

# User manual



## MANAGEMENT SOFTWARE FOR CFO422/441 UNITS

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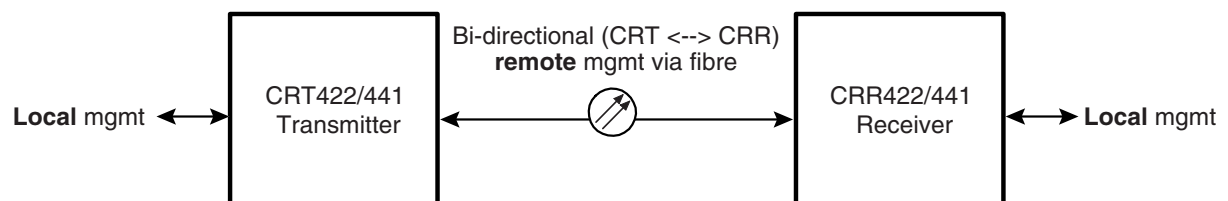
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# Management Software for CFO422/441 Units (SW version 1.1.23 -->)

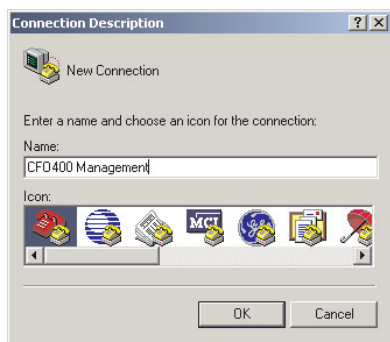
## Introduction

Management connection between **CFO400** series fibre optic link units and e.g. laptop or PSION is based on a serial data communication by means of any terminal type program.

Management software for **CFO400** series fibre optic link units (v1.1.23 -->) is a Command Line Interface type and it is meant for configuration and controlling of **CFO442/441** link units (bi-directional communication via fibre, CRT <--> CRR).



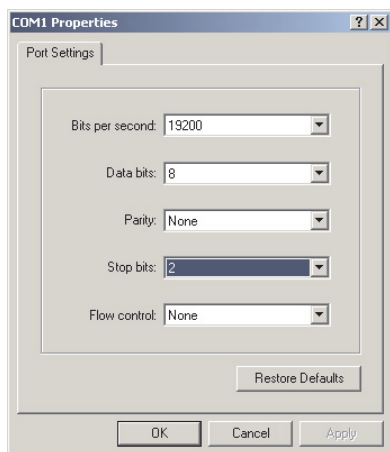
# Management Software for CFO422/441 Units (Bi-directional communication via Fibre).



**Picture 1.**  
Naming a terminal connection.



**Picture 2.**  
Selecting COM port.



**Picture 3.**  
Settings for COM port.

## GENERAL

This chapter tells how with help of management software you can configure settings of **CFO400** series fibre optic link consisting of **CRT422/441** and **CRR422/441** units.

## SYSTEM REQUIREMENTS

- \* Any program using serial port and supporting **VT100 / 102** or **ANSI** protocols, e.g. Windows 95/98 or Windows NT 4.0/2000/XP, PSION.
- \* **RS232**-cable (type **CIC403**). See table 1 for cable pinout.

## 1. HOW TO MAKE THE TERMINAL CONNECTION

PC/PSION	D9 female	HD15 male	CFO
Receive data	2	2	Mgmt output
Transmit data	3	12	Mgmt input
System ground	5	15	Ground

**Table 1.**

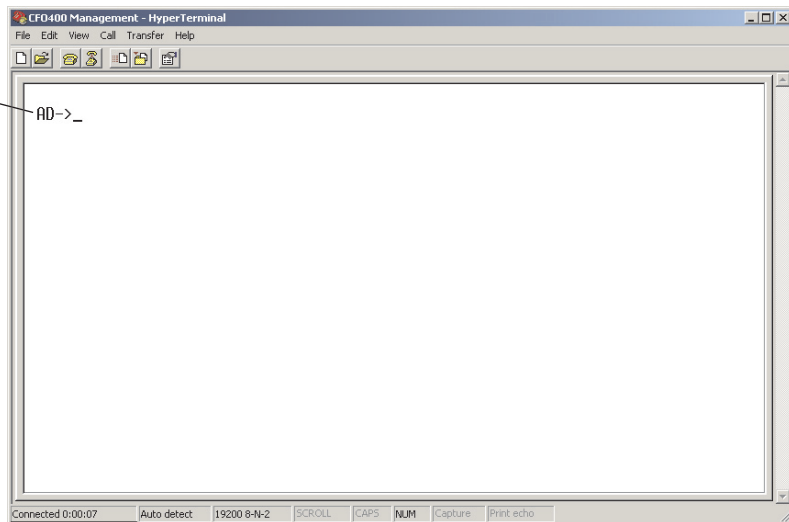
Management cable (**CIC403**) pinout (D9 female / HD15 male).

