Medsphere.org: Released

VCM - June 2009



About Medsphere.org

- Launched in February 2007 Hosted static information about Medsphere's open source projects (OpenVista Server and CIS).
- Over the past two years a number of supporting projects were opened and posted (Strongwind, Widgets, GTK# installers, etc.)
- In September 2008, Medsphere invested significantly in transitioning Medsphere.org from a static "download" site, to a community collaboration site.
 - Wiki, Discussions, Blogs, Mirrors, Tools, Proposals, etc.
 - Downloads hosted at SF.net
 - Open development hosted at LP.net
- Now: Transitioning major projects to open repositories



Quick Tour

- Home page
 - Announcements
 - Quick access to content, search, tour
 - Search tool
- Blogs
- New and Updated
- Special Interest Groups
- Communities

Interested in collaborating? Join here:

http://medsphere.org/tour/



Projects and Release Methods

- Initially open sourced core clinicals
- Additional tools and dev kits have been added
- Code releases as tarballs
- Moving to open repositories as well as code
- Piloting open development process



OpenVista Server (1.5 SP1)



OpenVista Server is derived from the VA Freedom of Information Act (FOIA) VistA server release and includes defect corrections and a selection of commercial enhancements equivalent to what has been released at Medsphere client sites.

Vital stats:

Originally released: May 2007

License: AGPL and ...

Technologies: M

Downloads: Open Repository & 8,300 / 865GB

Home: http://medsphere.org/community/project/openvista-server



Highlights

- Latest release is substantially similar to customer sites
- Latest release is sustainable
- Latest release includes substantial work, including standard interface portfolio
- Available as routine/global exports or Cache.dat

Take note: Demo data substantially reduced



OpenVista CIS



OpenVista Clinical Information System (CIS) is a cross platform application based on C# and Gtk# / GTK. CIS runs on the MS and Mono .NET frameworks. It is based on the design of the VA's Computerized Patient Record System (CPRS) along with image viewing, and other commercial enhancements.

Vital stats:

Originally released: February 2007

License: AGPL, GPL, LGPL

Technologies: C#

Downloads: Open Repository & 9,600 / 22.8GB

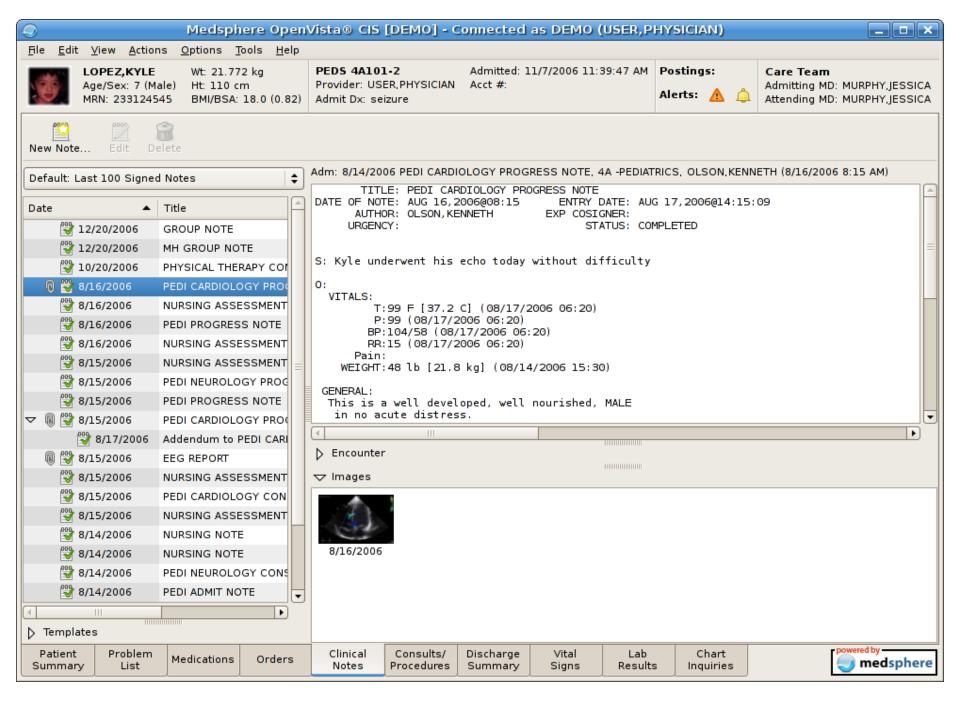
Home: http://medsphere.org/community/project/openvista-cis



