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# FAQ



## STANDARD SYSTEMS

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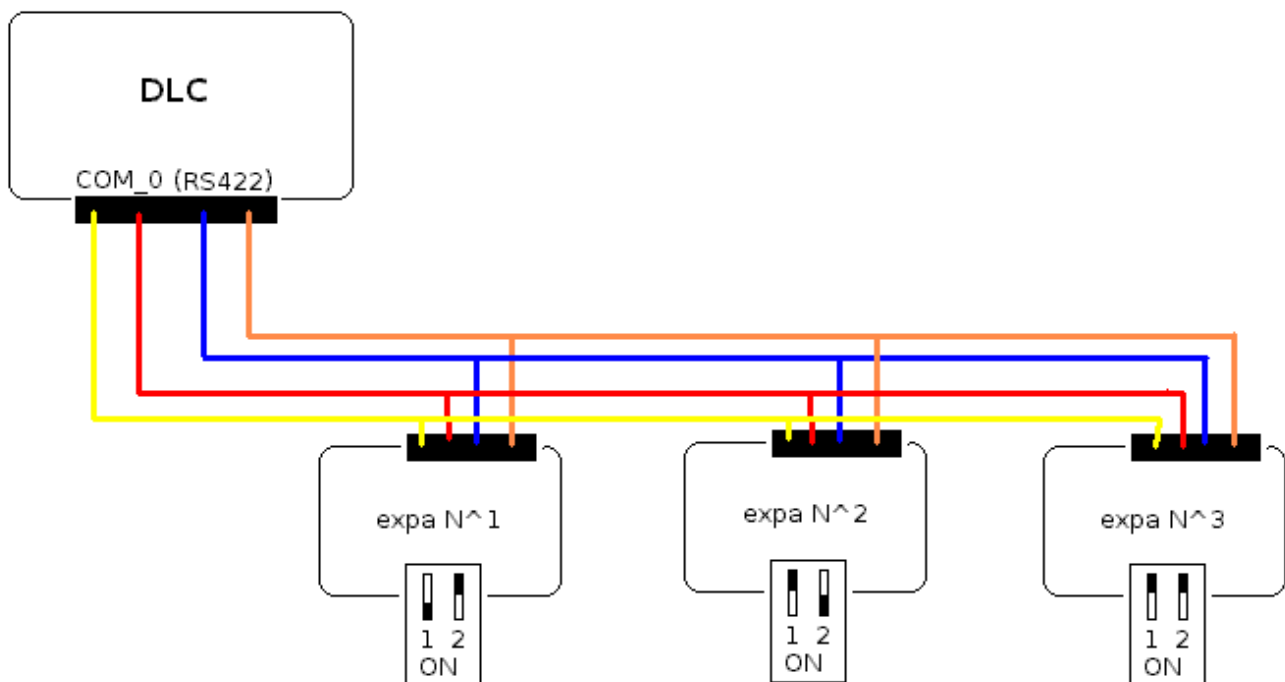
# 1 FAQ

## 1.1 Kernel DLC doesn't communicate with I/O expansion 0808

Above all, check the right number of expansions on the Flash program, inside menu : "Project Option" --> "Number of Expansions". Besides :

- > Check on the DLC, the communication's jumper, it must be on RS\_422.
- > Check the connection cable ( TX+ with RX+ and TX- with RX- )
- > The expansion's dip-switchs must be on 00 (ON , ON), only if the expansion number is = 1. With two expansions connected, the address must be 01 e 10, with three expansions 01, 10, 11.
- > The expansion make an automatic address check at the switch-on time, it make blink its red leds a number of times equal at the address number, so is possible check if the address is ok.
- > In the last analysis, if you checked the above points there is still no communication, open the expansion and control its internal jumper which must be placed in RS\_422 (as factory default), refer to the label silkscreened on the cover.

If the communication is ok, the red leds blinking quickly, to sounds both two always on. If vice versa, the communication isn't ok, the red leds TX and RX blinking at low frequency.



## 1.2 The PLC doesn't save the data into the buffer RAM

Inside the INITIALIZE subroutine set unconditionally (#SET) system flag SYS\_18.

