

Stark Application Note Tattile Stark Plugin - Milestone XProtect v 1.3



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Revision History

Rev	Date	Description	Author	Approved by
1.3	2024-08-21	- Minor changes	M. Zaffignani	Team review
1.2	2024-07-11	- Add the procedure required after plugin update	M. Zaffignani	Team review
		- Minor changes		
1.1	2024-07-11	- Add undefined camera status	M. Zaffignani	Team review
		- Update template camera message		
		- Update icons		
1.0	2024-07-03	- First version of the Application Note	M. Zaffignani	Team review



1. Scope

This document is intended to provide an overview of the integration and use of the Tattile Stark Plugin for Milestone XProtect, which allows for a more complete integration between Tattile Stark cameras and XProtect VMS. Guidelines for the installation, configuration and use of the plugin on XProtect are provided, as well as prerequisites and configuration of the cameras for the complete integration.



2. Introduction

Tattile Stark Plugin is a product meant to be used to improve the visualization of the data sent from Stark cameras to Milestone XProtect VMS and visualized in the XProtect Smart Client. In particular, it allows to:

- visualize the live H264 streaming video of the paired cameras (when available);
- visualize transit events generated by the paired cameras;
- apply filters to the recorded transit events in order to improve their visualization;
- customize the visualization of received transit data.

The plugin is based on two components:

- The Driver plugin, which must be installed on the server hosting the XProtect Recording Server. It manages the communication with Tattile Stark cameras, both in terms of pairing and configuration. It allows to pair the cameras as a specific driver, named Stark Driver.
- The Client plugin, managing the visualization of generated transits data in a dedicated tab of the Milestone XProtect Smart Client, where it is also possible to apply filters to the received transits so as to customize the visualization.

2.1. Plugin interface introduction

The Client plugin, which is integrated into the Milestone XProtect Smart Client, presents a dedicated tab named "Tattile Stark", mainly divided into three sections, as shown in the image below.

Milestone XProtect Smart Client												٥	×
Main views tab Exports	Search	Alarm Manager	Incid	ents	Tattile	Stark	System Monitor		+ (A Not secure	16:09:03		:
											Tattile Stark	Setup	Z
16:06:18 Thank you for using this trial license to demonstrate or evaluation	ate the XProtect video management softwa	re. The trial license expires on	18/01/2025. To fully I	icense the product, ple	ase contact your res	seller or find one on https://	/www.milestonesys.com.						×
16:04:15 XProtect Smart Client is not performing optimally because y	ou are using Remote Desktop Connection. 1	o improve performance, resta	rt XProtect Smart Clie	nt on your local comp	ıter.								×
Cameras: Tattile VEGA_53 (192.168.88.230) - Camera	From: 07/02/2024 16:0	16 🗐 🕆 🛛 To: 07/0	3/2024 16:06	🖂 🗹 Realtime	view	Þ	7 Hidden Columns	\land Camer	as	Clear All	Select All		
Tattile VEGA_53 (192.168.88.230) - Camera	License plate number	Camera Name Tattile VEGA_53 (192.1	Vehicle Brand	Vehicle Class CAR	Vehicle Model	Image OCR Im	hage Context Tin ^	Tattie	BASIC_MK2 (1 BASIC_MK2 (1 SMART+ 85 (1 SMART+ SPEI	72.25.99.2) - Car 72.25.99.60) - Ca 72.25.99.60) - Ca 72.25.99.85) - Ca ED (172.25.81.10	nera amera amera 14) - Camera		
	а С ^а татата	Tattile VEGA_53 (192.1	. w	CAR	T-Roc	7	/@\ 3/	V V Tatole	VEGA_03 (132	. 100.00.230) - Ce	mera		
	00	Tattile VEGA_53 (192.1	. Renault	CAR	Megane	Z / V	/ . \\	Vehick CAR CAR CAR CAR LORRY LORRY LORRY BUS	e Classes H TRAILER VITH TRAILER	Clear All	Select All		
/ /	3P	Tattile VEGA_53 (192.1	. BMW	CAR				MOTORC UNKNOW MOTORC MOTORB OTHERS VAN HEAVY T	YCLE-MOTORE N YCLE YKE RUCK	ЗҮКЕ			
	EG	Tattile VEGA_53 (192.1	. Ford	CAR	Fiesta			Vehicle Mod	et				
1/0//0214610/054.04	35	Tattile VEGA_53 (192.1	. BMW	CAR		/\$¦\$\	03/	Country: Plate color:				_	·
	FH	Tattile VEGA_53 (192.1	. Audi	CAR	A1		/ /] / 03/	Vehicle Colo	e All				ŀ



• The Live stream area shows the Live streaming from the camera seletected from the Tab.



Info: Live streaming is available only on specific Stark camera models, as described in "Camera prerequisites" on page 8. Moreover, if available, it has to be enabled on the camera and configured as H264.

