

# XPression

## XPression Monitor User Guide

VERSION 12.0

**ROSS**



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1. Provide a Superior Customer Experience
  - offer the best product quality and support
2. Make Cool Practical Technology
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David Ross

CEO, Ross Video

[dross@rossvideo.com](mailto:dross@rossvideo.com)

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1. We will always act in our customers' best interest.
2. We will do our best to understand our customers' requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)*

# XPression Monitor User Guide

- Ross Part Number: 3500DR-020-12.0
- Version: 12.0

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Patent numbers US 7,034,886; US 7,508,455; US 7,602,446; US 7,802,802 B2; US 7,834,886; US 7,914,332; US 8,307,284; US 8,407,374 B2; US 8,499,019 B2; US 8,519,949 B2; US 8,743,292 B2; GB 2,419,119 B; GB 2,447,380 B; and other patents pending.

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18. **GOVERNING LAW.** If Licensee acquired the Ross Product(s) in the United States or Canada, the laws of the state or province where Licensee's principal place of business is located govern the interpretation of this Agreement, claims for its breach, and all other claims regardless of conflict of laws principles. If Licensee acquired the Ross Product(s) in the European Union or the United Kingdom, then the laws of England and Wales apply. If Licensee acquired the Ross Product(s) in any other country, then the laws of the Province of Ontario, Canada shall apply.
19. **LANGUAGE.** The Parties have expressly required that this Agreement and all documents relating thereto be prepared in English. Les parties ont expressément exigé que cette convention ainsi que tous les documents qui s'y rattachent soient rédigés en anglais.
20. **GOVERNMENT CONTRACTS.** If the Software and/or Documentation to be furnished to Licensee hereunder are to be used in the performance of a government contract or subcontract, the Software and/or Documentation shall be provided on a "restricted rights" basis only and Licensee shall place a legend, in addition to applicable copyright notices, in the form provided under the applicable governmental regulations. For greater certainty, Ross Video shall not be subject to any flow-down provisions required by any customer of Licensee that is a Governmental Authority unless Ross Video expressly agrees to be bound by such flow-down provisions in writing.
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22. **AMENDMENT AND WAIVER.** No amendment, discharge, modification, restatement, supplement, termination or waiver of this Agreement or any Section of this Agreement is binding unless it is in writing and executed by the Party to be bound. No waiver of, failure to exercise or delay in exercising, any Section of this Agreement constitutes a waiver of any other Section (whether or not similar) nor does any waiver constitute a continuing waiver unless otherwise expressly provided.
23. **SEVERABILITY.** Each Section of this Agreement is distinct and severable. If any Section of this Agreement, in whole or in part, is or becomes illegal, invalid, void, voidable or unenforceable in any jurisdiction by any court of competent jurisdiction, the illegality, invalidity or unenforceability of that Section, in whole or in part, will not affect (a) the legality, validity or enforceability of the remaining Sections of this Agreement, in whole or in part; or (b) the legality, validity or enforceability of that Section, in whole or in part, in any other jurisdiction.
24. **ENTIRE AGREEMENT.** This Agreement, and any other documents referred to herein, constitutes the entire agreement between the Parties relating to the subject matter of this Agreement and supersedes all prior written or oral agreements, representations and other communications between the Parties.

*Updated: November 1, 2023*

# Warranty and Repair Policy

Ross Video Limited (Ross) warrants its XPression Monitor systems to be free from defects under normal use and service for the following time periods from the date of shipment:

- XPression Monitor Server — 12 months
- XPression Monitor Software Upgrades — 12 months free of charge
- System and Media hard drives — 12 months

If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

This warranty is TRANSFERABLE to subsequent owners, subject to Ross' notification of change of ownership.

## Extended Warranty

For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your XPression Monitor system, contact your regional sales manager.

# Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

# Company Address

## **Ross Video Limited**

8 John Street  
Iroquois, Ontario  
Canada, K0E 1K0

## **Ross Video Incorporated**

P.O. Box 880  
Ogdensburg, New York  
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**Toll Free Technical Support:** 1-844-652-0645 (North America)  
+800 3540 3545 (International)

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**After Hours Emergency:** (+1) 613 · 349 · 0006

**E-mail for Technical Support:** [techsupport@rossvideo.com](mailto:techsupport@rossvideo.com)

**E-mail for General Information:** [solutions@rossvideo.com](mailto:solutions@rossvideo.com)

**Website:** <http://www.rossvideo.com>

# Contents

<b>Introduction</b> .....	<b>1</b>
About This Guide .....	2
Getting Help .....	3
<b>XPression Monitor Setup</b> .....	<b>4</b>
Installing XPression Monitor .....	5
Starting and Stopping XPression Monitor .....	8
Configuring XPression Monitor .....	12
<b>Management Information Base (MIB) Files</b> .....	<b>15</b>

# Introduction

Thank you for choosing a Ross Video XPression Monitor system.

Ross Video designed XPression Monitor with the needs of live production in mind. XPression Monitor is a tool that is used in conjunction with the XPression Status Client to monitor multiple client machines and ensure that all are operating as intended.

We appreciate your business and sincerely hope that you have a great experience with your new XPression Monitor system. As always, if there is anything we at Ross Video can do to assist you, please do not hesitate to contact us.

## About This Guide

This guide covers the use of the XPression Monitor system.

If, at any time, you have questions pertaining to the operation of XPression Monitor, please contact us at the numbers listed in the section [Getting Help](#)<sup>3</sup>. Our technical staff is always available for consultation, training, or service.

## Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

### **Bold text**

Bold text identifies a user interface element such as a dialog box, menu item, or button.

For example:

In the **Slug** column, type a slug name for the story.

### *Italic text*

Italic text is used to identify the titles of referenced guides, manuals, or documents.

For example:

For more information, refer to the *DashBoard User Guide*.

### Courier text

Courier text identifies text that a user must type.

For example:

In the **Username** box, type `postgres`.

### Menu Sequences

Menu arrows are used in procedures to identify a sequence of menu items that you must follow.

For example:

If a step reads **Server > Save As**, you would select the **Server** menu and then select **Save As**.

### [Hypertext](#)

Identifies a hyperlink to a related topic.

## Getting Help

XPression Monitor documentation is available online at [Product Documentation](#) and is also accessible on the product USB key and by selecting the **Help** icon in the user interface.

## Contacting Technical Support

At Ross Video, we take pride in the quality of our products, but if problems occur, help is as close as the nearest telephone.

Our 24-hour Hot Line service ensures you have access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel. During business hours (Eastern Time), technical support personnel are available by telephone. After hours and on weekends, a direct emergency technical support phone line is available. If the technical support person who is on call does not answer this line immediately, a voice message can be left and the call will be returned shortly. This team of highly trained staff is available to react to any problem and to do whatever is necessary to ensure customer satisfaction.


### Technical Support:

- 1-844-652-0645 (North America)
- +800 3540 3545 (International)
- After Hours Emergency: (+1) 613-349-0006
- E-mail: [techsupport@rossvideo.com](mailto:techsupport@rossvideo.com)
- Website: <http://www.rossvideo.com>

# XPression Monitor Setup

The following topics are discussed in this section:

[Installing XPression Monitor](#)  5

[Starting and Stopping XPression Monitor](#)  8

[Configuring XPression Monitor](#)  12

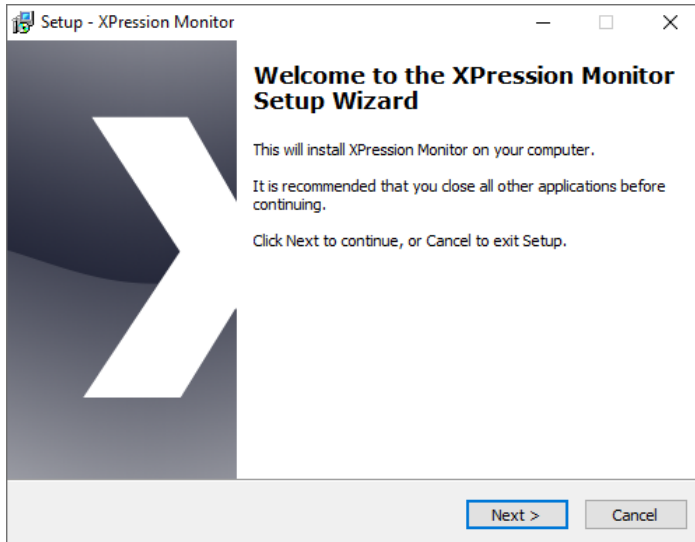
# Installing XPression Monitor

Use the following procedures to complete the install of the XPression Monitor:

## To install the XPression Monitor:

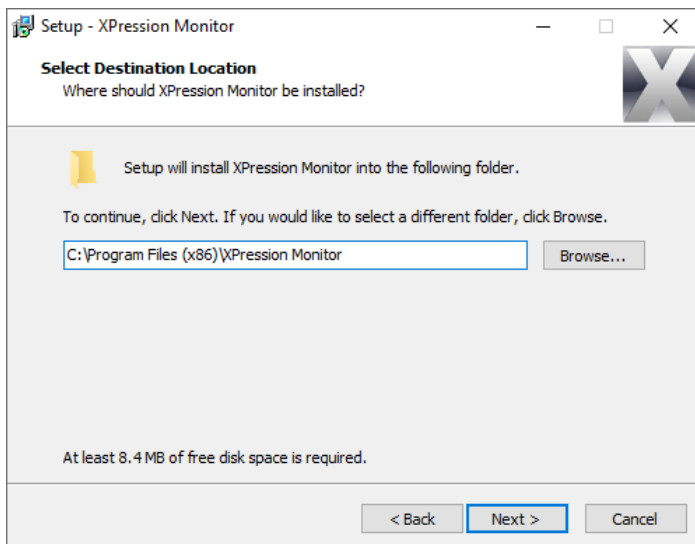
1. Locate and double-click the **xpMonitor-X.X\_XXXX.exe** file.

The **Setup - XPression Monitor** page opens.



2. Select **Next**.

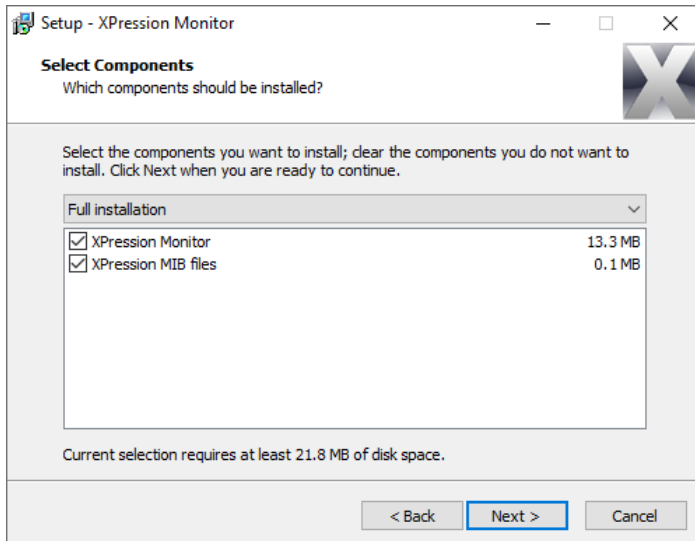
The **Select Destination Location** page opens.



3. Use the default destination folder location or select **Browse** to locate and select a different destination location.

4. Select **Next**.

The **Select Components** page opens.



5. From the **Installation** drop-down, select **Full installation** (default installation):

The **XPression Monitor** and **XPression MIB files** checkboxes are selected.

