

Target of the Application

Usually during the working process and not, we need to work on the data in the easy way; In this case the Spreadsheet application help in this task, his easy usability help also who doesn't know or doesn't want use (or doesn't have to use), the SQL command directly on the database.

The target of this application is to transfer in a easy and User-Friendly way, a set of data into the database (creating if necessary a new table), by to Copy and Paste system from the Clipboard.

Description of the Application

The tool has a visual interface based on Swing classes, and it permit to look the copied data into a grid before to put them into the database.

So the user has the possibility to modify the data into the grid and change the type of data, name of the field, etc... .

When the target database has been chosen from the user the tool transfer the content of the grid into the database by a jdbc connection.

Other Similar Applications

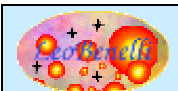
One way used to reach the same target it's to use a MDB database access between the spreadsheet and the Database, then with the Table links and Excel file links, by an "Insert" query the data from the Excel are transferred into the database.

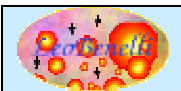
But this way has remarkable disadvantages :

- Usable only by Access/Excel software.
- Need to have the client Driver software of the database installed on the pc.
- Not always corrected interpretation of the type of data of connected the Excel sheet.
- Use of layer ODBC that often creates big problems.
- Usable only in the Windows operating system.
- Complex and long operation.

Running

To start the application run the script clipboardtodb.bat (Win) or clipboardtodb.sh (Unix/Linux) without parameters.

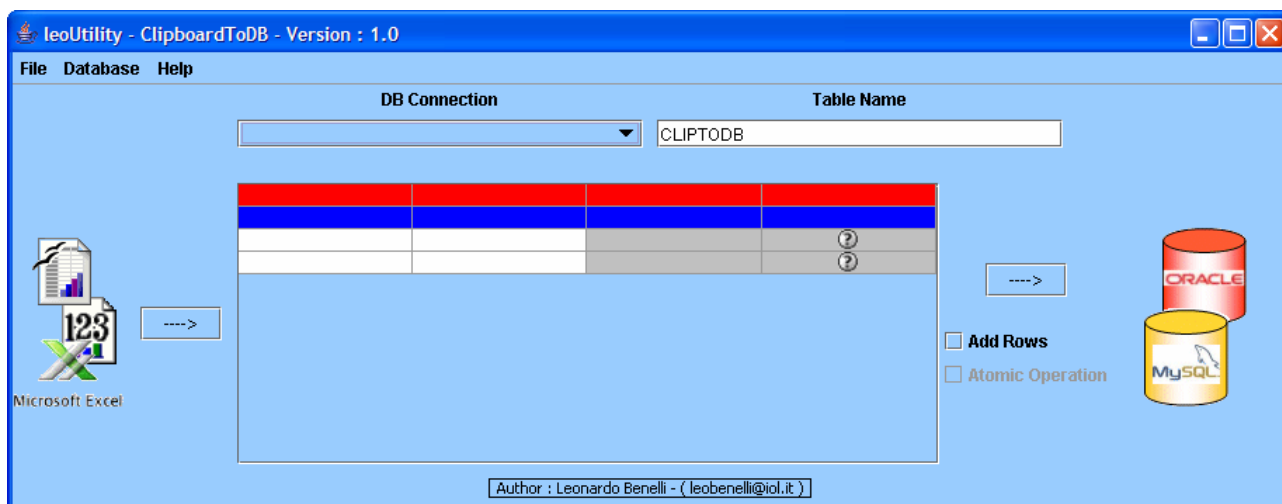




User Instructions

Main window

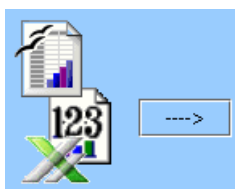
When the application is started this window appear :



Data transfer in ClipboardtoDB

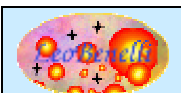
First step is to select and copy in clipboard (By the function or CTRL+C shortcut) a cells range in the Spreadsheet application (Excel, Lotus, OpenOffice Calc, etc...). The selection must include also the Header of the column.

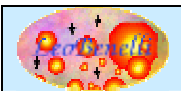
Then in ClipboardtoDB, click on the button on the left side of the window or press CTRL+V:



In few seconds , content of the pasted cell should be appear in the grid :

CODICE	DESCRIZIONE	GRUPPO	IMPORTO	D	Id	St
CHAR	CHAR	CHAR	NUMBER	DATE		
001	desc1	001	1000	1/20/2005	1	?
002	desc2	002	2000	1/21/2005	2	?
003	desc1	001	3000	1/22/2005	3	?
004	desc2	002	4000	1/23/2005	4	?
005	desc1	001	5000	1/24/2005	5	?
006	desc2	002	6000	1/25/2005	6	?
007	desc1	001	7000	1/26/2005	7	?
008	desc2	002	8000	1/27/2005	8	?
009	desc1	001	9000	1/28/2005	9	?
010	desc2	002	10000	1/29/2005	10	?





