

**Johns Hopkins Medical Institution
Department of Pathology**

PROCEDURE: ISENSIX – Advanced Remote Monitoring System (ARMS™) <http://162.129.240.251/arms>

Prepared by	Date adopted	Supersedes procedure #
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Review date	Revision date	Signature

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All Isensix Zone Managers & Admins			
Continuous Quality Improvement Programs Office			

Principle

The ISENSIX Advanced Remote Monitoring System (ARMS™) is a wireless, internet enabled monitoring system that continuously monitors, transmits and records data related to temperature, humidity, motion, levels, pressure, and door access, in real time to networked access points. Recorded data is retrievable on demand, and is electronically archived for up to 10 years. Hard copies of reports and data may be printed and filed as needed.

The system also provides real time automatic alerts when sensors record data that is outside of the units' operating range.

Purpose

To provide a reference guide to enable users to perform the basic tasks and functions associated with navigating the system, effectively monitoring equipment, and maintaining the system and all its components.

Equipment

Web enabled computer.

System Management

Administrator level access – highest level of access. Privileges include:

- Managing user accounts
- Edit system configurations and policies
- Review Audit log
- Review all logins and attempts
- Calibrations/Validations
- Control Centers
- Review system parameters
- Enter corrective action reports
- View all menu pages
- View all zones and sub-zones within your assigned area(s)

Manager level access – Manager / Supervisor

Profile configurations (edits only)
Managing user accounts
Enter corrective action reports

Logger level access – Zone user level

View selected zones
Enter corrective action reports
View selected menu pages

Events level access

View selected zones
View only corrective action reports to selected zones
View selected menu pages

User Profiles (Administrator or Manager)

To add a new user-

1. From the “**setup**” page select “**Users**”.
2. Click on “**Add New User**”.
3. Enter the users login ID. (The user’s JHED ID is recommended).
4. Enter “**abc**” as a password.
5. Verify that “**User must change password at login**” is checked.
6. Verify that “**Password never expires**” is checked.
7. Select the user’s “**zone membership(s)**”.
8. Enter phone number(s).
9. Enter all information related to event notifications for “**Pager**”, “**Mobile**”, or “**E-mail**”. Please note that at this time only text notifications are possible. All pagers and cell phones listed must have text capabilities.
10. Enter a 3 digit “**Keypad code**”. The system will prompt you to select another number if the one selected is currently in use.
11. Select the users’ “**Access Permissions**”. (Administrator access level can only be assigned by Isensix).
12. Enter any necessary notes.
13. Click “**submit**”.

To edit a user-

1. Select the user whose information you wish to edit. (Names are listed alphabetically by the login ID).
2. Select the field(s) and make all needed changes.
3. Users with administrator access can edit their profile, but not that of another administrator.

Deleting a user-

1. Select the intended user and click on “**delete**”. Deleted users can only be reinstated by Isensix, nor can “**keypad code**” be assigned to another user.

Transferring a user to another zone-

Transferring users to a different zone can only be done by an administrator or a manager, with memberships, to both the zone(s) that the user is leaving, and to the zone(s) to which the user is being assigned.

Preferences (All user levels)

To change user settings in regard to the “**Home**” screen appearance, click on “**Prefs**” at the top right corner of the screen. This will take you to the “**Users Settings**” page. This function will allow users to **change their password**, ***change screen colors**, **temperature display (C or F)**, **home page settings for *sensor cell view**, **graph settings and sample rate**.
***Note – Changing the screen colors will not change or alter those colors or settings in the sensor cells of the “Home” page, that reveal temperature, link, sensor or other monitoring types that are exhibiting out of range parameters.**

ARMS™ System Functional Operations

Home Tab – Review daily

Gives a top-level view of your assigned zones. Displays flashing “Event Reminder” icon [!] when there are unresolved events, equipment name, current status, event counter, and color coded status.

Checkpoint – Perform daily

To ensure that all units in each zone is operating within the required range, and or temperature limits, checkpoints must be performed daily. Users must check the status of each monitored unit and log or take any necessary corrective action. It is best to address any unit operating outside of the specified operating range before doing a checkpoint.

*Research laboratories are not required to perform daily Checkpoints, but at the discretion of the investigator in charge may do so at any given time.

Volume/Speaker Icon – Informational

This feature allows you to know at a glance if the associated sensor will generate an alarm. If the icon has an “X” over it, it means that either the alarm on the “CP”, or the “AP” has been disabled. Clicking on this icon will also take you to the “Sensor Detail” page.

Signal Strength Indicator – Informational

This icon resembles the signal bars on a cell phone and will display the actual percentage of signal quality, out of 100%, between the “CP”, and the “AP” to which it is mapped.

Graph Icon – Informational

Clicking on this icon will take you to the “Report” tab.

Sensor Name – Informational

Clicking on the “sensor name” will take you to the “sensor detail page”.

Sensor Profile – Informational

Clicking on the “sensor profile” will take you to “profile detail” where you can obtain information related to the assigned profile. This information includes, but is not limited to, the alarm thresholds, temperature high / low thresholds, profile type, and other sensors that share that profile. ***Please note that only users with Administrative Level access with membership to all zones will see the true total number of sensors that share any particular profile. All other users will see only the sensors within their zone membership that share profiles.**

Daily Tab – Informational / Reporting

Summarizes the status of each unit and enumerates the number of events, and whether these events were checked and cleared.

Events Tab – Informational / Reporting

Gives a list of events in order of time occurrence. The “Log Action” task may be done on this page to complete any open actions.

Report Tab – Informational / Reporting

Generates reports in graph, event, or table format. An “Auto Checkpoint Report”, which is a function that captures system status at four hour intervals, can be generated from this page. The “Auto Checkpoint” begins at midnight and will capture data for a full 24 hours.

Sensor Tab – Informational

The sensor tab allows the user to check the “Enable”, “Profile”, current “Value”, “Status”, “Content”, and “Contact” information, for each sensor.

Profile Tab – Informational

Lists the sensor name, type, high / low, and alarm thresholds for each unit.

Alarms (Silencing) – As required

To silence an alarm as the result of an event, the user must enter a **3 digit code** into the “CP”, and press enter. Once the alarm is silenced the user must then log in an action related to that event by clicking on the ‘Event Reminder’ icon.

Notes – Not related to events

Zone - This icon is located next to the zone name on the “**Home**”, “**Daily**”, “**Report**”, and “**Sensor**” screens. Notes entered by this method are viewable in the “**Events**” screen. All actions related to deactivating alarms due to equipment servicing or maintenance should be documented in this manner. Please notify the system administrator when taking equipment out of service.

JHMI - Submitting zone notes by this method will enter the note for **all zones in the system**. Since the documented action may not be applicable to all of the zones, it is best that only users with administrative level access enter “**JHMI**” notes. **Any events that may impact the system’s overall operations should be submitted by this method.**

Appendix A

Temperature Monitoring Standard Operating Procedure Template

References: Isensix ARMS User’s Guide, Release 1.0.1, 1.0.9; Isensix ARMS Standard Operating Procedure Manual; Isensix ARMS Customer Support.

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Approved by (Signed copy with System Admin.)	Date