RESOURCE AND PATIENT MANAGEMENT SYSTEM

Dental/EDR Interface

(BADE)

Installation Guide and Release Notes

Version 1.0 Patch 1
November 2011

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Preface

This manual provides information regarding the Patch 1 release of the Dental/EDR BADE Interface with RPMS. This patch includes the following updates to the Dentrix interface software.

- Patient merge upload options

- Option to send an A40 message

- New menu options for troubleshooting

- More detailed alert messages

- A fix to ASUFAC-HRCN alert issue

- A manual purge option

- Migration of BEE software to BADE namespace

- Support of clinic names in the FT1 segment of the DFT

- Several improvements to user interface prompts

1.0   Release Notes

1.1   Patient Merge

This patch includes functionality for sending HL7 messages from RPMS to notify EDR of merged patients. The information sent allows for merging of the identical patients in the EDR database. The message type for merge records is the A40. An A40 message contains data from the merged-to patient plus an MRG segment, which contains the DFN and the name of the merged-from patient. This is the only remaining data on the merged-from patient.

The patch includes menu options for sending A40 messages on any patients that have been previously merged. There is also an option to manually send an A40 message. If a site has installed the dental interface prior to patient merge, all merges will be handled automatically through protocols attached to the patient merge process. In order for the automated merge process in RPMS to notify the Dental system of a patient merge, Patient Merge BPM patch one must be installed. If Patient Merge Patch 1 is not installed prior to EDR Dental BADE Patch 1, the EDR Dental BADE Patch 1 will disable the BADE Merge Menu options during its installation. The site can follow the installation guide to properly activate the BADE Merge Menu options.

The following are options that have been added to the Dental/EDR BADE Interface menus.

1.1.1   New Option: Upload All Merged Patients

Internal Name of Menu Options:	[BADE EDR UPLOAD ALL MERGED PTS]
Link:	Dental Interface Menu > UPL > MALL

Added to the Dental Interface Upload Menu. This option uploads all merged patients in the database. It should only be run by sites that have already installed patient merge. This option can be paused and restarted. When the upload is complete, all menu options involving upload of merged patients are placed Out of Order. This option can be re-run without causing issues with the Dental EDR system. The site must reset OUT OF ORDER menu options and edit PARAMETER settings to properly reset the UPLOAD option.

Anyone using this option must be assigned the BADEZUPL key in order to access the Dental Interface Upload Menu.

1.1.2   New Option: Pause Merge Upload

Internal Name of Menu Options:	[BADE EDR UPLOAD ALL MERGED PTS]
Link:	Dental Interface Menu > UPL > PMRG

Added to the Dental Interface Upload Menu. This option pauses a merge upload that is in progress. The merge upload can be restarted.

Anyone using this option must be assigned the BADEZUPL key in order to access the Dental Interface Upload Menu.

1.1.3   New Option: Restart Merge Upload

Internal Name of Menu Options:	[BADE EDR RESTART MRG UPLOAD]
Link:	Dental Interface Menu > UPL > RMRG

Added to the Dental Interface Upload Menu. This option restarts a merge upload that has been halted. A parameter is checked to see if the Merge Upload is already running. When the upload is complete, all menu options involving upload of merged patients are placed Out of Order.

Anyone using this option must be assigned the BADEZUPL key in order to access the Dental Interface Upload Menu.

1.1.4   New Option: Send a Patient Merge Message

Internal Name of Menu Options:	[BADE EDR SEND A40]
Link:	Dental Interface Menu > MAN > A40

Added to the Dental Interface Management Menu. This option sends a single Patient Merge (A40) message. The user is prompted for the patient. A list of patients is displayed that have been merged with that patient. If there are no merged patients, this is indicated. An indication is given when the message is sent.

Anyone using this option must be assigned the BADEZSND key in order to access the Dental Interface Upload Menu.

1.2   Options for Troubleshooting

Several new options have been added, providing information to aid with troubleshooting. Some of these options provide information that can be used to clean up files before an upload.

1.2.1   New Option: Dental List

Internal Name of Menu Options:	[BADE EDR DISPLAY PROVIDER]
Link:	Dental Interface Menu > MAN > PRO

Added to the Dental Interface Management Menu. This option displays a list of dental providers in the database, along with their NPI and IEN numbers.

The display can be run for all dental providers or only those who are active. Active providers are those who have not been terminated or inactivated, and who have an NPI number.

Anyone using this option must be assigned the BADEZSND key in order to access the Dental Interface Management Menu.

1.2.2   New Option: Display Dental Visit ASUFACs

Internal Name of Menu Options:	[BADE EDR DENTAL ASUFAC]
Link:	Dental Interface Menu > UTIL > ASU

Added to the Dental Interface Utilities Menu. This option displays the number of visits for each facility within a specific time period. The user may specify the start date of the search. The end date is the current date.

Anyone using this option must be assigned the BADEZUTL key in order to access the Dental Interface Utilities Menu.

1.3   BEE Options Migrated to BADE

When BADE was initially certified and released as a nationally supported package, the enterprise messaging architecture had defined the RPMS BEE namespace to be used for common library utilities, routines, and files in support of the architecture. Since that time, OIT has modified the architecture, and each application is responsible for all components to support the interface. In this patch, RPMS BEE routines, files, and options are converted to the BADE namespace and package. The BADE Visit filer calls the HLO HL7 messaging software to parse the DFT message and properly create a PCC Visit. In order for this HLO filer to work, the EDR Dental system must modify the DFT MSH segment. This is done by calling the Dentrix Help Desk.

1.3.1   New Option: Reset an HLO Message for EIE Transport

Internal Name of Menu Options:	[BADE EDR DISPLAY PROVIDER]
Link:	Dental Interface Menu > UTIL > RES

1.3.2   New Option: Process a Single Inbound HLO Message

Internal Name of Menu Options:	[BADE EDR PROCESS INBOUND MSG]
Link:	Dental Interface Menu > UTIL > INB

1.3.3   New Option: Dental Interface Trace

Internal Name of Menu Options:	[BADE EDR TRACE]
Link:	Dental Interface Menu > UTIL > TRC

Added to the Dental Interface Utilities Menu. This option will work in conjunction with the Ensemble Interface Engine (EIE) to help trace message transmission.

The option provides a way for turning on and off the EIE Trace function, by setting a Mumps global. The trace can be done for inbound or outbound messages. If the trace is currently running, this option can be used to turn the trace off. Otherwise the option can be used to start the trace.

It is extremely important that the trace only be used for several minutes while active troubleshooting is in process. Having the trace on can seriously slow down the system and fill up disk space.

Anyone using this option must be assigned the BADEZUTL key in order to access the Dental Interface Utilities Menu.

1.4   Modified Alert Messages: More Details

The usefulness of error messages was limited by the amount of information that was included. In some cases, there was not enough information to conveniently identify the patient or provider message causing the error.

Changes were made to the alert messages to add information, such as patient name, DFN, message IEN, ASUFAC number, visit date, visit IEN, and provider name where appropriate.

The following routines were modified:

- BADEHL1
- BADEHL2
- BADEHL3
- BADEHL4

1.5   Modified Alert Messages: Extra Alert Removed

Extra alert messages were being sent on error conditions, as follows:

Msg IEN: 908 TRANSMISSION LINK FOR APPLICATION ACK CANNOT BE DETERMINED

It was determined that this second message response to an application ACK for the original alert. This second alert has been removed by commenting out this line in BADEHL3:

;I '$$SENDACK^HLOAPI2(.ACK,.ERR) D NOTIF(HLMSGIEN,ERR) Q

1.6   Modification to Fix Error on Patient Upload

In several cases, the Patient Upload went into an infinite loop. It has been determined that this was occurring for patients who were in the ^DPT global, but not in the IHS PATIENT file: ^AUPNPAT global.

Routine BADEEVNT has been modified so that if a patient was not found in the IHS Patient file, no message will be sent. In addition, if the patient did exist in the IHS Patient file, but did not have ASUFAC entries, no message will be sent. This avoids the infinite looping.

The following is the code:

```
K PATNO
S PATNO=$P($G(^AUPNPAT(DFN,0)),"^",1)
Q:PATNO'=DFN
S PATNO=$G(^AUPNPAT(DFN,41))
Q:PATNO=""
```

1.7   Modification to Fix ASUFAC-HRCN Error

In some cases, an incorrect DUZ(2) environment variable was being used by the BADEHL1 routine on generating A28 and A31 messages. This DUZ(2) is used in turn to obtain the ASUFAC and patient HRCN number, which are transmitted in PID-3.

It was determined that this problem occurred in multi-divisional sites when several registration clerks were working simultaneously. The AG trigger that sends the message occurs when a registration clerk exits the whole menu. At that point, the registrations entered by all of the clerks are retrieved from the temporary global and sent with the DUZ(2) of the clerk who has exited the menu. This results in attempting to match a patient with the wrong division.

