

# ***Luxriot Video Management System (VMS)***

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***Luxriot Software is a Digital/Network Video Recording (DVR/NVR) and remote surveillance software package for Windows based PC`s.***



Luxriot Software, as any video recording and surveillance solution is primarily used to:

- *View live video from multiple sources locally and remotely over the Internet*
- *Record video from multiple sources and play it back later, locally or remotely*
- *Export previously recorded video to preserve it and to present it as evidence*

Luxriot Software currently supports more than 1400 devices from more than 80 manufactures



## ***Standard Surveillance Features:***



- Continuous recording
- Multiple screen configuration options
- Motion detection - hardware and software
- Remote connection real-time playback
- Video export features: single images and video clips
- More than 25 camera layouts and unlimited layout sequences
- Server watchdog with performance monitoring options

- User-friendly wizards
- User permissions and privileges Management
- Luxriot supports Digital PTZ functionality on all cameras in live and recorded mode
- Multiple clients can be connected to a single server
- Client can be connected to multiple servers simultaneously
- Each camera is individually configurable
- All recordings have graphical search option
- Alarm and Action Management
- Video Content Analysis
- Server side multicast support
- Access to archives and cameras via mobile devices.
- User Audit
- Multistreaming support
- Fisheye video stream dewarping support

## *Unique features:*



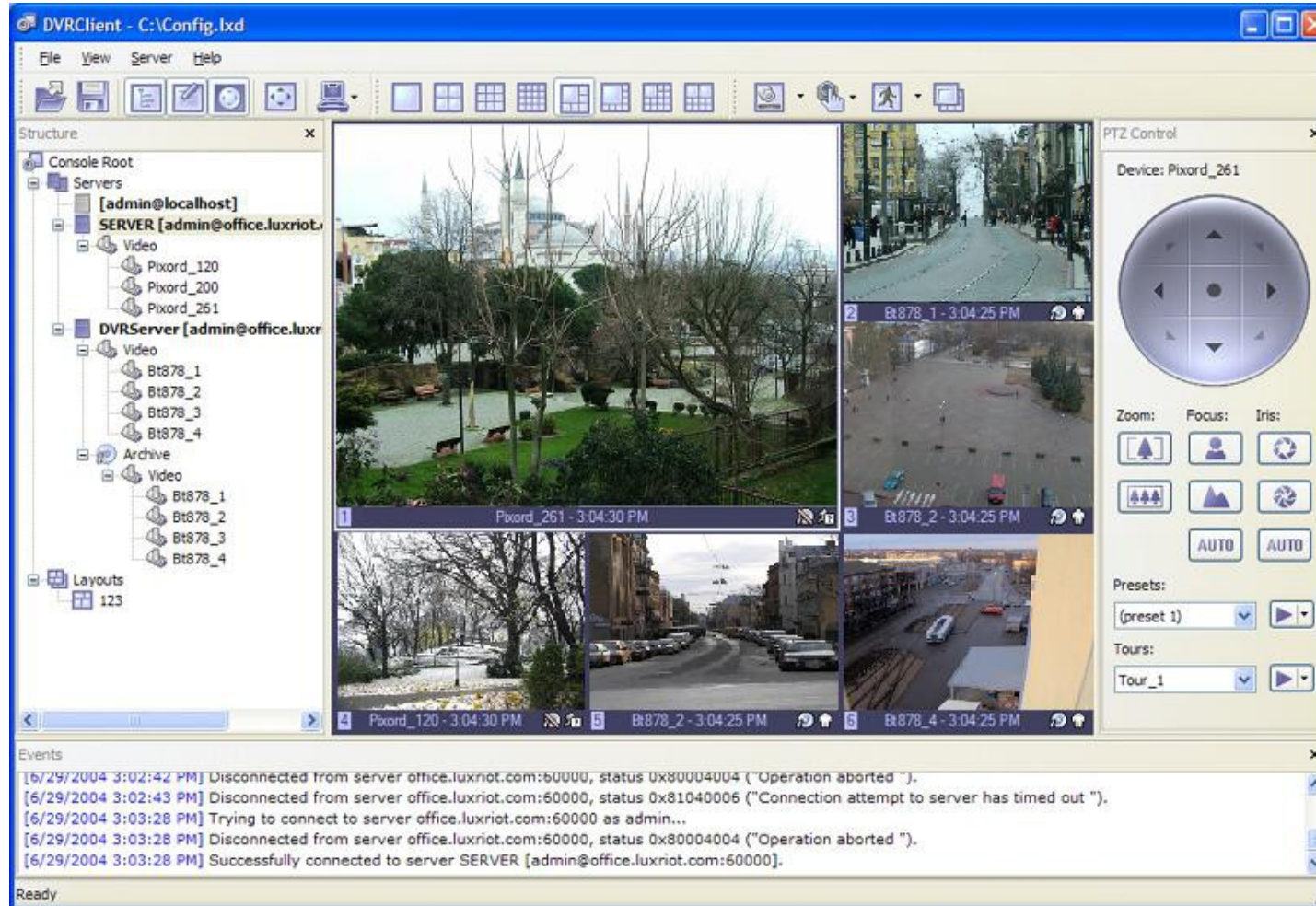
- Fully-featured Client application
- Server can run as a Windows service
- Full featured local and remote playback
- Client configuration
- Support for the standard DirectShow devices
- Screen may be configured for wide-screen monitor (WXGA)
- Supports all major brands of Network (IP) cameras and Network Servers
- Network Camera Search Wizard
- Supports unlimited number of cameras
- Efficient CPU usage
- Full range of editions
- Efficient as Hybrid solution

In order to better suit our customers' needs and budgets, Luxriot has 5 editions. These editions range from Personal to Enterprise and each edition varies in the number of allowed cameras, the number of simultaneous remote DVR Client connections as well as other limitations, or lack thereof. However, all of the Luxriot editions have the same user-friendly interface and functionality.

