



VistA Imaging System
TeleReader User Manual
February 2019

Department of Veterans Affairs
System Design and Development
VistA Imaging

TeleReader User Manual
VistA Imaging February 2019

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Introduction

The TeleReader application provides a work list for local or remote imaging studies that are waiting to be read and interpreted by a qualified provider. The provider starts the TeleReader application, selects a study off the Unread List, and then is automatically directed to CPRS/Imaging to view the examination images and perform a diagnosis. Multiple users can display the Unread List, but only one user may lock/work on a single study at a time.

Terms of Use

In compliance with Food and Drug Administration (FDA) and VA policies, authorization to use this software is contingent on the execution of a Site Agreement between the VistA Imaging Product Development group and the site where this software is installed.

In addition to any restrictions noted in the Site Agreement, the following restrictions apply.



Caution: Federal law restricts this device to use by or on the order of either a licensed practitioner or persons lawfully engaged in the manufacture or distribution of the product.



The FDA classifies VistA Imaging as a medical device. Unauthorized Modifications to VistA Imaging, including the TeleReader software, will adulterate the medical device. The use of an adulterated medical device violates US federal law (21CFR820).



TeleReader is not intended for the primary interpretation of radiology exams or EKG waveforms. When TeleReader is installed on approved and properly maintained systems, primary interpretation of other image types is permissible by licensed practitioners at their discretion.

Conventions

This manual uses the following conventions:

- Controls, options, and button names are shown in **Bold**.
- A vertical bar is used to separate menu choices. For example: “**Select File | Open**” means: “Click the **File** menu, and then select the **Open** option.”
- Keyboard key names are shown in bold and in brackets.
- When this document is used online, hyperlinks are indicated by blue text.
- Useful or supplementary information is shown in a Tip.
- Important or required information is shown in a Note.
- Critical information is indicated by: 

Acronyms

Table 1: List of Acronyms

Term	Definition
Acq	acquisition
CCOW	Clinical Context Object Workgroup
Con #	consult number
CPRS	Computerized Patient Record System
EKG	Electrocardiograph
FAQ	Frequently Asked Questions
FDA	Food and Drug Administration
HIPAA	Health Insurance Portability and Accountability Act
HPS	Health Product Support
ID	Identification
IFC	Inter-Facility Consult
IRM	Incident Response Message
QI	Questionable Integrity
US	United States of America
VA	Department of Veteran Affairs

Related Information

For additional information about VistA Imaging TeleReader, see the following documents:

- Imaging System User Manual
- Imaging System Technical Manual
- Imaging System Installation Guide
- TeleReader Configurator User Guide

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Getting Help

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Getting Started

Starting Work with TeleReader

When the user begins their work session, they should launch the TeleReader application first under Start >> VistA Imaging Programs>>VistA Imaging TeleReader.

CPRS and VistA Imaging Display will automatically be launched by the TeleReader application when the user selects a study from the worklist to view.

- CCOW will ensure all applications share the same patient context.
- Users may select the sites, specialties, and procedures they will be reading.

Specialties Option Dialog

The Specialties Dialog allows the user to select specialties and procedures for reading. Only studies for the selected specialties and procedures will be listed. It also allows the user to decide what site they want to view studies from. See [Figure 1: Specialties Dialog](#).

The dialog box shows the available acquisition sites in the left column, the specialties at those sites in the center column, and the procedures performed by those specialties in the right column. A check next to a procedure indicates studies will be listed from the site with the specialty that the procedure is in.

To quickly select or unselect all studies for a site, click on the checkbox next to the site. This will cause all specialties and all procedures to be selected for that site. If you do not want to see studies for all specialties and procedures in TeleReader, do not check the site checkbox.

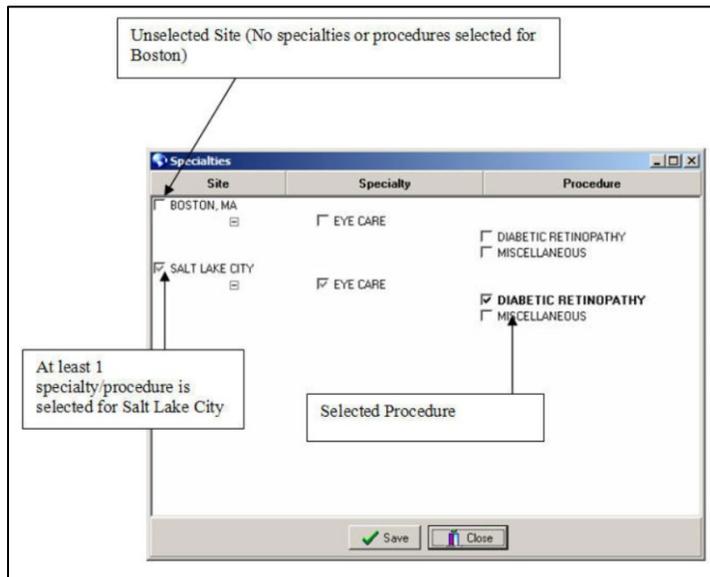
To quickly select or unselect all procedures for a specialty, click on the checkbox next to the desired specialty. If you do not want to see studies for all procedures, then do not check the specialty checkbox. Instead check only the procedures that you would like on your Unread List.

A grayed-out checkbox indicates there is at least one associated specialty or procedure which is selected and at least one item which is not selected.

The Save button closes the Specialties dialog and saves your selected sites/specialty/procedures to VistA for future sessions.

The Close button closes the Specialties dialog and applies your changes for your current session **but does not save your changes to VistA.**

Figure 1: Specialties Dialog



If you **do not** have any specialties assigned you will receive a warning message. See [Figure 2: Specialties Warning Message](#). Only approved and configured users may use TeleReader. You **must be approved** and TeleReader **must be configured** for you before you can Read studies. Users can see the images.

Figure 2: Specialties Warning Message



Selection of Studies

The main TeleReader window contains the remote connections status bar, the read and unread list of studies, details about studies, and a status bar. See [Figure 3: Section of Studies Menu](#).

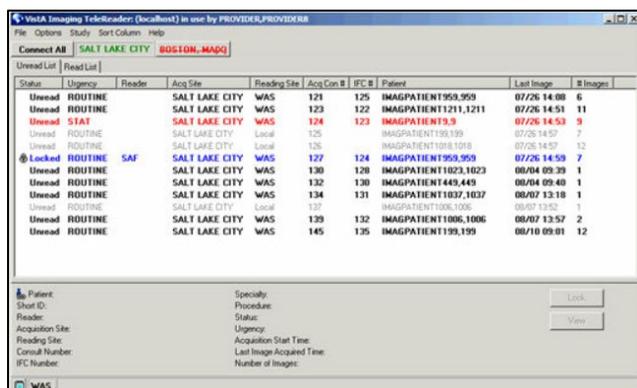
A study highlighted in:

- **Red** indicates the Urgency of that item is **STAT** and should be resulted quickly.
- **Blue** indicates that item has been *locked* by the current user.
- **Black** indicates that items *are unlocked* and can be resulted by the current user.
- **Gray** indicates items which the current user *cannot result* (either the item is locked *or* the current user is not logged into the reading site for that item) or the study is in a waiting status (for IFC consults) because the patient needs to be registered at the receiving facility.

When the user selects a study in the Read or Unread list, the details of that study are displayed at the bottom of the TeleReader. Studies in an “Unread” status can be locked by clicking on the Lock button. Clicking the Lock button causes the status of the study to change to “Locked” and the patient context for desktop applications to change to the selected patient. The study can then be read and resulted by viewing associated images in TeleReader and entering the result in CPRS. When resulted, studies move from the Unread List to the Read list.

The user can highlight any study in the Read or Unread list and then click the View button to view the images and information in the study using TeleReader and CPRS.

Figure 3: Section of Studies Menu



Study Details

At the bottom of the TeleReader is a details section which contains more information about the selected study. If no study is selected, then no information will be displayed. See [Figure 4: Study Details Menu](#).

