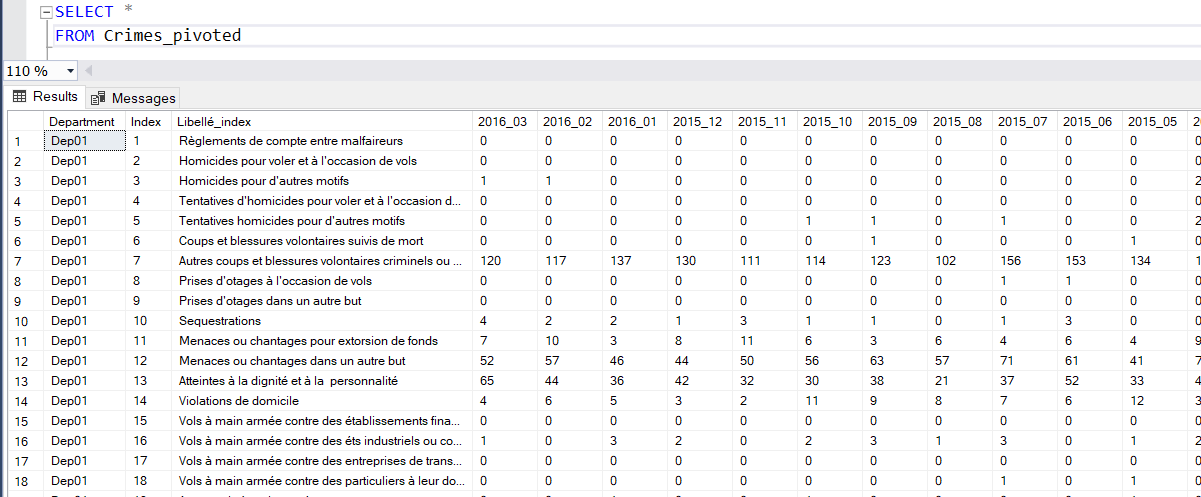


In the data flow:

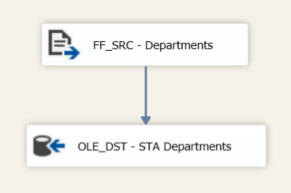
* Add derived column with “(DT\_WSTR,50)(SUBSTRING(@[User::SheetName],1,LEN(@[User::SheetName]) - 1))” to transform sheets names on column.



Result table:



Departments :



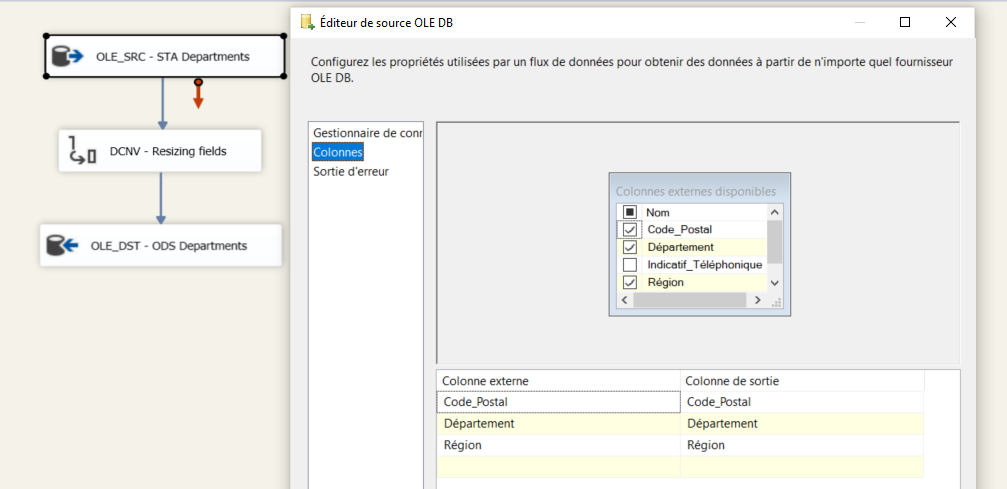
Result file:

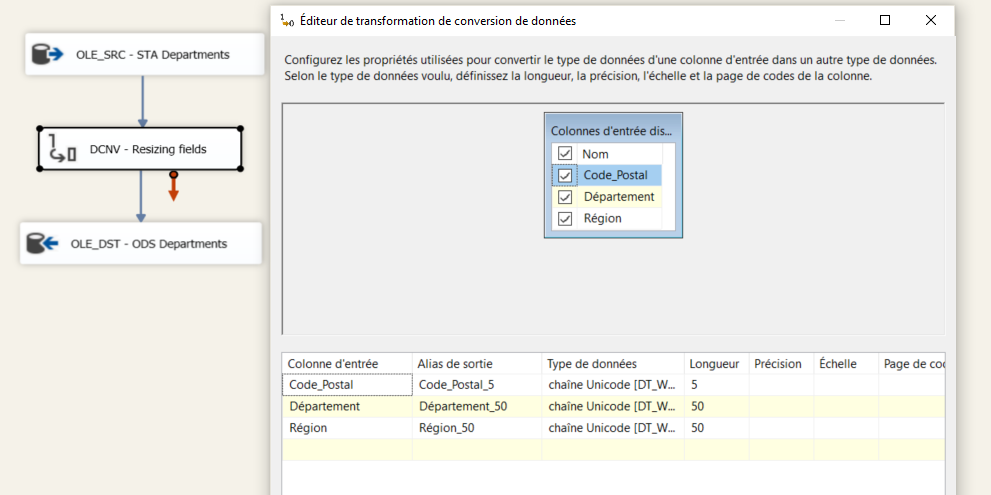


1. **ODS**

Create ODS\_Project database in SQL.

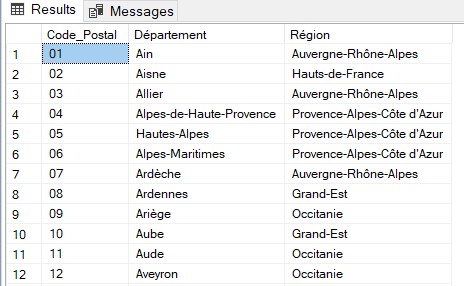
Departments :





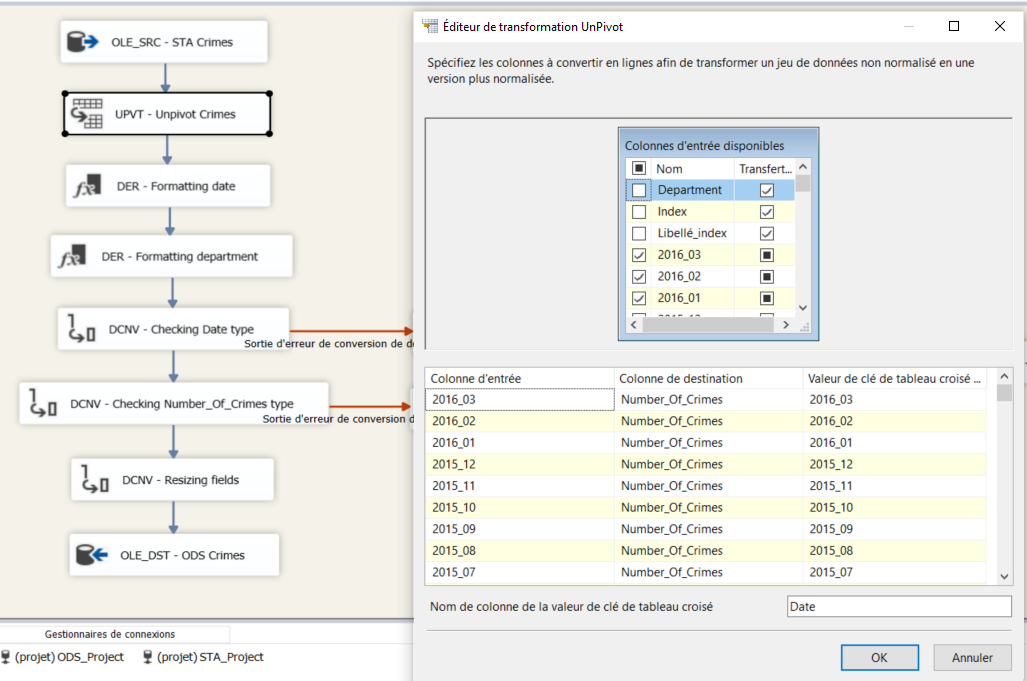
Derived column to format Department (Code\_Postal): “RIGHT("00"+[Code\_Postal]**,2**)” – to add 0 for first 9 (as I don’t know how to delete from Crimes table and we need coherence)

