EPRI

Emergency Preparedness Resource Inventory

Administrator's Guide

Prepared for:
Agency for Healthcare Research and Quality
540 Gaither Rd.
Rockville, MD 20880

Contract No. 290-06-00011-1

Prepared by:
Tom Rich
Abt Associates

.

Contents

Chapter 1: Getting Started

The purpose of this Guide is to assist counties, States, or regions in installing, setting up, and operating EPRI.

Specifically, this Guide is intended for:

❖ The **EPRI Administrator**, who uses the features and tools described in this Guide to customize EPRI. The EPRI Administrator is assumed to be an employee of or a consultant to the **EPRI Owner** (the organization, agency, task force, or coalition that oversees implementation of EPRI, establishes policies and procedures, and controls access to EPRI).

A companion document – the EPRI User's Manual – provides assistance to EPRI users, who log in and use EPRI after the EPRI Administrator sets up and customizes EPRI.

What Is EPRI?

The Emergency Preparedness Resource Inventory – or EPRI, pronounced "Eh-pree" – is a database and communication system designed to help cities, counties, States, or regions (1) compile an inventory of resources needed to respond to emergencies and (2) determine what resources are available during an emergency.

EPRI includes features for:

❖ Entering and updating information about resources in your jurisdiction.

❖ Producing a variety of reports indicating which organizations have particular resources or where particular resources are located.

❖ Requesting information on what types of resources are currently available to help respond to an emergency.

❖ Indicating what resources you can provide to others during an emergency.

EPRI is a Web-based system: all users need a high-speed Internet connection and a Web browser to use EPRI.

Chapter 2: Installation

System Requirements

EPRI must be installed on a Microsoft-compatible WWeb server. The specific system requirements are:

- ❖ Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008, or Windows 7
- ❖ Internet Information Server 5.1 or greater
- ❖ Microsoft .NET Framework version 3.5 SP1
- ❖ Microsoft SQL Server 2008 or Microsoft SQL Express 2008 SP1

If desired, the EPRI Owner can contract with a commercial WWeb hosting company to host EPRI.

Installation Overview

Complete installation instructions are provided in the Appendix.

Once EPRI has been installed, point your Web browser to the EPRI address provided by the person who installed EPRI. The default login page will appear (Figure 2.1).

- ❖ You can log in with the default administrator login:

    Login: demoAdmin
    Password: firstInstall

- ❖ Note: the first time you log in to EPRI, there will be a delay before the login page is displayed (because the default database data is being loaded into the empty database).

Figure 2.1: EPRI Default Login Page
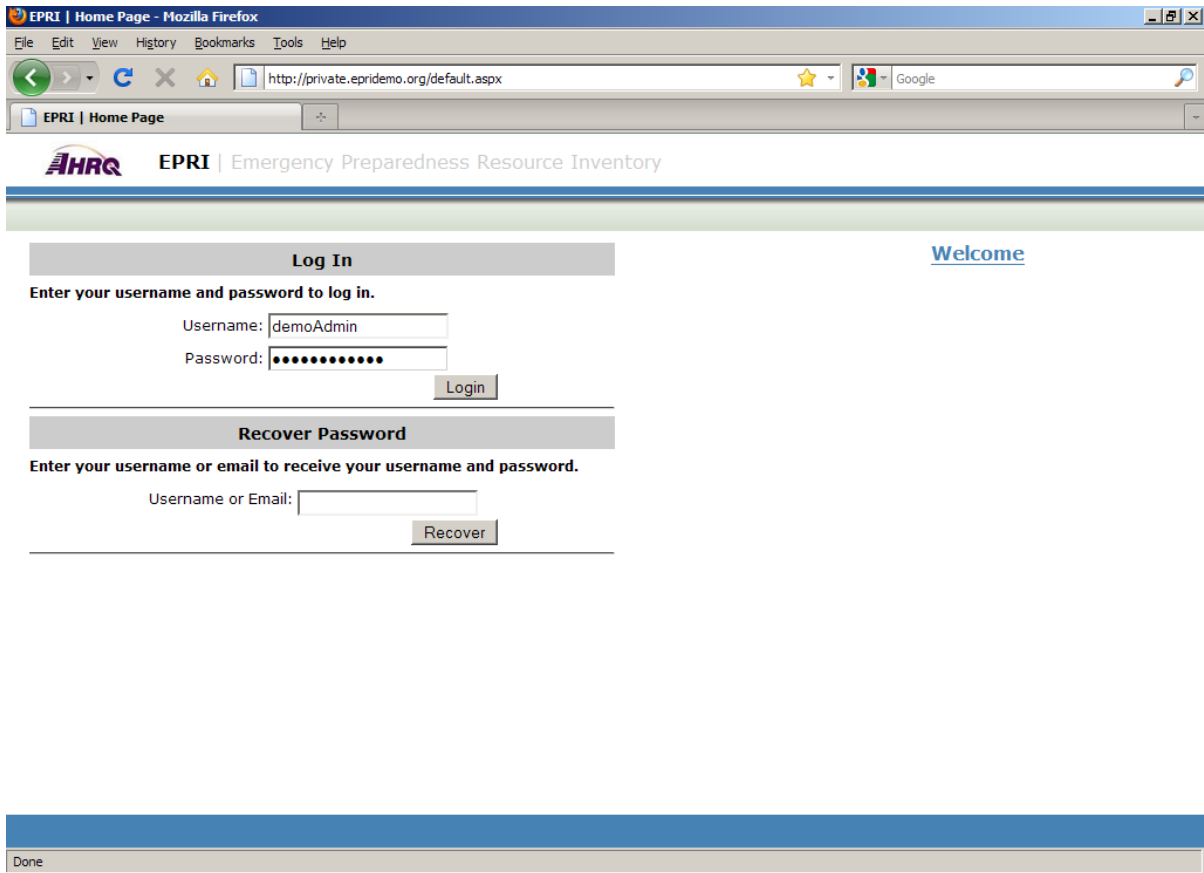
See Task 6 in Chapter 3 for instructions on customizing the default login page.

Once EPRI is installed, the EPRI Administrator can log in with the default administrator account that was entered as part of the installation procedure.

Once you log in, the default home page will appear (Figure 2.2).

See Task 6 in Chapter 3 for instructions on customizing the default home page for your jurisdiction.

Figure 2.2: EPRI Default Home Page
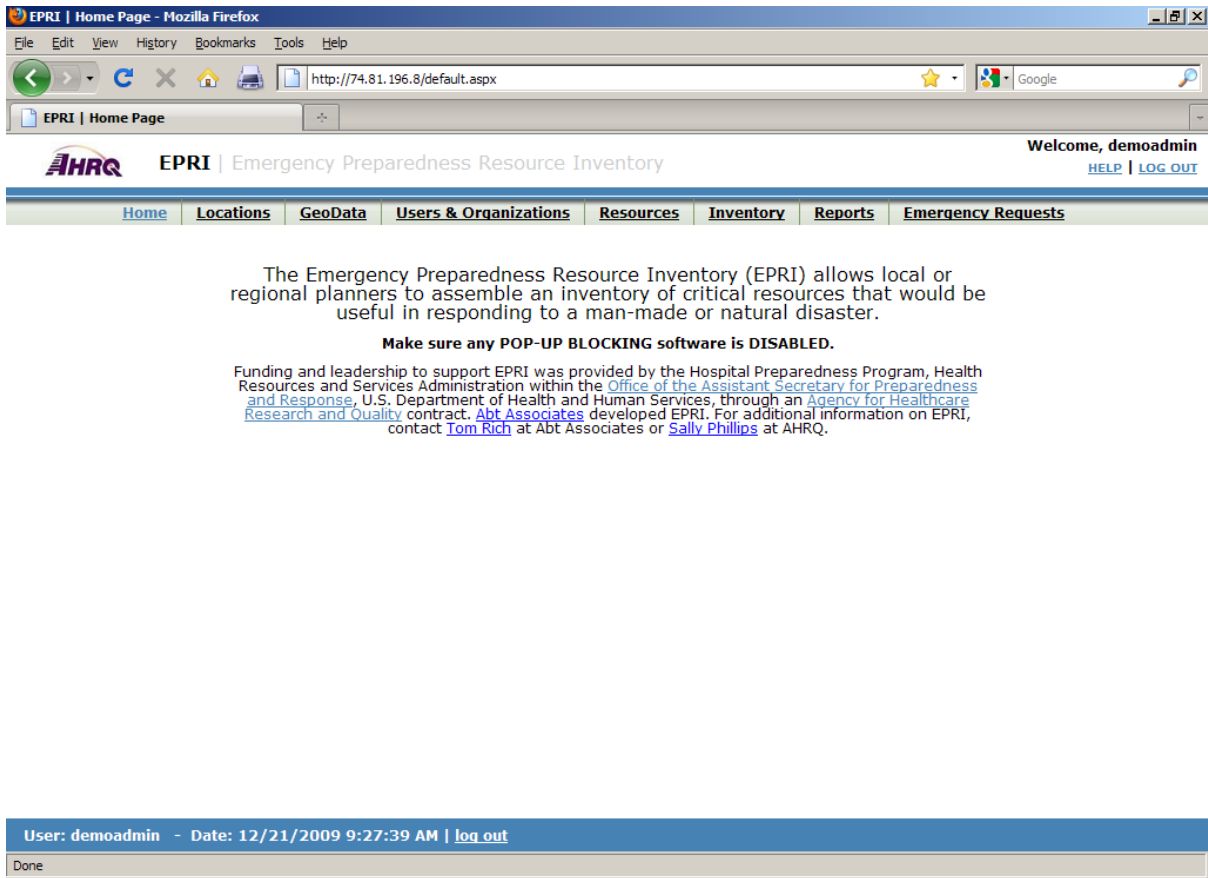
At the top of each EPRI Web page is the EPRI keyword bar, which has the keywords:

- ❖ Home
- ❖ Locations
- ❖ GeoData
- ❖ Users & Organizations
- ❖ Resources
- ❖ Inventory
- ❖ Reports
- ❖ Emergency Requests

The Locations, GeoData, Users & Organizations, and Resources keywords are used to set up and customize EPRI, and are the focus of the Administrator's Guide. These four keywords are accessible to EPRI Administrators, but not to other types of EPRI users (see "User Roles and Registration" in Chapter 4).

Chapter 3: Setup and Customization

Overview

Before EPRI can be used, the EPRI Administrator must set up EPRI and customize it. This chapter describes the **six tasks** involved in customizing EPRI. These are:

1. Creating one or more "Resource Groups," which are the building blocks of the inventory data entry pages on which EPRI users will enter inventory information.

2. Linking "Location Types" to Resource Groups, to ensure that different types of locations see the correct inventory data entry page.

3. Specifying geographic information (city, county, State, and ZIP code names) about your area, to ensure that consistent geographic data are entered.

4. Entering address and contact information for locations that will be providing inventory information.

5. Verifying that the inventory data entry screens include the desired resources.

6. Customizing the EPRI login and home pages, to provide important information that you want to communicate to the public and to EPRI users.

Once these six tasks have been completed, the EPRI Administrator will be able to enter inventory data for any of the locations entered in Task 4. If the EPRI Owner or Administrator would like other persons to either enter or access inventory data, additional EPRI user accounts can be created (see Chapter 4, User Roles and Registration).

The six setup and customization tasks do not need to be performed in sequential order.

❖ Tasks 1, 3, and 6 are not dependent on other tasks being completed.

❖ Task 2 can begin only after Task 1 is completed.

❖ Task 4 can begin only after Task 3 is completed.

❖ Task 5 can begin only after Tasks 2 and 4 are completed.

The amount of time it will take to complete these six steps depends on the number and variety of locations that will be asked to provide inventory information and, in particular, the extent to which staff at these locations are engaged in the process of deciding what resources to track in EPRI, which is the focus of Task 1.

Common Features on EPRI Web Pages

The Web pages used to customize – and operate – EPRI share a number of common features and functions, which are described below. In addition to these common elements, individual EPRI Web pages have specialized functions that are described elsewhere in this Guide or the EPRI User's Manual.

The illustrative Location page (Figure 3.1) shows the common features and functions explained below.

Figure 3.1: Illustrative EPRI Web Page with Tabular Data

- ❖ **Search**. Above the tabular data shown on EPRI Web pages are one or more text boxes or dropdown lists, as well as a Search button, that are used to list only specific records in the data tables. To "undo" a search and display all records, clear the choices in the text boxes / dropdown lists and then click Search.

- ❖ **Add new**. Above the data records is an "Add New" link for adding a new record.

❖ **Sorting**. The records in the data table can be sorted by clicking on any of the column headings.

❖ **Edit**. On the right-hand end of each row is an edit icon, which enables you to change any information about the record.

❖ **Delete**. Records can be deleted by clicking the delete icon (X) at the far right-hand end of each record. A record cannot be deleted if that information is used elsewhere in EPRI. For example, a "city" cannot be deleted if one or more locations are in that city; a "resource" cannot be deleted if inventory data on that resource is in EPRI.

❖ **Page navigation**. At the bottom left-hand corner of the data table are page navigation controls for moving to the previous or next page of records.

❖ **Records per page**. To the right of the page navigation controls is a text box for changing the number of records per page, and a "Change" keyword for effecting that change.

❖ **Download**. To facilitate customized reporting outside of EPRI and data sharing with other systems, records displayed in the data table can be downloaded by clicking either the "Spreadsheet" or "XML File" keyword at the bottom of the data table.

Task 1: Create Resource Groups

A Resource Group is a collection of one or more resources (see "Resources" and "Resource Groups" in Chapter 5). A Resource Group is used to create an inventory data entry screen. In addition, a Resource Group must be specified when an EPRI report is run or when an emergency request for information is made (see Chapter 4, "Facilitating Report Generation and Emergency Requests").

EPRI comes pre-loaded with approximately 200 different resources. that are either part of the HAvBED system[1] or the AHRQ Surge Model (see Chapter 5). You can use these pre-loaded resources to build Resource Groups or you can create your own resources (see Chapter 5, "Resources"). Whenever possible, use resources in EPRI that have gone through the NIMS or a State-level typing process.

How many to create: some options

The number of Resource Groups the EPRI Administrator creates depends on what types of locations will provide inventory information and how the resources to be inventoried vary across those types of locations. There is no limit to how many can be created.

Here are three of *many* possible scenarios for how many Resource Groups might be created.

- ❖ Scenario 1 (a single Resource Group). If all locations being asked to provide inventory information for EPRI will be asked about the *same* resources, then only one Resource Group is needed. That Resource Group will contain all the resources that will appear on the inventory data entry page.

- ❖ Scenario 2 (a Resource Group for each different type of location that is providing inventory data). If you want hospitals, health departments, and emergency management agencies to report on different resources, you would create three Resource Groups: one for hospitals, one for health departments, and one for emergency management agencies.

- ❖ Scenario 3 (Scenario 2, plus you want both State-wide resources and region-specific resources). In this scenario, a State-level agency wants to use EPRI to collect resource inventory data from all hospitals, health departments, and emergency management agencies in the State. In addition, regional coalitions would like to use EPRI to collect

[2] See http://www.ahrq.gov/prep/havbed/

information on additional resources of interest to their coalition. Suppose there are two regions in your State, Region I and Region II. You would then create six Resource Groups: for Region I hospitals, Region II hospitals, Region I health departments, Region II health departments, Region I emergency management agencies, and Region II emergency management agencies. Each of these six Resource Groups would contain both State-wide and region-specific resources. For example, the Region I hospital Resource Group would contain the resources that the State agency wants to collect from all hospitals as well as the resources that the Region I coalition wants to collect from hospitals in Region I.

A particular resource can be in several Resource Groups.

Instructions

To create a Resource Group:

1. Select "Define Resource Groups" under the Resources keyword.

    » The Resource Group page (Figure 3.2) shows a table with one line for each Resource Group in EPRI, with summary information about the Group, an Edit icon, and a Delete icon. EPRI comes pre-loaded with Resource Groups. that align with the AHRQ Surge Model (see Chapter 5 and Figure 3.2).

Figure 3.2: Resource Group Page
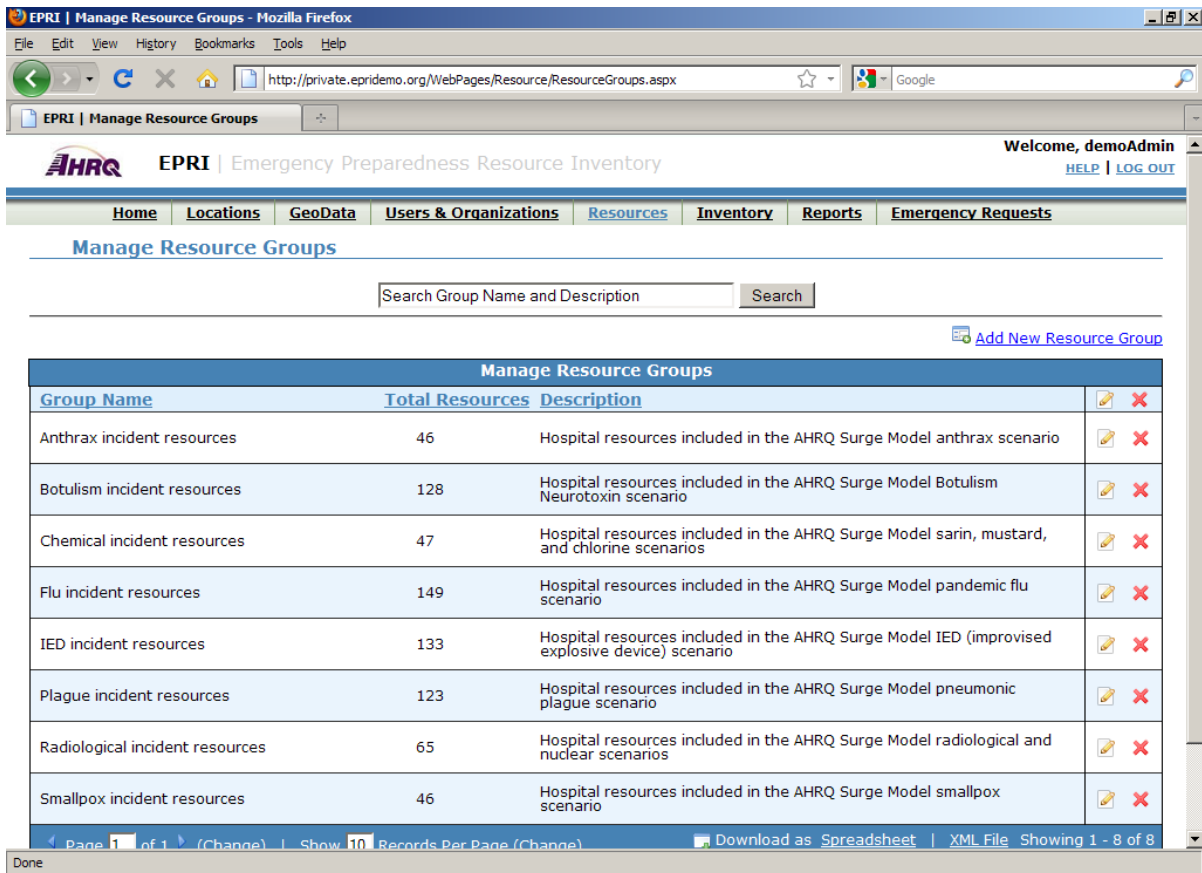
> **Tip**: You can print a listing of the resources in each Resource Group on the Reports page.

2. Click "Add New Resource Group."

3. In the popup window (Figure 3.3), check off all the resources that you want to include in the Resource Group. Click the check box to the left of the red circle to select all resources associated with the Resource Type (see Chapter 5, "Resource Type"). Click the red circle to see the list of resources associated with the Resource Type and to select some (but not all) of the resources.

   » Note: the Resource Types and Resources shown in Figure 3.3 include HAvBED and AHRQ Surge Model resources (see Chapter 5).

Figure 3.3: Selecting Resources for the Resource Group
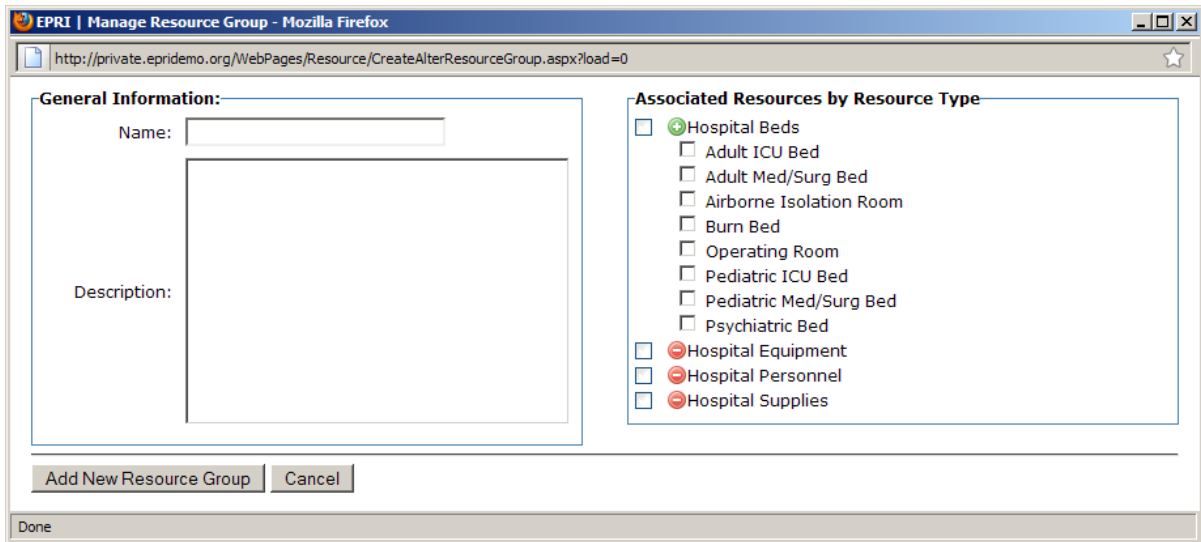
Tip: If the resource you want to include in a Resource Group is not listed in the Create Resource Group popup, you can create a new resource (see "Resources" in Chapter 5).

4. Give the Resource Group a meaningful name and, optionally, enter a description of the Group. For example, in Scenario 2, described above, you might use the following names:

Resource Group Description	Recommended Resource Group Name in EPRI
Resources for which hospitals will provide inventory data	Hospital Resource Group
Resources for which health departments will provide inventory data	Health Department Resource Group
Resources for which emergency management agencies will provide inventory data	EMA Resource Group

5. Click "Add New Resource Group."

Task 2: Link Location Types to Resource Groups

After you create a Resource Group (Task 1), you need to *link* it to a Location Type. This is done at the same time that you *create* the Location Type.

❖ Location Types are the general types of locations that will be providing inventory information for EPRI – for example, hospitals.

Instructions

To link a Location Type to a Resource Group, do the following:

1. Select "Manage Location Types" under the Locations keyword.

   » The Location Types page (Figure 3.4) shows a table with one line for each Location Type in EPRI, including its name, the name of the linked Resource Group, an Edit icon, and a Delete icon.

Figure 3.4: Location Type Page

2. Click "Add New Location Type."

3. Specify a name for the Location Type and select the Resource Group to link the Location Type to.

» The Resource Group dropdown list contains the names of all Resource Groups you created in Task 1, plus all the Resource Groups that came pre-loaded with EPRI (see "Resource Groups" in Chapter 5).

» Give the Location Type a meaningful name. For example, in Scenario 3, above, you might use the following names:

Recommended Location Type Name	Recommended Name of Linked Resource Group
Region I hospitals	Region I Hospital Resource Group
Region II hospitals	Region II Hospital Resource Group
Region I health departments	Region I Health Department Resource Group
Region II health departments	Region II Health Department Resource Group
Region I EMAs	Region I EMA Resource Group
Region II EMAs	Region II EMA Resource Group

» If the Location Type you want to link to a Resource Group is already in the list of existing Location Types, you can re-link it to a different Resource Group by clicking the Edit icon in the table.

4. Click "Add New Location Type."

Task 3: Specify Geographic Information

Geographic information – the names of cities, counties, States, and ZIP codes associated with locations that you will collect inventory information from – must be entered into EPRI. This will ensure that the contact and address information entered in Task 4 is consistent. The cities, counties, States, and ZIP codes you specify in this Task appear in several EPRI dropdown lists.

In addition, you have the option of entering in EPRI the latitude and longitude of cities that you specify. Specifying geographic coordinates enables you to run inventory reports that incorporate the distance from a city – for example, a listing of inventoried resources 50 miles from a particular city. EPRI does not have a built-in mapping capability, but inventory reports that include location

latitudes and longitudes can be exported from EPRI and then imported into a mapping or GIS system.

You can either manually enter or import geographic information, as explained below.

Instructions for manually entering geographic information

To manually enter cities, counties, States, or ZIP codes in EPRI:

1. Select the desired item (Setup Cities, Counties, States, or Zip Codes) under the GeoData keyword.
2. Click the "Add New" link above the data table.
3. Fill out the data fields in the popup.

    » For counties, you must specify the State that the county is in.

Tip: Add States to EPRI before adding counties.

    » For cities, you have the option of specifying the latitude and longitude of the city.

Tip: Latitude and longitudes of U.S. cities are available at a number of public Web sites, such as http://www.lat-long.com/ or http://www.batchgeocode.com/lookup/

4. Click "Add New."

Instructions for importing geographic information

To import cities, counties, or ZIP codes (States cannot be imported) into EPRI:

1. Select the desired item (Setup Cities, Counties, or Zip Codes) under the GeoData keyword.
2. Click the "Import Data" link above the data table. Figure 3.4 shows the popup that appears for importing counties.

