User Manual

EVI

External Video Integration

SAMSUNG

Version 1.0.7

Revision History

Version	Date
1.0.0	26/10/2011
1.0.1	15/02/2012
1.0.2	06/11/2012
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1.0.5	29/01/2014
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1.0.7	11/06/2015

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1. Glossary

Acronym	Description
GUI	Graphic User Interface
MM8000	Danger Management System
MM2000	Danger Management System
EVI	External Video Integration

2. Introduction

This is a User Manual for the EVI SAMSUNG. EVI – External Video Integration - communicates with SAMSUNG system.
EVI SAMSUNG is a software application for video, executable with certain parameters that characterize the behavior. This application has a graphical user interface (GUI) for dedicated operations of display management.
The manual is organized to give an overview of EVI technology, details on the configuration, detailed procedurally steps involved in a simple configuration.

3. About the EVI SAMSUNG

The EVI SAMSUNG is a Windows32-based application that allows the display of cameras connected to the SAMSUNG system. This application can be called by MM8000 or MM2000 systems.
EVI communicates with SAMSUNG system through SAMSUNG XNS ActiveX SDK (Version 1.39.00 – 2012-08-31).
The SDK consists of a collection of ActiveX components exposing the core functionalities of the SAMSUNG system.

The EVI SAMSUNG reads and writes data to and from SAMSUNG system via Ethernet.
EVI has a graphical user interface (GUI) that displays, the encoders connected to the SAMSUNG system, through different multiplexer formats.

- **EVI manages the connection with the SAMSUNG systems;**
- **Can be run more EVI simultaneously, but every EVI allow the connection to a single SAMSUNG system at a time;**
- **Each EVI can display a single screen (on a single monitor) with the possibility to select, in various modes (1-mux, 2-mux,or 4-mux), all the cameras viewable;**
- **From the command line you can specify which alarmed camera view and which modes;**
- **The multiplexer (MUX) formats are:**
  - **1x1 (1-MUX)**
  - **2x2 (2-MUX)**
  - **3x3 (3-MUX)**
  - **4x4 (4-MUX)**
- **From the GUI you can choose the format of the multiplexer (a button to format) and enable /disable each camera through GUI Tree;**
- **Application Name : EVI-Samsung.exe**

4. EVI Overview

4.2 Hardware Requirements

4.2.1 Network Hardware Requirements

Since the EVI communicates with the SAMSUNG system over Ethernet, an Ethernet network must be in place. Depending on the cabling, distances, inter connectivity requirements, etc., this system may include bridges, routers, hubs, etc.. The network itself should be fully tested and be known to operate before attaching the controllers and the EVI computers. Contact your system administrator for assistance or consult instructional documentation and manuals to setting up the network. It is beyond the scope of this Users Manual to discuss networking topics in any detail.
Once the network is in place and the EVI computers and controllers are attached, check connectivity using available network testing tools and programs such as ping.

4.2.2 Computer Hardware Requirements

The following minimum computer hardware items are required for the computer that will be running the EVI:
1. CPU – Entry level
2. 512 Mb of RAM
3. 10 GB hard disk space
4. SVGA display adapter
5. Ethernet adapter with proper interface type to attach to the Ethernet network.

While these are considered minimums, actual requirements will vary greatly depending upon the operating system, operating system options installed and the EVI's configuration. Faster CPUs and more memory will greatly enhance the performance of the Server.

4.3 Software Requirements

The following software requirements must be met in order to configure and/or use the EVI :

- Windows Server 2003, Windows XP or Windows 7 with DCOM installed.
- SAMSUNG XNS ActiveX SDK (Version 1.39.00 – 2012-08-31).

4.4 Installation of the EVI

The EVI proper functioning needs the installation of the SAMSUNG SDK and then the installation of the EVI SAMSUNG using its specific setup. The setup includes all the dependencies that your system must meet in order to ensure the proper functioning of the application.

4.5 Demo and Unlocking

The EVI-Samsung can be used in demo mode with full functionality of the program for 30 seconds. To get unlimited functionality of the product you need to buy the license from S4S

4.5.1 Request your license

To apply for a license to S4S is need to access via EVI-Samsung GUI to the 'About' / 'View License' / 'Product Activation' dialog.
In the 'Product Activation' dialog you must complete the following steps:

- complete the form (user name, organization, email field);
- generate code (via the 'Generate new user code' button);
- save the code and directly send it to 'info@s4s.it ' or send it via 'Send' button if is configured a mail box on the computer.

