

STAR 2000™



STAR Audit Service Reference Guide

Release 17.0
October 2011

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Documentation Conventions

Documentation for McKesson's STAR 2000™ line of products follows these conventions:

Revisions

Text revisions are indicated by a change bar in the left margin. Paragraphs that contain grammatical changes that do not affect content are not marked.

Canadian Documentation

This volume may include documentation for Canadian users of this product. Complete sections of Canadian text are identified by "CN" and "CN Only."

Key Names

Named keys, such as SHIFT, CTRL, ALT, and ENTER, are displayed in this document in uppercase (capital) letters. A symbol key is written as text in this document followed by the symbol in parentheses, such as hyphen (-) and asterisk (*).

Key Chords

Key chords are key entries that require you to hold down one or more keys (typically, CTRL, ALT, or SHIFT) before pressing another key. In this document, key chords are displayed as the names of each key in the chord separated by a hyphen (-) (for example, CTRL-ALT-DEL).

Enter

ENTER is a key on a computer keyboard used to complete an entry on a STAR system. (This key may also be referred to as NEW LINE or NL in the STAR system.)

Data Entries

Letters or words you enter in response to the system are displayed in **bold** letters in this document. For example: Enter **Y** for Yes or **N** for No.

Selecting an Entry

This document often instructs you to "select an entry." The method you use to select an entry depends on whether you are using STAR from a terminal or IBM-compatible personal computer. Entry methods include:

- Entering the option number
- Using your arrow keys to highlight the option and pressing ENTER
- Clicking on the option using a mouse or other pointing device (PC only)

For more information about these options, see the *General Information Volume*.

Prompts

System prompts are displayed at the bottom of many STAR screens when the system requests an entry or displays a message. In this document, these prompts are indented and the text italicized, as shown in the following example:

Enter patient name--

Field Characteristics

STAR product documentation provides field explanation codes, in addition to a narrative description for each field on a screen. These codes display the maximum length of your entry in the field, the type of entry you make in the field, and whether the field is required. This information displays in the following format:

- DISPLAY ONLY for a field you cannot edit.
 - For X-YY-Z field types, where:
 - X is the maximum number of characters permitted in the field:
 - P for a field length determined by a Parameter
 - T for a field length determined by a Table
 - U for a field having an Undefined length
 - YY is the type of entry technique permitted in the field:
 - A for Letters only
 - AC for Letters and Punctuation only (no numbers)
 - AN for Numerals and Letters only (no punctuation)
 - C for Characters (including punctuation)
 - N for Numerals only
 - NC for Numerals and Punctuation only (no letters)
 - Z is the requirement indicator of the field:
 - C if an entry is Conditionally required or optional
 - O if an entry is Optional to complete the function
 - R if an entry is required to complete the function
- NOTE:** Facilities can designate that certain fields be Required. STAR product documentation does not display R for fields designated as Required by a facility.
- For YY-Z field types, where YY is:
 - DATE for a field subject to the date entry conventions described in the *General Information Volume*.
 - SPECIAL FORMAT for a field having data entry requirements not conforming to standard format. The field definition contains the specific data entry requirements for the field.
 - TABLE LOOKUP for a field that enables you to select from a displayed table. See the *General Information Volume* for more information regarding this entry technique.
 - TIME for a field subject to the time entry conventions described in the *General Information Volume*.

NOTE: For use of the Z position in this format, refer to the explanations for Z under X-YY-Z.

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Introduction

The STAR Audit Service is used to support HIPAA-related requirements by providing information about what users log in and logoff the system, what patients are accessed, when certain STAR application menus are accessed, and when certain STAR reports are requested. The information is then formatted for delivery to a common storage area defined by the MSE Audit Service Interface parameters. The following information is contained in this manual:

Chapter 1: Installation

This chapter provides requirements and instructions to install the STAR Audit Service.

Chapter 2: MSE Configuration

This chapter provides a description of the MSE Audit Service Interface parameters and fields that must be configured for the STAR Audit Service to function properly.

Chapter 3: Audit Service

This chapter provides a detailed description about how to access and perform the functions in the STAR Audit Service.

Appendix A: Criteria Tags

This appendix provides a listing of criteria tags used in the Audit Service Report functions.

Appendix B: Audited Reports Listing

This appendix provides a list of all STAR application reports that are audited.

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PRE-INSTALLATION CONSIDERATIONS

Software and hardware

While the STAR Audit Service application software is available at no charge, your organization must provide the other software and hardware requirements detailed in this chapter.

Security on the STAR Audit Service server

Your organization is responsible for implementing system security mechanisms on the server hosting the STAR Audit Service to restrict unauthorized user access to the STAR Audit Service software and data.

The user access methods described in the [AUDIT SERVICE HOME PAGE](#) section will assist you in developing a comprehensive plan to grant appropriate access to users. In addition, the [2. Password management](#) section of this manual provides you with important information about user access. The Audit Service software does not provide any other inherent security mechanisms to restrict access to the STAR Audit Service software or audit data.

McKesson project personnel

If you want to implement the STAR Audit Service:

- during a STAR upgrade, contact your STAR upgrade project manager for more information.
- outside the upgrade process, contact STAR MSE support for more information.

INSTALLATION REQUIREMENTS

STAR Audit Service requirements

The STAR Audit Service must be installed on a machine that has:

- either the Microsoft® Windows® 2000 or Microsoft Windows XP operating system.
- access to the Internet (at least during the installation).
- one specified drive on which the application and collected data is stored.
- Java™ SDK™ Version 1.4.2_04 installed to the c:\drive (even if the STAR Audit Service application is installed on a different drive). Information about downloading the free software is detailed in the installation procedures.
- MSXML4 installed from www.microsoft.com. This free software is required to run reports in the Audit Service application (you may need to install it on older PCs).

STAR requirements

- STAR Release 10.0 or higher.
- MSE Enterprise Release 10.0.0.0 or higher.

NOTE: The STAR Audit Service is certified to function with the McKesson Common Audit Server using the HTTP/SOAP protocol and the XML schema as adopted by the McKesson Shared Technology Group.

Optional applications

- Microsoft Excel 2002 or later, Crystal Reports® or Business Objects® (if you want to download report data to that third-party product). For more information, see [“Exporting data to Microsoft Excel, Crystal Reports or Business Objects” on page 3-13.](#)

INSTALLATION PROCEDURES

The Download Central administrator for your organization must complete the following:

1. Login to Download Central and click the **STAR Audit Service** link. Click the appropriate release number link.
2. Once the list of software and documentation is displayed, locate the STAR Audit Service Reference Guide.
3. Right-click **Download** and click **Save Target As**. Select a location for the reference guide on your PC and click Save.
4. Once the .pdf is downloaded, you can open it in Adobe® Acrobat®.
5. From the list of software and documentation list, locate the STAR Audit Service Installation application.
6. Right-click the **Download** button and click **Save Target As**. Select a location on your PC for the .exe file and click **Save**.
7. Once the file is downloaded, the Audit Service administrator needs to complete the following:
8. Double-click the .exe file to initiate the install program. You may also have to unzip the files and/or click **Setup** to start the program.

NOTE: If the STAR Audit Service install program does not open appropriately, it may be because of a change Java has made to the substring command as it relates to the 1.4.2_04 version. To correct the problem:

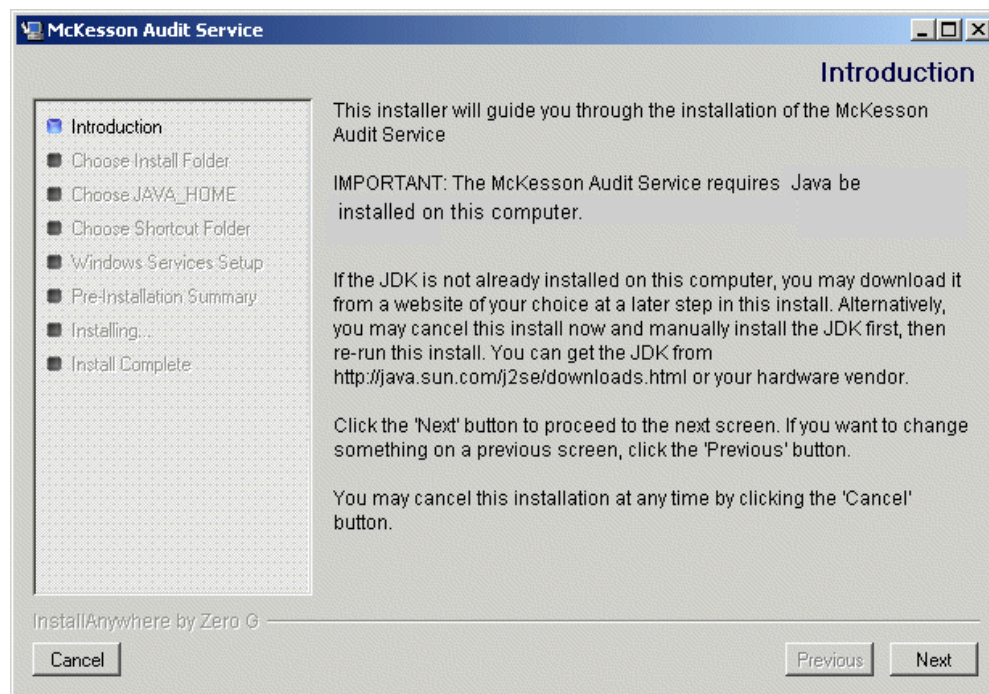
1. Download and install Java JRE 1.3.1_13 from the Sun web site:
<http://java.sun.com>.

2. Modify the Windows path command to have the Java JRE 1.3.1_13 version's bin directory to come before any newer version of Java. (Right-click **My Computer > Properties > Advanced > Environment Variables**. Under **System Variables**, scroll down and select **Path** and then **Edit**. The path statement is similar to the following:
common;C:\Program Files\Rational\ClearQuest;C:\<location of the jre version>. The 1.3.1 version has to be listed before the 1.4.2 version. For example:

```
%SystemRoot%\system32;%SystemRoot%;%SystemRoot%\System32\
Wbem;C:\Program Files\Common Files\Network Associates\VirusScan
Engine\4.0.xx;C:\ProgramFiles\JavaSoft\JRE\1.3.1_13\bin;C:\j2sdk1.4.
2_04\bin
```

The Introduction screen is displayed.

Figure 1.1 Installation Introduction screen

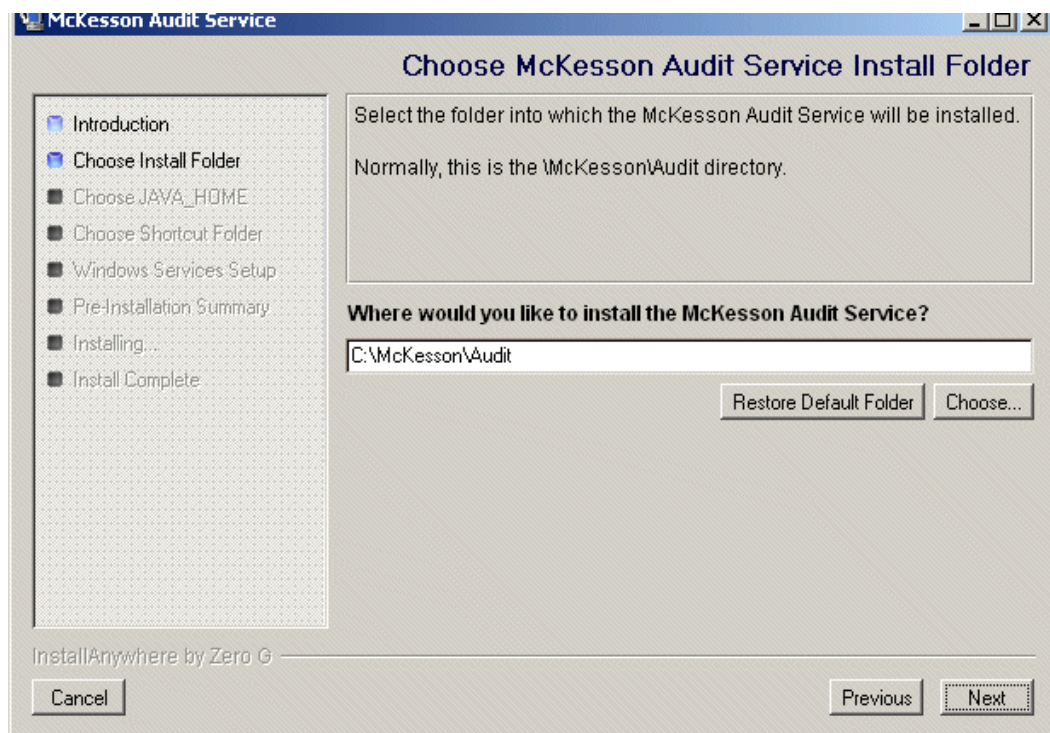


NOTE: The Java version you need to load is Java 1.4.2_04 SDK. Follow this procedure to download this to the c:\drive of the PC (during the section named [“Download JDK” on page 1-10](#)).

9. Complete one of the following:

- To proceed, click **Next**. The Choose McKesson Audit Service Install Folder screen is displayed.
- To exit without completing the install, click **Cancel**.

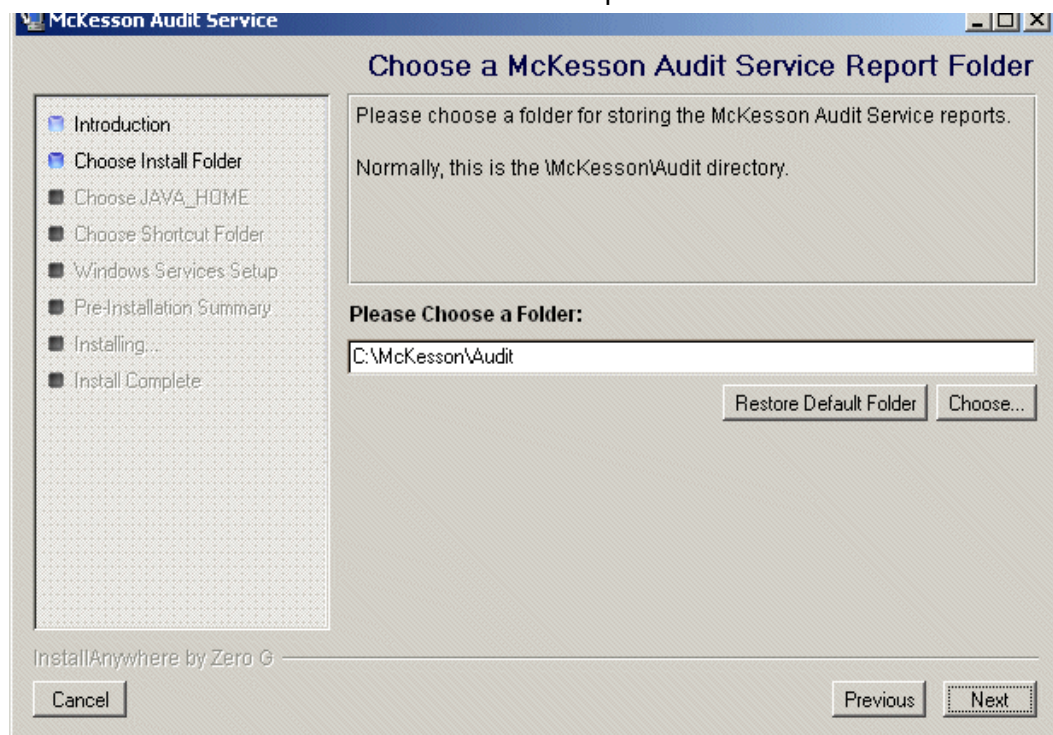
Figure 1.2 Choose McKesson Audit Service Install Folder screen



10. Complete one of the following:

- Enter the directory in which to install the application. To browse, click **Choose** and select the appropriate directory. Click **Next** to proceed. The Choose a McKesson Audit Service Report Folder screen is displayed.
- To exit without completing the install, click **Cancel**.

Figure 1.3 Choose a McKesson Audit Service Report Folder screen



11. Complete one of the following:

- Enter the directory where the Audit Service reports are to be stored. To browse, click **Choose** and select the appropriate directory. Click **Next** to proceed. The Download new JDK™ or use installed version? screen is displayed.
- To exit without completing the install, click **Cancel**.

Figure 1.4 Download new JDK or use installed version? screen



12. Complete one of the following:

- If the PC does not have the appropriate version of JDK installed (SDK version 1.4.2_04), click **Download Now**. Click **Next** to proceed. For more information, see [“Download JDK” on page 1-10](#).
- If the PC has the appropriate version of JDK installed (SDK version 1.4.2_04), click **Use Existing**. Click **Next** to proceed. For more information, see [“Use existing JDK” on page 1-12](#).
- To exit without completing the install, click **Cancel**.

Download JDK

12a.If you selected Download JDK, the JDK Download URL screen is displayed.

Figure 1.5 JDK Download URL screen



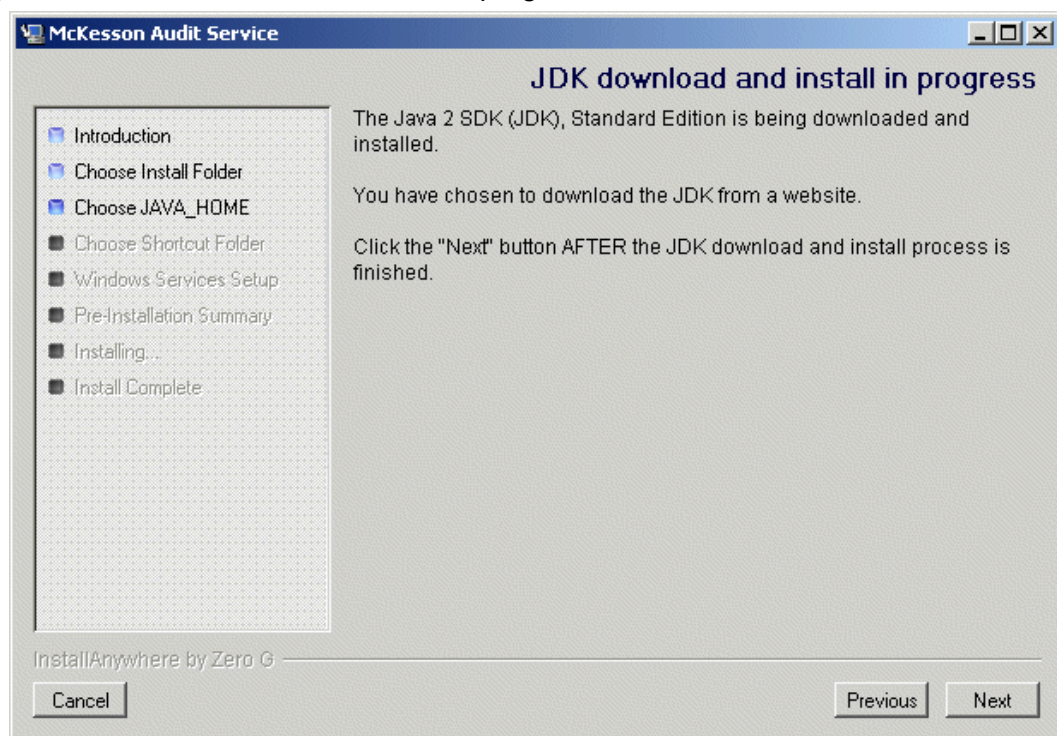
12b.Complete one of the following:

- Enter the URL from which to download JDK. Click **Next** to proceed.
- To return to the previous screen without downloading JDK, click **Previous**.
- To exit without completing the install, click **Cancel**.