- The **Events** area reports the events received from the paired cameras.
- The Filter area allows to apply filter to the values of specific data generated by the cameras. This section also allows to visualize the status of all the cameras paired with XProtect using the plugin (so as Stark Driver).

For the complete list of the available output data and filters, refer to "Plugin visualization and filters" on page 25.



3. Environment description

This Section provides details regarding the prerequisites necessary for the integration and the availability of the different features according to the camera model.

3.1. Prerequisites

3.1.1. Camera prerequisites

Prerequisites necessary for the complete functioning of the system:

- Tattile ANPR version **1.145.0** or higher.
- License PLUGIN.MILESTONE present on camera.



Notice: Pairing between Tattile cameras and Milestone XProtect VMS as Stark Driver is always guaranteed, regardless the status of the license. However, in case of invalid license, no events will be visualized in the plugin tab.

3.1.2. Server prerequisites

Prerequisites necessary on XProtect and server-side:

• Milestone XProtect 2023 R3 or higher.

3.2. Features availability

Tattile Stark Plugin allows for the visualization of the following data generated by Stark cameras:

- H264 video streaming, when available
- Generated transit events.

The following Table summarizes, for the different Stark camera families, the availability of the aforementioned features.

	Basic MK2	Vega 10 / 30 / 50	Vega 11 / 33 / 53	Smart+ 50 / 80	Smart+ 55 / 85 Tolling +	Smart+ Speed
Streaming	×	×	\checkmark	×	\checkmark	\checkmark
Transit Events	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark



4. Tattile Stark Plugin installation procedure

This Section describes the steps required to install the Tattile Stark Plugin on XProtect based on previously described prerequisites.

4.1. Plugin installation

The plugin comes as an executable file which contains all the components that have to be installed. Follow the steps to complete the installation.

1. Launch the executable file to start the installation wizard. Select the desired Language and click to OK.

Select S	Setup Language	\times
\$1	Select the language to use during the installation.	
	English	\sim
	OK Cancel	

2. Select the destination folder and then click to Next.



Notice: The installation path must refer to the location where XProtect is installed.

Setup - 1.0.0.0release/1.0.0	_		×
Select Destination Location Where should MIP-STARK-Tattile be installed?			(j)
Setup will install MIP-STARK-Tattile into the following folder.			
To continue, click Next. If you would like to select a different folder, o	click Bro	wse.	
C:\Program Files\Milestone	Br	owse	
At least 7,4 MB of free disk space is required.			
Nex	t	Can	cel



3. Select the plugins to be installed. The "Full installation" option allows to install both plugins. Click

to Next to proceed with the installation.

Setup - 1.0.0.0release/1.0.0		_		×
Select Components Which components should be installed?				ধ্রা
Select the components you want to install; clear the co install. Click Next when you are ready to continue.	omponents y	you do not	want to	
Full Installation			~	1
Full Installation Client plug-in Driver plug-in				
Back	;	Next	Car	icel

4. Proceed with installation clicking on "Install".

ady to Install			
Setup is now ready to begin installing in	11P-5TARK-Tattile on	your computer.	
Click Install to continue with the installa change any settings.	ation, or click Back if y	vou want to revie	ew or
Destination location: C:\Program Files\Milestone			^
Setup type: Full Installation			
Selected components: Tattile STARK Recording Server D Tattile STARK Client Plug-In	river		
<			~
L			



5. When the installation is successfully completed, the following page is shown in the wizard.



4.2. Installed plugin visualization

Once the plugin is succesfully installed, it is possible to visualize its version in the XProtect Smart Client. About section, as in the image below.





4.3. Plugin update

In case of plugin update, in addition to the installation procedure described above, the status of all the paired cameras has to be updated, otherwise, the driver plugin won't be able reconnect to the cameras, failing in retrieving status information (such as license status).

To update the status of a camera hardware, follow the steps, which consider already paired cameras (for the pairing procedure, follow "Pairing a camera with Milestone XProtect as Stark Driver" on page 13):

- 1. Open the XProtect Management Client.
- 2. Select one camera paired as Stark Driver among those listed in the recording server of interest.

Milestone XProtect Management Client 2023 R3			- a ×
File View Action Maintenance Tools Help			
日 9 2 • 曲			
Site Navigation - A X	Recording Server	• 0	Properties
- D TATMST02 - (23.3a)	Day	~	-
🕀 🛄 Basics		•	Hardware information
- El License Information	H TATISTO2		Name:
Site Information	0 Cm Tattile BASIC_MK2 (172.25.99.2)		Tattile SMART+ SPEED (172.25.81.104)
Remote Connect Services	Tattile BASIC_MK2 (172.25.99.60)		Description
Axis One-click Camera Connection	⊕ Tatile cen1 (172,25,80,132)		Lesonption:
B Servers	Traile Shart's of (7220.000) Traile Shart's of (7220.000)		
Enilouer Servers			
Mobile Servers			
E Devices			
- Cameras			Model
- P Microphones			The contract of the second sec
Speakers			1 attue Stark
Thetadata			Serial number:
- do Input			CF02323_0000049M02E
			Driver:
Swart Wall			StarkDriver
- View Groups			Address
Smart Client Profiles			Auroration Control Con
- Management Client Profiles			1100/172.20.01.104
Matrix			MAC address:
Rules and Events			DC:4A:9E:60:74:AB
Rules			Firmware version:
Time Profiles			1.143.0.VQ313782_ITA
Itear-defined Events			Password last changed:
Analytics Events			-
- Generic Events			
- 🖧 Webhooks			Haloware data has updated.
E 🐗 Security			Thu//2024 US/34 Uposte naroware
- Roles			
Basic Users			👔 Info 🔞 Settings 🤻 Events 🚧 Remote Retrieval
System Dashboard	Deteriors		
- System Monitor	Transmer Tearline T	2048+17	12 9KR
System Monitor Thresholds			
- 2 Evidence Lock	l li		
Configuration Reports	1		
Server Logs			
🕀 🐨 Metadata Use 🗸 🗸			
Site Navigation Federated Site Hierarchy	Tamle SMA	RT+ SPEE	D (172.25.81
3	·	_	

- 3. Click on the "Update hardware" button in the "Info" tab present on the right panel.
- 4. Follow the wizard to complete the update.

Once the procedure is followed for all the paired Stark cameras, the Driver Plugin will work properly and data visualized in the Client Plugin will be updated.



5. Pairing a camera with Milestone XProtect as Stark Driver

This Section describes the configuration steps required to successfully pair the camera with XProtect and receive video streaming (when available).

As already introduced, the Driver Plugin component allows to pair Stark cameras with XProtect VMS as a specific driver, named "Stark driver", which allows for the camera configuration and communication and also allows for the transit visualization in the Client Plugin.

No specific configuration is necessary on the camera to complete the pairing procedure.

5.1. Pairing procedure

Notice: The following Sections describe how to perform these steps on the Milestone XProtect Management Client 2023-R3. Please consider it as a guideline which may differ from the procedure required on other XProtect releases.

- 1. Open the XProtect Management Client and authenticate to the system.
- 2. In the window "Site Navigation", click the label "Server" and select the option "Recoding Servers".
- 3. Choose the server of interest and select the "Add hardware" option by right-clicking on it.





4. Select the "Manual" hardware detection method.

Add Hardware		_		×
	Add Hardware			
\times	This wizard helps you detect and set up hardware.			
JAG	Hardware detection method:			
	 Express (recommended) Automatically detects hardware on the recording server's local network 			
	 Address range scanning Scans defined network address ranges and detects hardware models 			
	Manual Detects hardware models for manually entered IP addresses and host names			
	 Remote connect hardware Add hardware connected via a remote connect server 			
milestone				
Help	< Back Next >	(Cancel	

In the authentication step, select the camera credentials. Default credentials
are: superuser / superuser. If the credentials are not present in the list, use the "Add" button to
create the desired credentials.

dd Hard	dware			- 0	×
Option	ally, specify additional user cr	edentials to connect with if the hardware is not using the factory defe	nuða.	mile	tone
Include	User name	Password		Add	
	(Factory default)			Remove	
	Help	< Back. N	lest>	Cancel	

 From the list of available drivers used to scan for hardware, select the "StarkDriver" present in the "Other" list. Then click on Next.



dd Hardware			×
Select which drivers to use when scanning for hardware. The more drivers selected, the slower the scanning.		mileste	
Infinova IPRIO/Panasonic IVC Mictione	^	Select All Clear All	
0 ☐ Mobole 0 ☐ Mobole 0 ☐ N/NF 0 ☐ Sanung 0 ☐ Sany	i.		
Universal Universal BOther Other Ot			
DigitaBariersTVIDecoder Halo Smart Sensor LanAcccess Encoder			
	*		
Help (Back. Next >		Cancel	

7. Insert the camera IP address and select "StarkDriver" as "Hardware model". Pairing uses the HTTP default port.

Eni	Hardware ter the network address tionally, select the hard	and port of the har ware model to spec	dware you want to ad d up detection.	4				
	Address	Post	Use HTTPS	HTTPS not	Hardware model		644	
•	172.25.81.104	80		443	StarkDriver	~	-	

8. Clicking on Next, the scanning procedure starts. At the end of successful scanning, the hardware is detected.

Add H	landware						×
W ait while your hardware is being detected. Once detection has completed, select which hardware to add.						milest	one
Datast	- d have have						
Add	Address	Port	Hardware model		Status		_
	172.25.81.104	80	StarkDriver		Succes	\$	
√ Sh	ow hardware surning on other secondin	g servers					
	Help		< Back.	Next >		Cancel	



