ANEMAN
Audio Network Manager

User Manual

Version 1.2.3

MERGING

Introduction

What is ANEMAN ?

Merging Technologies' Audio NEtwork MANager is a simple software tool that allows you to discover devices, manage connections and monitor the network. It is based on an open architecture that allows third parties to add many modules to add third party compatibility or ad hoc user interfaces.

This release is restricted to the following list of devices :

- MERGING+NADAC, NADAC+PLAYER, HORUS, HAPI and ANUBIS audio converters

- Merging MassCore, OSX VAD, ASIO Virtual Driver and ALSA driver

- Merging ZMAN based devices support (as of ANEMAN v1.2.2)

- Direct Out Ravenna Devices

- Stage Tech RIF67

- Ross AoIP modules

- Devices based on Archwave's uNet technology (e.g. Genelec 8430A, WBS PreMo,...)**

(*: requires a plugin that is may not be delivered with your installer, contact manufacturer)

(**: plug-in can be downloaded from the plug-in manager in the application)

System Requirements

ANEMAN has been certified under Windows 7 (64bit), Windows 10 (64bit) and Mac OS 10.12 and above.

Minimum requirements:

CPU of 2GHz with 4GB of RAM and 100MB of available disk space

Network connection (compatible devices should be on the same network)

<u>**Caution**</u>**: Making connections with ANEMAN may cause side effects on the network and may temporarily break streams.**

Release Notes

Summer 2020 1.2.3

- Improved Discovery mechanism
- New: Showing existing stream status on devices in the matrix
- Added error code decoding book in this user manual
- Reliability fixes
- Now files are stored by default in C:/ProgramData/Merging Techologies/Aneman (was AppData/roaming/Merging Technologies/Aneman)

Spring 2020 1.2.2 RC1

- New. Dante SAP Beta plugin available in Plugins Manager downloads
- New. ZMAN: 2022-7 support
- New (beta). Static services (bypassing discovery)
- New (beta). Custom multicast address range support
- Improved Discovery mechanism
- Reliability fixes

Spring 2020 1.2.2 Beta2

- Fixed. Merging device ejected a few seconds when making connections
- Slow discovery for Merging devices
- Reliability fixes

Spring 2020 1.2.2 Beta1

- Stream management improvements
- Reliability fixes

Fall 2019 1.2.1 release

- macOS Mojave 10.14.x and Catalina 10.15.x Support
- Improvement. Enhanced plugins discovery
- Improvement. Device coloring for matrix
- Improvement. Receiver deletion
- Improvement. Device error now reported in the Matrix
- Fixed. Plugin and Proxy installation issue
- Fixed. Disabled Dock mode per default
- Reliability fixes.

July 2019 1.2.0 release

- Official release.

July 2019 – 1.1.10 RC1 release

- Fixed: MERGING+ANUBIS Premium DXD overrun error

- Ross devices plugin support
- Log clean up

Mai 2019 – 1.1.8 Beta2 release
- New: MERGING+ANUBIS Support
- More improvement and reliability fixes

February 2019 – 1.1.7 Beta1 release
- New: ZOEM support
- New: Support for Unicast
- Zone Improvements
- Quick access menu improvements
- Add/delete connection fixes
- Bonjour discovery multi-network interface issue fixed
- ANEMAN slowdown order time issue fixed.
- Improved general stability
- Mac installer enhanced reliability
More details on www.aneman.net

June 2018 – 1.1.6 Spring 2018 release

- New Settings menu:
  - Save and Recall application Windows setup
- Zone Improvements
  - Store and Recall Zone configurations
  - Display of current Sampling Rate
  - Quick access menu
- Errors reports
- New Always run mode, 'Dock icon" within tasks
- Better icons for unknown products
- Improved stability

November 8th 2017 – 1.1.5 Fall 2017 release

- MDNS discovery is now properly done when device name has some dots in it
- SAP announcement Discovery bug fix
- Improved stability