4.5.2 Activate the license

To activate your license you must access to the 'Product Activation' dialog and through the 'Load New License' button you load the license file released by S4S.
A dialog will appear for feedback at the end of loading to indicate the outcome of activation. Restart the program to enable the new license.

4.6 Configuration

EVI can be performed without any parameters by connecting to the system SAMSUNG through an appropriate dialog, or EVI can be run by passing the configuration parameters to connect directly, without the use of the Login dialog, to the system to view determined alarmed encoders.

Here are the devices compatible with the version of the Samsung SDK.

Model Name 1

Device Type	Model Name
N/W Camera	Samsung Network Camera (Integrated Model) * Support all network products released since 2012 (except All In One models)
	SNB-1000, SNB-2000, SNB-3000, SND-3080, SND-3080C, SND-3080F, SND-3080CF, SNV-3080, SNC-B2315, SNC-B2331, SNC-B2335, SNC-B5368, SNC-B5395, SNC-C6225, SNC-C7225, , SNC-C7478, SNC-M300
	SNV-3370, SNP-3370TH, SNP-3301, SNP-3301H, SNC-550, SNC-570, SNC-1300, SND-460V, SND-560, SNP-1000A, SNP-3300A, SNP-3350, SNP-3750,
Encoder	Samsung Encoder (Integrated Model) * Support all network products released since 2012
	SNS-100, SNS-400, SNT-1010
DVR	Samsung DVR (Integrated Model) * Support all network products released since 2012
	SHR-504X, SHR-604X, SVR-1670, , SVR-1640A, SVR-1650E, SVR-950E
	SVR-450, SVR-470, SVR-480, SRD-480D, SVR-940, SVR-945, SVR-950E, SVR-960, SVR-960C, SVR-1640A, SVR-1645, SVR-1650E, SVR-1660, SVR-1660C, SVR-1670, SVR-1680, SVR-1680C, SVR-3200
NVR	Samsung NVR (Integrated Model) * Support all network products released since 2012
	SNR-3200, SNR-6400, SRN-3250, SRN-6450
	NET-i ware (SNS-SF064, SNS-SF032, SNS-SF016, SNS-SF008, SNS-SF004)

4.6.1 Configuration parameters

Parameter	Name	Description
-ip	IP address	**Static IP address**

<table>
<tr><td></td><td></td><td>Default: 127.0.0.1
Syntax: -ip Static IP
Example: -ip 192.168.0.0.2</td></tr>
<tr><td>–u</td><td>User</td><td>The name of the user to connect to the system

Default: user
Syntax: -u User
Example: -u test</td></tr>
<tr><td>-p</td><td>Password</td><td>The user's password

Default: password
Syntax: -p Password
Example: -p test</td></tr>
<tr><td>-model</td><td>Model of the device</td><td>Model of the Samsung device
See table ‘Model Name 1’

Default: SRN-167X
Syntax: -model Model
Example: -model SHR-6164</td></tr>
<tr><td>-port</td><td>Port Number</td><td>Port Number

Default: 554
Syntax: -port Port Number
Example: -port 1234</td></tr>
<tr><td>-sv</td><td>MUX alarmed</td><td>MUX alarmed

Define the number of cameras to display.
The possible value are:

<table><tr><th>Cameras number</th><th>MUX</th></tr><tr><td>1</td><td>MUX 1(1x1)</td></tr><tr><td>4</td><td>MUX 2 (2x2)</td></tr><tr><td>9</td><td>MUX 3 (3x3)</td></tr><tr><td>16</td><td>MUX 4 (4x4)</td></tr></table>
This parameter allows the display of cameras alarmed and must be used together with the ‘Cameras alarmed parameter.