- 9. Click on "Next" and wait for camera detection. The Hardware model will be filled with "StarkDriver" reference.
- 10. Click on Next to confirm the pairing.
- 11. By default, pairing Tattile Stark cameras as StarkDriver will produce as "Name" the complete model name of the camera. If needed, it is possible to change this name. Click on Next to complete the procedure.

aroware name remp	kate:				Device name	template:			
elault				\sim	Default				
Hardware	Camera	Microphone	•	Speak	er.	🗌 Metadata	Input	Output	
Hardware to Add			Enabled	Nam	0				
attile Stark - 172.25	81.104								
- Hardware:				Tattle	SMART+ SPI	EED (172.25.81.104	9		
Camera port 1	1:			Tattle	SMART+ SPI	EED (172.25.81.104	4) - Camera		

- 12. Select the group where the camera will be added to from the "Default camera group" list on the left.
- 13. At the end of the wizard, the camera is listed in the selected group.



6. Send transit events to XProtect for plugin visualization

This Section describes the configuration required on Milestone XProtext Management Client and on Tattile Stark cameras in order to receive and visualize generated events in Tattile Stark Plugin.

In order to sent transits to Milestone XProtect and visualize them in the plugin, the cameras must be paired with XProtect as StarkDriver. Follow Pairing the camera with XProtect VMS for procedure details.

6.1. XProtect Smart Client configuration

In order to successfully receive transit events from Tattile cameras, Milestone XProtect Management Client must be configured to receive Analytics Events named "StarkEvent" on port 9090.



Notice: The following Sections describe how to perform these steps on the Milestone XProtect Management Client 2023-R3.

Please consider it as a guideline which may differ from the procedure required on other XProtect releases.

6.1.1. XProtect Events configuration

Transits generated by the camera and sent to the Milestone XProtect Management Client are managed as Analytics Events. Following steps describe configuration of Analytics Events in the Milestone XProtect Management Client.

- 1. Open the XProtect Management Client and authenticate to the system.
- 2. Select the menu "Tools" > "Option".



- 3. Select the tab "Analytics Events" and apply the following configurations, as in the image:
 - a. Enable the Analytics Events
 - b. Set the port to the default 9090 (this is the port used by the camera to send transits).

Options						×
External IDP	Evidence Lock	Audio Messages	Privacy settings	Access Control Settings	Analytics Events	Custe < .>
Analytics ev Enabled Port: 9090	ents d					
Security Events allo	wed from: work addresses ed network address Address	ses:				
	Import					
Hel	lp			ОК	Canc	el

4. In the window "Site Navigation, choose the "Analytics Events" section under the "Rules and Events" group and select the option "Add New" by right-clicking on it.





5. In the "Analytics Event" window on the right, modify the name of the Event as "StarkAlarm-TattilePlugin", as in the image below and save the configuration.

Analytics Events Information
Name
Name.
Stark Event-TattilePlugin
Description:

6.1.2. Alarms configuration

Following steps describe how to configure Alarms to manage configured Analytics Events.

- 1. Open the XProtect Management Client and authenticate to the system.
- 2. In the window "Site Navigation, choose the "Alarm Definition" section under the "Alarms" group and select the option "Add New" by right-clicking on it.

Milestone XProtect Management Client 2023 R3		
File View Action Maintenance Tools Help		
🗆 10 o 🌨 Al		
Site Navigation	Alarm Definition Information	
Microphones 🔨 🖃 🛃 Alarm Definition	ons Alarm definition	
🛛 🔮 Speakers 🔤 🛃 Stark Even	nt Enable:	
- 👻 Metadata - 🧏 Vega Alam	m Chable.	
o Input	Name:	
😯 Output	Instructiona:	
e 🖳 Client	instructions.	
Smart Wall		
View Groups		
Smart Client Profiles	Ingger	
Management Client Profiles	Triggering event:	
Matrix		
Pulse Rules		
- M Time Profiles	Sources:	
- Notification Profiles	A REPORT OF A	
	Activation period	
	Time profile:	
	O Event brendt	Study
	C Eveni based.	Start.
🖻 🐗 Security		Stop:
🧶 Basic Users	Мар	
🖻 🕥 System Dashboard	An alarm only appears on the smart r	nap if at least one source of the alarm is a camera, an input device, or a microphone.
Current Tasks		
System Monitor	Alarm manager view:	 Smart map
System Monitor Thresholds		0.11
Evidence Lock		(e) Мар
Conliguration Reports	Related map:	
Matadata Line		
Metadata Search	Operator action required	
Access Control	Time limit:	
Incidents	Events triggered;	
- 3 Incident properties		
E-E_ Transact	Other	
- [] Transaction sources	Related cameras:	
Transaction definitions	leitel alarm europe	
😑 🤵 Alarms	initial diditi owner.	
	Initial alarm priority:	
Sound Se 21 Refresh E5	Nam category:	
<	Events triggered by alarm:	

- 3. Configure the new Alarm as follows:
 - a. Enable the alarm.
 - b. Set the Name as "StarkEvent-TattilePlugin".