Table 2: Details Section Explanation

Title	Description
Patient	The name of the patient for the study.
Short ID	The short ID of patient (Patient's last name and last four digits of SSN).
Reader	The reader who has locked the study (if the study is not locked then this field is empty).
Acquisition Site	The site where the images were acquired.
Reading Site	The reading site to result the study.
Consult Number	The consult number from the acquisition site.
IFC Number	The Inter-Facility consult number (if the consult is an inter-facility consult).
Specialty	The specialty.
Procedure	The procedure.
Status	The <i>status</i> of the study (Waiting, Unread, Locked, Read, Cancelled): Waiting means the consult has been sent by the acquisition site, but a response has not been received from the reading site.

Title	Description
	<p>Unread means the study has not been resulted and no other user is in the process of resulting it.</p> <p>Locked indicates the study is in the process of being resulted by a user.</p> <p>Read means the study has been resulted.</p> <p>Cancelled indicates the study has been cancelled.</p>
Urgency	The urgency of the study.
Acquisition Start Time	The time when the acquisition of images began.
Last Image Acquired Time	The time when the last image was acquired.
Number of Images	The number of images captured for this study.

To the right of the Study details are the Lock/Unlock button and the View button. The Lock/Unlock button will change based on the status of the study as details below:

- If the selected study is locked by the current user, the title of Lock/Unlock button will display as Unlock.
- If the selected study is locked by another user or is not available for reading by the current user, the Lock/Unlock button will be grayed out or inaccessible
- If the selected study can be locked and has status “Unread” then the title of Lock/Unlock button will display as Lock.

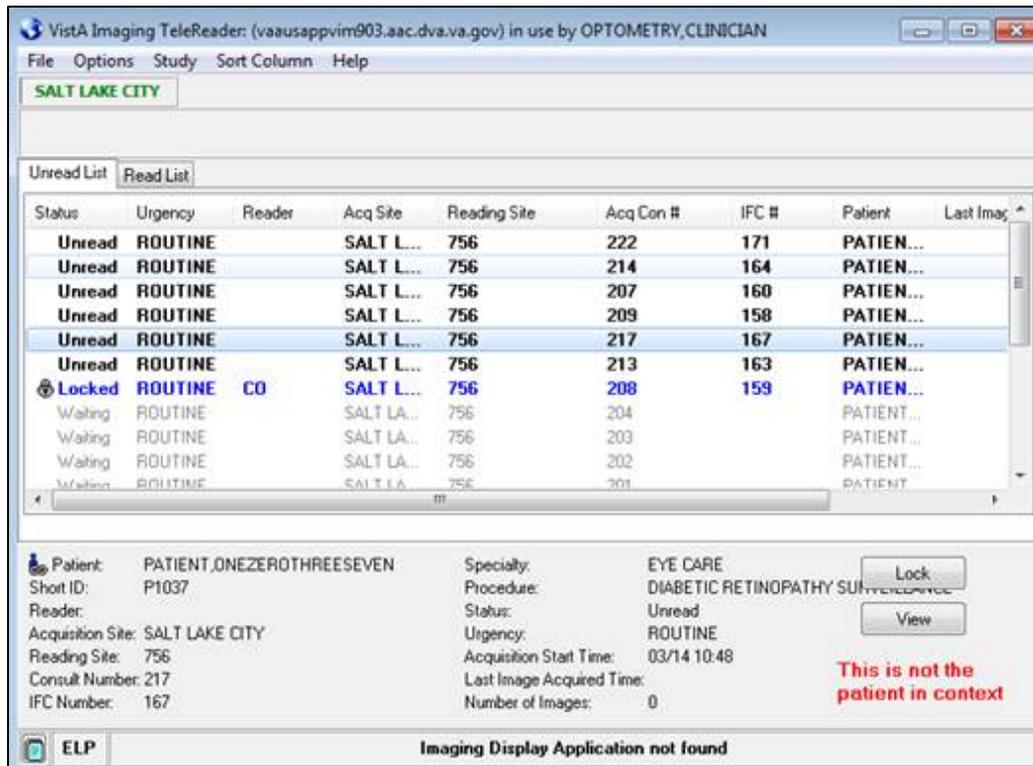
Clicking the View button allows the user to view the patient information (set Patient Context) without locking the study.

