Integrated Funds Distribution, Control Point Activity, Accounting and Procurement

(IFCAP)

Version 5.1

October 2000

Revised May 2007

Logistics Data Query Tool
INSTALLATION GUIDE

Revision History

This guide documents Version 01 of the Logistics Data Query Tool Graphical User Interface (GUI) application. For future releases, information will be included here on changes and new features.

Date	Revision	Description	Author(s)
5/31/2007	01	Initial issue	REDACTED, REDACTED, REDACTED

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Table of Contents

Figures

1. Introduction

Patch **PRC*5.1*103** implements the VistA side of the Logistics Data Query Tool (or, more simply, the Query Tool). Made available with the patch is an *InstallShield*® executable for the graphical user interface (GUI) components of the Query Tool client. This document covers primarily the GUI components of the Query Tool; installation instructions for the IFCAP patch itself are included in the FORUM patch release.

1.1 Online Documentation Available

This Guide and related documentation is available from the VistA Document Library (VDL) at…

> http://www.va.gov/vdl/application.asp?appid=42.

If your copy of this document has been downloaded to a local file, please make certain your copy is current. Compare the revision history of your copy with that of the original at the online location shown above.

1.2 About the Query Tool

The Query Tool is a Windows software application that acts as a "front-end" to enable users to more easily find, display, and export VistA purchase order data. The Query Tool is a substitute for the VA FileMan utility program which has traditionally been employed to look directly at the MUMPS globals (files) which store VistA data. The Query Tool enables users to…

- Search for data and display data by a range of dates

- Sort and rearrange the view of the data; display the data in a custom view

- Export the data into a Microsoft® Excel® spreadsheet file

1.3 Purpose of this Guide

This Manual explains the fundamentals of how to install the GUI components of the Query Tool. Throughout this document, any references to "Guide," "the Guide," or "this Guide" should be interpreted to mean the *Logistics Data Query Tool Installation Guide* (this document).

1.4 Designated Query Tool Users

Specific users at each site or facility will be designated as Query Tool users by the Prosthetics and Clinical Logistics Office (PCLO). *Only designated individuals are permitted to use the Query Tool!* Neither the IFCAP option which permits the Query Tool to work, nor the GUI components of the Query Tool, should be made available to any individual not so designated.

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2. Deployment Overview

2.1   Software Retrieval

Patch **PRC*5.1*103** is distributed via **FORUM**. This patch should be installed *before* attempting to install the GUI components of the Query Tool.

Installation of the associated GUI client software, including the Query Tool executable, is accomplished via an *InstallShield*® executable. This executable, **PRCLogisticsTools_v*.exe** (where ***** is the version number), should be copied from an **Anonymous.pub** directory to a local shared drive at each site accessible by site IRM staff members or authorized users. "Authorized" Query Tool users are those persons specifically designated by the Prosthetics and Clinical Logistics Office (PCLO).

2.2   Required Access and Rights Needed

Programmer access is *not* required for setting up the VistA portion of the Query Tool. Anyone with access to the Kernel Installation & Distribution System [XPD MAIN] menu and the options Add a New User to the System [XUSERNEW] and Edit an Existing User [XUSEREDIT] option can install this patch in VistA and set up user access. Information Resources Management (IRM) personnel or other personnel setting up the GUI components must have administrator rights on the user's workstation.

2.3   Hardware and Operating Systems Requirements

2.3.1 Software Requirements

- The VistA Remote Procedure Call (RPC) Broker Version 1.1 or higher **must** be properly installed and configured on the workstation (see 4.3 below)

- The current version of the RPC Broker is a 32-bit application; for this reason, the workstation must be running a 32-bit operating system (such as Microsoft Windows 95®, Windows 2000®, Windows NT®, or Windows XP®)

- Microsoft *Excel*® 97 or later version

2.3.2 Workstation Hardware Requirements and Guidelines

- The Query Tool runs on the standard hardware platforms used by Department of Veterans Affairs (VA) healthcare facilities.

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3. Pre-Installation Instructions and Preparation

3.1 Database Information

- There are no new VA FileMan globals. This application uses **File #19** (**OPTION** file). It extracts data from **File #442** (PO Data) and **File #664** (Prosthetics orders). It also uses a pointer to **File #441** (Item Master) to pick up the **Short Description** field and the **NIF Item Number**.

