

Event Capture System 2.0 Graphical User Interface

Technical Manual



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1 Introduction

The Event Capture System (ECS) is a Veterans Health Information Systems and Technology Architecture (VistA) Class I workload reporting system supporting operations of the Department of Veterans Affairs (VA) Managerial Cost Accounting Office (MCAO). There are several Veterans Health Administration (VHA) national programs mandating using ECS instead of, or to augment other workload capture information systems. For example, ECS is used when programs cannot report workload in the form of Current Procedural Terminology (CPT) codes. ECS also allows for more precise workload capture and reporting than otherwise possible through other VistA systems.

1.1 Purpose

The Event Capture Technical Manual serves a dual purpose:

- Provides technical information to aid the Office of Information and Technology (OIT) staff with implementing and maintaining the software
- Provides security information for Information Security Officers (ISO)

1.2 System Overview

ECS captures basic resource utilization data which are reported in VistA and fed to the Decision Support System (DSS) in the DSS ECS monthly extract. The Event Capture software provides a mechanism to track and account for procedures and delivered services that other VistA packages do not handle. The procedures and services tracked through Event Capture are associated with the following:

- The patient to whom they were delivered
- The provider requesting the service or procedure
- The DSS Unit responsible for delivering the service

Information entered into ECS will then be sent electronically to DSS, Patient Care Encounter (PCE), and billing offices for processing which will in turn facilitate workload analysis, cost analysis and transmission of billing.

DSS Units typically represent the smallest identifiable work unit in a clinical service at a medical center. Veterans Affairs Medical Centers (VAMC) define the DSS Units. A DSS Unit can represent any of the following:

- An entire service
- A section of a service
- A small section within a section
- A medical equipment item used in patient procedures

The user must define the following items for every DSS Unit:

- Service: The service associated with the DSS Unit
- Cost Center: The fiscal identifier for the service using the particular DSS Unit
- Medical Specialty: The specialty section associated with the DSS Unit

1.2.1 Functions of the Software

Event Capture with all patches installed provides the following functions:

- Allows each VAMC to utilize the software for its own resource/costing needs
- Implements DSS Units
- Assigns user access to the DSS Units
- Allows single and batch data entry for patient procedures
- Generates reports for workload and other statistical tracking
- Provides a Graphical User Interface (GUI) to the ECS application
- Allows the user to upload patient encounter data to Event Capture from a spreadsheet
- Allows the user to switch between Computerized Patient Record System (CPRS) and ECS without having to log back into the ECS GUI application

1.3 Document Orientation

- **Audience** – Advanced users and support personnel for Event Capture.
- **Assumptions** – This document assumes a sound fundamental knowledge of VistA and Event Capture.

1.3.1 Disclaimers

1.3.1.1 Software Disclaimer

This software was developed at the Department of Veterans Affairs (VA) by employees of the Federal Government in the course of their official duties. Pursuant to title 17 Section 105 of the United States Code this software is not subject to copyright protection and is in the public domain. VA assumes no responsibility whatsoever for its use by other parties, and makes no guarantees, expressed or implied, about its quality, reliability, or any other characteristic. We would appreciate acknowledgement if the software is used. This software can be redistributed and/or modified freely provided that any derivative works bear some notice that they are derived from it, and any modified versions bear some notice that they have been modified.

1.3.1.2 Documentation Disclaimer

The appearance of external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Affairs (VA) of this Web site or the information, products, or services contained therein. The VA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of the VA.

1.3.2 References

Documentation and additional information for this product—including the *Event Capture User Guide* (UG), and the *Event Capture Deployment, Installation, Back-out, and Rollback Guide* (DIBR)—can be found on the [VA Software Document Library](#) (VDL).

Online technical documentation pertaining to the Event Capture software, in addition to documentation found in the help topics, may be generated through utilization of several Kernel options. These include XINDEX and VA FileMan List File Attributes. Further information about other utilities that supply online technical documentation may be found in the Kernel Reference Manual.

2 Implementation and Maintenance

The namespace for Event Capture is EC. The excluded namespaces are ECT, ECW, ECX, and EC1.

2.1 System Requirements

There are approximately 250 Event Capture routines that take up approximately 997KB of disk space (including pre-initialization and post-initialization routines).

2.1.1 Hardware Requirements

N/A

2.1.2 Software Requirements

Event Capture is part of a larger integrated medical records system and relies on data from other packages to perform its functions.

Table 1 lists the VistA software products that must be installed before installing Event Capture.

Table 1 Required VistA Software Products

Product Name	Minimum Version
CPT/Healthcare Common Procedure Coding System (HCPCS) Codes	6.0
Diagnosis Related Group (DRG) Grouper	18
Kernel	8.0
MailMan	8.0
Patient Care Encounter (PCE)	1.0
Patient Information Management Service (PIMS)	5.3
Registration	5.2
Remote Procedure Call (RPC) Broker	XWB*1.1*71
ToolKit	7.3
VA FileMan	22.2

2.1.3 Database Requirements

Table 2 lists the steps in FORUM from the Software Services Primary Menu.

Table 2 FORUM Steps

Step	Custodial Package	Subscriber Package
1	DBA MENU	DBA MENU
2	INTEGRATION CONTROL REGISTRATIONS	INTEGRATION CONTROL REGISTRATIONS
3	Custodial Package Menu	Subscriber Package Menu
4	ACTIVE ICRs by Custodial Package	Print ACTIVE by Subscribing Package
5	Select PACKAGE NAME: EC	START WITH SUBSCRIBING PACKAGE: RA// EVENT CAPTURE
6	DEVICE HOME// <Enter>	GO TO SUBSCRIBING PACKAGE: LAST// EVENT CAPTURE
7	This step blank on purpose	DEVICE: <Enter>

2.2 System Setup and Configuration

Event Capture does not require site parameters.

3 Files

This section contains information related to files used by the ECS application. It identifies files exported and describes the steps necessary to obtain a list of templates and map the file flow relationships for Event Capture. Event Capture uses a series of FileMan files to store data related to workload entered via the ECS GUI.

3.1 Global Placement

Event Capture with all patches installed creates the following global files: ^EC, ^ECC, ^ECD, ^ECH, ^ECJ, ^ECL, and ^ECR. Global protection and placement should be made on all of them. It is possible that one or more of these global files already exist on your system.

3.2 File List

Table 3 lists the Event Capture files with all exported patches installed. VA Directive 6402 Modifications to Standardized National Software, 8/28/2013 governs these files, and can be found at the Department of Veterans Affairs Directives web site (VA Publications).

Use the List File Attributes option in VA FileMan to print the Data Dictionary (DD).

Table 3 File Export

File Number	File Name
720.1	EVENT CAPTURE LOG
720.3	EC EVENT CODE SCREENS
720.4	EC PROCEDURE REASON
720.5	EC EVENT CODE SCREENS/PROC REASON LINK
721	EVENT CAPTURE PATIENT
722	EVENT CAPTURE PROVIDER
723	MEDICAL SPECIALTY
724	DSS UNIT
725	EC NATIONAL PROCEDURE
726	EVENT CAPTURE CATEGORY

3.2.1 List File Attributes

This VA FileMan option allows the user to generate documentation pertaining to files and file structure. Utilization of this option via the "Standard" format will yield the following Data Dictionary information for a specified file(s): file name and description, identifiers, cross-references, files pointed to by the file specified, files which point to the file specified, input templates, print templates, and sort templates. In addition, the following applicable data are supplied for each field in the file: field name, number, title, global location, description, help prompt, cross-reference(s), input transform, date last edited, and notes.

Using the "Global Map" format of this option generates output which lists all cross-references for the file selected, global location of each field in the file, input templates, print templates, and sort templates.

3.3 Templates and File Flow

Table 4 lists the steps from the VistA Systems Manager Menu to obtain the templates and to map the file flow relationships for Event Capture with all patches installed.

Table 4 Mapping File Flow

Steps	Templates	File Flow (Relationships between Files)
1	VA FileMan	VA FileMan
2	Print File Entries	Data Dictionary Utilities
3	OUTPUT FROM WHAT FILE: Print Template or Sort Template	Map Pointer Relations
4	SORT BY: Name// Name	Select PACKAGE NAME: Event Capture
5	START WITH NAME: FIRST//EC<Enter>	Remove FILE: <Enter>
6	GO TO NAME: ECW// <Enter>	Add FILE: (Enter name or file number for files you want to include in the output. This prompt will repeat until the next step.)
7	WITHIN NAME, SORT BY: <Enter>	Add FILE: <Enter>
8	FIRST PRINT FIELD: Name	Enter name of file group for optional graph header: EVENT CAPTURE// <Enter>
9	THEN PRINT FIELD: <Enter>	DEVICE: HOME// <Enter> HOME (CRT)
10	Heading (S/C): PRINT TEMPLATE LIST// <Enter>	
11	START AT PAGE: 1 <Enter>	
12	DEVICE: <Enter> HOME (CRT) Right Margin: 80// <Enter>	

4 Routines

This section contains relevant information for ECS GUI application software routines and describes the actions to perform in order to obtain a list of routines supporting ECS that are implemented in the back-end Massachusetts General Hospital Utility Multi-Programming System (MUMPS) environment. Event Capture is comprised of a number of MUMPS routines that enable entering, editing, and deleting of data, as well as producing reports. These routines are used to accomplish user-initiated tasks through the ECS GUI component.

4.1 XINDEX

This option analyzes the structure of a routine(s) to determine in part if the routine(s) adheres to VistA Programming Standards. The XINDEX output may include the following components: list of compiling errors and warnings, routine listing, local variables, global variables, naked global references, label references, and external references. By running XINDEX for a specified set of routines, the user is afforded the opportunity to discover any deviations from VistA Programming Standards that exist in the selected routines, and to see how routines interact with one another. That is, which routines call or are called by other routines.

