

V I S T A

# OSEHRA Patch Module 2.5

## Release Notes

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prepared for



by



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OSEHRA ([www.osehra.org](http://www.osehra.org)), the Open Source Electronic Health Alliance, is a 501(c)(6) nonprofit corporation that helps the VISTA community collaborate effectively across organizational boundaries. Upgrading the OSEHRA Patch Module from version 2.3 to improve support for community collaboration is an OSEHRA project under the authority of the OSEHRA Product Manager. It is being carried out within OSEHRA's Forum Open Source Project Group ([www.osehra.org/content/forum-open-source-project-group](http://www.osehra.org/content/forum-open-source-project-group)).

The VISTA Expertise Network ([www.vistaexpertise.net](http://www.vistaexpertise.net)) is a Washington State nonprofit corporation that performs hands-on VISTA development and deployment, as well as counseling VISTA planners and policy makers. The Network has planned the OSEHRA Patch Module upgrades for many years and is performing them for OSEHRA. All software and documentation developed as part of this project are being released open source. For example:

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# OSEHRA Patch Module 2.5 Release Notes

These notes summarize the principal enhancements and bug fixes in OSEHRA Patch Module versions 2.4 (enhancements to support secondary development) and 2.5 (enhancements to support patch-stream switchover).

## ***1. Enhancements to Support Secondary Development (v 2.4)***

Patch Module version 2.3 and before did not support secondary development, nor multiple patch streams, nor multiple Forum systems, nor industry-standard version control.

### **1.1. Primary Development**

Reinterpret existing patch statuses—

- Under Development [u]
- Completed/Unverified [c]
- Verified [v]
- Entered in Error [e]
- Retired [r]
- Cancel [x]

—as describing primary development, which is the original creation and release of any patch.

### **1.2. Secondary Development**

Add new statuses—

In Review [i2]  
Sec Development [d2]  
Sec Completion [s2]  
Sec Release [r2]  
Not for Sec Release [n2]

—to describe secondary development, which is the import, review, possible revision, and re-release of any patch in a new patch stream. Templates and options were modified to support secondary development of a patch.

### **1.3. Patch Stream FOIA VISTA**

Reinterpret all VA VISTA patches released through VA's redaction and Freedom of Information Act (FOIA) process as constituting a FOIA VISTA patch stream. New file DHCP Patch Stream (11007.1) defines this and other patch streams.

### **1.4. Patch Stream OSEHRA VISTA**

Add new patch stream OSEHRA VISTA, which is derived from patch stream FOIA VISTA but can include secondary development on FOIA VISTA patches as well as new, original primary development—new, certified community-developed patches to VISTA applications. OSEHRA VISTA is defined in file DHCP Patch Stream (11007.1).

### **1.5. OSEHRA Forum & Distributing Multiple Patch Streams**

Add a second Forum system, run by OSEHRA, which subscribes to patch stream FOIA VISTA and creates two patch streams: (1) a rerelease of FOIA VISTA, and (2) OSEHRA VISTA, which is this site's primary patch stream, the one for which new, primary development is released from this Forum site. (FOIA VISTA is primarily released from VA Forum).

## 1.6. Patch Load and Derivation

Add ability for OSEHRA Patch Module to load—either individually or en masse—already released primary patches from patch stream FOIA VISTA, set their status to In Review, and derive a copy of each loaded patch for patch stream OSEHRA VISTA, with its status also set to In Review, and with its Derived from Patch field set to point to the original FOIA VISTA patch.

## 1.7. Patch & Sequence Numbers for Multiple Patch Streams

Patch and sequence numbers are now allowed to be longer. Sequence numbers are now specific to each patch stream. Patch numbers are now numberspaced by patch stream, so that an original FOIA VISTA patch and its derived OSEHRA VISTA patch cannot be mixed up. FOIA VISTA begins numbering patches from 1, as it always has. OSEHRA VISTA begins numbering patches from 10001.

## 1.8. Improve Patch Integrity and Identification

A new key—A, on field Patch Designation (.01)—has been added to file DHCP Patches (11005) to ensure that patch IDs are unique. The file's identifiers have been extended to handle the new secondary statuses, to identify a patch's stream, and to indicate when one patch is derived from another patch. Here's a sample of the new help listing (FV stands for FOIA VISTA, OV for OSEHRA VISTA, and IN for In Review):

Select DHCP PATCHES PATCH DESIGNATION: ??					
Choose from:					
127569	PRCA*4.5*261	[FV]FIX <NOLINE> ERRORS	IN	TH	
127570	PRCA*4.5*10261	[OV]FIX <NOLINE> ERRORS	IN	TH	
		derived from [FV]PRCA*4.5*261			
127571	PRCA*4.5*263	[FV]FIX RCIB VARS & TRANS NUM	IN	TH	
127572	PRCA*4.5*10263	[OV]FIX RCIB VARS & TRANS NUM	IN	TH	
		derived from [FV]PRCA*4.5*263			

## **1.9. Improved Quality Control for Patches**

When a patch is verified, export patch and its individual software elements for manual import into Git or other version-control repositories. Before-and-after checksum automation for routines transported by patches now supports multiple patch streams.