Figure 4: Study Details Menu

 Patient: PATIENT_ONEZEROTHREESEVEN Short ID: P1037 Reader: Acquisition Site: SALT LAKE CITY Reading Site: 756 Consult Number: 217 IFC Number: 167	Specialty: EYE CARE Procedure: DIABETIC RETINOPATHY Status: Unread Urgency: ROUTINE Acquisition Start Time: 03/14 10:48 Last Image Acquired Time: Number of Images: 0	<input type="button" value="Lock"/> <input type="button" value="View"/>
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If the selected item is for a patient who is not the patient in context, the following message will appear, ‘This is not the patient in context’. This message indicates to the user that if Display and/or CPRS are active, they could be displaying information about one patient while the details at the bottom of the TeleReader are for another patient (out of context). To put Display and CPRS into sync with TeleReader, select the study you wish to view and press the Lock or View button. See [Figure 5: Synchronizing Display and CPRS with TeleReader](#).

Figure 5: Synchronizing Display and CPRS with TeleReader



TeleReader Menus

The TeleReader contains the following menus:

- File Menu ([Figure 6: File Menu](#))
- Options Menu ([Figure 7: Options Menu](#))
- Study Menu ([Figure 8: Study Menu](#))
- Sort Column Menu ([Figure 9: Sort Column Menu](#))
- Help Menu ([Figure 10: Help Menu](#))

Figure 6: File Menu



Table 3: File Menu Explanation

Title	Description
Specialties	Displays the Specialties dialog.
Refresh	Refreshes the studies on the Read/Unread lists.
Login	Permits the user to login to their local VistA system.
Logout	Permits the user to logout from VistA.
Remote Login	Enables the user to remotely login to a VistA server
Exit	Enables the user to exit the TeleReader application.

Figure 7: Options Menu

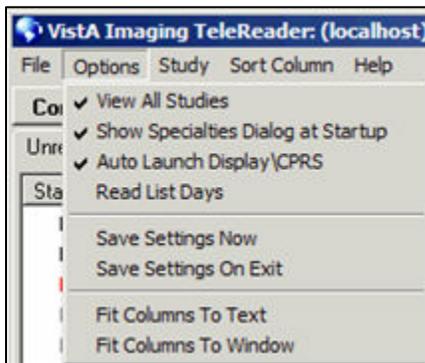


Table 4: Options Menu Explanation

Title	Description
View All Studies	When this option is checked, the TeleReader will display all studies available to the user. Not all studies may be able to be resulted by the user. If this option is not checked, then the TeleReader only displays the studies available for resulting by the user.
Show Specialties Dialog at Startup	When this option is checked, the TeleReader will display the Specialties dialog when the user first logs into VistA. If this option is unchecked, the Specialties dialog will not appear if the user has at least one procedure active in VistA. If no procedures are stored in VistA, the Specialties dialog will appear. This option is meant to allow users, who work with the same studies often, to not have to view the Specialties configuration dialog each time they login into TeleReader.

Title	Description
Auto Launch Display\CPRS	When this option is checked, the TeleReader will check to see if Display and CPRS are active. If either application is inactive, it will be launched and connected to the same database as the TeleReader. This option is checked by default.
Read List Days	Allows the user to specify the number of days shown on the Read List. This value is not stored as a user preference and only remains in use if the TeleReader application remains open. (Read List Days will default to 7 days)
Save Settings Now	This feature will save the current user preference settings to VistA.
Save Settings on Exit	This feature will save user preference settings to VistA when TeleReader closes or is disconnected from the current VistA system.
Fit Columns to Text	Adjusts the column widths on both the Read and Unread lists to ensure all text is visible.
Fit Columns to Windows	Adjusts the column widths on both the Read and Unread lists to ensure all columns are visible in the window.

