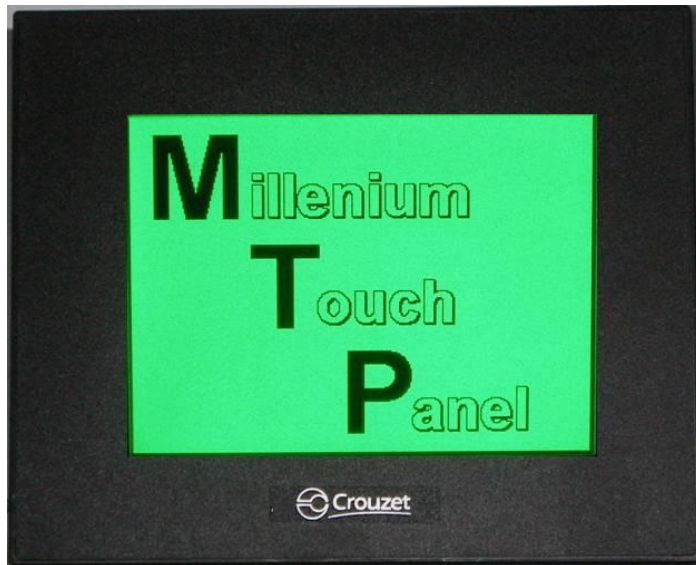


This powerpoint will show you the programming functions of MTPWIN, it will take you to open MTP05 and Millenium3 programs to discover the mode of its operation.

## MTP05 screen & Millenium3

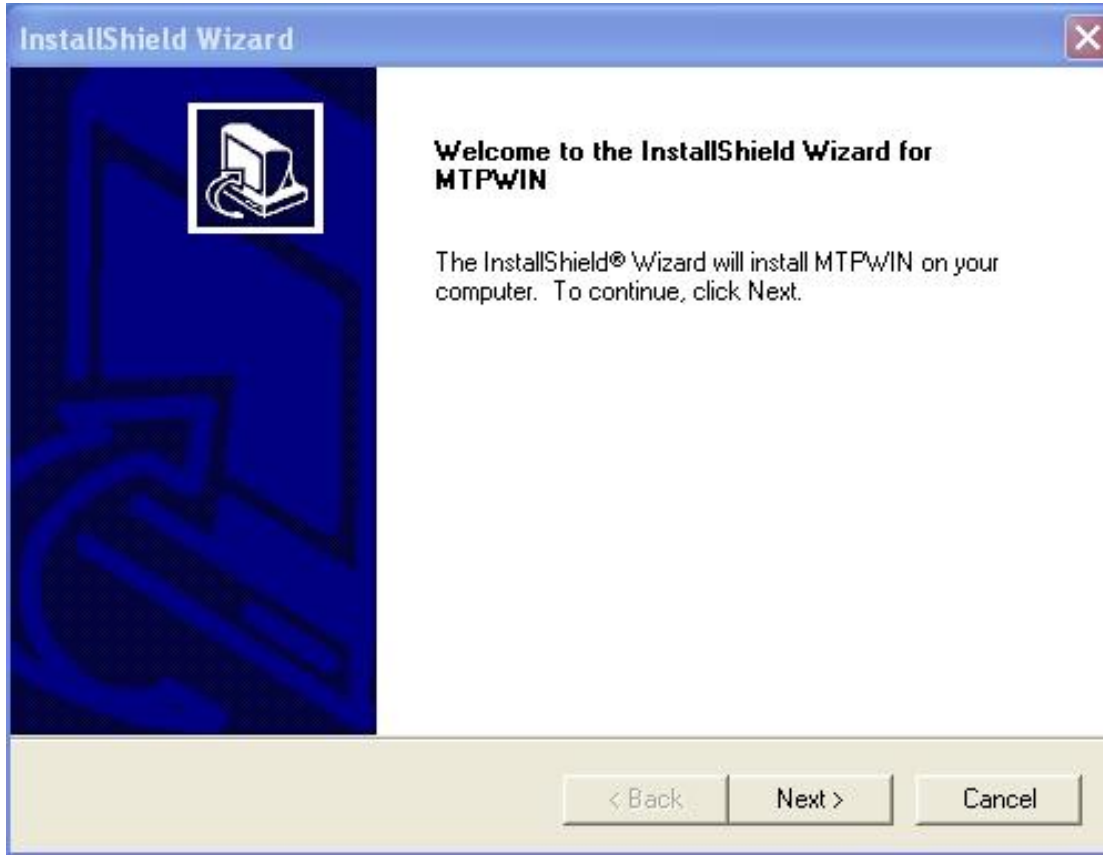




## Contents

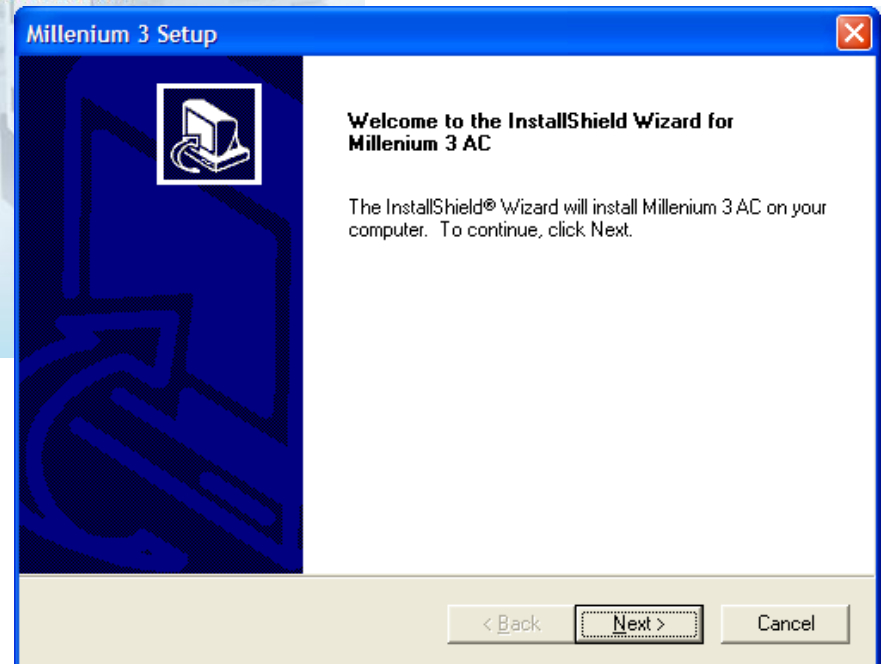
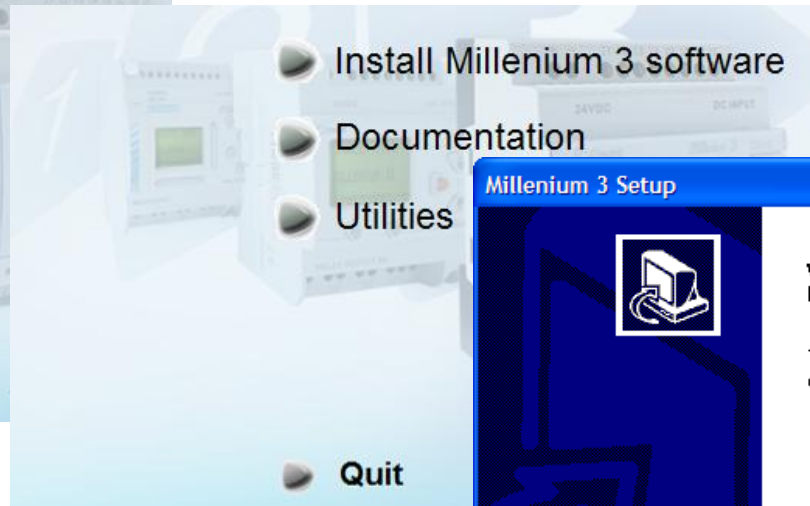
- Software installation and wiring
- The various functionalities of the MTP05 (links to the program descriptions)
- Basics
  - Addressing
  - Configuring the address zone to pilot MTP05 by Millenium3 (M3)
- MTP05 presentation
  - Introducing MTPWIN
  - Wiring and commissioning an M3 - MTP05 data exchange
  - Read/write word/bit
  - Recipe
  - Alarms
  - Pilot MTP05 by M3
  - Read/write parameters M3
  - Line graph
  - Other functions
  - Links to MTP05 / M3 programs
- SD card data backup
- Glossary

- Installing the MTPWIN software



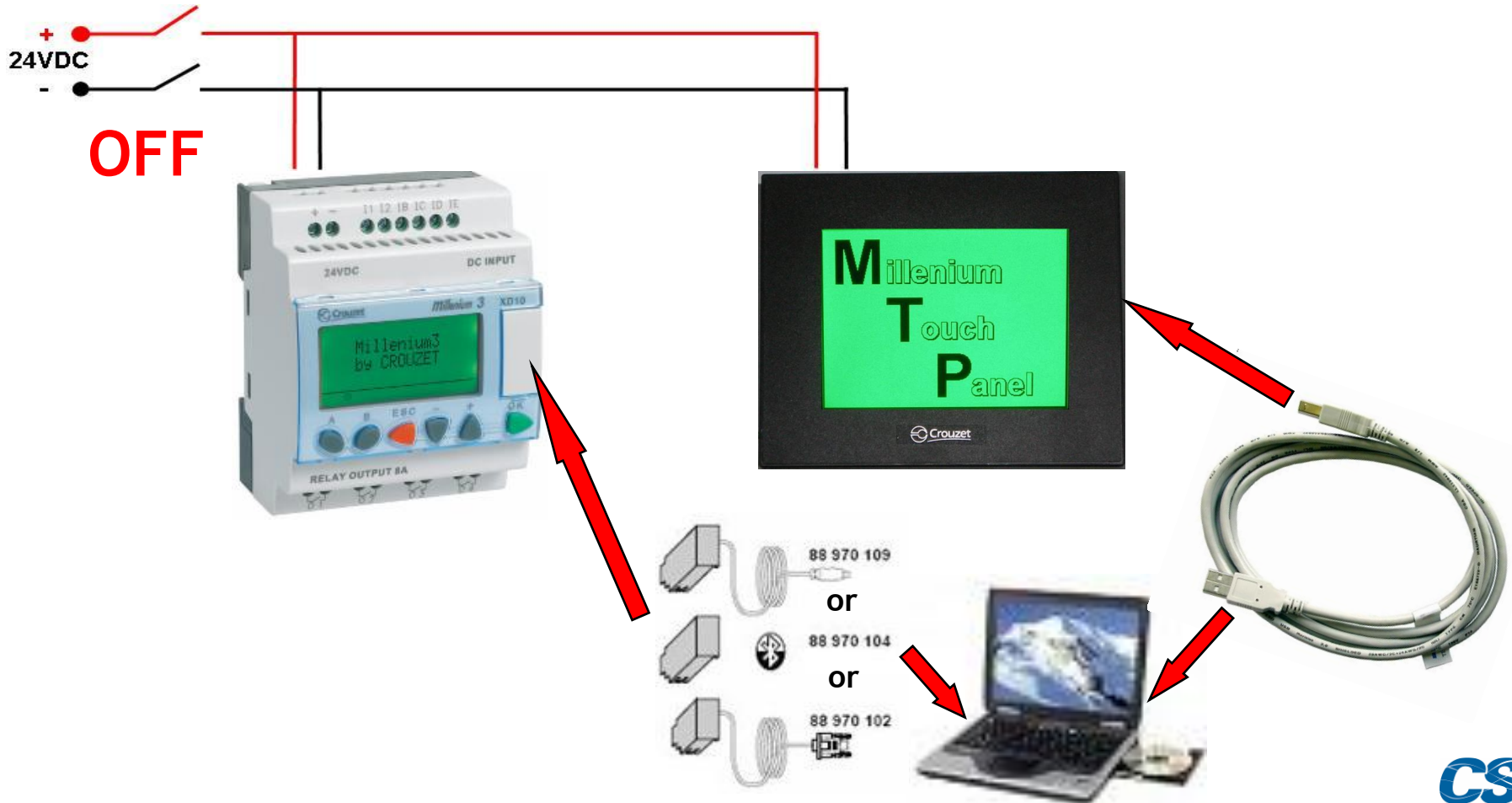
**Restart your PC after installation**

- Installing the software Millenium3



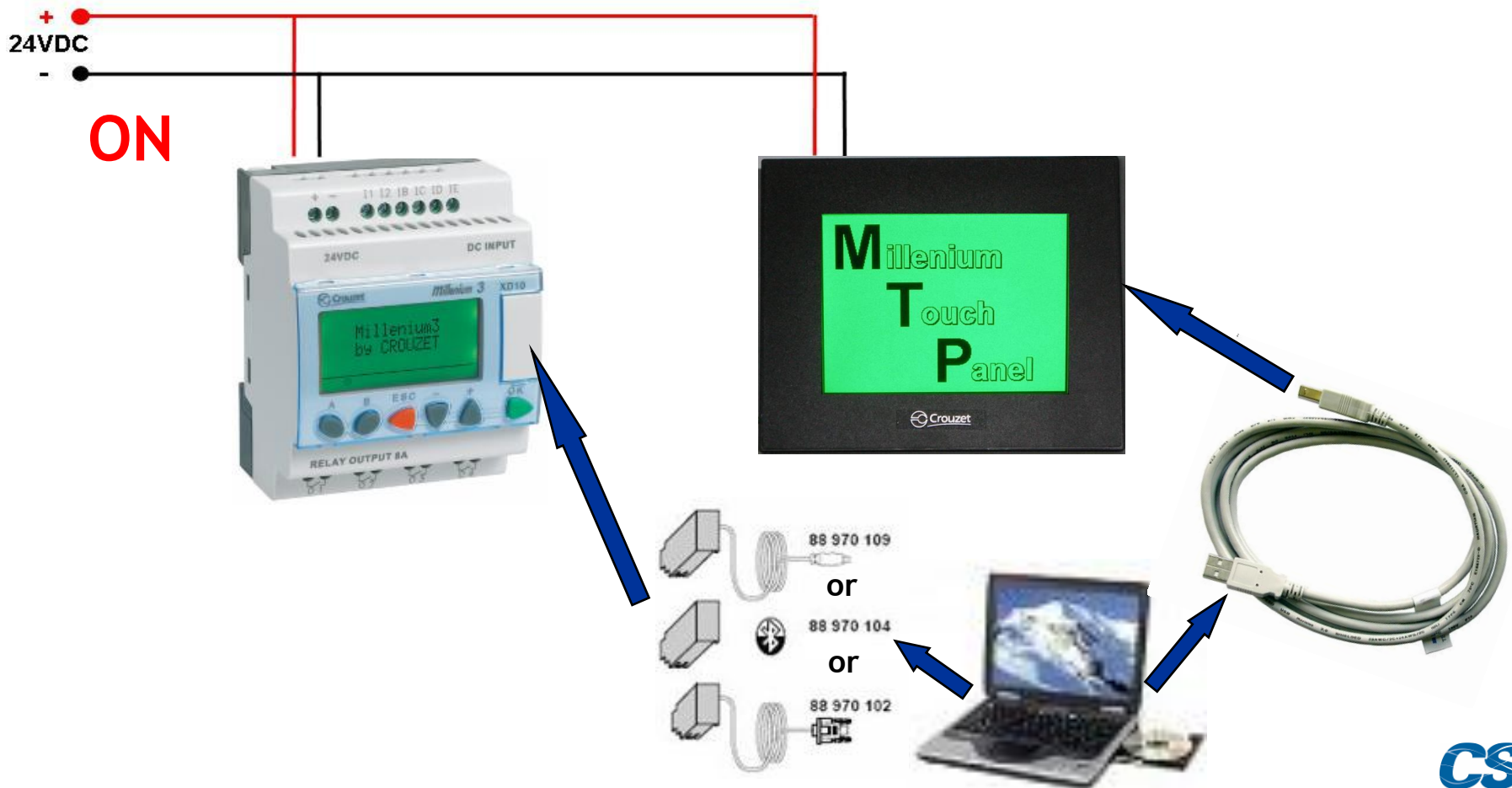
# Wiring for program transfer

**⚠ The power must be disconnected whenever inserting or extracting the connector into/from Millenium3 or the USB cable into/from MTP05 !**





# Program transfer



1

After connecting MTP05 to the USB port, this message will appear

# USB driver installation



2

Assistant Matériel détecté

### Assistant Ajout de nouveau matériel détecté

Cet Assistant vous aide à installer le logiciel pour :  
USB Driver Ver.1.0

Si un CD d'installation ou une disquette a été fourni avec votre périphérique, insérez-le maintenant.

Quelle tâche voulez-vous que l'Assistant exécute ?

- Installer le logiciel automatiquement (recommandé)
- Installer à partir d'une liste ou d'un emplacement spécifié (Utilisateurs expérimentés)

Cliquez sur Suivant pour continuer.

Assistant Matériel détecté

### Choisissez vos options de recherche et d'installation

Rechercher le meilleur pilote dans ces emplacements :

Utilisez les cases à cocher ci-dessous pour limiter ou étendre la recherche par défaut qui inclut les chemins d'accès locaux et les médias amovibles. Le meilleur pilote trouvé sera installé.

- Rechercher dans les médias amovibles (disquette, CD-ROM...)
- Inclure cet emplacement dans la recherche :

C:\Program Files\Crouzet MTPWIN\MTPWIN\GTW   Parcourir

Ne pas rechercher. Je vais choisir le pilote à installer.

Choisissez cette option pour sélectionner le pilote de périphérique à partir de la liste. Windows ne garantit pas que le pilote sélectionné sera le plus performant pour votre périphérique.

< Précédent   Suivant >   Annuler

C:\Program Files\Crouzet MTPWIN\MTPWIN\GTWIN\_USB

Annuler

- Crouzet MTPWIN
  - MTPWIN
    - DEF
    - GTWIN\_USB**
    - HELP\_E
    - HELP\_J
    - nrc

3

Assistant Matériel détecté

Veillez patienter pendant que l'Assistant installe le logiciel...



USB Driver Ver.1.0



pausb.inf  
Vers C:\WINDOWS\INF



< Précédent   Suivant >   Annuler

# USB driver installation



4

Assistant Matériel détecté

Fin de l'Assistant Ajout de nouveau matériel détecté

Cet Assistant a fini d'installer le logiciel pour :



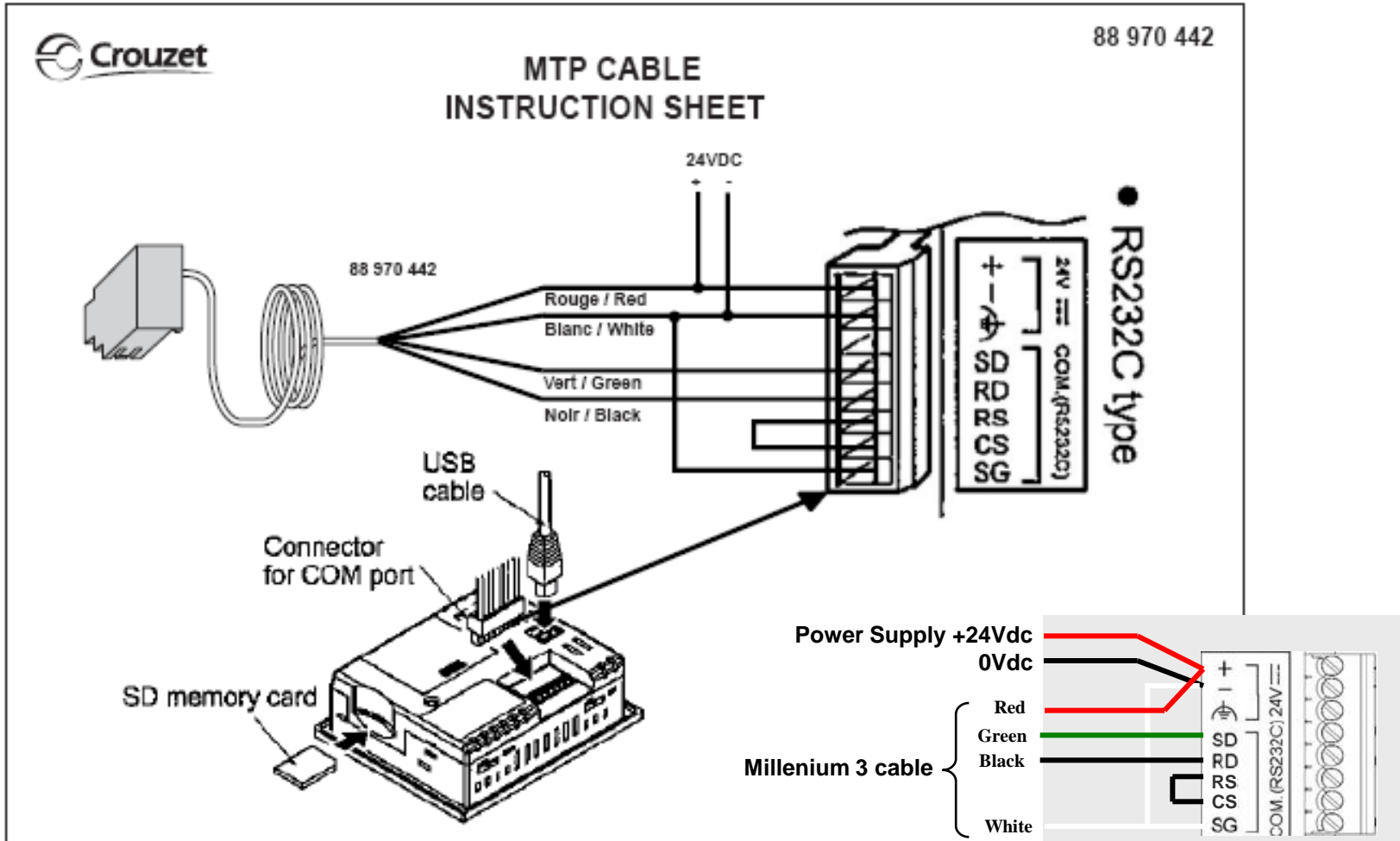
USB Driver Ver.1.0

Cliquer sur Terminer pour fermer l'Assistant.