## **1.10. Improved Quality Control for OSEHRA Patch Module**

All OSEHRA Patch Module software elements are now managed by Git version-control systems. Unit tests were created to cover 50% of OSEHRA Patch Module code, to permit OSEHRA Certification Level 3. Numerous old bugs were identified and fixed during development of version 2.4.

# ***2. Enhancement to Support Patch-stream Switchover (v. 2.5)***

Patch Module versions 2.4 and before and KIDS prior to patch XU\*8.0\*10001 did not let KIDS refer explicitly to patches or patch streams, so did not support switching a site over from one patch stream to another, nor supported calculating and properly checking for required patches or checksums across a switchover boundary.

## **2.1. Distribute OSEHRA Patch Module Files to All VISTA Sites**

Files describing patch streams and patches are now distributed for installation in all development, test, production, and other VISTA environments, to provide a frame of reference for KIDS to improve its handling of patching.

## **2.2. Make Build and Install Files Patch-aware**

Add a new Patch subfile to files Build (9.6) and Install (9.7) pointing to file DHCP Patches (11005), so KIDS is aware of how its distributions correspond to patches.

## **2.3. Make VISTA Sites Subscribe to Patch Streams**

Extend file DHCP Patch Stream (11007.1) to record which stream of patches the current VISTA environment installs, and to remember the history of switchovers from one patch stream to another.

## **2.4. Required-patch Checks across Switchovers**

Make patches transport required-patch names from both patch streams, so KIDS at each site can require FOIA VISTA patches before the switchover but OSEHRA VISTA patches afterward.

## **2.5. Checksum Checks across Switchovers**

Make patches transport checksum values for both patch streams, so KIDS at each site can check FOIA VISTA checksums before the switchover but OSEHRA VISTA patches afterward.

## **2.6. Support Switchover from FOIA VISTA to OSEHRA VISTA**

Add and modify KIDS options to let a system manager switch the current VISTA environment from FOIA VISTA to OSEHRA VISTA.

## **2.7. Auto-populate KIDS Build Description from Patch**

For years it has been common practice to enter a complete description of the patch in the Patch Module's description but not in the KIDS build's description. During the KIDS distribution install process, KIDS does not have access to the Patch Module description, increasing the chances that installers will overlook critical information. OSEHRA Patch Module version 2.5, upon the release of any patch, checks the KIDS build to see if its Description is missing; if it is, it copies the description from the OSEHRA Patch Module into the Build, to ensure it will be present during install at each site.

## **2.8. New Documentation Suite**

Because the Patch Module was never distributed prior to version 2.4, it included only scanty documentation that did not meet the VISTA documentation standards. Version 2.5 brings its documentation suite into compliance with the standard.

## **2.9. Improved Online Help**

Help text, descriptions, technical descriptions, and help frames have been improved throughout the OSEHRA Patch Module.



# Credits

The Patch Module was originally developed at the Albany Field Office of the U.S. Department of Veterans Affairs in the late 1980s by Robin M. Ostrander and Mike J. Kilmade.

It was supported and enhanced in the early and mid-1990s by Peter K. Eklund of the Albany Field Office, who developed it through version 2.3.

In the late 1990s, Mike J. Meighan of the San Francisco Field Office briefly supported it.

In 2005, VA Database Administrator Cameron J. Schlehuber at the Salt Lake City Field Office added an option to check for overlap among unreleased patches.

In 2007, R. Wally Fort of the Oakland Field Office added automation of the Patch Module's handling of Before checksums.

In 2009, Owen Hermsen and Rick Marshall of the VISTA Expertise Network designed a roadmap for future development of KIDS and the Patch Module to support secondary development at Indian Health Service.

In 2013–4, as part of Phase One of the OSEHRA Forum project, Sam Habiell and Rick Marshall of the Network developed version 2.4, which added support for secondary development. Their work was managed and shaped by OSEHRA, including Mike Henderson, Don Hewitt, Christopher Edwards, Peter Li, and Brad King. Larry D. Landis of Fourth Watch Business Continuity Services set up and managed the VISTA systems. Linda Yaw of the Network helped coordinate the project.

In 2014, the same team designed and managed Phase Two of the OSEHRA Forum project to create version 2.5, which added support for switching over a production site's patch stream from FOIA VISTA to OSEHRA VISTA. Developers Larry G. Carlson and Joel L. Ivey of the Network and documenters Kathy L. Ice of the Network and Jenny Jensen of KRM Associates did most of the work.