To run XINDEX for the Event Capture software, specify the following namespace at the "Routine:" prompt: EC*. Event Capture initialization routines that reside in the User Class Identifier (UCI) in which XINDEX is being run, as well as compiled template routines found within the Event Capture namespace, should be omitted at the "Routine:" prompt. To omit routines from selection, preface the namespace with a tick mark (').

4.2 Callable Routines

The Event Capture software uses Integration Agreement 4460 to call the Application Programmer Interface (API) to store and retrieve data for the PROVIDER MULTIPLE field (#42) in the EVENT CAPTURE PATIENT file (#721).

4.3 Routine List

Perform the following steps from the VistA Systems Manager Menu to obtain the MUMPS routines contained in the Event Capture software:

- Step 1. Programmer Options
- Step 2. Routine Tools
- Step 3. First Line Routine Print
- Step 4. All Routines? No => **<Enter>**
- Step 5. Routine: EC*
- Step 6. Routine: 'ECT*
- Step 7. Routine: 'ECW*
- Step 8. Routine: 'ECX*
- Step 9. Routine: 'EC1*
- Step 10. Routine: **<Enter>**
- Step 11. (A)lpha, (D)ate, (P)atched, OR (S)ize ORDER: A//**<Enter>**
- Step 12. Include line (2), Include lines 2&(3), (N)one: None//**<Enter>**
- Step 13. DEVICE: HOME// **<Enter>**SSH VIRTUAL TERMINALRight Margin: 80// **<Enter>**

Steps 6 through 9 are to exclude those routines from appearing in the list.

5 Exported Options

This section provides an overview of the main menu and submenus available in the ECS GUI application. The user must hold the appropriate security keys in order to access all options.

5.1 Event Capture Security Keys

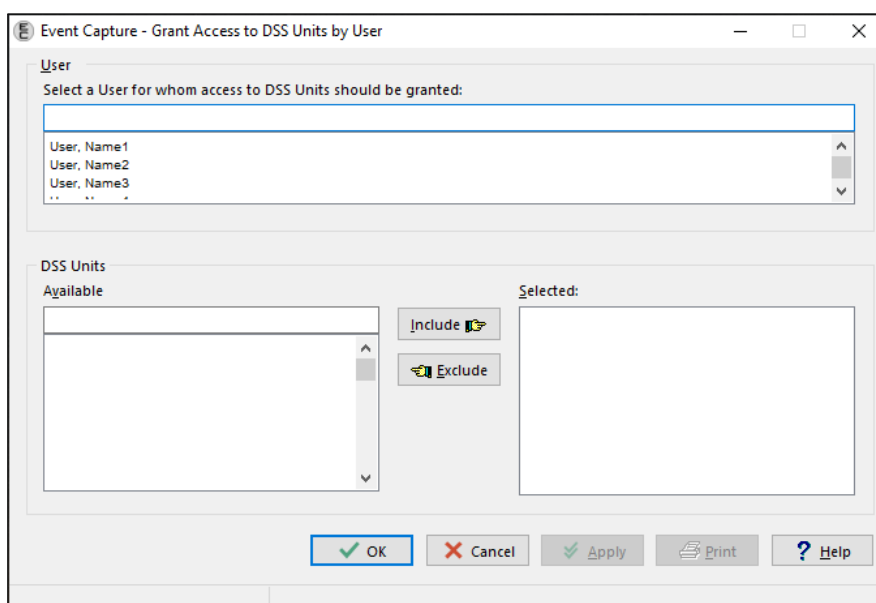
Security keys are assigned in VistA using the menu option **Key Management**, and then choosing the submenu **Allocation of Security Keys**.

- **ECMGR**: Gives a user access to the ECS Management Menu. This key is intended to be used only for Event Capture Managers.
- **ECACCESS**: Gives a user the ability to grant or remove DSS Unit access. Note that if the user also has the ECMGR key, ECACCESS will not have any effect.
- **ECALLU**: Gives a user access to all DSS Units (super user). This should be assigned only to those managing the software (i.e., holders of the ECMGR key).
- **ECNORPT**: Restricts the user from access to the Event Capture Reports.
- **ECSPSH**: Gives a user access to upload data from a spreadsheet.

Note:

- When granting access to DSS Units by user (Figure 1), if the desired name is unavailable, confirm the following:
 1. The user has an active CPRS TAB in the NEW PERSON file (#200).
 2. The user has the OR CPRS GUI CHART option in their secondary menu option.
 3. The user is not DISusered.
 4. The user has the "AUSER" cross-reference in the NEW PERSON file (#200); all active users should already have this.

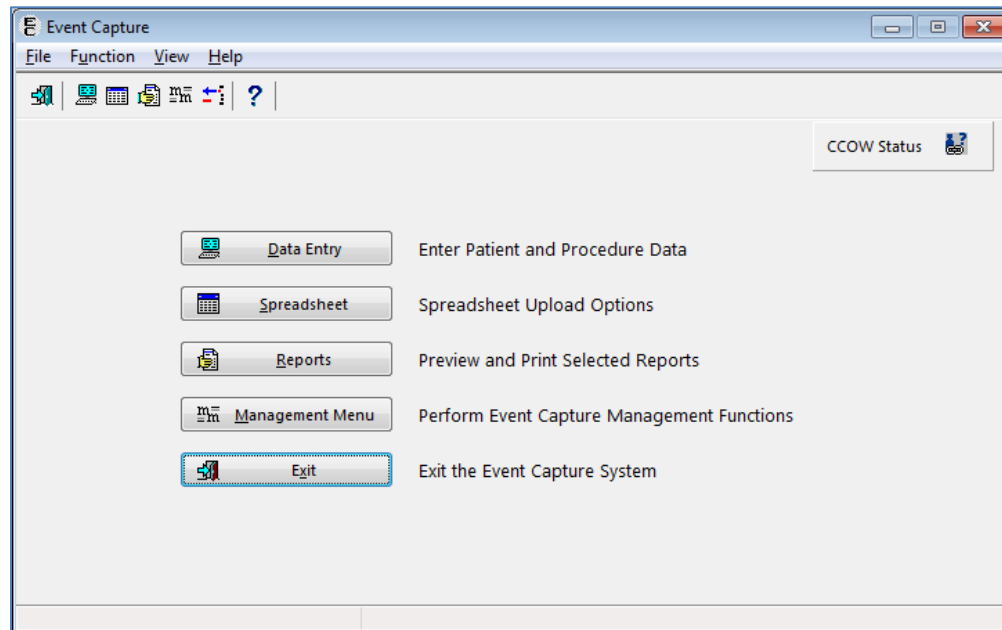
Figure 1 Grant Access to DSS Units by User



5.2 Main Menu Options

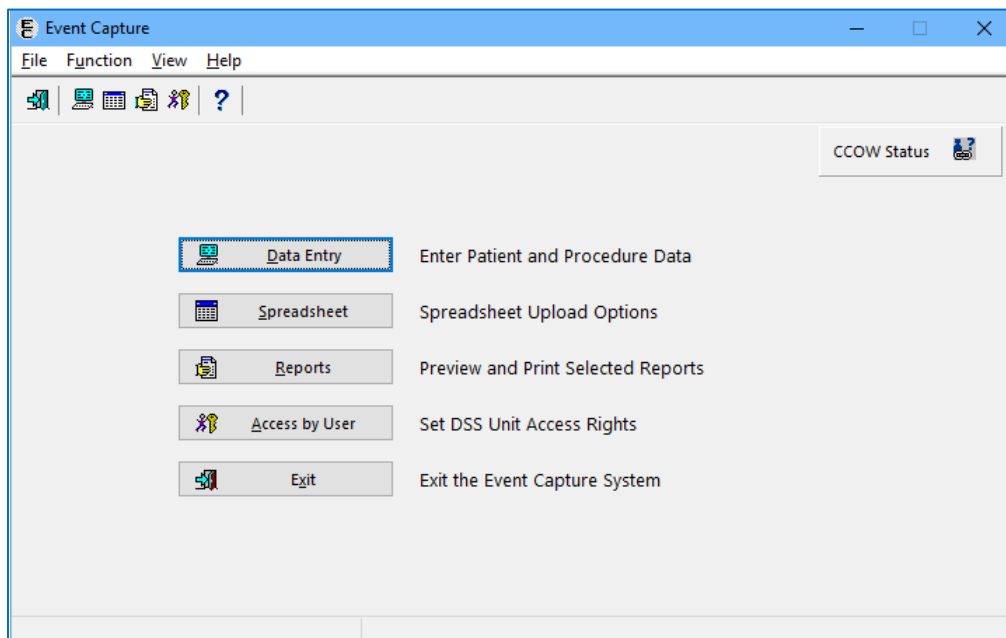
The Event Capture software contains the Data Entry, Spreadsheet, Reports, and Management Menu options. Figure 2 shows these major menu options as they appear in the ECS GUI.

Figure 2 Event Capture Main Menu



In cases where the user has the ECACCESS key, the menu will have an Access by User option in place of the Management Menu option, as shown in Figure 3.

Figure 3 Event Capture Main Menu for Users with ECACCESS Key



5.3 Submenu Options

Figure 4 shows the submenu items that are available when the Data Entry option is selected from the Main Menu.