**OR**

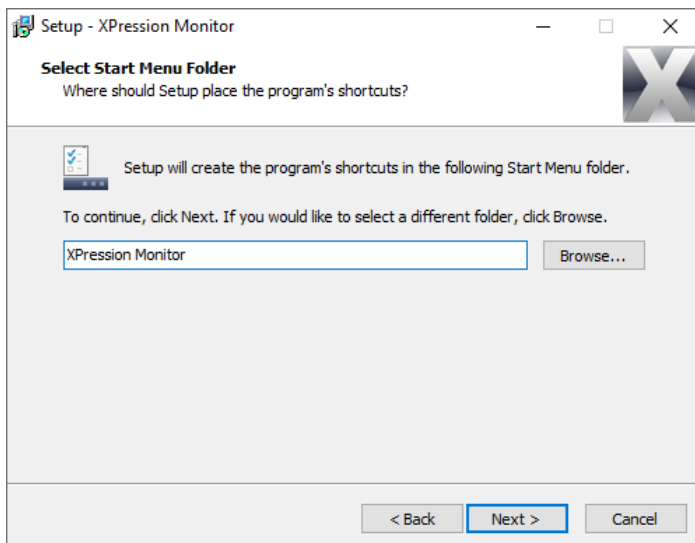
Select **Custom Installation** and configure the install as follows:

- Select the **XPression Monitor** checkbox.
- De-select the **XPression MIB files** checkbox.

The XPression Monitor does not require the MIB files, however the SNMP manager does require them. If installing multiple monitors, only one set of MIB files is required. The files can then be added to the SNMP manager that is used.

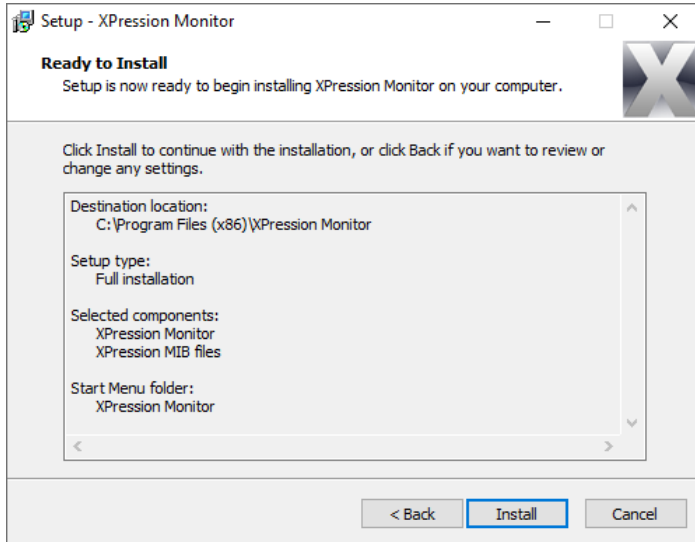
6. Select **Next**.

The **Select Start Menu Folder** page opens.



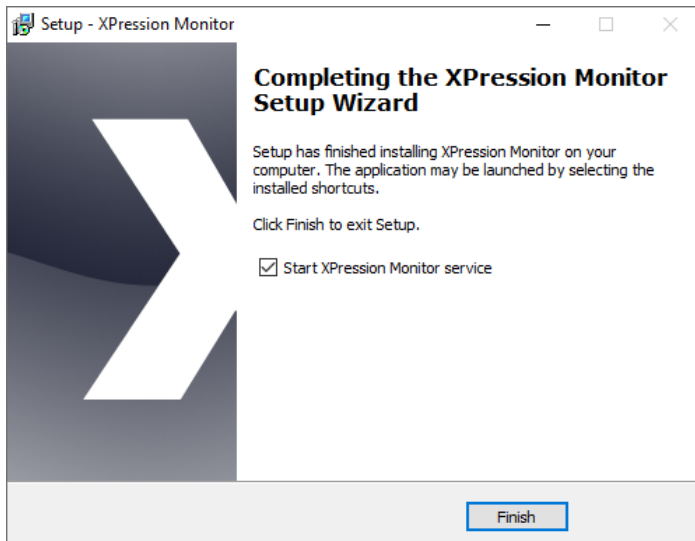
7. Use the default **Start** menu folder location or click **Browse** to locate and select a different **Start** menu location.
8. Select **Next**.

The **Ready to Install** page opens.



9. Select **Install**.

The installation begins. Once the installation is complete, the **Completing the XPression Monitor Setup Wizard** page opens.



10. Select **Finish**.

If the **Start XPression Monitor Service** checkbox is left as selected by default and the installation was successful, an information box is displayed that indicates that the XPression Monitor was successfully started.

