What's New in Patch 93.

Clinical Display Changes

New Imaging Security Keys

■ MAG EDIT

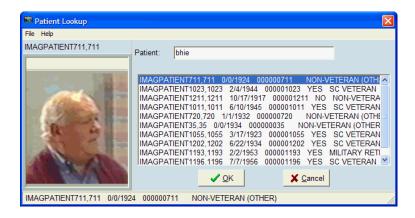
MAG EDIT will give authority to perform all Image Edit and QA Review functions. It's like a master edit key. Users with MAG SYSTEM key will also be able to edit. MAG SYSTEM is still the All Power key.

■ MAG PAT PHOTO ONLY

The MAG PAT PHOTO ONLY security key allows a user to view the patient photo only and gives the user no other functionality in VistA Imaging Display.

Patient Lookup window

The Patient Lookup window has been improved to show the patient photo on the left side of the window.



Full Resolution window.

The Image Viewer toolbar has been updated with a new style and new icons on its toolbar. The toolbar is split into 3 toolbars which can be repositioned.



Position the mouse over the drag handle , Click and drag the toolbar on top of another toolbar, or to the right or left. Toolbars will not 'Float' as separate toolbar windows, they can only be repositioned.

Abstracts Window

■ New Icons for Abstract window toolbar.

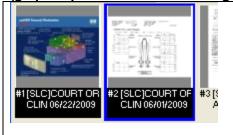


from left to right:

Next Page of abstracts, Previous Page of Abstracts, Zoom out, Zoom in, Refresh all.

■ Visual indication of an Image Group is displayed differently in the Abstract Window.

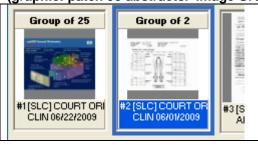
(graphic: patch 72 abstracts. Image Group and Selected Image Group.)



Current Group Abstracts have a Black background to the Image Description.

When selected, a blue rectangle outlines the abstract.

(graphic: patch 93 abstracts. Image Group and Selected Image Group.)



Patch 93 has an upper panel that displays the number of images in the Group.

When Selected, a blue rectangle outlines the abstract and the background of the description is also blue.

■ Default Abstract for Controlled and Blocked Images.

Controlled Image	This abstract is displayed when an Image is marked as 'Controlled' A controlled image won't display in the Abstracts window. But will display normally when selected. This gives the Physician a visual indication that there is something sensitive about the Image.
Blocked Image	This will be the abstract shown for Images that are 'Blocked' (Non-Viewable). 'Blocked' images refer to images with status of "Needs Review' and images that are blocked due to 'TIU Authorization Failure'. Later (future patch) there will be other reasons for "Blocking Images'
	Needs Review icon displayed in the Image list and tree view.
	TIU Authorization Failed icon displayed in the Image List and tree view
I.B.	Note: There is another sort of 'block' that has been in previous versions of VistA Imaging. The Questionable Integrity (QI) check.
mismatch	Images that fail the Integrity Check cannot be view or edited with the Image Index Edit utility.
	QI Icon is displayed in the Image List and Tree view

Main Display Window

Utilities Menu.

A new menu option on the main window is the 'Utilities' menu. It has submenu options that give access to the QA Review window and to the QA Review Report window. The Utilities menu is also available from the Image List Window. Only users that have the Appropriate Key will have the 'Utilities' menu option.

Remote Image Toolbar Removed.

The Remote Image Toolbar has been moved from the bottom of the Main Window to the bottom of the Image List Window.

Image List Window

There have been many changes to the Image List window to make it easier for the user to navigate the VistA Imaging Application.

The graphic below labels all the possible components that are available in the Image List Window. Each Labeled component is described in the following table.

Quick Summary GUI Changes

- Patient Photo is displayed
- CCOW Icon shows current state of patient desktop context for the application.
- Menu items copied from main window to give more functionality in one place.
- New menu items to access new 'Layouts' functionality.
- Exit menu option to close application.

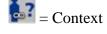
Selected: [SLC] IMAGE CLIN 04/16/2009

- Synchronize selected image in all controls.
- New clearer and intuitive tool bar and list icons.
- Remote image tool bar now in Image List window.
- Tree View control for an alternate way to navigate patient images.
- Option to include Abstracts viewer in the Image List Window
- Option to include Full Resolution viewer in the Image List window.

(Image List Window) image List: PATIENT, ONEZEROTHREETHREE Options View Reports Filters Layouts Utilities Manager Help PATIENT, ONEZEROTHREETHREE 35 of 35 Images match Filter: "All " Clinical All #All 6 mth #All 2 yr #All #Adv Directives #Admin 10-10EZ All #Clin 2 yr #Admin All #Clin All #Rad All ID# 19460 [SLC] IMAGE CLIN 04/16/2009 Item | Short Desc Pkg Pkg Spec Type Class РНОТО ID PHOTOIC ▲ ABG Apr 16, 2009 MED ALLERGY & IMMUNOLOGY ▲ IMAGE NONE ANESTHESIOLOGY ... IM∆GE NONE AUDIOLOGY IMAGE NONE BLIND REHAB BLOOD BANK Property Value CARDIAC SURGERY ---- Report not received for Image # 1946(Image ID#: 19460: No Report for this Image CARDIOLOGY DOCUMENT: CHIBOPBACTIC Extension: PATIENT, ONE ZEROTHRE. Patient: ENDOCRINOLOGY, DIABETES, METAB MEDICINE Desc: IMAGE: CLIN: ▲ IMAGE CLIN 04/16/2009 ID 19461 IMAGE CLIN 04/16/2009 ID 19460 IMAGE CLIN 04/16/2009 ID 19459 IMAGE CLIN 04/16/2009 ID 19458 IMAGE CLIN 04/16/2009 ID 19457 P NURSING PULMONARY Bri. 100 VASCULAR 1 Image 35 Abstracts. [SLC] IMAGE CLIN 04/16/2009 Controlled The purpose of this document is to provide a consistent method for entering information into the Enterprise Support Solution Remedy Application across all of the different support, development, and maintenance groups that provide service to requestors. Remedy Help Desk Application will be the software used to provide help desk support across the Office of Information (OI). Support includes problem definition, diagnosis, and resolution activities. All help desk requests will be entered into the Remedy Help Desk Application. Each Remedy help desk ticket will be limited to one issue. lmage ISLCHMAGE #11 [SLC] IMAGE #12 ISLCUM

Table: Image List window components

- A The Menu's. (See Table: Image List Window Menu.)
- **B** Patient Photo (same as previous versions), but is now displayed in the Image List Window and on the main window.
- C Tool Bar all functions from this toolbar are the same. The icons have changed. (See Appendix C: Image List window Toolbar Icons...)
- **D** Patient Context Icon.
- is changing.
- = Application is in Context. = Application is Not in context. = Context



This is the CCOW Patient Context Icon indicator. It is the same as on the Main Window, and it changes for the same reasons.

- **E** Patient name and Patient Image count information panel. (same as previous versions)
- F Filters as Buttons: (same as previous versions) The way the tabs are displayed has changed. The filters display as buttons instead of 'tabs'.
- G Sort Buttons for Tree View. New in Patch 93.

This toolbar can be hidden by unchecking the menu item: Tree | Sort Buttons. The Tree Sort Buttons are a quick way to change the view of the images in the tree view. Each sort button displays a different Index Property as the first level of the tree view. This is only a single level sort. Double level sorts are available from the Tree menu and custom sorts are also available from the Tree Menu.

H – Image Tree View. New in Patch 93.

The Tree view can be used instead of the List View or along with it and the abstracts. It gives users another option of displaying the images for a patient. If both the Tree View and List View (and optionally the Abstracts) are visible, all components are updated when the patient images are refreshed. Refreshing the Images, or selecting a new filter, or selecting a new patient, all visible components are updated.