1. Start the Windows hyper terminal program (in Windows 95/98 and NT 4.0/2000/XP by choosing -> Start/ Programs/Accessories/Communications/Hyper Terminal). Wait until the following **“Connection Description”** window appears on the screen (see picture 1).
2. Enter a name for connection, e.g. **“CFO400 Management”** and click **OK** to continue. The following **“Connect To”** window appears on the screen (see picture 2).
3. Choose **COM** port where the **RS232** cable is connected, e.g. **COM1** port and click **OK** to continue. The following **“COM1 Properties”** window appears on the screen (see picture 3). Set here the values as described in table 2. Click **OK** to continue. The **“CFO400 Management”** window appears on the screen (see picture 4).
4. Press **Enter** to activate terminal window (**“AD->”** appears on the screen, see picture 4). The terminal connection to **CFO422/441** unit is now created and you can now use the management commands to controlling the unit.

Setting	Value
Emulation	VT100, VT102 or ANSI
Protocol	Serial
Baud rate	19200
Data bits	8
Parity	None
Stop bits	2
Flow control	None

**Table 2.**  
Port settings to terminal software.

When the management software is activated, "AD->" text appears on the screen.



**Picture 4.**  
The Windows Hyper terminal program window view.

## 2. MANAGEMENT SOFTWARE COMMANDS

After making and starting the terminal connection for the **CFO422/441** unit it is possible with help of separate commands of management software e.g. check the status or change the settings of **CRT422/441** and **CRR422/441** units. Entering **help** or **?** displays a list of commands (see picture 5).

```

***** ( Teleste Action Direct Help ) *****
-----
help/?..... Help
<Tab>..... Prev. command
<Esc>..... Clear Line
rc ..... Remote Prefix
status..... Status, Local
status r.... Status, Remote
rssi..... Rssi Level, Local
rssi r..... Rssi Level, Remote
alias ..... Element Name
vers..... SW Version
demonr #.... Set Demo Mode
tv ..... Set Test Value
reset cpu.... Reset CPU
chat xxxxx... Free Text, Max 40 chr's
speed ..... 0 - 100 ms
video[n] .... 1 - 4 On/Off
dwelltime ... 50 - 10000
datatype .... RS422/RS485/RS485-4W/TTL
dataterm .... None/Hardbias/Hardbias+Term
audio ..... 600/High
ccl=vsa..... CC out = Video Source Alarm
ccl=cc1..... CC out = CC Out
factoryset... Defaults
-----

```

**Picture 5.**  
CFO422/441 "help" view.

## 2.1. Description of commands

**help / ?** - Displays a list of commands.  
**rc** [command] [value] - Remote command, e.g. changing remote device's dwelltime to 80 -> **rc dwelltime 80**.  
**status l / status** - Displays a status of local **CR\*** unit (see pictures 6 & 7).  
**status r** - Displays a status of remote **CR\*** unit (see pictures 6 & 7).  
**rssl** - Displays local unit's rssi level.  
**rssl r** - Displays remote unit's rssi level.  
**alias** [name] - Alias naming (the maximum is 32 characters).  
**vers** - Displays application software version, alias name, hardware version and serial number of the local unit.  
**demonr** [value] - Sets a desired demo mode on, see **about**.  
**tv** [value] - Sets test value.  
**reset cpu** - Resets cpu (same effect as switching power off).  
**chat** [text] - Displays max 40 chr text.  
**speed** [0-100] - The value (ms) defines speed that terminal's text is printed on the screen.  
**video** [1-4] **on/off** - Changes video channel 1...4 on/off.  
**dwelltime** [50-10000] - Changes dwelltime settings (µs).  
**datatype** [value] - Changes datatype settings.  
**dataterm** [value] - Changes dataterm settings.  
**audio** [value] - Changes audio input settings.  
**cc1=vsa** - Changes cc output channel to video source alarm.  
**cc1=cc1** - Changes video source alarm to cc output channel.  
**factoryset** - Sets default factory settings.  
**about** - Additional information displays. Includes e.g. info code explanations describing the link status (during malfunction info codes are echoed to the prompt and demo modes for unit/link testing).

## 2.2. Description of status listing

**Supply voltage** - Shows unit's supply voltage.  
**Module Temperature** - Shows unit's internal temperature.  
**Hours:Mins, local** - Unit's usage hour meter.  
**Module address** - Shows slot where the unit is installed (not in use).  
**Link Status** - Shows link's status.  
**Module Status** - Shows module's status.  
**Delay between bytes** - Shows terminal's display speed.  
**CH1, 2, 3 & 4** - Shows video's status.  
**CC / Vid Src Alarm** - Shows cc output channel's status.  
**Dwell Time** - Shows dwelltime.  
**Data Type** - Shows data's type.  
**Data Termination** - Shows data's termination.  
**Audio Input Level** - Shows audio input's status.

