

AERI

Software set-up procedure

(Equipped with Thales cooler controller)

ABB

EAERI version 1.00 Software set-up procedure Document No: AA006164-01 Rev: -Date: 2010-04-16

TABLE OF CONTENTS

1. IN7	TRODUCTION	1
1.1	Purpose Of Document	1
1.2	Prerequisites	1
2. EA	ERI COMPONENTS INSTALLATION	2
2.1	USER setting	2
2.2	Ethernet setting	2
2.3	FTSW EAERI SOFTWARE	2
2.4	Ethernet serial server	3
2.5	Agilent instruments	6
2.6	iBootbar configuration	10
2.7	Final settings	11

Page i

1.1 PURPOSE OF DOCUMENT

This document provides a procedure to install *AERI* software. It assumes that the computer was installed following the ABB computer installation procedure.

1.2 PREREQUISITES

Before beginning installation, you need:

- **Windows XP**
- □ 3D graphic driver

The computer must meet the following criteria:

- □ The computer must have 2 GB of RAM.
- □ The computer must be running in 1024x768 or better resolution with at least 256 color support
- □ The installer will not function correctly if the installation user does not have full administrator rights to Windows XP.

--- End of section ---

2. EAERI COMPONENTS INSTALLATION

2.1 USER SETTING

- □ If the user AERI exists, skip to section 2.2, otherwise, continue to next step.
- □ Go in the Control Panel -> Users Accounts.
- □ Select: Create new account.
- □ As account name type: AERI.
- □ Click next.
- □ The account type shall be: Computer administrator.
- □ Click on: create account.
- \Box Log on the new account name.

2.2 ETHERNET SETTING

- **G** Go in the TCP/IP Properties of the Ethernet card plugged in the EAERI instrument.
- □ Select: Use the following IP Address.
- □ Enter the following IP Address : 169.254.44.1
- □ Enter the following Subnet mask : 255.255.0.0

2.3 FTSW EAERI SOFTWARE

- □ Insert FTSW AERI CD
- □ open CD with Explorer, go in folder Third_Party\java
- □ double click on file j2re-1_4_2_07-windows-i586-p.exe (Use default path and typical configuration)
- **u** go on root folder of the CD drive and click on install.bat
- □ Follow the instructions. (Use default path and typical configuration)
- □ When a password is needed, type: <u>go-now</u>
- □ The account AERI has now the password: **<u>go-now</u>**
- □ After this installation, DO **NOT** REBOOT THE COMPUTER. If so, stop the cygwin process by pressing ctrl-c 2 times and answer yes to the question to stop it.
- □ Open file c:\E-AERI\FTSW_EAERI.Config in Notepad.

- Enter the corresponding coefficient for each tempCoef.[ambient/hot]Blackbody[TopRim/Apex/Bottom]TemperatureCoef[1/2/3]
- □ tempCoef.ambientBlackbody[TopRim/Apex/Bottom]TemperatureCoef[4/5/6] are for temperature below 0 Celsius.

(Standards provided by the manufacturer Wisconsin University)

- □ Copy c:\E-AERI\FTSW_EAERI.Config as c:\E-AERI\FTSW_EAERI.Config.manu
- □ Create shortcut to files "PowerOffInst.exe" and to "rebootInst.exe" on desktop. (right-click on file, "Send to" and select "Desktop (create shortcut)"
- □ Click Start, click Run, and type: control userpasswords2.
- □ Click on Users must enter a username and password to use this computer check box and select user AERI.
- Clear the Users must enter a username and password to use this computer check box and click apply.
- □ Enter the AERI account user name and password to automatically log on with, and then click **OK**.
- □ Click **OK** again
- □ Make sure the screen saver and the energy saver are disabled.

2.4 ETHERNET SERIAL SERVER

- Go in Start menu, Programs, B&B Electronics, VLINX, ESP Servers, VLINX ESP Manager
- Double click on an item in the list
- $\Box \quad \text{Set IP address to } 169.254.44.2$
- □ Set Netmask to 255.255.0.0
- □ Keep com setting to default (see screen shot at the end of the sub-section)
- □ Click the update button, then YES, then No.
- □ You may exit the application.
- Go in Start menu, B&B Electronics, VLINX, ESP Servers
- □ Select Install Virtual COM
- □ Select Search all reachable servers and click OK.
- □ You now should have a list with 4 elements
- □ Select the first one (Pointing mirror should be connected in port 1 of the Serial Server)
- □ Click Map Server button.

