



Clinical Case Registries
Installation & Implementation Guide

Version 1.5

February 2006

Department of Veterans Affairs

Health System Design and Development

Provider Systems

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Revision History

Date	Description	Author
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Introduction

This *Clinical Case Registries Installation/Implementation Guide* provides assistance for installation and implementation of CCR v1.5. This version of CCR introduces a single software package to support both the Hepatitis C Registry and the Human Immunodeficiency Virus (HIV) Registry (former Immunology Case Registry or ICR). Previously, these two registries were created and maintained through two separate software packages. The functional requirements for these registries were substantially the same, so this software has been designed to support both.

The software uses pre-defined selection rules that identify patients with possible Hepatitis C and/or HIV (such as a disease related ICD-9 code or a positive result on an antibody test) and adds them to the registry in a pending state. Pending patients are reviewed by the local registry coordinator and if the data confirm the diagnosis, the local registry coordinator confirms the patient in the registry.

Each night a background process transmits a set of predefined data via HL7 to the national CCR database at the AAC managed by the VHA Center for Quality Management in Public Health. Data from both registries is aggregated in the same message. If there is more new data than is allowed by the registry parameter for a single CCR HL7 batch message (currently, 5 megabytes), the software will send several messages during a single night. The CCR software creates a limited set of database elements to be stored locally in the VistA system, and focuses on assuring that the local listing is complete and accurate, that the desired data elements are extracted, and that data elements are appropriately transmitted to the national database.

Data from the registries is used for both clinical and administrative reporting on both a local and national level. Each facility can produce local reports (information related to patients seen in their system.). Reports from the national database are used to monitor clinical and administrative trends, including issues related to patient safety, quality of care and disease evolution across the national population of patients.

Recommended Users

The Information Resource Management (IRM) staff and CCR ADPAC are required for the installation of CCR v1.5.

Related Manuals

Clinical Case Registries Release Notes

Clinical Case Registries Technical Manual/Security Guide

Clinical Case Registries User Manual

Screen Displays and Text Notes

The user's response in this document is in bold type, but does not appear on the screen as bold. The bold part of the entry is the letter, or letters, that you must type so that the computer can identify the response. In most cases, you only have to enter the first few letters. This increases speed and accuracy.

Every response you type must be followed by pressing the **Return** key (or **Enter** for some keyboards). Whenever the Enter or Return key should be pressed, you will see the symbol **<RET>**. This symbol is not shown but is implied if there is bold input.

Within the roll and scroll part of the system, Help frames may be accessed from most prompts by entering one, two, or three question marks (**?**, **??**, **???**).

Within the examples representing actual terminal dialogues, the author may offer information about the dialogue. You can find this information enclosed in brackets, for example, *{type ward name here}*, and will not appear on the screen.

Computer dialogues appear in *Courier* font.

Software and Manual Retrieval

The CCR v1.5 software distributives and documentation are available on the following Office of Information Field Offices (OIFOs) [ANONYMOUS.SOFTWARE] directories:

OIFO	FTP Address	Directory
Albany	ftp.fo-albany.med.va.gov	[ANONYMOUS.SOFTWARE]
Hines	ftp.fo-hines.med.va.gov	[ANONYMOUS.SOFTWARE]
Salt Lake City	ftp.fo-slc.med.va.gov	[ANONYMOUS.SOFTWARE]

File Name	Contents	Retrieval Format	File Size
ROR1_5.KID	KIDS build.	ASCII	3,140 KB
ROR1_5GUI.ZIP	Zipped GUI distributive.	BINARY	7,171 KB
ROR1_5DOC.ZIP	Zipped DOC distributive. Includes both PDF and DOC formats: <ul style="list-style-type: none">▶ Installation Guide (ROR1_5IG)▶ Release Notes (ROR1_5RN)▶ Technical Manual (ROR1_5TM)▶ User Manual (ROR1_5UM)	BINARY	4,280 KB

VistA Documentation on the Intranet

Documentation for this product, including all of the clinical software manuals, is available in the VistA Document Library (VDL). Access the VDL at <http://www.va.gov/vdl/>, then click the **Clinical Case Registries** link to locate and download the documentation.

For additional information about the CCR, access the CCR Home Page at the following address: <http://vista.med.va.gov/ClinicalSpecialties/CCR/>. Training links and information are also available at <http://vaww.vistau.med.va.gov/vistau/ccr/>.

Upgrade Installation

Background Information

- The M server code of CCR v1.5 is not backward compatible with CCR v1.0. **The old CCR v1.0 GUI applications (Hep C and ICR GUIs) cannot be used after installation of the KIDS build ROR 1.5.** They will be automatically disabled by the pre-install code of the ROR 1.5 and should be uninstalled by the IRM personnel or the users themselves (see the GUI Installation Instructions on page 21 for details).
- Due to significant changes in the file structure, the ROR 1.5 build cannot be uninstalled.
- The new CCR GUI v1.5 will provide access to both Hep C and HIV registries. If any new registries are added to the CCR package in the future, they will be accessed via this GUI as well.
- The Immunology Case Registry (ICR) will be renamed to Human Immunodeficiency Virus Registry (HIV). The internal registry name VA ICR will be changed to VA HIV. All ICR GUI settings (colors, windows sizes, timeouts, and so on.) will be reset to default values for all users.

Required Patches

Before the installation of the build ROR 1.5, the following patches **must** be installed:

Application Name	Patches
Registration	DG*5.3*631
National Drug File	PSN*4.0*104
Pharmacy Data Management	PSS*1.0*97, PSS*1.0*101, PSS*1.0*105
Clinical Case Registries	ROR*1*8

Technically, CCOW is not required for the CCR to function properly. Because of this, the CCOW and Single Sign-On/User Context (SSO/UC) related patches are not referenced as required. If they have yet to be installed, the CCOW functionality of the CCR GUI is automatically disabled.

If a user receives a "Problem with the context or run" error during startup of the GUI, this error occurs because the SSO/UC functionality was enabled in Vista while the external software on the Vergence vaults do not have the updated code for this functionality. Patch OSLC*337*2 has been released which provides the updated software to the vaults to correct this problem. The message window can be closed, and the GUI will function normally.

Routine Summary

The following routines will be updated by the KIDS build ROR 1.5 (checksums were generated using the CHECK^XTSUMBLD):

Routine	Checksum		Short Description
	Old	New	
ROR	2393819	2717801	CLINICAL CASE REGISTRIES
ROR01	1117	1117	CLINICAL CASE REGISTRIES
ROR02	1122	1122	CLINICAL CASE REGISTRIES
ROR10	5784769	7730208	NIGHTLY TASK UTILITIES
RORACK	4221963	n/a	
RORACK01	6457683	n/a	
ROR11	n/a	8580380	NIGHTLY TASK UTILITIES
RORAPI01	2291186	1957725	CLINICAL REGISTRIES API

Routine	Checksum		Short Description
	Old	New	
RORBIN	n/a	2967124	BINARY OPERATIONS
RORDD	4886229	4656034	DATA DICTIONARY UTILITIES
RORDD01	919515	3401360	DATA DICTIONARY UTILITIES
RORERR	3863551	4405971	ERROR PROCESSING
RORERR10	9157206	n/a	
RORERR11	17589767	n/a	
RORERR12	13407882	n/a	
RORERR20	13500365	14492523	LIST OF ERROR MESSAGES
ROREVT01	2008294	2008294	EVENT PROTOCOLS
ROREXP	3054011	5694255	PREPARATION FOR DATA EXTRACTION
ROREXT	4259663	3147105	DATA EXTRACTION & TRANSMISSION
ROREXT01	4887747	8425154	EXTRACTION & TRANSMISSION PROCESS
ROREXT02	4504914	5834876	DEFAULT MESSAGE BUILDER
ROREXT03	1955488	4554817	REGISTRY DATA EXTRACTION (OVERFLOW)
ROREXTUT	5466521	5555893	DATA EXTRACT UTILITIES
RORHDT	3515691	3349203	HISTORICAL DATA EXTRACTION
RORHDT01	2383372	1390687	HISTORICAL DATA EXTRACTION STATUS
RORHDT02	2424530	2997526	CREATE EXTRACTION TASK RECORDS
RORHDT03	4235780	4297815	MANIPULATIONS WITH EXTRACTION TASKS
RORHDT04	8399917	9379124	HISTORICAL DATA EXTRACTION PROCESS
RORHDT05	2635437	2711736	HISTORICAL DATA EXTRACTION FUNCTIONS
RORHDT06	n/a	3568354	HISTORICAL DATA EXTRACTION PARAMETERS
RORHDTAC	3280350	2681469	DATA EXTRACTION ACTION CONFIRMATIONS
RORHDTUT	4590218	5831331	HISTORICAL DATA EXTRACTION UTILITIES
RORHIV03	n/a	4806950	CONVERSION OF THE FILE #158
RORHIVUT	n/a	357536	HIV UTILITIES
RORHL01	2652082	1491461	HL7 PATIENT DATA: PID,ZSP,ZRD
RORHL02	7424588	5546944	HL7 REGISTRY DATA: CSP,CSR,CSS
RORHL03	5325577	5258533	HL7 PHARMACY: ORC,RXE
RORHL031	7575501	6235058	HL7 PHARMACY: UTILITIES
RORHL04	5193863	5297245	HL7 RADIOLOGY: OBR,OBX
RORHL05	1858773	4084796	HL7 AUTOPSY: OBR
RORHL06	4688456	4217993	HL7 LIVER BIOPSY: OBR,OBX
RORHL07	4114719	3246023	HL7 INPATIENT PHARMACY: ORC,RXE
RORHL071	4095427	3217396	HL7 IV PHARMACY: ORC,RXE
RORHL08	6190681	5887870	HL7 INPATIENT DATA: PV1,OBR
RORHL081	7681710	7585616	HL7 INPATIENT DATA: OBX
RORHL09	6760261	6026195	HL7 OUTPATIENT DATA: PV1,OBR,OBX
RORHL10	6840817	5509115	HL7 SURGICAL PATHOLOGY DATA: OBR,OBX
RORHL11	5507013	4565613	HL7 CYTOPATHOLOGY DATA: OBR,OBX
RORHL12	2446424	2399116	HL7 MICROBIOLOGY DATA: OBR
RORHL121	10798141	9878360	HL7 MICROBIOLOGY DATA: OBX
RORHL13	3406802	3466976	HL7 MEDICAL PROCEDURES (EKG): OBR,OBX
RORHL14	5434428	5357488	HL7 ALLERGY DATA: OBR,OBX
RORHL15	5689840	5532311	HL7 IV DATA: OBR, OBX
RORHL16	3293867	3252430	HL7 VITALS DATA: OBR,OBX

