CRSP® CENTER FOR RESEARCH IN SECURITY PRICES, LLC

An Affiliate of the University of Chicago Booth School of Business

CRSPSift Administrator's Guide

Enterprise Edition 4.3.21

Updated May 7, 2021

Table of Contents

CHAPTER 1: OVERVIEW

- Two different versions of Enterprise servers cannot coexist on the same server.
- Multiple Professional versions will conflict and not function correctly.

To uninstall, use the Add or Remove Programs control panel, accessible from your Start Menu > Control Panel.

SUMMARY OF TERMS

ACADEMIC INSTITUTION SUBSCRIBERS

- Up to ten (10) Professional Edition installs.
- Unlimited Enterprise Edition installations.
- All installations must be on institutionally owned systems.
- The CRSP data files and the related software and utilities are licensed for use by "Authorized Users" (faculty, staff and students) only on institutionally owned machines and according to the terms and conditions of the existing CRSP® Standard Data Subscription Agreement between CRSP and you or the subscribing organization with which you are affiliated.

COMMERCIAL, NOT-FOR-PROFIT AND GOVERNMENT SUBSCRIBERS

- Either up to five (5) Professional Edition installs; **or, but not and**
- One (1) Enterprise Servers with up to five (5) Enterprise Clients.
- All installations must be on institutionally owned systems.
- The CRSP data files and the related software and utilities are licensed for use by "Authorized Users" only on institutionally owned machines and according to the terms and conditions of the existing CRSP® Standard Data Subscription Agreement between CRSP and you or the subscribing organization with which you are affiliated.

COMPONENTS

Sift Enterprise is composed of 4 components, the Query Manager, the Query Engine, Admin Tools and multiple Sift Enterprise Clients.

In this release of Sift Enterprise Edition 4.3.21 the Query Manager, the Query Engine and Admin Tools are installed on a single server.

QUERY MANAGER

Query manager is a server process that acts as a "traffic cop" for all Sift Enterprise Client requests. It receives requests from the clients and passes them to the Query Engine for processing. Once the Query Engine completes processing a client request, Query Manager passes the results of that query back to the requesting client.

QUERY ENGINE

Query Engine is a server process that executes client queries against your CRSP Stock Database. These queries are received from the Query Manager. When the Query Engine completes a query it passes the results back to the Query Manager who determines which client should receive those results.

ADMIN TOOLS

Admin Tools are used to administer your Sift Enterprise environment and control processes after installation. Admin Tools are installed on the server that runs your Query Manager and Query Engine.

SIFT ENTERPRISE CLIENT

The Sift Enterprise Client is the User Interface used to develop, submit, and view results of queries requested by your

end users. An instance of the Sift Enterprise Client will be installed on each end user's computer that will access Sift Enterprise Server. The client must be the same version as the server component.

CRSP STOCK DATABASE

The CRSP Stock Database to which your organization subscribes must be made available to the server running Sift Enterprise. CRSP recommends that the CRSP Stock Database be installed on the server running Sift Enterprise. As an alternative, the CRSP Stock Database can be made available to the Query Engine via a network share but this significantly decreases Sift Enterprise's performance. This is further discussed in the section "Determining Your Configuration". Sift Enterprise supports access to CRSP Stock, CRSP Stock and Index and CRSP Compustat Merged Databases.

SIFT ENTERPRISE ENVIRONMENT OPERATING SYSTEM REQUIREMENTS

- **Server Operating Systems:** supported on Windows Server 2016 and 2019
- **Client Operating Systems:** supported on Windows 10

DETERMINING YOUR CONFIGURATION

You have several options in configuring your Sift Enterprise environment. Each can affect the performance of Sift Enterprise.

Location of your CRSP Stock Databases

Since access to CRSP Stock Databases is very I/O intensive, performance can be increased by placing your CRSP Stock Databases on a separate physical disk drive than the drive hosting the Sift Temporary File Folder. The Sift Temporary File Folder is discussed below.

Location of the Sift Enterprise Temporary File Folder

Sift Enterprise uses temporary files to receive query results while Query Engine is processing a query. Once Query Engine completes a query, Query Manager passes those results to the requesting client. By default, Sift Enterprise will store these temporary files in the folder c:\ProgramData\SQE.

Performance of Sift Enterprise is improved when the Temporary File Folder and the CRSP Stock Databases are installed on separate physical disk drives. This is especially apparent when users are running queries that return large amounts of result data. Additionally, there should be ample disk space made available for the Temporary File Folder.

The section titled "How to Change the Location of Temporary Files in the Manager Service" documents how to move the location of the Temporary File Folder after installing Sift Enterprise.

Server used to host Sift Enterprise

The CPU power and memory of the server you use to host Sift Enterprise will affect performance. Additionally, other processes running on that server will affect performance. Generally, CRSP recommends Sift Enterprise be hosted on a dedicated server. However, it is possible that a powerful server hosting other applications with Sift Enterprise may perform better than a less powerful server hosting only Sift Enterprise. Sift Enterprise does multi thread to take advantage of multiple, dual core and hyper threading CPUs.

Number of Threads: The number of threads equates to the number of queries Query Engine will run simultaneously. The Sift Install program initially sets this to 15. If you are running on a powerful server with multiple CPUs you may want to increase this to 25 threads for possible performance improvements. This may be done after the install and is explained in section "How to Change the Number of Threads for Query Engine".

CHAPTER 2: INSTALLATION

Installation of Sift Enterprise consists of two installs. The Server components must be installed first after which one or more Sift Enterprise Clients may be installed.

CRSPSift is available for download through CRSP's IPSwitch MoveIT account at https://crsp.moveitcloud.com.

1. Login and go to cloud folder: /Utility_Uploads/CRSPSIFT_Enterprise

2. Two files are needed:

    • CRSPSift_Enterprise_Client_Ver*.zip
    • CRSPSift_Enterprise_Server_Ver*.zip
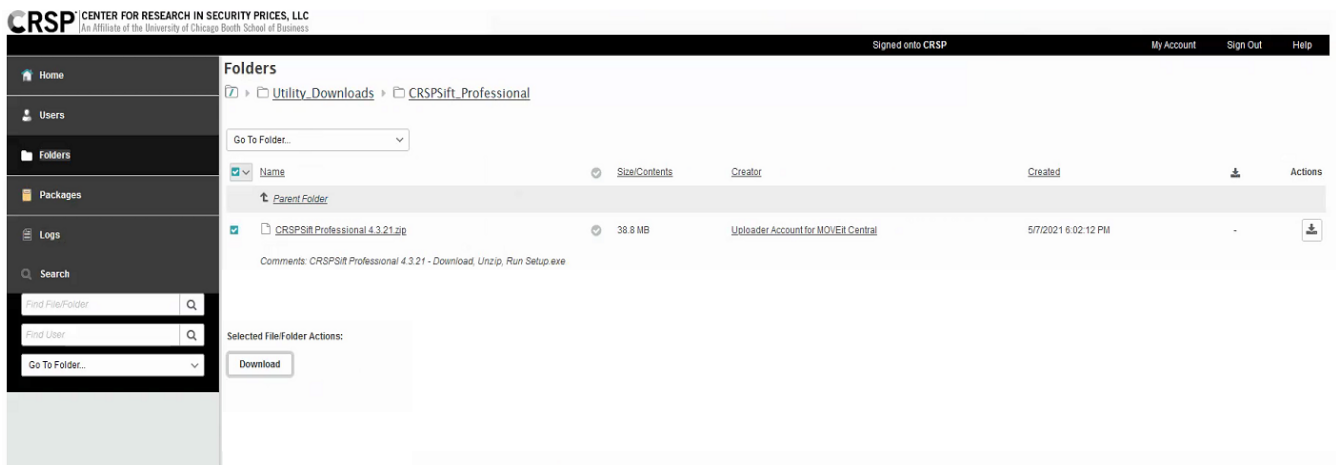
3. Files are downloaded from cloud to local machine

4. The Enterprise Server should be unzipped to the Server machine. From the unzipped archive, click on setup.exe to install the Server:
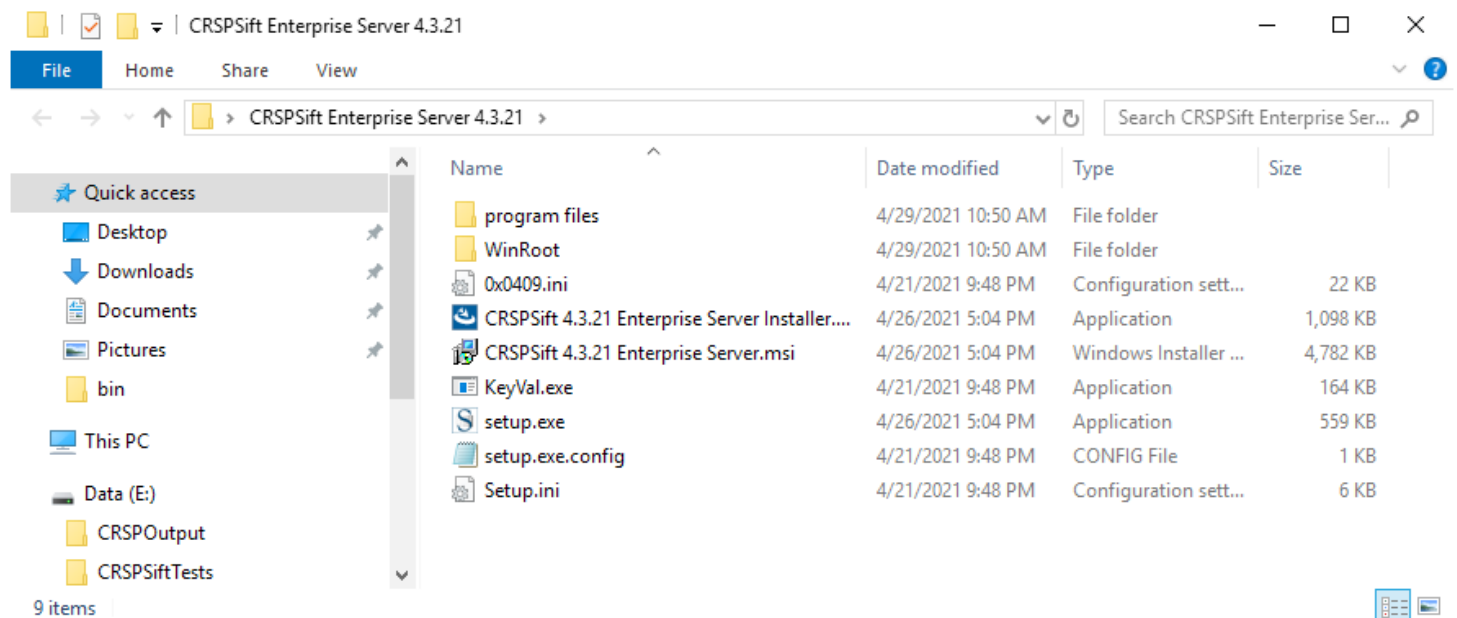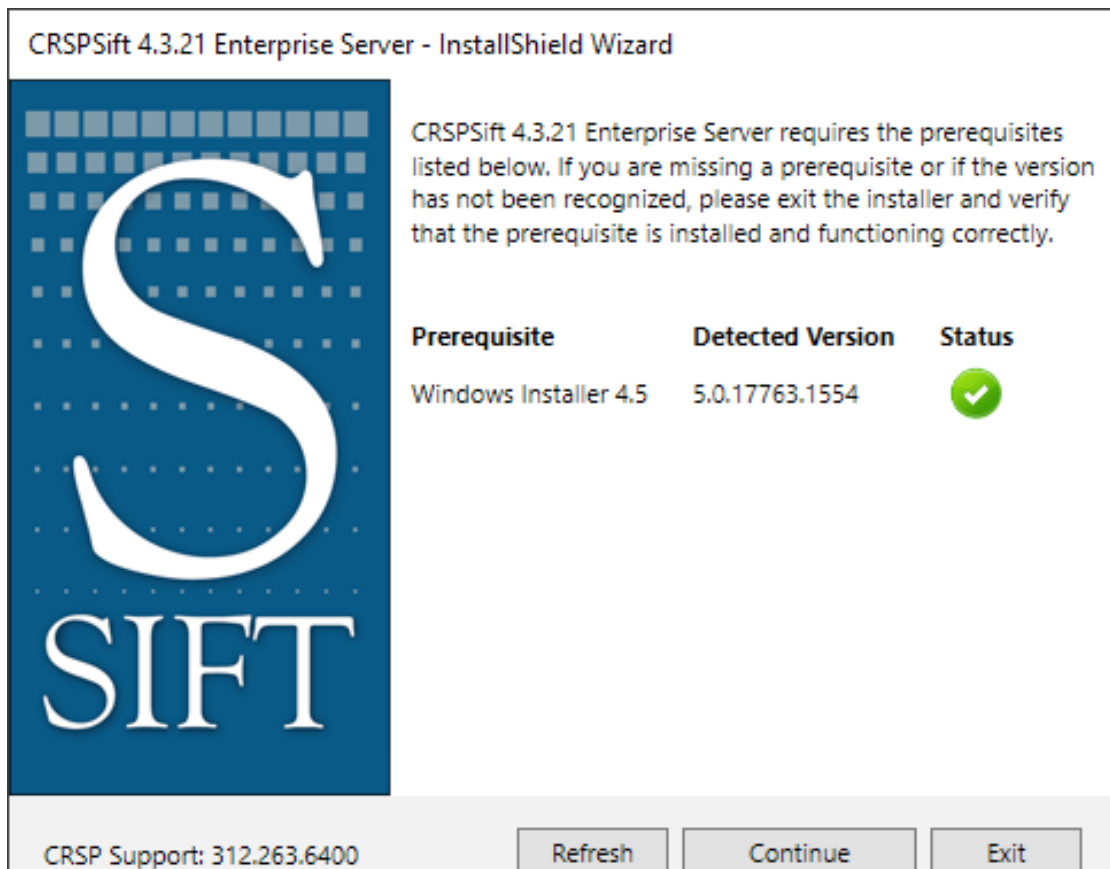
INSTALLATION – SERVER