Result file:



Crimes :

Unpivot:



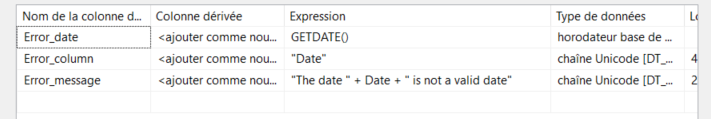
(If you know the way to put destination column name of all input column automatically – tell me!)

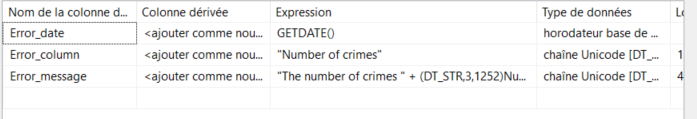
Derived column to format date: “(DT\_DATE)(SUBSTRING(Date,1,4) + "-" + SUBSTRING(Date,6,2) + "-" + "01")”

Derived column to format department: “(DT\_WSTR,50)(DT\_I8)SUBSTRING(Department,4,2)” (Delete Dep and leading 0)

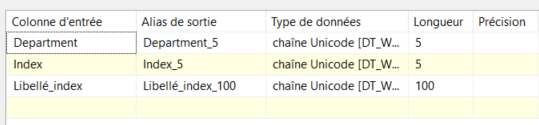
Transform date in “date [DT\_DATE]” and number of crimes in “INT”.

Put errors in Technical rejects table:



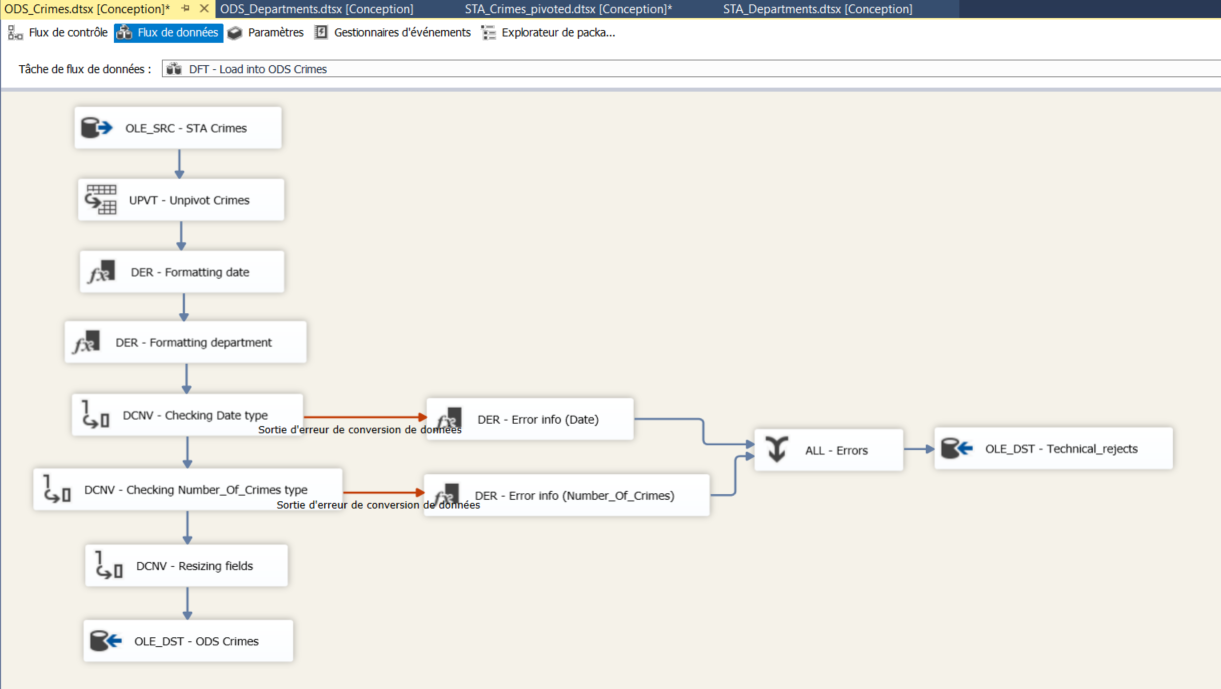


Resizing the rest fields:

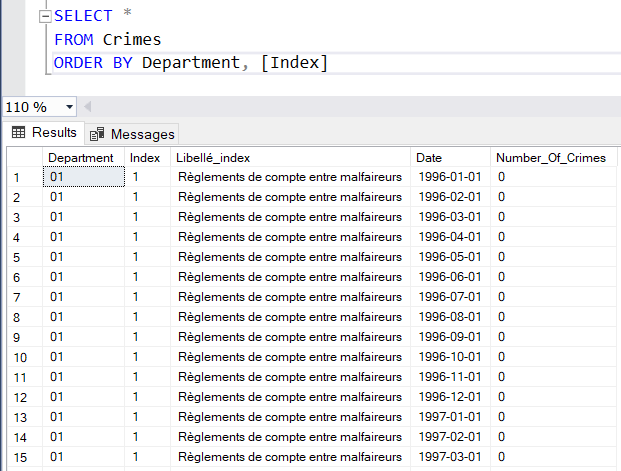


Export.

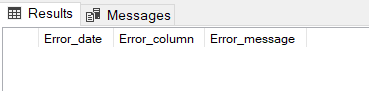
All transformations:



Result file:



Technical rejects: (there were not created any)



1. **DWH**

Create DWH\_Projet database in SQL.

Dim tables: Date, Libellé (name of crimes), Department.

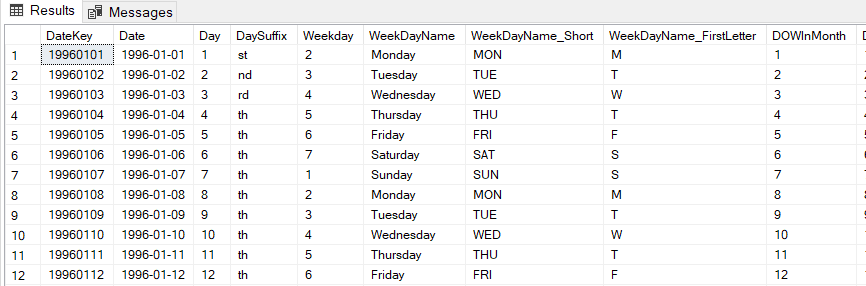
Fact table: Crimes (keys + number of crimes)

(Never truncate Dim table 😊)

