FireWorks 9.31 Software Installation Guide

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Version

This document applies to FireWorks 9.31 software.

Contact information

For contact information, see www.edwardsfiresafety.com.

Content

Important information

Limitation of liability

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Installation in accordance with this manual, applicable codes, and the instructions of the authority having jurisdiction is mandatory.

While every precaution has been taken during the preparation of this manual to ensure the accuracy of its contents, Walter Kidde Portable Equipment, LLC assumes no responsibility for errors or omissions.

Advisory messages

Advisory messages alert you to conditions or practices that can cause unwanted results. The advisory messages used in this document are shown and described below.

WARNING: Warning messages advise you of hazards that could result in injury or loss of life. They tell you which actions to take or to avoid in order to prevent the injury or loss of life.

Caution: Caution messages advise you of possible equipment damage. They tell you which actions to take or to avoid in order to prevent the damage.

Note: Note messages advise you of the possible loss of time or effort. They describe how to avoid the loss. Notes are also used to point out important information that you should read.

Introduction

FireWorks 9.31 is display and control software that can be used with one or more remote display computers to provide monitor and control functions for multiple life safety networks.

FireWorks unites building systems technology with an easy-to-use graphical interface. By combining product innovation with application flexibility, FireWorks simplifies the configuration and management of your building systems.

Software license options

You can install FireWorks 9.31 with or without common controls, and with several other software options. See Table 1 below for a list of available options.

Access to the software is controlled by a USB software key that has been activated with your personal initialization numbers (PINs). The software PINs are issued to you by way of a Software Key Certificate and are matched to your specific USB software key.

Table 1: FireWorks software license options

Product SKU	Description
FW-CGSUL [1]	FireWorks stand-alone system software with command-and-control features (includes FIREKEYUSB and Software Key Certificate)
FW-CGS [1]	FireWorks stand-alone system software without command-and-control features (includes FIREKEYUSB and Software Key Certificate)
FW-CGSVM [1]	FireWorks stand-alone system software without command-and-control features (includes FIREKEYUSB and Software Key Certificate)
FW-DARCOM	Digital alarm receiver software for displaying Contact ID or SIA 4/2 formatted events from any fire alarm or security control panel. Requires a compatible digital alarm communicator receiver (DACR).
FW-IPMON1000	Digital alarm receiver software for displaying Contact ID formatted events from up to 1,000 iO64/iO1000, VS1/VS4, FX-64/FX-1000 fire alarm control units.
FW-1S [2]	Remote client software. License supports one remote client computer for displaying system events. Text only, no command and control.
FW-4S [2]	Remote client software. License supports four additional seats for displaying system events on up to five remote client computers. Text only, no command and control. You must activate FW-1S before you can activate FW-4S.
FW-10S [2]	Remote client software. License supports 10 additional seats for displaying system events on up to 15 remote client computers. Text only, no command and control. You must activate FW-1S and FW-4S before you can activate FW-10S.
FW-HSSD5	Allows up to five FW-HSSX1 (VESDA) node connections
FW-HSSD20	Allows up to 20 FW-HSSX1 (VESDA) node connections
FW-FAST	Automatically populate device maps with device information from AutoCAD files
FW-NSZZFP	New nonredundant network server. License supports up to 15 nonredundant client workstations, where ZZ determines the number of workstations (5 or 15). Maximum possible manned operator stations: 16.
FW-RSZZFP [3]	New redundant network server. Supports one SQL cluster consisting of a primary server, a backup server, and a witness, and up to 50 redundant client workstations, where ZZ determines the number of network clients (5, 15, 25, or 50). Maximum possible manned operator stations: 31.

Product SKU	Description
FW-NCZZFP	New nonredundant network client workstation. License supports one nonredundant client workstation.
FW-RCZZFP	New redundant network client workstation. License supports up one redundant client workstation.

[1] UL Listed when installed on UL 864 Listed FireWorks server and workstation computers.

[2] The FireWorks software installed on the workstation and the Remote Client software installed on the remote computer must be the same version number.

[3] The primary server and the backup server in the SQL cluster may be used as a manned operator station; the witness computer cannot. However, using the primary and backup servers as manned operator stations is not recommended as Microsoft SQL does not prioritize updating the operator display on the servers even though the information has been passed to the remote workstations.

Installing FireWorks 9.31

These instructions are for installing the FireWorks 9.31 software. For additional nonredundant and redundant network application installation instructions, see *FireWorks Mirrored Network Application Guide* (P/N 3102789) or *FireWorks High Availability Network Application Guide* (P/N 3103047). For additional support information, see *FireWorks Post Release Support Guide* (P/N 3102819).

Installing FireWorks 9.31 software is a two-step process that requires you to reboot the computer between steps. If you are installing the FireWorks 9.31 software from a USB flash drive, leave the USB flash drive in the computer when you reboot. The installation can take up to 45 minutes or more, depending on the speed of your computer. While installing the FireWorks 9.31 software, do not attempt to run any other programs, or perform any other operations on the computer.

Do not install FireWorks 9.31 software on computers that are used for other purposes, such as word processing, accounting, etc. You can, however, install FireWorks Remote Client on computers used for other purposes.

Before you begin

- Download the FireWorks 9.31 software, the release notes, and the appropriate migration kit or update kits from the MyEddie website, and then copy them to one or more USB flash drives (8 GB or bigger) as needed. See Table 2 below for the required migration/update kits.
- Read the FireWorks 9.31 release notes (P/N 3100569) in their entirety.
- To speed up the installation, disconnect the computer from the network by unplugging the Ethernet cable or by disabling the network adaptor. The FireWorks 9.31 installation offers to disable the network adaptor for you, but we recommend that you do this manually.

Table 2 below lists the update kits and migration kits required to maintain cyber security and software compatibility on UL Listed FireWorks computers. Do not install these kits on third-party computers.

Note: The update/migration kits listed below are also supported for FireWorks 9.31, as they are compatible and remain the same for both FireWorks 9.3 and FireWorks 9.31.

Table 2: Update/migration kits

Computer	FireWorks version	Update/migration kits needed	Applications
FW-UL6WW10	FireWorks 9.2	FW-UL6WW10UD-9.3	[1] [2] [3] [5]
	FireWorks 9.12/9.10	FW-UL6WW10UD-9.2 and FW-UL6WW10UD-9.3	[1] [2] [3] [5]
FW-UL6SW10	FireWorks 9.2	FW-UL6SW10UD-9.3	[1] [4]
	FireWorks 9.12/9.10	FW-UL6SW10UD-9.2 and FW-UL6SW10UD-9.3	[1] [4]
FW-UL7W	FireWorks 9.2	FW-UL7WUD-9.3	[1] [2] [3] [5]
FW-UL7S	FireWorks 9.2	FW-UL7WUD-9.3	[1] [4]
	FireWorks 9.2	FW-UL7S22MK-9.3	[6]
FW-UL7S-S22	FireWorks 9.3/9.31	N/A	[6]
FW-UL7MC	FireWorks 9.3/9.31	N/A	[1]
FW-GA-PC	FireWorks 9.3/9.31	N/A	[1]

[1] Stand-alone workstation computer
[2] Nonredundant network server computer
[3] Nonredundant or redundant network client workstation computer
[4] Mirrored redundant network primary or backup server computer
[5] Mirrored redundant network witness computer
[6] HA redundant network primary or backup server computer, and domain controller computer

Installing FireWorks 9.31 on new computers

1. Plug the USB software key shipped with your Software Key Certificate into the computer.
2. Copy the FireWorks software installation folder to the computer's desktop.
3. Open the FireWorks 9.31 installation folder, right-click setup.exe, and then click Run as administrator.
4. Follow the on-screen instructions.

   When you are prompted to enter a PIN:

   If you are using a used USB software key that already has PINs added to it, type: `fireworks`.

   If you are using a new blank USB software key, enter the FW-CGSUL, FW-CGS, or FW-CGSVM PIN from your Software Key Certificate first, and then enter the remaining PINs.

   When you are prompted to load the SQL Server Standard Database:

   - If you are installing FireWorks 9.31 on workstation computers, on nonredundant network server computers, or on redundant network witness or domain controller computers, click No.
   - If you are installing FireWorks 9.31 on redundant network server computers, click Yes.

   When you are asked whether to install OH Network Receiver, click Yes.

   Note: You should always install OH Network Receiver when installing FireWorks even if you are not going to use it now. You may want to use it in the future.

Installing FireWorks 9.31 on computers running FireWorks 9.12, 9.2, or 9.3

Note: Although the system allows upgrading from the current version of FireWorks to 9.31 without displaying any error messages, you must still ensure that the existing version of FireWorks is uninstalled before installing FireWorks 9.31.

1. Back up your project files. See “Backing up your project files” on page 5.
2. To do a clean install, uninstall the previous version of FireWorks software. See “Uninstalling the previous version of FireWorks” on page 6. Otherwise, skip this step.
3. On UL Listed FireWorks workstation/server computers. install the required update/migration kits. See Table 2 on page 3. Follow the instructions in the update/migration kit's installation sheet.
4. Copy the FireWorks software installation folder to the computer's desktop.
5. Open the FireWorks 9.31 installation folder, right-click setup.exe, and then click Run as administrator.
6. Follow the on-screen instructions.

   When you are prompted to enter a PIN, type: `fireworks`

   When you are prompted to load the SQL Server Standard Database:

   - If you are installing FireWorks 9.31 on workstation computers, on nonredundant network server computers, or on redundant network witness or domain controller computers, click No.
   - If you are installing FireWorks 9.31 on redundant network server computers, click Yes.

   When you are asked whether to install OH Network Receiver, click Yes. You should always install OH Network Receiver when installing FireWorks even if you are not going to use it now. You may want to use it in the future.
7. Restore your project files. See “Restoring your project files” on page 7.

Backing up your project files

1. Copy the following history and diagnostic archive files to a remote storage device (e.g., a network drive, an external hard drive, or a USB flash drive):

   C:\Fireworks\Archives\History\History-YYYYMMDD.mdb

   C:\Fireworks\Archives\Diagnostics\Diags-YYYYMMDD.mdb

   C:\Fireworks\System\FwksDiagnostics.mdb

2. Create a backup folder in a location other than on the computer's hard drive (e.g., on a network drive, an external hard drive, or a USB flash drive).

   Name the folder FWBACKUP followed by the backup date (e.g., FWBACKUP_31JAN25).

3. Start System Builder.
4. On the File menu, click Backup.
5. On the Backup Project dialog box, click the Browse button, select the backup folder you created previously, and then click Save.
6. Select the Full Backup check box, and then click OK.
7. In the Enter description for saved project dialog box, type a description or use the default description, and then click OK.
8. Verify your backup. On the File menu, click Verify Backup

Uninstalling the previous version of FireWorks

Ensure that you follow the sequence below to uninstall FireWorks and its related applications.

1. In the Search box on the Windows taskbar, type: control panel, and then open the Control Panel app by clicking Open.
2. In Control Panel, click Programs and Features.

   Search for FireWorks, right-click on it, and then select uninstall. Click Yes to confirm that you want to uninstall FireWorks.

   Search for Adobe Acrobat, right-click on it, and then select uninstall. Click Yes to confirm that you want to uninstall Adobe Acrobat.

   Search for the following Microsoft SQL Server related applications, right-click on them, and then select uninstall in the order specified below:

   - Microsoft SQL Server 2019 (64-bit)
     - In the SQL Server 2019 dialog box, click Remove.
     - In the Remove SQL Server 2019 dialog box, do the following:

       On the Select Features dialog box, select FireWorks in the “Instance to remove features from” list, click Next, click Select All, and then click Next.

       On the Ready to Remove page, click Remove.

       On the Removal Progress page, wait for the uninstall to finish.

       On the Complete page, click Close.

     Note: Uninstalling Microsoft SQL Server 2019 (64-bit) will automatically remove the Microsoft SQL Server 2019 (English), Microsoft VSS Writer for SQL Server 2019, Browser for SQL Server 2019 applications. To verify the change, click the Refresh button located next to the address bar in the Programs and Features window.
   - Microsoft ODBC Driver 17 for SQL Server
   - Microsoft OLE DB Driver for SQL Server
   - Microsoft SQL Server 2012 Native Client
   - Microsoft SQL Server 2019 T-SQL Language Service
   - Microsoft SQL Server Management Studio - 18.11

   Acknowledge any residual status or error messages resulting from the uninstalls.

   Search for OH Network Receiver, right-click on it, and then select uninstall to confirm.
3. Delete the ‘FireWorks’ folder on the desktop.
4. Navigate to C:\ drive, search for ‘FireWorks’ folder, and then delete it including its subfolders.
5. Navigate to C:\ drive, search for ‘OH-NetworkReceiver’ folder, and then delete it including its subfolders.
6. Navigate to C:\Program Files, search for ‘Microsoft SQL Server’ folder, and then delete it including its subfolders.
7. Restart the computer after uninstalling all the tasks listed above, and before proceeding with the fresh installation of the FireWorks.

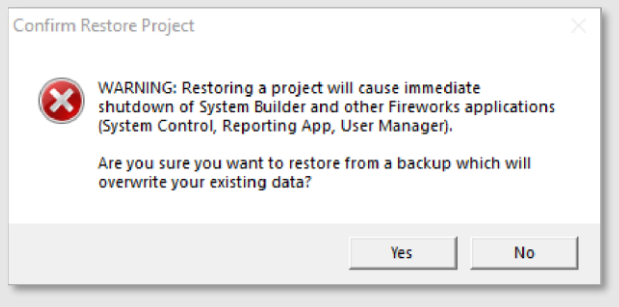
Restoring your project files

1. Copy the project backup files from the remote storage device to the C:\Fireworks\System\Backup folder.
2. Copy the history and diagnostic archive files from the remote storage device as follows:

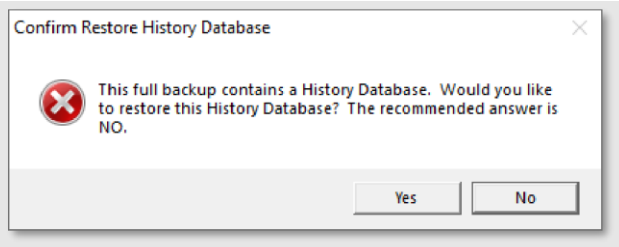
   Copy History-YYYYMMDD.mdb to the C:\Fireworks\Archives\History folder.

