

# 21CFR Requirement Checklist



EasyLog 21CFR Data Loggers are available in either standalone USB or WiFi formats. Please find below 21CFR compatibility checklists for both options.



= Fully Compliant



= Compliant with user control via SOPs (Standard Operating Procedures)

## WiFi 21CFR Cloud *(see page 11 for Standalone 21CFR USB)*

### Sec. 11.10 Controls for Closed Systems

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
<p>Persons who use closed systems to create, modify, maintain, or transmit electronic records shall employ procedures and controls designed to ensure the authenticity, integrity, and, when appropriate, the confidentiality of electronic records, and to ensure that the signer cannot readily repudiate the signed record as not genuine.</p> <p>Such procedures and controls shall include the following:</p>		
a) Validation of systems to ensure accuracy, reliability, consistent intended performance, and the ability to discern invalid or altered records.	✓	The EasyLog 21CFR Cloud provides both Device and System Audit trails detailing user activities.
b) The ability to generate accurate and complete copies of records in both human readable and electronic form suitable for inspection, review, and copying by the agency. Persons should contact the agency if there are any questions regarding the ability of the agency to perform such review and copying of the electronic records.	✓	The EasyLog 21CFR Cloud can be used to generate complete copies of all records in both human readable and electronic form - which can be used for inspection, review and copying by the agency.
c) Protection of records to enable their accurate and ready retrieval throughout the records retention period.	✓	The EasyLog 21CFR Cloud records are stored in a Database with controlled access, which are readily and securely retrievable using the EasyLog web user interface. Data is read-only and cannot be accessed in any other way. Each action to delete, print, export or add comments to data, is further controlled by the entry of an Approver's credentials. The Approver must have sufficient privileges to perform the selected action.
d) Limiting system access to authorized individuals.	✓	Access to the EasyLog 21CFR Cloud is under user email and password control. Administrators grant access to chosen users only, and assign usage privileges to each. Assignable privileges include, the ability to view, print and export data. Key actions are further controlled by the entry of an Approver's credentials. The Approver must have sufficient privileges to perform the selected action.
e) Use of secure, computer-generated, time-stamped audit trails to independently record the date and time of operator entries and actions that create, modify, or delete electronic records. Record changes shall not obscure previously recorded information. Such audit trail documentation shall be retained for a period at least as long as that required for the subject electronic records and shall be available for agency review and copying.	✓	<p>EasyLog 21CFR Cloud generates a System Audit trail, detailing all user activities.</p> <p>For more information on what is included in audit trail, please see table 1.</p> <p>Data cannot be overwritten or altered however, data and the System Audit can be deleted by an Administrator. All delete actions are recorded in the System Audit.</p>

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
f) Use of operational system checks to enforce permitted sequencing of steps and events, as appropriate.	✓	The EasyLog 21CFR Cloud is designed to ensure that the user is limited to performing one function at a time, and in the correct order.
g) Use of authority checks to ensure that only authorized individuals can use the system, electronically sign a record, access the operation or computer system input or output device, alter a record, or perform the operation at hand.	✓	Yes - please see Sec. 11.10 d).
h) Use of device (e.g., terminal) checks to determine, as appropriate, the validity of the source of data input or operational instruction.	N/A	Not applicable to EasyLog 21CFR Cloud.
i) Determination that persons who develop, maintain, or use electronic record/electronic signature systems have the education, training, and experience to perform their assigned tasks.	✓ !	This is the user's responsibility. The WiFi-21CFR device is supplied with a Quick Start Guide and online Help resources, and a thorough help file is included within the software.
j) The establishment of, and adherence to, written policies that hold individuals accountable and responsible for actions initiated under their electronic signatures, in order to deter record and signature falsification.	✓ !	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
k) Use of appropriate controls over systems documentation including:		
1) Adequate controls over the distribution of, access to, and use of documentation for system operation and maintenance.	✓ !	This is the user's responsibility. The WiFi-21CFR device is supplied with a Quick Start Guide, and a thorough help file is included within the software.
2) Revision and change control procedures to maintain an audit trail that documents time-sequenced development and modification of systems documentation.	✓ !	The EasyLog 21CFR Cloud provides both Device and System Audit trails to record system changes and actions carried out. In-house procedures are the user's responsibility. Users need to have their own Standard Operating Procedure.

## Sec. 11.50 Signature Manifestations

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
a) Signed electronic records shall contain information associated with the signing that clearly indicates all of the following:		
1) The printed name of the signer;	✓	Yes - please see Sec. 11.10 e).
2) The date and time when the signature was executed; and	✓	Yes - please see Sec. 11.10 e).
3) The meaning (such as review, approval, responsibility, or authorship) associated with the signature.	✓	Yes - please see Sec. 11.10 e).

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
b) The items identified in paragraphs a1), a2), and a3) of this section shall be subject to the same controls as for electronic records and shall be included as part of any human readable form of the electronic record (such as electronic display or printout).	✓	Yes - please see Sec. 11.10 e).

### Sec. 11.70 Signature/Record Linking

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
Electronic signatures and handwritten signatures executed to electronic records shall be linked to their respective electronic records to ensure that the signatures cannot be excised, copied, or otherwise transferred to falsify an electronic record by ordinary means.	✓	Yes - please see Sec. 11.10 e).

### Subpart C - Electronic Signatures

#### Sec. 11.100 General Requirements

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
a) Each electronic signature shall be unique to one individual and shall not be reused by, or reassigned to, anyone else.	✓	EasyLog 21CFR Cloud users create their own password for their account. Each Sign-In Email address must be unique.
b) Before an organization establishes, assigns, certifies, or otherwise sanctions an individual's electronic signature, or any element of such electronic signature, the organization shall verify the identity of the individual.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
c) Persons using electronic signatures shall, prior to or at the time of such use, certify to the agency that the electronic signatures in their system, used on or after August 20, 1997, are intended to be the legally binding equivalent of traditional handwritten signatures.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
1) The certification shall be submitted in paper form and signed with a traditional handwritten signature, to the Office of Regional Operations (HFC-100), 5600 Fishers Lane, Rockville, MD 20857.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
2) Persons using electronic signatures shall, upon agency request, provide additional certification or testimony that a specific electronic signature is the legally binding equivalent of the signer's handwritten signature.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.

## Sec. 11.200 Electronic Signature Components and Controls

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
a) Electronic signatures that are not based upon biometrics shall:		
1) Employ at least two distinct identification components such as an identification code and password.	✓	The EasyLog 21CFR Cloud uses Email and Password at Sign-In and Email and Password of an Approver, at the time key actions are being performed.
i) When an individual executes a series of signings during a single, continuous period of controlled system access, the first signing shall be executed using all electronic signature components; subsequent signings shall be executed using at least one electronic signature component that is only executable by, and designed to be used only by, the individual.	✓	On the EasyLog 21CFR Cloud, each and every key action requires entry of both Email address and Password as the Approval signature.
ii) When an individual executes one or more signings not performed during a single, continuous period of controlled system access, each signing shall be executed using all of the electronic signature components.	✓	On the EasyLog 21CFR Cloud, each and every key action requires entry of both Email address and Password as the Approval signature.
2) Be used only by their genuine owners; and	✓	Please see Sec. 11.100 a).
3) Be administered and executed to ensure that attempted use of an individual's electronic signature by anyone other than its genuine owner requires collaboration of two or more individuals.	✓	Please see Sec. 11.100 a). Attempts made to Approve an action, by a user without a sufficiently high user privilege level, will be recorded in the System Audit.
b) Electronic signatures based upon biometrics shall be designed to ensure that they cannot be used by anyone other than their genuine owners.	N/A	

## Sec. 11.300 Controls for Identification Codes/Passwords

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
Persons who use electronic signatures based upon use of identification codes in combination with passwords shall employ controls to ensure their security and integrity. Such controls shall include:		
a) Maintaining the uniqueness of each combined identification code and password, such that no two individuals have the same combination of identification code and password.	✓	Please see Sec. 11.100 a).
b) Ensuring that identification code and password issuances are periodically checked, recalled, or revised (e.g., to cover such events as password aging).	✓	An Administrator can change any user's registered Email address or password at any time. They can immediately deny system access to a user by permanently deleting the user and or temporarily change their password.

21CFR Part 11 requirement	Does the EasyLog 21CFR Cloud meet this requirement?	Comments
c) Following loss management procedures to electronically deauthorize lost, stolen, missing, or otherwise potentially compromised tokens, cards, and other devices that bear or generate identification code or password information, and to issue temporary or permanent replacements using suitable, rigorous controls.		Users can be deleted or their privileges changed by an Administrator. In the event that a user forgets their password, a reset link can be sent to the user's registered email address. It is the user's responsibility to make sure this is covered in their Standard Operating Procedure.
d) Use of transaction safeguards to prevent unauthorized use of passwords and/or identification codes, and to detect and report in an immediate and urgent manner any attempts at their unauthorized use to the system security unit, and, as appropriate, to organizational management.		Attempts made to Approve an action, by a user without a sufficiently high user privilege level, will be recorded in the System Audit.
e) Initial and periodic testing of devices, such as tokens or cards, that bear or generate identification code or password information to ensure that they function properly and have not been altered in an unauthorized manner.		This is the user's responsibility. Users need to have their own Standard Operating Procedure.

## System Audit

All System Audit entries are Date/Time and contain the Full Name and Email address of the Signed-In User and the user giving Approval. The Approver must have the required privilege level to complete the operation.

If the user attempts to complete an action requiring Approval but has an insufficient privilege level, the attempted action is recorded in the System Audit.

Action	System Audit Entry	Approval Required	User Privilege Required
Devices :			
Archive/Clear/Delete a device	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email List of Archived/Cleared/Deleted Devices - Names and MAC addresses		Administrator
Change Device Settings	None		Manage Devices
View Data :			
Other Sessions :			
Export Device Audit	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Device Name and MAC Document ID		Print & Export Device Data
Graph :			
Export	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Start & End Time/Date of data Document ID		Print & Export Device Data



Action	System Audit Entry	Approval Required	User Privilege Required
Print	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Start & End Time/Date of data Document ID	✓	Print & Export Device Data
Data :			
Add a Comment	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Time/Date of data value Data Value(s) Comment	✓	Administrator
Export	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Start & End Time/Date of data Document ID	✓	Print & Export Device Data
Event Logs :			
Clear Log	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email List of Devices - Names and MAC	✓	Administrator
Export	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Start & End Time/Date of Log List of Devices - Names and MAC Document ID	✓	Administrator
Send This Log	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Start & End Time/Date of Log List of Devices - Names and MAC Recipient : Email Address Document ID	✓	Administrator
Reset Alarm	None		Manage Devices
New Device added (New Devices)	None		Manage Devices
Administration :			
Users :			
Create New User (pending user email address verification)	None		Administrator (implied)
Edit User : Full Name	None		Administrator (implied)
Edit User : Email Address	None		Administrator (implied)
Edit User : Password	None		Administrator (implied)
Edit User : User Privileges	None		Administrator (implied)
Delete User	None		Administrator (implied)
Locations :			
Create New Location	None		Administrator (implied)
Edit Location	None		Administrator (implied)



Action	System Audit Entry	Approval Required	User Privilege Required
Delete Location	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Name of Location(s) affected. List of Archived/Cleared/Deleted Devices - Names and MAC addresses	✓	Administrator (implied)
Archive Location	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Name of Location(s) affected. List of Archived/Cleared/Deleted Devices - Names and MAC addresses	✓	Administrator (implied)
Change Users belonging to a Location	None		Administrator (implied)
<b>System Audit :</b>			
Delete part or all of the System Audit	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Amount of System Audit retained	✓	Administrator (implied)
Export System Audit	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Audit period or Start & End Time/ Date File Format Time Zone Document ID	✓	Administrator (implied)
<b>Settings :</b>			
Change Auto Sign-Out time	Time/Date stamp Approvers Full Name & Email Signed-In user's Full Name & Email Old and New Auto Sign-Out time	✓	Administrator (implied)
User Sign In	None		None
User Sign Out	None		None
<b>Account :</b>			
<b>Account Details :</b>			
Account Name	None		Acct Administrator (implied)
Company Name	None		Acct Administrator (implied)
Address	None		Acct Administrator (implied)
Town/City	None		Acct Administrator (implied)
State/County	None		Acct Administrator (implied)
Zip/Postcode	None		Acct Administrator (implied)
Country	None		Acct Administrator (implied)
Time Zone	None		Acct Administrator (implied)
Automatically adjust daylight saving time	None		Acct Administrator (implied)
<b>Billing Details</b>			
Name	None		Acct Administrator (implied)
Address	None		Acct Administrator (implied)



Action	System Audit Entry	Approval Required	User Privilege Required
Town/City	None		Acct Administrator (implied)
State/County	None		Acct Administrator (implied)
Zip/Postcode	None		Acct Administrator (implied)
Country	None		Acct Administrator (implied)
Account type changed (Up/Downgrade)	None		Acct Administrator (implied)
My Settings :			
Change Date format	None		None
Change Time format	None		None
Change Password	None		None
Change Email Address	None		None
Reduce the number of emails I get	None		None
<b>Insufficient Privilege</b>			
Approval Failed: Any Action requiring Approval	Time/Date stamp Full Name & Email entered Signed-In user's Full Name & Email Attempted Action		Administrator



## Example System Audit

Document ID: 2-89B4EB Approved by: Tim Liversage (tim.liversage@winstanleyhc.com) 14/04/2016 11:52:27 ((GMT) Dublin, Edinburgh, Lisbon, London)			
<b>SYSTEM AUDIT</b>			
Exported on 14/12/2015 10:19 (UTC-03:00 Greenland) by David Browlands (david.browlands@winstanleyhc.com) Document ID : 2-89B4EB Approved by Tim Liversage (tim.liversage@winstanleyhc.com)			
Times shown are referenced to Time Zone: (GMT) Dublin, Edinburgh, Lisbon, London			
Audit Period	12/12/2015 00:00	to	13/12/2015 00:00
Account	Winstanley Health Foods (21CFR PROFESSIONAL Tier 2)		
Date/Time	13/12/2015 23:13	Clear Device Data	
Signed-In User	Tim Liversage (tim.liversage@winstanleyhc.com)	Approved by	Tim Liversage (tim.liversage@winstanleyhc.com)
Comments	Device: Freezer 001/A (MAC 98:8B:AD:00:1D:74) Device: Freezer 023/Sa (MAC 98:8B:AD:00:20:01)		
Date/Time	13/12/2015 22:22	Export Device Audit	
Signed-In User	David Browlands (david.browlands@winstanleyhc.com)	Approved by	Tim Liversage (tim.liversage@winstanleyhc.com)
Comments	Device: Large Store (MAC 98:8B:AD:01:23:14) Document ID : 3-54AAE1		
Date/Time	13/12/2015 22:21	Approval Failed	
Signed-In User	David Browlands (david.browlands@winstanleyhc.com)	Approved by	
Comments	Attempted Action: Export Device Audit by Paul Kenward (pauLkenward@larasian.co.uk)		
Date/Time	13/12/2015 22:21	Print Graph	
Signed-In User	Edna Clouds (edna.clouds@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Freezer 001/A (MAC 98:8B:AD:00:1D:74) Start: 11/12/2015 00:00 End: 12/12/2015 00:00 Document ID : 1-22CA40		
Date/Time	13/12/2015 08:21	Auto Sign-Out time changed	
Signed-In User	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Was: 10 minutes Is: 5 minutes		
Date/Time	13/12/2015 07:01	Delete some or all of the System Audit	
Signed-In User	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Only System Audit entries from the last 7 days were retained. All other entries were deleted.		
Date/Time	13/12/2015 06:40	Send Event Log	
Signed-In User	Anita House (anita.house@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Cold Store 4 (MAC 98:8B:AD:00:1D:33) Device: Cold Store 2 (MAC 98:8B:AD:00:20:45) Device: Cold Store 3 (MAC 98:8B:AD:00:33:56) Device: Cold Store 1 (MAC 98:8B:AD:00:10:9A) Log Start: 01/12/2015 00:00 Log End: 11/12/2015 00:00 Recipient: frank.sidebottom@bigfrankshealthfoods.com Document ID : 0-996ef0		
Date/Time	13/12/2015 06:32	Export System Audit	
Signed-In User	Anita House (anita.house@winstanleyhc.com)	Approved by	Tim Liversage (tim.liversage@winstanleyhc.com)
Comments	Start: 01/12/2015 00:00 End: 11/12/2015 00:00 File Format: CSV Time Zone: (GMT) Dublin, Edinburgh, Lisbon, London Document ID : 7-b516ab		
Date/Time	13/12/2015 06:32	Clear Event Log	
Signed-In User	Anita House (anita.house@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Test Oven - Lab1 (MAC 98:8B:AD:04:1A:CC) Device: Cal Lab - Overlord (MAC 98:8B:AD:02:A2:C6)		



Date/Time	13/12/2015 06:32	Export Data	
Signed-In User	Hope Springs (hope.springs@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Freezer 001/A (MAC 98:8B:AD:00:1D:74) Start: 11/12/2015 00:00 End: 12/12/2015 00:00 Document ID : 2-d45f41		
Date/Time	13/12/2015 04:33	Add Comments to Data	
Signed-In User	Edna Clouds (edna.clouds@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Front Office 32 (MAC 98:8B:AD:02:01:55) Data: 02/12/2015 01:20:18 Pump Temp = 56.4°C Extraction Temp = -10°C Comment: Extraction blockage identified. Maintenance schedule updated.		
Date/Time	13/12/2015 04:02	Delete Location	
Signed-In User	Edna Clouds (edna.clouds@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Location: Winstanley / California / Test Zone Device: Back Office 32 (MAC 98:8B:AD:02:11:23) Device: Side Office 21 (MAC 98:8B:AD:01:10:04) Device: Big Office 20 (MAC 98:8B:AD:01:11:14) Location: Winstanley / California / Test Zone / Dry box Device: Dry duct 1 (MAC 98:8B:AD:02:07:88) Device: Dry duct 2 (MAC 98:8B:AD:02:09:AB)		
Date/Time	13/12/2015 03:54	Export Graph	
Signed-In User	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Freezer 001/A (MAC 98:8B:AD:00:1D:74) Start: 11/12/2015 00:00 End: 12/12/2015 00:00 Document ID : 2-956621		
Date/Time	13/12/2015 03:13	Archive Device	
Signed-In User	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Incubator (MAC 98:8B:AD:02:1A:B4) Device: Freezer 023/Sa (MAC 98:8B:AD:00:20:01) Device: Pre-Chiller 023/Sa (MAC 98:8B:AD:00:24:03)		
Date/Time	13/12/2015 03:13	Delete Device	
Signed-In User	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Lab Sensor (MAC 98:8B:AD:01:FF:E4)		
Date/Time	13/12/2015 03:00	Archive Location	
Signed-In User	Edna Clouds (edna.clouds@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Location: Winstanley / California / Test Zone Device: Back Office 32 (MAC 98:8B:AD:02:22:2F) Device: HVAC 100 (MAC 98:8B:AD:01:21:EA)		
Date/Time	13/12/2015 02:40	Archive Location	
Signed-In User	Edna Clouds (edna.clouds@winstanleyhc.com)	Approved by	Bernard Fusenhauser (Bernard.F@winstanleyhc.com)
Comments	Device: Cold Store 4 (MAC 98:8B:AD:00:1D:33) Device: Cold Store 2 (MAC 98:8B:AD:00:20:45) Log Start: 01/12/2015 00:00 Log End: 11/12/2015 00:00 Document ID : 4-231d6c		

## Standalone 21CFR USB

### Sec. 11.10 Controls for Closed Systems

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
Persons who use closed systems to create, modify, maintain, or transmit electronic records shall employ procedures and controls designed to ensure the authenticity, integrity, and, when appropriate, the confidentiality of electronic records, and to ensure that the signer cannot readily repudiate the signed record as not genuine.  Such procedures and controls shall include the following:		
a) Validation of systems to ensure accuracy, reliability, consistent intended performance, and the ability to discern invalid or altered records.	✓	EasyLog 21CFR provides an audit trail, detailing user activities.
b) The ability to generate accurate and complete copies of records in both human readable and electronic form suitable for inspection, review, and copying by the agency. Persons should contact the agency if there are any questions regarding the ability of the agency to perform such review and copying of the electronic records.	✓	EasyLog 21CFR generates complete copies of all records in both human readable and electronic form - which can be used for inspection, review and copying by the agency
c) Protection of records to enable their accurate and ready retrieval throughout the records retention period.	✓	EasyLog 21CFR's records are readily retrievable and protected by encryption to ensure their accuracy.
d) Limiting system access to authorized individuals.	✓	EasyLog 21CFR implements a password protected login procedure. Administrators can set user privileges for each user, and can be notified of unsuccessful login attempts via email.
e) Use of secure, computer-generated, time-stamped audit trails to independently record the date and time of operator entries and actions that create, modify, or delete electronic records. Record changes shall not obscure previously recorded information. Such audit trail documentation shall be retained for a period at least as long as that required for the subject electronic records and shall be available for agency review and copying.	✓	EasyLog 21CFR generates an audit trail, detailing all user activities. For more information on what is included in audit trails, please see table 1. EasyLog 21CFR never overwrites any previously saved data or documentation, including audit trails.
f) Use of operational system checks to enforce permitted sequencing of steps and events, as appropriate.	✓	EasyLog 21CFR is designed to ensure that the user is limited to performing one function at a time, and in the correct order.
g) Use of authority checks to ensure that only authorized individuals can use the system, electronically sign a record, access the operation or computer system input or output device, alter a record, or perform the operation at hand.	✓	Yes - please see Sec. 11.10 d).
h) Use of device (e.g., terminal) checks to determine, as appropriate, the validity of the source of data input or operational instruction.	N/A	Not applicable to EasyLog 21CFR.
i) Determination that persons who develop, maintain, or use electronic record/electronic signature systems have the education, training, and experience to perform their assigned tasks.	✓ ⚠	This is the user's responsibility. The data logger comes with a <a href="#">Quick Start Guide</a> , and a thorough help file is included within the software.

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
j) The establishment of, and adherence to, written policies that hold individuals accountable and responsible for actions initiated under their electronic signatures, in order to deter record and signature falsification.		This is the user's responsibility. Users need to have their own Standard Operating Procedure.
k) Use of appropriate controls over systems documentation including:		
1) Adequate controls over the distribution of, access to, and use of documentation for system operation and maintenance.		This is the user's responsibility. EasyLog 21CFR comes with a Quick Start Guide, and a thorough help file is included within the software.
2) Revision and change control procedures to maintain an audit trail that documents time-sequenced development and modification of systems documentation.		EasyLog 21CFR provides an audit trail to show changes made to software settings.  In-house procedures are the user's responsibility. Users need to have their own Standard Operating Procedure.

## Sec. 11.50 Signature Manifestations

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
a) Signed electronic records shall contain information associated with the signing that clearly indicates all of the following:		
1) The printed name of the signer;		Yes - please see Sec. 11.10 e).
2) The date and time when the signature was executed; and		Yes - please see Sec. 11.10 e).
3) The meaning (such as review, approval, responsibility, or authorship) associated with the signature.		Yes - please see Sec. 11.10 e).
b) The items identified in paragraphs a1), a2), and a3) of this section shall be subject to the same controls as for electronic records and shall be included as part of any human readable form of the electronic record (such as electronic display or printout).		The audit trail EasyLog 21CFR produces is protected by encryption. This can be viewed in the software, or printed out by authorised users.

## Sec. 11.70 Signature/Record Linking

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
Electronic signatures and handwritten signatures executed to electronic records shall be linked to their respective electronic records to ensure that the signatures cannot be excised, copied, or otherwise transferred to falsify an electronic record by ordinary means.	✓	Yes - please see Sec. 11.10 e).

## Subpart C - Electronics Signatures

### Sec. 11.100 General Requirements

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
a) Each electronic signature shall be unique to one individual and shall not be reused by, or reassigned to, anyone else.	✓	EasyLog 21CFR users create their own password for their account. Login names cannot be duplicated.
b) Before an organization establishes, assigns, certifies, or otherwise sanctions an individual's electronic signature, or any element of such electronic signature, the organization shall verify the identity of the individual.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
c) Persons using electronic signatures shall, prior to or at the time of such use, certify to the agency that the electronic signatures in their system, used on or after August 20, 1997, are intended to be the legally binding equivalent of traditional handwritten signatures.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
1) The certification shall be submitted in paper form and signed with a traditional handwritten signature, to the Office of Regional Operations (HFC-100), 5600 Fishers Lane, Rockville, MD 20857.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.
2) Persons using electronic signatures shall, upon agency request, provide additional certification or testimony that a specific electronic signature is the legally binding equivalent of the signer's handwritten signature.	✓ ⚠	This is the user's responsibility. Users need to have their own Standard Operating Procedure.



### Sec. 11.200 Electronic Signature Components and Controls

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
a) Electronic signatures that are not based upon biometrics shall:		
1) Employ at least two distinct identification components such as an identification code and password.	✓	EasyLog 21CFR uses Login Name, Password and Signature to identify individual users.
i) When an individual executes a series of signings during a single, continuous period of controlled system access, the first signing shall be executed using all electronic signature components; subsequent signings shall be executed using at least one electronic signature component that is only executable by, and designed to be used only by, the individual.	✓	Each entry on the audit trail in EasyLog 21CFR is identified by two pieces of information - user name and unique user ID.
ii) When an individual executes one or more signings not performed during a single, continuous period of controlled system access, each signing shall be executed using all of the electronic signature components.	✓	Each entry on the audit trail in EasyLog 21CFR is identified by two pieces of information - user name and unique user ID.
2) Be used only by their genuine owners; and	✓	Please see Sec. 11.100 a).
3) Be administered and executed to ensure that attempted use of an individual's electronic signature by anyone other than its genuine owner requires collaboration of two or more individuals.	✓	Please see Sec. 11.100 a).
b) Electronic signatures based upon biometrics shall be designed to ensure that they cannot be used by anyone other than their genuine owners.	N/A	

### Sec. 11.300 Controls for Identification Codes/Passwords

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
Persons who use electronic signatures based upon use of identification codes in combination with passwords shall employ controls to ensure their security and integrity. Such controls shall include:		
a) Maintaining the uniqueness of each combined identification code and password, such that no two individuals have the same combination of identification code and password.	✓	Please see Sec. 11.100 a).
b) Ensuring that identification code and password issuances are periodically checked, recalled, or revised (e.g., to cover such events as password aging).	✓	Users of EasyLog 21CFR must change their password after an administrator-specified amount of time (from 7 to 999 days).

21CFR Part 11 requirement	Does EasyLog 21CFR meet this requirement?	Comments
c) Following loss management procedures to electronically deauthorize lost, stolen, missing, or otherwise potentially compromised tokens, cards, and other devices that bear or generate identification code or password information, and to issue temporary or permanent replacements using suitable, rigorous controls.		Users can be disabled by an administrator. In the event that a user forgets their password, it can be reset by an administrator. It is the user's responsibility to make sure this is covered in their Standard Operating Procedure.
d) Use of transaction safeguards to prevent unauthorized use of passwords and/or identification codes, and to detect and report in an immediate and urgent manner any attempts at their unauthorized use to the system security unit, and, as appropriate, to organizational management.		EasyLog 21CFR tracks all login and logout instances in the audit trail.  Administrators can be notified of unsuccessful login attempts via email.
e) Initial and periodic testing of devices, such as tokens or cards, that bear or generate identification code or password information to ensure that they function properly and have not been altered in an unauthorized manner.		This is the user's responsibility. Users need to have their own Standard Operating Procedure



= Fully Compliant



= Compliant with user control via SOPs (Standard Operating Procedures)

**Table 1 - Audit Trail Entries**

Audit Entries	Software Audit	Session Audit
User Created	✓	
User Edited	✓	
User Disabled	✓	
User Logged In	✓	
User Logged Out	✓	
Failed Log In	✓	
Users Password Changed	✓	
Users Password Created	✓	
Software Settings Changed	✓	
Users Password Reset	✓	
Logger Initialised	✓	✓
Logger Stopped	✓	✓
Data Downloaded	✓	✓
Comment Added/Edited	✓	✓
Data Approved	✓	✓
Data Un-Approved	✓	✓
Data Exported	✓	✓

## Example Software Audit

User	Action	Date/Time	Serial Number	Session	Comments
Richard Cameron	Data Downloaded	15/04/2015 09:43:58	010068436	92	Username:Richard Data Location:C:\Users\Richard
Richard Cameron	Software Settings Changed	15/04/2015 09:42:59			Company name: Installation name:PURCHASING Password life:365 days Auto logout:1 hour Default download location:C:\ Default export location:C:\Use
Richard Cameron	User Logged In	15/04/2015 09:42:56			
Richard Cameron	User Created	15/04/2015 09:42:55			Username:Richard First name:Richard Surname:Cameron Administrator rights:Yes
Battery interruption	Logger Stopped	23/03/2015 16:56:22	010068436	92	This logger was not stopped o Company: Installation name: Full name:Battery interruption
Andrew Ludwell	Logger Initialised	23/03/2015 16:55:02	010068436	92	This logger was not setup on t Company:Lascar One Installation name:Eng One

## Example Session Audit

User	Action	Date/Time	Comments
Richard Cameron	Data Approved	16/04/2015 09:13:05	Data Approved C:\Users\Richard\Documents\EasyLog 21CFR\Session Data\Easy
Richard Cameron	Data Exported	16/04/2015 09:12:45	CSV (data) exported. C:\Users\Richard\Documents\EasyLog 21CFR\Exported Data\Eas
Richard Cameron	Comment Added/Edited	16/04/2015 09:12:33	3: Spike when fridge door was opened
Richard Cameron	Data Downloaded	15/04/2015 09:43:58	Username:Richard Data Location:C:\Users\Richard\Documents\EasyLog 21CFR\Ses
Battery interruption	Logger Stopped	23/03/2015 16:56:22	This logger was not stopped on this installation. It was stopped Company: Installation name: Full name:Battery interruption
Andrew Ludwell	Logger Initialised	23/03/2015 16:55:02	This logger was not setup on this installation. It was setup on Company:Lascar One Installation name:Eng One

## Example Graph with Signatures