Figure 8: Study Menu

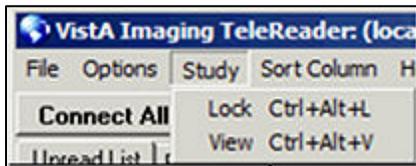


Table 5: Study Menu Explanation

Title	Description
Lock	Lock or unlock the current study.
View	View the current study.

Figure 9: Sort Column Menu

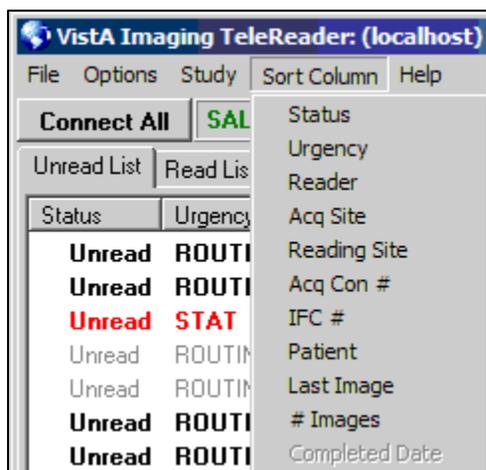


Table 6: Sort Column Menu Explanation

Title	Description
Status	Sort the selected list by the status.
Urgency	Sort the selected list by the urgency.
Reader	Sort the selected list by the reader.
Acq Site	Sort the selected list by the acquisition site.
Reading Site	Sort the selected list by the reading site.
Acq Con#	Sort the selected list by the acquisition consult number.
IFC #	Sort the selected list by the inter-facility consult number.
Patient	Sort the selected list by the patient.
Last Image	Sort the selected list by the last image acquired date.
# Images	Sort the selected list by the number of images.
Complete Date	Sort the selected list by the completed date (only available on the Read List).

Figure 10: Help Menu



Table 7: Help Menu Explanation

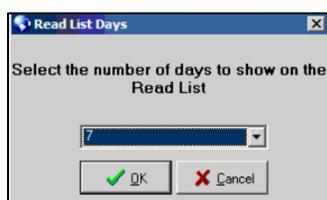
Title	Description
TeleReader User Manual	This is a link to the current TeleReader User Manual installed with the TeleReader application. When selected, the User Manual will be opened in your browser.
About	This feature displays the About dialog containing information about this application.

Read List Days

By default, the Read list shows the last 7 days of studies. This number can be modified by using the Read List Days dialog. This dialog allows the user to specify the number of days on the Read list (0 days to 90 days). This value is not stored in VistA, and only applies during the current session. When the TeleReader is closed, this value will default back to 7 days. See [Figure 11: Read List Days Dialogue](#).

The OK button closes the dialog, applies your new value and refreshes the Read list with the appropriate studies based on the selected value. The Cancel button closes the dialog without making any changes.

Figure 11: Read List Days Dialogue



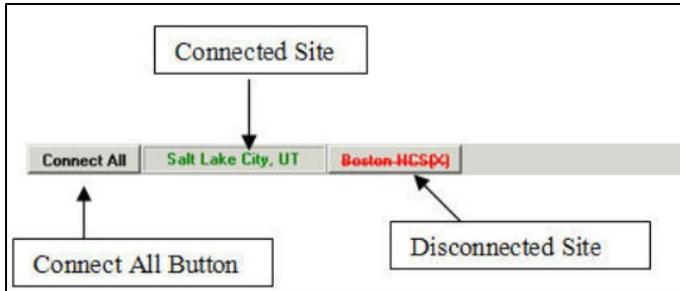
Remote Connections Status Bar

The Remote Connections Status Bar displays the status of all remote acquisition sites selected for reading using the Specialties Dialog. If the local site is a reading site, it will NOT appear in this status bar. Sites which are connected appear in green, while disconnected sites appear in red with a line through the site name.

If a site is disconnected, you can attempt to manually connect to it by clicking on the site name. Also, if there are one or more disconnected sites, a "Connect All" button will be available. If you click on that button, the TeleReader will attempt to connect all disconnected sites. A site might

not connect if there is a network problem preventing communications with the site. See [Figure 12: Remote Connections Status Bar Menu](#).

