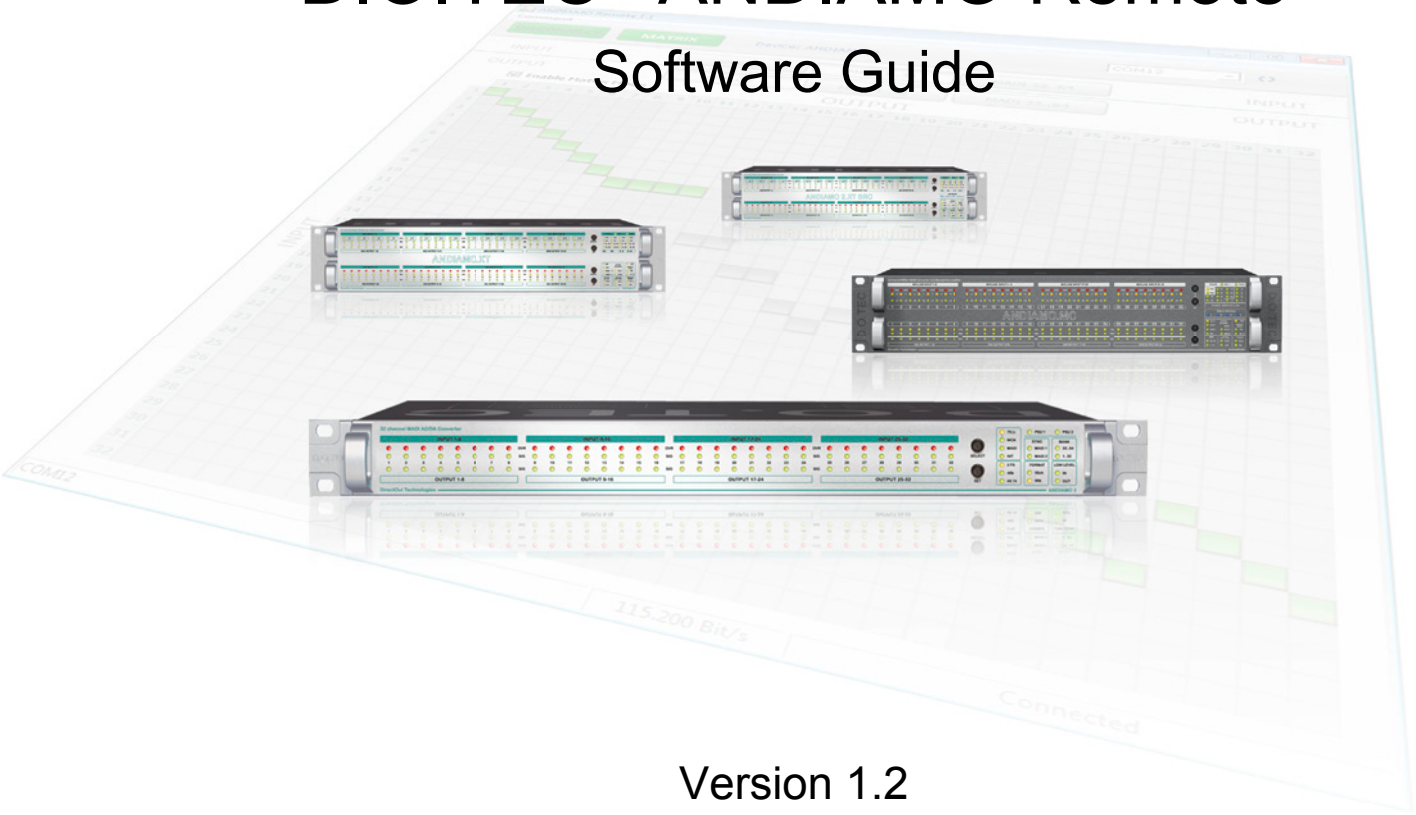
DirectOut Technologies®

D.O.TEC® ANDIAMO Remote

Software Guide



Version 1.2

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Chapter 1 - Introduction

About this document

Each device of the D.O.TEC® ANDIAMO Series can be remote controlled by a remote software application - ANDIAMO Remote - running on a Windows® PC.

This document describes the installation and operation of the software. Information about the hardware and general operating instructions are covered by the particular 'Hardware Guide'.

As the feature set and application differs between the particular devices Chapter 4 is split into different parts to meet the concerns of the particular devices.

Conventions

The following symbols are used to draw your attention to:

Tips – indicate useful tips and short cuts.

Notes – are used for important points of clarification or cross references.

Warning

Warnings – alert you when an action should always be observed.

Chapters that are split are marked with individual side bars:

ANDIAMO Version

ANDIAMO and ANDIAMO 2

XT / XT SRC Version

ANDIAMO.XT and ANDIAMO.XT SRC
ANDIAMO 2.XT and ANDIAMO 2.XT SRC

MC Version

ANDIAMO.MC

AES Version

ANDIAMO.AES

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Chapter 2 - Installation

Requirements

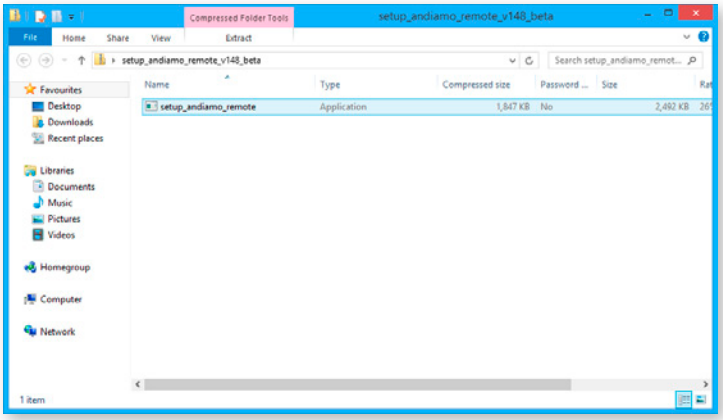
Supported OS versions are Windows® XP, Vista, 7 and 8.

Installation procedure

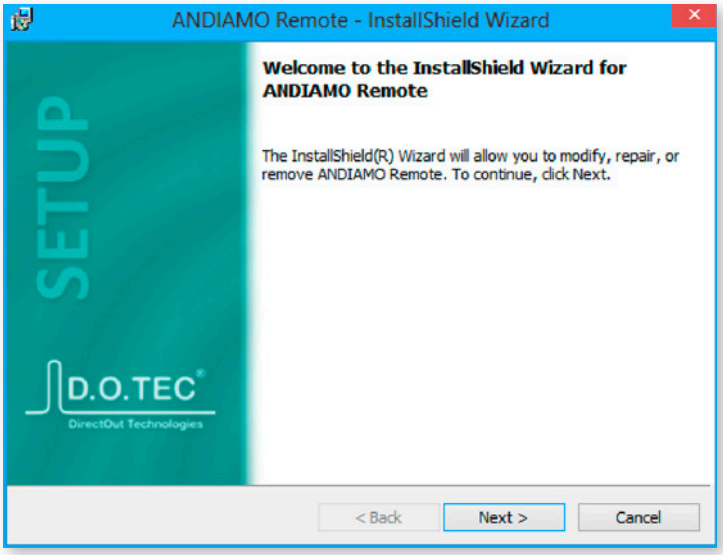
1. Download the application

   Link: http://www.directout.eu/de/support/downloads/index.html

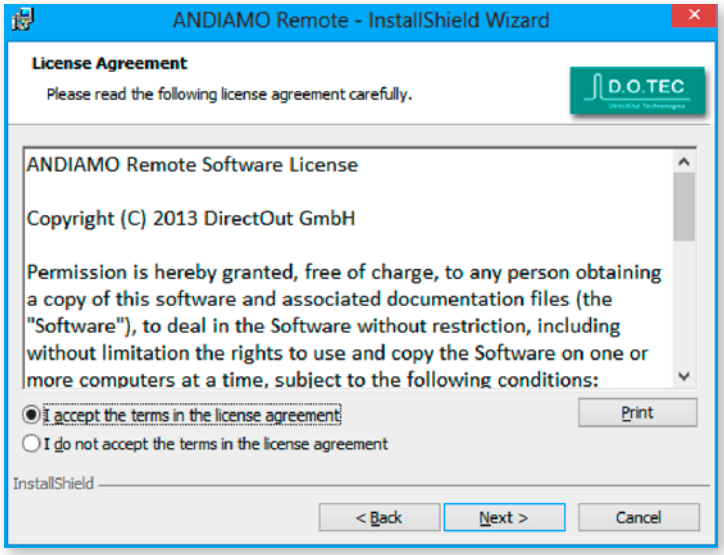
2. Unpack the zip archive into a temp directory.



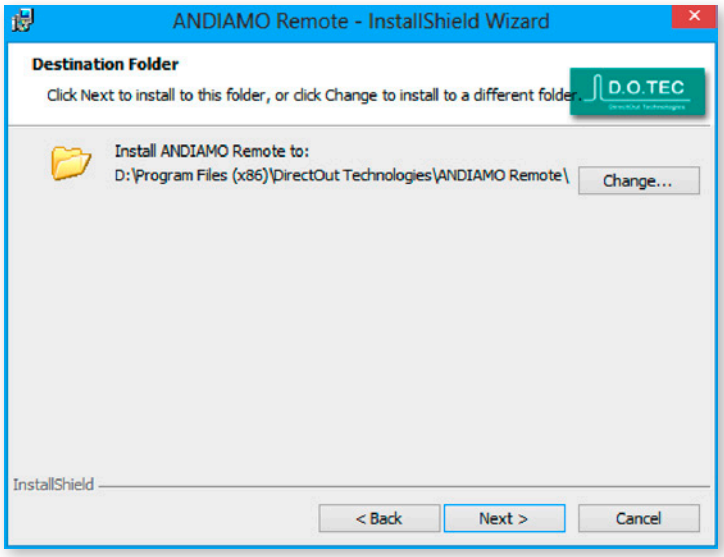
3. Launch the installer: setup_andiamo_remote.exe



4. A wizard will guide you through all necessary steps.



5. Accept the license agreement to proceed.



6. Specify the destination for the installation.

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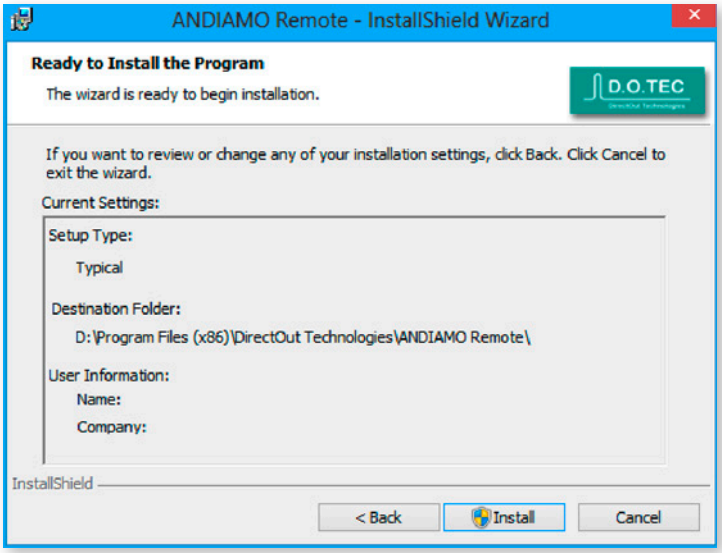
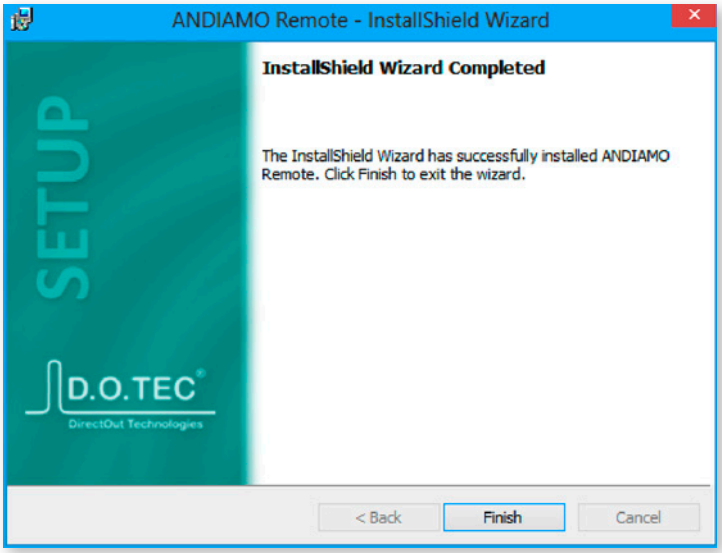
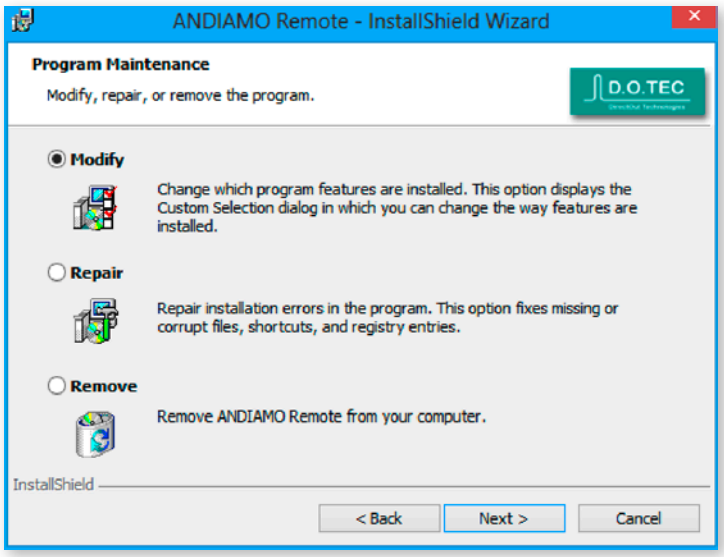


7. Check your settings and click <Install> to proceed. The installation process will take a moment.

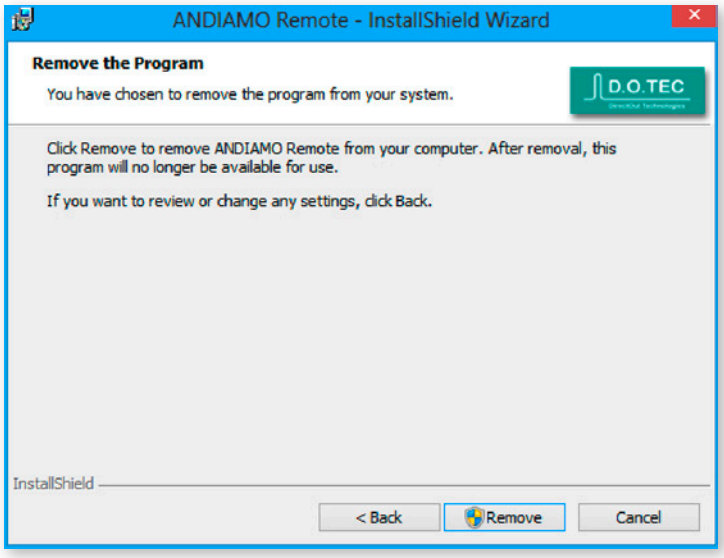


8. After successful intallation you will be prompted to finnish the wizard.

Repair / Remove Installation



1. Once the application is already installed on the system and the installer is launched again it will offer a repair, modifiy or removal of the installation. Select and click <Next> to proceed.