September 14th 2017 – 1.1.0 IBC2017 release

- Fixed stream device: Now you can connect tracks within a stream between compatible devices (connecting two tracks from an 8 tracks stream)

- Dante/AES67: Dante/AES67 streams will appear as standalone devices in ANEMAN
- Improved stability

June 19th 2017 – 1.0.0 RC1

- Plugin Manager
- Busy output indicator
- Possibility to delete receiver attached to output from Matrix View

May 30th 2017 – 1.0.0 Beta 2

- Mac installer (OSX.10+) now available
- Stability improvements
- Performance improvements
- Device placement is adjusted when associated to a zone
- Zone master section now lights green or red if a master is present and Zone status is respectively good or bad. If no master is present, master section has a neutral color
- Added progress bar to monitor actions waiting to be sent to the devices
- Added "auto zoom" option to prevent auto zoom when working on the world view
- Info box (top left of matrix view) now gives better feedback if a connection cannot be made
- Auto expand of matrix cells when clicking on a mixed (one side collapsed, the other side expanded) cell.
- Better color and contrast on the UI
- Now files are stored in AppData/Merging Techologies/Aneman (was AppData/Aneman)

Quick Start

User Interface

ANEMAN's user interface is composed of three main windows:

- The world view (top left): this view allows you to discover devices and arrange them into zones. In version 1.0.0. we have logic zones and sample rate zones.

- The Device list (bottom left): this view is a table listing the device on the network with basic information.

- The matrix view (right): selected devices will appear in the matrix view where the user can view, add, remove and monitor connections
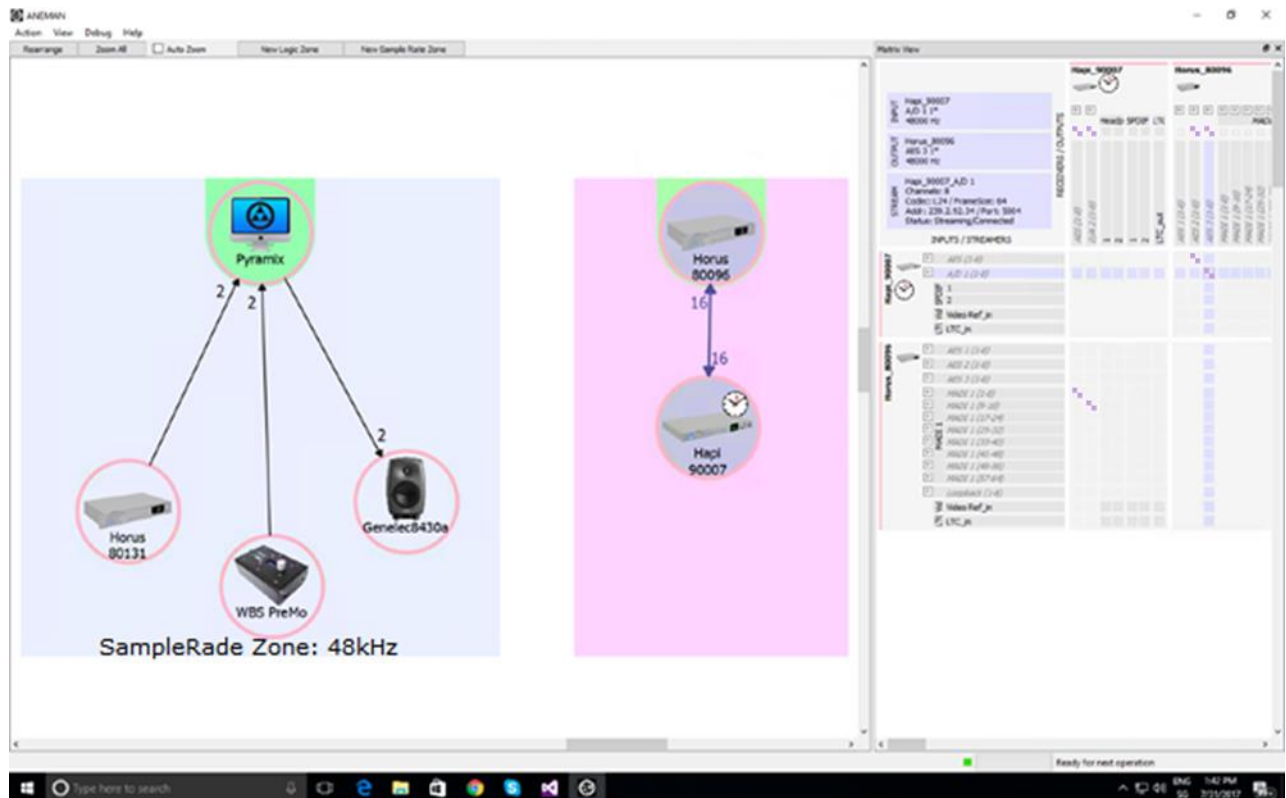
When using non Merging Technologies devices, remember to download the appropriate plug-in via the plug-in Manager (in the action menu)

