

RAPID Connection Wizard 5.x installation instructions

Faster service with our RAPID remote platform

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RAPID CONNECTION WIZARD W 5.X INSTALLATION INSTRUCTIONS

1 Introduction

Purpose: This document serves as a guide to the installation & setup of RAPID 5.X Connection Wizard.

Time: 1hr.

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2 Glossary

Term/Abbreviation	Explanation
Microscope PC/MPC	The PC that controls the Microscope
Port forwarder	Port forwarder introduced in RAPID 2.5 and replaces NetworkActive.
	The Port forwarder runs as a service.
RAPID	Remote Access Program for Interactive Diagnostics: a set of software and hardware tools to create a secure VPN network through which engineers can control a microscope remotely
RAPID Portal	Your own personal RAPID environment: https://rapid.thermofisher.com/
RAPID Website	Information on RAPID: <u>http://www.thermofisher.com/rapid-registration</u>
Remote Client PC	The PC/laptop a Thermo Fisher remote service engineer uses to remotely control the customer's Microscope PC
RSE	Remote Service Engineer
Secure Portal	A highly secure Linux server located outside the main Thermo Fisher corporate network that manages all connections between customer instruments and Thermo Fisher remote service engineers
Support PC/SPC	A PC connected to the MPC and the network of the site. The SPC acts as a buffer between the MPC & network & is where the firewall, anti-virus scanner and port forwarder should be installed/turned on
TCP/IP	Transmission Control Protocol (internet communication protocol)
UDP/IP	User Datagram Protocol (internet communication protocol)
VPN	Virtual Private Network (secure encrypted communication protocol)
Local Network	The local network the Remote engineer PC, Microscope PC or Support PC is connected to.

3 Obtain a RAPID Account

To obtain a RAPID account for an instrument, the instrument should be registered. Once an instrument has been registered for RAPID via the Thermo Fisher website, it will take up to 3 business days before the RAPID account has been processed and created. After the RAPID registration department has processed and created the RAPID account, an e-mail will be sent to the customer and primary field service engineer with the RAPID account details.

The registration procedure has recently changed, after the registration form was migrated to the Thermo Fisher domain.

Note: If you are experiencing trouble registering for accounts on the webpage, please use the registration form in the Appendix.



Register the instruments for RAPID.

- 1. Go to http://www.thermofisher.com/rapid-registration
- 2. Fill out the detail requested in the form.
- 3. Read the Terms and Conditions
- 4. If the T&C's are accepted, check the 'I have read and accept the RAPID Terms & Conditions of use' bullet.
- 5. Press 'SUBMIT'.

Once 'SUBMIT' has been pressed, all the details of the instruments will be sent to the RAPID Registration department. Allow the RAPID Registration department 3 business days to process the registration. If the registration has been processed, the customer (registrant) and primary FSE will receive an email with the RAPID account details for the instruments that have been registered.

If you have requested a RAPID account but still not received one after 3 working days, send an email with your Instrument serial number, institute information and explanation of situation to <u>MSD.rapidregistratio@thermofisher.com</u> for assistance.

4 RAPID Network Infrastructure

Security is of paramount importance when enabling a network connection between Thermo Fisher and a customer's microscope. Thermo Fisher Scientific has developed a highly-secure, encrypted, VPN-based approach for allowing connectivity between the customer's microscope and TFS service. The RAPID network infrastructure is designed to prevent unwanted incoming connections to the customer's network. The customer is always in control of what access is allowed, when and by whom.

4.1 The Secure Portal (RAPID Server)

A Secure Portal (Linux based server) is available outside the Thermo Fisher network in a DMZ. This portal is reachable from outside the Thermo Fisher Scientific network. Therefore, it is secured with a firewall. HTTP traffic is possible on port 443 (HTTPS); OpenVPN traffic is possible on port 1194. All data communication through OpenVPN is encrypted to guarantee confidentiality between client and Portal.

Note: The RAPID VPN connection is NOT the standard Thermo Fisher Scientific VPN connection! These connections can be established simultaneously on one PC/laptop if required.