Routine	Checksum		Short Description
	Old	New	
RORHL17	5969995	4936158	HL7 PROBLEM LIST: OBR,OBX
RORHL21	1631067	n/a	
RORHL7	5463554	4806448	HL7 UTILITIES
RORHL7A	2252045	4554021	HL7 UTILITIES
RORHLUT1	1863278	1806943	HL7 UTILITIES (HIGH LEVEL)
RORICR01	1541289	n/a	
RORICR02	2080214	n/a	
RORICR03	4746011	n/a	
RORICREX	3978828	n/a	
RORICRUT	362893	n/a	
RORKIDS	6161632	6182684	INSTALL UTILITIES (LOW-LEVEL)
RORLOCK	4131518	4131518	LOCKS AND TYRANSACTIONS
RORLOG	5965990	6030893	LOG FILE MANAGEMENT
RORLOG01	3182899	3716383	LOG FILE MANAGEMENT (UTILITIES)
RORNTEG	4216987	4248987	KERNEL - Package checksum checker
RORNTEG0	3102911	3140604	KERNEL - Package checksum checker
RORP008	3623044	n/a	
RORP000	n/a	10708753	CCR V1.5 INSTALLATION ROUTINE
RORP000A	n/a	10206450	CCR V1.5 PRE-INSTALL CODE
RORP000B	n/a	11070750	CCR V1.5 POST-INSTALL CODE
RORPUT01	5495626	5495626	EDIT LOINC AND DRUG CODE MULTIPLES
RORPUT02	n/a	5936706	DATA TRANSPORT FOR KIDS
RORREP01	9015849	9158405	REGISTRY COMPARISON REPORT
RORREP02	10910524	10911089	VERSION COMPARISON REPORT (ICR)
RORRP007	4488913	4442755	RPC: LOGS & MESSAGES
RORRP010	1854669	1881192	RPC: TASK MANAGER
RORRP011	1877613	2555508	RPC: TASK MANAGER (REPORTS)
RORRP012	2760144	1144389	RPC: MISCELLANEOUS
RORRP013	4685153	4665100	RPC: ACCESS & SECURITY
RORRP014	1851772	2785597	RPC: REGISTRY INFO & PARAMETERS
RORRP015	3365112	3365112	RPC: DIVISIONS AND HOSPITAL LOCATIONS
RORRP016	1837419	3160766	RPC: ICD-9 CODES
RORRP017	2082982	1924388	RPC: DRUGS AND CLASSES
RORRP018	1399897	1666201	RPC: LIST OF LAB TESTS
RORRP019	3662396	5814698	RPC: LIST OF PATIENTS
RORRP020	5106473	4077705	RPC: PATIENT DATA UTILITIES
RORRP021	2207749	3721454	RPC: PATIENT DATA
RORRP022	1246520	1262090	RPC: SELECTION RULES
RORRP023	2273081	2273081	RPC: REGISTRY COORDINATORS
RORRP024	3821351	3821351	RPC: VISTA USERS
RORRP025	4917408	4917408	RPC: RORICR CDC LOAD
RORRP026	10022660	10176668	RPC: CDC UTILITIES
RORRP027	6640755	6589308	RPC: RORICR CDC SAVE
RORRP029	1527601	1527601	RPC: ADDRESS UTILITIES
RORRP030	4942418	1101835	RPC: PATIENT DELETE
RORRP031	4897990	4897990	RPC: LOCAL LAB TEST NAMES

Routine	Checksum		Short Description
	Old	New	
RORRP032	4897358	5035421	RPC: LOCAL DRUG NAMES
RORRP033	4204729	2395118	RPC: HIV PATIENT LOAD
RORRP034	3265353	3041648	RPC: HIV PATIENT SAVE/CANCEL
RORRP035	1615985	1597804	RPC: GENERIC DRUG NAMES
RORRP036	n/a	1773818	RPC: HEPC PATIENT LOAD
RORRP037	n/a	2638742	RPC: HEPC PATIENT SAVE/CANCEL
RORRP038	n/a	4339809	RPC: USER AND PACKAGE PARAMETERS
RORRP040	n/a	4049054	RPC: LOCAL REGISTRY FIELDS
RORRP041	n/a	2687037	RPC: REGISTRY-SPECIFIC LAB RESULTS
RORRP042	n/a	2333070	RPC: CPT CODES
RORRP1	2796927	n/a	
RORRP10	476541	n/a	
RORRP2	4566009	n/a	
RORRP3	3482249	n/a	
RORRP4	5079227	n/a	
RORRP5	1825009	n/a	
RORRP6	3979336	n/a	
RORRP7	4925487	n/a	
RORRP8	3614530	n/a	
RORRP9	7962639	n/a	
RORSET01	4676823	4563146	REGISTRY SETUP ROUTINE
RORSETU1	2833894	2833894	SETUP UTILITIES (USER INTERFACE)
RORSETU2	3134457	2447593	SETUP UTILITIES (REGISTRY)
RORTSITE	4570058	n/a	
RORTMP	n/a	679112	TEMPORARY GLOBAL STORAGE
RORTSK	3791239	3964693	TASK MANAGER
RORTSK01	6875571	7070947	(SUB)TASK UTILITIES
RORTSK02	4617240	4523778	TASK MANAGER UTILITIES
RORTSK03	2086919	2058050	TASK MANAGER OVERFLOW CODE
RORTSK10	5534300	5894436	REPORT RETRIEVING UTILITIES
RORTSK11	3125173	3325690	REPORT CREATION UTILITIES
RORTSK12	n/a	2274583	REPORT STATS UTILITIES
RORTSK13	n/a	5581664	PARSER FOR REPORT PARAMETERS
RORTSK14	n/a	2157270	PARSER FOR REPORT PARAMETERS (TOOLS)
RORTXT	141117	141117	TEXT RESOURCE UTILITIES
RORUPD	3654485	3118364	REGISTRY UPDATE
RORUPD01	7989261	7989261	PROCESSING OF THE FILES
RORUPD04	5149249	5421758	PROCESSING OF THE LAB DATA
RORUPD05	7177293	7081088	REGISTRY UPDATE (MULTITASK)
RORUPD06	3084967	3084967	REGISTRY UPDATE (MISCELLANEOUS)
RORUPD07	2080523	2356625	PROCESSING OF THE 'PROBLEM' FILE
RORUPD08	3835247	4579765	PROCESSING OF 'VISIT' & 'V POV' FILES
RORUPD09	2534692	2869944	PROCESSING OF THE 'PTF' FILE
RORUPD50	3446977	3764045	UPDATE THE PATIENT IN THE REGISTRIES
RORUPD51	6373941	8479867	UPDATE PATIENT'S DEMOGRAPHIC DATA (1)
RORUPD52	2583157	2557167	UPDATE PATIENT'S DEMOGRAPHIC DATA (2)

Routine	Checksum		Short Description
	Old	New	
RORUPD62	n/a	1941130	HIV-SPECIFIC REGISTRY UPDATE CODE
RORUPDUT	7040706	7113425	REGISTRY UPDATE UTILITIES
RORUPEX	3382608	3382608	SELECTION RULE EXPRESSION PARSER
RORUPP01	3620688	3620688	PATIENT EVENTS (ERRORS)
RORUPP02	3149282	3149282	PATIENT EVENTS (EVENTS)
RORUPR	5403597	5364149	SELECTION RULES PREPARATION
RORUPR1	10865390	10955587	SELECTION RULES PREPARATION
RORUTL01	4698317	4692322	UTILITIES
RORUTL02	5461265	5296575	UTILITIES
RORUTL03	8322358	8066801	ENCRYPTION/DECRYPTION
RORUTL04	2076790	2076790	Registry Stat Report
RORUTL05	6817092	7047621	MISCELLANEOUS UTILITIES
RORUTL06	9129215	10075666	DEVELOPER ENTRY POINTS
RORUTL07	2762456	2099977	TEST ENTRY POINTS
RORUTL08	3052928	3164502	REPORT PARAMETERS UTILITIES
RORUTL09	1836557	1836557	LIST ITEM UTILITIES
RORUTL10	5738979	5740794	LAB DATA SEARCH
RORUTL11	942933	942933	ACCESS AND SECURITY UTILITIES
RORUTL14	1275115	1375993	PHARMACY DATA SEARCH
RORUTL15	5565629	6511088	PHARMACY DATA SEARCH (TOOLS)
RORUTL16	1877801	2364514	PHARMACY DATA SEARCH (UTILITIES)
RORUTL17	6970881	6994520	REGISTRY INFORMATION UTILITIES
RORUTL18	927178	3250231	MISCELLANEOUS UTILITIES
RORUTL19	n/a	1203624	PATIENT DATA UTILITIES
RORVM001	1220339	609363	MAINTENANCE OPTIONS
RORX000	2233772	2233772	DUMMY REPORT
RORX001	6923293	5778832	LIST OF REGISTRY PATIENTS
RORX002	3760280	3917612	CURRENT INPATIENT LIST
RORX003	5404752	5545892	GENERAL UTILIZATION AND DEMOGRAPHICS
RORX003A	7951022	7545014	GENERAL UTILIZATION AND DEMOGRAPHICS
RORX004	4970351	3369267	CLINIC FOLLOW UP
RORX005	2080717	1558283	INPATIENT UTILIZATION
RORX005A	7242281	5728919	INPATIENT UTILIZATION (QUERY)
RORX005B	6769514	2068516	INPATIENT UTILIZATION (SORT)
RORX005C	11147808	6689502	INPATIENT UTILIZATION (STORE)
RORX005U	266710	n/a	
RORX006	1929501	1957749	LAB UTILIZATION
RORX006A	5949892	4045076	LAB UTILIZATION (QUERY & SORT)
RORX006C	4940545	4479620	LAB UTILIZATION (STORE)
RORX007	7810802	6378955	RADIOLOGY UTILIZATION
RORX007A	2762724	2467042	RADIOLOGY UTILIZATION (OVERFLOW)
RORX008	1936486	2076427	VERA REIMBURSEMENT REPORT
RORX008A	6748545	7092822	VERA REIMBURSEMENT REPORT
RORX009	2635430	3203627	PHARMACY PRESCRIPTION UTILIZATION
RORX009A	7103569	10011538	PRESCRIPTION UTILIZ. (QUERY & SORT)
RORX009C	7407361	9417785	PRESCRIPTION UTILIZ. (STORE)

Routine	Checksum		Short Description
	Old	New	
RORX010	5947630	6851839	LAB TESTS BY RANGE REPORT
RORX011	7479478	7772559	PATIENT MEDICATION HISTORY
RORX012	2280944	3000028	COMBINED MEDS AND LABS REPORT
RORX012A	6424353	10697075	COMBINED MEDS AND LABS (QUERY & STORE)
RORX013	1826953	1600392	DIAGNOSIS CODES REPORT
RORX013A	7146803	6836799	DIAGNOSIS CODES (QUERY & SORT)
RORX013C	3062651	3235328	DIAGNOSIS CODES (STORE)
RORX014	1995239	2137320	REGISTRY MEDICATIONS REPORT
RORX014A	6019953	6097645	REGISTRY MEDS REPORT (QUERY & SORT)
RORX015	n/a	1566763	PROCEDURES (CPT) REPORT
RORX015A	n/a	3958983	PROCEDURES (QUERY & SORT)
RORX015C	n/a	3279733	PROCEDURES (STORE)
RORX016	n/a	1551044	OUTPATIENT UTILIZATION
RORX016A	n/a	2574228	OUTPATIENT UTILIZATION (QUERY)
RORX016B	n/a	2976507	OUTPATIENT UTILIZATION (SORT)
RORX016C	n/a	4657732	OUTPATIENT UTILIZATION (STORE)
RORXU001	2415732	2567828	REPORT UTILITIES
RORXU002	7009537	7493232	REPORT BUILDER UTILITIES
RORXU003	5395052	5759589	REPORT BUILDER UTILITIES
RORXU004	405249	405249	REPORT UTILITIES (STATISTICS)
RORXU005	2334516	3020773	REPORT BUILDER UTILITIES
RORXU006	4584240	6157436	REPORT PARAMETERS
RORXU007	5726275	6706394	PHARMACY-RELATED REPORT PARAMETERS

File Summary

The following files will be updated by the KIDS build ROR 1.5:

- The ROR VA ICR ADMIN and ROR VA ICR USER security keys will be renamed to ROR VA HIV ADMIN and ROR VA HIV USER, respectively.
- The ROR LOCAL REGISTRY file (#798) will be renamed to ROR REGISTRY RECORD.
- The ROR PENDING PATIENT file (#798.3) will be renamed to ROR PATIENT EVENTS to avoid confusion with the pending patients in the registry.
- The ROR HDT TASK file (#798.5) will be deleted.
- The ROR HISTORICAL DATA EXTRACTION file (#798.6) will be created.
- The ROR ICR STUDY file (#799.4) will be renamed to ROR HIV RECORD.
- The ROR LOCAL FIELD file (#799.53) will be created.
- The RORICR SEND HL7 logical link will be deleted. Both Hep C and HIV registries will use the ROR SEND logical link to send the data.

