

# FORTRA

Unified Server

Installation Guide

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# Table of Contents

<b>Before You Begin</b> .....	<b>4</b>
Software Requirements and Notes .....	4
<b>Installing the Unified Server</b> .....	<b>8</b>
Configuring the Unified Server .....	33
Configuring the Sequel Web Server (SWS) .....	40
Configuring TLS on SWS .....	49
Configuring the Viewpoint Server .....	52
<b>After You Are Done</b> .....	<b>56</b>

# Before You Begin

The Unified Server Install is a single process that installs any or all of the three servers that make-up the Unified Server: **Sequel Web Server (SWS)**, **Automate Schedule**, and **Viewpoint**. Make sure to read and understand this document before you install the Unified Server.

- For First-time / Trial installations, the Unified Server must be installed before Sequel 11 is installed on the IBM i.
- This is a supplemental document to the Sequel 11 Install. You should have already downloaded the necessary software as outlined in the Sequel 11 Install documentation.

## Software Requirements and Notes

### Unified Server

You can install the SWS, Automate Schedule and Viewpoint servers on the same physical PC. If you choose to do so, the following is required:

- A server-class PC with at least 16GB of RAM, and a 2GHZ+ processor with 4 or more cores.
- 64-bit Windows 8/8.1 Professional with Service Pack 3 or higher or Windows Server 2012/2012 R2/2016.

**NOTE:**

- If the Unified Server is going to be installed on a PC running other mission critical services, consideration must be given to workloads and resource contention between the various services. Our recommendation is to allocate a dedicated server for Sequel [Showcase].
- IBM i Access for Windows or IBM i Client Access Solutions (for Windows 10) is required to define the Power i Host Systems on the server. See the Viewpoint Client requirements for more on this.

### Sequel Web Server (SWS)

This server is optional and should be configured if you intend to use the Sequel Web Interface to take advantage of multiple system access, interactive (pivot) Client Tables via a browser, the Viewpoint Repository, or job scheduling. The following is required:

- A server-class PC with at least 16GB of RAM, and a 2GHZ+ processor with 4 or more cores..
- 64-bit Windows 8/8.1 Professional with Service Pack 3 or higher or Windows Server 2012/2012 R2/2016.

## Automate Schedule Server

This server is optional and should be configured if you intend to use job scheduling in conjunction with the Viewpoint Repository. The following is required:

- A server-class PC with at least 16GB of RAM, and a 2GHZ+ processor with 4 or more cores.
- 64-bit Windows 8/8.1 Professional with Service Pack 3 or higher or Windows Server 2012/2012 R2/2016

Automate Schedule works in conjunction with (requires) SWS, and can be configured on the same hardware. If you choose to do so, follow the OS requirement for the SWS Server above.

## Viewpoint Server

This server is optional and should be configured if you intend to use the Sequel Web Interface to make Client Reports (new or converted from Showcase) available via a browser. The following is required:

- A server-class PC with at least 16GB of RAM, and a 2GHZ+ processor with 4 or more cores..
- 64-bit Windows 8/8.1 Professional with Service Pack 3 or higher or Windows Server 2012/2012 R2/2016.
- Viewpoint Client Software. See the Viewpoint Client requirements for more on this.
- IBM i Access for Windows or IBM i Client Access Solutions (for Windows 10) is required to define the Power i Host Systems on the server. See the Viewpoint Client requirements for more on this.

The computer should be fast enough to run Viewpoint requests quickly, and have access to the local network so that it can receive requests and route Viewpoint output to its desired location.

## Viewpoint Client

Viewpoint is the Windows interface to Sequel 11 and is used to create, access, run, and manage your Viewpoint objects (queries, reports, scripts, dashboards and so on). The following is required:

- A PC with at least 2GB of RAM, 250Mb of available disk space, a Pentium (or equivalent) processor, graphics resolution of 800 x 600 or higher along with the following:
- 64-bit Windows 8/8.1 Professional with Service Pack 3 or higher or Windows Server 2012/2012 R2/2016 with:
  - IBM i (System i, iSeries, Client) Access for Windows version V6R1 service pack SI35607 (or higher), or V7R1 service pack SI53809 (or higher) with the following installed components:
    - Client Access Express Required Programs.
    - iSeries Navigator Base Support (an option under iSeries Navigator).
    - Commands Component (an option under iSeries Navigator - for prompting commands in the script designer).
    - OLE DB Provider (an option under Data Access).

To verify these components are installed, go to: **Start\Programs\IBM iSeries Access for Windows>Selective Setup**.

- a. On the Selective Setup window, press **Next**.
- b. On the Selective Setup Options window, select **Ignore, I am only going to uninstall** and press **Next** (you won't uninstall, but will check if the components are installed).
- c. On the Component Selection window, verify that **Required Programs** is selected.
- d. Expand the iSeries Navigator node to verify that the **Basic Operations and Commands** components are listed and selected.
- e. Expand the Data Access node and verify that **OLE DB Provider** is listed and selected.

- A System i defined in iSeries Navigator.

This is sometimes an issue for people who don't typically use Client Access as their emulator. If you start iSeries Navigator, you should see your System i under My Connections. To check, go to:

**Start\Programs\IBM iSeries Access for Windows\iSeries Navigator\My Connections**.

- Microsoft .NET 3.5 or higher.

or

- Windows 10/11 with:
  - IBM Access Client Solutions (ACS) Windows Application Package with the following installed components:
    - Required Programs.
    - OLE DB Provider (an option under Data Access).

To verify these components are installed, go to: Windows Settings\Apps and features OR Control Panel Programs and features. Find IBM i Access Client Solutions – Application Package and click on Change or Modify. Be patient as it can take the Install Shield wizard quite a while to open. Make sure the OLE DB Provider does not have a red x indicating it is not selected.
    - A System i defined in iSeries Navigator.
- Microsoft .NET 3.5 or higher.

## Viewpoint Excel Add-in

- Excel 2010 and greater (32-bit).
- Microsoft .NET 4.5 or higher is required for the ViewPoint Excel Add-in.

During install, a message will display if .NET is deficient. This will not halt nor harm the install process, and you should continue if prompted. .NET can be updated any time after the ViewPoint install and is available at:

<http://www.microsoft.com/en-us/download/details.aspx?id=30653>

or

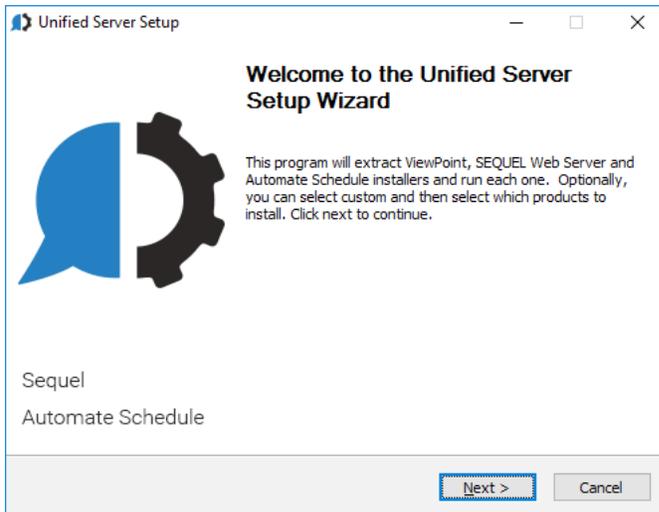
<http://www.microsoft.com/en-us/download/details.aspx?id=17851>

or

<http://msdn.microsoft.com/en-us/library/5a4x27ek%28v=vs.110%29.aspx>

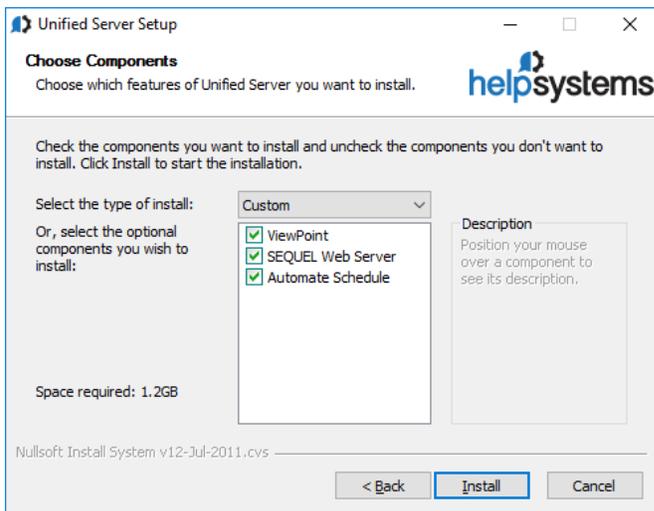
# Installing the Unified Server

1. Move the Unified Server setup file (**setupUnified-sequel.exe**), downloaded from the HelpSystems Web Site, to the server PC you wish to install onto.
2. Run (double-click) the setup file to start the install. Press **Next** on the Welcome screen to continue.

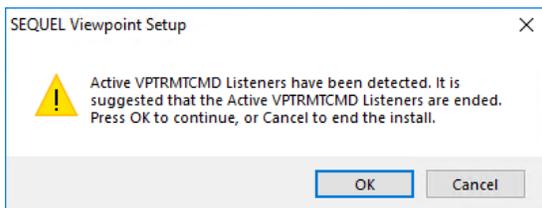
**NOTE:**

The Unified Installer progress screen remains open during the entire process and may become hidden behind other input dialogs or progress windows. Drag this Welcome screen or the Component screen that follows somewhere off-center on your desktop to more easily keep track of your progress.

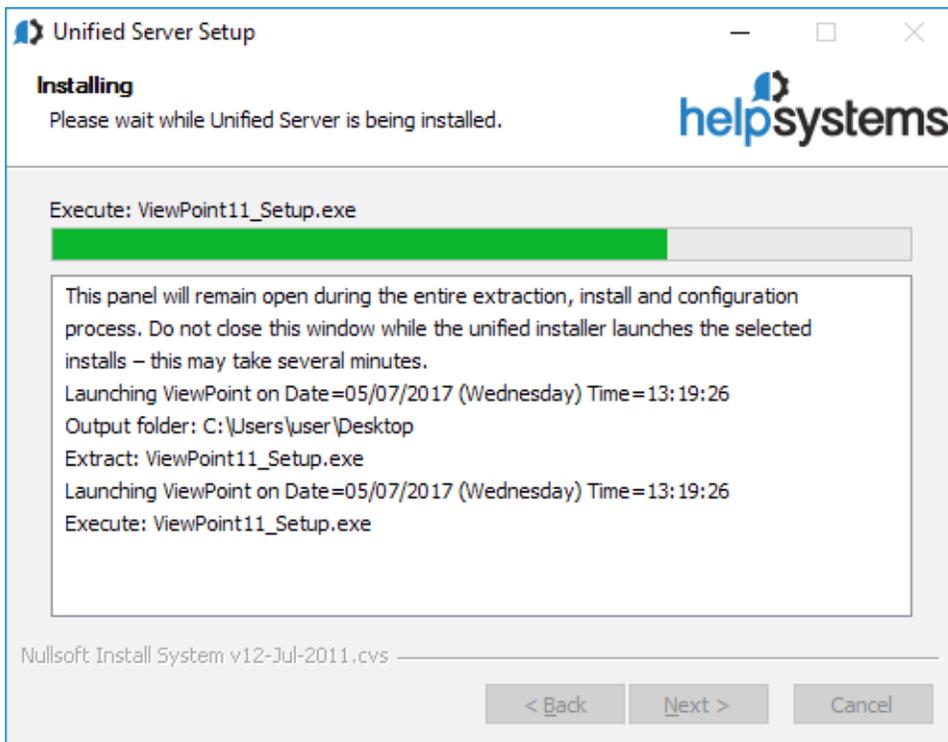
3. On the Choose Components screen the install type defaults to Typical which installs all three servers. Select Custom to choose the servers to install. Press **Install** to continue.

**NOTE:**

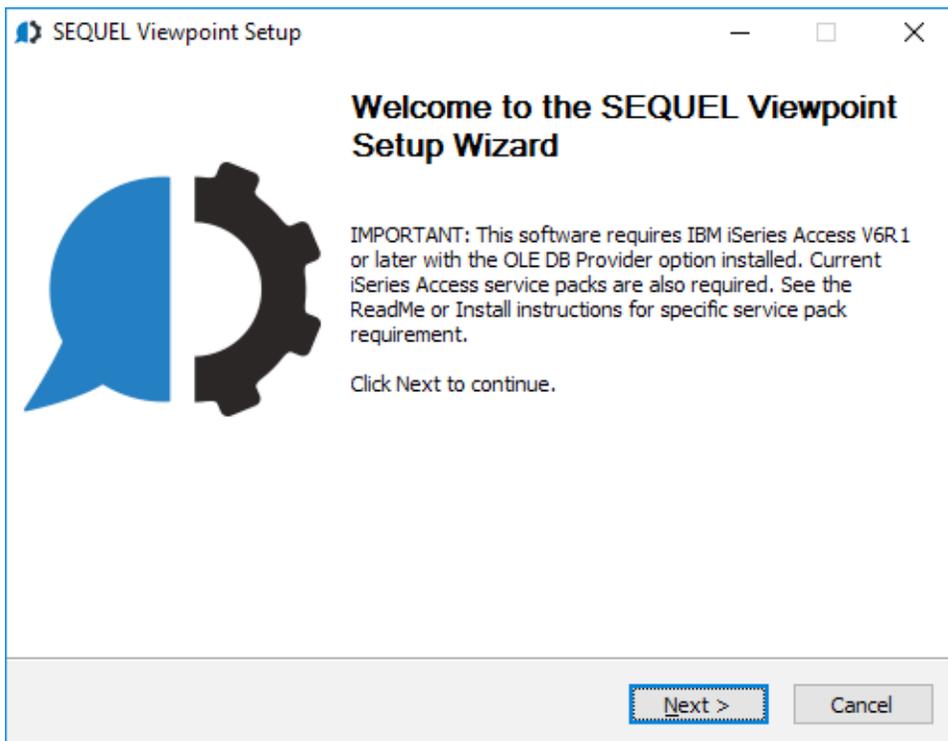
A warning will display if the install detects any active Viewpoint Listeners.



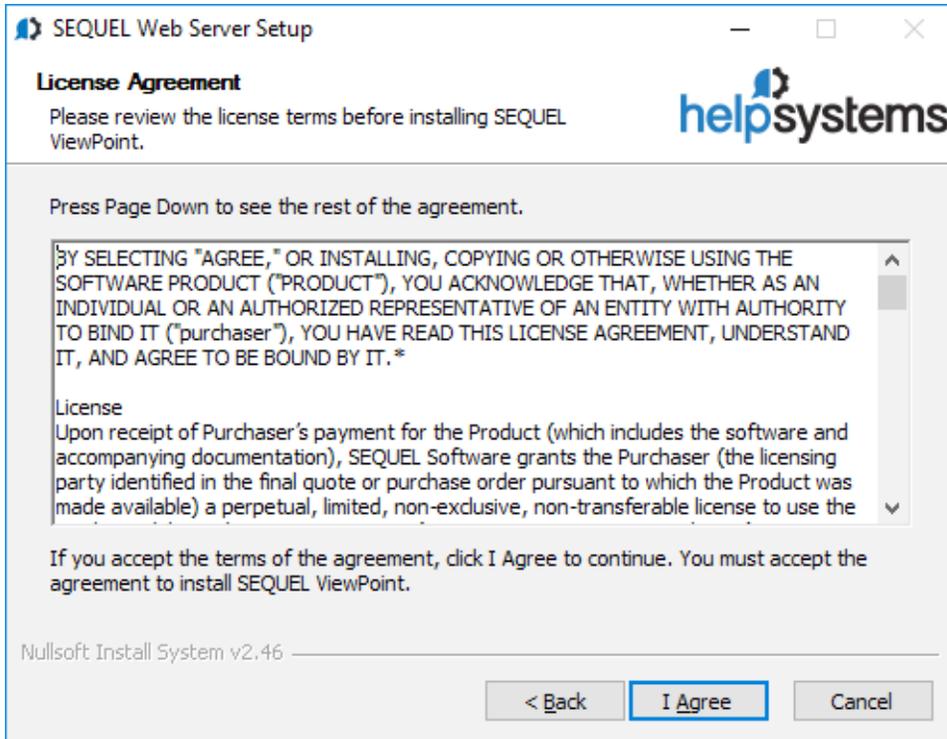
The Unified Install first extracts the Viewpoint client software, and then launches the Viewpoint Setup Wizard.



