Field Wireless Device Restart Tool Instruction Manual

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1. Introduction

This manual describes how to operate Field Wireless Device Restart Tool.

This tool is for restarting Yokogawa Electric field wireless devices that are compliant with ISA100 Wireless™.

Notes

- The information in this manual is subject to change without notice as a result of continuing improvements in performance, functionality, etc. Furthermore, the screens that are actually displayed may differ slightly from the screens displayed in this manual.
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- The information in this manual is for Field Wireless Device Restart Tool R1.01.01.

Terms and Abbreviations

Term	Description
Field Wireless Device Restart Tool	A tool to restart field wireless devices.
Gateway Monitor Tool	A tool to manage field wireless devices. YFGW410: FWMC Monitor YFGW710: FWMT
EJX	EJX□□□L series and EJX□□□B series
YTA510	YTA510 temperature transmitter
YTMX580	YTMX580 multi-input temperature transmitter
FN310-J	Field wireless multi-protocol module (HART communication)
FN310-M	Field wireless multi-protocol module (digital communication)
FN510-DIDOAI	FN510 field wireless multi-function module
FN510-ACAI	FN510 field wireless multi-function module acceleration sensor input
FN910	Field wireless solenoid-valve control module

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1.2. Positioning of This Tool

This tool is for restarting Yokogawa Electric field wireless devices. It can be run using either of the two communication paths of via a gateway and via IrDA. When the target field wireless devices are connected via a Yokogawa Electric gateway (YFGW410, YFGW710, or GX20W), this tool allows you to restart them via the gateway without having to go to each location where a field wireless device is installed. For cases other than that, this tool allows you to restart the field wireless devices by connecting directly to them via IrDA.

The restart device function for restarting from the gateway monitor tool restarts only the wireless communication module, but this tool restarts both the wireless communication module and the sensor measurement module.

● When communicating via gateway

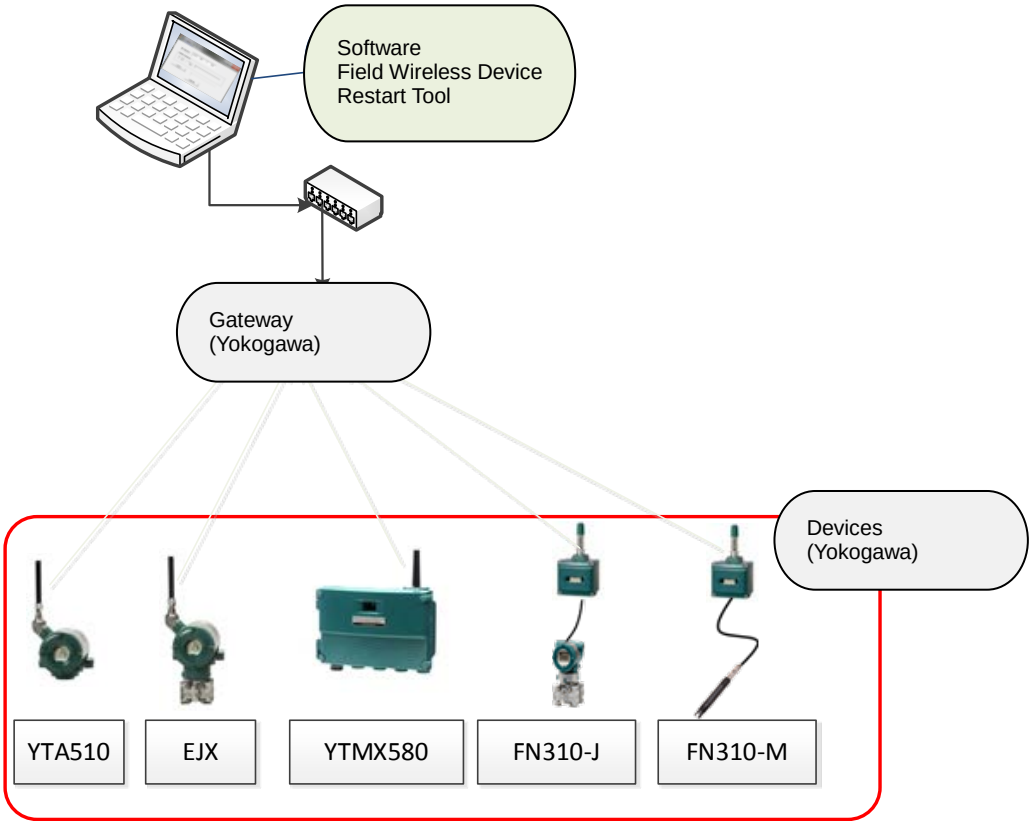


Figure 1-1 Example of Configuration via Gateway

● When communicating via IrDA

Use the tool via IrDA in cases such as when the field wireless devices are connected via another company's gateway or they are not connected to a gateway.

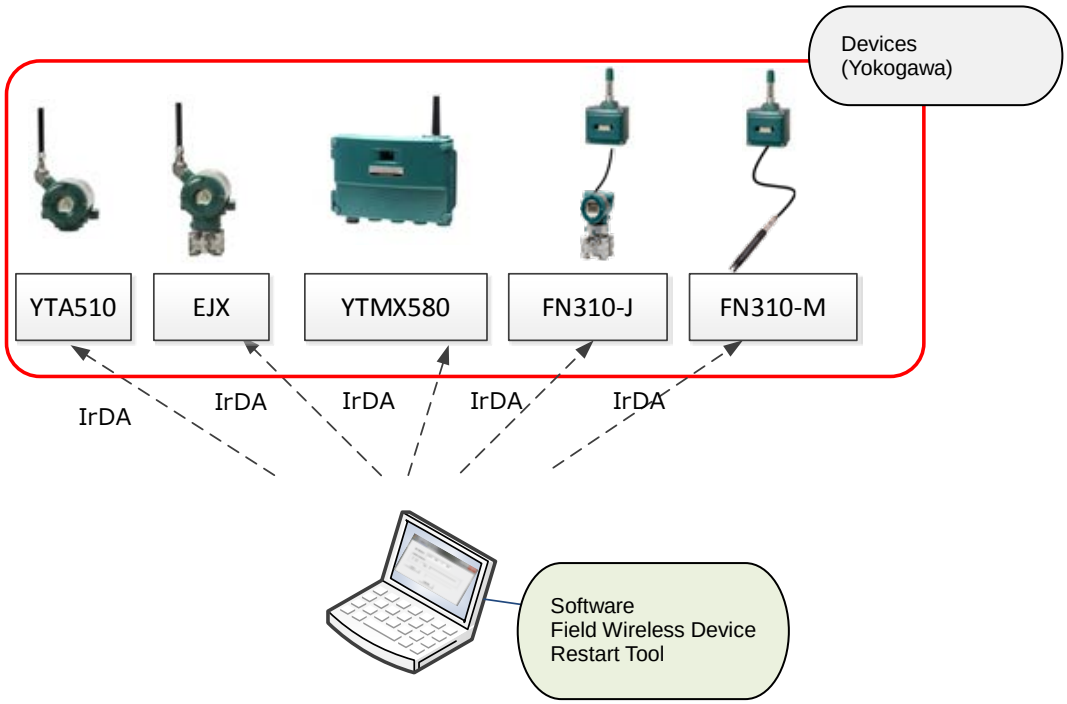


Figure 1-2 Example of Configuration via IrDA

1.3. Software Operating Environment

The operating environment for this software is as follows.