This is an error in the PIMS AG system and can affect systems other than Dentrix. In the meantime, a modification was made to BADEHL1 to circumvent the potential problem. PIMS AG patch has been released to now pass the correct division when triggering an ADT message to Dentrix

1.8   Modification to Option: Set Default Time for Dental Visit

Internal Name of Menu Options:	[BADE EDR DEFAULT TIME]
Link:	Dental Interface Menu > MAN > DTI

This menu option previously allowed anything to be entered for the default time of the dental visit. The parameter was set up as free text, with no validity checking. Checking was added so that only valid times in military format are allowed.

1.9   Modified Out of Order Messages: Upload Menu

When the Patient Upload is complete, all of the associated menu options need to be set to Out of Order. This is similar with Provider Upload and Patient Merge Upload. The original version placed only the Upload and Restart menu options Out of Order. The current patch places the Pause menu options Out of Order as well as the two Throttle options, for Patient Upload.

1.10   New Option: Manual Purge EDR HL7 Messages

Internal Name of Menu Options:	[BADE EDR MANUAL PURGE]
Link:	Dental Interface Menu > MAN > PUR

Added to the Dental Interface Management Menu. Since the normal HLO purge of old messages is sometimes disabled, it was determined that there was a need for independent control of this function. This menu options only purges those messages that are tagged as DENTRIX. The user may specify how many days' worth of messages they want to retain with the initial prompt.

Anyone wanting to use this option must be assigned the BADEZSND key in order to access the Dental Interface Management Menu.

1.11   Modification to Inbound Messaging: Assigned Clinic for Visits

Inbound messages from Dentrix create entries in the VISIT File. Each visit has an associated clinic (HOSPITAL LOCATION – File 44). The clinic is derived from the inbound Dentrix message in one of two possible ways:

- Piece 2 of FT1-16 may specify the name of the clinic. The name is verified in the HOSPITAL LOCATION file. If there is no exact match, then a warning is generated and method 2 is used to derive the clinic. Otherwise, the location (INSTITUTION – File 4) for that clinic is retrieved. If there is no location, a warning is generated and method 2 is used. Otherwise, the specified clinic in piece 2 of FT1-16 is used for the visit, with its associated location.

- If Piece 2 of FT1-16 is null or any of the 2 warning conditions exist, the clinic is derived from the default dental clinic for that location (LOCATION – File 9999999.06). This can be set in the menu option: Set Default Clinic (BADE EDR DEFAULT CLINIC). The location is derived from the ASUFAC, coming from either piece 1 of FT1-16 or the first 6 characters of PID-3, with piece 1 of FT1-16 having precedence. If there is no location associated with the ASUFAC, or no default clinic associated with the location, then an error is generated. Otherwise, a final check is made to verify that the location derived from the clinic is identical to the location derived from the ASUFAC.

With these modifications, the dental staff will be able to select any of the dental clinics defined for the dental encounter and not be limited to RPMS registered locations. RPMS and Dentrix servers must define clinic names that match identically, including case. The names should be 30 characters or less and be all uppercase.

It is advised that the site use a naming convention to identify HOSPITAL LOCATION (clinic) names that allow the RPMS operators to separate these clinics from those normally used in scheduling as well as being easily identified in the Dental Clinic selection process. As an example, start all of these clinics with EDR as in EDR SELLS SCHOOL or EDR TRIBAL OFFICE.

2.0   Installation Notes

Prefix: BADE

Current Version: 1.0 patch 1

> Note: Read the entire file prior to attempting any installation!

2.1   General Information

This patch includes the following updates to the Electronic Dental Record (EDR) interface software:

- RPMS has released the Patient merge software. This BADE patch supports an automatic trigger and supporting HL7 messages to notify and update the Dentrix Enterprise Software with merged patient information. The patch includes Patient Merge upload options.

- The BADE alerts have been modified to display more meaningful alert information and the ACK alert message has been removed.

- There are new menu options for troubleshooting, and startup reports to help define the initial setup of EDR.

- Large sites have been reported to ASUFAC-HRCN alert issue which has been corrected for both the initial patient upload and registration process. This better supports multi-divisional and unified database defined sites.

- A manual purge option has been added to allow large sites to purge old HL7 messages.

- The RPMS PCC filer has been migrated from the generic BEE to the BADE namespace.

- This patch supports multiple clinic (Hospital Location) names associated with the same ASUFAC (Location Encounter) in the PCC Visit.

- There are several improvements to user interface prompts.

- There is a new BADE file associated with this patch however, the file is not currently used by the package. The file will support future BADE patches.

2.2   Contents of Distribution

File	Description
bade0100.01k	KIDS file
bade0100.01n	Installation Notes file (this file)

2.3   Required Resources

BADE*1.0

2.4   Before You Begin: Installation Issues

The patch does require a KIDS installation, an Ensemble Integration Engine update, and modifications to the Dentrix Enterprise Software setup tables to properly work.

BPM Patient Merge patch 1 may be installed after the installation of BADE Patch 1 to support automatic triggering of merge messages to EDR. If installed after BADE patch 1, a documented post initialization can be run to activate the EDR merge process. (See Post-Install instructions in section 3.0)

2.5   Routines in BADE*1.0*1

BADEASU	New - Utilities from BEE namespace
BADECTR2	New - Utilities from BEE namespace
BADECTRL	New - Utilities from BEE namespace
BADEECP1	Pre and post installation for patch 1
BADEHL1	Modified alert messages and fix with registration DUZ(2)
BADEHL2	Modified alert messages
BADEHL3	Modified alert messages, Clinic (Hosp Loc) names support
BADEHL4	Modified alert messages, Clinic (Hosp Loc) names support
BADEHLI	Modified alert messages
BADEHLZ	Modified alert messages
BADEMRG	New - Patient merge functionality
BADEMRG1	New - Patient merge functionality
BADEPROV	New - Utility to display dentists, manual purge
BADEPRV1	New - Utility to display dental visits
BADEVNT1	Modified to mark options out of order
BADEEVNT	Modified to mark options out of order, alerts, patient # fix

2.6   New options and Security Keys

There are several new menu options. There are now three top level menus, each with its own security key:

```
UPL    Dental Interface Upload Menu ... [BADE EDR UPLOAD MENU]
          **> Locked with BADEZUPL
MAN    Dental Interface Management ... [BADE EDR MANAGE INTERFACE MENU]
          **> Locked with BADEZSND
UTIL   Dental Interface Utilities ... [BADE EDR UTILITIES]
```

```
                    **> Locked with BADEZUTL
```

The Dental Interface Upload Menu has the following options and supports the Merge Upload process:

```
UAP     Load all Patients [BADE EDR UPLOAD ALL PATIENTS]
PUP     Pause Patient Load [BADE EDR PAUSE PATIENT LOAD]
RUP     Restart Patient Upload [BADE EDR RESTART PAT UPLOAD]
UPV     Upload All Providers [BADE EDR UPLOAD ALL PROVIDERS]
PPV     Pause Provider Upload [BADE EDR PAUSE PROV UPLOAD]
RPV     Restart Provider Upload [BADE EDR RESTART PROV UPLOAD]
DSP     Display Progress [BADE EDR DISPLAY PROGRESS]
MALL    Upload all Merged patients [BADE EDR UPLOAD ALL MERGED PTS]
                  **> Locked with BADEZMER
PMRG    Pause Merge Upload [BADE EDR PAUSE MRG LOAD]
                  **> Locked with BADEZMER
RMRG    Restart Merge Upload [BADE EDR RESTART MRG UPLOAD]
                  **> Locked with BADEZMER
ASU     Active ASUFAC Display  [BADE EDR ASUFAC DISPLAY]
PER     EDR Patient File Count Errors [BADE EDR PATIENT COUNT ERRORS]
TCT     Pt Count for Throttle action [BADE EDR THROTTLE CT]
THR     Throttle Patient Upload [BADE EDR PT THROTTLE]
```

The Dental Interface Management Menu has the following options and supports the ability to send a single A40 HL7 message. There are also menu options to allow the user to manually purge old RPMS HL7 messages:

```
A28     Send a Single A28 Message [BADE EDR SEND A28]
A31     Send a Single A31 Message [BADE EDR SEND A31]
MFN     Send a Single MFN Message [BADE EDR SEND MFN]
A40     Send a Patient Merge Message [BADE EDR SEND A40]
                  **> Locked with BADEZMER
REP     Reprocess an Inbound HL7 Message [BADE EDR REPROCESS IN MESSAGE]
RES     Resend an Outbound HL7 Message [BADE EDR RESEND OUT MESSAGE]
CLN     Set Default Clinic [BADE EDR DEFAULT CLINIC]
DTI     Set Default Time for Dental Visit [BADE EDR DEFAULT TIME]
DPR     Set Default Days for Message Purge Retention [BADE EDR DEFAULT PURGE
DAYS]
PRO     Dentist List [BADE EDR DISPLAY PROVIDER]
PUR     Manual Purge EDR HL7 Messages [BADE EDR MANUAL PURGE]
```

3.0   Installation Instructions

3.1   KIDS Installation

Be sure and run the environment checker and double-check to make sure all of the patches passed the check. Say NO to rebuilding menus when installing these patches.

In all UCI's:

- Load the Distribution into KIDS using option 1 on the KIDS Installation menu. The distribution was released in a file named bade0100.01k.

- Verify the load using option 2 on the KIDS Installation menu.

