Integrated security System Control
(ISSC)

Program

User Guide

Ver. 5.0

29 Feb 2005

Integrated security System Control (ISSC) Program –

General Description

The Integrated Security System Control (ISSC) program, PC operated, provides an efficient and reliable central management and control station for multi-sensor guarded sites.

The system can handle various types of guard sensors, such as: Area Laser System (ALS), Cross Line Detector (CLD), Laser Fence Sensor (LFS), Geophonic sensors and any dry-contact guard sensor.

All these guard sensors may be connected to the ISSC program's PC either by wired or by wireless serial communication channels. Simple dry-contact sensors may be connected through direct wires (not through communication channels).

All the sensors controlled by the ISSC program are monitored through a single monitor display, connected to a single PC.

This single display provides, during the same real time, the operation statuses of all guard sensors, the intrusion detection events they present and the alarms they yield.

All these features are applied to the operator at one glance together with a tone alarm when an intruder is detected.

If needed, the operator can concentrate on each guard sensor (one at a time) to acquire more accurate details on the sensor location and on the intruder it has detected.

2. ISSC Screen and Windows Description

2.1 Main Screen

2.1.1 General Description

The main screen of the ISSC program is divided into eight sections, marked 1 to 8 in Figure 2-1.

Note

The pattern of the screen division into sections, shown in Figure 2-1, is the system default as provided upon initialization of the ISSC program. The sections' dimensions are flexible and can be changed by dragging their borders using the mouse cursor.

2.1.2 Screen Sections Tasks and Functions

The following paragraphs describe the tasks of the eight screen sections and their interrelations.

Note

The sections numberings, marked in Figure 2-1, are denoted herein in brackets.

a. Section (1)

Section (1) presents a general map of the entire guarded site with illuminated spots indicating all the guard sensor locations. The spots illumination colors and manner of blinking also indicate the sensors statuses as follows:
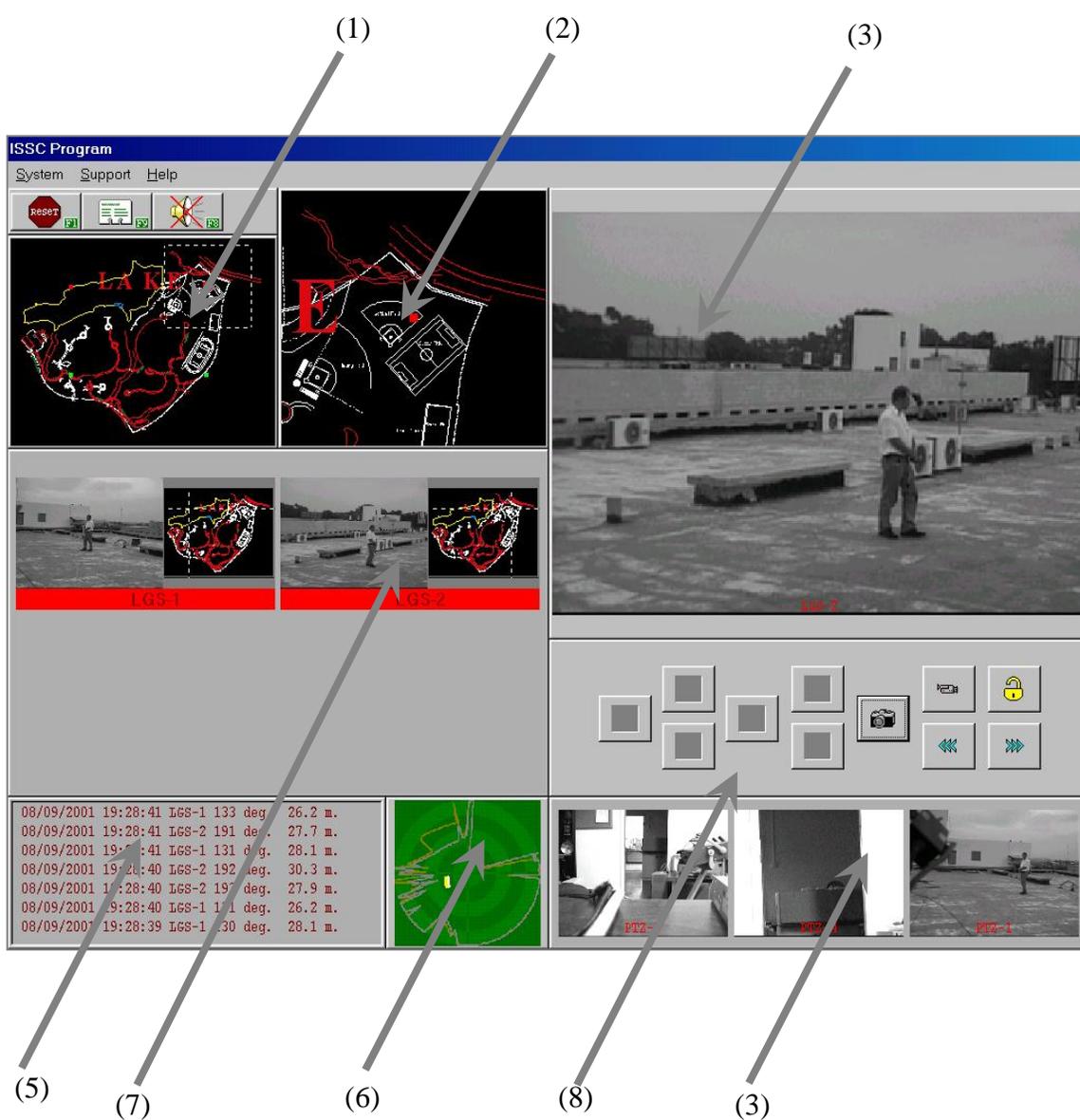
Figure 2-1: ISSC Main Screen – General View

i.   *Blinking red:* Alarms that an intruding attempt eventuates at that moment.

    This alarm type persists for a few seconds and then switches to the second type of alarm (paragraph ii).

ii.   *Alternately blinking spot, between green and red:* Indicated that an intruder has been detected.

    It persists until system is cleared (see paragraph 2.2.1.1) and then turns to the third or fourth type of indication.

iii.   *Static green spot:* Indicates the location of a guard sensor with a normal working order of communication channel to the control station. The sensor in this state is not detecting any intruding attempt.

iv.   *Blinking green spot:* Indicates that the guard sensor is being selected (through section (3), (7) or (8)) for observing its enlarged video picture in section (4).

v.   *Blinking yellow:* Indicates a failure in communication with the sensor (relevant only to sensors connected to the control station through a digital communication channel).

    Section (1) allows selection of a sensor, using the mouse cursor, for display of its clipart in section (6) and its camera video picture in section (4).

    Section (1) contains a mouse controllable zoom box that allows magnifying of a selectable portion of the above map in section (2).

b.   Section (2)

    Section (2) displays a zoomed portion of section (1) map. The zoomed portion is selected by the zoom box in section (1). The box location (the zoomed map portion) can alternatively be selected by a mouse grab & drag operation in section (2).

c.   Section (3)

    Section (3) displays the video pictures filmed by each operated camera in the guarded site. Each picture is refreshed at a rate of once every few seconds. The name/type of the camera appears at the bottom of the picture.

    When the number of pictures exceeds the number that can be contained in this section, some of them are hidden. A scroll bar is therefore added in the section's side, to allow scrolling of all pictures.

    Using the mouse cursor, any video picture displayed in section (3) can be displayed in magnified form in section (4).

d. Section (4)

Section (4) displays magnified video picture of a selected one either from section (3) or from section (7). Selection is performed by clicking with the mouse on a picture in either sections (3) or (7), or by clicking a sensor in section (1), or by paging through the pictures using the << / >> buttons in section (8) (see paragraph 8). The selected camera's picture, displayed in section (4), is deleted from section (3). It returns to section (3) when another camera's picture is selected. Section (4) picture is refreshed, at the same rate as in section (3).

e. Section (5)

Section (5) presents report messages ('reports') of alarms and operation statuses received from the site sensors.

