

**SOFTRON**  
record stream play

# OnTheAir CG Server

User Manual



Version 1.0.  
May 2024

Screenshots of OnTheAir CG Server



# OnTheAir CG Server User Manual

## Contents

About OnTheAir CG Server .....	3
Software Installation.....	4
First Start.....	4
1. Overview of OnTheAir CG Designer .....	5
2. The Playback Settings.....	6
2.1. The Outputs .....	6
2.2. Resume Playback .....	6
3. Live Sources.....	7
4. Control OnTheAir CG remotely .....	8
4.1. Installing the Sample Documents .....	8
4.2. Controlling OnTheAir CG with AppleScripts.....	9
4.3. Controlling OnTheAir CG from any Browser.....	10
5. When Something Goes Wrong... ..	12



# OnTheAir CG Server User Manual

## About OnTheAir CG Server

OnTheAir CG Server is a useful playout solution for your CG graphics project. It can work simultaneously with a number of different static (pictures and shapes) or animated graphics such as tickers, clocks and animated image sequences. Create and customise your graphics with OnTheAir CG Designer, and play these out at the same time or control them with external controls and integration.

### Simplicity

Very little setup is required, and usage is quick and easy. Just drag and drop the CG projects in the OnTheAir CG Server's Playout, choose which project to play, the layers and the timing. Thanks to these secondary events CG projects can be started or stopped in OnTheAir Video and OnTheAir Node. This means that you can start a ticker when you broadcast the news. You can also modify variables and thus modify the content of a text field (very useful for coming next for example).

### Flexibility

OnTheAir CG Server can be used with either PCI video I/O card or Thunderbolt devices that support keying. Control of the application can be interactive (for example clicking on a button to start an animation) or done using secondary events in OnTheAir Video, OnTheAir Live or OnTheAir Manager playlists or schedules's open architecture will allow any third party application to control the graphics. It can be controlled using either AppleScripts or a HTTP REST API meaning that the protocol is a proven and open standard that doesn't need any special requirements. You can change the text displayed on screen, but also change the video or still image. With advanced feature such as the support for subtitling (Closed Captioning CEA608 or CEA708 and OP47). You can embed the subtitling in a movie item file in your project, and we'll play it out. We will also pass through CC if received in a live item.

### Security

OnTheAir CG Server is based on a macOS architecture which is known for reliability and flexibility. All solutions developed by Softron Media Services are fully tested and approved before released. Prompt and personalized support is also what we do best.

---

**OnTheAir CG Server** is a very intuitive program. What follows is a brief explanation of how to use the application, beginning with installation instructions, followed by a description of the User Interface and then with instructions on how to get the most from the application.

In addition to this user manual, you can also find a lot of information:

- on our website: [www.softron.tv](http://www.softron.tv); at the bottom of [the OnTheAir CG page](#) you find:
  - <http://softron.tv/downloads>: to download the latest version of OnTheAir CG.
  - [Tech Specs](#): where you will find recommendations on what you need, what drivers to use, what video cards and codecs are compatible, etc.
  - [Sample projects](#) and [AppleScript examples](#) for OnTheAir CG Designer to get started.
- in our [Release notes](#).
- on our support desk, there a lot of information is available in the [help center](#).
- on our [YouTube channel](#), and don't forget to follow us on Twitter and Facebook.



# OnTheAir CG Server User Manual

## Software Installation

OnTheAir CG is composed of two different applications:

- **OnTheAir CG Designer** is used to create projects, and can only play one project at a time.
  - **OnTheAir CG Server** plays out projects, and can play out multiple projects at a time. This is the one that is controlled by OnTheAir Video or OnTheAir Node.
1. OnTheAir CG Server and OnTheAir CG Designer can be downloaded directly from our [Downloads page](#) on our Softron website.
  2. Drag and drop the OnTheAir CG Server (and OnTheAir CG Designer) application into your applications folder.

## First Start

1. Start the application: **Double click on the OnTheAir CG Server icon** in your Applications folder
2. When prompted with the message the “OnTheAirCGServer.app” is an application downloaded from the Internet. Are you sure you want to open it?”, Click on **Open**.
3. A license agreement window will open. Enter your First and last name and a valid email address. Tick the check-box and click on “**Accept**”
4. Enter an **admin password**, to install the required components
5. **If you have a dongle connected** to the computer with valid licenses for OnTheAir CG, the applications will start right away.
6. **If you do not have a dongle connected**, a license window will open to offer you 3 choices:
  - **Register:** if you own a serial number, click on this button and follow the procedure to activate it. You can read more about [the activation procedures on our support desk](#). While either OnTheAir CG Designer and OnTheAir CG Server can output to a video device, only the one with the license activated will output without a blue demo watermark. It is recommended that you activate your license on the OnTheAir CG Server application, and use the OnTheAir CG Designer in "DEMO" mode. OnTheAir CG Server will then be used to play out the projects.
  - **Buy:** if you don't have a serial number, but want to buy one, click on that button.
  - **Demo:** if you want to try the application in DEMO mode, click here. If you want to add a license, and upgrade or option later on, you can access the license window in the Menu “OnTheAir CG Server > Licenses...”.
7. That's it — you are ready to use OnTheAir CG Server!

More information to understand the difference between OnTheAir CG Designer and OnTheAir CG Server in our article “[The differences and how to use licenses](#)”.



# OnTheAir CG Server User Manual

## 1. Overview of OnTheAir CG Designer

The **User Interface** of OnTheAir CG Server is a single panel:

1 To add projects to OnTheAir CG Server, simply click the “+” icon in the bottom left and select the project you would like to add. To remove a project, highlight the item and click on the “-” icon. You may also add or close projects through the Playback submenu in the Top Bar.

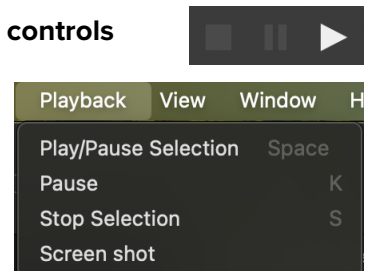
2 The projects displayed in the panel are shown in the **overlay hierarchy**; those at the top of the list will overlay those below it. You may move the projects up or down the list simply by dragging and dropping them where you would like them displayed.

3 A **thumbnail** of the project is displayed on the left side, and will show a **wifi icon** if the project has been published. If a **red circle** is shown on the thumbnail, the video source is not available for the project.

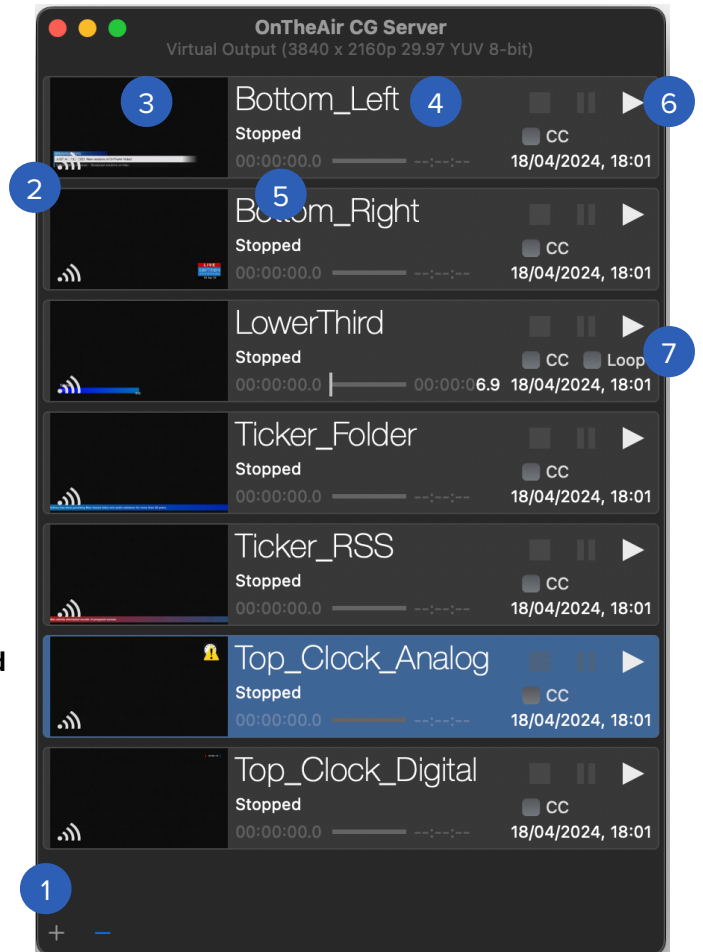
4 To the right of the thumbnail will be displayed **the project’s title**. Below that will be a status indicator (Playing, Stopped, or Paused), and below that is the timecode bar for the project.

5 To the left of the bar will be displayed **the length of time** that the project has played, and to the right is the duration of the project (if any; if the project is set to Stay Forever, the duration display will read —/—/—).

6 To the right of the project’s title will be the **project’s playback controls** (stop, pause, and play), below which are boxes to enable Closed Captioning (CC) and put the project in a Loop. Below those controls are the dates and times the project was published to OnTheAir CG Server. The Playback controls are also available in the Menu Bar “Playback” submenu, or the following hot keys may be used.



7 Click on “CC” to embed **Closed-Captioning** or “Loop” to play your **CG Project in loop**.





# OnTheAir CG Server User Manual

## 2. The Playback Settings

### 2.1. The Outputs

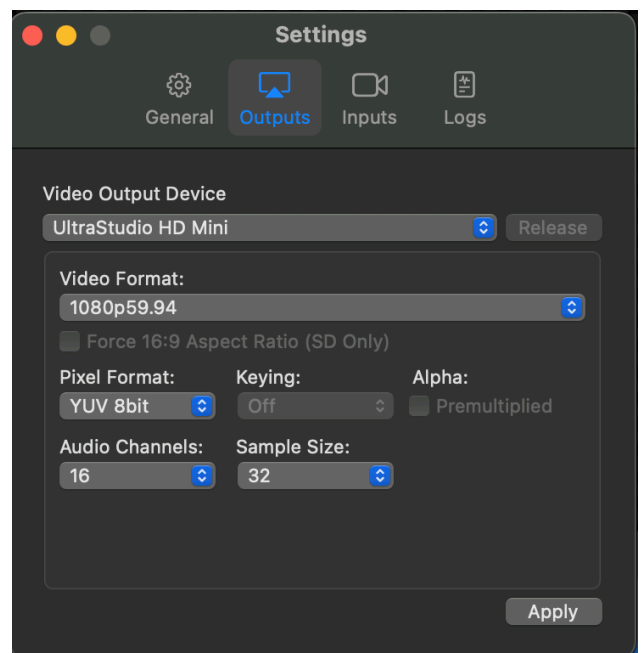
To play out your Projects with OnTheAirCG Server, you must set up your playback settings. To do so, select “OnTheAir CG Server > Settings > Outputs”.

Clicking this opens the Outputs panel, which allows you to set up your Player Settings. Any changes made to the Outputs settings must be saved by clicking the “Apply” button on the bottom right corner of the panel.

Select the device that will be used as the main video and audio output. A reminder that OnTheAir CG Designer supports AJA, Blackmagic-Design and Deltacast cards, Thunderbolt devices, as well as NDI.

Different options are included (available options depend on the video device used):

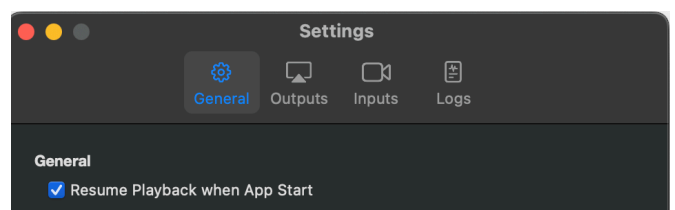
- **Video & Audio Output Device:** This allows you to select any available video outputs to play your graphic from OnTheAir CG Designer.
- **Video Format:** From here you may select the format you would like to play out your clips. The list is quite extensive (60 different formats), ranging from SD to 8k.
- **Pixel Format:** You may choose either YUV 8 bits, YUV 10 bits or ARGB as your Pixel Format.
- **Audio Channels:** You may select 1, 2, 8, 16, 32 or 64 audio channels.
- **Sample Size:** Your Sample Size may be either 16 or 32 bits per package.
- **Keying:** If you need to overlay dynamic graphics. [Important information about Internal, External Key vs Live Sources in our website article.](#)



### 2.2. Resume Playback

You have an option to resume playback when you open OnTheAir CG Server.

That means if you close the application with CG projects running, the projects will automatically restart when you reopen the application. To do it select “OnTheAir CG Server > Settings > General”, and enable “Resume Playback when App Start”.

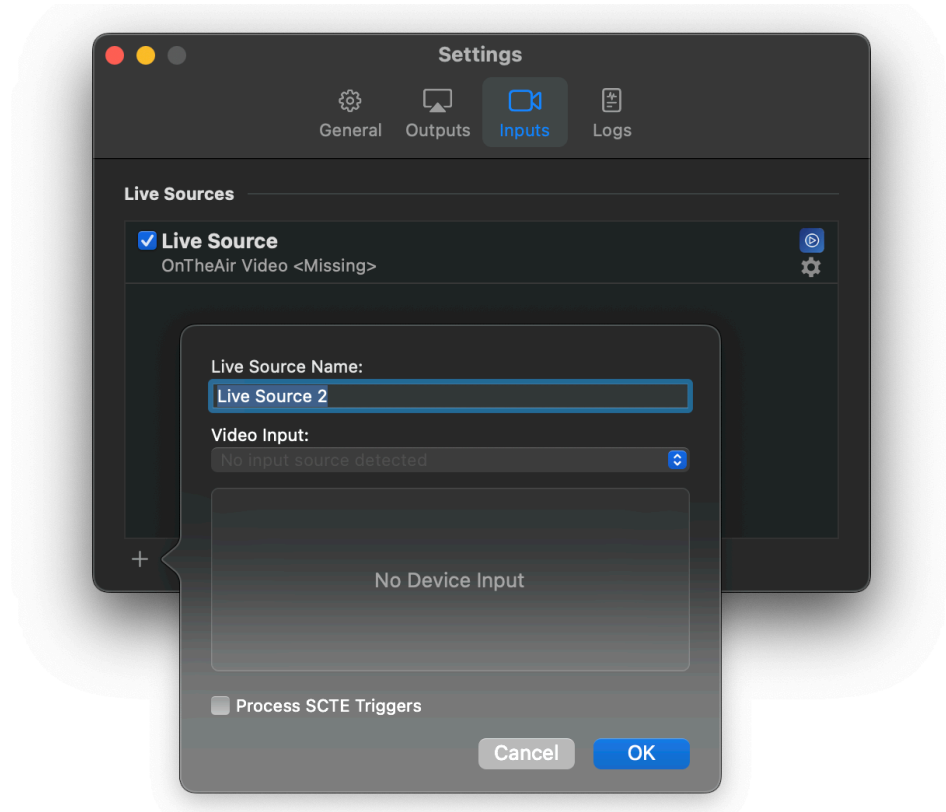




# OnTheAir CG Server User Manual

## 3. Live Sources

To playout a Live Video project, you must set up your Live Sources. To do so, go to the Menu Bar and select “OnTheAir CG Server > Settings > Inputs”.



There, you may add a Live Source by clicking on the “+” icon in the bottom left corner of the panel and then entering the Live Source Name; this name must be identical to that indicated in the Project, as set in OnTheAir CG Designer.

- You may then select the Video Device Input from which the Live Source will be fed (all compatible input devices will automatically be detected and displayed).
- You may change the settings of your Live Source by clicking on the gear icon, or you may remove the Live Source by highlighting it and clicking on the “-” icon.
- Click on “Process SCTE Triggers”, so that SCTE signals related to your Live Sources can be triggered.



# OnTheAir CG Server User Manual

## 4. Control OnTheAir CG remotely

In that chapter, we will explain 3 different ways to control OnTheAir CG Server remotely for third parties, or users who want to know what kind of integration can be done.

If you want to control OnTheAir CG from OnTheAir Video or OnTheAir Node, this won't really help, and you should rather read the following articles:

- [HOW TO: Control OnTheAir CG Server from OnTheAir Video](#)
- [HOW TO: Control OnTheAir CG Server from OnTheAir Node](#)

### 4.1. Installing the Sample Documents

In our [OnTheAir CG webpage](#), go to the “Downloads” section. you will be able to install some example documents:

#### Useful Resources

- [Pre-Release versions](#)
- [Release Notes](#)
- [User Manual](#)
- [Sample projects to get started.](#)
- [Sample projects with corresponding AppleScripts to show how to control with AppleScripts.](#)
- [Sample projects with HTML sample page to control OnTheAir CG from a web page.](#)
- [Help Center](#): Includes a lot of useful information, sometimes not available in the user manual.
- [YouTube Channel](#)

3 sections with these samples:

- **Simple Projects:** are as its name implies some simple project samples to show you what can be done.
- **AppleScripts:** Are sample documents (CG project and AppleScript itself) to show how to control OnTheAir CG Server with AppleScripts.
- **HTML Pages:** Are sample documents (CG projects and HTML pages) to show you how to control OnTheAir CG Server with the REST API.

Just download the files, these will be available to use in your OnTheAir CG Server and Designer.





# OnTheAir CG Server User Manual

## 4.2. Controlling OnTheAir CG with AppleScripts

We won't give an extensive course on AppleScripts here, as there is a lot that can be done. We will just give you the basics, so you can create your own.

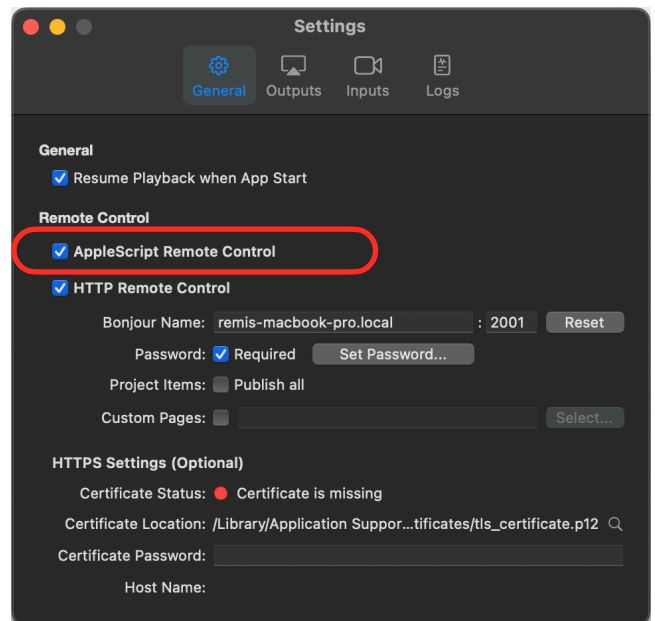
### 4.2.1. Install and configure OnTheAir CG Server

When you run the installer with the option to install the AppleScripts example, this will install 4 documents in the Applications folder:

- One CG project and one AppleScript for basic examples
- One CG project and one AppleScript for a "Score and Counter" example

Once installed:

- Start OnTheAir CG Server and configure the playback settings so you can see the output of OnTheAir CG Server. If you don't have a video device to test, you can use the same trick that is explained [with that article](#).
- Make sure that "AppleScript Remote Control" is enabled in the OnTheAir CG Server "Settings > General":



### 4.2.2. Use the examples provided

To test the examples provided:

- Open the sample projects in OnTheAir CG Server
- Start them
- Then start the AppleScript

#### AppleScript Examples Project

With that AppleScript you will then see the text on screen being modified, and then later on the shapes moving. If you look at the AppleScript itself, you will see some explanations of what is done, but it should be easy to "read".

This is quite a simple AppleScript, and there are many things that can be done. To have the complete dictionary, the easiest is to either drag and drop the OnTheAir CG Server application on the application "Script Editor", OR in the application "Script Editor" select the menu "File > Open Dictionary..."

#### ScoreAndCounter Project

This project show how to have a simple counter in OnTheAir CG. The time will count up, but you can modify it to do a count down if that is what you need.



# OnTheAir CG Server User Manual

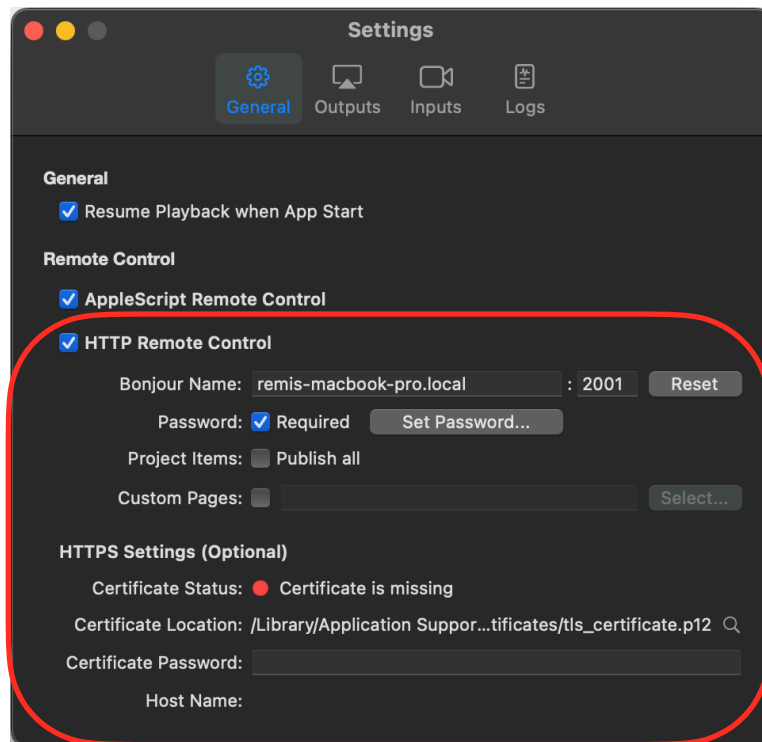
## 4.3. Controlling OnTheAir CG from any Browser

The sample HTML documents provided are a good base for you to know how this works. You can have a web developer start from there and adapt the page to fit your needs. Don't hesitate to ask us questions if you have.

### 4.3.1. Install and configure OnTheAir CG Server

For this example, you will need to enable the option "HTML Pages (REST API)" when running the OnTheAir CG Installer. This will install a few documents. Once installed:

- Start OnTheAir CG Server and configure the playback settings so you can see the output of OnTheAir CG Server. If you don't have a video device to test, you can use the same trick that is explained [with that article](#).
- Make sure that "HTTP Remote Control" is enabled in the OnTheAir CG Server "Settings > General":



- You may also want to check which port number should be used (we would recommend to keep 2001), and define a new password (the default password is 1234).
- If you enable the option to "Publish all items", all the items within the CG projects will be modifiable by the API and will be listed. So we do not recommend enabling this option.
- Then you should enable the option "Custom Pages" and select the folder in which the HTML examples are located.

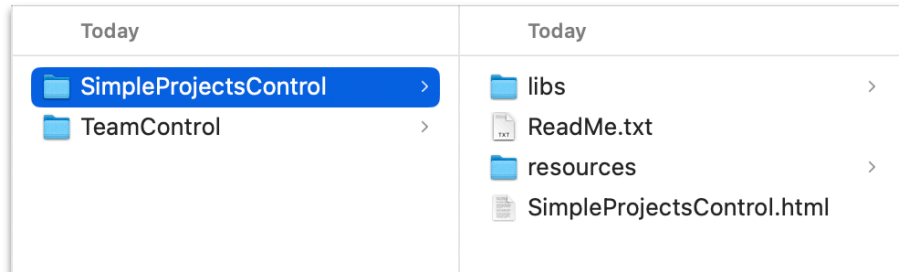
Note that you must quit and restart OnTheAir CG Server to apply those changes.



# OnTheAir CG Server User Manual

## 4.3.2. To Find more Information

You can then open the "Read Me" document that is located next to the HTML pages, to have further instructions on how the example projects work.



## 4.3.3. About the REST API

If you have a look at the code of the html sample page attached here, you will see that we use a REST API to communicate with OnTheAir CG Server. We use a few things here, but there are many other things that can be done. For the complete list of requests that can be done in REST, simply start a OnTheAir CG Server application, then on the same computer enter this url in Safari:

<http://127.0.0.1:2001/api.html>

The page that will open will show you all the instructions for the REST API protocol.



# OnTheAir CG Server User Manual

## 5. When Something Goes Wrong...

While we strive to ensure that OnTheAir CG Server be as stable a platform as is humanly possible, there is a lot of interaction between our software and other pieces of your workflow (your MacOS, video card drivers, switchers, etc.), and so we must constantly evolve our product to adapt to changes made in those applications. As such, bugs do sometimes sneak up on us. Should any issues arise while utilizing OnTheAir CG Server, the first place to look for answers to potential causes is our white pages on our Softron Support Desk website.

And also keep in mind that for the life of the product, your application includes free support. The best way to reach us is via “Help > Contact Softron Support” in the user interface of the application (see below for image). Through that button you can collect the technical logs from the application and open a support ticket on our Support Desk. It is important that when opening a ticket that you supply as much information as possible, including the date and time of the incident(s).