Figure 4 Data Entry Menu Screen

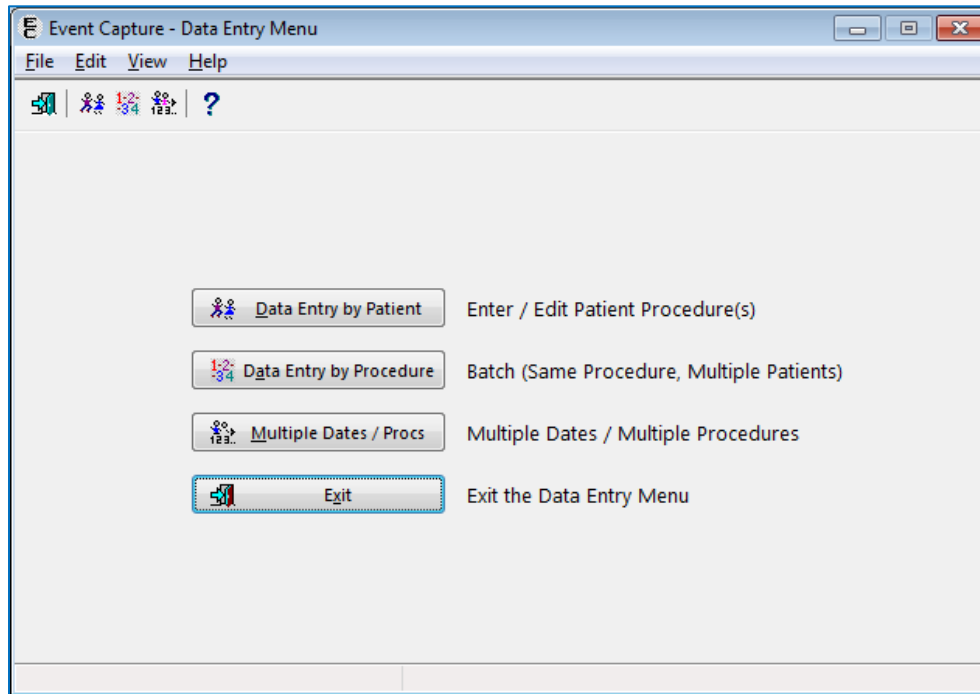


Figure 5 shows the Spreadsheet Upload form that becomes active when the Spreadsheet option is selected from the Main Menu. The user must hold the ECSPSH security key in order to access this screen.

Figure 5 Spreadsheet Menu Screen

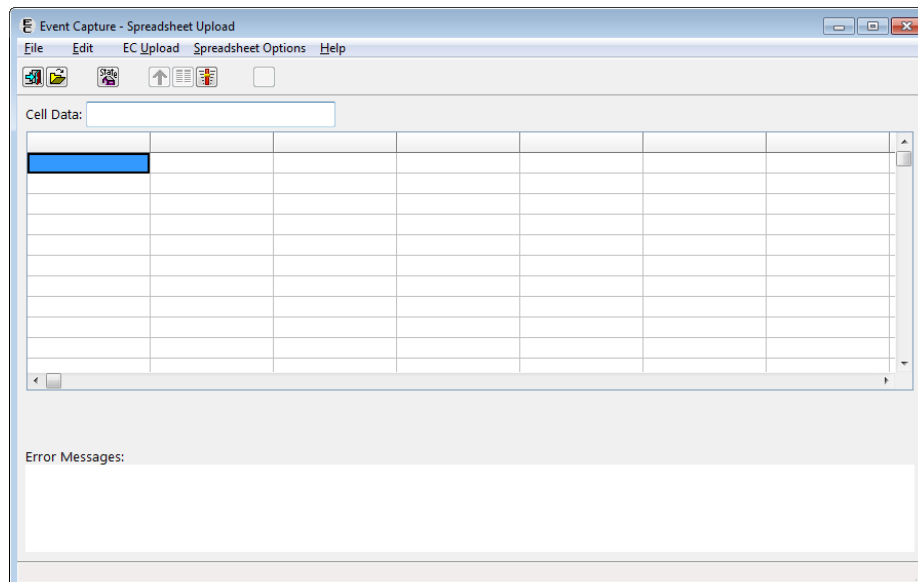


Figure 6 shows the submenu items that are available when the Reports option is selected from the Main Menu and the user does not hold the ECMGR security key.

Figure 6 Reports Menu Screen without ECMGR Option

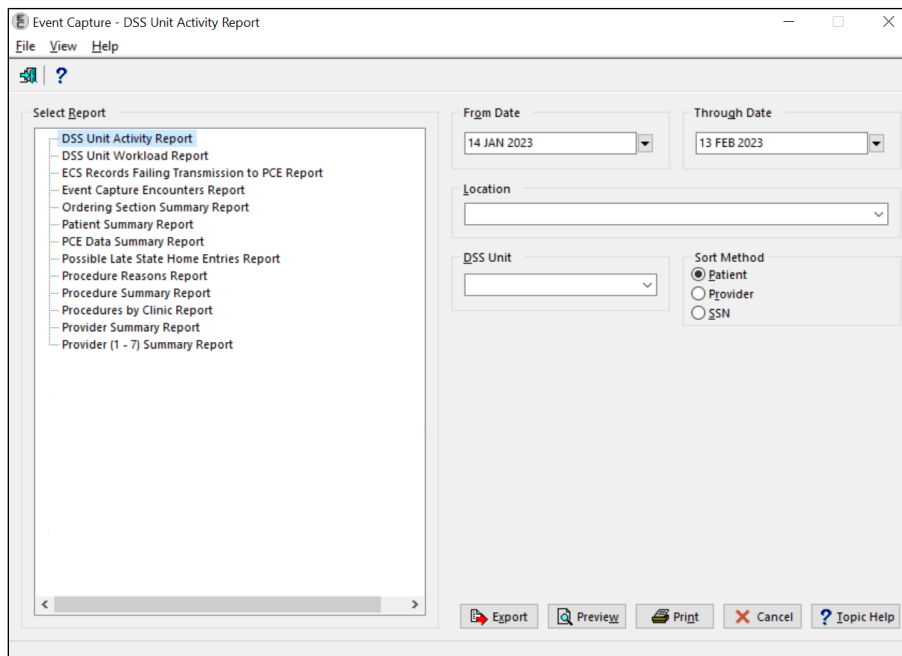


Figure 7 shows the submenu items that are available when the Reports option is selected from the Main Menu and the user holds the ECMGR security key.

Figure 7 Reports Menu Screen with ECMGR Options

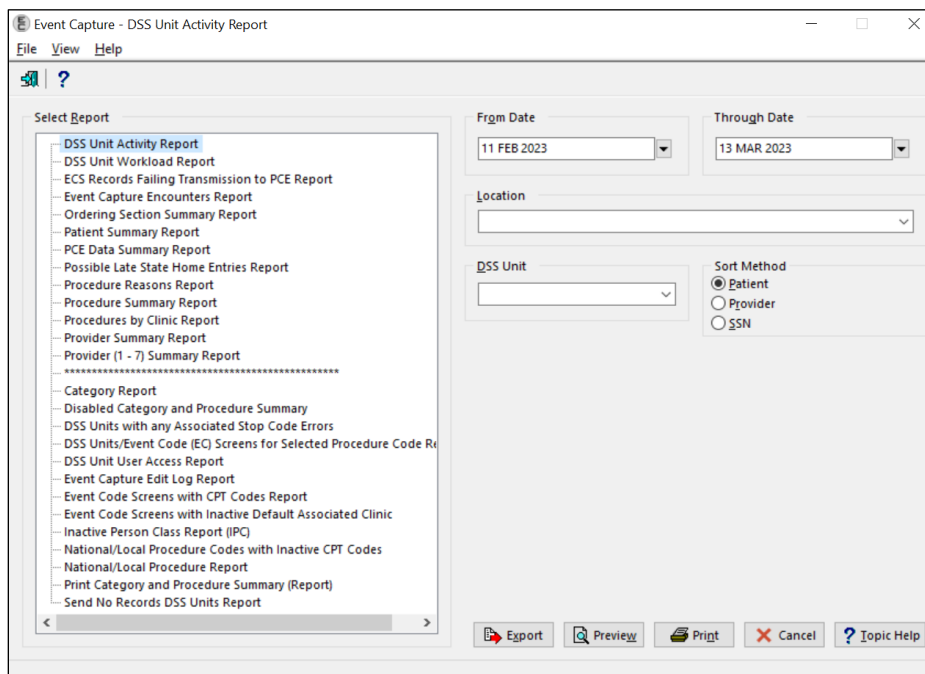
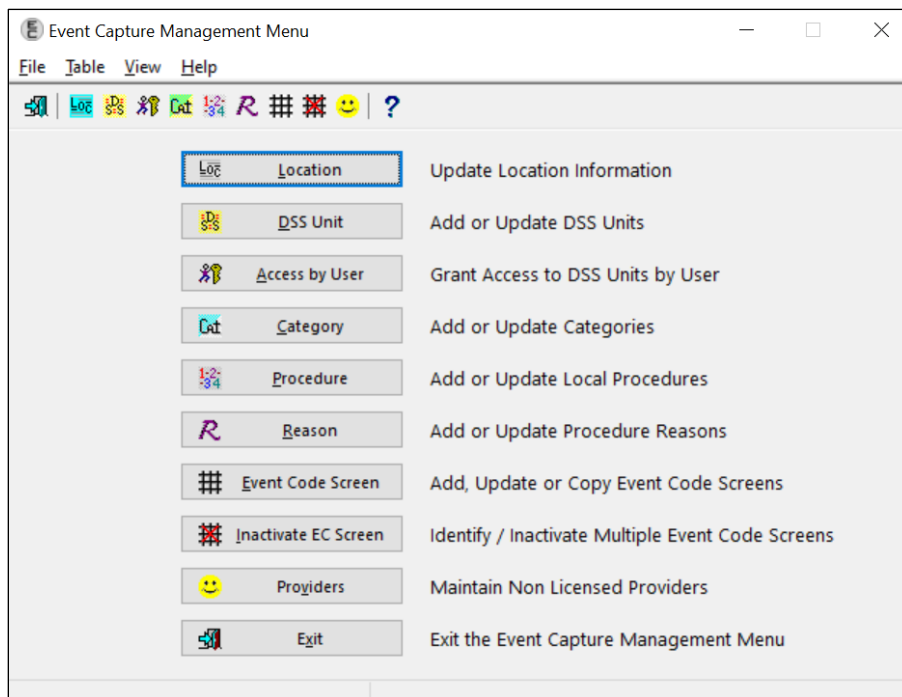


Figure 8 shows the submenu items that are available when the Management Menu option is selected from the Main Menu. The user must hold the ECMGR security key in order to access this menu.

