XProtect® Rapid REVIEW 2024 M1

milestone

What's New in XProtect Rapid REVIEW 2024 M1

- XProtect Rapid REVIEW 2024 M1 introduces the innovative Fast Track feature. It harnesses geolocation technology to expedite investigations and enhance automated cross-camera tracking. Fast Track empowers investigators to locate objects swiftly across adjacent or proximately positioned cameras, leveraging the camera geolocation setup within XProtect VMS to accelerate investigations further.

  This feature rely on the positioning to be setup on the camera from within the XProtect Management Client or via Smart Maps in the XProtect Smart Client.

- XProtect Rapid REVIEW 2024 M1 includes significant performance enhancements to the VMS video fetching process

- Data protection management is redesigned to be more flexible and improve security.

- A New Briefcam Management Client plugin ensures that XProtect Rapid REVIEW can install on all XProtect tiers (Corporate, Expert, Professional+ Express+) without the need for the XProtect Rapid REVIEW operator to be administrator on the XProtect System.

- With the Milestone Embedded Viewer – Log-in to the Rapid REVIEW server is only executed when entering Rapid REVIEW Tab (previous versions logged-in at startup of the XProtect Smart Client).

- The installation wizard is made more user friendly for new installs, by making advanced mode the default installation method.

- XProtect Rapid REVIEW 2024 M1 comes with a more streamlined interface including multiple user experience enhancements, ensuring an intuitive and easy operator experience including:

  - **Side-by-Side View** – When a thumbnail is selected, the Viewer tab will be split into two panes, with the thumbnail remaining visible in the left-hand pane, and the close-up clip or original video playing in the right-hand pane.

  - **Adjustable Real Estate** – The thumbnails can be resized and the video SYNOPSIS® list and filters are collapsible for a larger view of the detected objects.

  - **Upgraded Flow for Search of Faces, License Plates, and Proximity** – The flow for faces, license plates and proximity has changed. In the Classic View, users would have to guess which of the objects could be used in these filters. In the Enhanced View there is an added step where these objects are first filtered for and, therefore, there is no need to guess.

  - **Add Different Scene Filters on Same Scene** – Any combination of Area, Path, and Line Crossing filters can be added on the same scene. It is no longer necessary to create each filter separately.

  - **Enable Video Time Adjustment** – A time offset can now be added for a video after file uploading and processing. Some videos have offsets between real-world time and their recorded time, which is a major issue when law enforcement collect videos after an event. This new feature allows law enforcement to improve their DEM (digital evidence management).

  - **Camera Search Enhancements** – Two new features make it easier to search for cameras:

    - **Camera Grouping** – Now the path of the cameras is imported from the VMS and displayed in the client when processing video from a camera.

- **Tag Management** – The Administrator can tag the cameras into groups, such as "First Floor Cameras" or "All Cameras in the Corridor", allowing the user to easily search for cameras by a tag.
- **Exporting License Plates** – Detected license plates can now be exported to a CSV file.
- In this new version, multiple administrators can be created.
- The package includes a BriefCam installer for installing NGINX.

XProtect Rapid REVIEW Key Features

- **Case management:** Organize all video assets of an investigation in a single container, bookmark objects of interest, and summarize case findings (including all relevant exhibits) in an exportable report, while dynamically collaborating on cases with other users.
- **VIDEO SYNOPSIS®:** VIDEO SYNOPSIS solution simultaneously presents objects that have appeared at different times within the video. The result is a dramatically shorter video segment that fully preserves the viewer's ability to analyze the scene, enabling the review of hours of video in minutes and sometimes seconds.
- **Multi-camera search:** Powerful and advanced multi-camera search capabilities for all Rapid REVIEW search filters and Visual Layers.
- **Proximity identification:** Search for and identify the distance between individuals over time and location for compliance with physical distancing and contact tracing, as well as criminal investigations.
- **Face mask detection:** Forensically search and filter video to identify face mask usage.
- **Face recognition:** Accurate face recognition for rapidly pinpointing persons included or excluded in watchlists, based on images extracted from existing video or data uploads.
- **License plate recognition**: Differentiated license plate recognition, designed especially for "in the wild" surveillance scenarios and ease of operation in finding license plates through watchlists, existing video or data uploads.
- **Line crossing**: Detect, filter and count objects that cross a demarcation in a pre-defined direction to drive perimeter protection and directional object count.
- **Appearance similarity**: Instantly locate people, vehicles, and other items of interest by searching for objects with similar attributes.
- **Visual layers:** Create visual analytics for activity, dwell time, common paths, and background changes.
- **Filter tolerance**: Adjust tolerance levels to refine search results.
- **Density & speed control**: Increase or decrease the number and speed of events shown at once.
- **Sort control:** View events by relevance or by order of occurrence and easily zoom in on items of interest.

