



RESOURCE AND PATIENT MANAGEMENT SYSTEM

RPMS Electronic Health Information (EHI) Export

(BREH)

Installation Guide and Release Notes

Version 1.0
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Office of Information Technology
Division of Information Technology

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Preface

The purpose of this manual is to provide the user with the information required to install the Version 1.0 release of the RPMS EHI EXPORT (BREH) application.

1.0 Release Notes

The RPMS EHI EXPORT Export application allows users to generate an industry-standard machine-readable document containing all of a patient’s electronic health information (EHI) stored in the RPMS Electronic Health Record (EHR) using a predefined national schema for a single patient or a patient population. EHI means “electronic protected health information” (ePHI) as defined in 45 CFR 160.103 to the extent that it would be included in a designated record set (DRS) as defined in 45 CFR 164.501. EHI exports should exclude psychotherapy notes and other information compiled in reasonable anticipation of, or for use in, a civil, criminal, or administrative action or proceeding.

The RPMS EHI EXPORT version 1.0 application release includes the following features found in Table 1-1:

Table 1-1: RPMS EHI EXPORT application included feature listing

Feature/CR Number	Description
Feature 61060 – EHI: Export exclusions	Provide the functionality to exclude specific information found in patient records
Feature 61062 – EHI: Create EHI documents for patients	Create functionality to generate an EHI document for a patient, multiple patients, or all patients
Feature 61063 – EHI: Create Schema	Create functionality to provide publicly accessible schema

2.0 Installation Notes

Prefix: BREH

Current Version: 1.0

2.1 Contents of Distribution

The BREH version 1.0 distribution has the following items documented in Table 2-1:

Table 2-1: Distribution contents

File	Description
breh0100.k	KIDS file
breh010i.pdf	Installation Guide and Release Notes (this document)
breh010t.pdf	Technical Manual
breh010u.pdf	User Guide

2.2 Required Resources

2.2.1 General Information

Table 2-2 shows the prerequisite patch requirements to install BREH version 1.0.

Table 2-2: Prerequisite patch requirements

Package and Version	Associated Patch Designation(s)	Brief Patch Description
Veterans Administration (VA) FileMan (DI)	Patch 1020	The version 22.0 patch 1020 release.
VA Kernel (XU)	Patch 1020	The version 8.0 patch 1020 release.

2.2.2 CPU capacity requirements

Generating a BREH EHI export for a single patient should not adversely affect other processes running on the server. However, when choosing to perform a BREH EHI export of all patients on a system, care should be taken to run the export process during off hours when a limited number of users are on the system.

2.2.3 Disk space

2.2.3.1 Disk space required for installation

The site will need to have enough free disk space in the directory which will hold the KIDS build with the BREH software. The unzipped version of the KIDS build is approximately 4 MB in size.

2.2.3.2 Disk space required for single BREH EHI document generation

An EHI document generated for a single patient can vary greatly in size. Depending on the amount of care recorded for a patient a single EHI document could range anywhere from 1 MB to upwards of 80 MB. When generating a document for a patient therefore, care should be taken to ensure an ample amount of disk storage space is available.

2.2.3.3 Disk space required for a couple export of a site's patient population

If a site wishes to generate a complete BREH export of every patient in their database, a significant amount of disk space will be required to hold the exported EHI files. It is recommended that, at minimum, disk space equivalent to $\frac{3}{4}$ of the size of the production database be available before attempting to generate EHI exports of all patients.

3.0 Installation Instructions

The BREH version 1.0 application is delivered in a standard KIDS build. Instructions for installing the build are explained below. During the KIDS installation the user will be prompted to answer the questions shown in Figure 3-1 so they should be prepared to answer them prior to the installation:

```
PLEASE ENTER YOUR SITE'S PRIMARY TIME ZONE

      Select one of the following:

      ET          EASTERN TIME
      CT          CENTRAL TIME
      MT          MOUNTAIN TIME
      PT          PACIFIC TIME
      AKT         ALASKA TIME
      HT          HAWAII-ALEUTIAN TIME

TIME ZONE: //
DOES YOUR SITE OBSERVE DAYLIGHT SAVINGS TIME (DST)? //
```

