

21/11/16

CREATING A CROUZET TOUCH APPLICATION EM4

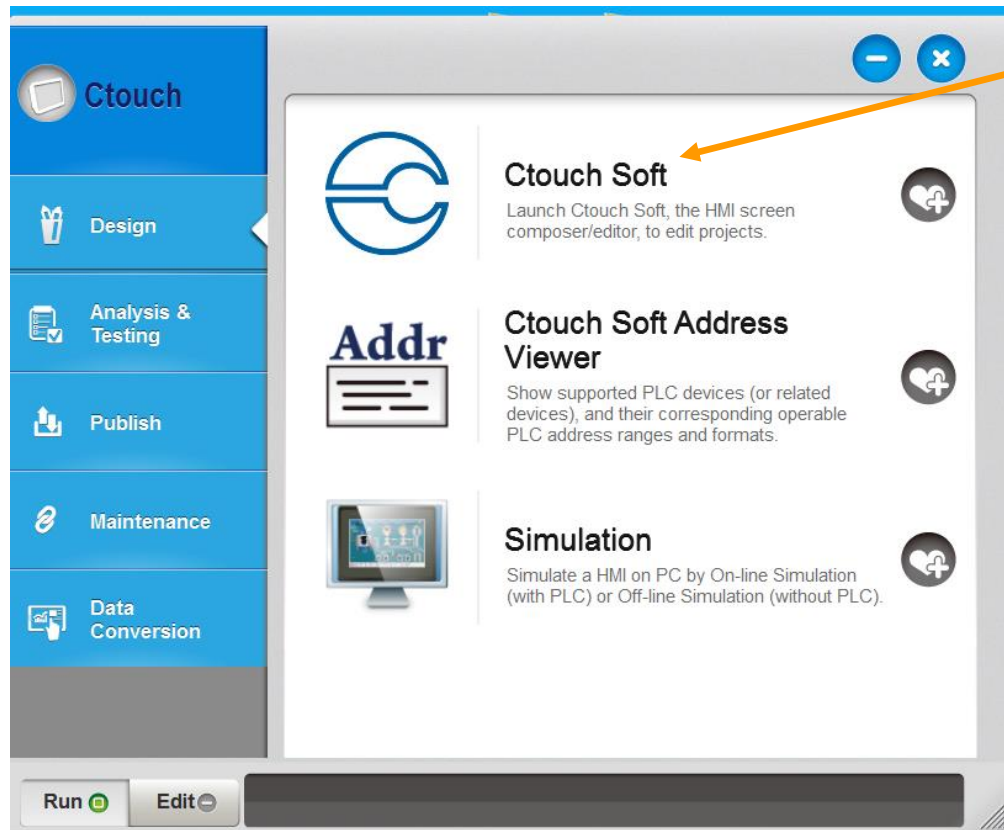
CROUZET TOUCH TUTORIAL



Part 1

Creating a project

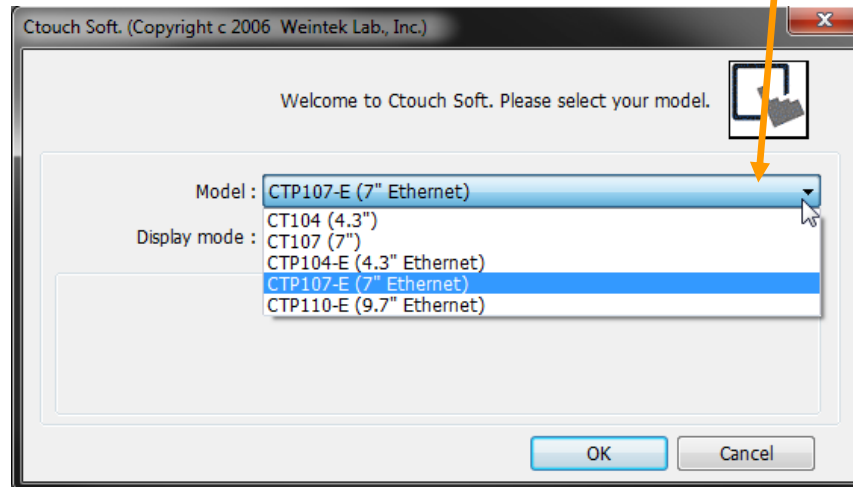
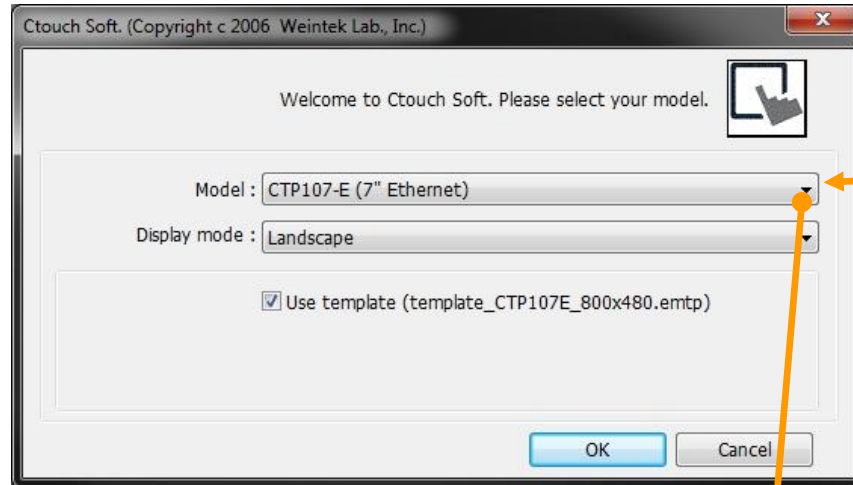
Creating a Project



Open the Utility Manager

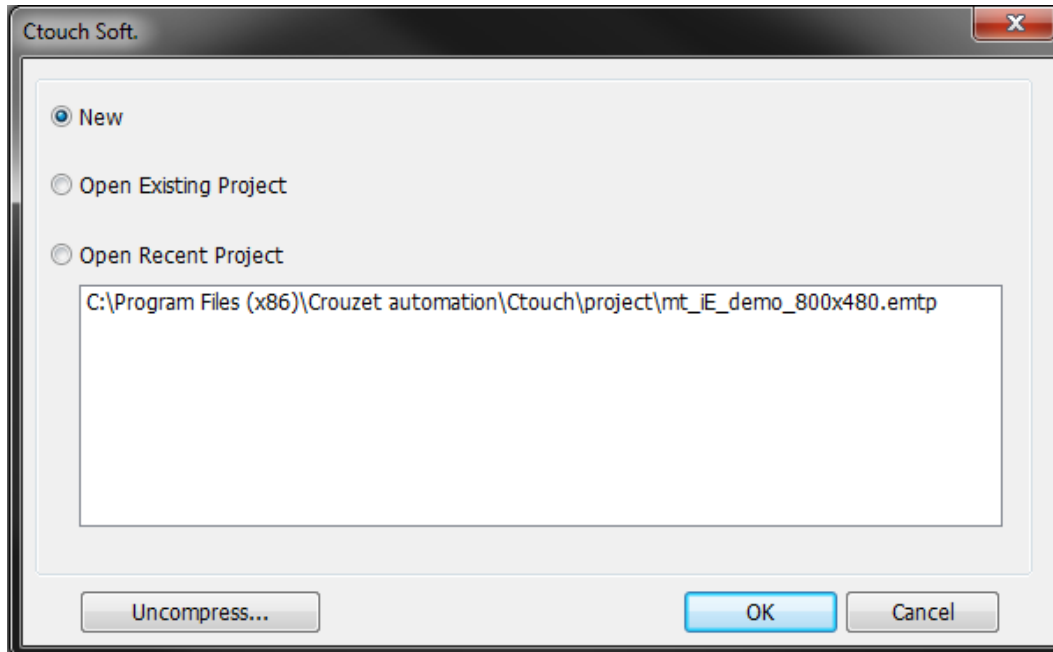
Click on *Crouzet Touch Soft* to open the graphic editor

Creating a Project



After selecting *New*, this screen will appear

- Select the HMI *Model* to be used and the *Display mode* of the project: *Landscape* or *Portrait*
- Then click *OK*
- NOTE: *Landscape / Portrait* mode can not be switched during project editing