Figure 3.4: Importing County Names
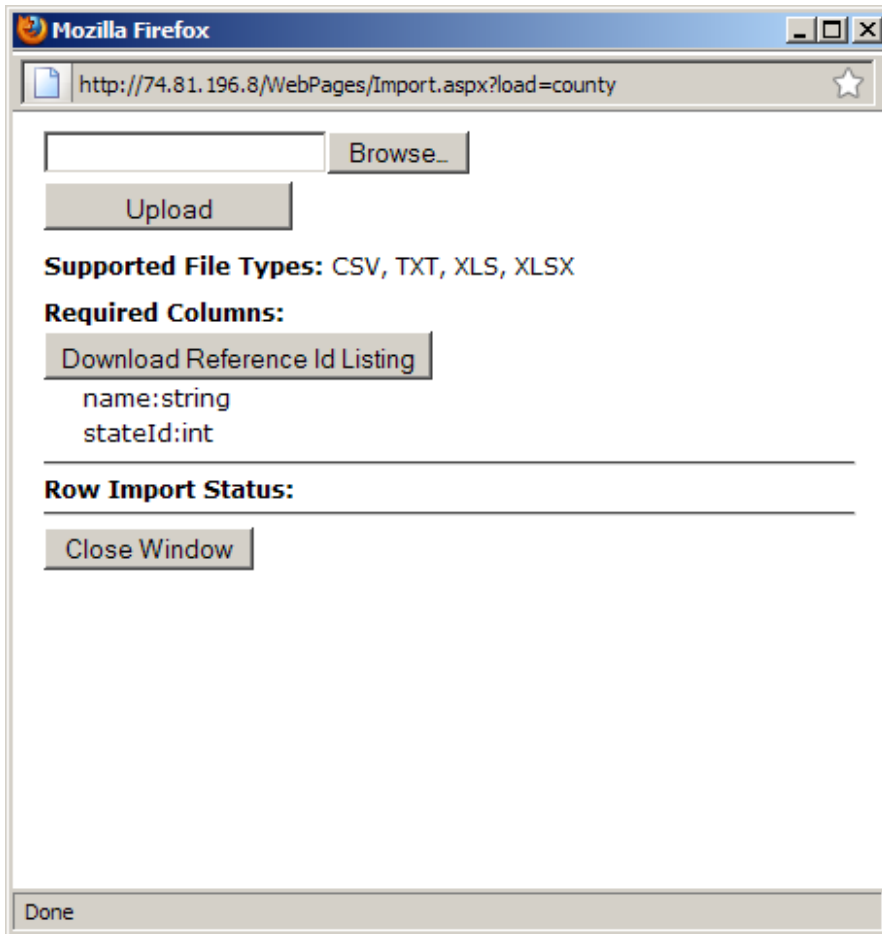
3. Click the "Browse…" button to select the file to import. Tips on constructing files that will successfully import into EPRI are shown below.

4. Click "Upload." Messages will be displayed indicating whether the records were successfully imported.

Tips for importing geographic data

Files in four different formats can be imported: text files (txt), comma separated values (csv), or Excel files (xls or xlsx).

The first row of the file must contain the specific words that are shown in the three examples below.

The last record in a text file cannot contain a carriage return.

Latitudes and longitudes included in the city file must be in decimal format (not degrees, minutes, and seconds) – see Example 1 below.

The stateID field is an integer that must be included in the file of counties to import (see Example 3 below); it is the internal EPRI number associated with a State name. You can obtain the stateID number by clicking the "Download Reference ID Listing" button on the popup (see the previous screen shot) that appears after you click "Import Counties" on the Setup County page.

The names ZIP codes must be stored in the file as a "character" field, rather than as an integer or numeric field. In text files, place quote marks around ZIP codes (see Example 2).

Example 1: A correctly formatted text file containing two cities:
       name, latitude, longitude
       Boston, 42.3584308, -71.0597732
       Cambridge, 42.375097, -71.1056079

Example 2: A correctly formatted text file containing two ZIP codes:
       name
       "11111"
       "22222"

Example 3: A correctly formatted text file containing two counties:
       name, stateID
       Washington, 1
       Jefferson, 1

Task 4: Enter Address and Contact Information

Once you have entered geographic information about your area (Task 3), you can enter address and contact information for the locations that will be contributing inventory information to EPRI. To do this, you will **create locations** in EPRI. You can also **import locations** into EPRI.

Instructions for creating locations

To create a location:

1. Select "Manage Locations" under the Locations keyword.

    »   The Location page shows a table with one line for each location in EPRI, including its name, its location type, its city and county, an Edit icon, and a Delete icon.

> *Tip*: You can print a listing of all locations by clicking "Location Listing" on the Reports page. You can also download all Location information (not including inventory data) by clicking one of the Download links at the bottom of the Locations data table.

2. Click "Add New Location'

3. In the popup window (Figure 3.5), fill out the form. Note that default values appear in the dropdown lists.

    »   The **Location Type** dropdown list will contain the location types entered in Task 2. The default shown is the first location type in alphabetical order.

    »   In the **Organization** dropdown list, select "Create Organization with Location Name" unless the location is part of a larger corporation (or other entity) and you want an EPRI user at the corporate level to enter inventory data for all locations affiliated with that corporation. In this case, you need to first create an "Organization." To create an Organization, select "Manage Organizations" from the Users & Organizations keyword, click "Add New Organization," and enter the name of the organization. Then return to the Manage Locations page and select that newly created organization from the Organization dropdown list on the Add New Location popup. See "Creating users that enter data for multiple locations" in Chapter 4 for more details.

Figure 3.5: Add New Location Page

» The *City*, *County*, *Zip Code*, and *State* dropdown lists will contain the names entered in Task 3.

» The *latitude* and *longitude* for the location are optional, but are necessary if you want to run EPRI reports that show inventory based on a distance from a city.

Tip: Latitudes and longitudes of addresses are available at a number of public Websites, such as http://www.mashupsoft.com/maps/latlonlocator or http://www.batchgeocode.com/lookup/.

» EPRI uses the email addresses of the *Emergency Contact* when "Send Email To Selected Locations" is clicked on the Manage Locations page, or when Emergency Requests are sent to a location.

4. Click "Add New Location."

Instructions for importing locations

To import location information into EPRI:

1. Select "Manage Locations" under the Locations keyword.

2. Click the "Import Location Data" link above the data table.

3. Click the "Browse" button to select the file to import. See below for tips on constructing files that will successfully import into EPRI.

4. Click "Upload." Messages will be displayed indicating whether the records were successfully imported.

5. Edit the imported location records, as necessary, by clicking the Edit icon of each record on the Manage Locations page.

Tips for importing location data

Files in four different formats can be imported: text files (txt), comma separated values (csv), or Excel files (xls or xlsx).

The first row of the file must contain the specific words that are shown in the example below.

The last record in a text file cannot contain a carriage return.

Latitudes and longitudes included in the location file must be in decimal format (not degrees, minutes, and seconds).

The organizationID, cityID, countyID, and stateID fields are integers that must be included in the file of locations to import. They are internal EPRI numbers associated with organizations, cities, counties, and States. You can obtain these ID numbers by clicking the "Download Reference ID Listing" button on the popup that appears after you click "Import Locations" on the Setup County page (Figure 3.6). Organizations, cities, counties, and States should be entered or imported before locations are imported; otherwise the ID numbers will not be available.

Figure 3.6: Importing Locations

Mozilla Firefox

http://74.81.196.8/WebPages/Import.aspx?load=location

Browse…

Upload

Supported File Types: CSV, TXT, XLS, XLSX

Required Columns:

Download Reference Id Listing

name:string
address:string
latitude:float
longitude:float
contactName:string
contactPhoneNumber:string
contactFaxNumber:string
contactEmail:string
contactSecondEmail:string
locationTypeId:string
organizationId:int
cityId:int
stateId:int
zipCode:string
countyId:int

Row Import Status:

Close Window

Done

Task 5: Verify Inventory Data Entry Screens

By completing Tasks 1 through 4, you will have created one or more inventory data entry pages – for example, all the hospitals will have a data entry page showing the resources that hospitals are suppose to report, all the fire stations will have a data entry page showing the resources that fire stations are suppose to report, etc. In Task 5, you will confirm that the inventory data entry pages contain the desired resources.

Once you have completed Task 5, you (as the EPRI Administrator) can now enter inventory data for any of the locations you have entered in Task 4. If you want others to be able to enter or edit these data, Chapter 4 contains instructions for creating user accounts in EPRI.

Instructions

To verify an inventory data entry screen:

1. Select "Update Inventory Status" under the Inventory keyword.

   » The Inventory page shows a table (Figure 3.7) with one line for each location in EPRI, including its name, Location Type, Inventory Completeness and Timeliness (see Chapter 4, "Monitoring Data Quality") measures, and an update inventory icon.

Figure 3.7: Inventory Status Page

2. Click the update inventory icon for a location for which you want to verify the data entry screen. The inventory data entry screen appears (Figure 3.8).

Figure 3.8: Inventory Data Entry Page

Tip: If you have dozens of locations entered, you can filter the locations displayed by selecting a Location Type or other search criterion at the top of the page, and then clicking "Search."

3. Confirm that the resources on the page are the ones you want to use for this location type.

» The resources displayed on the Inventory Data Entry page are the resources that belong to the Resource Group that is associated with the location's Location Type.

» The resources on Inventory Data Entry pages are grouped according to "Resource Type." You can change the names of Resource Types (or add or delete Resource Types) by selecting "Manage Resource Types" under the Resources keyword (see Chapter 5, "Resource Types").

» You can change the order in which resources within a Resource Type are displayed, by selecting "Manage Resources" under the Resources keyword, clicking on the Display Order column for any resource in the desired Resource Type, and then dragging and dropping the

boxes on the right-hand side of the rows within the Re-order Resources popup (Figure 3.9).

Figure 3.9: Changing the Resource Display Order
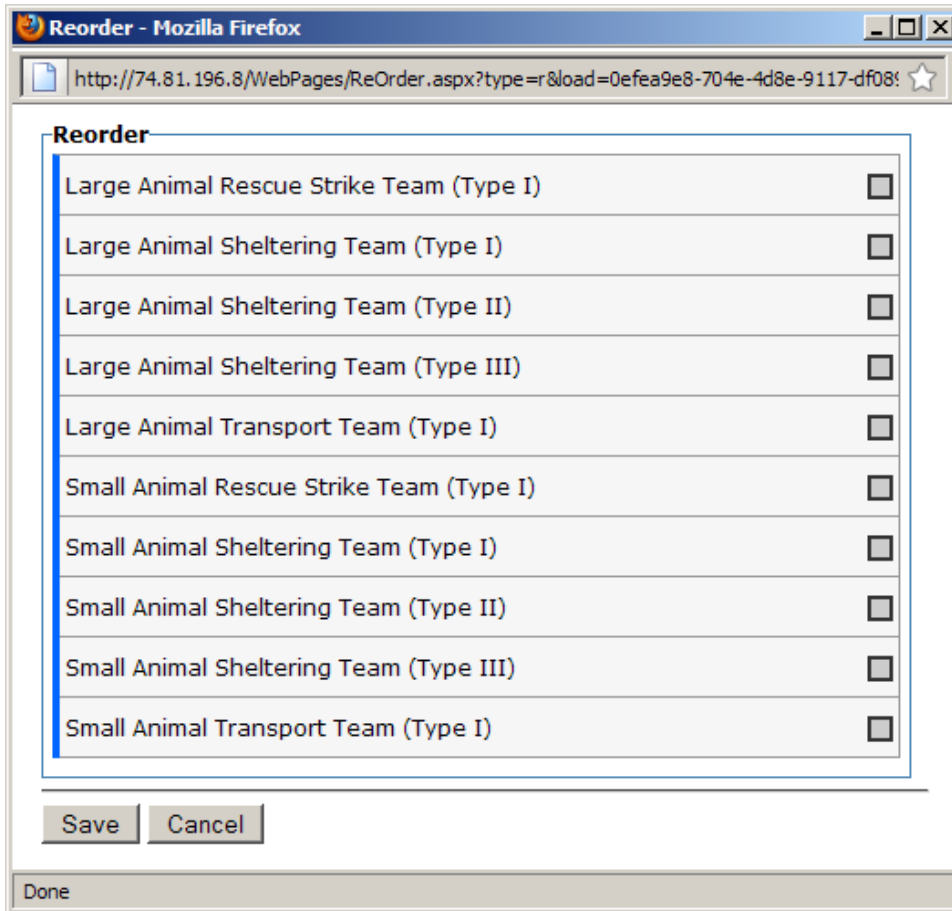
4. If you need to remove or add a resource on the Inventory Data Entry Page, you need to edit the associated Resource Group (see Task 1).

   » Select "Define Resource Groups" under the Resources keyword.

   » Click the Edit icon for the Resource Group you want to edit.

   » Check (to add) or un-check (to remove) resources, as desired.

   » Click "Save."

Important considerations

❖ *To improve data quality, it is important that users know the definition of each resource*. Whenever possible, use resources in EPRI that have gone through the NIMS or

State-level typing process. Whether or not you use typed resources, the definition of a resource can be added to EPRI. To add a definition to a resource:

- Select "Manage Resources" under the Resources keyword.

- Click the Edit icon for the desired resource.

- Type the definition into the Definition text box. HTML tags can be added to the definition to highlight parts of the definition (Figure 3.10).

Figure 3.10: Specifying a Resource Definition

- To see the definition of a resource on an inventory data entry page, click the name of the resource (Figure 3.11). Only resources with definitions will have links on the data entry page.

Figure 3.11: Displaying the Resource Definition

Teams/Equipment	Total	Confirmed	Confirm Now
Inpatient Beds			
ICU Beds Beds that can support critically ill/injured patients, including ventilator support.	100	11/27/2009	☐
Labor and Delivery Birthing Beds	101	11/27/2009	☐
Labor and Delivery Patient Beds	102	11/27/2009	☐
Medical / Surgical Beds	103	11/27/2009	☐
Mental Health Patient Beds	104	11/27/2009	☐
Negative Pressure Isolation Beds Beds provided with negative airflow, providing respiratory isolation.	105	11/27/2009	☐
Operating Room Beds	106	11/27/2009	☐
Pediatric beds Ward Medical/Surgical beds for patients 17 and younger	107	11/27/2009	☐
Pediatric ICU Beds As for Adult ICU, but for patients 17 years and younger.	108	11/27/2009	☐
Ward beds Also thought of as "Med/Surg" beds	109	11/27/2009	☐

Task 6: Customize the Login and Home Page

You are encouraged to customize your EPRI Login and Home pages.

❖ The Login Page, for example, could contain links to documents you want to make available to prospective users (e.g., registration information, policies and procedures, EPRI contact information) or to the public.

❖ The Home Page, for example, could contain links to the EPRI User Manual or other documents that registered EPRI users may need.

Editing of these pages is done outside of EPRI, by someone who has experience using a Web page editor. The location of these pages is:

❖ ../WebPages/Custom/Login.ascx (Login Page)

❖ ../WebPages/Custom/Default.ascx (Home Page)

Chapter 4: Operation

Operating EPRI involves several key tasks, including:

- ❖ Creating user accounts for other persons (besides the EPRI Administrator) who want access to EPRI, either to enter inventory data or to run reports.

- ❖ Monitoring the quality of entered inventory data, particularly if individual locations have data entry responsibility (as opposed to having the EPRI Administrator enter all EPRI inventory data).

- ❖ Creating Resource and Location Groups so that frequently produced inventory reports and emergency requests can be easily created.

- ❖ Responding to questions from EPRI users and troubleshooting the system.

Each of these tasks is explained in this chapter.

A companion document -- the EPRI User's Manual – explains how to enter inventory data, run reports, and issue emergency requests for information.

User Roles and Registration

Once the setup and customization tasks (Chapter 3) have been completed, the EPRI Administrator will be able to enter inventory data for any of the locations entered into EPRI. If the EPRI Administrator would like other persons to either enter or access inventory data, additional EPRI user accounts need to be created.

User Roles

It is important for the EPRI Administrator to understand the different *user roles*. A role defines what a user is and is not able to do in EPRI. In addition to the "Administrator" role, users can be assigned one of four different roles:

❖ Data Manager

❖ Data Entry

❖ Reports and Emergency Requests

❖ Reports Only

Figure 4.1 shows the functions available to each of these user roles.

Figure 4.1: EPRI Functions Available to User Roles

EPRI Function	EPRI User Roles				
	Administrator	Data Manager	Data Entry	Reports and Emergency Requests Only	Reports Only
Set Up and Customize EPRI	Yes	No	No	No	No
Enter/Edit Inventory Data	Yes (all locations)	Yes (only for locations within their organization)	Yes (only for locations within their organization)	No	No
Email Locations	Yes (all locations)	Yes (only locations within their organization)	No	No	No
Run Reports	Yes	Yes	No	Yes	Yes
Create Emergency Requests	Yes	Yes	No	Yes	No
Respond to an Emergency Request	Yes (for all locations)	Yes (only for locations within their organization)	Yes (only for locations within their organization)	No	No

Instructions for Creating Users

To create an EPRI user:

1. Select "Manage Users" under the Users & Organizations keyword.

   » The User Accounts page shows a table with one line for each EPRI user.

2. Click "Add New Users"

3. In the popup window (Figure 4.2), fill out the form.

Figure 4.2: Add New User Page

> » The ***Organization*** dropdown list contains all the
> organizations created in EPRI. Many – if not all – will
> have been created as part of Setup Task 4 (Chapter 3),
> when Locations were created. (When you create a
> Location, you have the option of also creating an
> Organization with the same name.) If the user being
> added will only run reports in EPRI (i.e., does not have
> any data entry responsibility) and is not affiliated with
> any organization already in EPRI, you should first create
> an organization for this user. To create an organization,
> select Manage Organizations under the Users &
> Organizations keyword and then click "Add New
> Organization."
>
> » The ***Role*** dropdown list contains a list of the roles
> summarized in the table above.

4. Click "Add New User."

Creating users who enter data for multiple locations

In EPRI, a user is affiliated with an organization. A location is also affiliated with an organization. In most instances, an organization will have only *one* affiliated location in EPRI, in which case you can create the organization at the same time that you create the location (see Task 4 in Chapter 3).

However, you can also configure EPRI so that an organization has *more than one* affiliated location. This is useful if several locations in EPRI are affiliated with a corporation or a larger entity and a person at that corporate/entity will have EPRI data entry responsibility for all affiliated locations. In these instances, you have to create the organization separately, using the Manage Organizations page, before you create the user. The specific steps are:

1. Select "Manage Organizations" under the Users & Organizations keyword.

    »   The Organizations page shows a table with one line for each organization. Note that an organization is automatically created in Setup Task 4 (Enter Address and Contact Information) if "Create Organization with Location Name" is selected when adding a location.

2. Click "Add New Organization."

3. In the popup window, specify the name of the corporation or larger entity.

4. Click "Add New Organization" in the popup window.

5. Select "Manage Users" under the Users & Organizations keyword and then follow the steps above for "Instructions for Creating Users" and select the organization created in Step 3 above.

6. Select "Manage Locations" under the Locations keyword. On the Locations page, click the edit icon for the locations affiliated with the corporation/larger entity and select, in the Organization dropdown list, the organization created in Step 3 above.

Monitoring Data Quality

The Inventory Status page displays the Inventory Completeness and the Inventory Timeliness of inventory data entered for each location.

❖ Select "Update Inventory Status" under the Inventory keyword.

» The Inventory status page (Figure 4.3) shows a table with one line for each EPRI location, including the location's Inventory Completeness and Inventory Timeliness.

» **Inventory Completeness** is the percentage of data elements on the location's inventory data entry page that have an entered data value (note that 0 is considered a legitimate value).

» **Inventory Timeliness** is the percentage of data elements on the location's inventory data entry page that have been either updated or confirmed within the number of days listed in the "Timeliness" text box (next to the Search button). To change this time period, specify a number of days in the text box and click "Search."

Figure 4.3: Inventory Status Page

> *Tip*: The Inventory Status page can be sorted by Completeness or Timeliness by clicking on the column heading. Clicking on the column heading a second time reverses the sort order.

Sending Email in EPRI

Emails can be sent to contacts at locations from two different EPRI pages: the Inventory Status page and the Manage Locations page. On either page, check the boxes on the right hand side of the data table for the desired locations, and then click the "Send Email to Selected Locations" link.

> *Tip*: To send an email to locations that have poor Completeness or Timeliness measures, sort the locations on the Inventory Status page by Completeness or Timeliness by clicking on the column heading. This enables you to easily select the desired locations.

Clicking the "Send Email to Selected Locations" link displays a popup for constructing the email (Figure 4.4).

Figure 4.4: Sending Email to Locations

❖ The **locations to email** are displayed in the upper right-hand corner of the popup.

❖ The **Email To** dropdown list contains three choices:

» Emergency Contacts – emails will be sent to the email address(es) of the emergency contact person(s) at the selected locations, as specified on the Manage Locations page.

» Data Managers – emails will be sent to data manager(s) associated with the organization that the location belongs to, as specified on the Manage Users page.

» Both – emails will be sent to both the emergency contact(s) and data manager(s).

❖ The text you enter in the **Message Subject** and **Message Body** appears in the emails.

❖ After you click "**Send Email**," messages appear in the popup that indicate whether the individual emails were successfully delivered.

Facilitating Report Generation and Emergency Requests

EPRI users who want to either run reports showing inventory data or send emergency requests to other users must select both a Resource Group and a Location Group as part of that process. A Resource Group is a collection of one or more resources; a Location Group is a collection of one or more locations (see Chapter 5).

The EPRI Administrator can create Resource and Location Groups in advance, in effect "making them available" for use by EPRI users so that they do not have to create Groups. While non-administrative EPRI users can, if they want, create Resource and Location Groups when running inventory reports or creating emergency requests, having a variety of Groups pre-made will save users time and will encourage use of EPRI.

For example, the EPRI Administrator should create a Resource Group and Location Group if:

* ❖ There is a standard monthly or quarterly report summarizing inventory for a particular set of resources at a particular set of locations.

* ❖ A local disaster requires repeated requests for information on a particular set of resources at a particular set of locations.

In addition, at a minimum, you should create a Location Group for each type of location from which you are collecting inventory data. For example, if hospitals and health departments are providing inventory data, create (at a minimum) two Location Groups called Hospital Location Group and Health Department Location Group, which contain, respectively, all the hospitals and health departments that are providing inventory data. This will enable users to easily run reports that compile inventory data from all these locations.

Instructions for Creating Resource Groups

See Task 1 ("Create Resource Groups") in Chapter 3 for instructions for creating Resource Groups.

Instructions for Creating Location Groups

There are two ways to create Location Groups in EPRI.

* ❖ EPRI Administrators – but not other EPRI users – can create Location Groups by following the instructions below.

❖ In addition, any EPRI user who can run an inventory report or create a new emergency request can create a Location Group "on the fly" when running the report or creating the request, because both the form for building an inventory report and the form for creating an emergency request have an option to create a new Location Group. Instructions for creating Location Groups this way are provided in the EPRI User Manual.

1. Select "Define Location Groups" under the Locations keyword.

   » The Location Group page shows a table with one line for each Location Group in EPRI, with summary information about the Group, an Edit by Type icon, an Edit by City icon, and a Delete icon.

   > *Tip*: You can print a listing of the locations in each Location Group on the Reports page.

2. Click "Add New Location Group."

3. In the popup window (Figure 4.5), select the locations you want to be in the Location Group.

Figure 4.5: Creating a New Location Group, Part I

The general steps involved in using the popup window shown in Figure 4.5 are:

» Select values in one or more of the dropdown lists in the upper right-hand corner of the popup (e.g., a Location Type, a city, or county) and then click the Add Filter button.

» The locations that meet the specified criteria are added to the list in the lower right-hand corner of the popup ("Locations that match ANY filter"). Locations in this list can be removed by either (1) un-checking the location in the "Include" column or (2) deleting the filter set by clicking the "X" in the list of Filter Sets In Use (in the lower left corner) – see Figure 4.6.

Figure 4.6: Creating a New Location Group, Part II

» Note that the criterion "miles within city" can be used only if the latitude and longitudes have been entered for both cities and locations (see Task 4, Chapter 3). The distance calculations are "crow flies" distances, as opposed to distances based on the road network.

» Assign a meaningful name to the Group in the upper left-hand corner.

» Click "Add New Location Group." The Location Group will include the list of checked locations in the lower right-hand corner ("Locations that match ANY filter")..

Location Groups can be edited (to add locations to the Group or remove locations from the Group) by clicking either of the two Edit icons for the Group on the Define Location Group page. One Edit icon lists the locations in the Group by city; the other lists the locations by Location Type. Both lists (either cities or Location Types) use expandable trees to display and select specific locations,

just like the expandable tree used to display resources when constructing Resource Groups (see Task 1 in Chapter 3).

> **Important note**: When you add a new location, the location is not automatically added to any Location Group. For example, suppose you create a Location Group comprising all hospitals (i.e., Location Type = Hospital) and then later create a new location that is a hospital. You need to manually add that hospital to the Hospital Location Group.

Troubleshooting and Other Tips

The EPRI administrator will be the point of contact for EPRI users who have questions. The following tips address some of the questions that may arise.

What happens if a user repeatedly fails to log in to EPRI?

❖ A user will be "locked out" of EPRI if he or she enters five incorrect passwords within 30 minutes. To unlock a user, select "Users & Organizations" under the Manage Users keyword, click the edit icon for this user, and check the "If Locked Out" checkbox.

Who receives emails from EPRI?