Features

- Full revision history at https://launchpad.net/openvista-cis
- Cross-platform: MS Windows, GNU/Linux, and Mac
- Full support for A11Y
- Full support for I18N/L10N (partial translations for German, Spanish, Portuguese, and Thai)
- Reusable Graph and Grid components
- Inline/reusable spell checking
- Patient Growth Charts
- Medical Reconciliation (In the Meds tab)









<u>File Edit View Actions Reports Tools Help</u> PATIENT, TEST ONLY Wt: 45.359 kg

MRN: 756110665P

Age/Sex: 42 (Female)

Ht: 182.9 cm BMI/BSA: 13.6 (1.52) MED1 4S401-1 Provider: USER, PHYSICIAN

Admit Dx: sick

Admitted: 8/23/2006 1:43:20 PM

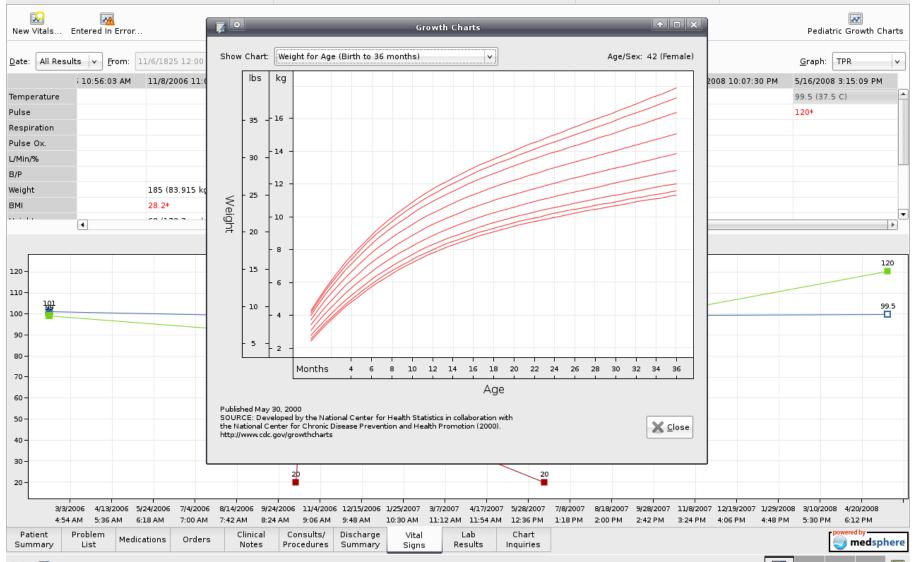
Acct #:

Postings: AD

Alerts: 🛕 🛕 🚄

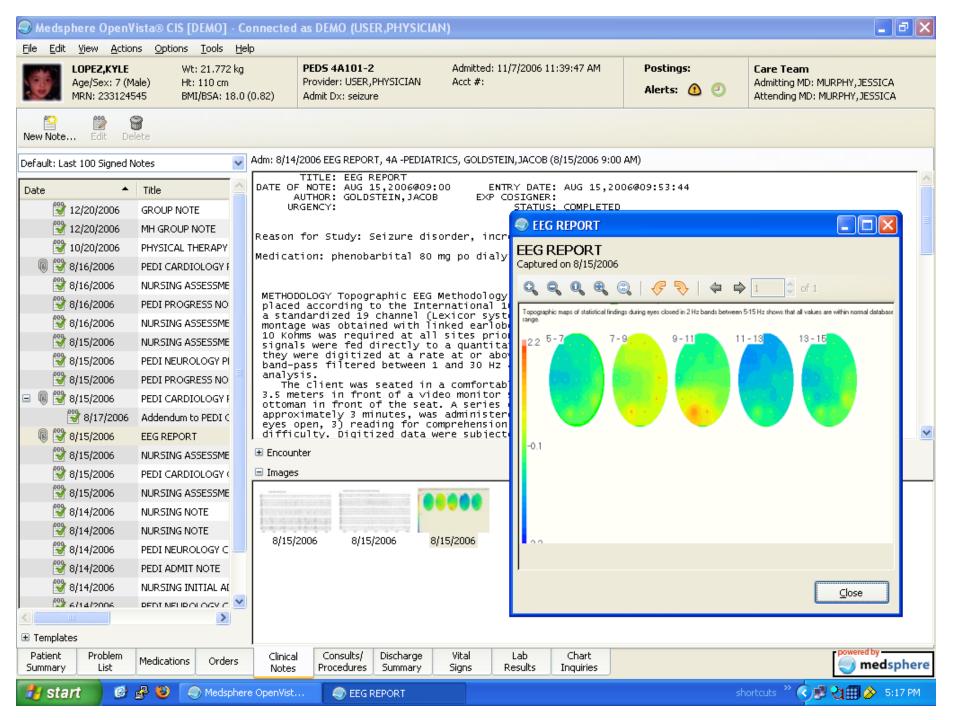
Care Team

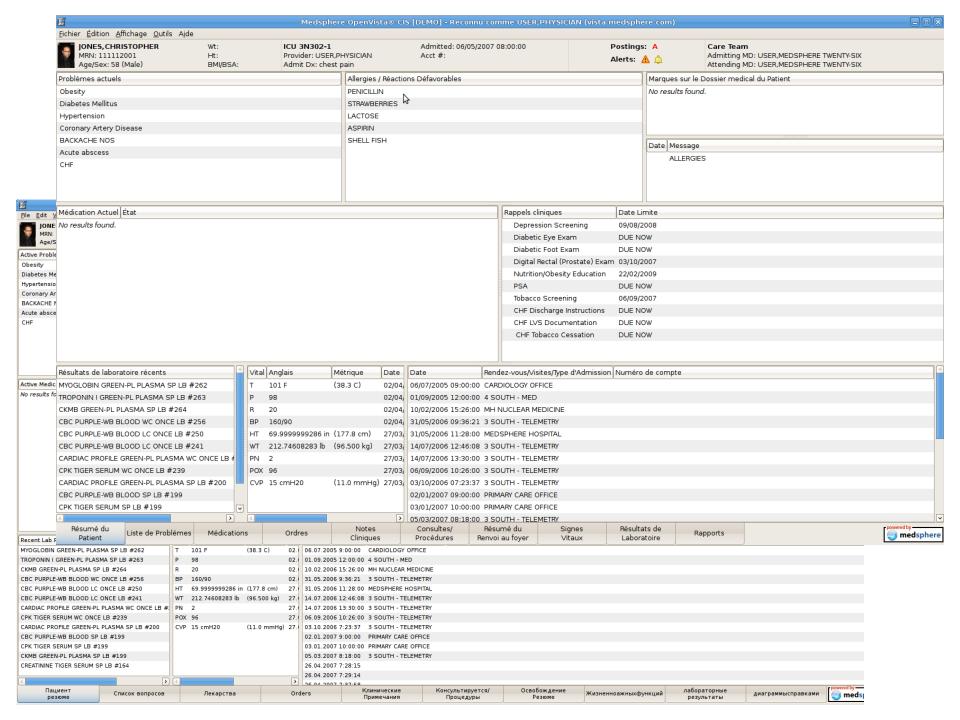
Admitting MD: MANAGER, SYSTEM Attending MD: MANAGER, SYSTEM