\*\*\*\* N.B. \*\*\*\*

In the event that the PLC in question has remained off and without power for a long time (more than 5-6 months), enter inside the SET UP menu (to enter press and hold the ENTER key at start-up) to Real Time Clock voice, PLC does a quick test of RAM if the word "RAM error" appears it is most likely, the backup battery. You will then simply leave the PLC lit a few hours, then repeat the test.

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## 1.3 PLC show the error : " Error System Mismatch "

That error is generated by an operating system conflict. In fact, the application created by the programmer, during compilation is linked with the operating system functions on the PC in the Flash / LogicPaint installation folder; that operating system can be different (more or less recent) than the one already present on the PLC, in this case it appears in the "System Error Mismatch" error.

To put the system in service, it is necessary to align the two operating systems (one in the Flash / LogicPaint folder on the PC and the one on PLC), therefore, connect the serial cable to PLC and PC in the drop-down menu "Project" select "Update OS".

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## 1.4 The operator panel connected to a PLC, sometimes utter a "beep" and isn't possible change the page.

It is a momentary loss of data during communication, not so long as to create a real communication error. The problem is solved by increasing some point, the Com Delay. For the operating units that use WinPager firmware, this item is in SET UP "Programming" menu (to enter the SET UP menu press the Enter key at start-up), with regard to operator panels with firmware Flash / LogicPaint, the item "Com Delay" is in "Project Options". Use as the value of "Com Delay" minimal enough difference so that the communication is working properly. Reasonable values of "Com Delay" ranging from 0 to about 20.

\*\*\*\* N.B. \*\*\*\*

The "Com Delay" is often necessary to retouch with connections to PLC Siemens S7 200 series.

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## 1.5 The operator panel doesn't communicate with PLC.

If it is an operator panel with firmware Flash / LogicPaint verify the source files that you have selected the correct communication protocol, the correct serial; this selection you can run it inside the "Project Options" menu.

If it is an operator panel with WinPager firmware, the selection of the communication protocol and the baud rate can be selected in the SET UP menu -> Sept. Protocol (to get into this menu press and hold enter on power and try the sub-menu with the arrow keys), make that selection.

Check that the internal jumper selection serial type, is inserted in the correct position (RS\_232, RS\_485 or RS\_422) referring to the silkscreen on the rear cover of the operator panel. also Also check the correctness of the wiring with respect to the communication cable.

Finally, make certain that they are not called to display variables that point to memory areas not accessible or non-existent PLC.

## 1.6 I'm not able to download the application program PC --> PLC

Check the serial selection jumper (RS\_232, RS\_422 or RS\_485, must be RS\_232), the cable PC → PLC is correct :

VTP_322	: CNP_02
VTP_402	: CNP_01
VTP_403	: CNP_01
GTP_64	: CNP_01
GTP_128	: CNP_02
TSP_128	: CNP_02
DMX_16	: CNP_01
DMX_19	: CNP_01
DMX_20	: CNP_01
DMX_30R	: CNP_01
DMX_30S	: CNP_01
DMX_32	: CNP_01

Check that the selected COM of the PC is that actually used.

Also, if on the PLC there was already an application is possible that it did not include the SLAVE Protocol on COM\_1 (need to put in communication PLC and PC), so you must hold down the enter key at start-up and thus enter into the SETUP mode, in this way the COM\_1 PLC will definitely prepared for communication with the PC.

## 1.7 On the device appear "Page number Fatal Error" or "Alarm number Fatal Error".

This type of error indicates that a page is called up, in the case of "Page number Fatal Error", or an alarm page in the case of "Alarm number Fatal Error", which is not present, and that therefore has not been created in programming phase.

## 1.8 At the end of compiling, appear the error window: "Wrong path or File name".

If you see this error, it means that the file in question is in the instruction list. The Flash programs in instruction list provide for the creation of two different files : the *.ker* and *.plc*; the file *.ker* contains written pages, the file *.plc* contains the AWL program itself. When you go to open a project in the list of instructions you open the file *.ker* who then will have to know in which directory to look for the files *.plc*, it may happen that in the directory where the *.ker* goes looking for the *.plc*, in reality it isn't there, but maybe for any reason, either in another directory. In this case appears the error "Wrong path or file name."

At this point it's enough to go to open the file *.ker* with any text editor (e.g. The Windows Notepad), to the line 29 is the path in which it will be sought *.plc*! It will be sufficient to change this path, inserting the correct path.