Figure 3-1: Application installation instructions

3.1 BREH KIDS installation instructions

Perform the following steps to install the new BREH application:

1. Refer to the installation instructions (this section) as well as Section 4.0 below for the applicable prompts and user responses. User responses display in **bold** type.
2. Download the **breh0100.k** file from the anonymous FTP directory (or other location where your site retrieves new patch releases).
3. Access the **KIDS** menu options, **XPD MAIN**.
4. From the **KIDS** menu, select the **Installation** menu.
5. From the **Installation** menu, select option **1: Load a Distribution**.
6. Type **breh0100.k** at the “Enter a Host File” prompt. It may be necessary to precede the file name with the appropriate host path.
7. Type **Yes** (or press **Enter** to accept the default) at the “Want to Continue with Load? YES” prompt.

Note: An environmental check has been added for those systems that may not have at least the Kernel (XU) v8.0 patch 1020 or FileMan (DI) v22.0 patch 1020 installed. If the check fails, it will not be possible to proceed with the installation. If this happens, please install the missing patch(es) in order to proceed with the BREH installation.

8. From the **Installation** menu, select option **2: Verify Checksums in Transport Global**. This option provides a mechanism for ensuring the integrity of the routines. It verifies checksums for the components of the Transport global, and reports any errors uncovered.
9. Type **RPMS EHI EXPORT 1.0** as the install name.
10. Optional: The following installation options are optional. If using one of these options, use **RPMS EHI EXPORT 1.0** as the install name.
 - a. **Back Up a Transport Global**—This option creates a MailMan message that will back up all current routines on the system that would be replaced by this release. (Because this is a new release, no files will be replaced.)
 - b. **Compare Transport Global**—This option displays all changes that will result from the installation of this patch and compares them with the values currently loaded on the system (routines, data dictionaries, templates, etc.). (Because this is a new release, there will not be values currently loaded onto the system.)
11. From the **Installation** menu, select the **Install Package(s)** option.
12. At the “Select Install Name” prompt, type **RPMS EHI EXPORT 1.0**.
13. Respond to the following prompts as indicated:
 - a. At the “Want KIDS to INHIBIT LOGONs during the install? YES” prompt, type **NO**.
 - b. At the “Want to DISABLE Scheduled Options, Menu Options and Protocols? YES” prompt, type **NO**.
 - c. When prompted for DEVICE, accept the default to display the output on the screen or enter the name of the printer/file that to which the installation output should be redirected.
 - d. At the TIME ZONE prompt, enter the appropriate time zone for your site.
 - e. At the DOES YOUR SITE OBSERVE DAYLIGHT SAVINGS TIME (DST)? Prompt, enter the appropriate response

4.0 Sample Installations

In this section, user responses appear in bold type.

4.1 Accessing the Installation Menu

```
Select OPTION NAME: XPD MAIN           Kernel Installation & Distribution System

      Edits and Distribution ...
      Utilities ...
      Installation ...
      Patch Monitor Main Menu ...

You have PENDING ALERTS
      Enter "VA to jump to VIEW ALERTS option

Select Kernel Installation & Distribution System <TEST ACCOUNT> Option: Installation

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

You have PENDING ALERTS
      Enter "VA to jump to VIEW ALERTS option

Select Installation <TEST ACCOUNT> Option: 1 Load a Distribution
```

Figure 4-1 Accessing the Installation Menu

4.2 Loading the Distribution

```
Enter a Host File: H:\Temp\breh0100.k

KIDS Distribution saved on Jun 15, 2023@13:01:46
Comment: RPMS EHI EXPORT 1.0

This Distribution contains Transport Globals for the following Package(s):
  RPMS EHI EXPORT 1.0
Distribution OK!

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

Build RPMS EHI EXPORT 1.0 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES//
  RPMS EHI EXPORT 1.0
Will first run the Environment Check Routine, BREH1P00
```

```

Patch "XU*8.0*1020" is installed - *PASS*
Patch "DI*22.0*1020" is installed - *PASS*

Use INSTALL NAME: RPMS EHI EXPORT 1.0 to install this Distribution.
    
```

