



**Patch 93
Clinical Display Maintenance II
Patch Description**

**VistA Imaging
MAG*3.0*93
December 2009**

Department of Veterans Affairs
Office of Enterprise Development
Health Provider Systems

**MAG*3.0*93 Patch Description
December 2009**

Property of the US Government

This is a controlled document. No changes to this document may be made without the express written consent of the VistA Imaging Office of Enterprise Development Office.

While every effort has been made to assure the accuracy of the information provided, this document may include technical inaccuracies and/or typographical errors. Changes are periodically made to the information herein and incorporated into new editions of this document.

Product names mentioned in this document may be trademarks or registered trademarks of their respective companies, and are hereby acknowledged.

VistA Imaging Office of Enterprise Development

Department of Veterans Affairs

Internet: <http://www1.va.gov/imaging>

VA intranet: <http://vaww.va.gov/imaging>

Revision History

Date	Rev	Notes
9/5/08	.1	Coney; Initial Draft: Trombetta;
2/24/09	.2	Updated the document for WPR: Null; Kaji
3/3/09	.3	Updated document for WPR: Null; Kaji
5/18/09	.4	Updates to reflect the changes in the T7 build and remedy ticket fixed included in the T7 build: Null; Kaji
7/9/09	.5	Updates to reflect the changes in the T9 build and remedy ticket fixed included in the T9 build: Null; Kaji
8/6/2009	.6	Updates to reflect the changes in the T10 & T11 build including remedy ticket fixes: Null; Kaji
8/19/09	.7	Updated definition for MAG EDIT security key: Null; Kaji
9/15/09	.8	Added User Preferences for GUI Clients section, minor formatting changes to DD section and T12 checksum updates: Null; Kaji
10/14/09	.9	Added Remote Image View to User Prefs section; sentence to Overview; and TIU business rules section: Null; Kaji
11/6/09	.10	Checksums were updated for the T13 build: Null; Kaji
11/12/09	.11	Checksums were updated for the T14 build: Null; Kaji
12/3/09	.12	Updated Remedy Calls; added PSPO reference in the overview; added changes to the QA Review and QA Report for the fix that was implemented; header/footer/title page updates: Null; Kaji
12/8/09	.13	Added NSR 20071223 on page 3: Null; Kaji
12/21/09	.14	Updated QA Review and QA Report text and updated the Imaging TIU Business Rules note regarding Version Checking: Null; Kaji
12/22/09	.15	Formatting updates to Menu Options: Null; Kaji

Contents

MAG*3.0*93 Overview	1
Distribution of Software	1
Patch Contents	1
Required Patches	2
Test Sites	2
Remedy Calls	3
E3R Entries/NSR	3
MAG*3.0*93 Changes	5
Clinical Display Changes	5
Image List	5
Full Resolution Viewer Tool Bars	6
Image Selection Synchronization	7
Patient Lookup	7
Blocked Images	8
Filter Add/Edit	9
QA Review Utility	10
Image Information Advanced	11
QA Review Report	11
Index Edit Utility	14
Controlled Image Flag	15
TIU Business Rules	15
VIX to VIX Connectivity	15
Radiology Viewer Changes	16
Full Resolution Viewer (Bug Fix)	17
Printing PDF Documents (Bug Fix)	17
Electronic Signature for Copy and Printing	17
Patient Sensitivity Checks	17
Clinical Capture Changes	18
Origin Index Field	18
Image Abstracts	18
QA Review	18
Page Counts	18
Controlled Images	19
<i>Imaging -TIU Business Rules</i>	<i>20</i>
<i>User Preferences for GUI Clients</i>	<i>21</i>
Default Settings	21
Screen Layouts	22
Remote Image Views Auto-Connect Enabled	27
VistA System KIDS Summary Changes	28
Installation	38
Installation Prerequisites	39
VistA System (KIDS) Installation	39
Installation Steps (The re-indexing can be run as part of the Post-Install)	39
Sample KIDS Installation with Post Installation Routine Completed	41
Installing Steps (the re-indexing can be tasked to run at a future date and time)....	43

Clinical Workstation Installation 45

MAG*3.0*93 Overview

This document describes VistA Imaging Clinical Display Maintenance MAG*3.0*93. Changes include:

- Patient Safety Issue referenced in Remedy Ticket 310711 (PSPO #1473) has been fixed in this patch. Added a change to check both ICN and SSN, if either are valid and if they were the image would be displayed.
- an improved Image List window;
- a new image index edit utility;
- a new verification tool for captured images;
- improvements to image filters;
- usability improvements;
- a new “controlled image” marker that can be used to mask image abstracts;
- implemented TIU business rules for images associated with TIU Notes;
- Improved Remote Image Views by using VistA Imaging Exchange (VIX) service (if installed at site).

Details of these changes are listed in the MAG*3.0*93 Changes section of this document.

A demonstration of patch 93 functionality will be provided to the sites prior to national roll out.

Distribution of Software

This patch can be downloaded from:

ftp://imaging.med.va.gov/Software/Released_Software/Mag3_OP93

Installation instructions are included in this document.

NOTE Additional information about this patch can be found in a read-me file located in the MAG3_OP93 directory.

Patch Contents

This patch includes the following files:

Software

- MAG3_OP93.KID** – KIDS (Kernel Installation & Distribution System) package to be installed on the Vista system.
- MagInstall.exe** – Installation file for Clinical Display and Capture client software.
- MagInstall.msi** – Installation file for sites using SMS or similar software.
- MagAUShare.zip** – Zip file containing files used by Auto-update sites. Contains **MagASet.exe**, **MagSetup.exe**, and **magnet.ini**.

Documentation

- MAG3_OP93_Patch_Description.pdf**
- MAG3_OP93_Whats_New_in_Patch_93.pdf**
- MAG3_OP93_Install_Guide_changes.pdf**
- MAG3_OP93_Imaging_Systems_Technical_Manual_changes.pdf**
- MAG3_OP93_Security_Guide_changes.pdf**

Required Patches

Before MAG*3.0*93 is installed, the following patches must be installed in the following order:

- MAG*3*96**
- MAG*3*95**
- MAG*3*72**

For a list of all released Imaging (MAG) patches, refer to the **patch_list.txt** file available on the Imaging FTP server (go to <ftp://ftp.imaging.med.va.gov>, then navigate to the \Docs\Imaging_Docs_Latest folder).

Test Sites

The following sites are test sites for this patch:

- Boston HCS (Integrated)
- Fayetteville, NC (Medium)
- Charleston, SC (Large)
- Louisville, KY (Large)
- Salisbury, NC (Large)
- Washington, DC (Large)
- Puget Sound HCS (Integrated)
- Orlando, FL (Large)

Remedy Calls

The following Remedy tickets are addressed in this patch:

120486	Minimized image window does not open
146512	Going to Next page of Multipage - Image is reduced in size
150173	Scanned Documents open to middle of page, not top left
172667	Crash if Alternate Video Viewer isn't defined.
198977	Pointer issue with image information advanced on individual images from Remote sites
248030	Edit reason for deletion fields
249715	unable to measure length on sonogram
306530	color PDF's not printing in Color
307102	Radiology window cannot be seen after Patch 72 install
308461	P72 not saving full resolution view settings
308891	I have one user that the Radiology Exam viewer box will not display, no matter what workstation he is on.
309631	Retinal Imaging Issue
309786	Issue with image display after loading Patch 72
310250	RPC MAGG LOGOFF errors after Patch 72
310711	Changes in SSN/ICN impacting routing. –Patient Safety Reference PSPO #1473
312321	concerns re changes made by patch 72
313044	Error has continued after fix
316015	Apply all button not functioning
316946	Images viewable in Vista Rad but not VI Display
332548	Question about the Ruler Option in Vista Imaging Display
351536	Radiology Viewer/Measurement Tools

E3R Entries/NSR

20071223 –ASU business rules for VistA Imaging

This page is intentionally blank.

MAG*3.0*93 Changes

The TeleReader is included in this patch but there are no changes to the application. Patch 93 also includes changes to Display and Capture Client and Vista.

Clinical Display Changes

Image List

In MAG*3.0*93 the Image List view has been improved to allow users to view the image abstracts in the same window as the image list. The image list is highly configurable and can be viewed in a number of different layout styles. Users can optionally place a tree view, abstracts, and full resolution images inside the image list window. An example layout showing abstracts, Image and tree view is shown below.