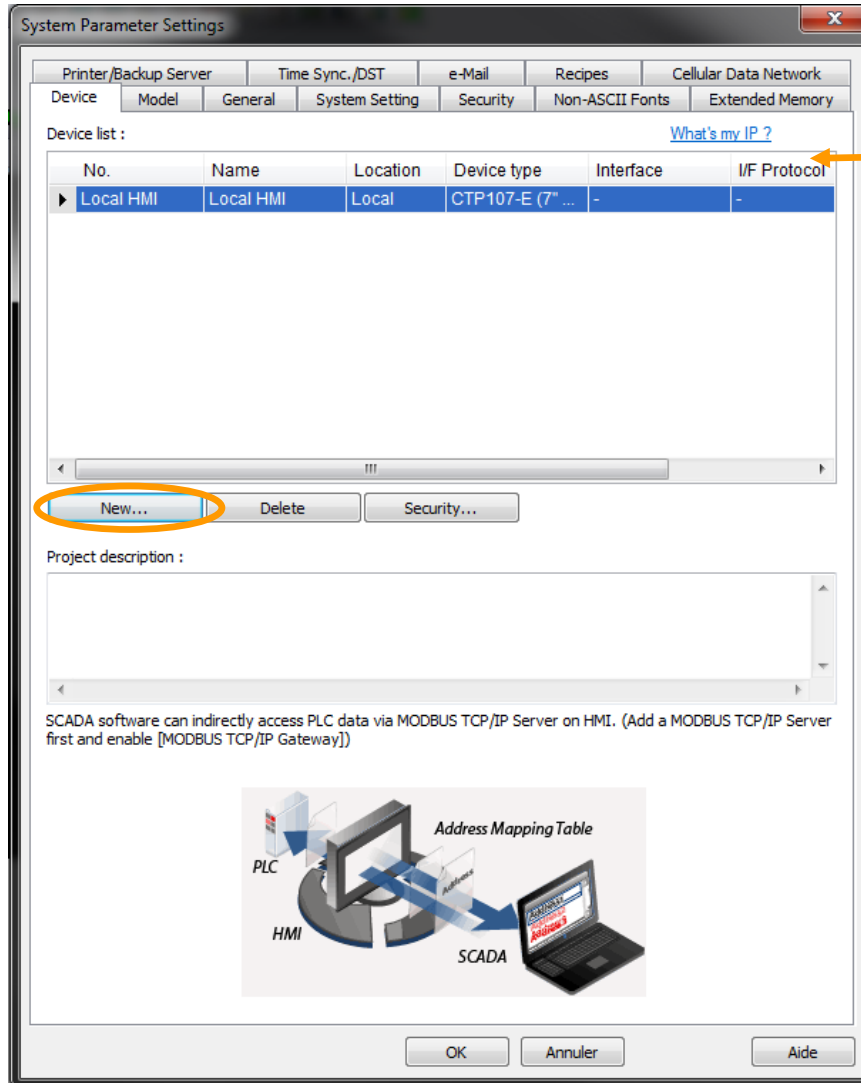


In the window that opens you can select to

- Create a *New* project
- *Open* an *Existing Project*
- *Open* a *Recent Project*

Part 2

System parameters setting



Once the HMI model has been selected, the *System Parameter Settings* menu opens the *Device list* tab

- Here we add the PLC/device which the screen will be connected to by clicking on *New*

Name : Crouzet em4 Ethernet Modbus TCP/IP

☐ HMI ☒ PLC

Location : Local [Settings ...](#)

* Select Local for a PLC connected to this HMI, or Remote for a PLC connected through another HMI.

PLC type : Crouzet em4 Ethernet Modbus TCP/IP
V.1.00, CROUZET_EM4_TCPIP.e30

I/F : Ethernet [Open PLC Connection Guide...](#)

* Support off-line simulation on HMI (use LB-12358)

IP : 192.168.1.100, Port=502 [Settings...](#)

☐ Use UDP (User Datagram Protocol)

PLC default station no. : 1

☐ Default station no. use station no. variable

☐ Use broadcast command

[How to designate the station no. in object's address ?...](#)

Interval of block pack (words) : 32

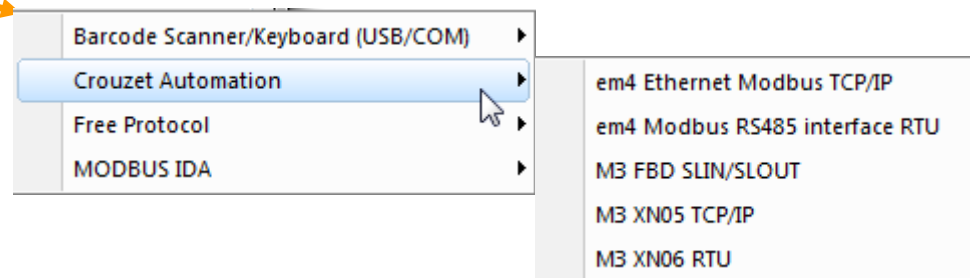
Max. read-command size (words) : 120

Max. write-command size (words) : 120

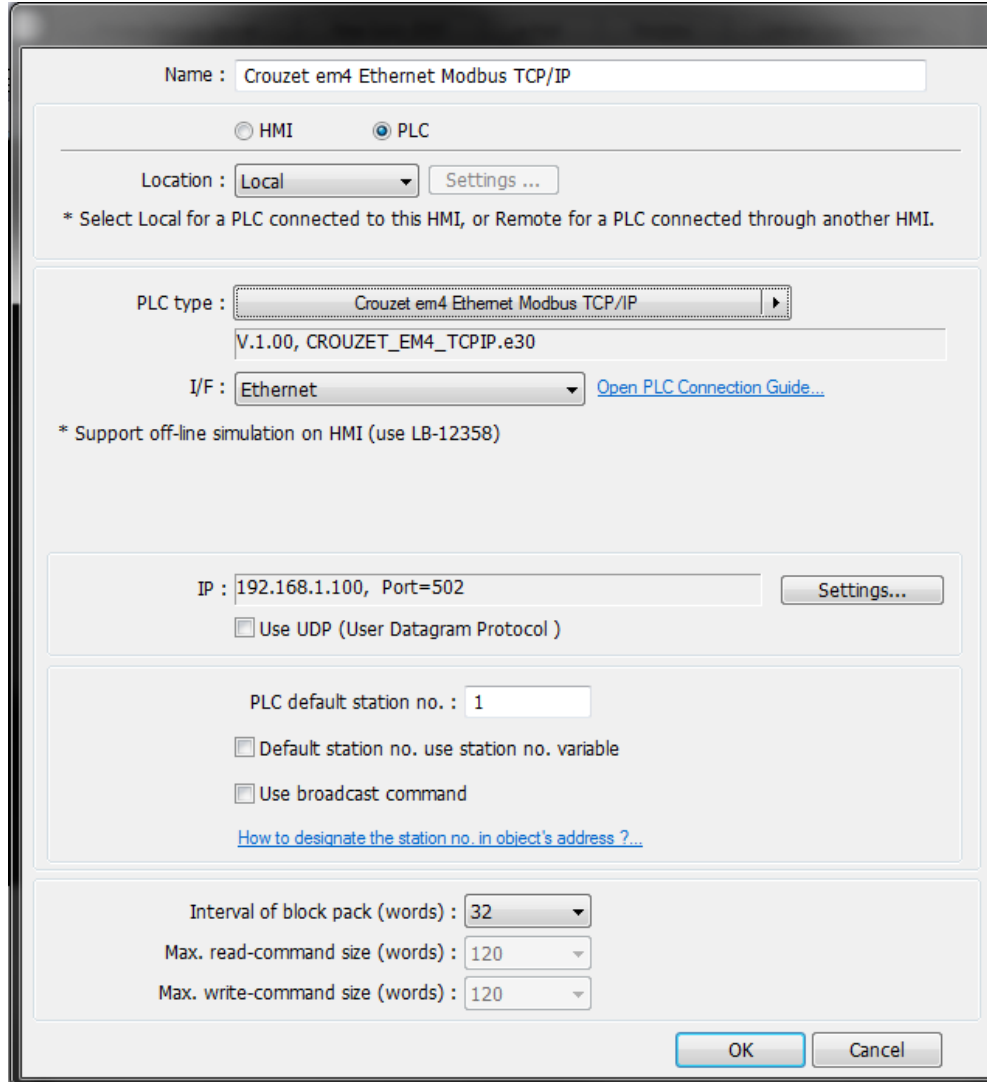
[OK](#) [Cancel](#)

Clicking on *PLC type* opens the device selection list

- If the device is directly connected to the HMI set *Local*, if it is connected through another HMI set *Remote*



System Parameter Settings



Name : Crouzet em4 Ethernet Modbus TCP/IP

☐ HMI ☒ PLC

Location : Local Settings ...