Each report occupies one row and contains: date & time, sensor name/type, operated sensor contact No. (e.g. C1, C2) and status/alarm description.

-	Red	-	Alarm (e.g. send alarm)
-	Green	-	Normal, tranquil state (e.g. communication created)
-	White	-	Special operation state (e.g. initiated reset)
-	Yellow	-	Operational malfunction (e.g. time out)
-	Blue	-	Technical malfunction (e.g. sensor state unknown).

The report's font colors denote report type as follows:

Section (5)'s capacity of report display is limited to a maximum of 7 reports. Any old report above this number is deleted from this section.

Note

All above mentioned reports (including the deleted ones) are stored in the system database. They can be displayed in various sorts and modes in a special stand-alone Report window (see paragraph 2.2.1.2 - a).

f. <u>Section (6)</u>

Section (6) displays a clipart of a sensor that can be selected through either section (1) or (7). When relevant, its contacts are marked by illuminated spots on the clipart at their appropriate locations. The spots' functions are similar to those in sections (1) and (2).

g. <u>Section (7)</u>

Section (7) presents the last events received from all the sensors that have detected an intruding attempt. Each event is presented as a dual-box window; the left box displays the last picture captured by the sensor camera; the right box presents section (1) map in reduced size with a dashed hair-line cross on it, denoting the sensor location.

Note

If the sensor is not connected to any camera, the sensor detection scheme is displayed instead of the camera picture with the last detection indication (e.g. LGS map with last detection spot).

Section (7) allows selection of any of its event pictures to be displayed in section (4) in the same manner as through section (3). When an event is so selected section (2) presents its location.

h. <u>Section (8)</u>

Section (8) presents virtual buttons (see Figure 2-2 and the note bellow) for manual navigation control of the selected PTZ (movable) camera (that the picture filmed by it is displayed in section (4)).

Note

When a button (buttons) is not relevant (e.g. when no camera is selected) its does not function is denied, and the drawn symbol on it is deleted.

Figure 2-2: Camera Control Buttons in Section (8)

Section (8)'s button functions are as follows:

 Four up/down//left/right arrow buttons: navigate the camera in tilt and panoramic modes respectively.

 and buttons: zoom the camera 'in' and 'out' respectively.

 Button: stores the current filmed picture, as a captured picture, in the system database.

 Button: disengages the camera from automatic navigation control by the sensor system (this automatic control is commonly applied upon an intruder detection).

Resuming automatic control is achieved by a second click on the button. In this case the camera is driven immediately to the sensor's line-of-sight.

- and buttons: allow forwards and backwards paging in section (4), among all video pictures that are presented in section (3). When a picture appears in section (4), it is enlarged as described above.

- Button: allows locking/unlocking of the camera selection option in section (4) (through section (1), (3) or (7)). The lock state prevents undesired changing of the selected camera.

- Button: allows turn on/off camera wisher
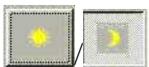
/ (Sun/Moon) Button: allows setting the camera iris to either day or night position, respectively.

2.2 Upper Bar Menus and Buttons

2.2.1   Upper Bar Menus

Three manus are provided: System, Support and Help. The options they provide are as follows:

2.2.1.1 <u>System</u>

Clicking System menu allows selection between Clear and Exit as follows:

<u>Clear</u> - This option allows clearing/resetting a sensor after it has detected an intruder. It can be also selected by the upper bar Clear () button and by F1 key. This option opens a Clear dialog box (see Figure 2-3) that provides various manners for clearing the system sensors.
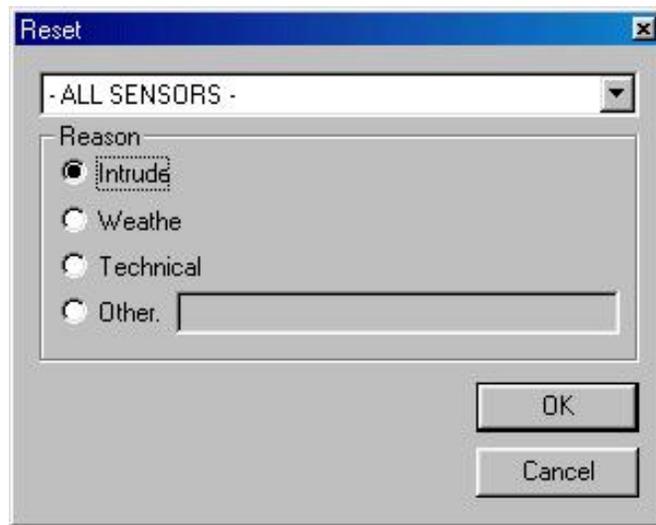

<u>Figure 2-3: Clear Dialog Box</u>

The clear manner is selected by using the upper selection field in the dialog box. Through this field any single sensor can be cleared as well as all site sensors at the same time.

Note

An LGS that is cleared through this dialog box does not perform re-learning of the site's topography (see paragraph 2.2.1.2. - f).

This dialog box also allows recording of the clear reason into the clear event report, by marking one of three common options (intruding, change of weather, technical problem), or by marking other reasons that can be briefly described in the "Other" option's field.

<u>Exit</u> - enables exit from ISSC program to the desktop, where the ISSC execution icon is located.

2.2.1.2   View

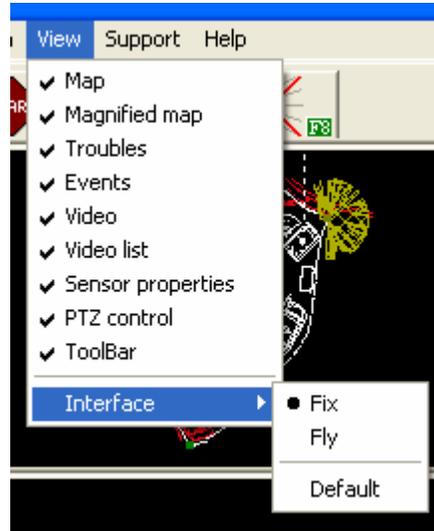a.   By check/uncheck menu checks, may be hidden/shown appropriated interface item.

Figure 2-4: Support Menu

b.   Interface

This option provides a small menu that a allows selection between two display modes of the main screen sections:

•   Fix: Freezes the screen division into sections at the default state (see Figure 2-1).

•   Fly: Releases the main screen sections from the fix state. This allows changing the sections dimensions using the mouse cursor.

•   Default: Return interface items positions at the default state.

2.2.1.3   Support

Clicking the Support option scrolls a menu with several support options as described below (see Figure 2-5).
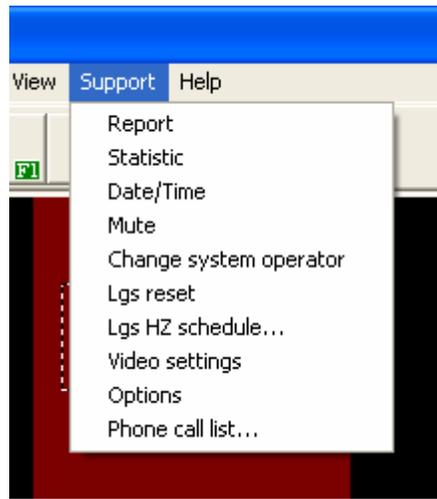
Figure 2-5: Support Menu

