Info HQ Express v1.2

SYSTEM MANUAL

Abbott

This page intentionally left blank.

Table of Contents

Legal Statement

Proprietary statement

The information, documents and related graphics published herein (the “Information”) are the sole and exclusive property of Abbott Point of Care Inc. or affiliates. Permission to use the Information is granted, provided that:

- the copyright notice appears on all copies of the Information.
- use of the Information is for operation of Abbott Point of Care products by Abbott Point of Care-trained personnel or informational use only.
- the Information is not modified in any way.
- no graphics are used separate from the accompanying text.

Each person assumes full responsibility and all risks arising from use of the Information. The Information is presented “AS IS” and may include technical inaccuracies or typographical errors. Abbott Point of Care reserves the right to make additions, deletions, or modifications to the Information at any time without any prior notification.

Patents:

www.abbott.us/patents

Trademark statement

Info HQ, i-STAT, Alinity, and the Geometric Design are trademarks of Abbott.

Windows, SQL Server, Excel and Internet Explorer are registered trademarks of Microsoft Corporation.

All Abbott product names and trademarks are owned by or licensed to Abbott, its subsidiaries or affiliates. No use of any Abbott trademark, trade name, trade dress, or product name may be made without the prior written authorization of Abbott, except to identify the product or services of Abbott. All other trademarks, brands, product names, and trade names are the property of their respective companies. All rights reserved.

Except as permitted above, no license or right, express or implied, is granted to any person under any patent, trademark, or other proprietary right of Abbott.

Disclaimers

All samples (printouts, graphics, displays, screens, etc.) are for information and illustration purposes only and shall not be used for clinical or maintenance evaluations. Data shown in sample printouts and screens do not reflect actual patient names or test results.

The Information was developed to be used by Abbott Point of Care-trained personnel, by other persons knowledgeable or experienced with the operation and service of the product identified, or under the direct supervision and with cooperation from Abbott Point of Care technical sales or service representatives.

In no event shall Abbott Point of Care Inc. or its affiliates be liable for any damages or losses incurred in connection with or arising from the use of the Information by persons not fully trained by Abbott Point of Care.

No confidential relationship shall be established in the event that any user of the Information should make any oral, written or electronic response to Abbott Point of Care (such as feedback, questions, comments, suggestions, ideas, etc.). Such response and any information submitted therewith shall be considered non-confidential, and Abbott shall be free to reproduce, publish or otherwise use such information for any purposes whatsoever including, without limitation, the research, development, manufacture, service, use, or sale of products incorporating such information. The sender of any information to Abbott Point of Care is fully responsible for its content, including its truthfulness and accuracy and its non-infringement of any other person's proprietary rights.

Abbott Point of Care is not engaged in rendering medical advice or services.

Updates to the Information may be provided in either paper or electronic format. Always refer to the latest documents for the most current information.

Preface

This reference contains instructions on how to install, configure, and use the Abbott Point of Care (APOC) Info HQ system.

The operating information provided describes the functional responsibilities and procedures for administrators in successful operation of the Info HQ and its associated components.

Intended use

Info HQ is a web-based data-management software application that enables healthcare professionals to manage and share results from point-of-care diagnostic testing devices throughout the healthcare system.

Info HQ is designed to facilitate regulatory compliance, track operator training on diagnostic testing devices, monitor device performance, and manage the test results that are collected from point-of-care (POC) testing devices.

For details about which devices are supported, refer to the section *Specifications*.

About this manual

This manual is organized as follows:

Section 1: System Overview and Structure Planning

Description of the Info HQ system's features and capabilities, guidance for planning the system, and the process for creating hierarchy maps.

Section 2: Installing the Info HQ system

Detailed instructions for system setup, requirements and steps for installation, and prerequisites for installing Info HQ.

Section 3: Initial setup and configuration

Descriptions of user accounts, connection settings, default system settings, and settings for email.

Section 4: Creating the system hierarchy

Instructions for creating multiple levels of the system hierarchy where devices, operators, and test results are managed.

Section 5: Populating system components

How to configure settings that help manage devices, operators, certification, and reagent inventories within the Info HQ system.

Section 6: System maintenance

Recommendations for maintaining the database, server disks and anti-virus protection.

Section 7: Using Info HQ

Overall description of the system and its major components, login procedures, system navigation, and an overview of the various Info HQ screens.

Section 8: Summary of activity using the Dashboard

Description of the Info HQ Dashboard, a graphical snapshot of the overall activity of the system.

Section 9: Alert management

How to view and handle common alerts.

Section 10: Patient test results management

How to manage patient test results based on type of device, type of test, when tests are conducted, and associated alerts.

Section 11: Operator management

Instructions for managing operators, including their device certifications.

Section 12: Patient management

How to view and manage patient information when Info HQ is configured to receive Admission, Discharge, and Transfer (ADT) data.

Section 13: Device management

How to add and manage POC testing devices registered in the Info HQ system.

Section 14: Inventory management

How to manage the inventory of reagent lots and add new lots.

Section 15: Quality control (QC) management

How to manage QC for reliable and accurate patient testing.

Section 16: Info HQ management

How to check the connection status to i-STAT/DE software, display the system data log and audit trail.

Section 17: Reports

How to generate different types of reports.

Section 18: Technical Support

Guidance on contacting technical support resources and how best to prepare for troubleshooting.

Specifications

Product overview

Info HQ is a web-based software application that enables healthcare professionals to manage and share results from diagnostic testing throughout a healthcare system.

Info HQ provides connectivity and interfacing for Abbott's i-STAT 1, and i-STAT Alinity over a facility's IT network. It can exchange data with other information systems including an LIS or HIS/EMR.

Info HQ helps maintain regulatory compliance with a unique set of features specifically designed to simplify operator management processes, quality control, and system maintenance.

The Info HQ system is designed to be deployed on a healthcare organization's intranet, within its internal firewall. As such, the Info HQ system, although a browser-based application, does not transport any data over the external Internet.

Technical specifications

The Info HQ application can be installed on a system that meets the minimum requirements listed in the following tables.

Computing environment

Component	Requirement
Processor	x64 processor with at least 2 cores.
RAM	8 GB or greater
Hard drive	Available free space: 32 GB or greater. Rotational speed: 7,200 RPM or greater.
Network	Standard 10/100/1000 Ethernet Network Interface Card.
Disk/DVD Drive	DVD ROM or DVD RW drive or shared access to a DVD ROM/RW drive.
Screen resolution	Standard video card capable of 1366 x 768 resolution and higher for web UI.

Software requirements

Component	Requirement
Operating system[1]	Including latest updates, either: Windows 7 Pro (64 bit) or its N or KN variant, or Windows 10 Pro (64 bit) or its N or KN variant or Windows Server 2016
Database management system	Microsoft SQL Server 2014 Service Pack 2 (SP2) Express **Note:** A default instance of SQL Server Express is required to host the Info HQ database. Any existing version of SQL Server Express should be uninstalled before installing Info HQ. SQL Server Express is installed during the installation of Info HQ.
Data protection	Anti-virus software (not included)
System maintenance	Disk defragmenting tool (not included)
Protocols and standards	Supported: HL7 2.6, TCP/IP, LOINC™
Browser requirements	Windows Internet Explorer 11 Enable active scripting and JavaScript for the Intranet security zone (**Tools** > **Internet options**, **Security** tab, **Custom level** button) **Note:** Active scripting and JavaScript are disabled by default. Select **Automatically** for the option **Check for newer versions of stored pages**: (**Internet Options** > **Settings button** > **Temporary Internet Files** tab)
PDF Reader	Adobe Reader version 11.0 or higher

Info HQ v1.2 and i-STAT/DE v2.10 can be installed on a single server or multiple servers. If Info HQ v1.2 is installed across multiple servers, all server time zone settings must be the same.

Requirements for vendor remote support

Component/System	Requirement
Connection speed	1 Mbps or greater
Remote access system	Software or site-to-site VPN connection
Remote control software	Remote Desktop installed/enabled on Info HQ system
User account	Administrator level account on Info HQ system

[1] Operating system must be provided by customer.

Client hardware and software requirements

Info HQ is a browser-based application. Any Windows-based PC or workstation with Internet Explorer 11 that has access to the organization's LAN/WAN can access Info HQ.

Microsoft Excel is required on all client computers to edit template files in .csv format or to view reports saved as Excel/.csv.

Database sizing and growth

The capacity of the server disk must be able to accommodate the growth of the Info HQ database.

When first installed, the size of the Info HQ database is about 60 MB. The database grows according to the number of patient and QC test results that are added to it. Other activity—such as archiving the database, receiving data from the devices and ADT, tracking system activity through audit trails, and adding comments to test results—also affects the size of the database.

As a general rule, adding 500,000 records will increase the database size by about 6 GB. The figures in this table are approximate and should be used for planning purposes only.

Table 1: Estimated database growth

Initial database size	Number of records	Approximate database size (range)
60MB	100,000	1 GB—5 GB
	500,000	5 GB—10 GB

1 - Info HQ system overview and structure planning

1.1 Point-of-Care testing (POCT) and the data management system

Point-of-care testing (POCT) generally refers to medical diagnostic testing within a healthcare facility that is performed in close proximity to the patient. Point-of-care tests usually fall within one of two categories: waived or moderately complex. The healthcare facility must be licensed from the necessary accrediting agencies to perform these POC tests, and any member of the medical staff that performs the tests (operators) must be certified on the testing device.

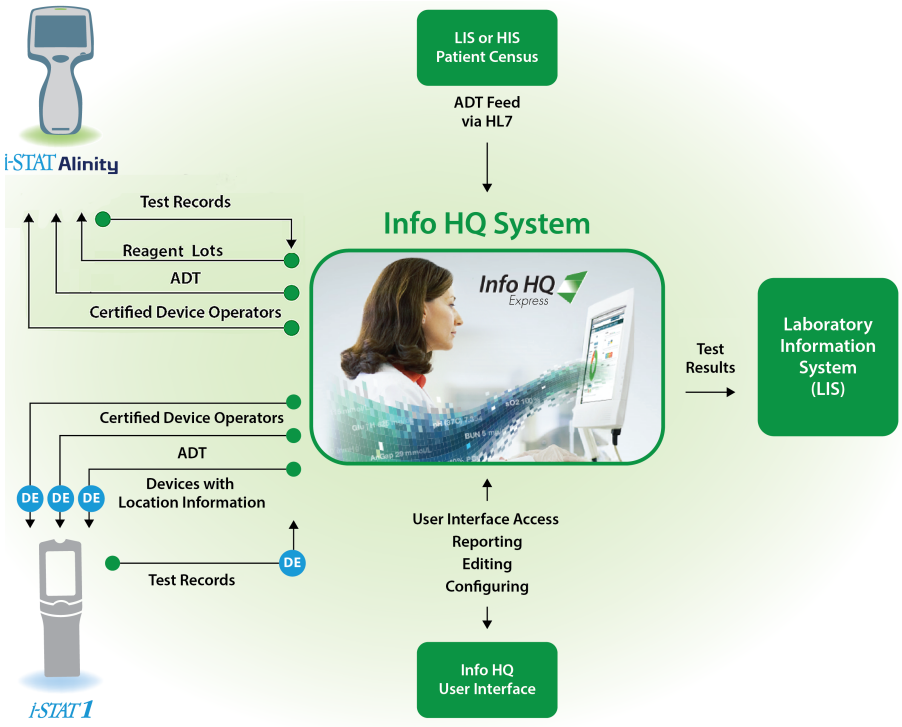
Granting of the license typically requires that the laboratory or the healthcare system administer the appropriate training to operators on the proper use of various POCT methods in use by the healthcare system, and monitor the appropriate use of devices by operators after training. It also requires the monitoring of proper device functioning.

Info HQ is a web-based POC data management system, deployed on the organization's LAN or WAN, typically behind the health system's firewall. Info HQ is designed to facilitate regulatory compliance by managing test results collected from POC testing devices, tracking operator training on diagnostic testing devices, and monitoring device performance. Info HQ forwards the test data it collects to external systems, such as LIS, EMR, and LMS and provides tools to correct and resend data to those external systems. Operator and regulatory compliance are easily maintained, and exceptions are easily located and can be addressed using the simple user interface.

The *System Overview* image is a high-level illustration of the possible connections with the Info HQ system. It is not necessary that all of these connections be in place with any given installation. A

functioning system consists of a minimum of POC testing devices, a POC data management system, and a user accessing the data management system.

Figure 1–1: System overview



i-STAT Alinity communicates with Info HQ directly through the POCT1-A2 communication protocol. Setup and customization via the CWi application is required for communication between i-STAT Alinity and Info HQ. See the i-STAT Alinity documentation for detailed information about setup and customization. i-STAT 1 communicates with Info HQ through i-STAT/DE.

Note: For additional information regarding i-STAT/DE, please refer to *http://www.pointofcare.abbott* for the current revision of the *i-STAT/DE User Guide* in the Technical Bulletin section of the Support page.

1.2 Features and capabilities

Info HQ allows healthcare professionals to collect, analyze, correct, and share information about a health system's point-of-care testing program—including the ability to route patient test results, as appropriate, to external information systems.

The following sections describes specific features and capabilities of the Info HQ system.

Management of devices and storage of results

The Info HQ system can manage the Abbott Point of Care (APOC) family of devices. Info HQ allows users to view, add, delete, and organize devices within the user interface. Information about devices can be emailed and reports generated. Info HQ also collects all test results generated by compatible POC devices, stores them, can forward patient test results to the LIS, and allows them to be managed and reported on.

To manage and maintain the Info HQ system, use the secondary tabs found under the **Tools** tab.

Positive patient identification

Info HQ can receive Admission, Discharge, and Transfer (ADT) information, typically initiated by the HIS or by a registration application, and forward the ADT information to POC devices that can accept patient demographic data. This communication helps ensure positive patient identification at the point of care.

Tools for reporting and analysis

Info HQ provides tools for analyzing and reporting on data that has been collected and stored. These tools are designed so that POC administrators can use the system to meet all regulatory requirements for POC testing in their geographic area.

Protocols for communication

Info HQ uses the following standard communication protocols:

- Web service to communicate with i-STAT/DE for i-STAT data.

  Note: For additional information regarding i-STAT/DE, please refer to *http://www.pointofcare.abbott* for the current revision of the *i-STAT/DE User Guide* in the Technical Bulletin section of the Support page.
- Health Level Seven (HL7) to communicate with the LIS.
- HL7 over TCP/IP to communicate with the HIS/EMR.

1.3 Implementation team

These are the roles and responsibilities for a typical implementation of the Info HQ system.

Point-of-Care Coordinator/Quality Assurance Manager

The point-of-care coordinator (POCC), Quality Assurance Manager, or designee is normally the primary end user of the Info HQ system. This person makes key decisions during the implementation phase of the Info HQ system and is often relied on to be the single point of contact within the organization that is driving the implementation.

Information technology (IT) personnel

Involvement from the IT team is critical to the successful implementation of the Info HQ application on the healthcare system's network. The IT team provides the wireless and network information, network access, site infrastructure, remote access, and device connections.

Abbott services

Abbott Point of Care provides comprehensive documentation and robust support to ensure a successful deployment of the Info HQ system that can contribute to the healthcare system's ongoing success.

1.4 System structure planning

Before installing and configuring the Info HQ system, Abbott recommends that a system administrator create 'map' files. The purpose of the map files is to gather all information about the healthcare system that is needed to create the components in the Info HQ system structure:

- **Location hierarchy**: The facilities, departments, and areas within the healthcare system.
- **Operators**: The individuals who are certified to perform the tests that are tracked by Info HQ, and certifications the operators may have.
- **Devices**: The instruments that operators use to perform tests.

Mapping out this information ahead of time makes it easier to create each of these components, as described in *Creating the system hierarchy* and *Populating system components*.

The information needed for the map files requires input from the nursing staff, the POCC, laboratory staff, and the IT team.

The following sections describe how to create each of these map files.

Map file requirements

Info HQ supports importing and exporting of Locations, Devices, and Operators using .csv format files. A .csv is a comma separated value file which allows opening, editing, and saving in Microsoft Excel. .Csv files can also be opened as text files for editing (for example, using Notepad). The .csv format is used because it can be readily opened in Excel for editing and saved in the same format with comma as the field delimiter. Only .csv files which use comma (,) as a field delimiter can be imported into Info HQ.

Create a location hierarchy map

The location hierarchy is a logical arrangement in the Info HQ user interface of the named healthcare-system facilities (such as hospitals), the departments within each facility, and areas within each department. Creating these location entities in Info HQ is critical because data delivered to the LIS/EMR by the Info HQ can be based on this hierarchy.

There are four possible levels in the location hierarchy─Healthcare System, Facility, Department, and Area (sometimes referred to as *Location*). The highest level in the location hierarchy is the Healthcare System level. This location entity is automatically created during the Info HQ installation and is assigned the name *Home*.

The location hierarchy map file is to contain all data that will be needed to create the other three levels of the location hierarchy. It is recommended that the location hierarchy map be created using Microsoft Excel , so that the data can later be used to automatically create these location entities using the Info HQ upload function after Info HQ is installed.

Note: Creating the map file does not create the locations entities. It is merely the gathering of all location information needed to create the locations entities later in the implementation process.

Info HQ supports importing and exporting of Locations, Devices, and Operators using .csv format files. A .csv is a comma separated value file which allows opening, editing, and saving in Microsoft Excel. .Csv files can also be opened as text files for editing (for example, using Notepad). The .csv format is used

because it can be readily opened in Excel for editing and saved in the same format with comma as the field delimiter. Only .csv files which use comma (,) as a field delimiter can be imported into Info HQ.

Here is an example of a location hierarchy map.

Figure 1–2: Example location hierarchy map

Facility	Department	Location
Downtown Hospital	DT ICU	DT.ICU.West
Downtown Hospital	DT ICU	DT.ICU.East
Downtown Hospital	DT.EP	
Downtown Hospital	DT.ER	
IVIS	IVIS-ER	
PCM	PCM-ER	
Unassigned		

Follow these steps to create a location hierarchy map file:

1. Create a new spreadsheet in Microsoft Excel.
2. In the first row of the spreadsheet, enter the following headings for columns A through C, in the order listed, as shown in the example location hierarchy map:
   - A. Facility
   - B. Department
   - C. Location
3. Using the example map as a guide, enter each location that makes up the healthcare system. A location can be made up of just a facility, or a facility and a department, or a facility, department, and area. Note the following when entering the information:
   - Each location must be on a separate row.
   - Maximum of 20 characters.
   - Location names cannot include the ampersand (&) or tilde (~) characters.
   - Enter the name to assign to each Facility into column A, the name to assign to the Department within the Facility into column B, and the name to assign to the Area within the Department into column C.
   - The name assigned to each Facility, Department, and Area should be descriptive yet relatively brief, for example:
     - *Townsend Med Center* or *Downtown Hospital* for a Facility
     - *Pediatrics* or *ER* for a department
     - *Surgical room 1* or *ICU_ward1* for an area within a Department
   - The name assigned to each Area must be unique for the entire healthcare system. For example, the name *ER_ward1* can be used in only one Department within one Facility.
   - Facilities do not have to specify Departments and Areas if there are none to be created.
   - Departments must specify the Facility under which they reside, but they do not have to specify Areas if there are none to be created.
   - Areas must specify the Department and Facility under which they reside.
4. Save the map file to a location on the local file system where it can be retrieved later. Close the file.

Creating the location hierarchy using this map file is covered in *Create the Facility, Department, and Area location hierarchy using the upload function.*

Create a certification map

One or more of the operators that will be added to the Info HQ system could already be certified on devices that are used to conduct patient tests. These certifications must be identified in the Info HQ system. Prior to installing Info HQ, it is easier to first gather all the data necessary to grant the appropriate certifications to each operator in the system and record that data in a certification map (a Microsoft Excel spreadsheet file). The certification map can then be used after Info HQ is installed to automatically grant these certifications to the operators using the Info HQ upload function.

Note: Creating the map file does not grant the certifications. It is the gathering of all the certification data needed to create the certificates later in the implementation process.

Info HQ supports importing and exporting of Locations, Devices, and Operators using .csv format files. A .csv is a comma separated value file which allows opening, editing, and saving in Microsoft Excel. .Csv files can also be opened as text files for editing (for example, using Notepad). The .csv format is used because it can be readily opened in Excel for editing and saved in the same format with comma as the field delimiter. Only .csv files which use comma (,) as a field delimiter can be imported into Info HQ.

Here is an example of an operator certification map.

Note: In the columns **Is Manager** and **Active** a value of '1' is shown for True and a value of '0' is shown for False.

Figure 1–3: Example certification map

A	B	C	D	E	F	G	H	I	J	K	L	M	N
First Name	Middle name	Last Name	Home Department	Operator ID	MgrOperatorID	Email	Is Manager (True = 1/False = 0)	Work Phone	Device Model	InitialCertDateFormatted	StartDateFormatted	ExpirationDateFormatted	Active (True = 1/False = 0)
Jennifer	H	Elton	DT.ER	<5>	<M893245>	eltonj@ivis.domain	1	609-454-1111	i-STAT1	1/13/2016	10/11/2014	8/20/2018	1
Karl	T	Cooney	DT.ER	<T100008>	<M171849>	kgooney@ivis.domain	0	609-454-1581	i-STAT1	1/13/2016	10/11/2014	1/13/2016	1
Robert	D	Reids	DT.ER	<T100012>	<M100008>	rreids@ivis.domain	0	609-774-1234	i-STAT Alinity	1/13/2016	10/11/2014	1/13/2016	1

1. Create a new spreadsheet in Microsoft Excel.
2. In the first row of the spreadsheet, enter these headings for columns A through N, in the order listed, as shown in the example certification map:

   A: First Name
   B: Middle Name
   C: Last Name
   D: Home Department
   E: Operator ID
   F: MgrOperatorID
   G: Email
   H: Is Manager
   I: Work Phone
   J: Device Model
   K: InitialCertDateFormatted
   L: StartDateFormatted
   M: ExpirationDateFormatted

N: Active

3. Using the example map as a guide, enter the operator information. Note the following when entering the information:
   - Each certification (even for the same operator) must be on a separate row.
   - The **First Name**, **Last Name** and **Operator ID** columns are always required.
   - **First Name** is a maximum of 40 characters; **Middle Name** is a maximum of 20 characters; **Last Name** is a maximum of 40 characters.
   - Operator names cannot include the ampersand (&) or tilde (~) characters.
   - **Operator ID** is a maximum of 15 characters.
   - For the columns **Operator ID** and **MgrOperatorID**, enclose the ID values in brackets as shown: <745832>
   - A **Device Model**, **InitialCertDateFormatted**, **StartDateFormatted**, and **ExpirationDateFormatted** are required.
   - The name entered for the **Device Model** must be spelled as it is in Info HQ.
   - Dates for **InitialCertDateFormatted**, **StartDateFormatted**, and **ExpirationDateFormatted** must be in the date format consistent with Info HQ.
4. Save the map file to a location on the local file system where it can be retrieved later. Close the file.

The process for uploading the certification data using this map file is covered in *Upload operator certification data*.

Create a device map

The devices that will pass results data to the Info HQ must be identified in the Info HQ system. Prior to installing Info HQ, it is easier to first gather all data that is needed to add the devices to the system and record that data in a device map (a Microsoft Excel file). The device map can then be used after Info HQ is installed to automatically add these devices to Info HQ using the Info HQ upload function.

Note: Creating the map file does not add the devices. It is the gathering of all device data necessary to create the devices later in the implementation process.

Info HQ supports importing and exporting of Locations, Devices, and Operators using .csv format files. A .csv is a comma separated value file which allows opening, editing, and saving in Microsoft Excel. .Csv files can also be opened as text files for editing (for example, using Notepad). The .csv format is used because it can be readily opened in Excel for editing and saved in the same format with comma as the field delimiter. Only .csv files which use comma (,) as a field delimiter can be imported into Info HQ.

Here is an example of a device map.

Figure 1–4: Example device map

	A	B	C	D	E
1	Device Model Name	Name	Serial ID	IP Address	Location Name
2	i-STAT1	GI-STAT	10001		ER_ward1
3	i-STAT1	EP i-STAT	10002		ICU_ward1
4	i-STAT1	ER i-STAT	10003		EP_ward1
5	i-STAT1	ICU i-STAT	10004		CCU_ward1
6	i-STAT1	CCU i-STAT	10005		Pediatrics_ward1
7	i-STAT Alinity	GI-STAT Alin	10006		ICU - East_ward1
8	i-STAT Alinity	EP i-STAT Alin	10007		ICU - West_ward1

Perform the following steps to create a device map file:

1. Create a new spreadsheet in Microsoft Excel.
2. In the first row of the spreadsheet, enter the following headings for columns A through E, in the order listed, as shown in the example device map:

   A: Device Model Name

   B: Name

   C: Serial ID

   D: IP Address

   E: Location Name
3. Using the example map as a guide, enter the device information. Note the following when entering the information:
   - Each device must be on a separate row.
   - Device names cannot include the ampersand (&) or tilde (~) characters.
   - Device names and IP addresses must not exceed 20 characters each.
   - The Device Name is a descriptive name to be associated with the device, such as *ICU i-STAT*.
   - The serial number of the device must be entered to distinguish it from other devices of the same type. The serial number must not exceed 16 characters.
   - For an i-STAT 1 downloader device, enter the static IP address of the downloader under the IP Address column. For other devices, this column can be left blank.
   - The Location Name is the primary department or area within a department where the device resides. The name must match the name assigned to it in the location hierarchy map and it must not exceed 20 characters.
4. Save the map as a .csv file to a location on the local file system where it can be retrieved later. Close the file.

Adding multiple devices using this map is covered in *Add a group of devices*.

2 - Installing the Info HQ system

The following sections describe how to install the Info HQ system.

2.1 Install Info HQ

Before installing Info HQ ensure that your system meets or exceeds the requirements listed in *Specifications*.

Info HQ is installed with minimal configuration defaults that enable it to be used for the organization's specific needs.

2.2 Prerequisite to Info HQ installation

Apply the following software updates in the host and reboot the computer:

Table 2–1: Software and Updates Required

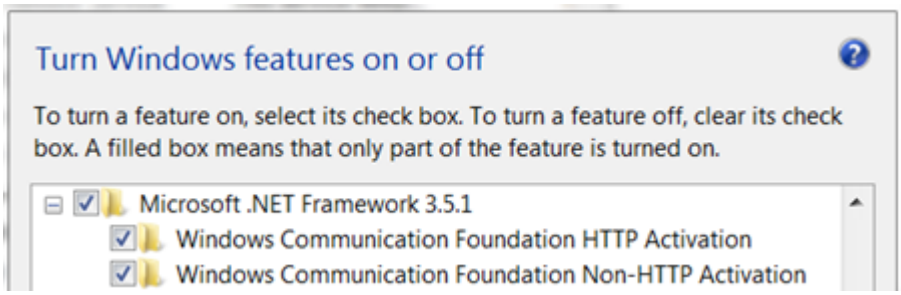
Operating System	Required Service Pack	Windows Update	Required Microsoft .Net Framework
Windows 7	SP1 or higher	All latest	4.5.1 (see note below)
Windows 10	None	All latest	4.6 and higher
Windows Server 2016	None	All latest	4.6 and higher

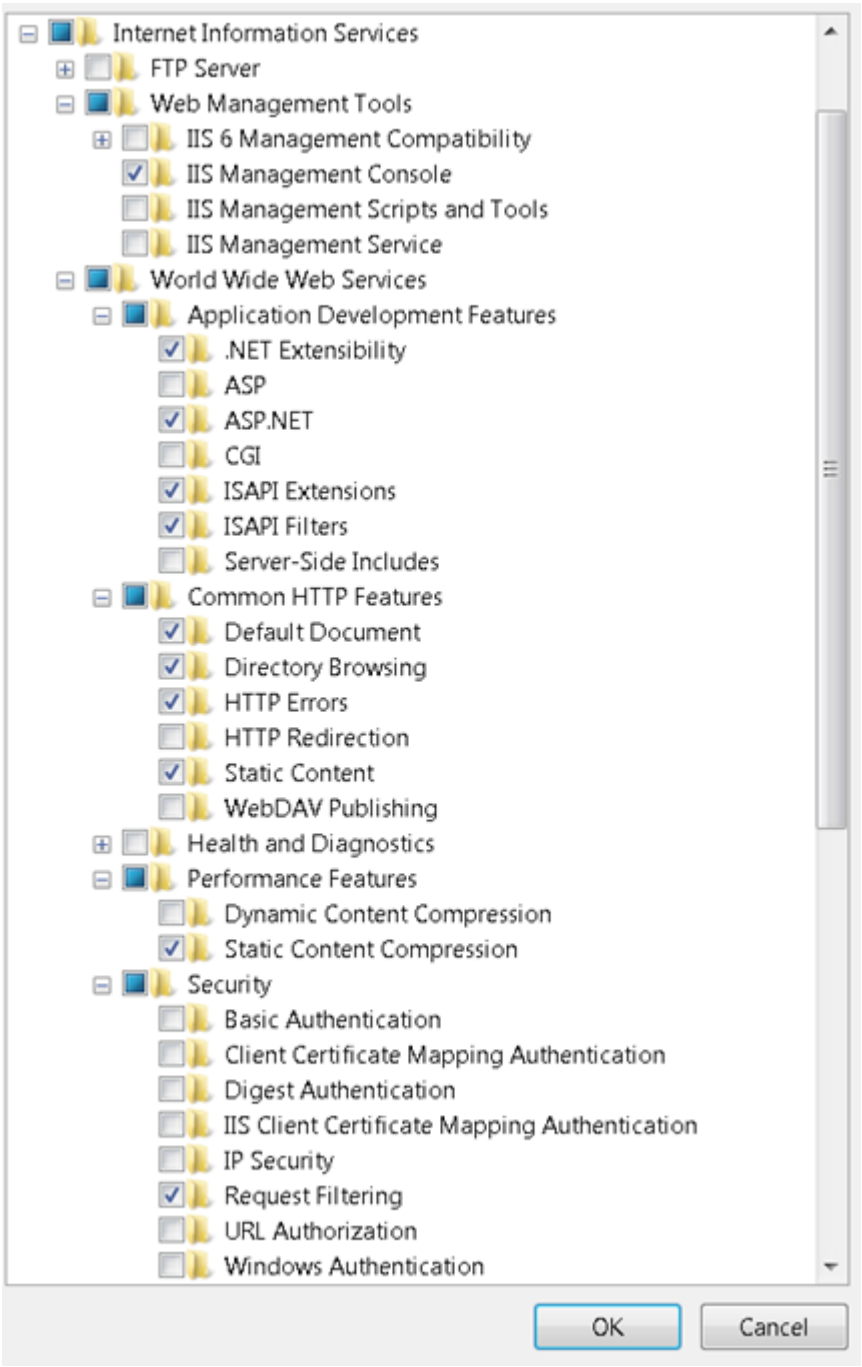
Note: For Windows 7, download and install Microsoft .Net Framework 4.5.1 from *https://www.microsoft.com/en-us/download/details.aspx?id=40773* if it is not in the operating system currently. Then reboot for Windows 7 SP1.

Use the following steps:

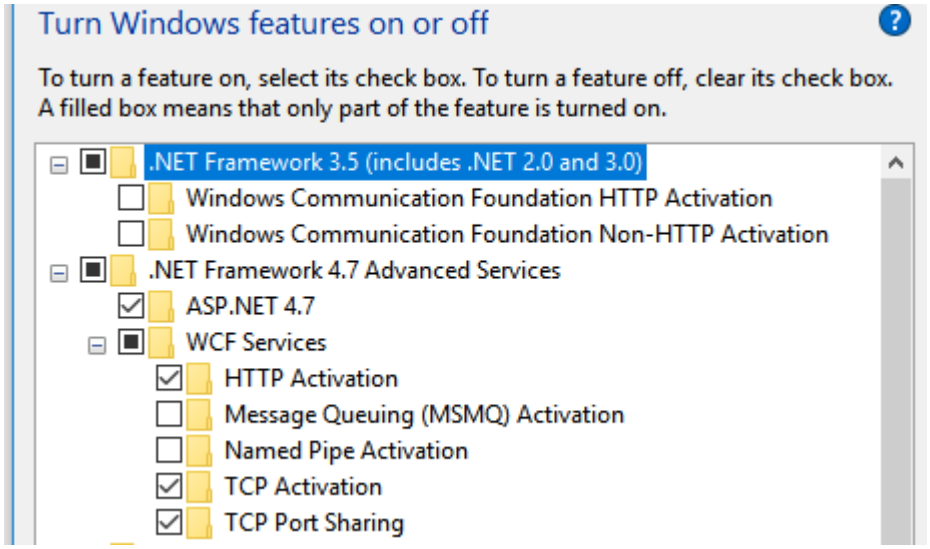
1. Navigate to **Start** > **Control Panel** > **Programs** > **Programs and Features** > **Turn Windows Features on or off**.
2. Expand the window.
3. Enable the options in the figures for **Windows Features Options**.

For Windows 7



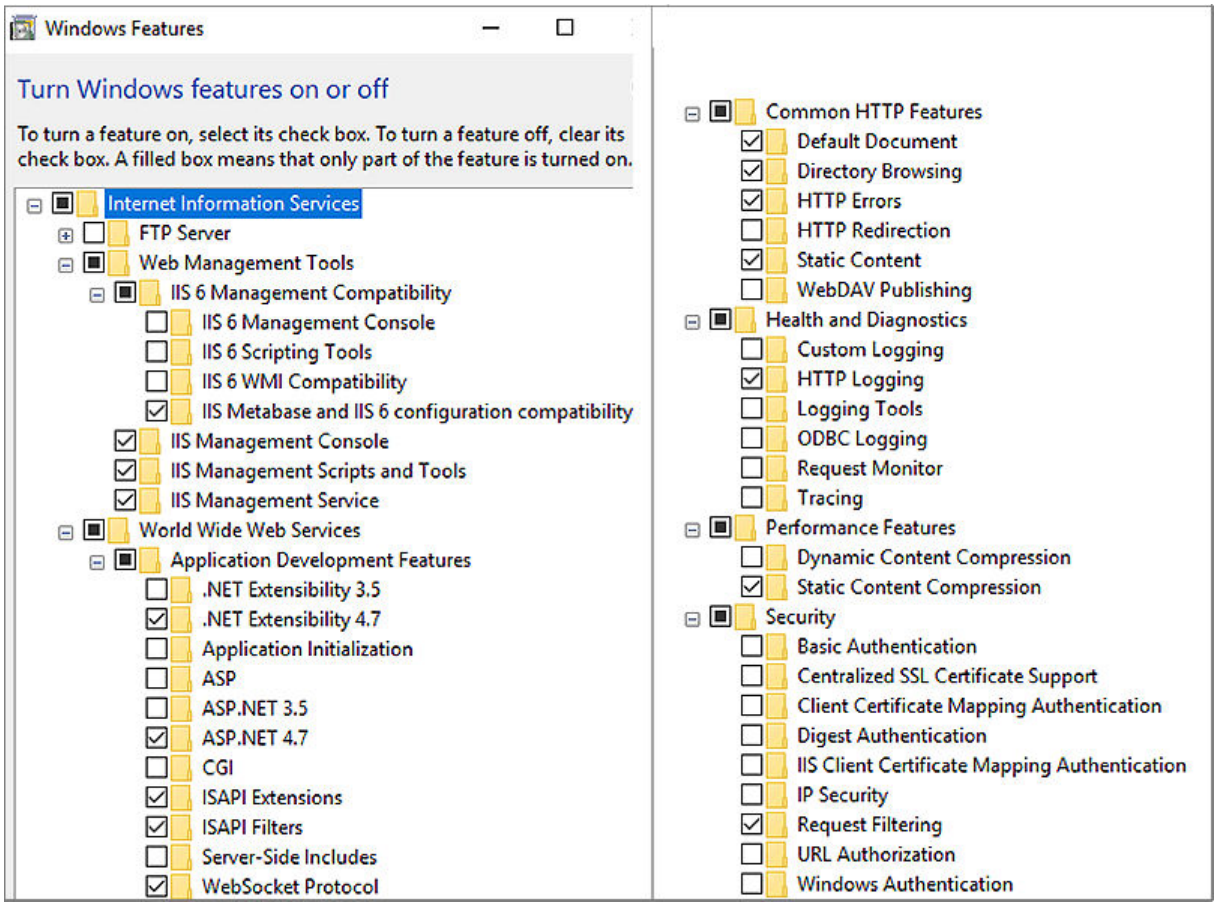


For Windows 10

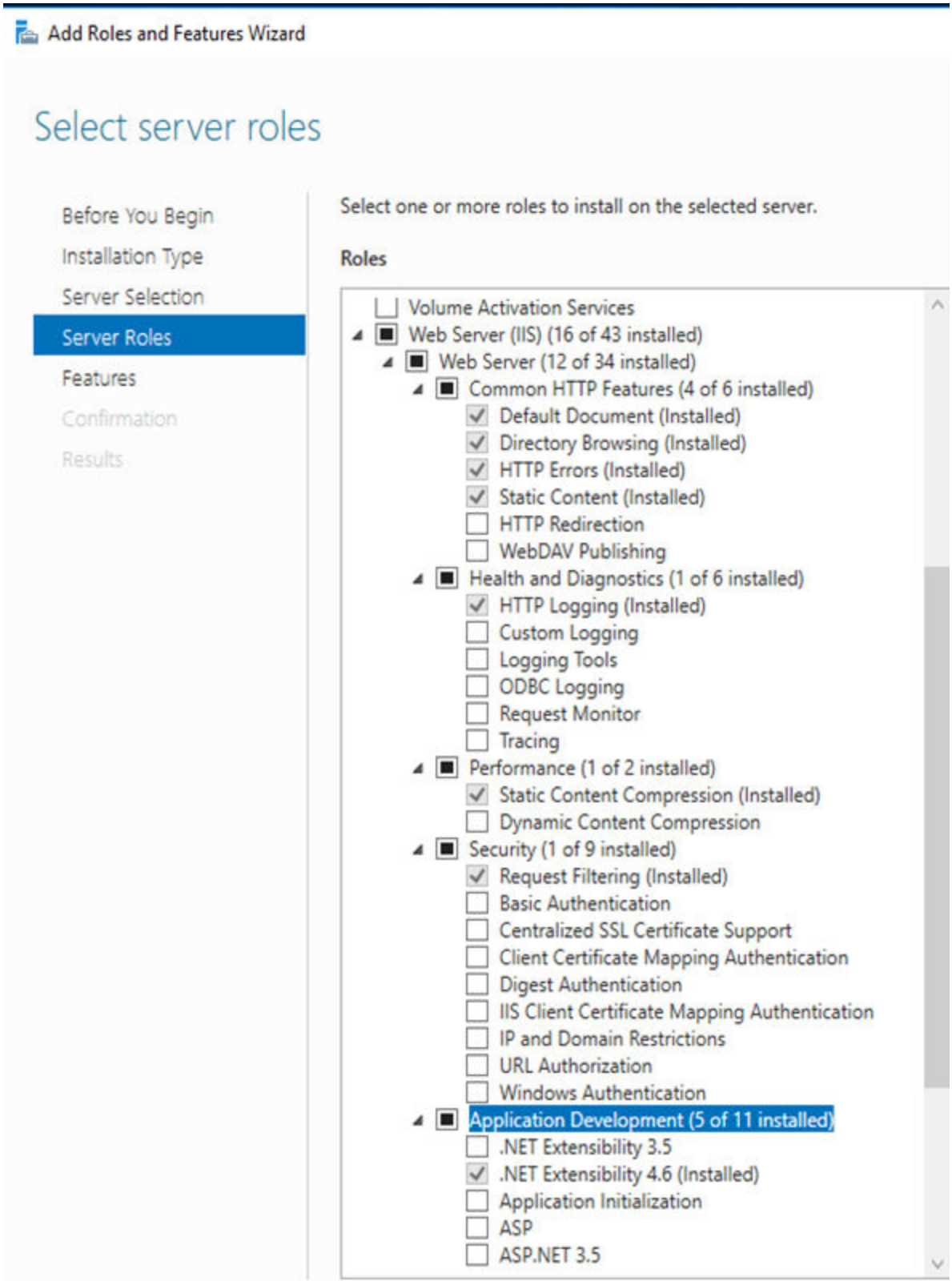


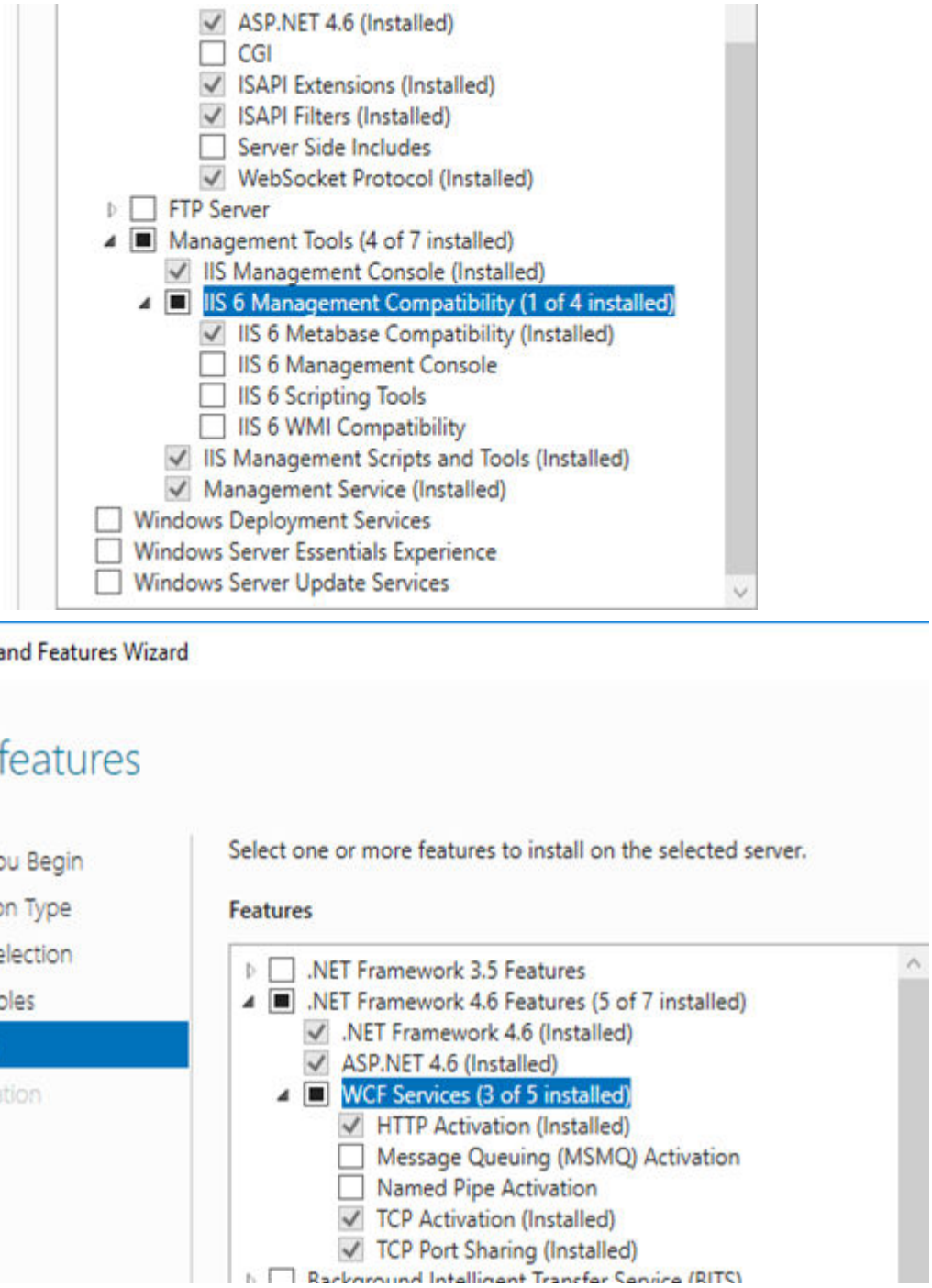
Note:

- If **.NET Framework 3.5 (includes .NET2.0 and 3.0)** is grayed out, request that IT support activate it so that it can be enabled.
- For **.NET Framework 4.7 Advanced Services** the version may be 4.6 or higher than 4.7. If this entry is not available, contact IT support to install the latest .NET Framework, so that this feature can be enabled.



For Windows Server 2016





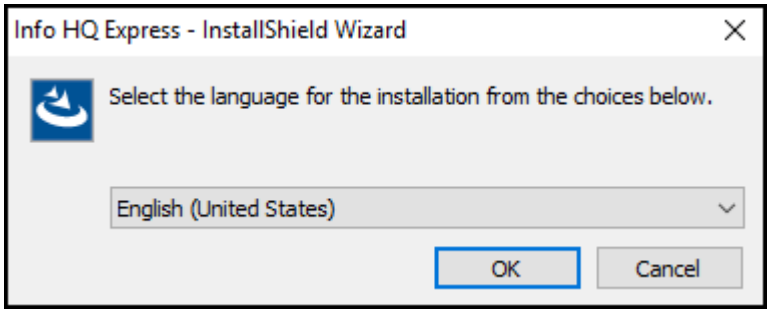
4. After enabling the options, click **OK** to save the changes.
5. Click **Close**, if prompted.

2.3 Install or Upgrade Info HQ

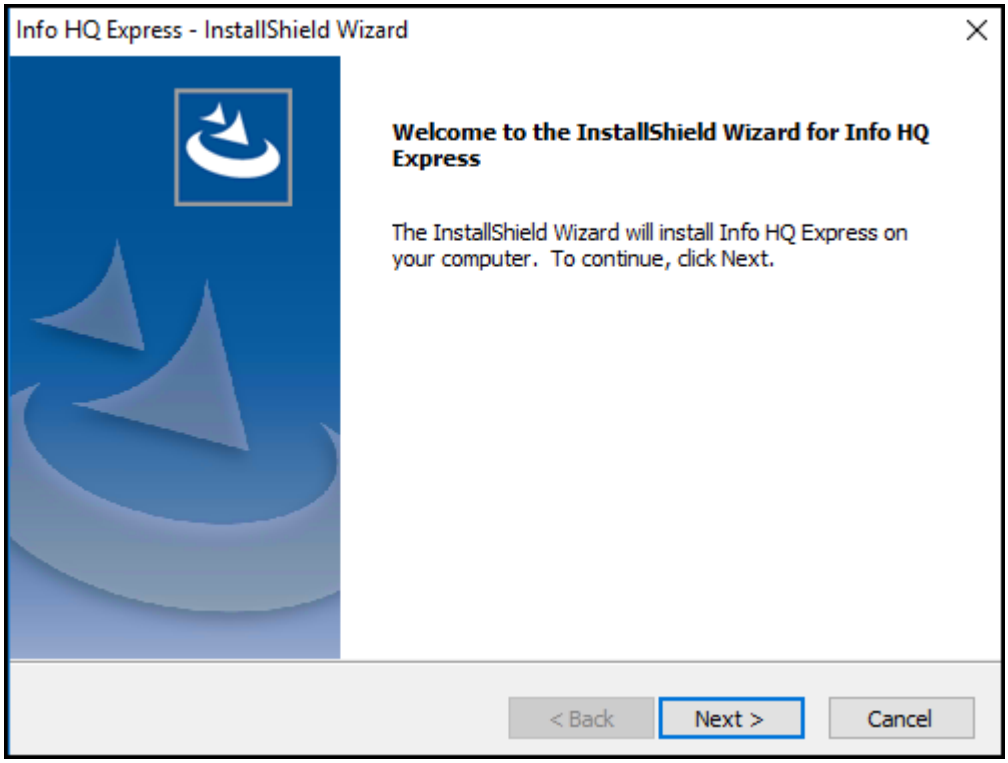
To install Info HQ or upgrade to a new version:

1. Navigate to the Info HQ setup folder, right-click on the **SETUP** file and select **Run as Administrator.**

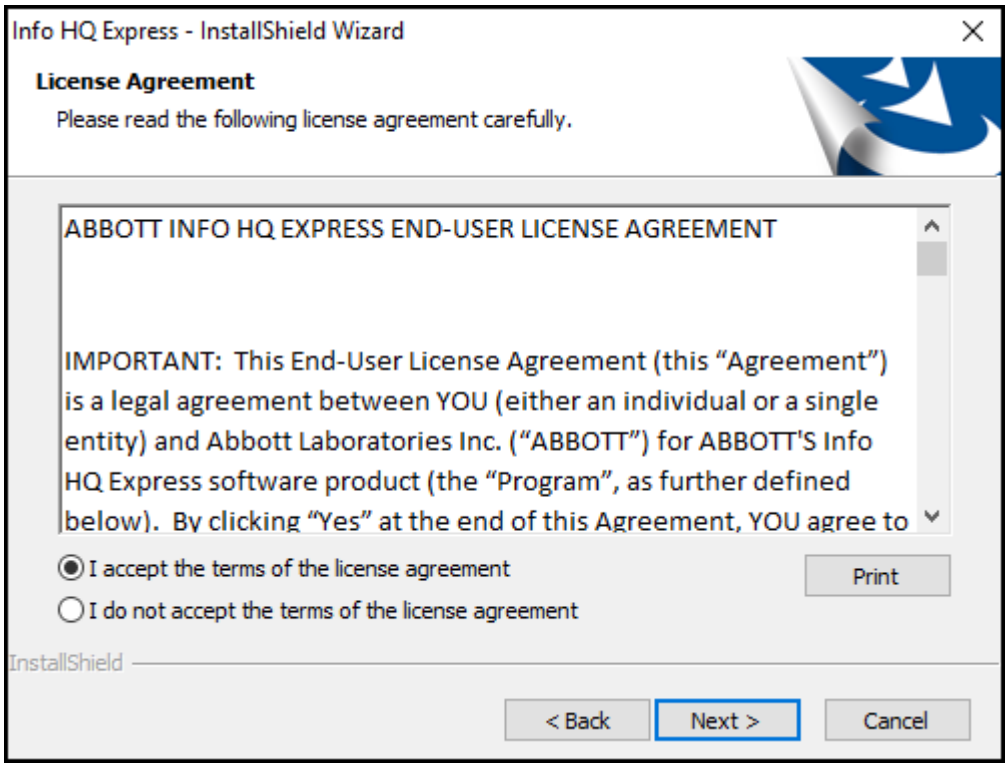
2. When a prompt displays asking for confirmation: **Do you want to allow this app to make changes to your device?** click **Yes**. Several panels display. The amount of time that a panel displays varies. On the panel to select the language, the drop-down list has these options: English, German, Italian, Spanish, French.



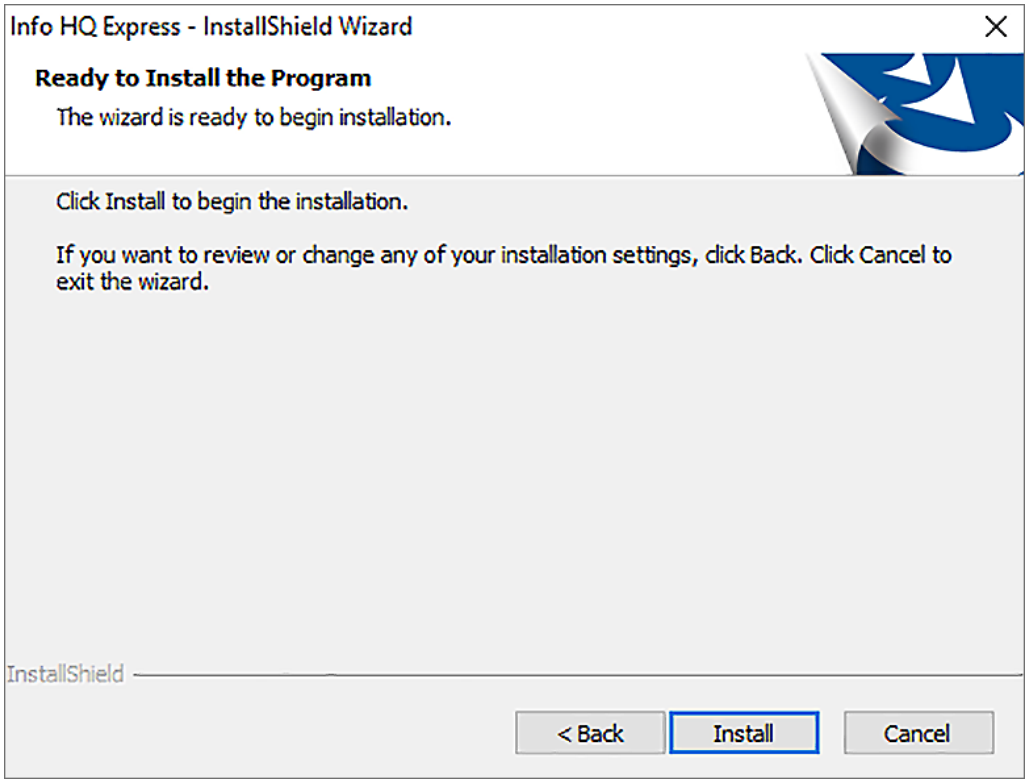
3. Follow the prompts for default installation, except where noted.
4. On the panel **Welcome to the InstallShield Wizard for Info HQ Express**, click **Next**.



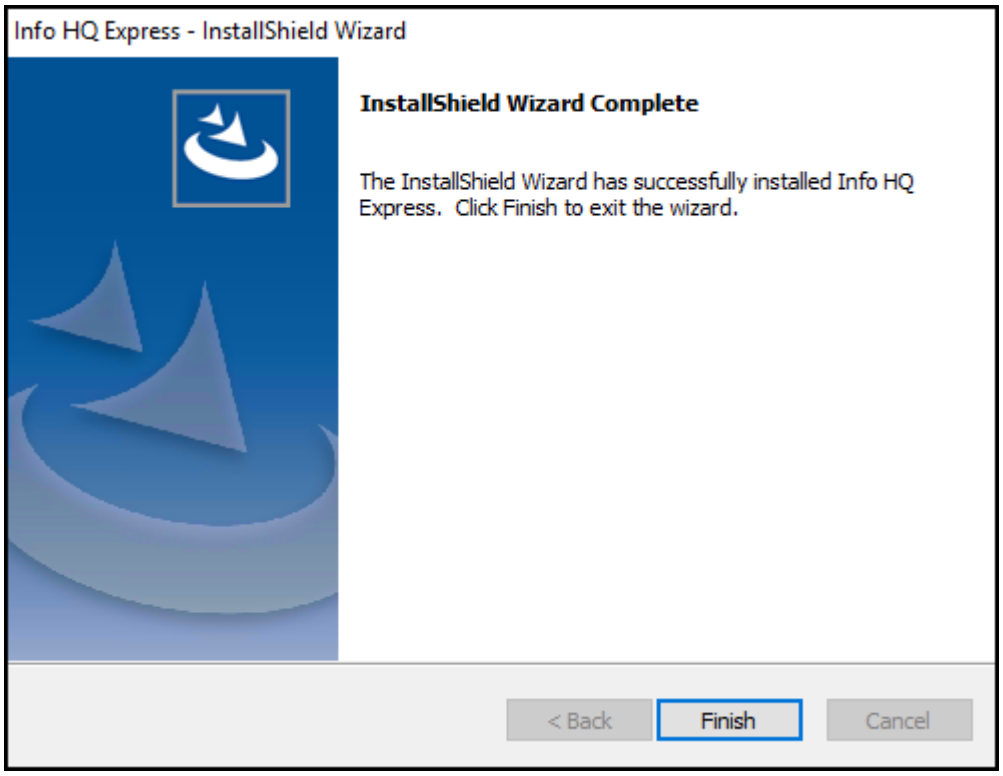
5. On the **License Agreement** panel, click **I accept the terms of the license agreement** and click **Next**.



6. On the **Ready to Install the Program** panel, click **Install**.



7. On the **InstallShield Wizard Complete** panel, click **Finish**.



Step 8 is for an upgrade only

8. Clean the cache:
   a) In Internet Explorer **Tools**, click **Internet Options**
   b) On the **General** tab, check **Delete browsing history on exit** and click **Delete**
   c) Click **Settings** > **View Files** and permanently delete all files in the folder **...\Microsoft\Windows \Temporary Internet Files**
   d) Click **Apply** then click **OK** and close Internet Explorer.
   e) Stop IIS.
   f) Navigate to **C:\Windows\Microsoft.NET\Framework64\v4.0.30319\Temporary ASP.NET Files** and permanently delete the folder **Data Manager**.
9. Restart the computer to complete the installation.

Verify the installation

To verify the proper and complete installation, confirm the following items:

1. The **Data Manager** folder is in:
   a) For upgrades to 1.2: C:\inetpub\wwwroot
   b) For new installs: C:\Program Files\APOC\websites
2. The **Data Manager** folder is in C:\Program Files\APOC.
3. The following folders are in *C:\Program Files\APOC\Data Manager*:
   - Bin
   - Configuration
   - db_backup
   - LogFiles

4. The following Info HQ services are listed in the **Control Panel** at **Administrative Tools** > **Computer Management** > **Services and Applications** > **Services**:

Table 2–2: Info HQ services

Name	Status	Startup Type	Log On As
APOC.DataManager.Communicator	Running	Automatic (Delayed Start)	Local System
APOC.DataManager.ConnectivityManager	Running	Automatic (Delayed Start)	Local System
APOC.DataManager.iSTATAlinityConnectivity	Running	Automatic (Delayed Start)	Local System
APOC.DataManager.ServiceManager	Running	Automatic (Delayed Start)	Local System

5. Verify that the **Add/Remove Programs** list includes the version of Info HQ that was just installed. After verifying the installation, start Info HQ by launching it in a web browser.

2.4 Start Info HQ

Info HQ is a web-based application that uses a web browser. To start Info HQ, enter the Info HQ URL (***Server name or IP address/Data Manager/Login.aspx)*** into the URL field of a web browser window then press **Enter**.

When Info HQ is started, the user login screen is displayed.

Figure 2–1: User login screen

Follow these steps to log in.

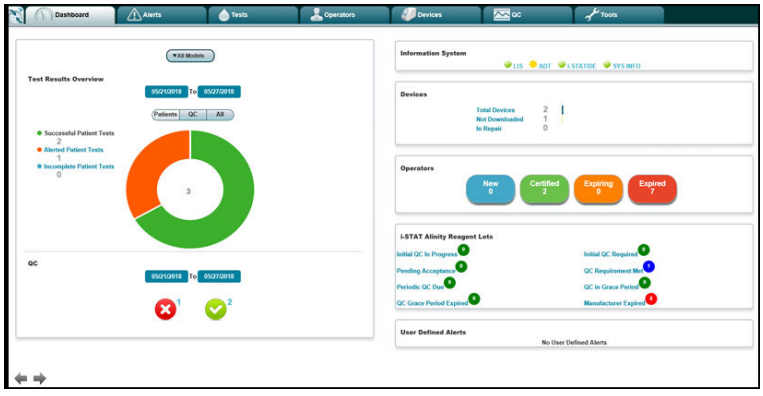
1. Enter the username and password for the account.

   If necessary, click the **Forgot Password?** link to reset the password.

   Note: When Info HQ is installed, the Administrator account is automatically created with a username of *admin* and password of *admin123*. After the first login, it is strongly recommended that this password be changed using the procedure in *Change a user account password*.