The world view
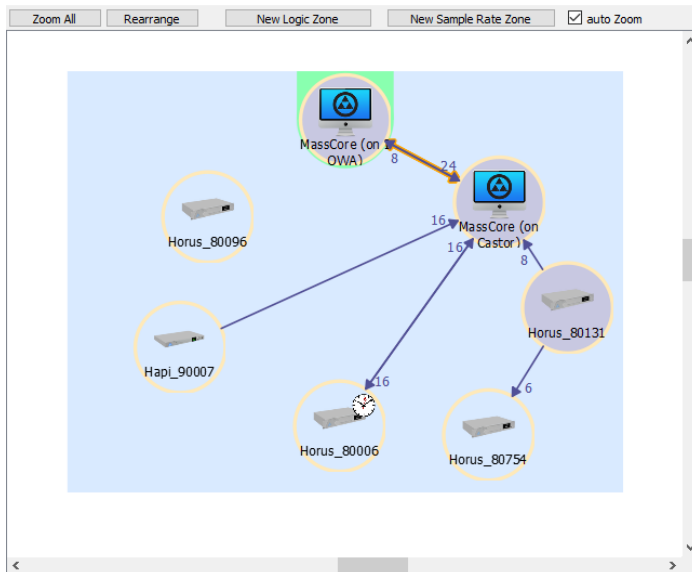
Devices appear in the world view if they are discovered on the network. All Ravenna devices will show in the view but only supported devices will be fully controllable with the software.

Moving

Right clicking or Control Left Clicking the background allows you to move the world view. Devices can be moved by left click dragging them and zooming is achieved via scrolling.

Pin zone and Discovery zone

Devices discovered on the network will first be placed in the Discovery Zone (gray background). If you want the Devices to keep their position and to be indicated when offline, you can move them to the Pinned Zone (white background).
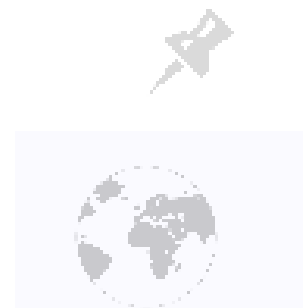
Subnets

Each color of the circle around the devices indicates a subnet. Devices of different subnets cannot be generally be connected together.

Contextual menu

Right clicking on the device opens a contextual menu where you can access the WebServices published by the device (for instance the basic and advanced webpage of a Horus). Web services can also be accessed with double click (basic) and ctrl+ double click (advanced).

Note: you will lose your current selection when double click a device in the world view.

Zoom

To Zoom in the view, use your scrolling wheel or touch pad scrolling function.

