RESOURCE AND PATIENT MANAGEMENT SYSTEM

# e-Prescribing Productions

# (BEPR)

## Installation Guide and Release Notes

Version 2.0
December 2013

Office of Information Technology
Division of Information Resource Management
Albuquerque, New Mexico

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# Preface

The purpose of this document is to provide IT personnel information about the e-Prescribing Productions for the Local Server. The Local version has a root package name of BEPR and several sub-packages including but not limited to: DD (Directory Download), SPI (Surescripts® Provider Identifier), and NewRx (New electronic prescription) which hold code for the various functions of the Local production.

Further definition of these terms is included in the Glossary.

# 1.0 Release Notes

The Ensemble Interface Engine (EIE) provides a means to download a file containing pharmacies in the network (Directory Download), request and receive a Surescripts Prescriber ID (SPI), and electronically send a prescription (NewRx) to a pharmacy within the network through the Surescripts server.

The purpose of this document is to provide the user information on how to import the services, processes and operations into Ensemble, the configuration of said imports, and the functions of the local server.

At this time the local server supports Directory Download, SPI requests and NewRx.

# 2.0 Installation Notes

**Prefix:** BEPR

**Current Version:** 2.0

## 2.1 Contents of Distribution

| File | Description |
|---|---|
| bepr0200.local.xml | Server XML file |
| bepr020i.local.pdf | Installation Guide |
| bepr020u.local.pdf | User Guide |
| bepr020t.local.pdf | Technical Guide |

## 2.2 Required Resources

- Ensemble 2012.2.5
- At least 10Mb disk space for the e-Prescribing namespace
- At least 75Mb disk space for Directory Download files
- Electronic Health Record, v1.1, Patch 12
- IHS Pharmacy Modifications, v7.0, Patch 1016
- AVA 9320.21

## 2.3 Before You Begin: Installation Issues

A directory for the Directory Download should to be created on the server where it is accessible to the Ensemble production and complies with site security restrictions. There is no PHI contained it the downloaded files.

The site will need a decompression tool such as 7zip or unzip installed for Directory Download.

### 2.3.1 Disk Space

#### 2.3.1.1 e-Prescribing namespace

The initial size is 10Mb but can be installed as small as a 1Mb size.

#### 2.3.1.2 Directory Download

The site should have enough free disk space in the download directory which will hold the Directory Download. The compressed versions of the Directory Downloads range from are 1Kb to 4.7 Mb and the decompressed versions range from approximately 1Kb to 50Mb in size. The larger of the files is the weekly download with the smaller files being the nightly download. The default setting for archiving of these files is 14. This setting can be modified in the PlaceFile Business Operation. Only the compressed files are archived and only one file remains decompressed at any given time.

# 3.0 Installation Instructions

## 3.1 e-Prescribing Namespace

This section describes the process of creating the e-Prescribing namespace that will contain the e-Prescribing Ensemble production.

1. From Ensemble Cube, open the System Management Portal.
2. Select **Configure Namespaces** from the **Menu** list.

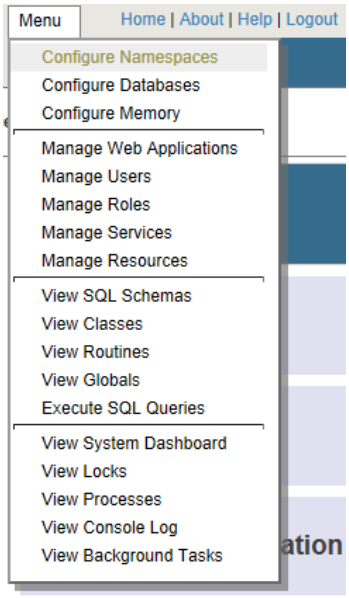



Figure 3-1: Menu dropdown

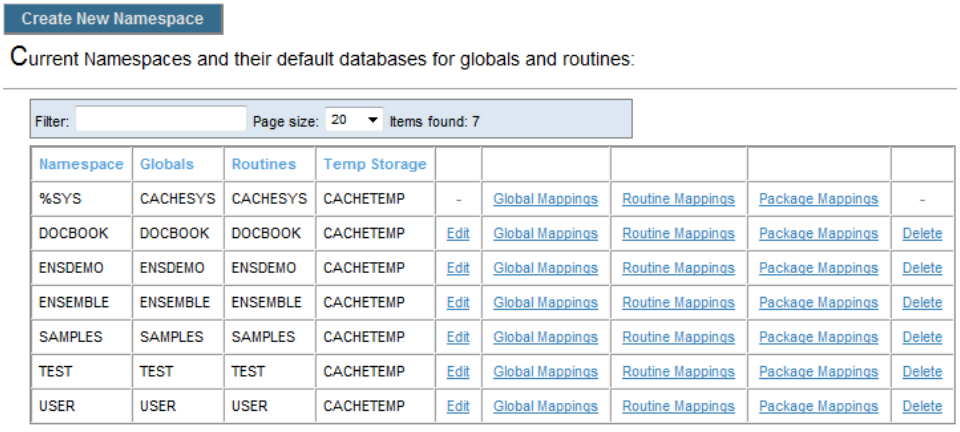



Figure 3-2: Namespaces page

3. Select **Create New Namespace**.

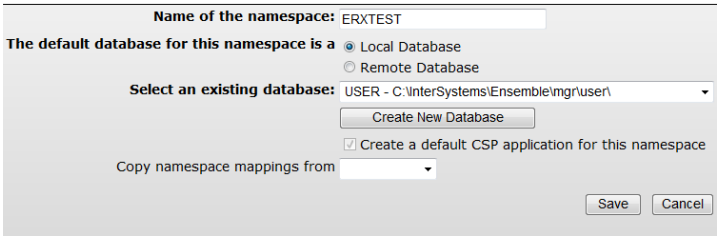



Figure 3-3: Create New Namespace dialog

4. **Enter** the name of the e-Prescribing database in the **Name of the namespace** field. The recommended naming convention is "ERX" followed by the site namespace. Example: ERXTEST

5. Click **Create New Database**.

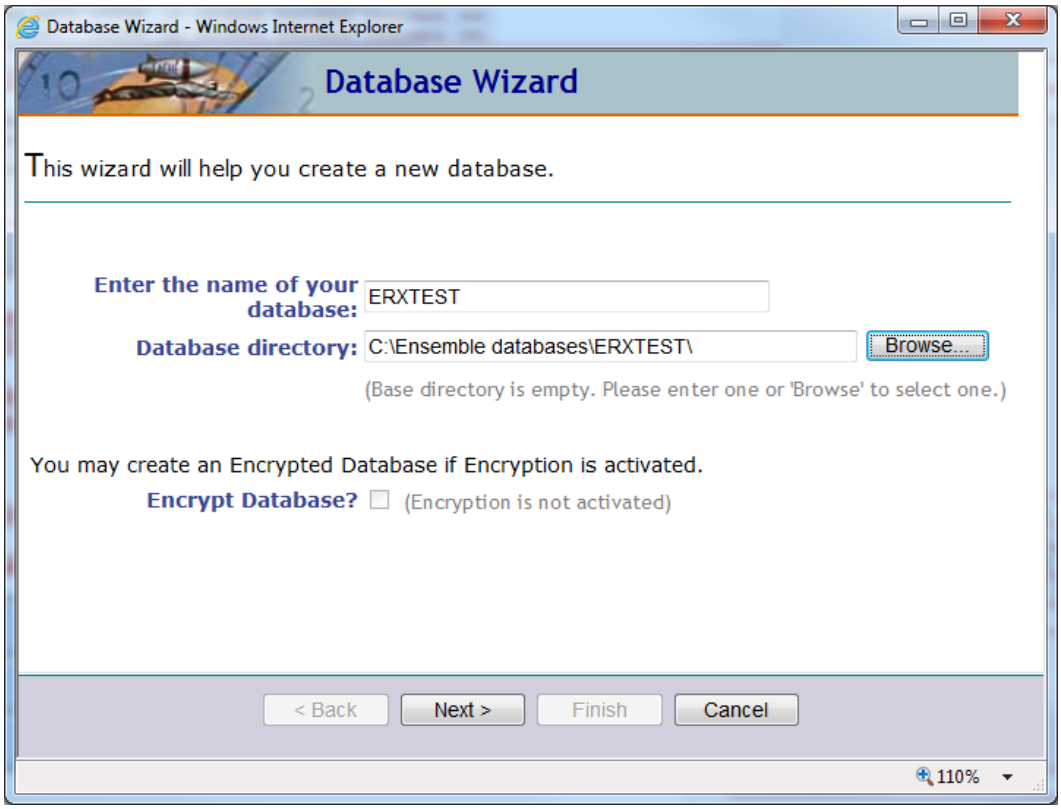



Figure 3-4: Database Wizard dialog

6. **Enter** the name of the e-Prescribing namespace used above in Step 4.

7. Click **Browse** and browse to the location where the site stores its RPMS databases.

8. **Type** the name of the e-Prescribing database at the end of the directory path in the **Database directory** field.

9. Click **Encrypt database** if the site uses database encryption.
10. Click **Next**.

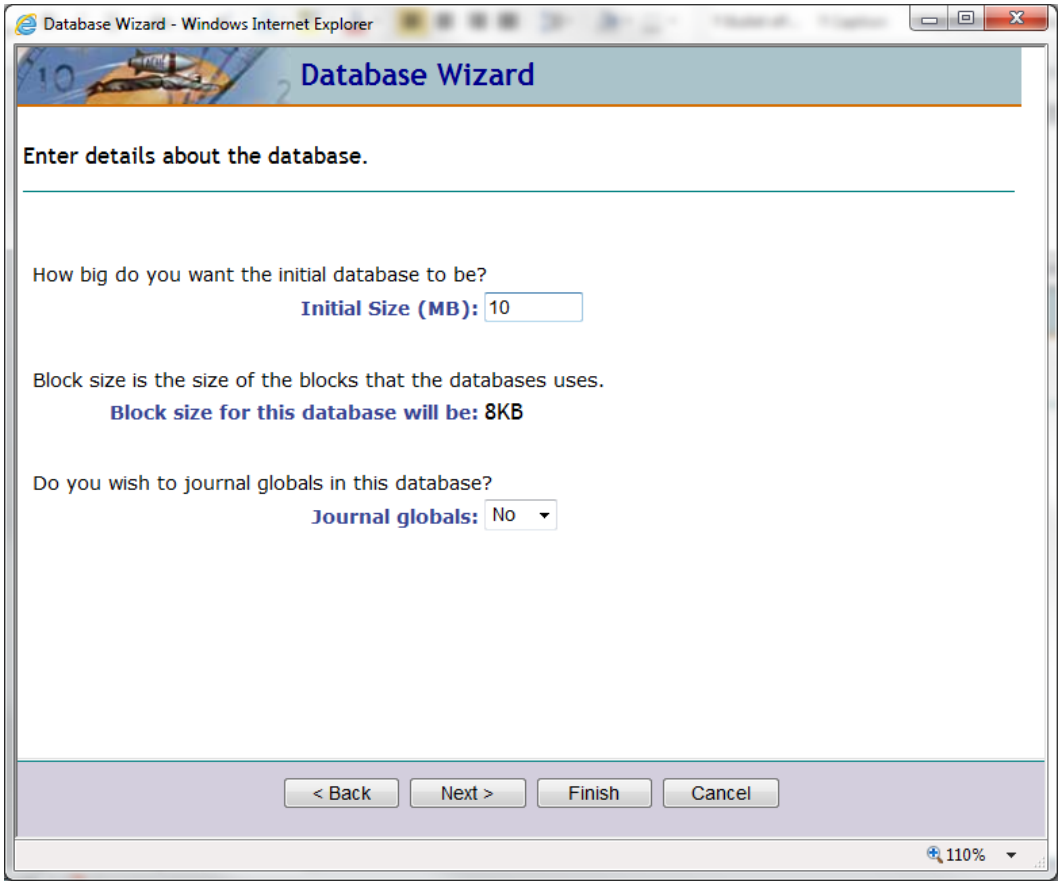



Figure 3-5: Database Wizard dialog

11. Select the database settings:
    a. Initial Size (MB): **10**
    b. Journal globals: **No**
12. Click **Next.**

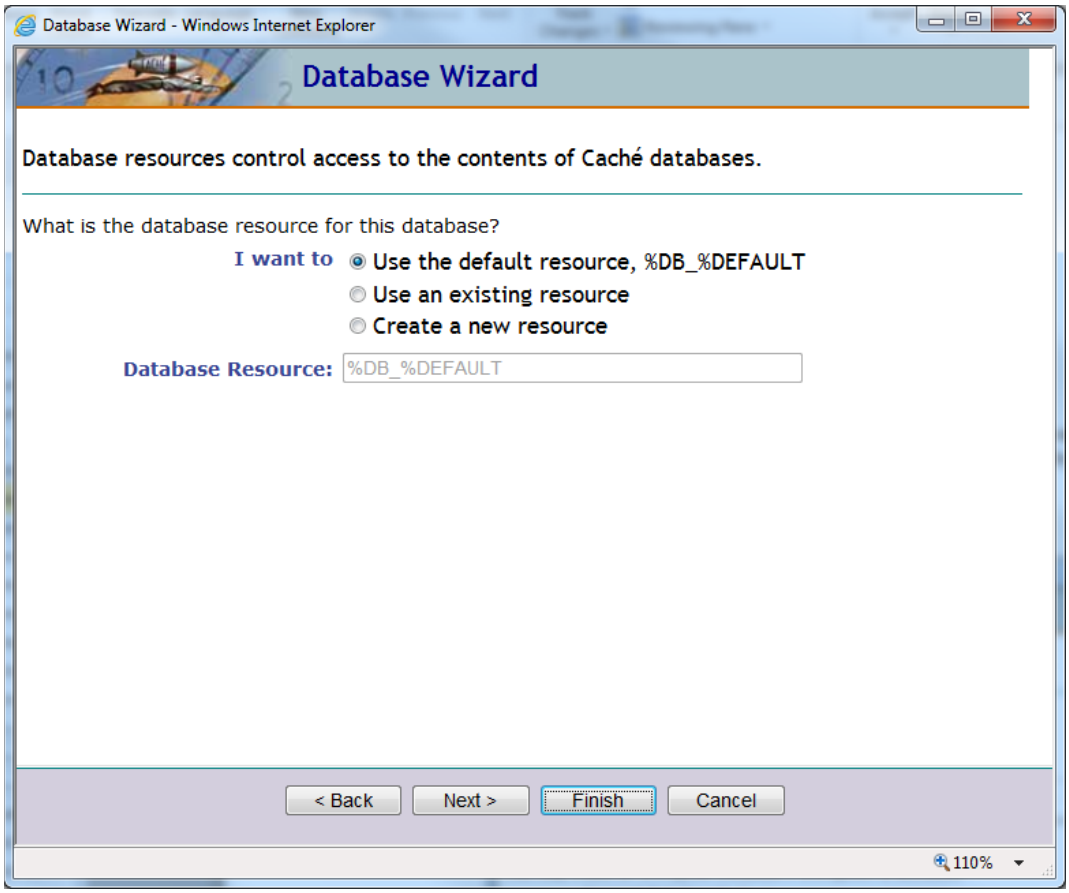



Figure 3-6: Database Wizard dialog

13. Click **Finish**.

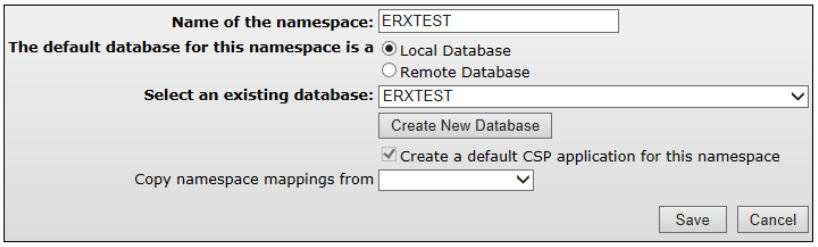



Figure 3-7: Create New Namespace dialog box

14. Click **Save**.

15. Click **Close.**

## 3.2 Production Import

This section describes the process of importing the ‘Local’ Server code from the XML document.

1. From Ensemble Cube, open **Studio** and choose **File/Change Namespace**.
2. Select the namespace you created from section 3.1 above.
3. Select **Import Local** from the **Tools** menu.