\*\*\*\* N.B \*\*\*\*

Using LogicPaint no longer have this problem because LogicPaint combines the two files (the *.ker* and *.plc*) and save / manages only one file for each project: the *.ker*!

## 1.9 The PLC doesn't read analogic inputs.

The reading of the analogic inputs on the PLC, is subject to activation of the system flag SYS\_19, which must be set unconditionally (#SET), within the INITIALIZE subroutine.

### 1.10 I can not transfer the pages from terminal to PC or from PC to terminal. (WinPager & Flash)

It's good remember some general notes for the proper transfer of programs with both Flash and with WinPager. Always check that the serial selection jumper is in RS\_232, the PC communication cable - terminal (three-wire) is correct, and that the com selected by the software is the one actually used by the PC.

#### Flash, transfer pages from PC -> Terminal :

Enter the SET UP menu, to do it press the enter button at power on, and scroll down until the voice "Load Pages" press enter, now show the message "Waiting ....", the terminal is waiting. On the PC instead, select from the top drop-down menu "Project", "Send" (quick selection F7).

#### Flash, transfer pages from terminal -> PC :

First put awaiting the PC, to make it go in the drop-down menu "Project", select "Receive" (quick selection F8), then the terminal enter the SET UP menu, to make it hold the enter button at power on, scroll down until the voice "Read Pages" and press enter.

#### WinPager, transfer pages from PC -> Terminal :

Enter the SET UP menu, to do it press the enter button at power on, and scroll down until the voice "Load Pages" press enter, now show the message "Waiting ....", the terminal is awaiting. On the PC instead, select from the top drop-down menu "Transfer", "PC -> VT".

#### WinPager, transfer pages from terminal -> PC :

First put awaiting the PC, to make it go in the drop-down menu "Transfers", select "VT -> PC", then on the terminal enter the SET UP menu, to make it hold the enter button at power on, scroll down until the voice "Save Pages" and press enter.

### 1.11 How create a Write / Read variable ?

To make it you must check the "ENA" box in the "Variable Settings" window, so when it is shown that particular page, the pressure of the enter key will be able to go to change the value of that variable a keyboard editable variable, which It will then be confirmed with the pressure for the second time the enter button.

### 1.12 How is possible adjust the clock calendar on a blind Kernel PLC ?

The calendar clock setting on the PLC, is done by connecting it to a PC via serial, through the press of the button : "Set Date & Time", in this way is adjusted based on the clock of the PC calendar. To go to individually manage the hours rather than minutes or more, you must go to mask this DATA :

0030		W		DATE		Real time clock year and mounth										
y	y	y	y	y	y	y	y	y	y				m	m	m	m
0031		W		DATE		Real time clock Day of Week and Day										
						dow	dow	dow				d	d	d	d	d
0032		W		TIME		Real time Clock Time										
			h	h	h	h	h	h	h			m	m	m	m	m

