

# Install RPMS Patches and Files, Save and Install Globals and Routines

## Purpose

There are various methods to install patches. This document will provide different solutions in the event that the install note does not provide full guidance.

Make sure you have full privileges to the system. The %ALL role is assigned to your account in the Management Portal and in the Resource and Patient Management System (RPMS); for the **User Management** option, your account has the at (@) sign assigned in the **File Manager Access Code** field. If you do not have full privileges, patches may not fully install.

Install Nationally Released patches within a week. There are often critical patches that require immediate installation. Schedule a downtime with the clinical staff to install patches.

## Understanding the Documents

The last character of the file name represents the document type. For best practice, compare the Kernel Installation & Distribution System (KIDS) file size with the file at the Office of Information Technology (OIT) patch directory (Figure 1). Files can get corrupted during the transfer.





	bcqm0100.04k Type: 04K File	"k" = KIDS file (do not open)	Date modified: 1/15/2019 2:46 Size: 239 KB
	bcqm0100 Type: 04N File	"n" = install note (use notepad)	Date modified: 1/15/2019 2:46 Size: 2.57 KB
	bcqm0100.04t	"t" = technical manual	Date modified: 1/15/2019 2:46 Size: 148 KB
	bcqm0100.04u	"u" = user manual	Date modified: 1/15/2019 2:46 Size: 105 KB

Figure 1: Patch directory

## Required Resources

Each patch release includes an install note, which will include a patch listing of Required Resources. Patches that are listed need to be verified. Ensure that the patch is installed in the system before proceeding with the patch installation. See Figure 2.

- ### Required Resources
- Kernel v8 or later
  - Kernel Toolkit v7.3 or later
  - FileMan v22 or later
  - ACPT 2.18 Patch 2 or later
  - BCSV 1.0 Patch 3 or later

Figure 2: Required Resources listing

1. Verify patch installation using the **Display Patches for a Package** utility. Patches are located at the following link (the user must have a D1 account): <ftp://ftp.ihs.gov/RPMS/patches/>.

```

Select IHS Kernel Option:  Programmer Options

  KIDS  Kernel Installation & Distribution System ...
  PG    Programmer mode

Select Programmer Options Option:  KIDS

  Edits and Distribution ...
  Utilities ...
  Installation ...

Select Kernel Installation & Distribution System Option:  Utilities

  Build File Print
  Install File Print
  Convert Loaded Package for Redistribution
  Display Patches for a Package

Select Utilities Option:  Display Patches for a Package

Select PACKAGE NAME:  ABM    << enter the application namespace
  1  ABM  IHS 3P BILLING SYSTEM    ABM
  2  ABMD MEDICAID BILLING    ABMD

CHOOSE 1-2:  1  IHS 3P BILLING SYSTEM    ABM    << choose the correct application
Select VERSION: 2.6//          11-12-09
Do you want to see the Descriptions? NO//          << accept the default
DEVICE: HOME//          << accept the default
    
```

Figure 3: Programmer options

PACKAGE: IHS 3P BILLING SYSTEM	Feb 06, 2019 9:16 am	PAGE 1
PATCH #	INSTALLED	INSTALLED BY
-----		
VERSION: 2.6	MAR 27, 2010	DEMO,A
1	MAR 27, 2010	DEMO,A

2	JUL 21, 2010	DEMO, A
3	AUG 22, 2010	DEMO, A
4	DEC 11, 2010	DEMO, A
5	JAN 22, 2011	DEMO, A

Figure 4: Patch installations

**Note:** Scroll to the bottom of the list to verify if the patch required in the patch installation note is installed. If it is not installed, download the patch and install before continuing.

Applications are identified in three categories: **Clinical**, **Administrative**, and **Infrastructure**. They can be found at the following link:

<https://www.ihs.gov/rpms/applications/>.

The application **namespace** is in the parenthesis next to the application name (see Figure 5).

Adverse Reaction Tracking (GMRA)  
Behavioral Health System (AMH)  
C32/CCD Clinical Summary (BJMD)  
Care Management Event Tracking [CMET] (BTPW)  
Case Management System (ACM)

Figure 5: Application names and namespaces

- To verify the Electronic Health Record (EHR) patch installed use the **Install File Print** utility.

```
Select Utilities Option: Install File Print
Select INSTALL NAME: EHR
  1  EHR 1.1          Install Completed      Install Completed  1/26/08@00:53:32
=> RPMS-EHR Version 1.1 ;Created on Aug 24, 2007@09:47:16
  2  EHR BUSA 1.1    Install Completed      Install Completed
10/24/14@18:49:18
=> RPMS EHR v1.1 Patch 13 ;Created on Sep 23, 2014@16:58:23
  3  EHR BUSA 1.1    Install Completed      Install Completed  2/4/15@16:01:13
```

Figure 6: **Install File Print** option

- Verify BMW generation date and version number that is currently installed.

```
DEHR>ZW ^BMW
^BMW("fm2class","GenDate")="04/26/2016 12:04:13"
^BMW("fm2class","Version")=2016.2
```

Figure 7: Generation date and version number

- IHS Kernel Options: This is the **AKMOEVE** primary menu in your user account. Only RPMS Admins have this option.

```

1      Core Applications ...
2      Device Management ...
3      VA FileMan ...
4      Manage Mailman ...
5      Menu Management ...
6      Programmer Options ...
7      Operations Management ...
8      User Management ...
9      AVA MENU ...
10     Taskman Management ...
11     Information Security Officer Menu ...

Select IHS Kernel Option:

```

Figure 8: AKMOEVE primary menu

## Steps to Access Programmer Mode from the IHS Kernel Option

```

Select IHS Kernel Option:  Programmer Options

      KIDS  Kernel Installation & Distribution System ...
      PG    Programmer mode

Select Programmer Options Option:  Programmer mode

DEHR>

```

Figure 9: Access programmer mode

## Steps to Access IHS Kernel Option from Programmer Mode

```

DEHR>D ^XUP
Access Code:          << Enter your code
Terminal Type set to:  C-VT100          << this is generally preselected, if not,
                                     this is what you enter
Select OPTION NAME:   AKMOEVE        << after you enter you will see your IHS Kernel
                                     options

```

Figure 10: Access IHS Kernel Option from Programmer Mode

## Access the KIDS Menu

There are different options available to get to the KIDS menu.

1. Select the **Programmer Option**, then select the **KIDS** option. Select the **Installation**.

```

Select IHS Kernel Option:  Programmer Options

      KIDS  Kernel Installation & Distribution System ...
      PG    Programmer mode

Select Programmer Options Option:  KIDS

```

```

Utilities ...
Installation ...

Select Kernel Installation & Distribution System 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

Select Installation Option:      << here you enter your options from the list above

```

Figure 11: **KIDS** menu

The steps provided give you access to the **Utilities** and **Installation** menus.

```

DEHR>D ^XUP

Access Code:      << enter your code
Terminal Type set to: C-VT100      << this is generally preselected, if not, this is
                                what you enter

Select OPTION NAME:  XPD MAIN

        Edits and Distribution ...
        Utilities ...
        Installation ...

Select Kernel Installation & Distribution System Option:

```

Figure 12: **Utilities** and **Installation** menus

- From the Programmer's prompt run the following command to access the Installation menu:  
**D ^XPDKRN.**

**Note:** Your account must be defined to use this option, otherwise you will receive the following message: "DUZ must be defined as an active user!!"

```

DEHR>D ^XPDKRN

Select KIDS OPTION:  ?      << type a question mark (?) to view available options
Choose from:
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)
7      RESTART INSTALL OF PACKAGE(S)
8      UNLOAD A DISTRIBUTION

```

```
Select KIDS OPTION:
```

Figure 13: Installation menu

## Steps to Install a Patch

### 1. Load a Distribution.

```
Select Installation Option: 1 Load a Distribution
Enter a Host File: C:\TEMP\ade_0600.33k << enter the directory path and patch
name.

KIDS Distribution saved on Dec 27, 2018@14:34:09
Comment: IHS DENTAL ADA-CDT 2019 Updates

This Distribution contains Transport Globals for the following Package(s):
ADE*6.0*33
Distribution OK!

Want to Continue with Load? YES// << accept the default, press Enter
Loading Distribution...

Build ADE*6.0*33 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES// << accept the default, press
Enter

ADE*6.0*33
Will first run the Environment Check Routine, ADEPRE33

Use INSTALL NAME: ADE*6.0*33 to install this Distribution. << this is the
install name
```

Figure 14: Step to load a distribution

### 2. Verify Checksums in Transport Global (only if noted in the install note).

```
Select Installation Option: 2 Verify Checksums in Transport Global
Select INSTALL NAME: ADE*6.0*33 << enter install name
Loaded from Distribution 2/6/19@10:21:10
=> ADE*6.0*33; Created on Aug 22, 2018@10:14

This Distribution was loaded on Jan 31, 2019@13:21:10 with header of
ADE*6.0*33;Created on Aug 22, 2018@10:14
It consisted of the following Install(s):
ADE*6.0*33

Want each Routine Listed with Checksums: Yes// << accept the default
DEVICE: HOME// << accept the default

<the system will provide a report of calculated routines>

7 Routines checked, 0 failed. << 0 failed, proceed to install
```

Figure 15: Steps to verify checksums

### 3. Install Package(s).

```

Select Installation Option:  6  Install Package(s)
Select INSTALL NAME:  ADE*6.0*33  << enter install name
Loaded from Distribution  2/6/19@10:35:4
=> IHS DENTAL ADA-CDT 2019 Updates ;Created on Dec 27, 2018@14:34:09
This Distribution was loaded on Feb 06, 2019@10:35:41 with header of
IHS DENTAL ADA-CDT 2019 Updates ;Created on Dec 27, 2018@14:34:09
It consisted of the following Install(s):
ADE*6.0*33
Checking Install for Package ADE*6.0*33
Will first run the Environment Check Routine, ADEPRE33
Install Questions for ADE*6.0*33
Want KIDS to INHIBIT LOGONs during the install? NO//
NOTE: If the install note recommends locking out all users, then proceed with the
default NO

Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//
NOTE: Certain patches do not require locking out all users but lock out users using
a certain application. You can enter Yes if the patch requires locking out the users
using the application you are installing.

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//  << accept the default
< The patch will quickly display the install process, if you log it, you can review
it entirely>

Install Completed << this is a confirmation that the patch installation completed

```

Figure 16: Steps to install the package

**Note:** Verify that the patch installed properly by using the Utility menu **Display Patches for a Package**, instructions provided in Step 3, Install Package(s).

#### 4. Kill the old global.

Occasionally install notes will request that you kill an old global. Be careful when performing this task. In this example, **APSAMDF** is the global name.

```
DEHR>K ^APSAMDF
```

### Install a Global Using the Global Input Utility **D ^%GI**

```

DEHR>D ^%GI  << Enter command to install a Global

Global input

Device: C:\TEMP\apsa0610.218b << enter the path to the patch location and patch name
Parameters? "RS" =>  << accept the default, press Enter key
Globals were saved on 28 Dec 2018  2:18 PM  Cache
with description: APSAMDF WSD Global for January 2019

```

```

Input option: ?          << enter ? if you want to see the options

      Select A to restore all globals
      or S to select globals to restore, one by one.

Input option:  A        << Enter option here, generally it will be A
^APSAMDF      << do not press the Enter key, wait for the system to install the patch

DEHR>         << once installation is complete, it will return to the programmer's
              prompt.

```

Figure 17: Steps to use **D ^%GI** to install a global

## Save Globals Using the Global Output Utility **D ^%GO**

```

DEHR>D ^%GO

Global output
Device: C:\TEMP\goLEX_02062019    << enter path and file name for the global save
Parameters? "WNS" =>              << accept default
Description (^ for self-loading): lex and lext global saves << optional

All Globals? No => No    << enter no
Global ^LEX             << enter global one by one
Global ^LEXT
Global ^                << select enter key
2 globals selected from 1766 available globals.
LEX                    << Saving globals, wait patiently

DEHR>                 << once Global save is completed, it will return to the programmer's prompt

```

Figure 18: Steps to use **D ^%GO** to save globals

**Notes:** The global can be volatile (i.e., likely to change rapidly and unpredictably).

A standard table global that is updated only once a quarter, for example, is much less volatile than a TaskMan global that is modified several times a day.

The purpose for saving off the globals is as a backup in the event that problems arise with the installation which require restoration of the system to its pre-install status—and like any backup, the more current the better (or more reliable, at least).

## Install a Routine Using the Routine Input Utility **D ^%RI**

Occasionally a developer may send a routine for you to install.

```

DEHR>D ^%RI

```



```

Input routines from Sequential
Device:  C:\TEMP\AMER31.RO      << enter the path and file name for the routine
Parameters? "RS" =>          << accept the default

File written by Cache for Windows using %RO on 25 Jun 2015  10:49 AM
with extension INT and with description:
Routine AMER31

( All Select Enter List Quit )

Routine Input Option:  All Routines

If a selected routine has the same name as one already on file,
shall it replace the one on file? No << Yes
Recompile? Yes << Yes
Display Syntax Errors? Yes << Yes

^ indicates routines which will replace those now on file.
@ indicates routines which have been [re]compiled.
- indicates routines which have not been filed.

AMER31.INT^@
1 routine processed.
DEHR>