BEFORE YOU BEGIN THE INSTALL

- Install your CRSP Stock Database(s) in the appropriate location you want Sift Enterprise to access. After the install you will use the Sift Admin Tool to point Sift Enterprise to your CRSP Stock Database(s).
- If you wish to have Sift Enterprise send emails to users when batched queries complete, you will need the name of your email server during the install.
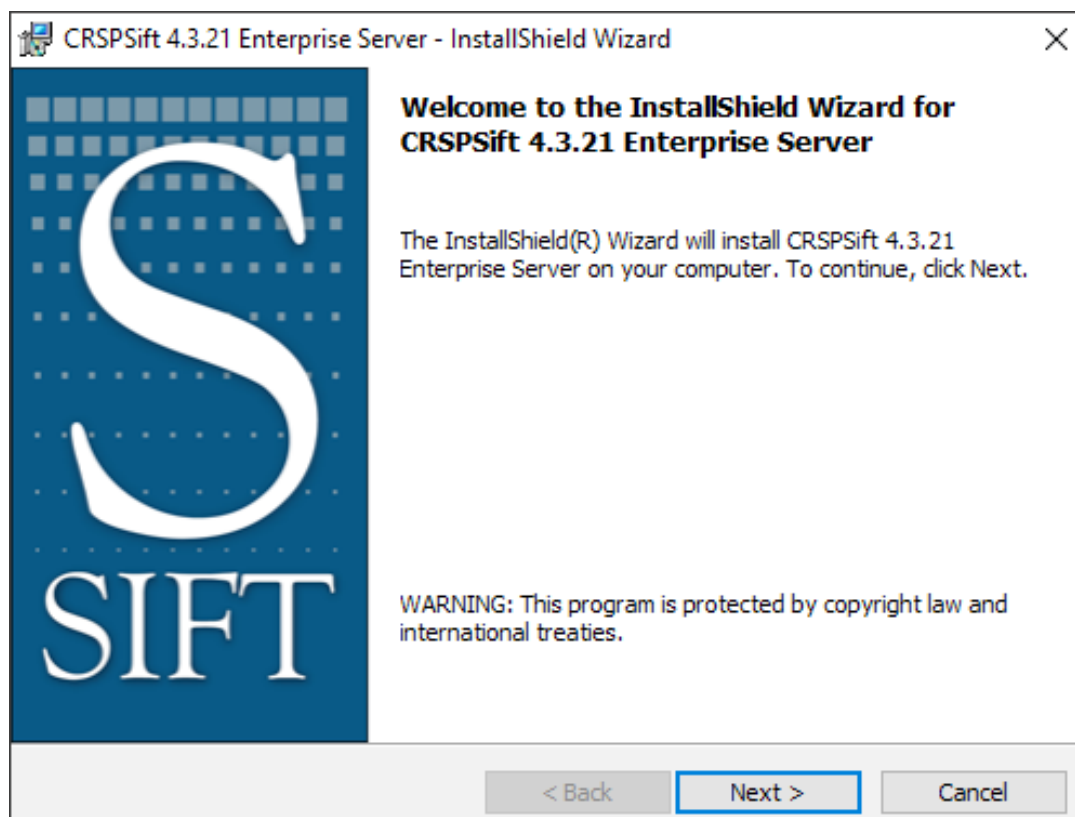
INSTALL PREREQUISITES

A list with the status of the prerequisites will be displayed at the beginning of the installation. If any prerequisites are missing, you will need to install them manually.

Note: CRSPSift requires at least .NET Framework, Version 4.8. Windows 10 systems will have this already installed. Check to confirm that it is turned on by checking Windows Features through the Control Panel.
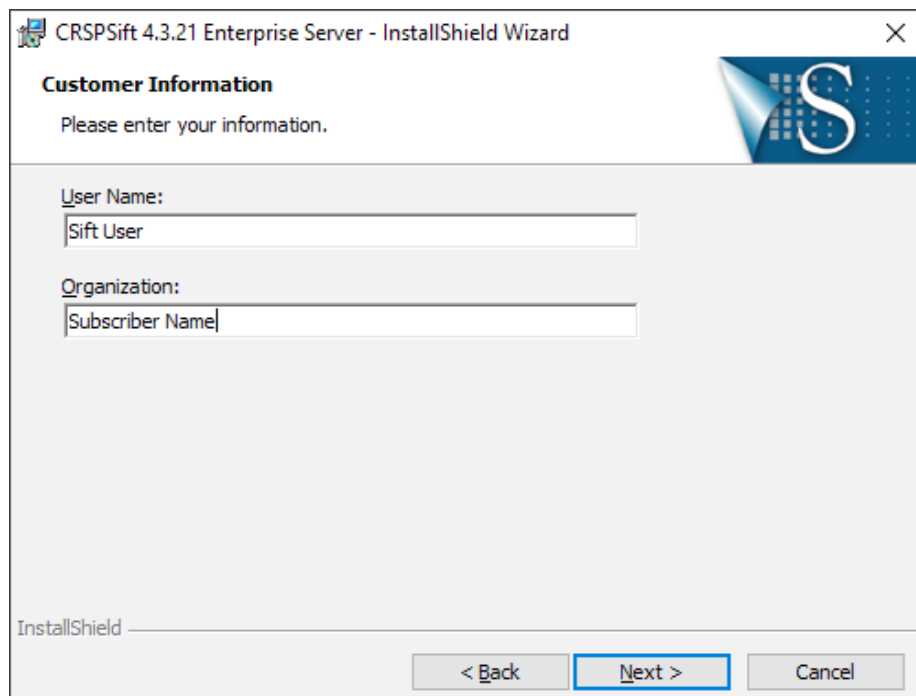

CRSPSift 4.3.21 Enterprise Server - InstallShield Wizard

CRSPSift 4.3.21 Enterprise Server requires the prerequisites listed below. If you are missing a prerequisite or if the version has not been recognized, please exit the installer and verify that the prerequisite is installed and functioning correctly.

Prerequisite	Detected Version	Status
Windows Installer 4.5	5.0.17763.1554	✓

CRSP Support: 312.263.6400   [Refresh]   [Continue]   [Exit]

Welcome Screen

License Agreement

User Information

Required information:
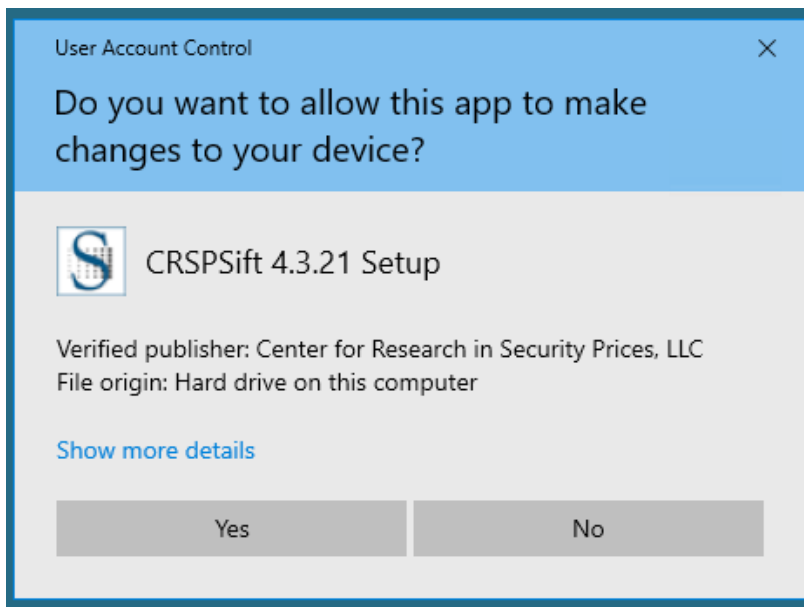- User Name
- Organization

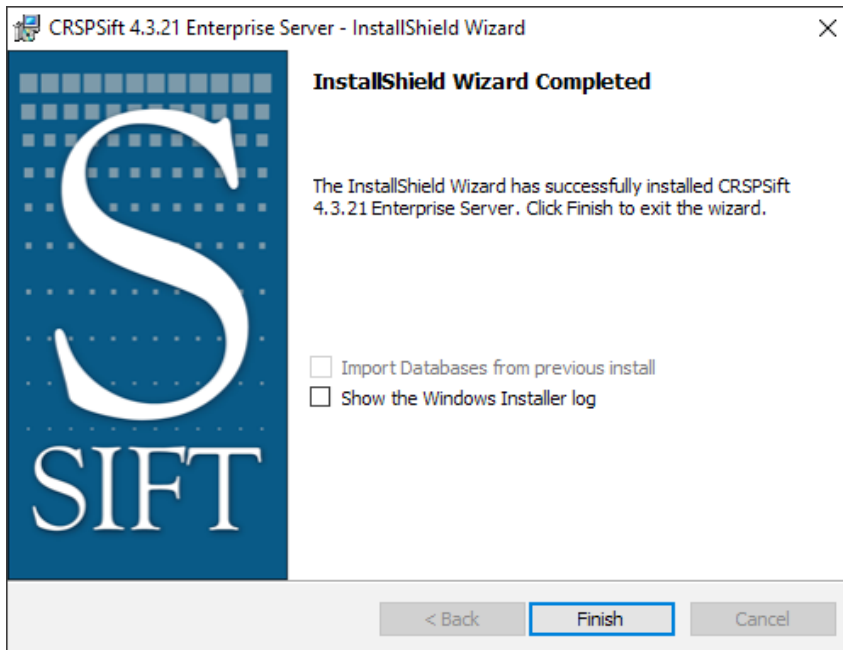## Installation Destination Folder

Ready to Install
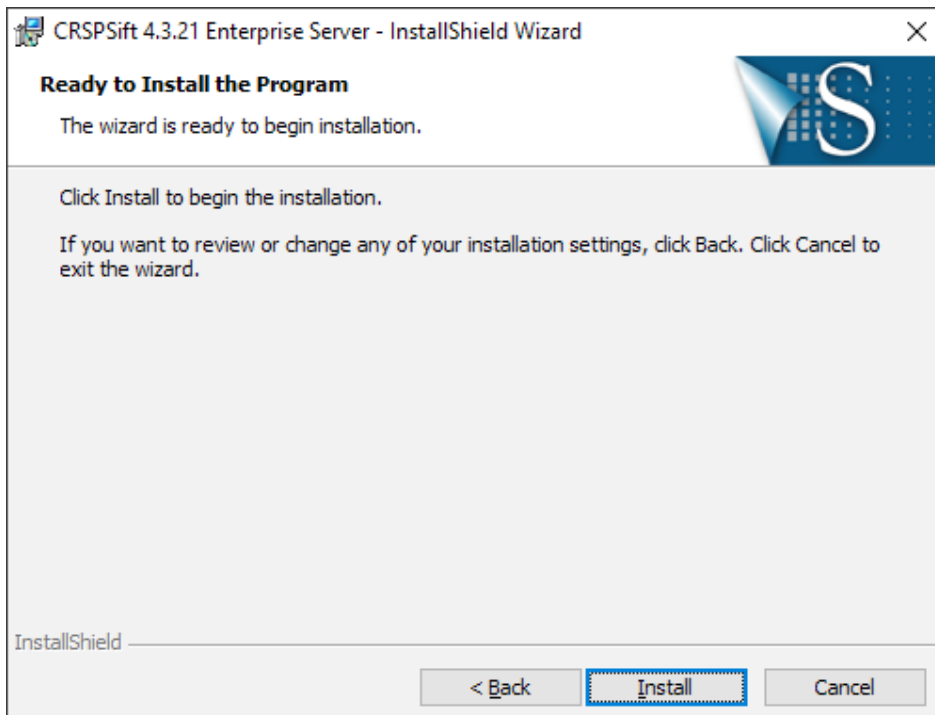
User Account Control

After the install:

CRSP database environment(s) must be set up for Sift Enterprise before clients can access CRSP data. See section titled "How to Scan for, Create, and Edit Environments under the Admin Tool section of this document.
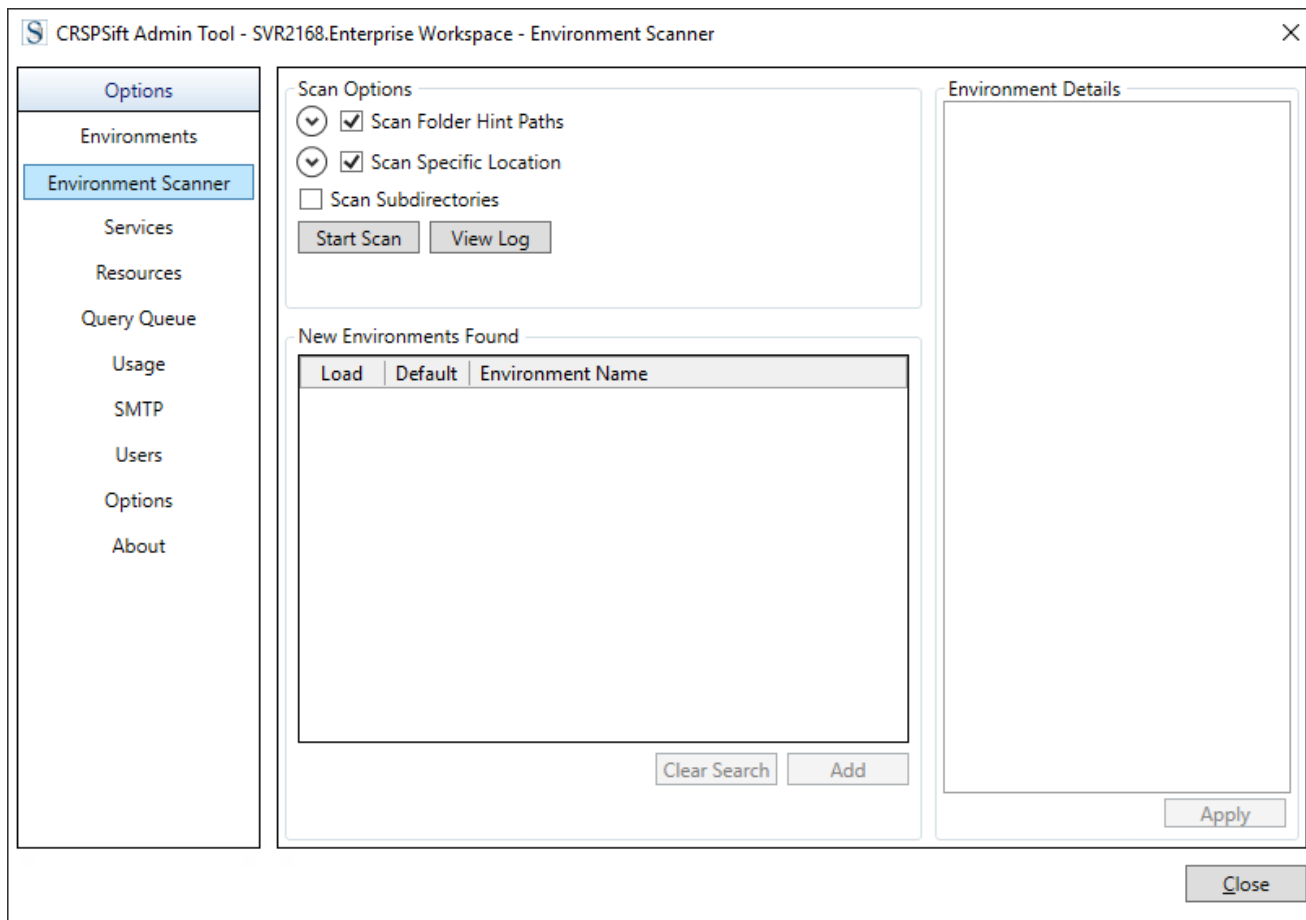
INITIAL ENVIRONMENT SET-UP

HOW TO SCAN FOR, CREATE, AND EDIT ENVIRONMENTS

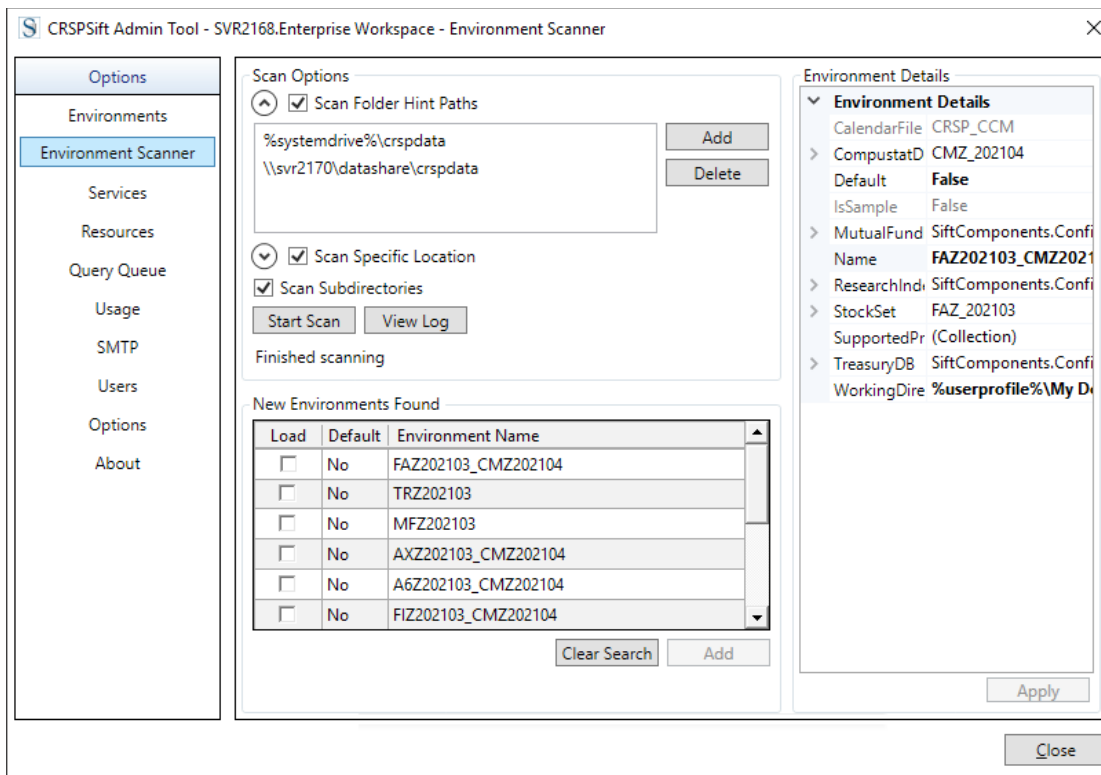### Scanning for Environments and Creating Environments via the Scanner

1. Login to the machine on which the **CRSPSift Administrator Tool** software resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin\SiftAdminTool.exe** directory and run the SiftAdminTool.exe

3. Click on the **Environment Scanner** option on the left menu panel.

4. Add any folder hint paths if the databases have been locally installed on the server at a different location. The hint paths direct the scanner where to scan for CRSP databases. If your databases reside in a path not shown in the Folder Hint Paths you will want to add that path. To do so, click the down arrow to the left of **Scan Folder Hint Paths.**

5. You may also perform a one-off scan of a specific directory or directories by using the **Scan Specific Location** option. To do so, click the down arrow to the left of "Scan Specific Location."

6. If you want to scan for CRSP databases in subdirectories of the paths you have specified, check the **Scan Subdirectories** option.

7. Click the **Start Scan** button to begin scanning for directories based on the checked scan options.
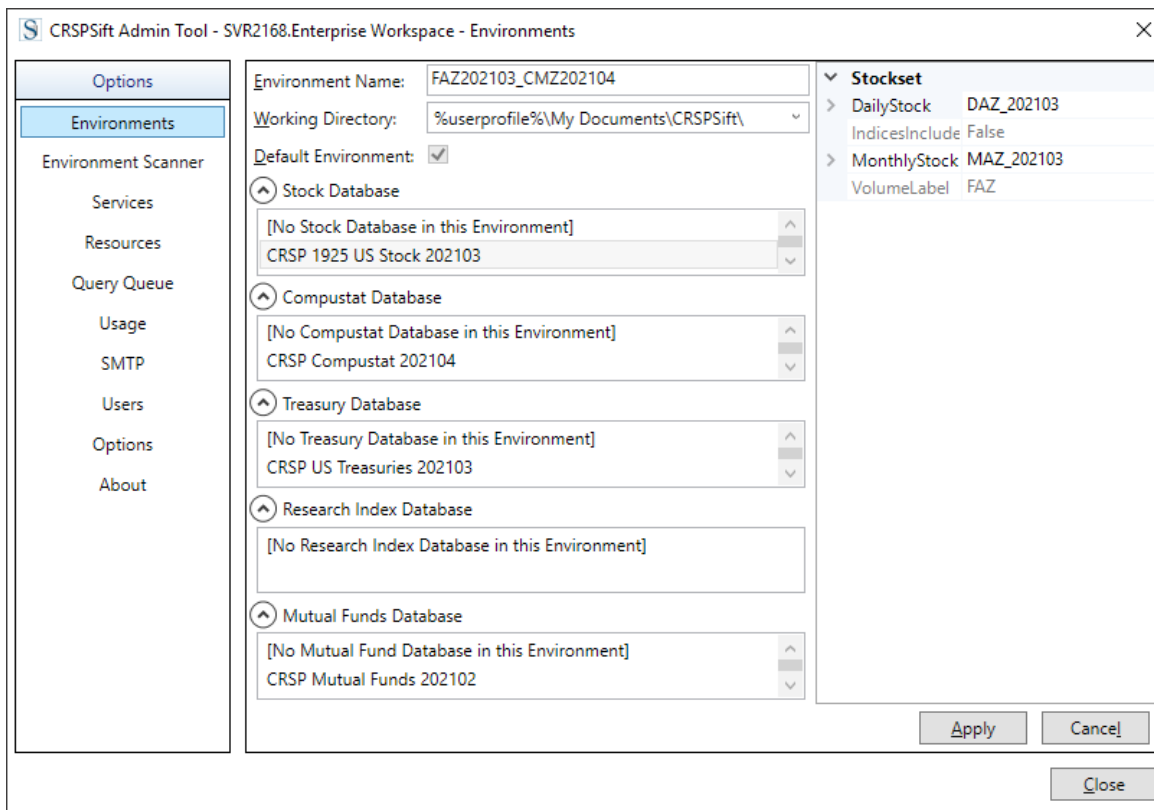
8. If any valid Environments that are not already added are discovered in the scan, they will appear in the **New Environments Found** data grid.