The screenshot displays the 'Image List' application interface for patient 'PATIENT_SEVENEONE'. The main window contains a table of image items with the following data:

Item	Site	Note Title	Short Desc	Type	Image ID
3	SLC	OPHT...	Ophthalmology	IMAGE	1783
4	SLC	110193-36	UNLISTED RADIOLO...	MISCELLANEOUS DOCUMENT	532
5	SLC		PROVISION OF DIAGNOSTIC RA...	IMAGE	1757
6	SLC	COLON 7/28/97		IMAGE	38
7	SLC	ADVA...	ADVANCE DIRECTIVE	ADVANCE DIRECTIVE	587
8	SLC		X-RAY CHFST SINRF VIEW 7	IMARF	82

Below the table, the 'Image ID# 587' abstract is displayed:

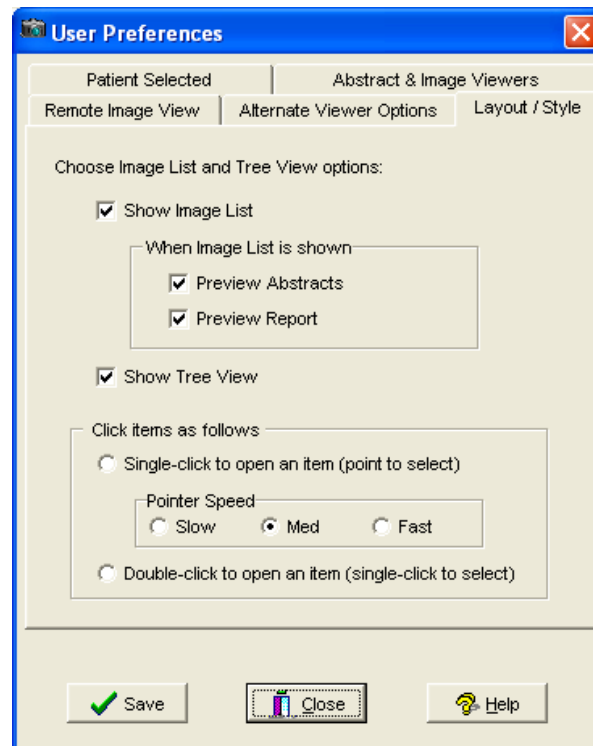
LOCAL TITLE: ADVANCE DIRECTIVE
 DATE OF NOTE: JUL 28, 1997 ENTRY DATE: MAR 10, 200807:51:51
 AUTHOR: IMAGPROVIDERONETWOS EXP COSIGNER:
 URGENCY: STATUS: COMPLETED

This is a new advance directive for patient. He has requested that in the event he he goes into respiratory distress that he NOT be resusitated. See attached scanned document for patient's signature.

The interface also shows a tree view on the left and a detailed view of the selected image (a colonoscopy) at the bottom right.

The user can display the abstract viewer in the Image List window or in a separate window. The user can also display documents and images in the Image List window or in a separate window.

User settings can be set in the main menu or in the Image List. In the Image List, navigate to **Options | User Preferences | Configure User Preferences**. The figure below shows the range of preferences available.



Full Resolution Viewer Tool Bars

To enhance functionality the tool bar layout has been modified for the users. Users now have the option to reorder the toolbars, stack the toolbars in three panels, two panels, or keep them in one panel. The toolbar configuration is saved after the user adjusts the layout to their preference. The toolbars are moved by selecting the tool bar and using the drag and drop method. Each of the toolbars has a GUI indicator (tag) that designates them as moveable.

Image Selection Synchronization

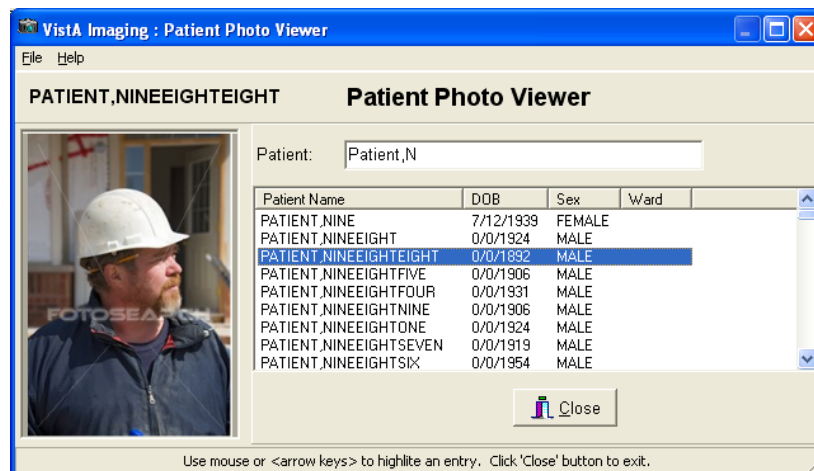
Users will be able to select images from any Image List and all of the other controls will synchronize and select the same image. For example, if a user selects an image in the Tree View control, then the Image Tree View, Image Abstract Window, Full Resolution Viewer and so on will have that image selected.

When a Controlled Image appears in the Abstract List the abstract will always be shown as a shutter bitmap.

Patient Lookup

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

For users who are only assigned to the MAG PAT PHOTO ONLY security key the SSN in the patient list and on top of the patient photo will not appear.

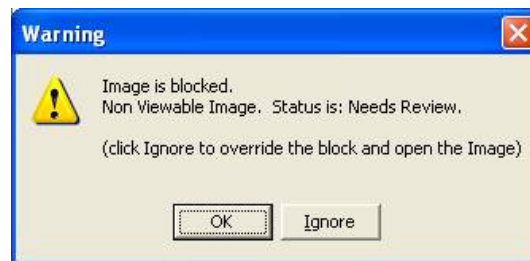


Blocked Images

When an image has a status of “Needs Review”, or is blocked from view due to TIU Business rules, the image abstract will appear as a bitmap as shown below.



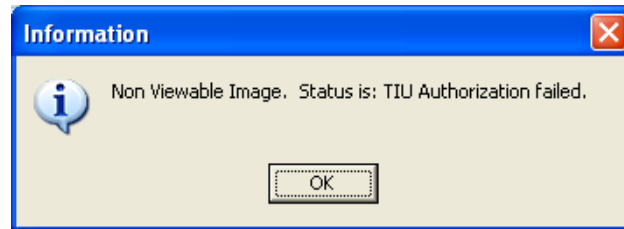
If a user selects an image with a status of “Needs Review” and the user has the MAG Edit or MAG SYSTEM security key assigned the user will be shown a warning message from the application. The warning message shown will explain that the image that was selected was a blocked, non viewable image with a status of “Needs Review”. The warning message will allow the user to select OK to dismiss the message or Ignore to view the image.



Users that do not have a MAG EDIT or MAG SYSTEM security key will receive an Information message when they select a Blocked Image to view. The Information message will tell the user that the image is not viewable and status of the image. The user will have to press the OK button to dismiss the Information message to continue.

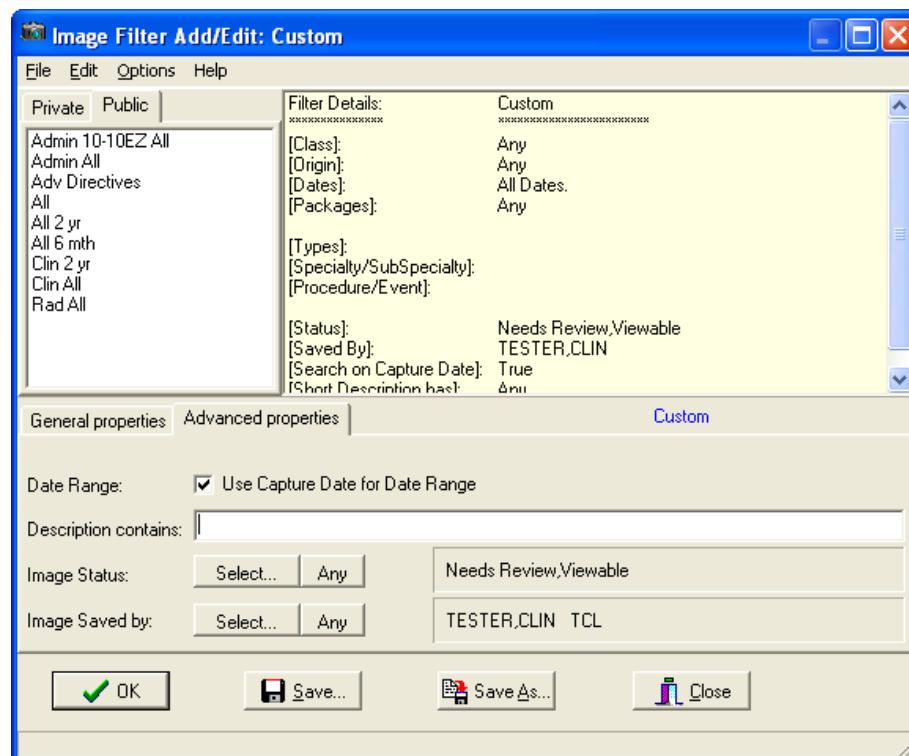


If a user selects a image and the image is blocked from the user due to a TIU Authorization failure the user is presented with the Information message



Filter Add/Edit

MAG*3.0*93 adds functionality to filters. Filters have two modes, normal and advanced. The normal mode is available when working in the Image List. The advanced mode is available to users who hold the MAG EDIT or MAG SYSTEM key and is available when working in the Image QA Review Utility.



