Milestone Certified Solution

design Automator

ACCURACY | CONSISTENCY | PRODUCTIVITY

Certified Solution for milestone

Design Automator

Date certified (2019-06-07) :

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About your company

Design Automator® is our Software as a Service (SaaS) solution for the security systems industry that automates the engineering process, eliminates human error and delivers system wide consistency, whilst saving both time and money.

Design Automator software uses a client's standard set of operational rules [or their "DNA"] to automate the process of configuring and documenting systems. The automation of these processes minimizes the risk of human error, speeds up the implementation of new security systems, and frees up security teams to focus on less mundane and more complex tasks, while almost entirely removing the risk of human error.

The accuracy and system-wide consistency Design Automator enables, overcomes the long-standing challenge of avoidable mistakes in the security industry, while reducing man-days down to man-minutes.

Design Automator is untapping opportunities in the Security industry for automated system programming. Initially designed to automate the programming of access control systems, it now applies the same principles of automation to other systems within the built environment.

Since launching as a stand-alone product in 2018, we have signed up multiple clients and established partnerships with over 29 major vendors for integration with the software. Design Automator has also been uniquely specified as an automated security engineering solution on London's most iconic construction projects.

About Milestone Systems

Milestone Systems is a global leader in providing open platform IP video surveillance software. Milestone has provided easy-to-use, powerful video management software in more than 200,000 installations, worldwide.

Milestone XProtect® provides open architecture products that are compatible with more IP cameras, encoders, and digital video recorders than any other manufacturer. Because Milestone provides an open platform, you can integrate today's best business solutions and expand what's possible with future innovations. Visit www.milestonesys.com for more.

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Executive Summary

Design Automator is a web-based SaaS solution that allows provides automation of the design process, taking a full security design and producing documentation and end system programming for cameras on the Milestone XProtect platform.

Key features

- Web based
- Centralized control of camera behaviors via the “DNA”
- Unlimited designs supported
- Full system documentation from installation, configuration, commissioning and maintenance

Typical applications

- Enterprise systems
- Small / medium systems
- Public and private sector installations

Certified Products

- Design Automator v3.3 +
- Milestone XProtect Corporate 2019 R1 [via Configuration API]

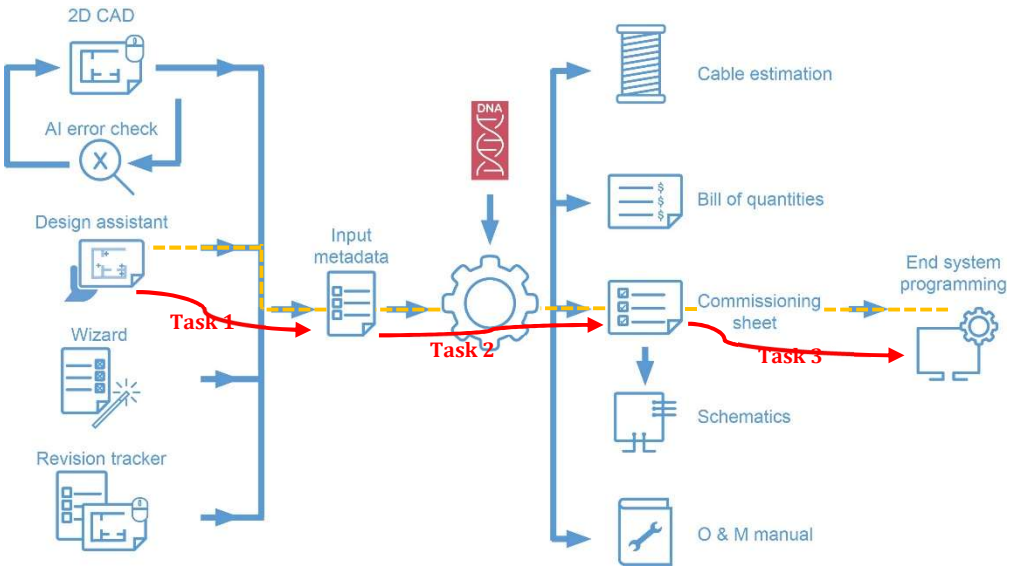
System Overview

Design Automator is a cloud-based product comprising a set of functions that offers end-to-end programming for cameras onto the Milestone XProtect platform.

