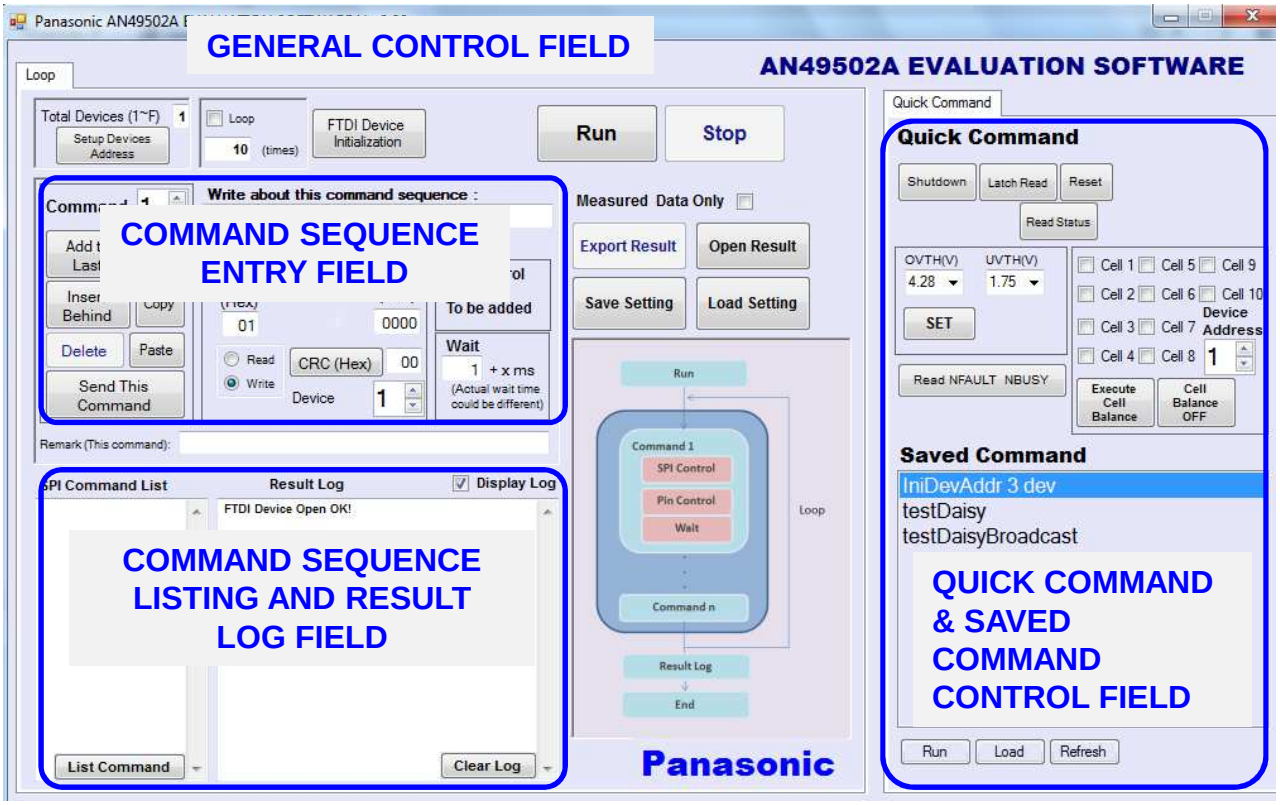
AN49502A Evaluation Software
Quick Start Guide

21 Aug 2015
Ver0.80

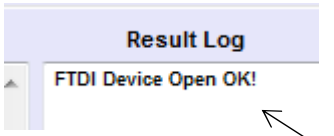
Panasonic Semiconductor Solutions Co. Ltd