* Select Local for a PLC connected to this HMI, or Remote for a PLC connected through another HMI.

PLC type : Crouzet em4 Ethernet Modbus TCP/IP
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* Support off-line simulation on HMI (use LB-12358)

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[How to designate the station no. in object's address ?...](#)

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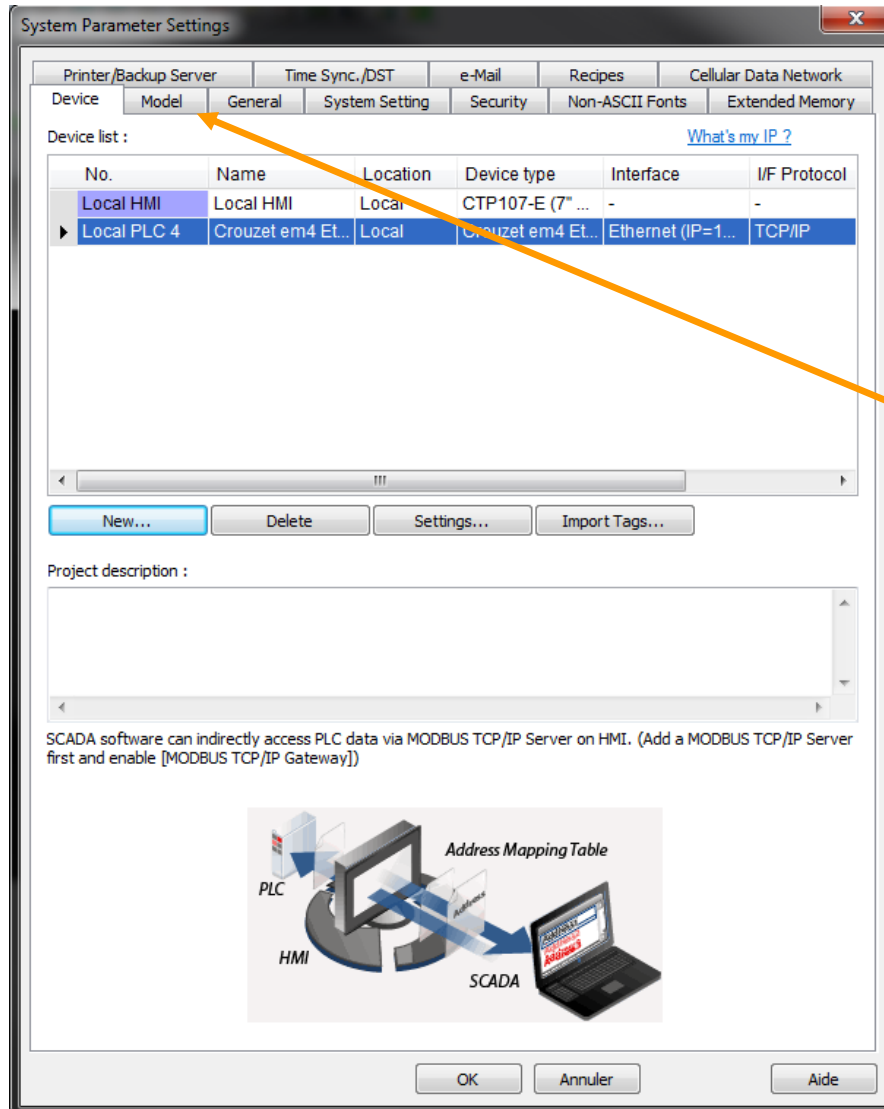
Max. read-command size (words) : 120

Max. write-command size (words) : 120

OK Cancel

After the *PLC* type has been selected click *OK*

Use the *COM Settings* to set up em4 IP Address



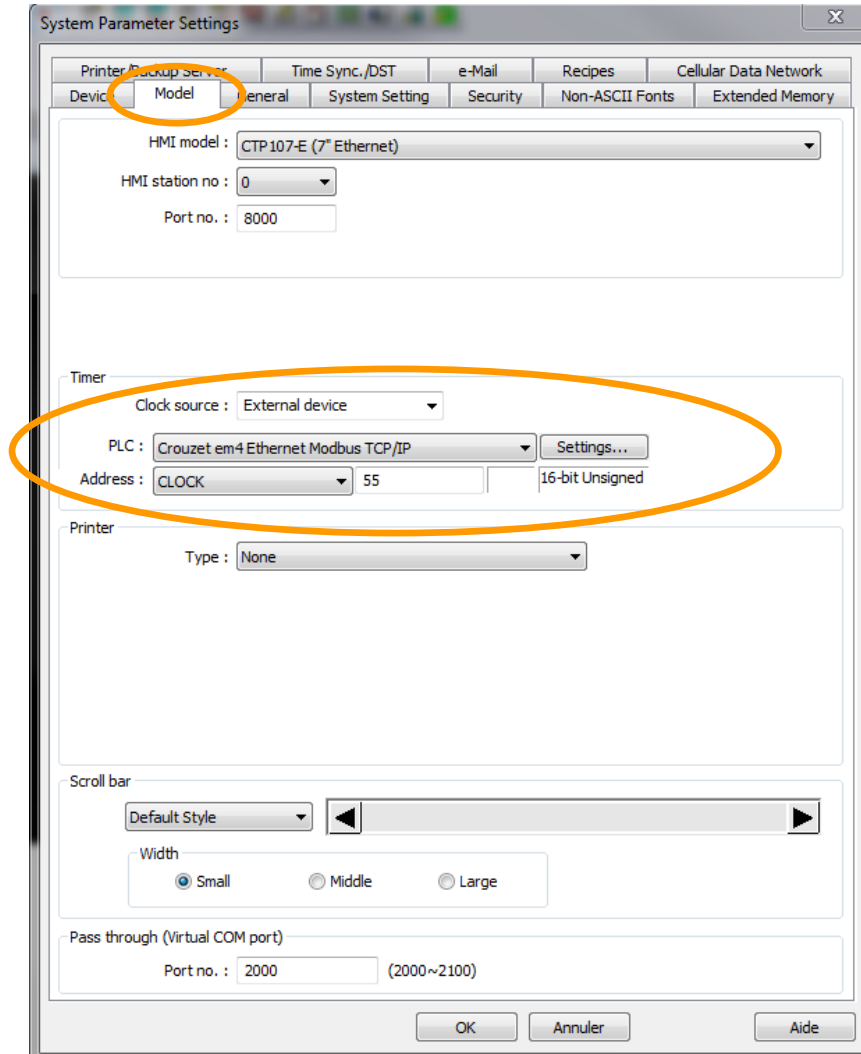
Em4 Ethernet Modbus TCP/IP is added to the *Device list*.