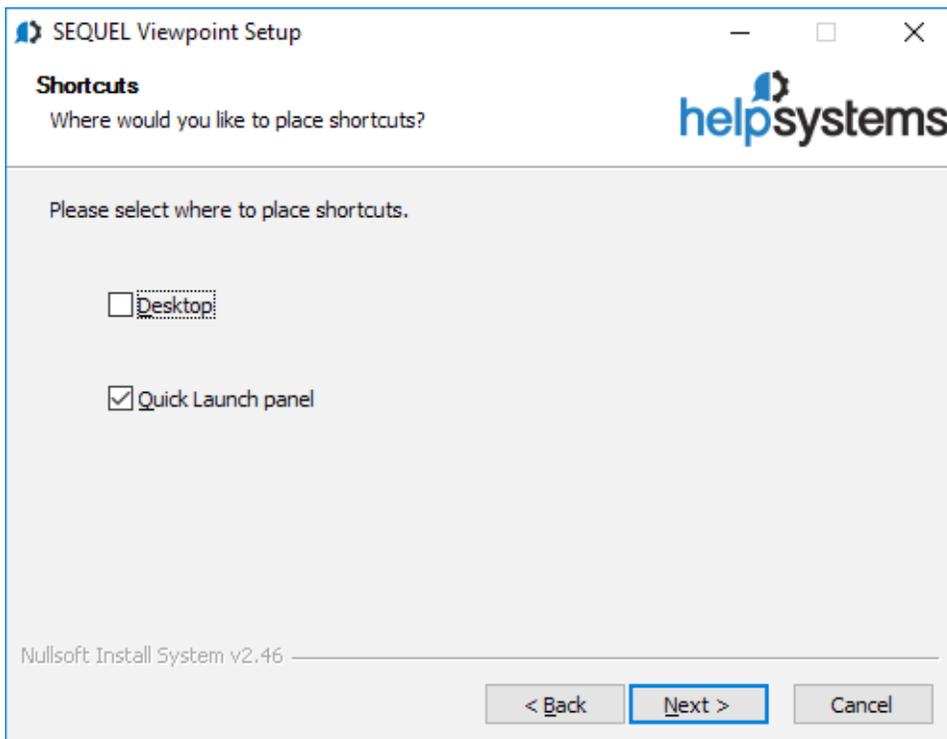
4. At the Viewpoint Welcome screen, press **Next** to start the Viewpoint Setup Wizard. (Again, this occurs alongside the Unified Server install process)



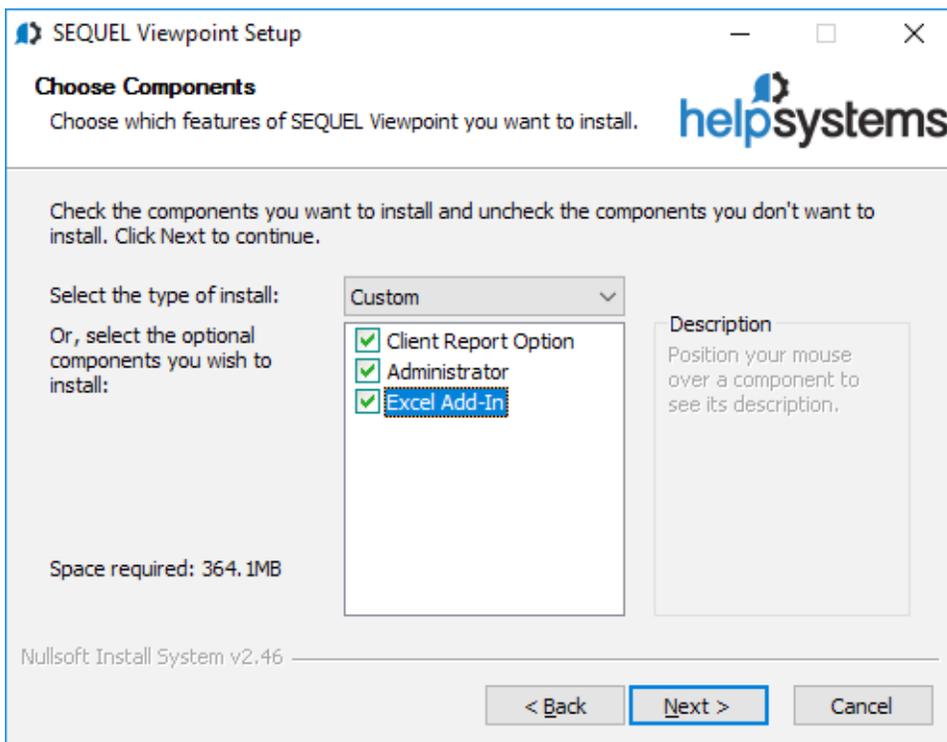
5. Press **I Agree** at the License Agreement screen to continue.



6. Choose which shortcuts to create and press **Next** to continue.

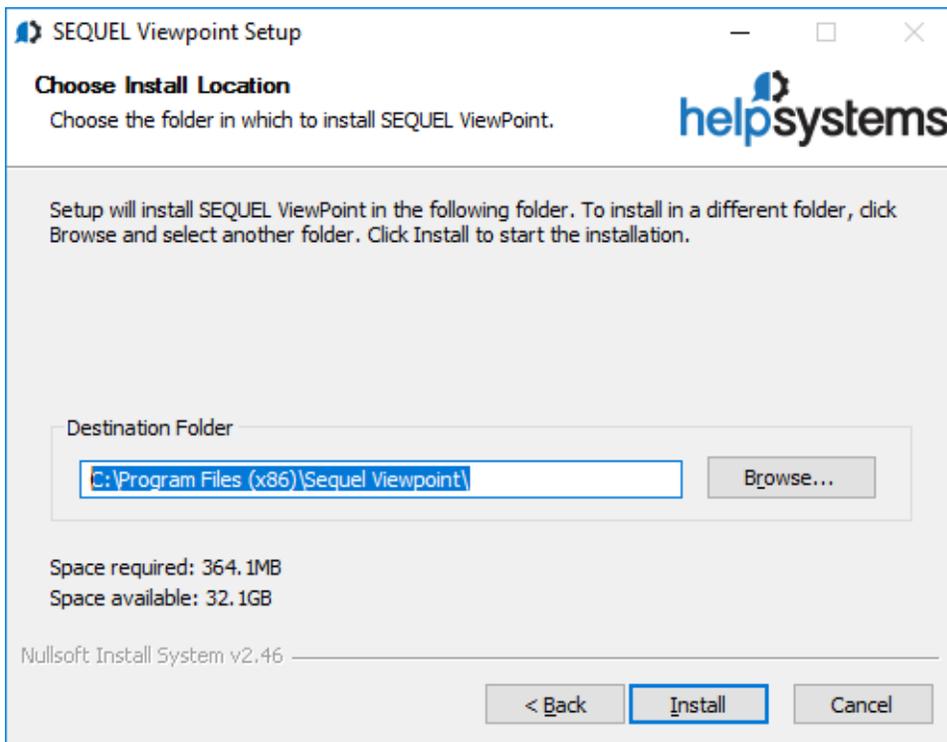


7. For Viewpoint, there are three components available to install: Client Report Option, Administrator, and the Excel Add-in. Choose the Custom option and select Client Report Option and Administrator. Press **Next** to continue.

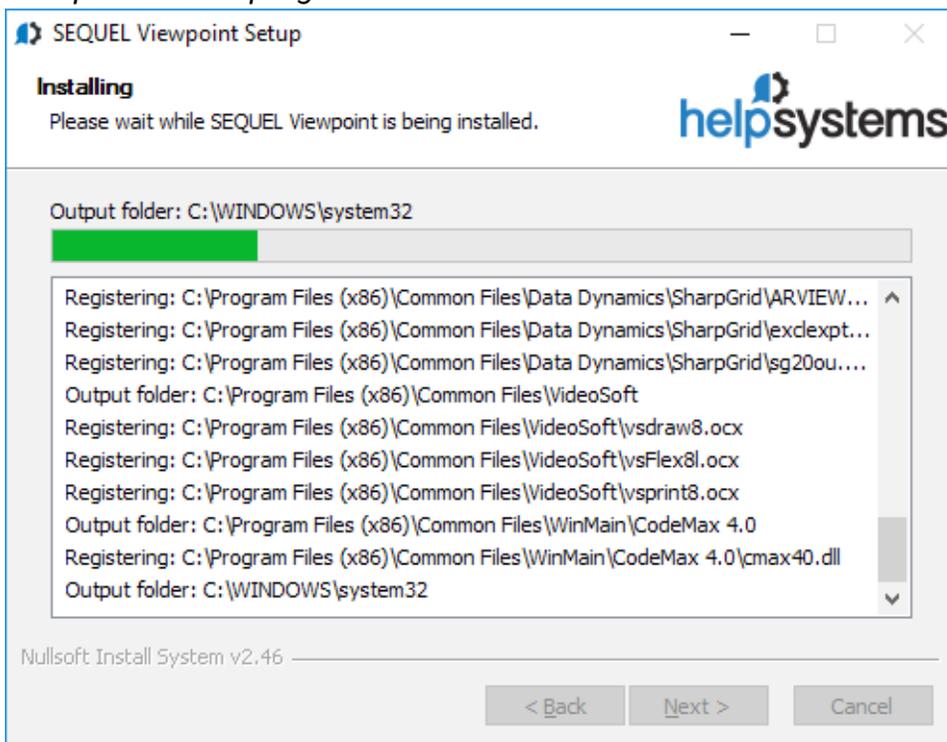
**NOTE:**

If you select the Administrator component, you will be prompted to provide a password. Contact a support representative to obtain the password before you install.

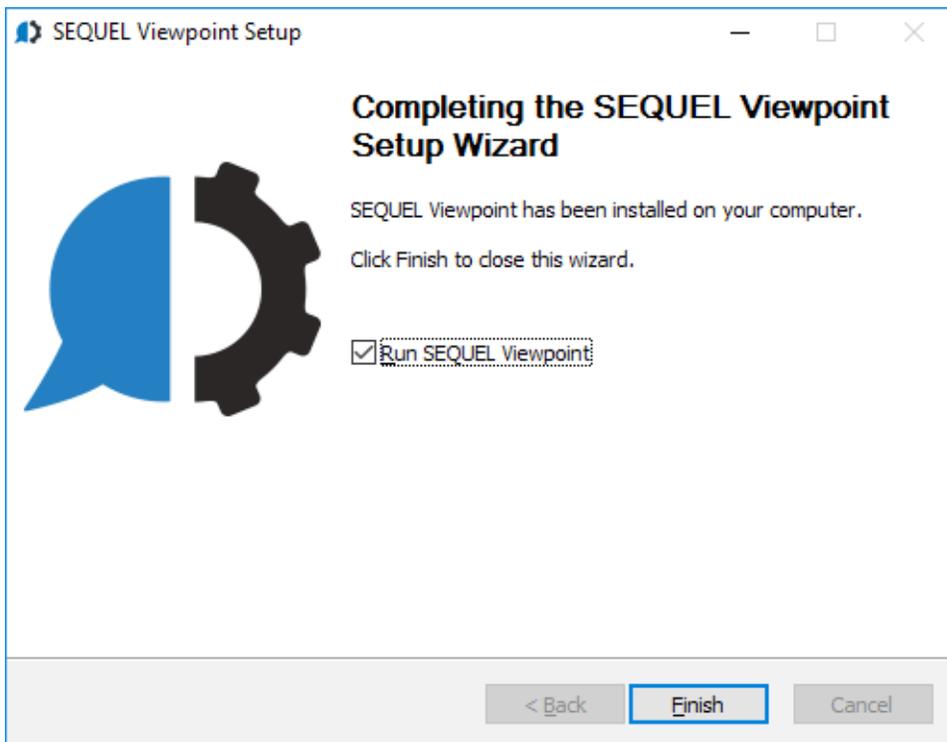
8. This screen displays only the first time Viewpoint is installed. Press **Install** to continue.



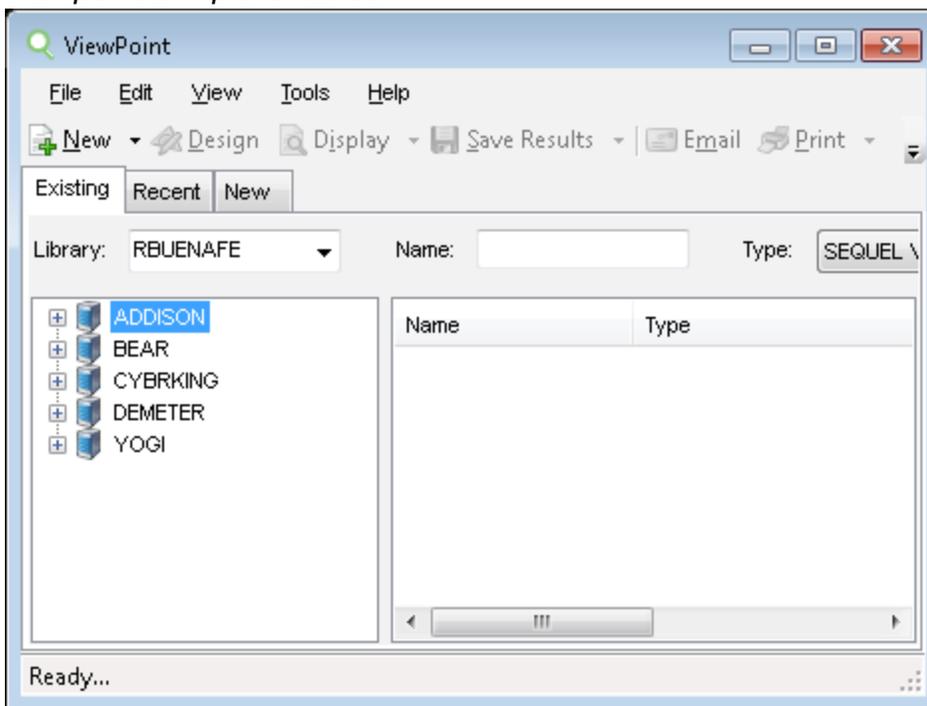
### Viewpoint install progress.



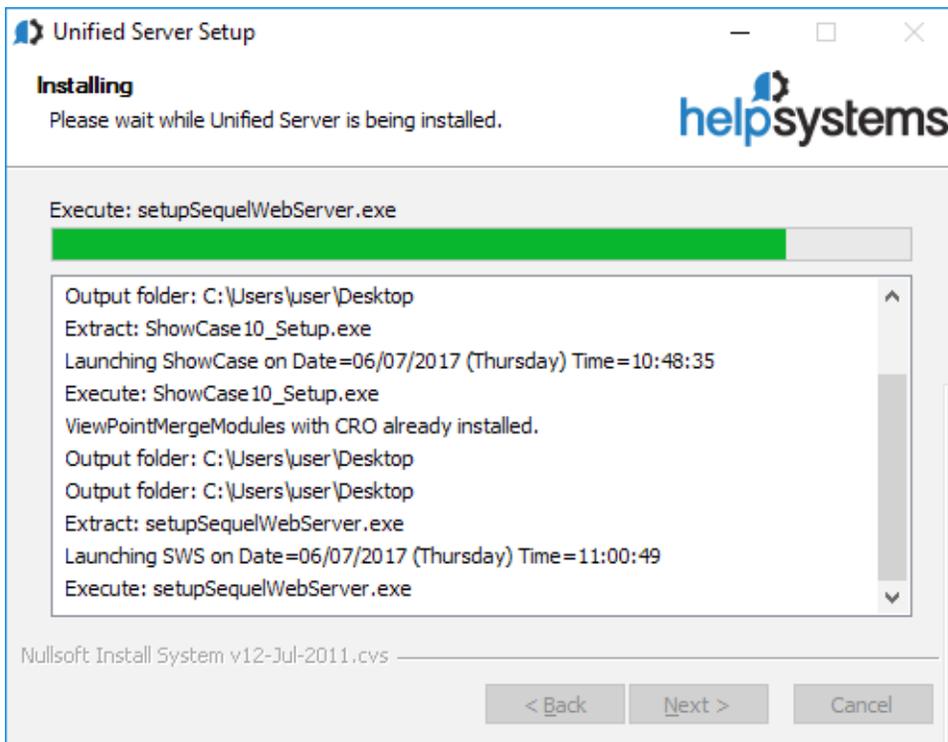
9. Check the box to run Viewpoint (recommended). Press **Finish** to continue and launch Viewpoint (shown below).



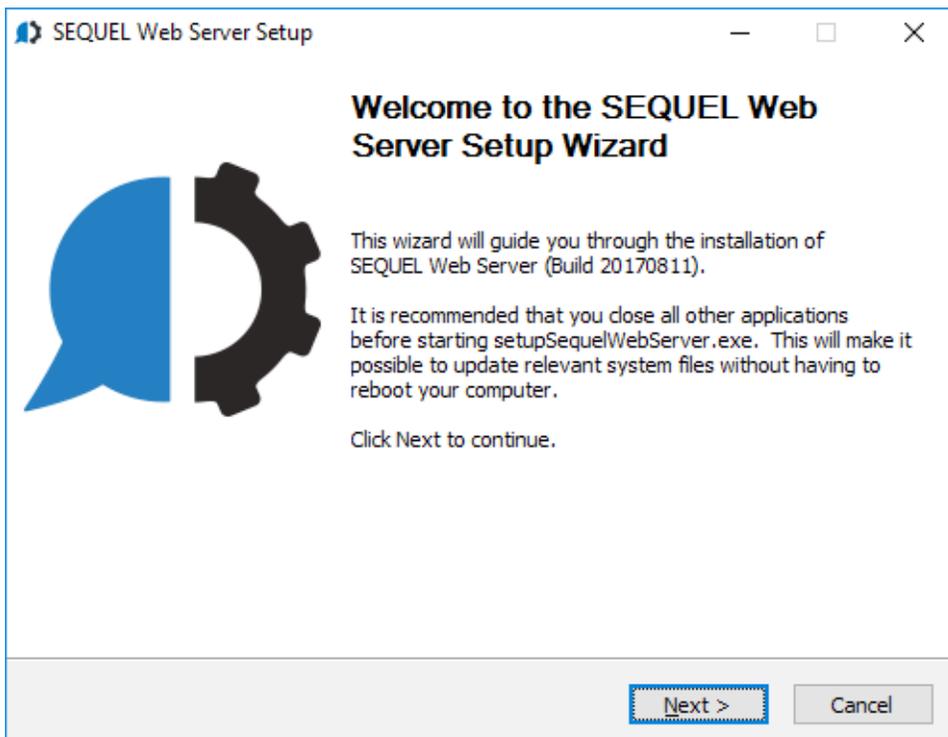
*Viewpoint's Explorer screen.*



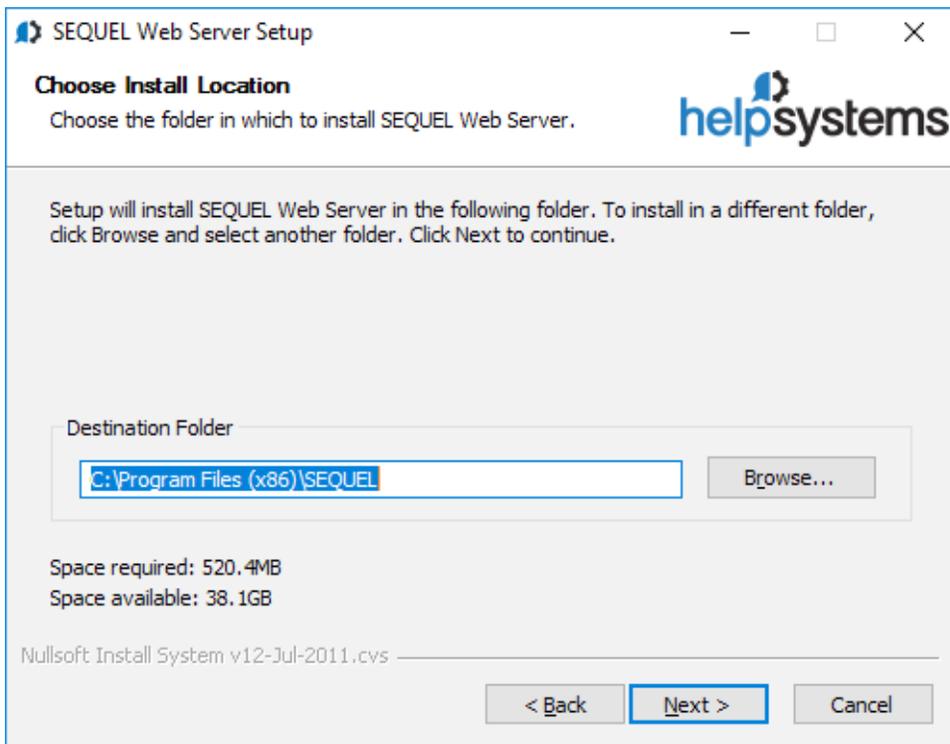
10. The Unified Install continues by extracting the Sequel Web Server (SWS) software and launching the SWS Setup Wizard.



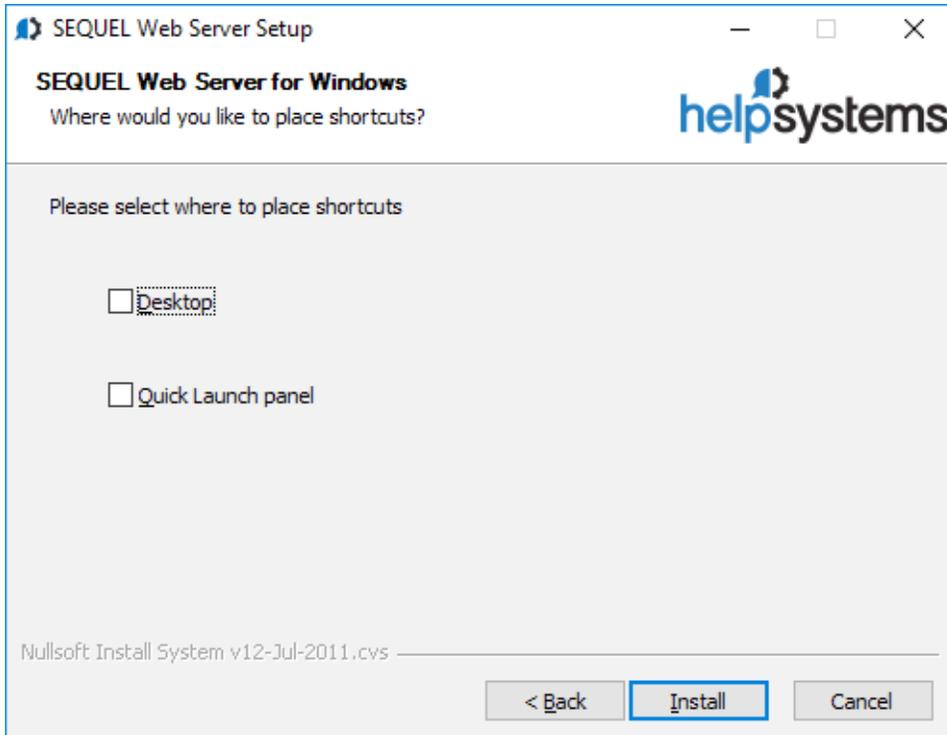
11. At the SWS Welcome screen, press **Next** to start the SWS Setup Wizard.



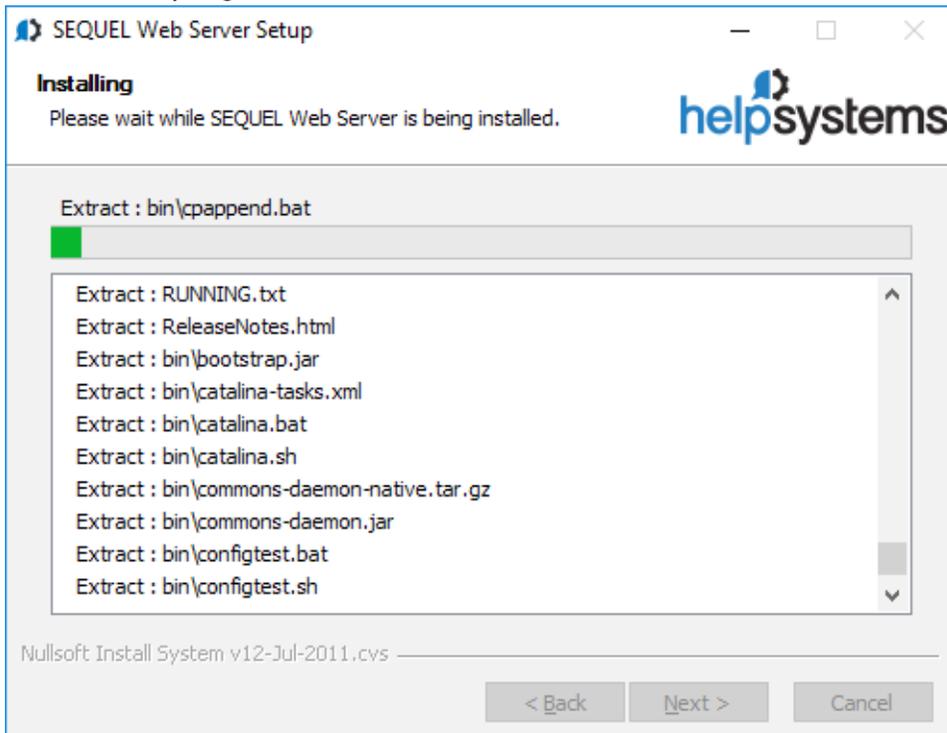
12. This screen displays only the first time SWS is installed. Press **Install** to continue.



13. Choose which shortcuts to create and press **Install** to continue.



*SWS install progress.*



14. When the Sequel Web Server Setup screen displays, specify (to create) the Windows user and password under which the servers will run. Press **Create** once the password is accepted.

The Tomcat Username and Password defaults to *admin / adminpwd*. Change them if you wish. If you are using Automate Schedule, the Admin password in SWS must be the same as the Admin password in Automate Schedule.

**Important:** If you change the Tomcat Username and Password values, write them down here:

These values are needed to log on before configuring [Automate Settings](#) and [Viewpoint Settings](#) in SWS.

The screenshot shows the 'SEQUEL Web Server Setup' window with the following sections:

- Create Windows User:**
  - User Name:
  - Password:
  - Retype Password:
  - Buttons:
- Tomcat User authorized to Global SWS settings:**
  - Username:
  - Password:
  - Retype Password:
- Information:**
  - The windows user sequelweb does not exist.
    - Enter the desired password, then click Create.
    - Upon successful creation, click OK to continue the installation.
  - The tomcat user exists.
    - Enter new username and/or password to override the existing username and/or password.
    - Click OK to save and continue the installation.

Press **OK** to continue.

15. The Sequel Web Server Configuration Manager screen assigns ports for the Apache and Web servers. The installer shows you the default ports if they are available. If a port is not available, enter a new port number and click **Test** to see if it is available. Once all ports are set, press **OK** to save the ports and continue the installation.

SEQUEL Web Server Configuration Manager

**Port Settings**

**Apache Http Server**

Listen Port: 80 ✓ Port 80 is available.

Database Port: 5433 ✓ Port 5433 is available.

**Web Server**

Shutdown Port: 8007 ✓ Port 8007 is available. Default 8005 is in use.

Connector Port: 8080 ✓ Port 8080 is available.

AJP 1.3 Port: 8012 ✓ Port 8012 is available. Default 8009 is in use.

Test Revert

**Information**

All selected Ports are available:

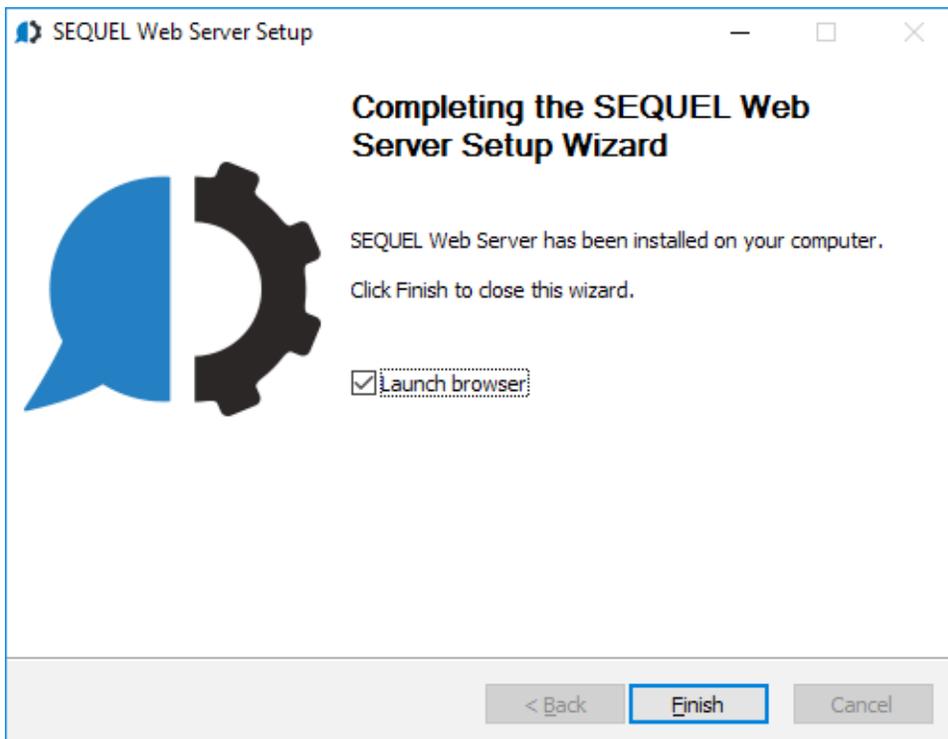
- Press OK to save and use these ports.
- Select different port numbers and test.