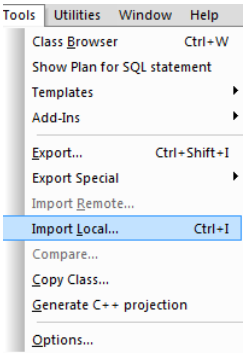



Figure 3-8: Central Ensemble Production Tools menu

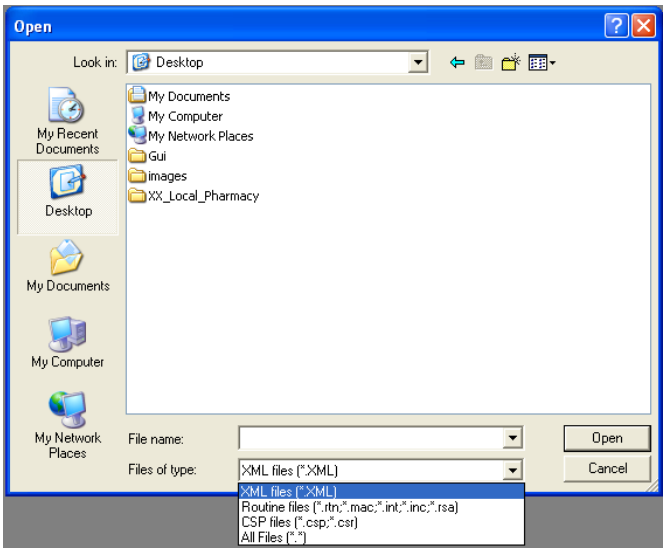



Figure 3-9: Open dialog showing navigation to Import file

4. Navigate to the appropriate file, bepr0200.xml.
5. Select the file to import and click **Open** to display the Import dialog.

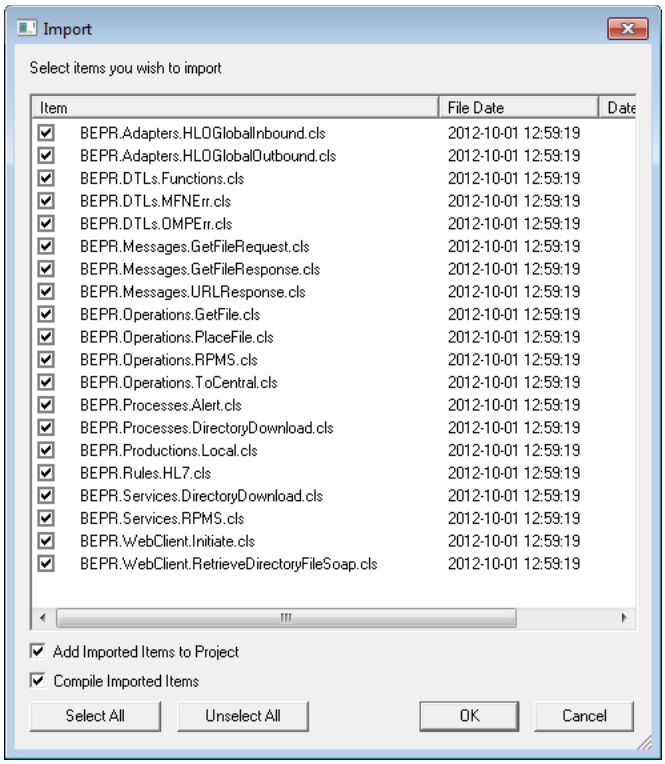



Figure 3-10: Import dialog showing chosen items

6. Click **OK** and proceed to Section 4.0.

# 4.0 Sample Installations

## 4.1 BEPR.Productions.Local Settings

The settings described in this section were configured during implementation to the values specified at that time. Except as otherwise described herein, do not change these settings without conferring with the National e-Prescriptions Deployment Team.

When the production is installed, the settings listed below must be configured before the production can be run.

> **NOTE**: The settings listed in Table 4-1 are the only settings that should be changed. All other settings are configured correctly and should not be changed.

**Table 4-1: Setting to be configured**

| Business Host | Host Type | Setting |
|---|---|---|
| HL7 from Ensemble | Business Service | Allowed IP Address |
| HL7 to Ensemble | Business Operation | IPAddress |
| HL7 to RPMS | Business Operation | StationNumber |
| PlaceFile | Business Operation | OS |
| PlaceFile | Business Operation | ZipDirectory |
| PlaceFile | Business Operation | File Path |
| Email Alerts | Business Operation | Recipient |
| Email Alerts | Business Operation | From |

1. From Ensemble Cube, open the **System Management Portal**.
    - On the left side of the page Click **Ensemble**
    - Choose the e-Prescribing namespace from available Namespaces
    - Click on **Configure**
    - Click on **Production**

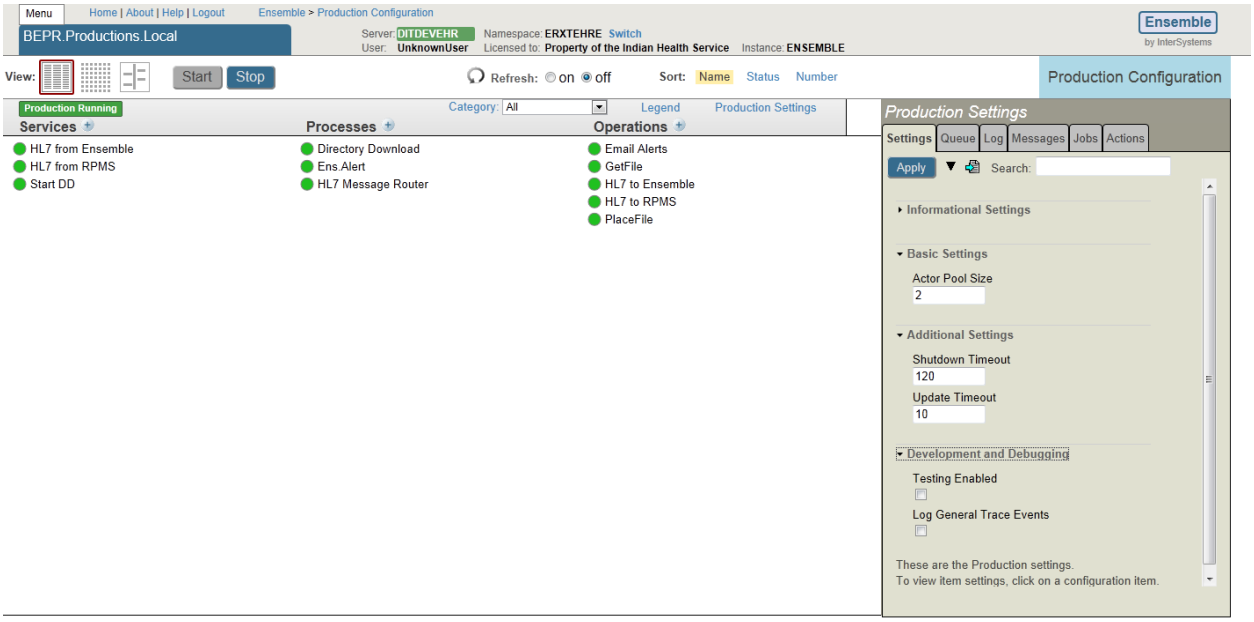



Figure 4-1: BEPR.Productions.Local settings

The Production Settings of the BEPR.Productions.Local page are listed in Table 4-2. The Additional Production Settings in the lower right of the page are listed in Table 4-3.

**Table 4-2: BEPR.Productions.Local Production Settings**

| Setting | Value | Description |
|---|---|---|
| Name | BEPR.Productions.Local | Ensemble package name, Production sub-folder and Production name |
| Description | (blank) | The description of the production is given in the class definition and is displayed on the production screen. |
| Actor Pool Size | 2 | The number of Actor jobs available to execute Business Process instances. |
| Testing Enabled | Unchecked | When checked it enables the use of the Testing Service for this Production, for a production environment this is normally not checked. |
| Log Unassigned Trace Events | Unchecked | When checked trace events that do not belong to any Configuration Item will be logged. |

**Table 4-3: BEPR.Productions.Local Additional Production Settings**

| Setting | Value | Description |
|---|---|---|
| Shutdown Timeout | Set to the default value of 120 | The amount of time to wait for a click on Stop Production to succeed. |
| Update Timeout | Set to the default value of 10 | The amount of time to wait for Production updates to succeed. |

## 4.2 Directory Download Settings

The Directory Download process of the Ensemble Production is used to download a daily list of participating Surescripts Pharmacies. The list of pharmacies becomes available from EHR as the provider completes the medication ordering process. The following sections review the settings for Directory Download on the production side.

The settings described in this section were configured during implementation to the values specified at that time. Except as otherwise described herein, do not change these settings without conferring with the National e-Prescriptions Deployment Team.

### 4.2.1 Service – Start DD

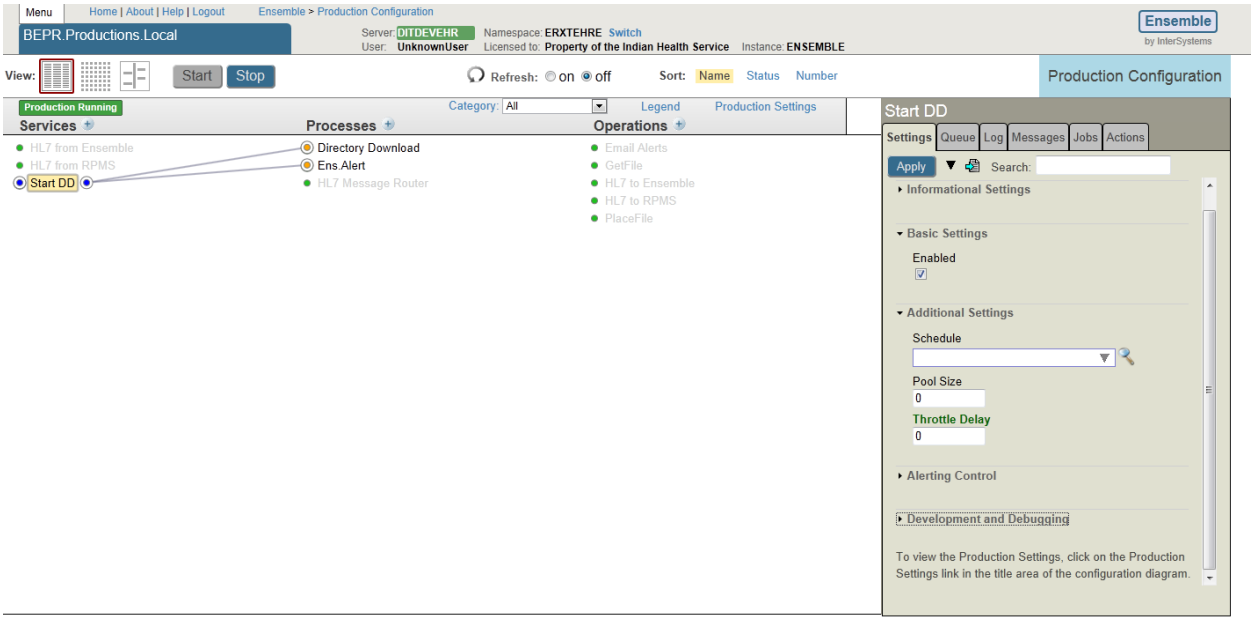



Figure 4-2: Service – Start DD settings

The Production Settings in the lower left of the Start DD page are listed in Table 4-4. The Additional Production Settings are listed in Table 4-5 through Table 4-8.

**Table 4-4 Start DD Informational Setting**

| Setting | Value | Description |
|---|---|---|
| Name | Start DD | The Business Service that initiates the Directory Download process when called upon |
| Comment | The Business Service that kicks off the Directory Download process | Optional comment text for this component. |
| Category | Directory Download | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Services.DirectoryDownload (Package, Sub-Directory, BService Name) | Class name of this config item. |
| Description | The Business Service that initiates the Directory Download process when called upon. | Description of the class used by this config item. |
| Adapter Class Name | <None> | This is an adapter less Business Service. |
| Adapter Description | <None> | Description of the Adapter class used by this config item. |
| Business Partner | <None> | Name of a Business Partner Profile associated with this item. |

**Table 4-5 Start DD Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |

**Table 4-6: Start DD Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. |
| Pool Size | 0 | The default for this type of Business Service. The Number of jobs created to host this item. |

| Setting | Value | Description |
|---|---|---|
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds |

**Table 4-7: Start DD Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 0 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-8 Start DD Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

### 4.2.2 Process – Directory Download

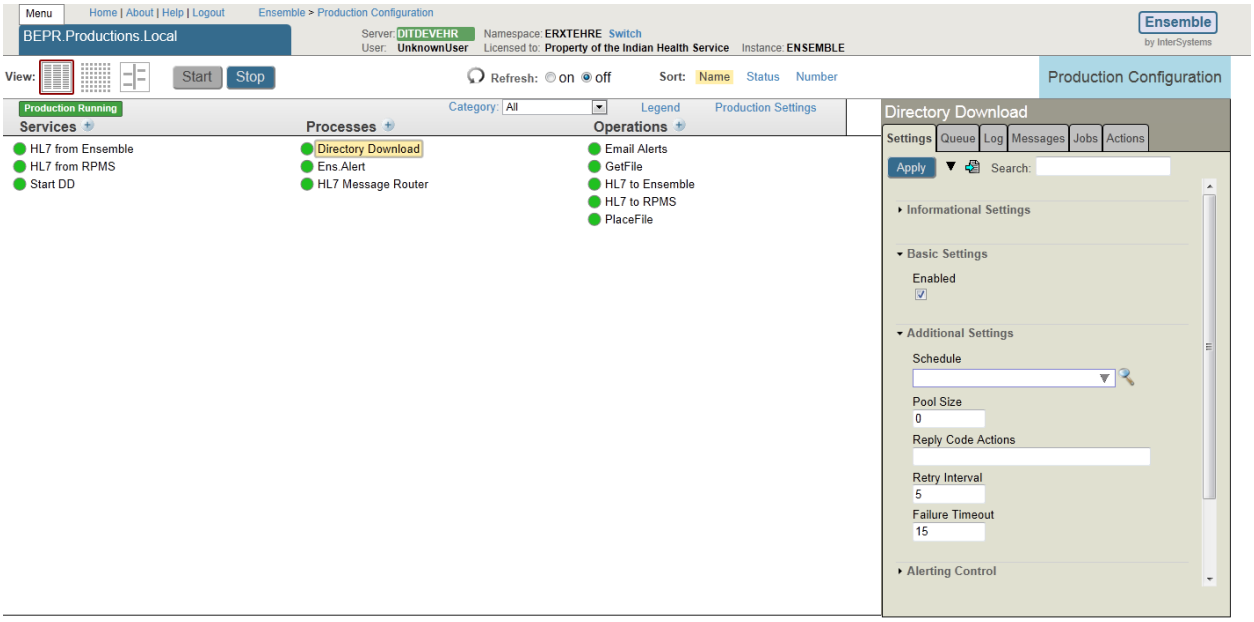



Figure 4-3: Process – Directory Download settings

The Production Settings of the Directory Download page are listed in Table 4-9 through Table 4-13.

