



**Communication Settings for
Mitsubishi (CPU A1S61PN and
A1SJ71UC24-R2 Link Unit)**

and

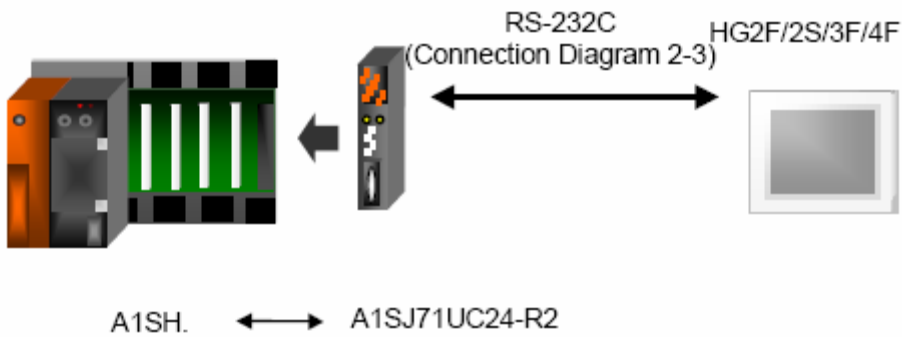
**IDEC Touchscreens
(5.7" HG2F, 10.4" HG3F, 12.1" HG4F)**

Introduction

This information will help you configure the IDEC touchscreens (5.7” HG2F, 10.4” HG3F, or 12.1” HG4F) and the Mitsubishi PLC (CPU: A1S61PN) with Link Unit A1SJ71UC24-R2 using MELSEC AnN (Link) protocol. For other supported Mitsubishi PLCs and communication settings/range of addresses, please refer to WindO/I-NV2 manual. Select “Host Interface,” then Connection to a PLC.

<http://www.idec.com/Products/ENG/PDF/manuals/WindOI/V282/English/mainmenu.pdf>

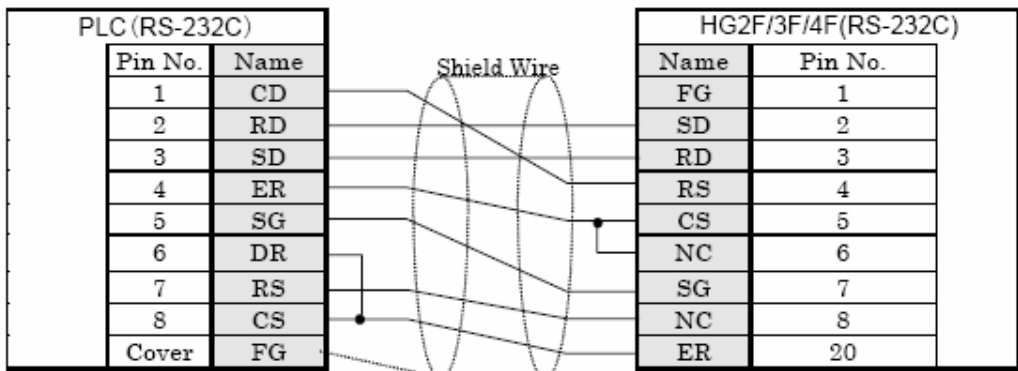
MELSEC-A Series (using the Computer Link Unit)



Cable Partnumber: HG9Z-3C145A

Computer Link Unit (RS-232C) to HG2F/2S/3F/4F

HG2F/3F/4F



D-sub, 9P connector socket type (unit side)

D-sub, 25P connector socket type (HG2F/3F/4F)