12c.Once the URL is accessed, click in the Search field and enter **1.4.2_04** and click the red double-arrow button. Select the link for **Archive: Download Java 2 SDK, Standard Edition, v 1.4.2_04 (J2SE)**. In the SDK column, click **Download**. Select the appropriate information for your PC and complete the install according to the instructions provided.

When the Java download is installed successfully, the JDK download and install in progress screen is displayed.

Figure 1.6 JDK download and install in progress screen



12d. Complete one of the following:

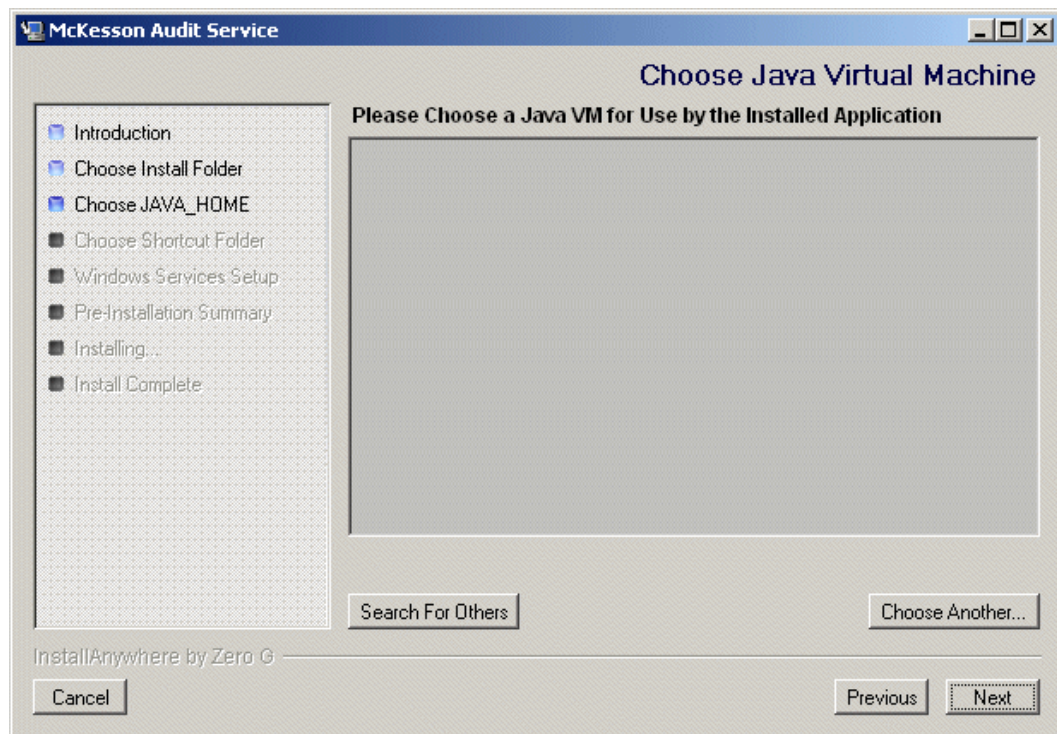
- Click **Next** to proceed.
- To exit without completing the install, click **Cancel**.

12e. To complete the installation, proceed to ["Use existing JDK" on page 1-12.](#)

Use existing JDK

13. If you selected Use Existing (or SDK version 1.4.2_04 has been successfully downloaded), the Choose Java Virtual Machine screen is displayed.

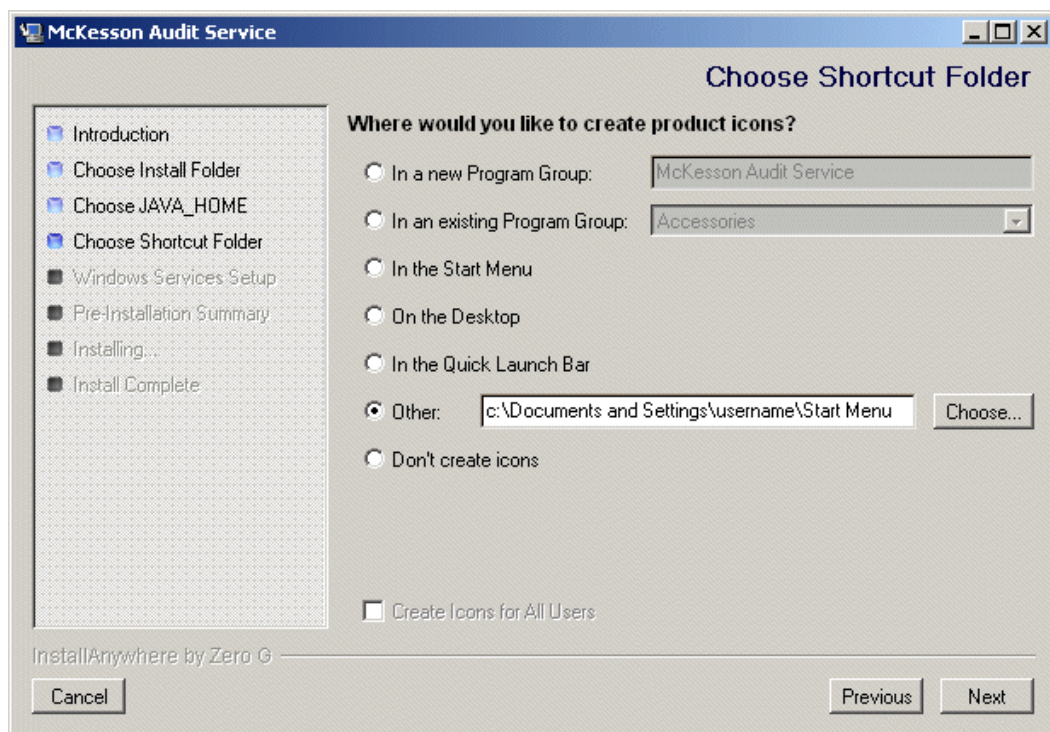
Figure 1.7 Choose Java Virtual Machine screen



14. Complete one of the following:

- Select **c:\j2sdk1.4.2_04\jre\bin\java.exe** and click **Next** to proceed. The Choose Shortcut Folder screen is displayed.
- To search for other virtual machines, click **Search For Others**.
- To select a machine that is not listed, click **Choose Another**.
- To exit without completing the install, click **Cancel**.

Figure 1.8 Choose Shortcut Folder screen



15. Complete one of the following:

- Select desired location and click **Next** to proceed. The Setup McKesson Audit as a Windows Service screen is displayed.
- To exit without completing the install, click **Cancel**.

Figure 1.9 Setup McKesson Audit as a Windows Service screen

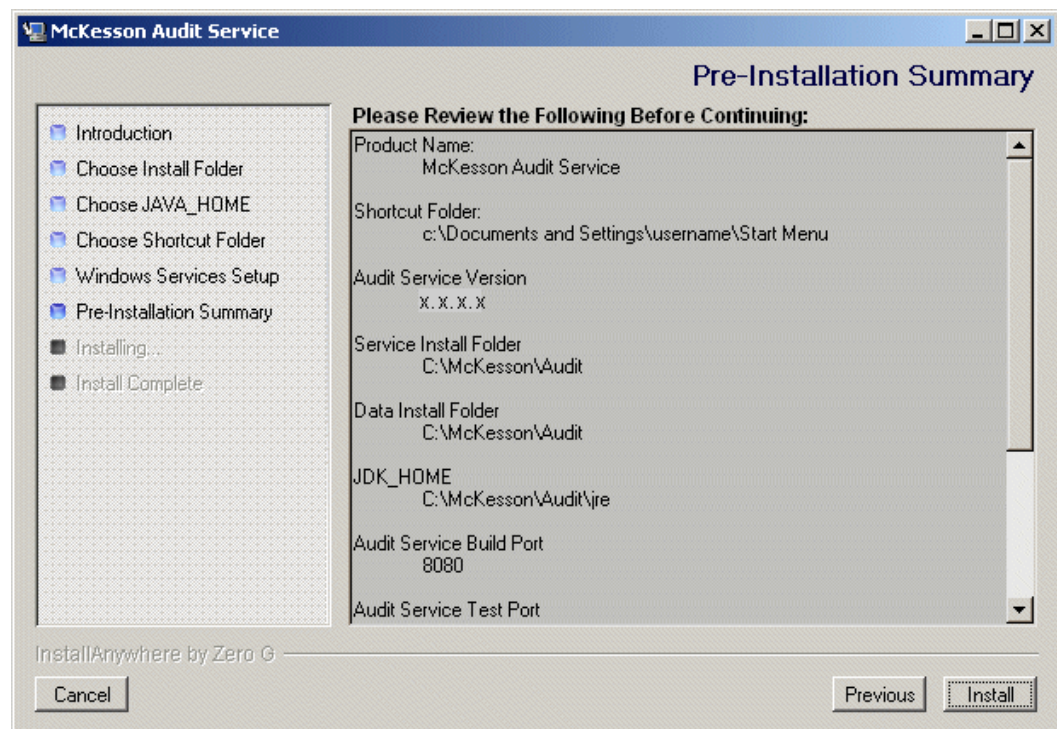


16. Multiple data environments (build, test and live) can exist on your STAR Audit Service server. A Windows service is created for each environment selected. Each Windows service has its own listening port (through which STAR sends audit messages regarding any of the actions selected to be audited).

Complete one of the following:

- McKesson recommends that all three environment services be selected. Select desired environments and click **Next** to proceed. The Pre-Installation Summary screen is displayed.
- To exit without completing the install, click **Cancel**.

Figure 1.10 Pre-Installation Summary screen



17. Review the installation information to ensure accuracy before proceeding.

Complete one of the following:

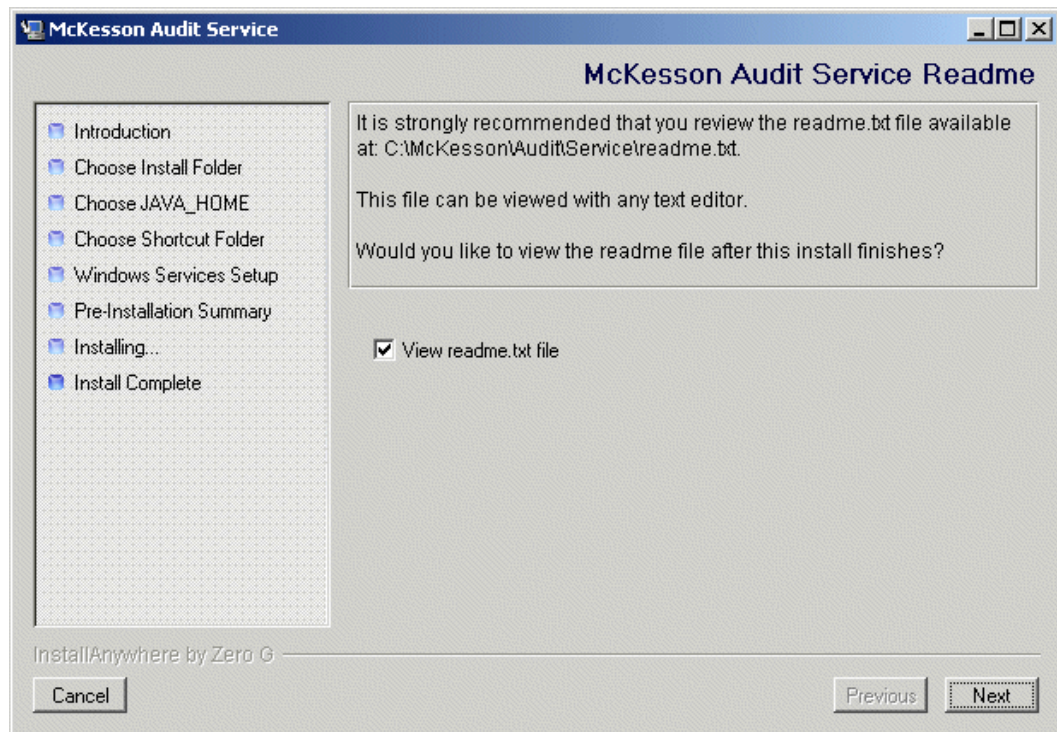
- Click **Install** to proceed. The Installing McKesson Audit Service screen is displayed.
- To return to a previous screen to correct information, click **Previous** at each screen displayed until the desired screen is displayed. Correct the information and proceed to this screen.
- To exit without completing the install, click **Cancel**.

Figure 1.11 Installing McKesson Audit Service screen



18. Various screens are displayed during the install process. No user intervention is required during this process. When the installation is complete, the McKesson Audit Service Readme screen is displayed.

Figure 1.12 McKesson Audit Service Readme screen

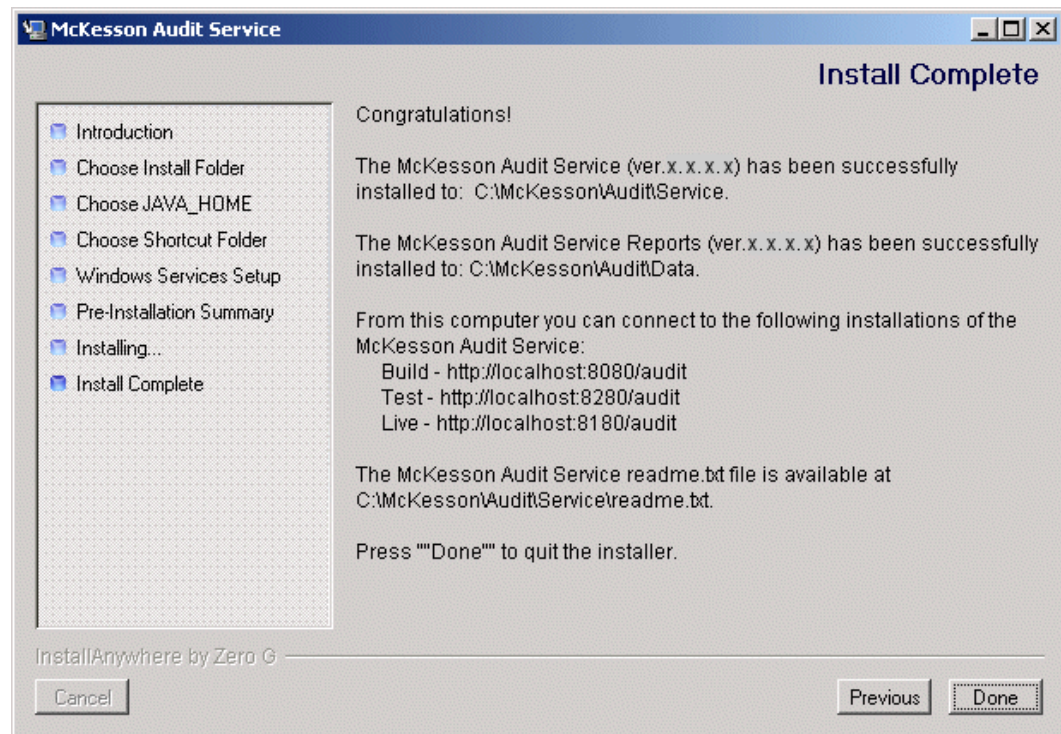


19. It is imperative that you select **View readme.txt file**. It is displayed after the installation is completed, and you need to print and/or save the file to be able to reference it so you can administer the STAR Audit Service appropriately.

Complete one of the following:

- To proceed, click **Next**. The Install Complete screen is displayed.
- To exit without completing the install, click **Cancel**.

Figure 1.13 Install Complete screen



20. Write down the information for build, test and live. You need that information to configure STAR appropriately when the install is complete.

21. Complete one of the following:

- To complete the install, click **Done**. The installation completes and the installation program is closed. Print and/or save the ReadMe file as a reference to help you administer the STAR Audit Service.
- To return to a previous screen, click **Previous**.

POST-INSTALLATION PROCEDURES

After the STAR Audit Service has been installed, use the information in this section to complete the implementation:

- “1. Edit parameter files” on page 1-19
- “2. Password management” on page 1-21
- “3. Verify the STAR Audit Service is started” on page 1-22
- “4. Set configuration parameters” on page 1-22
- “5. Verify data collection” on page 1-23

1. Edit parameter files

There are three .xml files on the server you may need to edit before proceeding. These files contain settings that must be configured based on the size of the Audit Server and how your organization is going to use the STAR Audit Service. They are the:

- “Auditserver.xml file” on page 1-19
- “Logging.xml file” on page 1-20
- “Tomcat-users.xml file” on page 1-21

NOTE: When you edit these files, you must stop and then restart the service for each environment impacted (or reboot the computer) for the changes to take effect. For more information, see “3. Verify the STAR Audit Service is started” on page 1-22.

AUDITSERVER.XML FILE

To edit this file:

1. By using the search function or accessing Windows Explorer, locate the following files:

`c:\McKesson\Audit\Data\environmentname\var\config\auditserver.xml`

where environment name is build, test or live.

2. Right-click on the file name and click **Open With > Notepad**.
3. Locate the Disk Allocation parameter. The default is 1 GB. Increase this entry based on the amount of disk space you expect the STAR AuditService to use. This figure impacts the disk space calculations on the Audit System Health Page. For

more information, see “AUDIT SYSTEM HEALTH” on page 3-17.