- Click *OK*
- The *System Parameter Settings* window can be reopened by an icon or from the *Edit* menu in the main tool bar of the graphical editor (programming window)
- The tab *Model* allows to take a finished project and use it in another screen without the need to rewrite the project or to copy and paste

Part 3

Picking up date & time from the em4

Picking up Date & Time from the em4



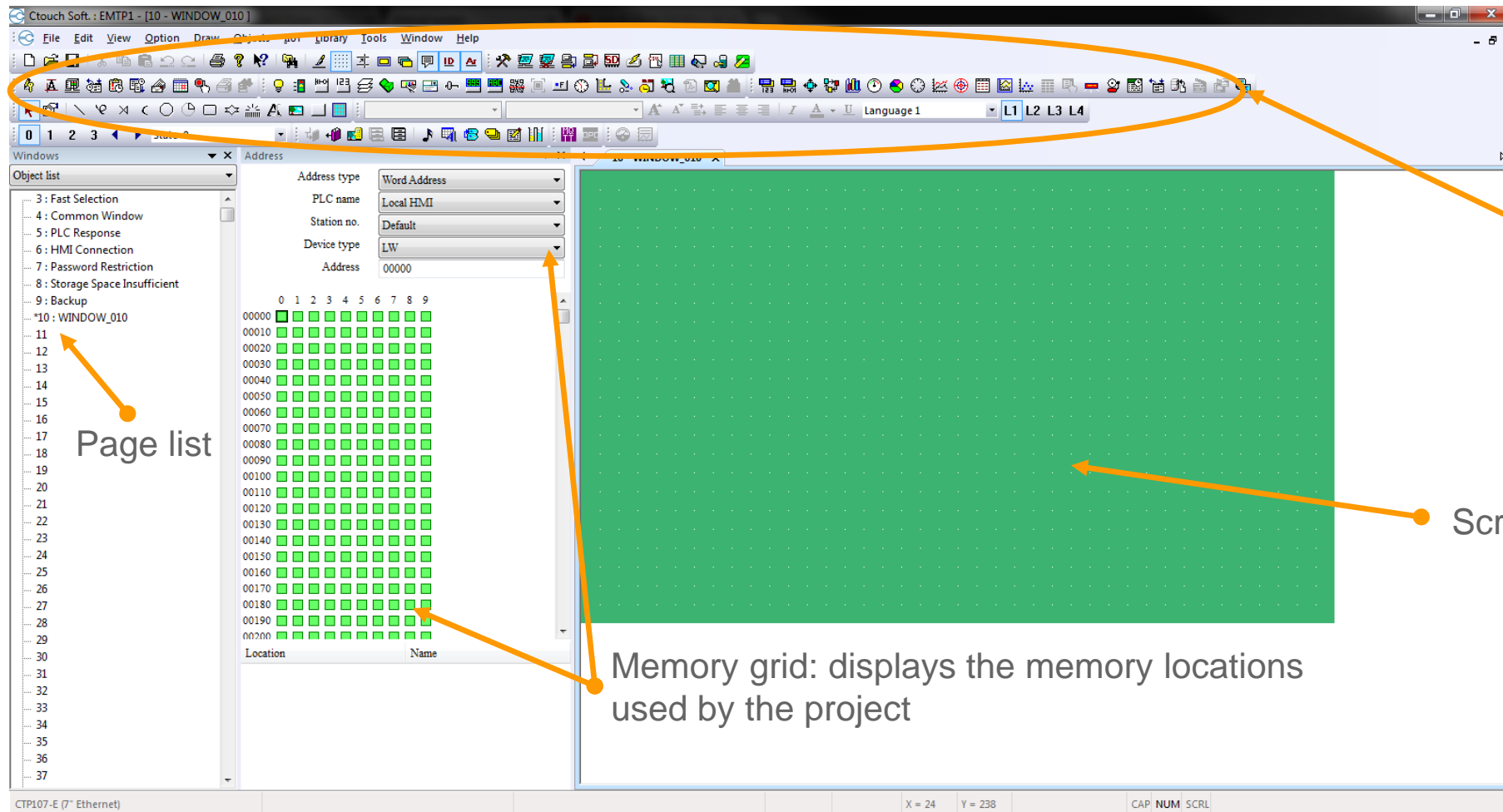
If one wants to have the Crouzet Touch pick up the em4 Date & Time:

- Open *System Parameter Settings*
- Open the *Model* tab
- In *Timer* define *External device* as the *Clock source*
- In *PLC name* select *Crouzet em4 Ethernet Modbus TCP/IP*
- Set *Address* to *CLOCK 55*.
- Click *OK*

Part 4

The graphical editor (programming window)

Once the setting page is closed, the graphical editor will be automatically displayed



Objects to edit the project. They are also available in the *Objects* menu in the main tool bar.

Screen page under editing

Memory grid: displays the memory locations used by the project



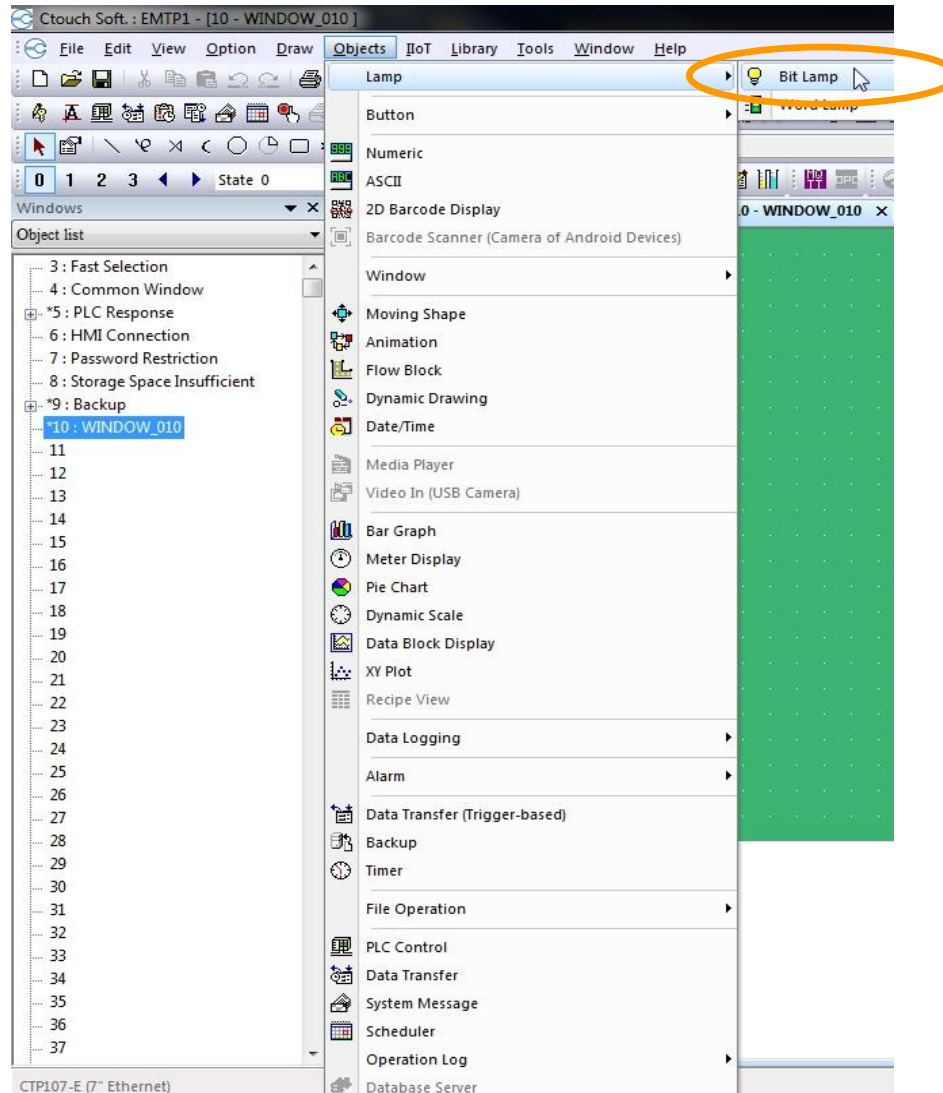
The first 7 pages of the project are *System pages*, used for managing the project :

- The *Fast Selection* page is a pick list menu which allows to create a page changing menu not related to the page under editing. This function can be enabled or disabled by system settings or using a special bit
- *Common Window* is a *Layer Zero* page. Everything that is placed on this page, will be available in all project pages
- Pages 5 and 6 are pages related to a PLC communication failure. These pages can be resized and changed in format and attributes
- The *Password Restriction* page is displayed, if enabled, when an object which has been assigned to a safety class is accessed before logging in