Communication Settings

MELSEC-A Series: Settings for the Computer Link Unit and CPU Unit Link

I/F

Item		Setting	
		RS-232C	RS-485
Transmission Control Protocol		Format 4 protocol mode	
		Set the mode setting switch to 4.	Set the mode setting switch to 8.
Station Number	Use the same settings as for the HG2F/2S/3F/4F	Set using the Station Number setting switch.	
Data Bits		7 or 8 (set using the Transmission Specifications setting switch)	
Baud Rate		1200, 2400, 4800, 9600 or 19200 bps (set using the Transmission Specifications setting switch)	
Parity		None, Even or Odd (set using the Transmission Specifications setting switch)	
Stop Bits		1 or 2 (set using the Transmission Specifications setting switch)	
Checksum		Yes (set using the Transmission Specifications setting switch)	
Write During RUN		Possible (set using the Transmission Specifications setting switch)	
Transmission Side Termination Resistor	No	Yes (set using the Transmission Specifications setting switch)	
Receive Side Termination Resistor	No	Yes (set using the Transmission Specifications setting switch)	
Computer Link/Multi Drop Selection		Computer Link (set using the Transmission Specifications setting switch) Note: Only set if this item is present.	

Addressing

MELSEC-A(LINK)

Device		PLC type settings using WindO/I-NV2			Notes
		Device symbol	AnA (LINK)	AnN (LINK)	
Bit Device	Input Relay	X	0 to 1FFF	0 to 7FF	(*1)
	Output Relay	Y	0 to 1FFF	0 to 7FF	(*1)
	Internal Relay	M	0 to 8191	0 to 2047	
	Link Relay	B	0 to 1FFF	0 to 3FF	(*1)
	Latch Relay	L	0 to 8191	0 to 2047	
	Timer (contact)	TS	0 to 2047	0 to 255	
	Timer (coil)	TC	0 to 2047	0 to 255	
	Counter (contact)	CS	0 to 1023	0 to 255	
	Counter (coil)	CC	0 to 1023	0 to 255	
	Special Internal Relay	SM	9000 to 9255	9000 to 9255	
	Annunciator	F	0 to 2047	0 to 255	
Word Device	Input Relay	WX	0 to 1FF0	0 to 7F0	(*1)(*2)
	Output Relay	WY	0 to 1FF0	0 to 7F0	(*1)(*2)
	Internal Relay	WM	0 to 8176	0 to 2032	(*2)
	Link Relay	WB	0 to 1FF0	0 to 3F0	(*1)(*2)
	Latch Relay	WL	0 to 8176	0 to 2032	(*2)
	Timer (current value)	TN	0 to 2047	0 to 255	
	Counter (current value)	CN	0 to 1023	0 to 255	
	Data Register	D	0 to 8191	0 to 1023	
	Link Register	W	0 to 1FFF	0 to 3FF	(*1)
	Annunciator	WF	0 to 2032	0 to 240	(*2)
	Special Internal Relay	WSM	9000 to 9240	9000 to 9240	(*3)
	Special register	SD	9000 to 9255	9000 to 9255	
	File register	R	0 to 8191	0 to 8191	(*3)
	Expansion file register	ER	0 to 58191	—	(*3)

(*1) Set this device using hexadecimal.

(*2) Set this device using a multiplier of 16.

(*3) This can only be used when the Link Unit is being used.

Required Cables:

- HG9Z-XCM1A (Connects PC and HG2F/3F/4F)
- HG9Z-3C145A (Connects Mitsubishi Link Unit A1SJ71C24-R2 and HG2F/3F/4F)
- Interface for Melsec A/FX cable (Connects PC and Mitsubishi)

Required Software

- Install WindO/I-NV2 (programming software for HG2F/3F/4F)
- Install MELSEC MEDOC software (DOS based software for Mitsubishi PLC programming)
 - Directions: Go to Dos Prompt, <enter>cd., <enter> cd., cd MEDOC, MEDOC.exe

Manual

WindO/I-NV2 for HG2F/3F/4F

<http://www.idec.com/Products/ENG/PDF/manuals/WindOI/V271/English/mainmenu.pdf>

f (Select Host Interface – Connection to the PLC for complete detail of communication settings and table addressing)

Devices used for testing

- Mitsubishi (CPU: A1S61PN & Link Unit: A1SJ71UC24-R2)
- HG2F-SS22VCF (5.7” display)

Step 1: Configure Link Unit A1SJ71UC24-R2

At POWER OFF, configure the following:

1. Set Rotary Switch to 4 (Type 4 dedicated protocol mode)

2. Set the SW (Switches 3 to 12)

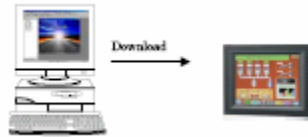
03	OFF
04	ON
05	ON
06	OFF
07	ON
08	ON
09	ON
10	OFF
11	OFF
12	ON

3. Power ON to accept the configuration

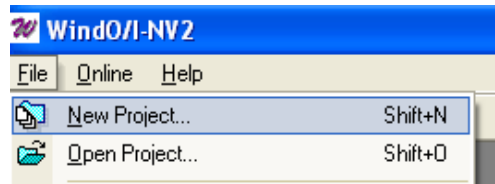
Step 2: WindO/I-NV2 Software

Configure the HG2F/3F/4F by creating a program in WindO/I-NV2 software

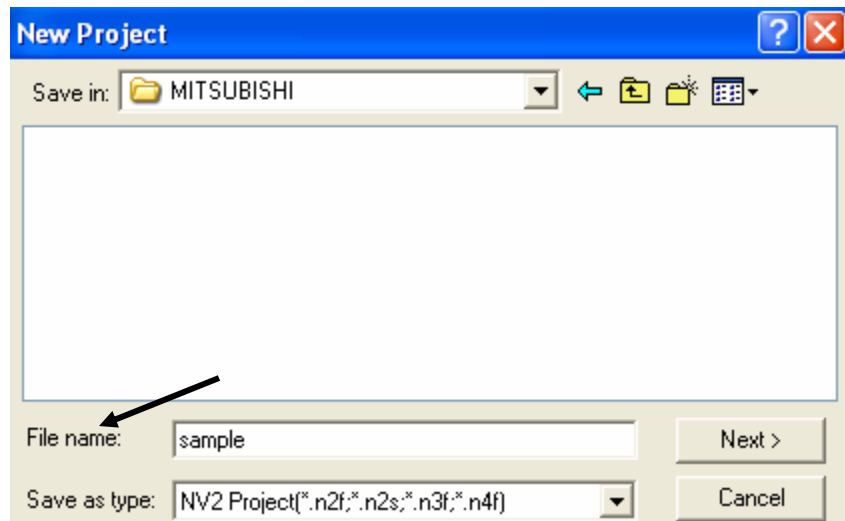
- 1) Connect the programming cable part number HG9Z-XCM1A from PC to HG2F/3F/4F (Serial 1 port).



- 2) Launch WindO/I-NV2 software. Select File/New Project.



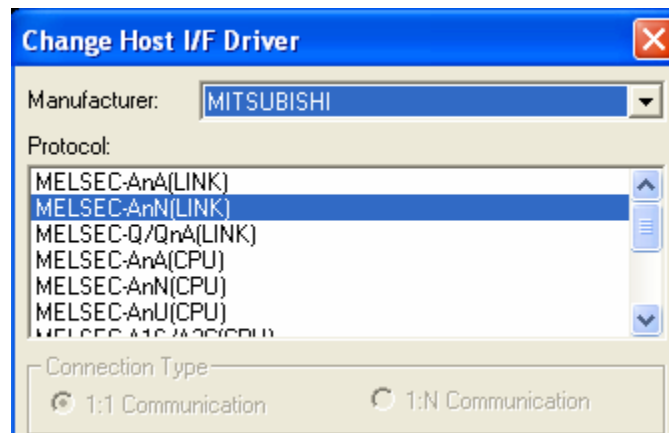
- 3) Create a project name. In this example, the project name is called "sample"