	Personal	Basic	Professional	Advanced	Enterprise
Maximum number of cameras	1	4	9	16	Unlimited
Maximum number of remote connections	1	1	3	5	Unlimited

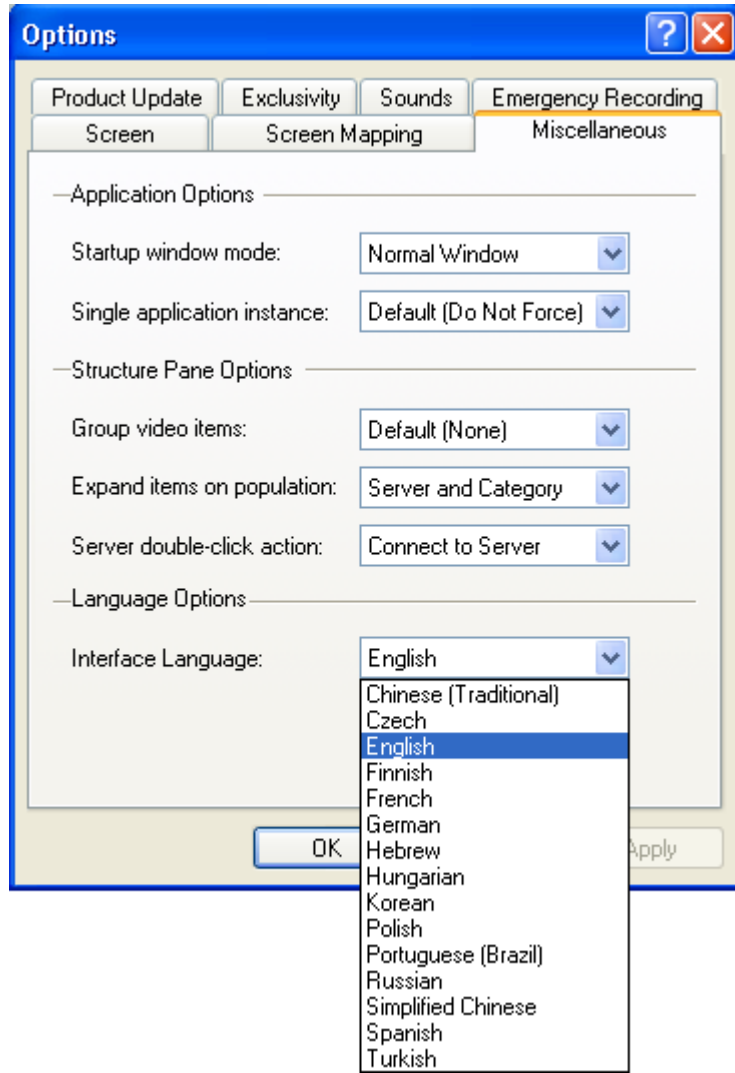


***Luxriot Client can efficiently utilize different screen resolutions and aspect ratios. Event window allows you to see all system events in realtime mode.***





**Luxriot Software is currently available in 14 languages.**



Chinese (Traditional, Simplified),  
Czech,  
Danish,  
English,  
Finnish,  
French,  
German,  
Hebrew,  
Hungarian,  
Italian,  
Korean,  
Polish,  
Portuguese (Brazil),  
Russian,  
Spanish,  
Turkish

# Luxriot Video Analytics



Meta (Analytics) Properties

Events Objects Counters

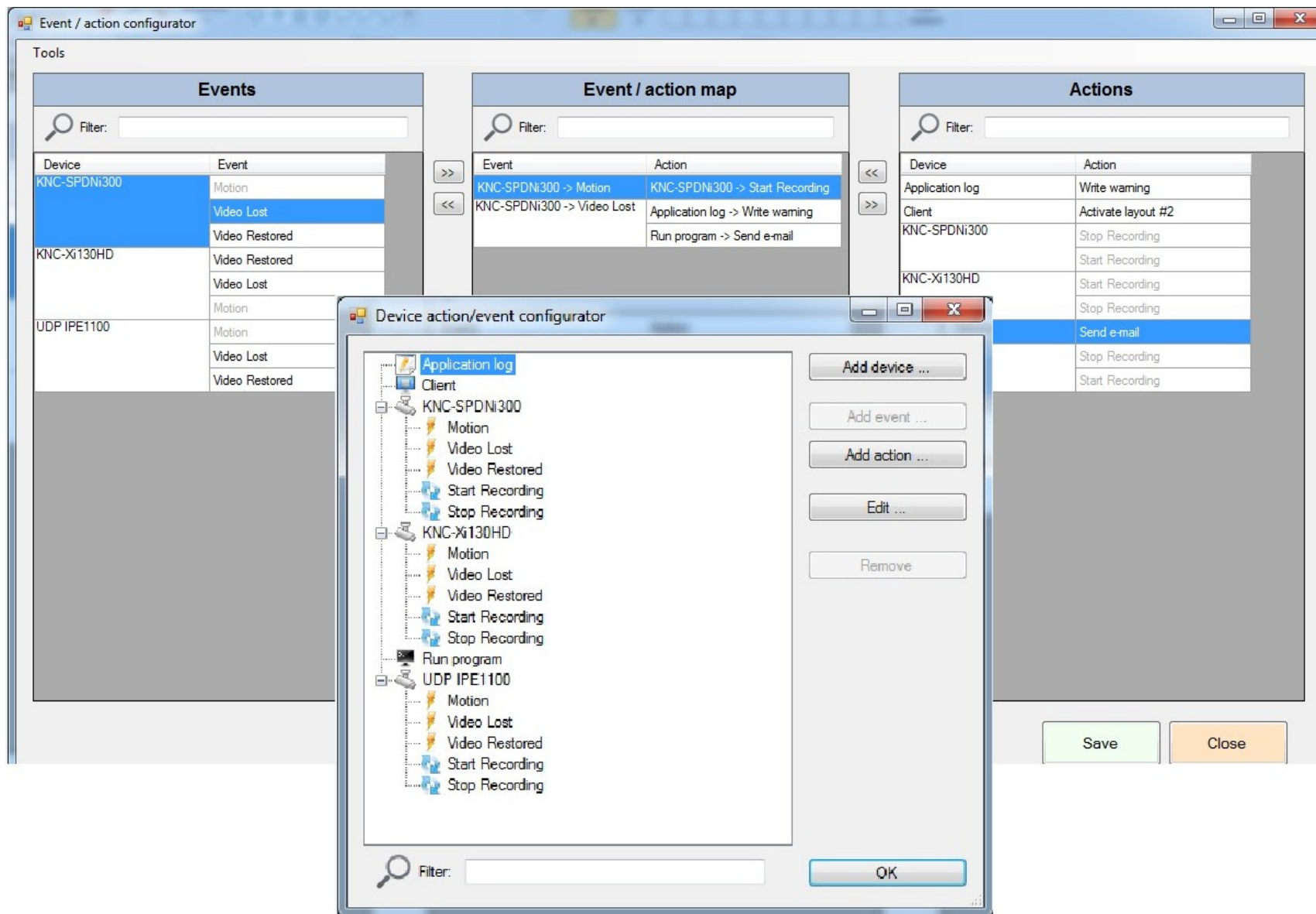
Time	Class Name
08/10/2012 16:17:17	Car
08/10/2012 16:17:17	Car
08/10/2012 16:17:17	Person
08/10/2012 16:17:17	Car
08/10/2012 16:17:17	Person
08/10/2012 16:17:17	Car
08/10/2012 16:17:17	Car
08/10/2012 16:17:26	Car
08/10/2012 16:17:29	Car
08/10/2012 16:17:29	Car
08/10/2012 16:17:35	Car
08/10/2012 16:17:38	Car
08/10/2012 16:17:40	Car
08/10/2012 16:17:43	Car
08/10/2012 16:17:45	Car
08/10/2012 16:17:52	Car
08/10/2012 16:17:58	Car
08/10/2012 16:17:59	Car
08/10/2012 16:17:59	Car
08/10/2012 16:17:59	Car
08/10/2012 16:18:00	Car
08/10/2012 16:18:00	Car