   Copy Diags-YYYYMMDD.mdb to the C:\Fireworks\Archives\Diagnostics folder.

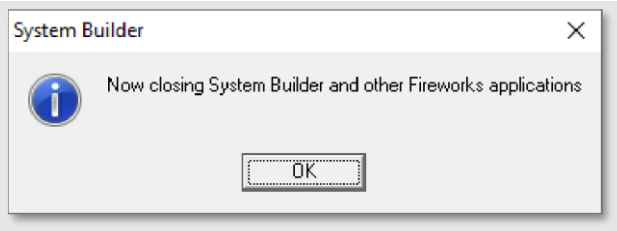
   Copy FwksDiagnostics.mdb to the C:\Fireworks\System folder.
3. Start System Builder.
4. On the File menu, click Restore.
5. In the Confirm Restore Project dialog box, click Yes.



6. In the Restore Project dialog box, go to the folder you created previously, select the project's FWKPRJ file, and then click Open.
7. In the Confirm Restore History Database dialog box, select whether you want to restore the project's history database.



8. In the System Builder message box, click OK.



9. Start System Builder.
10. If you are restoring a FireWorks V8.1x or FireWorks V9.xx project:

    In the Storage Conversion dialog box, click Convert.

    When the conversion is done, click Close.
11. Start System Builder.
12. Perform all required system tests in accordance with NFPA 72, or applicable local legislation and practice.

Installing FireWorks 9.31 on third-party Windows 11 computers

FireWorks 9.31 was not tested on third-party computers running Windows 10 Professional for Stand-alone, Nonredundant network, or Mirroring Redundant network, nor on computers running Windows Server 2022 operating system for HA (High Availability) Redundant network.

All installations require full Windows Administrator Rights as well as full administrative rights to any antivirus or firewall programs (such as McAfee, Norton, etc.).

If computers are subject to administrative/group policies or other types of controls, these policies/controls must be evaluated/modified to ensure that all USB ports are enabled.

Third-party computers must meet the minimum system requirements listed in Table 3 below.

Table 3: Recommended system requirements

	Stand-alone/Client computers	**Nonredundant and mirroring redundant server computers**
Operating system	Windows 11 Pro, Version 24H2, OS build 26100.4946	Windows 11 Pro, Version 24H2, OS build 26100.4946
Processor	Intel Core i9-10900E	Intel Core i9-10900E
Memory	32 GB	64 GB
Hard drive	1 TB	1 TB
Optical drives [1]	0	0
USB ports	4 USB 3.0/2.0/1.1	4 USB 3.0/2.0/1.1
Ethernet ports	2 10/100/1000 Mbps, RJ-45	2 10/100/1000 Mbps, RJ-45
Monitor	1280 × 1024 16-bit color display	1280 × 1024 16-bit color display

[1] Required for installing software from a disc.

To install FireWorks 9.31 on third-party Windows 11 computers:

1. Set up the Windows operating system. See “Setting up the Windows operating system” on page 9.
2. On new computers, see “Installing FireWorks 9.31 on new computers” on page 4.

   On computers running previous versions of FireWorks, see “Installing FireWorks 9.31 on computers running FireWorks 9.12, 9.2, or 9.3” on page 4.

Setting up the Windows operating system

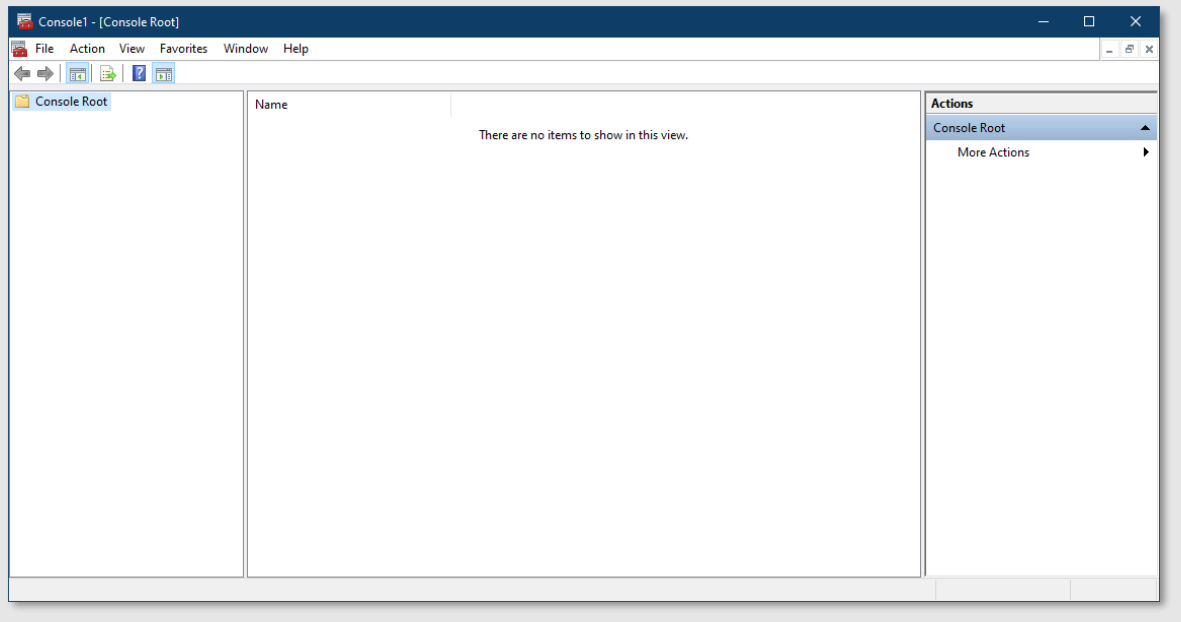
Setting up the Windows operating system consists of:

- Creating a local group policy snap-in that turns Windows Defender Firewall off.
- Installing Microsoft .NET Framework 3.5, which is included as part of the FireWorks installation process, is required to run OH Lite.

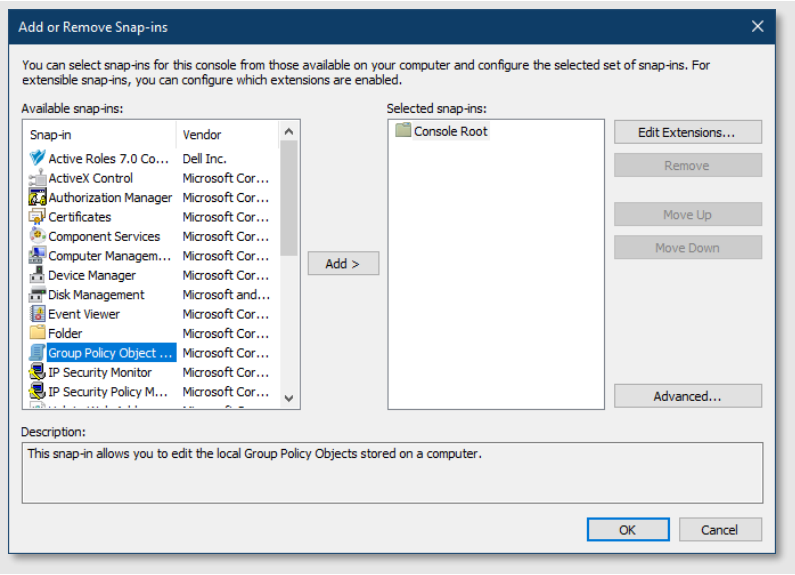
To create a local group policy snap-in that turns Windows Defender Firewall off:

1. In the Search box on the Windows task bar, type: mmc, and then click Run as administrator to open a management console window (see below).

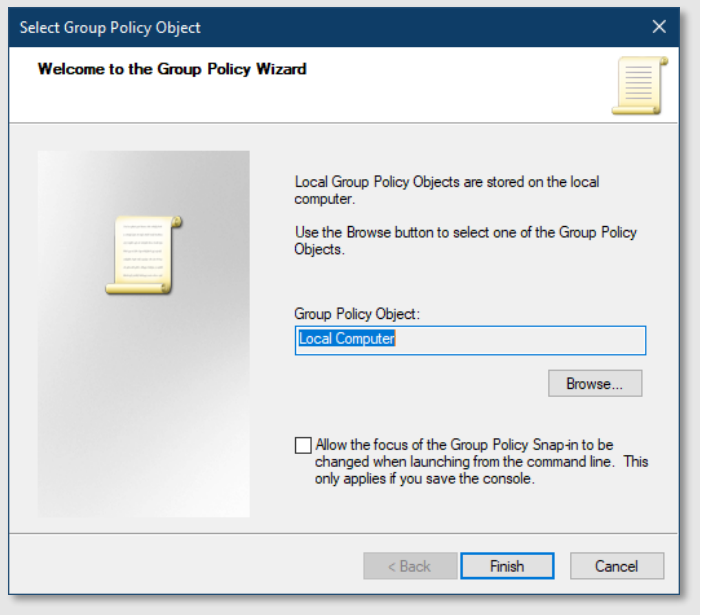
   Click Yes to allow Microsoft Management Console to make changes to your computer.



2. On the File menu, click Add/Remove Snap-In.
3. In the Add or Remove Snap-ins dialog box, in the Available Snap-ins list, select Group Policy Object, and then click Add.

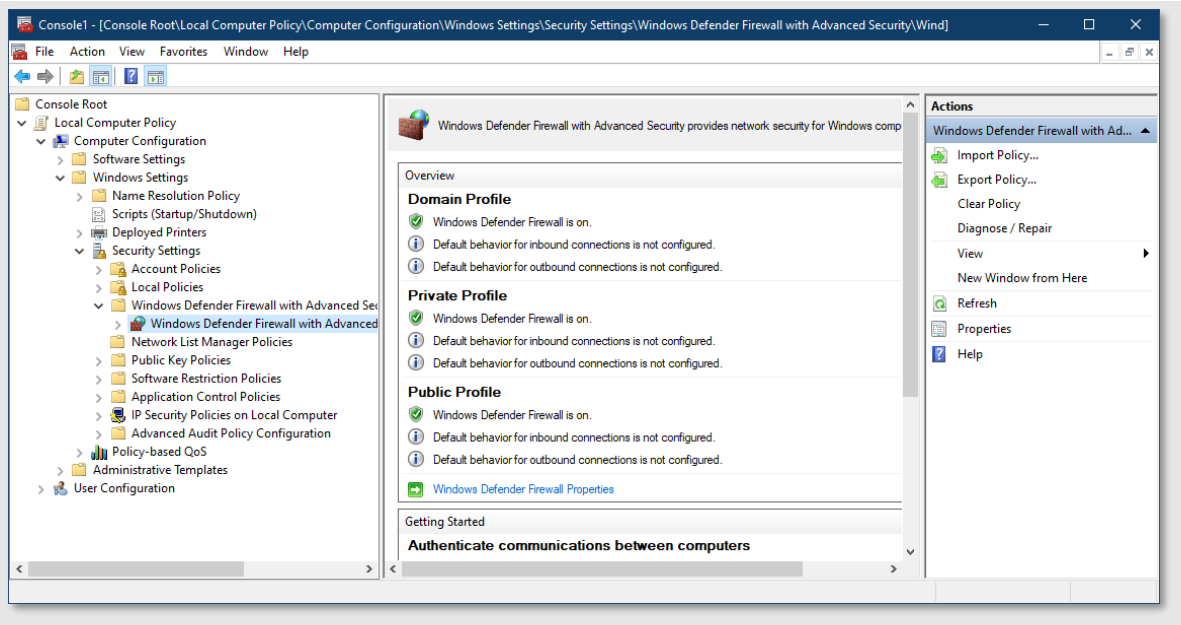


4. In the Select Group Policy Object dialog box, verify Group Policy Object is set for Local Computer, and then click Finish.



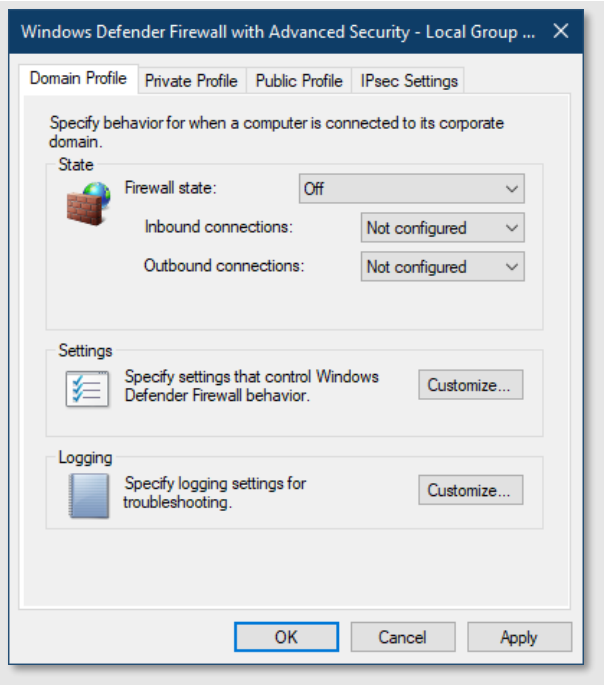
5. In the Add or Remove Snap-ins dialog box, click OK.

6. In the console tree, under Local Computer Policy\Computer Configuration\Windows Settings\Security Settings\Windows Defender Firewall with Advanced Security, select Windows Defender Firewall with Advanced Security – Local Group Policy Object.