I – Image List –

This is the same component as in previous versions of Imaging. The icons to the left of the image are new. (See Appendix B: Image List view icons, Tree view icons)

J – Preview Abstract –

This is same component as in previous versions of imaging plus the addition of the image information panel below the abstract. (See L)

K – Preview Report –

This is same component as in previous versions of imaging.

L – Preview Information panel:

The Image Information that is viewable is the same information as in the image information window.

M – Full Resolution Toolbar:

The icons for the tool bar have changed, and the tool bar is split into 3 slideable toolbars. The three toolbars have grab indicators to make it easier for the user to drag and differentiate the different toolbars. But all the functionality is the same as previous versions

N – Full Resolution Image

The Full Resolution image can now be viewed in the Image List window. checking or unchecking the menu item "Layouts | Document viewer in Separate Window" will change where the Full Resolution viewer is displayed. In a separate window is the classic layout that was used in all previous versions of imaging.

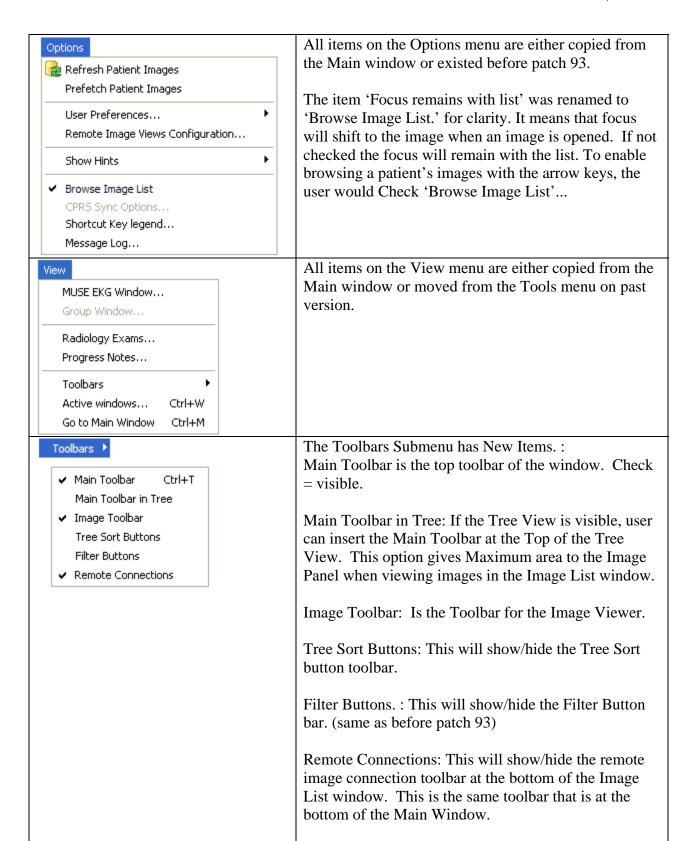
O – Abstracts Viewer

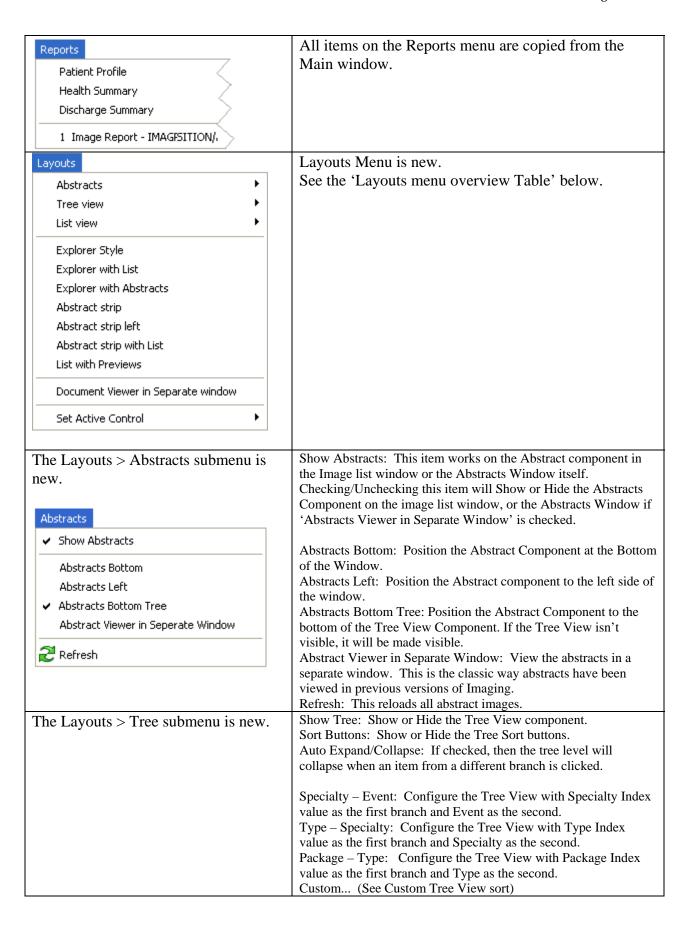
Abstracts can now be displayed in the Image List Window. Checking or Unchecking the menu item "Abstracts | Abstracts in separate window" will change where the abstracts viewer is displayed. In a Separate window is the classic layout that was used in all previous versions of imaging.

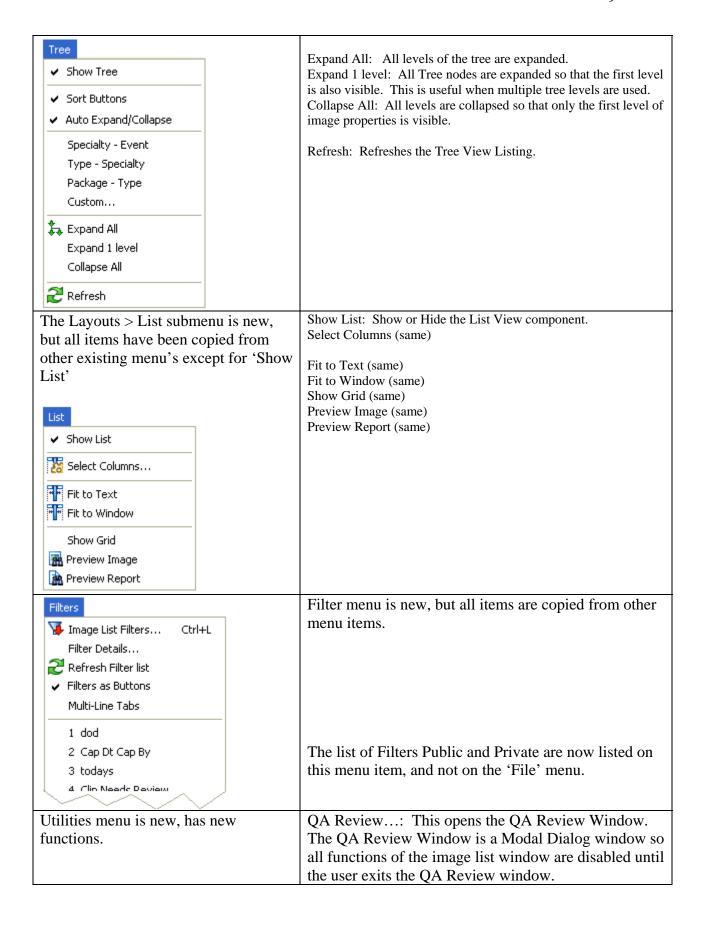
P – Remote images toolbar: (same as in previous versions). It is moved from the Main Window and placed here.