ABB	EAERI version 1.00 Software set-up procedure	Document No: AA006164-01 Rev: - Page 4 Date: 2010-04-16					
□ Select a Com5 in the	Select a Com5 in the Map to field and click OK twice.						
□ In the FTSW EAERI	Folder, edit the FTSW_EAERI.Config file (C:\E	-AERI\FTSW EARI)					
□ Search the mirror.com	mPort property and enter the same com port num	ber than the one mapped previously					
□ Save document.							
□ Select the second on	e (TEC Controller should be connected in port 2 d	of the Serial Server)					
Click Map Server bu	tton.						
□ Select a Com6 in the	Map to field and click Ok twice						
□ In the FTSW EAERI	In the FTSW EAERI Folder, edit the FTSW_EAERI.Config file						
Search the TECCont previously	roller.comPort property and enter the same com p	port number than the one mapped					
□ Click save.							
□ Select the third one (Thales Controller should be connected in port 3 c	of the Serial Server)					
Click Map Server bu	tton.						
□ Select a Com7 in the	Map to field and click Ok twice						
□ In the FTSW EAERI	Folder, edit the FTSW_EAERI.Config file						
Search the ThalesCo previously	oler.comPort property and enter the same com po	rt number than the one mapped					
□ Save the FTSW_EA	ERI.Config File.						
□ Click Close to exit							

ABB		EAERI ver Software set-u	sion 1.00 p proced) ure	Document No: AA0 Rev: - Date: 2010-04-16)06164-01 Page 5
Server Propertie	:5					×
			S&B Electron VLINX ESR	nics 902		
Server name:	2_Port	Serial port:	1	•	Delimiter HEX 1:	00
Serial number:	0717029551	Baud rate:	9600	•	Delimiter HEX 2:	00
Password:		Data/Stop bits:	8-1	-	Force transmit:	0 x100ms (0-65535)
DHCP:	Disable 💌	Parity:	None	-	Port status:	Not Connected
IP address:	169.254.44.2	Flow control:	None	-	TCP/UDP port:	4000
Netmask:	255.255.0.0	Protocol:	TCP	•	Serial port mode:	RS232 💌
Gateway:	192.168.0.254					
MAC address:	00:0B:B4:11:73:6F	Serial timeout:	0	(0-65535	sec) Connection at:	Power up
Version & Date:	2.0 & 5/8/06	TCP alive timeout:	0	(0-255 mi	ⁿ⁾ Maximum connection:	1
Link status:	100/Full Duplex	Connection mode:	Server	•	Remote IP address:	255.255.255.255
Hardware ID:	PCB-2414-P0					
	Update				Cancel	

ABB	EAERI version 1.00 Software set-up procedure	Rev: - Pag Date: 2010-04-16		
AGILENT IN	ISTRUMENTS			
Turn off	all Agilent instruments.			
Go to Start m	enu, Programs, Agilent IO Libraries suite, Agilen	t connection Expert.		
□ Close the wel	lcome screen			
On the left ba	ar menu, click Add an instrument			
Select LAN, t	then OK			
□ Select IP Add	lress			
21 (1000) 1	L4411A Agilent instrument configuration			
Turn On the L4411A put the IP Address shown on the display of the L4411A.				
□ Click on Identify Instrument				
□ Make sure the	e identification pass, and click OK.			
□ Click on Instr	rument Web Interface			
Go in the view	w and modify Configuration Section			
□ Click modify	configuration			
□ Set the follow IP and IP add	ving configuration for the L4411A: (See figure be lress.	low) for the fields : DHCP, Automatic priva		
Parameter	Configured Value	Edit Configuration		
IP Settings may be obtained	automatically using the following:			
Automatic Private IP: *				
IP Settings to use if automati	ic modes are off or servers are unavailable:			
IP Address: *	169.254.4.10	169.254.44.11		
Subnet Mask: *	255.255.0.0	255.255.0.0		
Default Gateway: *	0.0.0.0	0.0.0		

Page 7

□ Close Web browser.

ABB

- □ Return to Agilent Connection Expert Window
- □ Click on Change Properties
- □ Put the right IP Address (169.254.44.11), click OK.