4.2 Customer IT Requirements

The customer needs an internet connection on the Microscope PC or on the Support PC to use the RAPID program. The customer needs an outgoing port, either 1194 or 443, to establish the connection with the Secure Portal. All communication will be transferred over this encrypted line. The customer needs to meet the IT requirements below:



- An internet connection upload speed of 5 Mbit minimal, 10 Mbit or higher is recommended.
- Port 1194 or 443 must be opened for TCP/IP or for UDP/IP traffic (outbound).

The download speed is not so important for RAPID, we recommend having at least 1 Mbps download speed. Mostly customers have a higher download speed than upload speed.

RAPID Production VPN servers are defined in Table 1.

Table 1: RAPID Production Domain Servers

Location	Server URL
EU West Dublin	vpn-euw1.rapid.thermofisher.com
US West Los Angeles	vpn-usw1.rapid.thermofisher.com
US East N Virginia	vpn-use1.rapid.thermofisher.com
AP Northeast Tokyo	vpn-apne1.rapid.thermofisher.com
China (Shanghai) - separate server,	rapidvpn.thermofisher.cn
not synchronized with other servers	

Note: Customers that use a proxy server MUST use TCP/IP! For the customer to be able to access one of the portal servers, they must open-up their firewall to that IP address.

Note: It is recommended for optimal bandwidth and latency performance to connect to the server which is geographically located the closest.

4.3 Network Connection Diagram



5 RAPID Portal

The RAPID portal is a website of your own RAPID personal environment.

There are two portals:

- Customers who have systems in any country other than China can log in at https://rapid.thermofisher.com/
- Customers who have a system in China & also a RAPID account in the China environment can log in at https://rapid.thermofisher.cn/

In order to log in the RAPID portal, you need a RAPID account. See **Chapter 3** "Obtaining a RAPID account" of this manual how to obtain a RAPID account.

On the RAPID portal the following pages can be accessed:

- Personal profile settings
- Personal log file
- RAPID installation file and documentation

5.1 Login

- 1. To log in to RAPID portal, enter RAPID user name and Password
- 2. Click "Login".

thermo scientific				
RAPID Portal				
Login RAPID user name				
Password (Only required for non-Thermo Fisher employees)				
Login Forgot password				

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5.2 Portal Information

After logging in, contents of the portal will be shown.

thermoscientific		⊖ Logout
	Logging Profile Downloads	
	RAPID Portal	
Profile		
User name		
Given name		
Family name		
E-mail address		
Current password	Current password	
New password	Must be at least 15 characters	
Confirm new password	Confirm new password Save Reset	

Term/Abbreviation	Explanation		
Logout	Logs the current user out from the RAPID portal.		
Profile	The profile page appears after logging on to the RAPID Portal. This page enables you to change your password – RAPID passwords must be at least 15 characters; passphrases are also accepted.		
Logging	The event log helps monitor the user account and registers your login attempts to the secure portal. This log can contribute to IT security policies.		
Downloads	On this tab the all the software and documentation related to RAPID are downloadable		



5.3 RAPID Password

Note: RAPID passwords must be at least 15 characters. Passphrases are also accepted.

5.3.1 Change Password

Users can change the current password in the RAPID Portal.

Note: Current password is required to change the password. If current password is forgotten, follow <u>5.3.2</u> to reset the password.

- 1. Follow **5.1** to log in to the RAPID Portal.
- 2. Click "Profile".

thermoscientific			
	Logging	Profile	Downloads
F	RAP	ID	Portal

- 3. Enter "Current password".
- 4. Enter "New password" and confirm by entering the new password again.
- 5. Click "Save" to save the new password.

thermoscientific		C> Logout
	Logging Profile Downloads	
	RAPID Portal	
Profile		
User name		
Given name		
Family name		
E-mail address		
Current password	Current password	
New password	Must be at least 15 characters	
Confirm new password	Confirm new password	
	Save	



5.3.2 Reset Password

If password is forgotten, follow these steps to reset the password.

1. Click on "Forgot password".

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	RAPID Portal			
	Login RAPID user name			
	Password (Only required for non-Thermo Fisher employees)			
	Login Forgot password			

- 2. Enter "User name" and "E-mail".
- 3. Click "Reset password".

thermo scientífic				
	RAPID Portal			
	User name			
	E-mail			
	Reset password			

4. An email with link to reset password will be sent to your email address. Click on the "**Reset Password**" link and follow the on-screen instructions to reset the password.