- Supported operating systems

Operating Environment	
Supported operating systems	Windows 7 Professional, 32-bit
	Windows 7 Professional, 64-bit
	Windows 10 Professional, 32-bit
	Windows 10 Professional, 64-bit

- .NET Framework

This tool is a Windows .NET application that runs in Microsoft .NET Framework.

Microsoft .NET Framework 4.6 or another compatible version must be installed.

.NET Framework 4.6 comes preinstalled in Windows 10. Please use that.

1.4. Infrared Adapter

To use the tool via IrDA, you need to obtain an infrared adapter and connect it to the PC.

The following infrared adapter is recommended. (Operation with other than the recommended infrared adapter is not guaranteed.)

Manufacturer	Product Name
ACTiSYS http://www.actisys.com/IrDAProd.html	ACT-IR224UN-LN96

2. Installation and Uninstallation

This chapter describes how to install Field Wireless Device Restart Tool.

Field Wireless Device Restart Tool does not have an installer. Extract the provided compressed file and copy the resulting folder to any location.

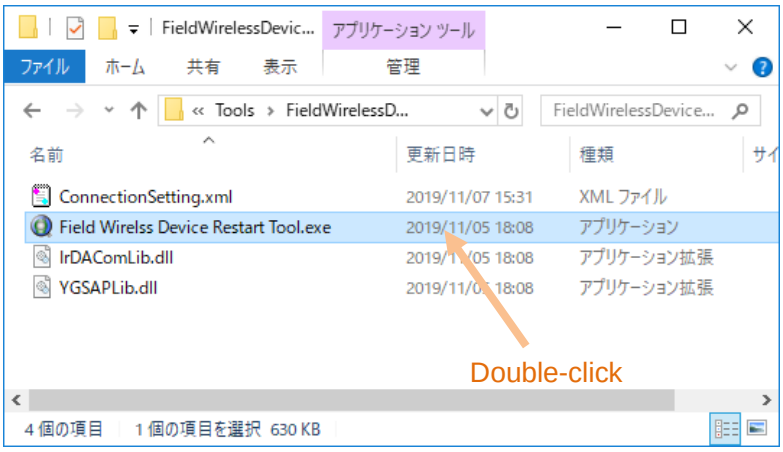
To uninstall the tool, delete the folder.

3. Operating Procedure

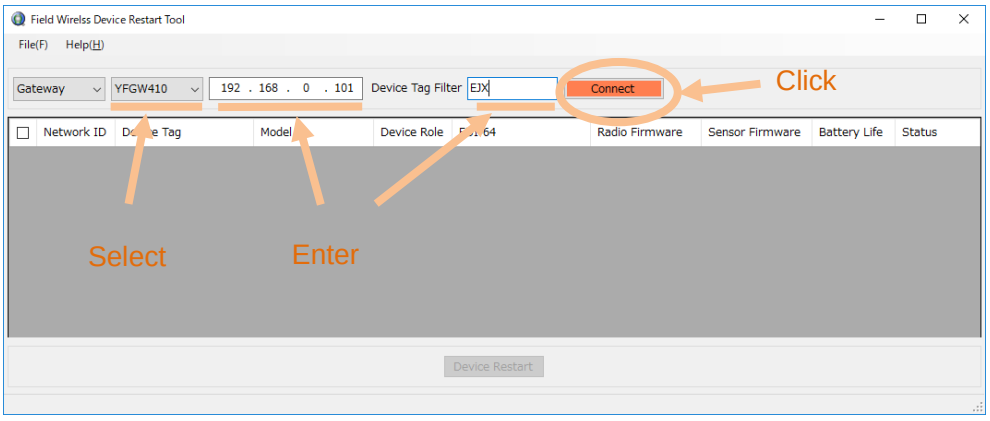
3.1. When Communicating via Gateway

1) Check that each of the field wireless devices is joined/published properly in the gateway monitor tool in advance. In addition, when the gateway is the YFGW710, write down the join count of the field wireless device for checking that the target field wireless device has restarted (rejoined) at the end of the procedure.
* If the target device is used as “Router,” set “IO+Router.” When the device role is “Router,” the applying of this process may fail.

2) Double-click the following exe file in the installed folder.
FieldWirelessDeviceRestartTool_R1.01.01
→ Field Wireless Device Restart Tool.exe

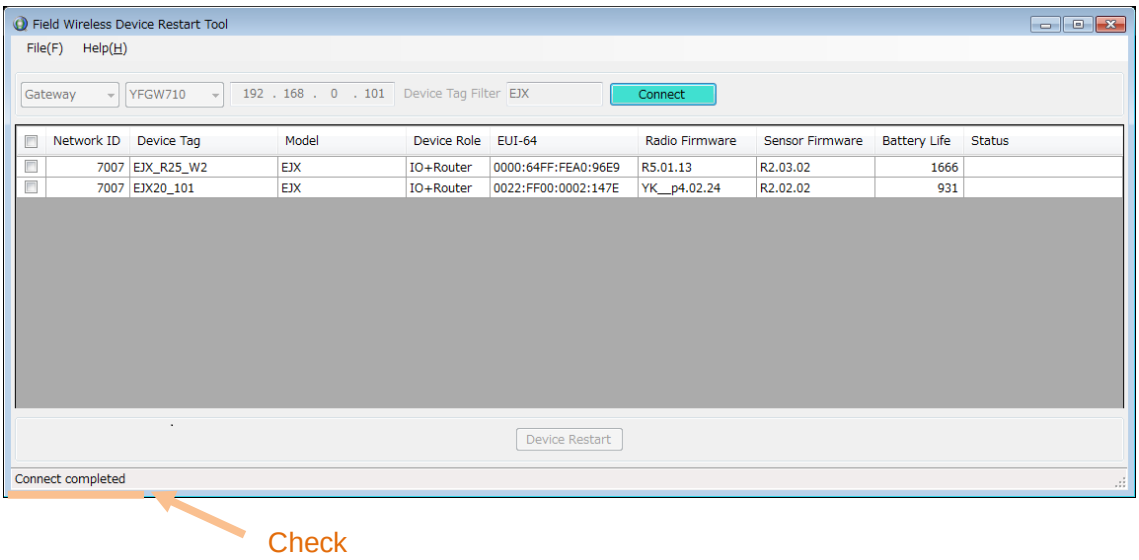


3) Select the gateway model (YFGW410 or YFGW710) to which to connect and enter the IP address, and then click the [Connect] button. If there are many connected field wireless devices, enter an arbitrary character string in “Device Tag Filter” and then click the [Connect] button to display only field wireless devices including the entered character string.

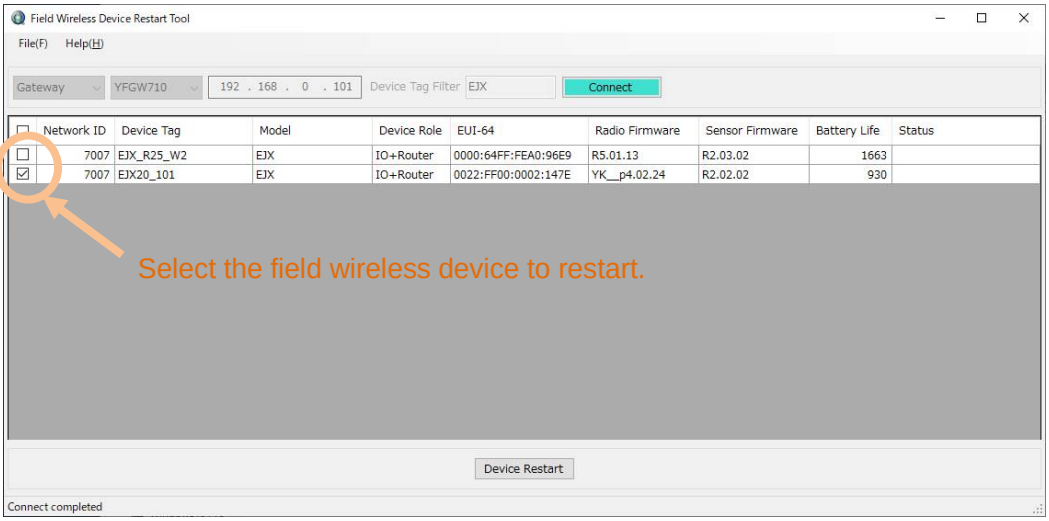


4) The field wireless devices are displayed in order in the device list. Wait until “Connect completed” appears for the tool status bar.

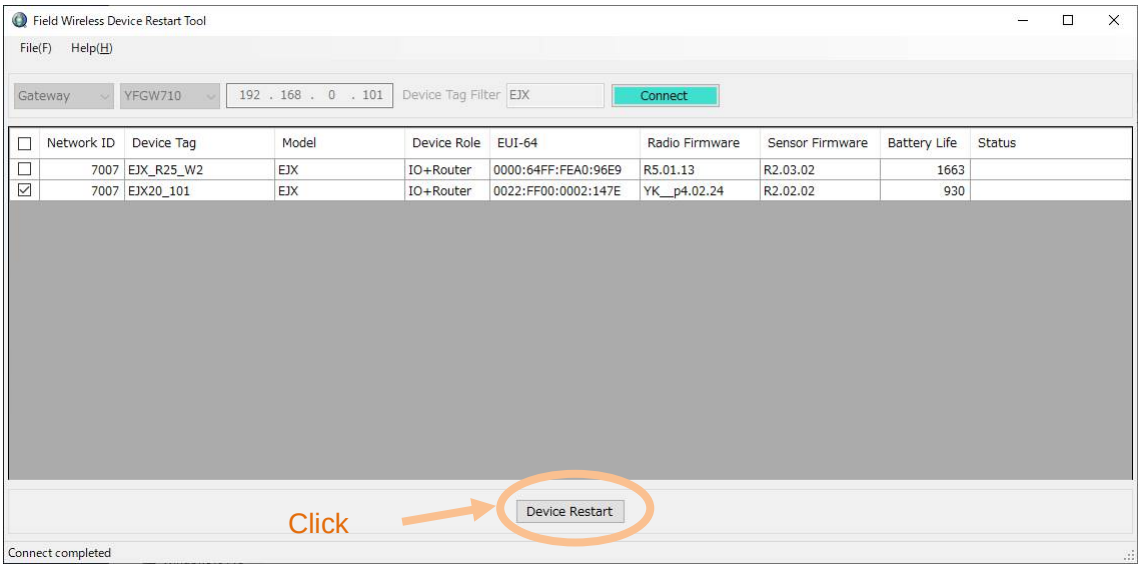
* If you wish to change the character string in “Device Tag Filter” or stop the process, “click the [Connect] button to disconnect without waiting for “Connect completed” to appear and then perform the procedure from step 3.



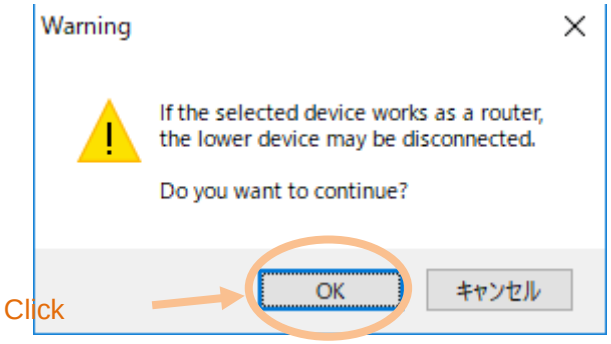
5) Select the field wireless device to restart (multiple devices can be selected).



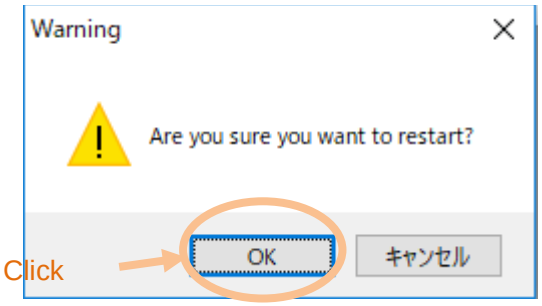
6) Click the [Device Restart] button.



