



Patch 90
VistARad Enhancements
Patch Description

VistA Imaging
MAG*3.0*90
Jul 2010

Department of Veterans Affairs
Office of Enterprise Development
Health Provider Systems

Patch 90 Patch Description
Jul 2010

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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
July 19, 2010	.98	DoD image handling notes added (Dee Csipo)
June 10, 2010	.97	T9 Build updates (John Christensen)
June 2, 2010	.96	T8 Build updates (Dee Csipo; John Christensen)
May 14, 2010	.95	Added Remedy ticket (Dee Csipo)
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May 03 2010	.94	Updated for T7. M. Turian, J. Christensen.
Apr 06 2010	.93	Updates for T6 Dee Csipo
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Patch 90 Overview

This document describes VistA Imaging Patch 90, the VistARad Enhancements patch. Enhancements in this patch are based on the results of the VistARad Site Survey performed in 2008.

This patch introduces:

- Remote Image Views in the Patient Exams list.
- Multi-site monitoring for radiologists who read for multiple sites, including automatic urgent or STAT exam notification, and one-click login to a monitored site.
- A mensurated scale can be displayed for images with embedded pixel spacing data.
- Unsupported VistARad clients (pre-Patch 76) will now appear on the report created by the MAG CLIENT VERSION menu option.

For detailed information, see page [5](#).

NOTE All sites running VistA Imaging 3.0 must install the KIDS portion of this patch.

NOTE Sites running VistARad must install all software components of this patch. The Patch 90 KIDS is backwards-compatible with the Patch 101 client software; installation of the client software may be phased in according to each site's needs.

Distribution of Software

Sites that have implemented VistARad can download this patch from the Imaging FTP server at:

`ftp. imaging. med. va. gov/Software/Si tes/<yoursi te>/Mag3_0p90`

Sites that have not implemented VistARad can download the KIDS-only portion of this patch from:

`ftp. imaging. med. va. gov/Software/Si tes/Mag3_0p90_KIDS_ONLY`

Installation instructions are included in this document.

NOTE Any late-breaking news about this patch will be found in a readme file. If present, this file will also be located in the `../MAG3_0P90` directory on the Imaging FTP server.

Patch Contents

This patch includes the following files:

MAG3_OP90.KID – KIDS (Kernel Installation & Distribution System) package to be installed on the VistA System.

MAG_VistARad_P90_Setup.exe – Client software to be installed on VistARad workstations.

MAG3_OP90_Patch_Desc.pdf – This document.

MAG3_OP90_VistARad_changes_Install_Guide.pdf – Revised Installation Guide sections for this patch.

MAG3_OP90_VistARad_changes_Technical_Manual.pdf – Revised Technical Manual sections for this patch.

MAG3_OP90_VistARad_changes_Security_Guide.pdf – Revised Security Guide pages for this patch.

MAG3_OP90_VistARad_User_Guide.pdf – Revised VistARad User Guide.

MAG_Vrad_Quick_Start_Guide.pdf – Revised VistARad Quick Start Guide.

MAG_Vrad_Quick_Reference_Guide.pdf – Revised VistARad Quick Reference Card.

Associated Patches

Before Patch 90 is installed, the following patches must be installed:

MAG*3.0*101 and **MAG*3.0*111**

NOTE While **MAG*3.0*83** is not required for installation, this patch is required to use most of the new features introduced in Patch 90.

For a list of all released Imaging patches, refer to the **patch_list.txt** file available at ftp://ftp.imaging.med.va.gov/Docs/Imaging_Docs_Latest.

Test Sites

The following are test sites for this patch:

- Baltimore, MD (Integrated)
- Muskogee, OK (Medium)
- El Paso, TX (Medium)
- Prescott - AZ (Large)
- Fayetteville, NC (Large)
- Charleston, SC (Large)
- Phoenix, AZ (Medium)
- Tucson, AZ (Large)
- Little Rock, AR (Large)
- Washington, DC (Large)

Remedy Calls

- Remedy #383151 Spokane VAMC—Window/Level problem, image rendered incorrectly for some DCM format images

- Remedy #387107 Patient Exams list sometimes loops when the radiology record has a problem.
The VistARad client now detects this condition and prevents the looping, and provides a warning message to the user to have the radiology record problem researched and fixed.

- Remedy #394276 —“...since the installation of Patch 101, the ROI tissue measurements are almost double what they are on the scanners...” (cf. #400785)

- Remedy #400785 Oklahoma City—S/A #394276 (Hounsfield measurement issue)

NSRs

There are no NSRs (New Service Requests) associated with this patch.

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Patch 90 Changes

Patch 90 includes changes to the VistARad workstation software and to Imaging-related routines on the VistA host.

NOTE Most of the features introduced in this patch are available only if a local VIX (VistA Imaging Exchange server) has been implemented. For information about the VIX, refer to the documentation for Imaging Patch 83.

VistARad Workstation Software Changes

Remote Data/Image Views

VistARad can now be used to view images and reports for radiology exams stored at any remote VA site. Exams stored at DoD medical facilities for VA/DoD shared patients can also be viewed. Note—see section below for additional notes on DoD data access.

When the Patient Exams list is displayed in VistARad, remote sites where the patient has been treated are displayed as buttons at the top of the list. Clicking one of the buttons adds exams (if any) from the named site onto the Patient Exams list, and re-sorts the list to show all exams in chronological order. VistARad uses conventions similar to those used in Clinical Display to indicate which remote sites can be connected to and which cannot.

Remote exams shown in the Patient Exams list can be opened for image review, and reports and requisitions can also be displayed. (Note that for DoD exams, images and reports are accessible, but requisitions are not.)

The site's local VIX handles retrieval and caching automatically. Remote exams, once retrieved, remain cached on the local VIX to speed subsequent retrievals. Access to remote exams is recorded in the remote site's IMAGE ACCESS LOG File (#2006.95).


Remote Reading Enhancements

For sites that use VistARad's teleradiology features (i.e., Routing / Remote reading) to read for one or more sites, some changes have been made to provide more efficient data access.

Multi-site monitoring

Radiologists who read for multiple sites can now view exam lists at other sites while logged in to the current reading site. When this feature is enabled, radiologists can be interpreting exams for one site, but conveniently monitor the workload at the other sites.

A new exam list tab, "Monitored Sites", is used to access the exam lists from the other sites. Each of the sites' lists is shown as a separate subtab, and is periodically refreshed to reflect the most current information.

If a STAT or Urgent exam is detected on a Monitored Site exam list, VistARad displays a special icon  on the Manager's top button bar, next to the "Patient Lookup" button. The icon also appears on any Monitored Sites sub-tab for the individual site's list that has a STAT or Urgent exam.

Note: the multi-site monitoring features may only be accessed by a user having a new security key, MAGJ REMOTE ACCESS CONTROL.

One-click login to a monitored site

Users can quickly log into a monitored site using a special Login button on the monitored list. This login process is streamlined so there is no need to re-enter the Access and Verify codes, or to select a division. The only action that may need to be taken is to close any previously opened exams. VistARad will prompt the user if this needs to be done.

Once the user has logged in to the new site, all standard VistARad functions are available.

VIX-assisted retrieval of non-routed exams

Sessions of Remote reading of routed exams can benefit from using the local site's VIX to retrieve exams that were not routed (e.g., ad hoc exam opening). This feature allows those exams' images to display more quickly, and then to be cached locally on the VIX.

Readlist extended pre-load queuing

A remote reading session can use a feature that allows the Readlist's ability to pre-load the "next" exam to pre-load more than just one exam.

Mensurated Scale

When an image is displayed, a mensurated scale can be displayed in the image's viewport. The scale uses pixel size data in the image header; if no pixel size data is available, VistARad's Calibrate tool can be used to establish a pixel size.

This feature is *not* dependent on the VIX.

Unsupported VistARad Client Reporting

VistARad clients which pre-date the minimum supported version (Patch 76) will now appear on the report produced by the VistA host's MAG CLIENT VERSION REPORT menu option (introduced by Patch 93).

VistARad remote access to DoD patient information

Access to patient data from the DoD records systems is subject to practical constraints of the implementation of the interface to the DoD*. These constraints fall into two categories: first, a limited number of DoD sites are part of the interface, and not all the participating sites are equally responsive regarding data availability; second, the interface employs multiple actors where the timing of responses for data requests may vary widely, and the system is designed to time out so that requests do not wait endlessly for a reply. With these points in mind, the following tips may help you obtain the best results when using the system to access DoD patient information.

Tips for Users

Tip 1 – Know which DoD sites are online

Currently the VA can access radiology reports and images for shared patients from the following DoD hospitals:

- Walter Reed AMC
- National Naval Medical Center
- Keesler AFB
- Landstuhl RMC
- William Beaumont AMC
- Great Lakes NHC
- Evans ACH

Additional DoD hospitals will become available as the DoD transitions to the Healthcare Artifact and Image Management Solution (HAIMS) which will interconnect DoD hospitals and make their information available to the VA.

Tip 2 – Understand that you may need to retry

When a request for a patient's exam list information is made, it is possible for the request to timeout without returning any data. Most often this occurs with patients who have a large number of DoD studies. Although your initial request may seem to have failed, normally the system continues to work on the request behind the scenes—if you retry the request the information will probably be available.

* Refer to Patch 83 documentation for more details on the interface with the DoD.

Likewise, requests for specific images may timeout or may be answered with a “try again” message. Usually this would occur if the image needs to be retrieved from a DoD PACS system, or occasionally when retrieving large format images (e.g., CR). Again, if you retry the request the information will probably be available.

Tip 3 – If it still doesn’t work request support

Your local IT support staff can request technical support for problems accessing data from the DoD system.

IT Staff Tips

Support for the DoD system is available via the contact information specified below. Be prepared to provide the patient name and last 4 of the SSN. The patient ICN number may be required as well.

Email: healthsystems.support@cps-corp.com
Phone: 1-866-955-5166

VistA System Changes

Routines

For each routine, the second line will contain the following information. Please note that the “before” checksum may differ if any test software has been installed.

```
;;3.0;IMAGING;**[patch_list]**;Mar 19, 2002;Build 1764;Jun 09, 2010
```

New and modified routines for the VistA System are listed below.
CHECK1^XTSUMBLD is used to generate the checksums.

Routine	Before	After	Patch List
MAGJLS2B	78466929	81043388	16, 22, 18, 76, 101, 90
MAGJLS3	84076756	73090068	16, 22, 18, 101, 90
MAGJLST1	50075739	54042932	16, 22, 18, 65, 76, 101, 90
MAGJMN1	140332514	92377689	16, 9, 22, 18, 65, 76, 101, 90
MAGJLS2	91361467	105609021	22, 18, 76, 101, 90
MAGJUTL3	91880385	113857123	16, 9, 22, 18, 65, 76, 101, 90
MAGJUTL4	150484690	148832735	18, 76, 101, 90

Routine	Before	After	Patch List
MAGGTU41	22378971	22196181	46, 59, 93, 90
MAGJTU4V	New	4996119	90
MAGJUTL5	32996102	33141001	65, 76, 101, 90
MAGJVAPI	New	13867025	90
MAGS2BSE	3731702	3911053	111, 90

Data Dictionaries

This patch contains no data dictionary changes.

Security Keys

This patch contains the following Security Key:

MAGJ REMOTE ACCESS CONTROL – New. This key allows a VistARad user to access the Monitored Sites configuration subset of the VIX Configuration settings tab, and to view exam list data in the Monitored Sites tab of the Manager.

This patch adds functionality to the following (existing) Security Key:

MAGJ SYSTEM MANAGER: This security key is required to make any edits to the “Local Site VIX” settings in the VIX Configuration tab. Note that these settings are NOT user-specific, but are specific to the workstation.

Remote Procedures

This patch contains the following RPCs (remote procedure calls):

MAG BROKER GET VISITOR: New. Wraps code underlying RPC: XUS GET VISITOR to check for expired BSE authentication token.

MAGJ GET TREATING LIST: New. Used to retrieve the list of sites where a selected patient has been treated.

MAGJ VIX LOG REMOTE IMG ACCESS: New. Used by the local site’s VIX to update a remote site’s IMAGING WINDOWS SESSIONS (#2006.82) and IMAGE ACCESS LOG (#2006.95) Files when a remote exam is viewed from a VistARad workstation at the local site.

Menu Options

The following menu option is included in this patch:

MAGJ VISTARAD RPC'S [MAGJ VISTARAD WINDOWS]

Updated RPC references; no other changes.

Templates

This patch contains no new or modified templates.

Installation

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

NOTE All sites running VistA Imaging 3.0 must install the KIDS portion of this patch.

NOTE Sites running VistARad must install all software components of this patch. The Patch 90 KIDS is backwards-compatible with the Patch 101 client software; installation of the client software may be phased in according to each site's needs.

All VistARad users must log out before the KIDS portion of this patch is loaded. Other VistA Imaging operations may continue.

Installation of the KIDS will take less than one minute. Installation of the workstation software will take about one to three minutes per workstation, depending on hardware.

Installation Prerequisites

Before installing this patch, you will need to download the Patch 90 files from the Imaging FTP site to a local storage location.

Verify that all clients have Adobe Reader 6.0 or higher installed.

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

VistA System (KIDS) Installation

NOTE This KIDS file includes an environment check that will automatically disable background exam list compiles during the installation process. After the KIDS installation is complete, compiles will be automatically re-enabled.