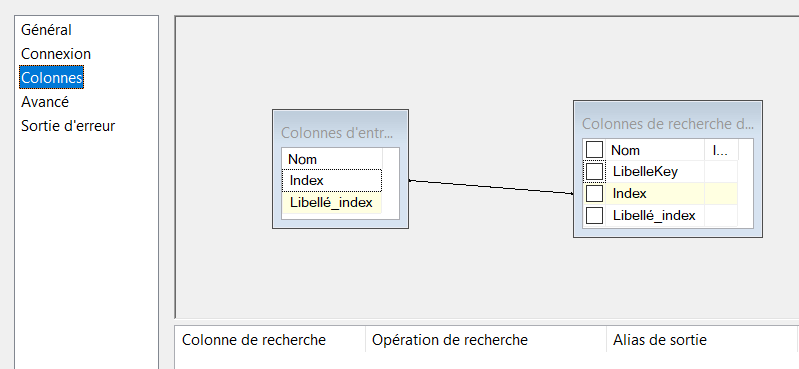
DimDate :

from Emerick’s script (on Moodle) but DATE instead of DATETIME and changed start and end dates.

Result file:



DimLibelle :

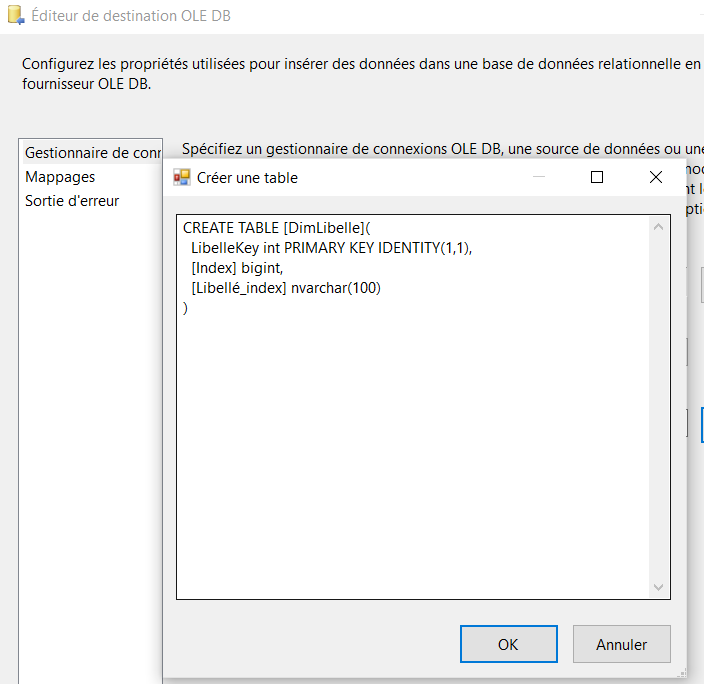


UPDATE [dbo].[DimLibelle]

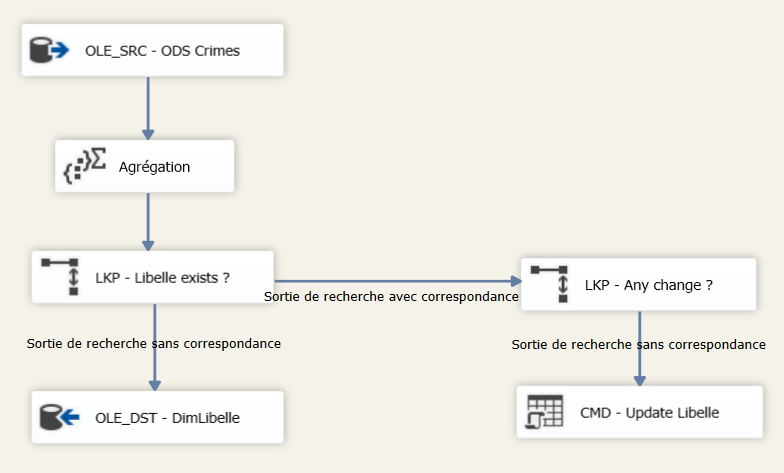
SET

[Libellé\_index] = ?

WHERE [Index] = ?