2. Click **Login**.

   Info HQ starts and the **Dashboard** opens, as shown.



Note: The i-STAT **Alinity Reagent Lots** area of the **Dashboard** screen is displayed only when **Reagent Lot QC Enabled** is set to Yes in the Info HQ Configuration.

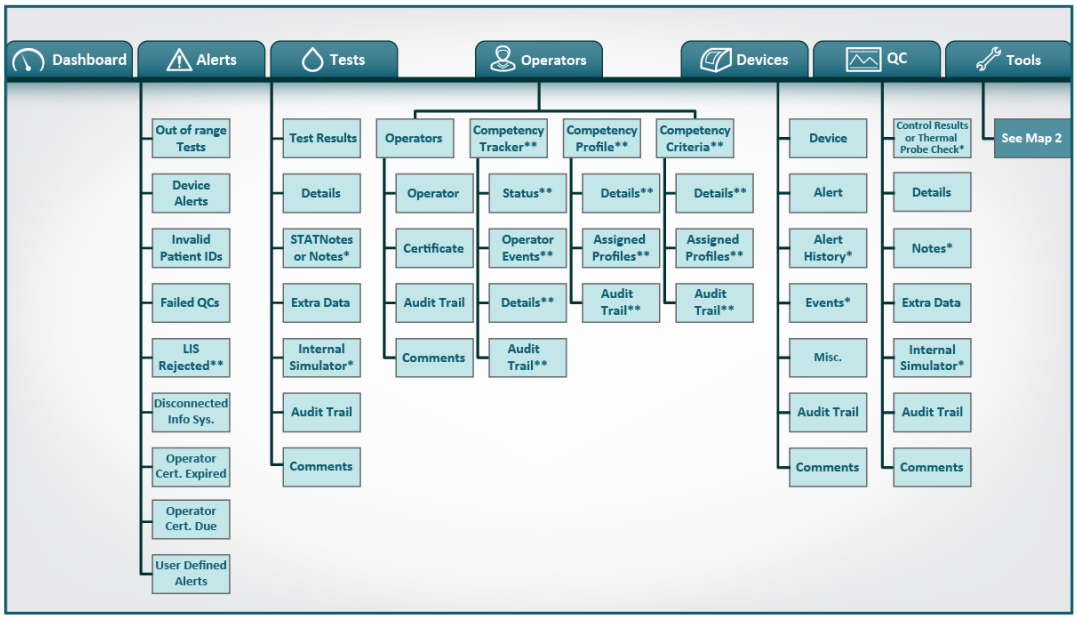
Info HQ Hierarchy

Use these graphics as a guide for navigating the areas in Info HQ.

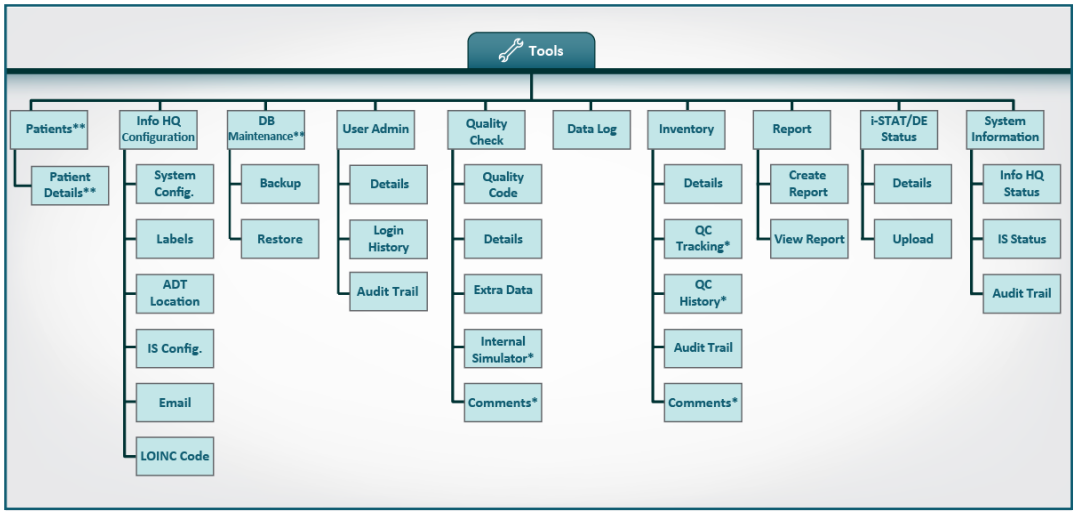
Info HQ Express User Interface Hierarchy

Home

MAP 1



MAP 2



* - Denotes a Device or Record dependent item or tab, for instance some tabs display for certain device types (i-STAT 1 vs. i-STAT Alinity).

** - Denotes a Configuration dependent item or tab. Some items or tabs display when enabled in Info HQ Configuration.

2.5 Exit Info HQ

A user remains logged into Info HQ until the user logs out, or until the session reaches 30 minutes of inactivity — after which the user is logged out automatically.

Note: To adjust the timeout security setting based on your facility's policy, change the *Session Time Out* configuration setting. For instructions, refer to *System configuration settings Initial setup and configuration*.

To log out of Info HQ:

1. In the upper right corner of the Info HQ window, click **Logout**.

   Figure 2–2: Logout option

   The login screen is displayed again.
2. Optionally close the browser window.

3 - Initial setup and configuration

To use the Info HQ system effectively, it is necessary to set up and configure the following:

- User account for the POCC, the primary user of the Info HQ system.
- Connection settings for devices and information systems that interact with the Info HQ system.
- System settings for displaying and managing test records and data, based on the needs of the organization.
- Email settings for sending email notifications.
- Device operators, devices, and location hierarchy (*Creating the system hierarchy*).

3.1 Info HQ License

Info HQ provides two types of licenses, a trial license and a commercial license. The trial license is valid for 15 days after the first display of the login page after installing. An Info HQ commercial license is valid for a set time period (often one year) and is renewable.

On the login page, a license countdown message displays similar to the one shown here: `Your trial period of Info HQ product will expire in 13 days.`

Use of Info HQ can continue until the trial license expires. After the license expires, test results will no longer be received from supported devices.

To request Info HQ commercial license:

1. On the back of the Info HQ software kit locate the product serial number.
2. Launch Info HQ.
3. Navigate to **Tools** > **Info HQ Configuration.**
4. From the **Module Selection** drop-down click the **Registration** option.
5. Click the pencil icon  to edit the **Product Serial Number** field.
6. Enter the Serial Number from the Info HQ kit into the **Product Serial Number** field and click **Save**.
7. After saving the product serial number, the Host ID displays automatically.
8. Copy the product serial number displayed on the screen in Info HQ into a text file on one line.
9. Copy the complete Host ID from the readOnly input box into the same text file as a new line. The Host ID may be longer than what is displayed in the input box. You may need to scroll to the left or right to copy the entire length of the Host ID. Save the text file for the next step.

    **Note:** Using an incomplete Host ID will generate an invalid license file.
10. Contact your local APOC representative for assistance with license key generation and management, and provide the file created in step 8.
11. Alternatively, if you do not have a local distributor or sales representative, you may email the information to *apoc_infohq@abbott.com*.

After Abbott Point of Care receives the license information, and the information is confirmed, a license key file will be emailed or provided to you. Installing the license key file will enable full use of the Info HQ software for the license period.

To apply the Info HQ commercial license:

12. Save the License.dat file in C:\Program Files\APOC\Data Manager.
    If there is an existing License.dat, replace it with the new License.dat file.
13. Restart the computer.

3.2 Create user accounts

Different individuals within the healthcare system access the Info HQ system to manage test results, manage operator certifications, enter reagent lot information, generate reports for their departments, and perform other routine tasks. These individuals can include point-of-care coordinators, nursing managers, bench technicians, educators, IT and Biomed staff, and others. A user account must be created for each individual who will use the Info HQ system.

Use the User Admin screen to view, change, add, and delete user accounts.

Info HQ users gain access to functional areas within the Info HQ user interface through the use of roles, and to access data through the use of locations. Data access is permitted only for the assigned facilities within the healthcare system.

Info HQ is configured with four roles: Administrator, POCC, Nurse Manager, and Service. The following two tables identify the functional areas to which each role has access within the Info HQ user interface.

Table 3–1: Access based on role: primary tabs

Functional area	Roles and access - primary tabs			
	Administrator	POCC	Service	Nurse Manager
Dashboard	Yes	Yes	No	No
Alerts tab	Yes	Yes	No	No
Tests tab	Yes	Yes	No	No
Operators tab	Yes	Yes	No	Yes
Devices tab	Yes	Yes	Yes	No
QC tab	Yes	Yes	No	No
Tools tab	Yes	Yes	Yes	No

Table 3–2: Access based on role: secondary tabs

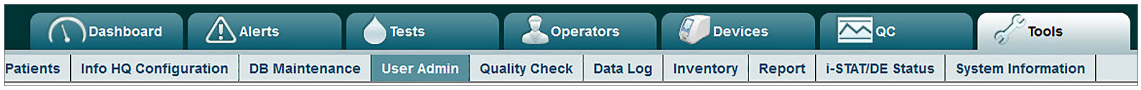
Functional area	Roles and access - secondary tabs within Tools			
	Administrator	POCC	Service	Nurse Manager
Patients	Yes	Yes	No	No

Functional area	Roles and access - secondary tabs within Tools			
	Administrator	POCC	Service	Nurse Manager
Info HQ Configuration	Yes	Yes	Yes	No
DB Maintenance	Yes	No	Yes	No
User Admin	Yes	No	No	No
Quality Check	Yes	Yes	No	No
Data Log	Yes	Yes	No	No
Inventory	Yes	Yes	Yes	No
Report	Yes	Yes	No	No
i-STAT/DE Status	Yes	Yes	No	No
System Information	Yes	Yes	Yes	No

Perform the following steps to create a user account:

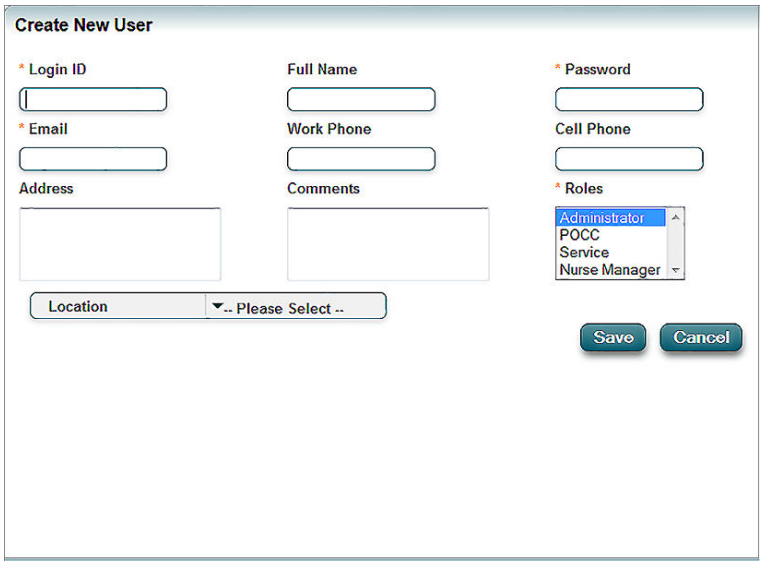
1. Gather or create the following information about each person:
   - Login ID or user name (required—see restrictions in step 4)
   - Password (required—see restrictions in step 4)
   - Full name (First and last name)
   - Mailing address
   - Email address
   - Work phone number
   - Cell phone number
   - User role (required; use the information in the tables *Access based on role: primary tabs* and *Access based on role: secondary tab* as a guide)
   - Locations to assign to the user
2. Click the **Tools** tab, then click the **User Admin** secondary tab.

Figure 3–1: User Admin secondary tab



3. Click to display the **Create New User** dialog box, as shown.

Figure 3–2: Create New User dialog box



Note: Fields with an asterisk (*) are required fields and must be completed.

4. In the **Login ID** and **Password** fields, enter the user name and password for the account.

For the Login ID, note the following:

- is limited to a maximum of 20 characters
- can contain special characters
- cannot contain the following characters:
  - Ampersand (&)
  - Tilde (~)
  - Single quote (‘)
  - Semicolon (;)
  - Consecutive hyphens (--)
  - Comma (,)
  - Blank space

For the **Password**, note the following:

- must contain one upper case letter, one lower case letter, and one number
- must contain a minimum of six characters
- is limited to a maximum of 20 characters
- can contain special characters, except for the following:
  - Ampersand (&)
  - Tilde (~)
  - Single quote (‘)
  - Semicolon (;)
  - Consecutive hyphens (--)
  - Comma (,)
  - Blank space

5. Complete the remaining fields using the information gathered in step *1*.
   Note the following information:
   - Only one role can be assigned to the user.
   - One or more locations can be selected.
   - An entry is required in the **Email** field.
6. Click **Save** to create the user account.
7. Click **OK** in the confirmation box.
8. Repeat these steps for each user account.

After the user accounts are created, provide the appropriate user name and password to each user, along with the Info HQ URL if necessary.

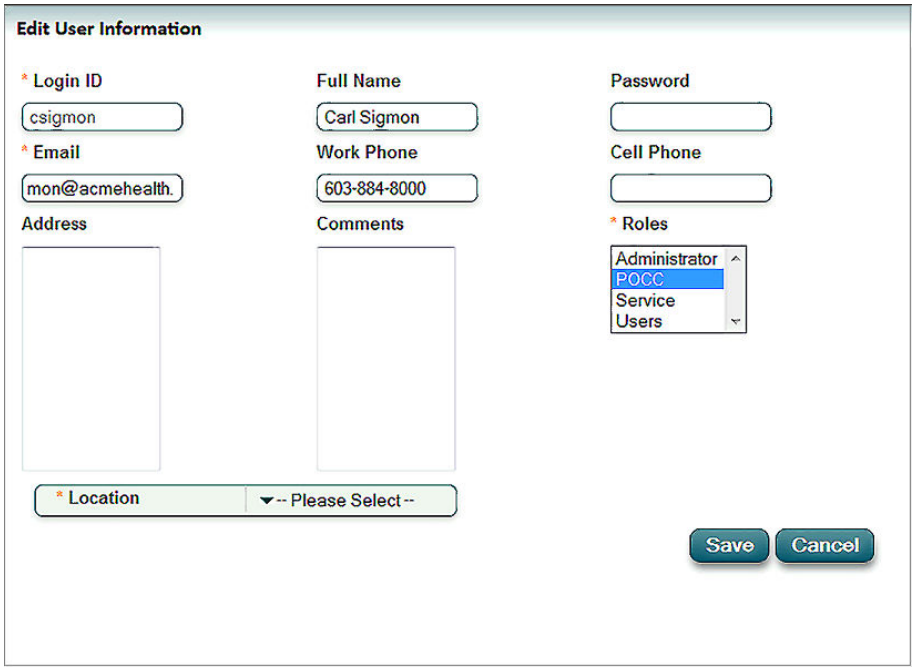
It is strongly recommended that the user change their password at first login.

3.3 Update user accounts

Changes in a user's status, such as a new telephone number or a different roles could require an update to the individual's Info HQ user account.

1. Click the **Tools** tab.
2. Click the **User Admin** secondary tab.
   The **User Admin** screen lists all user accounts.
3. Select the user account to update.
4. Click  to display the **Edit User Information** dialog box.

Figure 3–3: Edit User Information dialog box



5. Update the fields as needed, then click **Save**.

6. Click **OK** in the confirmation box.

3.4 Delete a user account

When a user account is no longer needed, it should be deleted. Follow these steps to delete a user account:

1. Click the **Tools** tab.
2. Click the **User Admin** secondary tab.
   The **User Admin** screen displays all user accounts.
3. Select the user account to delete.
4. Click  .
5. Click **OK** to confirm deletion.

3.5 Change a user account password

An administrator can change a user password in the **User Admin** secondary tab within the **Tools** screen, or by users at the Info HQ login screen. Passwords are not displayed to users and are encrypted in the Info HQ database.

Info HQ meets these needs:

- Supports user password complexity: A mix of numbers and letters (lower-case and upper-case).
- Prompts users to change their passwords after the password expires.
- Prevents users from reusing the last password.
- Allows administrators to configure the password expiration duration (default is 90 days).

Change a user account password at the User Admin screen

Complete the following steps to change the password for a user account:

1. Log in to Info HQ as an administrator.
2. Click the **Tools** tab.
3. Click the **User Admin** secondary tab.
   The **User Admin** screen displays, with a list of all user accounts in the Info HQ system.
4. Select the correct user account and click the Edit User Information () icon.
   The **Edit User Information** dialog box opens.
5. In the **Password** field, enter the new password for the account, according to these guidelines:
   - must contain one upper case letter, one lower case letter, and one number
   - must contain a minimum of six characters
   - is limited to a maximum of 20 characters
   - can contain special characters, except for the following:
     - Ampersand (&)
     - Tilde (~)
     - Single quote (‘)
     - Semicolon (;)
     - Consecutive hyphens (--)

- Comma (,)
- Blank space

6. Click **Save**.
7. Click **OK** in the confirmation box.

Change a user account password at the login screen

Info HQ users can change their passwords from the login screen.

1. Enter the Info HQ URL (*Server name or IP address*/Data Manager/Login.aspx) into the browser's address bar.
2. Press **Enter**.
   The Info HQ login screen opens.
3. Click **Change password** to the right of the **Login** button.
4. In the **Change Password** screen, enter the user name and the current password in the appropriate boxes.

   Enter the new password twice. The password must conform to these guidelines:
   - must contain one upper case letter, one lower case letter, and one number
   - must contain a minimum of six characters
   - is limited to a maximum of 20 characters
   - can contain special characters, except for the following:
     - Ampersand (&)
     - Tilde (~)
     - Single quote (‘)
     - Semicolon (;)
     - Consecutive hyphens (--)
     - Comma (,)
     - Blank space
5. Click **Change Password**.

   A confirmation message opens.
6. Click **Go to Login**.
7. Log in to Info HQ using the new password.

Change a forgotten password

Info HQ users can change their passwords from the login screen if a valid email address is saved in their user profile.

1. Enter the Info HQ URL (*Server name or IP address*/Data Manager/Login.aspx) into the browser's address bar.
2. Press **Enter**.
   The Info HQ login screen opens.
3. Click **Forgot password?** to the right of the **Login** button.
4. In the **Forgot password** page, enter the user name and click **Reset Password**.

   A confirmation message displays and an email message is sent to the address associated with the user.

5. Retrieve the new password from the email message.
6. Click **Go to Login**.
7. Log in to Info HQ using the new password.

3.6 Connectivity settings

Info HQ can be configured to communicate with POC devices, Laboratory Information Systems (LIS), Hospital Information Systems (HIS), and other external systems.

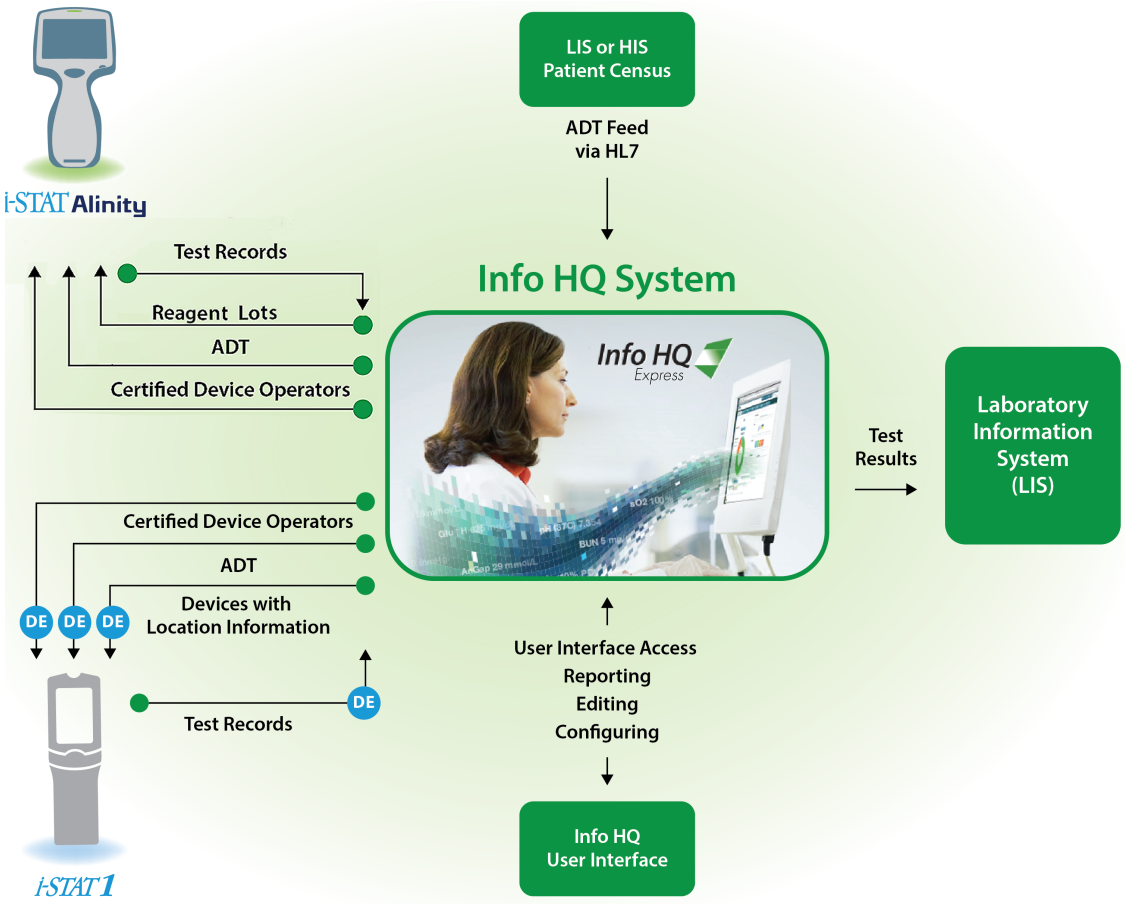
- Connectivity to POC devices is bi-directional—data must flow from the devices to Info HQ and vice versa. i-STAT 1 devices communicate through i-STAT/DE.
- Connectivity to an LIS is bi-directional—Info HQ can send and receive communications with the LIS.
- Communication with an Admission, Discharge, and Transfer (ADT) system is unidirectional. Info HQ supports inbound communication from the ADT system for patient demographic data.
- Communication with an external system (like an LMS) is usually accomplished by file transfer or through a custom interface.

Info HQ communicates only with the following device types: i-STAT 1 (also known as i-STAT 300) and i-STAT Alinity.

Note: For additional information regarding i-STAT/DE, please refer to *http://www.pointofcare.abbott* for the current revision of the *i-STAT/DE User Guide* in the Technical Bulletin section of the Support page.

Connection with an LIS, HIS, or other external system is optional, though Info HQ must be configured to connect with one or more POC devices.

Figure 3–4: Info HQ connection overview



Connectivity with point-of-care testing devices

Connectivity with POCT devices enables Info HQ to send and receive data to and from the devices.

Communication between Info HQ and i-STAT 1 is managed by i-STAT/DE, which is the communication and customization software for the i-STAT 1 device.

i-STAT Alinity communicates with Info HQ directly through the POCT1-A2 communication protocol. Setup and customization via the CWi software is required for communication between i-STAT Alinity and Info HQ. See the i-STAT Alinity documentation for detailed information.

Connectivity with i-STAT downloaders is done by registering the downloader in Info HQ. Register i-STAT downloaders before adding i-STAT 1 devices. See *i-STAT downloader registration* for connectivity information for the i-STAT downloader.

Connectivity with POCT devices is done by registering each device in Info HQ. There are two ways to register a device: manual and automatic.

Manual registration

With manual registration, devices are added using the Info HQ user interface. For steps on how to manually register and add a device with Info HQ, refer to *Device setup*.

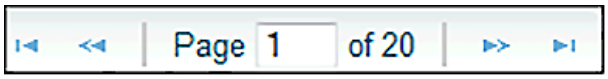
Automatic registration

Automatic registration is available for Abbott Point of Care (APOC) devices. With automatic registration, the device is registered when it sends a test result to Info HQ.

When a device automatically registers with Info HQ, the device sets its location as *Unassigned* within the Info HQ location hierarchy. Info HQ generates an alert that a new device has been added and that the device's location is unassigned. Follow these steps to assign a location to the device for test result management:

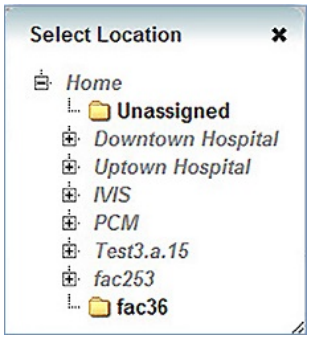
1. To display a list of all devices currently registered in Info HQ, click the **Devices** tab.
2. In the upper pane of the screen, select the device to change.
   Note that the device might not be listed on the first page of listed devices. If necessary, use the page widget near the upper-right of the screen, shown here, to scroll through the pages to locate the device.

   Figure 3–5: Widget for selecting pages

3. In the lower pane, click the **Device** tab.
4. Click to display the **Select Location** pop-up.

   Figure 3–6: Select Location pop-up

5. Expand the location hierarchy, using the plus icons, until the correct location is listed.
6. Click the location.
   The **Devices** screen refreshes and updates the device with the new location.
7. Repeat step *2* through step *5* for each device that is automatically registered.

i-STAT downloader registration

i-STAT 1 devices are directly managed by i-STAT/DE. Info HQ communicates with i-STAT/DE, which then communicates with an i-STAT 1 device. Info HQ uses a web service to communicate with i-STAT/DE. i-STAT downloaders must be registered with Info HQ, either automatically or manually.

- When an i-STAT downloader is registered automatically, it is given an initial default location of *Unassigned*. This generates a device alert until a valid location is assigned manually.

- For manual registration, the location is assigned during the registration process. The downloader's IP address is used to identify the specific i-STAT 1 device during communication between Info HQ and i-STAT/DE.

To set up connectivity for the i-STAT downloader, perform the following steps:

1. Register the i-STAT downloader devices within Info HQ. See *Add an individual device*.
2. Register all other POCT devices. See *Connectivity with point-of-care testing devices*.
3. Ensure that a location is specified for all devices and all operators.
4. Enable i-STAT/DE configuration settings. See *Change i-STAT/DE configuration settings*.

Change i-STAT/DE configuration settings

System configuration settings control how Info HQ functions. When Info HQ is first installed, these system settings are pre-configured to enable Info HQ to be launched and functional immediately after installation. Refer to the i-STAT/DE settings table in *System configuration settings.*

At a minimum, to enable Info HQ to communicate with i-STAT/DE, **i-STAT/DE Enabled** must be set to *Yes* and **i-STAT/DE Web Service Host Name** must include the IP address of the i-STAT/DE system.

To change the i-STAT/DE configuration settings, follow these steps:

1. Click the **Tools** tab.
2. Click the **Info HQ Configuration** secondary tab.
3. Click the **System Config** tab.
4. In the **Module Selection** drop-down list, click **i-STAT/DE**.
   The **Info HQ Configuration** screen displays all current system configuration settings for i-STAT/DE.

   Note: Before proceeding, ensure that **i-STAT/DE Enabled** is set to *No*.
5. Set **i-STAT/DE Web Service Host Name**:
   a) Click to the right of the configuration option to activate the field.
   b) Enter the host's IP address into the input field.
   c) Click to save the change.
6. Set **i-STAT/DE Enabled** to *Yes*:
   a) Click to the right of the configuration option to activate the field.
   b) Select *Yes* from the drop-down list.
   c) Click to save the change.
7. Optionally change the i-STAT/DE upload interval options in the same manner, entering the number of minutes in accordance with the healthcare system's policies.

Change i-STAT Alinity communication parameters

i-STAT Alinity has two communication parameters you can change if the default values are incompatible with the PC on which Info HQ is installed. For example:

- If the default listening port is already in use.
- If the computer has more than four cores and you want to allocate additional threads.

To resolve the compatibility issues, changes to the i-STAT Alinity communication configuration become necessary. These parameters are stored by default in the c:\Program Files\APOC\Data Manager\Bin\ directory in the DM.DragonflyConnectivityWS.exe.config file.

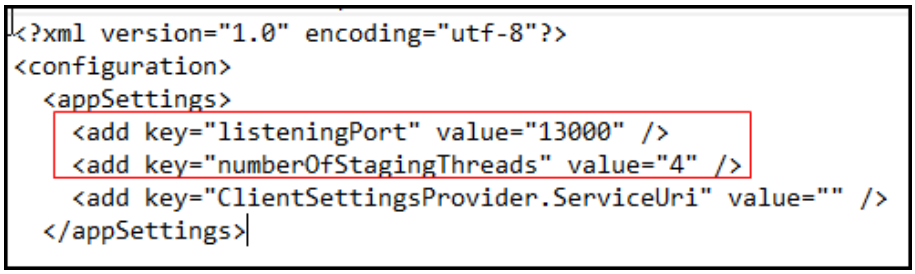
Table 3–3: i-STAT Alinity default communication settings

Parameter	Default Value	Function
listeningPort	13000	Defines which computer port is used to receive communication from the device.
numberOfStagingThreads	4	Defines the number of threads used to capture messages from the device before it is written to the Info HQ database. Staging threads run indefinitely and compete for CPU power, so it is recommended to allocate no more than one thread per core and no more than 8 threads total. In most cases, the default value of 4 is sufficient.

To configure the i-STAT Alinity communication parameters:

1. Click **Start** > **Administrative Tools** > **Computer Management** to open the **Computer Management** screen.
2. Expand the **Services and Applications** tree, and select **Services**.
3. In the list of services, double-click the **APOC.DataManager.iSTATAlinityConnectivity**.
4. Click **Stop** to stop the service.
   It is necessary to stop the service before changing the i-STAT Alinity configuration file.
5. Open the DM.DragonflyConnectivityWS.exe.config file in a text or XML editor.
   The file is located in the c:\Program Files\APOC\Data Manager\Bin\ directory by default.
6. Locate the parameter or parameters that need to be changed, and adjust their values as needed.

   Figure 3–7: DM.DragonflyConnectivityWS.exe.config file



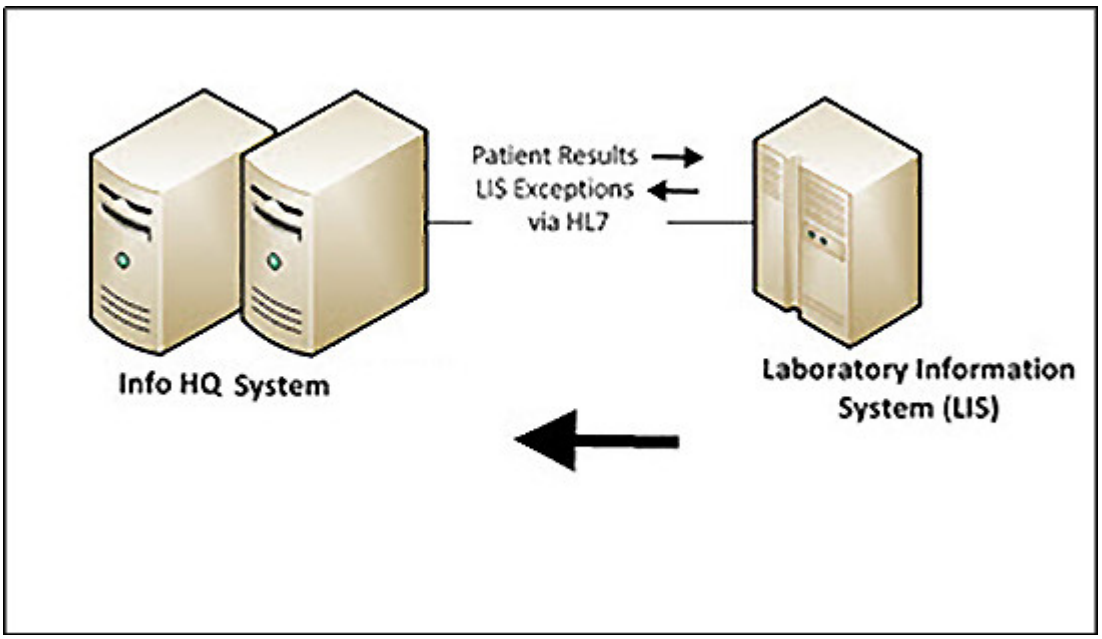
7. Save and close the file.
8. In the **Windows Services** screen, click **Start** to re-start the service. The configuration changes are now active.

Connectivity with an LIS

Connectivity with an LIS enables Info HQ to send patient identification information, operator identification information, and test result data over a network connection to the LIS. Info HQ supports bi-

directional LIS connectivity using HL7 protocol, and a single inbound ADT connection using HL7 protocol natively. When used with a third-party interface engine, it can support additional outbound channels and connections.

Figure 3–8: Connectivity with an LIS



Connect to an LIS with an HL7-Network connection

Before the LIS connection can be configured in Info HQ, the IT team must configure the LIS server so that it can contact the Info HQ server.

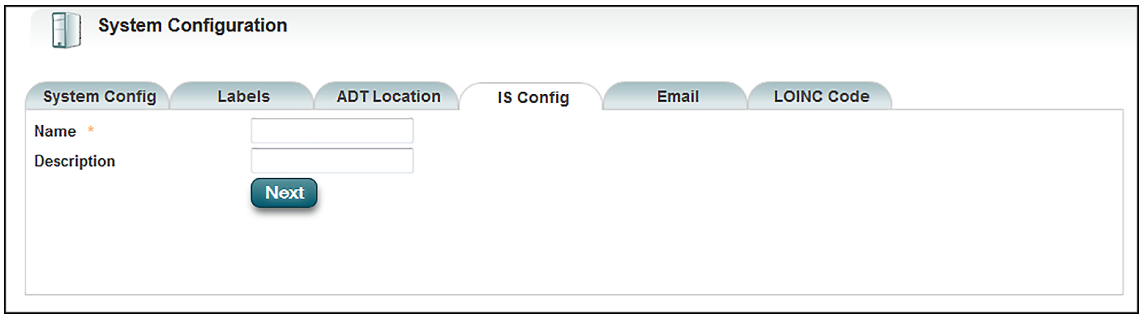
Note: Both the Info HQ server IT team and the LIS server IT team need to be involved in the process of setting up this connection.

Follow these steps when connecting to the LIS using the HL7 protocol:

1. Gather the following information from the IT team responsible for the LIS server:
   - Host address (TCP/IP address) of the LIS server
   - Communication port (listening port) for which the LIS server is configured
2. Verify that the LIS IT team has registered Info HQ in the LIS registry, to ensure that the LIS server is aware of the Info HQ server.
3. Click the **Tools** tab.
4. Click the **Info HQ Configuration** secondary tab.
5. Click the **IS Config** tab.
   The **Info HQ Configuration** screen displays with IS Config information.
6. Click **Add New Connection**.

The first set of **Add New Connection** fields display.

Figure 3–9: Info HQ Configuration screen: IS Config tab (first set of fields for adding new connection)



7. Complete the first set of fields, providing a name and description to associate with this LIS connection.

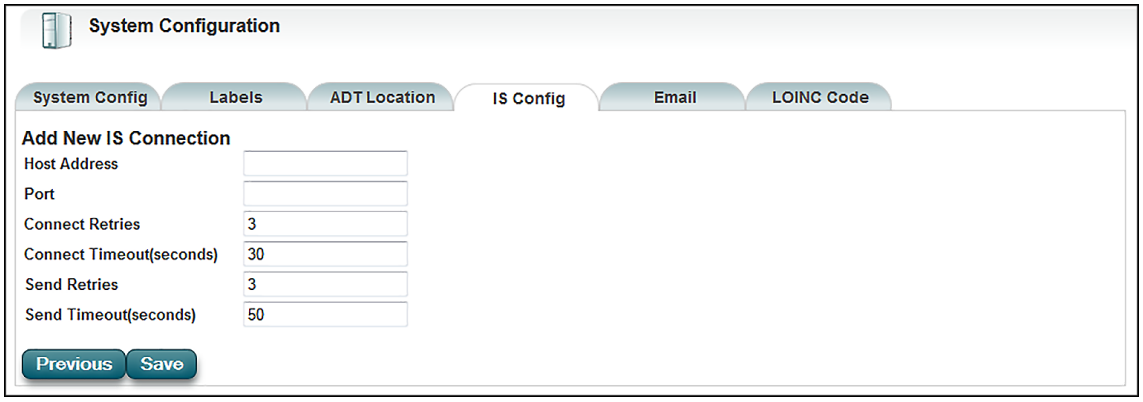
   Click **Next** when finished to display the next set of fields.

8. Continue to complete each set of fields as prompted, clicking **Next** after completing each set. The following settings are recommended.
   - ISType: LIS
   - CodingType: Select the naming standard being used at your facility (for example, LOINC), or select NONE.
   - Protocol: HL7
   - Message Type: The HL7 message format being generated by Info HQ (ORUR30 or ORUR32), which varies depending on existence of order number.
   - LinkType: Network
   - Channel: OutBound

9. Use the data collected in Step *1* for Host Address and Port.

   It is strongly recommended that default values be used for the Retries and Timeout parameters.

Figure 3–10: Info HQ Configuration screen: IS Config tab (last set of fields for adding new LIS connection)



10. When complete, click **Save**, as shown.
11. Click **OK** in the Save confirmation box.

When the new connection has been defined, Info HQ attempts to connect to the LIS. If Info HQ is able to establish connection with the LIS, the status indicator on the Info HQ Dashboard turns green (click the Dashboard tab to display the Dashboard).

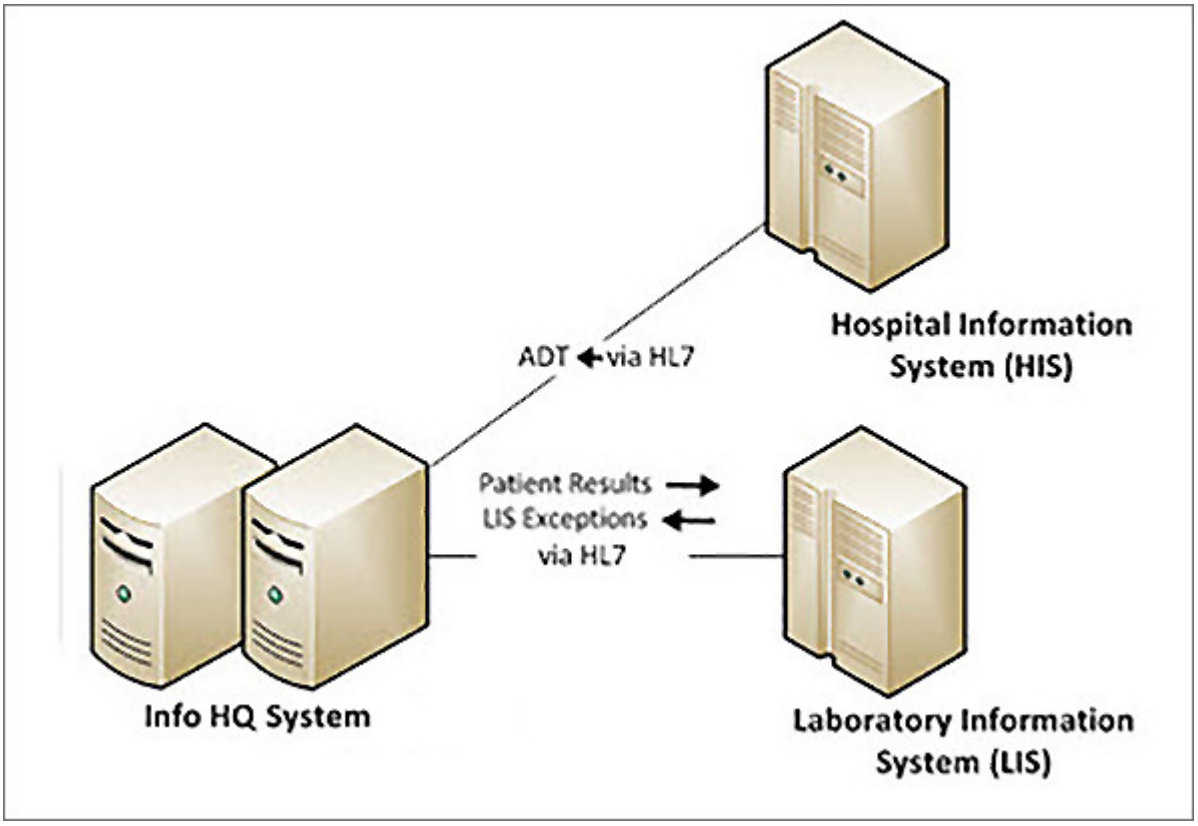
Connectivity with an HIS

Connectivity with an HIS or Electronic Medical Record (EMR) system enables Info HQ to receive patient Admission, Discharge, & Transfer (ADT) data from the HIS/EMR. Info HQ uses the HL7 protocol for network communication with the HIS.

Connect to an HIS/EMR with an HL7-Network connection

Info HQ currently supports inbound network communication for ADT data and updates. The HIS/EMR sends Info HQ patient ADT data to the ADT module in Info HQ. When confirmed patient test records are received from the devices, Info HQ forwards that data to the HIS/EMR.

Figure 3–11: Network connectivity to HIS/EMR using HL7



Note: Both the Info HQ server IT team and the HIS server IT team are needed in the process of setting up this connection.

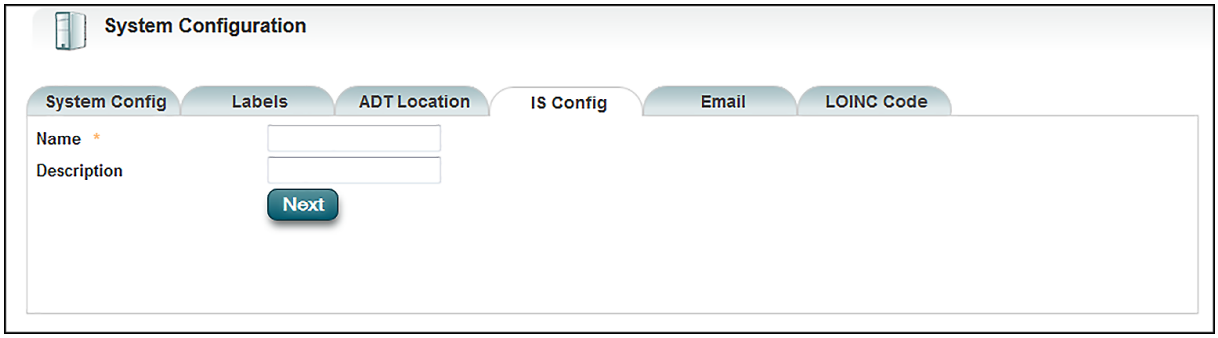
Follow these steps when connecting to the HIS/EMR using the HL7 protocol and a network connection:

1. Gather the following information from the Info HQ IT team and provide the information to the IT team responsible for the HIS server:
   - Host address (TCP/IP address) of the Info HQ server
   - Communication port for which the Info HQ server is configured

Note: See *ADT facility level mapping* for more information about the ADT location configuration.

2. Click the **Tools** tab.
3. Click the **Info HQ Configuration** secondary tab.
4. Click the **IS Config** tab.
   The **Info HQ Configuration** screen displays with IS Config information.
5. Click **Add New Connection**.
   The first set of **Add New Connection** fields is displayed.

Figure 3–12: Info HQ Configuration screen: IS Config tab (first set of fields for adding new connection)



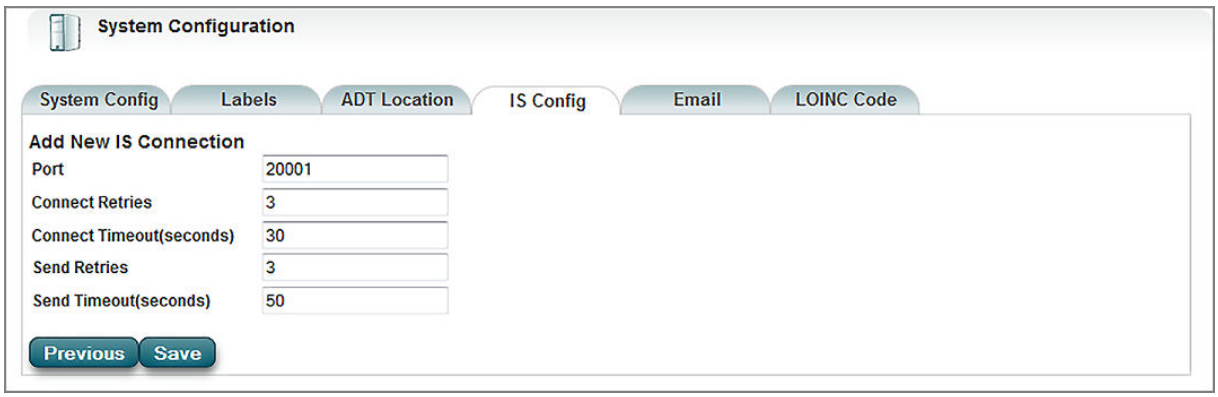
6. Complete the first set of fields, providing a name and description to associate with this HIS connection.

   Click **Next** when finished to display the next set of fields.
7. Continue to **complete** each set of fields as prompted, clicking **Next** after completing each set. The following settings are recommended.

   - ISType: Patient ADT
   - Protocol: HL7
   - LinkType: Network
   - Channel: InBound
   - Port: The TCP/IP network port, for example *20001*

It is strongly recommended that default values be used for the Retries and Timeout parameters.

Figure 3–13: Info HQ Configuration screen: IS Config tab (last set of fields for adding new HIS connection)



8. When finished, click **Save**.
9. Locate and click the System Config tab.
10. In the list of Info HQ System settings, make sure that **Support ADT** is set to *Yes*.

When the new connection has been completed, Info HQ opens its incoming port and the Info HQ ADT module listens to inbound messages sent from the HIS server. If the Info HQ ADT module is able to establish connection with the HIS server, the status indicator on the Info HQ Dashboard turns green.

3.7 Configuration settings

Configuration settings control how Info HQ functions. Info HQ can be configured to meet the specific needs of a healthcare system. Setting up and adjusting configuration settings is done from the Info HQ Configuration secondary tab, which is available from the Tools tab.

Configuration settings section contains information about the tabs on the **Info HQ Configuration** screen, except the IS Config tab. The IS Config tab is used to configure information systems, such as an LIS, and is described in *Connectivity settings*.

System configuration settings

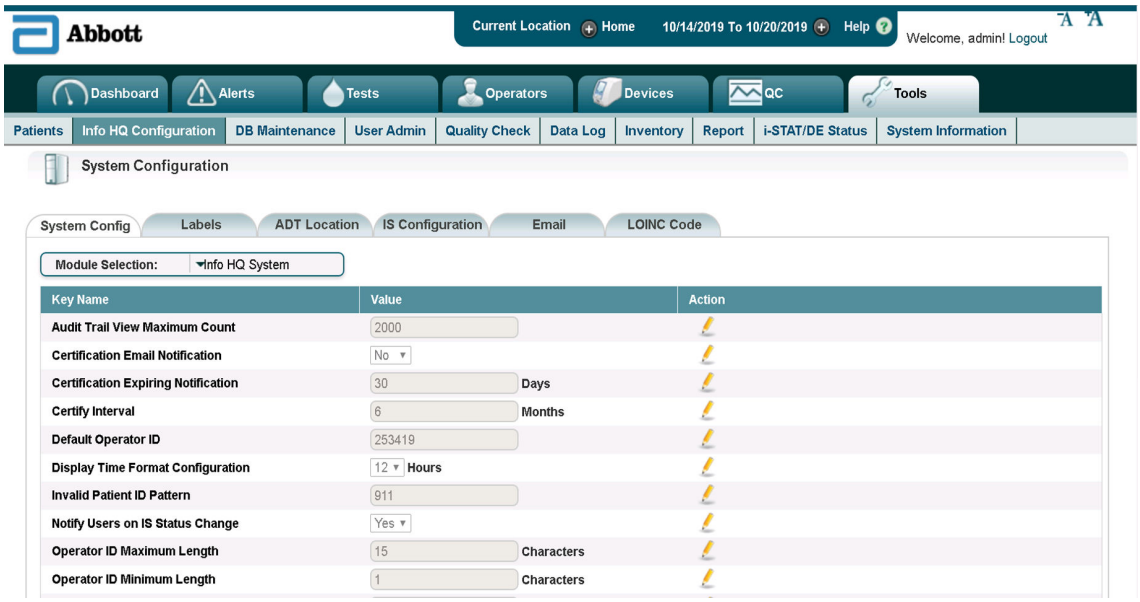
System configuration settings control how Info HQ functions, how it interacts with patient testing devices and information systems, and even the options available within the Info HQ user interface.

When Info HQ is first installed, these system settings are pre-configured to enable Info HQ to be launched and functional immediately after installation. These settings can be changed to meet the specific needs of a healthcare system. After making any change to the configuration settings, restart the system.

1. Click the **Tools** tab.
2. Click the **Info HQ Configuration** secondary tab.
3. Click the **System Config** tab.

The **System Configuration** screen opens, with several configuration-related tabs. The **System Config** tab is already selected by default.

Figure 3–14: System Configuration screen



Use the **Module Selection** drop-down list to filter the list and find the parameters more easily.

4. Click  or  next to a parameter to change its current setting.

    denotes a free field entry or a single-select setting.

    denotes a setting for which multiple options can be added or removed from the Info HQ user interface.

    **Note:** Configuration items shown may vary depending upon availability of configuration settings in Info HQ.

5. Click  to save changes, or click  to discard changes.
6. Repeat these steps as needed to change other settings.

   For more information about the table parameters, select the appropriate link:

   - *Info HQ system settings*
   - *Comments settings*
   - *i-STAT/DE settings*
   - *Organization info settings*
   - *Advanced settings*
   - *Registration settings*

Info HQ system settings

Change settings to meet the specific needs of your healthcare system. After making any change to the configuration settings, restart the system.

Table 3–4: Info HQ System settings

Parameter	Description	Default setting
Audit Trail View Maximum Count	Total number of audit trail records, between 500 and 5000, that Info HQ can return. If a larger number of audit trail records are requested, a notification message displays and only the number of records equal to the maximum count are returned.	2000
Certification Email Notification	Whether Info HQ will send a daily email notification to the operator and manager that a certification has expired or is expiring based on the Certification Expiring Notification period.	No
Certification Expiring Notification	Number of days in advance, between 0 and 365, that an alert will be generated and email notification to the operator and manager will begin before an operator certification will expire.	30 days
Certify Interval	Number of months, between 0 and 1000, that an initially granted certification will remain active before it expires.	6 months
Default Operator ID	Use this setting to define an operator ID to be sent to the LIS with a test result when no operator is captured with a test result. Disabled when empty.	No default.
Display Time Format Configuration	The format used to display time in the user interface.	12 hours
Invalid Patient ID Pattern	A pattern or template, used to verify that each patient ID is valid. Applies when Info HQ is not configured to receive patients' Admission, Discharge, & Transfer (ADT) data.	911
Notify Users on IS Status Change	Whether Info HQ sends email notification when there is a connection change between Info HQ and an information system (LIS or HIS-EMR).	Yes
Operator ID Maximum Length	Maximum number of characters, between 1 and 30, allowed for an operator ID.	15 characters
Operator ID Minimum Length	Minimum number of characters, between 1 and 30, required for an operator ID.	1 character
Password Expiration Interval	Number of days, between 1 and 360, before which Info HQ users are required to change their passwords.	90 days

Parameter	Description	Default setting
Patient ID Maximum Length	Maximum number of characters, between 1 and 16, allowed for a patient ID.	15 characters
Patient ID Minimum Length	Minimum number of characters, between 1 and 8, required for a patient ID.	4 characters
Recertify Interval	Number of months, between 0 and 1000, that a renewed certification remains active before expiring.	12 months
Report Date Range Limit	Number of days between selected start date and end date allowed for list report.	31 days
Show Alert Screen	Whether alerts are displayed in Alerts view instead of the table-like List view.	No
Support ADT	Whether Info HQ supports the receipt of ADT data from an external system.	Yes
Test View Default Date Period	Default date range Info HQ uses to display results.	This Week
Web Session Time Out	Number of minutes before a user account is automatically logged out due to inactivity, between 10 and 1440 minutes (1 day).	30 minutes

Comments settings

Change settings to meet the specific needs of your healthcare system. After making any change to the configuration settings, restart the system.

Table 3–5: Comments settings

Parameter	Description	Default setting
Predefined Device Comments	Predefined comments that can be added to device records. Users will be able to see these comments in the Devices tab.	No Default
Predefined Operator Comments	Predefined comments that can be added to operator records. Users will be able to see these comments in the Operators tab.	No Default
Predefined Patient Test Comments	Predefined comments that can be added to test results records. Users will be able to see these comments in the Tests tab.	No Default
Predefined QC Comments	Predefined comments that can be added to QC records. Users will be able to see these comments in the QC tab.	No Default
Predefined Reagent Lot Comments	Predefined comments that can be added to reagent lots.	No Default

i-STAT/DE settings

Change settings to meet the specific needs of your healthcare system. After making any change to the configuration settings, restart the system.

Table 3–6: i-STAT/DE settings

Parameter	Description	Default setting
i-STAT/DE Enabled	Whether Info HQ is able to connect to the i-STAT Data Exchange web service.	No
i-STAT/DE Instruments Upload Interval	How often Info HQ will send downloader and i-STAT1 device data to the i-STAT/DE, between 5 minutes and 1440 minutes (1 day).	15 minutes
i-STAT/DE Operator Upload Interval	How often Info HQ will send operator data to the i-STAT/DE, between 5 minutes and 1440 minutes (1 day).	15 minutes
i-STAT/DE Patient Upload Interval	How often Info HQ will send patient data to the i-STAT/DE, between 3 minutes and 1440 minutes (1 day).	15 minutes
i-STAT/DE Web Service Host Name	IP address of the i-STAT/DE web service.	127.0.0.1

Organization info settings

Change settings to meet the specific needs of your healthcare system. After making any change to the configuration settings, restart the system.

Table 3–7: Organization Info settings

Parameter	Description	Default setting
City	City for the highest level in the location hierarchy (the Healthcare System level).	No default
Fax	Fax number for the highest level in the location hierarchy (the Healthcare System level).	No default
Name	Name used to identify the highest level in the location hierarchy (the Healthcare System level).	Home
Phone	Phone number for the highest level in the location hierarchy (the Healthcare System level).	No default
Postal Code	Postal code for the highest level in the location hierarchy (the Healthcare System level).	No default
State	State for the highest level in the location hierarchy (the Healthcare System level).	No default
Street Address	Number and street for the highest level in the location hierarchy (the Healthcare System level).	No default
Web URL	Website for the highest level in the location hierarchy (the Healthcare System level).	No default

Advanced settings

Change settings to meet the specific needs of your healthcare system. After making any change to the configuration settings, restart the system.

Table 3–8: Advanced settings

Parameter	Description	Default setting
ADT Age	Number of days after the ADT discharging date, between 2 and 30, that ADT data is cleared.	5 days
ADT View Count Limit	Maximum number of Patient ADT records, between 100 and 40,000, returned.	2000
ADT Result Reconciliation	Allows reconciliation of patient full name for i-STAT 1 when ADT is used.	No
Analyte Result Extract Count Limit	Maximum number of patient results written to Analyte Result Extract report.	5000
CDS HL7 Mode	Control whether HL7 messages sent to the LIS are composed using the i-STAT Central Data Station (CDS) HL7 protocol implementation as a guideline.	No
CWi URL	The URL for CWi. CWi is an application for setting up and customizing i-STAT Alinity. See the i-STAT Alinity documentation for detailed information.	http://www.abbottpointofcare.com/
Data Download Grace Period	Number of hours, between 1 and 200, after which a synchronously connected device should download test data to the Info HQ. If this grace period is exceeded, an alert is generated.	24 hours
HIS Allowable Inactivity Period	Number of minutes, between 2 and 3600, allowed since the last ADT download from the HIS. If this period of time is exceeded, an alert is generated and the ADT status indicator on the Dashboard changes to orange.	30 minutes
Info HQ Manager App Logging Path	Path to the folder where the system data log is located. All Info HQ Windows application log files are located here. **Important:** Changing this path could cause the Info HQ application to malfunction.	C:\program files\apoc\data manager \LogFiles

Parameter	Description	Default setting
Info HQ Manager Implementation Guide URL	URL where users can access the Info HQ Manager *Implementation Guide*	http://www.abbottpointofcare.com/Customer-Info_Center/User-Documentation.aspx
Info HQ Manager Spec Sheet URL	URL where users can access the Info HQ *Specification Sheet*	http://www.abbottpointofcare.com/Customer-Info_Center/User-Documentation.aspx
Info HQ Manager User's Guide URL	URL where users can access the Info HQ *User Guide*	http://www.abbottpointofcare.com/Customer-Info_Center/User-Documentation.aspx
Info HQ Manager Website Logging Path	Path to the folder where the Info HQ data log is located. This log records every action taken by Info HQ users. **Important:** Do not change this path unless absolutely necessary.	C:\Program Files\APOC\Websites\Data Manager\LogFiles
IS Auto-notification Emails	Additional email addresses to which Info HQ sends an email notification when there is an LIS, HIS/EMR, or i-STAT/DE alert.	No default
i-STAT Alinity Full Download Interval	The number of minutes after which a full list of operators is sent to i-STAT Alinity devices.	7200 minutes (5 days)
LIS App Timeout	The timeout interval for the LIS application to acknowledge receiving test records.	60 minutes
OCM Enabled	When the value of this setting is Yes, operator competency can be managed through the following Info HQ secondary tabs on the Operators primary tab: • Competency Tracker • Competency Profile • Competency Criteria If the value of this setting is No, the secondary tabs on the Operators primary tab are not displayed.	Yes
PV Data Extract Enabled	Enables extracting patient test results or QC data (only liquid control and cal/ver) into a delimited file for performance verification.	No

Parameter	Description	Default setting
Reagent Lot QC Enabled	When the value of this setting is *Yes*, the quality of reagent lots can be managed through the following Info HQ user interface features: **Dashboard**: The Reagents area is displayed. **Tools** > **Inventory** • Reagent lot QC columns are displayed by default • When a reagent type is selected in the **Type/Lot** column of the list view, the **Details** and **Audit Trail** tabs are displayed in the Details area. • When a reagent lot is selected in the **Type/Lot** column of the list view, the **Details**, **QC Tracking**, **QC History**, **Audit Trail**, and **Comments** tabs are displayed in the Details area. • Report options include: **Reagent Lot QC Compliance** (available when a reagent lot is selected), and **Reagent Lot Inventory** report is available when either reagent type or lot is selected. • The Configure QC Criteria icon  is in the toolbar. If the value of this setting is *No*, the corresponding user interface features are hidden.	Yes
Record Display Count Limit	Total number of records, between 100 and 10,000, that Info HQ can return. If the number of records returned exceeds this amount, a notification message is returned and only the number of records equal to the count limit are returned.	2000
Send QC Results to LIS	Enables sending or resending QC results to the LIS.	No

Registration settings

Change settings to meet the specific needs of your healthcare system. After making any change to the configuration settings, restart the system.