- c. In the "Trigger" section
 - i. choose "Analytics Event" as "Triggering Event" and the select "StarkEvent-TattilePlugin" in the second menu.
 - ii. click on the Select button and, from the group of interest, add the cameras (one or more) that will send events to XProtect.
- d. In the "Activation period" set "Time Profile" as Always.
- e. In the "Operator action required" set "Time limit" as 1 minute.
- f. In the "Other" section
 - i. click on the Select button and, from the group of interest, add the cameras (one or more) that will send events to XProtect (those already added in the "Trigger" section).
 - ii. set "Initial alarm priority" as High.
 - iii. enable the "Alarm assignable to Administrators" option.

In the following image, the complete configuration of an Alarm is reported.

🔷 Miles	one XProtect Management Clien	nt 2023 R3	1			- 0
File Vie	v Action Maintenance Tools	Help				
89	🕜 🗢 🛍					
Site Navig	ation -	, 4 X	Alarm Definitions	 Alarm Definition Information 		
	P Microphones	^	🗉 🧶 Alarm Definitions	Feable	B	
	🔮 Speakers		Stark Alarm	Childre.		
	Thetadata		- Cg. vega Hearm	Name:	Stark Alam	
	• ore input			Instructions:		
	Client					
	Smart Wall					×
	Control Contro			Trigger		
	Smart Client Profiles			Triggering event:	Analytics Events	~
	Matrix	- 10			Dark Errort	
0.0	Rules and Events	- 11			SARETOR	
	📋 Rules	- 11		Sources:	Tattle VEGA_53 (192.168.88.230) - Camera 1	Select
	Time Profiles	- 11		Activation period		
	Nothcation Profiles			Tree onfile:	Abazon	v.
	Analytics Events	- 11				
	Seneric Events	- 11		O Event based:	Start:	Select
	🖧 Webhooks	- 11			Stop:	Select
	Security	- 11		Man		
	Pario Lleare	- 11		Non-		
	System Dashboard			Alam manager view:	O Smart map	
	Current Tasks				Map	
	System Monitor	- 11		Related man:		×
	System Monitor Thresholds	- 11		Construction of the		
	Configuration Reports			Operator action required		
-8	Server Logs	- 11		line int:	1 minute	×
6.9	Metadata Use			Events triggered:		Select
1	💐 Metadata Search	- 11		Other		
	Access Control	- 11		Polard amount	T-80-10723-02-020-020-02-02-02-02-02-02-02-02-02-0	Polost
	- Millionarities	- 11		Helated carterias.	Table VESP_33 (152: 160:06:230) * Carriera 1	Jelect
68	Transact			Initial alarm owner:		~
	Transaction sources	- 11		Initial alarm priority:	1: High	×
	Transaction definitions			Alarm category:		~
₽.9	Alarms	- 11		Contractory of the street		Polast
	Alarm Data Settions	- 11		Evenus ungyered by alam.		Jelect
	Sound Settings	~		Auto-close alarm:		
<		>		Alam assignable to Administrators:		

4. Save the Alarm.



- 5. In the window "Site Navigation", choose the "Alarm Data Settings" section under the "Alarms" group:
 - a. set the properties in the "Alarm List Configuration". Following image shows the complete configuration:

Configuration							
Alarm Data Levels	Alam Data Levels Alam List Configuration Reasons for Closing						
Available columns Alam Category Level Category Name Location Object Priority Name Rule Server Name Type	5:	Selected columns: ID Image Message Owner Priority Level Source State Level State Name Tag Time Vendor >					

b. disable the reasons for closing in the "Reason for Closing" tab, as below:

Configura	tion			
Alarm Data Levels Alarm List Configuration		Reasons for Closing		
Enable				
Define re	asons:			
	Reason			

6. Save the configuration.

6.2. Camera configuration

Tattile Stark cameras have to be configured in order to send generated transit events to XProtect VMS. Following steps describe how to complete the minimum camera configuration required to send transits.

- 1. Go to the Messages Section of the Output Application.
- 2. Click on "Add" to create a new message.



- Paste in the Message field the XML reported in "Camera output message" on page 24 and define the Alias of the Message (for example "Milestone XProtect Plugin Message"), which will be used in the following steps.
- 4. Save the created message.