Data files presented through the portal by the user are temporarily cached *only* for the period required to execute a function through to generating results. When a function operation terminates the cache is flushed to ensure no user data is retained by the system.

Below is a graphical representation of the Design Automator architecture.

The dotted yellow line highlights the path and tasks required to process a design created using Design Assistant. This input mechanism is an alternative to the 2D CAD entry route and has been selected to simplify explanation of programming files in this document.



Outcomes and Benefits

	Manual Issues	Automation Benefits
	Error checking consumes time and is susceptible to human error, leading to additional time and cost in rectifying these	By using AI automated checking, assures the drawing quality, highlights errors prior to system engineering and therefore prevents amendments
	Revision control can be a painstaking process through a project cycle, making changes, reissuing documents and revising costings manually	DA's revision control immediately highlights any omissions & additions seamlessly, and because of the singe reference points DNA all costs are updated consistently
	Every individual person involved on a project has a slightly different way of naming devices, structuring programming code and producing documentation. This can lead to confusion and wasted time.	Standardization of naming conventions for end devices results in the same terminology, format and structure is used throughout the project lifecycle – from build to service, ensure ease of handover, to the ongoing operations & maintenance thereafter
	Production of schematics, wiring diagrams and network topologies can vary and be inconsistent again resulting in extended labor times, wastage of paper (via print offs) and distraction from the program	DA automatically produces consistent hi-res images formatted using the standard naming conventions in all drawing production – in minutes, thus significantly reducing errors, time and ensuring accuracy
	As any project moves through the various program stages there will be, invariably a need to revise costings and quantities. This is usually a manual process that absorbs time/effort and in many cases requires manipulation of data and incorrect output	As everything is linked to the standard set of DNA rules, any changes are referenced back to this, ensuring that any amendments will be constant and aligned to agreed rates every time, negating the need for manual calculation and reworks
	When the system need the end device parameters programmed, this is usually during a compressed period of the program, where pressure will result in mistakes, equally repetition of entry data, variety in personal and delays can all lead to errors and differing methods of execution and deployment	Automation of the end devices ensures that the associated files can be prepared quickly well in advance and saved until ready. Changes are also managed expediently and reliably using a single format and process. Delivering compliance, cutting down labor hours needed on site, so in turn driving demonstrable efficiencies

DNA Overview

DNA forms the cornerstone of the Design Automator architecture and in this respect is the key point of reference that regulates design output in accordance with client requirement. Technically DNA models the behavior of predetermined Design Automator functions which, in this instance, is shaped by Milestone XProtect requirement.

For maximum flexibility any number of DNAs can be established for a client. For example, consider you are working for company XYZ and you have DNA Administrator rights; you can fashion a DNA to fit the operational profile for each part of the business underpinned by Milestone XProtect specification. For example: -

XYZ – New York Enterprise
XYZ – London Corporate
XYZ – Hong Kong Retail
XYZ – Dubai Operations
XYZ – Boston Head Office

Consider that a camera make, and model may be specified for all five of the example DNAs above however, regional differences may be qualified within the camera firmware to accommodate local criteria such as data protection compliance (e.g. masking function capability). The firmware version deployed is the class of variation that can be stored in DNA.

DNA also retains vital camera parameters such as Username and Password in order to access and interrogate the camera.

Other end-device credentials such as component and labor costs, cut-sheets, hardware and software system parameters provide the ingredients that shape one or more client-designed product libraries which ultimately determine output such as Bill of Quantities, O&M Manuals, End System Programming files and so forth. Although product libraries are discrete entities with respect to DNA, they are referenced in the DNA construct in order to generate appropriate outputs.