❖ The Manage Location and Inventory Status pages have functions for sending email to persons associated with locations. Email can be sent to Emergency Contacts (EPRI sends email to the email address[es] of the emergency contact person[s] at the selected locations, as specified on the Manage Locations page); Data Managers (EPRI sends email to the email address[es] of the data manager[s] associated with the organization that the location belongs to, as specified on the Manage Users page); or both.

Can the order in which resources appear on Inventory Data Entry pages be changed?

❖ Resources on Inventory Data Entry pages are organized first by Resource Type and then by Resource. The Resource Type order can be set on the Manage Resource Types page. The Resource order can be set on the Manage Resource page. To change the order for either of these, click anywhere inside the Display Order column and then drag and drop the boxes on the right-hand side of the rows.

How will users know what a particular resource actually refers to?

❖ You can enter in EPRI a definition or other explanatory information about a resource by clicking on the Edit icon for that resource of the Manage Resources page. On Inventory Data Entry pages click on the resource name to see its definition.

Chapter 5: Reference

AHRQ Hospital Surge Model

The AHRQ Hospital Surge Model estimates the hospital resources (personnel, equipment, and supplies) required to treat victims of disasters and other emergencies, including biological, chemical, radiological, and conventional attacks. The estimates are based on a user-specified number and type of casualties presenting at hospitals.

The Surge Model is available at http://hospitalsurgemodel.ahrq.gov/. The Web site includes documentation that explains important Surge Model assumptions. Funding and leadership to support Hospital Surge Model was provided by the U.S. Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response through an Agency for Healthcare Research and Quality contract with Abt Associates.

EPRI comes pre-loaded with eight Resource Groups that correspond to Surge Model scenarios:

EPRI Resource Group	Surge Model Scenarios
Anthrax Incident Resources	Anthrax
Botulinum Incident Resources	Botulinum
Chemical Incident Resources	Chlorine Mustard Sarin
IED Incident Resources	IED (Improvised Explosive Device)
Pandemic Flu Incident Resources	Pandemic Flu (H5N1 variety)
Plague Incident Resources	Plague
Radiological Incident Resources	Nuclear Explosion Radiological Dispersion Device Radiological Point Source
Smallpox Incident Resources	Smallpox

The number of resources in these eight Resource Groups ranges from 30 to 100, and includes resources that are important for treating casualties from the particular attack.

The resource requirements that the Surge Model estimates can be compared to available resources inventoried in EPRI to identify gaps,

which in turn can inform purchasing, grant writing, and resource sharing decisions.

Emergency Request

An emergency request is a request for information about a specific set of resources that is sent to a specific set of locations. More specifically, an emergency request is sent to a specific Location Group for information about a specific Resource Group. In contrast to "inventory," an emergency request focuses on immediate or short-term resource *availability* or resource *needs*.

Instructions for sending and responding to emergency requests are covered in the EPRI User Manual.

Location

Within EPRI, a location is either (1) a physical location where resources are maintained or (2) the name of an agency or organization that owns, is responsible for, or controls access to resources. The EPRI Administrator creates locations in EPRI, as part of the setup and customization process (see Task 4 in Chapter 3).

❖ To see a listing of all locations in EPRI, select "Manage Locations" under the Locations keyword.

  » The Manage Locations page shows a table with one line for each location in EPRI.

  » When the EPRI Administrator views the Manage Location page, all locations in EPRI are displayed. However, *when other EPRI users view this page, they see only the locations for which they have data entry rights, as defined by their user role and the locations affiliated with the user's organization.*

Location Group

A Location Group is a collection of one or more locations. A Location Group must be specified when an EPRI inventory report is run or when an emergency request for information is made.

A Location Group can include locations from one or more Location Types (see Location Type, below).

You can see a list of Location Groups that have been created by either (1) selecting "Define Location Groups" under the Locations keyword or (2) running the "Location Group Listing" report under the Reports menu.

Location Groups can be created in two different ways:

❖ EPRI Administrators (but not other EPRI users) can create Location Groups by selecting "Define Location Groups" under the Location Keyword and then clicking "Create New Location Group" (see Chapter 4, "Facilitating Report Generation and Emergency Requests" for instructions). Creating a Location Group this way makes this Group available to other EPRI users when running inventory reports and creating emergency requests.

❖ Any EPRI user who can run an inventory report (by selecting a report under the Reports keyword) or create a new emergency request (by selecting "Create New Request" under the Emergency Requests keyword) can create a Location Group "on the fly" when running the report or creating the request. Both the form for building an inventory report and the form for creating an emergency request have an option to create a new Location Group. Instructions for creating Location Groups this way are provided in the EPRI User Manual.

Location Type

Location Type is an attribute of a location that categorizes the location. Hospitals, Health Departments, Emergency Management Agencies, and Schools are examples of Location Types. The significance of a Location Type in EPRI is that the inventory data entry page for each location of a particular type contains the same resources (i.e., the resources in the Resource Group that is linked to the Location Type). See Task 2, Chapter 3 for more information.

Organization

An organization is an EPRI construct whose primary purpose is to determine the locations for which EPRI users can enter inventory data. The organizations in EPRI can be viewed by selecting "Manage Organizations" under the Users & Organizations keyword.

Each EPRI location belongs to an organization. In addition, each EPRI user belongs to an organization, which is specified when the user is created. *An EPRI user with either the data entry or data manager role for an organization has the ability to enter and update the inventory for only those locations that belong to that organization*.

The EPRI Administrator has flexibility in allowing access to the inventory data entry pages (i.e., those accessible when "Update Inventory Status" is selected from the Inventory keyword). For example, a user with the data entry or data manager role can enter and update inventory data for either a single location (see Task 4 in Chapter 3 for more information) or for more than one location (see "Creating users who enter data for multiple locations" in Chapter 4 for more information).

Resource

A resource, in EPRI, is a type of item – such as a particular type of **equipment** (e.g., an adult ventilator), **vehicle** (e.g., Type I, Fixed-Wing Air Ambulance), **staff position** (e.g., a Registered Nurse), or a **team** of individuals (Type I Mobile Field Medical Team) – that is being tracked in EPRI. A resource *does not* refer to a specific piece of equipment (e.g., the ventilator with serial number 123456789) or a specific person (e.g., Jane Doe).

❖ To see a listing of all the Resources in EPRI, select "Manage Resources" under the Resources keyword.

Tip: You can print a listing of all Resources by clicking "Resource Listing" on the Reports page or by downloading all the resources on the Manage Resources page

» EPRI comes pre-loaded with resources included in either the HAvBED system[2] or resources used in the AHRQ

---

[2] See http://www.ahrq.gov/prep/havbed/

Surge Model (see "AHRQ Surge Model" in Chapter 5), in order to allow linkages of these systems to EPRI.

» EPRI Administrators can also **create** their own resources. Whenever possible, create resources that have been typed at the Federal[3] or State level. To create a resource, click "Add New Resource" on the Manage Resources page.

» The Display Order column in this table can be used to control the order in which resources appear on Inventory Data Entry pages. Clicking on the Display Order column for any resource displays a popup with all resources in the associated Resource Type; in this popup, resources can be dragged and dropped to re-order them.

❖ On the Manage Resources page, click an Edit icon for a resource to see additional information on that resource:

» Name. The text in the Name field will appear on the Inventory Data Entry pages.

» Definition. A definition of a resource can be specified to help users and to ensure that they understand exactly what they are being asked to provide. These definitions are available on Inventory Data Entry pages by clicking the name of the resource.

» Comments. Comments do not appear on the Inventory Data Entry page; the EPRI Administrator can use this field for internal purposes.

» Resource Type. All resources are associated with a Resource Type, which are more general categories of resources. Resource types are shown in bold on Inventory Data Entry pages. Resource types can be added, edited, or deleted by selecting "Manage Resource Types" under the Resources keyword.

Tip: So that users clearly understand each resource, the EPRI Administrator should enter a resource definition and any other explanatory information about a resource. Users can view this information on the inventory data entry page.

---

[3] See http://www.fema.gov/emergency/nims/ResourceMngmnt.shtm#item4

Resource Group

A Resource Group is a collection of one or more resources. A Resource Group is used in EPRI to create an inventory data entry screen and must also be specified when an EPRI inventory report is run or when an emergency request for information is made.

A Resource Group can contain resources from one or more Resource Types (see Resource Type, below).

EPRI comes pre-loaded with nine Resource Groups:

» Eight correlate to the resources in the AHRQ Surge Model for different disaster scenarios (see "AHRQ Surge Model" in Chapter 5). The number of resources in these groups ranges from roughly 30 to 100.

» The "HAvBED Resource Group" contains the resources included in HHS's HAvBED system.[4]

Tip: You can print a list of all the resources in each Resource Group by running the "Resource Group Listing" report on the Reports page.

See Chapter 3, Task 1, for instructions on how to create Resource Groups.

Resource Type

Resource Types are sets of similar resources. The resources that come pre-loaded with EPRI have been categorized into four different Resource Types:

❖ Hospital Beds

❖ Hospital Equipment

❖ Hospital Personnel

❖ Hospital Supplies

EPRI Administrators can create new Resource Types, as desired, by selecting "Manage Resource Types" under the Resources keyword. When a Resource Type is created, one of four Resource Classes must be assigned to it: Personnel, Supplies, Teams/Equipment, or Capabilities/Status.

---

[4] See http://www.ahrq.gov/prep/havbed/

Appendix: EPRI Installation Instructions

It is assumed that the person installing EPRI has experience setting up Web sites using Microsoft Internet Information Server (IIS) and Microsoft SQL or SQL Express.

The following components are required to run EPRI:

- Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008, or Windows 7
- Internet Information Server 5.1 or greater
- Microsoft .NET Framework version 3.5 SP1
- Microsoft SQL Server 2008 or Microsoft SQL Express 2008 SP1

Microsoft .NET Framework version 3.5 SP1 is included in the EPRI installer and will be installed after Step 2 (below) if it is missing.

Installation steps:

1. Download the EPRI Installation Program (epri_installer.zip) from the EPRI Web site (http://www.ahrq.gov/research/epri/).

2. Extract and run epri_installer.exe

3. After the .NET Framework is installed (if necessary), a welcome screen appears. Click Next.
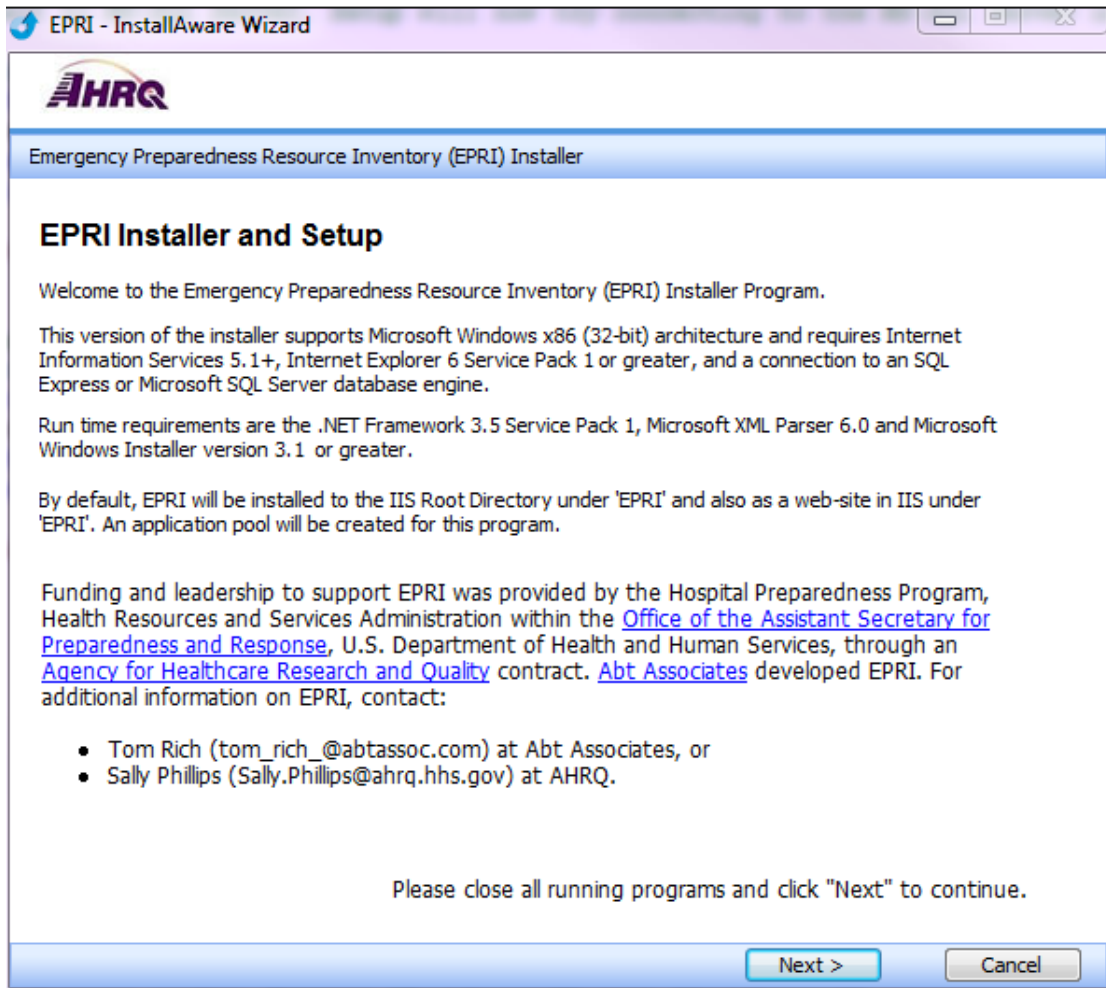
4. Specify settings then click Next:

    -   Enter credentials to connect to the EPRI database on your server.
    -   Enter SMTP parameters.

5.   The application installs.
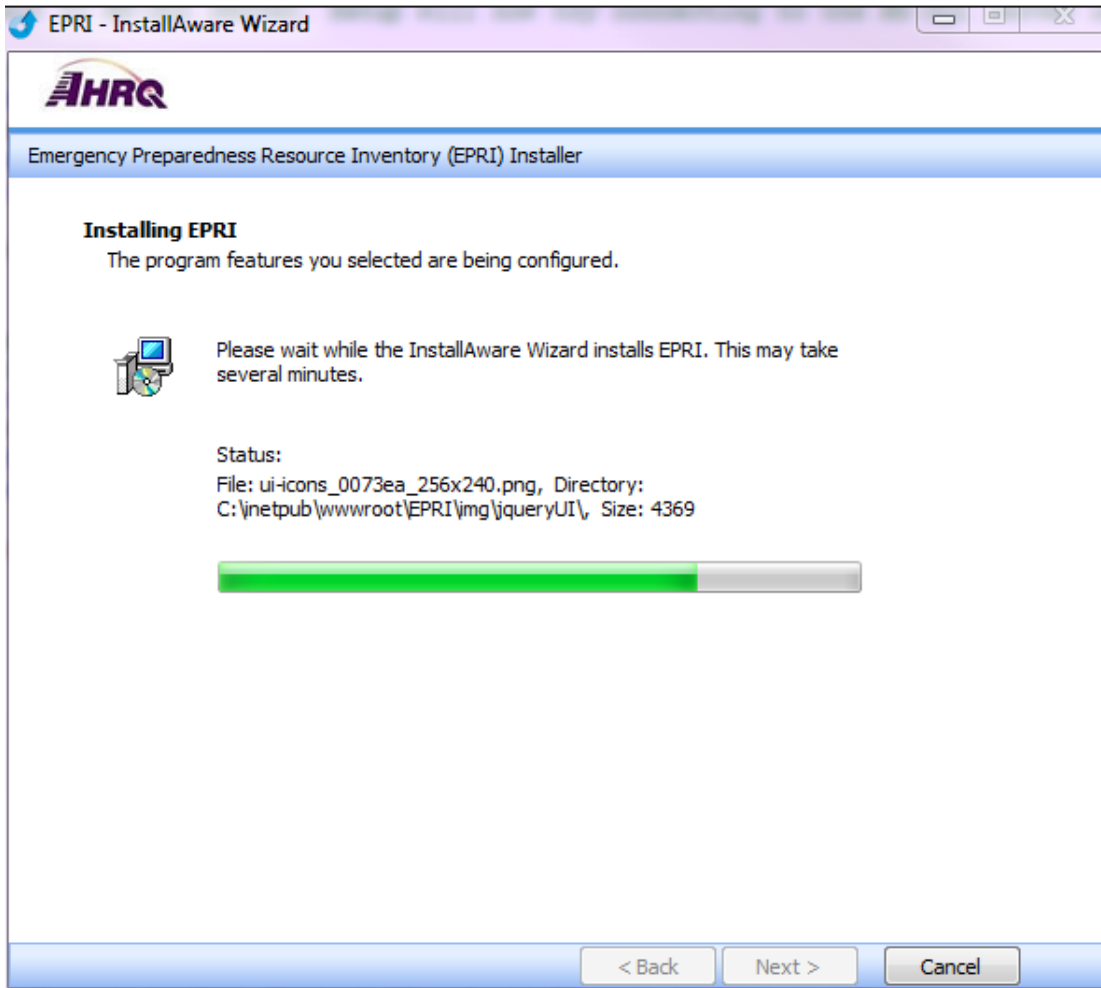
6. The installation procedure is completed.

- Note that the default EPRI administrator login and password is displayed on the screen.