QA Review Utility

A new QA Review function has been added to allow authorized users to review a sampling of images acquired into VistA Imaging. During the review process, it enables users to change image index values for “image groups” and “single images” captured by the Capture Workstation and Import API. An Image Group is defined as a collection of related single images of the same or mixed formats. Individual images are single images that are not part of an image group. Images captured by the DICOM Gateway and images within a group are not listed for QA Review. Access to this function is limited to users that hold the new MAG EDIT OR MAG SYSTEM security key.

The user may perform a Quick Search for any seven day period.

Values for the status field are:

Viewable: All images will have a default status of Viewable, and images with no status (existing images) will be considered Viewable.

QA Reviewed: After an image has been saved to the IMAGE File (#2005), and a person has viewed the image and verified that the patient and values for index fields are correct, the user can change the image status to QA Reviewed.

Image groups and single images are viewable in the QA Review Utility and both can be marked as QA Reviewed. Users must open a group of images in the Image List window in order to mark individual images of a group as QA Reviewed.

Needs Review: Indicates that value(s) of the index fields or patient have been found to be incorrect. VistA Imaging Display will block images with this status from being viewed. The Image Edit Utility is used to modify incorrect values of the index fields.

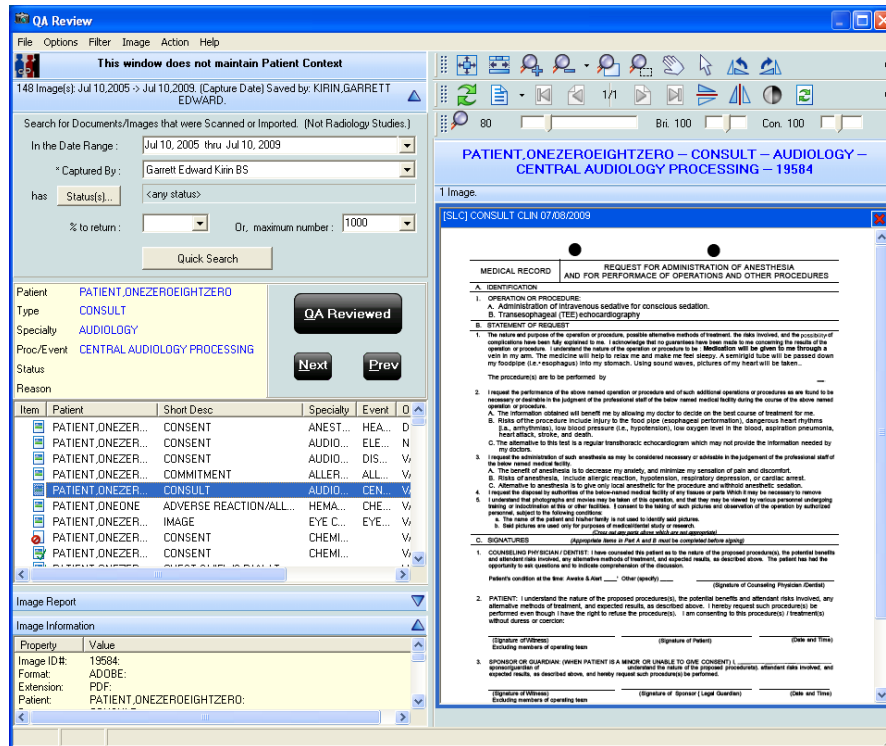


Image Information Advanced

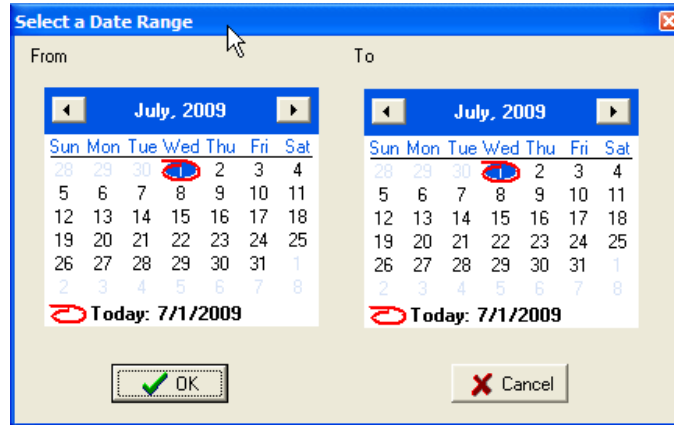
The Image Information Advanced utility, available to user with the MAG SYSTEM Key is given a new toolbar as shown below.



QA Review Report

The QA Review Report is available to users that have the MAG EDIT OR MAG SYSTEM key only. The report is available from the Main Window, Image List Window, and the QA Review window under the Utilities menu.

The QA Review Report can be run for any seven day period. When users select the report from the Utilities menu they will be presented with the pop up window shown below of two calendars where they can specify a date range.



Once the user has specified the date range for the report they select the OK button to run the report. The report is shown in a pop up window as seen below.

User	Status	Entries	Pages	%
Onethreefive Imagprovideronethreefive		8	9	25
Onethreefive Imagprovideronethreefive	<empty>	6	7	
Onethreefive Imagprovideronethreefive	Verified	2	2	
Adminclin Tester		1	1	0
Adminclin Tester	<empty>	1	1	
Garrett Edward Kirin BS		5	5	0
Garrett Edward Kirin BS	<empty>	5	5	

The QA Review Report shows five columns which are as follows:

- User: Identifies the individual who captured or imported the image(s).
- Status: Image Status Code for the date Range selected.
- Entries: Total number of entries for the user in the date range selected for images with the status in column 2.
- Pages: Total number of pages by the user in the given date range.
- %: Percentage of QA Reviewed images for the user in the date range selected. The % column in the report is computed using all single images, and all images within a group. It includes images captured by the Capture workstation, Import API and DICOM Gateway devices.

Index Edit Utility

A new submenu option on the Image List window and on the QA Review window is available to users that have the MAG EDIT or MAG SYSTEM security key. This feature enables the user to edit the index fields of an image group or single image. The group of images is edited; the images within the edited group are not automatically updated or changed.

A historical record of changes to index fields is saved in the AUDIT Field Multiple (#99) of the IMAGE File (#2005).

Image Index Edit

File Options Help

[SLC] CONSULT CLIN Procedure Date: 07/08/2009 Capture Date: 07/08/2009 12:16:47 Document Creation Date: 07/08/2009

<input type="checkbox"/> Origin	VA	<no change>
<input type="checkbox"/> Type	CONSULT	<no change>
<input type="checkbox"/> Spec/SubSpec	AUDIOLOGY	<no change>
<input type="checkbox"/> Procedure/Event	CENTRAL AUDIOLOGY PROCESSING	<no change>
<input type="checkbox"/> Short Desc	CONSULT	<no change>
<input type="checkbox"/> Controlled Image		<no cha
<input type="checkbox"/> Status		<no change>
<input type="checkbox"/> Status Reason		<no change>
<input type="checkbox"/> Image Creation Date	JUL 08, 2009	<no change>

Patient: PATIENT.ONEZEROEIGHTZI
Image: ID# 19584 [SLC] CONSULT
CLIN 07/08/2009

OK
Cancel

Controlled Image Flag

An image can be marked as 'controlled' through the Index Edit Utility. For controlled images, a canned bitmap of a window shade will be shown in place of the image abstract and will have text that states the image is controlled. A controlled image can be displayed by anyone, but only after the image is explicitly selected for display.



TIU Business Rules

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.

VIX to VIX Connectivity

The VistA Imaging Display Client will now use the VIX service (if installed at the local site) for communicating with remote sites. This enhanced Remote Image Views will improve the speed of retrieval of images from remote sites. This enhancement is available even if the site providing the image does not a VIX service.

Radiology Viewer Changes

Mouse Magnify Shape

The default Mouse Magnify Shape setting is a circle. Users may change the Mouse Magnify Shape to a square for the current session but the setting is not stored as a user preference.

Screen Position

The Radiology Viewer checks the user preferences against the size of the users screen and ensures that the viewer is positioned on the users screen and is viewable. The users will not need to make adjustments to their preferences.

Tool Bar

Users will be able to use a new tool bar that has been added to the Radiology Viewer which accesses the same controls as the Old Radiology Viewer. This toolbar improves the user's ability to adjust the zoom, brightness/contrast and window/level values at a controlled rate.

Right Mouse Click on Color Images

The users will see improvements in performance when using the right mouse button to click and drag to adjust the brightness and contrast on color images.

IMAGE DISPLAY (Bug Fix from Patch 72)

Measurements in the Radiology Viewer now appear in a consistent size regardless of the image being displayed.

Measurements for DR Images

Fixed problem in viewer where measurements were not enabled for certain DR images.

ICN and SSN Check

The Radiology Viewer will now validate either the ICN or SSN for a patient.. If either of the values is valid for a patient then the image is displayed. If both the SSN and ICN from the image TXT file do not match VistA the image is not viewable.

Full Resolution Viewer (Bug Fix)

To resolve a defect in the system, the Full Resolution Viewer will hold previous settings (Fit to Width, Fit to Height, etc) as a user preference that is applied when displaying images.

Printing PDF Documents (Bug Fix)

PDF documents can now be printed in 24bit color.

Electronic Signature for Copy and Printing

To enhance usability only one electronic signature and reason will be required for the first Print or Copy of an image for each Imaging Session. For each subsequent print request or image copy the user will only be required to specify a reason. When the user changes patients the user will only be required to specify a reason for printing or copying an image.

Patient Sensitivity Checks

When users are prompted for a patient sensitivity check the level of the patient sensitivity is remembered and applied to that patient for remote sites. If the same patient at the remote site has a sensitive level less than or equal to the local site, the user is not prompted from the remote site. If the remote site has a higher sensitivity level than the local site (or any other already approved sites), the user is prompted to agree to view data from that site. This should reduce the number of prompts the user must agree to while maintaining patient sensitivity checks. The viewing of sensitive data is logged for all sites that have a sensitive level requiring logging for the patient even if the user was not prompted for that specific site.

Clinical Capture Changes

In MAG*3.0*93 several changes were made in VistA Imaging Capture.

Origin Index Field

These changes were done to improve the method of listing the choices for the origin index. The values for origin will now be loaded from the definition of the ORIGIN INDEX Field (#45) as defined in the IMAGE File (#2005). (This is a request that has also been made by IHS).

Image Abstracts

In Display, users will see clearer image abstracts which is an improvement made to the Capture application in MAG*3.0*93. No functional changes have been made to Capture as a result of this improvement.

QA Review

Users will be able to use the QA Review utility. To access this utility, users will need to have the MAG EDIT OR MAG SYSTEM security key. The QA Review utility is accessible through the Utilities menu option; **Utilities | QA Review**. Additional details for using the QA Review utility can be found in the QA Review Utility in the Clinical Display Changes section of this document.

Page Counts

When a TIF file is imported or scanned the page counts are stored in the IMAGE File (#2005).

Controlled Images

Users will have the ability to designate an image as a 'Controlled Image' by changing the 'Controlled Image' property in **Utilities | Controlled Image**. When the 'Controlled Image' property is set the words 'Controlled Image' will appear in blue font to the left of the Capture Button as shown in the screen shot below.

The screenshot shows a software interface for managing image properties. At the top, there is a patient selection area with a 'Select Patient' button and a patient ID 'IMAGPATIENT1055,1055'. Below this, the study performed is 'CLIN'. The main section contains several input fields: '*Doc/Image Date' (Jul 01, 2009), '*Doc/Image Type' (DIAGRAM), 'Specialty' (ALLERGY & IMMUNOLOGY), 'Proc/Event' (ALLERGY TESTING), and '*Image Desc' (DIAGRAM). At the bottom, there is a 'Capture' button with the text 'Controlled Image' in blue to its left. To the right of the 'Capture' button is a 'Batch' checkbox. Below these are three buttons: 'Image OK', 'Cancel', and 'Study Complete'. A scrollbar is visible at the very bottom of the window.

Imaging -TIU Business Rules

To enable TIU Business Rules to be fully implemented in VistA Imaging Display and Capture Clients, VA Sites need to do the following:

- 1) Install the Patch 93 KIDS before the mandated KIDS install date.
- 2) The Patch 93 client also needs to be installed on all workstations to ensure the TIU business rules are followed.

Example : If TIU Business Rules don't allow a user to see Notes with 'employee images' attached, those images will only be blocked if Patch 93 KIDS is installed on the server, and the user is using Patch 93 Display Client.

NOTE: The future release of patch 94 will not allow sites to turn off version checking, and Patch 93 Client will be the minimum required version that must be on the Imaging Workstations: This will force the installation of VistA Imaging patch 93 to be on the workstations and assure that TIU Business Rules for Viewing Images attached to TIU Notes will be fully implemented.

User Preferences for GUI Clients

VistA Imaging saves GUI Settings for each user in the IMAGING USER PREFERENCE File. The Imaging System also maintains a list of Default Settings that are used for first time users of the VistA Imaging Applications. The list of Default Settings is distributed with each patch and is not editable by the site.

When a user opens an Imaging application and logs on to VistA, their saved settings are returned to the GUI Application. If they are first time users, the default settings are returned. The returned settings are then applied to the User interface.

New Patch Settings: New patches usually have more settings than previous versions. When a new patch is released, the default settings are distributed with values for the new settings. When a user logs in, the system checks the users' settings against the default settings. If there are any new settings, the values for those settings are merged into the User's settings.

Default Settings Option: The Imaging Site manager can set an option that will use the settings from an existing user as the default settings for a new user. Setting the field: DEFAULT USER PREFERENCE (#100) in the file IMAGING SITE PARAMETERS (#2006.1) to an existing user, the application will use the settings from that existing user as default settings for new users.

Default Settings

The GUI in Patch 93 Display Client has substantial differences that may cause confusion to existing users.

Four substantial changes to the GUI are:

- Abstract Viewer which can be placed inside the Image List window or in a separate window.
- Full Resolution Viewer (Non-Radiology) can be placed inside the Image List window or separate window.
- Patient Images can be listed in a Tree View control or List View.
- The Auto Select feature enables the user to move the mouse over a List or Tree item and it will be selected. A single click will then open the image. (Change is that the item is selected with the cursor and opened with a single click)

The 4 settings listed above will have default setting that are turned off. So, when an existing user opens Patch 93 Client for the first time, the layout of their windows will be the same as previous versions.

Other changes that the user will see are:

- Icons in the Image List.
- New Toolbar in Full Res Viewer.
- New menu items and toolbar in Image list window.

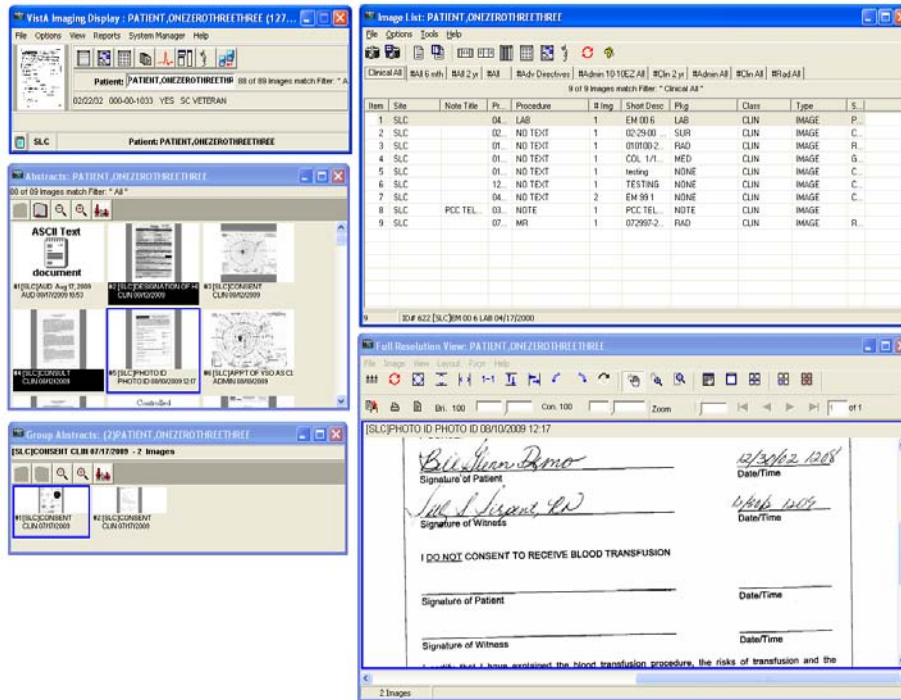
NOTE: For Sites that are using the DEFAULT USER PREFERENCE Field of the IMAGING SITE PARAMETERS File. The Imaging Team suggests that the user's settings that is being pointed to by the DEFAULT USER PREFERENCE follow the above suggestions and have the values for the 4 settings listed set to Off (False) in that user preference.