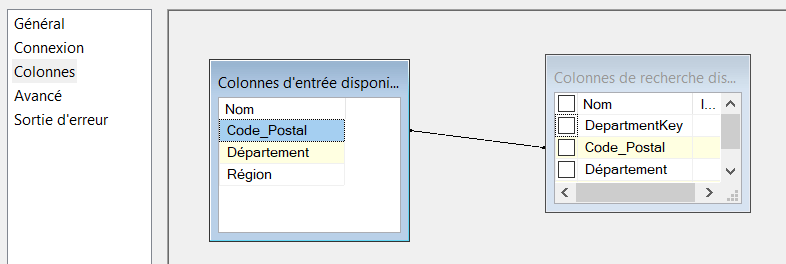
All transformations:



Result file:



DimDepartments :



UPDATE [dbo].[DimDepartments]

SET

[Département] = ?

[Région] = ?

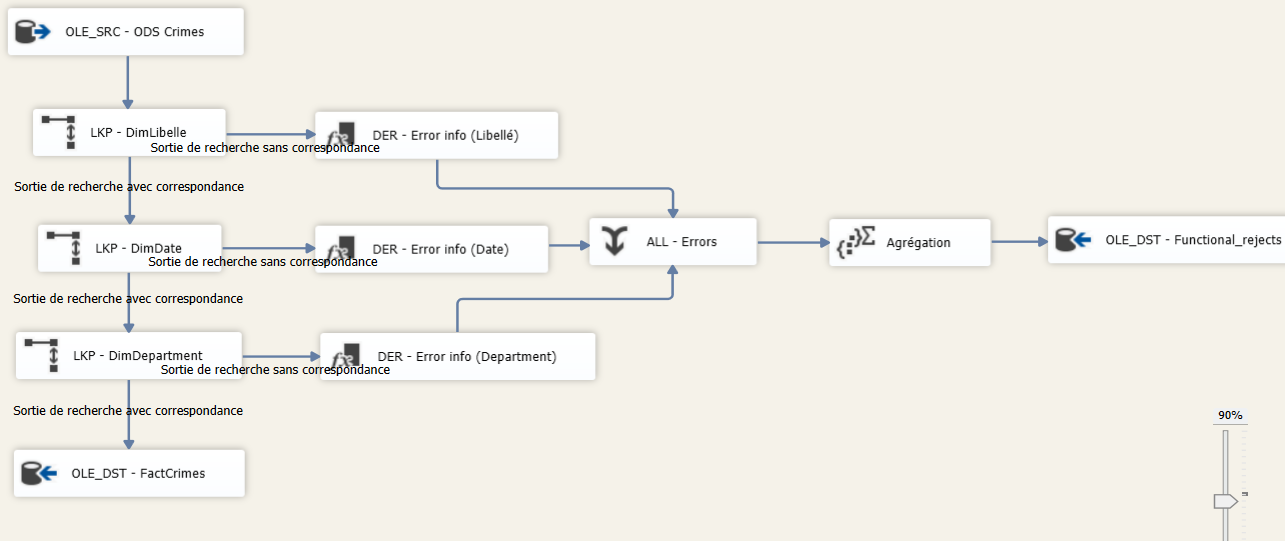
WHERE [Code\_Postal] = ?

Result file:

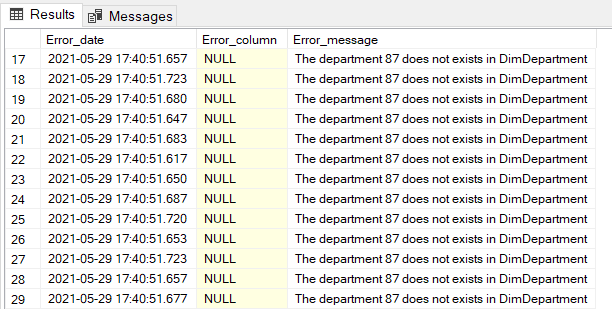


FactCrimes :

All transformations:



Functional rejects: (1 department was in Crimes and not in Departments source)



Result file:

