

SENSAPHONE®
IMS-4000™
Infrastructure Monitoring System

Software Upgrade Notice
and
Upgrade Procedures

Windows Workstation Client Software
ConsoleView Management Software 3.0.17

Equipment Firmware

BootSys	2.26/4.01 (See Notes)
IMS4k OS	3.06
System Support	2.20
VoiceWare	2.12
Node Firmware	3.15 (10/100 Mbps Nodes)
Node Firmware	2.59 (10 Mbps Nodes)

Release Date December 17, 2008

The upgrade package has no prerequisites and supersedes all other upgrade or software fix packages previously distributed.

This upgrade package is an IMS Solution-wide upgrade. You must upgrade your IMS-4000 Host firmware (and Node firmware if you have installed IMS-4000 Node Units) and also upgrade all client installations of the IMS-4000 ConsoleView management console. Unpredictable results may occur if you do not follow the upgrade procedure completely.

IMS-4000 ConsoleView Feature and Correction Summary

ConsoleView

Version 3.0.17 (October 15, 2008)

- Restored the Table High and Low programming fields when using the 4-20mA Bridge with a custom table.

Version 3.0.16 (June 1, 2008)

- Corrected real time strip chart when values are negative.

Version 3.0.15 (May 12, 2008)

- Added programming support for new IMS-series sensors: Ultra-Low Temperature Sensor, 15A Current Sensor and 20A Current Sensor.
- Added ability to set custom table values for 4-20mA sensors.

Version 3.0.14 (August 1, 2007)

- Software installation modified to support Microsoft Windows Vista.
- Added archiving message to the datalog download screen when the database gets large.
- Upgraded the HistoryView application. Archive files can now be viewed without loading them into the current database. In addition, the archive process now provides the option to either retain or delete the selected records from the current database.
- Corrected background color when graphing data within HistoryView on computers running Windows Vista.

Version 3.0.13 (January 10, 2007)

- Modified the Holiday setup screen to reflect the current year on recurring holidays.
- Modified the Profile Setup screen to allow a null password to be entered.
- Corrected an issue in HistoryView which caused Normally Closed sensors to display as Normally Open.

Version 3.0.12 (October 1, 2006)

- Corrected screen delay issue with Datalog download if record count was zero.
- Corrected potential issue with Datalog and Eventlog Auto-update feature which could have resulted in missing records.

Version 3.0.9 (February 16, 2006)

- Addressed issue when storing history database on a remote server (requires IMS4K v2.89 firmware or greater).
- Improved performance of *Data* and *Event Log Download* so that screens close faster (requires IMS4K v2.89 firmware or greater)
- Changed minimum *Webpage Refresh* time to 30 seconds.
- Removed *Calibration* setting for battery channel(s).
- Changed *User Code* entry field so that it will only allow 4 digits to be entered.

Version 3.0.4 (August 23, 2005)

- Changed camera minimum snapshot interval to 2 seconds on Alarm Response screen.

Version 3.0.3 (May 12, 2005)

- Added support for password protected network cameras.

Version 3.0.2 (April 7, 2005)

- Added support to reprogram flash memory in new 10/100 Mbps version nodes. The software will automatically display firmware files compatible with selected node.

Version 3.0.1 (February 23, 2005)

- Corrected problems related to Windows non-US regional settings.
- Corrected an issue with setting an incorrect value when acknowledging an alarm.
- Removed the ability to delete or disable a profile if it is the last remaining Master Administrator.
- Rearranged some items on the main tree-view: History moved from Enterprise to Host level; Cameras are now added/removed directly from the Host/Node.
- Changed Reset Time to allow programming a value less than 30 minutes.

Version 2.2.8 (August 10, 2004)

- Add configurable SNMP trap levels to Environmental & IP alarms.
** Requires IMS4k OS v2.77 **
- Added configurable Inter-call Delay to allow call-in acknowledgement between calls. ** Requires IMS4k OS v2.77 **
- Corrected problem where input name changes were not reflected in the left pane treeview after connecting a new input sensor.
- Corrected permissions issue regarding PowerGate usage rights.
- Corrected history query issue when Windows is set to international regional settings.
- Corrected various scheduling issues.

Version 2.2.2 (July 1, 2003) ** This version requires IMS4k OS v2.54 **

- Added periodic dialtone test (optional).
- Added support for viewing voice messages and version info through firewalls. (Requires BootSys 2.23)
- Added ability to have up to 128 cameras.
- Added optional Pop-Up message feature when an alarm occurs.
- Added optional PC audio message playback when an alarm occurs.
- Added ability to click on input strip chart to locate data point in history grid.
- Added option to minimize application to system tray.
- Added adjustable web page refresh rate.
- Corrected a timezone programming issue.
- Corrected issue when data & event logs were set to auto download.
- Corrected several programming form issues when using Windows large fonts.

Version 2.1.9 (March 11, 2003)

- Added Camera Snapshot to Alarm Response feature.

Version 2.1.8 (February 21, 2003)

- Added DataLog and EventLog History features in ConsoleView.
- Added HistoryView database query engine and archive utility.
- Added Alarm on Return-to-Normal feature for IP Alarms.
- Added Host network settings to ConsoleView (read only).
- Added automatic reconnect after new firmware installation.

Version 2.04 (September 20, 2002)

- Added support for evaluation mode.
- Added support for the IMS 4–20mA Bridge.
- Resolved issue disabling the Alarm Reset Time.

Version 2.03 (August 28, 2002)

- Added confirmation before deleting an Enterprise.
- When deleting a Host/Enterprise asks if you want to delete its History database.
- Resolved issue setting the Alarm Reset Time.

Version 2.02 (August 20, 2002)

- Added the ability to relocate the History database files.
- Renames Log directories if unit gets renamed.
- WML webpage support added on Internet Settings screen.
- Automatically enables email, fax, or snmp contact types when selected.
- Includes an updated version of the Axis Camera control (v1.0.3.1). Requires current camera firmware to be installed.
- Added Alarm on Return-to-Normal feature for environmental inputs.

Version 0.9.8 (June 5, 2002)

- Supports PowerGate2.
- Added ability to have multiple Alarm Responses for one alarm.
- Added camera selection (2100/2400) on setup screen.
- Added alarm enable/disable options on the environmental and IP programming screens.
- Resolved issue saving programming under Windows XP.

Version 0.9.7 (May 10, 2002)

- Added rings until answer on Phone Settings screen.
- Updates current username/password if user changes their own username/password.

Version 0.9.6 (May 2, 2002)

- Added optional PPP dialup permission for each User Profile

Version 0.9.5 (April 23, 2002)

- Changed Alarm Response screen to allow selection by the Outlet name.
- Corrected channel summary sorting.
- Corrected duplicate timezone entries from appearing in selection box.
- Added IP Alarm custom port number entry box
- Added Login failure notification
- Changed resolution of camera image.
- Added alarm status to Host & Node summary screens
- Added SMTP Username/Password fields
- Adjusted input value polling times
- Added support for Axis 2400 Camera Server
- Added the ability to connect to a host by double-clicking on the Host name.

Version 0.9.3 (February 20, 2002)

- First production version

IMS-4000 Embedded Firmware Feature and Correction Summary

IMS4k OS

Version 3.06 (December 17, 2008)

- Corrected issue involving the Reset-to-Defaults option in the local configuration menu.

Version 3.05 (December 5, 2008)

- Corrected issue involving the display of the IP Alarm Last Response from Nodes when multiple Nodes were configured with IP Alarms and the Status Refresh was set to the minimum of 10 seconds on each device.
- Corrected issue which prevented nodes from flash updating.

Version 3.04 (November 18, 2008)

- Updated firmware to properly display free memory available on the Voice screen within ConsoleView.

Version 3.02 (October 15, 2008)

- Corrected an issue that could potentially occur when changing the node IP address using ConsoleView. Under certain conditions the node could reconnect to the wrong programming slot in the host, thus acquiring incorrect programming.

Version 3.01 (June 1, 2008)

- Corrected alarm processing issue when using the Ultra-Low Temperature Sensor.

Version 3.00 (May 12, 2008)

- Added programming support for new IMS-series sensors: Ultra-Low Temperature Sensor, 15A Current Sensor and 20A Current Sensor.
- Added ability to allow custom table values for 4-20ma sensors.