Software Main Screen and definition

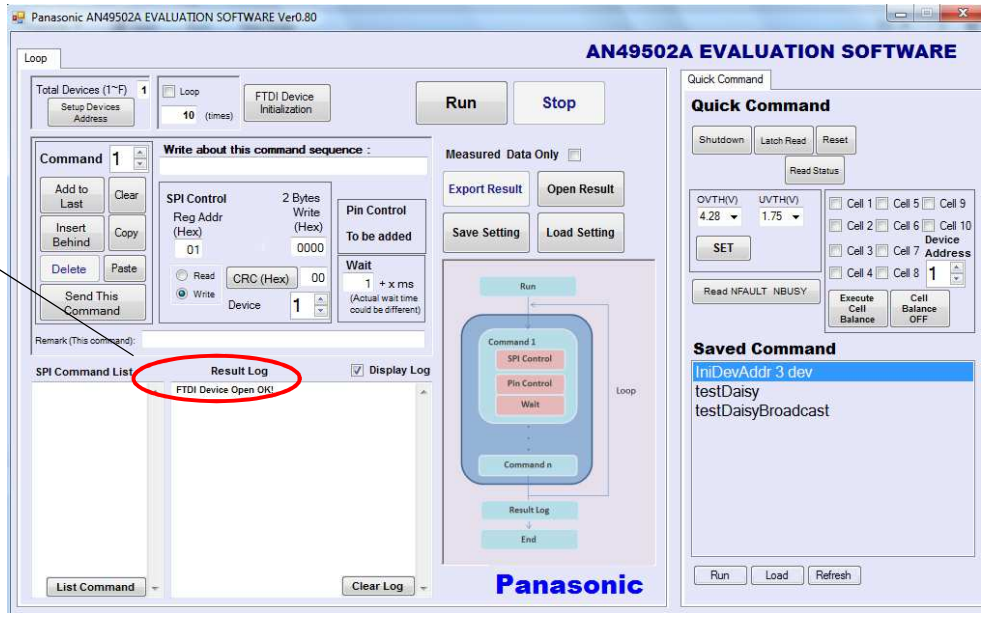


1. Startup

a. Run the Evaluation Software (make sure the FTDI driver is installed with hardware connected)
b. It should display “FTDI Device Open OK” at the Result Log if the driver and FTDI device is connected
c. If it shows “FTDI Device Open Fail”, it could be due to the driver installation failure, FTDI board failure or not connected.

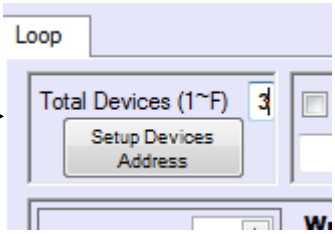


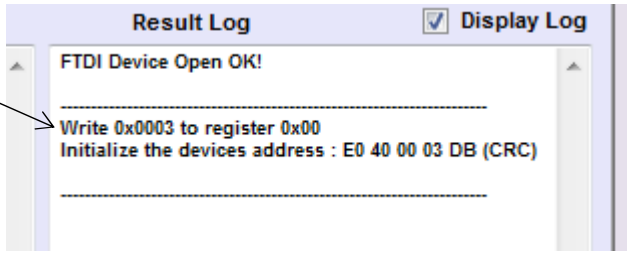
OK or Fail



2. Setup Device Address

a. After AN49502A and FTDI board connected and wake up, the first step is to setup device address.
b. Input 1~F to “Total Devices” textbox according to the number of AN49502A used in daisy chain.
c. Click “Setup Device Address” button after input total devices. Example below shows total devices of 3 has been used.
d. After “Setup Device Address” button clicked, actual SPI command sent is shown in Result Log. In this example, data 0x0003 is written to register 0x00.