Table: Image List window menu

Image List: Menu Item	Description:		
File	The menu items are the same as the 'File' menu on the		
Select Patient	main window except for:		
☐ Open Image ☐ Image Report X Image Delete Image Index Edit Image Information Image Information Advanced Cache Images 1 PATIENT,ONEZEROTHREETHREE Close ☐ Exit	Image Index Edit Exit -The Icons are new. (see icon listing) -The Recent patients listing is copied from the Main Window menu. The filters list, which was on the file menu has been moved to the 'Filters' menu.		
Context	The Context menu is copied from the Main Window		
Show Context	menu.		
Suspend Context			
Resume Get Context			
Resume Set Context			







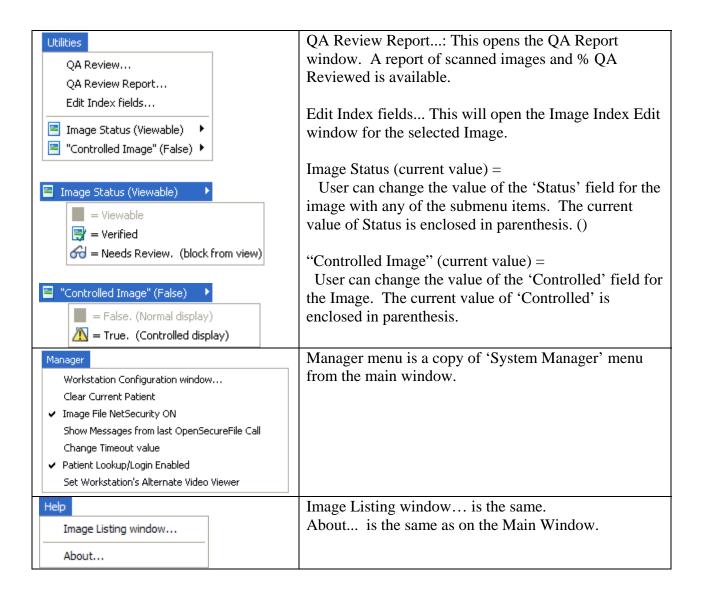


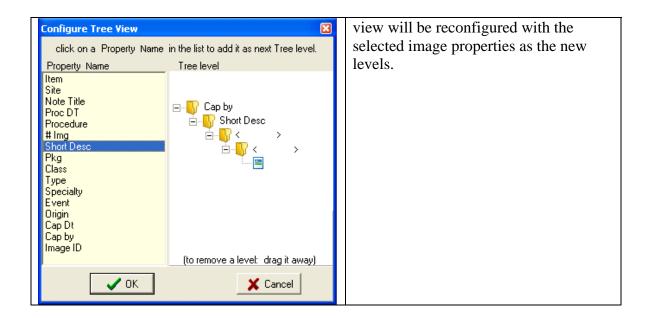
Table: Layouts Menu Overview

Layouts Overview Table.	
Layouts Menu Item	Selecting a Layouts Menu item will reconfigure the Image List window with imaging components. Users have the option of showing or hiding individual components. This enables a wide variety of Layout possibilities. The Layout will be saved when User Preferences are saved.
Explorer Style	A Tree component to the left and the Image on the Right.
Explorer with list	Same as Explorer, plus the list view to the top of the Image.
Explorer with Abstracts	Same as Explorer, plus the abstracts component at the bottom of the Tree view component.
Abstract strip	Abstracts at the bottom of the window and the Full Res image displayed at the Top.
Abstract strip left	Abstracts to the left of the window and the Full Res image displayed on

	the Right.
Abstract strip with List	Same as Abstracts strip left, plus the list view to the top of the Full Res
	Image.
List with Previews	List view on top, with Abstract, Image Information and Image Report
	panels visible as preview panels. The preview panels are updated when a
	new entry is selected in the list.
Document Viewer in Separate	If checked this will display the Full Res Image in the Full Res Window.
window	This is the classic way of displaying Images previous to Patch 93.
Set Active Control	
	This menu item is intended to make it easier to navigate the image list
	window controls. An Indicator can be used to visually determine the
	active control and Short Cut keys are available to navigate to the main
	controls on the Image List window.
-Abstract	Ctrl – F5
	This will set the Abstract Viewer as the active control. If the Abstract
	window is where abstracts are being shown, then this function will Open
	the abstract window (if it isn't open) and set focus to it. If abstracts are
	being show included in the Image List window, then that Abstract Viewer
	will be made visible (if needed) and given Focus.
-Tree View	Ctrl – F6
	The Tree View control in the Image list window will be made the active
	control. It will be made visible if needed.
-List View	Ctrl – F7
	The List View control in the Image list window will be made the active
	control. It will be made visible if needed.
-Full Resolution Viewer	Ctrl – F8
	This will set the Full Resolution viewer as the active control. If the Full
	Resolution window is where Images are being shown, then this function
	will Open the Full Resolution window (if it isn't open) and set focus to it.
	If Images are being show included in the Image List window, then that
	Full Resolution Viewer will be made visible (if needed) and given Focus.
Active Control Indicator	If Checked: A yellow bar will be displayed to the left of the control that
	currently has focus.

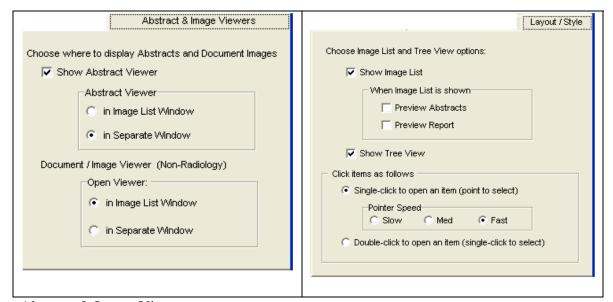
Custom Tree View sort

Custom Tree View sort:	Click on an item in the Property Name
	list and it will be added as the next tree
	level. To remove a Level, drag it away
	with the mouse and drop it (anywhere).
	In the graphic, the user clicked on 'Cap
	By' and then clicked on Short Desc.
	When the 'OK' button is clicked the tree



User Preferences

There are two new Tabs in the User preferences Window.



Abstract & Image Viewers.

Patch 93 enables the Abstract viewer and the Full Resolution document viewer to be either in Separate windows as previous versions of imaging display or included as a new panel in the Image List Window. Users who choose to not use the abstract viewer to navigate the patient's images can elect to have it remain hidden by unchecking the 'Show Abstract Viewer' check box.

Layout / Style

A new option in the Image List window is to display the list of patient images in a Tree View. The Tree view will be display on the left side of the Image List window. Users can select to show one of both of the Image List and Tree View controls. When the Image List is selected you can elect to preview abstract and or reports as in previous versions.

A new function to eliminate keystrokes is the 'Click items as follows' box.

Select: 'Single-click to open an item (point to select)' so that an item in the tree view or image list will be automatically be selected when the mouse is held over it. A Single click after the item is selected will open then image.

Pointer Speed determines how long the mouse must be held over an item for it to be selected. Fast means that the item will be selected quicker than Medium or Slow. Select: **'Double click to open an item (single click to select)'** to switch to the default method of selecting an Image. This function is modeled after MS Explorer folder options.

The 'Display Remote Abstracts' check box has been moved to the 'Remote Image View'

A User can save the current layout of the image list window by clicking the menu option 'Save Settings Now'. Alternatively a user can check 'Save Settings on Exit' and every time the application is closed the settings will be saved.

General Changes

Honor TIU Business Rules when opening Images attached to TIU Notes

VistA Imaging Display blocks images from being viewed when the images are attached to TIU (Text Integration Utility) notes if the user doesn't have the authority to view the TIU notes. TIU uses the ASU (Authorization Subscription Utility) to determine if a user has authority to view a TIU note.

EXCEPTION: Image Delete. If a user has the MAG DELETE Key, they are able to view the Image from the Image Delete window to make an informed decision before deleting an image.

Note: During an Imaging session, deleted images are not deleted from any open lists or viewers. The status icon for the list or tree item will change to reflect the 'deleted' status but if a deleted image is selected the image won't be displayed. Instead a dialog window will display informing the user that the image has been deleted this session. The can 'Refresh' the patient Image list and deleted images will no longer be listed.

Configurable List of Reasons for Print, Copy, Delete and Status Change.

In VistA Imaging Display the user must select a reason for the following actions: Copy, Delete, Print or Change Status. During an Imaging session the Reason Selection dialog window will be opened and the user is required to select an item.

The Reasons listed are site configurable. A new VistA File allows sites to add entries to the list of reasons for each of the actions above. Sites can make entries into the file and they will be available for users to select.

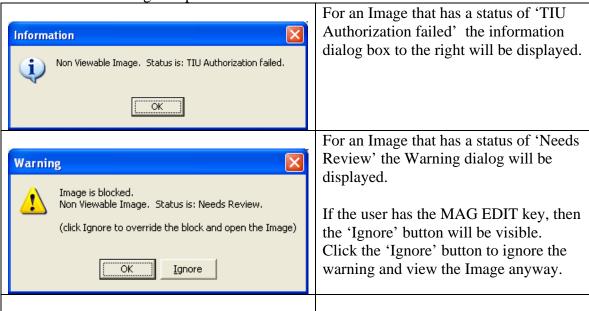
Block Images from View.

The new image properties Status and Viewable Status (see section 'Status and Viewable Status') will be used by the Display client to determine if an image can be viewed by this user.

This is different than the current design. Currently any image in the image list can be clicked and viewed, except for Images with Questionable Integrity.

With Patch 93, other images will be blocked. Images that have a status of 'Needs Review' or a Viewable Status of TIU Authorization failed' will not be displayed.

When a Blocked Image is opened:



Controlled Image.

The Controlled Image field can be used to specify that the image contains graphics or data of a sensitive nature. The Display Client gives the user a visual indication through the use of icons and abstracts that the image is controlled.

The CONTROLLED IMAGE field ((#112) of the IMAGE File (#2005) is a set of codes that gives the site the opportunity of marking an Image as controlled. In the image list and tree view controls of the Imaging Display Client, controlled images will have an icon displayed in the first column that distinguishes it as controlled. The Abstract for a controlled image will not be shown. Instead of the abstract, a bitmap signifying that this image is controlled will be shown. When the image is opened, it will display as always. The controlled value can be changed for an image in the Image Index Edit window. Users with the Security Key 'MAG EDIT'. will have access to the Index Edit window.

VistA Menu Options

Patch 93 adds the following menu options to the Imaging System Manager menu [MAG SYS MENU]: (in the VistA Menu System)

- Imaging Clients Version Report [MAG CLIENT VERSION REPORT]: This option displays the list of workstations and clients that have to be updated. When the new version of the VistA server code is released, those clients will not be supported anymore.
- Enter/Edit Reason [MAG REASON EDIT]: This option allows adding/editing
 of reasons for actions performed on images (copying, printing, etc.) stored in
 the MAG REASON file.

Status and Viewable Status details

Currently in VistA Imaging Display all non deleted Images are considered viewable. When an image entry is accessed for viewing the Questionable Integrity (QI) check is run before the image data is returned to the Client. If the image data is Questionable, the image would be blocked from display on the Display Client.

Patch 93 expands the possible reasons that an image may be blocked by introducing 'Status' and 'Viewable Status' values for images.

Status Field:

The STATUS Field (#113) is a new field in the IMAGE File (#2005).

Possible Status Values are:

- No Status (considered viewable)(no change)
- Viewable (newly captured images are considered viewable) (no change)
- QA Reviewed
- Needs Review
- Deleted

Viewable Status:

Possible values for Viewable Status are:

Any of the Status Values plus the following

- Questionable Integrity
- TIU Authorization failed.

Table 1: Status and Viewable Status values Table:

This table summarizes if an image is viewable based on its status, and gives the meaning of the status.

status	is image viewable	meaning	
No Status	Viewable by All.	This will be the status of all images captured prior to installation of Patch 93.	
Viewable	Viewable by All.	The Image has been captured and an Image entry is in the IMAGE File (#2005)	
Verified	Viewable by All.	The Image index fields and patient have been reviewed by authorized personnel and have been verified. Authorized Personnel are users with the MAG EDIT key.	
Needs Review	Viewable only in the QA Review Window.	If the Patient or Index values of the image have been determined to be incorrect, the status will be changed to 'Needs Review' The Image Status can be changed to 'Needs Review' for other reasons.	
Deleted	Not Viewable.	The Image has been deleted.	
Questionable Integrity	Image is not viewable.	The result of the Imaging API to check the integrity of the image was that the image has questionably integrity.	
TIU Authorization Failed.	Not Viewable by current user.	When an Image is attached to a TIU Note, and the user does not have authorization to view the Note, the Image will be blocked from view. The TIU API is called to check the user's authorization to view this image.	

The viewable status is computed by first using the 'Status' field. If the Image is viewable based on it's status i.e. has a status of No Status, Viewable or Verified then further checks are performed

QI Check.

The QI Check is run, and if the Image Fails the integrity check, the Viewable Status is set to Questionable Integrity. The Image will be listed but will not be viewable.

TIU Authorization.

If the Image is attached to a TIU Note then TIU Authorization is checked. TIU is configured such that users need to have authorization to view a note and VistA Imaging now checks that authorization. If the user does not have authorization to view the attached Note, then the Viewable Status will change to TIU Authorization Failed. The Image will be listed but will not be viewable.

Patient Photo Only Window

The MAG PAT PHOTO ONLY security key allows a user to view the patient photo only and gives the user no other functionality in VistA Imaging Display.



In the Patient Photo Viewer the SSN in the patient list and on top of the patient photo will not appear.

QA Review Window summary

The QA Review window will contain all functions that are needed and related to the verifying of scanned documents'.

When opened, it will be opened as a modal dialog window. As a modal dialog all other functions of Imaging Display will be disabled. In the QA Review window, information about the image from the VistA IMAGE (#2005) File and any report that the image is associated with can be displayed. The intent is to have enough information in this window so that the user can make an informed decision when reviewing the document image. When listing all scanned images by a user for a date range, **multiple patients** will be listed. For this reason, because this window deals with multiple patients, Clinical Context will be suspended while this window is active.

QA Review GUI Design

The window will open with 'Today's' images as the default date range in the Quick Search panel.

All users that have captured images in the selected Date Range will be listed in the 'captured by:' drop down list.

The List of Images could be very long if the date range includes too many days. To limit the list of images to verify the user must select a 'Capture By' entry.

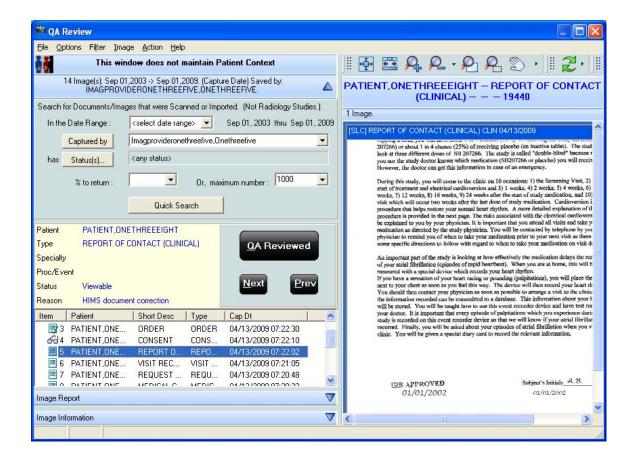
The user will be reviewing images that were captured by a certain user over a certain date range.