Version 2.98 (August 1, 2007)

- Corrected an issue which caused the SNMP agent to restart even when it was configured to be disabled.
- Improved modem routines when making inbound voice and data connections.
- Corrected issue in web page which caused input names to be displayed incorrectly.

Version 2.94 (January 10, 2007)

- Corrected issue which caused host environmental inputs to reload template defaults on system reboot when input 1 had a Temp Sensor (F) w/display connected.
- Corrected issue which caused host IP alarms to sometimes be incorrectly marked as redundant.
- Corrected issue which caused recurring holidays to fail to be recognized beyond the current year.
- Corrected issue which allowed profiles without a Username & Password to log-in via the web page.

Version 2.93 (October 1, 2006)

- Corrected potential issue with datalog and eventlog download process when multiple users would simultaneously log-in.
- Corrected issue with web page causing the Delete button not to be displayed.
- Corrected issue with web page when disabling profiles.
- Added compatibility with new modem hardware.
- Modified email subject to include "RTN" when sending Return-to-Normal alarm messages.

Version 2.90 (April 1, 2006)

- Corrected IP Alarm issue when the device status changes from *Route Down* to *Ping Timeout*.
- Modified the handling of internal system log files to better control file sizes.

Version 2.89 (February 16, 2006)

- Corrected *User Code/Password* programming issue in web page.
- Addressed javascript vulnerability issues in web page.
- Changed *Node Name* to be read-only on web page and SNMP.
- Corrected two-way e-mail issue affecting usernames.
- Corrected Node voice message issue (ID) in menu.

Version 2.87 (August 23, 2005)

- Updated SNMP agent to support additional web security parameters and node MAC address.
- Corrected issue regarding incorrect timestamps within the alarm message when Return-to-normal alarms occurred in the node.
- Added camera view option to web page in all authenticated modes.
- Added camera association programming to web page.
- Fixed display of battery and humidity units on web page.
- Input values greyed-out on web page for nodes in a trouble condition.

Version 2.86 (June 17, 2005)

- Added SNMP process monitoring.
- Corrected issue which allows users to log in to a new unit via the web page with the default profile.

Version 2.83 (May 12, 2005)

- Added support for password protected network cameras.
- Changed web page options in the serial port Network Configuration to permit configurable password access to view status and/or change programming via the web page.
- Corrected issue when alarm voice call was answered but not acknowledged.

Version 2.82 (March 24, 2005)

- Web page now allows programming changes depending on permissions level.
- Improved web server operation when viewed continuously.
- Corrected e-mail issue when host name or Profile name contained a comma.
- Corrected clock issue for Mid-Atlantic time zone setting.

Version 2.80 (February 23, 2005)

- Corrected web server security issue where service was still running when disabled by the user.
- Fixed web page event log messages to match those shown in ConsoleView.
- Corrected problems with sending camera images after a camera has failed to respond.
- Corrected a problem where alarm dialout calls did not stop after the maximum number of calls were attempted.
- Corrected problem that caused Nodes to reconnect as “new” instead of maintaining their existing programming.
- Corrected an issue that resulted in repeated calls being made if e-mail could not be sent.

Version 2.77 (August 10, 2004)

- Added call-in acknowledgement feature.
- Added support for configurable SNMP trap levels.
- Corrected time synchronization issue when timeserver is unavailable.

- Updates “Last acknowledge” times to current time if “Last Acknowledge” occurred prior to “Last Alarm.”
- Compatible with MIB version 1.2.
- Corrected holiday scheduling issue.
- Corrected blind dialing option.
- Corrected issue with SNMP Trap message.

Version 2.59 (October 20, 2003)

- Added support for Panasonic network camera.
- Added ability to reorder Profiles and Contacts.
- Added ability to remotely reconfigure network settings for both Hosts and Nodes.
- Added colored bullets to IMS-4000 web page to indicate OK/Alarm status.

Version 2.54 (July 1, 2003)

- Redesigned web page.
- Added periodic dialtone test.
- Revised subject line for alarm e-mails.
- Added support for 128 Cameras.
- Two-way e-mail command format is now less sensitive to upper/lower case letters.
- Corrected issue regarding alarms that never clear.
- Enhanced flash upgrade utility.
- Compatible with MIB version 1.1

Version 2.49 (March 11, 2003)

- Added support for Camera Snapshot in alarm response.

