Software

WireLessDesigner

Training

WireLess Designer

Version 5.03

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I. Introduction

`WireLess Designer` is software designed for creating scenarios for SYMBOL portable devices. This tool will let you program in a quick and simple way.
The database interface is performed through an ODBC link. A wizard will let you create queries easily, not needing to know thoroughly the SQL language.

II. Installation

1. WireLess Designer

Download the last version of the software from the website (http://www.softogo.com) on the section:

WireLess Designer / Download / WireLess Designer Developer VX.X.X

When the download process is finished, you can install the application by double clicking on the installation icon.
Chose the location where you want to install the application.
After installation you can run the program from the button:

Start / Programs / WireLess Designer

2. .INI files

.INI files allow to customize the application and/or define it's default values.

After `WireLess Designer` installation, it will be possible to modify or create the .INI files that will be associated with the application. Those files can be modified from the application as well.

The WireLessDesigner.ini file location is $SystemRoot (usually X:\WINNT or X:\Windows).

The .INI files structure is as follows:

```
[SECTION]
KEY=value
```

These are the sections on the WirelessDesigner.ini file that can be modified:

- DEBUG section: allows to define the error level (LEVEL=) -99 maximum, 0 minimum- and the name of the log file (FILE=).

```
[DEBUG]
LEVEL=99
FILE=WdsDebugLog
```

- ODBC access section: allows to define if system vars (user, password and alias for datasource name) will be used for database connection. Possible values are 0 and 1.

```
[ODBC]
UseAliasDatasource=0 // Use alias for ODBC Datasource Name
UseUserPwdByVar=0    // Use user and pwd system vars
```

- BOOLEAN VALUE section: allows to define the value that will be returned by those formulas that return Boolean values (true/false). Possible values are "0"/ "FALSE"/ "ERROR", etc. for false and "1"/ "TRUE"/ "OK", etc. for true.

```
[BOOLEAN VALUE]
TRUE=1
FALSE=0
```

  If you don't define any value for these keys, the application will return by default:

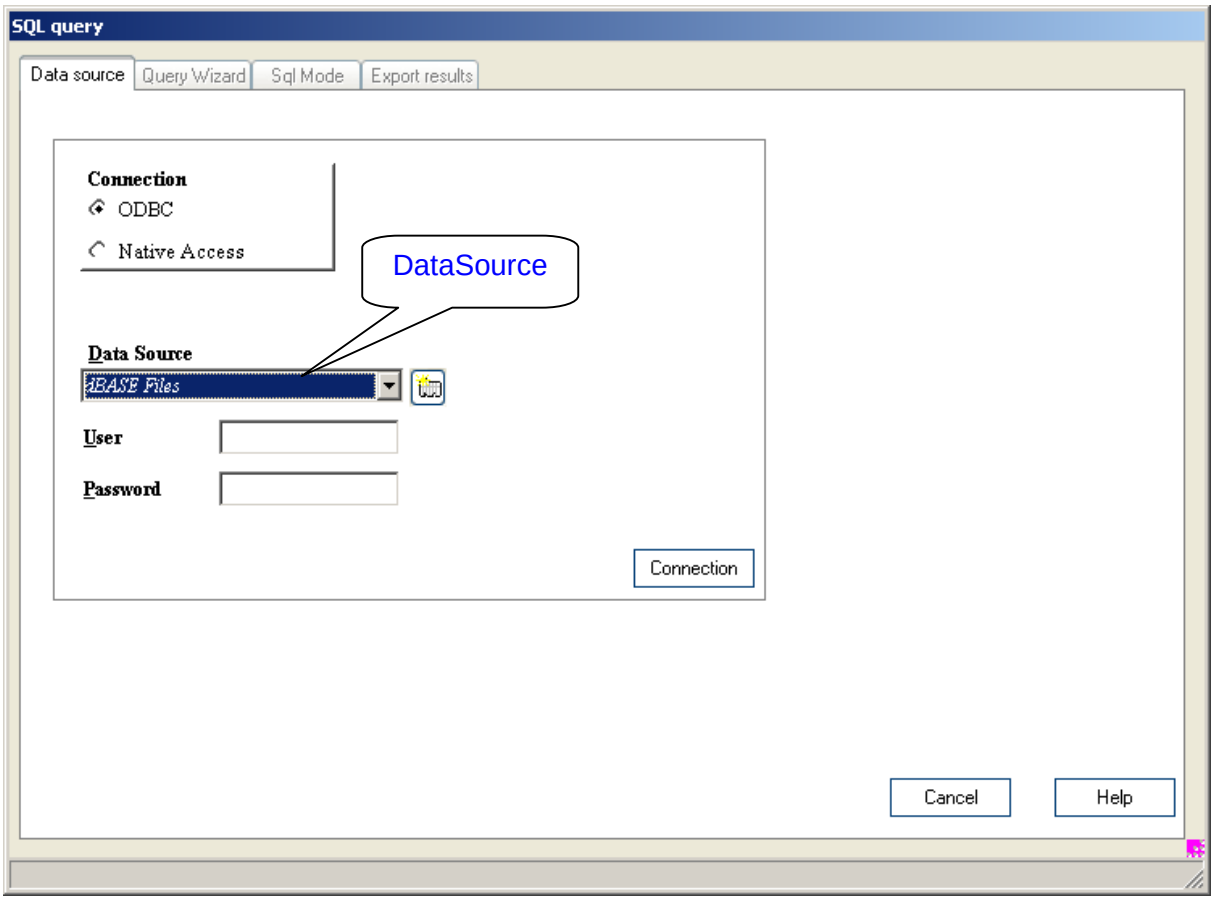
  -"VRAI" for true

  -"FAUX" for false

On the WDsDatasourceAlias.ini file, which location is the scenarios directory, it is possible to set the name of the datasource to be used (see DataSource Alias use).

```
[DB_ALIAS]
DsTest=DsProd
```

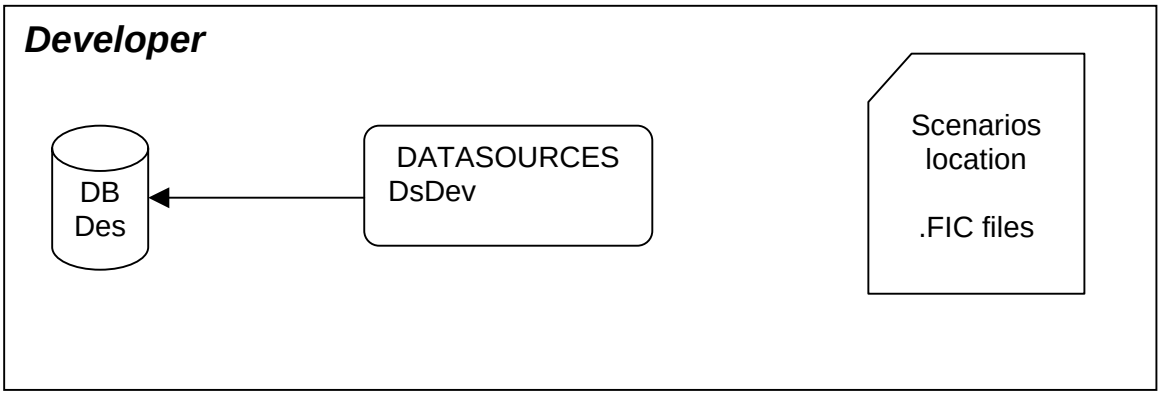
DsTest is the datasource, which is selected on the following window:

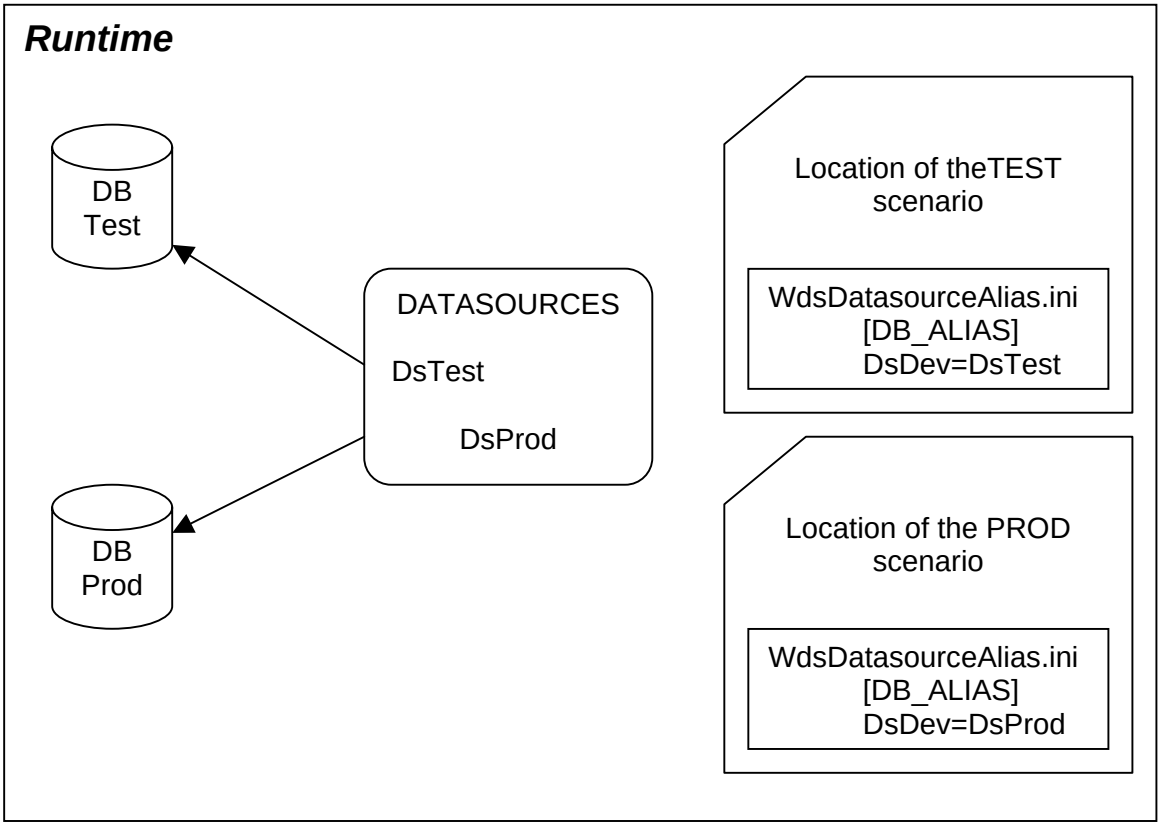


DsProd is the datasource to be used when executing the application.

To have access to the information of this file, the key UseAliasDatasource on the WirelessDesigner.ini file, on the ODBC section, must be 1.

3. ***DataSource Alias use***





III. Protection

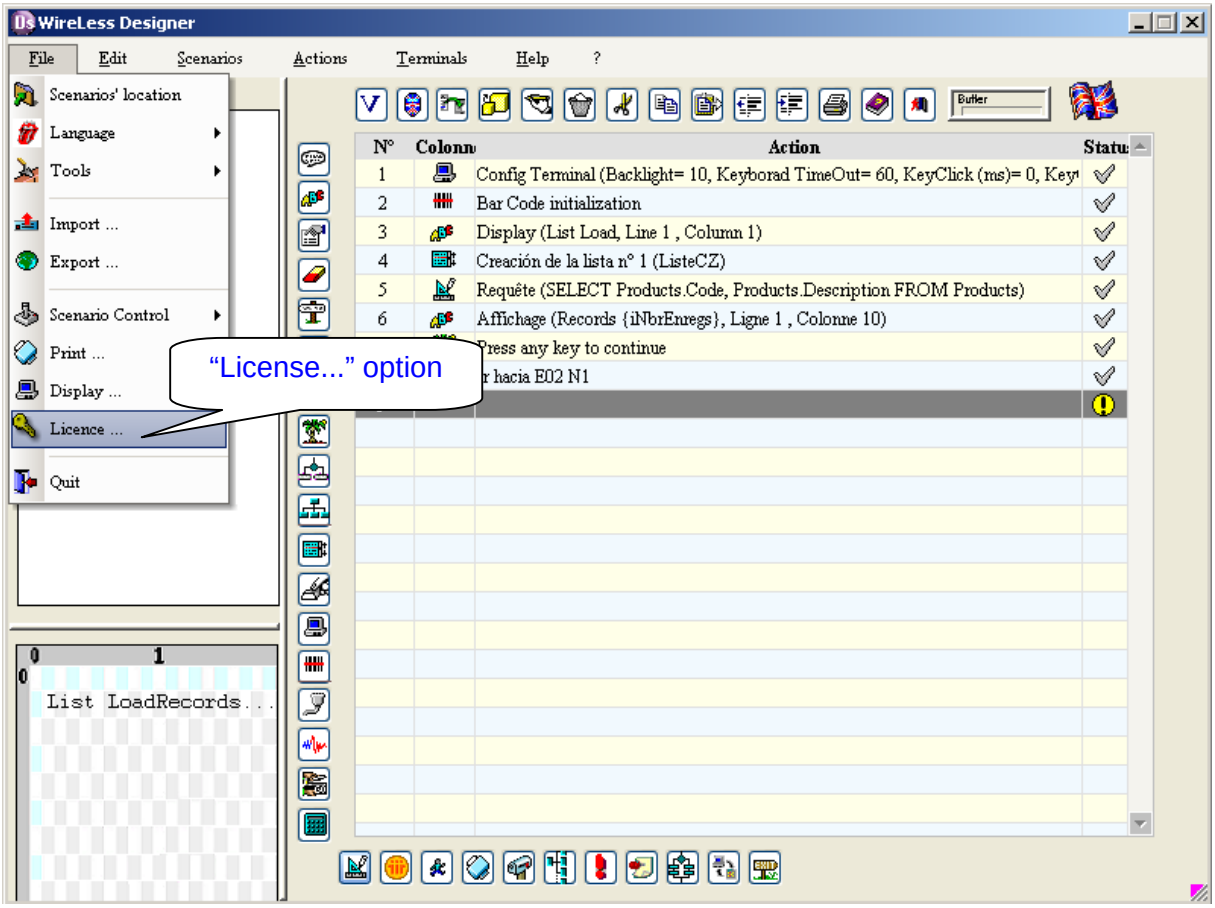
In order to avoid illegal copies, `WireLess Designer` is protected by a license number.

The license number is asked for, through the software, to a predefined e-mail address. If you enter a valid license number, you will have a complete access to the software, which means you can create, update and execute scenarios. Otherwise, you will have a DEMO access to the software, with a limited number of actions.
The license is required for WDs Developer and for WDs Runtime as well.

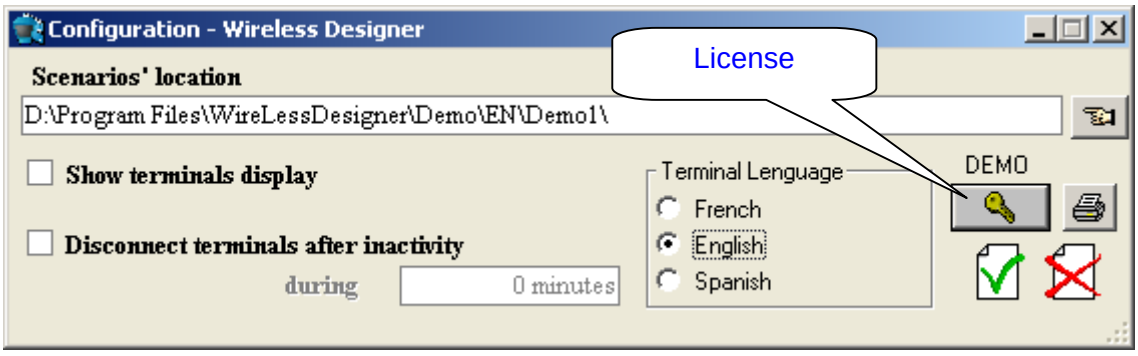
If you have any problem with the license number, please contact:
Email: designer@softogo.com

1. License

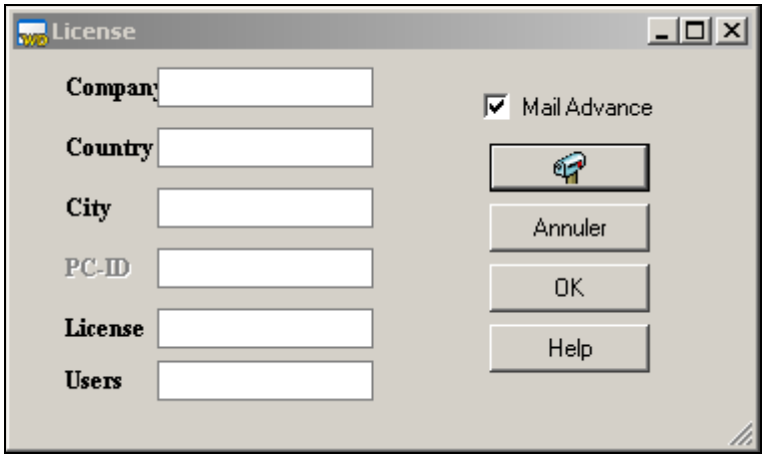
On **WDs Developer** you can access *License* option through *File* menu.



The button  on the main screen of ***WDs Runtime Configuration***, allows to access to the screen where it is possible to input or modify the license of WDs Runtime.



Both options open a window you have to fill with the necessary data (Company, Country and City) for the license request. If the data was registered before, it will be displayed and available for modifications.
In both cases, the word “DEMO” indicates the current use mode of the software.



The “*PC-ID”* field is automatically calculated and not updateable.

The “*License”* field allows to input the license code to be validated. If you are already registered, the value will be displayed but it can’t be updated.

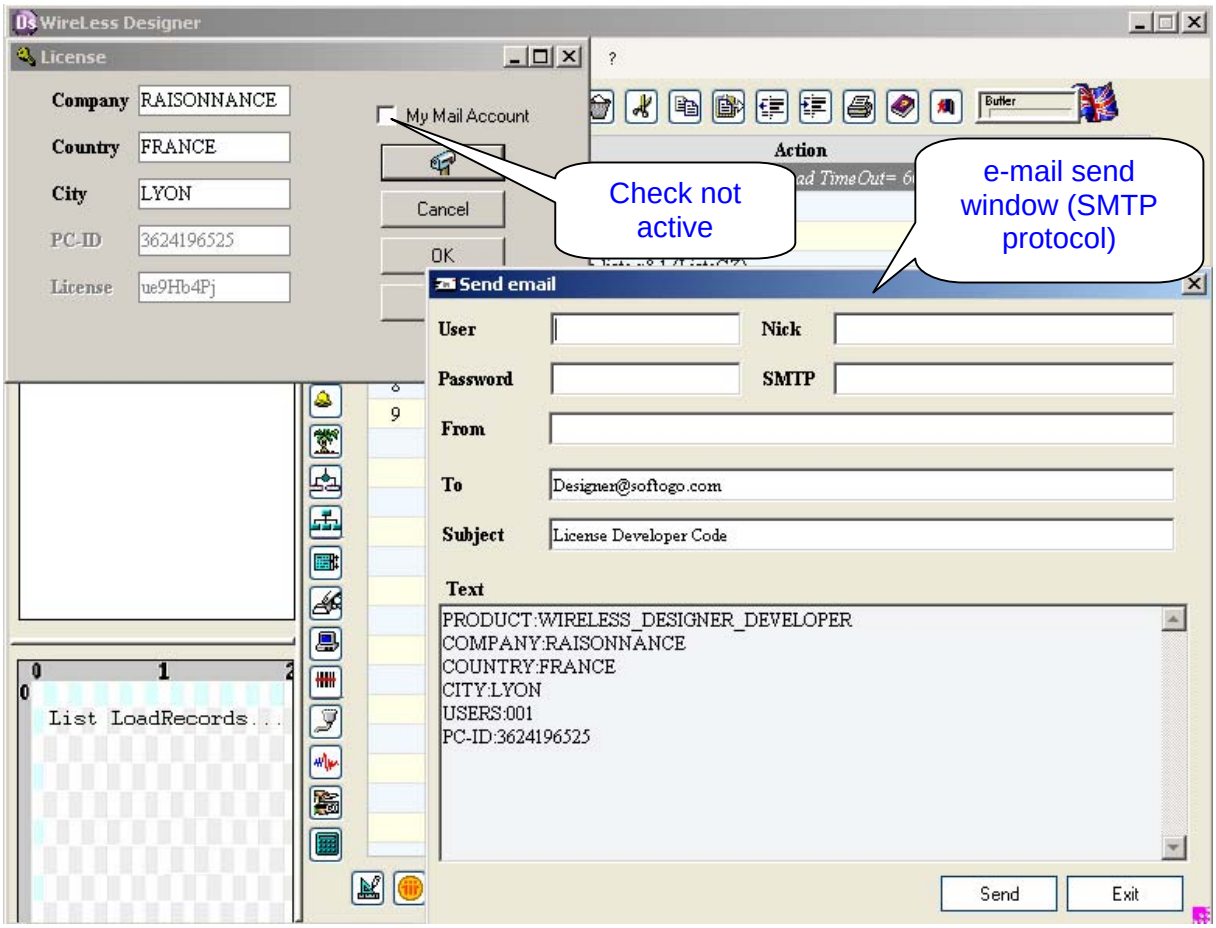
The “*Cancel”* button closes the window.

The “*Help*” button loads `WireLess Designer` Help.

The "*Ok*" button will register the previous information ("*Company", "Country"* and *"City*") and verify the license number (if provided). If the license is valid, it will be registered; if it is not, you will be allowed to make use of the software in DEMO mode (with a limited number of actions).

"*My email Account*" checkbox allows to select the e-mail mode. If "*My email Account*" is not active, the e-mail will be sent in text format. In this case, it will be necessary to know about SMTP protocol. If "*My email Account*" is active, an HTML form will be loaded.

The "  "button first of all checks the value of "*My Mail Account*" checkbox. If it is not active, the following window will be loaded:



"*User":* Sender's e-mail account.

"*Nick*": Sender's name.

"*Password*": Password of the user's e-mail account.

"*SMTP*": Outgoing e-mail server (ex//smtp.companyxxx.com).

"*From*": Sender's e-mail address.

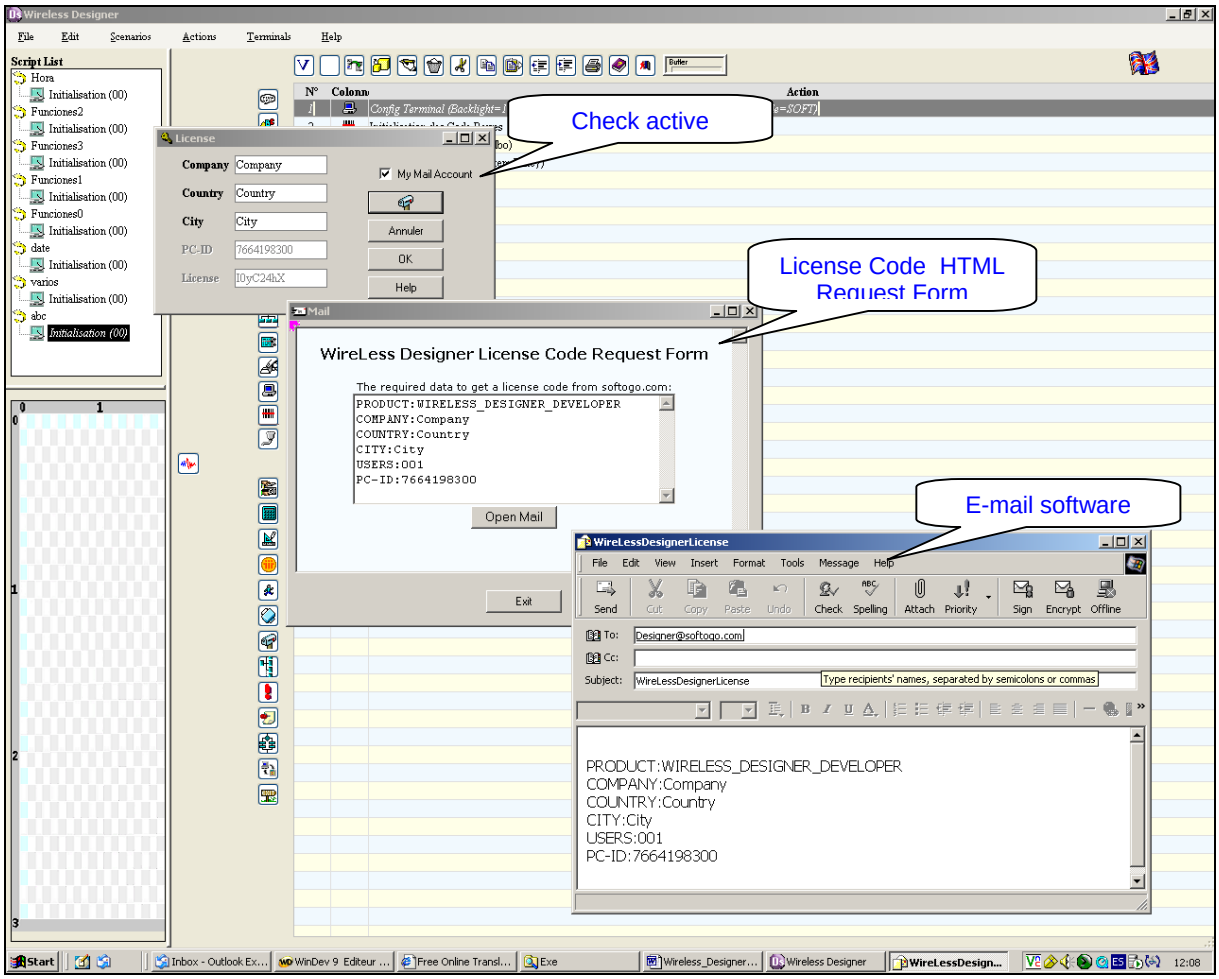
"*To*": Predefined e-mail address to receive license requests. Do not modify.