The software will automatically zoom out the word view when a new device is added or when a major update was done on the network. You can prevent this behavior by unchecking the auto zoom option. You also have the "zoom all" and "rearrange" button to sort your view.
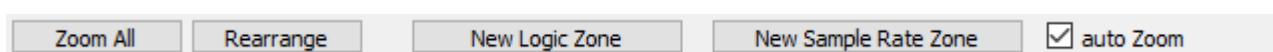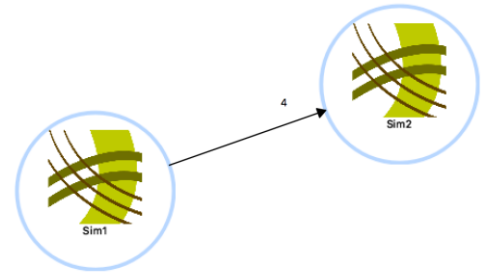
Connections

When connections are made between devices, a link is present in the world view. This link is black when everything is OK and red if one of the connection is broken.

The number near the arrow indicates number of channels connected between two devices.

Zones

One feature of the World View is the arrangement of Device into subgroups or « Zones ». In version 1.0.0 we are offering two types of zones: The Logic Zone and the Samplerate Zone.

The Logic Zone

The Logic Zone only serves a cosmetic purpose, but allows you to arrange the devices on the network: by location, by function etc.

For instance, logic zones can be used to identify devices in a same studio.

The Sample Rate Zone

The Sample Rate Zone is a special Logic zone in which the devices all share the same sample rate. much like the Easy-Force All option (which followed the Sample Rate and latency mode) in Merging Easy Connect.

You select one of the devices in the group to be the Master and place it in the upper center of the zone (the Master zone). Every other device in the zone will then be slaved:

- If the Master sample rate changes, the slaves will follow

- If a Slave changes its sample rate, it will automatically be forced back to the one of the zones.
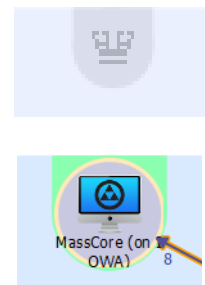
The Master zone will light green or red if it the zone has accepted a Master. Green means that the group is in order (every device has the same sample rate), Red means that at least one device fails to follow the sample rate of the master.

Note: Some devices may not be able to accommodate the sample rate of the zone and may therefore not be able to follow the Master in every case.

Moving and Resizing the Zone

You can move the Zone by shift-left clicking on any central part of the Zone. Resizing is done by shift-left clicking the borders of the Zone.

Zone contextual menu

The Zone contextual menu can be accessed from the triangle at the top left of the zone.

From the Zone contextual menu, you can change; the Group Configuration, the background color, the layer (the order of zones on top of each other) and you can also delete the zone.