Navigate



- Tamper Detection;
- Camera Shake Elimination;
- Standard Tracker;
- Presence Filter;
- Abandoned and Removed objects;
- Class and Speed filters;
- Detection and Dwell filters;
- Tailgating;
- On Screen Counter;
- Metadata;
- Counting Line;

# Rule Based Advanced Event Manager



**Event / action configurator**

**Tools**

**Events**

Device	Event
KNC-SPDNI300	Motion
	Video Lost
	Video Restored
KNC-Xi130HD	Video Restored
	Video Lost
	Motion
UDP IPE1100	Motion
	Video Lost
	Video Restored

**Event / action map**

Event	Action
KNC-SPDNI300 -> Motion	KNC-SPDNI300 -> Start Recording
KNC-SPDNI300 -> Video Lost	Application log -> Write warning
	Run program -> Send e-mail

**Actions**

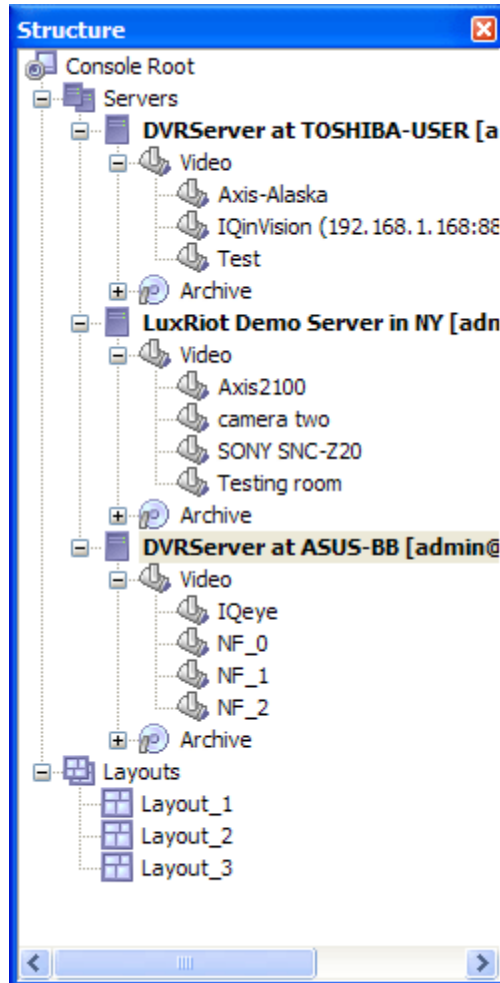
Device	Action
Application log	Write warning
Client	Activate layout #2
KNC-SPDNI300	Stop Recording
	Start Recording
	Start Recording
KNC-Xi130HD	Stop Recording
	Send e-mail
	Stop Recording
	Start Recording

**Device action/event configurator**

- Application log
- Client
  - KNC-SPDNI300
    - Motion
    - Video Lost
    - Video Restored
    - Start Recording
    - Stop Recording
  - KNC-Xi130HD
    - Motion
    - Video Lost
    - Video Restored
    - Start Recording
    - Stop Recording
  - Run program
- UDP IPE1100
  - Motion
  - Video Lost
  - Video Restored
  - Start Recording
  - Stop Recording

Buttons: Add device ..., Add event ..., Add action ..., Edit ..., Remove, Filter: [ ], OK

Buttons: Save, Close



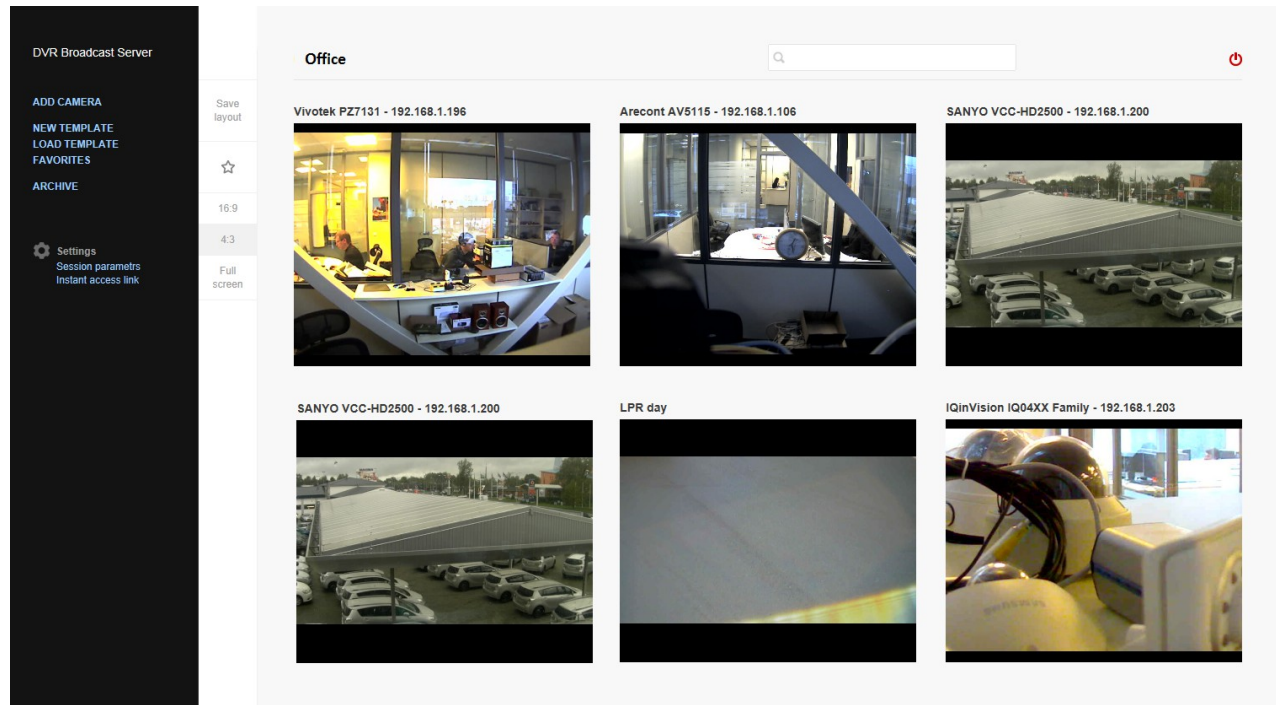
LuxRiot Client allows you to have simultaneous connections to several servers.

Cameras from different physical servers could be combined into the logical groups Layouts, which specify video screen configuration and actual cameras to be displayed in the windows.

It is also possible to combine Layout to Layout Sequences with your own sequence preferences.



Luxriot Broadcast Server will resample and recompress video stream for web or mobile client depending on connection speed and viewing capabilities.