OK Cancel

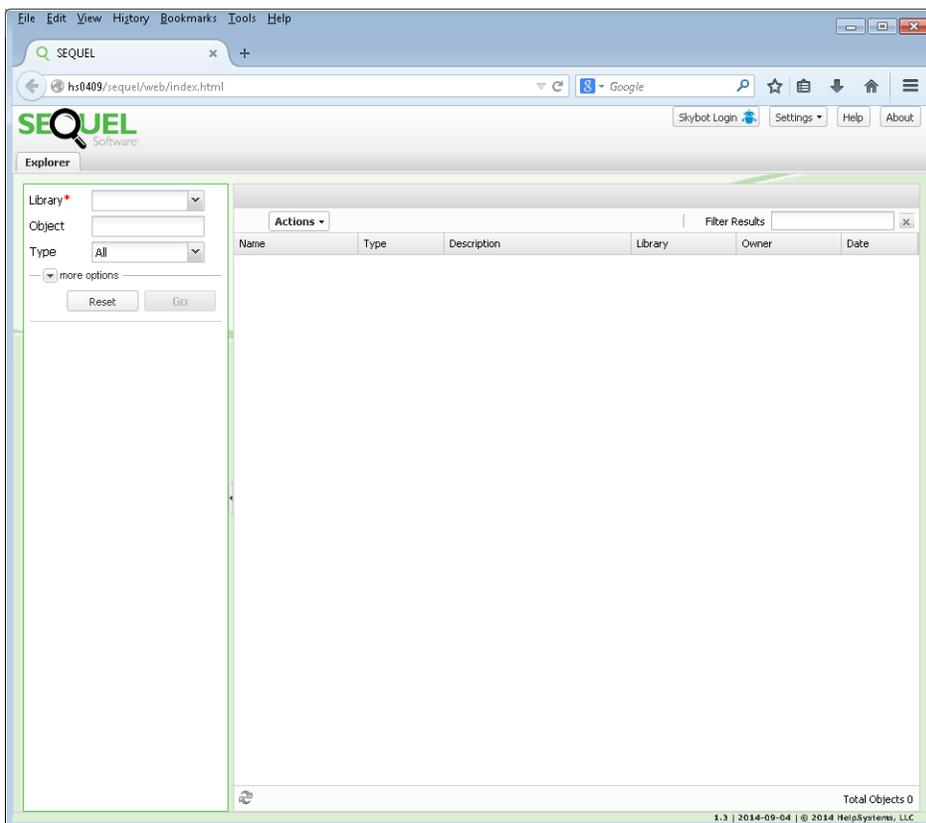
**NOTE:**

To access this screen in the future, run the application, *Sequel Web Server Configuration*, located in the All Programs\SEQUEL Web Server folder. You can also use Windows Search to locate the application.

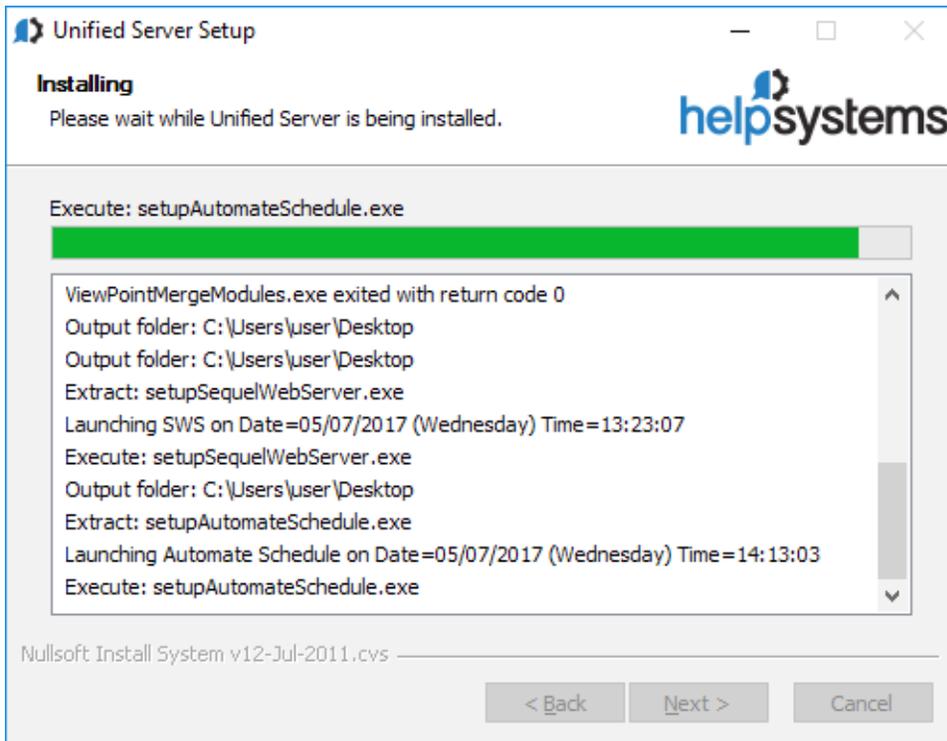
16. Check the box to launch a browser and connect to the SWS server (recommended). Press **Finish** to continue.



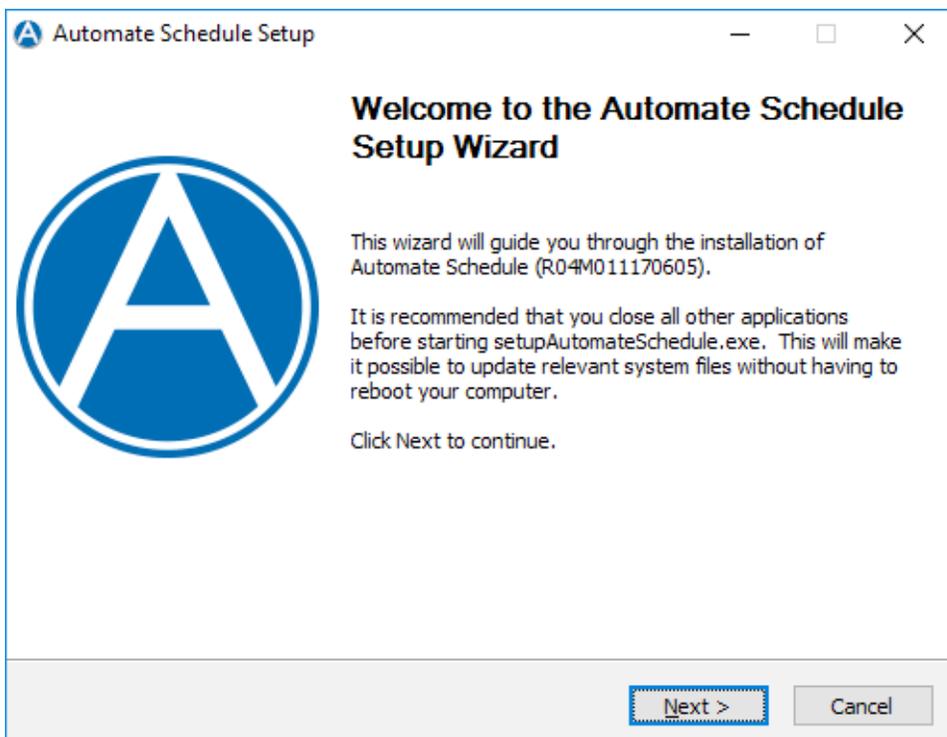
*Browser connected to SWS.*



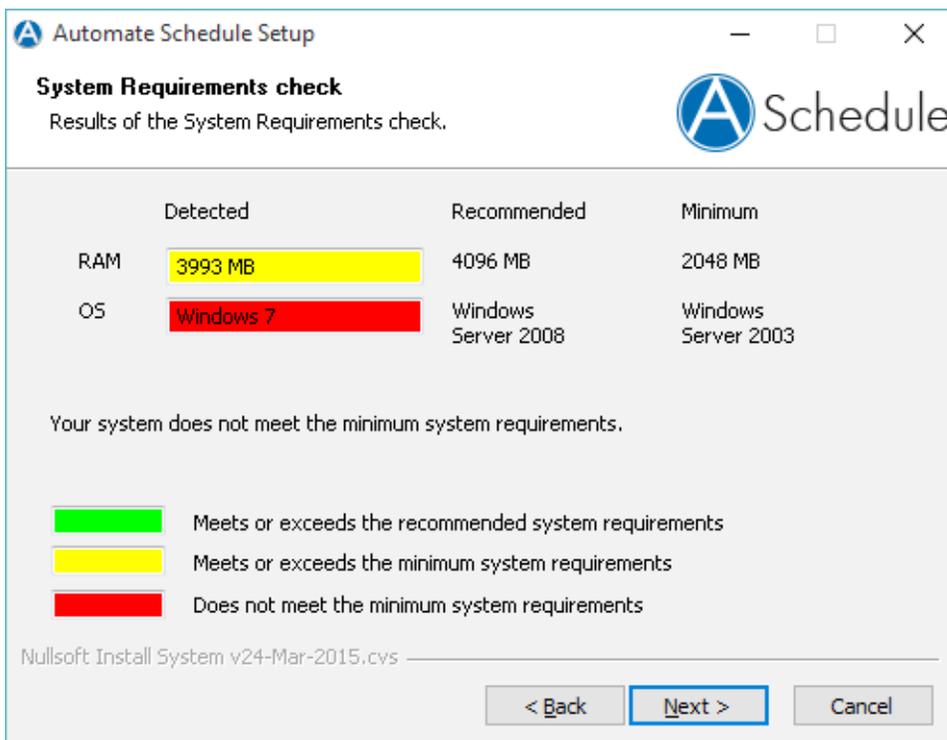
17. The Unified Install continues by extracting the Automate Schedule software and launching the Automate Schedule Setup Wizard.



18. At the Automate Schedule Welcome screen, press **Next** to start the Automate Setup Wizard.



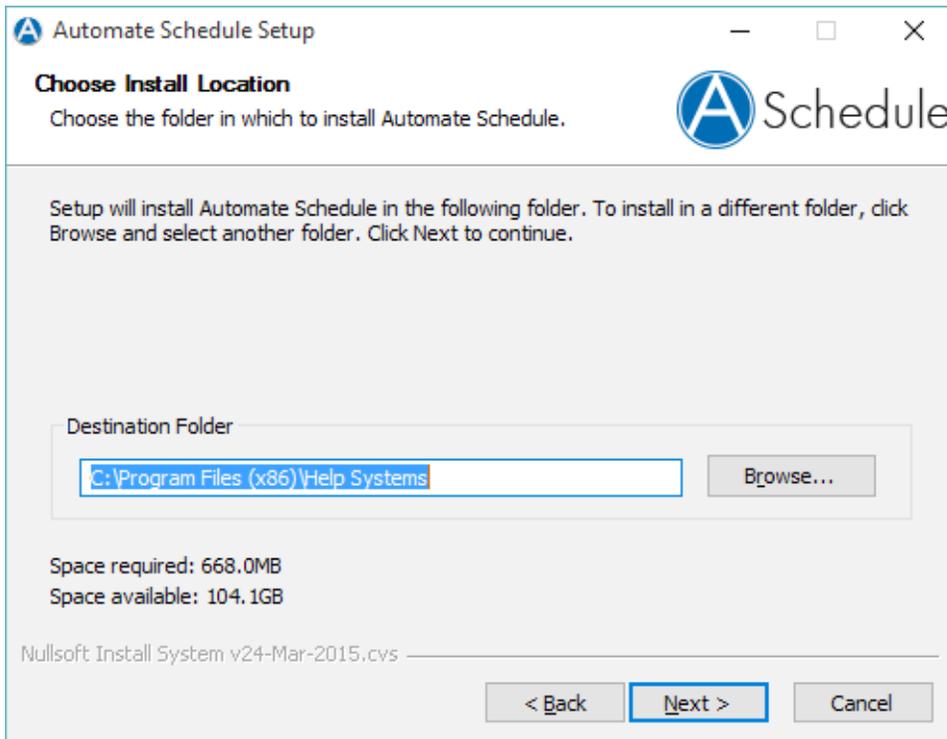
19. The Automate Schedule install will check your PC for minimum requirements. Press **Next** to continue.



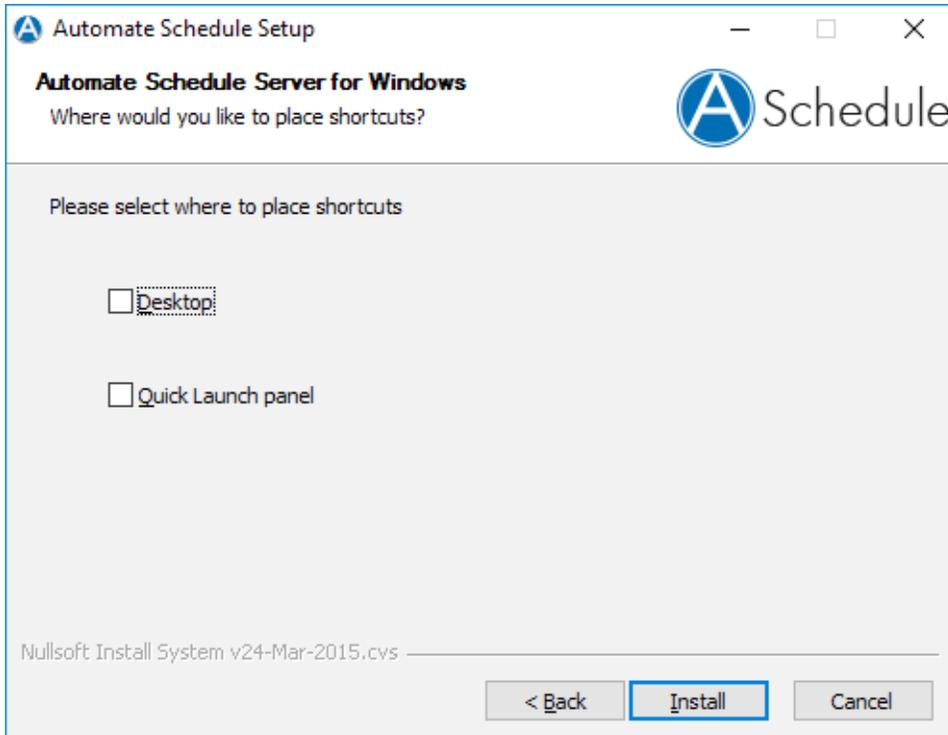
**NOTE:**

Automate Schedule will install and run on Windows XP and greater. A red indicator merely means that an item doesn't meet a suggested minimum.

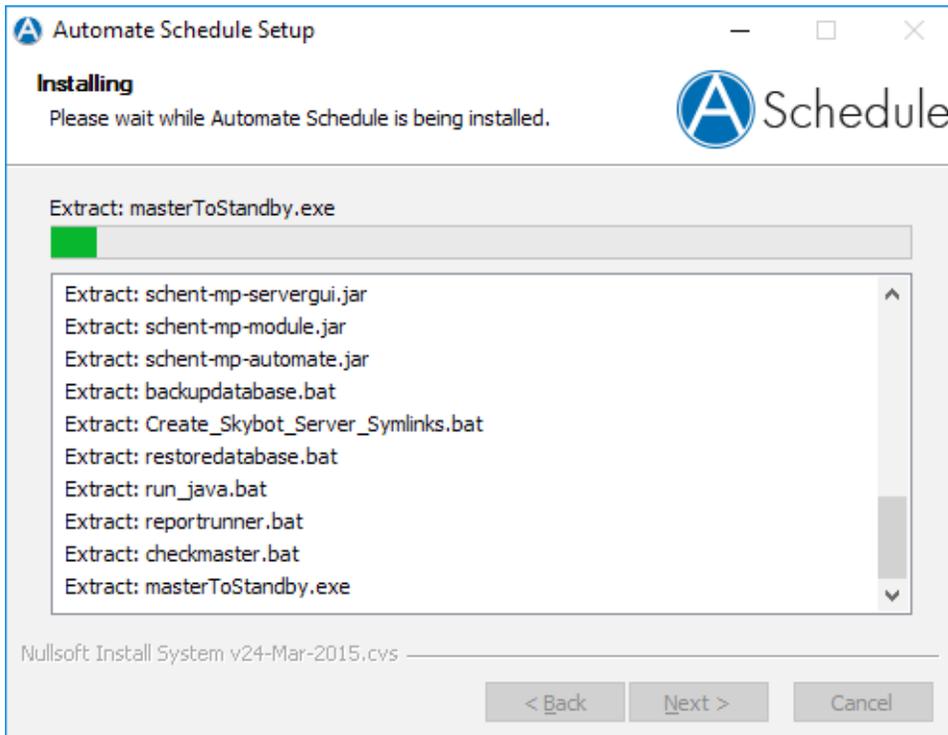
20. This screen displays only the first time Automate Schedule is installed. Press **Install** to continue.