- Consider using options 3 and 4 on the KIDS Installation menu to print and compare the Transport global.

- Install the distribution using option 6 on the Installation menu. Sites may wish to print out the install for review of errors

```
Select Installation Option: 1 Load a Distribution
Enter a Host File: C:\TEMP\bade0100.01k
KIDS Distribution saved on Aug 23, 2011@09:29:26
Comment: BADE EDR Patch 1 8/23/2011
```

This Distribution contains Transport Globals for the following Package(s):

```
Build BADE*1.0*1 has been loaded before, here is when:
     BADE*1.0*1   Install Completed                      was loaded on Aug
23, 2011@09:10:23
OK to continue with Load? NO// YES


Distribution OK!

Want to Continue with Load? YES//
Loading Distribution...

Build BADE*1.0*1 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES//
   BADE*1.0*1
Will first run the Environment Check Routine, BADEECP1

Use INSTALL NAME: BADE*1.0*1 to install this Distribution.


     1        Load a Distribution
     2        Verify Checksums in Transport Global
     3        Print Transport Global
     4        Compare Transport Global to Current System
     5        Backup a Transport Global
     6        Install Package(s)
              Restart Install of Package(s)
              Unload a Distribution

```

```
Select Installation Option: Install Package(s)

Select INSTALL NAME:     BADE*1.0*1     Loaded from Distribution     Loaded
from
Distribution  8/23/11@09:29:48
     => BADE EDR Patch 1 8/23/2011  ;Created on Aug 23, 2011@09:29:26

This Distribution was loaded on Aug 23, 2011@09:29:48 with header of
   BADE EDR Patch 1 8/23/2011  ;Created on Aug 23, 2011@09:29:26
   It consisted of the following Install(s):
     BADE*1.0*1
Checking Install for Package BADE*1.0*1
Will first run the Environment Check Routine, BADEECP1


Install Questions for BADE*1.0*1

Incoming Files:


   90641.99  BADE ENSEMBLE CONTROL  (including data)
Note:  You already have the 'BADE ENSEMBLE CONTROL' File.
Data will NOT be added.

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


Want KIDS to INHIBIT LOGONs during the install? YES// NO

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//

  If Merge is not installed:  Patient Merge not Installed
                             BADE Merge Protocol Not Created
 If Merge is installed:      BADE Merge Protocol added

          Post Initialization Completed

Install Completed
```

Post-install instructions

The tasked options which were formerly in the BEE namespace have been moved to the BADE namespace. The option [BEE TSK HLO IB MSG FILER] needs to be halted. This can be done through the Schedule/Unschedule option in Taskman, and entering '@' at RESCHEDULING FREQUENCY and SPECIAL QUEUEING. The option [BADE TSK HLO IB FILER] then needs to be scheduled through the same option, with the RESCHEDULING FREQUENCY being 60S and SPECIAL QUEUEING: STARTUP.

```
Select Systems Manager Menu Option: Taskman Management

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

Select Taskman Management Option: SCHEDULE

Option Name: BEE TSK HLO IB MSG FILER
    Menu Text: Task to process HLO msg from EIE          TASK ID: 98631
_____
  QUEUED TO RUN AT WHAT TIME: NOV 16,2010@13:13

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET: DEV

     RESCHEDULING FREQUENCY: @

            TASK PARAMETERS:

          SPECIAL QUEUEING: @


Option Name: BADE TSK HLO IB FILER
    Menu Text: BADE EDR TSK HLO IB FILER                  TASK ID:
_____
  QUEUED TO RUN AT WHAT TIME: NOV 16,2010@14:00

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET: DEV

     RESCHEDULING FREQUENCY: 60S

            TASK PARAMETERS:

          SPECIAL QUEUEING: STARTUP
```

The POST Installation of this patch checks to see if the BPM Patient Merge patch 1 is installed. If it is not installed then Out of Order messages are set in the Merge Upload menu options (see below). If BPM Patient Merge patch 1 has not been installed prior to BADE patch 1 then once the BADE patch 1 is installed, the site will need to install BPM patch 1 and then RERUN the post init for the BADE patch 1. Below is the process to check and redo the post init:

```
Check the Dental Interface Main Menu option for the out of order message.
At the programmer's prompt:
TST>D ^XUP
```

```
Setting up programmer environment
This is a TEST account.


Terminal Type set to: C-VT100


Select OPTION NAME:    BADE EDR MAIN MENU     Dental Interface Main Menu


   UPL    Dental Interface Upload Menu ...
   MAN    Dental Interface Management ...
   UTIL   Dental Interface Utilities ...

Select Dental Interface Main Menu Option: UPL  Dental Interface Upload Menu


   UAP    Load all Patients
   PUP    Pause Patient Load
   RUP    Restart Patient Upload
   UPV    Upload All Providers
   PPV    Pause Provider Upload
   RPV    Restart Provider Upload
   DSP    Display Progress
   MALL   Upload all Merged patients
             **> Out of order:  Patient merge not installed
   PMRG   Pause Merge Upload
             **> Out of order:  Patient merge not installed
   RMRG   Restart Merge Upload
             **> Out of order:  Patient merge not installed
   ASU    Active ASUFAC Display
   PER    EDR Patient File Count Errors
   TCT    Pt Count for Throttle action
   THR    Throttle Patient Upload

Select Dental Interface Upload Menu Option:
```

If the Out of Order message shows "Patient merge not installed" as seen above you must first install the BPM Patient Merge Patch 1 and after successful completion perform the following step at the programmer's prompt:

```
TST>D POST^BADEECP1

A completion prompt for this post init will display.  To verify that the
Merge options are now available in the BADE menu, do the following at the
programmer's prompt and note that the Out of Order messages are removed:

TST>D ^XUP

Setting up programmer environment
This is a TEST account.

Terminal Type set to: C-VT100

Select OPTION NAME:    BADE EDR MAIN MENU     Dental Interface Main Menu


   UPL    Dental Interface Upload Menu ...
   MAN    Dental Interface Management ...
   UTIL   Dental Interface Utilities ...

Select Dental Interface Main Menu Option:  Dental Interface Upload Menu
```

```
   UAP    Load all Patients
   PUP    Pause Patient Load
   RUP    Restart Patient Upload
   UPV    Upload All Providers
   PPV    Pause Provider Upload
   RPV    Restart Provider Upload
   DSP    Display Progress
   MALL   Upload all Merged patients
   PMRG   Pause Merge Upload
   RMRG   Restart Merge Upload
   ASU    Active ASUFAC Display
   PER    EDR Patient File Count Errors
   TCT    Pt Count for Throttle action
   THR    Throttle Patient Upload

Select Dental Interface Upload Menu Option:

To verify that the automatic trigger is properly associated with the BPM
Patient Merge use the programmer's prompt and check that the ITEM field
below shows BADE MERGE PATIENT ADT-A40:

TST>D Q^DI
VA FileMan 22.0
Select OPTION:    INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: PROTOCOL//
Select PROTOCOL NAME:    BPM MERGE PATIENT ADT-A40     MERGE PATIENT ADT-
A40 MES
SAGE
ANOTHER ONE:
STANDARD CAPTIONED OUTPUT? Yes//   (Yes)
Include COMPUTED fields:  (N/Y/R/B): NO//  - No record number (IEN), no
Computed
 Fields

NAME: BPM MERGE PATIENT ADT-A40          ITEM TEXT: MERGE PATIENT ADT-A40
MESSAGE
  TYPE: extended action                 CREATOR: ADAM,ADAM
  PACKAGE: IHS PATIENT MERGE
 DESCRIPTION:   This protocol belongs to IHS Patient Merge (BPM), and is
called when two patients have been merged by the BPM application.  At call
time, variables DFNFROM and DFNTO are defined.

ITEM: BADE MERGE PATIENT ADT-A40         SEQUENCE: 967
  TIMESTAMP: 62249,29263
```

```
Checksums for BADE*1.0*1

Routine Summary
The following routines are included in this patch.  The second line of each
of these routines now looks like:
;;1.0;DENTAL/EDR INTERFACE;**[Patch List]**;AUG 22, 2011

                  Checksum
Routine          Old        New        Patch List
BADEASU        8324469    8324469      **1**
BADECTRL       9018341    9018341      **1**
BADEECP1       5363046    5363046      **1**
BADEEVNT       9264613    9264613      **1**
BADEHL1       19922220   19922220      **1**
BADEHL2        8972852    8972852      **1**
BADEHL3       23232922   23232922      **1**
BADEHL4       17245079   17245079      **1**
BADEHLI       21115732   21115732      **1**
BADEHLZ        6429262    6429262      **1**
BADEMRG        7089061    7089061      **1**
BADEMRG1       6053912    6053912      **1**
BADENTEG       2251127    2251127      **1**
BADEPROV      14288349   14288349      **1**
BADEPRV1       9673629    9673629      **1**
BADEVNT1      11549734   11549734      **1**
```

Sites should use CHECK^XTSUMBLD to verify checksums.

After the successful completion of the BADE Patch 1, the site manager should insure that all Interfaces that use the Ensemble Interface Engine are operating and functioning properly.