SEARCH FILTERS	
SOURCE	Limit objects to specific files
TIME RANGE	Limit the search criteria to specific time ranges
CLASS	**Class Categories:** People, Two-Wheeled Vehicles, Other Vehicles, and Animals **People:** Man, Woman and Child **Two-Wheeled Vehicle:** Bicycle and Motorcycle **Other Vehicles:** Car, Pickup, Van, Truck, Bus, Train, Airplane, and Boat **Illumination Changes:** Lights On, Lights Off
PERSON ATTRIBUTES	**Lower Wear:** Long, Short, and by Color **Upper Wear:** Long Sleeves, Short Sleeves, and by Color **Hats:** No Hat, Hat **Face Masks:** No Mask, Mask **Bags:** No Bag, Backpacks, Handheld Bags
COLOR	Identify objects according to any combination of Brown, Red, Orange, Yellow, Green, Lime, Cyan, Purple, Pink, White, Grey, and Black
APPEARANCE SIMILARITY	Identify people and vehicles with similar attributes
FACE RECOGNITION	**View All Faces:** View all faces that were detected in a case **Search by Face:** View all faces that were detected in a case and search by face using external images, or images from video
LINE CROSSING	Filter objects that cross a demarcation in a predefined direction
LICENSE PLATE RECOGNITION	**View All Plates**: View all license plates detected in a scene **Search by Plates:** Search all license plates that were detected in a case and search using a watchlist of license plates, data import of license plate numbers, or existing plates from video
PROXIMITY	Filter objects appearing below or above a user-specified distance
SIZE	Select objects based on their actual (real-life) size from a histogram of sizes relevant to a specific case
PATH	Identify objects traveling along one or more user-defined paths
AREA	Identify objects included or excluded within one or more user-defined 3- or 4-sided polygon areas
SPEED	Select objects based on their actual speed from a histogram of speeds relevant to a specific case
DWELL	Select objects dwelling for a certain a user-specified period or longer in a scene

TECHNICAL SPECIFICATIONS	
SUPPORTED RESOLUTION	Minimum CIF, Maximum unrestricted
SUPPORTED FRAME RATE (FPS)	All frame rates
SUPPORTED VIDEO FILES FORMAT	.AVI, .MKV, .MPEG4, .MOV, .WMV, .DVR, .ASF, .RT4, .DIVX, .264, .GE5, .TS, .3GP, .XBA (single stream and multi-stream), .MP4, .FLV
SUPPORTED CODECS	H.264, H.265/HEVC, MPEG-4, H.263 (H.265 is supported for selected cameras)
FACE RECOGNITION	Minimum Face Size: 24x24 pixels
SUPPORTED UI LANGUAGES	Arabic, Brazilian Portuguese, Chinese Simplified, Chinese Traditional, Danish, Dutch, English, Finnish, French, German, Hebrew, Italian, Japanese, Korean, Latin Spanish, Thai, Turkish, Ukrainian, Vietnamese *Please Note: During installation the default system language should be English. If the language of the OS is set to any other language than English, the installation may end with an error. The system language can be set to a preferred language after the installation.*
SUPPORTED WINDOWS VERSIONS	Windows Server 2022, Windows Server 2019, or Windows Server 2016* Note: Windows 11 and Windows 10 Pro (version 1803 or higher) can be used for development environments or all-in-one production environments with a single GPU, They are not supported for other production environments. **Future Versions of Rapid REVIEW will not support Windows Server 2016, XProtect Rapid REVIEW 2024 M1 will be the last one to support this version.*
SUPPORTED XPROTECT VERSIONS	XProtect Rapid REVIEW 2024 M1 is supported from XProtect 2020 R3 or later. The supported XProtect tiers are: XProtect Corporate, XProtect Expert, XProtect Professional+ and XProtect Express+. *XProtect Essential+ is not supported with XProtect Rapid REVIEW.*

SYSTEM RECOMMENDATIONS

The server specification are determined by the video resolution, activity level and desired processing throughput capacity - which is measured by the number of video hours that can be processed in an hour.

SYSTEM RECOMMENDATION (MEDIUM TOWER BUILD)	
FORM FACTOR	Tower
CPU	Intel i9 (latest generation)
MEMORY	128GB RAM
STORAGE	256GB OS SSD 480GB Mixed-use DB SSD* 8TB HDD
GPU	1 x NVIDIA RTX A2000
THROUGHPUT	Up to 23 hours per hour (552 hours per day) at 1080p medium activity, 6 hours per hour (192 hours per day) at 4K medium activity.