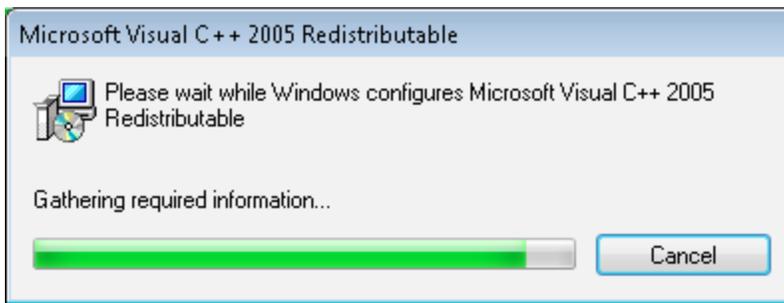
21. Choose which shortcuts to create and press **Install** to continue.



*Automate Schedule install progress.*



You may see this pop-up if your PC does not have the Microsoft Visual C++ Redistributable.



22. The Create Automate User screen only displays the first time Automate Schedule is installed. Specify (to create) the user and password under which the servers will run.

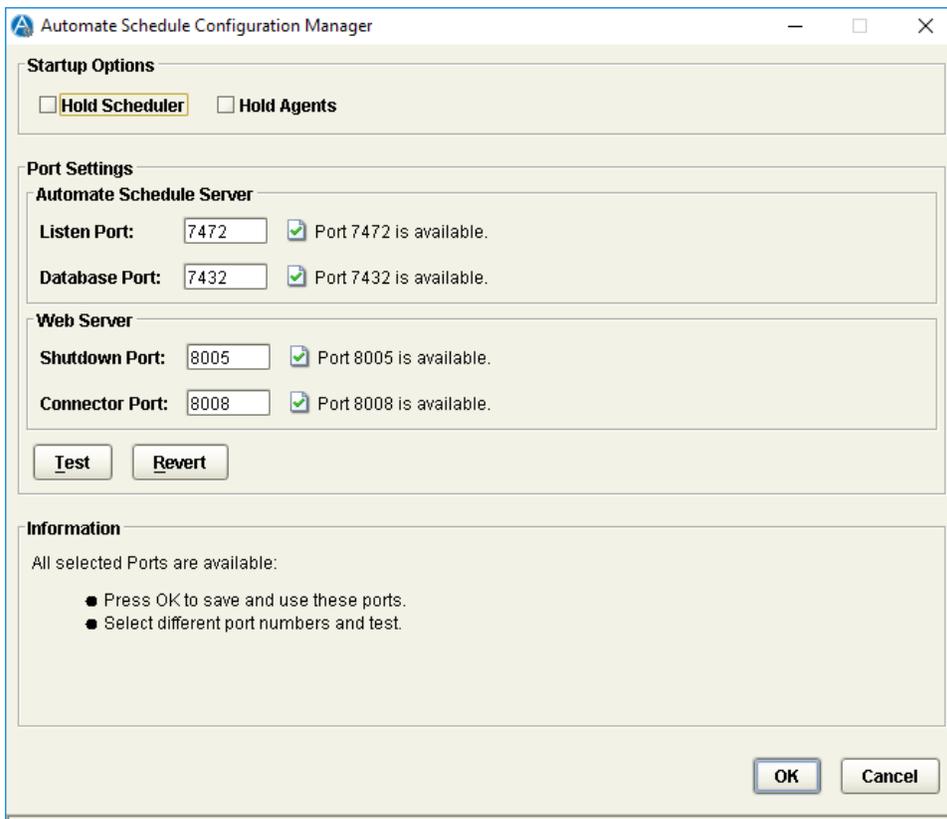
Press **Create** once the password is accepted, and then **OK** to continue.

23. The Automate Schedule Configuration Manager screen assigns ports for Automate Schedule and Web servers. The installer shows you the default ports if they are available. If a port is not available, enter a new port number and click Test to see if it is available.

**Important:** Write down the **Web Server\Connector Port** value here: \_\_\_\_\_

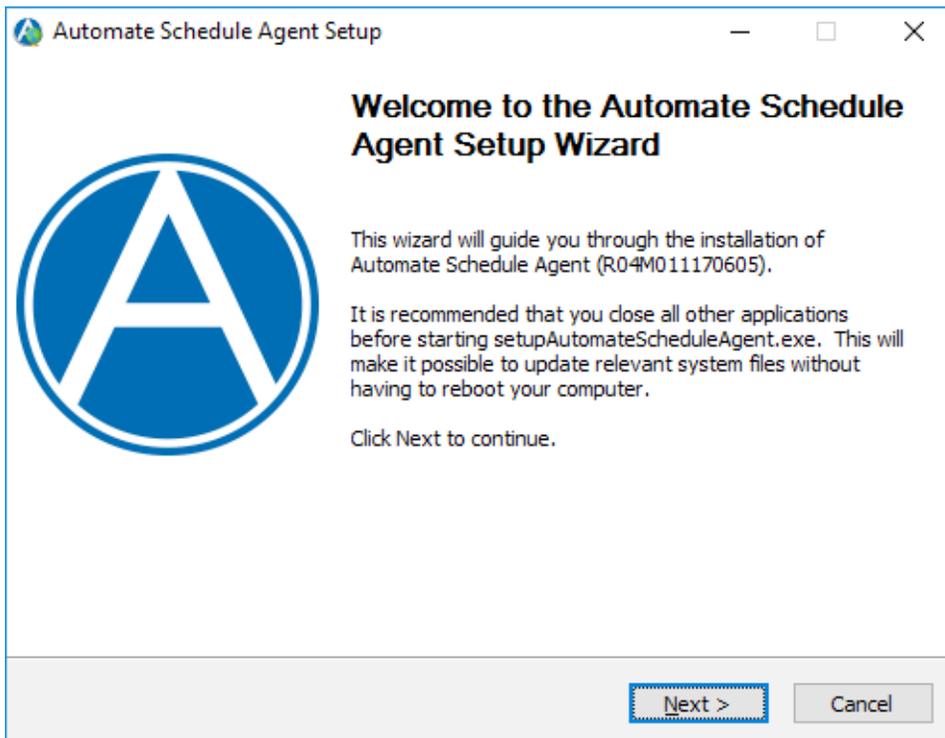
—

This is needed later to set SWS values related to [Automate Schedule](#). Once all ports are set, press **OK** to save the ports and continue installation.



To access this screen in the future, run the application, Automate Schedule Configuration, located in the **All Programs\Automate Schedule** folder. Or use Windows Search to locate the application.

24. **This is not a repeated screen.** This Welcome screen starts the Automate Schedule Agent sub-install and is still part of the overall Automate Schedule install (step 17). Press **Next** to continue.



25. You do not need to change anything here.

**Important:** Write down the Remote Server to Connect: \_\_\_\_\_

This is the Automate Schedule Server IP address (the server you are installing Automate Schedule and the Unified Server onto). This is needed later to set SWS values related to [Automate Schedule](#)). Press **Next** to continue.

Automate Schedule Agent Setup

**Agent for Windows**

Please enter the information below to create a Windows agent.



Alias Name:

Local Port number:

Remote server to connect:

Remote server Port number:

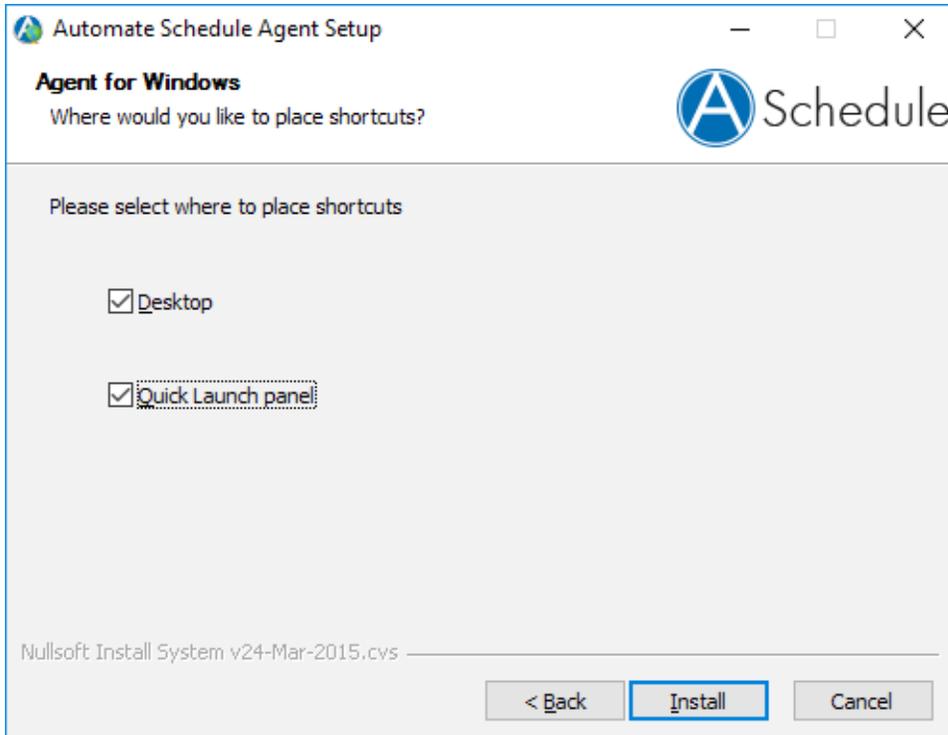
If you are using firewall software on this PC, it must allow incoming connections to the Local Port number.

Windows Agent names appear in Automate Schedule as your computer name followed by the Agent's alias name (up to 20 characters).

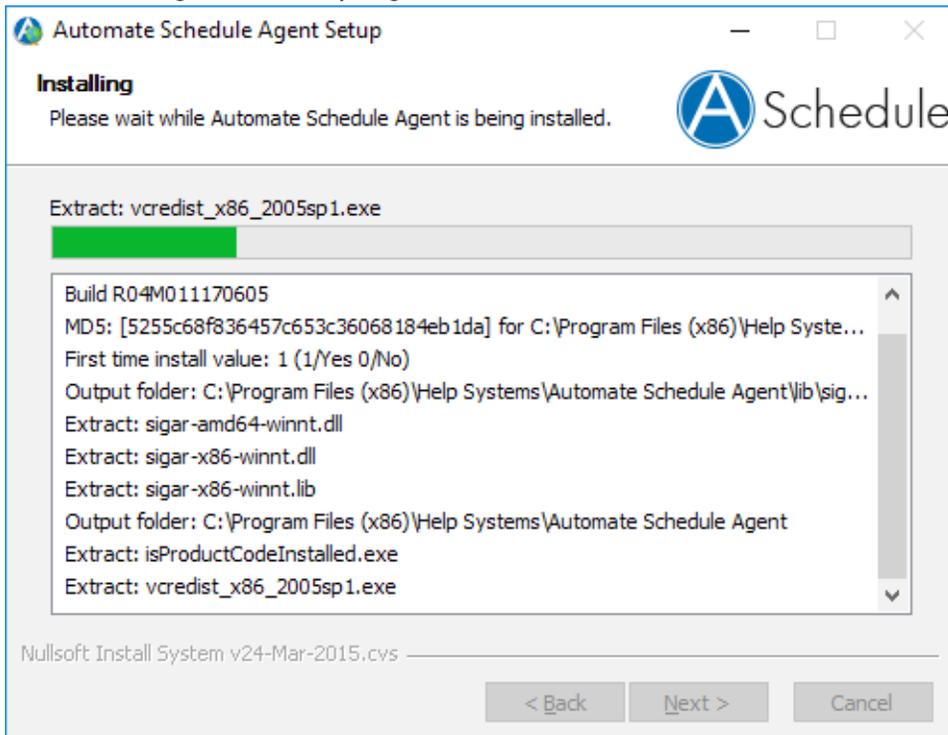
Nullsoft Install System v24-Mar-2015.cvs

< Back   Next >   Cancel

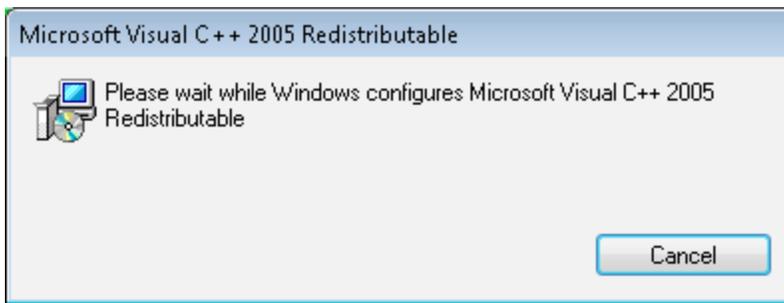
26. Choose which shortcuts to create and press **Next** to continue.



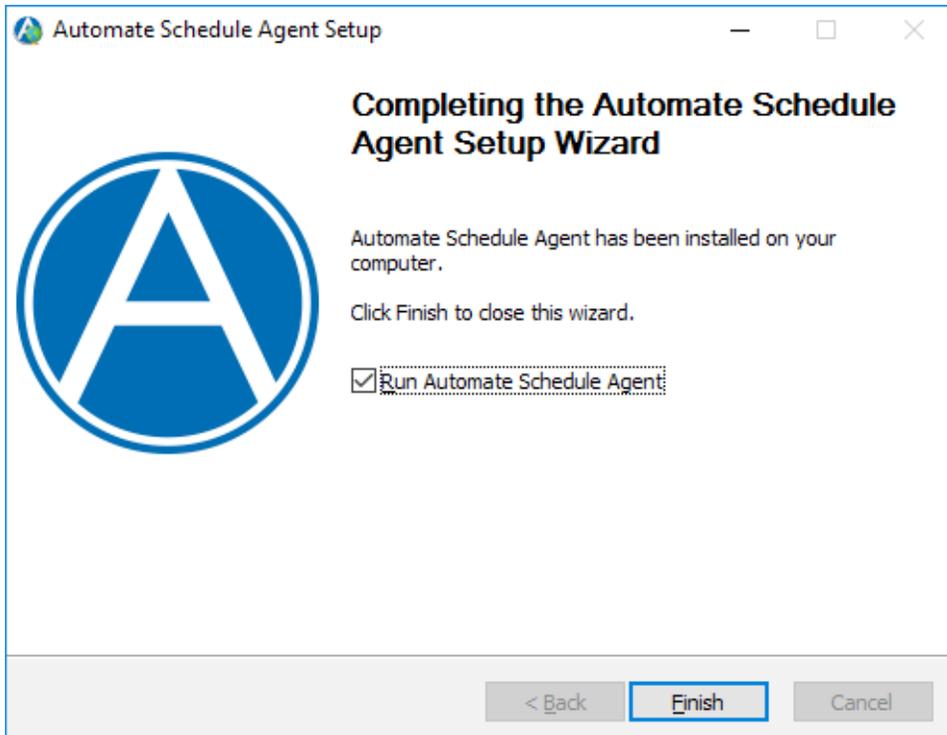
*Automate Agent install progress.*



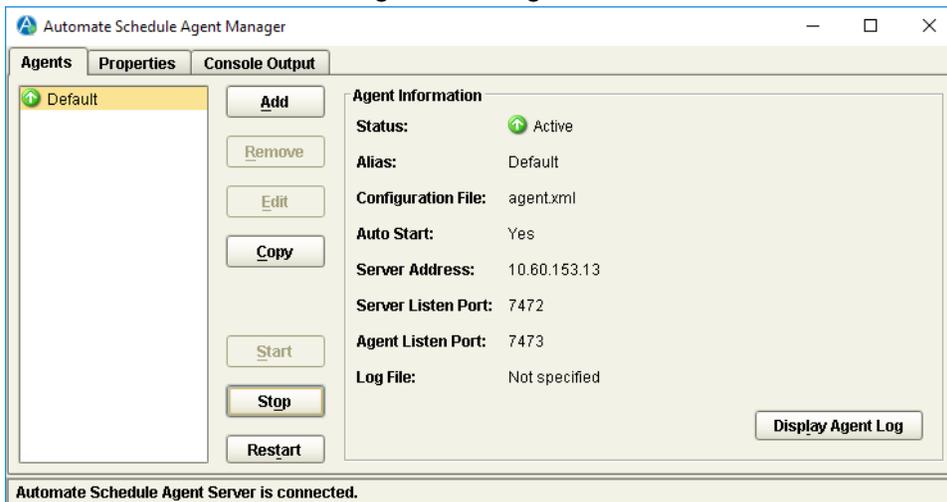
You may see this pop-up if your PC does not have the Microsoft Visual C++ Redistributable.