E.g. In order to Store or Recall a Zone configuration, simply perform a shift right-click in the Zone and select the Store or Recall config option. This gives the users the option to save or recall the connections for a specific Zone
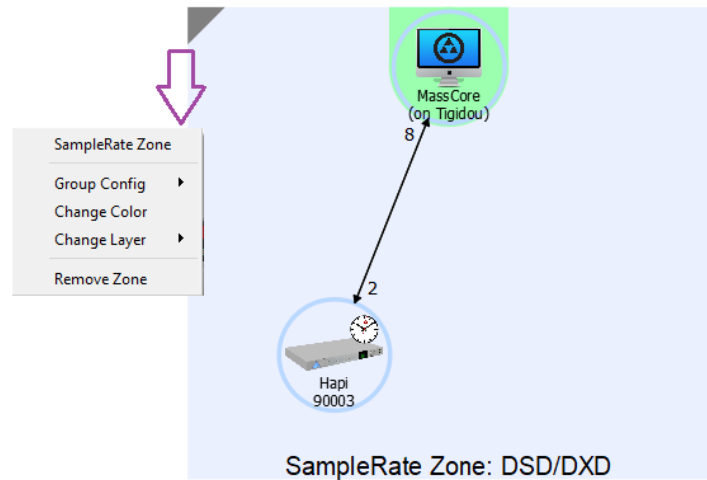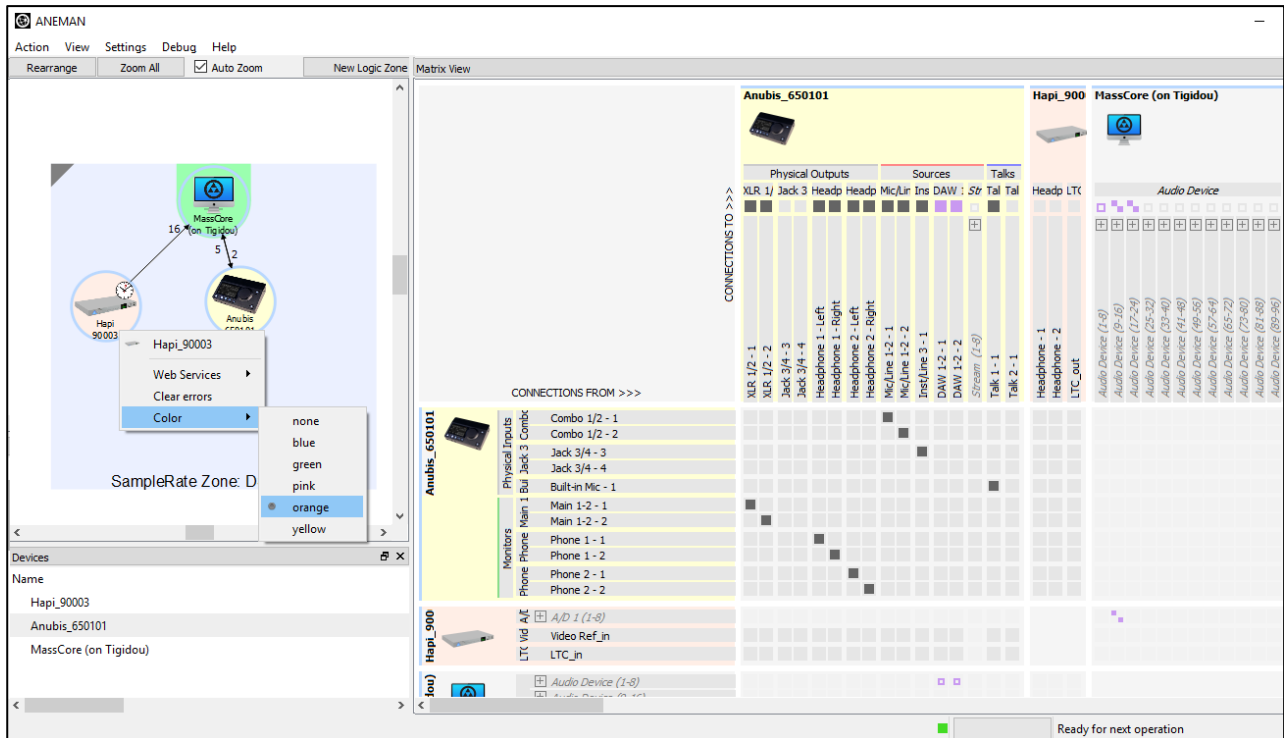