< Précédent   Terminer   Annuler



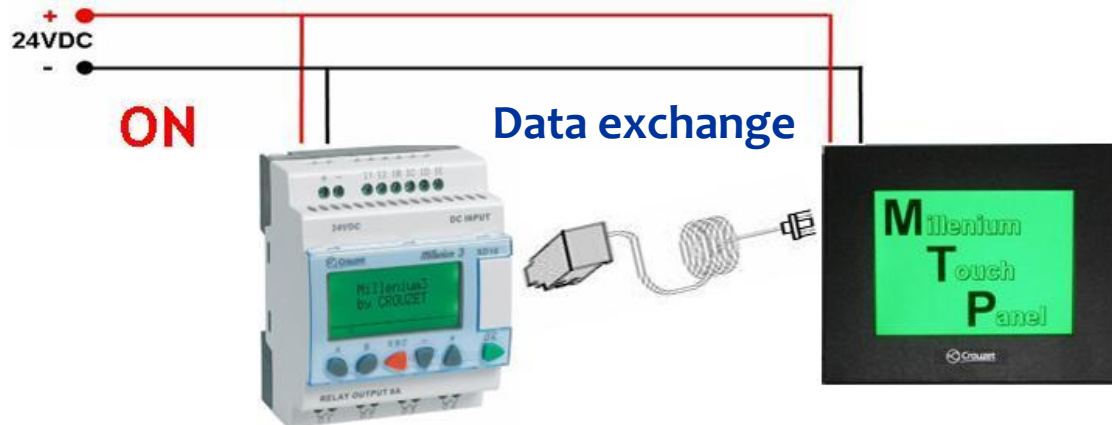
# The data exchange cable Millenium3 ⇔ MTP05





## Wiring for use / data exchange

*The power must be disconnected whenever inserting or extracting the Millennium3 - MTP05 data exchange cable!*



## The various MTP05 functionalities

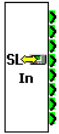
- Read/write Word - Bit
- Recipe management
- Alarms
- Piloting MTP05 by M3
- Reading the status
- Reading/writing the M3 clock
- Internal clock
- Changing the page (program)
- Line Graphs and Bargraphs
- Bitmaps and Scrolling messages
- Bitmaps
- Scrolling messages
- Conditions/comparator
- Password management

# BASICS

- **Addressing**
  - » Example
  - » Address area
    - BSLIN
    - BSLOUT
  - **Configuring the address zone to pilot MTP**
    - » Internal address area (MTP)
    - » External address area (M3)
      - Details of the area used by M3

## Definitions:

**SLIn = Serial Link In** →



Function block that allows M3 to read 8 words by using the M3 programming port.

3 blocks with 8 words each can be used (addresses 1-8, 9-16, 17-24)

**SLOut = Serial Link Out** →



Function block that allows M3 to write 8 words by using the M3 programming port.

3 blocks with 8 words each can be used (addresses 25-32, 33-40, 41-48)

**M3** → **Millenium3**

**MTP05 = Millenium Touch Panel** → Screen of the M3

**MTPWIN** → Programming software of the MTP05

**WSLIN** → Word address in MTPWIN related to an SLIn function block

**WSLOUT** → Word address in MTPWIN related to an SLOut function block

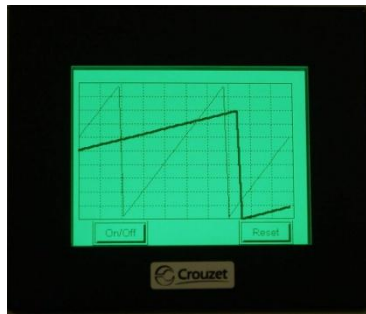
**BSLIN** → Bit address in MTPWIN related to an SLIn function block

**BSLOUT** → Bit address in MTPWIN related to an SLOut function block



# Addressing

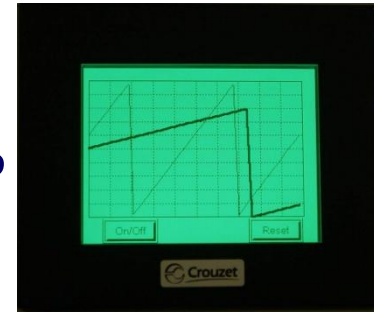
Words and Bits are used for the data exchange between MTP05 and M3.



MTP ⇒ M3



M3 ⇒ MTP



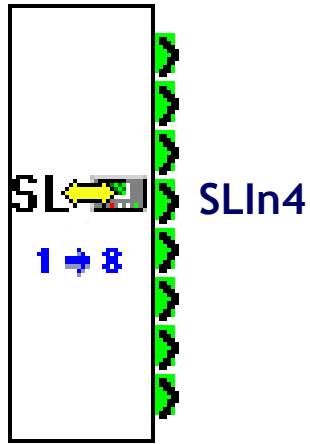
Word address area:

Millenium3: SLIn 1 - 24 ⇒ MTPWIN: WSLIN 1 - 24

Millenium3: SLOut 25 - 48 ⇒ MTPWIN : WSLOUT 25 - 48

# Word addressing example

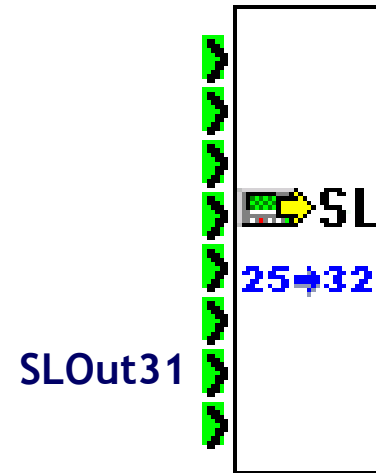
M3: SLIn4 ⇒ MTPWIN: WSLIN4



Reference Device

WSLIN4

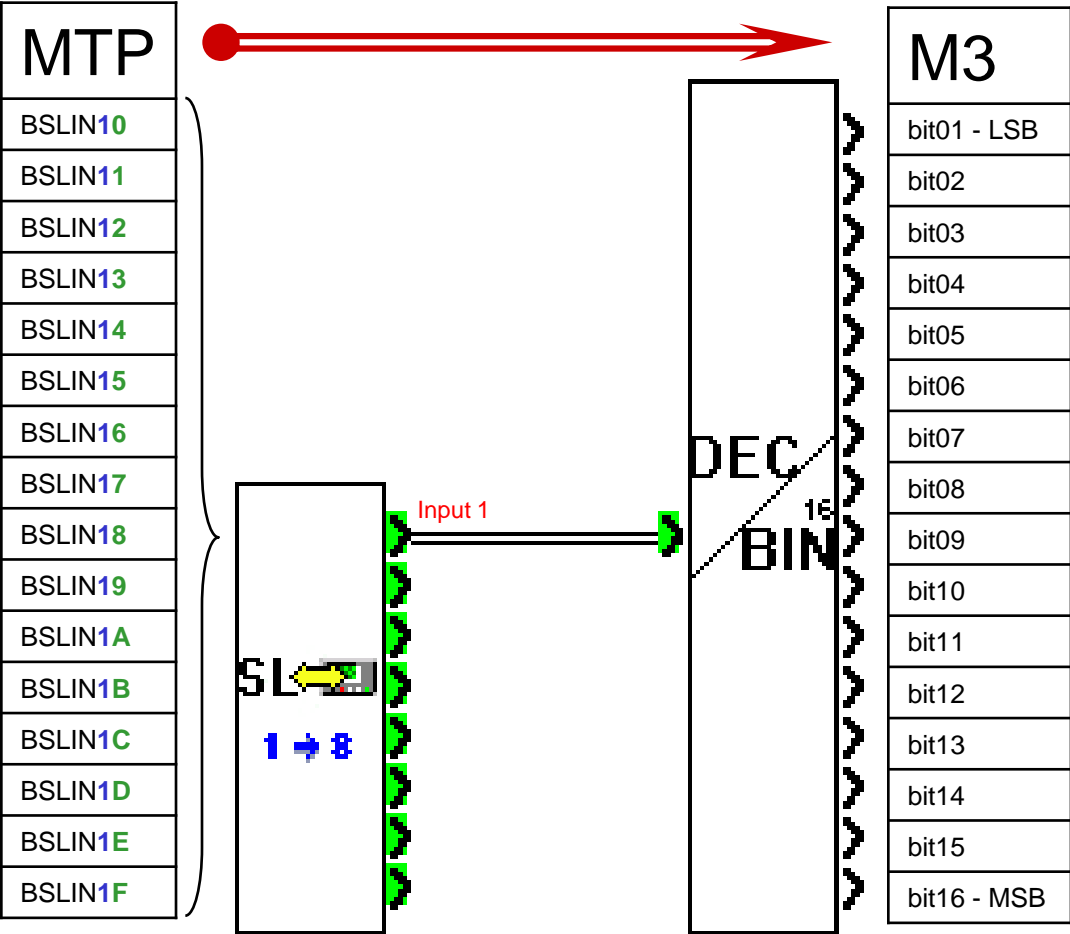
M3: SLOut31 ⇒ MTPWIN: WSLOUT31



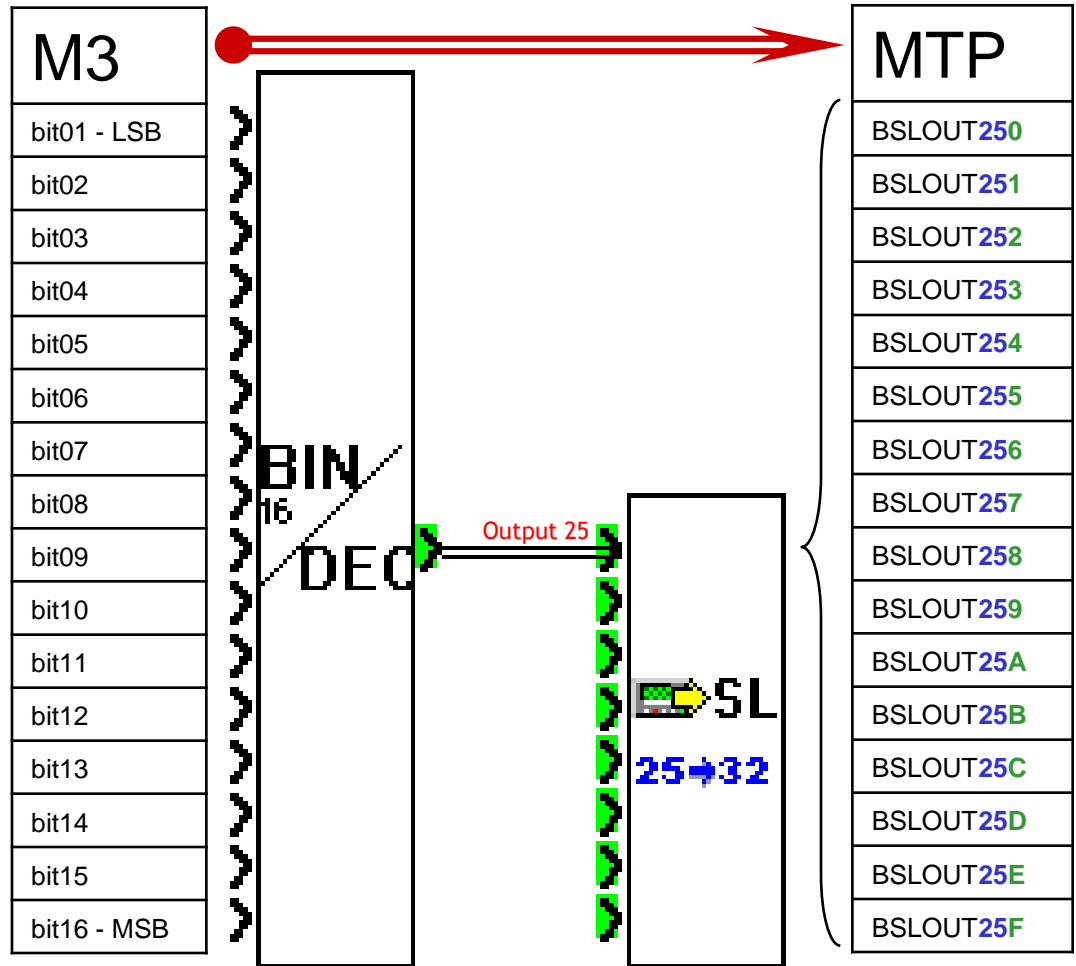
Reference Device

WSLOUT31

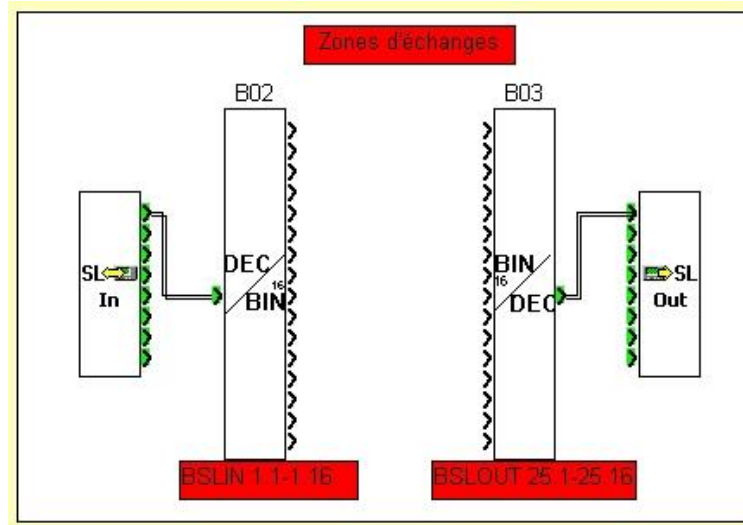
# Addressing a bit - BSLIN



# Addressing a bit - BSLOUT



## Addressing bits in M3 is done with these function blocks:



### How to address a bit in MTPWIN:

The bits (BLSOUT or BSLIN) are described like this: **N word + N°bit**

Example: To work with bit 15 on SLOut12, it will be noted as **BSLOUT12E**.

The address area ranges from 1 to 48 and is defined as follows:

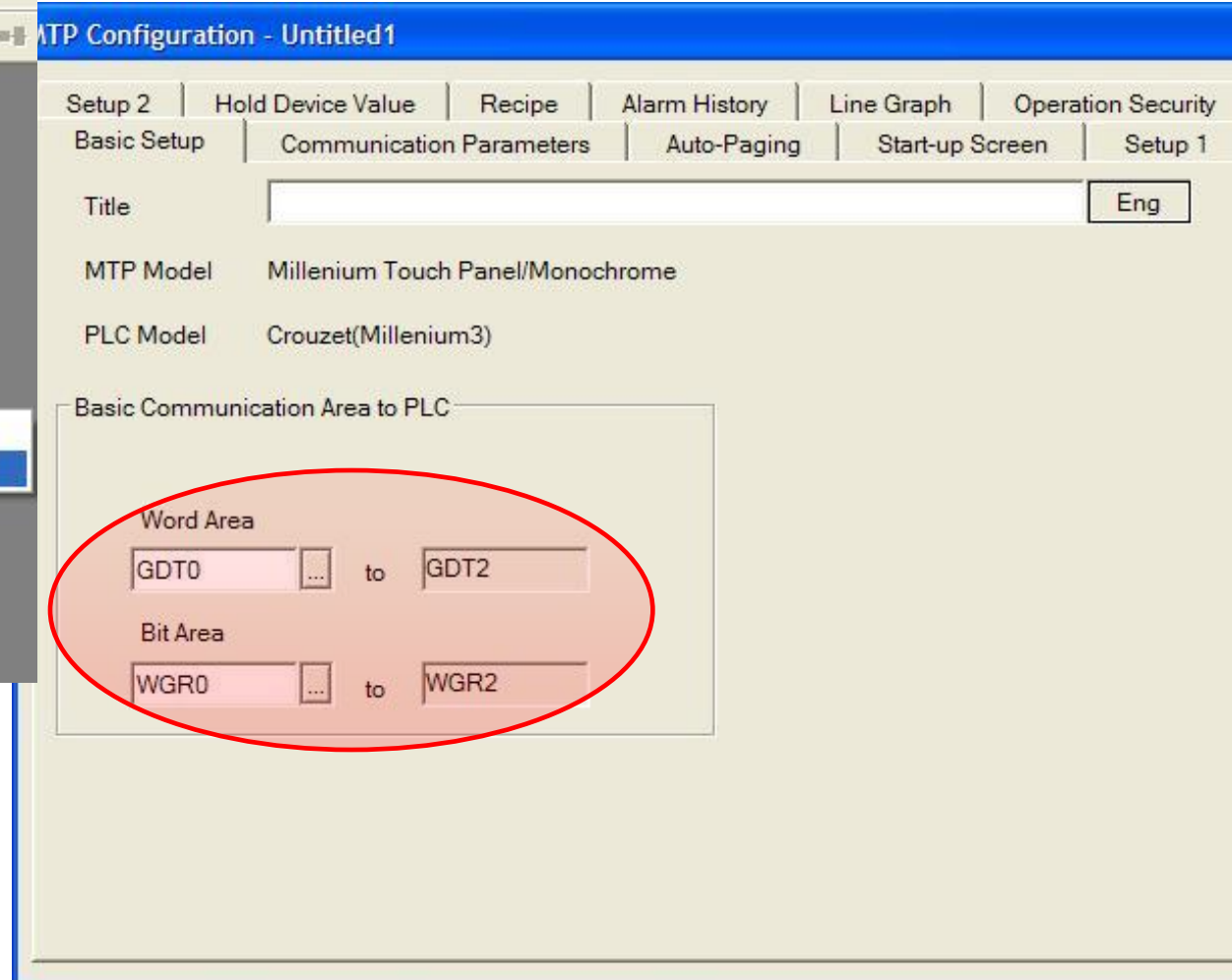
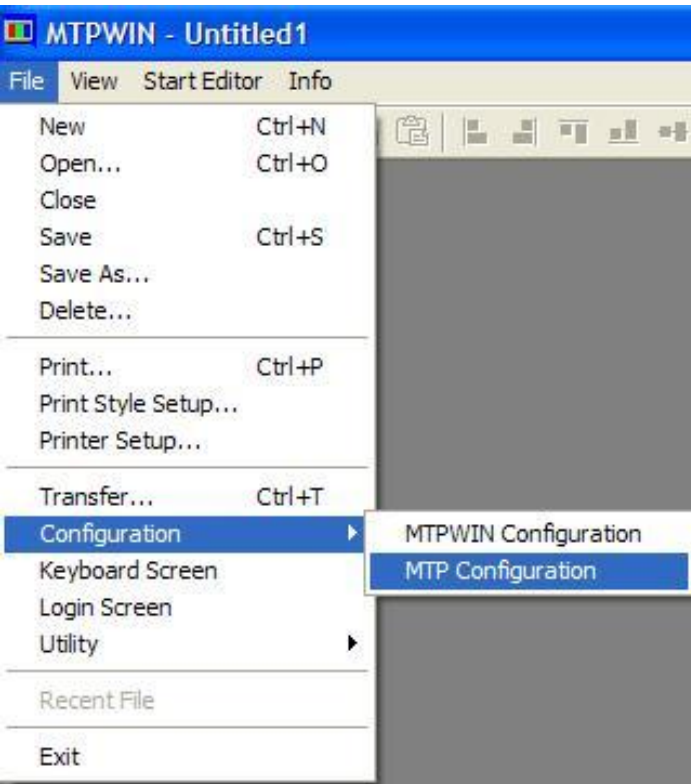
Bit SLIn 1.1 - 24.16 of M3 ⇒ BSLIN **10** to **24F** in the MTPWIN

Bit SLOut 25.1 - 48.16 of M3 ⇒ BSLOUT **250** to **48F** in the MTPWIN



# Basic communication Area to PLC (M3): Internal addresses reserved to pilot the MTP05



## Internal pilot area (MTP05):

N ex: GDT0	Change screen (hexadécimal)
N+1 ex: GDT1	Not used
N+2 ex:GDT2	Number of the screen actually in use (hexadécimal)

Position	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0
n +BIT ex: WGR0F = 1 (buzzer on)	Buzzer	Force view	Backlight on/off	Blinking backlight	Backlight color											
N+1 ex: WGR1	Not used															
N+2 ex:WGR2	Not used															

Backlight colors (default = green)		
Bit	B	A
Off	0	0
Green	0	1
Red	1	0
Orange	1	1

One can use keys in the screen to pilot the MTP05

## The M3 data zone reserved by default (not adjustable):

MTP Configuration - program.IOP

Setup 2 | Hold Device Value | Recipe | Alarm History | Line Graph | Operation Security  
 Basic Setup | Communication Parameters | Auto-Paging | Start-up Screen | Setup 1

Title: \_\_\_\_\_ Eng

MTP Model: Millenium Touch Panel/Monochrome

PLC Model: Millenium3

Basic Communication Area to PLC

Word Area: M3C\_WORD1 to M3C\_WORD3

Bit Area: M3C\_BITS1 to M3C\_BITS3

WSLOUT45	from M3
WSLOUT46	from M3
WSLIN23	to M3

WSLOUT47	from M3
WSLOUT48	from M3
WSLIN24	to M3

Device Setting

M3C\_BITS [1]

M3C\_BITS  
WGR

OK Cancel

Device Setting

M3C\_WORD [1]

M3C\_WORD  
WGR  
GDT

OK Cancel

**To pilot MTP05 by Millenium3**

# The M3 data zone reserved by default:

WSLOUT45	from M3
WSLOUT46	from M3
WSLIN23	to M3

- Change the MTP05 page
- Use prohibited
- Use prohibited

WSLOUT47	from M3
WSLOUT48	from M3
WSLIN24	to M3

- Pilot the MTP05 screen
- Copy of WSLOUT47
- Use prohibited

Position (WSLOUT47)	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0
n +BIT ex: 47+F (buzzer)	Buzzer	Force view	Backlight On/Off	Flashing backlight	Backlight color											

Bit	B	A
Off	0	0
Green	0	1
Red	1	0
Orange	1	1



# MTP05 presentation

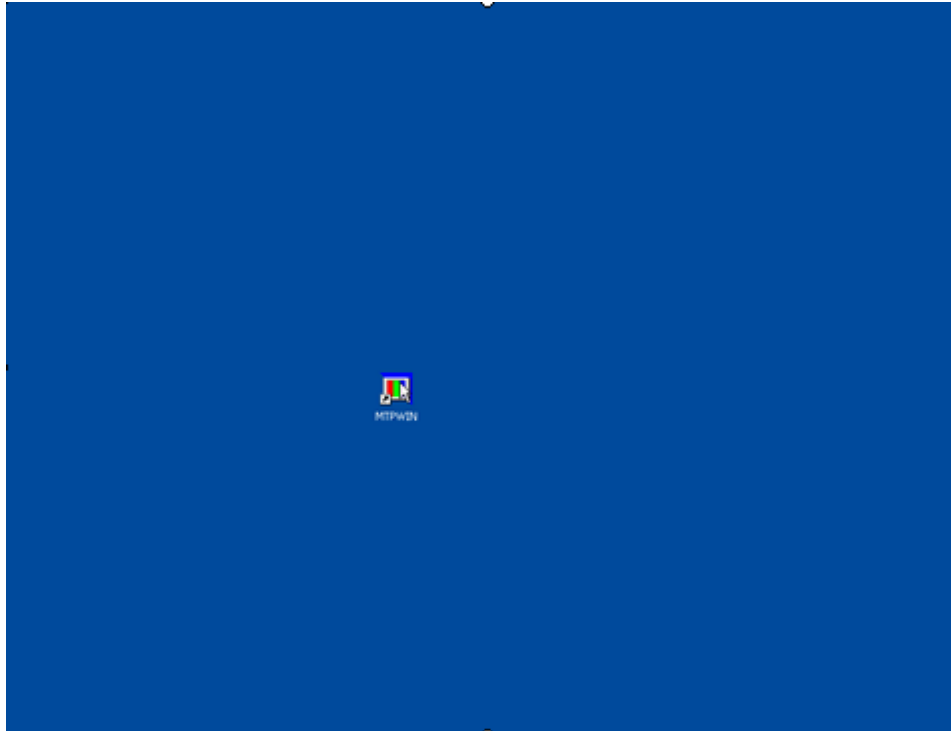




- **PRESENTATION**

- Screen management
- First start with MTPWIN
- Creating a new program
- The important menus
- Transfer parameters

# Launching MTPWIN the 1st time (creating a new program).

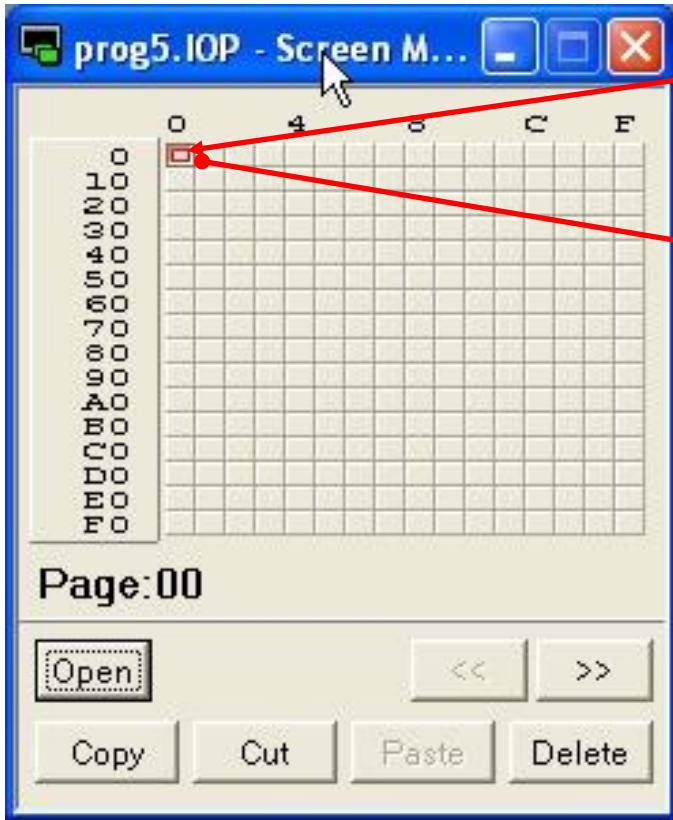


Click on the image to show the video.

# Screen management

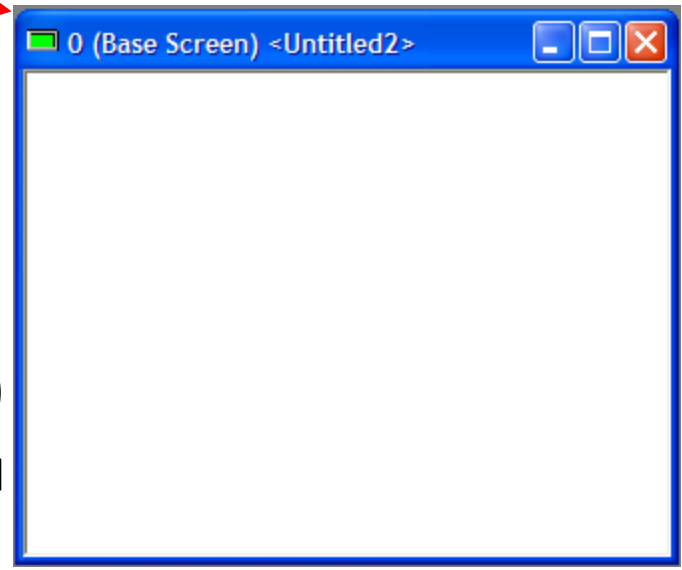


1

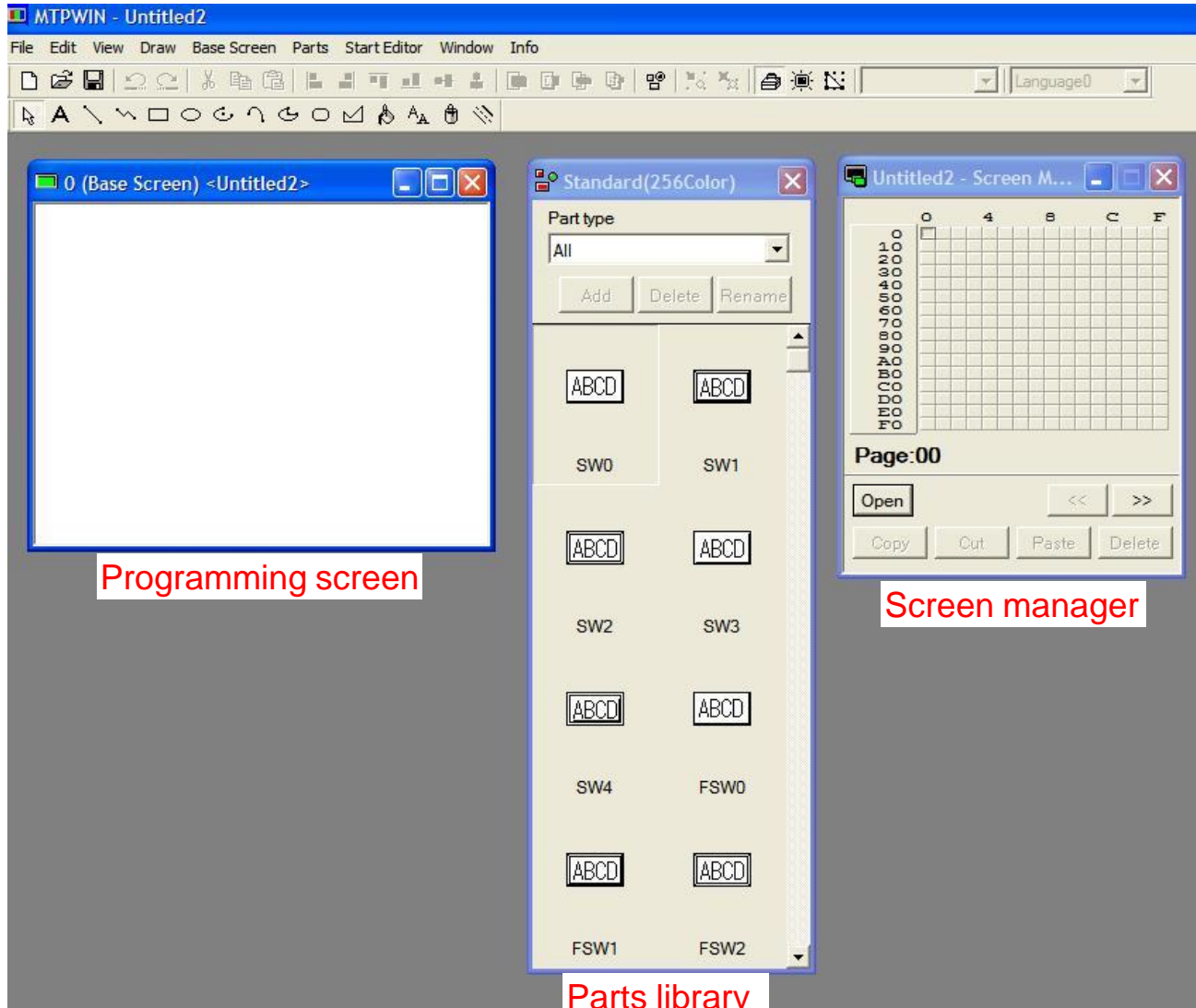


The screen management is done by double-clicking here

2



# After opening a new program

The screenshot shows the MTPWIN software interface with three main components highlighted:

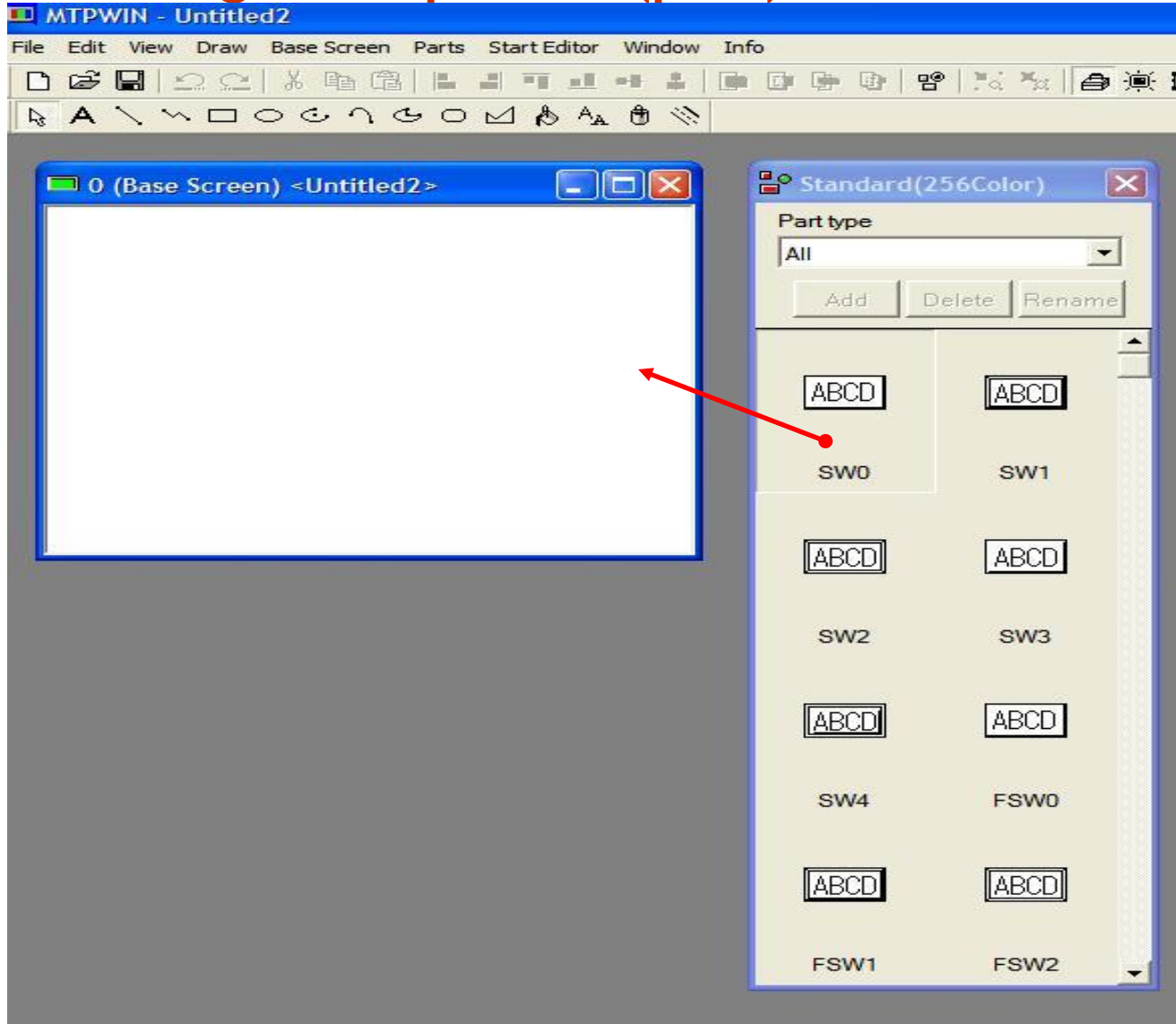
- Programming screen:** A large empty white area on the left for drawing the screen layout.
- Parts library:** A central panel titled "Standard(256Color)" containing a list of parts (SW0-FSW2) with "ABCD" labels and "Add", "Delete", and "Rename" buttons.
- Screen manager:** A panel on the right with a grid for defining screen coordinates (0-15 on the y-axis, 0-F on the x-axis) and buttons for "Open", "Copy", "Cut", "Paste", and "Delete".

Programming screen

Screen manager

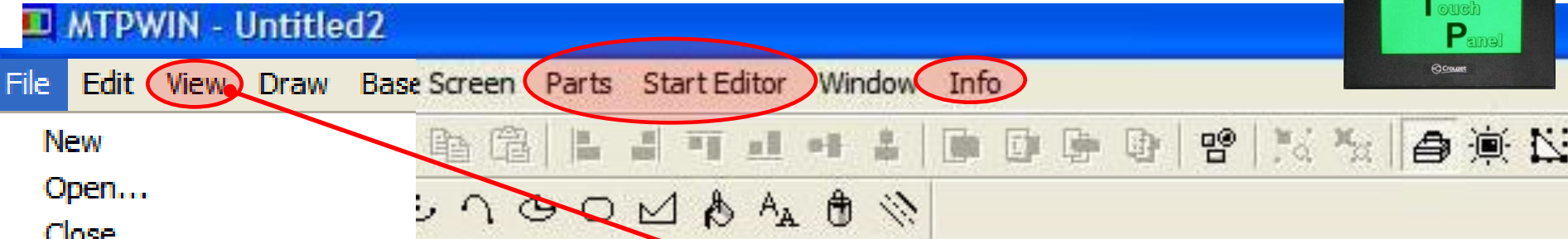
Parts library

# Placing a component (part) on the screen



To place a part on the screen, click on the part with the left mouse key, hold the key, drag the part to the screen and release the key where you want to place it. (Drag and drop) Like with the Millenium3 software.

# The main menus 1



- New
- Open...
- Close
- Save
- Save As...
- Delete

---

- Print...
- Print Style Setup...
- Printer Setup...

---

- Transfer**
- Configuration**
- Keyboard Screen
- Login Screen
- Utility

- View
- Draw
- Base Screen
- Parts
- Start Editor
- Window
- Info

---

- Redraw
- Grid Alt+G
- Toolbar
- Status bar
- Graphic bar
- Screen Manager Display ▶
- Zoom
- Zoom Box
- Parts No.**
- Parts Attribute**
- Status ▶
- Language No. ▶

---

- Total Memory Usage
- MTP Usage Device...

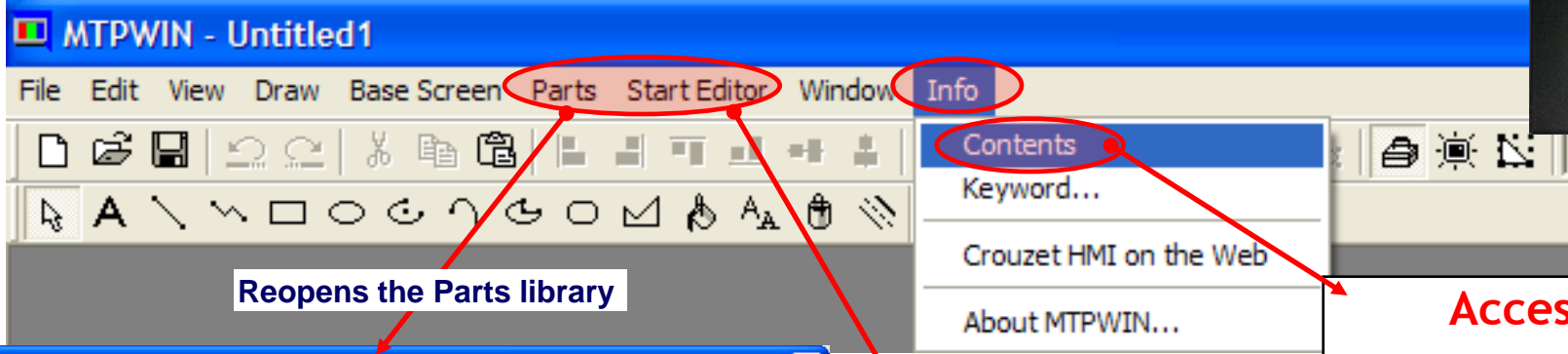
0 (Base Screen) <Untitled1>



This shows the address of a part

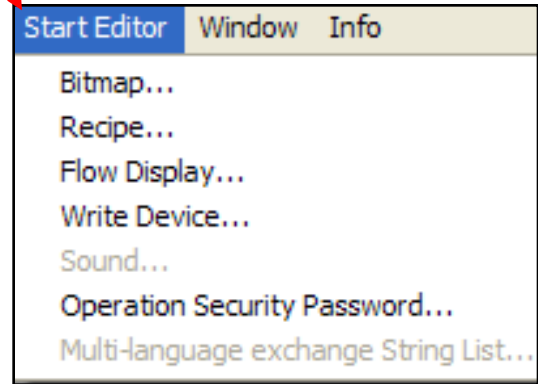
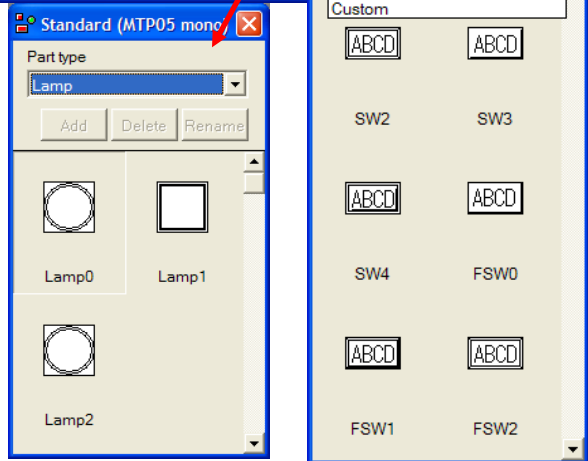
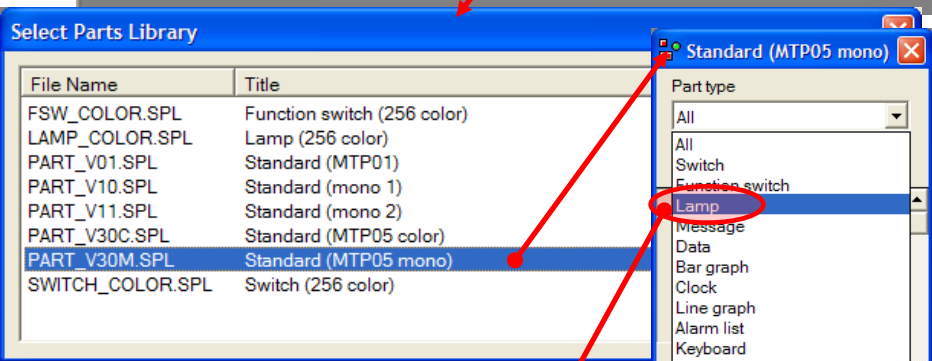


# The main menus 2



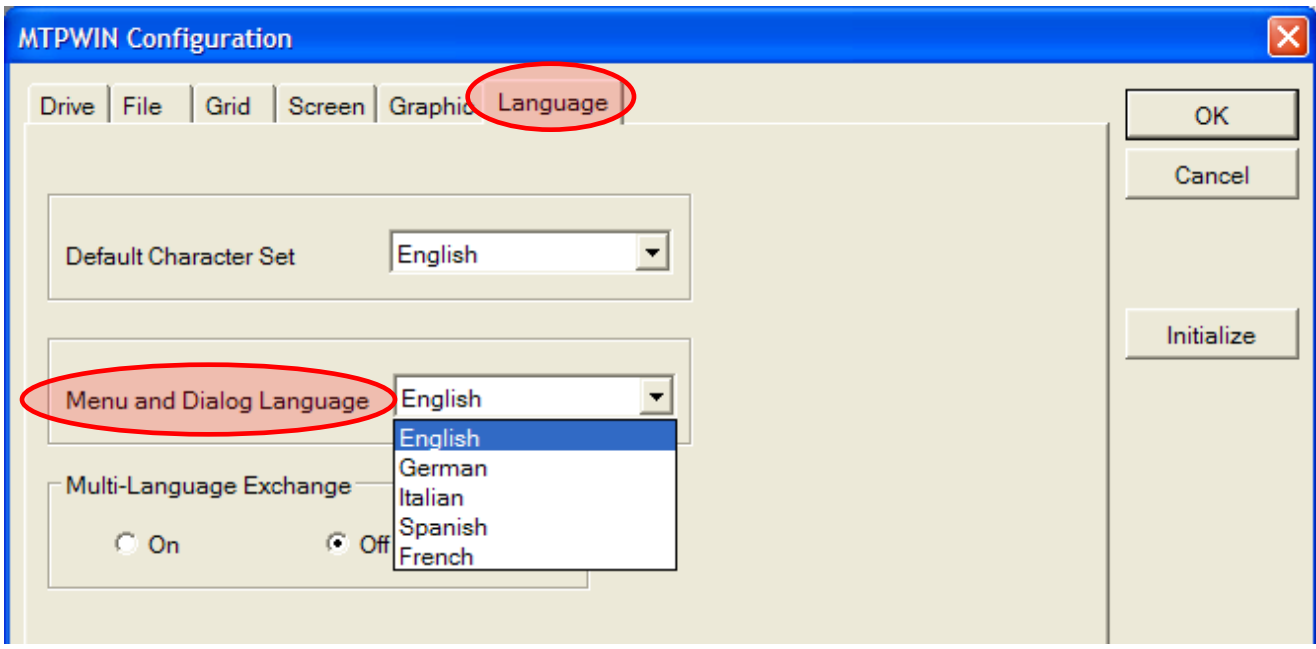
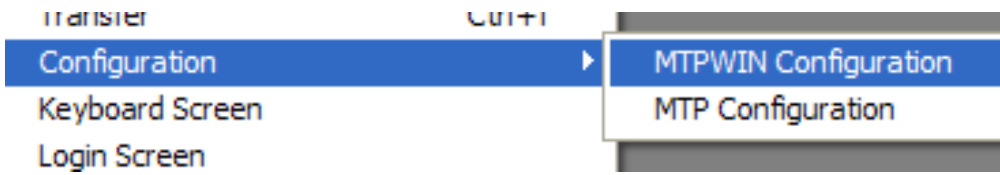
Reopens the Parts library

Access to the Help file !

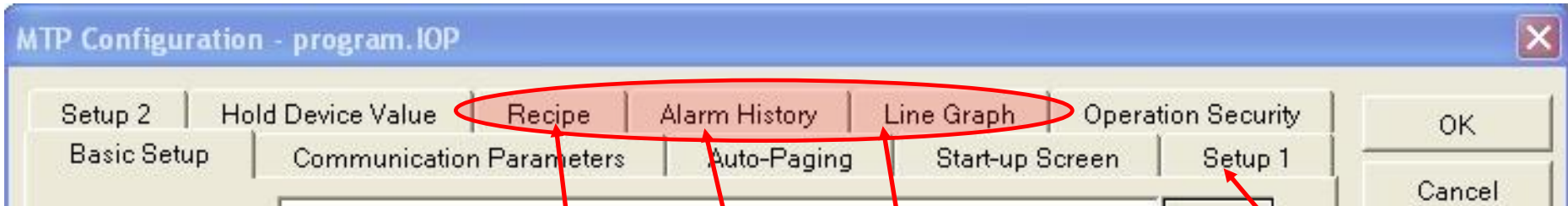




# MTPWIN configuration menu



# MTP configuration menu



Recipies

Alarms

Line Graphs

- Clock (MTP or M3)
- Backlight brightness setting
- Beep (ON or OFF)

# Transfer parameters and program transfer



The screenshot shows the MTPWIN software interface with several windows open:

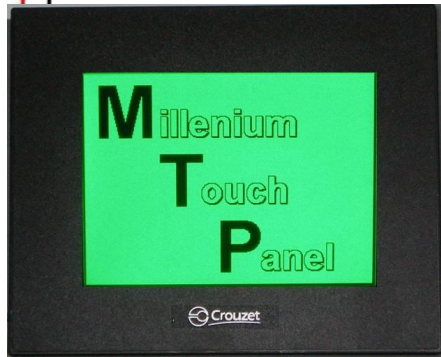
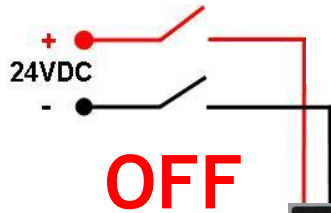
- Window 0:** "Quick start program 1 Read/Write Lect/ecr Milleium 3" with a navigation button.
- Window 2:** "Appuyer 'B' sur M3 pour activer le bit" with controls for BSLOUT260, BSLIN20, and FSB.
- Window 1:** A keypad interface with labels WSLIN1, WSLOUT25, and FSB.
- Standard(256Color):** A window for selecting part types (SW0-SW4, FSW0-FSW2).
- bit\_mot.IOP - Screen...:** A window showing a grid for program transfer with "Page:00" and navigation buttons.

Tick here to see the video

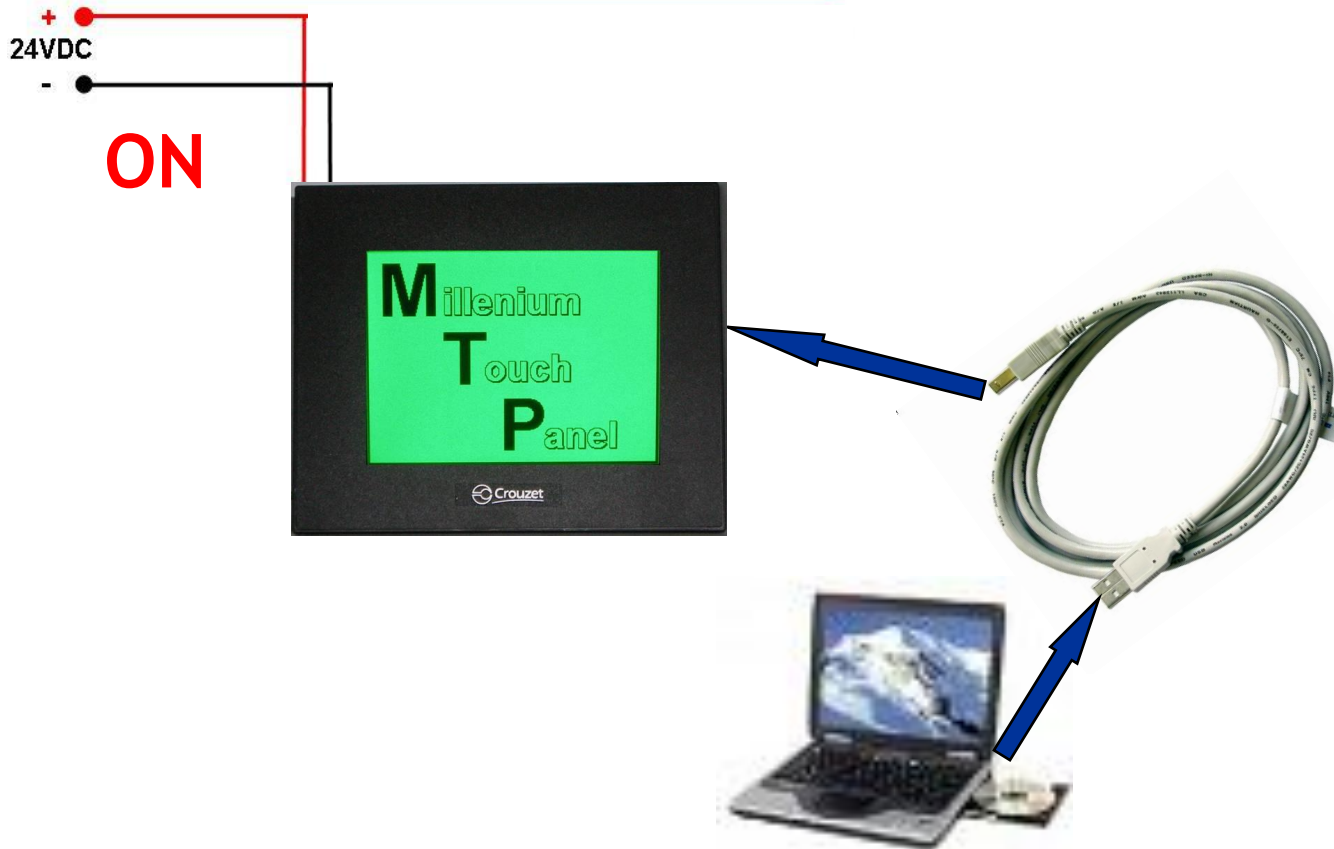


# Wiring for program transfer PC $\Rightarrow$ MTP05

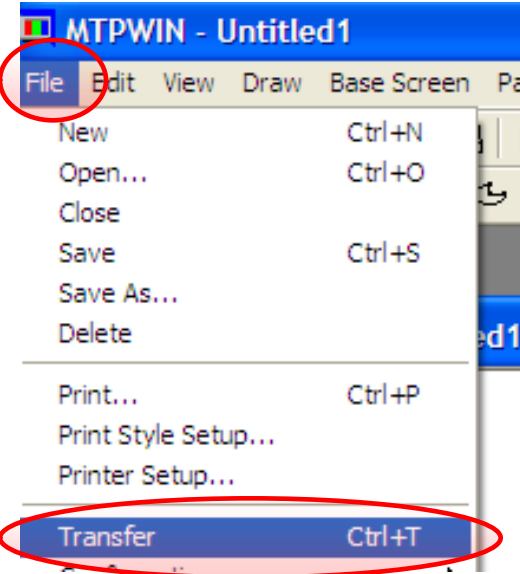
*The power must be disconnected whenever inserting or extracting the USB cable into/from MTP05 !*



# Program transfer PC $\Rightarrow$ MTP05

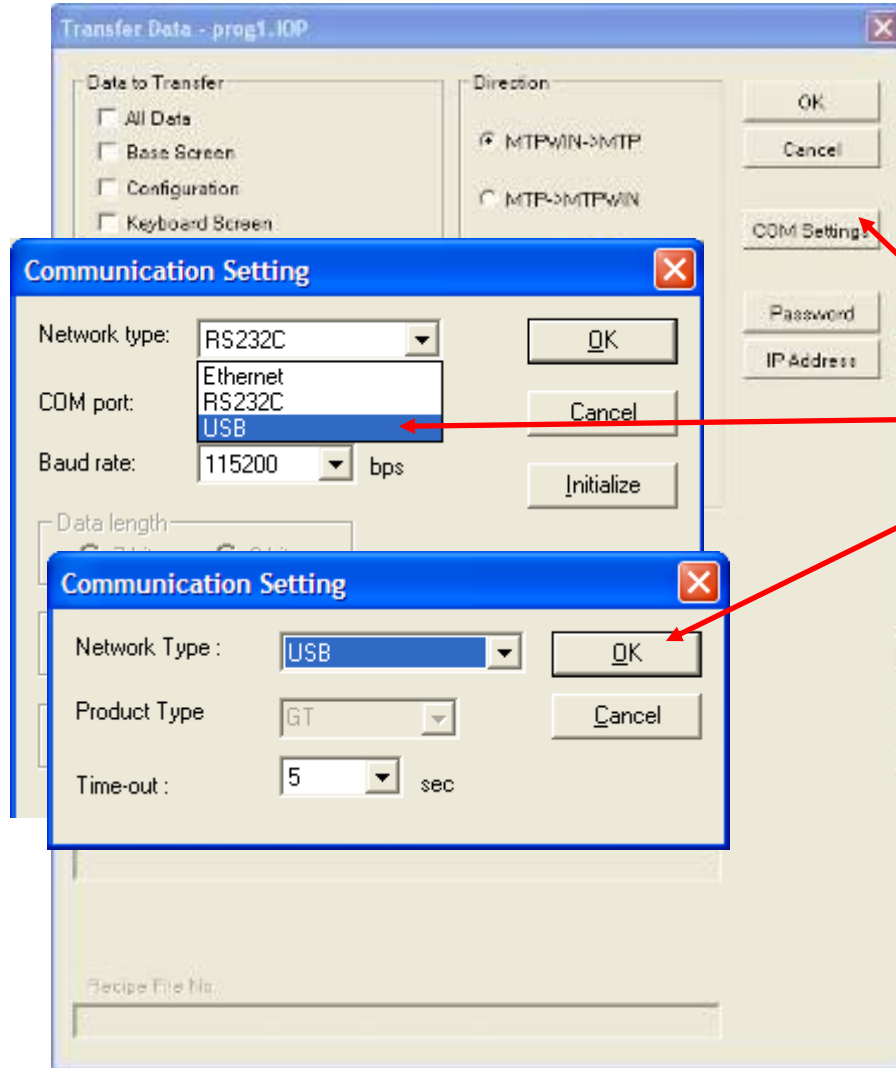


# Connection configuration



1

File ⇒ Transfer



2

COM configuration

Tick here

Select USB

Tick OK



# Data transfer PC ⇒ MTP05



Updates Firmware.

Important to mark on first data transfer.

- All data
- Transfer data after clear screen (optional)
- Select Recipe if necessary
- Select Password if necessary
- Enter Recipe File N° (s) if necessary

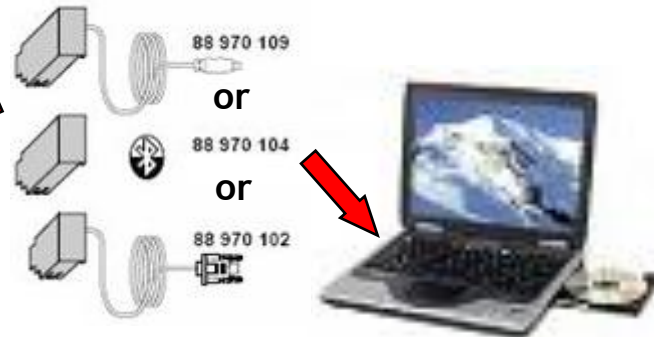
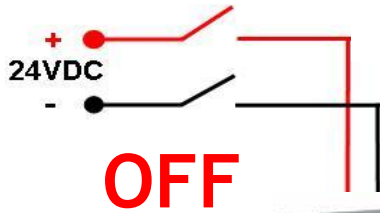




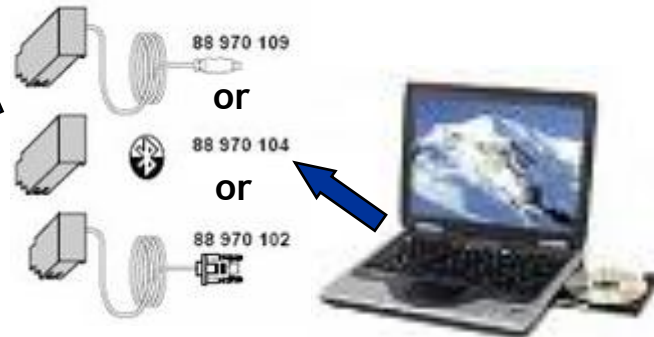
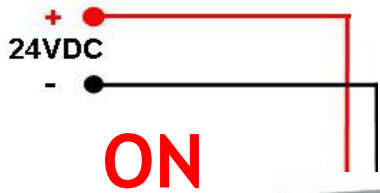
# Wiring for program transfer PC ⇒ M3



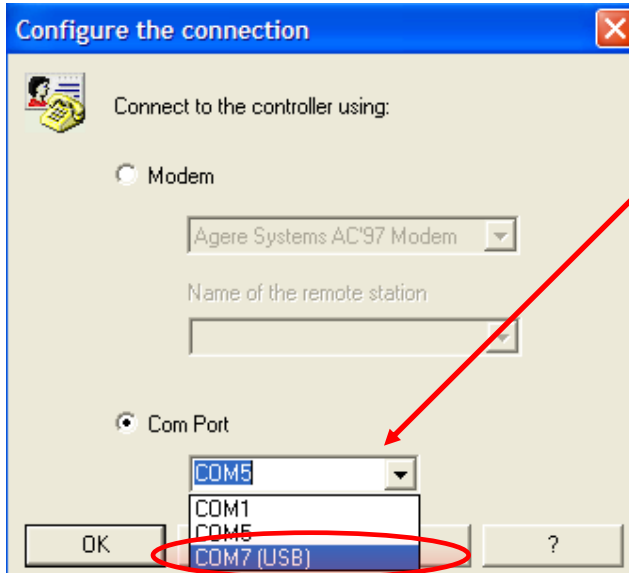
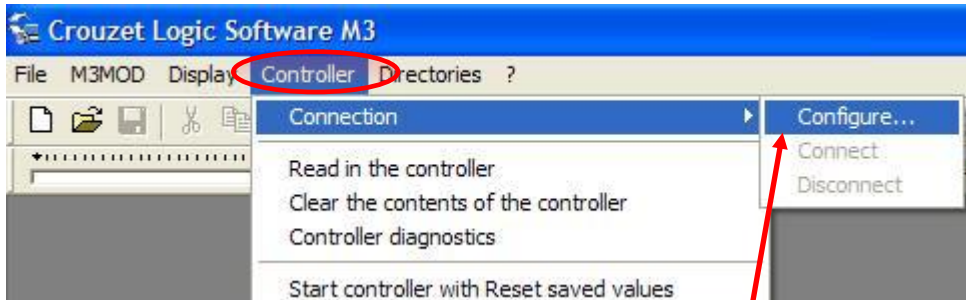
*The power must be disconnected whenever inserting or extracting the M3 programming cable!*



# Program transfer PC ⇒ M3



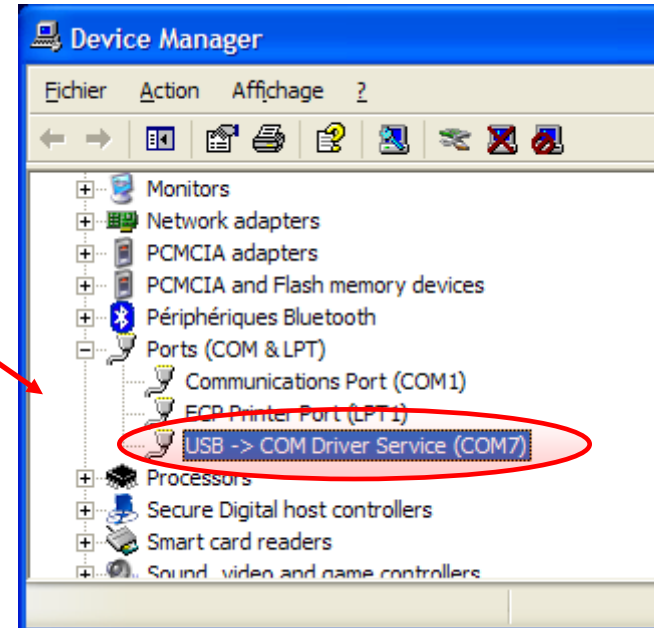
# Connection configuration



Tick here

Enter the COM-port according to the information in the Device Manager

Tick OK



# Transferring the program PC ⇒ M3



Tick here to start the video.

Crouzet Logic Software M3 - [QuickProg.pm3 - Edit\*]

File Edit Mode M3MOD Display Tools Controller Options Directories Draw Window ?

100%

Titre - Auteur - V: 0.0 PROGRAM CD12S 24VDC

SFC LOGIC OUT

DI AI 1 0 NUM 1sec ESC OK

11 12 13 14 1B 1C 1D 1E 01 02 03 04

SLIn = par MTP  
SLIn = from MTP

SLOut = vers MTP  
SLOut = to MTP

1

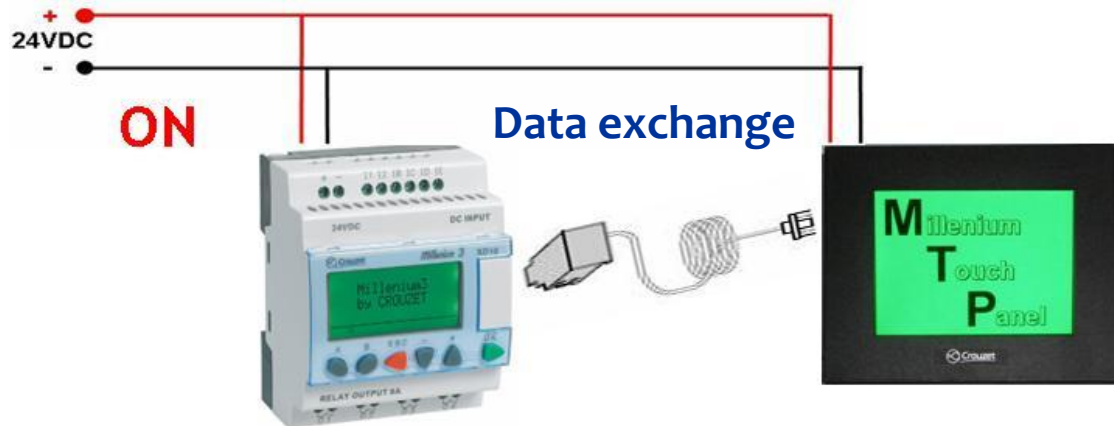
Les zones d'échanges entre M3 et l'écran MTP utilisent le bloc fonction SLIn et SLOut :  
 SLIn : jusqu'à 3 blocs de 8 mots / adresses, slin1-8, slin9-16 et slin17-24;  
 mots d'entrées écrits par MTP  
 SLOut : jusqu'à 3 blocs de 8 mots / adresses, slout25-32, slout33-40 et slout41-48;  
 mots de sorties écrits par M3

The exchange between M3 and MTP is done using the SLIn and SLOut function blocks :  
 SLIn : up to 3 blocks with 8 words / adresses each, slin1-8, slin9-16 and slin17-24;  
 words written by MTP  
 SLOut : up to 3 blocks with 8 words / adresses each, slout25-32, slout33-40 and slout41-48;  
 words written by M3



# Wiring for use / data exchange Reminder

*The power must be disconnected whenever inserting or extracting the Millennium3 - MTP05 data exchange cable!*



# • Commissioning an M3 - MTP05 program example

## Description of the program:

Read/write word and bit between M3 and MTP05.

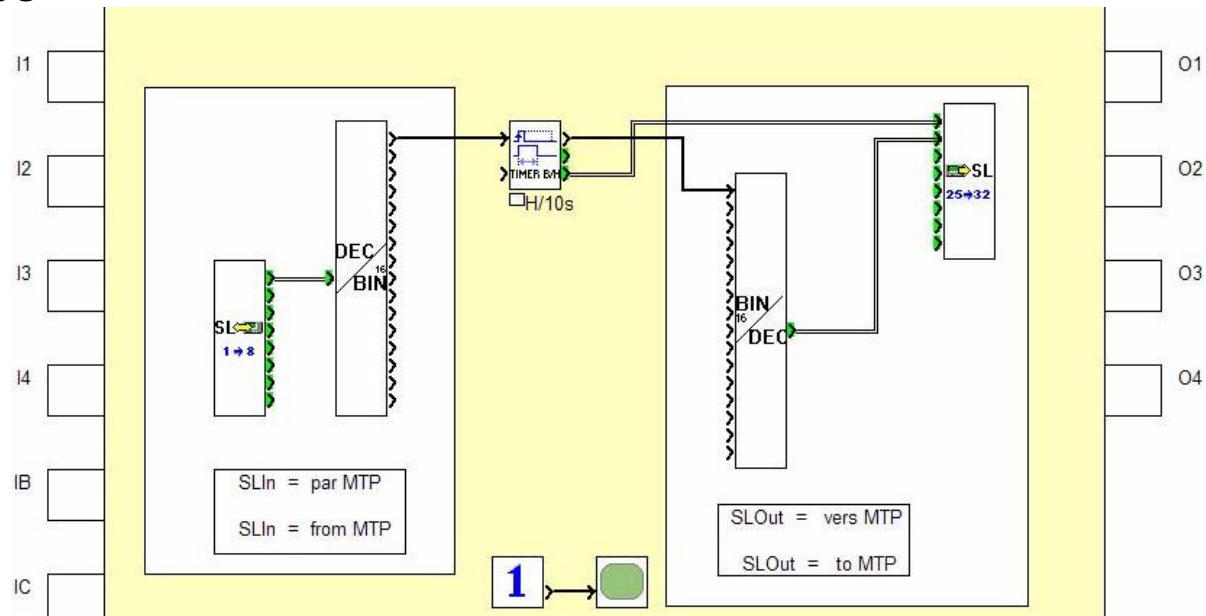
- Read a word by MTP05
- Read a bit by MTP05
- Write a bit to M3

### Links:

**QuickProg.pm3**

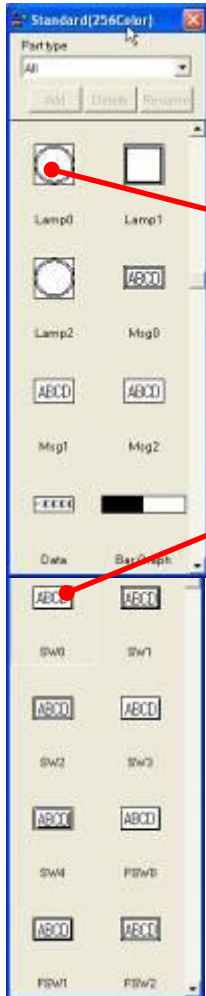


**QuickProg.IOP**

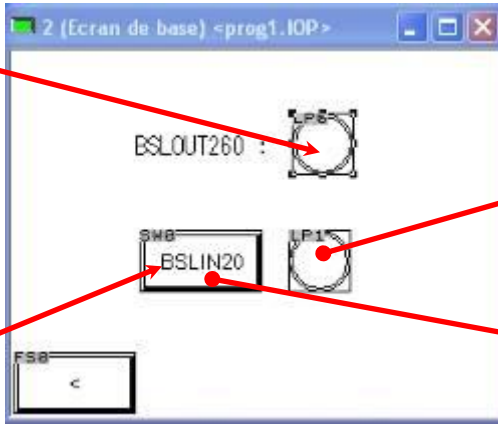




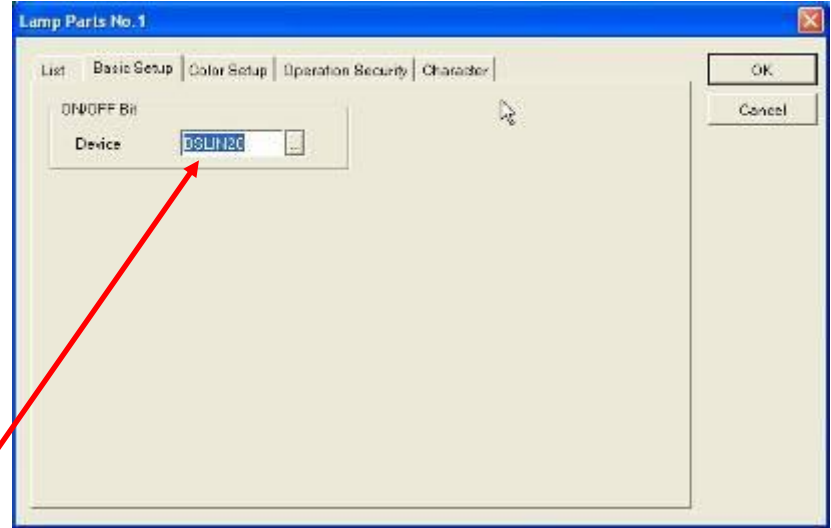
• Read / write bit



1



2

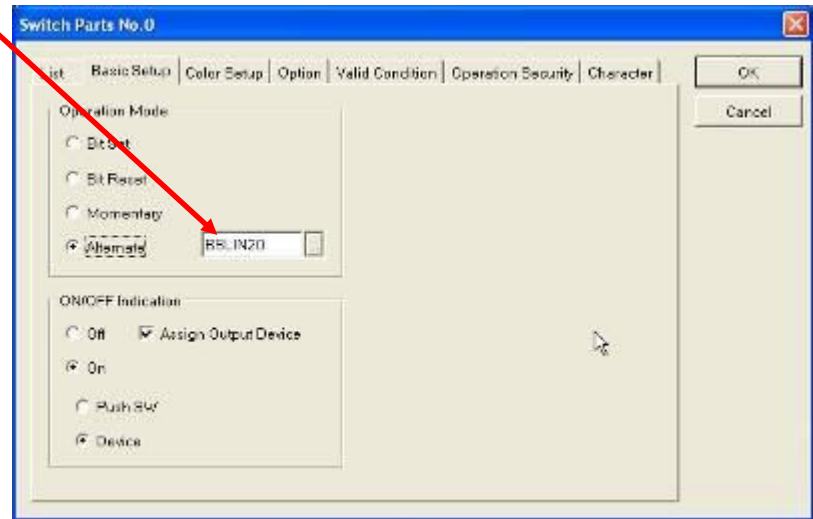


Double click on the parts to open the parameter windows

1

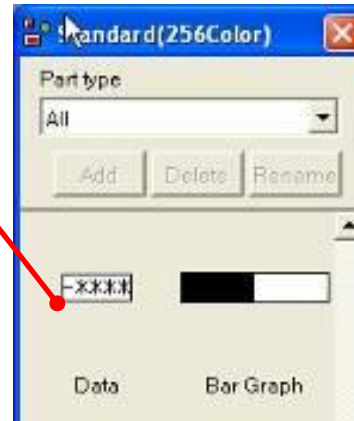
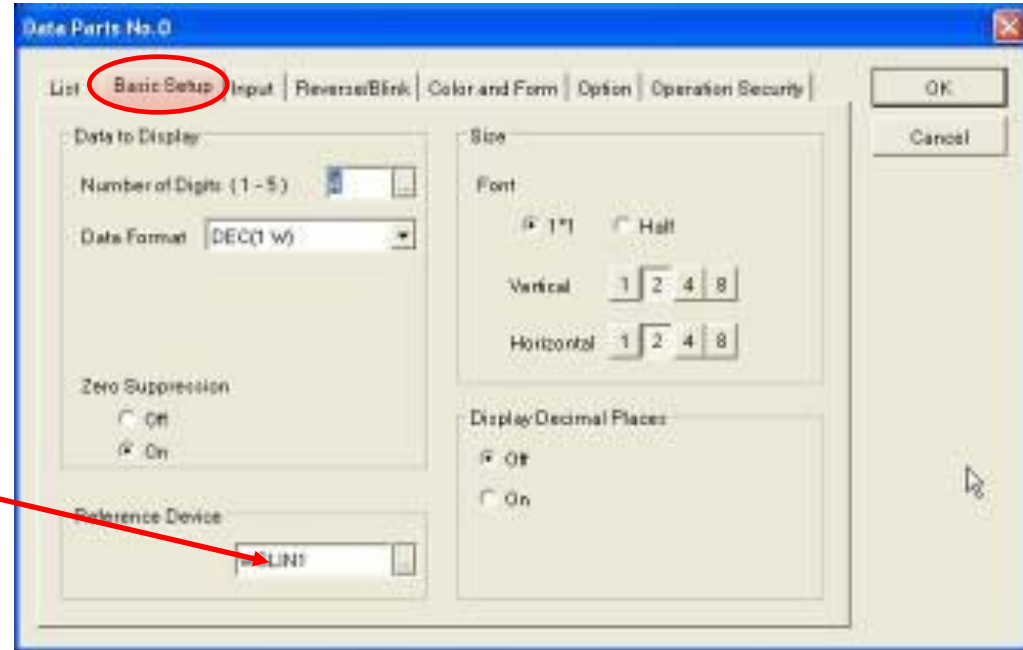
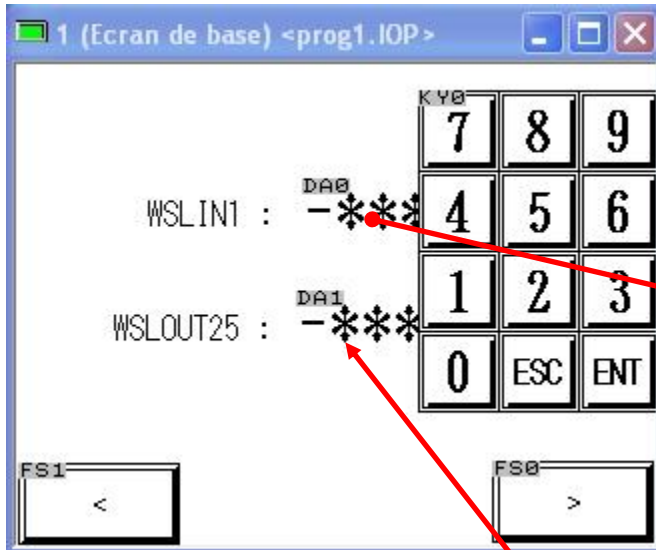
Drag and drop:  
- Lamp  
- Switch

2





# • Read / write word



# • Read / write word

Here one enters the part number of the keyboard that has been placed on the screen.  
(Or, if there are several, the keyboard that is to be linked to the data entry.)

## • Recipe management



- Control area
- Read/write word
- Read/write bit

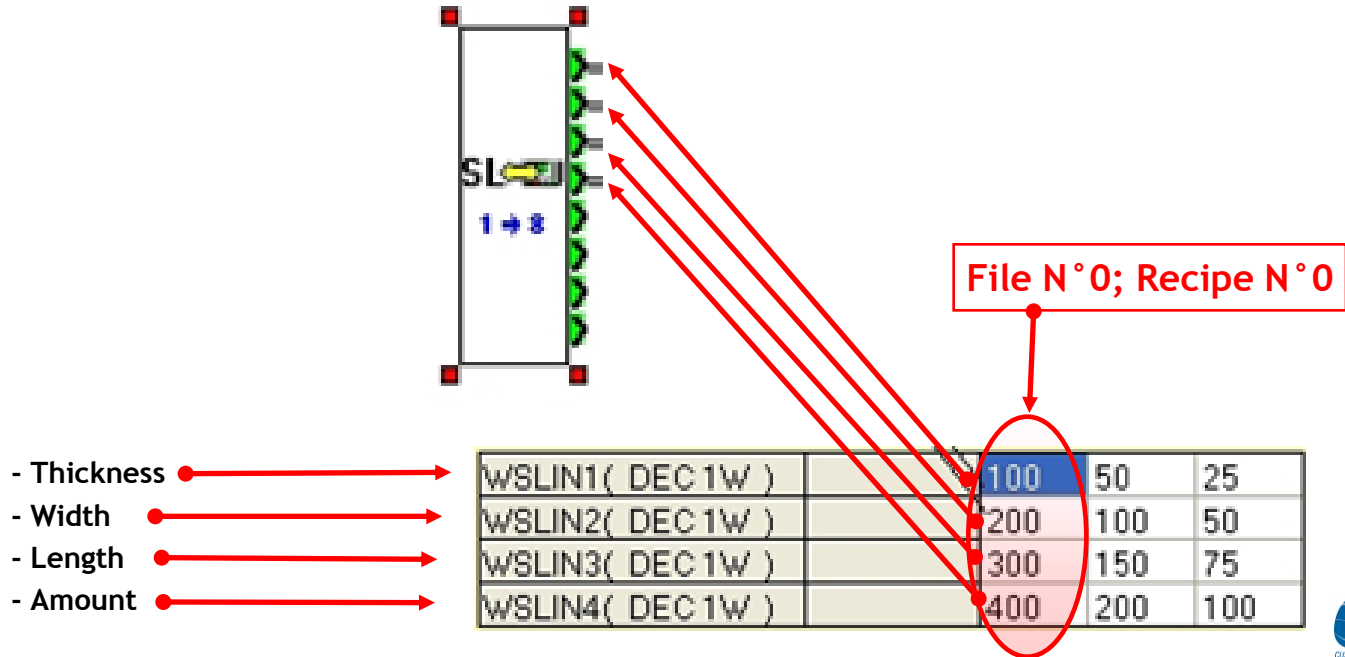
**A recipe is a group of parameters that belong together.**

**Description of a recipe:** A machine produces parts with different dimensions in different amounts. The parameters and amounts for each part, called recipes, are sent to Millenium3 by the MTP05 when a new production batch is started.

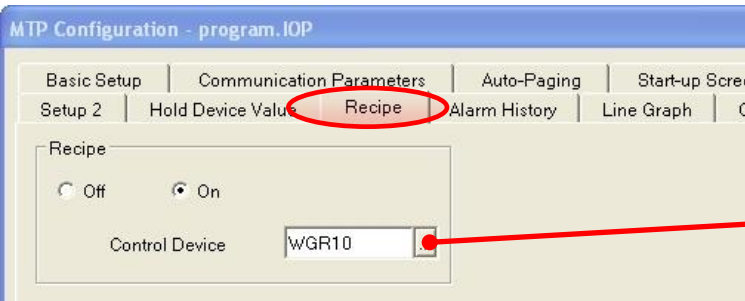
An example: - Thickness

- Width
- Length
- Number of pieces

All parameters should be sent simultaneously to Millenium3. By using MTP05 one can imagine to have several recipes (parameter groups). One can create an Excel table which can be imported by the MTPWIN software, allowing to transfer these recipes (parameter groups) to the MTP05 screen and from there to Millenium3.



## The M3 pilot area, adjustable:

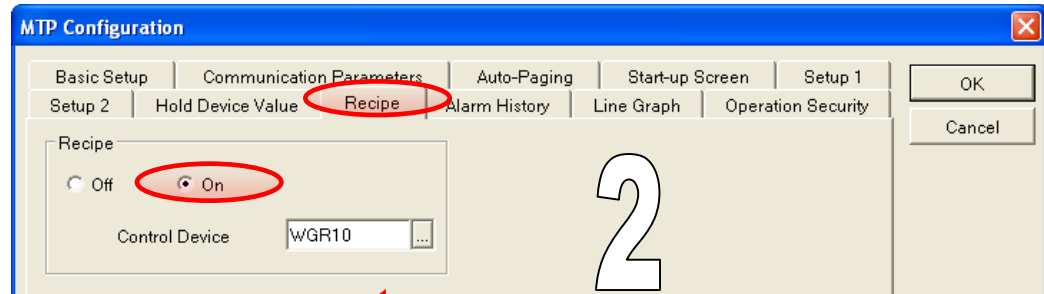


Recipe management																
WORD/BIT	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0
n														Delete recipes on MTP05		Write from MTP05 to M3
n+1	<b>File n</b>															
n+2	<b>Recipe n</b>															
n+3	<p style="text-align: center;"><b>Error code N :</b></p> <p>0: No errors            1: The file number was not indicated            2: The recipe number was not indicated            3: Insuffisant memory</p>															

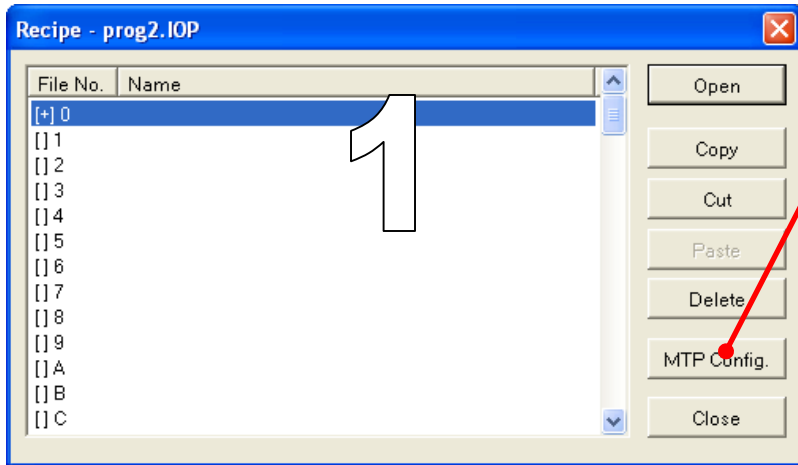
Recipe control register (example)	
Example on	WGR10
File N	WGR11
Recipe N	WGR12
Error code	WGR13
Write to M3	GR100

# • Creating recipes 1

Menu: Start editor ⇒ Recipe



Double click



# Creating recipes 2

Menu: Start editor ⇒ Recipe

Recipe - prog2.IOP

File No.	Name
[+] 0	
[ ] 1	
[ ] 2	
[ ] 3	
[ ] 4	
[ ] 5	
[ ] 6	
[ ] 7	
[ ] 8	
[ ] 9	
[ ] A	
[ ] B	
[ ] C	

Buttons: Open, Copy, Cut, Paste, Delete, MTP Config., Close

**2** Double click

File No.0

Title: Eng

Device(Data Format)	Comment	No.0	No.1	No.2
WSLIN1( DEC1W )		100	50	25
WSLIN2( DEC1W )		200	100	50
WSLIN3( DEC1W )		300	150	75
WSLIN4( DEC1W )		400	200	100

Buttons: OK, Cancel, Form, Insert Data Set, Add Data Set, Delete Data Set, Insert Recipe, Delete Recipe, Import, Export

**5** Enter values manually

Form

Data/Recipe Setting | Entry Device Setting

Recipes (Columns) 1 (1 - 100)

Data Sets (Rows)

Entry Device Number (1 - 100)

**3**

Form

Data/Recipe Setting | Entry Device Setting

Number Continuously:  Off  On

Comment: Eng

Data Format: DEC(1 W)

Device: WSLIN1

Buttons: OK, Cancel

**4**



# Recipe management

## Commissioning an M3 program example

Program description:

### Recipe management

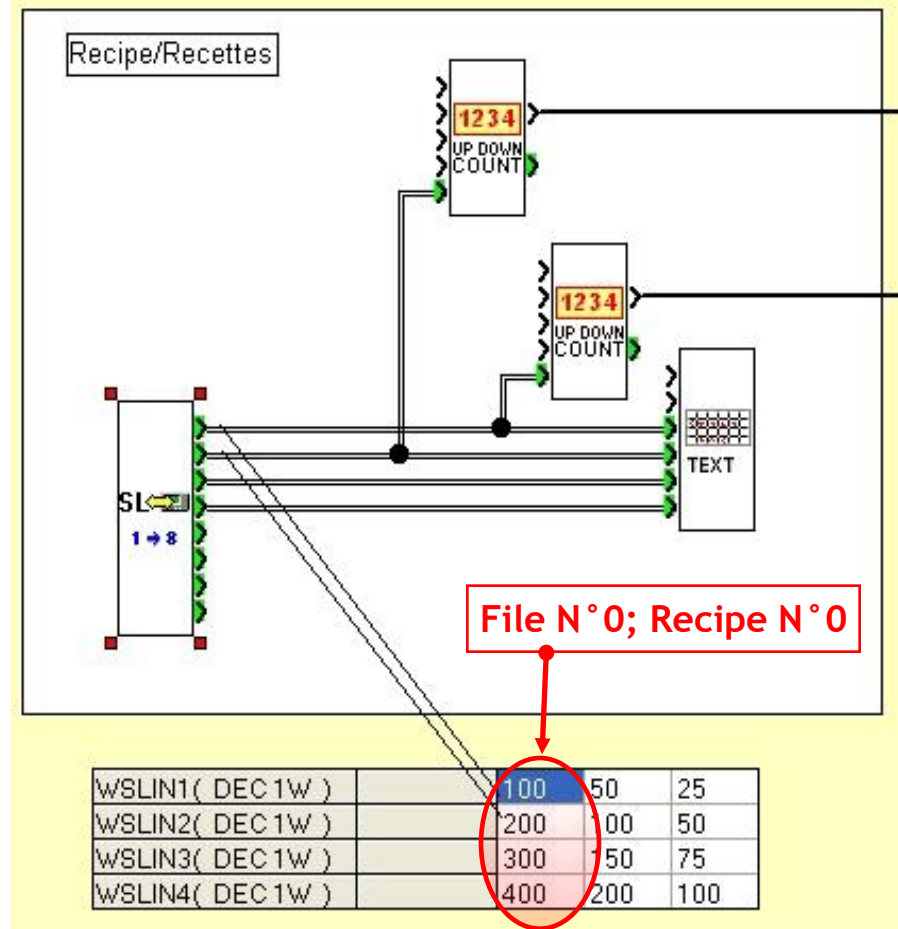
Preselect values for counters sent by MTP05.

#### Links:

REC.pm3

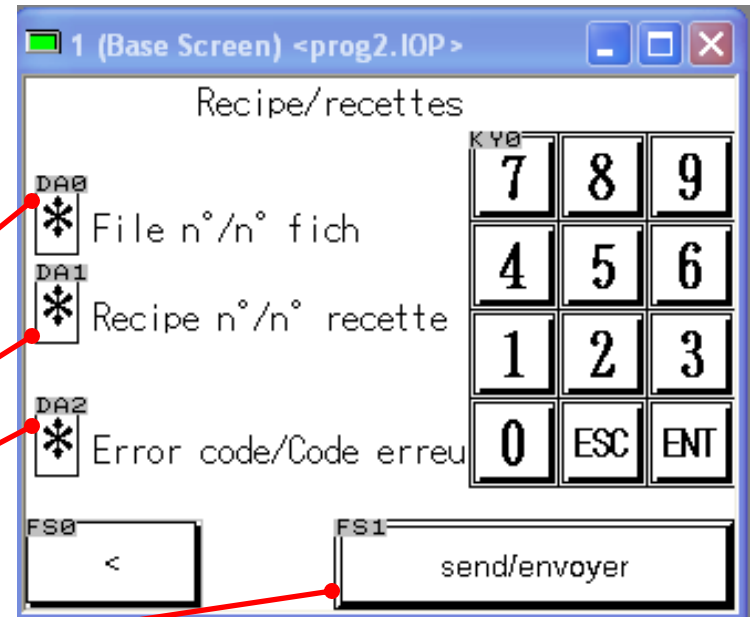


recettes.IOP

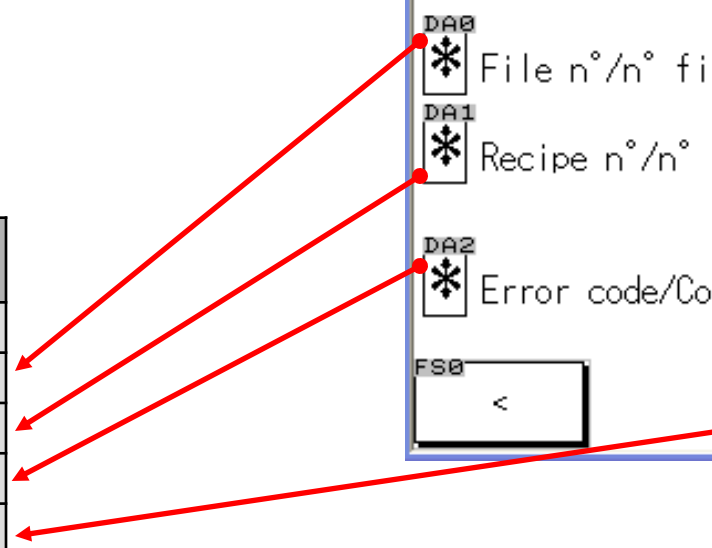


# • Recipe management

## • Commissioning an M3 program example



Recipe control register (example)	
Example on	WGR10
File N	WGR11
Recipe N	WGR12
Error code	WGR13
Write to M3	GR100



## • Alarms



- Program example
- Settings
- Configuration

# Alarm management

## Program description:

Manage M3 alarms.

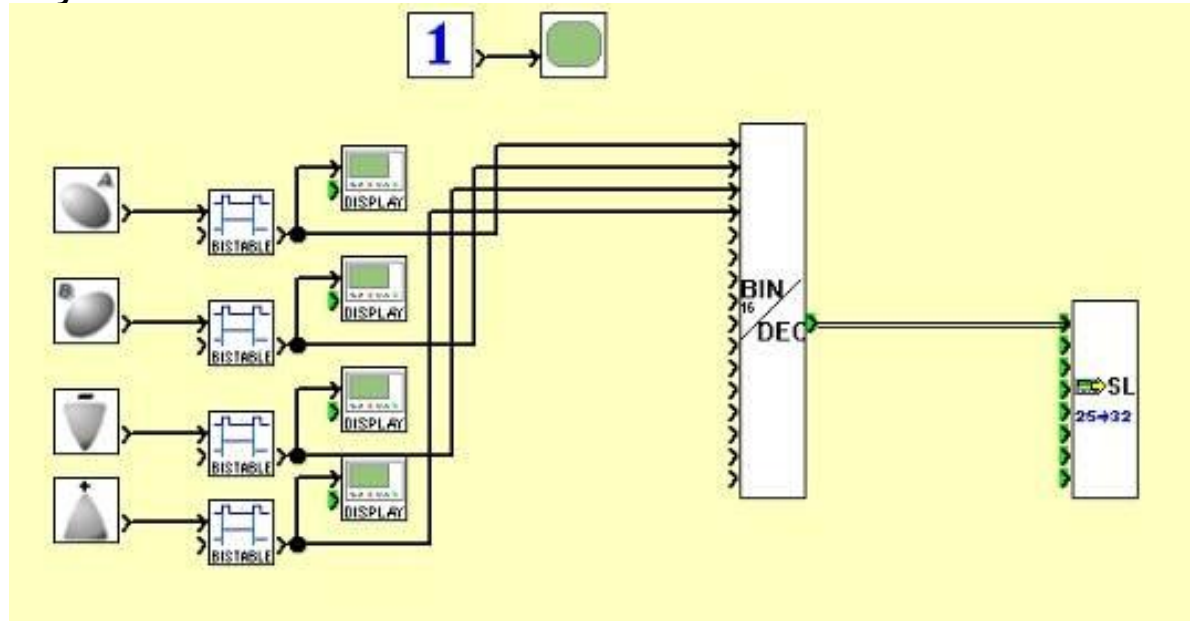
- Activate alarms with the keys of the M3.
- Alarm history
- Alarm supervision

### Links:

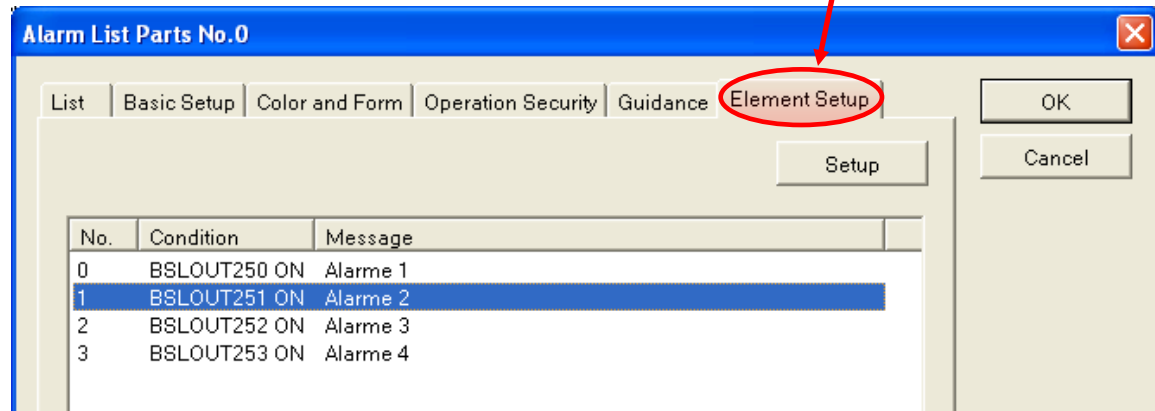
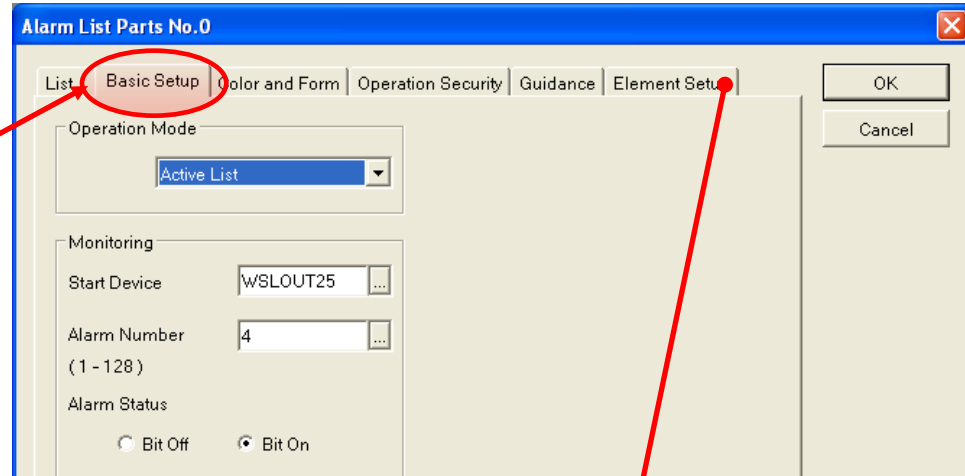
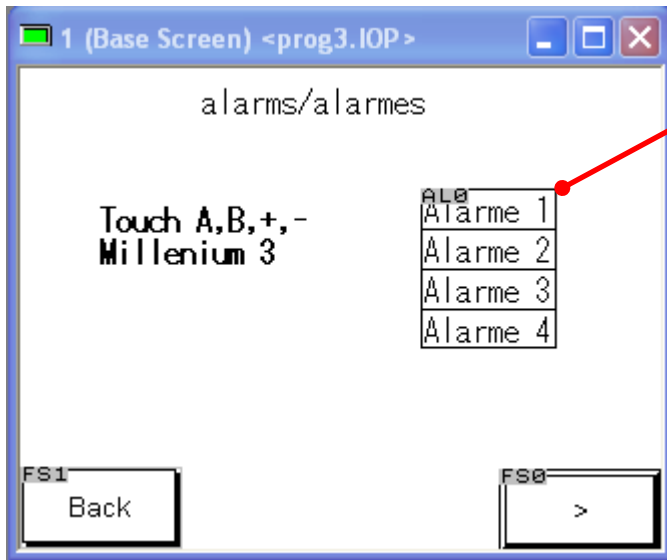
[ALARM.pm3](#)



[allarm.IOP](#)



# Alarm management 1



## Alarm management 2

Function Switch No. 1

List: **Basic Setup** | ON/OFF Display | Color Setup | Option | Valid Condition | Operator

Operation Mode

- Change Screen
- Value Set
- Add
- Subtract
- Change to MTP Configuration
- Thumbwheel SW
- Back to Previous Screen
- To Operate Alarm Parts
- For Operation Security Function

Alarm Format

- Cursor up per Line
- Cursor up per Page
- Cursor down per Line
- Cursor down per Page
- Acknowledge
- Display Guidance
- Delete

OK Cancel

2 (Base Screen) <prog3.IOP>

ALB

MM/dd 24:00:00	Trig	Alarme 1
MM/dd 24:00:00	Trig	Alarme 2
MM/dd 24:00:00	Trig	Alarme 3
MM/dd 24:00:00	Trig	Alarme 4

FS1 Up FS2 Down FS3 Ack FS4 Del

FS5 Back

### MTP Configuration - prog3.IOP

Basic Setup | Communication Parameters | Auto-Paging | Start-up Screen | Setup 1

Setup 2 | Hold Device Value | Recipe | **Alarm History** | Line Graph | Operation Security

No.	Name	Monitoring Start Device	Number of Monitor Alarms	Alarm Status	Record Count	Rec
0	WSLOUT25		4	Bit ON	160	T
1						

Alarm History Control

Off  On

Configuration

- MTPWIN Configuration
- MTP Configuration



# Alarm management 3

**Alarm List Parts No.0**

List Basic Setup Color and Form Operation Security Guidance Element Setup

Setup OK Cancel

No.	Condition	Message
0	BSL0UT250 ON	Alarme 1
1	BSL0UT251 ON	Alarme 2
2	BSL0UT252 ON	Alarme 3
3	BSL0UT253 ON	Alarme 4

**2 (Base Screen) <prog3.IOP>**

```

ALB
MM/dd 24:00:00 Trig Alarme 1
MM/dd 24:00:00 Trig Alarme 2
MM/dd 24:00:00 Trig Alarme 3
MM/dd 24:00:00 Trig Alarme 4
  
```

FS0 FS1 FS2 FS3 FS4

Up Down Ack Del

FS0 Back

**Message**

Message

Fixed (MTPWIN)  True Type (MTPWIN)

Alarme 1 Eng OK Cancel

- **Pilot MTP05 by M3**

- Example
- Configuration « Basic Communication Area »



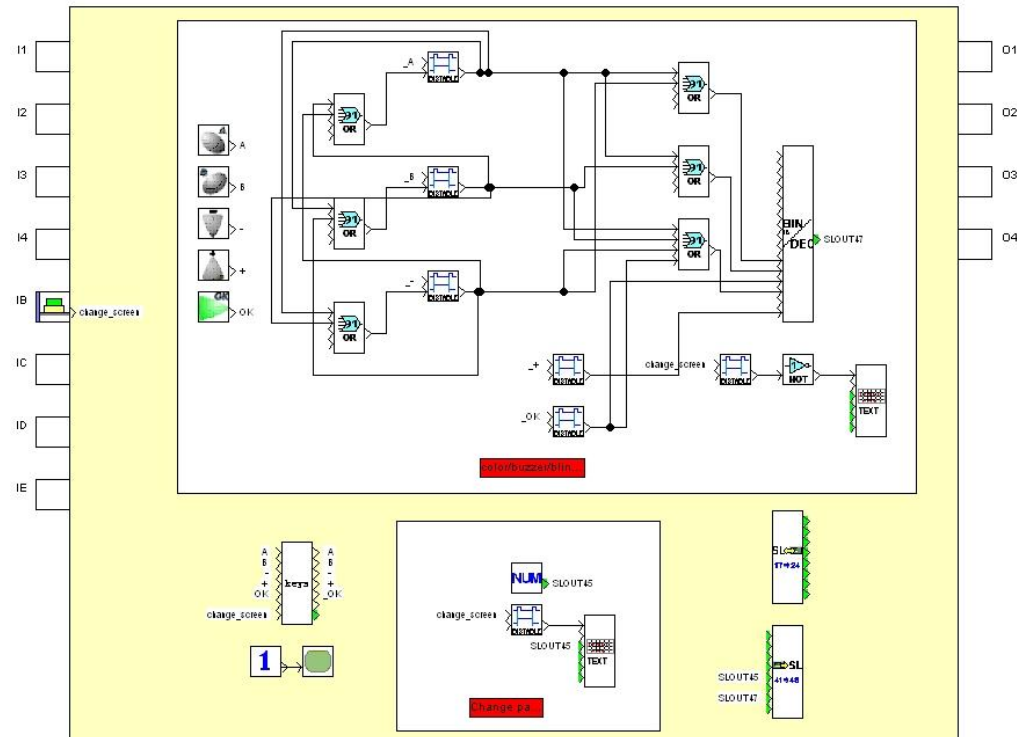
- Communication buffer, Status M3, Clock M3
- Program description:
- Manage pages by M3.
- Buzzer activation with M3 keys.
- Manage MTP05 backlight colors with M3 keys.
- Activate flashing backlight with M3 keys.
- Read M3 status by MTP05.
- Read/write M3 clock

**Links:**

REG.pm3



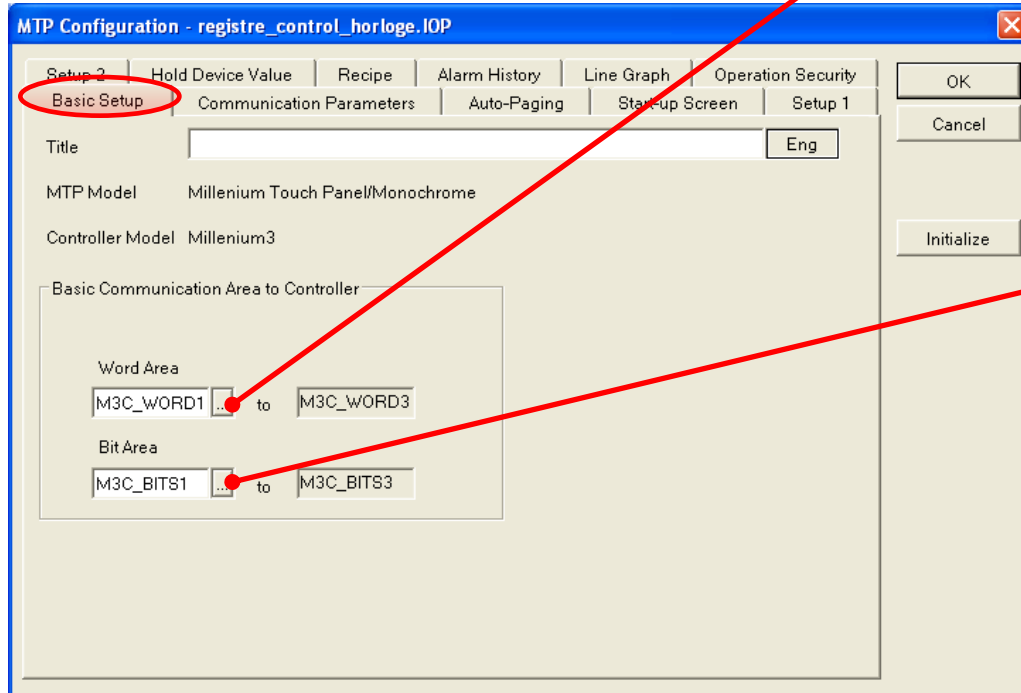
Registre\_de\_controle.IOP



• Page management using M3.

Buzzer activation using the M3 keys.

Managing the backlight color of MTP05 using the M3 keys.  
 Activate the flashing backlight using the M3 keys.



## • Read/write M3 parameters



- Read status
- Read/write M3 clock
- Clock
- Change screen (see M3 and MTPWIN programs)

### Links:

REG.pm3



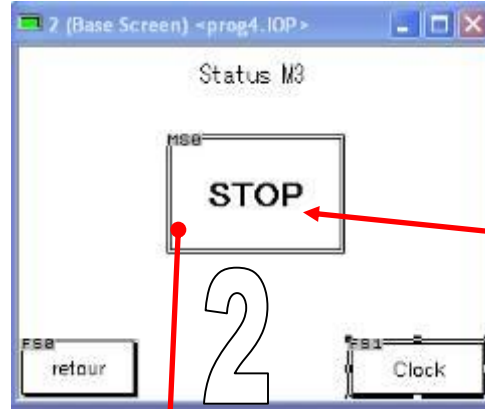
Registre\_de\_controle.IOP



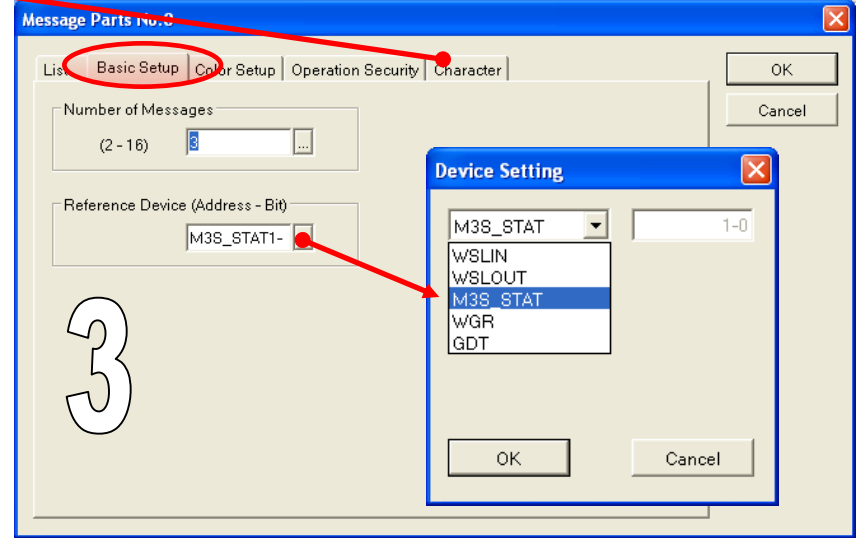
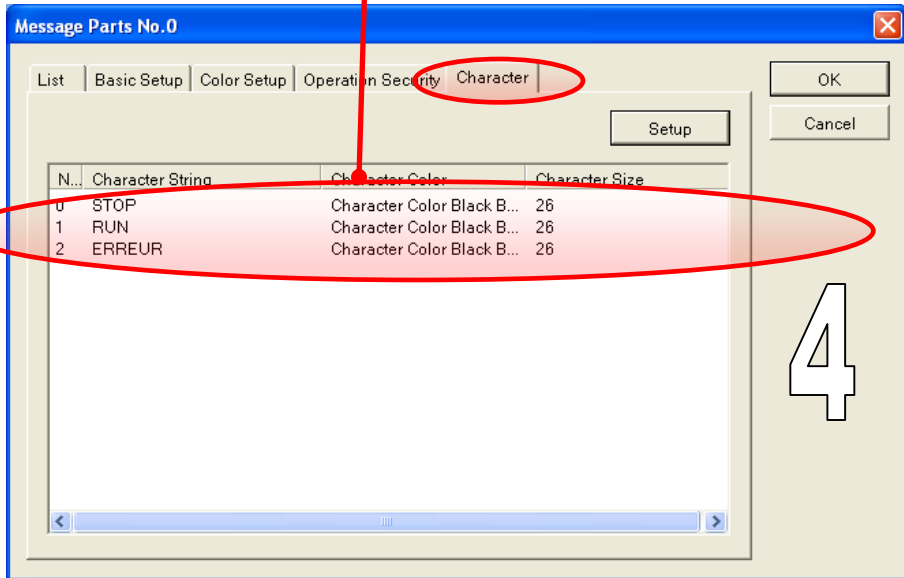
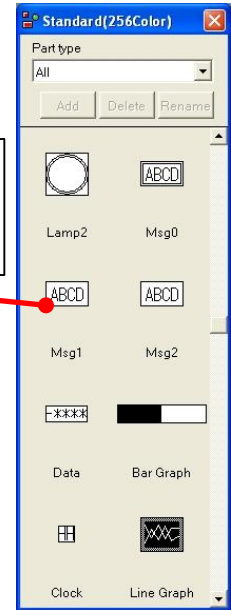
# Read M3 status

Reading the status is used to see if M3 is running, has stopped or shows an error.

0	STOP	Character Color Black B...	26
1	RUN	Character Color Black B...	26
2	ERREUR	Character Color Black B...	26



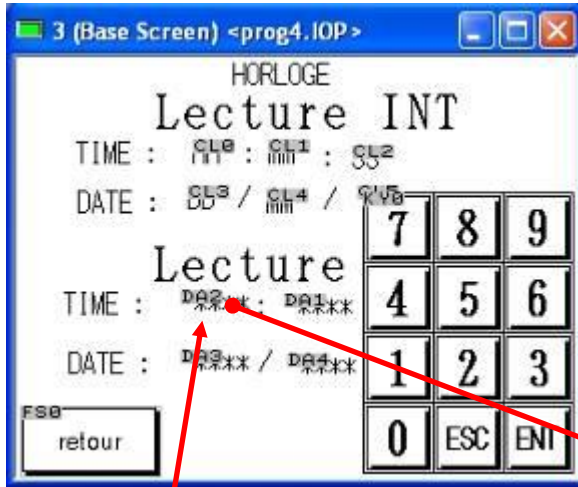
1



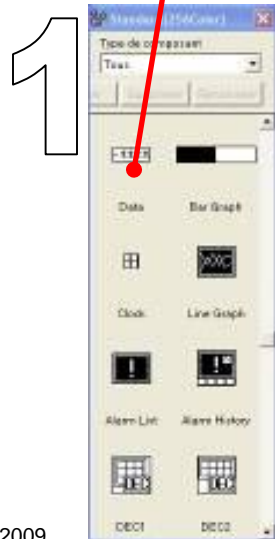


# • Read/write M3 clock

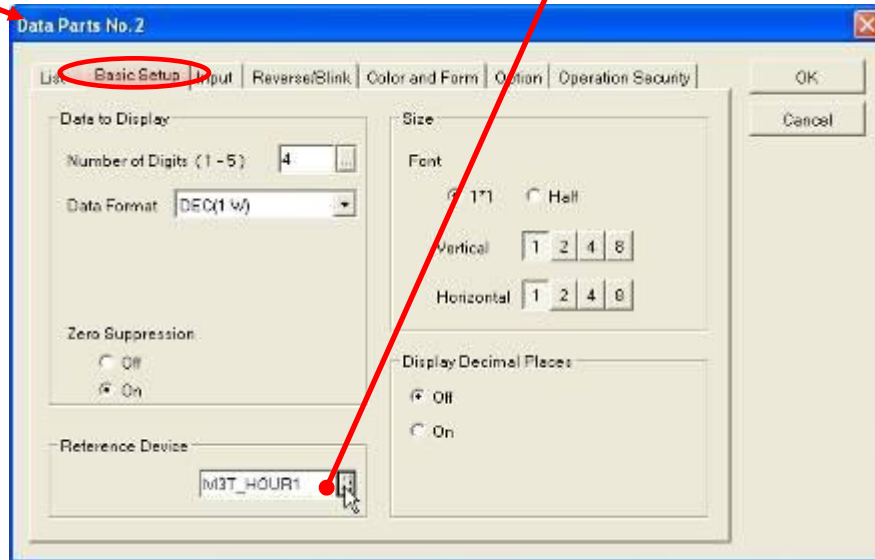
The example shows how to read the clock of Millenium3



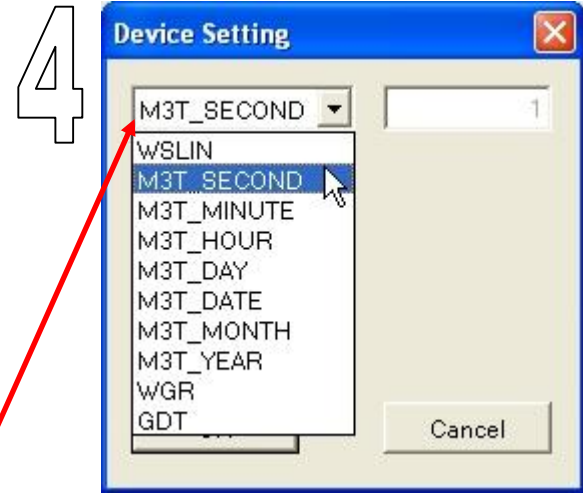
2



1



3



4

## • Internal MTP05 clock

The example shows how to read the internal MTP05 clock

The screenshot shows the 'Clock Parts No. 3' configuration window with the 'Basic Setup' tab selected. The 'Clock' dropdown is set to 'Day'. A red arrow points from this dropdown to a terminal window titled 'Standard(256Color)'. The terminal displays the following data:

```

CLOCK/HORLOGE
Read INT
TIME : CL0 : CL1 : CL2
DATE : CL3 / CL4 / CL5

Read M3
TIME : DA0** : DA1** :
DATE : DA2** / DA4** /

K.V8
7 8 9
4 5 6
1 2 3
0 ESC ENT
    
```

The terminal also shows a 'FSB menu' button at the bottom left. The 'Standard(256Color)' window on the right shows various graphical options like 'Data', 'Bar Graph', 'Line Graph', 'Alarm List', and 'Alarm History'.

## • REMINDERS

### Changing a page

To control the MTP05 with the keys, in- or outputs of M3 one has to use SLOut function blocks.

#### **Parameters in the M3 program:**

Buzzer activation, changing the backlight color or flashing is done on word SLOut47, bits 11,12,13,14 and 16.

---

To realise switching a screen page use word SLOut45.



The block SLIn17-24 must be present in the M3 program.

[Link to parameters: page 22](#)

## • Line Graph



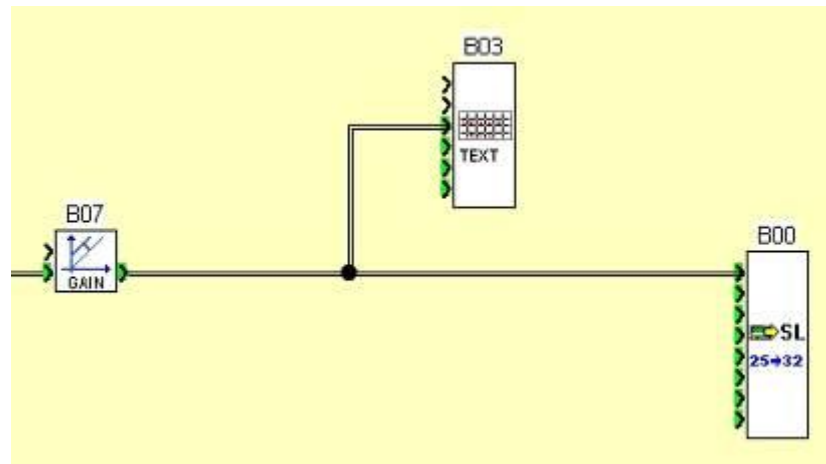
- Program example
- Configuration
- Bargraph

- **Line Graph**
- Program description:
  - Create a line graph using values from M3.
  - Show a bargraph.
  - Change the line graph by turning a potentiometer. (WSLOUT25).

**Links:**

**Line\_graph.pm3** 

**courbes.IOP** 



Back to page 32

# • Line Graph 1

Go to: File ⇒ MTP Configuration ⇒ Line Graph

The screenshot shows the 'MTP Configuration - courbes.IOP' window. The 'Line Graph' tab is selected and circled in red. A red arrow points from this tab to the 'Sampling Settings for Line Graph' dialog box. The dialog box has two main sections: 'Sampling' and 'Record Area'. The 'Sampling' section includes options for 'Sampling' (On/Off), 'Name' (WSL0UT25), 'Start Device' (WSL0UT25), 'Data Format' (DEC 1 W, BCD 4 Digits, DEC 2 W, BCD 8 Digits), and 'Number of Lines' (1). The 'Record Area' section includes 'Number of Records for Each Line' (160) and 'Recordable Max Number' (14072). Large numbers '1' and '2' are overlaid on the dialog to indicate steps.

The 'Standard (MTP05 mono)' dialog box shows a 'Part type' dropdown menu with 'Line graph' selected. Below the menu are 'Add', 'Delete', and 'Rename' buttons. A red arrow points from the 'Line graph' icon to the next screenshot.

The 'Line graph / Courbes' display window shows a graph area with a grid. Below the graph is a numeric keypad with buttons for digits 0-9, 'ESC', and 'ENT'. A 'Menu' button is located at the bottom left. The text 'Value SLOUT25' and 'Preselect value: -\*\*\*\*\*' are visible. A red arrow points from the 'Line graph' icon in the previous dialog to this window.



## • Line Graph 2

3

0 (Ecran de base) <courbes.IOP>

Line graph / Courbes

Preselect value: <sup>DA1</sup> -\*\*\*\*

Menu Value: SL00T25 \*\*\*\*\*

Line Graph Parts No.0

List Basic Setup Display Operation Security **Element Setup** OK Cancel

List of Attributes

No.	Comment	Line Type/Color/Mark	Data Format	Max. Value	Min. Value
0		Full Line (Light) Black Off	DEC 1W Unsigned	WSLIN1	0

Setup

5

Line Graph Parts No.0

List **Basic Setup** Display Operation Security Element Setup OK Cancel

Method to Draw

Sampling  Block

Direction

Right  Left  Up  Down

Reference

Graph No. 0 Config.

Number of Lines 1

Stop Update

Off  On

Graph Type

Pen Move  Sheet Move

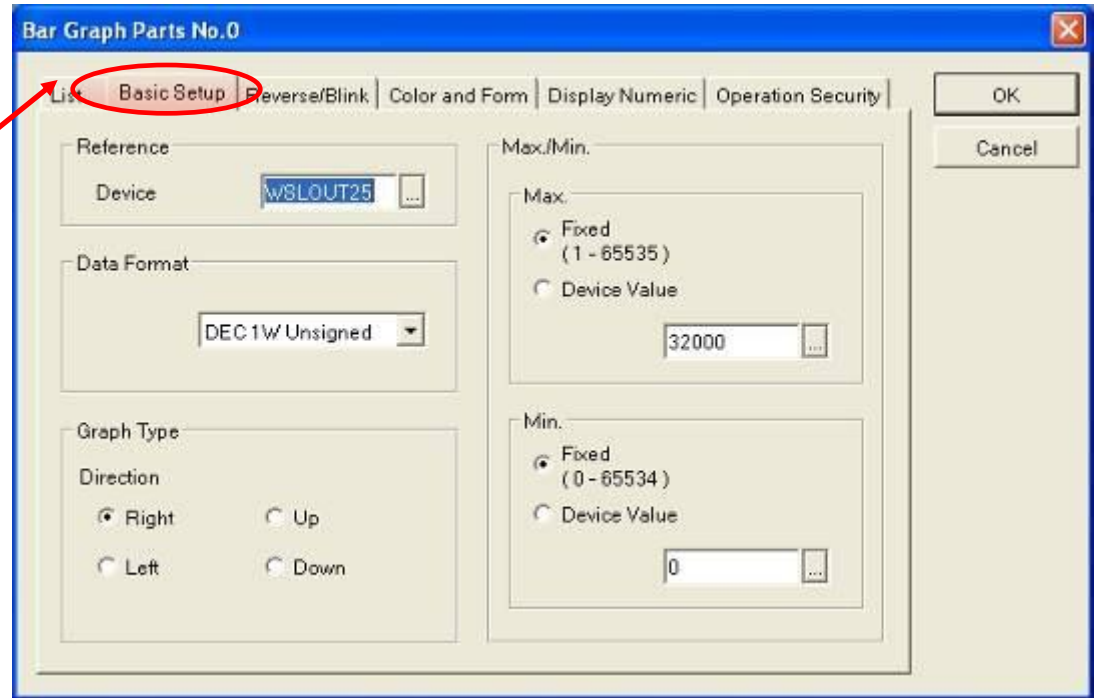
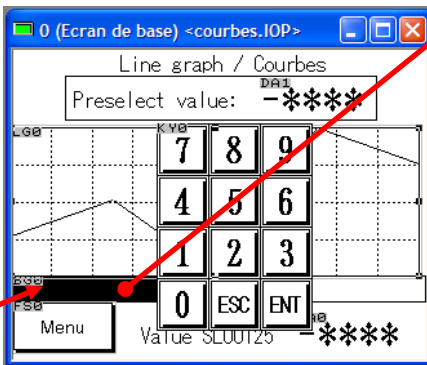
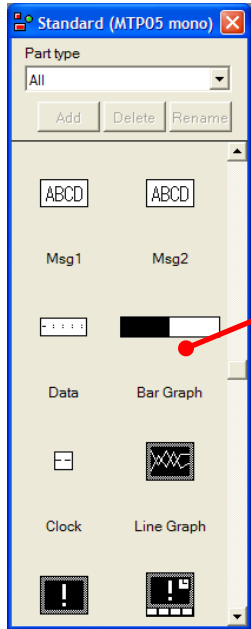
Number of Scrolls (1 - 80) 1


Plot Options

Number of Plots 80 (2 - 320)

4

# • Bargraph



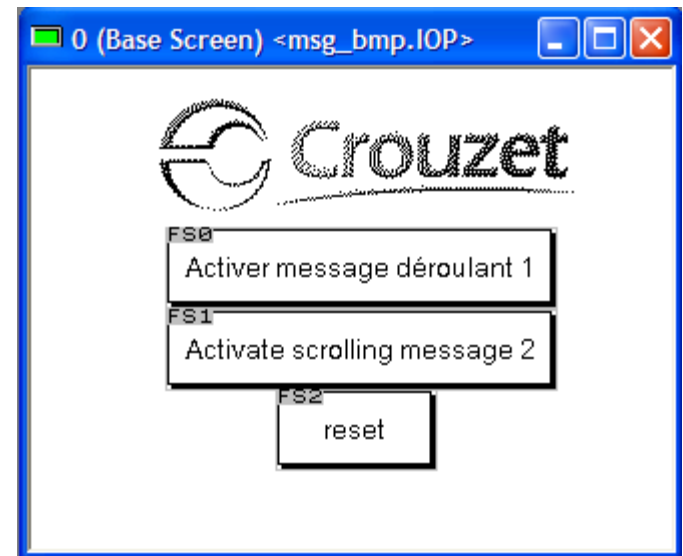
- **Other functions** 
  - **Example program**
    - **Bitmaps**
    - **Scrolling messages**
  - **Comparator**
  - **Password management**
  - **Data backup**

- **Bitmap and scrolling messages**
- Description of program:
- Insert a bitmap image
- Show scrolling messages

The scrolling messages are shown on all screens and are therefore not configurable per screen.

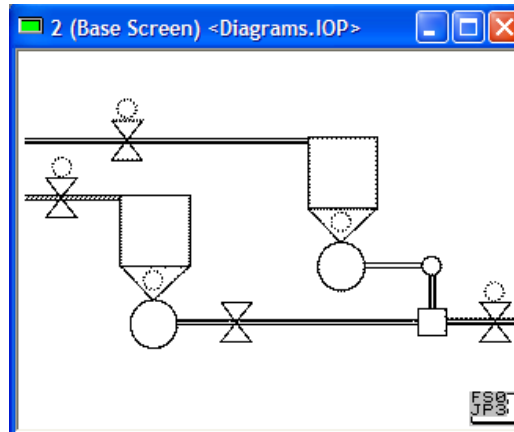
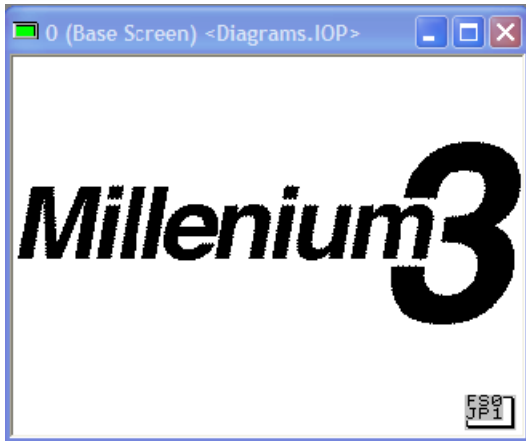
## Links:

[msg\\_bmp.IOP](#)



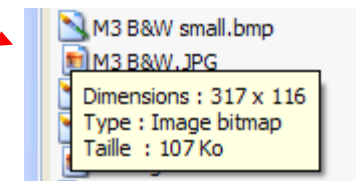
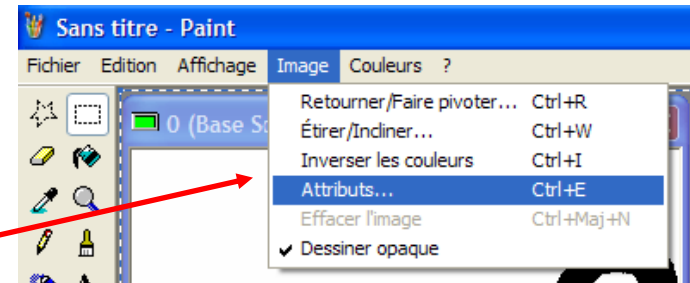
# • Bitmap 1

max. size 320x240 pixel



## How to create a Bitmap:

1. Draw the schematics of ones application using powerpoint, etc., (or directly in the MTPWIN software) or copy any picture / diagram into PowerPoint, redimension it, tick right, 'save as image', .bmp.
2. To verify the size, copy to Paint, tick 'Image', 'Attributes', or move the mouse over the saved image to activate the pop-up.
3. Copy and paste it into an empty MTP05 screen, or enter it into the MTPWIN Bitmap Library.

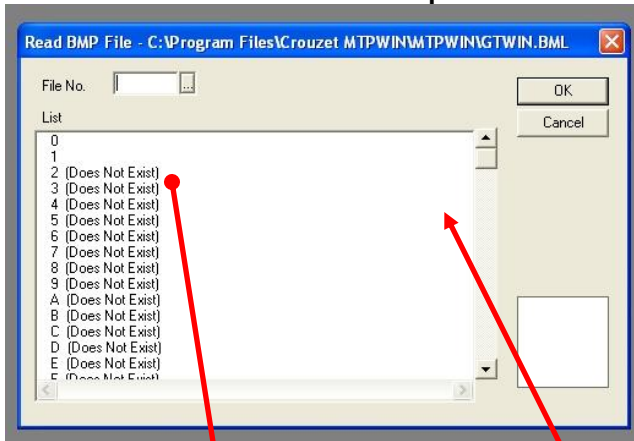


Black and white diagrams and pictures produce the best results.

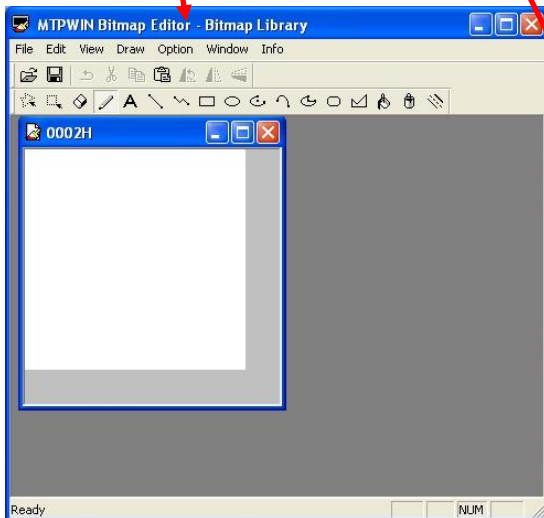
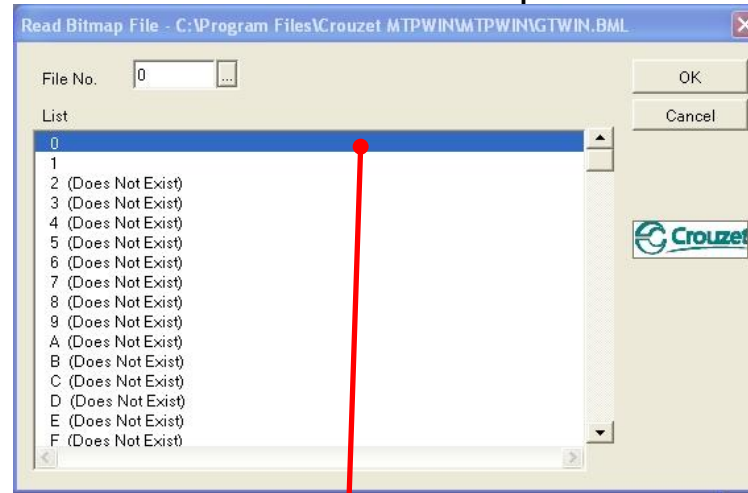
# • Bitmap 2

max. size 320x240 pixel

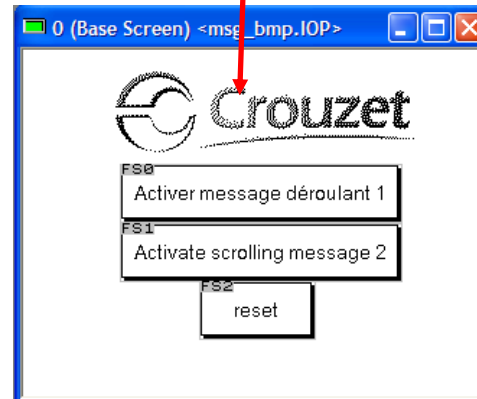
## Create bitmap



## Insert bitmap



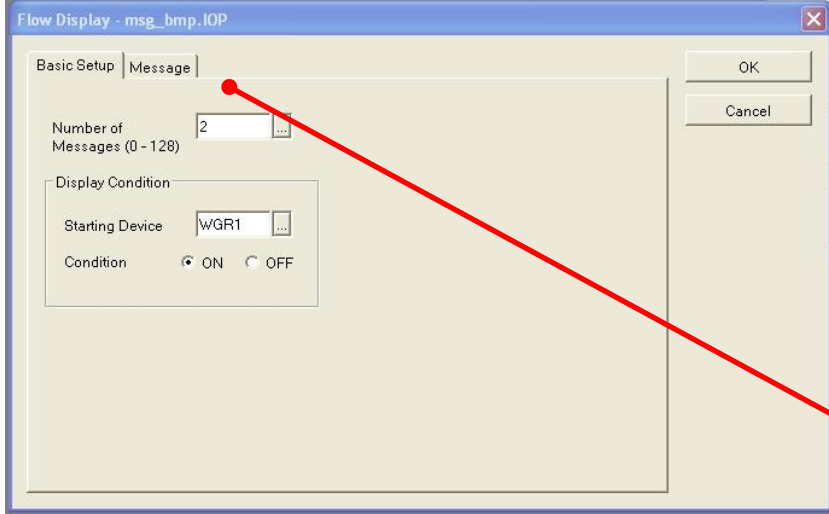
Create your own library of images, and you can use them in any program you make.



Bitmap Video

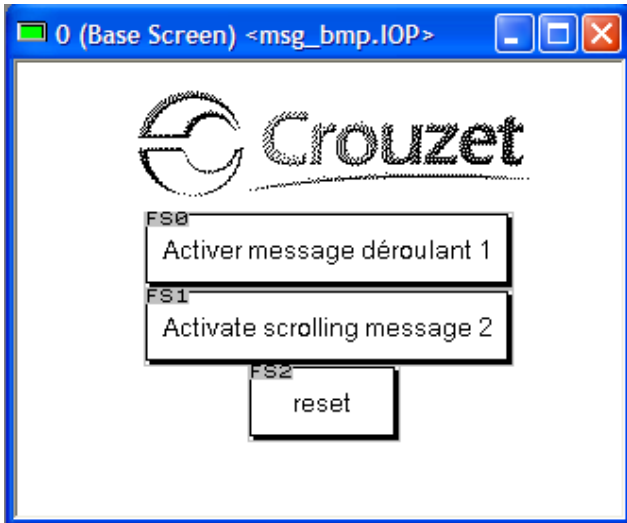
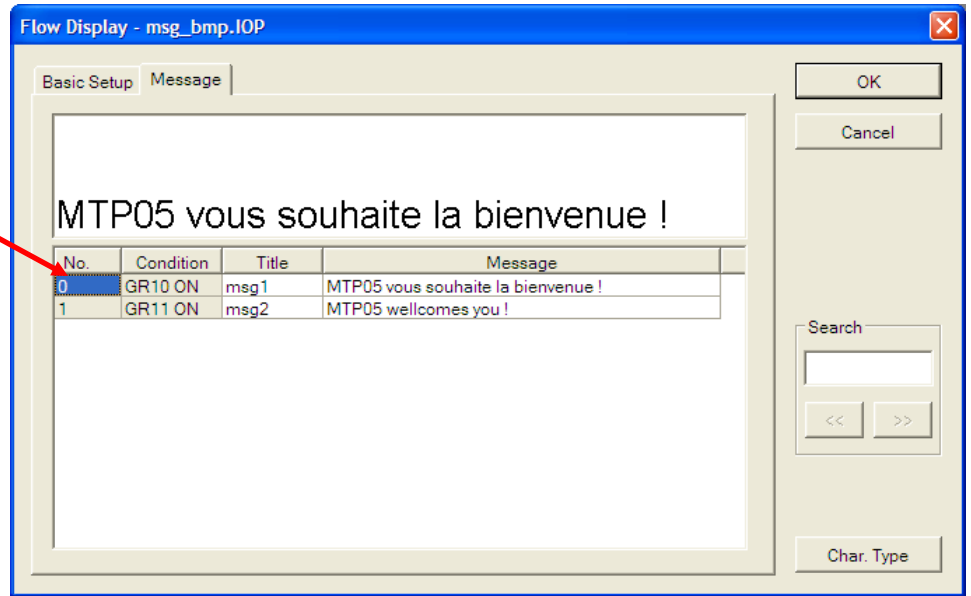


# • Scrolling messages



Go to: Start Editor ⇒ Flow Display

Message Video



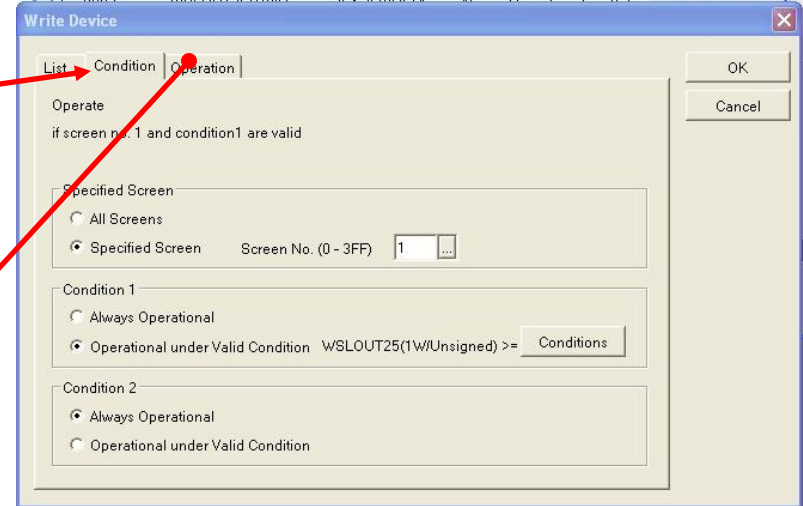
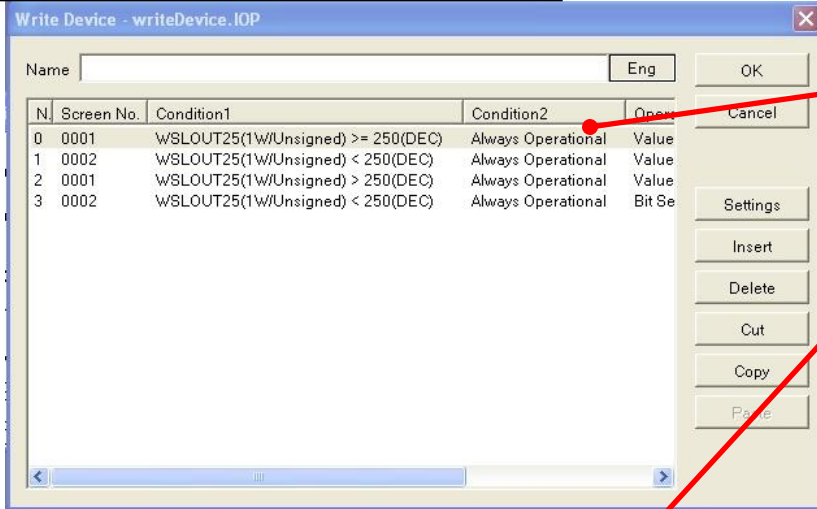
## Links:

[msg\\_bmp.IOP](#)

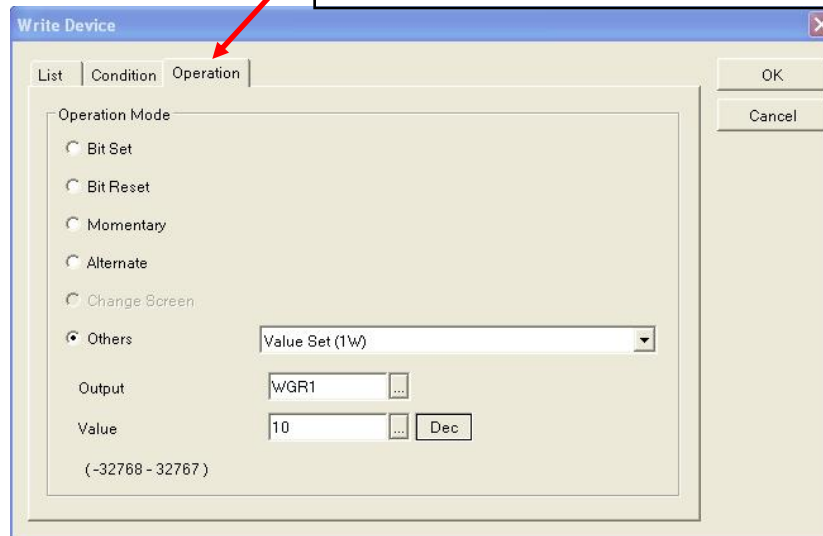
# • Comparator

Go to: Start Editor ⇒ Write Device

Click on « Condition »



Click on « Operation »



The « Write Device » will compare a value and, according to the result, carry out an operation on a word or bit. One can apply the comparator to a specific screen or to all screens of a program.

Write Device Video

Links:

[write\\_device.pm3](#)

[writeDevice.IOP](#)

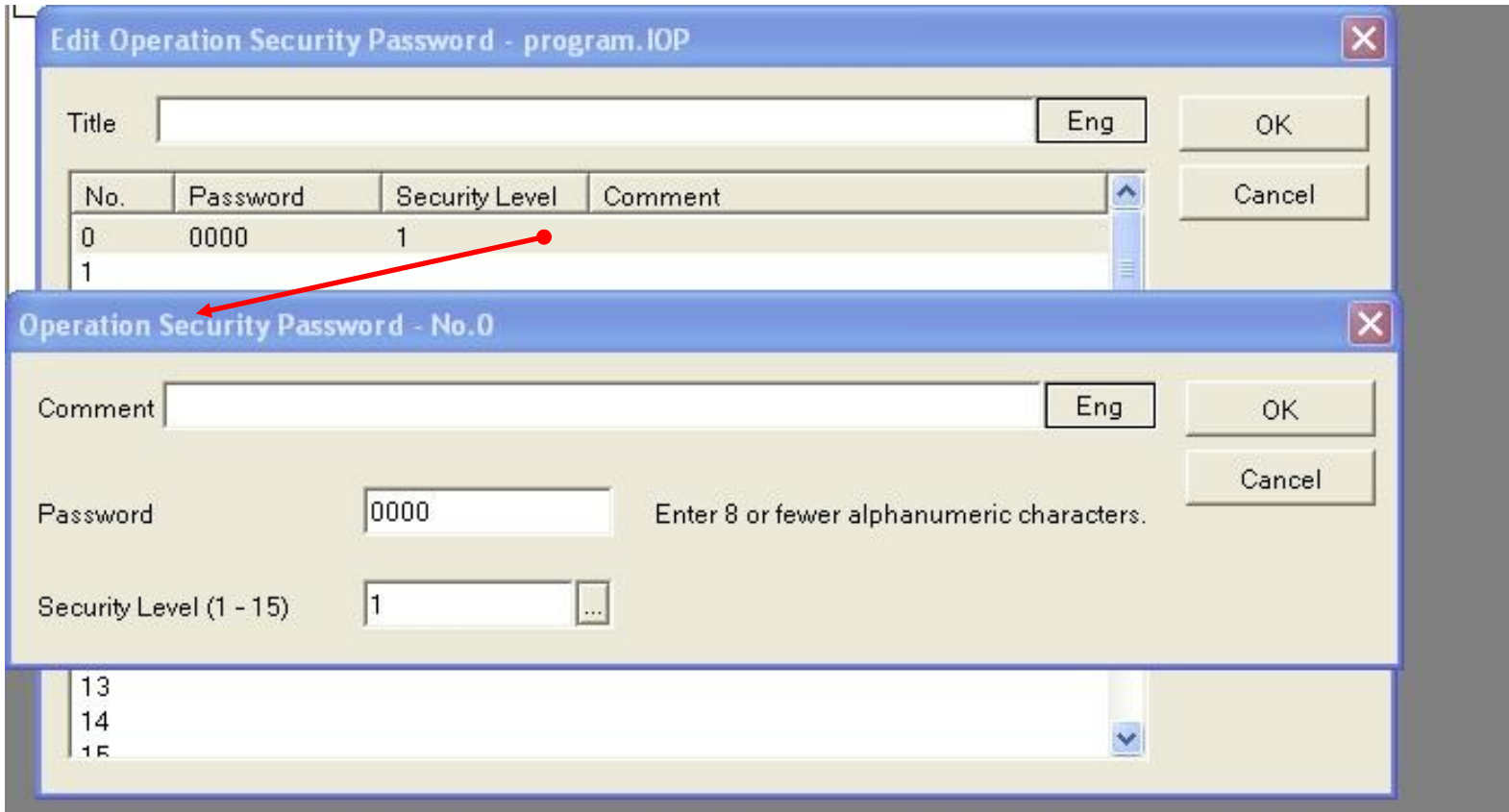


# • Password management

**Example:**  
To access level 4  
1 ⇒ 2 ⇒ 3 ⇒ 4

Password Video

The passwords can be used to secure certain parts or pages. One can set up several security levels. One has to pass through all previous levels in order to access the security level defined for a part/page.



The screenshot shows two overlapping dialog boxes from a software interface. The top dialog, titled 'Edit Operation Security Password - program.IOP', contains a table with the following data:

No.	Password	Security Level	Comment
0	0000	1	
1			

A red arrow points from the 'Security Level' value '1' in the first row of this table to the 'Security Level' input field in the bottom dialog box. The bottom dialog, titled 'Operation Security Password - No.0', has the following fields:

- Comment: [Empty text box]
- Password: [0000] (with a note: 'Enter 8 or fewer alphanumeric characters.')
- Security Level (1 - 15): [1] (with a dropdown arrow)

Start Editor ⇒ Operation Security Password

- **Data backup MTP05**

An SD card in FAT32 format inserted into the MTP05 can be used as data backup for the program and recipies.



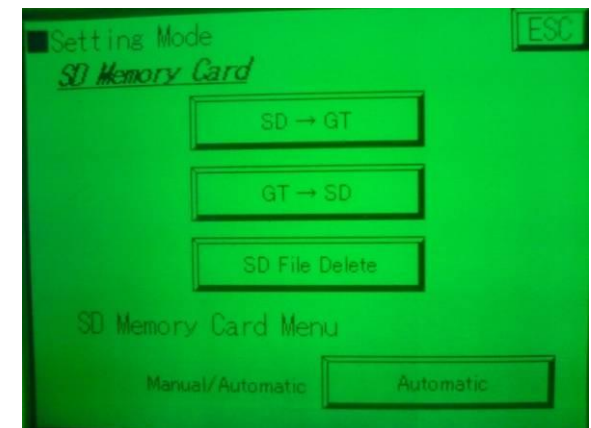
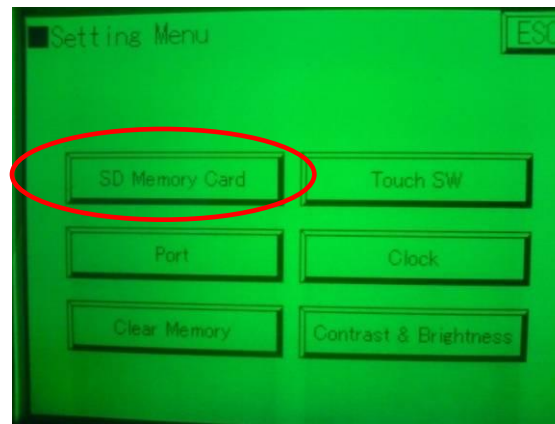
Slot for SD memory card in FAT32 format

## • Data backup MTP05

The data backup (parameters, program and recipes) are saved in total, as one single file.

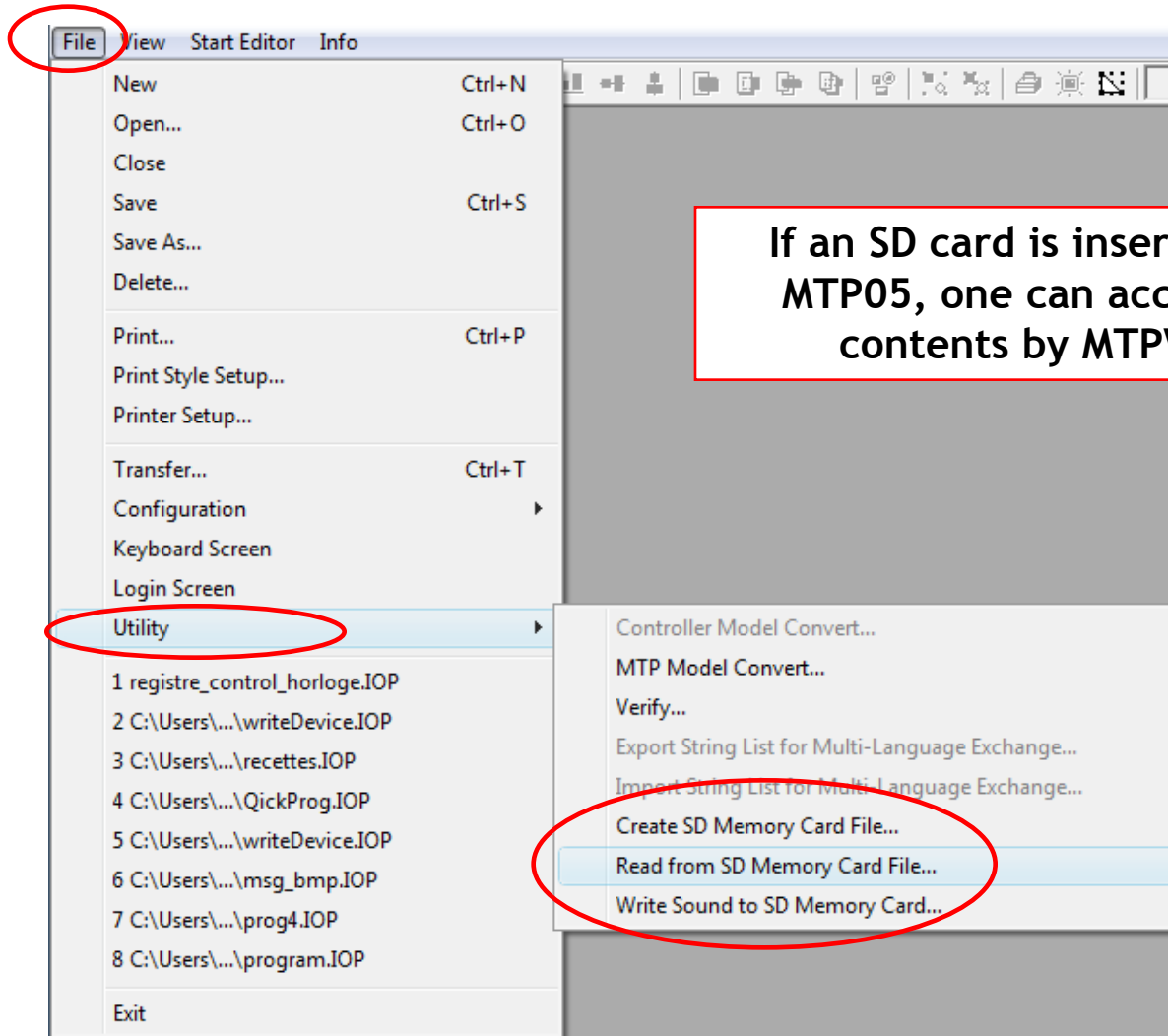


Press at least 2 sec. on the top left (1), then tipp the right top (2) and low (3), to access the Setting Menu.



Insert the SD card, then go to the MTP05  
« Settings Menu » ⇒ « SD Memory Card ».

Here you can choose to write data to (SD ⇒ MTP)  
or read from (MTP ⇒ SD) MTP05.



**If an SD card is inserted into MTP05, one can access the contents by MTPWIN.**



## • Links to M3/MTPWIN programs:

### M3 Programs:

- [Read/write bit / word](#)
- [Read/write bit / word Quick](#)
- [Recipe](#)
- [Alarms](#)
- [Pilot M3](#)
- [Line graph](#)
- [Conditions](#)

### MTPWIN Programs:

- [Write/read bit / word](#)
- [Write/read bit / word Quick](#)
- [Recipe](#)
- [Alarms](#)
- [Pilot MTP with M3](#)
- [Line graph](#)
- [Passwords](#)
- [Conditions](#)
- [Bitmap & Scroll messages](#)



## • Glossary

- Bit            ⇒        logic status (1 or 0)
- Word         ⇒        a 16 bit value
- WGR         ⇒        internal MTP05 register (Word)
- GDT         ⇒        internal MTP05 register (Word)
- GR          ⇒        internal MTP05 register (Bit)
- WSLOUT     ⇒        word/address on block SLOut M3
- WSLIN       ⇒        word/address on block SLIn M3
- BSLOUT     ⇒        bit of a word on block SLOut M3
- BSLIN       ⇒        bit of a word on block SLIn M3
- M3          ⇒        Millenium3
- MTP05      ⇒        Millenium Touch Panel (screen of the M3)