ELO server – Installation and operation

Table of contents

ELO Health Check Service

Requirements

The ELO Health Check Service enables you to log and visualize different server parameters. In addition, you can monitor specific threshold values, and set up an automatic e-mail notification if the values exceed the limits.

If you want to use the ELO Health Check Service (in the following: HCS), you must make sure that you enter the corresponding URL in the *Indexserver Configuration Options* configuration interface and that the ELO Indexserver is allowed to send data to this URL. The data for the previous day is sent in the early morning hours of the following day on a daily basis.

In the *Indexserver Configuration Options* configuration interface, use an *uploadHealthCheckurl* type entry with the following URL:

```
https://license.elo.com/HealthCheckService2/Main/data/guid
```

☐ ELO-SRVTDEV-ELO20-1	privateUrlBase	http://srvtdev-elo20:9090/ix-ELO20/ix
☐ ELO-SRVTDEV-ELO20-1	uploadHealthCheckUrl	https://license.elo.com/HealthCheckService2/Main/data/guid
☐ ELO-SRVTDEV-ELO20-1	AESEncryptionKey ⌄		Add

If no URL is entered or the URL to the first version of the ELO Health Check Service is entered, the URL specified above is entered in the database/the old value is replaced with this correct URL.

Enter NONE to disable transmission of the URL data.

You have to send a request to the ELO Order Center to enable ELO HCS. You can submit this request to the ELO Order Center by e-mail.

A technical contact person for the partner and the customer were specified when you placed the order. These e-mail addresses are used by all automated processes. Ideally, you should use a separate technical e-mail account for this.

Health Check data is only sent from Indexserver versions ELO 20 or higher. Older ELO Indexservers are unable to provide this service.

Starting with ELO 12, the installer distinguishes between production and test instances. When using the HCS, it is necessary to separate them in any case to ensure that test data is not mixed up with production data, which can lead to unreliable data visualizations.

Since the ELO HCS Dashboard shows data from the past, we recommend that you first install it and configure the dashboard itself a few days later. This will enable you to see data about the current installation during the configuration.
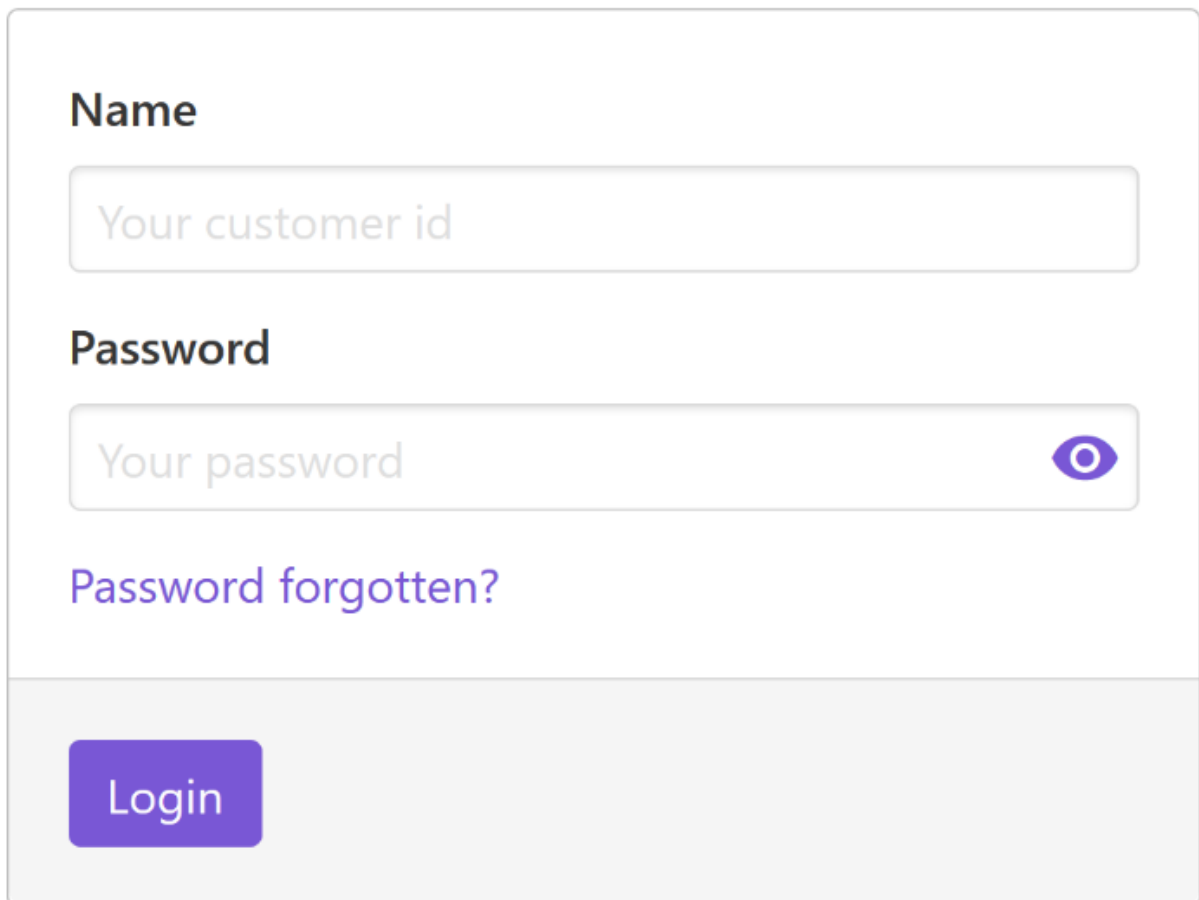
Initial logon

1. To authenticate, open the following URL:

```
https://license.elo.com/HealthCheckService2/index.html
```

When you log on for the first time, you won't have a password as this would need to have been sent by e-mail, which is not secure.

1. Click *Password forgotten.*

2. In the next dialog box, you need to enter your e-mail address and the GUID from the serial number. You can read this GUID from the license file, for example:

```
feature.EICSALESFORCE=true
feature.EICBUSINESSONE=true
feature.SMARTINPUT=true
guid=M(8B2953C9-D9B3-849D-1647-5700B85CB5B0)
```

> **Information**
>
> The GUID is only the combination of characters inside the brackets. The brackets themselves and the preceding text are not part of the GUID.

You will only receive a link for a new password if this combination is correct. The e-mail address must be identical to the address you entered when placing the order. You cannot have a new password sent to any other e-mail address.

Send a new API token for the following customer:

Mail address

    my.ELO@myCompany.com

GUID

    8B2953C9-D9B3-849D-1647-5700B85CB5B0

Send request

If the data was correct, you will receive an e-mail with a link within a short time. This link takes you to the new password and can only be used once.

3. Open the link.

Für den Kunden **ELO 20 Test Not for resale** wurde ein neues API Token angefordert.

Falls Sie die Anforderung nicht ausgelöst haben, können Sie diese Mail ignorieren und das aktuelle API Token bleibt weiter aktiv.

Klicken Sie diesen Link https://license.elo.com/HealthCheckService2/activate.html?id=ee8cb33c-c847-4a11-8fb5-db9e807ecb9f zur Aktivierung eines neuen Tokens. Aus Sicherheitsgründen ist dieser Link maximal drei Tage gültig und kann nur einmal aktiviert werden.

ELO Health Check Service Autoresponder

When you click the link, the HCS generates a new password and displays it over an encrypted HTTPS connection. The password is therefore not transmitted via an insecure channel, such as e-mail.

4. Make a note of this password. We recommend saving it in your browser so that you do not have to enter it each time. It is not possible to assign your own password.

You now have all the information you need to log on to the system.

In the Name field, you can enter the name from the serial number, the GUID, or the e-mail address. When you log on for the first time, you will see a default dashboard containing the most important parameters. If you installed a fresh ELO Indexserver or only recently entered the configuration, all charts will be empty because no data has been sent yet.
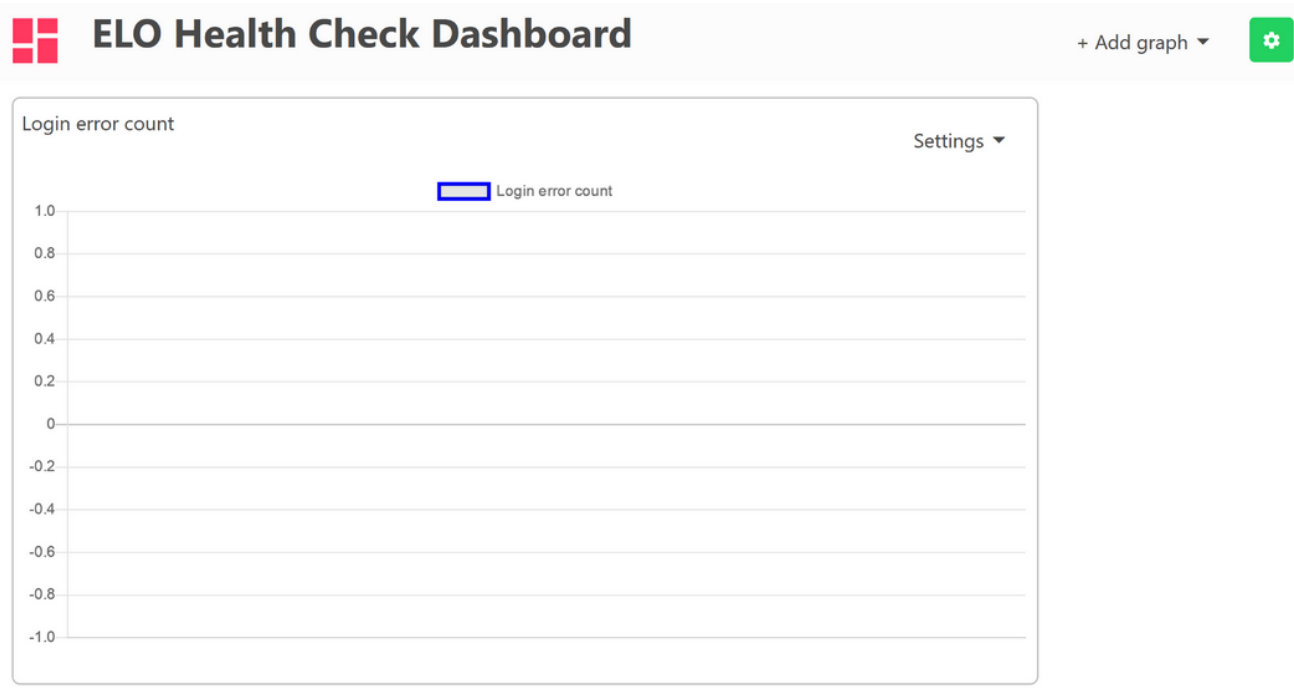

Please note

In case of extensions or changes to the serial number, the following applies:

- If the GUID of the serial number remains the same (extension of serial number), the data is maintained by ELO HCS.
- If a new serial number is used and the old one is deleted, the previous ELO HCS data is lost. You have to register the new GUID to restart data analysis by ELO HCS.

Configure dashboard
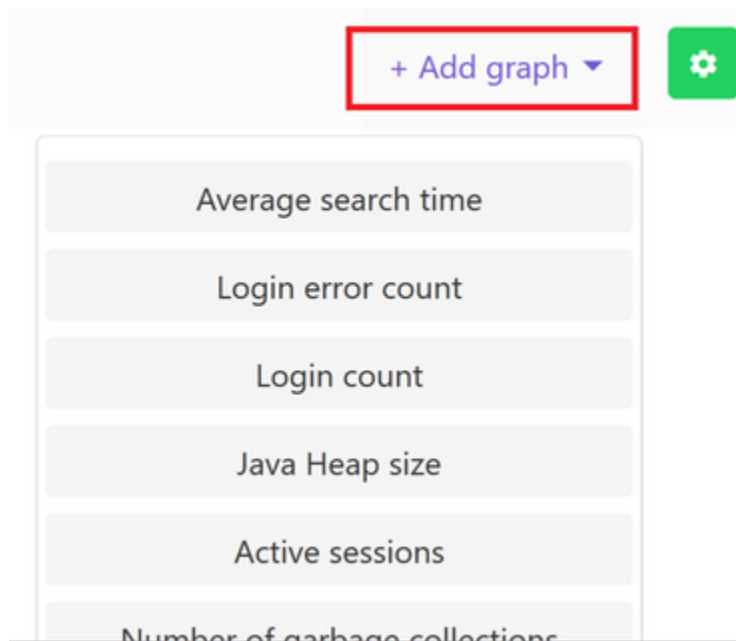
1. To add charts, click the *+ Add graph* function.

   After clicking this field, you will be offered a list of monitoring parameters to choose from.
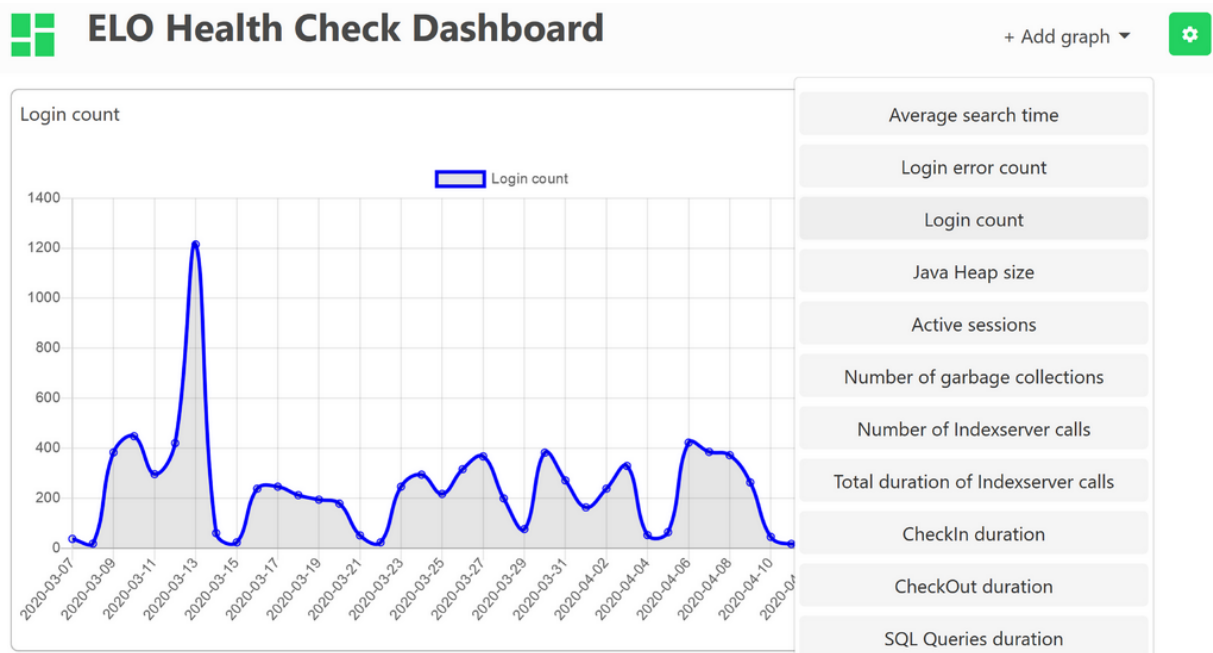
   You can add multiple charts at this point and edit them later. A new entry is always inserted after the last entry you edited. You can also arrange the charts differently later on using drag-and-drop.

2. If you click the *Settings* button, you can change the settings of the chart.
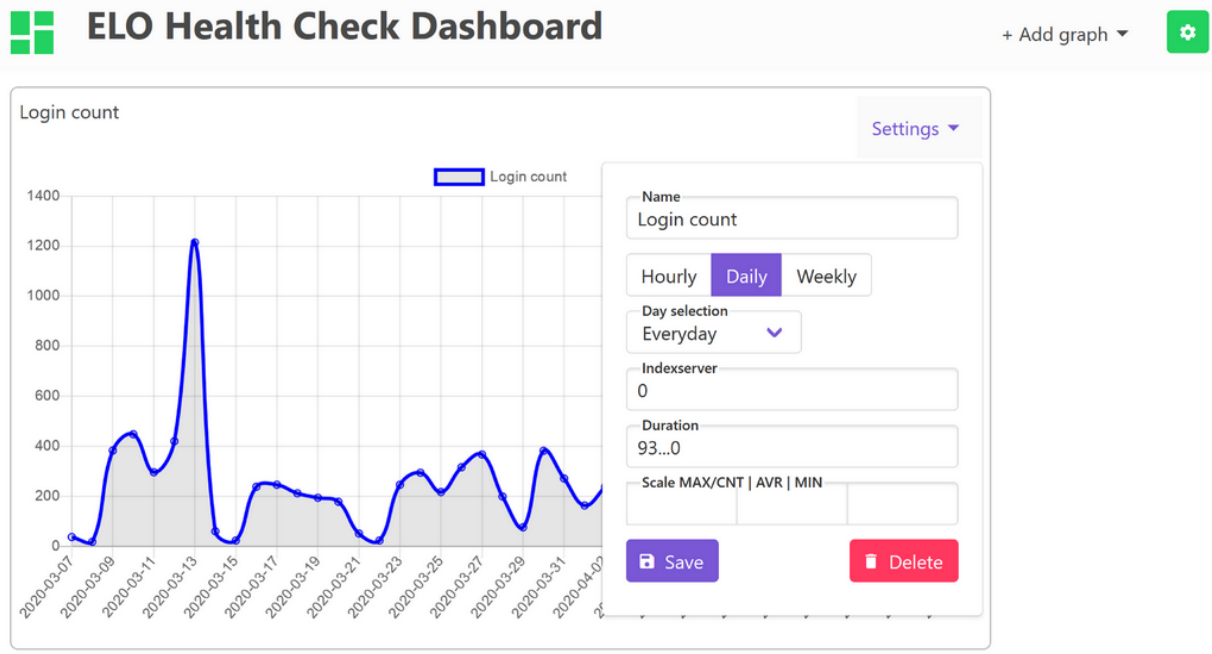
Name: You can change the name of the chart here. This can be useful if you have multiple ELO Indexservers or want to view the same chart type with different settings, for example.

Hourly/Daily/Weekly: You can use this setting to change the visualization of data changes over time. If you want to observe a trend over longer periods of time, it is useful to visualize the data averaged over weeks. If you want a more detailed overview of the current situation, it makes sense to create an hourly view, e.g. when most users log on during the course of a day. In many other cases, the daily overview is the most practical option.

Day selection: If you want to restrict the daily or hourly overview to certain days of the week, you can do so with this option.

Indexserver: If you have installed multiple ELO Indexservers, you can specify which ELO Indexserver should be displayed here. If you enter 0 in the field, the total values of all ELO Indexservers are displayed. If the field contains an Indexserver ID, only the values of this ELO Indexserver are displayed. You can get the ID from the ELO Indexserver status page. You need to take the value from the line *IXID numeric*.

| System	
IXID	ELO-SRVTDEV-ELO20-1
IXID numeric	1257006512
DM Proxy Mode	NO
Script Execution	Disabled for []
Database driver	com.microsoft.sqlserver.jdbc.SQLServerDriver
Memory (free, total, max)	776.1 MB, 2,147.5 MB, 2,147.5 MB
Current time	2020-04-21 09:43:43 +0200

Information

> In later versions, you will be able to select from a list of available ELO Indexservers. This list can only contain servers that have already transmitted data so it will be empty on the day of installation.

Duration: Specify a period of time for the data visualization here. We recommend that you specify a range from a few days or weeks in the past to the current date. The time ranges are entered in days. The default setting covers the last three months. To be exact, "93 days ago until now", i.e. 93...0.

Scale: With the Minimum – Average – Maximum charts, there may be maximum values which are so high that the average values are only displayed as a flat line at the bottom of the chart.
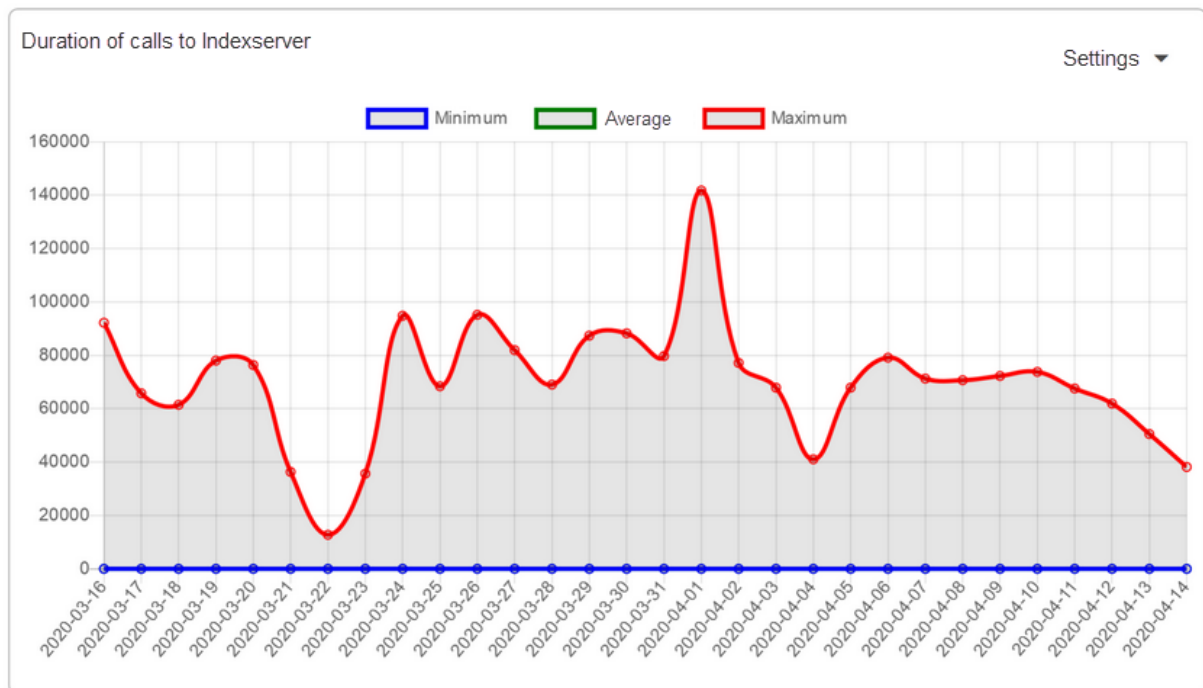
This parameter allows you to specify a divider factor for each line. If the average search time is 50 milliseconds, but there are searches that take up to one minute, you can set *MAX divider* to 1000.
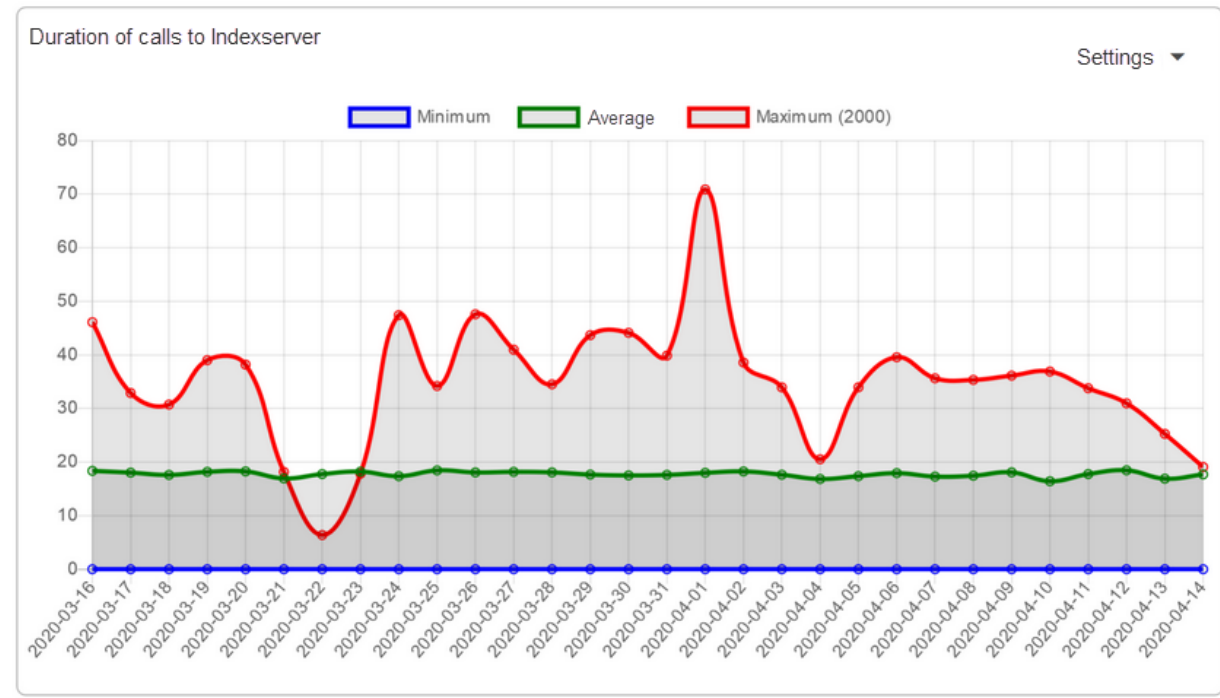
These settings allow you to monitor large outliers in a chart simultaneously, as well as the general (much smaller) average value.
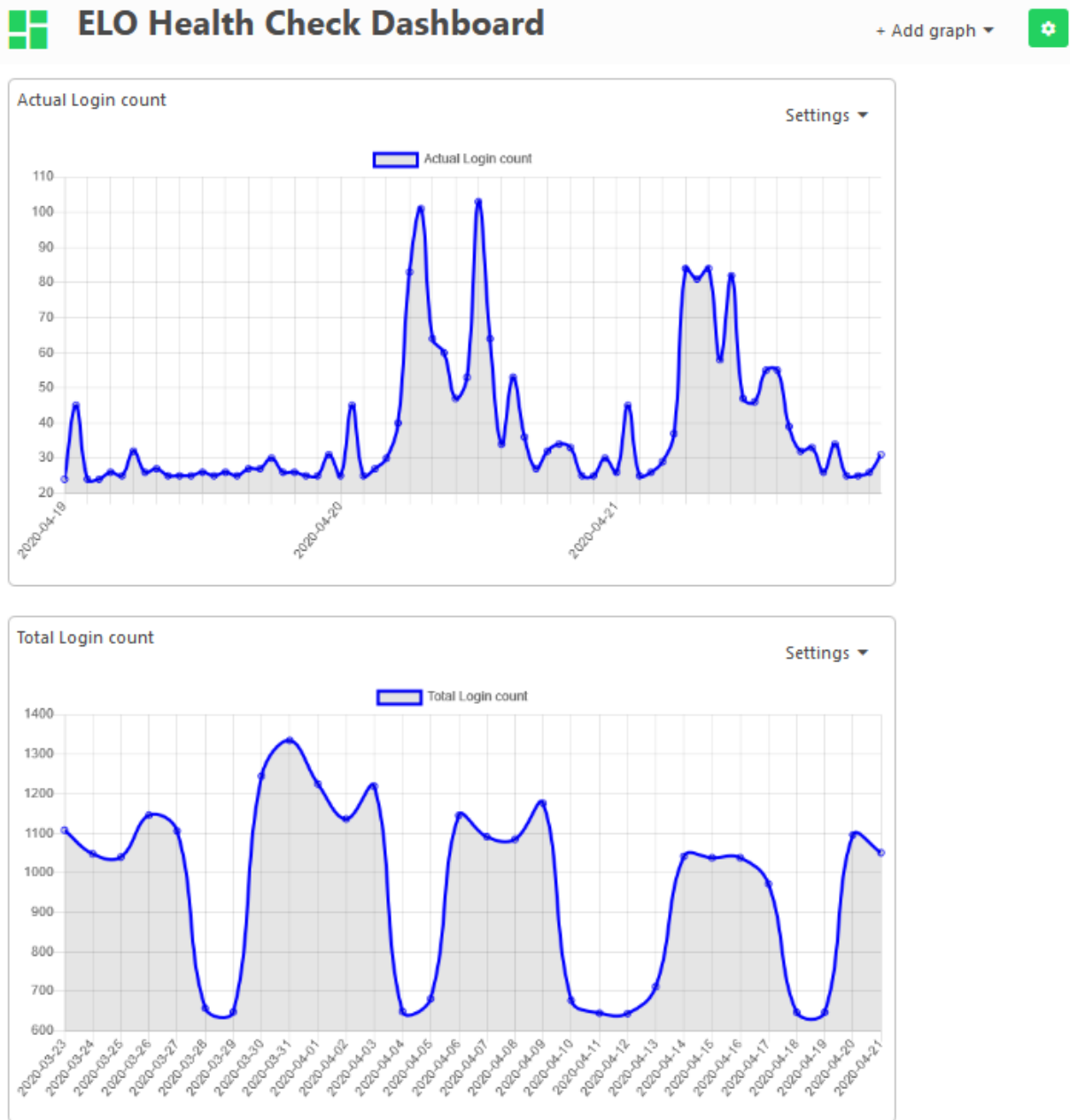
If you want to see both the long-term trend and the current situation for a specific parameter in a more granular view, you can create multiple charts for this parameter. The first chart could be a weekly overview of 180 days, and a second chart could be a daily overview of the last three days.

Set up monitors

To set up monitors, click the configuration icon in the upper right corner to switch to the *ELO Health Check Service Configuration*. In this menu, you can set up monitors for each recorded parameter.

The HCS distinguishes between two types of parameters. There are *counters*, such as for the number of logons or number of garbage collections, and *Min/Max/Avr*, which display average values as well as minimum and maximum values, such as the required memory or the number of active users.

ELO Health Check Service Configuration

Counter Properties

failed	Smaller than	Bigger than
Absolut	-1	-1
Percent	-1	-1

gccount	Smaller than	Bigger than
Absolut	-1	-1
Percent	-1	-1

nbofsuccesfullogins	Smaller than	Bigger than
Absolut	-1	-1
Percent	-1	-1

nboffailedlogins	Smaller than	Bigger than
Absolut	-1	-1
Percent	-1	-1

Under *Counter Properties*, you can monitor absolute threshold values, such as for failed logon attempts. If there are more than ten failed attempts in an hour, this indicates a brute force attack on passwords.

You can also specify threshold values as a percentage. These relate to the average over the last three months, e.g. if the number of garbage collections increases by more than 50%, this indicates that the ELO Indexserver does not have enough heap space.

As the values can fluctuate considerably on different days of the week, the specified percentage limits are only compared with the average on the same day of the week to prevent false alerts.

Min - Max - Avr Properties

searchtime	Miniumum values		Average values		Maximum values	
	Smaller than	Bigger than	Smaller than	Bigger than	Smaller than	Bigger than
Absolut	-1	-1	-1	-1	-1	-1
Percent	-1	-1	-1	-1	-1	-1

The *Min/Max/Avr* properties have the same settings, although three are shown here for each chart. It makes sense to monitor the average values to detect gradual changes. Checking the maximum values is better suited to detect acute problems.

Information for partners

If you specified a partner's e-mail address when you placed the order, this serial number is linked to the partner's account. As a partner, you can access the page `https://license.elo.com/HealthCheckService2/alerts.html` to obtain an overview of the current state of all customers.

If there are no alerts for a customer, the icon to the left of the customer name is green. If no HCS data has been sent in the last three days, the icon is red. If limits have been exceeded, the icon is yellow and the corresponding values are displayed.

Clicking the colored icon takes you to the respective customer dashboard. There is currently no distinction between a partner request and a customer request. This has the advantage that a partner can configure the customer dashboard and modify it at any time. However, this also means that there are no different views for customers and partners.

If thresholds were set for a chart, the warning e-mail is sent to both the customer's e-mail address and the partner's e-mail address.

If customers do not want to manage their own HCS dashboard, this can also be done by the partner. In this case, you should create a separate e-mail account, e.g. `ELO-HCS@mycompany.com`. This is the

account that you need to specify as the customer's account when you place the order. However, you do not need to create a separate account for each customer. You can still log on to the dashboard with this account, since the API token can be used to distinguish between the different customers.

Data protection

The ELO Health Check Service only records average values from an entire server every hour. No personal data is collected or transmitted in the process, and it is not possible to draw conclusions about individual users from the data.

However, you should still keep the password and API token safe, since the HCS contains data that could be sensitive in certain contexts (e.g. the number of logons allows conclusions to be drawn about the number of employees). An attacker requires both the serial number GUID and the API token to gain unauthorized access. As this is generated automatically, a new one can be issued immediately if there is any cause for concern.

Monitoring

Introduction

ELO offers different starting points for monitoring the system status. The following sections contain documentation related to *monitoring*.

The following topics are covered:

- Monitoring via the ELO Administration Console
- ELO Flows monitoring

Monitoring via the ELO Administration Console

In the *Monitoring* area of the ELO Administration Console, you can view the status of various web applications.

Proceed as follows to monitor a web application:

1. Click *Add*.

   The *Add monitoring entries* wizard appears.

2. Follow the instructions in the next section to add monitoring entries.

   The new monitoring entries are added according to your specifications.

Add monitoring entries wizard

The wizard enables to monitor additional web applications.

   1.

Enter the server name, server port, and password for the Apache Tomcat administrator with the *manager-script* role and click *Next*. In this case, the Apache Tomcat administrator is named *adminscript*.

> **Information**
>
> The Apache Tomcat adminstrator with the *manager-script* role is named *adminscript* by default and is created automatically when the ELO Application Server is installed. If an error occurs, check the entries in `tomcat-users.xml`, which is located in the server's configuration directory.

The *Selection* area opens.

2. Select the web applications you want to monitor, then click *Next*.

   The *Confirmation* area opens.

3. Check the list of web applications you want to monitor, then click *Save* if correct.

| Monitoring | | | | | | Reset filter | Refresh | Add |

No.	Repository ⬦ Search for	Server ⬦ Search for	Query status ⬦ Search for	Application status ⬦ Search for	Server ⬦ Search for	
1	Repository-ix		COMPLETED	RUNNING	21.00.000	✖
2	Repository-wf		COMPLETED	RUNNING	21.00.000	✖
3	EXTEN-as		COMPLETED	RUNNING	21.00.00	✖
4	EXTEN-tr		COMPLETED	Running	21.00.00.	✖
5	EXTEN-ix		COMPLETED	RUNNING	21.00.000	✖
6	EXTEN-wf		COMPLETED	RUNNING	21.00.000	✖

The selection is saved and the status of the selected web applications is displayed.

ELO Flows monitoring

ELO Flows provides a monitoring tool. In this tool, you can monitor the processing of flows and analyze errors.

Icons

Transformations

- Click the *Monitoring* button at the bottom left corner of the ELO Flows administration area.

The *Status report* page opens. The page consists of the following tabs:

- Version: Shows the version currently being used
- Messages: Shows current status messages.
- Flows: Shows the available flows with the corresponding statistics.
- Flows timeline: Shows the timeline of executed flows. The list can be filtered.
- Validation errors: Shows any errors and error sources in flow templates and transformations. Clicking on one of the buttons takes you straight to the affected template or transformation.

Information

You can reach the ELO Flows administration *status report* at the following link:

```
http://<hostname>:<port>/ix-<repository>/plugin/de.elo.ix.plugin.proxy/flows/#/status
```

Status pages

Multiple status pages are available, which you can check. In addition to the currently installed version number, they also indicate the online status of the modules:

Simple status page of the ELO Flows Manager

ELO Flows Status Report

Running

The manager offers a very simple status page that only shows the status and can be used without authenticating:

```
http://<hostname>:<port>/flows/status
```

ELO Flows registry status page

ELO Flows Registry

Status Report   RUNNING

Version   Services   Messages

Version   23.

You can reach the ELO Flows registry status page at the following link:

```
http://<hostname>:<port>/registry
```

Information

Change the `host name` and `port` based on the respective installation.

Report and logs

Introduction

ELO offers you the option to track activities in the system via reports and logs. This enables you to recognize and eliminate potential error sources, for example.

The following topics are covered:

- Report options
- Delete report entries
- Log files

Report options

Under the *Report options* menu item in the ELO Administration Console, you can define the settings for log files and logged activities in ELO.

Report options			Save	Cancel	See also
					Delete report entries

Report mode

○ No report
○ Short report
○ Extended report
● Full report

Name	Search for	Settings for the short report	Settings for the extended report
Open ELO		☑	☑
Close ELO		☑	☑
User data changed		☑	☑
Font color changed		☑	☑
Form definition changed		☑	☑
Path definition changed		☑	☑
Key data changed		☑	☑
Document created		☑	☑

> **Information**
>
> You create a report in the ELO Java Client with the standard configuration via *Organize > Properties > Report for entry*.

No report: No events are logged.

Short report: Only the events selected for the limited report will be written to the log.

Extended report: The events selected for the extended report will be written to the log.

Full report: All actions will be written to the log.

You can change the settings by enabling or disabling the report options. The names of the options are self-explanatory.

Delete report entries: The *Delete* function allows you to delete logged events up to a specific point in time or completely.

Delete report entries

The *Delete report entries* function enables you to delete report entries up to a specific date.

Information

You will find the link to the *Delete report entries* menu item in the ELO Administration Console under *Report options*.

Delete up to the following date: Enter a date here. All report entries created before this date will be deleted.

Delete all report entries: Use this option to delete all report entries.

Delete: Delete the specified report entries.

Log files

Under the *Log files* menu item in the ELO Administration Console, you can view the different log files. There are various filters to help you sort through your logs and quickly troubleshoot problems.

Log files			Refresh	Show

∨ Display filter settings

Set the filter for displaying log files. You can select several log files at once.

Log level	Log level ∨
Time filter starting	*Example: 13:24:59*
Time filter until	*Example: 13:26:01*
Number of log lines	1000000
Refresh interval	*Number of seconds until page is refreshed*
Search text 1	*Enter search text*
	✕
	Add search text
Show newest log entries at the top	☐

Log files			
File name	Path	File size	Log appender
AdminConsole.log	C:\ELO20\logs\ELO-srvtdev-elo20-1	42.9 KB	FILE (ch.qos.logback.core.rolling.RollingFileAppender)
as-ELO20.log	C:\ELO20\logs\ELO-srvtdev-elo20-3	5.9 MB	FILE (ch.qos.logback.core.rolling.RollingFileAppender)
ix-ELO20.log	C:\ELO20\logs\ELO-srvtdev-elo20-1	17.7 MB	FILE (ch.qos.logback.core.rolling.RollingFileAppender)
ocr.log	C:\ELO20\logs\ELO-srvtdev-elo20-2\ocr	3.2 MB	FILE (ch.qos.logback.core.rolling.RollingFileAppender)

Refresh: Click the *Refresh* button to reload the log files. The data (number and size of log files) in the *Log files* table is updated.

Show: The *Show* button opens a new tab in the browser that shows excerpts from the selected log files according to the applied filter settings.

Display filter settings

In the *Display filter settings* area, select the log files and edit the filter settings.

Log level: In the *Log level* drop-down menu, you can select one or multiple filters for the log level. The log levels are: *FATAL*, *ERROR*, *WARN*, *INFO*, *DEBUG* and *TRACE*.

Time filter starting: If required, you can enter a start time in the *Time filter starting* field. Entries created before the selected time will not be displayed.

Time filter until: If required, you can enter an end time in the *Time filter until* field. Entries created after the selected time will not be displayed.

Number of log lines: In the *Number of log lines* field, you can specify the maximum number of lines that will be displayed. The default value is `1000000`.

Refresh interval: In the *Refresh interval* field, you can specify the number of seconds to wait until the log information is refreshed. This setting applies for the tab that you generate with the *Show* button.

Search text 1: You can enter a search term as a filter in the *Search text 1* field.

Add search text: Click the *Add search text* button to add another search text field. You can enter additional terms as filters in these fields. The search terms are linked with AND so that only entries containing all search terms are shown.

Show newest log entries at the top: If you want the newest log entries to appear at the top of the log file, click *Show newest log entries at the top*.

Log files: The *Log files* table contains all available log files. The log files that you select in the table are the ones that will be displayed in an additional browser tab according to the settings you selected above.

> **Information**
>
> You can select multiple options by holding down the SHIFT or CTRL key.

Advanced manual input

In the *Advanced manual input* area, you can see the selected filter settings in a console window. You can edit the commands here.

Information

Introduction

ELO provides you with different sources of information: The following sections provide brief descriptions of the following points:

- Server information
- Users in system
- Highest IDs assigned (statistics)
- License overview
- License report

Administrative information

The ELO Administration Console offers a range of information you can use to manage your system. The following sections will go into more detail.

Server information

The *Server information* area contains an overview of the server settings.

Server information	
Name	**Value**
Version number	21.00
Repository ID	1
Database system	MSSQL
Server name	ELO21

Additional Indexservers assigned to ELO Access Manager	
Repository name	**URL**
No data	

See also
License overview
Users in system
Administration folder
Statistics
License report

Users in system

The *Users in system* area contains an overview of the users currently logged on to the system.

Users in system   **Reset filter**

No.	User	System	Application	Version	Valid until
1	Administrator	srvtdev-elo20	ELO Administration Console	20.02.000	12.01.2022 17:51
2	ELO Service	ELO Workflow Services	ELO Workflow Services	20.06.000	12.01.2022 17:50
3	ELO Service	ELO Textreader	ELO Textreader	...	12.01.2022 17:50
4	ELO Service	ELO Automation Services	ELO Automation Services	20.01.015 Build 000	12.01.2022 17:49
5	ELO Service	srvtdev-elo20	ELO OCR Service	20.03.000.015	12.01.2022 17:49
6	Administrator	IX	ELO Workflow Services	20.06.000	12.01.2022 17:48

Information

User accounts for various services and modules are also shown here.

Statistics

Description: This contains an overview of the IDs assigned in the repository.

Statistics	
Name	**Highest ID currently assigned**
Entry ID	94505
Document ID	27424

License information

In the ELO Administration Console, you can access information about the respective license.

The following sections will go into more detail.

License overview

The *License overview* area provides an overview of the license usage.

License overview		See also
Name	**Value**	Users in system
Customer name	presentation license (738) - ELO Digital Office GmbH	Server information
Other name	Not for resale	Administration folder
Valid until	31.03.2022	Statistics
Product	21e	License report
Number of full clients	20	
(reserved)	0	
Page volume ERP Data Transfer module	0	
Number of ELO Workflow Client for SAP® ERP licenses	20	
(reserved)	0	
Number of Indexserver licenses	20	
Number of Web Client licenses	20	
Number of ELOxc licenses	20	

Download license overview: Downloads the license overview as a TXT file compressed into a ZIP file.

Import license file: This function is no longer supported. You can import license files in the ELO server setup.

License report

The *License report* page provides you with a report about access and used licenses in ELO as well as information about the users who have performed write actions via the full clients and via the Indexserver.

License report		Refresh

Licenses and access	Number
Total number of licenses for access via the full client	20
Total number of licenses for access via the Indexserver	20
Total number of licenses for access via the Web Client	20
Active users with full client access	3
Active users with Indexserver access	3
Active users with ELO Web Client access	0
Currently locked users with access within the licensing period	1

Comparison	Number
Available licenses minus write actions in the full client	17
Available licenses minus write actions on the Indexserver	17
Available licenses minus write actions in the Web Client	20

Users and groups	Number
Existing groups	19
Existing users	13
Locked users	0
Existing users and groups	32

See also

License overview

Users in system

Server information

Administration folder

Statistics

Download report

Refresh: Refreshes the license report.

Download report: Downloads the license report as a TXT file compressed into a ZIP file.

Active users with full client access

No.	User name	Last access	Java Client	Web Client	Other modul	Mobile client	ELOxc Client	Desktop Clie	Integration C
1	Anderson	10.01.2022	114	2	0	7	40	0	0
2	Byte	05.01.2022	146	0	22	0	0	569	12
3	Lind	09.12.2021	25	0	0	1	0	0	2

Active users with ELO Indexserver access

No.	User name	Indexserver ac	Last access	Java Client	Other modules	Mobile clients	Desktop Client	Integration Cli
1	Administrator	92	12.01.2022	8	92	0	415	4
2	Cole	22	12.01.2022	2	0	22	0	6
3	ELO Service	320	12.01.2022	0	320	0	0	0

Active users with full client access: The table provides information about the users who have performed write actions in ELO via an ELO client.

Active users with Indexserver access: The table provides information about the users who have performed write actions in ELO via the ELO Indexserver or corresponding modules.

Other topics

Overview of other topics

ELO offers additional functions that support you in maintaining and testing the system.

The following topics are covered here:

- Administration mode
- Test checksums

Administration mode

Administration mode can be used to restrict client access to ELO, e.g. during system maintenance.

Administration mode is currently disabled.

🕴 **Enable administration mode**

ℹ When administration mode is enabled, users without main administrator rights will not be able to log on to the repository.

Administration mode is active for all repositories that are accessed by the same ELO Access Manager.

Information

If administration mode is enabled, only users with administrator rights are able to log on to the ELO clients. Administration mode is active for all repositories that are accessed by the same ELO Access Manager.

Test checksums

In the *Test checksums* area of the ELO Administration Console, you can test the integrity of one or more documents.

```
Test checksums                                    See also

Document IDs to check                             License overview

[ 1                                    ]          Users in system

[ 3157                                 ]          Server information

[✓] Full report                                   Administration folder

Last document ID checked        0                 Statistics

Number of incorrect checksums   0                 License report

Number of correct checksums     0

Number of failed access requests 0

[ Check ]  [ Cancel ]
```

Document IDs to check: Enter the document ID that the check should start at in the top field. Enter the document ID that the check should end on in the field below that. The lowest and highest document IDs in the ELO repository are entered by default.

Full report: To obtain a full report, enable the *Full report* option. If the option is disabled, the report will only contain basic information and notifications of any incorrect checksums. The report is generated as a TXT file that you can download.

Last document ID checked: Shows the last document ID that was checked during the current validation process.

Number of incorrect checksums: Shows the number of errors detected during the current validation process.

Number of correct checksums: Shows the number of correct checksums detected during the current validation process.

Number of failed access requests: Shows the number of documents whose checksum could not be validated during the current process. This can occur if a document within the selected ID range has been deleted in the meantime.

Check: Click the *Check* button to start the checksum test for the selected ID range.

Cancel: Click the *Cancel* button to stop the current check process.

Check report: Once the check has completed, the *Check report* button appears. Click the *Check report* button to download the report as a TXT file.