

Mirasys Integration SDK

Overview

The Mirasys Integration SDK (Software Development Kit) enables user written application programs to control, communicate and exchange data with Mirasys's DINA recorders over an IP addressable network.

The core of the SDK is a Application Programming Interface (API), which consists of a set of program libraries and functions that provides comprehensive functionality for e.g. triggering alarms in the DVR, retrieving video to the integrated system from the DVR etc. This functionality hence makes it possible to create common interface applications or add video functionality to the user interface of the application, which is integrated with the DINA systems.

The SDK includes the API, documentation describing the functions, ActiveX and Java Bean components and sample source code and executables generated by the sample source code that serves as a tool for understanding the API functions.

Mirasys provides the SDK both as a C function interface and a Java package to qualified integration partners.

MIA (Mirasys Integration API) Services

The following gives an overview of the main services that the MIA (Mirasys Integration API) interface provides. In the following sections the software, with which the DINA DVR functionality is integrated, will be referred to as the "integrated application". Typically such systems are access control systems, burglary alarm systems or similar.

Retrieving DVR configuration

The integrated application can using the provided functions retrieve information about the configurations of the various DVR servers it makes contact with over the network. Information about the e.g. the amount of cameras connected to a particular server and the settings of individual cameras can be retrieved.

This functionality is especially useful in situations where new DVR servers are added to the network, as it can provide useful information for and even automate the configuration of new objects in the integrated application.

Triggering DVR alarms

The integrated application can trigger alarms in any accessible DINA DVR in the network based on logic programmed in the integrated application. The integrated application can hence e.g. evoke video recording with desired settings of an event that the integrated system has detected. A range of actions, including recording, dome camera control, signaling I/O, controlling external video monitors and sending notifications and video material to other DVR clients, including the integrated application, can be controlled as a result an alarm triggered from the integrated application, thus providing a seamless interoperability between the DVR's and the integrated application.

Functions are provided to trigger and define alarms dynamically, which diversifies the functionality even further, i.e. the integrated application can not only trigger pre-defined alarms that are configured on the local DVR, but also send requests for alarms that are defined as they are needed. This allows for much more flexibility and reduces or even eliminates the need for configuration of the attached individual DVR's locally.

Event notification

Event notification is a service provided by the DVR Server. The integrated application can subscribe to receive notification about certain chosen events that a specific DVR handles. Notification can be sent to the integrated application about changes in the configuration of any connected DVR Server, changes in the recording status of a connected DVR Server but also notification of any type of alarm occurring at a DVR Server. This can be utilized to inform the integrated application e.g. that the DVR Server detects motion in a certain camera during a period when no motion is expected in that area.

Once the integrated application subscribes for a certain type of event it will be notified about all subscribed events on the DVR Server.

Event notifications can be defined as synchronous (LAN) or asynchronous (ISDN), depending on what type of connection there is between the systems.

Controlling cameras

The MIA interface can be used to control DOME or PZT camera movements, i.e. the integrated application can provide a user interface for moving dome cameras, move cameras to predefined positions and start or stop dome tour programs.

Video Retrieval

The integrated application can retrieve recorded video images or sequences from a DVR Server to be displayed in the integrated application user interface in the following ways:

- Normal or alarm triggered footage from a defined camera and time period.
- Start continuous playback of video stream (forward or backward) from desired time and camera.
- Start video stream from current time (real-time video retrieval)
- Start playback of selected stored alarm footage.

XML 'pipe'

The MIA interface also provides the means of exchanging data between the systems in XML (eXtensible Markup Language) format. XML provides a universal format for structured data presentation and is easy to extend without changing the MIA interface itself.