By default the Status field will be '<any>'. This means that all images that were scanned by the selected 'captured by' entry will be listed. Selecting a status or statuses can help to limit the list.

The user can select a % of images to list. This will help limit the length of the list. Also when a % is selected. That states a certain % of images should be verified to insure QA of the scanning process.

QA Review reports can be displayed. The Report is based on the selected Date Range. The Report includes the number of images scanned by each user over the date range. For each user the number of images scanned is displayed. The number of images scanned is further broken down by image status. The percent of that users scanned images that are verified is also displayed.

The properties on the Quick Search panel are also available when accessing the Filter Add/Edit Window from the Verify Window. They are not available when accessing the Filter Add/Edit window from other windows in imaging. The reason is the different needs of the user based on the option of VistA Imaging that is being invoked. A normal user doesn't have a need to see 'Only' today's images for a patient, and verify personnel have no need to see last years Advanced Directive for a patient



Menu Design.

Menu Design.	D : .:	
Menu / Submenu Item	Description	
OA Review File Options Filter Image Action Help	Verify Images: Main menu.	
Image Delete Image Index Edit Ctrl+Alt+E Image Information Advanced Exit	The File menu has options: Image Delete: Users with the correct security Keys can Delete an Image. Image Index Edit - The Image Index Edit window will be opened. The Image Index values can be edited there. If edits are made, the status Icon will change to show an edit has been made. Image Information Advanced: Users with the correct security key will have access to this menu option. This is the same as previous versions.	

Options

Refresh List Clear all

Select Columns...

Fit to Text Fit to Window

Preview Report
Preview Image Info
QA Review Report...

Shortcut Key legend...

Exit: Close the QA Review utility window.

The Options menu will have functions related to the controls on the window, not necessarily the 'verifying of an Image.

Refresh List – Refreshes the filtered image list (I)

Clear all – Clears all components on the form.

Select Columns... – opens the columns select form. User can select which columns to view. . (same column selector window as pre 93)

Fit to Text – fit the width of the columns to the longest text in each.

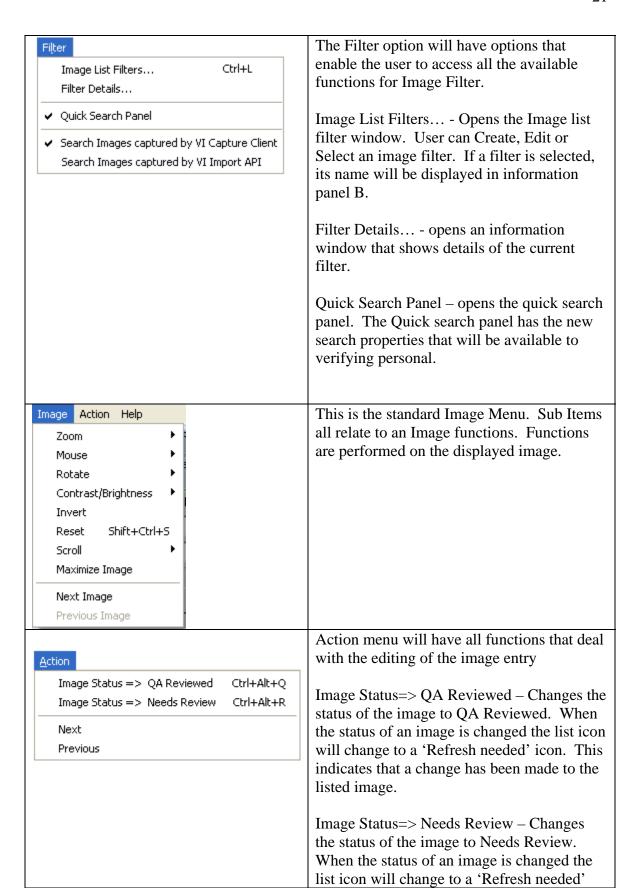
Fit to Window – space the columns so that all are visible in the image list.

Preview Report – checked or not checked. If checked the report panel will be visible and will display the associated report of the image if one exists.

Preview Image Info – checked or not checked. If checked the information panel will be visible and information on the selected image will be displayed.

QA Review Report: Opens the QA Report utility window. (see QA Report section)

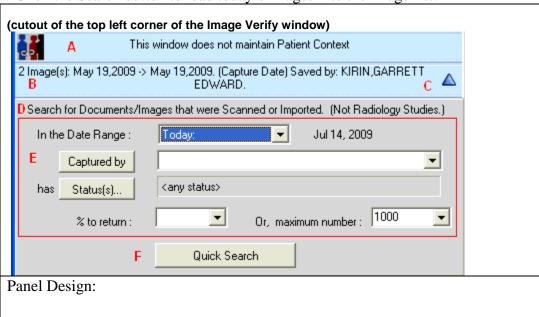
Shortcut Key legend...: opens the Shortcut Key Legend window. This window describes all shortcut keys that are in effect for VistA Imaging Display.



icon. This indicates that a change has been made to the listed image. Next – selects the Next image in the list. When 'Next' is clicked the status of the current image is not changed. The next image in the list will be highlighted and displayed in the Image Viewer. Prev - selects the Previous image in the list. When 'Prev' is clicked the status of the current image is not changed. The previous image in the list will be highlighted and displayed in the Image Viewer. The Help menu will have the standard help <u>H</u>elp option topic for the current window. QA Review Help QA Review Help – opens the help topic for the Image Verify Window.

.

Click the Search button to load today's images into the image list.



A An information panel that informs the user that this window is not in CCOW Context.

A short desc of the Search properties that have been used to produce the listed

images.

- C A Quick Search Panel hide/Show button.
- D An information panel that informs the user that the list images are only scanned or imported images. Not Radiology Studies.
- E Quick Search properties.
- 'in the date range: 'User can select one of the entries in the drop down list or select a date range. The drop down list includes entries for the most recent days, and combination of recent days. The actual dates are displayed to the right
- 'captured by: ' When this button is <clicked> the list is populated with all uses that have captured images in the date range that was selected above. The user must select an entry in this list of personnel that have captured images in the date range.

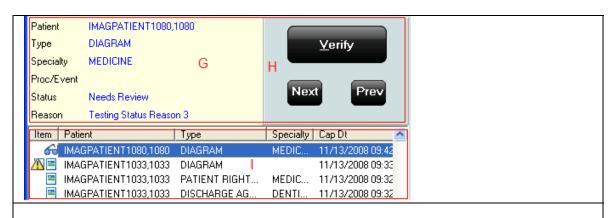
Captured by results: The Captured by drop down control will have the results of the search for users in the date range. Before or after a search for users, the drop down list can have 3 alternate entries.

- '<Select a user>' This means that the Captured By button needs to be click to run the search for users.
- '<Refresh needed for Date Range change>' This means that the date range has changed, and a new search must be made for users that have scanned images in that date range.
- '<No users for Date Range>' This means that the search was run, but no users were found in the date range.
- 'has Status(s)... Click 'Status' button to select one or more values of 'image status' to search for. Click 'any' button to include all status(s).
 - '% **Percent' Only** return a percent of images that fit the filter.
 - Or maximum number: Return up to this many images.

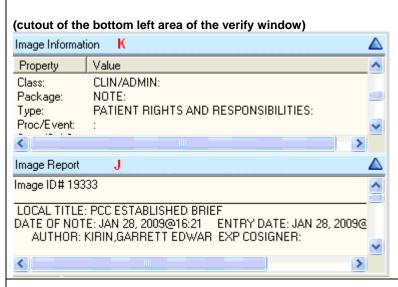
Note: % and maximum number are exclusive; you can only enter data in 1 of these fields.

