

Milestone Systems

XProtect® Professional 8.1

Getting Started Guide



The Open Platform Company



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This product may make use of third party software for which specific terms and conditions may apply. When that is the case, you can find more information in the file

3rd_party_software_terms_and_conditions.txt located in your Milestone surveillance system installation folder.



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Guide contents

Dear Milestone Customer,

With the purchase of XProtect Professional, you have chosen an extremely powerful and intelligent surveillance solution. This guide briefly explains how to install XProtect Professional as well as how to configure some of its basic features.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com. Check the Milestone website for updates to make sure that you install the most recent version of our software.

XPE80-agsg-1(a2)-



Installation

If you are upgrading from a previous version, make sure you read the upgrade information.

Minimum system requirements

For information about system requirements for the various components of the XProtect Professional system, read the release notes available on the software DVD as well as on www.milestonesys.com.

Administrator rights

When you install XProtect Professional, it is important that you have administrator rights on the computer that should run XProtect Professional. If you only have standard user rights, you cannot configure the surveillance system.

Install the software

Prerequisites: Shut down any existing surveillance software. If you are upgrading, read Upgrade from a previous version first.

1. Run the installation file. Depending on your security settings, you may receive one or more security warnings. Click the **Run** button if you receive a warning.
2. When the installation wizard starts, select language for the installer and then click **Continue**.
3. Select if you want to install a trial version of XProtect Professional or indicate the location of your license file.
4. Read and accept the license agreement, and indicate if you want to participate in the Milestone data collection program.
5. Select **Typical** or **Custom** installation. If you select **Custom** installation, you can select application language, which features to install and where to install them.
6. Let the installation wizard complete.

IMPORTANT: If you are installing on a Windows Server 2003 and installation fails, installing a Microsoft hotfix might solve the issue and allow you to complete your XProtect Professional installation. The Microsoft hotfix can be downloaded here:

<http://www.microsoft.com/downloads/en/details.aspx?FamilyId=8EFFE1D9-7224-4586-BE2B-42C9AE5B9071&displaylang=en>

<http://www.microsoft.com/downloads/en/details.aspx?FamilyId=8EFFE1D9-7224-4586-BE2B-42C9AE5B9071&displaylang=en>

When you have installed the hotfix, restart the XProtect Professional installation.

You can now begin configuring your XProtect Professional through its Management Application. For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Upgrade from a previous version

You can upgrade your entire XProtect Professional system configuration from one XProtect Professional version to another. The following information applies if you upgrade from one XProtect Professional version to another and if you upgrade to XProtect Professional from a streamlined product in the XProtect product range.

Back up current configuration

When you install the new version of XProtect Professional, it inherits the configuration from your previous version.

We recommend that you make regular backups of your server configuration as a disaster recovery measure. You should also do this when you upgrade your server. While it is rare that you lose your configuration (cameras, schedules, views, etc), it **can** happen under unfortunate circumstances. Fortunately, it takes only a minute to back up your existing configuration.

Remove the current version

IMPORTANT: If you are upgrading from XProtect Professional 6.5 or earlier, you must back up your configuration before you upgrade.

Restore configuration backup

The following describes backing up XProtect Professional 6.5 or earlier. If you need information about how to back up configuration for XProtect Professional 7.0 or newer, see [Back up system configuration](#).

1. Create a folder called **Backup** on a network drive, or on removable media.
2. On the XProtect Professional server, open **My Computer**, and navigate to the XProtect Professional installation folder.
3. Copy the following files and folders into your **Backup** folder:
 - All configuration (.ini) files
 - All scheduling (.sch) files
 - The file **users.txt** (only present in a few installations)
 - Folders with a name ending with **...ViewGroup** and all their content

Note that some of the files/folders may not exist if upgrading from old software versions.

If you installed your XProtect Professional as a custom version to a non-default file-path, make a backup of your existing configuration and restore it to a new installation folder called **[relevant folder]Milestone Surveillance**. When you run the installer, select **Custom** installation and when you are prompted for an installation folder, select the **[relevant folder]** created for restoring.



Remove the current version

You do not need to manually remove the old version of XProtect Professional before you install the new version. The old version is removed when you install the new version.