3.2   Ensemble Installation

There is a separate Ensemble Installation process defined in the document EDR_A40PATCH_INSTALLATION_MANUAL.doc indicating that the following file EDR_ENSRPMS_A40PATCH.xml must be installed after the installation of BADE PATCH 1.

3.3   Dentrix Enterprise Modification

The Dentrix Enterprise Software Interface must be modified in the HL-7 MSH segment for the outbound DFT message, Piece 4 from RPMS to RPMS-DEN to support both the new BADE RPMS PCC Message filer and to support the multiple hospital location clinic names associated with a single ASUFAC. The HL7 A40 inbound message processing must also be turned on. The Dentrix Enterprise Help Desk should be contacted at 1-800-372-4346 Opt 4 for Support to assist in making these changes.

Appendix A: Ensemble Installation Notes

A.1   Preface

The purpose of this document is to provide the user information about how to import and update the base version 1.0 IHS BADE package to support the transport of ADT A40 Merge event messages between the EDR and RPMS Systems.

> **Note**: *This patch installation must only be applied to an environment already running the original BADE0100 package*. If the initial BADE production package is already installed, this patch can be applied independently before or after the RPMS BADE patch.

A.2   Introduction

For over a decade, hospitals and health centers of the Indian Health Service (IHS) and numerous tribal health programs have utilized an information system called the Resource and Patient Management System (RPMS). The RPMS is a highly integrated system consisting of some fifty health care and administrative applications. Virtually all of these applications directly interact with one or more, and sometimes many, of the other RPMS applications.

During this same period, IHS and tribal dental programs have made use of the RPMS Dental Data System (DDS) as their primary system for maintaining a history of individual patient services; contributing dental data to the RPMS electronic clinical record; producing provider and department workload data; and contributing statistical data to the national data center located in Albuquerque, New Mexico. At many sites, data captured in the DDS has also been utilized in the RPMS Third Party Billing System.

With the replacement of the RPMS Dental Data System with an Electronic Dental Record (EDR), it is required that RPMS applications interact with the EDR to meet the needs of both the Dental Department and the local health program as a whole.

The IHS Production for the Ensemble Interface Engine (EIE), provides transportation of messages between the RPMS system and the EDR system. It accepts DFT_P03 messages from the EDR system and delivers them to the RPMS system. It accepts MFN_M02, ADT_A31 and ADT_A28 messages from the RPMS system and delivers them to the EDR system. This patch will allow an ADT A40 merge message to be passed via Ensemble in addition to the existing events.

If at any point there is an error in receiving a valid EDR or RPMS HL7 message, if there is a connection issue between EIE and either system or any other error occurs an alert will sent to the appropriate administrators from the EIE.

A.3   Shutdown Running Production

This section describes shutting down the running production in order to import the changes to support the ADT A40 Merge event being sent from RPMS.

A.3.1   Accessing the Portal

The management portal is accessed by launching Internet Explorer ("the browser") and navigating to the following URL:

http://(EIEserver:port)/csp/ensrpms/BADE.Zen.Home.cls

Upon entering the URL into the browser, the user will be presented with the EIE Login page:
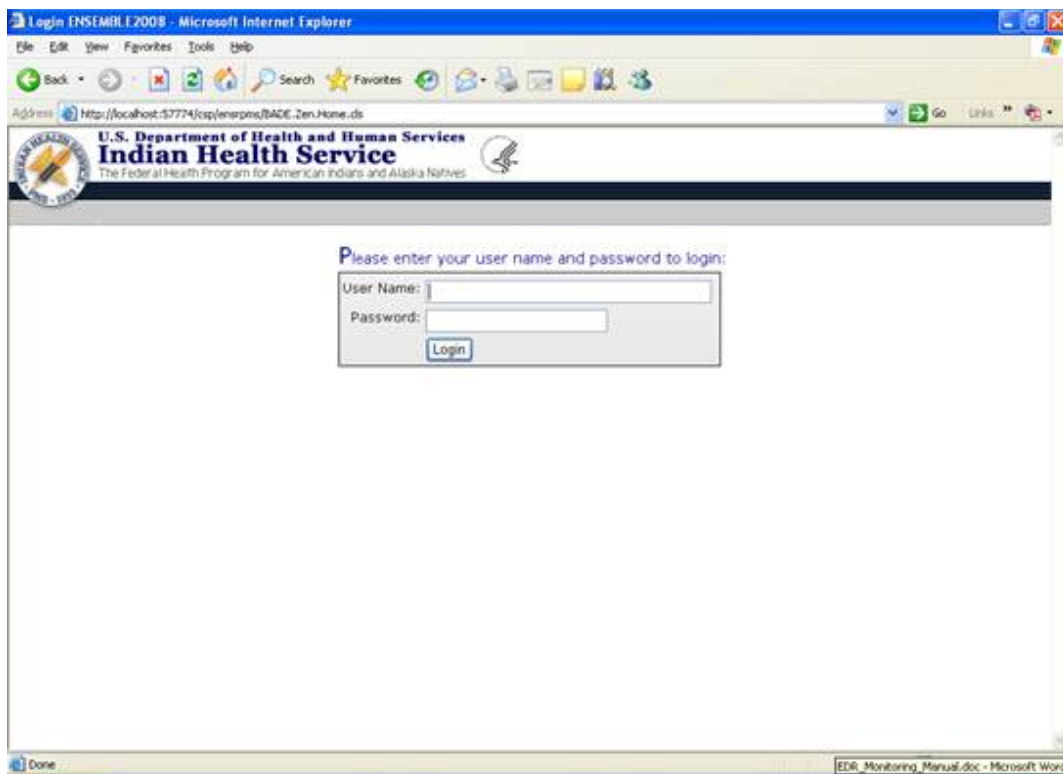
A.3.2   Stop Production

After logging in with a username with privileges to start and stop the interfaces, click the **Stop Production Button** below. Once the production is stopped, the light should turn red.
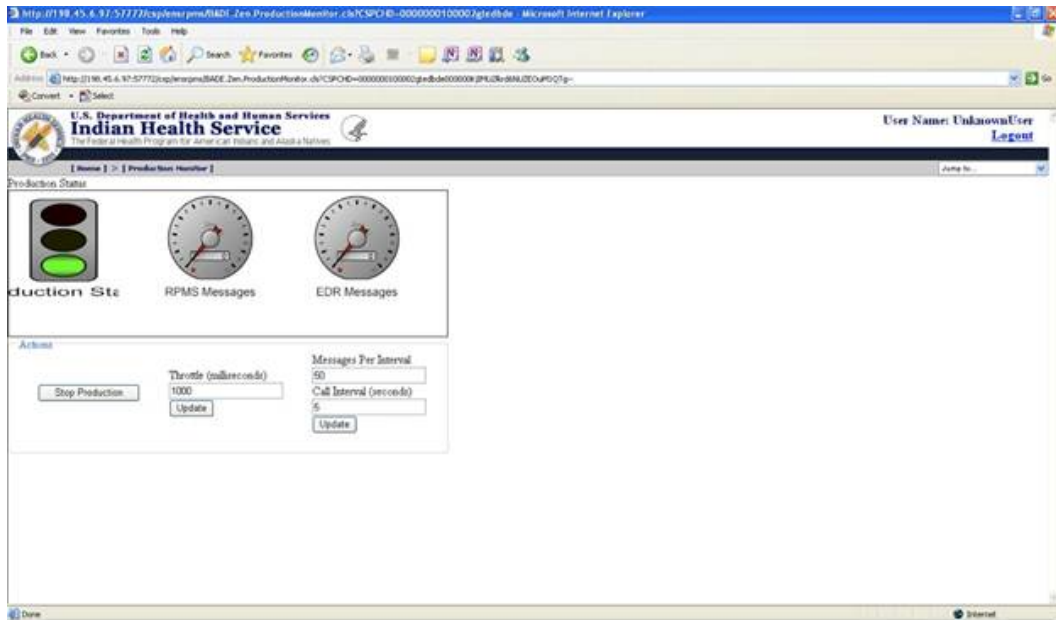
A.3.3   Alternative method for stopping the production

An alternative method for stopping the production is provided by the Ensemble Management Portal.