```

Figure 19: Use the **D ^%RI** routine input utility to install a routine

## Save Routines Using the Routine Output Utility **D ^%RO**

```

DEHR>D ^%RO

Routine output (please use %ROMF for object code output)
Routine(s):  AMER2A           << enter each routine you are requested to save here,
one by one
Routine(s):  AMEREDTA
Routine(s):  AMERPCC
Routine(s):           << press Enter key when finished entering

Description:  AMER routine saves           << optional, enter wording or press Enter key

Output routines to
Device:  C:\TEMP\roAMER_02062019      << enter the path and file name for the routine
save

Parameters? "WNS" =>          << accept the default
Printer Format? No =>          << accept the default
AMER2A.INT      AMEREDTA.INT      AMERPCC.INT      << routines are saved in the file name
Note: The routine save may take time, be patient and wait.

DEHR> << once routine save is complete, it will return to the programmer's prompt

```

Figure 20: Use **D ^%RO** to save routines

## Lock an Application by Putting It Out of Order

Users will not be able to access the menu while the application is out of order or locked.

1. Initiate Out of Order for an application using the Edit Options.

```
Select IHS Kernel Option:  ^EOP      << enter synonym for Edit options

Select OPTION to edit:  ABMMENU  Third Party Billing System
NAME: ABMMENU//        << accept the default
MENU TEXT: Third Party Billing System Replace
PACKAGE: IHS 3P BILLING SYSTEM//    << accept the default
OUT OF ORDER MESSAGE:  INSTALLING PATCH    << enter message
```

Figure 21: Edit Options

The application is **Out of Order** (users will be unable to access the application).

```
ABM  Third Party Billing System ...
      **> Out of order:  INSTALLING PATCH
```

Figure 22: Users are unable to access out-of-order applications

2. Reverse the Out of Order.

```
Select IHS Kernel Option:  ^EOP      << enter synonym for Edit options

Select OPTION to edit:  ABMMENU  Third Party Billing System
NAME: ABMMENU//        << accept the default
MENU TEXT: Third Party Billing System Replace
PACKAGE: IHS 3P BILLING SYSTEM//    << accept the default
OUT OF ORDER MESSAGE:  INSTALLING PATCH// @    << enter @ here
      SURE YOU WANT TO DELETE?  YES      << enter YES here
```

Figure 23: Steps to remove the out-of-order lock on an application

## Install XML Files Using Studio

1. Log into **Studio**, an application that comes with Ensemble.
2. Go to the **File** tab. From the drop-down list, select **Change Namespace**.
3. Select the namespace you are installing the XML files into. This is an important step!