- No changes to file/global size are anticipated. This application sends data queries to VistA via the Remote Procedure Call (RPC) Broker and returns VistA data to the application.

- If the local symbol table partition size is less than two megabytes, store errors may result. This is particularly true if the user selects **Item Detail — ITM** as a custom data field (see the *Query Tool Manual*, Select Custom Data). In addition, retrieving orders with more than 40 or so items may result in a "hard crash" if the site's symbol table partition size is inadequate. Current information indicates that a minimum partition size of 2 MB is required.

- No new or additional data is stored or changed in VistA.

> **Exception:** The current version of the RPC Broker software (see 4.1 below) includes a new Change VistA Verify Code dialog box for the client workstation. If the user's Verify Code is found to have expired when the user starts to sign-on to the server, a dialog box will be automatically presented to the user during the sign-on attempt. The user will then be required to input and confirm a new Verify Code. The Verify Code is stored in File #200 (USER file); if the user receives the Change Verify Code dialog via the GUI and provides a new Verify Code, then File #200 will be updated. In this case only, the Query Tool handles and passes on the VistA request to change the code.

- There are no applicable relational tables or diagrams.

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4. Setting up a Query Tool User

Please note that this is *not* an "all hands" installation; only individuals specifically identified by the PCLO (or designee) will be given access to the Query Tool.

Setting up a user for the Query Tool involves actions on the VistA server and on the user's workstation:

- Assigning the IFCAP B-type option **PRCHL GUI**

- Ensuring that the Remote Procedure Call (RPC) Broker Client Agent is installed and operational

- Running an *InstallShield*® executable to install the Query Tool software and related files

- Verifying with the user operation of the Query Tool

4.1   VistA Pre-Installation Notes

Suggested action by:	IRM Service

See Table 1 –Checklist: VistA Pre-Installation

4.2   VistA Installation Instructions

In order to use the Query Tool and the RPC, users must have a B-type option assigned as one of their menu options. The Query Tool application will only run for those users who are allowed to activate it.

This "B" type option is not invokable from a menu. B-type options are designed to be run only by the RPC Broker. Client/server applications like the Query Tool are a "B" (*i.e.*, Broker) type of option in the **OPTION** file (**File #19**).

After patch **PRC*5.1*103** is installed, designated Query Tool users must have the client/server application option **LOGISTICS DATA TOOL [PRCHL GUI]** assigned to them via option **Add a New User to the System [XUSERNEW]** or **Edit an Existing User [XUSEREDIT]**.

This option should normally be added as a *secondary* menu option. Although the option can be installed on a primary menu, the established standard is that such options should be placed on a secondary menu. The option should be assigned as a primary menu option *only* if use of the Query Tool is to be the user's only activity on this VistA system.

Suggested action by:	IFCAP Application Coordinator or IRM Service

See Table 2 –Checklist: Setting up Query Tool User in IFCAP

4.3   The Remote Procedure Call Broker

The Query Tool uses the **Remote Procedure Call (RPC)** protocol to communicate with a VistA server.

4.3.1 The RPC Broker

The **RPC Broker** is "helper" software that allows a computer program to make remote procedure calls from one computer to another, via a network. The Broker establishes a common and consistent foundation for client/server applications written under the VistA umbrella. The Broker acts as a bridge connecting the client application front-end on the workstation (in this case, the Query Tool) to the M-based data and business rules on the server. It serves as the communications medium for messaging between VistA client/server applications. Upon receipt, the message is decoded, the requested remote procedure call is activated, and the results are returned to the calling application. Thus, the Broker helps bridge the gap between the traditionally proprietary VA software and other types of software.

The RPC Broker includes:

- A common communications driver interface that handles the device-specific characteristics of the supported communications protocol.

- An interface component separate from the communications driver that interprets the message, executes the required code, and eventually returns data to the communications driver.

- A common file which all applications use to store the information on the queries to which they respond (*i.e.*, the **REMOTE PROCEDURE file [#8994]**).

4.3.2 Ensuring RPC Broker Client Agent is Installed

Since this software is essential to the operation of the Query Tool, each user workstation must be checked to determine if the Broker client agent is installed and properly working.

The RPC Broker Client Agent program (**ClAgent.exe**) runs in support of the single sign-on process (also called auto sign-on). This program automatically and continuously runs in the background on the client workstation, but may be closed or shut down by the user if resource availability is a problem.

Suggested action by:	IRM Service

See Table 3 –Checklist: Ensure RPC Broker Client Agent Installed

4.3.3 Ensure RPC Broker Client Agent Connection is Available

When the Client Agent (CA) is installed on the user workstation, the CA icon 📡 will be displayed in the Windows System Tray if the Broker Client Agent is running.

Suggested action by:	IRM Service

See Table 4 –Checklist: Verify Client Agent

> **Tip:** Although the CA pop-up dialog (as shown in Figure 4-3) is supposed to report whether or not there is an active connection, experience indicates that CA may report "Active connections: **0**" even when a connection does exist. You can use the Windows Task Manager to see if the Client Agent process is running, as shown in Figure 4-1.
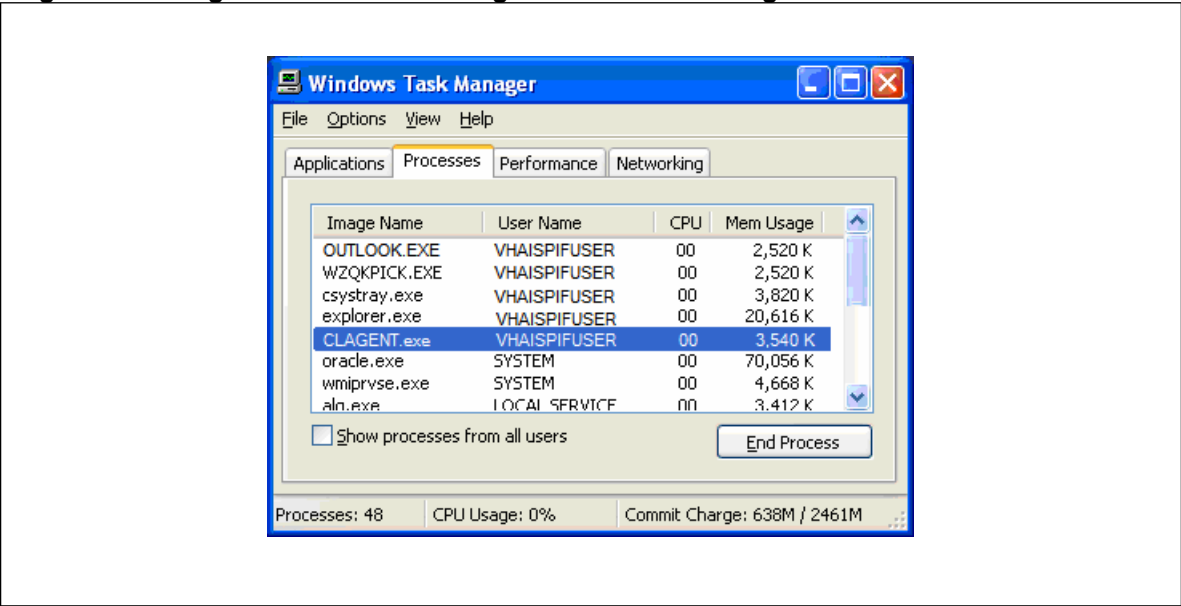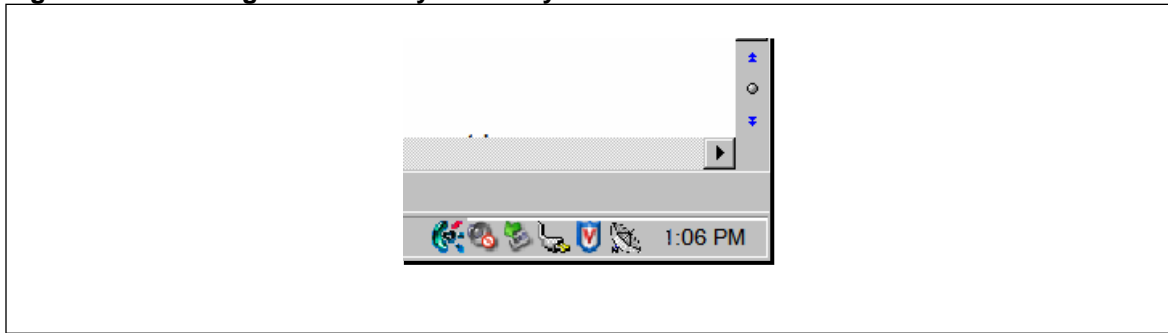
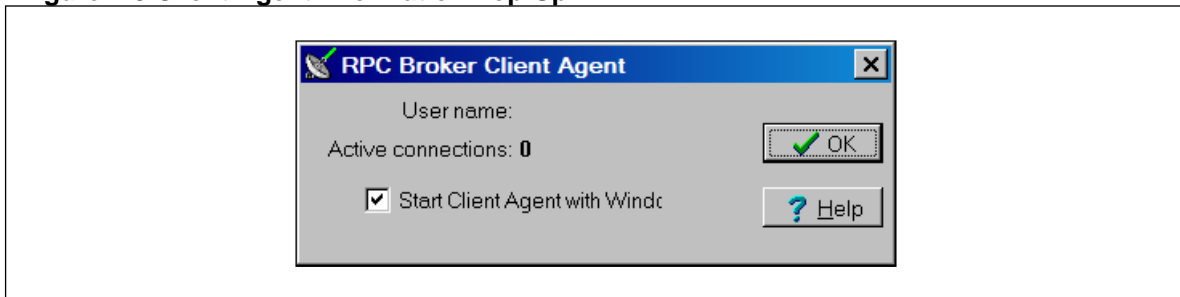**Figure 4-1 Using Windows Task Manager to Check Client Agent**

If CA is not running, manually run the agent, then check to see if the icon appears in the system tray (Figure 4-2).

Figure 4-2 Client Agent Icon in System Tray

For more information about the connection(s), double-click the icon. You'll see the pop-up dialog shown in Figure 4-3.

Figure 4-3 Client Agent Information Pop-Up

> ✳ **Tip:** The Start Client with Windows box is checked (selected) by default, which means that the client agent starts automatically whenever Windows starts. While this is convenient, it also consumes resources on the user's workstation. We suggest this be unchecked. ✳

> ✳ **Tip:** For help on starting and using the agent, click [? Help]. This opens the Help File for the RPC Broker Client. The RPC Broker Client Help File offers valuable information about options and choices you can set that will take effect each time it runs. ✳

4.3.4 Server List

Use of the Query Tool also requires that the list of RPC Broker servers which the user is authorized to access be maintained on the workstation. The user must be able to reach at least one VistA server in order to use the Query Tool.

In order for the Query Tool to connect to a VistA server, Broker information for that server must be available on the user's workstation.

Invoke the application `ServerList.exe` on the workstation to define the Broker IP address and port for the VistA server(s) to be used. `ServerList.exe` is described in the RPC Broker *Systems Manual*.

Both `xwb1_1ws.exe` and `ServerList.exe`, which are mentioned in the Broker System Manual, are distributed as part of the Broker.

Suggested action by:	IRM Service

See Table 4 –Checklist: Verify Client Agent

4.4   Client Components Installation

Once the `PRCHL GUI` option is assigned to the user and the RPC Broker Client Agent is properly installed, the Query Tool executable file should be installed on each Windows desktop where the Query Tool will be run.

4.4.1 Run InstallShield Executable

Installation of the Query Tool application, as well as the online help file associated with the application, is handled by the *InstallShield* executable `PRCLogisticsTools_v*.exe` (where `*` is the version number), which will:

- Create the necessary folder on the user workstation: `C:\Program Files\VISTA\IFCAP`

- Install the Query Tool, Help File components, and required dynamic link libraries (DLLs) in the appropriate folders

- Create a shortcut icon on the user's desktop

The current version of `PRCLogisticsTools_v*.exe` is available from your `Anonymous.pub` directory.

Suggested action by:	IRM Service

See Table 6 –Checklist: Run InstallShield

The installation folders *must not* be altered, and the installation *must* be done on the C:\ drive. Attempting to change these locations may render the Query Tool unreliable or inoperative. Users should be **strongly cautioned** not to move any components.

4.4.2 Verify Query Tool Client on Workstations

After you have configured the RPC broker client and installed the Delphi executable file (**PRCLogisticsTools.exe**) on the computer workstation, you should then follow the steps in Table 7 to verify that the Query Tool is working as expected. If possible, you should have the user go through these steps with you observing.

Suggested action by:	User (with IRM Service observing) or IRM Service

See Table 7 –Checklist: Verify Query Tool Client on Workstations. It may also be desirable to have the *Logistics Data Query Tool User Manual* available; it shows the various screens, messages and pop-ups that may be encountered.

5. Installation Checklists

The following checklists cover the complete installation process. Refer to the explanatory sections noted in the "See" column if necessary. The "Step" numbers run consecutively throughout the series of checklists.

Table 1 –Checklist: VistA Pre-Installation

Step	Action	See	✓
1	**File Backup.** A backup of the transport global is recommended before installing the patch. No pre-installation reports are generated.	**N/A**	
2	**Software Installation Time.** The estimated installation time for the patch is under 15 minutes during off-peak hours.		
3	**Users on the System.** Users can remain on the system during installation. Users who are assigned the **PRCHL GUI** option may be required to log off and then log back on again after the option is assigned.		
4	**Namespace.** The Query Tool uses namespace **PRCHL**; verify this namespace is available.		
5	**Patch Required.** Patch **PRC*5.1*103** *must* be installed before attempting to install the Query Tool.		

Table 2 –Checklist: Setting up Query Tool User in IFCAP

Step	Action		See	✓
6	Find, open and read the **ReadMe.txt** file for any updates to instructions or processes.		**N/A**	
7	Ensure that each designated user of the Query Tool has been:		**4.2**	
	a	Set up as a VistA user.		
	b	Granted access to one or more VistA servers.		
	c	Assigned an Access Code and a Verify Code.		

