

Distributed Query Tool

Sample DataMart Administrator Manual

Powered by PopMedNet™

Based on release 3.1

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CONTACTS:

Jeffrey Brown, PhD

Harvard Pilgrim Health Care Institute

Jeff_brown@hphc.org

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1 Introduction

The **PopMedNet™** software application enables simple, efficient creation and use of distributed data networks, through a set of tools and web-based services. It is optimized to facilitate distributed analyses of medical product safety, comparative effectiveness, quality, medical resource utilization, cost-effectiveness, and related studies. The system provides secure, customized private portals, query tools, and file transfer capabilities. It supports both menu driven queries and distributed analyses using complex, single use or multi-use programs designed to execute against a local data resource.

Data partners exercise full control over the files they make available for querying, the results returned to requestors, and the individuals who are permitted to submit queries.

This SAMPLE DataMart Administrators Manual describes the main features and functions for DataMart Administrators participating in a health data network powered by PopMedNet™ software. DataMart Administrators will interact with the PopMedNet™ network through a secure web-based portal and through the desktop DataMart Client as described below. This document is based on the FDA Mini-Sentinel Network's implementation of the PopMedNet™ system, including the query types available for Mini-Sentinel. Different networks will have different types of queries and capabilities. Networks powered by PopMedNet™ software can customize and brand the network as desired.

The Department of Population Medicine at the Harvard Pilgrim Health Care Institute (HPHCI) led development of the system in collaboration with Lincoln Peak Partners (LPP). Lincoln Peak Partners provides support services and secure hosting for current system users, and leads development of system enhancements.

2 System Overview

The Distributed Query Tool system is comprised of two separate applications, the web-based **Portal** and the **DataMart Client**. There is exactly one Portal in the network and each data partner has one or more "DataMarts". The Portal is the starting point for all information requests and controls all system communications, security, and governance policies. Data Partners receive queries, process them, and securely return them to the Portal via their local DataMart Client. Each Data Partner will have at least one DataMart; multiple DataMarts per Data Partner are possible. Each DataMart can contain different types of data and DataMarts can have different query processing settings. All query requests and communications within the network are securely routed from the Portal to the DataMarts and then back to the Portal.

Note: The term **DataMart** is used in an information technology context referring to the place where the data are held for querying. Use of this term does not imply that data partner information is being sold or being made broadly available; Data Partners maintain control of all their data and all uses.

Browser Requirements

The Portal is designed to work with Internet Explorer (IE) 8 or later. Earlier versions of IE may not display the user interface properly. Although IE8 is the only officially supported browser, other browsers such as Firefox and Chrome will also work. Firefox and Chrome have been used extensively during testing.

The DataMart Client Application

The DataMart Client application allows the DataMart Administrator to view queries distributed to the DataMart, execute queries locally, review the results, and upload the results to the portal. The DataMart Client is a .NET/C# Windows desktop application developed by LPP that is installed locally on an Administrator's desktop. Note the DataMart Client requires Microsoft .NET 4 to be installed on the user's desktop. All communications between the DataMart Client application and the Portal use HTTP/SSL/TLS connections to securely transfer queries and results between the application and the Portal. The application uses ODBC connections to the local DataMart databases used to process queries and generate results.

Audience

This manual is intended for Distributed Query Tool DataMart Administrators who want to:

- Install the DataMart Client
- Process queries distributed to the DataMart
- Administer DataMart settings and accessibility
- Add DataMarts
- Manage and audit DataMarts

Related Documents

For more information about the PopMedNet™ system, see one of the following documents:

Distributed Query Tool Sample Investigator Manual

The *Investigator Manual* describes the tasks and activities required for Investigators to:

- Get started accessing the PopMedNet™ Portal
- Submit a query to the available DataMarts
- Monitor status of a query
- Review results of a query

The Investigator Manual also describes the types of queries and the criteria required for submission of each query type.

Distributed Query Tool Overview and Administrators Guide

The *Overview and Administrator's Guide* describes the overall network system architecture, key querying features, and hosting and security details. This includes:

- System overview and workflow
- Policies and features
- Installing an instance of a Portal and an associated database
- Performing the initial administrative setup
- Performing typical System Administrator functions such as adding new users and DataMarts, creating new roles, and deleting users and DataMarts
- Technical architecture and security
- Hosting Configurations

3 How to Login to the Web Portal

Before you can login to your Website portal, you need a username and password assigned by your Network Administrator. Once you have your Login Credentials, follow the steps below.

PopMedNet Distributed Research Network Technologies for Population Medicine

Version: 3.0.29

INSTRUCTIONS: Please complete the form below and read the Terms and Conditions before using the Query Tool.

Username:

Password:

[Forgot Password?](#)

[Register for a New Account](#)

☒ I agree to the [Terms and Conditions](#) of use.

Version 3.0.29 | [Terms and Conditions](#) | [Info](#) © 2012 PopMedNet, All Rights Reserved. LINCOLN PEAK

1. Navigate to the custom website login page:
[Secure URL distributed by network coordinating center]
2. Enter your username and password in the boxes.

3. If this is your first login, you will be prompted to read and acknowledge your agreement to the Terms and Conditions of use. If you have cookies enabled, you will not be prompted on subsequent logins.
4. Click the Login button to enter the website portal.

4 How to Install the DataMart Client

This section describes the installation setup of the DataMart Client.

Your local computer user account must have administrative privileges to install the DataMart Client.

Note: You do not need to uninstall a prior version of the DataMart client when installing a new, upgraded version of this software. This happens automatically. If for any reason, you do need to uninstall the DataMart Client, see Section 10: Uninstalling the DataMart Client.

There are three basic steps to setting up the DataMart Client:

- Download and install the DataMart Client
- Create an ODBC Data Source Name (DSN) for your DataMart. **Note:** This will help link your DataMart Client with your DataMart. The DataMart is created separately.
- Configure the DataMart Client to point to your ODBC DSN (DataMart).

4.1 Installing the DataMart Client

Use these steps to install the DataMart Client:

1. Login to the web portal using your DataMart Administrator login credentials provided by the PopMedNet™ Support Staff.
2. Navigate to the DataMart list page (Network/DataMarts).

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, BSwan

Home Requests Profile Resources Reports Network Contact Us Logoff

DataMarts

| Name | Organization |
|---|-----------------------|
| Demo DM- Auto | Jeff's Demo Org |
| Demo DM-Manual | Jeff's Demo Org |
| LPP - Atlanta Auto DM | LPP - Atlanta |
| LPP - Atlanta Manual DM | LPP - Atlanta |
| LPP - Boston Auto DM | LPP - Boston |
| LPP - Boston Manual DM | LPP - Boston |
| LPP - India Auto DM | LPP - India |
| LPP - India Manual DM | LPP - India |
| RootDataMart | HPHC Operation Center |
| RootDataMart2 | HPHC Operation Center |

[Add DataMart](#)

Version 3.0.25 | [Terms and Conditions](#) | [Info](#) © 2012 PopMedNet, All Rights Reserved. LINCOLN PEAK

- Click on your DataMart entry in the list to display the DataMart profile.

The screenshot displays the PopMedNet web application interface. At the top, the header includes the PopMedNet logo, the title 'Distributed Research Network Technologies for Population Medicine', and a user greeting 'Welcome, BSwan'. A navigation menu contains links for Home, Requests, Profile, Resources, Reports, and Network. A secondary navigation bar shows a breadcrumb trail: Network > Organizations > HPHC-OPS > LPP > LPP-ATLX > DataMarts > LPP - Atlanta Manual DM.

The main content area is titled 'DataMart Info' and contains several input fields for configuring the DataMart. The fields are organized as follows:

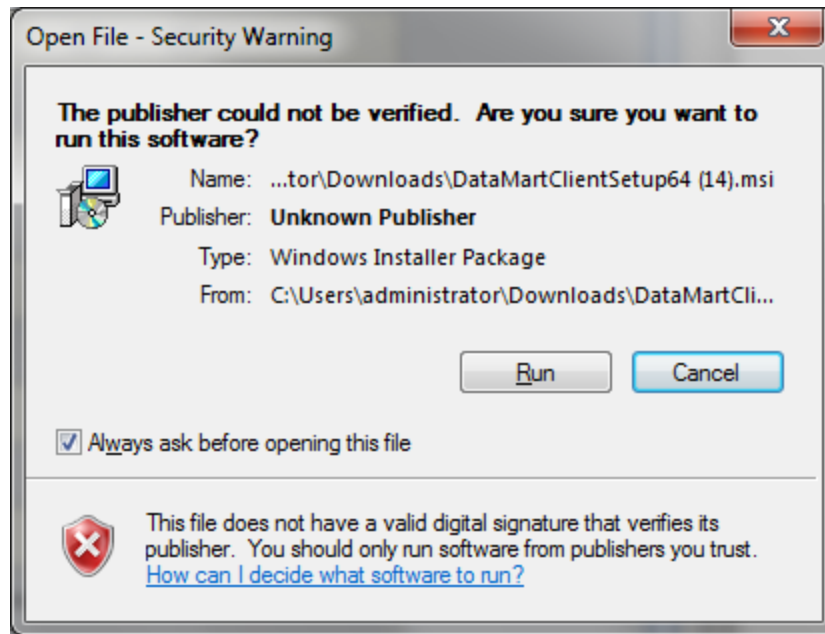
- Name:** LPP - Atlanta Manual DM
- Organization:** LPP - Atlanta
- Contact First Name:** Bruce
- Contact Last Name:** Swan
- Contact Phone:** (empty field)
- Contact Email:** (empty field)
- Special Requirements:** (empty text area)
- Usage Restrictions:** (empty text area)
- Health Plan Description:** (empty text area)

Below the 'DataMart Info' section are three expandable sections: 'Installed Models', 'Access Control', and 'Downloads'. The 'Downloads' section is currently expanded, showing four links:

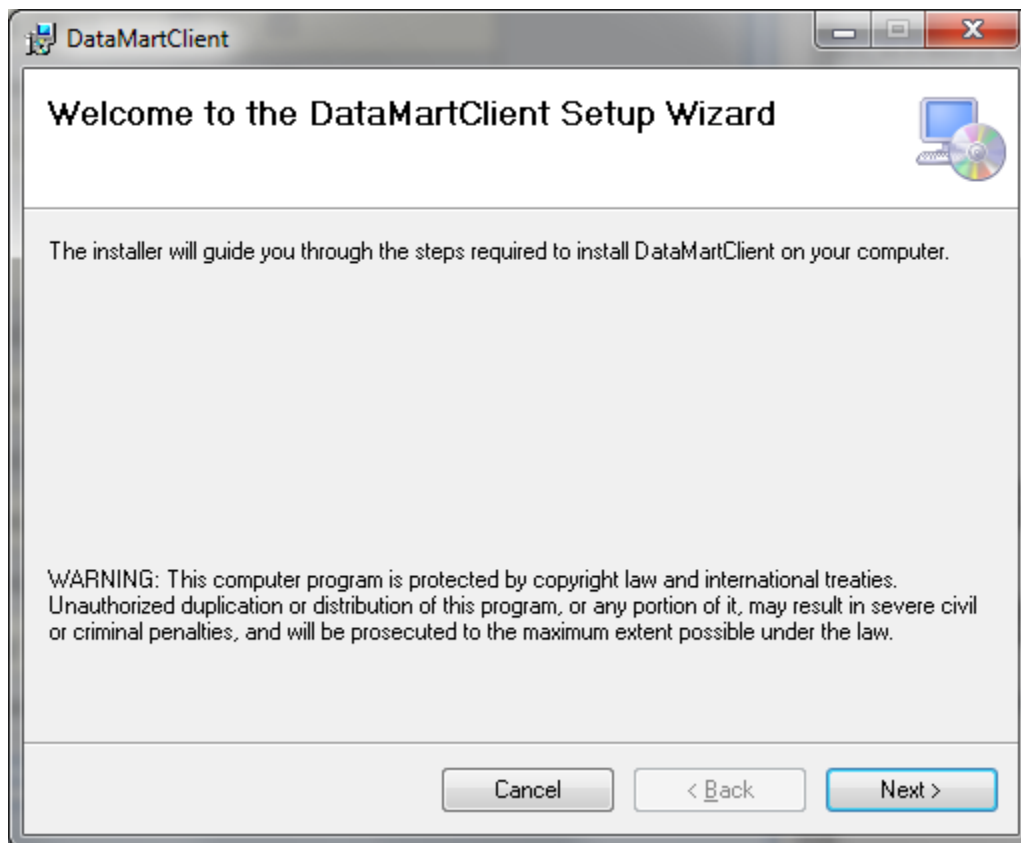
- [Download DataMart Client 32-bit version](#)
- [Download DataMart Client 64-bit version](#)
- [Download Sample Database for Summary requests](#)
- [Configure DataMart Client](#)

At the bottom right of the form are three buttons: 'Save', 'Cancel', and 'Delete'. The footer of the page includes the version 'Version 3.0.25', links to 'Terms and Conditions' and 'Info', the copyright notice '© 2012 PopMedNet, All Rights Reserved.', and the LINCOLN PEAK logo.

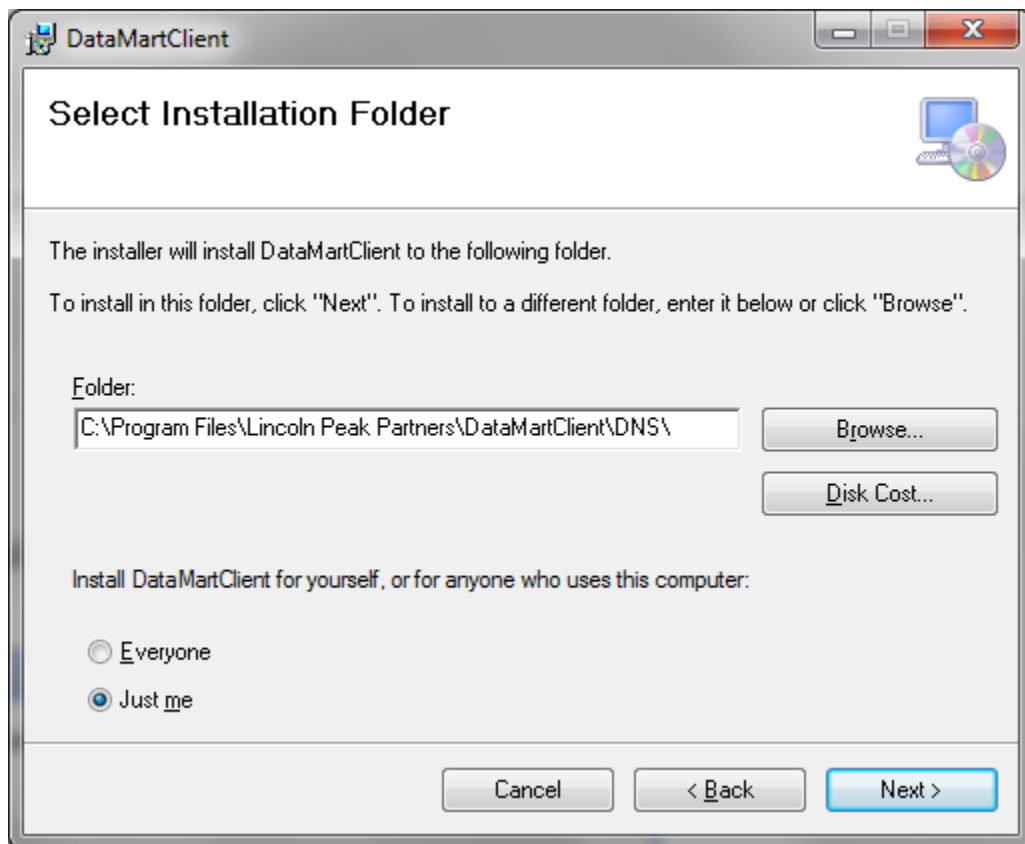
4. Click the Download button at the bottom of the page to download the DataMart Client setup.
5. When prompted, click Run:



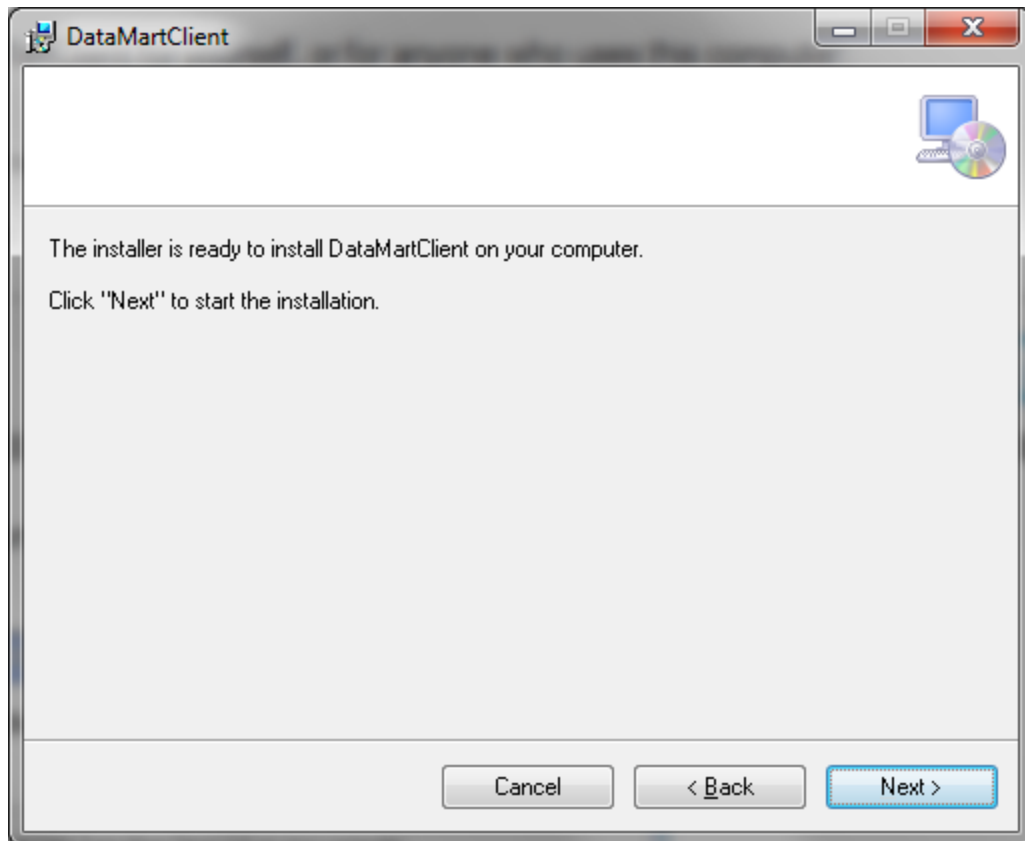
6. Click Next to begin the Setup:



7. Select the installation folder then click Next:



8. Click Next to confirm the installation:



4.2 Installing the Database (DataMart)

To connect a DataMart database to the DataMart Client, save the DataMart to the desired folder on your local computer or network. The DataMart database is usually a Microsoft Access database file that has an .mdb file extension. Other database types (for example, MySQL) are supported. All DataMarts within your network are created separately under guidance of your Network Administrator.

For testing purposes, there is a sample database available on the DataMart profile page. To download the sample database, click the download button at the bottom of the page. After you click the download button you will be prompted to save this file. The default name of the sample database is Demonstration Query Tool.mdb; this name may be changed upon saving the file.

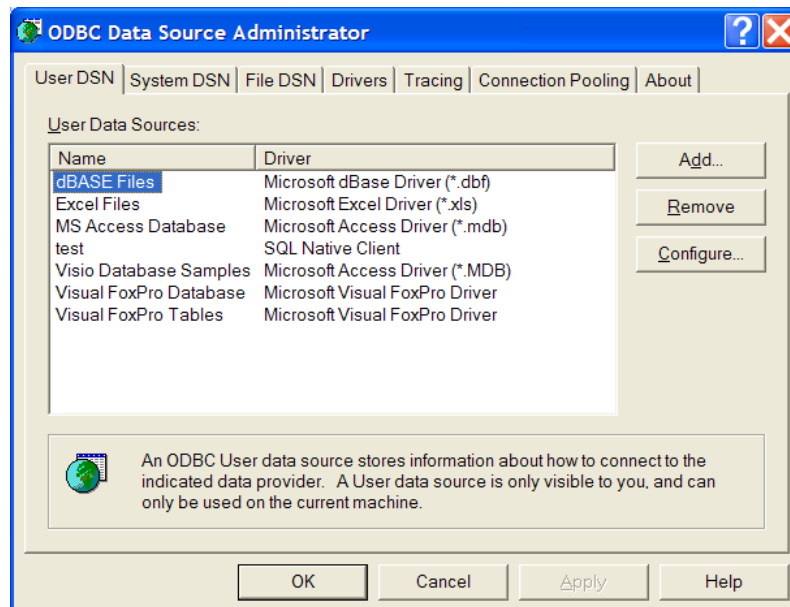
Note: It is important to remember the folder (i.e., location) and file name of your saved database, as this will be required information when you establish your open database connectivity connection (i.e., connect your DataMart Client to your database location).

4.3 Creating an ODBC Connection

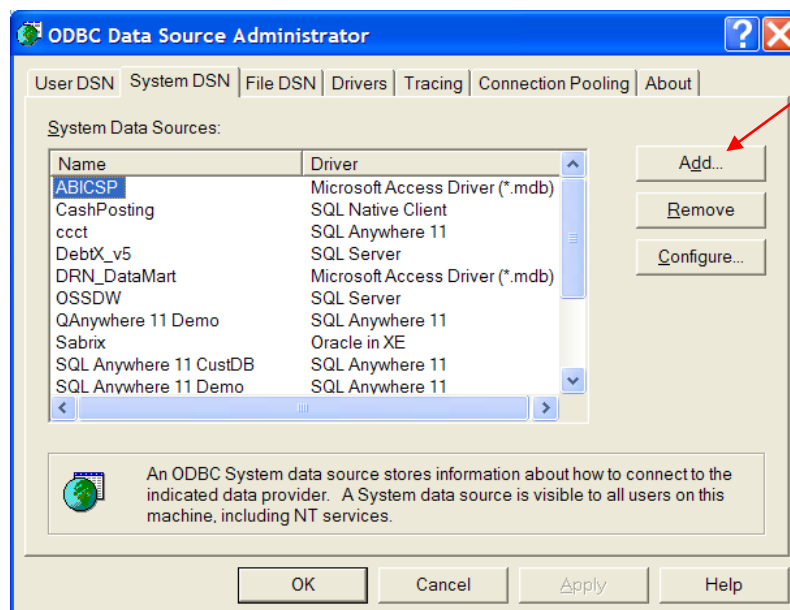
Once you have installed the DataMart Client and your database, you must create an Open Database Connectivity (ODBC) connection to your data source.

Use these steps to create an ODBC connection:

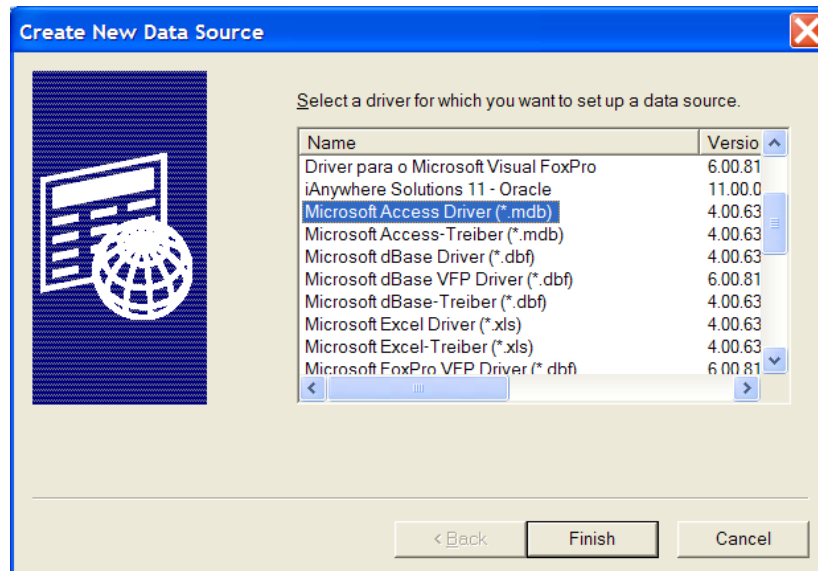
1. Go to Settings>Control Panel > Administrative Tools > Data Sources (ODBC):



2. Click on the System DSN tab and click the Add button.

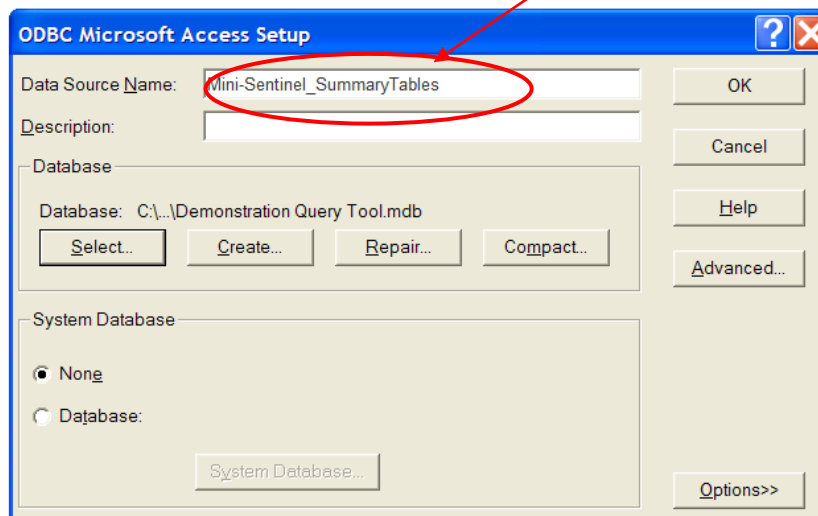


3. In the Create New Data Source window, choose Microsoft Access Driver (*.mdb) and click Finish:

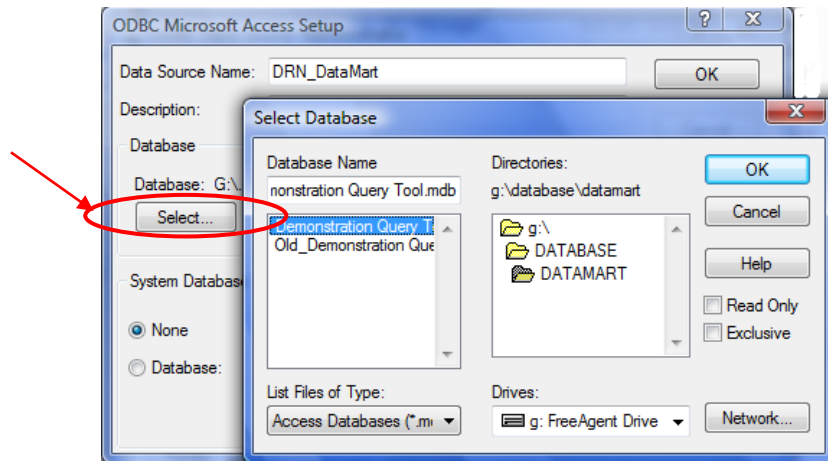


1) Enter the Data Source Name and locate the database:

a) Under Data Source Name, type the name of your data source, for example: **[Network Name]_SummaryTables**.

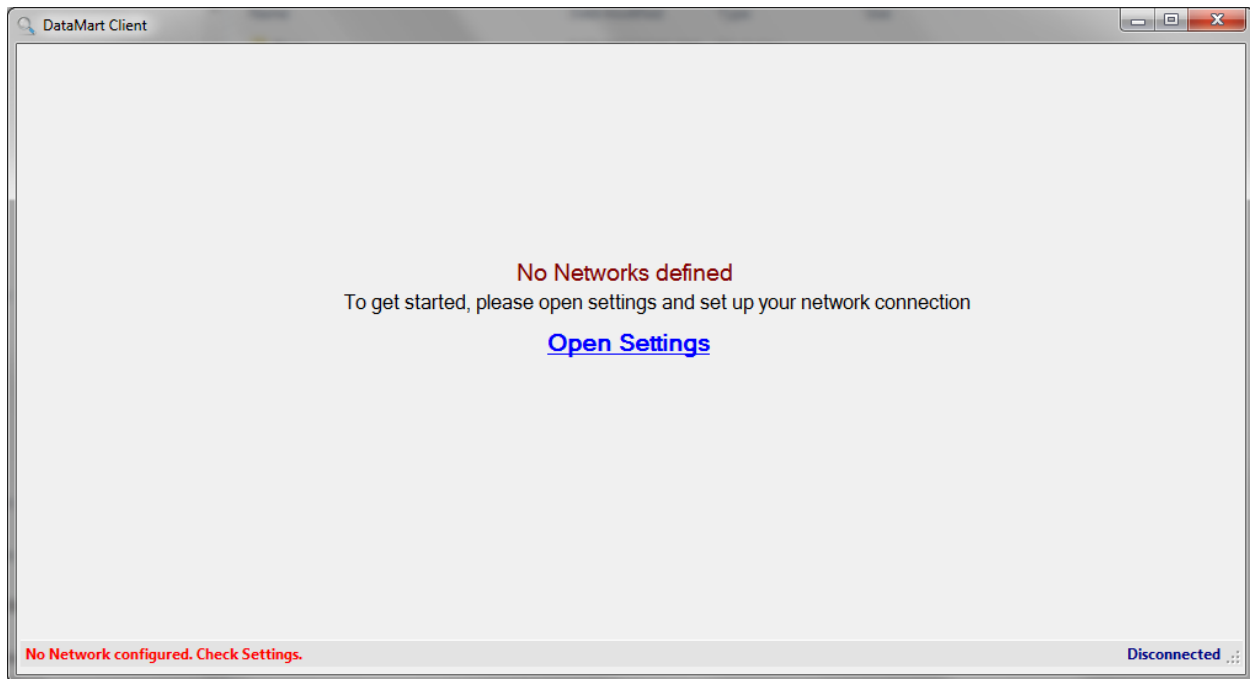


b) Click the “Select” button to locate your database. Make sure to select your database from the folder that you saved it to in section 4.2 above. Click OK and then click OK again to save:

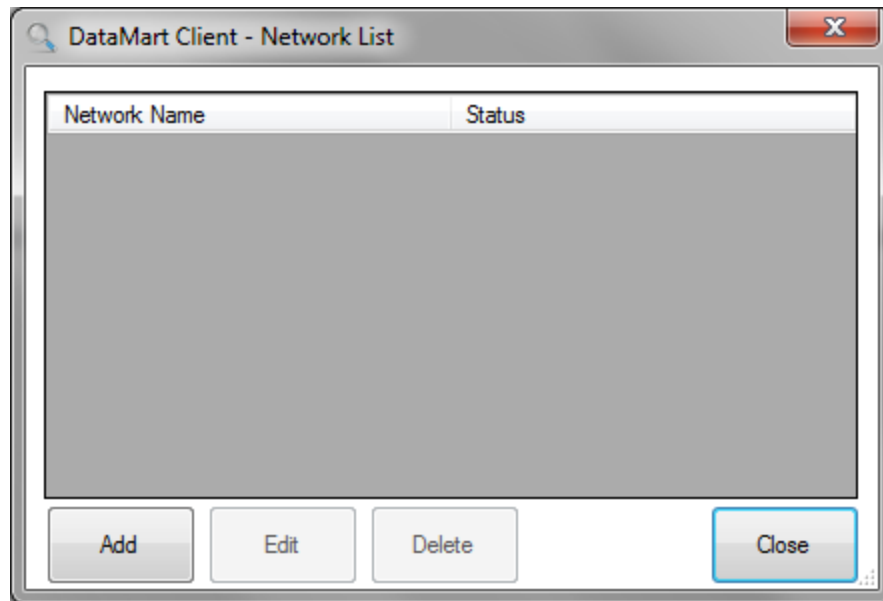


4.4 Configuring your DataMart Client Network Connection

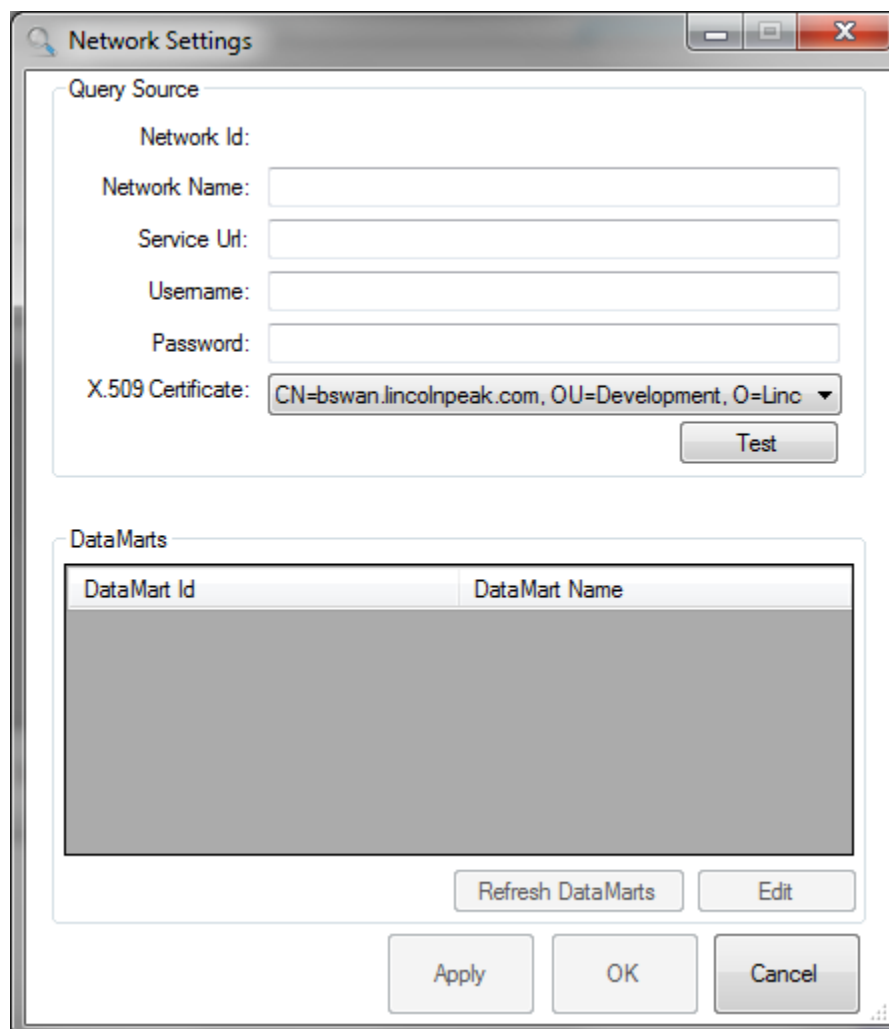
The first time you launch the DataMart Client application you need to configure it to connect to the network portal. The following form is displayed:



1. Click the “Open Settings” link to display the Network List form:



2. Click the "Add" button to enter the network connection settings:

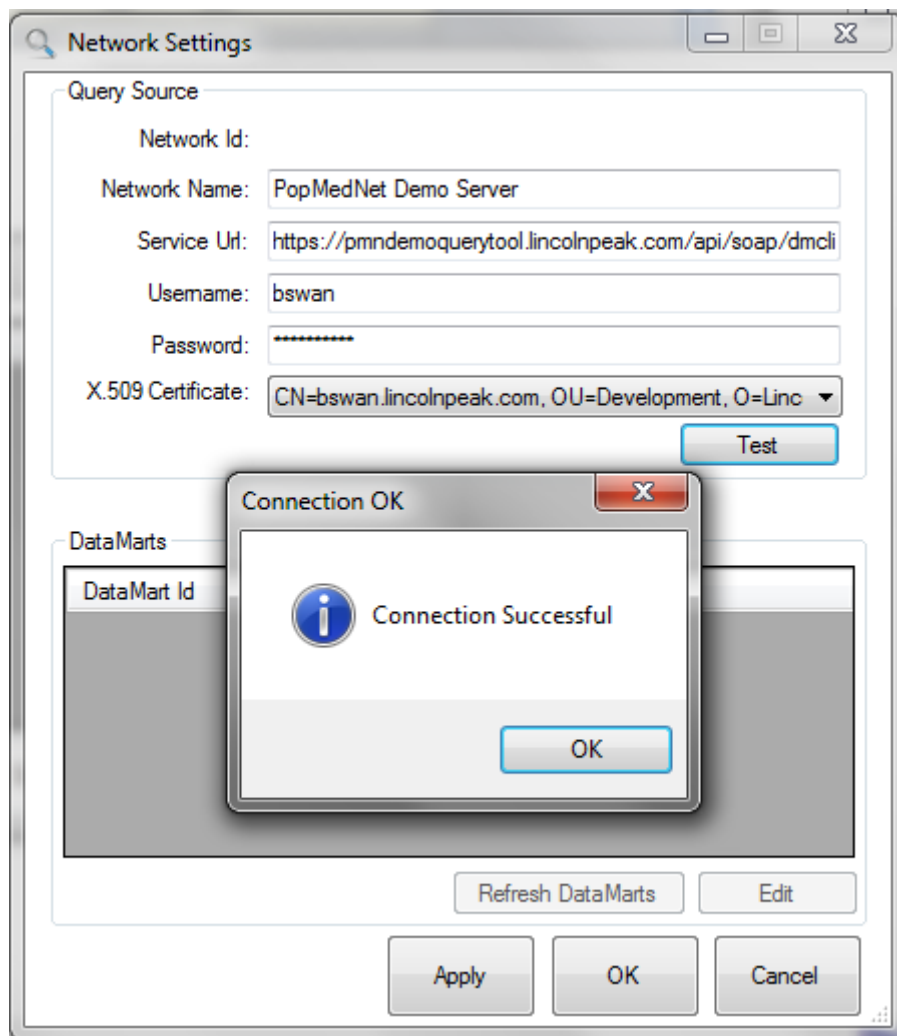


3. Enter a friendly network name and the network portal web service URL in “Service URL” edit control that follows the following pattern:

<https://{YourNetworkDomainName}/api/soap/dmclient>

where “YourNetworkDomainName” is the same value you use when you log into the network portal.

4. Next enter your username and password into the edit controls. If you’re using X.509 certificates to authenticate to the network, scroll through the list and choose the certificate you installed to access the PopMedNet network.
5. Now press “Test” button to test your connection information. You should see “Connection Successful” message box as follows:



If the connection fails, see your System Administrator for support in resolving the problem.

6. Click the “Ok” button on the message box to return to the Network Settings dialog box that will display the list of DataMarts you have rights to administer.

Network Settings

Query Source

Network Id:

Network Name: PopMedNet Demo Server

Service Uri: https://pmndemoquerytool.lincolnpeak.com/api/soap/dmcli

Username: bswan

Password: *****

X.509 Certificate: CN=bswan.lincolnpeak.com, OU=Development, O=Linc

Test

DataMarts

| DataMart Id | DataMart Name |
|-------------|-------------------------|
| 3 | LPP - Atlanta Auto DM |
| 4 | LPP - Atlanta Manual DM |
| 5 | LPP - Boston Auto DM |
| 6 | LPP - Boston Manual DM |
| 7 | LPP - India Manual DM |
| 8 | LPP - India Auto DM |

Refresh DataMarts Edit

Apply OK Cancel

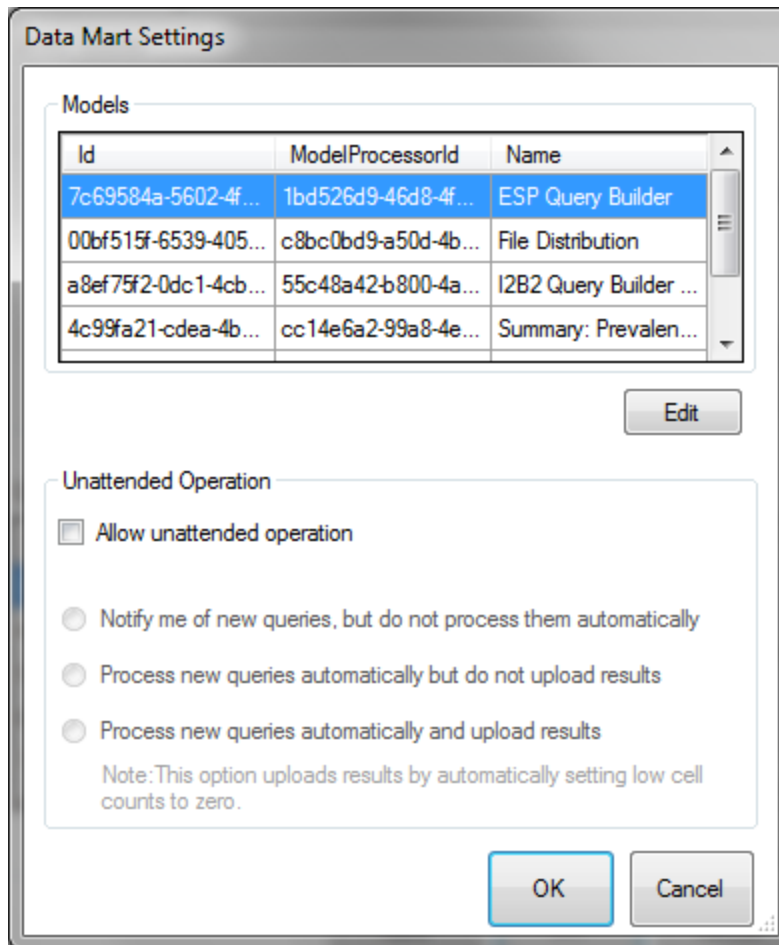
7. Click the “Apply” button to save your connection settings and proceed to section 4.5 Configuring your DataMarts.

4.5 Configure Your DataMarts

Now that you are connected to the network, you need to configure the settings for each of the DataMarts you’ve been granted privileges to administer. For each DataMart in the list, perform the following steps:

- 1) Double click the DataMart item in the list of DataMarts or select it and press “Edit”.

This action will display the DataMart Settings dialog as follows:



There are two sections that need to be configured. First, there is a list of “Models” that represent the various request model processors that are used to process queries issued to your DataMart.

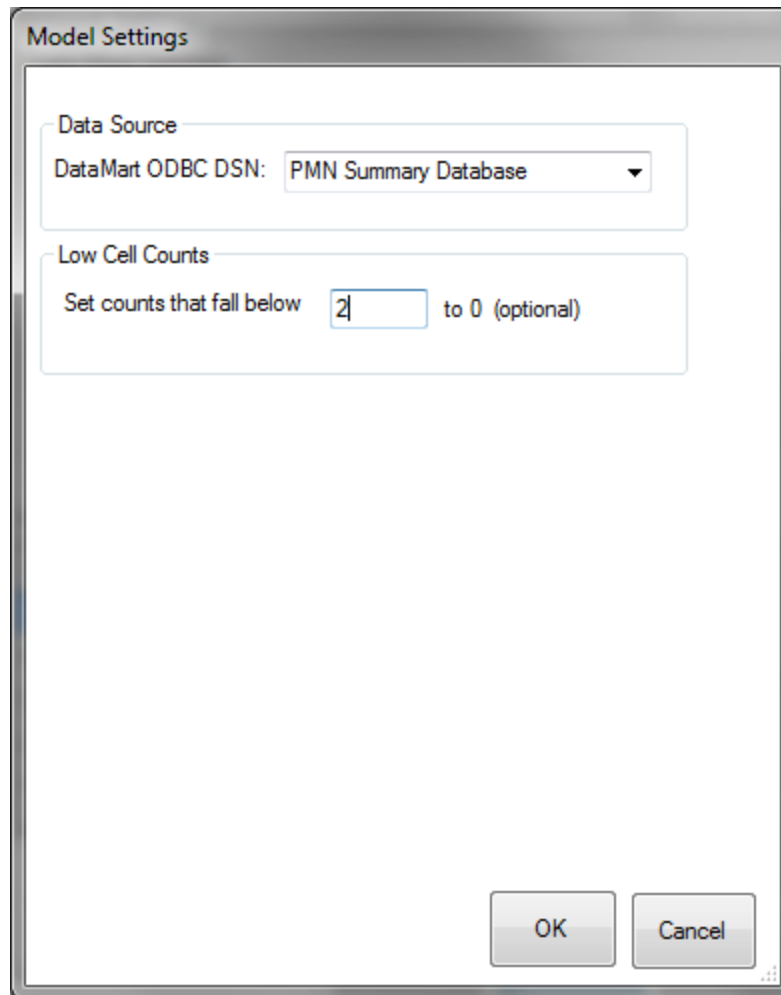
For each item in the list, double click it or select it and press enter and proceed to step 2 below.

