

Alarm & Alerting

Voice Recording System VC-MDx

Version V2107-2

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1 General

The VC-MDx application provides various Alarm & Alert procedures. If, despite all of the security measures, a fault should nevertheless occur, then this can be signalled in a variety of ways. Depending on the configuration of the system, the following options are available:

Alarming type

- Visual (in plain text) in the message window of the VC-MDx menu
- Audible signals (beep tone)
- Potential-free contacts
- E-Mail messages
- SNMP messages

These alarm messages currently cover all of the states which can be detected by our applications, e.g. input card faults, media faults, memory faults, etc. SNMP messages about internal (e.g. CPU) and external (NAS, UPS, etc.) hardware are also included, processed and forwarded

Alarm type	Alarm method	Recorder	Client
Visual	Alarm message (Screen)	available	available
Audible	Beep Tone	available	available
Potential-free contact *	Open/close contact	Optionally available	Not available
E-Mail	Sent to predefined E-Mail adress	available	Not available
SNMP	SNMP tool to external SNMP server /	Available (to SNMP server)	Available (to SNMP server)

The VC-MDx application differentiates between errors and warnings. An error message is displayed if a serious error has occurred, the recorder functionality is no longer available. A warning message is displayed if an uncritical error has occurred, the recorder functionality is restricted to use.

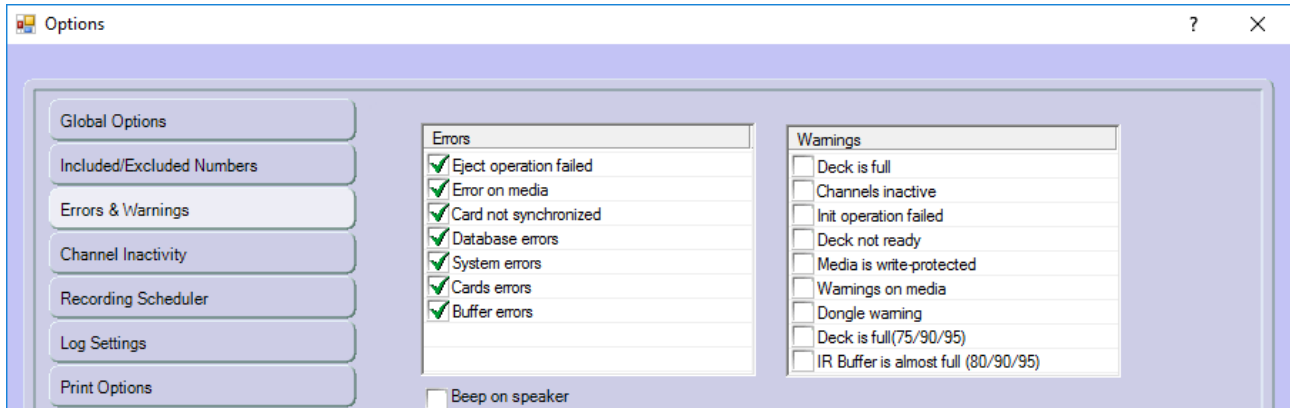
A list of **errors** which triggers an alarm to the **VC-MDx** recorder:

- Eject operation failed
- Error on media
- Database errors
- System errors (Critical Errors detected in the Operating System)
- Card errors (Critical Errors detected in the VoiceCollect Interface cards)
- Buffer errors
- Power failure

A list of **warnings** which triggers an alarm to the **VC-MDx** recorder:

- Deck is full
- Channels inactive
- Init operation failed
- Deck is not ready
- Media is write protected
- Dongle Warning
- Storage capacity is full (75 / 90 / 95 % capacity adjustable)

During configuration of the VC-MDx recorder the user can enable, which error and warnings should be indicated.



2 Visual alarms

Visual alarms are indicated in the message window. The message shows date and time of error / warning occurrence and if it is already acknowledged. Only with appropriate user right a message can be acknowledged and deleted

Visual alarms are available directly on the recorder and are also transmitted to the remote client (Administrator)

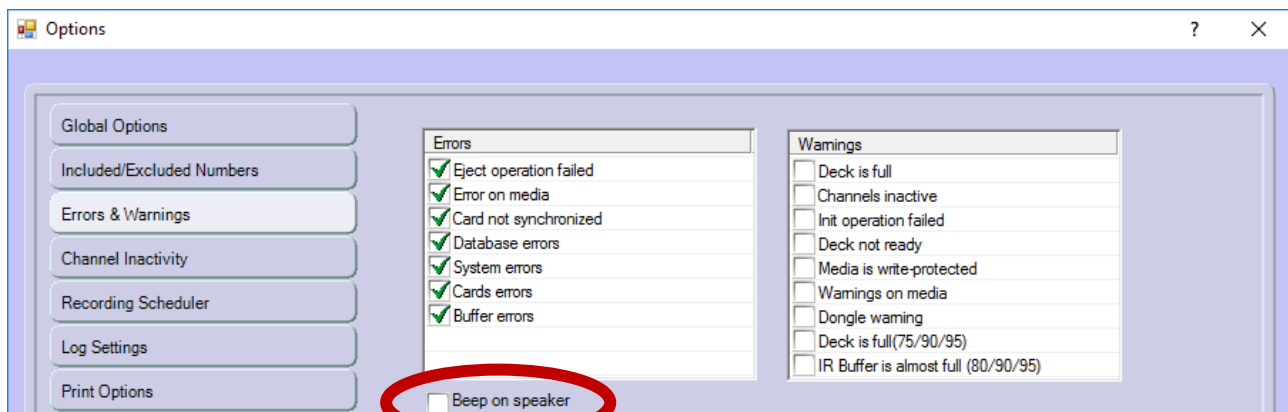
Example of alarm messages in the main User GUI