8	Place the IFCAP option **PRCHL GUI** on the user's secondary menu. Note that this is a B-type option, designed to be run only by the RPC Broker; it cannot be run from the menu system. This option is set in the **NEW PERSON** file (**File #200**).
	
	```System Manager Menu (EVE)```
	``` User Management Menu (XUSER)```
	``` Edit an Existing User (XUSEREDIT)```
	``` Select NEW PERSON NAME:```
	``` Select Secondary Menu Options (screen editor option)```
	``` Enter PRCHL GUI```
	``` Save and Exit```
			4.2	

Table 3 –Checklist: Ensure RPC Broker Client Agent Installed

Step	Action	See	✓
9	Check to see that the RPC Broker client is installed on the workstation. If it is not, follow the instructions in *Chapter 3, Standard Client Workstation Installation Instructions* of the RPC Broker Installation Guide.	**4.3,** **4.3.2**	
	The RPC Broker Systems Manual, Installation Guide, and related documentation may be found in the Vista Document Library (VDL) at… 🔊 http://www.va.gov/vdl/application.asp?appid=23.		

Table 4 –Checklist: Verify Client Agent is Running

Step	Action	See	✓
10	Use the Windows Task Manager to verify that CA is running on the user's workstation. If CA is not running, manually run the agent, then check to see if the icon appears in the system tray (Figure 4-2).	**Figure 4-1**	
11	Ensure that the Client Agent Icon 📡 appears in the System Tray.	**Figure 4-2**	
12	Right-click the Client Agent Icon and select Show. If the Start Client with Windows box is checked, uncheck it unless the user specifically requires this startup option.	**Figure 4-3**	

Table 5 –Checklist: Install and Run ServerList

Step	Action	See	✓
13	On the workstation, define the RPC Broker server to be used by installing and executing **ServerList.exe**, which is described in the RPC Broker Systems Manual (available on the VDL). Both **xwb1_1ws.exe** and **ServerList.exe**, which are mentioned in the manual, are distributed as part of the RPC Broker. *See also* 🔊 http://www.hardhats.org/cs/broker/docs/xwb1_1rn.html for more helpful information about installing and configuring **ServerList.exe**.	**4.3.4**	

Table 6 –Checklist: Run InstallShield

Step	Action	See	✓
14	Find **PRCLogisticsTools_v*.exe** on your site shared drive and double-click it to run the *InstallShield* executable. Follow any instructions presented, and always accept any defaults offered. If necessary, the program can be downloaded to the user workstation and run from that location.	**4.4.1**	

Table 7 –Checklist: Verify Query Tool Client on Workstations

Step	Action	See	✓
15	Verify that the **Logistics Data Query Tool** shortcut icon exists on the user's desktop.	**4.4.2**	
16	Terminate any open VistA sign-on sessions. (Why? To make certain that the Query Tool can handle the sign-on.)		
17	Double click on the shortcut to verify that the Query Tool activates.		
18	From the Home Screen, click [VISTA Sign-on]. When the sign-on dialog appears (before actually signing-on) try to access the RPC Broker Help file by clicking [Help]. Exit the Help by closing the Help window. (Why? To make certain the RPC Broker Help is available.)		
19	Have the user sign-on to at least one of the available VistA servers to confirm access and connectivity. (If no server appears to be available, see 4.3.4 above)		
20	After successful sign-on: From the Home Screen, have the user click [Logistics Detail Display] to activate the Query Tool Detail Display screen. A confidentiality warning will be displayed; the user should click [OK] to open the Detail Display screen. From the Detail Display screen, user should execute a query for a date range known to have data available. If expected data is displayed, the Query Tool is functioning correctly. If necessary, consult the *Logistics Data Query Tool User Manual* for information on how to do such queries.		
21	From the Detail Display screen, with data displayed, have the user export data to *Excel*, by clicking [Excel]. After the user chooses a drive/directory for use, *Excel* should open and display the same data that's shown on the Detail Display screen. The *Excel* file will have a ".CSV" file extension, and the filename itself will represent the date range chosen.		
22	From both Query Tool screens, have the user attempt to access the Help File by pressing <F1>. In a pop-up window, the user should see the Help		

Step	Action	See	✓
	File, with the caption Help Topics: PRCLogisticsTools. The user should click [Cancel] to close the Help File.		

Tip: If you get a message indicating that the Help File cannot be found and asking if you want to locate it yourself, respond "Yes." The Help File should be found in the directory `C:\Program Files\VISTA\IFCAP`.

➔ Once all the above steps are checked off, installation and verification is complete.

6. Technical Information

> Information like that found in this section might normally be included in the *IFCAP Technical Manual*. This chapter, however, addresses the internal workings of the Query Tool itself, and the *Technical Manual* is designed to show technical information about IFCAP itself. For this reason, it seemed better to record these details here. It's likely that this material will be of interest only to IRM Service personnel, and perhaps the IFCAP Application Coordinator; all others can safely ignore it.

> Source code for the Delphi units associated with the Query Tool should not be needed during the installation process. In the unlikely event that a question arises, the source code may be found in the Query Tool **Software Design Document** (SDD), available in the Technical Service Project Repository (TSPR):
>
>   REDACTED

6.1   Directories and Files

6.1.1 Query Tool Application Files

The Query Tool application and its associated files are stored in the directory `C:\Program Files\VISTA\IFCAP\`. This directory is created by the Query Tool *InstallShield* executable **PRCLogisticsTools.exe**. The files directly related to the Query Tool are:

Table 8 - Query Tool Files

Filename	Purpose/Explanation
ReadMe.txt	Includes any pertinent information not included in other documents or files (normally updates that could not be included in other sources)
PRCLogisticsTools.exe	The compiled executable (program) file
PRCLogisticsTools.hlp	The online help file
PRCLogisticsTools.cnt	The online help "contents" file
PRCLogisticsTools.gid	The online help "index" file. This is the only file which can be safely deleted (the help system will rebuild it the next time it's needed); under normal circumstances, however, there should not be any need to delete it.
RoboEx32.dll **InetWH32.dll**	Dynamic link libraries needed for proper operation of the Help File.

Technical Information

> ⚠ **CAUTION:** *Do not delete or rename* any of the above files. *Do not move* any of these files to a different physical or logical drive, folder or directory. The folders and files *must* be located on the `C:\` drive. If any of these files are missing or renamed, the Query Tool may not work correctly. ⚠
>
> Users should be **strongly cautioned** not to delete, rename or move any components.

6.1.2 RPC Broker Files

Other files may also be required to assist in setting up user workstations. The following applications should also be available in the `C:\Program Files\VISTA\IFCAP\` directory. If they are not, see 4.3.4 above for more information.

Filename	Purpose/Explanation
`ServerList.exe`	The "Edit Broker Servers" program, needed to specify which servers are available to use in Query Tool
`xwb1_1ws.exe`	Program needed to set up the RPC Broker Client on the workstation. *See* http://www.va.gov/vdl/documents/Infrastructure/Remote_Proc_Call_Broker_(RPC)/xwb1_1p40ig.pdf.