Table 3–9: Registration settings

Parameter	Description	Default setting
Host ID	This field is read-only. It will be automatically populated after the product serial number is entered and saved.	No default
Product Serial Number	Unique number for Info HQ. Check the installation software kit for the product serial number. If this number is changed or entered incorrectly, it may void the commercial license.	No default

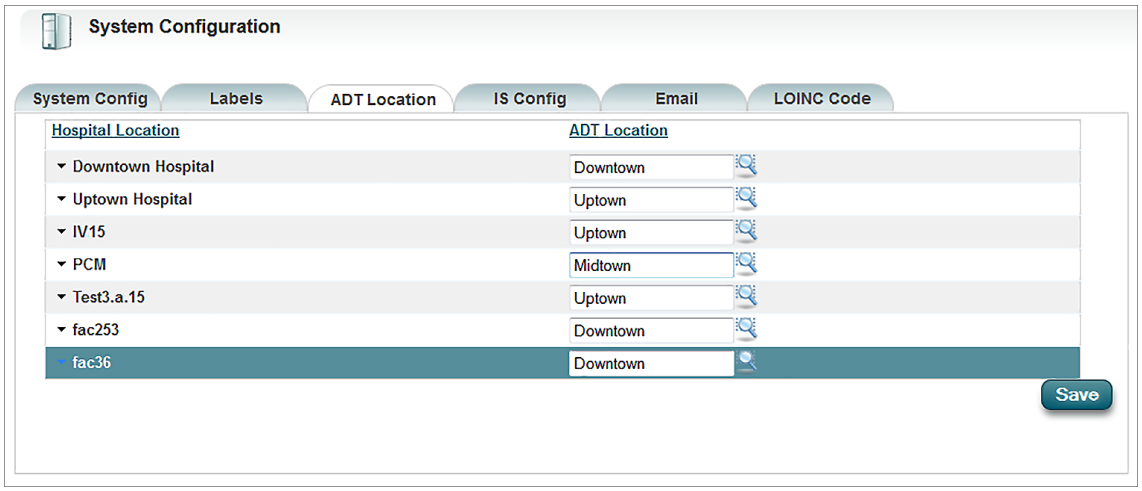
ADT facility level mapping

When Info HQ receives ADT data from an HIS/EMR system, the names of the facility locations defined in the ADT data might not match the names used in Info HQ. Use the ADT Locations screen to map Info HQ facility location information to corresponding location names in the HIS/EMR system.

Note: Support from the IT or LIS department might be required to complete these steps.

1. Click the **Tools** tab.
2. Click the **Info HQ Configuration** secondary tab.
   The **System Configuration** screen opens, with several configuration-related tabs.
3. Click the ADT Locations tab to display the current ADT location mappings.
   Info HQ locations are listed in the left column and are mapped to the HIS/EMR locations listed on the right.

Figure 3–15: System Configuration: ADT Location mappings



4. Locate the Info HQ Facility location to map.
5. Under the ADT Location column, click the magnifying glass icon and select the corresponding HIS/EMR location from the drop-down.
6. Click **Save**.

Labels

Labels can be used to mark or identify specific test records within the Info HQ user interface. For example, a test record could be marked for *Follow-up*, *Inquiry*, or *Correction*. A label requires text and a color selection.

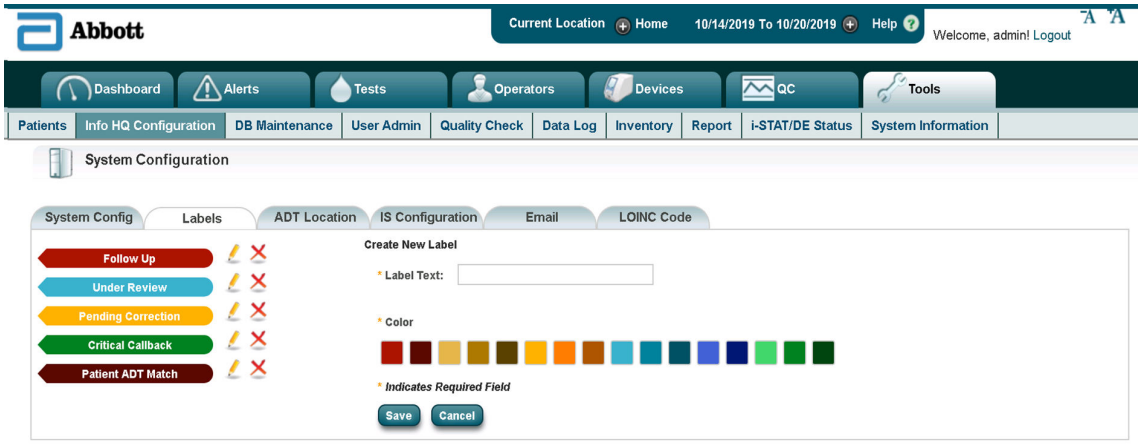
Labels are particularly useful in reminding a POCC or authorized user that a patient test result requires further action. Labels are available only for patient test records, not for QC results. While there is no specific limit to the number of labels that can be created, the number of different colors available for labels is 16.

Use Info HQ to create, edit, and delete labels.

To create a label, perform the following steps:

1. Click the **Tools** tab.
2. Click the **Info HQ Configuration** secondary tab.
   The **System Configuration** screen opens, with several configuration-related tabs.
3. Click the **Labels** tab.
4. Click the **Create New Label** button.
   The **Create New Label** fields display.

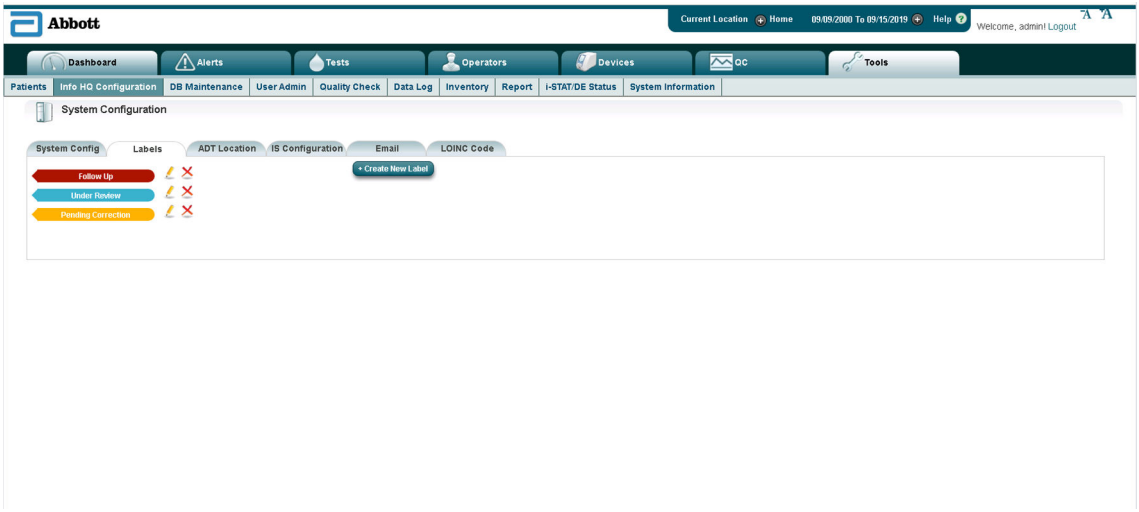
Figure 3–16: Labels tab: Create New Label fields



5. In the **Label Text** field, enter the text to be used for the label, for example *Consult*. Label text has a maximum length of 25 characters.
6. In the **Color** field, click a color to use as a border around the label.
7. Click **Save**.

The label is created and is displayed in the list of labels on the left.

Figure 3–17: Labels screen: New label added



- To edit a label, click to the right of the label in the **Labels** screen. Make the changes, then click to save.
- To delete a label, click to the right of the label in the **Labels** screen, then click **OK** to confirm deletion. Deleting a label will remove it from any test results in the system to which it has been added.

Email configuration settings

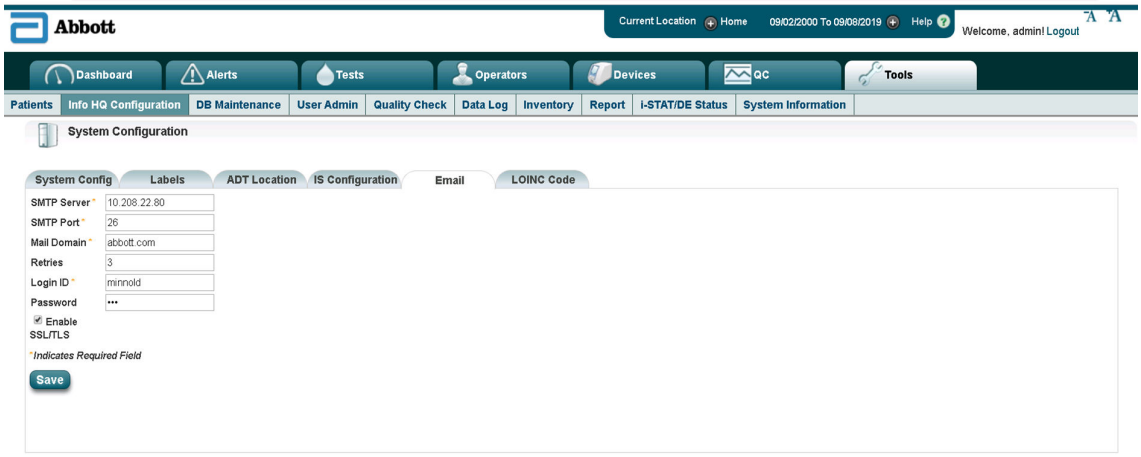
Users of the Info HQ system can send emails from within the system to users or operators who have valid email addresses defined within the Info HQ system. Many of the screens in the system offer the ability to send email. See *Email data*.

Info HQ can also send email when certain events take place, such as an operator certification nearing expiration. Use these steps to configure email for the Info HQ system.

1. Verify with the IT team that an email account exists for Info HQ.
2. Click the **Tools** tab.
3. Click the **Info HQ Configuration** secondary tab.

4. Click the **Email** tab to display the email configuration fields, as shown.

Figure 3–18: Info HQ Configuration screen: Email tab



5. Obtain the following information from the IT team and enter it into the corresponding fields.

Table 3–10: Email configuration settings

Option	Description
SMTP Server	IP address or hostname of the remote SMTP server (required).
SMTP Port	Port on which SMTP is enabled on the remote server (required).
Main Domain	Domain for which the SMTP server is hosting, for example *acme.com* would be the main domain for *test@acme.com* (required).
Retries	Number of repeated attempts to send out email.
Login ID	Login name for the Info HQ email account that will send the emails (required).
Password	Password for the Info HQ email account.
SSL/TLS	Check the box to enable email encryption via Secure Socket Layer (SSL).

6. Click **Save**.

LOINC codes

The LOINC tab can be used by the POCC or other authorized user to configure Info HQ to recognize Logical Observation Identifiers Names and Codes (LOINC) codes according to the facility's standards.

Support for LOINC codes is enabled as part of the LIS setup. For more information about LIS setup see *Connectivity with an LIS*.

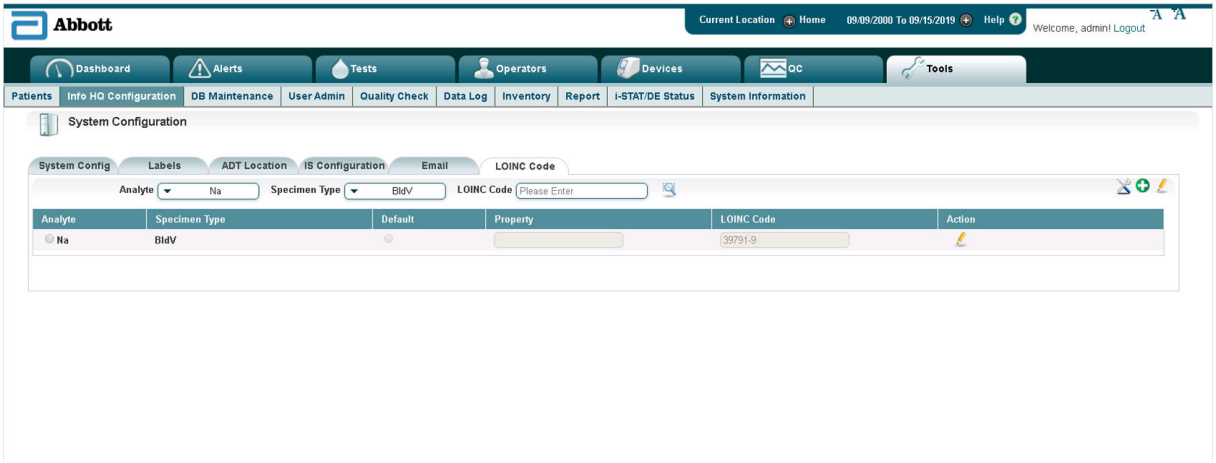
To configure LOINC settings, perform the following steps:

1. Click the **Tools** tab.
2. Click the **Info HQ Configuration** secondary tab.
   The **System Configuration** screen opens, with several configuration-related tabs.

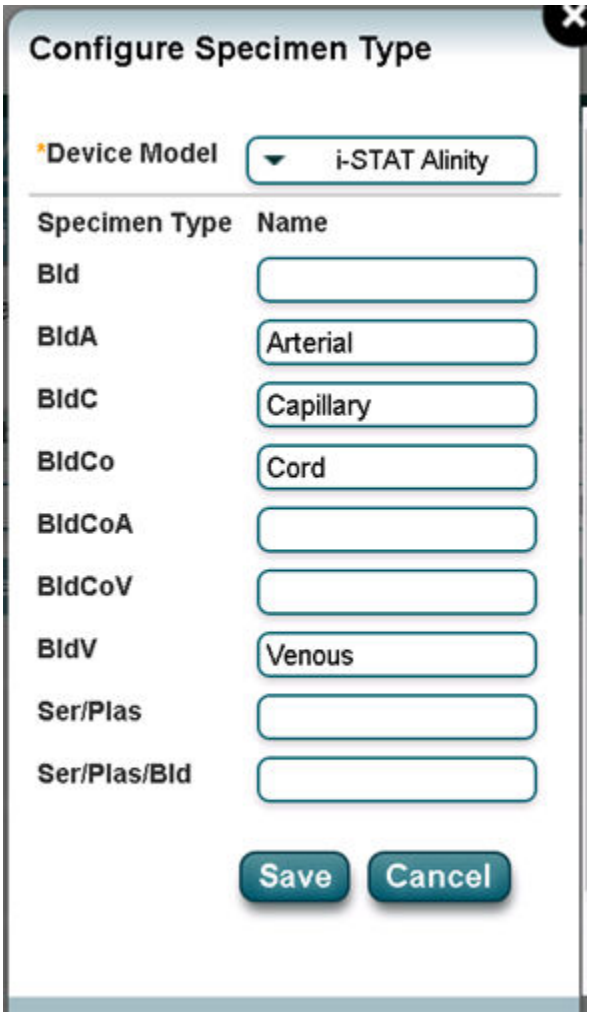
3. Click the **LOINC Code** tab.

   The **System Configuration** screen displays with LOINC Code information.

Figure 3–19: System Configuration: LOINC screen



4. The analyte list is unique and there can be multiple specimen types for each analyte. The current LOINC code is listed for each specimen type.
5. There are filters at the top of the screen specific to the main columns, two drop-down filters (Analyte or Specimen Type) and a free-field search filter for the LOINC Code column. To filter, click on either of the drop-downs or type in the LOINC Code field and click the search icon.
6. Click the  icon to configure specimen types for a device type.
   a) Choose a device from the drop-down. A new dialog box opens.
   b) Enter the specimen type name in each of the appropriate fields. NOTE: The entered specimen type names should correspond to the sample type or specimen type configured for each analyte and device type.
   c) Click the **Save** button to save your changes.
   d) See an example below of a configured specimen item for the i-STAT Alinity device type.



To update multiple rows:

1. Click on the radio button to the left of the analyte name.
2. In the upper right corner of the screen, click the  icon to open the specimen editor screen.
3. In the text boxes, enter the appropriate LOINC code for each specimen type to be used.
   Optionally, click the Default radio button to indicate that this is the default specimen type for its analyte or clear a default selection if needed.
4. Click the **Save** button.

To update a single row:

1. To change a single LOINC Code for a particular analyte, in the row for the analyte, click  under the **Action** column.
2. In the text boxes, enter a property and change the code.
   Optionally, click the Default radio button to indicate that this is the default specimen type for its analyte, if the analyte's specimen type does not match customized or vendor-defined specimen type.
3. Click the **Save** button.
4. Repeat these steps as needed to change other LOINC settings and/or set defaults for other analytes.

4 - Creating the system hierarchy

The system hierarchy is a logical arrangement of the named facilities (such as hospitals), departments, and areas within the healthcare system or organization. Identifying these entities in the Info HQ system is important because the results data that Info HQ collects, manages, and transfers is based on the location that is currently set.

The location names assigned to each Facility, Department, and Area must be unique for the entire healthcare system or organization. For example, it is not possible to assign the name *ER_north* to two different locations, even if they are in different facilities.

The sections that follow provide instructions on how to create each of the four levels of the system hierarchy.

Note: The creation of the fourth level (Area) is optional ─ only the first three levels are required.

Note: The task of creating levels requires Administrator privileges (see *Create user accounts*, Initial setup and configuration) and the hierarchy map (see *System structure planning*).

4.1 Create the Healthcare System level

The first level of the hierarchy is the Healthcare System level. This is typically the organization's name. The Info HQ installation automatically creates this first level and assigns it the name *Home*. Optionally, this name can be changed to reflect the name of the organization.

Follow these steps to change the Healthcare System name:

1. Click the **Tools** tab.
2. Click the **Info HQ Configuration** secondary tab.
3. Click the **System Config** tab.
4. Select **Organization Info** in the **Module Selection** drop-down list.
5. Locate the *Name* parameter.
6. Click to the right of the parameter, then change the setting to reflect the name of the healthcare system.

   Note: The location hierarchy map contains the information for the Healthcare System level.
7. Click .
   The Info HQ screen refreshes. The change takes immediate effect and can be seen in the location breadcrumb.
8. Update the other location parameters for the Healthcare System level (Street Address, City, State, Postal Code, Phone, Fax, Web URL) in the same manner, as needed.

4.2 Create the Facility, Department, and Area system hierarchy using the upload function

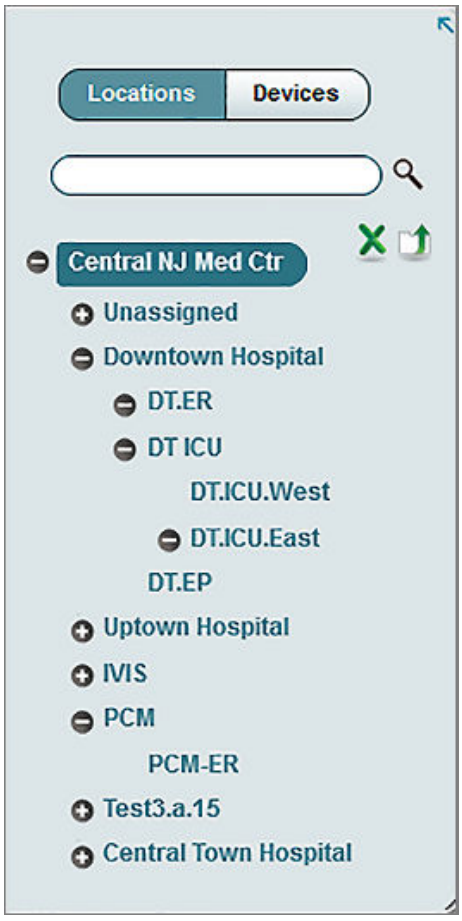
Use the following procedure to create the Facility, Department, and Area location entities at once using the upload feature. These steps include exporting a template file, entering location data into the template, and then uploading the template into Info HQ.

Note: The location hierarchy map is needed for this procedure. For more information, see *Create a location hierarchy map*.

1. Click to display the location tree.

   Note: The icon is not shown in the Tools screens. To access it, click one of the other primary tabs.

Figure 4–1: Location tree



2. From the location tree, click to export the template.
3. In the **Open** dialog box, select **Save File** as file type **.csv (Comma Delimited)** and click **OK**.
4. Locate and open the template file in Microsoft Excel.
5. Locate and open the location hierarchy map file.

6. Starting at the first row **below** the column headings, copy and paste the contents of the location hierarchy map into the template file **below** the column headings in the template.

   Note that both the template file and the location hierarchy map file should have the same columns.

   The template should now look similar to the location hierarchy map file, as shown in the following example.

   Figure 4–2: Example Locations template

Facility	Department	Location
Downtown Hospital	DT ICU	DT.ICU.West
Downtown Hospital	DT ICU	DT.ICU.East
Downtown Hospital	DT.EP	
Downtown Hospital	DT.ER	
IVIS	IVIS-ER	
PCM	PCM-ER	
Unassigned		

7. Using the example in Step *6* as a guide, enter each location that makes up the healthcare system.

   A location can be made up of just a facility, or a facility and a department, or a facility, department, and area.

   Note the following when entering locations:

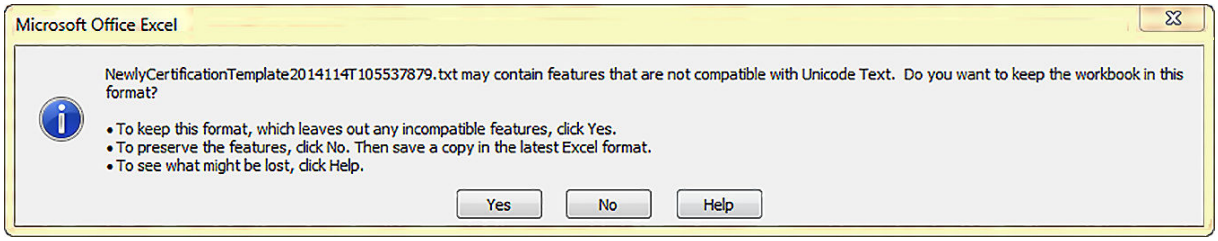
   - Each location must be on a separate row
   - Location names cannot include the ampersand (&) or tilde (~) characters.
   - Data in the template file cannot include commas
   - Enter the name to assign to each facility into column A, the name to assign to the department within the facility into column B, and the name to assign the area within the department into column C of the spreadsheet
     - The name assigned to each facility, department, or area should be descriptive but relatively brief, for example:
       - Townsend Med Center or Downtown Hospital for a facility
       - Pediatrics or ER for a department
       - Surgical room 1 or ICU_ward1 for an area within a department
   - Facilities do not have to specify departments and areas if there are none to be created
   - Departments must specify the facility under which they reside but do not have to specify areas if there are none to be created
   - Areas must specify the department and facility under which they reside

8. **Note:** To retain the comma delimiters in a .csv file after editing the file, use **Save As** and select file type .csv (Comma delimited).

   Save the template file.

If presented with a dialog box similar to the one shown here, click **Yes**.

Figure 4–3: Microsoft Excel compatibility dialog



9. From the location tree, click  to upload the locations template.
10. Click **Browse**, navigate to the folder containing the locations template file, then click **Open** in the dialog box.
11. Click **Submit**.
    If the import is successful, the message *Database has been updated* is displayed.

4.3 Create the locations individually

Follow this procedure to manually create the locations one at a time.

Note:

- To complete this procedure, the location hierarchy map is needed. The map contains information required to complete the dialog box for each Facility within the Healthcare System level. For more information, see *Create a location hierarchy map*.
- In this task, the Healthcare System level of the location breadcrumb is named *Home*. The name might be different if it was changed (see *Create the Healthcare System level*).

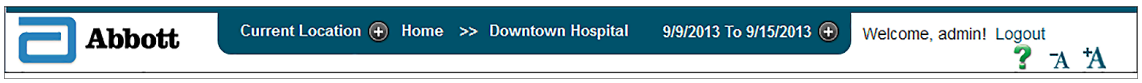
Create the Facility level

The second level of the location hierarchy is the Facility level. This level identifies the facilities within the organization, for example *Downtown Hospital*.

The Facility locations can be created all at once using the Info HQ upload function or they can be created individually. If the upload function is used, the Department and Area levels are also created as part of the upload.

1. Click **Home** in the location breadcrumb at the top of the screen.

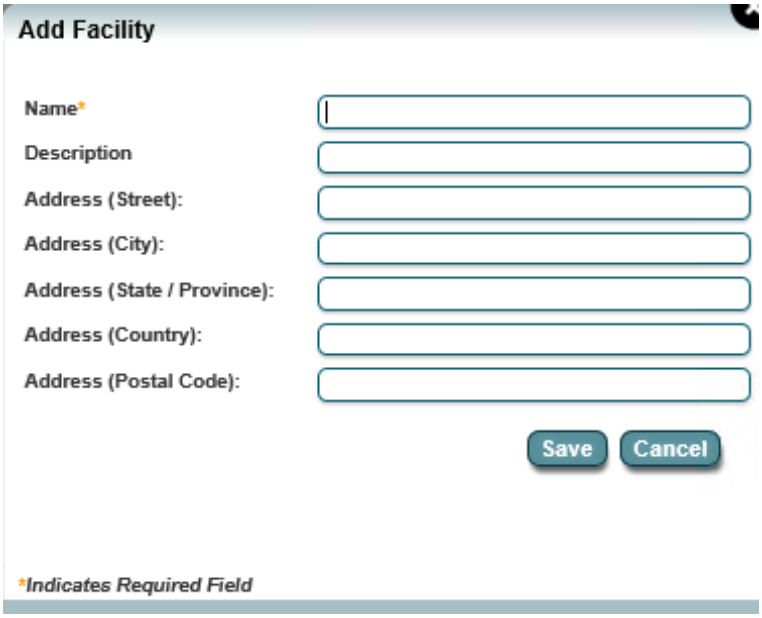
   Figure 4–4: Location breadcrumb



2. Click  .

The **Add Facility** dialog box opens.

Figure 4–5: Add Facility dialog box



3. Complete the dialog box, then click **Save**.
   The Facility is added to the location breadcrumb drop-down list.
4. Repeat these steps for each Facility within the Healthcare System level.

Create the Department level

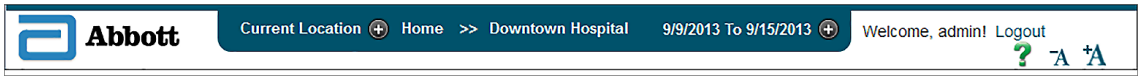
The third level of the location hierarchy is the Department level. This level identifies each Department within each Facility, for example the *Pediatrics* department within the *Townsend Medical Center* facility.

Note:

- This task can be skipped if the Facility, Department, and Area levels were created using the upload function described in *Create the Facility, Department, and Area system hierarchy using the upload function*.
- In this task, the Healthcare System level of the location breadcrumb is named *Home*. The name might be different if it was changed (see *Create the Healthcare System level*).
- To complete this procedure, the location hierarchy map is needed. The map contains information required to complete the dialog box for each Department within each Facility.

1. Set the current location to the **Facility** in which to add the department.
   a) Click **Home** in the location breadcrumb at the top of the screen.

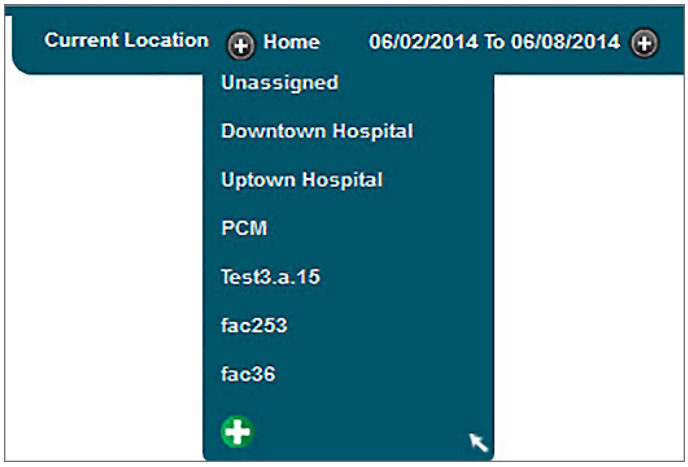
   Figure 4–6: Location breadcrumb

   b) Select the Facility from the location drop-down list.

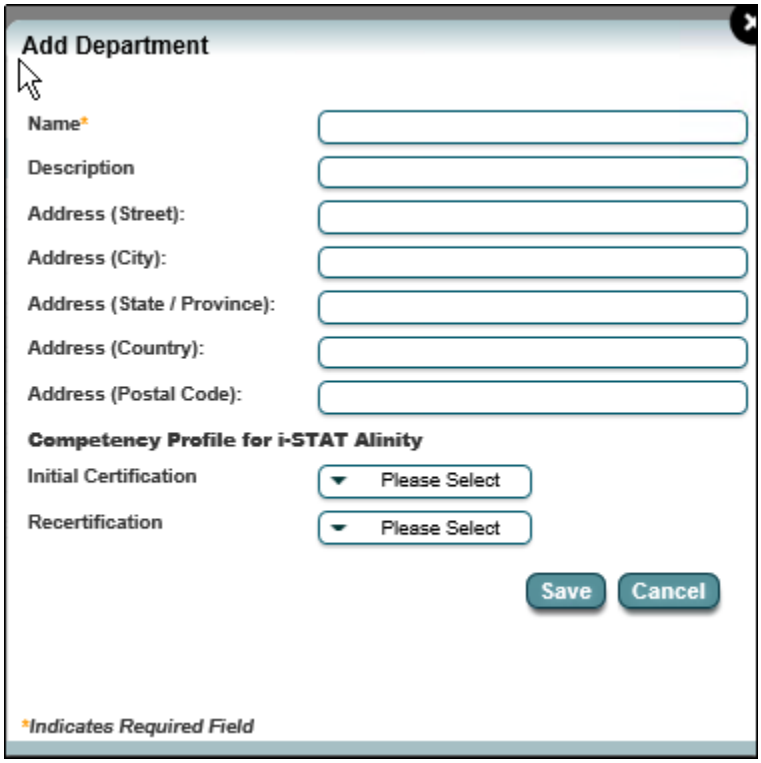
2. Click the Facility in the location breadcrumb, for example *Downtown Hospital*.

Figure 4–7: Location breadcrumb: List of facilities



3. Click  .
The **Add Department** dialog box opens.

Figure 4–8: Add Department dialog box



4. Complete the dialog box, then click **Save**.
The Department is added to the Facility and is a selectable location within the location breadcrumb drop-down list. If a competency profile is selected in the Initial Certification or Recertification drop-down lists, it is saved and assigned to the new department.
5. Repeat these steps for each Department to add within each Facility.

Create the Area level

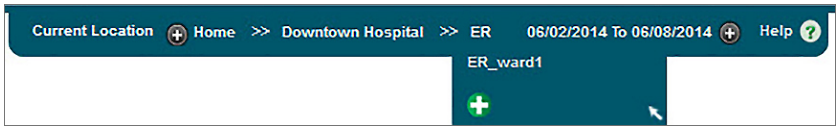
The fourth level of the location hierarchy is the Area level. This level identifies the Areas within each Department, for example *Room 1* within the *Pediatrics* Department.

Note: The creation of the Area level is optional. Additionally, it can be skipped if the Facility, Department, and Area levels were created using the upload function described in *Create the Facility, Department, and Area system hierarchy using the upload function*.

Note: In this task, the Healthcare System level of the location breadcrumb is named *Home*. The name might be different if it was changed (see *Create the Healthcare System level*).

1. Set the current location to the **Department** in which to add the Area.
   a) Click **Home** in the location breadcrumb at the top of the screen.
   b) Continue to select the appropriate Facility, then the appropriate Department within the location breadcrumb.
   The current location is set to the Department in which to add the new Area.
2. Click the Department in the location breadcrumb, for example *ER*.

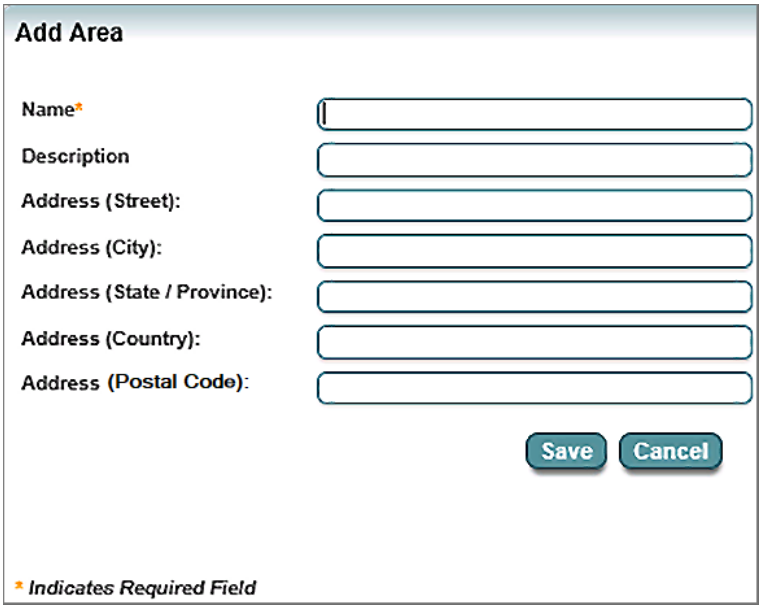
Figure 4–9: Location breadcrumb: List of areas



3. Click .

The **Add Area** dialog box opens.

Figure 4–10: Add Area dialog box



4. Complete the dialog box, then click **Save**.

The location hierarchy map should contain the information required to complete the dialog box for each Area (see *Create a location hierarchy map*).

5. Click **Save**.
   The Area is added to the Department and is a selectable location within the location breadcrumb drop-down list.
6. Repeat these steps for each Area to add within each Department.

5 - Populating system components

After initial setup and configuration are complete, and the system hierarchy has been created, the next step in implementing Info HQ is to populate these system components:

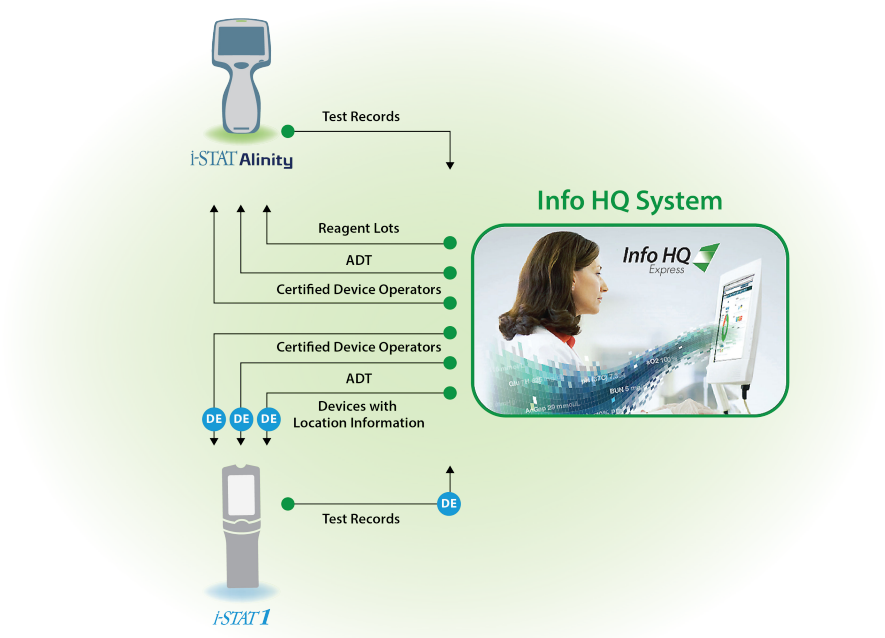
Devices	Describes how to add devices that operators will use to perform tests.
Inventory	Describes how to add reagent inventory to the Info HQ system.

5.1 Device setup

Info HQ is designed to both receive test result data from POC devices and push data to them. The devices that interact with Info HQ must be registered within the Info HQ system.

Note: Setup and customization via the CWi software is required for communication between i-STAT Alinity and Info HQ. See the i-STAT Alinity documentation for detailed information.

Figure 5–1: Device and Info HQ flow



These instructions describe how to add devices that the Info HQ system manages.

There are two methods to manually add devices to Info HQ:

- Add a group of devices, using the upload feature to add multiple devices all at once from a Microsoft Excel template.
- Add an individual device, one at a time.

Add a group of devices

When multiple devices are to be added to the Info HQ system, use the upload function to add them all at the same time.

Info HQ includes a devices template, in spreadsheet format (.csv), for automating the addition of multiple devices to the system. The first few steps of this procedure provide instructions on how to download and prepare the template. Here is an example of the template populated with sample device data.

Figure 5–2: Example device template

DeviceModel_Name	Name	SerialID	IPAddress	Location_Name
i-STAT1	i-STAT1(317028)	317028		DT.ER
i-STAT Downloader	Auto Assigned 1		10.10.90.47	DT.PED
i-STAT Alinity	i-STATAlinity(316531)	316531		DT.CARD

Note: This procedure uses the device map described in *Create a device map*

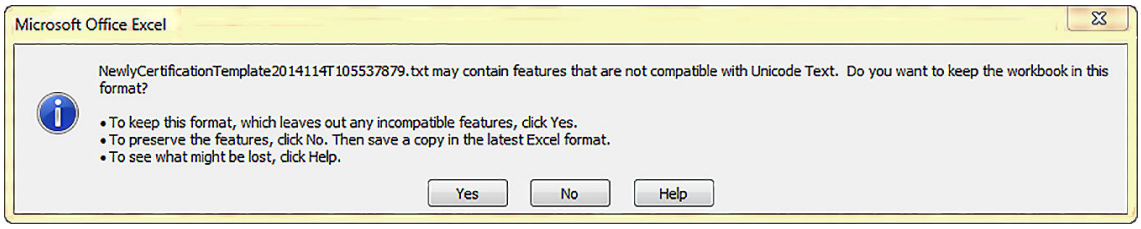
1. Download the template:
   a) Click the **Devices** tab.
   b) Click  to export the device template file.
   c) From the drop-down list, select a template file, for example DeviceExcelTemplate.
   d) Click **Generate**.
   e) In the **Open** dialog box, select **Save File** and click **OK**.
   Save the template file as a .csv (Comma Delimited) file.
2. Prepare the template:
   a) Locate and open the template file in Microsoft Excel
   b) In the template, locate the first blank row below the column headings.
   c) Using the example device template as a guide, enter the data for each device to be added. Note the following when entering the information:
      - Each device must be on a separate row.
      - Data in the template file cannot include commas.
      - Device names cannot include the ampersand (&) or tilde (~) characters.
      - The device serial number must not exceed 16 characters.
      - Device names and IP addresses must not exceed 20 characters each.
      - The name entered for the Device Model must match the name assigned to it in the device map.
      - The Device Name is a descriptive name to be associated with the device, such as *ICU i-STAT*.
      - The serial number of the device must be entered to distinguish it from other devices of the same type. The serial number must not exceed 16 characters.
      - For an i-STAT 1 downloader device, enter the static IP address of the downloader under the IP Address column. For other devices, this column can be left blank.
      - The Location Name is the primary department or area within a department where the device resides. The name must match the name assigned to it in the location hierarchy map and it must not exceed 20 characters.

Note: To retain the comma delimiters in a .csv file after editing the file, use **Save As** and select file type .csv (Comma delimited).

d) Save the template file.

If a compatability dialog box displays, click **Yes**.

Figure 5–3: Microsoft Excel compatibility dialog



3. Upload the completed template file to Info HQ, which uses the data in the file to add the specified devices.

Note: Adding a new device with a serial number that matches a deleted device will activate the deleted device and update it with the information for the new device, such as device name, model, and location.

a) In the Info HQ **Devices** screen, click to display the **Upload** dialog box.

b) Click **Browse**, navigate to the folder containing the device template file, then click **Open** in the dialog box.

c) Click **Submit**.

Depending on how many devices are added, there might be a delay as the devices are added. A completion message inside the **Upload** dialog box indicates the number of devices that were successfully added.

d) Close the **Upload** dialog box.

4. Verify the results:

a) To refresh the **Devices** screen, click the **Devices** tab.

b) View the list of devices.

To locate the new device, use the page widget near the upper-right of the screen to scroll through the pages.

Figure 5–4: Widget for selecting pages

Note:

- i-STAT 1 downloaders are not displayed in the list of devices. To view the downloaders, use the **Search** filter and the **Device Model** option to display a list of all i-STAT 1 downloaders.
- Connectivity between Info HQ and an i-STAT device differs depending on the device model. For i-STAT 1, communication occurs through the i-STAT/DE system, while i-STAT Alinity and Info HQ communicate directly with one another through the POCT1-A2 communication protocol. For detailed information about connectivity between Info HQ and i-STAT devices, see *Connectivity with point-of-care testing devices*.

Add an individual device

Complete this task to add an individual device to Info HQ. For information about uploading a group of devices, see *Add a group of devices*.

Obtain the following information from the person or team responsible for configuring the device:

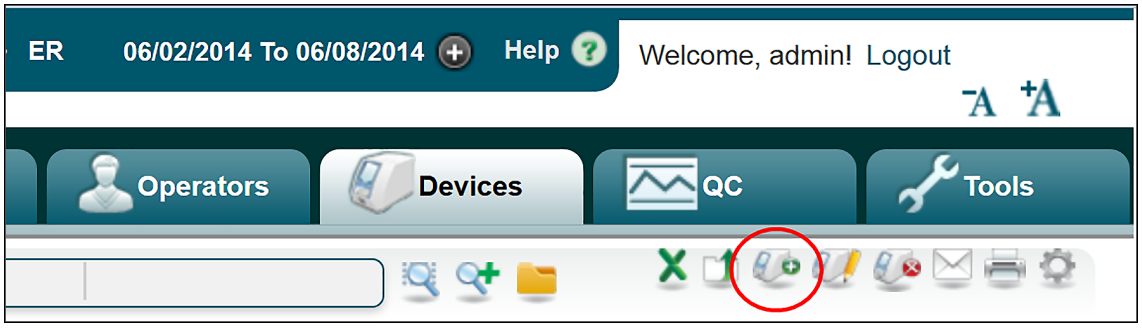
- Device model name, for example i-STAT 1
- Serial number of the device to distinguish it from other devices of the same type
- For an i-STAT 1 downloader device, obtain the static IP address of the downloader
- The location (department or area) within the healthcare system where the device resides. For example, DT.ER is the ER department in the Downtown Hospital.

Important: For i-STAT 1, i-STAT 1 Wireless, or i-STAT 1 downloader devices only, ensure that i-STAT/DE has been configured to communicate with Info HQ.

Follow these steps to add a device to the Info HQ system:

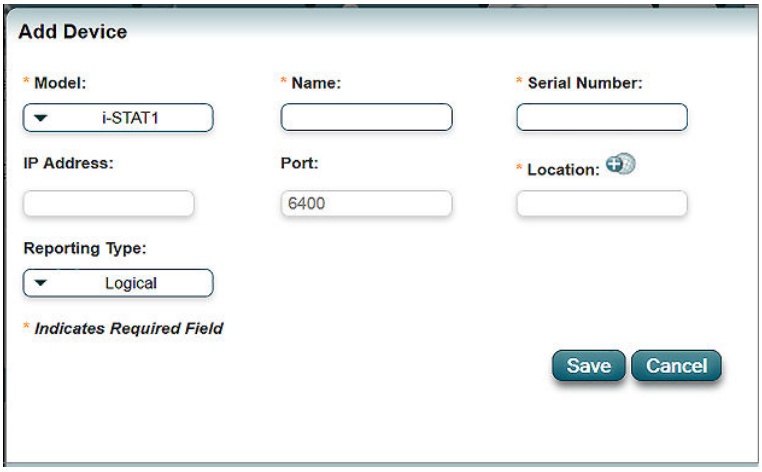
1. Click the **Devices** tab.
2. Click  , near the top-right of the screen.

Figure 5–5: Location of the Add Device icon



The **Add Device** dialog box opens.

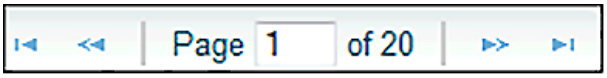
Figure 5–6: Add Device dialog box



3. Complete the dialog box as follows:
   - Complete the **Model**, **Name**, **Serial Number**, and **Location** fields.
   - In the **Model** drop-down list, select the model of the device to be added, for example, i-STAT 1.
   - In the **Name** field, enter a name to associate with the device. Device names cannot include the ampersand (&) or tilde (~) characters.
   - The **IP Address** field is used only when adding an i-STAT 1 downloader device. Enter the static IP address of the downloader.
   - In the **Location** field, click , and select a location (department or area) for the device.
   - It is not necessary to complete the **Port** field, which is read-only.
   - The **Reporting Type** field specifies how an i-STAT 1 handheld device will report test results and the location from which it will receive customizations.
     - The **Reporting Type** drop-down list is available only for i-STAT 1 devices.
     - When **Logical** (the default) is selected, the handheld device will always report results and receive customizations at the location where it exists in the Info HQ hierarchy. The Logical option must be used with i-STAT 1 Wireless handhelds.
     - When **Physical** is selected, the handheld device will report test results and receive customizations based on the location of the downloader device from which it transmits data. This means that the **Physical** setting can be used to support a handheld device that roams from one department to another. This setting can be used with i-STAT handheld devices that transmit data through a downloader, not for devices that transmit data based on a wireless configuration.
4. Click **Save**.

The new device is added. Use the page widget near the upper-right of the screen to scroll through the pages to locate the new device.

Figure 5–7: Widget for selecting pages



Note:

- i-STAT 1 downloaders are not displayed in the list of devices by default. To view the downloader, use the **Search** filter and the **Device Model** option to display a list of all i-STAT 1 downloaders.
- Connectivity between Info HQ and an i-STAT device differs depending on the device model. For i-STAT 1, communication occurs through the i-STAT/DE system, while i-STAT Alinity and Info HQ communicate directly with one another through the POCT1-A2 communication protocol. For detailed information about connectivity between Info HQ and i-STAT devices, see *Connectivity with point-of-care testing devices*.

5.2 Inventory setup

Inventory setup involves adding the initial reagent inventory to the Info HQ system. Using this feature allows administrators to keep a running total of the specific reagent quantities and expiration dates. This can help with ordering, disbursement, and reordering of product.

Add a reagent lot to the inventory

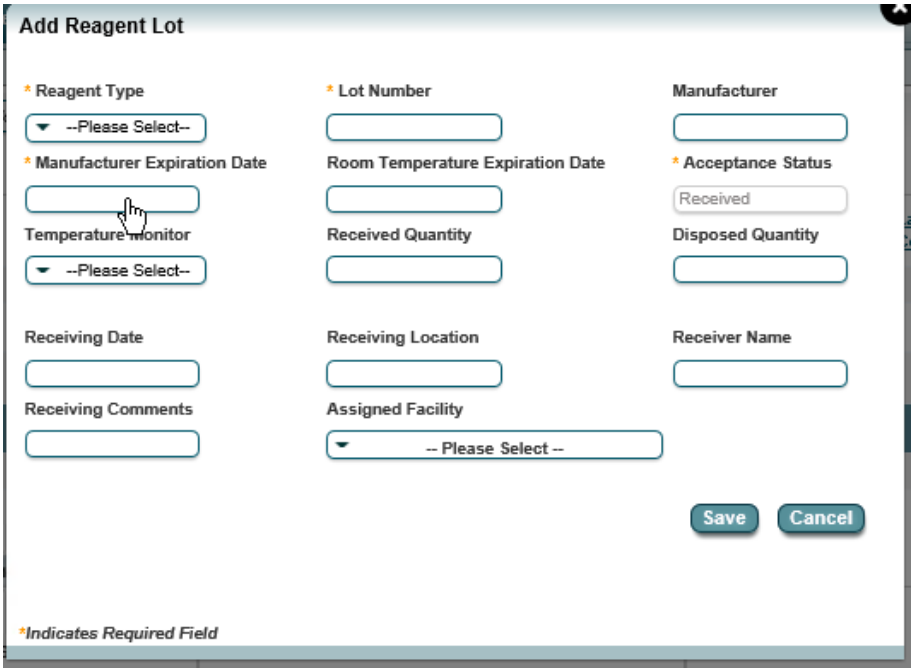
A best practice for adding reagent lots to the Info HQ system is to run a successful control test and upload it to automatically register a reagent lot. Note that the lot number printed on the reagent box or pouch is just a portion of the full lot number that Info HQ requires.

To add a reagent lot to the inventory:

1. Click the **Tools** tab.
2. Click the **Inventory** secondary tab.
3. Click  .

The **Add Reagent Lot** dialog box opens.

Figure 5–8: Add Reagent Lot dialog box



4. Describe the new reagent lot by completing the fields as follows.

   Note: Fields marked with an asterisk (*) are required.

   a) Select a reagent type using the drop-down list.
   b) Enter text to identify the **Lot Number**.
   c) Supply the **Manufacturer Expiration Date** and, optionally, the **Receiving Date** by clicking on each field and using the calendar widget.
   d) If your facility requires verification of the reagents' temperature upon receipt, select the appropriate value using the **Temperature Monitor** drop-down list: Pass, Fail, or Undefined.
   e) Complete other fields, as needed.

5. Click **Save**.

The **Add Reagent Lot** dialog box closes, and the new reagent lot is added to the main list in the **Inventory** screen.

6 - System maintenance

The Info HQ system is designed to require minimal routine maintenance.

6.1 Database maintenance

Protecting the data stored in the database is one of the most important system maintenance tasks. Data should be backed up regularly to protect against data loss due to an unexpected event such as disk corruption, viruses, operating system failure, or natural disasters. It is recommended that the Info HQ database is backed up periodically.

6.2 Defragment the server disks

Server performance can slow over time when the Info HQ server becomes fragmented. To manage fragmentation, use the server's defragmentation tool to regularly defragment the server disk. The following folders should be excluded during a defragmentation:

- C:\inetpub\wwwroot\Data Manager
- C:\Program Files\APOC\Data Manager

6.3 Run a virus scan

Regular virus scans protect the Info HQ server from viruses—helping to ensure data integrity and prevent the server from passing infections to other systems like the LIS or HIS.

When running a virus scan, exclude the following folders from the scan:

- C:\inetpub\wwwroot\Data Manager
- C:\Program Files\APOC\Data Manager

6.4 Change the database password

The Info HQ database is protected by an encrypted connection password. This password can be changed by an authorized user.

To change this password, a user must have the role of Admin or Service, and use the following steps:

1. Change the SQL Express password for IVISDM.
2. Locate the password files for both the web application and the desktop applications:

   For the web application, the path to the password file is:

   C:\inetpub\wwwroot\Data Manager\Configuration\DBConnectionProfile.txt

   For the desktop, the path to the password file is:

   C:\Program Files\APOC\Data Manager\Configuration\DBConnectionProfile.txt

3. Update both password files, using the same values for the following entries:

   password Replace the previous encrypted password string with the new password in clear text, as entered in Step 1.

   encrypted Change this value to **No**.

4. Restart the computer.
   When the computer is restarted, Info HQ encrypts the new password.

6.5 Backup the database

There are 2 ways to backup Info HQ database, automatically and manually. Automatic backup is done every day between midnight and 1:00 AM. A user with the role of Administrator or Service can manually backup the database.

To backup the database manually, use these steps:

1. Click **Tools** > **DB Maintenance**.
   The screen displays the information from the last database backup: database backup file name (IVISDM.bak), backup date and time, and user (Backup By) who performed the backup. For an automatic backup, the user name is 'System.'
2. Click **Backup Now**.
   The backup creates a file with the name IVISDM.bak, in this location: C:\Program Files\APOC\Data Manager\db_backup. Each time the backup is run, either automatically or manually, a new IVISDM.bak file is created and replaces the previous backup file.

6.6 Restore the database

A user with the role of Administrator or Service can restore the database, using these steps:

1. Click **Tools** > **DB Maintenance**.
2. Click **Restore**
   While the database is being restored, users are unable to log on to Info HQ. A message displays to indicate that the system is unavailable.

7 - Using Info HQ

7.1 The Info HQ user interface

Screens within Info HQ user interface vary in appearance, depending on the function being performed. *Info HQ Configuration screen* shows the look of the screen when the Dashboard is displayed, and *Info HQ screen overview* shows the look when the **Inventory** screen is displayed.

While the appearance might vary, many Info HQ screens have a look and structure similar to what is shown here.

Figure 7–1: Info HQ Configuration screen

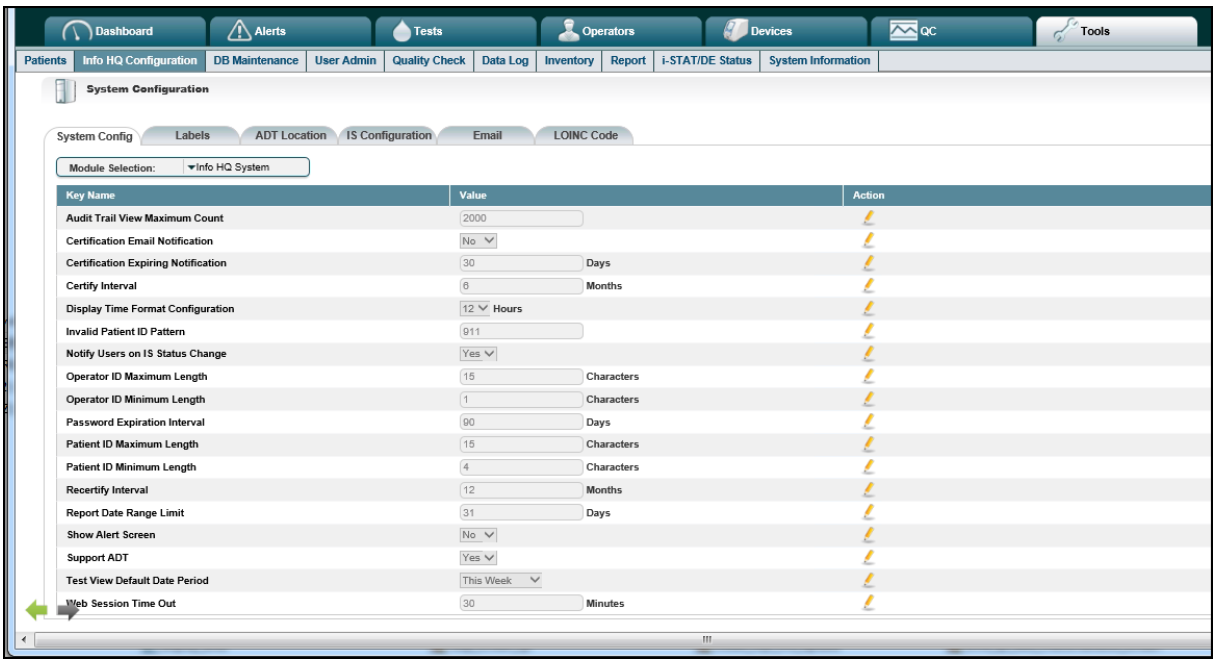


Figure 7–2: Info HQ screen overview

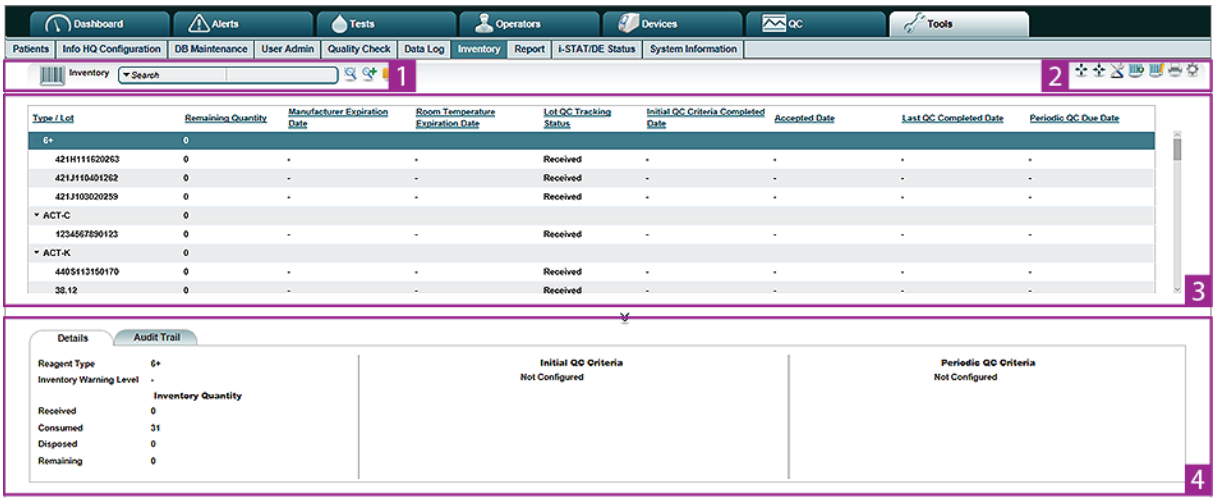


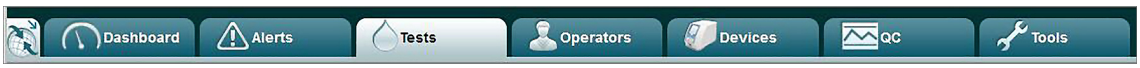
Table 7–1: Main areas of the screen

Item	Description
1	**Search**. See *Filter the results* and *Filter results using search strings* for more information.
2	Icons that perform tasks related to patient test results. Roll the mouse over an icon for a description.
3	**List pane**. Contains a list of items, such as test results, operators, and devices. To narrow the display, select filtering criteria from the Search drop-down list.
4	**Details pane**: Contains tabs that provide additional information for the item that is selected in the List pane, such as **Events** and **Audit Trail**.

Primary tabs

The primary tabs, located above the display area, are the main way of navigating to the major functional screens of Info HQ. Each tab displays a specific kind of information.

Figure 7–3: Primary tabs



The primary tabs are as follows:

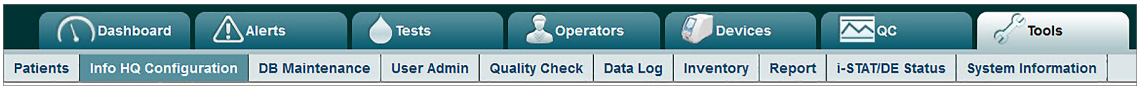
Dashboard	A graphical summary of the system activities.
Alerts	Buttons that identify the number of currently active alerts for each of the nine types of alerts.
Tests	Patient test results data.
Operators	Operator information and certification status.
Devices	Information for the devices that have been registered in the system.

QC	QC testing data from the devices that have been defined in the system.
Tools	Various tools for setting up and managing the Info HQ system, including reports.

Secondary tabs

When some primary tabs are selected, the screen displays a secondary set of tabs. These tabs provide additional functions and screens, and are another means of navigating in Info HQ. Here is an example showing the secondary tabs that are displayed when the **Tools** primary tab is selected.

Figure 7–4: Secondary tabs



Display area

The display area is the screen area below the primary and secondary tabs. The display area for the Dashboard is different from other screens, as it is a graphical summary of the system's activity. For more information about the Dashboard, see *Summary of the activity using the Dashboard*.

The display area for screens other than the Dashboard consists of these elements:

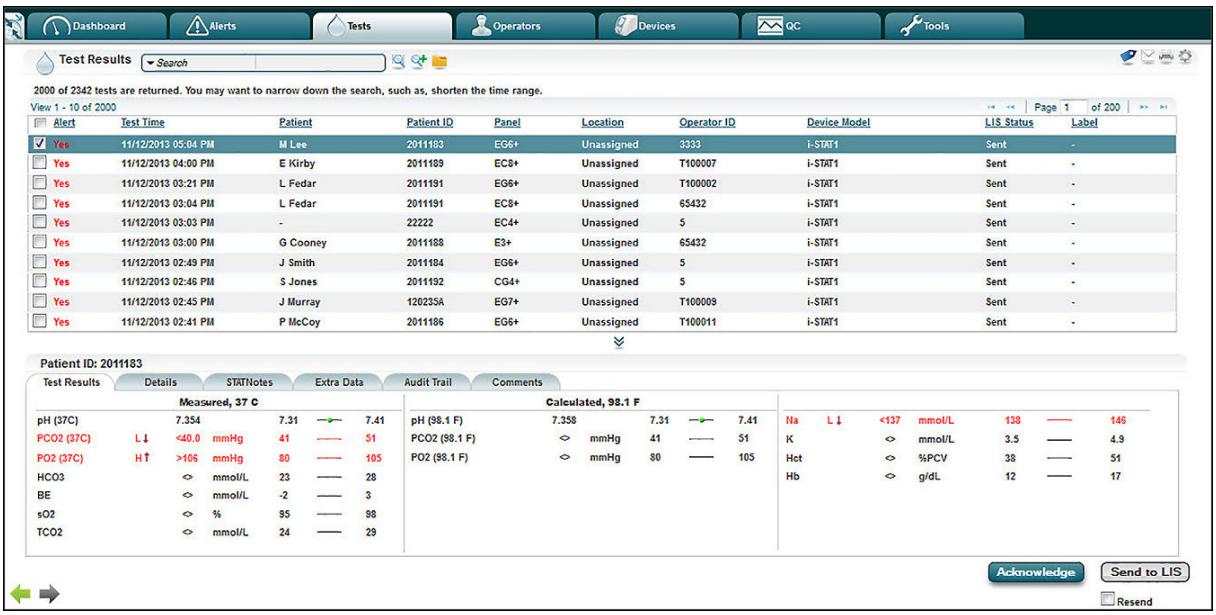
- Icons (most often located near the top of the screen and vary depending on the screen) that perform functions related to the selected tab, for example and .
- Buttons (typically near the bottom of the screen and vary depending on the screen) that take an action on the selected results, for example Acknowledge and Add.
- The area where results are displayed.

There are two screen layouts for the display area: the List view and the Alerts view.

List view

Most screens display results in List view, as shown.

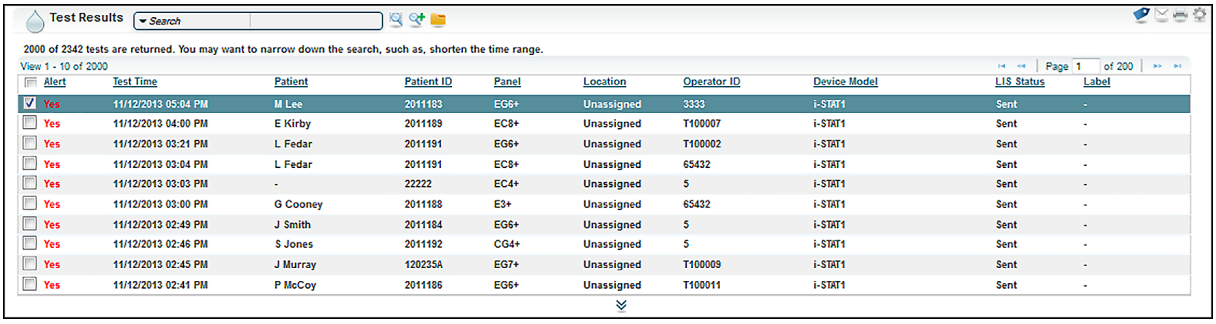
Figure 7–5: List view



The screen in List view is divided into two panes of information: the upper pane is the List pane and the lower pane is the Details pane.

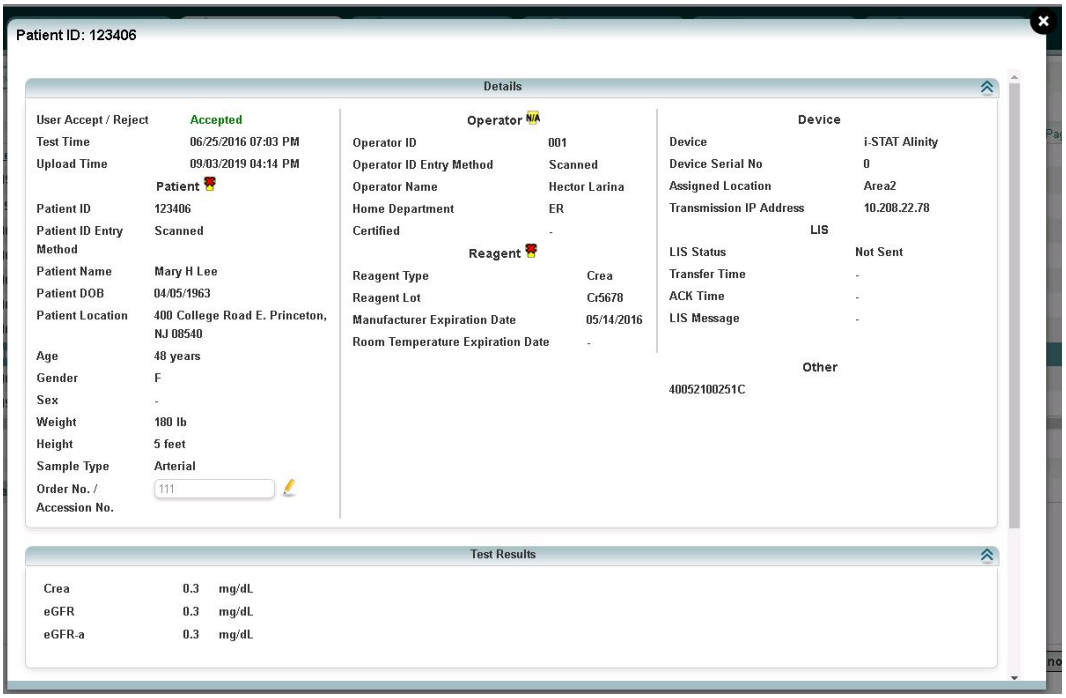
The List pane is a table format with varying columns depending on the screen, as shown.

Figure 7–6: List pane



The Details pane contains one or more additional tabs with more detailed information for the item selected in the List pane.

Figure 7–7: Details pane



The List view can also display some or all of the following, depending on the screen:

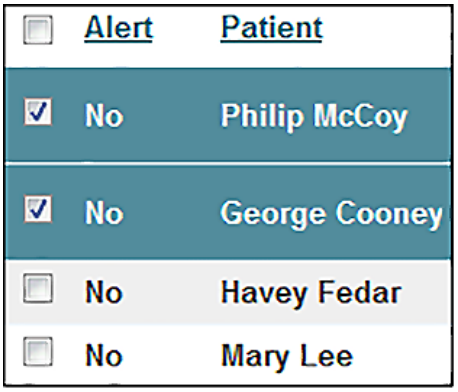
- A **Search** entry box with associated icons, to help search and locate a specific record within the current results, for example searching the displayed test results for a specific operator. See *Filter the results* for more information.

  Figure 7–8: Search entry box

- A column of check boxes on the left, used to select one or more results in the display.

  Figure 7–9: Selection boxes

Display details in a pop-up

Double-click a selected result to display a pop-up window with all the details for the selected item, as shown. Click the X in the upper-right corner to close the pop-up.

Figure 7–10: Details pop-up for i-STAT Alinity

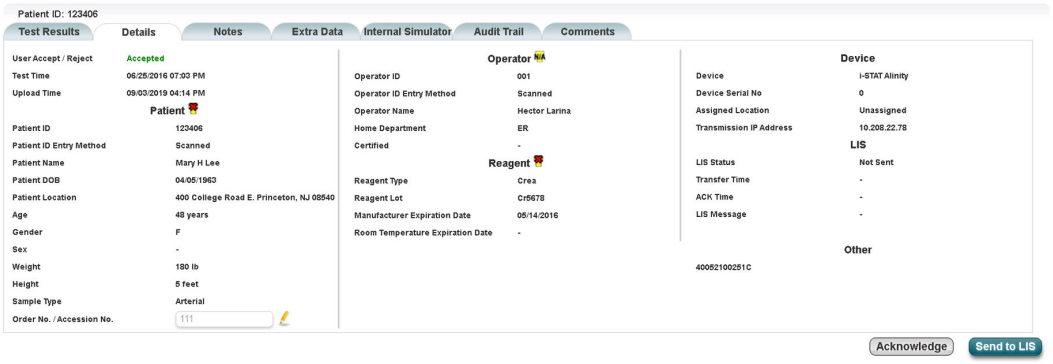
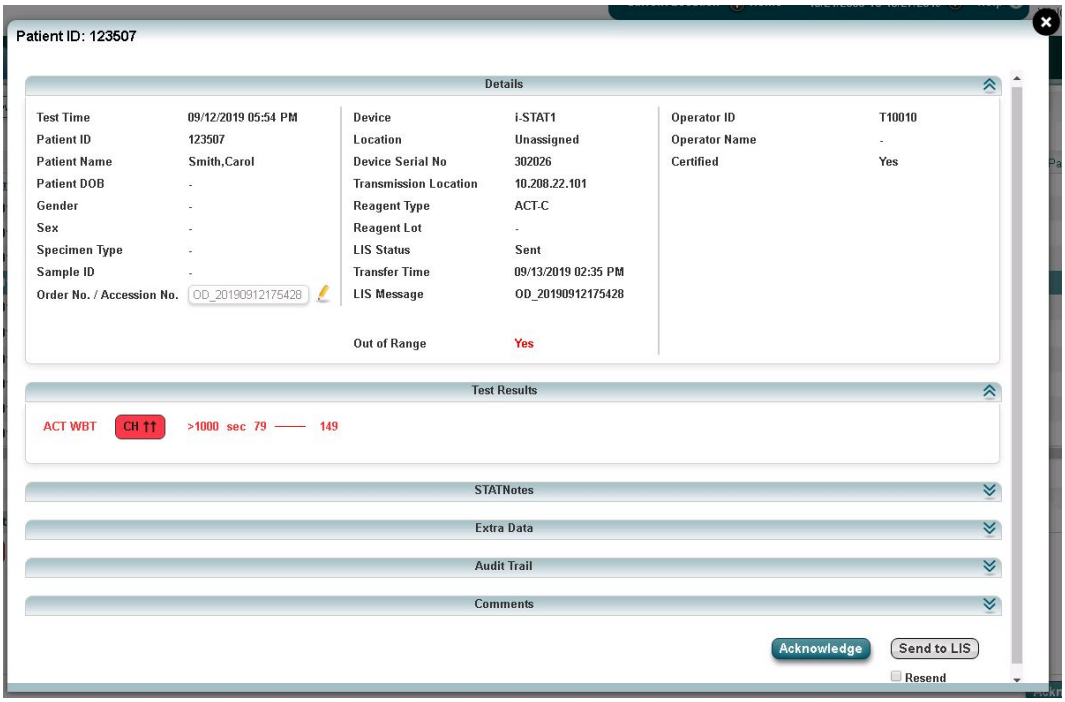


Figure 7–11: Details pop-up for i-STAT 1



Alerts view

By default, the **Alerts** screen displays results in **List** view. You can also view details about a specific alert.

This view provides the ability to take quick action on the result, for example acknowledging an out-of-range alert or recertifying an operator.

- When the **Show Alert Screen** configuration setting is set to its default value of *No*, click an alert button to view all items of that type (devices, operators, and so forth) that currently have alerts associated with them.
- When the **Show Alert Screen** configuration setting is set to *Yes*, clicking an alert button opens the associated Alerts view.

Note: Set the **Show Alert Screen** configuration setting to *Yes* to display this screen. See *System configuration settings*.

Figure 7–12: Alerts view

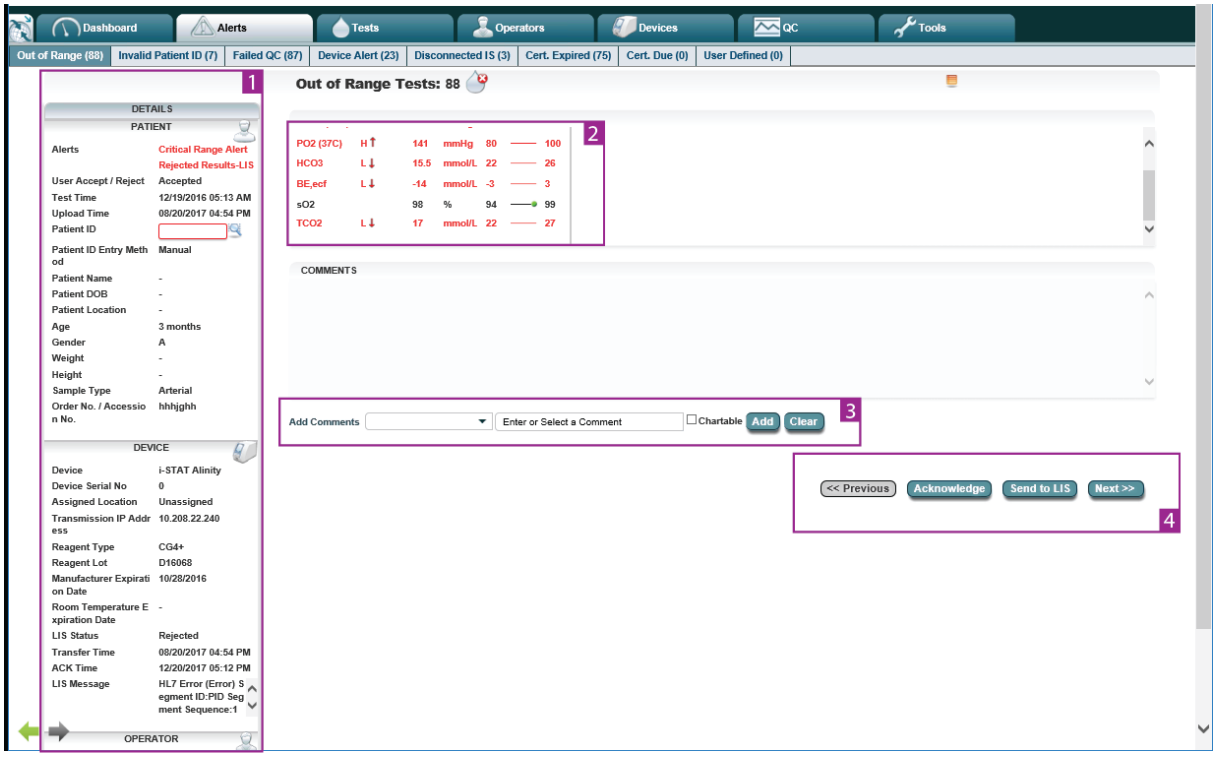


Table 7–2: Main areas of the Alerts view

Item	Description
1	Details area: details about results, such as information about the patient on whom a test was run, the device on which the test was run, the operator who performed the test, and so on.
2	Result area: Specific, detailed information about the result.
3	Comments area: Add comments to associate with the result.
4	Buttons for performing actions, such as acknowledging an alert or sending an alerted test result to the LIS, and for displaying the previous and next alerts.

Switch between List view and Alerts view

By default, alerts are displayed in List view. To show alerts in Alerts view instead, change the **Show Alerts Screen** configuration setting. See *System configuration settings*, for instructions on how to change system configuration settings.

When viewing results in the Alerts view, click near the top of the screen to change the display to List view. After switching to List view, there is no quick way to return to Alerts view. Use the browser's back button to return to previously viewed screens.

Control the contents of the display area

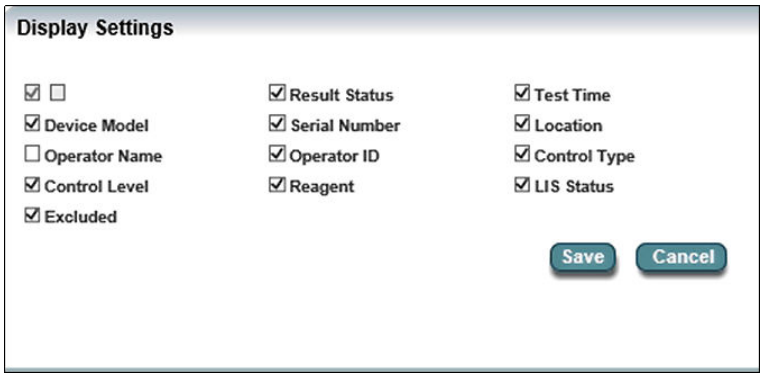
The Info HQ user interface provides several ways to control the contents of the display area so that the most useful information is presented.

Add and remove the display columns

Each screen that displays results in List view has a different set of columns that can be displayed. The display settings can be modified to display or hide columns in the display area, as described in these steps:

1. Click  in the upper-right of the display area.
   A dialog box with check boxes opens, as shown. Available check boxes vary depending on which screen is displayed.

   Figure 7–13: Display Settings



2. Check the columns to display and deselect the columns to hide.
3. Click **Save**.

The display settings are saved and the display area updates with the appropriate columns.

Sort the results

The results displayed in the List view can be sorted based on a specific column, in ascending or descending order. The default display is descending.

- The sort order is indicated with an up arrow (ascending order) or a down arrow (descending order) to the right of the column name.
- The column heading that displays the up or down arrow is the column by which the results are currently sorted.
- For text or string data, sorting is based on the Unicode code point value of each character. For a listing of Unicode code points, refer to the file **Readme.txt** at *http://www.unicode.org/Public/UCD/latest*

To sort the results, click the desired column heading to sort in ascending order. Click the column heading a second time to sort in descending order.

Filter the results

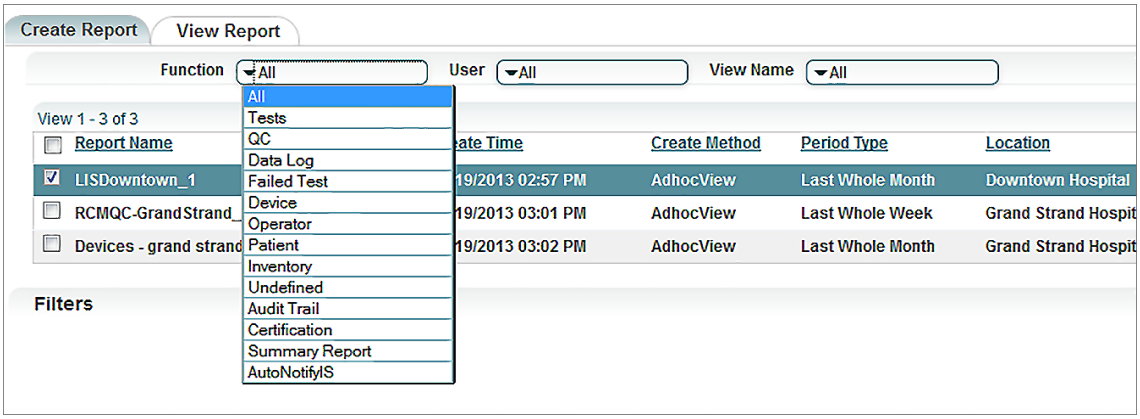
Filtering narrows the results that Info HQ is to return. For example, the date range in the location breadcrumb is a filter that returns only test results for the specified period of time (for example, today, two days ago, or last week). The current location in the location breadcrumb is also a filter that returns, for example, test results for a specific location (for example, ICU) or operators with the same home location.

Many Info HQ screens can further filter the results. Filtering is accomplished through filtering drop-down lists or user-entered search strings.

Filter results using drop-down lists

Some Info HQ screens provide additional filtering capability. For example, the image below shows the **Function** filter on the **Reports** screen, which can be used to filter the display so that it shows reports of only one type (for example, Tests, QC, or Data Log).

Figure 7–14: Filtering drop-down list



When a screen has filtering drop-down lists, use the following steps to filter the results displayed:

1. Click the filtering drop-down list: **Function**, **User**, or **View Name**.
2. From the drop-down list, select one of the predefined filter options.
3. If other filtering drop-down lists are available, click the filter options from those drop-down lists to further filter the results if desired.

The display area updates with results based on the selected filter.

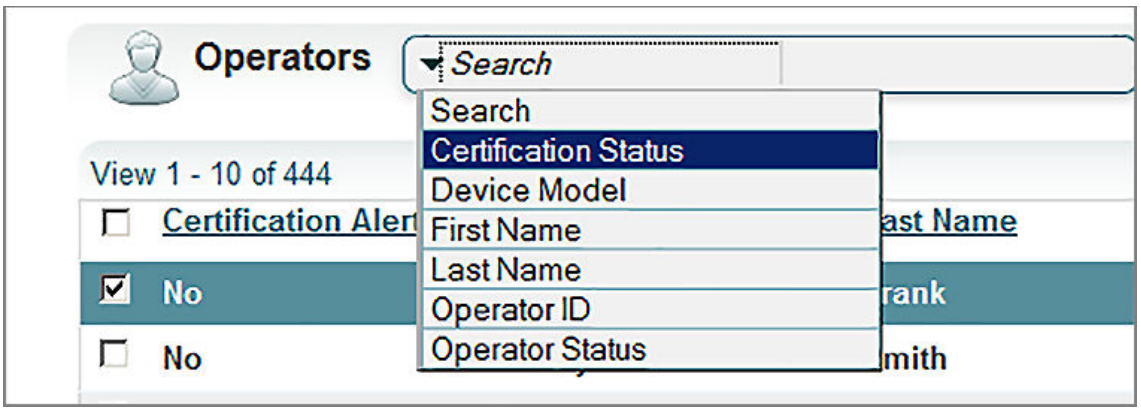
Filter results using search strings

Many Info HQ screens provide a search filter to enter a search string and filter results based on that string. For example, on the **Operators** screen, the results can be filtered to return only those operators with the specified last name.

The Info HQ filtering feature can filter the results based on multiple search strings entered. For example, filtering for operators with a specific last name and with an expired certification. If this type of search is

one that will be performed multiple times or regularly, the search criteria can be saved. See *Save search criteria*.

Figure 7–15: Search criteria



To filter the results using a search string:

1. Click the **Search** field drop-down list.
2. Select the predefined search option.
3. In the secondary search field, either enter the appropriate search string (such as a last name) or select a predefined search string if one is available.

   If a predefined search string is selected, the display area updates with results that are filtered based on the search string criteria.
4. To filter on more than one search string, perform the following additional steps. If filtering on one search string, proceed to step *5*:

   a) Click .
   Another set of **Search** fields is displayed.
   b) Enter the appropriate search string or select a predefined search string if one is available.
   c) Repeat these steps if additional filtering is needed. Otherwise continue to step *5*.
5. When all search strings have been entered, click or press **Enter** to start the search.

The display area updates with results that are filtered based on the search string criteria.

Save search criteria

If a specific search is performed frequently, save the search criteria for future use. You can select the search criteria from the saved list and avoid having to re-enter the same criteria.
To save the search criteria:

1. When all search criteria have been entered, click .
2. Enter a name for the saved search criteria, then click **Save**.
3. To use the saved criteria, click to display a list of previously saved search criteria.
4. Select the previously saved search from the list.

Set the location

Info HQ shows data based on the current location. The current location is displayed at the top of the screen.

Figure 7–16: Location display

The location is made up of four hierarchical levels: Healthcare System, Facility, Department, and Area. Each level of the location is linked to the level above. This is known as a parent-child relationship.

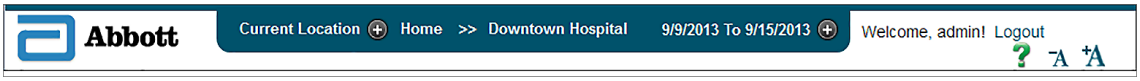
Level	Description
Healthcare System	Name of the healthcare system. By default, the Healthcare System is named Home, however this can be changed to a more descriptive name, for example Coastal Medical Partners or CMP. (See *System configuration settings*.) Only one Healthcare System level can be defined. Parent to all Facilities.
Facility	Medical facilities within the Healthcare System, for example Uptown Hospital or West Side Clinic. There is no limit to the number of Facilities that can be defined. Parent to all Departments associated with a specific Facility, and child to Healthcare System.
Department	Associated departments within a Facility, for example ER. There is no limit to the number of Departments that can be defined. Parent to all Areas associated with a specific Department, and child to the associated Facility.
Area	Associated areas within a Department, for example ER_ward2. This hierarchy level is optional. There is no limit to the number of Areas that can be defined. Child of the associated Department.

Use either *Set the location using the location breadcrumb* or *Set the location using the location tree*.

Set the location using the location breadcrumb

The location breadcrumb is displayed at the top of the screen in a teal-colored box labeled **Current Location**, as shown.

Figure 7–17: Location breadcrumb



The breadcrumb shows the location that is currently set, beginning with Healthcare System, followed by Facility, Department, then Area. The current location can be set to any of the four levels, with the current location selection being the level shown at the end of the breadcrumb, for example *Downtown Hospital*.

Each level in the breadcrumb is "active" to enable a quick change of the location. When the mouse is moved over any level of the location, the cursor changes and the level is underlined. When a level is clicked, the current location changes to that level and the user is given a drop-down list for selecting a lower-level location or creating a new location.

Follow these steps to change the location using the location breadcrumb:

> **Note:** The current location can be set to any of the four location levels, with the current location being the level shown at the end of the breadcrumb. For example, if the breadcrumb is Home >> Downtown Hospital >> ICU, the current location is *ICU*.

1. If the new location is to be a parent level of the current location, click the appropriate parent level in the breadcrumb to set the location to that level.
2. If the new location is to be a child of the current location or a different child of a parent level in the breadcrumb:
   a) Click the desired parent level.
      The location is set to the selected parent level.
   b) Click the parent level again.
      A drop-down list displays a list of child locations.
   c) Click the appropriate child level from the drop-down list.
   d) Repeat these steps if the new location is to be another lower child level.

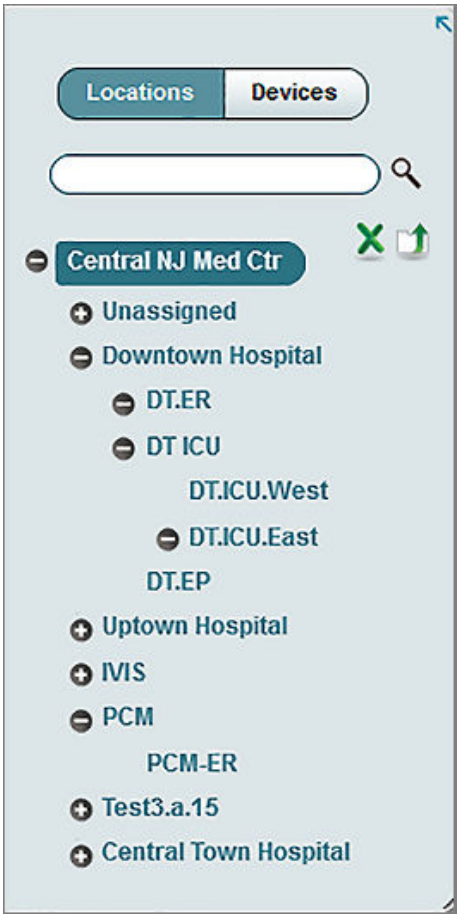
The display area automatically updates with results based on the new location.

Set the location using the location tree

The location tree displays a tree hierarchy of available locations, beginning with Healthcare System, followed by Facility, Department, and Area.

The location tree is often hidden to provide additional space in the screen display area. Click the  icon to the left of the primary tabs to make the location tree visible, as shown.

Figure 7–18: Location tree



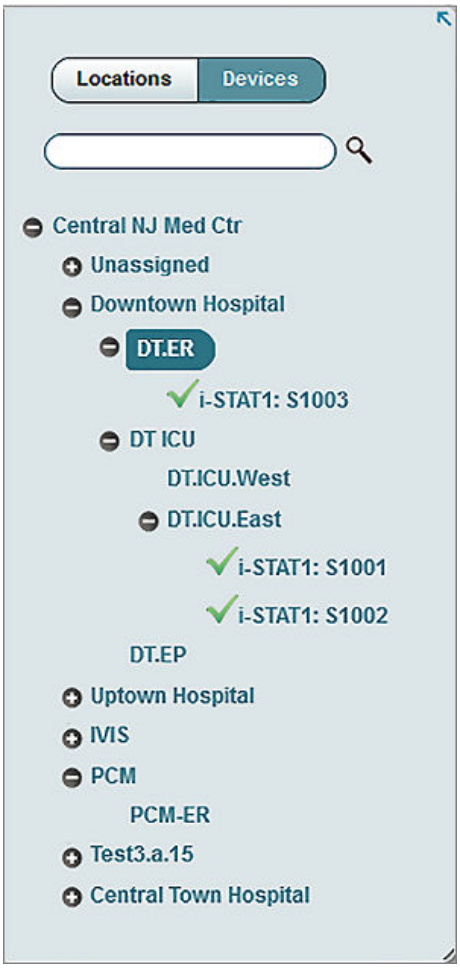
Use the plus and minus icons to the left of each level to expand and collapse a level, revealing the levels within it.

The current location can be set to any of the four levels, with the current location selection being the level that is highlighted, for example *Central NJ Med Ctr*.

The location tree also displays a tree hierarchy of devices that are associated with a location within a Department. The device hierarchy is displayed when the **Devices** button above the expandable/collapsible tree is clicked.

The location tree and location breadcrumb are synchronized and represent the same data.

Figure 7–19: Location tree: Devices



Follow these steps to change the location using the location tree:

1. Click  to the left of the primary tabs if the location tree is hidden.
   The location tree opens, with the current location setting highlighted in the tree. In the example, the current location is *DT.ER*.

   Note: A plus or minus sign next to a location indicates that the location has devices or other levels of hierarchy within it. Locations with no plus or minus sign do not have devices.
2. Expand or collapse the levels of the location tree until the desired location level is visible.
3. Click the **Location** level.
   The new location is set and the results in the display area update with data based on the new location.
4. Optionally, click  to hide the location tree.

   Note: When the **Location** filter is selected, it acts as a global filter and is applied to different screens.

Change the date range

Data displayed by Info HQ is based on the current location and the date range. Unless the system default setting has been changed, the default date range is *This Week*.

A change to the date range is in effect only for the current logged-in user and resets back to the system default setting (This Week) when the user logs out.

To change the date range:

1. Click + to the right of the date that is displayed at the top-right of the Info HQ screen.
   A drop-down list displays several predefined time frames and a date range option.
2. Click an option from the drop-down list.

   If **Date Range** was selected, enter the beginning date in the **From** field and the end date in the **To** field, using *mm/dd/yyyy* format. Then click **Set**.

The new date range is set for the duration of the current logged-in session, and the display area updates with data based on the new date range. During the current logged-in session, all other operations performed in Info HQ will use the new date-range setting.

To more permanently change the date range whenever any user logs into Info HQ, the *Test View Default Date Period* system configuration setting must be changed. To change this setting, refer to *System configuration settings*.

Action icons

The action icons listed are used in the Info HQ user interface.

Table 7–3: Action icons

Icon	Definition/Use
	Display the online help.
	Reduce the screen font size.
	Increase the screen font size.
	Search the current results for the specified search string.
	Add search criteria.
	Saved Searches: Display a selectable list of previously saved searches.
	Clear: Erase information entered into the field.
	Save modified data.

Icon	Definition/Use
	Add a label to the selected item.
	Export the data for the current primary tab to a Microsoft Excel spreadsheet.
	Send a system-generated email.
	Change the current display settings.
	Upload data into Info HQ from an external file located on a local drive, on a network drive, or on a USB device.
	Add a new operator.
	Edit the information about the selected operator.
	Work Facility: Assign one or more work facilities to one or more operator profiles.
	Group Certify: Certify one or more operators.
	Group Recertify: Recertify one or more operators.
	Edit the selected item.
	Deactivate or delete selected item.
	Expand all items in the display.
	Collapse all items in the display.
	Add a new device.
	Edit information for the selected device.
	Delete the selected device.
	Create a printable report from the data that is displayed on the screen.

Icon	Definition/Use
	Undo changes made in the field, and revert to the previously saved value.
	Create New User: Add a new Info HQ user.
	Edit information about the selected Info HQ user.
	Switch from the Alerts view to the Lists view.
	Make the selected operator competency profile the organization default.
	Configure reagent lot QC criteria.
	Assign competency profile.

7.2 Common operations in the Info HQ user interface

Several different actions can be performed on the results that are displayed in the Info HQ user interface. The following topics describe some of the most common actions:

Add comments

Many Info HQ screens (for example, patient test results, devices, and QC tests) provide the option to add one or more comments to the item that is currently displayed. Each comment includes a record of the date and time it was created, and of which user created it.

Add a comment by entering text or by choosing from a list of recently added comments or predefined comments. The choice of predefined and recently added comments varies depending on which screen is active.

Note: The location of the Comments field varies depending on the screen view (see *List view* and *Alerts view* for more information about screen views).

1. If in List view, click the Comments tab in the Details pane to display the **Add Comment** fields, as shown. If in Alerts view, the **Add Comment** fields are already on the screen.

   Figure 7–20: Add Comment fields

2. If adding a new comment:

a) Click in the text box next to **Add Comment**.
b) Enter the comment to be added.
c) Click **Add** to save the comment and add it to the record.

3. If adding a predefined comment or a previously entered comment:
   a) Click in the drop-down list next to **Add Comment**.
   b) Select the comment you want.
      The text of the comment is automatically entered into the field to the right of the **Add Comment** drop-down list.
   c) Click **Add** to save the comment and add it to the record.

Acknowledge alerted test results

Some test results, for example tests that are out of range or tests that have an invalid patient ID, can generate an alert in the system. When an alert is generated, it can be reviewed and acknowledged by the Info HQ users.

For more information on acknowledging test results with an alert, refer to the following topics:

- *Acknowledge an Out of Range alert*
- *Acknowledge an Invalid Patient ID alert*

Send test results to the LIS

Info HQ has several ways of sending test results to the Laboratory Information System (LIS). Sending a test result to the LIS also acknowledges all alerts that are associated with the test result.

For information about how to send patient test results to the LIS, refer to *Send patient test results to the LIS*.

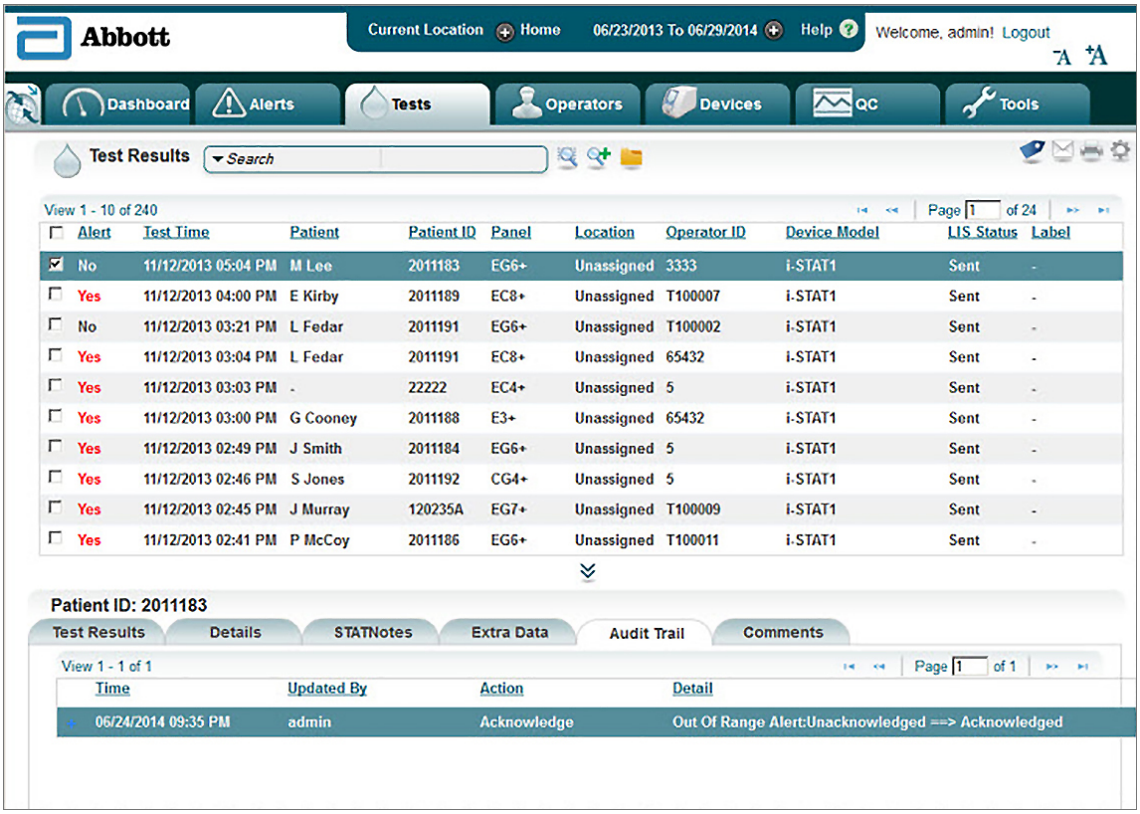
For information on sending QC test results to the LIS, refer to *Send QC results to the LIS*.

View the audit trail

Info HQ keeps track of all actions and changes made to test results (such as alert acknowledgements), operators, and consumables (reagent lots). This record tracking is called the audit trail. Changes that are tracked can include, but are not limited to, acknowledging a test result, updating a patient ID, adding certifications to operators, and adding new consumables.

The audit trail is available for the **Tests**, **Operators**, **Competency Criteria**, **Competency Profile**, **Competency Tracker**, **Devices**, **QC**, **User Admin**, and **Inventory** tabs. The image shows an audit trail for a patient's test results.

Figure 7–21: Audit trail



Perform the following steps to view an audit trail:

1. Click the primary tab to use, based on the type of record whose audit is to be viewed.
2. Select the appropriate record in the List pane (the table area).
3. Click the **Audit Trail** tab in the Details pane (lower part of the screen).

System audit trail

In the system audit trail, Info HQ keeps track of all actions performed by Info HQ users, all changes made by them, and all system exception errors. Refer to *View the system audit trail* for more information.

Export data to a spreadsheet

Info HQ can export records about locations, operator certifications, and devices to a Microsoft Excel template. This exported template can be used for purposes like printing or reviewing, and for uploading locations, operator-related data, and devices to Info HQ.
Follow these steps to export the records to a Microsoft Excel template:

1. Depending on the type of records being exported, click the Operators or Devices tab, or expand the Location Tree panel.
2. Click .

3. For the Operators or Devices tab only, complete the following steps.
   a) In the pop-up window, select the template type, for example DeviceExcelTemplate for device records.
   b) Click **Generate.**
4. In the Save dialog box, select **Save As** to save the file in .csv format (Comma Delimited).
   The records are saved in a .csv formatted file that can be opened in Microsoft Excel.

Generate a report

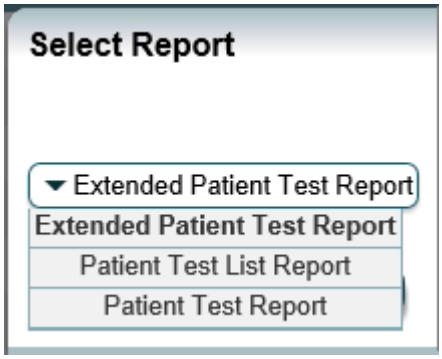
Many Info HQ screens have an option to generate basic reports that are based on the selected filters, location, and date range (located at the top of the Info HQ screen). More advanced reporting options are available from the **Tools** screen and are discussed in *Reports*.
The types of reports available depend on the Info HQ screen.

Generate a basic report

Follow these steps to generate a basic report:

1. From the **Tests**, **Operators**, **Devices**, **QC**, or **Patients** screen, click  .
   The **Select Report** dialog box opens, as shown.

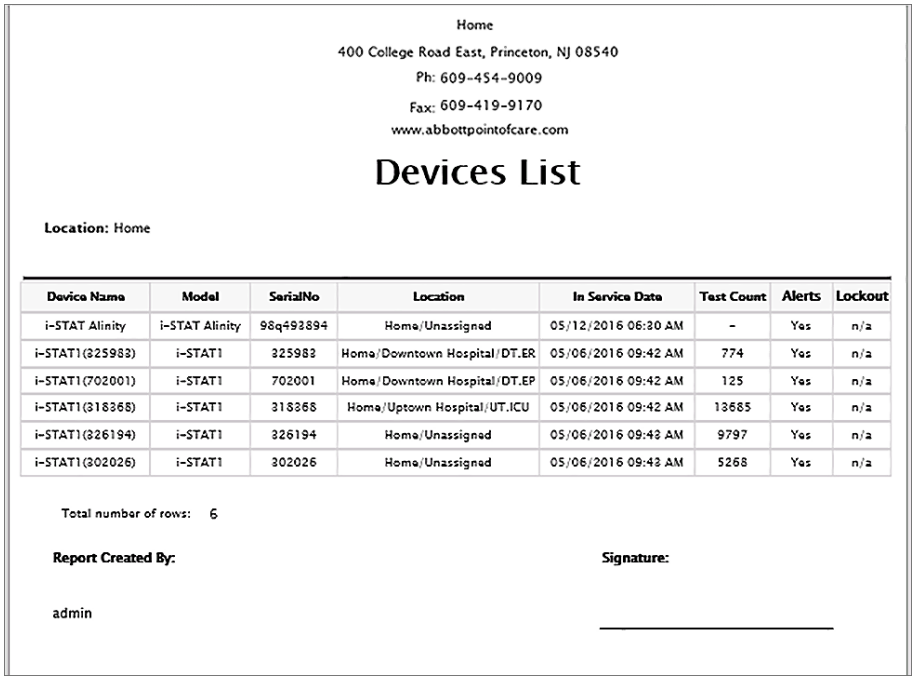
   Figure 7–22: Select Report dialog box

2. From the drop-down list, select the report to use.
   The list of available reports differs, depending on which screen is currently active.
3. Click **Generate**.

The report, similar to the Device List report, opens in a browser window.

Figure 7–23: Example of a report (Device List)



Home
400 College Road East, Princeton, NJ 08540
Ph: 609-454-9009
Fax: 609-419-9170
www.abbottpointofcare.com

Devices List

Location: Home

Device Name	Model	SerialNo	Location	In Service Date	Test Count	Alerts	Lockout
i-STAT Alinity	i-STAT Alinity	98q493894	Home/Unassigned	05/12/2016 06:30 AM	-	Yes	n/a
i-STAT1(325983)	i-STAT1	325983	Home/Downtown Hospital/DT.ER	05/06/2016 09:42 AM	774	Yes	n/a
i-STAT1(702001)	i-STAT1	702001	Home/Downtown Hospital/DT.EP	05/06/2016 09:42 AM	125	Yes	n/a
i-STAT1(318368)	i-STAT1	318368	Home/Uptown Hospital/UT.ICU	05/06/2016 09:42 AM	13685	Yes	n/a
i-STAT1(326194)	i-STAT1	326194	Home/Unassigned	05/06/2016 09:43 AM	9797	Yes	n/a
i-STAT1(302026)	i-STAT1	302026	Home/Unassigned	05/06/2016 09:43 AM	5268	Yes	n/a

Total number of rows: 6

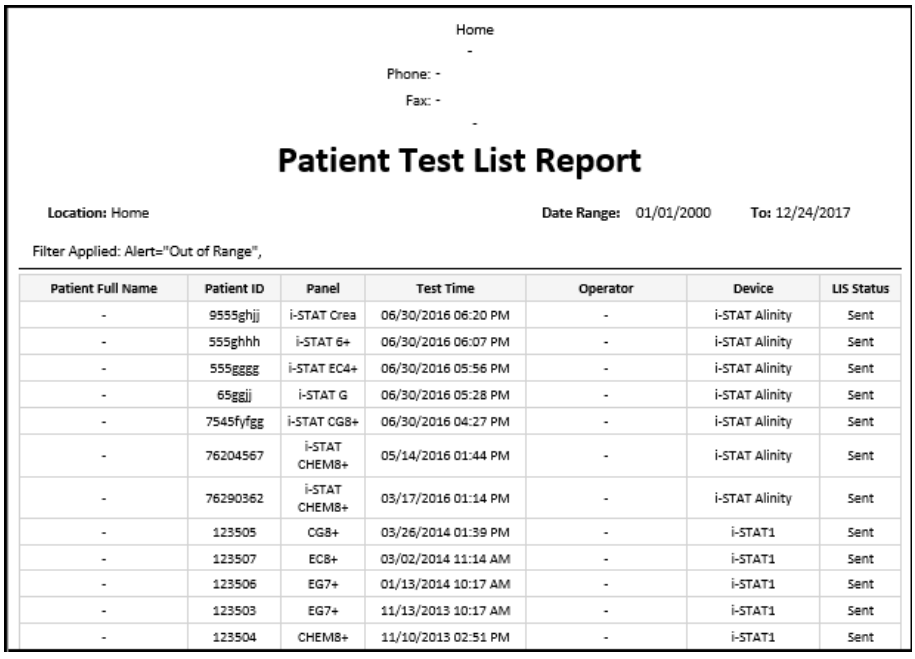
Report Created By:

admin

Signature:

4. Use the controls at the top of the report to scroll through, print, and save the report. The report, similar to the Patient Test List Report, opens in a browser window.

Figure 7–24: Example of a report (Patient Test List Report)



Home
-
Phone: -
Fax: -
-

Patient Test List Report

Location: Home **Date Range:** 01/01/2000 **To:** 12/24/2017

Filter Applied: Alert="Out of Range",

Patient Full Name	Patient ID	Panel	Test Time	Operator	Device	LIS Status
-	9555ghjj	i-STAT Crea	06/30/2016 06:20 PM	-	i-STAT Alinity	Sent
-	555ghhh	i-STAT 6+	06/30/2016 06:07 PM	-	i-STAT Alinity	Sent
-	555gggg	i-STAT EC4+	06/30/2016 05:56 PM	-	i-STAT Alinity	Sent
-	65ggjj	i-STAT G	06/30/2016 05:28 PM	-	i-STAT Alinity	Sent
-	7545fyfgg	i-STAT CG8+	06/30/2016 04:27 PM	-	i-STAT Alinity	Sent
-	76204567	i-STAT CHEM8+	05/14/2016 01:44 PM	-	i-STAT Alinity	Sent
-	76290362	i-STAT CHEM8+	03/17/2016 01:14 PM	-	i-STAT Alinity	Sent
-	123505	CG8+	03/26/2014 01:39 PM	-	i-STAT1	Sent
-	123507	EC8+	03/02/2014 11:14 AM	-	i-STAT1	Sent
-	123506	EG7+	01/13/2014 10:17 AM	-	i-STAT1	Sent
-	123503	EG7+	11/13/2013 10:17 AM	-	i-STAT1	Sent
-	123504	CHEM8+	11/10/2013 02:51 PM	-	i-STAT1	Sent

Create a .CSV Report

Some reports, for example the Analyte Result Extract, are generated in .csv format. To create a report in this format, follow these steps:

1. While viewing a screen of results, select a test by highlighting it.
2. Click 
3. In the pop-up window, select the report from the drop-down list.
4. Click **Generate**.

   When the report is produced, a message displays prompting to open or save the file.

   Note: To retain the comma delimiters in a .csv file after editing the file, use **Save As** and select file type .csv (Comma delimited).
5. Click **Save**.

Create a .ZIP Report

By default, a report such as the PV Data Extract, is generated in a .zip folder. To create a report in this format, follow these steps:

1. While viewing a display of test results, search desired test results by applying global and local filters.
2. Click 
3. In the pop-up window, select the report from the drop-down list.
4. Click **Generate**.

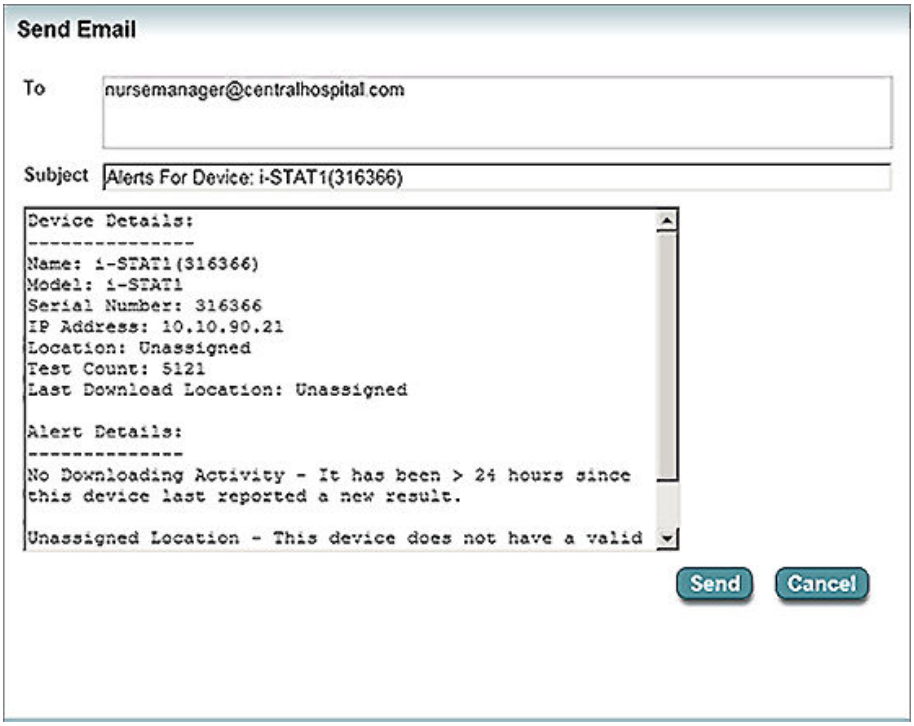
   A zip folder is produced, and a message displays prompting you to open or save the file
5. Click **Save**.

Email data

Many Info HQ screens provide an email icon  to manually send email messages pertaining to the information currently being displayed. These emails could contain either an attachment containing data

for the selected item or plain text that Info HQ inserts into the body and subject of the email message, as shown.

Figure 7–25: Example email message



Before emails can be sent, this functionality must be enabled and configured within the Info HQ configuration. See *Email configuration settings* for instructions.

Follow these steps to manually send an email message:

Note: See *Display area* for information about List view and Alerts view.

1. If in List view, select the desired record, then click . If in Alerts view, click . The **Send Email** dialog box opens. Info HQ automatically populates the Subject field and, depending on the type of record selected, Info HQ populates the body of the email message or inserts an appropriate attachment.
2. Complete the **To** field with one or more email addresses, separated by semicolons, to indicate who should receive the email.
3. Click **Send** to send the email.

7.3 Help

To display On Screen Help for the screen that is currently displayed, click ? at the top part of the screen (next to the date range). Then click **On Screen Help**.

The screen used in this example is the QC screen. The QC screen displays detailed information about QC tests, such as the result status, the device model used, and the type of reagent.

Figure 7–26: Example of On Screen Help

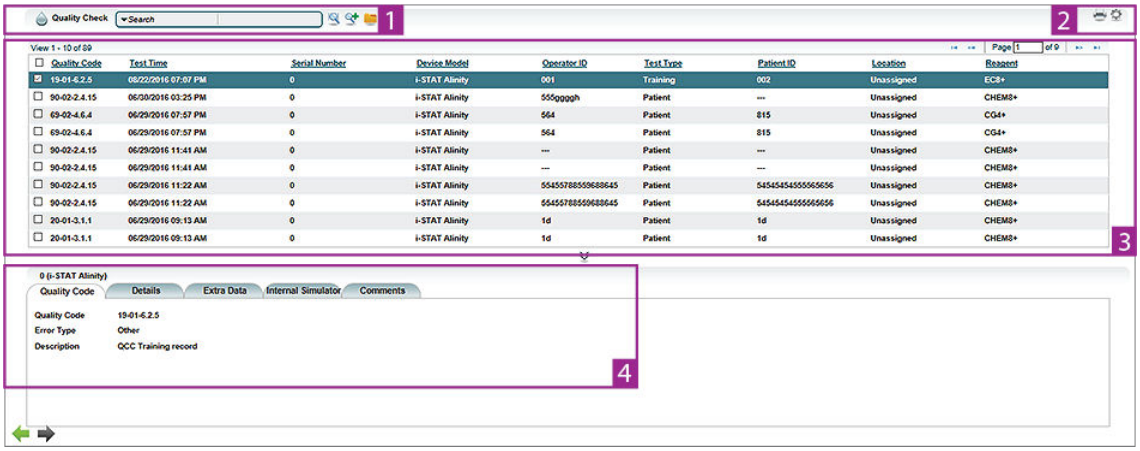


Table 7–4: Example of On Screen Help

Item	Description
1	Search. See *Filter results using search strings* in this manual or in on screen help.
2	Icons that perform tasks related to QC test results. Roll the mouse over an icon for a description, and see *More information ...* for details about performing these and other tasks.
3	Results list. To narrow the display, select filtering criteria from the drop-down list. See *Filter results using search strings* in this manual or in on-screen help.
4	Control Results tab: Detailed panel-by-panel measurements for the test record that is selected in the main list.
	Details tab: Detailed information about the test including type of test, time and date, operator information, device information, and associated alerts.
	Extra Data tab: additional data associated with the test record.
	Audit Trail tab: Details about actions performed on this test record—including time and date, who updated the record, and other details.
	Comments tab: Comments added to this test record. Use the Add Comments drop-down list or the adjacent text box to add new comments.
	When a failed QC test is selected, click to acknowledge the alert associated with the failed QC test.

Some screens on which there are numerous entry fields, such as the **System Configuration** screen, also have tooltip help. Roll the mouse over a field name to display a pop-up tooltip with a brief description of the field.

8 - Summary of the activity using the Dashboard

The **Dashboard** is the first screen that is displayed after login.

Figure 8–1: Dashboard screen

The **Dashboard** is one of the primary means of navigating to the major functional screens in Info HQ. The screen is divided into areas that provide an overall snapshot of the activity of the Info HQ system based on the current location and date range (if applicable) that is set at the top-right of the screen. For more information on how to change the current location, refer to *Set the location*.

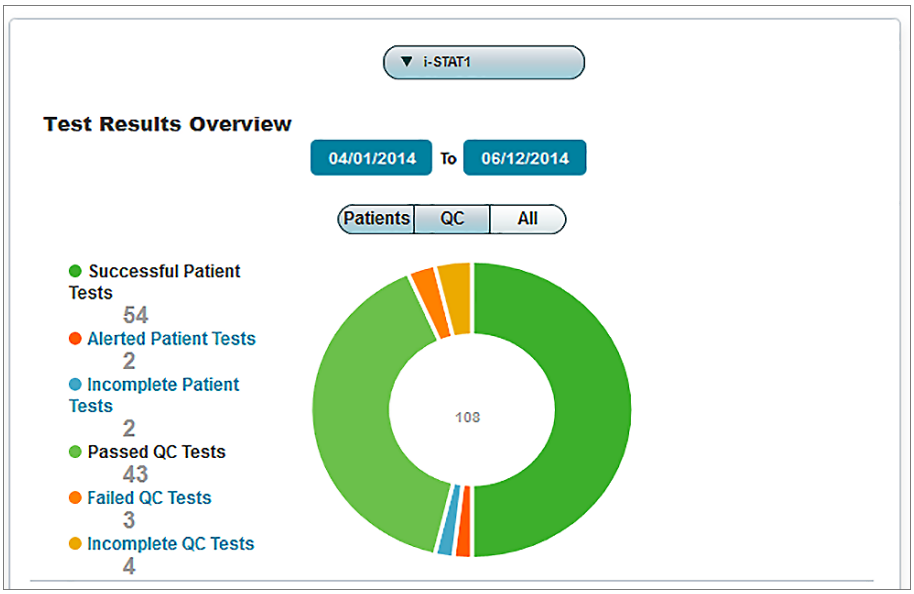
Table 8–1: Operator Certification Due screen details

Item	Description
1	*Test Results Overview area*
2	*QC area*
3	*Information System area*
4	*Devices area*
5	*Operators area*
6	*i-STAT Alinity Reagent Lots area*
7	*User-Defined Alerts area*

8.1 Test Results Overview area

The **Test Results Overview** area provides a summary of tests that have run for the current location and date range. For more information on how to change the location or date range, see *Set the location* and *Change the date range*.

Figure 8–2: Test Results Overview area



There are three primary buttons in this area: **Patients**, **QC**, and **All**. When clicked, the **Patients** button displays a summary for patient tests; the **QC** button displays a summary for quality control (QC) tests; and the **All** button displays both the patient tests and QC tests summaries as shown in the illustration.

Use the filter drop-down list, at the top of the Test Results Overview area, to view data for tests that were run on a particular device model.

The following patient and QC summaries are displayed.

Table 8–2: Information displayed in the Test Results Overview area

Patient	
Successful Patient Tests	Number of patient tests that ran successfully.
Alerted Patient Tests	Number of patient tests that generated one or more alerts.
Incomplete Patient Tests	Number of patient tests that did not generate a result due to an error or an issue with the sample or device.
QC	
Passed QC Tests	Number of QC tests that were conducted and did not fail.
Failed QC Tests	Number of QC tests in which one or more analyte values did not meet the reference value range.
Incomplete QC Tests	Number of QC tests that did not generate a result due to an error or an issue with the sample or device.

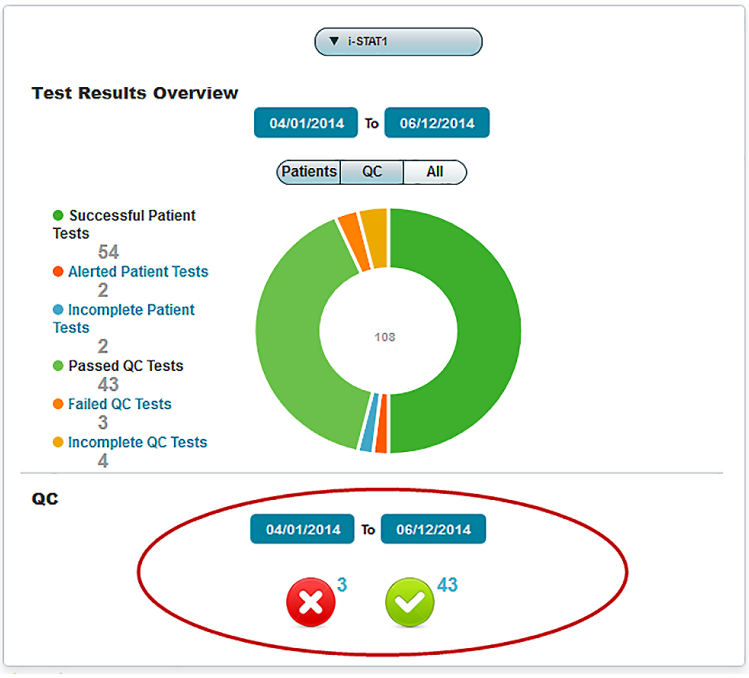
The summary headings, except for Successful Patient Tests and Passed QC Tests, are hyperlinks. When the hyperlinks are clicked, a screen listing the test results for that summary is displayed.

The color-coded chart to the right of the summary headings provides a visual summary of the tests. When patient test data and QC test data are displayed together, the patient tests are represented with darker colors than the QC tests.

8.2 QC area

The **QC** area provides a graph of the QC tests that were performed for the date range and location specified in the location breadcrumb at the top of the Info HQ user interface.

Figure 8–3: QC area



The QC area displays the following information for all liquid QC test results received from devices that are registered in the Info HQ system:

Table 8–3: Information displayed in the QC area

	Number of liquid QC tests that failed. This means that the test was out of range.
	Number of liquid QC tests that did not fail -- for example, with a status of *passed*.

Use the filter drop-down list, at the top of the Test Results Overview area, to view data for QC tests that were run on a particular device model.

8.3 Information System area

The **Information System** area provides the status of connections with information systems: for example, green indicates that a connection is working properly and red indicates that a connection is not working as expected.

Figure 8–4: Information System area

The following connection indicators are displayed:

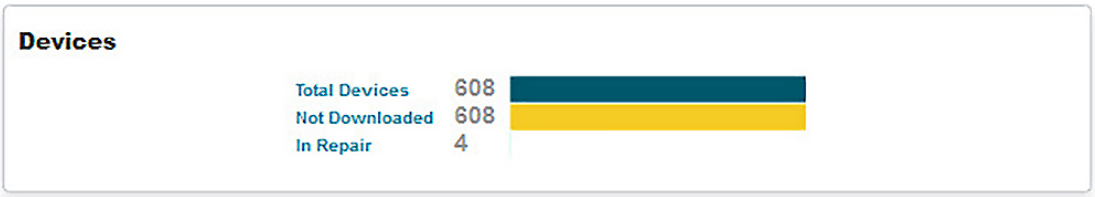
Table 8–4: Information displayed in the Information System area

Column	Description
LIS	• Green: The Info HQ system is connected to the LIS. • Red: There was an issue with establishing the connection to the LIS.
ADT	• Green: The Info HQ system is connected to the Admission, Discharge, & Transfer (ADT) system. • Orange: The Info HQ system has received no patient data within the time period specified in the *HIS Allowable Inactivity Period* configuration setting. • Red: The connection to the ADT has been stopped by the user.
i-STAT/DE	• Green: The Info HQ system is connected to i-STAT/DE, the web service that provides communication and customization support for i-STAT 1 devices. • Red: There was an issue with the connection to i-STAT/DE.
SYS INFO	• Green: There are no system-related alerts, such as service down. • Red: There is at least one system-related alert.
A gray indicator indicates that Info HQ is not currently configured to communicate with that type of information system.	

8.4 Devices area

The **Devices** area provides a summary of the devices associated with the Info HQ system.

Figure 8–5: Devices area



The following information is displayed:

Table 8–5: Information displayed in the Devices area

Column	Description
Total Devices	Number of total devices registered in Info HQ.
Not Downloaded	Number of devices that have not downloaded test data in the defined period of time; the default is 24 hours. See *System configuration settings*.
For Repair	Number of devices unavailable while out for repair.

8.5 Operators area

The **Operators** area provides a summary of operators and operator certifications.

Figure 8–6: Operators area

The following information is displayed:

Table 8–6: Information displayed in the Operators area

Column	Description
New	Number of active operators who have not been assigned one or more certification policies.
Certified	Number of active operators with one or more normal certifications to operate a device.
Expiring	Number of operators having one or more certifications that will expire soon. The number of days until expiration is set to 30 days by default. To change this setting, see *Change the notification time for expiring certifications*.
Expired	Number of operators with one or more certifications that have expired.

8.6 i-STAT Alinity Reagent Lots area

The **i-STAT Alinity Reagent Lots** area provides a summary list of all reagent lot QC activity. This feature is only displayed on the **Dashboard** screen when **Reagent Lot QC Enabled** is set to *Yes* in the **Info HQ Configuration**. *Yes* is the default value for this configuration setting.

Figure 8–7: i-STAT Alinity Reagent Lots area

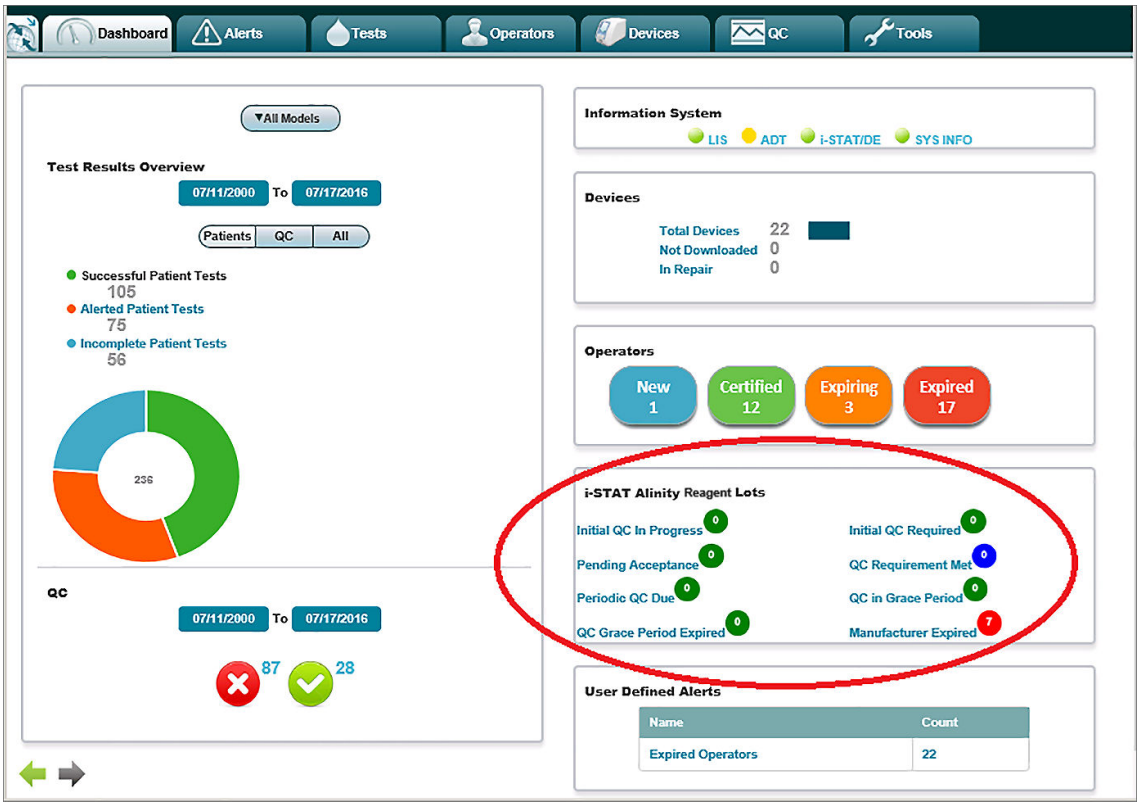


Table 8–7: Information displayed in the i-STAT Alinity Reagent Lots area

Column	Description
Initial QC In Progress	Initial QC testing is in progress within the QC credit window.
Initial QC Required	Not all passed initial QC tests are received with test time within the QC credit window.
Pending Acceptance	All of the initial test criteria are met, and acceptance is pending a manual action in the Info HQ system.
QC Requirement Met	All of the QC testing criteria are met and accepted.
Periodic QC Due	Start date of the next periodic QC testing for the reagent lot.
QC in Grace Period	The period between the Periodic QC Due time and the QC Grace Period Expired during which reagent lot can still perform patient test.

Column	Description
QC Grace Period Expired	The QC testing due date and time have passed, and the grace period for completing the QC has expired.
Manufacturer Expired	The manufacturer's expiration date has passed, and the lot will not be uploaded to devices.

8.7 User-Defined Alerts area

The **User-Defined Alerts** area provides a summary list of all user-defined alerts. A user-defined alert is the result of a saved search for which an alert is generated whenever an event occurs that meets the search criteria.

For information about creating a user-defined alert, see *Create user-defined alerts*.

Figure 8–8: User-defined alerts area

The following information is displayed:

Table 8–8: Information displayed in the User-Defined Alerts area

Column	Description
Name	Name assigned to the user-defined search.
Count	Number of results returned based on the search criteria of the user-defined alert.

Each alert in the list is an active hyperlink. When the hyperlink is clicked, the system displays the appropriate Info HQ screen and the specific results associated with the alert.

9 - Alert management

This section describes how to view centralized common alerts and how to handle them.

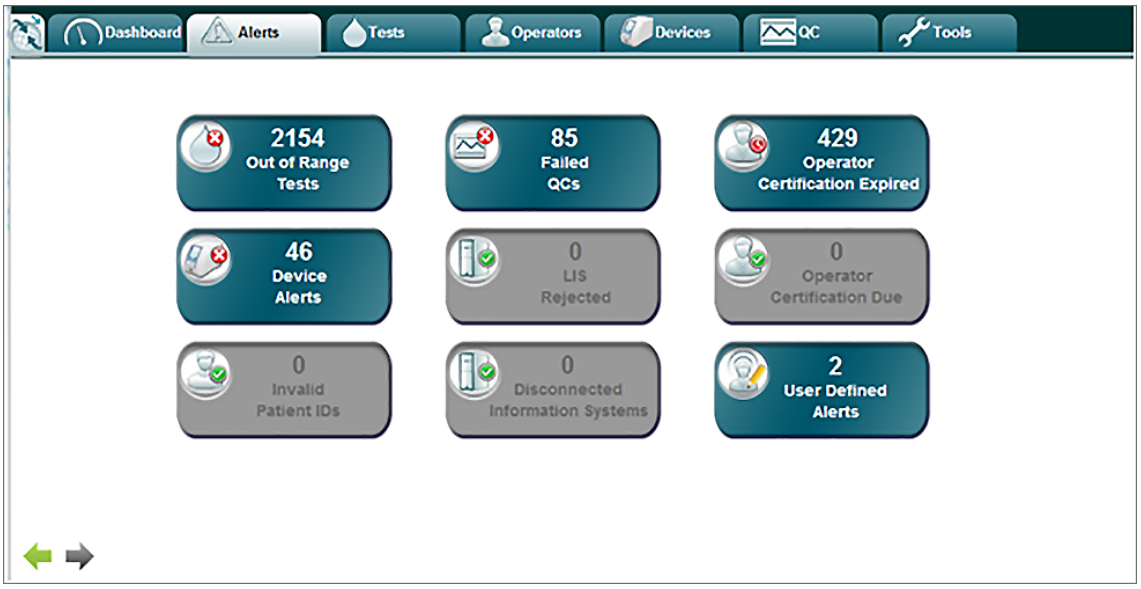
An *alert* indicates a condition that should be reviewed by the POCC or another authorized user.

Info HQ provides notification for nine types of alerts. Each type is represented by a button on the **Alerts** screen. The **User Defined Alerts** button in the **Alerts** screen can contain any number of alerts as defined by users of the Info HQ system.

The following describes details about each alert button on the **Alerts** screen:

- Icons on the buttons are color-coded: green indicates no alert, red indicates alerts, and yellow indicates situations that will soon require intervention.
- Buttons have a counter that specifies the number of alerts associated with the alert type. The exception is the **User Defined Alerts** button, whose counter specifies the number of user defined alerts that exist, not the number of alerts within them.
- Buttons are dimmed when there are no alerts for that type. The exception is **User Defined Alerts**, which is dimmed when no user-defined alerts have been created.

Figure 9–1: Initial alerts screen



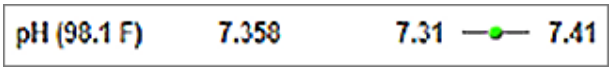
Display alerts

- When the **Show Alert Screen** configuration setting is set to its default value of *No*, click an alert button to view all items of that type (devices, operators, and so forth) that currently have alerts associated with them.
- When the **Show Alert Screen** configuration setting is set to *Yes*, clicking an alert button opens the associated Alerts view.

9.1 Types of alerts

The table contains a description of the various alert types.

Table 9–1: Types of Alerts

Alert	Description
Out of Range Tests	Patient tests with one or more analytes that are out of range generate an alert. Depending on system configuration. Click the button to see details of the results or to acknowledge the alert. The test results, by analytes, are displayed. Depending on the information available from the device, the results for each analyte may include one or more of the following: the values returned for the analyte along with any flags, the units, and the expected "normal" reference ranges. Analyte values within the expected normal range are represented by a black line showing the values at both ends of the normal range, and a green marker showing the value returned.  Analyte values that are out of range, but not critical, are shown in red with a flag consisting of an arrow and an H or L indicating whether the value is high or low.  Analyte values that are critically out of range are shown in red with a flag consisting of double arrows and CH (critical high/action high) or CL (critical low/action low) in a red rectangle. 
Device Alerts	Devices with one or more alerts, such as No Downloading Activity or Unassigned Location.
Invalid Patient IDs	Patient tests where the patient ID is invalid or missing, as Patient ADT is not supported.
Failed QCs	Liquid control tests that have failed.

Alert	Description
LIS Rejected	Test results that were sent to the LIS but that were rejected. Click the button to review, correct patient ID, acknowledge, enter comments, and resend a result.
Disconnected Information Systems	Connection failures to an external information system, including LIS or HIS.
Operator Certification Expired	Operators with a device certification that has expired.
Operator Certification Due	Operators with device certifications that will soon expire.
User-Defined Alerts	Existence of any user-defined alerts.

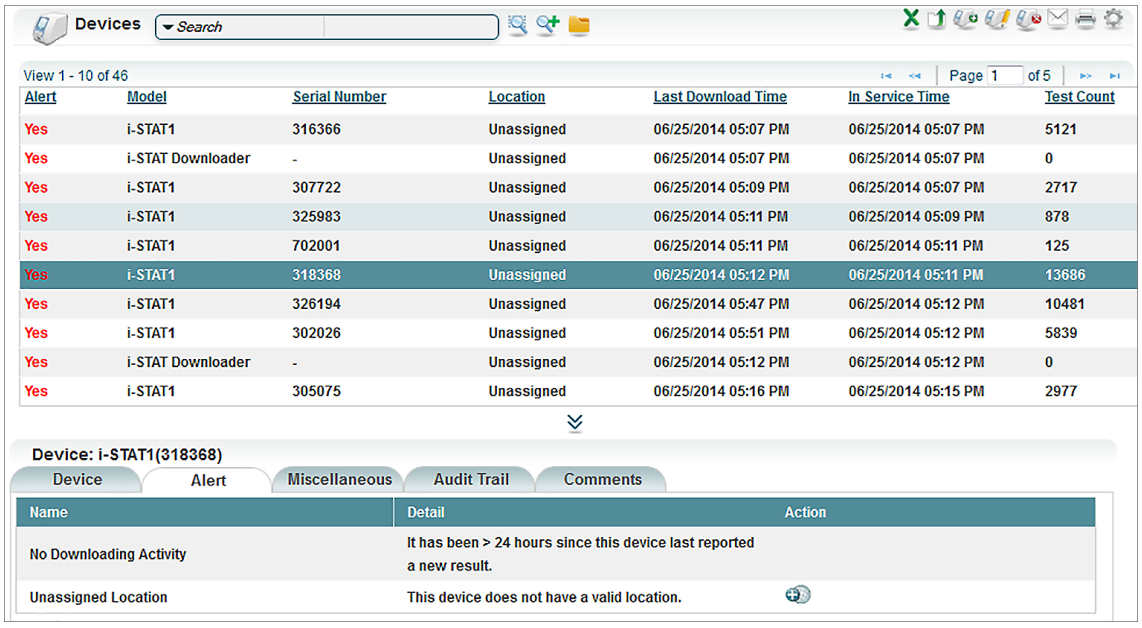
9.2 View alerts

1. To open the initial **Alerts** screen displaying nine alert buttons, click the **Alerts** tab.

   Note: If the number of alerts for a specific alert type is zero (0), the alert button will be dimmed and unavailable. (The exception is the **User Defined Alerts** button, which is dimmed and unavailable when no user-defined alerts have been created.)

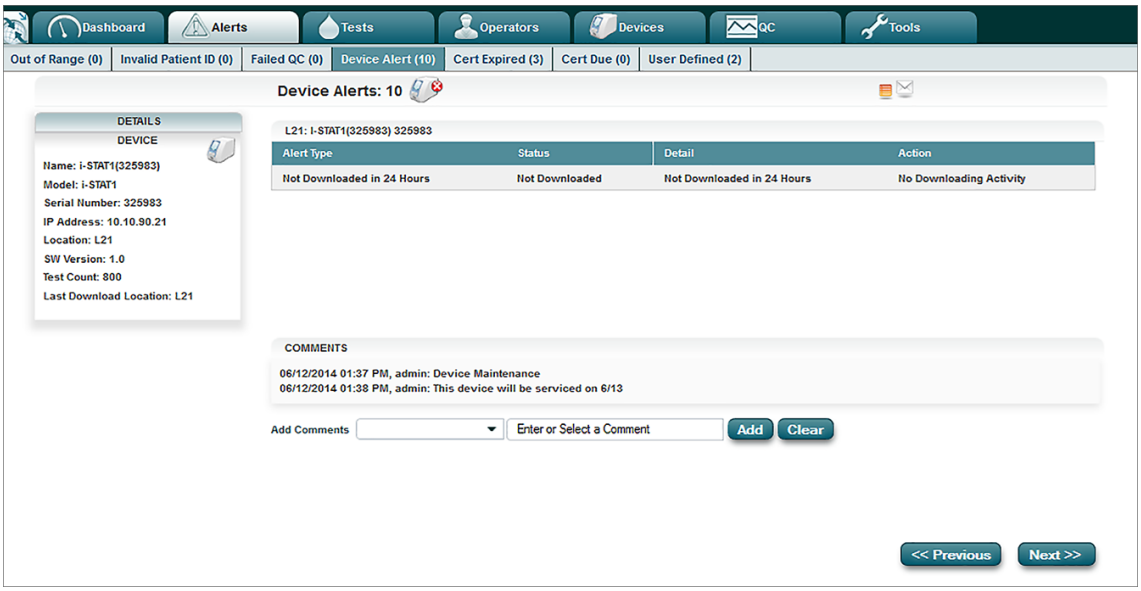
2. Click the alert button for the type of alert to view.
   By default, the List view displays all objects of the selected type (for example, devices or operators) that currently have alerts. For devices, the Alerts tab at the bottom of the screen displays details about all alerts that exist for the device that is selected in the list.

Figure 9–2: List view for devices with alerts



Note:
Use the *Show Alert Screen* configuration setting to display the Alerts view, instead of the List view, when a button is clicked on the initial **Alerts** screen. (Note that **User Defined Alerts** always displays the List view.) For more information, see *System configuration settings*.

Figure 9–3: Alerts view for a device alert



In the Alerts view, use the **Next** and **Previous** buttons to display other alerts of the same type.

Use the secondary tabs to display other types of alerts. Click to switch to the List view for the selected alert type.

9.3 Add a comment

Add one or more comments to a record with an alert. Add a new comment or select from a list of recently added comments and predefined comments. For steps on how to add comments, refer to *Add comments*.

9.4 Acknowledge alerts

Note: Acknowledging alerts does not send the information to the LIS. For more information on sending results to the LIS, refer to *Send patient test results to the LIS*.

Acknowledging an alert indicates that it has been formally reviewed by the POCC or an authorized Info HQ user.

The following types of alerts can be reviewed and acknowledged:

- Out of Range
- Invalid Patient ID
- Failed QC

Patient test results or QC tests with alerts have an alert status of either Unacknowledged or Acknowledged. The following table describes these alert statuses.

Table 9–2: Alert statuses

Alert Status	Description and behavior
Unacknowledged	Patient test results or QC tests that have an alert but have not been acknowledged by the POCC or an authorized user.
Acknowledged	Test results that have an alert and have been acknowledged by the POCC or an authorized user. • All alerts associated with the test result are acknowledged • Test result will no longer be displayed on the corresponding alerts screens for patient tests or failed QC tests but can be viewed using the Search filter (Alert Status = Acknowledged) • Test result will continue to display on the corresponding Tests and QC tabs but the Acknowledge button will be dimmed (inactive) • Test result will no longer be included in the alert counts on the Dashboard and Alerts tabs

The steps to acknowledge an alert vary slightly depending on the type of alert.

Acknowledge an Out of Range alert

Note: Refer to *Acknowledge alerts* before performing this procedure to understand the behavior of acknowledging alerts.

Info HQ generates an Out of Range alert whenever a patient test produces one or more results outside the expected range.

Test results with an Out of Range alert can be viewed on the **Out of Range** screen.

To acknowledge a test result with an Out of Range alert:

1. Click the Alerts tab, then click the **Out of Range Tests** alert button.
2. Using the **Previous** and **Next** buttons, select the test result to be acknowledged.
3. Click **Acknowledge**.
4. In the dialog box, click **OK** to acknowledge the alert and remove it from the list.

Acknowledge an Invalid Patient ID alert

Note: Refer to *Acknowledge alerts* before performing this procedure to understand the behavior of acknowledging alerts.

Info HQ generates Invalid Patient ID alerts for all test results that contain an invalid patient ID. A patient ID is invalid, for example, when it is blank or when it contains the Invalid Patient ID Pattern specified in the Info HQ system configuration settings.

Test results with an Invalid Patient ID alert might also have other alerts associated with them, such as Out of Range alerts. Test results with an invalid patient ID can be viewed on the **Invalid Patient ID** screen.

To acknowledge an Invalid Patient ID alert:

1. Click the **Alerts** tab, then click the **Invalid Patient IDs** alert button to display the **Invalid Patient ID** screen.
2. Using the **Previous** and **Next** buttons, select the test result to be acknowledged.
3. Click **Acknowledge**.

> **Note:** Info HQ does not automatically send test results with an invalid patient ID to the LIS. If the patient ID was corrected (see *Correct an invalid patient ID*), the test result can be sent to the LIS. In this case, click **Send to LIS** rather than **Acknowledge**. This action acknowledges the alert *and* sends the test results to the LIS in a single step.

Acknowledge a Failed QC alert

> **Note:** Refer to *Acknowledge alerts* before performing this procedure to understand the behavior of acknowledging alerts.

Info HQ generates a Failed QC alert whenever a quality control (QC) test fails. The **Failed QC** screen displays detailed results of all such tests.

To acknowledge failed QC alerts:

1. Click the **Alerts** tab, then click the **Failed QCs** alert button.
2. Using the check boxes, select one or more QC tests to be acknowledged.
3. Click **Acknowledge** at the bottom of the screen.

Acknowledge a Device alert

> **Note:** Refer to *Acknowledge alerts* before performing this procedure to understand the behavior of acknowledging alerts.

A Device alert can be acknowledged by correcting the situation that caused the alert.

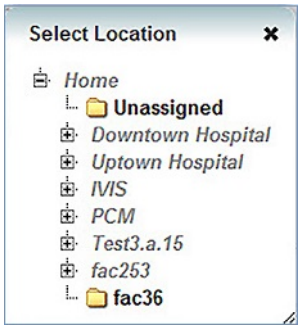
1. Click the **Devices** tab.
2. In the List pane, select a device that has an active alert.
3. In the Details pane, click the **Alert** tab to display a list of active alerts for the device.
   Common causes for Device alerts include:

Unassigned Location	The device does not have a valid location.
No Downloading Activity	It has been more than defined period of time (the default is 24 hours) since the device last reported a new result. To correct, verify that the device is connected properly and that it is able to send results. This alert is not applicable for the i-STAT downloader.

> **Note:** To correct an Unassigned Location, proceed to step *4*

4. Click  in the Details pane to display the **Select Location** pop-up.

Figure 9–4: Select Location pop-up



5. Click the plus icon to expand the location hierarchy until the desired location is listed, then click the location to select it.
   The device's location is updated, and the Unassigned Location alert is acknowledged and cleared.

Acknowledge an Operator alert

An Operator alert is generated when an operator's certification expires or is about to expire. An Operator alert can be acknowledged by recertifying the operator.

An Operator Certification Due alert is triggered when the operator's certification is due to expire. The number of days until expiration is set to 30 days by default. To change this setting, see *Change the notification time for expiring certifications*.

For information about recertifying operators, see *Recertify an individual operator* and *Recertify a group of operators*.

9.5 Correct an invalid patient ID

Patient test results can contain an invalid patient ID. A patient ID is invalid, for example, when it is blank or when it does not match the pattern specified in the Info HQ system configuration settings.

Info HQ generates Invalid Patient ID alerts for all test results that contain an invalid patient ID. These test results can also have other alerts associated with them, such as Out of Range alerts.

Updating a test results record with a correct patient ID involves acknowledging the Invalid Patient ID alert, as well as any other alerts associated with the test results record. To acknowledge test results with an invalid patient ID, see *Acknowledge an Invalid Patient ID alert*.

To correct an invalid patient ID:

1. Click **Invalid Patient IDs**.
2. Next, the **Alerts** screen or the **Tests** screen displays. (The screen that is displayed depends on the site configuration setting for **Show Alerts**. The steps to correct the patient ID are the same for both screens, though the screen displays differ slightly.)
   - The **Alerts** screen displays the Details view for the invalid patient ID. In the Patient ID box:
     - type the correct patient ID, or, if available, click the search icon 

  - the **Patient Search** dialog box opens. From the drop-down list, either:
    - enter the patient ID number if it is known, or,
    - select **Patient Name** and enter all or part of the first or last name of the patient
      A. Click **Search**. A list of patients matching the entered search string is displayed.
      B. Select the appropriate Patient ID and click **OK**.
- The **Tests** screen displays the **List** view for invalid patient IDs. Click the check box next to the alert for the patient ID to be corrected. In the Patient ID box:
  - type the correct patient ID, or, if available, click the search icon 
    - the **Patient Search** dialog box opens. From the drop-down list, either:
      - enter the patient ID number if it is known, or,
      - select **Patient Name** and enter all or part of the first or last name of the patient
        A. Click **Search**. A list of patients matching the entered search string is displayed.
        B. Select the appropriate Patient ID and click **OK**.

Note: Info HQ does not automatically send test results with an invalid patient ID to the LIS. When the patient ID is corrected, the test result might need to be sent to the LIS.

9.6 Send test results to the LIS

Info HQ has several ways of sending test results to the Laboratory Information System (LIS). Sending a test result to the LIS also acknowledges all alerts that are associated with the test result.

For information about how to send patient test results to the LIS, refer to *Send patient test results to the LIS*.

For information on sending QC test results to the LIS, refer to *Send QC results to the LIS*.

9.7 Create user-defined alerts

On many Info HQ screens, the results of a search can be saved as a *user-defined alert*. When this is done, an alert status is set for current and future test results that meet the search criteria. Notification of these alerts can be viewed on the **User Defined Alerts** screen.

To create a user-defined alert, follow these steps:

1. With the appropriate results displayed, use the Search filter options to search the results as desired.

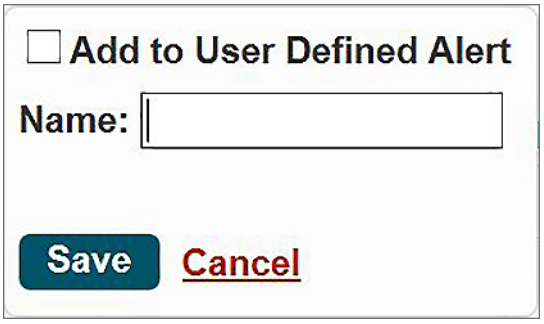
   Figure 9–5: Example of setting filter options for a search

   For example, in the **Operators** screen, a search could be defined to show all operators whose certification has expired.
2. Click  .

A pop-up opens, for saving the search criteria.

Figure 9–6: Add to User Defined Alert pop-up



3. To create a user-defined alert, check the **Add to User Defined Alert** box.
4. Enter a name for this user-defined alert that will be associated with this saved search.
   Names for user-defined alerts can consist only of letters, numbers, and spaces.
5. Click **Save**.
6. Click the **Saved Searches** icon to display the list of saved search criteria, including the one just saved.
7. To view the results of the search at any time, open the **User Defined Alerts** screen and click the name of the saved search.
8. To delete a user-defined alert, navigate to the tab associated with the alert, click , and click the red next to the alert.

Note: When a search is saved as an alert, all the search criteria, including the search date range are saved with the alert. Accessing the user-defined alert from the **Dashboard** or the **User-Defined Alert** screen retrieves results based on the current global date range.

10 - Patient test results management

Use the **Tests** screen to review all patient test results, details, associated comments, and LIS transfer status. Use the **Tests** screen to manage patient test records, to monitor which devices are generating what type of patient test results, when tests were conducted, and whether a test result has an alert.

10.1 View patient test results

Click the **Tests** tab to display the **Tests** screen and review the patient test results based on the current location and date range settings at the upper-right of the Info HQ screen. For more information on how to change the location or date range, see *Set the location* and *Change the date range*.

Figure 10–1: Tests screen overview

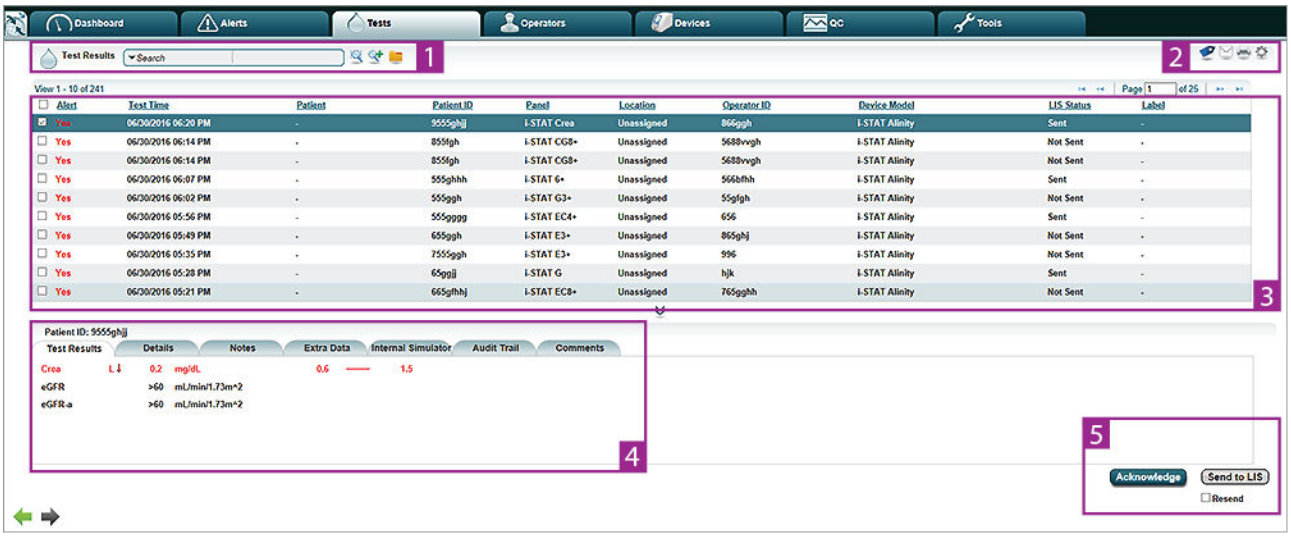


Table 10–1: Tests screen overview

Item	Description
1	**Search**. See *Filter the results* and *Filter results using search strings* for more information.
2	Icons that perform tasks related to patient test results. Roll the mouse over an icon for a description.
3	Results list. To narrow the display, select filtering criteria from the Search drop-down list.

Item	Description
4	• **Test Results tab**: Results for the test that is selected in the main list. • **Details tab**: Additional details about the test record that is selected in the main list—including patient information, operator information, reagent information, alerts, and LIS status. • **Notes tab**: (i-STAT Alinity only.) Any comments entered by users before, during, or after running a test. • **STATNotes tab**: (i-STAT 1 only.) Additional notes about the test and test result. • **Extra Data tab**: Additional data associated with the test record, including internal simulator information for i-STAT 1. • **Internal Simulator tab**: (i-STAT Alinity only.) Displays the results from i-STAT Alinity's internal simulator. • **Audit Trail tab**: Events associated with the selected patient test record. See *View the audit trail*. • **Comments tab**: A list of comments that were added to the selected test record. New comments can also be added. See *Add comments*.
5	Click the appropriate button: • **Acknowledge**: Select to remove the test result from the alerts list and not send the test result to the LIS. • **Send to LIS**: Select to send the selected test result to the LIS. **Note:** If the test result was previously sent to the LIS, check the **Resend** box to activate the **Send to LIS** button. Then click **Send to LIS**.

Test screen columns

The **Tests** tab displays these colums for each test:

Alert	Whether there is an alert for the test result.
Test Time	Date and time the test was conducted. By default, test results are sorted by the Test Time, in descending order (the most recent test is first in the list).
Patient	Name of the patient on whom the test was conducted.
Patient ID	ID of the patient on whom the test was conducted.
Order Number	LIS order number associated with the specified test and patient.
Panel	Reagent panel for the test.
Location	Location of the device on which the test was conducted.
Operator Name	Name of the operator who conducted the test.
Operator ID	ID of the operator who conducted the test.
Reagent	Type of reagent used to conduct the test.
Device Model	Model of the device used to conduct the test.
LIS Status	Whether the test result was sent to the LIS.
Label	A label assigned to the test result—for example *follow up*.

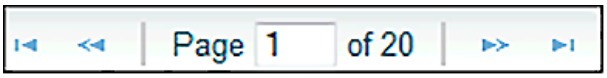
Sort the test results

Use the column headings to sort the list of patient test results. For more information about how to sort, see *Sort the results*.

Scroll or search for a test result

The list of patient test results on the Tests tab might span multiple pages. If a patient test result is not listed on the first page, use the widget for selecting pages, shown here.

Figure 10–2: Widget for selecting pages



Use the widget, located near the upper-right of the **Tests** screen, to scroll through the pages until the desired test result is displayed. The arrows with the vertical lines allow clicking to the beginning or end of the list. The double arrows click forward or backward to the next page.

If there are too many pages of test results, use the search option to search the list of test results based on:

Acknowledged	For test results with associated alerts, whether the alerts have been acknowledged.
Alert	Whether alerts are associated with the test results.
Reagent Lot No.	Lot number for the reagent used to conduct the test.
Reagent type	Type of reagent used to conduct the test.
Device Model	Model of the device used to conduct the test.
Device Serial No.	Serial number of the device used to conduct the test.
Label	A label assigned to the test result—for example *follow up*.
LIS Status	Whether the test result was sent to the LIS.
Operator Certified	Whether the operator who conducted the test is properly certified.
Operator ID	ID of the operator who conducted the test.
Operator Name	Name of the operator who conducted the test. Enter a full name or a partial name for the search, in *FirstName LastName* format (no middle name).
Order Number	LIS order number associated with the specified test and patient.
Patient DOB	Date of birth for the patient on whom the test was conducted.
Patient ID	ID of the patient on whom the test was conducted.
Patient Name	Name of the patient on whom the test was conducted. Enter a full name or a partial name for the search, in *FirstName LastName* format (no middle name).

For further information and steps on how to perform a search, refer to *Filter the results* and *Filter results using search strings*.

View all acknowledged or unacknowledged test results

Use Info HQ to view acknowledged and unacknowledged test results.

Note: Acknowledging a test result removes it from the alerts list but does not send the test result to the LIS. Acknowledged test results will continue to be displayed when viewing test results on the Tests tab, but the Alert Status will be set to *No*.

To view a list of acknowledged or unacknowledged test results, perform these steps:

1. Click the **Tests** tab.
2. Click the **Test Results Search** drop-down list and select **Acknowledged**.
3. Click the drop-down list next to **Acknowledged**, select one of the following:
   - **Yes** to view a list of all acknowledged test results.

     Figure 10–3: Viewing acknowledged test results

   - **No** to view a list of all test results that have not yet been acknowledged.

     Figure 10–4: Viewing test results that are not acknowledged

A list of acknowledged or unacknowledged test results is displayed, depending on the selection made in step *3*.

For more information on how to acknowledge test results with an alert, refer to the following sections:

- *Acknowledge an Out of Range alert*
- *Acknowledge an Invalid Patient ID alert*

To return to the original test results view, click the **Tests** tab again.

10.2 Send patient test results to the LIS

Info HQ sends patient test results to the LIS either automatically or as the result of an action by an Info HQ user.

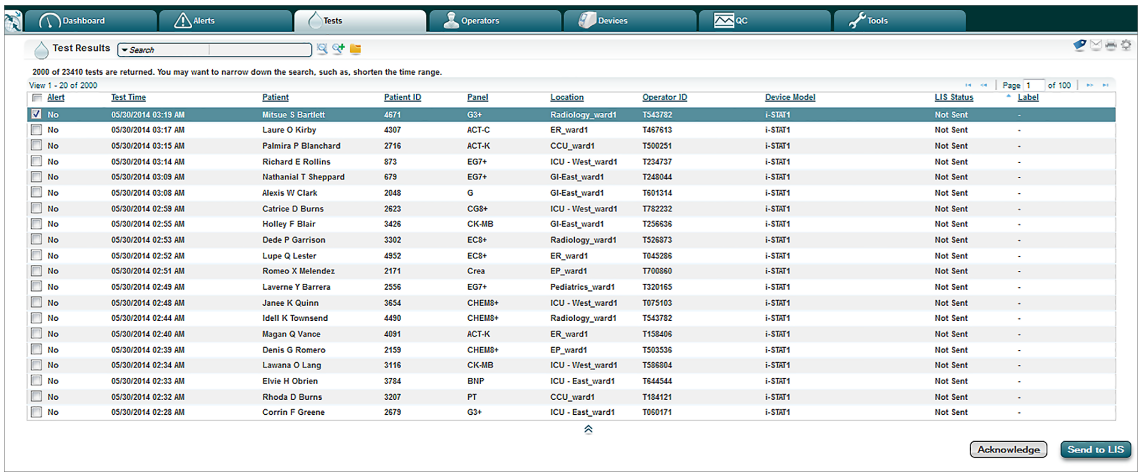
Table 10–2: Methods to send test results to the LIS

Method	Description and behavior
Automatic Send	Info HQ automatically sends patient test results to the LIS based on system configuration settings. Test results are sent as soon as Info HQ receives them.
Manual Send	The Info HQ user selects the test and clicks the **Send to LIS** button. If a test result has an invalid patient ID, the Info HQ user can correct the invalid patient ID and then send the test results manually.

Follow these steps to send test results to the LIS manually:

1. Click the Tests tab to display a list of patient test results.

Figure 10–5: List of patient test results



2. Select a test result to send to the LIS by clicking the check box to its left.
3. If a test result is selected, and that test result was previously sent to the LIS, check the **Resend** box to activate the **Send to LIS** button.
4. Click **Send to LIS**.
5. Click **Yes** in the confirmation box.

The selected test results are sent to the LIS. The test results remain in the display. The value in the **LIS Status** column changes to *Pending*. The value then refreshes, for example to *Sent*, the operation is complete.

Table 10–3: LIS status messages

LIS transfer status	Description
Pending	The test results are queued for sending to the LIS.
Awaiting Response	The test results have been sent, and Info HQ is waiting for an acknowledgement from the LIS to indicate they were received.
Sent	The LIS has indicated that the test results have been received and accepted without error.
Rejected	The LIS has received the test record, but cannot process it.
Not Sent	The test record was not successfully sent manually or automatically to the LIS or there is no outbound LIS configured.

10.3 Correct an invalid patient ID

Patient test results can contain an invalid patient ID. A patient ID is invalid, for example, when it is blank or when it does not match the pattern specified in the Info HQ system configuration settings.

Info HQ generates Invalid Patient ID alerts for all test results that contain an invalid patient ID. These test results can also have other alerts associated with them, such as Out of Range alerts.

Updating a test results record with a correct patient ID involves acknowledging the Invalid Patient ID alert, as well as any other alerts associated with the test results record. To acknowledge test results with an invalid patient ID, see *Acknowledge an Invalid Patient ID alert*.

To correct an invalid patient ID:

1. Click **Invalid Patient IDs**.
2. Next, the **Alerts** screen or the **Tests** screen displays. (The screen that is displayed depends on the site configuration setting for **Show Alerts**. The steps to correct the patient ID are the same for both screens, though the screen displays differ slightly.)
   - The **Alerts** screen displays the Details view for the invalid patient ID. In the Patient ID box:
     - type the correct patient ID, or, if available, click the search icon
       - the **Patient Search** dialog box opens. From the drop-down list, either:
         - enter the patient ID number if it is known, or,
         - select **Patient Name** and enter all or part of the first or last name of the patient
           A. Click **Search**. A list of patients matching the entered search string is displayed.
           B. Select the appropriate Patient ID and click **OK**.
   - The **Tests** screen displays the **List** view for invalid patient IDs. Click the check box next to the alert for the patient ID to be corrected. In the Patient ID box:
     - type the correct patient ID, or, if available, click the search icon
       - the **Patient Search** dialog box opens. From the drop-down list, either:
         - enter the patient ID number if it is known, or,
         - select **Patient Name** and enter all or part of the first or last name of the patient
           A. Click **Search**. A list of patients matching the entered search string is displayed.
           B. Select the appropriate Patient ID and click **OK**.

Note: Info HQ does not automatically send test results with an invalid patient ID to the LIS. When the patient ID is corrected, the test result might need to be sent to the LIS.

10.4 Add or remove test result labels

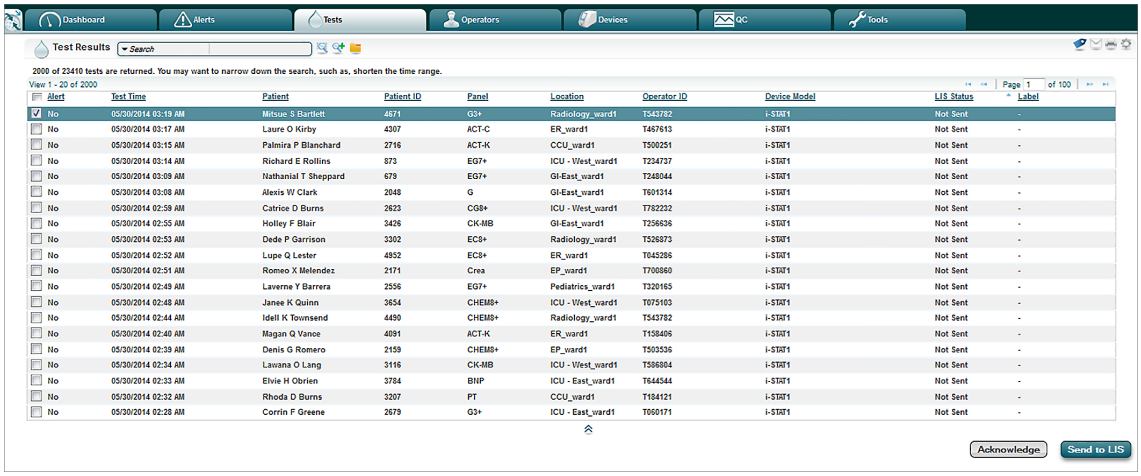
Labels are particularly useful in reminding a POCC or authorized user that a patient test result requires further action. Labels are available only for patient test records, not for QC results. While there is no specific limit to the number of labels that can be created, the number of different colors available for labels is 16.

A single label can be added to a patient test result. If a label has already been added to the patient test results, adding a different label will replace the existing one.

To add a label to a patient test result, perform the following steps:

1. Click the **Tests** tab to display a list of patient test results.

Figure 10–6: List of patient test results



2. Check the boxes to the left of the Alert column for one or more test results.
3. Click  in the upper-right corner of the display.
   The **Labels** pop-up box displays the available labels to add.
4. Click a label to add it to the test result.

To remove a label from a test result:

- Select the test result with a label to be deleted.
- Click  to display the **Labels** pop-up window.
- Click **Remove Label**.

10.5 Generate a test results report

Reports—based on search filters, the current date range, and the selected location, if applicable—can be generated from the main screens within Info HQ.

Info HQ generates reports for patient test results as listed in the patient test reports table.

Table 10–4: Patient test reports

Report type	Description
Extended Patient Test Report	All information associated with the selected patient test result including Test Results, Details, Critical Notification, STATNotes, Extra Data, Audit Trail, and Comments.
Patient Test Report	Results of the selected patient test.
Patient Test List Report	All patient test results.
PV Data Extract Patient	Patient test results used for performance verification. **Note:** This report is available only if **PV Data Extract Enabled** is set to **Yes** in the system configuration settings.

To generate a report, follow the steps in *Generate a report*. For advanced reporting features, refer to *Reports*.

11 - Operator managment

This section provides instructions to manage operators and operator certifications on POCT devices.

11.1 View a summary of operators

Use the **Operators** tab to display the **Operators** screen and review a list of the operators in the Info HQ system.

Figure 11–1: Operators screen

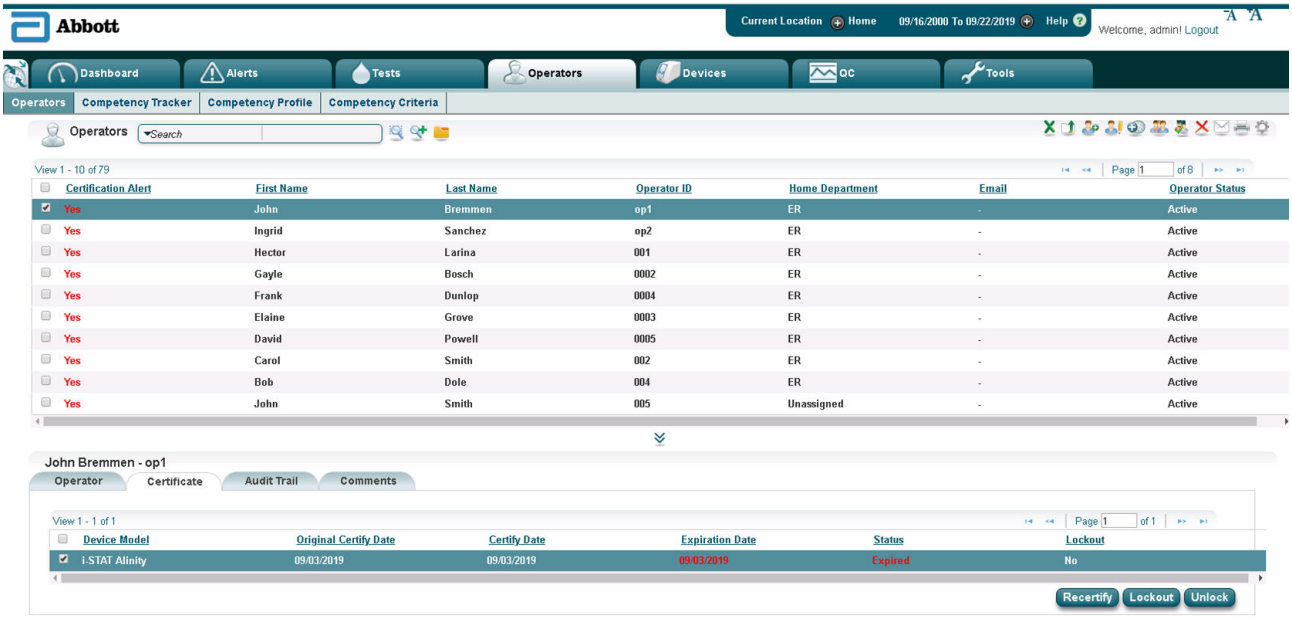


Table 11–1: Operators screen details

Item	Description
1	**Search**. See *Filter the results* and *Filter results using search strings* for more information.
2	Icons that perform tasks related to operators. Roll the mouse over an icon for a description.
3	**Operators list**. To narrow the display, select filtering criteria from the Search drop-down list.

Item	Description
4	Details pane: The Details pane contains the following tabs that provide additional information for the device that is selected in the List pane: • **Operator**: Profile details about the operator. • **Certificates**: A summary of the operator's certifications—including status and expiration dates—along with management options to recertify the operator, prevent (lock) the operator from testing on a device model, and remove a lock. • **Audit Trail**: All changes made to the operator's data, for example an update made to the operator's email address or a change in the operator's certification status. See *View the audit trail*. • **Comments**: Comments added by users. See *Add comments*.

If **Operator Competency Management** (OCM) is enabled, the **Competency Tracker**, **Competency Profile**, and **Competency Criteria** secondary tabs are also displayed.

Figure 11–2: Operators screen—OCM disabled

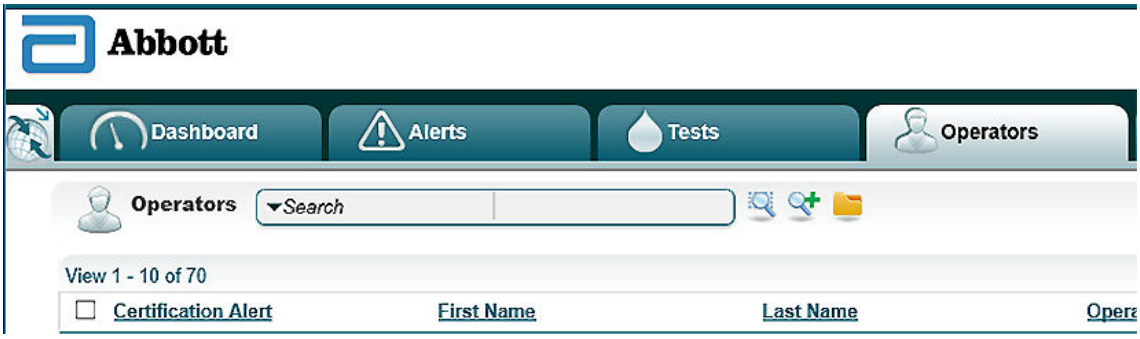
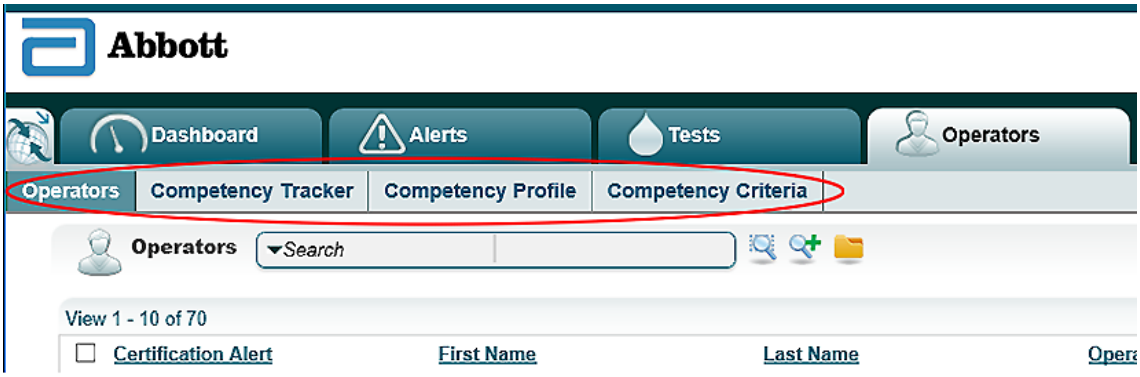


Figure 11–3: Operators screen—OCM enabled



Operators screen: Secondary tabs

When OCM is enabled, the **Operators** screen has secondary tabs that display and allow you to manage information about operators, competency tracking, competency profiles, and competency criteria.

Operators secondary tab

The List pane of the **Operators** screen displays the following information about each operator:

- Basic information including the operator's name, ID, email address, and the home location/department where the operator works
- Whether any certification alerts are associated with the operator
- The operator's status: Active or Inactive

The Details pane of the screen has four tabs that display the following information:

Table 11–2: Operators secondary tab: Details pane

Tab	Description
Operator	Profile details about the operator.
Certificate	A summary of the operator's certifications—including status and expiration dates—along with management options to recertify the operator, prevent (lock) the operator from testing on a device model, and remove a lock.
Audit Trail	All changes made to the operator's data, for example an update made to the operator's email address or a change in the operator's certification status.
Comment	A list of all comments added to this record, and options to add new comments.

To display information for a subset of operators or to search for a particular operator in the Operators screen, refer to *Filter results using drop-down lists* and *Filter results using search strings*.

Competency Tracker secondary tab

The List pane of the Competency Tracker secondary tab displays the following information about operator competencies:

- Operator ID
- Operator Name
- Home Department
- Competency Profile
- Competency Complete
- Window Start Date
- Window End Date
- Certification Expiration Date
- Device Model
- Certificate Phase
- Original Certified Date
- Last Certified Date
- Last Certified By
- Profile Source

Figure 11–4: Operators tab: Competency Tracker secondary tab

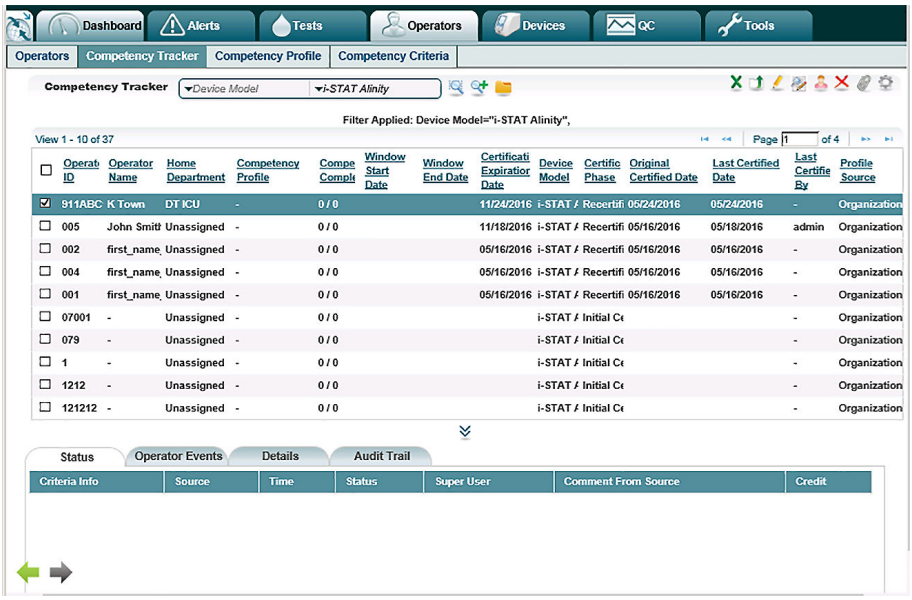


Table 11–3: Competency Tracker secondary tab: Details pane

Tab	Description
Status	Shows all of the criteria in the current profile and their status. The credit column displays *Yes* for the criteria that have been fulfilled within **Criteria Credit** Window, the status column displays passed or failed, and the time is the criteria event date and time. If no competency event for a criterion, all of the columns after the **Criteria Info** column are blank.
Operator Events	Shows all of the operator competency events for initial certification phase. For recertification phase, only show operator competency events since the last certified date. If an operator event matches a criterion in the competency profile, *Yes* is displayed in the **Credit** column indicating that the criterion has been fulfilled.
Details	Shows more detailed information about the operator's competency status.
Audit Trail	Shows the details of the selected operator's competency tracking.

Competency Profile secondary tab

Competency profiles are named groups of competency criteria. Profiles are either initial certification profiles or recertification profiles. A competency profile is for a single device model, and it specifies the certification interval (month) and the certification method (manual or auto enabled).

The List pane of the Competency Profile secondary tab displays the following information:

- Name
- Version
- Device Model
- Certification Phase
- Certification Interval

- Organization Default
- Certification Method

Figure 11–5: Operators tab: Competency Profile secondary tab

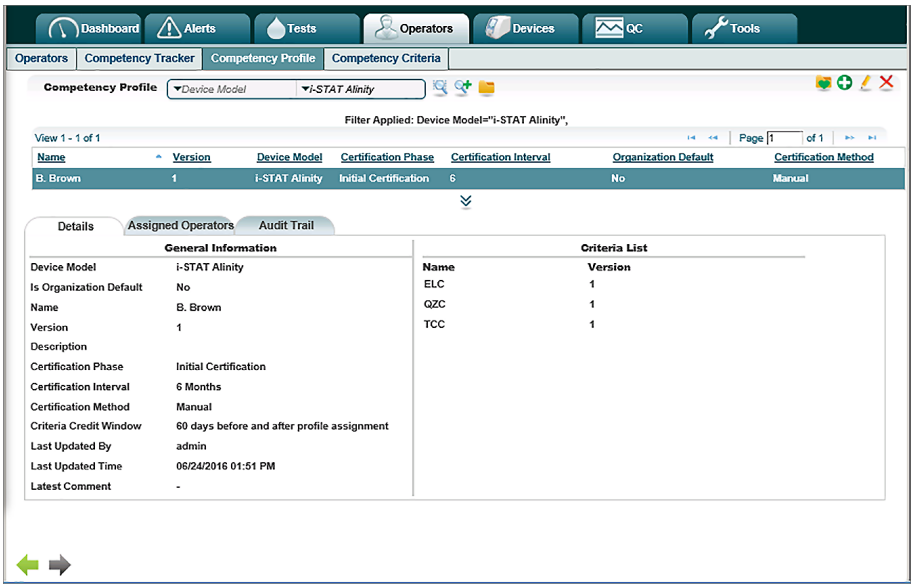


Table 11–4: Competency Profile secondary tab: Details pane

Tab	Description
Details	Shows detailed information about the competency profile in two sections: General Information and Criteria List. The General Information section displays basic information about the profile such as the device model, whether the profile is the default for the organization, and certification phase, interval, and method. The Criteria List displays the competency criteria that are assigned to the profile.
Assigned Operators	Shows the list of operators that the competency profile is assigned to.
Audit Trail	Shows additions and updates to the profile.

Competency Criteria secondary tab: Details pane

Competency criteria are the requirements that must be met for certification on a device model. Info HQ supports creating, editing, and deleting criteria as needed. The criteria can be one of the following categories:

- Test Result Event
- External Data Event
- Manual Entry Event

Each of the categories has subcategories associated with them to further catalog the criterion.

The List pane of the Competency Criteria secondary tab displays the following information about competency criteria:

- Name
- Version
- Device Model
- Category
- Subcategory
- Updated By

Figure 11–6: Competency Criteria secondary tab

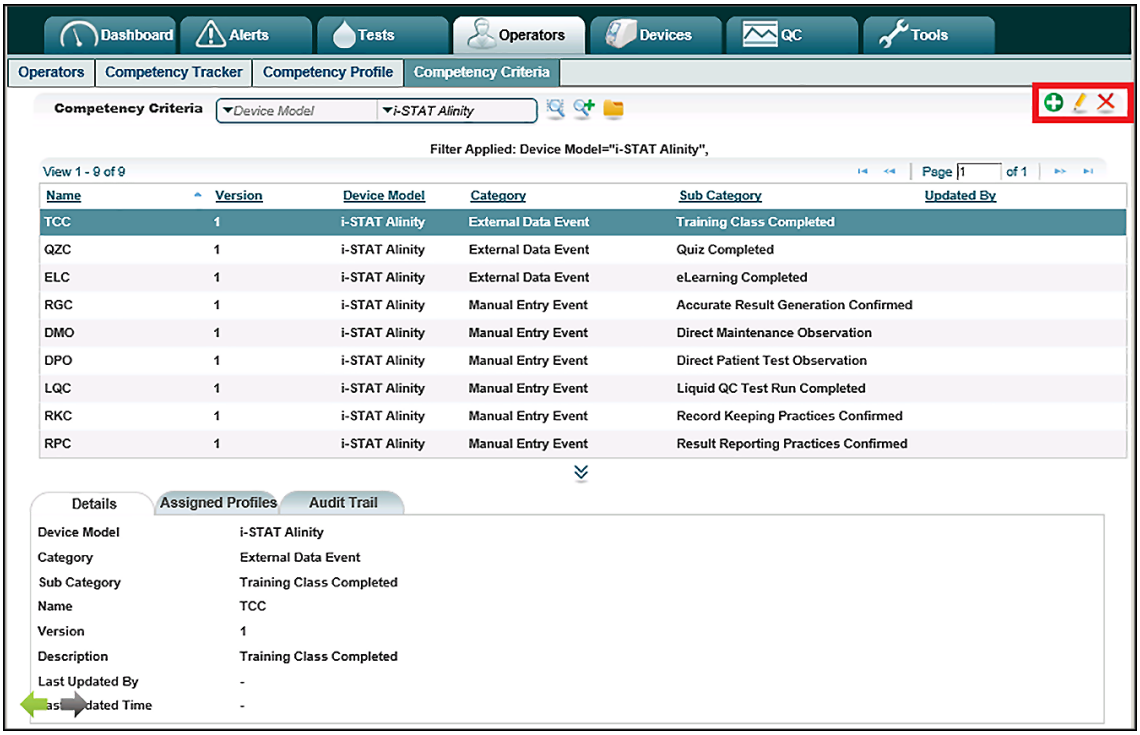


Table 11–5: Competency Criteria secondary tab: Details pane

Tab	Description
Details	Displays detailed information about the competency criterion including device model, categories, and information about the last update.
Assigned Profiles	Shows a list of profiles that the criterion is assigned to.
Audit Trail	Shows additions and updates to the criterion.

11.2 Add operators

Operators who perform tests and whose certifications Info HQ must track need to be identified in the Info HQ system.

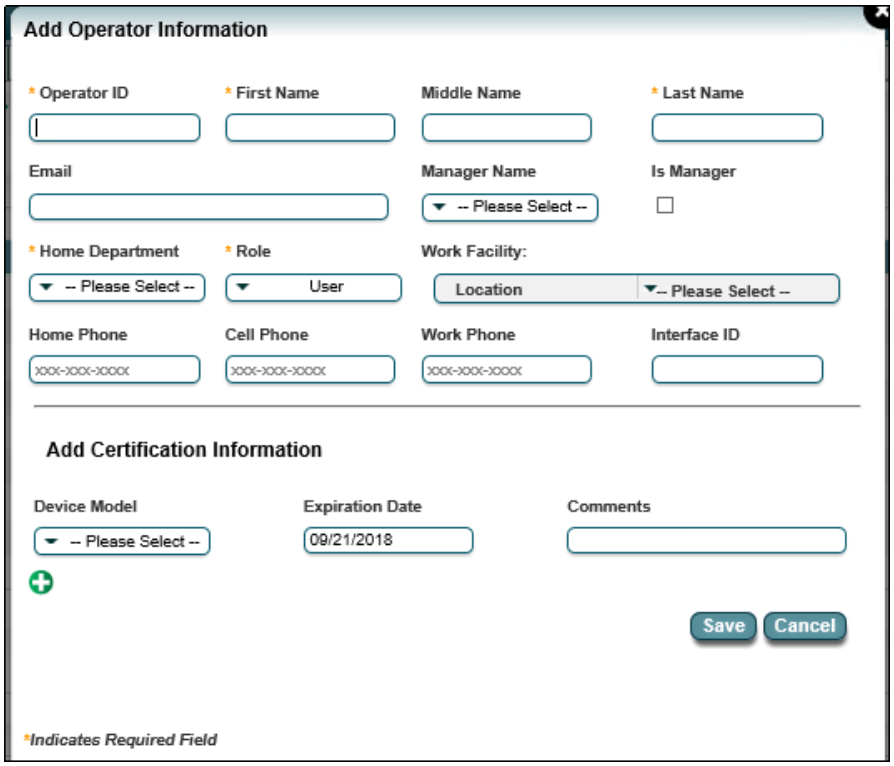
There are two ways to add operators to Info HQ: either individually, or by using the upload function to add multiple operators all at once from a Microsoft Excel template.

Add an individual operator

Follow these steps to add an individual operator.

1. Click the **Operators** tab.
2. Click  .
   The **Add Operator Information** dialog box opens, as shown.

   Figure 11–7: Add Operator Information dialog box



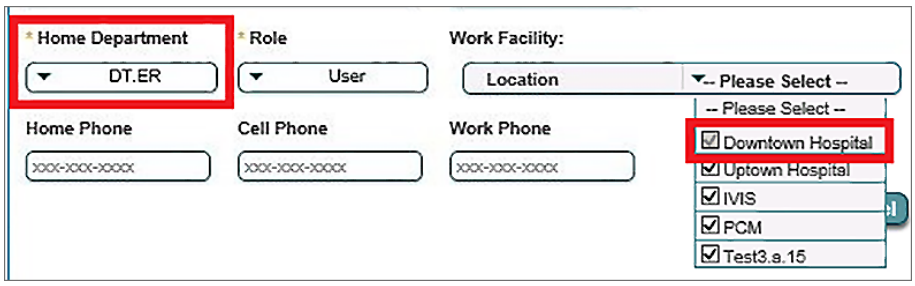
3. If the operator is a manager, check the **Is Manager** box. Otherwise, select the operator's manager from the drop-down list.
4. Complete the remaining fields in the dialog box.

   Note the following:

   - The operator ID must be unique for each operator.
   - Operator names cannot include the ampersand (&) or tilde (~) character.
   - An operator's home department is the primary department within a facility out of which the operator works.
   - See the documentation for i-STAT Alinity for information about operator roles and how they are used by the device.
   - Select one or more work facilities for the operator. The operator's primary work facility is the one where his or her home department is located. For example, in the figure *Primary work facility* the Home Department is DT.ER, which is located in the Downtown Hospital. The Work Facility drop-

down list shows the Downtown Hospital's check box is selected and greyed out, indicating that it is the operator's primary work facility.

Figure 11–8: Primary work facility



Depending on your facility's preferred workflow, an operator can be certified for a device model at the same time they are added to the system, or they can be certified later.

To certify now, continue with step *5*.

To certify later, click **Save** to add the new operator. When it is time to certify the operator, follow the steps in *Certify an individual operator*.

5. Complete the **Add Certification Information** area of the dialog box as follows:
   a) Select a device model for operator certification from the drop-down list. If a second device certification is needed, click beneath the drop-down list to add another device model.
   b) Select a certification expiration date by clicking in the **Expiration Date** box and using the calendar widget, or leave the preselected date (six months from the present day).
   c) Optionally, enter a comment.
6. Click **Save**.

The new operator is added to the system.

Upload operator data

Info HQ includes a certification template, in spreadsheet format (.csv), that can be used to add a group of operators to the system, update operators' information, or automate the granting of multiple certifications to operators. The first few steps of this procedure provide instructions on how to download and prepare the template.

Note:

- For operator certification data that is managed by the i-STAT Central Data Station (CDS) application, do not use the Info HQ certification template. Instead, download the operator import file from CDS. Do not modify the file contents. Save the file to this name: **CDS_Operator_import.csv** (Comma delimited). Upload it directly to Info HQ, starting at Step *4.a*.
- Data in the template file cannot include commas.

- If there are errors in the template file, it cannot be uploaded.

Figure 11–9: Example certification template

A	B	C	D	E	F	G	H	I	J	K	L	M	N
First Name	Middle name	Last Name	Home Department	Operator ID	MgrOperatorID	Email	Is Manager (True = 1/False = 0)	Work Phone	Device Model	InitialCertDateFormatted	StartDateFormatted	ExpirationDateFormatted	Active (True = 1/False = 0)
Jennifer	H	Elton	DT.ER	<5>	<M893245>	eltonj@ivis.domain	1	609-454-1111	i-STAT1	1/13/2016	10/11/2014	8/20/2018	1
Karl	T	Cooney	DT.ER	<T100008>	<M171849>	kgooney@ivis.domain	0	609-454-1581	i-STAT1	1/13/2016	10/11/2014	1/13/2016	1
Robert	D	Reids	DT.ER	<T100012>	<M100008>	rreids@ivis.domain	0	609-774-1234	i-STAT Alinity	1/13/2016	10/11/2014	1/13/2016	1

Note: In the columns **Is Manager** and **Active** a value of '1' is shown for True and a value of '0' is shown for False.

1. Export the template file:
   a) Click the **Operators** tab.
   b) On the **Operators** primary tab, click to export the Operator Certification template file.
   c) In the pop-up dialog box, click **Generate**.
      Pop-ups must be enabled in the web browser.
   d) In the **Open** dialog box, click **Save File** and select **OK**.
2. Prepare the template file:
   a) Locate and open the template file in Microsoft Excel.
   b) In the template, locate the first blank row below the column headings.
   c) With assistance from the POCC or nursing staff and using the example certification template as a guide, enter the data as needed.

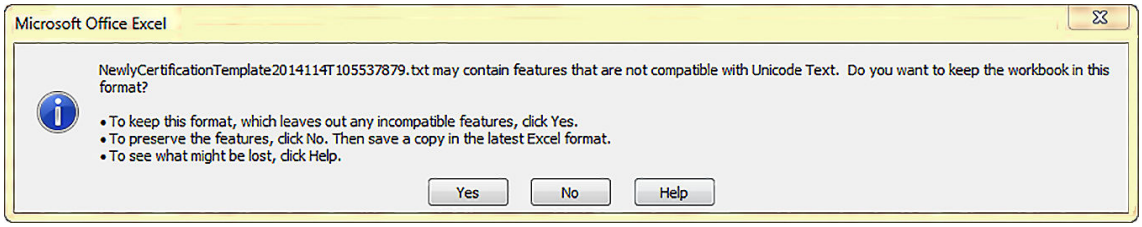
      To add an operator to Info HQ or to update an operator's information, note the following:
      - The **First Name**, **Last Name** and **Operator ID** columns are always required.
      - Operator names cannot include the ampersand (&) or tilde (~) characters.
      - **First Name** is a maximum of 40 characters; **Middle Name** is a maximum of 20 characters; **Last Name** is a maximum of 40 characters.
      - **Operator ID** is a maximum of 15 characters.
      - For the columns **Operator ID** and **MgrOperatorID**, enclose the ID values in brackets as shown: <745832>
      - **Home Department** is the primary Department within a Facility at which the operator works.
      - The name entered for **Home Department** must be spelled exactly as it is in Info HQ, or Info HQ will record the operator's home department as *Unassigned*.

      To add or revise certification data, note the following:
      - Each certification (even for the same operator) must be on a separate row.
      - The **First Name**, **Last Name** and **Operator ID** columns are always required.
      - **First Name** is a maximum of 40 characters; **Middle Name** is a maximum of 20 characters; **Last Name** is a maximum of 40 characters.
      - Operator names cannot include the ampersand (&) or tilde (~) characters.
      - **Operator ID** is a maximum of 15 characters.
      - For the columns **Operator ID** and **MgrOperatorID**, enclose the ID values in brackets as shown: <745832>
      - A **Device Model**, **InitialCertDateFormatted**, **StartDateFormatted**, and **ExpirationDateFormatted** are required.
      - The name entered for the **Device Model** must be spelled as it is in Info HQ.

- Dates for **InitialCertDateFormatted**, **StartDateFormatted**, and **ExpirationDateFormatted** must be in the date format consistent with Info HQ.

3. Use **Save As** and file type **.CSV (Comma Delimited)** to save the template file.

   If presented with a dialog box similar to the one shown here, click **Yes**.



4. Upload the completed template file to Info HQ.

   Info HQ uses the data in the template file to add or update information for the specified operators.

   a) In the Info HQ **Operators** screen, click  to display the **Upload** dialog box.
   b) Click **Browse**, navigate to the folder containing the certification template file.
   c) Select the file and open it.
   d) Click **Submit**.
   e) When the file completes uploading close the **Upload** dialog box.

5. Verify the results.

   a) Click **Operators** to refresh the screen.

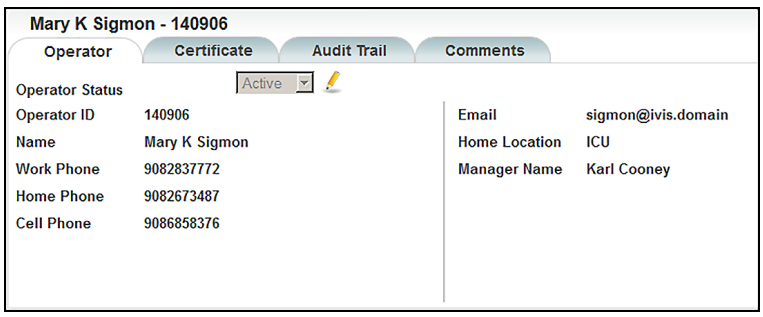
11.3 Change an operator's status

When an operator is no longer employed by the healthcare organization, the operator's status should be set to an inactive state so that certification alerts will not be issued for the operator. The operator cannot be deleted from the Info HQ system because test data associated with the operator must be available for reviewing and reporting purposes.

By default, when an operator is added to the Info HQ system, the operator status is automatically set to *Active*. Perform these steps to change an operator's status:

1. Click the **Operators** tab to display the **Operators** screen.
2. Locate and select the appropriate operator.
3. In the Details pane, click the **Operator** tab.
   Details about the operator, including the operator status, are displayed, as shown.

Figure 11–10: Operators screen: Operator tab



4. Click  .
   The **Operator Status** drop-down list becomes active.
5. Click the drop-down list, then select **Inactive**.
6. Enter a comment in the **Comment** field.
   A comment is required whenever an operator's active/inactive status is changed.
7. Click  .
   Info HQ updates the operator's status in the Details pane.
8. Optionally, click the Operators tab to refresh the screen and show the updated operator's status in the List pane.

To restore the operator to active status, repeat these steps and select **Active** in the drop-down list.

Change status for a group of operators

To change the status for a group of operators, perform these steps:

1. Click the **Operators** tab to display the **Operators** screen.
2. Filter the operator list by using drop-down lists (see *Filter results using drop-down lists* for detailed information on filtering).
3. In the **Operators** list, select one or more operators by clicking the boxes in the left-hand column, or use the select all box (at the top of the column) to select all operators in the current view.
4. Click 
   The Operator Status becomes inactive for all selected operators.

Assign or change work facilities for operators

Assigning a work facility to an operator or group of operators ensures that their certifications are sent only to the work facilities that they are assigned to.

Work facilities can be assigned or changed for individual operators or groups of operators. This procedure describes how to assign or change work facilities for both groups and individual operators using  on the **Operators** screen.

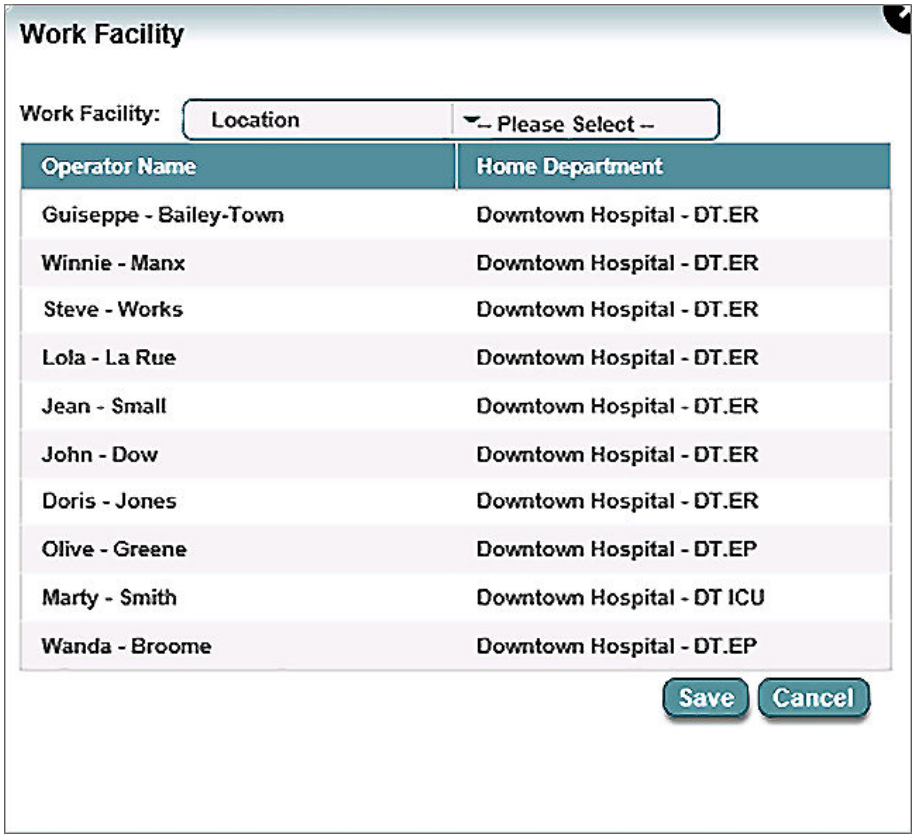
Note: Individual operator work facility assignments can also be changed by editing the operator information. See *Edit operator profile information* for instructions.

Follow these steps to assign or change work facilities for operators.

1. Click the **Operators** tab.
2. Select one or more operators that you want to assign or change work facilities for.
3. Click  .

The **Work Facility** dialog box opens.

Figure 11–11: Work Facility dialog box



4. In the Work Facility drop-down list, select one or more facilities to assign or change for the selected operators.
5. Click **Save**.
   The screen refreshes automatically.

The work facilities are assigned or changed for the selected operators. When work facilities are changed for operators, the old assignment is overwritten except for the primary facility.

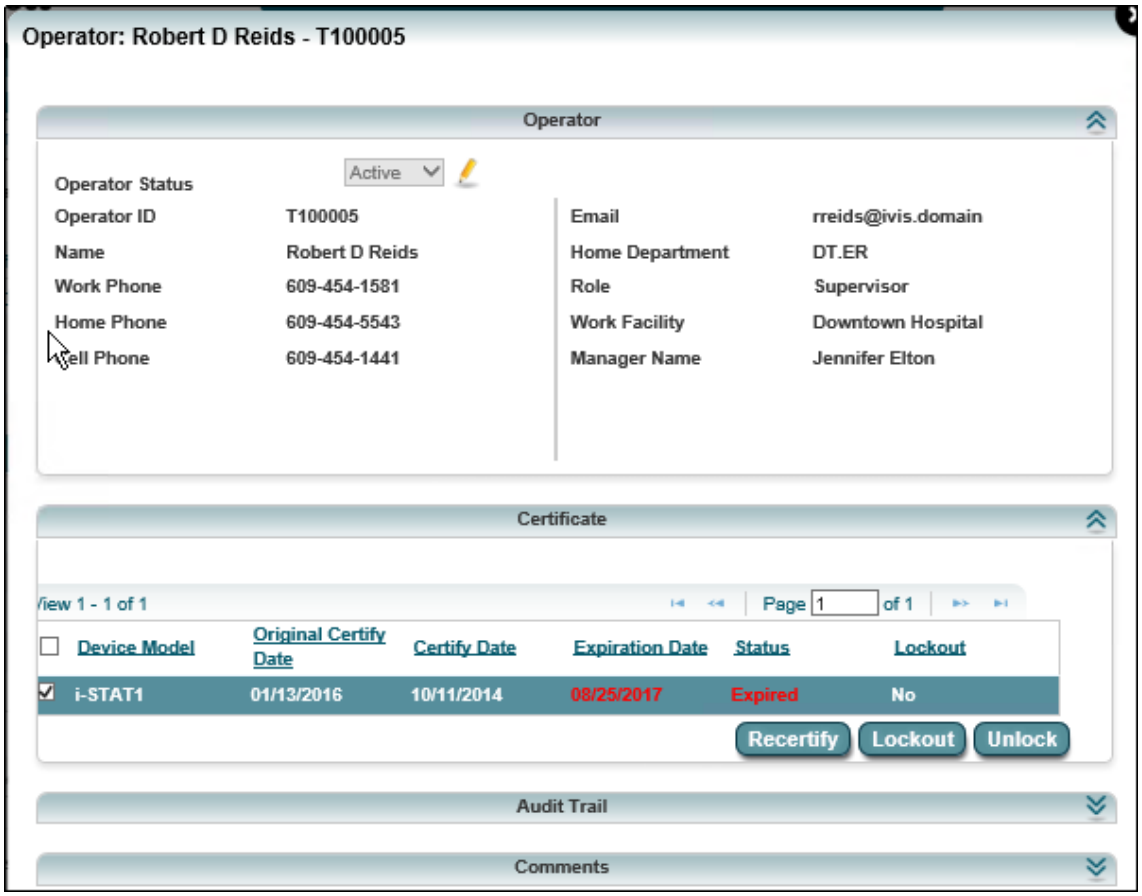
11.4 View operator profile information

Follow these steps to view an operator's profile and certification information:

1. Click the **Operators** tab to display the **Operators** screen.
2. Locate and select the appropriate operator.
3. Double-click the operator to display the operator details and certification status box, as shown.

The **Operator** section lists the operator's profile information. The **Certification** section lists the devices for which the operator holds a certification and status information for each certification.

Figure 11–12: Operator profile and certification details



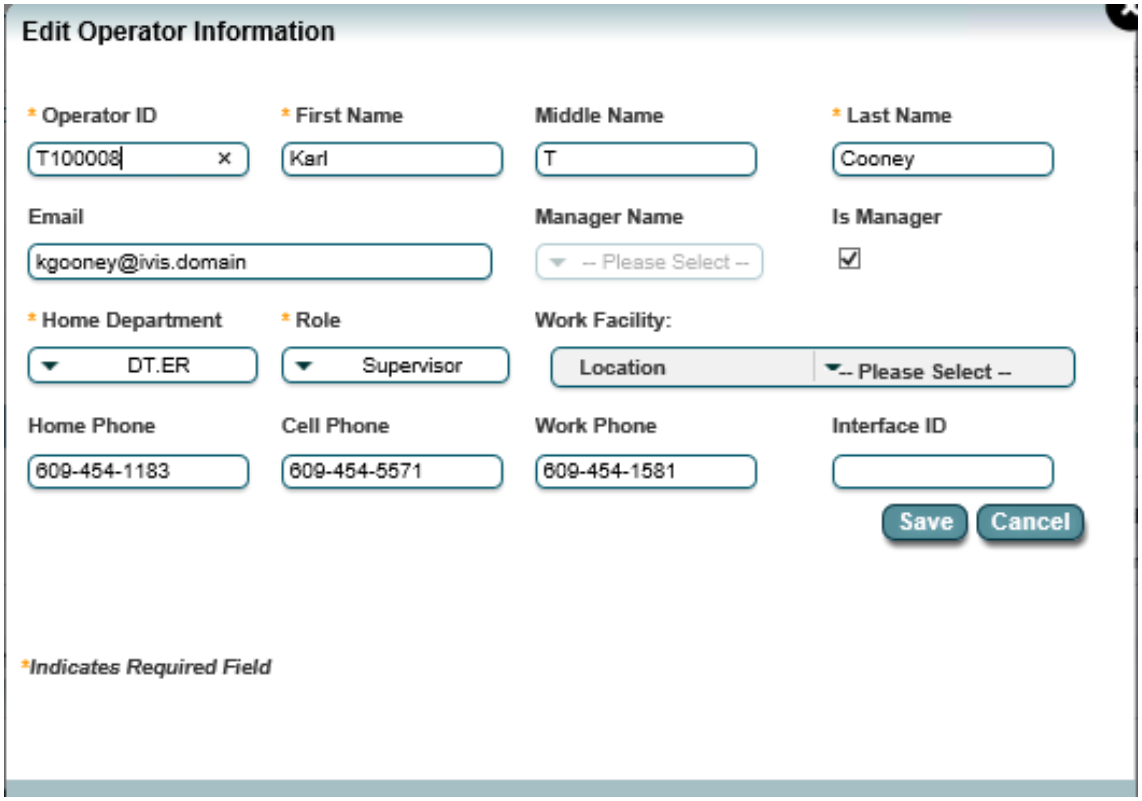
11.5 Edit operator profile information

When an operator's profile information changes, such as a phone number or change of department, edit the operator's profile information:

1. Click the **Operators** tab to display the **Operators** screen.
2. Locate and select the appropriate operator.
3. Click  in the top-right corner of the screen.

The **Edit Operator Information** dialog box opens.

Figure 11–13: Edit Operator Information dialog box



4. Update the fields as needed, then click **Save**.

11.6 Operator competencies and certifications

Info HQ provides the ability to manage operator certifications separate from competencies. Certification management is supported for all devices, while Operator Competency Management (OCM) is supported only for i-STAT Alinity. Competencies are the requirements that operators must meet to be certified on a device. Competencies are grouped into profiles along with other data, and can then be used for tracking and management purposes.

OCM can be enabled or disabled in the Info HQ Configuration, Advanced settings, and does not impact the ability to manage operator certification. Operator competencies and certifications can be managed through the following OCM features: competency criteria, competency profiles, and competency.

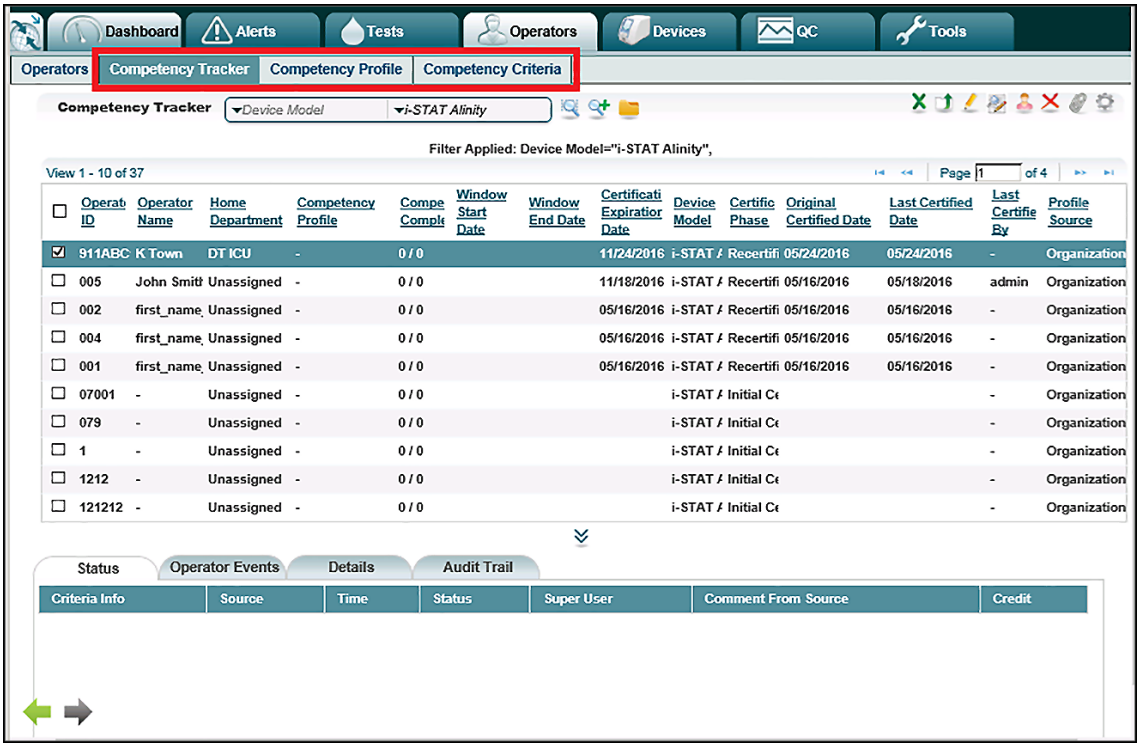
- To manage operator certifications alone, see *Manage operator certification*.
- To manage operator competencies and certifications for i-STAT Alinity via OCM features, see *Manage operator competencies—i-STAT Alinity* .

Figure 11–14: Operator competency flow

11.7 Manage operator competencies—i-STAT Alinity

Info HQ displays the operator competency interface on secondary tabs on the Operators primary tab when the Operator Competency Management (OCM) feature is enabled.

Figure 11–15: Operator Competency Management (OCM) secondary tabs



Enable Operator Competency Management (OCM) for i-STAT Alinity

Operator Competency Management (OCM) features are enabled by default. See *System configuration settings* for detailed information about the **OCM Enabled** setting on the Tools primary tab and Info HQ Configuration secondary tab.

Create and assign OCM criteria and profiles

Before you use the OCM feature, it is recommended that you create competency criteria and competency profiles in Info HQ.

To create and assign OCM criteria and profiles in Info HQ, complete the following steps:

1. *Create competency criteria*.
   The criteria are the basic building blocks for competency profiles that are used to track device competencies for operators.
2. *Create competency profiles*.
   Competency profiles are collections of competency criteria that are assigned to a specific device model. Profiles can be assigned to operators in order to track their competencies and certifications.
3. Assign competency profiles as defaults at the organization-level or department-level.

See *Assign a competency profile to operators* and *Assign department-level default profiles* for instructions.

Create competency criteria

Competency criteria are the requirements that must be met for an operator to demonstrate the required competency for certification on a device model.

Info HQ comes prepopulated with the criteria shown in the following table.

Table 11–6: Pre-populated competency criteria

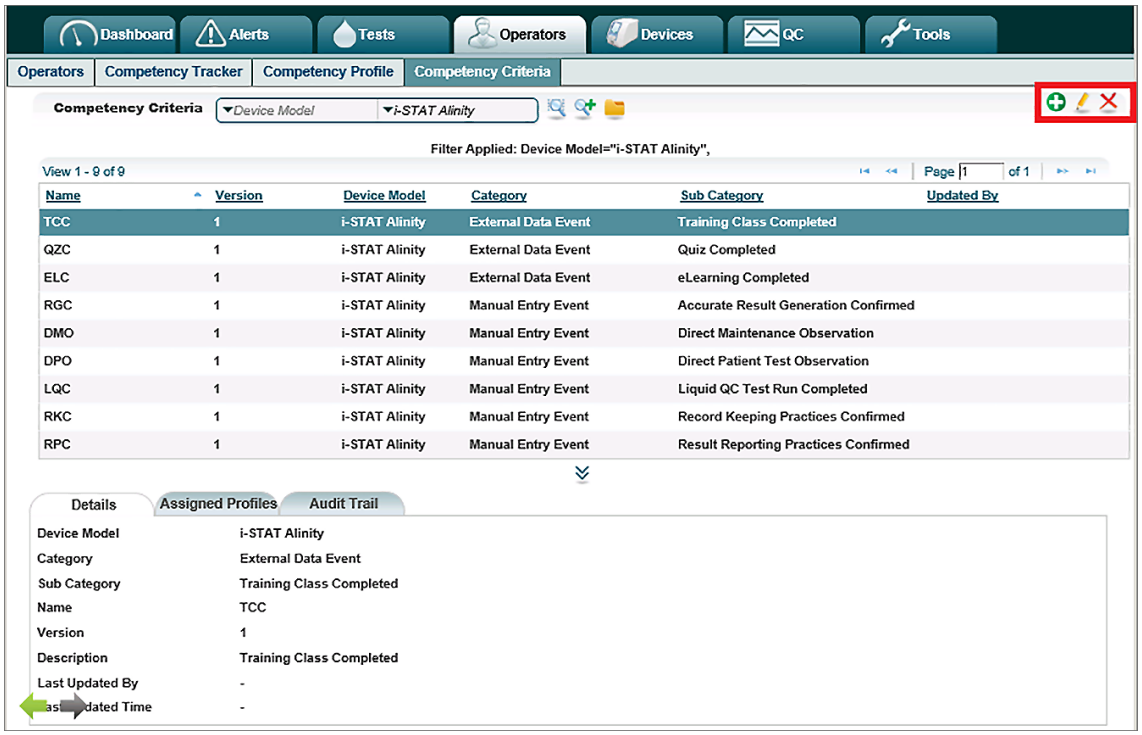
Name	Default version	Category	Subcategory
TCC	1	External Data Event	Training Class Completed
QZC	1	External Data Event	Quiz Completed
ELC	1	External Data Event	eLearning Completed
RGC	1	Manual Entry Event	Accurate Result Generation Confirmed
DMO	1	Manual Entry Event	Direct Maintenance Observation
DPO	1	Manual Entry Event	Direct Patient Test Observation
LQC	1	Manual Entry Event	Liquid QC Test Run Completed
RKC	1	Manual Entry Event	Record keeping Practices Confirmed
RPC	1	Manual Entry Event	Result Reporting Practices Confirmed

To create competency criteria, complete the following steps:

1. Click the **Operators** primary tab.

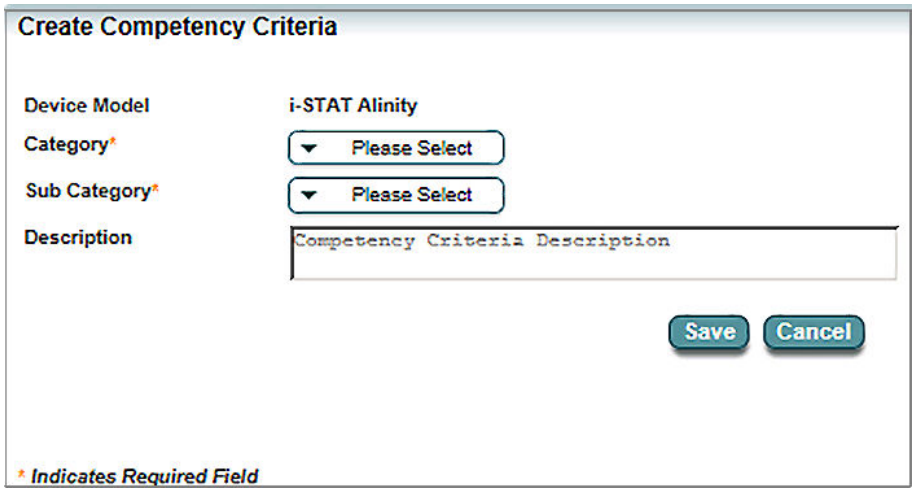
2. Click the **Competency Criteria** secondary tab. The tab is displayed with the tab-specific tools in the upper right corner of the tab

Figure 11–16: Competency Criteria secondary tab



3. In the toolbar, click  .
The **Create Competency Criteria** dialog box opens.

Figure 11–17: Create Competency Criteria dialog box



4. Select the category and subcategory for the competency criterion.
Additional fields are displayed based on your selections.

Table 11–7: Competency criteria categories, sub-categories, and fields

Selected category	Available sub-categories	Sub-category fields displayed
Test Result Event	QC Test	Reagent Type Fluid Selection
	Training Mode Test	Patient ID Reagent Type Required Instrument Comment
External Data Event	• Training Class Completed • Quiz Completed • eLearning Completed	Name Version
Manual Entry Event	• Accurate Result Generation Confirmed • Direct Maintenance Observation • Direct Patient Test Observation • Quiz Completed • Record Keeping Practices Confirmed • Result Reporting Practices Confirmed • Training Class Completed • eLearning Completed	Name Version
	• Liquid QC Test Run Completed • Training Mode Test Run Completed	Name

5. Complete the additional fields.
6. Optionally, type a description of the competency criterion.
7. To save the criterion, click Save.
8. Repeat this procedure as needed to create all of the necessary competency criteria.

Edit competency criteria

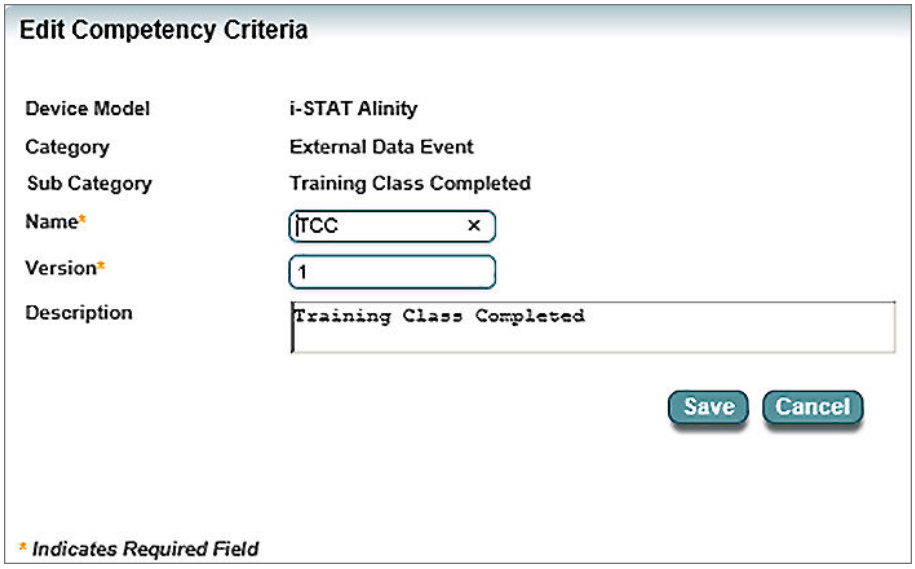
If necessary, competency criteria can be added.

To edit competency criteria, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Criteria** secondary tab.
3. Click  .

The **Edit Competency Criteria** window opens.

Figure 11–18: Edit Competency Criteria



Note: If the name of the criterion is changed, the old criterion name and status is retained in the Audit Trail, and the criterion name is updated in the competency profile. However, even if the criterion was completed under its previous name, it appears as incomplete in the profile under its new name.

Note: Version must be updated manually.

4. Edit the fields as needed.
5. Click Save.

Delete competency criteria

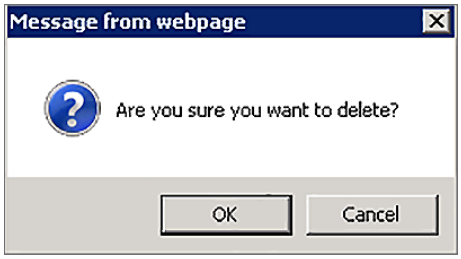
A competency criterion can be deleted if it is not assigned to any competency profiles.

To delete a competency criterion, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Criteria** secondary tab.
3. Select the criterion to delete.
4. Click

The following confirmation message is displayed.

Figure 11–19: Delete confirmation dialog box



5. Click **OK**.
   The competency criterion is deleted.

Create competency profiles

A profile applies to only one device model and includes the certification interval (month) and certification method (auto enabled or manual).

If default initial and recertification profiles exist, new operators are automatically following one of them. New operators that do not have a device certification for i-STAT Alinity associated with them are automatically following the default profile for initial certification. New operators with an i-STAT Alinity certification are automatically following the default profile for recertification.

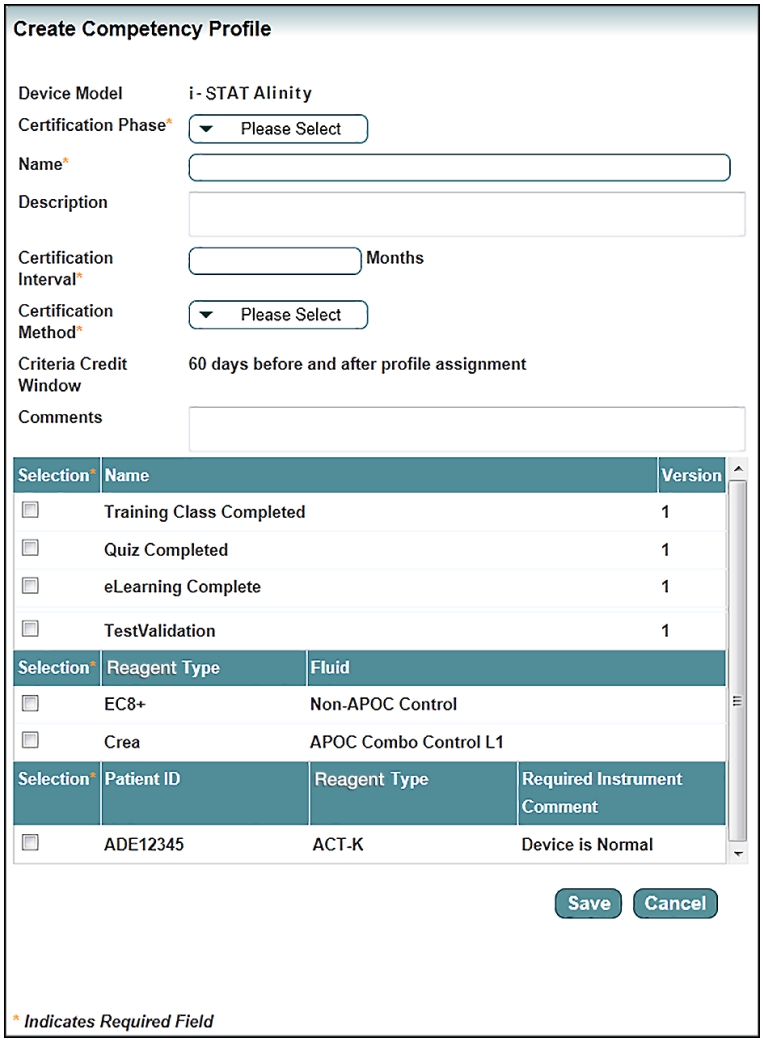
If neither the default organization-level nor department-level competency profiles exist, then no profile is assigned to the operator.

To create a competency profile, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Profile** secondary tab.
3. In the toolbar, click .

The Create Competency Profile dialog box opens.

Figure 11–20: Create Competency Profile dialog



4. Complete the fields, and select the competency criteria that you want to include in the profile.

   Criteria are organized into three categories within the selection area of the window: **Common Criteria** with the **Name** and **Version** attributes; **QC Test Criteria** with the **Reagent Type** and **Fluid** attributes; and **Training Mode Test Criteria** with the **Patient ID**, **Reagent Type**, and **Required Instrument Comment** attributes.

5. Ensure that the following requirements are met as you complete the dialog box:
   - The profile name must be unique and must be 80 characters or fewer.
   - The profile description is optional and can be a maximum of 130 characters.
   - The certification interval must be an integer from 1 to 1000.
   - The comments field can contain a maximum of 130 characters.
   - At least one criterion must be selected.

6. Click Save.

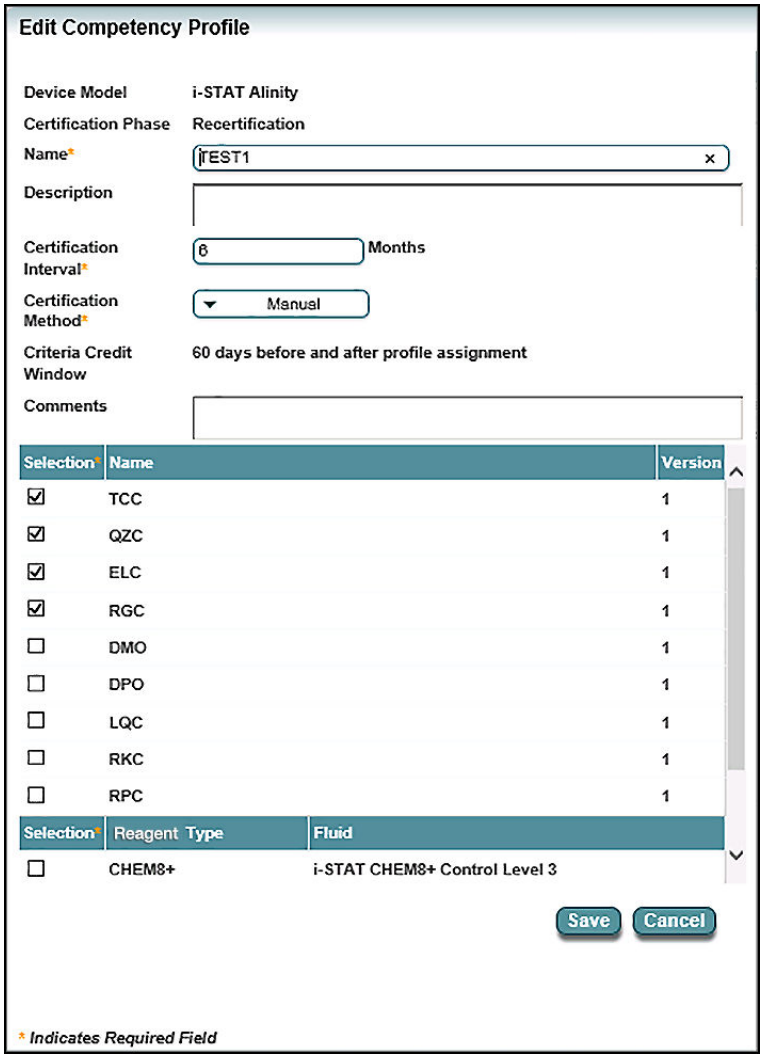
Edit competency profiles

Attributes of a competency profile, such as the criteria they contain, can be changed after the profile is created.

To edit a competency profile, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Profile** secondary tab.
3. Select the profile to edit.
4. In the toolbar, click  .
   The **Edit Competency Profile** dialog box opens.

   Figure 11–21: Edit Competency Profile dialog box



5. Edit the profile attributes as needed.

   Note: The **Certification Phase** is read-only.

6. Click Save.

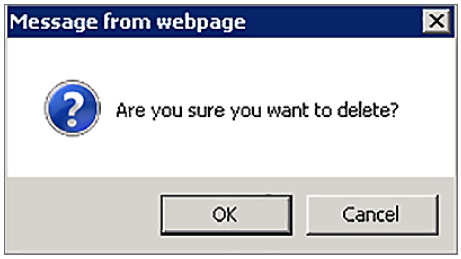
Delete competency profiles

Competency profiles that are not assigned to any operator or department, and are not the organization default profile can be deleted.

To delete a competency profile, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Profile** secondary tab.
3. Select the profile that you want to delete.
4. In the toolbar, click  to delete the profile.
   The following confirmation message is displayed.

   Figure 11–22: Delete confirmation dialog box

5. Click **OK** to delete the profile.

Assign a competency profile to operators

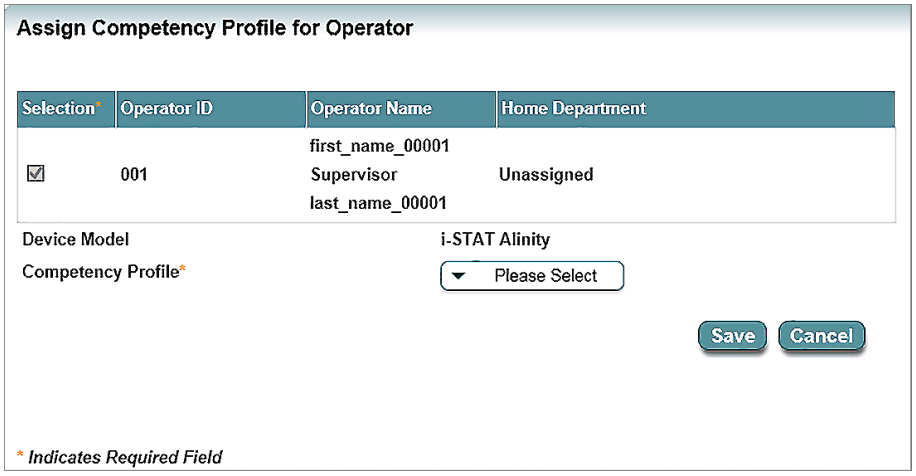
If no organization-level or department-level default profiles exist, or if an operator needs to follow a profile other than the defaults, it is necessary to manually assign a profile to the operator.

To assign a competency profile to one or more operators, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Tracker** secondary tab.
3. Select the operators to assign profiles to.
4. In the toolbar, click  .

The **Assign Competency Profile for Operator** dialog box opens.

Figure 11–23: Assign Competency Profile for Operator dialog box



5. In the **Competency Profile** drop-down list, select the profile to assign to the operators.

   Note: To make selected operator or operators follow department-level default profiles, select **Competency Profile** option of **Department Default**.

6. Click Save.

Remove a competency profile from an operator

To remove competency profile assignment from operators, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Tracker** secondary tab.
3. Select the operator or operators that you want to remove the competency profile assignment from.
4. Click .

   The competency profile assignment is removed.

Assign organization-level default profiles

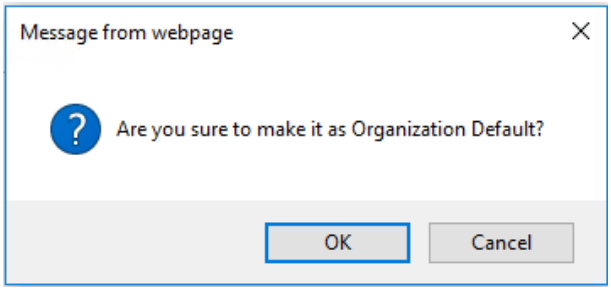
Info HQ supports two organization default profiles, at most, one for initial certification phase and the other for recertification phase. If a profile is designated as the organization default, the old default profile is replaced, and the operators who were following the old one are automatically following the new default one.

To assign an organization-level default competency profile, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Profile** secondary tab.
3. Select the profile that you want to make the organization default.
4. In the toolbar, click .

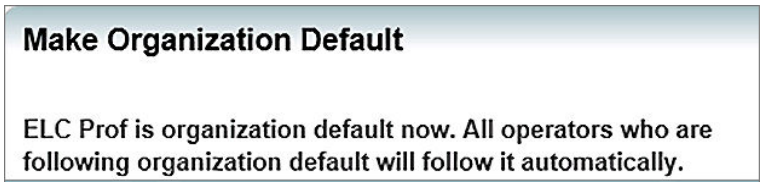
A message box asks you to confirm that you want to make this the organization default.

Figure 11–24: Confirmation message box



5. Click **OK**.
   The following message is displayed.

Figure 11–25: New default profile message



6. Close the message box.
   The profile is now the organization default profile, and all operators who were following the previous one are following the new one.

Assign department-level default profiles

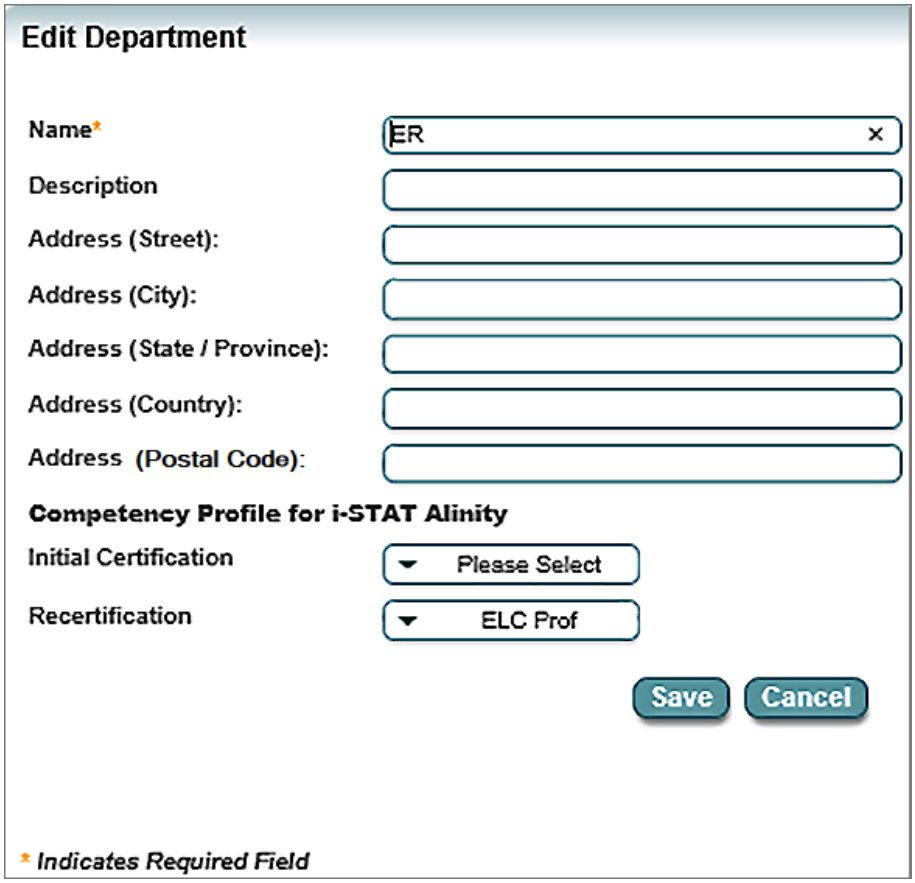
When operators are assigned to a department, the initial or recertification department default competency profile is automatically assigned to them depending on their certification phase. When operators complete the initial certification phase, the department default recertification profile is automatically assigned to them.

To assign a department-level default competency profile, complete the following steps:

1. In the **Location** breadcrumb at the top of the Info HQ screen, click **Home**.
2. In the drop-down list, click on the desired facility. The Location breadcrumb updates to include the selected facility.
3. In the **Location** breadcrumb, click the facility.
4. Hover over the department and click  .

The **Edit Department** dialog box opens.

Figure 11–26: Edit Department dialog with OCM enabled



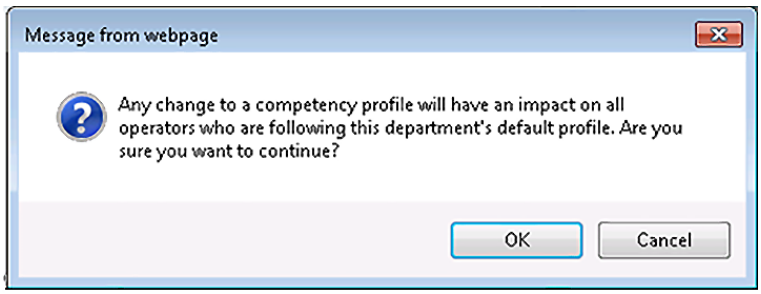
5. Optional: Under **Competency Profile for i-STAT Alinity**, select the default competency profiles for the department.

   Note: If they exist, the default initial and recertification competency profiles for the organization are selected by default. Also, the **Initial Certification** and **Recertification** drop-down lists are available when OCM is enabled.

6. Click Save.

7. If either competency profile selection is changed, and you click Save this message is displayed:

Figure 11–27: Accept change confirmation dialog box

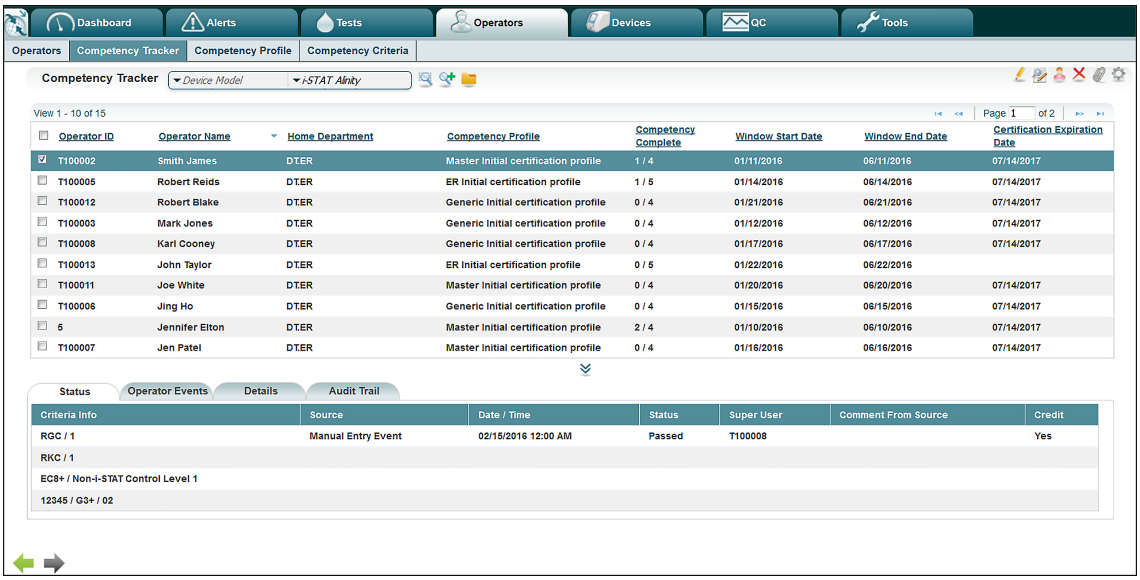


8. Click **OK** to proceed.

View competency tracker

The **Competency Tracker** screen displays information about the current competency status of the operators. Other tasks such as *assigning competency profile to an operator* or *removing a competency profile from an operator* can also be done on this tab.

Figure 11–28: Competency Tracker secondary tab



Enter competency tracking data for an individual operator

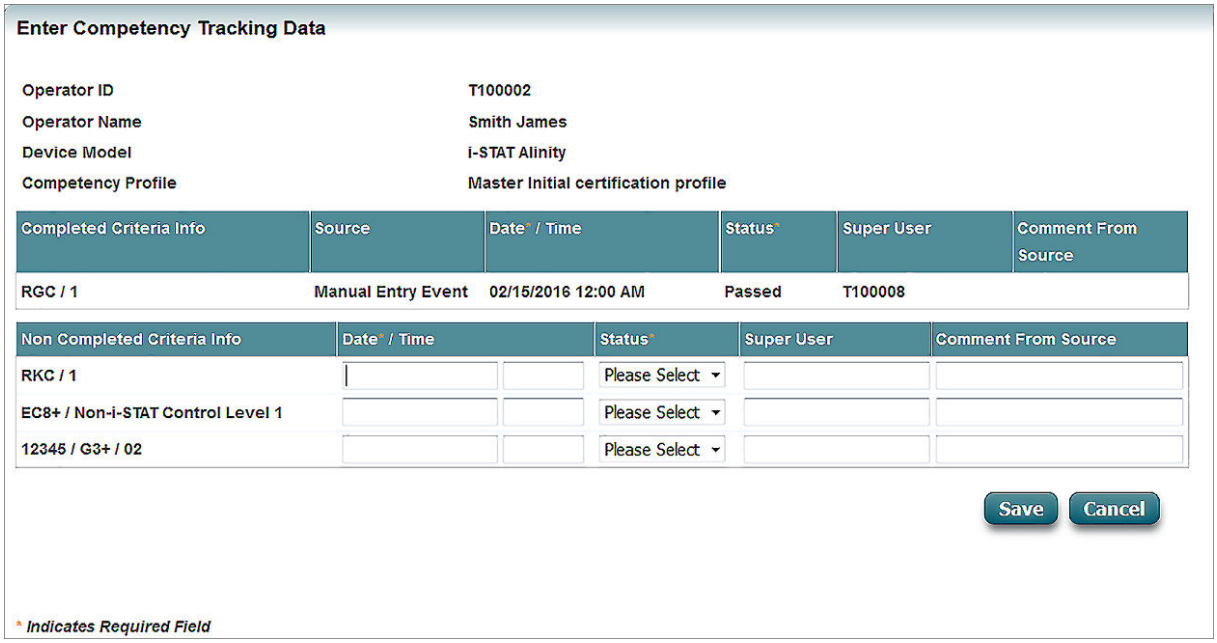
Competency data can be entered for an individual operator using the **Enter Competency Tracking Data** action on the **Competency Tracking** secondary tab.

To add competency data for an individual operator, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Tracker** secondary tab.
3. Select the operator that requires the competency data.
4. In the toolbar, click  .

The **Enter Competency Tracking Data** dialog box opens.

Figure 11–29: Enter Competency Tracking Data dialog box



5. From the pop-up calendar widget, in the **Date* / Time** column, click on the first field, and select the date that the criterion was completed.

   Optionally, click on the second field and select the time that the criterion was completed.
6. In the **Status** column, select Passed or Failed from the drop-down list as appropriate.
7. Optional: In the **Super User** column, enter the identifying information for the supervisor or trainer.

   Maximum length, 30 characters.
8. Optional: In the Comments field, enter any notes or comments regarding the competency data entered.

   Maximum length, 130 characters.
9. Click Save.

Enter competency tracking data for a group of operators

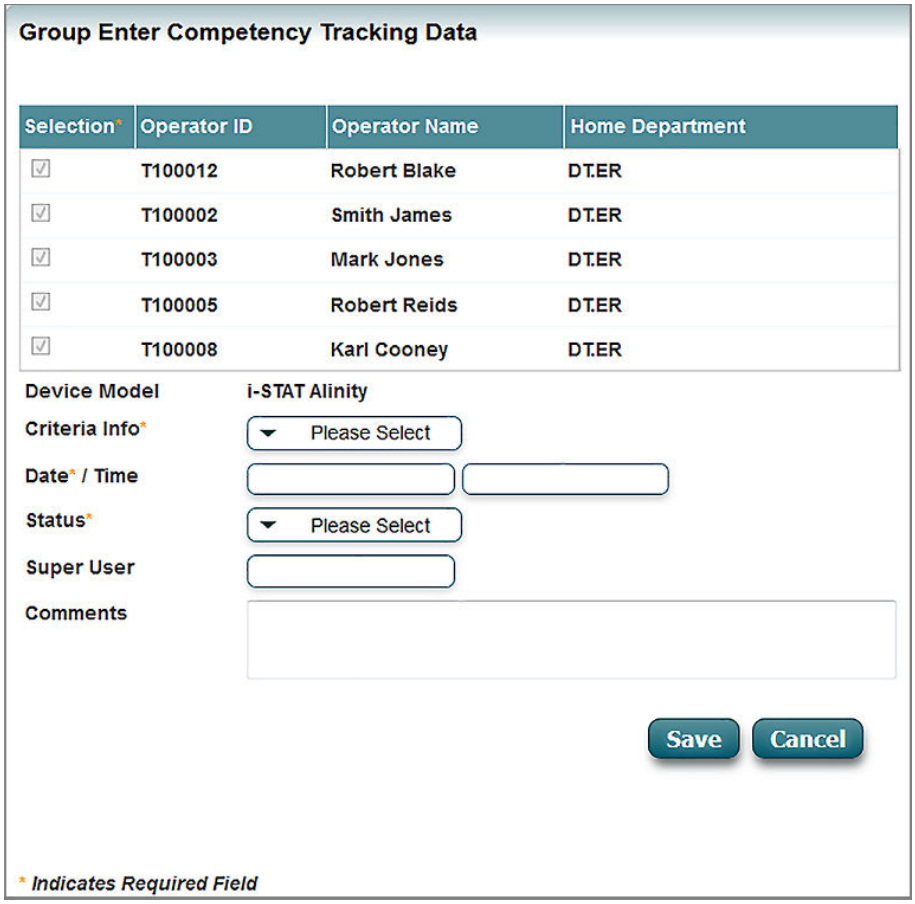
Competency data can be entered for a group of operators using the **Group Enter Competency Tracking Data** action on the **Competency Tracking** secondary tab.

To add competency data, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Tracker** secondary tab.
3. Select the operators that require competency data.
4. In the toolbar, click 

The **Group Enter Competency Tracking Data** dialog box opens.

Figure 11–30: Group Enter Competency Tracking Data dialog box



5. In the **Criteria Info** drop-down list, select the criterion to record for the operator status.
   The **Date* / Time** fields display widgets for the date and time when they are clicked on.
6. On the calendar widget, click the first **Date* / Time** field and select the date of completion for that criterion.

   Optionally, click on the second field and select the time that the criterion was completed.
7. In the **Status** drop-down list, select Passed or Failed as appropriate.
8. Optional: In the **Super User** field, enter the identifying information for the supervisor or trainer. Maximum length, 30 characters.
9. Optional: In the **Comments** field, enter any notes or comments regarding the competency data entered. Maximum length, 130 characters.
10. Click Save.

11.8 Manage operator certification with OCM

You can manage operators' certifications for i-STAT Alinity on the **Competency Tracker** secondary tab. It can also be done separately, see *Manage operator certification*.

The following sections describe how to grant and manage each operator's certification for i-STAT Alinity using the OCM feature.

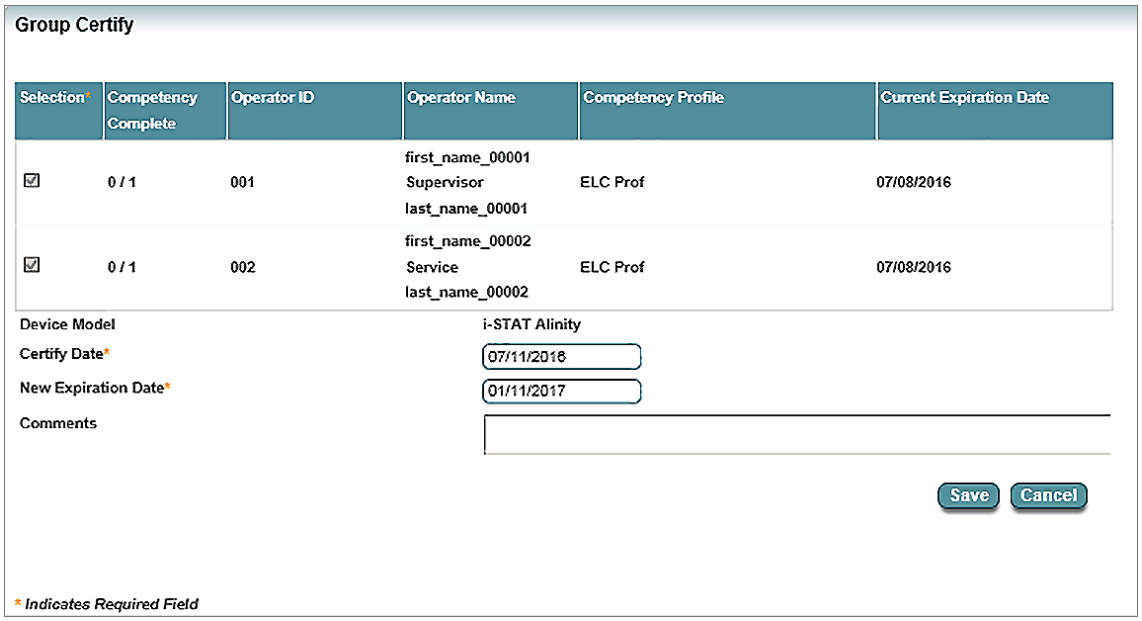
Certify or recertify one or more operators for i-STAT Alinity using OCM

Operators can be certified or recertified individually or in a group at any competency status. For group certifications, all of the operators must be following the same certification profile.

To certify or recertify one or more operators for i-STAT Alinity using OCM, complete the following steps:

1. Click the **Operators** primary tab.
2. Click the **Competency Tracker** secondary tab.
3. Select one or more operators to certify for i-STAT Alinity.
4. In the toolbar, click  .
   The **Group Certify** dialog opens.

   Figure 11–31: OCM Group Certify dialog box



5. If needed, adjust the **Certify Date** and **New Expiration Date** fields.
6. Optional: Enter comments regarding the certification.
   Maximum length, 130 characters.
7. Click Save.
   The following actions are completed:
   - If this is the initial certification for operators, their certification is generated with the Certify Date and New Expiration Date entered in the **Group Certify** dialog box.
   - If this is a recertification for operators, their certification is updated with the Certify Date and New Expiration Date entered in the **Group Certify** dialog box.
   - An entry is added to the audit trail for the certification action.

11.9 Manage operator certification

Operator certifications can be managed for i-STAT Alinity devices using the Operator Competency Management (OCM) feature if it is enabled. Certifications can also be managed without OCM for both i-STAT 1 and i-STAT Alinity device certifications.

Operators can be certified individually or in groups. To grant and manage operators' certifications for i-STAT 1 and i-STAT Alinity devices outside of OCM, refer to the following topics:

- *Certify an individual operator*
- *Certify a group of operators*
- *Recertify a group of operators*
- *Lock or unlock a device model for an operator*
- *Change the notification time for expiring certifications*

Certify an individual operator

When an operator successfully completes all required competencies for a device model, an authorized user can certify the operator on the device model.

Follow these steps to certify an operator:

1. Click the **Operators** tab to display the **Operators** screen.
2. Locate and select the appropriate operator.
3. Click  .
   The **Group Certify** dialog box displays the certification information for the selected operator.
4. By default, **Certify Date** (when the certification becomes effective) is set to today and **Expiration Date** field is preset to expire the certification 6 months from today. If necessary, click the **Expiration Date** box and use the calendar widget to select a different expiration date.
5. In the **Comment** field, enter a comment related to this certification action.
6. In the lower portion of the dialog box, check the device models for which to certify the operator.
7. Click **Save**.
8. Click **OK** in the confirmation box.
   Info HQ certifies the operator for the selected device models.

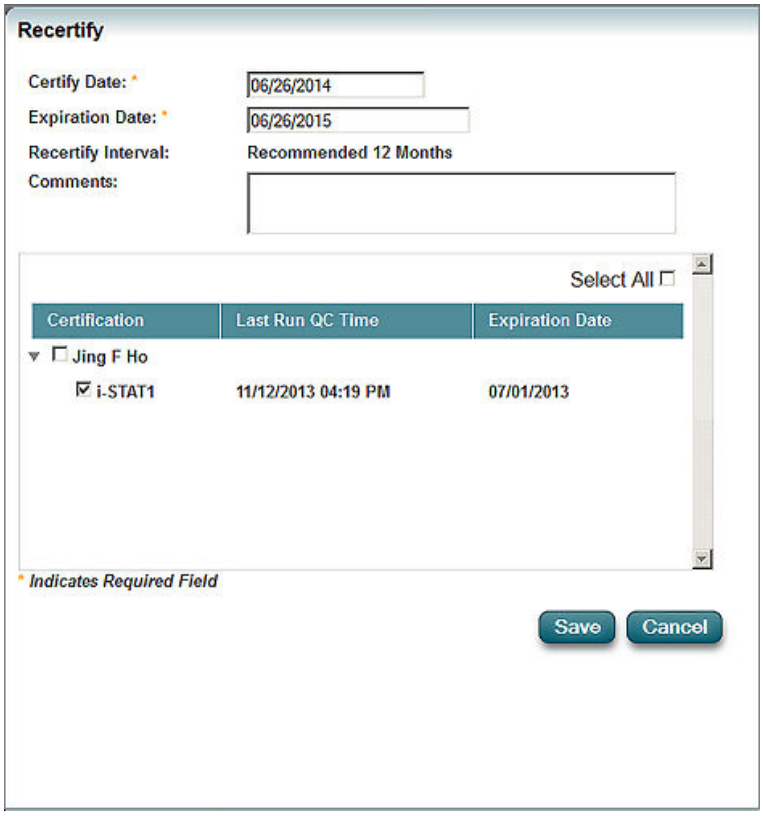
Recertify an individual operator

Follow these steps to recertify an operator:

1. Click the **Operators** tab.
   The **Operators** secondary tab is displayed by default.
2. From the list of operators, select the operator whose certification is to be recertified.
   In the Details area, the **Certificate** tab is displayed automatically.
3. On the **Certificate** tab, select the device or devices for which the operator is to be recertified.

4. Click Recertify.

Figure 11–32: Recertify dialog box



5. By default, **Certify Date** (when the recertification becomes effective) is set to today and **Expiration Date** field is preset to expire the certification 12 months from today. If necessary, click the **Expiration Date** box and use the calendar widget to select a different expiration date.
6. In the **Comment** field, enter a comment related to this recertification action.
7. In the lower portion of the dialog box, check the device models on which to recertify the operator. Checking an operator's name will automatically check all device models.
8. Click **Save**.
9. Click **OK** in the confirmation box.
   Info HQ recertifies the operator for the selected device models.

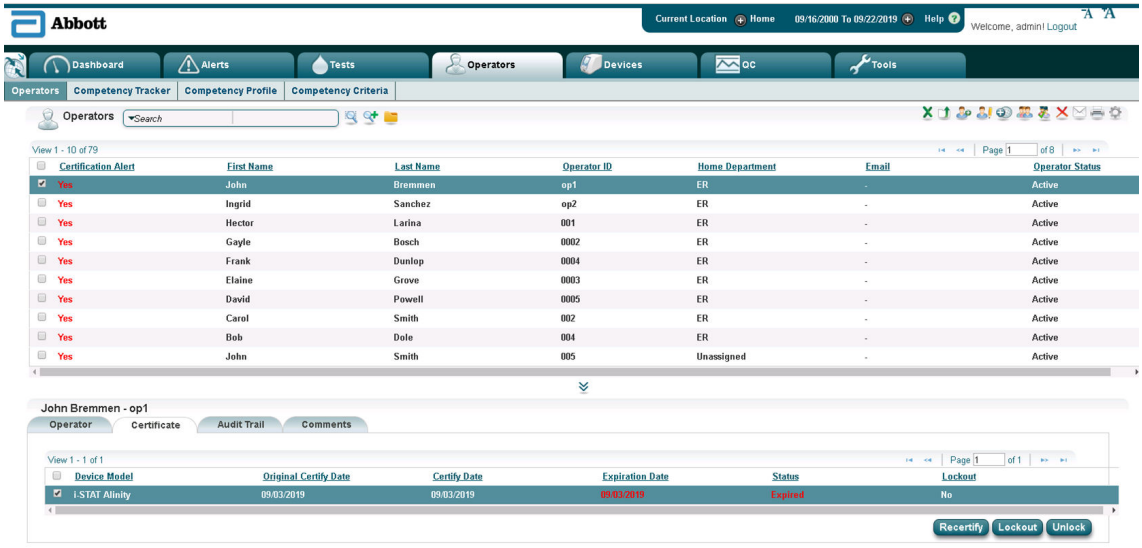
Certify a group of operators

To certify an individual operator, refer to *Certify an individual operator*. To certify a group of operators, follow these steps:

1. Click the **Operators** tab.

The **Operators** screen opens, as shown.

Figure 11–33: Operators screen

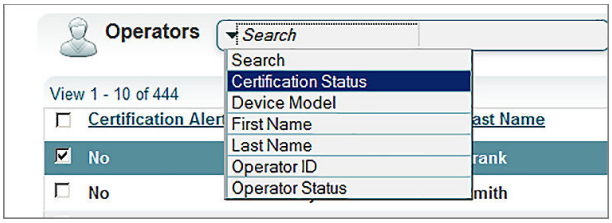


The **List** pane lists all operators registered in Info HQ. The Certificate tab in the Details pane displays the operator's current certification status for each device.

2. Filter the operator list as follows (see *Filter results using drop-down lists* for detailed information on filtering):

   a) Click the filter drop-down and select **Certification Status**, as shown.

   Figure 11–34: Operators screen: Searching on Certification Status



   b) Click the filter drop-down to the right of **Certification Status** and select **Never**.
   The **Operator** screen refreshes and displays all operators who have never been certified.

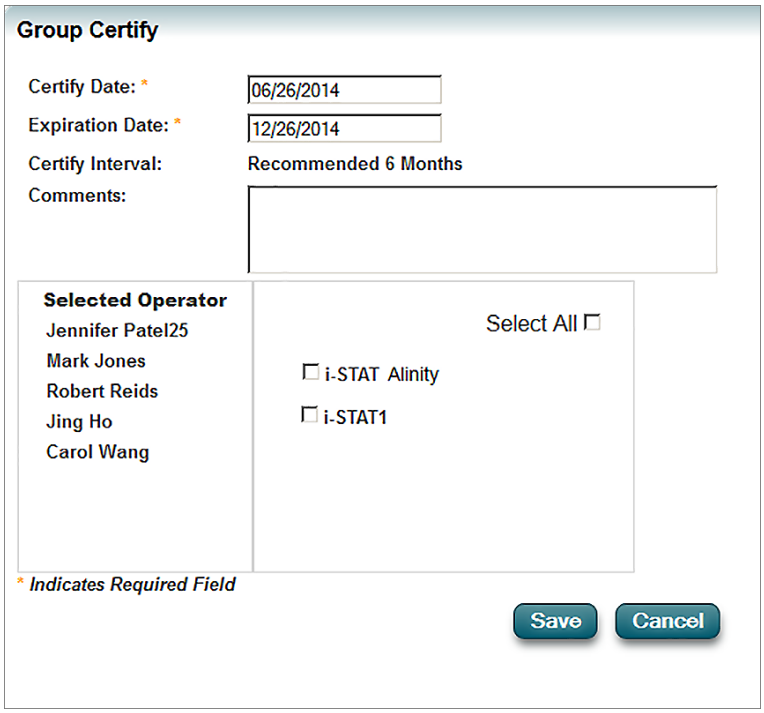
3. In the **Operators** list, select one or more operators by clicking the boxes in the left-hand column, or use the select all box (at the top of the column) to select all operators in the current view.

   Note: If group certification is being done as a result of a training session, use the training completion records (likely in paper form) to identify which operators to select.

4. Click .

The **Group Certify** dialog box opens. The selected operators are listed in the bottom-left of the box and the devices available and registered with Info HQ are listed in the bottom-right.

Figure 11–35: Group Certify dialog box



5. By default, the **Expiration Date** field is preset to expire the certification in 6 months. If necessary, click the date and use the calendar widget to select a different expiration date.
6. In the **Comment** field, enter a comment related to this certification action.
7. In the list of devices, check the devices for which to certify the operators.
   Click the **Select All** box to select or deselect all devices at the same time.
8. Click **Save**.
9. Click **OK** in the confirmation box.
   Info HQ certifies the selected operators for the selected devices, updates their certification status to Certified, and removes them from the currently filtered list of operators.
10. Filter the **Operators** tab for a **Certification Status** of **Certified** to see the newly certified operators.

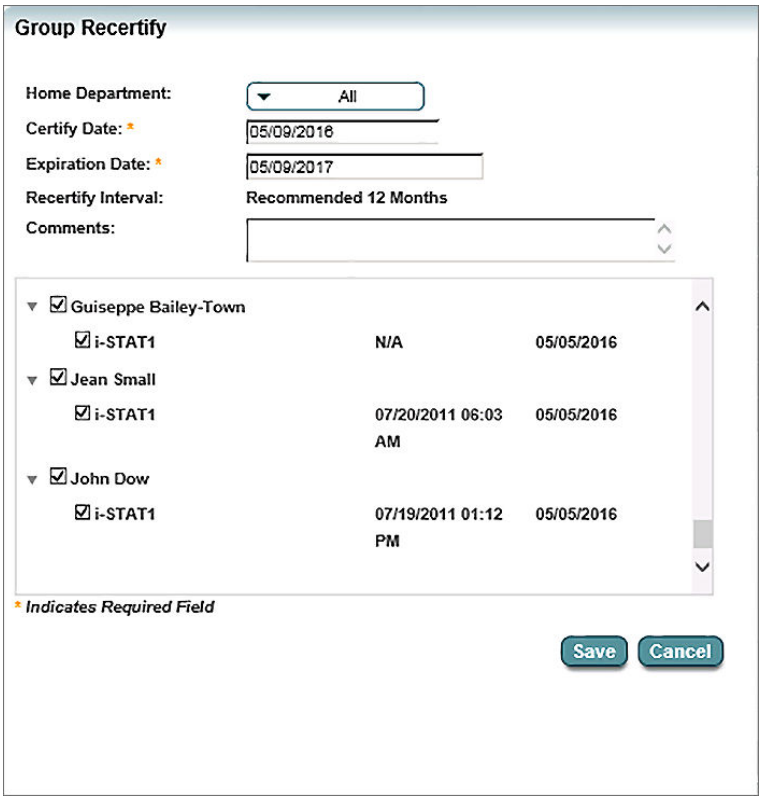
Recertify a group of operators

Follow these steps to recertify a group of operators on one or more devices:

1. Click the **Operators** tab.
   The **Operators** screen opens. The List pane lists all operators registered in Info HQ, and the Certificate tab in the Details pane displays current certification status for each device.
2. Click  .

The **Group Recertify** dialog box opens, as shown. The lower portion of the dialog box lists all operators from all locations.

Figure 11–36: Group Recertify dialog box



3. To filter and narrow the list of operators to a specific location, use the **Home Department** drop-down list.
4. By default, the **Expiration Date** field is preset to expire the certification in 12 months from today. If necessary, enter a different expiration date.
5. In the **Comment** field, enter a comment related to this recertification action.

   Comments are optional.
6. In the lower portion of the dialog box, click the arrow to the left of the operator to expand the operator and allow selection of a specific device model.

   Then check the device models for which the operator is to be recertified. Checking an operator automatically checks all device models for the operator.
7. When finished checking the device models for all the operators being recertified, click **Save**.
   Info HQ recertifies the selected operators.
8. Click **OK** in the confirmation box.

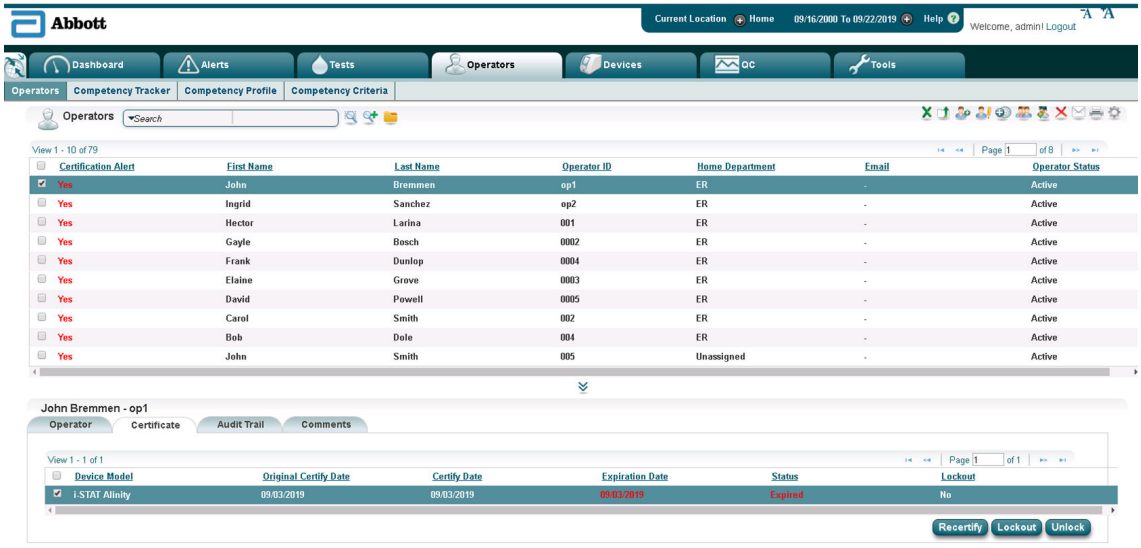
Lock or unlock a device model for an operator

In Info HQ, an authorized user can place a lock on a certification for an operator to prevent him or her from running patient tests on a particular device model. In addition, authorized users can also unlock a device model for an operator.

To lock or unlock a device model for an operator:

1. Click the **Operators** tab, and select the operator.

Figure 11–37: Certificate tab



2. In the Details pane, click the **Certificate** tab.

3. Ensure that the device model is selected, then click 

to lock the device model or 

to unlock it.

Change the notification time for expiring certifications

Info HQ can be configured to automatically send a daily email notification to an operator and the operator's manager when the certification on a device model is nearing expiration or has expired.

The *Certification Email Notification* configuration setting determines whether Info HQ will send email to notify the operator and manager that a certification has expired or is about to expire. The default value is **No**. If the *Certification Email Notification* setting is **Yes**, then the notifications are sent based on the *Certification Expiring Notification* setting.

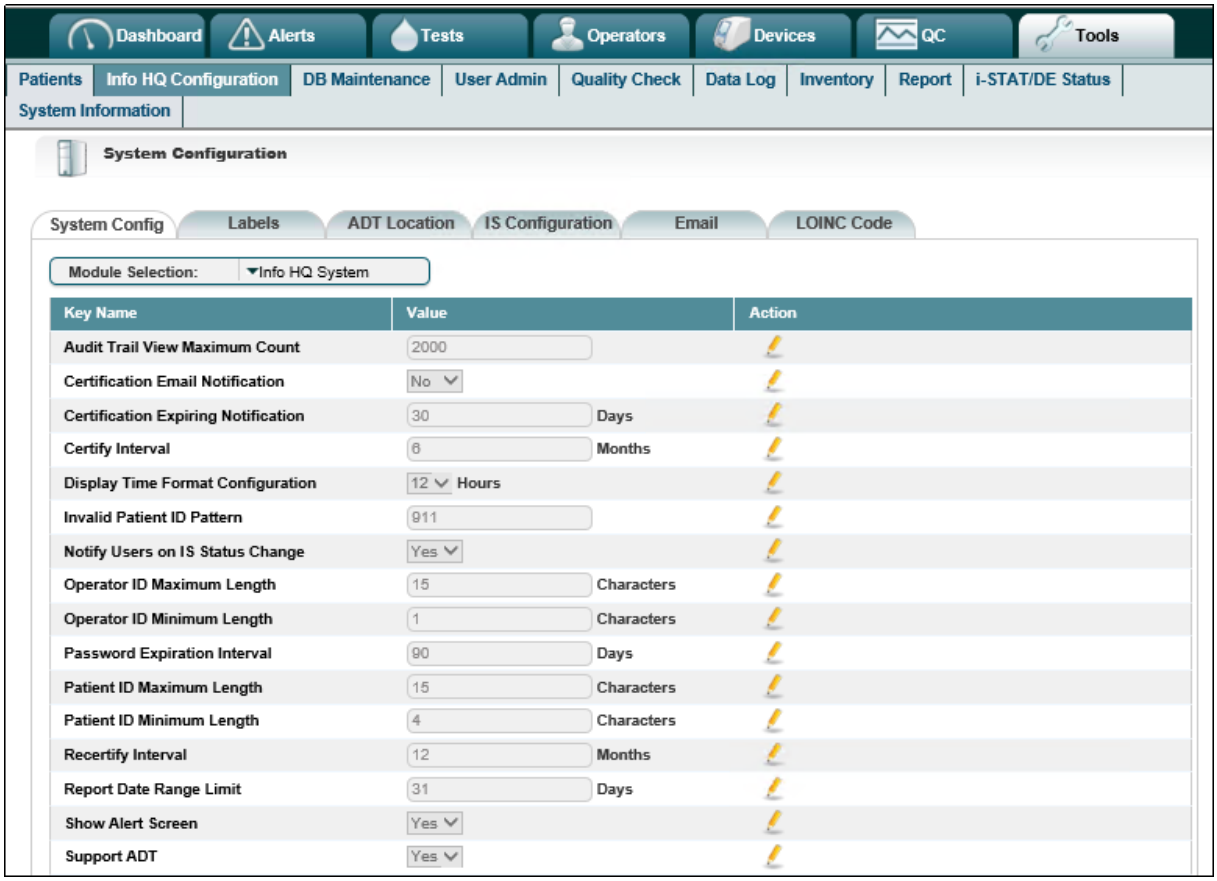
The *Certification Expiring Notification* configuration setting specifies when an operator certification is due to expire. If the *Certification Email Notification* setting is **Yes**, then the *Certification Expiring Notification* also specifies the number of days in advance of the expiration that an alert will be generated and an email notification sent to the operator and manager.

Perform these steps to change the number of days in advance to receive email notification and alerts for expiring certifications:

1. Click the **Tools** tab.

The **Info HQ Configuration** screen opens.

Figure 11–38: Info HQ configuration screen



2. If **Certification Email Notification** is set to No, click , and change the value to Yes.
3. Locate **Certification Expiring Notification** under the **Key Name** column, then click .
   The **Value** field becomes active.
4. In the **Value** field, enter the number of days for advance notification of a certificate that will expire.
5. Click .

11.10 Generate an operator report

Reports—based on search filters, the current date range, and the selected location, if applicable—can be generated from the main screens within Info HQ.

Info HQ can generate the basic Operator List Report, which provides information about all operators in the system.

To generate a report, follow the steps in *Generate a report*. For advanced reporting features, refer to *Reports*.

11.11 Email operator information

Info HQ can send pre-scripted email messages to the administrator account and to selected operators and their managers. The message contains basic information about the operator, including the operator's certification data.

Before emails can be sent, this functionality must be enabled and configured within the Info HQ configuration. See *System configuration settings* for instructions on using the email configuration settings.

Click the **Operators** tab, then refer to *Email data*, for steps on how to send an email message.

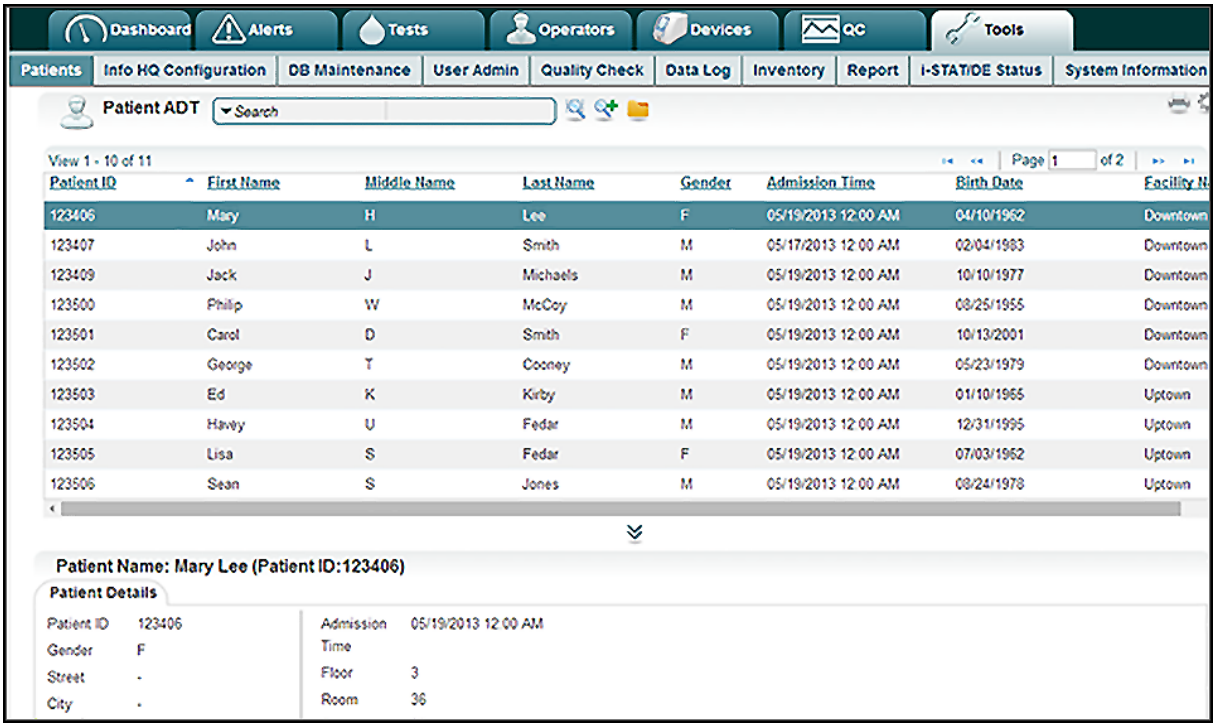
12 - Patient management

Info HQ can be configured to receive patient Admission, Discharge, & Transfer (ADT) data from an HIS or EMR system. This section describes how to view and manage patient information when Info HQ is configured to receive ADT data.

12.1 View patient information

Info HQ receives patient ADT data from an HIS system. To review the ADT information for patients, click the **Tools** tab and then the **Patients** secondary tab.

Figure 12–1: Patients ADT screen



The List pane lists basic information about patients, including the patient ID and the admission date and time. If necessary, use the Search drop-down list to filter the list.

The Details pane has a **Patient Details** tab that provides detailed information about the patient who is selected in the List pane.

12.2 Generate a patient report

Reports—based on search filters, the current date range, and the selected location, if applicable—can be generated from the main screens within Info HQ.

If configured to receive ADT data, Info HQ can generate the basic Patient List report, which lists all patient records received from an HIS or EMR system.

To generate a report, follow the steps in *Generate a report*. For advanced reporting features, refer to *Reports*.

13 - Device management

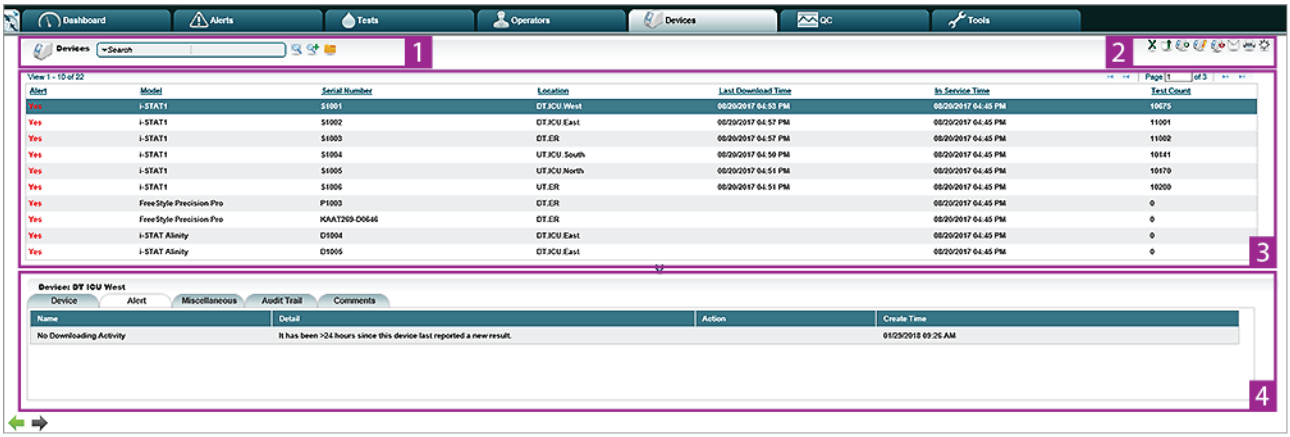
Info HQ can manage data received by hundreds of point-of-care testing (POCT) devices in the healthcare organization. In addition, Info HQ can be configured to notify the POCC if the device has not sent patient testing data to Info HQ within a specified length of time. See *System configuration settings* for information on how to configure Info HQ.

This section describes how to manage POCT devices registered in the Info HQ system, and how to view the connection status of all information system devices.

13.1 View a summary of POCT devices

Click the **Devices** tab to review a list of all POCT devices registered and monitored in Info HQ.

Figure 13–1: Devices screen



The List pane of the **Devices** screen displays the following information for each device:

Table 13–1: Devices screen areas

Item	Description
1	**Search**. See *Filter the results* and *Filter results using search strings* for more information.
2	Icons that perform tasks related to devices. Roll the mouse over an icon for a description.
3	**Device list**. To narrow the display, select filtering criteria from the Search drop-down list.

Item	Description
4	**Details pane**: The Details pane contains the following tabs that provide additional information for the device that is selected in the List pane: • **Device**: Detailed information about the device, such as the model, serial number, IP address, and location within the healthcare organization. • **Alerts**: Any alerts associated with the device. • **Alert History**: Details about past alerts for the device. For i-STAT Alinity devices only. • **Miscellaneous**: Additional information about the device, for example whether it is marked for repair. • **Audit Trail**: All audit trail records for the device. See *View the audit trail*. • **Comments**: Comments added by users. See *Add comments*.

Sort the results

Use the column headings to sort the list of devices. For more information about how to sort, see *Sort the results*.

Search for a device

The list of devices in the **Devices** screen might span multiple pages, depending on how many devices are registered with Info HQ. If a device is not listed on the first page, search the list based on:

Device model	Model of the device.
Device name	Name assigned to the device.
Device serial number	Serial number of the device.
Last download location	Last location from which results were received. This is useful to help find a device that has been misplaced.

To search for a device, refer to *Filter the results* and *Filter results using search strings*.

13.2 View details about a specific device

Follow these steps to view details about a specific device:

1. Click the **Devices** tab to display the **Devices** screen.
2. Select the desired device in the List pane.
3. Click through each of the tabs in the lower Details pane to display information about the device.

13.3 Add an individual device

Complete this task to add an individual device to Info HQ. For information about uploading a group of devices, see *Add a group of devices*.

Obtain the following information from the person or team responsible for configuring the device:

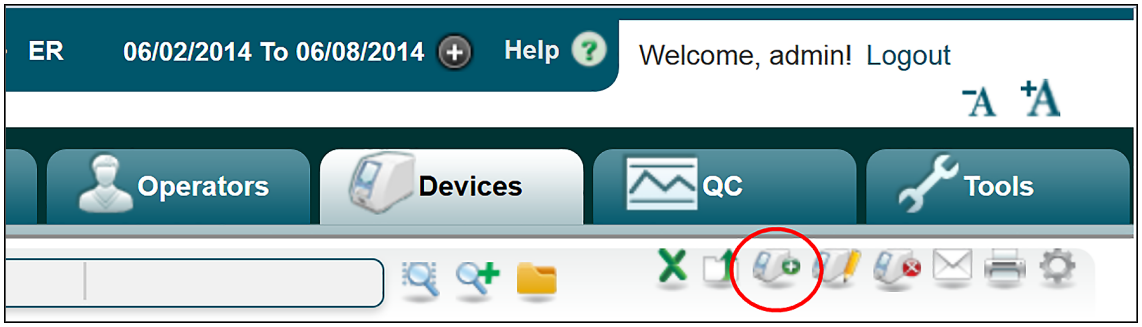
- Device model name, for example i-STAT 1
- Serial number of the device to distinguish it from other devices of the same type
- For an i-STAT 1 downloader device, obtain the static IP address of the downloader
- The location (department or area) within the healthcare system where the device resides. For example, DT.ER is the ER department in the Downtown Hospital.

Important: For i-STAT 1, i-STAT 1 Wireless, or i-STAT 1 downloader devices only, ensure that i-STAT/DE has been configured to communicate with Info HQ.

Follow these steps to add a device to the Info HQ system:

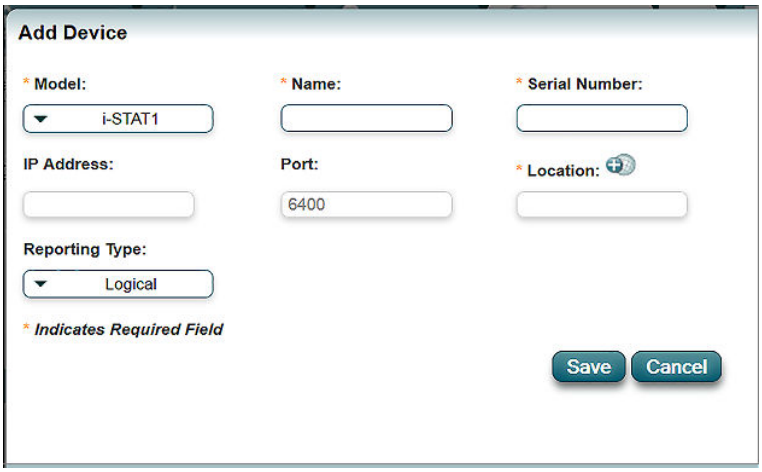
1. Click the **Devices** tab.
2. Click  , near the top-right of the screen.

Figure 13–2: Location of the Add Device icon



The **Add Device** dialog box opens.

Figure 13–3: Add Device dialog box



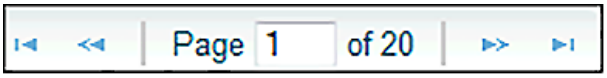
3. Complete the dialog box as follows:
   - Complete the **Model**, **Name**, **Serial Number**, and **Location** fields.
   - In the **Model** drop-down list, select the model of the device to be added, for example, i-STAT 1.
   - In the **Name** field, enter a name to associate with the device. Device names cannot include the ampersand (&) or tilde (~) characters.

- The **IP Address** field is used only when adding an i-STAT 1 downloader device. Enter the static IP address of the downloader.
- In the **Location** field, click , and select a location (department or area) for the device.
- It is not necessary to complete the **Port** field, which is read-only.
- The **Reporting Type** field specifies how an i-STAT 1 handheld device will report test results and the location from which it will receive customizations.
  - The **Reporting Type** drop-down list is available only for i-STAT 1 devices.
  - When **Logical** (the default) is selected, the handheld device will always report results and receive customizations at the location where it exists in the Info HQ hierarchy. The Logical option must be used with i-STAT 1 Wireless handhelds.
  - When **Physical** is selected, the handheld device will report test results and receive customizations based on the location of the downloader device from which it transmits data. This means that the **Physical** setting can be used to support a handheld device that roams from one department to another. This setting can be used with i-STAT handheld devices that transmit data through a downloader, not for devices that transmit data based on a wireless configuration.

4. Click **Save**.

The new device is added. Use the page widget near the upper-right of the screen to scroll through the pages to locate the new device.

Figure 13–4: Widget for selecting pages



Note:

- i-STAT 1 downloaders are not displayed in the list of devices by default. To view the downloader, use the **Search** filter and the **Device Model** option to display a list of all i-STAT 1 downloaders.
- Connectivity between Info HQ and an i-STAT device differs depending on the device model. For i-STAT 1, communication occurs through the i-STAT/DE system, while i-STAT Alinity and Info HQ communicate directly with one another through the POCT1-A2 communication protocol. For detailed information about connectivity between Info HQ and i-STAT devices, see *Connectivity with point-of-care testing devices*.

13.4 Add a group of devices

When multiple devices are to be added to the Info HQ system, use the upload function to add them all at the same time.

Info HQ includes a devices template, in spreadsheet format (.csv), for automating the addition of multiple devices to the system. The first few steps of this procedure provide instructions on how to download and prepare the template. Here is an example of the template populated with sample device data.

Figure 13–5: Example device template

DeviceModel_Name	Name	SerialID	IPAddress	Location_Name
i-STAT1	i-STAT1(317028)	317028		DT.ER
i-STAT Downloader	Auto Assigned 1		10.10.90.47	DT.PED
i-STAT Alinity	i-STATAlinity(316531)	316531		DT.CARD

Note: This procedure uses the device map described in *Create a device map*

1. Download the template:
   a) Click the **Devices** tab.
   b) Click to export the device template file.
   c) From the drop-down list, select a template file, for example DeviceExcelTemplate.
   d) Click **Generate**.
   e) In the **Open** dialog box, select **Save File** and click **OK**.
   Save the template file as a .csv (Comma Delimited) file.
2. Prepare the template:
   a) Locate and open the template file in Microsoft Excel
   b) In the template, locate the first blank row below the column headings.
   c) Using the example device template as a guide, enter the data for each device to be added. Note the following when entering the information:
      - Each device must be on a separate row.
      - Data in the template file cannot include commas.
      - Device names cannot include the ampersand (&) or tilde (~) characters.
      - The device serial number must not exceed 16 characters.
      - Device names and IP addresses must not exceed 20 characters each.

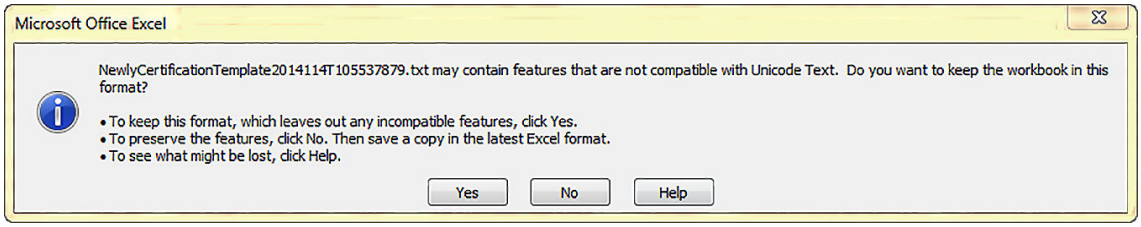
- The name entered for the Device Model must match the name assigned to it in the device map.
- The Device Name is a descriptive name to be associated with the device, such as *ICU i-STAT*.
- The serial number of the device must be entered to distinguish it from other devices of the same type. The serial number must not exceed 16 characters.
- For an i-STAT 1 downloader device, enter the static IP address of the downloader under the IP Address column. For other devices, this column can be left blank.
- The Location Name is the primary department or area within a department where the device resides. The name must match the name assigned to it in the location hierarchy map and it must not exceed 20 characters.

Note: To retain the comma delimiters in a .csv file after editing the file, use **Save As** and select file type .csv (Comma delimited).

d) Save the template file.

If a compatability dialog box displays, click **Yes**.

Figure 13–6: Microsoft Excel compatibility dialog



3. Upload the completed template file to Info HQ, which uses the data in the file to add the specified devices.

Note: Adding a new device with a serial number that matches a deleted device will activate the deleted device and update it with the information for the new device, such as device name, model, and location.

a) In the Info HQ **Devices** screen, click to display the **Upload** dialog box.

b) Click **Browse**, navigate to the folder containing the device template file, then click **Open** in the dialog box.

c) Click **Submit**.

Depending on how many devices are added, there might be a delay as the devices are added. A completion message inside the **Upload** dialog box indicates the number of devices that were successfully added.

d) Close the **Upload** dialog box.

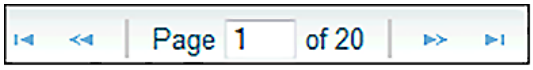
4. Verify the results:

a) To refresh the **Devices** screen, click the **Devices** tab.

b) View the list of devices.

To locate the new device, use the page widget near the upper-right of the screen to scroll through the pages.

Figure 13–7: Widget for selecting pages



Note:

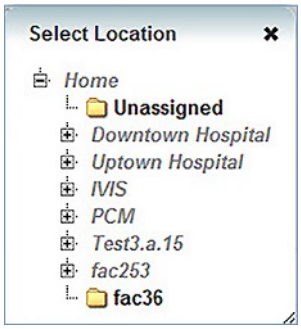
- i-STAT 1 downloaders are not displayed in the list of devices. To view the downloaders, use the **Search** filter and the **Device Model** option to display a list of all i-STAT 1 downloaders.
- Connectivity between Info HQ and an i-STAT device differs depending on the device model. For i-STAT 1, communication occurs through the i-STAT/DE system, while i-STAT Alinity and Info HQ communicate directly with one another through the POCT1-A2 communication protocol. For detailed information about connectivity between Info HQ and i-STAT devices, see *Connectivity with point-of-care testing devices*.

13.5 Change a device location

A device might be moved from one location to another within an organization, facility, or department.

1. Click the **Devices** tab.
2. In the List pane, select the device to change. Note that the device might not be listed on the first page of listed devices.
3. In the Details pane, click the **Device** tab.
4. Click to display the **Select Location** pop-up.

   Figure 13–8: Select Location pop-up



5. Click the plus icon to expand the location hierarchy until the desired location is listed, then click the location to select it.

The **Devices** screen refreshes and updates the device information with the new location.

13.6 Mark a device for repair

When a device is in maintenance for repair, it should be marked as such in Info HQ. When a device is marked for repair, Info HQ suspends monitoring of the device and does not report alerts for the device, for example an alert that the device is disconnected or that it has not downloaded results.

Follow these steps to mark a device for repair:

1. Click the **Devices** tab.
2. In the List pane, select a device.

3. In the Details pane, click the **Miscellaneous** tab.
4. Check the **Mark for Repair** box.
5. Click **OK** in the confirmation box.

The device is marked for repair. No alerts will be generated for the device until the **Mark for Repair** box is unchecked.

Note: To view devices marked for repair, click **In Repair** on the Dashboard screen.

13.7 Delete a device

Devices can be deleted from Info HQ. An alternative to deleting a device, when the device has test results, is to mark the device for repair. Refer to *Mark a device for repair* for more information.

Perform the following steps to delete a device from the Info HQ system:

1. Click the **Devices** tab.
2. In the List pane, select a device.
3. Click  .
4. Click **OK**.

13.8 Device alerts

Info HQ generates an alert whenever an issue is reported for a device that Info HQ monitors. For example, an alert can indicate that the device is disconnected or locked out (operators cannot use the device to conduct patient tests).

A device can have multiple device alerts.

Alerts generated for devices can be viewed on the **Device Alerts** screen.

Figure 13–9: Devices alerts screen

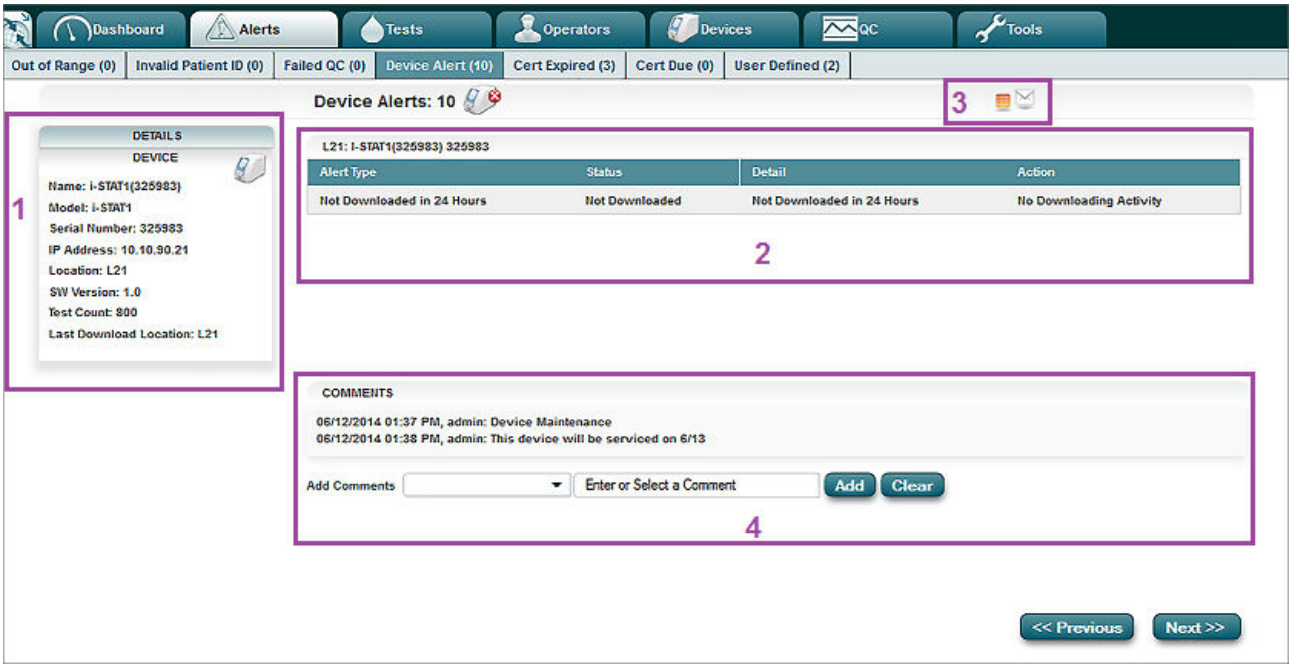


Table 13–2: Devices screen

Item	Description
1	Details about the device that caused the alert.
2	Alert detail information for the device.
3	Controls for screen tasks: •  Displays a table of devices with alerts. •  Sends device information to an individual.
4	Comments added to the device and fields for additional comments. See *Add a comment*

13.9 Generate a device report

Reports—based on search filters, the current date range, and the selected location, if applicable—can be generated from the main screens within Info HQ.

Info HQ can generate the basic Device List Report, which provides information about all devices registered in the Info HQ system.

To generate a report, follow the steps in *Generate a report*. For advanced reporting features, refer to *Reports*.

13.10 Email device information

Info HQ can send pre-scripted email to a specified individual for the selected device record.

To email device information to an individual, click the **Devices** tab. For steps on how to send an email message, refer to *Email data*.

14 - Inventory management

This section contains instructions for viewing the current reagent lot inventory, adding reagent lots, and editing information about reagent types and reagent lots.

14.1 View reagent lot inventory

The reagent lot inventory shows all of the reagent lots that Info HQ is managing. When the Reagent Lot QC feature is enabled, additional information is displayed. The Reagent Lot QC feature is enabled by default when Info HQ is installed. For more information about the Reagent Lot QC Enabled setting, see *System configuration settings*. Reagent Lot QC is a feature that provides a means of managing the quality of i-STAT Alinity reagent lots in the system, and communicating reagent lot quality statuses to the device. The Reagent Lot QC feature supports the following actions:

- Reagent lot QC criteria configuration
- Reagent lot QC status management
- Uploading reagent lot status to the i-STAT Alinity device

To view the current reagent lot inventory and QC data, complete the following steps:

1. Click the **Tools** tab.
2. Click the **Inventory** secondary tab.

This image shows the **Inventory** screen with Reagent Lot QC enabled.

Figure 14–1: Reagent Lot Inventory screen

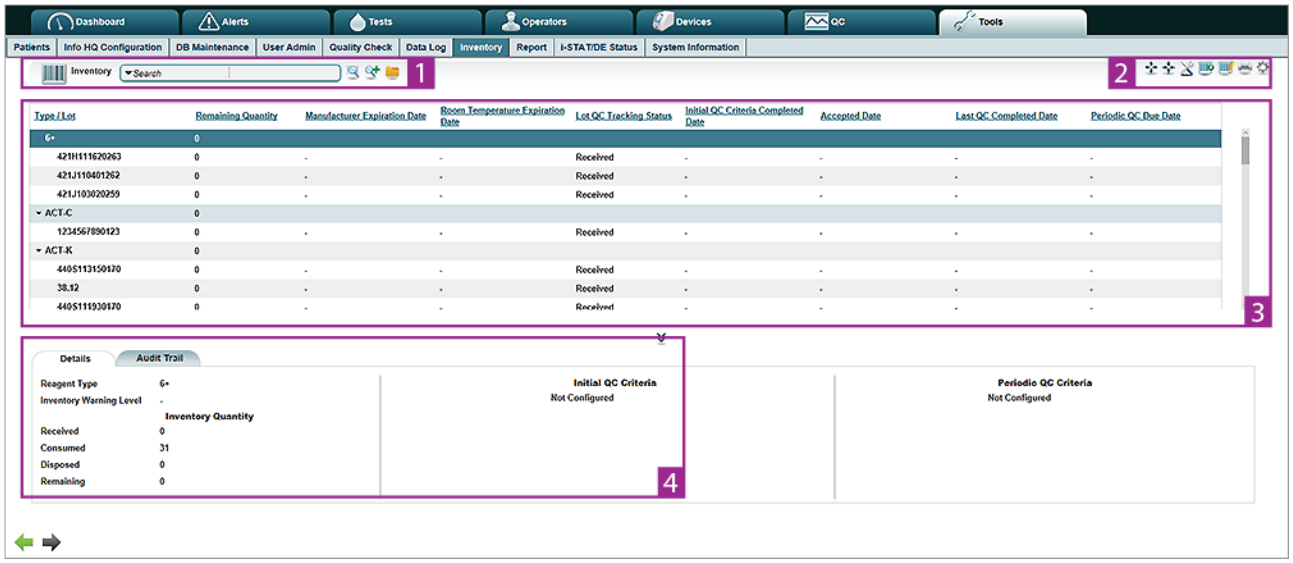


Table 14–1: Reagent Lot Inventory screen details

Item	Description
1	**Search**. See *Filter the results* and *Filter results using search strings* for more information.
2	Icons that perform tasks related to reagent lots. Roll the mouse over an icon for a description.
3	**Reagent list**. To narrow the display, select filtering criteria from the Search drop-down list.
4	**Details pane**: The Details pane contains the following tab that provides additional information for the reagent lot that is selected in the List pane: • **Audit Trail**: All changes made to the reagent type or lot, for example an update made to the QC criteria. See *View the audit trail*.

Use the vertical scroll bar to move up and down the list. Click the arrow next to the name of a reagent type to collapse or expand the list of reagents for that type.

You can customize the **Reagent Lot Inventory** screen using the **Display Settings** dialog box. See *Add and remove the display columns*.

Table 14–2: Reagent Lot Inventory screen: Columns available for the List pane

Column	Description
Type/Lot	Reagent type or lot number as scanned from the barcode on the reagent lot pouch. Expand the reagent type to see the corresponding lot numbers.
Received Quantity	Total count of reagent lots (per lot number or reagent type) that have been received.
Consumed Quantity	Total count of reagent lots (per lot number or reagent type) that have been consumed by running tests on medical devices, like i-STAT 1.
Disposed Quantity	Total count of reagents (per lot number or reagent type) that have been consumed for reasons other than running tests on medical devices (for example, expired or thrown away).
Remaining Quantity	Total count of in-stock reagent lots per lot number or reagent type. This is automatically updated by the system. Remaining quantity for reagent lots = Purchased - Consumed - Disposed – Manufacturer Expired Remaining quantity for reagent type = Purchased - Consumed - Disposed – Manufacturer Expired - Rejected
Inventory Warning Level	User-defined count per reagent type. For example, if the remaining quantity for EC8+ is smaller than its warning level, stock status is alerted with red color. Otherwise, stock status is displayed with green color.

Column	Description
Stock Status	Graphical display for the selected reagent type based on values of remaining quantity, warning level, and total quantity. For example, if the total quantity for EC8+ is 5215, its remaining quantity is 342, and its warning level is set as 100, the stock status is displayed with green color because 342>100.
Manufacturer Expiration Date	The manufacturer's expiration date. It is customizable and could be automatically updated if it is available during communication with i-STAT Alinity.
Room Temperature Expiration Date	The customized date that indicates when the reagents will expire when stored at room temperature.
Manufacturer	Manufacturer of the reagent lot.
Acceptance Status	The stage in the acceptance process the reagent lot is in. The default value is Received.
Lot QC Tracking Status	Indicates where the reagent lot is in the tracking process: received, Initial QC in Progress, QC Requirement Met, etc.
Initial Criteria Completed Date	The date that the initial reagent lot QC testing was completed and accepted.
Accepted Date	The date that the reagent lot was accepted.
Last QC Completed Date	The date that the last reagent lot QC testing was passed.
Periodic QC Due Date	The date that the reagent lot is due to be retested for performing patient tests.

The lower part of the screen displays the following information about the reagent lot that is selected in the List pane.