Figure 8 Management Menu Screen



6 Mail Groups, Alerts, and Bulletins

Users can set up an ECS mail group in VistA to receive relevant ECS notifications. Contact IT to set up a VistA ECS Mail Group so more than one person receives ECS administrative messages.

More information regarding current ECS package administrative email messages can be obtained from the ECS User Guide, which can be found on the [VDL](#).

7 Public Interfaces

7.1 Integration Control Registrations

This section lists the Integration Control Registrations (ICRs) created and/or used by ECS. They are categorized by the custodian or subscriber relationship to the software. No private ICRs are documented below.

Custodian:

ICR #96 <ul style="list-style-type: none">Type: FileFile #730Root: ECC(730,	ICR #1872 <ul style="list-style-type: none">Type: FileFile #720.3Root: ECJ(ICR #6010 <ul style="list-style-type: none">Type: RoutineRoutine: ECUERPC
ICR #97 <ul style="list-style-type: none">Type: File.File #730Root: ECC(730,	ICR #1873 <ul style="list-style-type: none">Type: FileFile #721Root: ECH(ICR #6011 <ul style="list-style-type: none">Type: RoutineRoutine: ECUERPC1
ICR #205 <ul style="list-style-type: none">Type: FileRoot: ECC(723,	ICR #1874 <ul style="list-style-type: none">Type: FileFile #725Root: EC(725,	ICR #6012 <ul style="list-style-type: none">Type: RoutineRoutine: ECFLRPC
ICR #249 <ul style="list-style-type: none">Type: Other	ICR #1875 <ul style="list-style-type: none">Type: FileFile #726Root: EC(726,	ICR #6013 <ul style="list-style-type: none">Type: FileFile #724Root: ECD(
ICR #1561 <ul style="list-style-type: none">Type: FileFile #724Root: ECD(ICR #4131 <ul style="list-style-type: none">Type: RoutineRoutine: ECRRPC	ICR #6016 <ul style="list-style-type: none">Type: RoutineRoutine: ECUMRPC1
ICR #1869 <ul style="list-style-type: none">Type: FileFile #720Root: ECP(ICR #4460 <ul style="list-style-type: none">Type: RoutineRoutine: ECPRVMUT	ICR #6155 <ul style="list-style-type: none">Type: FileFile #200Root: VA(200,D0,EC
ICR #1870 <ul style="list-style-type: none">Type: FileFile #720.1Root: EC(720.1,	ICR #6009 <ul style="list-style-type: none">Type: FileFile #720.3Root: ECJ(ICR #10100 <ul style="list-style-type: none">Type: FileFile #730Root: ECC(730

Subscriber:

ICR #322 – DBIA322

- Custodial Package: REGISTRATION
- Usage: Controlled Subscription
- Type: File
- File #45.7
- Root: DIC(45.7,

ICR #406 – DBIA406

- Custodial Package: SCHEDULING
- Usage: Controlled Subscription
- Type: Routine
- Routine: SDC021

ICR #427 – DBIA427

- Custodial Package: REGISTRATION
- Usage: Controlled Subscription
- Type: File
- File #8
- Root: DIC(8,

ICR # 432 – DBIA432

- Custodial Package: KERNEL
- Usage: Controlled Subscription
- Type: File
- File #49
- Root: DIC(49,

ICR #491 – DBIA491

- Custodial Package: KERNEL
- Usage: Controlled Subscription
- Type: File
- File #7
- Root: DIC(7,

ICR #492 – DBIA492

- Custodial Package: IFCAP
- Usage: Controlled Subscription
- Type: File
- File #420.1
- Root: PRCD(420.1,

ICR #510 – DISV

- Custodial Package: VA FILEMAN
- Usage: Controlled Subscription
- Type: File
- File #
- Root: DISV(

ICR #954 – DBIA954

- Custodial Package: IFCAP
- Usage: Controlled Subscription
- Type: Routine
- Routine: PRCSREC2

ICR # 1531 – DBIA1531

- Custodial Package: DSS - DECISION SUPPORT SYSTEM EXTRACT
- Usage: Controlled Subscription
- Type: File
- File #727.815
- Root: ECX(727.815,

ICR #1579 – SCHEDULING CLASSIFICATION

- Custodial Package: SCHEDULING
- Usage: Controlled Subscription
- Type: Routine
- Routine: SDC022

ICR #1623 – SCDXUAPI - OCCASION OF SERVICE ENTRY

- Custodial Package: SCHEDULING
- Usage: Controlled Subscription
- Type: Routine
- Routine: SCDXUAPI

ICR #1889 – ADD/EDIT/DELETE PCE DATA SILENTLY

- Custodial Package: PCE PATIENT CARE ENCOUNTER
- Usage: Controlled Subscription
- Type: Routine
- Routine: PXAPI

ICR #1890 – DBIA1889-B

- Custodial Package: PCE PATIENT CARE ENCOUNTER
- Usage: Controlled Subscription
- Type: Routine
- Routine: PXAPI

ICR #1902 – DBIA1900-C

- Custodial Package: PCE PATIENT CARE ENCOUNTER
- Usage: Controlled Subscription
- Type: Routine
- Routine: VSIT

ICR #1905 – RETURN SELECTED VISITS FROM VSIT

- Custodial Package: PCE PATIENT CARE ENCOUNTER
- Usage: Controlled Subscription
- Type: Routine
- Routine: VSIT

ICR #2058 – PACKAGE FILE LOOKUP

- Custodial Package: KERNEL
- Usage: Controlled Subscription
- Type: File
- File #9.4
- Root: DIC(9.4,

ICR #2251 – DBIA-2251

- Custodial Package: KERNEL
- Usage: Controlled Subscription
- Type: File
- File #4
- Root: DIC(4,

ICR #2741 – OE/RR calls to GMPLUTL2

- Custodial Package: PROBLEM LIST
- Usage: Controlled Subscription
- Type: Routine
- Routine: GMPLUTL2

- ICR #3371 – ORWU HASKEY
- Custodial Package: ORDER ENTRY/RESULTS REPORTING
 - Usage: Controlled Subscription
 - Type: Remote Procedure

- ICR #3834 – CSL Cost Center table update
- Custodial Package: COMMUNICATIONS SERVICE LIBRARY
 - Usage: Controlled Subscription
 - Type: Routine
 - Routine: CSLEC

- ICR # 3852 – CSL Cost Center file 536.3
- Custodial Package: COMMUNICATIONS SERVICE LIBRARY
 - Usage: Controlled Subscription
 - Type: File
 - File #536.3
 - Root: CSLCC(

- ICR #3859 – APPOINTMENT DATA BY PATIENT
- Custodial Package: SCHEDULING
 - Usage: Controlled Subscription
 - Type: Routine
 - Routine: SDAMA201

- ICR #4069 – HL7 MESSAGE TEXT FILE (#772)
- Custodial Package: HEALTH LEVEL SEVEN
 - Usage: Controlled Subscription
 - Type: File
 - File #772
 - Root: ECX(772,

- ICR #4255 – CSL REFERENCING PARAMETERS
- Custodial Package: COMMUNICATIONS SERVICE LIBRARY
 - Usage: Controlled Subscription
 - Type: Other

- ICR #4652 – CLNCHK - SDUTL2 (RESTRICTING STOP CODE)

- Custodial Package: SCHEDULING
- Usage: Supported
- Type: Routine
- Routine: SDUTL2

- ICR #5747 – ICD Data Extraction

- Custodial Package: DRG GROUPER
- Usage: Controlled Subscription
- Type: Routine
- Routine: ICDEX

7.2 Application Programming Interfaces

N/A

7.3 Remote Procedure Calls

This section describes the 49 Remote Procedure Call (RPC) entry points and parameters created and/or used by ECS. **Click any of the RPCs below to see details.**

- | | | |
|--|--------------------------------------|--|
| 1. EC CLASHELP | 17. EC GETECSCREEN | 35. EC GETPXREASON |
| 2. EC DELETE FILE ENTRY | 18. EC GETECSDetail | 36. EC GETSCNHELP |
| 3. EC DELETE TEST PATIENT DATA | 19. EC GETECSPROCS | 37. EC GETUSRDSSUNIT |
| 4. EC DIEDON | 20. EC GETENC DXS | 38. EC GETVERSION |
| 5. EC DSSCATCHCHECK | 21. EC GETIEN | 39. EC GETVISITINFO |
| 6. EC FILER | 22. EC GETLIST | 40. EC ICD10IMPLEMENTATIONDATE |
| 7. EC GET DEFAULT PROVIDER | 23. EC GETLOC | 41. EC RECENT VISITS |
| 8. EC GETBATPROCS | 24. EC GETNATPX | 42. EC REPORTS |
| 9. EC GETCAT | 25. EC GETPATCH | 43. EC SPACEBAR |
| 10. EC GETCPTLST | 26. EC GETPATCLASTAT | 44. EC VALIDATE SPREADSHEET DATA |
| 11. EC GETDATE | 27. EC GETPATELIG | |
| 12. EC GETDSSECS | 28. EC GETPATINFO | |
| 13. EC GETDSSUNIT | 29. EC GETPATPROCS | |
| 14. EC GETDSSUNITUSRS | 30. EC GETPRBLST | |
| 15. EC GETECLOC | 31. EC GETPRODEFS | |
| 16. EC GETECSCATS | 32. EC GETPROVIDER | |
| | 33. EC GETPXLST | |
| | 34. EC GETPXMODIFIER | |
| | | 45. ORWU DEVICE |
| | | 46. ORWU HASKEY |
| | | 47. ORWU NEWPERS |
| | | 48. ORWU USERINFO |
| | | 49. SC PATIENT LOOKUP |

1. EC CLASHELP — Returns the service-connected and related disabilities information for the selected patient.

TAG: CLHLP
ROUTINE: ECUERPC2
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: RESTRICTED
DESCRIPTION: RPC Broker entry point for classification help
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: Input key ECARY consists of the following pieces -
 ECDFN – Patient DFN from file (#2)
 ECKY – Key to provide help on. Example ECKY='SC' provides help on service connection.
RETURN PARAMETER DESCRIPTION: Array of help text for classification.