4. Click **File > Save** and close the file.
5. Complete this procedure for each of the environments.

LOGGING.XML FILE

To edit this file:

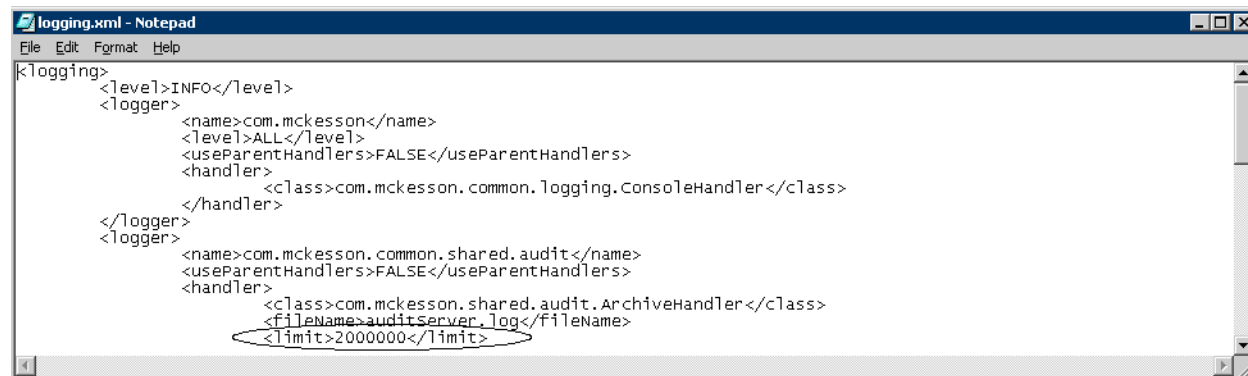
1. Click **Start > Search > All files and folders**.
2. Search for the following file:

c:\McKesson\Audit\Data\environmentname\var\config\logging.xml

where environment name is build, test or live.

3. Search the drives where you installed the STAR Audit Service application and data.
4. When the file name is displayed in the Search Results, right-click the file and click **Open With > Notepad**.
5. Locate and increase each instance of the limit parameter to minimize the number of archive files created each day. The default is 2 MB. This is the amount of data allowed in the auditserver.log file before the data is moved to the archive folder. A screen similar to the following is displayed:

Figure 1.14 Logging.xml file example



6. When you have made all desired changes, click **File > Save As**. Select Save as type = **All Files** and Encoding = **ANSI**. Click **Save** and close the file. Do not save the file as a .txt. Replace the existing file if prompted to do so.

TOMCAT-USERS.XML FILE

To change username and password, edit the <tomcat-users> section of this file based on the instructions in the readme.txt file that you printed when the installation completed. For more information, see [“2. Password management” on page 1-21](#).

2. Password management

Change the password in each of the Audit Service environments installed (build, test and live) immediately after install to ensure they are secure. To change the password:

1. Open Notepad.
2. Open the Audit Service file for the environment. For example:

c:\McKesson\Audit\Service\environmentname\TC\conf\tomcat-users.xml

where environment name is build, test or live. A file similar to the following is displayed:

Figure 1.15 Tomcat-users.xml file example

```
<tomcat-users>
<user name="tomcat" password="tomcat" roles="tomcat" />
<user name="role1" password="tomcat" roles="role1" />
<user name="both" password="tomcat" roles="tomcat,role1" />
<user name="tomcat" password="tomcat" roles="admin" />
</tomcat-users>
```

3. Locate the line of the file that is displayed as:

```
<user name="tomcat" password="tomcat" roles="admin" />
```

- 3a. Change the username = "tomcat" to the username of the Audit Service administrator.
- 3b. Change the password = "tomcat" to the password of the Audit Service administrator.
- 3c. Change the roles = "admin".

NOTE: The roles = "admin" does not designate that user as a server administrator. It grants that user access to all the functions of the STAR Audit Service application. If additional users need access to the application, copy that line and insert the appropriate username and password (roles = "admin"). The lines in the figure below for the user name = "johnsmith" and "janedoe" are examples of granting other users access:

Figure 1.16 Add users to Tomcat-users.xml file

```
<tomcat-users>
  <user name="tomcat" password="tomcat" roles="tomcat" />
  <user name="role1" password="tomcat" roles="role1" />
  <user name="both" password="tomcat" roles="tomcat,role1" />
  <user name="tomcat" password="tomcat" roles="admin" />
  <user name="johnsmith" password="johnpassword" roles="admin" />
  <user name="janedoe" password="janepassword" roles="admin" />
</tomcat-users>
```

4. When you have completed all desired changes, click **File > Save As**. Select Save as type = **All Files** and Encoding = **ANSI**. Click **Save** and close the file.
5. For the password changes to take effect, you must click stop and restart the service for each environment impacted (or reboot the computer). For more information, see [“3. Verify the STAR Audit Service is started” on page 1-22](#).

NOTE: To test new user names and passwords, open a new session of the STAR Audit Service for each new user. You cannot open a session for a particular user and then click Back to try to login as another user.

3. Verify the STAR Audit Service is started

To confirm the status of the Windows services for each environment (or to stop and start the service):

1. Access **Control Panel > Administrative Tools > Services**.
2. Locate the entry for the desired McKesson Audit service (McKesson Audit live (or test or build). The entry in the Status column indicates the current status of the service (Started or blank).
3. When you highlight the line, options that are available based on the current status are displayed in the left corner of the window (Start, Stop, Restart).

NOTE: If you are unable to start the service by clicking Start, you must uninstall, and then reinstall the STAR Audit Service. For more information, see [“UNINSTALL THE STAR AUDIT SERVICE” on page 1-24](#).

4. Set configuration parameters

You must work with McKesson to configure the applicable MSE parameters. Contact either your STAR upgrade representative (if installing during upgrade) or STAR MSE support (if installing outside of upgrade) for more information. For more information, see [“Chapter 2 - AUDIT SERVICE CONFIGURATION.”](#)

5. Verify data collection

After the installation is completed and the configuration parameters have been entered, you can verify that data is being sent to the Audit Server by searching for the `auditserver.log` file in the live environment on the server. Real-time messages are displayed in the log if the program is functioning appropriately. For more information, see [“AUDIT SERVICE HOME PAGE” on page 3-4](#).

UNINSTALL THE STAR AUDIT SERVICE

You need to uninstall the STAR Audit Service if you are unable to start the McKesson Audit service in Control Panel or if the incorrect version of Java is installed.

NOTE: The uninstall is **not** completed properly if you only run the Uninstall from Add/Remove Programs in Control Panel (and you will receive errors when you try to reinstall the application).

To uninstall the STAR Audit Service:

1. Access Windows Explorer and locate the following files:

McKesson\Audit\build\TC\webapps\audit\etc\WinServUninstall.bat

McKesson\Audit\test\TC\webapps\audit\etc\WinServUninstall.bat

McKesson\Audit\live\TC\webapps\audit\etc\WinServUninstall.bat

2. Double-click:
McKesson\Audit\build\TC\webapps\audit\etc\WinServUninstall.bat. A black window flashes on the screen briefly as that portion of the service is uninstalled.
3. Double-click:
McKesson\Audit\test\TC\webapps\audit\etc\WinServUninstall.bat. A black window flashes on the screen briefly as that portion of the service is uninstalled.
4. Double-click:
McKesson\Audit\live\TC\webapps\audit\etc\WinServUninstall.bat. A black window flashes on the screen briefly as that portion of the service is uninstalled.
5. Click **Start > Control Panel > Add or Remove Programs > McKesson Audit Service > Change/Remove > Uninstall**. Answer any questions or prompts for this part of the process.
6. When the uninstall process is complete, reboot your computer.
7. When your computer restarts, access Windows Explorer. Locate and delete the `McKesson\Audit\Service` folder and files. Then locate and delete the `McKesson\Audit\Data` folder and files.

The McKesson Audit Service application is now removed from your computer and you can reinstall it if necessary.

Chapter 2 - AUDIT SERVICE CONFIGURATION

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AUDIT SERVICE PARAMETERS

This chapter contains the information required by MSE to allow the STAR Audit Service Interface to function correctly on STAR applications.

To access the AuditService Interface parameters, sign on to the Computer Operations Environment and access the Main Computer Operations Menu.

The following screen is displayed:

```

      General Hospital System Utilities Processor
                                Mon Jun 07, 2004 06:52 am
System Management Input Options

Option No.  Option
-----
      1      System Backup
      3      Examine Job Status
      4      Remove Jobs From System
      5      Change Log-on Status
      6      Sign On Message
      7      Send a System Message
      8      Sign Off Bulletin Board
      9      Terminal/Port Setup
     10      Halt System
     11      System Utilization Monitors
     12      Special Utilities
     13      Clear Sentinel Support Call
     14      Build site specific Sentinel criteria
     15      Edit System Parameters
     16      Audit Service Interface

Enter option number--
```

Select **Audit Service Interface**. The following screen is displayed:

```

      General Hospital System Processor
                                Mon Jun 07, 2004 06:53 am
Input Options

Option No.  Option
-----
      1      Audit System Parameters
      2      Audit ID Parameters
      3      Audit Statistics Report
      4      Audit Queues Review

Enter option number--
```

The options available from this menu are described in detail in this section.

Audit System Parameters

When you select the Audit System Parameters option, the following screen is displayed:

General Hospital System Audit Parameters Processor		
Mon Jun 07, 2004 06:55 am		
1 Enabled?	2 Status	3 Capture Statistics
Yes	Active	Yes
4 Queue Messages	5 Maximum Messages Queued	6 Keep Audit Messages
Yes	50000	Yes
7 Journal Audit Data		
No		

Enter field number or '/' starting field number--

Field Explanations

1. ENABLED? (1-A-R)

This field is the master switch to control whether auditing is enabled or disabled for the entire system. It determines if messages are counted or queued for delivery. When you access this field, the following prompt is displayed:

Enabled (Y/N)?--

Enter **Y** to allow auditing to occur.

Enter **N** to deny the use of the audit functionality.

2. STATUS (1-A-R)

This field activates (or inactivates) the MSE job that sends the formatted messages to the Audit Server. When you access this field, the following prompt is displayed:

Is interface (A)ctive or (I)nactive (A/I)? [A]--

Enter **A** to activate the job to send queued messages.

Enter **I** to inactivate the job so no queued messages are sent. If the interface is inactive, messages are still queued for delivery; however, they are not sent.

3. CAPTURE STATISTICS (1-A-R)

This field determines if statistics are gathered for audit messages. For configuration purposes, messages can be counted, but not gathered (queued for delivery). These statistics are used to determine the appropriate size of the audit server to be used. When you access this field, the following prompt is displayed:

Capture Statistics (Y/N)? [Y]--

Enter **Y** (or press ENTER to accept the default) to capture the statistics for configuration purposes.

Enter **N** if you do not want to capture statistics.

4. QUEUE MESSAGES (1-A-R)

This field determines if messages are queued for delivery to the Audit Service Interface. When you access this field, the following prompt is displayed:

Queue messages (Y/N)? [Y]--

Enter **Y** (or press ENTER to accept the default) to allow messages to be queued for delivery.

Enter **N** if you do not want to queue messages for delivery.

5. MAXIMUM MESSAGES QUEUED (6-N-R)

This field determines the maximum number of messages queued for delivery. If a message is queued, and the number of messages is equal to or greater than the number in this field, that message is not queued (and therefore, not delivered) to the audit server. When you access this field, the following prompt is displayed:

Enter maximum number of messages to queue--

Enter the maximum number of messages that can be queued before being dropped.

6. KEEP AUDIT MESSAGES (1-A-O)

This field determines if the system stores an audit trail of STAR Audit Service messages. Because disk space can be negatively impacted by storing a large number of messages, McKesson recommends you set this field to N. McKesson may have you set this field to Y temporarily while troubleshooting an issue. When you access this field, the following prompt is displayed:

Keep audit of audit messages (Y/N)? [N]--

Enter **N** to discard messages after they are successfully delivered. Enter **Y** to retain messages that can be viewed in the Audit Queues Review.

7. JOURNAL AUDIT DATA (1-A-R)

This field determines if the audit data is recorded to the journal file. Because disk space can be negatively impacted by storing a large number of journal entries, McKesson

recommends you set this field to N. McKesson may have you set this field to Y temporarily while troubleshooting an issue. When you access this field, the following prompt is displayed:

Journal Audit Data? (Y/N) [N]--

Enter **N** (or press ENTER to accept the default) if you do not want to record to the journal file. Enter **Y** to record the audit data to the journal file.

Audit ID Parameters

When you select the Audit ID Parameters option, the following prompt is displayed:

Enter ID or '-' to list

Enter the application environment (system) ID to be audited or a hyphen (-) to list the application IDs available on your system. If you enter a hyphen (-), all of the application IDs in your system are displayed. The following screen is an example:

```

                                General Hospital System Audit ID Parameters Processor
                                Mon Jun 07, 2004 06:57 am
Page:01                                STAR Mumps IDs

( 1) 0-Computer Operations
( 2) 1-Patient Care Live
( 3) 2-Patient Care Test

Enter choice--

```

Once an application ID is selected, the following screen is displayed:

```

                                General Hospital System Audit ID Parameters Processor
                                Mon Jun 15, 2009 06:57 am

1 Enabled?                                2 Events Enabled
   Yes                                RPTREQ
3 Message Format                        4 Message Destination
  1-Mckesson Common Services        Network 111.111.111.111;8280
5 HTTP Protocol                        6 Ignore HTTP Errors
   Yes                                No
7 XML Message Parameters
  Defined

Enter field number or '/' starting field number--

```

Field Explanations

1. ENABLED? (1-A-R)

This field determines if messages in this ID are queued for delivery to the audit server. When you access this field, the following prompt is displayed:

Enabled (Y/N)?--

Enter **Y** to allow messages in this ID to be queued.

Enter **N** if you do not want to queue messages from this ID.

2. EVENTS ENABLED (TABLE LOOKUP)

This field determines which events in the ID are audited. When you access this field, the following prompt is displayed:

Enter Events to Audit in ID X or first letters'-'

where **X** is the system ID selected.

Enter the event to be audited, the first letters followed by a hyphen (-) to display a list of events beginning with that letter, or a hyphen (-) to display a list of available events.

If you enter a hyphen (-), the following options are displayed:

Page:01	Events to Audit in ID X(s)	##=Current Choices
(1) Menu Selection		
(2) Navigator Item Selection		
(3) Patient Selection		
(4) Report Request		
(5) Security Modification		
(6) User Signon		
(7) User Signoff		
Enter choices (e.g. 1,7,5-9) or '-'choices to remove--		
end select(NL)		

Enter the number of the choice desired. For multiple choices, enter the number followed by a comma (for example 1,2,5) and press ENTER.

To remove choices, enter a hyphen (-) followed by the number (for example, -2 removes option 2 from the selection).

Once options have been selected, press ENTER to return to the previous screen.

3. MESSAGE FORMAT (3-C-R)

This field determines the format for the audit messages. When you access this field, the following prompt is displayed:

Enter message format or first letters'-'

Enter the message format code, the first letters followed by a hyphen (-) to display a list of formats beginning with that letter, or a hyphen (-) to display a list of available message formats.

If you enter a hyphen (-), the following is displayed:

```
Page:01                      message format(s)
( 1) 1-McKesson Common Services (xml)

Enter choice--
```

Enter the number representing the McKesson Common Services XML format and press ENTER.

4. MESSAGE DESTINATION (50-C-R)

This field designates the destination of the audit messages. When you access this field, the following options are displayed:

```
Page:01                      Message Destinations
( 1) Network (recommended)
( 2) MSE Port
( 3) File
( 4) Star Report

Enter choice--
```

If you enter the option for Network, audit messages are sent to a network address. The following prompt is displayed:

Enter Network address [--

Enter the network address and press ENTER. The following prompt is displayed:

Enter the network port and press ENTER. The network address:port number you entered is displayed in the field. For build (ID 5) enter **8080**, for test (ID 2) enter **8280**, for live (ID1) enter **8180**.

If you enter the option for MSE Port, audit messages are sent to a port. The following prompt is displayed:

Enter Port Number [8050]--

Enter the MSE Port Number. When you have entered the Port Number, press ENTER.

The MSE Port Number you entered is displayed in the field. You can also press ENTER to accept the default of the “bit bucket” port.

If you enter the option for File, audit messages are sent to a host file. The following prompt is displayed:

Enter file name [/dev/null]--

Enter the host file name (or press ENTER to accept the default) and press ENTER. The file name you entered is displayed in the field.

If you enter the option for Star Report, audit messages are sent to the report you specify (from the list of reports defined in Reports Maintenance). The following prompt is displayed:

This will retain information on the Star Host. Accept (Y/N)? [N]--

Enter **Y** to enter a report name. Enter **N** to exit and return to the Message Destination selection options. If you enter Y, the following prompt is displayed:

Enter report name where report is generated nightly or `` for list--

Enter the desired report or enter a hyphen (-) and select from the displayed list. The report name you entered is displayed in the field.

5. HTTP PROTOCOL (1-C-R)

This field determines if the HTTP protocol is used in sending the message and validating delivery. When you access this field, the following prompt is displayed:

Use HTTP protocol when transmitting messages? [Y]--

Enter **Y** in this field when transmitting audit messages to the McKesson Common Audit Server.

6. IGNORE HTTP ERRORS (1-C-R)

When reading the response and using the http protocol, this field determines if errors are to be ignored. When you access this field, the following prompt is displayed:

Ignore HTTP errors when transmitting messages (Y/N)? [N]--

Enter **Y** to ignore error responses. Messages that receive a negative acknowledgement are deleted from the audit queue and retransmission of the message does not occur.

Enter **N** to retransmit the message if an error is received.

7. XML MESSAGE PARAMETERS (TABLE LOOKUP)

This field determines delivery of messages being sent to the McKesson Common Audit Service or Server.

Do not modify the default parameters because they have been qualified to function with the STAR Audit Service Interface. These parameters are used by the McKesson Common Audit Service or Server to validate the messages on their server.

When you access this field, the following table is displayed:

Page:01	
XML message parameters	
(1)	\${_CAMVERSION}-1.0
(2)	\${_CSV_BEGIN_MESSAGE}-{1}
(3)	\${_CSV_END_MESSAGE}{2}-
(4)	\${_CSV_FIELD_ENCAPSULATION}-{34}
(5)	\${_CSV_FIELD_SEPERATOR}-,
(6)	\${_CSV_RECORD_SEPERATOR}-{13}{10}
(7)	\${_POSTPAGE)-/audit/rpcrouter.jsp HTTP/1.0
(8)	\${_XML_AM_XMLNS_XSI)-http://www.w3.org/2001/XMLSchema-instance
(9)	\${_XML_ASID)-STAR
(10)	\${_XML_ENCODING)-UTF-8
Enter choice--	
next pg(/ or PG DN) Search(TAB)	

Enter the number of the option desired and press ENTER.

Audit Statistics Report

When you select the Audit Statistics Report option, the following prompt is displayed:

View detail(D) summary(S) [S]--

Enter **D** to view detailed statistics. See [“Detailed Statistics” on page 2-10.](#)

Enter **S** to view summary statistics. See [“Summary Statistics” on page 2-12.](#)

DETAILED STATISTICS

Enter **D** to view detailed statistics. The following prompt is displayed:

Enter Date to view, all(A), or '-' for list [T]--

Enter a specific date (mm/dd/yy) (or press ENTER to accept the default of **T** for today) or enter **A** for all dates. If you enter any of those options, the following prompt is displayed:

Enter ID to view or all(A) [A]--

Enter a specific application environment ID or enter **A** for all IDs. The following prompt is displayed:

Enter Port number to send report to or NL for screen--

Enter the port number to which the information is sent.