Screen Layouts

The following examples from the Clinical Display application show sample layouts of the following scenarios;

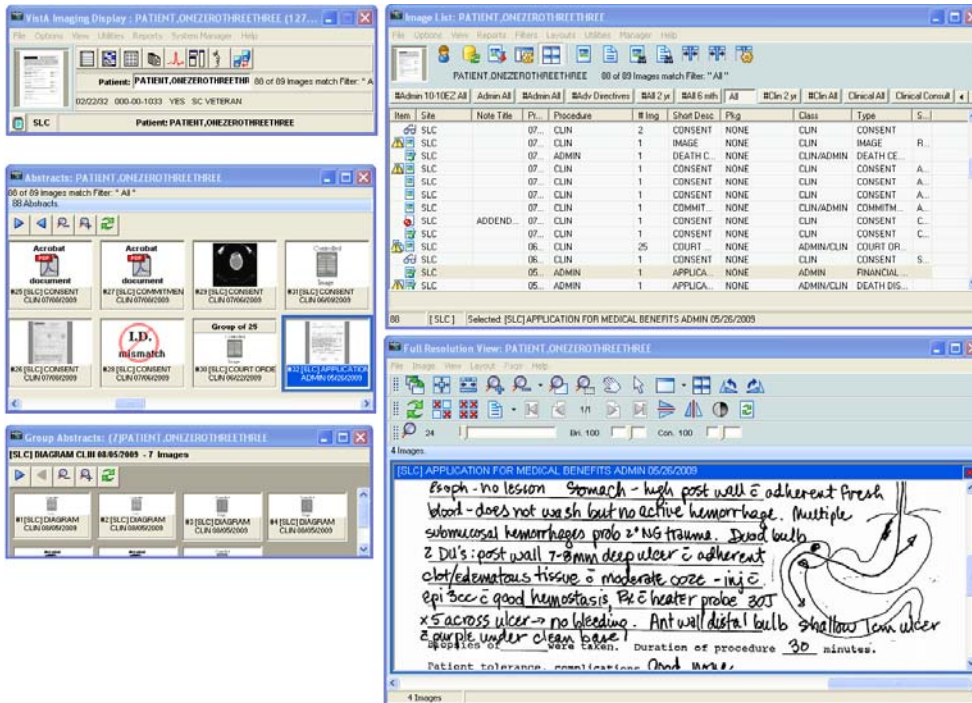
- Window Layout for Patch 72 (Previous Version).
- Initial Window Layout for Patch 93.
- Image List Window with Abstracts and Full Resolution Viewer inside the Image List Window.
- Explorer View.

Sample of the Window layout for a user of the Patch 72 Display Client



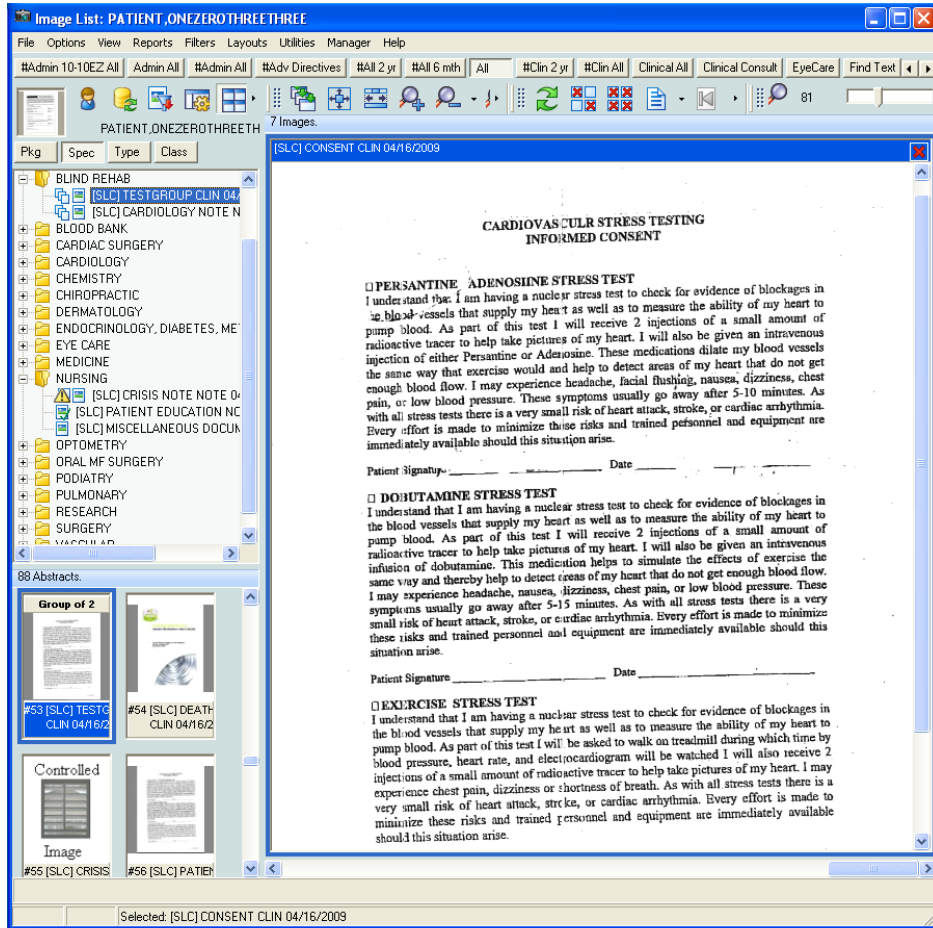
Sample of the Window layout for a user logged in with the Patch 93 Display Client for the first time

- Window positions are the same.
- Image List window has the new Toolbar and Menu options.
- Image List has new Icons in first column.
- Full Res (non-radiology) Window has a new toolbar.



Sample of the Window layout for a user logged in with the Patch 93 Display Client.

- ‘Explorer’ View, was selected from the ‘Layouts’ menu.
- ‘Abstracts in tree’ was selected from the ‘Layouts | Abstracts’ menu.
- Then the Main Toolbar was moved to be above the Tree view control to give more space for the image.



Remote Image Views Auto-Connect Enabled

One of the User Preference settings is: Remote Image Views Auto-Connect Enabled
For New users, this option is *enabled* by default.

With this option enabled:

- When a patient is selected, the Display client automatically connects to all remote sites visited by the patient.
- For each of these sites the client will attempt to connect to that site and retrieve images.

This process *could take a long time* depending on the number of sites a patient has visited, number of images at each site and the speed of your network connection.

- With Remote Image Views auto-connect enabled, users have the additional option of selecting “only auto-connect to Sites in Local VISN”.

Users should be advised that they can disable the auto connect feature.

If this option is disabled:

- Display client will not automatically connect to remote sites.
- However, remote site names will appear in the Remote Image views Configuration dialog site list
- A remote site connection can still be initiated by user action at any time during the Imaging Session

To access the user preferences from the main window click on the ‘Options’ menu and click ‘View Preferences’

VistA System KIDS Summary Changes

Routines

New and modified Imaging routines for the VistA system are listed below. For each routine, the second line will contain the following information. Please note that the before checksum may differ if a test version of the patch has been installed.

<tab>; ; 3. 0; IMAGING; **[patch list]**; December 2, 2009

Checksums are calculated using the KERNEL utility program CHECK1^XTSUMBLD.

Checksum details

Routine Name	Checksum Before	Checksum After	Patch List
MAGGA01	N/A	29307935	93
MAGGA02	N/A	57822621	93
MAGGA02A	N/A	40367747	93
MAGGA03	N/A	45753507	93
MAGGA03A	N/A	24276061	93
MAGGA03U	N/A	15820919	93
MAGGA04	N/A	10448835	93
MAGGAI	N/A	118384476	93
MAGGI11	N/A	19558450	93
MAGGI12	N/A	30285951	93
MAGGI13	N/A	36748899	93
MAGGI14	N/A	39084079	93
MAGGNTI	37673155	37753394	10,8,59,93
MAGGSFL1	12555242	17534133	8,93
MAGGSFLT	27846060	33107414	7,8,93
MAGGSIA	37580788	34720134	7,21,8,59,93
MAGGSIA1	40441705	40524442	7,8,85,59,93
MAGGSQI	71116866	71964647	8,93
MAGGTAU	53570032	66867957	7,16,8,59,93
MAGGTIA1	34754160	33003499	21,8,59,93
MAGGTID	44603396	47456559	8,59,93
MAGGTIG	53305477	58640406	8,48,93
MAGGTPT1	32058249	37889156	16,8,92,46,59,93
MAGGTRAI	28882379	29892001	8,93

Routine Name	Checksum Before	Checksum After	Patch List
MAGGTRPT	42324178	43638944	8,48,93
MAGGTSYS	11307252	11574384	59,93
MAGGTU3	33146590	34334075	7,8,48,45,20,46,59,93
MAGGTU31	37368094	41847617	46,59,93
MAGGTU4	40764522	53401008	8,48,63,45,46,59,96,95,72,93
MAGGTU41	29145844	22378971	46,59,93
MAGGTU42	N/A	89107061	93
MAGGTU4C	N/A	5489850	93
MAGGTU4D	N/A	5495655	93
MAGGTU4L	N/A	4501110	93
MAGGTU4T	N/A	5490003	93
MAGGTU6	51445026	51862098	24,8,48,45,20,46,59,72,93
MAGGTU7	22552210	23284378	8,20,93
MAGGTUP	22068923	23999096	7,8,48,45,59,93
MAGGTUX	84671980	85905158	59,93
MAGIPS93	N/A	176674164	93
MAGKIDS	N/A	30231662	93
MAGKIDS1	N/A	40480221	93
MAGSIXG1	48513335	36487191	8,48,59,93
MAGSIXG2	N/A	63440737	93
MAGSIXG3	N/A	65195475	93
MAGSIXG4	N/A	12614135	93
MAGUERR	N/A	24572740	93
MAGUERR1	N/A	25613179	93
MAGUTL01	N/A	28612084	93
MAGUTL02	N/A	48311130	93
MAGUTL03	N/A	11647866	93
MAGUTL04	N/A	23169366	93
MAGUTL05	N/A	18410909	93
MAGUTL06	N/A	18816077	93
MAGUTL07	N/A	22761121	93
MAGUTL08	N/A	26051030	93
MAGUTL10	N/A	8165500	93
MAGUXRF	17102779	41195502	51,93

Data Dictionaries

Data Dictionary definitions can be referenced by accessing the Data Dictionary.

IMAGE File (#2005), The following fields are NEW or CHANGED

- OBJECT NAME (#.01) – New. Each object has a natural language name; this usually consists of the patient name, SSN, and object description. Field is automatically defines by the Imaging software.
- CAPTURE APPLICATION (#8.1) – New. Code stored of the application that captured the image.
- AUDIT (#99) – New. Stores the previous values of the record fields (audit trail).
- CONTROLLED IMAGE (#112) – New. In the Clinical Display Application, the abstract of a controlled image is shown by a bitmap.
- CONTROLLED DATE (#112.1) – New. Shows the date and time of the most recent change to the image sensitivity status.
- CONTROLLED BY (#112.2) – New. References the user that made the most recent change to the image sensitivity status.
- STATUS (#113) – New. The current status of an image; Viewable, QA Reviewed, In Progress, Needs Review, or Deleted.
- STATUS DATE (#113.1) – New – This field indicates the date and time of the most recent change of the image status.
- STATUS BY (#113.2) – New. This field references the user who made the recent change of the image status.
- STATUS REASON (#113.3) – New. This field indicates the reason for the latest image status change.
- NUMBER OF PAGES (#114) – New. This field stores number of pages in a multi-page document.
- OBJECT GROUP (#14) – Modified definition. The object is a multiple field pointing back to IMAGE FILE (#2005) and is a parent of a set of images.
- OBJECT GROUP FIELD (#4.01) – Modified definition. This field points to an entry of the #2005 IMAGE FILE that represents an existing (non-deleted) member of the image group.
- IMAGE (#2005) OBJECT GROUP (#2005.04), This file is a sub file of IMAGE File #2005

IMAGE AUDIT File (#2005.1)

- OBJECT NAME (#.01) – New. Each object has a natural language name; this usually consists of the patient name, SSN, and object description. Field is automatically defines by the Imaging software.
- CAPTURE APPLICATION (#8.1) – New. Code stored of the application that captured the image.
- OBJECT GROUP (#14) – Modified definition. The object is a multiple field pointing back to #2005 IMAGE FILE and is a parent of a set of images.
- CONTROLLED IMAGE (#112) – New. In the Clinical Display Application, the abstract of a controlled image is shown by a bitmap.
- CONTROLLED DATE (#112.1) – New. Shows the date and time of the most recent change to the image sensitivity status.
- CONTROLLED BY (#112.2) – New. References the user that made the most recent change to the image sensitivity status.
- STATUS (#113) – New. The current status of an image; Viewable, QA Reviewed, In Progress, Needs Review, or Deleted.
- STATUS DATE (#113.1) – New – This field indicates the date and time of the most recent change of the image status.
- STATUS BY (#113.2) – New. This field references the user who made the recent change of the image status.
- STATUS REASON (#113.3) – New. This field indicates the reason for the latest image status change.
- NUMBER OF PAGES (#114) – New. This field stores number of pages in a multi-page document.
- AUDIT (#2005.199), This is a multiple of field 99 in IMAGE File (#2005.1),

IMAGE LIST FILTERS File (#2005.87), The following fields are NEW.

- IMAGE STATUS (#10) – New. This field stores the list of image statuses.
- DESCRIPTION CONTAINS (#11) – New. If this field is not empty, the filter considers an image as a possible search result only if its short description contains the value of this field. The comparison is insensitive.
- CAPTURE BY (#12) – New. If this field has a value, then the filter considers only images captured by this user.

- USE CAPTURE DATES (#13) – New. If the value of this field is YES, then filter’s date range parameters are considered as image capture dates.
- DAY RANGE (#14) – New. This field allows selection of predefined short date ranges.
- COLUMN WIDTHS (#15) – New. This field stores comma separated list of column widths in pixels that is applied to the image list view when this filter is used.
- PERCENT (#16) – New. If the field is not empty, it stores the percentage of images selected by the filter that is returned as the result of the image search. If this field is populated then the CAPTURED BY field must also have a value.

MAG REASON File (#2005.88) – New File. This file stores valid reasons (justifications) for actions performed on images: copying, printing, etc. Once a reason is referenced by a record of other file (e.g. IMAGE File (#2005)), it cannot be deleted.

- REASON (#.01) – New. This field stores the valid reason/justification for action(s).
- TYPE (#.02) – New. This field indicates actions that this reason is applicable to.
- DATE OF INACTIVATION (#.03) – New. If this field is not empty and the stored date is no later than today’s date, then this record is excluded from the list of reasons presented to the user.
- CODE (#.04) – New. This field stores the code that uniquely identifies the reason.
- DESCRIPTION (#1) – New. This field stores the optional explanation for the reason.

IMAGING USER PREFERENCE File (#2006.18), The following fields are NEW.

- SHOW IMAGE TREE (#220.01) – New. This field controls visibility of the tree view panel in the Image List window of clinical client applications.
- ENABLE AUTOSELECT (#220.02) – New. This field controls if tree view and list items are automatically selected after the mouse pointer hovers over them for longer than the defined time.
- AUTOSELECT SPEED (#220.03) – New. The field determines the amount of time after which a tree or list item is automatically selected if the value of the ENABLE AUTOSELECT field is TRUE.
- SYNCHRONIZED IMAGE SELECTIONS(#220.04) – New. Value of this field controls synchronization of image selections in all components of the Image List window of the clinical client applications.
- WHERE TO SHOW ABSTRACTS (#220.05) – New. Values of this field determines whether the list of image abstracts is shown in a panel of the Image List Window or in a separate window.
- POSITIONS OF ABSTRACTS (#220.06) – New. Value of this field controls where the list of image abstracts is shown in the Image List window.
- WHERE TO SHOW IMAGE (#220.07) – New. Value of this field determines whether images are shown in a panel of the Image List window or in a separate window.
- SHOW TREE SORT BUTTONS (#220.08) – New. Value of this field controls visibility of the sort buttons above the tree view in the Image List.
- AUTOEXPAND TREE ITEMS (#220.09) – New. Value of this field determines if items of the tree view in the Image List window are automatically expanded when they are selected.
- ABSTRACT LIST SCROLL MODE (#220.1) – New. Values of this field determines the direction of scrolling and presence of the corresponding scroll bar in the list of image abstracts.
- IMAGE LIST SCROLL MODE (#220.11) – New. Value of this field determines the direction of scrolling (if several images are open) and presence of the corresponding scroll bar in the image list.
- SHOW LIST VIEW (#220.12) – New. This field controls visibility of the list view panel in the Image List window of clinical client applications.

- LAYOUT OF IMAGE LIST WINDOW (#220.13) –New. This field stores a string that determines the layout of the Image List window of clinical client applications.
- VERIFY WINDOW STYLE (#221.01) – New. Value of this field controls style of the Verification window of clinical client applications.
- VERIFY LEFT (#221.02) –New. The field stores the horizontal coordinate of the left side of the Image QA Review window.
- VERIFY TOP (#221.03) –New. This field stores the vertical coordinate of the top side of the Image QA window.
- VERIFY WIDTH (#221.04) – New. This field stores the width (in pixels) of the Image QA Review window.
- VERIFY HEIGHT (#221.05) – New. This field stores the height (in pixels) of the Image QA Review window.
- VERIFY SHOW IMAGE REPORT (#221.06) – New. Value of this field controls visibility of the report preview panel in the Image QA Review window.
- VERIFY SHOW IMAGE INFO (#221.07) – New. Value of this field controls visibility on the image information panel in the Image QA Review window.
- VERIFY AUTOHIDE QUICK FILTER (#221.08) – New. Value of this field controls visibility of the quick filter panel in the Image QA Review window.
- VERIFYSINGLE VIEW ONLY (#221.09) – New. If the value of this field is TRUE, then the image viewer can show only a single image during image verification process; otherwise, multiple images can be open.
- VERIFY COLUMN WIDTHS (#221.1) – New. This field stores comma separated column widths (in pixels) for the image list view in the Image QA window.
- WINDOW STYLE (#222.01) – New. Value of this field controls the style of the Image Index Edit window of the clinical client applications.
- EDIT LEFT (#222.02) – New. This field stores horizontal coordinates of the left side of the Image Index Edit window.
- EDIT TOP (#222.03) – New. This field stores vertical coordinates of the top side of the Inage Index Edie window.
- EDIT WIDTH (#222.04) –New. This field stores the width (in pixels) of the Image Index Edit window.
- EDIT HEIGHT (#222.05) – New. This field stores the height (in pixels) of the Image Index Edit window.