Preparation

1. Inform the Hep C and HIV registry users that there will be a single CCR GUI instead of separate Hep C and old ICR applications. **They will not be able to use the old Hep C GUI and CCR GUI v1.0 after installation of the ROR 1.5!**
2. Advise all registry users to print and/or save all completed reports that they have in their task lists (if they still need them). These reports will be deleted during the installation of CCR v1.5.
3. Advise the users to run the List of Registry Patients report both for Hep C and HIV registries and save the output on someone's workstation. See Appendix A for details.
4. Write down the time at which the Registry Update & Data Extraction [ROR TASK] option is scheduled to run, and its optional parameters on the second page of the option scheduling dialog.
5. Make sure that all patches listed in the **Required Patches** section are installed.
6. Download the ROR1_5.KID file to your VMS account. Use the ASCII (TEXT) mode.
7. Download the ROR1_5GUI.ZIP file to your workstation. Use the BINARY mode.

M Server Installation

Server installation should be done prior to the GUI installation.

Background information

- The ROR VA IRM security key is required for installation of the ROR 1.5 KIDS build.
- Access to the HL7 package is required to complete the implementation of the ROR 1.5 package.
- **The build should be installed in production accounts only during off-hours!**
- Neither the nightly task (the Registry Update & Data Extraction [ROR TASK] option) nor the report tasks (started from the GUI) should be running during the installation!
- Registry users should not use the Hep C and CCR:ICR v1.0 software nor access the CCR files during the installation!
- **The options and protocols in the ROR namespace must be marked as 'Out of Order' during the installation (see the sample screen capture of the installation).**
- TaskMan does not need to be STOPPED or placed in a WAIT state.
- Conversion of the registry files is performed during the pre-install and post-install phases. Therefore, the whole installation can take about 10-15 minutes at larger facilities.
- Sample screen captures are what they are: samples. Directory names and dates shown on them may be different during the installation at your site.

Installation Instructions

1. Make sure that you have the ROR VA IRM security key.
2. On the Kernel Installation & Distribution System [XPD MAIN] menu, select the Installation [XPD INSTALLATION MENU] option, and use the following options to install the ROR 1.5 build:

- Load a Distribution

```

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: Load a Distribution
Enter a Host File: VA3$:[USERNAME]ROR1_5.KID

KIDS Distribution saved on Jan 02, 2006@07:23:11
Comment: Clinical Case Registries v1.5

This Distribution contains Transport Globals for the following
Package(s):
    ROR 1.5
Distribution OK!

Want to Continue with Load? YES// <RET>
Loading Distribution...

Build ROR 1.5 has an Enviromental Check Routine
Want to RUN the Environment Check Routine? YES// <RET>
    ROR 1.5
Will first run the Environment Check Routine, RORP000

Use INSTALL NAME: ROR 1.5 to install this Distribution.
```

- Verify Checksums in Transport Global

```

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: Verify Checksums in Transport Global
Select INSTALL NAME: ROR 1.5

This Distribution was loaded on Jan 02, 2006@05:58:06 with header of
Clinical Case Registries v1.5
It consisted of the following Install(s):
    ROR 1.5
DEVICE: HOME// <RET>

PACKAGE: ROR 1.5      Jan 02, 2006 6:02 am      PAGE 1
-----

191 Routine checked, 0 failed.
```

- Backup a Transport Global

```
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: Backup a Transport Global
Select INSTALL NAME: ROR 1.5
=> ROR 1.5
```

```
This Distribution was loaded on Jan 02, 2006@05:58:06 with header of
Clinical Case Registries v1.5
```

```
It consisted of the following Install(s):
ROR 1.5
```

```
Subject: Backup of ROR 1.5 install on Jan 02, 2006 Replace
```

```
Loading Routines for ROR 1.5....
```

```
Routine ROR11 is not on the disk.....
```

```
Routine RORHDT06 is not on the disk....
```

```
Routine RORHIV03 is not on the disk..
```

```
Routine RORHIVUT is not on the disk.....
```

```
Routine RORP000A is not on the disk..
```

```
Routine RORP000B is not on the disk.....
```

```
Routine RORRP036 is not on the disk..
```

```
Routine RORRP037 is not on the disk..
```

```
Routine RORRP038 is not on the disk..
```

```
Routine RORRP040 is not on the disk..
```

```
Routine RORRP041 is not on the disk..
```

```
Routine RORRP042 is not on the disk.....
```

```
Routine RORTMP is not on the disk.....
```

```
Routine RORTSK12 is not on the disk..
```

```
Routine RORTSK13 is not on the disk..
```

```
Routine RORTSK14 is not on the disk.....
```

```
Routine RORUPD61 is not on the disk..
```

```
Routine RORUPD62 is not on the disk.....
```

```
Routine RORUTL19 is not on the disk.....
```

```
Routine RORX015 is not on the disk..
```

```
Routine RORX015A is not on the disk..
```

```
Routine RORX015C is not on the disk..
```

```
Routine RORX016 is not on the disk..
```

```
Routine RORX016A is not on the disk..
```

```
Routine RORX016B is not on the disk..
```

```
Routine RORX016C is not on the disk.....
```

```
Send mail to: GAVRILOV,SERGEY// <RET>
```

```
Select basket to send to: IN// <RET>
```

```
And Send to: <RET>
```

- Install Package(s)

```
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: Install Package(s)
Select INSTALL NAME: ROR 1.5
=> ROR 1.5

This Distribution was loaded on Jan 02, 2006@05:58:06 with header of
Clinical Case Registries v1.5
It consisted of the following Install(s):
    ROR 1.5
Checking Install for Package ROR 1.5
Will first run the Environment Check Routine, RORP000

Please do not forget to reschedule the Registry Update & Data
Extraction [ROR TASK] option after you make sure that the new
verison of the CCR package is installed successfully.

Install Questions for ROR 1.5

Incoming Files:

798      ROR REGISTRY RECORD
*BUT YOU ALREADY HAVE 'ROR LOCAL REGISTRY' AS FILE #798!
Shall I write over your ROR LOCAL REGISTRY File? YES// <RET>

798.1    ROR REGISTRY PARAMETERS (including data)
Note: You already have the 'ROR REGISTRY PARAMETERS' File.
I will OVERWRITE your data with mine.

798.2    ROR SELECTION RULE (including data)
Note: You already have the 'ROR SELECTION RULE' File.
I will OVERWRITE your data with mine.

798.3    ROR PATIENT EVENTS
*BUT YOU ALREADY HAVE 'ROR PENDING PATIENT' AS FILE #798.3!
Shall I write over your ROR PENDING PATIENT File? YES// <RET>

798.4    ROR PATIENT
Note: You already have the 'ROR PATIENT' File.

798.6    ROR PHARMACY CODE (including data)
Note: You already have the 'ROR PHARMACY CODE' File.
I will OVERWRITE your data with mine.

798.7    ROR LOG
Note: You already have the 'ROR LOG' File.

798.8    ROR TASK
Note: You already have the 'ROR TASK' File.

798.9    ROR LAB SEARCH (including data)
Note: You already have the 'ROR LAB SEARCH' File.
I will OVERWRITE your data with mine.

799.1    ROR LIST ITEM
```

```

Note: You already have the 'ROR LIST ITEM' File.

799.2      ROR METADATA (including data)
Note: You already have the 'ROR METADATA' File.
I will OVERWRITE your data with mine.

799.31     ROR XML ITEM (including data)
Note: You already have the 'ROR XML ITEM' File.
I will OVERWRITE your data with mine.

799.33     ROR DATA AREA (including data)
Note: You already have the 'ROR DATA AREA' File.
I will OVERWRITE your data with mine.

799.34     ROR REPORT PARAMETERS (including data)
Note: You already have the 'ROR REPORT PARAMETERS' File.
I will OVERWRITE your data with mine.

799.4      ROR HIV RECORD
*BUT YOU ALREADY HAVE 'ROR ICR STUDY' AS FILE #799.4!
Shall I write over your ROR ICR STUDY File? YES// <RET>

799.49     ROR AIDS INDICATOR DISEASE (including data)
Note: You already have the 'ROR AIDS INDICATOR DISEASE' File.
I will OVERWRITE your data with mine.

799.51     ROR GENERIC DRUG (including data)
Note: You already have the 'ROR GENERIC DRUG' File.
I will OVERWRITE your data with mine.

799.53     ROR LOCAL FIELD

799.6      ROR HISTORICAL DATA EXTRACTION

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

Want KIDS to INHIBIT LOGONS during the install? YES// NO
Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//
<RET>

Enter options you wish to mark as 'Out Of Order': ROR*

Enter options you wish to mark as 'Out Of Order': <RET>

Enter protocols you wish to mark as 'Out Of Order': ROR*

Enter protocols you wish to mark as 'Out Of Order': <RET>

Delay Install (Minutes): (0-60): 0// 3

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// <RET>

Install Started for ROR 1.5 :
      Jan 02, 2006@06:04:17

Build Distribution Date: Jan 01, 2006

Installing Routines:
      Jan 02, 2006@06:04:19