27. Check the box to launch the Automate Schedule Agent Manager (recommended). Press **Finish** to continue.



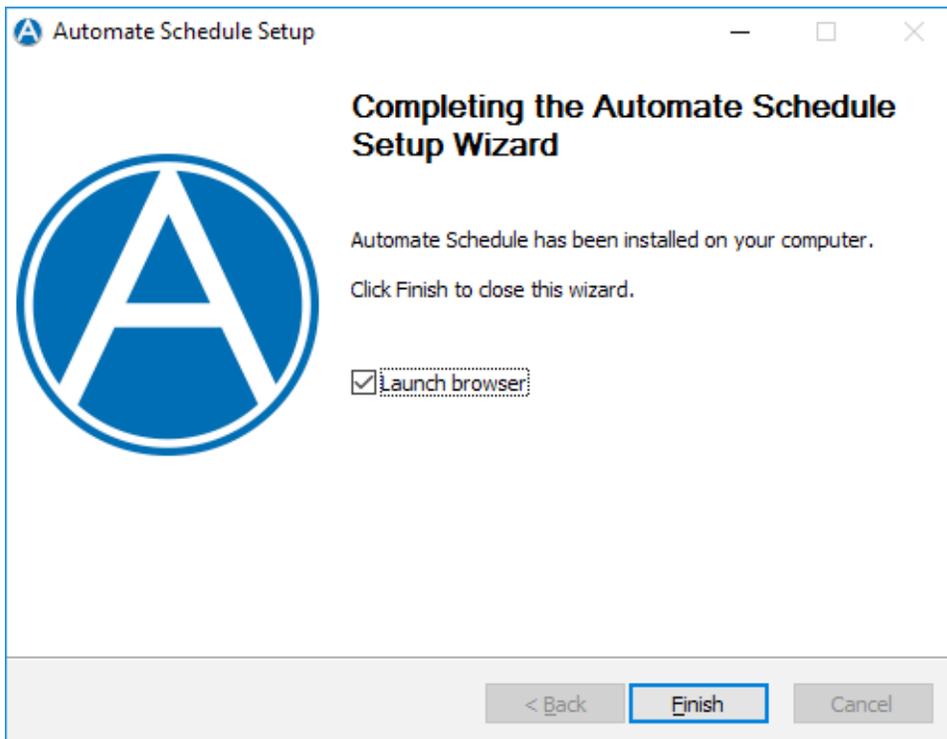
### *The Automate Schedule Agent Manager.*



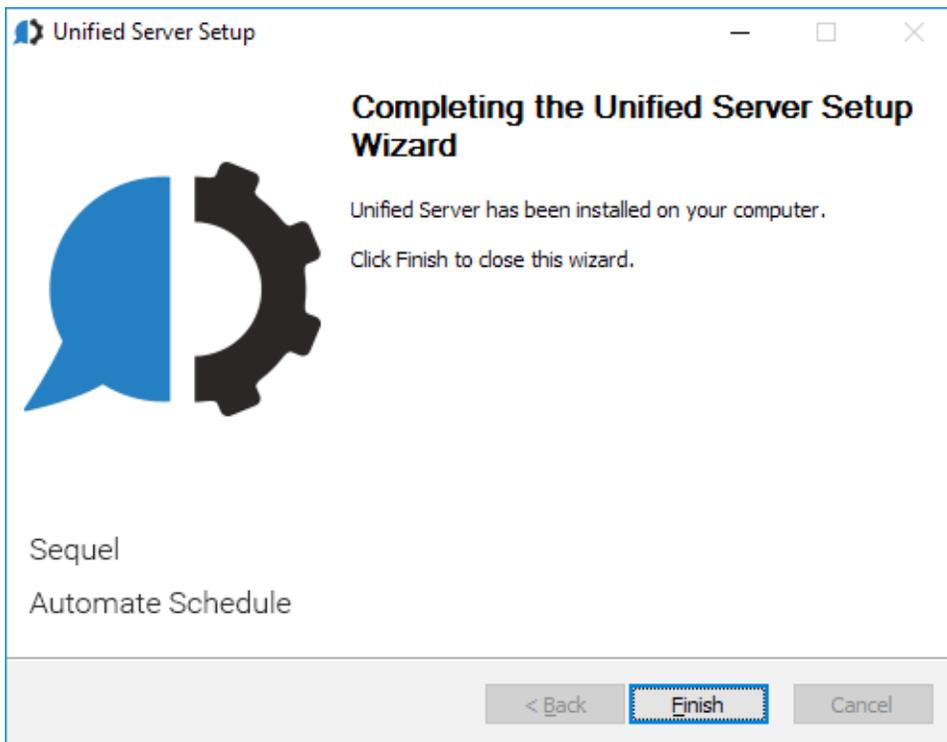
28. Check the Launch Browser option and press **Finish** to complete the install and launch Automate Schedule.

**NOTE:**

Launching the browser the first time initiates the configuration process described in the next section of this document.



The final Unified Install completion screen displays. Press **Finish** to close.



All the components of the Unified Server should now be installed.

If you chose to launch all the components during the install you should have a Viewpoint Explorer, Sequel Web Server browser, Automate Schedule Agent Manager, and an Automate Schedule browser open on the desktop.

You are now ready to configure the Unified Server components starting with Automate Schedule.

## Configuring the Unified Server

Configuration of the Unified Server components starts with Automate Schedule. After configuring Automate Schedule you will install Sequel on the IBM i. Then you will complete this section to configure the Sequel Web Server (SWS), and finally the Viewpoint Server.

**NOTE:**

These steps are only required for first-time installs.

## Configure Automate Schedule

The following configuration steps are required to integrate Automate Schedule with Sequel Web Interface:

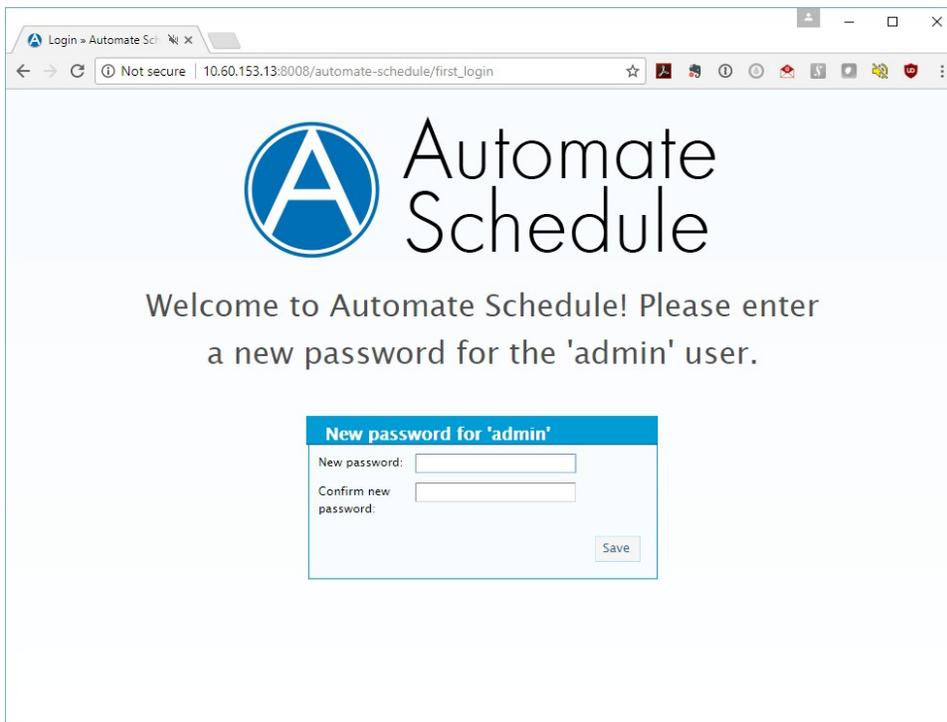
- Set a new Admin password
- Apply a product license
- Add Email Notification Settings
- Add an IBM i Agent Environment
- Create a new Automate Schedule user (optional)
- Configure SWS Web Service (required for Repository mode)

This process starts the first time the Automate Schedule server is accessed—either at the end of the install process ([step 28](#)), or by clicking the program shortcut on the Desktop or Quick Start menu depending what you specified during install ([step 21](#)).

1. Enter and confirm a new password for the Automate Admin user. This must be the same as the Admin password on the SWS server.

**Important:** Write down this new password here:\_\_\_\_\_

This password will be entered as [SWS Default User](#) setting related to Automate Schedule.

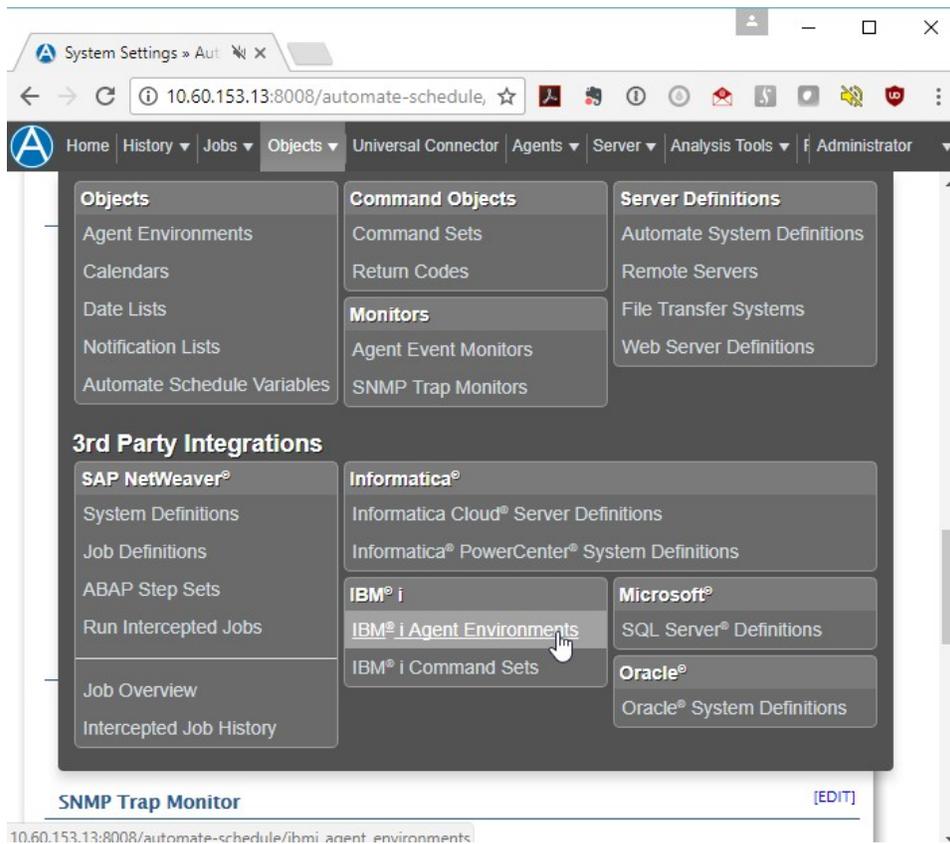


The screenshot shows a web browser window with the URL `10.60.153.13:8008/automate-schedule/first_login`. The page content includes the Automate Schedule logo (a blue circle with a white 'A') and the text "Automate Schedule". Below the logo, it says "Welcome to Automate Schedule! Please enter a new password for the 'admin' user." There is a form titled "New password for 'admin'" with two input fields: "New password:" and "Confirm new password:". A "Save" button is located at the bottom right of the form.

2. You will be prompted to enter your Automate Schedule license. If you don't have a license, contact your HelpSystems sales representative .
3. On the menu select **Admin\System Settings** and scroll down to the Email Notification section.

The screenshot shows a web browser window with the URL `10.60.153.13:8008/automate-schedule/syst`. The browser's address bar and navigation icons are visible. Below the browser window is a navigation menu with items: Home, History, Jobs, Objects, Universal Connector, Agents, Server, Analysis Tool, and Administrator. The main content area is titled "Email Notification" and includes an "[EDIT]" link. It contains several input fields: SMTP Address (smtp.your-company.com), SMTP Port (25), Use SSL (No), SMTP Server Timeout (60 seconds), Server requires Authentication (No), Sender Email Address (no-reply@automate-schedule-server.com), and Maximum Email Attachment Size (10 megabytes). Below this is the "SNMP Notification" section with an "[EDIT]" link and a field for SNMP Trap Managers (None defined). The "SNMP Trap Monitor" section also has an "[EDIT]" link and fields for Monitor for SNMP Traps (No) and SNMP Trap Port (7462).

- a. Press the **Edit** link and enter the values (address, port, and so on) to use your mail router.
  - b. At the bottom of the page, press **Save** to finish.
4. Back at the menu, select **Objects\IBM i Agent Environments**.



IBM i Agent Environments are named groups of IBM i job control defaults that contain attributes to run your jobs. These attributes are stored in one place and shared across multiple jobs and if something changes, you change it in one place, not every job.

- Press the **Create IBM i Agent Environment** button to access the new environment entry screen (below).
- Specify a unique Name for the new environment and a Description.
- Set the Job Description to **\*USRPRF** and the (iSeries) User Profile to **JOBUSER**. Press **Save** to continue.

The screenshot shows a web browser window with the URL `10.60.153.13:8008/automate-schedule/ibmi_agent_envirmer`. The page title is "IBM i Agent Environment > New". The form is divided into two sections: "General" and "Details".

**General Section:**

- Name: SWS (with a note: "Provide a unique name with no spaces.")
- Description: SWS (with a note: "Provide a useful description.")
- Tags: (with a note: "Organize with tags!")

**Details Section:**

- Job Description: \*USRPRF (with a note: "\*USRPRF, job description name or library qualified job description name.")
- Job Queue: \*JOBQ (with a note: "\*JOBQ (default), job queue name or library qualified job queue.")
- Job Queue Priority: \*JOBQ (with a note: "The Priority for submitted jobs waiting job a Job Queue.") and a value of 5.
- Output Queue: \*JOBQ (with a note: "\*JOBQ (default), output queue name or library qualified output queue.")
- Message Queue: \*NONE (with a note: "\*NONE (default), message queue name or library qualified message queue.")
- User Profile: JOBUSR

**NOTE:**

You can specify any existing user on the IBM i, or create a new iSeries profile to run these jobs.

5. (Optional) Create a new Automate user to use for SWS/Automate Schedule functions. This user is referenced in the Automate Schedule Setting for SWS (page 27).
  - a. Select **Admin\Users** from the menu and press the **Create User** button to open the User>New screen.
  - b. Enter the required values and set the **Role** to either User, Operator or Administrator.

c. Press **Save** to create the user account.

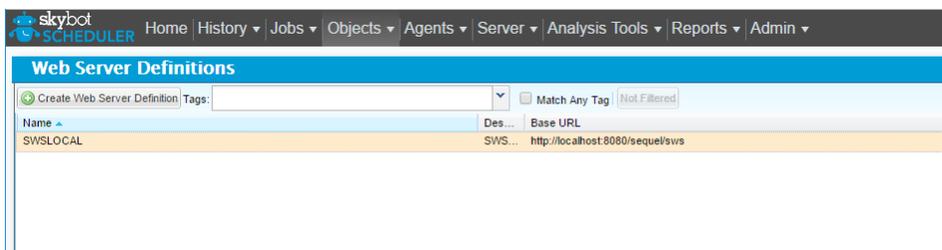
The screenshot shows a web browser window with the URL `10.60.153.13:8008/automate-schedule/users/new`. The page title is "User > New". The form is organized as follows:

- General Section:**
  - Name:** Text input field with placeholder "The user's real name."
  - Description:** Text input field with placeholder "Provide a useful description."
  - Notify User of System Events:** A checkbox with the label "Notify this user when important system events occur."
- User Details Section:**
  - Username:** Text input field with placeholder "Provide a username for the user."
  - Email Address:** Text input field with placeholder "Provide the user's email address for notification."
  - Language:** A dropdown menu currently set to "en".
  - Role:** A dropdown menu currently set to "Operator" with the instruction "Select a role for the user."
  - Enabled:** A checked checkbox with the instruction "Allows the user to log in and use this product."
  - Password Expired:** An unchecked checkbox with the instruction "Forces user to change password when checked."
  - New password:** Text input field with placeholder "Provide a user password."
  - Confirm new password:** Text input field with placeholder "Confirm the password. Must match password field."

