## You will need:

- access to the front panel of the FEMC
- a computer with a terminal software such as (hyperterminal, secureCRT or equivalent that support z-modem transfer) and a serial port
- a null modem cable

## Notes:

## Procedure:

- download the 2-8-5.exe file from EDM: http://edm.alma.cl/forums/alma/dispatch.cgi/iptfedocs/showFolder/104236
- turn off any activity on the CAN bus but leave the FEMC powered
- connect the serial cable to the computer and the FEMC
- start your terminal software with the following options:

- Baud rate: 115200

Data Bits: 8Stop Bits: 1Parity: noneNo flow control

- once the communication is established push <enter> a couple of time to verify that you can talk to the FEMC.
- push "i" <enter>. This should give you the software revision information.
- push "q" <enter>. This should bring you to the dos promt C:\ALMA>
- type "verify on" <enter> to enable the verification of the operations by the operating system
- create a directory with the command "mkdir v2-6-6" <enter>
- backup the existing fe\_mc.exe:
  - "copy fe\_mc.exe v2-6-6" <enter>
- delete the fe\_mc.exe from the ALMA directory:
  - "del fe mc.exe" <enter>
- use whatever is required by your terminal software to transfer with z-modem the 2-8-5.exe file. If the FEMC doesn't automatically activate the z-modem reception, type the following in the DOS prompt:
  - "rz" <enter>

copy the new version to fe mc.exe:

- "copy 2-8-5.exe fe mc.exe" <enter>
- type "verify off" <enter> to disable the verification of the operations by the operating system
- power cycle the unit and verify that the software is going through initialization
- push <enter> once the initialization is finished and you should see something similar to the following:

Front End Monitor and Control Firmware (FEND-40.04.03.03-011-A-FRM) Morgan McLeod - NRAO (mmcleod@nrao.edu)

Revision: 2.8.5 (2016-01-08)

Notes: Implements all 2.8.x features except logging cold head hours.

## Bug report: jira.alma.cl

```
Console help
```

' -> retypes last command

" -> repeats last command

a<CR> -> enables/disables the async process (DEBUG only)

c RCA q data <CR> -> control the specified address

RCA is the Relative CAN Address.

It can be in decimal or exadecimal (0x...) format

q is the qualifier for the payload:

b for a byte or a boolean

i for an unsigned integer

f for a float

data is the payload in the format specified by the qualifier

d<CR> -> disable console

e<CR> -> reads and display ESNs on the OWB

i<CR> -> display version information

m RCA<CR> -> monitor the specified address

RCA is the Relative CAN Address.

It can be in decimal or exadecimal (0x...) format

q<CR> -> quit

r<CR> -> restart

For a list of the RCAs check:

- ALMA-40.00.00.00-75.35.25.00-X-ICD
- ALMA-40.04.03.03-002-X-DSN
- Disconnect the serial cable and restart your CAN control software.