2. EC DELETE FILE ENTRY - A general purpose for deletion of entry in ECS files which uses parameters to determine which file and entry to delete.

TAG: ECDEL
ROUTINE: ECUMRPC2
RETURN VALUE TYPE: GLOBAL ARRAY
DESCRIPTION: A general purpose Event Capture routine for deletion of entry in ECS files.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LIST
DESCRIPTION: The input array ECARY contains the file number and the IEN number of the entry to be deleted.
 ECARY("ECFILE") – the file number where the entry to be deleted
 ECARY("IEN") – the entry number to be deleted

<u>ECFILE</u>	<u>Option</u>
720.3	EC Event Code Screens
724	DSS Unit

RETURN PARAMETER DESCRIPTION: Returns a flag of success or failure and error message.

3. EC DELETE TEST PATIENT DATA — Delete test patient data from the EVENT CAPTURE PATIENT file (#721).

TAG: DTPD
ROUTINE: ECUMRPC1
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: RESTRICTED
DESCRIPTION: This RPC is used to delete any test patient data from the EVENT CAPTURE PATIENT file (#721).
If the patient is identified as a test patient and the procedure associated with the test patient record is not in the range of CH103 to CH109 then the record will be deleted. If the procedure is in this range for a test patient, the record will not be deleted. Test patients, with procedures in this range, are allowed for recording Chaplain workload.

This RPC can be invoked in two modes. The first mode, "I" is for gathering information about the account, the date/time of the last deletion, the user who ran the deletion and the status of the deletion process. The second mode, "D", is for deleting patient records as defined above.

Care should be used when running this RPC as the data cannot be restored once deleted. In addition, this process could take a while to complete. The amount of time needed will vary based on the total number of records to be reviewed and the total number of records to be deleted.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: This will hold the mode in which you want to run the RPC. The two possible modes are "I"nformation or "D"elete.

RETURN PARAMETER DESCRIPTION: Depending on the mode, the return results will vary.

For the "I"nformational mode, the return value will be account type (test or production)^network name^date/time deletion last completed^user who last ran the deletion^status of the deletion (0 not running/1 running).

For the "D"eletion mode, the return value will be 0 if the task couldn't be queued to run in the background or 1 to indicate that it was successfully tasked to the background.

4. EC DIEDON — Get the date of death for the patient.

TAG: ECDOD

ROUTINE: ECUERPC2

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: RESTRICTED

DESCRIPTION: This RPC returns a patient's date of death.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The input variable ECARY contains the patient's DFN.

RETURN PARAMETER DESCRIPTION: The RPC returns either of the following pieces of data as output:

1. 0^Patient DFN is not defined
2. DOD internal FileMan format^message when patient died
3. ^ [if patient is not dead]

5. EC DSSCATCHCHECK — Check whether the Category is used in an Event Code Screen.

TAG: CATCHK

ROUTINE: ECUMRPC1

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: RESTRICTED

DESCRIPTION: Checks whether category is used in an Event Code Screen.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Variable ECARY contains the DSS Unit IEN (file #724) that will be checked to determine if category exists.

RETURN PARAMETER DESCRIPTION: Returns a value of 1 or 0 indicating whether category is used in Event Code Screen, 1-Yes or 0-No.

6. EC FILER — A general purpose filer which uses parameters to determine which file and field to update.

TAG: FILE

ROUTINE: ECFLRPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: A general purpose Event Capture routine used when filing data into ECS files.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LIST

DESCRIPTION: The input array ECARY defines all the fields and values needed for a particular file. The variable ECARY("ECFILE") must always be set to the file number where data will be saved. The following are the options and files available:

<u>ECFILE</u>	<u>Option</u>
4	Event Capture Locations
200	Allocate/Deallocate users to Unit
200A	Allocate/Deallocate Units to user
721	Event Capture Patient File
722	Event Capture Provider File (Non Licensed Providers)
724	DSS Unit
720.3	EC Event Code Screens
720.4	Event Code Reasons
725	EC Local Procedure
726	Event Capture Category

RETURN PARAMETER DESCRIPTION: Returns a flag of success or failure, or a list of error codes.

7. EC GET DEFAULT PROVIDER — Get the default provider based on the DSS Unit and the data entry user.

TAG: ECDEFPRV

ROUTINE: ECUERPC2

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: RESTRICTED

DESCRIPTION: This remote procedure will return the default provider based on the DSS Unit and the user entering data into Event Capture.

If the user is an active provider then they will be the default regardless of the DSS unit's send to PCE setting.

If the user is not an active provider then a check is made to see the last person they referenced in the NEW PERSON file (#200). If that person is an active provider then they will be the default.

If the DSS unit's send to PCE setting is set to send no records then the user will be the default if they are found in the EVENT CAPTURE PROVIDER file (#722). If the user is not identified as an event capture provider then a check is made to see the last person they referenced in the NEW PERSON file (#200). If that person is in the EVENT CAPTURE PROVIDER file (#722) then they will be the default.

If none of the checks produces a provider then there will be no default identified.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The input variable ECARY contains the IEN of the DSS unit concatenated with the date/time of the procedure. If a date/time isn't sent, today's date will be assumed.

RETURN PARAMETER DESCRIPTION: The RESULTS variable will contain either the IEN^User Name or -1 if no default is found.

8. EC GETBATPROCS — Get patient procedures based on the search parameters.

TAG: PROCBAT

ROUTINE: ECUERPC1

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: Returns an array with entries from EVENT CAPTURE PATIENT FILE #721 for patients for a specific procedure.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following values separated by up-arrows:

1. ECLOC — Location IEN
2. ECUNT — DSS unit IEN
3. ECC — Category IEN
4. ECP — Procedure IEN
5. ECSD — Start Date
6. ECED — End Date

RETURN PARAMETER DESCRIPTION: Returns an array of Event Capture Patients with the following data:

1. 721 IEN
2. Patient name
3. Procedure Date and Time
4. Primary Diagnosis
5. Ordering Section
6. Associated Clinic

9. EC GETCAT — Get all Category records from the EVENT CAPTURE CATEGORY file (#726).

TAG: CAT

ROUTINE: ECUMRPC1

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns a list of active and/or inactive categories from file #726.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Status of A-ctive, I-nactive or B-oth.

RETURN PARAMETER DESCRIPTION: Returns an array with categories. Data pieces as follows:

1. IEN of Category
2. Name of Category
3. Creation Date
4. Inactive Date

10. EC GETCPTLST — Get all CPT codes from the CPT file (#81) that match the search string.

TAG: CPTFND
ROUTINE: ECUMRPC2
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: SUBSCRIPTION
DESCRIPTION: Performs a search on a CPT string and returns an array list of matches from file #81.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: CPT search string.
RETURN PARAMETER DESCRIPTION: Returns a global array with CPT IEN, code and name respectively.

11. EC GETDATE — Get the user-entered date in FileMan date format.

TAG: ECDATE
ROUTINE: ECUURPC
RETURN VALUE TYPE: SINGLE VALUE
AVAILABILITY: SUBSCRIPTION
DESCRIPTION: Broker call returns the client date as a Fileman internal and external date format.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: Client entered date and date flag passed in variable ECARY:
 DTSTR – Date String, eg N, T@800, 4/15@1205
 FLG – Date Flag, eg R means time is required
RETURN PARAMETER DESCRIPTION: Returns in variable RETURN:- Fileman internal date^External date format. If date is invalid, returns 0^Invalid Date/Time.

12. EC GETDSSECS — Get a list of Event Code Screens from the EC EVENT CODE SCREENS file (#720.3) based on a DSS Unit.

TAG: DSSECS
ROUTINE: ECUMRPC
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: RESTRICTED
DESCRIPTION: Returns a list of Event Code Screen from EC EVENT CODE CREENS FILE #720.3 based on a DSS Unit and location.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: Input variable ECARY contains the value for DSS Unit
 ECD – DSS Unit IEN
 ECL – Location
RETURN PARAMETER DESCRIPTION: Returns an array with data Event Code screens as follows:
 1. 720.3 IEN
 2. Procedure 5 digit code and description
 3. Location
 4. Status (active, inactive)
 5. Category description

6. Synonym

13. EC GETDSSUNIT — Get the DSS Units from the DSS UNIT file (#724) based on the input parameters.

TAG: DSSUNT

ROUTINE: ECUMRPC1

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns array with active and/or inactive DSS units from file 724.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Optional input variable ECARY containing the following ^ delimited pieces:

Piece 1 - Active or inactive DSS Units (optional). A-ctive (default), I-nactive, B-oth

Piece 2 - Specific DSS Unit name (optional)

Piece 3 - Specific DSS IEN (optional)

Piece 4 - Specific DSS Unit number (optional)

RETURN PARAMETER DESCRIPTION: The results array contains data for DSS units as follows:

1. IEN of DSS Unit
2. Name of DSS Unit
3. IEN of DSS Unit (repeated)
4. Inactive Flag
5. Send to PCE
6. Unit Number
7. Service
8. Medical Specialty
9. Cost Center
10. Associated Stop Code (if OOS or send no records PCE setting)
11. Category flag
12. Default date entry
13. Credit Stop Code (only if PCE setting is send no records)
14. CHAR4 code (only if PCE setting is send no records)
15. Allow duplicate record filing on spreadsheet upload

14. EC GETDSSUNITUSRS — Get the users who have access to the specified DSS Unit.

TAG: ECUSR

ROUTINE: ECUMRPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns an array of users with access to a particular DSS unit. User access to a DSS unit is determined from the NEW PERSON file (#200).