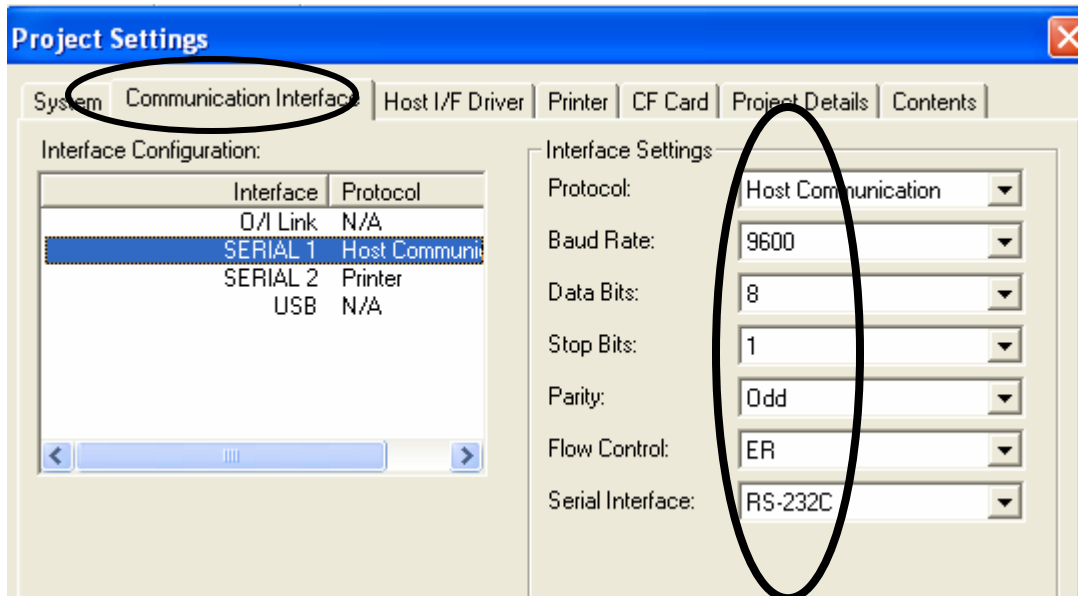
4) Click the Next button to choose the O/I and Model type.



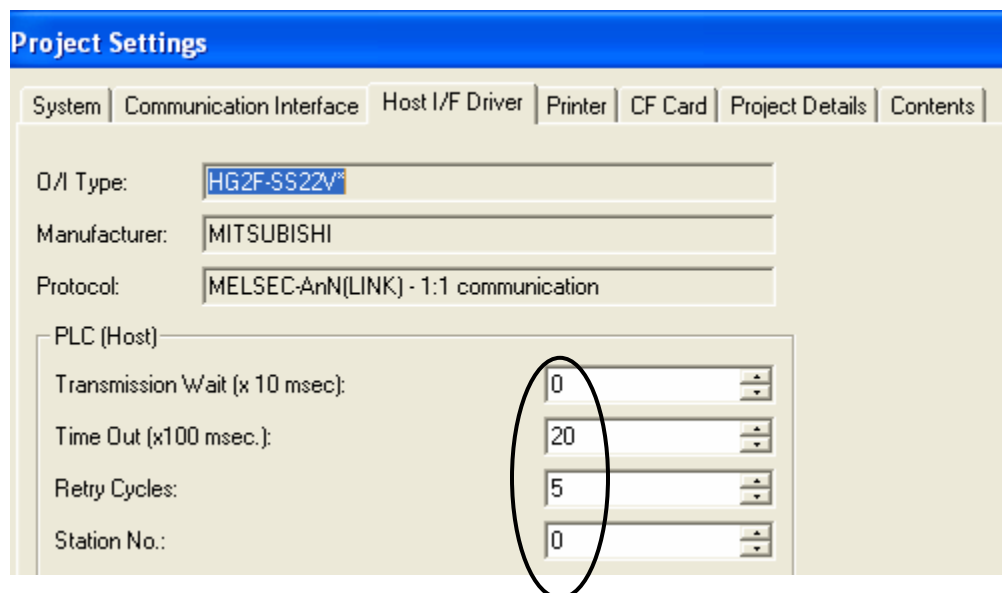
5) Host I/F Driver:
Manufacturer: Mitsubishi
Protocol: MELSEC-AnN (Link)
Click the Next button to continue.