**Audio Input Impedance** - Shows audio input impedance.

**CC1 / Vid Src Alarm** - Shows if cc channel is set either normal cc or VSA usage.

**CC1 input** - Shows cc channel's input state.

**CC1 output** - Shows cc channel's output state.

```
Transmitter Status Listing
-----
Supply Voltage..... 11.9 V
Module Temperature..... 33.5 Cels.
Hours:Mins..... 1120:27
Module Address..... 0000...FFFF
Link Status..... OK / No Sync or Optical Input Low
Module Status..... OK / HW Failure
Delay Between Bytes..... 0...100 ms
CH1..... Video Present / NO Video / Disabled
CH2..... Video Present / NO Video / Disabled
CH3..... Video Present / NO Video / Disabled
CH4..... Video Present / NO Video / Disabled
Dwell Time..... 50...10000 us
Data Type..... RS422/RS485/RS485-4W/TTL
Data Termination..... None/Hardbias/Hardbias+Term
Audio Input Level..... OK / Input Overload
Audio Input Impedance... 600 ohms/HIGH
CC1 / Vid Src Alarm..... CC1/VSA
CC1 Input..... Open/Closed
CC1 Output..... Open/Closed
-----
```

**Picture 6.**  
Transmitter's "status" info view/settings.

```
Receiver Status Listing
-----
Supply Voltage..... 12.0 V
Module Temperature..... 37.0 Cels.
Module Address..... 0000...FFFF
Link Status..... OK / No Sync or Optical Input Low
Module Status..... OK / HW Failure
CH1..... Video Present / NO Video / Disabled
CH2..... Video Present / NO Video / Disabled
CH3..... Video Present / NO Video / Disabled
CH4..... Video Present / NO Video / Disabled
Dwell Time..... 50...10000 us
Data Type..... RS422/RS485/RS485-4W/TTL
Data Termination..... None/Hardbias/Hardbias+Term
Audio Input Level..... OK / Input Overload
Audio Input Impedance... 600 ohms/HIGH
CC1 / Vid Src Alarm..... CC1/VSA
CC1 Input..... Open/Closed
CC1 Output..... Open/Closed
-----
```

**Picture 7.**  
Receiver's "status" info view/settings.

## **CFO422/441 INFO CODES**

- 00 No Info code
- 01 DVX Write buffer full
- 02 DVX Write buffer empty
- 03 DVX Read no packet
- 04 DVX Read too long packet
- 05 DVX Checksum error in read packet
- 06 DVX Wrong address
- 07 DVX General info
- 10 FPGA IRQ over flow
- 11 Edge Tracking
- 12 Transmitter Laser Disabled
- 13 Debug version
- 14 UART0 Rx ring full
- 15 FPGA Tx ring full
- 16 FPGA Rx ring full
- 17 UART0 Tx ring full
- 18 Laser restart
- 19 Resynchronization
- 20 EMS Too long packet
- 21 EMS Unknown type of packet
- 22 EMS Unknown Element ID
- 23 EMS Unknown command
- 30 Too long command for Action Direct
- 32 E2 storage error
- 90 No alarm for info codes above this
- 97 Action Direct, bad command
- 98 Info Code manually cleared
- 99 Big Bang, stands for power up



## CFO Backplane Euro Connector

	a	--	c
COAX		(	)
COAX		(	)
+12VDC	o 07	o	+12VDC
GND	o 08	o	GND
BB-BUS+	o 09	o	BB-BUS-
GND	o 10	o	GND
EIA485+	o 11	o	EIA485- DVX BUS
SDA DATA	o 12	o	SCL CLOCK
YY4 ID L	o 13	o	YY1 IC L244
YY3 SM L	o 14	o	YY2 PR L244
-	o 15	o	-
-	o 16	o	-
-	o 17	o	-
-	o 18	o	-
-	o 19	o	-
YY60 1+	o 20	o	YY62 1- L244
A-ALARM BUS	o 21	o	B-ALARM BUS
YY59 2-	o 22	o	YY63 2+ L244
YY58 3+	o 23	o	YY624 3- L244
YY57 TP1	o 24	o	YY61 TP2 L244
AA A-ALARM	o 25	o	B-ALARM AB
C1 CTRL-1	o 26	o	CTRL-2 C2
COAX		(	)
COAX		(	)

## DEMO NUMBERS for CFO422/441 simulations and testing

*Note! Unit will return from demo mode to normal operation mode automatically after one hour.*

- 00 No Demo, Default (also demo interrupt)
- 03 \*\* Video Detection Demo, All Channels
- 05 \* Temperature Demo
- 08 \* Power Supply #1 Demo
- 21 CC1 Input Close State Demo
- 31 \*\* Video Detection Demo Ch #1
- 32 \*\* Video Detection Demo Ch #2
- 33 \*\* Video Detection Demo Ch #3
- 34 \*\* Video Detection Demo Ch #4
- 58 \* Temperature & Power Supply #1 Demo

\* This Demo Uses Test Value.

\*\* Video Leds In Transmitter Not Affected

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