6 RAPID Installation

After the RAPID customer installer has been downloaded from the RAPID portal, the installation can be started by double clicking on the downloaded installation file. The installation must be done under account with admin rights. The RAPID customer installer will then start and follow the instructions of the installer. If the system contains MPC and SPC, Rapid needs to be installed on both of the PCs with choice of appropriate role - see additional information in the installation process.

Note: Make sure to un-install the previous installed RAPID version before starting the new installation.

See Chapter 12 "RAPID Un-installation" for instructions (recommended).



1. After the RAPID customer installer has been started this dialog will be displayed, select "Next".



2. Choose the PC type which you are installing the RAPID software on (Microscope PC or Support PC) and select "**Next**".





3. Choose the Microscope type that you are installing the RAPID software on and select "Next".



4. Review the contents of the detail window if this selected installation is correct and select "Install".

Ra Setup - Thermo Scientific RAPID X.X.X	Customer	-	
Ready to Install	ormo Sciontific DADI		thermo
Customer on your computer.	enno Scendic RAPI	0	SCIENTINC
Click Install to continue with the installati change any settings.	on, or click Back if y	ou want to revie	w or
You are about to install RAPID X.X.X The following options have been select - Microscope PC Without Support PC - TEM / SEM / SDB / LDB	ed:		^
The following items will be installed: - OpenVPN (64-bit) - TeamViewer Host (64-bit) - RAPID Connection Wizard			
<			>
	< Back	Install	Cancel
	< Back	Install	Cancel



5. After the installer has copied the files, it will display the dialog on the right. Select "**Finish**" to close the installer and the RAPID engineer version is ready to use.



With RAPID installation, TeamViewer Host version will also be installed. Refer to **Chapter 9** about details on TeamViewer Host installation and usage.

7 RAPID Connection Wizard interface

The RAPID Connection Wizard can be started by typing "RAPID Connection Wizard" in the Windows search box.

Rapid Connection Wizard at SPC, or MPC without SPC must be launched with admin rights. However, microscope xT SW requires standard user account to operate.

This collision can be resolved by running Rapid Connection Wizard from user account as different user:

- 1. Press the Shift key.
- 2. Click with right-mouse-button on the Rapid Connection Wizard icon.
- 3. Choose option **Run as different user** and enter admin credentials.

Option Run as administrator does not work for this purpose.





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7.1 Microscope PC with Support PC

RAPID Connection Wizard of the Microscope PC with Support PC configuration looks like:

Ra Thermo Scientific RAPID Connectio	n Wizard X.X.X	- 0	×
thermo scientific	RAPID Connection Wizard		Help
	Status		
Start RAPID Connection	Local Network		
	TeamViewer		
		Show log messag	ges v

The MPC with SPC interface of the RAPID Connection Wizard has 3 panes.

7.1.1 The left pane (Start RAPID Connection)

The left pane contains the "Start RAPID Connection" button.

• Pressing the Start RAPID Connection button will test the connection to the Local Network of the MPC and verify that TeamViewer Host is correctly installed and can be operated.

7.1.2 The middle pane (Status)

The middle pane contains the status indicators for the local network test & TeamViewer.

- Local Network: this status shows whether the PC can connect to a network.
- TeamViewer: this status shows the status of TeamViewer running on the MPC.

The status is indicated by a red, yellow or green led. If a red led is visible, there is an error of that RAPID component. Via the "Question mark" button, the troubleshooting information can be accessed to resolve the problem. When the problem is resolved the "Retry" button located under the "Question mark" button can be pressed to restart the process of that RAPID component.

7.1.3 The right pane (Show log messages)

The right pane contains a link to the Help pages of the program & a drop down button which reveals the logging window for the Connection Wizard.

In the Microscope with Support PC configuration has no OpenVPN connection details available. The OpenVPN connection will be established on the Support PC and the connection details will be visible there.



7.1.4 The log window

The log window can be displayed by pressing the "Show Log Messages" button on the right pane. The log window shows log messages from the various components of the Connection Wizard & can be used to troubleshoot connection issues.

Status log:				
Time	Component	Message		
Clear log			Copy log	Save log

- Messages are reported in **BLACK** while error messages are in **RED**.
- "Clear log" button clears the window of messages from a previous connection attempt.
- Using the "Copy log" & "Save log" buttons, the user can save the logging messages as text files in order to forward them to colleagues or technical support engineers.

