



ERROR PROCESSING TOOL

HEALTH ELIGIBILITY CENTER (HEC)

DRAFT TECHNICAL MANUAL

Patch IVMB\*2\*601

November 2001

Department of Veterans Affairs  
VISTA System Design & Development

# Table of Contents

Revision History .....	iii
Introduction.....	1
Overview.....	1
Related Manuals.....	2
Implementation and Maintenance.....	3
Implementation .....	3
Maintenance.....	3
User Groups .....	3
Purge Parameter .....	3
Files.....	4
File List .....	4
File Flow (Relationships Between Files).....	4
Templates.....	5
List Templates.....	5
Routines .....	6
Routines to Map.....	6
Callable Routines.....	6
Routine List.....	6
Exported Options .....	8
Menu Diagram .....	8
Server Options .....	8
Exported Protocols.....	9
Archiving and Purging.....	10
Archiving .....	10
Purging.....	10
Callable Routines/Entry Points/Application Programmer Interfaces (APIs).....	11
External Interfaces .....	11
External/ Internal Relations .....	12
External Relations.....	12
Database Integration Agreements (DBIAs).....	12
Internal Relations.....	12
Package-wide Variables.....	13
SACC Exemptions/Non-standard Code.....	13
Security .....	14
Security Management .....	14
Security Features.....	14
Mail Groups and Alerts.....	14
Remote Systems.....	14
Archiving and Purging.....	14
Contingency Planning.....	15
Interfacing .....	15
Electronic Signatures .....	15
Menus.....	15

Security Keys .....	15
File Security .....	15
References.....	15
Official Policies .....	16
Glossary .....	17
Index .....	18

## Revision History

<b>Revision Date</b>	<b>Description</b>	<b>Author</b>
5/18/2001	Initial Version	Karen Stella
1/22/2002	Updated to include Patch IVMB*2*601 functionality	Karen Stella
1/28/2002	Updated title page, footers, introduction	Karen Stella
3/19/02	Updated Introduction section	Wendy Cobb

# Introduction

## **Overview**

Phase 1 of the Error Processing Tool project created a file in which both Application Error (AE) and Consistency Check (CC) error messages were filed. Software was developed to allow processing of the CC errors: to easily correct the inaccurate data, send the updated data to the VA Medical Centers (VAMCs), and track the progress of the error correction process.

Phase 2 of the Error Processing Tool project adds the processing of Review File cases to the tool created in Phase 1. This is possible because the procedures to correct the Review File cases are similar to those processes used to correct the CC errors, and this software more closely meets the needs of the users than the current Review File software.

Entries are filed into the Review File when the solicited or unsolicited Z11 HL7 messages from the Austin Automation Center (AAC) are received at the Health Eligibility Center (HEC), and the data in the message is found to have some type of inconsistency with the data on file at the HEC. This data must be evaluated to determine if it should be uploaded into the HEC system.

Patch IVMB\*2\*601 merges the Consistency Check errors and Application Errors from the HEC ERROR PROCESSING LOG File #742080 (old) into the HEC ERROR PROCESSING PROJECT File #742085 (new), and applies the needed modifications to the tool to incorporate the Review File errors.

## ***Related Manuals***

The following manuals will also be released with Patch IVMB\*2\*601:

- Error Processing Tool Release Notes
- Error Processing Tool User Manual

You can download the Error Processing Tool documentation as follows:

From the Anonymous Directory

1. Go to the anonymous.software directory.
2. Ftp the files listed in the following table. Remember to use binary format.

<b>File Name</b>	<b>Documentation Component</b>
IVMB_p601_hec_um.pdf	User Manual
IVMB_p601_hec_rm.pdf	Release Notes

From the Project Notebook Web Page

<http://tspr.vista.med.va.gov/warboard/anotebk.asp?proj=542&Type=Closed#Documentation>

# Implementation and Maintenance

## ***Implementation***

All users must be defined in a user group in order to access the Error Processing Tool software. Supervisors must assign members to user groups using the Error Processing User Group menu option.

For detailed installation instructions, refer to the IVMB\*2\*601 patch description in the Patch Module.