### 1.13 How is possible manage only a clock calendar part, for example the hour or the day of the week ?

Masking DATA\_30, DATA\_31 and DATA\_32 be able to get only the part of the Real Time Clock that I wish :

```
#MOV    #63,DATA_60           ; maschera: 63 (dec) = 111111 (bin)
#MOV    DATA_32,DATA_100
#ANDW   DATA_60,DATA_100     ; in data_100 ho i MINUTI

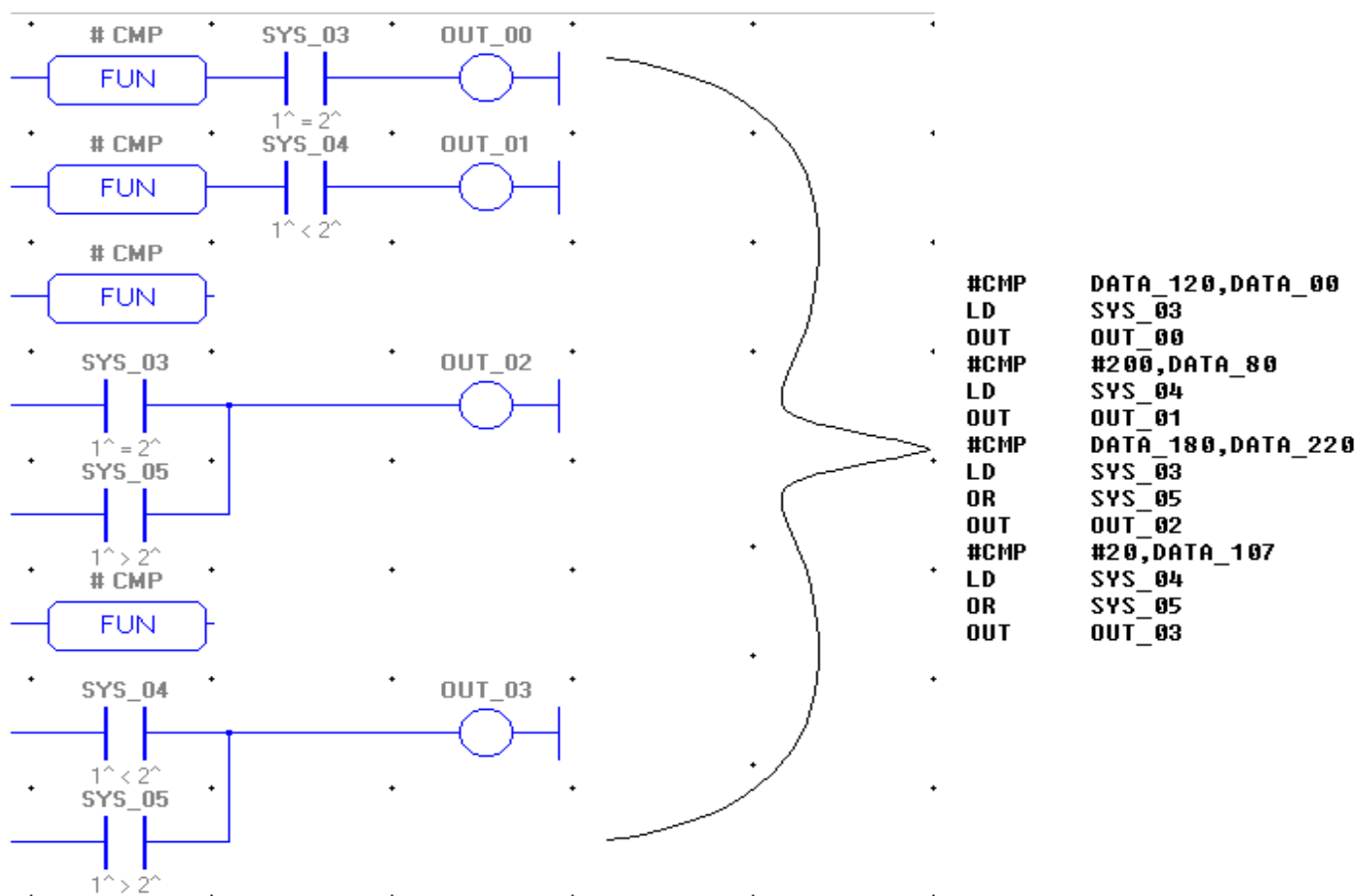
#MOV    #8064,DATA_61         ; maschera: 8064 (dec) = 11111100000000 (bin)
#MOV    DATA_32,DATA_200
#ANDW   DATA_61,DATA_200
#RSHIFT #8,DATA_200           ; in data_200 ho le ORE

#MOV    #65472,DATA_199        ; maschera: 65472 (dec) = 1111111111000000 (bin)
#MOV    DATA_31,DATA_130
#ANDW   DATA_130,DATA_199
#RSHIFT #8,DATA_199           ; in data_199 ho il GIORNO DELLA SETTIMANA
```

### 1.14 How might be used the CMP instruction and how might be used several series of them?

First, it is worth pointing out that the comparison operations should be always unconditional, which means that at each program cycle the system flags SYS\_03, SYS\_04 and SYS\_05 are updated with the actual current value; if not some SYS may be left by previous setup no longer check comparisons and therefore no more "refresh".