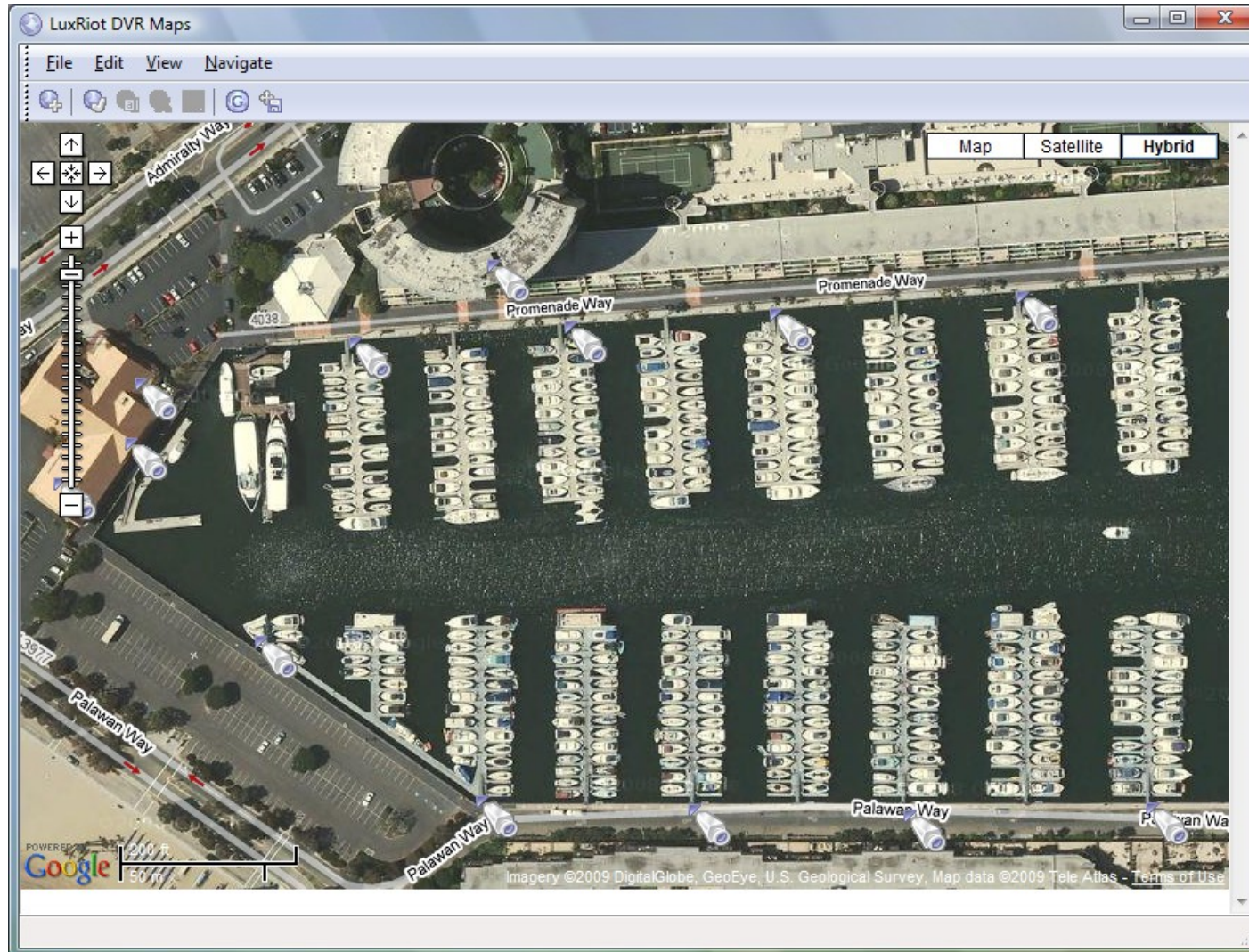


The screenshot displays the Luxriot Broadcast Server web interface. On the left is a dark sidebar with navigation options: 'ADD CAMERA', 'NEW TEMPLATE', 'LOAD TEMPLATE', 'FAVORITES', 'ARCHIVE', and a settings menu with 'Settings', 'Session parametrs', and 'Instant access link'. The main content area is titled 'Office' and features a search bar and a power icon. It contains a grid of six camera feeds:

- Vivotek PZ7131 - 192.168.1.196: Office interior with people at desks.
- Arecont AV5115 - 192.168.1.106: Office interior from a different angle.
- SANYO VCC-HD2500 - 192.168.1.200: Exterior view of a building and parking lot.
- SANYO VCC-HD2500 - 192.168.1.200: Another exterior view of the building.
- LPR day: A close-up of a license plate.
- IQinVision IQ04XX Family - 192.168.1.203: Close-up of a camera lens.

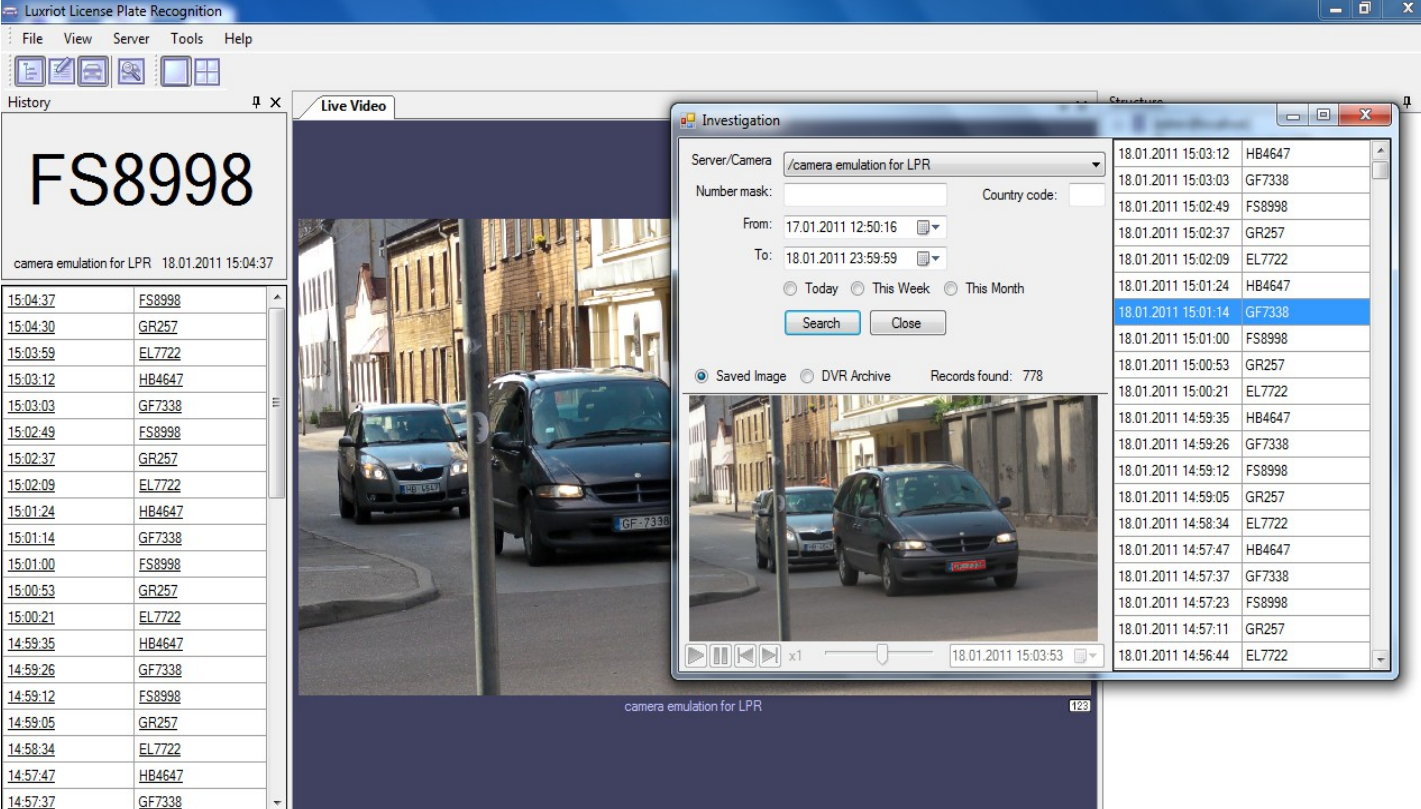
Luxriot Broadcast Server is a great option for those who prefer to avoid installing any additional software on their computers.

- Google Map Navigation – Yacht club example





Luxriot LPR is an automatic License Plate Recognition application that is designed to work with Luxriot VMS Server. This application accommodates customers with the specific need to detect, recognize and register motor vehicle license plates. Luxriot LPR is ideally suited for vehicle access control applications as well as for traffic control and enforcement applications.



The screenshot displays the Luxriot License Plate Recognition software interface. The main window shows a 'Live Video' feed of a street with cars. An 'Investigation' dialog box is open, displaying search criteria and a list of detected license plates. A table on the left shows a history of detected plates.