2) Edit each Model Processor and configure settings

Each processor may have different properties that need to be set. The following sections describe these properties. Once this is done for all your model processors proceed to section 4.6 Configure DataMart Unattended Operation.

4.5.1 Summary Query Model Processor Settings

For Summary Query model processors (Summary: Prevalence Queries, Summary: Incidence Queries, and Summary: Most Frequently Used Queries), the following dialog will be displayed:



Use the Data Source dropdown menu to select the DataMart name you created in Section 4.3 Creating an ODBC Connection (for example, [Network Name]_Summary Tables). This is the DataMart that will be used when queries are sent to the DataMart. Any number of additional DataMarts can be created to direct queries to other data resources.

The low cell count setting allows you to specify a cell count limit for results. This setting scans the query results for any individual cell that is less than the specified limit and highlights that row in yellow. You can then choose to upload the results without changing the low cells or click “Change Count” to change the relevant cells to zero before uploading.

Note: If you select “Process new queries automatically and upload results” in the Unattended Operation settings, results will be uploaded regardless of the low cell count setting.

Query Description: testing low cell counts

Query Text: Select AgeGroup, gender as Sex, Period, Code as DXCode, DXName,Setting, Sum(Event) as Events, Sum(Member) as Members
From (SELECT Age_Group as AgeGroup, Sex as gender, Period, Code , DXName, Setting, Events as Event, Members as Member
FROM ICD9_diagnosis_5_digit WHERE code IN

Hold Reject Run Query Change Count Upload Results

Results:

| AgeGroup | Sex | Period | DXCode | DXName | Setting | Events | Members |
|----------|-----|--------|--------|----------------|---------|--------|---------|
| 10-14 | F | 2017 | 29600 | BIPLR I D/O... | AV | 1 | 1 |
| 15-19 | M | 2017 | 29603 | BIPLR I D/O... | AV | 3 | 1 |
| 20-44 | F | 2017 | 29600 | BIPLR I D/O... | AV | 7 | 1 |
| 20-44 | M | 2017 | 29600 | BIPLR I D/O... | AV | 1 | 1 |

The query results have rows with low cell counts. You can choose to set the low cell count data to 0

OK

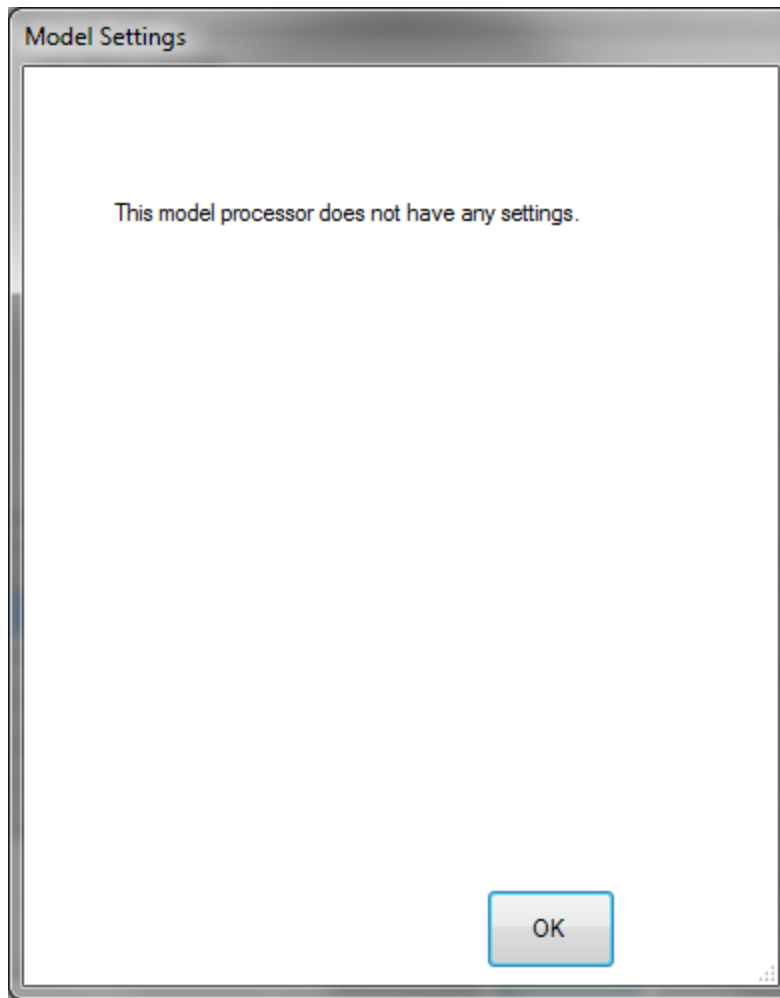
Close

Press Ok once you've entered the ODBC connection name and entered a value for the Low Cell Count threshold.

Note: If using the PopMedNet™ Summary Tables, you should initiate an "Update Dates" query as described in section **Error! Reference source not found.** once you have set up your ODBC connection. This ensures that the information which Summary Table queries your DataMart has available and for what time period is displayed on the Portal DataMart Administration page.

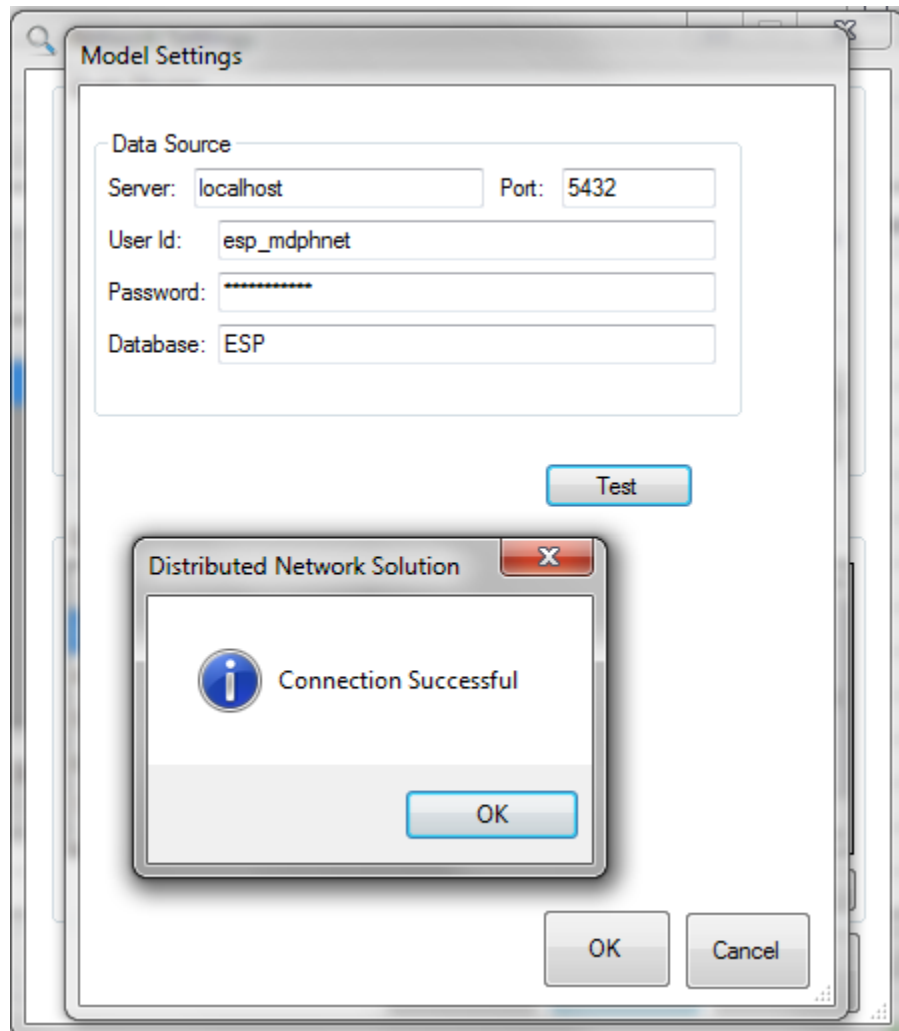
4.5.2 File Distribution Model Processor

Currently there is no setting for the File Distribution request's model processor, so click the Ok button to acknowledge you visited the form.



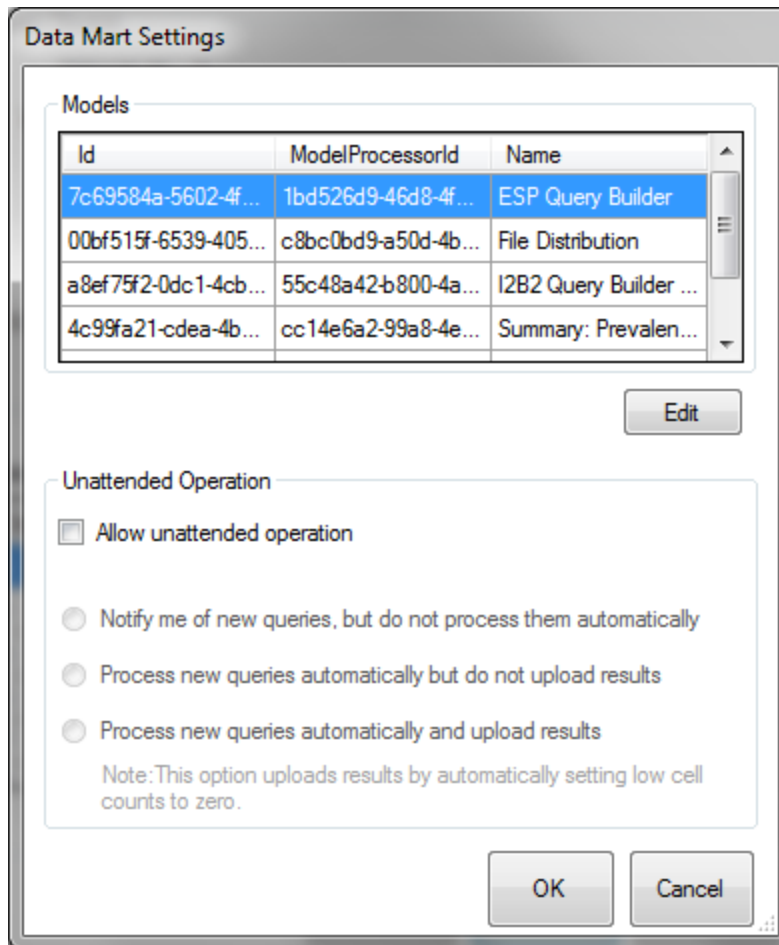
4.5.3 ESP QueryBuilder Model Processor

For the ESP QueryBuilder model processor, shown below, you need to enter your connection string information to access to ESP database. See your local System Administrator for guidance on entering these settings. Once you've entered your settings, click the "Test" button to ensure you can connect successfully to the database. If this fails, see your local System Administrator to resolve the problem.



4.6 Configuring your DataMart Unattended Operations

Now that the model processors have been configured, you need to configure your DataMart's Unattended Operation settings. Dismiss your model processor dialog by clicking Ok or Cancel to return the DataMart settings form:



The Unattended Operation settings allow the application to operate in a fully manual, semi-automated or fully automated query processing. If you select “Allow unattended operation”, unattended operation checks for new queries at the designated interval, and processes the queries according to the options you select. Enter the time interval in minutes. Users should minimize the application instead of logging out of the application so that automatic query processing takes place in the back ground - click ‘Close’ or minimize the Client from the Query List page.

Unattended Operation Settings

| Option | Description |
|---|--|
| Notify me of new queries, but do not process them automatically | The DataMart Client checks for queries at the selected interval and notifies the DataMart Administrator via a pop-up notification in the System Tray above the DataMart Client icon. |
| Process new queries automatically but do not upload results | The DataMart Client checks for queries at the selected interval and processes the query automatically, but the DataMart Administrator must upload and review the query results |

| | |
|--|---|
| | manually. |
| Process new queries automatically and upload results | The DataMart Client checks for queries at the selected interval, processes the query automatically, and uploads the results. This option does not require any DataMart Administrator intervention in the process. |

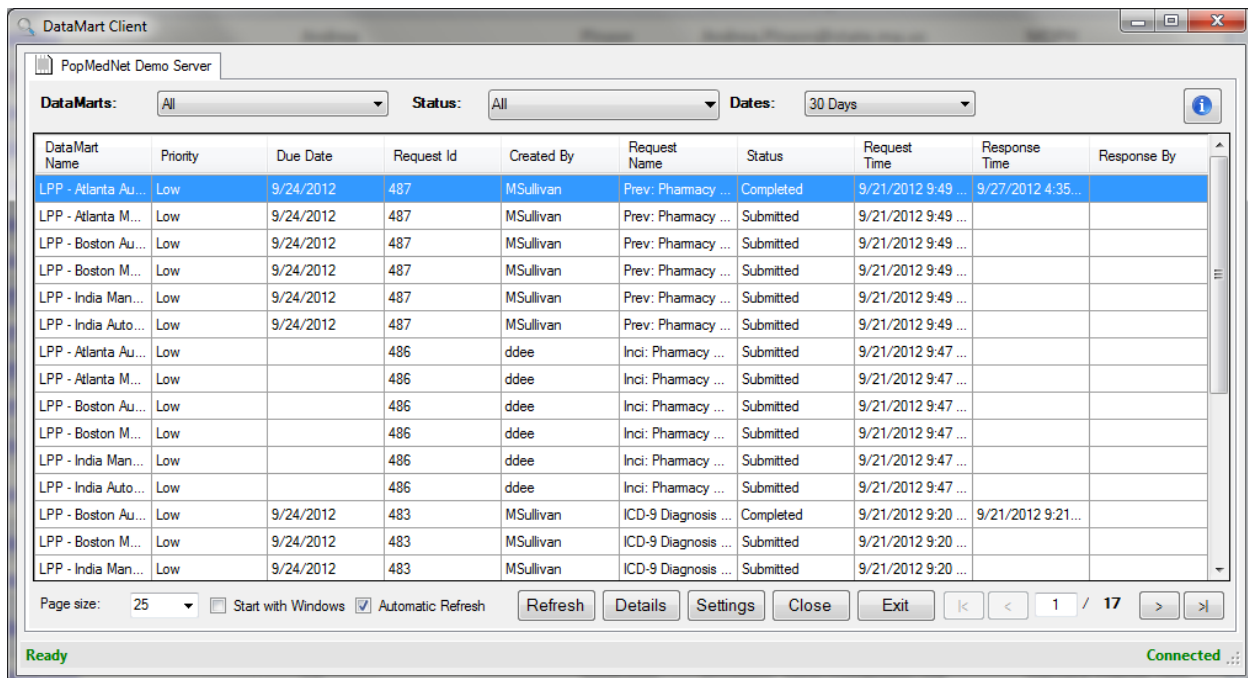
5 Processing Queries

Once you have configured the DataMart Client, you are now ready to process all queries distributed to your DataMart. As DataMart Administrator, you have the rights to perform the following operations on a query:

- Execute and review results
- Hold a query
- Reject a query
- Change Cell Counts
- Upload Results

5.1 Displaying the Request List

Once you're connected to the network, you'll see the list of requests that have been routed to your DataMart(s). The following figure shows the main request list view:



The Request List displays the status of all queries across all Networks and DataMarts for which you are a DataMart Administrator. If you are connected to multiple PopMedNet network, there will be multiple tabs at the top of the application allowing you to navigate each network to see its requests.

