Countess[™] SAE Software Solution for 21 CFR Part 11 Support

for use with: Countess[™] 3 and 3 FL Automated Cell Counters

Pub. No. MAN0025462 Rev. A.0

Security Audit e-Signature (SAE) for the Countess[™] 3/3FL Instruments

IMPORTANT! 21 CFR part 11 is a regulation that describes the criteria for acceptance by the U.S. Food and Drug Administration (FDA) for electronic records and electronic signatures. Part 11 is composed of procedural and technical requirements. Procedural requirements are the standard operating procedures instituted by the end user, and technical requirements are the functional characteristics of the compliance management software used.

This section is intended to provide instructions for using Security, Audit, and ElectronicSignature (SAE) on board Countess[™] 3/3FL Instruments. Security, Audit, e-Signature (SAE) software provides the tools necessary for supporting 21 CFR Part 11 technical compliance including:

- Creating and maintaining user accounts
- Managing and enforcing password policies of all accounts
- Assigning, managing and enforcing access rights to all accounts
- Documenting and maintaining audit and e-Signature histories
- Permitting e-Signature approval for data verification

To implement the Countess[™] 3/3FL SAE Software Solution for 21 CFR Part 11 support on Countess[™] 3/3FL Instruments, you need the following components installed, activated, and communicating:

- SAE Administrator Console With the Countess[™] 3/3FL Imager Analysis Application Profile, used to configure the SAE settings for Countess[™] 3/3FL Instruments
- Countess[™] 3 SAE License Used to activate the SAE settings for the Countess[™] 3/3FL instrument software
- Countess[™] 3/3FL Instrument SAE Mode Software connected with the SAE Administrator Console

Note: For details on accessing Countess[™] 3/3FL SAE Software Solution downloads and resources, see the "Related documentation and references" section.

Activate your license key

Note: Running an instrument qualification using Installation Qualification/Operational Qualification/Performance Qualification (IQ/OQ/PQ) is recommended before SAE mode is enabled on the Countess $\overline{}$ 3/3FL Instrument for the first time.

- 1. Touch **Settings** on the bottom-right side of the **Home** screen.
- 2. Touch SAE Mode.

Note: If no license has been activated, you will automatically be prompted to activate your license. Validate the serial number of your instrument listed in the software on this page, insert your USB stick with your license into the Countess[™] 3/3FL instrument and click **Activate**.

- 3. Toggle the SAE mode to Enable and click Next.
- 4. Enter the IP address and port of the SAE console location, then touch **Next**.

Note: IP address and port location (e.g., 1 0.X.X.X:8201/adminconsole/index.html) are available in the address bar of the SAE Admin Console.

Note: The SAE Admin Console should be configured with a static IP address to ensure a reliable connection to the instrument.

5. Enter the username and password of the SAE Administrator and click **Enable** (by default, only an SAE Admin user can activate SAE mode on an instrument).

After successful connection, the instrument will restart.

Enable SAE mode

- 1. Touch **Settings** located on the bottom-right side of the **Home** screen.
- 2. Touch SAE mode.
- 3. Move the slider to **Enable**, then touch **Next**.



4. Enter the IP address and port of the SAE console location and then touch **Next**.

Note: IP address and port location (e.g., 1 0.X.X.X:8201/adminconsole/index.html) are available in the address bar of the SAE Admin Console.

5. The system will require the SAE Administrator to enter their credentials to complete the process. Enter credentials and touch **Enable** to complete the process.

Disable SAE mode

- Log in as SAE Console Admin on the Countess[™] 3/3FL instrument.
- 2. Touch **Settings** on the bottom-right side of the **Home** screen.
- 3. Touch SAE mode.
- 4. Move the slider to Disable, then touch Next.
- 5. At this point the SAE Admin may need to enter their credentials and touch **Disable** to continue or **Cancel** to leave the SAE mode enabled.
- 6. If user touches **Disable**, then the following warning will display:

IMPORTANT! "Are you sure? Disabling SAE mode will require you to reset your instrument to factory settings and will delete all of your data."

IMPORTANT! We recommend saving all data externally before proceeding with the disable.

Sign in to the instrument in SAE mode

1. Enter your SAE username and password in the SAE login window.

Note: Your username and password must be created by the SAE Admin on the SAE Console prior to logging in.

2. Touch **Sign In**. After signing in, you may be prompted to change your SAE password.

IMPORTANT! The following symbols cannot be used in your password: + & %

Note: The following characters can be used in addition to letters and numbers for passwords: - _ () [] { } / -! @ # ,.. = . , ' " : ; I <> ?

Change your password in SAE mode

- 1. Touch the user icon on the bottom-left side of the **Home** screen.
- 2. Touch **Change Password** and enter your old password, your new password, and then confirm your new password.

IMPORTANT! The following symbols cannot be used in your password: + &%\

Note: The following characters can be used in addition to letters and numbers for passwords: - _ () [] { } / - ! @ # * ,.. = . , ' " : ; I <> ?

Note: Your new password must meet the complexity requirements set by the SAE Console Admin.

Note: If you exceed the maximum number of sign-in attempts, you will be temporarily locked out of your account. See the SAE Console Admin.

Note: You may have limited access to Countess[™] 3/3FL instrument functions based on your user role set by the SAE Console Admin. in the SAE Console.

SAE user roles

Role	Description	
SAE Console Administrator (SAE Console Admin)	A default system role with full access privileges to the SAE Console. The SAE Console Admin creates new SAE user accounts, defines what privileges are granted to each SAE user role, and assigns user roles to all other SAE users.	
Countess [™] Admin	A default SAE role with privileges to use and manage the Countess [™] 3/3FL instrument and Countess [™] 3/3FL Analysis Software—Secure.	
Countess [™] Lead Scientist	A default SAE role with privileges to use the	
Countess [™] Technologist	Countess [™] 3/3FL instrument and Countess [™] 3/3FL Analysis Software—Secure.	

Permissions and default user roles

To determine the permissions for a default role or to edit it, select the role then click **Edit**.

The following table shows all user-configurable permissions and the settings for the default user accounts.

Table 1 Conferrable permissions and default user roles

Permissions			Default roles		
Category	Function	Lead Scientist	Technologist	Admin	
Setup	Sign in To Thermo Fisher™ Connect	No	No	Yes	
	Create Thermo Fisher [™] Connect profile on-device	No	No	Yes	
	Unlink Thermo Fisher™ Connect profile on-device	No	No	Yes	
	Load Protocol	Yes	Yes	Yes	
	Import Protocol	Yes	No	Yes	
	Export Protocol	Yes	No	Yes	
	Delete Protocol	Yes	No	Yes	
	Edit Protocol	Yes	No	Yes	
	Change save settings	Yes	No	Yes	
	Create Protocol	Yes	No	Yes	
_	Adjust light intensity	Yes	No	Yes	
	Adjust focus	Yes	No	Yes	
Run	Select capture channels	Yes	No	Yes	
	Capture selected channels	Yes	Yes	Yes	
Calculators	Pre-dilution calculator	Yes	No	Yes	
	Cell-splitting calculator	Yes	Yes	Yes	
	Turn on/off channel images	Yes	Yes	Yes	
View	Turn on/off channel contours	Yes	Yes	Yes	
	Open/close histogram	Yes	Yes	Yes	
	Adjust gating parameters	Yes	No	Yes	
	Save images/results	Yes	Yes	Yes	
Adjust Count	Adjust save options	Yes	No	Yes	
	Adjust save name	Yes	No	Yes	
	Change light cubes	Yes	No	Yes	
	Adjust Date/Time	Yes	No	Yes	
	Connect to WiFi network	Yes	Yes	Yes	
Instrument Settings	Reset instrument	No	No	Yes	
	Update software	Yes	No	Yes	
	View About software	Yes	Yes	Yes	
	Copy error logs	Yes	Yes	Yes	

Acquire images in SAE mode

Image acquisition in SAE mode is the same as in non-SAE mode.

For Countess[™] 3, refer to the Countess[™] 3 Automated Cell Counter User Guide (Pub. No. MAN0019566).

For Countess[™] 3 FL, refer to the Countess[™] 3 FL Automated Cell Counter User Guide (Pub. No. MAN0019567).

Note: In SAE mode, data is committed to the audit log as v1 at image acquisition.

Documentation and support

Related documentation

Document	Publication number	Description
Countess™ 3 Automated Cell Counter User Guide	MAN0019566	User guide for Countess [™] 3 Automated Cell Counter detailing use of the instrument with SAE enabled and disabled
Countess™ 3 FL Automated Cell Counter User Guide	MAN0019567	User guide for Countess [™] 3 FL Automated Cell Counter detailing use of instrument with SAE enabled and disabled

Obtain information from the Help System

The SAE Admin Console has a Help system that describes how to use each feature of the user interface. Click (?) to access the Help system.

Note: This Help is not specific for the Countess[™] 3/3 FL instruments and should only be used as a general guide.

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Revision	Date	Description
A.0	09 June 2021	New document.

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