# Optimize operational efficiency with advanced data management solutions

## **Eurotherm**<sub>®</sub>

Expertise in systems and solutions, services and support

## Data Reviewer

Explore your process data anytime, anywhere with easy to use and versatile data management software

Life Is On

Signature is required. Action: Modify Print/Chart Settings



# Making historical data easy to manage optimizes production and data integrity

Eurotherm are specialists in managing critical data and contextual metadata to help meet stringent regulations on the quality, safety and authenticity of manufactured goods.

We empower our customers to maintain regulatory compliance and reduce their audit costs. Our EcoStruxure<sup>™</sup>-ready solution provides a data integrity layer that supports on-premises solutions. EcoStruxure is Schneider Electric's IoT-enabled system architecture and platform.

- Help demonstrate compliance for regulatory purposes
- Access insights into production processes identifying areas for improvement

Eurotherm Data Reviewer is a software application designed for the viewing, analysis and printing of historical data files obtained from Eurotherm data acquisition equipment such as, but not limited to:

- Paperless graphic recorders 6000 series
- Hybrid nanodac™ recorder/controller range
- Programmable automation controllers T2750 PAC

## Browser-based single installation

Install the application once on a server and provide remote access to users, thereby removing the need to store and maintain access on multiple PC's.

## Find data quickly

Imported data is automatically organized by group and batch. Data can be refined further by changing the date range, searching for recording devices by name/ recording group from automatically generated lists, or simply by typing in the name of the device/record.

## Analyze data more effectively with dual cursor mode

A single line cursor, positioned within the chart area, presents process variable details for the visible channels at that point on the timeline. A second vertical cursor can be used to select a data range on which to perform analysis.

## Easily approve data for release

Annotations, such as comments or authorization signatures can be added at any point during analysis. Annotations are subsequently stored alongside the original data for easy retrieval at a later date.

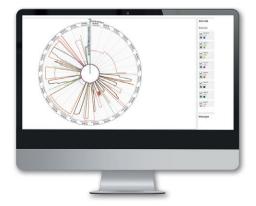
## Access data more easily in multiple styles

Data access is easy because historical data can be automatically imported through the use of SFTP/FTP communications from Ethernet enabled devices or directly from an SFTP/FTP server. Data can be viewed in multiple styles:

- Horizontal linear chart
- Circular chart
- CSV export

## **Circular chart**

Eurotherm Data Reviewer allows for circular chart visualization and printing of the data; simply choose the desired revolution, e.g. 1 week. In addition, to aid analysis, the chart can be rotated using the mouse or left/right cursor keys.



## Enhanced data integrity

With regulations such as FDA 21CFR part 11, ALCOA\* and AMS2750, data integrity has never been so important for the pharmaceutical, food and heat treatment industries. Eurotherm Data Reviewer provides support for managing user-defined accounts and passwords.

Auditor option provides support for electronic signatures in accordance with FDA 21 CFR Part 11 and Data Integrity ALCOA + concept.

## User management

Simple user management is provided with Eurotherm Data Reviewer. The Foundation edition supports a single user role. Enterprise Edition has four predefined roles, User, Engineer, Quality and Administrator. New users can be assigned to any of these roles. If more flexibility is needed then the Auditor option provides the ability to create multiple roles, where each role can be given a unique set of permissions.

## Password management

Eurotherm Data Reviewer provides support for user defined password policy management; the system administrator can define the minimum password length, use of upper and lowercase characters, password aging and re-use rules.

## Active Directory support

To reduce the overhead associated with setting up and managing user accounts, Eurotherm Data Reviewer supports Microsoft<sup>®</sup> Active Directory integration. User accounts and passwords are then managed by Active Directory, rather than Eurotherm Data Reviewer.

Active Directory support offers users:

- Centralized resources and security administration
- Single login for access to global resources
- Simplified resource location

Roles	User	Quality	Engineer	1	Admin
CanAccessDatabaseViewDetails		4	4		4
CanAccessHistoryDownloadUhhFiles		1	~		4
CanAcknowledge	4	4	4		4
CanAddEditDisableUserAccount					1
CanAddEditRemovalHttpsCertificates					×
CanAddRemoveInstrument			4		×
CanAnnotate	1	1	~		
CanApprouve		1	4		
CanCreateCustomGroups		1	~		
CanDeleteFilesFolders		1	×		
CanDeleteManageDatabase			4		4
CanEditCustomGroups			×		×
CanEditInstrumentDetails		4	4	1	
CanEditOwnPassword			~		
CanEditPolIInterval	1	1	×		
CanEditPrintBatchSettings			~		
CanEditPrinterConfig	1		×		
CanEditUserProfiles			~		
CanExportToCsv	4	4	4		
CanPrint	4	4	×		
CanRelease	4	4			
CanResolve	1	1	~		Pa
CanReview		4	V		Use
					Wa
					Passy

#### Default access permissions

#### Password policy

Password Policy			
Minimum required length	8		
Passwords must contain n uppercase digits	1		
Passwords must contain n uppercase characters	1		
Passwords must contain n lowercase characters	1		
Passwords must contain n non-alphanumeric characters	1		
User must change password after (days, 0 means never)	60		
Wam user of password expiration (days, 0 means never)	0		
Passwords cannot be the same as the previous n passwords	5		

\* How Paper and Electronic Source Data Meet ALCOA Elements. According to the FDA, data should meet certain fundamental elements of quality. Whether they're recorded on paper or electronically, source data should be Attributable, Legible, Contemporaneous, Original, and Accurate (ALCOA).

## Simplifying compliance with Auditor

The Auditor option for Eurotherm Data Reviewer provides support for Electronic Signatures in accordance with AMS2750, FDA 21 CFR Part 11 and ALCOA (+). All user actions can be configured to require signing, or signing and authorization. The ability to sign or authorize is configured on a user-by-user basis and incorporates signature element controls in accordance with FDA 21 CFR Part 11:

- User specific access according to authority level
- Signature element controls password aging, minimum password length, automatic log-off, automatic disabling and notification of unsuccessful login attempts
- Individual user accounts and passwords

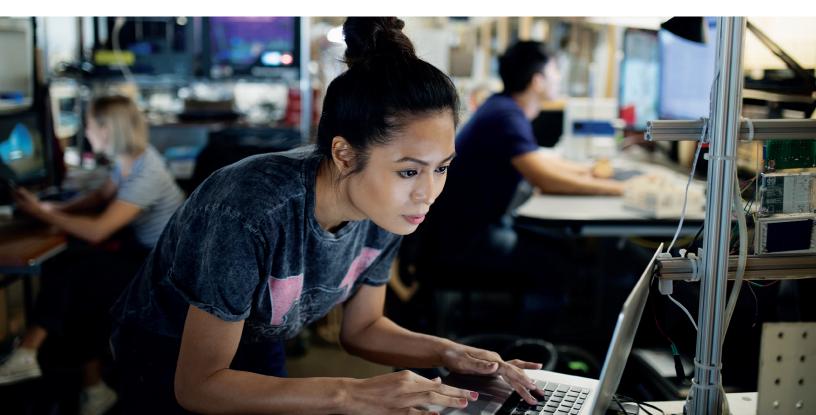
## Audit trail

Eurotherm Data Reviewer Enterprise edition includes an Audit Trail. Each time a user logs on, completes an operation or makes a change to the configuration, it is recorded.

The Audit Trail is time-stamped and incorporates the operator details along with the changes made. It is stored with the process data and cannot be modified or removed.

The Auditor option enhances the user management feature by allowing individually customizable access permissions. Users only get access to the areas they need. This feature simplifies operation as dynamic menus only show items the user can access.

If the Auditor option is enabled, the audit log is stored in tamper-resistant UHH file format readable by Eurotherm Data Reviewer. In addition, for validated sites using the Auditor option, a record of changes to the printed chart can also be included as a table in the printed record.



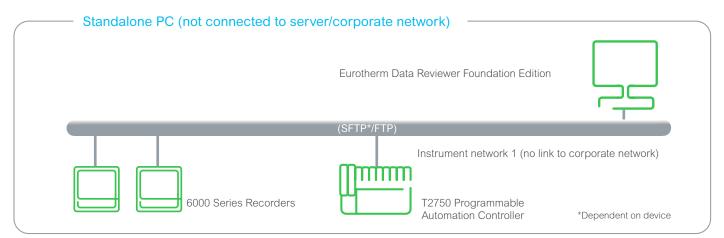
## Foundation Edition versus Enterprise Edition

Eurotherm Data Reviewer offers two variants:

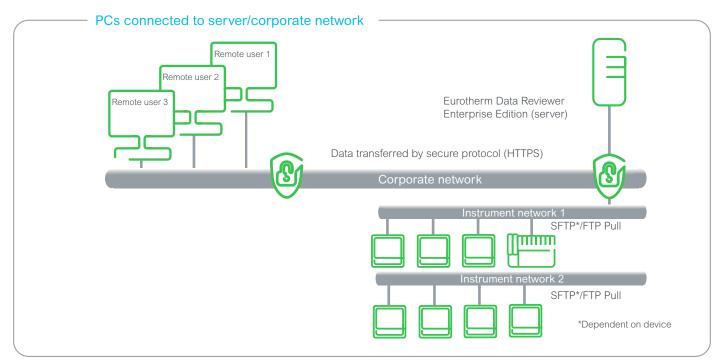
- Foundation Edition for small standalone instrument networks
- Enterprise Edition, a server-based version with unrestricted database size and multi-user access

Data Reviewer Foundation Edition is free to download here: eurotherm.com/reviewer

## **Foundation Edition**



## **Enterprise Edition**



#### Table 1 - Edition comparison

Features	Foundation	Enterprise
Data conversion tool: support for UHH files generated by Eurotherm devices	•	•
Import data from removable media	•	٠
Import data direct from connected devices	•	٠
Print all graph data including messages	•	•
Annotate a chart	•	•
Export using CSV	•	•
Automatic data transfer and creation of charts	•	•
View management	•	•
Circular trend view / print	•	•
Horizontal trend view / print	•	•
Spreadsheet view / print	print only	print only
Customizable printout		•
Point properties		٠
Support for Aveva Report for Operations		٠
Multi user support		•
Role management		•
Database management		•
User management		•
Auditor (additional license)		•
Active Directory (included in Auditor)		•

#### Table 2 - Database sizing

No. of recording	Recording interval	Duration	
points / recorder	(seconds)	20GB	200GB
6	0.125	80 days	2.2 years
6	1	1.7 years	17.2 years
6	10	17.2 years	173 years
12	0.125	40 days	1.1 years
12	1	324 days	8.8 years
12	10	8.8 years	88 years
18	0.125	27 days	270 days
18	1	217 days	5.9 years
18	10	5.9 years	59 years
24	0.125	20 days	200 days
24	1	164 days	4.5 years
24	10	4.5 days	45 years
48	0.125	10 days	100 days
48	1	81 days	2.2 years
48	10	2.2 years	22 years

## Database size requirements

In Table 2 on page 6 are some examples of memory duration, which can be used as a guideline for storage requirements for the Enterprise Edition. Values quoted are per recording device, for example, 20GB of storage space will provide approximately 27 days of storage for a single recording device with 18 points with a 125ms recording interval. If there are 10 recording devices each with 18 points recording at 125ms then storage requirements for a year would be 2.7TB.

## Eurotherm Data Reviewer Foundation Edition system requirements

	Minimum	Recommended
Operating System	Microsoft <sup>®</sup> Windows <sup>®</sup> 10	Windows $^{\textcircled{B}}$ 10 (64-bit, Professional or Enterprise)
Browser	Google Chrome™ 91 or higher, Internet Explorer 11 or Microsoft Edge	Chrome™ 91 or higher
RAM	8GB	8GB
Processor	2GHz, Intel® Pentium® processor* or equivalent	2GHz, Intel® Pentium® processor or equivalent
Disk Space	60GB of free hard disk space	60GB of free hard disk space

Pentium is a trademark of Intel Corporation or its subsidiaries.

\*Please consult factory on latest Windows validation

## Eurotherm Data Reviewer Enterprise Edition system requirements

	Minimum	Recommended	
Operating system	Microsoft Windows Server <sup>®</sup> 2012 R2, Windows Server® 2016 or Windows Server <sup>®</sup> 2019	Windows Server <sup>®</sup> 2019	
Browser	Chrome™ 91 or higher, Microsoft Internet Explorer 11 or Edge	Chrome™ 91 or higher	
RAM	16GB	32GB	
Processor	2.7 GHz, Intel <sup>®</sup> Core™ i7 processor or equivalent	2.7 GHz, Intel® Core™ i7 processor or equivalent	
Disk space	Refer to database size requirements		

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## A bit of history

Eurotherm first introduced electronic data logging on the 4200 series recorder in 1993 using a proprietary PKD file format. Since then, Eurotherm has introduced electronic records on a wide range of its products using an enhanced higher integrity file format containing improved metadata, known as UHH.

Eurotherm Data Reviewer is capable of reading UHH files from any of these devices.

# Life Is On Schneider

# Discover more about how to share and save your data files



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