Restore configuration backup

If, for some reason, after installing the new software version, you have lost your configuration, you can restore your configuration, provided you have followed the previous instructions. Since configuration is stored in a new format in XProtect Professional 7.0 and onwards, any pre 7.0 backed-up configuration must be converted to this new format before you can use it.

Contact your vendor for information about how to convert and restore your configuration backup. For information about restoring backups made in XProtect Professional 7.0 and onwards, see Back up configuration (on page 15).

Upgrade video device drivers

Video device drivers are installed automatically during the initial installation of your XProtect Professional system. New versions of video device drivers, known as XProtect Device Pack, are released from time to time and made available for free on the Milestone website (within the same product version).

We recommend that you always use the latest version of video device drivers. When you update video device drivers, you can install the latest version on top of any version you may have installed.

IMPORTANT: When you install new video device drivers, your system cannot communicate with camera devices from the moment you begin the installation until the moment installation is complete and you have restarted the Recording Server service. Usually, the process takes no longer than a few minutes, but it is highly recommended that you perform the update at a time when you do not expect important incidents to take place.

1. On the XProtect Professional server on which you want to install the new video device drivers version, shut down any running surveillance software, including any running Recording Server service.
2. Run the XProtect Device Pack installation file and follow the wizard.
3. When the wizard is complete, remember to start the Recording Server service again.



Configure via Management Application

The Management Application is XProtect Professional's server-side user interface; all management of your surveillance system is handled here.



For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Licensing

You purchase licenses per device channel (typically cameras or dedicated in- and output boxes). Initially (during installation and configuration) XProtect Professional runs on a temporary license file (.lic), including a Software License Code (SLC). To get a permanent license, you must register your SLC before you can activate your device licenses. Register the SLC online by going to www.milestonesys.com, and click the **Software registration** link in the top menu. When done, activate your devices before the end of the Grace Period (30 days).

Milestone recommends that you activate licenses before making final adjustments to your system and its devices. It is possible to activate licenses either on- or offline (before the end of the grace period). On the Management Application toolbar, click **File**, and either **Activate License Online** or **Manage License Offline**.

To get an overview of your licenses, go to the Management Application's navigation pane, expand **Advanced Configuration**, select **Hardware Devices** and view your **Hardware Device Summary** table.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Add hardware devices

You add cameras and other hardware devices, such as video encoders, DVRs, etc., to your XProtect Professional system through a wizard. If microphones or speakers are attached to your hardware devices, they are automatically added as well.

You can use up to 64 cameras. Note that, if required, it is possible to add more cameras than you are allowed to use. If you use video encoder devices on your system, bear in mind that many video



encoder devices have more than one camera connected to them. For example, a fully used four-port video encoder will count as four cameras.

Before you add hardware devices, make sure you have configured their IP addresses, passwords, etc. as described by the manufacturers. Then do the following:

1. In the Management Application, start the **Add Hardware Devices** wizard.
2. Select a hardware detection method, and follow the wizard.

Milestone recommends the **Express** option: it scans your network for relevant hardware devices, and helps you quickly add them to your system. Note that the **Express** option only scans for hardware devices supporting device discovery (a method with which hardware devices make information about themselves available on the network) and only on the part of your network (subnet) where the XProtect Professional server itself is located.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Configure cameras

You can specify a wide variety of settings for each camera connected to your XProtect Professional system. Settings include video format, resolution, motion detection sensitivity, where to store and archive recordings, any PTZ preset positions, association with microphones and speakers, etc.

You configure cameras under **Advanced Configuration > Cameras and Storage Information** in the Management Application's navigation pane.

PTZ cameras

PTZ (Pan/Tilt/Zoom) cameras are supported extensively throughout XProtect Professional. Such cameras can be operated manually as well as automatically.

Tip: Analog PTZ devices attached to video encoders can also be used, but they require a bit more initial configuration: In the Management Application's navigation pane, expand **Advanced Configuration > Hardware Devices**, double-click the required hardware device and specify **PTZ Device** properties.

Check the XProtect Device Pack release notes, available from the Downloads section of www.milestonesys.com, to see exactly which PTZ features are supported for the hardware and firmware used in your installation.