**Investigation Dialog Box:**

- Server/Camera: /camera emulation for LPR
- Number mask: [ ] Country code: [ ]
- From: 17.01.2011 12:50:16
- To: 18.01.2011 23:59:59
- Radio buttons: Today, This Week, This Month
- Buttons: Search, Close
- Radio buttons: Saved Image, DVR Archive
- Records found: 778

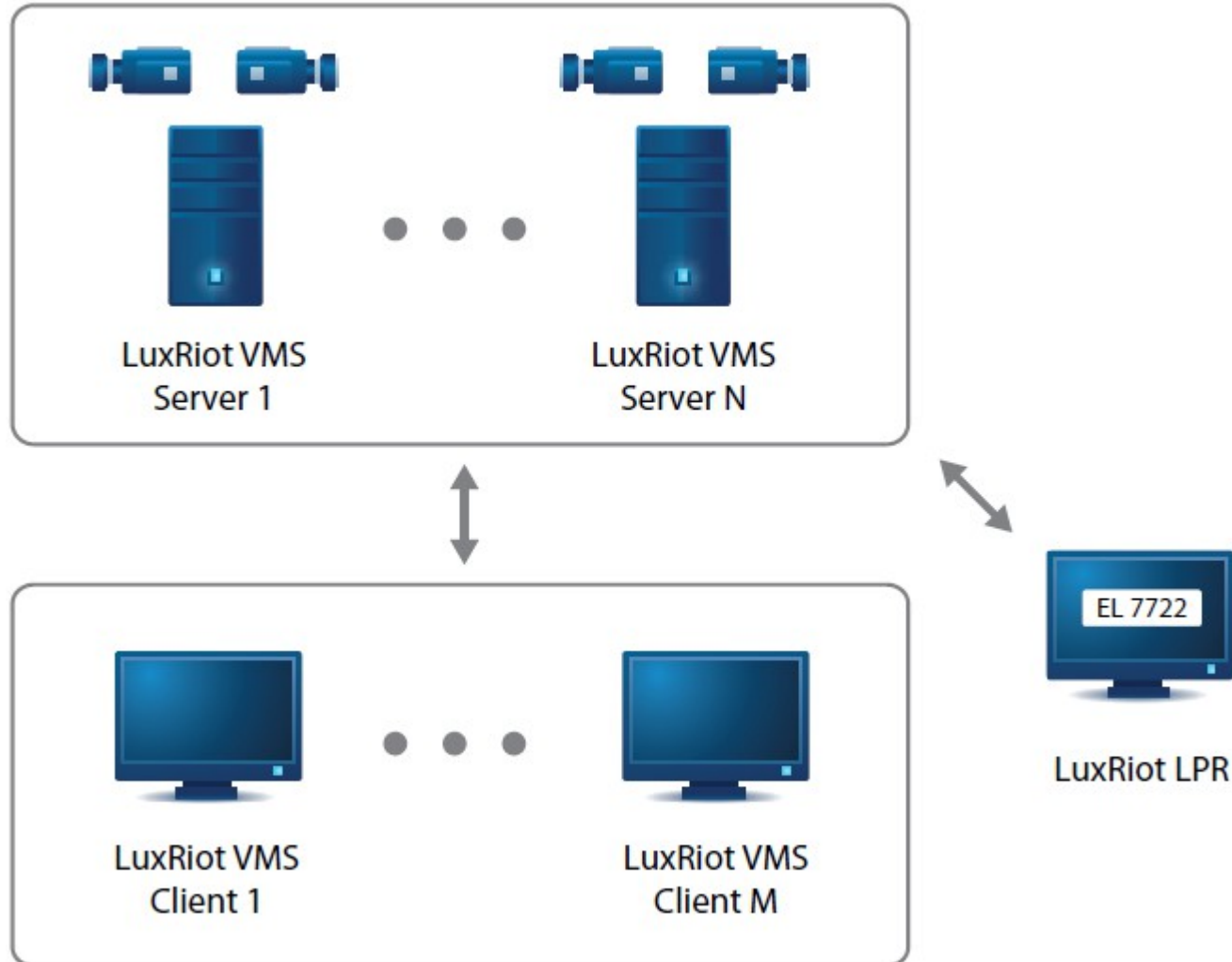
**License Plate History Table:**

15:04:37	FS8998
15:04:30	GR257
15:03:59	EL7722
15:03:12	HB4647
15:03:03	GF7338
15:02:49	FS8998
15:02:37	GR257
15:02:09	EL7722
15:01:24	HB4647
15:01:14	GF7338
15:01:00	FS8998
15:00:53	GR257
15:00:21	EL7722
14:59:35	HB4647
14:59:26	GF7338
14:59:12	FS8998
14:59:05	GR257
14:58:34	EL7722
14:57:47	HB4647
14:57:37	GF7338

**Investigation Results Table:**

18.01.2011 15:03:12	HB4647
18.01.2011 15:03:03	GF7338
18.01.2011 15:02:49	FS8998
18.01.2011 15:02:37	GR257
18.01.2011 15:02:09	EL7722
18.01.2011 15:01:24	HB4647
18.01.2011 15:01:14	GF7338
18.01.2011 15:01:00	FS8998
18.01.2011 15:00:53	GR257
18.01.2011 15:00:21	EL7722
18.01.2011 14:59:35	HB4647
18.01.2011 14:59:26	GF7338
18.01.2011 14:59:12	FS8998
18.01.2011 14:59:05	GR257
18.01.2011 14:58:34	EL7722
18.01.2011 14:57:47	HB4647
18.01.2011 14:57:37	GF7338
18.01.2011 14:57:23	FS8998
18.01.2011 14:57:11	GR257
18.01.2011 14:56:44	EL7722