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 30

DESCRIPTION: DSS unit IEN must be passed in as input parameter.

RETURN PARAMETER DESCRIPTION: Returns an array list with user name and IEN from the NEW PERSON file (#200).

15. EC GETECLOC — Get the Event Capture Locations from the INSTITUTION file (#4).

TAG: ECLOC

ROUTINE: ECUMRPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns an array with all active Event Capture locations from the INSTITUTION file (#4).

RETURN PARAMETER DESCRIPTION: Returns array with value set to location and location IEN respectively.

16. EC GETECSCATS — Get the Category for an Event Code Screen based on the Location and DSS Unit.

TAG: CAT

ROUTINE: ECUERPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns an array of categories for an Event Code screen based on a specific location and DSS unit.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following values separated by up-arrow.

1. ECL – Location IEN
2. ECD – DSS Unit IEN
3. ECCSTA – Category status, A-ctive (default), I-nactive, B-oth

RETURN PARAMETER DESCRIPTION: Returns an array of categories with data pieces as follows:

1. Category IEN
2. Category description

17. EC GETECSCREEN — Get the records from the EC EVENT CODE SCREENS file (#720.3).

TAG: ECSCN

ROUTINE: ECUMRPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns a list active, inactive or both of Event Code Screens from EC EVENT CODE SCREENS file (#720.3).

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY can contains the following elements separated by up-arrow.

- STAT – Active and/or inactive Event Code Screens [A-ctive (default), I-nactive, B-oth]
LOCIEN – Location IEN (optional)
DSSIEN – DSS IEN (optional)

If no parameters are passed, a status of active is assumed as well as all locations.
If an LOC IEN is passed, then only the event codes screens associated with that location are returned.

If a DSS IEN is passed then only the event code screens associated with that DSS Unit are returned.

RETURN PARAMETER DESCRIPTION: The result array contains the following data separated by up-arrow.

1. 720.3 IEN
2. Location description
3. DSS Unit description
4. Category Description
5. Procedure 5-digit code and description

18. EC GETECSDETAIL - Get detailed information for the selected record from the EC EVENT CODE SCREENS file (#720.3).

TAG: ECSDTLS

ROUTINE: ECUMRPC

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns details on a specific Event Code Screen from the EC EVENT CODE SCREENS FILE #720.3.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The input parameter ECARY contains the Event code screen IEN.

RETURN PARAMETER DESCRIPTION: The return variable contains the following data separated by up-arrows.

1. 720.3 IEN
2. Event Code Screen name
3. Synonym
4. Volume
5. Associated Clinic
6. Procedure Reason indicator
7. Status
8. Send to PCE status - 1 if sent, 0 if not

19. EC GETECSPROCS - Get the procedures for an Event Code Screen based on the Location, DSS Unit and Category.

TAG: PROC

ROUTINE: ECUERPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: Returns an array of procedures for an Event Code screen (file #720.3). Event code screens are based on location, DSS unit and Category.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following values separated by up-arrow.

1. ECL – Location IEN
2. ECD – DSS Unit IEN

3. ECC – Category IEN

RETURN PARAMETER DESCRIPTION: Returns an array of procedures. Data pieces as follows:

1. EC National Number SPACE Procedure Name SPACE [Synonym]
2. Procedure Code
3. CPT Code
4. Default Volume
5. Event Code Screen IEN

20. EC GETENCDXS - Get the primary diagnosis and any secondary diagnoses for a patient encounter.

TAG: ENCDXS

ROUTINE: ECUERPC1

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: Returns a patient encounter primary and secondary diagnosis codes from the Event Capture Patient file (#721).

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY has the following pieces of data separated by up-arrows.

1. ECDFN – Patient IEN (#200)
2. ECDT – Procedure date and time (FileMan format)
3. ECL – Location IEN
4. EC4 – Clinic IEN

RETURN PARAMETER DESCRIPTION: Returns an array with patient encounter diagnosis information.

1. Primary/secondary flag (1-primary, 0-secondary)
2. Diagnosis IEN
3. Diagnosis code and description

21. EC GETIEN — Get the Internal Entry Number (IEN) for a record.

TAG: FNDIEN

ROUTINE: ECUURPC

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns the IEN from a file.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following elements

1. FIL – File number
2. TXT – .01 description

RETURN PARAMETER DESCRIPTION: Returns a file IEN.

22. EC GETLIST — Get records from the associated file which match the search criteria entered.

TAG: SRCLST

ROUTINE: ECUMRPC1

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: This call is used to perform a search on a file based on a search string.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The input string ECARY contains six pieces separated by "^"

ECFIL – File to search

ECSTR – Search string

ECDIR – Search order

ECNUM – (Optional) Number of records to return [DEFAULT: 44]

ECADT – (Optional) date to determine clinic status (active/inactive)

ECLOC – (Optional) location (IEN) to filter associated clinic list

ECTYPE – (Optional) primary or secondary stop codes desired

ECOOS – (Optional) Set to "OOS" to only see "OOS" related

RETURN PARAMETER DESCRIPTION: Returns a list of values based on the search criteria.

23. EC GETLOC — Get all Locations from the INSTITUTION file (#4).

TAG: GLOC

ROUTINE: ECUMRPC2

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: This broker entry point returns all active, inactive or both locations from file #4.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following values:

STAT – Active, inactive or both (optional)

RETURN PARAMETER DESCRIPTION: Results array contain the following values:

1. Location IEN
2. Location description
3. State
4. Current Location Flag
5. Facility Type
6. Station Number

24. EC GETNATPX — Get the Procedures, both local and national, from the EC NATIONAL PROCEDURE file (#725).

TAG: ECNATPX

ROUTINE: ECUMRPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns an array of active, inactive or both of Event Capture national and local Procedures from file #725.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following subscripted elements:

ECPX – Procedures to output; L- local, N- National, B- Both

STAT – Active or inactive EC Nat Codes; A-ctive (default), I-nactive, B-oth

If no values are passed in it defaults to Local and Active.

RETURN PARAMETER DESCRIPTION: Returns an array of EC local/national procedures with the following pieces of data separated by an up-arrow.

1. File #725 IEN
2. Name
3. National Number
4. Inactive Date
5. Synonym
6. CPT IEN
7. CPT Code
8. CPT Short Name

25. EC GETPATCH — Indicates whether the specified patch has been installed.

TAG: PATCH

ROUTINE: ECUURPC

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: RESTRICTED

DESCRIPTION: Broker call checks to see if a patch has been installed. Returns 1 if patch is installed.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input a patch number, ex. EC*2.0*28.

RETURN PARAMETER DESCRIPTION: Returns a 1 if patch has been installed, otherwise returns a 0.

26. EC GETPATCLASTAT — Get the patient's classification status based on the date/time of the procedure.

TAG: PATCLAST

ROUTINE: ECUERPC1

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: RESTRICTED

DESCRIPTION: Returns a patient's in/out status and classifications.

Classifications are: Agent Orange, Ionizing Radiation, SC Condition, Environmental Contaminants, Military Sexual Trauma, Head/Neck Cancer, Combat Veteran, and Project 112/SHAD.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following values separated by up-arrow.

1. ECDFN — Patient IEN (#2)
2. ECD — DSS Unit IEN (#724)
3. ECDT — Procedure date and time (FileMan format)

RETURN PARAMETER DESCRIPTION: Returns a single line with values for a patient's status and classifications.

Data are delimited by (^) and '~'. Values after the '~' refer to those classifications that must be asked for when the answer to the service-connected classification is 'No'.

Pieces delimited by '^' are:

1. Patient Status: I for inpatient or O for outpatient
- 2-9. Classification:

2. Agent Orange
3. Ionizing Radiation
4. SC Condition
5. Environmental Contaminants
6. Military Sexual Trauma
7. Head/Neck Cancer
8. Combat Veteran
9. Project 112/SHAD

Data delimited by '^' follow those of '^'. Pieces as follows:

1. Agent Orange
2. Ionizing Radiation
3. Environmental Contaminants

27. EC GETPATELIG — Get a list of the patient's eligibilities.

TAG: ELIG

ROUTINE: ECUERPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns a list of patient eligibilities.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable, ECARY contains the patient IEN (#2).

RETURN PARAMETER DESCRIPTION: Returns an array of patient eligibilities as follows:

1. Primary/secondary Elig flag (Flag 1-primary, 0-secondary)
2. Eligibility IEN
3. Eligibility description

28. EC GETPATINFO — Get specific patient information from the EVENT CAPTURE PATIENT file (#721) based on the input parameter.

TAG: PATINF

ROUTINE: ECUERPC1

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: This is a general purpose call that provides segments of the patient data from the Event Capture Patient File #721.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The input variable ECARY contains the following values:

- ECIEN — Event Capture Patient ien (#2)
- ECTYP — Data type to return. Types are:
 - DXS — primary and secondary diagnosis codes
 - MOD — modifiers
 - CLASS — classification data
 - OTH — other type data

RETURN PARAMETER DESCRIPTION: Based on the type data requested, returns one of the following:

- DXS — primary and secondary diagnosis codes
- MOD — modifiers

CLASS – classification data
OTH – other type data

29. EC GETPATPROCS — Get patient procedures from the EVENT CAPTURE PATIENT file (#721) based on the input criteria.

TAG: PATPROC

ROUTINE: ECUERPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: Returns an array of patient entries from EVENT CAPTURE PATIENT FILE #721 that matches a location, DSS unit, patient DFN, start date and end date.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the following values separated by up-arrows:

1. ECLOC – Location IEN
2. ECPAT – Patient DFN (IEN)
3. ECUNT – DSS Unit IEN
4. ECSD – Start Date
5. ECED – End Date

RETURN PARAMETER DESCRIPTION: Returns an array with Event Capture Patient entries with the following data:

1. 721 IEN
2. Procedure date and time
3. Category
4. Procedure
5. Volume
6. Provider
7. Ordering Section
8. Associated Clinic
9. Primary Diagnoses
10. Provider IEN

30. EC GETPRBLST — List all problems for an Event Capture patient from the PROBLEM file (#9000011).

TAG: GETPLST

ROUTINE: ECUERPC2

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: SUBSCRIPTION

DESCRIPTION: Returns a problem list for an Event Capture patient.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input value, ECARY, contains the following values separated by "^"

ECIEN - Event Capture Patient IEN.