Part 5

Creating an Object

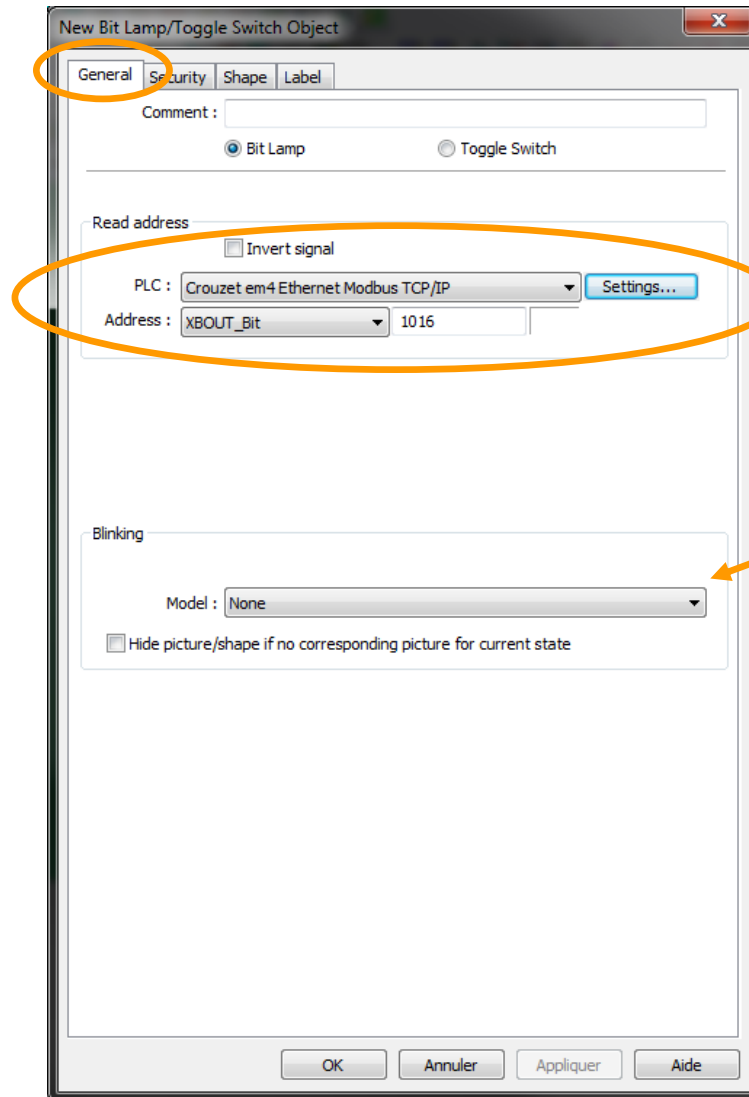
Creating a Bit Lamp Object



Step 1

- Open *Objects*, *Lamp* and click on *Bit Lamp*

Creating a Bit Lamp Object



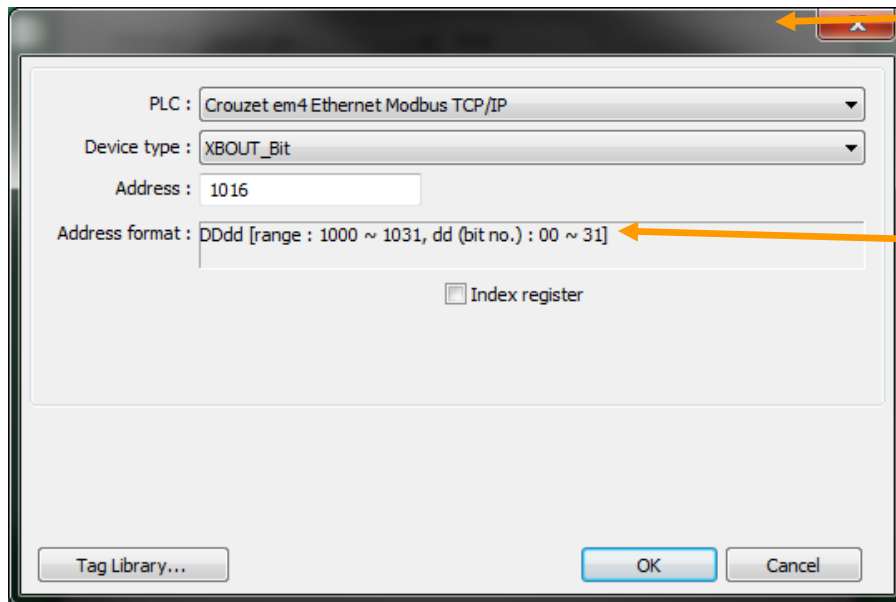
Step 2

This opens the window that allows to set the object parameters

In the *General* tab set the *Device* from which the variable is read, and the read *Address*

It is also possible to set some specific object attributes like *Blinking*

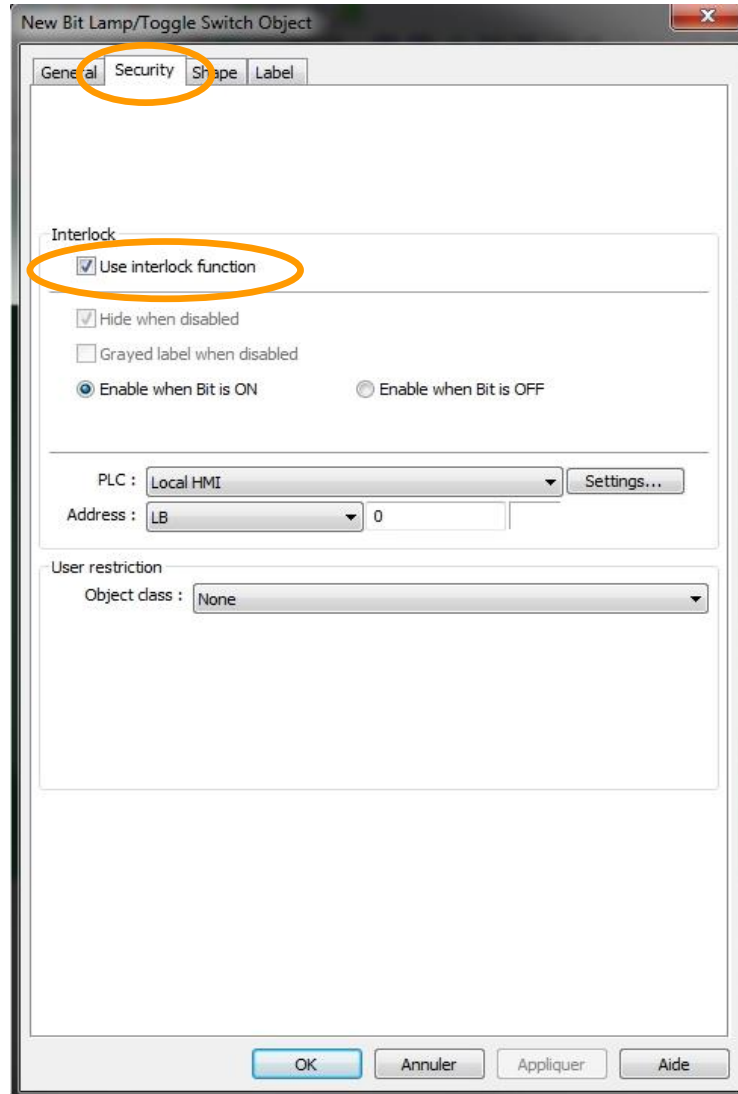
Creating a Bit Lamp Object



A click on *Setting* in the *General* tab opens the access to the detailed device address setting area

In this window the *Address format* is also shown, a reminder of the allowed address range and how it has to be written

