# **Visual Evolution**

Video management software comes with service support

# macula®

Macula's key integral elements work together to create a cohesive and up-to-date piece of VMS software. When it comes to modern surveillance, every detail is important, so integration with Ai, IoT sensors and Database will be taken care of. Delivering an outstanding quality performance, this video management software backed by TrueBlue Care, support inclusive phone, email, and remote support, all inclusive without additional payment. Besides, it is also available for paid TrueBlue Professional Service Onsite for enhanced peace of mind and the satisfaction of job well done.



-2GS

64 bit core

Use the full power of your hardware with macula

<b>.</b>	
1	

Failover

Continuous monitoring of the status of all servers and failover management from the central server



#### Powerful analytics tools

Applications for advanced Ai video analytics, along with face and license plate recognition

Archive replication

Advanced mirror recording with

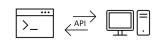
scheduled transfers ensures the

safety of your data at all times



Smart Logic

Always be in control: IoT automate your video surveillance process with the Smart Logic Event and Action



Addon APP Integrations

Combining your video surveillance with addon software integrations to 3rd party API database possibilities



## Macula Professional

To all the benefits of the Macula VMS core, proven to be high-quality and reliable, Macula Professional adds intuitive user interface and better functionality. Together with advanced features, it uses virtually any stream resolution as well as has no software limitation in remote connections from client and mobile.

#### Essentially Effective

Macula VMS is speedy, you enjoy fast live streaming, fast video archive search and playback. What's most importantly it's baked by TrueBlue Support Service.

PROFESSIONAL FEATURES

#### Video Content Analysis

Exploit the full potential of your video surveillance system with video content analysis. Not only does it improve the functionality of your surveillance, the ability to analyse large amounts of data to determine a specific pattern for the exact task, it also increases security and safety and is useful for many other areas of your enterprise, like HR and marketing.

#### **Camera Devices**

Support almost any cameras in the market, with more than 4000+ integrated models. Onvif compliance and RTSP device streaming support. As well as cameras in iPhone/ iPad, Android and video files like avi, mp4, etc.

#### Audio Devices

Support IP network audio speakers, IP audio encoder. Windows audio session API (WASAPI) devices, and computer USB audio device.

#### Affordable

Macula Professional is affordable and cost effective at only USD100 /RM400 per channel license.

#### Edge Recording

Synchronise all your data with IP device storage with ONVIF-G Profile. By doing this, even if the network connection with any camera is lost, your data will still be recorded by the camera. It will be transferred in full to your server as soon as the network connection is reestablished.

#### Maps

Complete examination of the entire installation of cameras, providing an immediate visual verification. All the alerts are integrated with the maps and can be set up so that they can be viewed on the overview as well you are able to immediately specify the location of the alarm event.

#### SCADA & I/O Devices

Connect to network I/O module to support multi sensors inputs and outputs control for automation. As well as open platform communications (OPC) from SCADA system

#### **Mobile Applications**

Use your mobile device to access live and archived streams. Trigger action like I/O via user defined buttons. Turn you mobile into a surveillance cameras.

# Smart Logic Event and Action Manager

Specify your desired outcome of your video surveillance system's operation. Determine how software reacts to any event caught on camera and how it turns them into an automated process. Send emails, activate DI/DO, interact with any other software or just bring the attention of the operator to the camera that requires their immediate action. The functionality can be used not just for a single event, but a set of sequenced events to get rid of false alarms and improve the efficiency of your surveillance system.

#### Integrations and API

Macula offers customisable integration with other software systems in the form of a software development kit (SDK), and HTTP API.

#### Web access

Get permanent access to live streaming and archive video through your web browser





MACULA ENTERPRISE

**FEATURES** 

\* All Macula

Professional features are inclusive in

Macula Enterprise

## Macula Enterprise

Macula Enterprise is a complete centralised managed surveillance ecosystem solution for enterprises of any size, even those distributed across multiple sites. The software was designed with the core of GSF HDCCTV Experience, whose quality has been proven over the last decade. This new modern software, Macula, is not only offering 64-bit speed and all the necessary tools for setting up an absolute situational alertness system aimed to respond quickly to events, but also introduces a central server governance hierarchy of all the components.

#### Centralized Managed

Single logon multi managed make management of largescale system much more effective and efficient in operation. Central server hold all user accounts, permission, asset resources, settings etc.

#### Multi Hardware

Macula enterprise asset license was installed in central server, you can assign any number of computer hardware like storage servers without limits.