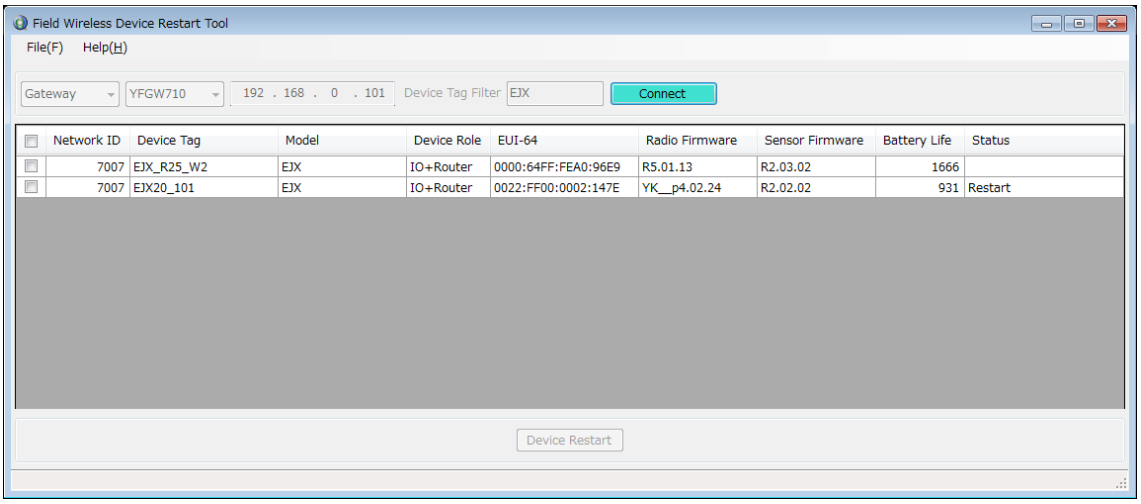
7) If “Device Role” of the selected field wireless device includes “IO+Router,” the following confirmation dialog box appears. Click the [OK] button to continue.



8) A confirmation dialog box appears. Click the [OK] button to execute.

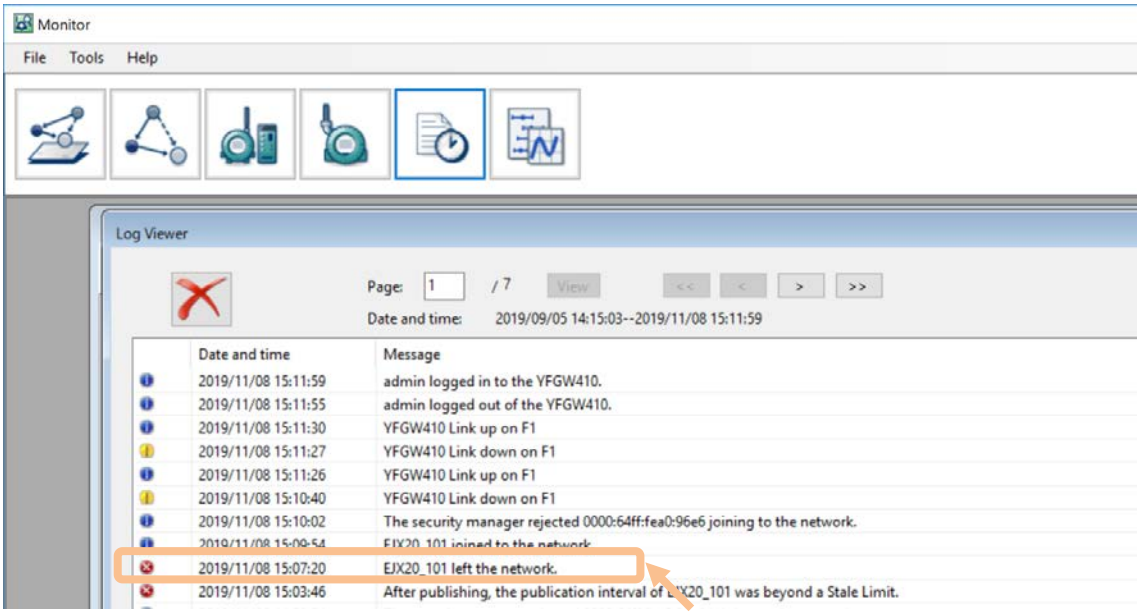


9) Restart requests are sent successively to selected devices.
Check that the status becomes “Restart” as shown below.
* You cannot disconnect with the [Connect] button or exit the tool during execution of this process. Wait until the process completes.



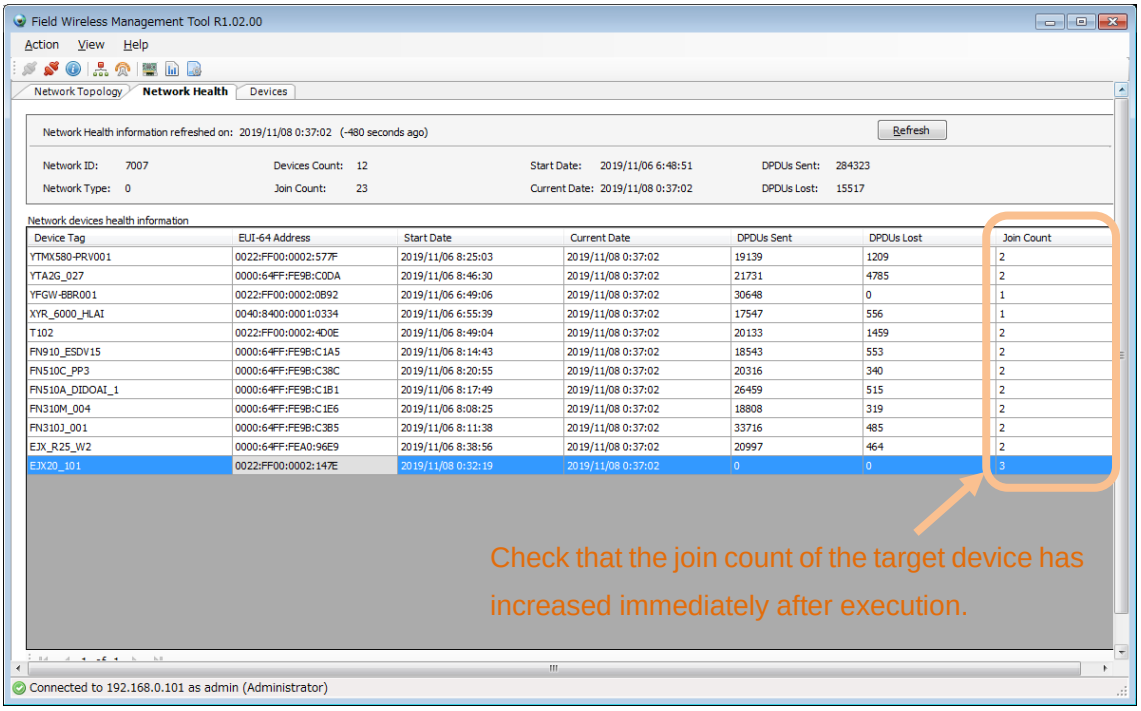
10) To check that the field wireless device has restarted, check that the target device has left the network in the gateway monitor tool.
* If it did not leave the network, perform the procedure again from step 5 for that field wireless device.