	MESSAGE LIST > DETAILS STANDARD MILESTONE MESSAGE BACK SAVE
Events handling	GENERIC
Messages	Alias of the message template. The Alias Alias and the control of the Alias Alias of the message template. The Milestone XProtect Plugin Message
Actions	template where required.
Events	CONTENT
Advanced customization	provide easy access to all the available tags.
Overlay	<pre></pre> Content xml version="1.0" encoding="utf-8"? <dnplvticevent xmlns="uurp.milestone-systems" xmlns:i="http://www.w3.org/2001/XMLSchema-instance"></dnplvticevent>
Formatters	Consideration of the second se
Tag Types	<pre><id>000000000-0000-0000-0000-000000000000</id></pre>
Tags	<pre><type>LprEvent</type> </pre>
Virtual Tags	<pre></pre>
Virtual Events	<pre><source/> (Name>\$(DEVICE ID ETHERNET) </pre>
Calendars	
Schedules	<pre></pre>
	<location>-</location>
	<vendor></vendor>
	<name>Tattie Sri</name>
	<![CDATA]</td>
	OPTIONS
	Configure the line break type I the Line break type
	content consists of more than one UIIIX (LF)
	TORE T

- 5. Go to the Actions Section of the Output Application.
- 6. Click on "Add" button to create a new Action.
- 7. Configure sending of a http post action to the XProtect server on port 9090 and select as Message to be sent the previously created XML message (in the example Milestone XProtect Plugin Message).
- 8. Define the Alias of the action (for example, Milestone XProtect Plugin Action).



9. Save the created action.

	ACTION LIST > DETAILS MILESTONE PLUGIN ACTION		BACK	SAVE
Events handling	GENERIC			^
Messages	Configure the alias and the type of Alias - action to be executed. The alias is Miles	stone XProtect Plugin Action		- 1
Actions	required.	transfer HTTP 👻		- 1
Events	DESTINATION			
Advanced customization	Set the destination endpoint and the Metho	f v Protocol Host 172.25.90 v 9090		- 1
Overlay	Access the tags by typing "\${}"; auto-			- 1
Formatters	completion is available.			
Tag Types	AUTHENTICATION			- 1
Tags	username and password required by	•		
Virtual Tags	the remote.			
Virtual Events	CONNECTION Provide options to enable insecure			_
Calendars	connections (not suggested) and	tion		
Schedules	delays.	e		
	Configure the optional header fields. Add a key and a value for eac	h field.		
	Key Value	OGA		
	N	o data		- 1
	BODY			
	Configure the type and content of the data to send. Access the tags by typing "\${}"; auto-completion is	sage ▼		
	available.			

- 10. Go to the Events Section of Output Application.
- 11. Click on "Add" and create a new event of type "Transit End" with its Alias.
- 12. Add to the list of actions to be executed the previously created action.
- 13. Save the created Event.

	EVENT LIST > DETAILS MILESTONE EVENT	BACK	SAVE
Events handling	CURRENT EVENT IS ENABLED		DISABLE
Messages Actions Events Advanced customization Overlay Formatters	Centeric O Configure the alias of the Event and the event type that will trigger the listed actions. Actions Add the configured actions to execute for the current event. You can sort the actions and define an optional fallback action. Please be aware that network bandwidth may delay the execution of other action Centeric actions in the order set below	s.	
Tag Types Tags Virtual Tags Virtual Events Calendars Schedules	Main action Fallback action Buffering criteria Image: Milestone XProtect Plugin Action NONE FILTERING Execute action only if predicates below are verified, based on mode value. Enabled	1	X



6.2.1. Camera output message

```
<?xml version="1.0" encoding="utf-8"?>
<AnalyticsEvent xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:milestone-systems">
    <EventHeader>
        <ID>0000000-0000-0000-0000-000000000000</ID>
        <Timestamp>${VIRTUAL.IS08601 TIMESTAMP}</Timestamp>
        <Type>LprEvent</Type>
        <Message>StarkEvent-TattilePlugin</Message>
        <CustomTag>TagFromXML</CustomTag>
        <Source>
            <Name>${DEVICE.IP_ETHERNET}</Name>
        </Source>
    </EventHeader>
    <Description>Transit analytics event</Description>
    <Location>-</Location>
    <Vendor>
        <Name>Tattile Srl</Name>
        <CustomData>
            <![CDATA[
<IMAGE_OCR>${TRANSIT.CH0_IMAGE}</IMAGE_OCR>
<IMAGE_CTX>${TRANSIT.CH1_IMAGE}</IMAGE_CTX>
<PLATE_STRING>${TRANSIT.PLATE_TEXT}</PLATE_STRING>
<PLATE COUNTRY>${TRANSIT.PLATE COUNTRY}</PLATE COUNTRY>
<PLATE_REGION>${TRANSIT.PLATE_REGION}</PLATE_REGION>
<SPEED>${TRANSIT.ESTIMATED_SPEED}</SPEED>
<CLASS_STRING>${TRANSIT.VEHICLE_CLASS}</CLASS_STRING>
<SITE ADDRESS>${DEVICE.SITE ADDRESS}</SITE ADDRESS>
<LATITUDE_STRING>${DEVICE.GPS_LATITUDE}</LATITUDE_STRING>
<LONGITUDE_STRING>${DEVICE.GPS_LONGITUDE}</LONGITUDE_STRING>
<PLATE COLOR STRING>${TRANSIT.PLATE COLOR}</PLATE COLOR STRING>
<VEHICLE COLOR STRING>${TRANSIT.VEHICLE COLOR}</VEHICLE COLOR STRING>
<VEHICLE_BRAND_STRING>${TRANSIT.VEHICLE_BRAND}</VEHICLE_BRAND_STRING>
<VEHICLE_MODEL_STRING>${TRANSIT.VEHICLE_MODEL}</VEHICLE_MODEL_STRING>
            ]]>
        </CustomData>
    </Vendor>
</AnalyticsEvent>
```