From the Ensemble Studio, select File->Utilities->Ensemble Management
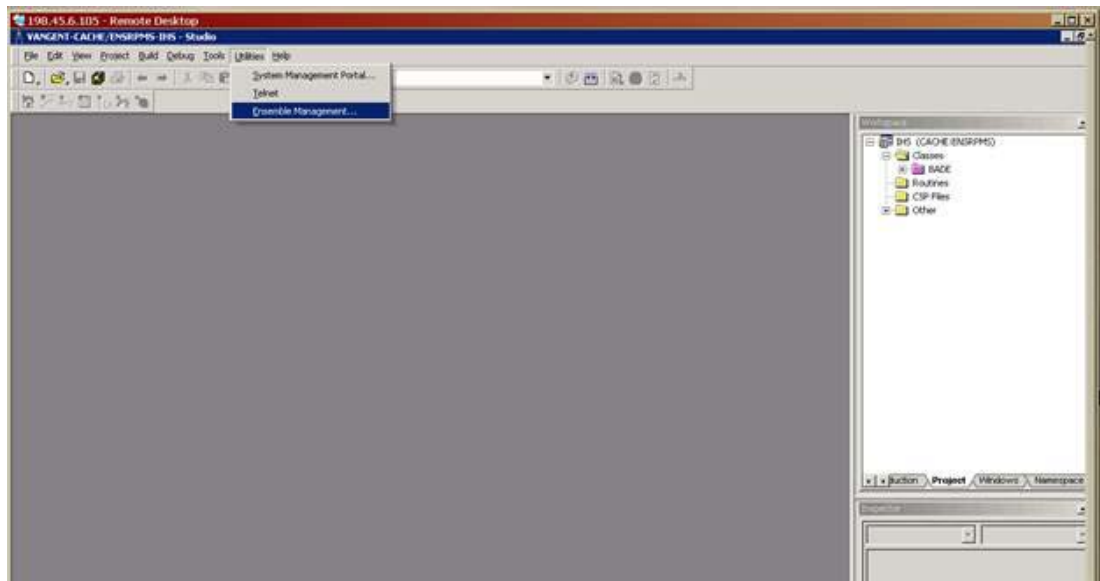
Or, from the System Management Portal, select Ensemble Management.
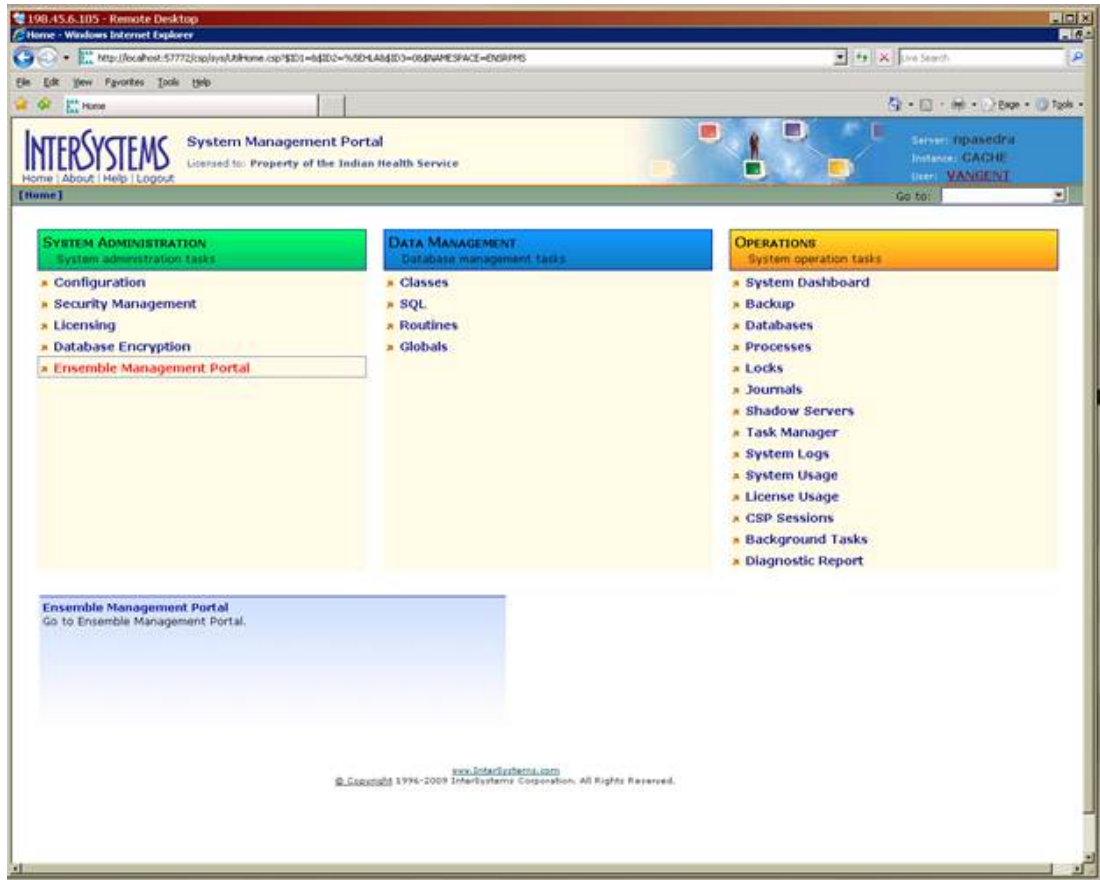
If the namespace isn't ENSRPMS, from the Namespace drop down box choose 'ENSRPMS'.

The BADE.IHS Production will be listed in the Production area of the screen (just below the Stop Production button), click **Stop Production**. A popup box will ask you to confirm stopping the production – click **Yes**.

A.4   IHS Production A40 Patch Import

This section describes the process of importing the IHS production patch into Ensemble Studio from an XML document after the production has been stopped.

A.4.1   Open Ensemble Studio

From a windows environment right click the Ensemble Cube in the lower right corner, select Studio. Enter your login ID and password:

From a windows environment right click the Ensemble Cube in the lower right corner, select Studio. Enter your login ID and password:
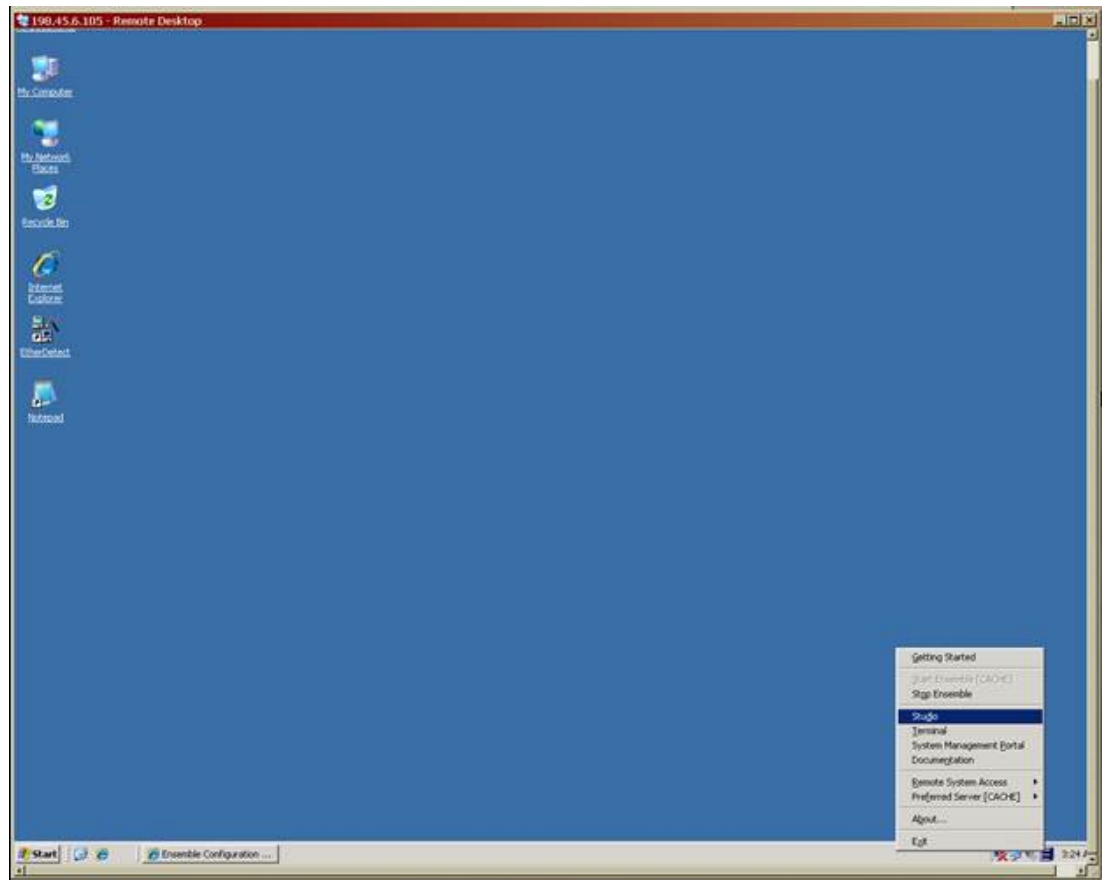
Select the proper namespace