The request list is may be refreshed automatically based on a timer by checking the “Automatic Refresh” control. Users can update on demand by clicking the “Refresh” button.

There user can adjust the number of requests displayed on a page via the “Page size” control in the lower left. On the lower right, there is a pages control to advance to the first, last, next, and previous pages.


You can filter the display by Network, DataMarts, and Query Status to show a subset of the queries submitted to your DataMarts. When you select a filtering option from the drop-down list, the Request List is refreshed automatically.

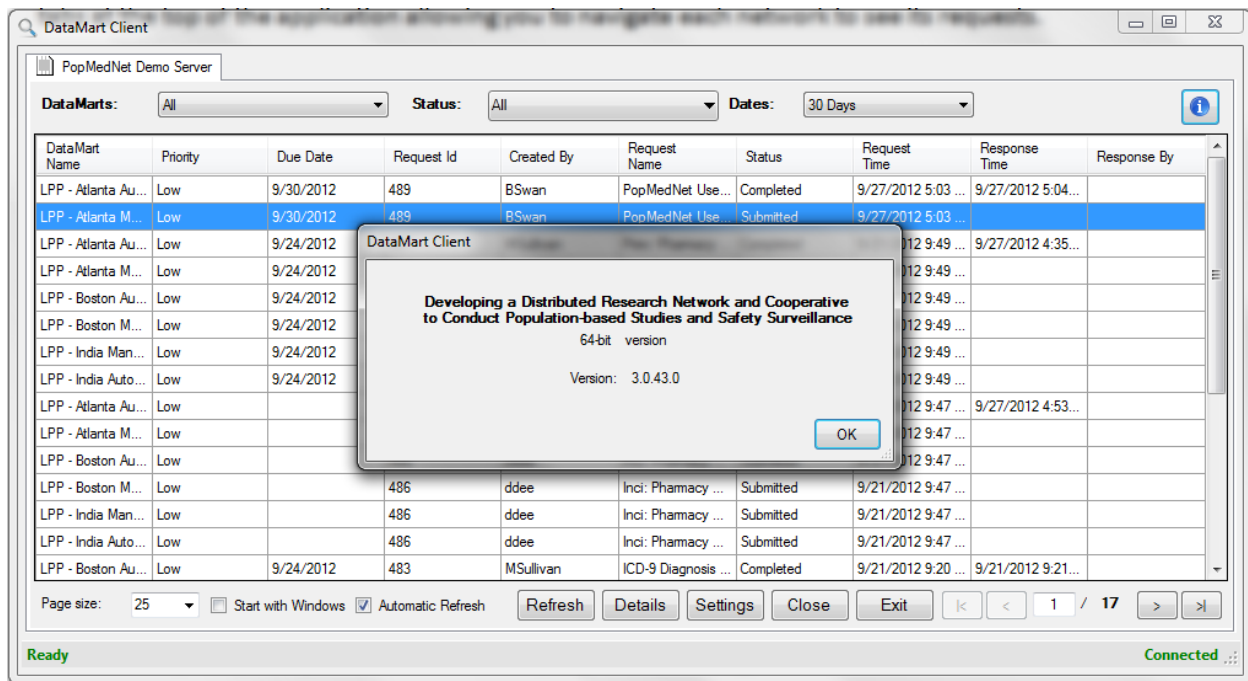
The “Settings” button will display the Network Settings dialog allowing the user to modify their network or DataMart settings.

The DataMart Client application can be started with Windows starts by checking the “Start with Windows” control.

There is a status panel along the bottom of the application that displays connection and status information for the application.

The user may completely exit and unload the program by clicking the “Exit” button. Clicking the “Close” button will cause the program to minimize itself but stay running. Launching the program again will restore the main request view. Additionally, clicking the DataMart Client icon in the system tray control will also restore the window.

Lastly, clicking the information control  will display the application “About” popup dialog that displays the version number that is installed and running.



5.1.1 Filtering Options

Use the drop-down controls at the top of the screen or you may click on any column title to sort your list of queries (e.g., DataMart Name, Created By, Request Time, Status and Response Time). You can filter by the following:

| Option | Description |
|-----------|---|
| DataMarts | The DataMarts drop-down list displays the DataMarts that you are configured to administer within the selected Network(s) in addition to an “All” selection. Each network will have at least one DataMart. |
| Status | The Status drop-down list allows you to view queries by status: Pending, Submitted, Completed, Awaiting Approval, Rejected, Cancelled, Pending |

| | |
|------|---|
| | Group DataMart Administrator Approval, In Progress, or Failed in addition to an “All” selection. |
| Date | Go to File > Filter (or Ctrl + F). You can choose to filter the query list by preset time periods or by custom dates. |

5.1.2 Query Status

When viewing queries by status, you can sort on the following options:

| Status | Description |
|-------------------|--|
| All | Displays all queries. Does not filter by status. |
| Pending | The query has been submitted to the DataMart, but not yet processed by the background service (HubBackgroundService). Pending is an intermediate state, usually very short. Once the background service has processed the query, it changes the status to Submitted. |
| Submitted | The query has been submitted to the DataMart and processed by the background service. Submitted and Pending both mean that an Investigator has submitted a query. The only difference is that the intermediate state of Pending gets changed to Submitted by the background service that polls the database for new queries. If the query status does not get changed to Submitted, the background service is not working. |
| Completed | The results of the query have been uploaded to the Portal. Queries are marked Completed when results have been uploaded by the DataMart Administrator (via DataMart Client) or by the Server DataMart. |
| Awaiting Approval | <p>The query has been received by the DataMart but requires approval from the DataMart Administrator before it is executed. The DataMart Administrator can set a query to Awaiting Approval by clicking the Hold button in the Query Detail view of the DataMart Client. See Section 5.3</p> <p>Holding Queries. After further review, you may upload the queries you hold that are Awaiting Approval.</p> |
| Rejected | The query has been rejected by the DataMart Administrator. The DataMart Administrator sets the query state to Rejected by clicking the Reject button in the Query Detail view of the DataMart Client. See Section 5.4 Rejecting Queries. Rejecting a query ends the life of the query submitted to that DataMart. |

| | |
|---|---|
| Cancelled | The Investigator has removed the DataMart from the query. Removing DataMarts from a query marks the status of the query for the removed DataMart as Cancelled. Note: The Investigator cannot remove a particular DataMart from the query after it has uploaded results. |
| Pending Group DataMart Administrator Approval | The query has been received by the DataMart but requires approval by the Group DataMart Administrator, if applicable. All results uploaded by DataMarts that are part of the Group's organizations require this approval. The uploaded results are withheld from the Investigator unless approved by the Group DataMart Administrator. |
| In Progress | The query has been processed at the DataMart Client but uploading the results has not finished. For example, if you have selected "Process new queries automatically but do not upload results" in the DataMart Client settings, you might see the In Progress status. See Section Error! Reference source not found. Error! Reference source not found. |
| Failed | The query encountered errors while processing or failed to upload results Note: Running a query does not change the query's status. |

5.1.3 Viewing Query Details

Highlight an entry in the list and click the "Details" button to open the Request Detail view. You can also double-click an entry in the list.

DataMart Client - Request Detail

Network: PopMedNet Demo Server DataMart: LPP - Atlanta Manual DM Request Time: 09/21/2012 09:49 AM

Request Id: 487 Request Name: Prev: Pharmacy Dispensings by Status: Submitted

Submitted By: MSullivan Email: msullivan@lincolnpeak.com

Priority: Low Due Date: 9/24/2012 Activity:

Activity Desc:

Submitted To: LPP - Atlanta Auto DM, LPP - Atlanta Manual DM, LPP - Boston Auto DM, LPP - Boston Manual DM, LPP - India Manual DM, LPP - India Auto

Description:

Note:

Request ☐ File View

```
(Select EnrollmentData.AgeGroup,EnrollmentData.Sex,EnrollmentData.Year as
Period,DrugClass.Dispensings,Members,DaysSupply,EnrollmentData.EnrollmentMembers as [Total Enrollment in Strata
(Members)],EnrollmentData.TotalDaysCovered As [Days Covered],round(SummaryData.Members / EnrollmentData.EnrollmentMembers * 1000, 1) as
[Prevalence Rate (Users per 1000 enrollees)],round(SummaryData.Dispensings / EnrollmentData.EnrollmentMembers * 1000, 1) as [Dispensing Rate
(Dispensings per 1000 enrollees)],round(SummaryData.DaysSupply / SummaryData.Dispensings, 1) as [Days Per Dispensing],round
(SummaryData.DaysSupply / SummaryData.Members, 1) as [Days Per user] From ( Select AgeGroup, gender as Sex, Year, Sum(Member) as
EnrollmentMembers, Sum(DaysCovered) As TotalDaysCovered From ( SELECT strat10_name as AgeGroup, strat10_sort_order as AgeGroupSort, Sex
as gender, Year, DrugCov, MedCov, Members as Member, DaysCovered FROM Enrollment tbl INNER JOIN Age_Groups ag ON (ag.id =
```

Response ☐ File View

Run Hold Reject Add File Delete File Export Results.. Upload Results Close

5.1.4 Query Result Parameters

Current Mini-Sentinel Database Parameters:

- Query Category: Prevalence (Prev)
- Query Types:
 - Enrollment
 - Drug and Medical Coverage
 - Medical Coverage Only
 - Drug Coverage Only
 - All Members (which represents a the union of previous 3 coverage types)
 - HCPCS (Healthcare Common Procedure Coding System)
 - ICD 9 Diagnoses (3 Digit Codes)
 - ICD 9 Diagnoses (4 Digit Codes)
 - ICD 9 Diagnoses (5 Digit Codes)
 - ICD 9 Procedures (3 Digit Codes)
 - ICD 9 Procedures (4 Digit Codes)
 - Pharmacy Dispensings by Generic Name
 - Pharmacy Dispensings by Drug Class
- Sex Stratifications:

- Female: F
- Male: M
- Male and Female Aggregated: All
- Age Stratifications:
 - 10 Stratifications: 0-1 years, 2-4, 5-9, 10-14, 15-18, 19-21, 22-44, 45-64, 65-74, 75+
 - 7 Stratifications: 0-4, 5-9, 10-18, 19-21, 22-44, 45-64, 65+
 - 4 Stratifications: 0-21, 22-44, 45-64, 65+
 - 2 Stratifications: Under 65, 65+
 - 0 Stratifications: 0+
- Periods: Yearly, depending on the availability within your database. Pharmacy Dispensings queries may have quarterly availability
- Calculated Columns
 - Medical Queries: HCPCS Procedures, ICD-9 Diagnoses and Procedures
 - Total Enrollment in Strata (Members)-Total count includes members with both medical and drug coverage plus those with medical coverage only.
 - Incidence/Prevalence Rates (Users per 1000 enrollees)
 - Event Rate (Events per 1000 enrollees)
 - Events per Member
 - Drug Queries: Pharmacy Dispensings by Generic Name and Drug Class
 - Total Enrollment in Strata (Members)- Total count includes members with both medical and drug coverage plus those with drug coverage only.
 - Incidence/Prevalence Rates (Users per 1000 enrollees)
 - Dispensing Rate (Dispensings per 1000 enrollees)
 - Days per Dispensing
 - Days per user

5.2 Executing and Uploading Queries

You can execute a query by clicking “Run” button in the Request Detail view. This action will pull the query from the Portal to run against your selected data source. Results will be displayed in the Results window.

DataMart Client - Request Detail

Network: PopMedNet Demo Server DataMart: LPP - Atlanta Manual DM Request Time: 09/21/2012 09:49 AM

Request Id: 487 Request Name: Prev: Pharmacy Dispensings by Status: AwaitingResponseApproval

Submitted By: MSullivan Email: msullivan@lincolnpeak.com

Priority: Low Due Date: 9/24/2012 Activity:

Activity Desc:

Submitted To: LPP - Atlanta Auto DM, LPP - Atlanta Manual DM, LPP - Boston Auto DM, LPP - Boston Manual DM, LPP - India Manual DM, LPP - India Auto

Description:

Note:

Request ☐ File View

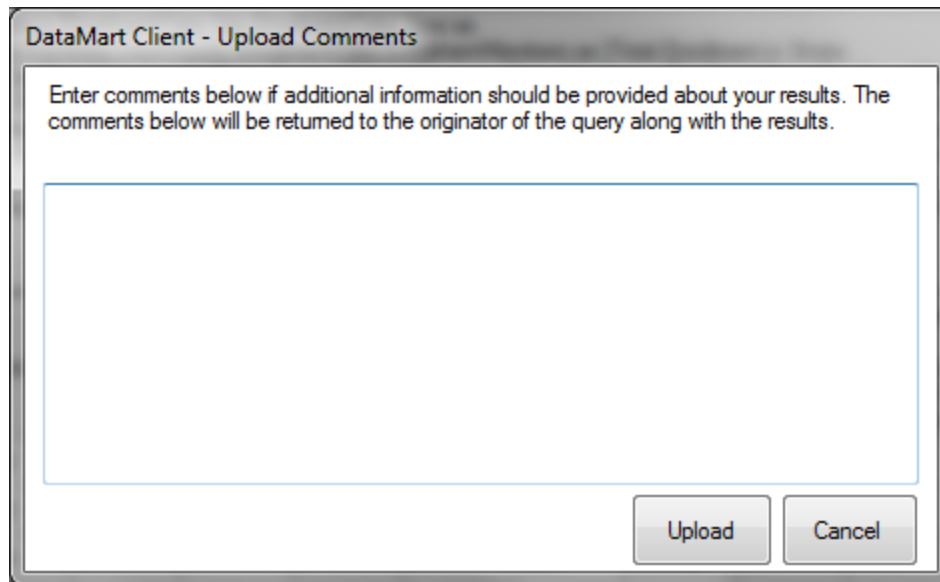
(Select EnrollmentData.AgeGroup, EnrollmentData.Sex, EnrollmentData.Year as Period, DrugClass, Dispensings, Members, DaysSupply, EnrollmentData.EnrollmentMembers as [Total Enrollment in Strata (Members)], EnrollmentData.TotalDaysCovered As [Days Covered], round(SummaryData.Members / EnrollmentData.EnrollmentMembers * 1000, 1) as [Prevalence Rate (Users per 1000 enrollees)], round(SummaryData.Dispensings / EnrollmentData.EnrollmentMembers * 1000, 1) as [Dispensing Rate (Dispensings per 1000 enrollees)], round(SummaryData.DaysSupply / SummaryData.Dispensings, 1) as [Days Per Dispensing], round(SummaryData.DaysSupply / SummaryData.Members, 1) as [Days Per user] From (Select AgeGroup, gender as Sex, Year, Sum(Member) as EnrollmentMembers, Sum(DaysCovered) As TotalDaysCovered From (SELECT strat10_name as AgeGroup, strat10_sort_order as AgeGroupSort, Sex as gender, Year, DrugCov, MedCov, Members as Member, DaysCovered FROM Enrollment tbl INNER JOIN Age_Groups ag ON (ag.id =

Response ☐ File View

| AgeGroup | Sex | Period | DrugClass | Dispensing | Members | DaysSupply | Total Enrollment in Strata(Me | Days Covered | Prevalence Rate (Users per 1000 enrollees) | Dispensing Rate (Dispensing per 1000 enrollees) | Days Per Dispensing | Days Per user |
|----------|-----|--------|-----------|------------|---------|------------|-------------------------------|--------------|--|---|---------------------|---------------|
| 0-1 | F | 2002 | | | | | 453 | 110551 | | | | |
| 0-1 | F | 2003 | | | | | 670 | 167824 | | | | |
| 0-1 | F | 2004 | | | | | 999 | 250662 | | | | |
| 0-1 | F | 2005 | | | | | 1180 | 287589 | | | | |
| 0-1 | F | 2006 | | | | | 1290 | 317564 | | | | |
| 0-1 | F | 2007 | | | | | 2214 | 545469 | | | | |
| 0-1 | F | 2008 | | | | | 4113 | 934650 | | | | |
| 0-1 | F | 2009 | | | | | 3678 | 793517 | | | | |
| 0-1 | F | 2010 | | | | | 1842 | 146537 | | | | |
| 0-1 | M | 2002 | | | | | 467 | 117370 | | | | |
| 0-1 | M | 2003 | | | | | 729 | 170985 | | | | |
| 0-1 | M | 2004 | | | | | 1051 | 262902 | | | | |

Run Hold Reject Add File Delete File Export Results... Upload Results Close

Click on the “Upload Results” button to upload the results of the query to the Portal. You may leave a comment, as seen in the screenshot below, if you would like to provide additional information with your results. The query requestor will see these comments along with the results on the portal.



In the case of multiple DataMart Administrators for one DataMart, the 'Upload Results' button will grey out once one DataMart Administrator uploads results. After results have been uploaded, you may still review the results that have been uploaded by clicking Run Query. However, you will not have the option to upload the results again.

5.3 Holding Queries

You can put a query on hold to notify the requestor that you have received/executed the query but have not yet uploaded results for it. To do this, click Hold in the Request Detail view and include comments, if necessary. The query status on the Portal will change from submitted to "Awaiting Approval" and any comments will be sent to the requestor. Depending on the approval, you may then upload results or reject the query.

5.4 Rejecting Queries

Queries can be rejected before or after execution. To reject a query, click Reject in the Request Detail view. You have the option to provide a reason for the rejection. The query status on the Portal changes to Rejected and the reason is provided to the requestor.

6 File Distribution

The File Distribution screen allows distribution of any type of file to the network DataMarts. These requests will appear in the DataMart Client in the same way other healthcare queries appear. As DataMart Administrator, you see this file as an attachment in the Request Details page in the DataMart Client program. You can then download and process it as desired.

DataMart Client - Request Detail

Network: PopMedNet Demo Server DataMart: LPP - Atlanta Manual DM Request Time: 09/27/2012 05:03 PM

Request Id: 489 Request Name: PopMedNet User Manuals Status: Submitted

Submitted By: BSwan Email: bswan@lincolnpeak.com

Priority: Low Due Date: 9/30/2012 Activity:

Activity Desc:

Submitted To: LPP - Atlanta Auto DM, LPP - Atlanta Manual DM

Description:

Note:

Request ☒ File View

| File | DocumentId | MimeType | Size | IsViewable |
|------------------------------|------------|--------------------------|----------|--------------------------|
| PopMedNet Overview and... | 1870 | application/octet-stream | 12582912 | <input type="checkbox"/> |
| DataMart Administrators M... | 1871 | application/octet-stream | 2097152 | <input type="checkbox"/> |

Response ☒ File View

| File | DocumentId | MimeType | Size | IsViewable |
|------|------------|----------|------|------------|
|------|------------|----------|------|------------|

Run Hold Reject Add File Delete File Export Results.. Upload Results Close


7 Administering Your DataMart

As the DataMart Administrator you can perform several tasks on your network's Web Portal. These tasks are:

- Viewing overview information (metadata) about network DataMarts
- Managing your DataMarts
- Selecting which types of queries to allow
- Selecting who can submit queries to your DataMart
- Creating an audit report of the DataMart

7.1 Creating and Viewing Your DataMart

There are a set of access rights that determine whether users can view, create, edit, and delete DataMarts. These rights may be applied at the global level, within the DataMart's organization detail page, or in the DataMart detail page. The following figure shows the global access rights to manage DataMarts for the entire network:


PopMedNet

Distributed Research Network Technologies for Population Medicine
Welcome, systemadministrator

Home Requests Profile Resources Network
Contact Us Logoff

Global Permissions

| Subject | Right | Allow | Deny |
|--|---|-------------------------------------|--------------------------|
| [remove] HPHC Operation Center\Administrators | Manage Access | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\Everyone | Skip Two-DataMart Rule | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Jeff's Demo Org\EnhancedInvestigators | Login | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="button" value="Add..."/> | List Requests | <input type="checkbox"/> | <input type="checkbox"/> |
| | List Users | <input type="checkbox"/> | <input type="checkbox"/> |
| | List DataMarts | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | List Organizations | <input type="checkbox"/> | <input type="checkbox"/> |
| | List Security Groups | <input type="checkbox"/> | <input type="checkbox"/> |
| | List Org Groups | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Create Organizations | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Create Groups | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Run Events Log Report | <input type="checkbox"/> | <input type="checkbox"/> |
| | Event: New DataMart Client Version is Available | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Default Organization Permissions

Default Group Permissions


Default DataMart Permissions

| Subject | Right | Allow | Deny |
|--|--------------------------|-------------------------------------|--------------------------|
| [remove] HPHC Operation Center\Administrators | Manage Access | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\DataMartAdministrator | Edit | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\Everyone | Delete | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <input type="button" value="Add..."/> | Read | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Request Metadata Update | <input type="checkbox"/> | <input type="checkbox"/> |
| | See Request Queue | <input type="checkbox"/> | <input type="checkbox"/> |
| | Upload Results | <input type="checkbox"/> | <input type="checkbox"/> |
| | Hold Requests | <input type="checkbox"/> | <input type="checkbox"/> |
| | Reject Requests | <input type="checkbox"/> | <input type="checkbox"/> |
| | Install Models | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Uninstall Models | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Run Audit Report | <input type="checkbox"/> | <input type="checkbox"/> |
| | Approve/Reject Responses | <input type="checkbox"/> | <input type="checkbox"/> |
| | Skip Response Approval | <input type="checkbox"/> | <input type="checkbox"/> |
| | Group/Ungroup Responses | <input type="checkbox"/> | <input type="checkbox"/> |
| | Event: DataMart Change | <input type="checkbox"/> | <input type="checkbox"/> |

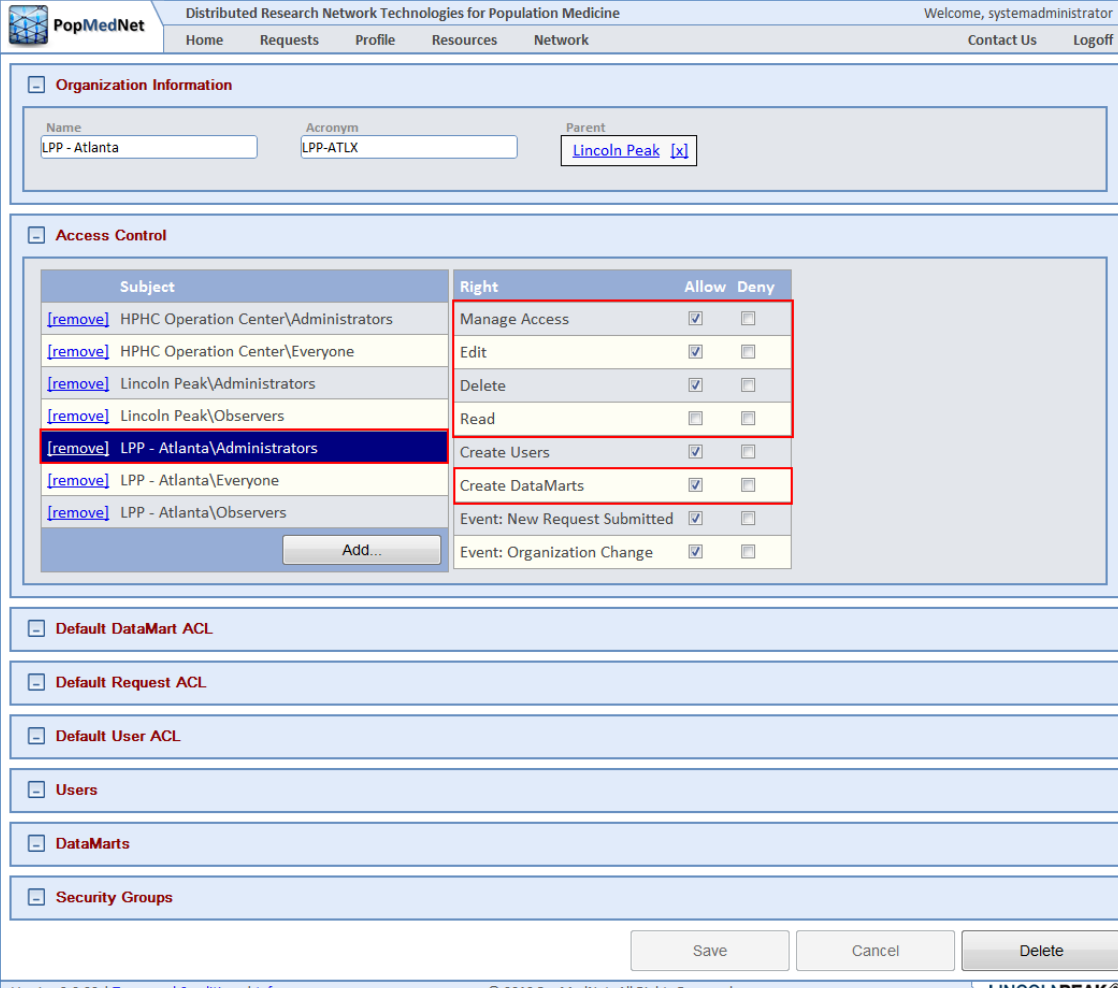
Default User Permissions

Default Request Permissions

Default Request Type Permissions

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Before anyone can create a DataMart, the “Create DataMarts” access right in the Access Control panel of the Organization that will own the DataMart needs to be granted to administrators.



Organization Information

Name: LPP - Atlanta Acronym: LPP-ATLX Parent: [Lincoln Peak](#) [x]

Access Control

| Subject | Right | Allow | Deny |
|---|------------------------------|-------------------------------------|--------------------------|
| [remove] HPHC Operation Center\Administrators | Manage Access | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\Everyone | Edit | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Administrators | Delete | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Observers | Read | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Administrators | Create Users | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Everyone | Create DataMarts | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Observers | Event: New Request Submitted | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Event: Organization Change | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

[Add...](#)

Default DataMart ACL

Default Request ACL

Default User ACL

Users

DataMarts


Security Groups

[Save](#) [Cancel](#) [Delete](#)

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Figure 42 – Organization Default DataMart Permissions

A DataMart may be created by clicking the Create DataMart button in the owning organization’s detail page or by navigating to the list of all DataMarts via Network/DataMarts menu as shown in the following figures:


PopMedNet

Distributed Research Network Technologies for Population Medicine
Welcome, systemadministrator

Home
Requests
Profile
Resources
Network
Contact Us
Logoff

Organization Information

Name
LPP - Atlanta

Acronym
LPP-ATLX

Parent
[Lincoln Peak](#) [x]

Access Control

Default DataMart ACL

Default Request ACL

Default User ACL

Users

DataMarts

Name


[LPP - Atlanta Auto DM](#)

[LPP - Atlanta Manual DM](#)

Add DataMart

Security Groups

Save
Cancel
Delete

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The screenshot displays the PopMedNet DataMart Administrator interface. The header includes the PopMedNet logo, the title 'Distributed Research Network Technologies for Population Medicine', and a welcome message 'Welcome, systemadministrator'. Navigation links for Home, Requests, Profile, Resources, Network, Contact Us, and Logoff are present. The main content area is titled 'DataMarts' and contains a table with two columns: 'Name' and 'Organization'. The table lists several DataMarts, including Demo DMs, LPP DMs for Atlanta, Boston, and India, and RootDataMarts. An 'Add DataMart' button is located at the bottom right of the table. The footer shows the version 'Version 3.0.29', links for 'Terms and Conditions' and 'Info', the copyright '© 2012 PopMedNet, All Rights Reserved.', and the LINCOLN PEAK logo.

| Name | Organization |
|---|-----------------------|
| Demo DM- Auto | Jeff's Demo Org |
| Demo DM-Manual | Jeff's Demo Org |
| LPP - Atlanta Auto DM | LPP - Atlanta |
| LPP - Atlanta Manual DM | LPP - Atlanta |
| LPP - Boston Auto DM | LPP - Boston |
| LPP - Boston Manual DM | LPP - Boston |
| LPP - India Auto DM | LPP - India |
| LPP - India Manual DM | LPP - India |
| RootDataMart | HPHC Operation Center |
| RootDataMart2 | HPHC Operation Center |

[Add DataMart](#)

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Once created, the DataMart is configured by entering a DataMart name, acronym, and parent organization that owns the DataMart, along with other information, such as contact information, that is visible to users who navigate to it via the Portal.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

DataMart Info

Name: LPP - Atlanta Manual DM Organization: LPP - Atlanta Contact First Name: Bruce

Contact Last Name: Swan Contact Phone: Contact Email:

Special Requirements:

Usage Restrictions:

Health Plan Description:

Installed Models

| Model | Last Metadata Request | Last Metadata Response |
|---------------------------------------|-----------------------|------------------------|
| ESP Query Builder | N/A | N/A |
| File Distribution | N/A | N/A |
| Summary: Prevalence Queries | N/A | N/A |
| Summary: Incidence Queries | N/A | N/A |
| Summary: Most Frequently Used Queries | N/A | N/A |

Install... Uninstall

Access Control

Downloads

[Download DataMart Client 32-bit version](#)
[Download DataMart Client 64-bit version](#)
[Download Sample Database for Summary requests](#)

Save Cancel Delete

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7.2 Managing Access to Your DataMart and Requests

Once the DataMart is created, the Access Control rights are set to allow administrators to modify it and set rights that control access to requests that may be routed to the DataMart.

7.2.1 Installing Request Models

Each DataMart may support one or more of the deployed Request Models. A Request Model contains one or more request types that may be composed and routed to one or more DataMarts for execution. If a DataMart supports a plugin, then it must be installed by clicking the “Install ...” button before configuring access to its requests against the given DataMart.

Before installing models, you first need to set the rights to install or uninstall request model plugins that are supported by your DataMart.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

DataMart Info

Name: LPP - Atlanta Manual DM Organization: LPP - Atlanta Contact First Name: Bruce

Contact Last Name: Swan Contact Phone: Contact Email:

Special Requirements:

Usage Restrictions:

Health Plan Description:

Installed Models

Access Control

| Subject | Right | Allow | Deny | |
|--|--------------------------|-------------------------------------|--------------------------|-----------------------------|
| [remove] HPHC Operation Center\Administrators | Manage Access | <input checked="" type="checkbox"/> | <input type="checkbox"/> | [inherited] |
| [remove] HPHC Operation Center\DataMartAdministrator | Edit | <input checked="" type="checkbox"/> | <input type="checkbox"/> | [inherited] |
| [remove] HPHC Operation Center\Everyone | Delete | <input checked="" type="checkbox"/> | <input type="checkbox"/> | [inherited] |
| [remove] Jeff's Demo Org\Investigators | Read | <input type="checkbox"/> | <input type="checkbox"/> | |
| [remove] Lincoln Peak\Administrators | Request Metadata Update | <input type="checkbox"/> | <input type="checkbox"/> | |
| [remove] Lincoln Peak\DataMartAdministrators | See Request Queue | <input type="checkbox"/> | <input type="checkbox"/> | |
| [remove] Lincoln Peak\Everyone | Upload Results | <input type="checkbox"/> | <input type="checkbox"/> | |
| [remove] Lincoln Peak\Investigators | Hold Requests | <input type="checkbox"/> | <input type="checkbox"/> | |
| [remove] Lincoln Peak\QueryAdministrators | Reject Requests | <input type="checkbox"/> | <input type="checkbox"/> | |
| [remove] Lincoln Peak\ResponseAdministrators | Install Models | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| [remove] LPP - Atlanta\Administrators | Uninstall Models | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| [remove] LPP - Atlanta\DataMartAdministrators | Run Audit Report | <input checked="" type="checkbox"/> | <input type="checkbox"/> | [inherited] |
| [remove] LPP - Atlanta\Everyone | Approve/Reject Responses | <input type="checkbox"/> | <input type="checkbox"/> | |
| | Skip Response Approval | <input type="checkbox"/> | <input type="checkbox"/> | |
| | Group/Ungroup Responses | <input type="checkbox"/> | <input type="checkbox"/> | |
| | File Distribution | <input type="checkbox"/> | <input type="checkbox"/> | |

[Add...](#)

Downloads

[Download DataMart Client 32-bit version](#)
[Download DataMart Client 64-bit version](#)
[Download Sample Database for Summary requests](#)

Save Cancel Delete

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. The following figure shows a number of request models that have been installed for a DataMart.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

DataMart Info

Name: LPP - Atlanta Manual DM Organization: LPP - Atlanta Contact First Name: Bruce

Contact Last Name: Swan Contact Phone: Contact Email:

Special Requirements:

Usage Restrictions:

Health Plan Description:

Installed Models

| Model | Last Metadata Request | Last Metadata Response |
|---------------------------------------|-----------------------|------------------------|
| ESP Query Builder | N/A | N/A |
| File Distribution | N/A | N/A |
| Summary: Prevalence Queries | N/A | N/A |
| Summary: Incidence Queries | N/A | N/A |
| Summary: Most Frequently Used Queries | N/A | N/A |

Install... Uninstall

Access Control

Downloads

[Download DataMart Client 32-bit version](#)
[Download DataMart Client 64-bit version](#)
[Download Sample Database for Summary requests](#)

Save Cancel Delete

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7.2.2 Granting Access to Administer a DataMart

DataMarts may be administered by one or more users, referred to as DataMart Administrators. The following figure shows the access rights that need to be granted to allow a user or group of users the ability to administer the DataMart.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

DataMart Info

Name: Organization: Contact First Name:

Contact Last Name: Contact Phone: Contact Email:

Special Requirements:

Usage Restrictions:

Health Plan Description:

Installed Models

| Model | Last Metadata Request | Last Metadata Response |
|--|-----------------------|------------------------|
| <input type="checkbox"/> File Distribution | N/A | N/A |
| <input type="checkbox"/> Summary: Most Frequently Used Queries | N/A | N/A |

Access Control

| Subject | Right | Allow | Deny |
|--|---|-------------------------------------|--------------------------|
| [remove] HPHC Operation Center\Administrators | Manage Access | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\DataMartAdministrator | Edit | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\Everyone | Delete | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Jeff's Demo Org\Investigators | Read | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Administrators | Request Metadata Update | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\DataMartAdministrators | See Request Queue | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Everyone | Upload Results | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Investigators | Hold Requests | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\QueryAdministrators | Reject Requests | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\ResponseAdministrators | Install Models | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Administrators | Uninstall Models | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\DataMartAdministrators | Run Audit Report | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Everyone | Approve/Reject Responses | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="button" value="Add..."/> | Skip Response Approval | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Group/Ungroup Responses | <input type="checkbox"/> | <input type="checkbox"/> |
| | File Distribution | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Metadata: Refresh Dates | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: HCPCS Procedures | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: ICD-9 Diagnoses (3 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: ICD-9 Diagnoses (4 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: ICD-9 Diagnoses (5 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: ICD-9 Procedures (3 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: ICD-9 Procedures (4 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: Pharmacy Dispensings by Drug Class | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | MFU: Pharmacy Dispensings by Generic Name | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Downloads

[Download DataMart Client 32-bit version](#)
[Download DataMart Client 64-bit version](#)
[Download Sample Database for Summary requests](#)

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As shown in the figure, the DataMartAdministrators group is granted the right to view the request queue in the DataMart client application, execute the request, approve or reject it, and upload responses to the request. Additionally, the group has been granted access to run Audit Reports against the DataMart and to issue test queries to themselves without requiring approval.

7.2.3 Granting Access to Route Requests to Your DataMart

Once the request model is installed, the access rights to route the request to the DataMart become visible in the Request ACL panel allowing the administrator can grant access to route them to the DataMart for execution. The following figure shows granting access to the MFU Summary Queries to a group of Investigators:

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

DataMart Info

Name: LPP - Atlanta Manual DM Organization: LPP - Atlanta Contact First Name: Bruce

Contact Last Name: Swan Contact Phone: Contact Email:

Special Requirements:

Usage Restrictions:

Health Plan Description:

Installed Models

| Model | Last Metadata Request | Last Metadata Response |
|--|-----------------------|------------------------|
| <input type="checkbox"/> File Distribution | N/A | N/A |
| <input type="checkbox"/> Summary: Most Frequently Used Queries | N/A | N/A |

Access Control

| Subject | Right | Allow | Deny |
|--|---|-------------------------------------|--------------------------|
| [remove] HPHC Operation Center\Administrators | Manage Access | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\DataMartAdministrator | Edit | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] HPHC Operation Center\Everyone | Delete | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Jeff's Demo Org\Investigators | Read | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Administrators | Request Metadata Update | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\DataMartAdministrators | See Request Queue | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Everyone | Upload Results | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\Investigators | Hold Requests | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\QueryAdministrators | Reject Requests | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] Lincoln Peak\ResponseAdministrators | Install Models | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Administrators | Uninstall Models | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\DataMartAdministrators | Run Audit Report | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] LPP - Atlanta\Everyone | Approve/Reject Responses | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] | Skip Response Approval | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | Group/Ungroup Responses | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] | File Distribution | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | Metadata: Refresh Dates | <input type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: HCPCS Procedures | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: ICD-9 Diagnoses (3 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: ICD-9 Diagnoses (4 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: ICD-9 Diagnoses (5 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: ICD-9 Procedures (3 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: ICD-9 Procedures (4 digit codes) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: Pharmacy Dispensings by Drug Class | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| [remove] | MFU: Pharmacy Dispensings by Generic Name | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Downloads

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Once these rights have been set, your DataMart will become available for users to start routing requests to your DataMart.

7.3 Creating an Audit Report for Your DataMart

The Audit Report allows you to view all the activity that has been requested from any of your DataMarts. Administrators may run an Audit Report for their DataMart in the Portal by navigating to Reports/DataMart Audit Report.

The screenshot shows the 'DataMart Audit Report' page in the PopMedNet portal. The page has a blue header with the PopMedNet logo and navigation links: Home, Requests, Profile, Resources, Reports, and Network. A user greeting 'Welcome, BSwan' and links for 'Contact Us' and 'Logoff' are on the right. The main content area is titled 'DataMart Audit Report' and contains a form with four fields: 'Start Date' (04/01/2012), 'End Date' (09/28/2012), 'DataMart' (LPP - Atlanta Manual DM), and 'Order By' (Date Submitted). A 'Create Report' button is located to the right of the form. The footer includes the version '3.0.25', links to 'Terms and Conditions' and 'Info', the copyright '© 2012 PopMedNet, All Rights Reserved.', and the LINCOLN PEAK logo.

Select the start and end dates for your report, whether you want a summary or a detailed report, and how you want the data fields in the report to be ordered. The following figure shows a sample report.

| |
|---|
| DataMart Audit Report: LPP - Atlanta Manual DM |
|---|

Time Period Covered: 07/26/2012 - 09/28/2012

Date Report Created: 09/28/2012

| ID | Request Name | Model | Request Type | Created On | Submitted On | Submitted By | Status | Open Days |
|----|---|---------------------------------------|---|---------------------|---------------------|--------------------------------|--------------------------|-----------|
| 2 | MFU: Pharmacy Dispensings by Drug Class - 0 | Summary: Most Frequently Used Queries | MFU: Pharmacy Dispensings by Drug Class | 07/26/2012 11:23 AM | 07/26/2012 11:23 AM | BSwan | Canceled | 63 |
| 3 | MFU: Pharmacy Dispensings by Generic Name - 0 | Summary: Most Frequently Used Queries | MFU: Pharmacy Dispensings by Generic Name | 07/26/2012 11:31 AM | 07/26/2012 11:32 AM | BSwan | Completed | 63 |
| 4 | MFU: ICD-9 Procedures (4 digit codes) - 0 | Summary: Most Frequently Used Queries | MFU: ICD-9 Procedures (4 digit codes) | 07/26/2012 01:46 PM | 07/26/2012 01:46 PM | BSwan | Completed | 63 |
| 6 | Reportable Disease - 0 (Copy) | ESP Query Builder | Reportable Disease | 07/26/2012 02:33 PM | 07/26/2012 02:33 PM | systemadministrator | AwaitingRequestApproval | 63 |
| 7 | ICD-9 Diagnosis - 0 | ESP Query Builder | ICD-9 Diagnosis | 07/26/2012 03:04 PM | 07/26/2012 03:05 PM | BSwan | PendingUpload | 63 |
| 9 | ICD-9 Diagnosis - 1 (Copy) | ESP Query Builder | ICD-9 Diagnosis | 07/26/2012 04:37 PM | 07/26/2012 04:37 PM | MSullivan | Completed | 63 |
| 10 | ICD-9 Diagnosis - 3 | ESP Query Builder | ICD-9 Diagnosis | 07/26/2012 05:53 PM | 07/26/2012 05:54 PM | Investigator | AwaitingRequestApproval | 63 |
| 11 | ICD-9 Diagnosis - 4 | ESP Query Builder | ICD-9 Diagnosis | 07/26/2012 06:32 PM | 07/26/2012 06:33 PM | MSullivan | Completed | 63 |
| 12 | ICD-9 Diagnosis - 5 | ESP Query Builder | ICD-9 Diagnosis | 07/26/2012 06:34 PM | 07/26/2012 06:35 PM | MSullivan | Completed | 63 |
| 16 | ICD-9 Diagnosis - 1 (Copy 2) | ESP Query Builder | ICD-9 Diagnosis | 07/27/2012 08:00 AM | 07/27/2012 08:00 AM | MSullivan | Completed | 63 |
| 17 | ICD-9 Diagnosis - 6 (Copy) | ESP Query Builder | ICD-9 Diagnosis | 07/27/2012 09:00 AM | 07/27/2012 09:00 AM | LPPBostonDataMartAdministrator | AwaitingResponseApproval | 63 |
| 18 | Reportable Disease - 0 (Copy 2) | ESP Query Builder | Reportable Disease | 07/27/2012 01:16 PM | 07/27/2012 01:16 PM | systemadministrator | AwaitingRequestApproval | 62 |
| 19 | ICD-9 Diagnosis - 1 (Copy 3) | ESP Query Builder | ICD-9 Diagnosis | 07/28/2012 08:00 AM | 07/28/2012 08:00 AM | MSullivan | Completed | 62 |
| 20 | ICD-9 Diagnosis - 6 (Copy 2) | ESP Query Builder | ICD-9 Diagnosis | 07/28/2012 09:00 AM | 07/28/2012 09:00 AM | LPPBostonDataMartAdministrator | AwaitingResponseApproval | 62 |
| 21 | Reportable Disease - 0 (Copy 3) | ESP Query Builder | Reportable Disease | 07/28/2012 01:16 PM | 07/28/2012 01:16 PM | systemadministrator | AwaitingRequestApproval | 61 |
| 22 | ICD-9 Diagnosis - 1 (Copy 4) | ESP Query Builder | ICD-9 Diagnosis | 07/29/2012 08:00 AM | 07/29/2012 08:00 AM | MSullivan | Completed | 61 |
| 23 | ICD-9 Diagnosis - 6 (Copy 3) | ESP Query Builder | ICD-9 Diagnosis | 07/29/2012 09:00 AM | 07/29/2012 09:00 AM | LPPBostonDataMartAdministrator | AwaitingResponseApproval | 61 |
| 24 | Reportable Disease - 0 (Copy 4) | ESP Query Builder | Reportable Disease | 07/29/2012 01:16 PM | 07/29/2012 01:16 PM | systemadministrator | AwaitingRequestApproval | 60 |
| 25 | ICD-9 Diagnosis - 6 (Copy 3) (Copy) | ESP Query Builder | ICD-9 Diagnosis | 07/29/2012 03:08 PM | 07/29/2012 03:08 PM | Investigator | AwaitingRequestApproval | 60 |
| 26 | ICD-9 Diagnosis - 1 (Copy 5) | ESP Query Builder | ICD-9 Diagnosis | 07/30/2012 08:00 AM | 07/30/2012 08:00 AM | MSullivan | Completed | 60 |
| 27 | ICD-9 Diagnosis - 6 (Copy 4) | ESP Query Builder | ICD-9 Diagnosis | 07/30/2012 09:00 AM | 07/30/2012 09:00 AM | LPPBostonDataMartAdministrator | AwaitingResponseApproval | 60 |

8 Administering or Changing your User Profile

This section describes how to administer your user profile. You must be logged in to the web portal to administer your user profile. Click Profile menu to view your account information.