a.   <u>Report</u>

This option can also be selected by the upper bar Report button ( ) and by F9 key. It opens a four section dialog box that provides various modes of presenting the system reports (see Figure 2-6).
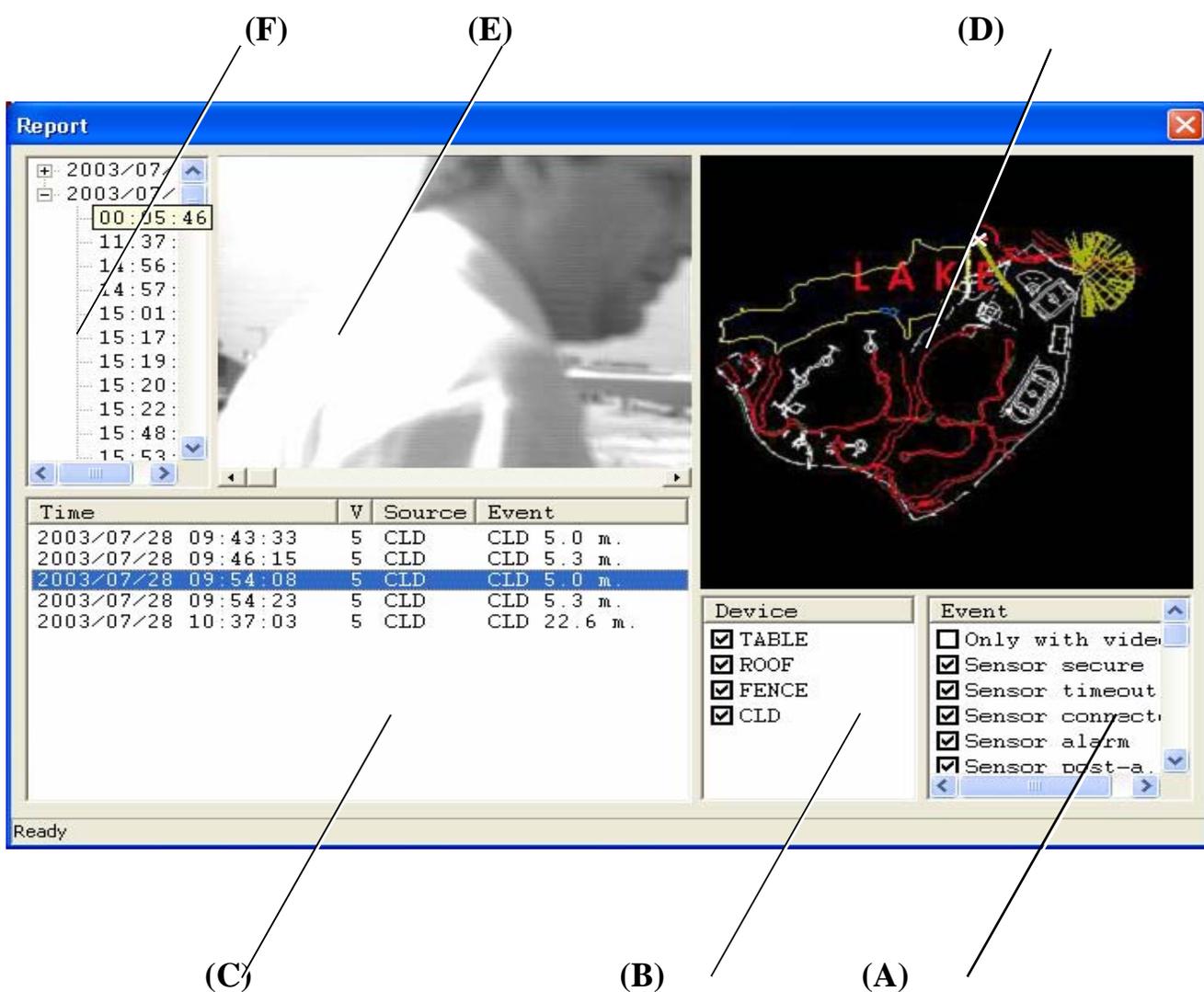
(F)   **(E)**   **(D)**

(C)   **(B)**   **(A)**

Figure 2-6: Report Dialog Box

Functional Description of Report Dialog Box's Sections:

1.   Section (A,B) – Filters. It is used for determining the report mode, using the following elements:

* Check mark boxes: These allow selection of the report types to be displayed in section (C). The selectable report types are: authorization, errors, communication, alarm, alarm disappears, , reset, timeout, normal, normal capture, only with image.