"*Subject*": by default "License Developer Code". Do not modify.

"*Text*": Text to be sent, where is included all necessary data for the license request. Do not modify.

SEND button sends the e-mail.
EXIT button closes de window.

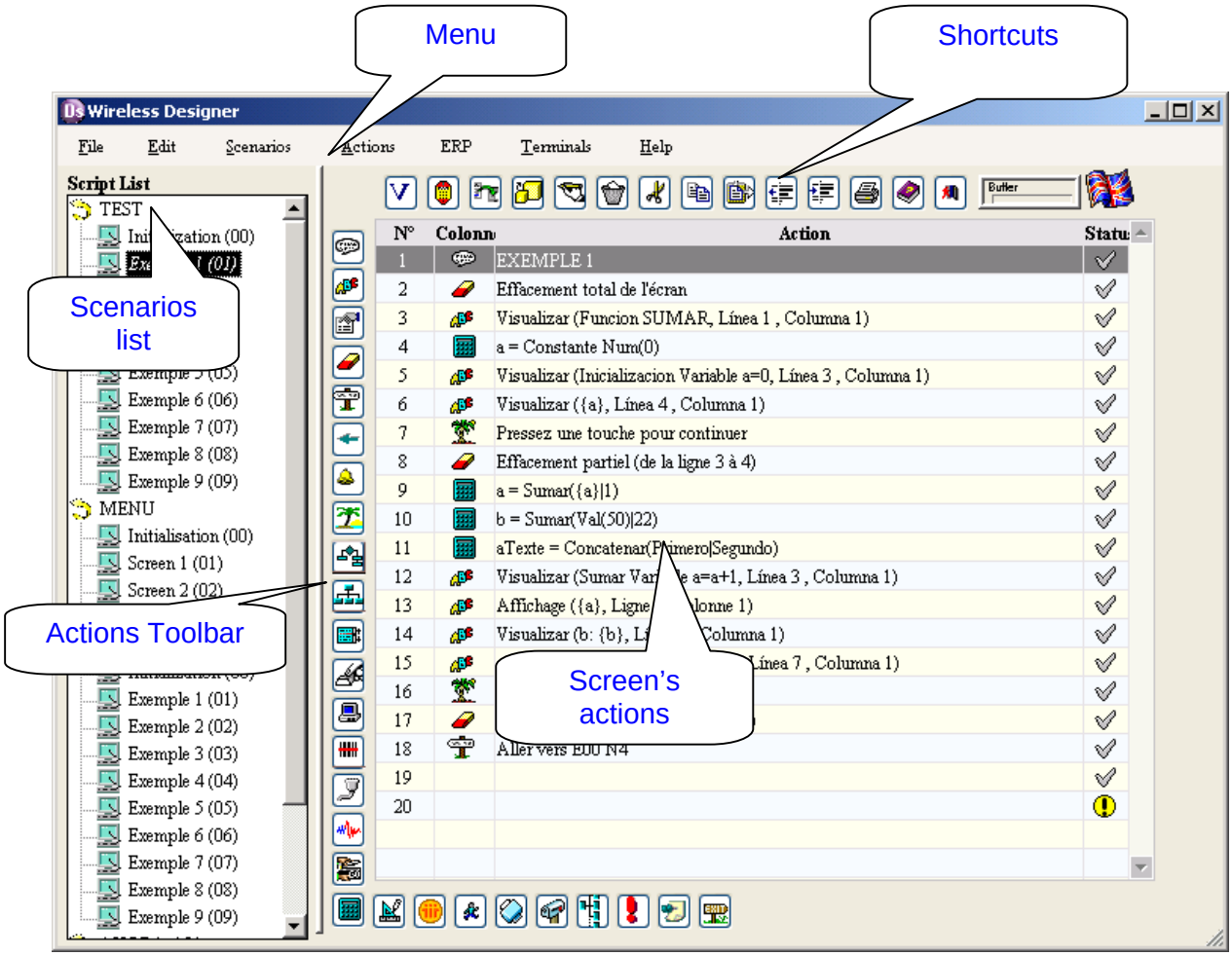
If "*My email Account*" is active, a License Code Request Form will be loaded:



OPEN MAIL button loads the e-mail software installed including all necessary data to the license request.

EXIT button closes e-mail request form.

IV. Interface



1. *Menu*

The menu bar has six menus: File, Edit, Scenarios, Actions, Devices, Help.

To open a menu, make left click on it. Then you can select an option by clicking on it.

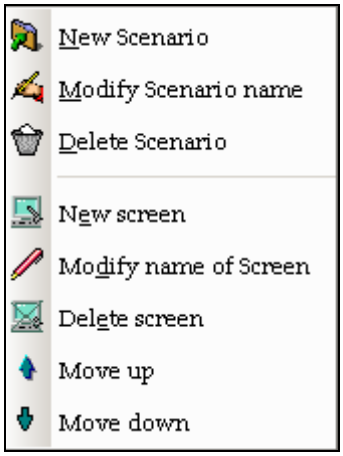
Note: You can also use keyboard shortcuts for some of the functions listed on the menus. You have to press the ALT key + the underlined letter corresponding the menu you want to access to.

2. ***Shortcuts bar***

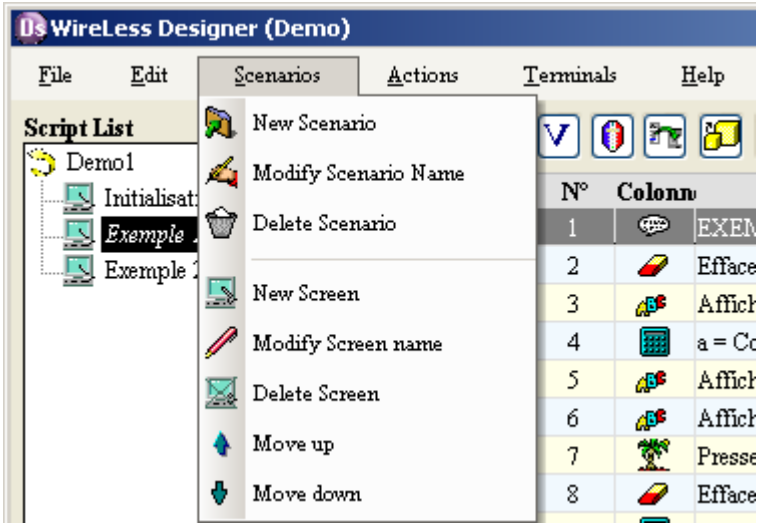
This toolbar enables to select frequent functions quicker than using the menus.
To select a tool, just click on the corresponding button.

3. ***Script list***

This list contains all the scenarios. You can visualize the screens that belong to each scenario by double-clicking on its name.
Right clicking on the list you will see a context menu, which contains the following options:

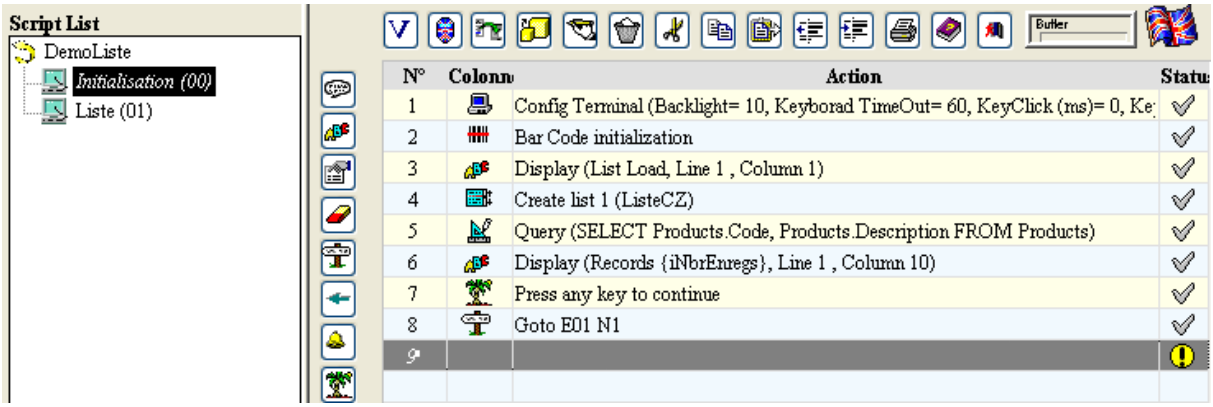


You can also access this context menu from the menu bar:

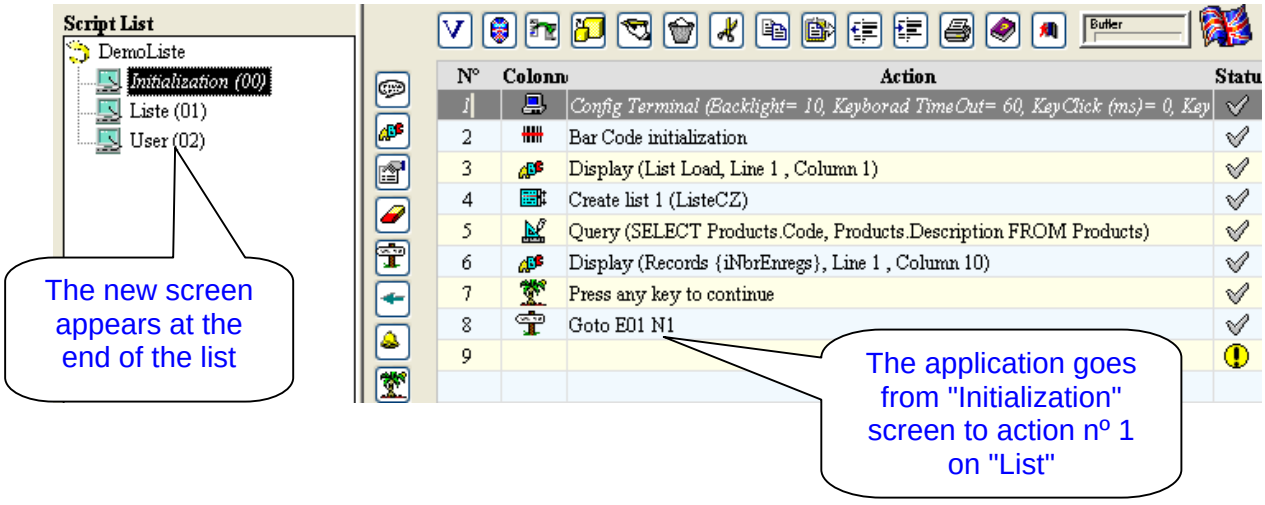


Move up and Move down options

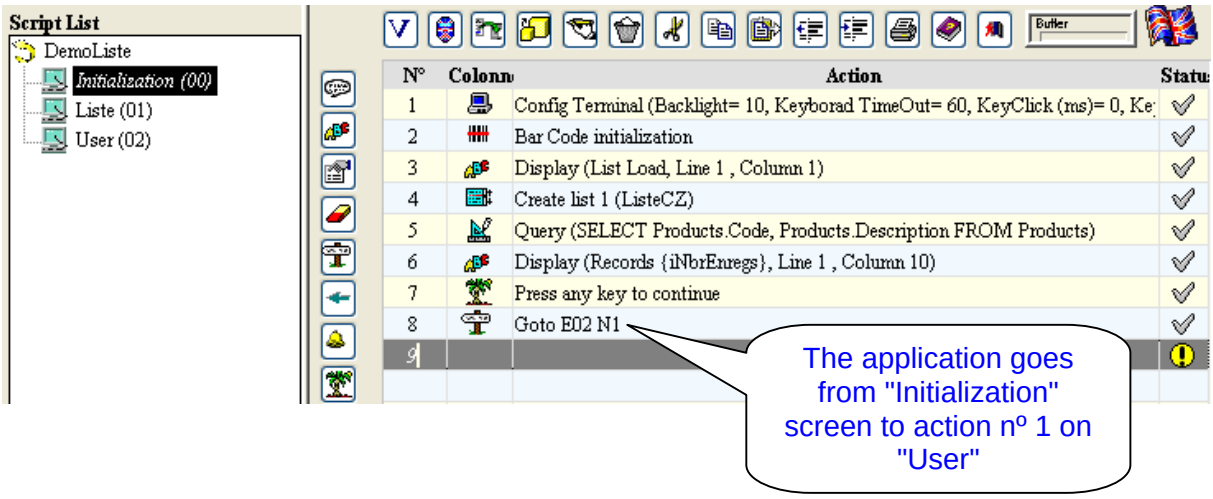
"Move up" and "Move down" options are useful to reorganize the screen list, especially when adding a new screen to the list.
For example, on the next scenario:



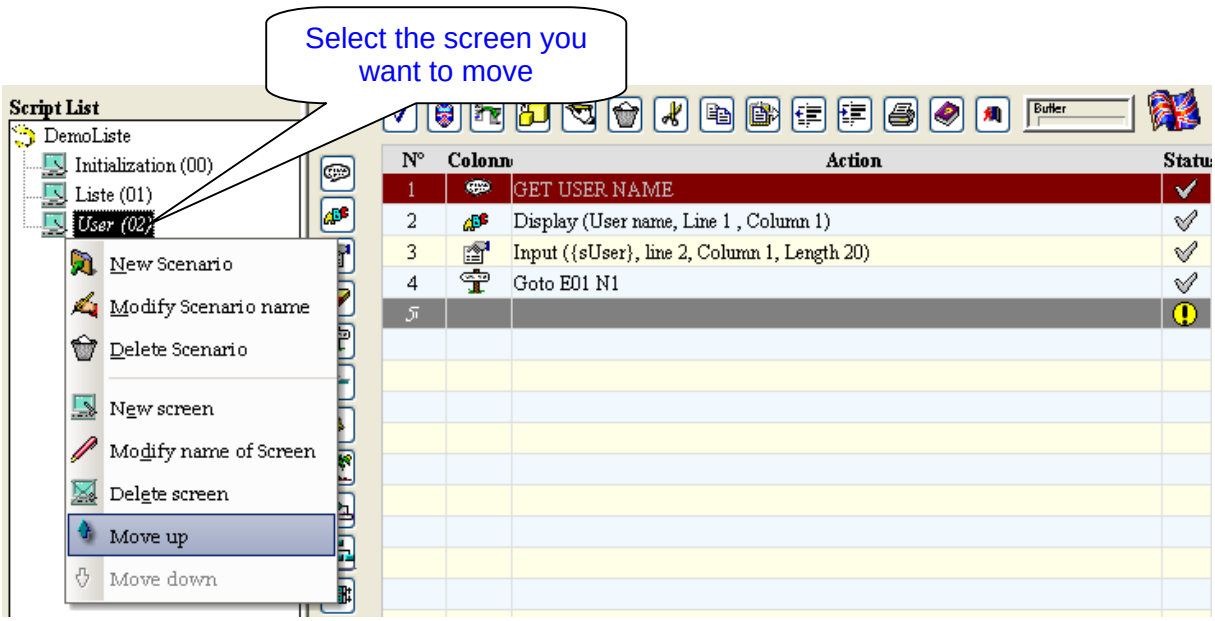
If you want the application to continue with a new screen before going to "List (01)", in other words, if you want to **add a screen between other screens**, in this case "Initialization (00)" and "List (01)", the new screen will appear at the end of the list:



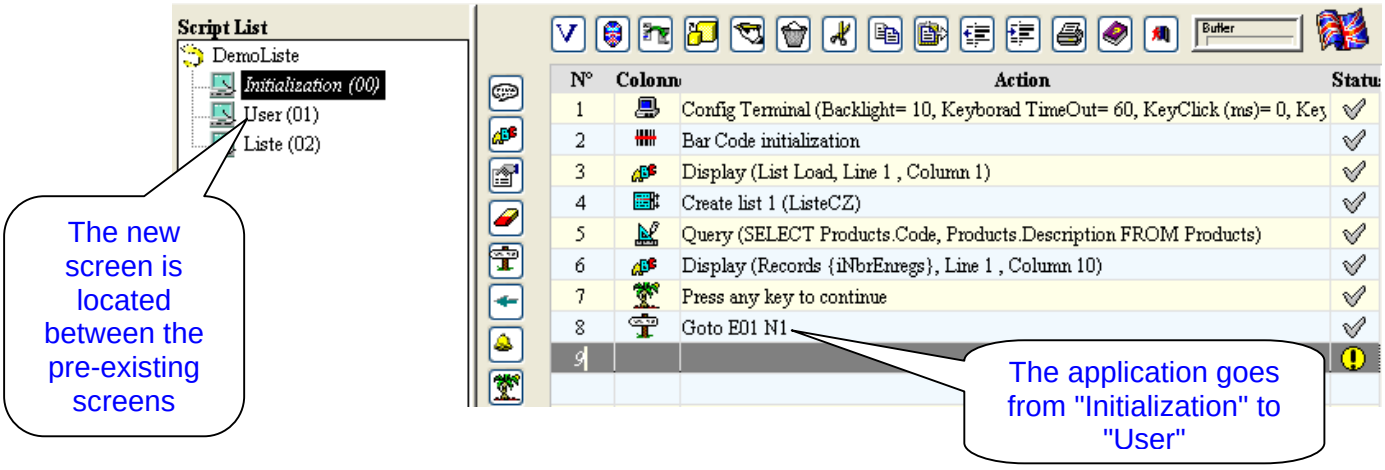
Warning: For the application to continue with "User (02)" (the new screen), you must change the destination of Go to another action on "Initialisation (00)" screen, in order to prevent the execution going to "List (01)" instead of going to "User (02)".



Select "User" screen and use "Move up" option on the context menu to locate this screen right after "Initialization", so the order of the screens on the script list will correspond to the scenario sequence:

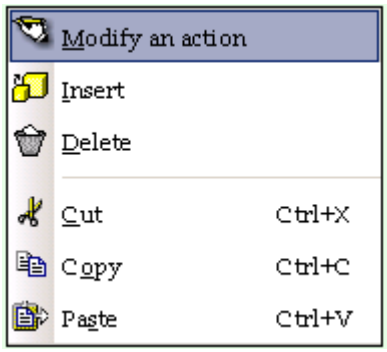


It is not necessary to set again the destination of all of the actions that redirect the execution to another screen because `WireLess Designer` automatically reassigns their destination:



4. ***Action list or Grid***

This list contains all the actions included on a screen. Each screen is composed of multiple actions (up to 999).
By right clicking on the list you will see a context menu with the following options:



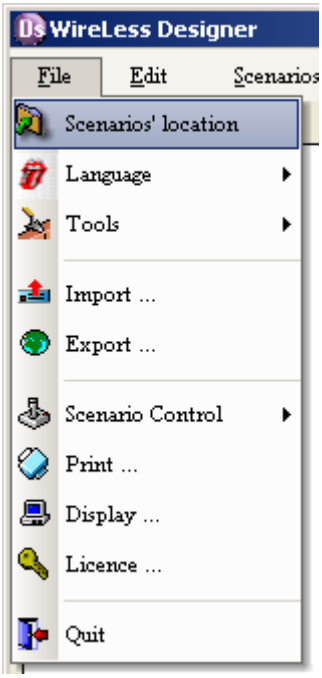
5. ***Actions Toolbar***

This toolbar allows executing an action quicker than using the menus, you only have to click once on the button representing the action. All these actions will be properly explained in chapter VI.

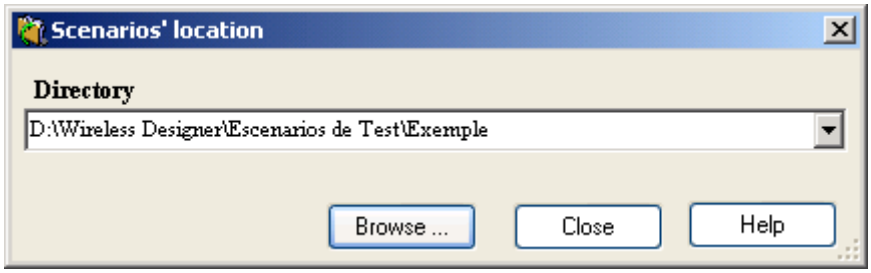
V. Configuration

1. *Scenarios location*

On the *File* menu, select the *Scenario´s Location* option:



This dialog will let you change the working directory of the scenarios.



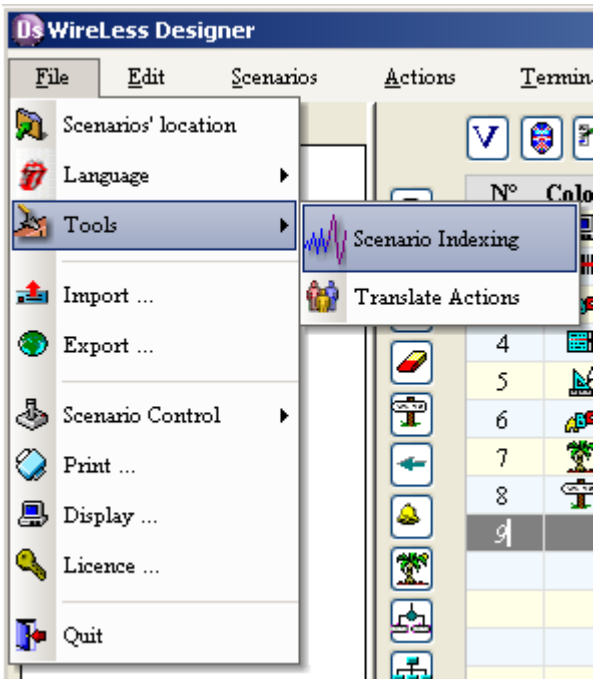
The list contains all the directories where scenarios can be found.

BROWSE button opens a dialog to select the directory in an easier way.

2. Scenario indexing tool

Scenario indexing makes programming easier, because it reduces access time to scenarios and allows repairing the index in case of any problem. It is advised to perform a scenario indexation after making any changes on the application.

On *File* menu, select *Tools* option, then *Scenario Indexing:*

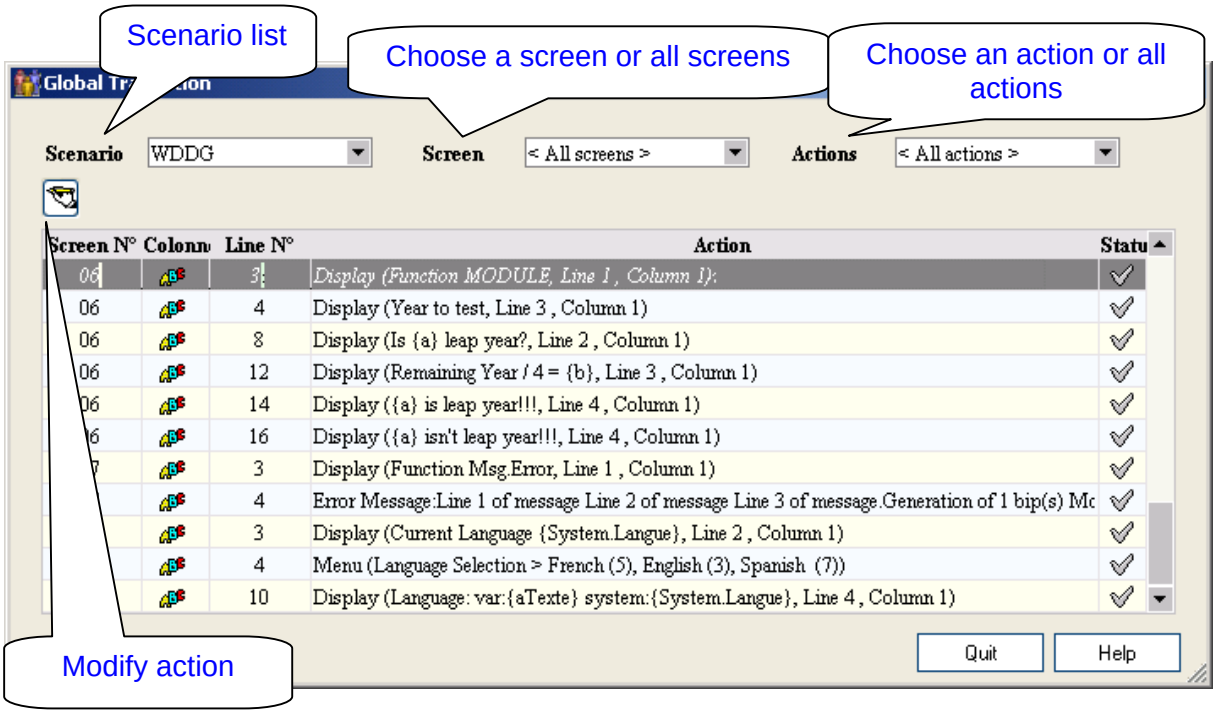


You will need to confirm the scenario indexing on the dialog that will appear next.

3. Translate Actions

This tool makes translation easier because it groups all the actions that display text to the user (Display text, Display menu, Error message) on the same window.