In the first row there are the labels used like name of the field of the table in the db. Proposed name is the first line of cells copied from the sheet. If it's necessary to change some header column, click and type the new value.

The second row describe the type of the data in the column.

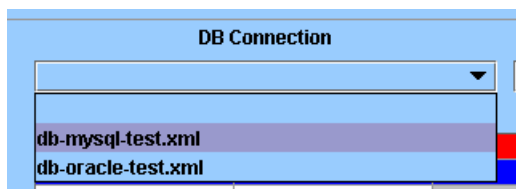
Through a Combo menu it's possible to change those values, in caso of the proposed value it's not corrected for you, for example, consider a value like "character" instead of "number" to put the data in a text field into the database :



The last two rows in the grid, two additional information : the first contain a progressive ID and the second contain a light that look to the user the outcome of the last transfer in the database.

The grid is in editable mode, so if it's necessary to change some data, it's possible to click on the cell and type the new value.

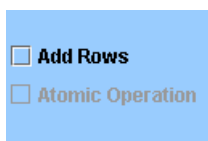
Before to transfer into the DB, the user have to specify which is the target database, choosing in the combo menu, the configuration file that describe the DB connection:



Also the name of the destination table is editable from the user, typing the name in "Table Name" textbox :

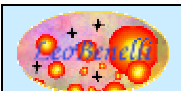


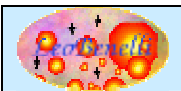
There are two flag on the right side, that describe the action to use during the transfer :



If the "Add Rows" option is active, data will be added to the table; if it isn't exist, this will be created. If the "Add Rows" option is active, il flag "Atomic Operation" became enabled.

If the "Atomic Operation" option is active, the commit/rollback mode will be activated during the DB transaction , so if an error occur durino the transfer, the rollback will be done, and no data will be

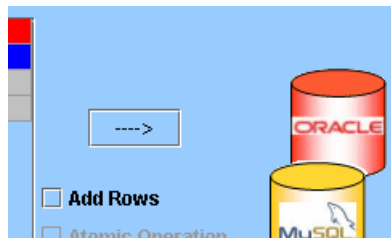




added; if it's disabled, if error occur during the insert of some row , only these will be fail and the other row will be added.

Data transfer from ClipboardToDB to Database

When the previous points are be done, it's possible to proceed to the DB transfer, clicking the button at the right side of the main window :



When the DB update process is terminated, a window appear with the outcome of the operations :

ZIONE	GRUPPO	IMPORTO	D	Id	St
	CHAR	NUMBER	DATE		
	001	1000	1/20/2005	1	✓
	002	2000	1/21/2005	2	✓
	001	3000	1/22/2005	3	✓
	002	go in error	1/23/2005	4	✗
	001	5000	1/24/2005	5	✓
	000	0000	1/25/2005	6	✓
				7	✓
				8	✓
				9	✓
				10	✓

Operation Result

Total of Operation : 21
 Total of Successful : 20
 Total of Failed : 1
 Total of Unprocessed : 0

OK

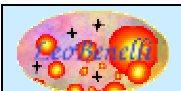
If some problem happened, (like in the above image) will be counted in the Failed counter and the row will be marked with the symbol ✗ . The row transferred in the right way will have the symbol ✓ . The symbol ? will be present in the "Not Processed" rows that are the following rows after an error when the "Atomic Operation" option has been activated :

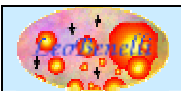
ZIONE	GRUPPO	IMPORTO	D	Id	St
	CHAR	NUMBER	DATE		
	001	1000	1/20/2005	1	✓
	002	2000	1/21/2005	2	✓
	001	3000	1/22/2005	3	✓
	002	go in error	1/23/2005	4	✗
	001	5000	1/24/2005	5	?
				6	?
				7	?
				8	?
				9	?
				10	?

Operation Result

Total of Operation : 21
 Total of Successful : 3
 Total of Failed : 1
 Total of Unprocessed : 17

OK





If at this point if the user run a query in the database, that data will be in the table :

MySQL Control Center 0.9.4-beta - [[localhost BENELLI] Query Window]

Console Options HotKeys Window Help

File Edit View Query Options HotKeys

```
select * from cliptodb
```

Query 1

	CODICE	DESCRIZIONE	GRUPPO	IMPORTO	D
1	001	desc1	001	1000	2005-01-20
2	002	desc2	002	2000	2005-01-21
3	003	desc1	001	3000	2005-01-22
4	004	desc2	002	4000	2005-01-23
5	005	desc1	001	5000	2005-01-24
6	006	desc2	002	6000	2005-01-25
7	007	desc1	001	7000	2005-01-26
8	008	desc2	002	8000	2005-01-27
9	009	desc1	001	9000	2005-01-28
10	010	desc2	002	10000	2005-01-29
11	011	desc1	001	11000	2005-01-30
12	012	desc2	002	12000	2005-01-31

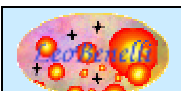
DBConnection Manage

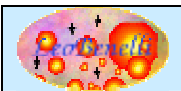
The configuration file used for the connection to the database are xml file that the ClipboardtoDB search in the current directory, they must start with : "db-" and to have the Extension "xml" (Ex. : db-mysql-test.xml).

