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Keyboard equivalents

Basic principle

System keys

Menu keys

Dialog box keys

Text modification

Program manager keys

Basic principle

The keyboard equivalent is a combination of keys which produces the same effect as a command executed by the mouse.

Each screen displays the keys to use to activate the required function from the keyboard : simply type :

ALT + the underlined letter for menus,

the underlined letter for sub-menus or the letter indicated next to the sub-menu,

ALT + the underlined letter for pushbuttons.

Example :

Alt + F opens the File menu.

Opens a file in the File menu (already open).

ALT + H accesses the help function in a dialog box.

System keys

The following keys can be used from a window or full screen whatever application is running.

Type	To
F1	Accesses help.
ALT+F4	Stops a program
SHIFT + F10	Displays the contextual menu for the element selected
CTRL+ESC	Displays the Start menu
ALT+TAB	<ul style="list-style-type: none">- Switch to the last application used.- Or switch to the next application by restoring applications in the form of icons to window format. Hold down ALT and repeatedly press TAB.
Print screen	Copy an image of the screen to the Clipboard.
ALT + print screen	Copy an image of the active window to the Clipboard.
ALT + space	Open the System menu for an application window.
CTRL + X	Cut
CTRL + C	Copy
CTRL + V	Paste
DEL	Delete
CTRL + Z	Undo
Arrow keys	<ul style="list-style-type: none">-Move a window after selecting the Move command in the System menu- Or change the size of a window after selecting the Size command in the System menu.

Menu keys

To select menus and choose commands, use the following keys :

Type	To
ALT or F10	Select the first menu in the menu bar or cancel its selection.
ALT + a character key	Choose the menu corresponding to the underlined number or letter which you are typing.
Character key	Choose the command corresponding to the underlined number or letter which you are typing.
Left and right arrows	Move between menus.
Up and down arrows	Move between commands.
ENTER	Choose the name of the selected menu or command.
ESC	- Cancel the selected menu name. - Or close the open menu.

Dialog box keys

To work in a dialog box, use the following keys :

Type	To
TAB	Move from one option to another (left to right and top to bottom).
SHIFT + TAB	Move from one option to another in the opposite direction.
CTRL + TAB	Move to the next option
CTRL + SHIFT + TAB	Move to the previous option
ALT+ character key	Move to the option or group corresponding to the underlined number or letter which you are typing. Confirm the pushbutton corresponding to the underlined number or letter which you are typing.
An arrow key	<ul style="list-style-type: none">- Move the selection cursor from one option (eg: button) to another in an option group.- Or move the cursor to the left, right, up or down in a list or text box.
HOME	Move to the first item or character in a list or text box.
END	Move to the last item or character in a list or text box.
Page up and Page Down	Scroll up or down a list on a screen.
ALT + Page Down	Open a list.
SPACE	<ul style="list-style-type: none">- Select an item in a list or cancel a selection.- Confirm the button which is highlighted- Activate or deactivate a check box.
CTRL + / (slash)	Select all items in a list box.
CTRL + \ (backslash)	Cancel all selections in a list box except the current one.
SHIFT + arrows	Extend or cancel a selection character by character in a text box.
SHIFT + HOME	Extend or cancel a selection to the first character in a text box.
SHIFT+END	Extend or cancel a selection to the last character in a text box.
ENTER	<ul style="list-style-type: none">- Execute a command.- Choose the selected item in a list, then execute the command.- Confirm the button which is highlighted.

ESC or ALT+F4	Close a dialog box without executing the command.
Arrow keys	Move the cursor or insertion point in text boxes or entry fields

Text modification keys

Type	To
Backspace	- Delete the character to the left of the insertion point. - Or delete the selected text.
DEL	- Delete the character to the right of the insertion point. - Or delete the selected text.
SHIFT +DEL	Delete the selected text and place it on the Clipboard.
SHIFT +INS	Paste the text from the Clipboard into the active window.
CTRL+INS	Copy the selected text and place it on the Clipboard.
SHIFT + Z	Undo the last modification.

Text selection keys

The following keys can be used in most Windows applications, but they do not necessarily work everywhere when text is selected or in all applications. All the following selections start at the insertion point. If text is already selected, the keys cancel the selection.

Type	To select or deselect
SHIFT+ right and left arrow	One character at a time to left or right.
SHIFT+ up and down arrow	One line of text up or down.
SHIFT+ Page up	All the text in the previous screen.
SHIFT+ Page Down	All the text in the next screen.
SHIFT+ Home	Text to the beginning of the line.
SHIFT+ END	Text to the end of the line.
CTRL + SHIFT + left arrow	The previous word.
CTRL + SHIFT + right arrow	The next word.
CTRL + SHIFT + HOME	Text to the beginning of the document.
CTRL + SHIFT + END	Text to the end of the document.

Program manager keys

Use the following keys when working in Program Manager.

Type	To
F2	Rename an element
F3	Find a folder or a file
SHIFT + DEL	Delete the element without putting it in the Recycling bin
ALT + ENTER	Display the properties of the selected element
CTRL + A	Select all
F5	Update the information in a window
SHIFT + click on the Close button	Close the folder selected and all the parent folders

This menu provides the following functions:

Create a new application,
Open an application,
Save an application in the form of a *.ZEL file,
Print the application folder.

This menu provides the following functions (zelio-Soft \geq 1.5) :

It allows you to access the following modes:

Edit which allows you to access the following functions:

- Create a new application,
- Modify an application,
- Simulate an application,
- Transfer an application.

Supervision which allows you to access the application's supervision functions.

Log making it possible to access the alarm log if a Zelio-COM module is used

The selected mode is indicated in the top right corner of the screen.

This menu provides the following functions:

Create/modify the application program,
Create/modify the application's parameters
Check the application's coherence
Enter Input/Output comments,
Enter alarm texts.
Definition of the alarm messages if a Zelio-COM module is used.

This menu is used to configure the relay module:

Application language,

Filter the inputs,

Protect the application with a password,

Activate/Deactivate keys Z1 to Z4,

Remanence (zelio-Soft ≥ 1.5)

Activate/Deactivate the automatic help,

Display the module's properties,.

Clock setting.

Definition of the alarm messages SET and RESET if a Zelio-COM module is used.

Change the identification key (password) of the Zelio-Logic/Zelio-COM station.

Define a safety level with a list of authorised telephone numbers for access to Zelio-COM via SMS

This menu provides the following functions:

Transfer the application between the PC and the relay module,

Transfers parameters => relay module

Run/Stop commands

Clear program of relay module,

The configuration of the communication port for PC < = > Module exchanges

Use the Zelio-Soft PC to monitor alarm messages from the Zelio-Logic modules when using a Zelio-COM module.

Read all the alarm messages when using a Zelio-COM module.

This menu provides the following functions :

Update the Zelio-COM firmware (software built into the Zelio-COM hardware),
Read the software version number from the Zelio-COM firmware.

Configure GSM modems

- Modem connected to PC Zelio-Soft
- Modem connected to the Zelio-COM module.

This menu provides the following functions :

Define the Zelio-Soft PC settings for use with the Zelio-COM modules.
Define the GSM mobile settings for use with the Zelio-COM modules.
Define the PC series port for Zelio-Soft/Module Zelio-Logic exchanges
Define the Zelio-Logic module settings for use with a Zelio-COM module.

This menu provides the following functions:

Display the program with Relay, Ladder or Electrical symbols,
Modification of the Zelio-Soft language,
Display/Hide the status and tool bars.

This button allows you to create a new application

This button allows you to open an application

This button allows you to save an application in the form of a *.ZEL file

This button allows you to print the application

This button allows you to check an application's coherence

Ce bouton permet de passer en mode attente de message dans la cas d'utilisation d'un module Zelio-COM

This button allows you to develop an application with an operating mode identical to that of the module

This button allows you to develop an application with the Zelio-Soft editor

This button allows you to enter input/output, Z and M comments,

This button allows you to display the program with the comments in the various symbols,...

Relay symbols,

Ladder symbols,

Electrical symbols.

This button allows you to enter/modify the application program

This button allows you to enter/modify the application's parameters

This button allows you to simulate the program for debugging purposes

Application's data input zone in Product mode

Keys used for developing the application in product mode

Del	Delete an item or a line from a diagram.
Ins	Insert a line in a diagram
Sel/Ok	Select an item Access to an item's parameters, Access to the display of the program, Validate an action, a choice.
Esc	Exit from a menu or a selection.
Arrows	Navigation keys in product mode

This zone gives the reference of the module and its software version (Zelio-Soft >1.5)

This zone indicates the number of program lines that have been created

Zelio-Soft Help *Click on*



Software overview *Zelio-Soft Version*



Structure of a Zelio application



Application development principle



Programming with the Zelio module



The language elements



Application development procedures




Application debugging procedures

*For further information on the Zelio-COM functions, click on the **Zelio-Com** button.*



Do a right click with the mouse ...

Example: you can add your own notes to a topic with

Annotate, this will be indicated by  ..



Personal notes....



You can also use the mouse's right button to navigate through the on-line help...

How to use on-line help...

- Beginning** ● Allows you to return to the Help contents page at any time.
- Index** ● Allows you to look for information using keywords .
- << >>** ● Allows you to navigate between certain topics.
- Close** ● Allows you to close a window.
- Folder** ● Allows you to access the Zelio-Soft application example folder.
- Edit/Annotate** ● Allows you to add your own comments to a help topic. Enter your remarks, you will then see an icon representing a paperclip at the top of the topic. You can click on this icon to display or modify your comment.
- Options/Help always visible** ● Allows you to decide whether you want the Tutorial to remain on display in front of the other windows.



Access to various menus: Print, Copy, Method ...



Allows you to visualize the execution of procedures

OK

Zelio software overview

- The main screen
- Program contents
- Zelio mode/Free mode
- The various Zelio-Soft menus
- Zelio application structuring recommendations



Also see...

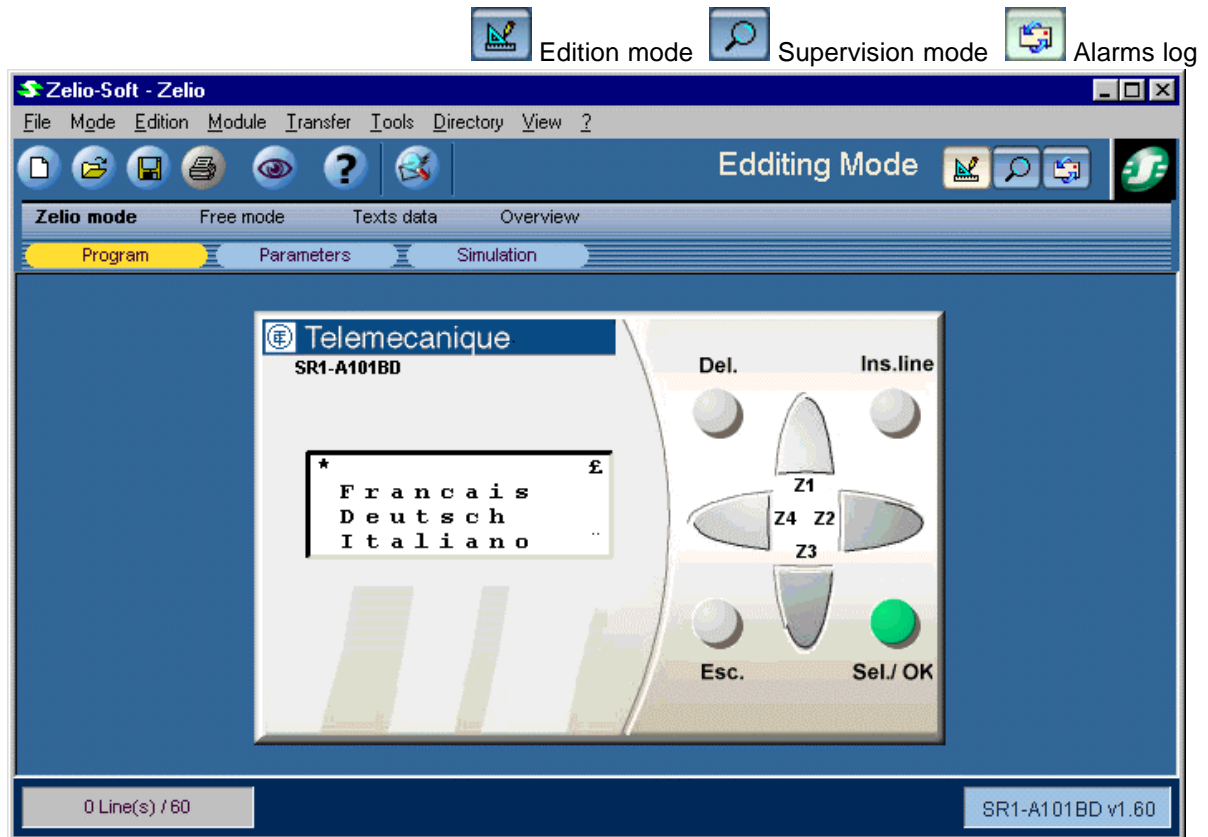
Structure of a Zelio application

Application development principle

Zelio mode/Free mode

You can develop the application either:

- in the same way as for the module: **Zelio mode**
- or by using the Zelio-Soft editor: **Free mode**



Program contents

An application program consists of several **diagram lines**.

Each line consists of:

- **3 contacts at the most**,
- **function blocks**
- and **compulsorily a coil**.

Limitations

- 10 I/O logic modules: 60 lines,
- 20 I/O logic modules: 80 lines.

The module allows you to develop the application program with either:



- **Zelio mode**,
- **Ladder mode**,
- **Electrical mode**.



In order to view the program with the comments in the various modes,...

Click on **View** then select the type of view or

Select the menu :

- View/Program/Zelio mode,
- View /Program/Ladder mode,
- View /Program/Electrical mode.

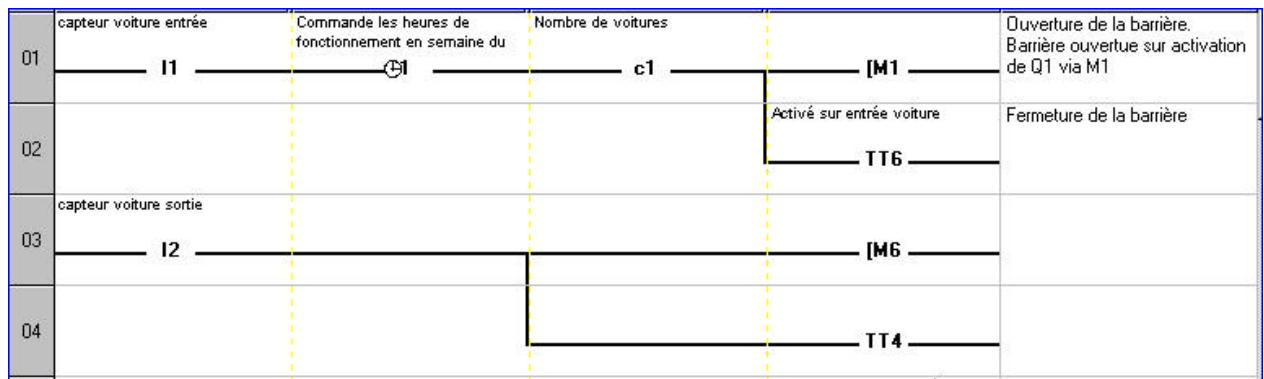


Also see...

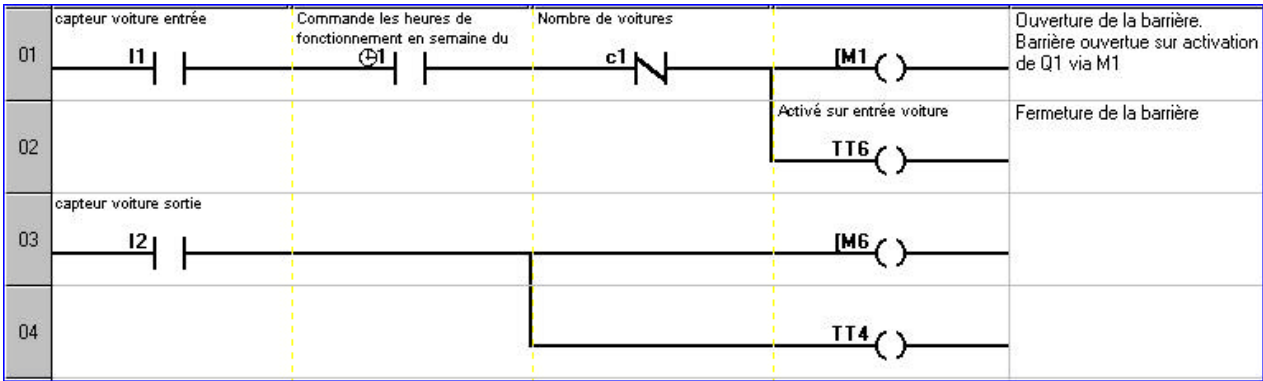
Structure of a Zelio application

Application creation principle

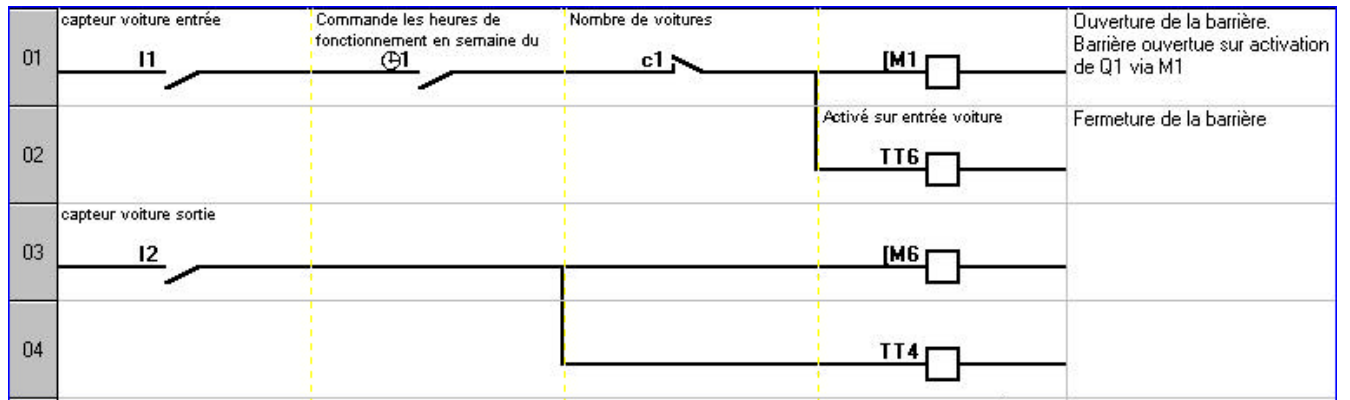
Viewing in Zelio mode



Viewing in Ladder mode



Viewing in electrical mode



Structure of a Zelio application

This topic allows you to view a Zelio application through its folder.
A Zelio application folder is divided into several parts:

-
- **The program,**
 - **The discrete inputs/outputs,**
 - **The messages displayed by the Zelio module,**
 - **The analog processes performed by the module,**
 - **The function blocks used in the program (Timers, Clock, etc.)**
 - **The parameters of the function blocks.**
-



Click on the icon to see an example of a folder using the Acrobat Reader software.



1. To obtain the best quality display, when you have started up the software, open the File/Preference/General menu and deselect the smoothing option.
2. Use the arrow keys to navigate through this folder.
3. The File/Print menu allows you to print this example



Also see...

[Software overview](#)

[Application creation principle](#)

The various Menus

File Mode Edit Module Transfer Tools Directory View

New	To create a new application
Open	To open an application
Save	To save the application in the form of a *.ZEL file
Save as	To save the application under a new name in the form of a *.ZEL file
Print preview	To view the application's folder before printing it
Print...	To print the current program or parameters
Print project	To create and print the application's project
Print properties...	To define the folder's header and footer.
Print setup...	To select the printer and define its parameters
Exit	To close Zelio-Soft.

The various Menus

File **Mode** **Edit** **Module** **Transfer** **Tools** **Directory** **View**

Edit mode Allows you to access the following functions:

- Create a new application,
- Modify an application,
- Simulate an application,
- Transfer an application.



Also see...

[Application creation principle](#)

On line monitoring mode Allows you to access the control functions for a Zelio-Logic module connected to the PC by means of the SR1 CBL01 cable.

The program is run by the Zelio module which completely manages the information and commands exchanged with the process.

It is possible to force certain states with the PC and display all of the program's internal states

Alarm log Allows you to access the log containing the alarms received if a Zelio-COM module is used.

The various Menus

File Mode Edit Module Transfer Tools Directory View

Zelio mode/Program	Programming using the "module keys"
Zelio mode/Parameters	Parameter setting using the "module keys"
Zelio mode/Simulate	Application program debugging by simulation using the "module keys"
Free mode/Program	Programming using the Zelio-Soft editor
Free mode/Parameters	Parameter setting using the Zelio-Soft editor
Free input / Define the alarms	To define the alarms if a Zelio-COM module is used
Free mode/Simulate	Application program debugging by simulation using the Zelio-Soft editor
Coherence test	Program coherence check
Inputs/outputs properties	To enter comments associated with the inputs/outputs
Cut	To delete the selected items and copy them into the Windows Clipboard
Copy	To copy the selected items into the Windows Clipboard
Paste	To insert or incorporate the content of the Clipboard at the level of the insertion point.

The various Menus

File Mode Edit Module Transfer Tools Directory View

Select module	To select a module in a list of modules compatible with the module that has already been declared
Configure module	<p>To define:</p> <ul style="list-style-type: none"> - The password - The module's language - Input filtering - Activation/deactivation of the Zx keys - Activation/deactivation of automatic help (<i>version < 1.6</i>) - Activation/deactivation of the remanence (<i>version 1.6</i>) <p>- Allows you to access the definition of the general and reset alarms if a Zelio-COM module is used.</p>
Clock setting	<ul style="list-style-type: none"> - Allows you to set the module's clock when the module is connected to the PC. - Allows you to set the time of the Zelio-COM module's clock if a Zelio-COM module is used.
Change the Zelio-COM identification key	Allow modification of the identification key (password) of the Zelio-Logic/Zelio-COM unit module.
Authorised numbers for SMS command	Allow definition of safety level with a list of authorised telephone numbers for access to Zelio-COM via SMS

The various Menus

File **Mode** **Edit** **Module** **Transfer** **Tools** **Directory** **View**

Transfer program/PC => Module	To transfer the application created on the PC with Zelio-Soft to the module.
Transfer program/Module => PC	To transfer the application from a module to the PC.
Transfer parameters	To transfer in STOP or RUN mode the parameters to a module connected to the PC.
Run	To switch the module to RUN.
Stop	To switch the module to STOP.
Clear prog	To clear the program contained in the module.
Wait for alarm messages	Allows you to place the Zelio-Soft PC on standby to receive the alarm messages sent by the Zelio-Logic modules if a Zelio-COM module is used.
Read alarm messages	Allows you to read all the alarm messages if a Zelio-COM module is used.

The various Menus

File **Mode** **Edit** **Module** **Transfer** **Tools** **Directory** **View**

- | | |
|--|--|
| Update the Zelio-COM
firmware | Allow <ul style="list-style-type: none">- Reading of the software version
number from the Zelio-COM firmware
(software built into the Zelio-COM
hardware).,- Updating of Zelio-COM firmware |
| Configuration of a
GSM modem | Allow configuration of GSM modems <ul style="list-style-type: none">- Modem connected to PC Zelio-Soft- Modem connected to the Zelio-COM
module. |

The various Menus

File **Mode** **Edit** **Module** **Transfer** **Tools** **Directory** **View**

- Zelio-Soft PC stations** Allows you to define the address of the Zelio-Soft PCs if Zelio-COM modules are used.
- SMS addressees** Allows you to define the address of a GSM mobile phone if Zelio-COM modules are used.
- Distant Zelio-Logic modules**
- Allows you to define the PC's serial port to be used for the Zelio-Soft/Module Zelio-Logic exchanges
 - Allows you to define the address of a Zelio-Logic module if a Zelio-COM module is used.

The various Menus

File Mode Edit Module Transfer Tools Directory View

Program/Zelio mode	To view the program in Zelio mode
Program/Ladder mode	To view the program in ladder mode
Program/Electrical mode	To view the program in electrical mode
Tool bar	To view or hide the tool bar
Status bar	To view or hide the status bar (information bar at the bottom of the screen)
Language...	To choose the Zelio-Soft utilization language

Application creation principle

● Create an application

● Open an application

Configuring the module

Select module
Select language
Select filtering
Activation/deactivation of the remanence

Configure keyboard keys
Validate automatic help
Declare a password



Declare I/O comments



Creating the program

Structuring recommendations
The various elements of the language
The data entry/modification procedures



Download program to the module



Debugging the application

Simulate
Run/Stop command
Dynamic view of the program
Modify the parameters
On line monitoring mode



Print the project



Save the project

Application creation principle

● Create an application

● Open an application

Configuring the module

Select module	Configure keyboard keys
Select language	Validate automatic help
Select filtering	Declare a password
Activation/deactivation of the remanence	



Declare I/O comments



Creating the program

Structuring recommendations
The various elements of the language
The data input/modification procedures



Transfer program to module



Mise au point de l'application

Simulate
Run/Stop command
Dynamic view of the program
Modify the parameters
On line monitoring mode



Print the project



Save the project

Zelio application development principle...

***Here we present the various steps required to develop a
Zelio application.
Select the relevant topic.***

You can return to this topic at any moment by clicking the
Method button.



Detailed contents**Software overview**

The main screen	Zelio mode/Free mode	Zelio application structuring
Program contents	The variousZelio-Soft menus	recommendations

Programming on the Zelio module

The command keys	CONFIG	Password
TIME SET	CLEAR PROG	Language
PROGRAM	TRANSFER	Filtering
PARAMET	PROG. INFO	Zx keys
VISU	(modul version<1.6)	Help (module version <1.6)
RUN/STOP		Remanence (module version 1.6)

The language's elements

The discrete inputs	The Clock function blocks
The discrete outputs	The Timer function blocks
The auxiliary coils	The Analog function blocks
The keyboard Zx	The Text function blocks
The Counter function blocks	

Application development procedures

Programming in Zelio mode	Programming in free mode
Parameter setting in Zelio mode	Parameter setting in free mode
Structuring recommendations	Enter/modify a Clock function block
Identify the inputs/outputs	Enter/modify a Counter function block
Enter/modify a contact	Enter/modify a Timer function block
Enter/modify an output	Enter/modify an Analog function block
Create/modify links	Enter/modify a Text block
Insert/delete program lines	Check program coherence

Application debugging procedures

Simulate an application	On line monitoring mode
Transfer an application	View/Modify the parameters
Run program command	Application diagnosis
Dynamic view of the program	Print the program
	Save the application

Zelio-Soft on-line help...

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SCHNEIDER ELECTRIC SA

ACROBAT READER

LOTUS Screencam

WEB







**Operating problem**





Software not installed on the PC
(for example: Acrobat Reader, Wordpad not installed)



Software already running on the PC
(for example: an application is already open)



Demonstration of some procedures...

	Zelio mode	Free mode
● Enter contacts, coils, analog blocks		
● Enter links		

● Enter counter block		
● Enter clock block		
● Enter timer block		
● Enter text block		

● Simulate discrete inputs, discrete outputs, analog inputs		
● Simulate clock block		

Zelio-Soft Version

Version V1.4 does not enable access to supervision mode nor to management of modules whose version is \geq V1.7 (remanence, etc.)

Version V1.5 enables access to supervision mode and to management of modules whose version is \geq V1.7 (remanence, etc.)

On-line help is common to both versions of Zelio-Soft.

Version V1.8 allows you to access the communication functions via Zelio-COM

Print...

Print current section...

Print on-line help ...

The content of the on-line help is available in the form of a PDF file.

This file can be read with AcrobatReader.

You can consult this file and print the sections you are interested in.



**Zelio-COM on-line help**

The version of Zelio-Soft that you are using does not have the Zelio-COM functions.

In order to access these functions you must have Zelio-Soft version 1.8



Create an application

1. Select the **File/New** menu or click on the **New program** box (when you start up Zelio-Soft),
2. Select the **type of Zelio module** you want by clicking on the corresponding line. The current selection window indicates the characteristics of the selected Zelio module,
3. Select the **module version**: a window indicates the functions according to the selected version.
4. Validate with **OK**.

Note: the terms **application** and **program** are equivalent.



Also see...

Application development principle
Select module

Open an application

1. Select the **File/Open** menu or click on the **Open program** box (when you start up ZelioSoft),
2. Select the directory that contains the Zelio applications. The default directory is **C:\Zelio-Program**,
3. Select the file corresponding to the application (for example Parking.ZEL),
4. Validate with **Open**.

Note: the terms **application** and **program** are equivalent.



Also see...

Application development principle

Save a project

1. Select the **File/Save** or **File/Save as** menu.
 - **Save** allows you to save the application in the form of a *.ZEL file
 - **Save as** allows you to save the application under a new name in the form of a *.ZEL file
2. Select the directory in which you want to save the Zelio applications. The default directory is **C:\Zelio-Program**.
3. Enter the name of the *.ZEL file (for example Parking.ZEL).
4. Validate with **Save**.

Remark

You are advised to use the Save command to save your work regularly.

Print an application folder

To select the printer...

1. Select the **File/Print setup** menu.
2. Select the printer which must be of the **Postscript** type.
3. If necessary, modify the printer's properties
4. Validate with **OK**.

To define the folder's header and footer ...

1. Select the **File/Print information** menu (Project properties).
2. Fill in the various fields.
3. Validate with **OK**.

To view the folder before printing it...

1. Click on **Overview**,
2. Select the **File/Print preview** menu.

To print the application's folder...

1. Select the **File/Print folder** menu.
2. Select the type of folder printing you want
3. Select the parts you want to print
 - All : the complete folder is printed,
 - List of I/Os : prints the inputs/outputs with the label and associated comment,
 - Parameters
 - Information text: prints the texts of the alarm....
 - Annex: prints the time charts for the Timers and analog comparators...
4. Validate.



Click on the icon to display an example of a folder using the Acrobat Reader software.

Programming in "Zelio mode"

 **Also see...** The Zelio menus, Zelio mode/Free mode

Zelio mode allows you to enter and modify the application program directly on the screen using the module keys (Z1, SEL ...)

To switch to this mode...

Select the **Edit/Module/Program** menu or
Click on **Zelio mode** and then **Program**.

I 1	—	⌚	1	—	c	1	—	[M	1	The beginning of the program is displayed. The program is written in Zelio mode.
								T	T	6	
I 2	—	—	—	—	—	—	—	[M	6	
								T	T	4	

To enter the program in Ladder or electrical mode...

Switch to **Free mode**.

To view the program with the comments in the various symbols,...

Click on Overview and then select the type of view you want or

Select one of the following menus:

View/Program/Zelio mode,

View /Program/Ladder mode,

View /Program/Electrical mode.

 **Also see...**

The language's elements

Procedures

The command keys

Zelio mode/Free mode

The Zelio menus

Parameter setting in "Zelio mode"

This function allows you to enter and modify the application's parameters directly on the screen using the module keys (Z1, SEL ...)

To switch to this mode...

Select the **Edit/Module/Parameters** menu or

Click on **Zelio mode** and then **Parameters**.

```
> C 1 = 0 0 1 0      | The parameters are displayed
  T 1 = 0 1 : 0 0 M
  T 2 = 0 0 . 3 0 s
  ⌚ 1
```

Remarks

The parameters displayed are those of the function blocks that are not locked.



Also see...

The language's elements

The command keys

Application development procedures

Programming in "Free mode"

Zelio mode/Free mode

This function allows you to enter and modify the application program directly on the screen using the Zelio-Soft editor.

To switch to this mode...

Select the **Edit/Free mode/Program** menu or
Click on **Free mode** and then **Program**.

To enter the program in Zelio, Ladder or Electrical symbol...

The list box situated on the bottom left of the screen allows you to access the 3 types of symbol:

- Zelio symbol
- Ladder symbol
- Electrical symbols

To view the program with the comments in the various symbols,...

Click on Overview then select the type of view or

Select the menu:

- View/Program/Zelio mode,
- View/Program/Ladder mode,
- View/Program/Electrical mode

To enter a line comment,...

Click in the comment zone, enter the comment and press Enter to validate.

Also see...

The language's elements
Application development procedures
Zelio mode/Free mode

Parameter setting in "Free mode"

This function allows you to enter and modify the application's parameters directly on the screen using the Zelio-Soft editor.

To switch to this mode...

Select the **Edit/Free mode/Parameters** menu or
Click on **Free mode** and then **Parameters**.

To modify a parameter...

Double click on the parameter concerned.

Also see...

[The language's elements](#)

[Application development procedures](#)

Select module

This function allows you to:

- Select a module when you create an application,
- Define a new module for an existing application.

To select the module...

1. Select the **Module/Select module** menu,
2. Select the **type of module**,
3. Select the **module version**: a window indicates the functions according to the selected version.
4. Validate with **OK**.



1. When defining a new module, you must check the **compatibility** by taking into account the various different characteristics:
 - Number of discrete inputs,
 - Analog inputs,
 - Number of discrete outputs
 - Clock
 - ...
2. If there is a problem, a dialog box will indicate:
 - the potential errors,
 - their positions (lines and columns).
3. You have two possibilities:
 - Specify another module,
 - Validate despite the errors. In which case you will then have to correct the errors in the program.
4. Once you have validated, if there are any errors, the **Coherence check** icon will switch to red. Click on this icon to display the errors. Correct the errors, the list of errors will be updated dynamically.

Setting the Zelio-Logic module's clock

Purpose

This function allows you to set the Zelio module's clock.
To do this you must be connected to the module.

PC/Module wiring, PC/Module link configuration

PC/Module link by modem

Procedure

1. Select the **Module/Clock setting** menu
2. Select Summer or Winter time
3. Select the day of the week
4. Select the hour, the minutes, the seconds
5. Click on **Validate** to modify the module's clock time.

Set PC Hour Day : to update by default the PC's clock

Remark: Zelio-Logic module connected to a Zelio-COM module

The Zelio-COM module has a real-time Year / Month / Day / Hour / Minute clock that can used to:

- date all the messages transmitted by Zelio-COM,
- update the time automatically on the Zelio-Logic modules,
- change the Zelio-Logic module's SUMMER / WINTER time automatically,

For further information on this Zelio-COM function, click on the Zelio-COM button.

free1

free2

free3

Programming with the Zelio module

● Programming in Zelio mode

● Parameter setting in Zelio mode

● The command keys

The various ZELIO menus

General menu	Configuration menus
● TIME SET	● PASSWORD
● PROGRAM.	● LANGUAGE
● PARAMET.	● FILT.
● VISU	● ZX=keys
● RUN/STOP	● HELP
● CONFIG.	
● CLEAR PROG	
● TRANSFER	
● PROG. INFO. . (module version <1.6)	

Scrolling

The right and left arrow keys allow you to switch:


- from **VISU.** to **CONFIG.** without passing through RUN/STOP,
- from **PROGRAM.** to **Zx=Keys** without passing through **PARAM..**



Ver también..

The language's elements

The command keys in Zelio mode

Del	To delete an item or a diagram line
Ins. line	To insert a diagram line
Sel./Ok	Allows you to: <ul style="list-style-type: none">- make a selection (variable, fields) to be modified,- enter into an item's parameters page,- enter into a visualization page,- validate a choice. <div> The first thing you must do is press this key to access the main menu.</div>
Esc	To exit from a menu or a selection.
Z1 to Z4	<ul style="list-style-type: none">- Allows you to move through the data input zone. The movement is visualized on the screen.- For the items of a diagram, these keys also allow you to navigate through its parameters and then modify their value.



Also see...

The language's elements

The main screen

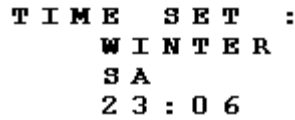
TIME SET menu

Objective

This menu allows you to modify the day and time in Zelio-Soft.

You can modify the following parameters:

- winter time/summer time,
- the day of the week,
- the hour,
- the minutes.



```
TIME SET :  
WINTER  
SA  
23 : 06
```

Zelio mode

1. Select the **TIME SET** menu,
2. Select "winter/summer" with the **Sel./OK** key, modify using the arrow keys and validate with the **Sel./OK** key.
3. Select "the day of the week" with the **Sel./OK** key, modify using the arrow keys and validate with the **Sel./OK** key.
4. Select "the hour" with the **Sel./OK** key, modify using the arrow keys and validate with the **Sel./OK** key.
5. Select "the minutes" with the right/left arrows, modify using the arrows and validate with the **Sel./OK** key.



Also see..

[Clock setting](#)

PROGRAM menu

This menu allows you to modify the program.

General

Programming in Zelio mode
Parameter setting in Zelio mode
Structuring recommendations

Programming in free mode
Parameter setting in free mode
Program coherence check

Enter/modify

Contacts
Coils
Links
Insert/delete a program line
Clock function block

Counter function block
Timer function block
Analog function block
Text block



Also see...

The Zelio control panel menus
The language's elements

PARAMET. menu

This menu allows you to modify the parameters.

General

Programming in Zelio mode
Parameter setting in Zelio mode

Programming in free mode
Parameter setting in free mode

Enter/modify

Counter function block
Clock function block
Timer function block

Analog function block
Text block



Voir aussi...

The Zelio control panel menus
The language's elements

VISU. menu

● Objective

This function allows you to select the information that will be displayed on the third line of the screen of the module being used.

● Zelio mode

1. Select the **VISU.** menu
2. Select the line you want to display using the arrow keys,
3. Validate with the **Sel./OK** key; a black diamond indicates the selected line.

Example

Timer T2 selected

```
> S A   0 0 : 3 0
  T 1 = 0 1 : 0 0
  T 2 = 0 0 . 0 0
  T 3 = 0 0 . 1 0
```

Display of the first Zelio screen

```
1 2 3 4 5 6
   S t o p
   T 2 = 0 0 . 0 0
1 2 3 4
```

CONFIG. menu

This menu allows you to access the configuration.

- **PASSWORD**
- **LANGUAGE**
- **FILT.**
- **ZX=Keys**
- **HELP (module version <1.6)**
- **Remanence (module version 1.6)**



Also see...

The Zelio control panel menus
The language's elements

CLEAR PROG. menu

Objective

This function allows you to clear the complete program.

Zelio mode

1. Select the **CLEAR PROG.** menu
2. Select **Yes** or **No** using the arrow keys,
3. Validate with the **Sel./OK** key.

Deleting a Zelio application on the PC

1. In the Windows Explorer go to the directory where the applications are saved. The default directory is **C:\Zelio-Program**,
2. Clear the *.ZEL file corresponding to the application,



Also see...

The Zelio control panel menus

Clearing the program from the PC

TRANSFER menu

Objective

This menu provides 4 functions :

Modul. -> PC

To transfer to the programming software: see **Transfer**

PC -> Modul.

To download with the programming software: see **Transfer**

Modul. -> Mem

To transfer the application contained in the module to the plug-in EEPROM cartridge: refer to the module's documentation.

Mem -> Modul.

To transfer the application contained in the plug-in EEPROM cartridge to the module: refer to the module's documentation.

PROG. INFO. Menu (*module version <1.6*)

● Objective

This function allows you to display all the items required to enter a command diagram.

```

P r o g . V x . Y
? x - ? x - ? x - [ Y Y
| - - - - |
I x = I n p u t

```

● Zelio mode

1. Select the **PROG. INFO.** menu,
2. Scroll through the lines using the arrow keys.

```

P r o g . V x . Y
? x - ? x - ? x - [ Y Y
| - - - - |
I x = I n p u t

```

```

Q x = O u t p u t
M x = A u x i l i a r .
T x = T i m e r
C x = C o u n t e r

```

```

P r o g . V x . Y
? x - ? x - ? x - [ Y Y
| - - - - |
I x = I n p u t

```

PASSWORD

Objective

The password is used to protect access to:

- modifications to or clearing of the program,
- modifications to input filtering,
- activation / deactivation of the Zx navigation keys,
- the application transfer options

This password consists of 4 numbers between 0 and 9

Zelio mode

1. Select the **Config** menu and then the **Password** menu,
2. Enter the password using the arrow keys,
3. Validate with the **Sel./OK** key; a closed padlock indicates that the password has been activated.

Free mode

1. Select the **Module/Configure module** menu,
2. Enter the password and check the **Active** box,
3. Validate.

Cancelling the password

Enter the current password.

If you have forgotten your password, simultaneously press the 4 keys: **Z1, Z2, Z3, Z4**.

Simultaneously pressing the 4 keys opens a CLEAR ALL? screen



Selecting and validating YES cancels the password and the module's resident program.

Modifying the password

To modify the password, you just have to cancel the old one and enter a new one.

LANGUAGE

● Objective

This function allows you to choose the language used by the module.

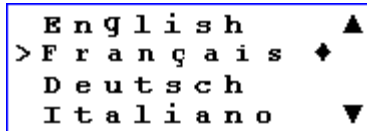
All the messages can be displayed in 6 languages: English, French, German, Italian, Spanish and Portuguese.



You can only choose the language if the module is in RUN mode.

● Zelio mode

1. Select the **Config** menu and then the **Language** menu,
2. Select the language using the arrow keys,
3. Validate with the **Sel./OK** key.



A small symbol ♦ indicates the selected language

● Free mode

1. Select the **Module/Configure Module** menu,
2. Select the language,
3. Validate.

FILT.

● Objective

This function allows you to have a faster detection of the changes of state on the inputs. It should only be used when absolutely necessary since it makes the logic module's inputs more sensitive to stray signals.

Do not use this function if an input is connected to a contact sensor that can be subject to chatter.

This function is available on DC current logic modules: **SR1....BD**.



You can only make this choice when the logic module is in STOP mode.

Filtering	Switching	Discrete inputs
SLOW	ON > OFF	5 ms
	OFF > ON	3 ms
FAST	ON > OFF	0.5 ms
	OFF > ON	0.3 ms

● Zelio mode

1. Select the **Config** menu and then the **FILT** menu,
2. Select the filtering mode using the arrow keys,
3. Validate with the **Sel./OK** key.

● Free mode

1. Select the **Module/Configure Module** menu
2. Select **Filtering**,
3. Validate.

Zx=keys

Objective

The "**Zx=Keys**" option allows you to activate or deactivate the navigation keys.

Deactivate

The keys are only available for setting the parameters, configuring and programming the module.

Activate

The keys are available for setting the parameters, configuring and programming the module and can also be used in a command diagram.

They function like pushbuttons without having to use an input contact.

When the function is activated, the **Z?** symbols are displayed on the bottom right of the screen.

Pressing the Zn (n= 1 to 4) will display the number in place of the ? in reverse video.

The function is active in **RUN** mode:

- on the operating screen

- on the **PROGRAM.** screen (Debug mode) when you select a Zi contact and you validate with Sel./OK.

Validation is then inhibited, and pressing a Zi key will activate the corresponding Zi contact.

Press Esc. to return to navigation mode.

The function is inactive in PARAMET. and VISU. modes and in all the parameter setting screens for the function blocks and configuration screens.

Zelio mode

1. Select the **Config** menu and then the **Zx=keys** menu,
2. Select **yes** or **no** using the arrow keys,
3. Validate with the **Sel./OK** key.

Free mode

1. Select the **Module/Configure module** menu,
2. Select **activate** or **deactivate**,
3. Validate.



Also see...

The keyboard inputs

HELP (*module version <1.6*)

Objective


This function allows you to activate or deactivate the automatic help.

When the help is activated, you just have to stay on the desired element for a few seconds without pressing a key and the help will be displayed in the form of an explanatory message.

To exit from the screen, press **Sel./Ok** or **Esc**.



Only certain elements have on-line help.

Example:  in all the function block screens.

Zelio mode

1. Select the **Config** menu and then the **Help** menu,
2. Select **Yes** or **No** using the arrow keys,
3. Validate with the **Sel./OK** key

Free mode

1. Select the **Module/Configure module** menu,
2. Select **activate** or **deactivate help**,
3. Validate.

Remanence (module version ≥ 1.6)

Objective

Remanence allows you to store the current value of a function block in the event of a power cut.
If the function has been validated, the program will restart in RUN mode with the stored value.
If the function has not been validated, the program will restart with the value "0".



During a mains power cut the value remains frozen even for the timers.

The only value that continues to run is the clock, which will continue until the backup power fails (72 hours or 150 hours with the modules whose version is $\geq V1.7$).

It is possible to select remanence for the following elements:

- Mx bits (M1 to MF)
- timers T1 and T2
- counters C1 to C5

Zelio mode

1. Select the **Config** menu and then the **Remanence** menu,
2. Select the type of object (Mx, Tx, or Cx) using the up and down arrows,
3. Select the variables using the right and left arrows.
4. Activate or deactivate the remanence by means of the up and down arrows, a variable for which remanence has been activated is displayed in reverse video.
4. Validate by clicking **Sel./OK**.

Free mode

1. Select the **Module/Module Configuration** menu,
2. Select the variables,
3. Validate.

The language's elements

- Discrete inputs
- Discrete outputs
- Auxiliary relays
- Keyboard Zx
- Clock function blocks
- Counter function blocks
- Timer function blocks
- Analog function blocks
- Text function blocks

The inputs

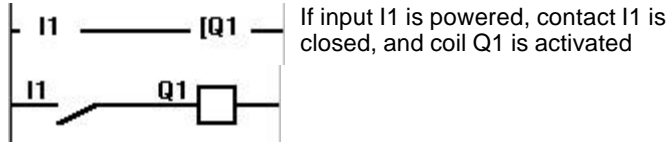
The **discrete** inputs can only be used as **contacts** in the program.

This contact represents the state of the module's input connected to a sensor (push-button, switch, detector, etc.)

- A contact **I1** corresponds to using the "direct" state of input I1.

If I1 is powered, it is said that I1 is closed => I1 is equivalent to a normally open contact.

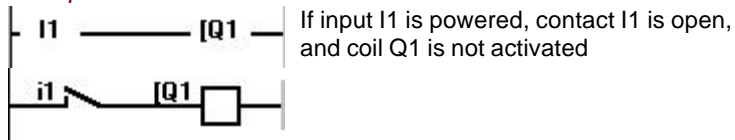
Example 1 :



- A contact **i1** corresponds to using the "inverse" state of input I1.

If I1 is powered, it is said that I1 is open => I1 is equivalent to a normally closed contact.

Example 2 :



Also see...

[The language's elements](#)

[Enter...](#)

[Inputs/outputs properties](#)

The Q outputs

The discrete outputs noted **Q** correspond to the Zelio module's output relay coils. They can also be used when programming output relays as auxiliary contacts.

Use as coil

I Q 1 The coil is excited if the contacts to which it is connected are closed, otherwise it is not excited. Contact mode

J Q 1 Pulse excitation, the coil is excited when there is a change of state, this is equivalent to a remote switch.

Example

S Q1 "Set" coil, also called lock-on or closing coil, the coil is excited as soon as the contacts to which it is connected are closed, it then remains closed even if the contacts are no longer closed.

Example

R Q1 "Reset" coil, also called release or trip coil, this coil is deactivated when the contacts to which it is connected are closed. It then remains inactivated even if the contacts are no longer closed.



1. An output must be used once and only once in the program as a coil: **I Q 1**, **J Q 1**, or **SQ**.
2. If a SET coil is used, there must be a RESET action for that coil.

Use as contact

An output can be used as an "auxiliary" contact as often as necessary.

Q1 Contact Normally open : coil not activated

q1 Contact Normally closed : coil not activated



Also see...

[The language's elements](#)

[Enter...](#)

[Inputs/outputs properties](#)

Example of using a remote switch coil

Switching a light on and off using a pushbutton.

I1 _____ **I Q 1**

A pushbutton is connected to input **I1** and a light to output **Q1**.
The light comes on or goes out each time the pushbutton is pressed.

Example of using Set and Reset coils

Switching a piece of equipment on with pushbutton BPI2 and switching it off with pushbutton BPI3.

I2 ————— SQ2
I3 ————— RQ2

BPI2 is connected to input I2, BPI3 to input I3, the equipment is commanded by output Q2

Pressing pushbutton BPI2 sets the output to 1.

Pressing pushbutton BPI3 resets the output to 0.

Auxiliary relays

The auxiliary relays noted **M** behave in exactly the same way as the coils of output **Q** but do not have an output electrical contact. They can be used as internal bits. They allow a state to be memorized. This memorization will then be used in the form of the associated contact.

Example: memorization of the position of several inputs to command a coil.

```

I1 — i2 — I4 — M1
IB — I5 — i1 — M2
M1 — M2 ——— Q2

```

Use as coil

[M 1 The coil is excited if the contacts to which it is connected are closed, otherwise it is not excited.

] M 1 Pulse excitation, the coil is excited when there is a change of state, this is equivalent to a remote switch.

S M1 "Set" coil

R M1 "Reset" coil

Use as contact

An output can be used as a auxiliary contact in order to know its state at a given moment.

M1 Normally open

m1 Normally closed

For informations see [Discrete outputs](#) .

Also see...

[The language's elements](#)

[Enter ...](#)

[Inputs/outputs properties](#)

Keyboard Z1 to Z4

The navigation keys behave in exactly the same way as the physical inputs I. Their only difference is that they do not have connection terminals.

They are used as pushbuttons and can only be used in the form of contacts:

Z1 Normally open, **z1** Normally closed



In order to use the navigation keys in this way, you will have to check that they are activated in the "Zx=KEYS" configuration option on the "CONFIG." menu. Otherwise, when the logic module is in RUN mode, these can only be used to move through the menus.

Example: making a remote switch that functions with key **Z1** and output **Q1**.

Z1_____ **Q1**

Output **Q1** changes state each time the key is pressed.



Also see...

The language's elements

Enter ...

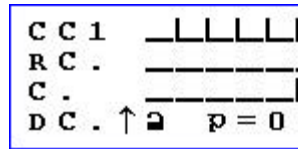
Configuration

Inputs/outputs properties

Counter function blocks

The Counter function blocks are used to count pulses and trigger an action.

Enter...



CC : count pulse input

Used as a coil in a command diagram, this item represents the block's counting input. Each time the coil is excited, the counter is incremented or decremented by 1 depending on the counting direction you have chosen.

Example: counting on the input to the Counter N°1 function block.

I1 ——— CC1

RC: counter reset

Used as a coil in a command diagram, this item represents the Counter block's reset input. Exciting the coil will result in the current counter value being reset.

Example : Reset counter N°1 when key Z1 is pressed.

Z1 ——— RC1

DC : count/countdown direction

Used as a coil in a command diagram, this item represents the counter input that determines the counting direction. If this coil is excited, the function block counts down, otherwise the function block counts. By default (this input is not wired) the function block counts.

Example: counting or counting down depending on the state of one of the logic module's inputs.

I2 ——— DC1

p=0000: Preselection value (0 to 9999)

Value to be reached. This value is also called the preselection value. When the counter's current value is equal to the preselected value, the counter's contact C is closed. This **parameter** can be modified.



Lock parameters

This parameter is used to lock the function block. When the block is locked, the preselection value no longer appears in the modifiable parameters.

C or c : Counting threshold reached

Used as a contact, this Counter function block item indicates that the preselection value and the current value are equal.

C: The contact is closed when the counter has reached the preselection value.

c: The contact is closed as long as the counter has not reached its preselection value.

Example: Switching on an indicator light connected to the module's output 1 when the preselection value is reached, otherwise the indicator light is off.

C1 ——— Q1



Also see...

[The language's elements](#)

[Enter a Counter function block](#)

Clock function blocks

Next...

● Objective

The Clock function block acts like a weekly programmer and has 4 time ranges (A, B, C, D) used to command the state of the output contact. It is used to validate time ranges during which it will be possible to perform actions.



N contact Normally open: the contact is closed when the clock is in a valid period.



N° contact Normally closed: the contact is closed when the clock is not in a valid period.

● Clock programming screen

● Enter/modify a clock block

● Clock setting

● Clock programming modes

There are 3 possible modes: [Example of programming with several modes](#)

- Time ranges mode

Example: Mondays, start at 08:00, stop at 19:00

Range A, program Start day =MO (Monday)
 End day = MO
 ON = 08:00
 OFF = 19:00

This programming can be done for several day for the same time range A.

Range A, program Start day =MO (Monday)
 End day = FR (Friday)
 ON = 08:00
 OFF = 19:00

The clock will be activated at 08:00 and stopped at 19:00 from Monday to Friday.

- Interval mode

If you want to activate the clock on one day and deactivate it one or more days later, you will have to use 2 time ranges.

Example: start on Friday at 20:00 and stop on Monday morning at 06:00.

Range A, program Start day =FR (Friday)
 End day = - -
 ON = 20:00
 OFF = - -

Range B, program Start day =MO (Monday)
 End day = MO or - -
 ON = - -
 OFF = 06:00

- Day/Night mode

You can program a clock to function like a Day/Night program by using the following programming "trick".

Example:

Range A, program Start day = MO (Monday)
 End day = FR (Friday)
 ON = 23:00
 OFF = 08:00

In this case, since the start time comes after the end time:

- the clock will be activated on Monday, Tuesday, ... Friday at 23:00.

- the clock will be deactivated the next morning on Tuesday, Wednesday ... Friday and Saturday at 08:00

Note: You can combine different programming modes on the same clock.

Example:

Range A: Day/Night operation

Range B: range operation

Range C: interval operation

[Example of programming with several modes](#)

Next...



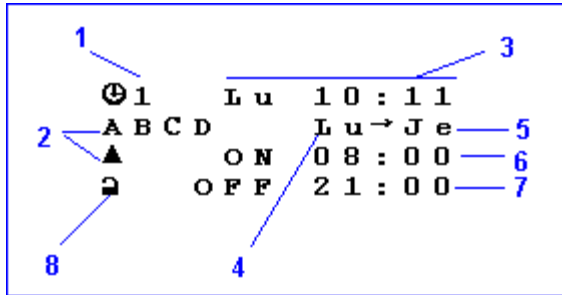
Also see...

The language's elements

Enter...

Screen clock function blocks

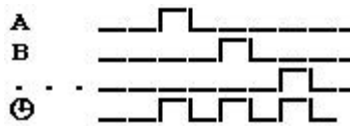
Description Example



1. Block No.: 1 to 4

2. operating ranges: A, B, C, D

There are 4 possible ranges:
A, B, C, D.



In operation, these ranges are accumulated and the block is valid on all the selected ranges.

3. Current date and time

4. Start day

Start of validity (Monday to Sunday) for each range.

5. End day

End of validity day (Monday to Sunday) for each range.

6. Startup time

Start of operation time (00:00 to 23:59) for each range.

7. Shutdown time

End of operation time (00:00 to 23:59) for each range.

8. Lock block

This allows you to lock the function block. When the block is locked, it will no longer appear in the modifiable parameters.

Remark

When you validate the Clock block's parameters (exit from the screen by pressing ESC), the logic module displays a summary of the block's validity ranges so that you can verify the parameters you have entered.

Previous...



Also see...

The language's elements

Enter...

Example

To command an appliance through output Q1 during 2 time slots: 08:00 to 10:00 and 15:00 to 19:00 from Monday to Thursday. Clock block number 1.



Ⓢ1 L u 1 1 : 4 1
A B C D L u → J e
▲ O N 0 8 : 0 0
Ⓜ O F F 1 0 : 0 0

Ⓢ1 L u 1 1 : 4 4
A B C D L u → J e
▲ O N 1 5 : 0 0
Ⓜ O F F 1 9 : 0 0

Timer function blocks

Next...

Objective **Example**

The Timer function block allows you to time actions. It has:

- a reset input **RT**,
- a command input **TT**,
- an end of timing output **T** or **t**,
- a preselection value.

Description of the parameters

TT : command

Used as a coil, this item represents the Timer function block's command input. Its operation depends on the **type** used.

RT : reset

Used as a coil, this item represents the reset input. Exciting the coil results in:

- the Timer's current value being reset,
 - contact T being deactivated,
- the block is ready for a new timing cycle.

Type of timer (A, a, B, ...)

Each type functions in a specific way making it possible to manage all the possible situations in an application.

t=00.00 : Value to be reached

This value is also called the preselection value. The effect of this value depends on the **type** used.

S : preselection value time unit

- **1/100 of seconds** : 00.00 s (maximum : 99.99)
- **1/10 of seconds** : 000.0 s (maximum : 999.9)
- **minutes : seconds** : 00 :00 M : S (maximum : 99:59)
- **hours : minutes** : 00 : 00 H : M (maximum : 99:59)

T (normally open) or t (normally closed)

Used as a contact, this function block item represents the Timer output. How it functions depends on the **type** selected.



Lock parameters

This parameter allows you to lock the function block. When the block is locked, the preselection value no longer appears in the modifiable parameters.

Next...



Also see...

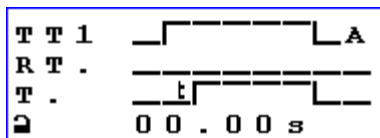
The language's elements

Enter...

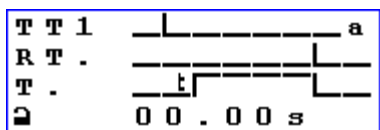
Timer function blocks (cont'd)

[Previous...](#)

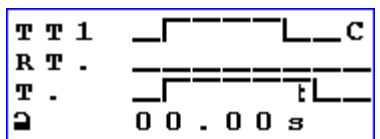
● Type of timer Example



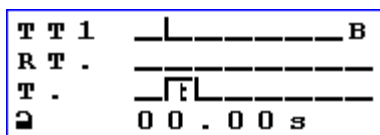
Type A : Closing delay (Work delay). Example: you want to delay closing of a contactor to limit the cut-in current.



Type a : Closing delay on command rising edge with Reset.



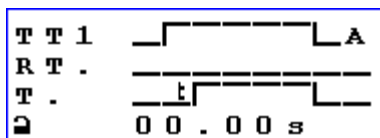
Type C : Opening delay (Rest delay). Example: maintain fan operation after motor shutdown.



Type B : Calibrated pulse on command input rising edge (temporary contact). Switching on a light by means of a pushbutton with a timer switch.



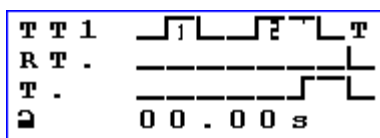
Type W : Calibrated pulse on command input falling edge. Example: Closing a motorway toll gate



Type D : Symmetrical flashing. Example: fault indication by indicator light flashing.



Type d : Symmetrical flashing on command input rising edge with Reset. Example: pulsed brake command after power cutout.



Type T : Totalizer with Reset. Example: request replacement of a filter when the recommended utilization time has been exceeded.

[Previous...](#)

Also see...

The language's elements
Enter...

Example of using a Timer function block

● Developing a stairwell timer switch

The pushbuttons on each floor are connected to the module's input I1.

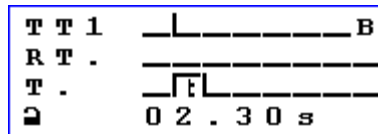
Timer function block N°1 type B, set to 2 mn and 30 s commands output Q4.

Output Q4 is connected to the lighting system.

● Program

I1----- TT1

T1----- Q4



Analog function blocks

Next...

Objective

The analog function block is used to:

- compare a measured analog value and an internal reference value,
- compare two measured analog values.


Two discrete inputs, **lb** and **lc**, are used to receive values comprised between **0 and 10V**.

A1 : contact normally open **A1-----[Q2**

a1 : contact normally closed

The contact indicates the positioning of a measured analog value with respect to a reference value or it represents the comparison between two measured analog values. It depends on the type of Analog function block chosen and configured.

I b ≥ R

A 1 A n a l o g 2
 **R = 3 . 0 V**

Next...



Also see...

The language's elements

Enter...

Analog function blocks *(cont'd)*

[Previous...](#)

Description

In the following description A1 and 4.9 are examples, the parameters' permissible values are comprised between 0 and 9.9 Volts..

$Ib \leq Ref$	Contact A1 is closed when the value of analog input Ib is \leq the reference voltage entered in the Ref. field.
A1 Analog 1 Ref = 4.9v	In this case 4.9 V
$Ib \geq Ref$	Contact A1 is closed when the value of analog input Ib is \geq the reference voltage entered in the Ref. field.
A1 Analog 2 Ref = 4.9v	In this case 4.9 V.
$Ic \leq Ref$	Contact A1 is closed when the value of analog input Ic is \leq the reference voltage entered in the Ref. field.
A1 Analog 3 Ref = 4.9v	In this case 4.9 V.
$Ic \geq Ref$	Contact A1 is closed when the value of analog input Ic is \geq the reference value entered in the Ref. field. In this case 4.9 V.
A1 Analog 4 Ref = 4.9v	
$Ib \leq Ic$	Contact A1 is closed when the value of analog input Ib is \leq the value of analog input Ic
A1 Analog 5	
$Ib \geq Ic$	Contact A1 is closed when the value of analog input Ib is \geq the value of analog input Ic.
A1 Analog 6	
$Ic-H \leq Ib \leq Ic+H$	Contact A1 is closed when the value of input Ib is comprised between Ic-H and Ic+H.
A1 Analog 7 H = 4.9v	H (hysteresis) being entered in the H field. In this case 4.9 V.



Lock parameters

This parameter allows you to lock the function block. When the block is locked, the reference voltage or the hysteresis value (depending on the type chosen) will no longer appear in the modifiable parameters.

[Previous...](#)



Also see...

The language's elements

[Enter...](#)

Text function blocks

● Objective

The text function block allows you to:

- display a text on the module's screen: **TX**,
- clear the displayed text **RX**.

Example

I1-----TX1 (text display)

I2-----RX1 (delete display)

● Content

A text block consists of 4 lines of 12 characters each.

Lines 1 and 3 contain the text to be displayed.

Lines 2 and 4 may contain the function block's parameters.

Example

P	A	R	K	I	N	G					
	T	1	=		T	1		c	U	U	U
	L	I	B	R	E						
					C	1	=	C	1		P

Label Etat Parking



Also see...

Enter...

The language's elements

Zelio application development procedures

General

Programming in Zelio mode
Parameter setting in Zelio mode
Structuring recommendations

Programming in free mode
Parameter setting in free mode
Program coherence check

Configure

PASSWORD
LANGUAGE
FILT.

ZX= KEYS
HELP

Enter/modify

Inputs/outputs properties

Contacts
Coils
Links
Insert/delete program lines
Copy parts of a program

Counter function block
Clock function block
Timer function block
Analog function block
Text block



Also see...

The language's elements

Structuring recommendations

1. List the functions to be performed.

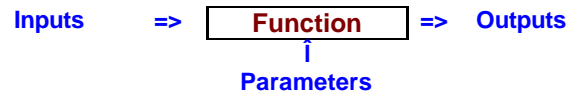
Examples: car counting, message display, daily programming, etc.

2. Define the list of Inputs/Outputs and enter the associated comments.

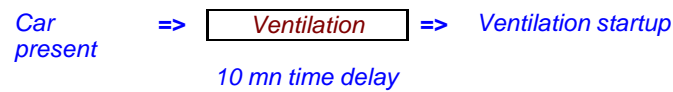
Examples: I1 car present, Q2 start, etc.

3. Code each function, taking into account:

- the input data,
 - the output data
 - the parameter settings (threshold, etc.)
- Comment on each function



Example



4. Test each function using the simulation tool.



1. An output must be activated at only one place in the program.
2. A Set output must be accompanied by a RESET output.
3. Check the RESET functions of the timers, counters and text blocks.

Cut/copy/paste

- Cut** To delete the selected items and copy them on to the Windows clipboard (CTRL+ X).
- Copy** To copy the selected items on to the Windows clipboard (CTRL+ C).
- Paste** To insert or incorporate the contents of the clipboard at the level of the insertion point (CTRL+ V).

To copy parts of a program in free mode...

1. Select the items,
2. Do a right click to copy the items onto the clipboard (CTRL+ C),
3. Go to the insertion point,
4. Do a right click to paste the elements contained on the clipboard (CTRL+V).

Note: you can also use the Cut, Copy and Paste commands on the Edit menu.

Select an item on the tool bar

The list of available items is displayed at the bottom of the screen.



When you pass the mouse over an item, the dialog box indicating:

- the item's number,
 - the item's label,
 - the associated comment,
- is displayed.

To select an item

1. Select the type (example Contact I)
2. Select the item and enter the comment, if applicable, by clicking in the comment zone.
3. Drag the selected item to the desired contact box.

Enter/modify a contact

Zelio mode

Contacts are entered on the three left-hand columns.



1. Place the flashing square cursor at the desired point.
2. Click on the **Sel./ OK** key.
3. Choose the item you want by clicking the **Z1** and **Z3** keys.
4. Click on the **Sel./ OK** or **Z2** key to position yourself on the number.
5. Choose the number using the **Z1** and **Z3** keys.
6. Validate with the **Sel./ OK** or **Z2** key.

To modify an item: position yourself on the item you want to modify and carry out the same procedure as for entering a new item.

To delete an item: position the cursor on the desired item then press the Del key.

Free mode (Principle)



1. Select the desired item (the inaccessible items are dimmed),
2. Enter the comment if applicable,
3. Drag the selected item to the desired contact box.

To modify the properties of an item: right click on the item.

To change the item's type: select the new type and position it on the contact.

To delete an item: select the item and press the **Del** key.

Conversion analog values : click Zelio-COM button help and select the item

To enter a line comment...

Click on the comment zone, enter the comment and press Enter to validate.



Also see...

The language's elements

Create links

Insert/delete program lines

Copy parts of a program

Enter/modify a coil

Zelio mode

It is only possible to enter a coil in the last column.



1. Position the flashing square cursor at the desired place.
2. Click on the **Sel./ OK** key.
3. Choose the item you want with the **Z1** and **Z3** keys.
4. Click on the **Sel./ OK** or **Z2** key to position yourself on the number.
5. Choose the number using the **Z1** and **Z3** keys.
6. Click on the **Sel./ OK** or **Z2** key to position yourself on the type of coil.
7. Choose the type of coil using the **Z1** and **Z3** keys.
8. Validate with the **Sel./ OK** key.

To modify an item : position yourself on the item you want to modify and perform the same procedure as for entering a new item.

To delete an item: place the cursor on the item you want to delete and press the Del key.

Free mode (Principle)



1. Select the desired item (the inaccessible items are dimmed),
2. Enter a comment if applicable,
3. Drag the selected item to the desired contact box.

To modify an item's properties: right click on the item.

To change the item type: select the new type and position it on the contact.

To delete an item: select the item then press the **Del** key.



Also see...

The language's elements

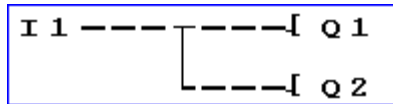
Create links

Insert/delete program lines

Copy parts of a program

Create links

Example



Zelio mode

A link can only be entered with the flashing round cursor.



- 1- Place the flashing round cursor at the desired position.
- 2- Press the **Sel/OK** key to start the link ("+" cursor).
- 3- Drag the cursor to the desired position using the navigation pad.
- 4- Press the **Sel/OK** key to validate, the link is then drawn.

To delete links between items

Place the round or square cursor on the link you want to delete and press the Del key.

Free mode



- Click on the dotted links to draw the links.
- Use the mouse's right button to do **copy/paste** operations.

To delete links between items

Click on the link again.



Also see...

The language's elements
Insert/delete program lines
Copy parts of a program

Insert/delete program lines

Zelio mode: insert line

1. Place the cursor on the line immediately below the line you want to create,
2. Press the **Ins. Line** key.

Zelio mode: delete line

Diagram lines are deleted line by line.

1. Place the cursor on an empty part of the line (no link or item), if necessary delete an item to make this empty space,
2. Press the **Del** key and validate.

Note: the **DEL. PROG** menu allows you to delete the complete program.

Free mode: select lines

Click in the Line No. column.

Use the **Shift** key if you want to select several lines.

Free mode: insert lines

1. Place the cursor on an item on the line immediately below the line you want to create,
2. Press the **Inser** key or right click (**Insert line** menu).

Free mode: delete lines

1. Position yourself on an empty element on the line you want to delete, if necessary delete an element to obtain an empty space.
2. Press **Del** or right click with the mouse (Delete line menu).




Also see...

[Copy parts of a program](#)

[Create links](#)

Enter/modify a Clock block

Clock contacts  are entered in the same way as a conventional [contact](#).

Zelio mode

Once you have validated the block number, the range input screen will be displayed. After a few seconds a help screen will be displayed, click on **ESC** to return to the input screen.

1. Select the **range A, B, C or D** using the arrow keys **Sel./OK**, **Z2**, **Z4** and validate with **Sel./OK**.
2. Select the **start day** using the arrow keys and validate with **Sel./OK**.
3. Select the **end day** using the arrow keys and validate with **Sel./OK**.
4. Select the **start hour and minutes** using the arrow keys and validate with **Sel./OK**.
5. Select the **end hour and minutes** using the arrow keys and validate with **Sel./OK**.
6. Lock the parameters if necessary using the arrow keys and validate with **Sel./OK**.
7. Select another time slot or press **Esc.** to access the clock operation summary screen. Press **Esc.** again to return to the program input screen.

To lock the parameter: use the [Password](#) menu.

Free mode (Principle)



1. Double click on the clock contact or switch to parameter mode and double click on the clock contact,
2. Select the **start day** and the **end day** in **range A**.
3. Enter the **start hour and minutes** and the **end hour and minutes**.
4. Enter the comment.
5. Lock the parameters if necessary and validate.

The ranges are displayed in the form of bar graphs at the bottom of the screen. [Example](#)

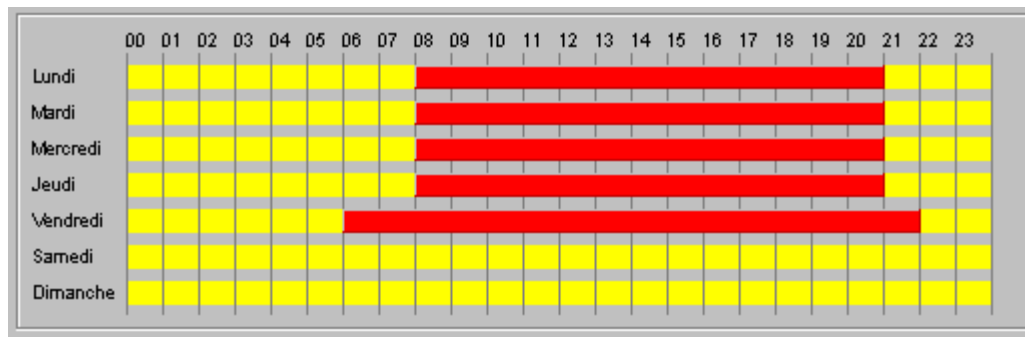


Also see...

[Clock function blocks](#)

[Clock setting](#)

Clock function block: display ranges



Enter/modify a Counter block

C, c contacts are entered in the same way as a conventional **contact**.

RC, CC, DC coils are entered in the same way as a conventional **coil**.

Zelio mode

To enter the CC preset value (0 to 9999).

1. Click on the **Z4** and **Z2** keys to position yourself on the parameter you want to modify.
2. Select the parameter by pressing the **Sel./ OK** key.
3. Modify the value of the parameter using the **Z1** and **Z3** keys.
4. End the entry by pressing **Esc.** to return to command diagram entry.
5. Lock the parameters if necessary using the arrow keys and validate with **Sel./OK**.

To lock the parameters: use the **Password** menu.

Free mode (Principle)

To enter the preset value (0 to 9999) and/or lock this parameter.



1. Double click on a count item or switch to parameter mode and double click on the counter,
2. Enter the preset value,
3. Tick the lock box if necessary,
4. Enter the comment if applicable,
5. Validate.



Also see...

Counter function blocks

Enter/modify a Timer block

T contacts are entered in the same way as a conventional **contact**.

TT, RT coils are entered in the same way as a conventional **coil**.

Zelio mode

To enter the block type and the preset value.

Once you have validated the block number, the input screen is displayed.

1. Select the **type function block operation** using the arrow keys and validate with **Sel./OK**.
2. Select the **time unit S**
 - 1/100 of seconds : 00.00 s (maximum : 99.99),
 - 1/10 of seconds : 000.0 s (maximum : 999.9),
 - minutes : seconds : 00 :00 M : S (maximum : 99 :59),
 - hours : minutes : 00 : 00 H : M (maximum : 99 :59),
3. Enter the **preset** value using the arrow keys and validate with **Sel./OK**,
3. Lock the parameters if necessary using the arrow keys and validate with **Sel./OK**.
4. End the entry by pressing **Esc.** to return to command diagram entry.

Free mode (Principle)

To enter the block type, the preset value and/or lock this parameter.



1. Double click on a timer item or switch to parameter mode and double click on the timer,
1. Select the **type of function block operation**
2. Select the **time unit S**
 - 1/100 of seconds : 00.00 s (maximum : 99.99)
 - 1/10 of seconds : 000.0 s (maximum : 999.9)
 - minutes : seconds : 00 :00 M : S (maximum : 99 :59)
 - hours : minutes : 00 : 00 H : M (maximum : 99 :59)
3. Enter the **preset** value.
4. Tick the lock box if necessary,
5. Enter the comment if applicable,
6. Validate.



Also see...

Timer function blocks

Enter/modify an analog block

A contacts are entered in the same way as a conventional **contact**.

Zelio mode

Once you have validated the block number, the input screen is displayed.



1. Select the **type analog function block operation** using the arrow keys and validate with **Sel./OK**.
2. Select the **reference** or **hysteresis** (0 to 9.9V) value depending on the type of block using the arrow keys and validate with **Sel./OK**.
3. Lock the parameters if necessary using the arrow keys and validate with **Sel./OK**.

Free mode (Principle)



1. Double click on the contact or switch to parameter mode and double click on the contact,
 2. Select the **type of analog function block operation**.
 3. Enter the **reference** or **hysteresis** (0 to 9.9V) value depending on the type of block.
 4. Enter the comment.
 5. Lock the parameters if necessary and validate.
- Conversion analog values** : click Zelio-COM button help and select the item



Also see...

Analog function blocks

Enter/modify a text function block

TX, RX coils are entered in the same way as a conventional **coil** classique .

Enter text blocks (Principle)



1. Click on the **TX** or **RX** item you want to fill in, the text-block input screen is displayed.
2. Enter the texts to be displayed on lines 1 and 3
3. Select the parameter to be displayed from the list of parameters and drag it to lines 2 or 4.
4. If necessary, repeat this operation for a second parameter.
You can use the DEL. button to clear a parameter in the block.
5. Enter the block's label.



Also see...

Text function blocks

Program coherence check

When entering the program, the Zelio-soft software checks the program's coherence:

- a line is incomplete,
- a coil is used several times in the program,
- a Reset RX input is not connected,
- a Preset value has not been defined
- ...



As soon as the software detects one of these errors, the Coherence check icon switches to red. You can display a dialog box indicating the position of the error (line and column in free mode) and an explanation relative to the error.

To display the errors...

Click on the Coherence check icon or select the Edit/Coherence test menu, a dialog box is then displayed giving the list of errors.

Double clicking on the line allows you to access directly the program line that has the error.

Correct the errors, the list of errors is updated dynamically.

Identify the inputs/outputs

This function allows you to associate a comment with:

- discrete inputs,
- discrete outputs,
- mixtes inputs,
- Z keys,
- auxiliary coils.

The comments will be displayed when the program is viewed in free mode above the contact or the coil.

Free mode

1. Select the **Edit/Inputs/Outputs properties** menu or click on **Text data**.
2. Double click on the comment zone (keyboard equivalent: space bar).
3. Enter the comment and press Enter to validate.



Also see...

[Discrete inputs](#)

[Discrete outputs](#)

[Auxiliary relays](#)

[Keyboard inputs](#)

Zelio application debugging procedures

- **Simulate a Zelio application**
- **Transfer a Zelio application**
- **Transfer parameters**
- **On line monitoring mode**
- **Clear program**
- **Program execution command: Run/Stop**
- **Dynamic viewing of the program**
- **View/Modify parameters**
- **Application diagnosis**
- **Print the program**
- **Save the project**

Simulate a Zelio application

Discrete input Z keys Analog inputs
Discrete outputs Function blocks Clock block
On line monitoring mode

Objective

The simulation function allows you to execute the program directly in Zelio-Soft .
The following procedures are possible:

- Inputs command
- Outputs display
- Z keys command
- Analog inputs control
- View/modify function block parameters
- Simulate clock block



The simulation window can include a large number of simulation boxes.

These boxes must be positioned correctly in order to run the simulation.

Each box can be hidden by means of the icons at the bottom of the screen.

Example



Click the RUN icon to execute the simulation, the closed contacts are displayed in **red**.
When switching from STOP => RUN the current values of the function blocks are set to zero.

To switch to this mode in Zelio mode...

Click on **Zelio mode** followed by **Simulation**.

To switch to this mode in Free mode...

Click on **Free mode** followed by **Simulation**.

Simulate a Zelio application

General...

Discrete outputs

Z keys

Function blocks

Analog inputs

Clock block

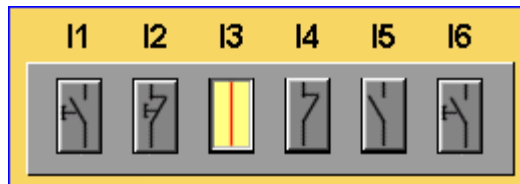
Discrete inputs simulation procedure



Allows you to display or hide the inputs command box.

Right click on the input to choose its operating mode

Example



- I1 Normally temporarily open (pulse)
- I2 Normally temporarily closed (pulse)
- I5 Normally permanently open
- I4 Normally permanently closed



Click on the input to activate or deactivate it
Example: activation of I1 and Z1.

Simulate a Zelio application

General...

Discrete outputs

Discrete input

Function blocks

Analog inputs

Clock block

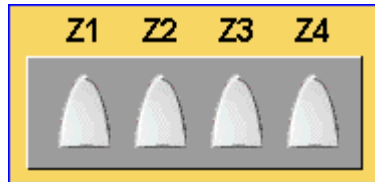
Z keys simulation procedure



To display or hide the Z keys command box.

Right click on the Z key to choose its operating mode: temporary or permanent.

Example



Click on the Z key to activate or deactivate it
Example: activation of I1 and Z1.

Simulate a Zelio application

General...
Z keys

Discrete input
Function blocks

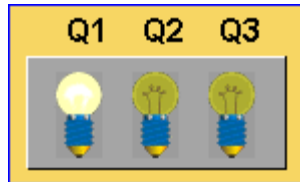
Analog inputs
Clock block

Discrete outputs simulation procedure



To display or hide the outputs display box.

Exemple



Example: activation of Q1 and Q2.

Simulate a Zelio application

General

Discrete outputs

Discrete input

Function blocks

Z keys

Clock block

Analog inputs simulation procedure



To display or hide the inputs command box.

Example



You can modify the analog value by acting on the potentiometer.

Simulate a Zelio application

General...

Discrete outputs

Discrete input

Z keys

Analog inputs

Clock block

Procedure for displaying and modifying function block parameters



To display or hide the function block parameters display box.

Example



Click on the function block to modify the preset value or the comment.

Simulate a Zelio application

[General...](#)[Discrete outputs](#)[Discrete input](#)[Z keys](#)[Analog inputs](#)[Function blocks](#)

Clock blocks simulation procedure



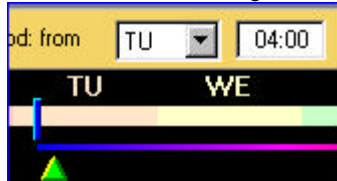
To display or hide the clock blocks simulation display box.

Description of the simulation box



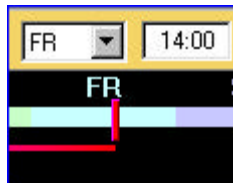
Procedure in STOP mode: set the simulation range

1. Set the start time: e.g. Tuesday 04:00



it is possible to set the end of the hour in the window (e.g : 04:25)

2. Set the end time: Friday 14:00 (or 14:25)



Simulation procedure

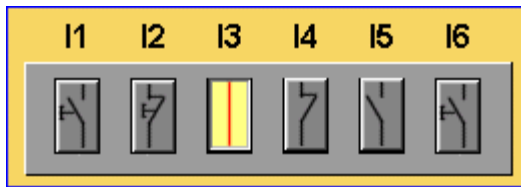
Run through the time using the various commands.

- recorder commands,
- cursor (in Stop mode only).

Also see

[Clock setting](#)

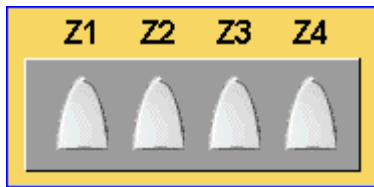
Inputs command



Here input I3 is at 1.

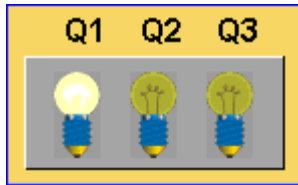
In Zelio-soft, place the cursor on an input to display its comment.

In Zelio mode, the display switches to reverse video.

Z keys command

In Zelio mode, the display switches to reverse video.

Outputs display



Here output Q1 is activated

In Zelio-soft, place the cursor on an output to display its comment.

In Zelio mode, the display switches to reverse video.

Analog inputs control



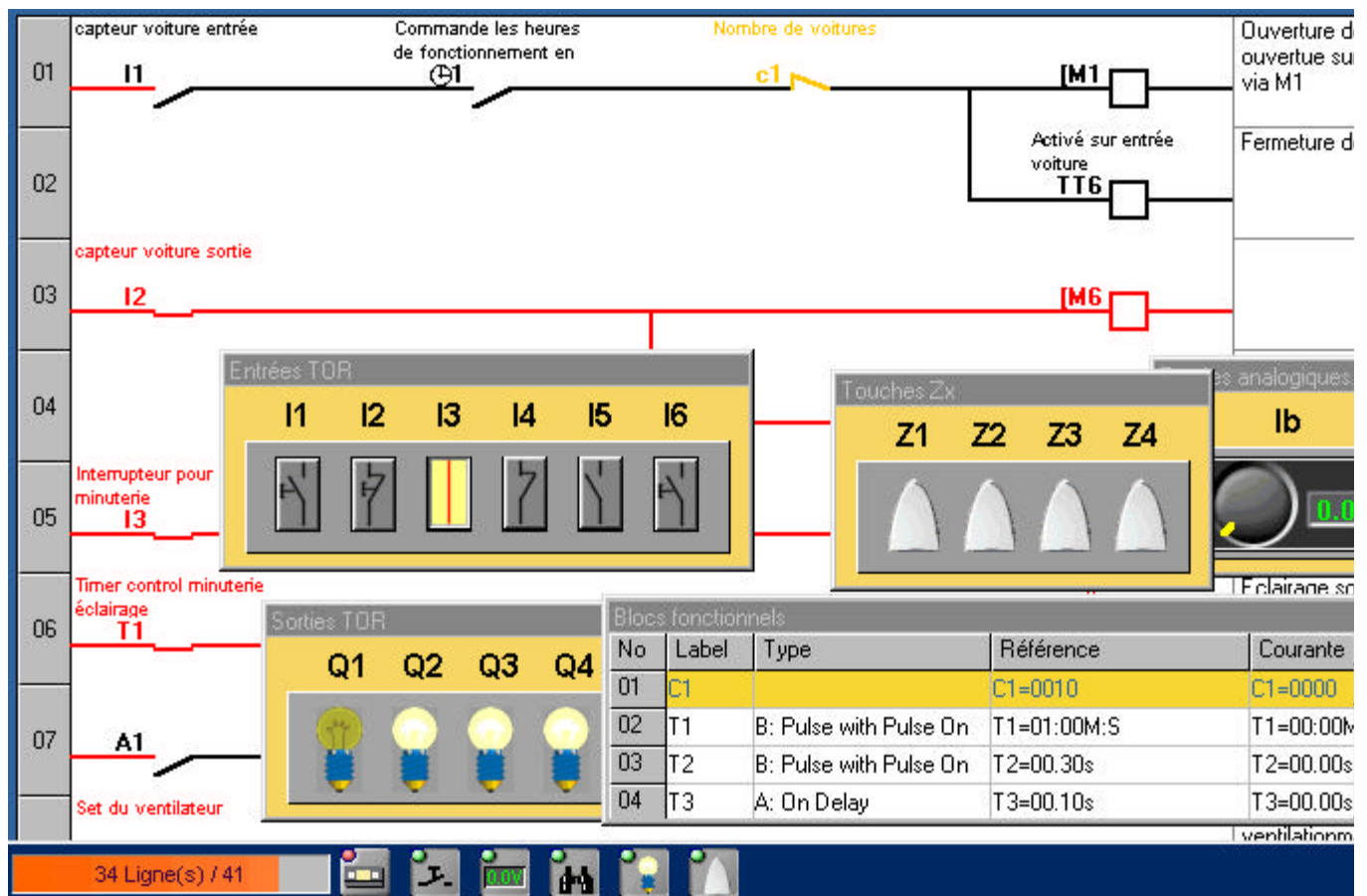
*You can change the analog value by acting on the potentiometer.
In Zelio-soft, place the cursor on an input to display its comment.*

View/modify function block parameters

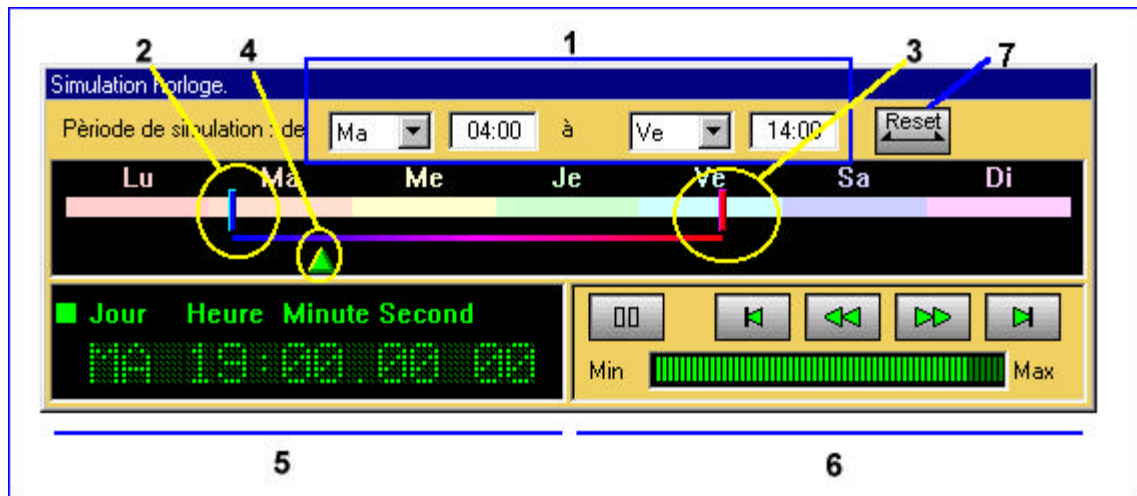
No	Label	Type	Référence	Courante	Désignation
01	C1		C1=0005	C1=0000	Counter
02	T3	A: On Delay	T3=00.10s	T3=00.00s	
03	T5	B: Pulse with Pulse On	T5=00.50s	T5=00.00s	
04	A1	Ib >= R	R=3.0V	Ib=1.9V	

Double click on the function block to modify the preset value or the comment.

Example of a simulation screen



Simulate clock block



1. Indication and edition of the simulation period (start, end).
2. To set the start of the simulation period by sliding.
3. To set the end of the simulation period by sliding.
4. Cursor allowing you to run through time.
5. Display of the current simulated date and time.
6. Video recorder type control panel: Pause, Play, Rewind, Fast Forward, End, Setting of the time acceleration period.
7. RESET: to reset the simulation period.

Transfer a Zelio application

PC/Module wiring, PC/Module link configuration

PC/Module link by modem

PC -> Module transfer

1. Select the **Transfer Program/PC-> Module** menu.
- 2 Select the module and validate the selection.
3. Validate with yes.