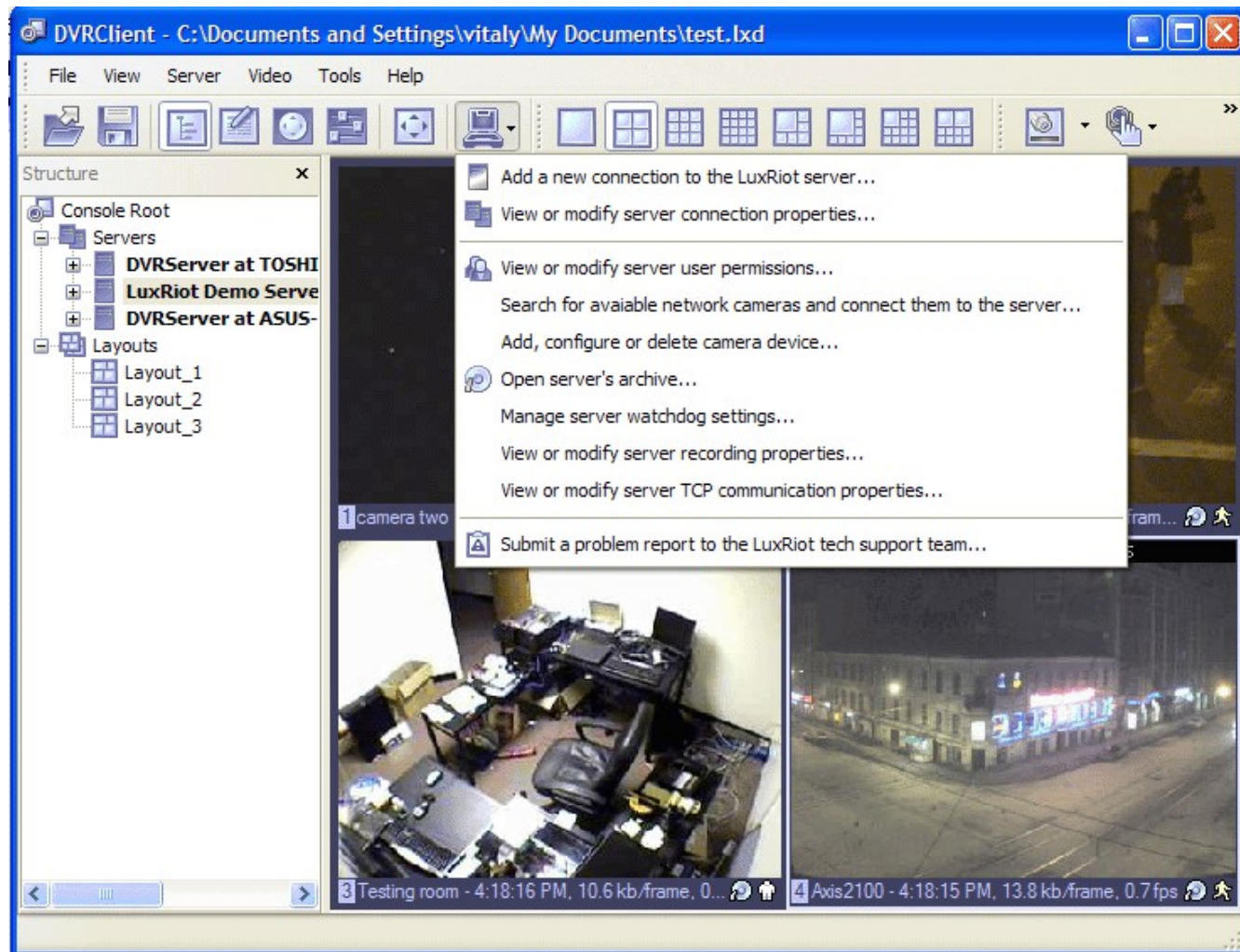
- Efficient license plate recognition with low error rate;
- Quick and convenient registered license plates search and browsing;
- Recognize license plates from multiple countries;
- Software camera position adjustment;
- Recognition area adjustment to optimize system load;
- Lighting condition adaptive algorithm;
- Support for local and remote unlimited “White” and “Black” lists;
- Interface to external applications and devices;
- Storing recognized license plates and snapshots on local or central database;
- No imposed limitation on number of cameras;
- Relies on Luxriot VMS servers for live and recorded video streams;
- Process video streams from multiple Luxriot VMS servers;



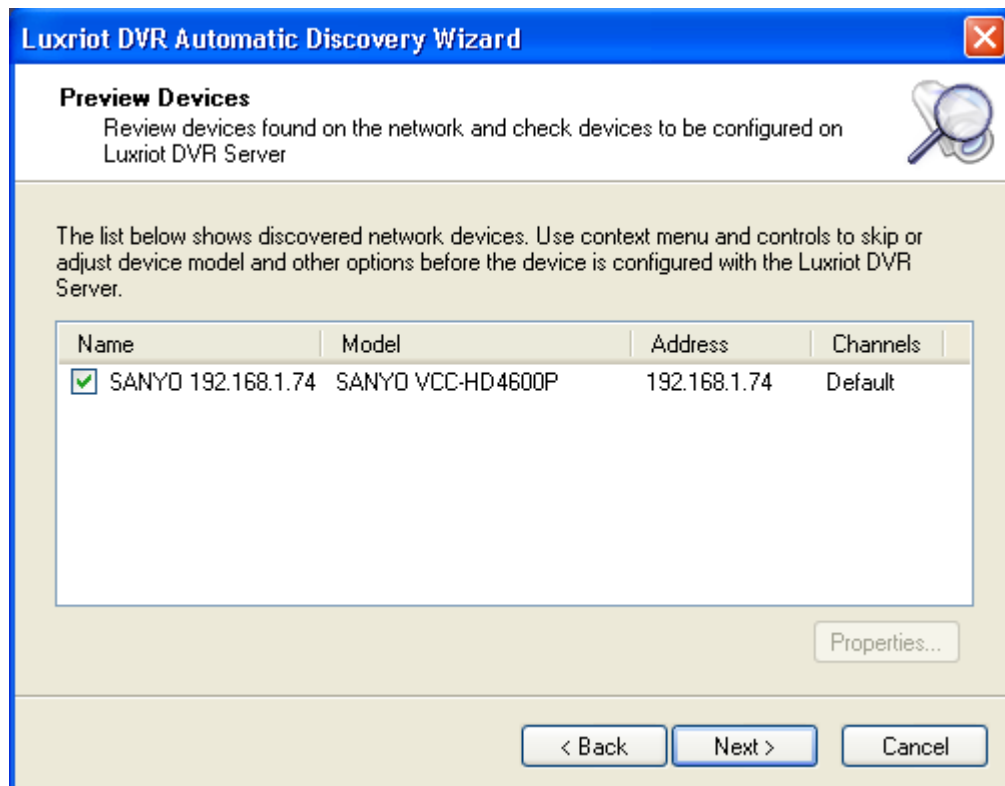
- Multiple codecs JPEG, MJPEG, MPEG4 and H.264
- Generic RTSP cameras
- Network (IP) cameras and servers from all major manufacturers
- DirectShow compatible devices including USB webcams
- Analog CCTV cameras via video capture boards from several manufacturers