Status Log: All the RAPID components will log here their details (date/time, component name and Message). Notifications are reported in black and errors are reported in red.

Clear log: Status Log window will be cleared.

Copy log: Status Log content will be copied in the memory. (For example, can be used to paste it in an email).

Save logs: Status Log content can be saved to a hard drive location.

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7.2 Microscope PC without Support PC

The RAPID Connection Wizard of the Microscope PC without Support PC configuration looks like:

Ra Thermo Scientific RAPID Connection	h Wizard X.X.X		- 0	×
thermo scientific	RAPID Connection Wizard			Help
	Status	OpenVPN co	onnection details	Info
Start RAPID connection Stop	Local Network	Status: IP Address:	Waiting for connect	
RAPID connection	OpenVPN to RAPID server	Server: Type:	Europe	
Settings	TeamViewer	-	Show log messages	•

The MPC without SPC interface of the RAPID Connection Wizard has 3 panes.

7.2.1 The left pane (Start/Stop/Settings)

The left pane contains the "Start RAPID Connection" & "Stop RAPID Connection" buttons & "Settings".

- Press the "Start RAPID connection" when you want to start a RAPID connection and press the "Stop RAPID connection" button when you finished a RAPID session and want to stop the RAPID connection.
- Via the "Settings" button, the RAPID Connection Wizard settings can be configured. See **Chapter 8** of this manual for the details of these settings.

7.2.2 The middle pane (Status)

On the middle pane (Status) are the statuses of all RAPID components listed.

- Local Network: this status shows whether the PC can connect to a network.
- **OpenVPN to RAPID server:** this status indicates if an OpenVPN connection can be made to the RAPID server.
- TeamViewer: this status shows the status of TeamViewer running on the MPC.

The status is indicated by a red, yellow or green led. If a red led is visible, there is an error of that RAPID component. Via the "Question mark" button, the troubleshooting information can be accessed to resolve the problem. When the problem is resolved the "Retry" button located under the "Question mark" button can be pressed to restart the process of that RAPID component.



7.2.3 The right pane (OpenVPN connection details)

The right pane contains a link to the Help pages of the Connection Wizard, the OpenVPN connection details & a drop down button which reveals the log window.

onnection details	Info
Connected	
172.21.12.98	
Europe	
TCP	
	Connected 172.21.12.98 Europe TCP

Status: This is the actual status of the RAPID connection. This can be "Waiting for connection" or "Connected" or "Disconnected".

IP Address: This is the IP address that has been assigned to your PC by the RAPID server. This is the IP address that should be supplied to the remote engineer (the engineer that is going to logon to the microscope).

Server: This is the name of the server which your PC is connected to. The remote engineer should connect to the same server. It is advised to connect to the server which is geographically the closest to you.

Connection type: This is the protocol which the RAPID connection has been established with. This can be either TCP or UDP. TCP traffic is in average more reliable because of the error checking that is arranged via this protocol. If you have a fast reliable internet connection UDP might be slightly faster than TCP. It does not matter if the customer has been connected to the other protocol, both can communicate with each other.

7.2.4 The log window

The log window can be displayed by pressing the "Show Log Messages" button on the right pane. The log window shows log messages from the various components of the Connection Wizard & can be used to troubleshoot connection issues.

OpenVPN Log			
Component	Message		
		Copy logs	Save logs
	OpenVPN Log Component	OpenVPN Log Component Message	OpenVPN Log Component Message Copy logs

- Messages are reported in **BLACK** while error messages are in **RED**.
- "Clear log" button clears the window of messages from a previous connection attempt.
- Using the "Copy log" & "Save log" buttons, the user can save the logging messages as text files in order to forward them to colleagues or technical support engineers.

Status Log: All the RAPID components will log here their details (date/time, component name and Message). Notifications are reported in black and errors are reported in red.

OpenVPN log: All the details of the OpenVPN connection will be displayed here (date/time and Message).

Clear logs: Both Status Log and OpenVPN log windows will be cleared.

Copy logs: Both Status Log and OpenVPN log windows will be copied in the memory. (For example, can be used to paste in an email).

Save logs: Both Status Log and OpenVPN log content can be saved to a hard drive location.