For this example, it would be the responsibility of at least one XYZ employee to create and administer DNAs.

Test Setup

Tabulated below are the basic tasks required to generate Milestone XProtect programming files from a Hardware Sheet exported via Design Assistant. Although an indirect Design Automator operation task 4 forms part of the overall programming process.

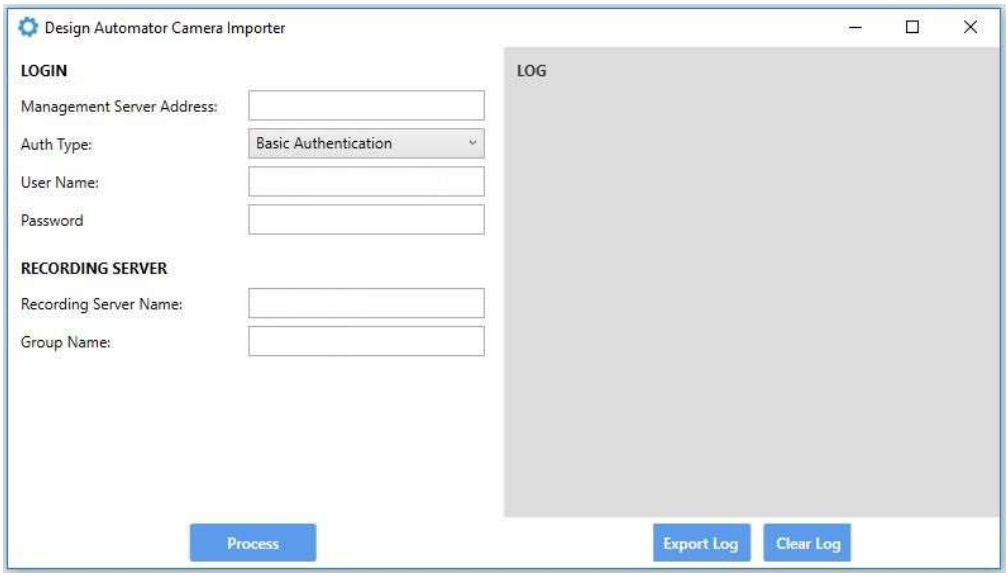
Task no.	Function category	Function	Purpose
1	Design Tools	Design Assistant	Create a design with CCTV elements and from the **File** drop down menu click **Generate Hardware Sheet**.
2	Automation	CCTV Tools > Commissioning Sheets	Upload the Hardware Sheet generated in Task 1. Set the System type to **Milestone** and the Recorder Type to **Corporate 250**. Execute the function to generate one or more Commissioning Sheets. The actual number of resultant sheets depends on the complexity of the Hardware Sheet.
3	Configuration	CCTV Tools > System Configuration Files	Drag-and-drop one or more Commissioning Sheets and click Process to generate the required programming files. Principal output files are the **.auto** file which contains the camera programming data and the **AutoImporter.exe** file which is used to migrate information to the XProtect system.
4	n/a	Migration	Migrate the camera information over to the Milestone XProtect server.

Performance Results / Features Tested Described

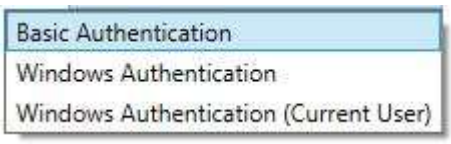
Below are the stages taken from step 4 in the Milestone XProtect server to configure the cameras;

The first step is to copy the **.zip** file to a clean folder on the XProtect server [or machine that has network connectivity to the management and recording server[s]] and right-click the .zip files extract the content.

Next, run **AutoImporter.exe** and the Design Automator Camera Importer tool interface will appear



Enter relevant information in the required fields. Three Authentication Types are offered: -



Click **Process** and the Importer will attempt to transfer the camera records. The LOG window will report actions and discoveries.

