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Article applies to - AIT250 and AIT1000

ISSUE: Recovery from a failed AIT250 or AIT1000 Software Upgrade

If the AIT250 or AIT1000 is failing to power up correctly and the Green Power LED is constantly flashing, this indicates that the software has become corrupted and needs to be reinstalled.

The most common cause of this problem is a failed Software Update procedure when using the proAIS software to update the AIT250 or AIT1000 unit. If power or serial data connections are interrupted whilst updating the software in an AIT250 or AIT1000 product then the software update can fail. After power cycling the transceiver it will not operate correctly as the application software area has not been fully programmed.

After a failed software update the bootloader should still be resident in flash memory. Presence of the bootloader is indicated by the green 'Power' LED flashing continuously at power up.

RESOLUTION:

You will need a copy of TeraTerm which is a Terminal program that allows communication with the AIT1000 boot loader program. A copy of TeraTerm can be downloaded by clicking on the link below;

http://en.sourceforge.jp/projects/ttssh2/downloads/52472/teraterm-4.70.exe/

You will need to install TeraTerm and then run it, you will be asked to create a new connection and you need to select the Serial Port that the AIT250 or AIT1000 is connected to, COM6 in the example below;

Tera Term: New co	onnection	X		
© TCP/ <u>I</u> P	Hos <u>t</u> : 169.254.1. 1			
	√ Hist <u>o</u> ry			
	Service: @ Telnet	TCP <u>p</u> ort#: 2000		
	© <u>s</u> sh	SSH version: SSH2 -		
	🔘 Other	Protocol: UNSPEC -		
Serial Port: COM6 ▼				
OK Cancel <u>H</u> elp				

You will also need the latest AIT250/AIT1000 software which can be downloaded by clicking on this link....

http://www.digitalyacht.co.uk/files/sirius3 10 11 14 0.zip

Unzip this file and store the file "sirius3_10_11_14_0.hex" in an easy to access folder on your PC.

Once TeraTerm is running and the correct COM port has been selected, please carry out the following procedure;

1) Click "Setup" and select the Serial Port option, you should see the following screen;

Tera Term: Serial port setup				
Port:	СОМ6 - ОК			
<u>B</u> aud rate:	38400 -			
<u>D</u> ata:	8 bit 🔹 Cancel			
P <u>a</u> rity:	none 🔹			
<u>S</u> top:	1 bit ▼ <u>H</u> elp			
Elow control:	none 🔻			
Transmit delay O msec/ <u>c</u> har O msec/ <u>l</u> ine				

- 2) From the Baud Rate drop down select 38400 baud.
- 3) Apply power to the transceiver. If the bootloader is operational you will see text output to the terminal screen similar to that shown below:

0 20	DM3:38400baud - Tera Term VT	
File	Edit Setup Control Window Help	
SPSRT, SPSRT, SPSRT, SPSRT,	01,,,,*********************************	<u>^</u>
Bo NVRAM NVRAM App	vtloader calc cksm 0xEA2F stored cksm at 0x0020,7FFE 0xEA2F - 0K sector 0 calc cksm 0xB37F stored cksm at 0x0020,81FE 0xB37F - 0K sector 1 calc cksm 0xB37F stored cksm at 0x0020,89FE 0xB37F - 0K lication calc cksm 0x8001 stored cksm at 0x0023,FFFE 0xFFFF - ERRSED	
Сонрат	ibility information.	
- Boo - NVR - NVR - App - FPG	loader checksun: EA2F - OK M sectorD checksun: B37F - OK M sector1 checksun: B37F - OK Lication area checksun: 8001 - FAIL M ISP app area checksun:2001 - FAIL	
		*

- 4) Now paste the following command to the terminal.... :0000005FB
- 5) This can be achieved by copying the above command to the clipboard, then simply right clicking in the TeraTerm Window

6) The terminal will now indicate that the application area has been erased and is ready for update, see screen shot on next page;



- 7) Now use the 'File -> Send File' command in TeraTerm and send the "sirius3_10_11_14_0.hex" file to the unit. Do not interrupt power or serial connection to the transceiver whilst the update is in progress.
- 8) Once the upload has completed the terminal will show the checksum and other information similar to that shown below:

COM3:38400baud - Tera Term VT	
File Edit Setup Control Window Help	
:208E4C0000110552001105600011C9FD0011C**E3E0011011A001101E5001102530011056038	A
:208E6C00001105600011056000110560001105600011056000110E620011*CA260011CA4AE0	
20828C000011CHH70011C8840011C8C00011C8000011C8F00011CC0000011CC1F0011CC2F95 • 200260*#00001100#00001108EE00110PE0001100520001100710011002010011002000011002000	
208Ecc000011ccc3001102EE00110**30E0011cc3000111ca800112c3000112c3000112c30001120	
:208EEC0000111D7700111D7E00111D8500111D8C00111DB40011*1E1800111E7C00111EDCC9	
:208F0C000011205E001121E0001119R90011190900111B03001126720011220F001126720B	
*:208F2C0000112672001126720011223C001122890011267200112338001124R40011248C96	
208F4C00001124C300112***4E0001125180011267200112672001125950001125HF001125C8H9	
208F8C000011207200112004001120100011207200114203500110C7E00110C8C00110C9890	
:208FAC000011001800110026001100340011004200110C70001100500011005E0011006C78	
:208FCC0000110*07A00110C6200110D8800110D9600110DA500110DB3001230300012306C60	
:208FEC00001230BA0012318A001231BA0012**342F0012342F0012342F00123292001232A482	
20900C0000123289001232CE001232EH0012331E001233300012334H000%0312E00003137CC	
20902c00000031400003150000316000031750000317500003175000031750000317500003175000031750000317500003175000031750	
:20906C0000115E1600115E200011**5E2000115E3300115E3C00115E45001317F1001317BD34	
:20908C000013178R0013175700131724001316F1001316BE001*31688001316580010CB51DF	
:1090R0000010086500100879001008800010089A001008RE001008020010080D59	
:1890C*800000000000004144000087F800008HE800000000000000000	
No bootloader data received	
App checksum was: 425F - OK	
No toga isp application data received	
nomitoga couhtete	

9) The transceiver can now be power cycled and should commence normal operation.