The following is an example of the screen displayed:

```

      General Hospital System Audit Statistics Report Processor
                                Mon Jun 07, 2004 07:03 am
      Audit statistics gathered for 06/01/04, ID ###

Auditing Status                  : Enabled/Active
Number of messages queued        : 17633

User event type accumulated statistics
  Menu Selection                 : 141
  User Signon                    : 1
  User Signoff                   : 21
  Total Events                   : 163
Number of bytes collected        : 172335
Number of records collected      : 3912

Press NL--
```

Press ENTER to display all subsequent screens of statistics. When you press ENTER after the last screen of statistics, the *View detail(D) summary(S) [S]--* prompt is redisplayed.

If you enter a hyphen (-) to display a list of all available dates, the following is displayed:

```

      General Hospital System Audit Statistics Processor
                                Mon Jun 07, 2004 07:06 am

Page:01
( 1) 06/01/04
( 2) 06/02/04
( 3) 06/03/04
( 4) 06/04/04
( 5) 06/05/04
( 6) 06/06/04
( 7) 06/07/04

Enter choice--
```

Enter the number of the day you want to view. The following prompt is displayed:

Enter ID to view or all(A) [A]--

Enter a specific application environment ID or enter **A** for all IDs. The following prompt is displayed:

Enter Port number to send report to or NL for screen--

Enter the port number to which the information is sent.

The following is an example of the screen displayed:

```

      General Hospital System Audit Statistics Report Processor
                                Mon Jun 07, 2004 07:08 am
      Audit statistics gathered for 06/01/04, ID 0

Auditing Status                  : Enabled/Active
Number of messages queued        : 17649

User event type accumulated statistics
  Menu Selection                 : 141
  User Signon                    : 1
  User Signoff                   : 21
  Total Events                   : 163
Number of bytes collected        : 172335
Number of records collected      : 3912

Press NL--
```

Press ENTER to display all subsequent screens of statistics. When you press ENTER at the last screen of statistics, the *View detail(D) summary(S) [S]--* prompt is redisplayed.

SUMMARY STATISTICS

Enter **S** to view summary statistics. The following prompt is displayed:

Enter Port number to send report to or NL for screen--

The following screen is displayed:

```

Auditing Status           : Enabled/Active
Number of messages queued : 17651

BYTES                     : 397365509
User event type accumulated statistics
  Menu Selection          : 1229285
  Navigator Item Selection : 9299
  Patient Selection       : 410671
  Report Request          : 5566
  User Signon             : 2003
  User Signoff            : 24185
  Total Events            : 1320123
RECORDS                   : 9171331
Audit Transmitter runtime statistics
  Date of last error connection : 06/07/04 07:09:04
  Date of last successful connection: 06/07/04 07:07:12
  Date of last bad transmission  : 01/23/04 15:36:29
                                : write failed to port 8060
  Date of last good transmission : 06/07/04 07:07:13
  Status of last transmission   : Normal processing
Number of bytes collected   : 1441132522

Press NL or '^' to redisplay--

```

Press ENTER. The *View detail(D) summary(S) [S]--* prompt is redisplayed.

Audit Queues Review

When you select the Audit Queues Review option, the following prompt is displayed:

View (Q)ueue, (A)udited audits, or (E)rror audits (Q/A/E) [Q]--

If you enter any of the prompt options, the following prompt is displayed:

Enter date or '-' for list--

Enter a specific date (mm/dd/yy) or a hyphen (-) to list all available dates.

If you enter a hyphen (-), a screen similar to the following is displayed:

```

                                General Hospital System ^%AUDA Processor
                                Mon Jun 07, 2004 07:12 am

Page:01
( 1) 06/01/04
( 2) 06/02/04
( 3) 06/03/04
( 4) 06/04/04
( 5) 06/05/04
( 6) 06/06/04
( 7) 06/07/04

Enter choice--

```

Enter the number of the day you want to view. The following prompt is displayed:

Enter Mumps ID or '-' for list--

Enter a system ID or a hyphen (-) to display a list of available system IDs. If you enter a hyphen (-), a screen similar to the following is displayed:

```
General Hospital System ^%AUDA Processor
Mon Jun 07, 2004 07:16 am

Page:01
( 1) 0-Computer Operations
( 2) 1-Patient Care Live
( 3) 2-Patient Care Test

Enter choice--
```

Enter the number of the system ID you want to view. The following screen is displayed:

```
General Hospital System ^%AUDA Processor
Mon Jun 07, 2004 07:18 am

Page:01
Audit queued messages
( 1) 06/01/04 00.00.16 Menu Selection(%A)
( 2) 06/01/04 00.00.57 Menu Selection(%A)
( 3) 06/01/04 00.01.04 Menu Selection(%A)
( 4) 06/01/04 00.01.58 Menu Selection(%A)
( 5) 06/01/04 00.03.06 Menu Selection(%A)
( 6) 06/01/04 00.03.06 Menu Selection(%A)
( 7) 06/01/04 00.03.24 Menu Selection(%A)
( 8) 06/01/04 00.06.35 Menu Selection(%A)
( 9) 06/01/04 00.06.36 Menu Selection(%A)
(10) 06/01/04 00.06.53 Menu Selection(%A)
(11) 06/01/04 00.09.48 Menu Selection(%A)
(12) 06/01/04 00.09.49 Menu Selection(%A)
(13) 06/01/04 00.10.07 Menu Selection(%A)
(14) 06/01/04 00.12.58 Menu Selection(%A)
(15) 06/01/04 00.12.58 Menu Selection(%A)
(16) 06/01/04 00.13.15 Menu Selection(%A)

Enter choice--
next pg(/ or PG DN) Search(TAB)
```

Enter the number of the message you want to display. The following screen is displayed:

```

General Hospital System ^%AUDA Processor
                               Mon Jun 07, 2004 07:20 am

Page:01                      queued audit message collected data
( 1) MSEL                     Menu Selection          (status-)
( 2) APP                      APPLICATION             ~
( 3) AS                       AUDITSOURCE             STAR 139.177.14.64 /hbo/db00/dev
( 4) CFUN                     CURRENT FUNCTION         Telephony SPLT Functions
( 5) CPUNUM                   CPU NUMBER              5
( 6) DBNAME                   DATABASE NAME            /hbo/db00/dev
( 7) DPT                      DEPARTMENT              (empty value)
( 8) EAC                      EVENT ACTION CODE        E
( 9) EID                      EVENT ID                 59687A1
(10) EOI                      EVENT OUTCOME INDICAOTR   0
(11) EVENTTYPENUM             EVENT TYPE NUM          100
(12) HOSTIPADDR               STAR IP ADDRESS          111.111.11.11
(13) HOSTIPPORT               STAR IP PORT             10000
(14) IPADDR                   WORKSTATION IP ADDRESS    111.111.11.11|3111
(15) IPNAME                   WORKSTATION IP NAME       ep119
(16) LOCATION                 LOCATION WORKSTATION      DP

Enter choice--
                               next pg(/ or PG DN)  Search(TAB)

```

Enter the number of the message component you want to view in detail, or press ENTER to display additional screens of message components. The following is an example of the screen displayed when a component is selected:

```

General Hospital System ^%AUDA Processor
                               Mon Jun 07, 2004 07:25 am

AS:AUDITSOURCE::AUDITSOURCEID:STAR 111.111.11.61 /hbo/db00/sbf

Press NL--

```

Enter **Q** to view messages that are currently queued to be sent to the Audit Server. Within this option, when you press ENTER at the last component screen, the following prompt is displayed:

Delete this transaction? (Y/N) [N]--

Enter **Y** to delete the selected audit message. If you enter **Y**, the *Deleted!* message is displayed, and the list of available dates is redisplayed. Enter **N** to exit without deleting the message. The list of available dates is redisplayed.

Enter **A** to view messages that have been sent to the Audit Server successfully. Messages are only audited if the Keep Audit Messages field in System Audit Parameters is set to **Y**.

Enter **E** to view messages that were not transmitted to the Audit Server destination due to a transmission error. Within this option, when you press ENTER at the last component screen, the list of available messages is redisplayed. To exit, enter a period (.) and press ENTER until the screen desired is displayed.

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INTRODUCTION

When the STAR Audit Service is enabled, certain system events in various STAR applications are captured and then formatted for delivery to a common storage area defined by the MSE configuration parameters.

The STAR Audit Service enables your hospital to monitor the system for inappropriate access of the system and to produce a log of access to patient data and certain STAR reports.

Benefits of using audit logs include allowing the hospital to review:

- which users accessed certain menus or functions
- which users accessed which patients
- which users requested certain STAR reports
- which users modified security parameters affecting which accounts
- successful logins to STAR
- logoffs

This chapter provides information about how to access the STAR Audit Service application and run reports as well as perform vital data management functions.

AUDIT SERVICE HOME PAGE

The STAR Audit Service must reside on a server separate from STAR and can be accessed if you:

- click **Start > All Programs > McKesson > STAR Audit Service**
- enter the appropriate URL address defined as follows:

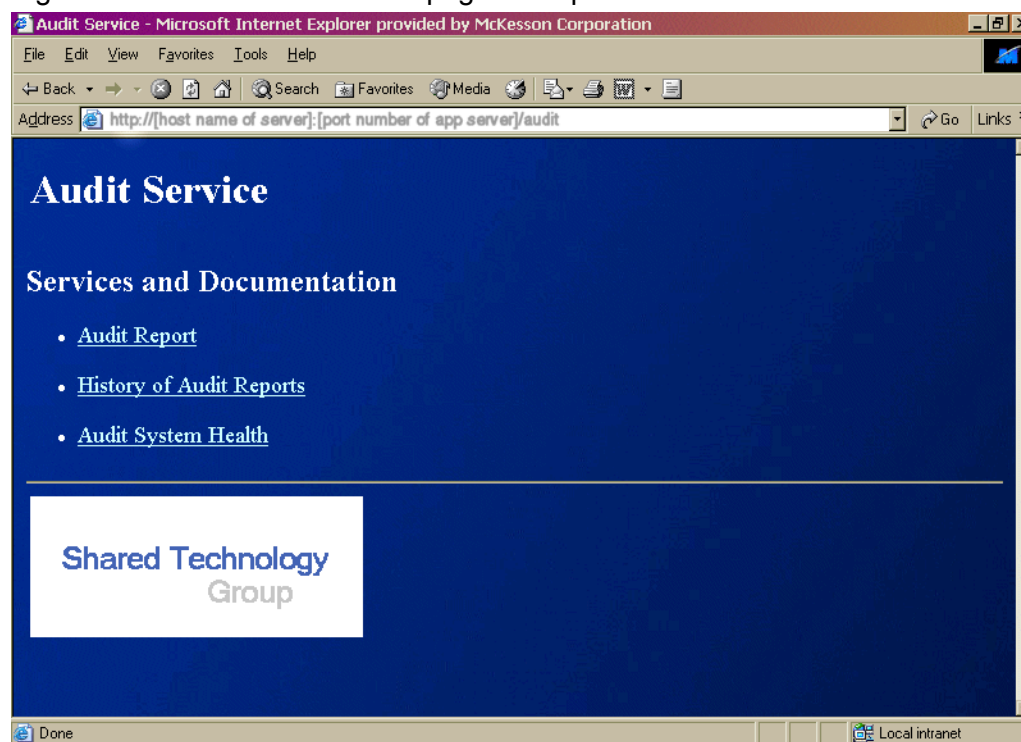
http://[host name of server]:[port number of app server]/audit

The Audit Service Home page provides links to the following services:

- Audit Report
- History of Audit Reports
- Audit System Health

To access one of the options on the Audit Service Home page, click the option's link.

Figure 3.1 Audit Service Home page example



AUDIT REPORT

Audit Report enables you to run reports against the current and archived audit messages.

Figure 3.2 Audit Report page example

There is no validity checking for report criteria (except for Begin and End dates) or sort selection. All criteria entered in the fields are utilized to select the applicable messages. The system checks for appropriate date inclusion prior to checking for the presence of other selection criteria. The greater the date range and the more criteria entered, the longer the search takes.

The following are AND vs. OR selection criteria examples:

If the report selections are as follows:

- UserId = userid

AND

- Participant ID = LAST, FIRST
- beginning 06/02/03 00:00:00 and
- ending 06/02/03 12:50:59,

then the resulting report includes all messages where the user (userid) accessed data from the Participant ID (LAST, FIRST) within the given time frame.

If the report selections are as follows:

- UserId = userid

OR

- Participant ID = LAST, FIRST
- beginning 06/02/03 00:00:00 and
- ending 06/02/03 12:50:59,

then the resulting report includes all messages where the user (userid) exists in a message **and** all messages where the Participant ID (LAST, FIRST) exists in a message within the given time frame.

Field Explanations

Command Button/Link

HOME

Click this link to return to the Audit Service Home page.

HISTORY

Click this link to go to the History of Audit Reports page.

REPORT

Click this button to generate a report using the defined criteria.

CLEAR

Click this button to clear the fields on the page.

STORE

Click this button to retain the current report criteria. Retained report criteria can be accessed on the History of Audit Reports page.

Criteria Selection Fields

NOTE: The Audit Reporting criteria selection screen is used with a number of McKesson products. Not all of the options are used by each product. This document references which options or values are used by STAR.

FILTER

Select a filter from the drop-down list box. Options available for STAR are blank, 100, 200 or 400.

If you leave the filter field blank, all Event IDs are displayed on the report.

Enter **100** to display only Event ID 100 (menu selections) on the report.

Enter **200** to display only Event ID 200 (patient selections) on the report.

Enter **400** to display only Event ID 400 (STAR report requests) on the report.

NOTE: If you want users to be able to select a filter for security modifications on the report (Event 1400), access the filters.properties file on the server PC and enter the following line at the end of the file:

1400Level=EventID="1400_.*"

To further limit items on the report:

- Select a filter (100, 200 or 400)
- In the Filter text box after the underscore (_) and before the period (.), enter the function desired. The text entered is case sensitive.

Example 1:

Filter selection = **200**

Filter text box = **EventID="200_Charge."**

This example reports all patients accessed in the Charge function, the Charge Inquiry function, and any other function that begins with the word "Charge".

Example 2:

To report only patients accessed in the Charge Inquiry function, enter the following:

Filter selection = **200**

Filter text box = **EventID="200_Charge Inquiry."**

NOTE: If the resulting number of messages exceeds the limit defined by your organization, the report is printed with an error message displayed at the bottom of the page.

BEGIN DATE

Select a day from the drop-down list box in relation to the current date (for example, Today, Yesterday, Two days ago). The actual date is displayed in the field, but the date-relative information is retained in the audit report history. For example, if you store a report with Yesterday as the Begin date, when you select that report from audit history and the report criteria is populated in the Audit Report fields, the Begin date is displayed as the date previous to the current date.

If you want to use a specific date in the query, enter the date and time using either of the two formats displayed. For example, YYYYMMDD or MM/DD/YY HH:MM:SS. The correct format is displayed beside the field.)

If the date field is left blank, the query begins with the oldest audit message date in the Log and Archive folders.

END DATE

Select a day from the drop-down list box in relation to the current date (for example, Today, Yesterday, Two days ago). The actual date is displayed in the field, but the date-relative information is retained in the audit report history. For example, if you store a report with Yesterday as the End date, when you select that report from audit history and the report criteria is populated in the Audit Report fields, the End date is displayed as the date previous to the current date.

If you want to use a specific date in the query, enter the date and time using either of the two formats displayed. For example, YYYYMMDD or MM/DD/YY HH:MM:SS. The correct format is displayed beside the field.)

If the date field is left blank, the query ends with the most recent audit message date in the Log and Archive folders.

PARTICIPANT NAME

To limit the report to one patient, enter the patient's name. A partial name can be entered as well. For example, if SMITH,J is entered, every patient name with a last name of Smith and a first name beginning with a J is included on the report.

NOTE: The name format must be entered as it is stored in the STAR system, which is all uppercase, LASTNAME followed by a comma with no space, and then the FIRSTNAME followed by a space and then the MIDDLE INITIAL. For example, SMITH,JOE M.

PARTICIPANT ID

Enter a unique identifier. For STAR, select one of the following from the Participant ID drop-down list box:

- MRN (CAM) = Medical Record number
- Account Number (CAM) = Account Number
- Patient Number (CAM) = Corporate Number
- Report Name = STAR Report Name

After selecting the Participant ID criteria, enter the corresponding data in the Participant ID text box:

- MRN = Facility code in uppercase followed by the MRN with all leading zeros.
- Account Number = Facility Code in uppercase followed by the account number with all leading zeros.
- Patient Number (Corporate Number) = Entire number with any leading zeros.
- STAR Report Name must match the report name entered in STAR Reports Maintenance.

An entry that exactly matches the data is included in the report.

USER ID

To limit the report to one user, enter the permanent identifier for the user to be displayed on the report. For STAR, this is the UNIX® login ID. An entry that exactly matches the data is included in the report.

SENSITIVITY

This field is not used by STAR.

AUDIT SOURCE ID

This field is not used by STAR.

OUTCOME

This field is not used by STAR.

ACTION CODE

This field is not used by STAR.

FIRST SORT

Select the primary sort for the audit messages on the report. Options in the drop-down list box include the following: Event Date Time, Participant ID, Participant Name, and User ID. The default sort is Event Date Time. Select either ascending or descending order.

SECOND SORT

Select the secondary sort for the audit messages on the report. Options in the drop-down list box include the following: Event Date Time, Participant ID, Participant Name, and User ID. Select either ascending or descending order.

THIRD SORT

Select the tertiary sort for the audit messages on the report. Options in the drop-down list box include the following: Event Date Time, Participant ID, Participant Name, and User ID. Select either ascending or descending order.

Audit Report Output

After entering the report criteria on the Audit Report page, click the **Report** button to run the report request and display the results. The report displays the description (instead of the code value) for the data matching the criteria. To print the report, use your browser's print function.