3 Audible alarm

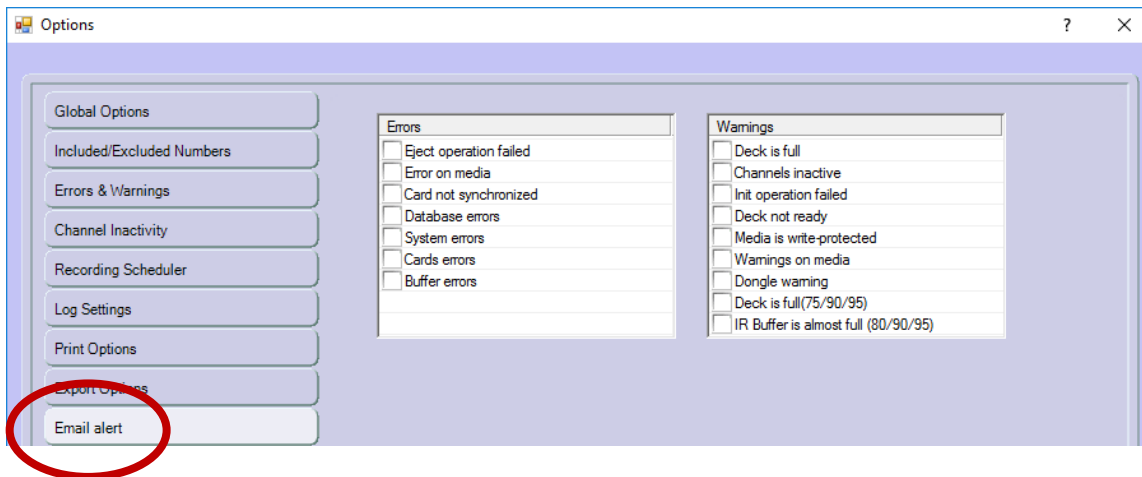
Audible alarms (Beep Tone) can be enabled or disabled in the menu „Options“. There are different acoustic signals for error messages and warnings. This enables the operator to distinguish acoustically between both types of messages.

Audible alarms are available directly on the recorder and are also transmitted to the remote clients (Administrator and Replay Workstation).



4 Alarm via E-Mail

E-Mail alerting can be enabled or disabled in the menu „Options“. The error and warning messages will be sent to the E-Mail address, which is defined in the e-mail settings



5 Potential-free contact

The Alarm Extension Board is part of the optional hardware. It provides error and warning messages and also the recorder application state by means of dry contacts independently of the system monitor. It will be mounted on the Analogue Interface Board of the VC-MDx System.

It provides 3 potentialfree contacts:

- Warning
- Errors
- Fatal Failure (including power down if configured as opening contact)

5.1 Warning

Warnings are signalled at relay K1. The first warning closes K1 (Alarm ON). It remains closed until all the warnings are confirmed. If no warning is displayed on the screen, K1 will be opened again (Alarm OFF).

5.2 Error

Errors are signalled at relay K2. The first error message closes K2 (Alarm ON). It remains closed until all the error messages are confirmed. If no error message is displayed on the screen, K2 is opened (Alarm OFF) closed again.

5.3 Fatal Failure

Fatal Failures are signalled at relay K3. This works according to the watchdog principle: in order to keep the relay opened (Alarm OFF), the application must exchange messages with the control board regularly. If there are no messages (for longer than 3 seconds), the card closes relay K3 (Alarm ON) and assumes that the malfunction is due to a severe hardware fault.

Severe system error or system blocking is transmitted to the VC-MDx application and is displayed on the screen as warning or error message.

6 SNMP

Simple Network Management Protocol functionality (SNMP) is enabled. The notification via SNMP is done from the VC-MDx, the VC-MDx recorder application sends SNMP traps for errors and warnings.

The VC-MDx supports SNMP V1, V2 and V3

VoiceCollect SNMP integration:

- VoiceCollect uses the standard SNMP UDP ports (161, 162)
- VoiceCollect uses the Microsoft® Windows® SNMP integration to secure and configure allowed SNMP management systems by their IP addresses.
- VoiceCollect SNMP integration is not interfering the core functions to ensure the priority of the recording under all circumstances
- traps are considered to be used only for urgent events and therefore sent with almost no delay at all.
- GET requests are generally answered within a second
- The MIB Table is available upon request

VoiceCollect SNMP modules

a) VC-MDx recorder application

- VC-MDx recorder uses an extension agent to integrate itself into Microsoft® Windows® SNMP stack.
- SMI V1 MIB file available
- SMI V2 MIB file available
- SMI V3 MIB file available
- Manages VoiceCollect application & integrated hardware information

b) VC-MDx recorder hardware

- VoiceCollect utilizes the SNMP stack being integrated in Microsoft® Windows® to provide additional informations which could be network interface status
- RAID system status (depends on RAID controller)
- VoiceCollect has several proprietary hardware solutions which have a dedicated MIB files under the assigned PEN.

c) 3rd party hardware

- VoiceCollect provided MIB files (if available) from hardware suppliers for
 - servers
 - storage systems
 - networking components

*** End of Document ***