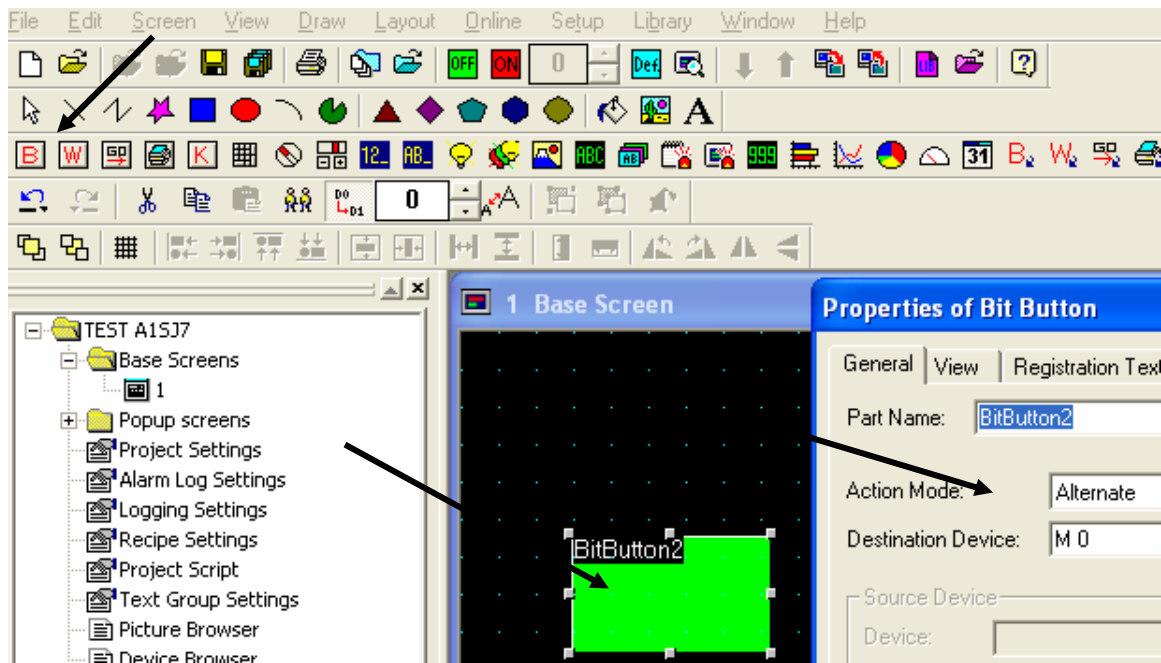
- 6) Project Settings: Select the Communication Interface tab. Under Interface Configuration, select Serial 1 Host Communication. Then follow the Interface Settings below as shown.



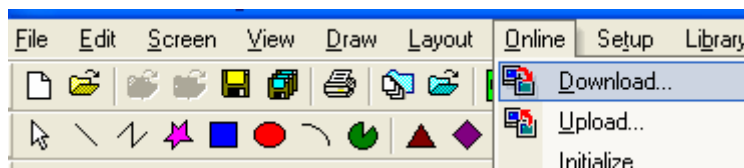
- 7) Select the Host I/F Driver tab. Again, follow the following settings as shown below.



- 8) Create Base Screen 1. For a basic example, select the Bit Button icon  and drop it on the screen.
- Double click on the bit button to view the Properties.
 - Action Mode: <select> Alternate
 - Destination Device: Y0 (to turn ON output 0 in the PLC)
 - The View and Registration Text are optional.
 - Click the OK button.



- 9) Finally, download the project to the HG2F/3F/4F. Select Online - Download.