9. At this point it is possible to edit the environment before it is added to the Environments List. If you wish to edit an Environment before adding it, select that Environment and click the Edit button, then proceed to Step 6 of the next section titled "Editing Environments".

10. Check the **Load** checkbox next to each Environment you wish to add.

11. Click the **Add** button to add the selected environment(s).

Editing Environments

1. Login to the machine on which the **CRSPSift Administrator Tool** software resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

    NOTE: Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin\ directory and run the SiftAdminTool.exe

3. If you are not already on the **Environments** screen, select the **Environments** option on the left menu panel.

4. In the data grid view select the Environment you wish to edit.

5. Select **Edit Environment** from the dropdown under the data grid view and click the Perform Action button.

6. On this screen you may customize the environment by changing the Name, Set as Default (if not already) property, choose a Stock, COMPUSTAT and/or Treasuries database, and set the working directory for the environment.

   The working directory is where the Sift Enterprise Client will initially prompt users to save their Sift Enterprise files on the client computer such as queries, query results and input. The user must have rights to create files at this location on their computer. The user may change this location to anywhere they have create rights when saving files.
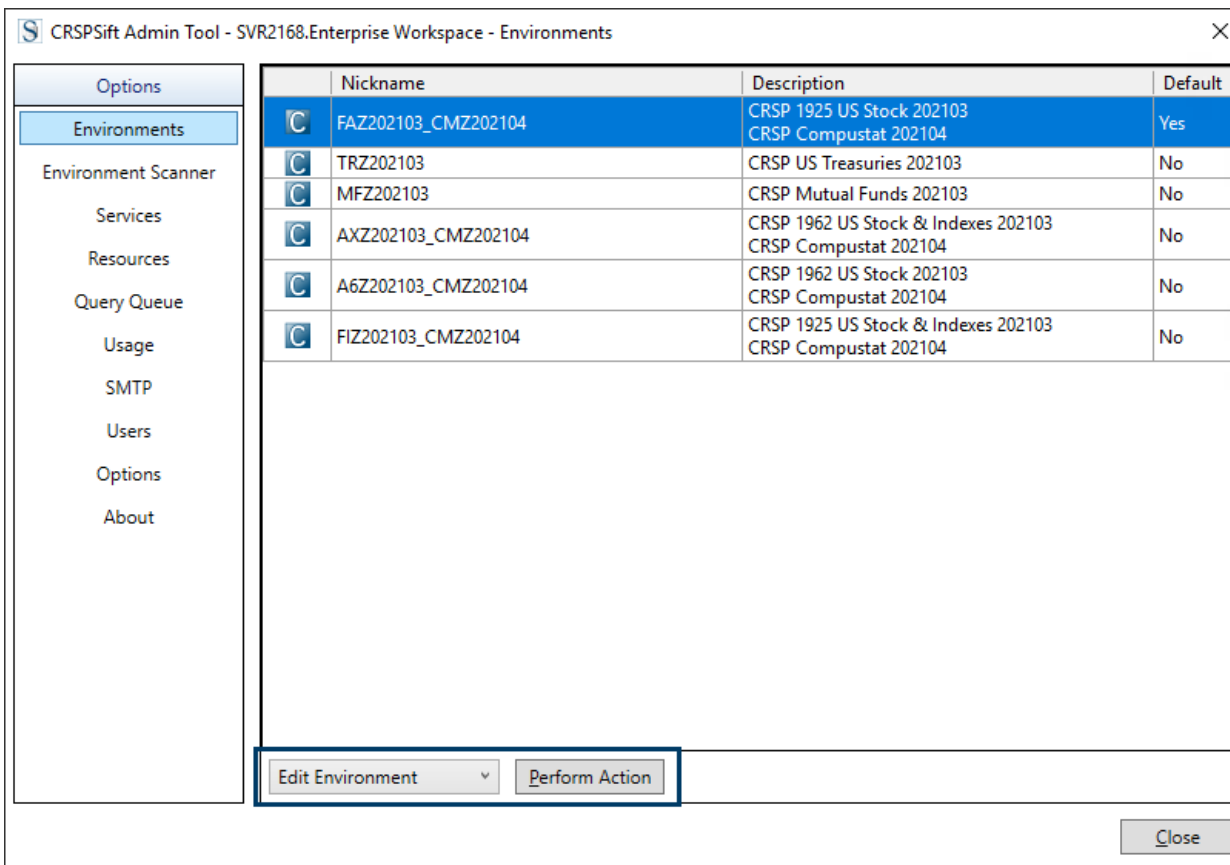
7. Once you are satisfied with the changes click the Apply button to save the changes. If you are not satisfied with the changes you may click the cancel button to undo the changes to the environment.

Creating Environments

1. Login to the machine on which the **CRSPSift Administrator Tool** Software resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin\ directory and run the SiftAdminTool.exe

3. If you are not already on the **Environments** screen, select the **Environments** option on the left menu panel.

4. Select **Load Environment** from the dropdown and click the Perform Action button.

5. Type a nickname for the Environment in the **Environment Name** textbox.

6. Type the path for the **Working Directory** or select the **Browse for more locations…** option from the dropdown and navigate to the directory for the Environment.

7. The working directory is where the Sift Enterprise Client will initially prompt users to save query, query results, and input files. **The user must have rights to create files at this location on their computer.** The user may change this location to anywhere they have create rights when saving files.

8. If you wish to make the environment the default environment, check the **Default Environment** checkbox.

9. Select a **Stock Database** for the Environment. If the environments you wish to add are not displayed go to the Environment Scanner, run an environment scan and the results from the scan will display when you come back to Create Environment. Note: It may be easier to simply create the new environment from the Environment Scanner.

10. If desired, a Compustat database and/or a Treasury database may also be selected for the Environment.

11. Click the **Apply** button to save the new Environment.

INSTALLATION – CLIENT

BEFORE YOU BEGIN THE INSTALL

- You will need to know the server name of the server that is hosting your Sift Enterprise environment.
- If the Query Manager Port and/or Streaming Port were changed from the installed defaults on your Sift Enterprise server, you will also have to know these port numbers.

The Enterprise Client should be unzipped to a Client machine. From the unzipped archive, click on setup.exe to install the Client.
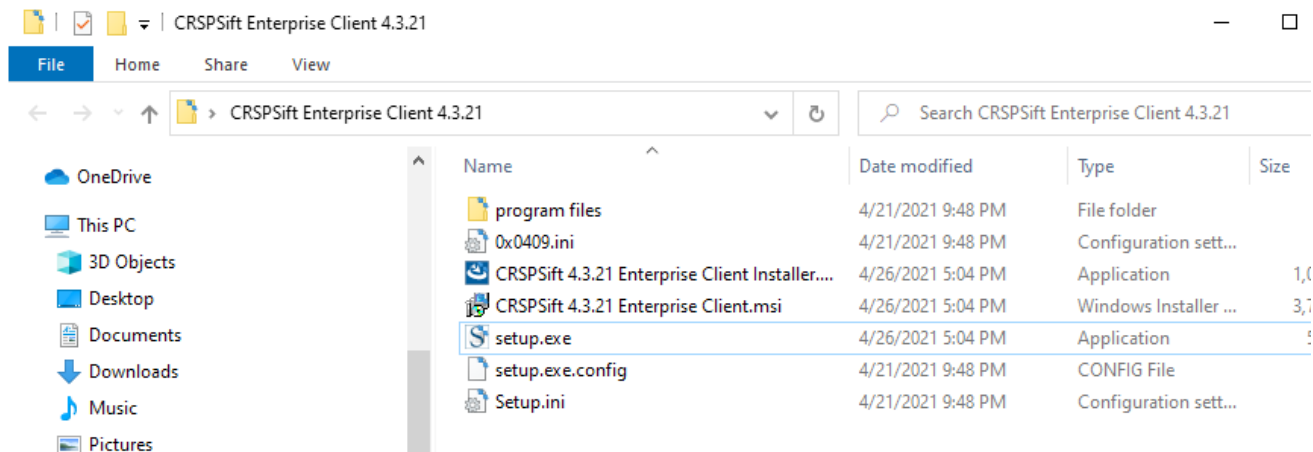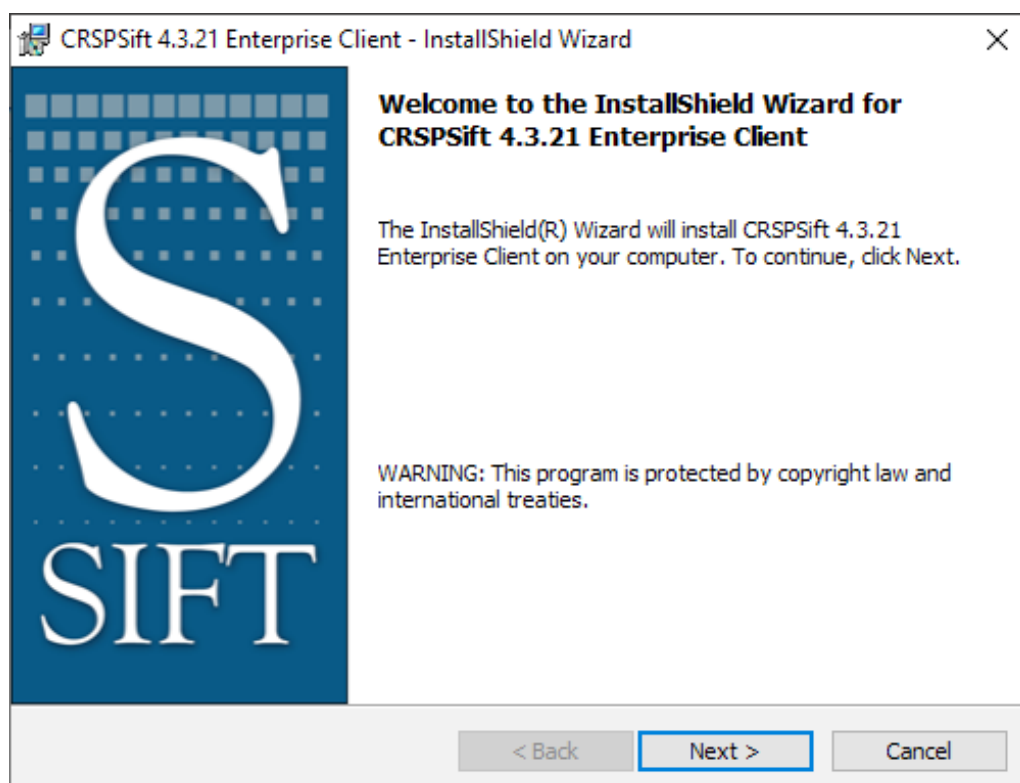

INSTALL PREREQUISITES

A list, with the status of the prerequisites, will be displayed at the beginning of the installation. If any prerequisites are missing, a pop-up screen will appear with the necessary links.
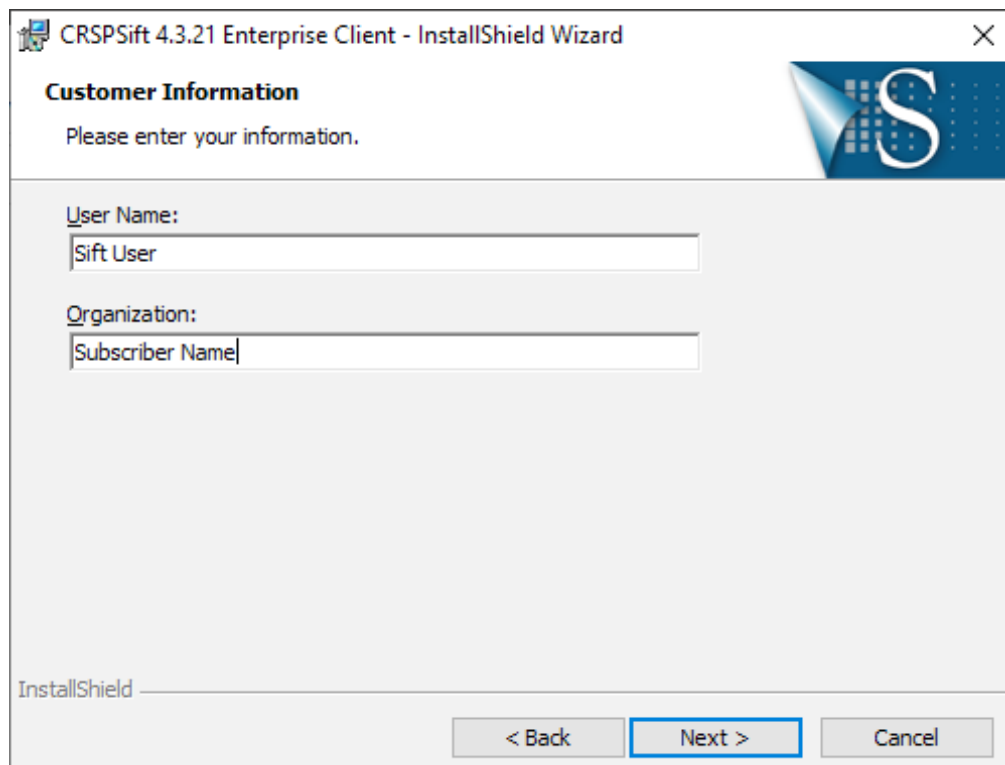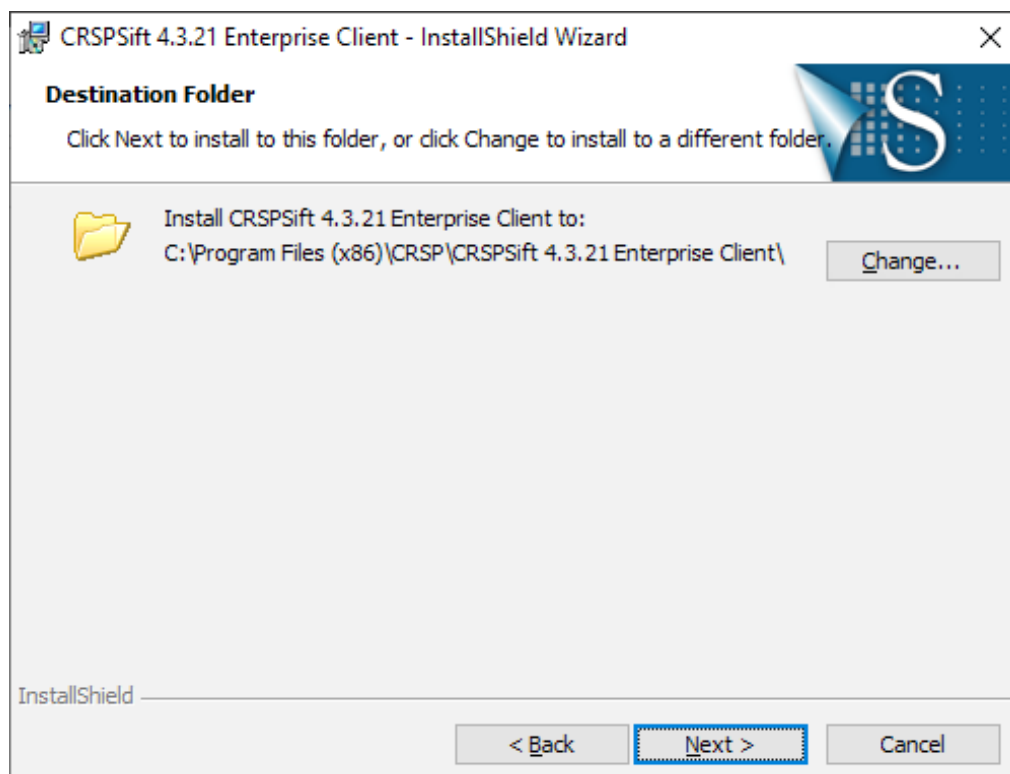
Welcome Screen

License Agreement

User Information

Required information:
- User Name
- Organization

Installation Destination Folder

Query Manager Server Information

This screen allows the user to tell the client where the manager service is located. All information is required.
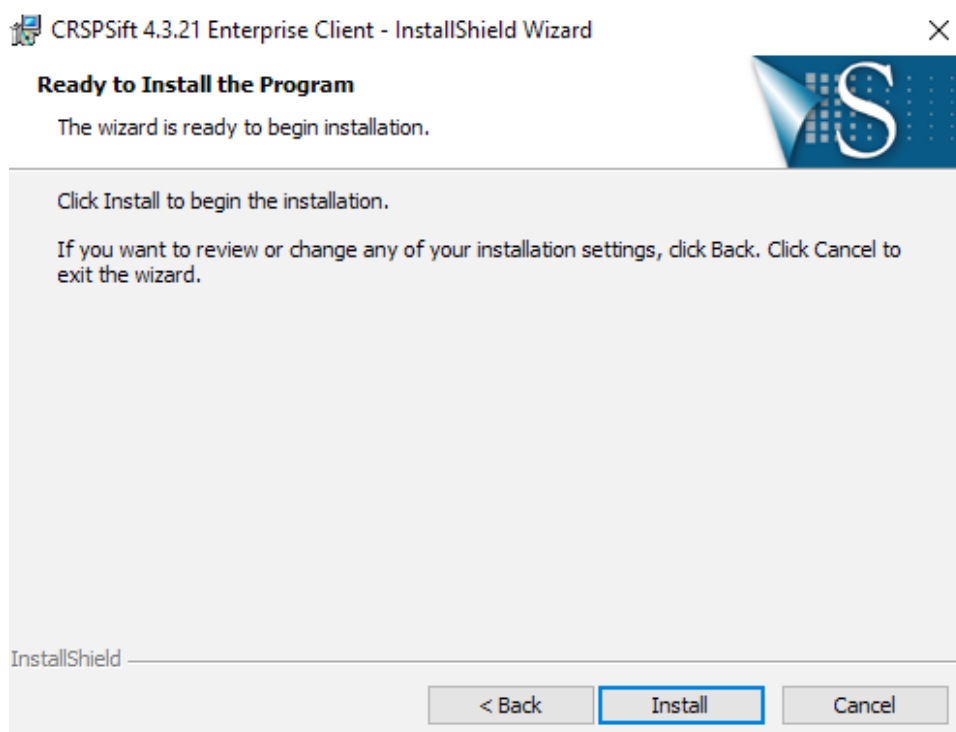
Required information:
- Server   Name of the server running the Manager Service
- Query Manager Port   Port used to communicate with Server (default = 9001)
- Streaming Port   Port used to receive query output files (default = 9003)

Ready to Install Screen

After the install:

The Sift Enterprise Client should be able to connect the Sift Enterprise Query Manager and process queries.

STEPS FOR STARTING CLIENT

1. Go to **Start Menu > All Programs > CRSP > CRSP Enterprise Client 4.3.21** and clicking Launch CRSPSift

   Alternatively: navigate to **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Client\bin** and click on **SIFTWPF. exe.**

2. After opening the Client, available environments will be the same as what was scanned in during the Server installation:
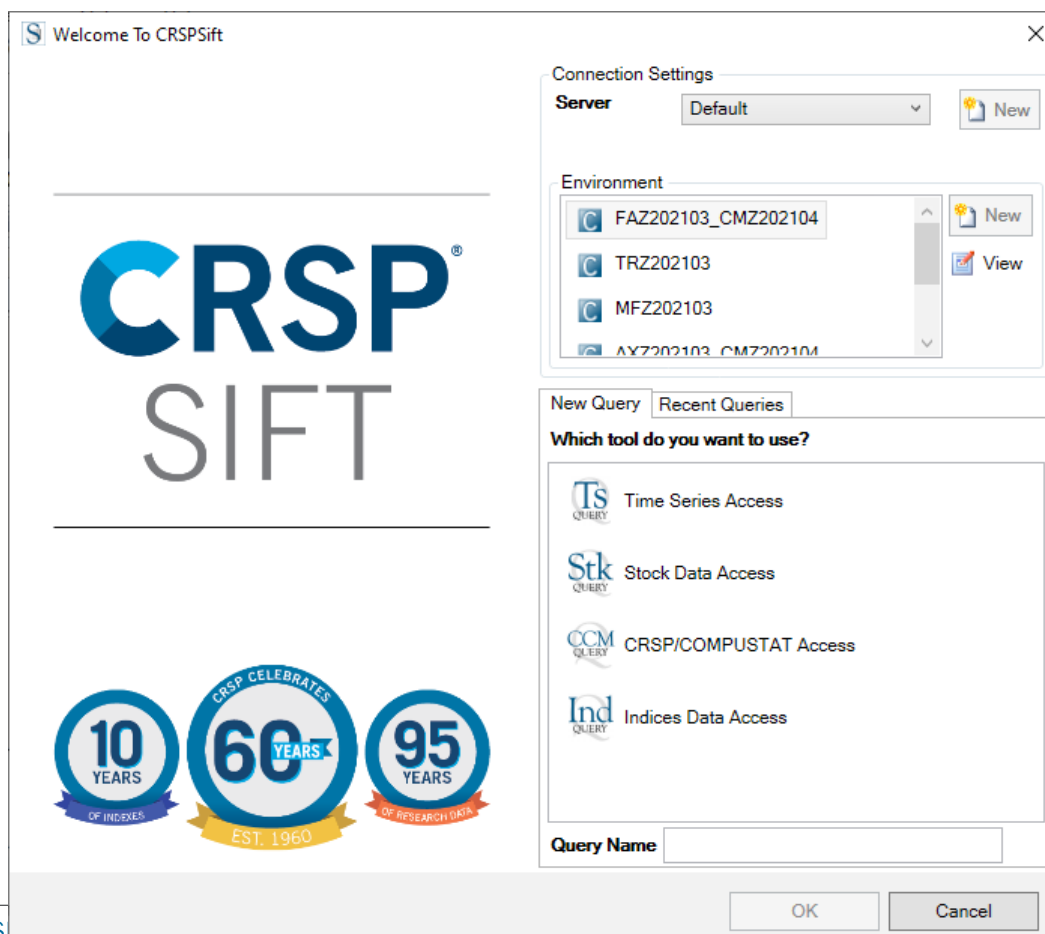
CHAPTER 3: ADMINISTRATION

HOW TO SCAN FOR, CREATE, AND EDIT ENVIRONMENTS

SCANNING FOR ENVIRONMENTS AND CREATING ENVIRONMENTS VIA THE SCANNER

1. Login to the machine on which the **CRSPSift Administrator Tool** software resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool.**

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin** directory and run the SiftAdminTool.exe

3. Click on the **Environment Scanner** option on the left menu panel.

4. Add any folder hint paths if the databases have been locally installed on the server at a different location. The hint paths direct the scanner where to scan for CRSP databases. If your databases reside in a path not shown in the Folder Hint Paths you will want to add that path. To do so, click the down arrow to the left of **Scan Folder Hint Paths**.

5. You may also perform a one-off scan of a specific directory or directories by using the **Scan Specific Location** option. To do so, click the down arrow to the left of "Scan Specific Location."

6. If you want to scan for CRSP databases in subdirectories of the paths you have specified, check the **Scan Subdirectories** option.

7. Click the **Start Scan** button to begin scanning for directories based on the checked scan options.

8. If any valid Environments, that are not already added, are discovered in the scan they will appear in the **New Environments Found** data grid.

9. At this point it is possible to edit the environment before it is added to the Environments List. If you wish to edit an Environment before adding it, select that Environment and click the **Edit** button, then proceed to Step 6 of the next section titled "Editing Environments".

10. Check the **Load** checkbox next to each Environment you wish to add.

11. Click the **Add** button to add the selected environment(s).

EDITING ENVIRONMENTS

1. Login to the machine on which the **CRSPSift Administrator Tool** software resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin directory and run the SiftAdminTool.exe

3. If you are not already on the **Environments** screen**,** select the **Environments** option on the left menu panel.

4. In the data grid view select the Environment you wish to edit.

5. Select **Edit Environment** from the dropdown under the data grid view and click the **Perform Action** button.

6. On this screen you may customize the environment by changing the Name, Set as Default (if not already) property, choose a Stock, COMPUSTAT and/or Treasuries database, and set the working directory for the environment.

