6SS IVA[®]- Face Mask Detection User Guide





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1. INTRODUCTION

6SS Face Mask Detection uses existing IP cameras and CCTV cameras combined with Computer Vision to detect people without masks. Face Mask Detection Platform uses Artificial Intelligence Network to recognize if a user is not wearing a mask.

Face Mask Main Features

- Automatic detection of people who are not wearing face masks
- Supports all camera types that are compatible with Milestone VMS (approximately 8351)
- Can work with any existing camera without the need of dedicated cameras
- Integrated with Milestone XProtect Corporate, Expert, Professional+, Express+ & Essential+
- Accessed from the Smart Client interface
- Integrated with Milestone Map functionality for visual and audio alerting including the camera location
- Integrated with 6SS Get Face® Facial recognition system
- Multi-Channel recognition
- Report generation
- SMS alerting to Administrators and violators



2. GETTING STARTED

2.1. System Requirements

- Windows OS 8.1 or above
- Microsoft SQL Server® 2012 SP1 or above
- Milestone XProtect Management Client (2016 or above)
- Milestone Smart Client (2016 or above)
- 6SS-Face Mask App
- 6SS-Face Mask Plugin

2.2. Quick Start

- Milestone XProtect Management client already installed.
- Milestone XProtect Smart client already installed.
- First run 6SSFaceMaskApp.msi Setup.
- Then run 6SSFaceMaskPlugin.msi Setup.

2.3. System Introduction

6SS IVA[®] Server is in a continuous listening state for all video analytics queries streamed from Milestone Recording Server which in turn receiving multi-streams from the connected IP and CCTV cameras. The processed metadata is then stored in SQL Server database for later viewing by the user in Milestone XProtect Smart Client and displaying alarms when No-mask is detected.



3. 6SS IVA[®]- Face Mask Detection Setup

3.1. Face Mask Application Setup

First open the copied folder received and double click on 6SSFaceMaskApp.msi to run the setup wizard.

🔒 🛃 🔁		Manage	Setup			1000	D X
File Home Share	View	Application Tools					~ (
$\leftarrow \rightarrow \cdot \uparrow \square$ > Set	up			~	5	🔎 Search Setup	
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🖈 Quick access	🛃 6SSF	aceMaskApp.msi		5/15/2020 5:14 PM	1	Windows Installer	690 KB
🐉 6SS Dropbox	🔂 6SSF	aceMaskPlugin.msi		5/15/2020 5:15 PM	1	Windows Installer	55,732 KB
o Creative Cloud Files							
OneDrive - 6SS							
This DC							
Petwork							
items 1 item selected 6	OO VP						Rea I

FIGURE1: OPEN FACE MASK SETUP LOCATION

6SS Mask Detection wizard opens, click Next to continue.

Welcome to the 6SS	Mask Detectior	n Setup Wizar	d
The installer will guide you through computer.	the steps required to instal	1655 Mask Detection (on your
WARNING: This computer progran Jnauthorized duplication or distribu	n is protected by copyright tion of this program, or any secuted to the maximum e	law and international tre portion of it, may result xtent possible under th	eaties. . in severe civil e law.
or criminal penalties, and will be pro		a non se a su de la construction de	

FIGURE 2: FACE MASK APPLICATION WELCOME PAGE



歸 6SS Mask Detection	_		×
Specify SQL Server Name			
This dialog allows you to specify SQL Server name			
SQL Server Name			
Cancel < Bac	k	Ne	ext >

FIGURE 3: SPECIFY SQL SERVER NAME

Choose the installation folder path where 6SS Face Mask Detection app will be installed and click Next.

🗑 6SS Mask Detection	<u>199</u> 0		×
Select Installation Folder		[R
The installer will install 6SS Mask Detection to the following fold	ler.		
To install in this folder, click "Next". To install to a different folde	er, enter it below or (click "Brow	se".
<u>F</u> older:			
C:\MaskDetection\		Browse	į.
		Disk Cost	
Install 6SS Mask Detection for yourself, or for anyone who us	es this computer:		
Just me			
	(Deels	black	

FIGURE 4: FACE MASK APPLICATION INSTALLATION FOLDER



Click Next to start the installation. Once successfully installed click Close.

🛃 6SS Mask Detection			<u>1990</u> 5		×
Confirm Installation					5
The installer is ready to install 6SS Ma	ask Detection on your	computer.			
Click "Next" to start the installation.					
	Cancel	< Back		Ne	ext >

FIGURE 5: CONFIRM FACE MASK APPLICATION INSTALLATION

3.2. Face Mask Application

Open 6SS Mask Detection app previously installed, specify SQL server address and click Connect.

C	The second second market of	
Server address:	http://localhost/	
Authentication:	Windows authentication (current user)	3
User name:	6SS\User	8
Password:		

FIGURE 6: CONNECT TO SERVER

In the first tab, the added cameras (if any) defined under Cameras tab will be listed. Click **Run** to start the mask detection process on the related cameras. Check **Enable Alarm** in case you need to receive alerts when no-mask face is detected.



