

FURUNO

1. Integration with FLIR M400-Series

FLIR M400-Series cameras can be integrated with NavNet TZtouch3 (**Version 2 software or later**) MFDs to pan, tilt, zoom in/out, and move or lock a camera to a specific target. This document describes how to configure the FLIR M400-Series cameras before integrating them to the NavNet TZtouch3 network.

2. Network Overview

Only one (1) FLIR M-Series can be used on the TZtouch3 network as shown at right. Both, video images and control commands are communicated via the Ethernet.



Note:

The JCU II (Joystick Control Unit), normally included with the FLIR camera is necessary to turn on and off the camera and operate the camera for the functions not supported by the MFD. The JCU is considered a mandatory device.

3. Setting up FLIR M400-Series Camera and JCU II

Static IP addresses should be assigned to the FLIR M400-Series camera and JCU II to match with the NavNet TZtouch and TZtouch2 network. Only properly configured units should be placed on the Furuno Ethernet network.

MFD	M400-Series Camera	M400-Series Subnet Mask	JCU II IP Address	JCU II Subnet Mask
TZT3 (v2 and after)	172.31.200. 9	255.255.0.0	172.31.200.100	255.255.0.0

Table 1.1

3.1. **Assigning Static IP Address to FLIR M400-Series**

The recommended IP addresses is shown in the prior table. You must avoid duplication with the IP addresses of FURUNO Ethernet sensors. For detailed setup, follow the steps below.

Setting up PC to Assign Static IP to FLIR M400-Series (1) Connect PC to FLIR M400-Series network. (2) For now. Make sure you have the JCU PC FOR turned OFF or disconnected from the SETUP network. 12-24 VDC NON POE ETHERNET Ethernet Switch

Tip:

The FLIR M400-Series are UPnP-enabled devices. You can see the list of UPnP-enabled device on the PC by opening [Network] (Windows 7 and later). Note that devices such as M400-Series cameras will appear on the PC only if they are in the same network domain.

(3) Set up PC IP address and Subnet mask to access the FLIR M400 Series configuration page as shown in below.

Tip:

When the PC is connected to the M400-Series camera directly with Ethernet cable or via a hub (without a router or DHCP server in the network), the M400 -Series camera will automatically assign themselves an IP address of 192.168.250.xxx / 255.255.255.0. To access the configuration page of the M-400 Series camera, set up the IP address and subnet mask of the PC to 192.168.250.XXX and 255.255.255.0. In this example, the IP address is manually fixed to 192.168.250.1 and subnet mask to 255.255.255.0 as shown at below.



(4) Once the PC is in the same network domain as the M400-Series camera, you will be able to see the M400-Series camera icon under [Network] (Windows 7 and later). Host names are shown as device names. In this example, [M400XR 6060694] is M400XR. For Windows10 Click on Windows Icon search for Control Panel. Select [Network and Internet] and left click on [View network computers and devices]. Or you can click on PC/My PC icon and then click on [Network]

Best match					
Control Panel App					
Apps		Control Panel			
C Settings	>	App	Control Panel		
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EPSON Scan Settings	>	📑 Onen		Adjust your computer's settings	View by:
- Croon seanseangs		- Open		System and Security	See User Accounts
a Kun	>	Normal (Review your computer's status Save backup copies of your files with File History	Change account type
Get Help	>	Recent		Backup and Restore (Windows 7)	Appearance and Personalization
Windows Administrative Tools	>	View network computers and devices		View network status and tasks	Clock and Region
Search the web		View network status and tasks		Hardware and Sound View devices and printers	Change date, time, or number formats
CONT - See web results	>	Network and Sharing Center		Add a device Adjust commonly used mobility settings	Let Windows suggest settings Optimize visual display
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> - 🛧 💣 > Network			Teruwere end Sound		
- → · ↑ 🏕 > Network		↑ → Other Devices (3)	Programs	Intel® PROSet/Wireless Tools	
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⊢ → · ↑ 🔹 Network		Other Devices (3) M400XR 6060694	Programs User Accounts Appearance and Personalization Clock and Region	Intel® PROSet/Wireless Tools	

Tip:

If the devices do not appear, check if the PC is set up to display UPnP notifications.

<u>Windows7</u>

In the [Network] page, turn on [Network Discovery]

🏟 🎧 = I		Network		
File Netwo	ork View			
G 1	🗣 🕨 Network	• 42	Search Network	
Network discover	y and file sharing are turned off. I	Network computers and	devices are not visible. Clici	
🔆 Favorites	😵 Turn on network discover	y and file sharing	pty.	
Desktop	Open Network and Sharin	g Center		

Windows10

Click on the Windows icon and keyword search for "manage advanced sharing settings" Enter. Select [Turn on network discovery] and select [Save changes].

Manage advanced theregy entry is not set on the set of parage advanced sharing settings control paral Manage advanced sharing control paral Manage advanced sharing control paral Manage advanced setting control pa	Best match		Change sharing options for different network profiles
	Manage advanced sharing settings Caretral panel	華	Windows creates a separate network profile for each network you use. You can choose specific options f each profile. Private
P manage advanced sharing options Image advanced sharing options P manage advanced sharing P P manage advanced share P P manage advanced setting P <	Search work and web P manage advanced - test work and web results	Manage advanced sharing settings Control panel	Guest or Public
All Make sould			

Assigning Static IP Address to M400-Series Camera

(1) Double Click the M400-Series camera icon to open the configuration page.





User Name: admin





(3) Click on [Maintence]



(4) Click on [LAN Settings]

d Server				1
LAN Settings Services	Hostname Meo0 Interface: eth0	Hostname Mode		
 Security Options Sensors 	IP Address Mode		-	
9 Sensor	192.168.250.116			
Files	Netmask 255.255.255.0			
Product Info	Gateway		_	
	MTU (1100-1500) 1500			
Server Running.				Sensor #0

(5) Set [IP Address Mode] to Static. Change [IP Address] to 172.31.200.9 and set [Netmask] to 255.255.0.0

D Server	LAN Settings			
LAN Settings	Hostname	Hostname Mode		
Services	M400	static		
Server Status				
Security Ontions	IP Address Mode			
Sancore	Static		~	
P Jelisons	TP Address			
9 Sensor	172.31.200.9			
Files	Netmask			
	255.255.0.0			
2 Product Info	Gateway			
	MTH (1100-1500)			
	MTO (1100-1500)			
	1500			

(6) Scroll down click and Save and Accept

ÇFLIR	Live Video Setup Maintonance Help Log out	Kan 08/19/2021 01:46:47 pm			📰 bara Matan da Afrika pe
Sarver	Netmask 255.255.0.0	1			
LAN Settings Services	Gateway				
 Server Status Security Options Sensors 	MTU (1100-1500) 1500				
Sensor	DNS Servers DNS Mode Static				
Product Info	Name Server 1 75.75.75.75		Name Serve		
	Name Server 2 75.75.76.76		Name Servi 75757676 LAN Settings changes require a network restart	•	
	Read Save Restart Network		Accept		
 Server Running. FLIR Systems Inc. 	www.FLIR.com	Sensor #0			

(7) Click on [Restart Network]

\$FLIR	Live Video Setup Maintonance Help Log out	🔜 08/19/2021 01:46:47 pm	ÇFLIR	Live Video Setup Hamilananco Help	
d Savar	Netmask 255.255.0.0	1			
LAN Settings Services	Gateway				
 Server Status Security Options Sensors 	MTU (1100-1500) 1500				
9 Sensor	DNS Servers DNS Mode Impact Automatication DNS Mode Impact Automatication DNS Mode Impact Automatication DNS Mode DNS MO	_			
 Files Product Info 	Name Server 1 75.75.75.75			Name Servi	
	Name Server 2 75.75.76.76			Network restarted. If the IP address was changed, it may be necessary to type the new URL to reconnect.	
	Read Save Restart Network			Accept	
Server Running.		Sensor #0			
C FLIR Systems Inc.	www.FLIR.com	1-877-773-3547	2 FUR Systems Inc.	www.FLIR.com	1-077/203907

(8) Restart server by clicking on green dot [Server Running]

- Alexandre	Netmask	
Bereig	255.255.0.0	
LAN Settings	Gateway	
Services		
Server Status		
Security Options	MTU (1100-1500)	
Sensors	1500	
Sensor		
	DNS Mode	
Files	Static	I
	Name Server 1	1
Product Info	75.75.75.75	
	Name Server 2	
	75.75.76.76	
	Read Save Restart Network	

(9) Once page becomes unresponsive, <u>cycle power or reboot camera</u> to save changes.

ÇPLIK	Live Video Setup Hali	itanajisa Help	red ent	👱 07/11/2021 59/16/10 am
	75.75.75.75 Name Serv.	Loading		
	You must restart the			

3.2 Assigning Static IP Address JCUII

The recommended IP addresses is shown on *Table 1.1*. You must avoid duplication with the IP addresses of FURUNO Ethernet sensors. For detailed setup, follow the steps below.

Setting up PC to Assign Static IP to JCUII

(1) For now, power off and disconnect FLIR M400-Series camera from the network.

(2) Once FLIR M400-Series camera is removed from the network connect JCU to the network.



Tip:

The JCUII is a UPnP-enabled device. You can see the list of UPnP-enabled device on the PC by opening [**Network**] (Windows 7 and later). Note that devices such as M400-Series cameras will appear on the PC **only if they are in the same network domain**. To access the configuration page of the JCUII, set up the IP address and subnet mask of the PC to 169.254.XXX.XXX and 255.255.0.0. In this example, the IP address is manually fixed to **169.254.1.1** and subnet mask to **255.255.0.0** as shown at below.

Tip:

You can hold down the **Color** key **on push up on joystick** to display JCUII current IP address.

(3) Set up PC IP address and Subnet mask to access the FLIR M400 Series configuration page.

Home Ethernet Unidentit No Internet	Change adapter options Change advanced sharing options fied network Network and Sharing Center Vindows Firewall	Internet Protocol Version 4 (TCP/IPv4) Properties
Status Wi-Fi	Click on Change adapter options	Click on Use the following IP address , enter this shown IP address and Subnet and click on OK
Ethermet 2 Properties etworking Sharing Connect using: ASIX AX887728 US82.0 to Fast Ethermet Adapter #2 ASIX AX887728 US82.0 to Fast Ethermet Adapter #2 Configure_ This connection uses the following items: Configure_ This connection Use to Advice Configure_ Con	Ethernet 2 Status X General Connection IPv4 Connectivity: No network access IPv6 Connectivity: No network access Ouration: 00:09:01 Speed: 100.0 Mbps Details Activit Click on Properties Insurved Bytes: 41,807 853,833 Opposetion Opposetion Opposetion	Obtain an IP address automatically ● Use the following IP address: IP address: Subnet mask: Default gateway: Obtain DNS server address automatically ● Use the following DNS server addresses: Preferred DNS server: Alternate DNS server: Image: Obtain and the settings upon exit

Assign Static IP Address to JCUII

(1) Double click on JCUII Icon to open configuration



(2) Set [Network Addressing] to Static



(3)Set IP address to <u>172.31.200.100</u> and Mask to <u>255.255.0.0</u> and **Save**

\$FL	IR [®]	FLIR 1-877-773-3547 www.FLIR.com
M-Series JCU Firmware Update Please specify a .bin Choose File No file	J Web Interface	() \$FLIR Menu
Upload		Scene Color Home - + Canera Hour 1 Hay 2 Hour 3
Network Addressin O Dynamic Static	19 IP: 172.31.200.100 ? Mask: 255.255.0.0 ? Gateway: 2	
Factory Default	Save	

Tip:

If you only see script and no JCU configuration page.

This XML file does not appear to have any style information associated with it. The document tree is shown below.

v(device?)

(device?)

(device?)

(device?)

(friendly!Mame>!Secies 3CU 00903(/friend!y!Mame>
(moufacturer>!HR Commercial Vision Systems(/manufacturer>
(manufacturer)!HR Commercial Vision Systems(/manufacturer>
(monufacturer)!HR:Commercial Vision Systems(/manufacturer>
(modelDescription)Systems(/manufacturer!RL)

(modelDescription)Systems(> friend!y!Mame>
(modelDescription)>

(UDN)udd):GU-1_0-89911a22-ef16-11dd-84a7-00405F408598</UDN)

Manually enter **/index.html** at the end of the IP address of JCU in URL field and Enter/Search, this will bring up the Configuration page as shown above in step (2).



4. Setting up TZtouch3 MFD for FLIR Integration

4.1 Setting UP TZT3 MFD

(1) You can now connect both the FLIR M400-series camera and JCUII connected into the network.



(2) From the Home Page select [Settings]



(3) Select [Camera]



(4) Select [FLIR Installation]



(5) Select [Scan IP]

<	FLIR Installation		
Scan IP			
Video Source	IP CAMERA 1	>	
FLIR Model	FLIR M-Series		
Camera Offset (Right-Left)	+0.0 °		
Camera Offset (Up-Down)	+0.0 °		
Automatic Zoom	OFF		
Zoom Distance	328 ft		
Camera Altitude	9.8 ft		

(6) Select FLIR M400



<	FLIR Installatio	n
Scan IP		
FLIR Model	FLIR M400	
Camera Offset (Right-Left)	+0.0 °	
Camera Offset (Up-Down)	+0.0 °	
Automatic Zoom	OFF	
Zoom Distance	328 ft	
Camera Altitude	9.8 ft	

(7) Select Camera page



🖹 Home 🛛 오			
2			⊗FLIR
Night			
		Scene	
		Day Night	Docking High Contrast
		Mode	
		Thermal	Visible
		Color Mode	
FLIR	~	Home	
Display Mode		Park	OFF
Stretch	Fit	Toggle Polarity	ON
Zoom In		Surveillance Mode	OFF
Zoom Out		✤ Camera Settings	

(8) Make sure you have [FLIR] selected as the video source from the slide up menu