Figure 3.3 Audit Report Output page example

Event ID	User ID	Source ID	Network ID	Data Accessed
20040608104127, 100_Admission Functions, Execute, Success	54454:Name Smith,John L:Security Level 33:Department ER Registration:Application Patient Administration, mickeyd	Hospital Patient Care, 10.3.144.6+10000, 3	1, aip123.hospital.com 2, 10.3.4.2 1081 4, MSE Port 116:CRT Name ER1	
20040608104816, 200_Charge Inquiry, Execute, Success	99938:Name Jones,Bob :Security Level 68:Department Cardiology:Application Radiology, dduck	Hospital Clinicals, 10.3.144.7+10000, 3	1, addlab.hospital.com 2, 10.3.3.2 1082 4, MSE Port 271:CRT Name RAD	, , Access / use, Medical record number, , A400000535, CAMINO,JOSE , , , Account No., , A0226700002, , , , Patient number, , 00005927,
20040608110714, 400_View Spooled Reports, Execute, Success	93382:Name Johnson,Ray:Security Level 22:Department Business Office:Application Patient Accounting, fnemo	Hospital Financials, 10.3.144.7+10000, 3	1, abinbin.hospital.com 2, 10.8.9.2 4, MSE Port 307:CRT Name FIN	, , Report, Report Name, , FBR200A, Billed Accounts Report (A) , , , , Report Criteria, OUTPUT DISPLAY:DATESPOOLED 06/07/04 00:47:08 , , , , Report Type, Generic

NOTE: If the criteria you selected returns more than 1000 lines on the report, an error message is displayed at the bottom of the report screen. To avoid the error message, redefine the report selection criteria to return fewer lines.

Field Explanations

EVENT ID

This column can contain the following data:

- Event Date/Time (YYYYMMDDHHMMSS)
- Event ID (100, 200, 400 and 1400)
- Environment ID (in parentheses)
- Event Action Code (Execute)
- Event Outcome Indicator (Success).

USER ID

This column contains the following data:

- ALLSTAR Sign-on ID code
- User Name
- Security Level
- Department of the user defined in the Hospital Employee File
- Application the user is currently accessing
- UNIX login ID

SOURCE ID

This column contains the following data:

- system accessed
- TCP/IP address of the server where the event originated.
- MSE database networking port (10000 in all rows of the example above)
- Audit Service information type numbering convention (3 in all rows of the example above)

NETWORK ID

This column contains the following data:

- Audit Service information type numbering convention (1 in the first row of the example above)

- User's workstation ID
- Access point of the user workstation
- System TCP/IP address
- Originating TCP port on the device that is connected to the STAR system. It is an arbitrary number when the device is a PC, but it is used to identify the device on Terminals or Citrix servers when originating from those types of devices (1081 in the first row of the example above).
- MSE port number
- CRT name

DATA ACCESSED

This column contains information about:

- Patient selection events (Event ID 200). Data may include Medical Record Number, patient name, Account Number and Corporate Number. Data varies if a patient has been accessed, or if a visit has been accessed.
- STAR report requests (Event ID 400). Data includes various report criteria such as Report Name, Report Description, Report Type and Criteria Tags. Report Type is displayed as Vista for STAR Vista reports or Generic for all reports that are not STAR Vista reports. For a complete list of report criteria tag information that may be displayed in this column, see ["CRITERIA TAGS" on page A-1](#).
- Security modification events (Event ID 1400). Data indicates security criteria added, changed or removed in the specified ID and for which user account. Examples of security criteria include Environment, Initial menu, Navigator view or Security level. An example of a change displayed in the Data Accessed column is:

System Object, Security User Group,
Amendment, Enrollee number,
Environment Access Change,
Removed Patient Administration ID(1),
416 JONES,SAMUEL

NOTE: No information is displayed for menu selection events (Event ID 100).

Example 1:

In MPI Inquiry, if the patient is selected and patient level data is viewed, the Medical Record Number, patient name and Corporate Number are displayed in the column.

Example 2:

If the user then selected a visit for the patient, another audited event is displayed on the report (that includes the Account Number).

Exporting data to Microsoft Excel, Crystal Reports or Business Objects

You can export the report output data to third-party reporting tools. This section describes how to export data to Microsoft Excel 2002 or higher, Crystal Reports or Business Objects.

EXPORTING DATA TO MICROSOFT EXCEL

To export data to Microsoft Excel 2002 or higher:

1. Access the Audit Service, enter the desired report criteria and run the report.
2. View the report information on the screen.
3. In the URL field, enter an appropriate URL using one of the following:
 - If you defined a begin date (but not an end date) in your report selection criteria, enter the appropriate data formatted as below:

`http://<host>:<port>/audit/secure/auditReportRaw.jsp?startDate=mm/dd/yy%20HH:MM:SS`

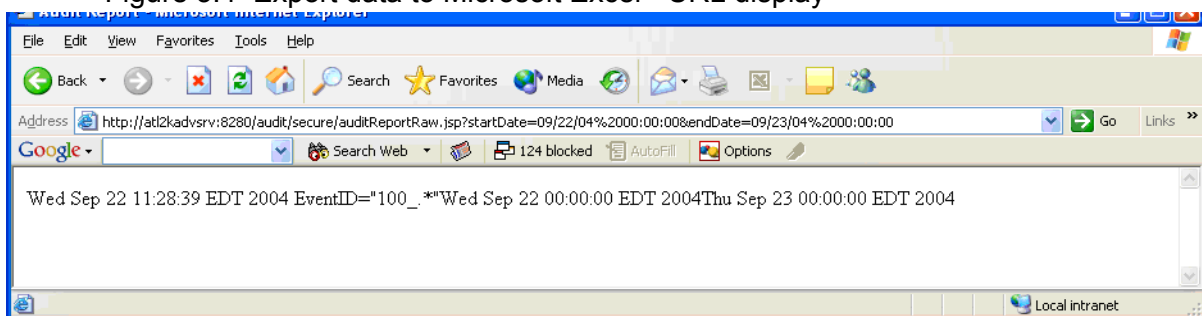
- If you defined a begin date and an end date in your report selection criteria, enter the appropriate data formatted as below:

`http://<host>:<port>/audit/secure/auditReportRaw.jsp?startDate=mm/dd/yy%20HH:MM:SS&endDate=mm/dd/yy%20HH:MM:SS`

NOTE: The %20 is a valid entry and it separates the date information from the time information in the URL.

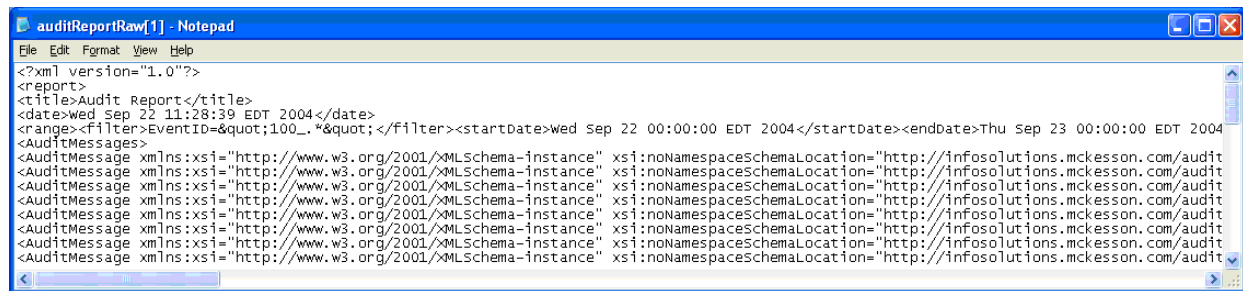
4. After you enter the URL, click **Go**. A screen similar to the following is displayed:

Figure 3.4 Export data to Microsoft Excel - URL display



5. Right-click anywhere on the screen and select **View Source**. The source code is displayed in Notepad. A screen similar to the following is displayed:

Figure 3.5 Export data to Microsoft Excel - Notepad display



6. Verify the Notepad display includes audit messages. If messages are not displayed, it is likely the URL was not entered correctly. Repeat the steps to enter the correct URL, view source and verify the message information.
7. When you have verified the Notepad display is correct, click **File > Save As**. Select a directory/folder location of your choice. Select File Name with an extension of **.xls**, Save as type = **All Files** and Encoding = **ANSI**. Click **Save**.
8. Leave the Notepad file open and access Microsoft Excel. Open the file you just saved. Each element of the report has its own column in Microsoft Excel, similar to the screen below:

Figure 3.6 Export to Microsoft Excel - Microsoft Excel display

	J	K	L	M	N	O	P	Q	R	S	T
1											
2	/AuditMes	/AuditMes	/AuditMes	/AuditMes	/AuditMes	/AuditMes	/date	/range/endDate	/range/filter	/range/startDate	/title
3	0	0	ajjDvp21		1	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
4	0	0	139.177.56		2	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
5	0	0	ajjDvp21		1	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
6	0	0	139.177.56		2	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
7	0	0	ajjDvp21		1	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
8	0	0	139.177.56		2	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
9	0	0	ajjDvp21		1	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
10	0	0	139.177.56		2	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
11	0	0	ahrz331		1	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
12	0	0	139.177.56		2	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
13	0	0	ahrz331		1	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
14	0	0	139.177.56		2	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
15	0	0	ahrz331		1	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
16	0	0	139.177.56		2	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
17	0	0	ahrz331		1	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
18	0	0	139.177.56		2	#33771 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report
19	0	0	ajjDvp21		1	#31408 (Dluser_id	Wed Sep 22 11:28:39 EDT 2004	Thu Sep 23 00:00	EventID="100_**	Wed Sep 22 00:00	Audit Report

9. You can now close the Notepad file and modify the format of the data as desired in Microsoft Excel.

EXPORTING DATA TO CRYSTAL REPORTS

To export data, refer to the documentation provided by Crystal Reports.

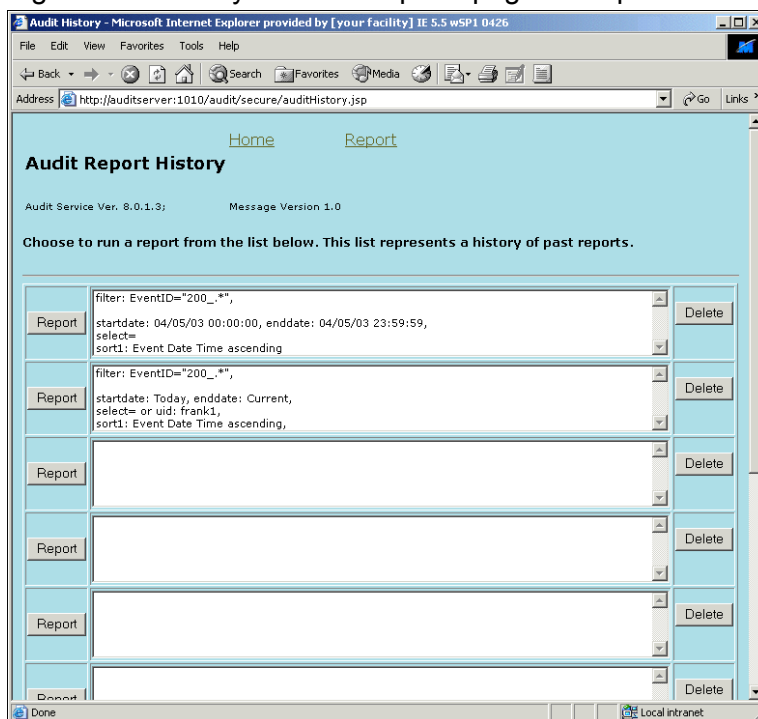
EXPORTING DATA TO BUSINESS OBJECTS

To export data, refer to the documentation provided by Business Objects.

HISTORY OF AUDIT REPORTS

The History of Audit Reports displays the last 10 saved report requests in reverse chronological order, with the most recently retained report request listed first. If a new request is retained when 10 requests are already listed, the oldest report request is removed.

Figure 3.7 History of Audit Reports page example



Field Explanations

HOME

Click this link to return to the Audit Service Home page.

REPORT (link)

Click this link to go to the Audit Report page.

REPORT (button)

Click the **Report** button to the left of the retained report request to re-run the report. This action populates the fields on the Audit Report page with the selected report's criteria. You can then modify the filter, date parameters and/or sort options prior to running the report.

DELETE

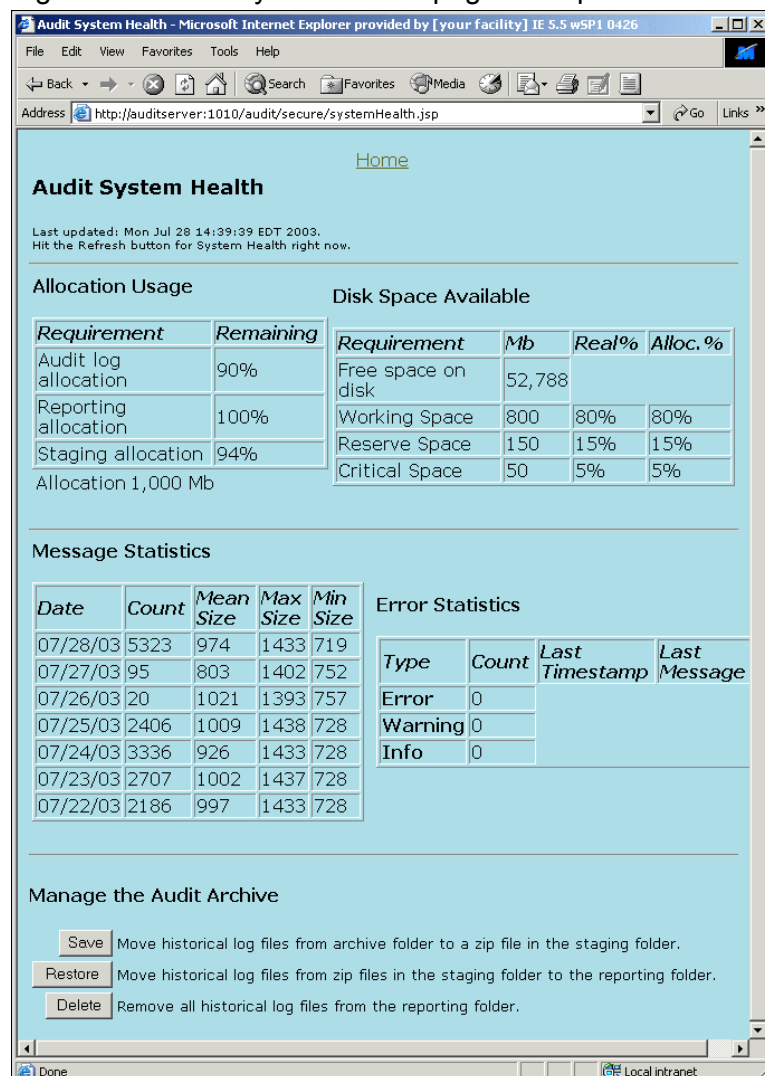
Click the **Delete** button to the right of the retained report request to delete the report criteria.

AUDIT SYSTEM HEALTH

Audit System Health presents message and space usage information to facilitate audit message and file management.

NOTE: The information on this page is display only and cannot be edited.

Figure 3.8 Audit System Health page example



Field Explanations

LAST UPDATED

This field displays the snapshot date/time for the current information. Click your browser's **Refresh** button to update the displayed data.

HOME

Click this link to return to the Audit Service Home page.

ALLOCATION USAGE

The following information is displayed in this section:

- Audit log allocation - The remaining (unused) percentage of the allocated current and archived log space. For information about disk allocation, see [“Auditserver.xml file” on page 1-19](#).
- Reporting allocation - The remaining percentage of the reporting directory space.
- Staging allocation - The remaining percentage of the staging directory space.
- Allocation <#> Mb - The number of Mb showing the total server space allocated for the audit log files.

DISK SPACE AVAILABLE

The following information is displayed in this section:

- Free space on disk - The number of Mb available on the disk.
- Disk space management categories:
 - Working Space - Allocations from this space do not indicate a low-space condition.
 - Reserve Space - Allocations from this space indicate an impending low-space condition. The situation should be addressed before space allocation becomes critical.
 - Critical Space - Allocations from this space indicate a severe low-space condition requiring immediate remediation.
- Mb - The number of Mb available on the disk for the disk space management category.
- Real% - The percentage of disk space that remains for the disk space management category.
- Alloc.% - The percentage of the total allocated amount (for example, 1 Gb) for a given disk space management category.

MESSAGE STATISTICS

The following information is displayed in this section:

- Count - The number of audit messages received on each of the last seven days of activity.
- Mean size - Mean size for all the messages received that day.

- Max size - The largest message received that day.
- Min size - The smallest message received that day.

ERROR STATISTICS

There are three types of error messages that can be generated: Error, Warning, and Info. The information displayed for each error message type includes the following:

- Count - The number of error messages received for that error type.
- Last Timestamp - Last timestamp for the error message.
- Last Message - Last message for that error type.

MANAGE THE AUDIT ARCHIVE

This section contains buttons that pertain to managing audit message log files. You must perform the data management functions in the order and manner described in [“STAR AUDIT SERVICE FILE STRUCTURE AND DATA MANAGEMENT” on page 3-20](#).

The audit directory structure is as follows:

Var/

Log/	Audit Messages (reporting reads)
Archive/	Automatic archive of audit messages (reporting reads)
Reporting/	Unzipped messages for reporting (reporting reads)
Staging/	Zip files of archived audit messages

- **Save** - Click this button to move audit message log files from the Archive folder to a zip file in the Staging folder. Reporting automatically queries Log, Archive, and Reporting directories. To perform this function, see [“STAR AUDIT SERVICE FILE STRUCTURE AND DATA MANAGEMENT” on page 3-20](#).
- **Restore** - Click this button to move and unzip files from the Staging folder to the Reporting folder. The zip file remains in the Archive directory. To perform this function, see [“STAR AUDIT SERVICE FILE STRUCTURE AND DATA MANAGEMENT” on page 3-20](#).
- **Delete** - Click this button to delete the unzipped files from the Reporting folder. To perform this function, see [“STAR AUDIT SERVICE FILE STRUCTURE AND DATA MANAGEMENT” on page 3-20](#).

STAR AUDIT SERVICE FILE STRUCTURE AND DATA MANAGEMENT

Each Audit Service environment (build, test and live) utilizes the following files and folders to store and manage data:

- Auditserver.log file
- Archive folder
- Staging folder
- Reporting folder

For reporting purposes, event data is retrieved from the Auditserver.log file, the Archive folder and the Reporting folder.

Data process functions

NOTE: It is imperative that you complete these functions at least monthly. However, McKesson recommends you monitor the files carefully and complete these functions as often as necessary to ensure optimum disk space and system performance.

The data process functions are:

- “Moving data from the Auditserver.log to the Archive folder” on page 3-21
- “Moving data from the Archive folder to the Staging folder” on page 3-22
- “Moving data from the Staging folder to Offline event data storage” on page 3-23
- “Pulling reports from data located in offline, long-term storage” on page 3-23
- “Deleting event data from the STAR Audit Service server” on page 3-23

NOTE: When you begin to process the data, you are processing only the data that has accumulated since the last time this process was completed. If event data is captured after you begin to perform these functions, it will be stored in the auditserver.log file until the next time the data process functions are performed.

MOVING DATA FROM THE AUDITSERVER.LOG TO THE ARCHIVE FOLDER

Process flow

The events captured in STAR (listed in [“INTRODUCTION” on page 3-3](#)) are sent from STAR to the Audit Service and written to the auditserver.log file.