If the namespace isn't ENSRPMS

Select File->Change NameSpace…
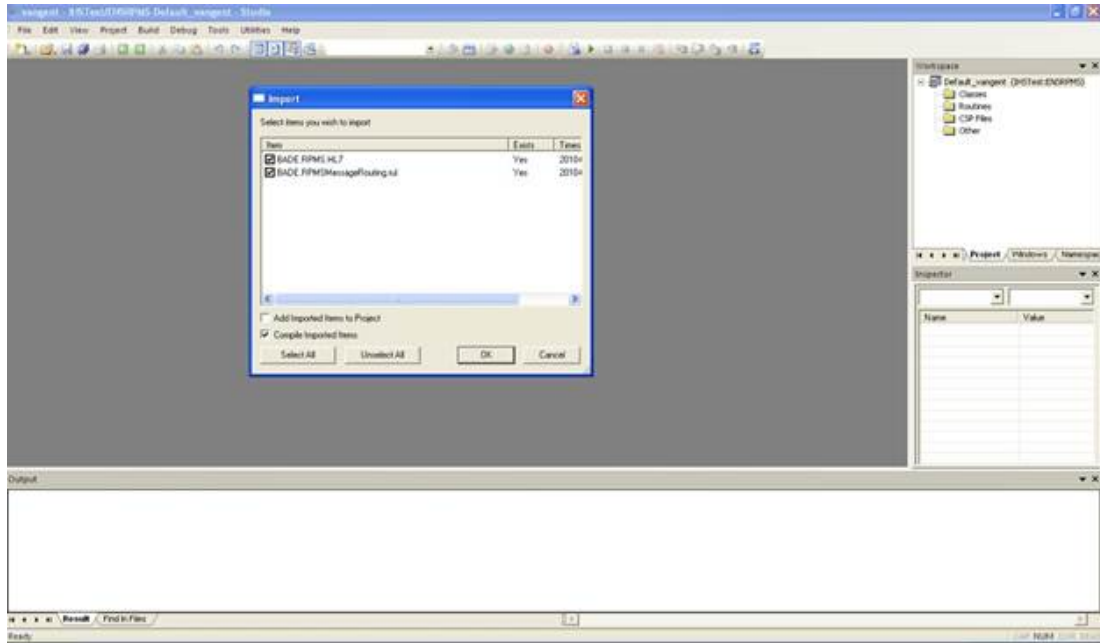
23
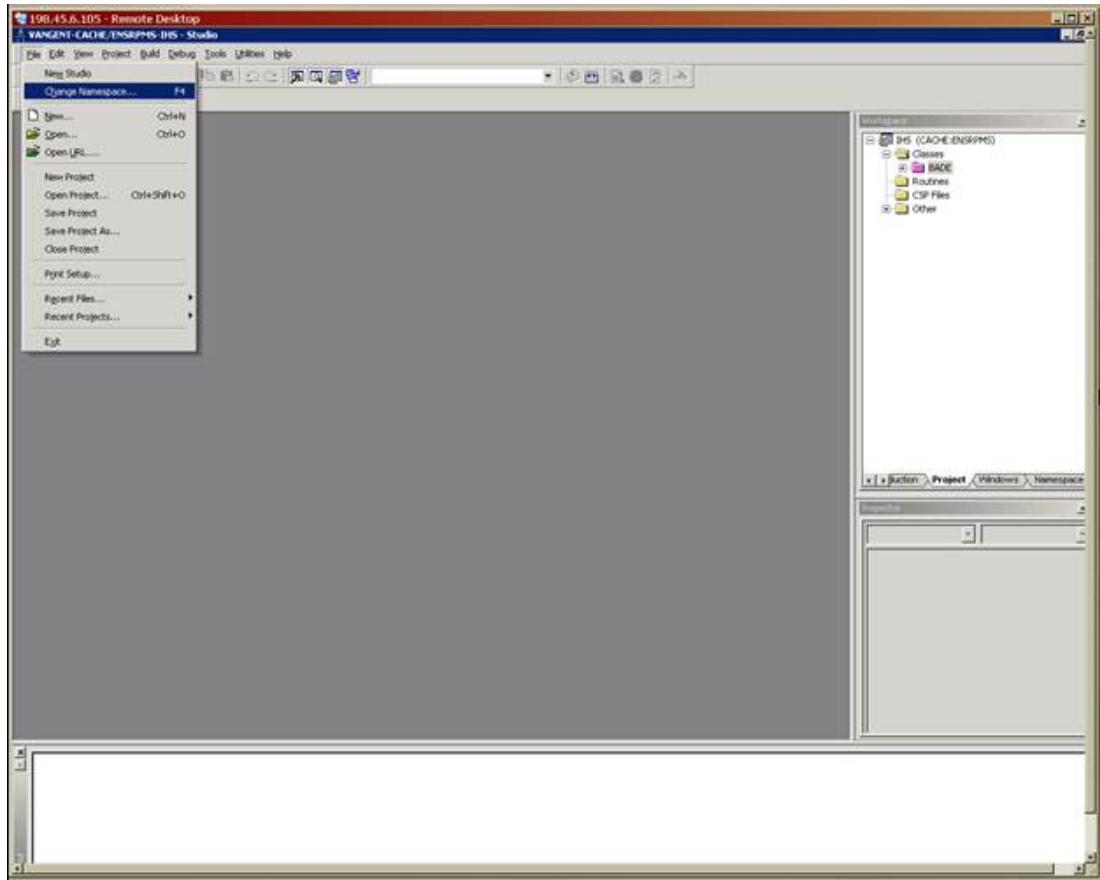
Choose the ENSRPMS namespace from the list.
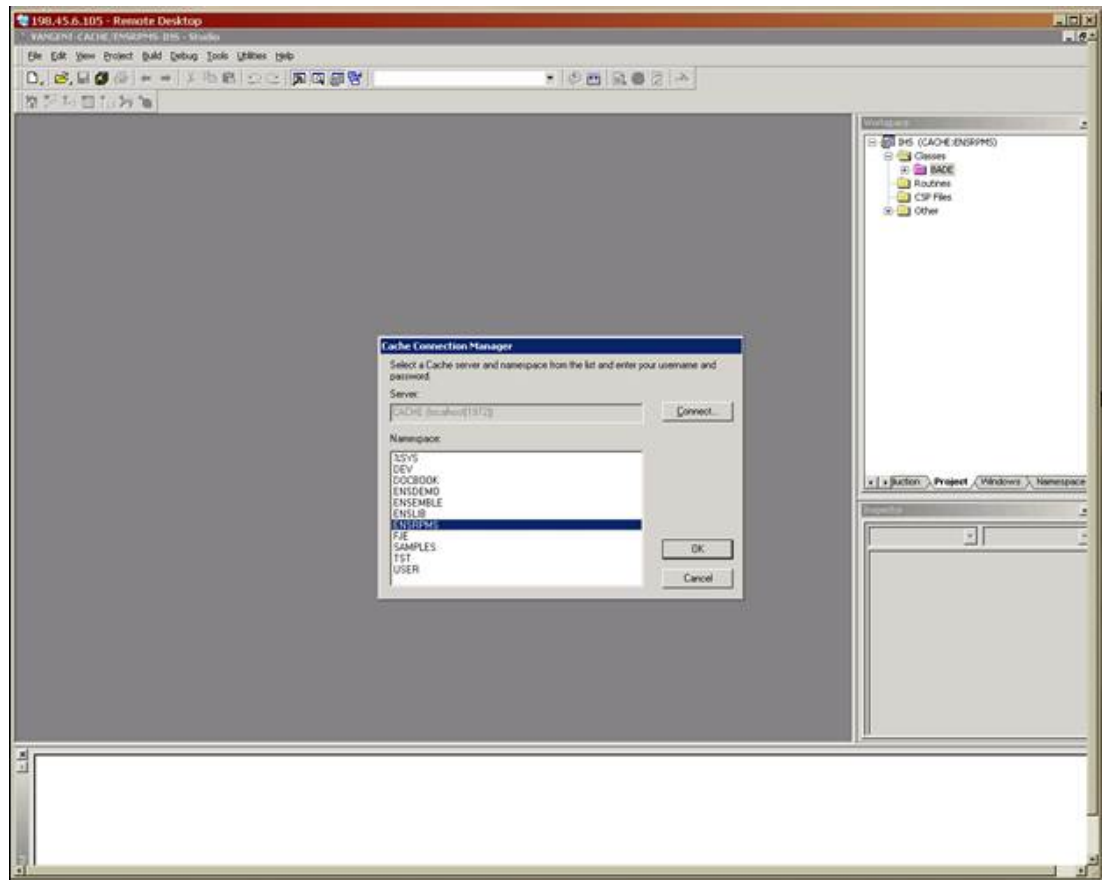
A.4.2   Import the IHS production A40 Merge patch

Select Tools->Import Local…
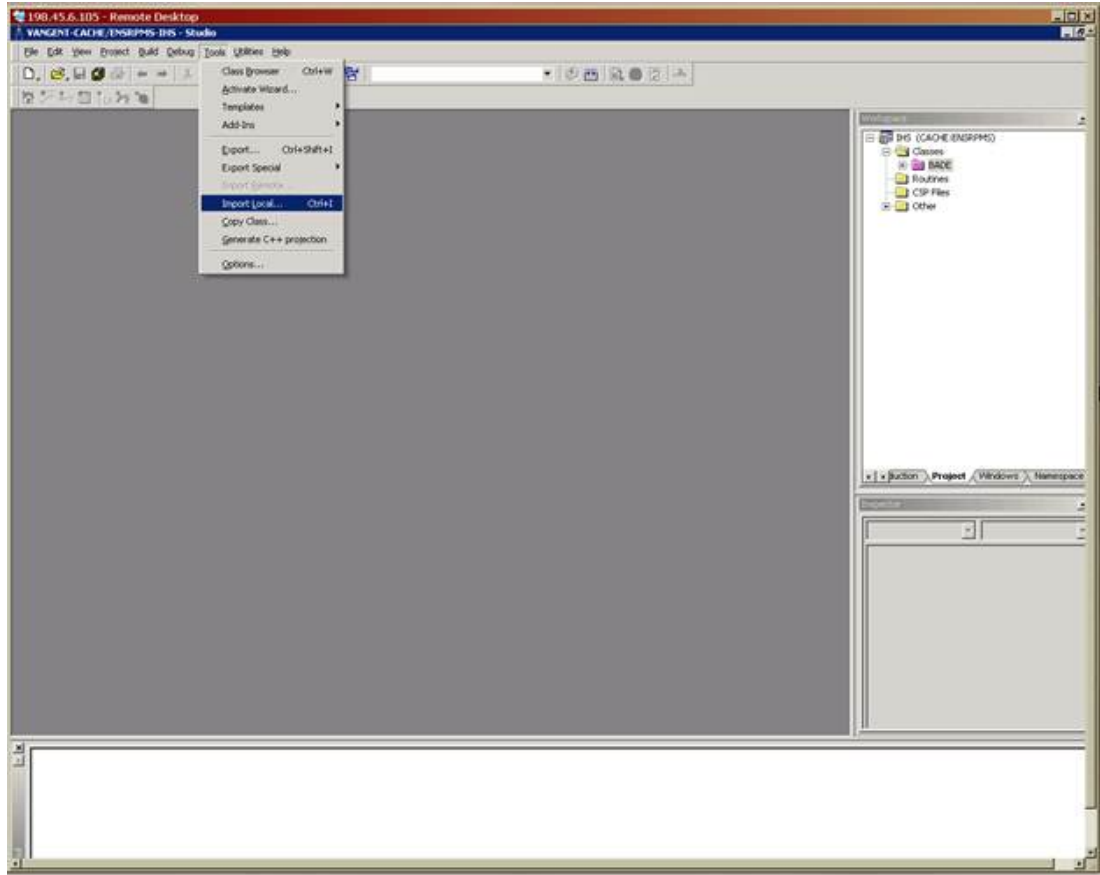
Select the file named EDR_ENSRPMS_A40PATCH.xml on your network or local machine, choose open.

Ensure that all items within the list are selected and the 'Compile Imported items' options are selected.

Choose OK, when finished compiling a 'Compilation finished successfully in…' line will appear in the Result pane.

> **Note**:   If errors were encountered, or you did not receive the "Compilation finished successfully' message, go back to step 3.2 and make sure you selected the correct namespace (RPMSBADE) and that the 'Compile Imported Items' checkbox is selected on the import screen above. If problems persist, please contact the helpdesk for further support.

A.5   Restart the production

Once the patch has been imported and compiled, we can now go back into the portal and restart the production.

A.5.1   Accessing the Portal

Access the management portal again as in section 2.0. Launch Internet Explorer ("the browser") and navigating to the following URL:
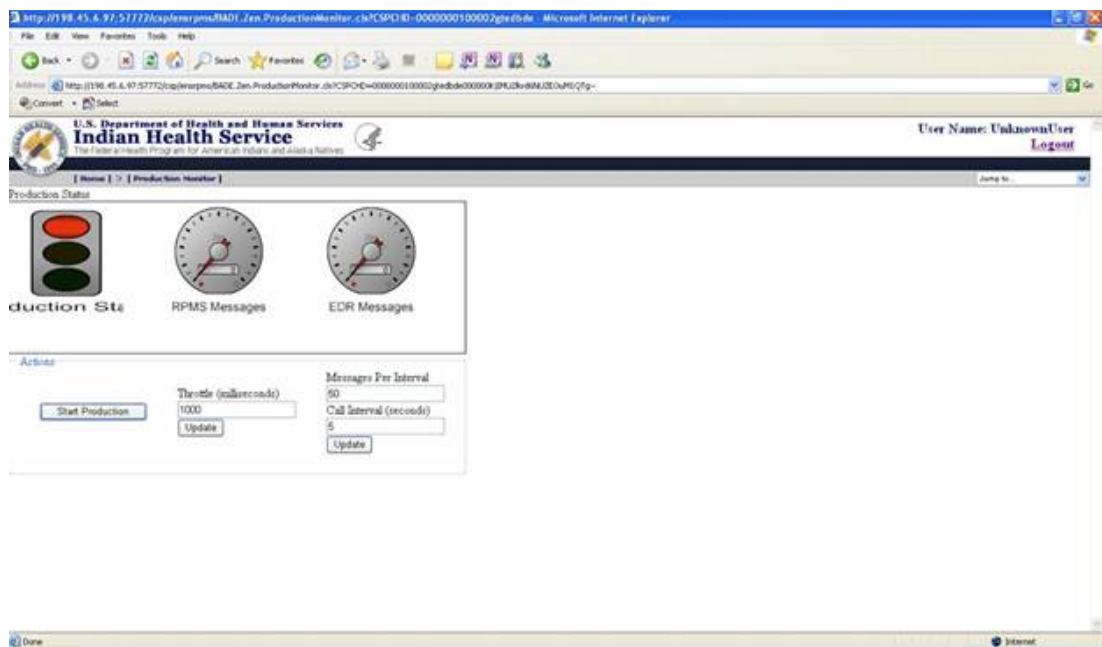
http://(EIEserver:port)/csp/ensrpms/BADE.Zen.Home.cls

Login again to the EIE Login page:
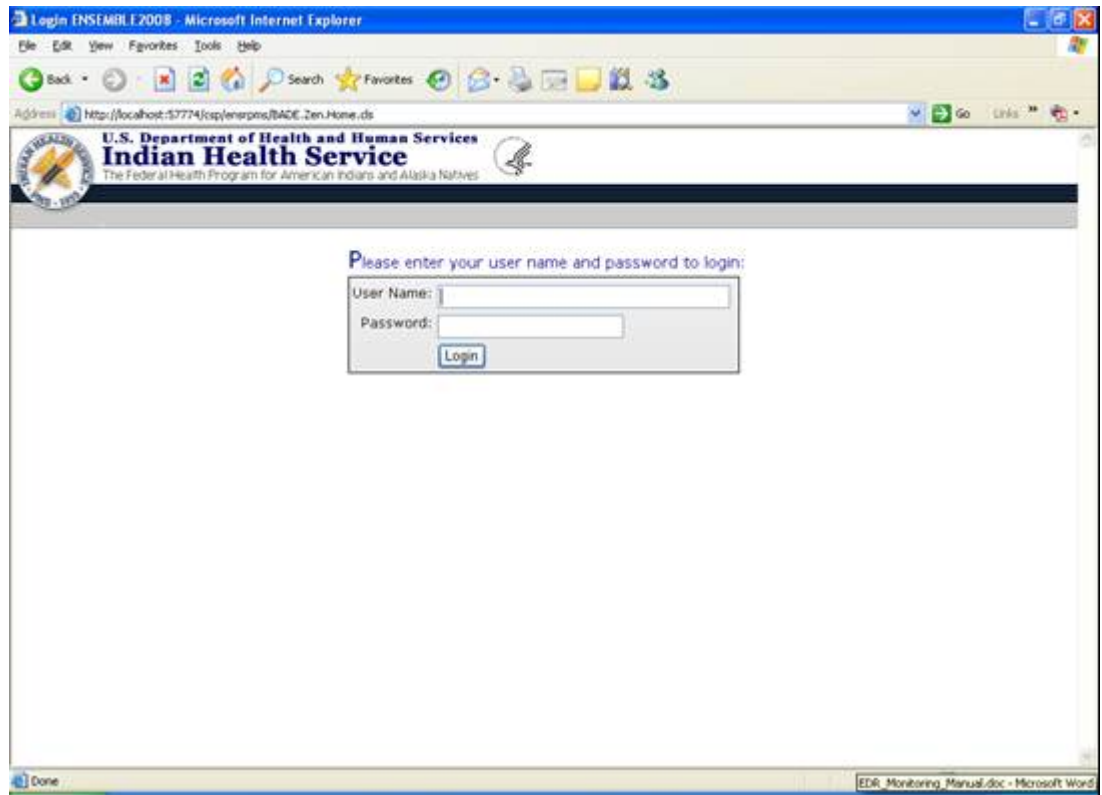
A.5.2   Start Production