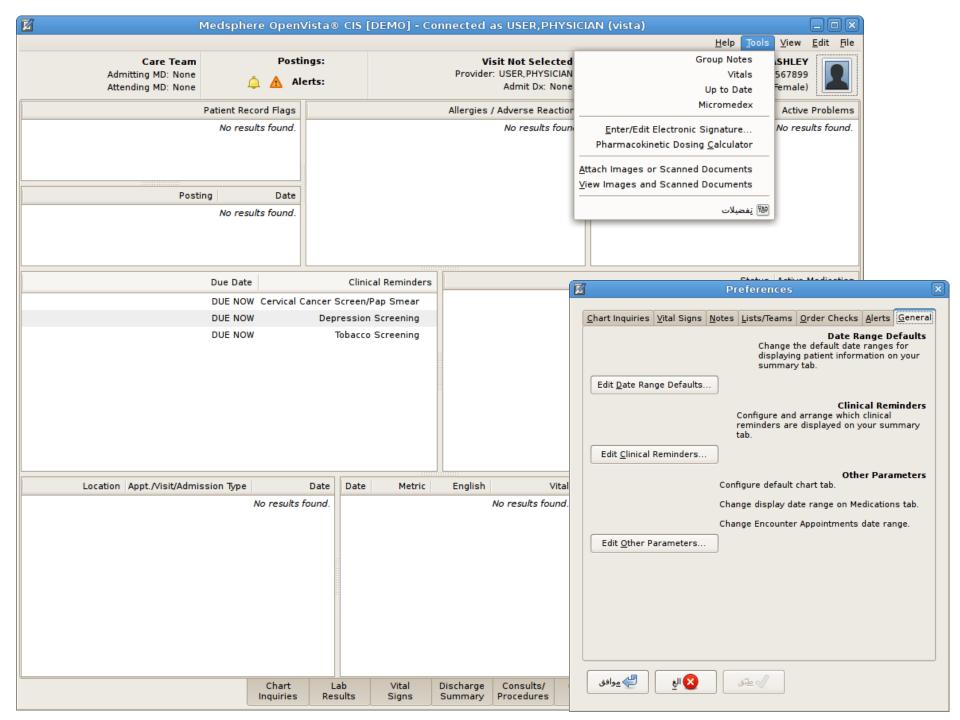


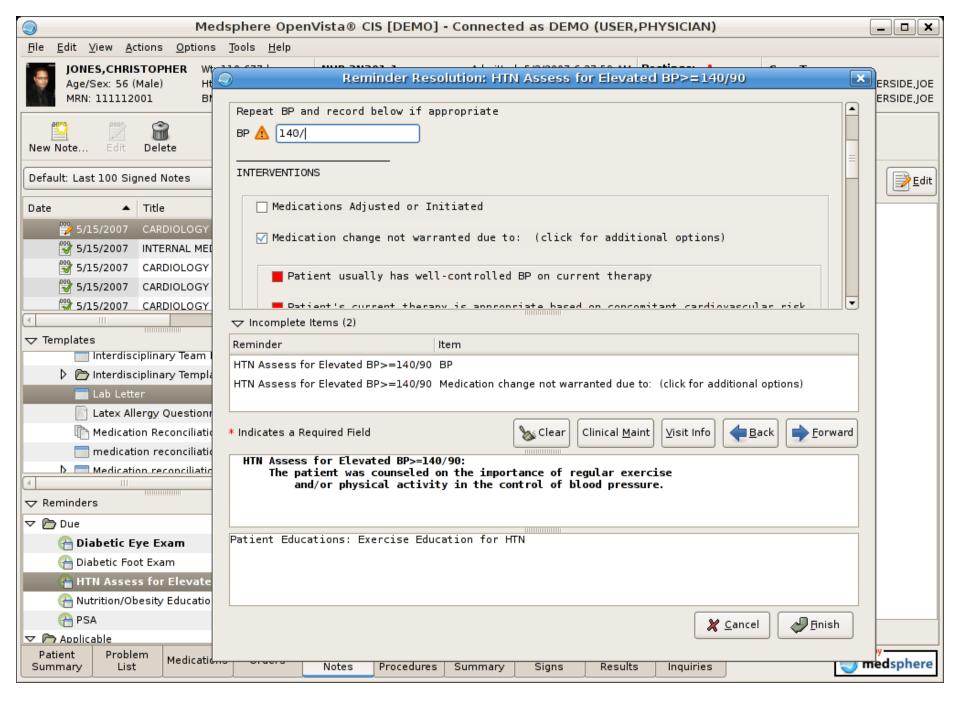


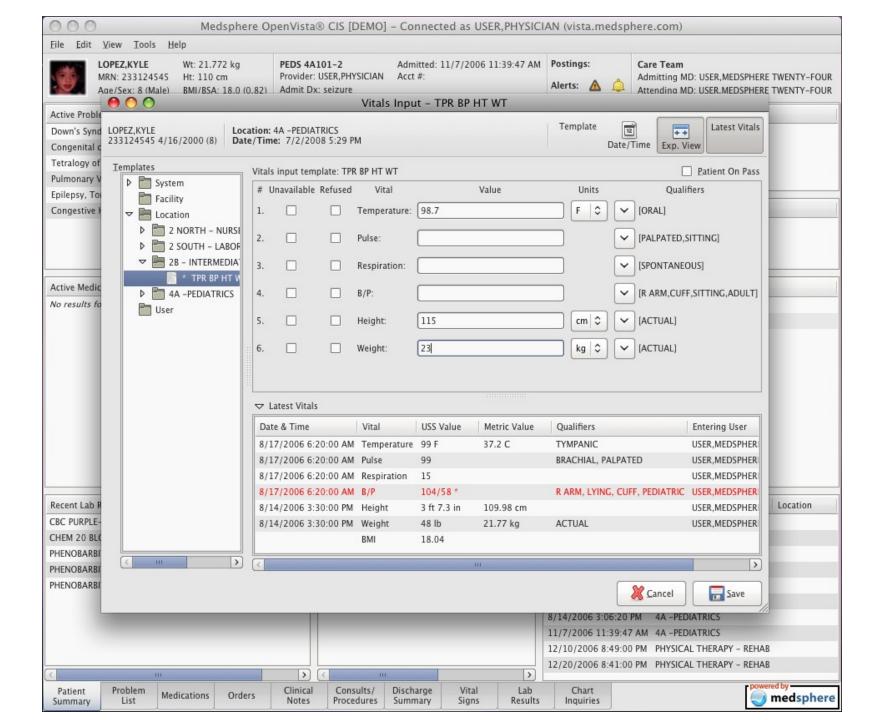




Date	Appt./visit/Admission Type Acct #
05-7-6 上09时00分00秒	CARDIOLOGY OFFICE
05-9-1 下12时00分00秒	4 SOUTH - MED
06-2-10 下03时26分00秒	MH NUCLEAR MEDICINE
06-5-31 上09时36分21秒	3 SOUTH - TELEMETRY
06-5-31 上11时28分00秒	MEDSPHERE HOSPITAL
06-7-14 下12时46分08秒	3 SOUTH - TELEMETRY
06-7-14 下01时30分00秒	3 SOUTH - TELEMETRY
06-9-6 上10时26分00秒	3 SOUTH - TELEMETRY
06-10-3 上07时23分37秒	3 SOUTH - TELEMETRY
07-1-2 上09时00分00秒	PRIMARY CARE OFFICE
07-1-3 上10时00分00秒	PRIMARY CARE OFFICE
07-3-5 上08时18分00秒	3 SOUTH - TELEMETRY
07-4-26 上07时28分15秒	
07-4-26 上07时29分14秒	
07-4-26 上07时37分58秒	
07-4-26 上07时39分22秒	
07-4-30 上06时32分15秒	
07-5-2 上06时37分59秒	2 NORTH - NURSERY
07-5-6 上08时00分00秒	3 NORTH - ICU
07-8-9 下02时53分00秒	3 NORTH - ICU







OpenVista Appliance (r4)

The OpenVista Appliance is a virtual machine hosting the entire OpenVista stack from operating system to clinical front-end.

Note: reduced demo patient data

- Vital stats:
 - Originally released: May 2007
 - License: by project completely FOSS
 - Technologies: Mixed
 - Downloads: 4,325 / 3.3TB
 - http://medsphere.org/community/project/openvista-appliance

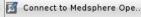


Included Software

- OpenVista CIS 0.9.95 (1.0 RC1)
- OpenVista Server 1.5 Service Pack 1
- OVID 0.9.0
- Patient Dashboard demonstration application
- GT.M V5.3-003
- Xubuntu 8.10 "Intrepid Ibex"
 - Apache
 - Samba







OVID (0.9.0)

The OVID (OpenVista Interface Domain) layer is a set of development tools designed to enable software developers easier access to OpenVista data.

Vital stats:

Originally released: April 2009

License: AGPL

Technologies: M, Java

Downloads: 254 / 6.5GB

Home: http://medsphere.org/community/project/ovid

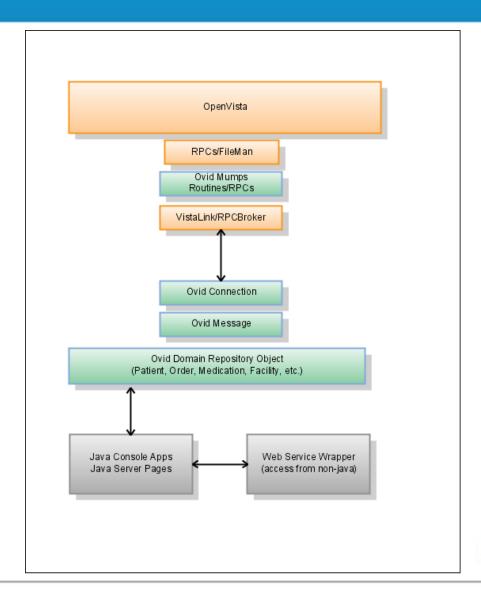


OVID Features

- Implements internal protocol for calling OpenVista RPCs through VistaLink or RPC Broker.
- Implements an interface for using FileMan "silent mode" calls. This enables access to files where existing OpenVista RPC support is not sufficient for the application needs.
- Java bindings are supported. Supports creating Java domain objects.
- Enables other technologies needing to access data from OpenVista RPCs and FileMan.
- Useful for building web applications, exposing OpenVista data as web services, or in simple console based applications.

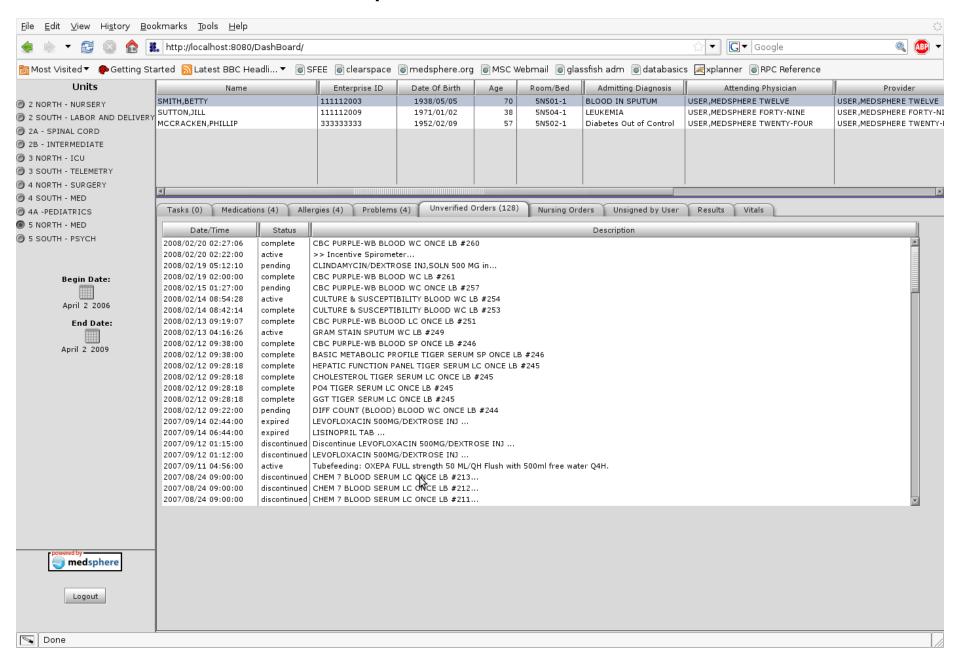


OVID Architecture Overview





Sample web front-end



Web Services via OVID

- Sample web services published
- Source available
- See "Creating Web Services with OVID"

```
<definitions targetNamespace="http://service.ws.ovid.medsphere.com/" name="InstallService">
-<types>
 -<xsd:schema>
     <xsd:import namespace="http://service.ws.ovid.medsphere.com/" schemaLocation="http://openvista.medsphere.org;8080/demo-service</p>
     /InstallService?xsd=1"/>
   </xsd:schema>
 </types>
-<message name="InstallServiceLogin">
   <part name="parameters" element="tns:InstallServiceLogin"/>
-<message name="InstallServiceLoginResponse">
   <part name="parameters" element="tns:InstallServiceLoginResponse"/>
-<message name="AuthenticationServiceException">
   <part name="fault" element="tns:AuthenticationServiceException"/>
 </message>
-<message name="Ping">
   <part name="parameters" element="tns:Ping"/>
 </message>
-<message name="PingResponse">
   <part name="parameters" element="tns:PingResponse"/>
 </message>
-<message name="GetInstallAndPackageInfoByDate">
   <part name="parameters" element="tns:GetInstallAndPackageInfoByDate"/>
 </message>
-<message name="GetInstallAndPackageInfoByDateResponse">
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-<message name="OvidDomainException">
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-<message name="GetInstallInfoByDate">
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   <part name="parameters" element="tns:GetPackageInfoByIEN"/>
```



GT.M Integration Project (Alpha 2)

The OpenVista/GT.M Integration Project has released Linux tools and enhancements to OpenVista Server to assist with running OpenVista Server in a production environment. The project strives to re-use as much existing infrastructure as possible, encourage best practices by building them into tools, and be familiar to Linux administrators on the Linux side and M/VistA users on the M/VistA side.

Vital stats:

Originally released: May 2009

License: AGPL

Technologies: M, C, Bash

Downloads: Open Repository

Home: http://medsphere.org/community/project/gtm



Project Goals & History

OpenVista, GT.M, and Linux make up a pure open source stack, but they were not specifically designed to work with each other. There is significant value to Medsphere's customers and the larger open source VistA community in integrating these components to simplify installation and management.

Medsphere has used GT.M and Linux for a number of years, in various functions. GT.M and Linux are used in development, quality assurance and open source efforts throughout the company.

The initial phase of the project focuses on three main areas:

- Platform port of VistA/OpenVista to GT.M
- Management Tools
- Packaging



Platform Port

Much work had already been done to make VistA functional on GT.M, but parts of VistA that deal directly with the underlying platform needed improvement:

- Error trap
- Printing
- Saving routines
- Switching between environments

Because the VA does not officially support GT.M, there are a number of routines that have, over time, been modified in ways that make them incompatible with GT.M. The reasons are varied, but include:

- Use of Cache-specific device parameters
- Use of non-standard MUMPS extensions such as \$Q(...,-1)

Some of these incompatible routines exist in important clinical applications such as BCMA. Not including these fixes in OpenVista could prevent proper function of the system.



Management Tools - Linux Utilities

Existing tools for day to day operations of an OpenVista system were piecemeal and required significant knowledge of GT.M and Linux. The project designed and built tools to standardize best practices and simplify common operational tasks.

Tools were built to handle:

- Creating/deleting OpenVista instances
- System boot and shutdown
- User logins
- Backups and journal rotation



Management Tools – OpenVista Utilities

There are a number of operating system touch points within OpenVista itself. OpenVista system administrators are well versed in the management menus built into the system. Existing efforts to work with GT.M failed to address this functionality. These tools should work as expected by existing administrators and technicians.

Examples:

- RPC broker administration
- HL7 administration
- Printer configuration



Packaging

VistA (and OpenVista) has functioned on GT.M for some time, but installation has traditionally been a difficult manual process.

RPM packages of GT.M, the Linux management utilities, and any dependencies were built to simplify and standardize installation.

OpenVista itself is not distributed via RPM.

- Upgrades cannot be handled directly by RPM
 - Overwriting database files would cause patient data to be lost
 - Upgrades already handled by KIDS
- In the future, we may create RPMs that provide "template" databases – static OpenVista globals and routines that can be imported into new OpenVista instances



Future Phases to include:

- Enhanced development tools
- Web-based OpenVista/GT.M administration portal
- Ubuntu/Debian Packages
- ???



Other Releases



Medsphere.Widgets is a collection of cross-platform interface elements for Gtk# used by Medsphere's products — primarily OpenVista CIS. Some are a compositions of standard Gtk# widgets, and others, like GridView and Graph, are custom managed widgets.

http://medsphere.org/community/project/medsphere-widgets



Strongwind is a GUI test automation framework inspired by dogtail. Strongwind is object-oriented and extensible. You can use Strongwind to build object-oriented representations of your applications ("application wrappers"), then reuse the application wrappers to quickly develop many test scripts. Strongwind scripts generate a human-readable log that contains the action, expected result and a screen shot of each step.

http://medsphere.org/community/project/strongwind



Source/TeamForge Contributions

Internal development tracking uses a commercial product. Medsphere has developed and open sourced three "plug-in" modules for the SourceForge Enterprise platform:



Fireball provides continuous integration services by monitoring artifact state and kicking off build, test and packaging tasks.



Overlord is a sprint planning and tracking tool for SourceForge Enterprise. "Sprint" is the Scrumspecific term or an iteration in other agile software development methodologies.



Flux is a project timeline as a linked app (a la Trac and CVSTrac). Events: Artfs, Trackers, Docs, Bzr, Svn, HG, Sprint Hours, Asterisk phone operations.

Releases here: http://sfee.open.collab.net/ || For Source/TeamForge details: http://collab.net/



- Reminder: Community Calls and Work Groups
- Reminder: Collaborate at http://medsphere.org/

Questions



http://medsphere.org/

