



guardREC AS

GuardREC AS is a dynamic and innovative software company focusing on developing first class recorder solutions for the Air Traffic Control market, and has knowledge and experience from safety and operational critical applications aimed for Air Traffic Control since 1999.

GuardREC AS' vision is to make recording and replay of Air Traffic Control data easy and secure – "nothing is off the record!"

CONFIRMATION

The guardREC® ATC recording solution has proven to be a flexible and reliable solution, dedicatedly designed for the ATC market in order to support all relevant requirements and regulations.

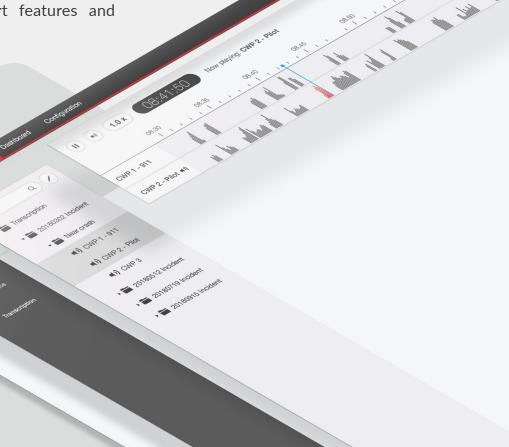
The guardREC® ATC recording solution sets a new standard in the ATC-market and confirms that the recorder platform is built for the future by introducing state-of-the-art features and functionalities.

EXCEEDING EXPECTATIONS

In addition to provide synchronous replay of all recorded sources, the WEB-based user interface enhances the experience by its efficient speed and intuitive features.

DESIGN

The guardREC® ATC recording solution is based on a modular design which gives many advantages in terms of flexibility, stability, expandability and protection of the customer's investment.





Recording

The main goal for guardREC AS is to provide the market with a recording solution which supports all required sources, and enable perfect synchronous replay of these. There is no limit of the number of sources recorded in the guardREC® ATC recording solution.

AUDIO

Recording and replay of audio is the basis of the majority of recording solutions delivered. The guardREC® ATC recording solution supports a variety of audio formats; analogue, digital and VoIP (ED-137b).

SCREEN

Recording of screens is a more and more common requirement in ATC specifications. The guardREC® ATC recording solution support recording of all screen resolutions and screen topologies.





RADAR

In order to enable a complete reconstruction of the operator's environment, recording of the radar feeds provided to the operator is often chosen. Recording and replay of the radar feeds, synchronized with all other recorded sources, are made possible by using the guardREC® ATC recording solution.

CCTV

Recording and replay of cameras gives a perfect reconstruction of the environment of the operator, and completes the replay scenario of the safety investigators.

KEYBOARD / MOUSE

Keyboard strokes and movements are recorded and visualized during replay.



Storage

Storage of data is an important element of the guardREC® ATC recording solution, and a high-quality and maximum stability RAID storage solution is therefore used in all recording solutions delivered by guardREC AS.

The guardREC® ATC recording solution offers a choice between on-premise or cloud storage solution.

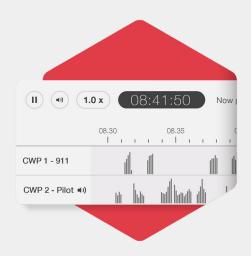


guardREC® Studio

GuardREC® Studio is a web-based tool which consist of features for replay, configuration and management. The guardREC® Studio includes features such as Userand Alarm management, Replay, Export, Impound, Quarantine, Bookmark and Configuration of the recording application.

The guardREC® Studio does not require any installation and utilizes the Chrome web-browser.

The guardREC® Studio is perfect as a centralized tool for a multi-site recording solution.





Features



EXTRACTION OF DATA

Extraction of data is required during investigation or when inputs from others are necessary.

The guardREC® ATC recording solution offers two methods of data extraction:

Impound is the method chosen if one shall secure that the data is not tampered with. The Impound tool enables the users to choose which sources to impound and integrates an Impound player to replay the data synchronously. The impounded data can be stored on a 3rd party storage media and ensures tamper-free dataset via encryption.

Export of data to .wav or .mp4 file is possible from the guardREC® Studio. The location of the exported data is chosen by the user and can easily be distributed by mail or other media.

Replay of exported data is done in a standard media player.



QUARANTINE / BOOKMARK

In order to avoid automatic deletion of data, the guardREC® Studio enables a feature to put selected datasets in Quarantine.

A bookmark is often created to easily replay a scenario including one or multiple sources.



MANAGEMENT

User management is easily maintained in the user management console. Each user is mapped to a dedicated user group with pre-defined user rights. Users may also be updated via an Active Directory integration.

All recorded sources are organized in a hierarchical structure according to group of source by default. Each user with necessary rights, have the possibility to rename sources and create their own, or shared, source groups.



AUDIT TRAIL

In order to prevent tampering and have control of changes to the system, all actions taken by any user is logged in an audit trail. The audit trail contains the time, type and initiator of the action.



ALARM

An integral part of any reliable real-time system is a functional alarm and monitoring system which can be used to determine the state of the system at a glance. The alarms can be distributed as SNMP traps to an external alarm monitoring system.



SYSTEM OVERVIEW

In the Information section of the guardREC® Studio, a system overview is visualized in the Dashboard. This view gives real-time information of various performance data such as alarm status, storage utilization, CPU load and memory usage.



guardREC® ATC recording solution overview

RECORDING

- Recording sources; telephone, radio, ambient microphone, screen, radar feed, CCTV, keyboard/mouse.
- Unlimited number of sources recordable.
- All data are stored in a RAID-configured storage solution for a predefined number of days.
- Automatic deletion of data older than preconfigured storage period.
- Sampling rate of audio up to 64 khz.

REPLAY

- WEB-based user-friendly guardREC® Studio. Desktop installation not necessary.
- Immediate visualization and perfect synchronization of all recorded sources.
- Unlimited number of sources replayable.
- Quarantine, Bookmark, Scheduled backup, Impound, Export.