You configure PTZ presets and automated PTZ operations individually for each PTZ camera: Under **Advanced Configuration** in the Management Application's navigation pane, select **Cameras and Storage Information**, then double-click the required camera.

360° lenses

Cameras with 360° lenses, fisheye as well as panomorph, can also be used.

1. First, under **Advanced Configuration** in the Management Application's navigation pane, select **Hardware Devices**, then double-click the hardware device to which the 360° lens camera is attached, and enable the required functionality (fisheye or panomorph).



- Then, for fisheye cameras, go to **Advanced Configuration** in the navigation pane, select **Cameras and Storage Information**, double-click the required camera, and configure the fisheye view.

Privacy masking

Privacy masking allows you to mask any area of a camera's image to prevent it from being visible in clients. For example, if the camera points in a way so that it catches the window of a private building, the privacy of the residents must be respected. In that case, you can mask areas of the image as needed. Furthermore, you can toggle grid and the red area indicating masking on and off—all to get a less obscured preview image.

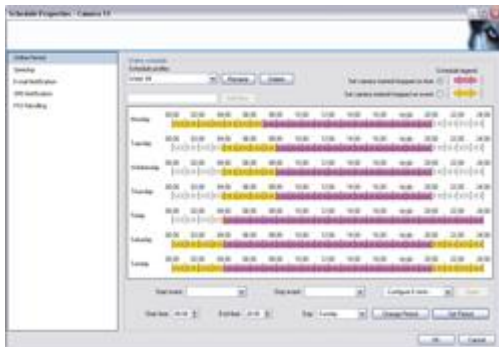
You configure privacy masking under **Advanced Configuration** in the Management Application's navigation pane. Expand **Cameras and Storage Information**, right-click the required camera, and select **Properties, Privacy Masking**.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Configure scheduling and archiving

Do you want some cameras to transfer video to XProtect Professional at all times, and other cameras to transfer video only within specific periods of time, or when specific events occur?

With the scheduling feature, you can specify this as well as when you want to receive notifications from the system. For PTZ (Pan/Tilt/Zoom) cameras with patrolling (automatic movement between preset positions), you can furthermore specify use of specific patrolling profiles for specific periods of time.



Archiving is an integrated and automated feature that helps you store recordings beyond the capabilities of XProtect Professional's standard database. With the XProtect Professional default settings, archiving takes place once a day or whenever databases become full; you can specify additional archiving times if required.

You configure scheduling and archiving under **Advanced Configuration > Scheduling and Archiving** in the Management Application's navigation pane.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Configure events and output

Events, for example based on input from sensors, can be used for automatically starting/stopping recordings, automatic sending of notifications, etc. Output can be used for activating external units, such as sirens or lights; output can be triggered automatically by events. Users can also activate events and output manually from their clients.

The use of most input events and all types of output requires that external sensors are wired to input/output (I/O) connectors on the hardware device in question, and that I/O operation on the hardware device is supported by XProtect Professional.

You configure events and output under **Advanced Configuration > Events and Outputs** in the Management Application's navigation pane. Once configured, events can be used with features throughout XProtect Enterprise/XProtect Professional, regardless of where sensors, users, etc. are physically located.

Tip: Check the XProtect Device Pack release notes, available from the Downloads section of www.milestonesys.com, to see if I/O operation is supported for the hardware and firmware used in your installation.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Configure clients and users

XProtect Professional can be used with three client applications:

- XProtect Smart Client
- XProtect Mobile client
- XProtect Web Client

XProtect Smart Client is installed automatically when you install XProtect Professional. XProtect Mobile client and XProtect Web Client are available if you install the XProtect Mobile server (included per default in a **Typical** installation). To use the XProtect Mobile client, you must have a mobile device running iOS 5+ or Android 2.2+, and you must download the application to your device from App Store or Google Play.