After logging in with a username with privileges to start and stop the interfaces, click the **Start Production Button** below and the stoplight should turn green.
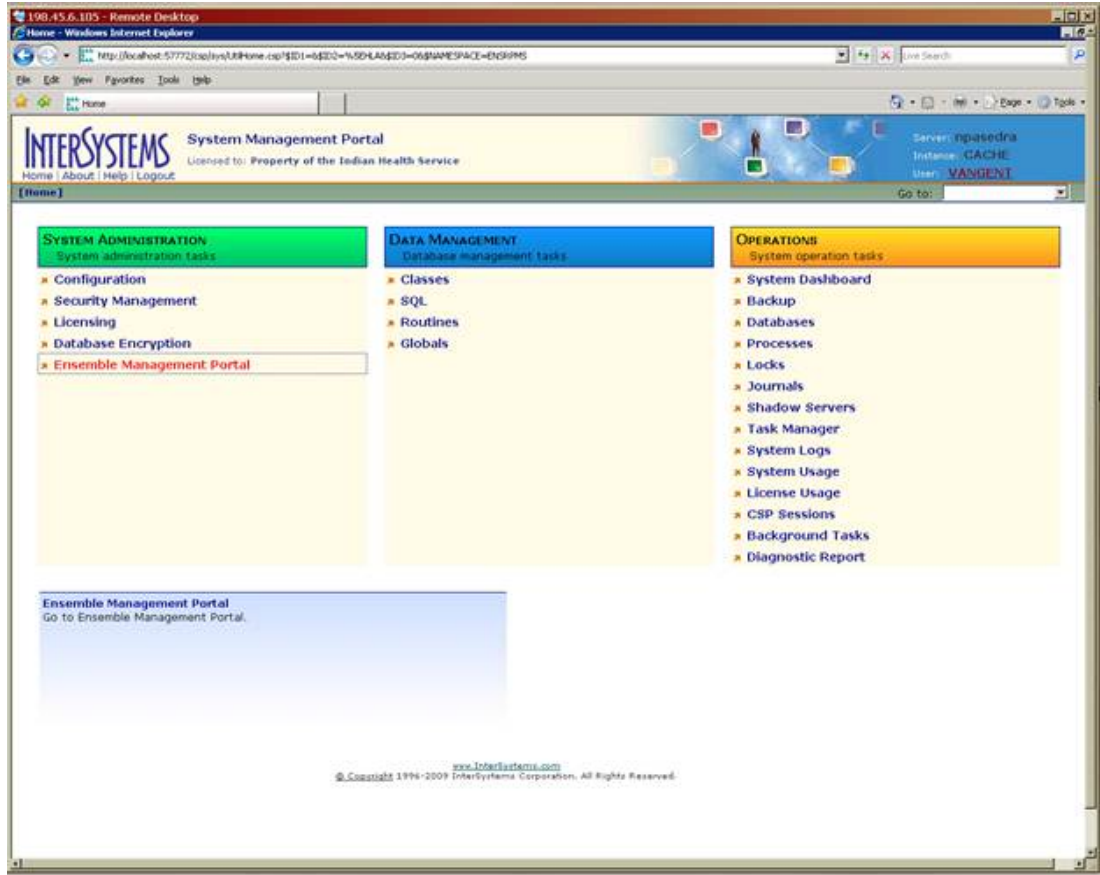
A.5.3   Alternative method for starting the production

An alternative method for starting the production is provided by the Ensemble Management Portal.

From the Ensemble Studio, select File->Utilities->Ensemble Management
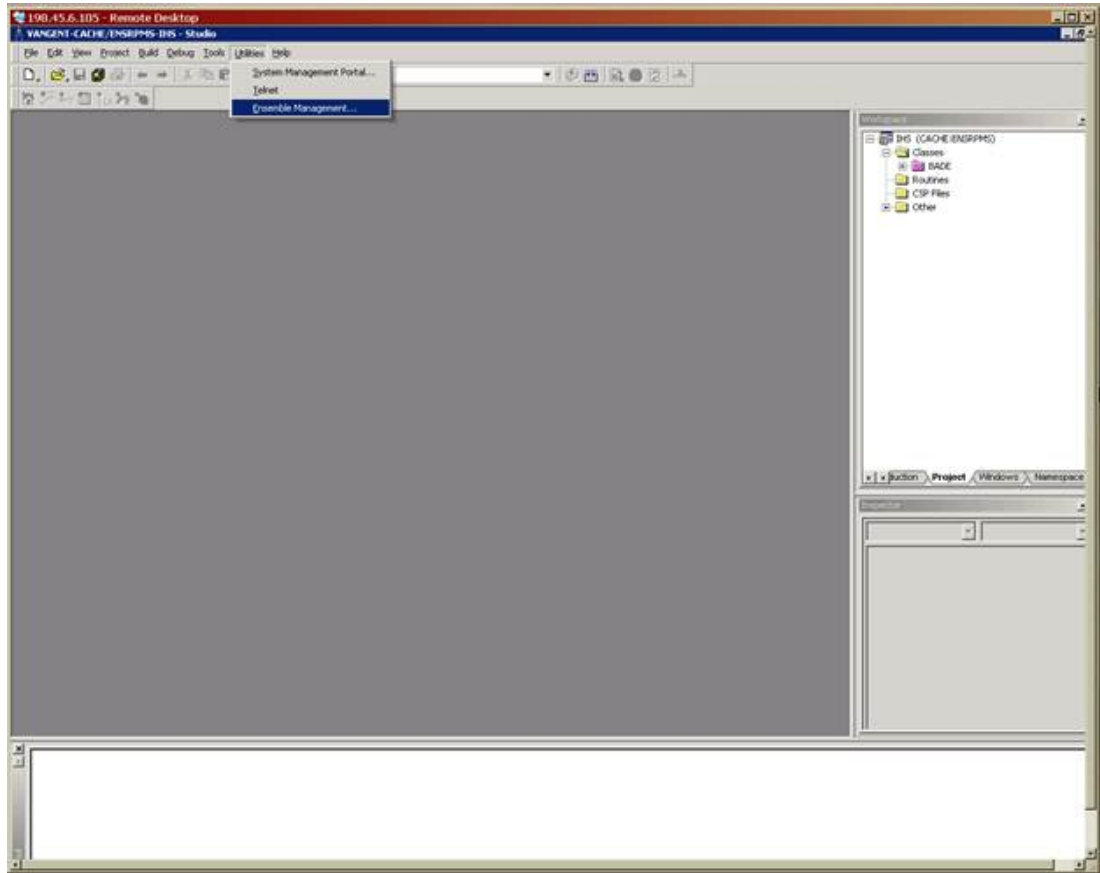
Or, from the System Management Portal, select Ensemble Management.

If the namespace isn't ENSRPMS, from the Namespace drop down box choose 'ENSRPMS'

The BADE.IHSProduction should be listed in the Production area of the screen (just below the Start Production button), click **Start Production**:

You should then see the following screen or something similar indicating the start of the production:
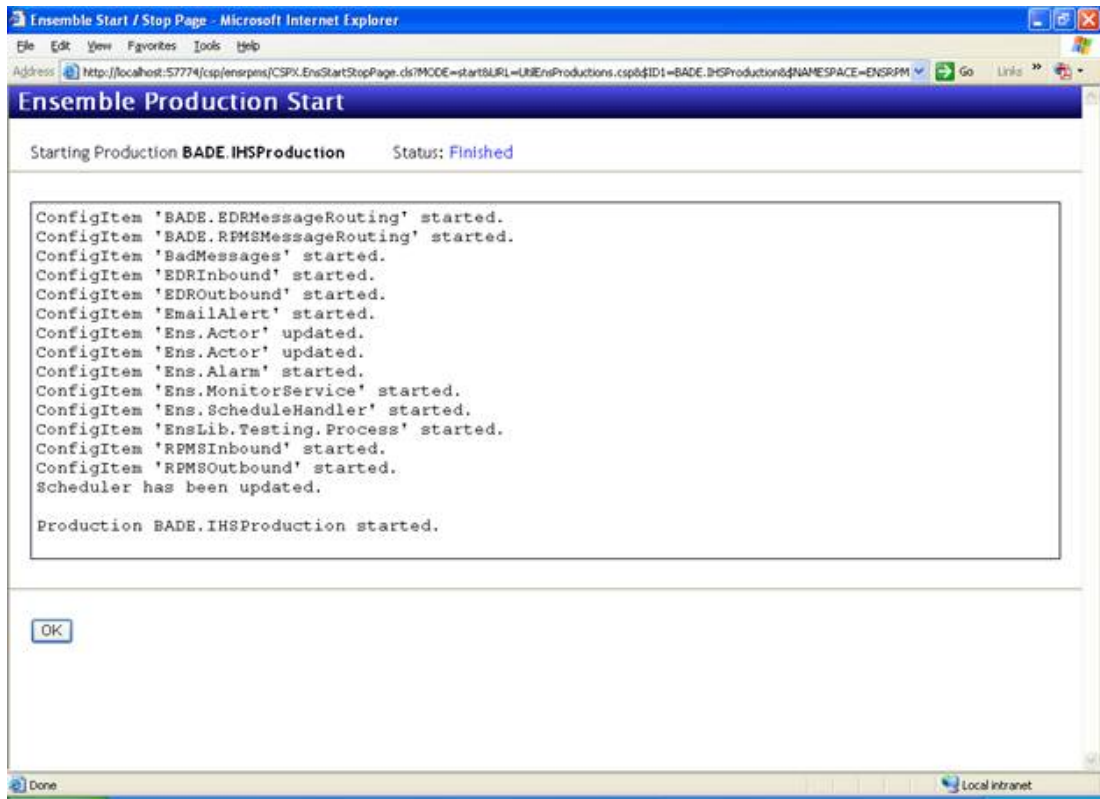
Contact Information

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

Phone: (505) 248-4371 or (888) 830-7280 (toll free)

Fax: (505) 248-4363

Web: http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm

Email: support@ihs.gov