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7.3 Support PC

The RAPID Connection Wizard of the Support PC configuration looks like:

hermoscientific	RAPID Connection Wizard	н
	Status	OpenVPN connection details
Start RAPID connection Stop	Local Network	Status: Waiting for connect IP Address:
RAPID connection	OpenVPN to RAPID server	Server: Europe Redirected port(s): None
	TeamViewer (Support PC)	Type: UDP Timeout:
	TeamViewer (Microscope PC)	
	Port Forwarder	

The SPC interface of the RAPID Connection Wizard has 3 panes.

7.3.1 The left pane (Start/Stop/Settings)

The left pane contains the "Start RAPID Connection" & "Stop RAPID Connection" buttons & "Settings".

- Press the "Start RAPID connection" when you want to start a RAPID connection and press the "Stop RAPID connection" button when you finished a RAPID session and want to stop the RAPID connection.
- Via the "Settings" button, the RAPID Connection Wizard settings can be configured. See **Chapter 8** of this manual for the details of these settings.

7.3.2 The middle pane (Status)

On the middle pane (Status) are the statuses of all RAPID components listed.

- Local Network: this status shows whether the PC can connect to a network.
- **OpenVPN to RAPID server**: This status indicates if an OpenVPN connection can be made to the RAPID server.
- **TeamViewer (Support PC):** this status indicates if an instance of TeamViewer can be started/run on the SPC.
- **TeamViewer (Microscope PC):** this status indicates if an instance of TeamViewer can be started/run on the MPC.

• **Port Forwarder**: this status indicates that the Port Forwarder program has been started correctly and that ports on the SPC can be redirected to a port on the MPC.

The status is indicated by a red, yellow or green led. If a red led is visible, there is an error of that RAPID component. Via the "Question mark" button, the troubleshooting information can be accessed to resolve the problem. When the problem is resolved the "Retry" button located under the "Question mark" button can be pressed to restart the process of that RAPID component.

7.3.3 The right pane (OpenVPN connection details)

The right pane contains a link to the Help pages of the Connection Wizard, the OpenVPN connection details & a drop down button which reveals the log window.

OpenVPN co	onnection details	Info
Status:	Connected	
IP Address:	172.23.2.214	
Server:	Europe	
Redirected port(s):	5905	\$
Туре:	ТСР	
Timeout:		

Status: This is the actual status of the RAPID connection. This can be "Waiting for connection" or "Connected" or "Disconnected".

IP Address: This is the IP address that has been assigned to your PC by the RAPID server. This is the IP address that should be supplied to the remote engineer (the engineer that is going to logon to the microscope).

Server: This is the name of the server which your PC is connected to. The remote engineer should connect to the same server. It is advised to connect to the server which is geographically the closest to you.

Redirected ports: This is the Port that is currently being forwarded by the Port Forwarder installed along with the SPC Connection Wizard.

Connection type: This is the protocol which the RAPID connection has been established with. This can be either TCP or UDP. TCP traffic is in average more reliable because of the error checking that is arranged via this protocol. If you have a fast reliable internet connection UDP might be slightly faster than TCP. It does not matter if the customer has been connected to the other protocol, both can communicate with each other.



7.3.4 The log window

The log window can be displayed by pressing the "Show Log Messages" button on the right pane. The log window shows log messages from the various components of the Connection Wizard & can be used to troubleshoot connection issues.

Status Log	OpenVPN Log			
Time	Component	Message		
Clear logs			Copy logs	Save logs

- Messages are reported in **BLACK** while error messages are in **RED**.
- "Clear log" button clears the window of messages from a previous connection attempt.
- Using the "Copy log" & "Save log" buttons, the user can save the logging messages as text files in order to forward them to colleagues or technical support engineers.

Status Log: All the RAPID components will log here their details (date/time, component name and Message). Notifications are reported in black and errors are reported in red.

OpenVPN log: All the details of the OpenVPN connection will be displayed here (date/time and Message).

Clear logs: Both Status Log and OpenVPN log windows will be cleared.

Copy logs: Both Status Log and OpenVPN log windows will be copied in the memory. (For example, can be used to paste in an email).

Save logs: Both Status Log and OpenVPN log content can be saved to a hard drive location.

8 Configuration & Connection

The Network configuration of the SPC & MPC within the customer network is explained in Work Instruction 105442.