LOG

Login succeed
Querying and configuring storage list for the new cameras

Will now attempt to add: EU-LDN-CST-C-07-002-CAM
Hardware add task: Success
Camera added successfully: EU-LDN-CST-C-07-002-CAM

Will now attempt to add settings for: EU-LDN-CST-C-07-002-CAM
Video stream 01 – Frames per second: Value 15 set successfully
Settings updated for Video stream 01
Video stream 02 – Frames per second: Value 15 set successfully
Settings updated for Video stream 02
Settings update completed for camera EU-LDN-CST-C-07-002-CAM

Importing completed.

For example: -

Any cameras that currently exist on the system with the same name will activate an alert in the log.

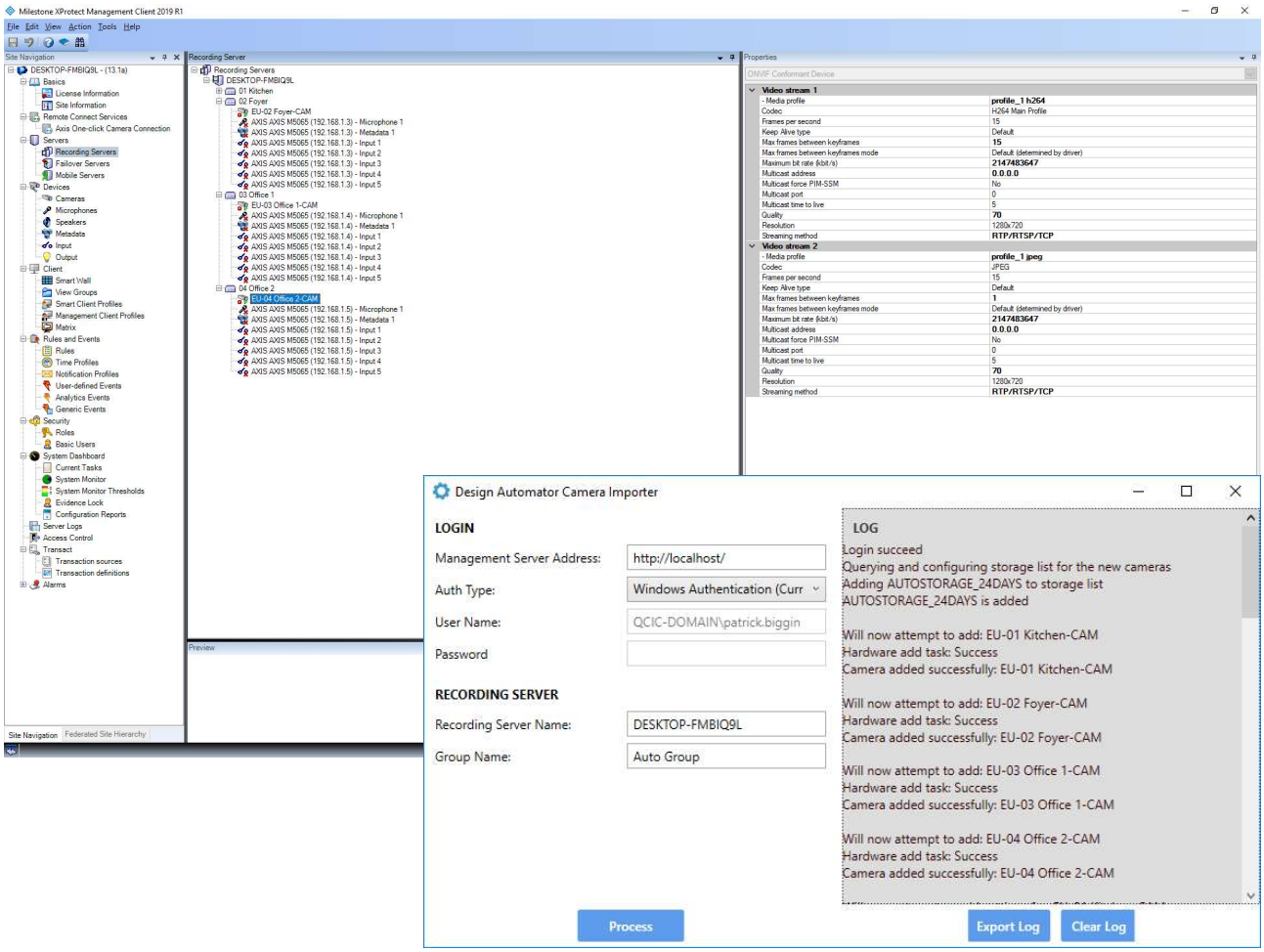
These cameras already exist on the server:

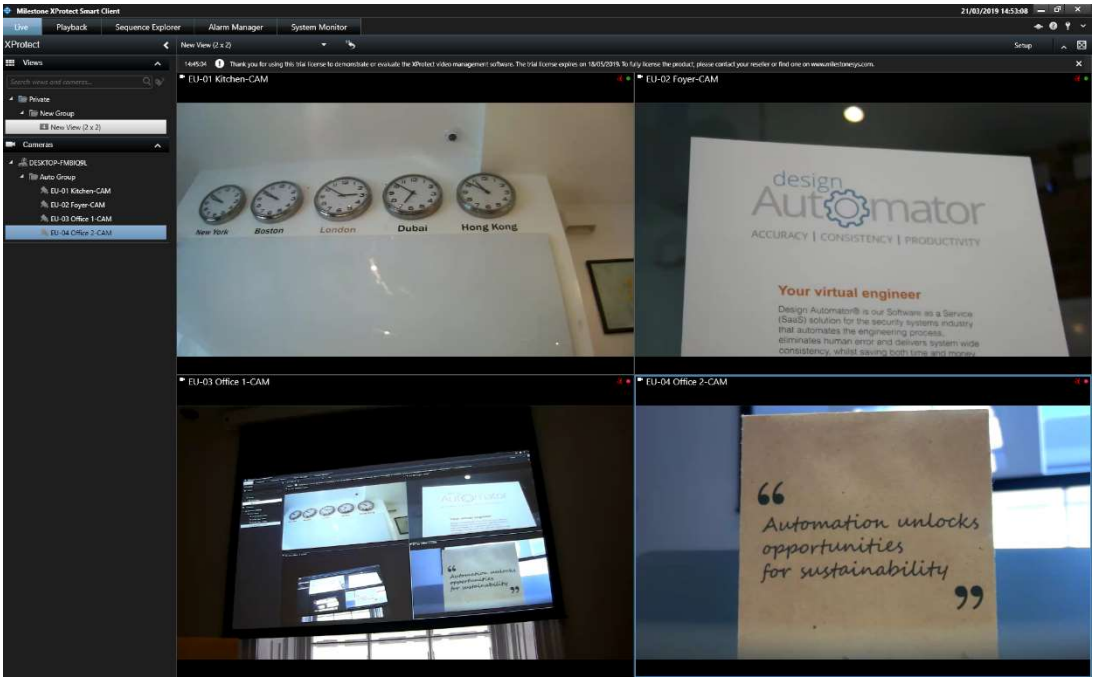
EU-LDN-CST-C-07-003-CAM
EU-LDN-CST-C-07-003-CAM
EU-LDN-CST-C-07-004-CAM

Do you want to overwrite the properties?

An option is offered to overwrite if required.

Cameras are now added to Milestone XProtect and settings are as per the DNA settings set by the user.





Conclusion

The Design Automator integration with XProtect delivers an automated solution from design drawings to the completed documentation and end device programming of the camera parameters. Design Automator will reduce the element of human error, deliver project consistency and mitigate risk. In addition the automation element of the software will reduce programming time, increasing productivity.

Resources

Access Design Automator by entering www.designautomator.com into the browser address bar.

https://www.designautomator.com/news/design-automator-s-dna

https://docs.wixstatic.com/ugd/220ed8_a2ce9c544f7c44de9729ac7435e590f7.pdf