F Click the Quick Search button to perform the search. All images will be listed in the image list. A description of the search properties will be displayed in panel B

(cutout of the middle left area of the verify window)

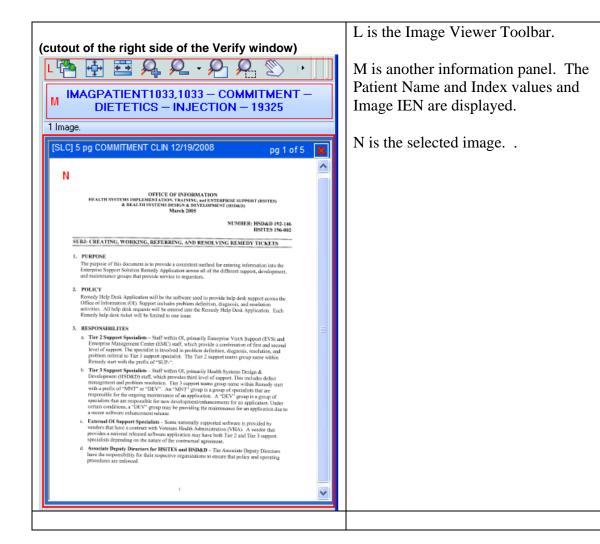


- G: Image Information panel. When an image is selected in the list, this panel is populated with Patient Name, Type Index, Specialty Index and Proc/Event Index, Image Status and Status Reason.
- H: Clicking the Verify Button will change the Status of the image to Verified. Also, the next image in the list will automatically selected. (Alt V) is a shortcut key for the verify button. When an Image has been verified (or marked as Needs Review from the menu option) the status icon of the list entry for that image will change to a 'refresh needed' icon. Refreshing the list will display the updated status icon for all entries. Next and Prev buttons will highlight and display the next or previous image in the list without changing the status of the current image.
- I: The images that match the filter are listed here when the 'Search' Button is clicked. (See list icon table for a description of the icons used)



- J: If the image is associated with a clinical package, i.e. Progress Note, Radiology Exam, Surgery Case, Laboratory Operation, Clinical Procedure or Medicine Procedure, then that report will be displayed in this report panel. This panel can be shown or hidden.
- K: Image information panel. This information panel contains more information about

the image than the information panel in G. The information in G should be enough to determine if the image is indexed properly. This is made available in the case where additional information is needed. This panel can be shown or hidden.





Menu Option - Filter: Filter Details This is an information window that contains the details of the current filter or search properties used to retrieve the current image list.

QA Report

Users that have the MAG EDIT key will have the QA Review Report menu option available to them. This option is available from the Main Window: Utilities menu, from the Image List Window: Utilities menu and from the QA Review window: Options menu. The Report is run for a specified Date Range.

The report contains multiple line items for each user that has captured images in the Date Range. Each line item for a user is the count of the number of images that they captured that now have the listed status.

The number in the Pages column includes the count of the pages of any multiple pages images.

The QA% column is the Percent of all images captured by the user in the date range where the Status has been changed to QA Reviewed.

The last line items for each user are the Totals: i.e. Total number of Images captured, total number of pages (this count includes the number of pages of a multiple page image), and % of all images they have captured in the date range that are now QA Reviewed.

Prior to Patch 93, Images did not have a 'status' property. In the report window, those images have a value of <empty> in the status column, and are considered Viewable.

Patch 93 introduced the 'status' property for an image. When an image is scanned or captured in Patch 93, it is initially given a status of 'Viewable'. Status's can then be changed by QA Personnel.

'The QA Review Report window does not offer the user the option to print reports but it does offer the user to save a report. After saving a report the user can print the report.

To save a report use the 'File | Save as....' or 'File | Open in Spreadsheet' menu options. Open the report in Excel, or other spreadsheet application. Once the report is opened in the spreadsheet application it can be formatted and printed.

Sample QA Review Report

In this sample report we have selected a date range and a User Name; Lightyear, Buzz. From the report we can track the following metrics about Buzz for the selected date range of the report. The report shows the following activity during the date range for the user:

- 216 images that were before patch 93 was installed, some of those were multiple page images, so the count in the 'Pages' column is higher.
- 12 images have a status of Viewable and there were no multipage images.
- 69 have been 'QA Reviewed' with some of the images being multipage images.
- 7 of the images that Buzz captured in the date range have been changed from viewable to 'Needs Review', these images are blocked from view.
- 19 of the image that Buzz captured have been deleted.

The last line listed for each user has the totals. In the example below, for the selected date range, Buzz capture 323 images and 357 total pages, of the 323 images, 21.36% have been marked as 'QA Reviewed'.

User Name	ImageStatus	Entries	Pages	QA %
Lightyear, Buzz	<empty></empty>	216	233	
Lightyear, Buzz	Viewable	12	12	
Lightyear, Buzz	QA Reviewed	69	86	
Lightyear, Buzz	Needs Review	7	7	
Lightyear, Buzz	Deleted	19	19	
Lightyear, Buzz		323	357	21.36

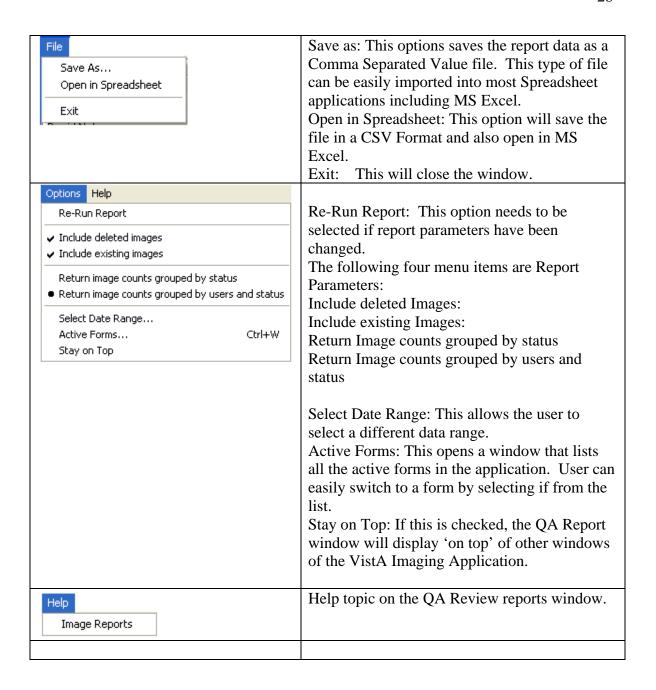
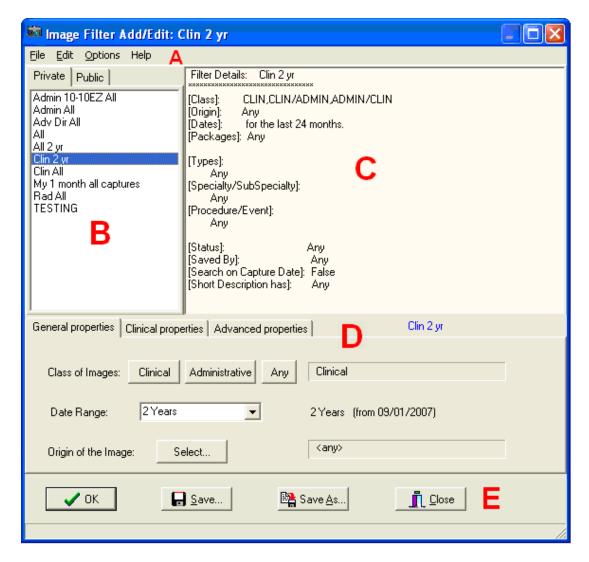


Image List Filter Properties

In Patch 93 the Image Filter Add Edit window has been modified to Enable selecting multiple Specialties, Procedure/Events and Index Types for Clinical Filters. Fix a problem that when dealing with Filters that were for All Classes a filter that was for only Admin or Clinical images would be made.