A RAPID connection is started via the RAPID Connection Wizard. The RAPID configuration is accessed via this wizard. The RAPID Connection Wizard can be started by typing "RAPID Connection Wizard" in the Windows search box.

Once you've started the RAPID Connection Wizard for the first time, you may want to configure some settings before trying to establish a connection between the MPC & SPC.

To access the settings, select the "Settings" button on the left pane of Connection Wizard dialog.

Settings

8.1 Main settings dialog Microscope PC without Support PC

In the settings dialog, the most common settings for the RAPID connection can be set. Settings like which default RAPID server should be connected to or if you want to disable the viewer inputs can be set here.

Ra Settings		×
VPN Connection		
RAPID server:	Europe	~
Connection type	e: O T	CP ③ UDP
Proxy server:		Configure
Server port	C	⊃ 443 ⊙ 1194
Enable connec	tion timeout	
Connection time	eout (minutes)	60
Store VPN pas	sword during sess	sion: 🗹
Help	Save	Cancel

RAPID Server:

Here the default connection to a RAPID server can be selected. Europe, Japan or USA can be selected. It is advised to connect to the server which is geographically the closest to you.



Connection type:	This is the protocol which the RAPID connection can be established with. This can be either TCP or UDP. TCP traffic is in average more reliable because of the error checking that is arranged via this protocol. If you have a fast reliable internet connection UDP might be slightly faster than TCP. It does not matter if the customer has been connected to the other protocol, both can communicate with each other.
Proxy server:	If there is a proxy server installed in the network to access the internet, the parameters of the proxy server can be set here.
Store VPN password during session:	If this option is selected the VPN password will remembered as long as the RAPID Connection Wizard is not closed. This can be handy if multiple RAPID sessions are done during the day so the OpenVPN password does not need to be entered over and over again.

8.1.1 Proxy Server

In the Proxy configuration dialog, the variables of the proxy server (if present in the network) can be set.

Ra OpenVPN proxy	configuration	×
Proxy type		
• No proxy	Note:	
	Enabling prox configuration s connection typ	y sets the be to TCP
o books proxy		
Proxy address		
Address:	Port:	
Prompt for user	name/password when	connecting
Authentication r	method:	
O basic O	ntlm	
Help	ОК	Cancel

Proxy Type:

Here either No proxy (default), HTTP proxy or SOCKS proxy can be chosen. Contact your network administrator for details on which proxy is installed.

Proxy Address: Here the IP address and port of the proxy server can be set. Also if a username and password should be requested during every connection and if it is a basic or ntlm proxy server.

8.2 Support PC

In the settings dialog, the most common settings for the RAPID connection can be set. Settings like which default RAPID server should be connected to or if you want to store the VPN password during the session can be set here.

Ra Settings		>	<
VPN Connection			
RAPID server:	Europe	~	
Connection type:	01	TCP ⊙ UDP	
Proxy server:		Configure	
Server port	1	○ 443 ⊙ 1194	
Enable connectio	n timeout		
Connection timeout (minutes) 60			
Store VPN passw	ord during ses	ssion: 🔽	
Skip OpenVPN &	update check		
PortForwarder			
Port Forwarder re-	directions:	Configure]
Help	Save	Cancel	

RAPID Server:	The default connection to a RAPID server can be selected. Europe, Japan or USA can be selected. It is advised to connect to the server which is geographically the closest to you.
Connection Type:	This is the protocol which the RAPID connection can be established with. This can be either TCP or UDP. TCP traffic is in average more reliable because of the error checking that is arranged via this protocol. If you have a fast reliable internet connection UDP might be slightly faster than TCP. It does not matter if the customer has been connected to the other protocol, both can communicate with each other.
Proxy Server:	If there is a proxy server installed in the network to access the internet, the parameters of the proxy server can be set here.
Server Port:	The port which the customer makes available to use for RAPID can be set here.
Store VPN password during session:	If this option is selected the VPN password will be remembered as long as the RAPID Connection Wizard is not closed. This can be handy if multiple RAPID sessions are done during the day, so the OpenVPN password does not need to be entered over and over again.
Port Forwarder redirections:	Pressing "Configure" will give the user access to the Port forwarder options, explained later



8.2.1 Proxy Server

In the Proxy configuration dialog, the variables of the proxy server (if present in the network) can be set.