The events written to the auditserver.log file are moved into the Archive folder when:

- you stop and restart the McKesson STAR Audit Service (through Control Panel > Administrative Tools > Services), or
- the auditserver.log file reaches the size defined in the logging.xml file (see page [1-20](#)). The default size of the logging.xml file is 2 MB. A new auditserver.log file is created each time its size limit is reached.

NOTE: Events moved into the Archive folder are still located on the STAR Audit Service server at this stage. The term "archived" ordinarily means that the data has been removed to an offline media source. However, in the data process flow for the STAR Audit Service, data is not moved to an offline data storage area until [“Moving data from the Staging folder to Offline event data storage” on page 3-23](#).

Additional information

The location of the auditserver.log file is:

C:\McKesson\Audit\Data\environmentname\var\log\auditserver.log

where environment name is build, test or live. There is an auditserver.log file for each environment.

The format of the file name is:

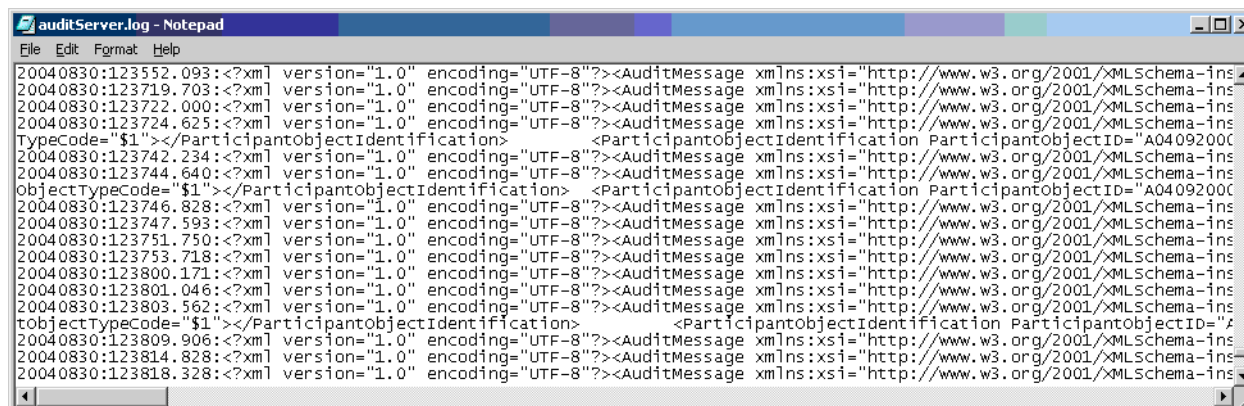
auditserver_<name of server>_<year>_<month>_<day>_<time>.log.

The format of the first section of each message line is the date and time the message was created.

For example, 20040830:123818.328 is 08/30/2004 at just after 12:38PM. The log is sorted from oldest to most recent.

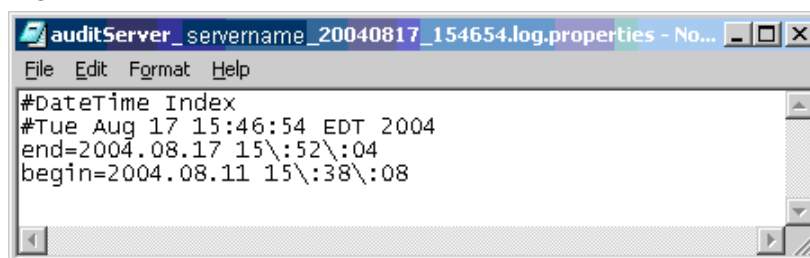
An example of the auditserver.log file is:

Figure 3.9 Auditserver.log file example



A log properties file is created each time event data is moved into the Archive Folder that displays the beginning and ending date and time of all the messages in the log file. The file name is the same as the log file with the .properties appended to it. An example of the properties file is:

Figure 3.10 Auditserver .properties file example



MOVING DATA FROM THE ARCHIVE FOLDER TO THE STAGING FOLDER

Process flow

To perform this function, access the Audit System Health Page and click **Save**.

NOTE: If you do not monitor the system carefully and perform this step often enough, you will receive a null error message when you click Save from the Audit System Health Page. This error indicates that over 1200 auditserver.log files have accumulated since you last performed this function.

You can minimize the number of auditserver.log files being created by increasing the size of the auditserver.log file entry in the logging.xml file (see page 1-20).

Even if you increase the size of the auditserver.log files, your system performance and disk space can be negatively impacted if you donot perform the data management functions on a regular basis.

If you receive the error, save all of the archive files to a temporary folder and then copy them back into the archive folder 1200 at a time and click **Save** to zip each into the staging folder.

MOVING DATA FROM THE **STAGING FOLDER TO OFFLINE EVENT DATA STORAGE**

Process flow

You must manually move the zipped files from the staging folder to an offline, long-term storage solution as part of your scheduled data function processing. Verify that the staging folder contains no files after you have completed this process.

PULLING REPORTS FROM DATA LOCATED IN OFFLINE, LONG-TERM STORAGE

If you need to pull reports using data that you have already moved to offline, long-term storage, you must copy the zipped event data files from the offline storage to the staging folder. Then you must access the Audit System Health Page and click **Restore** to move the data from the staging folder to the reporting folder. When the restore is complete, you can generate reports on the recovered event data in the reporting folder.

NOTE: The reporting folder contains only event data that has been restored from offline, long-term storage.

DELETING EVENT DATA FROM THE **STAR AUDIT SERVICE SERVER**

After you have run all of the necessary reports from the historical data in the reporting folder, verify a copy of the data is still in long-term storage. Then access the Audit System Health Page and press **Delete** to remove the files from the reporting folder. This frees disk space on the STAR Audit Service server and maximizes system performance (that is directly impacted by the amount of data that remains online).

Appendix A - CRITERIA TAGS

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DATETYPE Values Table	A-30

INTRODUCTION

This section contains a list of all criteria tags (sorted alphabetically by the Criteria Tag column) and date types that can be displayed for patient access selection events (Event ID 200) or report request selection events (Event ID 400). The criteria tags and date types are displayed in the **DATA ACCESSED** column of the **Audit Report Output** section on page 3-12.