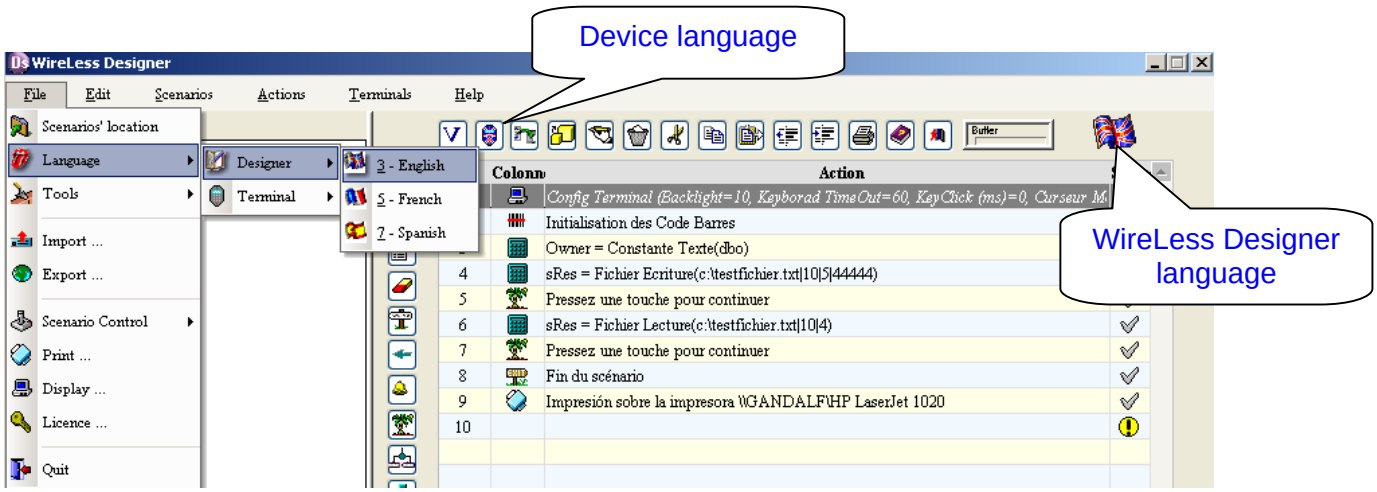
On *File* menu, select *Tools* option, then *Translate Actions.*



Pressing on the 'Modify action' button or double clicking on the action you will access to a window that enables to modify the selected action text.

4. WireLess Designer and Device language

On *File* menu *Language* option.

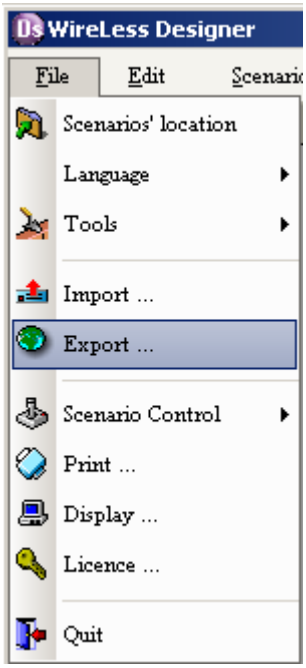


Designer: select the language for the `WireLess Designer` interface. The flag will change according to the selected language.

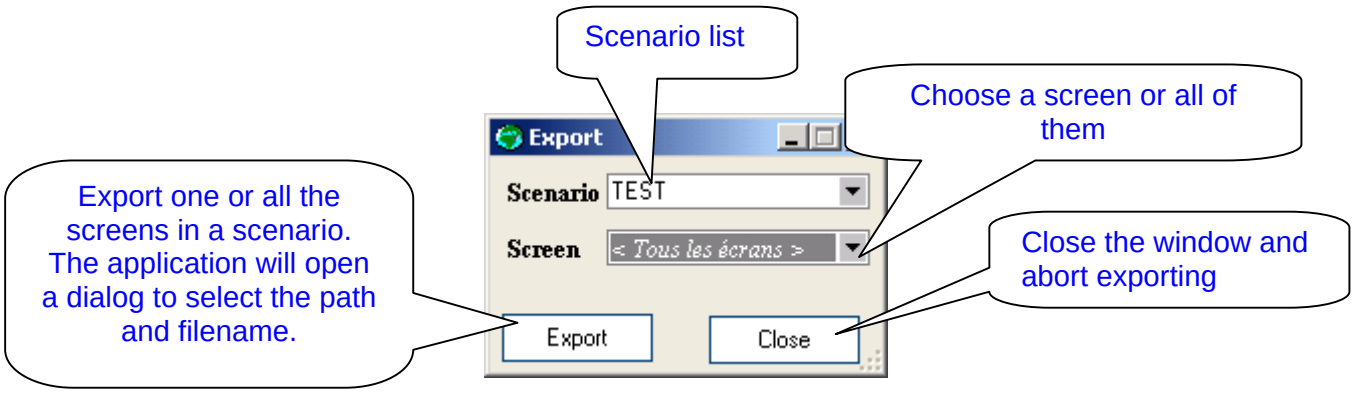
Terminal: select the language you want to use to visualize scenarios on the device. The simulation icon will change its colours according to the selected language.

5. ***Export a scenario or a screen***

On *File* menu, select *Export* option:

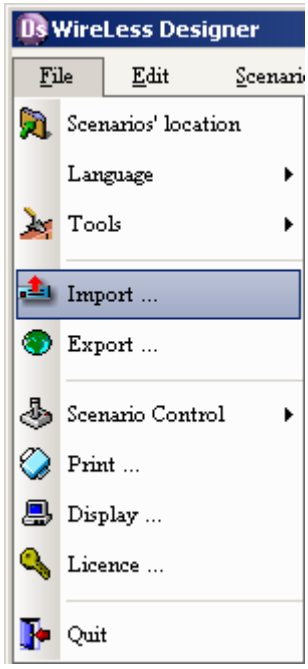


Then, the following dialog appears:



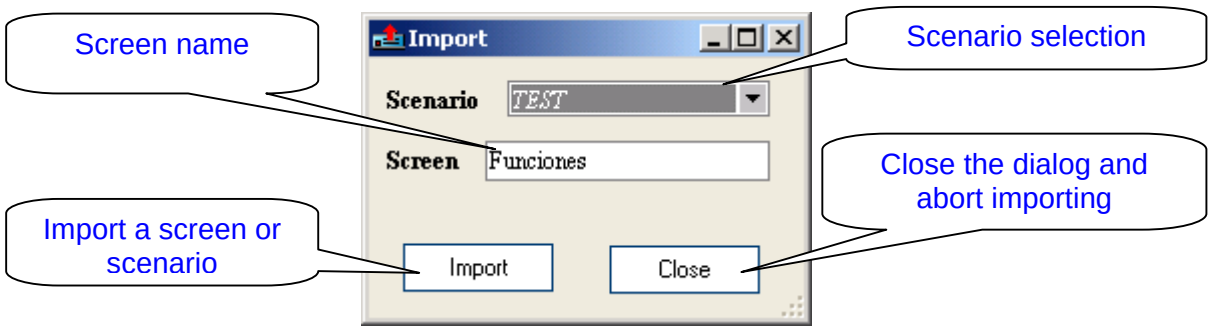
6. *Import a scenario or a screen*

On *File* menu, select *Import* option:



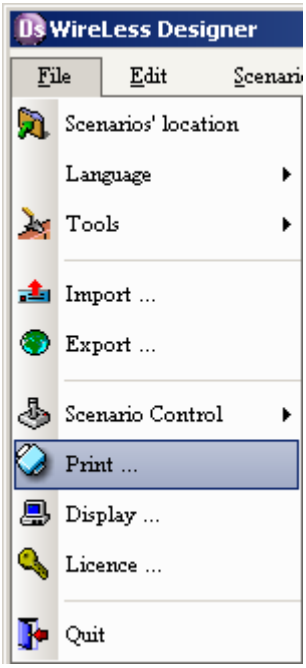
The application will open a dialog to select the file matching the screen or scenario you want to import (screen files *.ecr, scenario files *.sce)

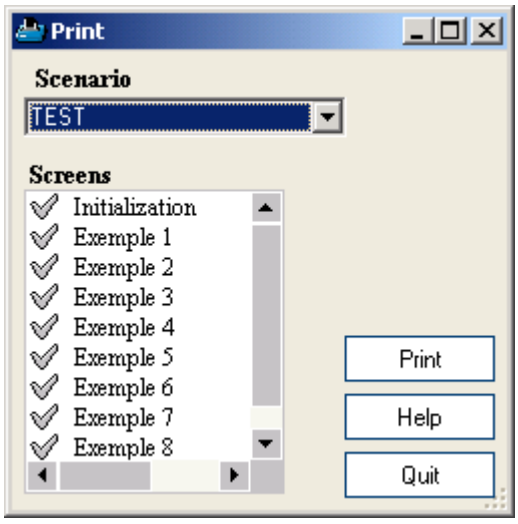
Then, you will see the following dialog:



7. ***Printing scenarios***

On *File* menu, select *Print Scenario* option*:*



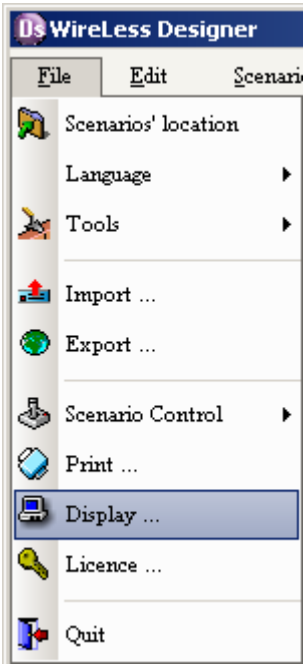


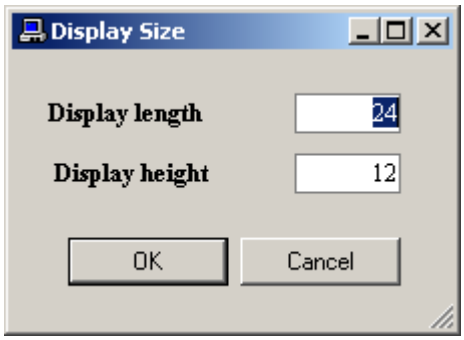
You can select the scenario you want to print including all of its screens.

PRINT button prints the selected screens.
HELP button opens online help.
QUIT button closes this dialog.

8. ***Display***

On *File* menu select *Display* option:

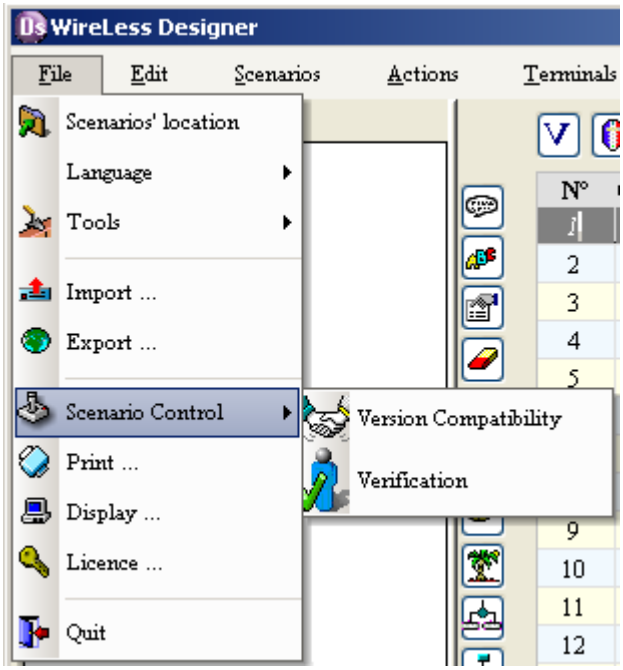




This window will open, which allows to define the size (in pixels) of the screen placed on the left down corner of the main screen. This grill represents the screen of the mobile device.

9. Scenario control

On *File* menu, select *Scenario control*. Two options will be displayed:

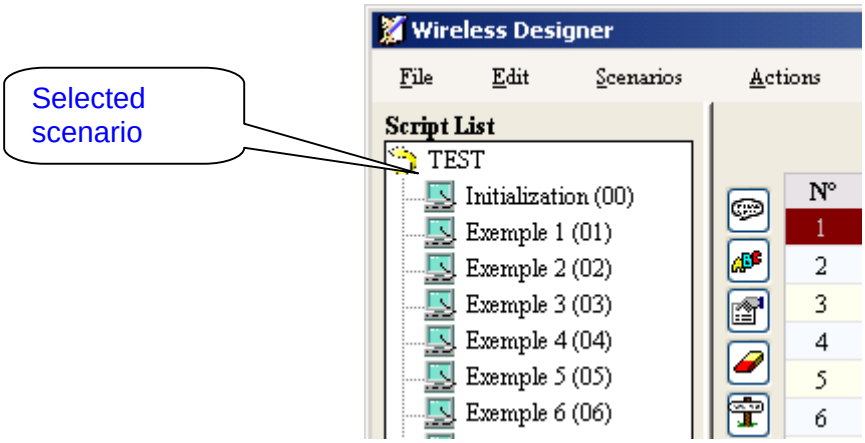


Version Compatibility: Verifies the presence of system variables ("System.xxxx"); if there isn't any, they are created. **It is mandatory to perform this process when changing** `WireLess Designer` **version so that you can continue to execute the applications you made with previous versions.**

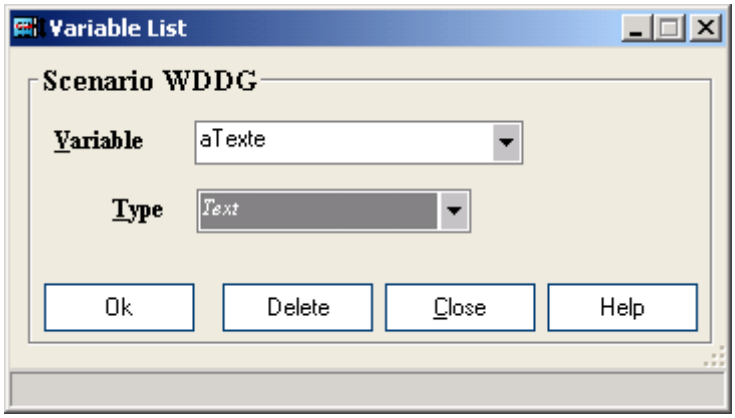
Verification: This process examines the entire scenario checking the existence of the variables used there and verifying if the destinations are valid.

10. Variables

The  button will be active only after creating or selecting a scenario.



This dialog lists all the variables of a scenario and allows modifying or deleting them.



Variable:
Select the variable you are going to modify or delete.

Types:
Text: any ascii characters.
Numeric: only numeric characters (including the decimal symbol).
Date/ Time: Date field (mm/dd/yyyy) or *Time* field (hh:mm:ss).

OK button confirms changes.
DELETE button deletes a variable.

Additional information about variables

Variables enable to store information to use it later.

A variable can be initialised by:

- A keyboard input on the device.
- A barcode input.
- Incoming data on Serial Port.
- Running a Select Query.
- Creating a Formula.

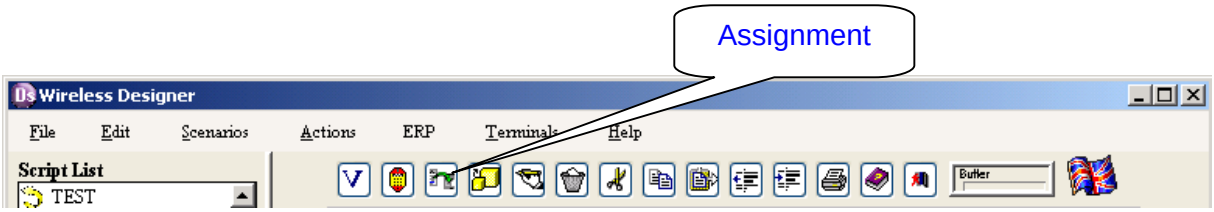
Some variables are predefined by the system and are able only for reading their content (can't be changed):

- System.Date: PC's current date.
- System.Time: PC's current time.
- System.BarCodeType: after reading a barcode, its type is stored in this variable.
- System.IDTerminal: the last number of the device's IP address.
- System.Columns: number of columns on the device's screen.
- System.Rows: number of rows on the device's screen.
- System.LastInputKey: last input performed.
- System.QueryError : state of the last query («0» means ok, «1» is error).
- System.QueryErrorNum: error number ("00000" without error)
- System.QueryErrorMsg: error message.
- System.QueryRowsAff: amount of rows affected (only for "Select" request).
- System.Langue: language on terminal.

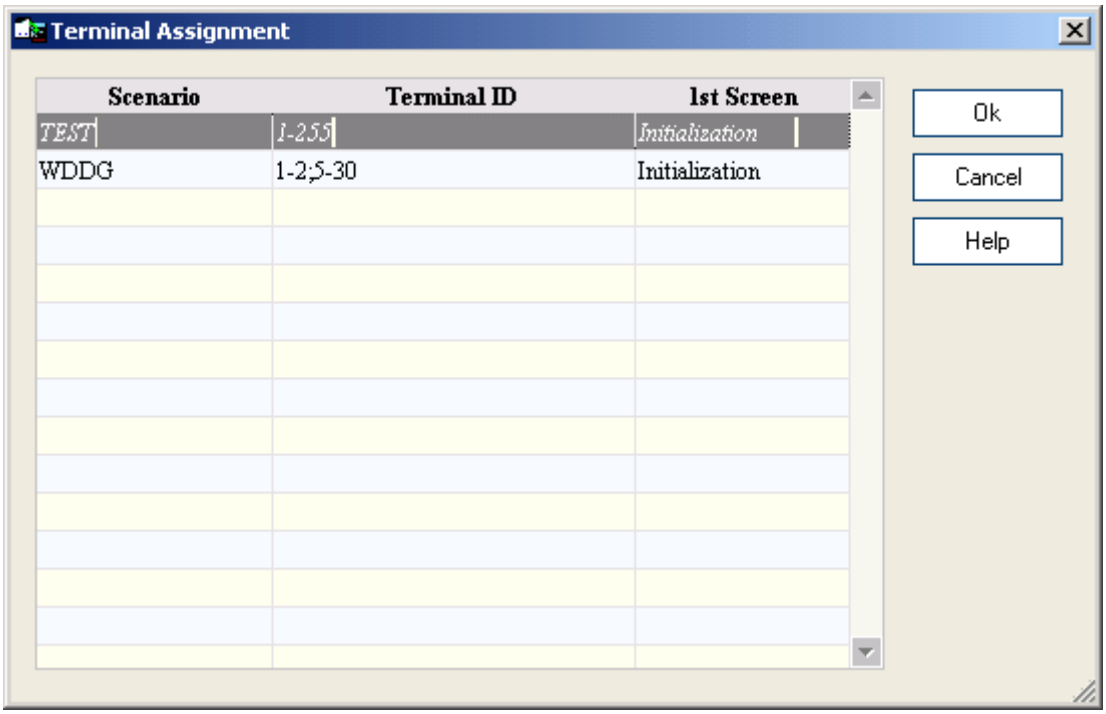
The following variables are also predefined by the system but they are able for reading and writing as well:

- System.ODBC_User: username for database access.
- System.ODBC_Password: password for database access.

11. Scenario Assignment



This dialog allows selecting which devices can access the scenarios and which is the first screen for each one of them.



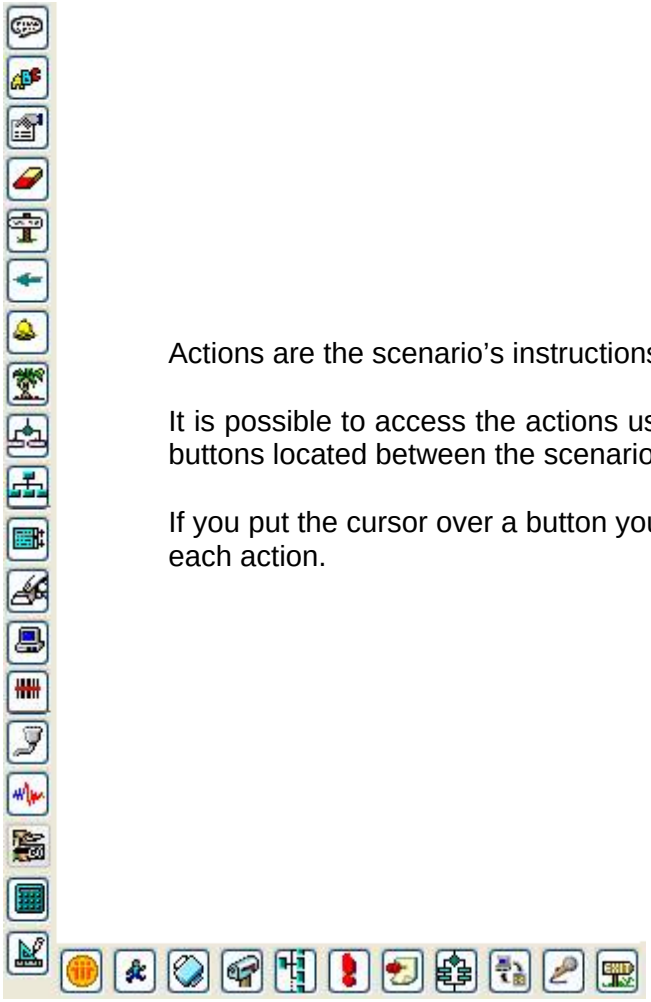
The table contains all the created scenarios.

Scenario:
Name of the scenario.

Device ID:
List of devices that can access the scenario. It is not required to enter the complete IP address for each device, it is necessary only the last part of the IP address on dot decimal mode.
Use the semi-colon to separate different devices.
Use the dash to select a group of devices.
Example: 1-5; 15; 20-23 (device with IP address ending in 1,2,3,4,5,15, 20,21,22,23 may access this scenario).

1st Screen:
This will be the first screen when running the scenario.

VI. Actions



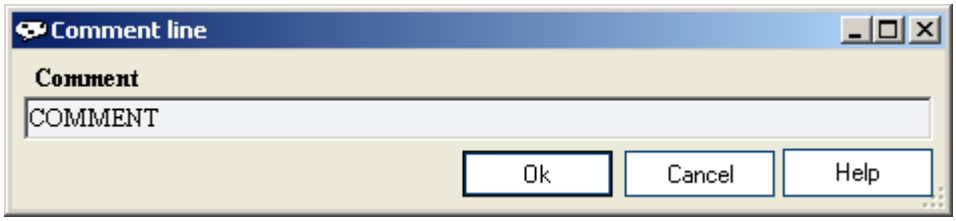
Actions are the scenario's instructions.

It is possible to access the actions using the *"Actions"* menu or the buttons located between the scenarios list and the actions grid.

If you put the cursor over a button you will see a brief description of each action.

1. ***Comment line***

Comment line action window can be opened pressing this button  .

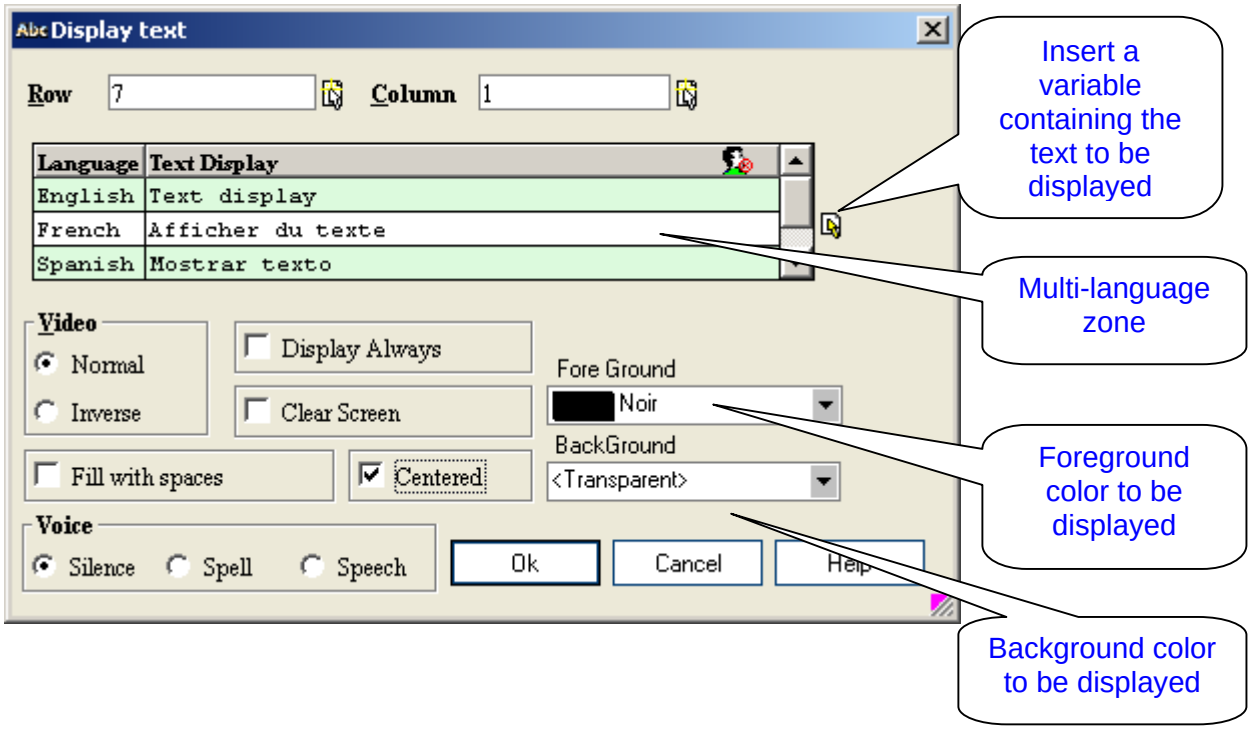


This action allows to insert a comment line on the actions grid, where it is possible to write remarks about the scenario. Comments can be useful to organize scenario's creation and improve their visualization.
They appear highlighted on red on the Actions list and on Destination selection window, so they are quick to find.