Figure 14–2: Reagent Lot Inventory screen: Details view

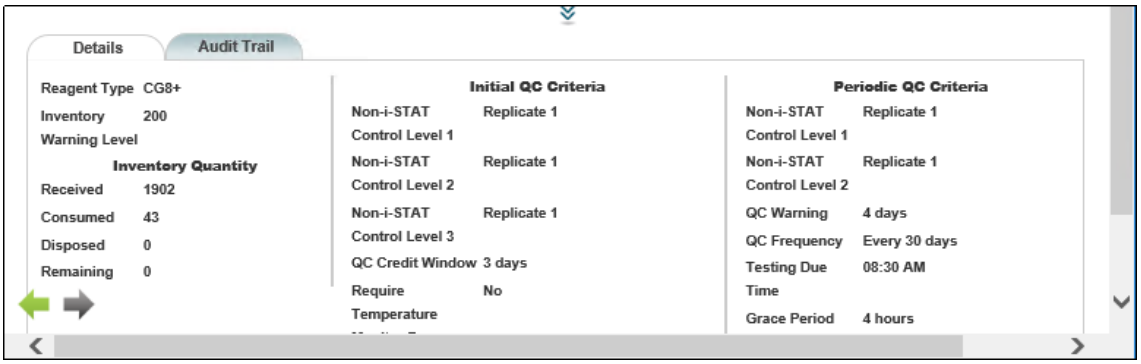


Table 14–3: Reagent Lot Inventory screen: Tabs displayed in the Details pane

Tab	Description
Details	When a reagent type is selected, displays details about the selected reagent type. When a reagent lot is selected, displays details about the selected reagent lot.
Audit Trail	Details about actions performed on the selected reagent type or reagent lot— including time and date, who performed the action, and other details.

Figure 14–3: Reagent Lot Inventory screen: Details view for i-STAT Alinity

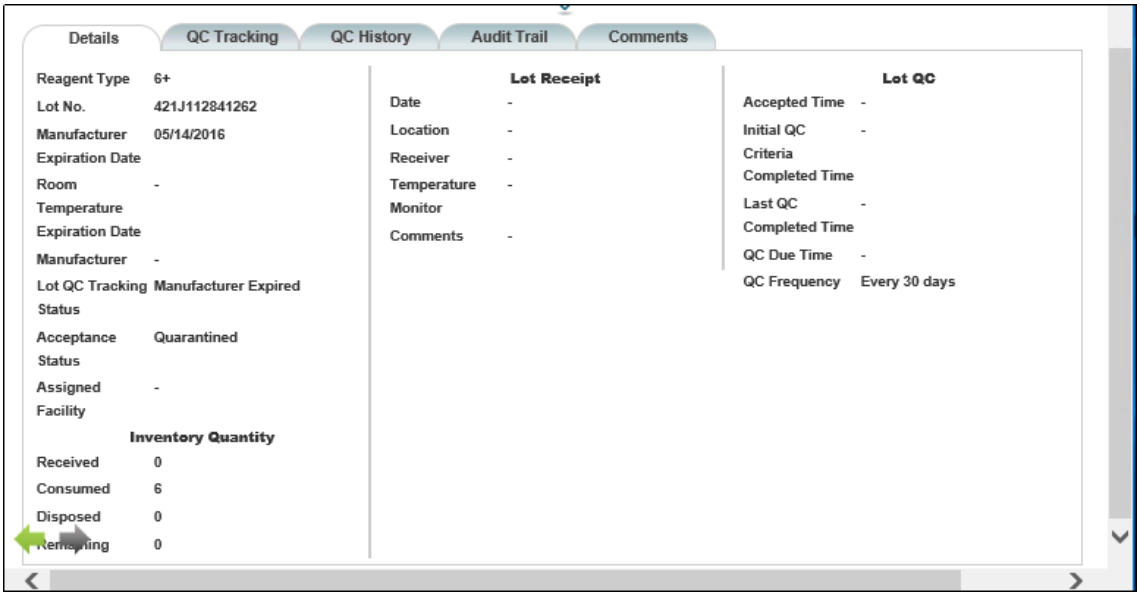


Table 14–4: Reagent Lot Inventory screen: Tabs displayed in the Details pane

Tab	Description
Details	When a reagent type is selected, displays details about the selected reagent type. When a reagent lot is selected, displays details about the selected reagent lot.
QC Tracking	Details about reagent lot current QC compliance.
QC History	Displays reagent lot QC compliance history.
Audit Trail	Details about actions performed on the selected reagent type or reagent lot— including time and date, who performed the action, and other details.
Comments	Comments regarding selected reagent lot.

14.2 Add a reagent lot to the inventory

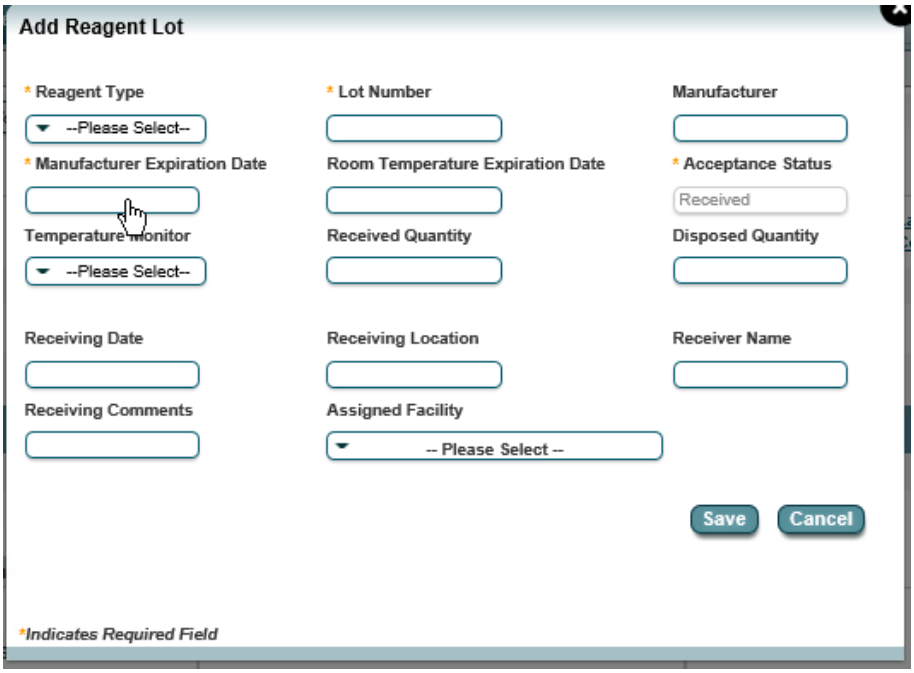
A best practice for adding reagent lots to the Info HQ system is to run a successful control test and upload it to automatically register a reagent lot. Note that the lot number printed on the reagent box or pouch is just a portion of the full lot number that Info HQ requires.

To add a reagent lot to the inventory:

1. Click the **Tools** tab.
2. Click the **Inventory** secondary tab.
3. Click  .

   The **Add Reagent Lot** dialog box opens.

   Figure 14–4: Add Reagent Lot dialog box



4. Describe the new reagent lot by completing the fields as follows.

   Note: Fields marked with an asterisk (*) are required.

   a) Select a reagent type using the drop-down list.
   b) Enter text to identify the **Lot Number**.
   c) Supply the **Manufacturer Expiration Date** and, optionally, the **Receiving Date** by clicking on each field and using the calendar widget.
   d) If your facility requires verification of the reagents' temperature upon receipt, select the appropriate value using the **Temperature Monitor** drop-down list: Pass, Fail, or Undefined.
   e) Complete other fields, as needed.
5. Click **Save**.

The **Add Reagent Lot** dialog box closes, and the new reagent lot is added to the main list in the **Inventory** screen.

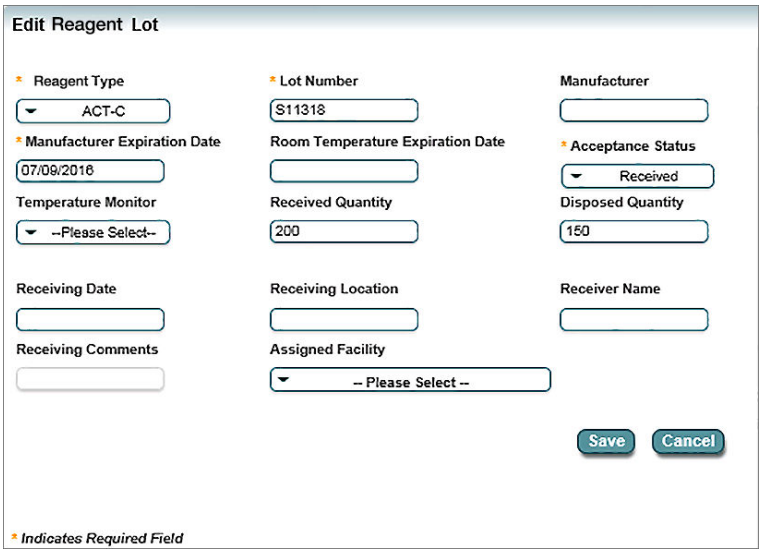
14.3 Edit a reagent lot in the inventory

To edit a reagent lot in the inventory:

1. Click the **Tools** tab.
2. Click the **Inventory** secondary tab.
3. In the List pane, select the lot to edit.
4. Click  .

   The **Edit Reagent Lot** dialog box opens.

   Figure 14–5: Edit Reagent Lot dialog box



 **Note:** Fields marked with an asterisk (*) are required.

5. Update fields as needed, then click **Save**.

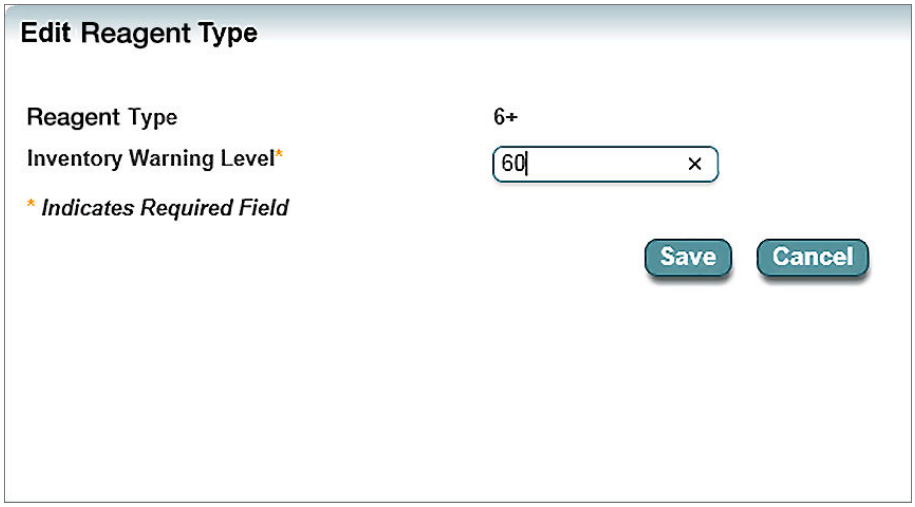
14.4 Edit the inventory warning level in inventory

To edit a reagent type in the inventory, complete the following steps:

1. Click the **Tools** primary tab.
2. Click the **Inventory** secondary tab.
3. In the **List** pane, select the reagent type to edit.
4. In the toolbar, click  .

The **Edit Reagent Type** dialog box opens.

Figure 14–6: Edit Reagent Type dialog box



5. In the **Inventory Warning Level** field, specify the minimum number of remaining reagents (0-60) that must exist in a lot before a warning is displayed in the **Stock Status** column of the List view. For example, in the previous screen shot, the Reagent Type is 6+, and the Inventory Warning Level is 60. This will cause the warning to display when a reagent lot of type 6+ has fewer than 60 remaining reagents which are not manufacturer expired or rejected.
6. Click Save.

14.5 Configure reagent lot QC criteria

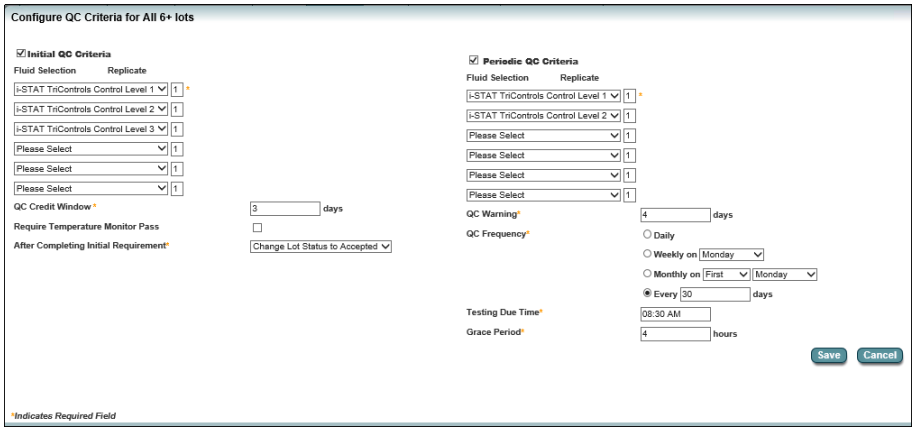
Reagent lot QC criteria are the requirements that a reagent lot must meet before it can be accepted for performing patient tests.

To configure reagent lot QC criteria, complete the following steps:

1. Click the **Tools** tab.
2. Click the **Inventory** tab.
3. In the toolbar, click .

As an example, **Configure QC Criteria for All 6+ Lots** dialog box opens.

Figure 14–7: Configure QC Criteria for All 6+ Lots dialog box



4. Click the **Initial QC Criteria** check box.
   a) Under **Fluid Selection** for the **Initial QC Criteria**, select up to six types of fluids for QC, and specify the number of times the QC test must be replicated. QC tests can be repeated 3 times maximum per fluid selection.
   b) In the **QC Credit Window** field, type the number of days within which the QC test must be credited.
   c) Optional: Click the **Require Temperature Monitor Pass** check box.
   d) In the **After Completing Initial Requirement** drop-down list, select the action to be taken after the initial QC criteria requirements are all met.
5. Optional: Click the **Periodic QC Criteria** check box, and complete the following fields.

   These fields are valid only if the Periodic QC Criteria check box is selected.
   a) Under **Fluid Selection,** select up to six types of fluids for QC, and specify the number of times the QC test must be replicated.
   b) In the **QC Warning** field, type the number of days. If it is set as 5, Periodic QC Due warning will be generated 5 days before **QC Due** date.
   c) In the **QC Frequency** field, specify how often the reagent lot should be retested.
   d) In the **Testing Due Time** field, specify the time when the testing is due.
   e) In the **Grace Period** field, specify the number of hours past the QC Due Time while the patient test can still be performed.
   f) Click Save.

      The criteria are displayed in the Details area on the **Details** tab.

14.6 Reagent lot status transfer to i-STAT Alinity

When Reagent Lot QC feature is enabled, Info HQ transfers reagent lot status information to i-STAT Alinity devices upon receiving a request from the device.

Table 14–5: Reagent lot processing directive codes

Status code	Description
USE	Reagent lot is ready for use in patient testing.

Status code	Description
QCO	Reagent lot is only for QC purposes.
QCV	Reagent lot is ready for use in patient testing, but an expiration warning could be given. This status is only given when the Periodic QC Criteria is configured.
REJ	Reject when used for patient testing.

15 - Quality control management

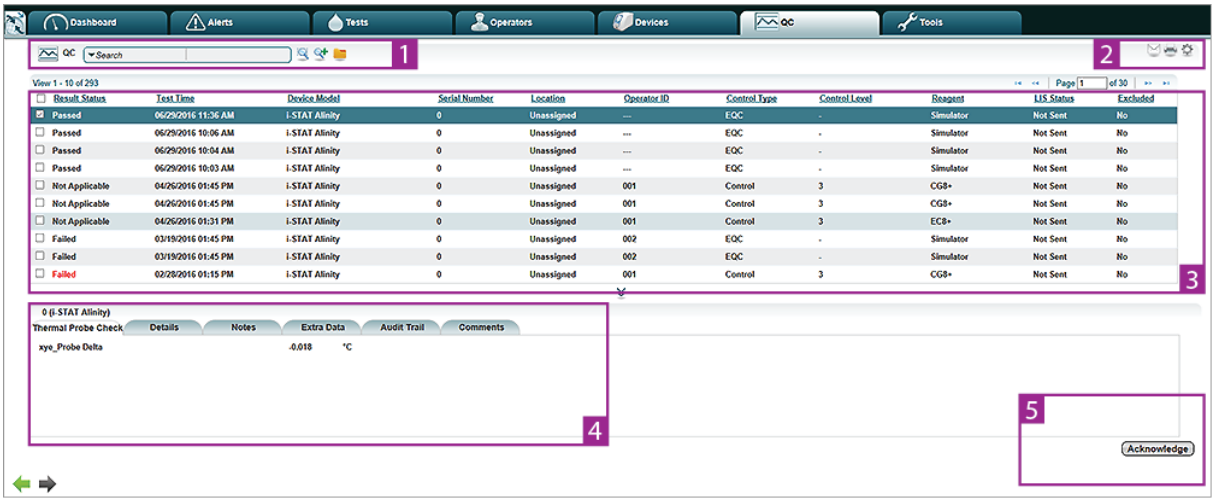
Quality Control (QC) testing ensures that a given device and any of the reagents it uses meet quality standards for reliable and accurate patient testing. When the Reagent Lot QC feature is enabled, additional information is displayed. The Reagent Lot QC feature is enabled by default when Info HQ is installed. Reagent Lot QC is a feature that provides a means of managing the quality of i-STAT Alinity reagent lots in the system, and communicating reagent lot quality statuses to the device.

The Quality Check screen displays a list of QC tests and patient tests that did not complete—either because of an error in the test or because of an issue with the device used to perform the test.

15.1 View QC tests

Click the **QC** tab to review QC tests from any device that Info HQ is monitoring. The **QC** screen opens. Each row represents a test.

Figure 15–1: QC screen overview



The **QC** screen displays the following information:

Note: Systems that use the i-STAT Alinity device have additional tabs in the **Details** pane.

Table 15–1: QC screen overview

Item	Description
1	**Search**. See *Filter results using drop-down lists* and *Filter results using search strings* for more information.
2	Click an icon to perform an associated task: •  to email the results. •  for report options. •  to change columns displayed in this screen.  **Note:** Roll the mouse over an icon for a description of tasks.
3	Results table. Each row represents a test. To narrow the display, select filtering criteria from the **Search** drop-down list.
4	Details pane containing the following tabs that provide additional information for the selected test: • **Control Results tab**: Contains detailed panel-by-panel measurements for the test record that is selected in the main list. • **Thermal Probe Check**: (i-STAT Alinity EQC test results only.) Contains the results of a thermal probe check on the reagent. • **Details tab**: Contains information about the test, such as type of test, time and date, operator information, device information, and associated alerts. • **Notes tab**: (i-STAT Alinity only.) Contains comments entered by users before, during, or after running a test, as well as critical callbacks. • **Extra Data tab**: Contains additional information about the selected QC test record, such as control and reagent lot information, environmental data (temperature and pressure), the firmware version currently installed in the device model, and for i-STAT 1, internal simulator results. i-STAT Alinity displays these results on the **Internal Simulator** tab.  **Note:** The content of the **Extra Data** tab depends on the selected QC control type. • **Internal Simulator tab**: (i-STAT Alinity only.) Contains the results from the internal simulator used with the i-STAT Alinity instrument. • **Audit Trail tab**: Contains events associated with the selected QC test record. See *View the audit trail*. • **Comments tab**: Contains comments that are added to the selected test and fields for adding new comments. See *Add comments.*
5	**Acknowledge**: Select this button to acknowledge the alert associated with a failed QC test.

View QC tests: List pane

The **List** pane of the **QC** screen displays the following information:

Note: Use the **Display Settings** window to display other columns, as necessary. See *Add and remove the display columns*.

Table 15–2: QC screen: Columns displayed in the List pane

Column	Description
Result Status	QC test Passed or Failed.
Test Time	Date and time the QC test was performed.
Device Model	Instrument type or model.
Serial Number	Unique number assigned to the device.
Location	Where the QC test was performed.
Operator Name	Name of the operator who performed the QC test.
Operator ID	ID of the operator who performed the QC test.
Control Type	Type of QC test performed: Control, Cal/Ver, or Proficiency.
Control Level	Level of control used in the QC test: **Low**, **Normal**, and **High**.
Reagent	Type of reagent used in the QC test.
Excluded	Whether the QC test result is excluded (see *Exclude QC test results*).

View QC tests: Test types

Info HQ monitors the following categories of QC tests.

Table 15–3: QC test types monitored by Info HQ

QC test type	Verifies
Control	Device and reagent are within known target values and acceptable limits.
Proficiency	Facility is proficient for running tests.
Electronic Simulator (EQC)	Device passes electronic QC tests.
Calibration Verification	Device is properly calibrated to measure results within known target values and acceptable limits.
Training	Operator is capable of performing patient tests.

View all acknowledged or unacknowledged failed QC tests

Use Info HQ to view acknowledged and unacknowledged failed QC tests.

To view a list of acknowledged or unacknowledged failed QC tests, perform these steps:

1. Click the **QC** tab.

2. In the **Search** drop-down list, select **Alert** and **Failed QC**.

Figure 15–2: Viewing failed QC test results

Note: Acknowledged QC tests are not included in the list of Failed QC alerts.

3. Click .
4. In the drop-down list to the right of **Failed QC**, select **Acknowledged**.
5. Select one of the following:
   - **Yes** to display a list of failed QC tests that have been acknowledged.

Figure 15–3: Viewing acknowledged failed QC tests

   - **No** to display a list of failed QC tests that are not acknowledged.

Figure 15–4: Viewing unacknowledged failed QC tests

Acknowledge a failed QC test

Info HQ can acknowledge failed QC tests to remove them from the Failed QC alerts list. For steps on how to acknowledge failed QC tests, see *Acknowledge a Failed QC alert*.

Exclude QC test results

The POCC might want to exclude QC test results when it is known that the test results are erroneous. For example, when running a QC test the operator mistakenly scanned a control lot barcode that was not used in the QC test. The test results do not match the expected test results for the control solution used.

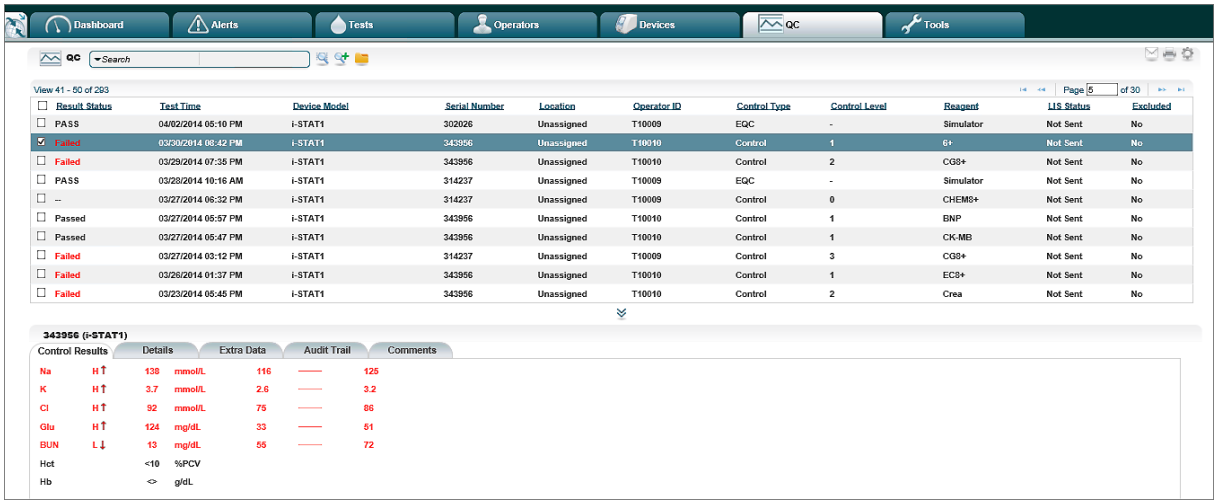
QC test results with a status other than passed can be excluded.

To exclude one or more QC test results, perform these steps:

1. Click the **QC** tab.
2. In the **List** pane, place a check mark in the box next to the QC test to be excluded.

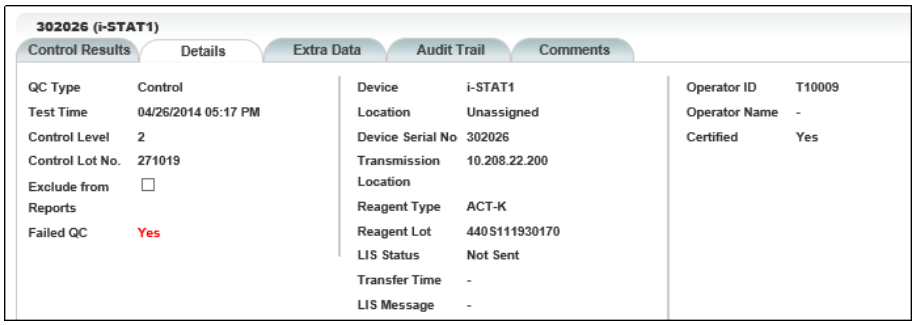
The details of the test results are displayed in the **Control Results** tab at the bottom of the screen.

Figure 15–5: Selecting a QC test to exclude



3. Click the **Details** tab. The following screen is displayed.

Figure 15–6: QC Details pane: Details tab for i-STAT 1



4. Check the **Exclude from Reports** box.
5. Click **OK** to confirm.

Note: The test result is still displayed in the main QC list, but it is marked as excluded.

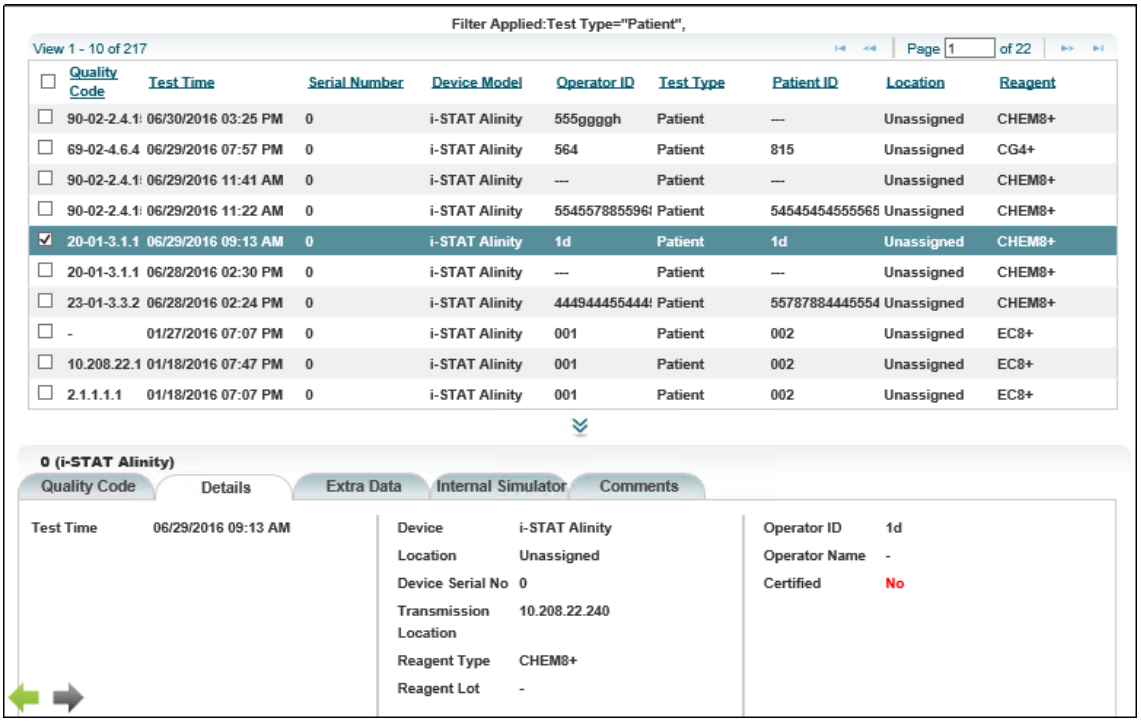
6. Repeat the process to exclude additional QC test results.

View incomplete test results

To display a list of QC tests and patient tests that did not generate a result due to an error or an issue with the device that was used to perform the test, click the **Tools** tab, then the **Quality Check** secondary tab.

Note: If the test was incomplete and the handheld generated a quality check code of 15, 20, 21, or 69, the reagent and lot number will be shown as a dash ("-").

Figure 15–7: Incomplete test results



The List pane displays the following information for each record:

Table 15–4: Quality Check screen: Columns displayed in the List pane

Column	Description
Quality Code	A Quality Check Code from the device.
Test Time	Date and time the test was conducted.
Serial Number	Serial number of the device used to conduct the test.
Device Model	Model of the device used to conduct the test.
Operator Name	Name of the operator who conducted the test.
Operator ID	ID of the operator who conducted the test.
Test Type	Type of test conducted.
Patient ID	ID of the patient on whom the test was conducted.
Location	Location where the test was conducted.
Reagent Lot	Lot number for the reagent used to conduct the test.
Reagent	Type of reagent used to conduct the test.

The **Details** pane has tabs that display the following information depending on which device model is selected:

Table 15–5: Quality Check screen: Tabs displayed in the Details pane

Tab	Description
Quality Code	The Quality Check code issued by the device for this test, along with the error type and description.
Details	Details about the test including the device, the control or reagent used, and other information.
Extra Data	Environmental conditions (like temperature and pressure) and other data associated with the test record.
Internal Simulator	Displays i-STAT Alinity internal simulator results.
Comments	A list of all comments added to this record, and options to add new comments.

Generate a QC report

Reports—based on search filters, the current date range, and the selected location (if applicable)—can be generated from the main screens within Info HQ.

Info HQ generates reports for QC test results as listed in the following table.

Table 15–6: QC test reports

Report type	Description
QC Test Report	Results for the selected QC tests.
QC Test List Report	All QC tests in a list.
Extended EQC Extract	A .csv file that displays all extra data items for Electronic Simulator results within the global date range and location. This report returns information only for i-STAT 1 devices.
PV Data Extract QC	Liquid quality control and cal/ver test results used for performance verification. **Note:** This report is available only if **PV Data Extract Enabled** is set to **Yes** in the system configuration settings.

To generate a report, follow the steps in *Generate a report*. For advanced reporting features, refer to *Reports*.

Export QC test results to a file

Info HQ can export test results to a Microsoft Excel spreadsheet file, a comma-separated file, a PDF file or .zip folder. See the information in *Generate a report*.

Send QC results to the LIS

Info HQ sends QC test results to the LIS either automatically or as the result of an action by an Info HQ user. This feature is enabled using the system configuration parameter *Send QC Results to LIS*. See

System configuration settings. Results are sent for liquid control, proficiency, and calibration verification tests.

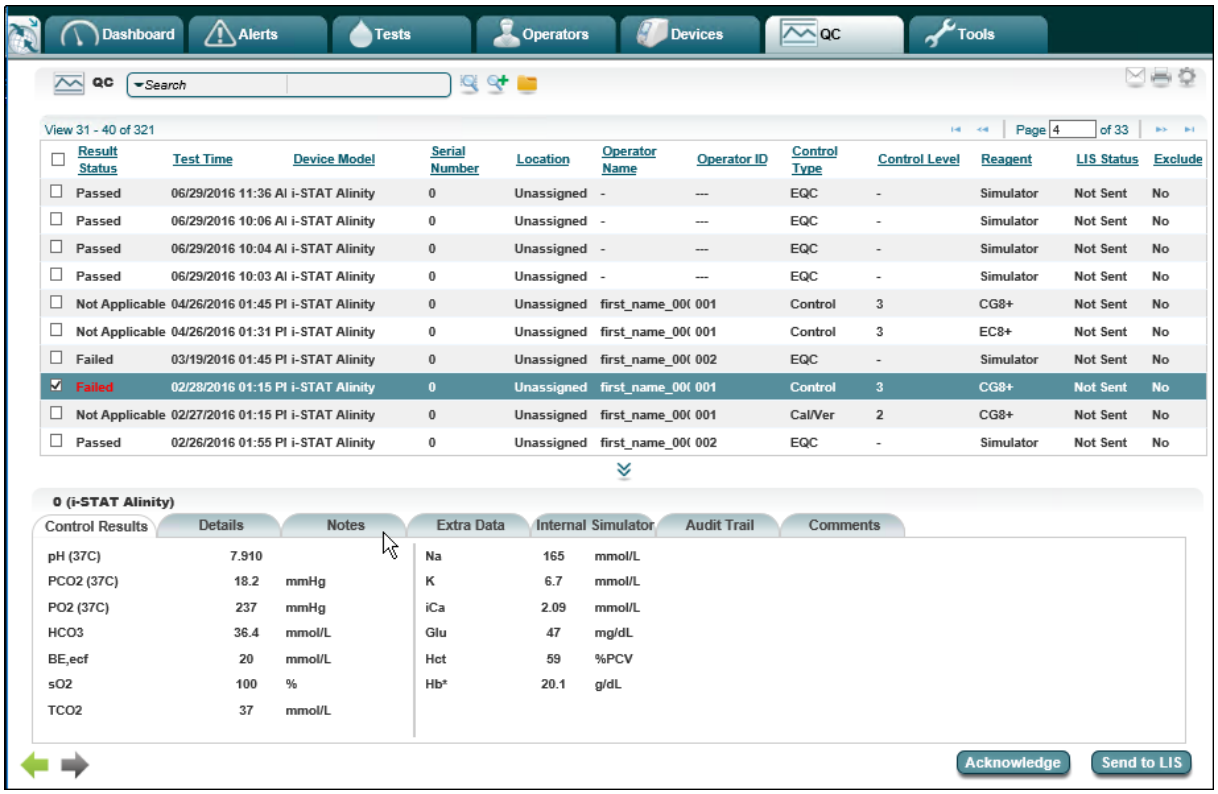
Table 15–7: Methods to send test results to the LIS

Method	Description and behavior
Automatic Send	Info HQ automatically sends QC test results to the LIS based on system configuration settings. Test results are sent as soon as Info HQ receives them.
Manual Send	The Info HQ user selects the test and clicks the **Send to LIS** button.

Follow these steps to send QC test results to the LIS manually:

1. Click the **QC** tab to display a list of QC test results.

   Figure 15–8: List of QC test results



2. Select a test result to send to the LIS by clicking the check box to its left.
3. If a test result is selected, and that test result was previously sent to the LIS, check the **Resend** box to activate the **Send to LIS** button.
4. Click **Send to LIS**.
5. Click **Yes** in the confirmation box.

The selected test results are sent to the LIS. The test results remain in the display. The value in the **LIS Status** column changes to *Pending*. The value then refreshes indicating where the test results are in the

process of transferring to the LIS. See the *LIS status messages* table for information about the LIS transfer status messages that are displayed in Info HQ.

Table 15–8: LIS status messages

LIS transfer status	Description
Pending	The QC test results are queued for sending to the LIS.
Awaiting Response	The QC test results have been sent, and Info HQ is waiting for an acknowledgement from the LIS to indicate they were received.
Sent	The LIS has indicated that the QC test results have been received and accepted without error.
Rejected	The LIS has received the QC test record, but cannot process it.
Not Sent	The QC test record was not successfully sent manually or automatically to the LIS or there is no outbound LIS configured.

16 - Info HQ management

This section contains information and procedures for managing and maintaining the Info HQ system.

For system configuration information, refer to *System configuration settings*.

16.1 Check the connection status to the i-STAT/DE software

i-STAT 1 devices are directly managed by the i-STAT/DE web service, which is the communication and customization software for i-STAT 1 devices.

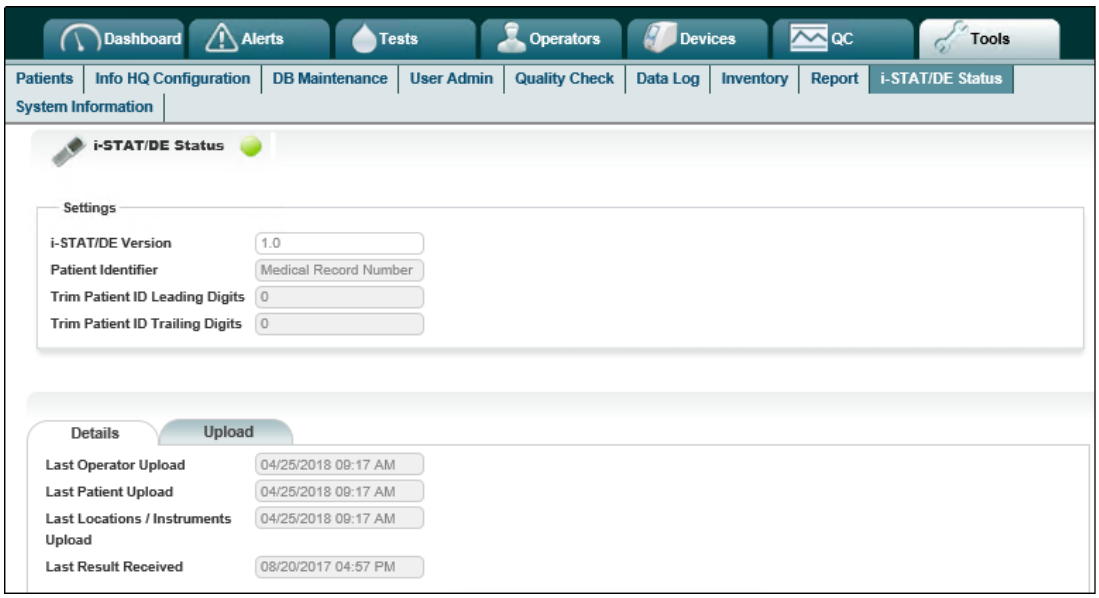
To check Info HQ's connection status to i-STAT/DE, follow these steps:

1. Click the **Dashboard** tab.
2. Click the **i-STAT/DE** text, as shown.
   The green status indicator shows that the connection is normal.

   Figure 16–1: Information System indicators

   The **i-STAT/DE Status** screen opens, with the **Details** secondary tab selected by default.

   Figure 16–2: i-STAT/DE Status screen



General information about the connection to i-STAT/DE is displayed, along with a status indicator located near the top-left of the screen. Green indicates that the connection between Info HQ and i-STAT/DE is working properly. Red indicates that there is an issue with the connection to i-STAT/DE.

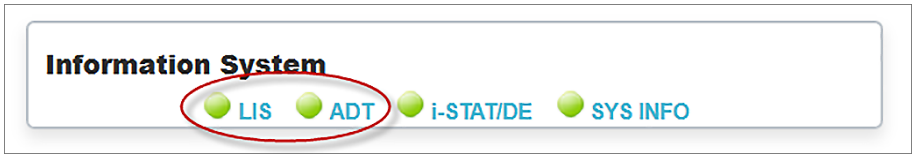
16.2 Check the connection status of Information System

Use the **System Information** screen to view the status of all information systems that communicate with Info HQ.

To check connection status of Info HQ to all HIS and LIS systems, follow these steps:

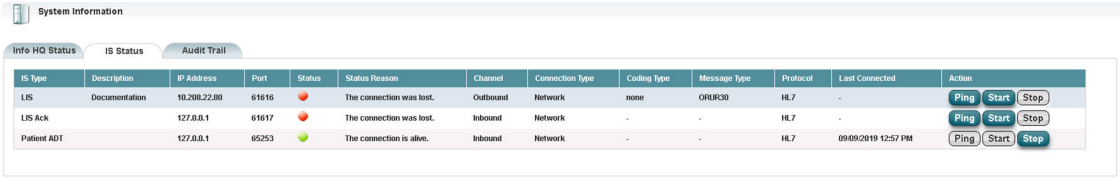
1. Click the **Dashboard** tab.
2. Click the **LIS** or **ADT** status text as shown.

Figure 16–3: Information System indicators



The **System Information** screen opens, with the **IS Status** tab selected by default.

Figure 16–4: System Information screen: IS Status tab



The IS Type, Description, and IP Address columns identify the information system, and the Status column displays a status indicator representing the connection status.

The following table describes each status indicator color.

Table 16–1: IS connection status indicators

Indicator color	Description
Green	Connection to the information system is up.
Red	Connection to the information system is down.
Yellow (HIS only)	Connection to the information system is idle, and Info HQ has not received data within the expected time period. The default is 30 minutes. (See *System configuration settings* for information about changing the HIS Allowable Inactivity Period setting.)

Each connection type has a **Start** and **Stop** button. Use these buttons to temporarily start or stop a connection to the information system.

Each connection type also has a **Ping** button. Use this button to check the network availability of the connection, when the connection between Info HQ and the information system is a network connection (not a serial connection).

16.3 View the system data log

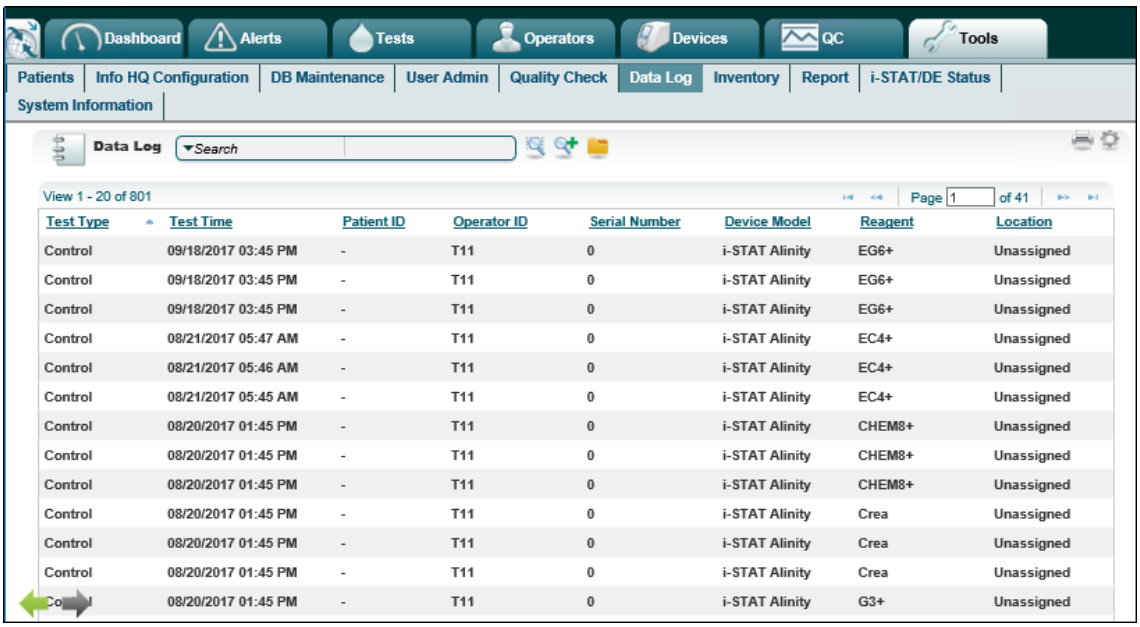
The system data log keeps records of all types of tests performed on devices and transmitted to Info HQ. Columns and information that can be displayed are:

- Test type: Quality control (QC) test or patient test
- Test time: Date and time the test was performed
- Patient ID: for patient tests
- Operator Name: Name of the operator who performed the test
- Operator ID: ID number for the operator
- Serial number for the device used to perform the test
- Device Model: Type of device
- Reagent Lot: Lot number for the test reagent
- Reagent: Type of reagent, for example CHEM8+ or EG6+
- Location as it is defined for the device

To view the system data log:

1. Click the **Tools** tab.
2. Click the **Data Log** secondary tab.

Figure 16–5: Data Log screen



Use the **Search** options to narrow the list to display just those records based on the search criteria. For example, search by patient name to display only records for that specific patient name.

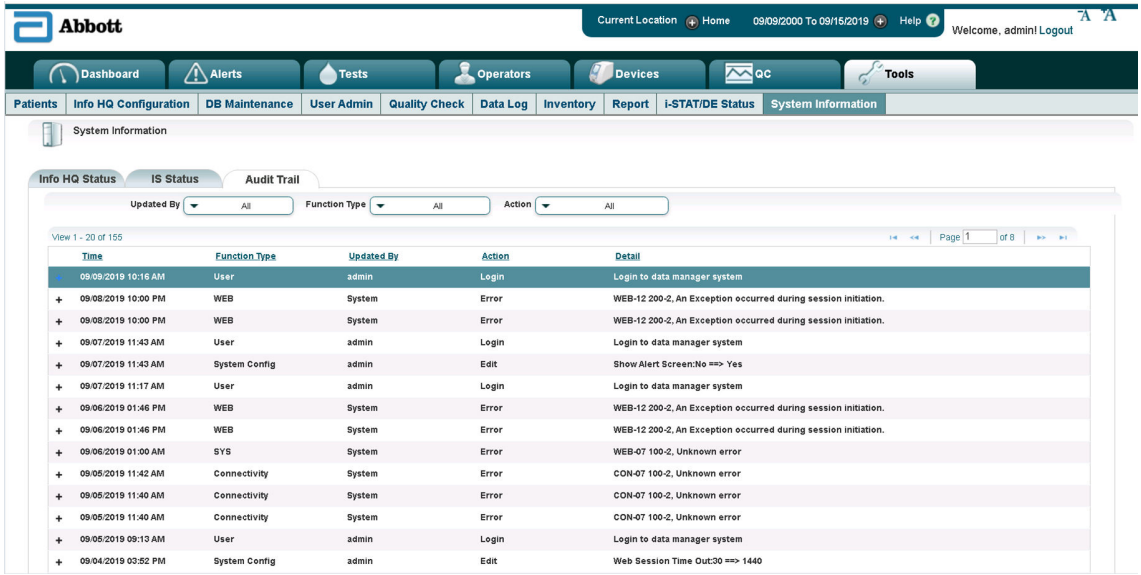
16.4 View the system audit trail

Info HQ keeps an audit trail of all system events and exception errors, including all actions performed by Info HQ users and all changes made by them. These changes include, for example, acknowledgements of test results, changes to operators, and changes to consumables (reagents and lots). The system audit trail is not affected by the global date or location items.

To view the system audit trail:

1. Click the **Tools** tab.
2. Click the **System Information** secondary tab.
   The **System Information** screen opens, with several system-related tabs.
3. Click the **Audit Trail** tab to display the system audit trail.

Figure 16–6: System Audit Trail



4. Optionally, use filters at the top of the list to facilitate viewing of the audit trail.
   The list can be filtered in the following ways:

Time Period	Uses global date range.
Updated by	List actions performed by a specific user.
Function Type	List actions related to a specific system function, for example patient tests or database backups.
Action	List only actions of a specific type.

17 - Reports

Basic reports can be generated from most functional areas of Info HQ. For example, a report of patient test results can be generated from the Test tab. This section contains advanced report generation and viewing, including options for filtering reports.

17.1 Types of reports

Info HQ provides the following types of reports from the Report page:

Table 17–1: Types of reports available from the Report page

Report	Description	Functional area
Audit Trail	All actions performed by the user or the system.	Audit Trail
Data Log	Every patient or QC test result transaction captured by Info HQ.	Data Log
Device List	All devices registered in Info HQ.	Device
Invalid Patient LIS	Patient test results with corrected patient IDs and the LIS status associated with them.	Patient Tests
LIS Rejected	Patient test results that were rejected by the LIS, along with corresponding LIS messages.	Patient Tests
Invalid Patient ID Summary	Number and percentage of patient test results with corrected or manually entered patient IDs that were sent to the LIS. The data is organized by testing area.	Patient Tests
Locations	List of the facilities, departments, and areas within the system.	Location Hierarchy
Monthly Summary	Summary information about patient test results, QC test results, alerts, and invalid patient IDs with performance indicators per department.	Summary Report
Monthly Summary by Operator	Summary list of patient test results, QC test results, alerts, and invalid patient IDs, organized by operator.	Summary Report
Operator Certification	Active operators with a certification status of certified and/or expired on specific devices.	Operator
Operator Competency Progress	All operators' current competency status for i-STAT Alinity.	Competency Tracker

Report	Description	Functional area
Operator Competency History	Displays all of the operator competency criteria and status for active operators. Credited criteria are displayed on the top by time in descending order. Uncredited criteria are displayed on the bottom alphabetically.	Competency Tracker
Operator List	All operators in the system.	Operator
Patient List	All patients received from an HIS or EMR system. (Available only if Info HQ is configured to receive ADT data.)	Patient Tests
Patient Test List	All patient test results.	Patient Tests
QC Test List	All QC tests, liquid and electronic, in a list.	QC
i-STAT Quality Check by Location	Summary count of test results and quality check codes for a specified location, over a specified span of time.	Quality Check Code
i-STAT Quality Check by Location and Operator	Summary count of test results and quality check codes by operator and location, over a specified span of time.	Quality Check Code
Quality Check List	All occurrences of a specified quality check code.	Quality Check Code
Reagent Lot Inventory	Reagent lot consumption and inventory summary report.	Inventory
Reagent Usage	Summary count of reagents, test results, and quality check codes by reagent type.	Summary Report

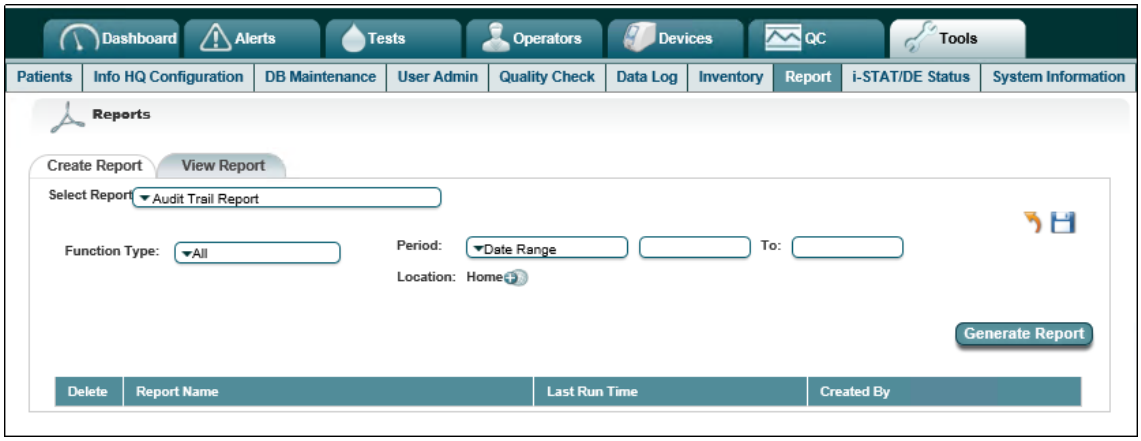
17.2 Generate reports

Follow these steps to generate a report using advanced filtering options:

1. Click the **Tools** tab.
2. Click the **Report** secondary tab.

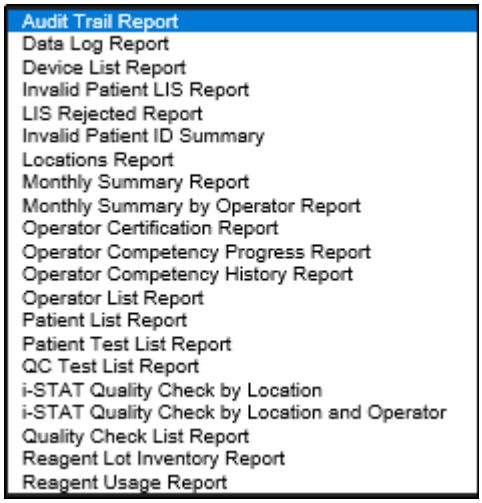
The **Reports** screen opens. The Create Report tab is selected by default.

Figure 17–1: Reports screen with Create Report tab



3. In the **Select Report** field, select the type of report from the drop-down list.
   Refer to *Types of reports* for a description of each report.

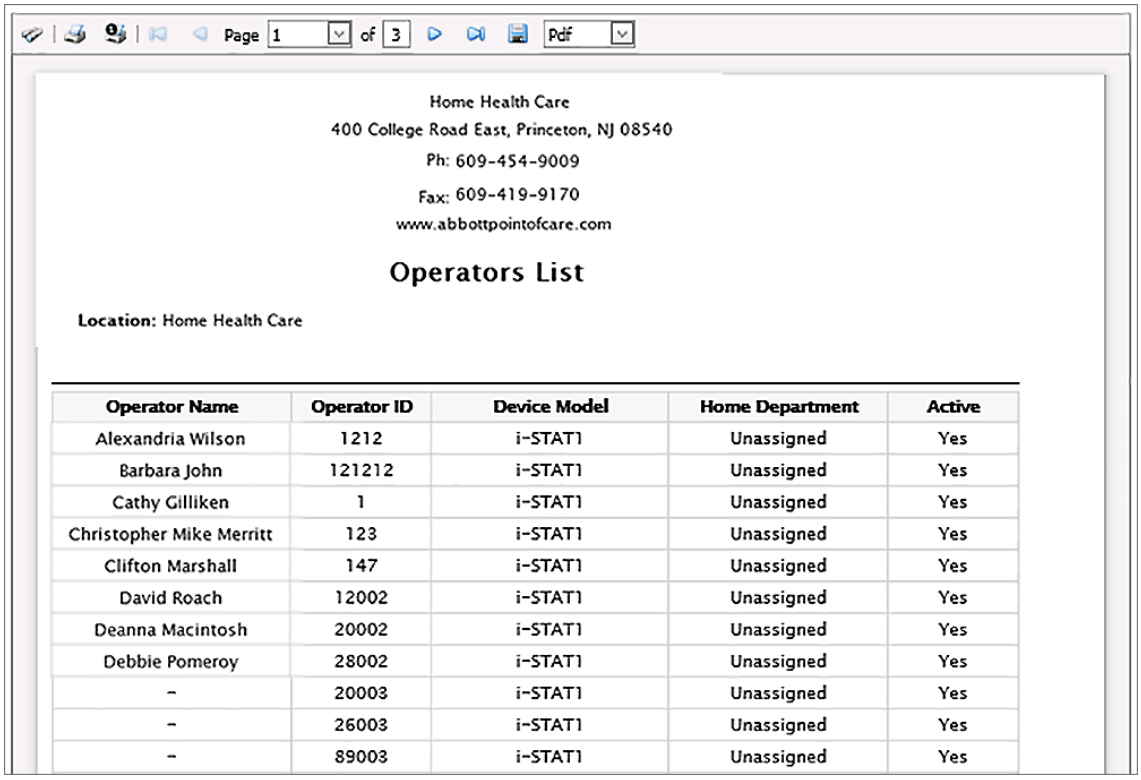
Figure 17–2: Select Report drop-down list



   The screen updates and displays fields and filters for the report. The fields and filters that are presented vary, based on the report type that is selected.
4. Complete the fields and filters for the selected report type.
5. Click **Generate Report**.

The report opens in a browser window, as shown.

Figure 17–3: Example: Operators List Report



Operator Name	Operator ID	Device Model	Home Department	Active
Alexandria Wilson	1212	i-STAT1	Unassigned	Yes
Barbara John	121212	i-STAT1	Unassigned	Yes
Cathy Gilliken	1	i-STAT1	Unassigned	Yes
Christopher Mike Merritt	123	i-STAT1	Unassigned	Yes
Clifton Marshall	147	i-STAT1	Unassigned	Yes
David Roach	12002	i-STAT1	Unassigned	Yes
Deanna Macintosh	20002	i-STAT1	Unassigned	Yes
Debbie Pomeroy	28002	i-STAT1	Unassigned	Yes
-	20003	i-STAT1	Unassigned	Yes
-	26003	i-STAT1	Unassigned	Yes
-	89003	i-STAT1	Unassigned	Yes

In this example, the location is set to *Home Health Care*.

Note: Reports are displayed in a separate browser window from the Info HQ user interface.

6. Use the controls at the top of the report to scroll through the report, print it, and save it to a file (PDF is the default format).

   When finished, close the browser window.

17.3 Delete a saved report

Reports can be deleted when they are no longer required. This might be the case due to changes in reporting criteria, duplicate reports, or simply basic housekeeping.

Follow these steps to delete a report:

1. Click the **Tools** tab.
2. Click the **Report** secondary tab.
   The **Reports** screen opens.
   By default, the **Create Report** tab is displayed and lists the previously created reports in the lower half of the screen.
3. In the **Select Report** drop-down, select a report type.
   A list displays at the bottom of the screen, showing all saved reports for the selected report type.

4. Click  next to the name of the report to be deleted.
5. Click **OK** in the confirmation box.
   All instances of the report are deleted.

17.4 View reports

The View Report tab displays a list of all reports that were created (using the Create Report tab). This list of reports can grow over time, so use the **Function**, **User**, and **View Name** filtering options to narrow the list of reports displayed.

The View Report tab displays the following information for each report:

Table 17–2: Information in the View Report tab

Column	Description
Report Name	Name of the report that was created using the Create Report tab. The number at the end of the report name indicates the number of times the report has been generated.
Create Time	Date and time when the report was created.
Create Method	Method used to create the report.
Period Type	Defined time period specified for the report.
Location	Defined location specified for the report.
Start Date	Start date defined for the report.
End Date	End date defined for the report.

To view a report that has run, perform the following:

1. If necessary, display the **Reports** screen:
   a) Click the **Tools** tab.
   b) Click the **Report** secondary tab.
2. Click the **View Report** tab.
   Info HQ displays a list of reports. Use the **Function**, **User**, and **View Name** drop-down lists to filter the list to find the desired report more easily.
3. Double-click the name of a report to open the report in a browser window.

    **Note:** Reports are displayed in a separate browser window from the Info HQ user interface.
4. Use the controls at the top of the report to scroll through the report, print it, and save it to a file (PDF is the default format).
   When finished, close the browser window.

17.5 Email reports

Info HQ can send a report to an individual as an attachment. To email a report, perform these steps:

1. Click the **Tools** tab.
2. Click the **Report** secondary tab.
3. Click the **View Report** tab to display a list of all reports.
4. Check the report that is to be sent.
5. Click  .
   The **Send Email** dialog box opens, with the selected report attached.
6. In the **To** box, enter one or more email addresses to receive the email, separated by semicolons.
7. Optionally, enter text in the **Subject** and **Content** boxes.
8. Click **Send** to send the email.
   A confirmation message is displayed.

18 - Technical support

Abbott Point of Care and its distributors are committed to helping you resolve problems with Abbott Point of Care software, hardware, or testing equipment. For technical assistance within the United States, please call Technical Services at 800-366-8020 toll free. Outside the U.S., please contact your local i-STAT distributor.

18.1 Information needed

Please have the following pertinent information available for review with the technical support representative:

- Description of problem
- When problem first occurred and what has been done so far to resolve the problem
- Serial number of the system or component(s)
- Displayed message and code number
- Frequency of the problem
- Software version
- System and/or environmental conditions (such as OS, VM, or physical server for example)
- Remote access information, if appropriate

18.2 Limitation of service

A technical support specialist may be able to assist in restoring the backup file if the file is available and in good condition (that is, not corrupted). In the event that a database backup is not available, additional time and resources will be needed to recover the Info HQ system. Each backup replaces the previous one.

Backup or restore job times depend on the size of the database. Jobs can take just a few minutes but have been known to take as long as 30 minutes or more.

18.3 Requirements checklist

When troubleshooting problems, ensure that the system meets all of the following requirements:

- LIS outbound port and HIS listening point
- 20Mbps network bandwidth
- Java Scripting enabled
- Info HQ IP address as proxy exception, if applicable
- i-STAT/DE IP address as proxy exception, if applicable
- User has admin privileges to install Info HQ
- IIS enabled
- SQL Server Express installed
- .NET installed

- Browser supported for the i-STAT/DE configuration installed. See *Specifications* for a list of configurations and supported browsers.