CRITERIA TAG TABLE

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	ABSTRACT	Print Abstract Info for Mother, Baby, or Both	<ul style="list-style-type: none"> • "Mother" • "Baby" • "Both" 	"ABSTRACT Baby"
Code Set	ACCESSION	Accession Number for Report	<ul style="list-style-type: none"> • Accession Number • "Multiple" 	"ACCESSION 9341"
Code Set	ACCOMCD	Accommodation Codes	<ul style="list-style-type: none"> • Accommodation Codes separated by semicolon 	"ACCOMCD A;B;C"
Pt Identifier	ACCT	Account Number	<ul style="list-style-type: none"> • Account Numbers 	"ACCT 0131-300009;0131455558" or "ACCT All"
Indicator	ACCTST	Account Status	<ul style="list-style-type: none"> • Active • Inactive • or Both 	"ACCTST Both"
Indicator	ACTORD	Active Orders (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"ACTORD Yes"
Indicator	ADMDIAG	Include Admitting Diagnosis	<ul style="list-style-type: none"> • "Yes" • "No" 	"ADMDIAG Yes"
Indicator	ADMDT	Include Admit Date	<ul style="list-style-type: none"> • "Yes" • "No" 	"ADMDT Yes"
Text	AGE	Patient Age	<ul style="list-style-type: none"> • Ages • Multiple ages • Age ranges 	"AGE 23" or "Age 23,40,45" or "AGE 23-59"
Code Set	AHFS	AHFS Therapeutic Classes	<ul style="list-style-type: none"> • AHFS code • Codes separated by a semicolon 	"AHFS 400400;500500;600600;700700"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	ALLPAT	(A)ll Patients or (O)nly those who meet report criteria	<ul style="list-style-type: none"> • "All" • "Only" 	"ALLPAT All"
Code Set	ALRTTYP	Alert Types - can be multiple	<ul style="list-style-type: none"> • "All" • Codes separated by a semi-colon 	"ALRTTYP A1;A2;A3;...;B13"
Code Set	ASRCD	Account Selection Report Code	<ul style="list-style-type: none"> • Account selection/report definition code 	"ASRCODE INS-Accounts/Insurance"
Code Set	ASSMT	Assessment Codes(s)	<ul style="list-style-type: none"> • Codes separated by a semi-colon 	"ASSMT 1000;2000"
Code Set	ASSMTGRP	Assessment Group Codes(s)	<ul style="list-style-type: none"> • Codes separated by a semi-colon 	"ASSMTGRP 1000;2000"
Indicator	ASSMTORD	Print Assessment Orders	<ul style="list-style-type: none"> • "Yes" • "No" 	"ASSMTORD Yes"
Indicator	ASSMTQUES	Include Internal/External Assessment Questions	<ul style="list-style-type: none"> • "Internal" • "External" 	"ASSMTQUES External"
Code Set	ATBCD	ATB Report Code	<ul style="list-style-type: none"> • ATB selection/report definition code 	"ATBCODE FC-ATB by Financial Class"
Code Set	AVDAYTP	Avoidable Day Type	<ul style="list-style-type: none"> • "All" • Codes separated by a semi-colon 	"AVDAYTP All" or "AVDAYTP AAA;A;1;45"
Code Set	BATCHNUM	Report Batch Number	<ul style="list-style-type: none"> • Number • "Multiple" 	"BATCHNUM 5"
Code Set	BED	Bed	<ul style="list-style-type: none"> • Hospital-defined 	"BED 02"
Code Set	BGEVENT	Turnaround Time Report Beginning Event	<ul style="list-style-type: none"> • Name of Event option selected 	"BGEVENT Accession Time"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	BILLCHGS	Bill Charge Selection	<ul style="list-style-type: none"> • ALL • UNBILLED • TOTAL • DATES followed by hyphenated date range • PREVIOUS • LATE 	"BILLCHGS DATES 04/01/04 to 04/02/04" or "BILLCHGS UNBILLED"
Code Set	BILLMSGN	Bill Message Number	<ul style="list-style-type: none"> • Patient Bill Messages table (hospital-defined) 	"BILLMSGN 1-Bill Direct"
Indicator	CARETYPE	Care Type	<ul style="list-style-type: none"> • "P" for Physician • "N" for Nursing 	"CARETYPE P"
Code Set	CART	Cart	<ul style="list-style-type: none"> • Hospital-defined 	"CART 1"
Code Set	CARTSTN	Cart Station	<ul style="list-style-type: none"> • Hospital-defined 	"CARTSTN CCU"
Code Set	CASENUMPL	Long Reports Batch Case Number Pools	<ul style="list-style-type: none"> • "N/A" • "A" • "B" • "C" • "S" • < NP> 	"CASENUMPL S"
Code Set	CATBCD	Contract ATB Report Code	<ul style="list-style-type: none"> • Contract ATB selection/report definition code 	"CATBCD BILL-ATB by Contract Bill Date"
Code Set	CATEGORY	Category Code	<ul style="list-style-type: none"> • Code 	"CATEGORY 200"
Code Set	CENCODES	Census Code(s)	<ul style="list-style-type: none"> • "All" • Codes separated by a semi-colon 	"CENCODES A;B;C"
Indicator	CENCOMBINE	Combine Census (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"CENCOMBINE Yes"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	CHGCOST	Charge/Cost Indicator	<ul style="list-style-type: none"> • "Cost" • "Charges" • "Both" 	"CHGCOST Cost" or "CHGCOST Charges" or "CHGCOST Both"
Code Set	CHGLOC	Charge Location	<ul style="list-style-type: none"> • Hospital-defined 	"CHGLOC LAB"
Indicator	CHGSHTYPE	Charge Sheet Type	<ul style="list-style-type: none"> • Inpatient • Type • Blank 	"CHGSHTYPE I"
Text	CHKINS	Check-in Number Range	<ul style="list-style-type: none"> • "Check-in Number to Check-in Number" 	"CHKINS 1000 to 2000"
Code Set	CKCD	Check Code	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"CKCD 3;33"
Text	CKMSG	Check Message	<ul style="list-style-type: none"> • Any alphanumeric up to 250 characters 	"CHKMSG XXXXXXXXXXXXXXXXXX"
Numeric	CKNUMB	Check Number(s)	<ul style="list-style-type: none"> • Check number • Check number range(s) 	"CKNUMB 123-987"
Indicator	CLINQUEST	Print Clinical Questions	<ul style="list-style-type: none"> • "Yes" • "No" 	"CLINQUEST No"
Code Set	CODES	Generic Code Set	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"CODES All" or "CODES AAA;A;1;45"
Indicator	COMMENTS	Include Comments?	<ul style="list-style-type: none"> • "Yes" • "No" 	"COMMENT No" or "COMMENT Yes"
Indicator	COMPLTES	Show Completes	<ul style="list-style-type: none"> • "Yes" • "No" 	"COMPLTES Yes"
Indicator	COMPORD	Include Completed Orders	<ul style="list-style-type: none"> • "Yes" • "No" 	"COMPORD No"
Code Set	COPY/SORT	Reports Sort Method Per Copy	<ul style="list-style-type: none"> • Sort methods selected for each copy 	"COPY/SORT Copy 1/ Location, Copy 2/Name"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	CORRECTRST	Corrected Results Only	<ul style="list-style-type: none"> • "Yes" • "No" 	"CORRECTRST No"
Indicator	CRITPG	Print Criteria Page	<ul style="list-style-type: none"> • "Yes" • "No" 	"CRITPG Yes"
Code Set	CROSSLINKS	Test Crosslinks	<ul style="list-style-type: none"> • "Yes" • "No" 	"CROSSLINKS Yes"
Numeric	CTRLNUM	Control Number	<ul style="list-style-type: none"> • Number 	"CTRLNUM 123"
Code Set	CUMLOC	Restart Cum Location	<ul style="list-style-type: none"> • Name of Location To Restart Cums 	"CUMLOC 1E"
Indicator	CUMRESTART	Restart Cum Batch From Last Patient	<ul style="list-style-type: none"> • "Yes" • "No" 	"CUMRESTART Yes"
Code Set	CUMRPTYPE	Entire Cum Trend Batch / Index Report Type	<ul style="list-style-type: none"> • Name of Batch/Report Type Selected 	"CUMRPTYPE Patients with work"
Date	DATE	Any date and/or time or date range. Use with DATETYPE.	<ul style="list-style-type: none"> • "Date" • "Date to Date" 	"DATE 04/01/04" or "DATE 04/01/04 to 04/02/04"
Date	DATESPOOLED	Date the report was generated.	<ul style="list-style-type: none"> • "Date" 	DATESPOOLED 08/04/2004 05:20:30
Indicator	DATETYPE	Type of date selected. Used with and immediately following DATE. DATETYPE is optional.	<ul style="list-style-type: none"> • For abbreviations and values of DATETYPE, see "DATETYPE Values Table" on page A-30. 	"DATETYPE A"
Indicator	DAYS	Number of Days Requested	<ul style="list-style-type: none"> • Number of Days Requested 	"DAYS 20"
Indicator	DCORD	Include DC (discontinued) Orders	<ul style="list-style-type: none"> • "Yes" • "No" 	"DCORD Yes"
Code Set	DEATH	Death Classification	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"DEATH 2;1;3"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	DEFCD	Deficiency Codes	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"DEFCD All" or "DEFCD AA;BB;CC"
Code Set	DEFSTAT	Deficiency Statuses	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"DEFSTAT H;L"
Code Set	DEFTYP	Deficiency Types	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"DEFTYP SIG;DIC"
Indicator	DELIVERY	Print Delivery Info	<ul style="list-style-type: none"> • "Yes" • "No" 	"DELIVERY Yes"
Indicator	DEMOG	Print Demographic Info	<ul style="list-style-type: none"> • "Yes" • "No" 	"DEMOG Yes"
Code Set	DEPT	Department Code	<ul style="list-style-type: none"> • Department Code 	"DEPT RT"
Indicator	DET/SUM	Detail or Summary Report	<ul style="list-style-type: none"> • "Detail" • "Summary" • Both 	"DET/SUM Detail"
Indicator	DETBILL	Print Detail Bill?	<ul style="list-style-type: none"> • "Yes" • "No" 	"DETBILL YES"
Code Set	DIAG	Diagnosis Codes	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon • Code ranges (hyphenated) and separated from other code/code ranges by semicolon • "Top #" where # is the number of codes to be displayed 	"DIAG 0038;1175-1176" or "DIAG Top 10"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	DISCHONLY	Discharged Patients Only	<ul style="list-style-type: none"> • "Yes" • "No" 	"DISCHONLY Yes"
Code Set	DISCLINFO	Information Disclosed	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"DISCLINFO 100;200"
Code Set	DISPO	Discharge Dispositions	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"DISPO 100;200"
Code Set	DOCMT	Document Codes	<ul style="list-style-type: none"> • Codes separated by a semicolon 	"DOCMT 1000;2000"
Code Set	DOCMTADDL	Additional Document Codes	<ul style="list-style-type: none"> • Codes separated by a semicolon 	"DOCMTADDL 3456"
Indicator	DOCUMENT	Recall Letters	<ul style="list-style-type: none"> • "General" • "Summary" • "Both" 	"DOCUMENT General"
Code Set	DRG	DRG	<ul style="list-style-type: none"> • Codes separated by a semicolon • Code ranges (hyphenated) and separated from other code/code ranges by semicolon • "Top #" where # is the number of codes to be displayed 	DRG 100,200,300
Code Set	DRGCLS	Target Drug/Class code	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"TDC 123"
Code Set	DRUG	Formulary code for a drug	<ul style="list-style-type: none"> • Formulary code • Codes separated by a semicolon 	"DRUG 1234;5678;9012;3456"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	EC	Entity Code	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"EC 01;SB" or "EC All"
Code Set	EDEVENT	Turnaround Time Report Ending Event	<ul style="list-style-type: none"> • Name of Event option selected 	"EDEVENT Report Time"
Code Set	EMPL	Employee number, name or both	<ul style="list-style-type: none"> • ID • Name of user • Both 	"EMPL 23455" or "EMPL Last,First" or "EMPL 23455 Last,First"
Code Set	ENDACCT	End Account Number	<ul style="list-style-type: none"> • Account Number • "Last" 	"ENDACCT A0215000001" or "ENDACCT Last"
Indicator	ENDSHFT	End Shift	<ul style="list-style-type: none"> • Shift 	"ENDSHFT 1"
Code Set	EPIAB	Epidemiology Antibiotics	<ul style="list-style-type: none"> • Print Group • Antibiotic • "All" 	"EPIAB All"
Code Set	EPICON	Epidemiology Contracts	<ul style="list-style-type: none"> • Print Group • Contracts • "All" • "N/A" 	"EPICON Epidemiology Contract 1"
Code Set	EPIMOD	Epidemiology Specimen Modifier	<ul style="list-style-type: none"> • "Yes" • "No" • "N/A" 	"EPIMOD N/A"
Code Set	EPIORG	Epidemiology Organisms	<ul style="list-style-type: none"> • Print Group • Organism • "All" 	"EPIORG Anaerobes"
Code Set	EPIRPDT	Epidemiology Report Dates	<ul style="list-style-type: none"> • Report Date • "Multiple" 	"EPIRPDT Multiple"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	EPISENSI	Epidemiology Sensi Method	<ul style="list-style-type: none"> • "KB" • "MIC" • "MBC" • "NKB" 	"EPISENSI MIC"
Code Set	EPISPEC	Epidemiology Specimens	<ul style="list-style-type: none"> • Print Group • Specimen • "All" 	"EPISPEC Arterial Blood"
Text	EXAMCD	Exam or Service Item Codes	<ul style="list-style-type: none"> • Range 	EXAMCD 1000-9000
Code Set	EXAMST	Exam Status	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"EXAMST All"
Code Set	FAC	Facility	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"FAC A;B"
Indicator	FAXEMAIL	FAX and/or E-mail	<ul style="list-style-type: none"> • Fax • Email • Both 	FAXEMAIL Fax or FAXEMAIL Email or FAXEMAIL Both
Code Set	FEATURES	Bed Features Codes	<ul style="list-style-type: none"> • Bed feature Codes separated by semicolon 	"FEATURES OX;PH;TV"
Code Set	FIN	Financial Classes	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"FIN M;C;S"
Indicator	FREQTYPE	Report Frequency Type	<ul style="list-style-type: none"> • One time • Now • Tonight • Every other day • 1st day of month • 2nd Tuesday of month • etc. 	"FREQTYPE Last day of month"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	HCPCS	HCPCS Codes	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon • Code ranges (hyphenated) and separated from other code/code ranges by semicolon • "Top #" where # is the number of codes to be displayed 	"HCPCS 0038;1175-1176" or "HCPCS Top 10"
Indicator	HLDORD	Held Orders (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"HLDORD Yes"
Code Set	HSPSVC	Hospital Services	<ul style="list-style-type: none"> • Hospital Service Codes separated by semicolon 	"HSPSVC CAR;GYN;PED"
Indicator	IMNETRP	Send Reprinted Reports To IMNET	<ul style="list-style-type: none"> • "Yes" • "No" 	"IMNETRP No"
Indicator	INACTIVE	Include Inactive Elements	<ul style="list-style-type: none"> • "Yes" • "No" 	"INACTIVE No"
Indicator	INCCANC	Include Cancelled Exams Indicator	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCCANC No"
Indicator	INCL	Patient List Inclusion Options	<ul style="list-style-type: none"> • "M" for Main Physician • "C" for Covering • "B" for Both Group and Covering • "G" for MD and Group • "1" for Group 1 • "2" for Group 2 • "3" for Group 3 	"INCL B"
Indicator	INCLDISC	Include invoices without disc dates	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCLDISC Yes" or "INCDISC No"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	INCLNCD	Include Non-Clinical Discrepancies	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCLNCD Yes"
Indicator	INCLOOS	Include Out of Service Beds	<ul style="list-style-type: none"> • "Y" for Yes • "N" for No 	"INCLOOS Y"
Indicator	INCLPREC	Include Precautions	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCLPREC Yes"
Indicator	INCLOPTO	Include Opt Out Patients	<ul style="list-style-type: none"> • "Y" for Yes • "N" for No 	"INCLOPTO N"
Indicator	INCMANPRT	Include Manually Printed Exams Indicator	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCMANPRT Yes"
Code Set	INCPATNUM	Incomplete Report Patient Number	<ul style="list-style-type: none"> • Account Number • Number Pool • Case Number 	"INCPATNUM Account Number"
Indicator	INCPGS	Include number of pages?	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCPGS Yes"
Indicator	INCPREVPRT	Include Previously Printed Exams Indicator	<ul style="list-style-type: none"> • "Yes" • "No" 	"INCPREVPRT Yes"
Indicator	INERPAT	Include ER Patients?	<ul style="list-style-type: none"> • "Yes" • "No" 	"INERPAT NO"
Indicator	INIPAT	Include Inpatients?	<ul style="list-style-type: none"> • "Yes" • "No" 	"INIPAT YES"
Text	INIT	Initials	<ul style="list-style-type: none"> • User initials • Multiple initials separated by a semicolon 	INITIALS XXX;JJJ;ER
Indicator	INOPAT	Include Outpatients?	<ul style="list-style-type: none"> • "Yes" • "No" 	"INOPAT YES"
Indicator	INPRES	Inactive Prescriptions	<ul style="list-style-type: none"> • "Yes" • "No" 	"INPRES Yes" or "INPRES No"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	INPTTYPE	Inpatient Type	<ul style="list-style-type: none"> • "N" for nursing station • "P" for patient 	"INPTTYPE N"
Code Set	INTCLNCRE	Intended Clinical Care Intensity Codes	<ul style="list-style-type: none"> • Intended Clinical Care Codes separated by semicolon 	"INTCLNCRE 10;21;71"
Indicator	INTDELIV	Print Internal Delivery Questions	<ul style="list-style-type: none"> • "Yes" • "No" 	"INTDELIV Yes"
Indicator	INTERNNTE	Internal Notes	<ul style="list-style-type: none"> • "Yes" • "No" 	"INTERNNTE No"
Indicator	INTLABOR	Print Internal Labor Questions	<ul style="list-style-type: none"> • "Yes" • "No" 	"INTLABOR Yes"
Numeric	IPNUMCOPY	Long Reports Batch Inpatient # of Copies	<ul style="list-style-type: none"> • Number 	"IPNUMCOPY 1"
Code Set	ITEMPRINT	Miscellaneous Charge Report Item Print Option	<ul style="list-style-type: none"> • "C" for Charged • "N" for Non-Charged • "A" for All 	"ITEMPRINT Charged"
Indicator	KINET	Kinetics (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"KINET Yes"
Indicator	LABOR	Print Labor Info	<ul style="list-style-type: none"> • "Yes" • "No" 	"LABOR Yes"
Code Set	LBLPRTR	Label Printer	<ul style="list-style-type: none"> • Printer Name 	"LBLPRTR 400"
Code Set	LETTERS	Letters Requested	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"LETTERS 1;2" or "LETTERS All"
Code Set	LISTPRTR	List Printer	<ul style="list-style-type: none"> • Printer Name 	"LISTPRTR ASENLTRO"
Code Set	LISTTYPE	Accessions with Cardfile	<ul style="list-style-type: none"> • "N" for Accessions with No Cardfile • "All" 	"LISTTYPE No Cardfile Only"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Text	LLETCOMP	Last Letter Completed	<ul style="list-style-type: none"> Alpha Letter for Last Patient to Complete 	"LLETCOMP Z"
Text	LNAMEPRT	Last Name Printed	<ul style="list-style-type: none"> Alpha Letter for Last Patient Printed 	"LNAMEPRT A"
Code Set	LOC	Location	<ul style="list-style-type: none"> Hospital-defined 	"LOC ER"
Code Set	LOCPRINT	Report Location	<ul style="list-style-type: none"> Location Names or Patient Types separated by semicolon Print Group "All Patients" "Multiple" "N/A" 	"LOCPRINT 1E;CCU;LAA"
Indicator	LOS	Include Length of Stay	<ul style="list-style-type: none"> "Yes" "No" 	"LOS No"
Code Set	MATCH	Results Matching	<ul style="list-style-type: none"> "All" "At least one" "None" 	"MATCH At least one"
Amount	MAXABAL	Maximum Account Balance	<ul style="list-style-type: none"> Maximum account balance on which to report 	"MAXABAL 500.00"
Code Set	MAXTIME	Maximum Turnaround Time	<ul style="list-style-type: none"> Options selected separated by semicolon 	"MAXTIME 3 Hrs"
Code Set	M-CODE	Morphology Code	<ul style="list-style-type: none"> Code "All" 	"M-CODE 26000"
Indicator	MEDSOL	Medication orders, Solution orders, or Both	<ul style="list-style-type: none"> "S=Solution" "M=Medication" "B=Both" 	"MEDSOL B"
Amount	MINABAL	Minimum Account Balance	<ul style="list-style-type: none"> Minimum account balance on which to report 	"MINABAL 10.00"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	MISCODE	Miscellaneous Code	<ul style="list-style-type: none"> • Code • "All" 	"MISCODE P*"
Code Set	MODF	HCPCS Modifier Code(s)	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"MODF "20;21;22"
Code Set	MISPHYS	Mismatch Physician	<ul style="list-style-type: none"> • Mismatch Physician Codes • "All" 	"MISPHYS 1223"
Pt Identifier	MRNUM	Medical Record Number	<ul style="list-style-type: none"> • Number 	"MRNUM 1000-06423" formatted
Indicator	MSGS	Include Messages	<ul style="list-style-type: none"> • "Yes" • "No" 	"MSGS Yes" or "MSGS No"
Code Set	MSVC	Medical Service	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"MSVC MED;SUR;OBS"
Indicator	MULTPAT	Multiple Patients per Page	<ul style="list-style-type: none"> • "Yes" • "No" 	"MULTPAT Yes"
Code Set	NCDAYTP	Avoidable Day Type	<ul style="list-style-type: none"> • "All" • Codes separated by a semi-colon 	"NCDAYTP All" or "NCDAYTP AAA;A;1;45"
Indicator	NOTES	Print Notes?	<ul style="list-style-type: none"> • "Yes" • "No" 	"NOTES Yes"
Indicator	NRSHMT	Include Nourishment	<ul style="list-style-type: none"> • "Yes" • "No" 	"NRSHMT Yes"
Indicator	NRSHMTINST	Include Nourishment Instructions	<ul style="list-style-type: none"> • "Yes" • "No" 	"NRSHMTINST Yes"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	NTESTATUS	Note Status	<ul style="list-style-type: none"> • Complete • Incomplete • Both • All 	"NTESTATUS B"
Indicator	NTTYPE	Note Type	<ul style="list-style-type: none"> • All • Initial Eval • Eval • Progress Notes 	"NTTYPE P"
Numeric	NUMCOPY	Number Of Copies	• Number	"NUMCOPY 2"
Code Set	NUMDOC	Number of Doctors	• Number	"NUMDOC 26"
Numeric	NUMLET	Number of Letters in Batch	• Number	"NUMLET 5"
Code Set	NUMPAT	Number of Patients In Batch	• Number	"NUMPAT 26"
Numeric	NUMRECS	Number of records requested	<ul style="list-style-type: none"> • "All" • Number 	"NUMRECS 100"
Code Set	NURSTN	Nurse Station	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"NURSTN 1E;1EN;1ESOL"
Numeric	OPNUMCOPY	Long Reports Batch Outpatient # of Copies	• Number	"OPNUMCOPY 2"
Indicator	ORDDOC	Order Doc (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"ORDDOC Yes"
Indicator	ORDDTL	Order Detail	<ul style="list-style-type: none"> • "Yes" • "No" 	"ORDDTL Yes"
Code Set	ORDERCAT	Turnaround Time Ordering Category	<ul style="list-style-type: none"> • Ordering Category Code separated by semicolon • "All" 	"ORDERCAT All"
Code Set	ORDPRIOR	Turnaround Time Report Ordering Priority Codes	• Options selected separated by semicolon	"ORDPRIOR 1;2"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	ORDRAS	Ordered As (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"ORDRAS Yes"
Text	OUTPUT	Type of output requested	<ul style="list-style-type: none"> • "Display" • "Print" • "Email" • "Fax" 	"OUTPUT Display"
Code Set	OVFLTYP	Overflow Types	<ul style="list-style-type: none"> • Overflow Type Codes separated by semicolon 	"OVFLTYP CT;ER;GU"
Code Set	PANICRPTY	Panic Notification Responses Type	<ul style="list-style-type: none"> • All Defaults • Selected Defaults • All Panic Responses 	"PANICRPTY DEFAULTS"
Indicator	PANICVALUE	Select Panic Values Only	<ul style="list-style-type: none"> • "Yes" • "No" 	"PANICVALUE No"
Indicator	PATBLK	Patient Block	<ul style="list-style-type: none"> • "Yes" • "No" 	"PATBLK Yes"
Indicator	PATDOC	Patient Doc (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"PATDOC Yes"
Text	PATIENTS	Print Patients In Report Batch	<ul style="list-style-type: none"> • Alpha Letter for patients included • N/A • "All" 	"PATIENTS All"
Code Set	PATLOC	Patient Locations	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"PATLOC All"
Indicator	PATSTA	Report by Patient or Station	<ul style="list-style-type: none"> • "P" for patient • "S" for station 	"PATSTA P"
Indicator	PBRK	Page Break on sort	<ul style="list-style-type: none"> • "Yes" • "No" 	"PBRK Yes"
Code Set	PCPTYPE	PCP Type	<ul style="list-style-type: none"> • PCP Type 	"PCPTYPE 329"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	PENDORD	Include Pending Orders	<ul style="list-style-type: none"> • "Yes" • "No" 	"PEBDORD No"
Code Set	PHYS	Physician	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"PHYS 10012;40021"
Code Set	PHYS	Physician	<ul style="list-style-type: none"> • Physician Code • "All" • "Multiple" 	"PHYSICIAN 1312"
Code Set	PHYSTYPE	Physician Types to Include	<ul style="list-style-type: none"> • List of physicians separated by semicolon 	"PHYSTYPE Admitting; Ordering"
Pt Identifier	PNAME	Patient Name	<ul style="list-style-type: none"> • Patient Name • Name Range 	"PNAME Last,First" or "PNAME Last to Last"
Indicator	PRACCTST	Print Account Status	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRACCTST Yes"
Indicator	PRADDR	Print Patient Address	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRADDR No"
Indicator	PRINTLBLS	Print Labels	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRINTLBLS No"
Indicator	PRINTLIST	Print List	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRINTLIST No"
Indicator	PRINTTYPE	Remote Summary Print Type	<ul style="list-style-type: none"> • "Remote" • "Local" 	"PRINTTYPE Remote"
Code Set	PRIORITY	Exam or Order Priority	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"PRIORITY All"
Indicator	PRISUB	Primary Subtotals Flag	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRISUB Yes"
Indicator	PROBILL	Print Prorated Bill?	<ul style="list-style-type: none"> • "Yes" • "No" 	"PROBILL No"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	PROBLIST	Print the Problem List	<ul style="list-style-type: none"> • "Yes" • "No" 	"PROLIST Yes"
Code Set	PROC	Procedure Codes	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon • Code ranges (hyphenated) and separated from other code/code ranges by semicolon • "Top #" where # is the number of codes to be displayed 	"PROC 0038;1175-1176" or "PROC Top 10"
Indicator	PROFN	Professional Notes (Y/N)	<ul style="list-style-type: none"> • "Yes" • "No" 	"PROFN Yes"
Indicator	PRORDPHYS	Print Ordering Physician	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRORDPHYS Yes"
Code Set	PROXIMITY	Proximity Codes	<ul style="list-style-type: none"> • Proximity Codes separated by semicolon 	"PROXIMITY 01;02;03"
Indicator	PRPHYCD	Print Physician Code only?	<ul style="list-style-type: none"> • "Yes" • "No" • No=Print Code and Name 	"PRPHYCD Yes"
Indicator	PRRESP	Print Responsible Code only?	<ul style="list-style-type: none"> • "Yes" • "No" • No=Print Code and Name 	"PRRESP Yes"
Indicator	PRTGRP	Print Group	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRTGRP No"
Indicator	PRTINDEX	Print Index in Header Indicator	<ul style="list-style-type: none"> • "Yes" • "No" 	"PRTINDEX Yes"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	PTTYPE	Patient Type	<ul style="list-style-type: none"> "All" Codes separated by semicolon 	"PTTYPE I/P;SER;ER"
Code Set	PTTYPEGRPS	Patient Type Groups	<ul style="list-style-type: none"> List of groups separated by semicolon 	"PTTYPEGRPS Inpatients; Emergency Rm"
Indicator	QUESDESC	Print Question Description	<ul style="list-style-type: none"> "Yes" "No" 	"QUESDESC Yes"
Text	QUEUE	Queue Type	<ul style="list-style-type: none"> "R" = Repeat "D" = Discrepancy 	"QUEUE Repeat"
Indicator	QUEUECANC	Queue Cancelled Exams	<ul style="list-style-type: none"> "Yes" "No" 	"QUEUECANC No"
Code Set	RACE	Race	<ul style="list-style-type: none"> "All" Codes separated by semicolon 	"RACE All"
Code Set	REASON	Reason Codes	<ul style="list-style-type: none"> "All" Codes separated by semicolon 	"REASON All"
Code Set	RECALLCAT	Recall Category	<ul style="list-style-type: none"> Recall Category Requested 	"RECALLCAT Cytology"
Code Set	RECALLQUE	Recall Queue	<ul style="list-style-type: none"> "1st" "2nd" "3rd" 	"RECALLQUE 1st"
Code Set	RECALLTYP	Recall Queue	<ul style="list-style-type: none"> "All" Codes separated by semicolon 	"RECALLTYP All"
Code Set	RECID	Receiver ID	<ul style="list-style-type: none"> Receiver ID Code "All" 	"RECID MEDA"
Code Set	REFFAC	Reference Facility	<ul style="list-style-type: none"> Reference Facility Description 	"REFFAC SmithKline"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	REMOTELOC	Remote Summary Locations	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"REMOTELOC ABC;CMP"
Indicator	REPRINT	Report Reprinted	<ul style="list-style-type: none"> • Null • "Yes" 	"REPRINT Yes"
Text	REQNBR	Request Number or range to print	<ul style="list-style-type: none"> • Single request/checkin number • Range 	"REQNBR 10000-20000"
Code Set	REQUESTE	Requesters	<ul style="list-style-type: none"> • "All" • Codes separated by semicolon 	"REQUESTER 100;200"
Indicator	REQUEUE	Requeue Reports	<ul style="list-style-type: none"> • "Yes" • "No" 	"REQUEUE No"
Code Set	RESOURCE	Resource	<ul style="list-style-type: none"> • Selected • All 	"RESOURCE All"
Code Set	RESULT1	Result Name 1	<ul style="list-style-type: none"> • Result name chosen from menu, table, etc. 	"RESULT1 Read By"
Code Set	RESULT2	Result Name 2	<ul style="list-style-type: none"> • Result name chosen from menu, table, etc. 	"RESULT2 Technologist"
Code Set	RESULT3	Result Name 3	<ul style="list-style-type: none"> • Result name chosen from menu, table, etc. 	"RESULT3 Released By"
Indicator	REVIEWACCNS	Review Accessions	<ul style="list-style-type: none"> • "Yes" • "No" 	"REVIEWACCNS Yes"
Code Set	REVITEM	Revise Order Information Item	<ul style="list-style-type: none"> • Specimen • Specimen Mod • Collection Date/Time • Collector ID • Accn Comment 	"REVITEM Collection Date/Time"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	REVTY	Review Types	<ul style="list-style-type: none"> "All" Types separated by semicolon 	"REVTP All" or "REVTP AAA;A;1;45"
Code Set	RM	Room	<ul style="list-style-type: none"> Hospital-defined 	"RM 2103"
Code Set	RNG	Range	<ul style="list-style-type: none"> Inclusion range separated by semicolon 	"RNG 1;3"
Code Set	ROM	Risk of Mortality	<ul style="list-style-type: none"> "All" Codes separated by semicolon 	ROM 1,2,3
Indicator	RPENTIREB	Reprint Entire Batch	<ul style="list-style-type: none"> "Yes" "No" 	"RPENTIREB No"
Text	RPTBY	Report By _____	<ul style="list-style-type: none"> Report By (a value requested based upon the report) 	"Report By Requester Type" where Requester Type is the value requested
Code Set	RPTFORMAT	Physician Summary Report Format	<ul style="list-style-type: none"> "All" "Standard" "Offset" 	"RPTFORMAT Standard"
Code Set	RPTMONTH	Month for Report	<ul style="list-style-type: none"> Months selected separated by semicolon 	"RPTMONTH January"
Indicator	RPTTYP	Report Type	<ul style="list-style-type: none"> "S" for Standard "D" for Detailed "U" for Unit # 	"RPTTYP S"
Code Set	RVALUE1	Result Value 1	<ul style="list-style-type: none"> Result value chosen from menu, table, etc. 	"RVALUE1 1000"
Code Set	RVALUE2	Result Value 2	<ul style="list-style-type: none"> Result value chosen from menu, table, etc. 	"RVALUE2 9200"
Code Set	RVALUE3	Result Value 3	<ul style="list-style-type: none"> Result value chosen from menu, table, etc. 	"RVALUE3 9450"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	SCHEDORD	Scheduled Orders	<ul style="list-style-type: none"> • "Yes" • "No" 	"SCHEDORD No"
Code Set	SCREENER	Screeners to include	<ul style="list-style-type: none"> • "All" • "Multiple" • Codes separated by semicolon 	"SCREENER All"
Code Set	SCT-CODE	SNOMED Clinical Term Code	<ul style="list-style-type: none"> • Code entered 	"SCT-CODE 22298006"
Indicator	SEC	Include Secondary Codes	<ul style="list-style-type: none"> • "Yes" • "No" 	"SEC Yes"
Indicator	SECSORT	Section Sort	<ul style="list-style-type: none"> • "Yes" • "No" 	"SECSORT Yes"
Indicator	SECSUB	Secondary Subtotals Flag	<ul style="list-style-type: none"> • "Yes" • "No" 	"SECSUB Yes"
Code Set	SECTION	Sections Included on Report	<ul style="list-style-type: none"> • List of sections separated by semicolon 	"SECTION Mammography; Nuclear Medicine"
Code Set	SELCC	Selection Criteria Code	<ul style="list-style-type: none"> • System-assigned number 	"SELCC 1;55;777"
Indicator	SELVCHR	Select by Voucher	<ul style="list-style-type: none"> • Patient • Employee • Vendor 	"SELVCHR E"
Indicator	SELVDR	Select by Vendor	<ul style="list-style-type: none"> • Patient • Employee • Vendor • Blank 	"SELVDR V"
Code Set	SENDOUTLAB	Sendout Lab Name	<ul style="list-style-type: none"> • Lab name chosen from displayed table 	"SENDOUTLAB Lab Name"
Numeric	SENDOUTREQ	Sendout Requisition Number	<ul style="list-style-type: none"> • Requisition number entered by user 	"SENDOUTREQ 12345"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	SENDOUT/TR	Process Sendouts and Transfers	<ul style="list-style-type: none"> • "Yes" • "No" 	"SENDOUT/TR Yes"
Code Set	SENDTO	Send to "Recipient"	<ul style="list-style-type: none"> • Recipient name • Description or codes • Names separated by a semi-colon 	"SENDTO Attending Dr;Patient"
Indicator	SERBILL	Print Series Bill?	<ul style="list-style-type: none"> • "Yes" • "No" 	"SERBILL NO"
Indicator	SEX	Patient Sex	<ul style="list-style-type: none"> • "M" for Male • "F" for Female 	"SEX M"
Code Set	SINGLEPT	Select Single Patient	<ul style="list-style-type: none"> • "Yes" • "No" • "Single" • "All" • Patient Name 	"SINGLEPT No"
Code Set	SITE	Clinical Site	<ul style="list-style-type: none"> • All • Site Code 	"SITE B"
Indicator	SMOKING	Include Smoking Rooms	<ul style="list-style-type: none"> • "Y" for Yes • "N" for No 	"SMOKING Y"
Code Set	SOI	Severity of illness	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	SOI 1;2;3
Code Set	SOLTYP	Solution types to include	<ul style="list-style-type: none"> • "All" • Codes separated by a semicolon 	"SOLTYP 1;2;3"
Text	SORT	Selected Sorts	<ul style="list-style-type: none"> • Name of sort options selected 	"SORT Physician Service"
Indicator	SPECDETAIL	Pathology Log Specimen Detail	<ul style="list-style-type: none"> • "All" • "Primary" 	"SPECDETAIL Primary"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Indicator	SPLTMS	Split Med/Sol (Y/N)	<ul style="list-style-type: none"> "Yes" "No" 	"SPLTMS Yes"
Indicator	SRCHTYP1	Search Type 1	<ul style="list-style-type: none"> "Not Equal" "Equal" "Contains" 	"SRCHTYP1 Equal"
Indicator	SRCHTYP2	Search Type 2	<ul style="list-style-type: none"> "Not Equal" "Equal" "Contains" 	"SRCHTYP2 Not Equal"
Indicator	SRCHTYP3	Search Type 3	<ul style="list-style-type: none"> "Not Equal" "Equal" "Contains" 	"SRCHTYP3 Contains"
Code Set	SSTUD	Special Study Codes	<ul style="list-style-type: none"> "All" Codes separated by a semicolon 	"SSTUD KK;123;TT"
Code Set	STARTACCT	Start Account Number	<ul style="list-style-type: none"> Account Number "Beginning" 	"STARTACCT A0212000001" or "STARTACCT Beginning"
Indicator	STARTSHFT	Start Shift	<ul style="list-style-type: none"> Shift 	"STARTSHFT 1"
Code Set	STATUS	Status Codes	<ul style="list-style-type: none"> "All" Codes separated by a semicolon 	"STATUS All" or "STATUS AAA;BB;C;DDD"
Text	STAYTYPE	Type of stay information selected	<ul style="list-style-type: none"> String of text 	"STAYTYPE String of text describing selected value"
Text	SUBTOT	Print Sub-totals	<ul style="list-style-type: none"> "No" Frequency 	"SUBTOT Every 4 hours"
Indicator	SUMBILL	Print Summary Bill?	<ul style="list-style-type: none"> "Yes" "No" 	"SUMBILL YES"
Text	SUMRPTYPE	Patient Detail Summary Type	<ul style="list-style-type: none"> Name of Summary Type selected 	"SUMRPTYPE Patient Detail"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	TATACCT	Turnaround Time Report Account Number	<ul style="list-style-type: none"> Account Number "All" 	"TATACCT A123456788" or "TATACCT All"
Code Set	TATRPSEC	Turnaround Time Report Report Section	<ul style="list-style-type: none"> Rejection Exception Both 	"TATRPSEC Rejection Report"
Code Set	T-CODE	Topography Code	<ul style="list-style-type: none"> Code "All" 	"T-CODE T-Y4300"
Code Set	TESTCODE	Test Codes	<ul style="list-style-type: none"> "All" Codes separated by a semicolon 	"TESTCODE All"
Indicator	TOTONLY	Totals Only	<ul style="list-style-type: none"> "Yes" "No" 	"TOTONLY No"
Indicator	TRANS	Only your order activity or All unverified orders	<ul style="list-style-type: none"> "O" = own activity "All" 	"TRANS All"
Indicator	TREATMENTS	Treatments	<ul style="list-style-type: none"> Individual All 	"TREATMENTS - All"
Code Set	TRKINGPTS	Activity Tracking Points	<ul style="list-style-type: none"> "All" Codes separated by a semicolon 	"TRKINGPTS All"
Indicator	TRMT/PRCTIM	Treatment/ Procedure Times	<ul style="list-style-type: none"> "Yes" "No" 	"TRMTPRCTIM Yes"
Indicator	TRTMNTST	Treatment Status	<ul style="list-style-type: none"> Performed Discontinued Unable to Perform Cancelled Complete All 	"TRTMNTST All"