Figure 4-2 Loading the Distribution

4.3 Verifying Checksums in Transport Global

```

Select Installation <TEST ACCOUNT> Option: 2 Verify Checksums in Transport Global
Select INSTALL NAME:      RPMS EHI EXPORT 1.0      Loaded from Distribution      6/15
/23@13:07:23
=> RPMS EHI EXPORT 1.0 ;Created on Jun 15, 2023@13:01:46

This Distribution was loaded on Jun 15, 2023@13:07:23 with header of
  RPMS EHI EXPORT 1.0 ;Created on Jun 15, 2023@13:01:46
  It consisted of the following Install(s):
  RPMS EHI EXPORT 1.0

Want each Routine Listed with Checksums: Yes//      YES
DEVICE: HOME// <enter> VIRTUAL

PACKAGE: RPMS EHI EXPORT 1.0      Jun 15, 2023 1:07 pm      PAGE 1
-----

BREH1P00 Calculated 26902364
BREHBEDD Calculated 2713734
BREHCCS Calculated 193558280
BREHCCSA Calculated 107864430
BREHCCSE Calculated 148097244
BREHCLAS Calculated 18712588
BREHCSD Calculated 183714170
BREHCSDO Calculated 60481574
BREHCSTF Calculated 6534604
BREHD634 Calculated 87528140
BREHD635 Calculated 31969672
BREHEXC Calculated 24646325
BREHEXL Calculated 195876443
BREHEXLS Calculated 35009272
BREHEXM Calculated 27838509
BREHEXP Calculated 108202895
BREHEXR Calculated 55191504
BREHEXR1 Calculated 158718232
BREHEXR2 Calculated 159870192
BREHEXR3 Calculated 1173357
BREHEXU Calculated 37412480
BREHGEN Calculated 124142630
BREHGEN1 Calculated 209374902
BREHGSEA Calculated 19422813
BREHGSEM Calculated 18961514
BREHGSEP Calculated 137355235
BREHGSEU Calculated 82823337
BREHGSEX Calculated 160894148
BREHJSN Calculated 12493555
BREHJSND Calculated 72291096
BREHJSNE Calculated 24879977
    
```

BREHMENU	Calculated	23110066
BREHPE	Calculated	161654758
BREHPEL	Calculated	145913296
BREHPELF	Calculated	188133732
BREHPER	Calculated	44084465
BREHPER1	Calculated	154645939
BREHPER2	Calculated	125131646
BREHPER3	Calculated	1140339
BREHPSED	Calculated	97871090
BREHRWT	Calculated	42101943
BREHS634	Calculated	90066104
BREHS635	Calculated	25599167
BREHSE	Calculated	92665747
BREHSEE	Calculated	141329210
BREHSFE	Calculated	157098254
BREHSI	Calculated	173285804
BREHSIA	Calculated	129090063
BREHSIAF	Calculated	69911507
BREHSIMP	Calculated	34447606
BREHSIU	Calculated	9417762
BREHUTL	Calculated	163663323