OK button saves the comment.
CANCEL button ignores any changes and returns to the main window.

2. *Display text*

You can reach the *Display text* window clicking on  .



Row:
Text vertical position (line). It can be a constant or a variable.

Column:
Text horizontal position. It can be a constant or a variable.

Text Display:
This field contains the text to be displayed on screen. These data can be constants or variables (select them with the button at right). Variables appear between curly braces.
There is a field for each language; the device language is configured in *File -> Language -> Device* or with the function *'SetLangueTo*' during a scenario execution.

Note: To display special characters, you need to specify its ascii value after '\' (example: \013 is the carriage return).

Video:
- Normal: Text is displayed in normal way.
- Inverse: Text is displayed in reverse way.

Display Always:
The text zone will be displayed right away (otherwise, the text will be displayed only when the device is expecting an input).

Clear Screen:
The screen of the device will be cleared before displaying the text.

Fill with spaces:
If the size of the text zone is smaller than the screen's width, blanks will be added after the text.

Centred:
The text will be centred according to the screen's width.

Foreground / Background:
Background and text colour.

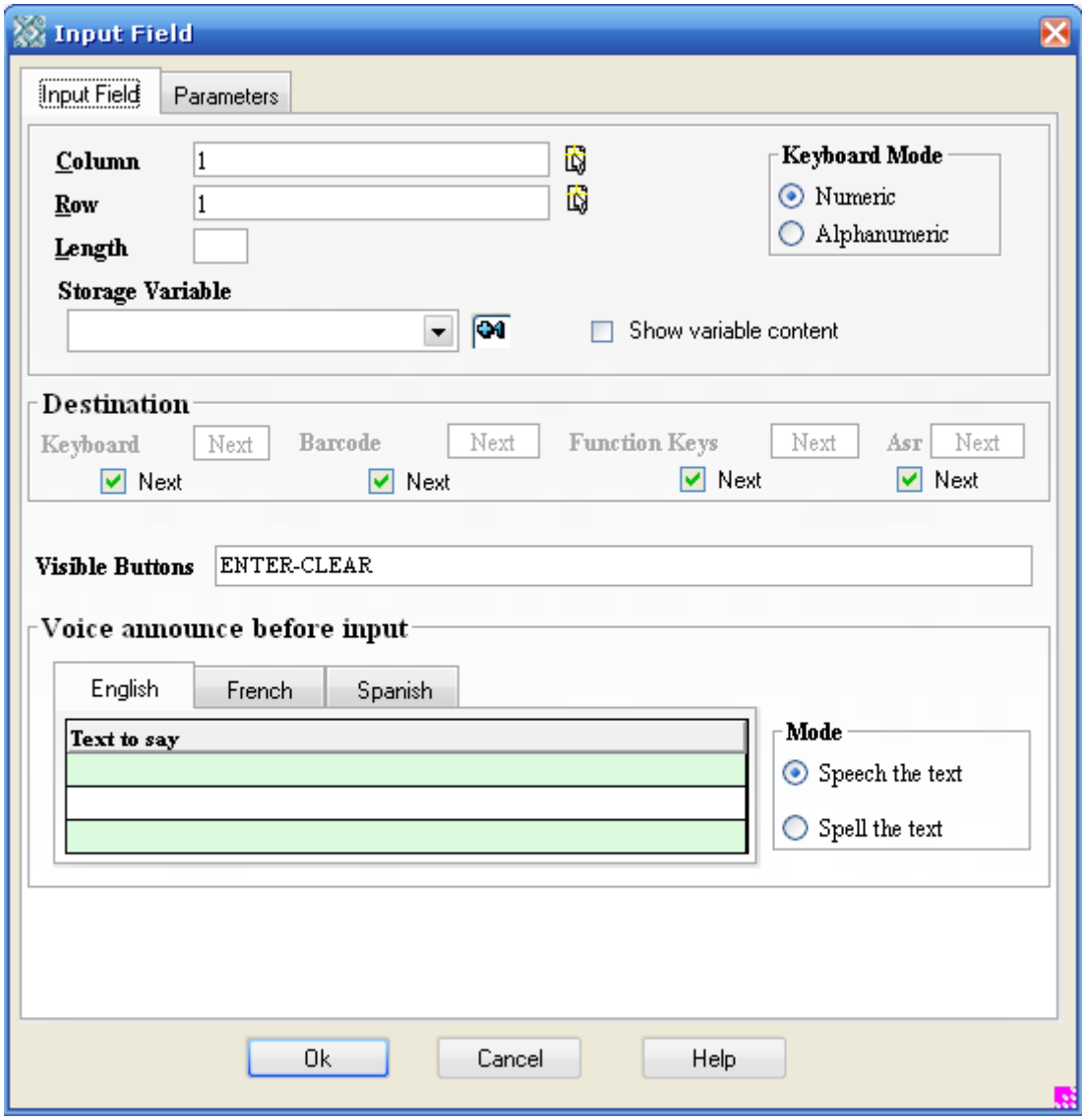
Voice:
This function is only settable for devices with TTS (*Text To Speech*).
- Silence*:* The terminal remains silent.
- Spell*:* It spells the text written in 'Text Display'.
- Speech: It reads the text written in 'Text Display'.

For more information on voice recognition and synthesis, see http://www.sof2go.net/man/wst/voice/WireLess_Studio_Voice_System.pdf.

3. *Input field*

Click on  to open *Input field* dialog. This window enables to input data on the portable device. Data input can be made from keyboard or from barcode reading.

This window has two tabs: "Input field" and "Parameters". On the first tab you can define the input source, the storage variable, the destination, among other options.



Row:
Text vertical position (line). It can be a constant or a variable.

Column:
Text horizontal position. It can be a constant or a variable.

Length:
Maximum length for this input.

Keyboard mode:
Defines if the input mode is numeric or alphabetic.

Storage variable:
Variable where to store this input.

Show variable content:
If you select this check box, the "Storage variable" content will be displayed on the input field. On this case, you may validate or modify this value. If you use this option, you have to take into account that the "Storage variable" must be initialised with a relevant value.
If you don't select this check box, the input field will be empty.

Destination:
When capturing data, the scenario is redirected towards another action according to the input source:

- Keyboard
- Barcode reading
- Function Keys (F1,F2 ... CLEAR)
- ASR (Automatic Speech Recognition)

Selecting the check box under each field allows to continue the scenario execution with the following action without specifying the number of the destination action. When this check box is marked, the text zone displays "Next".
If you want to continue the scenario execution with another action, unmark the check box and click on the text zone. *Destination* window will open, so you'll be able to select there the action where to the scenario will be redirected (see Destination selection window).

Visible buttons:
You can set up which buttons will be displayed on the device and change the caption for each one. You must use the following syntax: "name of the key: text to display". You can only set up these functions: F1… F10, Clear, Enter and the arrows. The effect of the buttons will be the same as pressing F1... F10, Clear, Enter.

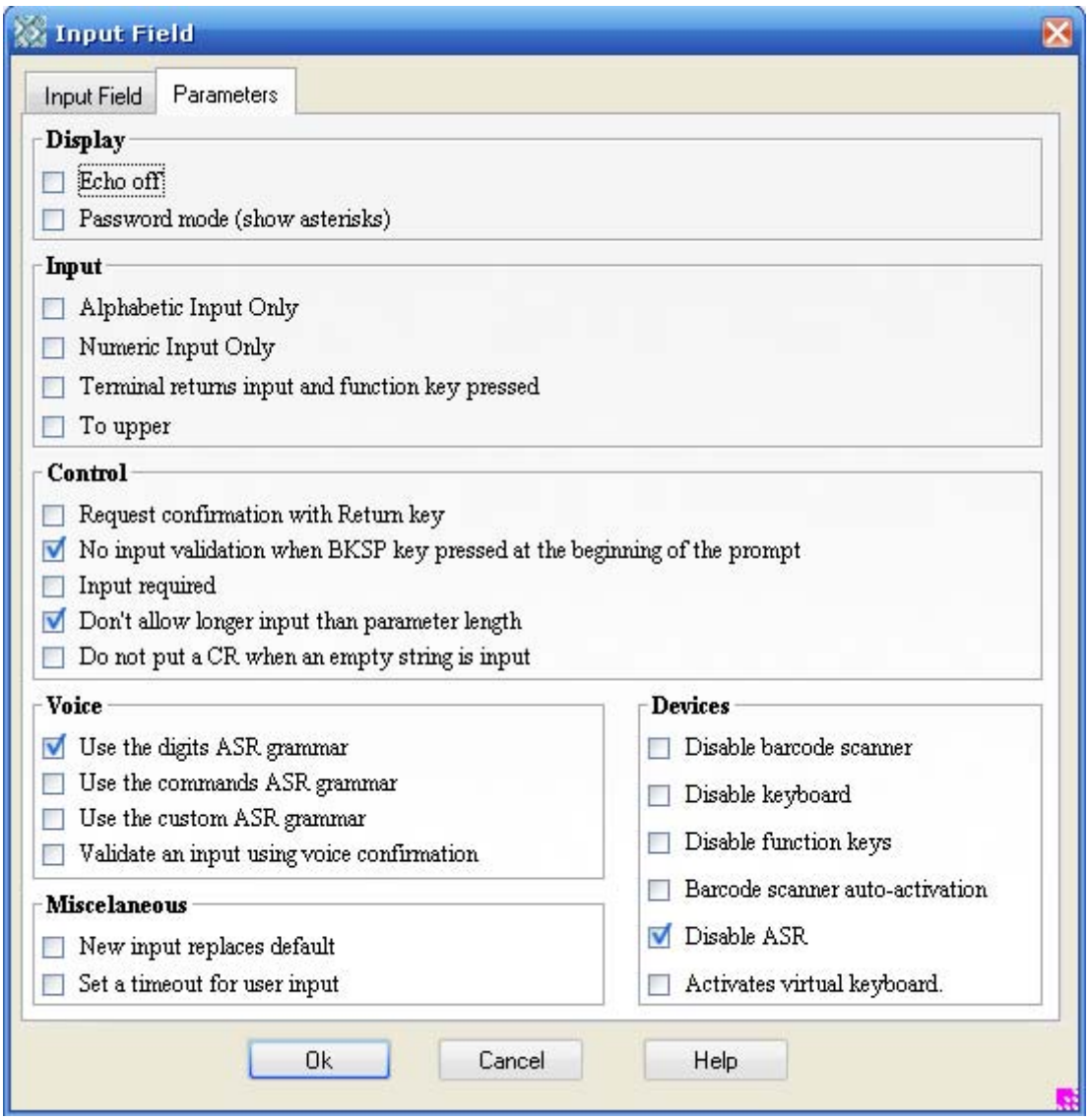
Example:
- the syntax "ENTER: CONFIRM" will show a button that says CONFIRM and that will behave as ENTER button.
- the syntax "F1:PRINT" will show a button with that says PRINT and that will behave as F1 button.

Voice announce before input:
On this field you can type the message you want the terminal to say -using TTS (Text To Speech)- to the user before data input.
There's a field for each language. The language in which the message will be said can be defined on *File>Language>Terminal* or using 'SetTerminalLanguage' function during a scenario execution.

For more information on voice recognition and synthesis, see:
http://www.sof2go.net/man/wst/voice/WireLess_Studio_Voice_System.pdf.

Mode:
This option allows to select if the message will be said normally or if it will be spelled. "Spelled" mode is not implemented yet.

On "Parameters" tab, you can customize the display, data input and ASR configuration, among other options.
To activate a parameter you have to click on the check box next to it.



Display:
Data input display parameters.
- Echo off: Do not display input.
- Password mode (show asterisks): Replace the input characters with an asterisk (*).

Input:
Input characters parameters.
- Alphabetic input only: Allow input of alphabetic characters only.
- Numeric input only: Allow input of numeric characters only.
- Terminal returns input and function key pressed: Return input and which function key was pressed.
- To upper: Change input characters into capital letters.

Control:
Input length parameters.
- Request confirmation with Return key: Press ENTER in order to validate the input.
- No input validation when BSKP key pressed at the beginning of the prompt: Do not return form the function if BKSP is pressed and there's no data input. If this option is not activated, when pressing BKSP the function will return and the "Storage variable" (defined on the previous tab) will be empty.
- Input required: Do not return from function with an empty input. If this option is not activated, when pressing ENTER the function will return and the "Storage variable" (defined on the previous tab) will be empty.
- Don't allow input longer than parameter length: Input length can't be longer than the length defined on "Length" field (defined on the previous tab). If this option is not activated, longer inputs are allowed (system limit only).
- Don't put a CR when an empty string is inputted: If the input is an empty string, carriage return (013, 0x0Dh) is not added. Of this option is not activated, carriage return is added when the input is an empty string.

Voice:
ASR (Automatic Speech Recognition) parameters.
- Use the digits ASR grammar: Allow only inputs of digits from 0 to 9. The user can say one or several digits. If no grammar is defined, ASR will be disabled.
- Use the commands ASR grammar: Allow only inputs of command keywords. The user can say one or several digits. If no grammar is defined, ASR will be disabled.
- Use custom ASR grammar: Allow using a special custom grammar. If no grammar is defined, ASR will be disabled.
-Validate an input using voice confirmation: Uses ASR validation mode.

For more information on voice recognition and synthesis, see
http://www.sof2go.net/man/wst/voice/WireLess_Studio_Voice_System.pdf.

Devices:
Data input allowed sources parameters.
- Disable barcode scanner: Disable scanner as data input source.
- Disable keyboard: Disable keyboard as data input source.
- Disable function keys: Disable function keys as data input source.
- Barcode scanner auto-activation: Activate the scanner automatically. If not set, the scanner is activated by trigger.
- Disable ASR: Disable ASR as data input source.
- Activate virtual keyboard: Display the virtual keyboard as a full screen pop up window.

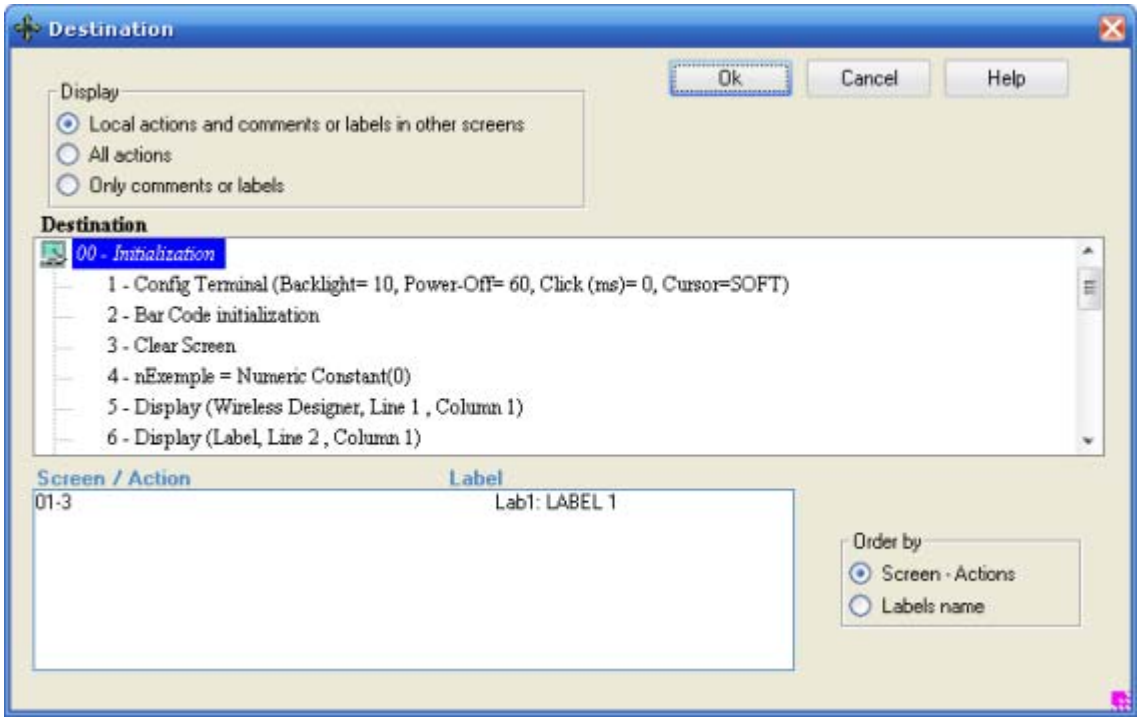
Miscellaneous:
Other parameters.
- Edit default value: New input is appended after displayed data, if any (previous data is displayed only if "Display variable content" check box from the previous tab is selected). If this parameter isn't activated, new input will overwrite displayed data (when pressing the first key).

*Note: This parameter is valid for keyboard input only (barcode and ASR input **always** replaces default input).*

- Set a timeout for user input: Timeout for user input. If the user goes over the timeout, the function returns and the "Storage variable" will be empty.

Note: The value for this timeout can be modified on the configuration file of WireLess Studio Client, using "KeyTime" option on "TERMINAL" section.

Destination selection window



This window shows a tree and a list that enable to select easily the action where to you want to redirect the scenario.

Tree of screens and actions:
This tree is the upper schema. It has three display options:

- Local actions and labels in other screens: This option shows all the actions located on the scenario where the cursor is and other scenario's labels and comments.

Note: Comments appear highlighted on red and labels on green.

- All actions: This option shows all actions of all screens.

- Only labels: This option shows only other screens' labels and comments.

To roll up or down the actions, you just have to click on the name of the screen.

Label list:
The label list is the bottom schema. It can be sorted by:

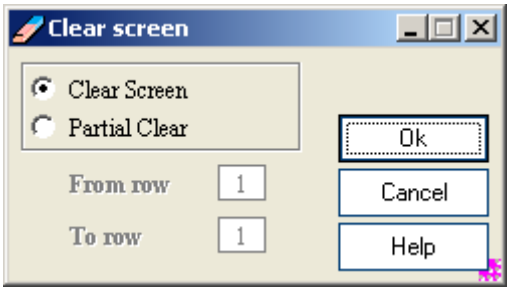
- Screen / actions: Labels are sorted by order of appearance on screen.
- Label name: Labels are sorted by name.

To select a destination, click on the name of the destination action and press OK.

CANCEL button aborts the operation and returns to the window where you came from (Input field, Go to another action, Condition (If… go to… Else, go to…), Display menu, Depending on function key, Case, Error message or List selection).

4. ***Clear screen***

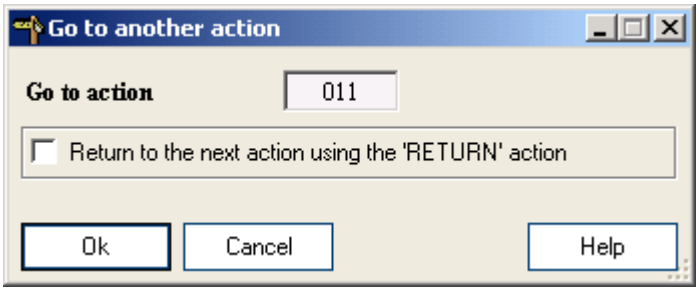
You can open the *Clear screen* dialog clicking on  .



You can select whether you want to clear the whole screen or just a part of it, in which case you will have to specify the start and end row.

5. Go to another action

You can open the *Go to another action* dialog clicking on  .



This action allows modifying the sequential execution of the scenario's actions.

Go To Action:
To select a destination you must click on the input zone. This will open Destination selection window, where you will be able to select the destination action.

It is convenient to select labels or comments as destination for this action because they are quick to find on Destination window and on the Actions list.

Return to the next action using the RETURN action:
This option lets the execution return to the next action on the list after the Go To action finds the Return action. This option is useful when you call a screen from several actions.

6. Return to calling next action

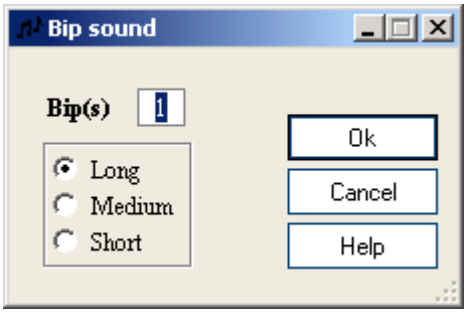
This action will be added automatically by clicking on  .

This action lets the execution return to the next action from where it was called by the Go To action. Example: if there is a screen with several actions that go to different actions or screens in the scenario, you can select the option *'Return to the next action using the RETURN action'*, then the application will return to the action that was next on the list, without having to manually manage to return there.

7. Bip Sound

Portable devices applications usually need to make audible signals to validate, for example, a barcode input.

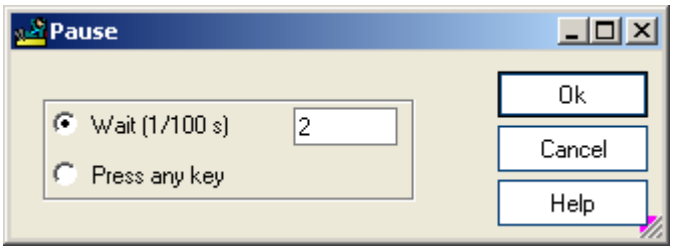
You can reach the *Bip Sound* dialog by clicking on  .



You can select the bip duration (long, medium or short), and the number of bips as well.

8. Pause

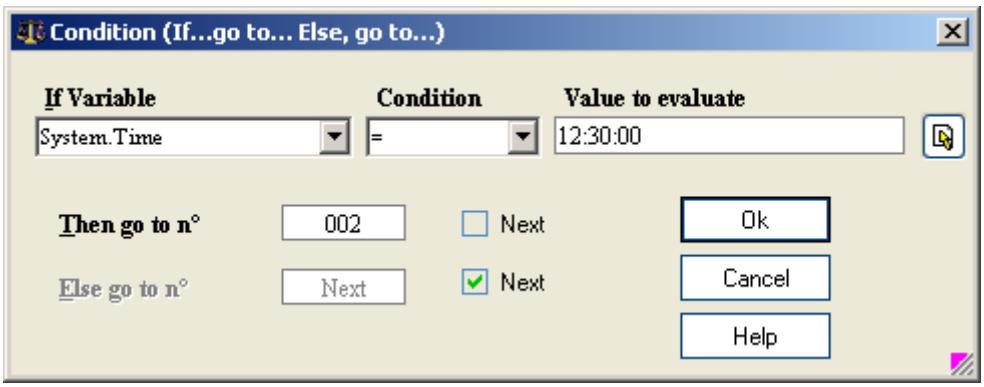
You can open the *Pause* action window clicking on  .



The pause can have a defined duration (in hundredths of seconds) or last until the user press a key. On this case, function keys can be used as well, so the application can ask "Press F1 to continue", for example.

9. Condition (If… go to, Else… go to)

You can reach the *Condition (If… go to… Else, go to…)* window clicking on  .



This action enables to redirect a scenario according to the value of a variable.

If Variable:
Select a variable from the list.

Condition:
Condition filter.

Value to evaluate:
This may be a constant or another variable. Variables can be selected with the button located next to this field. They appear enclosed between curly braces.

Then Go To nº:
If the condition is true, the execution continues with this action.

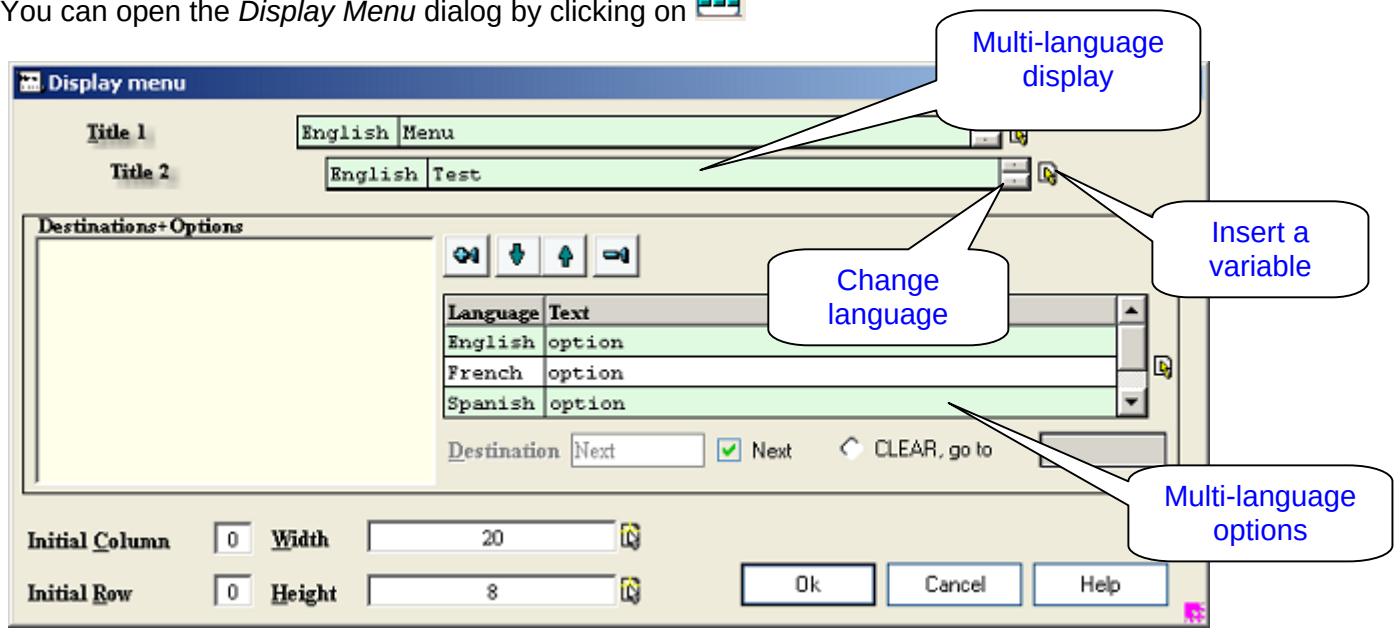
By default, this field displays "Next" and the check box next to it is marked. This means that the scenario will continue with the following action.
If you want to continue the execution with another action, unmark the check box and click on the text zone. This will open Destination selection window, where you will be able to choose a destination action.