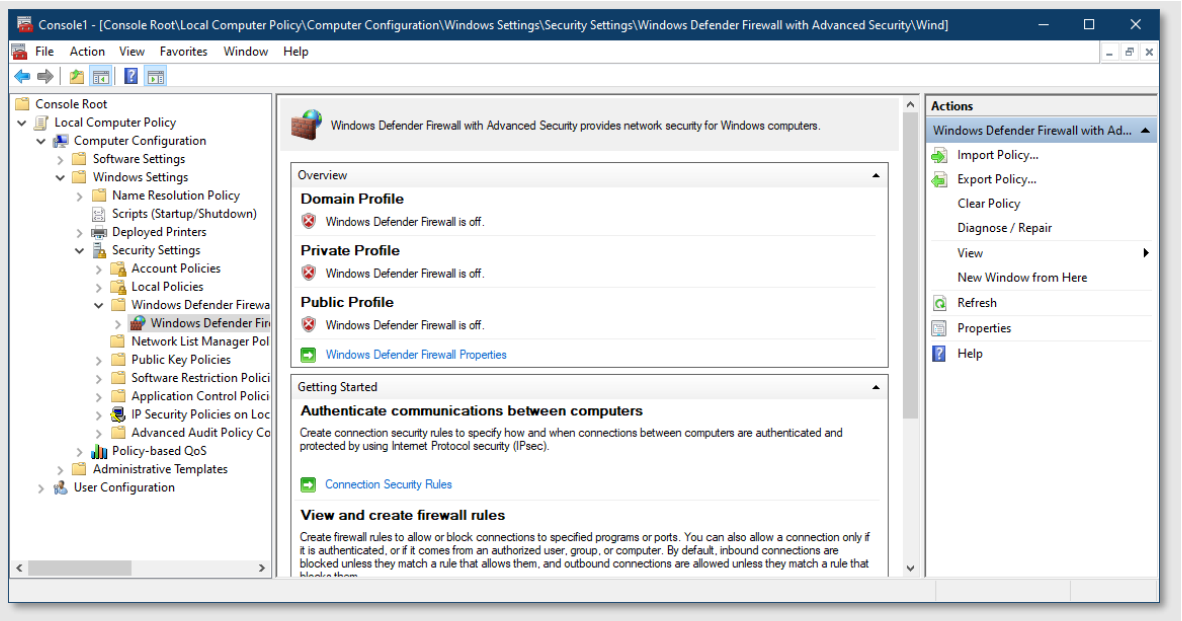
7. In the middle pane, in the Overview group, click Windows Defender Firewall Properties.

8. In the Windows Defender Firewall with Advanced Security – Local Group Policy Object dialog box, on the Domain Profile tab, set Firewall state for Off, and then click Apply.



9. Repeat the previous step on the Private Profile tab and on the Public Profile tab, and then click OK.

10. Verify Windows Defender Firewall is turned off for all three profiles.



11. On the management console window, click the Close button and then save the snap-in MSC file to the Windows desktop. Name the snap-in file: `firewall local group policy.msc`.

Installing FireWorks 9.31 for demonstration purposes

Before installing FireWorks 9.31 for demonstration purposes, make sure the demonstration computer meets the recommended system requirements (see Table 3 on page 8) and that all Windows updates have been applied.

Note: To run FireWorks 9.31 for demonstration purposes, the demonstration computer must have a 3-SDU enabled software key plugged into a USB port on the computer.

To check for updates:

1. In the Search box on the Windows task bar, type: `update`.
2. In the search results, click Check for updates.

To install FireWorks 9.31 for demonstration purposes, see “Installing FireWorks 9.31” on page 3.

When you are ready to begin your demonstration, start System Control, and then to log on use “ADMIN” for the user name and password. After logging on, use the function keys described in below to simulate events.

Function key	Operation
Ctrl+F1	Smoke active event
Ctrl+F2	Pull station active event
Ctrl+F3	Supervisory active event
Ctrl+F5	Trouble event
Ctrl+F6	Monitor active event
Ctrl+F12	Reset life safety events
See Demo menu	Digital receiver alarm 4/2 event
See Demo menu	Digital receiver alarm CID event

Installing FireWorks 9.31 Remote Client

FireWorks 9.31 Remote Client is used to view information present on a FireWorks 9.31 workstation (i.e., server) from a remote computer (i.e., client) over an Ethernet (TCP/IP) connection. The remote computer must be running the Windows 10 or Windows 11 as its operating system.

FireWorks 9.31 uses Microsoft Windows Communication Foundation (WCF) to manage communications between the FireWorks workstation and FireWorks remote clients. To secure the communications, FireWorks 9.31 uses a self-signed certificate to authenticate the remote client connection.

Before you can use FireWorks 9.31 Remote Client, verify that you have met the following requirements:

- The FireWorks workstation/server computer has the required number of remote client software licenses enabled (FW-1S, FW-4S, or FW-10S).

  To see whether Remote Client software licenses are enabled, on the computer's Start menu, in the Edwards Software folder, click Key and Database Verify to open the FireWorks HASP Key Features & Other Diagnostics window.
- Your user account access group configuration allows remote client connections (i.e., the Allow Remote Client Connection check box is selected)
- The WEB_FUNCTIONALITY_ENABLE property is enabled on the target FireWorks system. For more information, see "Enabling Remote Client functionality" in System Builder Help.
- FireWorks 9.31 System Control is running on the target FireWorks workstation/server computer

Filling out the FireWorks Remote Client network administration form

Before installing FireWorks 9.31 Remote Client, it is important that your site network administrator and the FireWorks administrator fill out the "FireWorks Remote Client network administration form" (see Table 4 on page 14).

The network administration form provides a means of communication between the FireWorks administrator and the site network administrator so FireWorks Remote Client users can access the FireWorks server. Both administrators should retain the completed form for future reference.

Fill out a network administration form for each installation. For version compatibility, see *FireWorks 9.31 Release Notes* (P/N 3100569) and the release notes for all other FireWorks software versions. Release notes are available on the MyEddie website.

Notes

- The network address of the FireWorks workstation/server computer must remain constant by either using a static IP address or a DNS name FireWorks 9.31. Remote Client uses TCP/IP port 8201 for communicating with the FireWorks workstation.
- If a static IP address is available, the network administrator must configure the FireWorks workstation with that IP address.

Table 4: FireWorks Remote Client network administration form

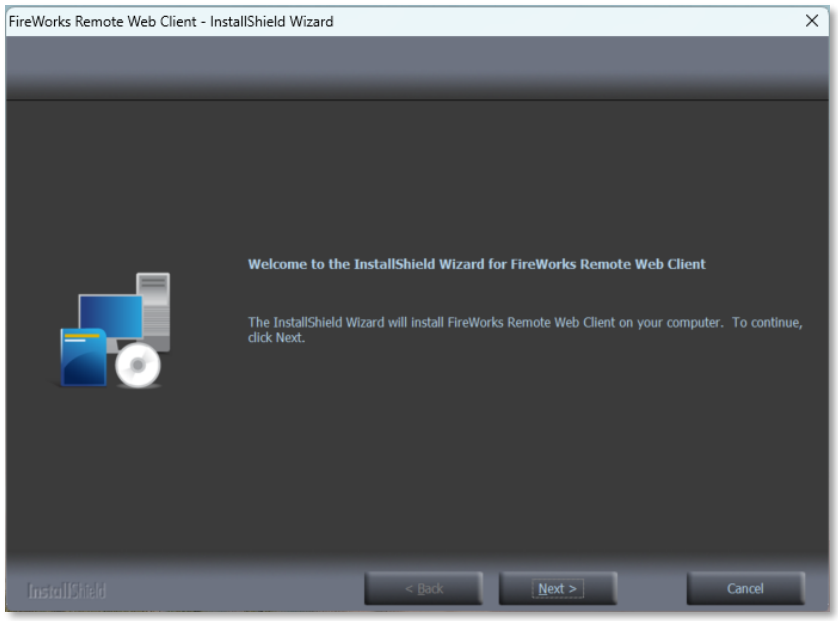
Section 1 (To be filled out by the FireWorks administrator)
The FireWorks Remote Client users will be located on (check all that apply):
☐ Internet
☐ Company or building VPN (virtual private network)
☐ Company or building intranet
☐ Same LAN that the FireWorks Web Server is on
☐ Other: _____
Section 2 (To be filled out by the network administrator)
The network address of the FireWorks workstation/server computer is:
Full computer name:_____
— or —
Static IP address: _____ . _____ . _____ . _____

Installing FireWorks 9.31 Remote Client

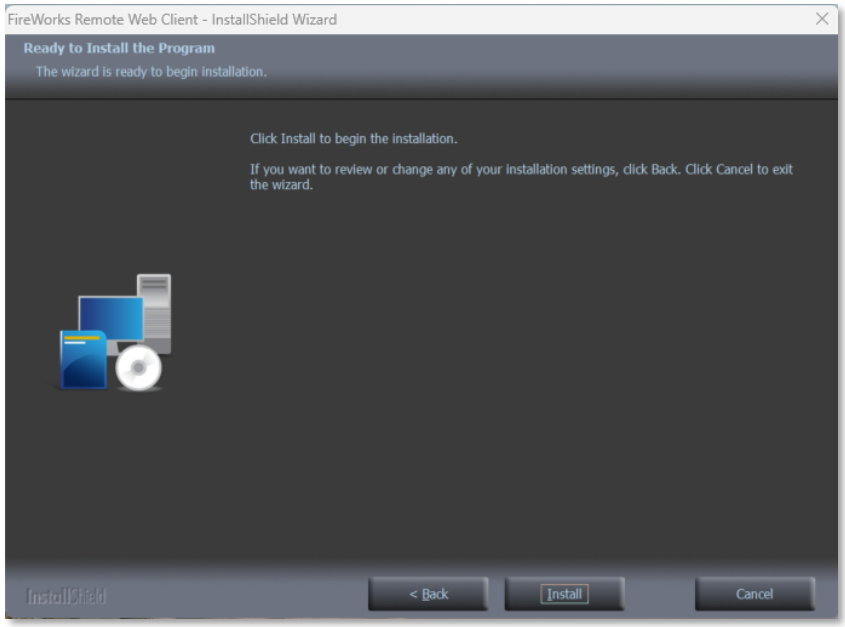
1. Insert a FireWorks 9.31 installation disc or plug in a USB flash drive containing FireWorks 9.31.

   Remote Client requires the 4.8 .NET framework, this will typically be on a computer that is up to date. If it is not, the Remote Client installation will install it for you.

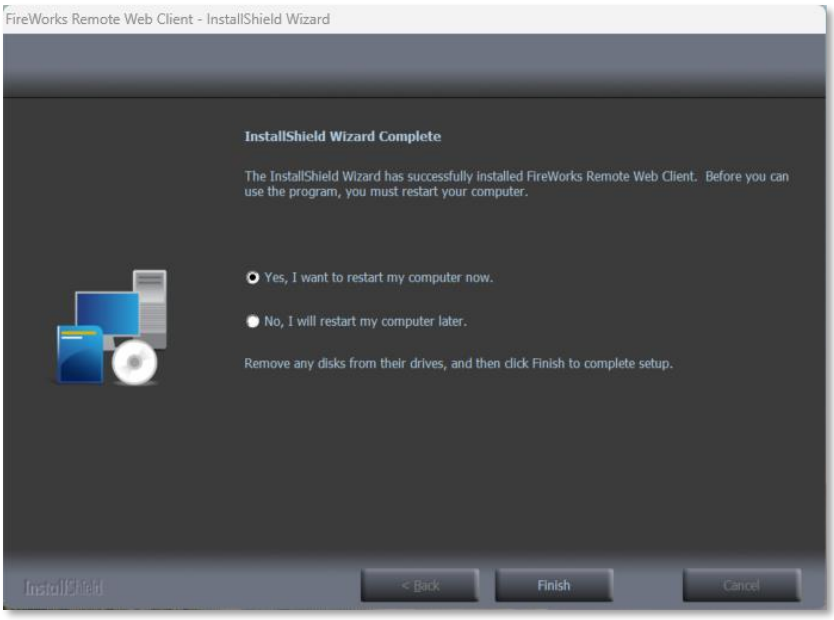
2. Right-click FireWorks Remote Client.exe, and then click Run as administrator.
3. On the Welcome page, click Next.



4. Click Install.

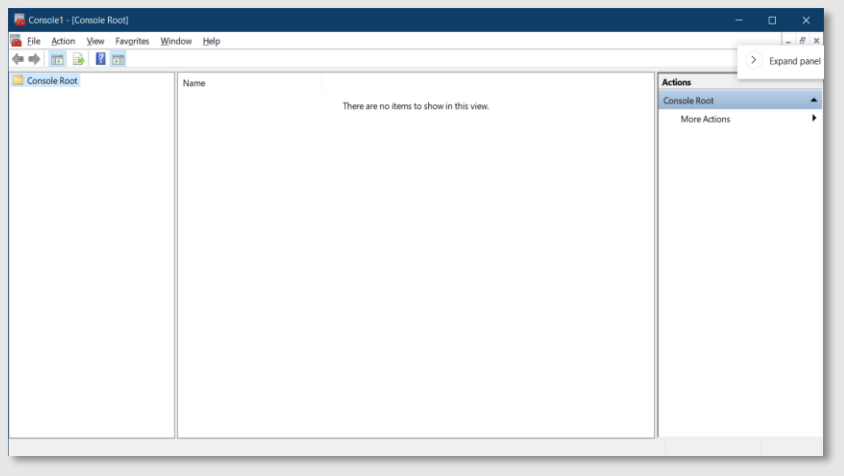


5. After InstallShield has finished, select Yes, I want to restart my computer now, and then click Finish.



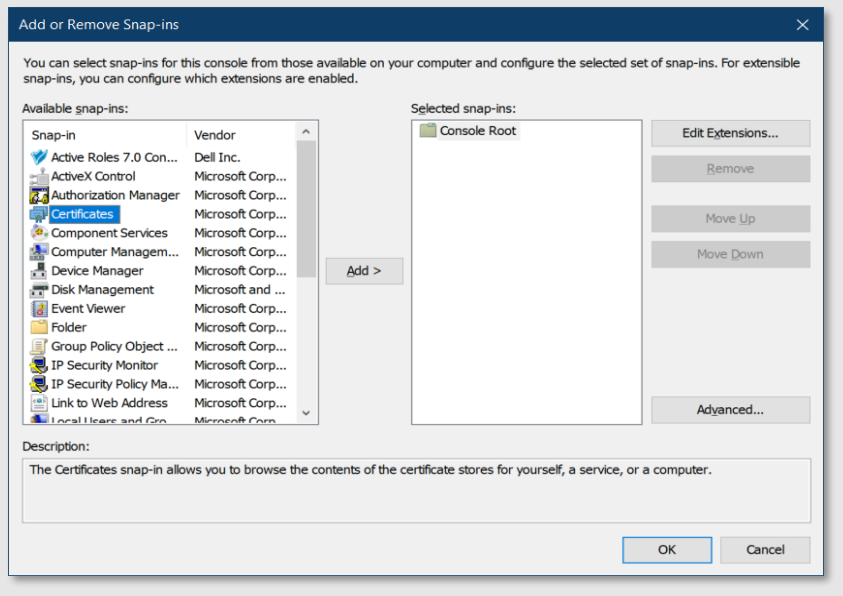
6. On the Windows task bar, in the Search box, type: `mmc`, and then click Run as administrator to open Microsoft Management Console (see below).

   Click Yes to allow Microsoft Management Console to make changes to your computer.

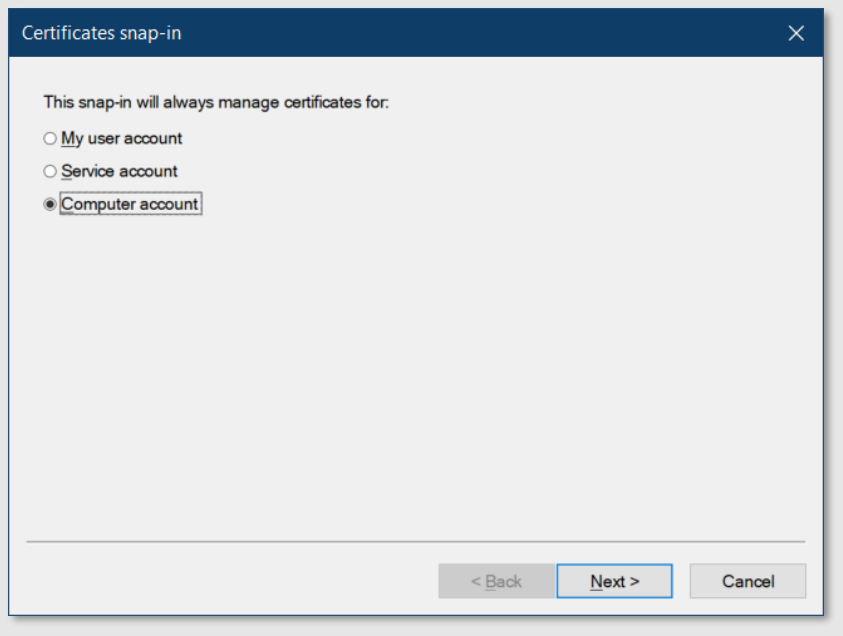


7. On the File menu, click Add/Remove Snap-in.

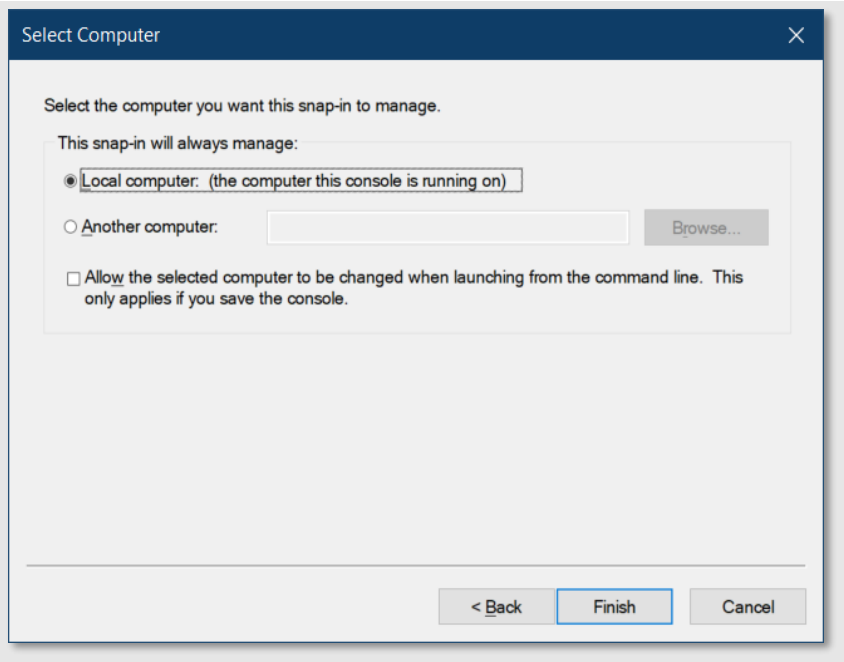
8. In the Add or Remove Snap-ins dialog box, in the Available snap-ins list, select Certificates, and then click Add.



9. On the Certificates snap-in page, select Computer account, and then click Next.



10. On the Select Computer page, select Local Computer, and then click Finish.



11. In the Add or Remove Snap-ins dialog box, click OK.
12. In the console tree, under Certificates (Local Computer)\Trusted Root Certification Authorities, select Certificates, and then verify the Edwards Code Signing certificate is installed.

    If the Edwards Fire and Safety certificate is installed, click the Close button.

Starting FireWorks 9.31 Remote Client

Refer to the FireWorks Remote Client Help for other information on connecting FireWorks Remote Client to the FireWorks workstation. FireWorks Remote Client Help is available on the Start menu in the Edwards Software folder.

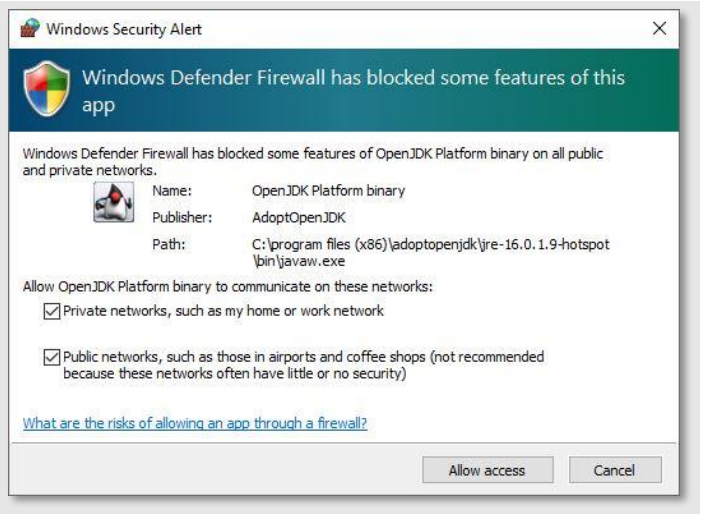
For troubleshooting tips, see *FireWorks Post Release Support Guide* (P/N 3102819).

To start FireWorks 9.31 Remote Client:

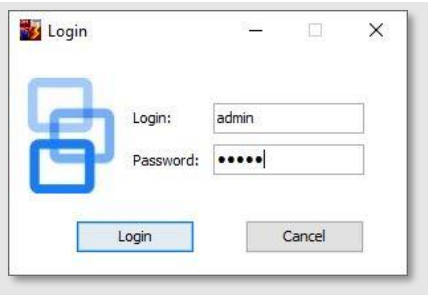
1. On the Windows desktop, right-click the FireWorks 9.31 Remote Client shortcut, and then click Run as administrator.

Verifying the OH Network Receiver V4.1 setup

1. Right-click the OH Network Receiver shortcut on the desktop, and then click Run as administrator.
2. In the Windows Security Alert dialog box, select the options as shown below, and then click Allow access.



3. On the File menu, click Login.
4. In the Login dialog box, do the following:

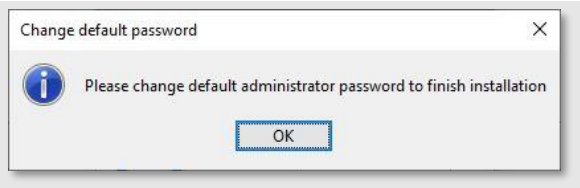


   In the Login box, type: `admin`

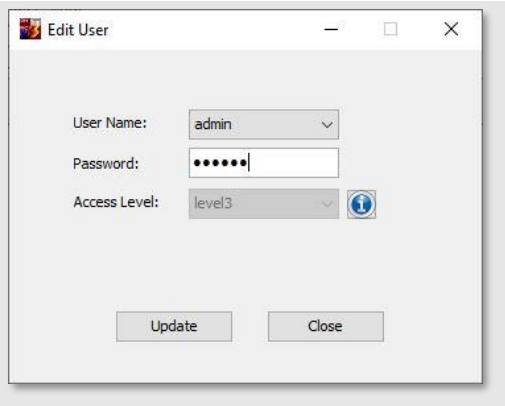
   In the Password box, type: `admin`

   Click Login.

5. In the Change default password message box, click OK.



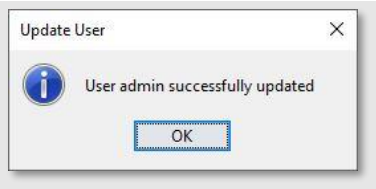
6. In the Edit User dialog box, do the following:



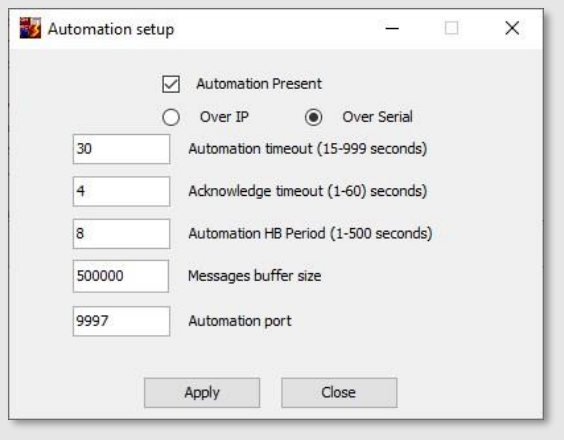
In the User Name box, type: `admin`

In the Password box, type: `admin1`

Click Update, and then click OK.

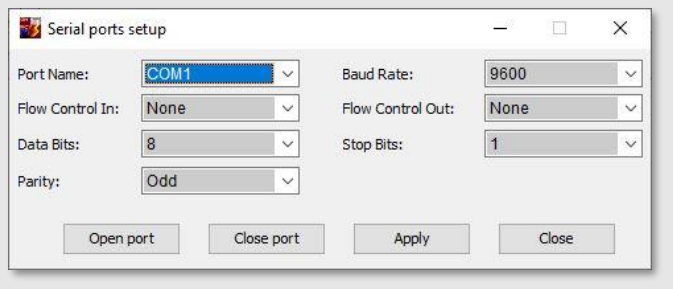


7. On the Setup menu, click Automation, and then configure the automation properties as shown below.



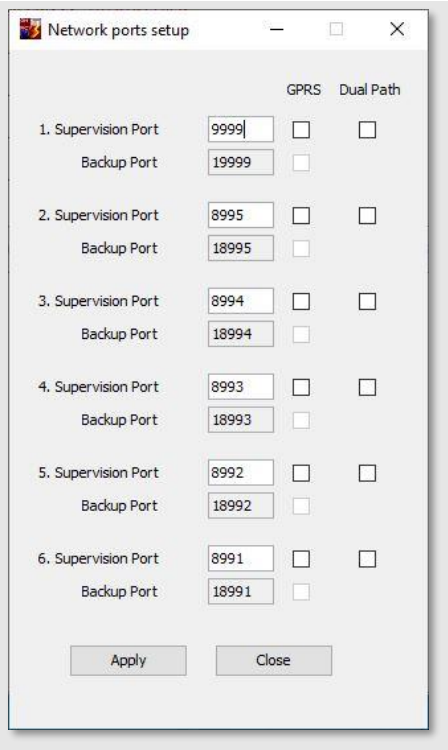
Click Apply, and then click Close.

8. On the Setup menu, click Serial ports, and then configure the serial port properties as shown below.



Click Apply, and then click Close.

9. On the Setup menu, click Network ports, and then configure the network port properties as shown below.



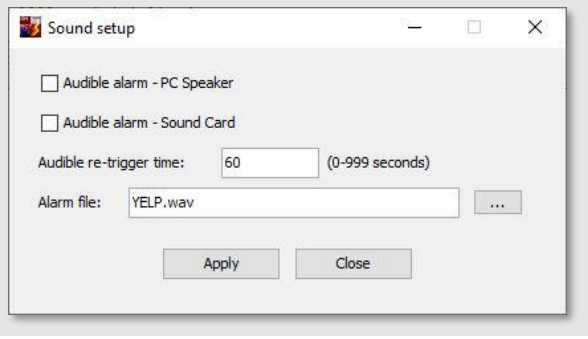
Note: These are the default settings.

10. On the Setup menu, click Receiver type, and then configure the receiver type properties as shown below.

Note: These are the default settings.

Click Apply, and then click Close.

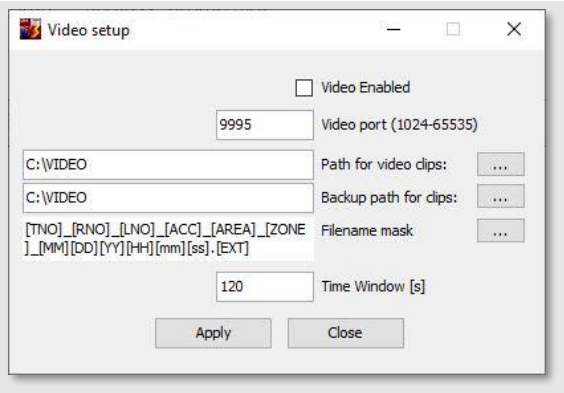
11. On the Setup menu, click Sound, and then configure the sound properties as shown below.



Note: These are the default settings.

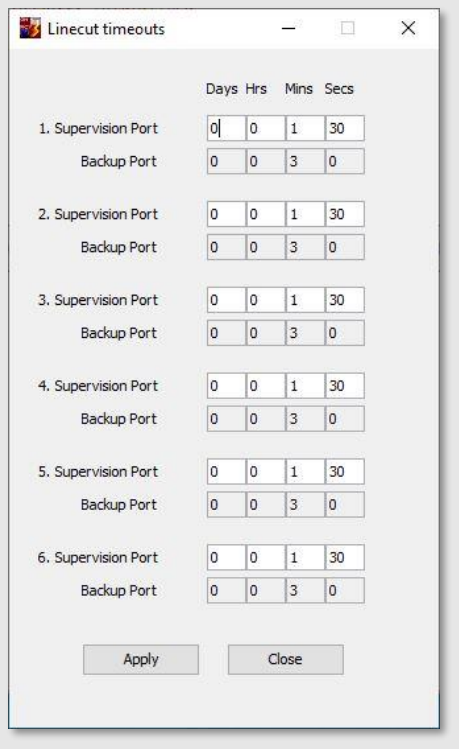
Click Apply, and then click Close.