New fields have been added in order to enable searching by

- Person Capturing the image,
- text in the Short Description
- Status of the Image.



Area A) Main Menu – (Same, no changes)

Area B) Private and Public Filter listings. The Tabs are on the Top of the control instead of the bottom, otherwise there is no change.

Area C) New panel that displays the updated description of the current filter in an easy to see format. This display is updated whenever the user changes any of the properties of the filter.

Area D) all property edit controls have been moved to the bottom control panel. There are 4 Tabs available:

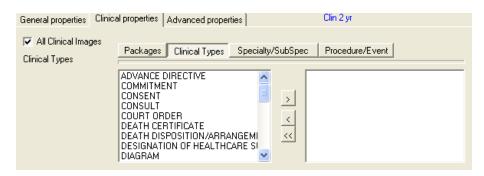
In the General Properties tab:

The Class of Images property is new in this version. Selecting 'clinical' will make the 'Clinical Properties' Tab visible and hide the 'Admin Properties' tab. Selecting Administrative will do the opposite. This will assure that the correct properties are selectable for the selected 'Class' of image. Selecting all will hide both the 'Clinical' and 'Admin' property tabs. This is needed because Imaging Filters search for images that satisfy the filter properties in an inclusive manner. So for filters that are created to search for images of any class, the Clinical and Admin filter properties are disabled because selecting a property of one will automatically exclude all images of the other class.

The look of the Date Range selection has changed slightly but it functions the same.

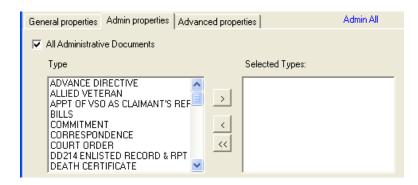
The Origin property is selectable. This is modified from pre 93. Selecting an Origin or Origins is now made through a Selection Utility window. This window enables selection of all codes defined for the 'Origin Index' in the Image File. Any change to the Set of codes in the File will be available in the selection window. This change will also enable IHS to add sets of Codes relevant to their HIS.

Package selection is the same. The Clinical Properties Tab:



For Clinical Types, Specialty/SubSpecialty and Procedure /Event the selection has been changed. Now the user can select multiple items for any of the three. Previous versions allowed selection of only 1 value for any of the three properties.

The Admin Properties Tab:



There is no change to the Admin Properties tab. It isn't shown in the above graphic of the Image Index Window because a Clinical Filter was selected.

Advanced Property Tab.

General properties	Advanced properties	Custom
Date Range:	✓ Use Capture Date for Date	Bange
Description contains	Level	Trango
Image Status:	Select Any	Needs Review
Image Saved by:	Select Any	<any></any>
image savea by.	Jelecc Arty	(dily)

This tab is new for patch 93.

If the 'Use Capture Date for Data Range' check box is checked then the filter will search the Date Range (selected on the 'General Properties' tab) by using the Date/Time the Image was saved to the database. If not checked the date used for the date range is the Procedure/Exam Date /Time. (The procedure/exam data time is the default date used. All previous versions of imaging used the Procedure/Exam Date when searching date range for images.

If the 'Description Contains' field has any text in it, then only images that have that text (anywhere in the short description) will be returned.

Image Status: This field is new in Patch 93. The Image Status Field in the Image File has the following values 'Viewable', 'Verified', 'In Progress' and 'Needs Review'. In Image Saved By field, the user can select a person that has captured images, and only

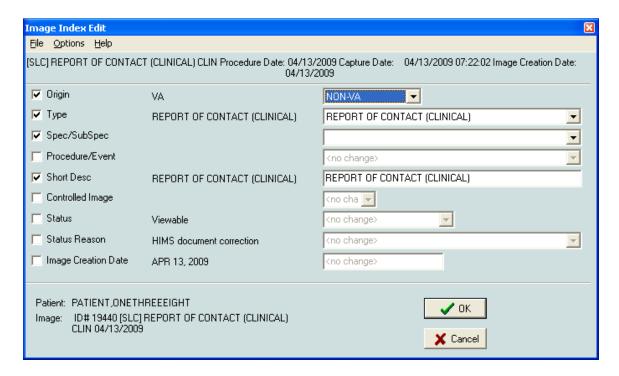
images that were captured by that person (and satisfy all other properties) will be returned.

Image Edit Window

Image Index edit capability is made available in Patch 93.

Users now have a utility to edit the index values for an Image.

In the Image List window a menu option will be available to users that have the 'MAG EDIT' security key. The menu will open a window that will enable the user to edit the Index Fields of an Image.



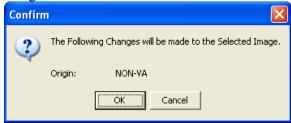
The Window opens with all fields disabled. The user has to click the appropriate check box to enable a field to edit and then select a new value.

Here, the user checked the 'Origin' field and changed to value to NON-VA.

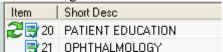


Uncheck a check box and the drop down or edit field will be cleared and '<no change>' will be displayed.

When the User clicks the 'OK' button, a confirmation window will be displayed, OK will save the change, Cancel will cancel all changes and then the user will be returned to the Image List window.



When changes are made to an Image, the Status Icon in the Image List will to indicate that a change has been made and a refresh is needed.



Menu Options

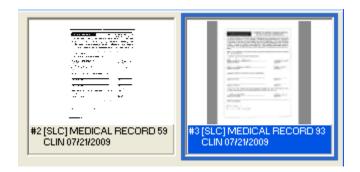
File	changes will be saved.
Save Exit	'Exit' will close the window without saving changes.
Options	Initial Values: will populate all enabled fields with the initial value of the field.
Initial Values Clear Fields	Clear Fields: will clear all values from enabled fields.
Include All Fields Exclude All Fields	Include All Fields: Will enabled all fields. This is the same as checking all the checkboxes.
	Exclude All Fields: will disable all fields and discard any changes.
Help	Index Edit Help: will bring up the On-Line help topic for this window.
Index Edit Help	

The menu option of the Image Index Edit utility are intuitive All changes made from the Index Edit utility are stored in the Image File (#2005)

Clinical Capture Changes.

Abstract Creation

Abstracts created by VistA Imaging Capture are clearer than in previous versions. The graphic shows an abstract created with patch 59 on the left, and an abstract of the same image created with patch 93 on the right.



Origin Field

The Origin field selection on the main VI Capture has been fixed to correctly display the set of origins defined in the IMAGE File (#2005)

QA Review

The QA Review option is available from the 'Utilities' menu option.

Controlled Image

An Image can be marked as Controlled by selecting the menu option 'Utilities'|'Controlled'. A user will typically select the Patient and Image then select the 'Controlled' property. The text 'Controlled' is displayed to the left of the 'Capture' button. The Controlled property must be set individually for each image. It is not saved with a configuration, and when the displayed Image is captured, changed or cleared the controlled property is also cleared.

Setting the 'Controlled' Image property

VistA Imaging Capture:

Capturing single Image

In VistA Imaging Capture, when you are capturing a single image, before you <click> the 'Capture' button, select the menu option 'Utilities' | 'Controlled Image'. The phrase 'Controlled Image' will be displayed to the left of the Capture Button as a visual indication that the image about to be captured will be flagged as controlled.