IMAGING WINDOWS WORKSTATIONS File (#2006.81), The following fields are NEW or the field definitions have been CHANGED.

- DISPLAY APPT DTTM (#5) - This field indicates when the TeleReader client application, which is installed on the workstation, was built.
- TELEREADER APP DTTM (#5.3) –NEW. This field indicates when the TeleReader client application, which is installed on the workstation, was built.
- VISTARAD APP DTTM (#5.7) – New. The date and time of the Imaging VistA RAD client application that is installed on this workstation.
- CLINICAL UTILITIES APP DTM (#5.9) – New. The date and time of the Clinical Utilities client application that is installed on this workstation.
- TELEREADER VERSION (#9.3) – New. This field stores the version number reported by the TeleReader client during its last execution from the workstation.
- CLINICAL UTILITIES VERSION (#9.9) – New. This field stores the version number reported by the Clinical Utilities client during its latest execution from the workstation.
- CAPTURE APP DTTM (#5.5) – Changed. The date and time of the Clinical Display client application that is installed on this workstation.
- DISPLAY VERSION (#9) – Changed. The field stores the version number reported by the Clinical Display client during its latest execution from the workstation.
- CAPTURE VERSION (#9.5) – Changed. The field stores the version number reported by the Clinical Capture client during its latest execution from the workstation.
- VISTARAD VERSION(#9.7) – Changed. The field stores the version number reported by the VistA RAD software during its latest execution from the client workstation.

Security Keys

MAG*3.0*93 adds the following security keys:

MAG EDIT

The MAG EDIT key is used to correct an image field when an index field is incorrect or incomplete, such as correcting a wrong specialty that was selected. Only users assigned the MAG EDIT key can edit an image. Only the Chief, HIM or authorized designated personnel (i.e., VistA Imaging Coordinator, Scanning Supervisor) should be assigned this 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.

Remote Procedure Calls

MAG4 FILTER SAVE
MAG4 IMAGE LIST
MAG4 PAT GET IMAGES
MAG4 VERSION CHECK
MAGG CAPTURE USERS
MAGG WRKS UPDATES
MAGGRADIMAGE
MAGG IMAGE GET PROPERTIES
MAGG IMAGE LOCK
MAGG IMAGE SET PROPERTIES
MAGG IMAGE STATISTICS
MAGG IMAGE UNLOCK
MAGG REASON GET PROPERTIES
MAGG REASON LIST

Menu Options

MAG*3.0*93 adds the following menu options to the Imaging System Manager Menu

[MAG SYS MENU]

Imaging Site Reports [MAG REPORT MENU]

 Imaging Clients Version Report [MAG CLIENT VERSION REPORT]

This option generates a list of workstations that have not been upgraded to the current Imaging Client version and recommends that the workstations be upgraded..

Imaging System Manager Menu [MAG SYS MENU]:

 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 (#2005.88).

Installation

This patch is to be installed on the VistA System and on the Clinical Imaging workstations.

The KIDS portion of this patch can be loaded while VistA Imaging System is active. KIDS installation will take less than one minute.

- The re-indexing can be run as part of the Post-Install;
- Or the re-indexing can be tasked to run at a future date and time.

The client portion of this patch can be installed on a workstation-by-workstation basis, or it can be pushed to all workstations at a site. Installation times will vary, based on the hardware of the workstation in question and the installation method used.

AS A PART OF THE INSTALLATION OF THE KIDS, A RE-INDEXING OF THE IMAGE (#2005) FILE AND IMAGE AUDIT (#2005.1) FILE MUST OCCUR.

THIS PATCH SHOULD BE INSTALLED DURING OFF HOURS IF REINDEXING IS BEING DONE AT THE TIME OF INSTALLATION.

Prior to installing Patch 93 please note the following:

- This patch should be installed during off hours.
- Users of packages other than VistA Imaging may be on the system during the installation. Clinical Display, Clinical Capture, and TeleReader client applications must not be used during the installation.
- Re-Indexing will take approximately 60 minutes. This patch must be installed by the compliance date to conform to VHA Directive 2001-023.

As a part of the post installation procedure of the KIDs, a re-indexing of the IMAGE (#2005) file and IMAGE AUDIT (#2005.1) file must occur. The re-indexing only needs to be done once when first installing Patch 93.

NOTE After installing the KIDS package, determine if version checking for Clinical Display and Capture is to be enabled or disabled (it is enabled by the Install process).

Installation Prerequisites

Before installing this patch, you will need to download the MAG*3.0*93 files from the Imaging FTP site to a local storage location.

Verify that the patches listed in the Patch Sequence section on page 2 have been installed.

VistA System (KIDS) Installation

Installation Steps (The re-indexing can be run as part of the Post-Install)

During the Post Installation process, Patch MAG*3*93 adds new indexes to the IMAGE file (#2005) and the IMAGE AUDIT file (#2005.1). The files can either be re-indexed as part of the installation or tasked to be run separately.

1. Access the Kernel Installation & Distribution System [XPD MAIN] menu.
2. Run the `Installation` option [XPD INSTALLATION MENU] option.
3. Load the KIDS file by performing the following steps.

Run the `Load a Distribution` option [XPD LOAD DISTRIBUTION] to load the KIDS distribution.

When prompted, enter the path and file name (`MAG3_OP93.KID`) of the Patch 93 KIDS file that you downloaded from the Imaging FTP server.

When prompted to continue with the load, enter `YES`. A `Distribution OK!` message will be displayed when the load is complete.

When prompted to run the environment check routine, press `Enter` to confirm the default answer.

4. After loading the KIDS file, use the following options to verify the contents of the patch and to back up any affected routines.

`Verify Checksums in Transport Global` [XPD PRINT CHECKSUM] – run this option if you want to ensure the integrity of the routines in the patch.

PRINT TRANSPORT GLOBAL

`Compare Transport Global to Current System` [XPD COMPARE TO SYSTEM] – run this option if you want to view all changes that will be made when the patch is installed. All components (routines, options, and so on) in the patch will be compared.

Backup a Transport Global [XPD BACKUP] – run this option if you want to create a backup message of any routines exported with the patch. It will NOT back up any of the other changes.

5. After performing the load and any optional verification steps, install the KIDS file by performing the following steps:

Run the **Install Package(s) [XPD INSTALL BUILD]** option.

When prompted for the install name, enter **MAG*3.0*93**.

Answer **NO** to the following prompt:

```
Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//NO
```

Answer **NO** to the separate re-indexing task prompt:

```
Patch MAG*3*93 defines new indexes for the IMAGE (#2005) and IMAGE AUDIT (#2005.1) files. These indexes can be built as a part of the patch KIDS build installation or the post-install code can schedule a separate task that will build the indexes.
```

```
Enter 'Y' or 'N'; enter '^' to cancel.
```

```
Schedule a separate task that will build the indexes? YES//NO
```

Answer **NO** to the following prompts:

```
Want KIDS to INHIBIT LOGONs during the install? No//NO
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//NO
```

Schedule the installation for the off hours:

```
Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.
```

```
DEVICE: HOME// Q
DEVICE: HOME// NULL
```

```
Request Start Time: Feb 26, 2009@17:58:16// TODAY@21:00
Install Queued!
```

6. Check the log of the installation next morning using the **Install File Print [XPD PRINT INSTALL FILE]** option.
7. If the installation does not complete, fix the problem and restart the installation using the **Restart Install of Package(s) [XPD RESTART INSTALL]** option. Do not forget that the installation restart should be scheduled for the off hours.
8. **After the installation successfully completes, DELETE the routine MAGIPS93.**

