

Quanterix Customer Support Tool User Guide for HD-X Analyzer

USER-0070 01

Software Version 1.0.0.X





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1 Overview

The Quanterix Customer Support Tool (CST) provides a single interface for supporting and servicing the HD-X instrument. This document matches CST version 1.0.0.X.

This software is pre-installed on all instrument computers.

In the event that the software must be re-installed or updated, contact Quanterix Customer Support.

Technical details on the Quanterix Reporting Tool (QuaRT) program are described in *Quanterix Reporting Tool Technical Information*.

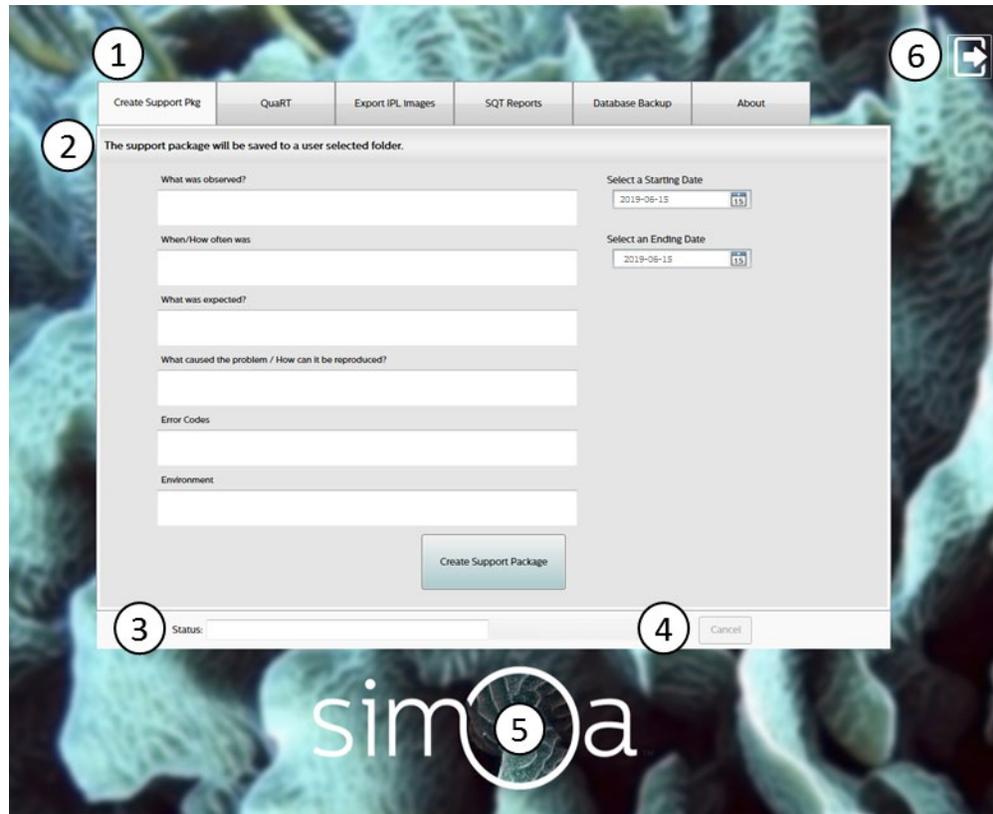
All documentation is available in the Customer Portal section of the Quanterix website (<http://www.quoterix.com>).

2 Running the Customer Support Tool

The CST can be launched using the desktop shortcut marked with the  icon.

The CST should not be used while the instrument is processing samples. Doing so may result in run failure.

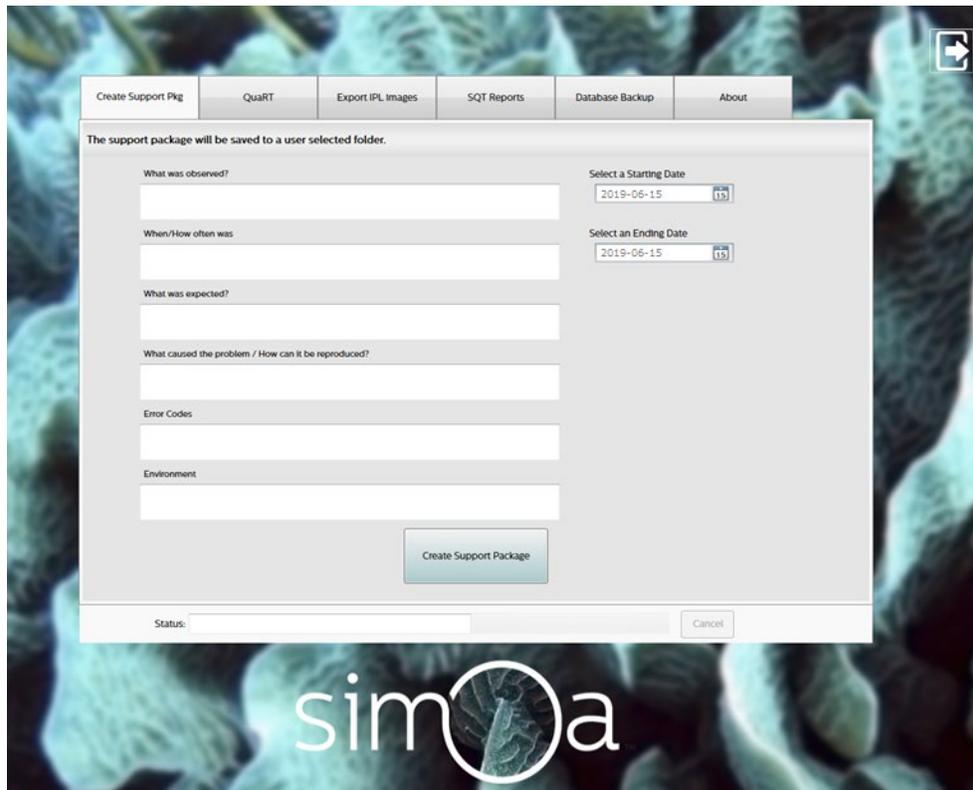
The following components are common throughout the CST:



1. The application tabs are organized according to their output file. For example, the active tab in this screenshot is used to create support packages.
2. This text field displays how the output file will be saved. This delivery method is specified by using the Configuration Utility. See section [Delivery Methods](#) for more details on how to set the delivery method.
3. When a file is being generated, the Status box may display relevant text information.
4. File generation can be halted by pressing the Cancel button.
5. The CST window can be minimized by clicking the **O** of the Simoa logo.
6. The CST can be closed by pressing this arrow button.

Create Support Package Tab

The support package is a collection of files relevant for troubleshooting issues encountered with the software and hardware of the HD-X Analyzer. This support package should be provided to the Quanterix Service team if an issue arises. To create a support package, use the *Create Support Pkg* tab.



Choose a date range for the support package by selecting starting and ending date values. Ensure that the selected date range includes the time in which any issues or runs in question occurred. Support files older than two weeks may no longer be present on the system.

Use the text fields to provide a clear explanation of the issue. Fill in with as much detail as is possible.

Press the **Create Support Package** button to initiate the process. When complete, the support package will be saved according to the delivery method specified on screen.

The generated support package file will be named according to this format:

Qtx Support [InstrumentSerialNumber] – [TimeStamp]__DiagnosticInfo.zip

where [InstrumentSerialNumber] is specific to the machine and [TimeStamp] is the date and time when the support package was generated.

QuaRT Tab

The Quanterix Reporting Tool (QuaRT) generates valuable information for monitoring the reliability and performance of the HD-X Analyzer. For more details on the purpose and content of the QuaRT report, see document *Quanterix Reporting Tool Technical Information*.

Ideally, QuaRT is configured to run on an automatic schedule that uploads or emails its output file to Quanterix. This is set using the Configuration Utility – see section [QuaRT Run Schedule](#) tab. Independent of this, QuaRT can be run manually on the *QuaRT* tab.



No user input is required on this screen. Press the **Run QuaRT** button to initiate the process. Progress will be displayed in the QuaRT Output text window.

It is normal for the progress bar at the bottom of the screen to advance halfway and then remain there until QuaRT finishes.

The generated QuaRT file will be named according to this format:

Qtx QuaRT [InstrumentSerialNumber] – [UniqueID].zip

where [InstrumentSerialNumber] is specific to the machine and [UniqueID] is a randomly generated set of numbers and letters like *1b567b16-af29-4493-ba1e-d58e380c2186*.

Export IPL Images Tab

IPL image files are raw data - microscope images of the Simoa disc microarrays from the HD-X. These files may be requested by the Quanterix Service team as part of troubleshooting. The *Export IPL Images* tab can be used to export the image files.



Select the desired batch from which the IPL image files will be exported.

Checking **Failed IPLs Only** will limit the export to only the IPL image files of failed results. Checking **White Light Thumbnails** will export a version of the IPL image files that will take up less space. The Quanterix Service team will specify how to set these checkboxes.

Press **Begin IPL Export** to start the process. Because the IPL image files are large, the export procedure may take some time. Refer to the progress bar for a measure of how many IPL image files have been exported. It is normal for there to be a delay after the progress bar has completed before the output file is finalized and ready for saving or uploading. The IPL exports can take a long time to upload or to save to a network folder due to the size of the file.

The batch IPL export file will be named according to this format:

Qtx IPL [InstrumentSerialNumber] – [Batchname].zip

where [InstrumentSerialNumber] is specific to the machine and [Batchname] corresponds to the selected batch.

SQT Reports Tab

System Qualification Test (SQT) assay kits are used to qualify instrument performance. The *SQT Reports* tab can be used to generate SQT report files. The generated SQT report file is a Microsoft Excel workbook. The HD-X instrument computer does not have Excel installed, so the report must be viewed on a separate computer.



Select the desired batch to generate a SQT report. Only valid SQT batches will be listed.
Press the **Generate SQT Report** button to create the report.

The SQT report file will be named according to this format:

QtxReport [InstrumentSerialNumber] – [Batchname].xlsx

where [InstrumentSerialNumber] is specific to the machine and [Batchname] corresponds to the selected batch.

Database Backup Tab

The instrument's database can be backed up as a .BAK file. This file can be restored on a separate computer. Scheduled backups can be set up using the Configuration Utility; see the section [Backup Run Schedule](#) for more details. Manual backups can be created using the *Database Backup* tab.



Two kinds of database backups are available. **Partial** backups do not include the IPL image files, while **Full** backups do. Partial backups will be generated more quickly and will be much smaller in size than full backups.

Checking **Include Instrument Data** will include additional instrument specific settings that aid the Quanterix Service team as part of system restoration. Checking **Include System Databases** will include additional system databases that can also be used by the Quanterix Service team as part of system recovery.

Press the **Run Database Backup** button to execute the backup procedure. Based on the type of backup and the database's current size, this procedure may take some time.

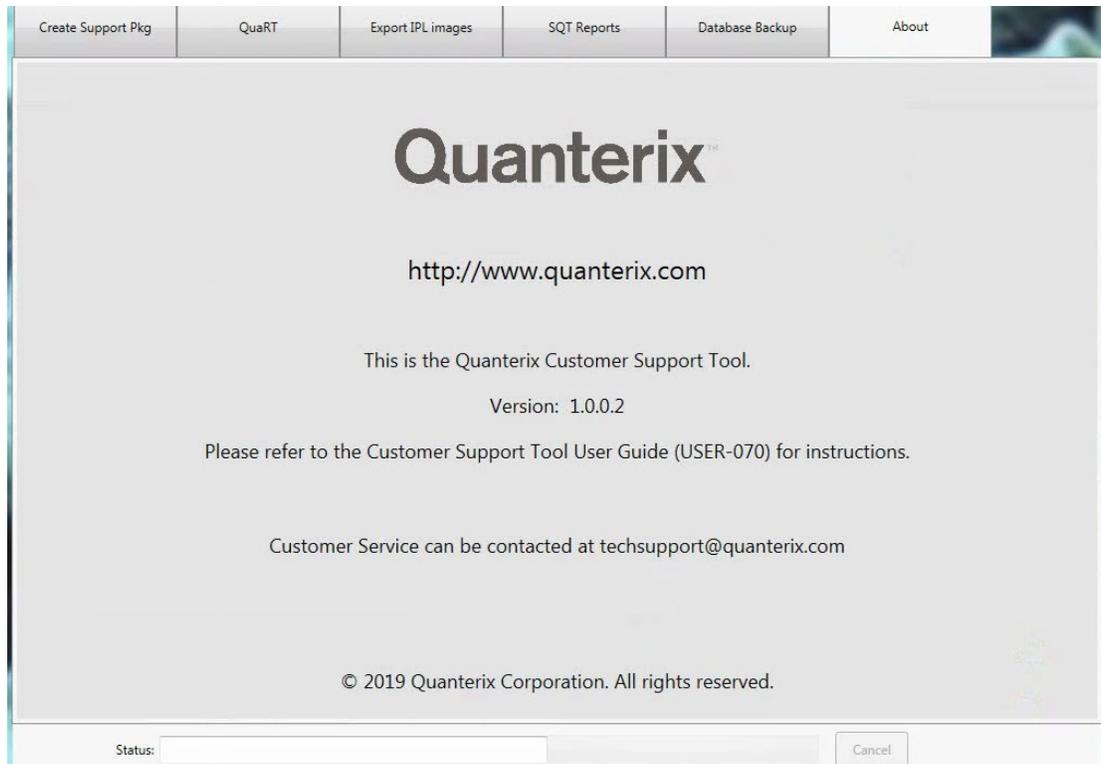
The backup file will be named according to this format:

[InstrumentSerialNumber] – [Timestamp] – DataBackup.zip

where [InstrumentSerialNumber] is specific to the machine and [Date] is the date when backup was created. If the options are checked, these additional data will be included in the .ZIP file.

About Tab

The *About* tab displays some basic information about the Customer Support Tool software and does not provide any further functionality.

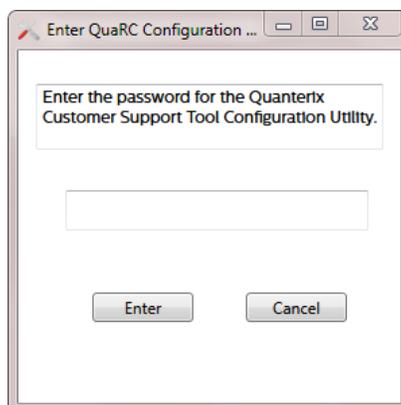


3 Running the Configuration Utility

The Configuration Utility can be launched using the desktop shortcut marked with the  icon.

The Configuration Utility should not be used while the instrument is processing samples. Doing so may result in run failure.

Upon launching the application, the following password prompt will appear.



The default password for the application is **simoa**. See the section Password Configuration for details on how to change the password. Enter the password then press **Enter** to continue.

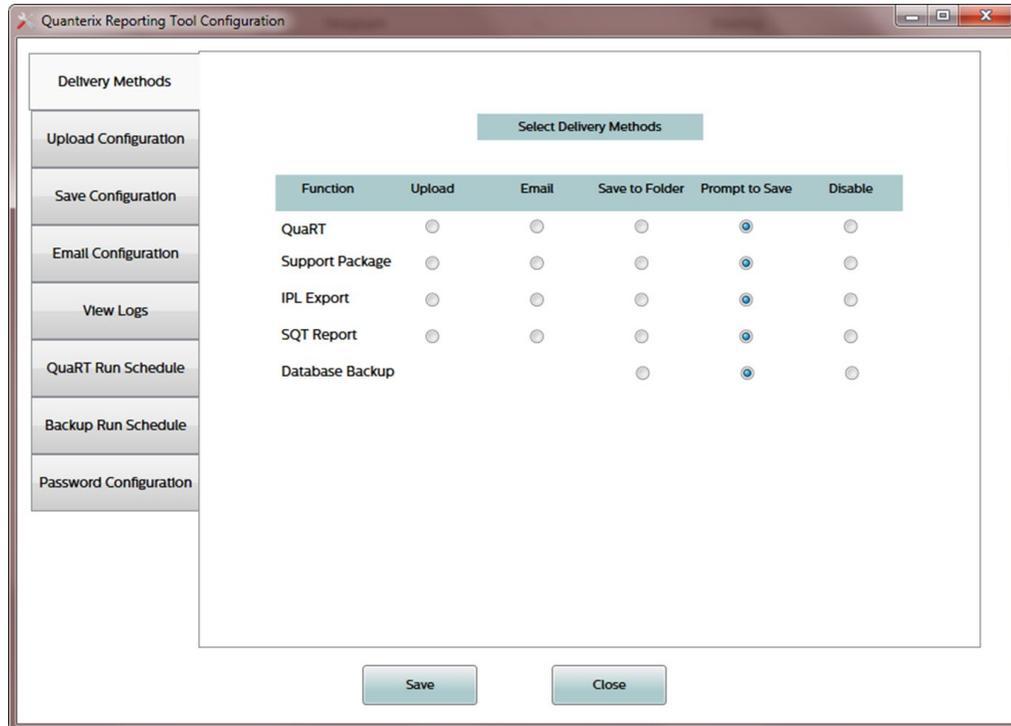
Throughout the application are **Save** and **Close** buttons.



- **Save** – If changes have been made anywhere on the Configuration Utility, pressing this button will save them. If changes have been made to the *Backup Run Schedule* tab, then a password prompt will appear. **This password prompt is different from that seen when launching the application.** This prompt requires the password of the **active Windows user account**. The user account is always **Simoa** and its password is **simoa**.
- **Close** – Pressing this button will exit the application. Any unsaved changes will be lost.

Delivery Methods

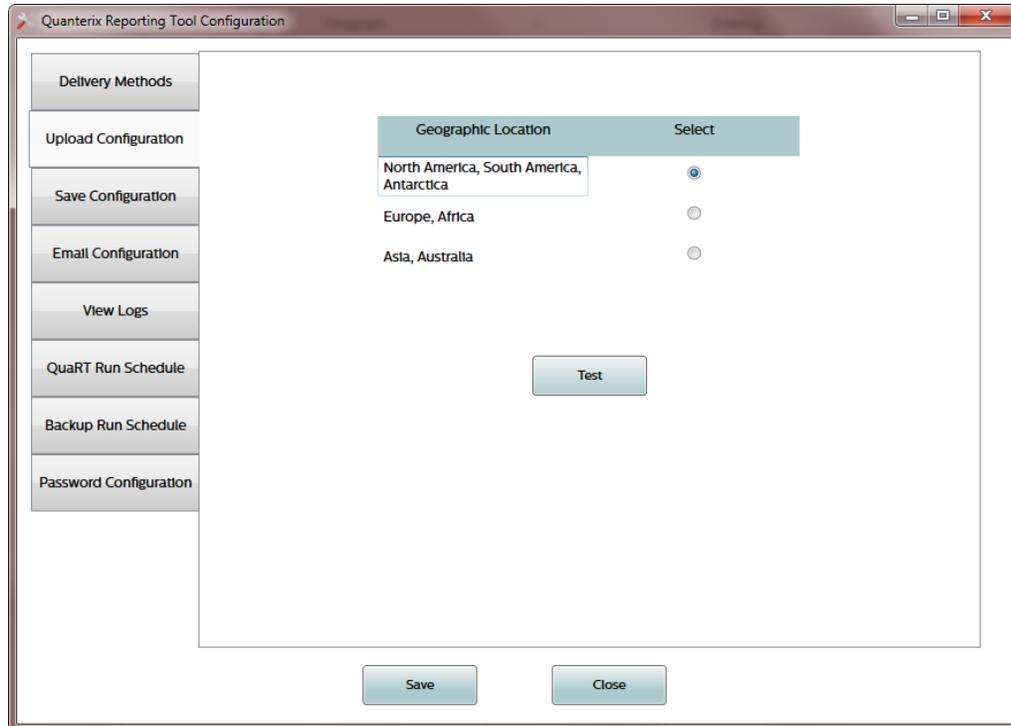
The *Delivery Methods* tab controls how the various CST files will be saved. There are four delivery methods available, in addition to the option to disable a CST feature entirely. Due to the size of database backup files, the Upload and Email options are unavailable.



- **Upload** – The file will be uploaded to a web server before reaching Quanterix. This is the best option for providing support material to the Quanterix Service team. Further configuration options are in the *Upload Configuration* tab. *The option requires the instrument computer be connected to the internet.*
- **Email** – The file will be emailed from a user-provided email address to a customizable list of recipients. Further configuration options are in the *Email Configuration* tab. *The option requires the instrument computer be connected to the internet and a valid set of inputs in the Email Configuration tab.*
- **Save to Folder** – The file will be saved to a user-configured directory. Further configuration options are in the *Save Configuration* tab.
- **Prompt to Save** – The user will be prompted at the end of file creation to choose a save location. This is the default behavior for all CST features.

Upload Configuration

The *Upload Configuration* tab specifies the geographic location of the instrument, which in turn is used to optimize file delivery for the **Upload** option. This location only needs to be specified once; the default setting is *North America, South America, Antarctica*.



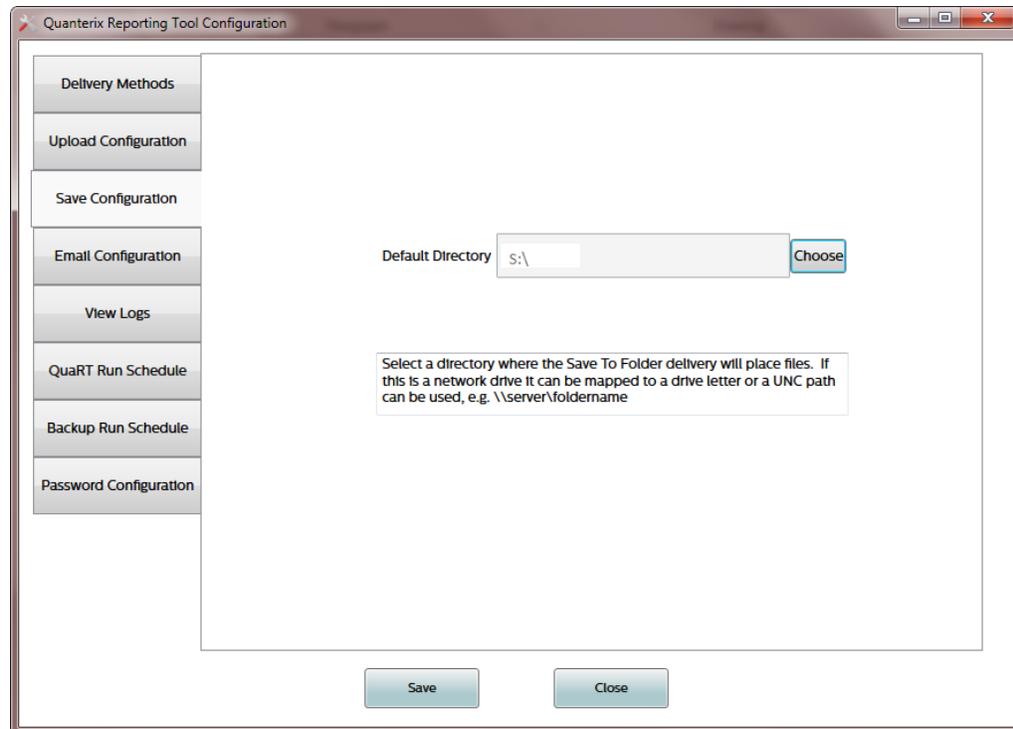
Once the correct location is specified, the **Test** button can be used to confirm that the upload works. This will connect to the web server and upload a test file. When the test completes, a message will appear stating whether it was successful or not.

When run for the first time, it is normal for the test to take up to a few minutes to complete; subsequent tests should complete more quickly. This delay will also occur the first time an actual file is uploaded to the web server.

For the test to succeed, the instrument computer must be connected to the internet. Additional setup requirements can be found in the document *Simoa HD-X Analyzer IT Setup Guide*, available on the Customer Portal.

Save Configuration

The *Save Configuration* tab specifies the destination for files delivered by the *Save to Folder* option.



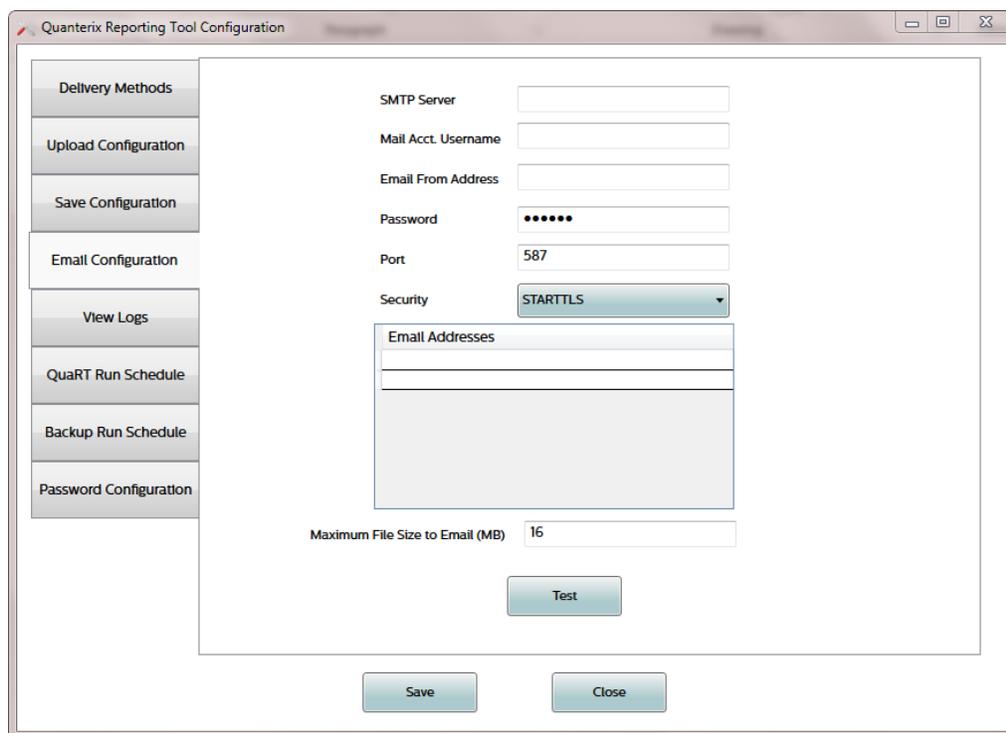
The default directory for the instruments is **S:**.

A new directory can be set by using the **Choose** button to browse through available directories.

When saving to a network drive, ensure that the instrument computer and its user accounts have permission to read and write to this location.

Email Configuration

The *Email Configuration* tab specifies how files are delivered by the *Email* option.



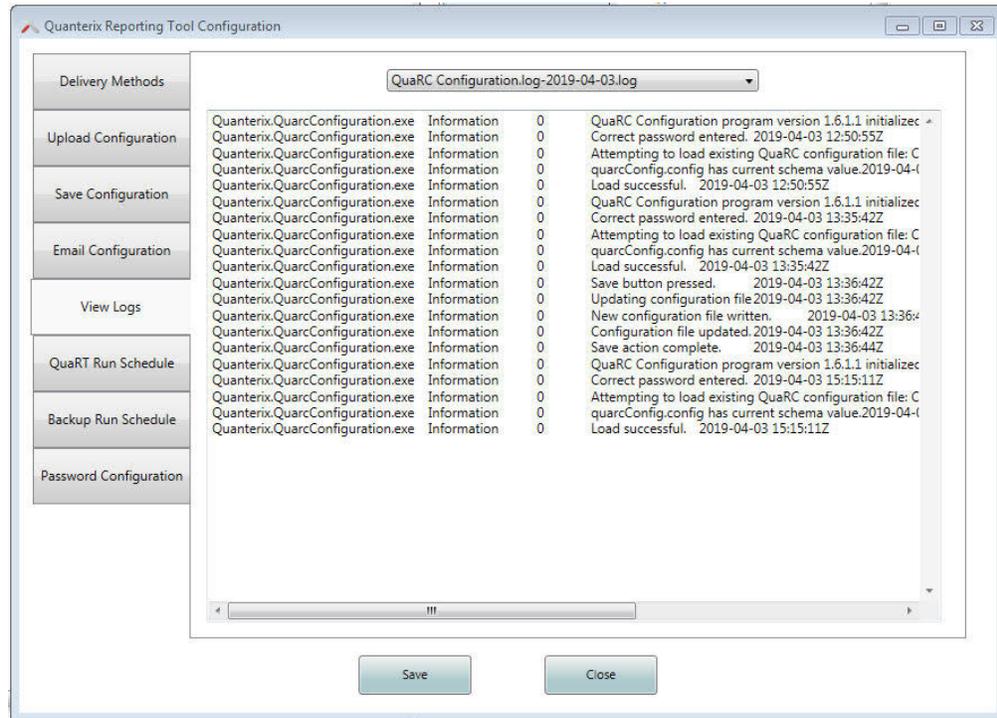
To send files via email from the instrument computer, the following information must be provided. Please refer to your organization's IT department for help gathering this information.

- **SMTP Server** – The address of a local network SMTP server.
- **Mail Acct. Username** – The username for the account on the SMTP server that will send emails.
- **Email From Address** – The email address of this account to use as the “From” address in messages.
- **Password** – The password of the account. It is encrypted using the standard Windows Data Protection API. For more information, see Microsoft's documentation here: <https://docs.microsoft.com/en-us/dotnet/standard/security/how-to-use-data-protection>
- **Port** – The port number used to contact the SMTP server. The default is 587.
- **Security** – The type of encryption for the messages. The options are *None*, *SSL/TLS*, and *STARTTLS*. The default is *STARTTLS*.
- **Email Addresses** – The email addresses to receive the files (one per line). To email files directly to Quanterix, specify the address quarc@quanterix.com.
- **Maximum File Size to Email (MB)** – The file size limit for attached files. The default is 16.

After valid information is provided for the above fields, use the **Test** button to send a test message to the provided email addresses. Include an email address that can be easily accessed to confirm receipt of the message.

View Logs

The *View Logs* tab allows for viewing of CST related log files. Log files less than 30 days old are listed in the dropdown box. Selecting one will display its contents in the textbox. When interacting with the Quanterix Service team regarding CST-related issues, this tab may be referenced.

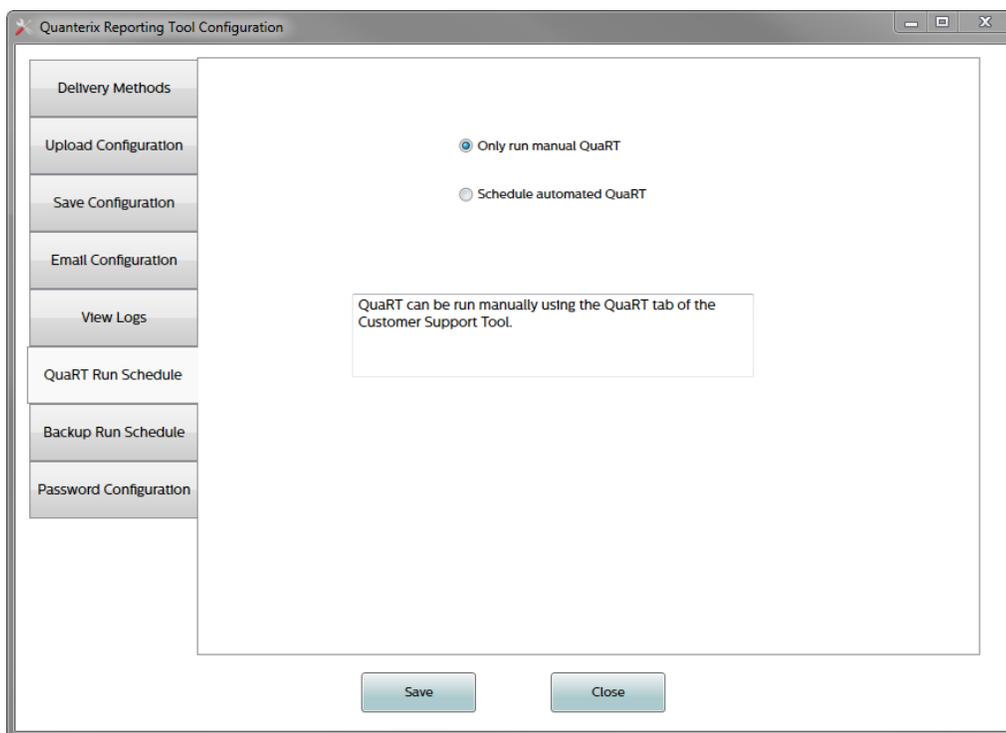


The following log files may appear

- **QuaRC - Quanterix Reporting Client** – This is a log of events that occur while operating the main CST application.
- **QuaRC Configuration** – This is a log of events that occur while operating the Configuration Utility.
- **QuaRC - Database Backup** – This is a log of events that occur while performing a manual database backup.
- **QuaRC - Automated Database Backup** – This is a log of events that occur while performing a scheduled database backup.
- **Quanterix Reporting Tool** – This is a log of events that occur while QuaRT is executing.

QuaRT Run Schedule

The *QuaRT Run Schedule* tab is used to specify whether or not QuaRT should run on a schedule.



The default behavior is *Only run manual QuaRT*.

Changing to *Schedule automated QuaRT* will enable QuaRT to run whenever the instrument computer is turned on. Choose this option only if the delivery method for QuaRT is set to *Upload* or *Email*. This will allow for automatic data reporting to Quanterix.

Backup Run Schedule

The *Backup Run Schedule* tab is used to schedule automated database backups. Enabling automated backups will still allow for the creation of manual backups in the CST.

If the option *Only run manual backups* is selected, no backups are scheduled. When the option *Schedule automated backups* is selected, the following information will be available to edit:

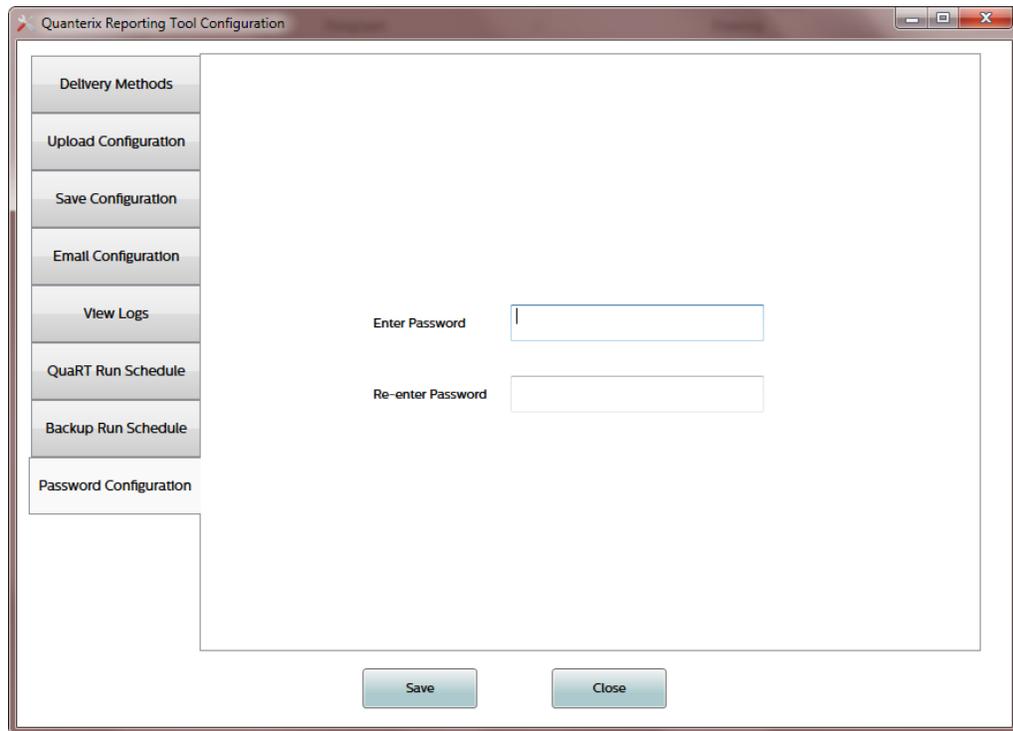
- **Weekly Frequency** – Select the weekly interval for backup execution.
- **Day of Week** – Select the day of the week for backup execution.
- **Time** – Select the time of day for backup execution.
- **Backup Settings** – Specify what kind of backup file created. See the section Database Backup Tab for details.
- **Backup Directory** – Specify where the backup file should be saved. The default directory is **S:**. A new directory can be set by using the **Browse** button to browse through available directories. The chosen location can be either on a USB drive or on a network drive. If a network drive is selected, ensure that the instrument computer and its user accounts have permission to read and write to this location.

Only schedule backups to run when the instrument will not be in use. Performing backups while the Simoa software is active and samples are processing may result in failure of both. Allow enough time for the backup process to complete. Consider scheduling backups during the weekend, late evening, or early morning.

Ensure that the instrument computer is turned on when the backup is scheduled. The backup will not execute if the computer is turned off at the scheduled time.

Password Configuration

The *Password Configuration* tab is used to change the password for the Configuration Utility.



The screenshot shows a window titled "Quanterix Reporting Tool Configuration" with a sidebar on the left containing the following menu items: Delivery Methods, Upload Configuration, Save Configuration, Email Configuration, View Logs, QuaRT Run Schedule, Backup Run Schedule, and Password Configuration. The "Password Configuration" tab is selected. The main area contains two text input fields: "Enter Password" and "Re-enter Password". At the bottom of the window are "Save" and "Close" buttons.

The default password for the Configuration Utility is **simoa**. To change the password, provide a new value in the **Enter Password** textbox, then re-enter it in the **Re-enter Password** textbox.

If the two entries do not match, a message will be displayed and the password change will not be saved.

If the two entries match, the password change will automatically be saved. The **Save** button does need to be pressed.