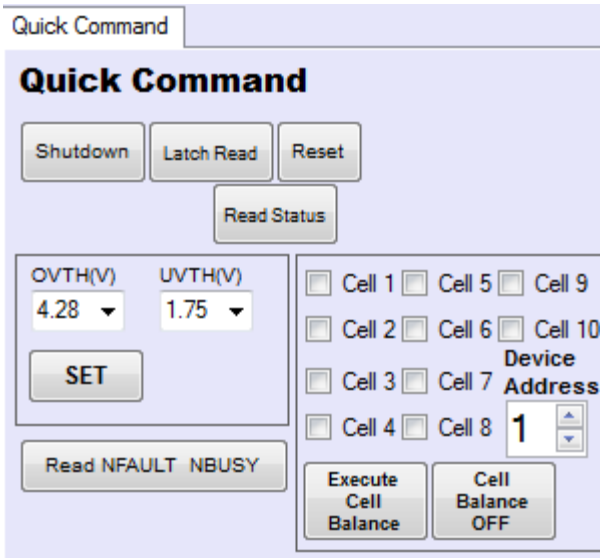




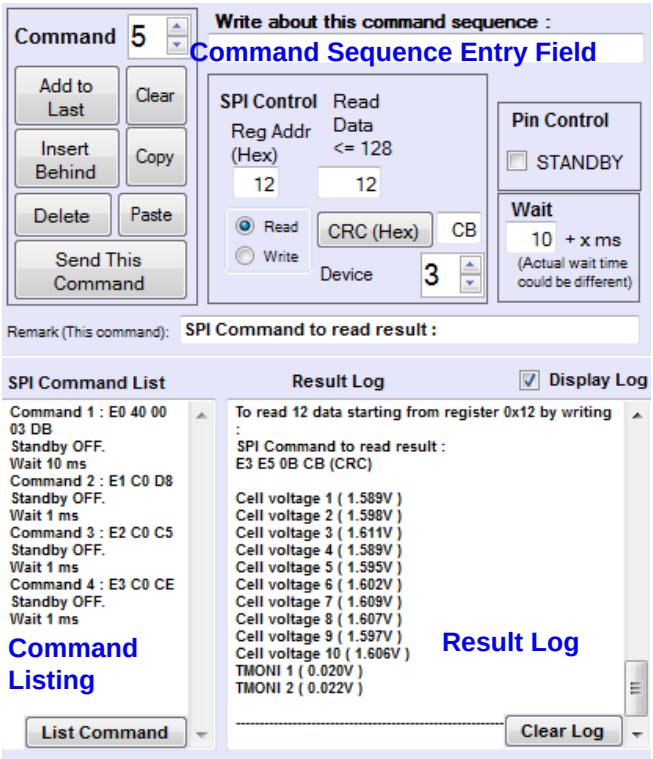
3. Using Quick Command

a. Some Quick Commands has been pre-programmed so that user may perform basic operation by simply click on a button.

b. Click on one Quick Command button, pre-programmed operation will be executed and the command list will be loaded into Command Sequence Entry Field, so that user may modify easily. The result is listed at Result Log.



Example : Latch Read button clicked



Quick Command List

Shutdown – broadcast* shutdown command by writing 0x007C to register 0x01

Reset – broadcast* reset command by writing 0x00BC to register 0x01

Latch Read – latch and read all data register (cell voltage 1~10 and TMONI 1~2) from all devices (the total devices is defined by Total Devices textbox entry).

Read Status – read status register 0x10 and 0x11 from all devices (the total devices is defined by Total Devices textbox entry).

OVUVTH SET – broadcast* Quick set for OV and UV threshold

Cell Balance – (i) select cell to be cell balanced
(ii) Execute Cell Balance after set
(iii) Cell Balance OFF
Cell balance command is send to selected device by **Device Address**, as cell balance is usually performed specific cells only.

Read NFAULT NBUSY – to read NFAULT and NBUSY line

* Note: Broadcast : writing same command to all device at one time by sending command to device address = 0.

4. Using Saved Command

a. The command sequences created from Command Sequence Entry Field can be saved for reuse. These saved command will be displayed on Saved Command Field for quick access.

b. Select one of the command and :

(i) Run by click on Run button, double click mouse button or press “ENTER” key.

- The saved command will be loaded to Command Sequence Entry Field and run.

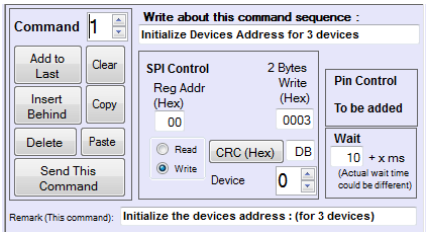
(ii) Load only saved command to Command Sequence Entry Field by Load button.