7. Plugin visualization and filters

This Section describes visualization of transits in the Tattile Stark Plugin integrated with the Milestone XProtect Smart Client. For proper visualization of transits in the plugin:

- the camera must be paired with XProtect as Stark Driver (follow "Pairing a camera with Milestone XProtect as Stark Driver" on page 13 for procedure);
- Milestone XProtect Management client must be configured to accept events from the cameras (see "XProtect Smart Client configuration" on page 17);
- The camera must be configured to send transits to XProtect Smart Client in the expected plugin format (see "Camera configuration" on page 21);
- Camera license must be valid.

Tattile Stark tab in Milestone XProtect Smart Client has the following appearance.

Milestone XProtect Smart Client											-	. 0	×
Main views tab Exports	Search	Alarm Manager	Incid	ents	Tattile	Stark	System Monito	r	+	A Not secure	16:09:03	h 2	. :
											Tattile Stark	Setup	•
16:06:18 Thank you for using this trial license to demonstrate or eva	aluate the XProtect video management softwa	are. The trial license expires on	18/01/2025. To fully li	icense the product, plea	se contact your res	eller or find one on https:/	/www.milestonesys.com.						×
16:04:15 XProtect Smart Client is not performing optimally because	you are using Remote Desktop Connection.	fo improve performance, restar	t XProtect Smart Clier	nt on your local comput	er.								×
Cameras: Tattile VEGA_53 (192.168.88.230) - Camera	From: 07/02/2024 16:0	06 🔲 🕆 🛛 To: 07/03	3/2024 16:06	🔽 🔽 Realtime v	iew	Ø	7 Hidden Columns	" 🖄 Ca	imeras	Clear All	Select All		
Tattile VEGA_53 (192.168.88.230) - Camera	C License plate number	Camera Name	Vehicle Brand	Vehicle Class	Vehicle Model	Image OCR In	nage Context Tin ^		Tattile BASIC_M Tattile BASIC_M	IK2 (172.25.99.2) - Car IK2 (172.25.99.60) - Ci	mera amera		
	ES	Tattile VEGA_53 (192.1	Mercedes	CAR	A-Class		03/	anel	Fattile SMART+ Fattile SMART+ Fattile VEGA_53	· 85 (172.25.99.85) - Ci · SPEED (172.25.81.10 3 (192.168.88.230) - Ci	amera)4) - Camera amera		
	91 <u></u>	Tattile VEGA_53 (192.1	vw	CAR	T-Roc		//=/ 						
	DC —	Tattile VEGA_53 (192.1	Renault	CAR	Megane	/ / V	/ . /	X CAR CAR CAR LORI LORI	with traile RY RY with trail	Clear All R ILER	Select All		
/ /	ар	Tattile VEGA_53 (192.1	вмш	CAR			<i>i</i> / / 03/	MOT UNK MOT MOT VAN VAN	ORCYCLE-MO NOWN ORCYCLE ORBYKE ERS VY TRUCK	TORBYKE			
	EG	Tattile VEGA_53 (192.1	Ford	CAR	Fiesta		() 	⊻ LIGH ✓ TRU Vehicle Vehicle	IT TRUCK CK Brand: Modet				
UCC/Deal line from the	GE	Tattile VEGA_53 (192.1	вмw	CAR		/=/=/	/ = \ 03/	Country Plate co	· ALL			_	
	FH	Tattile VEGA_53 (192.1	Audi	CAR	A1) / 03/	Vehicle	Color: ALL				

The three main components of the visualization are shown in read, green and orange.

• The Live stream area shows the Live streaming from the camera seletected from the Tab.



Info: Live streaming is available only on specific Stark camera models, as described in "Camera prerequisites" on page 8. Moreover, if available, it has to be enabled on the camera and configured as H264.

- The **Events** area reports the events received from the paired cameras. Events can be shown in live visualization or based on a specific time interval configured using the date picker on the top of the section.
- The Filter area allows to apply filter to the values of specific data generated by the cameras. This section also allows to visualize the status of all the cameras paired with XProtect using the plugin (so as Stark Driver).



7.1. Transit visualization

Considering the Events area, each row represents a transit event received from one of the paired cameras. The metadata to be visualized for each transit can be configured by clicking on the "Hidden columns" button in the top left portion of the tab, where all the available metadata are listed and it is possible to select / unselect columns to be visualized according to the need.

The date picker present in the top portion of the tab allows to filter events by date and time. In case the "Realtime view" checkbox is selected, only realtime events will be visualized.