Default: 1
Syntax: -sv MUX (MUX= 1,4,9,16)
Example: -sv 16</td></tr>
</table>

-t	Camera alarmed	**Camera alarmed** Define which cameras to be displayed in the MUX alarmed (define by 'MUX alarmed' parameter). If you configure more cameras than you can hold in the MUX in alarm, the system will display the first and will not consider those in excess. If you configure few cameras than you can hold in the MUX alarmed, the system will display the cameras configured and will fill the remain views live with the empty videos. Setting camera has three parameters: 1. Number cyclic cameras. [The cyclic cameras are viewable only 1-MUX is so necessary to add the parameter –sv 1] 2. Cameras display time in seconds. 3. ID cameras [1 … numMaxCamere]. Default: 1 1 1 Syntax: -t [NumberCyclicCameras DelayTime [IdCameras] $^{+}$;] $^{+}$ Example: -sv1 –t 2 2 1 2 [Cyclic MUX] -sv 1 –t 1 1 2 -sv 4 –t 1 1 1 ; 1 1 2 ; 1 1 3 ; 1 1 4 It is possible to configure cyclic cameras only for 1-MUX (-sv 1).
-wm	Windows Monitor	**Windows Monitor** View EVI Program on a local monitor or second monitor (0 or 1 ...). Default: 0 Syntax: -wm IDMonitor (IDMonitor = 0,1) Example: -wm 1 (View EVI on second monitor)
-wp	Windows Position	**Windows Position** View Program EVI in various positions inside the

		monitor. • 0 = central position; • 1 = upper right corner; • 2 = upper left corner; • 3 = lower right corner; • 4 = lower left corner. Default: 0 Syntax: -wp NumMonitor (0,1,2,3,4) Example: -wp 4
-a	Administrator Permit	**Administrator Permit** Allows the playback configuration. Default: not set Syntax: -a
-k	Kill EVI Process	**Kill EVI Process** Kill execution of other EVI previously performed instances. With this parameter will be executed always the last call in temporal order.
-sp	Salve Position	**Save Position** Saving the size and location of the EVI program in "*Configure.xml*" file.
-e	Hide Exit Button	**Hide button exit** Hide button exit in EVI GUI.
-ds	Previous (Delay Seconds)	**Previeus** Displays the video stream of n seconds before the activation of the application. If not set this parameter, the video stream is live, otherwise if the value is greater than 0, the video stream will show the images of n seconds before the activation. Default: 0 (live stream) Syntax: -ds Seconds Example:

		-ds 30 (30 seconds) -ds 120 (2 minuts) -ds 3600 (1 hour)
-mm2000	MM2000 mode	**MM2000 mode** Set EVI configure to work with MM2000 system**.**
-vmc	Max Number of Cameras	**Maximum Number of Cameras** Set the maximum number managed of the Samsung device. Default: 16 Syntax: -vmc maxNumberCameras [1-64] Example: -vmc 16 -vmc 64

4.6.1 Configuration examples

Example 1

Command line
>EVI-Samsung.exe -ip 169.254.247.226 –u USER –p PASSWORD –port 554 -sv 1 –t 1 1 4

EVI-Samsung connects to the SAMSUNG system model SHR-6164, with IP address 169.254.247.226, user 'USER' password 'PASSWORD' and port 554, showing the video camera with ID 4 into single view (1-MUX). In the GUI is showed the Exit Button.

Example 2

Command line
> EVI-Samsung.exe -ip 169.254.247.226 – u USER – p PASSWORD –port 554 -sv 4 –t 1 1 1 ; 1 1 2 ; 1 1 3 ; 1 1 4 -e

EVI-Samsung connects to the SAMSUNG system model SHR-6164, with IP address 169.254.247.226, user 'USER' password 'PASSWORD' and port 554, showing the video cameras with ID 1, 2, 3 and 4 into a multi view (2-MUX). In the GUI is hided the Exit Button.

Example 3

Command line
> EVI-Samsung.exe -ip 169.254.247.226 –u USER – p PASSWORD –port 554 -sv 1 –t 2 2 1 2 -e

EVI-Samsung connects to the SAMSUNG system model SHR-6164, with IP address 169.254.247.226, user 'USER' password 'PASSWORD' and port 554, showing the video cameras with ID 1 and 2 in cyclic 1-MUX with interval 2 second. In the GUI is hided the Exit Button.

Example 4

Command line
> EVI-Samsung.exe -ip 169.254.247.226 –u USER – p PASSWORD –port 554 -sv 1 –t 64 1 1 –ds 60 –e –vmc 64

EVI-Samsung connects to the SAMSUNG system model SHR-6164, with IP address 169.254.247.226, user 'USER' password 'PASSWORD' and port 554, showing the video cameras with ID 64 in 1-MUX with a previous of 60 seconds . In the GUI is hided the Exit Button.