If the **activate the module** box is checked, the module will automatically switch to RUN mode after the transfer.

Module -> PC transfer

1. Select the **Transfer Program/ Module -> PC** menu.
- 2 Select the module and validate the selection.
3. Validate with yes.



Also see...

TRANSFER menu

PC/Module wiring, PC/Module link configuration



The PC/Module exchanges are carried out using the SR1CBL01 cable.



PC/Module link configuration

The default Port is COM1.

To change the communication port:

1. Select the **Directory/Distant Zelio-Logic modules** menu.
2. A Zelio-Logic module name and a communication port (Mode: Com1) are proposed by default.
3. Select the module and click on Modify to change these parameters or click on Create to define a new connection.

Using a Zelio-COM module

Principle

It is possible to create a whole network of Zelio-Logic modules and Zelio-Soft PC stations using Zelio-COM modules.

In this type of architecture, a Zelio-Soft PC station can be connected to a Zelio-Logic module via a Zelio-COM interface and perform the Transfer, Run/Stop command, Variable setting and Supervision functions as if the module was connected to the PC's serial port.

Reciprocally, a Zelio-Logic module can send alarm messages to various different stations.

Security

Access to the Zelio-Logic module is made secure by a password declared when configuring the connection to the Zelio-Logic module.

PC Zelio-Soft < = > Zelio-COM connection

For all the procedures between the PC and the module, you must indicate the **target** Zelio-Logic module.

The connection is made and controlled when you have selected the module.

Once the connection has been made, you can carry out all the procedures.

For further information, click on the Zelio-Com button in the on-line help then access the Connection to Zelio-Logic and Directories sections.

The procedures described below are the same whether you are connected directly or connected by means of a Zelio-COM module.

Clear the program from the Zelio module

PC/Module wiring, PC/Module link configuration

PC/Module link by modem

Objective

This command allows you to clear the program contained in the module; this command does not clear the current program on the PC.

This command is active if the module is in **STOP** mode

If the module is in **RUN** mode, it will not be possible to clear the program. A dialog box will be displayed with a message proposing to switch the module to Stop.

Remark: this function is equivalent to the **CLEAR. PROG** function on the main menu of the Zelio module.

Procedure

1. Select the **Transfer/Clear program** menu,
2. Select the module and validate the selection.
3. Validate with yes.

To clear a Zelio application on the PC

1. Go to the directory containing the applications in the Windows explorer. The default directory is **C:\Zelio-Program**,
2. Clear the *.ZEL file corresponding to the application,

Transfer parameters to a Zelio module

PC/Module wiring, PC/Module link configuration PC/Module link by modem

Objective

This function allows you, in RUN or STOP mode, to transfer the parameters of the function blocks to a module connected to the PC.

This function is essential for setting the parameters of the modules that do not have a display, but it also functions on modules that do have a display.

...Procedure

Select the **Transfer/Transfer Parameters** menu; this transfers the parameters from the module to the PC. When the transfer has been completed, the application's parameters dialog box is displayed.

It is possible to modify:

- the preselection values (double click on the box in the value column),
- the selection of the parameter that will be displayed on the module's welcome screen (check the check box in the display column)

It is not possible to modify the other items of data.

The **Write the parameters** command allows you to transfer the parameters from the **PC to the module**.

The **Read the parameters** command is used to transfer the parameters from the **module to the PC**.

Remarks

1. Only the parameters that are not locked will be displayed,
2. If the program does not include any parameters or if all the parameters are locked, a message will be displayed.



3. This function is independent from the application that is open on the PC; it allows you to modify the parameters of a module with a program A while program B is running.
4. If you want to update your program saved with the new parameters you are advised to open the saved program and make the modification in the free mode input screen.



Also see...

Free mode /Parameters

RUN/STOP command

PC/Module wiring, PC/Module link configuration PC/Module link by modem

Objective

The program is run by means of the RUN/STOP command

STOP : the application is stopped, the outputs are reset.

RUN : the application is run line by line.

Switch from STOP => RUN

When switched from STOP => RUN

- the program is run from the first line,
- all the parameters of the function blocks are initialized (example: the current value of a counter is reset).



The RUN/STOP commands can be executed:

- directly on the module by means of the RUN/STOP menu,
- from Zelio-Soft if the PC-Module link is established. In which case, if the reference of the module declared in Zelio-Soft is not the same as the reference of the real module, a message will indicate this problem but it will nevertheless be possible to run the command.

Zelio module command

Select the RUN/STOP menu

Command by Zelio-Soft

Select the Transfer/Run or Transfer/ Stop menu.



A STOP command resets the current parameters of the function blocks (example: the current value of the counter is reset)



Also see...

Dynamic view of the program

View/Modify parameters

View/Modify the program



The following procedures can only be performed on the Zelio module.

The logic module allows you to view the program's behavior dynamically.
Each closed contact or excited coil is displayed in reverse video (white on black background).



Procedure on the module

Select the PROGRAM menu and place yourself on the lines you want to view using the arrow keys.



It is not possible to modify the program's lines in RUN mode.

If you want to change the logic module's behavior you can modify or view certain function block parameters.



Also see...

[Run/Stop command](#)

[View/Modify parameters](#)

View/Modify parameters



The following procedures can only be performed on the Zelio module.

● Viewing the function block parameters in Run mode

The following items can be viewed:

- 1- A Counter's current value and its preset value.
- 2- The state of a Counter's inputs and outputs.
- 3- A Timer's current value and its preset value.
- 4- All the parameters of a Clock function block.
- 5- The reference voltage of an Analog function block.
- 6- The hysteresis value of an Analog function block.
- 7- The values measured on the analog inputs.

● Procedure on the module

Select the PROGRAM menu and position yourself on the desired function block and press **Sel./ OK**.

● Modify function block parameters in Run mode

The following operations are authorized:

- 1- Modification of a Counter's preset value.
- 2- Modification of a Timer's preset value.
- 3- Modification of a Clock function block's parameters.
- 3- Modification of an Analog function block's reference voltage.
- 4- Modification of an Analog function block's hysteresis value.

● Procedure on the module

Select the PARAMET menu and position yourself on the desired function block and press **Sel./ OK**.



Also see...

Run/Stop command

Dynamic view of the program

Application diagnosis

Possible cause

- Wires incorrectly connected,
- Supply voltage out-of-tolerance,
- Faulty fuse,
- Faulty detector,
- Faulty actuator,
- Threshold value not initialized,
- ...

Procedure

1. Check the connection terminal blocks,
2. Check the fuses and the power supply,
3. If an actuator is not commanded, check:
 - the actuator,
 - the actuator activation conditions,
4. If there is a missing condition, run through the program to find the origin of the fault.



1. A STOP => RUN command resets the current parameters of the function blocks (example: the current value of the counter is reset)
2. An output must be activated at only one place in the program.
3. A Set output must be accompanied by a Reset output.
4. Check the Reset functions for the Timers, Counters and Text blocks.

Supervising a Zelio application

I, M, A, Z, Q variables, Function blocks, Clock block

PC/Module link by modem

● Objective

The supervision function allows you to access the control functions of a Zelio-Logic module connected to the PC by means of the SR1 CBL01 cable.

The program is run by the Zelio module which completely manages the information and commands exchanged with the process.

It is possible to force certain states with the PC and to display all of the program's internal states.

Notes

When in supervision mode, alarms are ignored (there is no saving).

Example1

You must have the same application on the PC and on the module.

● Accessing supervision

Supervision can be accessed in 2 different ways:

- when starting up Zelio-Soft: the application contained in the module is transferred to the PC
- by means of the **Mode/Supervision mode** menu.



allows you to reread the program in the module (F5)

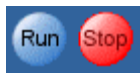
● Condition for accessing supervision

If a version A is present in the PC and a version B in the module:

1. The Zelio-Soft program proposes to transfer the application from the PC to the module to ensure that the PC's and the module's applications are identical; once the transfer has been completed, the supervision screen is displayed.
2. If you answer No to the transfer of the application from the PC to the module and there are differences between the two applications, Zelio-Soft will propose to save the application from the PC,
2. If you answer No to saving the application from the PC, the modifications will be lost and Zelio-Soft will replace the PC's application with the module's application. Once the transfer has been completed the supervision screen will be displayed.

● Possible procedures

I, M, A, Z, Q variables, Function blocks, Clock block

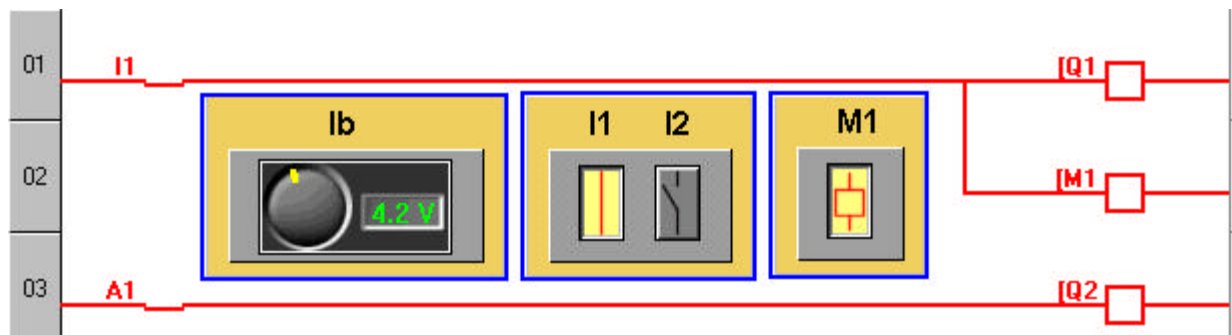


Run/Stop

In order to switch to RUN mode, click on the RUN icon, the passing contacts are displayed in **red** in free mode and in reverse video in Zelio mode.
On the STOP => RUN transition the current values of the function blocks are reset.

● To switch from free mode to Zelio mode display...

Click on the **Free mode** or **Zelio mode** buttons at the top of the screen.



Supervising a Zelio application

General..., Function blocks, Clock block

Supervising digital and analog inputs, Z keys and M contact

In supervision mode the software displays the states of the digital and analog inputs, and of the Z keys and the M contact.

Forcing

It is possible to force the state of certain variables by clicking on the corresponding object.

Example1, example2, example 3

I	Forcing from 0 to 1 only
M	Forcing from 0 to 1 and from 1 to 0
Z	Forcing from 0 to 1 and from 1 to 0
Q	Forcing from 0 to 1 and from 1 to 0
A, Ib, Ic	You can modify the analog value by acting on the potentiometer.

The forcings disappear on the Stop >>Run transition.



Allows you to show or hide the inputs display box

Allows you to show or hide the Z keys display box

Allows you to show or hide the analog inputs display box

Allows you to show or hide the M contacts display box

Allows you to show or hide the outputs display box.

Also see

Remanence (module version 1.6)

Supervising a Zelio application

General..., I, M, A, Z, Q variables, Clock block

Procedure for displaying and modifying the parameters of function blocks



Allows you to show or hide the function block parameters display box.

Example

It is possible to modify the state of the current values and of the threshold values.

Also see

Remanence (module version 1.6)

Supervising a Zelio application

General..., I, M, A, Z, Q variables, Function blocks

Procedure for supervising clock blocks



Allows you to show or hide the clock block supervision display box.

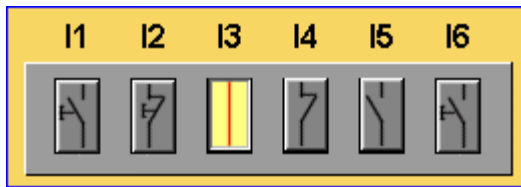
Clock block supervision allows you to check its operation.

By moving the cursor you can change the time to test the positioning of the output associated with the clock block.

Description of the supervision box

You just have to move the cursor to the desired date using the mouse (button held down). The output's positioning is activated when you release the mouse's button.

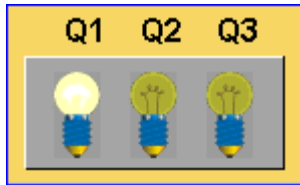
Commanding the inputs



Here input I3 is at 1.

In Zelio mode, the display changes to reverse video.

Displaying the outputs



Here output Q1 is activated

In Zelio mode, the display changes to reverse video.

Controlling the analog inputs



You can modify the analog value by acting on the potentiometer.

Displaying/modifying the function block parameters

No	Label	Type	Référence	Courante	Désignation
01	C1		C1=0005	C1=0000	Counter
02	T3	A: On Delay	T3=00.10s	T3=00.00s	
03	T5	B: Pulse with Pulse On	T5=00.50s	T5=00.00s	
04	A1	Ib >= R	R=3.0V	Ib=1.9V	

Double click on the function block to modify the parameters.

Supervising the clock block



To display the current date and time in supervision mode.

