

# VMX Client – User interface

Teleste VMX system is a modular system for surveillance applications containing video streaming, transmission, switching, recording and video management. VMX Client is an interactive interface for Teleste VMX system control.



VMX Client provides the operator an interface to control system devices, components and resources. Additionally the application delivers a system configuration interface for administration.

The File Player tool is part of client component functionality. It allows operators to replay the material exported from the VMX system.

VMX Client incorporates CCTV keyboards into the client machine.

VMX Config is an integral part of VMX Client application. VMX Config provides configuration interface for system administrators.

The Client component is designed to operate in a multi-server environment according to hierarchy defined in the system configuration.

VMX Client is a scalable module. The standard Client hardware is based on a mini tower chassis (T1) supporting up to 6 monitor outputs. Alternatively the Client is also available in rack mounted mechanics.

Custom designed HW watchdog increases component reliability and greatly improves the system uptime.

# User interface

- ISO/IEC compliant MPEG-2/4/H.264 video decoding
- Low latency
- Multiple user groups
- Multi-stream support
- Unicast and multicast support
- NTP support
- Multicriteria search
- Internal communicator
- Map support
- Public/private camera switching
- List player
- Emergency mode operation support
- PTZ camera control via virtual joystick, computer keyboard from GIS map and optionally from traditional CCTV keyboard or joystick

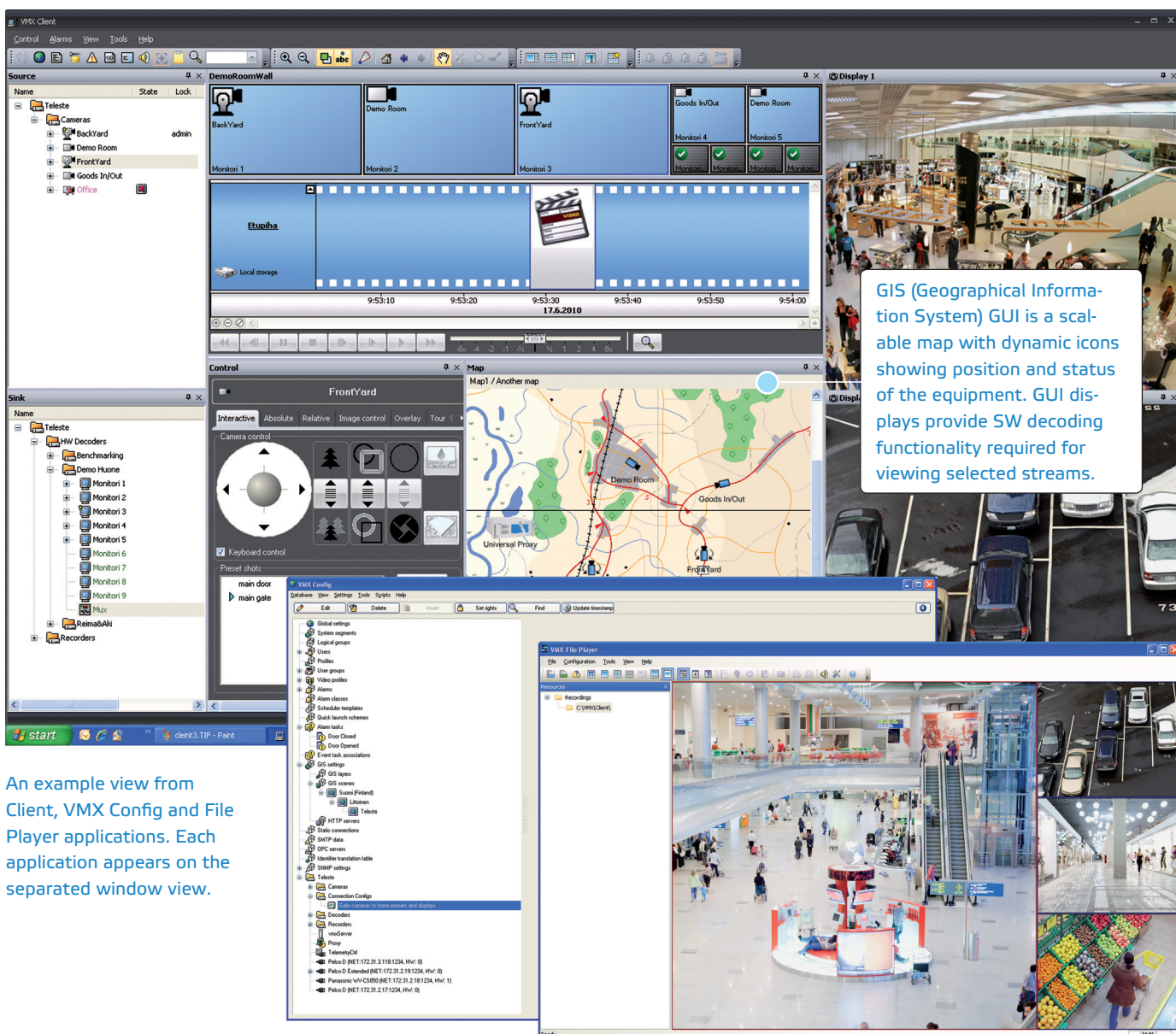
VMX Client allows the operator to control the video system using keyboard, mouse or joystick