By double-clicking on one row, a detail window appears with a more detailed visualization of the metadata of the selected event, as in the following Image.



Following table reports all the metadata can be visualized for each recorded event:

Element	Description
License Plate Number	Read license plate of the transit
Camera Name	Name of the device (as configured during the pairing)
Latitude	Latitude of the camera (only if GPS is present onboard)
Longitude	Longitude of the camera (only if GPS is present onboard)
Country	Recognized country of the plate
Region	Recognized region of the plate
Plate Color	Recognized color of the plate
Vehicle Color	Recognized vehicle color (only if BCCM is available on the camera)
Vehicle Brand	Recognized vehicle brand (only if BCCM is available on the camera)
Vehicle Class	Recognized vehicle color (only if BCCM is available on the camera)
Vehicle Model	Recognized vehicle color (only if BCCM is available on the camera)
Speed	Estimated speed of the vehicle
Image OCR	Acquired transit image from the OCR channel
Image Context	Acquired transit image from the overview channel (only if the camera has the overview channel)
Timestamp	Transit timestamp
Site Address	Site address, as configured on the camera



7.2. Camera status monitoring

In the bottom right area of the plugin interface, it is possible to manage the connected cameras and to visualize their status in relation to the license present on the cameras (defined in "Camera prerequisites" on page 8), as in the example image below.



For each camera listed, an icon shows the status of the camera. Moreover, by passing with the mouse over one camera, additional details can be visualized (eg. license expiration date).

Possible states for a camera:

- Camera license valid.
 Invalid camera license (expired or not valid).
 The camera is offline; no information available.
 Camera license expiring in less than 15 days.
- License status requested to the camera; waiting for the response.



7.3. Events filtering

The right portion of the Tattile Stark tab allows to filter some of the transit metadata.



By choosing one or more filters, only those transits verifying the selected filters will be shown.

Following Table reports the fields which can be filtered.

Filter	Description
Cameras	Define the cameras whose events will be shown in the Event area. Events received from unselected cameras won't be shown but will be saved in Milestone database.
Vehicle Classes	Define the vehicle classes of interest by selection
Vehicle Brand	Define the vehicle brand of interest by writing it in the box
Vehicle Model	Define the vehicle model of interest by writing it in the box
Plate Number	Substring of the plate number of interest
Country	Choose the country of interest
Plate Color	Choose the plate color of interest
Vehicle Color	Choose the vehicle color of interest



8. Troubleshooting

This Section describes common troubleshooting for the pairing, configuration and license management.

8.1. Driver installation

During driver installation (or re-installation), following message can occur.

🗐 Se	tup - 1.0.0.	Orelease/1.0.0 —		\times
Ins	t alling Please wait (while Setup installs MIP-STARK-Tattile on your computer.		গ্রা
				_
	Setup		×	
	1	In order to install Tattile STARK driver plug-in you need to Milestone Recording Server.	o stop	
			ОК	
			Car	ncel

For Driver installation, the XProtect Recording Server has to be stopped. Follow the steps to temporarily stop the service:

- 1. Click to show hidden icons into the Windows tray area;
- 2. Right-click on the Recording Server icon;
- 3. Select "Stop Recording Server service", as in the following image;





4. Wait for the icon to turn red:



- 5. Launch the Tattile Stark Plugin installer and complete the installation;
- 6. At the end of the installation, a message informs that the XProtect Recording Server can be started.





8.2. Client installation

During client installation (or re-installation), following messages can occur.

🜗 Setup - 1.0.0.0release/1.0.0	_		\times
Preparing to Install Setup is preparing to install MIP-STARK-Tattile on your computer.			<u>র্ছা</u>
The following applications are using files that need to be updated recommended that you allow Setup to automatically close these a After the installation has completed, Setup will attempt to restart applications.	by Sel pplicat the	:up. It is ions.	
Client Component		1	
<		>	
Automatically close the applications			
O Do not close the applications			
Back Next		Ca	ncel
Setup - 1.0.0.0release/1.0.0			\times
Installing Please wait while Setup installs MIP-STARK-Tattile on your computer.			থ্য
Setup		×	
In order to install Tattile STARK Client plug-in you na close Milestone Client.	ed to		
In order to install Tattile STARK Client plug-in you n close Milestone Client.	ed to		

- 1. Close the XProtect Smart Client.
- 2. Restart the installer.



8.3. License status update

In case a camera without a license is paired with Milestone XProtect or if the license of a paired camera has expired, it can be necessary to update a new license on the camera.

Once the new license is present on the camera, it is necessary to update the license status on XProtect. Follow the steps:

- 1. Open the XProtect Management Client.
- 2. Select the Stark camera of interest among those listed in the recording server.
- 3. Click on the "Update hardware" button in the "Info" tab present on the right panel.
- 4. Follow the wizard to complete the update.

Once the procedure is completed, the updated license status will be available both in the "Settings" tab and in the XProtect Smart Client.