Example: When monitor tool in Field Wireless Management Console of YFGW410



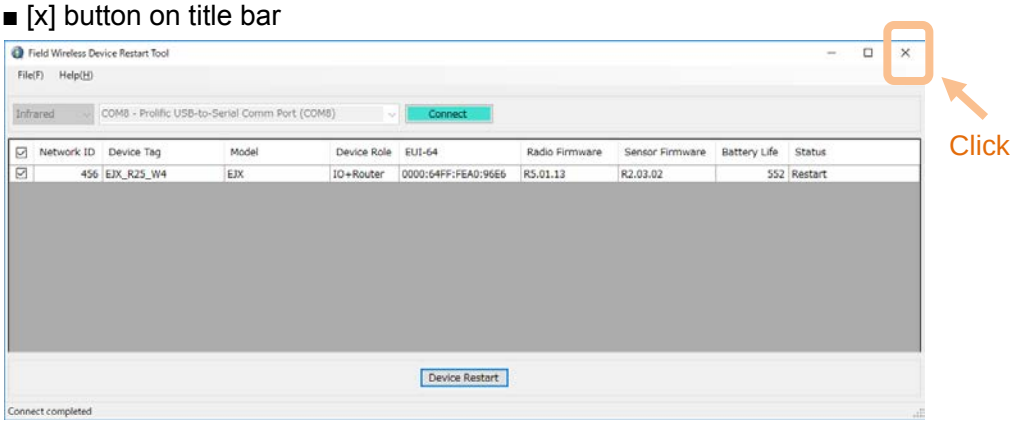
Check that the target device has left the network immediately after execution.

Example: When Field Wireless Management Tool of YFGW710 (GX20W)

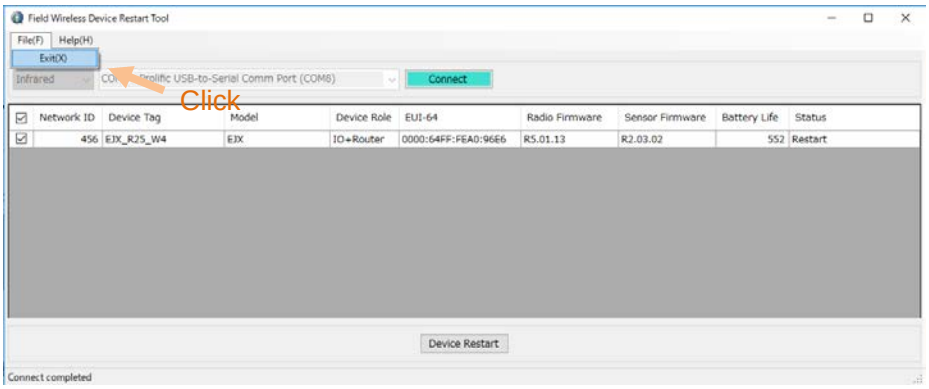


11) To exit the tool, click the [x] button on the title bar or select “Exit” from the File menu.

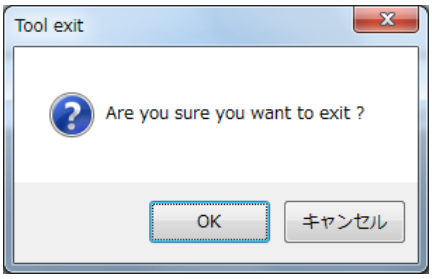
■ [x] button on title bar



■ File menu - Exit

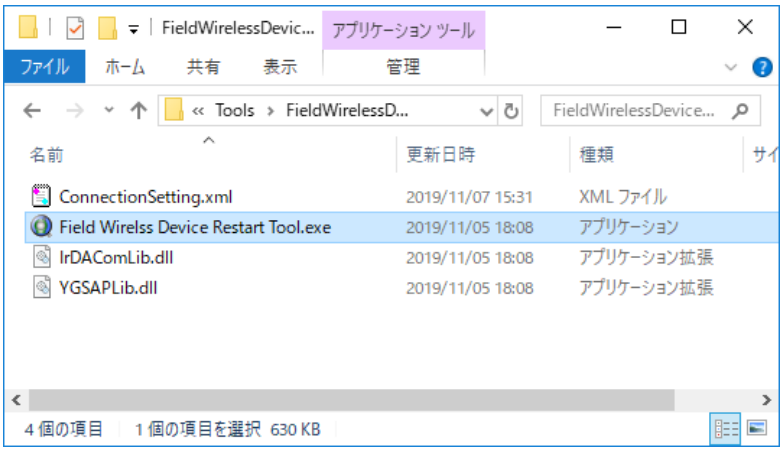


The following dialog box appears. Click the [OK] button.

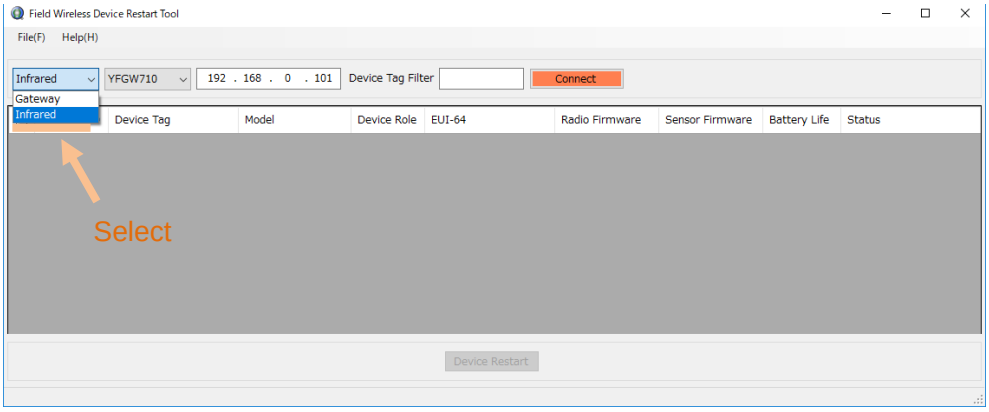


3.2. When Communicating via IrDA

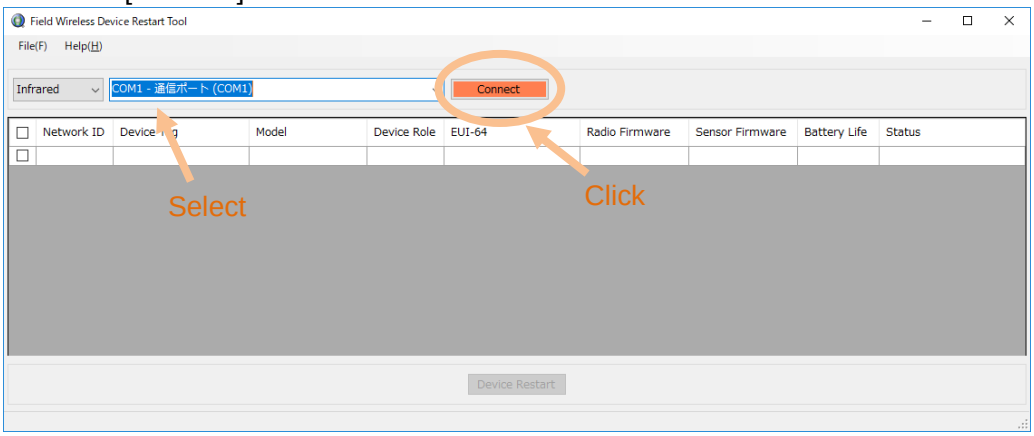
1) Double-click the following exe file in the installed folder.
FieldWirelessDeviceRestartTool_R1.01.01
→ Field Wireless Device Restart Tool.exe