To create these files, it's possible to use a simply ASCII editor or using the function "Configure DB Connection" into the "Database" menu:



By this function it's possible to add new configuration file and change the existing. For the moment doesn't exist the delete function (To do it, erase manually in the filesystem).





To add a new configuration file, click on "New Connection", and to edit click on the name of the file to modify :

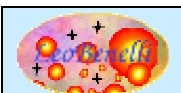
Field	Value
Name	mysql-testleo
Description	Test Database
Driver	org.gjt.mm.mysql.Driver
Connection String	jdbc:mysql://localhost:3306/testleo
Username	benelli
Password	xxxx

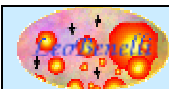
In this window It's necessary to type all the parameters to the DB connection.

For the Structure of the XML File, look "Technical Details" section.

Errors Management

Each problem (like missing in classpath of the jdbc driver or connection problem to the DB) will be show to the user, with a Error Window, containing the problem and the suggestion to solve it :





Technical Details

Version with sources :

Description of Main Directory/Files :

Directory/Files	Directory/Files	Descrizione
Bin		
	clipboardtodb.bat	Batch windows to run the application
	leoUtility-ClipboardToDB.jar	Jar File copied from "dist" directory
	clipboardtodb.sh	Batch Unix/Linux to run the application
	prepare.bat	Batch windows to copy Jar File from "dist" directory
	prepare.sh	Batch Unix/Linux to copy Jar File from "dist" directory
build		Directory with the classes files (after running of ant compile)
CVS		Directory for CVS
dist		Directory with Jar file (after running of ant jar)
	leoUtility-ClipboardToDB.jar	Jar file of the application
doc		
	gpl.txt	GPL Licence
	ClipboardToDB-en.pdf	This file in English version
	ClipboardToDB-it.pdf	This file in Italian version
nbproject		Netbeans Reserved Directory for project managing
Src		Source Directory
test		Source Directory for test by JUnit
build.xml		File Script for ant

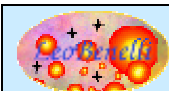
Compilation

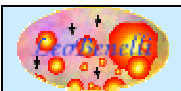
It's possible compile the project using the ant script: build.xml.

Between the several Target, it's possible to use:

Target	Descrizione
clean	Clean the directory dist and build
compile	Compile files in the src directory and create classes files in build directory
jar	Create the jar file in dist directory (If occur, run the compilation before)

So to compile, type : **ant jar**, the classes files in build directory and leoUtility-ClipboardToDB.jar in dist directory will be created, the jar will be necessary to run the application by the scripts in bin directory bin <see "Running" Section>.





Version without sources :

In this version it's present only the Application part in a jar file and the documentation.

Description of Main Directory/Files :

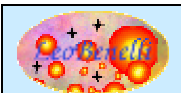
Directory/Files	Directory/Files	Descrizione
clipboardtodb.bat		Batch windows to run the application
leoUtility-ClipboardToDB.jar		File Jar copied from "dist" directory
clipboardtodb.sh		Batch Unix/Linux to run the application
doc		
	gpl.txt	GPL Licence
	ClipboardToDB-en.pdf	This file in English version
	ClipboardToDB-it.pdf	This file in Italian version

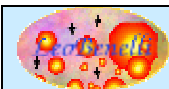
Structure of XML file for the connection to the Database :

```
<?xml version="1.0" encoding="UTF-8"?>
<db>
  <name/>
  <description/>
  <driver/>
  <connectionstring></connectionstring>
  <user></user>
  <password></password>
</db>
```

Es .

```
<?xml version="1.0" encoding="UTF-8"?>
<db>
  <name>mysql-testleo</name>
  <description>prova descrizione</description>
  <driver>org.gjt.mm.mysql.Driver</driver>
  <connectionstring>jdbc:mysql://localhost:3306/testleo</connectionstring>
  <user>benelli</user>
  <password>xxxx</password>
</db>
```





Bug – Suggestion - Faq

- it is recommended to put in classpath the driver jdbc for the DB Connection otherwise an error will be raise.
- Management of the date is based on the "Locale" set on the client. In case of transfer problem, it is advised to set up like "Char", in order to manage the date through SQL command directly in the database.
- Due to different of syntax in SQL command (unfortunately) for each database, for the moment, ClipboardtoDB has been tested with Mysql e Oracle database. In case of problem using other database, it is appreciated a your mail to the author at the below EMail.

In case of problem or suggestion about the product, contact by e-mail : leobenelli@iol.it
Or use the forum to the site : <http://www.leobenelli.com>

References

It's raccomende to download the ClipboardtoDB tutorial to test the functionality to the site : <http://www.leobenelli.com>