```

```
Running Pre-Install Routine: PRE^RORP000

Removing old selection rule references...
The references have been removed.

Clearing the ROR TASK file...
The file has been cleared.

Clearing the ROR REPORT PARAMETERS file...
The file has been cleared.

Deleting old HepC Lab Search Criteria...
The search criteria have been deleted.

Deleting old GUI parameters...
The parameters have been deleted.

Deleting the subfile #798.19...
The subfile has been deleted.

Deleting the subfile #798.116...
The subfile has been deleted.

Deleting the subfile #798.117...
The subfile has been deleted.

Deleting the subfile #798.112...
The subfile has been deleted.

Deleting the subfile #798.118...
The subfile has been deleted.

Deleting redundant data from the file #798.1 ...
The data has been deleted.

Deleting the field definitions...
File #798.1, Fields:
'2.1;2.2;2.3;2.4;2.5;15.9;19.2;21.01;21.02;21.03;21.06'
The definitions have been deleted.

Deleting the field definitions...
File #798, Fields: '2;2.1;2.2;3.2;6;6.1;7;7.1;12'
The definitions have been deleted.

Deleting the file #798.5...
The file has been deleted.

Checking the ICR Lab search criteria...
Search criteria have been renamed.

Checking the ICR selection rules...
Selection rules have been renamed.

Renaming the ICR registry parameters...
Registry parameters have been renamed.

Installing Data Dictionaries:
      Jan 02, 2006@06:05

Installing Data:
      Jan 02, 2006@06:05:03
```

```

Installing PACKAGE COMPONENTS:

Installing SECURITY KEY

Installing FUNCTION

Installing PRINT TEMPLATE

Installing SORT TEMPLATE

Installing INPUT TEMPLATE

Installing DIALOG

Installing HL LOGICAL LINK

Installing HL7 APPLICATION PARAMETER

Installing PROTOCOL

Installing REMOTE PROCEDURE

Installing OPTION

Installing PARAMETER DEFINITION
      Jan 02, 2006@06:05:39

Running Post-Install Routine: POS^RORP000

  Renaming the ICR security keys...
  The keys have been renamed successfully.

  Restoring the CDC definition...
  The definition has been restored successfully.

  Updating ROR REGISTRY PARAMETERS file (#798.1)...
  The file has been updated successfully.

  Converting ROR REGISTRY RECORD file
  (#798).....
  .....
  The file has been converted successfully.

  Updating ROR HIV RECORD file (#799.4)...
  The file has been updated successfully.

  Restoring the ROR GENERIC DRUG data...
  Data has been successfully restored.

  Restoring predefined report templates...
  Templates have been restored successfully.

Updating Routine file...

Updating KIDS files...

ROR 1.5 Installed.
      Jan 02, 2006@06:06:21

Install Message sent #24244163

Install Completed

```

3. Review the CCR logs of the installation using the Print Log Files [RORMNT PRINT LOGS] option of the Clinical Case Registries Maintenance [RORMNT MAIN] menu.
4. If you are installing the build into a test/mirror account, go to step 9.
5. Open the definition of the ROR SEND HL7 logical link using the Link Edit [HL EDIT LOGICAL LINKS] option of the Filer and Link Management Options [HL MENU FILER LINK MGT] menu.

```

Event monitoring menu ...
Systems Link Monitor
Filer and Link Management Options ...
Message Management Options ...
Interface Developer Options ...
Site Parameter Edit
HLO   HL7 (Optimized) MAIN MENU ...

Select HL7 Main Menu Option: Filer and Link Management Options

SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...

Select Filer and Link Management Options Option: ED

Select HL LOGICAL LINK NODE: ROR SEND

```

6. Open the TCP LOWER LEVEL PARAMETERS pop-up window. Make sure that the value of the TCP/IP ADDRESS field is "10.224.187.9" and change the value of the TCP/IP PORT field to 7002. This IP address and port number is needed to transmit your data to the Austin Automation Center. **Do not do this in test/mirror accounts!**

```

HL7 LOGICAL LINK
-----
TCP LOWER LEVEL PARAMETERS
ROR SEND

TCP/IP SERVICE TYPE: CLIENT (SENDER)
TCP/IP ADDRESS: 10.224.187.9
TCP/IP PORT: 7002
TCP/IP PORT (OPTIMIZED):

ACK TIMEOUT: 600                      RE-TRANSMISSION ATTEMPTS:
READ TIMEOUT: 30                      EXCEED RE-TRANSMIT ACTION: restart
BLOCK SIZE:                          SAY HELO:

STARTUP NODE:                        PERSISTENT:
RETENTION: 10                        UNI-DIRECTIONAL WAIT:

COMMAND:                               Press <PF1>H for help
Insert

```

7. Close the pop-up window, save the changes, and exit the option.

8. Restart the ROR SEND logical link. Do not do this in test/mirror accounts!

```
SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...
```

Select Filer and Link Management Options Option: **SL**

This option is used to launch the lower level protocol for the appropriate device. Please select the node with which you want to communicate

Select HL LOGICAL LINK NODE: **ROR SEND**

The LLP was last started on Jan 17, 2006 09:33:56.

Okay to shut down this job? **YES**

The job for the ROR SEND Lower Level Protocol will be shut down.

```
SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...
```

Select Filer and Link Management Options Option: **SL**

This option is used to launch the lower level protocol for the appropriate device. Please select the node with which you want to communicate

Select HL LOGICAL LINK NODE: **ROR SEND**

The LLP was last shutdown on Jan 17, 2006 09:34:12.

This LLP has been enabled!

9. You can schedule the CCR nightly task in a test/mirror account but this is not required. If you choose to do so, please do not forget to un-schedule it after the testing is complete and you install the software in the production account. Otherwise, you can go to step 14.

10. Open the scheduling parameters of the nightly task (the Registry Update & Data Extraction [ROR TASK] option) using the Schedule/Unschedule Options [XUTM SCHEDULE] option.

```
Schedule/Unschedule Options
One-time Option Queue
Taskman Management Utilities ...
List Tasks
Dequeue Tasks
Requeue Tasks
Delete Tasks
Print Options that are Scheduled to run
Cleanup Task List
Print Options Recommended for Queueing

Select Taskman Management Option: Schedule/Unschedule Options

Select OPTION to schedule or reschedule: ROR TASK
...OK? Yes// <RET>
```

11. Restore the value of the QUEUED TO RUN AT WHAT TIME field (make sure that future date and time are used) if the field is empty, and replace the VA ICR with the VA HIV in the TASK PARAMETSR field.

```
                                Edit Option Schedule
Option Name: ROR TASK
Menu Text: Registry Update & Data Extractio          TASK ID:

-----

QUEUED TO RUN AT WHAT TIME: JAN 3,2006@01:30

DEVICE FOR QUEUED JOB OUTPUT:

QUEUED TO RUN ON VOLUME SET:

    RESCHEDULING FREQUENCY: 1D

        TASK PARAMETERS: VA HEPC,VA HIV

            SPECIAL QUEUEING:

-----

COMMAND:                                          Press <PF1>H for help
Insert
```

-
12. Switch to the second page using the Next command and restore the value of the RORSUSP parameter (if it is empty) according to your notes from the preparation phase.

The RORSUSP parameter determines the time frame when the nightly task is suspended to prevent a negative impact on the system response time during the business hours. Therefore, if this parameter was empty even before the installation, enter the time frame of business hours at your site.

```

                                Edit Option Schedule
Option Name: ROR TASK
-----
USER TO RUN TASK:

VARIABLE NAME: RORSUSP                VALUE: "07:00-20:00"
VARIABLE NAME:                        VALUE:
VARIABLE NAME:                        VALUE:
VARIABLE NAME:                        VALUE:
VARIABLE NAME:                        VALUE:

-----
COMMAND:                                Press <PF1>H for help
Insert
```

13. Save the changes and exit the scheduling option.
14. Assign the Broker Context [ROR GUI] option to Hepatitis C registry users as a secondary menu (previously, they had the Hepatitis C Registry GUI Menu [ROR GUI MENU] option).

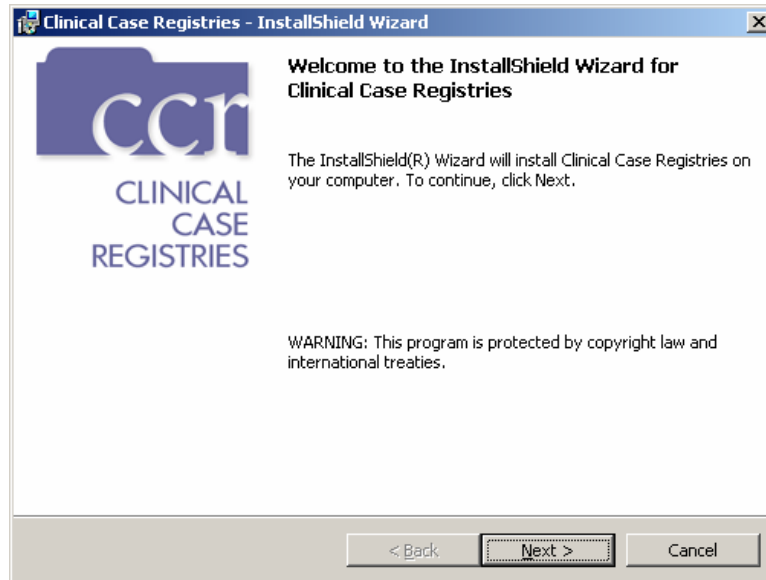
GUI Installation

Background information

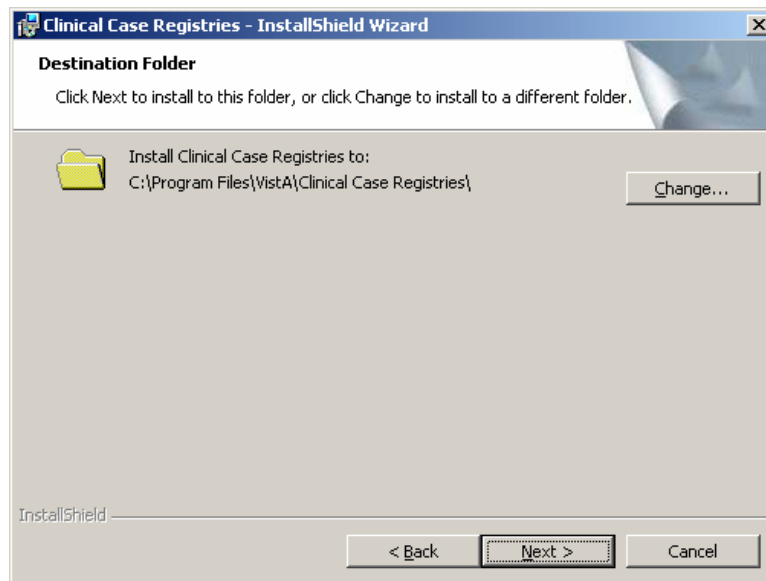
- The new CCR GUI v1.5 will provide access to both Hep C and HIV registries.
- The new GUI replaces the old Hep C and CCR v1.0 applications. The latter two will be automatically disabled after installation of the ROR 1.5 build. They should be uninstalled and the CCR v1.5 GUI should be installed instead.
- **It is strongly recommended to install the GUI on a file server and make the application available to the users via CPRS Tool menu.**
- Access to the registries is controlled by the security keys on the VistA server.
- For users who have access to a single registry, its window will be opened automatically by the GUI. Users who have access to both registries will be able to select a registry from a list.
- In addition to the /NOCCOW command-line parameter that disables the CCOW functionality completely, the CCR v1.5 supports the new parameter /CCOW=PatientOnly. It disables only the Single Sign-On/User Context (SSO/UC) functionality.