12. On the Setup menu, click Video, and then configure the network port properties as shown below.



Click Apply, and then click Close.

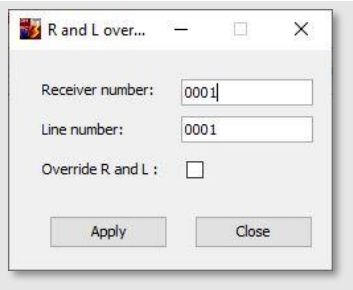
13. On the Setup menu, click Linecut timeouts, and then configure the linecut timeout properties as shown below.



Note: These are the default settings.

Click Apply, and then click Close.

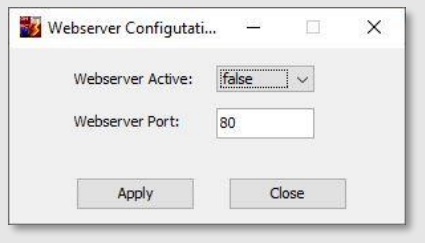
14. On the Setup menu, click R&L override, and then configure the R&L override properties as shown below.



Note: These are the default settings.

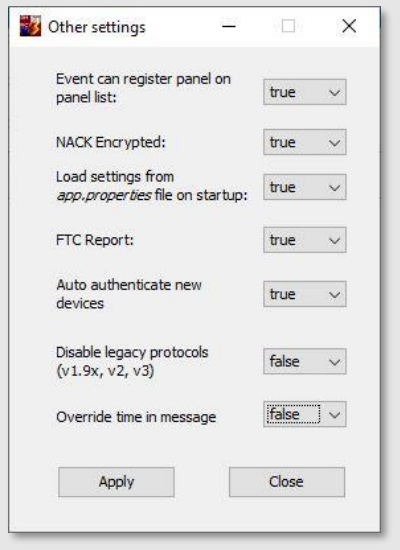
Click Apply, and then click Close.

15. On the Setup menu, click Webserver Config, and then configure the webserver properties as shown below.



Click Apply, and then click Close.

16. On the Setup menu, click Other settings, and then configure the other properties as shown below.



Click Apply, and then click Close.

17. On the File menu, click Exit.

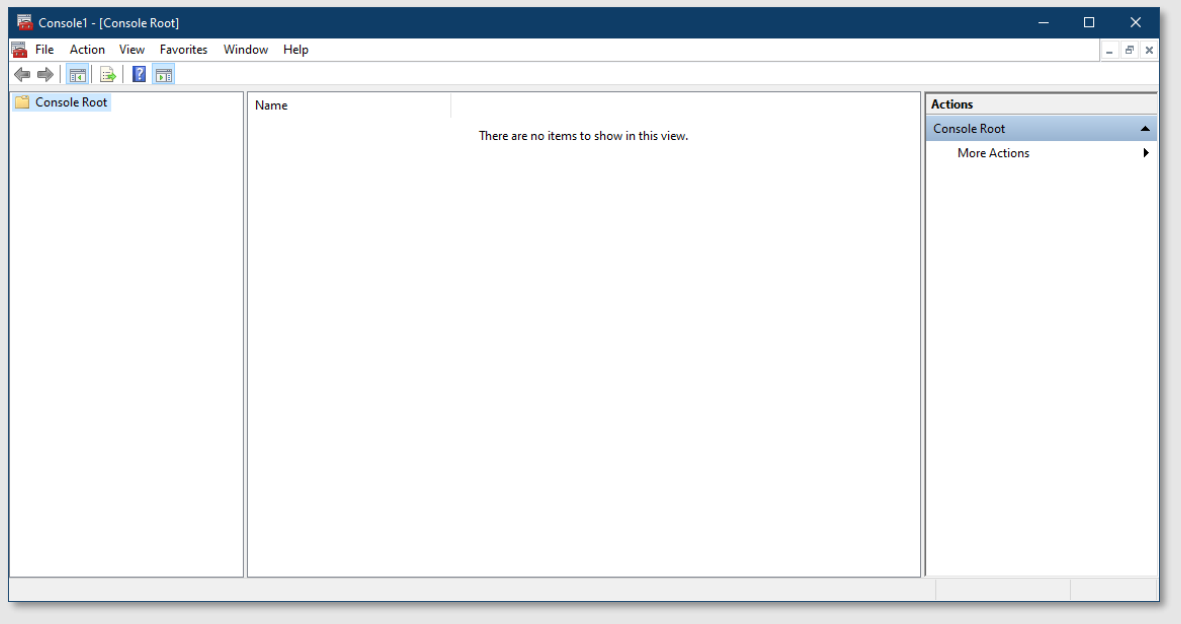
Enabling OH Network Receiver firewall inbound and outbound exception rules on FW-UL6/FW-UL7 FireWorks 9.31 workstation/server computers

For OH Network Receiver to communicate properly with FireWorks 9.31 on FW-UL6/FW-UL7 workstation/server computers, you need to enable the OH Network Receiver firewall inbound and outbound exception rules provided with the FireWorks 9.31 OS image.

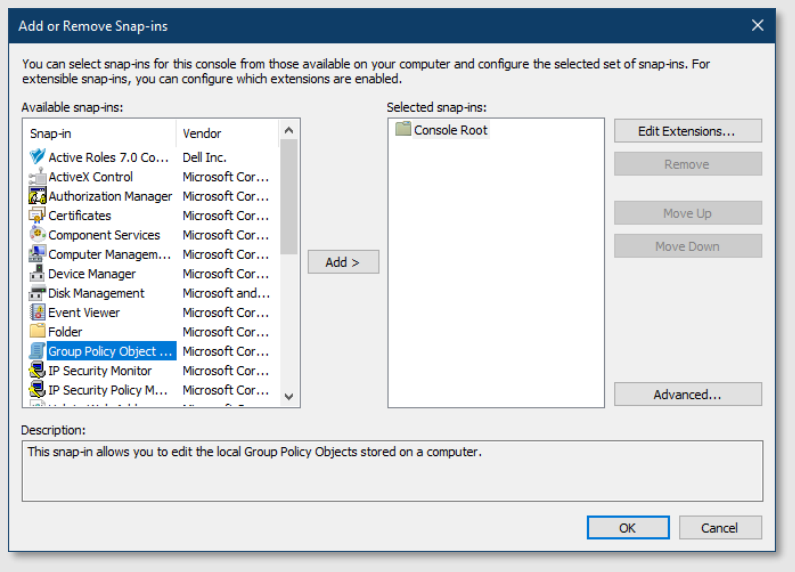
To enable the inbound and outbound exception rules:

In the Search box on the Windows task bar, type: `mmc`, and then click Run as administrator to open a management console window (see below).

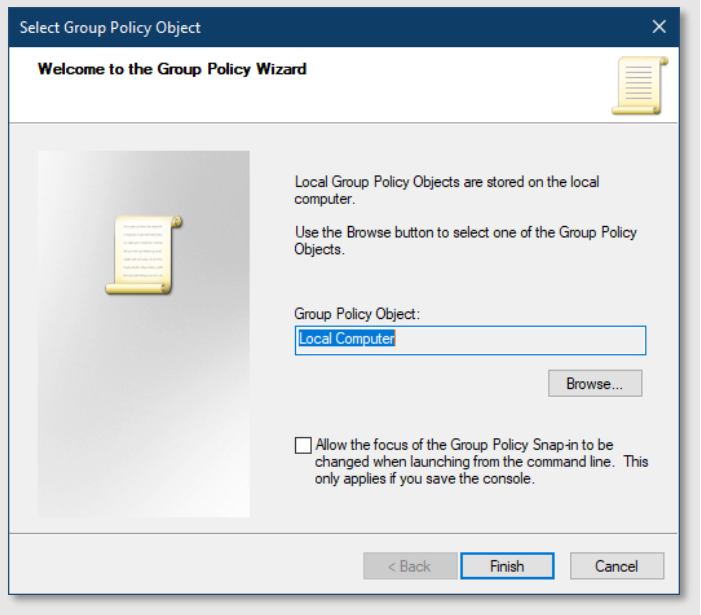
1. Click Yes to allow Microsoft Management Console to make changes to your computer.



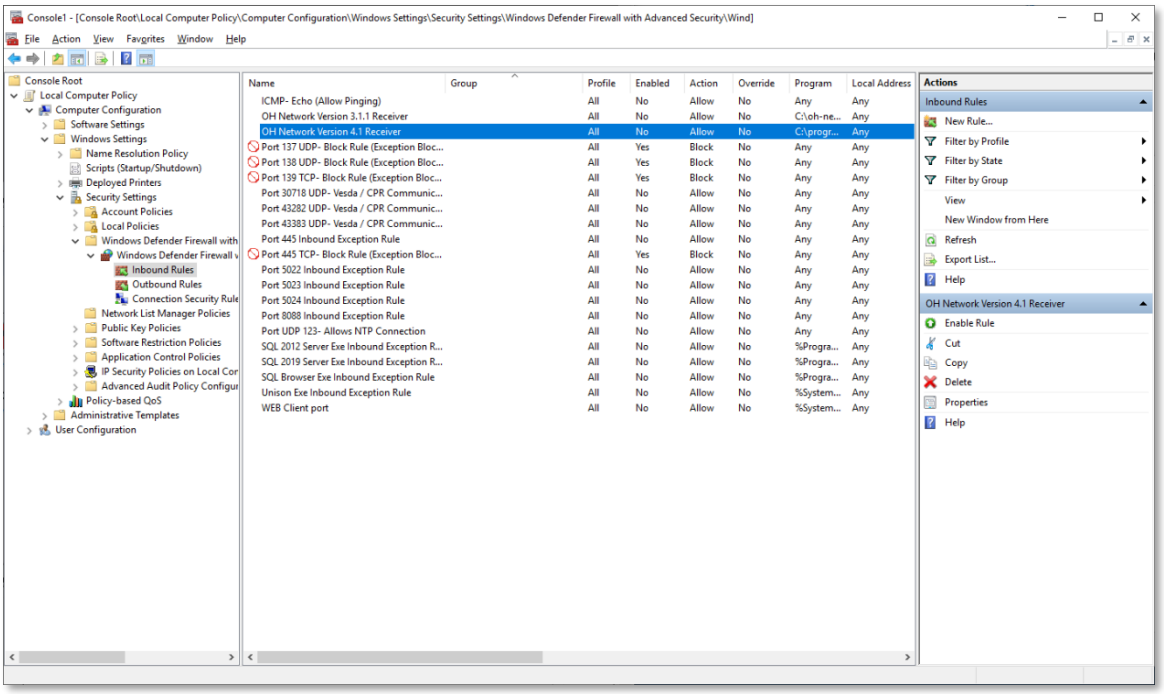
2. On the File menu, click Add/Remove Snap-In.
3. In the Add or Remove Snap-ins dialog box, in the Available Snap-ins list, select Group Policy Object, and then click Add.



4. In the Select Group Policy Object dialog box, verify Group Policy Object is set for Local Computer, and then click Finish.



5. In the Add or Remove Snap-ins dialog box, click OK.
6. In the console tree, under Windows Defender Firewall with Advanced Security – Local Group Policy Object, select Inbound Rules.



7. In the middle pane, selectOH Network Version 4.1 Receiver.
8. On the Action menu, click Enable Rule.
9. Create an OH Network Version 4.1 Receiver outbound rule.

   In the console tree, under Windows Defender Firewall with Advanced Security – Local Group Policy Object, select Outbound Rules.

On the Action menu, click New Rule to start the New Outbound Rule Wizard.

Follow the procedure for adding an inbound exception rule as described in the following section, starting at the Rule Type page (step 9).

On the Name page, in the Name box, type: `OH Network Version 4.1 Receiver`, and then click Finish.

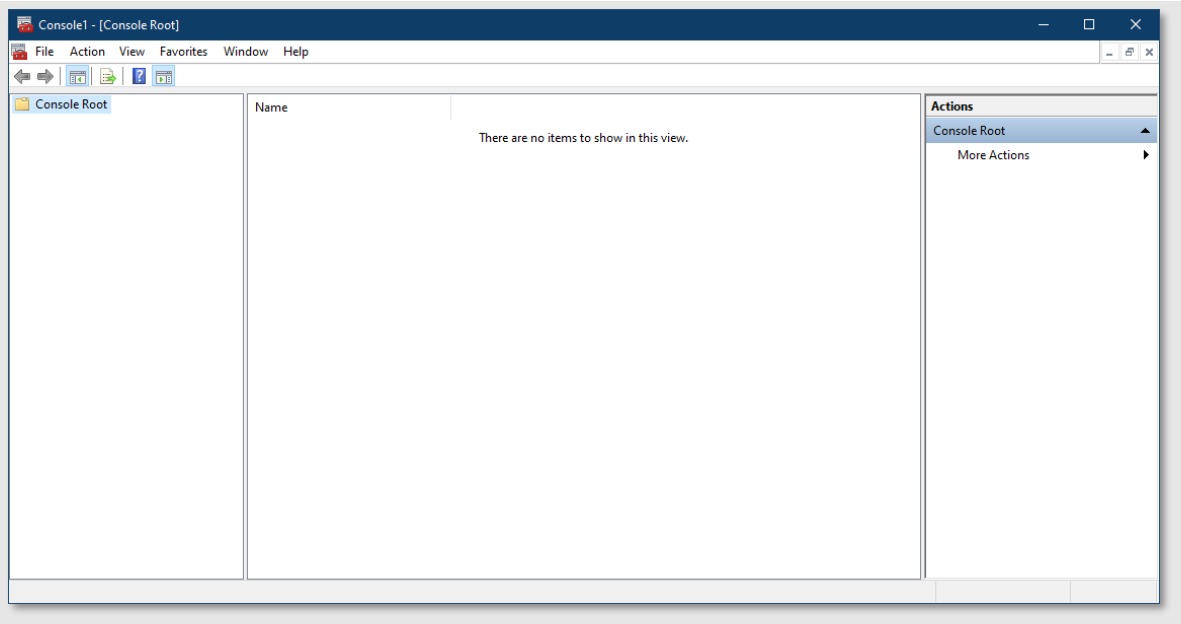
Adding OH Network Receiver firewall inbound and outbound exception rules to third-party computers

For OH Network Receiver to communicate properly with FireWorks 9.31 on third-party computers, you need to add OH Network Receiver firewall inbound and outbound exception rules to your firewall settings.