Installing the KIDS Package

- 1 Ensure all users log off all VistARad workstations.**
- 2** Log in to VistA and access the Kernel Installation and Distribution System Menu [XPD MAIN].
- 3** Run the **Installation** option [XPD INSTALLATION MENU].
- 4** Load the KIDS file by performing the following steps.
 - a** Run the **Load a Distribution** option [XPD LOAD DISTRIBUTION] to load the KIDS distribution.

- b When prompted, enter the path and file name (MAG3_OP90.KID) of the Patch 90 KIDS file that you downloaded from the Imaging FTP server.
 - c When prompted to continue with the load, enter YES. A Distribution OK! message will be displayed when the load is complete.
- 5 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.
 - 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.
- 6 After performing the load and any optional verification steps, install the KIDS file by performing the following steps:
- a Run the Install Package(s) [XPD INSTALL BUILD] option.
 - b When prompted for the install name, enter MAG*3.0*90.
 - c Answer NO to the following prompts:
- ```

Want KIDS to Rebuild Menu Trees Upon Completion of Install? No//NO
Want KIDS to INHIBIT LOGONs during the install? No//NO
Want to DISABLE Scheduled Options, Menu Options, and Protocols? No//NO

```
- 7 When installation is finished, an Install Complete message will be displayed.

### Sample KIDS Installation

```

1 Load a Distribution
2 Verify Checksums in Transport Global
3 Print Transport Global
4 Compare Transport Global to Current System
5 Backup a Transport Global
6 Install Package(s)
 Restart Install of Package(s)
 Unload a Distribution

Select Installation Option: 6 Install Package(s)
Select INSTALL NAME: MAG*3.0*90 Loaded from Distribution
5/27/10@13: 00: 48

```

```
=> VistA Imaging V3.0 - Patch 90 - 05/27/2010 09:16AM ;Created on
This Distribution was loaded on May 27, 2010@13:00:48 with header of
 VistA Imaging V3.0 - Patch 90 - 05/27/2010 09:16AM ;Created on May 27
, 2010@09:16:14
 It consisted of the following Install(s):
 MAG*3.0*90
Checking Install for Package MAG*3.0*90
Will first run the Environment Check Routine, MAGJMN1

Install Questions for MAG*3.0*90

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

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// ;;99999 HERE

 Install Started for MAG*3.0*90 :
 May 27, 2010@13:03:40

Build Distribution Date: May 27, 2010

 Installing Routines:.....
 May 27, 2010@13:03:40

 Installing PACKAGE COMPONENTS:

 Installing SECURITY KEY..

 Installing REMOTE PROCEDURE...

 Installing OPTION..
 May 27, 2010@13:03:40

 Running Post-Install Routine: POSTINST^MAGJMN1. ... Enabling background
 compile
 .

Background Compile Enabled.

 Updating Routine file.....

 Updating KIDS files.....

MAG*3.0*90 Installed.
 May 27, 2010@13:03:44

Not a production UCI

Not a production UCI

NO Install Message sent
```

## VistARad Client Installation

The following steps can be used to install VistARad for the first time, or to update a workstation that is running VistARad Patch 101 to VistARad Patch 90. Installation should take one to three minutes.

**NOTE** If any other versions of VistARad are installed (such as Patch 76), use Add/Remove Programs in the Windows Control Panel to remove VistARad before using the steps below.

- 1 Log in to the workstation as an administrator, and ensure that no other programs are running.
- 2 Double-click **MAG\_VistARad\_P90\_Install.exe** to start the installation wizard. There will be a brief delay as the installation files are extracted.  
  
**NOTE** VistARad will be installed in **C:\Program Files\Vista\Imaging\**. There are no configurable installation options.
- 3 If you are updating from Patch 101 to Patch 90, perform the steps below (workstation-specific configuration files will be retained):
  - a When the Welcome page appears, click **Next**.
  - b When the Ready to Install page displays, click **Install**.
  - c When you are informed that Patch 101 must be removed, click **Yes**.
  - d When you are prompted to confirm the removal of VistARad, click **Yes** again.
  - e When you are informed that VistARad has been uninstalled, click **OK**.
  - f Installation of Patch 90 will start automatically. After installation is complete, click **Finish** to exit the wizard.
- 4 If you are installing Patch 90 for the first time, perform the steps below:
  - a When the Welcome page appears, click **Next**.
  - b When the Ready to Install page displays, click **Install**.
  - c After installation is complete, click **Finish** to exit the wizard.
- 5 Use the VistARad shortcut on the desktop or in Windows Start menu (**Start | Programs | VistA Imaging Programs | MAG\_VistARad\_Patch90**) to start VistARad.
- 6 After starting VistARad, go to **Help | About** and verify that the software client version is 3.0.90.9.