Installation Instructions

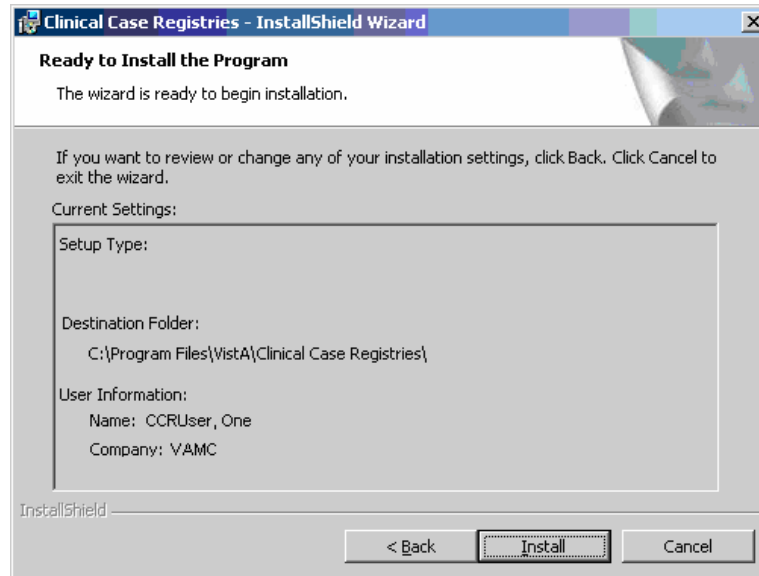
1. Uninstall the old GUI(s):
 - From the **Start** menu, select **Settings**, then **Control Panel**.
 - Double-click the **Add or Remove Programs** icon.
 - Select "Clinical Case Registries" from the list and click the **Change/Remove** button.
 - Select **Remove** and click the **Next** button.
 - Confirm the uninstall by clicking the **OK** button.
 - Confirm deletion of read-only files by setting the **Don't display this message again** check-box and clicking the **Yes** button.
 - Confirm deletion of shared files by clicking the **Yes** button.
 - Wait until the Uninstall Wizard completes the removal and click the **Finish** button.
 - Select "Hepatitis C Local Registry" from the list and click the **Change/Remove** button.
 - Confirm the uninstall by clicking the **Yes** button.
 - Wait until the Uninstall Wizard completes the removal and click the **OK** button.
 - Close the Add or Remove Programs window and the Control Panel window.
2. Unzip the ROR1_0GUI.ZIP into a temporary directory.
3. Run CCRSetup.exe by selecting **Start | Run | CCRSetup.exe**.
4. Wait until the InstallShield Wizard prepares the setup procedure. A welcome message displays.



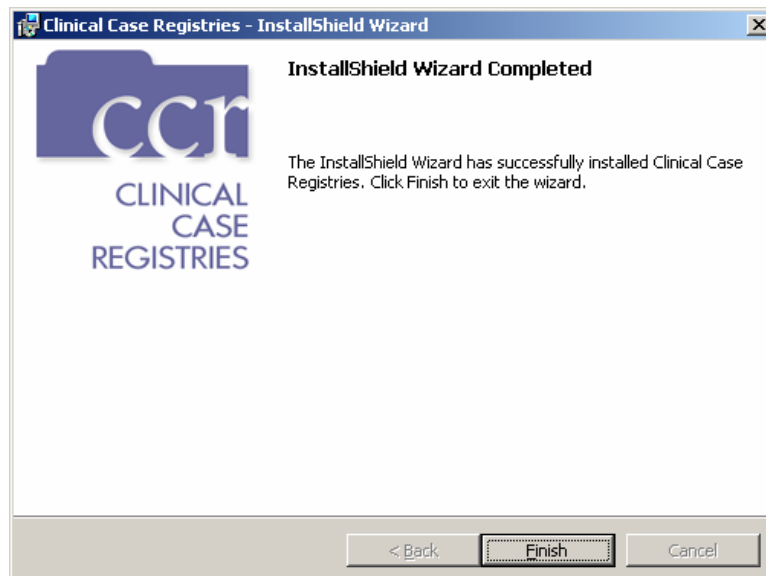
5. Click **Next** to continue the installation.



6. Select the directory in which to install the CCR GUI. We recommend that you accept the default directory: **C:\Program Files\Vista\Clinical Case Registries**. To select a different location, click **Change...** and select the directory. Click **Next** to proceed with installation.



7. Review the installation settings and click **Install** to proceed. The InstallShield Wizard finishes the installation and a confirmation screen displays.



8. Click **Finish**.
9. If you installed the CCR GUI on a file server, then you should add the corresponding item to the CPRS Tool menu using the GUI Tool Menu Items [ORW TOOL MENU ITEMS] option.
 - It is recommended to add the item at 'User' level.
 - If you used the default directory for the installation, the 'Name=Command' parameter should look like this:

Clinical Case Registries="C:\Program Files\Vista\Clinical Case Registries\ClinicalCaseRegistries.exe" /S="{*Server IP Address*}" /P="{*RPC Broker Port*}"

Below is a configuration example:

```
>D ^XUP

Setting up programmer environment
Terminal Type set to: C-VT320

Select OPTION NAME: ORW TOOL MENU ITEMS

CPRS GUI Tools Menu may be set for the following:

    1   User          USR      [choose from NEW PERSON]
    2   Location      LOC      [choose from HOSPITAL LOCATION]
    2.5 Service       SRV      [choose from SERVICE/SECTION]
    3   Division      DIV      [HINES DEVELOPMENT]
    4   System        SYS      [DEV.DEV.FO-HINES.MED.VA.GOV]
    9   Package       PKG      [ORDER ENTRY/RESULTS REPORTING]

Enter selection: 1
Select NEW PERSON NAME: CCRUSER,ONE

----- Setting CPRS GUI Tools Menu for User: CCRUSER,ONE -----
Select Sequence: 10
Are you adding 10 as a new Sequence? Yes// <RET>

Sequence: 10// <RET>
Name=Command: Clinical Case Registries="C:\Program Files\VistA\Clinical
Case Registries\ClinicalCaseRegistries.exe" /P="10.3.29.201" /P=9200
Select Sequence: <RET>
```

Please refer to the GUI Tool Menu Items section of the *Computerized Patient Record System (CPRS) v1.0 Setup Guide* for more details (<http://www.va.gov/vdl/Clinical.asp?appID=61>).

You can also use other command-line parameters described below to further customize the menu item (limit access to a single registry, disable CCOW, etc.).

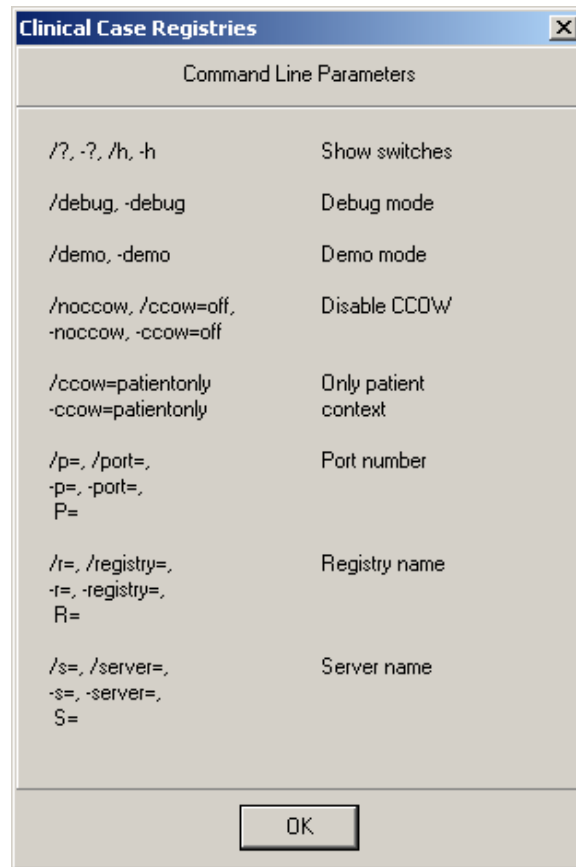
10. If you installed the GUI on users' workstations – which is *not* recommended – you can configure the application shortcut parameters if necessary.

There are two ways to configure the GUI for those users who are coordinators of both Hep C and HIV registries:

- **Single shortcut** (default) – a single shortcut is created on the desktop and registry is selected from the list when the GUI is launched (or when **Open** is selected from the **File** menu).
- **Separate shortcuts** – two separate shortcuts for Hep C and HIV registries are created. Command-line switch in each shortcut allows access only to a single registry. As a result, the registry selection dialog box is not displayed and the corresponding registry is opened automatically. This can be accomplished by adding the /R parameter after the executable name in the Target field of the shortcut. For example:

```
"C:\Program Files\VistA\Clinical Case Registries\  
ClinicalCaseRegistries.exe" /R="VA HEPC"
```

You can get a list of command-line parameters supported by the CCR GUI by running the application with the '/?' or '/h' parameter: **Start | Run | ClinicalCaseRegistries.exe /?**.



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Virgin Installation and Implementation

Background Information

Required Patches

Before the installation of KIDS build ROR 1.5, the following patches **must** be installed:

Application Name	Patches
Health Level Seven	HL*1.6*57
Registration	DG*5.3*471, DG*5.3*415, DG*5.3*631
Automated Lab Instruments	LA*5.2*69
Lab Service	LR*5.2*222, LR*5.2*232
Medicine or Clinical Procedures	MC*2.3*34 or MD*1.0*1
National Drug File	PSN*4.0*53, PSN*4*79, PSN*4.0*104
Pharmacy Data Management	PSS*1.0*101, PSS*1.0*105, PSS*1.0*97
Scheduling	SD*5.3*254, SD*5.3*131

Routine Summary

The following routines are installed by KIDS build ROR 1.5 (checksums were generated using the CHECK^XTSUMBLD):

Routine	Checksum	Short Description
ROR	2717801	CLINICAL CASE REGISTRIES
ROR01	1117	CLINICAL CASE REGISTRIES
ROR02	1122	CLINICAL CASE REGISTRIES
ROR10	7730208	NIGHTLY TASK UTILITIES
ROR11	8580380	NIGHTLY TASK UTILITIES
RORAPI01	1957725	CLINICAL REGISTRIES API
RORBIN	2967124	BINARY OPERATIONS
RORDD	4656034	DATA DICTIONARY UTILITIES
RORDD01	3401360	DATA DICTIONARY UTILITIES
RORERR	4405971	ERROR PROCESSING
RORERR20	14492523	LIST OF ERROR MESSAGES
ROREVT01	2008294	EVENT PROTOCOLS
ROREXPR	5694255	PREPARATION FOR DATA EXTRACTION
ROREXT	3147105	DATA EXTRACTION & TRANSMISSION
ROREXT01	8425154	EXTRACTION & TRANSMISSION PROCESS
ROREXT02	5834876	DEFAULT MESSAGE BUILDER
ROREXT03	4554817	REGISTRY DATA EXTRACTION (OVERFLOW)