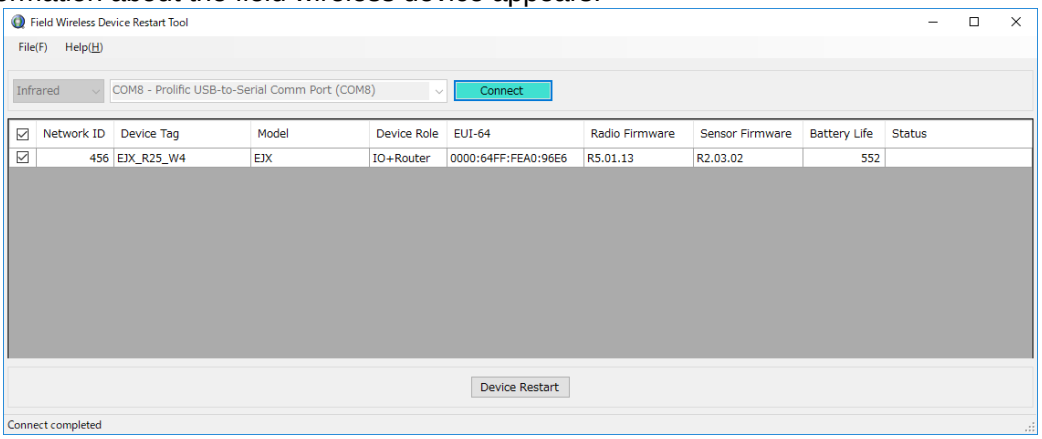
2) Select “Infrared” for the connection destination.



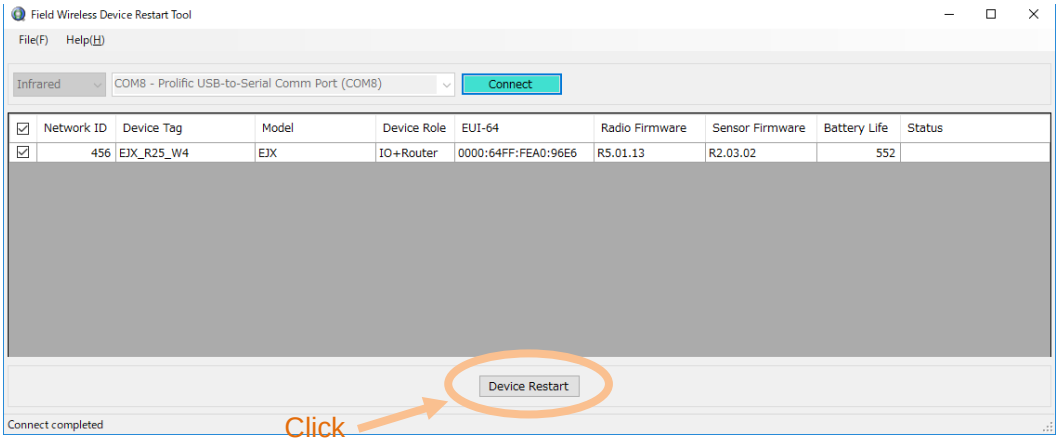
3) Select the COM port, orient the infrared adapter toward the target field wireless device, and click the [Connect] button.



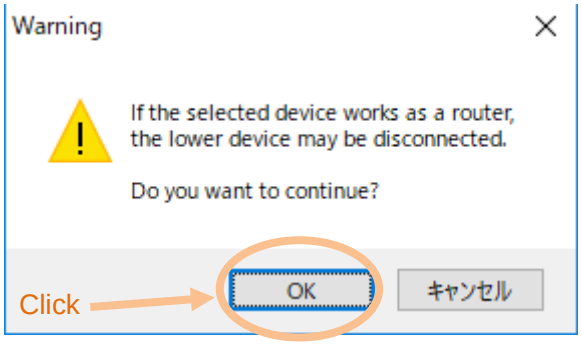
4) When a connection is established to the COM port, the [Connect] button turns blue and information about the field wireless device appears.



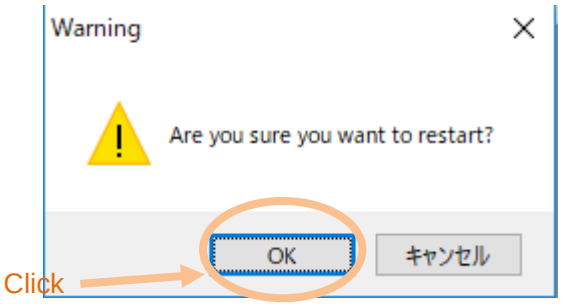
5) Orient the infrared adapter toward the target field wireless device and click the [Start] button.



6) If “Device Role” is “IO+Router,” the following confirmation dialog box appears. Click the [OK] button to continue.

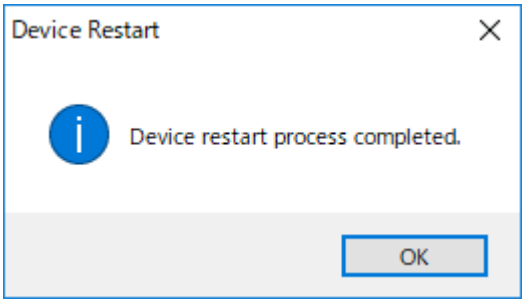


7) A confirmation dialog box appears. Click the [OK] button to execute.