SYSTEM RECOMMENDATION (MEDIUM RACK BUILD)	
FORM FACTOR	1U
CPU	Intel i9 (latest generation)
MEMORY	128GB RAM
STORAGE	256GB OS SSD 480GB Mixed-use DB SSD* 8TB HDD
GPU	1 x NVIDIA RTX A4000
THROUGHPUT	Up to 28 hours per hour (672 hours per day) at 1080p medium activity, 6 hours per hour (192 hours per day) at 4K medium activity.

SYSTEM RECOMMENDATION (LARGE BUILD)	
FORM FACTOR	2U
CPU	2x Intel Xeon Silver 4215R
MEMORY	128GB RAM
STORAGE	480GB OS SSD 1TB Mixed-use DB SSD* 2 x 8TB HDD
GPU	2 x NVIDIA RTX A4000
THROUGHPUT	Up to 46 hours per hour (1,104 hours per day) at 1080p medium activity, 12 hours per hour (408 hours per day) at 4K medium activity.

SYSTEM RECOMMENDATION (EXTRA LARGE BUILD)	
FORM FACTOR	2U
CPU	2 x Intel Xeon Gold 6248R
MEMORY	256GB RAM
STORAGE	480GB OS SSD 2TB Mixed-use DB SSD* 4 x 8TB HDD
GPU	4 x NVIDIA RTX A4000
THROUGHPUT	Up to 92 hours per hour (2,208 hours per day) at 1080p medium activity, 24 hours per hour (816 hours per day) at 4K medium activity.

Mixed Use SSDs that need a balance of strong Read and Write performance

Throughput Example:

24 hours of original 1080p video at medium activity will take about 2.5 hours with the small and medium build, 30 minutes with the large build, and 15 minutes with the extra-large build.

Graphical Processing Units (GPU)

The BriefCam Processing Server requires an NVIDIA GPU to process video. The exact model and number of GPU cards required will depend on the resolution of the videos to be processed and the number of hours of video that need to be processed per hour or day.
The below Certified GPUs are tested to perform with a sufficient throughput as listed in the hardware recommendations.
For a more specific and individual performance specification on a new system, please reach out to a Milestone Solution Engineer for further recommendations.

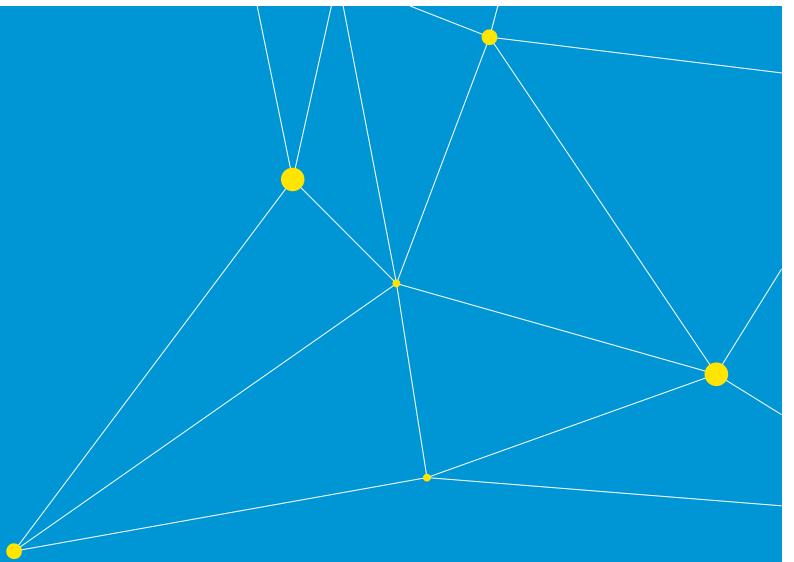| CERTIFIED NVIDIA GPUs	
GPU	CERTIFIED
Ampere A10	√
Ampere RTX A2000	√
Ampere RTX A4000	√

Other GPUs

While XProtect Rapid REVIEW is validated to run with most Nvidia GPUs, performance may vary, and the reliability of the analytics may also suffer from an underperforming GPU.
There is no guarantee regarding the performance of GPUs which are not listed as certified in the above list

- Nvidia ADA Lovelace Architecture is not supported at current time
- Nvidia A30 and A100 Ampere GPUs are not supported
- Intel, AMD, or any other non-NVIDIA GPUs are not supported at this time
- It is not supported to use more than one type of GPU on the same machine

LICENSING

XProtect Rapid REVIEW can be used with an unlimited number of device licenses. However, please consult Milestone for installations that require more than 200 XProtect Rapid REVIEW device licenses to ensure the product fits the needs. Milestone recommends purchasing the same amount of XProtect Rapid REVIEW device licenses as Milestone XProtect device licenses on the underlying VMS product. However, to ensure complete camera coverage for comprehensive forensic video review you may need to purchase additional XProtect Rapid REVIEW device licenses to cover all enabled video channels in XProtect.

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 500,000 sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group.