2.   Section (C) – Displays the system reports selected according to the definitions in sections (A,B). The reports are colored according to color code described in paragraph 2.1.2 - e. when the number of reports exceeds the number that can be contained in this section, some of them are hidden. A scroll bar is added in the section's side, to allow scrolling

. Click on a report line provides its event picture in section (E) and diagonal cross sign at site image(D).3.

Section (E) – Displays the alarm/operation event picture of a selected report (from section (C)). The picture type is the same as displayed in section (7) of the main screen (see Figure 2-1).

4.   Section (D) – Site image. It is used for show guarded site.

5.   Section (E) – Image(s) associated with event

6.   Section (F) – Report block

b.   <u>Date/time</u>

This option provides a Date and Time dialog box that presents the current date and time, which the ISSC is synchronized to. This dialog-box allows updating of the date and time by direct keying into the dialog box, or using the box scrolling buttons.

c. <u>Mute</u>

This option can be also selected by the upper bar loudspeaker ( ) button and by F8 key. Selection of this option ceases the alarm tone after it has been operated.

d.   <u>Change System Operator</u>

This option provides a dialog box that allows changing of the operator's name in the system database.

e. <u>LGS Reset</u>

This option provides a dialog box, similar to the System/Clear dialog box (see paragraph 2.2.1.1), but refers to LGS systems only.

LGS reset allows resetting of a few or all of the site's LGS systems in a mode that causes the LGS's to restart their operation and re-perform the site's topography "learning" procedure (see LGS user guide).

f. <u>Video Settings</u>

This option allows setting, in the ISSC program and thereby in the PC hardware, the video standard of the guarded site video cameras (e.g. PAL, NTSD).

To adjust video quality choose the necessary camera (for example CLD) and press (…) button.
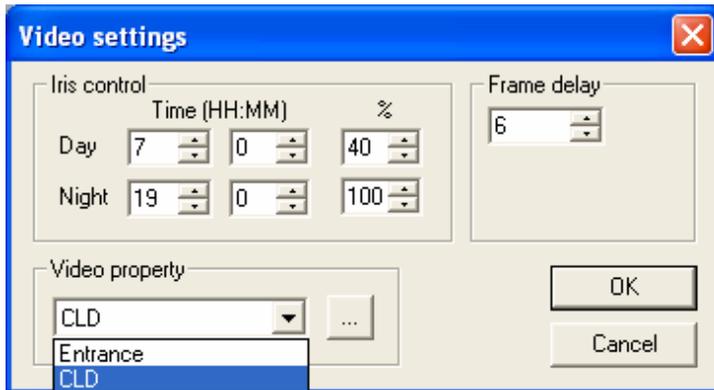
Video capture board driver dialog box will be opened. The Dialog Box configuration is depending on driver of current board.
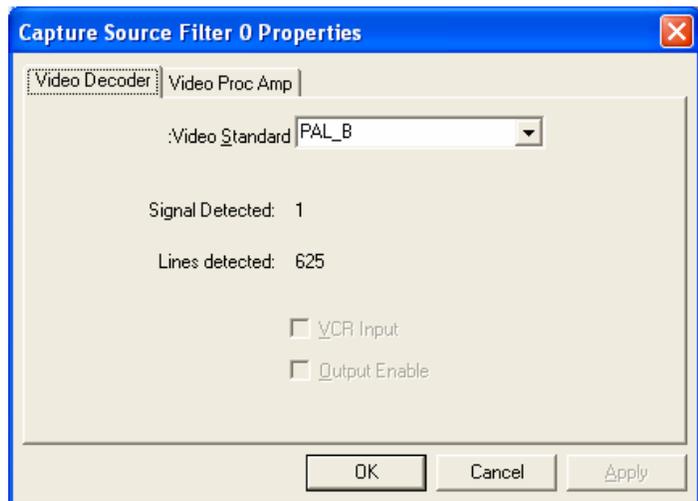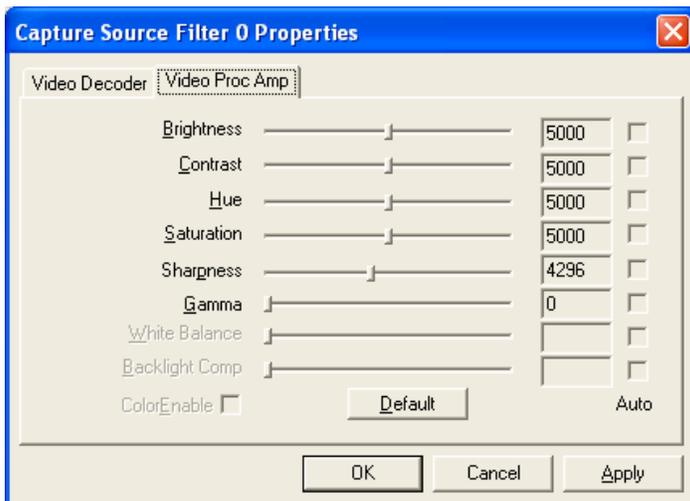
Choose video decoding (PAL or NTSC) or adjust video parameters.
Press "Apply" or "OK" to apply changes.