Routine	Checksum	Short Description
ROREXTUT	5555893	DATA EXTRACT UTILITIES
RORHDT	3349203	HISTORICAL DATA EXTRACTION
RORHDT01	1390687	HISTORICAL DATA EXTRACTION STATUS
RORHDT02	2997526	CREATE EXTRACTION TASK RECORDS
RORHDT03	4297815	MANIPULATIONS WITH EXTRACTION TASKS
RORHDT04	9379124	HISTORICAL DATA EXTRACTION PROCESS
RORHDT05	2711736	HISTORICAL DATA EXTRACTION FUNCTIONS
RORHDT06	3568354	HISTORICAL DATA EXTRACTION PARAMETERS
RORHDTAC	2681469	DATA EXTRACTION ACTION CONFIRMATIONS
RORHDTUT	5831331	HISTORICAL DATA EXTRACTION UTILITIES
RORHIV03	4806950	CONVERSION OF THE FILE #158
RORHIVUT	357536	HIV UTILITIES
RORHL01	1491461	HL7 PATIENT DATA: PID,ZSP,ZRD
RORHL02	5546944	HL7 REGISTRY DATA: CSP,CSR,CSS
RORHL03	5258533	HL7 PHARMACY: ORC,RXE
RORHL031	6235058	HL7 PHARMACY: UTILITIES
RORHL04	5297245	HL7 RADIOLOGY: OBR,OBX
RORHL05	4084796	HL7 AUTOPSY: OBR
RORHL06	4217993	HL7 LIVER BIOPSY: OBR,OBX
RORHL07	3246023	HL7 INPATIENT PHARMACY: ORC,RXE
RORHL071	3217396	HL7 IV PHARMACY: ORC,RXE
RORHL08	5887870	HL7 INPATIENT DATA: PV1,OBR
RORHL081	7585616	HL7 INPATIENT DATA: OBX
RORHL09	6026195	HL7 OUTPATIENT DATA: PV1,OBR,OBX
RORHL10	5509115	HL7 SURGICAL PATHOLOGY DATA: OBR,OBX
RORHL11	4565613	HL7 CYTOPATHOLOGY DATA: OBR,OBX
RORHL12	2399116	HL7 MICROBIOLOGY DATA: OBR
RORHL121	9878360	HL7 MICROBIOLOGY DATA: OBX
RORHL13	3466976	HL7 MEDICAL PROCEDURES (EKG): OBR,OBX
RORHL14	5357488	HL7 ALLERGY DATA: OBR,OBX
RORHL15	5532311	HL7 IV DATA: OBR, OBX
RORHL16	3252430	HL7 VITALS DATA: OBR,OBX
RORHL17	4936158	HL7 PROBLEM LIST: OBR,OBX
RORHL7	4806448	HL7 UTILITIES
RORHL7A	4554021	HL7 UTILITIES

Routine	Checksum	Short Description
RORHLUT1	1806943	HL7 UTILITIES (HIGH LEVEL)
RORKIDS	6182684	INSTALL UTILITIES (LOW-LEVEL)
RORLOCK	4131518	LOCKS AND TYRANSCTIONS
RORLOG	6030893	LOG FILE MANAGEMENT
RORLOG01	3716383	LOG FILE MANAGEMENT (UTILITIES)
RORNTEG	4248987	KERNEL - Package checksum checker
RORNTEG0	3140604	KERNEL - Package checksum checker
RORP000	10708753	CCR V1.5 INSTALLATION ROUTINE
RORP000A	10206450	CCR V1.5 PRE-INSTALL CODE
RORP000B	11070750	CCR V1.5 POST-INSTALL CODE
RORPUT01	5495626	EDIT LOINC AND DRUG CODE MULTIPLES
RORPUT02	5936706	DATA TRANSPORT FOR KIDS
RORREP01	9158405	REGISTRY COMPARISON REPORT
RORREP02	10911089	VERSION COMPARISON REPORT (ICR)
RORRP007	4442755	RPC: LOGS & MESSAGES
RORRP010	1881192	RPC: TASK MANAGER
RORRP011	2555508	RPC: TASK MANAGER (REPORTS)
RORRP012	1144389	RPC: MISCELLANEOUS
RORRP013	4665100	RPC: ACCESS & SECURITY
RORRP014	2785597	RPC: REGISTRY INFO & PARAMETERS
RORRP015	3365112	RPC: DIVISIONS AND HOSPITAL LOCATIONS
RORRP016	3160766	RPC: ICD-9 CODES
RORRP017	1924388	RPC: DRUGS AND CLASSES
RORRP018	1666201	RPC: LIST OF LAB TESTS
RORRP019	5814698	RPC: LIST OF PATIENTS
RORRP020	4077705	RPC: PATIENT DATA UTILITIES
RORRP021	3721454	RPC: PATIENT DATA
RORRP022	1262090	RPC: SELECTION RULES
RORRP023	2273081	RPC: REGISTRY COORDINATORS
RORRP024	3821351	RPC: VISTA USERS
RORRP025	4917408	RPC: RORICR CDC LOAD
RORRP026	10176668	RPC: CDC UTILITIES
RORRP027	6589308	RPC: RORICR CDC SAVE
RORRP029	1527601	RPC: ADDRESS UTILITIES
RORRP030	1101835	RPC: PATIENT DELETE

Routine	Checksum	Short Description
RORRP031	4897990	RPC: LOCAL LAB TEST NAMES
RORRP032	5035421	RPC: LOCAL DRUG NAMES
RORRP033	2395118	RPC: HIV PATIENT LOAD
RORRP034	3041648	RPC: HIV PATIENT SAVE/CANCEL
RORRP035	1597804	RPC: GENERIC DRUG NAMES
RORRP036	1773818	RPC: HEPC PATIENT LOAD
RORRP037	2638742	RPC: HEPC PATIENT SAVE/CANCEL
RORRP038	4339809	RPC: USER AND PACKAGE PARAMETERS
RORRP040	4049054	RPC: LOCAL REGISTRY FIELDS
RORRP041	2687037	RPC: REGISTRY-SPECIFIC LAB RESULTS
RORRP042	2333070	RPC: CPT CODES
RORSET01	4563146	REGISTRY SETUP ROUTINE
RORSETU1	2833894	SETUP UTILITIES (USER INTERFACE)
RORSETU2	2447593	SETUP UTILITIES (REGISTRY)
RORTMP	679112	TEMPORARY GLOBAL STORAGE
RORTSK	3964693	TASK MANAGER
RORTSK01	7070947	(SUB)TASK UTILITIES
RORTSK02	4523778	TASK MANAGER UTILITIES
RORTSK03	2058050	TASK MANAGER OVERFLOW CODE
RORTSK10	5894436	REPORT RETRIEVING UTILITIES
RORTSK11	3325690	REPORT CREATION UTILITIES
RORTSK12	2274583	REPORT STATS UTILITIES
RORTSK13	5581664	PARSER FOR REPORT PARAMETERS
RORTSK14	2157270	PARSER FOR REPORT PARAMETERS (TOOLS)
RORTXT	141117	TEXT RESOURCE UTILITIES
RORUPD	3118364	REGISTRY UPDATE
RORUPD01	7989261	PROCESSING OF THE FILES
RORUPD04	5421758	PROCESSING OF THE LAB DATA
RORUPD05	7081088	REGISTRY UPDATE (MULTITASK)
RORUPD06	3084967	REGISTRY UPDATE (MISCELLANEOUS)
RORUPD07	2356625	PROCESSING OF THE 'PROBLEM' FILE
RORUPD08	4579765	PROCESSING OF 'VISIT' & 'V POV' FILES
RORUPD09	2869944	PROCESSING OF THE 'PTF' FILE
RORUPD50	3764045	UPDATE THE PATIENT IN THE REGISTRIES
RORUPD51	8479867	UPDATE PATIENT'S DEMOGRAPHIC DATA (1)

Routine	Checksum	Short Description
RORUPD52	2557167	UPDATE PATIENT'S DEMOGRAPHIC DATA (2)
RORUPD62	1941130	HIV-SPECIFIC REGISTRY UPDATE CODE
RORUPDUT	7113425	REGISTRY UPDATE UTILITIES
RORUPEX	3382608	SELECTION RULE EXPRESSION PARSER
RORUPP01	3620688	PATIENT EVENTS (ERRORS)
RORUPP02	3149282	PATIENT EVENTS (EVENTS)
RORUPR	5364149	SELECTION RULES PREPARATION
RORUPR1	10955587	SELECTION RULES PREPARATION
RORUTL01	4692322	UTILITIES
RORUTL02	5296575	UTILITIES
RORUTL03	8066801	ENCRYPTION/DECRYPTION
RORUTL04	2076790	Registry Stat Report
RORUTL05	7047621	MISCELLANEOUS UTILITIES
RORUTL06	10075666	DEVELOPER ENTRY POINTS
RORUTL07	2099977	TEST ENTRY POINTS
RORUTL08	3164502	REPORT PARAMETERS UTILITIES
RORUTL09	1836557	LIST ITEM UTILITIES
RORUTL10	5740794	LAB DATA SEARCH
RORUTL11	942933	ACCESS AND SECURITY UTILITIES
RORUTL14	1375993	PHARMACY DATA SEARCH
RORUTL15	6511088	PHARMACY DATA SEARCH (TOOLS)
RORUTL16	2364514	PHARMACY DATA SEARCH (UTILITIES)
RORUTL17	6994520	REGISTRY INFORMATION UTILITIES
RORUTL18	3250231	MISCELLANEOUS UTILITIES
RORUTL19	1203624	PATIENT DATA UTILITIES
RORVM001	609363	MAINTENANCE OPTIONS
RORX000	2233772	DUMMY REPORT
RORX001	5778832	LIST OF REGISTRY PATIENTS
RORX002	3917612	CURRENT INPATIENT LIST
RORX003	5545892	GENERAL UTILIZATION AND DEMOGRAPHICS
RORX003A	7545014	GENERAL UTILIZATION AND DEMOGRAPHICS
RORX004	3369267	CLINIC FOLLOW UP
RORX005	1558283	INPATIENT UTILIZATION
RORX005A	5728919	INPATIENT UTILIZATION (QUERY)
RORX005B	2068516	INPATIENT UTILIZATION (SORT)

Routine	Checksum	Short Description
RORX005C	6689502	INPATIENT UTILIZATION (STORE)
RORX006	1957749	LAB UTILIZATION
RORX006A	4045076	LAB UTILIZATION (QUERY & SORT)
RORX006C	4479620	LAB UTILIZATION (STORE)
RORX007	6378955	RADIOLOGY UTILIZATION
RORX007A	2467042	RADIOLOGY UTILIZATION (OVERFLOW)
RORX008	2076427	VERA REIMBURSEMENT REPORT
RORX008A	7092822	VERA REIMBURSEMENT REPORT
RORX009	3203627	PHARMACY PRESCRIPTION UTILIZATION
RORX009A	10011538	PRESCRIPTION UTILIZ. (QUERY & SORT)
RORX009C	9417785	PRESCRIPTION UTILIZ. (STORE)
RORX010	6851839	LAB TESTS BY RANGE REPORT
RORX011	7772559	PATIENT MEDICATION HISTORY
RORX012	3000028	COMBINED MEDS AND LABS REPORT
RORX012A	10697075	COMBINED MEDS AND LABS (QUERY & STORE)
RORX013	1600392	DIAGNOSIS CODES REPORT
RORX013A	6836799	DIAGNOSIS CODES (QUERY & SORT)
RORX013C	3235328	DIAGNOSIS CODES (STORE)
RORX014	2137320	REGISTRY MEDICATIONS REPORT
RORX014A	6097645	REGISTRY MEDS REPORT (QUERY & SORT)
RORX015	1566763	PROCEDURES (CPT) REPORT
RORX015A	3958983	PROCEDURES (QUERY & SORT)
RORX015C	3279733	PROCEDURES (STORE)
RORX016	1551044	OUTPATIENT UTILIZATION
RORX016A	2574228	OUTPATIENT UTILIZATION (QUERY)
RORX016B	2976507	OUTPATIENT UTILIZATION (SORT)
RORX016C	4657732	OUTPATIENT UTILIZATION (STORE)
RORXU001	2567828	REPORT UTILITIES
RORXU002	7493232	REPORT BUILDER UTILITIES
RORXU003	5759589	REPORT BUILDER UTILITIES
RORXU004	405249	REPORT UTILITIES (STATISTICS)
RORXU005	3020773	REPORT BUILDER UTILITIES
RORXU006	6157436	REPORT PARAMETERS
RORXU007	6706394	PHARMACY-RELATED REPORT PARAMETERS

File and Global Summary

Two new globals will be created during a virgin installation of KIDS build ROR 1.5: ^ROR and ^RORDATA.