# Starting and Stopping XPression Monitor

After installing the XPression Monitor, its service is automatically started. However, if the option to start after install is de-selected, if the service has been stopped at any point, or if the service needs to be stopped, use the following procedures to start and stop the Monitor services:

[Starting the XPression Monitor](#)

[Stopping the XPression Monitor](#)

## Starting the XPression Monitor

Use one of the following two methods to start the XPression Monitor.

### To start the monitor from the Start menu:

1. On the machine that has the XPression Monitor installed, in the **Start** menu **Search** field, enter **monitor**.
2. From the results, select **Start Monitor** (🖱).

If the Monitor has successfully started, an information message indicates that the XPression Monitor was successfully started.

### To start the monitor from the XPression Monitor Admin window:

1. On the machine that has the XPression Monitor installed, in the **Start** menu **Search** field, enter **monitor**.
2. From the results, select **Monitor Admin** (🖱).

The **XPression Monitor Admin** window opens.

The screenshot shows the XPression Monitor Admin window with the following configuration details:

- Machine Info:** Name: L-OTT, Description: (empty), Location / Group: (empty), Community: (empty),  Do not reply to invalid community requests, Control Password: No Password,   Allow connections without passwords.
- Folder Setup:** Local Cache Folder: C:\Program Files (x86)\XPression Monitor\Cache
- Door Settings:** Door Color: Green,  Disable Alert Flash
- SNMP Agent:** Port: 161
- Monitoring Server:** Port: 9875, WARNING: The monitored applications also need to be relaunched for this setting to fully take effect.
- Traps:** Table with Target Host and Target Port columns. Row 1: localhost, 162.
- Service:** Name: XPression Monitor, Status: Stopped,
- Buttons:**
- Status Bar:** Service stopped, 5/24/2024 11:03:58 A

3. In the **Service** section, select **Start**.

The service begins restarting. Once the service has restarted successfully, the **Status** is indicated as **Running**.

The screenshot shows the configuration window for XPression Monitor. The 'Service' section is highlighted, showing the service name as 'XPression Monitor' and its status as 'Running'. The 'Start' button is visible, indicating the service is being managed. Other sections include 'Machine Info', 'Folder Setup', 'Door Settings', 'SNMP Agent', and 'Monitoring Server'.

**Machine Info**

Name: L-OTT  
Description:  
Location / Group:  
Community:  Do not reply to invalid community requests  
Control Password: No Password   Allow connections without passwords.

**Folder Setup**

Local Cache Folder: C:\Program Files (x86)\XPression Monitor\Cache

**Door Settings**

Door Color:  Disable Alert Flash:

**SNMP Agent**

Port: 161

**Traps**

Target Host	Target Port
localhost	162

**Monitoring Server**

Port: 9875

WARNING: The monitored applications also need to be relaunched for this setting to fully take effect.

**Service**

Name: XPression Monitor  
Status: **Running**

5/24/2024 11:01:00 A

## Stopping the XPression Monitor

Use one of the following two methods to stop the XPression Monitor.