g.   <u>Options</u>

This option allows setting report storage time, etc.

h. <u>LGS HZ Schedule</u>

This option allows setting LGS hidden zones (masks) schedule plan.

i. <u>Phone call list</u>

This option allows setting list of phones where program have to dial on any alarm.

2.2.1.4   Help

This menu provides "About" information.

2.2.2 Upper Bar Buttons

Three buttons are provided, the function of which are similar to those of some Support options, as follows:

-             (Clear) – See paragraph 2.2.1.1 - Clear.

-             (Report) – See paragraph 2.2.1.1 - Report.

-             (Mute) – See paragraph 2.2.1.1 - Mute.

3.   Operation Instructions

(Refer to Figure 2-1)

3.1 Normal Mode Operation Instructions

(1)   Verify with your superior that all site guard sensors operate in good working order.

(2)   In order to operate the ISSC program, click twice on the ISSC icon on the PC desktop and verify that the ISSC main screen (Figure 2-1) is displayed and is spread over the entire monitor screen.

Note

If the program operation attempt fails, restart the procedure.

(3)   Verify that no "event" (intruder detection) is presented in section (7). If an event occurs, inform your superiors immediately and start the emergency procedure as detailed in paragraph 3.2.

(4)   If no event is presented in section (7), check the reports in section (5) and verify that all reports inform normal sensor operation without any intrusion detection.

(5)   Check sections (1) and (2) in the main screen and verify that all sensor indications, that are illuminated in green, are either blinking or constant.

(6)   Verify that all images in sections (3) and (4) (using section 3 scroll bar, if applicable) present normal situations without intruding attempts.

3.2   Emergency Mode Operation Instructions

3.2.1 General Information

1.   The following instructions are presented per screen section order, rather than per priority order.

2.   When an intrusion event is detected or seems to eventuate, refer to the appropriate section in the main screen that provides the most efficient and detailed information (regularly it is section (1)).
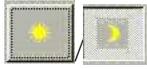
3.2.2 Operating Sections (1) and (2)

(1)   Observe the map in section (1) and identify the sensor states according to their illumination modes, as described in paragraph 2.1.2 - a.