   The working directory is where the Sift Enterprise Client will initially prompt users to save their Sift Enterprise files on the client computer such as queries, query results and input. The user must have rights to create files at this location on their computer. The user may change this location to anywhere they have create rights when saving files.

7. Once you are satisfied with the changes click the **Apply** button to save the changes. If you are not satisfied with the changes you may click the cancel button to undo the changes to the environment.
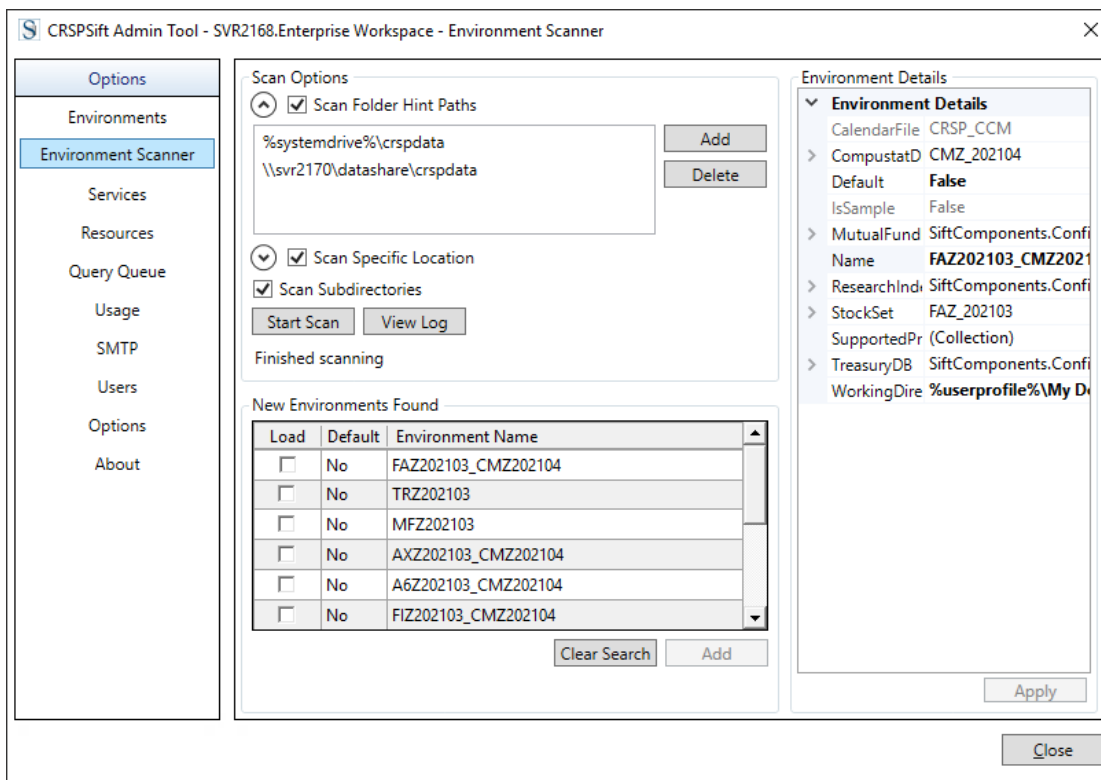
CREATING ENVIRONMENTS

1. Login to the machine on which the **CRSPSift Administrator Tool** Software resides.

2. Launch the SIFT Admin Tool by going to the S**tart Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin directory and run the SiftAdminTool.exeIf you are not already on the **Environments** screen, select the Environments option on the left menu panel.

3. Select **Load Environment** from the dropdown and click the **Perform Action** button.

	Nickname	Description	Default
C	FAZ202103_CMZ202104	CRSP 1925 US Stock 202103 CRSP Compustat 202104	Yes
C	TRZ202103	CRSP US Treasuries 202103	No
C	MFZ202103	CRSP Mutual Funds 202103	No
C	AXZ202103_CMZ202104	CRSP 1962 US Stock & Indexes 202103 CRSP Compustat 202104	No
C	A6Z202103_CMZ202104	CRSP 1962 US Stock 202103 CRSP Compustat 202104	No
C	FIZ202103_CMZ202104	CRSP 1925 US Stock & Indexes 202103 CRSP Compustat 202104	No

(CRSPSift Admin Tool - SVR2168.Enterprise Workspace - Environments; left menu panel: Options, Environments, Environment Scanner, Services, Resources, Query Queue, Usage, SMTP, Users, Options, About. Dropdown: Load Environment — Perform Action — Close)

4. Type a nickname for the Environment in the **Environment Name** textbox.

5. Type the path for the **Working Directory** or select the **Browse for more locations…** option from the dropdown and navigate to the directory for the Environment.

6. The working directory is where the Sift Enterprise Client will initially prompt users to save query, query results, and input files. **The user must have rights to create files at this location on their computer.** The user may change this location to anywhere they have create rights when saving files.

7. If you wish to make the environment the default environment, check the **Default Environment** checkbox.

8. Select a **Stock Database** for the Environment. If the environments you wish to add are not displayed go to the Environment Scanner, run an environment scan and the results from the scan will display when you come back to Create Environment. Note: It may be easier to simply create the new environment from the Environment Scanner.

9. If desired, a Compustat database and/or a Treasury database may also be selected for the Environment.

10. Click the **Apply** button to save the new Environment.

HOW TO CHANGE SMTP SETTINGS ENTERPRISE EDITION (POST INSTALLATION)

1. Login to the computer on which **CRSPSift Administrator Tool** resides.

2. Launch the SIFT Administrator Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the CRSPSift Administrator Tool.

   Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin directory and run the SiftAdminTool.exe

3. Click on the **SMTP Settings** option in the menu.

4. Type the name of the server hosting your email services into the Host Server text box.

5. Type the email service port (usually port 25) into the port text box.

6. Type in an email address which will be used to send the email from Sift Enterprise. (e.g. SIFT_Admin@mycompany. com)

7. Next choose the **Authentication Credentials** for this connection. If your email server does not require authentication, select the **Anonymous** option. Otherwise, select the option next to **This Account:** and provide the account name and password needed to connect to your email server.

8. Press the **Save** button to save the changes to the SIFT database.

HOW TO MANAGE THE QUERY QUEUE

NAVIGATING TO QUERY QUEUE MANAGEMENT SCREEN

1. Login to the computer on which the CRSPSift Administrator Tool resides.

2. Launch the SIFT Admin Tool by going to the Start Menu > All Programs > CRSPSift 4.3.21 and clicking on the CRSPSift Administrator Tool.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin directory and run the SiftAdminTool.exe

3. Click the Query Queue option on the left menu panel.

QUERY QUEUE MANAGEMENT OPTIONS

Search Options

These options are used to filter the batches that are displayed in the data grid. It is possible to filter by batch owner, batch status, schedule date, start date, and end date of batches.

Query Queue Actions

At the bottom left side of the Query Queue screen is a drop down list of actions that may be performed on the selected batch or batches displayed in the batch data grid view. Actions are not performed until the **Perform Action** button has been pressed. These actions are:

- **View Batch Details**   This action opens the batch details screen for a specified batch.
- **Delete Batch**   This action permanently deletes the batch.
- **Cancel Batch**   This stops a running batch and marks it as cancelled.
- **Rerun Batch**   This action reruns a specified batch.
- **Delete All Batches**   This action permanently deletes all batches.

HOW TO RESTART THE MANAGER SERVICE AND QUERY ENGINE SERVICE (WITHOUT REBOOTING THE SERVER)

Restarting the Manager Service

1. Login to the computer on which the **Manager Service** resides.

2. Go to the **Start Menu** and right click on **My Computer**.

3. In the **Right Click Menu** select **Manage**.

4. In the left panel tree view under **Computer Management** expand the **Services and Applications** node.

5. In the left panel tree view under **Services and Applications** select **Services**.
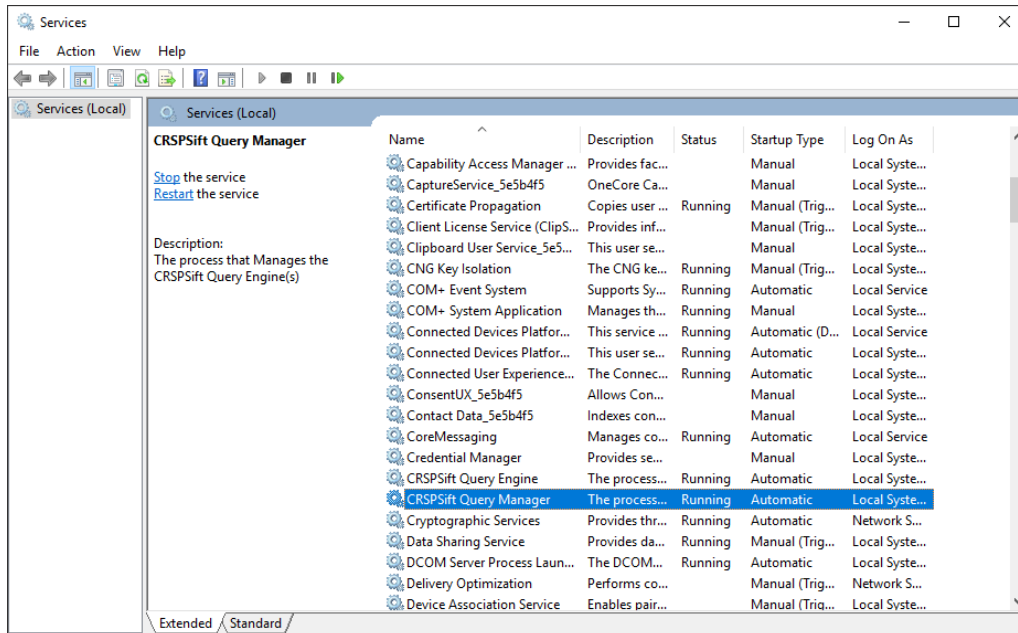
6. In the right detailed list panel locate the item marked **CRSPSift Query Manager.**

7. Right click **CRSPSift Query Manager** and select **Restart**.

Restarting the Query Engine Service

1. Login to the computer on which the **Query Engine Service** resides.

2. Go to the **Start Menu** and right click on **My Computer.**

3. In the **Right Click Menu** select **Manage**.

4. In the left panel tree view under **Computer Management** expand the **Services and Applications** node.

5. In the left panel tree view under **Services and Applications** select **Services**.
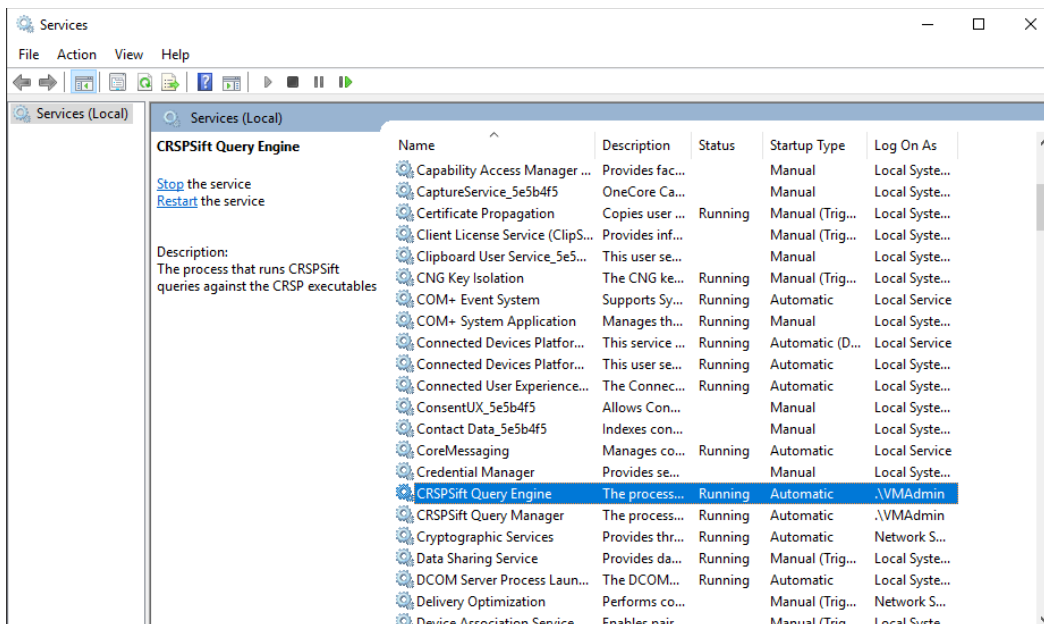
6. In the right detailed list panel locate the item marked **CRSPSift Query Engine**.