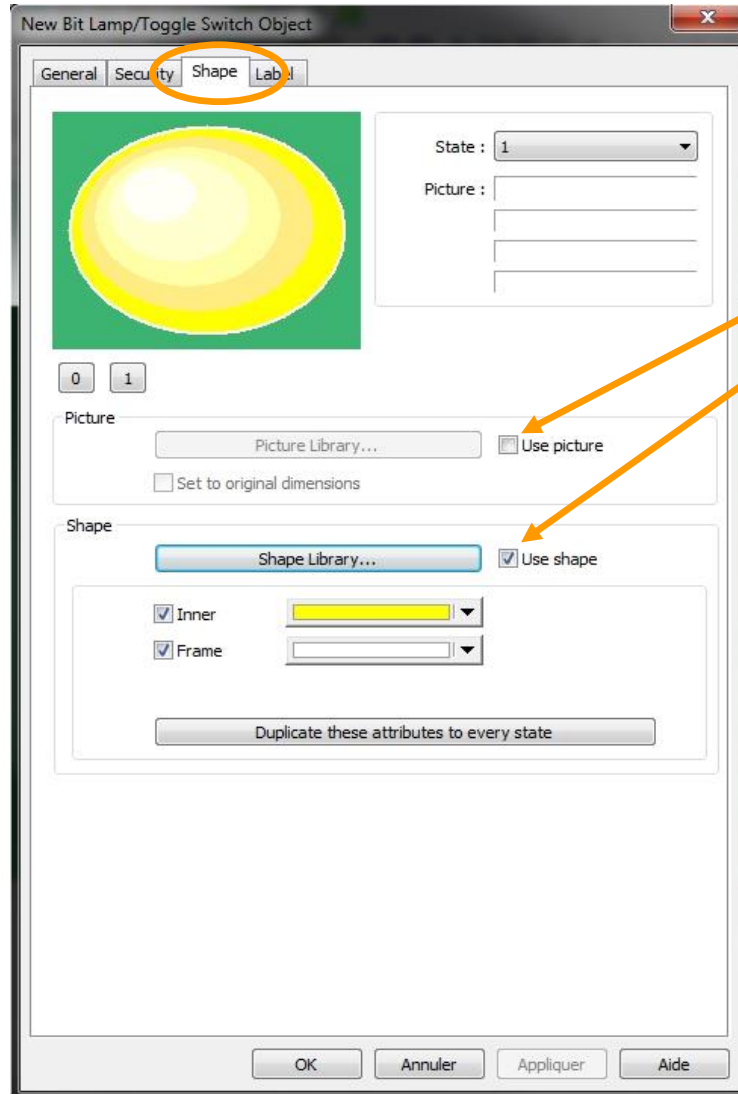
Creating a Bit Lamp Object



Step 3

- In 'display only' objects like *Bit Lamp* or *Numeric Display*, the *Security* tab provides the possibility to make the object transparent if a designated bit is ON or OFF depending on the setting.

Creating a Bit Lamp Object

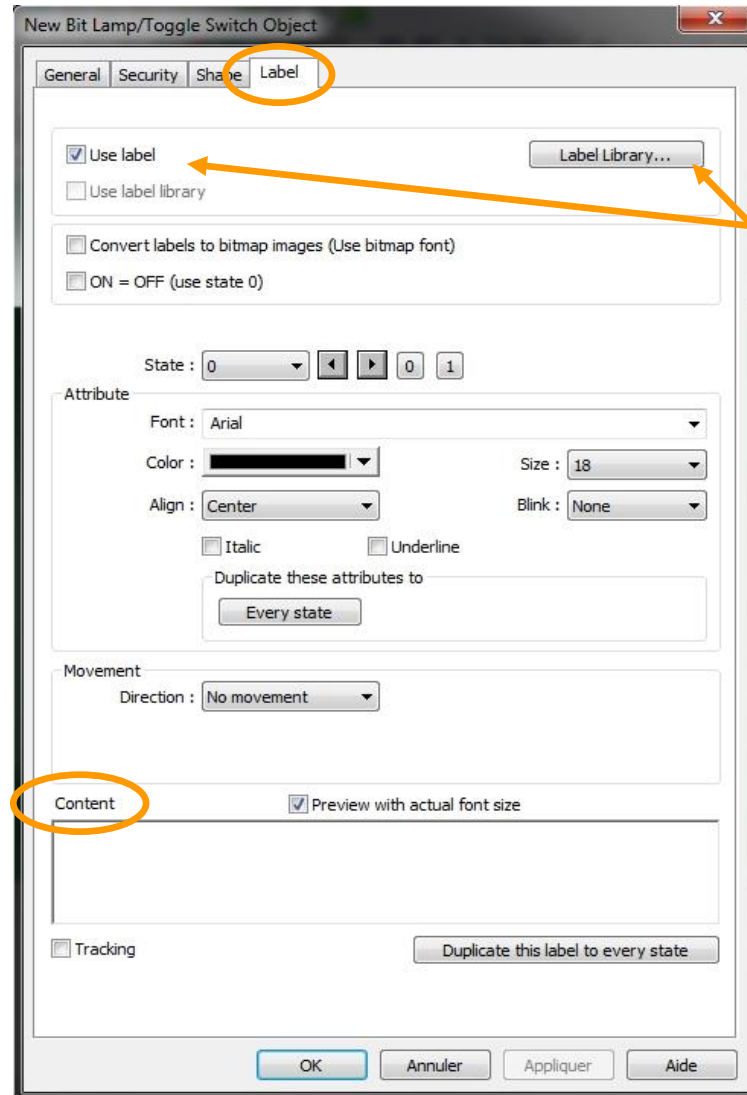


Step 4

In the *Shape* tab one can select the image to be connected to the object. One can choose between *Shape Libraries* (simple vector format shapes, very light, with colors that are easily modified) or *Picture Libraries* that one can create by adding ones own BMP, JPG, PNG or animated GIF images

- If none of these are selected the object will not have any image

Creating a Bit Lamp Object



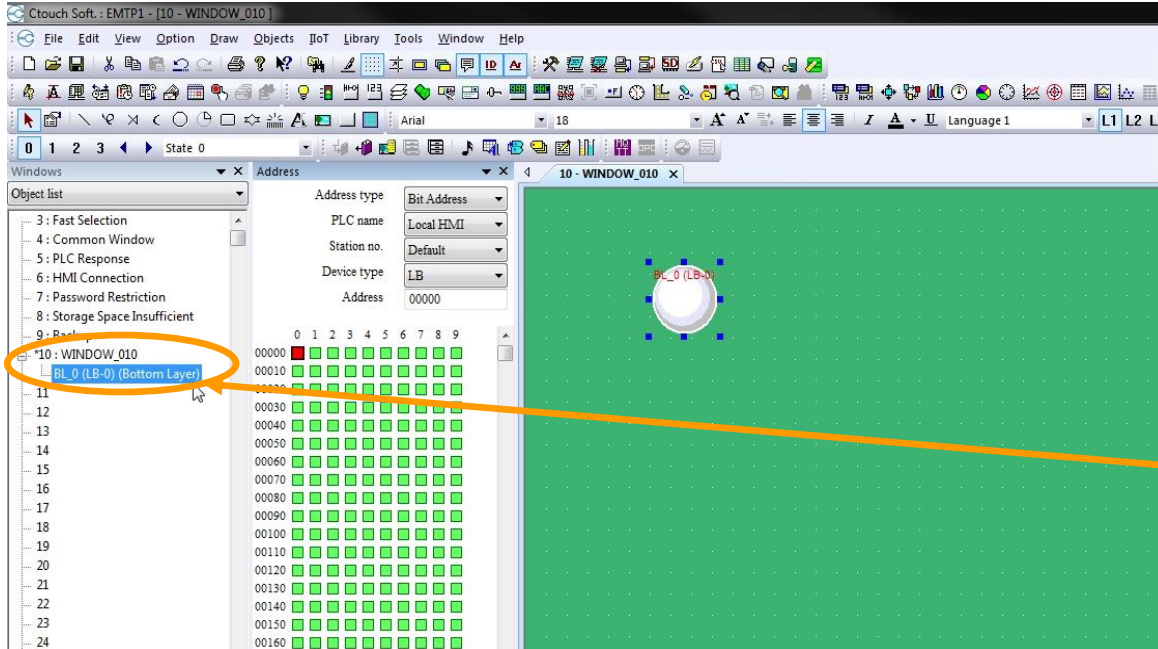
Step 5

- In the *Label* tab it is possible to activate a text for the object.

When *Use label* is marked one can directly enter the text that is to be displayed in the *Content* windows for state 0 and 1. It is possible to add a different color or text dimension to each state.

Attention: this written text is not a multi language type. A *Label Library* has to be created in advance if multi language text is needed. It can be exported or imported via excel. Once the table has been created, *Use label library* can be marked in order to select the labels.