To quickly and easily configure how client applications should access the XProtect Professional server, and which users should be able to use the client applications, start the **Configure User Access** wizard. Note, however, that the wizard gives users access to all cameras on your system. If you require different rights for individual users, you should use advanced configuration instead:

- Under **Advanced Configuration > Server Access** in the Management Application's navigation pane, you can specify port number to use, whether you want clients to be able to access the XProtect Professional server from the internet, how many clients you want to be able to connect simultaneously, etc.
- Under **Advanced Configuration > Users** in the navigation pane, you can configure settings and rights for client access. If required, you can add users from Active Directory, allowing you to use your organization's existing user data.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Configure a Mobile server

A Mobile server handles log-ins when a user wants to log into his/her XProtect surveillance setup via the XProtect Web Client, or the XProtect Mobile client from a mobile device.

Upon correct login, the Mobile server distributes video streams from relevant recording servers to XProtect Web Clients or XProtect Mobile clients. This offers an extremely secure setup, where recording servers are never connected to the Internet. When a Mobile server receives video streams from recording servers, it also handles the complex conversion of codecs and formats allowing streaming of video on the mobile device.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Add/edit a Mobile server

1. Do one of the following:
 - To add a new server, right-click **Mobile Servers**. From the menu that appears, select **Create New**.
 - To edit a Mobile server, select the wanted server.
2. Fill in/edit the needed properties.
3. In the lower right corner, click **Apply**.
4. In the top toolbar, click **File > Save**.

IMPORTANT: If you edit settings for **Login method**, **All cameras view** and **Outputs and events**, while you are connected to the XProtect Mobile client, you must restart the XProtect Mobile client for the new settings to take effect.

Delete a Mobile server

1. From the navigation pane, expand **Servers > Mobile Servers** in order to see existing servers.
2. Right-click the unwanted server and select **Delete**.
3. Click **Yes**.

Rename a Mobile server

1. From the navigation pane, expand **Servers > Mobile Servers** in order to see existing servers.
2. Select the required Mobile server.
3. On the **Info** tab, which opens once the Mobile server is selected, change the name of the server by typing in the **Server name** and **Description** fields.
4. In the lower right corner, click **Apply**.



5. In the toolbar, click **File > Save**.

Configure master/slave servers

This step is only required if you want to run several XProtect Professional servers together.

A master/slave setup allows you to combine several XProtect Professional servers and extend the number of cameras you can use beyond the maximum allowed number of cameras for a single server. In such a setup, clients will still have a single point of contact: they connect to the master server but also get access, transparently, to cameras and recordings on the slave servers.

If required, you configure this under **Advanced Configuration > Master/Slave** in the Management Application's navigation pane.

Note: If you are planning to run a Master/Slave setup, it is important that you run **Typical** installation on the master server and **Custom** installation, where you deselect installing the Event Server, on the slave server(s). This is because there can only be one Event Server in a master/slave setup. If more than one Event Server is installed, the master server will have problems accessing cameras on slave servers.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.

Configure alarms and analytics events

The Alarms feature provides central overview and control of alarms in any number of XProtect Professional installations—and even in Master/Slave setups—throughout your organization.

You can configure alarms to be generated based on either:

1. Internal events (system related); for example, motion, server responding/not responding, archiving problems, lack of disk space, etc.
2. External events (integrated); for example, analytics events (typically data received from external third-party video content analysis (VCA) providers).

The Alarms feature also deals with general alarms settings and alarm logging and with general analytics events settings.

To ease overview, delegation and handling of alarms, alarms appear in the Smart Client alarm list, where they are also handled. The Alarms feature is a powerful monitoring tool, providing instant overview of alarms and possible technical problems.

To work with alarms, go to the In the Management Application's navigation pane, expand **Advanced Configuration** and expand **Alarms**.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Back up configuration

You have now covered the key elements of your XProtect Professional system configuration. It is therefore a good time to back up the configuration as a disaster recovery method. We recommend that you make regular backups of your XProtect Professional configuration (cameras, schedules, views, etc.) as a disaster recovery measure. While it is rare to lose your configuration, it can happen under unfortunate circumstances. Luckily, it takes only a minute to back up your existing configuration.

The following describes backup of the configuration in XProtect Professional 7.0 and onwards. If you need information about how to back up configuration from an earlier version of XProtect Professional—a typical need when upgrading to XProtect Enterprise XProtect Professional 8.0—see [Upgrade from a Previous Version](#) on page .