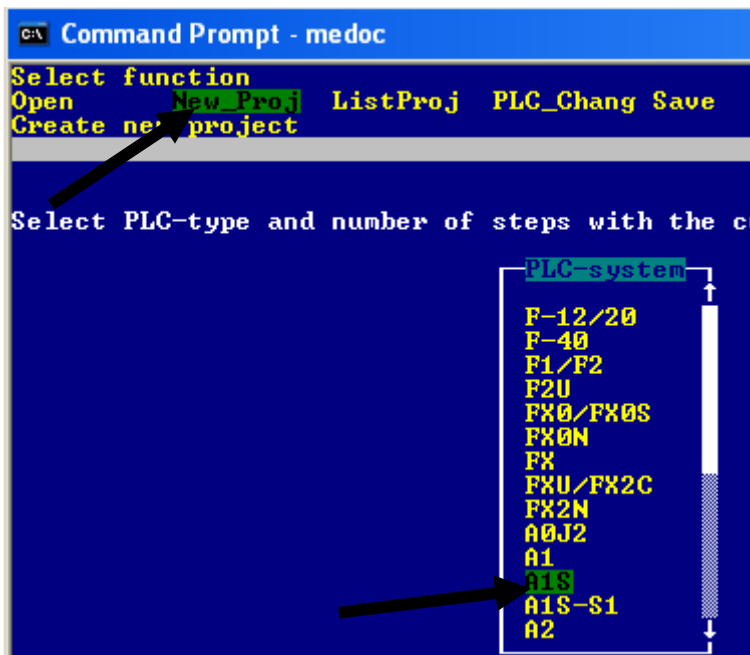


Step 3: Mitsubishi Software: MELSEC MEDOC (DOS based software)

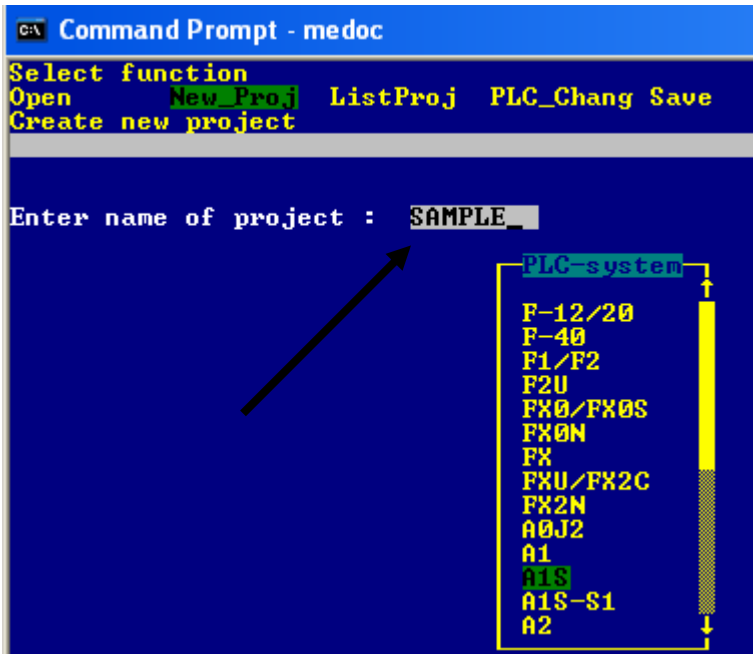
- 1) Connect the Interface cable between the PC and Mitsubishi PLC.
- 2) Launch MELSEC MEDOC software.
- 3) Select "Start" <press ENT>



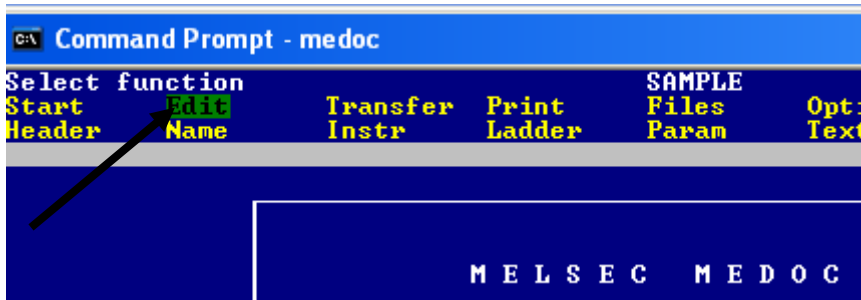
- 4) Select "New Proj" <press ENT>. Select the PLC type: AIS <press ENT>



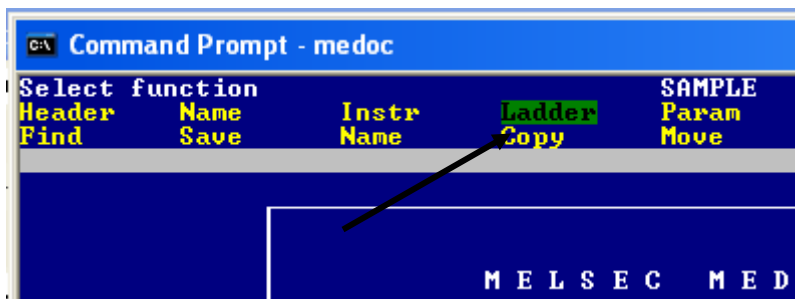
- 5) Enter the File Name. In this example, the file name is: SAMPLE <press ENT>, then <ESC>.