7. Right click **CRSPSift Query Engine** and Select **Restart**.

HOW TO CHANGE THE ACCOUNT RUNNING THE MANAGER SERVICE

The Sift Enterprise install sets all Sift Enterprise Service to run under the Local System Account. If you need to change this account due to your organization's standards, make sure this account has rights to your Sift SQL Databases (SIFTExpress and SiftResources) as well as the Temporary File Folder.

1. Login to the computer on which the Manager Service resides.

2. Go to the **Start Menu** and right click on **My Computer** and choose the **Manage** option.

3. In the left panel tree view under **Computer Management** expand the **Services and Applications** node.

4. In the left panel tree view under **Services and Applications** select **Services**.

5. In the right detailed list panel locate the item marked **CRSPSift Query Manager**.

6. Right click **CRSPSift Query Manager** and select **Properties**.

7. Navigate to the **Log On** tab.

8. To change from **Local System Account** to another specified account select the radio button **This Account**.

9. In the text box to the right of **This Account** type the domain\username of the account.

10. Replace the text in the **Password** textbox with the account's password.

11. Replace the text in the **Confirm Password** textbox with the account's password.

12. Click the **Apply** button on the form and **Okay** on the notification stating the change will not take effect until the service is restarted.

13. Click the **Okay** button.

14. Right click the **CRSPSift Query Manager** and select **Restart**.

HOW TO CHANGE THE ACCOUNT RUNNING THE QUERY ENGINE SERVICE

The Sift Enterprise install sets all Sift Enterprise Service to run under the Local System Account. If you need to change this account due to your organization's standards, make sure this account has rights to your Sift Temporary File Folder.

1. Login to the computer on which the **CRSPSift Administrator Tool** resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin directory and run the SiftAdminTool.exe.

3. Click on the **Services** option in the menu.
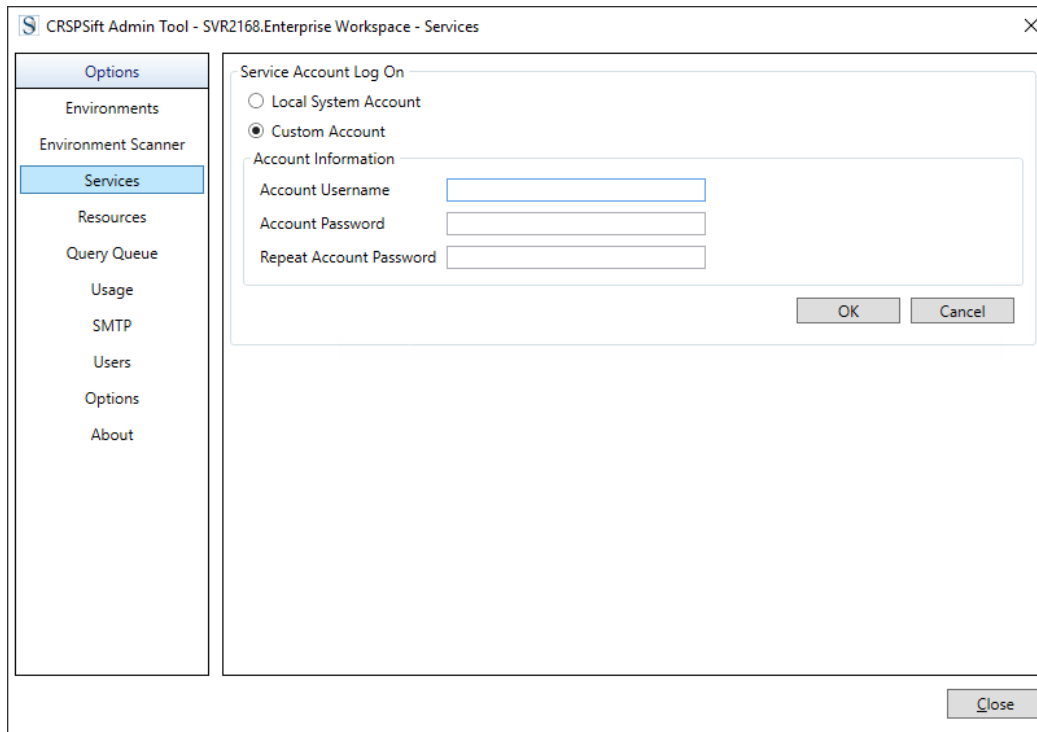
4. Click the **Change Account** button on the Query Engine connection you wish to change.

5. Select **Custom Account**.

6. Type the domain\username of the account in the **Account Username** text box.

7. Type the account's password in the **Account Password** text box.

8. Type the account's password again in the **Repeat Account Password** text box.

9. Press the **OK** button to save the changes to the database.

HOW TO CHANGE THE ENTERPRISE CLIENT'S DEFAULT SERVER (POST INSTALLATION)

You may want to change the server hosting Sift Enterprise possibly to move to a server with more power. If you change the server hosting Sift Enterprise you do not have to uninstall and reinstall each of your clients. However, you do need to change the configuration file for each client to point to the new server.

1. Login to the computer on which the Enterprise Client resides.

2. Navigate to the directory at which the Enterprise Client is installed. If it was installed in the default location it would be located at C:\Program Files\CRSP\CRSPSift 4.2 Enterprise Edition \bin.

3. Open the file marked as SiftWPF.exe.config.

   a. If the file is not associated with an application for opening it, Windows will prompt you to specify an application with which to open.

   b. Choose "Select the program from a list" and click OK.

   c. Select Notepad or your preferred text editor from the list of programs and click OK.

```
<client>
<endpoint address="net.tcp://ServerName:9001/SiftClientService binding="netTcpBinding" binding
Configuration="TcpBinding1" contract="SiftComponents.Communications.Client.SiftClientContract"
name="Default_Service" />
<endpoint address="net.tcp://ServerName:9001/CrspResourceService" binding="netTcpBinding" bi
ndingConfiguration="TcpBinding1" contract="SiftComponents.Communications.Client.Resources.
CrspResourceContract" name="Default_Resource" />
<endpoint address="net.tcp://ServerName:9001/SiftAdminService" binding="netTcpBinding" bindingCo
nfiguration="TcpBinding1" contract="SiftComponents.Communications.Client.Admin.SiftAdminContract"
name="Default_Admin" />
<endpoint address="net.tcp://ServerName:9001/CrspEScanService"  binding="netTcpBinding" bindingConfi
guration="TcpBinding1" contract="SiftComponents.Communications.Client.EnvScanner.CrspEScanContract"
name="Default_Crsp_EScan" />
<endpoint address="net.tcp://ServerName:9003/CrspStreamStream"  binding="netTcpBinding" bindingConfig
uration="TcpStreamBinding" contract="SiftComponents.Communications.Client.Stream.CrspStreamContract"
name="Default_Stream" />
</client>
```

1. Find the **Client Endpoint Nodes** as seen above.

2. In the address field replace the **Server Name** with the **New Enterprise Server Name** for the Enterprise Client. The result would look something like this:

```
<client>
<endpoint address="net.tcp://NewEnterpriseServerName:9001/SiftClientService binding="netTcpBinding"
bindingConfiguration="TcpBinding1" contract="SiftComponents.Communications.Client.SiftClientContract"
name="Default_Service" />
<endpoint address="net.tcp://NewEnterpriseServerName:9001/CrspResourceService"
binding="netTcpBinding" bindingConfiguration="TcpBinding1" contract="SiftComponents.Communications.
Client.Resources.CrspResourceContract" name="Default_Resource" />
<endpoint address="net.tcp://NewEnterpriseServerName:9001/SiftAdminService" binding="netTcpBinding"
bindingConfiguration="TcpBinding1" contract="SiftComponents.Communications.Client.Admin.
SiftAdminContract" name="Default_Admin" />
<endpoint address="net.tcp://NewEnterpriseServerName:9001/CrspEScanService"  binding="netTcpBinding"
bindingConfiguration="TcpBinding1" contract="SiftComponents.Communications.Client.EnvScanner.
CrspEScanContract" name="Default_Crsp_EScan" />
<endpointaddress="net.tcp://NewEnterpriseServerName:9003/CrspStreamStream"  binding="netTcpBinding"
bindingConfiguration="TcpStreamBinding" contract="SiftComponents.Communications.Client.Stream.
CrspStreamContract" name="Default_Stream" />
</client>
```

Note: If the New Enterprise Server is using ports other than 9001 and 9003 for the SiftClientService and the CrspClientStream they will also need to be changed to match the New Enterprise Server ports.

3. Save the configuration file.

4. Close the text editor.

5. If Sift is currently open on the machine the application must be restarted for the port changes to take effect.

HOW TO CHANGE SIFT ENTERPRISE PORTS

You may need to change the ports Sift Enterprise uses to communicate to its components because other applications installed in your environment use these same ports. When changing ports make sure you change the ports for both the Query Manager and Query Engine as well as for each Sift Enterprise Client.

If you need to change ports please contact CRSP support at 312-263-6400 option # 2. There are quite a few configuration files you will need to change.

HOW TO CHANGE THE LOCATION OF TEMPORARY FILES IN THE MANAGER SERVICE

The temporary file location in the Manager Service is the location where the Query Engine Service writes the query output files. The files reside in the temporary file location until the SIFT Client requests the output file to be transferred from the Manager Service to the Client location. Once the file transfer is complete, the file is removed from the temporary location. Upon installation of the Manager Service the temporary file location is set to "default" in the Manager Service configuration file, which corresponds to "%AllUsersProfile%\Application Data\SQE" on the machine running the Manager Service. This location can be changed with a few easy steps.

Steps to change the location of temporary files in the Manager Service

1. Login to the computer on which the Manager Service resides.
2. Navigate to the directory at which the Manager Service is installed. If it was installed in the default location it would be located at C:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin.
3. Open the file marked as SiftQueryManager.exe.config.

   a. If the file is not associated with an application for opening it, Windows will prompt you to specify an application with which to open.
   b. Choose "Select the program from a list" and click OK.
   c. Select Notepad or your preferred text Editor from the list of programs and click OK.

4. Find the <add key "WorkingDirectory" value="default" /> line within the <appSettings> XML tags. This line is typically located on the 5th line down from the top.

```
<appSettings>
        <add key="AppConnStr" value="Data Source=|DataDirectory|\SiftExpress.vdb4;Open
Mode=NonexclusiveReadWrite" />
        <add key="ResourcesConnStr" value="Data Source=|DataDirectory|\SiftResources.vdb4;Open
Mode=NonexclusiveReadWrite" />
        <add key="WorkingDirectory" value="default" />
        <add key="ClientSettingsProvider.ServiceUri" value="" />
        <add key="SiftVersion" value="CRSPSift 4.3.21 Enterprise Server" />
        <add key="DisableMUT" value="false" />
        <add key="DisableRIN" value="false" />
</appSettings>
```

5. On the same line find the term value="default".
6. Place full file path location for the temporary files with in the quotes. (e.g. value="E:\CRSPOutput")

```
<appSettings>
        <add key="AppConnStr" value="Data Source=|DataDirectory|\SiftExpress.vdb4;Open
Mode=NonexclusiveReadWrite" />
        <add key="ResourcesConnStr" value="Data Source=|DataDirectory|\SiftResources.vdb4;Open
Mode=NonexclusiveReadWrite" />
        <add key="WorkingDirectory" value="E:\CRSPOutput" />
```

```
            <add key="ClientSettingsProvider.ServiceUri" value="" />
            <add key="SiftVersion" value="CRSPSift 4.3.21 Enterprise Server" />
            <add key="DisableMUT" value="false" />
            <add key="DisableRIN" value="false" />
</appSettings>
```

7. Save the configuration file.

8. Close the text editor.

9. Restart the Manager Service for the change to take effect. (See the "How to Restart the Query Engine and Manager Services" section of this document.)

NOTE: The Query Engine Service must have the ability to write files to the temporary file location. Also, the Manager Service must have the ability to read and delete files from the temporary file location.

NOTE: Be sure to preserve the quotes on either end of the file path entered for the value property or this will cause the program to crash.

