Sequence 2 : The farm model

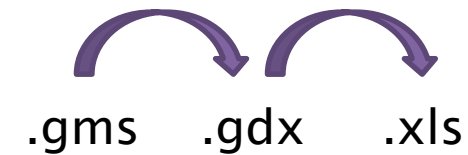Unit 2.1 : Enriching the base model

Lesson 14 : Importing and exporting data and results in Excel

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ModelEco

In order to :
Analyse our results
Make calculations, graphs

Exporting results into Excel

.gms   .gdx   .xls

General formulation :

```
parameter PARA_RES ;
[...]
execute_unload 'fileName.gdx' PARA_RES ;
execute 'gdxxrw.exe fileName.gdx par=PARA_RES' ;
```
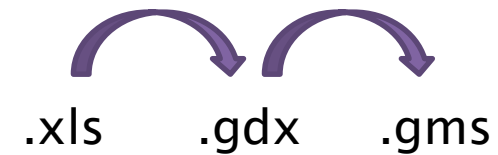
In our model :

```
parameter RESULT ;
RESULT(c)=X.L(C);
execute_unload 'result.gdx' RESULT ;
execute 'gdxxrw.exe result.gdx par=RESULT' ;
```

Modify the model by loosening all the constraints and exporting the results

ModelEco

In order to :
Facilitate data input from an Excel
database

Importing data from Excel

.xls   .gdx   .gms

General formulation :

```
parameter PAR1, PAR2 ;
[…]
$CALL GDXXRW.EXE excelFile.xlsx o=GDXFile.gdx index=sheet1!Cell0
$GDXIN GDXfile.gdx
$LOAD PAR1, PAR2
$GDXIN
```

In our model :

```
parameter LN, GM ;
[…]
$CALL GDXXRW.EXE workData.xlsx o=workData.gdx index=rep!A3
$GDXIN workData.gdx
$LOAD LN, GM
$GDXIN
```

ModelEco

Excel file format

In our model :

```
parameter LN, GM ;
[…]
$CALL GDXXRW.EXE workData.xlsx o=workData.gdx index=rep!A3
$GDXIN workData.gdx
$LOAD LN, GM
$GDXIN
```

nameSheet!cell0 cell in which parameter reading begins

	A	B	C	D	E
1	Index				
2					
3	●			Dim	Rdim
4	par	LN	LN-C!A3	1	1
5	par	GM	GM-C!A3	1	1
6					
7					

rep LN-C GM-C ⊕

	A	B	C	D
1				
2		labour need		
3	●	LN		
4	wheat		25	
5	maize		50	
6				
7				

rep **LN-C** GM-C ⊕

Data type   Data name   Size   Number of SET in a row

Elements of the SET

ModelEco