



Applications

- Video and audio server
- IVA server
- Video and audio recorder
- Public address server

Core features

- Hybrid solution for IP and analog video and audio inputs
- High resolution IVA using more than 25,000 detection cells
- Embedded pseudo 3-D IVA algorithms
- Multiple simultaneous IVA alarms per channel
- No central server
- Meshed architecture - no single point of failure
- Full configuration and operation of the entire system from any unit
- Automatic control centre cloning
- Scalable - thousands of inputs, multiple segments and sites
- Third party integration via XML Application Protocol Interface (API)
- Synchronized playback of multiple independent video clips

Description

Maestro DB is a hybrid audio and Video Management Software (VMS) with powerful Intelligent Video Analytics (IVA), optimized for outdoor security applications. The core system can run on any standard computer(s) and can integrate and interface to analog and IP video from a range of manufacturers and technologies, including HD / Mega pixel cameras.

The Maestro DB consists of a symmetrical physical layout of computers that create a unique meshed distributed architecture, which enables sharing of data, processing and storage between all units on the network. This results in high data redundancy with no single point of failure and no need for a central server.

The system is ideal for customers who need special integration with legacy or new external systems and when a tailored solution is required.

Main VMS functions

- Real time flexible video and audio matrix
- Video and audio storage - locally or remotely
- Configurable pre / post alarm recording per channel
- Synchronized playback of multiple independent video / audio clips
- Shared display area, managed simultaneously from different control points
- Alarm center and control
- Joystick controller

Markets

Maestro DB is an ideal system for sensitive critical sites that requires real-time surveillance with strong motion detection and analysis. It is the perfect solution for outdoor applications where cameras cover wide areas and data is dispersed in multiple locations, yet the entire site needs to function as a single, coherent and centrally managed data center.

Maestro DB has a proven track record in high end vertical markets that require outdoor security: military bases, government organizations, airports, seaports, mass transportation, correctional facilities, utilities, industrial sites and Safe City applications.

Growth path

The system incorporates sophisticated tools that enable modifications and changes to the functionality and operational set-up which can be executed by the System Administrator / user rather than by the manufacturer's programmers.

These tools include:

- A rich interface layer (API) – XML over TCP / IP for import and export with external systems, applications.
- A robust and tested application generator that enables the system administrator to modify the application with no need to reprogram the software.
- Sophisticated set up tools that enable fast and automated set up of highly populated sites, using wizards to apply to families and groups, etc.

State-of-the-art VMD / IVA

Maestro DB incorporates a high resolution (25,000+ cells) sophisticated VMD (Video Motion Detection); it is being continuously developed and optimized to tolerate harsh weather conditions such as wind, rain, snow, etc, and perform well in dynamic environments like sea waves, moving trees, dynamic shadows, clouds, glare, extreme daylight or poor visibility conditions.

The advanced IVA can distinguish between human objects and small animals by incorporating pseudo 3D and other algorithms; it can fuse and correlate information from several sources (cameras, radars, etc.) and even be implemented over PTZ cameras based on preset positions. It allows defining maneuvering rules and alerting in case of any unusual pedestrian or car behavior.

The IVA library includes the following main capabilities:

- Virtual fence (trip wire) around protected area(s)
- Abandoned object in a restricted area
- Crowd control
- Camera tracking (continuous or by steps)
- Support for people counting, LPR (License Plate Recognition) and face recognition
- Video stabilizer that compensates for camera vibrations

The system also supports post recording analysis for offline investigation.

Magal S³'s IVA / VMD solution processes thousands of channels around the world. The algorithms have been continuously improved for the past 20 years, putting Maestro DB on the forefront of technology.

TECHNICAL SPECIFICATIONS

PC ENVIRONMENT

- Management software - Linux®
- Workstations - Linux® or Windows®
- Graphic card - NVIDIA

COMPRESSION FORMATS

- H264 / MPEG4 (part 10)
- MPEG4
- MJPEG
- Audio: a-law 8 bit

VIDEO STREAMING PROTOCOLS

- RTP / RTSP in unicast and multicast

INPUT VIDEO FORMATS

- 1 / 2 / 4CIF
- D1
- HD (High Definition)
- Mega-pixel
- Analog (via encoders)

TESTED IP CAMERAS / ENCODERS

- Axis
- DVTel
- UDP
- SlingBox
- Mavix
- DreamBox
- And more

SUPPORTED PTZ PROTOCOLS

- Pelco P / D
- Bosch

AVAILABLE CLASSES OF OBJECTS

- Camera, monitor
- Recorder, player
- PTZ, joystick
- Dry contact (in and out)
- Fence sensor, IVA / VMD
- Users, workstations
- Virtual objects (combinations)

INTEGRATION TOOLS PACKAGES

- API - XML over TCP / IP
- Integration emulator
- C#, dot net and Java code samples
- DLL for decoding and displaying video for Windows®

VIDEO DISPLAY

- Full screen
- Matrix of 2 x 2 ... 4 x 4 and many more
- Picture in picture
- Color graphic overlay
- Pop up window on any remote PC

GRAPHIC USER INTERFACE (GUI)

- JPEG maps + icons + graphic vectors
- Zoom map window
- Objects organized in:
 - Tree bar or
 - Glass cockpit

ALARM FUNCTIONALITY

- Add bookmark
- Move PTZ into preset
- Load scenario (macro)
- Switch dry contact
- Export message via TCP/IP and Email
- Change set up

RECORDING

- Up to 128 channels per server
- Local and / or remote (DVR / NVR)
- Modes:
 - Instant
 - Continuous
 - Events
 - Pre / post alarm
 - Summary
- Panic pre alarm

PLAYBACK

- Continuous
- Alarms / events only
- Multiple channel synchronized playback
- Use mouse as pure joystick

JOYSTICK FUNCTIONALITY

- PTZ control
- Presets (save, jump)
- Lock / unlock control
- Video clip control (play, pause, FF, Rew, Zoom, etc.)
- Video clip selection
- Camera and monitor switching
- Mute alarm (s)
- Sensor activation / reset
- Conflict resolution by hierarchy

Specifications are subject to change without prior notice.