The ^ROR global is quite small and mostly static. It contains the registry parameters, selection rules, Lab search definitions, and so on.

The ^RORDATA global is a dynamic global and will be large under most circumstances. It will contain the registries, error logs, lists of event references, reports, and so on. The sustained growth of ^RORDATA depends on the number of new patients in the registries (about 200 bytes per patient).

However, in the first couple of weeks the global will grow faster because of the error logs (the ROR LOG file) and event references (the EVENT multiple of the ROR PATIENT EVENTS file). Both files are self-maintained and the nightly task (the Registry Update & Data Extraction [ROR TASK] option) purges the old records from these files automatically. The initial growth of these files depends on the activity level (number of events) and quality of the data (number of error messages stored in the logs) at your site.

The following files are exported with the KIDS build ROR 1.5:

File Number	Name	Global Name
798	ROR REGISTRY RECORD	^RORDATA(798,
798.1	ROR REGISTRY PARAMETERS	^ROR(798.1,
798.2	ROR SELECTION RULE	^ROR(798.2,
798.3	ROR PATIENT EVENTS	^RORDATA(798.3,
798.4	ROR PATIENT	^RORDATA(798.4,
798.6	ROR PHARMACY CODE	^ROR(798.6,
798.7	ROR LOG	^RORDATA(798.7,
798.8	ROR TASK	^RORDATA(798.8,
798.9	ROR LAB SEARCH	^ROR(798.9,
799.1	ROR LIST ITEM	^ROR(799.1,
799.2	ROR METADATA	^ROR(799.2,
799.31	ROR XML ITEM	^ROR(799.31,
799.33	ROR DATA AREA	^ROR(799.33,
799.34	ROR REPORT PARAMETERS	^ROR(799.34,
799.4	ROR HIV RECORD	^RORDATA(799.4,
799.49	ROR AIDS INDICATOR DISEASE	^ROR(799.49,
799.51	ROR GENERIC DRUG	^ROR(799.51,
799.53	ROR LOCAL FIELD	^ROR(799.53,
799.6	ROR HISTORICAL DATA EXTRACTION	^RORDATA(799.6,

See the *Clinical Case Registries Technical Manual/Security Guide* for more details.

Preparation

1. Make sure that all required patches are installed.
2. Download the ROR1_5.KID file to your VMS account. Use the ASCII mode.
3. Download the ROR1_5GUI.ZIP file to your workstation. Use the BINARY mode.

M Server Installation

Server installation should be done prior to the GUI installation.

Background information

- The build should be installed in production accounts only during off-hours!
- TaskMan does not need to be STOPPED or placed in a WAIT state.
- Sample screen captures are what they are: samples. Directory names and dates shown on them may be different during the installation at your site.

Installation Instructions

1. On the Kernel Installation & Distribution System [XPD MAIN] menu, select the Installation [XPD INSTALLATION MENU] option, and use the following options to install the ROR 1.5 build:

- Load a Distribution

```
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: Load a Distribution
Enter a Host File: VA3$:[USERNAME]ROR1_5.KID

KIDS Distribution saved on Jan 02, 2006@07:23:11
Comment: Clinical Case Registries v1.5

This Distribution contains Transport Globals for the following
Package(s):
    ROR 1.5
Distribution OK!

Want to Continue with Load? YES// <RET>
Loading Distribution...

Build ROR 1.5 has an Enviromental Check Routine
Want to RUN the Environment Check Routine? YES// <RET>
    ROR 1.5
Will first run the Environment Check Routine, RORP000

Use INSTALL NAME: ROR 1.5 to install this Distribution.
```

- Verify Checksums in Transport Global

```
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: Verify Checksums in Transport Global
Select INSTALL NAME: ROR 1.5
```

```

=> Clinical Case Registries v1.5

This Distribution was loaded on Feb 01, 2006@09:17:55 with header of
Clinical Case Registries v1.5
It consisted of the following Install(s):
    ROR 1.5
DEVICE: HOME// <RET>

PACKAGE: ROR 1.5      Feb 01, 2006 9:18 am      PAGE 1
-----
191 Routine checked, 0 failed.

```

- **Install Package(s)**

```

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: Install Package(s)
Select INSTALL NAME: ROR 1.5
=> Clinical Case Registries v1.5

This Distribution was loaded on Feb 01, 2006@09:17:55 with header of
Clinical Case Registries v1.5
It consisted of the following Install(s):
    ROR 1.5
Checking Install for Package ROR 1.5
Will first run the Environment Check Routine, RORP000

Install Questions for ROR 1.5

Incoming Files:

798      ROR REGISTRY RECORD

798.1    ROR REGISTRY PARAMETERS  (including data)
798.2    ROR SELECTION RULE  (including data)
798.3    ROR PATIENT EVENTS
798.4    ROR PATIENT
798.6    ROR PHARMACY CODE  (including data)
798.7    ROR LOG
798.8    ROR TASK
798.9    ROR LAB SEARCH  (including data)
799.1    ROR LIST ITEM
799.2    ROR METADATA  (including data)
799.31   ROR XML ITEM  (including data)
799.33   ROR DATA AREA  (including data)

```

```

799.34      ROR REPORT PARAMETERS   (including data)

799.4       ROR HIV RECORD

799.49      ROR AIDS INDICATOR DISEASE   (including data)

799.51      ROR GENERIC DRUG

799.53      ROR LOCAL FIELD

799.6       ROR HISTORICAL DATA EXTRACTION   (including data)

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

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

  Install Started for ROR 1.5 :
        Feb 01, 2006@09:18:49

Build Distribution Date: Jan 25, 2006

  Installing Routines:
        Feb 01, 2006@09:18:50

Running Pre-Install Routine: PRE^RORP000

  Installing Data Dictionaries:
        Feb 01, 2006@09:18:51

  Installing Data:
        Feb 01, 2006@09:18:53

  Installing PACKAGE COMPONENTS:

  Installing SECURITY KEY

  Installing FUNCTION

  Installing PRINT TEMPLATE

  Installing SORT TEMPLATE

  Installing INPUT TEMPLATE

  Installing DIALOG

  Installing HL LOGICAL LINK

  Installing HL7 APPLICATION PARAMETER

  Installing PROTOCOL
    Located in the ROR (CLINICAL CASE REGISTRIES) namespace.
    Located in the ROR (CLINICAL CASE REGISTRIES) namespace.
    Located in the ROR (CLINICAL CASE REGISTRIES) namespace.
    Located in the ROR (CLINICAL CASE REGISTRIES) namespace.

```

```
    Located in the ROR (CLINICAL CASE REGISTRIES) namespace.

Installing REMOTE PROCEDURE

Installing OPTION

Installing PARAMETER DEFINITION
    Feb 01, 2006@09:18:54

Running Post-Install Routine: POS^RORP000

    Renaming the ICR security keys...
    The keys have been renamed successfully.

    Restoring the CDC definition...
    The definition has been restored successfully.

    Updating ROR REGISTRY PARAMETERS file (#798.1)...
    The file has been updated successfully.

    Converting ROR REGISTRY RECORD file (#798)...
    The file has been converted successfully.

    Updating ROR HIV RECORD file (#799.4)...
    The file has been updated successfully.

    Restoring the ROR GENERIC DRUG data...
    Data has been successfully restored.

    Restoring predefined report templates...
    Templates have been restored successfully.

Updating Routine file...

Updating KIDS files...

ROR 1.5 Installed.
    Feb 01, 2006@09:18:56

Install Message sent #47199

Install Completed
```

Implementation Instructions

Complete the following steps to fully implement the CCR package:

1. Assign the ROR VA IRM security key to yourself.
2. Review the registry parameters and define the list of users who should be notified about problems with the CCR software. Please do not change the default registry parameters unless you are instructed otherwise.

```
>D ^XUP

Setting up programmer environment
Terminal Type set to: C-VT320

Select OPTION NAME: RORMNT MAIN

  ACL      Re-index the ACL cross-reference
  ELS      Edit Lab Search Criteria
  ERP      Edit Registry Parameters
  HDE      Historical Data Extraction ...
  PLF      Print Log Files
  PP       Pending Patients ...

Select Clinical Case Registries Maintenance Option: ERP

Select ROR REGISTRY PARAMETERS REGISTRY NAME: VA HEPC
REGISTRY UPDATED UNTIL: JAN 1,1990// <RET>
DATA EXTRACTED UNTIL: JAN 1,1985// <RET>
EXTRACT PERIOD FOR NEW PATIENT: 7300// <RET>
ENABLE LOG: YES// <RET>
Select LOG EVENT: <RET>
REGISTRY STATUS: <RET>
Select NOTIFICATION: CCRUSER,ONE
  Are you adding ' CCRUSER,ONE ' as a new NOTIFICATION (the 1ST for
  this ROR REGISTRY PARAMETERS)? No// Y
Select NOTIFICATION: <RET>
LAG DAYS: 7// <RET>
ALERT FREQUENCY: 2// <RET>
ENABLE PROTOCOLS: YES// <RET>
MAXIMUM MESSAGE SIZE: 5// <RET>
```

3. Schedule the initial registry population task(s) for Hepatitis C and/or HIV registries.

These tasks will search the patient data in the time frame from the date defined by the REGISTRY UPDATED UNTIL parameter until the day when the setup is performed. All patients that have registry-specific positive lab results and ICD-9 codes will be added to the registry in a pending state.

This process puts a significant load on the system. Therefore, it is not recommended to perform the initial population for more than one registry at a time.

```
>D ^XUP

Setting up programmer environment
Terminal Type set to: C-VT320

Select OPTION NAME: ROR SETUP
Registry Setup
Select a Registry: VA HEPC
Maximum number of registry update subtasks: (0-10): 5// ?

- - - - -
```

```

During the initial registry population performed by the
registry setup task several registry update subtask can be
scheduled to speed up the process.
- - - - -
Enter a number between 0 and 10, 0 decimal digits.

Maximum number of registry update subtasks: (0-10): 5// <RET>
Suspend the post-install during the peak hours? NO// ?

- - - - -
If you answer YES to this question, registry update subtasks
that populate the registry will be suspended during the peak
weekday hours to conserve the CPU resources.

The tasks will not be suspended on weekends and holidays.
If the initial registry update runs in the single-task mode,
it will never be suspended.

Two additional prompts will be displayed asking you to enter
start and end time of the suspension.
- - - - -
Enter either 'Y' or 'N'.

Suspend the post-install during the peak hours? NO// YES
Suspension start time: 7:00AM// ?

- - - - -
Registry update subtasks will be suspended after this time
every day except the weekends and holidays. However, they
will be checking for a stop request every hour during the
suspension.
- - - - -
Enter time of the day (e.g. 8AM).

Suspension start time: 7:00AM// <RET>
Suspension end time: 6:00PM// ?

- - - - -
The registry update subtasks will be resumed at this time
every day. The suspension end time must be later than the
suspension start time.
- - - - -
Enter time of the day (e.g. 5PM).

Suspension end time: 6:00PM// <RET>

=====
Number of registry update (sub)tasks... 5
Suspend the tasks during peak hours.... Yes
Suspend the tasks at..... 07:00
Resume the tasks at..... 18:00
=====

Requested Start Time: NOW// <RET>

```

4. Wait until the registry population tasks are complete. The user who schedule the initial registry population tasks will receive a Vista alert when the process is complete.