HOW TO CHANGE THE NUMBER OF THREADS FOR QUERY ENGINE

1. The number of threads Query Engine equates to the number of simultaneous queries Query Engine executes. The install program sets this to 15. You may want to adjust this up to 25 if you are running on a powerful server to increase performance. You may also want to adjust this down if running on a very small server and experiencing lockups. If after adjusting, you do not realize expected results CRSP suggests the setting be changed back to 15.

2. Navigate to the directory at which the Query Engine is installed. If it was installed in the default location it would be located at C:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin

3. Open the file marked as SiftQueryEngine.exe.config.

   a. If the file is not associated with an application for opening it, Windows will prompt you to specify an application with which to open it.
   b. Choose "Select the program from a list" and click OK.
   c. Select Notepad or your preferred text editor from the list of programs and click OK.

```
      <appSettings>
            <add key="numThreads" value="15"/>
      </appSettings>
```

4. Find the <add key="numThreads" value = "15" /> as seen above.

5. Change the value from 15 to desired value. In the below example it is being changed to 25:

```
      <appSettings>
         <add key="numThreads" value="25"/>
      </appSettings>
```

6. Save the configuration file.

7. Close the text editor.

8. Restart the Query Engine for the changes to take effect. (See the "How to Restart the Query Engine and Manager Services" section of this document.)

OTHER ADMIN TOOL FUNCTIONS

The Administrator Tool has several functions intended for management of the future scalable (multi Query Engine) environment. These functions are briefly discussed here.

SERVICES

The Services function allows you to view the components active in your Sift Enterprise environment. It will display the ports and server each component is running from.

1. Login to the computer on which the **CRSPSift Administrator Tool** resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool**.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin** directory and run the SiftAdminTool.exe

3. Click the Services option on the left menu panel.

CRSPSift Admin Tool - SVR2168.Enterprise Workspace - Services

Options
Environments
Environment Scanner
Services
Resources
Query Queue
Usage
SMTP
Users
Options
About

Manager Service Connections

Service Type	Protocol	Server	Port / Channel	Account
CRSPSift Client Manager Service	TCP / IP	SVR2168	9001	.\VMAdmin
CRSPSift Resource Service	TCP / IP	SVR2168	9001	.\VMAdmin
CRSPSift Administrative Service	TCP / IP	SVR2168	9001	.\VMAdmin
CRSPSift Environment Scanner Se...	TCP / IP	SVR2168	9001	.\VMAdmin
CRSPSift File Transfer Streaming S...	TCP / IP	SVR2168	9003	.\VMAdmin
CRSPSift Upgrade Service	TCP / IP	SVR2168	9001	.\VMAdmin

Query Engine Connections

| Protocol	Server	Port / Channel	Account	Change Account Settings
TCP / IP	SVR2168	9000	.\VMAdmin	Change Account

Close

USAGE

The Usage function allows you to view some usage statistics from your Sift Enterprise environment.

1. Login to the computer on which the **CRSPSift Administrator Tool** resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the **CRSPSift Administrator Tool.**

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin** directory and run the SiftAdminTool.exe

3. Click the **Usage** option on the left menu panel.
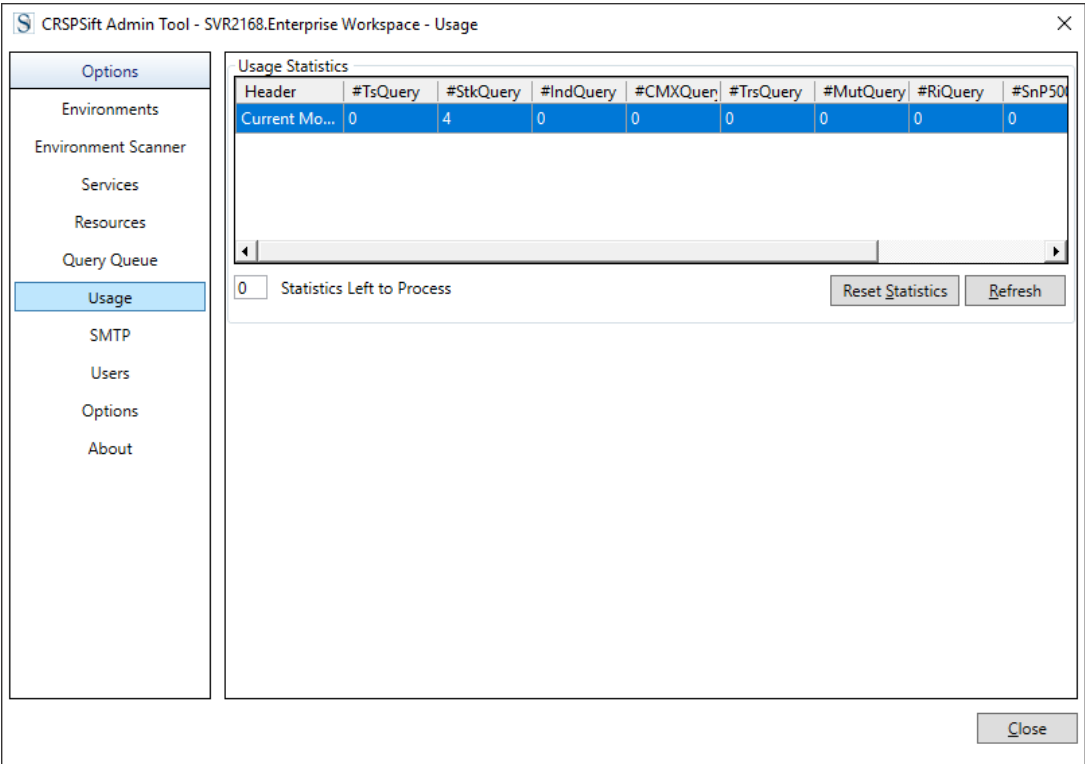
USERS

The User function allows you to view who has logged into your Sift Enterprise environment.

1. Login to the computer on which the **CRSPSift Administrator Tool** resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the CRSPSift Administrator Tool.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin** directory and run the SiftAdminTool.exe

3. Click the **User** option on the left menu panel.
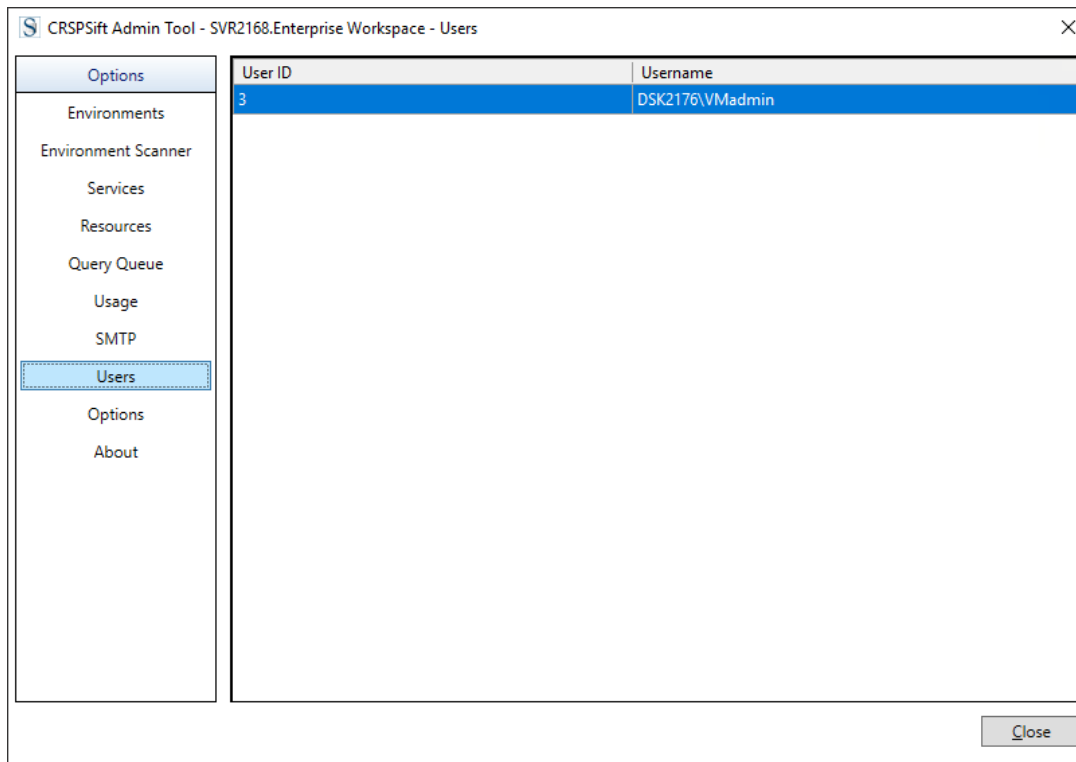
OPTIONS

The Options function allows you to do two things:

- Change the Default Working Directory for all newly defined environments .
- Import/Export/Clear Favorites associated with Query Tool Products.

1. Login to the computer on which **CRSPSift Administrator Tool** resides.

2. Launch the SIFT Admin Tool by going to the **Start Menu > All Programs > CRSPSift 4.3.21** and clicking on the CRSPSift Administrator Tool.

   NOTE: Alternatively, you can open a Windows Explorer and navigate to the **c:\Program Files (x86)\CRSP\CRSPSift 4.3.21 Enterprise Server\bin** directory and run the SiftAdminTool.exe

3. Click the **Options** option on the left menu panel.
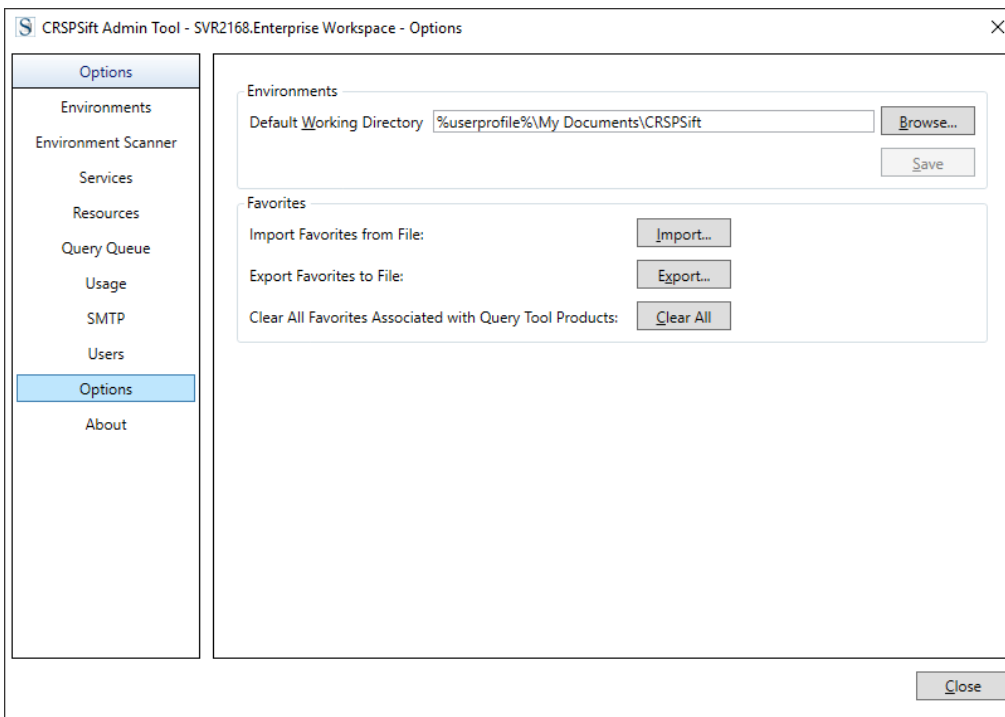
The **Default Working Directory** for each environment defines where queries and results will be Stored on the client machines for that environment as a default. The user can change this directory when saving queries or results. See section "How to Scan for, Create, and Edit Environments" for more information on the "Working Directory" and how to modify it for a specific environment.

The **Favorites** section allows you to Import/Export/Clear All favorites from the database. These favorites relate to TsQuery, StkQuery, CcmQuery or TrsQuery queries and can be added from the Data Items section of those tools. A sample screen shot of StkQuery's Data Items screen with a Favorite selected is shown below: