**CRH VistA Release Install/Setup Notes**

1. License Information – please note that, along with the code being provided by Central Regional Hospital, this release contains a large amount of code released by the Veterans’ Administration, WorldVista, and others. The database platform is Yottadb which is licensed independently as well. The code released by Central Regional Hospital is licensed as follows:

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1. **Initial Installation**

This release is provided as a Linux virtual machine. We are not providing instructions as to installation or use of software needed to make use of this virtual machine. However, please note that the IP address is obtained from the local host machine using DHCP and it is displayed on startup prior to logging in. The root equivalent user is crhopen with initial password opensource2023! and is set to never expire. In order to run terminal based VistA commands from a Linux log in, please first sudo to the user wvtied, change to directory /Data/VistA/Opensource/ and source the env2 file. There is also a direct way into the VistA terminal that will be touched on later.

When the virtual machine is started, the IP address is shown on the terminal. Please use this ip address to set up the 1\_RUN\_ME\_FIRST\_WITH\_CORRECT\_VISTA-SERVER\_IP\_ADDRESS.bat file used later in this document.

1. **GUI Programs Initial Setup**

This release comes with several original and/or modified end-user programs with source code. You will find this in the folder /Data/VistA/Opensource/CRH-Code-and-Links-to-OpenSource-VistA-Environment/ and to use them, you should copy this entire directory to a Windows computer. You should then edit the file 1\_RUN\_ME\_FIRST\_WITH\_CORRECT\_VISTA-SERVER\_IP\_ADDRESS.bat to contain the correct IP address for the virtual server and then run the batch file before running any of the other programs. This batch file is provided only for your initial convenience and a production installation should not rely on it but should be set up with permanent private addresses and solid links.

1. **Central Regional Hospital (CRH) Specific Source Code/Programs Included**
2. VistA  
   This is a heavily modified version of code released by WorldVistA roughly ten years ago. It includes many but not all VA and WorldVistA patches. There have been many contributors over the years – those that had commercial, licensed products are not included. For example, we used an excellent product written by Lloyd Milligan for our ADT. This has been removed from our release as it was a licensed product and is now owned by DSM. We have also removed our proprietary encryption and authentication algorithms and replaced them with very basic LDAPS functionality. Access Code/Verify Code also works in these applications. Many of our configuration files and settings have been changed resulting in non-functional modules pending setup for your specific environment. There are some generic VistA users that have been setup and they are listed on the CPRS startup screen. Please note these for use in the other applications until you are able to set up the environment in a secure manner in your environment. Some of the custom applications require specific VistA keys and/or menus to be set up to function properly. Also, this environment is heavily “divisionalized”. By this we mean access to patients and some other items require a user’s division multiple to include the correct entries from the INSTITUTION file. Even note templates must be assigned to a division to be accessed.  
   Please note: This released virtual machine has been shrunk to a size that should not be used in Production. There is sufficient room to experiment with, but should be expanded significantly for a real world use case.
3. **Assign Covering Provider**As CRH is a psychiatric hospital, our attending providers are psychiatrists. This program allows assignment of temporary attendings during the absence of the primary attending.
4. **Assign Covering Psychologists**As indicated by the name, this program allows temporary assignments of psychologists during the absence of the primary psychologist.
5. **Assign Covering Social Workers**As indicated by the name, this program allows temporary assignments of social workers during the absence of the primary social worker.
6. **Assign Medical Provider**CRH does provide many non-surgical medical services to patients. This is a scheduling tool for assignment of primary, backup and covering Medical providers.
7. **BCMA**This is a modified version of the BCMA program provided by the VA.
8. **CPRS**This is a heavily modified version of the CPRS program provided by the VA.
9. **HIE Document Browser**This program was written to retrieve patient notes and CCDA’s from the North Carolina HIE. It is non-functional in this release until set up with security, endpoints, VPN tunnels, etc. are set up specific to your environment.
10. **Image Tool**This is the code used for a custom Delphi control used in CPRS.
11. **On-Call Signout**This program is used to allow communication between psychiatrists concerning patient-specific details when changing shifts. It is non-functional until the proper directory paths are set up.
12. **Png To Base64**Used to create base64 representations of icon sized images to be used in the Dashboard.
13. **Dashboard and Rules Engine**This is a set of programs used to track a myriad of tasks required in any hospital. Five additional pdf documents are provided with this release.
14. **ADT Tool**This tool was written to allow GUI registration of patients, admit, discharge, and transfer of patients. However, it is non-functional in this release as it was written to work with SISIADT, a commercial product not included.
15. **Employee Registration Tool**This tool was written to allow GUI registration of employees who were also patients for some medical treatments. However, it is non-functional in this release as it was written to work with SISIADT, a commercial product not included.
16. **Notes HTML Format Tester**This tool was written as an interim testing environment for our eventual html display of notes in CPRS.
17. **Cumulative Labs HTML Format Tester**This tool was written as an interim testing environment for our eventual html display of cumulative labs in CPRS.
18. **Excel Reports**This allows programmers to add reports displayed in Excel that can be accessed by users with the proper setup.
19. **PDF Import Tool**This tool allows images to be attached to notes. It is non-functional in this release until the proper directories, paths, and security are set up in your specific environment. Note that this tool uses a WebBrowser component that depends on Internet Explorer integration mode settings and may not work in your environment. This also applies to viewing the attachments in CPRS as it uses a similar Delphi component.
20. **Quality Reporting**This allows programmers to add reports displayed in a text format that can be access by users with the proper setup.
21. **Statistical Graphing**Graphs daily/hourly census, notes signed, and medications administered.
22. **VA Vitals**Minor modifications to the VA Vitals suite including new vital categories.
23. **Vitals Entry**Written to allow nurses to enter vitals for patients by ward for better efficiency.