🛃 6SS Mask Detection	, <u> </u>		×
Mask Detection Cameras License			
Camera			
Mask Detection - Camera 1			
	÷		
Enable Alarm Time Processing (ms)	Run	1	
	h		

FIGURE 7: MASK DETECTION TAB

Under Cameras tab, specify the cameras dedicated for Face Mask Detection, update or delete camera when required, or even change the camera status (enable/disable).

ction (Cameras	License						
Server	Name	6SS	Nb. of Cameras	2	Save SQL			
					Add Camera	Update Camera	Delete Camera	
	Name						Status	
•	Mask De	etection - Cam	era 1					
1	Mask De	etection - Cam	era I			E.		

FIGURE 8: CAMERAS TAB

A license is needed for the mask detection engine to work. For this purpose, click "Generate the requested license" button and send the generated file to <u>Tech.t@6ss.co.</u> Once you receive the license file, place it in the specified path highlighted in green as shown in the below figure.



🖳 6SS Mask Detection		– 🗆 X
Mask Detection Cameras License		
Generate the requested license		
Expire Date :	08/03/2020 00:00:00	
License Path :	C:\MaskDetection\6sslcs	

FIGURE 9: LICENSE TAB

3.3. Face Mask Plugin Setup

Double click on the second installer 6SSFaceMaskPlugin.msi (Figure 2), and click Next to continue. Choose the installation folder and click Next.

6SS Mask Detection		<u> </u>		>
Select Installation Fo	lder			5
he installer will install 6SS Mask De	etection to the following folde	f.		
o install in this folder, click "Next".	To install to a different folder	, enter it below c	or click "Brov	vse".
Folder:				
nstall in this folder, click "Next". To older: C:\Program Files\Milestone\MIPPlu;	Plugins\MaskDetection\		Browse	21
			Disk Cost.	
Install 6SS Mask Detection for yo	urself, or for anyone who use	s this computer:		
💌 Just me				

FIGURE 10: FACE MASK PLUGIN INSTALLATION FOLDER



1

😽 6SS Mask Detection		9			\times
Installation Complete)				5
6SS Mask Detection has been suc	cessfully installed.				
Click "Close" to exit.					
DI				5	
Please use windows Update to ch	eck for any critical updates	to the INET Fra	mework	ς.	
		D I		C1	-
	Lancel	< <u>B</u> ack		Lic)se

FIGURE 11: FACE MASK PLUGIN INSTALLATION COMPLETE



4. Smart Client Mask Detection Plugin

Open Milestone XProtect Smart Client to view face mask live detection after selecting the dedicated camera from the button **Select Camera** in the bottom right corner, then the button will be renamed as the camera's name. The list of captured face mask will be shown in the right panel.



FIGURE 12: FACE MASK LIVE DETECTION

Click **Mask Detection** tab to view the list of all captured face mask, along with the related camera, captured date, status (mask/no mask) and score number as shown in Figure 14Figure 13.

Use the filters in the right panel to filter the list as convenient and click on "Refresh" button. You can as well generate an excel/pdf file for later investigation.



Milesto	ne XProtect Smart	Client									5/20/2	2020 9:19:08	AM —	- ×
Live	Playback	Search	Alarm Manag	er ወ	Mask Detection	System Monit	or						+ (0 9 v
													Setup	\boxtimes
Mask Dete	ction													
Camera			Status	Score	Date	Im	ige	<u>^</u>						
Mask Det	ection - Camera I		No Mask	99	5/19/2020	11:49 AM	2	Camera Status		×	Score	0		÷
Mask Det	ection - Camera 1		Mask	99	5/19/2020	9 11:49 AM		From	05/01/2020 00:00:00		тш	05/20/2020 2	3:59:59	*
Mask Det	ection - Camera 1		Mask	98	5/19/2020	9 11:49 AM	10 100s		Refresh		Exc	el	PDF	
Matk Det	ection - Camera 1		Mask	97	5/19/2020) 11 : 48 AM			1.0	HC.		204	T	TIME
Mask Det	ection - Camera 1		Mask	91	5/19/2020	11:48 AM	Pa				8			
Mask Det	ection - Camera I		Mask	99	5/19/2020	11:48 AM		TRU	1010				÷	0
Mask Det	ection - Camera 1		Mask	83	5/19/2020	9 11:48 AM		i dan		h				11
Mask Det	ection - Camera 1		Mask	98	5/19/2020	11:48 AM	and 0024			A	P			No.
				-										

FIGURE 13: MASK DETECTION TAB

In the Alarm Manager tab, check No-mask generated alarms with map configured on the left side to indicate when an alarm is fired by showing a circle on the related analytic camera. On the right side play the video frame when the selected alarm from the **Alarms** list is generated.



FIGURE 14: ALARM MANAGER TAB