Proxy type		
• No proxy	Note:	
O HTTP proxy	Enabling configurat connectio	proxy ion sets the n type to TCP
O SOCKS proxy		
Proxy address		
Troxy address	_	
Address:	Port:	
Prompt for user Authentication n	name/password wl nethod:	nen connecting
⊖ basic	ntim	
Help		E

Proxy Type:

Here either No proxy (default), HTTP proxy or SOCKS proxy can be chosen. Contact your network administrator for details on which proxy is installed.

Proxy Address:

Here the IP address and port of the proxy server can be set. Also if a username and password should be requested during every connection and if it is a basic or ntlm proxy server.

8.2.2 Port Forwarder

In this dialog you can set the forwarding of the ports (like for TeamViewer or TEM hand panels) from the support PC to the Microscope PC. The Port Forwarder settings can be found in the Settings of the RAPID Connection Wizard on the Support PC configuration. In this dialog, the port forwarding settings can be added, deleted or adjusted.

Local port	Destination Hostname/IP a	Remote port	Add
59659	192.168.0.1	59659	
65020	192.168.0.1	65020	Delete
25000	192.168.0.1	5938	
			Edit

For new installations, a redirection for TeamViewer will be present. The local port is 25000 and the 'Destination IP address' should be the IP address of the Microscope PC (default = 192.168.0.1) which has default port 5938 configured for the TeamViewer Host.

For upgrade of RAPID Connection Wizard, a redirection for TeamViewer must be added manually in Port Forwarder configuration. To add a redirection, click on "Add". Fill in the redirection information as follows: the local port is 25000 and the 'Destination IP address' should be the IP address of the Microscope PC (default = 192.168.0.1) which has default port 5938 configured for the TeamViewer Host.

If another port setting is desired, press the Edit button and change the settings (see Add/Edit Port Redirection).

- The Local port is the port number that is going to be forwarded to the Microscope PC (i.e. 5905).
- The Destination IP address is the IP address of the Microscope PC (i.e. 192.168.0.1).
- The Remote port is the incoming TeamViewer Server port number (default is 5900) on the microscope PC.

8.2.2.1 Hand Panel control via TARO Simple

Ports 17701, 17702, 17801 and 17802 are the 4 ports that are used for remotely control the Handpanels if a support PC is connected. The Port Forwarder should be configured as in figure 1 to get the remote handpanels communicate with the Microscope TEM Server (via the Support PC).

• Local port should always be configured to 17701, 17702, 17801 and 17802.



- Destination IP address should always be configured to the RAPID OpenVPN IP address of the remote engineer. That is, when a Remote engineer wishes to control the Handpanels of the MPC, they must first input the IP address shown on their own remote RAPID Connection Wizard into the Port forwarder settings on the SPC.
- Remote port should always be configured to 17701, 17702, 17801 and 17802.

Note: The IP address which is configured in TARO simple on the MPC should be set to the IP address of the Support PC and the Port Forwarder takes care of the traffic to the remote engineer PC (Destination IP address).

9 TeamViewer Host Install

With RAPID installation, TeamViewer Host version will also be installed, it has the configuration which ensures TeamViewer connection is only possible via a RAPID connection. TeamViewer Host runs as a Windows service, and its UI can be opened from the taskbar at the lower part of the desktop.



Open TeamViewer on MPC or SPC. Once TeamViewer is opened, a password is shown on the main page. This password will need to be provided to service engineers in order to establish a remote connection. When providing the password to service engineer, please also specify if the password is for MPC (without SPC), MPC (via SPC), or SPC.



Note: For security reason, Settings dialog on the main page is disabled therefore no settings can be changed in TeamViewer.

Note: For MPC that is running on Windows XP, TeamViewer Host will not be installed with RAPID installation.



10 Establishing a RAPID Connection

Once the system has been registered for RAPID, the MPC & SPC have been configured & the Connection Wizard has been installed on both systems, the following steps can be followed to establish a remote connection.

10.1 RAPID connection – Customer (Microscope PC with Support PC)

Start the RAPID Connection Wizard on the MPC and select "Start RAPID Connection".