In the following, we assume that you have not changed XProtect Professional's default configuration path, which is **C:\Documents and Settings\All Users\Application Data\Milestone\Milestone Surveillance** on servers running Windows XP, or Windows Server 2003, and **C:\Program Data\Milestone\Milestone Surveillance** on servers running all other supported operating systems. If you have changed the default configuration path, you must take your changes into consideration when using the method described in the following.

How to back up

1. If XProtect Professional is used on a server running Windows XP or Windows Server 2003, make a copy of the folder **C:\Documents and Settings\All Users\Application Data\Milestone\Milestone Surveillance** and all of its content. If XProtect Professional is used on a server running any other supported operating system, make a copy of the folder **C:\Program Data\Milestone\Milestone Surveillance** and all of its content.
2. Open the folder **C:\Program Files\Milestone\Milestone Surveillance\devices**, and verify if the file **devices.ini** exists. If the file exists, make a copy of it. The file will exist if you have configured video properties for certain types of cameras; for such cameras, changes to the properties are stored in the file rather than on the camera itself.
3. Store the copies away from the XProtect Professional server, so you will not lose them if the server is damaged, stolen or otherwise affected.

Remember that a backup is a snapshot of your XProtect Professional system configuration at the time of backing up. If you later change your configuration, your backup will not reflect the most recent changes. Therefore, back up your system configuration regularly.

Restore backed-up configuration

1. If XProtect Professional is used on a server running Windows XP or Windows Server 2003, copy the content of the backed-up Milestone Surveillance folder into **C:\Documents and Settings\All Users\Application Data\Milestone\Milestone Surveillance**. If XProtect Professional is used on a server running any other supported operating system, copy the content of the backed-up Milestone Surveillance folder into **C:\Program Data\Milestone\Milestone Surveillance**.



2. If you backed up the file `devices.ini`, copy the file into **C:\Program Files\Milestone\Milestone Surveillance\devices**.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Download Manager

The Download Manager lets you manage which XProtect Professional-related features your organization's users can access from a targeted welcome page on the surveillance system server. You access the Download Manager from Windows' **Start** menu: Select **All Programs > Milestone XProtect Download Manager > Download Manager**. The Download Manager comes with a default configuration ensuring that users get access to the XProtect Smart Client. If you want to make special language versions, plug-ins or similar available to users, you will need to use the Download Manager.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Install XProtect Smart Client

You view live and recorded video with clients such as the XProtect Smart Client. Users—and administrators—can get their XProtect Smart Client in two ways: Either from the software DVD or from the surveillance system server.

To install a XProtect Smart Client from the server, do the following:

1. Open an Internet Explorer browser (version 6.0 or later), and connect to the IP address of the XProtect Professional server with the port number specified under **Advanced Configuration > Server Access** in the Management Application's navigation pane (default is port 80). Example: If the server's IP address is 123.123.123.123 and you use the default port number 80, connect to <http://123.123.123.123:80>.
2. When you connect to the server, you will see a welcome page. On the welcome page, click the relevant link to get your client.

XProtect Smart Client must be downloaded and installed on users' computers. For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Matrix

The Matrix feature allows distributed viewing of live video from any camera to any Matrix recipient on a network operating with XProtect Professional. A computer on which Matrix-triggered video can be viewed is known as a Matrix recipient. In order to become a Matrix recipient, the computer must have the multi-purpose Smart Client installed.

For more information, refer to XProtect Professional's built-in help system or the administrator's manual available on the software DVD as well as on www.milestonesys.com.



Built-in help system

To access the help system from anywhere within the Management Application, click the **Help** button in the toolbar. Alternatively, press **F1** on your keyboard.



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About Milestone Systems

Founded in 1998, Milestone Systems is the global industry leader in open platform IP video management software. The XProtect platform delivers powerful surveillance that is easy to manage, reliable and proven in thousands of customer installations around the world. With support for the widest choice in network hardware and integration with other systems, XProtect provides best-in-class solutions to video enable organizations – managing risks, protecting people and assets, optimizing processes and reducing costs. Milestone software is sold through authorized and certified partners. For more information, visit:

www.milestonesys.com.