### To stop the XPression Monitor from the Start menu:

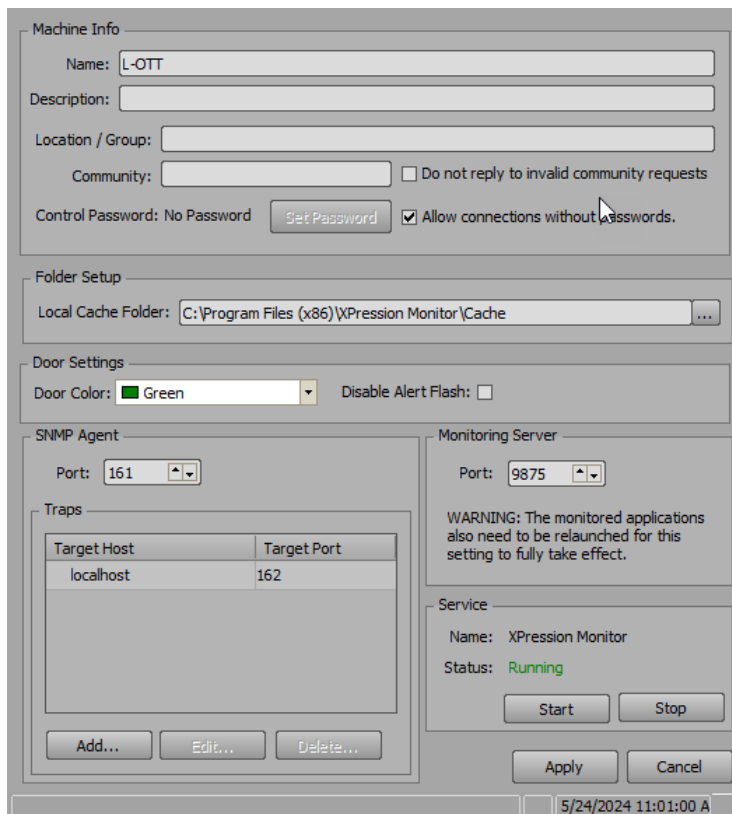
1. On the machine that has the XPression Monitor installed, in the **Start** menu **Search** field, enter **monitor**.
2. From the results, select **Stop Monitor** (🖱️).

If the Monitor has been successfully stopped, an information message indicates that the XPression Monitor was successfully stopped.

### To stop the XPression Monitor from the XPression Monitor Admin window:

1. On the machine that has the XPression Monitor installed, in the **Start** menu **Search** field, enter **monitor**.
2. From the results, select **Monitor Admin** (🖱️).

The **XPression Monitor Admin** window opens.



The screenshot shows the XPression Monitor Admin window with the following sections and settings:

- Machine Info:**
  - Name: L-OTT
  - Description: (empty)
  - Location / Group: (empty)
  - Community: (empty)  Do not reply to invalid community requests
  - Control Password: No Password   Allow connections without passwords.
- Folder Setup:**
  - Local Cache Folder: C:\Program Files (x86)\XPression Monitor\Cache
- Door Settings:**
  - Door Color: Green
  - Disable Alert Flash:
- SNMP Agent:**
  - Port: 161
  - Traps:**

Target Host	Target Port
localhost	162
- Monitoring Server:**
  - Port: 9875
  - WARNING: The monitored applications also need to be relaunched for this setting to fully take effect.
- Service:**
  - Name: XPression Monitor
  - Status: Running
  -

5/24/2024 11:01:00 A

3. In the **Service** section, select **Stop**.

The service begins to stop and the **Status** in the **Service** section indicates that the XPression Monitor has been **Stopped**.

The screenshot shows the XPression Monitor configuration window with the following sections:

- Machine Info:** Name: L-OTT, Description: (empty), Location / Group: (empty), Community: (empty),  Do not reply to invalid community requests, Control Password: No Password,   Allow connections without passwords.
- Folder Setup:** Local Cache Folder: C:\Program Files (x86)\XPression Monitor\Cache
- Door Settings:** Door Color: Green,  Disable Alert Flash
- SNMP Agent:** Port: 161, Traps table with one entry: localhost on port 162.
- Monitoring Server:** Port: 9875, WARNING: The monitored applications also need to be relaunched for this setting to fully take effect.
- Service:** Name: XPression Monitor, Status: **Stopped**,

Service stopped 5/24/2024 11:03:58 A

# Configuring XPression Monitor

Use the **XPression Monitor Admin** to configure the XPression Monitor.

★ All monitor settings are stored in **xpMonitor.dat** in the installation folder of the XPression Monitor except for the **Monitoring Server** port, which is stored in the Windows registry.

## To configure the XPression Monitor:

1. On the machine that has the XPression Monitor installed, in the **Start** menu **Search** field, enter **monitor**.
2. From the results, select **XPression Monitor Admin** (🔍).

The **XPression Monitor Admin** window opens.