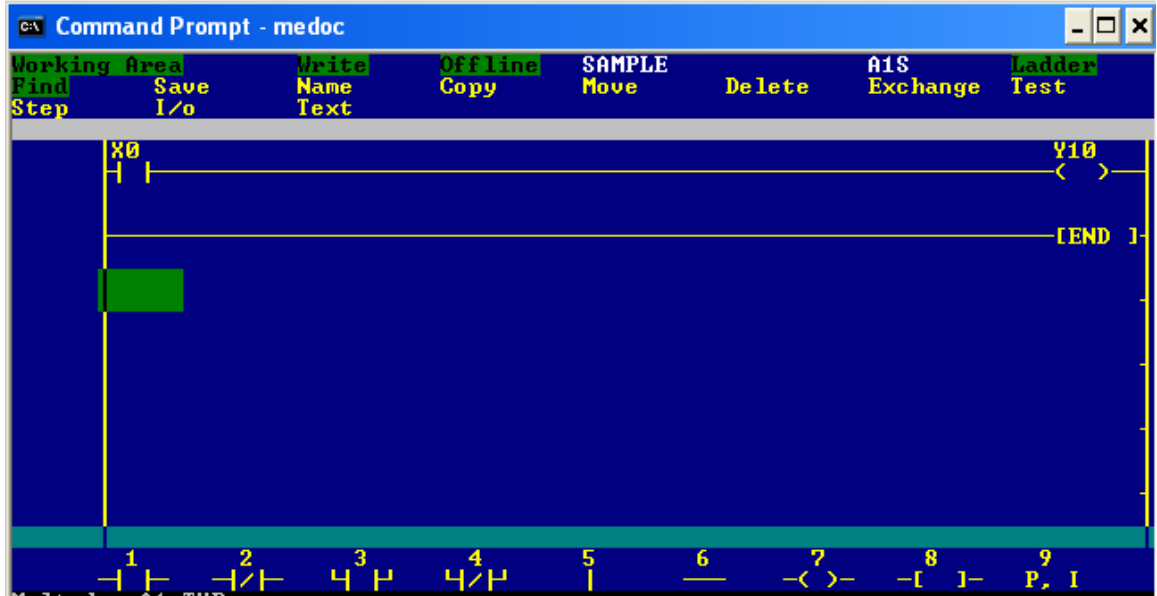
- 6) Select EDIT <press ENT>



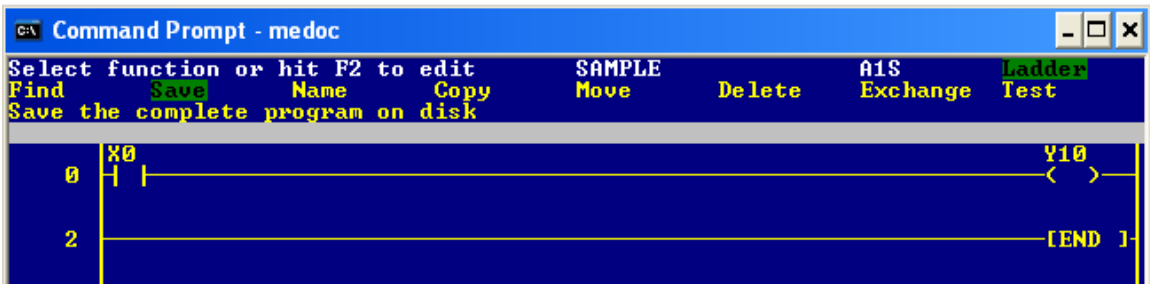
- 7) Select LADDER <press ENT>



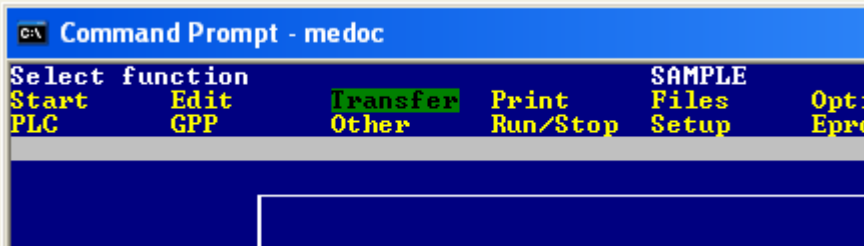
- 8) In Ladder, press F2 and then F7 to edit the ladder.
- Select the normally open <press 1>, enter X0 <press ENT>.
 - Select the output coil <press 7>, enter Y10 <press ENT> from the bottom menu.