To add the inbound exception rule:

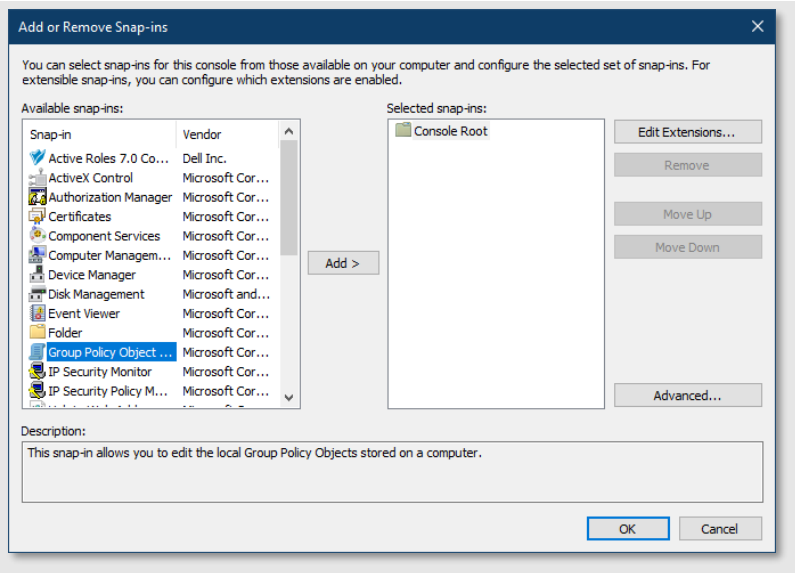
1. In the Search box on the Windows task bar, type: `mmc`, and then click Run as administrator to open a management console window (see below).

   Click Yes to allow Microsoft Management Console to make changes to your computer.

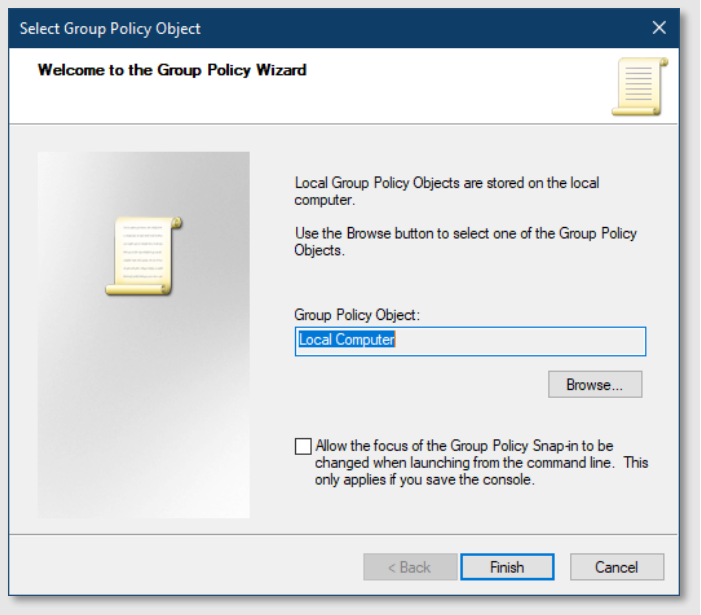


2. On the File menu, click Add/Remove Snap-In.

3. In the Add or Remove Snap-ins dialog box, in the Available Snap-ins list, select Group Policy Object, and then click Add.

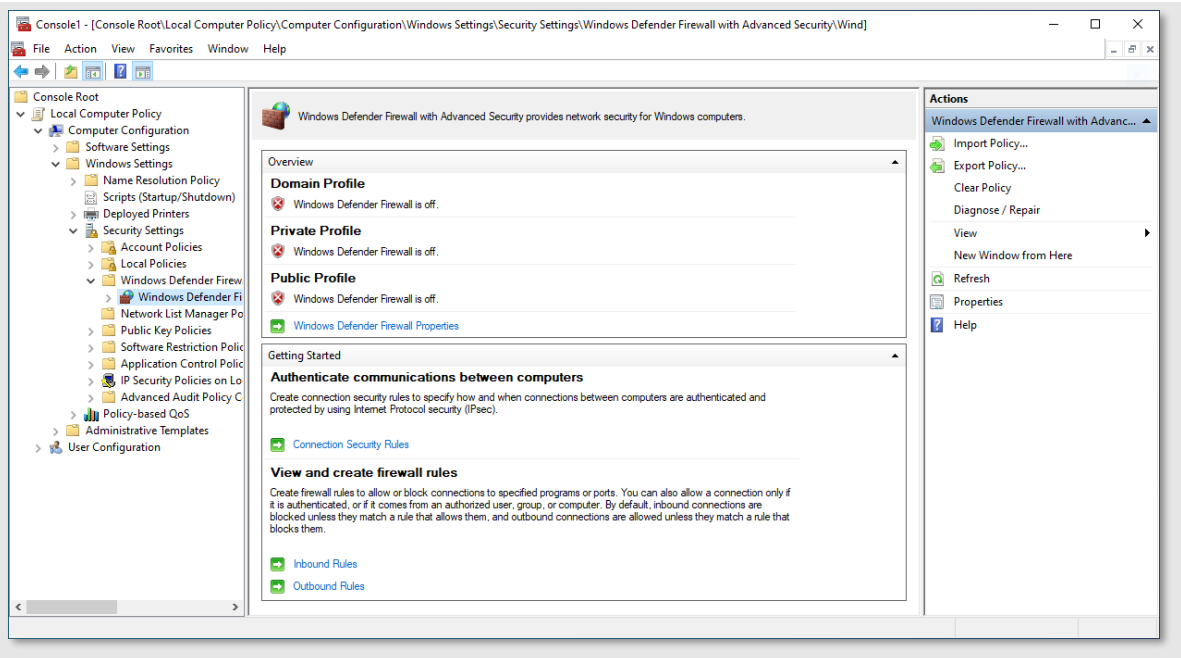


4. In the Select Group Policy Object dialog box, verify Group Policy Object is set for Local Computer, and then click Finish.

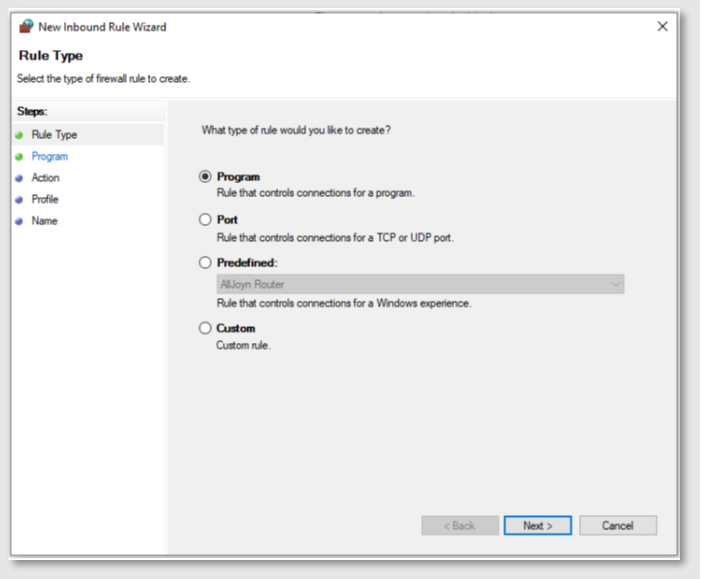


5. In the Add or Remove Snap-ins dialog box, click OK.

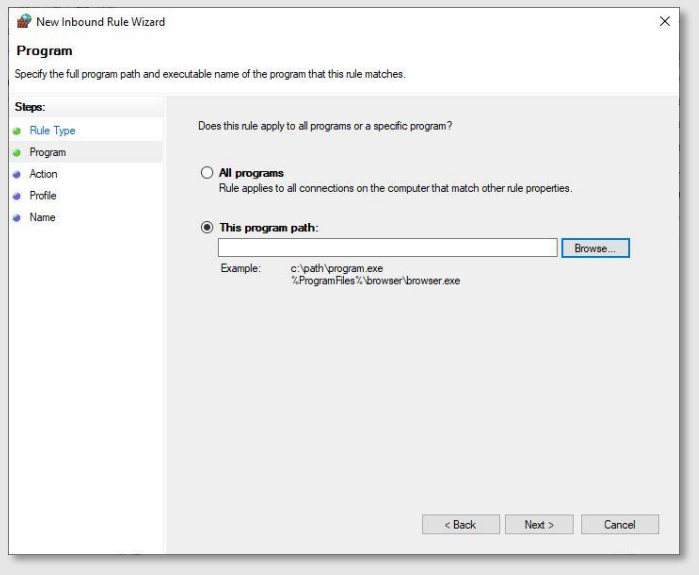
6. In the console tree, under Local Computer Policy\Computer Configuration\Windows Settings\Security Settings\Windows Defender Firewall with Advanced Security, select Windows Defender Firewall with Advanced Security – Local Group Policy Object.



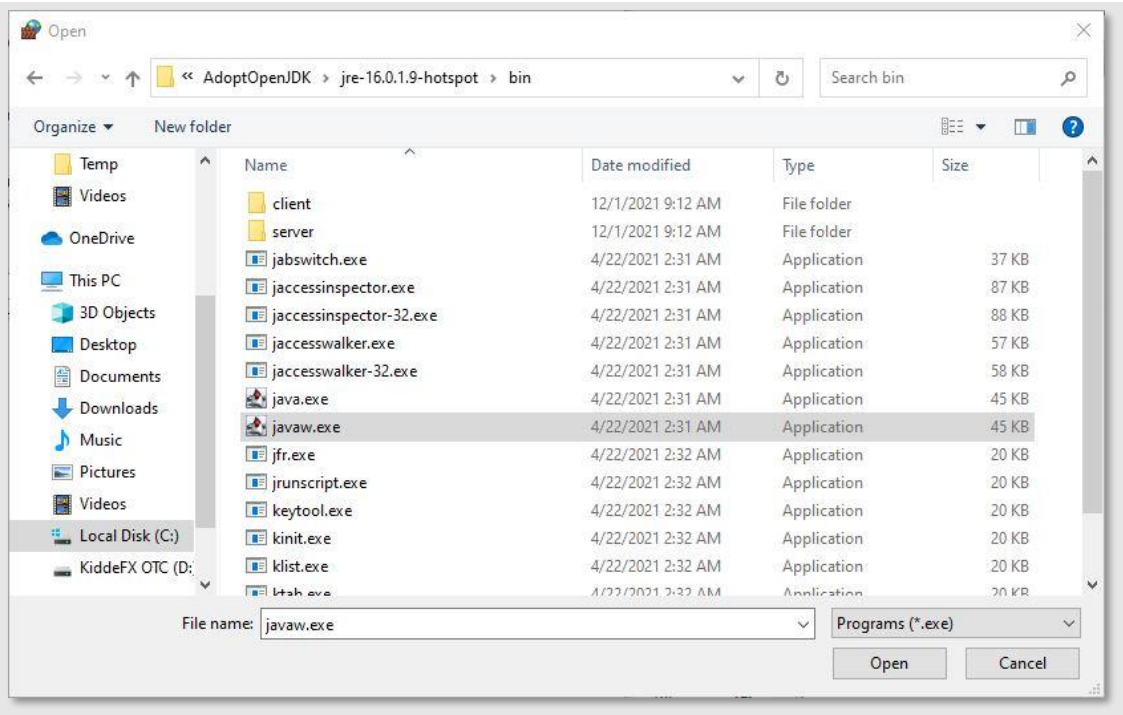
7. In the middle pane, in the Getting Started group, click Inbound Rules.
8. On the Action menu, click New Rule to start the new inbound rule wizard.
9. On the Rule Type page, click Program, and then click Next.



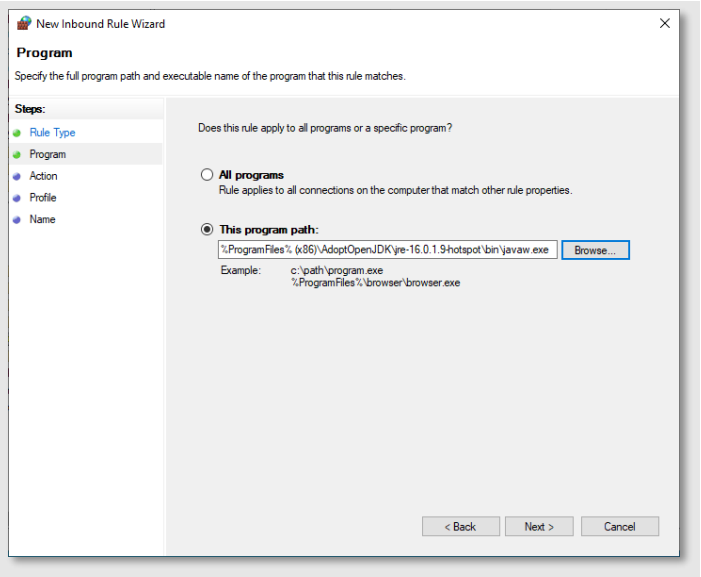
10. On the Program page, select This program path, browse to the C:\ Program Files (x86)\AdoptOpenJDK\jre-16.0.1.9-hotspot\bin folder.



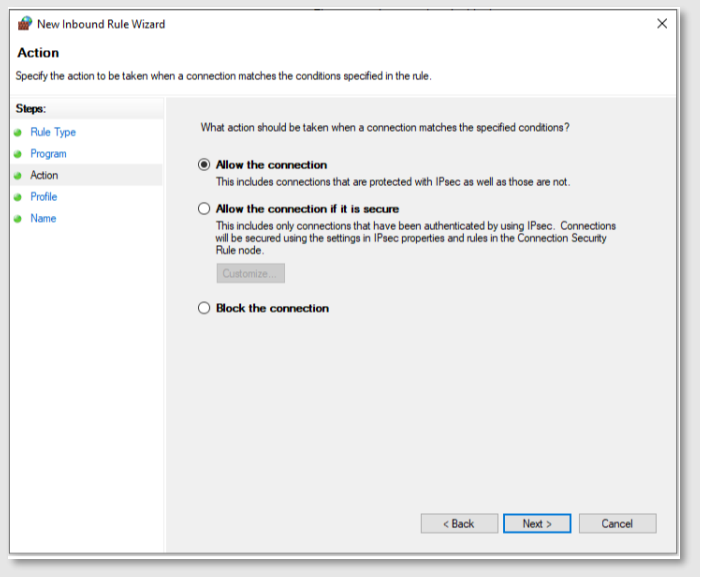
In the C:\ Program Files (x86)\AdoptOpenJDK\jre-16.0.1.9-hotspot\bin folder, select javaw.exe, and then click Open.