ECSTAT - The status of the problems to retrieve.

A = Active problems only.

I = Inactive problems only.

" " or undefined = all problems regardless of status.

RETURN PARAMETER DESCRIPTION: Returns an array of problem list for an Event Capture patient. Data pieces are:

1. Problem Status
2. ICD Code
3. ICD Code Description
4. Onset Date
5. Date of Last Modified
6. Provider
7. Service
8. Current Coding System Flag(1: Current Coding System, 0: If not)
9. ICD Code IEN

31. EC GETPRODEFS - Get the default Associated Clinic and the default Medical Specialty for the patient procedure.

TAG: PRDEFS

ROUTINE: ECUERPC

RETURN VALUE TYPE: SINGLE VALUE

AVAILABILITY: RESTRICTED

DESCRIPTION: This broker entry point returns the defaults for procedure data entry.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input value, ECARY, contains the following values separated by "^"

- ECL – Location IEN
- ECD – DSS Unit IEN
- ECC – Category IEN
- ECP – Procedure IEN

RETURN PARAMETER DESCRIPTION: Output value, RESULTS, contain the data pieces as follows:

- 1 – Associated Clinic IEN
- 2 – Associated Clinic
- 3 – Medical Specialty IEN
- 4 – Medical Specialty

32. EC GETPROVIDER — Get the list of providers who were valid on the date of the procedure.

TAG: PRVDER

ROUTINE: ECUERPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: AGREEMENT

DESCRIPTION: Returns an array of valid providers based on a procedure date.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the procedure date.

RETURN PARAMETER DESCRIPTION: Returns an array of active providers. Data pieces are as follows:

1. IEN of file #200
2. Provider Name
3. Occupation

- 4. Speciality
- 5. Subspecialty

33. EC GETPXLST — Get records from either the CPT file (#81) or the EC NATIONAL PROCEDURE file (#725) which match the search string.

TAG: PXFND
ROUTINE: ECUMRPC2
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: AGREEMENT
DESCRIPTION: Performs a search on a procedure string and returns an array list of matches from file #81 and/or #725.
User can type:

- 1. "A.search string" to search file #81.
- 2. "B.search string" to search file #725.
- 3. "search string" to search both files.

INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: Procedure search string.
RETURN PARAMETER DESCRIPTION: Returns a global array with:

- 1. Procedure IEN
- 2. Procedure Code and Name.

34. EC GETPXMODIFIER — Get the CPT modifiers for a procedure based on the procedure date.

TAG: ECPXMOD
ROUTINE: ECUERPC
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: AGREEMENT
DESCRIPTION: Returns CPT modifier entries for a CPT Procedure based on procedure date.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: Input variable ECARY contains the following values separated by up-arrows:

- 1. ECCPT – CPT Code IEN (file #81)
- 2. ECDT – Procedure date and time (FileMan format)

RETURN PARAMETER DESCRIPTION: Returns an array of CPT procedure modifiers as follows:

- 1. 2-character Modifier
- 2. Modifier Name
- 3. Modifier IEN (#81.3)

35. EC GETPXREASON — Get the procedure Reasons linked to an Event Code Screen.

TAG: ECPXRS
ROUTINE: ECUMRPC
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: AGREEMENT

DESCRIPTION: Return array entries with Procedure reasons linked to an Event Code screen.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The Event Code screen IEN from file #720.3.

RETURN PARAMETER DESCRIPTION: Returns an array with data containing

1. Procedure Reason
2. Procedure Reason IEN from file #720.4
3. Event Code Screens / Procedure Reason Link IEN from file #720.5

36. EC GETSCNHELP — Get the information for the topic help from the HELP FRAME file (#9.2).

TAG: ECHelp

ROUTINE: ECUURPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: PUBLIC

DESCRIPTION: Returns the text from the HELP FRAME file (#9.2) based on a help frame.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: Input variable ECARY contains the name of the help frame.

RETURN PARAMETER DESCRIPTION: Returns an array with help text from the HELP FRAME File (#9.2).

37. EC GETUSRDSSUNIT — Get the DSS Units for which the user has access.

TAG: USRUNT

ROUTINE: ECUERPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: Returns an array of DSS units for which the user has access.

INPUT PARAMETER: ECARY

PARAMETER TYPE: LITERAL

DESCRIPTION: The input variable ECARY contain the following '^' delimited values.

1. ECL – Location IEN from INSTITUTION file (#4); if defined, gives User's DSS units for a location
2. ECDUZ – IEN from NEW PERSON file (#200); if defined, gives list of DSS Units available to user
3. ECSUMUSR – Set if getting DSS units for the 'Print Category and Procedure Summary Report' (optional)
4. ECDUST – DSS Unit Status (Active/Inactive/Both) if getting units for the 'Print Category and Procedure Summary Report' (optional)

RETURN PARAMETER DESCRIPTION: Returns an array of DSS Units. Data pieces separated by an up-arrow as follows:

1. IEN of DSS UNIT file (#724)
2. Name of DSS Unit
3. Send to PCE Flag
4. Data entry date/time default

38. EC GETVERSION — Get the version number of the Event Capture software that is present on the server.

TAG: VERSRV
ROUTINE: ECUURPC
RETURN VALUE TYPE: SINGLE VALUE
AVAILABILITY: RESTRICTED
DESCRIPTION: Returns the server version of a particular option. This is used by ECS GUI to determine the current server version of the software.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: ECARY contains the option name and client version of the software.
RETURN PARAMETER DESCRIPTION: Returns the server version of the software.

39. EC GETVISITINFO — Get patient information related to a visit.

TAG: VISINFO
ROUTINE: ECUERPC2
RETURN VALUE TYPE: SINGLE VALUE
AVAILABILITY: RESTRICTED
DESCRIPTION: This broker call returns specific EC patient visit data (location, DSS Unit, patient IEN, etc.) based on a Visit Number.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: The value ECARY contains the Visit Number IEN (ECVSN) from the VISIT file (#9000010).
RETURN PARAMETER DESCRIPTION: This call returns the following EC patient values separated by an up-arrow (^):
 1. Location IEN
 2. Location Name
 3. DSS Unit IEN
 4. DSS Unit Name
 5. Send to PCE value
 6. Procedure Date/Time FileMan format
 7. Procedure Date/Time human readable format
 8. Patient DFN
or (if error):
 1. 0
 2. Error Message

40. EC ICD10IMPLEMENTATIONDATE — Get the date the ICD-10 code set was implemented for Event Capture.

TAG: ICD10
ROUTINE: ECVICDDT
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: RESTRICTED
DESCRIPTION: The EC ICD10IMPLEMENTATIONDATE RPC returns the Implementation Date of ICD-10 Code Set in MM/DD/YYYY format OR -1^Error Message.

41. EC RECENT VISITS — Get the recent visits for a selected patient.

TAG: RCNTVST
ROUTINE: ECUTL1
RETURN VALUE TYPE: ARRAY
DESCRIPTION: Returns the 60 most recent visits/appointments for a selected patient for the selected location.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: ECARY will be sent with two delimited pieces of information.
 DFN – patient's IEN
 LOC – (optional) IEN of the location to filter visits/appts
RETURN PARAMETER DESCRIPTION: Return parameter is an array containing:
 Piece 1 – Date of visit, internal FileMan date
 Piece 2 – Date of Visit (readable) and Clinic Name
 Piece 3 – Date of Visit (readable)
 Piece 4 – Clinic Name

42. EC REPORTS — The RPC Broker entry point for EC reports. The input parameter indicates where the output is to be sent - a printer, a device, a queue, or an export file. Some screens (e.g. the Event Code Screens Table) use this RPC to populate the rows of a table.

TAG: RPTEN
ROUTINE: ECRRPC
RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: RESTRICTED
DESCRIPTION: This call is used by all Event Capture GUI reports. Produces report based on option selected from the Delphi application.
INPUT PARAMETER: ECARY
PARAMETER TYPE: LIST
DESCRIPTION: The input array ECARY will be defined based on the report to be generated. The report handle or type must be defined. It is also necessary to specify whether the report will be printed to a device or displayed. The following is an example of the variables defined for 'Patient Summary Report':
 ECARY("ECDFN")=170
 ECARY("ECED")=3010430
 ECARY("ECHNDL")="ECPAT"
 ECARY("ECPTYP")="D"
 ECARY("ECRY")=Y
 ECARY("ECSD")=3010401
RETURN PARAMETER DESCRIPTION: Returns the report, or the task number if queued.

43. EC SPACEBAR — Returns the equivalent to the "Spacebar / Return" feature in VistA, retrieving the last record accessed for the specified file.

TAG: ECDEF
ROUTINE: ECUERPC1
RETURN VALUE TYPE: SINGLE VALUE
AVAILABILITY: RESTRICTED
DESCRIPTION: This RPC would return the value equivalent to when the 'Spacebar and Return' keys are entering in the VISTA package.

INPUT PARAMETER: ECARY
PARAMETER TYPE: LITERAL
DESCRIPTION: The input variable ECARY contains the value of the file to obtain the VISTA equivalent of 'spacebar return'.
RETURN PARAMETER DESCRIPTION: The RESULTS variable contains the IEN and the .01 field description.

