MatDeck - Work with SQLite database
Selecting data from table

- Level: Basic

In this example, we present how MatDeck can be used to work with SQLite databases. We will use the db_connect() function to establish a connection to the database, and the db_query() function to select and print the table data.

Select table data

The assignment is to establish a connection to the SQLite Database, to select and print the Name column data from table 'Software' at first, and then after that to select and print the data from the table called 'Software' where the Number column value is below 500.

$DVal := $ "sqlite"

$DatVal := $ "sqlite_database.db"

Query Strings

$quVal1 := $ "SELECT Name FROM Software"

$quVal2 := $ "SELECT · FROM Software WHERE Number < 500"

Connecting To Database

$conn := db\_connect\bigl(DVal\,,\,$"Name"$\,,\,$""$\,,\,0\,,\,$""$\,,\,$""$\,,\,DatVal\bigr)$

List and Display Data Based On Defined Queries

$dat := db\_query\bigl(conn\,,\,quVal1\bigr)$ $dat1 := db\_query\bigl(conn\,,\,quVal2\bigr)$

dat =

Name
"NewSoftware"
"NewSoftware"
"NewSoftware"
"SecondSoftware"
"ThirdSoftware"
"MatDeck"

dat1 =

Name	Number
"NewSoftware"	157
"NewSoftware"	157
"NewSoftware"	157
"SecondSoftware"	24
"MatDeck"	1
"NewSoftware"	157

We could also achieve this task using MatDeck script inside the document.

```
// A MatDeck program to select data from tables in SQLite databases

// Connecting to the server
conn := db_connect("sqlite", "Name", "", 0, "", "", "sqlite_database.db")

// Selecting the query and displaying the Name column data
print("Displaying Name column from 'Software' table:\n")
print(db_query(conn, "SELECT Name FROM Software"))

// Selecting the query and displaying all the rows where the Number value
is below 500
print("Displaying data from 'Software' table where Number value is bellow
500:\n")
print(db_query(conn, "SELECT * FROM Software WHERE Number < 500"))
```

```
13
14
15    // Disconnecting from the server
16    db_close(conn)
```

Output

MatDeck Console

```
Displaying Name column from 'Software' table:

["NewSoftware"]
["NewSoftware"]
["SecondSotfware"]
["ThirdSoftware"]
["MatDeck"]
["OtherSoftwares"]
Displaying data from 'Software' table where Number value is bellow 500:

["NewSoftware"   157]
["NewSoftware"   157]
["SecondSotfware"   24]
["MatDeck"   1]
```