Else Go To nº:
If the condition is false, the execution continues with this action.

By default, this field displays "Next" and the check box next to it is marked. This means that the scenario will continue with the following action.
If you want to continue the execution with another action, unmark the check box and click on the text zone. This will open Destination selection window, where you will be able to choose a destination action.

10. Display Menu

You can open the *Display Menu* dialog by clicking on 



This action allows creating a menu on the portable device. A frame will be displayed around the menu.

Title 1, Title 2:
Titles are not mandatory. It is possible to enter titles in multi-language mode. To change the language on which you want to input the text, use the buttons next to the field. The button located at right of the field allows inserting a variable on the title.

Destinations + Options:
This list contains the menu options and their associated destinations.

The **+1** button enables to add an option.
The -**1** button enables to delete an option.
The up arrow enables to move upwards on the list.
The down arrow enables to move downwards on the list.

Text:
This field allows editing the option title. You can select an option from the list and modify its content. It is possible to insert variables and different texts for each language.

Destination:
This is the action where to the execution will be redirected when selecting the option.
By default, the check box will be marked and "Next" will appear on the text zone. This indicates that the execution will continue with the following action.
If you want the execution to continue with another action, unmark the check box and click on the text zone. This will open Destination selection window, where you will be able to choose a destination action.

CLEAR:
If this option is selected, it will be possible to exit the menu without evaluating any options. You must select a destination for this action clicking on the field. Destination selection window will be opened, where you will be able to choose a destination action.

Initial Column:
Horizontal position of the menu.

Initial Row:
Vertical position of the menu.

Length:
Frame length of the menu.

Height:
Frame height of the menu.

Note:
The position of the menu depends on the screen size of the device. Length and Height fields are very important in order to avoid the menu going over the screen edges.
Example:
For an 8 rows screen, with the menu staring on row 2, height must be equal or less than 7.
For a 20 columns screen with the menu starting on column 3, the length must be equal or less than 18.

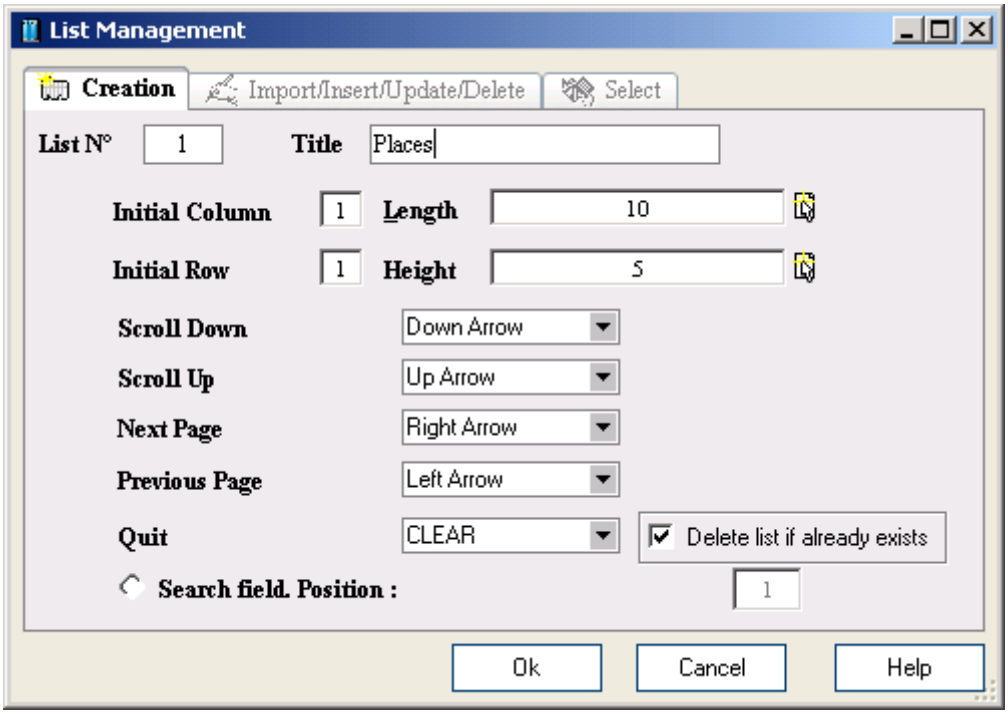
11. List management

Click on  to open *List management* window. List management is divided in three parts.

Note: The list will be displayed to the user on 'List management' > 'Select'

The first tab is used to create a list:

a) List Creation



List number:
The list number must be between 1 and 99. To access another tag, you must enter 0 (zero) on this field.

Title:
List title.

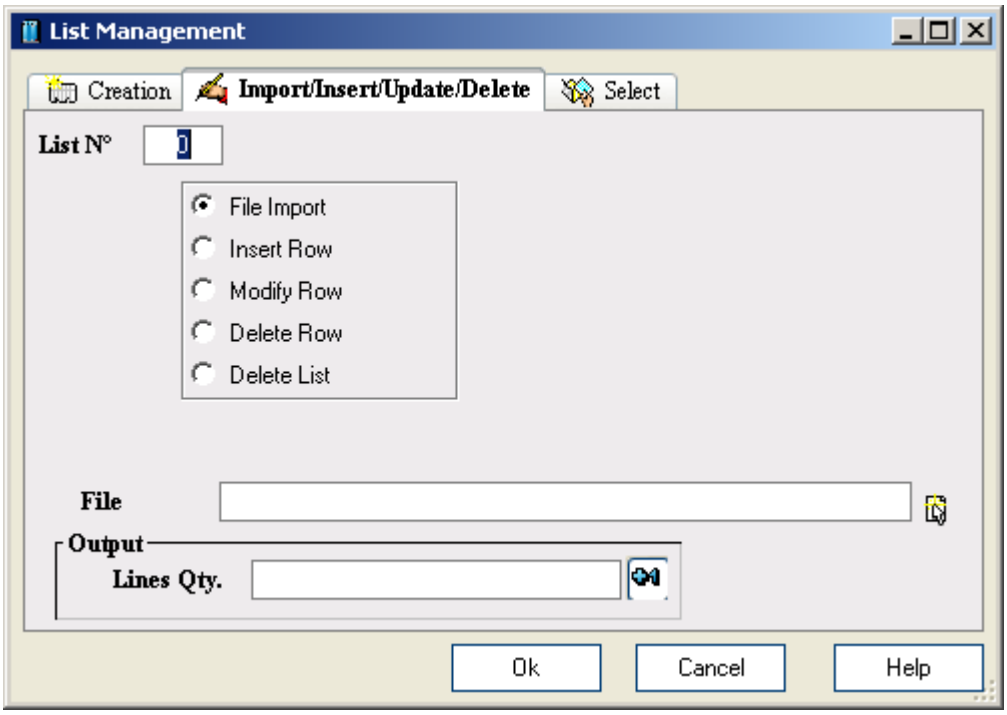
List design:
- Initial Column
- Initial Row
- List Length
- List Height

Customizing navigation keys:
- Scroll down
- Scroll up
- Next page
- Previous page
- Quit. In this case, execution will continue on the next action and this variable will be initialised in –1.

Delete list if already exists:
If this case is selected, the content of the list is deleted if it already exists.

Search Field. Field Position:
This option enables to perform a quick search of an element of the list.
Field position indicates the position on the file where the search field is. The file must be organized according to this field.

b) Import, Insert, Modify, Delete a row or Delete list



List number:
List identifier. The application allows creating up to 99 lists. You must insert 0 (zero) to switch between tabs.

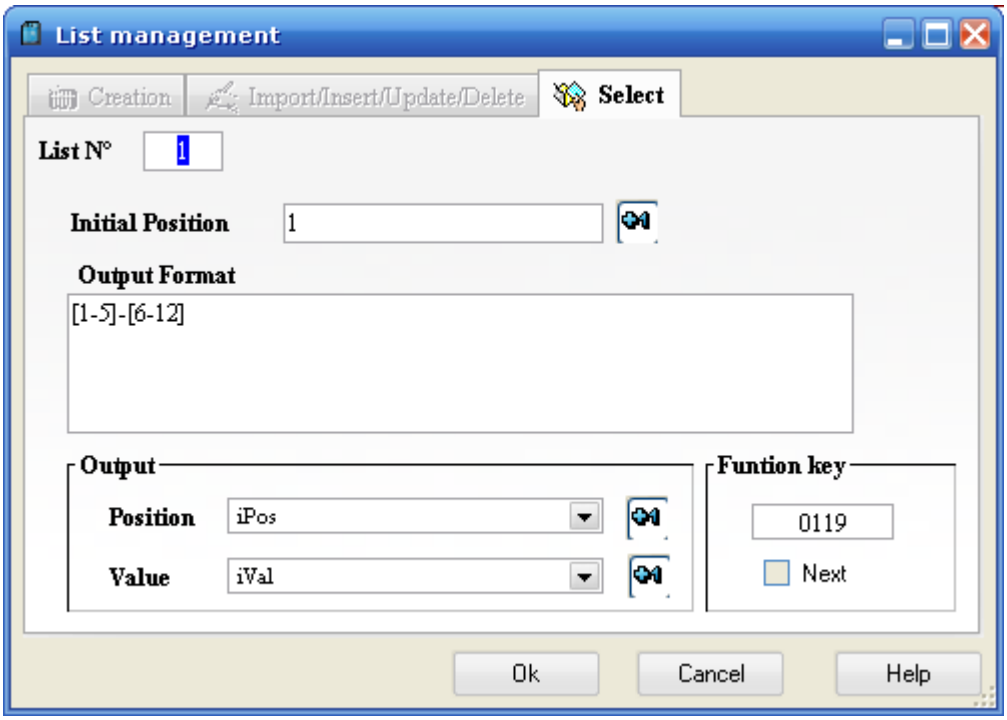
Options:
- Import a file
- Insert a row
- Modify a row
- Delete a row
- Delete the list

File:
Full path and name of the file to be imported. This file must have a fixed record size. You can insert a variable in this field by clicking on the button next to it.

Lines Qty.:
Quantity of lines remaining after Import, Insert, Modify, Delete one or all rows of the list. To create a variable, just insert its name on the input zone.

Note: Elements must have a fixed length.

c) List selection



The third tab of this window enables to display the list in order to select an element.

List number:
List number (between 1 and 99). You can insert 0 (zero) to switch between tabs.

Initial position:
Start position of the list on the imported file. The default value is "1", which matches the first value of the list.

Output format:
On this field you can select the values of each line of the imported file that will be displayed. You can also configure the display format.
Beginning and end position of the fields that will be imported must be defined between square or curly brackets and they must be separated by a dash. The characters that don't appear between square or curly brackets will appear as they are.

Example:
If the file line is: "025Product 025 "
and you define: [1-3] / [4-23]
this will appear on screen: "**025 / Product 025 "**

If you define: {1-3}/ {4-23}
this will appear on screen: **"025/ Producto025"** because *blank spaces are deleted when using curly brackets.*

You can also show an element on several screen lines.

Example:
If the file line is: "025 Product 025"
and you define: Cod = [1-3]
Desc= [5-15]
this will appear on screen: **"Cod = 025"**
"Desc= Product 025"

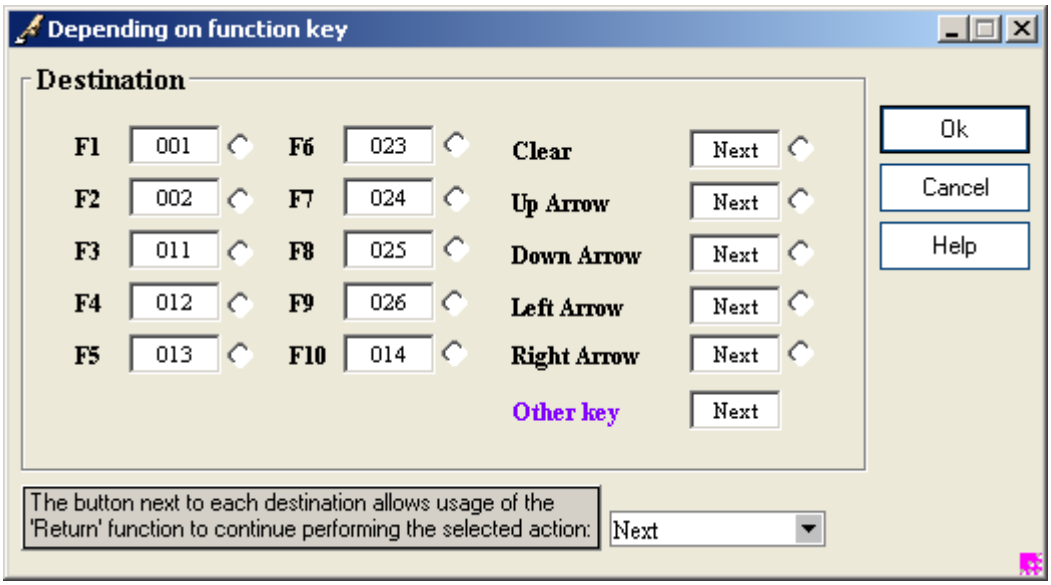
Output:
- Position: Position on the list of the selected element (numeric). This variable can be selected or created by pressing the button located at right of this field.
- Value: Name of the variable where to store the selected line (text). This variable can be selected or created by pressing the button located at right of this field.

If the operation is cancelled, the returned value is "0".
If the first element of the list is selected, the returned value is "1".

Function key:
On this field you can select the action where to the scenario will be redirected when pressing a function key. If this field is empty, function keys have no effect.
If you select "Next" check box, which is below the field, the scenario continues with the following action with no need to specify its number. When this check box is selected, the word "Next" appears on the text zone.
If you want the execution to continue with another action, just deactivate "Next" check box and click on the text zone. This will open Destination selection window, where you will be able to choose a destination for the corresponding key.

12. Depending on function key

Click on  to open *Depending on function key* window.



This dialog allows to assign a specific action to each function key.

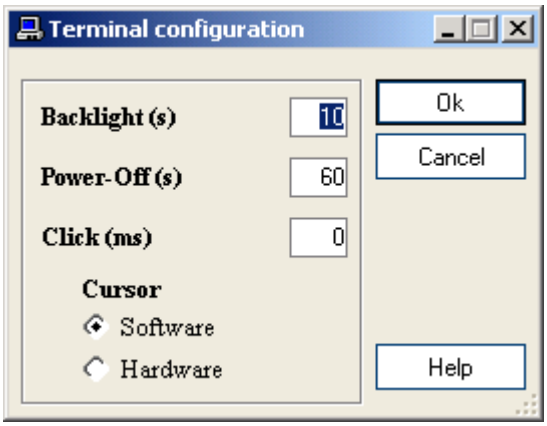
By default, "Next" will appear on each text zone. This indicates that when pressing the key, the scenario execution will continue with the following action.
If you want the execution to continue with another action, just click on the text zone. This will open Destination selection window, where you will be able to choose a destination for the corresponding key.

For each destination you can select the ‘Return’ option to continue on the next or previous action after the application finds the ‘Return to calling point’ action.

It is not mandatory to select a destination for each function key. However, a common destination for all the keys that don't have a specified one must be indicated. This destination must be defined on 'Other key'.

13. Terminal configuration

Click on to open *Terminal configuration* window.



This dialog sets the configuration parameters of the mobile device.

Backlight (s):
Backlight timeout (unsupported in Windows CE ®).

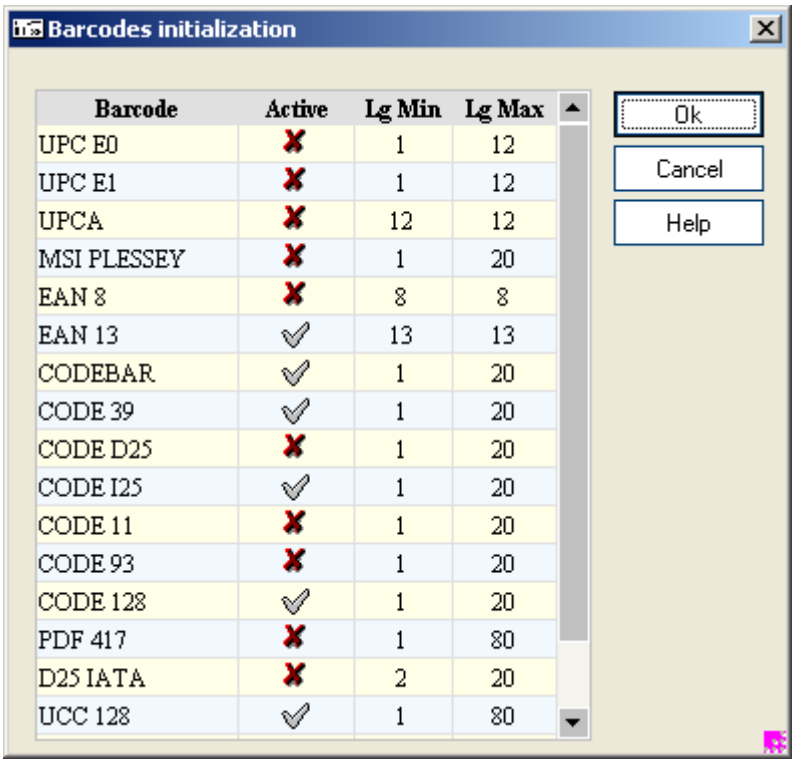
Power-off (s):
Device timeout.

Click (ms):
Click sound duration when a key is pressed (unsupported in Windows CE®). 0 = no click.

Cursor:
Select cursor type (by software or by hardware).

14. Barcodes initialization

Click on  to open *Barcodes initialization* window.



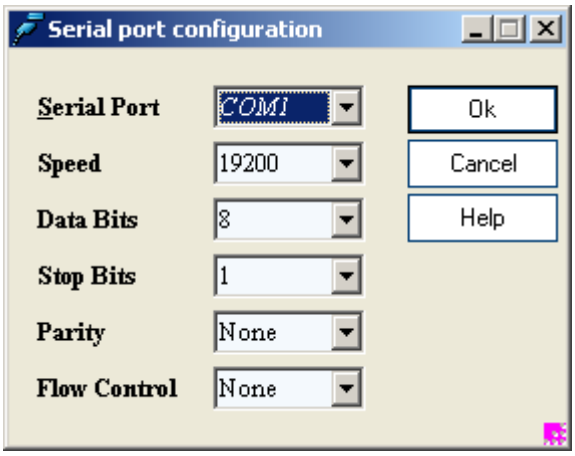
This dialog configures which barcode types the device and your application will recognize.

Active:
On this column you must define which barcode type from the list is enabled and which is disabled for reading.
To enable scanning a barcode type, click on its row and then select the V.
To disable scanning a barcode type, select the X.

Lg Min and Lg Max:
Maximum and minimum barcode length can be modified on these columns. Click on the value you want to modify and input the new value through the keyboard.

15. Serial port configuration

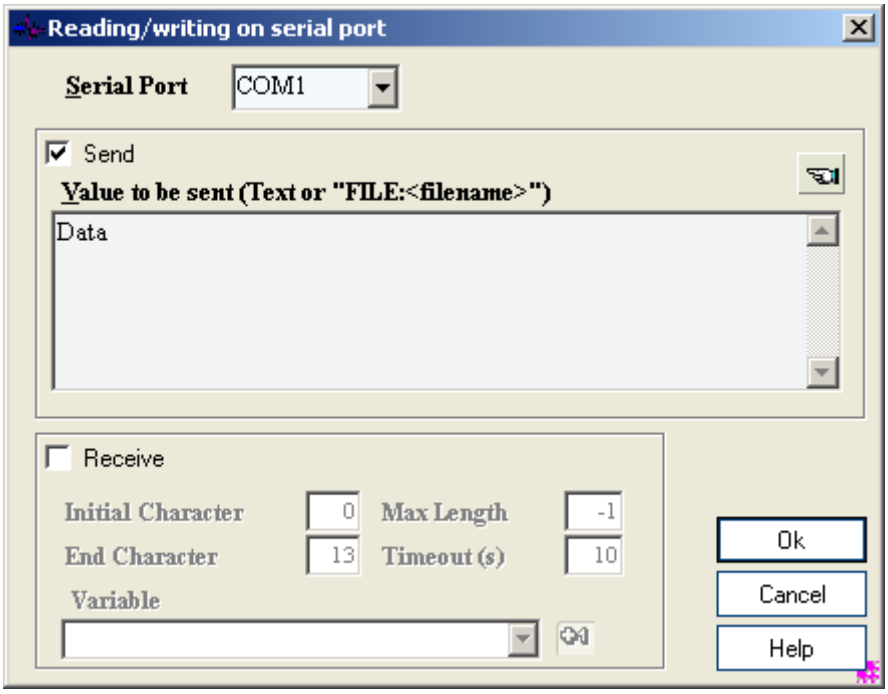
Click on  *Serial port configuration* window.



On this dialog you can set up the configuration parameters (serial port, speed in bps, data bits, stop bits, parity, flow control) for the serial port of the device. Standard values are predefined on the list-box

16. Reading /writing on serial port

Click on  to access *Reading/writing on serial port* window.



This window allows to send and receive data through the serial port of the device.

Serial Port:
Selection of the Serial Port.

Send:
If this option is selected, you must insert the text to be sent. You can insert a variable by clicking on the button next to this field. Variables must be enclosed between curly braces ('{}').

Note: To transmit special characters, you must insert their three digit ASCII value after '\' (example: '\013' for the carriage return).

Receive:
If this option is selected, you must set up the following fields:

Initial character (ASCII): If different than 0, each string received on the serial port must begin with this character.

Ending character (ASCII): If different than 0, data reception will end when this character is found.

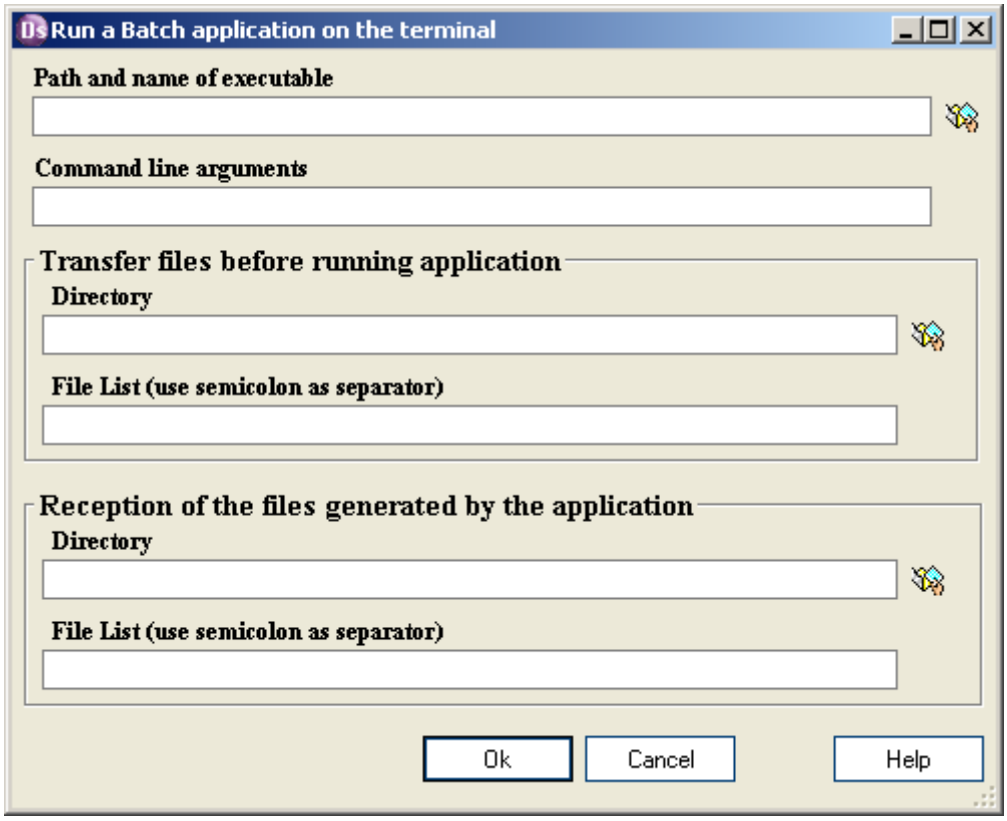
Maximum length: maximum length of the text to be received. The value '-1' means no limit (maximum 256 characters).

Timeout: Maximum waiting time for data reception. The value '0' means no limit.

Variable: The received data will be stored in this variable. You can create a variable by clicking on the button next to this field.

17. Run a Batch application on the terminal

Click on  to access *Run a Batch application on the terminal* window.



This action will run a batch application on the portable device.

Path and name of the executable:
This is the file that will run on the device. You can insert a variable with a right-click.

Command line arguments:
Name or character chain that follows command on the command line and indicates how should it work. It is possible to insert a variable on the command line by right-clicking on the field.

Directory of files to be loaded on the device:
Directory where are saved the files to be loaded o the device. You can insert variables by right clicking.

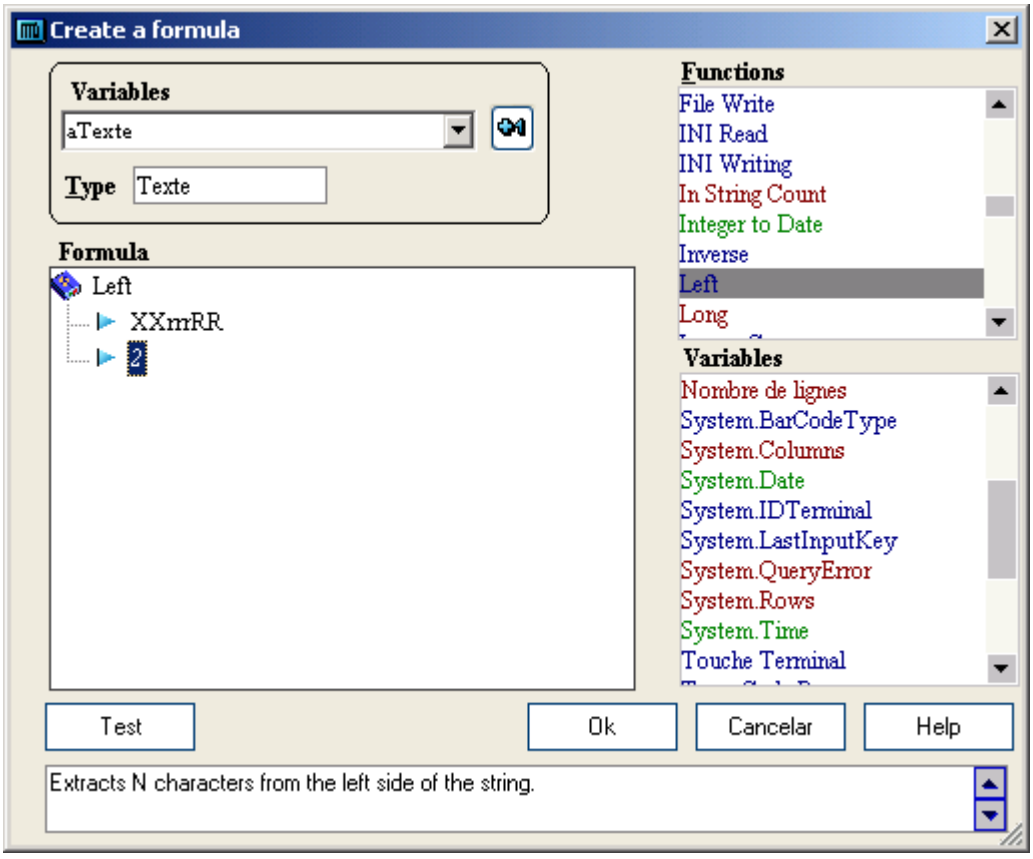
List of files to be loaded on the device:
This list contains all the files to be loaded on the device before running the application. Separate different files with a semi-colon (';'). You can insert variables.

Reception directory of files generated by the application:
This is the path where to the generated files will be transferred. You can insert a variable with a right-click.

List of files that will be generated on the device that will be transferred:
This list contains all the files that you can transfer from the device. Separate different files with a semi-colon (';'). You can insert a variable with a right-click.

18. Create a formula

Click on  to access *Create a formula* window.



This window allows formula and variables management.

Variables (result):
The result of the formula will be stored in this variable.

Type:
Type of variable (T = Text, N = Numeric, D = Date/Time).

Functions:
This list, which depends on the type of result variable, contains the functions for variable management. To select a function, double-click on its name. On the bottom of the screen there will be a detailed description of the selected function.

Variables (list):
This list contains the variables that can be used as parameters. You must select a parameter first on the *Formula* field and then select a variable by clicking on its name. The variable name will be shown on the *Formula* field.

Formula:
This tree contains the formula and its parameters. These parameters can be defined by variables or constants. Variables can be selected by clicking on their names on the list located at right. Constants can be defined by clicking on a parameter; it will be opened an input box and you will be able to insert its value.

Note: After selecting a function, parameters are enclosed between quotation marks (“”) and variables are enclosed between curly braces ({}), but constants are not enclosed between any special characters
These characters '|', '(', ')', can result into unexpected results when solving formulas.

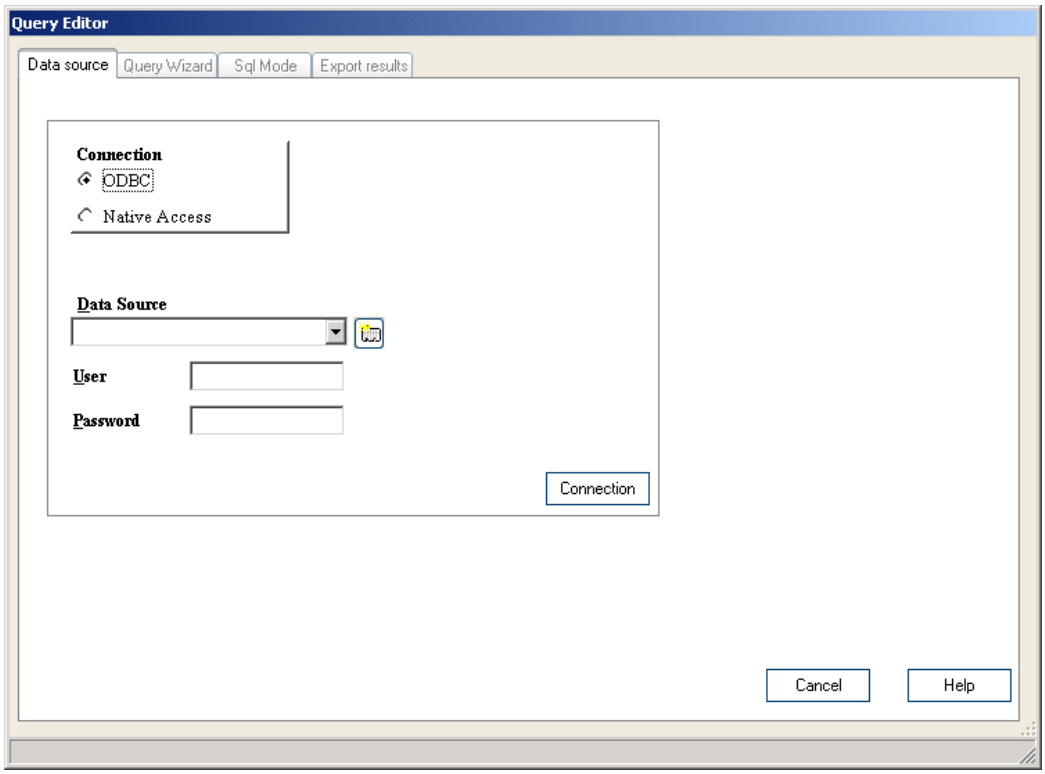
TEST button will check the formula. For each variable, an input box will let you insert a value for testing purposes.

19. SQL Query

An SQL query allows to access and update a database on native or ODBC access mode. The ODBC access must be installed on the same PC where `WireLess Designer` is running. The database provider provides the ODBC editor.

Click on  to access the query editor window.

a) Database connection: Data Source tab



On this tab you can select the database where this query will be performed.

Connection:
Select the connection type:

- ODBC: If you select this option, you must use the ODBC 32 bits manager to create the link with the database.
- Native access: If you choose this option, you must select a native access link from the list or create a new one by clicking on the button located at right.

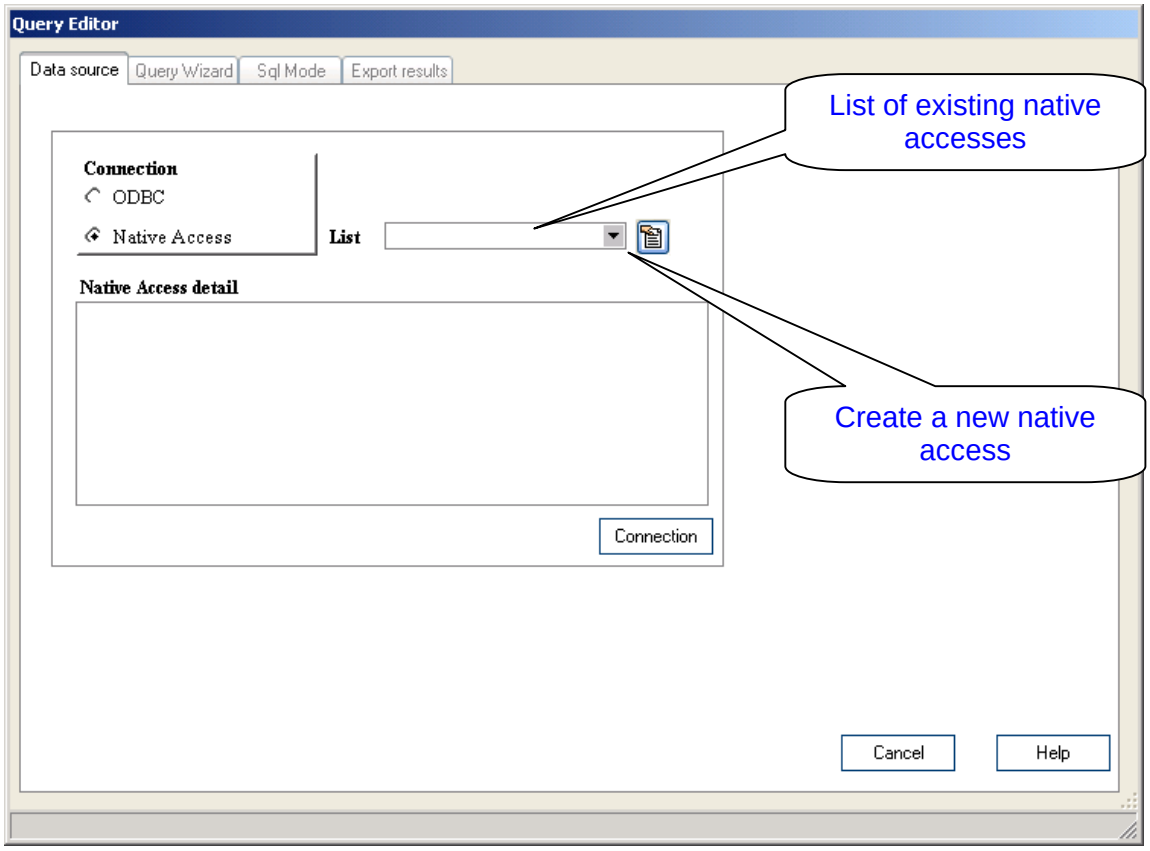
Data Source:
Select the ODBC link with your database. If it was not created, you can run the ODBC 32 bits manager by clicking on the button at right.

Username:
Authorized username for the database.

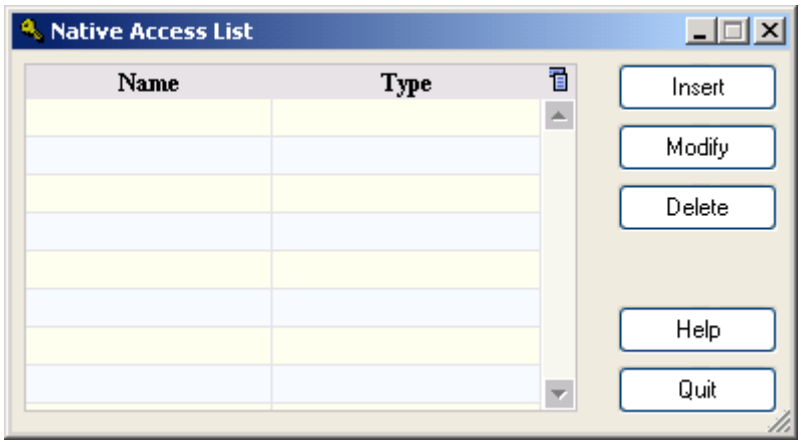
Password:
Matching password for the username selected above.

CONNECT button will start the database connection.

b) Native Access

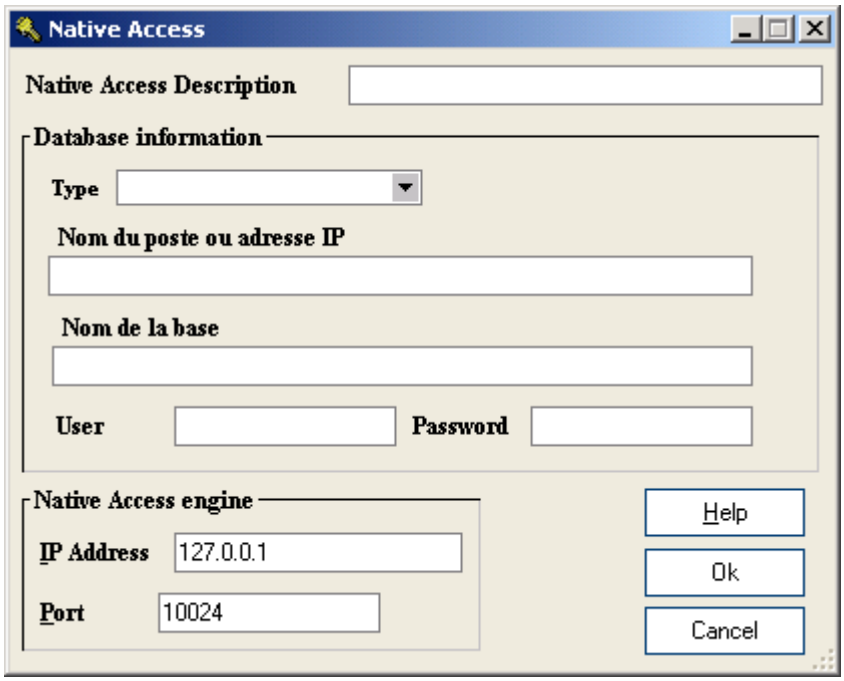


To open the following dialog, click on the button next to the native access drop list.



On this dialog it is possible to insert, modify or delete a native access.

On the next dialog you can edit an existing native access or create a new one. The parameters depend on the database access type.



Native access description:
This is the label that identifies the native access.

Database information

Type:
Database type (ACCESS, MYSQL, HYPERFILE, etc.).
The following information depends on the native access type.

Example:

ACCESS Database => Full path to the .mdb file
=> Username
=> Password

MYSQL Database => MySql Server address
=> Database name
=> Username
=> Password

HYPERFILE Database => Full path and name of the analysis
=> Files directory
=> Database name
=> Username
=> Password

Native access engine

This is the engine used to access the native access database; it can be installed on the same PC as `WireLess Designer` or on a different one.

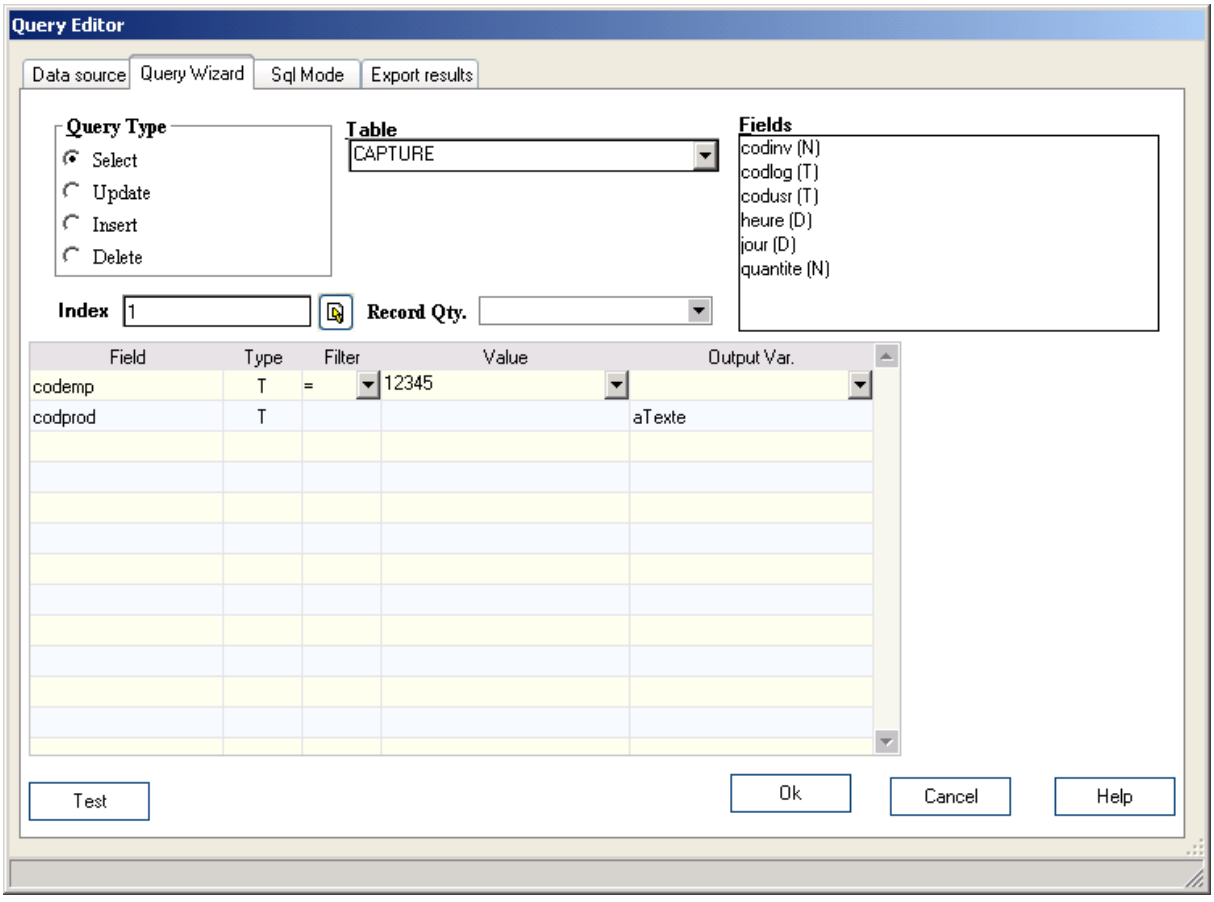
IP address:

IP address of the PC where the native access engine is installed.

Port:

Listening port for the native access (default: 10024).

c) SQL Wizard



This window allows to create an SQL query using a wizard. On the bottom of the window you will find a grid where you can visualize and customize your query.

Query type:

- **Selection:** This option enables to retrieve information from a database table.
- **Update:** This option allows to update a database table.
- **Insert:** This option inserts information on the database.
- **Delete:** This option erases data from the database.

The columns of the query grid depend on the selected query type. See further down for a detailed explanation of each query type.

Note: The wizard allows to make querys for just one table. In order to create querys for many tables, use SQL Mode tab.

Tip & tricks: You can create a query for one table with the wizard and then modify it in SQL Mode for it to perform on many tables.

Table:
Select the database table where the SQL query will be performed.

Fields:
This list contains all the fields that belong to the table selected on 'Table'. You can add these fields to the query grid by double-clicking on them.

-Selection
This query type enables to select the elements from a database table which respect certain conditions. For example, from the “students” table it selects all records which respect the condition “gender = male”. It is also possible to restrict the selection fields, in other words, if the “students” table has “name”, “last name”, “phone”, “email”, etc. as fields, it is possible to choose only “name” and “phone” to be obtained on the selection. The result of the selection is a record set (in our example, the names and phones of all males).

`WirelessDesigner` allows to store on variables the values of JUST ONE record of the result (which must be selected on 'Index').
In order to make a selection query with the SQL wizard, first, select on 'Table' the table where you want to make a query. Next, add a field from the field list to the query grid and use 'Filter' and 'Value' to generate the condition you want the records to respect in order to be selected. Then, choose the fields which values you want to select. Finally, define the variable where you want to store the obtained values on 'Assignment'.

Note: All fields that are affected by a filter will appear on WHERE clause on the SELECT SQL query.

Index:
This field is only valid for “Selection” queries. Index enables to select a record from the query result to assign its values on variables. It is possible to use as index a constant or a numeric variable (use the button next to this field to insert variables). Zero (0) returns the last record of the record set. One (1) returns the first record.

Record Qty:
This field is only valid for “Selection” queries. Select the variable where you want to store the number of records obtained by a selection query.
To create a variable, click on the button next to the input zone.

-Update
This query type enables to update the database records values. First, select on 'Table' the table where you want to make a query. Next, add a field to the query grid and use 'Filter' and 'Value' to generate the filter that records must abide in order to be updated. Then select the fields which value you want to update and check on 'Update'. Finally, define the new value you want to assign to them on 'New Value'.

-Insert
This query type allows to add a new record to a database table. First, select on 'Table' the table where you want to insert a record. Next, select from the list those fileds you want to assign a value. Last, define the value on the grid column named 'Value'.
If you don't assign a value to all fields of the new record, those fields that don't have an assigned value will be void.

-Delete
This query type enables to delete records from a database table. First, select on 'Table' the table where you want to perform a delete query. Next, create the condition that records must abide in order to be deleted: first add a field to the query grid, then use 'Filter' and 'Value' to generate the restriction.
Note: it is possible to use special characters to create filters.

Query grid description:
- Field: Database table field.
- Type: Field type (T=Text, N=Numeric, D=Date/Time).
- Filter: Select information filter criteria (=, <, >, <>, <=, >=).
- Value: Criteria value. Insert a constant or select a variable from the list.
- Assignation: Variable where to store the query results.
- Update: Check if you want to update a field.
- New value: New value for an update query. Insert a constant or select a variable from the list.

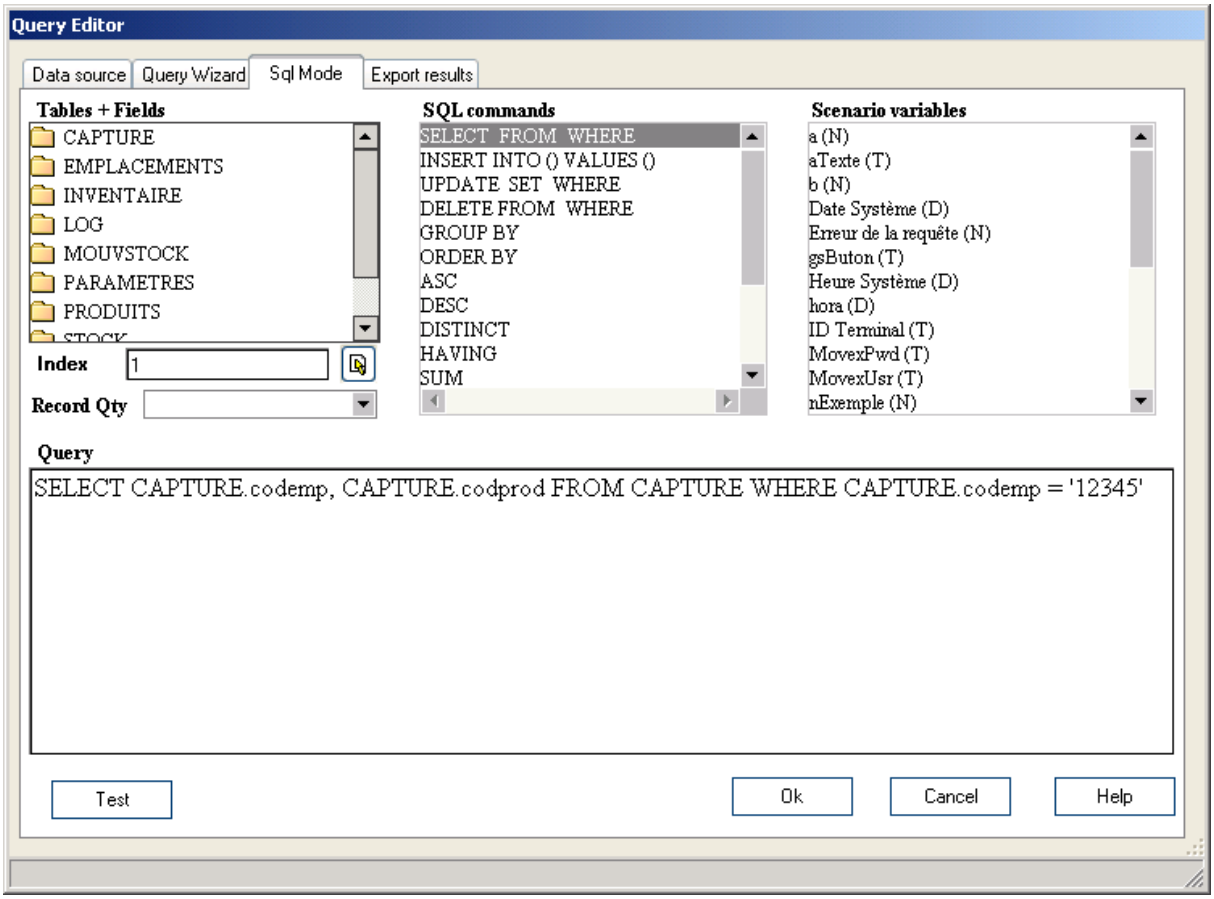
Note: In order to delete a field from the grid, you can use the context menu (right-click) and select "Delete field".