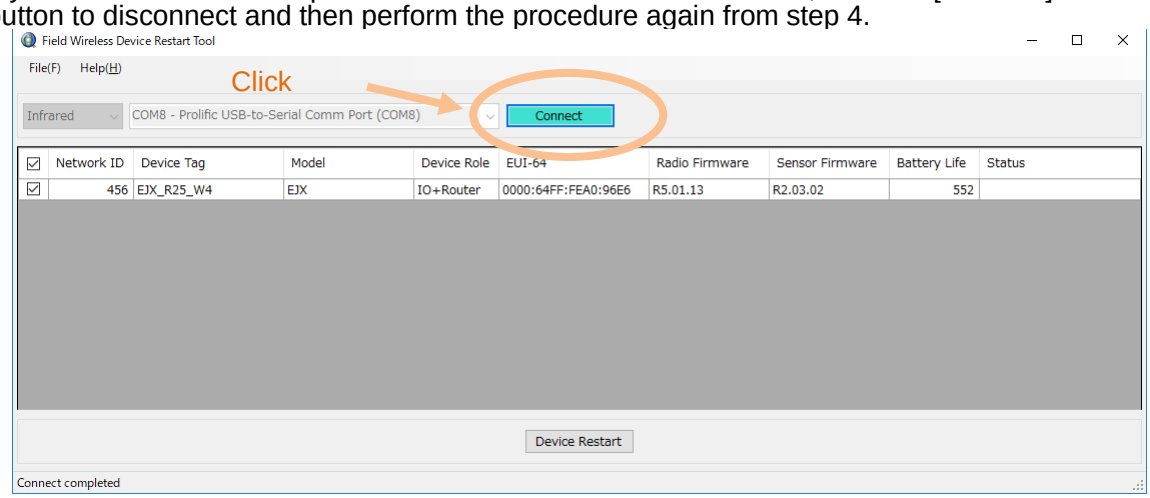


8) Check that the display for startup appears on the screen of the target field wireless device immediately after execution. For the screen displayed at startup, refer to the instruction manual for the corresponding field wireless device.

9) If the process ends successfully, the following dialog box appears. Click the [OK] button.

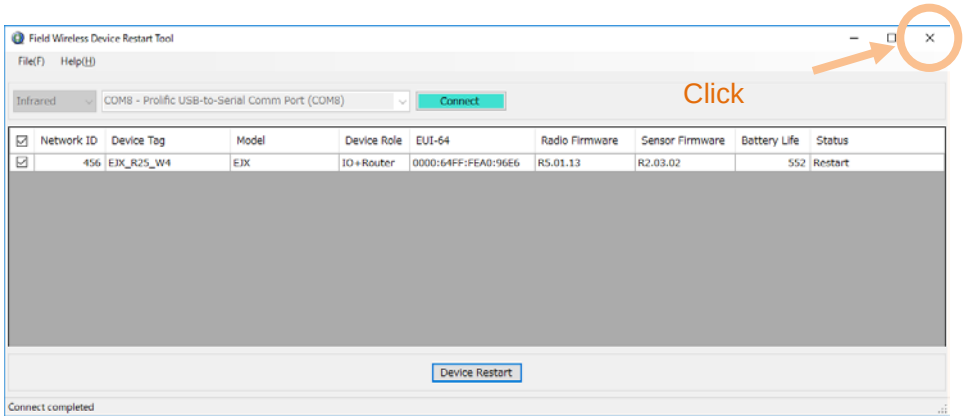


10) If you wish to execute the process for another field wireless device, click the [Connect] button to disconnect and then perform the procedure again from step 4.

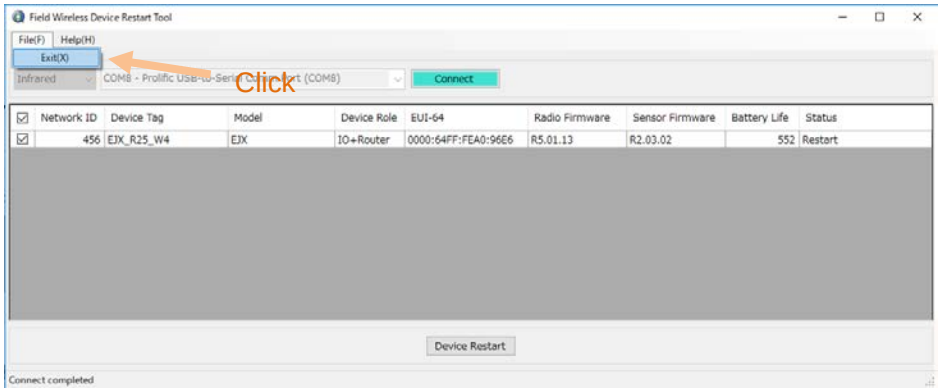


11) To exit the tool, click the [x] button on the title bar or select “Exit” from the File menu.

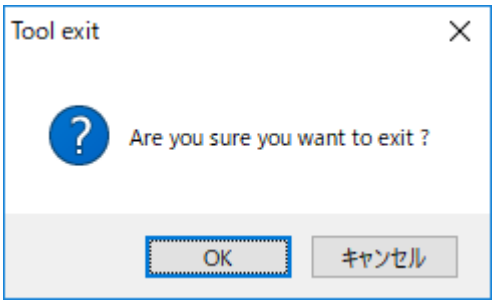
■ [x] button on title bar



■ File menu - Exit



The following dialog box appears. Click the [OK] button.



4. Appendix: Troubleshooting

Via Gateway

i. “Can’t connect” appears on the status bar

The connection with the gateway failed. Check the gateway selection, IP address, and cable connection with the gateway, and then click the [Connect] button again.

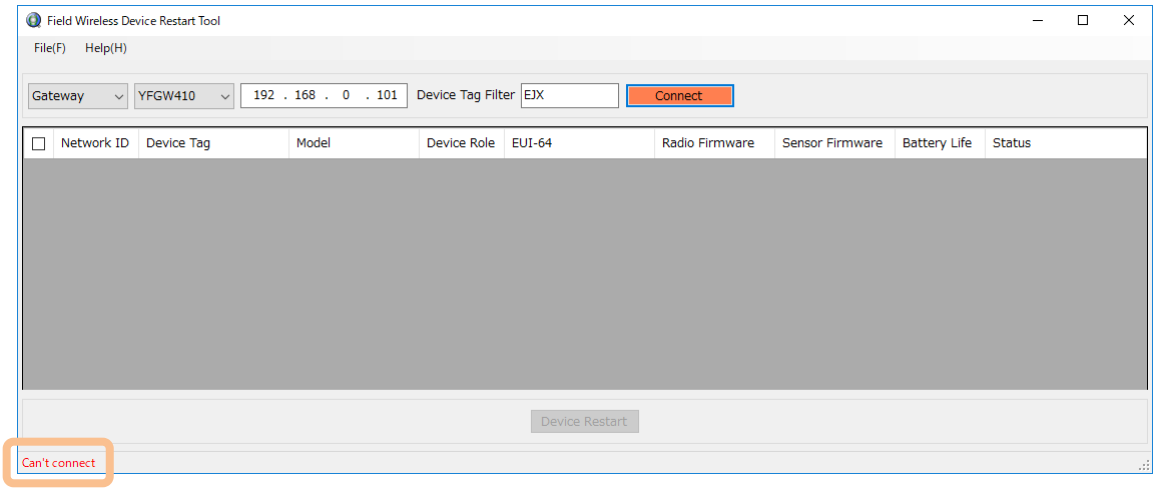


Figure 4-1 Connection Failure Example

ii. “Communication error” appears for the status

This appears when communication with the field wireless device is not possible. The target field wireless device may not be in the join/publish status. Check the network connection status of the target field wireless device in a gateway monitor tool such as FWMC.