Furthermore, the system flags that you want to verify to check the result of the comparison, is better place them system below the CMP :



### 1.15 How can I know if the PLC isn't interrogated by an external master, for example by an operator panel ?

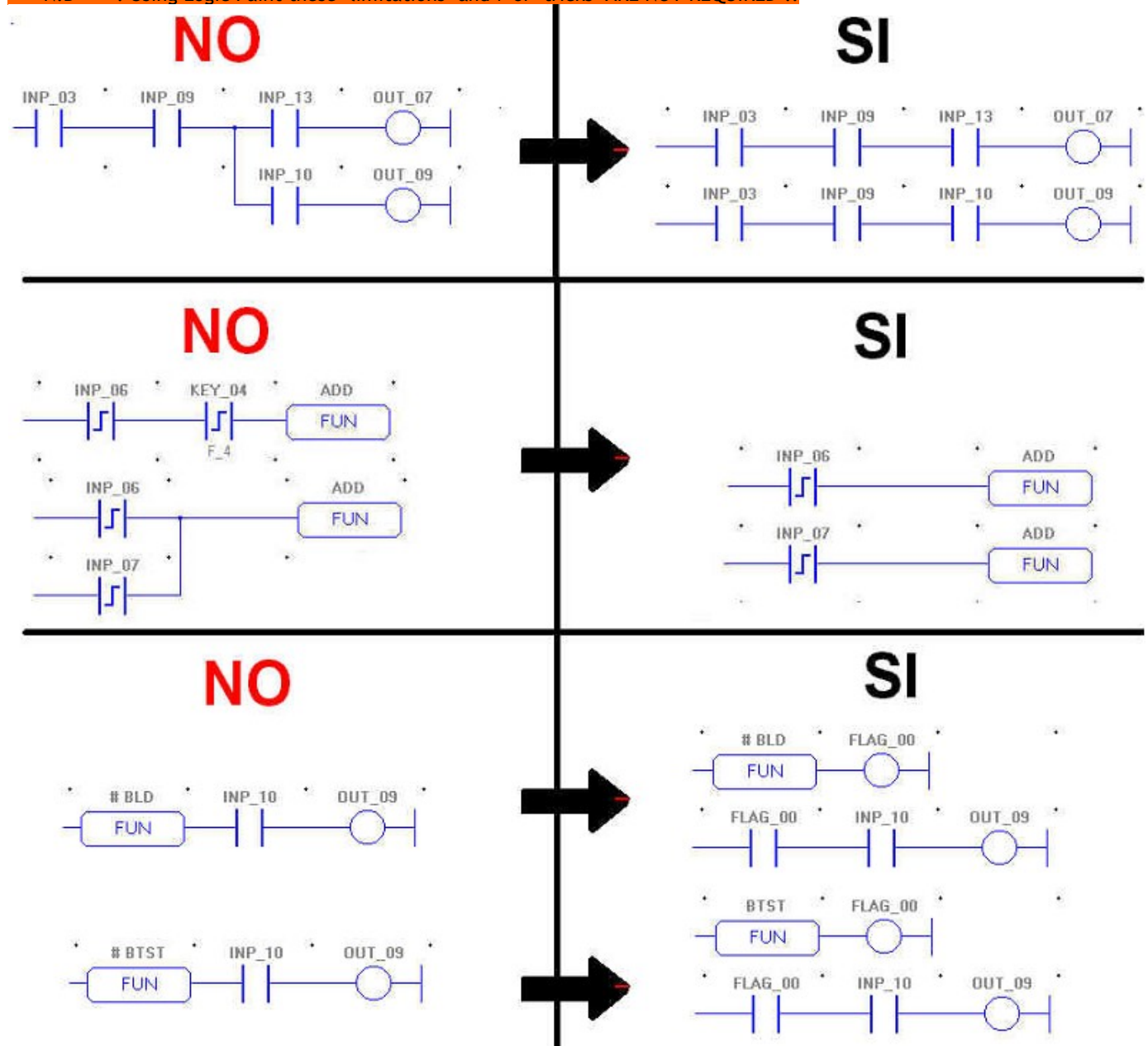
To respond to this request a system flag has been added, **SYS\_78**, which is 1 when the PC is interrogated by an external device via the communications port.

### 1.16 FLASH : LADDER language restriction and advises for a best LADDER's use ?

First, it is worth pointing out that the ladder language is the last arrived inside Kernel Sistemi, and as such is subject to frequent changes and improvements, also according to reports from our customers.

That said, it should be noted that with the ladder diagram is recommended to "spread" our program on different networks, and not congest all programming on a few very complex network, but many and "simple." Also you can not use contacts with fronts (rising or falling) over the first.

\*\*\*\* N.B \*\*\*\* : Using Logic Paint these "limitations" and / or "tricks" ARE NOT REQUIRED !!





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