(2)   If needed, increase map resolution in the area of interest (e.g. to distinguish between two adjacent sensors), using the zoom box, as follows:

(i)   To display the required area (enlarged) in section (2), move the zoom box to that area in section (1) in one of two ways:

A.   Move the mouse cursor to the middle of the area, click the mouse's left pushbutton and verify that the area is presented in section (2) in a magnified format.

<div align="center">or:</div>

B.   Move the cursor to section (2), drag the map to the desired position and verify that the zoom box surrounds the required area in section (1).

(ii)   To zoom-out further to the point of interest in that area, move the cursor to the desired point in section (2) and re-click on the mouse's left pushbutton.

(iii)   To zoom-in, click on the right pushbutton.

3.2.3 <u>Operating Sections (3), (4) and (8)</u>

(1)   Observe the video pictures in section (3).

(2)   Select the picture of interest among them. To do so, bring the cursor to the picture, double-click on the left push-button and verify that the picture appears enlarged in section (4) (and disappears from section (3)).

 (3)   For quick paging among the video pictures of all sensors in enlarged format in section (4), use the << and >> buttons.

(4)   If required, use section (8)'s buttons to navigate and/or zoom in/out the selected sensor camera (functioning in section (4)), in order to reach the desired position/location).

(5) If required, use the button to disengage the camera from automatic mode.

(6)   Using the (Sun/Moon) button, set the camera's iris today or night position, as relevant.

3.2.4 <u>Operating Sections (5) and (6)</u>

(1)   Observe the reports displayed in section (5) and act accordingly, as follows:

(i)   If an alarm is reported, notify your superior and refer to other screen sections in order to track the intruder and acquire maximum information and accuracy on the event.

(ii)   When two or more alarms are detected, refer to the date & time data in the reports to check their appearance order.

(iii) If an operational or technical fault is reported, notify your superior and the maintenance technician.

(2)   If you need information on additional previous reports (e.g. for comparison), refer to the stand alone Report window (see paragraph 2.2.1.2 - a).

(3)   Refer to section (6) to see the scheme of the selected sensor (through section (7) or (1)).

Refer to the illuminated spots on it to verify which of its dry contacts have been operated.

3.2.5 Operating Section (7)

(1) Observe the events in section (7) and refer to the alarming blinking strips at the bottom of each event picture.

The blinking colors mean the same as described in paragraph 2.1.2 - a.

Note

If a sensor event window appears in section (7) as a result of a failure in the sensor, the window automatically disappears upon removal of the failure.

(2) In order to select the event detection sensor's camera (if exists), for display of its enlarged video picture in section (4), perform the following:

(i) If the (lock) button in section (8) is in lock state (looks pressed), click the button to the unlock state.

(ii) Double-click with the mouse cursor on the event's picture and verify that the camera's shot picture appears enlarged, as "a live" video picture, in section (4).

3.3 Report Acquisition

To observe the system reports in various modes act as follows:

(1) Select Support menu from upper bar and then Report option.

(2) In the opened Report dialog box (see figure 2-5), define the type of the report massages to be displayed (see description in paragraph 2.2.1.2 - a).

(3) If needed, determine the maximum days of the required reports' history in the days setting box which appears at the left side of the screen.

(4) If a printer is available and printing is required, click Print button.

3.4 System Clear

(1) To clear all system's guard sensors, select System menu from upper bar and then Clear.

(2) In the opened Clear dialog box (see Figure 2-3), define the required sensors to be cleared (either all or one by one).

Note

Clearing the LGS systems through this dialog box does not cause them to re-learn their surrounding topography.

      (3)   When re-learning of the surrounding by a LGS sensor is required (see above note), select LGS Reset option through the Support menu in the upper bar (see paragraph 2.2.1.2 - f).

3.5 <u>Various Support Operations</u>

For more support operation refer to paragraph 2.2.1.2.

3.6 <u>System Exit</u>

To exit from the ISSC program, select System menu in the upper bar and then Exit.

Table of Contents

Table of Contents (Continued)

List of Figures