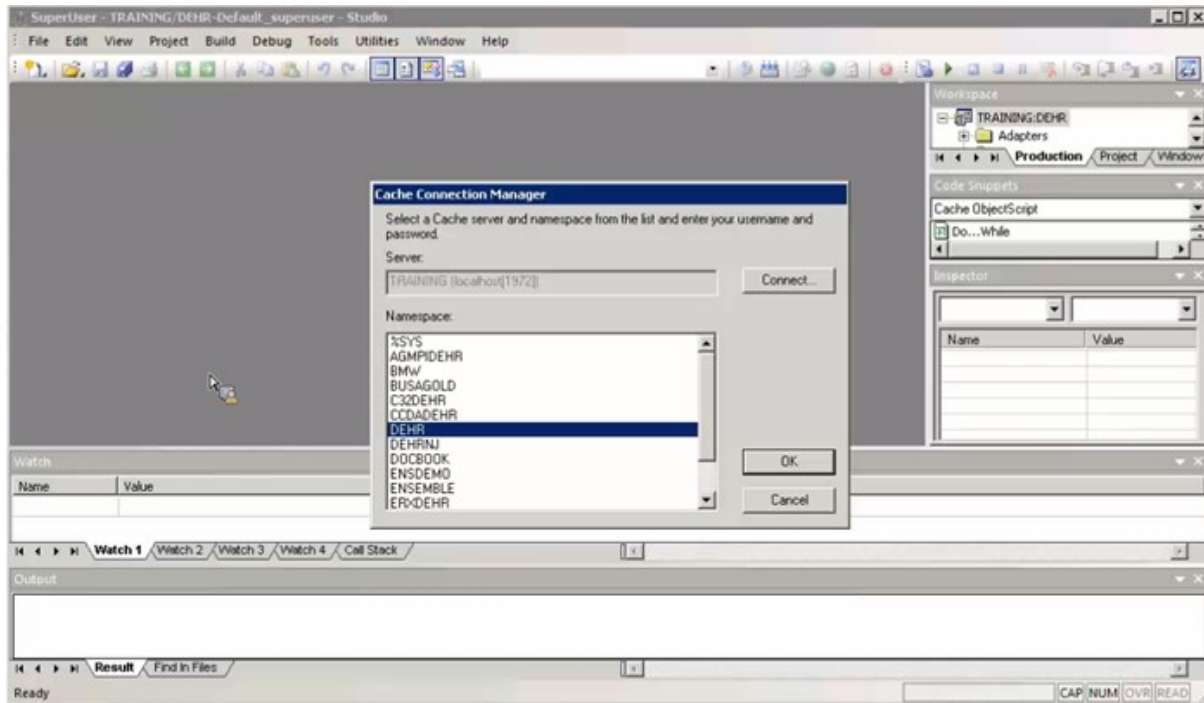


Figure 24: Select the namespace for the install

4. Go to the **Tools** tab and select **Import Local** from the drop-down list.
5. Go to the directory where the XML file resides, click on the file name and select **Open**.
6. The installation will begin and when completed, it will generate the following message:  
**Compilation finished successfully in 0.0s.**

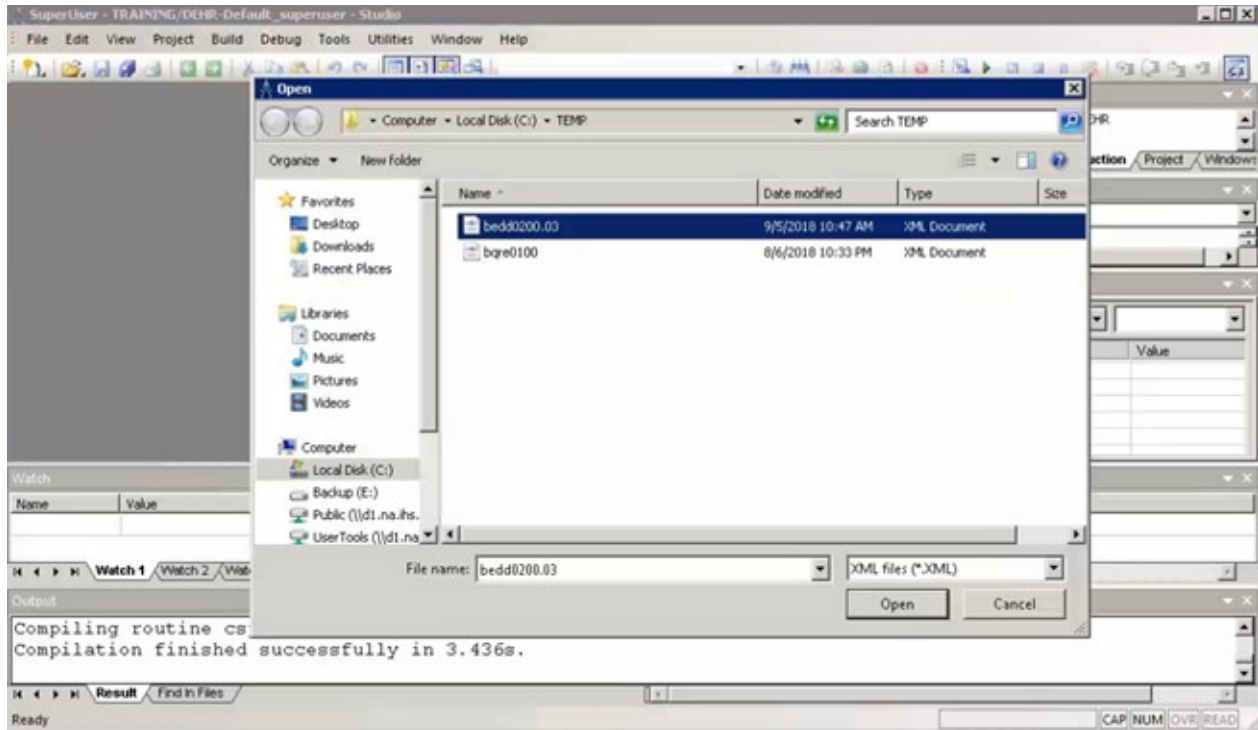


Figure 25: Opening the XML file

## Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

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

Web: <http://www.ihs.gov/helpdesk/>

Email: [support@ihs.gov](mailto:support@ihs.gov)