It is possible to stop the registry population task(s) using the TaskMan User [XUTM USER] option of the User's Toolbox [XUSERTOOLS] option. All tasks will be terminated when any one task is stopped. Tasks complete the patient they are currently processing before stopping, so it can take a few minutes to see that these tasks have been removed from TaskMan. Wait five minutes before checking TaskMan. If the tasks are suspended, the system checks for stop

requests hourly. Therefore, it can take up to one hour before they are removed from the list of running tasks.

When the registry population task is re-started, the patients already processed by the tasks will be skipped if you are working in multitask mode (i.e. the value of the 'Maximum number of registry update subtasks' parameter was more than 1).

5. Repeat steps 3 and 4 for another registry if necessary.
6. Assign the appropriate security keys to the users of the CCR package in order to allow them access to the software. The CCR security keys can be placed into 3 different groups:
 - Registry user keys (ROR VA HEPC USER and ROR VA HIV USER). Users with these keys can use the CCR GUI to run reports for the corresponding registries.
 - Registry administrator keys (ROR VA HEPC ADMIN and ROR VA HIV ADMIN). Users with these keys have full access to the GUI for the corresponding registries.
 - IRM personnel key (ROR VA IRM). This key provides access to all CCR files in VistA, but does not allow access to the GUI. This key should be assigned to the IRM personnel responsible for CCR package maintenance.

Assignment of the ROR VA IRM security key takes effect immediately. All other keys must be "activated" before the users get the corresponding level of access. The keys are activated automatically by the nightly task (the Registry Update & Data Extraction [ROR TASK] option), or you can activate the keys manually using the Re-index the ACL cross-reference [RORMNT ACL REINDEX] option of the Clinical Case Registries Maintenance [RORMNT MAIN] menu.

You should also assign the Broker Context [ROR GUI] option to those users who will be using the CCR GUI.

7. Start the HL7 logical link ROR SEND.

```
SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...
```

Select Filer and Link Management Options Option: **SL**

This option is used to launch the lower level protocol for the appropriate device. Please select the node with which you want to communicate

Select HL LOGICAL LINK NODE: **ROR SEND**

This LLP has been enabled!

8. Schedule the CCR nightly task (the Registry Update & Data Extraction [ROR TASK] option).

```
Schedule/Unschedule Options
One-time Option Queue
Taskman Management Utilities ...
List Tasks
Dequeue Tasks
Requeue Tasks
Delete Tasks
Print Options that are Scheduled to run
Cleanup Task List
```

```

Print Options Recommended for Queueing

Select Taskman Management Option: Schedule/Unschedule Options

Select OPTION to schedule or reschedule: ROR TASK
Are you adding 'ROR TASK' as a new OPTION SCHEDULING (the 91ST)? No//
Y

```

```

Edit Option Schedule
Option Name: ROR TASK
Menu Text: Registry Update & Data Extractio      TASK ID:

-----

QUEUED TO RUN AT WHAT TIME: T+1@01:30

DEVICE FOR QUEUED JOB OUTPUT:

QUEUED TO RUN ON VOLUME SET:

RESCHEDULING FREQUENCY: 1D

TASK PARAMETERS: VA HEPC,VA HIV

SPECIAL QUEUEING:

-----

Exit      Save      Next Page      Refresh

COMMAND:                                     Press <PF1>H for help
Insert

```

Switch to the second page using the **Next** command and add the **RORSUSP** variable that defines the suspension parameters of the registry update and data extraction subtasks. The value should contain start and end times of the suspension (in external format) separated by a hyphen character "-". For example, the "7:00-18:00" value will suspend the subtasks from 7:00 am until 6:00 pm each day except weekends and holidays.

The subtasks are not suspended by default.

See the description of the Registry Update & Data Extraction [ROR TASK] option in the *Clinical Case Registries Technical Manual/Security Guide* for more details.

```

Edit Option Schedule
Option Name: ROR TASK

-----

USER TO RUN TASK:

VARIABLE NAME: RORSUSP      VALUE: "07:00-19:00"
VARIABLE NAME:              VALUE:
VARIABLE NAME:              VALUE:
VARIABLE NAME:              VALUE:
VARIABLE NAME:              VALUE:

-----

COMMAND:                                     Press <PF1>H for help
Insert

```

Close the forms and save the changes.

-
- 9.** Instruct the registry coordinators to confirm those pending registry patients who should be in the registry and delete those who should not.

See the *Clinical Case Registries User Manual* for details on confirming a pending patient.

- 10.** When the registry validation is complete, perform the historical data extraction and upload the historical data files to the national database (optional).

See the *Clinical Case Registries Technical Manual/Security Guide* for details.

GUI Installation

Background information

- The new CCR GUI v1.5 will provide access to both Hep C and HIV registries.
- Access to the registries is controlled by the security keys on the server.
- **It is strongly recommended to install the GUI on a file server and make the application available to the users via CPRS Tools menu.**
- For users who have access to a single registry, its window will be opened automatically by the GUI. Users who have access to both registries will be able to select a registry from a list.
- In addition to the /NOCCOW command-line switch that disables the CCOW functionality completely, CCR v1.5 supports the new /CCOW=PatientOnly switch. This switch disables only the Single Sign-On/User Context (SSO/UC) functionality.

Installation Instructions

The GUI installation instructions are the same as those described in the **Upgrade Installation** section (see page 21).

Appendix A. Generating Patient List Reports

Hepatitis C Registry Patient Report

- Start the Hepatitis C GUI
- Login to the VistA server (production account). Please note that you must have ROR VA HEPC USER security key and the Hepatitis C Registry GUI Menu [ROR GUI MENU] option assigned in order to use this GUI.
- Click the **Registry Patient Report** button, or select the **Registry List/Patient Report** option from the **File** menu.
- Edit report parameters as shown below:

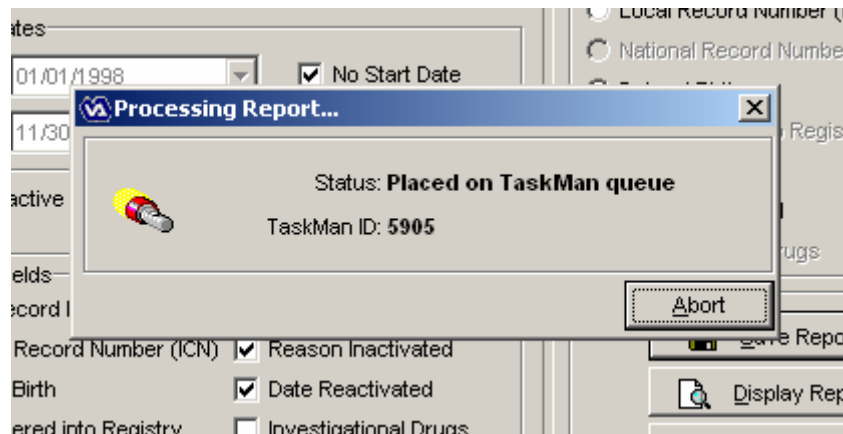
The screenshot shows a Windows-style dialog box titled "Hepatitis C Local Registry - Patient Report". It has a menu bar with "File" and "Help". Below the menu bar, a status bar indicates "Reports include patients automatically entered at the time of the last update and any subsequent manual entries:" followed by "Date of Last Update: 05/01/2002" and "Date of Last Data Transmission: 01/01/1998".

The main area contains several sections:

- Date Range:** Two radio buttons: "Specific Dates" (selected) and "Standard Dates".
- Start/End Dates:** Two date pickers. "Start Date" is set to "01/01/1998" with a "No Start Date" checkbox checked. "End Date" is set to "11/30/2005" with a "No End Date" checkbox checked.
- Active or Inactive Patients:** Three radio buttons: "Both" (selected), "Active Only", and "Inactive Only".
- Additional Fields:** A list of checkboxes: "Local Record Number (DFN)" (checked), "National Record Number (ICN)" (unchecked), "Date Of Birth" (checked), "Date Entered into Registry" (unchecked), "Reason Entered into Registry" (unchecked), "Date Inactivated" (checked), "Reason Inactivated" (checked), "Date Reactivated" (checked), and "Investigational Drugs" (unchecked).
- Sort By:** A list of radio buttons: "Name" (selected), "Local Record Number (DFN)", "National Record Number (ICN)", "Date of Birth", "Date Entered into Registry", "Date Inactivated", "Date Reactivated", and "Investigational Drugs".

At the bottom right, there are three buttons: "Save Report" (with a floppy disk icon), "Display Report" (with a magnifying glass icon), and "Print Report" (with a printer icon). A "Cancel" button is located at the bottom right of the dialog box.

- Click the **Save Report** button and select the file name.
- Wait until the status window shown below disappears:



- Close the report dialog box by clicking the **Cancel** button.
- Verify that the output file contains the list of Hepatitis C patients.

HIV List of Registry Patients

- Start the CCR v1.0 GUI.
- Login to the VistA server (production account). Please note that you should have ROR VA ICR USER security key and the Broker Context [ROR GUI] option assigned in order to use this GUI.
- If the Immunology Case Registry has not been opened automatically, open it using the **Open Registry...** option in the **File** menu.
- Select the **List of Registry Patients** option from the **Reports** menu.
- Edit report parameters as shown below:

ICR Reports

List of Registry Patients

Date Range

☐ Year ☐ Quarter ☐ Custom ☒ Cut Off

<< >>

☐ Fiscal

Scheduled to Run on

Day: 11/30/2005

Time: 01:01:56 PM

Repeat:

Registry Status

☒ Inactive ☒ Active

Additional Fields

☒ Date of birth ☐ Reason added to the Registry ☐ Date added to the Registry

☐ Coded SSN ☒ Inactivation reason ☒ Date inactivated

☐ Last 4 digits of SSN ☒ Date Re-Activated

- Click the **Run** button.
- After about 5 minutes, click the **Task Manager** tab in the Immunology Case Registry window.
- If the List of Registry Patients task has a status of **Finished**, double-click it or select it and then click the **View Report** button.

Clinical Case Registries - [Immunology Case Registry]

File Registry Reports Window Help

Task Manager Activity Log Registry

Refresh New Report View Report

▲	Type	Description	Sche...	Status	Progress	Completed
5906	Report	List of Registry Patients		Inactive: Finished		11/30/2005 12:59

- Wait until report preview opens and then select the **Save As...** option from the **File** menu.
- Select the file name for the report and keep the default type of the output (CSV).
- Click the **Save** button.
- Verify that the output file contains the list of ICR patients.

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Glossary

Term or Acronym	Description
API	Application Programmer Interface
ADPAC	Automated Data Processing Application Coordinator
CPRS	Computerized Patient Record System
DFN	File Number—the local/facility patient record number (patient file internal entry number)
Data Extraction Process	This process is run after the registry update process. This function goes through patients on the local registry and, depending on their status, extracts all available data for the patient, since the last extract was run. The extract transmits any collected data for the patient to the national database via HL7.
HL7	Health Level 7
IRM	Information Resource Management
KIDS	Kernel Installation and Distribution System
Local Registry	This is the local file of patients that have either passed the selection rules and therefore been added automatically or been added manually by a designated ICR supervisor.
LOINC	Logical Observation Identifiers Names and Codes
National Case Registry	All sites running the ICR registry transmit their data to this central data registry.
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Networks
VistA	Veterans Health Information System and Technology Architecture

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