On the MPC installation this performs 2 checks:

- The MPC connection to a network
- Instance of TeamViewer running on the PC
 Status

If the RAPID Connection Wizard has been correctly installed & there is a working network connection on the PC, these lights will be green.

10.2 RAPID connection – Microscope PC without Support PC

Follow the steps below to make a RAPID connection on the Microscope PC.



1. Start the RAPID Connection Wizard on the MPC and select "Start RAPID Connection".



2. Fill in the customer user credentials (username and password) and select OK.

Ra OpenVPN Authent	ication	×
Please enter your Ope	enVPN creden	tials:
Username:		
Password:		
New user?	OK	Cancel

3. Supply the OpenVPN connection details to the remote engineer. These details are displayed on the right pane of the RAPID Connection Wizard.

The most important details are the IP address and the Server (remember to supply the TeamViewer Server password as well).

OpenVPN co	onnection details	Info
Status:	Connected	
IP Address:	172.21.12.98	
Server:	Europe	
Type:	ТСР	

10.3 RAPID Connection – Support PC

1. Start the RAPID Connection Wizard on the SPC and select "Start RAPID Connection".



2. Fill in the customer user credentials (username and password) and select OK.

Ra OpenVPN Authent	ication	×
Please enter your Ope	nVPN creden	tials:
Username:		
Password:		
New user? Forgot password?	OK	Cancel

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Note: In order to connect the microscope to RAPID, each system must have its own unique RAPID account. This account can be requested at http://www.thermofisher.com/rapid-registration

3. Once you input the credentials, the Connection Wizard will go through 5 steps in order to fully connect both the MPC & SPC to RAPID.

thermo scientific	RAPID Connection Wizard		Hel
	Status	OpenVPN c	onnection details
Start RAPID connection	Local Network	Status: IP Address:	Waiting for connect
RAPID connection	OpenVPN to RAPID server	Server: Redirected port(s):	Europe
	TeamViewer (Support PC)	Type: Timeout:	
	TeamViewer (Microscope PC)		
	Port Forwarder	-	

Once the Status lights of all are green, a remote engineer should be able to connect to either the MPC or SPC.

If one or more of the traffic lights turn and stay Red, use the "Show log Messages" drop down and "Copy Logs" function to copy the log messages into a .txt file.

You can analyze this yourself to try to solve the issue. Alternatively, send the text file with the log messages and a screenshot of the Connection Wizard to <u>MSD.rapidsupport@thermofisher.com</u> for technical assistance.

The Server name, port details, IP address in the right panel of the Connection Wizard, and the TeamViewer password, set in the settings tab, must be given to a Remote engineer trying to connect to the Microscope.

11 RAPID Auto Update (For SPC and MPC w/o SPC)

- 1. When RAPID connection wizard is started, it automatically checks for new updates of remotecontrol software.
- 2. If there is an update available, a dialog window will pop up and indicates a new version of remote-control software is available.
- 3. Click "Update Now" on the dialog window and follow the dialog instructions to download the new version of installer.
- 4. After new installer is downloaded, it will be automatically launched. Follow the installer dialog instructions to install new version of software.

12 RAPID Un-installation

- 1. Open Windows settings and find Add or Remove Programs.
- 2. Double click on Add or Remove Programs. The Add or Remove Programs window appears.
- 3. Find and select Thermo Fisher RAPID (followed by a version number) Customer.



- 4. Select Uninstall. A confirmation dialog appears.
- 5. Select Yes.

Thermo S	cientific RAPID X.X.X Customer Un	install	
?	Are you sure you want to complet RAPID XXX Customer and all of it:	ely remove Then s components?	mo Scientific
		Yes	No



6. A new window appears showing the un-installation progress.

Diase wait while T	Thermo Scientific RADID V	X X Customer is removed from you	. 6
computer.	memo Scienciic (CAP1D X		
Uninstalling Thermo	o Scientific RAPID X.X.X C	ustomer	

- 7. A new dialog appears with the confirmation RAPID has been un-installed.
- 8. Select OK.

ermo S	Scientific RAPID X.X.X Customer Uninstall	X
•	Thermo Scientific RAPID X.X.X Customer w	as successfully
	removed from your computer.	

The RAPID software is now successfully un-installed.

[End of Work Instruction]

Revision	Date	ECO number	Description of Changes
А	17-AUG-2023		Initial release

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