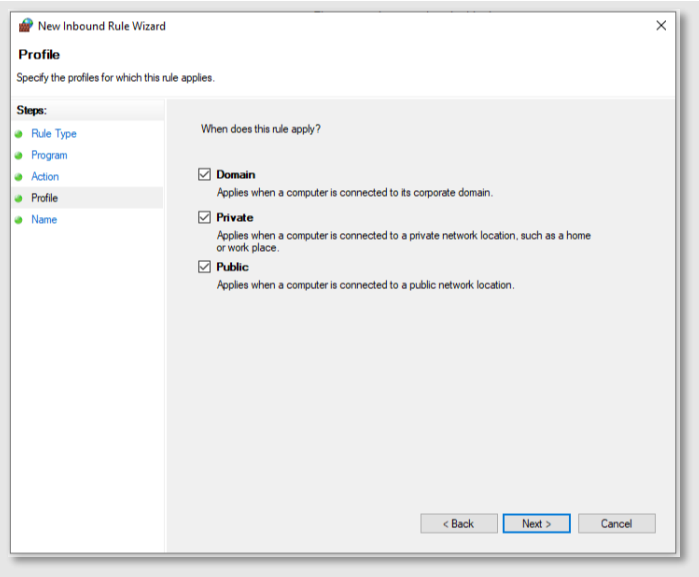
11. On the Program page, click Next.



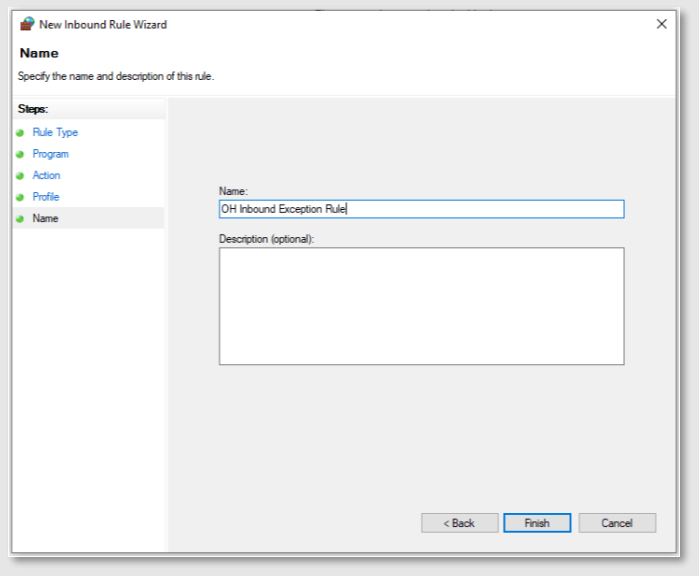
12. On the Action page, click Allow the connection, and then click Next.



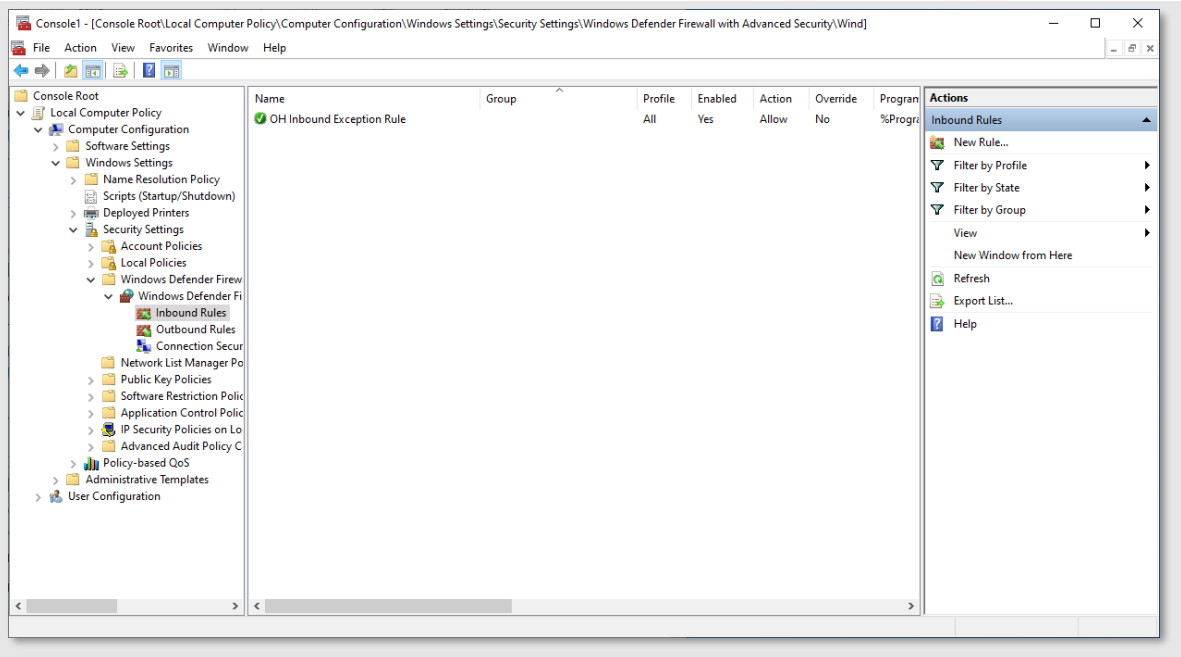
13. On the Profile page, select the Domain, Private and Public check boxes, and then click Next.



14. On the Name page, in the Name box, type: `OH Inbound Exception Rule`, and then click Finish.



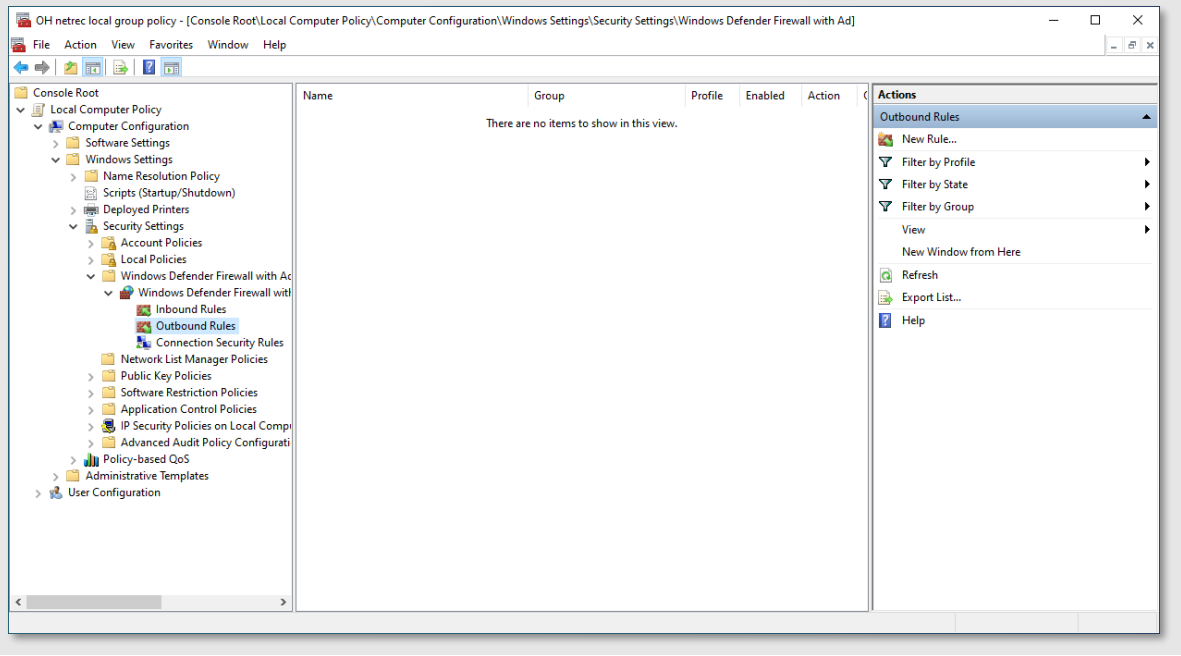
15. Verify the inbound exception rule you just created appears in the Inbound Rules list.



16. On the management console window, click the Close button and then save the snap-in MSC file to the Windows desktop. Name the snap-in file: `OH netrec local group policy.msc`.

To add the outbound exception rule:

1. Right-click the OH netrec local group policy.msc shortcut on the desktop, and then click Run as administrator.
2. In the console tree, under Windows Defender Firewall with Advanced Security – Local Group Policy Object, select Outbound Rules.

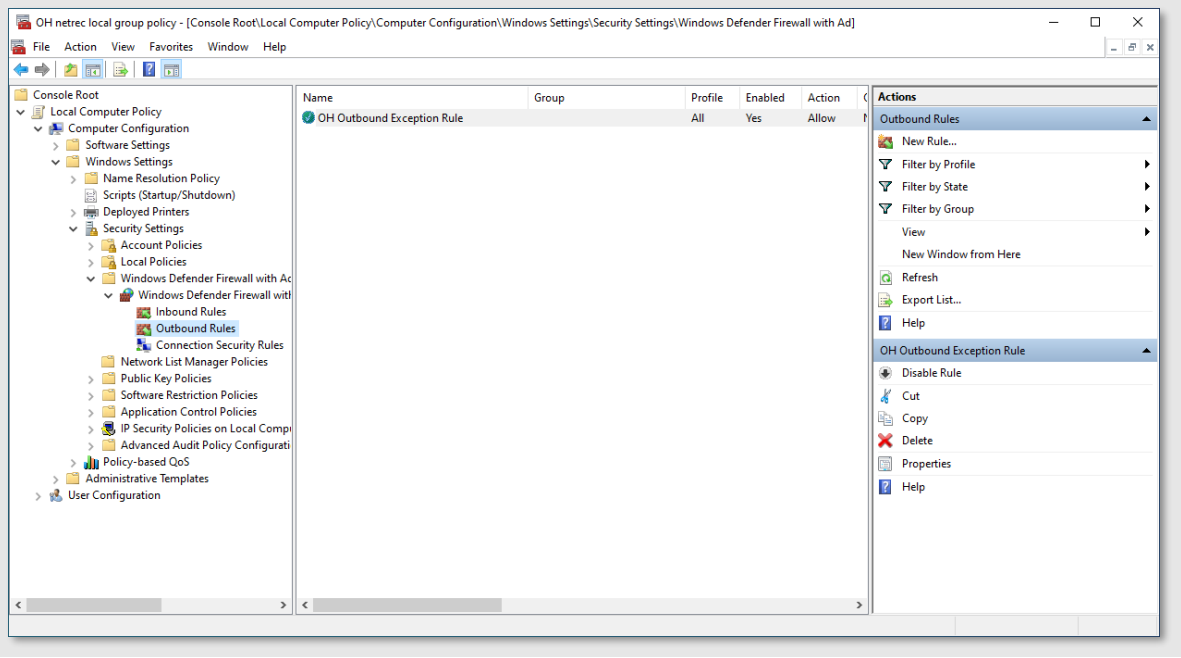


3. On the Action menu, click New Rule to start the new outbound rule wizard.

4. Follow the procedure for adding an inbound exception rule starting at the Rule Type page.

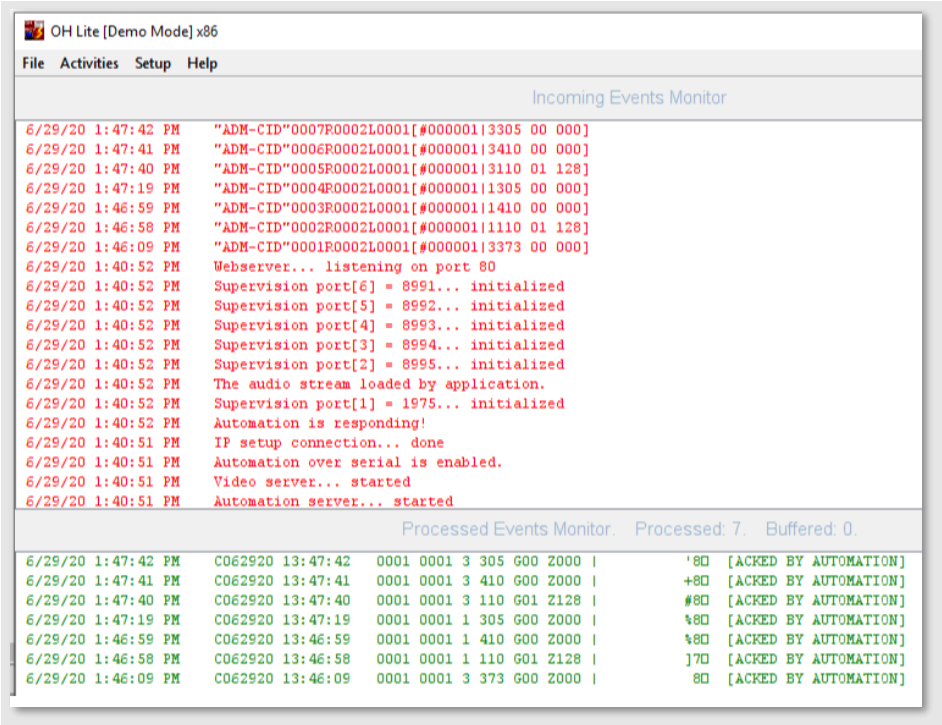
   On the Name page, in the Name box, type: `OH Outbound Exception Rule,` and then click Finish.

5. Verify the outbound exception rule you just created appears in the Outbound Rules list.



6. On the management console window, click the Close button and then save the snap-in MSC file.

After both your inbound and outbound firewall exception rules are in place, you should be able to establish communication. You'll know you have established a proper communication when you open OH Lite and the events that are being sent to Fireworks are green.