#### Video Wall

Get the most out of your video wall in the control room. Macula Video Wall offers improved configuration and functionality, as well as the ability to easily manage largedisplay installations. It is vital for operating large-scale video surveillance systems, especially where the ability to easily examine the area and quickly react to alarm events is essential.

#### Advanced Health Monitoring

Keep your finger on the pulse of all of your hardware, minimising the risk of inconvenient surprises, and control the state of the whole video surveillance system.

#### Multicast

Enjoy full use of the multicast environment, transmitting to different destination devices (both servers and cameras). The functionality allows for fully integrated work with large enterprise environments using Active Directory or LDAP technology.

#### Failover

Automated recovery of your system in the event of a sudden server failure. Macula Enterprise carefully tracks operations of all servers, and, in case any of the servers has failed, it quickly activates a spare server to perform the actions that the malfunctioning server was performing prior to failing.

#### Universal PSIM and iSMS

This a remarkable integrated physical security information management with simplicity, flexibility and scalability, by add any 3rd party webpage or windows application, Ai, and IoT Sensors. Interactive all of them together under single macula monitor GUI

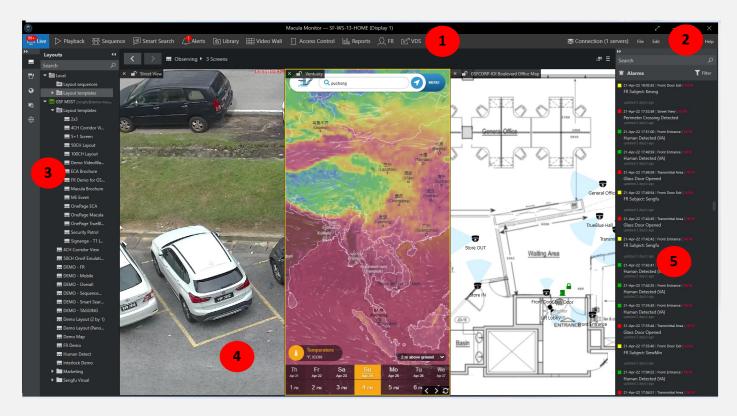
#### Organisation Hierarchy

The functionality allows the construction of a more structured hierarchy of system rights and privileges among users within an organisation. The group's administrator (or sub-admin) rights are also specific for each group, thus valid only for the chosen scope of cameras and servers.

#### Archive replication

Make your local recording server into a buffer server. In large enterprises, this allows for convenient local usage and scheduled or constant data transfer to Central Data Centre, whenever the network is available.





#### Graphic User Interface (Macula Monitor)

1: Application TAB 2: Menu 3: Navigation 4: Viewports 5: Alarms panel for live notifications.

Experience Macula monitor yourself. Download here:

Server address:

username:

password:

Contact: sales@gsfcorp.com

#### **Supported Technologies**





iOS











**ONVIF** Profile

Windows



MacOS X



HTML5

#### **Tech Specs**

		Compare Macula Versions		
App.	Features	Professional	Enterprise	
al / Support	Number of simultaneously connected channel devices	Start from 4CH to Unlimited	Start from 50CH to Unlimited	
	Licensing type	Individual server	Central server	
	Server License	Single server	Add multiple servers (no limits)	
	License upgrade option	Available	Through channel addon	
	Archive size / Storage duration	Unlimited (Based on Storage Hardware Design)		
	TrueBlue Care	Available		
ere	Phone support	2 year since last available release date		
General	Email support			
	Remote support			
	Version updates	2 year since license activation date		
	Version update plans	Yearly		