Version 2.46 (February 21, 2003)

- Added SNMP agent for remote management via third party software.
- Implemented Alarm on Return-to-Normal feature for IP Alarms.
- Corrected issue regarding order of alarm delivery when multiple alarms are being processed.
- Corrected issue which caused Listen-in time to be cut short.
- Corrected issue regarding the displayed/spoken alarm limit on faxes, alphanumeric pages, and voice calls if the limit changes while the alarm is being delivered.
- Corrected EventLog messages for e-mail feature.
- Corrected issue when reprogramming flash memory in several Nodes.

Version 2.41 (September 20, 2002)

- Added the ability to acknowledge alarms via the IMS Web Page.
- Added support for evaluation mode.
- Added support for the IMS 4–20mA Bridge. (Requires input board firmware chip version 1.03 or greater)
- Improved timing accuracy for Alarm Reset Time

Version 2.40 (August 23, 2002)

- Resolved modem dialing and answering reliability issues.

Version 2.38 (July 25, 2002)

- System saves Last Alarm and Last Acknowledge times—even after system powerdown.
- Added support for Metropager.

Version 2.36 (June 28, 2002)

- Added PowerGate2 support.
- Resolved issue when using special characters in the Local password.
- Added Alarm on Return-to-Normal feature for environmental inputs.

Version 0.34 (June 5, 2002)

- Changed phrasing of IP alarms when an IP device has never responded.
- Removed Node status messages from voice report when Node is in trouble.
- WebFTP feature operational.
- Added support for Axis 2400 camera server.

Version 0.30 (May 17, 2002)

- Added PowerGate trouble alarm support
- Added support for programmable rings until answer feature.
- Changed two-way email message format. It now uses an email address instead of the Username.
- Resolved issue communicating with Nodes installed behind routers supporting NAT.
- Resolved issue saving input programming when loaded from a template.

Version 0.29 (May 10, 2002)

- Resolved issue in schedules for environmental inputs.
- Changed voice reports to say “Normal” instead of “OK” when reporting status.

Version 0.26 (April 30, 2002)

- Added option to skip dialtone detection when making a telephone call.
- Resolved voice menu issue when more than 1 PowerGate was configured.

Version 0.25 (April 23, 2002)

- Added Datamodem enable/disable feature in Local Configuration programming menu.
- Added permissions checking when alarms are acknowledge during a voice call.
- Added class checking during voice reports to only speak items in the Profile’s class.
- Added the option to insert a B at the end of a voice contact to skip the key press requirement during voice alarm calls.
- Resolved issue when sending alphapager messages to cell phones.

Version 0.18 (March 21, 2002)

- Added timezone to fax, alphapage, & email messages.
- Changed answer detection to 1 ring.
- Contact numbers can use *, #, !, and @ characters in dial string.
- Voice status reports require proper permissions to listen to information.

Version 0.16 (February 20, 2002)

- First production version

BootSys

Version 4.01 (December 5, 2008)

- Support for new system hardware. Do Not install in units running bootsys versions starting with a “2”.

Version 2.26 (March 24, 2005)

- Web page security set to enabled by default.

Version 2.25 (February 23, 2005)

- Minor file system adjustments.

Version 2.23 (July 1, 2003)

- Added support for viewing voice messages and version info through firewalls.

Version 2.21 (March 11, 2003)

- Added support for Camera Snapshot in Alarm Reponse.

Version 2.20 (October 29, 2002)

- Revised internal memory allocation.

Version 2.19 (June 12, 2002)

- Relocated several internal files

Version 0.18 (April 11, 2002)

- Modified internal file maintenance routines

Version 0.16 (April 8, 2002)

- Modified internal clock set/load routines

Version 0.14 (February 20, 2002)

- First production version

System Support

Version 2.20 (October 1, 2006)

- Updated timezone database to add new daylight savings rules.

Version 2.18 (February 16, 2006)

- Removed extraneous items from the SNMP system information.

Version 2.16 (March 24, 2005)

- Upgraded web server.
- Corrected clock issue for Mid-Atlantic time zone setting.

Version 2.15 (February 23, 2005)

- Added new library for IMS web page.
- Added new version of web server.
- Made minor changes to file system.

Version 2.11 (July 1, 2003)

- Added library to perform graphing on the web page.