Capturing Group using Batch Capture

In VistA Imaging Capture, when you are capturing a batch of images as an Image Group, before you <click> the 'Capture' button, select the menu option 'Utilities' | 'Controlled Image'. The phrase 'Controlled Image' will be displayed to the left of the Capture Button as a visual indication that the Image Group about to be captured will be flagged as controlled.

Capturing Group (not using batch capture)

In VistA Imaging Capture, when you are capturing multiple images as an Image Group, before you <click> the 'Capture' button, select the menu option 'Utilities' | 'Controlled Image'. The phrase 'Controlled Image' will be displayed to the left of the Capture Button as a visual indication that the Image about to be captured will be flagged as controlled. This gives a way to mark only certain images of the Group as 'Controlled'.

Editing the Controlled Image value

In the Image List Window, VistA Imaging Display:

Select an entry in the Image List that does not have the 'Controlled Image' icon. This unselects any image in the Image viewer. Now select the menu option 'Utilities' | 'Controlled image', and change the value for controlled image to True. Refresh. The image entry is now marked as controlled in the Image List, Tree View and Abstract viewers.

Notes, Details:

Note: Editing Image Index values can only be instigated from the Image List window. The function that is invoked when a menu item from the Image List window menu is selected uses the current selected item in the Image List window.

Details: To edit an individual image, or an image from a group you have to open that image in the Image list window.

You can do that by unchecking the menu option 'Layouts' | 'Document viewer in separate window', so that the Document/image will be displayed in the Image List window.

Select an Image, or Image from the Group Abstract Window. The selected Image will be displayed in the Document/Image viewer.

Now Using the menu option 'Utility' | 'Controlled Image'... Change its 'Controlled' value.

Refresh the Images by clicking the 'Refresh' Tool button or menu item. In the Abstract viewer, Image list or Tree View controls check to see that the Icon has changed. If a Group was changed, open the Group Abstract window for that group. Notice that the abstract for the image has now changed.

Note: The 'Controlled' icon will be displayed for an Item in the tree view, image list and abstracts viewer controls if:

It is a standalone (single) image that is controlled.

It is an Image Group that is controlled.

It is an Image Group where the first image in the group is controlled.

Details: If the first image in a Group is controlled, the Group item in the Image List and Tree view controls will have the 'Controlled' icon. If you select that Group item, and attempt to change its 'Controlled' value to False, you'll notice that it may already be false. So the 'Controlled' icon in this case is referring to the first image in the Group. You'll have to edit the controlled property for the first image in the group to get the controlled icon to change to false.

Note: The value of the 'Controlled Property' for images and image groups can also be edited in the Image Index Edit utility window. The Image index edit Utility window is available to users that have the MAG EDIT key.

Details: If an Image Group is selected in the QA Review window, and then Image Index Edit window is opened for that selected Group, be aware that he value displayed is for the Image Group, not for any images in the Group. To modify the index properties for individual images in a Group you need to have the document viewer inside the Image List window, not a separate window, and the desired image needs to be opened and selected. The Image List window menu options will operate on the Selected Image.

Appendix A: Image Viewer: Toolbar Icons.

(Full Resolution window, Image List window)

(I ull I	(I thi Resolution window, image Elst window)				
	Apply to All		Tile All Images	1/1	Current Page/Total pages
₽	Fit to Window				Next Page
+ +	Fit to Width	12	Rotate Left		Last Page
<u>A</u>	Zoom + (10%)		Rotate Right		Flip Vertical
<u>Q</u>	Zoom – (10%)	7 2	Refresh All Images	1	Flip Horizontal
P	Mouse Magnify	×	Close Selected Images		Invert colors
<u></u>	Mouse Zoom select	××	Close All Images	C)	Refresh Image
200	Pan image	ÆШ	Report Options	<i>№</i> 63 🗥	Zoom slider
V	Pointer		First Page	Bri. 100	Brightness slider
	Maximize Image		Previous Page	Con. 100	Contrast slider.

The Zoom Drop down	The Viewer Drop down	The Report Drop down
menu has items for specific	menu has items relating to	menu has functions for
zooming of an Image.	the functioning of the	opening the Image Report
	images in the viewer.	and for Printing and
<u>_</u> -	_	Copying the Image.
400	-	£
300	Viewer Settings	 ■ *
200	Maximize Image	Copy Image
100	Realign	Print Image
75	Toggle Selected Images	Image Report
50	Remove Selected Images	gep
30	Next Viewer Page	
20	Previous Viewer Page	
Actual		
Fit		

Width	

Appendix B: Image List view, Tree view icons

List Icons for list view and tree view components.

Icon	Description			
	Images that don't have a value for 'Status' will default to being viewable. So the			
	icon is the same as 'Viewable'. This refers to all existing images.			
	Status is viewable. All images have status of Viewable when captured.			
	Indicates that this document was viewed by QA personnel who have determined that the Image is correctly indexed and attached to the correct patient.			
6	This image is an Image Group.			
<i>9</i>	This is a Controlled Image			
₹	This is a Controlled Image			
r C	Image data has been changed, a refresh is needed to display the changes.			
同	The image capture is still in progress. This is usually for an Image Group being captured from the Capture Workstation.			
8	This image has been marked by personnel as needing to be reviewed. It has something incorrect about it.			
×	This image has been deleted.			
0	This image has Questionable integrity issues.			
8	This image is attached to a TIU Document that cannot be viewed by this user.			
	This image is attached to a 110 Document that cannot be viewed by this user.			
	If all images of a branch of the tree are not viewable.			
	Indicates the branch of the tree is not open.			
B	Indicates the branch of the tree is open.			
	Indicates the last branch of the tree that the user made a selection from.			
❖	Image is a Remote Image cached on the local workstation. It will display faster			
	that normal for a remote image.			
	Image is in the process of being cached from remote server to local workstation.			
	Indicates the branch of the tree is open. Indicates the last branch of the tree that the user made a selection from. Image is a Remote Image cached on the local workstation. It will display faster that normal for a remote image.			

Appendix C: Image List window Toolbar Icons.

Table: Image List window Toolbar Icons.	

8	Select Patient		Open Report
	Refresh Image List		Preview Abstract
	Image Filter window		Preview Report
163	User Preferences window	++	Fit Columns to text
	Show Abstracts viewer	+ +	Fit Columns to window
	Open Image	100	Configure Columns.

Appendix D: Icon Comparison Table:

Toolbar functions available from that main Window are also available from the Image List window. All functions can be accessed from the Image list window except for Login and Remote Login functions. This table tells where the Function from the Main window can be accessed in the modified Image List Window.

	IMAGING MAIN Window		IMAGE LIST Window
	Open Image List Window.		n/a
	Image Filter window		Image Filter window
	Show Abstracts viewer		Show Abstracts viewer
	Open Health Summary	Menu	'Reports' 'Health Summary'
	Report selection		
L	Open MUSE EKG Window.	Menu	'View' 'MUSE EKG Window'
	User Preferences window	SSS CONTRACTOR	User Preferences window
A STAN	Select Patient		Select Patient
	Open Remote Image Views	Menu	'Options' 'Remote Image Views
4	Configuration		Configuration'

The Toolbar on the image List window has changed with a new style of tool button. This table compares the old and new toolbar button icons.

	Previous Version	Patch 93
	Open Image	Open Image
	Preview Abstract	 Preview Abstract
	Open Report	Open Report
•	Preview Report	Preview Report

₩	Fit Columns to text	+ +	Fit Columns to text
()	Fit Columns to window	++	Fit Columns to window
	Configure Columns	S	Configure Columns
	Open Abstract Viewer		Open Abstract Viewer
2	Filter Add/Edit window		Filter Add/Edit window
\$233	Select patient		Select patient
O	Refresh Image List		Refresh Image List