The TEST button will test the query.

d) SQL mode

The use of this tool is recommended for advanced SQL users.

Warning: once you create or modify a query using the SQL mode you'll be no longer able to use the SQL wizard for that query.



This dialog allows to edit a query directly in SQL mode.

Tables + Fields:
This tree contains the list of tables and fields of the database. Double-click on an element will transfer it to the query zone.

SQL Commands:
This is a list of the SQL commands. Double-click on an element will transfer it to the query zone.

Scenario variables:
This is a list of the scenario's variables. Double-click on an element will transfer it to the query zone.

Index:
This field is valid only for selection queries. Through this field you can access a specific record on the query. It is possible to insert a numeric variable by clicking on the button next to this field. The value 0 will return the latest record.

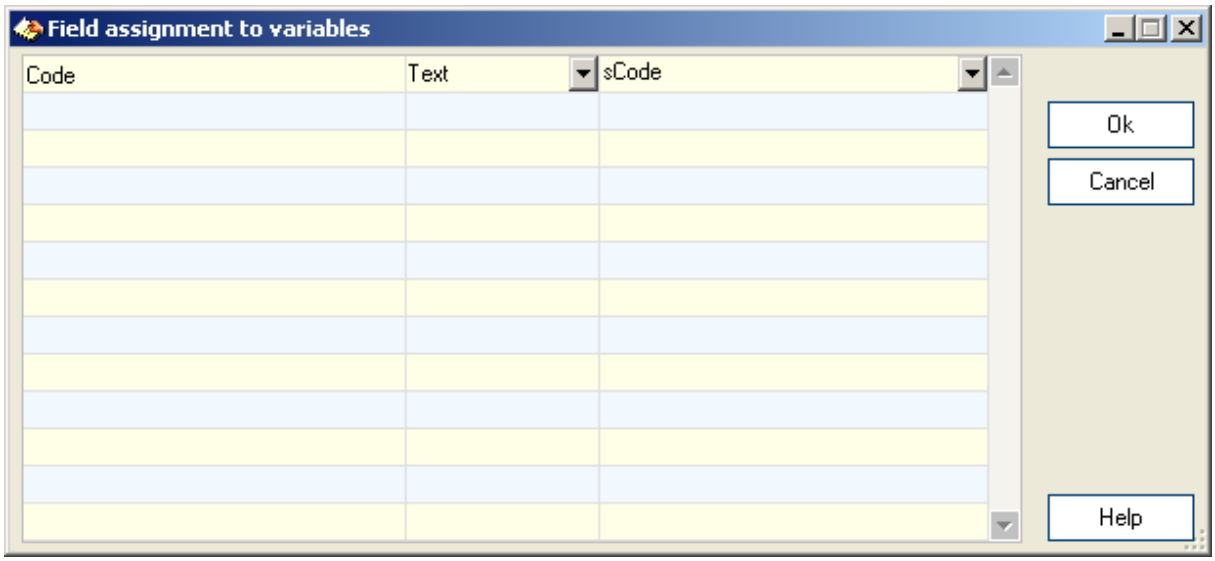
Record Qty.:
Quantity of records returned by a selection query. To create a variable, just insert its name on the input zone.

Query:
This text zone contains the query in SQL mode.

Note: All fields or table names with spaces should be enclosed between square brackets '[]' [name of the field].
Variables should be enclosed between curly braces '{}'.
For constant criteria:
- Text fields: simple quotation marks (TextField = 'abc').
- Numeric fields: nothing (NumField = 123).
- Date/Time fields: pound sign (DateField = #12/12/2001#).

TEST button will test the query.

e) Field assignment to variables



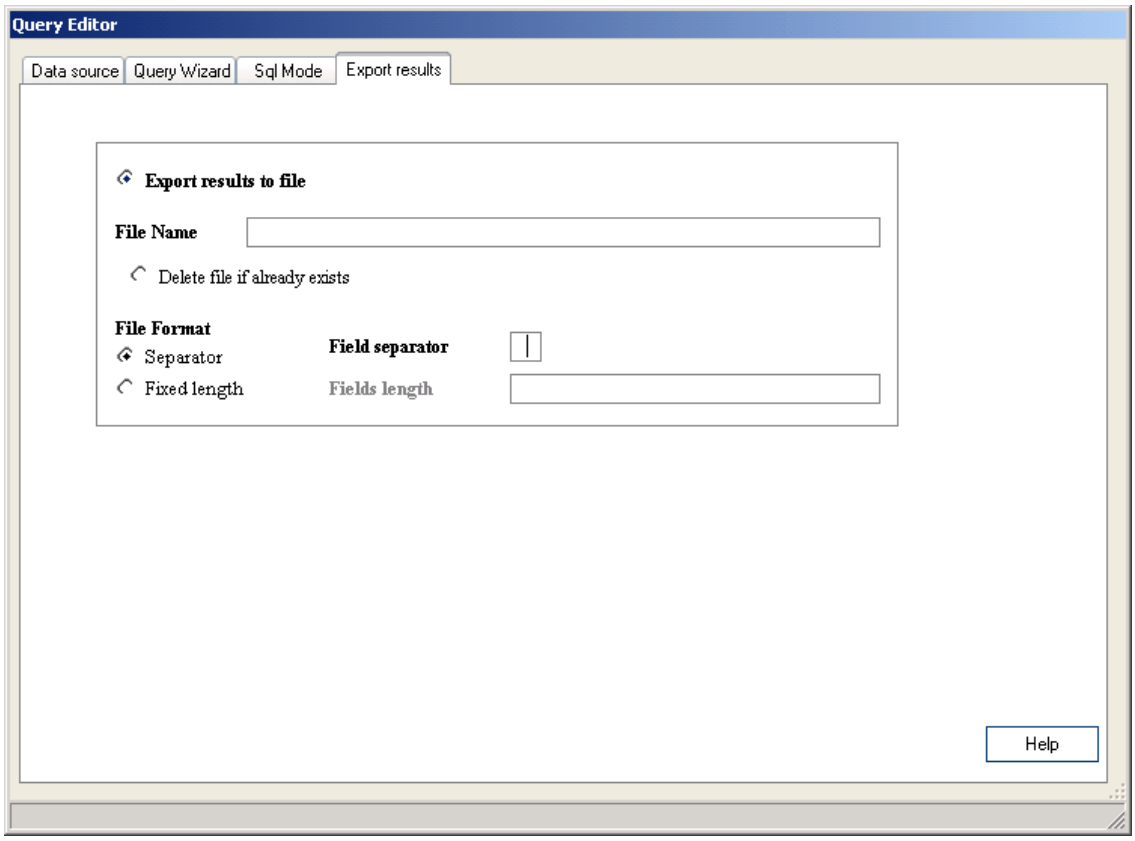
On this dialog you will assign variables for each field of the selection query.

Field:
List of fields selected by the query.

Type:
Field type (T= text field, N= numeric field, D= date/time field).

Variable:
Select a variable from the list or type the name of a new variable. The application will need a confirmation to create a new variable.

f) Export results



On this tag you will be able to export the result of a selection query into an ASCII file.

Filename:
Path and filename for the output file. You can use variables for the filename.
Example:

C:\Test\File_{Device ID}.txt

File formatting:
- Separator: If you select this option, you must define the character that will indicate the limit between two fields.
- Fixed length: If you select this option, you must define the field length using the semicolon as separator. If field length is longer than the fixed length, the content will be cut. If field length is shorter than the fixed length, blank spaces will be added.

Example:
Query: SELECT CODE, LIBELLE FROM ARTICLES;
Field Length: 13; 40
The CODE field is maximum 13 characters long and LIBELLE is maximum 40 characters long.

20. Movex - Configuration

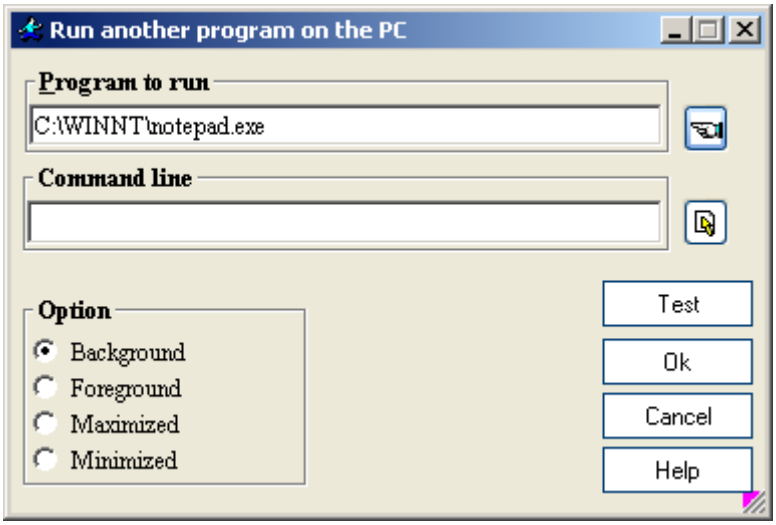
Intentionally blank page.

21. Movex - Transaction

Intentionally blank page.

22. Run another program on the PC

In order to launch an external application you must click on 



Application to run:
Executable file (*.exe) path and filename.

Command line:
External application command line. It is possible to insert variables in this field by clicking on the button next to it. Variables will appear enclosed between curly braces '{}'.

Option:

- Background: The application will run on the background, its window will be inactive.

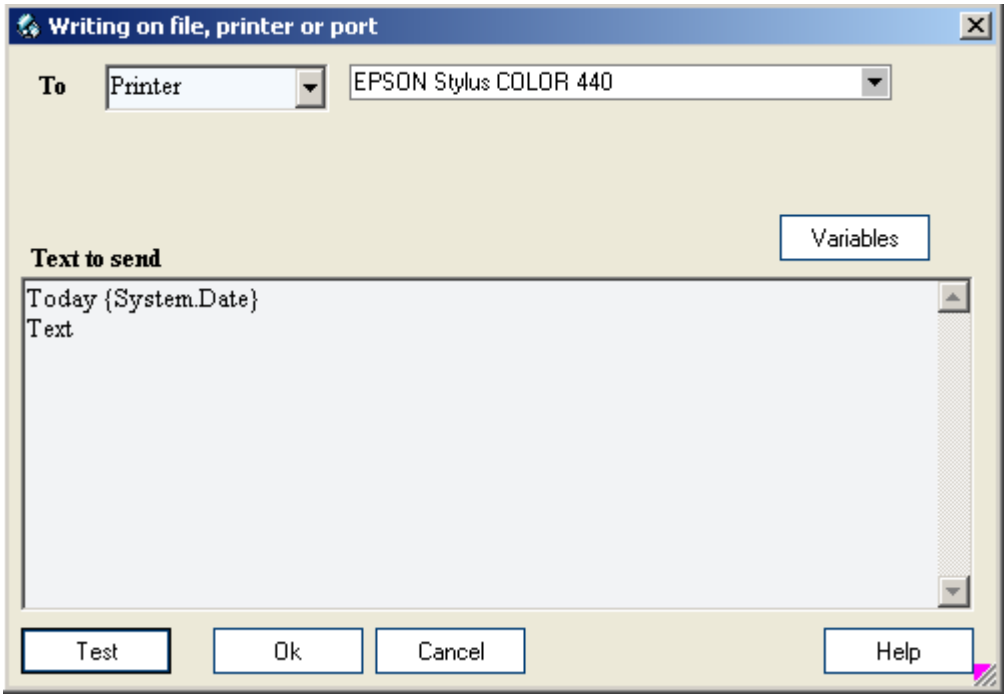
- Foreground: The application will run on the foreground, its windows will be active.

- Maximized: The application will run on the foreground and its window will be maximized.

- Minimized: The application will run on the background and its window will be minimized, you will only see an icon on the taskbar.

23. Writing on file, printer or port

You can open *Writing on file, printer or port* window clicking on  .



This dialog allows to send data over a printing port (Serial Port, Parallel port or a file).

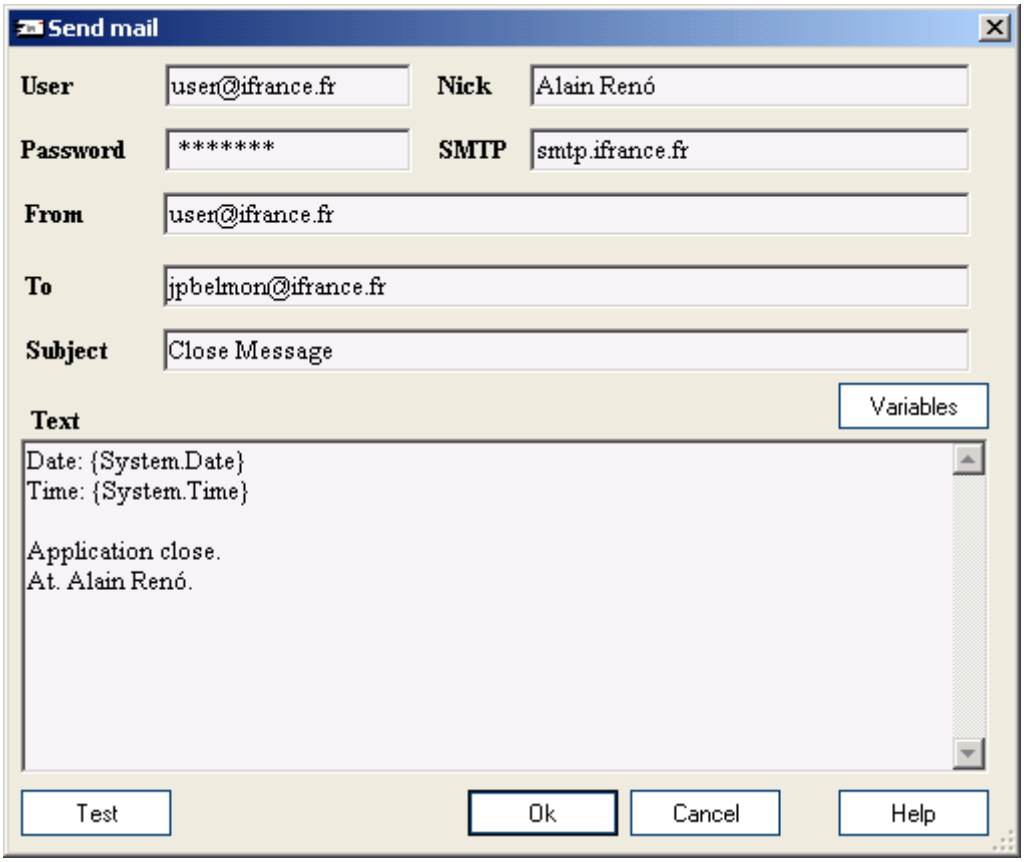
Flow:
The print flow can be sent to:
- *Serial port*, in this case, it is necessary to select a port (COM1, COM2, etc.) and its parameters.
- *Printer*, in this other case, it is necessary to select the printer's port (LPT1, LPT2, etc.).
- *File*: in this case, you must select the file where to you want to direct the data. If the complet directory is not specified, in other words, if you only input file's name, it will be saved on the directory where is the application's executable file (usually X:\Program Files\WireLessDesigner). If the file exists, it is also possible to indicate if the information will be added at the end or not.

Text to send:
This text zone contains the data to be printed. This data can be constant or variable (click on the button next to this field).

Note: To send special characters, write their three-digit ASCII value after a backslash '\' (example: '\013' is the carriage return mark).

24. Send email

In order to open the *Send email* window you must click on 



This dialog lets you send an email to one or many destinations.

Username:
Email account username (ex.: username, name.lastname, user@ifrance.fr, etc.).

Password:
Email account password.

Nick:
Name of the sender.

SMTP:
Specify the outgoing email server (ex.:smtp.ifrance.fr).

From:
Email address of the sender.

To:
Receiver's email address. You can specify more than one destination by separating each address with a semi-colon.

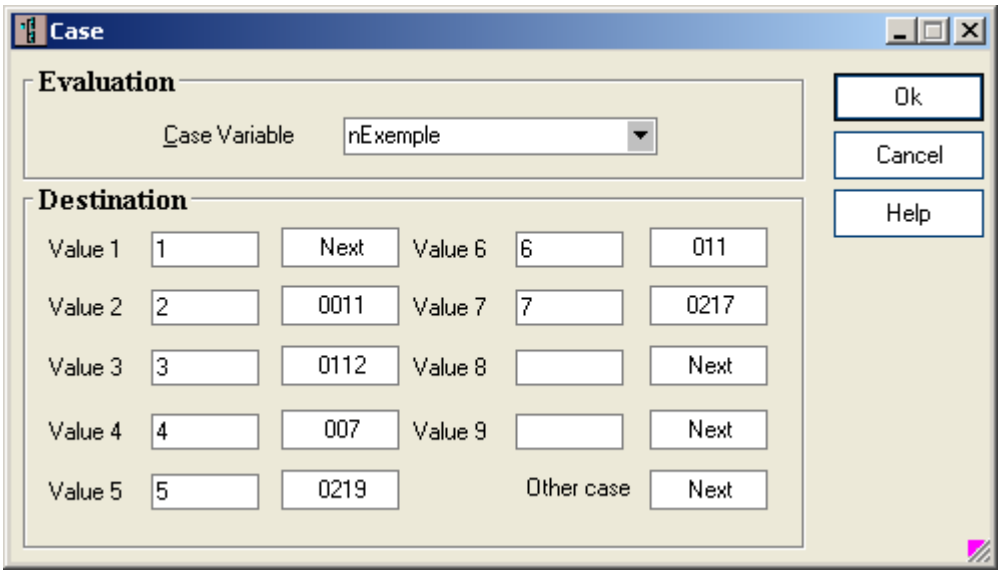
Subject:
Message subject, title or description.

Text:
Text to be sent, it's the main part of the message. You can insert variables using the VARIABLES button.

Note: To send special characters, write their three-digit ASCII value after a backslash '\' (example: '\013' is the carriage return mark).

25. Case

You can reach the *Case* dialog clicking on 



This dialog makes possible to re-direct the execution according to the value of a variable.

Case Variable (Value to be evaluated):
On this field you must select the variable which value you want to evaluate. Select it from the drop-list.

Destination:
-Values 1 to 9: It is not necessary to fill al the fields. On the first field you must define a value, on the second field you must select the action where to the execution will be redirected when "Case variable" has that value.

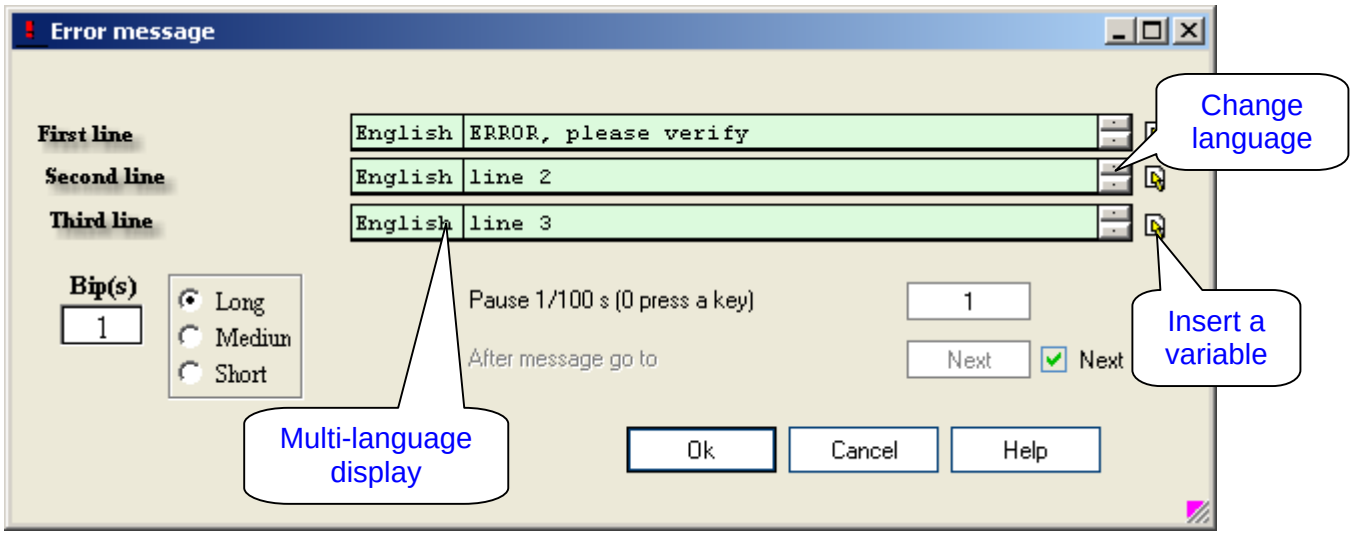
By default, on the second field "Next" will appear, indicating that the execution will continue with the following action. If you want the scenario to continue with another action, click on the

text zone. This will open Destination selection window, where you will be able to choose a destination action.

-Other Case: This field is mandatory. On this field you must define the action where to the scenario will be redirected when the variable has a value that differs from those defined before.
By default, "Next" will appear on this field, indicating that the execution will continue with the following action. If you want the scenario to continue with another action, click on the text zone. This will open Destination selection window, where you will be able to choose a destination action.

26. Error message

You can access the *Error message* window clicking on 



This dialog makes possible to show an error message on the portable device screen.

Message lines:
These fields can contain constants or variables (to insert a variable click on the button located next to the field). Variables should appear enclosed between curly braces. You can write the message in several languages; to change the text language click on the buttons located at right.

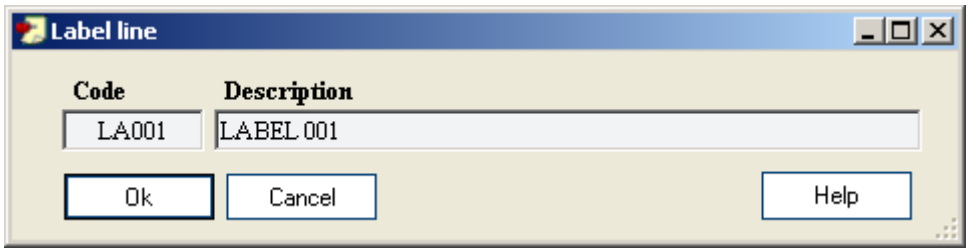
Bip (s):
You can customize the bip (s) duration and amount.

Pause:
The message will make a pause in the execution. This pause will last the number of seconds specified in this field or until a key is pressed (if the value is 0). After this pause, the execution will continue with the action specified in the next field.

After message Go To action:
By default, the check box will be selected and "Next" will appear on this field, indicating that the execution will continue with the following action.
If you want to select a different destination, unmark the check box and click on the text zone. This will open Destination selection window, where you will be able to choose a destination action.

27. Label line

You can open the *Label line* dialog by clicking on 



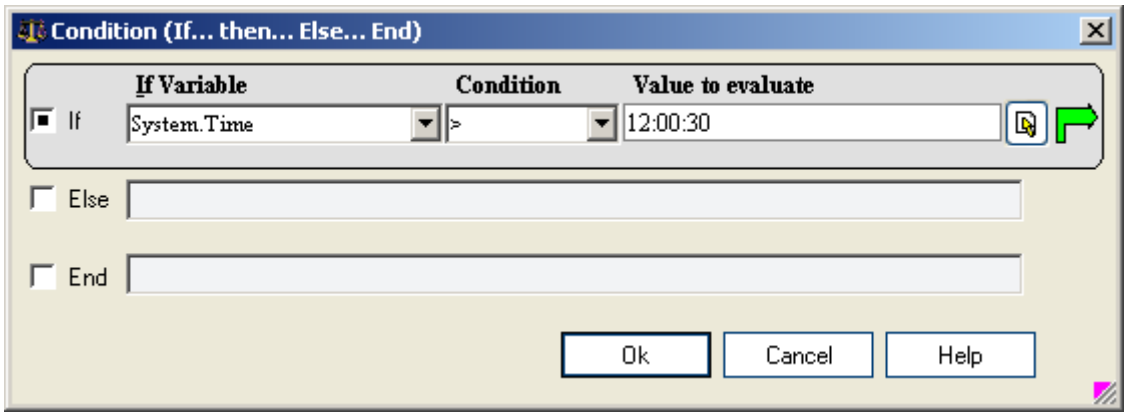
This window allows to create a label, which makes programming easier. Labels appear highlighted on green on the Actions list and on Destination selection window, so they are quick to find. That's why it's convenient to select a label as destination for Go To action.

Code:
Alpha code (5 characters) that identifies the label.

Description:
Brief description.