#### **Tech Specs**

		Compare Macula Versions		
App.	Features	Professional	Enterprise	
	Clients application connections Web application connections Android and iOS application connections	Unlimited		
	Local and Remote configuration management Local and Remote user management	Per each server	Centralized	
	Supported video stream resolutions Supported cameras/devices	Unlimited > 4000 models		
	Generic Device drivers: ONVIF, RTSP, PSIA, HTTP	Available		
	Analogue PTZ protocols (via RS-232,422,485 ports)	Available		
	32 and 64-bit versions	Both available		
	Video capture board support E-mail notifications	Available		
	Advanced Events & Actions (see full list below)	Available within each server	Global for all connected servers	
	Recording server auto discovery	Not applicable	Available	
	Service mode Software watchdog			
	Device auto discovery			
	Local storage support			
	Remote/network storage support Storage configuration per camera			
ole	Camera/Device side motion detector support			
	Camera/Device side VCA event support			
	Software motion detector support Motion information recording			
	Constant Video and Audio recording			
20 L	Video and Audio recording by Motion			
r / 0	Recording profiles by Schedules			
vel	User permissions per each resource/component	Available		
Ser	Device and User grouping User audit			
• •	System monitoring			
	HTTP API for third party integrations			
	Camera side multicast support			
	Interactive web application device support			
	Interactive remote application device support Network speaker/horn speaker support			
	WASAPI device support			
	Two-factor authentication (via email)			
	Cyber security dashboard			
	256-bit AES encryption support Configuration backup and restore			
	Live broadcasts (YouTube, Wawza, RTMP)	Unlimited		
	Active directory & LDAP	Unlimite	ed	
	E-maps & Geo-maps	Available within each server	Centralized	
	Recording Server failover support Archive replication/backup within multiple servers			
	Video Wall support	Not available	Available	
	Organizations hierarchy support	NOT available		
	Remote software upgrade			
	Edge recoding support (for ONVIF Profile G devices)			
	Support for Digital inputs (please refer link)	Available		
	Support for Digital outputs (please refer link)			
	Client application multicast support			
	Software VCA support (additional licensing for analytics)			
Application (APP) Addon support YES: V		YES: VDS, LPR, Face, Access Control, 3rd Party Ai, etc		

#### **Tech Specs**

		Compare Macula Versions		
App.	Features	Professional	Enterprise	
/ents	Central server connected			
	Central server disconnected	Not available	Available	
	Global event			
	Disk excluding	Available		
	Fallback activating			
	Motion			
	Motion started			
	Motion stopped			
	Recording error			
nar	User button clicked			
Sn	Video lost			
	Video restored			
	Digital input			
	VCA event (edge/server-side)			
	Scheduled event			
	VDS addons app data event / value			
	Activate global event	Not available	Available	
	Pop up an object on video wall display	NOT AVAIIADIE	Available	
	Generate alert for main stream (for alert-based recording)			
	Generate alert for sub stream			
	Pop up an object on screen (channel/map/layout)			
	Set condition			
	Unset condition			
ns	Write to application log			
ctions	Write to audit log			
	Activate main stream recording profile	Available		
 <u>v</u>	Activate sub stream recording profile			
Smart Logic : A	Send email			
ц Ч	Send email with a snapshot			
nar	Run program			
Sn	Activate PTZ preset			
	Control digital input			
	Highlight object on map			
	Send HTTP request			
	Send SNMP trap			
	Create archive bookmark with a user acknowledgement option			
	Send event to client: Display event in Alerts			
	Send event to client: Display event in Notification panel			
	Send event to client: Display a Warning message box			
	Send event to client: Trigger audio notification			
	Create archive bookmark with a user acknowledgement option Send event to client: Display event in Alerts Send event to client: Display event in Notification panel Send event to client: Display a Warning message box			

#### **Tech Specs**

		Compare Macula Versions	
App.	Features	Professional	Enterprise
	32 and 64-bit versions	Both availa	ble
	Server connections	Unlimited	d
	Live video streaming		
	Live video sub stream support	Unlimited	
	Number of supported displays		
	Instant playback		
	Archive forward and backward playback		
	Playback speed controls: regular, slow and fast		
	GPU decode live video		
	Export timelapse video		
	Archive Sequence search		
	Archive Smart search		
	Build-in and custom Layouts		
	Layout management		
	Layout sequences PTZ, Iris and focus control		
	PTZ, Iris and rocus control PTZ presets		
Clien	PTZ tours		
	Digital PTZ	Available	
	Fisheye and Panomorph dewarping		
	Motion detection status and overlay		
	Multiscreen setup		
	Alerts		
	Export Snapshot from live view and archive		
	Video export from archive		
	Export Library		
	Operation modes: Always on top, Exclusivity and Locked		
	Advanced Information about live video stream		
	Video maintain aspect ratio mode		
	USB Joystick Support		
	Archive Bookmarks		
	Client application security settings		
	Client application UI color configuration		
	User buttons	Available	
	Shared Layouts		
	E-maps & Geo-maps		
	Visual data support	A	
	Archive Portable player	Available	
	Server connections	Unlimited	u
٩	H.264 streaming to Web and Mobile applications Live video sub stream support		
٧e	Up to 6 cameras per single live view for Mobile apps.		
Mobile and Web	Up to 4 cameras per single live view for Web application		
aŭ			
Ū.	Hardware GPU utilization for Mobile application Custom view layouts		
bil	Two-way audio support	Available	
9	PTZ control		
	PTZ presets		
	Archive playback		
	Save snapshots		
	Google Chromecast support		
	Video & audio streaming from mobile devices		
	Mobile App Push Notifications		



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