(iii) Refresh the saved command list by Refresh button.

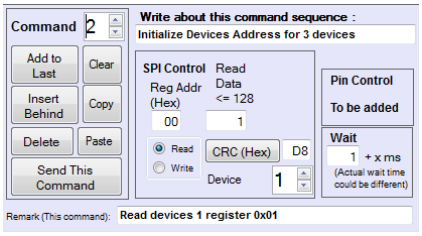
5. Programming Command Sequence

a. User may program command sequence to check the performance for AN49502A with Command Sequence Entry Field.

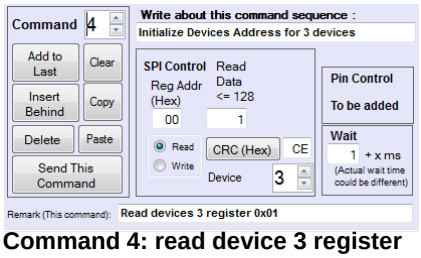
b. Example of command sequence for initializing 3 AN49502A in daisy chain is listed below:



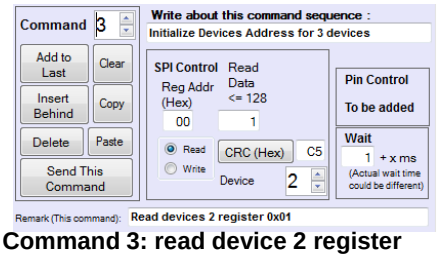
Command 1: broadcast 0x0003 to register 0x00



Command 2: read device 1 register 0x00 (for confirmation if success)

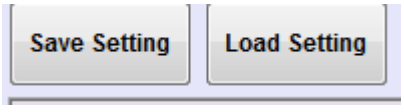


Command 4: read device 3 register 0x00 (for confirmation if success)



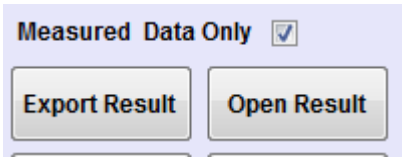
Command 3: read device 2 register 0x00 (for confirmation if success)

c. Command sequence created can be saved and reused.



6. Export and Open Result

a. The result of command sequence run can be exported to .csv file and open.
b. When Measured Data Only is checked, voltage measurement result only will be stored.



Result exported:

	A	B	C	D	E	F	G	H	I	J	K	L
1	21/8/2015 13:54											
2												
3	Time(ms)	0x12	0x13	0x14	0x15	0x16	0x17	0x18	0x19	0x1A	0x1B	
4	27	1.5918	1.5894	1.6104	1.5958	1.5903	1.6025	1.611	1.6083	1.6055	1.5906	
5	50	1.5921	1.59	1.6113	1.5948	1.5897	1.6025	1.6107	1.6089	1.6064	1.5897	
6	73	1.5918	1.5906	1.6104	1.5964	1.5903	1.6028	1.6119	1.6095	1.6064	1.59	
7	96	1.5918	1.59	1.611	1.5952	1.5906	1.6025	1.6104	1.6077	1.6058	1.5894	
8	118	1.5918	1.5897	1.6119	1.5958	1.5903	1.6028	1.6104	1.6089	1.6058	1.5887	
9	140	1.5918	1.5903	1.6116	1.5955	1.5891	1.604	1.611	1.6098	1.6052	1.5891	
10	162	1.5918	1.5906	1.6119	1.5952	1.5891	1.6037	1.6095	1.6086	1.6064	1.5903	
11	184	1.5903	1.5894	1.6113	1.5948	1.5894	1.6031	1.611	1.6089	1.6052	1.5887	
12	206	1.5918	1.5894	1.6113	1.5942	1.5903	1.6028	1.6116	1.6098	1.6058	1.5887	
13	228	1.5915	1.5884	1.6104	1.5945	1.5906	1.6025	1.6101	1.6098	1.6052	1.5891	
14	250	1.5924	1.5887	1.6104	1.5945	1.5894	1.6031	1.611	1.6092	1.6064	1.5897	