**Table 4-4: Directory Download Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | Directory Download | The Business Process Class that directs communication between the Business Service and the Business Operation(s) for the Directory Download process. |
| Comment | The Business Process that initiates the request for the Directory Download file and sends the file to be saved locally. | Optional comment text for this component. |
| Category | Directory Download | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Processes.DirectoryDownload | (Package, Sub-Directory, BProcess Name) |

| Setting | Value | Description |
|---|---|---|
| Description | The Business Process Class that directs communication between the Business Service and the Business Operation(s) for the Directory Download process. | Description of the class used by this config item. |
| Adapter Class Name | (blank) | Name of the Adapter class used by this config item. |
| Adapter Description | (blank) | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item. |

**Table 4-10: Start DD Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |

**Table 4-11: Directory Download Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. |
| Pool Size | 0 | The default for this type of Business Service. The Number of jobs created to host this item. |
| ReplyCodeActions | (blank) | A comma-separated list of codes specifying what action this Process will take on various reply status conditions. |
| Retry Interval | 5 (the default value) | How frequently to retry access to the output system. |
| FailureTimeout | 15 (the default value) | How long to keep retrying before giving up and returning an error code. |

**Table 4-12: Start DD Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 0 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. Zero means no alerts of this type will be sent. |
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-13: Start DD Development and Debudding**

| Setting | Value | Description |
|---|---|---|
| Log Trace Events | Unchecked | Whether to log trace events for this item. |

### 4.2.3 Process – Ens.Alert

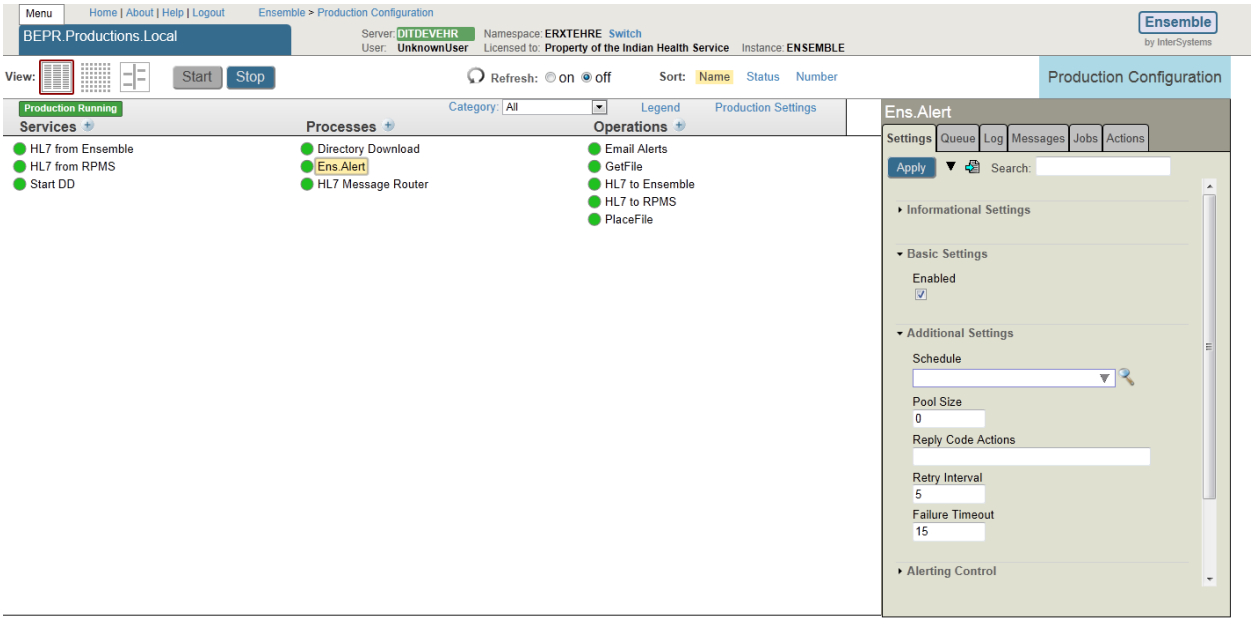



Figure 4-4: Process – Ens.Alert settings

The Production Settings of the Ens.Alert page are listed in Table 4-14 through Tab 4-18.

| Setting | Value | Description |
|---|---|---|
| Name | Ens Alert | The Business Process that facilitates the alerts for the production. |
| Comment | (blank) | Optional comment text for this component. |
| Category | Alert | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Processes.Alert | (Package, Sub-Directory, BProcess Name) |
| Description | The Business Process that facilitates the alerts for the production. | Description of the class used by this config item |
| Adapter Class Name | (blank) | Name of the Adapter class used by this config item |

| Setting | Value | Description |
|---|---|---|
| Adapter Description | (blank) | Description of the Adapter class used by this config item |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-15: Ens.Alert Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |

**Table 4-16: Ens.Alert Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. |
| Pool Size | 0 | The default for this type of Business Service. The Number of jobs created to host this item. |
| ReplyCodeActions | (blank) | A comma-separated list of codes specifying what action this Process will take on various reply status conditions. |
| Retry Interval | 5 (the default value) | How frequently to retry access to the output system. |
| FailureTimeout | 15 (the default value) | How long to keep retrying before giving up and returning an error code. |

**Table 4-17: Ens.Alert Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 0 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |

| Setting | Value | Description |
|---|---|---|
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. Zero means no alerts of this type will be sent. |
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |
| Alert On Error | Unchecked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4 18: Ens.Alert Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Log Trace Events | Unchecked | Whether to log trace events for this item. |

### 4.2.4 Operation – Email Alerts

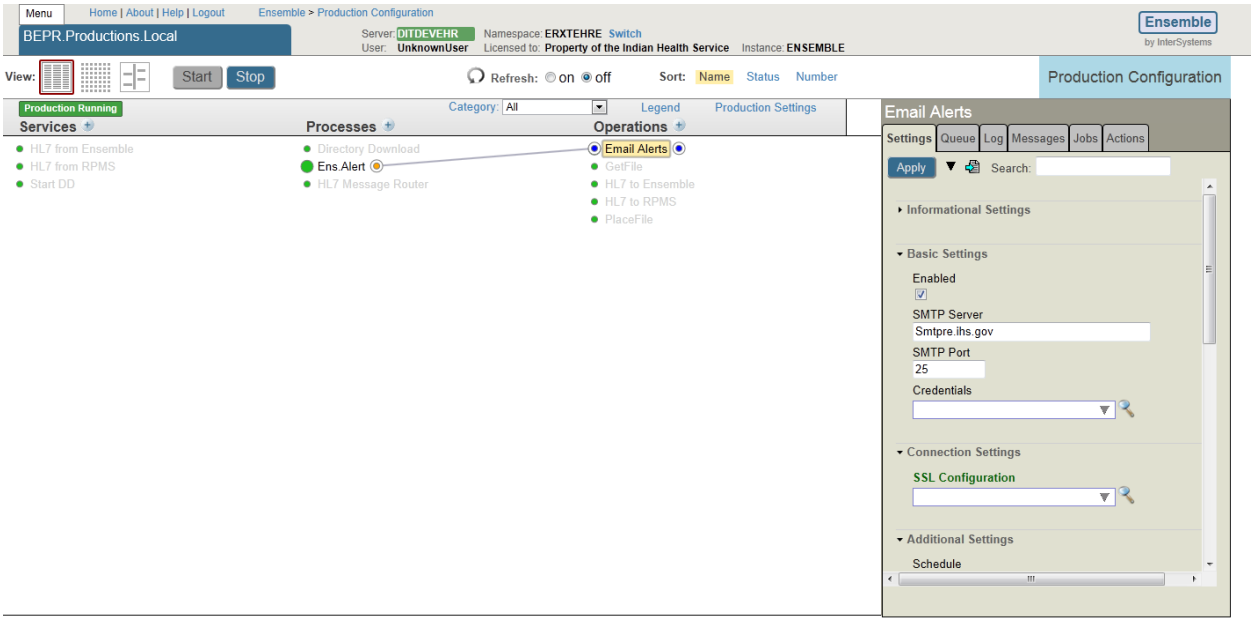



Figure 4-5: Operation – Email Alerts settings

The Production Settings of the Email Alerts page are listed in Table 4-19 through Table 4-24.

**Table 4-19: Email Alerts Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | Email Alerts | This is simple EMail Alert Operation. < p> Ensemble automatically sends all Ens.AlertRequest messages to the production item named Ens.Alert, if it exists. This production item may be a business operation, like this one, or it may be a routing process that provides logic to direct alerts to various business operations. < p> Ensemble sends all Ens.AlertRequest messages to the Ensemble Event Log, regardless of whether or not Ens.Alert exists. If there is no production item named Ens.Alert, the place to find alert messages is in the Event Log. |

| Setting | Value | Description |
|---|---|---|
| Comment | Business operation used to send email alerts messages. | Optional comment text for this component. |
| Category | Alert | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | EnsLib.EMail.AlertOperation | (Package, Sub-Directory, BProcess Name) |
| Description | This is a simple EMail Alert Operation.<br>Ensemble automatically sends all Ens.AlertRequest messages to the production item named Ens.Alert, if it exists. This production item may be a business operation, like this one, or it may be a routing process that provides logic to direct alerts to various business operations.<br>Ensemble sends all Ens.AlertRequest messages to the Ensemble Event Log, regardless of whether or not Ens.Alert exists. If there is no production item named Ens.Alert, the place to find alert messages is in the Event Log. | Description of the class used by this config item. |
| Adapter Class Name | EnsLib.EMail.OutboundAdapter | Name of the Adapter class used by this config item. |
| Adapter Description | Adapter that sends email messages via SMTP. | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-20: Email Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |
| SMTP Server | Smtpre.ihs.gov | *If not using IHS email use the site's SMTP server. |

| Setting | Value | Description |
|---|---|---|
| SMTP Port | 25 | The IP Port on the SMTP server to send mail to. If left blank, the adapter will use port 25 for plain text and port 465 for SSL/TLS. |
| Credentials | (blank) | This is the ID name of the set of credentials values to be used to access the server. |

**Table 4-21: Email Connection Settings**

| Setting | Value | Description |
|---|---|---|
| SSL Configuration | (blank) | To use email with Secure Socket Layer / Transport Layer Security, the SSLConfig field must contain the name of an existing SSL/TLS Configuration of the Client type. You can create one using the System Management Portal [Security Management] > [SSL/TLS Configurations] page. |

**Table 4-22: Email Alerts Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |

| Setting | Value | Description |
|---|---|---|
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |
| Recipient | Email addresses of Local and Area IT personnel responsible for Local Server Production (addresses are separated by a semicolon or comma) | The email address(es) of a recipient or list of recipients that will be added to the To: list of each mail message sent. |
| Cc | OITe-RxAlerts@ihs.gov | Additional Cc'd recipients can be added as needed. |
| From | Should contain ERX and site specific information such as Station Number.<br>Example: XYZERX@8999 | The default From: address to put in sent mail messages. May be overridden by the Operation implementation code. |
| Reply Code Actions | (blank) | Comma-separated list of codes specifying what action this Operation will take on various reply status conditions. |
| Retry Interval | 5 | How frequently to retry access to the output system. |
| Failure Timeout | 15 | How long to keep retrying before giving up and returning an error code.<br>-1 means never give up. |
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds |

**Table 4-23: Email Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 0 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |

| Setting | Value | Description |
|---|---|---|
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. Zero means no alerts of this type will be sent. |
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |
| Alert On Error | Unchecked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-24: Email Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

### 4.2.5 Operation - GetFile

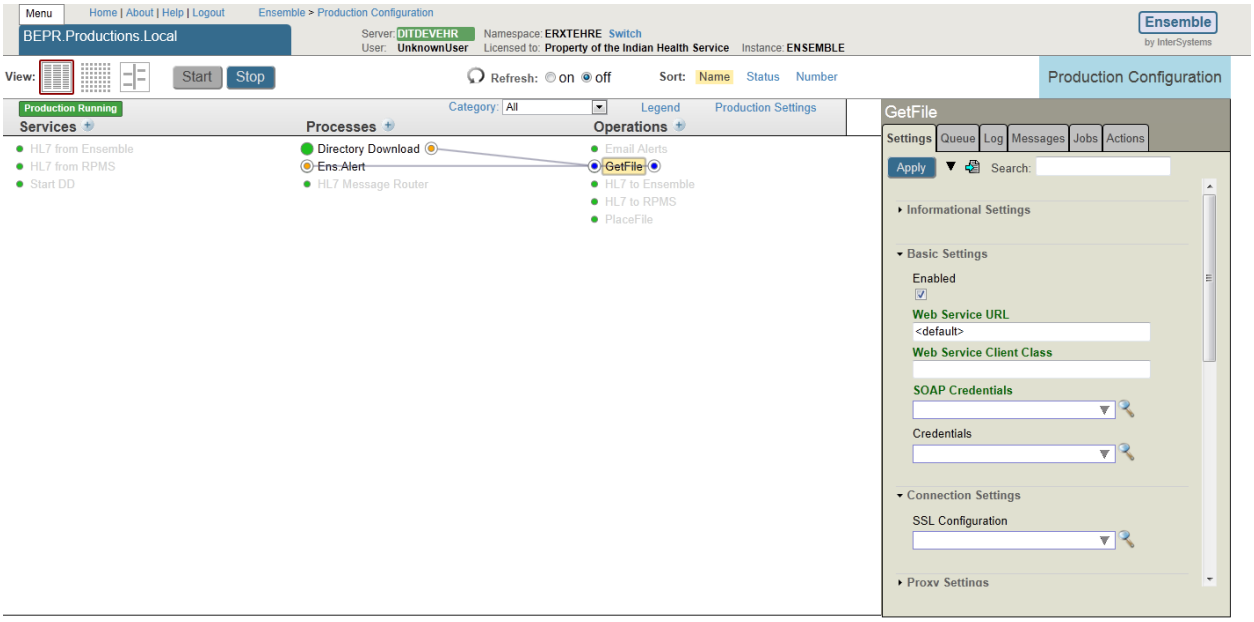



Figure 4-6: Operation – GetFile settings

The Production Settings of the GetFile page are listed in Table 25 tthrough Table 4-30.

**Table 4-25: GetFile Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | GetFile | |
| Comment | Business Operation to retrieve the Directory Download file from the Central Server. | Optional comment text for this component. |
| Category | Directory Download | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Operations.GetFile | (Package, Sub-Directory, BProcess Name) |
| Description | The Business Operation Class that retrieves the file from the SureScripts server. | Description of the class used by this config item. |
| Adapter Class Name | EnsLib.SOAP.OutboundAdapter | Name of the Adapter class used by this config item. |

| Setting | Value | Description |
|---|---|---|
| Adapter Description | Adapter that handles internal service requests by acting as a SOAP client to an external SOAP server. | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item. |

**Table 4-26: GetFile Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |
| Web Service URL | <default> | Declares the live URL target location for the WebService to be invoked. If not given, the default location declared in the WebService Client class will be used.<br>Note that SSL will only work if the URL starts with the https:// protocol prefix. |
| Web Service Client Class | (blank) | Names the Client Class that describes the WebService, generated by the SOAP Client Wizard add-in |
| SOAP Credentials | (blank) | This is the name of the Username and Password used for WSSecurityLogin basic SOAP authentication Names the credentials entry containing the WSSecurityLogin Username and Password values to be used if needed to access the SOAP service. |
| Credentials | | This is the name of the Username and Password credentials values used to make the HTTP connection to the SOAP server. |

**Table 4-27: GetFile Connection Settings**

| Setting | Value | Description |
|---|---|---|
| SSL Configuration | (blank) | To use email with Secure Socket Layer / Transport Layer Security, the SSLConfig field must contain the name of an existing SSL/TLS Configuration of the Client type. You can create one using the System Management Portal [Security Management] > [SSL/TLS Configurations] page. |

**Table 4-28: GetFile Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |
| Response Timeout | 30 | Timeout for getting a response from the remote SOAP server (the timeout for opening the connection to the server is always 5 seconds). Setting the timeout to -1 means wait forever. |

| Setting | Value | Description |
|---|---|---|
| HttpVersion | 1.1 | The HTTP version the Adapter should report in the HTTP request it sends to the server. |
| From | Should contain ERX and site specific information such as Station Number.<br>Example: XYZERX@8999 | The default From: address to put in sent mail messages. May be overridden by the Operation implementation code. |
| Reply Code Actions | (blank) | Comma-separated list of codes specifying what action this Operation will take on various reply status conditions. |
| Retry Interval | 5 | How frequently to retry access to the output system. |
| Failure Timeout | 15 | How long to keep retrying before giving up and returning an error code.<br>-1 means never give up. |
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds |

**Table 4-29: GetFile Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 0 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. Zero means no alerts of this type will be sent. |

| Setting | Value | Description |
|---|---|---|
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-30: GetFile Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

### 4.2.6 Operation – PlaceFile

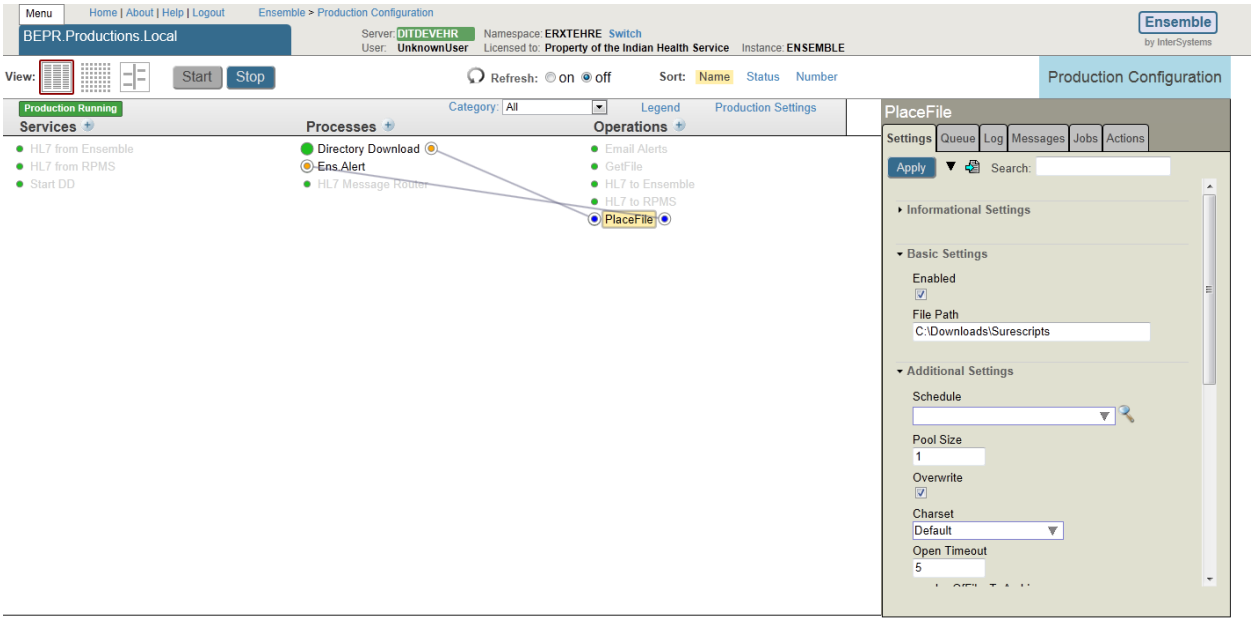



Figure 4-7: Operation - PlaceFile settings

The Production Settings of the PlaceFile page are listed in Table 4-31 through Table 4-35.

**Table 4-31: PlaceFile Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | PlaceFile | A Business Operation class that saves the Directory Download file to a location on the server. |
| Comment | Business Operation that places the Directory Download file onto the local server. | Optional comment text for this component. |
| Category | Directory Download | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Operations.PlaceFile | (Package, Sub-Directory, BProcess Name) |
| Description | A Business Operation class that saves the Directory Download file to a location on the server. | Description of the class used by this config item. |
| Adapter Class Name | EnsLib.File.OutboundAdapter | Name of the Adapter class used by this config item. |

| Setting | Value | Description |
|---|---|---|
| Adapter Description | An Outbound Adapter class providing methods used to write data to files and do other OS level file manipulations. | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item. |

**Table 4-32: PlaceFile Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |
| File Path | (configurable by the Site, must match RPMS Directory Download configuration) | The operating system directory where output files should be deposited. Does not include a filename specifier. |

**Table 4-22: PlaceFile Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |
| Overwrite | Checked | Overwrite file if it exists, instead of appending |

| Setting | Value | Description |
|---|---|---|
| Charset | Default | Character encoding scheme used for translating output to files. |
| Open Timeout | 5 | Number of seconds to wait on each attempt to open the output file. |
| numberOfFilesToArchive | 14 | Number of Files to keep in the Archive sub-folder. |
| operatingSystem | Must be populated with either a “W” for Windows or a “U” for Unix | Operating System; W for Windows, U for Unix. |
| zipDirectory | Populate with the path to the decompression software. If this is a Unix environment please use unzip. | Zip Directory. If there is a sub-directory that includes a space in its name, enclose it with double quotes (i.e. C:\"Program Files"\7Zip). |
| Reply Code Actions | (blank) | Comma-separated list of codes specifying what action this Operation will take on various reply status conditions. |
| Retry Interval | 5 | How frequently to retry access to the output system. |
| Failure Timeout | 15 | How long to keep retrying before giving up and returning an error code.<br>-1 means never give up. |
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds. |

**Table 4-34: PlaceFile Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 15 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. Zero means no alerts of this type will be sent. |

| Setting | Value | Description |
|---|---|---|
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-35: PlaceFile Development and Debugging**

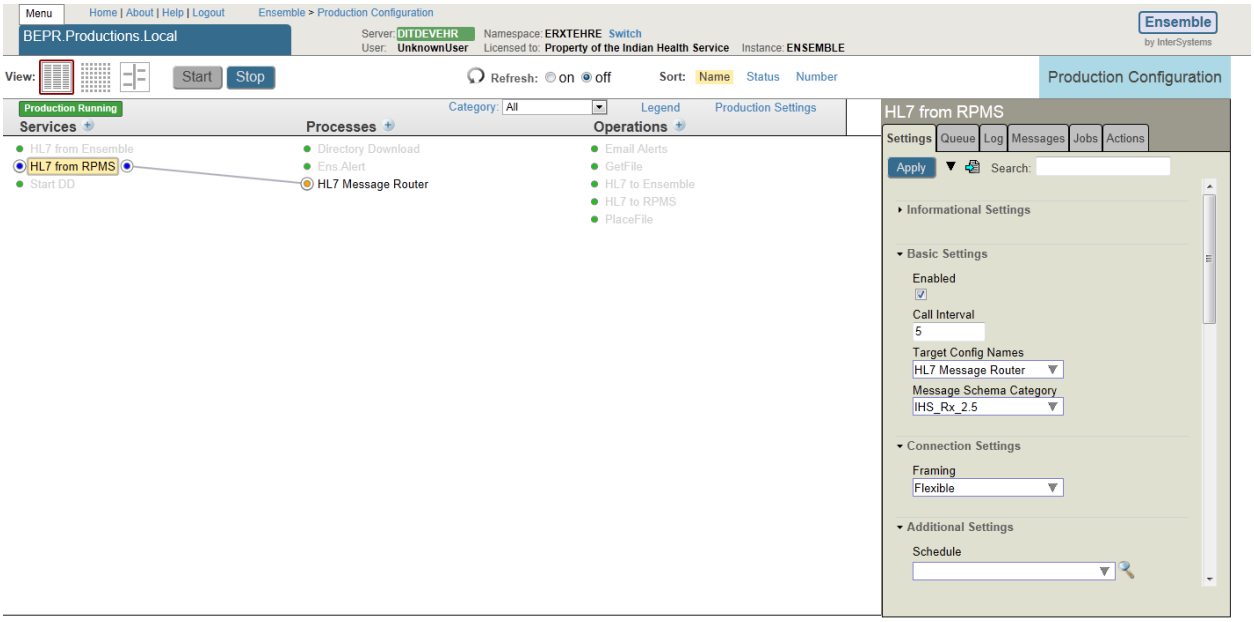
| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

## 4.3 Pass-Through Settings

The delivery of HL7 messages between the local RPMS system and the Central Server process of the Ensemble Production.

The settings described in this section were configured during implementation to the values specified at that time. Except as otherwise described herein, do not change these settings without conferring with the National e-Prescriptions Deployment Team.

### 4.3.1 Service – HL7 from RPMS




4-8: Service – HL7 from RPMS settings

The Production Settings of the HL7 from RPMS page are listed in Table 4-36 through Table 4-41.

**Table 4-36: HL7 from RPMS Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | HL7 from RPMS | A Business Operation that sends the HL7 message to the RPMS system. |
| Comment | (blank) | Optional comment text for this component. |
| Category | PassThrough | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Services.RPMS | (Package, Sub-Directory, BProcess Name) |
| Description | A Business Service that receives messages from the RPMS system via the HLOGlobalInbound Adapter. | Description of the class used by this config item. |
| Adapter Class Name | BEPR.Adapters.HLOGlobalInbound | Name of the Adapter class used by this config item. |

| Setting | Value | Description |
|---|---|---|
| Adapter Description | This class facilitates the reading of HL7 messages from the HLO global nodes. | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-37" HL7 from RPMS Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |
| Call Interval | 5 | The minimum interval between invocations of the adapter by the Ensemble framework. For adapters that poll for external events, this is the polling interval. However, most polling adapters will process all inputs immediately if several are detected at one time. This is also the interval at which each Business Service will check for shutdown requests. |
| Target Config Names | HL7 Message Router | Configuration item(s) to which to send messages. |
| Message Schema Category | IHS_Rx_2.5 | Category to apply to incoming message types to produce a complete DocType specification. |

**Table 4-38: HL7 from RPMS Connection Settings**

| Setting | Value | Description |
|---|---|---|
| Framing | Flexible | HL7 inbound Message framing protocol. |

**Table 4-39: HL7 from RPMS Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |
| ReceivingFacilityName | SURESCRIPTS | Name of the Receiving Facility to filter HL7 messages. |
| MaxNmbrMsgs | 500 | Maximum number of messages to retrieve/send per poll/task. |
| Throttle | 10 | Time to hang before processing another message, used to manage the throughput. |
| StationNumber | Enter the Station Number of the site. | Station Number. This is the Institution DUZ(2) value. |
| Search Table Class | EnsLib.HL7.SearchTable | Store a set of searchable properties associated with each HL7 message processed.<br>These records will be stored in the named SearchTable class, if any. |

| Setting | Value | Description |
|---|---|---|
| Local Facility Application | ISC:EnsembleHL7 | Colon-separated LocalFacility:LocalApplication codes representing this (receiving) facility and application<br>These are used in constructing reply ACK message headers as SendingFacility and SendApplication. |
| Ack Mode | Never | Control of ACK handling. |
| Use ACK Commit Codes | Unchecked | If 'true' and the HL7 message VersionID is 2.3 or higher, use the 'enhanced-mode' ACK 'Commit' codes ('Cx') in MSA:1 ('AcknowledgmentCode'). (Otherwise use the legacy-mode 'Ax' codes.) |
| Ignore Inbound ACK | Unchecked | Ignore inbound ACK messages to avoid ACK feedback loop. |
| Add NACK ERR | Unchecked | Add ERR error code segment when generating NACK messages; otherwise do not embed internal error state information in NACK messages |
| NACK Error Code | ContentE | Controls the error code in MSA:1 of the NACK message this service generates when there is an error processing the incoming message. |
| Batch Handling | Single-Session Batch | How to treat received batch documents. |
| Default Char Encoding | Latin1 | Default Character Encoding to use when reading or writing HL7 messages. |
| DocTypeResolution | Standard | How to resolve a DocType based on the message type from MSH:9. |
| Save Replies | None | Save a copy of reply messages sent back to the remote system. Also optionally index them using the configured SearchTableClass, if any. |

| Setting | Value | Description |
|---|---|---|
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds. |

**Table 4-40: HL7 from RPMS Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 5 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-41: HL7 from RPMS Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

### 4.3.2 Service – HL7 from Ensemble

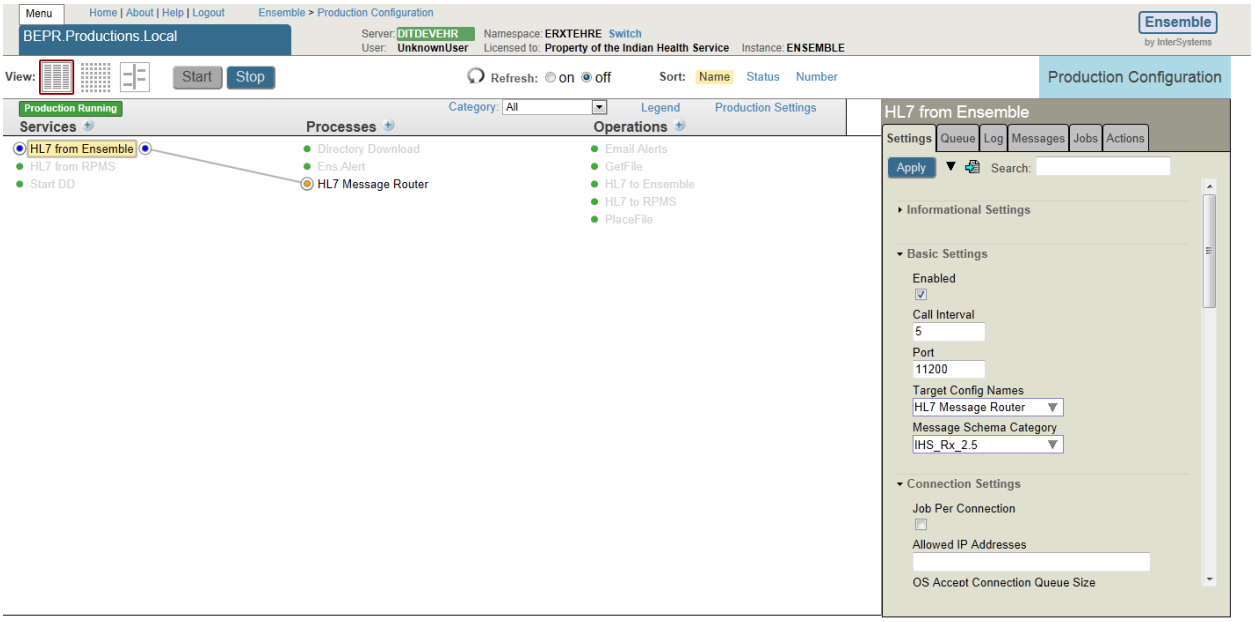



Figure 4-9: HL7 from Ensemble settings

The Production Settings of the HL7 from Ensemble page are listed in Table 4-42 through Table 4-47.

**Table 4-42: HL7 from Ensemble Information Settings**

| Setting | Value | Description |
|---|---|---|
| Name | HL7 from Ensemble | A Business Operation that sends the HL7 message to the Central server. |
| Comment | Receives HL7 messages from the Ensemble Central Server. | Optional comment text for this component. |
| Category | PassThrough | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | EnsLib.HL7.Service.TCPService | (Package, Sub-Directory, BProcess Name) |
| Description | (blank) | Description of the class used by this config item. |

| Setting | Value | Description |
|---|---|---|
| Adapter Class Name | EnsLib.HL7.Adapter.TCPInboundAdapter | Name of the Adapter class used by this config item. |
| Adapter Description | Inbound adapter for HL7 v2 over TCP | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-43: HL7 from Ensemble Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Name | HL7 from Ensemble | A Business Operation that sends the HL7 message to the Central server. |
| Call Interval | 5 | The minimum interval between invocations of the adapter by the Ensemble framework. For adapters that poll for external events, this is the polling interval. However, most polling adapters will process all inputs immediately if several are detected at one time. This is also the interval at which each Business Service will check for shutdown requests. |
| Port | Standard value is 11200. Value is determinate on the number of eRx databases on the Local server. | Incoming TCP Port from Central server. |
| Target Config Names | HL7 Message Router | Configuration item(s) to which to send messages. |
| Message Schema Category | IHS_Rx_2.5 | Category to apply to incoming message types to produce a complete DocType specification. |

**Table 4-44: HL7 from Ensemble Connection Settings**

| Setting | Value | Description |
|---|---|---|
| Job Per Connection | Unchecked | Spawn a new Job to handle each incoming TCP connection. Allows simultaneous handling of multiple connections. |
| Allowed IP Addresses | The IP address of the Central Server | Optional comma-separated list of remote IP addresses to accept connections from.<br>Leaving this value empty means connections will be accepted from any remote IP address. |
| OS Accept Connection Queue Size | 100 | How many incoming connections should the OS hold open on our behalf until we get around to dealing with them?<br>Set to 0 if only one connection at a time is expected. Set to a large number if many clients will be connecting rapidly. |
| Stay Connected | 5 | If non-zero, stay connected to the remote system between handling Requests until idle for this number of seconds. A value of -1 means never disconnect. |
| Read Timeout | 15 | Number of seconds to wait for each successive incoming TCP read, following receipt of initial data from remote TCP port. |
| SSL Configuration | (blank) | The name of an existing SSL/TLS system configuration set to use (Secure Socket Layer / Transport Layer Security, configured via the system portal's Security Management page). |

| Setting | Value | Description |
|---|---|---|
| Local Interface | (blank) | In a multi-homed system, specify which network interface the TCP connection should go through. An empty value means use any interface. |
| Framing | Flexible | HL7 inbound Message framing protocol. |

**Table 4-45: HL7 from Ensemble Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |
| Search Table Class | EnsLib.HL7.SearchTable | Store a set of searchable properties associated with each HL7 message processed. |
| Local Facility Application | ISC:EnsembleHL7 | Colon-separated LocalFacility:LocalApplication codes representing this (receiving) facility and application. |
| Ack Mode | Immediate | Control of ACK handling. |

| Setting | Value | Description |
|---|---|---|
| Use ACK Commit Codes | Checked | If 'true' and the HL7 message VersionID is 2.3 or higher, use the 'enhanced-mode' ACK 'Commit' codes ('Cx') in MSA:1 ('AcknowledgmentCode'). |
| Ignore Inbound ACK | Checked | Ignore inbound ACK messages to avoid ACK feedback loop. |
| Add NACK ERR | Checked | Add ERR error code segment when generating NACK messages; otherwise do not embed internal error state information in NACK messages. |
| NACK Error Code | ContentE | Controls the error code in MSA:1 of the NACK message this service generates when there is an error processing the incoming message. |
| Batch Handling | Single-Session Batch | How to treat received batch documents. |
| Default Char Encoding | Latin1 | Default Character Encoding to use when reading or writing HL7 messages. |
| DocTypeResolution | Standard | How to resolve a DocType based on the message type from MSH:9. |
| Save Replies | None | Save a copy of reply messages sent back to the remote system. Also optionally index them using the configured SearchTableClass, if any. |
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds. |

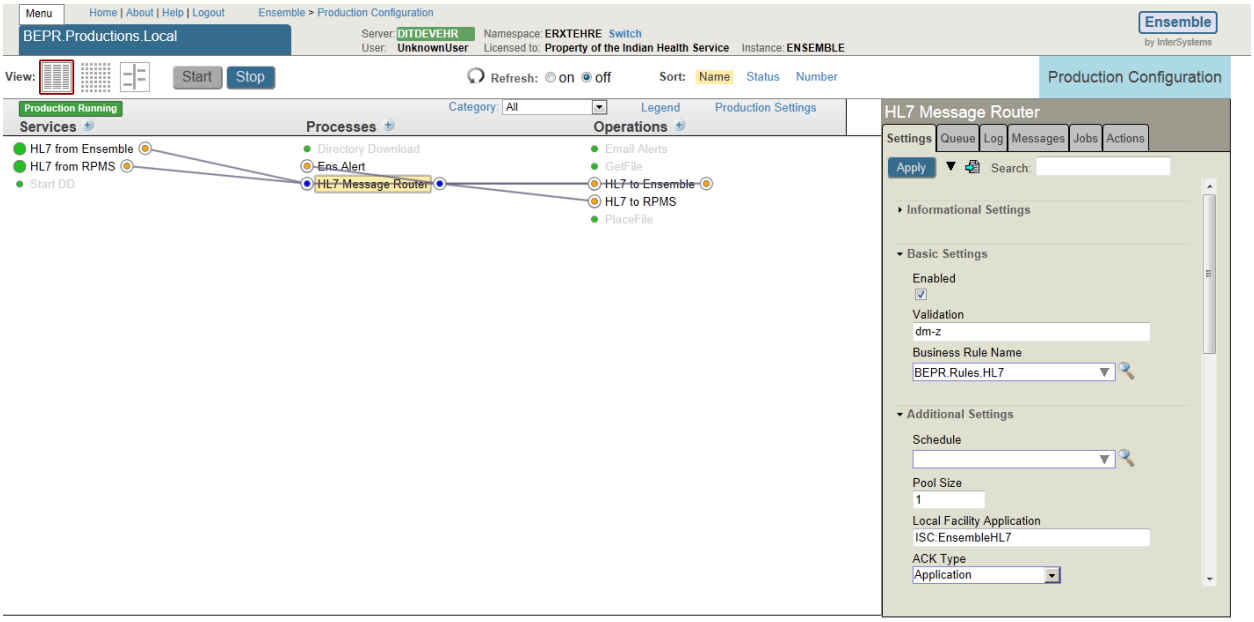
**Table 4-46: HL7 from Ensemble Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 5 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-47: HL7 from Ensemble Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

### 4.3.3 Process – HL7 Message Router




4-10: Process – HL7 Message Router settings

The Production Settings of the HL7 Message Router page are listed in Table 4-48 through 4-52.

**Table 4-48: HL7 Message Router Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | HL7 Message Router | Process to route HL7 messages. |
| Comment | (blank) | Optional comment text for this component. |
| Category | PassThrough | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | EnsLib.HL7.MsgRouter.RoutingEngine | (Package, Sub-Directory, BProcess Name) |
| Description | (blank) | Description of the class used by this config item. |
| Adapter Class Name | (blank) | Name of the Adapter class used by this config item. |

| Setting | Value | Description |
|---|---|---|
| Adapter Description | (blank) | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-49: HL7 Message Router Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |
| Validation | dm-z | String specifying types of Validation to perform. |
| Business Rule Name | BEPR.Rules.HL7 | Business Rule Name. If this setting is empty, then the ConfigItem name is used as the rule name. |

**Table 4-50: HL7 Message Router Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |

| Setting | Value | Description |
|---|---|---|
| Local Facility Application | ISC:EnsembleHL7 | Colon-separated LocalFacility:LocalApplication codes representing this (receiving) facility and application<br>These are used in constructing reply ACK message headers as SendingFacility and SendApplication. |
| Ack Type | Application | Determines the ACK type (e.g. AA vs. CA) if constructing an ACK or NACK reply message locally. |
| NACK Code | Error | Determines the NACK code type (e.g. AE vs. AR) if constructing a NACK reply message locally to report an error. |
| Add NACK ERR | Unchecked | Add ERR error code segment when generating NACK messages; otherwise do not embed internal error state information in NACK messages |
| Alert On Bad Message | Checked | Send an Alert if validation blocks a message. |
| Bad Message Handler | (blank) | Name of the host that should handle messages that validation blocks. |
| Response From | (blank) | Names the target(s) from which an ACK response should be forwarded back to the caller, if the caller requested a response. If this value is empty, no reply will be requested from any target and this router will generate an ACK response if needed. |
| Response Target Config Names | (blank) | Names a destination or destinations in addition to the caller to which responses will be forwarded. |

| Setting | Value | Description |
|---|---|---|
| Response Timeout | -1 | Maximum length of time to wait for asynchronous responses before returning a timed-out error response header. A value of -1 means to wait forever; note that a value of 0 is not useful because every response would time out. |
| Force Sync Send | Unchecked | Make synchronous calls for 'send' actions. WARNING: this can cause deadlock if another BP is called by something called synchronously from here. |
| Reply Code Actions | (blank) | A comma-separated list of codes specifying what action this Process will take on various reply status conditions. |
| Retry Interval | 5 | How frequently to retry access to the output system. |
| Failure Timeout | 15 | How long to keep retrying before giving up and returning an error code. |

**Table 4-51: HL7 Message Router Alerting Settings**

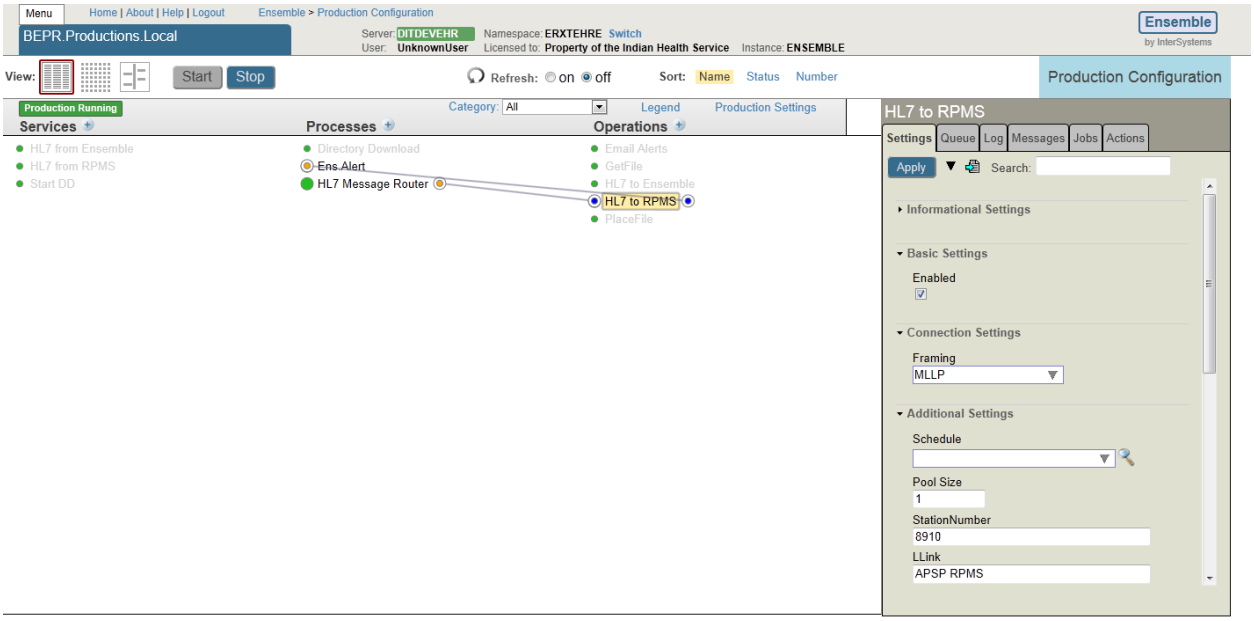
| Setting | Value | Description |
|---|---|---|
| Alert Retry Grace Period | 0 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. |
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered. |
| Alert On Error | Unchecked | Send an Alert message whenever an error occurs here. |

| Setting | Value | Description |
|---|---|---|
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-52: HL7 Message Router Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |

## 4.3.4 Operation – HL7 to RPMS




4-11: Operation – HL7 to RPMS settings

The Production Settings of the HL7 to RPMS page are listed in Table 4-53 though Table 4-58.

**Table 4-53: HL7 to RPMS Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | HL7 to RPMS | The Business Operation that sends the HL7 message to the RPMS system. |
| Comment | (blank) | The Business Operation that will use the HLOGlobal outbound adapter to write HL7 messages into the HLO global nodes. |
| Category | (blank) | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Operations.RPMS | (Package, Sub-Directory, BProcess Name) |
| Description | The Business Operation that sends the HL7 message to the RPMS system. | Description of the class used by this config item. |
| Adapter Class Name | BEPR.Adapters.HLOGlobalOutbound | Name of the Adapter class used by this config item. |
| Adapter Description | This class facilitates the reading of HL7 messages from the HLO global nodes. | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-54: HL7 to RPMS Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |

**Table 4-55: HL7 to RPMS Connection Settings**

| Setting | Value | Description |
|---|---|---|
| Framing | MLLP | HL7 Message outbound framing protocol. |

Table 4-56: HL7 to RPMS Additional Settings

| Setting | Value | Description |
|---|---|---|

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item. Default value: 0 for Business Processes (i.e. use shared Actor Pool) 1 for Business Operations 0 for adapterless Business Services 1 for others |
| StationNumber | Enter the Station Number of the site. | Station Number. This is the Institution DUZ(2) value. |
| LLink | APSP RPMS | Logical Link between the two systems (i.e. Den-RPMS) |
| ACKTypes | (blank) | Acknowledgement Messages, a comma delimited string of messages we're treating as Acknowledgement messages. (i.e. 'MFK_M02, ORP_O10') |
| Separators | \|^~\& | String of separator characters to use in encoding outbound messages. Order is FS, CS, RS, ESC, SS. |
| Search Table Class | (blank) | Store a set of searchable properties in SearchTable records associated with each message processed. |

| Setting | Value | Description |
|---|---|---|
| Default Char Encoding | Latin1 | Default Character Encoding to use when reading or writing HL7 messages. |
| Reply Code Actions | (blank) | Comma-separated list of codes specifying what action this Operation will take on various reply status conditions. |
| Retry Interval | 5 | How frequently to retry access to the output system. |
| Failure Timeout | 25 | How long to keep retrying before giving up and returning an error code. |
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds. |

**Table 4-57: HL7 to RPMS Alerting Control**

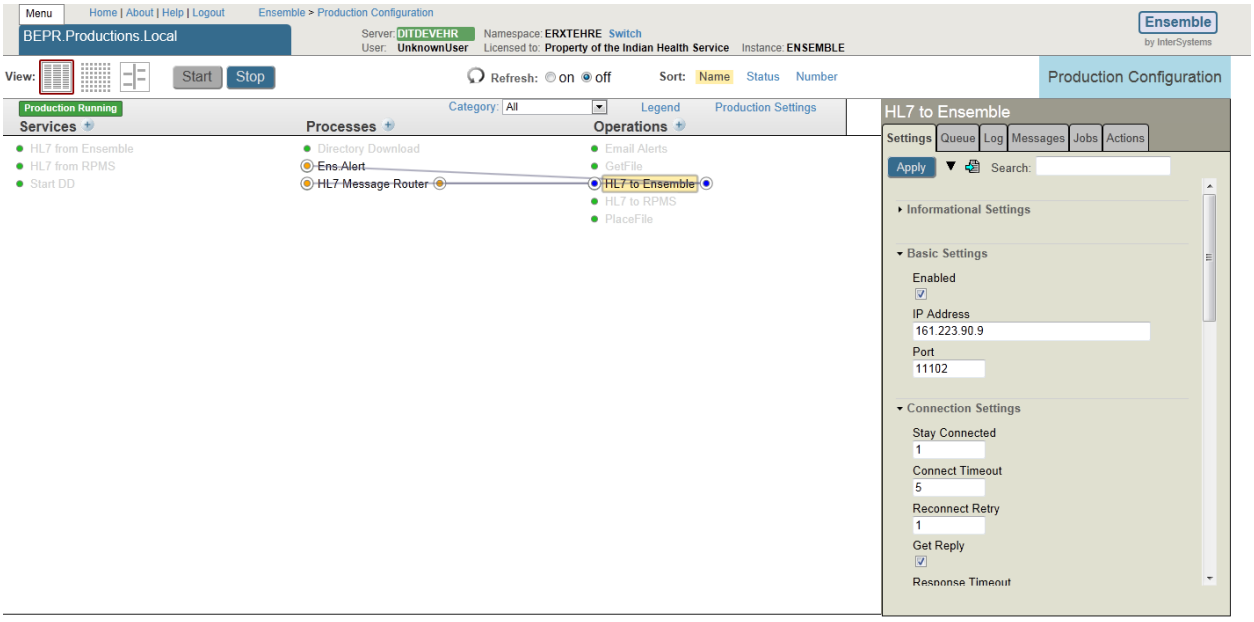
| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 5 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. Zero means no alerts of this type will be sent. |
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |

| Setting | Value | Description |
|---|---|---|
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-58: HL7 to RPMS Development and Debugging**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

## 4.3.5 Operation – HL7 to Ensemble




4-12: Operation – HL7 to Ensemble settings

The Production Settings of the HL7 to Ensemble page are listed in Table 4-59 through 4-65.

**Table 4-59: HL7 to Ensemble Informational Settings**

| Setting | Value | Description |
|---|---|---|
| Name | HL7 to Ensemble | The Business Operation that sends an HL7 message to the central Ensemble production. |
| Comment | The Business Operation that sends messages to the 'Central' Ensemble Server. | Optional comment text for this component. |
| Category | PassThrough | Optional list of categories this item belongs to, comma-separated. This is only used for display purposes and does not affect the behavior of this item. |
| Class Name | BEPR.Operations.ToCentral | (Package, Sub-Directory, BProcess Name) |
| Description | The Business Operation that sends an HL7 message to the central Ensemble production. | Description of the class used by this config item. |
| Adapter Class Name | EnsLib.HL7.Adapter.TCPOutboundAdapter | Name of the Adapter class used by this config item. |
| Adapter Description | Outbound adapter for HL7 v2 over TCP | Description of the Adapter class used by this config item. |
| Business Partner | (blank) | Name of a Business Partner Profile associated with this item |

**Table 4-60: HL7 to Ensemble Basic Settings**

| Setting | Value | Description |
|---|---|---|
| Enabled | Checked | Item is enabled at production start-up. |
| IP Address | <insert the Fully Qualified Domain Name (FQDN) of the Central server> | FQDN to make a TCP connection to. |
| Port | Standard value is 11101. | Outgoing TCP Port to Central server. |

**Table 4-61: HL7 to Ensemble Connection Settings**

| Setting | Value | Description |
|---|---|---|
| Stay Connected | 1 | If non-zero, stay connected to the remote system between handling Requests until idle for this number of seconds. A value of -1 means never disconnect. |
| Connect Timeout | 15 | Number of seconds to wait on each connection attempt. |
| Reconnect Retry | 1 | Number of retries at which to drop the connection and try reconnecting again (zero means never disconnect). |
| Get Reply | Checked | If true, wait to read an ACK or other reply message back from the socket before returning. |
| Response Timeout | 5 | Number of seconds to wait for a response to begin arriving back from the remote system after sending a request. Setting the timeout to -1 means wait forever. |
| Read Timeout | 5 | Number of seconds to wait for each successive incoming TCP read, following receipt of initial data from remote TCP port |
| SSL Configuration | (blank) | The name of an existing SSL/TLS system configuration set to use (Secure Socket Layer / Transport Layer Security, configured via the system portal's Security Management page). If the SSL configuration requires a password, add a '\|' followed by the password after the SSL configuration name. |

| Setting | Value | Description |
|---|---|---|
| Local Interface | (blank) | In a multi-homed system, specify which network interface the TCP connection should go through. An empty value means use any interface. |
| Framing | MLLP | HL7 Message outbound framing protocol. |

**Table 4-62: HL7 to Ensemble Additional Settings**

| Setting | Value | Description |
|---|---|---|
| Schedule | (blank) | Specifies times when this item should be stopped and restarted. You may enter a string formatted as a comma-separated list of event specifications, or you may enter the name of a schedule specification preceded by an @ symbol. To create a named schedule specification, use the Ensemble > Configure > Schedule Specs page. |
| Pool Size | 1 | Number of jobs to start for this config item.<br>Default value:<br>0 for Business Processes (i.e. use shared Actor Pool)<br>1 for Business Operations<br>0 for adapterless Business Services<br>1 for others |
| Reply Code Actions | :?A=C,E*Connect=R | A comma-separated list of codes specifying what action this Operation will take on receipt of various types of ACK response messages and other reply status conditions. |
| No Fail While Disconnected | Unchecked | Suspend counting seconds toward FailureTimeout while disconnected. |
| Save Replies | IndexNotOKs | Save a copy of reply messages sent back to the remote system. |

| Setting | Value | Description |
|---|---|---|
| Separators | \|^~\& | String of separator characters to use in encoding outbound messages. |
| Search Table Class | (blank) | Store a set of searchable properties in SearchTable records associated with each message processed. |
| Default Char Encoding | Latin1 | Default Character Encoding to use when reading or writing HL7 messages. |
| Retry Interval | 5 | How frequently to retry access to the output system. |
| Failure Timeout | 10 | How long to keep retrying before giving up and returning an error code. |
| Throttle Delay | 0 | Duration of forced idleness before processing the next message, in milliseconds. |

**Table 4-63: HL7 to Ensemble Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Alert Grace Period | 5 | When AlertOnError is True, refrain from alerting if it is not from ProcessInput() and the Service succeeds again within this number of seconds. |
| Queue Count Alert | 0 | Number of messages on this item's queue needed to trigger an Alert message to be sent. |
| Queue Wait Alert | 0 | The number of seconds a message may wait at the front of the queue before an alert is triggered. |
| Alert On Error | Checked | Send an Alert message whenever an error occurs here. |

| Setting | Value | Description |
|---|---|---|
| Inactivity Timeout | 0 | Send an Alert message if this number of seconds elapses with no messages being processed by this item.<br>Note that this alert will be sent even if AlertOnError is False.<br>Zero means no alerts of this type will be sent. |

**Table 4-65: HL7 to Ensemble Alerting Control**

| Setting | Value | Description |
|---|---|---|
| Foreground | Unchecked | Whether to run the job of this config item in the foreground or background. |
| Log Trace Events | Unchecked | Whether to log trace events for this item. |
| Archive IO | Unchecked | If set, the Adapter will log in the Ensemble I/O archive each input and output communication it has with its external system. |

## 4.4 Sample Cache Install

1. From Ensemble Cube, open the System Management Portal.
2. Select **Configure Namespaces** from the **Go to** list.

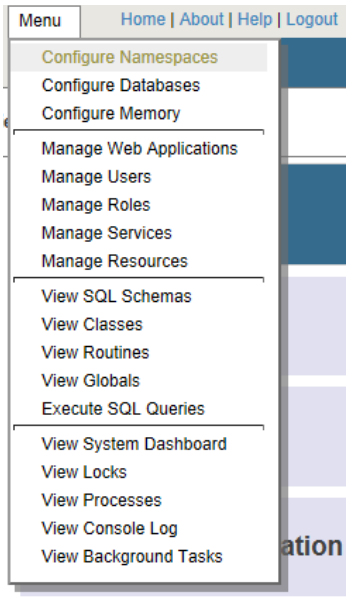



Figure 4-13: Go to list

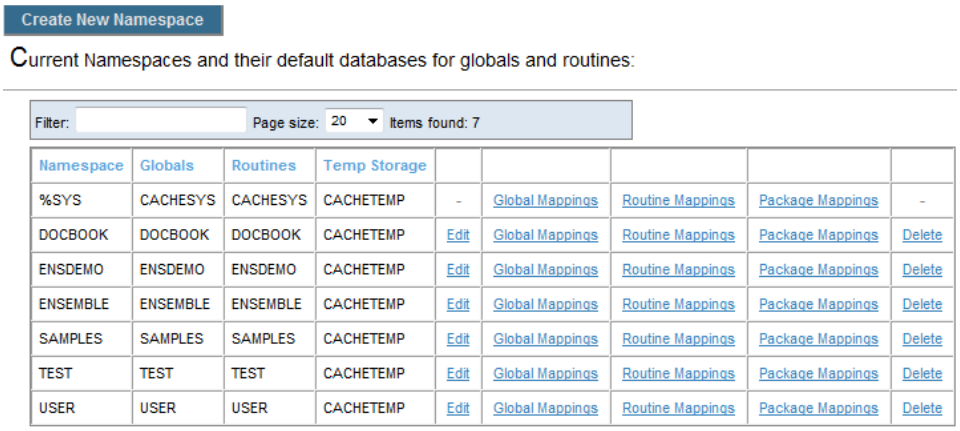



Figure 4-14: Namespaces page

3. Select **Create New Namespace**.

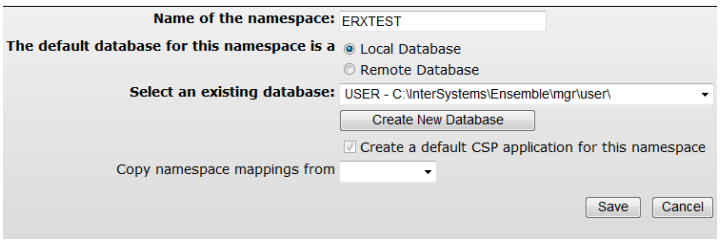



Figure 4-15: Create New Namespace dialog

4. **Enter** the name of the e-Prescribing database in the **Name of the namespace** field. The recommended naming convention is “ERX” followed by the site namespace. Example: ERXTEST

5. Click **Create New Database**.

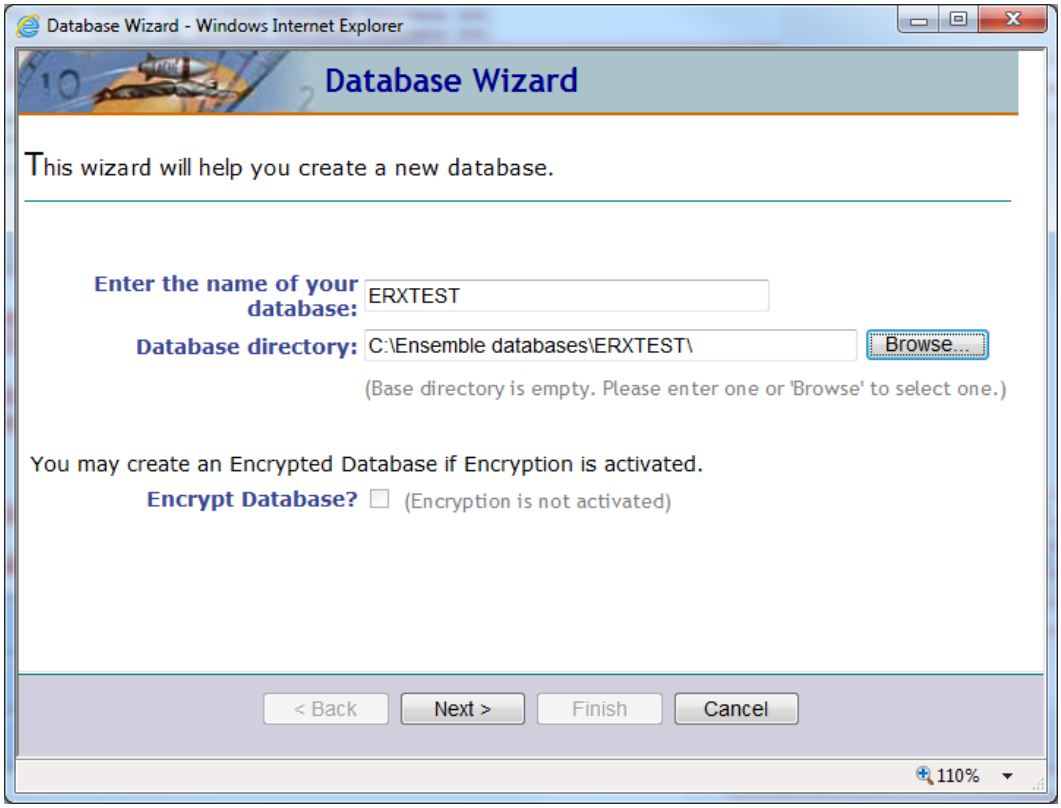



Figure 4-16: Database Wizard dialog

6. **Enter** the name of the e-Prescribing database used above in Step 4.
7. Click **Browse** and browse to the location where the site stores its RPMS databases.
8. **Type** the name of the e-Prescribing database at the end of the directory path.
9. Click **Next**.

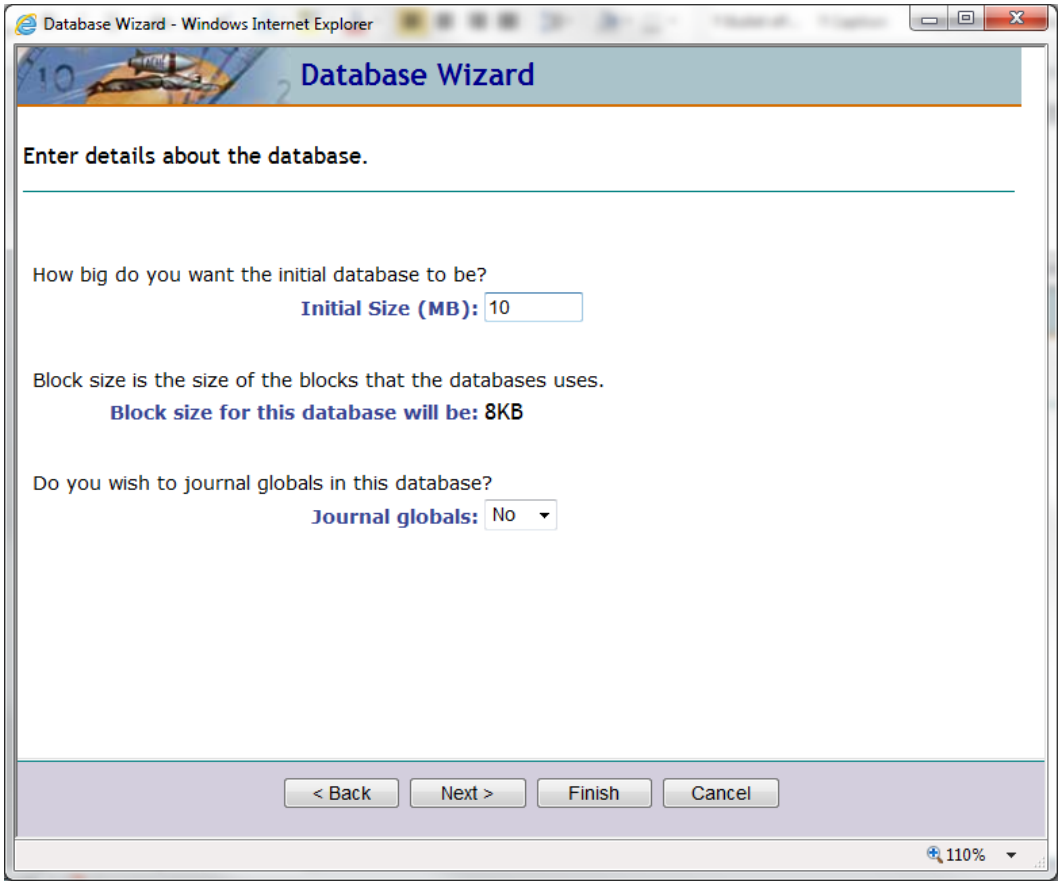



Figure 4-17: Database Wizard dialog

10. Select the database settings:
    a. Initial Size (MB): **10**
    b. Journal globals: **No**
11. Click **Next.**

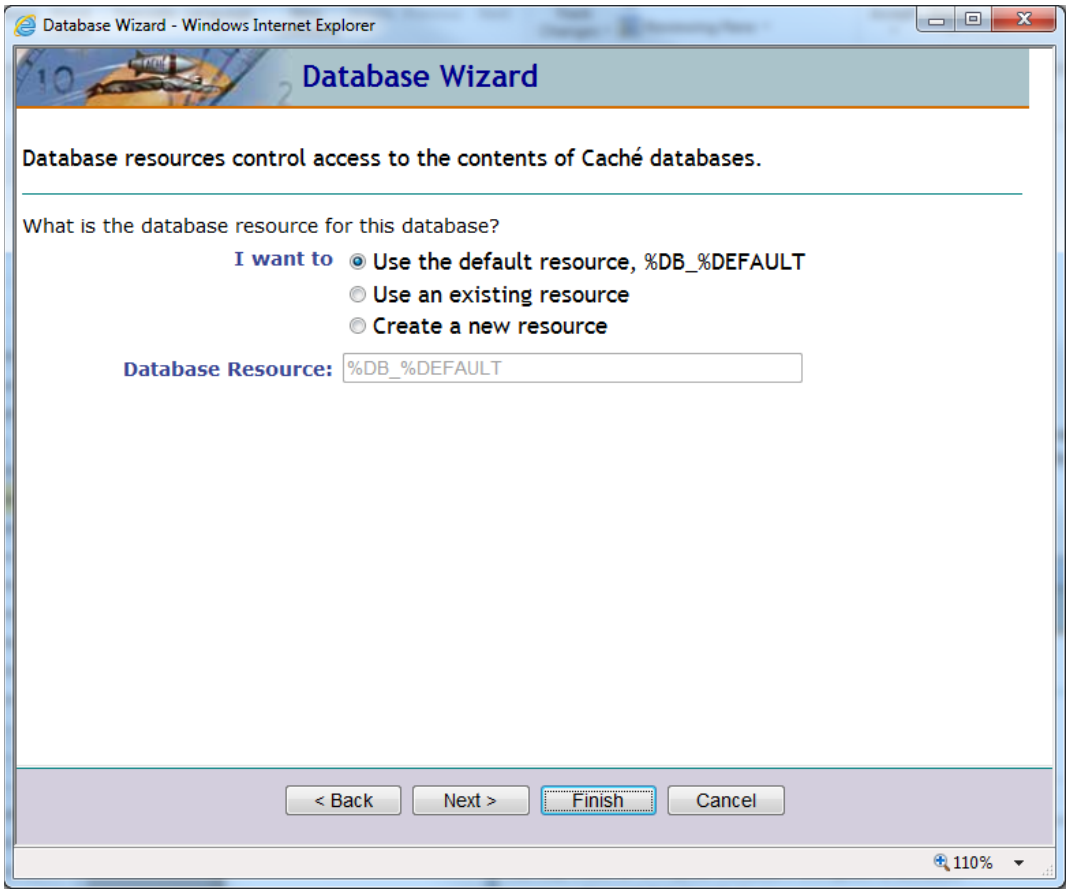



Figure 4-18: Database Wizard dialog

12. Click **Finish**.

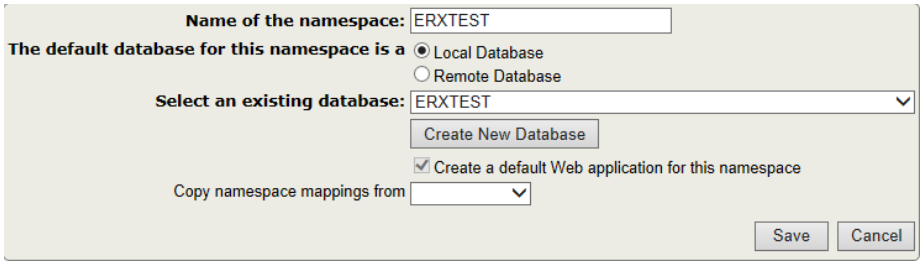



Figure 4-19: Create New Namespace dialog box

13. Click **Save**.

14. Click **Close**.

# 5.0 Installation Configuration

## 5.1 Mapping Globals

1. From the System Management Portal main page.
2. Click the **Menu** dropdown.

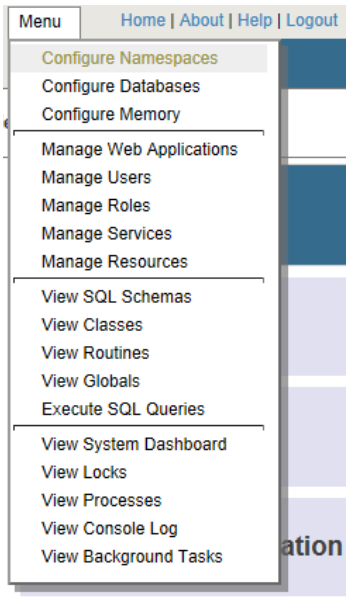



Figure 5-1: Go to list

3. Select **Configure Namespaces** from the **Go to** list.

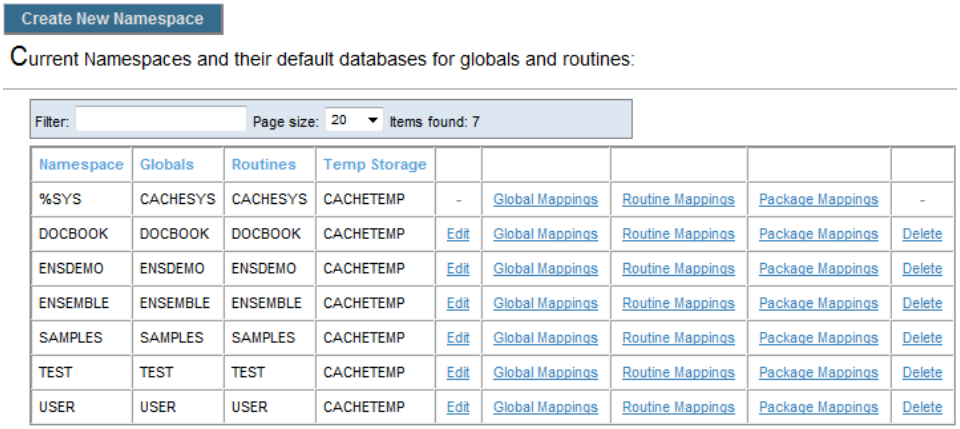



Figure 5-2: Namespaces page

4. Click **Global Mappings** on the row corresponding with the ePrescribing namespace.

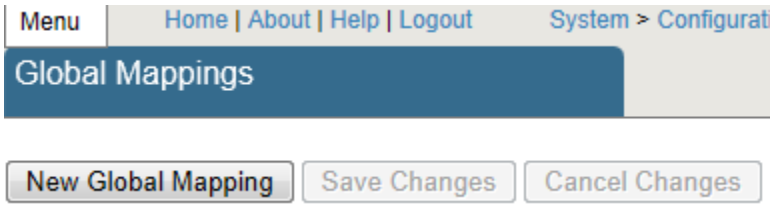



Figure 5-3: Global Mappings page, upper left portion

5. Click **New Global Mapping**.

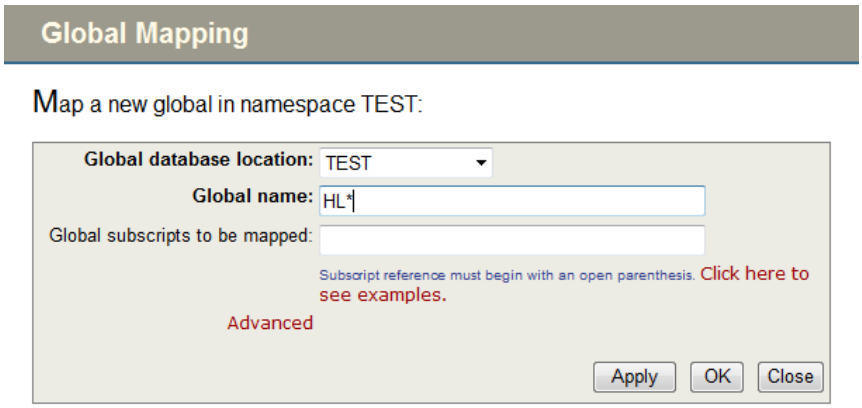



Figure 5-4: Global Mapping dialog for HL*

6. From the dropdown at the "Global database location" prompt select the site database that will be used for EHR:
   - Global database location: **<RPMS namespace>**
   - Global name: **HL***
7. Click **Apply**.
8. At "Global name" prompt type **%Z*** and click **Apply**.

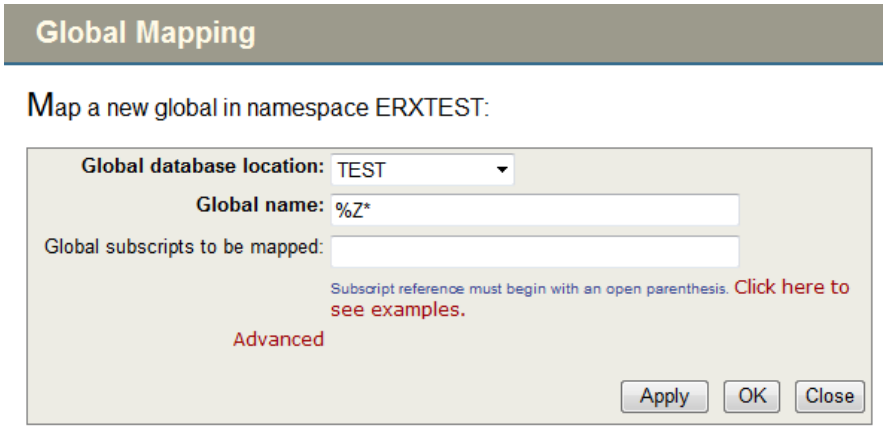



Figure 5-5: Global Mapping dialog for %Z*

9. At “Global name” prompt type **%z*** and click **Apply**.

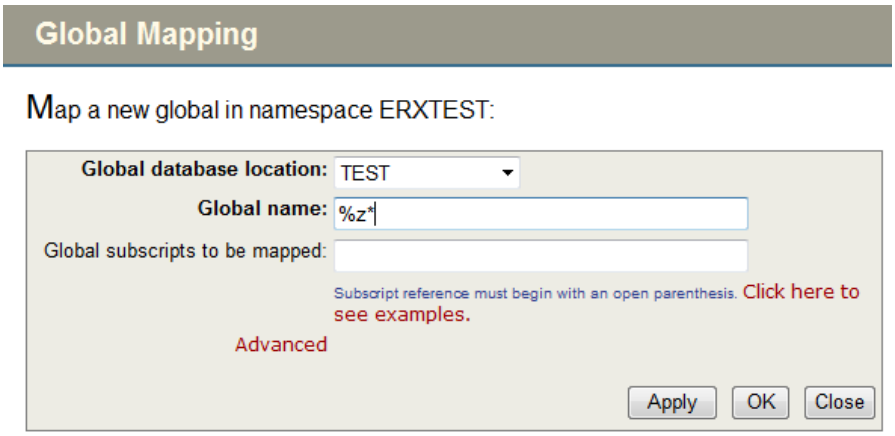



Figure 5-6: Global Mapping dialog for %z*

10. Click **OK**. The **Global Mappings** page redisplays.

11. Click **Save Changes**.

## 5.2 Mapping Routines

12. From the System Management Portal main page.

13. Click the **Menu** dropdown.

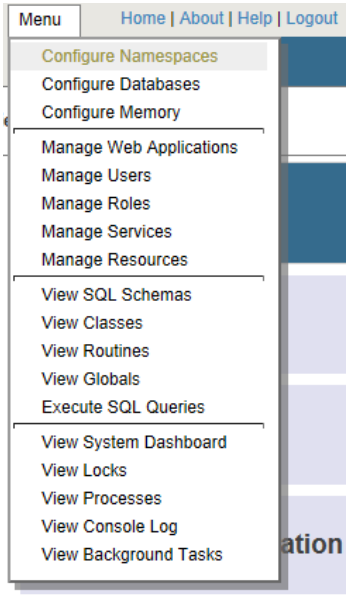



Figure 5-7: Go to list

14. Select **Configure Namespaces** from the **Go to** list.

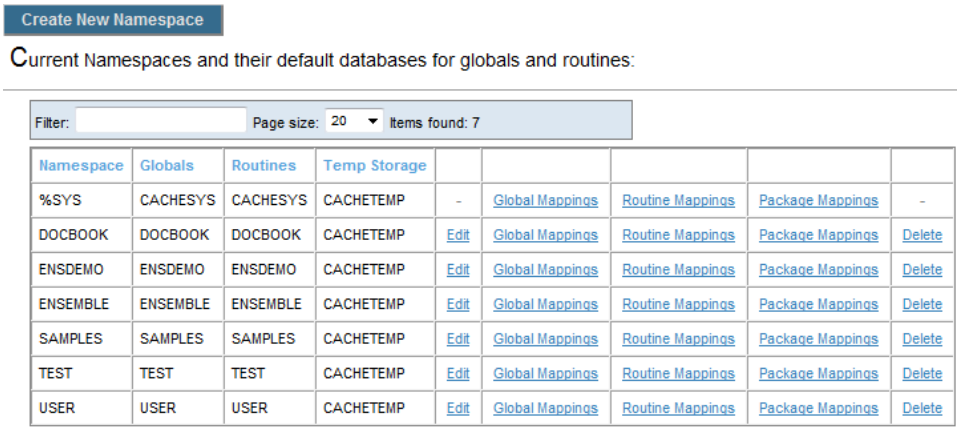



Figure 5-8: Namespaces page

15. Click **Routine Mappings** on the row corresponding with the ePrescribing namespace.

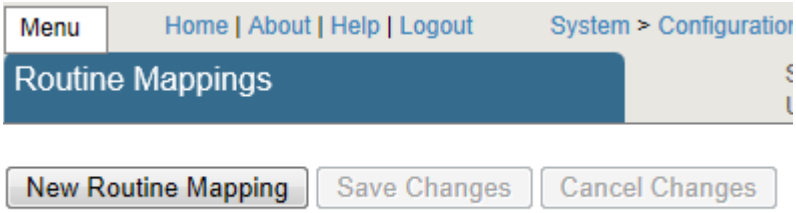



Figure 5-9: Routine Mappings page, upper left portion

16. Click **New Routine Mapping**.

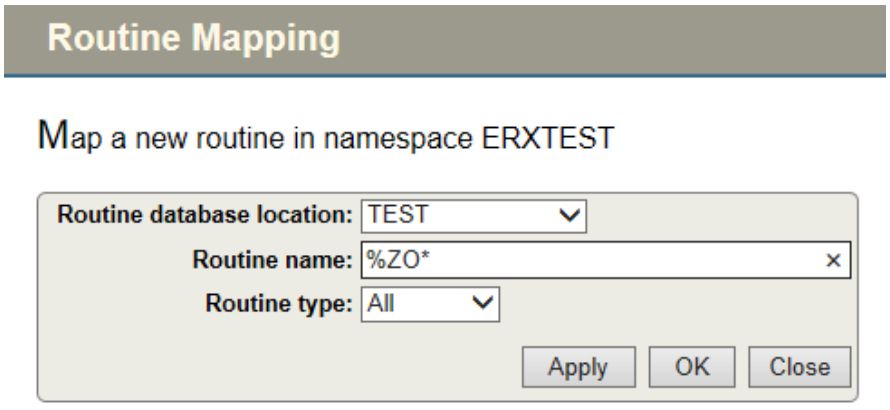



Figure 5-10: Routine Mapping dialog for %ZO*

17. From the dropdown at the "Routine database location" prompt select the site database that will be used for EHR:
    - Routine database location: **<RPMS namespace>**
    - Routine name: %**ZO***
18. Click **Apply**.
19. At "Routine name" prompt type **HL*** and click **Apply**.

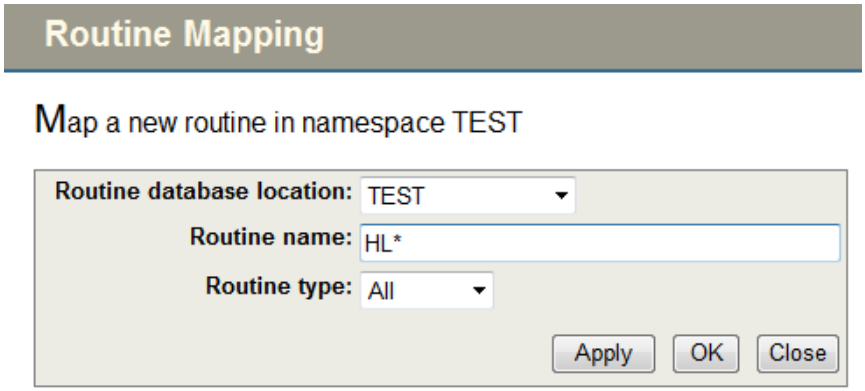



Figure 5-11: Routine Mapping dialog for HL*

20. Click **OK**. The **Routine Mappings** page redisplays.
21. Click **Save Changes**.

## 5.3 Auto-Start Production Settings

This enables Ensemble to automatically start the production at start-up:

1. Open the Ensemble Management Portal page.

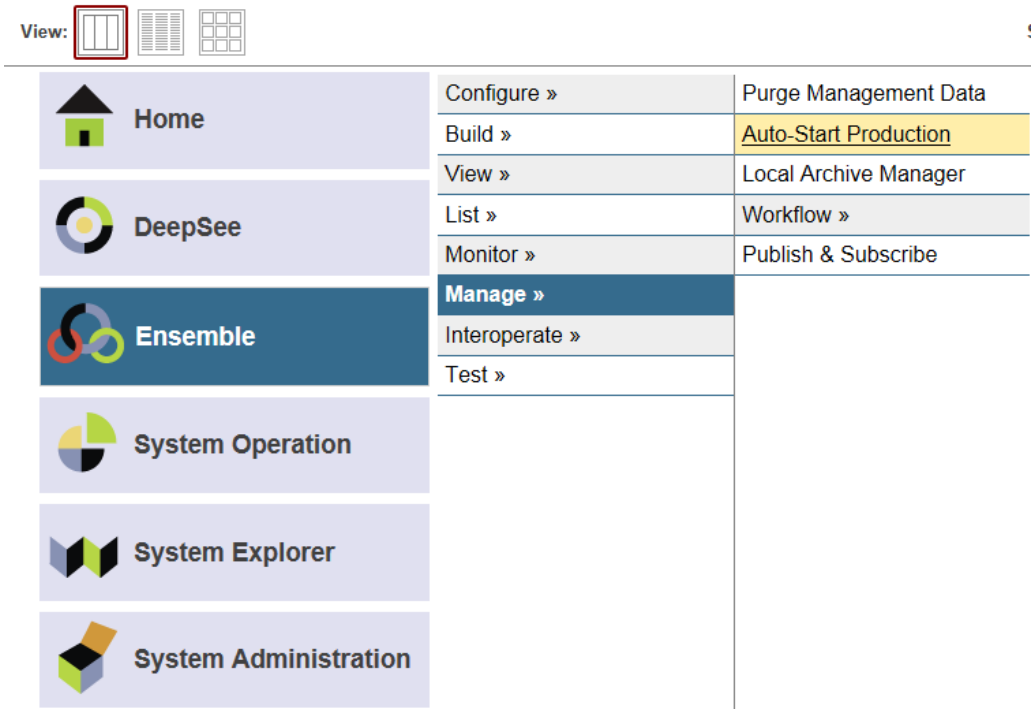



Figure 5-12: Ensemble Management Portal page

2. Select **Manage**.
3. Select **Auto-Start production**.

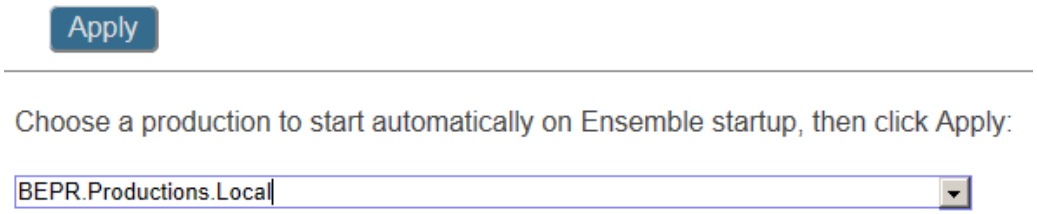



Figure 5-13: Auto-Start dropdown

4. Select **BEPR.Productions.Local** from the **Auto-Start Production** list.
5. Click **Apply**.
6. Click **Ok**.

## 5.4 Add Directory Download Task

1. Select **System Operation**.
2. Select **Task Manager**.

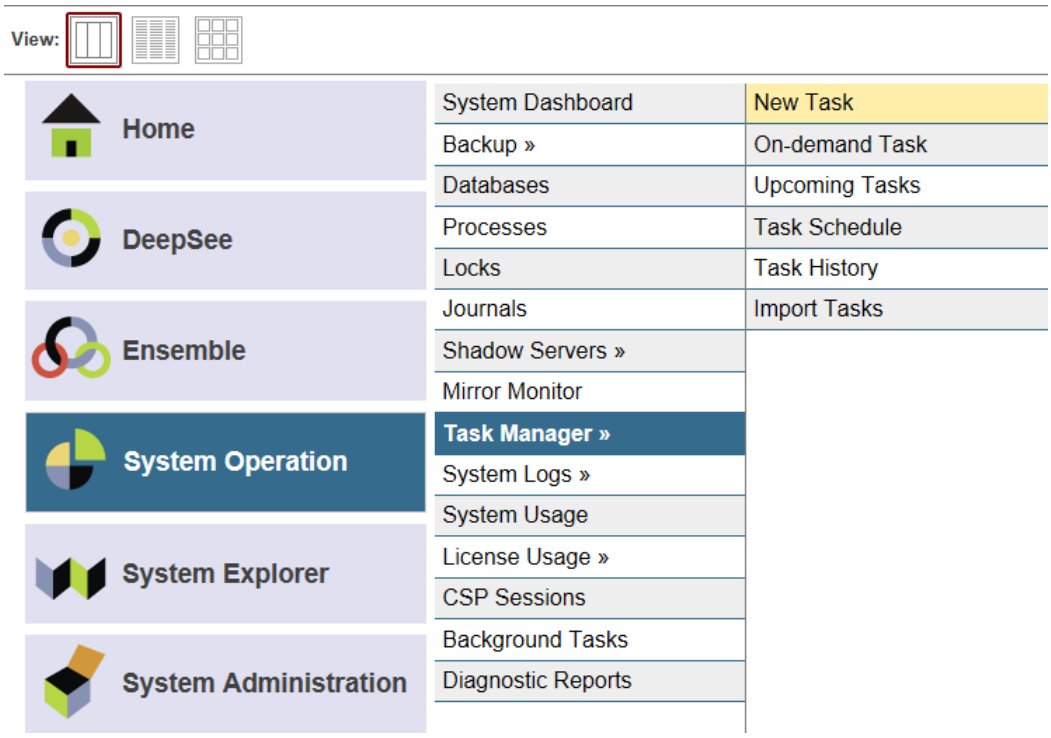



Figure 5-14: Navigation to New Task image.

3. Select **New Task**. The Task Scheduler Wizard displays.

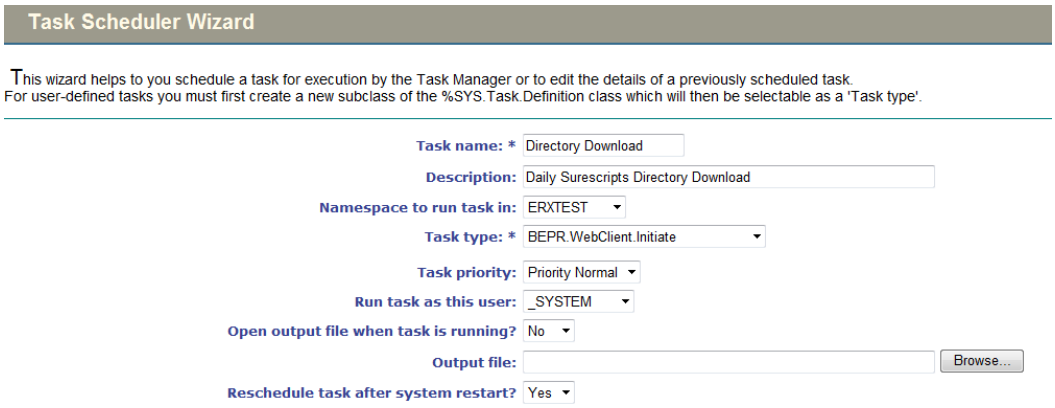



Figure 5-15: Task Scheduler Wizard dialog

4. Fill in the needed information for the task.

**Table 5-1: Task Scheduler Settings, page 1**

| Label | Setting |
|---|---|
| Task Name | Directory Download |
| Namespace in which to run task | <Choose the e-Prescribing namespace created for the site> |

| Label | Setting |
|---|---|
| Task type | BEPR.WebClient.Initiate |
| Run task as this user | _SYSTEM |
| Open output file when task is running | No |
| Output file | (blank) |
| Reschedule system after restart | Yes |

5. Click **Next**.

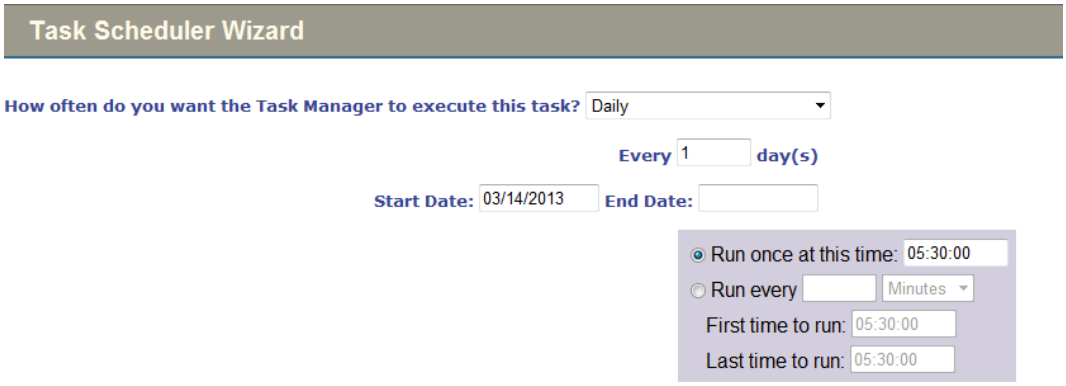



Figure 5-16: Task Scheduler Wizard dialog

6. Fill in the schedule information.

**Table 5-1: Task Scheduler Settings, page 2**

| Setting | Value | Description |
|---|---|---|
| How often do you want the Task Manager to execute this task? | Daily | The time interval value |
| Run once at time | 05:30:00 | This must be scheduled to run after the 'Central' Server runs its nightly download, the 'Central' production is scheduled to run at 04:30:ET A.M. |

7. Click **Finish** to add the task to the schedule.

# Appendix A: Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is ***FOR OFFICIAL USE ONLY***. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (RoB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general Rules of Behavior for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).
- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS web site,

http://security.ihs.gov/

The Rules of Behavior listed in the following sections are specific to RPMS.

## A.1 All RPMS Users

In addition to these rules, each application may include additional RoBs that may be defined within the documentation of that application (e.g., PCC, Dental, Pharmacy).

### A.1.1 Access

RPMS users shall

- Only use data for which you have been granted authorization.
- Only give information to personnel who have access authority and have a need to know.
- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or non-public agency information.
- Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not

- Retrieve information for someone who does not have authority to access the information.
- Access, research, or change any user account, file, directory, table, or record not required to perform your OFFICIAL duties.
- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.
- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their job or by divulging information to anyone not authorized to know that information.

### A.1.2 Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the function they perform such as system administrator or application administrator.
- Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

### A.1.3 Accountability

RPMS users shall

- Behave in an ethical, technically proficient, informed, and trustworthy manner.
- Logout of the system whenever they leave the vicinity of their PC.
- Be alert to threats and vulnerabilities in the security of the system.
- Report all security incidents to their local Information System Security Officer (ISSO)
- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.
- Protect all sensitive data entrusted to them as part of their government employment.

- Shall abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and IT information processes.

### A.1.4 Confidentiality

RPMS users shall

- Be aware of the sensitivity of electronic and hardcopy information, and protect it accordingly.
- Store hardcopy reports/storage media containing confidential information in a locked room or cabinet.
- Erase sensitive data on storage media, prior to reusing or disposing of the media.
- Protect all RPMS terminals from public viewing at all times.
- Abide by all HIPAA regulations to ensure patient confidentiality.

RPMS users shall not

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.
- Store sensitive files on a portable device or media without encrypting.

### A.1.5 Integrity

RPMS users shall

- Protect your system against viruses and similar malicious programs.
- Observe all software license agreements.
- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.
- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not

- Violate Federal copyright laws.
- Install or use unauthorized software within the system libraries or folders
- Use freeware, shareware, or public domain software on/with the system without your manager's written permission and without scanning it for viruses first.

### A.1.6 System Logon

RPMS users shall

- Have a unique User Identification/Account name and password.
- Be granted access based on authenticating the account name and password entered.
- Be locked out of an account after 5 successive failed login attempts within a specified time period (e.g., one hour).

### A.1.7 Passwords

RPMS users shall

- Change passwords a minimum of every 90 days.
- Create passwords with a minimum of eight characters.
- If the system allows, use a combination of alpha, numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.
- Change vendor-supplied passwords immediately.
- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts, or batch files.
- Change password immediately if password has been seen, guessed, or otherwise compromised; and report the compromise or suspected compromise to your ISSO.
- Keep user identifications (ID) and passwords confidential.

RPMS users shall not

- Use common words found in any dictionary as a password.
- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).
- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.
- Reuse passwords. A new password must contain no more than five characters per 8 characters from the previous password.
- Post passwords.
- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.

- Give a password out over the phone.

### A.1.8 Backups

RPMS users shall

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.
- Make backups of systems and files on a regular, defined basis.
- If possible, store backups away from the system in a secure environment.

### A.1.9 Reporting

RPMS users shall

- Contact and inform your ISSO that you have identified an IT security incident and you will begin the reporting process by providing an IT Incident Reporting Form regarding this incident.
- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not

- Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once

### A.1.10 Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall

- Utilize a screen saver with password protection set to suspend operations at no greater than 10-minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on your screen after some period of inactivity.

### A.1.11 Hardware

RPMS users shall

- Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).
- Keep an inventory of all system equipment.

- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not

- Eat or drink near system equipment

### A.1.12 Awareness

RPMS users shall

- Participate in organization-wide security training as required.
- Read and adhere to security information pertaining to system hardware and software.
- Take the annual information security awareness.
- Read all applicable RPMS Manuals for the applications used in their jobs.

### A.1.13 Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that

- Are in writing.
- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.
- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.
- Ensure adequate storage of files, removal, and non-recovery of temporary files created in processing sensitive data, virus protection, intrusion detection, and provides physical security for government equipment and sensitive data.
- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall

- Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not

- Disable any encryption established for network, internet, and web browser communications.

## A.2 RPMS Developers

RPMS developers shall

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.
- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.
- Only access information or code within the namespaces for which they have been assigned as part of their duties.
- Remember that all RPMS code is the property of the U.S. Government, not the developer.
- Shall not access live production systems without obtaining appropriate written access, shall only retain that access for the shortest period possible to accomplish the task that requires the access.
- Shall observe separation of duties policies and procedures to the fullest extent possible.
- Shall document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change and reason for the change.
- Shall use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.
- Shall follow industry best standards for systems they are assigned to develop or maintain; abide by all Department and Agency policies and procedures.
- Shall document and implement security processes whenever available.

RPMS developers shall not

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Not release any sensitive agency or patient information.

## A.3 Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.
- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.
- Advise the system owner on matters concerning information technology security.
- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.
- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.
- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need to know basis.
- Verify that users have received appropriate security training before allowing access to RPMS.
- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.
- Document and investigate known or suspected security incidents or violations and report them to the ISSO, CISO, and systems owner.
- Protect the supervisor, superuser, or system administrator passwords.
- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).
- Watch for unscheduled, unusual, and unauthorized programs.
- Help train system users on the appropriate use and security of the system.
- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.
- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.

- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords, and delete or reassign related active and back up files.
- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.
- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.
- Shall follow industry best standards for systems they are assigned to; abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Not release any sensitive agency or patient information.

# Appendix B: Additional Directory Download Restriction

A key consideration for security is to limit access to any file received and/or picked up by Ensemble to allow only Ensemble (_SYSTEM user) and Administrators the ability to modify the file. The steps are different between UNIX/AIX and Windows platforms as indicated below.

## B.1 Windows

This can be performed on the Windows platform by right-clicking on the directory in File Explorer, and verifying only the SYSTEM user and Administrators have access, and all other only have Read & Execute, as indicated in the screen shots below..

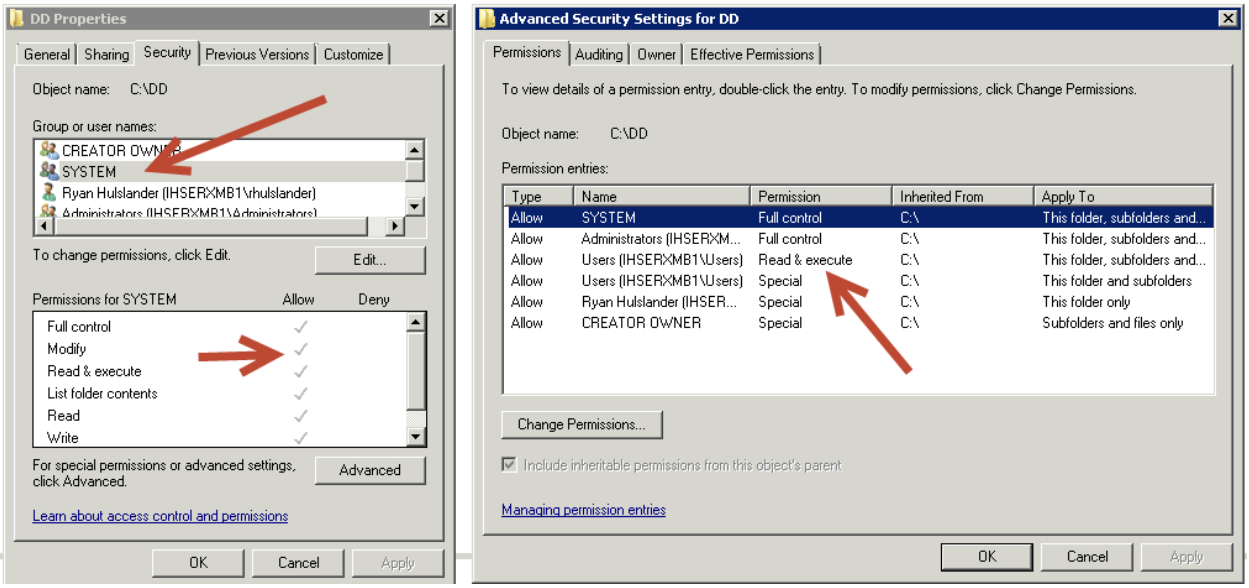



Figure B-1: Windows Directory Security Settings

## B.2 Unix/AIX

If the site agrees that the only users that should have access to edit or modify files in the directories used by ePrescribing are the AIX root user and the Cache/Ensemble user, “out of the box” security should suffice based on initial setup of the Cache environment if all recommended security precautions and defaults were followed.

If however any other user should be able to modify files in the download directory, the following scenario should be followed.

- We will assume that the user that Cache/Ensemble is running under is **cacheusr**
- We will assume that any administrative users other than **cacheusr** that are to have access to modify files in the directory will also be members of the group **cacheusr**.
- We will assume the directory that files are going to be will be **/usr2/surescripts**

Assuming the /usr2/download directory was created by the root user, the directory should look similar to the following:

```
[root@ens12tst usr2]# pwd
/usr2
[root@ens12tst usr2]# ls -lsa
total 12
4 drwxr-xr-x.  3 root     root         4096 Nov 21 15:51 .
4 dr-xr-xr-x. 36 root     root         4096 Nov 21 15:51 ..
4 drwxr-xr-x.  2 root  root         4096 Nov 21 15:51 surescripts
```

Execute the following commands to change the ownership of the directory that will allow access by **root**, **cacheusr** and anyone added to the **cacheusr** group:

```
 [root@ens12tst usr2]# chown cacheusr:cacheusr /usr2/surescripts
[root@ens12tst usr2]# chmod 0775 /usr2/surescripts
```

When complete, the directory structure should look similar to the following:

```
 [root@ens12tst usr2]# ls -lsa
total 12
4 drwxr-xr-x.  3 cacheusr cacheusr 4096 Nov 21 15:51 .
4 dr-xr-xr-x. 36 root     root     4096 Nov 21 15:51 ..
4 drwxrwxr-x.  2 cacheusr cacheusr 4096 Nov 21 15:51 surescripts
```

# Glossary

### Central Server

The central server is the communications hub between Indian Health Service (IHS) sites and Surescripts.

### Directory Download

The Directory Download is a flat file with lists of the pharmacies and prescribers registered within the network.

As stated in Surescripts Directories Guide 4.0 Q4 2007.pdf:

> Network participants can download flat file lists of the pharmacies and prescribers registered within the network. The lists are filtered based on the access of the network participant performing the download. Surescripts requires all network participants to update directory information nightly and to do full update at least once a week. Surescripts network participants must not block incoming messaging based on local directory information. Surescripts maintains the integrity of the directory information and will validate current participants. Full download files are generated every night at midnight and contain every pharmacy \ prescriber available to the network participant performing the download. Nightly download files are generated every night at midnight and are a delta file of the records that changed during the course of that specific day.

### Ensemble Cube

The Cube is an instance of Ensemble running in the system tray in a Windows environment.

### FQDN

Fully Qualified Domain Name is the full name of a system, consisting of its local hostname and its domain name, including a top-level domain.

### Local Server

The Local server is the site server that initiates and is the final destination for messaging with Surescripts

### NewRX

NewRx is used in reference to a message transaction for a new prescription from a Prescriber. As stated in RxHub PRN Implementation Guide.pdf:

> This NCPDP SCRIPT transaction is a request for a new prescription and is sent from the prescriber via the Physician System to the pharmacy of the patient’s choice. A Status message is sent to indicate whether it was accepted or whether there was an error.

**SPI**

As stated in Surescripts Directories Guide 4.0 Q4 2007.pdf,

> The Surescripts Prescriber ID (SPI) consists of an SPI root and a location ID.
>
> SPI = SPI Root + Location ID
>
> The SPI Root is generated by Surescripts and is a ten-digit numeric value. Each prescriber will be assigned a unique SPI Root and SPI location ID. Since a prescriber can prescribe from more than one location, the Location ID is used to distinguish between multiple locations for the same prescriber. The Location ID is a three-digit numeric value.

# 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