Figure 12: Remote Connections Status Bar Menu



Unread List

The Unread List contains studies which have not been resulted. The Unread List contains the following columns. See [Figure 13: Unread List Column](#).

Figure 13: Unread List Column

Status	Urgency	Reader	Acq Site	Reading Site	Acq Con #	IFC #	Patient	Last Image	# Images
--------	---------	--------	----------	--------------	-----------	-------	---------	------------	----------

Table 8: Unread List Explanation

Title	Description
Status	The status of the study (Waiting, Unread, Locked, Read).
Urgency	The urgency of the study.
Reader	The initials of the reader (or blank if study is not being read).
Acq Site	The acquisition site 3 letter abbreviation.
Reading Site	The reading site 3 letter abbreviation.
Acq Con #	The acquisition site's consult number.
IFC #	The inter-facility consult number.
Patient	The name of the patient.
Last Image	The date the last image was captured for the study.
# Images	The number of images captured for this study.

Read List

The Read List contains studies which have been resulted or cancelled. This list contains studies for the last seven days. This value is the default, but can be changed to view days that exceed seven days. Users can use the View button to select the study on the Read List and view the study information and images. The Read List contains the following columns. See [Figure 14: Read List Days Column](#).

Figure 14: Read List Days Column

Status	Urgency	Reader	Acq Site	Reading ...	Acq Con #	IFC #	Patient	Last Image	# Images	Completed Date
--------	---------	--------	----------	-------------	-----------	-------	---------	------------	----------	----------------

Table 9: Read List Explanation

Title	Description
Status	The status of the study (Waiting, Unread, Locked, Read).
Urgency	The urgency of the study.
Reader	The initials of the reader (or blank if study is not being read).
Acq Site	The acquisition site 3 letter abbreviation.
Reading Site	The reading site 3 letter abbreviation.
Acq Con #	The acquisition site's consult number.
IFC #	The inter-facility consult number.
Patient	The name of the patient.
Last Image	The date the last image was captured for the study.
# Images	The number of images captured for this study.
Completed Date	The date of completion.

The Status Bar at the bottom of the TeleReader contains a button to view the message history, the three-letter abbreviation of the local site, and any importance messages about the status of the client. These messages include the status of the TeleReader and errors that have occurred in the TeleReader. Error messages should be reported to the Local Imaging Coordinator or support staff. See [Figure 15: Status Bar Menu](#).

Figure 15: Status Bar Menu

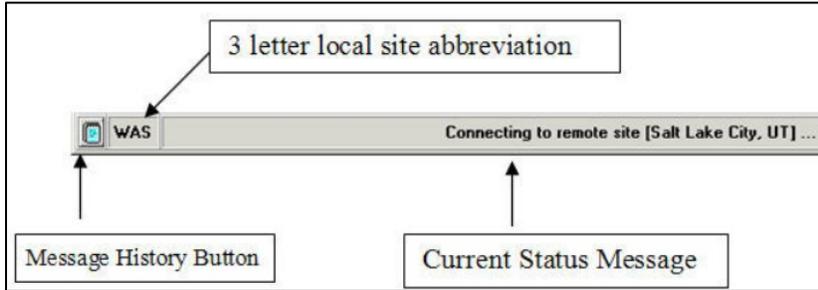


Table 10: Status Bar Explanation

Title	Description
Message History	The message history will display when selected.
Site Abbreviation	The three-letter site abbreviation.
Important Message	The current important message about the status of the TeleReader.

Appendix A. Clinical Context Object Workgroup

CCOW Overview

Clinical Context Object Workgroup (CCOW) is an HL7 standard for clinical context management which synchronizes applications so that they are mutually aware of common elements. TeleReader workstation is CCOW compliant and uses this standard to interface with CPRS, VistA Imaging TeleReader and other CCOW compliant applications.

When a clinician uses a CCOW compliant application (such as TeleReader) and starts another CCOW compliant application (such as CPRS) the second application will automatically sign on with the same user credentials. When the clinician views a study in TeleReader, it is automatically directed to CPRS and Clinical Display. CCOW will ensure all applications share the same patient context.