

Standard IP Port Configuration

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A. Overview

Learn about ports RTI systems and services use to communicate with each other over IP.

B. RTiPanel Remote Access Setup

The default port is TCP 4110 that needs to be open in the client's firewall and forwarded to the XP processor.

1. In Integration Designer, open "System Properties" in the "File" menu
2. Select RTI Panel / Virtual Panel
3. Enter your Public (WAN) IP address to make sure RTI Panel/Virtual Panel can connect remotely when not on the same LAN as the processor.

If your client's site doesn't have a static IP or Dynamic DNS address you can use the one provided by the RTiQ Remote Management platform. Example: [clientname.address.rtiq.net](#)

The screenshot shows the 'System Properties' dialog box with the 'Client Information' tab selected. Under 'Remote Access', the 'External Gateway' is set to 'XP-3', the 'External IP/Hostname' is '10.51.175.23', and the 'Port' is '4110' with the 'Default' checkbox checked. The 'Security' section has a 'Generate new system encryption key' button. The 'Licenses' section shows 'Connections: 1' and a note about the total of three or more licensed connections. At the bottom, there are 'Add', 'Remove', and 'Details' buttons, and 'OK' and 'Annuler' buttons.

Default Port 4110 Configuration

The screenshot shows the 'System Properties' dialog box with the 'Client Information' tab selected. Under 'Remote Access', the 'External Gateway' is set to 'XP-3', the 'External IP/Hostname' is '10.51.175.23', and the 'Port' is '1234' with the 'Default' checkbox unchecked. The 'Security' section has a 'Generate new system encryption key' button. The 'Licenses' section shows 'Connections: 1' and a note about the total of three or more licensed connections. At the bottom, there are 'Add', 'Remove', and 'Details' buttons, and 'OK' and 'Annuler' buttons.

Custom Port Configuration

C. RTiQ

RTiQ uses a single outgoing TLS web socket connection on the standard SSL/TLS Port 443. This port is usually open on a router and doesn't need to be configured.

D. Remote Programming

- TCP port 5056 needs to be open at the client site and at the programmers office
- UDP port 5053 needs to be open at the client site and at the programmers office
- At the client site, the above ports need to be forwarded to the XP processor
- At the programmers office (remote programming end) these ports need to be forwarded to the computer running Integration Designer
- Note: This method allows you to program the processor only and is generally NOT recommended as the potential for packet loss while transmitting to the processor over the internet is high. A VPN connection is a slightly safer method and also allows you to send files to any other RTI device in the file but you still run the risk of a connection dropout whilst uploading to a device potentially leaving it inoperable.
- If you must program remotely the safest method is to leave a local PC at the site like an Intel NUC and then remotely access it via software like Teamviewer. This method ensures that files are uploaded locally on the local network to processors, remotes and touch panels.

E. RTI Expansion Devices

- PCM-4 requires TCP port 4310 to be open between it and the XP processor
- RCM-4 requires TCP port 4310 to be open between it and the XP processor
- ESC-2/2+ require TCP ports 23 & 26 to be opened between them and the XP processor
- The ESC-2/2+ also runs a web GUI on TCP port 80 for logging in and configuring the IP settings of the device.
- The Integration Designer software discovers the expansion devices using UPNP with the default UPNP port 6432.

F. RTI MS-3 Music Streamer

Communication with RTI's MS-3 Music Streamer requires an open TCP port 9720.

G. Discovery

UDP port 4200 needs to be open

H. Processor to Remote

UDP port 4100 needs to be open

I. Master / Slave

Master/Slave communications require an TCP port 4310 between master and slave processors.

J. Time Servers

Processors use NTP (Network Time Protocol) for keeping the internal clock up to date. Please ensure port 123 is open and forwarded to the XP Processor.

K. Drivers

Certain drivers require open ports for communication to servers on the Internet and IP devices on the local network. Consult the driver documentation as to what these ports are.