The screenshot shows the XPression Monitor Admin configuration window. It is divided into several sections:

- Machine Info:** Name: L-OTT, Description: (empty), Location / Group: (empty), Community: (empty),  Do not reply to invalid community requests, Control Password: No Password,   Allow connections without passwords.
- Folder Setup:** Local Cache Folder: C:\Program Files (x86)\XPression Monitor\Cache
- Door Settings:** Door Color: Green,  Disable Alert Flash
- SNMP Agent:** Port: 161, Traps table:

Target Host	Target Port
localhost	162
- Monitoring Server:** Port: 9875, WARNING: The monitored applications also need to be relaunched for this setting to fully take effect. Service Name: XPression Monitor, Status: Running,

Buttons at the bottom:   5/24/2024 11:01:00 A

3. In the **Machine Info** section, configure the following:
  - **Name** — use this box to enter the name of the machine. It is auto-populated with the machine currently in use.
  - **Description** — use this box to enter a brief description for the machine if necessary.
  - **Location / Group** — use this box to enter the location of the machine or a group the machine is associated with.
  - **Community** — use this box to assign a custom SNMP community.
  - **Do not reply to invalid community requests** — select this check to not send replies to invalid community requests. It is not selected by default, sending a reply when an invalid request has been sent.

- **Allow connections without passwords** (selected by default) — when selected, a control password is not required to access control of the monitor. If selected, select **Set Password** to enter and verify a password for control of the monitor.

4. In the **Folder Setup** section, use the **Local Cache Folder** field to enter a file path for the local cache folder for the monitor or click **Browse (...)** to select a file path.

It is set to the XPression Monitor cache folder in the **Program Files** by default.

5. In the **Door Settings** section, select a color from **Door Color** list, to set the color that the front door light will flash of the XPression Engine unit when the **Locate** button is selected in the **XPression Status Client** application. See the **XPression Status Client User Guide** for more information.

Select **Disable Alert Flash** if you want to disable the locate functionality mentioned above.

6. In the **SNMP Agent** section, use the **Port** field to enter or select an SNMP port number.

On a system that does not have the Windows SNMP agent or another SNMP agent running, the default SNMP port 161 can be used and does not have to be changed. The third-party SNMP manager will need to be configured accordingly.

7. Use the **Traps** list to add, delete, and edit a list of host/port targets for SNMP traps (notifications).

The default is one target on local host port 162. However, this would usually be changed to the corresponding setting in the third-party SNMP manager (it is also likely that it will not be local, as there will probably be a single SNMP manager that all XPression Monitor services on different machines will target for notifications).

a. Select **Add**, to add a target host.

The **Add Trap Target** dialog opens.

b. Use the **Host** field to enter or select the target host IP address for the SNMP traps.

c. Use the **Port** field to enter or select the target port number for the SNMP traps.

d. Select **OK**.

The trap target is added to the **Traps** list.

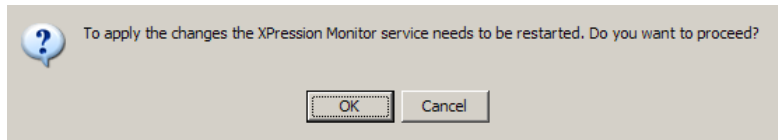
Target Host	Target Port
localhost	162
localhost	163

8. In the **Monitoring Server** section, use the **Port** field to enter or select a port number for XPression applications to communicate with the XPression Monitor.

By default, every XPression application will try to communicate with the XPression Monitor on local host port **9875**. This communication is purely internal, and there is no reason to change the Monitoring Server port, unless it conflicts with another application using the same port.

9. Select **Apply** for the changes to take effect.

A confirmation prompt opens that indicates a need to restart the XPression Monitor service.



10. Select **OK**.

The **Status** in the **Service** section momentarily indicates that the XPression Monitor has been **Stopped** while the service is restarting. Once the service has restarted successfully, the **Status** is indicated as **Running**.

11. If the **Monitoring Server** port has been changed, restart the XPression Monitor and relaunch any monitored applications.

# Management Information Base (MIB) Files

## MIB Tree

The structure of the data in SNMP is organized in a static tree. That tree hierarchy is described in a collection of MIBs. Each MIB defines a node in that hierarchy – a module – of conceptually grouped “managed objects”, using a subset of the ASN.1 language. Managed objects are uniquely identified with an OID. MIBs are “published”, and once they are defined, OIDs are defined permanently.