2. Confirm your selection (e.g. Remove).

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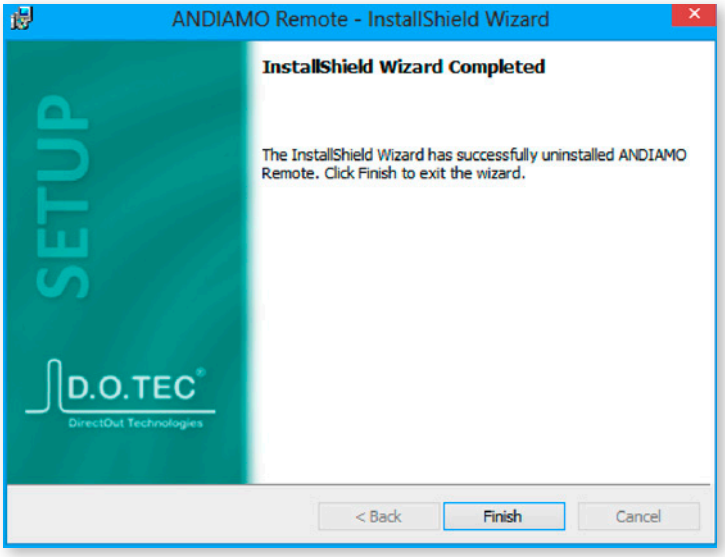

3. After successful operation you will be prompted to finnish the wizard.

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Chapter 3 - Connection Setup

Remote Control

The software may control the device using four different methods:

a) Serial control via USB

b) Serial over MADI (embedded RS-232 data)

c) MIDI over MADI (embedded MIDI data)

d) USB over Ethernet - DO.Net

All settings are stored inside the device. An offline mode allows to prepare settings and to store them to file for later use.

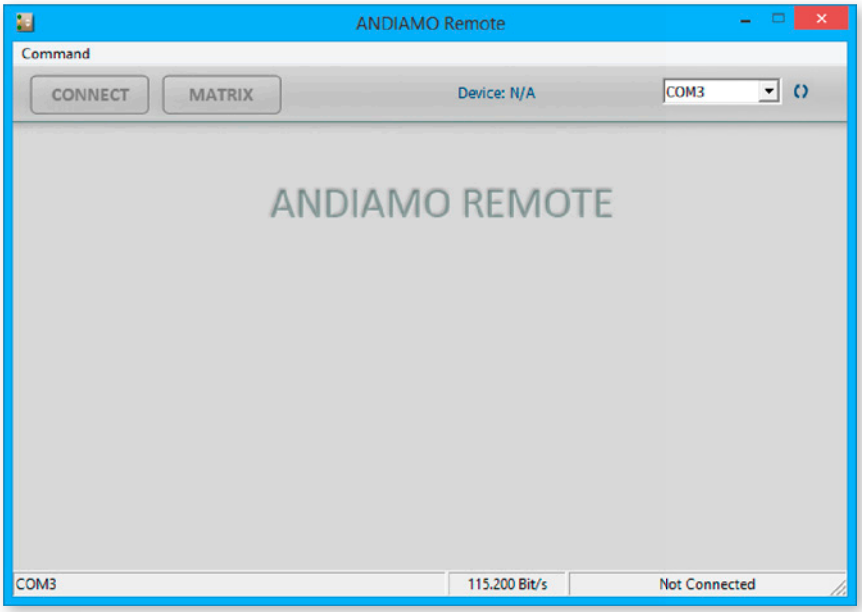
Remote control requires :

- *firmware version 1.5 or higher for ANDIAMO.MC*
- *firmware version 2.5 or higher for all other ANDIAMO devices*

Note

Connecting the device

To connect with the device the method and the port must be selected.



Method a) and b) both use a COM port of the operating system.
Method a) requires:

- USB connection to the device
- installed D.O.TEC® USB Serial driver

To connect:

- Select the COM port
- Click ‘CONNECT’

Note

The driver and the installation instructions are available at www.directout.eu.

Method b) requires:

- installed COM port on the computer
- an embedder / de-embedder

Suitable embedder devices:

- D.O.TEC® PRODUCER.COM
- D.O.TEC® EXBOX.MIDICOM
- D.O.TEC® EXBOX.AES
- D.O.TEC® M1.k2
- D.O.TEC® MA2CHBOX
- D.O.TEC® MA2CHBOX.XT

To connect:

- Select the COM port
- Click ‘CONNECT’

Note

When using method b) make sure that the baud rate of the used embedder is set to 115.200 baud.

Note

To ensure proper operation using embedded serial data a bit transparent bidirectional link of the MADI signal is required.

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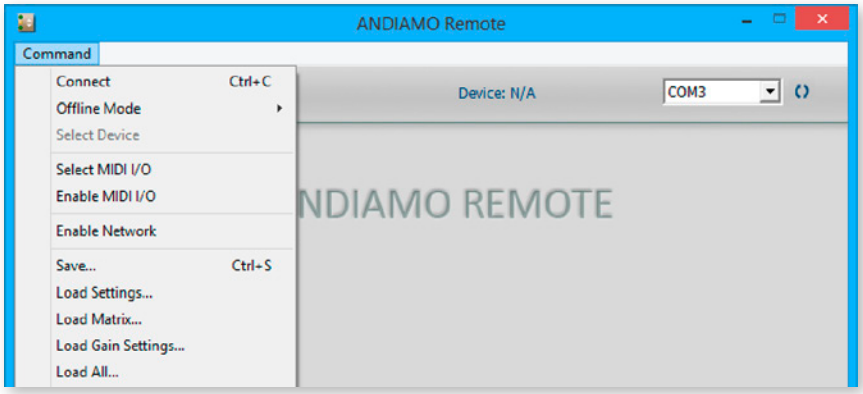
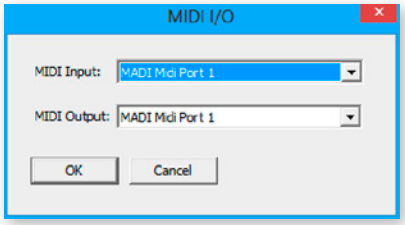


Method c) requires:

- a MIDI device to be installed on the computer
- an embedder / de-embedder

Suitable embedder devices:

- D.O.TEC® PRODUCER.COM
- D.O.TEC® EXBOX.MIDICOM
- D.O.TEC® M1.k2
- MADI card with built in embedder / de-embedder

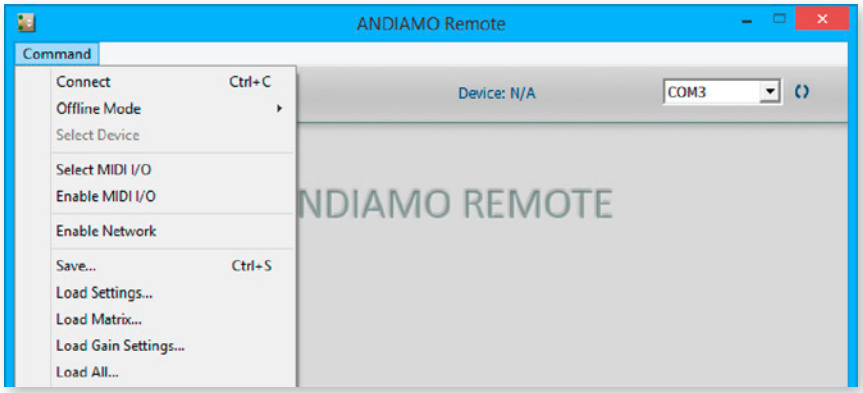


To connect:

- Select MIDI I/O
- Enable MIDI I/O
- Click Connect

To ensure proper operation using embedded MIDI data a bit transparent bidirectional link of the MADI signal is required.

Note



Method d) requires:

- Raspberry Pi with ethernet port
- SD Card with at least 2 GB capacity
- Network

The Raspberry Pi is connected with the ANDIAMO device via USB. The ethernet connection with the network allows to remote control the ANDIAMO from anywhere within the network.

The DO.Net daemon translates serial data between the network and the local USB port of an ANDIAMO device.

To connect:

- Enable Network
- Click Connect

Note

*This connection method requires additional hardware that is **not** provided by DirectOut. See document 'Info - DO.Net" for further information:*

http://www.directout.eu/de/support/downloads/index.html

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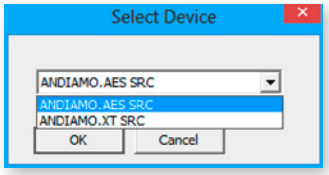
Connecting multiple devices

It is possible to remote control multiple devices by the remote application.

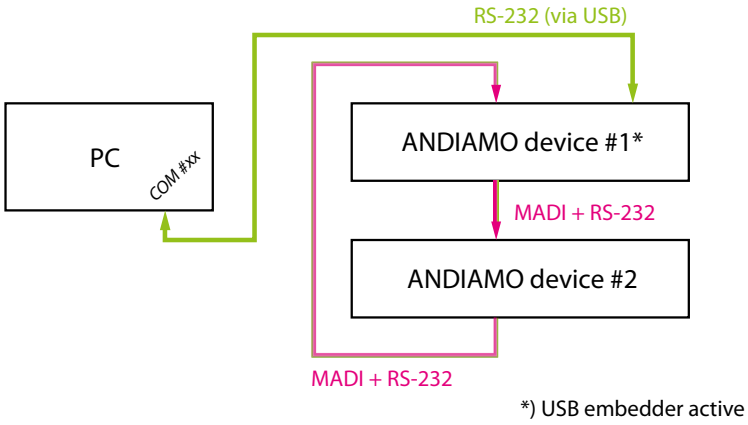


Go to ‘Command - Select Device’. All detected devices are listed by a pulldown menu.

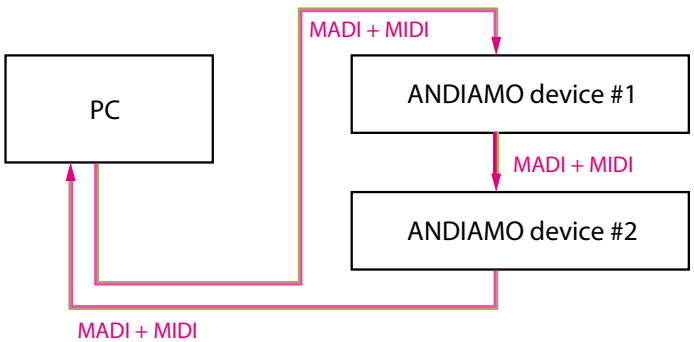
The menu becomes active once a connection is established. The adjusted COM port or MIDI port is used for detection. All further devices are detected by embedded control data in the MADI signal.

Note

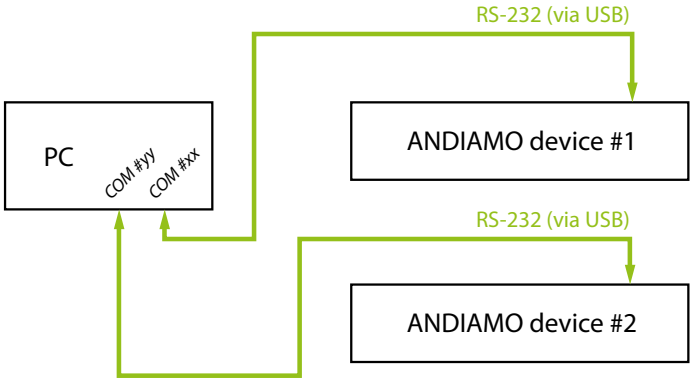
Examples:



RS-232 data is (de-)embedded by the first ANDIAMO into the MADI signal. The MADI ring between the two devices ensures the bidirectional communication. See „Embedding serial data“ on page 18.



Embedded MIDI data controls both ANDIAMOs. The MADI ring between the three devices ensures the bidirectional communication.



It is also possible to connect more than one device via USB locally and to open several instances of ANDIAMO Remote.

Embedding serial data

A built in USB Embedder can be used to process remote control data from the local USB port through the MADI line.

The remote control data (RS-232) is embedded into the MADI output signal of the device and deembedded from the MADI input signal of the device.

The USB Embedder can be activated in the particular settings page of the ANDIAMO Remote.

It is deactivated by default after switch on of the device.

The built in USB Embedder allows for remote control of further devices over large distances without the need of additional hardware.

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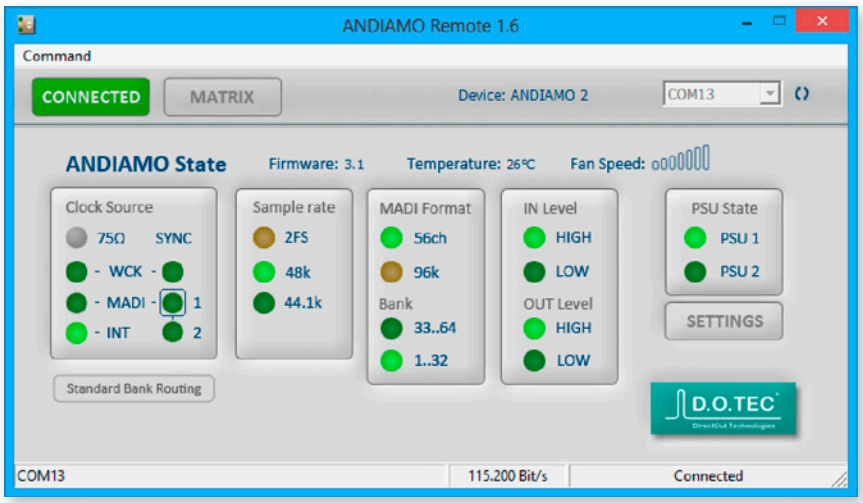
Chapter 4a - ANDIAMO / ANDIAMO 2

STATE view

The state view monitors the system state and informs about the system settings. The bottom bar monitors the connection state with the device.