Click the [Connect] button to disconnect, check the join/publish status, and then reconnect.

* If you click the [Connect] button while the device is joined to the network, [*****] is displayed for the network ID.

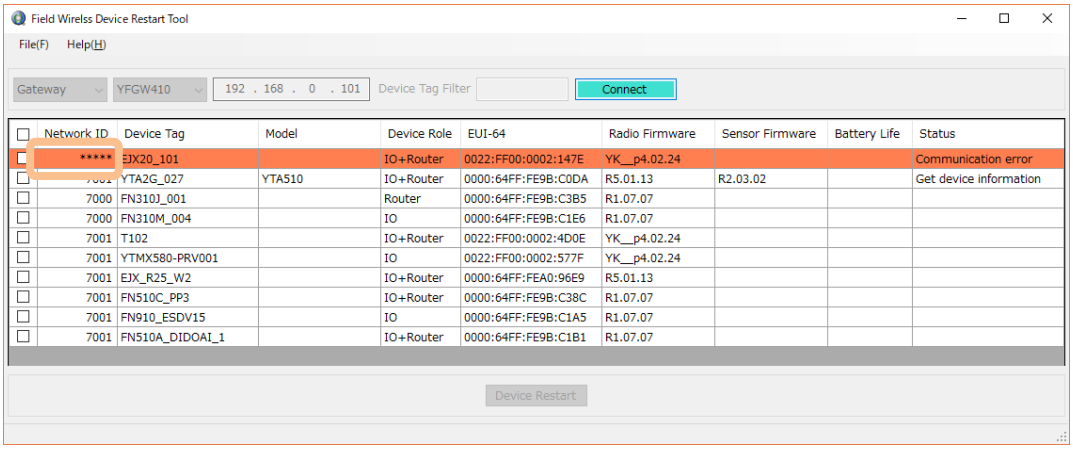


Figure 4-2 Information Acquisition Failure

Via IrDA

iii. “Communication error” appears for the status

This appears when communication with the field wireless device you attempted to restart fails. Check that the connected COM port is the infrared adapter and that the infrared adapter is oriented toward the infrared receiver of the target device.

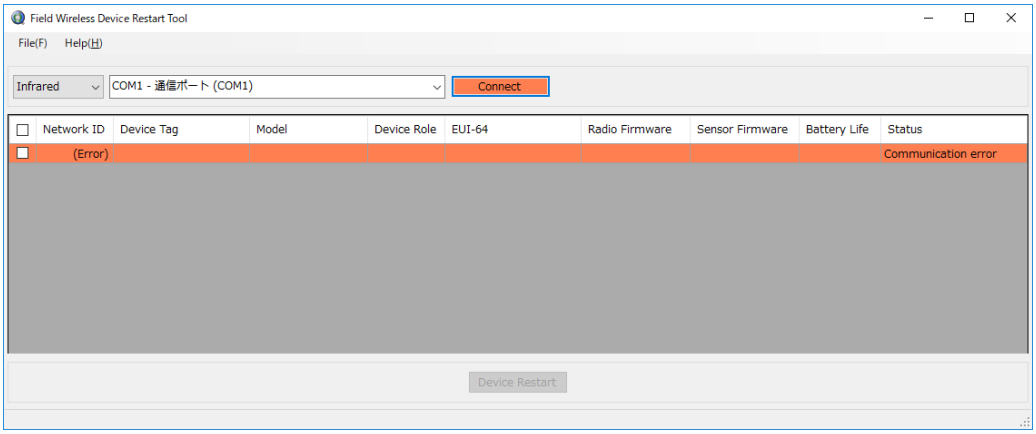


Figure 4-3 Connection Failure

iv. “Restart error” appears for the status

This appears when communication with the field wireless device you attempted to restart fails. Check that the infrared adapter is oriented toward the infrared receiver of the target device.

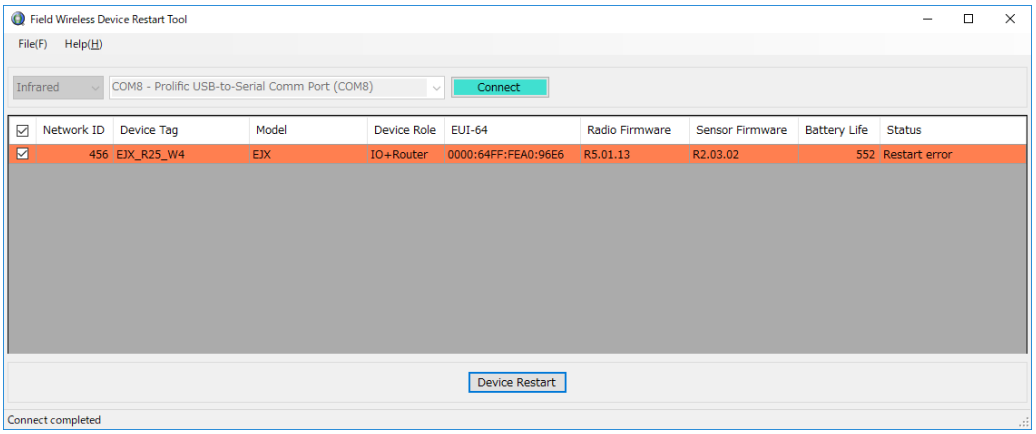


Figure 4-4 Information Acquisition Failure

Another Company’s Field Wireless Device

When the tool is connected to another company’s filed wireless device, display in the device list will be gray as shown in Figure 4-5 and restarting with this tool will not be possible.

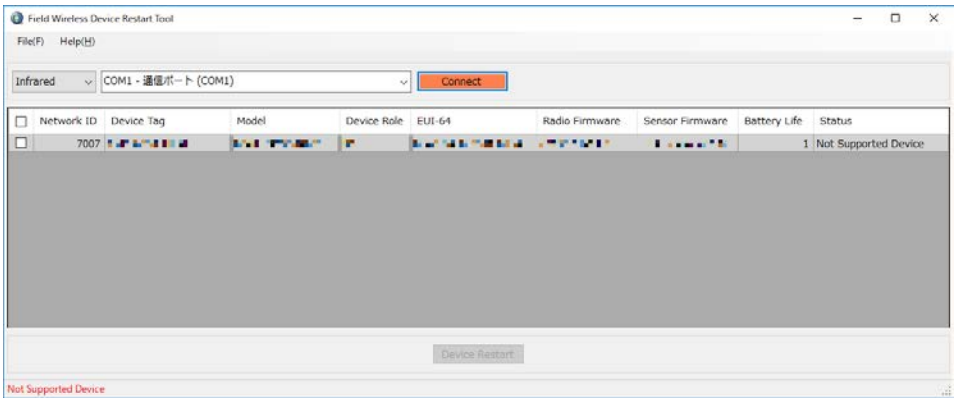


Figure 4-5 Another Company’s Field Wireless Device