44. EC VALIDATE SPREADSHEET DATA — Perform validation checks for all fields represented by a row in the spreadsheet.

TAG: IN
ROUTINE: ECV1RPC
RETURN VALUE TYPE: ARRAY
AVAILABILITY: PUBLIC
DESCRIPTION: This RPC validates EC spreadsheet data and returns an array containing error messages
INPUT PARAMETER: ECDATA
PARAMETER TYPE: LITERAL
DESCRIPTION: This is a row of data in the spreadsheet
RETURN PARAMETER DESCRIPTION: This is a list of error codes and messages

45. ORWU DEVICE — Get a list of print devices which are registered in VistA.

TAG: DEVICE
ROUTINE: ORWU
RETURN VALUE TYPE: ARRAY
AVAILABILITY: SUBSCRIPTION
APP PROXY ALLOWED: Yes
DESCRIPTION: Returns a list of print devices.

46. ORWU HASKEY — Determine whether the user has a specified security key.

TAG: HASKEY
ROUTINE: ORWU
RETURN VALUE TYPE: SINGLE VALUE
DESCRIPTION: Returns 1 if a user holds a security key, otherwise 0.

47. ORWU NEWPERS — Get a group of records from the NEW PERSON file (#200) for use in populating a list box.

TAG: NEWPERS
ROUTINE: ORWU
RETURN VALUE TYPE: ARRAY
APP PROXY ALLOWED: Yes
DESCRIPTION: Returns a set of NEW PERSON file (#200) entries for use in a long list box.

48. ORWU USERINFO — Get relevant information for the current user.

TAG: USERINFO
ROUTINE: ORWU
RETURN VALUE TYPE: SINGLE VALUE
APP PROXY ALLOWED: Yes

DESCRIPTION: Returns preferences for the current user.

49. SC PATIENT LOOKUP — Get records from the PATIENT file (#2) matching the search criteria.

TAG: FINDP

ROUTINE: SCUTBK11

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

DESCRIPTION: Patient lookup.

This is intended as a temporary RPC until a VA or FileMan component is available. Does a Multiple index lookup on the PATIENT file (#2). This does not invoke DPTLK. Given lookup value, this returns a list of the form DFN^patient name^DOB^PID.

Only the first 500 records that match the value are returned.

INPUT PARAMETER: LIST ATTRIBUTES

PARAMETER TYPE: LIST

7.4 HL7 Messaging

N/A

7.5 Web Services

N/A

8 Standards and Conventions Exemptions

N/A

8.1 Internal Relationships

All Event Capture options are designed to stand alone. Each option can be independently invoked.

8.2 Software-wide Variables

N/A

9 Security

This section identifies security measures that must be in place for normal operation of the ECS application. Event Capture security is maintained through the use of security keys, file protection, and option assignment in addition to standard VistA logon security.

9.1 Security Menus and Options

N/A

9.2 Security Keys and Roles

Take the following steps from the VistA Systems Manager Menu to obtain information about the security keys contained in the Event Capture software:

- Step 1. VA FileMan
- Step 2. Print File Entries
- Step 3. OUTPUT FROM WHAT FILE: PRINT TEMPLATE// **Security Key**
- Step 4. SORT BY: NAME// **<Enter>**
- Step 5. START WITH NAME: FIRST// **EC**
- Step 6. GO TO NAME: LAST// **ECX**
- Step 7. WITHIN NAME, SORT BY: **<Enter>**
- Step 8. FIRST PRINT FIELD: **Name**
- Step 9. THEN PRINT FIELD: **Description**
- Step 10. THEN PRINT FIELD: **<Enter>**
- Step 11. Heading (S/C): SECURITY KEY LIST// **<Enter>**
- Step 12. START AT PAGE: 1// **<Enter>**
- Step 13. DEVICE: **<Enter>** HOME (CRT) Right Margin: 80// **<Enter>**

9.3 File Security

9.3.1 VA FileMan Access Codes

Table 5 lists the recommended VA FileMan Access Codes for the ECS GUI Software.

Table 5 VA FileMan Access Codes

File Number	File Name	Data Dictionary (DD) Access	Read (RD) Access	Write (WR) Access	Delete (DEL) Access	Learn-As-You-Go (LAYGO) Access
720.1	EVENT CAPTURE LOG	@				
720.3	EC EVENT CODE SCREENS	@				

File Number	File Name	Data Dictionary (DD) Access	Read (RD) Access	Write (WR) Access	Delete (DEL) Access	Learn-As-You-Go (LAYGO) Access
720.4	EC PROCEDURE REASON	@	@	@	@	@
720.5	EC EVENT CODE SCREENS/PROC REASON LINK	@	@	@	@	@
721	EVENT CAPTURE PATIENT	@				
722	EVENT CAPTURE PROVIDER					
723	MEDICAL SPECIALTY	@				
724	DSS UNIT	@				
725	EC NATIONAL PROCEDURE	@				
726	EVENT CAPTURE CATEGORY	@				

Entries in the MEDICAL SPECIALTY file (#723) are set by the MCAO or its designee. Any additions, deletions, or modifications will be distributed nationally through the release of the Event Capture software.

Entries in the EC NATIONAL PROCEDURE file (#725) are also set by the MCAO or its designee. The Event Capture Management Menu provides the option to add locally recognized procedures to this file. Each entry in a file is assigned an Internal Entry Number (IEN) or record number. When the site adds a local entry, the software forces the IEN to be 90000 or higher.

9.4 Electronic Signatures

N/A

9.5 Secure Data Transmission

N/A

10 Archiving

The Event Capture software does not provide for the archiving or purging of its data.

11 Non-Standard Cross-References

N/A

12 Troubleshooting

Sites should have a backup emergency plan in place in the event the system goes down. Technical users of the ECS software should ensure that a local contingency plan is used in the event of application problems in a live environment. The plan should identify the procedure(s) for maintaining the functionality in the event of a system outage. Field Station ISOs can get assistance from the Regional ISO.

General Troubleshooting Tips:

- Throughout the ECS GUI application, click the question mark button (located on the toolbar or at the bottom right corner of the screen) to obtain online information for any screen.
- To obtain online information for a field, select that field and press <F1>.

12.1 Special Instructions for Error Correction

A back-out of the software should only be performed in response to severe system impairment and there is no other option available. Specific back-out guidance is provided in the EC*2.0*165 DIBR, which can be found on the [VA Software Documentation Library \(VDL\)](#).

Please use the VA YourIT service portal to enter a ticket for additional assistance.

12.2 National Service Desk and Organizational Contacts

The Enterprise Service Desk (ESD) Provides critical IT support to Veterans Affairs. Contact information can be found online at the VA YourIT service portal.

Appendix A Acronyms

Table 6 lists the acronyms used throughout the ECS Technical Manual and their appropriate descriptions.

Table 6 Acronyms

Acronym	Description
API	Application Programming Interface
CPRS	Computerized Patient Record System
CPT	Current Procedural Terminology
DD	Data Dictionary
DRG	Diagnosis Related Group
DSS	Decision Support System
EC	Event Code
ECS	Event Capture System
ESD	Enterprise Service Desk
GUI	Graphical User Interface
HCPCS	Healthcare Common Procedure Coding System
IEN	Internal Entry Number
ICR	Integration Control Registrations
ISO	Information Security Officer
LAYGO	Learn-As-You-Go
MCAO	Managerial Cost Accounting Office
MUMPS	Massachusetts General Hospital Utility Multi-Programming System
OIT	Office of Information and Technology
PCE	Patient Care Encounter
PIMS	Patient Information Management Service
RD	Read Access
RPC	Remote Procedure Call
UCI	User Class Identifier
VA	Department of Veterans Affairs
VAMC	Veterans Affairs Medical Center

Acronym	Description
VDL	VA Software Documentation Library
VHA	Veterans Health Administration
VistA	Veterans Health Information Systems and Technology Architecture
WR	Write Access

Appendix B Glossary

Table 7 lists terms used throughout the ECS Technical Manual.

Table 7 Glossary of Terms

Term	Definition
Category	Provides a common level to group associated procedures. Multiple procedures can be defined for each category.
Cost Center	Reveals which service is using the specified DSS Unit. Cost centers are defined in the Fiscal Service cost manuals.
DSS Unit	Defines the lowest level segment used for tracking hospital resources. These units can be a small work unit within a service, or a large division within a service. Management at each facility is responsible for tailoring the DSS Units to fit its resource/cost reporting needs.
DSS Unit Number	Four- to seven-character Department Cost Manager (DCM) department code. MCAO will be providing guidance to VAMCs regarding what they should enter.
Event Capture	Software designed to provide management tools necessary to track procedures not tracked by other VistA software.
Event Code Screen	Unique combination of location, DSS Unit, category and procedure that defines patient procedures.
FileMan	This system implements the VistA database engine and is the basis for several patient safety controls, as well as fiscal integrity controls. It implements security, confidentiality, and privacy controls, and is a critical component in meeting the requirements of Enterprise Architecture.
Kernel	This system implements security, confidentiality, and privacy controls for VistA, including user authentication algorithms. It provides many tools for the safe construction of local software, and it implements many national control files, to include, but not limited to, New Person, Institution, State, etc. This system is a critical component in meeting the requirements of Enterprise Architecture.
Location	Facility or division name as it appears in the INSTITUTION file (#4).
Procedure	A specific function performed on, or service provided to, a patient.
Provider	The person performing the procedure.
Remote Procedure Call (RPC)	This system supports client and/or server messaging used by CPRS, Bar Code Medication Administration (BCMA), and others, to access the MUMPS database through APIs. It provides a development kit for local development, and it implements security, confidentiality, and privacy controls. This system is a critical component in meeting the requirements of Enterprise Architecture.