The second

L4421A Agilent instrument configuration

- On the left bar menu, click Add an instrument
- □ Select LAN, then OK
- □ Select IP Address
- **<u>Turn On</u>** the L4421A instrument and wait until the LAN led on instrument front panel changes to green.
- □ put this IP Address: 169.254.44.88.
- □ Click on Identify Instrument
- □ Make sure the identification pass, and click OK.
- □ Click on Instrument Web Interface
- □ Go in the view and modify Configuration Section
- □ Click modify configuration
- □ Set the following configuration for the L4421A

Parameter	Configured Value	Edit Configuration				
IP Settings may be obtained automatically using the following:						
DHCP: *	ON	OFF CON				
Automatic Private IP: *	ON	• OFF • ON				
IP Settings to use if automatic modes are off or servers are unavailable:						
IP Address: *	169.254.44.88	169.254.44.21				
Subnet Mask: *	255.255.0.0	255.255.0.0				
Default Gateway: *	0.0.0	0.0.0.0				

- □ Click Save, then OK
- □ Click Restart L4421A LAN, then OK
- □ Return to Agilent Connection Expert Window
- □ Click on Change Properties



- □ Click Save, then OK
- □ Click Restart L4452A LAN, then OK
- □ Return to Agilent Connection Expert Window
- □ Click on Change Properties
- □ Put the right IP Address(169.254.44.52), click OK.

ABB	EAERI version 1.0 Software set-up procee)0 Jure	Document No: AA(Rev: - Date: 2010-04-16	006164-01 Pa	ige 9
Open an internet bro	wser				
• Enter the following	address : 169.254.44.52				
□ Click on <bowser th="" w<=""><th>eb Control></th><th></th><th></th><th></th><th></th></bowser>	eb Control>				
□ Click in the window	to activate java control.				
$\Box Click < Allow Full C$	ontrol>				
$\Box \text{Set the following con}$	nfiguration :				
Agilent Technologies	L4400 Series LXI Instrument				
C Observe Only	Scan Control Sequences	System Overview	Alarms	Commands Updat	e View
Welcome Page C Allow Full Contr					^
Browser Web Control Channel 1001	DIO BYTE 1 Con	figure Channel	Read/Write DIO	Reset Module	
System Status	DIO BYTE 2 Operation Mode: Input	figure Channel	Read/Write DIO	S = Channel is in a scan list. A <n≥ =="" channel="" h<="" th=""><th>as</th></n≥>	as
Print Display Print Display Channel 1003	DIO BYTE 3 Operation Mode: Output Con Dutput Data: 0xFF	figure Channel	Read/Write DIO	Alarm <n> enabled</n>	E
Channel 1004	DIO BYTE 4 Operation Mode: Output Output Data: 0x00	figure Channel	Read/Write DIO		
Channel 1005	TOTALIZER Con	figure Channel	Monitor Channel		
Channel 1006	DAC 1 Con /oltage Level: 0.8940	figure Channel			
Channel 1007	DAC 2 /oltage Level: 0.0000	figure Channel	<u>,</u>		
□ Click on <comman< th=""><th>ds> button.</th><th></th><th></th><th></th><th></th></comman<>	ds> button.				
□ In the <enter (<="" scpi="" th=""><th>Command or Query>, enter the foll</th><th>lowing command</th><th>ds:</th><th></th><th></th></enter>	Command or Query>, enter the foll	lowing command	ds:		
^SAV[space]2					
MEM:STATE:F	RECALL:SELECT[space]2				
MEM:STATE:R	ECALL:AUTO ON				

	4	\BB	EAERI version 1.00 Software set-up procedure	Document No: AA006164-01 Rev: - Page 10 Date: 2010-04-16
		🗆 Mal	e sure there are no error after each command.	
		□ Clos	e SPCI command interface window.	
		🗆 Tur	off the 4452 instrument	
		🗅 Tur	n it on	
		□ Ver prev	fy with a web browser that the initial configuration iously	ion corresponds to the one entered
2.6 I	BC	OOTBAR CONI	TIGURATION	
1		Connect the compute	r to the iBootBar via a network cable.	
1		Change the computer	IP address to 192.168.0.1.	
I		Open a command pro	mpt window (right click on windows Start menu	ı, select command prompt).
I		Type: telnet 192.168	0.254	
I		Enter login: admin		
I		Enter password: adm	in	
I		Type: set ipaddress 1	69.254.44.254	
I		Type: set subnet 255	255.255.0	
l		Type: reboot		
l		Change back the con	puter IP address to 169.254.44.1	
		Double click on the f	ile c:\E-AERI\setEAERIGroup.exe.	
l		Double click on desk	top icon named iBootBar.	
[Enter user name: adr	nin	
[Enter password: adm	in	
[Answer YES to the p	opped dialog.	
		Click on button <sel< th=""><th>ect All>.</th><th></th></sel<>	ect All>.	
		Click on button <off< th=""><th>>.</th><th></th></off<>	>.	

ABB	EAERI version 1.00 Software set-up procedure	Document No: AA006164-01 Rev: - Date: 2010-04-16	Page 11
2.7 FINAL SETTINGS			
Reboot computer			
received a second se			
	End of Section		
Installed by:			
	— End of document —		