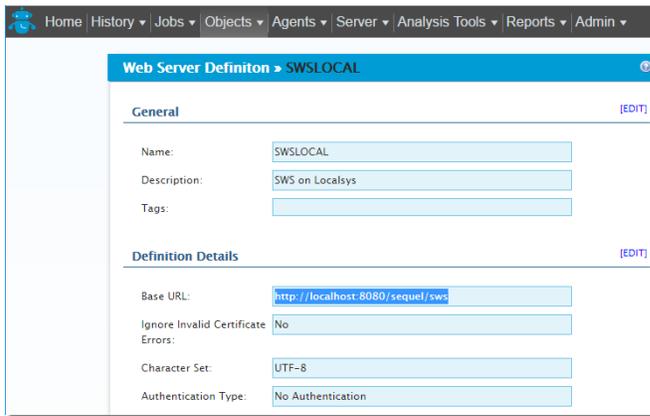
## Configure SWS Web Service for Automate Schedule

For Automate Schedule to make web service calls to SWS, there must be a defined web service inside of the Automate Schedule interface with the URL of the SWS server. This is the communication link between SWS and Automate Schedule, and it must be manually configured. Perform the following steps if you plan to operate SWI in Repository mode:

1. From the menu, select **Objects\Web Server Definitions**.



2. Press the green **Create Web Server Definition** for a new definition. Specify a Name, Description and the URL of the Sequel Web Server.



This web server definition can be named anything that the user likes. In the above example, it is named **SWSLOCAL** to indicate that it's talking to SWS on the localhost. The important part from a configuration perspective is that the name of the WebServer Definition be set in the Automate Schedule properties (page 30) in SWS. Press Save to save changes and close the screen.

- From the menu select **Agents**, and double click the local agent for the server. It will be named *swsServer\_DEFAULT*.

The screenshot shows the 'Agents' management page. It features a table with the following columns: Status, Name, Description, Operating System, Agent Rel/Mod, Jobs On Queues, Active Jobs, and Status: Released. The table contains several rows of agent data, including one named 'HS0409\_DEFAULT' which is highlighted in blue.

Status	Name	Description	Operating System	Agent Rel/Mod	Jobs On Queues	Active Jobs	Status: Released
Active (Unlic...)	BAMBL_SKYAGENT	Registered 2017-09-22 16:00 CDT	OS/400 V7R2M0	R03M091161028	0	0	Queues
Active	HS0409_DEFAULT	Registered 2017-08-29 14:16 CDT	Windows 7 6.1	R04M011170905	0	0	No
Failed (Unlic...)	HS0409_LARRRY	Registered 2017-09-20 08:55 CDT	Windows 7 6.1	R04M011170905	0	0	Unavailable No
Failed	HS18_SKYHS0409	Registered 2017-04-18 16:36 CDT	OS/400 V7R1M0	R04M011170612	0	0	Unavailable No
Active	HS44_SKYAGENT	Registered 2017-04-18 12:55 CDT	OS/400 V7R2M0	R04M011170612	0	0	No
Active (Unlic...)	TRISTAN_SKYHS0409	Registered 2017-09-26 08:11 CDT	OS/400 V7R2M0	R03M091151210	0	0	No
Failed (Unlic...)	TRISTAN_SKYHS0409	Registered 2017-08-31 13:29 CDT	OS/400 V7R2M0	R03M091151210	0	0	Unavailable No

- In the General section, click the Edit link, and set the 'Allow Jobs to Run as the Agent's User' value to **YES**. Press **Save**.

The screenshot shows the 'Agent > HS0409\_DEFAULT' configuration page. The 'General' tab is active, and an '[EDIT]' link is visible in the top right. The configuration fields are as follows:

Field	Value
Name:	HS0409_DEFAULT
Description:	Registered 2017-08-29 14:16 CDT
Tags:	
Aliases:	
Job Shell:	
Agent Rel/Mod:	R04M011170605
Listen Port:	7473
IP Address:	10.61.48.26
Operating System:	Windows 7 6.1
CPU Information:	x86
Time Zone:	America/Chicago
Allow Jobs to Run as the Agent's User:	Yes
Allow agent name clustering:	No

Congratulations! The Automate Schedule Server should now be configured to interact with the Sequel Web Server.

For information on working with the Automate Agent on the IBM i, setting Automate user authority, and starting Automate on IPL, see the SWI Host Mode section of the *SWI User Guide*.

## Before You Continue

If you are currently installing the Unified Server components for the first time, please stop here and complete the host Sequel install described in the Sequel 11 Install document as there are steps below that require working host software. When you are finished with the host, you can continue with the Sequel Web Server and Viewpoint Server configuration.

### Note To JD Edwards EnterpriseOne Users:

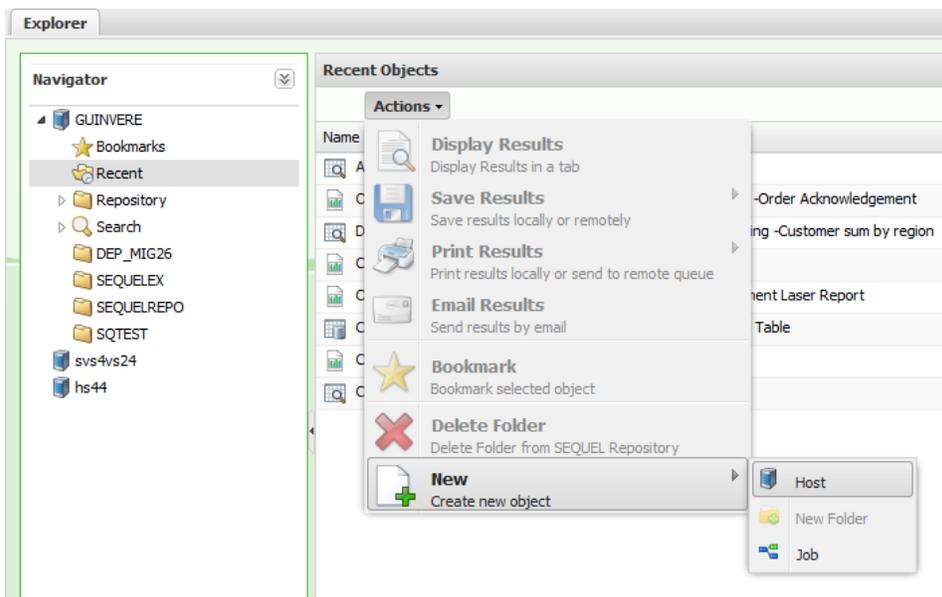
To ensure correct configuration to support JDE environment and role prompting, please contact one of our Technical Support team members by using the live chat window, emailing us at [support.sequel@helpsystems.com](mailto:support.sequel@helpsystems.com), or calling +1 952-933-0609 in the U.S. Outside the U.S., call ++44 (0) 870 120 3148.

## Configuring the Sequel Web Server (SWS)

To configure SWS, follow the steps below to add a new host connection and enter some settings related to Automate Schedule. Use the appropriate steps depending on the mode: Host or Repository.

## Host Mode

1. Navigate to the address of the Sequel Web Server using the following URL:  
**http://SWSname/sequel/web/index.html** (where 'SWSname' is your server or IP address).
2. When the SWI Explorer displays, use the **Actions** button to select the **New\Host** option, and log on using your Tomcat credentials.



3. In the Add New Host screen, enter the host name (network resolvable) to define the connection to the IBM i. Press **Tab**, and all the remaining fields will auto-fill with default values based on the host name.

You should not have to change any of the values except for the **SWI Host Secure** URL string to add the port number (usually 400) for the IBM i Apache server into the URL as shown.

- (Optional) Check the **Default** option, and enter a valid IBM i Username and Password to be used for anonymous SWI access.

**NOTE:**

- Anonymous users have limited functionality in SWI.
- Leave this option unchecked to force users to sign on securely (recommended).

- To save the definition and verify the connection, leave the **Verify Connection** option checked, enter a valid IBM i Username and Password (or use the values specified in step 4), and press **Save**.

To save without verification, uncheck the **Verify Connection** option (Username and Password will disappear, unless Default is checked), and press **Save**.

- A message indicating a successful connection will display along with a new host icon in the Navigation panel of the SWI Explorer.

## Automate Schedule Settings

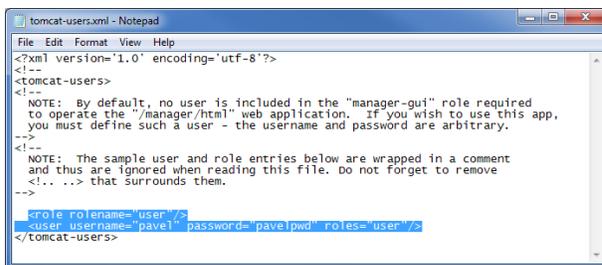
- To set the link between SWS and Automate Schedule, first add the string `'?secure=true'` to the current browser URL (so it reads **http://SWSSVR/sequel/web/index.html?secure=true**). This exposes the Settings

button.

Select **Settings\Automate Schedule Server** in the upper-right of the explorer and you will be prompted for a SWS/Tomcat server credential. Enter the default user and password of admin and adminpwd, or the password created during the SWS install ([step 14](#)) and press **Enter**.

Note about the SWS/Tomcat user account:

A default user and password of admin and adminpwd are created during the SWS install ([step 14](#)). If you wish to change these values, you can easily edit the tomcat-users.xml file located in the **C:\Program Files (x86)\SEQUEL\SEQUELWebServer\conf** folder. You may have to use Windows Search to locate this file.

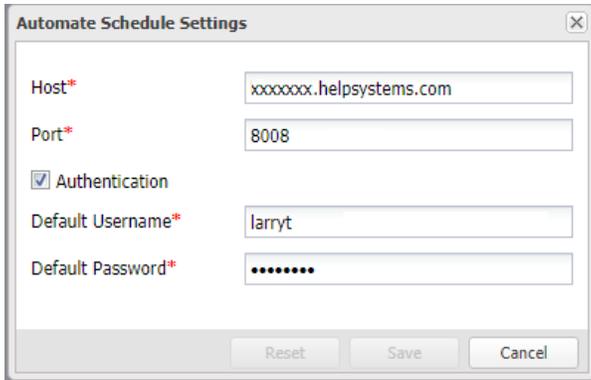


```
tomcat-users.xml - Notepad
File Edit Format View Help
<?xml version='1.0' encoding='utf-8'?>
<!--
<tomcat-users>
<!--
NOTE: By default, no user is included in the "manager-gui" role required
to operate the "/manager/html" web application.  If you wish to use this app,
you must define such a user - the username and password are arbitrary.
-->
<!--
NOTE: The sample user and role entries below are wrapped in a comment
and thus are ignored when reading this file.  Do not forget to remove
<!-- ... --> that surrounds them.
-->
<role rolename="user"/>
<user username="pavel" password="pavelpwd" roles="user"/>
</tomcat-users>
```

The Schedule Settings screen is where you enter the values you wrote down during the Unified Server install ([steps 23](#) and [25](#)).

- The *Schedule Host* should default to the server where Automate was installed and is the **Remote Server to Connect** value from install ([step 25](#)).
- Set the *Schedule Port* to the **Connector Port** value from the Unified Server install ([step 23](#)).
- If you want SWS to interact with the Automate Server using a default user, check the *Authentication* box, and enter a **Username** and **Password**. You can use the Admin user and password that you reset at the start of the [Automate Schedule](#) configuration (not the SWS/Tomcat credential). You can also [create a new user-class user](#) in Automate and specify that value here.
- If this option is left unchecked, users will be prompted for a Automate

credential anytime they use Automate functions in SWS.



The screenshot shows a dialog box titled "Automate Schedule Settings" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Host\***: A text input field containing "xxxxxxx.helpsystems.com".
- Port\***: A text input field containing "8008".
- Authentication**: A checked checkbox.
- Default Username\***: A text input field containing "larryt".
- Default Password\***: A text input field containing seven dots (•••••••).

At the bottom of the dialog, there are three buttons: "Reset", "Save", and "Cancel".

2. Press **Save** to continue.

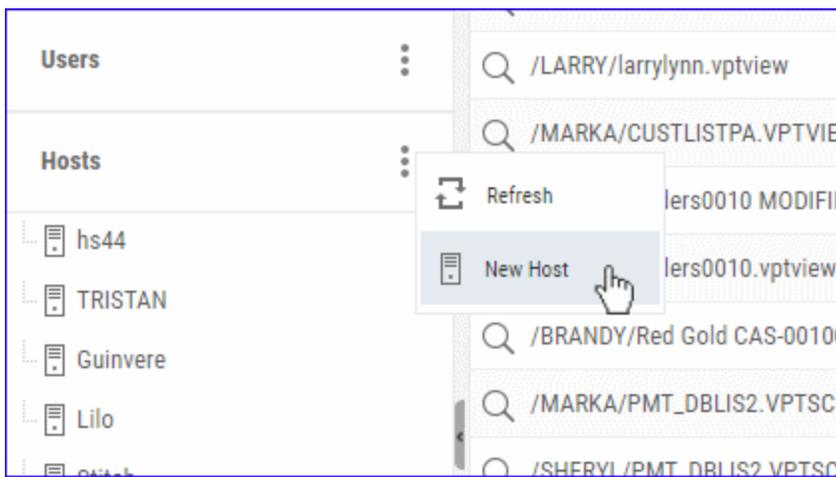
**NOTE:**

These settings are stored in the Automate Schedule.settings file located in C:\Program Files (x86)\SEQUEL\SEQUELWebServer\conf.

Don't log off yet. You still need a secure connection to continue with the [TLS](#) and [Viewpoint Server](#) sections that follow.

## Repository Mode

1. Navigate to the address of the Sequel Web Server using the following URL: **http://SWSname/sequel/sws/ui/** (where 'SWSname' is your server name or IP address). Log on as ADMIN using the SWS (local) authenticator.
2. When the SWI Explorer displays, click the Hosts menu (the three stacked dots), and select the **New Host** option.



3. In the Add New Host screen, enter the host Name (network resolvable) to define the connection to the iSeries. Press the **Tab** key, and all the remaining fields will auto-fill with default values based on the host name.

**ADD NEW HOST** [X]

Name\*

Type\*

Database URL\*

Driver\*

SEQUEL library\*

SequelWi\*

Esend\*

SWI Host Secure URL\*

Verify connection (please, provide username and password below)

Username\*

Password\*

Reset Save Cancel

You should not have to change any of the values except the **SWI Host Secure URL**. Make sure to insert the port number (usually 400) for the IBM i Apache server into the URL as shown.

- (Optional) Check the **Default** option, and enter a valid iSeries Username and Password to be used for anonymous SWI access.

**NOTE:**

- Leave this option unchecked to force users to sign on securely (recommended).
- Anonymous users have limited functionality in SWI.

- To save the definition and verify the connection, leave the **Verify Connection** option checked, enter a valid iSeries Username and Password (or use the values specified in step 4), and press **Save**.

To save without verification, uncheck the **Verify Connection** option (Username and Password will disappear, unless Default is checked), and press **Save**.

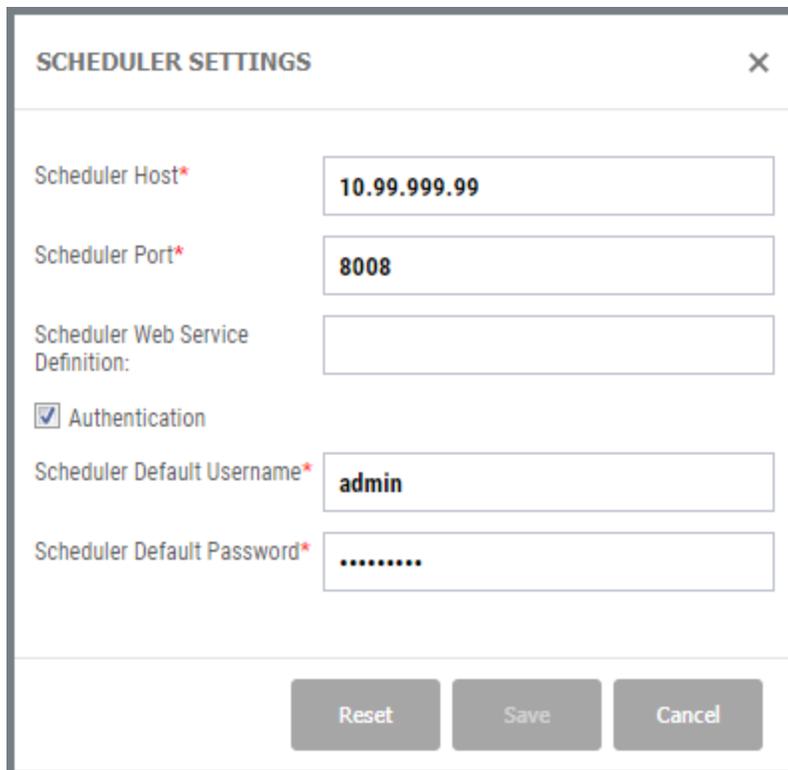
- A message indicating a successful connection displays along with a new host icon in the Navigation panel of the SWI Explorer.

## Automate Schedule Settings

1. To set the link between SWS and Automate Schedule, select **Settings\Automate Schedule Server** in the upper-right of the explorer.

The Schedule Settings screen is where you enter the values you wrote down during the Unified Server install ([steps 23](#) and [25](#)).

- The *Schedule Host* should default to the server where Automate was installed and is the **Remote Server to Connect** value from install ([step 25](#)).
- Set the *Schedule Port* to the **Connector Port** value from the Unified Server install ([step 23](#)).
- Set the *Schedule Web Service Definition* to the name defined in [step 2](#) of the Configure SWS Web Service section.
- If you want SWS to interact with the Automate Server using a default user, check the *Authentication* box, and enter a **Username** and **Password**. You can use the Admin user and password that you reset at the start of the [Automate Schedule](#) configuration (not the SWS/Tomcat credential). You can also [create a new user-class user](#) in Automate and specify that value here.
- If this option is left unchecked, users will be prompted for a Automate credential anytime they use Automate functions in SWS.



**SCHEDULER SETTINGS** [X]

Scheduler Host\*

Scheduler Port\*

Scheduler Web Service Definition:

Authentication

Scheduler Default Username\*

Scheduler Default Password\*

Reset Save Cancel

2. Press **Save** to continue.

**NOTE:**

These settings are stored in the Automate Schedule.settings file located in C:\Program Files (x86)\SEQUEL\SEQUELWebServer\conf.

Don't log off yet. You still need a secure connection to continue with the [TLS](#) and [Viewpoint Server](#) sections that follow.

Congratulation again! The Sequel Web Server should now be installed and functional.

# Configuring TLS on SWS

Follow the steps below to enable TLS from a browser to the SWS server. This process is optional but recommended.

**IMPORTANT:**

Before configuring TLS, you must obtain a valid certificate, comprised of the following two files:

- **xxxxx.crt** (or xxxxx.cert)
- **xxxxx.key**

## Steps for SWS Server version 2.6 or higher

1. HelpSystems recommends that the two certificate files that you have obtained are installed into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**. However, you may use any folder location.
2. Using Windows Services, stop the following services:
  - a. Sequel HTTP Server
  - b. Sequel Web Server
  - c. SequelDatabaseServer
3. Using Windows Explorer, navigate to folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\conf**
4. Using a text editor, edit file **httpd.conf** as follows:
  - a. Change the line “#Include conf/extra/httpd-ssl.conf” to “Include conf/extra/httpd-ssl.conf”.
  - b. Save your changes.
5. Open the extra folder and edit file **httpd-ssl.conf** as follows:
  - a. Find the line “ServerName localhost:443”. Replace **localhost** with your fully qualified server name. **This must match the server name on your certificate.**  
Example : ServerName **MySWSServer.mydomain.com:443**
  - b. Find the line “ServerAdmin admin@example.com”. Replace the **example email address** with a valid email address:  
Example : ServerAdmin **MyServerAdmin@mydomain.com**
  - c. Find the line “SSLCertificateFile “\${SRVROOT}/certs/server.crt”. If, in step 1, you installed your certificate files into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**, change “server.crt” to the name of

your .crt/.cert file. Otherwise, replace "\${SRVROOT}/certs/server.crt" with the path to your .crt/.cert file.

Example : SSLCertificateFile "\${SRVROOT}/certs/**certificate-name.crt**"

- d. Find the line "SSLCertificateKeyFile "\${SRVROOT}/certs/server.key"". If, in step 1, you installed your certificate files into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**, change "server.key" to the name of your .key file. Otherwise, replace "\${SRVROOT}/certs/server.key" with the path to your .key file.

Example : SSLCertificateKeyFile "\${SRVROOT}/certs/**certificate-name.key**"

- e. Save your changes.
6. Restart the services:
  - a. Sequel HTTP Server
  - b. Sequel Web Server
  - c. SequelDatabaseServer
7. Test that the SWS server now accepts secure connections

## Migrating from SWS Server 2.5 or older to SWS Server 2.6 or newer

1. Since the SSL configuration in SWS Server 2.6 and newer (Apache 2.4.39) is substantially changed from the SWS Server 2.5 and older (Apache 2.2.29), the migration is manual.
2. The certificates used in your previous version of SWS were most likely stored in **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer2.4.39\certs**. HelpSystems recommends that the two certificate files are copied into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**. However, you may use any folder location.
3. Using Windows Services, stop the following services:
  - a. Sequel HTTP Server
  - b. Sequel Web Server
  - c. SequelDatabaseServer
4. Using Windows Explorer, navigate to folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\conf**
5. Using a text editor, edit file **httpd.conf** as follows:
  - a. Change the line "#Include conf/extra/httpd-ssl.conf" to "Include conf/extra/httpd-ssl.conf".
  - b. Save your changes.

6. Open the extra folder and edit file **httpd-ssl.conf** as follows:
  - a. Find the line "ServerName localhost:443". Replace **localhost** with your fully qualified server name. This must match the server name on your certificate.  
Example : ServerName **MySWSServer.mydomain.com:443**
  - b. Find the line "ServerAdmin admin@example.com". Replace the **example email address** with a valid email address.  
Example : ServerAdmin **MyServerAdmin@mydomain.com**
  - c. Find the line "SSLCertificateFile "\${SRVROOT}/certs/server.crt". If, in step 1, you installed your certificate files into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**, change "server.crt" to the name of your .crt/.cert file. Otherwise, replace "\${SRVROOT}/certs/server.crt" with the path to your .crt/.cert file.  
Example : SSLCertificateFile "\${SRVROOT}/certs/**certificate-name.crt**"
  - d. Find the line "SSLCertificateKeyFile "\${SRVROOT}/certs/server.key"". If, in step 1, you installed your certificate files into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**, change "server.key" to the name of your .key file. Otherwise, replace "\${SRVROOT}/certs/server.key" with the path to your .key file.  
Example : SSLCertificateKeyFile "\${SRVROOT}/certs/**certificate-name.key**"
  - e. Save your changes.
7. Restart the services:
  - a. Sequel HTTP Server
  - b. Sequel Web Server
  - c. SequelDatabaseServer
8. Test that the SWS server now accepts secure connections

## Steps for SWS Server 2.5 or older

1. HelpSystems recommends that the two certificate files that you have obtained are installed into folder **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\certs**. However, you may use any folder location.

**NOTE:**

Depending on your current SWS software level the \certs subfolder may not exist. If using this default location, create the certs folder if necessary.

2. Using Windows Services, stop the following services:
  - a. Sequel HTTP Server,
  - b. Sequel Web Server
  - c. SequelDatabaseServer
3. Using Windows Explorer, navigate to folder: **C:\Program Files (x86)\SEQUEL\SEQUELHttpServer\conf**
4. Using a text editor, edit file **httpd.conf** as follows:
  - a. Change the line “#LoadModule ssl\_module modules/mod\_ssl.so” to “LoadModule ssl\_module modules/mod\_ssl.so”
  - b. Change the line “#Include conf/extra/httpd-ssl.conf” to “Include conf/extra/httpd-ssl.conf”.
  - c. Save your changes.
5. Open the extra folder and edit file **httpd-ssl.conf** as follows:
  - a. Use the text editor’s ‘Replace’ function to replace all instances of **c:/Apache2** with **c:/Program Files (x86)/SEQUEL/SEQUELHttpServer**.
  - b. Find the line beginning ServerName and replace **localhost** with your fully qualified server name. This must match the server name on your certificate.  
Example : **ServerName MySWSServer.mydomain.com:443**
  - c. Find the line beginning ServerAdmin and replace the **example email address** with a valid email address.
  - d. Find the line beginning SSLCertificateFile and replace the entire string commencing c: with the path and name of your Certificate file.
  - e. Find the line beginning SSLCertificateKeyFile and replace the entire string with the path and name of your Certificate Key file. (Refer to step 1 for the location of these files).
  - f. Save your changes.
6. Restart the services
  - a. Sequel HTTP Server
  - b. Sequel Web Server
  - c. SequelDatabaseServer
7. Test that the SWS server now accepts secure connections.

## Configuring the Viewpoint Server

Available as a result of the Viewpoint install process, the Viewpoint Listener Manager works with a licensed instance of Viewpoint to create Windows listener services. These services

receive requests from the host (via the VPTRMTCMD command) to direct the output of Client Report, Client Table, and Script objects from Sequel Web Interface.

**NOTE:**

Due to recent security updates Windows does not allow Viewpoint (or any other application with a UI) to start without a logged on user. After logging onto the server and starting the Viewpoint Listener, lock the server with WinKey+L instead of logging out.

Configuration of the Viewpoint server is very easy. Once the Viewpoint client software is installed and host systems are defined in Access Client Solutions, you simply need to install and configure the Viewpoint Listener Manager (VLM).

## Define Power i Host Systems

For Windows 10, use IBM i Client Access Solutions to define the Power i Host Systems on the PC that will run the VLM.

When defining a new connection be sure you have matching user profiles and passwords on the Viewpoint Server and the Power i host. To do this edit the connection definition and select the Use shared credentials options on the Connection tab.

## Install the VLM

1. The VLM is an executable (*VPT\_Listener\_Manager.exe*) file installed in the Viewpoint application folder (typically C:\Program Files (x86)\SEQUEL Viewpoint).

To run the Listener Manager, right-click and select **Run as Administrator**.

The Viewpoint Listener Manager Displays.

2. On the **Create New Listener** tab, fill in all fields, and press **Create Service** when finished.

- **Sequel Host Name** - Select from the list the IBM i where Sequel is installed.
- **Product Library**: Specify the product install library. SEQUEL is the default.
- **Data Queue Name**: Specify the data queue on the Host that this Listener will listen on (VPTRMTDQ is the default).

**NOTE:**

The data queue must exist before the Listener is created. The Sequel install will create VPTRMTDQ, which should be used in most instances. If requests from the Host need be run on multiple, but specific PC/SERVERs, create a new DTAQ on the Host using the following command: CRTDTAQ DTAQ(SEQUEL/CUSTOMDQ) MAXLEN(1024)

- **In Library**: Specify a library for the data queue. The product library is the default.
- **Service Name**: Enter a descriptive name that includes the name of the PC/Server that the listener resides on. This helps to identify, from the host, which server processed the request.
- **Description**: Enter appropriate Description, no spaces (default value is acceptable)
- **User ID**: Enter valid Host User ID (The Operational user from Viewpoint Server Setup, if applicable)
- **Password**: Enter the host password for selected User ID

Its recommended that :

- The **Start Service** box is checked, so the service starts at the completion of this setup.
- The **Service Startup Type** is set to **Automatic**, so the Listener Service restarts automatically on reboot.

3. Press **Create Service**.

4. Test the Service by issuing the following from a Host command line:

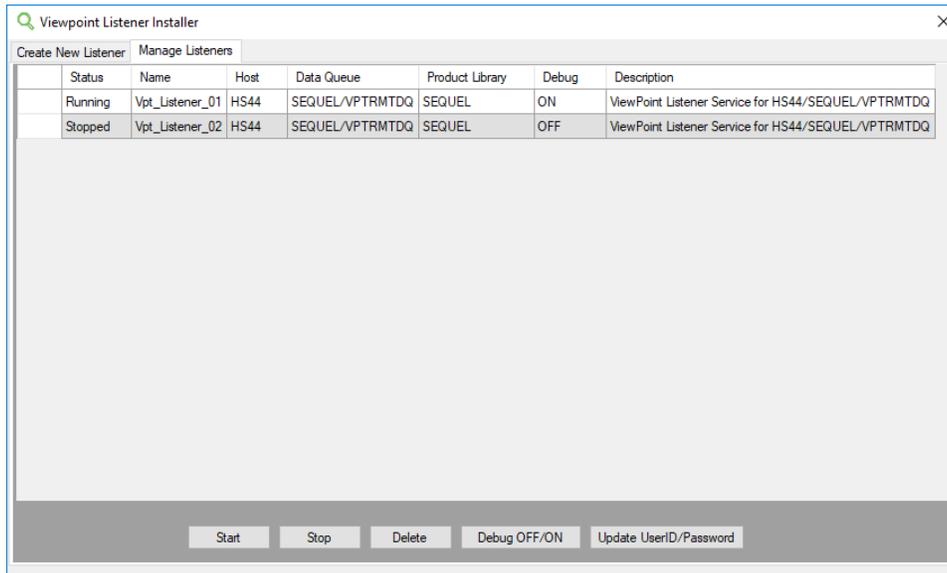
```
VPTRMTCMD CMD('" \program files (x86)\Sequel Viewpoint\ViewPnt.exe"
/v:xxxxxx/SEQUELEX/crorep /d:\xxxxxx\tmp\crorep.pdf
/F:*PDF /Q ') DATAQ(VPTRMTDQ) WAITTIME(60)
```

(where xxxxxx is the IBM i name)

5. Verify the file was created on the IFS.

## Manage Viewpoint Listeners

The Manage Listeners tab displays all Viewpoint listeners and their status. From this screen you can use any of the buttons below to manage a selected listener.



## Options

**Start** - Start the selected listener if it is currently stopped.

**Stop** - Stop the selected listener if it is currently started.

**Delete** - Delete the selected listener. If the listener is running, you will be prompted to confirm deletion.

**Debug OFF/ON** - Setting DEBUG to OFF and restarting the listener will turn off logging for the selected listener. Setting DEBUG to ON and restarting the listener will turn on logging for the selected listener. A log based on the name of the listener (**VPT\_ServiceLog\_VPTRMTDQ.txt**) will be generated and saved to the C:\Program Files (x86)\SEQUEL Viewpoint folder.

**Update UserID/Password** - Change or update the user credentials (ID and/or Password) for the selected listener.

### NOTE:

The user profile used to install Viewpoint on the server, and any users that might sign on to run the PC, must have write access to folder **c:\windows\temp** for the listener to successfully create output for Client Reports.

**TIP:**

We suggest that the Power i host system and the Viewpoint Server be on the same domain.

The Viewpoint Server should be installed and configured.

# After You Are Done

A final congratulations! Upon completing the steps outlined in this document you should have:

- Installed all components of the Unified Server.
- Configured:
  - The Unified Server
  - Automate Scheduler
  - SWS Web Service
  - Sequel Web Server
  - TLS for SWS
  - Viewpoint Server.