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# Firmware Updater Connection Troubleshooting

### Summary

This Technical Note describes how to proceed when the firmware updater fails to connect even though the correct IP address for the instrument has been provided.

# Related Technical Notes and References

TN2500 Wyatt Instrument Firmware Update Guide

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#### **Problem Overview**

The firmware updater may fail to connect to the specified instrument even though the user has provided the correct IP address for the instrument. The user may see an error message similar to the screenshot below, which reports that it is "**Unable to connect to instrument with IP address X.X.X.X. Aborting.**"

8	Wyatt Optilab T-rEX 6.1.0.2 Updater 🛛 – 🗆 🛛 🛛
<b>Installing</b> Please wait	while Wyatt Optilab T-rEX 6.1.0.2 is being installed.
Logging on.	
6	Wyatt Optilab T-rEX 6.1.0.2 Updater
8	Unable to connect to instrument with IP address 172.20.2.68. Aborting.
	ОК
Wyatt Technolo	ogy Corporation
	< Back Next > Cancel

This error is likely to occur on Windows 7 and Windows 8 computers with specific network security configurations when the instrument's local time is incorrect.

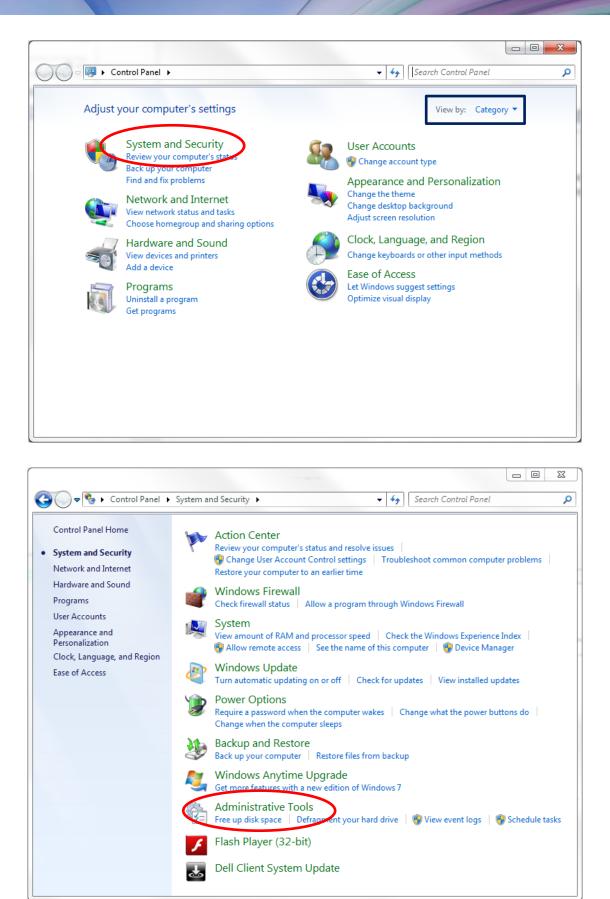
#### Resolutions

#### Method 1

The user can modify their computer's *Windows Security Policy*. This procedure may require administrator privileges.

On the computer that is connected to the instrument:

- 1. Open the **Start** menu, then select **Control Panel**.
- Please note that this control panel is in Category view. Select System and Security, then select Administrative Tools. (If your control panel is in list view, you can immediately select Administrative Tools.)



Favorites       Desktop       Downloads       ConeDrive       Recent Places	ame Component Services Computer Management Data Sources (ODBC) Event Viewer	Date modified 7/13/2009 9:57 PM 7/13/2009 9:54 PM	Type Shortcut Shortcut	Size 2 KB
Downloads 2 ConeDrive 2 Recent Places 2	Computer Management Data Sources (ODBC)	7/13/2009 9:54 PM		2 KB
ConeDrive	Data Sources (ODBC)	.,	Shortcut	
🔚 Recent Places		7 // 2 /2222 2 52 53 5	onorecae	2 KB
		7/13/2009 9:53 PM	Shortcut	2 KB
퉬 013000 Series 🛛 🔮	Event Viewer	7/13/2009 9:54 PM	Shortcut	2 KB
	iSCSUnitiator	7/13/2009 9:54 PM	Shortcut	2 KB
	Local Security Policy	2/10/2011 8:28 AM	Shortcut	2 KB
🛜 Libraries 💦 👔	Performance Monitor	7/13/2009 9:53 PM	Shortcut	2 KB
Documents	🖥 Print Management	2/10/2011 8:28 AM	Shortcut	2 KB
🌙 Music 🛛 💈	§ Services	7/13/2009 9:54 PM	Shortcut	2 KB
📔 Pictures 🛛 🖡	System Configuration	7/13/2009 9:53 PM	Shortcut	2 KB
😸 Videos 🛛 🛃	Task Scheduler	7/13/2009 9:54 PM	Shortcut	2 KB
E	Windows Firewall with Advanced Security	7/13/2009 9:54 PM	Shortcut	2 KB
	🛿 Windows Memory Diagnostic	7/13/2009 9:53 PM	Shortcut	2 KB
🗣 Network	Windows PowerShell Modules	7/13/2009 10:32 PM	Shortcut	3 KB

3. Double click on "Local Security Policy"

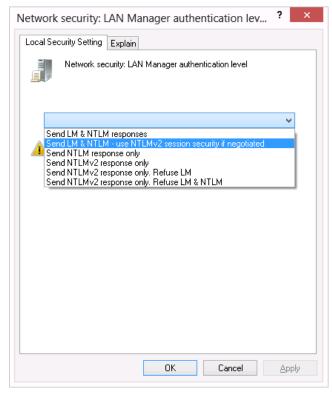
4. Under Security Setting, expand Local Policies and select Security Options.

Local Security Policy				
File Action View Help				
⊨ 🔿 🔀 🔜 🗶 📑				
Security Settings	Policy Accounts: Administrator account status	Security Setting		
	Accounts: Guest account status	Disabled Enabled		
Security Options	Accounts: Rename administrator account     Accounts: Rename guest account     Accounts: Rename guest account     Audit: Audit the access of global system objects	Administrator Guest Disabled		
Network List Manager Policies  Public Key Policies  Software Restriction Policies  Application Control Policies	Audit: Audit the use of Backup and Restore privilege     Audit: Force audit policy subcategory settings (Windows Vis     Audit: Shut down system immediately if unable to log secur	Disabled Not Defined		
Application Control Policies     Advanced Audit Policy Configuration	DCOM: Machine Access Restrictions in Security Descriptor D     DCOM: Machine Launch Restrictions in Security Descriptor			
	Devices: Allow undock without having to log on     Devices: Allowed to format and eject removable media     Devices: Prevent users from installing printer drivers	Not Defined Disabled		
	Devices: Restrict CD-ROM access to locally logged-on user     Devices: Restrict floppy access to locally logged-on user only     Domain controller: Allow server operators to schedule tasks	Not Defined Not Defined Not Defined		
	Domain controller: LDAP server signing requirements     Domain controller: Refuse machine account password chan	Not Defined Not Defined		
	Domain member: Digitally encrypt or sign secure channel d           Domain member: Digitally encrypt secure channel data (wh	Enabled Enabled		
	Domain member: Digitally sign secure channel data (when     Domain member: Disable machine account password chan	Enabled Disabled		

5. Scroll through the list in the right-hand pane and double click on **Network security: LAN Manager authentication level** as shown below.

Local Security Policy			_ 0	23
ile Action View Help				
• 🔿 🖄 🖬 💥 🗊 😖 📝 🗊				
Security Settings	Policy	Security Setting		
<ul> <li>Account Policies</li> <li>Local Policies</li> <li>Ja Audit Policy</li> <li>Juser Rights Assignment</li> <li>Security Optionsi</li> <li>Windows Firewall with Advanced Seci</li> <li>Public Key Policies</li> <li>Software Restriction Policies</li> <li>Application Control Policies</li> <li>JP Policies</li> <li>Advanced Audit Policy Configuration</li> </ul>	<ul> <li>Network access: Named Pipes that can be accessed anonym</li> <li>Network access: Remotely accessible registry paths and sub</li> <li>Network access: Sharing and security model for local accou</li> <li>Network access: Sharing and security model for local accou</li> <li>Network security: Allow Local System to use computer ident</li> <li>Network security: Allow Local System NULL session fallback</li> <li>Network security: Allow Local System NULL session fallback</li> <li>Network security: Configure encryption types allowed for Ke</li> <li>Network security: Do not store LAN Manager hash value on</li> <li>Network security: IDA duat signing activation requests to t</li> <li>Network security: Ninimum session security for NTLM SSP</li> <li>Network security: Restrict NTLM: Add server exceptions in t</li> <li>Network security: Restrict NTLM: Add server exceptions in t</li> <li>Network security: Restrict NTLM: Add incoming NTLM Tra</li> <li>Network security: Restrict NTLM: Audit Incoming NTLM traffic</li> <li>Network security: Restrict NTLM: Audit Incoming NTLM traffic Network security: Restrict NTLM: Audit Incoming NTLM traffic</li> <li>Network security: Restrict NTLM: Outgoing NTLM traffic to</li> <li>Network security: Restrict NTLM: Outgoing NTLM traffic to</li> <li>Network security: Restrict NTLM: Outgoing NTLM traffic to</li> <li>Shutdown: Allow system to be shut down without having to</li> <li>Shutdown: Allow system to be shut down without having to</li> </ul>	Enabled Not Defined Classic - local users auth Not Defined Not Defined Enabled Enabled Enabled Send & NTLM - use Negotiate signing Require 128-bit encrypti Require 128-bit encrypti Not Defined Not Defined Disabled Disabled		
	System cryptography: Force strong key protection for user k System cryptography: Use FIPS compliant algorithms for en	Disabled		
4 111	System objects: Require case insensitivity for non-Windows	Enabled		

6. Click on the drop down menu and select Send LM & NTLM – use NTLMv2 session security if negotiated.



- 7. Press "OK".
- 8. Restart the firmware update procedure.

#### Method 2

The second method to establish connection between the firmware updater and the instruments is to correct the instrument date and time so that it is in sync with their workstation. To change the date and time on the instrument's front LCD screen follow these steps:

- 1. Navigate to the **System** tab. Note: The screenshots below are for a HELEOS II. The System tab will look slightly different on other instruments, but the necessary functions will be available for all instruments.
- 2. Tab down to the **Set Time** button, then hit enter.

Main Batch QELS Alarm System Comm HELEOS II® WYATT			
Flow Cell Temperature: 25.00°C Heated Line Temperature: disconnected			
Set to 25.00 °C	Sync 🔽	Set to 25.00	"C
			]
Recycle		COMET	
Start in minute			inutes OFF
	Cancel	Run for m	inutes Cancel
Analog Output			
Analog Out 1 🔽	Laser Powe	er (%) 70.0 I	Language English 💌
LS Detector 11 (V)	Time Interv	al (s) 1.00	Zero Dark Offsets
+/- 10.00 → 10 V	Serial Nurr	iber: 893-H2HC	Restart ISI
+/10.00 → -10 V	Firmware Vers	sion: 2.4.3.2	Load Factory Default
Allow Instrument To Idle		3:57:34 PM 🔺	
Anow instrument to late	Set Time	5.57.34 FM	Restart Instrument

3. Press **DEL** on the keypad to the right of the LCD screen on your instrument – this will replace the **Set Time** button with a date field. You can switch between the month, day, and year fields with the right and left arrow keys. You can change the value of each field with the up and down arrow keys.

Main Batch QELS Alar	m_System HELEOS II® & WYATT			
Flow Cell Temperature: 25.00°C Heated Line Temperature: disconnected				
Set to 25.00 °C	Sync 🔽 Set to 25.00 °C			
Recycle       COMET         Start in       minutes         Cancel       Run for         minutes       Cancel				
Analog Output				
Analog Out 1	Laser Power (%) 70.0 Language English			
$\begin{array}{c} ++ \\ ++ \\ -10.00 \\ ++ \\ -10.00 \\ -10 \\ \end{array} $	Time Interval [s]     1.00     Zero Dark Offsets       Serial Number:     893-H2HC <ul> <li>Restart ISI</li> <li>Firmware Version:</li> <li>2.4.3.2</li> <li>Load Factory Default</li> </ul>			
Allow Instrument To Idle	€/ 5/2015 v 4:01:25 PM ▲ Restart Instrument			

Main Batch QELS Alarm System Comm HELEOS II® WYAT					
Flow Cell Temperature: 2	Flow Cell Temperature: 25.00°C Heated Line Temperature: disconnected				
Set to 25.00 °C	Sync 🔽 Set to	25.00 °C			
L					
		_			
	Recycle         COMET           Start in         minutes         RECYCLE				
	Cancel Run f				
Analog Output	Chalog Output				
Analog Out 1 💌	Laser Power (%) 🗾 7	70.0 Language English 💌			
LS Detector 11 (V)	Time Interval (s)	I.00 Zero Dark Offsets			
$\begin{array}{c c} ++ & 10.00 & \longrightarrow & 10 \ \forall \\ ++ & -10.00 & \longrightarrow & -10 \ \forall \end{array}$	Serial Number: 893-	H2HC Restart ISI			
	Firmware Version: 2.4.3	3.2 Load Factory Default			
Allow Instrument To Idle	3/ 5/2015 🗸 🚺:01:	25 PM			

- 2. Once the date and time are both correct, hit ENTER on the keypad to save the changes.
- 3. Restart the firmware update procedure.

#### **Contact Information**

Please contact us at <u>support@wyatt.com</u> (in North America) or contact your local distributor listed at <u>www.wyatt.com/Distributors</u> if you have any questions about either method or if you like to obtain any further assistance.

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