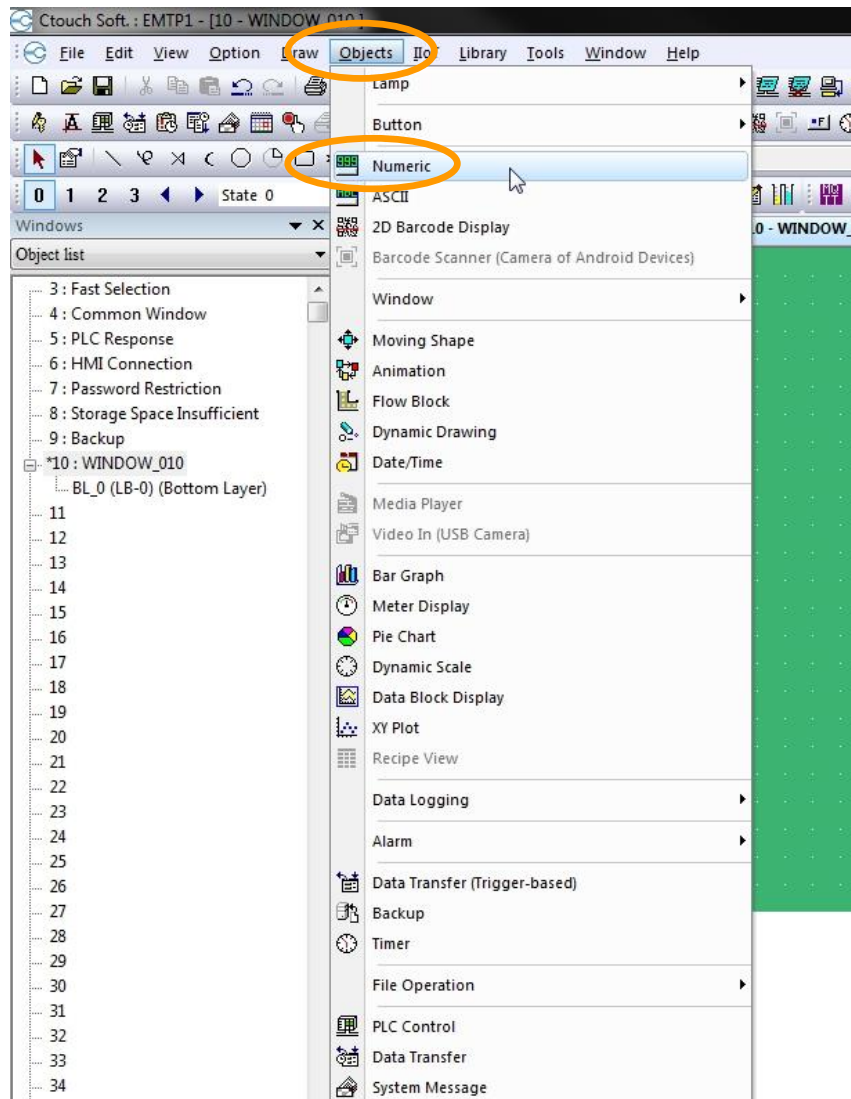
- If *Use label* is not marked, the object will show only an image.



Step 6

- After setting the object parameters click **OK**
- This closes the parameter setting window and the object can be placed by a click into the project window
- Afterwards the object can be resized, repositioned, and the settings window reopened by double click on the object itself, or by double click on the object description in the window view

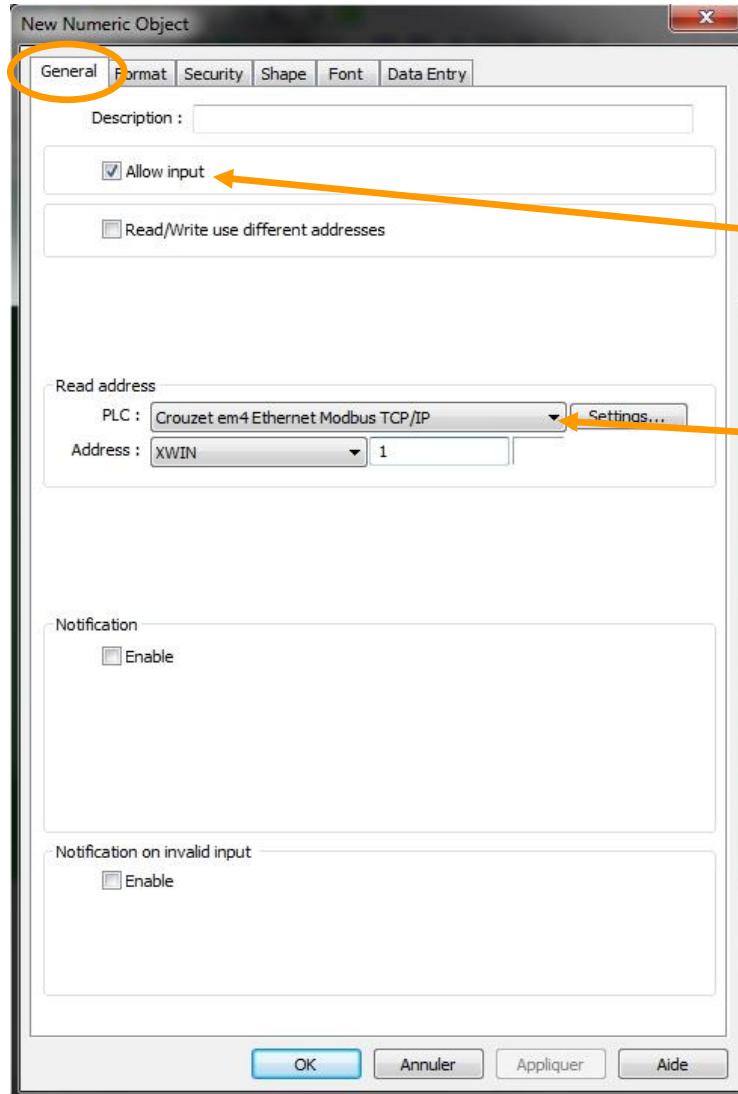
Creating a Numeric Object



Step 1

- Open *Objects* and click on *Numeric*

Creating a Numeric Object



The screenshot shows the 'New Numeric Object' dialog box with the 'General' tab selected. The 'General' tab is circled in orange. An orange arrow points from the 'Allow input' checkbox to the text 'Tick Allow input to set the Numeric Object as Read and Write'. Another orange arrow points from the 'Settings...' button to the text 'In the General tab set the PLC name and Address from which the variable can be read or write'. The dialog box contains the following fields:

- Description: [Empty text box]
- ☒ Allow input
- ☐ Read/Write use different addresses
- Read address:
 - PLC: [Crouzet em4 Ethernet Modbus TCP/IP] [Settings...]
 - Address: [XWIN] [1]
- Notification:
 - ☐ Enable
- Notification on invalid input:
 - ☐ Enable

Buttons at the bottom: OK, Annuler, Appliquer, Aide.

Step 2

This opens the window that allows to set the object parameters

• Tick *Allow input* to set the Numeric Object as Read and Write

• In the *General* tab set the *PLC name* and *Address* from which the variable can be read or write

Creating a Numeric Object

New Numeric Object

General **Format** Security Shape Font Data Entry

Display

Data format : 16-bit Signed ☐ Mask

Number of digits

Left of decimal Pt. : 4 Right of decimal Pt. : 0

Display format

☐ Enable

Scaling

Method : None

Limits

☒ Direct ☐ Dynamic limits

PLC low : 0 PLC high : 9999

Input low : 0 Input high : 9999

☒ Use alarm color

Low limit : ☐ Blink

High limit : ☐ Blink

OK Annuler Appliquer Aide

Step 3

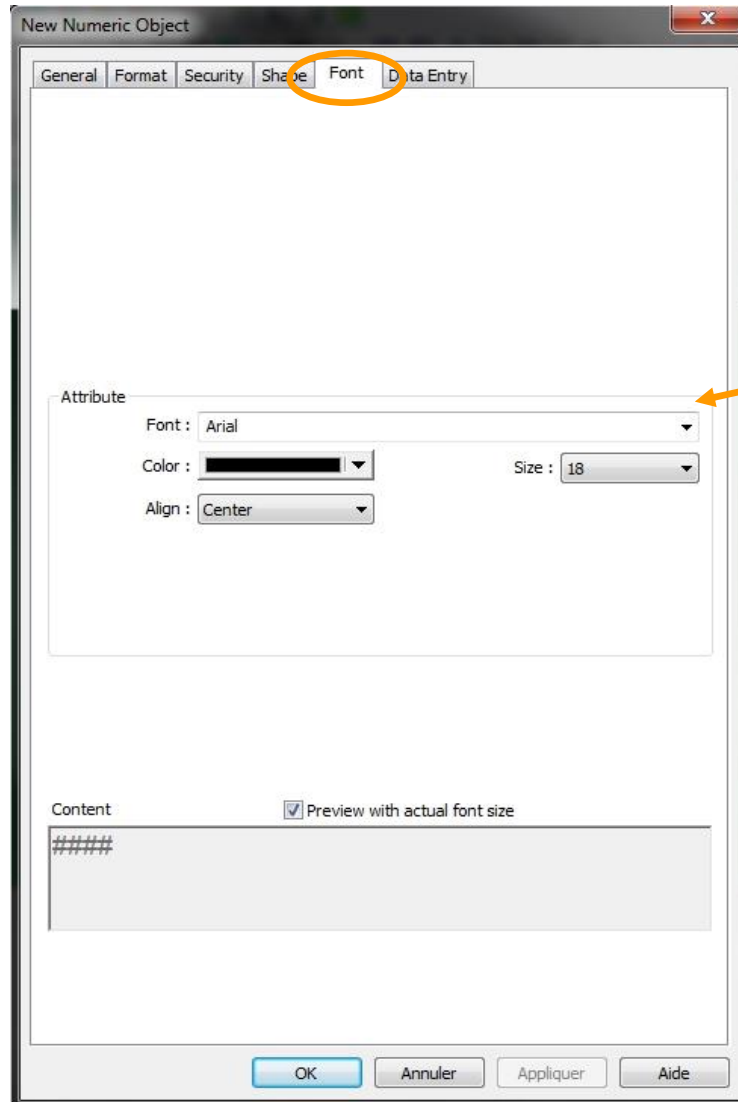
In the *Format* tab set the *Data format* to **16-bit Signed**

Set the *Number of digits* to the value range to be displayed

Select and define the *Scaling* option if needed

Tick *Use alarm color* to highlight values that are above or below the *Limits*. The limitations set in *Limits* do not restrict the display of the value

Creating a Numeric Object

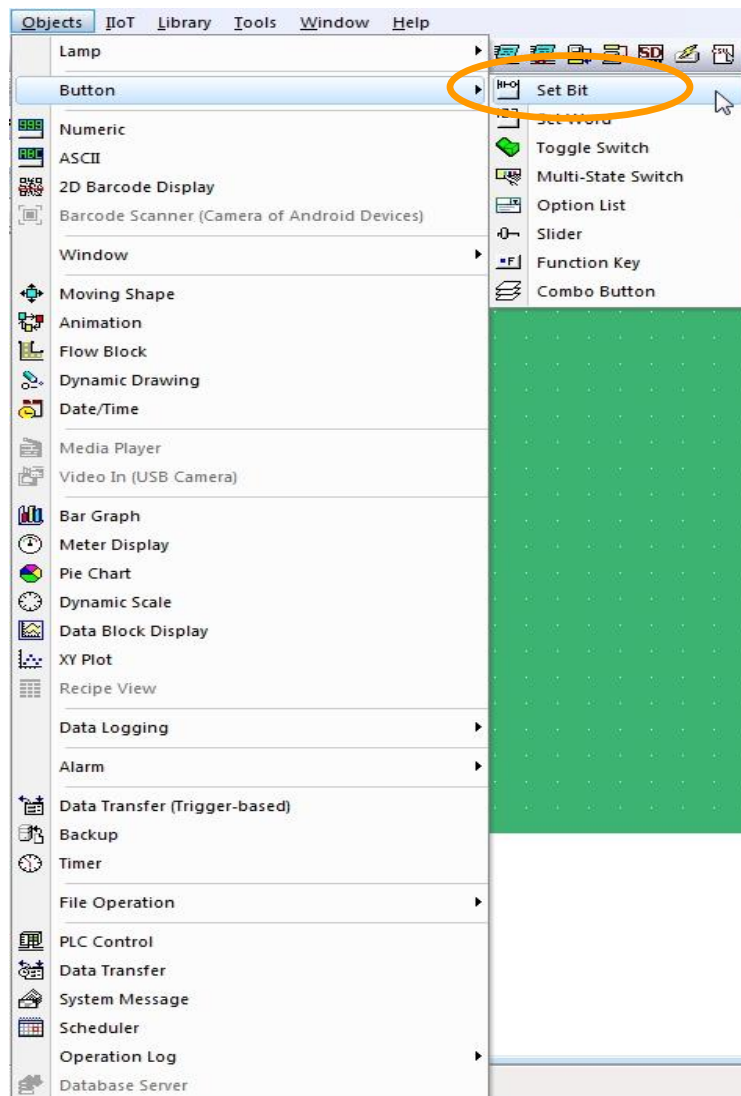


Step 4

Set the parameters for *Security* and *Shape* as explained on pages 18 and 19

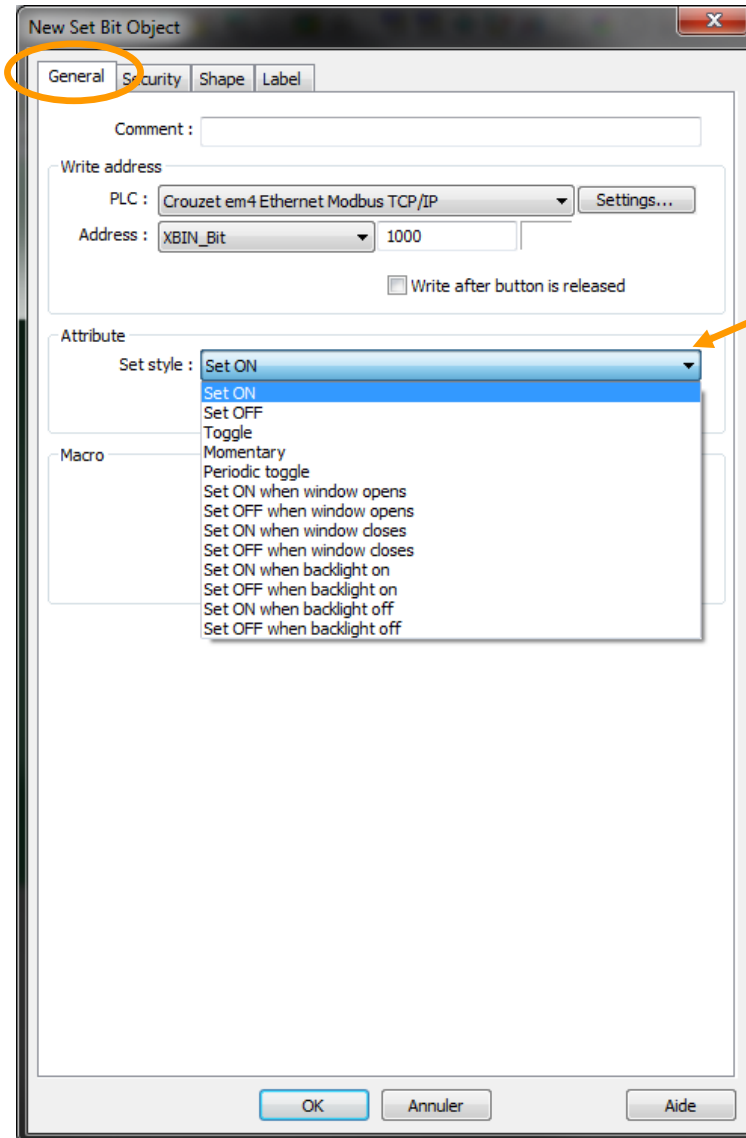
- Define the *Attribute* (especially Size and Align) in the *Font* tab
- Click *OK* and place the *Numeric Object* in the window

Creating a Button Object



To create a Button object like *Set Bit* the procedure and settings are basically the same as for the objects that were just described.

Creating a Button Object



The main differences to others object are:

1. The *Attribute* options

Creating a Button Object

New Set Bit Object

General **Security** Shape Label

Safety control

Min. press time (sec) : 0

☒ Display confirmation request Max. waiting time (sec) : 10

Interlock

☒ Use interlock function

☒ Hide when disabled

☐ Grayed label when disabled

☒ Enable when Bit is ON ☐ Enable when Bit is OFF

PLC : Crouzet em4 Ethernet Modbus TCP/IP Settings...

Address : XBIN_Bit 1001

User restriction

Object class : None

Sound

☐ Enable Sound Library... Sound Index : Default

Play

OK Annuler Aide

2. The *Security* options

It is possible to set a minimum pressure time for the action

If marked, a *Display confirmation request* pop-up with a max. waiting time can be set

If marked, the button can be hidden using a control bit, but it could also be displayed anyway even if disabled, and if there is a text label it can be grayed

The object can be linked to an *Object class* and if required to an 'access denied' warning message (system page 7).

THANK YOU FOR YOUR ATTENTION

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