For instance, Ross Video has an assigned OID under the ‘enterprises’ node:

- .iso.org.dod.internet.private.enterprises.rossVideo
- .1.3.6.1.4.1.27399 (numerically)

The XPression top-level is defined in (ROSS-XPRESSION-MIB) under 1.3.6.1.4.1.27399.4. Specifically, everything currently provided by the XPression Monitor is under:

- iso.org.dod.internet.private.enterprises.rossVideo.xpression.xpressionObjects
- .1.3.6.1.4.1.27399.4.1

The values of MIB objects can be queried using the SNMP GET request. The object queried is identified by its OID and an instance number. For scalar objects, the instance is always 0. For objects within a table, the instance is an index value, as defined by the index type of the table entry (in the simplest case, an integer). For objects within a table with multiple dimensions, the instance is a dot-separated list of indices, with one index for each of the table's dimensions.

For instance, to get the number of applications on an XPression workstation, one would query for:

- .1.3.6.1.4.27399.4.1.3.1.1.0
- (iso.org.dod.internet.private.enterprises.rossVideo.xpression.xpressionObjects.xpressionAppMib.xpressionAppObjects.xpNumberOfApps.0)

The SNMP GETNEXT request is also supported. It is usually used to query the content of whole table.

## MIB Files

**ROSS-XPRESSION-APP.mib** – Status and notifications generally pertaining to any XPression application are defined in ROSS-XPRESSION-APP.mib. The main entry in this MIB is the XPression application table, which collects the data that is commonly available for all the XPression executables. This includes the title, filename, version, process ID, status, heartbeat, last exception thrown, dongle status, set of licenses, editions, and options used by the application, etc.

**ROSS-XPRESSION-ENGINE.mib** – Status and notifications pertaining specifically to an XPression engine (Studio, BlueBox, Prime, GO, Tessera, etc.) are defined in ROSS-XPRESSION-ENGINE.mib. The main entry in this MIB is the engine table (since there is usually a single engine per workstation, this table usually has a single row). Alongside it is the projects table (for loaded projects), the remote connection table (clients connected to the engine remote server), and the I/O board table (for I/O boards configured on this engine), and board temperature (if available). The engine table includes the render and UI thread statuses, performance meter, memory usage, number of configured inputs, outputs and I/O boards, remoter server status, etc.

**ROSS-XPRESSION-GATEWAY.mib** – Status and notifications pertaining specifically to an XPression gateway are defined in ROSS-XPRESSION-GATEWAY.mib. The main entry in this MIB is the gateway table (since there is usually a single gateway per workstation, this table usually has a single row). Alongside it are the server and connection tables for each server on the gateway (plug-in, MOS, remote sequencer), as well as the status for the output engine and offline/preview engine connections, and a running orders table.

**ROSS-XPRESSION-HW.mib** – Status and notifications pertaining to the hardware platform are defined in ROSS-XPRESSION-HW.mib. For the XPression Monitor to report these, the openHardwareMonitor application must be running (openHardwareMonitor software is a widely available free downloadable open source application). A table of hardware devices is defined – it matches what openHardwareMonitor supports and detects. A table of sensors is also defined – again reporting the data collecting by openHardwareMonitor. Each sensor has a type and reports a min value and max value in a given unit. Note that each sensor belongs to a hardware device, but SNMP does not support nested tables, so the sensor table is alongside the device table.

★ Refer to the descriptions in the MIB files for more details about the data available for monitoring.

## Contact Us

Contact our friendly and professional support representatives for the following:

- Name and address of your local dealer
- Product information and pricing
- Technical support
- Upcoming trade show information

<b>Technical Support</b>	<b>Telephone:</b>	+1-844-652-0645 (North America) +800 3540 3545 (International)
	<b>After Hours Emergency:</b>	+1 613 • 349 • 0006
	<b>Email:</b>	techsupport@rossvideo.com

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	<b>Website:</b>	<a href="http://www.rossvideo.com">http://www.rossvideo.com</a>

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