52 Routines checked, 0 failed.

Figure 4-3 Verifying Checksums in Transport Global

4.4 Installing the BREH Application

```
Select Installation <TEST ACCOUNT> Option: 6 Install Package(s)
Select INSTALL NAME: RPMS EHI EXPORT 1.0 Loaded from Distribution 6/15
/23@13:07:23
=> RPMS EHI EXPORT 1.0 ;Created on Jun 15, 2023@13:01:46

This Distribution was loaded on Jun 15, 2023@13:07:23 with header of
RPMS EHI EXPORT 1.0 ;Created on Jun 15, 2023@13:01:46
It consisted of the following Install(s):
RPMS EHI EXPORT 1.0
Checking Install for Package RPMS EHI EXPORT 1.0
Will first run the Environment Check Routine, BREH1P00

Patch "XU*8.0*1020" is installed - *PASS*
Patch "DI*22.0*1020" is installed - *PASS*

Install Questions for RPMS EHI EXPORT 1.0

Incoming Files:

90314.01 BREH EHI FILE DEFINITION (including data)
90314.02 BREH EHI SCHEMAS (including data)
90314.03 BREH EHI PATIENT EXCEPTIONS
90314.04 BREH EHI CLASS TRANSPORT FILE (including data)
90314.05 BREH EHI SITE PARAMETERS (including data)
```

```

90314.06 BREH EHI EXPORT HISTORY

90314.07 BREH EHI ANCILLARY DATA DEF (including data)
Note: You already have the 'BREH EHI ANCILLARY DATA DEF' File.

90314.08 BREH EHI SITE EXCEPTIONS

9002172.9 CDMIS BILL
Note: You already have the 'CDMIS BILL' File.

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

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// <enter> VIRTUAL

Install Started for RPMS EHI EXPORT 1.0 :
      Jun 15, 2023@13:07:40

Build Distribution Date: Jun 15, 2023

Installing Routines:.....
      Jun 15, 2023@13:07:41

Running Pre-Install Routine: PRE^BREH1P00.

Installing Data Dictionaries: .....
      Jun 15, 2023@13:07:41

Installing Data:
      Jun 15, 2023@13:07:44

Installing PACKAGE COMPONENTS:

Installing SECURITY KEY...

Installing INPUT TEMPLATE...
      Jun 15, 2023@13:07:44

Running Post-Install Routine: POST^BREH1P00.

Importing EHI classes
List started on 06/15/2023 13:07:44
Listing file E:\InterSystems\HealthShare\mgr\Temp\a1RuDHfR72Knqg.xml as xml
List finished successfully.

Load started on 06/15/2023 13:07:44
Loading file E:\InterSystems\HealthShare\mgr\Temp\O82XgcGa9fIbng.xml as xml
Imported class: BREH.EDExport
Imported class: BREH.TimeZone
Imported class: BREH.Users
Imported class: BREH.Util
Compiling 4 classes, using 4 worker jobs
Compiling class BREH.EDExport
Compiling class BREH.Util
Compiling class BREH.TimeZone
    
```

```
Compiling class BREH.Users
Compiling table BREH.TimeZone
Compiling table BREH.Users
Compiling routine BREH.EDEExport.1
Compiling routine BREH.Util.1
Compiling routine BREH.TimeZone.1
Compiling routine BREH.Users.1
Load finished successfully.

Updating 90314.04 record

PLEASE ENTER YOUR SITE'S PRIMARY TIME ZONE

      Select one of the following:

      ET          EASTERN TIME
      CT          CENTRAL TIME
      MT          MOUNTAIN TIME
      PT          PACIFIC TIME
      AKT         ALASKA TIME
      HT          HAWAII-ALEUTIAN TIME

TIME ZONE: // ET

DOES YOUR SITE OBSERVE DAYLIGHT SAVINGS TIME (DST)? NO// <enter>

  Compiling new cross reference for CDMIS BILL file.

  This may take a couple minutes

Updating Routine file.....

Updating KIDS files.....

RPMS EHI EXPORT 1.0 Installed.
      Jun 15, 2023@13:08

Not a VA primary domain

NO Install Message sent
```

Figure 4-4 Installing the BREH application

5.0 Installation Configuration

Once the BREH application has been installed, users who will be utilizing the BREH application must be set up with the appropriate privileges. Accessing the new application requires the following:

- **Programmer Access** – In order to make the BREH application more secure, only users who have programmer access are able to access the BREH menu structure. In User Management, users must have a “@” assigned for the **FILE MANAGER ACCESS CODE**.
- **Security Keys** – In order to access the BREH menu structure, users must be assigned the **XUMGR**, **XUPROG** and **BREHZMENU** security keys. In Addition, in order to be able to generate an EHI export document users must be assigned the **BREHZGEN** security key.

Acronym List

Acronym	Meaning
BREH	RPMS EHI EXPORT
DI	FileMan
DRS	Designated Record Set
DST	Daylight Savings Time
EHI	Electronic Health Information
EHR	Electronic Health Record
ePHI	Electronic Protected Health Information
IHS	Indian Health Service
RPMS	Resource and Patient Management System
XU	Kernel

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

Phone: (888) 830-7280 (toll free)

Web: <https://www.ihs.gov/itsupport/>

Email: itsupport@ihs.gov