Sample KIDS Installation with Post Installation Routine Completed

```

Select Installation Option: 6 Install Package(s)
Select INSTALL NAME: MAG*3.0*93      Loaded from Distribution
7/10/09@09:33:02
=> VistA Imaging V3.0 - Patch 93 Clinical Display Maintenance II ;Cr

This Distribution was loaded on Jul 10, 2009@09:33:02 with header of
VistA Imaging V3.0 - Patch 93 Clinical Display Maintenance II ;Created o
n Jul 09, 2009@15:34:58
It consisted of the following Install(s):
MAG*3.0*93
Checking Install for Package MAG*3.0*93
Will first run the Environment Check Routine, MAGIP93

Install Questions for MAG*3.0*93

Incoming Files:

2005      IMAGE (Partial Definition)
Note: You already have the 'IMAGE' File.

2005.1    IMAGE AUDIT (Partial Definition)
Note: You already have the 'IMAGE AUDIT' File.

2005.87   IMAGE LIST FILTERS (Partial Definition)
Note: You already have the 'IMAGE LIST FILTERS' File.

2005.88   MAG REASON (including data)
Note: You already have the 'MAG REASON' File.
I will OVERWRITE your data with mine.

2006.18   IMAGING USER PREFERENCE (Partial Definition)
Note: You already have the 'IMAGING USER PREFERENCE' File.

2006.81   IMAGING WINDOWS WORKSTATIONS (Partial Definition)
Note: You already have the 'IMAGING WINDOWS WORKSTATIONS' File.

Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//

Patch MAG*3*93 defines new indexes for the IMAGE (#2005) and IMAGE AUDIT
(#2005.1) files. These indexes can be built as a part of the patch KIDS
build installation or the post-install code can schedule a separate task
that will build the indexes.

However, it appears that the Taskman is not running on this system. As
the result, you will not be given a choice and the indexes will be built
as part of the post-install. If you want to schedule a separate indexing
task, abort the installation, start the Taskman, and restart the patch
installation.

Want KIDS to INHIBIT LOGONs during the install? NO//
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//  HERE

```

```
Install Started for MAG*3.0*93 :
      Jul 10, 2009@09:36:06

Build Distribution Date: Jul 09, 2009

Installing
Routines:.....
      Jul 10, 2009@09:36:06

Running Pre-Install Routine: PRE^MAGIP93.

  Deleting the field definitions...
  File #2006.81, Fields: '4'
  The definitions have been deleted.

Installing Data Dictionaries: .....
      Jul 10, 2009@09:36:06

Installing Data:
      Jul 10, 2009@09:36:06

Installing PACKAGE COMPONENTS:

Installing SECURITY KEY...

Installing INPUT TEMPLATE..

Installing
DIALOG.....
.

Installing REMOTE PROCEDURE.....

Installing OPTION.....
      Jul 10, 2009@09:36:07

Running Post-Install Routine: POS^MAGIP93..

  Attaching RPCs to the 'MAG WINDOWS' option...
  MAG4 IMAGE LIST
  MAGG IMAGE GET PROPERTIES
  MAGG IMAGE LOCK
  MAGG IMAGE SET PROPERTIES
  MAGG IMAGE STATISTICS
  MAGG IMAGE UNLOCK
  MAGG REASON GET PROPERTIES
  MAGG REASON LIST
  RPCs have been successfully attached..

  Patch 93 is turning Version Checking ON...
  Version Checking is already ON, no action taken for Site: 660
  Patch 93 is turning Version Checking ON...
  Version Checking is already ON, no action taken for Site: 589..

  Building new image indexes...
  IMAGE file (#2005)
  This file is already processed.
  IMAGE AUDIT file (#2005.1)
  This file is already processed.
  The indexes have been successfully built..

Updating Routine file.....

Updating KIDS files.....

MAG*3.0*93 Installed.
      Jul 10, 2009@09:36:07
```

Installing Steps (the re-indexing can be tasked to run at a future date and time)

To install this patch and schedule the post-routine for a later date follow steps 1-4 (above) and continue to Step 5 below.

- After performing the load and any optional verification steps, install the KIDS build by performing the following steps:

Run the Install Package(s) [XPD INSTALL BUILD] option.

When prompted for the install name, enter MAG*3. 0*93.

Answer NO to the following prompt:

Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//**NO**

Answer YES to the separate re-indexing task prompt and allow automatic suspension during the business hours:

Patch MAG*3*93 defines new indexes for the IMAGE (#2005) and IMAGE AUDIT (#2005.1) files. These indexes can be built as a part of the patch KIDS build installation or the post-install code can schedule a separate task that will build the indexes.

Enter 'Y' or 'N'; enter '^' to cancel.

Schedule a separate task that will build the indexes? YES//**YES**

Schedule the image indexing task at: (*today* - 12/31/2699):

TODAY@21:00//<ENTER>

Suspend the image indexing task during business hours (7am-8pm)? YES//<ENTER>

Answer NO to the following prompts:

Want KIDS to INHIBIT LOGONs during the install? No//**NO**

Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//**NO**

- When installation is finished, an Install Complete message will be displayed.
- Write down number of the task that is scheduled to build the new indexes. See the bold number in the example below.

Task **#159928** has been scheduled.
It will rebuild indexes in the IMAGE (#2005) and IMAGE AUDIT (#2005.1) files and perform other post-processing actions..

- The user who performed the installation will receive a VistA alert when the re-indexing task finishes.

After the indexes are successfully built, DELETE the routine MAGIPS93 using the Delete Routines [XTRDEL] option of the Routine Tools ... [XUPR-ROUTINE-TOOLS] menu:

```

%Index of Routines
Check Routines on Other CPUs
Compare local/national checksums report
Compare routines on tape to disk
Compare two routines
Delete Routines
First Line Routine Print
Flow Chart Entire Routine
Flow Chart from Entry Point
Group Routine Edit
Input routines
List Routines
Load/refresh checksum values into ROUTINE file
Output routines
Routine Edit
Routines by Patch Number
Variable changer
Version Number Update

Select Routine Tools Option: Delete Routines

ROUTINE DELETE

All Routines? No => <Enter>

Routine: MAGIPS93
Routine: <Enter>
1 routine

1 routines to DELETE, OK: NO// Y
MAGIPS93

```

9. If the alert is not received, check the status of the re-indexing task using Taskman menu. If there was a problem with the task, fix it, and restart the task:

```

>D REINDEX^MAGIPS93

Patch MAG*3*93 defines new indexes for the IMAGE (#2005) and IMAGE AUDIT
(#2005.1) files. These indexes can be built in the current session (this
will block it for quite a long time) or a separate task can be scheduled.

Enter 'Y' or 'N'; enter '^' to cancel.

Schedule the task that builds the indexes? YES
Suspend the task during business hours (7am - 8pm)? YES//<ENTER>
Requested Start Time: NOW//TODAY@21:00

Task #159934 has been scheduled.

```

8. After the indexes are successfully built, delete the routine MAGIPS93.

Clinical Workstation Installation

Clinical Imaging (Display & Capture) client software can be updated using one of the methods outlined below.

- Manual Installation
- Autoupdate Installation
- Other Automatic Installation Methods (SMS, etc.)
- TeleReader Installation

After client installation is complete, log into an updated workstation and use the **Help | About** menu option to verify that the version number is 3.0.93.10.

Manual Installation

The `magInstall.exe` file can be installed manually on workstations as described in section 2.5.5.1 in the Clinical Imaging Installation Guide.

Autoupdate Installation

These steps assume Autoupdate has already been implemented. For information about setting up Autoupdate, see section 2.5.6 in the Clinical Imaging Installation Guide.

Download the `MagAUShare.zip` and `magInstall.exe` from the Imaging FTP server to a local storage location.

Copy the new `magInstall.exe` file to the location specified in `magautoupdate.bat`. (This file is in `Program Files\Vista Imaging\InstallationService` on the system where VIIS is installed).

Extract the contents of the `MagAUShare.zip` file to the `UPDATE\TEST` folder.

In the `UPDATE\TEST` folder, open `magnet.ini` and change the `<server>` placeholder for “InstallService” to reflect the server (or cluster name) where VIIS is installed.

```
[update_mode]
ForceUpdateAll=FALSE
InstallFile=MagSetup.exe
InstallService=http://<SERVER>/imaging/install.asm
<MachineName>=TRUE
```

Run the Clinical Display and Capture on the test workstations for a period of time to insure there are no problems with the software at your site.

When it is verified that the software is running properly, extract the contents of the **MagAUShare.zip** file to the **UPDATE\DISTRIB** folder.

In the **UPDATE\DISTRIB** folder, open **magnet.ini** and change the <server> placeholder for “InstallService” to reflect the server (or cluster name) where VIIS is installed.

All workstations will be updated the next time Clinical Display or Capture is run.

Other Automatic Installation Methods (SMS, PSEXEC, etc.)

The following methods are available to push updated software to multiple workstations.

- Remote push of **magInstall.exe** using **PSEXEC** and an administrator’s account.

This process is documented in detail in section 2.5.4.3 in the current Clinical Imaging Installation Guide; change pages are included with this patch.

- Remote push using Microsoft **SMS** or similar remote installation software.

Either **magInstall.exe** or **magInstall.msi** can be used for this. Installation specifics will vary from site to site.