## ***Maintenance***

### User Groups

The Error Processing User Group option allows error messages to be assigned to a class of users instead of being assigned to an individual user. It also allows supervisors to assign individual users to a user-defined group and to define the sort criteria for displaying the list of error messages displayed in the error processing tool.

It is very important to accurately maintain user group membership. A user must be defined in at least one user group to be able to access the Error Processing Tool software.

### Purge Parameter

Use the Error Message Purge Parameter option to define the number of days that errors with a status of CLOSED or DELETE remain in the HEC ERROR PROCESSING LOG File (#742085) before being purged.

# Files

## ***File List***

The following files are associated with the Error Processing Tool:

<b>File #</b>	<b>File Name</b>	<b>Description</b>	<b>Global</b>
742080	HEC ERROR PROCESSING LOG	Tracks the progress of an error message in the HEC. The information captured by this log will be used for managerial reports. This file will be accessed on a daily basis, recording when errors are received at the HEC and their status updates until they are finally resolved.	^IVMGA(742080,
742081	HEC ERROR PROCESSING GROUP	Stores the user group name and user name. After the initial definition, this file should require very little maintenance. It will be used to identify potential user groups that may be assigned responsibility for error processing.	^IVMGA(742081,
742082	HEC ERROR PROCESSING USER	Stores user name and staff position (supervisor or contact representative), and sort order.	^IVMGA(742082,
742085	HEC ERROR PROCESSING PROJECT	Stores error data	^IVMGA(742085,

## ***File Flow (Relationships Between Files)***

1. VA FileMan
2. Data Dictionary Utilities Menu
3. List File Attributes option
4. Enter file number
5. Select Standard listing format
6. Select print device



## ***Templates***

### List Templates

<b>Routine Name</b>	<b>Function</b>	<b>Description</b>
AYCBEP ERROR PROCESSING	Menu	This screen is used as the main entry point for the tool.
AYCBEP	Display	This screen is used only to display a list of errors that exist in a single patient's file.
AYCBEV VIEW ERROR DETAIL	Protocol	Used to view the details of a single error, this screen also is used as the entry point for the Entry/Edit protocol.

# Routines

## *Routines to Map*

The routines in the Error Processing Tool software do not require mapping.

## *Callable Routines*

There are no callable routines in the Error Processing Tool software.

## *Routine List*

The following is a list of the IVM routine(s) included in this patch. The second line of each of these routine(s) will look like:

```
<tab>;;2.0;INCOME VERIFICATION;**[patch list]**;May 25, 1994
```

<b>Routine Name</b>	<b>Before Patch</b>	<b>After Patch</b>	<b>Patch List</b>	<b>Bytes</b>
AYCBAAC	6714728	7234340	125,146,174,182,184,191,217,190,291,332,356,414,561,601	7411
AYCBCMN	13903817	13903817	277,510,455,463,601	9271
AYCBDVE R	4267167	2799699	125,149,190,280,299,561,601	3533
AYCBEF	335992	336001	463,601	536
AYCBENA V	5130603	3996759	188,195,201,221,190,257,287,295,330,359,392,455,532,601	6960
AYCBENR	6019986	7560158	125,142,146,138,149,182,191,201,224,190,308,332,347,356, 414, 561,601	9385
AYCBEP	21433008	39389312	463,601	9164
AYCBEP1	N/A NEW	2305048	601	2319
AYCBEP2	6778011	7788051	463,601	6725
AYCBEPG	10886676	11048387	463,601	9230
AYCBEPL1	16186122	14028330	463,601	8943
AYCBEPL2	17874376	19646739	463,601	10000
AYCBEPL3	18907582	18603483	463,601	9893
AYCBEPL4	N/A NEW	15004252	601	9587
AYCBEPL5	20460714	28630197	463,601	9768
AYCBEPL6	N/A NEW	4955364	601	3018
AYCBEPPE	1660266	1024790	463,601	1357
AYCBEPRE	14915725	16062006	463,601	9662
AYCBEPRE1	13072577	12197965	463,601	8864
AYCBEPRE2	14646945	15689965	463,601	7801
AYCBEPRE3	8909791	11065896	463,601	8364
AYCBEPRE4	7076837	12867721	463,574,601	9433
AYCBEPRE5	3463967	14072031	463,601	8017
AYCBEPRE6	N/A NEW	12016515	601	8764
AYCBEPRE7	N/A NEW	15811027	601	8213
AYCBEPRE8	N/A NEW	8861427	601	6585
AYCBEPS4	N/A NEW	13834696	601	9178