8.1 Contact Information

You can enter or update your information in the Contact Information panel.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

Contact Information

First Name: Bruce Middle Name: M Last Name: Swan Title:

E-mail: bswan@lincolnpeak.com Phone: 770-490-1136 Fax: Organization: [Lincoln Peak](#)

Certificate

Current thumbprint: 647888D273B80F223439E451C3873ED8C3AE232B [\[Upload New Certificate...\]](#) [\[Remove This Certificate\]](#)

Member of Groups

Permissions on this User object

Credentials

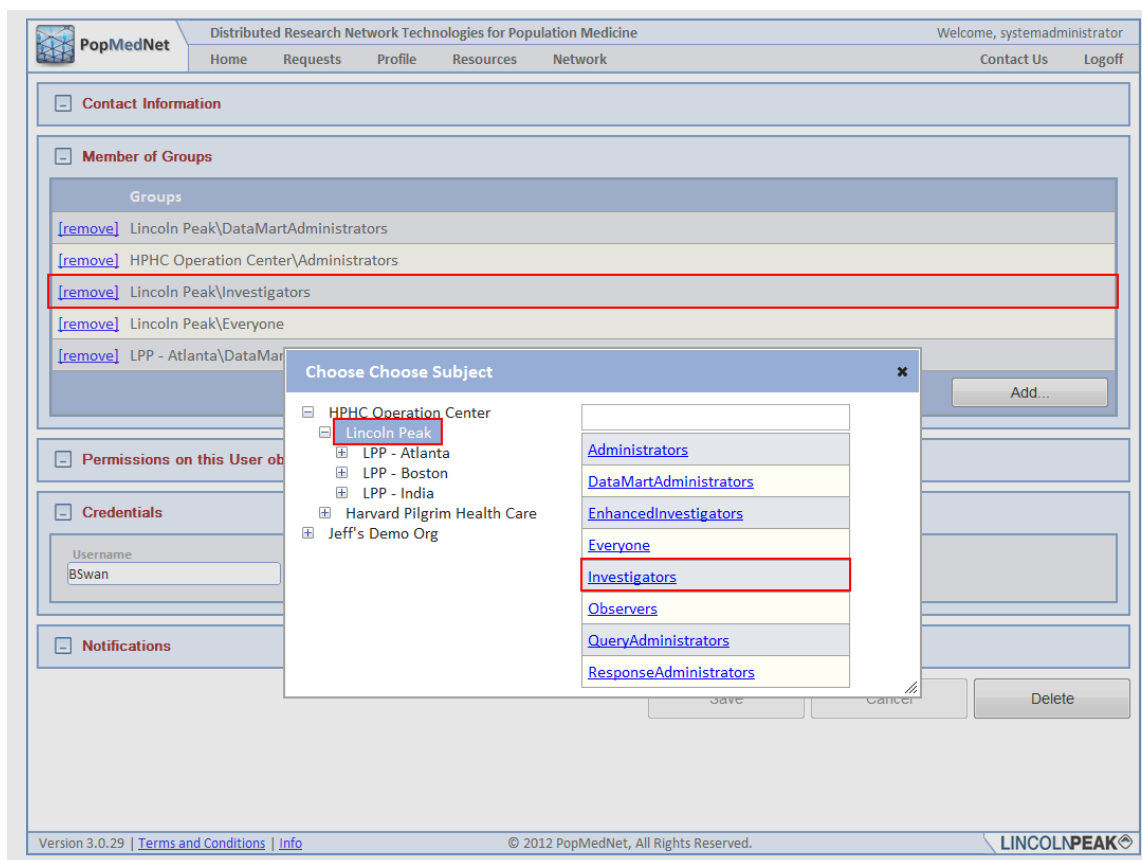
Notifications

Save Cancel Delete

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8.2 Group Membership

Users belong to a single organization, but can take on multiple roles through membership in Security Groups. Administrators with access rights to manage user access control may select one or more security groups for which the user is a member. Membership grants the user all the rights in each security group added, as well as security groups for which the group is a member. The following figure illustrates a list of groups the user is a member of along with the dialog used to add membership into existing groups.



Typically, users don't have the access rights to modify their own security profile. This right is intended for either site-wide "Root" administrators or administrators who are members of the user's organization

8.3 Changing your Password

The user credentials consist of a Username and Password. The username must be unique across the network. The password must be at least 9 characters long and consist of at least one number, one symbol, and at least one upper case character. Users always have the rights to modify their password at any time. Password expire periodically base on a network-wide settings described in the Network Configuration section below.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, systemadministrator

Home Requests Profile Resources Network Contact Us Logoff

☐ Contact Information

☐ Member of Groups

☐ Permissions on this User object

☐ Credentials

Username Password Confirm Password

BSwan

☐ Notifications

Save Cancel Delete

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8.4 Receiving Notifications

Notification options allow the user to manage events that are triggered due to actions performed by the user or related to the user's role, such as a DataMart Administrator. Users have the option of receiving notifications immediately when they are triggered, daily, weekly, or monthly. When choosing daily, weekly, or monthly, the notifications are batched together with other notifications on the same schedule in a single email.

The screenshot shows the PopMedNet user profile page for 'systemadministrator'. The page has a header with the PopMedNet logo, navigation links (Home, Requests, Profile, Resources, Reports, Network), and a welcome message. The main content area is divided into several sections: Contact Information, Member of Groups, Permissions on this User object, Credentials, and Notifications. The Contact Information section contains fields for First Name (Bruce), Middle Name (M), Last Name (Swan), Title, E-mail (bswan@lincolnpeak.com), Phone (770-490-1136), Fax, and Organization (Lincoln Peak). The Notifications section is a table with columns for Frequency and Event, showing various notification events and their frequencies.

| Frequency | Event |
|---|--|
| <input checked="" type="checkbox"/> Immediately | Password Expiration Reminder |
| <input checked="" type="checkbox"/> Immediately | My Profile Updated |
| <input type="checkbox"/> Immediately | Organization Change |
| <input type="checkbox"/> Immediately | New DataMart Client Version is Available |
| <input checked="" type="checkbox"/> Immediately | Request Status Changed |
| <input checked="" type="checkbox"/> Daily | Results Reminder |
| <input checked="" type="checkbox"/> Daily | User Change |

At the bottom of the Notifications section are buttons for Save, Cancel, and Delete. The footer of the page shows the version (3.0.29), terms and conditions, info, copyright (© 2012 PopMedNet, All Rights Reserved), and the Lincoln Peak logo.

Note: Once the user has chosen to receive notifications, no matter what the delivery frequency is selected; the notifications are displayed in the Notifications panel on the Home page.

8.4.1 Notification Event Reference

The following table lists each event that may be created in PopMedNet™ along with a description.

| Category | Event | Description |
|----------|---------------------------------|-------------|
| User | Password Expiration Reminder | |
| | My Profile Change | |
| | User Change | |
| | New User Registration Submitted | |
| | Registration Change | |

| | | |
|--------------|--|--|
| | | |
| Requests | New Request Submitted | |
| | Request Status Changed | |
| | Request Reminder | |
| | Results Reminder | |
| | Results Viewed | |
| | | |
| Organization | Organization Change | |
| | | |
| Group | Group Change | |
| | | |
| DataMart | New DataMart Client Version is Available | |
| | DataMart Change | |

9 Getting Help

Once logged in, the Resource Tab offers helpful contact information, documentation, and related links, as seen below.

PopMedNet Distributed Research Network Technologies for Population Medicine Welcome, BSwan

Home Requests Profile Resources Reports Network Contact Us Logoff

Resources

Contact Information

Mini-Sentinel Operations Center Contact: querytool@mini-sentinel.org; Lincoln Peak Partners Contact: support@lincolnpeak.com

Documentation

[Overview and Technical Documentation](#) This document describes the overall distributed querying system architecture and details the technical and security approaches implemented.

[DataMart Administrator Manual](#) This DataMart Administrator Manual describes the main features and functions for DataMart Administrators participating in the network.

[Investigator Manual](#) This Investigator Manual describes the main features and functions for Investigators participating in the network.

[DataMart Client Application Setup Instructions](#) This Setup presentation for DataMart Administrators describes how to configure the DataMart Client application.

[Group DataMart Administrators Manual](#) This Group DataMart Administrators Manual describes the main features and functions for Group Administrators participating in the network.

[Summary Table Description](#) This Summary Table Description document describes the schema and format of the summary tables used in the network.

[Release Notes](#) This document outlines and describes software changes for the most current version of software used by the network.

DataMart Availability

[Query Types by DataMart - Time Period Availability](#) This table contains information on supported query types for DataMarts within the network.

Related Links

[FDA Mini-Sentinel](#) A pilot project sponsored by the U.S. Food and Drug Administration (FDA) to inform and facilitate development of a fully operational active surveillance system, the Sentinel System, for monitoring the safety of FDA-regulated medical products.

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If you have trouble accessing the Web Portal or your user account, click on the Contact Us link and describe your issue in the email. To request additional help, contact your Network Administrator or the PopMedNet™ support staff directly.

9.1 Development and Funding Statement

The **PopMedNet™** software application was developed as part of several contracts awarded by the Agency for Healthcare Research and Quality to the HMO Research Network (HMORN) Center for Education and Research on Therapeutics (CERT) DECIDE Center housed in the Department of Population Medicine at the Harvard Pilgrim Health Care Institute (HPHCI). The software application has been enhanced using additional funding via the FDA Mini-Sentinel contract with Harvard Pilgrim Health Care. The system was developed by Lincoln Peak Partners under the direction of HPHCI.

PopMedNet™ can accommodate a wide scope of network sizes and complexity, ranging from of single datasets held by only two organizations through multi-year projects encompassing dozens of organizations and dozens of data resources. Networks powered by the PopMedNet™ application can customize and brand the network as desired. The Department of Population Medicine at the Harvard

Pilgrim Health Care Institute (HPHCI) led development of the system in collaboration with Lincoln Peak Partners (LPP). Lincoln Peak Partners provides support services and secure hosting for current system users, and leads development of system enhancements.

9.2 Frequently Asked Questions

This section lists some of the most frequently asked questions.

What is the difference between Groups, Organizations, and Users?

A user is a person who has login credentials to the network Portal. Users are associated with one Organization. Organizations can be associated with one or more Groups. A Group is a set of network Organizations and can only be created by the System Administrator. A user is typically associated with their employer organization. Organizations can be Data Partners (for example, Kaiser Permanente Colorado), federal agencies (for example, FDA, NIH), or affiliated institutions such as academic medical centers.

Users are individuals with various roles and associated rights within the system such as Investigator, DataMart Administrator, and System Administrator.

What are my rights as a user and how can I change them?

Rights can only be assigned to various roles by the System Administrator. The System Administrator can also assign rights to multiple users by giving that right to an Organization or Group.

Where can I get more information on the PopMedNet™?

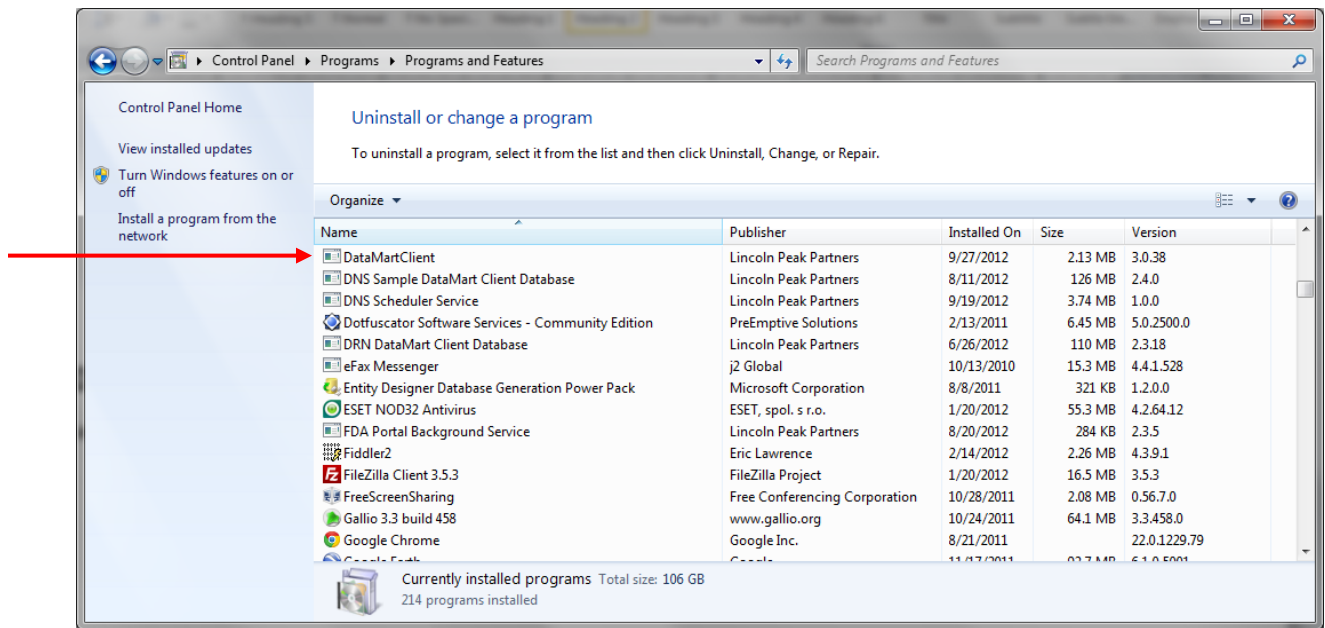
You may contact the Operations Center for more information:

Jeffrey Brown, PhD
Harvard Pilgrim Health Care Institute
Jeff_brown@hphc.org

10 Uninstalling the DataMart Client

Use these steps to uninstall the DataMart Client:

- 1) Go to “Control Panel > Add / Remove Programs” or “Control Panel > Programs and Features” depending on which version of Windows you are using.
- 2) Double click “Data Mart Client” in the list of installed items displayed



3) Click **Yes** in the pop up dialog box, “Are you sure you want to uninstall Data Mart Client?”

Note: *Uninstalling and installing software on operating systems like Vista might require additional authorization due to the enhanced security features (user account controls) built in to the operating system. Click “Yes” when prompted.*