Version 2.10 (June 12, 2002)

- Modified internal file system.

Version 0.10 (May 17, 2002)

- Changed two-way email fetch code to work with MS Exchange

Version 0.08 (April 25, 2002)

- Modified internal file system.

Version 0.07 (April 11, 2002)

- Added support for all timezones.

Version 0.06 (March 21, 2002)

- Added support for SMTP authorization.

Version 0.04 (March 21, 2002)

- Modified internal file system.

Version 0.03 (February 20, 2002)

- First production version.

VoiceWare

Version 2.12 (May 12, 2008)

- Added voice support for new IMS-series sensors: Ultra-Low Temperature Sensor, 15A Current Sensor, and 20A Current Sensor.

Version 2.10 (October 20, 2003)

- Added voice support for call-in acknowledgement feature.

Version 2.09 (June 13, 2002)

- Added Alarm on Return-to-Normal vocabulary.

Version 0.08 (May 21, 2002)

- General vocabulary improvements.

Version 0.06 (May 3, 2002)

- General vocabulary improvements.

Version 0.05 (May 1, 2002)

- Added PowerGate vocabulary.

Version 0.04 (March 21, 2002)

- Added vocabulary to support trouble alarms.
- Added vocabulary for menus.

Version 0.03 (February 20, 2002)

- First production version.

Node Firmware

10/100 Mbps model

Version 3.15 (December 5, 2008))

- Maintenance update

Version 3.14 (October 15, 2008))

- Corrected an issue that would occur when a sensor becomes disconnected from the node.

Version 3.13 (February 1, 2007)

- Corrected issue which caused the serial port to stop responding if the network parameters were configured incorrectly.

Version 3.12 (October 1, 2006)

- Removed system messages displayed on serial port during reboot.

Version 3.11 (April 1, 2006)

- Corrected IP Alarm issue when the device status changes from *Route Down* to *Ping Timeout*.

Version 3.10 (August 23, 2005)

- Corrected network issues regarding the Gateway and Broadcast settings.
- Removed error messages that appeared at the serial port.
- Added network debug option menu.

Version 3.06 (June 13, 2005)

- Corrected routing issue if host and node are on different subnets.

Version 3.0.5 (May 12, 2005)

- Suppressed system messages appearing at the serial port.
- Reduced power consumption by disabling unused processor options.

Version 3.0.4 (April 7, 2005)

- First firmware release for nodes supporting 10/100 Mbps.

10 Mbps model

Version 2.59 (April 1, 2006)

- Corrected IP Alarm issue when the device status changes from *Route Down* to *Ping Timeout*.

Version 2.58 (November 10, 2004)

- Changed battery alarm routines to detect if the batteries are disconnected.
- Changed humidity sensor range to limit values between 0 and 100%.

Version 2.57 (June 3, 2004)

- Corrects issue regarding unacknowledged IP Alarms if host reboots.

Version 2.38 (October 20, 2003)

- Added ability to remotely reconfigure network settings.
- Improved battery management functions.
- Corrected serial port erroneous character display issue.

Version 2.22 (June 13, 2003)

- Corrected issue regarding sensor trouble alarms.

Version 2.21 (March 11, 2003)

- Corrected issue regarding return-to-normal alarms when reset time is also enabled.

Version 2.20 (November 12, 2002)

- Corrected problem when IP alarms tripped after Reset Time expired.

Version 2.19 (September 20, 2002)

- Added support for the IMS 4–20mA Bridge.

Version 2.16 (August 28, 2002)

- Resolved issue when removing a sensor for more than a minute and then reconnecting the same sensor.
- If an IP alarm occurs a second time before the initial alarm gets acknowledged, then a redundant IP alarm is logged in the event history.

Version 2.10 (July 12, 2002)

- Added support for Alarm on return-to-normal for environmental inputs.

- Changed firmware version style to 0.0 (major.minor).
- Resolved PowerGate initialization issue.

Version 2.05.31.0 (May 31, 2002)

- Removed ethernet error messages that appear during Local Configuration when network cable is not connected.
- Added PowerGate2 support.
- Added support for PowerGate trouble alarm.

Version 2.05.08.1 (May 8,2002)

- Resolved issue when a Node alarm exists and the host reboots and no acknowledgement is received.
- Resolved issue displaying dot quad addresses through local serial port.