AYCBEPS5	N/A NEW	8003909	601	9003
AYCBEPS6	N/A NEW	2751531	601	3198
AYCBEV	7789071	14812705	463,601	9892
AYCBFLA G	6900596	8268172	125,210,328,561,601	6461
AYCBNAM E	2854969	2596147	125,165,176,219,255,190,299,601	3456
AYCBSCA W	399864	938119	146,181,468,601	1581
AYCBTAA C	7840191	10083264	125,224,313,332,401,455,561,601	7443
AYCBTBT1	7626309	7626494	277,392,397,414,412,463,601	9895
AYCBTBT O	7668388	7668573	277,392,397,414,463,601	9856
AYCBUTL2	5652416	5663532	248,332,455,601	6997
AYCBXRE F	N/A NEW	4088247	601	3669
AYCBZRD	2110368	2305223	125,146,180,601	1328
AYCEPHPT	5339525	8474295	491,535,601	6576
IVMB601P	N/A NEW	3930563	601	2646
IVMBACK1	19658719	19723381	173,196,208,233,412,463,601	9891

The following is a list of the VIVA routine(s) included in this patch. The second line of each of these routine(s) will look like:

```
<tab>;;1.0;VIVA;**[patch list]**;May 28, 1996
```

Routine Name	Before Patch	After Patch	Patch List	Bytes
IVMEV11	13048910	12987947	9,50,15,16,24,166,30,256,292,455,463,565,601	7808
IVMEV12	11224568	11399431	5,9,11,50,15,16,565,292,455,463,582,601	7184
IVMEV13	11799174	11920864	20,22,24,166,292,455,463,565,601	7375

# Exported Options

## ***Menu Diagram***

```
Error Processing Tool (AYCB ERROR PROCESSING TOOL)
|
|
----1 Error Processing Menu
      [AYCB ERROR PROCESSING MENU]

----2 Error Processing Reports
      [AYCB ERROR PROCESSING REPORTS]

----3 Error Processing Purge Parameters
      [AYCB EDIT PURGE DATE]

----4 Error Processing User Group
      [AYCB ERROR PROCESSING GROUP]

----5 Error Processing Inquiry  ←New in Phase 2!
      [AYCB SINGLE RECORD LOOKUP]
```

## ***Server Options***

```
AYCBEP ERROR LOG SERVER.....Error Processing Server
```

## Exported Protocols

The following protocols are exported with the Error Processing Tool:

Protocol Name	Associated Function	Description
AYCBEP MENU	Menu	Set to Menu. Contains the following protocols: <ul style="list-style-type: none"> <li>• AYCBEP DATE RANGE</li> <li>• AYCBEP SORT</li> <li>• AYCBEP RETRANSMIT</li> <li>• AYCBEP FIND PATIENT</li> <li>• AYCBEP ASSIGN STAFF</li> <li>• AYCBEP MAIL</li> <li>• AYCBEP UPDATE STATUS</li> <li>• AYCBEP VIEW ERROR</li> <li>• AYCBEP ENTER/EDIT</li> </ul>
AYCBEP DATE RANGE	Change Date Range	Used to create a new list of errors within a user-supplied date range.
AYCBEP SORT	Sort List	Displays the existing list of errors in a different order according to a User selected sort order. The sort options are Assigned To, Date/Time, Patient Name, Error Text, Station Logging Error, and Error Status.
AYCBEP RETRANSMIT	Retransmit Patient File	Flags the appropriate files which causes the chosen patient's file to be retransmitted to the site(s) that the patient has visited.
AYCBEP FIND PATIENT	Check Errors	Used to view a new list composed of all of the errors associated with a selected patient.
AYCBEP ASSIGN STAFF	Assign Staff	Used to assign errors to individual users or a group of users for repair of faulty data.
AYCBEP MAIL	Mail Message	Invokes the VA MailMan messaging system.
AYCBEP UPDATE STATUS	Update Error Status	Used to change the status of an error.
AYCBEP VIEW ERROR	View Error Detail	Displays a new list composed of the details associated with a single error. It will also have a Menu setting, and contain the following protocols: <ul style="list-style-type: none"> <li>• AYCBEP RETRANSMIT</li> <li>• AYCBEP FIND PATIENT</li> <li>• AYCBEP ASSIGN STAFF</li> <li>• AYCBEP MAIL</li> <li>• AYCBEP UPDATE STATUS</li> <li>• AYCBEP VIEW ERROR</li> <li>• AYCBEP ENTER/EDIT</li> </ul>
AYCBEP ENTER/EDIT	Enter/Edit VIVA Data	Entered only through the view error screen. Allows the user to modify VIVA data, then transmit the file to the appropriate site(s).
AYCBEP ADD COMMENT	Enter/Edit/View	Used to enter, edit, and view 240 characters of free text about a case. This option shall be available for processing consistency check and review file errors.
AYCBEP VIEW AAC HL7 DATA	View AAC HL7 Data	Used as a view only screen which will list 22 fields transmitted by the HL7 message from the AAC.
AYCBEP SPACER	View Error Detail	Used to format the protocol list shown in the View Error Detail option.

# Archiving and Purging

## ***Archiving***

There are no archiving capabilities exported with the Error Processing Tool software.

## ***Purging***

Option AYCB EDIT PURGE DATE allows users to define the number of days that errors with a status of CLOSED or DELETE remain in the Error Message Log File before being purged.

## Callable Routines/Entry Points/Application Programmer Interfaces (APIs)

There are no callable routines, entry points or APIs that can be called by other products. Any of the APIs called are existing routines.

## External Interfaces

Phase 2 of the Error Processing Tool project (Patch IVMB\*2\*601) adds the processing of Review File cases to the Error Processing Tool created in Phase 1. Entries are filed into the Review File when the solicited or unsolicited (ORF/ORU) Z11 HL7 messages from the AAC are received at the HEC, and the data in the message is found to have some type of inconsistency with the data on file at the HEC. This data must be evaluated to determine if it should be uploaded into the HEC system.

## External/ Internal Relations

### ***External Relations***

The following **VISTA** package versions or higher must be installed prior to installing the Error Processing Tool software:

<b>Package Name</b>	<b>Minimum Version Required</b>
IVM	2.0
Kernel	8.0
VA FileMan	22.0
<b>VISTA HL7</b>	1.6

### ***Database Integration Agreements (DBIAs)***

There are no DBIAs associated with the Error Processing Tool software.

### ***Internal Relations***

All of the Error Processing Tool options have been designed to stand alone.



## Package-wide Variables

There are no package-wide variables associated with the Error Processing Tool software.

### ***SACC Exemptions/Non-standard Code***

There are no SACC exemptions associated with the Error Processing Tool software.

# Security

## **Security Management**

There are no unique legal requirements associated with the Error Processing Tool software. In accordance with VHA Directive 10-93-142, the files and fields exported with the Error Processing Tool software should not be modified locally.

## **Security Features**

### Mail Groups and Alerts

The following mail groups are associated with the Error Processing Tool:

<b>Mail Group Name</b>	<b>Description</b>
Error Processing Active/Exempt	Receives any errors encountered during the installation of this software and the totals of records created, deleted, or purged
Error Processing Active/Exempt	Includes several people at the HEC.

### Remote Systems

The Health Eligibility Center (HEC) system sends eligibility data, enrollment data, income data, and means test data to the local VA Medical Centers (VAMCs) using HL7 messaging. Eligibility, enrollment, and income data are sent via a Z11 HL7 transmission; means test data via a Z10 HL7 transmission. In the event that a local VAMC is unable to process the information received, it will notify the HEC of a problem. This notification is transmitted via an Application Error (AE) message.