Click ‘Settings’ to open the system setup dialog.

Click ‘MATRIX’ to toggle the MATRIX view.

Point to ‘CONNECTED’ and click ‘DISCONNECT’ to close the connection.

Depending on the connected device the view may differ.

Note

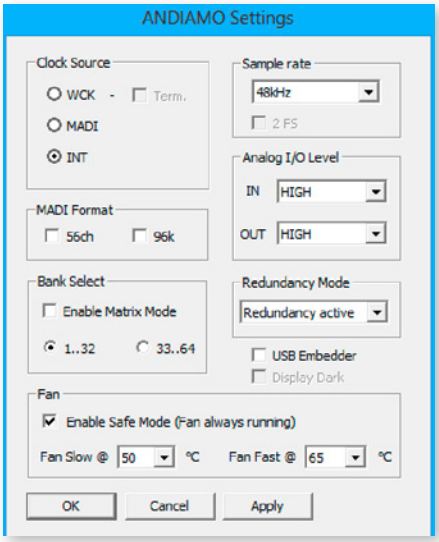
ANDIAMO Version

System Setup

Most system settings can be adjusted either locally or via the remote application. The settings are stored inside the device. Additionally presets can be stored to a file for later use.

A few settings can be accessed via the remote application only:

- configuration of the system fan control
- redundancy mode (only devices with two MADI I/Os)
- routing matrix
- (de-)activation of built-in USB Embedder

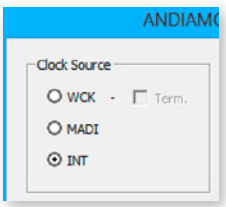


To adust the settings either click the radial buttons, checkboxes or use the pull down menus.

Click ‘OK’ to close the dialog applying all changes.

Click ‘Cancel’ to close the dialog discarding all changes.

Click ‘Apply’ to transmit all changes without closing the dialog.



Clock Source

The system clock can be set to one of three possible clock sources. The termination of the word clock input is switchable.

WCK	clock source set to word clock input
MADI	clock source set to (selected) MADI input
INT	clock source set to internal clock generator

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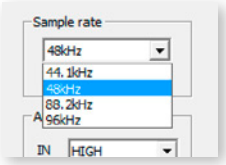
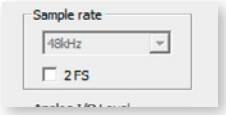


Sample Rate

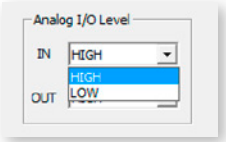
With the clock set to internal (INT) the sample rate can be adjusted in the menu. If the clock source is set to word clock or MADI input no adjustment of the base rate is possible - the measured frequency of the clock source is indicated then.



Use the check box <2 FS> to adapt the scaling factor at external clocking.

A 96k Frame signal while clocking to MADI input will force the scaling factor to 2 FS temporarily.

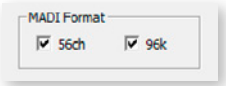
Note



Analog I/O level

The sensitivity of the AD and DA converters can be switched between two settings (high and low) where the analog level corresponds to 0 dB_{FS}.

With the level setting to “low” a digital gain (input) or a digital reduction (output) is applied to adapt the lower analog level (-9 dB).

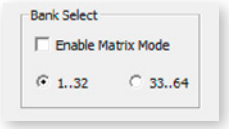


MADI Format

The format of the MADI output signal can be defined - allowing for format conversion of the MADI signal.

56 ch	MADI output is set to 56 (28@2 FS) channel mode.
96k	MADI output is set to 96k Frame *96k Frame is available with 2 FS only.*

The output channel format does not affect the number of used input channels.



Bank Select

The block of channels (ch 01-32 or ch 33-64) of the MADI stream that is processed can be selected.

This setting is used with ‘Standard Bank Routing’ (i.e. ‘Matrix Mode OFF’).

Matrix Mode

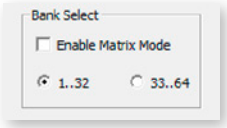
There are two methods of signal routing:

a) ‘Standard Bank Routing’ - signal routing of analog and digital I/Os in blocks of 32 channels.

b) ‘Matrix Mode’ - individual signal routing of all analog and digital I/Os on a per channel basis.

There are three ways to toggle between both methods:

1. System Setup



use checkbox

2. Matrix view

use checkbox

3. Front panel

ANDIAMO (2)

- Activate the Menu Mode (press > 2 sec ‘SELECT’)
- Step through to parameter ‘Bank’
- Press > 2 sec ‘SET’ to toggle between both methods

Note

See „Routing Matrix“ on page 26

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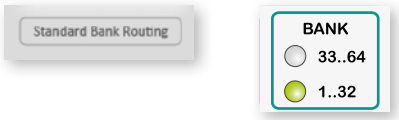
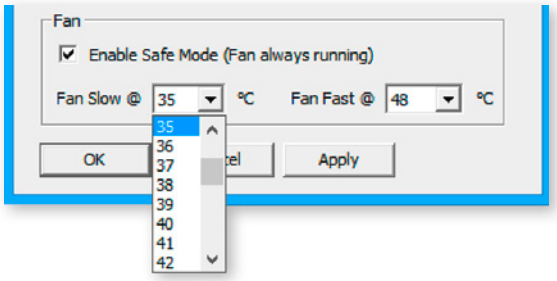
Matrix Mode ON

Matrix Mode OFF



The activation state of the ‘Matrix Mode’ is monitored in the GUI and at the front panel.



Configuration System Fan

The characteristics of the system fan inside the device may be configured individually.

Fan Slow	threshold temperature - fan starts at lowest speed
Fan Fast	threshold temperature - fan runs at highest speed
Enable Safe Mode	fan is always running - below threshold ‘slow’ the fan runs at lowest speed

The interval between ‘slow’ and ‘fast’ must amount at least to ten degrees.

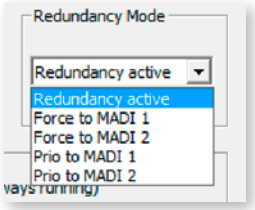
Redundancy Mode

Devices with two MADI I/Os provide input redundancy.

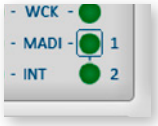
Redundancy modes:

1. Standard - automatic port selection
2. Priority - priority input port selected
3. Off - forced input port selection

Mode	description	switch over	revert
Standard	The first MADI input that detects a valid signal will be used. If this input fails, the device will switch to the other input (if it is locked).	yes	no
Priority	The defined *priority port* is always selected automatically if a valid signal is detected. Selection will revert to the priority port, after switch over (due to signal loss).	yes	yes
Off	Automatic selection is overriden by forcing the input selection to a specific MADI input port.	no	no



Pulldown menu with five options. ‘Redundancy active’ is the default setting (‘Standard’).



The LED of the forced input port is framed by a blue rectangle.

Note

The MADI output ports work in parallel.

Note

The redundancy setting is always set to ‘Standard’ at switch on of the device.

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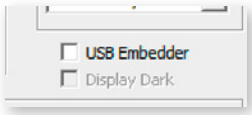


USB Embedder

The USB Embedder processes remote control data between the local USB port and the MADI I/O. It can be used to control multiple devices.

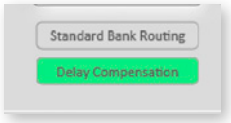
The USB embedder is deactivated by default after switch on of the device. See „Embedding serial data“ on page 18.

Note

Delay Compensation

Delay compensation becomes active, if a device of the ANDIAMO series ‘sees’ another ANDIAMO device at its input. The ‘second’ device will switch to ID 02 automatically.

1. STATE view:



A green label indicates activated delay compensation.

2. Front panel:

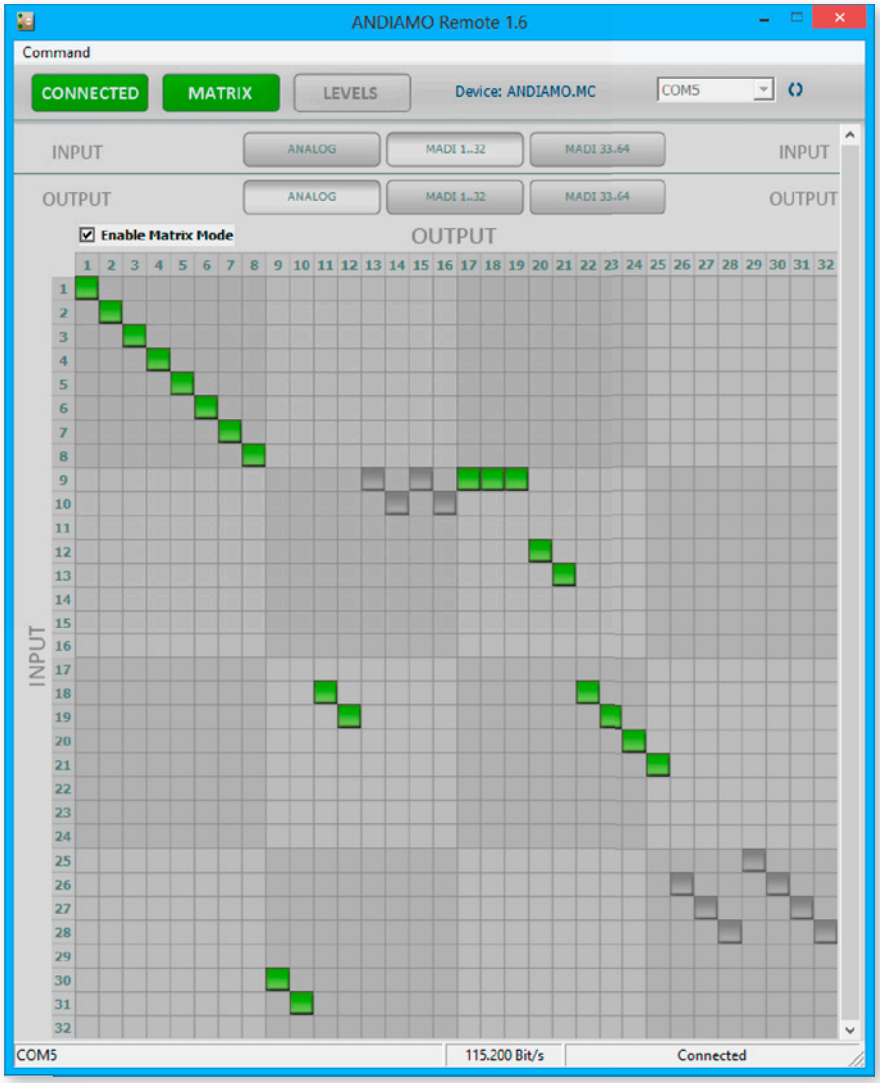
Indication of ID 2: LED <bank selection> heartbeat.

Consult the ‘Hardware Guide’ for more information about delay compensation.

Note

ANDIAMO Version

Routing Matrix



With ‘Matrix Mode’ enabled the settings of the matrix will effect the routing of the audio signals.

The matrix shows 32 inputs (horizontal) by 32 outputs (vertical).

There are three input pages (sources) and three output pages (destinations):

ANALOG	A/D input - D/A output
MADI 1..32	MADI channel 01-32 (input / output)
MADI 33..64	MADI channel 33-64 (input / output)

Click the buttons to change the view of sources / destinations.

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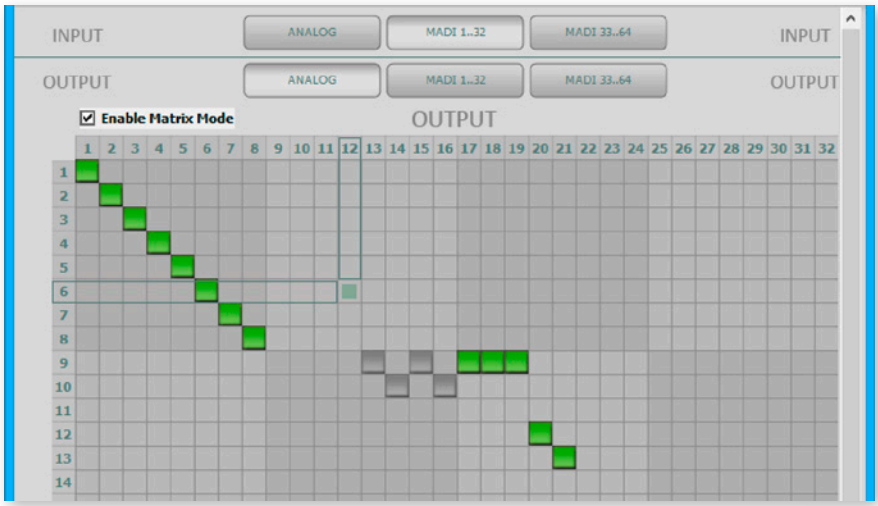
Setting / deleting crosspoints

- move the cursor to the desired position - a small green square and transparent bars point the active position
- click into the square to set / delete the crosspoint



To set more than one crosspoint you may click and hold the left mouse button and move the cursor. The pointed crosspoints will be set upon release of the mouse button.

	crosspoint - output is set on the selected input page.
	crosspoint - output is set on a non-selected input page.

ANDIAMO Version

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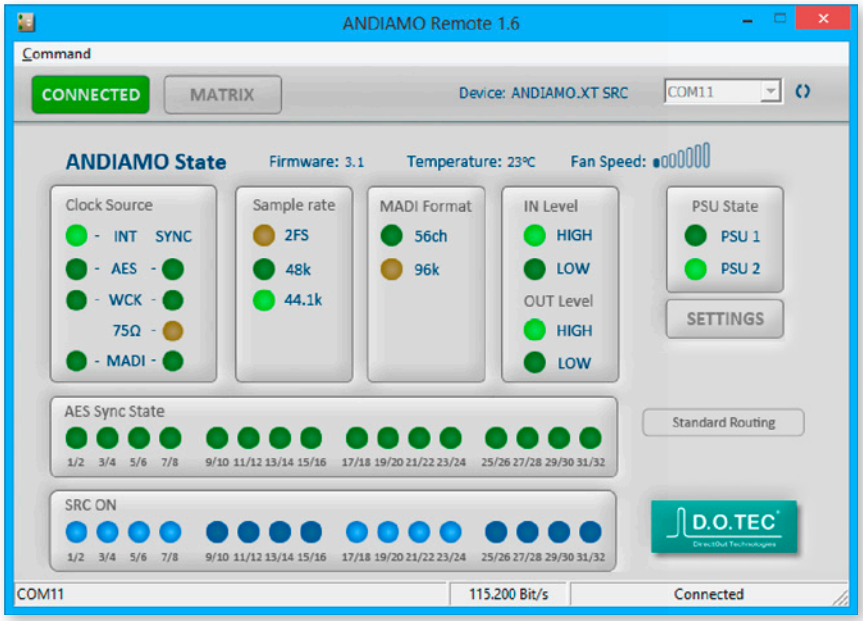
Chapter 4b - ANDIAMO.XT (2) / ANDIAMO.XT SRC (2)

STATE view

The state view monitors the system state and informs about the system settings. The bottom bar monitors the connection state with the device.



Click ‘Settings’ to open the system setup dialog.

Click ‘MATRIX’ to toggle the MATRIX view.

Point to ‘CONNECTED’ and click ‘DISCONNECT’ to close the connection.

Depending on the connected device the view may differ.

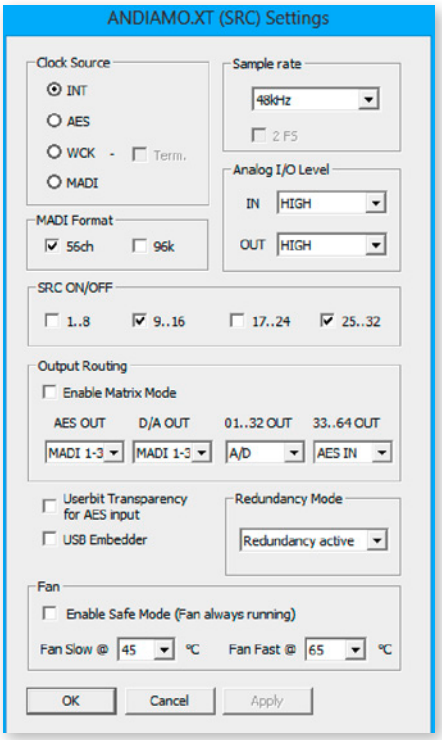
Note

System Setup

Most system settings can be adjusted either locally or via the remote application. The settings are stored inside the device. Additionally presets can be stored to a file for later use.

A few settings can be accessed via the remote application only:

- configuration of the system fan control
- redundancy mode (only devices with two MADI I/Os)
- signal routing (‘Matrix Mode’)
- user bit transparency for AES inputs
- (de-)activation of built-in USB Embedder



To adust the settings either click the radial buttons, checkboxes or use the pull down menus.

Click ‘OK’ to close the dialog applying all changes.

Click ‘Cancel’ to close the dialog discarding all changes.

Click ‘Apply’ to transmit all changes without closing the dialog.

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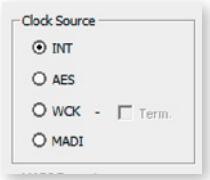


Clock Source

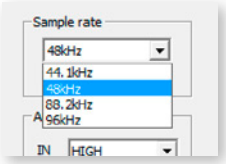
The system clock can be set to one of four possible clock sources. The termination of the word clock input is switchable.

INT	clock source set to internal clock generator
AES	clock source set to AES input
WCK	clock source set to word clock input
MADI	clock source set to (selected) MADI input

If the clock source is set to AES the selection of the AES port as clock source uses the following pattern in ascending order:

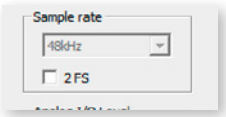
***lowest** input port receiving a valid AES signal*

Note



Sample Rate

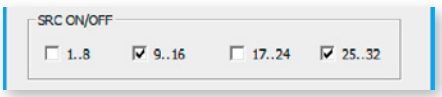
With the clock set to internal (INT) the sample rate can be adjusted in the menu. If the clock source is set to word clock or AES or MADI input no adjustment of the base rate is possible - the measured frequency of the clock source is indicated then.



Use the check box <2 FS> to adapt the scaling factor at external clocking.

A 96k Frame signal while clocking to MADI input will force the scaling factor to 2 FS temporarily.

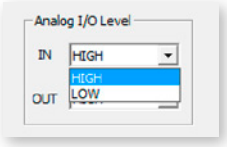
Note



Sample Rate Conversion

The sample rate converters for the AES inputs are switchable in groups of eight channels (SRC Version).

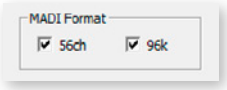
The activation state is indicated in the STATE view.



Analog I/O level

The sensitivity of the AD and DA converters can be switched between two settings (high and low) where the analog level corresponds to 0 dB_{FS}.

With the level setting to “low” a digital gain (input) or a digital reduction (output) is applied to adapt the lower analog level (-9 dB).

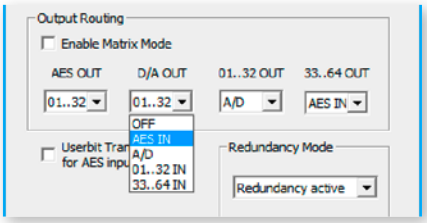


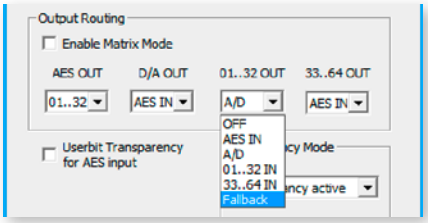
MADI Format

The format of the MADI output signal can be defined - allowing for format conversion of the MADI signal.

56 ch	MADI output is set to 56 (28@2 FS) channel mode.
96k	MADI output is set to 96k Frame *96k Frame is available with 2 FS only.*

The output channel format does not affect the number of used input channels.





Standard Bank Routing

The input signals can be routed in blocks (e.g. A/D to MADI 01..32) or on a per channel basis - *see „Matrix Mode“ on page 33*.

Use the pull-down menus to define the input source for the particular output.

<Fallback>

AES input is used at first. In case the AES input fails (no lock) the device switches to analog input for the respective channel pair only.

Only available for MADI output (<01..32 OUT> or <33..64 OUT>).

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Matrix Mode

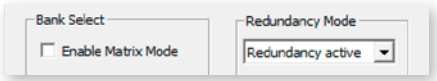
There are two methods of signal routing:

a) ‘Standard Bank Routing’ - signal routing of analog and digital I/Os in blocks of 32 channels.

b) ‘Matrix Mode’ - individual signal routing of all analog and digital I/Os on a per channel basis.

There are three ways to toggle between both methods:

1. System Setup



use checkbox

2. Matrix view

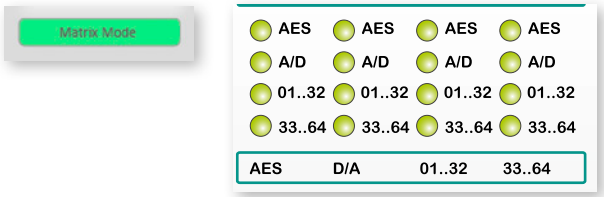
use checkbox

3. Front panel

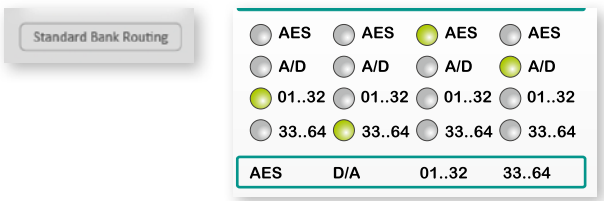
XT & XT SRC

- activate the Menu Mode for Signal Routing (press > 2 sec ‘SELECT’)
- Press > 2 sec ‘SET’ to toggle between both methods

Matrix Mode ON



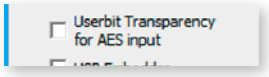
Matrix Mode OFF



The activation state of the ‘Matrix Mode’ is monitored in the GUI and at the front panel.

See „Routing Matrix“ on page 37

Note

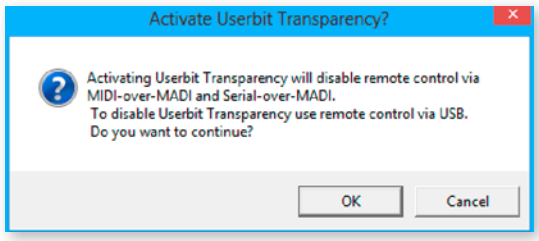


User Bit Transparency

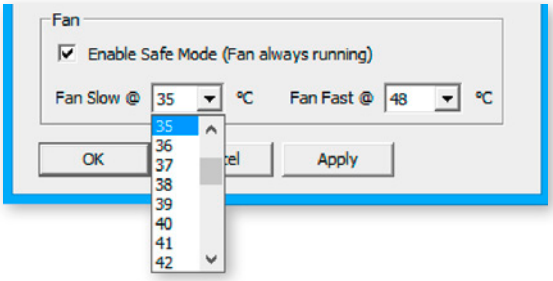
To preserve the user bits of the AES input signals bit transparent processing to the MADI and AES outputs can be enabled.

With transparency enabled the user bit of all audio channels (MADI and AES outputs) will be replaced by the user bit of the AES input channels.

As the ANDIAMO Remote employs user bits to control the device via ‘MIDI over MADI’ or ‘Serial over MADI’, remote control is limited to USB (method a) with transparency enabled.



A warning appears to prevent unwanted lock out.



Configuration System Fan

The characteristics of the system fan inside the device may be configured individually.

Fan Slow	threshold temperature - fan starts at lowest speed
Fan Fast	threshold temperature - fan runs at highest speed
Enable Safe Mode	fan is always running - below threshold ‘slow’ the fan runs at lowest speed

The interval between ‘slow’ and ‘fast’ must amount at least to ten degrees.

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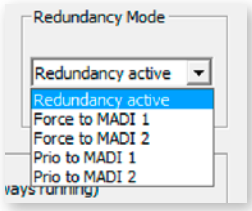
Redundancy Mode

Devices with two MADI I/Os provide input redundancy.

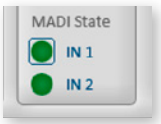
Redundancy modes:

1. Standard - automatic port selection
2. Priority - priority input port selected
3. Off - forced input port selection

Mode	description	switch over	revert
Standard	The first MADI input that detects a valid signal will be used. If this input fails, the device will switch to the other input (if it is locked).	yes	no
Priority	The defined *priority port* is always selected automatically if a valid signal is detected. Selection will revert to the priority port, after switch over (due to signal loss).	yes	yes
Off	Automatic selection is overriden by forcing the input selection to a specific MADI input port.	no	no



Pulldown menu with five options. ‘Redundancy active’ is the default setting (‘Standard’).



The LED of the forced input port is framed by a blue rectangle.

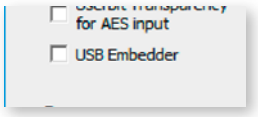
The MADI output ports work in parallel.

Note

The redundancy setting is always set to ‘Standard’ at switch on of the device.

Note

XT / XT SRC Version



USB Embedder

The USB Embedder processes remote control data between the local USB port and the MADI I/O. It can be used to control multiple devices.

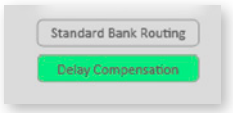
Note

The USB embedder is deactivated by default after switch on of the device. See „Embedding serial data“ on page 18.

Delay Compensation

Delay compensation becomes active, if a device of the ANDIAMO series ‘sees’ another ANDIAMO device at its input. The ‘second’ device will switch to ID 02 automatically.

STATE view:



A green label indicates activated delay compensation.

Note

Consult the ‘Hardware Guide’ for more information about delay compensation.

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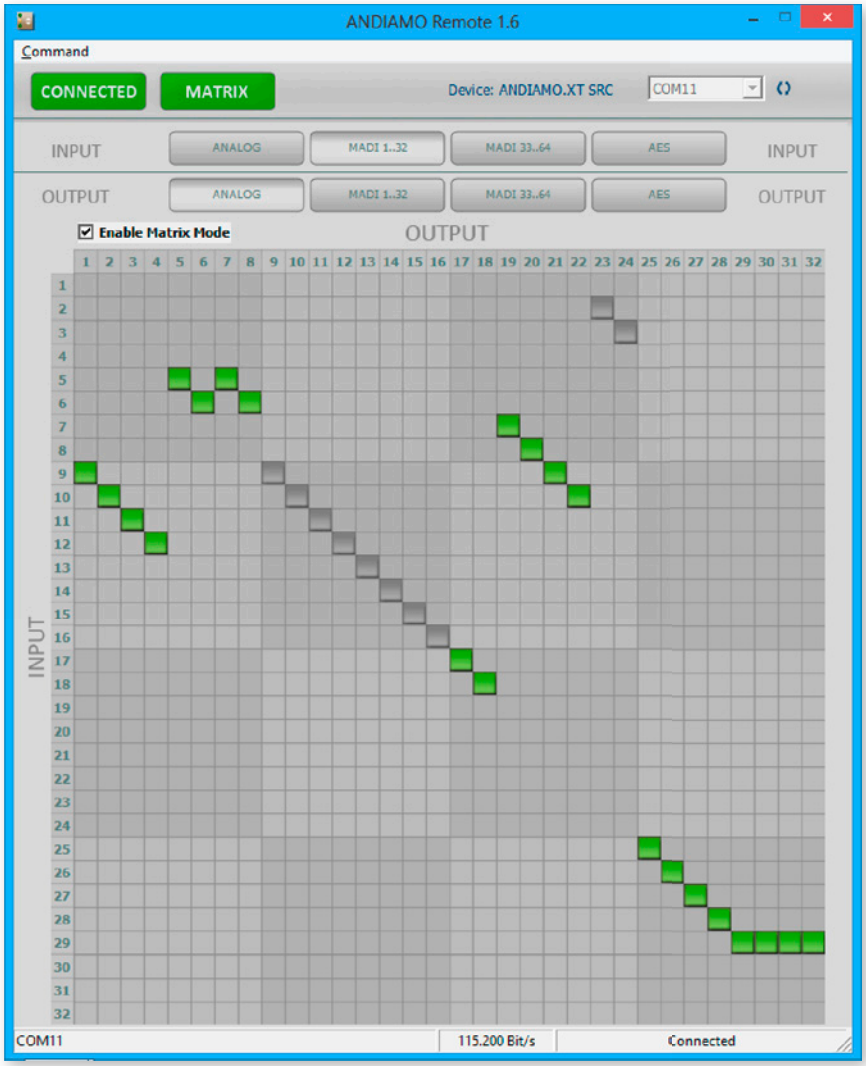
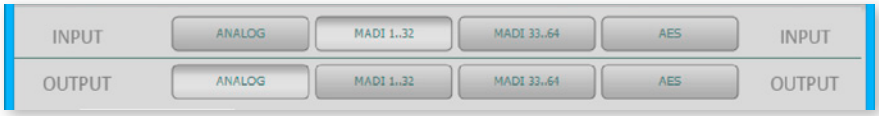
Routing Matrix



With ‘Matrix Mode’ enabled the settings of the matrix will effect the routing of the audio signals.