**Configuring Luxriot is a simple and intuitive process since it is done via user-friendly wizards.**



**Network Camera Search Wizards can autodetect all Network (IP) cameras on your local network or on the specified subnetwork.**





For hardware estimate and amount of disk space you can use Luxriot website hardware calculator.

**Luxriot hardware estimator**

**Video streams specification**

Number of cameras:	Compression type	Resolution (Mpix)	Frame rate (fps)	Video stream Bitrate (Kbps)	Motion Detection source	Frequency of motion events (%)	FPS when no motion	Days to store
<input type="text" value="1"/>	JPEG/MJPEG	4CIF 704 X 576	25	4096	No motion detection	100	1	7

**Select Servers and Clients CPUs**

Specify Servers CPU:

Specify Clients CPU:

**Storage Calculator**

Number of cameras:

Average image size:  KB

Frame rate:  fps per camera

Days to store:

**Bandwidth Calculator**

Number of cameras:

Average image size:  KB

Frame rate:  fps per camera

**Lens Calculator**

CCD size:

Scene height:  ft/m

Scene width:  ft/m

Distance to the scene:  ft/m

## OS Microsoft Windows:

XP Home Edition,

XP Professional,

Vista, Server 2003,

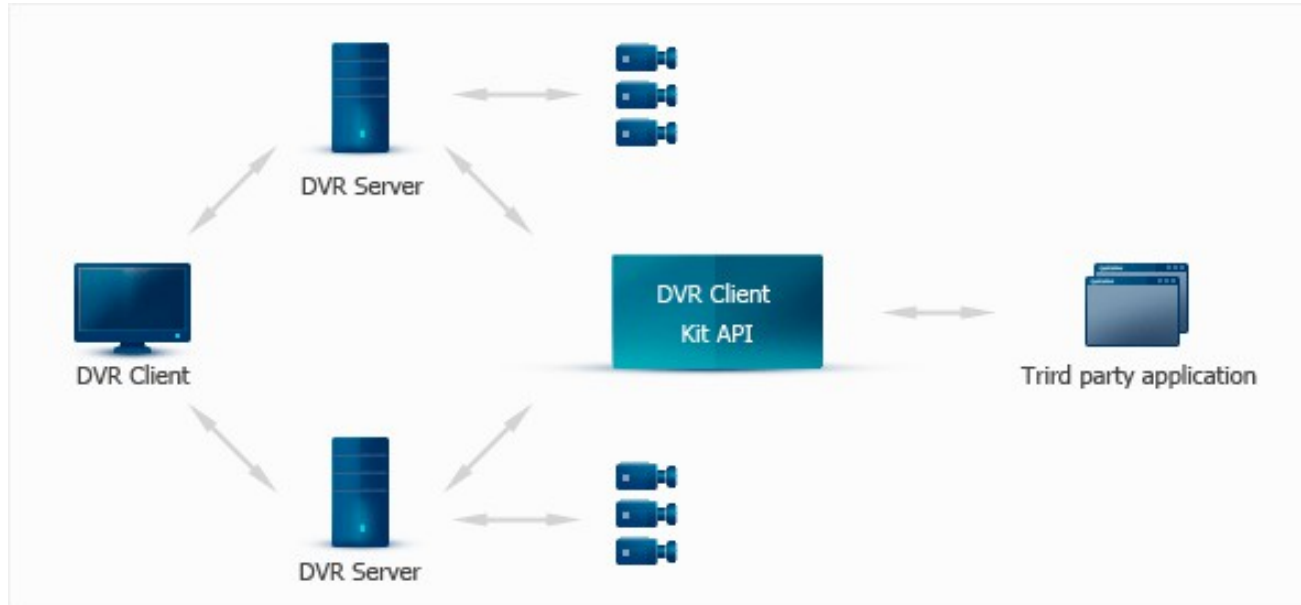
Server 2003 (32 and 64-bit),

7 (32 and 64-bit)

Server 2008 ( 32 and 64-bit)

<http://www.luxriot.com/eng/support/calculators/>





Luxriot offers customizable integration with other software systems in form of software development kit (SDK), Luxriot DVR Client Kit. Luxriot DVR Client Kit is the collection of ActiveX software components which allow integration of Luxriot DVR client side functionality into other software products and integration between Luxriot DVR and third party software systems. Integrating technologies is the solution to allow systems to operate more efficiently and with improved application functionality previously not possible.

With Luxriot DVR Client Kit you can implement client side tasks of Luxriot DVR client/server functionality including:

- Access live video from one or multiple local or remote Luxriot DVR servers
- Access archived video from Luxriot DVR servers
- Export archive video
- Configure camera and recording settings
- Receive motion region information for media device
- Adjust software motion detector properties
- Receive motion detection notifications
- Pan/tilt/zoom/focus (PTZF) control motorized and otherwise PTZF - enabled cameras
- Create and delete media devices

Luxriot DVR Client Kit is based on Microsoft Component Object Model (COM) technology and can be used with various development environments, including: Microsoft Visual Studio .NET (VB.NET, C#, C++) and earlier versions (VB), Borland/Inprise Delphi, scripting languages.



*Afterwords, used materials, links etc.*

***Thank you***



July 03, 2013