 - Next rung, Enter an END statement <type the word END then press ENT>
 - Press F7, then ESC key.



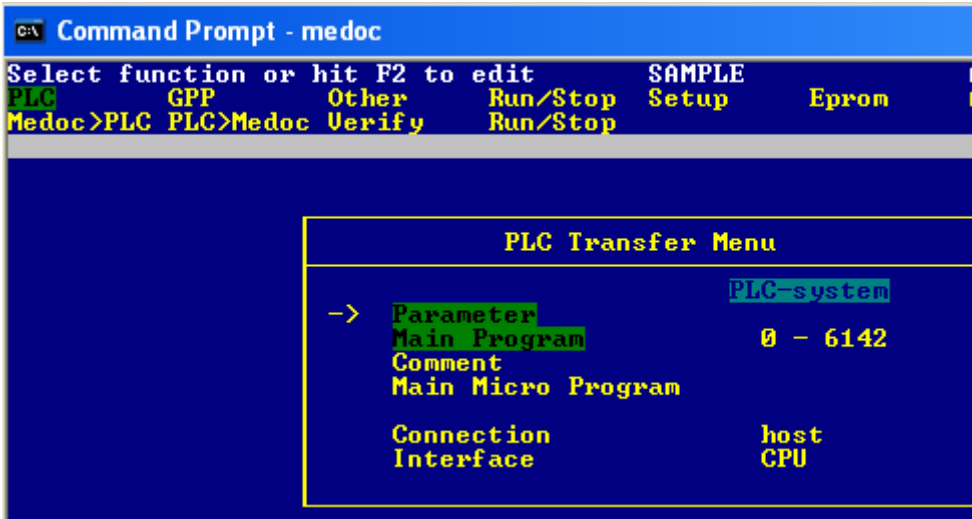
- 9) Select Save, then press the ESC (twice).



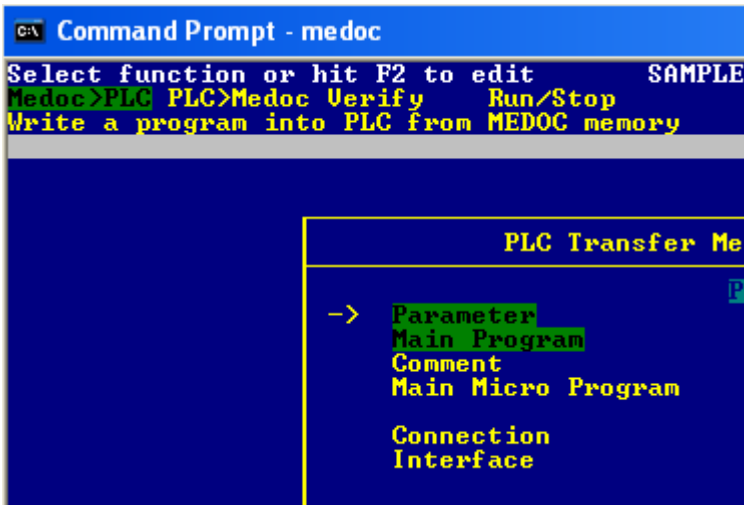
- 10) Select Transfer <press ENT>.



11) Select PLC <press ENT>.



12) Select Medoc>PLC <press ENT>.



13) You may now test the communication between the HG and Mitsubishi PLC.