The matrix shows 32 inputs (horizontal) by 32 outputs (vertical).



There are four input pages (sources) and four output pages (destinations):

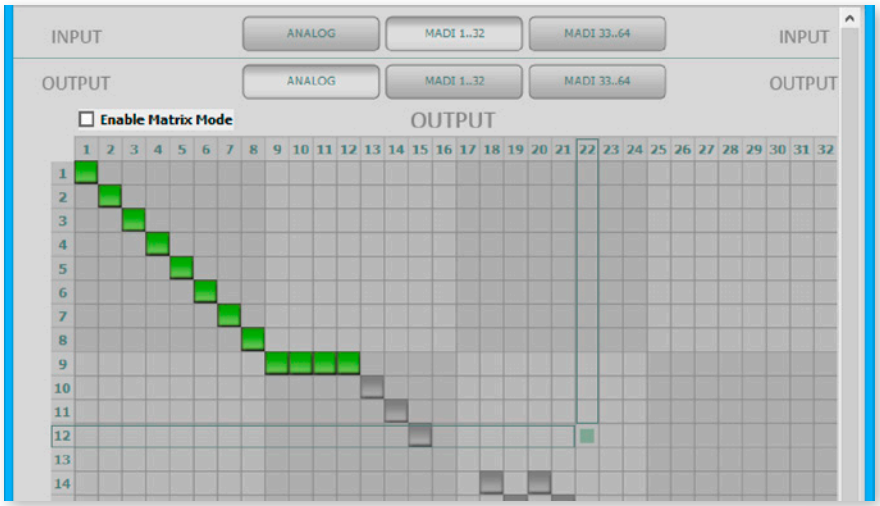
ANALOG	A/D input - D/A output
MADI 1..32	MADI channel 01-32 (input / output)
MADI 33..64	MADI channel 33-64 (input / output)
AES	AES (input / output)

Click the buttons to change the view of sources / destinations.

XT / XT SRC Version

Setting / deleting crosspoints

- move the cursor to the desired position - a small green square and transparent bars point the active position
- click into the square to set / delete the crosspoint



To set more than one crosspoint you may click and hold the left mouse button and move the cursor. The pointed crosspoints will be set upon release of the mouse button.

	crosspoint - output is set on the selected input page.
	crosspoint - output is set on a non-selected input page.

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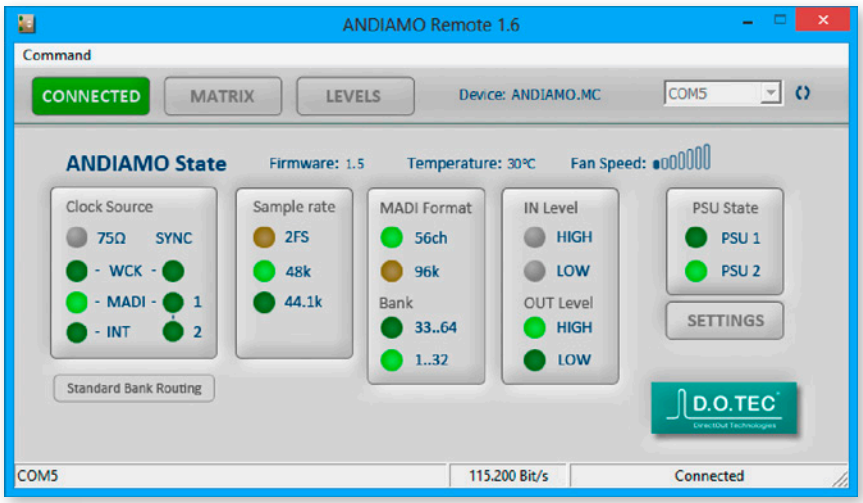
Chapter 4c - ANDIAMO.MC

STATE view

The STATE view monitors the system state and informs about the system settings. The bottom bar monitors the connection state with the device.



Click ‘Settings’ to open the system setup dialog.

Click ‘MATRIX’ to toggle the MATRIX view.

Click ‘LEVELS’ to toggle the LEVELS view

Point to ‘CONNECTED’ and click ‘DISCONNECT’ to close the connection.

Depending on the connected device the view may differ.

Note

MC Version

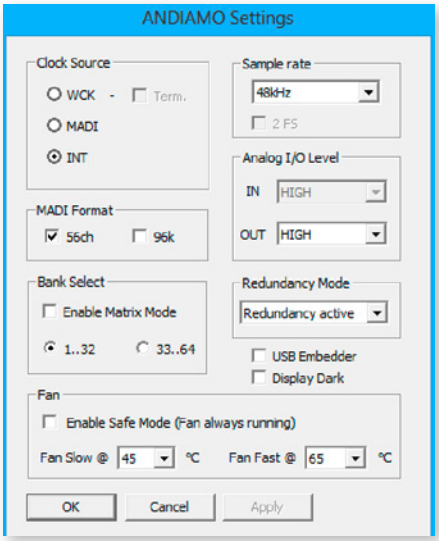
MC Version

System Setup

Most system settings can be adjusted either locally or via the remote application. The settings are stored inside the device. Additionally presets can be stored to a file for later use.

A few settings can be accessed via the remote application only:

- configuration of the system fan control
- redundancy mode
- routing matrix
- GPO trigger
- (de-)activation of built-in USB Embedder
- display dark function

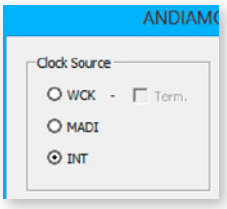


To adust the settings either click the radial buttons, checkboxes or use the pull down menus.

Click ‘OK’ to close the dialog applying all changes.

Click ‘Cancel’ to close the dialog discarding all changes.

Click ‘Apply’ to transmit all changes without closing the dialog.



Clock Source

The system clock can be set to one of three possible clock sources. The termination of the word clock input is switchable.

WCK	clock source set to word clock input
MADI	clock source set to (selected) MADI input
INT	clock source set to internal clock generator

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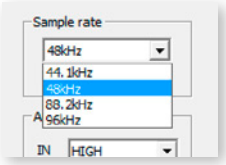
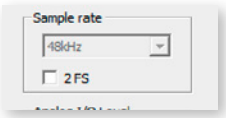


Sample Rate

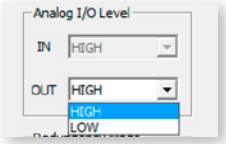
With the clock set to internal (INT) the sample rate can be adjusted in the menu. If the clock source is set to word clock or MADI input no adjustment of the base rate is possible - the measured frequency of the clock source is indicated then.



Use the check box <2 FS> to adapt the scaling factor at external clocking.

A 96k Frame signal while clocking to MADI input will force the scaling factor to 2 FS temporarily.

Note

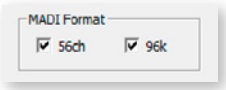


Analog Output level

The sensitivity of the DA converters can be switched between two settings (high and low) where the analog level corresponds to 0 dB_{FS}.

With the level setting to “low” a digital reduction (output) is applied to adapt the lower analog level (-9 dB).

The input sensitivity (AD) is adjusted on a per channel basis in the LEVELS section - *see „Levels - Gain control“ on page 48*.

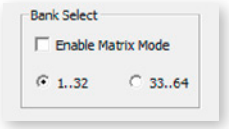


MADI Format

The format of the MADI output signal can be defined - allowing for format conversion of the MADI signal.

56 ch	MADI output is set to 56 (28@2 FS) channel mode.
96k	MADI output is set to 96k Frame *96k Frame is available with 2 FS only.*

The output channel format does not affect the number of used input channels.



Bank Select

The block of channels (ch 01-32 or ch 33-64) of the MADI stream that is processed can be selected.

This setting is used with ‘Standard Bank Routing’ (i.e. ‘Matrix Mode OFF’).

Matrix Mode

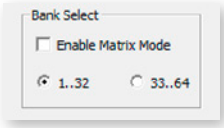
There are two methods of signal routing:

a) ‘Standard Bank Routing’ - signal routing of analog and digital I/Os as a whole.

b) ‘Matrix Mode’ - individual signal routing of all analog and digital I/Os on a per channel basis.

There are three ways to toggle between both methods:

1. System Setup



use checkbox

2. Matrix view

use checkbox

3. Front panel

ANDIAMO.MC

- Activate the Menu Mode (press > 2 sec ‘SELECT’)
- Step through to parameter ‘Bank’
- Press > 2 sec ‘SET’ to toggle between both methods

Note

See „Routing Matrix“ on page 46.

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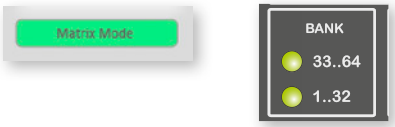
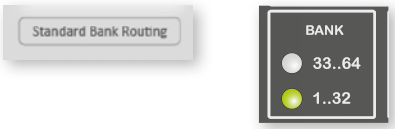
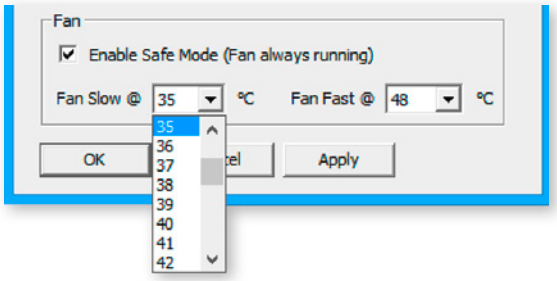
Matrix Mode ON



Matrix Mode OFF



The activation state of the ‘Matrix Mode’ is monitored in the GUI and at the front panel.



Configuration System Fan

The characteristics of the system fan inside the device may be configured individually.

Fan Slow	threshold temperature - fan starts at lowest speed
Fan Fast	threshold temperature - fan runs at highest speed
Enable Safe Mode	fan is always running - below threshold ‘slow’ the fan runs at lowest speed

The interval between ‘slow’ and ‘fast’ must amount at least to ten degrees.

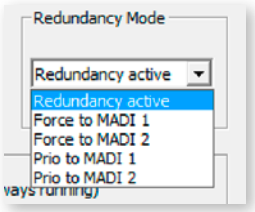
Redundancy Mode

Devices with two MADI I/Os provide input redundancy.

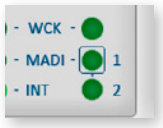
Redundancy modes:

1. Standard - automatic port selection
2. Priority - priority input port selected
3. Off - forced input port selection

Mode	description	switch over	revert
Standard	The first MADI input that detects a valid signal will be used. If this input fails, the device will switch to the other input (if it is locked).	yes	no
Priority	The defined *priority port* is always selected automatically if a valid signal is detected. Selection will revert to the priority port, after switch over (due to signal loss).	yes	yes
Off	Automatic selection is overriden by forcing the input selection to a specific MADI input port.	no	no



Pulldown menu with five options. ‘Redundancy active’ is the default setting (‘Standard’).



The LED of the forced input port is framed by a blue rectangle.

Note

The MADI output ports work in parallel.

Note

The redundancy setting is always set to ‘Standard’ at switch on of the device.

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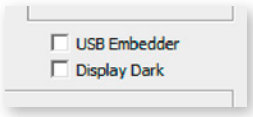
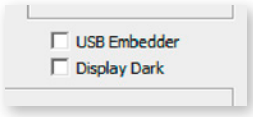


USB Embedder

The USB Embedder processes remote control data between the local USB port and the MADI I/O. It can be used to control multiple devices.

The USB embedder is deactivated by default after switch on of the device. See „Embedding serial data“ on page 18.

Note



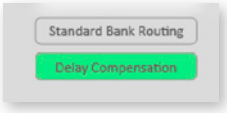
Display Dark

The monitoring of the LEDs (except the PSU LED) at the front panel of the device can be switched off after a timeout of a few seconds. If activated the device can be operated at sensitive environments without attracting unwanted attention.

Delay Compensation

Delay compensation becomes active, if a device of the ANDIAMO series ‘sees’ another ANDIAMO device at its input. The ‘second’ device will switch to ID 02 automatically.

STATE view:



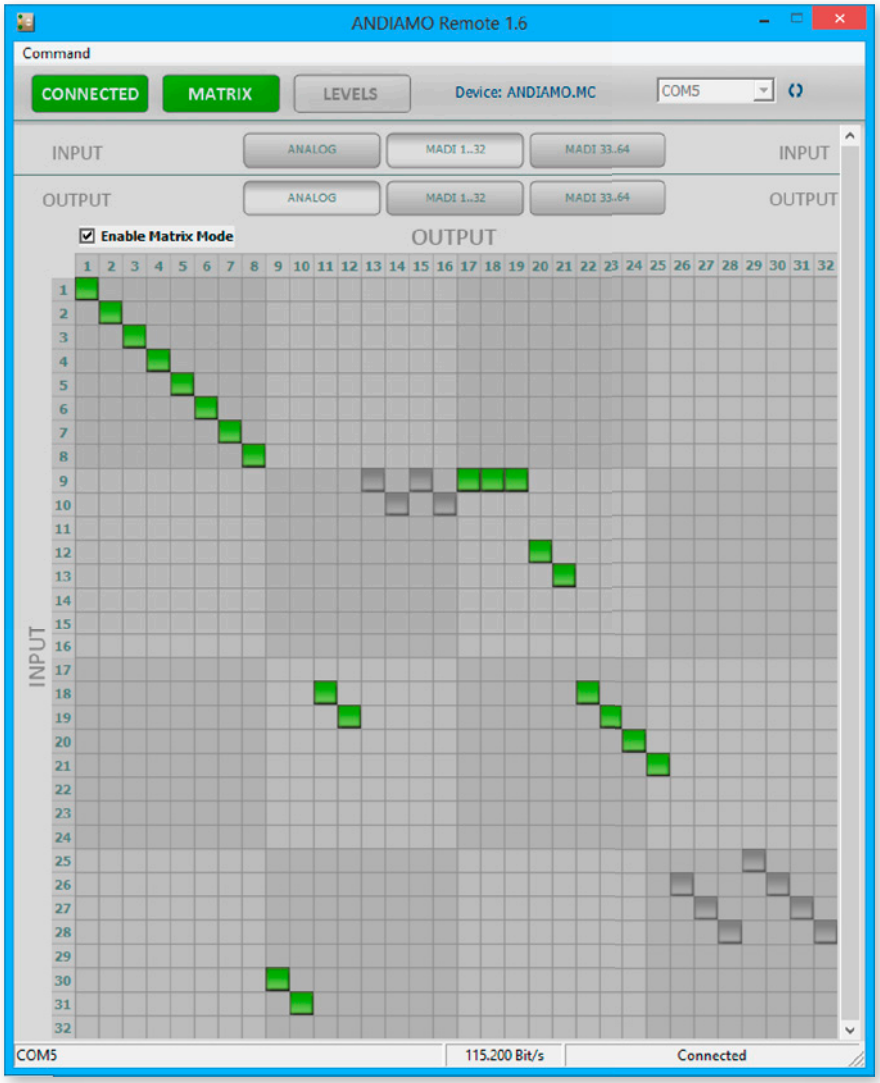
A green label indicates activated delay compensation.

Consult the ‘Hardware Guide’ for more information about delay compensation.

Note

MC Version

Routing Matrix



With ‘Matrix Mode’ enabled the settings of the matrix will effect the routing of the audio signals.

The matrix shows 32 inputs (horizontal) by 32 outputs (vertical).

There are three input pages (sources) and three output pages (destinations):

ANALOG	A/D input - D/A output
MADI 1..32	MADI channel 01-32 (input / output)
MADI 33..64	MADI channel 33-64 (input / output)

Click the buttons to change the view of sources / destinations.

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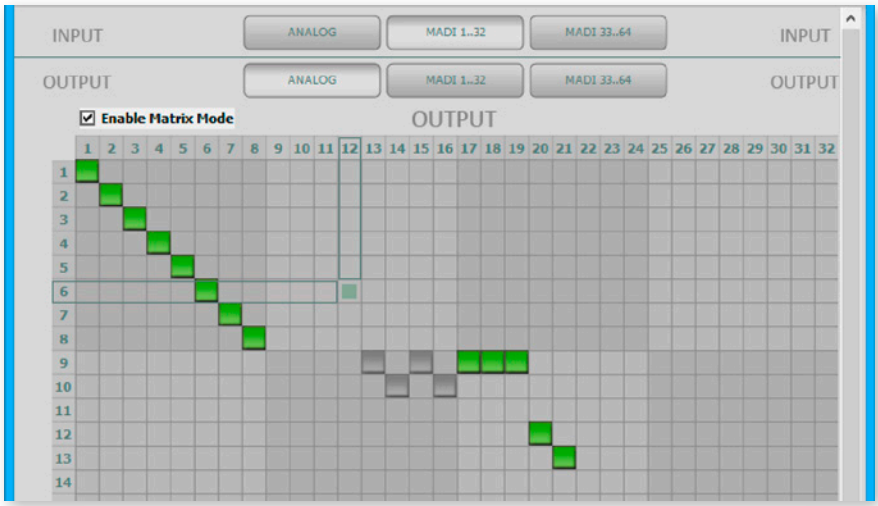
Setting / deleting crosspoints

- move the cursor to the desired position - a small green square and transparent bars point the active position
- click into the square to set / delete the crosspoint

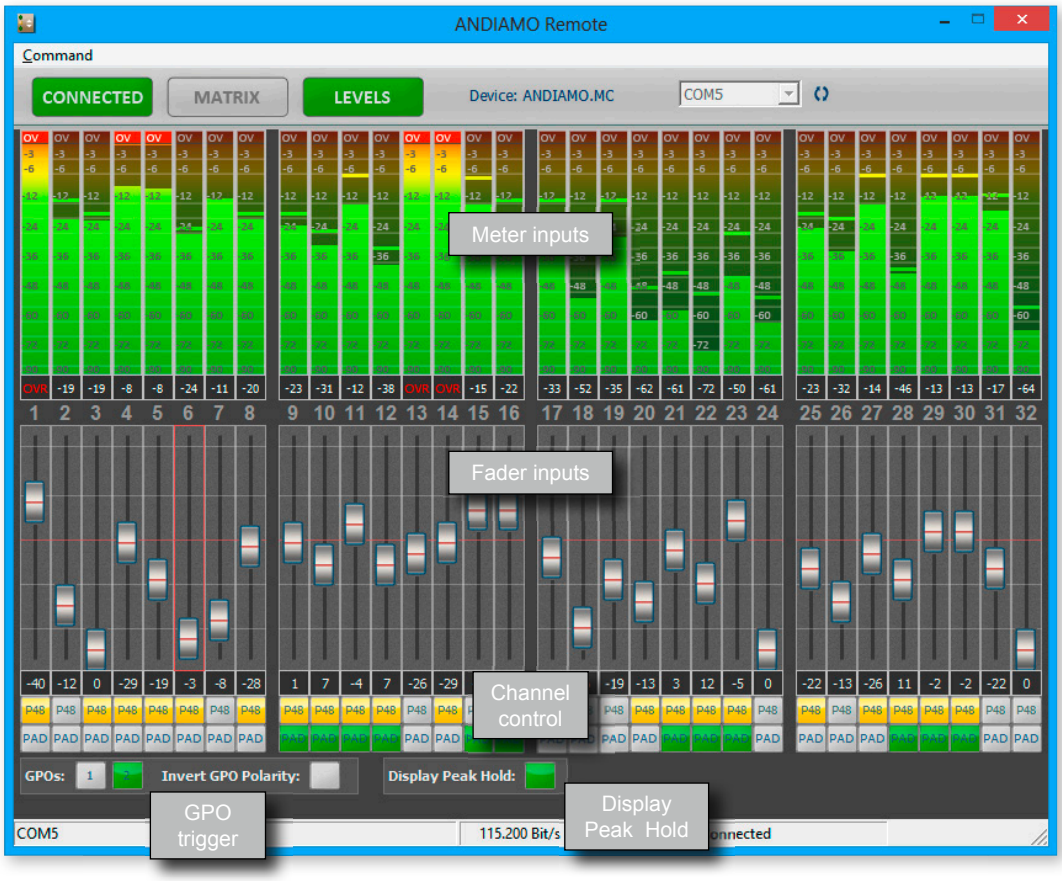


To set more than one crosspoint you may click and hold the left mouse button and move the cursor. The pointed crosspoints will be set upon release of the mouse button.

	crosspoint - output is set on the selected input page.
	crosspoint - output is set on a non-selected input page.

Levels - Gain control

The LEVELS view is used for input sensitivity control and level monitoring of the 32 analog input channels.



Meter inputs	level meter of all analog inputs
Fader inputs	setting of input sensitivity (gain)
Channel control	control of phantom power (P48) and 30 dB pad (PAD)
GPO trigger	triggering of GPO and control of polarity
Display Peak Hold	indication of highest signal level is hold

MC Version

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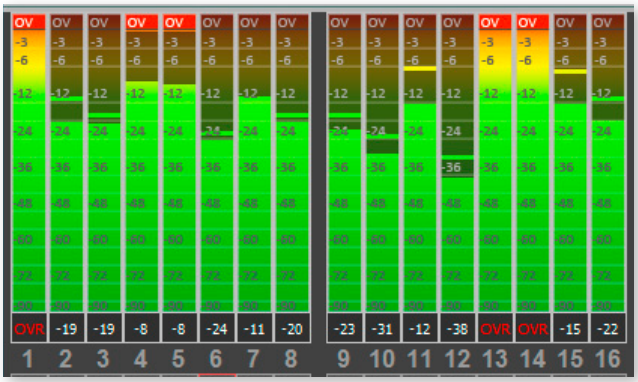
Meter inputs



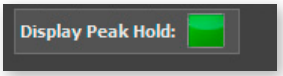
Display:

- Bargraphs indicate digital level of the input signal corresponding the adjusted input sensitivity (gain).
- Numerical metering of signal level and ‘over’.
- Numerical label of channel

Functions:

- To reset the peak hold click into the bargraph of a channel
- To reset all input level meters double-click in the bargraph of any channel.

Display Peak Hold



Display:

- activation state of display peak hold function

Functions:

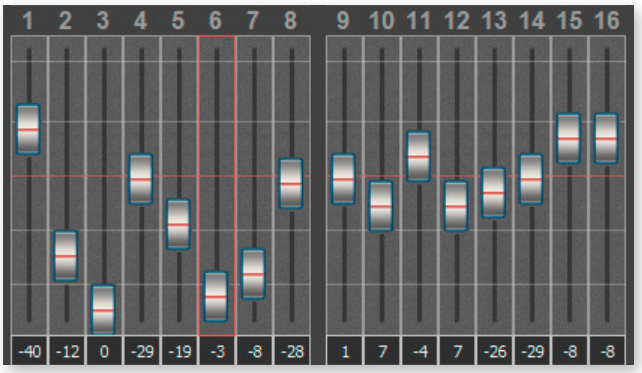
- Click to rectangle to toggle the state of the peak hold switch

Legend

	display peak hold is inactive
	display peak hold is active

MC Version

Fader inputs



Display:

- Fader monitoring input sensitivity of channel
- Fader - horizontal lines @ -6 / -18 / -30 / -42 / -55 dBu (Pad inactive)
- Numerical monitoring of input sensitivity
- Numerical label of channel

Functions:

- Move fader element or use arrow keys (up / down) to alter input sensitivity.
- Double-click fader or hit 'ENTER' to toggle input sensitivity between actual and previous value.
- Use arrow keys (left / right) to navigate between channels.
- Hit '0' key at numerical block to set the input sensitivity to 0 dBu (Pad inactive).
- Hold the <Shift>-key and click on two channel strip to link faders. Linked faders are marked by a red borderline. Click on a single strip to revert to single channel control.
- Hold the <CTRL>-key and click on one or more channel strips to link individual faders. Using this methode you can add or remove a fader to an existing link group. Linked faders are marked by a red borderline.

Shortcuts Mixer

← / →	navigate channel strips - left / right
↑ / ↓	change input sensitivity - up / down
ENTER	toggle input sensitivity between actual and previous value
0 (Num block)	set input sensitivity to 0 dBu

MC Version

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Channel control

Display:

- activation state of phantom power (P48)
- activation state of 30 dB Pad (PAD)

Functions:

- Click to rectangle P48 to toggle activation state of phantom power (48 V).
- Click to rectangle ‘PAD’ to toggle activation state of 30 dB Pad.

Legend

	phantom power inactive
	phantom power active
	30 dB Pad inactive
	30 dB Pad active

PAD will lower the input sensitivity by 30 dBu and is added to value indicated at the fader element - e.g. a fader setting of - 10 dBu will result to an input sensitivity of + 20 dBu with activated PAD.

Note

The level metering of the input channel is ‘behind’ the PAD switch. It may be useful to check PAD setting if no signal seems to be present.

Note

Warning

Switching PAD may result in abrupt changes of loudness.

Warning

Warning

Activated phantom power (48 V) may cause damage to incompatible devices.

Warning

MC Version

GPO trigger

Display:

- activation state of GPO
- polarity setting of both GPOs

Functions:

- Click to rectangle <1> or <2> to toggle the state of the GPO switch.
- Click to rectangle 'Invert GPO Polarity' to toggle polarity setting of both GPOs.

Legend

GPO \ Polarity Setting		
	GPO 1 - switch open	GPO 1 - switch closed
	GPO 2 - switch open	GPO 2 - switch closed
	GPO 1 - switch closed	GPO 1 - switch open
	GPO 2 - switch closed	GPO 2 - switch open

Warning

Warning

Observe the technical specifications of the GPOs. *See Hardware Guide.*

Tip

Using a PRODUCER.COM the GPOs can also be triggered by the 'RED' or 'WHITE' signal of the PRODUCER.COM Remote.

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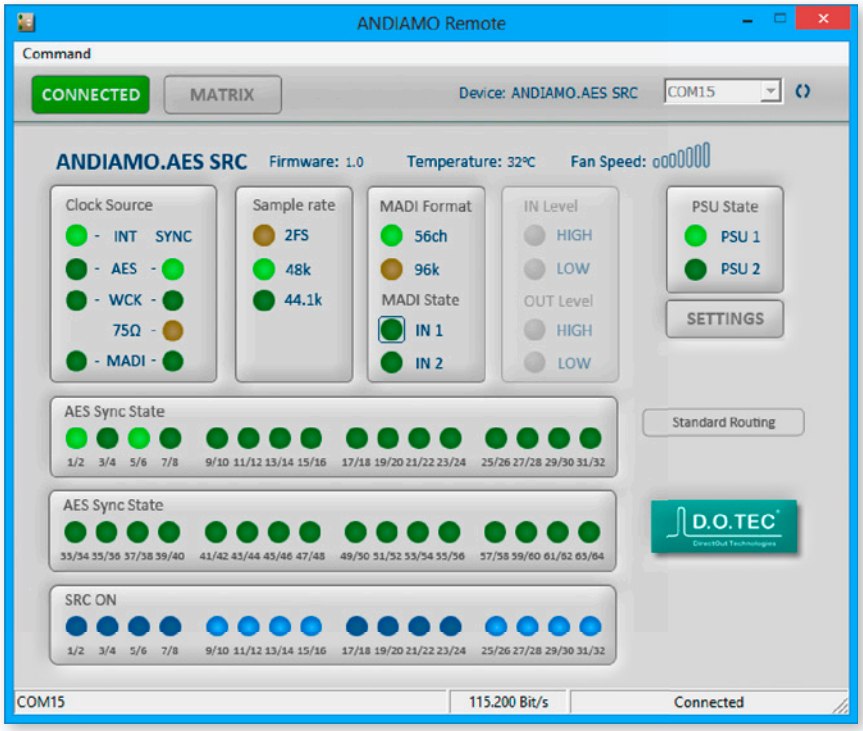
Chapter 4d - ANDIAMO.AES (SRC)

STATE view

The state view monitors the system state and informs about the system settings. The bottom bar monitors the connection state with the device.



Click ‘Settings’ to open the system setup dialog.

Click ‘MATRIX’ to toggle the MATRIX view.

Point to ‘CONNECTED’ and click ‘DISCONNECT’ to close the connection.

Depending on the connected device the view may differ.

Note

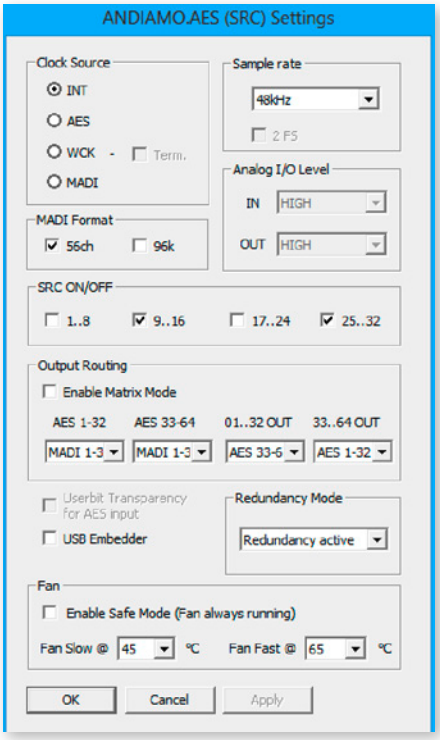
AES Version

System Setup

Most system settings can be adjusted either locally or via the remote application. The settings are stored inside the device. Additionally presets can be stored to a file for later use.

A few settings can be accessed via the remote application only:

- configuration of the system fan control
- redundancy mode (only devices with two MADI I/Os)
- signal routing (‘Matrix Mode’)
- (de-)activation of built-in USB Embedder



To adust the settings either click the radial buttons, checkboxes or use the pull down menus.

Click ‘OK’ to close the dialog applying all changes.

Click ‘Cancel’ to close the dialog discarding all changes.

Click ‘Apply’ to transmit all changes without closing the dialog.

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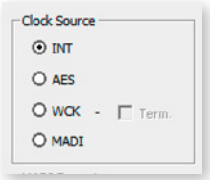


Clock Source

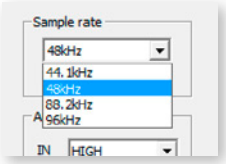
The system clock can be set to one of four possible clock sources. The termination of the word clock input is switchable.

INT	clock source set to internal clock generator
AES	clock source set to AES input
WCK	clock source set to word clock input
MADI	clock source set to (selected) MADI input

If the clock source is set to AES the selection of the AES port as clock source uses the following pattern in ascending order:

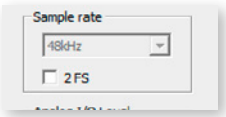
***lowest** input port receiving a valid AES signal*

Note



Sample Rate

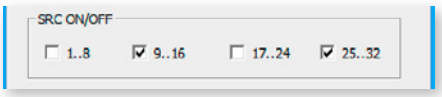
With the clock set to internal (INT) the sample rate can be adjusted in the menu. If the clock source is set to word clock or AES or MADI input no adjustment of the base rate is possible - the measured frequency of the clock source is indicated then.



Use the check box <2 FS> to adapt the scaling factor at external clocking.

A 96k Frame signal while clocking to MADI input will force the scaling factor to 2 FS temporarily.

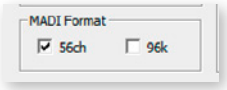
Note



Sample Rate Conversion

The sample rate converters for the AES inputs 01 to 32 are switchable in groups of eight channels (SRC Version).

The activation state is indicated in the STATE view.

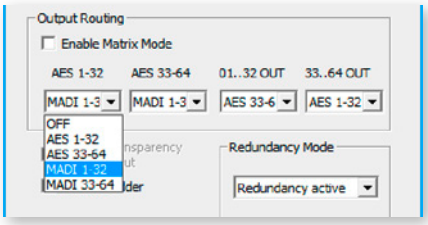


MADI Format

The format of the MADI output signal can be defined - allowing for format conversion of the MADI signal.

56 ch	MADI output is set to 56 (28@2 FS) channel mode.
96k	MADI output is set to 96k Frame *96k Frame is available with 2 FS only.*

The output channel format does not affect the number of used input channels.



Standard Bank Routing

The input signals can be routed in blocks (e.g. AES ▼ to MADI 01..32) or on a per channel basis - *see „Matrix Mode“ on page 33*.

Use the pull-down menus to define the input source for the particular output.

AES Version

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Matrix Mode

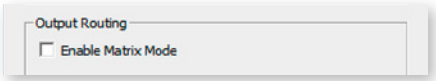
There are two methods of signal routing:

a) ‘Standard Bank Routing’ - signal routing of digital I/Os in blocks of 32 channels.

b) ‘Matrix Mode’ - individual signal routing of all digital I/Os on a per channel basis.

There are three ways to toggle between both methods:

1. System Setup



use checkbox

2. Matrix view

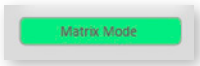
use checkbox

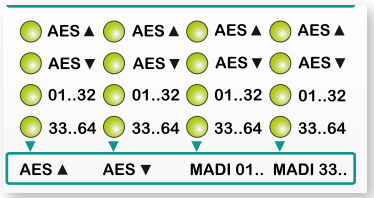
3. Front panel

AES & AES SRC

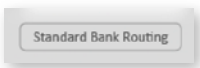
- activate the Menu Mode for Signal Routing (press > 2 sec ‘SELECT’)
- Press > 2 sec ‘SET’ to toggle between both methods

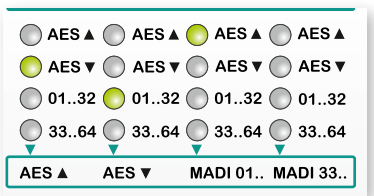
Matrix Mode ON





Matrix Mode OFF



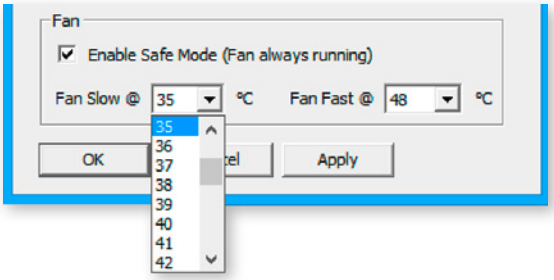


The activation state of the ‘Matrix Mode’ is monitored in the GUI and at the front panel.

See „Routing Matrix“ on page 61

Note

AES Version



Configuration System Fan

The characteristics of the system fan inside the device may be configured individually.

Fan Slow	threshold temperature - fan starts at lowest speed
Fan Fast	threshold temperature - fan runs at highest speed
Enable Safe Mode	fan is always running - below threshold ‘slow’ the fan runs at lowest speed

The interval between ‘slow’ and ‘fast’ must amount at least to ten degrees.

AES Version

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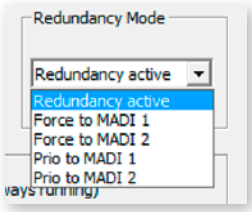
Redundancy Mode

Devices with two MADI I/Os provide input redundancy.

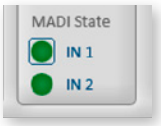
Redundancy modes:

1. Standard - automatic port selection
2. Priority - priority input port selected
3. Off - forced input port selection

Mode	description	switch over	revert
Standard	The first MADI input that detects a valid signal will be used. If this input fails, the device will switch to the other input (if it is locked).	yes	no
Priority	The defined *priority port* is always selected automatically if a valid signal is detected. Selection will revert to the priority port, after switch over (due to signal loss).	yes	yes
Off	Automatic selection is overriden by forcing the input selection to a specific MADI input port.	no	no



Pulldown menu with five options. ‘Redundancy active’ is the default setting (‘Standard’).



The LED of the forced input port is framed by a blue rectangle.

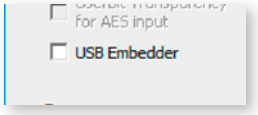
The MADI output ports work in parallel.

Note

The redundancy setting is always set to ‘Standard’ at switch on of the device.

Note

AES Version



USB Embedder

The USB Embedder processes remote control data between the local USB port and the MADI I/O. It can be used to control multiple devices.

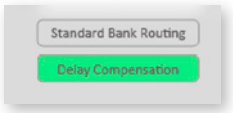
Note

The USB embedder is deactivated by default after switch on of the device. See „Embedding serial data“ on page 18.

Delay Compensation

Delay compensation becomes active, if a device of the ANDIAMO series ‘sees’ another ANDIAMO device at its input. The ‘second’ device will switch to ID 02 automatically.

STATE view:



A green label indicates activated delay compensation.

Note

Consult the ‘Hardware Guide’ for more information about delay compensation.

AES Version

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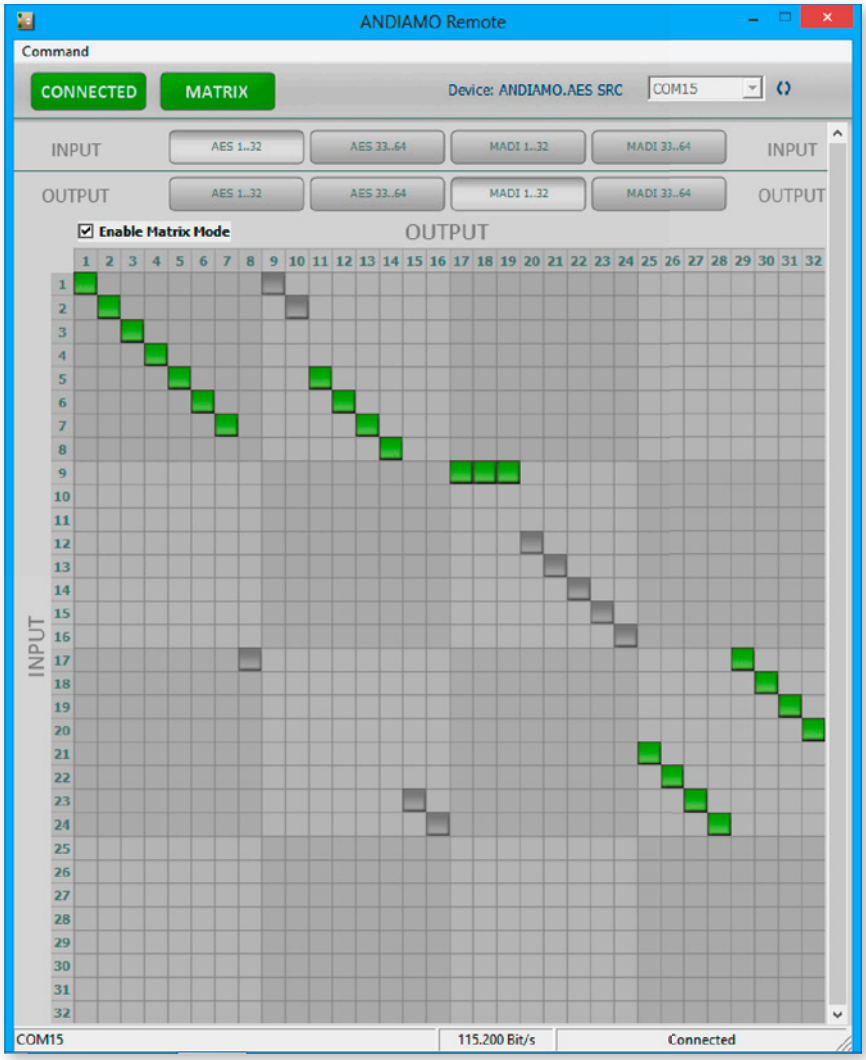
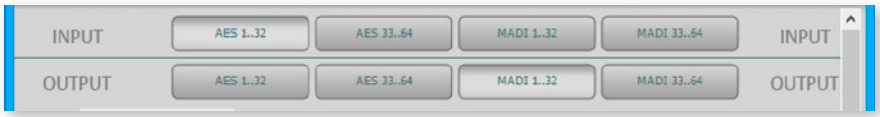
Routing Matrix



With ‘Matrix Mode’ enabled the settings of the matrix will effect the routing of the audio signals.

The matrix shows 32 inputs (horizontal) by 32 outputs (vertical).



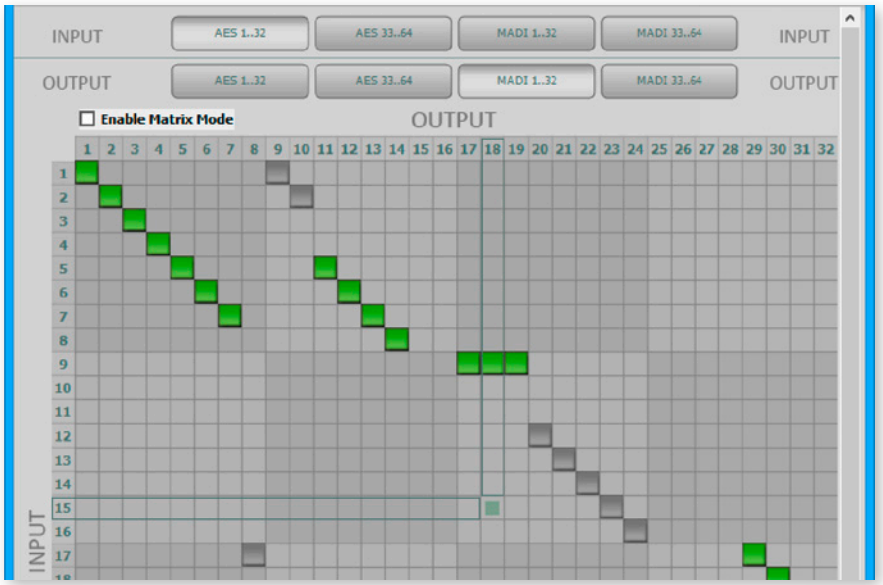
There are four input pages (sources) and four output pages (destinations):

AES 1..32	AES inputs 1 to 32 (port 1 to 16)
AES 33.64	AES inputs 33 to 64 (port 17 to 32)
MADI 1..32	MADI channel 01-32 (input / output)
MADI 33..64	MADI channel 33-64 (input / output)

Click the buttons to change the view of sources / destinations.

Setting / deleting crosspoints

- move the cursor to the desired position - a small green square and transparent bars point the active position
- click into the square to set / delete the crosspoint



To set more than one crosspoint you may click and hold the left mouse button and move the cursor. The pointed crosspoints will be set upon release of the mouse button.

	crosspoint - output is set on the selected input page.
	crosspoint - output is set on a non-selected input page.

AES Version

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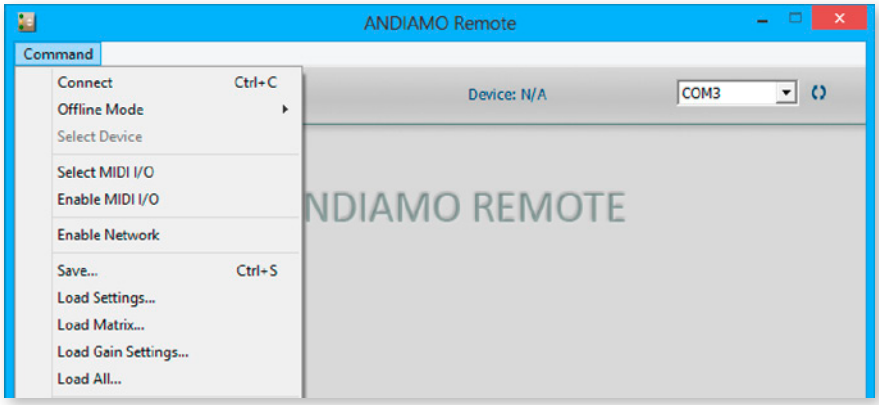
Chapter 5 - Presets

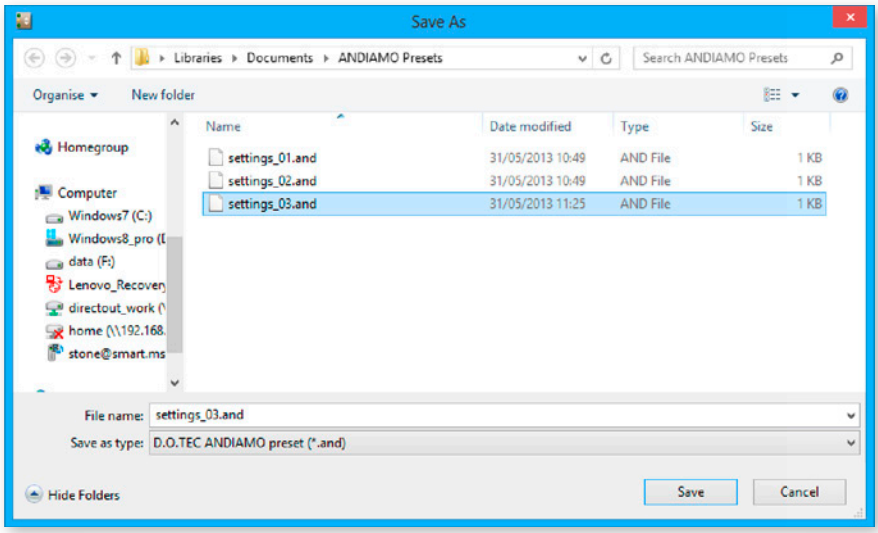
About Presets

The settings of the system, routing matrix and input sensitivity (ANDIAMO.MC) can be stored to a single file. The settings are reloaded separately from the same file. This allows to use the settings independently from each other; e.g. you may reload another routing setup without changing the clock source.

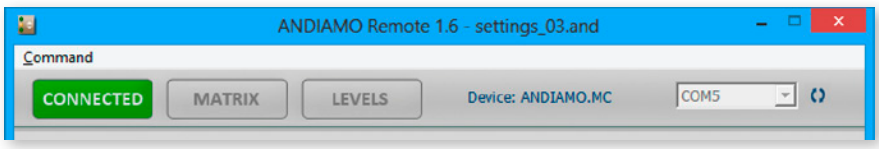
Storing Presets



Go to ‘Command - Save’

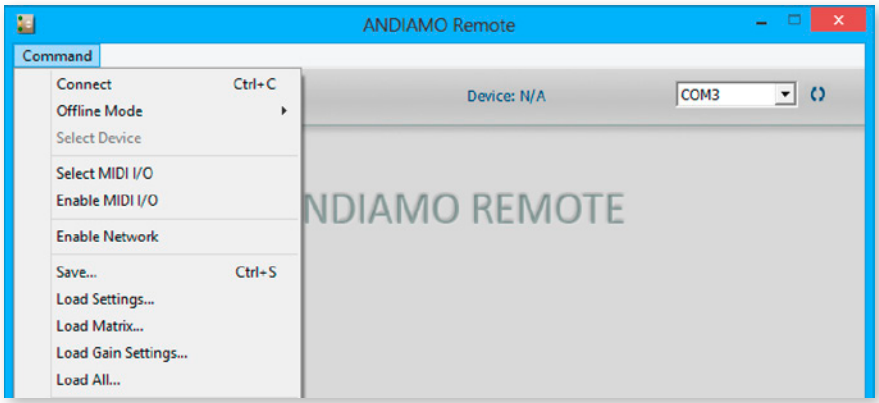


Enter name and click ‘Save’ to close the dialog.



The name of the stored setting is indicated in the title bar.

Reloading Presets



Go to ‘Command - Load Settings’ to load system settings.

or

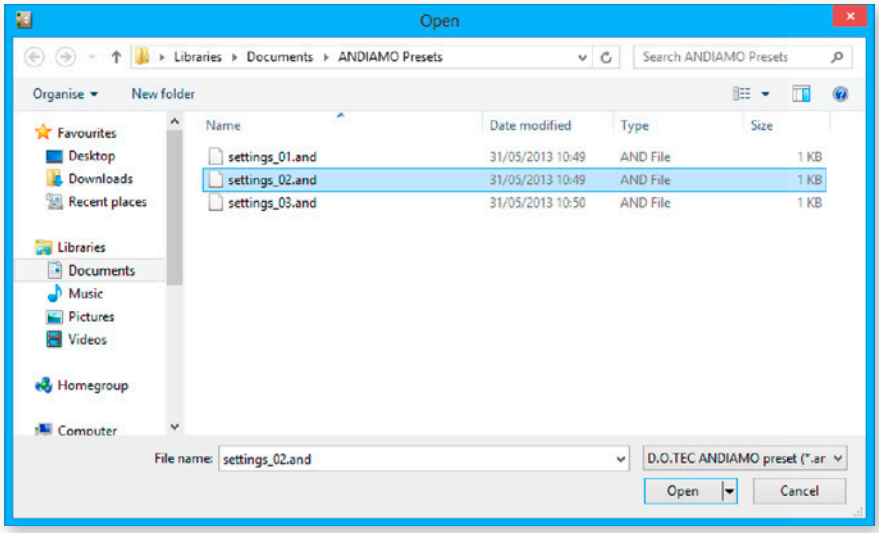
Go to ‘Command - Load Matrix’ to load routing matrix.

or

Go to ‘Command - Load Gain Settings’ to load settings of input sensitivity.

or

Go to ‘Command - Load All’ to load all settings at once.



Select the file (.and) and click ‘open’ to close the dialog and proceed.

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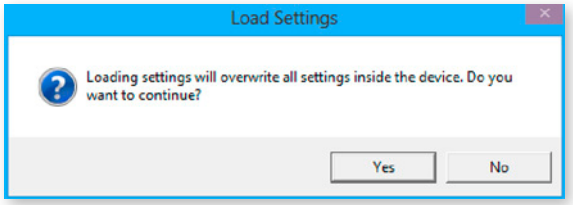
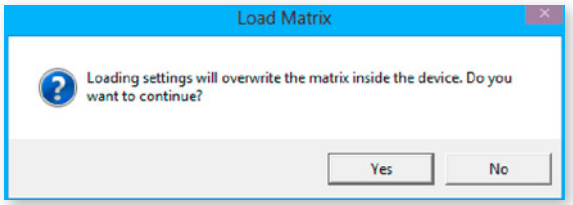
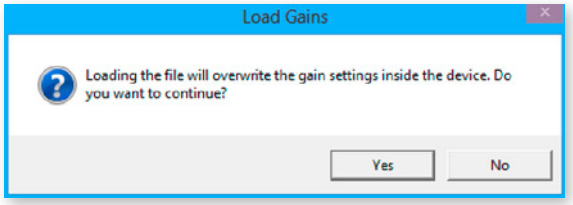
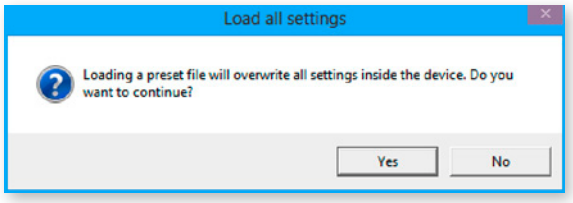




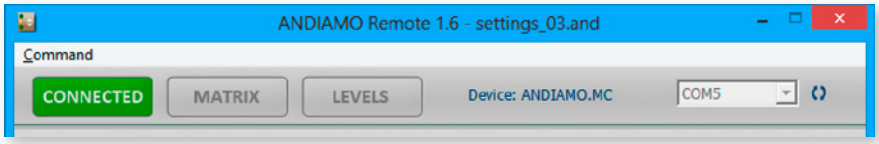




A safety dialog prompts if the connection to the device is active:

- Click ‘Yes’ to proceed with reloading.
- Click ‘No’ to abort the operation.

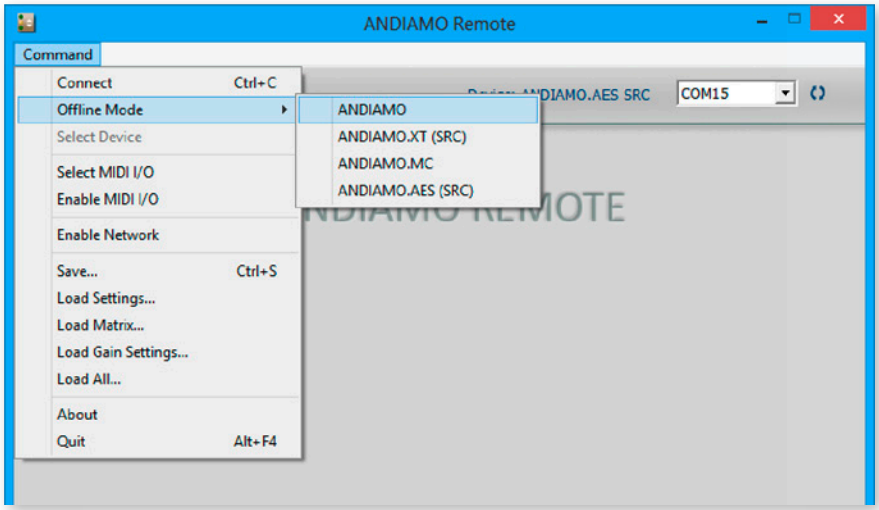
If no device is connected (*offline mode*) reloading is executed without safety dialog.



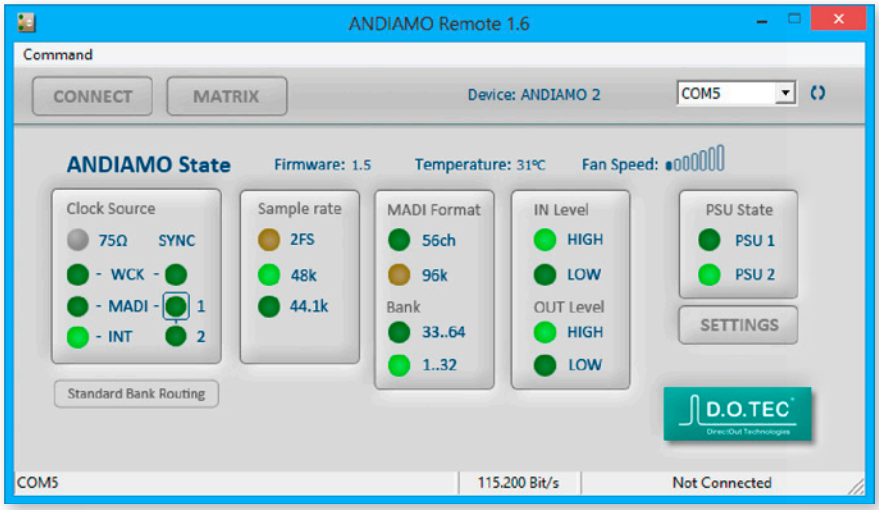
The name of the loaded setting is indicated in the title bar.

Offline Mode

The offline mode allows to create or modify settings without an active connection to the device.



Go to ‘Command - Offline Mode’ and select the device to activate / deactivate the offline mode.



The status bar (bottom right corner) indicates ‘Not Connected’; i.e. Offline Mode is active.

Note

Depending on the connected device the view may differ.

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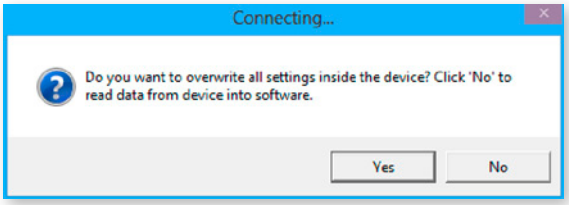
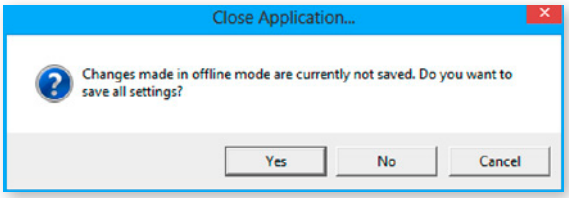


'Connect' will terminate the offline mode. A safety dialog prompts before connecting:

- Click 'Yes' to overwrite **all** settings inside the device.
- Click 'No' to read **all** settings from device into software.

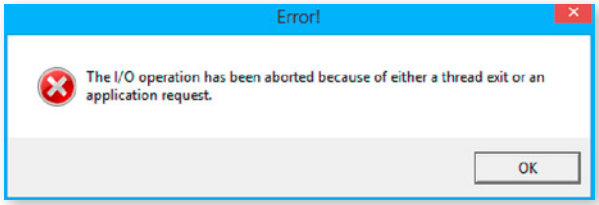


Before closing the application a safety dialog prompts:

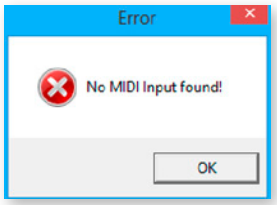
- Click 'Yes' to save **all** changes to a preset.
- Click 'No' to discard **all** changes and close the application.
- Click 'Cancel' to continue with offline mode.

Error Messages

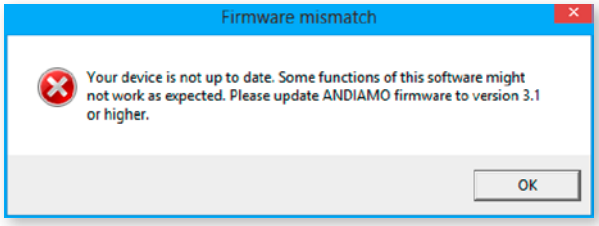
The selected COM port has no connection with the device. ‘Disconnect’ and check the connection (cabling, COM port).



Possible reason: Abnormal termination of the connection
Check the cabling or if connected device has been switched off.



No MIDI device is installed. Try to connect using USB or ‘Serial over MADI’ (needs installed D.O.TEC® USB Serial driver).



The actual firmware of the device is not fully compatible with the version of the remote software. A firmware update is required.

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