28. Condition (If… action, Else… action, End)

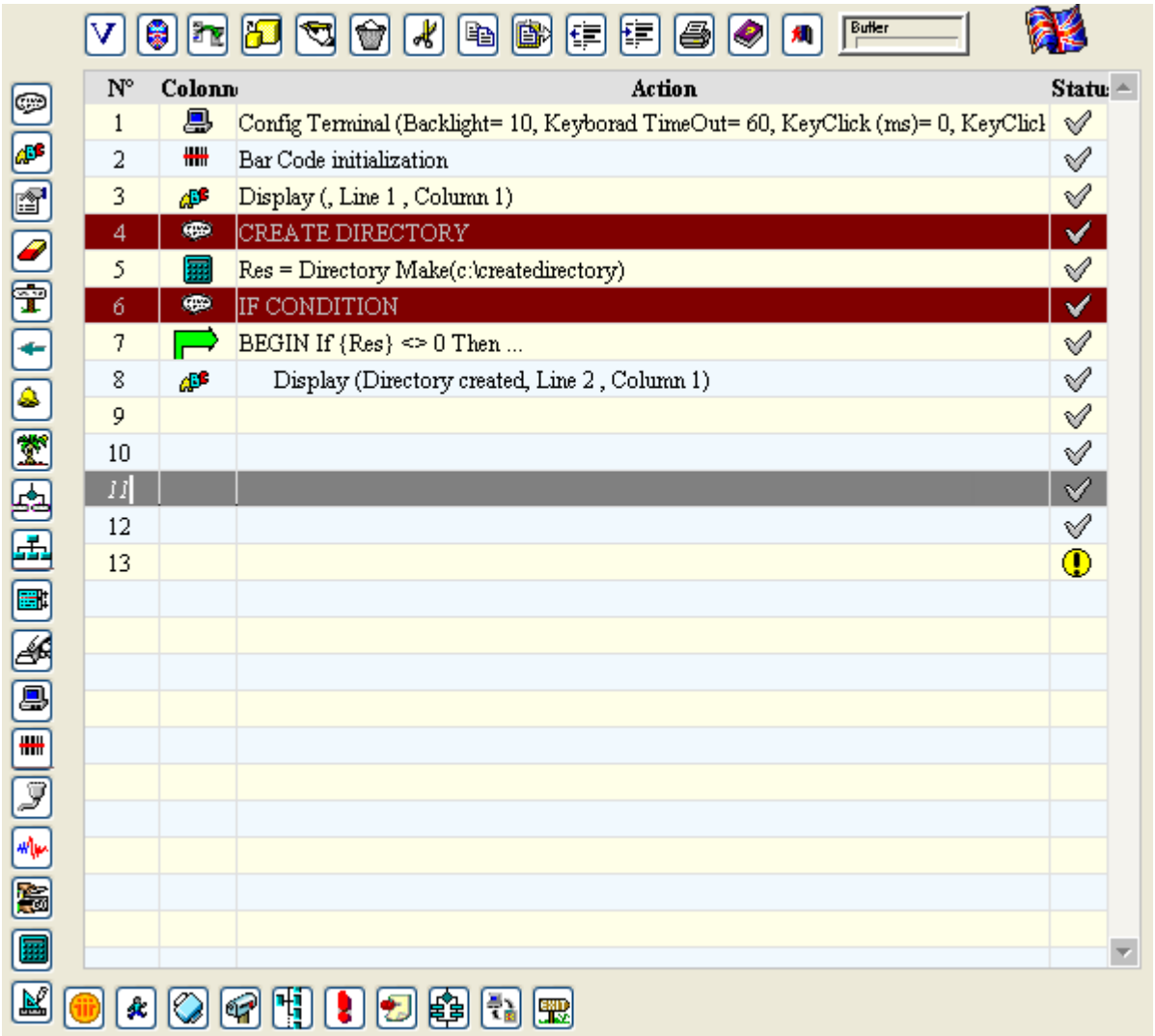
This action allows executing multiple actions evaluating a variable associated to a condition.
By clicking the button  the following window will appear:



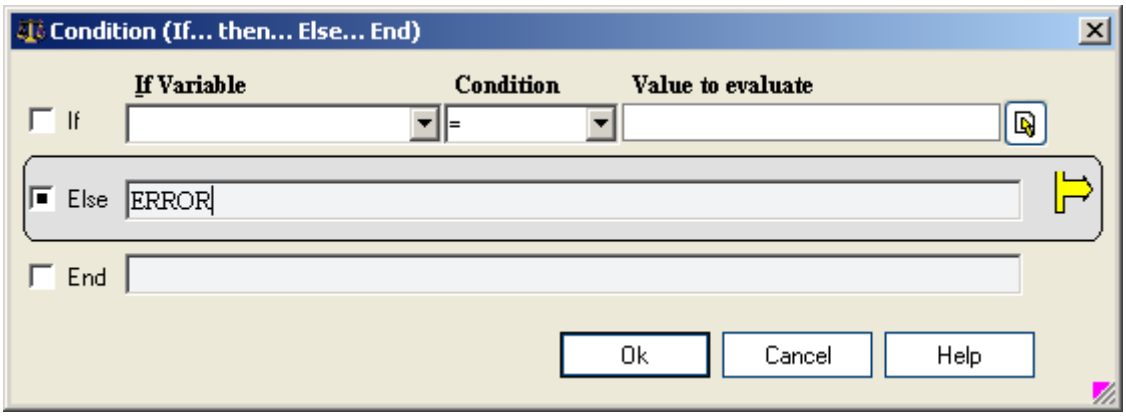
If variable:
Select from the list the variable that will be associated to a condition.

Condition:
Condition filtre.

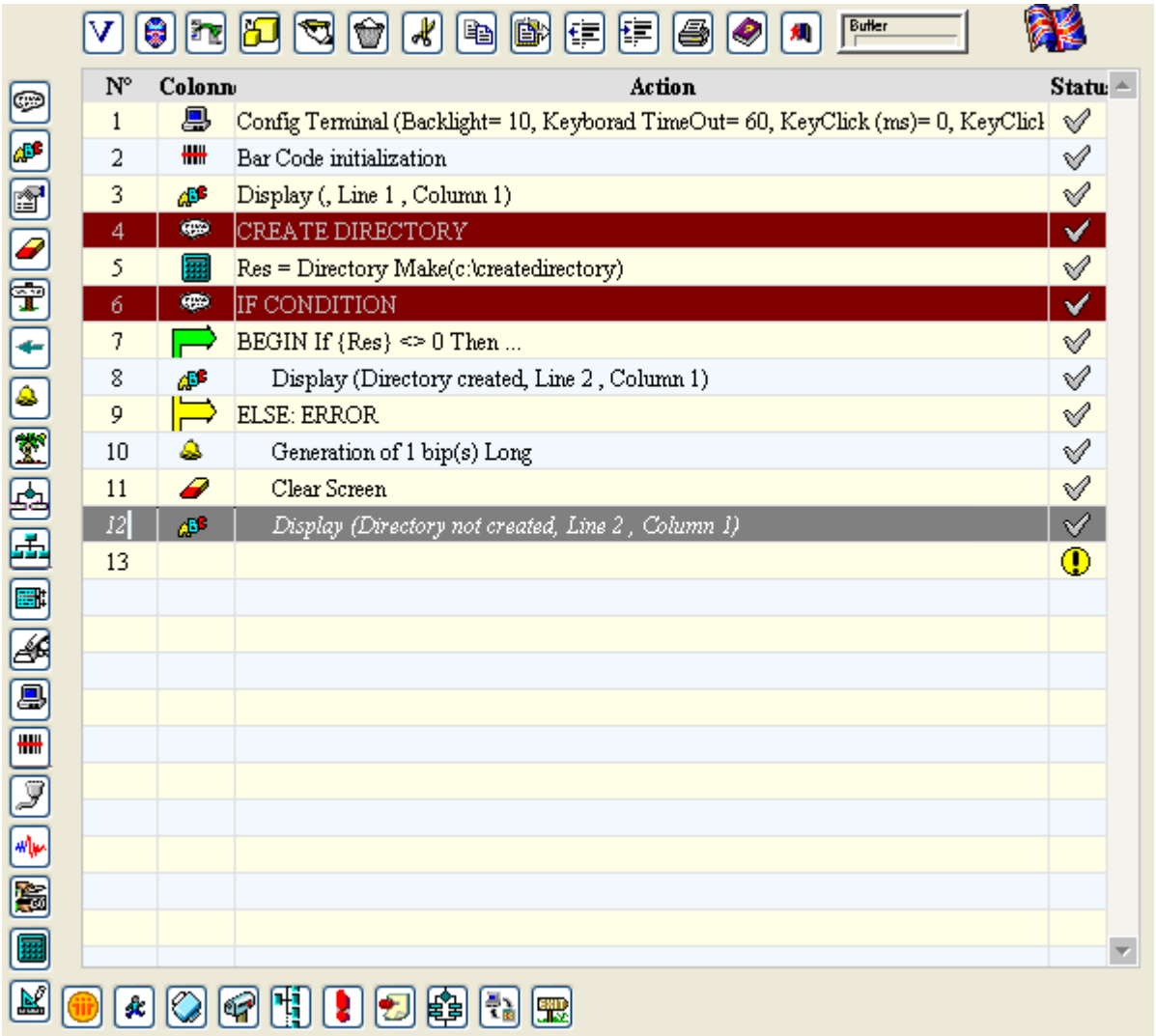
Value to evaluate:
It can be a variable or a constant. Variables can be selected with the button next to this field. They appear enclosed between curly braces.
Then, on the main screen, select the action/s to be performed if the condition is true:



To determine the actions to be performed if the condition is false, click again the button  , and choose the "Else" case:



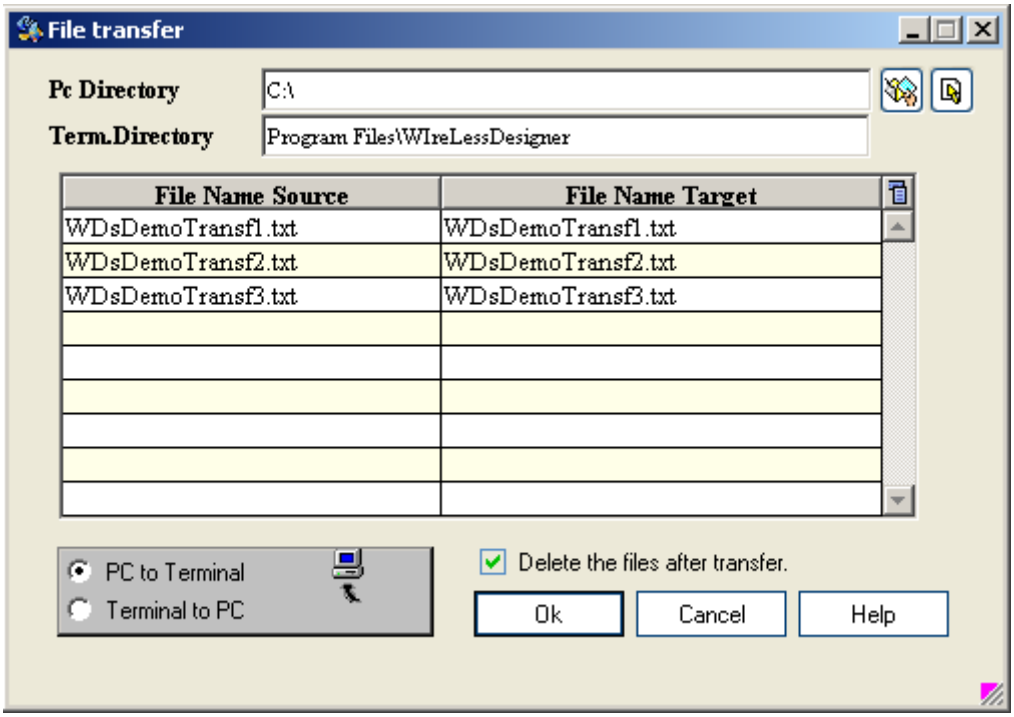
It is possible to write a comment for the "Else" condition on the field that is at right. Then, on the main screen, choose the actions to be performed if the condition chosen on "If" is false.



To end the action, press again the button  and select the "End" case, where it is possible to write a comment as well.

29. File transfer

This action enables to transfer files from/to the portable device. Click on this button  to open this window:



PC Directory:
Select the PC directory. You can add a variable to the name with a right click or using the button located at right.

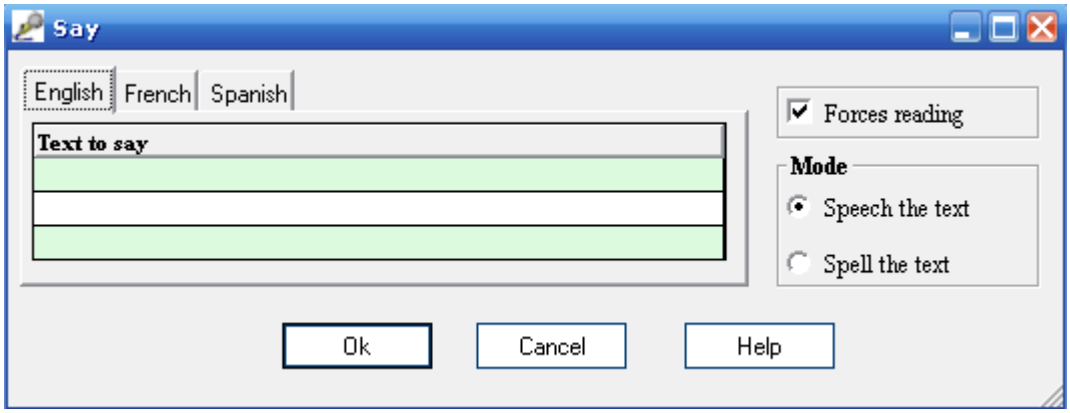
Terminal directory:
Select the terminal directory. You can add a variable to the name with a right click or using the button located at right.

List of files to transfer:
This list contains the files that will be transferred.

Delete files after transfer:
This check box commands to delete the files after the transference.

30. Say

This action allows to type a message that the terminal will say to the user. Click on this button  to open *Say* window:



Text to say:
On this field you can type the message you want the terminal to say -using TTS (Text To Speech)- to the user.
There's a field for each language. The language in which the message will be said can be defined on *File>Language>Terminal* or using 'SetTerminalLanguage' function during a scenario execution.
For more information on voice recognition and synthesis, see:
http://www.sof2go.net/man/wst/voice/WireLess_Studio_Voice_System.pdf.

Forces reading:
If you select this option, the message is said when the scenario execution arrives to this action.
If you don't select this option, the text is stored on the buffer together with other actions in order to say them all together later.

Mode:
This option allows to select if the message will be said normally or if it will be spelled.

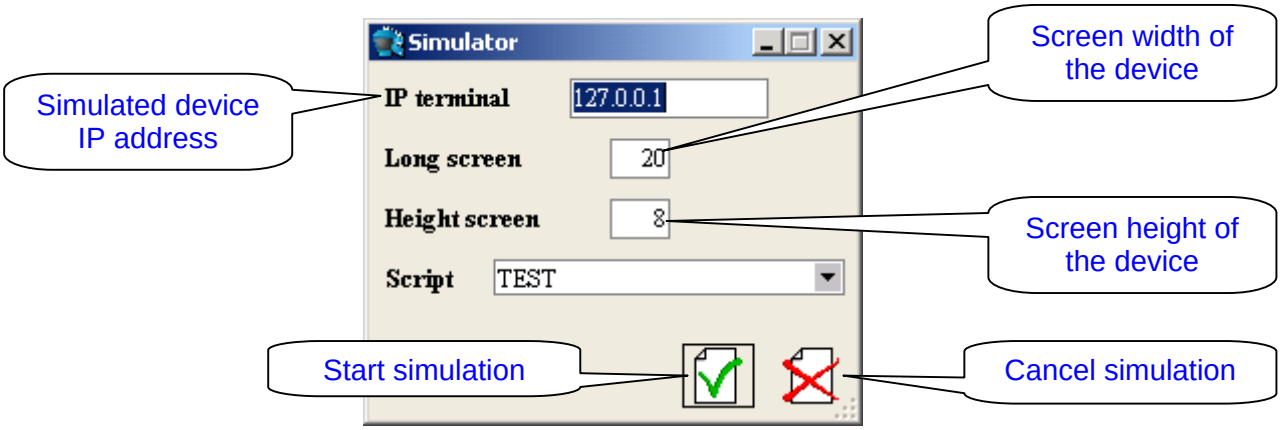
31. End of scenario

This action can be added clicking on  .
This action ends a normal scenario execution.

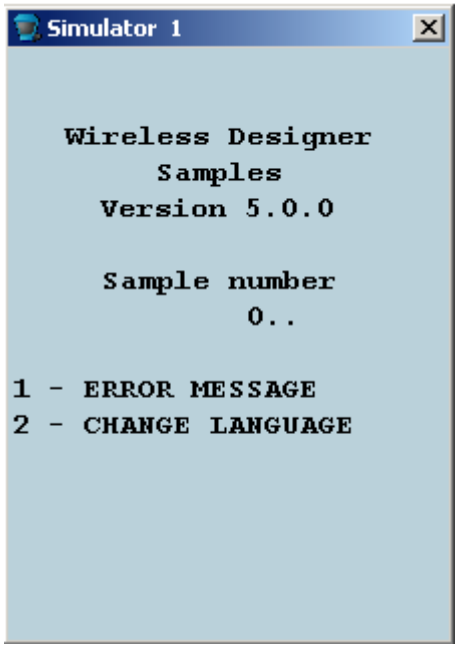
VII. Simulation

1. *Simulator launch*

It is possible to perform a simulation of scenarios' development on the device.
To open the simulator go to *Terminals*> *Simulator* menu or press the button on the toolbar:  ,  or  according to the language selected for the device.
Then, a dialog will be opened:



Next, after filling the required data and pressing the "V", the following window will pop-up:



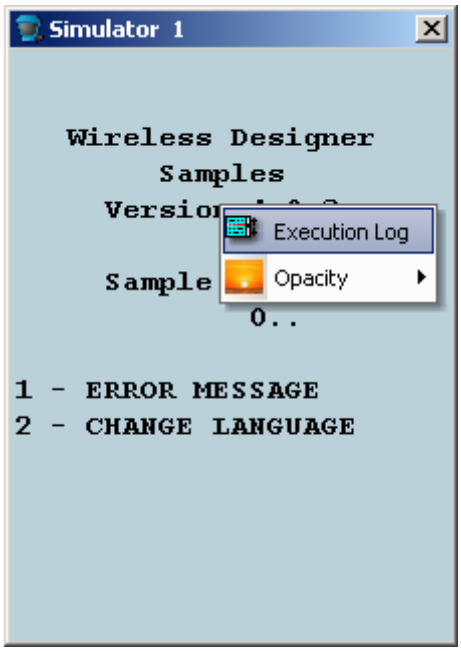
As long as this window keeps focus, you can make keyboard inputs and use the function keys.

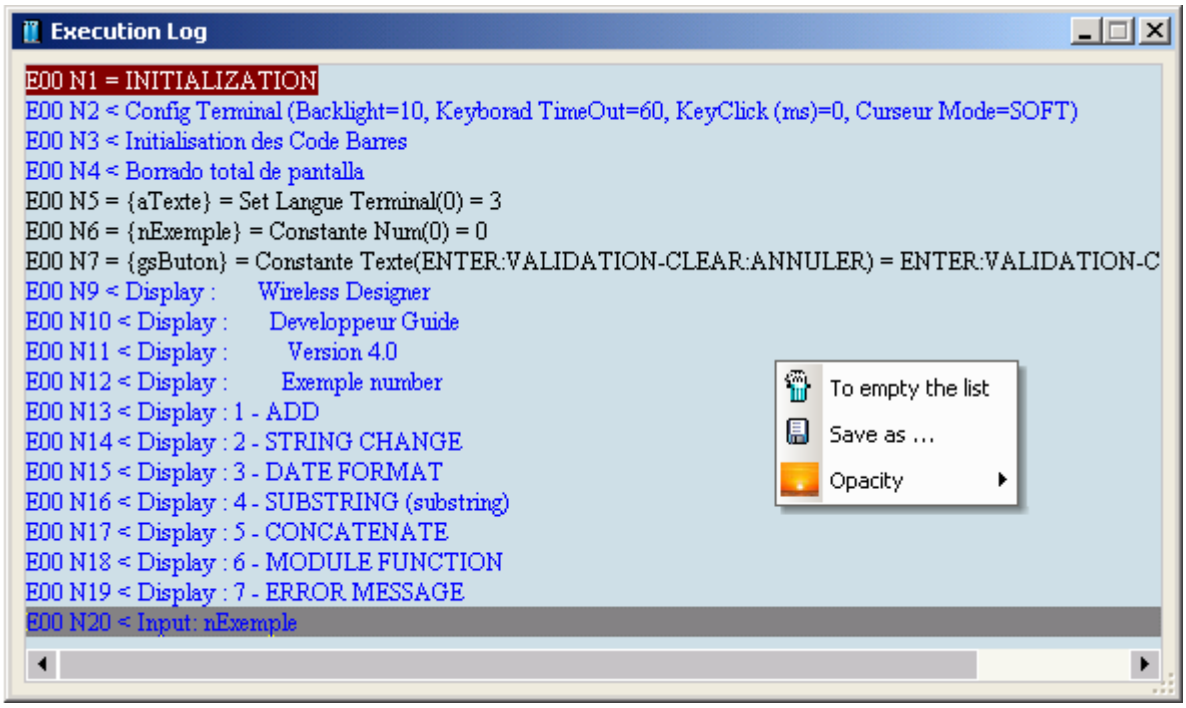
2. ***Execution log***

There's two ways to open the Execution log window:

1. From WDs Runtime Configuration, activating “Display screen of terminals” option and selecting "Execution log" option (see Portable device screen),

2. From WDs Developer, using the context menu (right click on the simulator window) and selecting "Execution log" option, these windows appear:



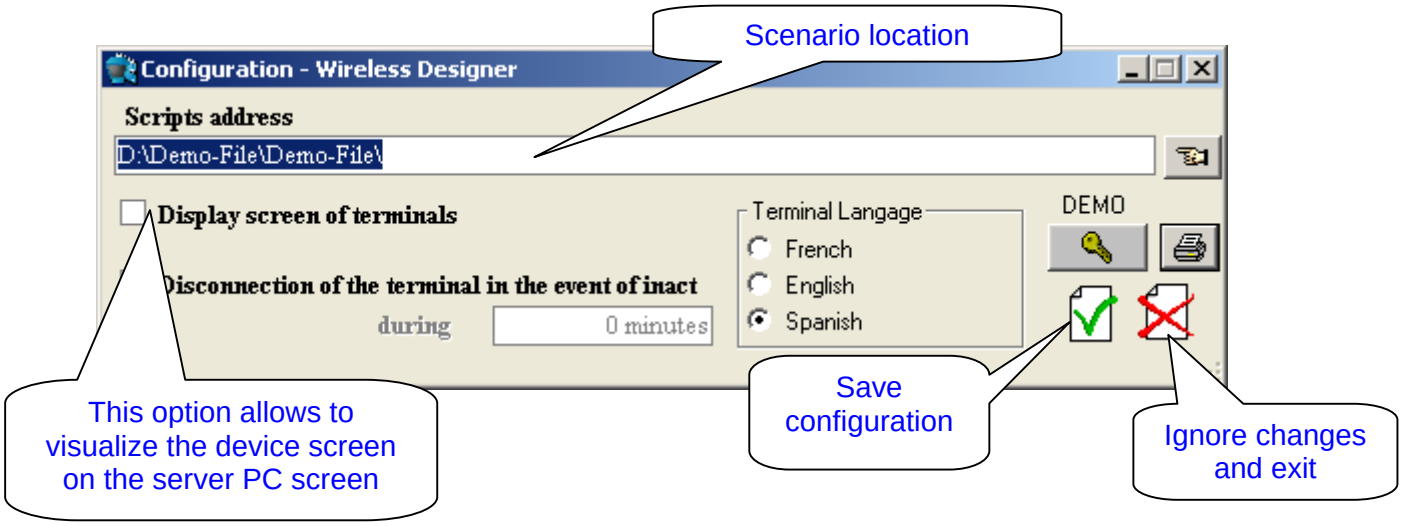


From the context menu (right click on the window) you will be able to clear the screen or save the list on a text file.

VIII. Scenario execution (Runtime)

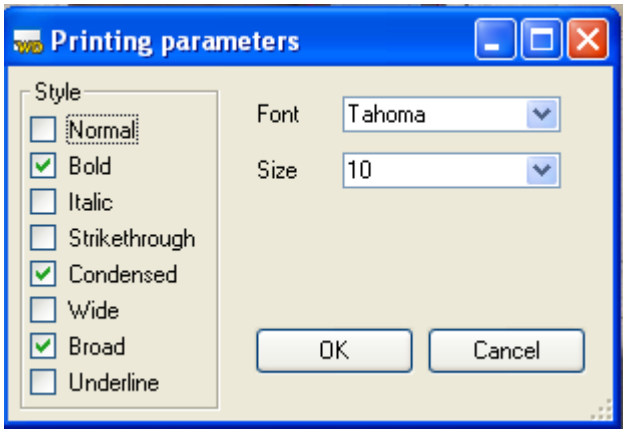
1. *Configuration*

In the *Start Menu*, click on "Programs / WireLess Designer / WDs Runtime Configuration". The following dialog will pop-up.



2. ***Printing parameters***

On the WDs Runtime Configuration screen you can find this button:  which opens the following window:



This window allows to define the printing style for the *'Print'* action data.

Style:
Select the attributes for the font: Normal, Bold, Italic, Strikethrough, Condensed, Wide, Broad, Underline.

Font:
Select a font (the available fonts are those who are on Control panel> Fonts).

Size:
Select the font size.

CANCEL ignores the changes and returns to the main screen.
OK button allows to validate the changes and saves them on WirelessDesigner.ini file, which is located on PRINTER section.

3. ***Portable device screen***

When a portable device gets connected to the server, a widow simulating the portable device screen opens. For this to happen, 'Display screen of terminals' option must be activated on the main screen of WDs Runtime Configuration.
The context menu (right click on the window) allows to select the execution log and window opacity options.