European Directorate for the Quality of Medicines & HealthCare

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European Directorate for the Quality of Medicines & HealthCare | Direction européenne de la qualité du médicament & soins de santé

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CombiStats online
Training module 1

Introduction to the online application

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Content

- ★ Introduction
- ★ Workspace
- ★ File and folder management
- ★ Data entry, analysis options & audit trail
- ★ Batch creating .epax files

The CombiStats Software

Statistical analysis of data of dilution assays in accordance with Ph. Eur. Chapter 5.3

5.3. STATISTICAL ANALYSIS OF RESULTS OF BIOLOGICAL ASSAYS AND TESTS

1. INTRODUCTION

This chapter provides guidance for the design of bioassays prescribed in the European Pharmacopoeia (Ph. Eur.) and for analysis of their results. It is intended for use by those whose primary training and responsibilities are not in statistics, but who have responsibility for analysis or interpretation of the results of these assays, often without the help and advice of a statistician. The methods of calculation described in this annex are not mandatory for the bioassays which themselves constitute a mandatory part of the Ph. Eur. Alternative methods can be used and may be accepted by the competent authorities, provided that they are supported by relevant data and justified during the assay validation process. A wide range of computer software is available and may be useful depending on the facilities available to, and the expertise of, the analyst.

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2. randomisation and independence of individual treatments
3. assays depending upon **quantitative responses**
    - 3.2. the parallel-line model
    - 3.3. the slope-ratio model
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4. assays depending upon **quantal responses**
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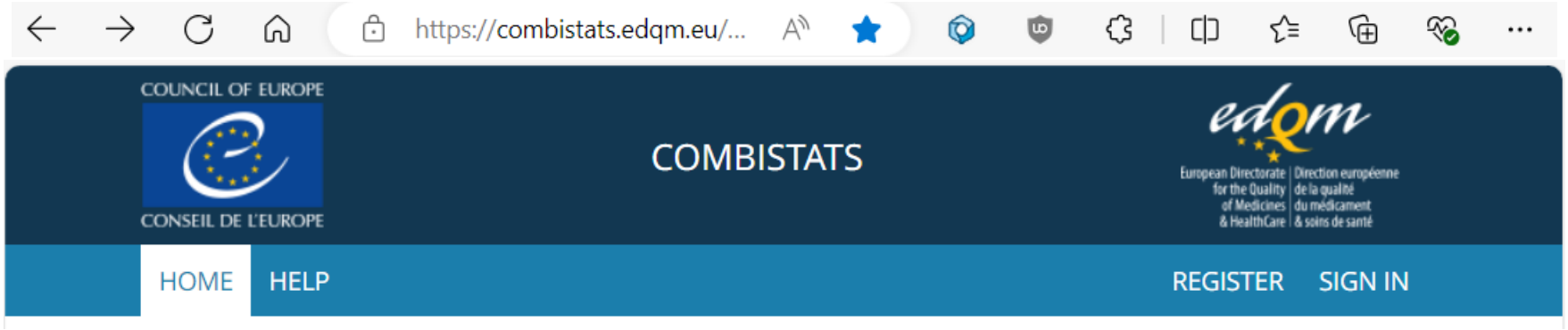
    - 4.3. the logit method
    - 4.5. the median effective dose
5. examples
6. **combination of assay results**
    - 6.2. combination of independent assay results
    - 6.3. unweighted combination of assay results
7. beyond this annex
8. tables and generating procedures
9. glossary of symbols
10. literature

Some figures

- Desktop version release in 1999 to OMCLs, in 2005 to non-OMCLs
- **CS-online release in 2024**
- Users' expectations (top 3)
  - User identification (individual login/password)
  - More interactivity (e.g. information/error messages)
  - Audit trail

Notes for guidance in free access https://combistats.edqm.eu/home/



How to
- Create my account

Notices
- Privacy Notice
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Notes for guidance
- EN00 Release Notes
- EN01 Information And Rema
- EN02 Taskbar
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- EN05 Preparations Table
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- EN15 Potency Estimates
- EN16 Effective Dose & Prediction
- EN17 Combination of Assay Results
- EN18 Spearman-Kaerber Approach
- EN19 Single-dose Assay
- EN20 Multiple-dose Assay (Standard Only)
- EN21 Template & Protection
- EN22 Audit Trail
- EN23 Information & Error Messages
- EN24 Structure of epax & epmx files

Technical requirements

- Computer with access to the Internet, Chrome or Edge browsers
- Acrobat Reader for viewing PDF reports, MS Excel for viewing extra analysis results

Sustainable tool using a modern programming language

★ **Flexible licence management system**

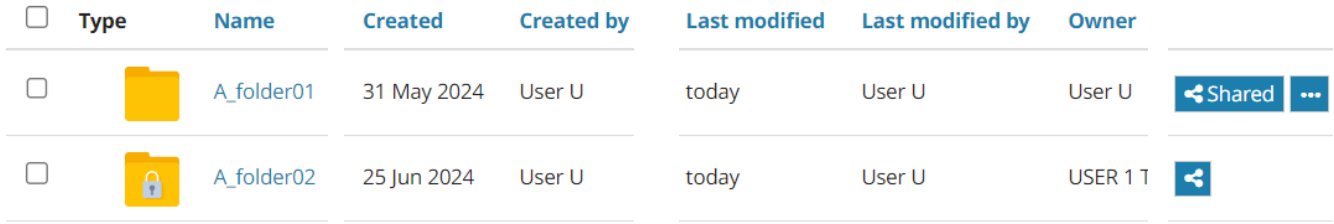
- ★ EDQM Store: 1 licence = n users/seats
- ★ Possibility to assign and revoke users

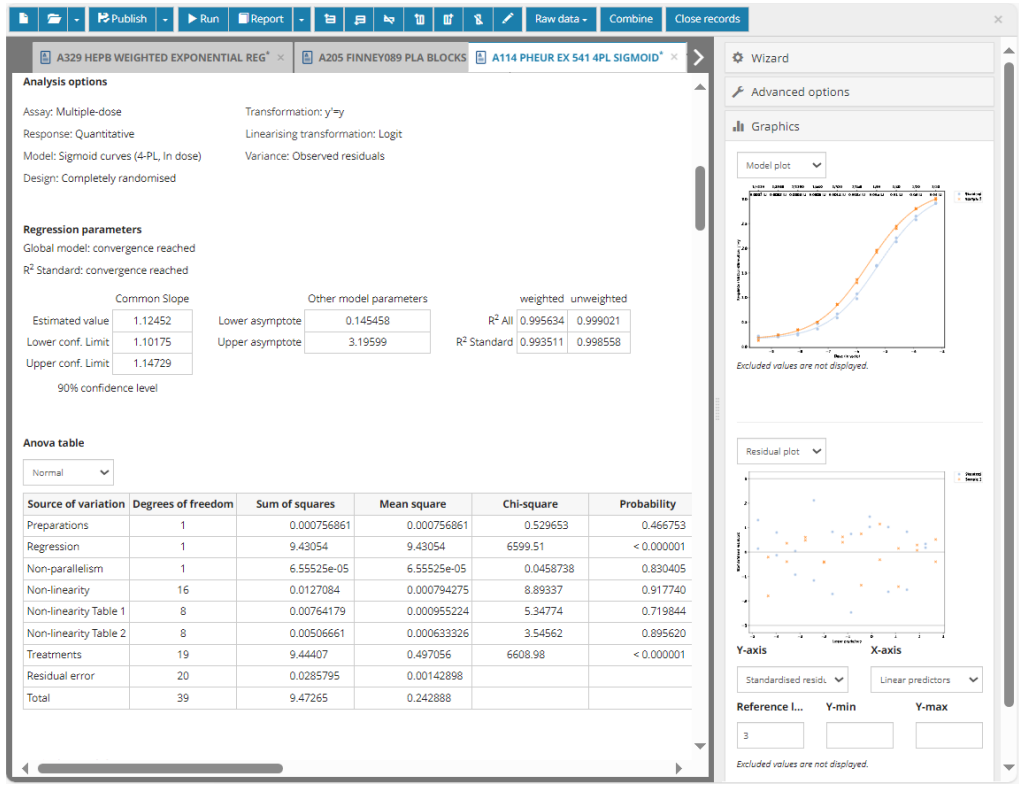
Dedicated workspace for your organisation

- ★ Access by login/password
- ★ Folders & files creation, management, sharing
- ★ Import of CombiStats Desktop 5.0 to 7.0 files

Modern & interactive interface

- ★ Better flow of analysis options
- ★ Enhanced graphical views
- ★ Information and error messages
- ★ Template, file protection
- ★ PDF report, audit trail





Content

★Introduction

★Workspace

★File and folder management

★Data entry, analysis options & audit trail

★Batch creating .epax files

User account creation

Registration

E-mail ID*

my_email@address.com

Please enter the e-mail address that will serve as login

Captcha*

ZPR

Back | Next

Registration

First name*

My first name

Last name*

My last name

Professional organisation*

My professional organisation

Country (of organisation)*

France

Back | Register

Your account has been created. You will shortly receive an e-mail with a link to define your password in order to finalise your registration.

You already have an EDQM account. Your access to this application has been granted. Please use your EDQM credentials to login.

User account activation

1. Click the link received by email

[EDQM-Account] Creating your account - Please define your password -- [Compte EDQM] Création de votre compte - Veuillez définir votre mot de passe

From noreply-qual@edqm.eu on 2024-06-28 10:12

Details Headers Plain text

Version française plus bas

*** This is an automatically generated e-mail, please do not reply ***

Dear My first name My las,

Welcome to the EDQM environment.

In order to activate your account, you will need to set your password. To do so, please follow the link below:
http://sign-qual.edqm.eu/validation/MzExOA/6mb-fc6404052bcf121c90cc/?lang=en&redirect=aHR0cHM6Ly9jb21iaXN0YXRzLXF1YWwuZWRxbS5ldS9hY2NvdW50cy9sb2dpbg

Do not forward this link to other users, as it contains a token that is only valid for your e-mail address for 1 day.

Please be informed that your account will be deactivated if you do not set up your password and log in within 5 days.

For your information, your login is your e-mail address.

Permissions will be granted to your account, when necessary, for applications you need to access to. In this case, you will receive an automatic e-mail from the so-called applications.

2. Create a password

Enter your password

Please enter your password twice so we can verify you typed it in correctly.

New password*

- Your password must contain at least 10 characters.
- Your password must contain at least 1 uppercase character.
- Your password must contain at least 1 digit.
- Your password must contain at least 1 special character among !@#$%^&*(){}[]-+.
- Your new password can not be identical to any of the 10 previously entered.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.
- Your password can't be too similar to your other personal information.

New password confirmation*

3. Sign in to activate your account

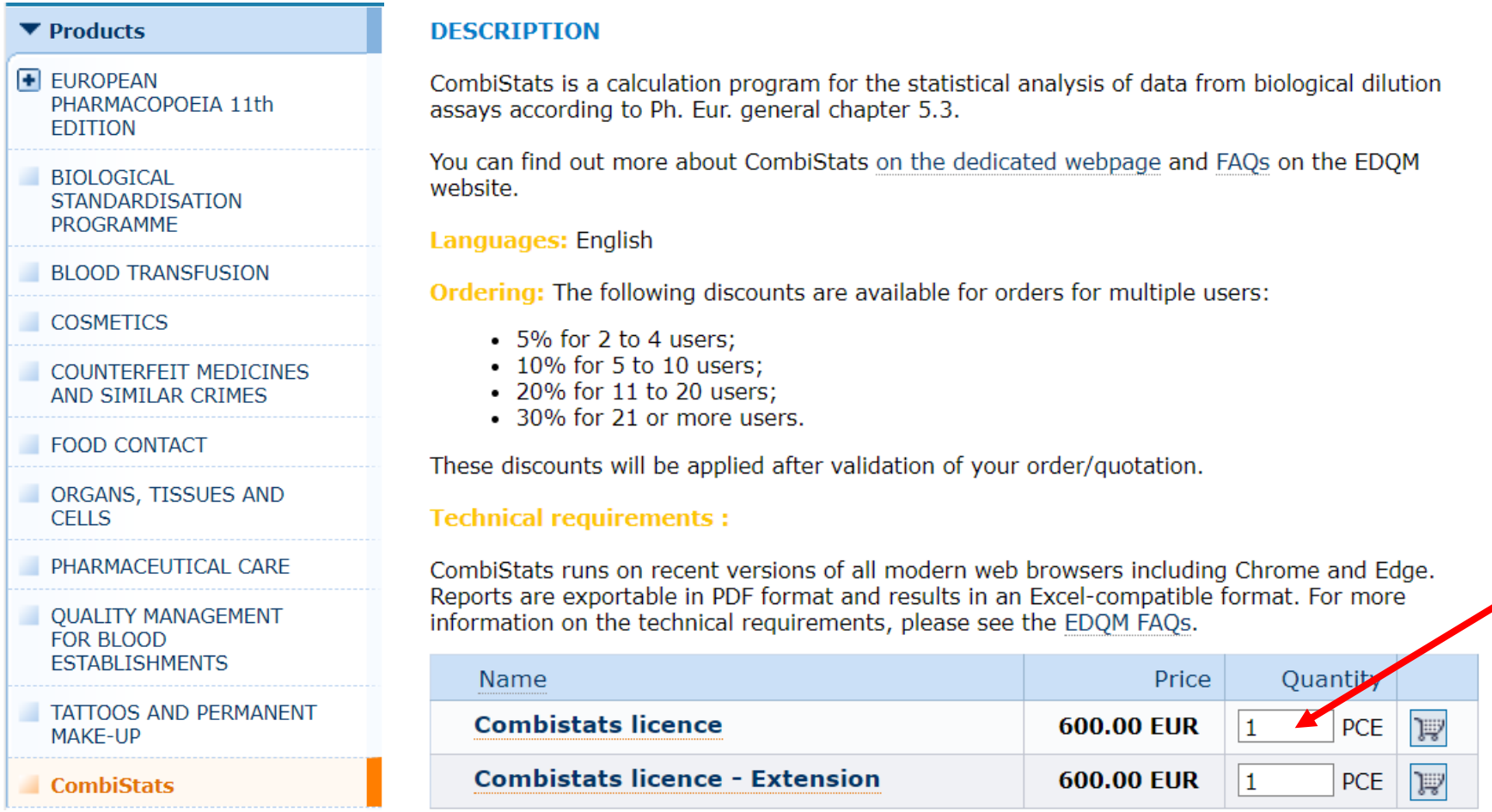
One last step

Password set. In order to finalise the activation of your account, you now need to log in.

Sign In

How many seats users (seats) for your organisation?

★ EDQM webshop: https://store.edqm.eu/index.html



Enter the number of seats (users) here.

Example

- First order: a licence for 2 seats (users)

Name	Price	Quantity	
Combistats licence	600.00 EUR	2 PCE	
Combistats licence - Seat Extension	600.00 EUR	0 PCE	

CSID code to activate the workspace

Validity: 1 year from licence activation date (anniversary date)

- Second order: 3 additional seats (same workspace)

Name	Price	Quantity	
Combistats licence	600.00 EUR	0 PCE	
Combistats licence - Seat Extension	600.00 EUR	3 PCE	

CSID code to extend the workspace

Validity: anniversary date of first order

- Licence for 3 seats **in another workspace**

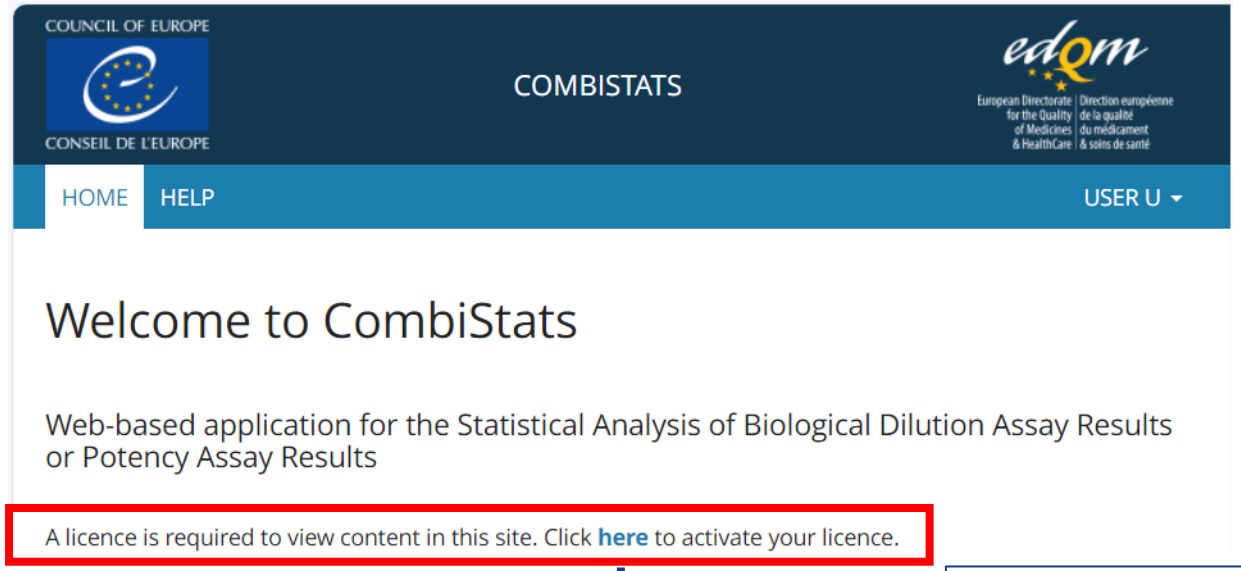
Name	Price	Quantity	
Combistats licence	600.00 EUR	3 PCE	
Combistats licence - Seat Extension	600.00 EUR	0 PCE	

CSID code to activate the workspace

Validity: 1 year from licence activation date

Workspaces do not communicate between each other

Workspace activation



From: Sales@edqm.eu <Sales@edqm.eu>
Sent: Wednesday, October 30, 2024 5:00:00 PM (UTC+01:00) Brussels, Copenhagen, Madrid, Paris

Your CombiStats licence - Your order 0123456789 - Our order confirmation 543210

DO NOT REPLY TO THIS MESSAGE

Dear Customer,

Thank you for your order. Please find your licence activation key below:

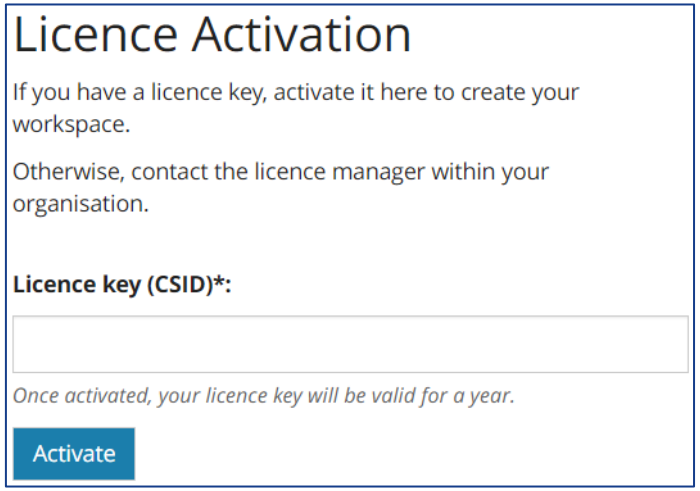
Combistats licence - Access for N user(s)

CSID-/////-//////////-/////-//// ➔ Activation code = licence key = CSID

The procedure for activating the licence key and registering users can be found here.

If applicable, please forward this message to the person responsible for managing CombiStats licences within your organisation.

If you experience any problems, do not hesitate to contact us via the EDQM HelpDesk.



Each organisation can manage access to the workspace

LICENCE

Workspace ID: 5BNDLNKJ
Number of access: 4 assigned - 3 available
Expiration date: 01 July, 2025

This page is accessible to licence managers only

NEW LICENCE ACTIVATION

CSID code*:

Activate

In case of renewal, your licence key will be valid for a year. In case of extension of the number of seats, the expiration date remains unchanged.

Licence key	Access count	Subscription	Activated on	Activated by
CSID-5D0QG-XV5YK16Q4C-TPB57-H8P0	7	until 2025-07-01	01/07/2024	bao lalala

ASSIGNEES

E-mail*

Assign user (one-at-a-time)

Can manage

Assign single

Choose file*

Assign multiple users (at once)

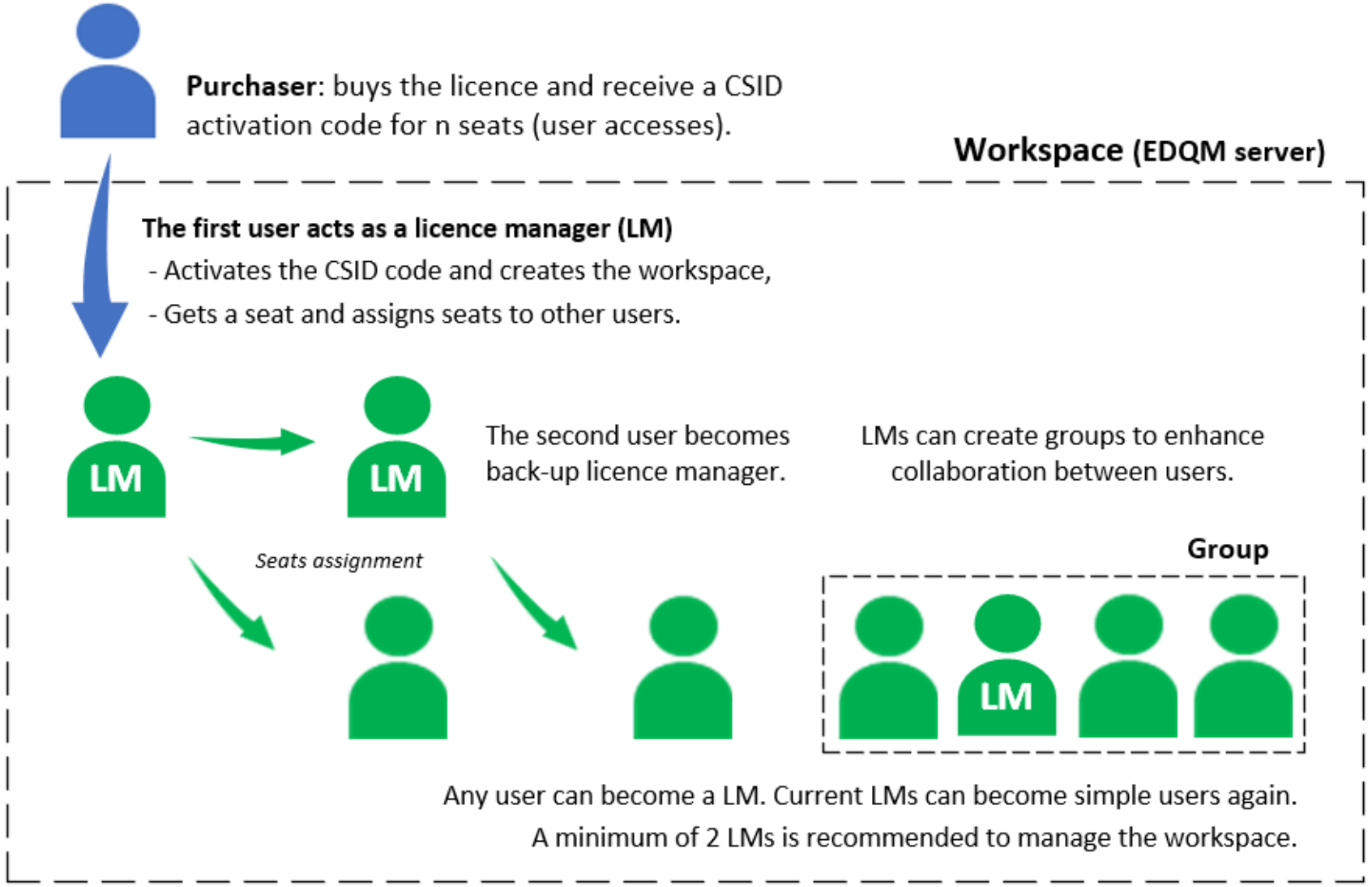
Assign multiple

You can download a template to fill in here

	A
1	user1@CS.org
2	user2@CS.org
3	user3@CS.org
4	...

E-mail	Assignee	Can manage workspace	
baothanh.nguyenvan@edqm.eu	bao lalala	☑	Revoke

Workspace: secure & collaborative working environment



Licence manager (LM role)

A user who can:

★ Enter CSID codes to activate/renew the workspace

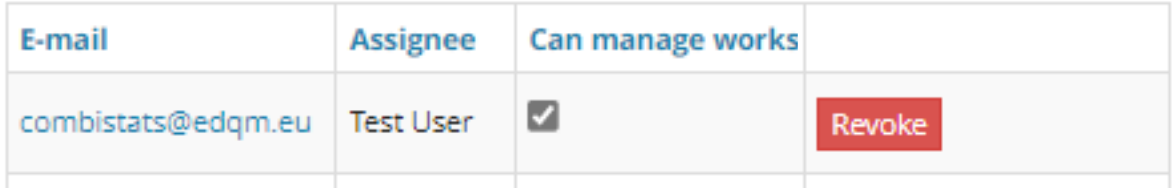
★ Assign users to the workspace, give LM roles

★ Revoke users from the workspace, revoke LM roles (including him/herself)

★ Create, edit, delete user groups

★ Manage files and folders

Note. Revoke a user…



E-mail	Assignee	Can manage works	
combistats@edqm.eu	Test User	☑	Revoke

The user can give read/write access to their folders before being revoked. Alternatively, a LM can do it.

Remarks

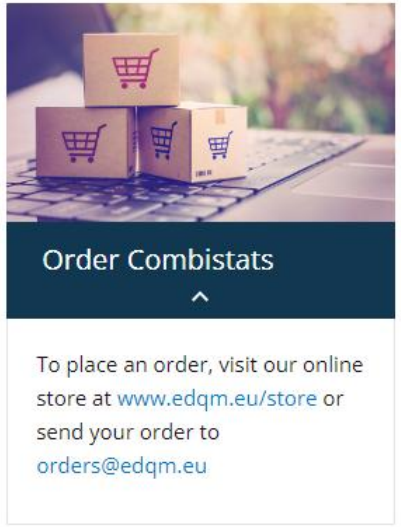
★ You cannot access CS-online unless your account has been assigned to a seat. Assignment to a seat is managed by a licence manager (see previous slide)

★ A same email address cannot be used with several workspaces

E-mail	Assignee	Can manage workspace	
david.le-tallec@edqm.eu	> DLT	☑	Revoke

★ Licence renewal: place an order (webshop or email)

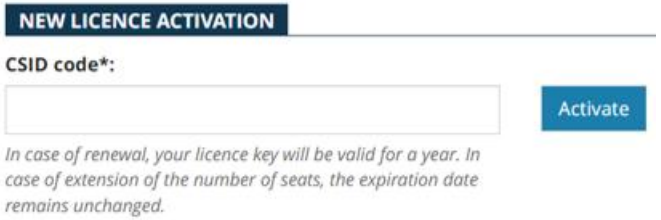
https://www.edqm.eu/en/lp-combistats



★ E-mail notifications to licence manager(s) 1 month and 2 weeks **before expiry**

- Renewal: enter the new CSID code

- No renewal: workspace locked



Homepage: Your licence has expired. Please renew it in order to access your workspace.
Renewal after expiry still possible

If you know that you will stop using CS-online for a long period, export files locally (files are automatically deleted 3 years after their date of creation).

Remarks

★ In case where the workspace has only one seat (user is necessarily licence manager)

Licence key	Access count
CSID-AAAAA-BBBBBBBBBB-CCCCC-DDDD	1

TRANSFER LICENCE

E-mail*

Transfer

If changing positions, this user should **transfer** the licence ownership to his/her replacement

The new licence manager will have full access to folders & files

★ Notices

- Privacy Notice
- Security Notice

The EDQM processes your data based on the Council of Europe Regulations on the Protection of Personal Data (**CERPPD**).

Registration

First name*

Last name*

Professional organisation*

Country (of organisation)*

- Privacy Notice
- Security Notice

Data is processed by a server of the EDQM located in France.

1. **General aspects**: e.g. governance, development policy, risk & incident management
2. **Data protection**: e.g. user access, data encryption, data retention
3. **Infrastructure**: e.g. security, availability & resilience, recovery

Remarks

★ Should I transfer all my epa files (CS-desktop) to the workspace? **NO**

After reviewing the user manual, I noticed that it only allows importing files one at a time. Given that we have over 15 years' worth of work in .epa format, this process would be quite time-consuming for us.

★ Files are deleted 3 years after their creation (the EDQM server is not meant to become a database)

Option:

- Store legacy files (epa, epc) locally in case where you would need to import them to CS-online for reanalysis

- Export files (epax, epcx) on a regular basis unless PDF reports (raw data, analysis options, calculated results, audit trail) are enough

Validation

Release notes

CombiStats has been successfully tested using the Chrome and Edge web browsers. The calculation modules previously available in the desktop version have been reproduced using more up-to-date language and terminology. Although the EDQM has not published any documentation pertaining to the validation of CombiStats Online, since the application is not certified, the examples from Ph. Eur. general chapter 5.3 and Appendix A of the desktop version user manual, as well as the majority of the examples provided in *Statistical Method in Biological Assay* by David J. Finney (*3d ed.,* 1978, ISBN 0852642520), were tested and the results were successfully compared with those generated by the desktop version.

https://combistats.edqm.eu/faq/link/87/

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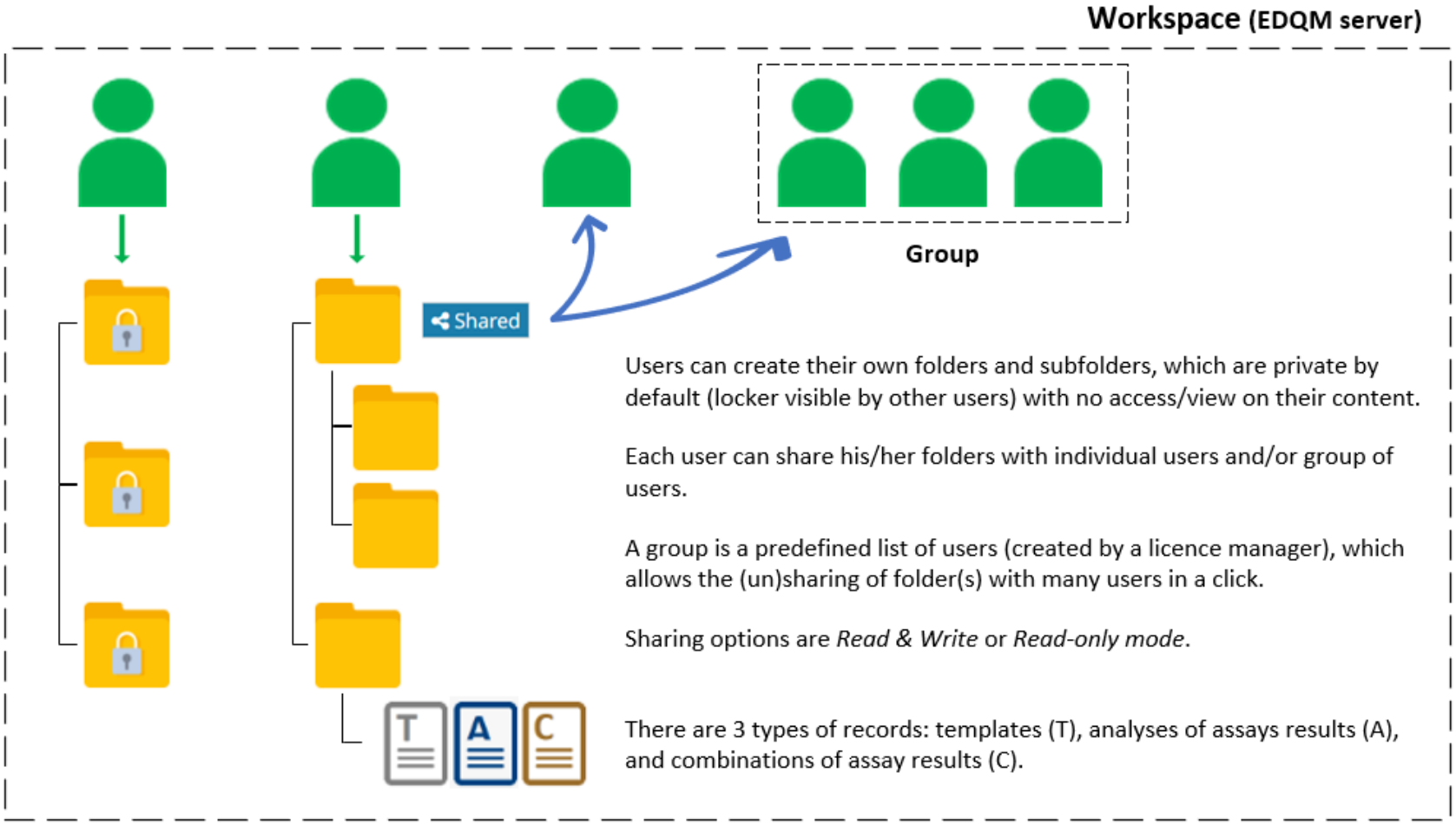
★Data entry, analysis options & audit trail

★Batch creating .epax files

Overview



Outside the workspace, exports of files

Records are exported as XML files (.epmx, .epax, and .epcx)

Analysis, combination reports as PDF.

Extra analysis results as Excel tables.

Actions

Import CS-desktop files

Create folders, files

Search, rename

Copy, move to

Export (zip file) / import

Add to my Favourites

Share (read-only or read-write)

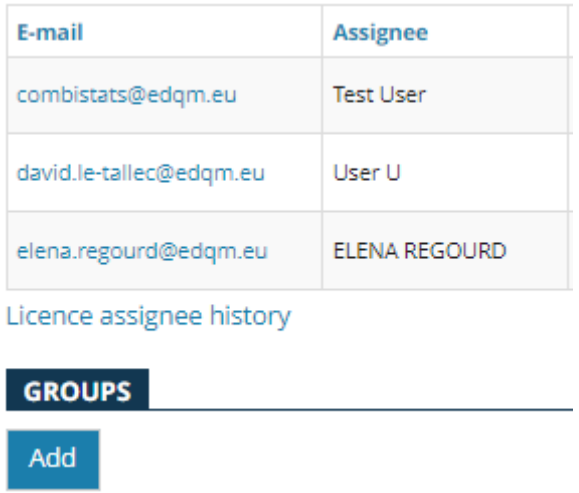
Trash: items remain 30 days in the trash after deletion. Can be restored or deleted permanently

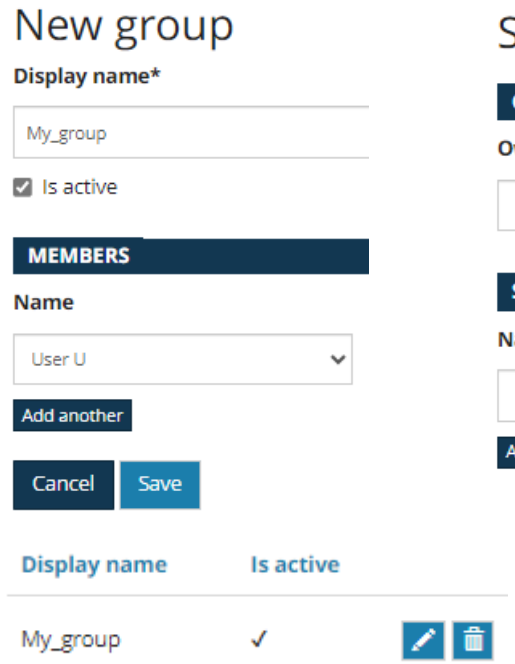
User group

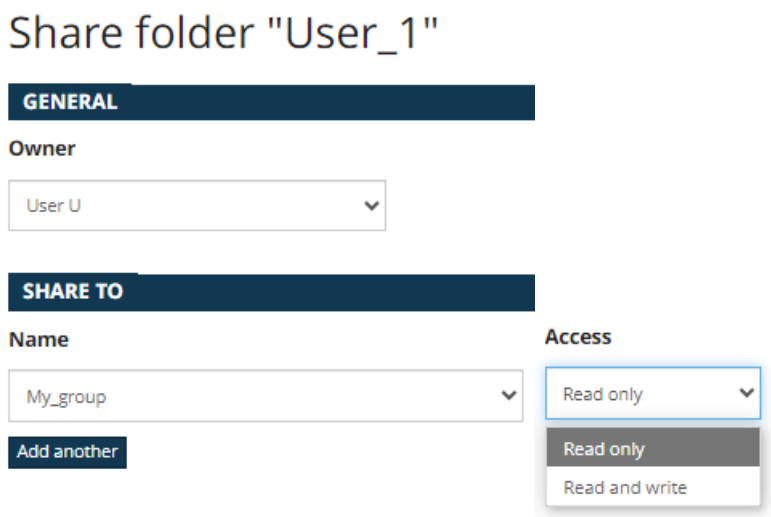
How to share a folder with several users (in bulk):

★ create a user group

★ share the folder with the group

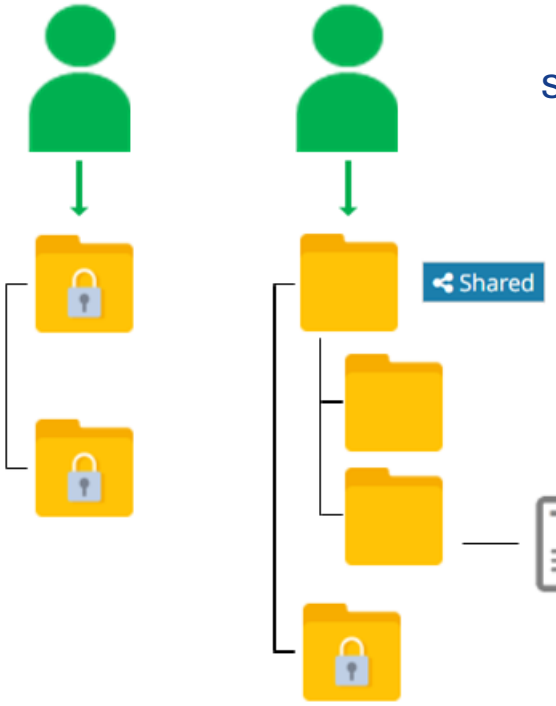




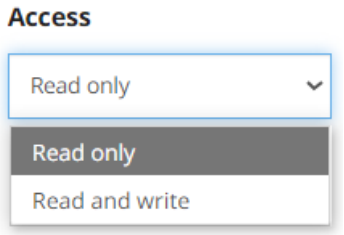


Remarks

★ **Permissions** are set at the level of parent-folders



The 1st parent-folder is shared. I have access to all its content

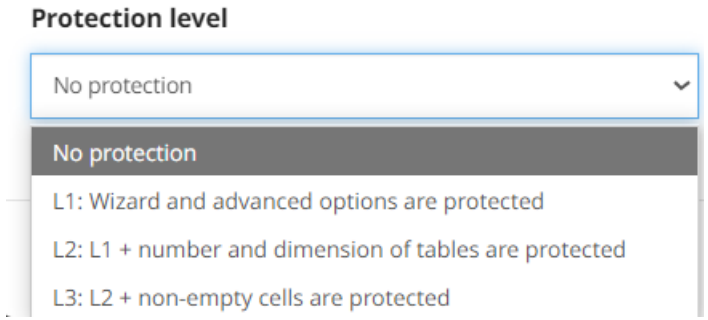


Template.epmx

Assay.epax

Combined.epcx

★ **Templates** (.epmx)



Only .epax files created from a template can inherit the protection level of the template

An .epax file created from scratch cannot be protected

However, at any time, a file can be published in ‘read-only’ mode

Content

★Introduction

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Features

Data tables

- Preparations, labels, info.
- Potency value/pre-dilutions
- Number of doses, replicates
- Descriptive stat/dose

Orientation of tables

- Doses vertical/horizontal

Doses entry

- Manual/automatic

Statistical design

- Completely randomised
- Randomised block
- Latin square > show design

Show design

- Plate layout, block structure

Table of blank results

- Descriptive stat (mean, sd, rsd)

Quantal/quantitative response

Model

- Parallel lines, Slope ratio
- 3-parameter exponential curves
- 4- & 5-parameter sigmoid curves
- Single-dose assay

Transformation

- Dropdown list/user-defined

Variance

- Dropdown list/user-defined

Fixed parameters

- Slope, addition, multiplication

ANOVA

- No ANOVA to Complete ANOVA
- Equivalence of slopes/intercepts

Parallel-line analysis

- Subset analysis (dose selection)

Graphics

- Average plot
- Regression plot (linearised)
- Residual plot (incl. studentised)

Potency estimates

- precision, relative to assigned value

Prediction

- Effective doses, inverse prediction

Confidence level

- From 80% to 99%

Weight function

- Dropdown list/user-defined

Combination of assay results

- Homogeneity of potency estimates
- weighted, semi-weighted, unweighted

Template & protection

Statistical report & audit trail

Confidence levels, correlation/determination coefficients

Results	Desktop (fixed)	Online application (range)
Common slope or intercept	90%	95% (80%-99%)
Potency estimates	95%	95% (80%-99%)
Effective doses, predictions	95%	95% (80%-99%)
Equivalence - individual slopes or intercepts	95%	95% (80%-99%)
Equivalence - differences or ratios	90%	90% (fixed)
Combination of results	95%	95% (80%-99%)

Desktop version (90% conf. level)

Common slope(factor): b = -111.255 (-115.612 to -106.898)
Correlation | r |: 0.991424

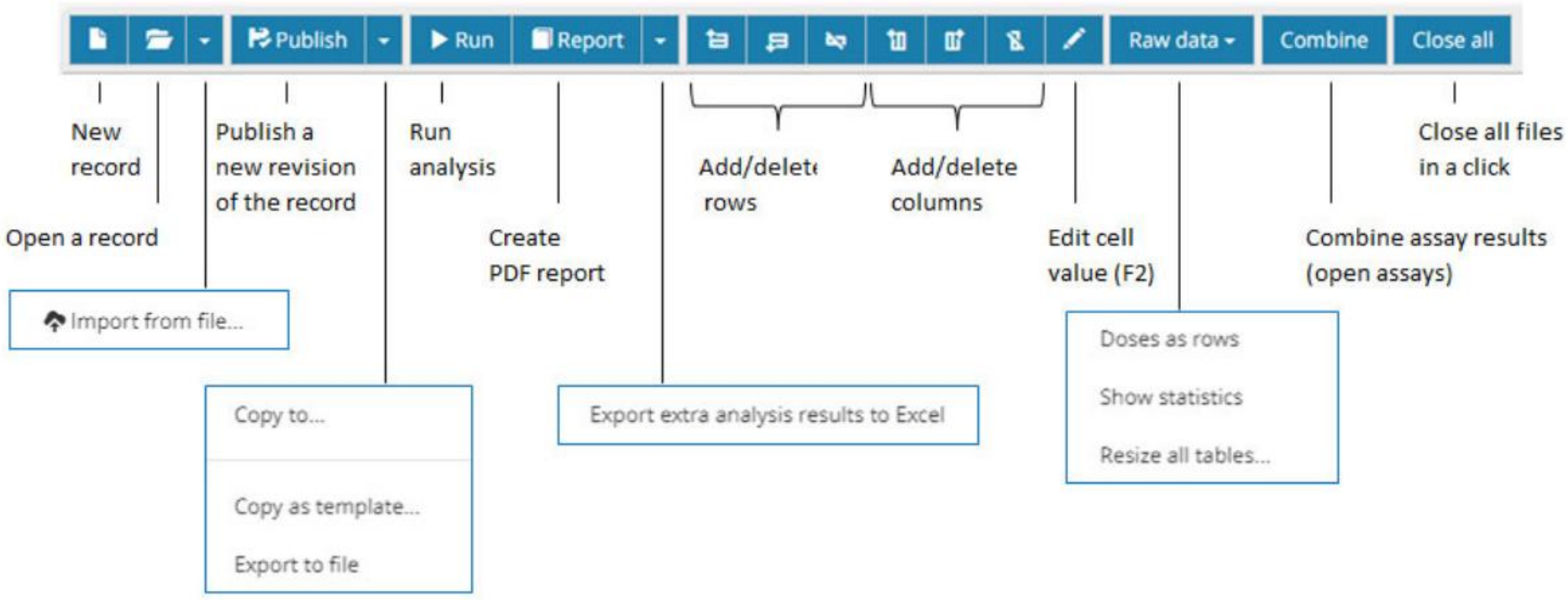
Online application (95% conf. level)

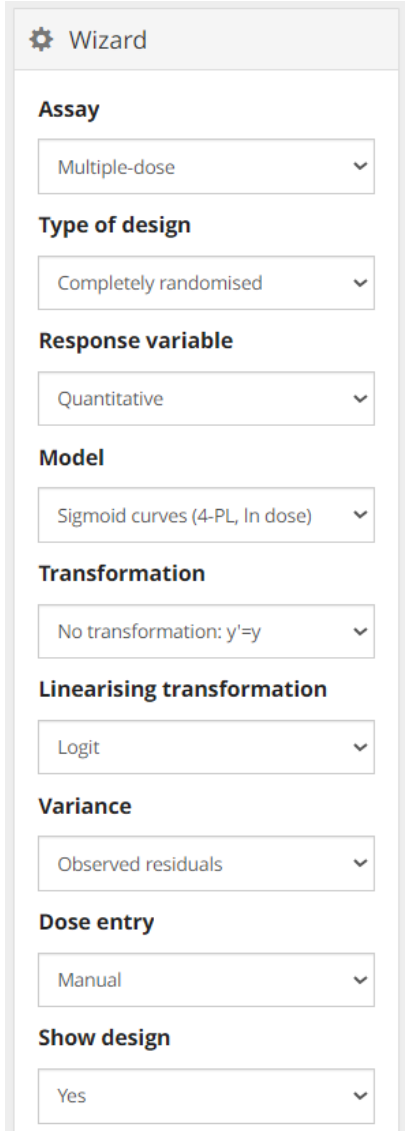
	Common Slope
Estimated value	-111.255
Lower conf. Limit	-116.501
Upper conf. Limit	-106.009

95% confidence level

R^2 All	0.982922
R^2 Standard	0.977164

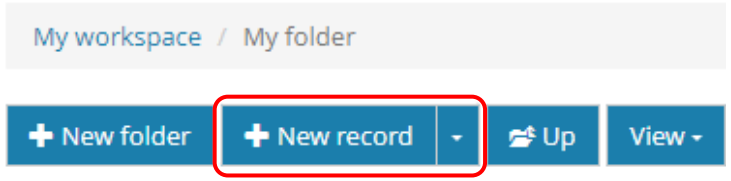
Taskbar and analysis options



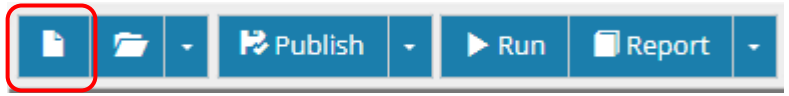


Create a new record

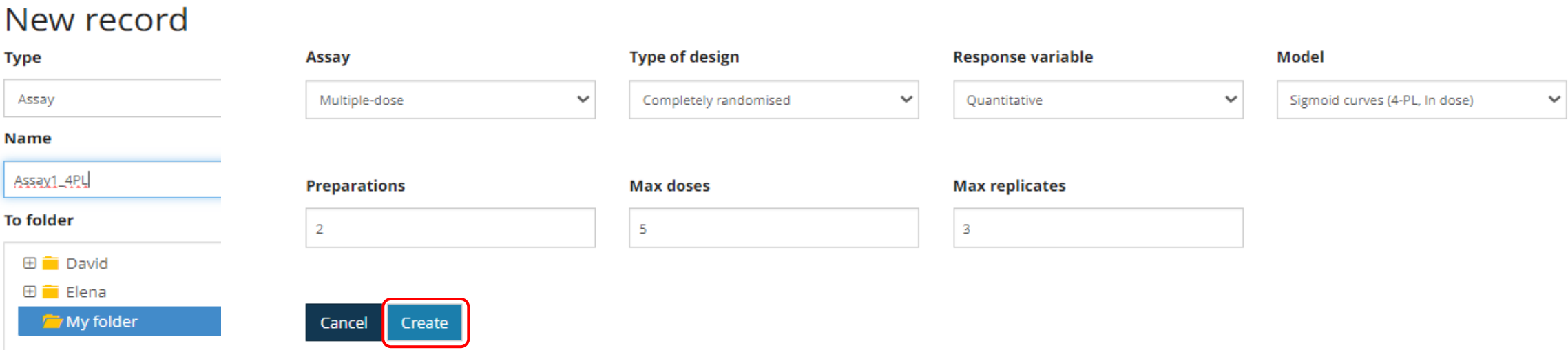
1. Create a new record



Taskbar in editor

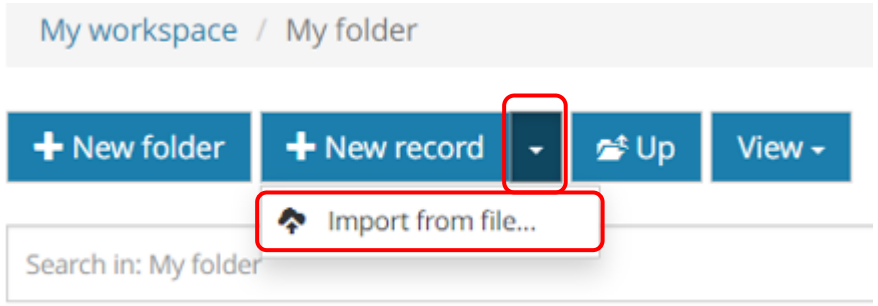


2. Enter the record type and name, select destination folder and assay set-up

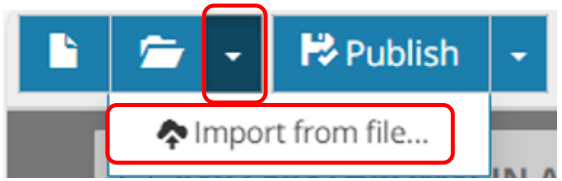


Import a record

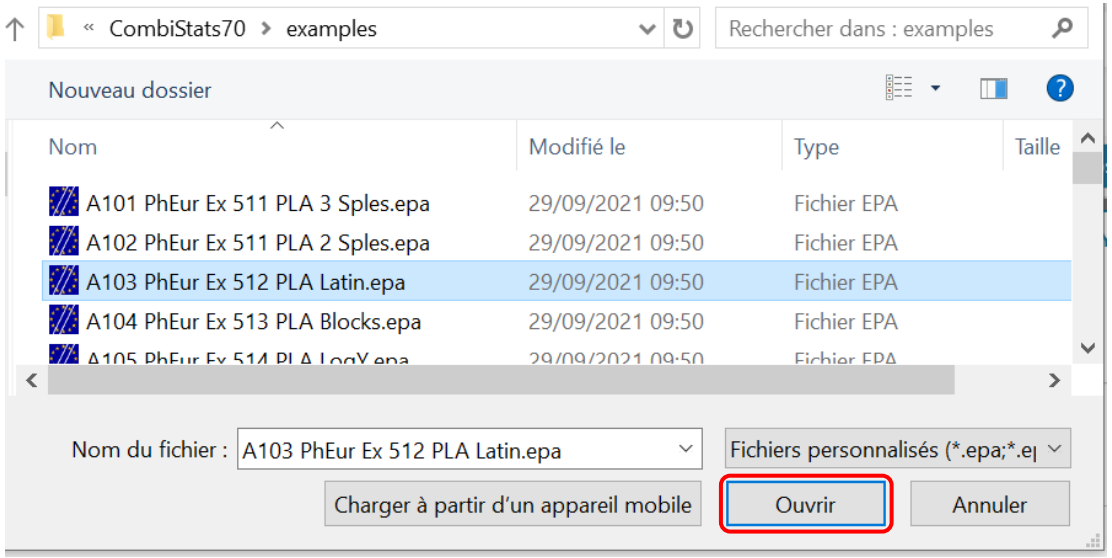
1. Import from file...



Taskbar in editor



2. Browse to and select the file you wish to import, then click on Open.



edqm
European Directorate for the Quality of Medicines & HealthCare | Direction européenne de la qualité du médicament & soins de santé
COUNCIL OF EUROPE
CONSEIL DE L'EUROPE

Data entry

https://combistats.edqm.eu/help/

Preparations

		Information		Potency		Pre-dilution	
Table	Preparation	ID	Long label	Potency	Value	Reconstitution	Stock solution
1	Standard	S	standard	Assigned	100 IU/amp.	1 amp./mL	1 mL/10 mL
2	Sample 1	T	test sample	Assumed	80 IU/vial	1 vial/0.5 mL	0.5 mL/5 mL
3	Sample 2	C1	Control 1	Assumed	25 IU/mL		
4	Sample 3	C2	Control 2	Assumed	120 IU/mL		

Observ.	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12
r1												
r2	0.031	0.044	0.027	0.032	0.028	0.051	0.117	0.097	0.104	0.093	0.112	0.047
r3	0.046	2.912	2.579	2.130	1.651	1.073	0.585	0.463	0.266	0.228	0.176	0.031
r4	0.024	2.917	2.654	2.212	1.638	0.973	0.666	0.356	0.234	0.197	0.215	0.050
r5	0.030	3.017	2.801	2.401	1.918	1.364	0.861	0.497	0.340	0.242	0.178	0.035
r6	0.045	2.987	2.808	2.450	1.963	1.299	0.854	0.496	0.344	0.217	0.125	0.024
r7	0.051	2.105	2.074	2.162	1.948	2.037	1.974	1.925	2.017	2.106	1.938	0.038
r8												

Blank results

0.031	0.046	0.024	0.030	0.045	0.051
0.047	0.031	0.050	0.035	0.024	0.038

Mean	*SD*	*RSD%*
0.038	*0.010*	*26.2*

Table 1

Preparation	Standard
ID	S
Long label	standard
Potency	Assigned
Potency value	100 IU/amp.
Reconstitution	1 amp./mL
Stock solution	1 mL/10 mL

Dose	Rep.1	Rep.2	*Mean*	*SD*	*RSD%*
1/1	2.912	2.917	*2.914*	*0.004*	*0.1*
1/2	2.579	2.654	*2.617*	*0.053*	*2.0*
1/4	2.130	2.212	*2.171*	*0.058*	*2.7*
1/8	1.651	1.638	*1.644*	*0.009*	*0.6*
1/16	1.073	0.973	*1.023*	*0.071*	*6.9*
1/32	0.585	0.666	*0.626*	*0.057*	*9.2*
1/64	0.463	0.356	*0.410*	*0.076*	*18.5*
1/128	0.266	0.234	*0.250*	*0.023*	*9.1*
1/256	0.228	0.197	*0.213*	*0.022*	*10.3*
1/512	0.176	0.215	*0.196*	*0.028*	*14.1*

EN01 Information And Remarks
EN02 Taskbar
EN05 Preparations Table
EN06 Rawdata Tables
EN07 Show Design
EN08 Table of Blank Results

Data entry options

Wizard

Dose entry

Manual

Manual
Automatic

Show design

No

No
Yes

Show blank results

No

No
Yes

Taskbar

Doses as rows

Show statistics

Resize all tables...

Show blank results

Yes

Number of rows

2

Number of columns

5

Blank results

Blank results

0.031	0.046	0.024	0.030	0.045	0.051
0.047	0.031	0.050	0.035	0.024	0.038

Mean	*SD*	*RSD%*
0.038	*0.010*	*26.2*

Dose entry

Automatic

Highest dose

Last dose

Dilution step

1.5

First dose
Last dose

Dose	1/1	$1/1.5^1$	$1/1.5^2$

Dose	$1/1.5^2$	$1/1.5^1$	1/1

Dose entry

Automatic

Highest dose

Last dose

Zero dose

First dose
Last dose

Dose	2/2	1/2	0

Dose	0	1/2	2/2

Show design

Yes

Number of rows

8

Number of columns

12

Rawdata reference Table|Dose|Rep

Corresponding response

Design	c1	c2	c3	c4	c5	c6
r1	Pos	1|1|1	2|1|1			Neg
r2	Pos	1|2|1	2|2|1			Neg

Observ.	c1	c2	c3	c4	c5	c6
r1	2.222	2.879	3.025			0.125
r2		2.854	2.998			

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Data analysis options

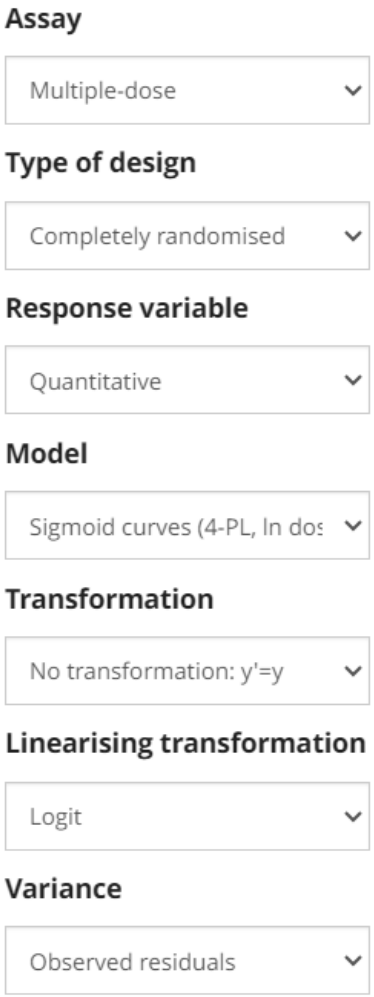
The list of the available
Wizard and Advanced options depend
on the
Assay, Response variable
and Model

For more details refer to

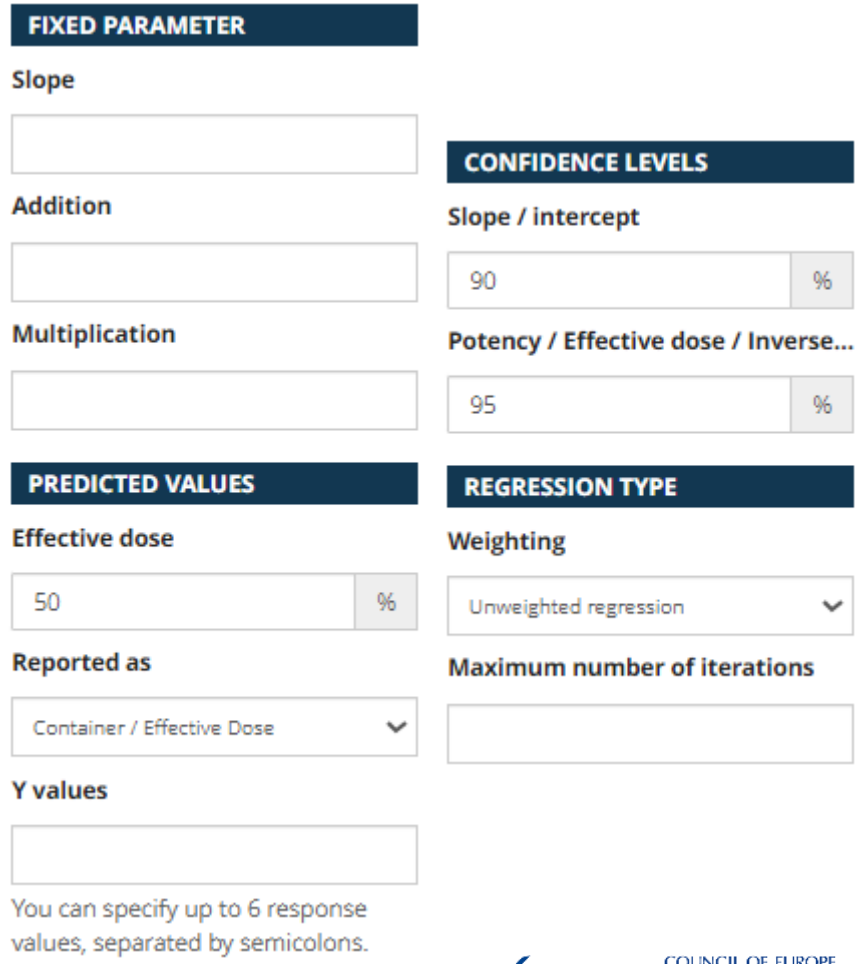
https://combistats.edqm.eu/help/

EN03 Wizard Options
EN04 Advanced Options

Wizard



Advanced options



Summary statistics

Regression parameters

Global model: convergence reached

R^2 Standard: convergence reached

	weighted	unweighted
R^2 All	0.991457	0.998112
R^2 Standard	0.993511	0.998558

	Common Slope
Estimated value	1.12452
Lower conf. Limit	1.08725
Upper conf. Limit	1.16179

95% confidence level

	Other model parameters
Lower asymptote	0.145458
Upper asymptote	3.19599

Equivalence of slopes

Preparation	Slope	Difference with Standard	Ratio with Standard
Standard: S	1.12755 (1.07426, 1.18084)	0.000000	1.00000
Sample 1: T	1.12162 (1.06949, 1.17375)	-0.00593102 (-0.0684964, 0.0566344)	0.994740 (0.940903, 1.05171)

Slopes: confidence limits (in brackets) calculated for a 95% confidence level (advanced options).

Differences and ratios of slopes: confidence limits (in brackets) calculated for a 90% confidence level.

Anova table

Normal

Source of variation	Degrees of freedom	Sum of squares	Mean square	Chi-square	Probability	Level of significance
Preparations	3	0.813672	0.271224	301.79	< 0.000001	***
Regression	1	9.43054	9.43054	3497.77	< 0.000001	***
Non-parallelism	1	6.55525e-05	6.55525e-05	0.0243133	0.876090	
Non-linearity	16	0.0127084	0.000794275	4.71353	0.997004	
Non-linearity Table 1	8	0.00764179	0.000955224	2.83433	0.944320	
Non-linearity Table 2	8	0.00506661	0.000633326	1.8792	0.984494	
Treatments	21	10.257	0.488428	3804.3	< 0.000001	***
Residual error	28	0.0754923	0.00269615			
Total	49	10.3325	0.210867			

Potency and effective dose values

Precision

Recovery

Potency estimates

		Potency		Relative To Estimate (%)		Relative To Assumed/Assigned (%)	
Preparation	**Units**	**Estimate**	**(LCL, UCL)**	**Rel. To Est.**	**(LCL, UCL)**	**Rel. To Ass.**	**(LCL, UCL)**
Sample 1: T	IU/vial	72.9429	(68.3897, 77.8023)	100	(93.76, 106.66)	91.18	(85.49, 97.25)
Sample 2: C1	IU/mL	21.5772	(20.0321, 23.2672)	100	(92.84, 107.83)	86.31	(80.13, 93.07)
Sample 3: C2	IU/mL	118.279	(109.978, 127.322)	100	(92.98, 107.65)	98.57	(91.65, 106.10)

Confidence limits (in brackets) calculated for a 95% confidence level (advanced options).

Effective dose estimates

		Effective Dose (ED)		Relative To Estimate (%)	
Preparation	**Units**	**Estimate**	**(LCL, UCL)**	**Rel. To Est.**	**(LCL, UCL)**
Standard: S	IU/ED50	1.34768	(1.28756, 1.41071)	100	(95.54, 104.68)
Sample 1: T	IU/ED50	1.47806	(1.41232, 1.54693)	100	(95.55, 104.66)
Sample 2: C1	IU/ED50	1.56146	(1.47123, 1.65552)	100	(94.22, 106.02)
Sample 3: C2	IU/ED50	1.36729	(1.29102, 1.44685)	100	(94.42, 105.82)

Confidence limits (in brackets) calculated for a 95% confidence level (advanced options).

Inverse predictions

		y-value(s)			
		1		1.5	
Preparation	**Units**	**Estimate**	**(LCL, UCL)**	**Estimate**	**(LCL, UCL)**
Standard: S	IU	0.582207	(0.551716, 0.613296)	1.10348	(1.05369, 1.15521)
Sample 1: T	IU	0.638534	(0.604979, 0.672733)	1.21024	(1.15569, 1.26686)
Sample 2: C1	IU	0.674564	(0.627048, 0.723594)	1.27853	(1.20187, 1.35809)
Sample 3: C2	IU	0.590679	(0.550703, 0.631861)	1.11954	(1.05493, 1.18659)

Confidence limits (in brackets) calculated for a 95% confidence level (advanced options).

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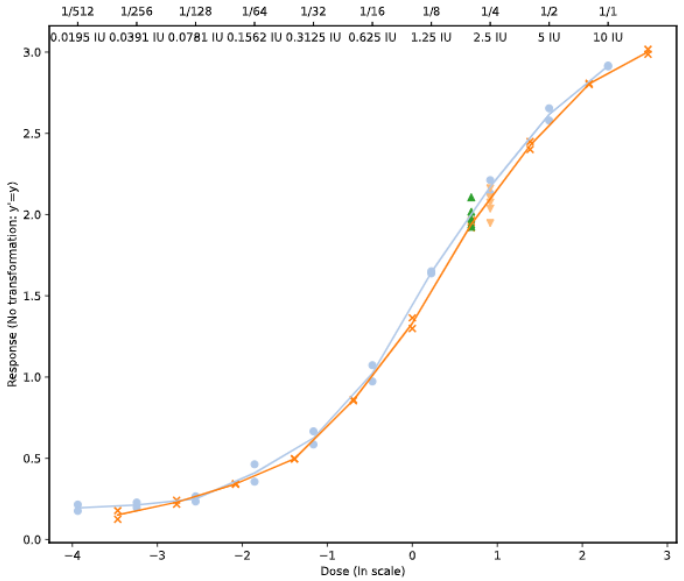
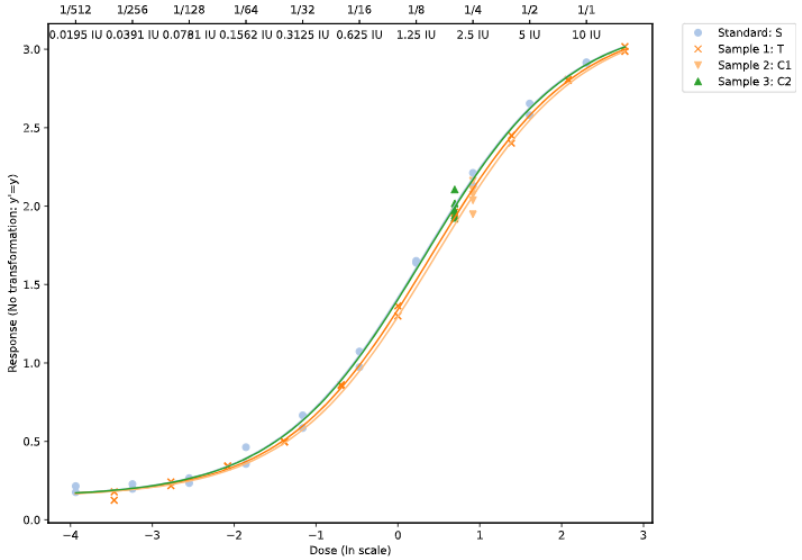
Graphics

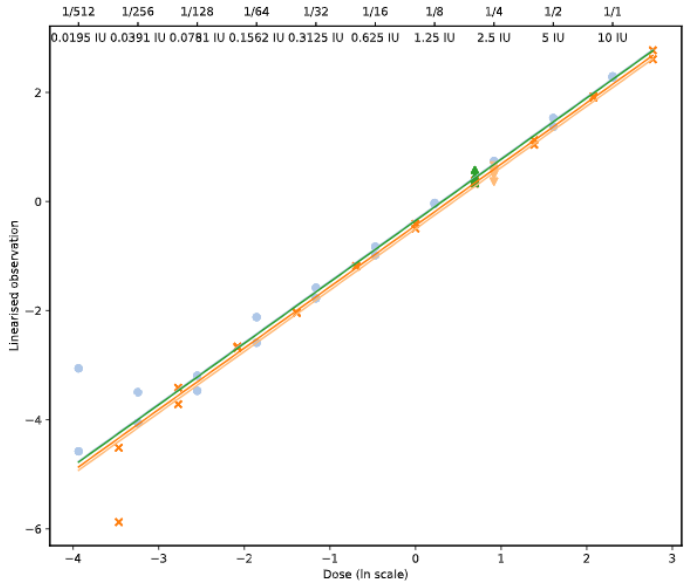
Average plot



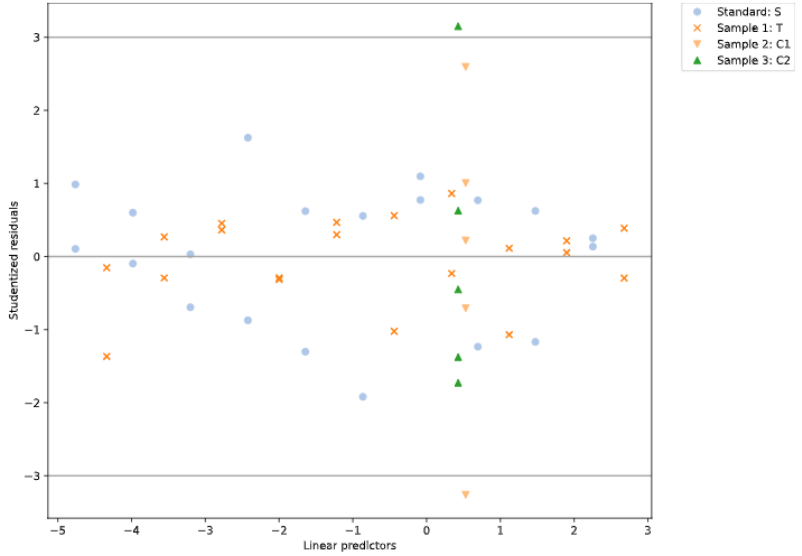
Model plot



Model plot (linearised)



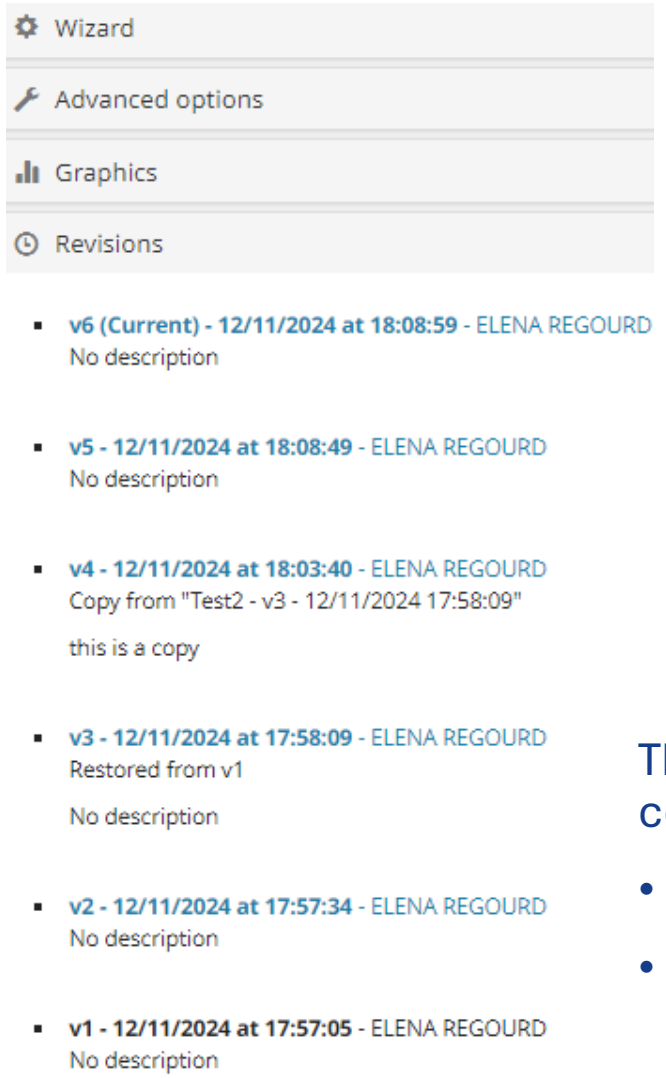
Residual plot



Audit trail

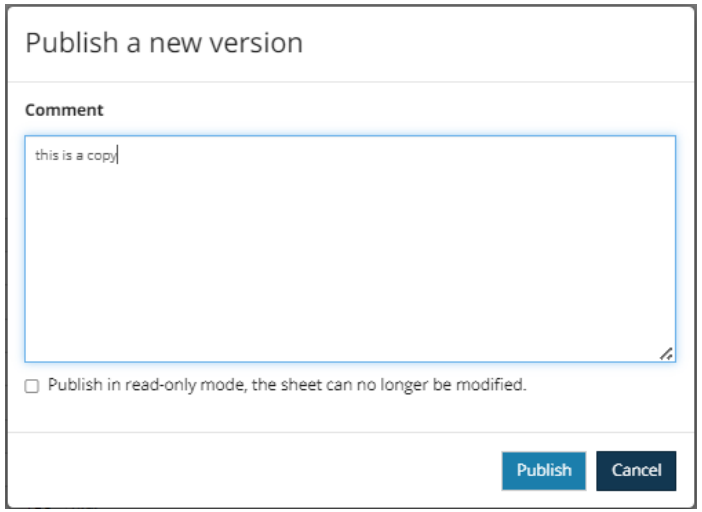
https://combistats.edqm.eu/help/

EN22 Audit trail



Each time the assay is published a new version is created and differences to previous published version are recorded

User can add a comment and protect the sheet



Meta-data for each version:
date, GMT time and username

The modifications and comments for each version

- displayed in the report
- can be accessed by clicking in the version in the revisions section

V.4 (CURRENT) - PUBLISHED ON 12/11/2024 AT 18:03 BY ELENA REGOURD

Copy from "Test2 - v3 - 12/11/2024 17:58:09"
this is a copy

Field	Old value	New value
Wizard		
Transformation	y'=y	y'=sqrt(y)
Variance	Observed residuals	Deviation from model
Raw-data		
Table 1		
	Dose 1/30 Rep.5 176	Dose 1/30 Rep.5 400

Content

★Introduction

★Workspace

★File and folder management

★Data entry, analysis options & audit trail

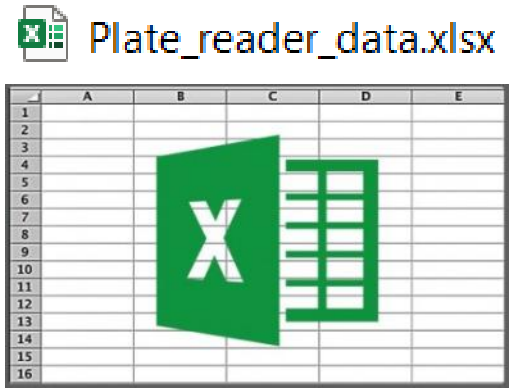
★Batch creating .epax files

How to automate data entry into .epax files?

E.g.

1. Microplate reader

2.



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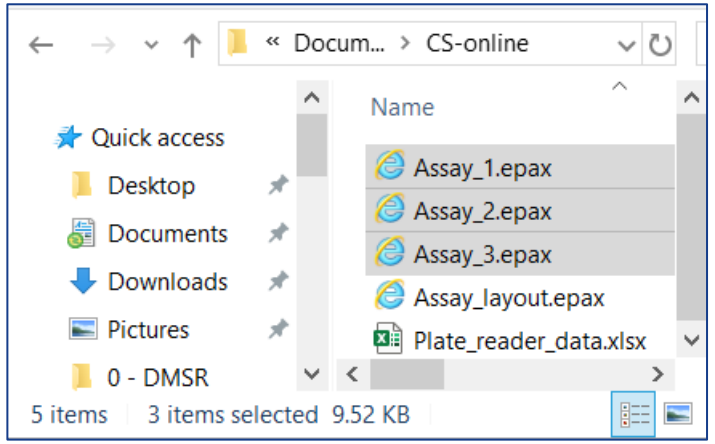

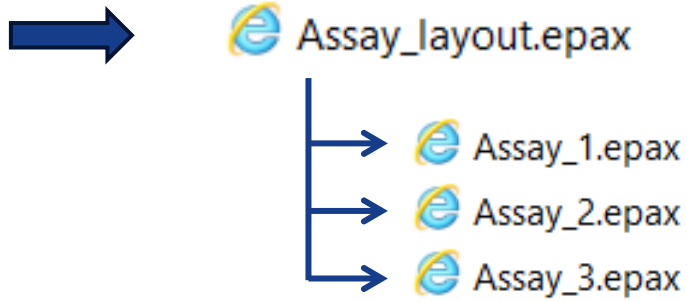

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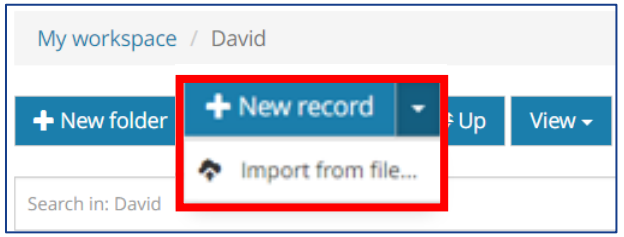

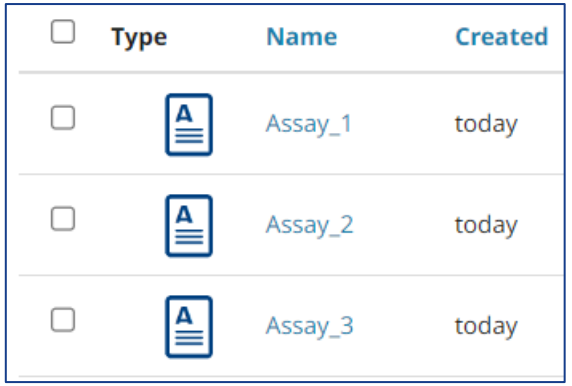

➔ **See demo**

Useful links

- Institutional website

  https://www.edqm.eu/en/lp-combistats

- FAQs, privacy, security notices

  https://combistats.edqm.eu/help/

- User guide (sign in first)

  https://combistats.edqm.eu/user-manuals/combistats_user_guide.pdf/

Thank you for your attention

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