Operators can choose between multiple GUI (Graphical User Interface) views and themes. A tree structure GUI lists all the controllable devices in Windows Explorer style, allowing easy interconnection between devices acting as, stream sources and destination devices. GUI can be flexibly customized.

VMX Client also provides the interface for recording and alarm handling. The recording interface allows for management of existing and new recordings. The alarm interface displays active and historical alarms, enables alarm filtering, and provides the information about the alarm status and affected devices.

The client application is enhanced with additional functions, such as e-mail or SMS notifications, communicator with pre-configured messages or a post-recording tool for processing recorded material.

It provides also a secure access to VMX Config tools for system configuration.



An example view from Client, VMX Config and File Player applications. Each application appears on the separated window view.

## Configuration Tool

VMX Config is an integral part of VMX Client application. It is a configuration tool for Teleste VMX System administrators. The application stores system configuration data in an SQL database. The stored information includes setup data of each system element (e.g. camera, monitor), and system module (e.g. Server, NVR).

Additionally, the application allows the administrator to configure the details of user profiles, and also setup rights and priorities to system resources.

The access based on VMX Config is independent of the physical location of the administrator – it can be used as a remote administrator tool.

The configuration application is designed to operate in a multi-host environment and can manage well distributed database systems. Multiple instances of system modules are synchronized according to hierarchy defined in the VMX Config.

## Map Interface

Map interface allows for integrating, storing, editing, analyzing, sharing and displaying geographical information. VMX allows user to create interactive objects, place and locate objects (cameras, displays, multiplexers, alarm sensors and stations) in a map and present them in a visual format.

Maps can be either stored locally on the client machine or they can be stored on VMX server and distributed to all the system clients.

## Material

### Material Export

Material Export is an add-on functionality of VMX Client. It allows exporting downloaded media content into external storage devices. The export function supports multiple media formats and storage devices.

### File Player

VMX File Player allows operators to replay the video material exported from Teleste VMX system. File Player allows encrypting of exported material and a password protection. Audit trail function provides tracking of operations performed on files and other system level information.

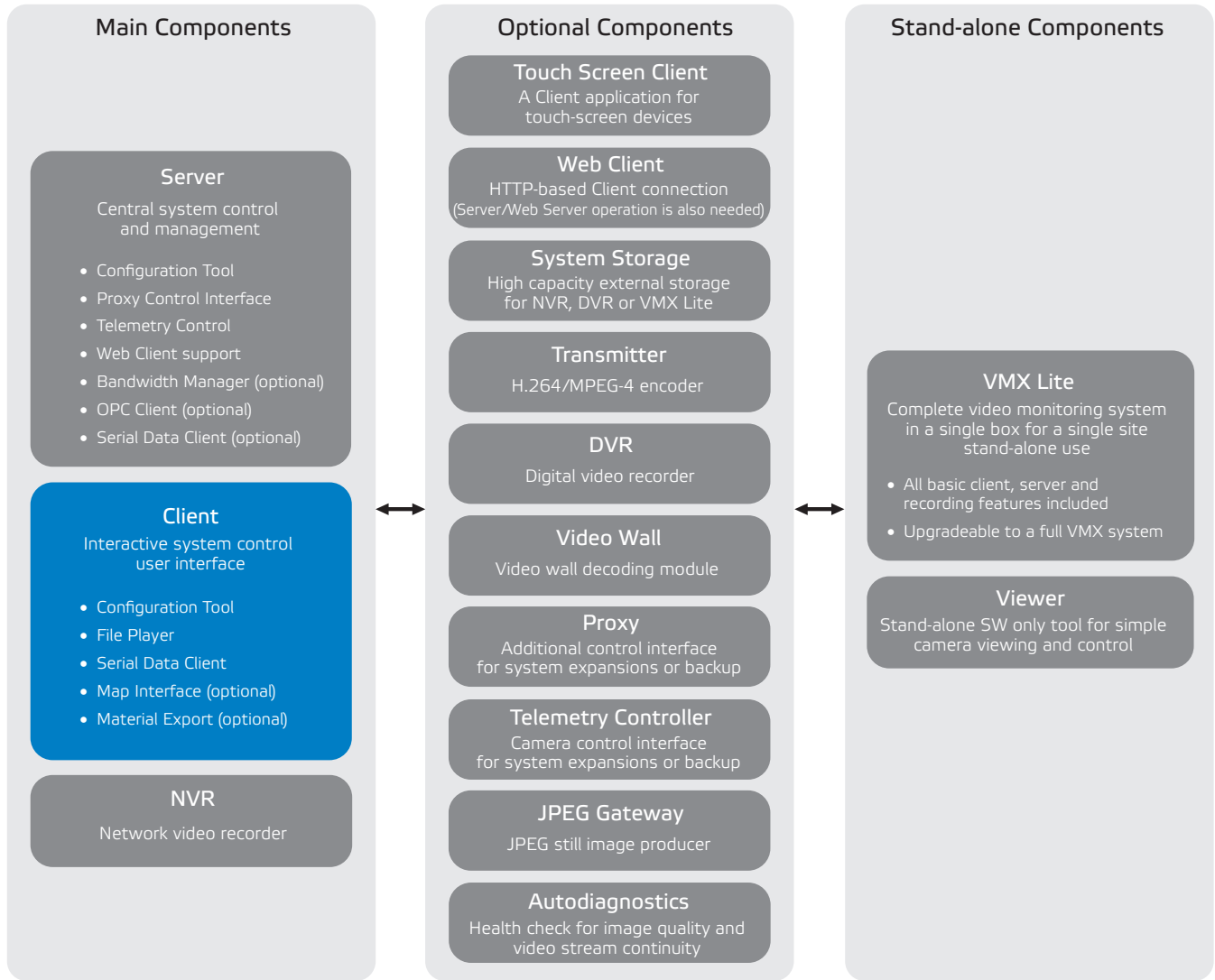
Customized copyright statements can be embedded into exported material. The player application is designed to operate in a multi-host environment – the same recorded material can be processed independently by multiple File Player installations.

- Easy to use interface with tree structure
- Help menu
- Password protected access based on user rights
- Easy editing, adding, deleting and replicating system components
- Automatic validation of setup data
- Drag-and-drop functionality for moving components in system hierarchy
- Database fields export/import
- Device search based on various categories
- Remote access

- Multiple types of map object
- Camera positions representation on the map

- Easy marking and exporting of material
- Export support of multiple formats: AVI, MPEG, DVD
- Encryption of exported material
- Password protection of exported material
- Audit trail functions
- Checksum verification
- Snapshots of recorded material
- Video processing tools adjust video quality
- Customized overlays
- Copyright statement

# VMX system components



## Technical specifications (Typical values unless otherwise stated)

Video			Tested performance on Teleste HW		
Decoding formats	JPEG, MJPEG, MPEG-1, MPEG-2, MPEG-4 SP, H.264		Local SW decoding (max) ***	MPEG2/4(25fps)@D1	24 streams/PC
Transport	HTTP/HTTPS/RTP/UDP/IP multicast and unicast			MPEG2/4(25fps)@2CIF	32 streams/PC
<b>Audio</b>			H.264@1280x960	12 streams/PC	
Coding	ITU G.711	μ-law	H.264@D1	24 streams/PC	
Sampling rate	8 / 32 kHz		<b>General</b>		
<b>Software</b>			Supply voltage	100...240 V AC / 50...60 Hz (± 3 Hz)	
Operating system	MS windows XP embedded, MS windows XP		Power consumption	200 W	
Application	VMX Client		Operating temperature	+5...+40 °C (+41...+104 °F)	
Split screen	max. 16 (4 x 4)		Relative humidity	< 90% (no condensing)	
<b>Hardware</b>			Housing	Industrial PC 19" wide rack mount (3U or 5U high) and tower or mini tower	
Processor	Intel I5		Weight **	15 Kg (33 lbs)	T1
Motherboard	ATX			15...22 kg (33...48.5 lbs)	R3
Memory	2048 MB			20...30 kg (44...66 lbs)	R5, T5
Boot device *	HDD, SSD or flash		Dimensions (H x W x D)	420 x 200 x 420 mm (16.6 x 7.9 x 16.5")	T1
Monitor output	DVI, VGA, HDMI			3U x 19" x 445 mm (3U x 19" x 17.5")	R3
Monitor ratios	16:9, 16:10 to 4:3	scaling and native ratio		5U x 19" x 620 mm (5U x 19" x 24.4")	R5
Ethernet	2 x 1000Base-Tx			425 x 220 x 620 mm (16.7 x 8.7 x 24.4")	T5
Power supply	Standard, redundant *		Safety	EN60950	
HW watchdog	Built-in		<b>Notes</b>		
<b>Storage</b>			* = optional		
Built-in (max) *	3 x HDD	T1	** = depends on configuration options		
	8 x HDD	R3, R5, T5	*** = tested for suite 5.0		
HDD *	500GB, 750GB, 1TB				
RAID *	JBOD, RAID 0, RAID 1, RAID 5, RAID 6				

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