Installing Lantronix CPR Manager

Introduction

Lantronix CPR Manager (also known as COM Port Redirector) lets FireWorks communicate with select serial devices using an Ethernet connection and an MN-COM1S.

A copy of Lantronix CPR Manager is in the C:\Fireworks\Tools\Serial Port Tool folder after you install FireWorks.

Note: If the host is on the other side of a router or a firewall, then you may have to add UDP ports 30718, 43282, and 43283 to the firewall exception list. You may experience trouble in opening this COM port if these UDP ports are not excluded. For VESDA applications, use TCP port 10001.

Installing CPR Manager

Note: All FireWorks software and utilities must be installed with “run as administrator,” and requires full administrative elevated rights and privileges.

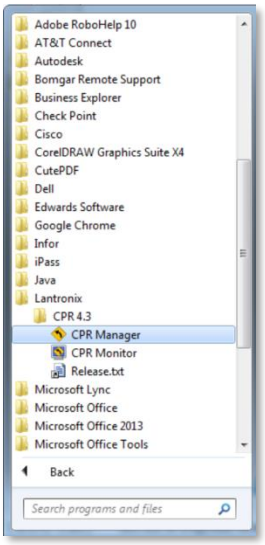
To install CPR Manager:

1. Open the C:\Fireworks\Tools\Serial Port Tool folder.
2. In the Serial Port Tool folder, double-click setup_cpr_x86x64cd_4.3.0.3.exe.
3. On the Lantronix CPR Installer window, click Install.
4. Follow the on-screen instructions.

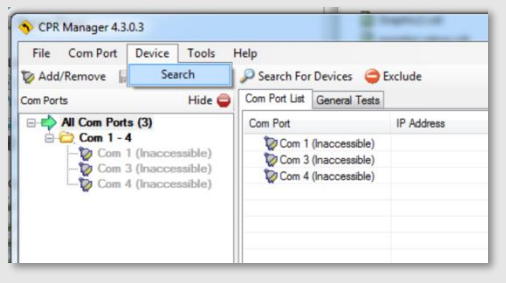
Creating the Lantronix CPR port

To create the CPR port:

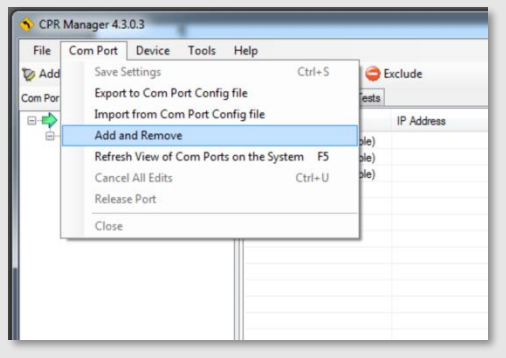
1. On the Start menu, under the Lantronix folder, click CPR Manager.



2. On the Device menu, click Search or click the Search For Devices button to add existing COM ports to the Com Port List.

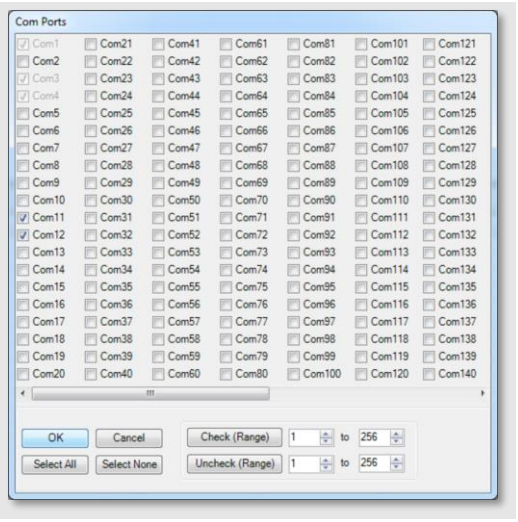


3. On the Com Port menu, click Add and Remove or click the Add/Remove button to add a virtual COM port.



4. In the Com Ports dialog box, select the check box for the COM port you want to add, and then click OK.

   Note: FireWorks Communication Manager supports serial ports Com1 to Com25. Do not select Com26 or higher.



5. In the device navigation pane, select the COM port, that you just created.
6. On the Settings tab, do the following:

   In the Host box, type the IP address of the MN-COM1s connected to the target serial device.

   In the TCP Port box, type 10001.
7. Click Save.

Configuring the FireWorks COM port

To configure the FireWorks COM port:

1. On the System Builder Applications menu, click Communications Manager.
2. In the Communications Manager dialog box, select a port in the Ports list or click Add Port.
3. Under Port Properties, do the following:

   In the Label box, type a label for the port.

   Under Port Type, select Serial Port.

   In the Assigned Node list, select the target node, and then check the Enabled check box.

   In the Description box, type a description.

   Under Serial Port properties, in the Com Port list, select the Lantronix CPR port.
4. Click Apply.

Testing the connection

Once the equipment is set up and deployed, you can use Lantronix CPR Manager to test the connection.

To test the connection:

1. Start Lantronix CPR Manager.
2. In the navigation panel, click the COM port that you want to test.
3. On the Com XX tab, set the serial port settings for the following values:

   Baud Rate: 19200

   Data: 8 bits

   Parity: Even

   Stop: 1 bit

   Flow control: None
4. Click Open.
5. Verify that Com Status is Open and that the Network Status indicates you are connected to the correct IP address.
6. Click Close.

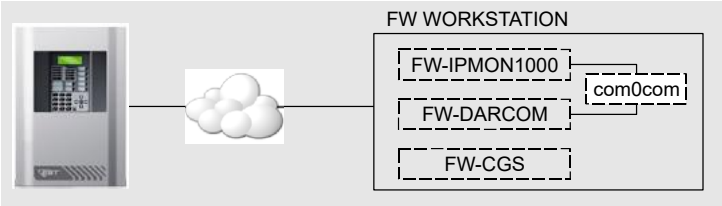
Connecting iO, VS, and FX series control units

You can connect FireWorks 9.31 to iO64/iO1000, VS1/VS4, and FX-64/FX-1000 control units equipped with an SA-ETH card – *for monitoring purposes only*. To connect the control units to a FireWorks 9.31 computer, you need the following:

- FireWorks 9.31 software
- A null modem emulator (com0com driver). Reference *Field Tech Note - IPMON1000 Virtual Null Modem Cable* available on the MyEddie website.
- FW-CGSUL or FW-CGS software license
- FW-IPMON1000 software license
- FW-DARCOM software license

Figure 1 below illustrates a typical iO series connection to a FireWorks workstation.

Figure 1: iO series control unit connection



The general steps for connecting an iO, VS, and FX series control units are:

1. Configure the control unit's Network, IP Dialer, and IP Account settings. Refer to Table 5 on page 38.
2. Export the control unit's dialer events.
3. In the FireWorks 9.31 Receiver Configuration Manager, add an OH Network Receiver, and then set up a Contact ID account.

   Note: The Receiver Type for an OH Network Receiver is "Osborne-Hoffman OH2000E."
4. Import the control unit's dialer events.
5. Install and set up OH Network Receiver.
6. Install and set up the com0com driver. See "Installing the com0com driver" on page 38.
7. Connect the OH Network Receiver and the OH2000E digital receiver to the virtual COM port. See "Connecting the receivers to the virtual COM port" on page 39.

Configuring the iO, VS, and FX series control unit network options

Configure the control unit's network options as shown in Table 5 on page 38. For more information, see the control unit's product documentation.

Table 5: Control unit network option settings

Option	Setting
Type	FireWorks
Enabled	Yes
Account ID	The same account number as the FireWorks digital receiver account number. Possible values: 0000 to FFFF **Note:** FFFF is reserved. Use FFFF only if you do not want to send events to this account.
Hello Time	025
Timeout Seconds	040
Max Attempts	N/A
Send Restorals	Yes
Event Notification	Event, Device, or Zone per site requirements
Primary Receiver	Let's you configure the primary FireWorks receiver
IP	The static IP address of the FireWorks computer
TCP/IP port	The same port number as the supervision port number on the OH Network Receiver
Secondary Receiver	Let's you configure the secondary FireWorks receiver
IP	The static IP address of the FireWorks computer
TCP/IP port	The same port number as the supervision port number on the OH Network Receiver
Receiver #	The same receiver number as the FireWorks digital receiver
Line #	The same line number as the FireWorks digital receiver line number

Installing the com0com driver

The com0com driver lets you add pairs of virtual COM ports that emulate a null modem cable. The com0com driver is an open source kernel-mode virtual serial port driver that is available freely under GPL license.

A copy of the com0com driver is in the C:\Fireworks\Tools\Serial Port Tool folder after you install FireWorks.

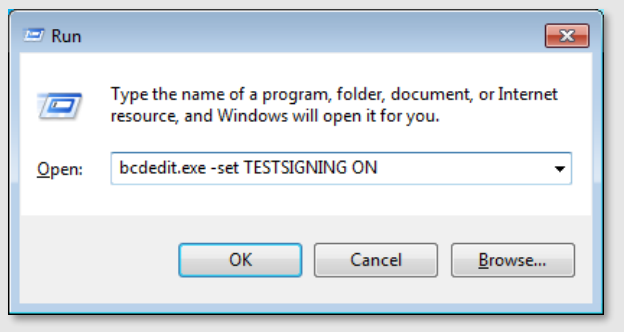
Before installing the com0com driver:

- Turn off User Account Control (UAC) by changing the User Account Control setting to Never Notify.
- Open Windows Device Manager and note which communication port numbers are not used.
- Enable test signing.

Note: All FireWorks software and utilities must be installed and ran with "run as administrator," and requires full administrative elevated rights and privileges.

To enable test signing:

1. On the Start menu, click Run.
2. In the Open box, type: `bcdedit.exe -set TESTSIGNING ON`, and then click OK.

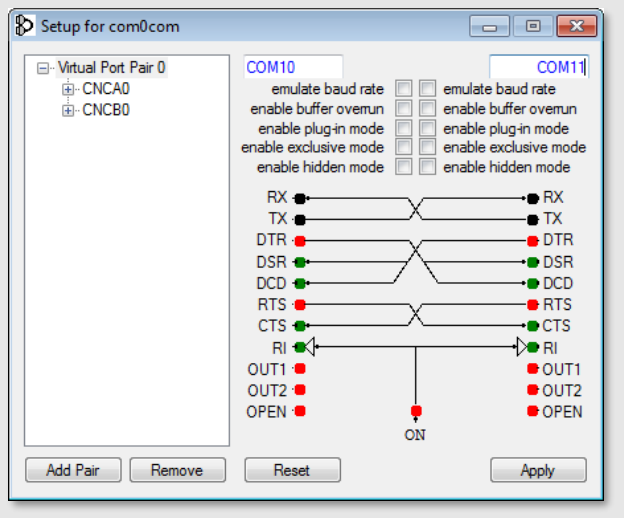


3. Restart the computer.

To install the com0com driver:

1. Open the C:\FireWorks\Tools\Serial Port Tool folder.
2. In the Serial Port Tool folder, unzip com0com-2.2.2.0-x64-fre-signed.zip.
3. Open the com0com-2.2.2.0-x64-fre-signed folder, double-click setup.exe, and then follow the on-screen instructions.
4. On the Start menu, open the com0com folder, and then double-click Setup.
5. In the Setup for com0com dialog box, rename the virtual COM port pair to two *unused* Windows COM port numbers.

   For example, rename the virtual COM ports to COM10 and COM11 as shown below.



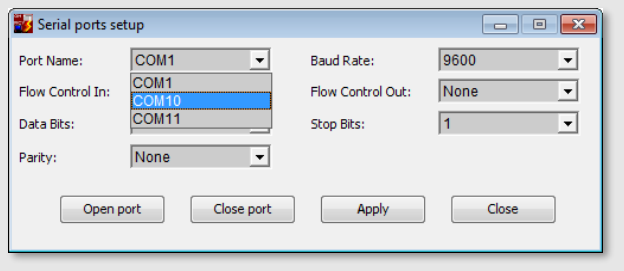
6. Click Apply, and then click Close.

Connecting the receivers to the virtual COM port

To connect to the OH Network Receiver:

1. On the Start menu, search for and click the OH Network Receiver to open it.

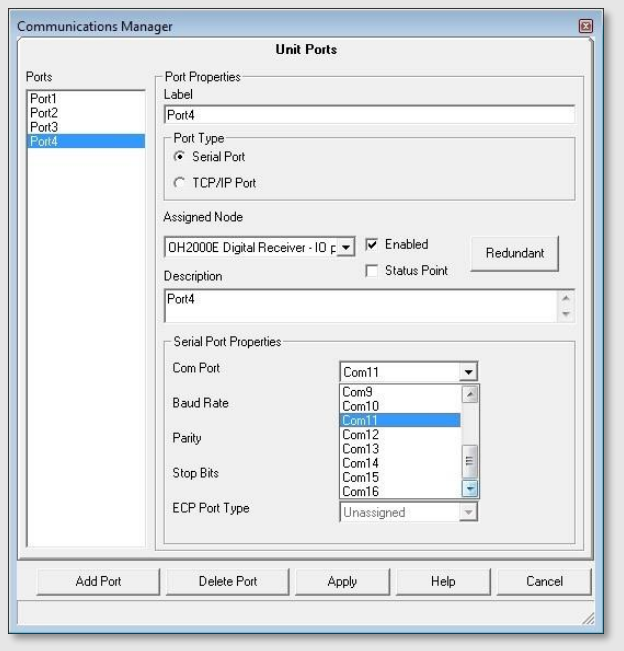
2. On the Setup menu, click Serial ports.
3. In the Port Name list, select the lower-numbered virtual COM port as shown below.



4. Click Apply, and then click Close.

To connect the OH2000E digital receiver:

1. In System Builder, on the Applications menu, click Communications Manager.
2. In the Ports list, select an unassigned port.
3. In the Assigned Node list, select the OH2000E digital receiver, and then select the Enabled check box.
4. Under Serial Port Properties, select the higher-numbered virtual COM port from the Com Port list as shown below.



5. Set Baud Rate, Parity, and Stop Bits to the same values as the OH Network Receiver serial port settings.
6. Click Apply, and then click Close.
7. Start System Control and test the OH Network Receiver.