The HEC performs its own error checking to prevent bad data from being sent to the VAMC where it will be rejected and sent back to the HEC as an application error message. This error checking process notifies the HEC of the problem via a Consistency Check (CC) message. Previously, both the AE and CC messages were transmitted via a bulletin to various users at the HEC. Some of these error messages can be corrected through a manual correction at the HEC; the patient record must then be re-queued to be transmitted to the VAMC.

The Error Processing Tool was created to easily correct the inaccurate data, send the updated data to the VAMC, and keep track of the progress of the error correction process. It allows users to review the errors, exchange messages with VAMC personnel regarding the resolution of the data discrepancy, queue a transmission to be sent to the VAMC, and make corrections at the HEC, if necessary.

### Archiving and Purging

See Archiving and Purging section of this manual.

## Contingency Planning

Using services should have a local contingency plan to be used in the event of application problems in a live environment. The plan should identify the procedure(s) for maintaining the functionality provided by Error Processing Tool software in the event of system outage. Field Station Information Security Officers (ISOs) can get assistance from the regional ISO (RISO).

## Interfacing

There are no specialized products embedded within or required by the Error Processing Tool software.

## Electronic Signatures

The Error Processing Tool software does not use electronic signatures.

## Menus

There are no new or existing menu options that would warrant warnings about sensitive patient data being displayed when using any of the Error Processing Menu options.

## Security Keys

Contact Representatives are limited to the menu options that are available. These limitations will be accomplished by Security Keys. The security keys needed will be set up on the following menu options:

- 2 Error Processing Reports
- 3 Error Processing Purge Parameters
- 4 Error Processing User Group

## File Security

The following is a list of recommended VA FileMan access codes for the files in the Error Processing Tool software:

File Number	File Name	DD	RD	WR	DEL	LAYGO	AUDIT
742080	HEC ERROR PROCESSING LOG FILE	@	@	@	@	@	@
742081	HEC ERROR PROCESSING GROUP FILE	@	@	@	@	@	@
742082	HEC ERROR PROCESSING USER FILE	@	@	@	@	@	@

## References

None

## Official Policies

In accordance with VHA Directive 10-93-142, the files and fields exported with the Error Processing Tool software should not be modified locally.

# Glossary

<b>Acronym</b>	<b>Description</b>
AE	Application Error
CC	Consistency Check
HEC	Health Eligibility Center
HL7	Health Level Seven
IEN	Internal Entry Number
SDD	Software Design Description
SRS	Software Requirements Specification
SSN	Social Security Number
VA	Veterans Affairs
VAMC	Veterans Affairs Medical Center
VHA	Veterans Health Administration
<b>VISTA</b>	Veterans Health Information Systems and Technology Architecture
VIVA	Veterans Identification & Verification Access
Z10	HL7 transmission from the HEC to VAMC site which contains income test data.
Z11	HL7 transmission from the HEC to VAMC site which contains a veteran's eligibility and enrollment information.

# Index

## **A**

Archiving and Purging..... 10

## **C**

Callable Routines..... 6

Callable Routines/Entry Points/Application Programmer Interfaces (APIs)..... 11

## **D**

DBIA Agreements ..... 12

## **E**

Exported Options ..... 8

Exported Protocols..... 9

External Interfaces ..... 11

External Relations..... 12

External/ Internal Relations ..... 12

## **F**

File Flow (Relationships Between Files)..... 4

File List..... 4

Files..... 4

## **I**

Implementation ..... 3

Implementation and Maintenance..... 3

Internal Relations ..... 12

Introduction..... 1

## **L**

List Templates..... 5

## **M**

Maintenance ..... 3

Menu Diagram ..... 8

## **P**

Package-wide Variables..... 13

Purge Parameter ..... 3

## **R**

Related Manuals..... 2

Routine List..... 6

Routines ..... 6  
Routines to Map..... 6

**S**

SACC Exemptions/Non-standard Code..... 13  
Security ..... 14

**T**

Templates ..... 5

**U**

User Groups ..... 3