Version 2.04.30 (April 30,2002)

- Modified internal file system.
- Made internal improvements in alarm logic processing.
- Made internal timing improvements.

IMS-4000 Firmware Update Instructions

Follow the instructions below to install the firmware updates into your Host(s) and (Nodes). The entire process will take about 15 minutes (Host). If you have any questions please contact our technical support department at 610.558.2700 x260.

HOST

- 1) Run the IMS ConsoleView Software. Confirm that it is version 3.0.17 by clicking *Help* then *About* from the main menu. Log in to your IMS-4000 Host(s) and save your programming.
- 2) In the menu tree, right-click on the Host name and select *Version Info*. The current versions of the installed firmware will appear in the upper box. You should enter the version numbers here for reference later:

BootSys	_____
IMS4k OS	_____
System Support	_____
VoiceWare	_____

Click the *Upload* button and go to *C:/Program Files/IMS-4000/Firmware* or to the drive and folder where you installed the IMS4000 Software. Select the *ims4k3.06.ims* file and click *Open*. When the upload finishes, click the *upload* button again and select the *voice2.12.ims* file (not required if you already have *voice2.12* installed) and click *Open*. When the upload finishes click the *Restart IMS* button, then *Yes*. The unit will automatically disconnect. The unit will require a few minutes to reboot.

- 3) After the unit has finished rebooting, reconnect to the unit. In the menu tree, right-click on the Host name and select *Version Info*. If your BootSys is version 2.26 then skip to the next step - you are already running the latest version for your hardware. If your BootSys version is less than 2.26, click the *Upload* button and go to the *Firmware* folder and select the *boot2.26.ims* file and click *Open*. When the upload

finishes, click the Restart IMS button, then Yes. The unit will automatically disconnect. The unit will require a few minutes to reboot. If you are running BootSys version 4.01 then you are running the latest version for your hardware. Do not install an older version BootSys if you are running version 4.01.

4) After the unit has finished rebooting, reconnect to the unit. In the menu tree, right-click on the Host name and select *Unit Properties*. Click the *Clock Settings* Tab. Verify that your Timezone is correct. Change it if necessary and click *Apply*, then *OK*. In the menu tree, right-click on the Host name and select *Version Info*. Click the *Upload* button and go to the Firmware folder. If your System Support version is less than 2.20, then continue with step 4, otherwise skip to step 5. For less than 2.20: Select the *system2.20.ims* file and click *Open*. If your previous version of the IMS4000 firmware was less than .25 then upload the *ip_alarm_patch.ims* file located in the /Pre .25 folder. When the upload finishes, click the *Restart IMS* button, then *Yes*. The unit will automatically disconnect. The unit will require a few minutes to reboot.

5) After the unit has finished rebooting, reconnect to the unit and verify that your programming is intact. Right-click on the Host name and select *Save Programming*. Save your programming again. Old programming files should be discarded as they may not be fully compatible with the new firmware.

NODE

Two versions of the IMS-4000 Node have been manufactured:

- Earlier versions support 10 Mbps LANs (*black* network jack) and have a firmware version starting with the number “2”.
- Nodes produced after April 2005 support 10/100 Mbps LANs (*silver* network jack) and have a firmware version starting with the number “3”.

The latest ConsoleView software (v. 3.0.17) will automatically select the proper firmware files for your node. Nodes with firmware version 2.xx can only be upgraded with newer firmware files beginning with 2.xx. Nodes with firmware version 3.xx can only be upgraded with newer firmware files beginning with 3.xx.

To determine if your Node firmware is current, right-click on the Node name and select *Node Properties*. Click on the *Diagnostics* tab. The installed version will appear next to the words *Firmware Version*. If it is less than 2.59 for version 2.xx nodes or less than 3.15 for version 3.xx nodes, then you should install the upgrade. Click the *Upgrade* button. Click *Yes* to upgrade this Node. Locate and select the correct file for your node in the IMS-4000 Firmware folder and click *Open*. The file will be transferred to the Node and installed. When it finishes, click *OK*. After about a minute the Node will automatically reboot and reconnect when the update is complete.

If you have further questions regarding the IMS-4000, please contact Sensaphone Technical Support at 610.558.2700 x260, or by email at support@sensaphone.com