TAG TYPE	CRITERIA TAG	DESCRIPTION	VALUES	EXAMPLE
Code Set	TYPE	Types	<ul style="list-style-type: none">Types separated by a semicolon	"TYPE A;B;5"
Code Set	VALID/VR	Valid Value/Range Override Report	<ul style="list-style-type: none">"V" for Valid Value"R" for Valid Range	"VALID/VR Value"
Code Set	WRKSHEETTYP	Worksheet Type	<ul style="list-style-type: none">Worksheet Type	"WRKSHEETTYP 100"

DATETYPE Values Table

DATETYPE VALUE	DEFINITION
A	Admit Date
ACCN	Accession Date
ARBRUN	Archive Batch Run Date
ARBSTOP	Archive Batch Stop Date
BATCH	Batch Print Date
BILL	Billing
BSED	Bed Status Effective Date
CHARGES	Charge Date
CKPRINT	Check Print Date
COLL	Collection
D	Discharge Date
EDS	End Date/Shift
ELIG	Eligibility Request Date
EPI	EPI Report Date
INVDISC	Invoice Discount Date
INVDUE	Invoice Due Date
LF	Last Fill
LP	Last Print
LU	Last Update
NE	Next Exchange
ORDER	Order date
REPORT	Report Date
REVIEW	Review Date
SDS	Start Date/Shift
SSD	Special Study Date

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AUDITED STAR APPLICATION REPORTS

The following is a list of reports, sorted by STAR application, that can be audited by the STAR Audit Service.

Physician Products

Physician Patient List Report

STAR Accounts Payable

Check Register (GARACR)

Demand Check Register (GARMCR)

Month-to-Date Check Register (GARCTD)

Payment Selection Report (GARPSP)

STAR Care Planning and Documentation

Labor and Delivery Clinical Questions - Default

Nursing Plan of Care - Default

Patient Care Profile - Default

User Defined Worksheet - Default

STAR Clinical Management

Display/Print Patient Notes - Default

Display/Print Worklist - Default

STAR Laboratory

LAR REPORTS

Archive Summaries Patient Listing

LCU REPORTS

Discharge Cumulative Reports

Horizontal or Vertical Cumulative Trend Reports

LGR REPORTS

Archiving-Display/Print Accounts Heldover

Archive Patient List Report

Batch Collection Report

Clinical Order Detail Audit Report

Clinical Order Detail Information Report

Collection Exception Report

Collection Summary Report

Corrected Results Report

Delinquent Work Report

Diagnosis Categories

Discrepancy Report (Detail)

GYN Comparison Report (Single Case Number)

Histo/Cytotech Processing Audit

History Cardfile (all reports generated from this function)

Incomplete Work Reports (Department and Section)

Miscellaneous Charge Report

Order Cancellation Report

Panic Notification Report

Panic Values Report

Pending Order Cancellation Review

Physician Utilization Report (Master Detail Report only)

Print Repeat/Discrepancy Queue

Professional Fee Report

QC Process Deletion Audit

Recall Management-Recall Deletion Audit

Recall Management-View/Print Recall Queues

Repeat QC Report

Revise Order Audit

Revise Order Information Report

Screeener Workload Report (Case Format)

Specimen Rejection Report

Turnaround Reports (Reject Report only)

Valid Value/Range Override Report

LHR REPORTS

Histo/Cytotech Processing Report

Pathology Log Report

LMR REPORTS

Antibiotic Susceptibility Report

Daily Culture Report

Organism Isolate Report

Prevalent Pathogen Report

LSP REPORTS

Current Batch Reports

Long Reports Batch

LSR REPORTS

Discharge Summary Reports

Interim Reports

Outpatient Summary Reports

Patient Detail Reports

Physician Batch Management (P & V options only)

Physician Summary Reports

Remote Physician Summary Report

Remote Physician Summary Report (Local)

View/Print Remote Batch Index

Post Discharge Work Reports

Specimen Rejection Patient Reports

LRC REPORTS

Batch Recall Reminder Letters

Physician Recall Reminder Letters

LTR REPORTS

Specimen Transfer

Travel List Report

REFERENCE LABORATORY INTERFACE

Reference Lab Interface Audit - Add On Cancel Orders

REVIEW REPORTS

Supervisor/Pathologist Review Reports

STAR Materials Management

Patient Charge Sheets (GMRBCF)

Patient Charge Reconciliation Report (GMRPCR)

STAR Medical Records

Age and Sex by Financial Class w/LOS Core Report (PRO6X)

Age and Sex by Service w/LOS (PRO5X)

Attestation Form / Diagnosis Summary Worksheet

Billing Delay Report (reports to the default printer)

Chart Deficiency Notice (ERDLX)

Charts Requiring Analysis Report (ERDANX)

Chart Status Report (reports to the default printer)

Combined HCPCS Report (PRO16X)

Current Discharges Report (reports to the default printer)

Deficiency Code Reports (reports to the default printer)

Deficiency Fax/Email Audit Report (reports to the default printer)

Deficiency Notices (ERDLX)

Deficiency Slip (reports to the default printer)

Deficiency Work List Report

Discharges by APR-DRG (PRO15X)

Discharges by Diagnosis Report (PRO2f)

Discharges by DRG (PRO1X)

Discharges by HCPCS Core Report (PRO14X)

Discharges by Procedure Report (PRO3f)

Discharges by Race Core Report (PRO13X)

Discharge Status/Disposition Core Report (PRO7X)

DRG Budget Worksheet (DCBWSX)

DRG Case Analysis (DCRCX)

DRG Rate Master Report (DRMRX)

Electronic Attestation Pending Signature (reports to the default printer)

Electronic Authentication Report (ERDEAUX)

Financial Class by Service Core Report (PRO4X)

Incomplete Abstract Report (MRINCX)

Incomplete Aging Report (reports to the default printer)

Incomplete Summary by Chart (reports to the default printer)

Incomplete Summary by Physician Report

MEDISGRPS Form (UFMFX)

Mortality Report (PRO12f)

M/R Special Study Report (MRSSf)

Physician Activity Report (reports to the default printer)

Pointer Table Inactive Cross-Reference (reports to the default printer)

Signed Electronic Attestations Pending Final DRG (reports to the default printer)

Status by Physician Summary Report (reports to the default printer)

Unaccepted Electronic Attestation (reports to the default printer)

Utilization Management Avoidable/Non-Covered Days Report (UMDAYX)

Utilization Management Contact to Advisor Report (UMADVX)

Utilization Management Contact to Physician Report (UMPHYX)

Utilization Management Discharge Planning Report (UMDISX)

Utilization Management Review Summary Report (UMSUMX)

Utilization Management Selected Patient Type Report (UMPTX)

Utilization Management Worksheet (UWLSf)

STAR Order Management

Active Order Transfer Audit - Default

Allergy Summary Report - Default

Custom Document Report - Default

Diet Worksheet - Default

Order History Report - Default

STAR Patient Accounting

Account Selection Report (FARASC)

ATB (Aged Trial Balance) Report (FARATB)

Case Team Census

Church Census

Claims Generated - Not Submitted Report (FCR300)

Claims Submitted - Unpaid Report (FCR280)

Collection Agency Cash Adjustment Report (FAR150)

Contract ATB (Aged Trial Balance) Report (FDRATB)

Demand Bill Report (FBR901)

Denomination Census

Financial Review Report (FARFRR)

Isolation Census

IV Therapy Census

OPPS Charge Review Report (FCR460)

OPPS Claim Charge Review Report (FCR480)

Oxygen Therapy Census

Patient Classification Suppressed Accounts Report (FFR280)

Patient Group Census

Pending/Candidate Workfile Report (FFR650)

Pending Claims Report (FCR260)

Precaution Census

Service Census

Station Census - Detailed

Transaction History Report (FARAIT)

STAR Patient Assessment

Assessment Report - Default

STAR Patient Processing

Address/Credit Check Audit Report (CTCADCRX)

Alphabetic Census

Ambulatory Patient Census

Daily E/R Visit Report (CADERVrf)

Demand Bill Report

Dietary Census

Discharge Census

Duplicate SSN/HCN Report (CSSNRX)

Expired Health Card Number Report (CAXHCRX)

Insurance Eligibility Audit Report (CGIEAUDf)

Insurance Eligibility Response Report (CGRELIX)

Legal Status Expiration Census

LOS Census/Combined

LOS Census/Inpatient

LOS Census/Outpatient

Master Patient Index (MPI) Report (MPRX)

MPI Print Patient Visit List

MPI Analysis Tool Report - Detail (CFMPIDTL)

MSP Exception Report (CFMSPERf)

Off-Service by Bed Census

Off-Service by Patient Census

Physician Patient List

Preferred Accommodation Exception Report

Reservation Exception Report

Self Pay Insurance Report

Station Census Report

Station Census - Detailed Report

Station Census - O/P Report

Station Census - Reservations Report

Unknown Opt-Out Preference Report

Detailed Vacant Beds Report

STAR Pharmacy

Active Home Medications List (prints to the default printer)

Census by Drug/Combinations Report (Drug/Drug Class Census Report) (PDDC)

Discharge Planning Report - (prints to the default laser printer)

Discontinued Orders Report (PDMR, PDSR)

DUE (Drug Usage Evaluation) Report (PDUR)

Home Medications Report (prints to the default printer)

Medication Administration Record (PMAR)

Medication (Cart) Check List (PDCL)

Medication (Cart) Fill List (by Station) (PCFL)

Medication (Cart) Update List (by Station) (PCUL)

Medication Discharge Report (prints to the default laser printer)

Medication Transfer Reorder Report (prints to the default laser printer)

Prescription Drug Census Report (PADC)

Prescription Solution Census Report (PASC)

Print Profile

Profile Maintenance Alerts Report (PRPMA)

Solution Bottle Status Report (prints to the default printer)

Target Drug/Class Census Report (PTGC)

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STAR Radiology

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Data Search Report (XMG)

Exam Request Slip Batch/Reprint (XTR)

Fax Batch Report (XXR)

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Accounting of Disclosure Report

Accounts Receivable Report

Disclosure Tracking Summary Report

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QRE query run to the screen

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Query from a menu run to the screen

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SQL Editor query run to the screen

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