Example of complex zone setup
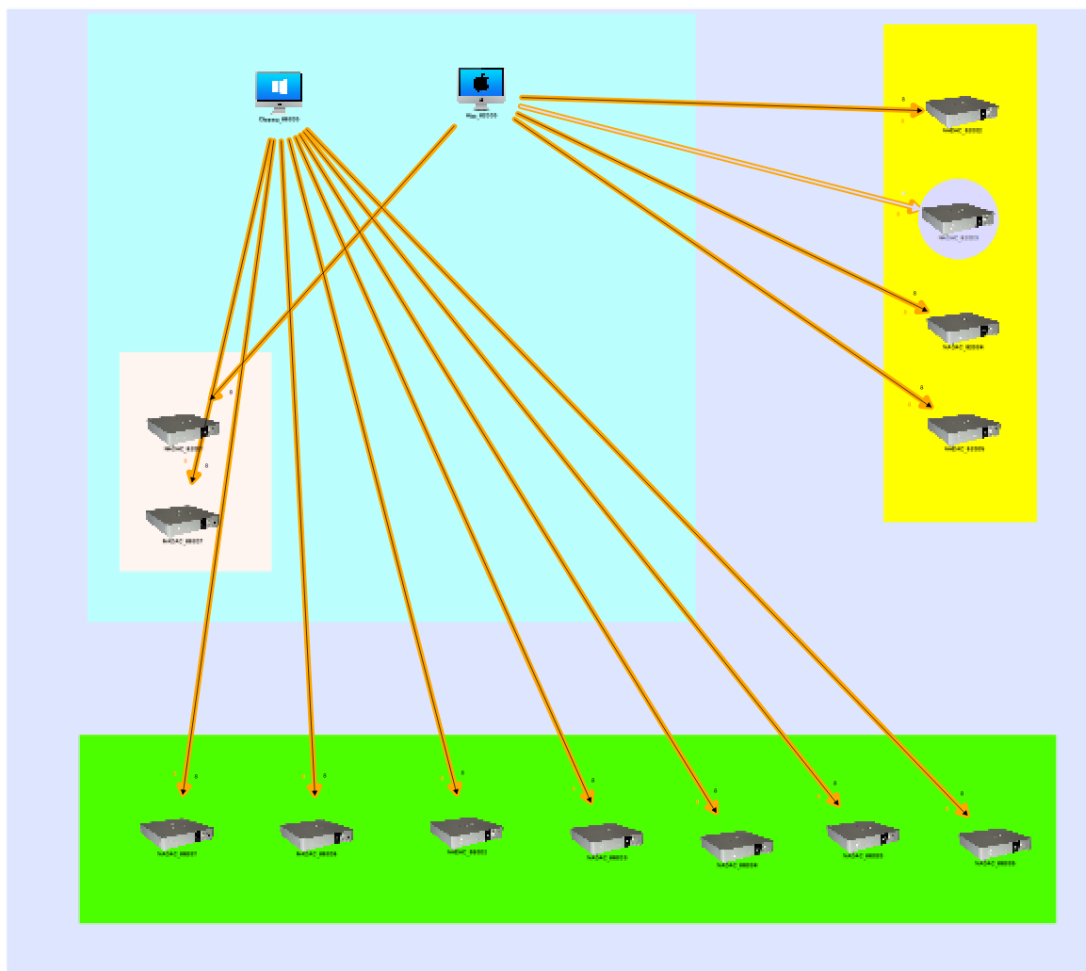
Device Coloring

As of ANEMAN v1.2.1 it is now possible for the operator to color the devices in the world view, those colors will then be reflected in the Matrix view.

To apply coloring, Mouse+Right Click on the device of your choice. Then from the Color entry, select the color of your choice.

The matrix view

Selecting devices in the world view or device list will make them appear in this view.

The Info Box

The upper left corner of the Matrix View contains the info box, it displays various information about inputs, outputs and connections.

Moving

Right clicking on the background allows you to browse the matrix.

Collapsing IOs

Groups of inputs or outputs are collapsed by default by groups of 8. Clicking on the + will expand the inputs or outputs. Shift-clicking + or - will expand or collapse every input or output for the device.

Control+click on a cell to expand or collapse the Input and Output banks at the same time. Mixed cells (one side collapsed, the other expanded), will auto expand on click.

Contextual Information

When hovering a connection point, the user gets contextual information about the related input, output and stream status or feasibility. If the info box lights green the connection can be made, if it lights orange or blue, the connection cannot be made. Connection is prevented when:

- Devices are not on the same subnet
- Devices do not share the same sample rate
- The output is already receiving a stream
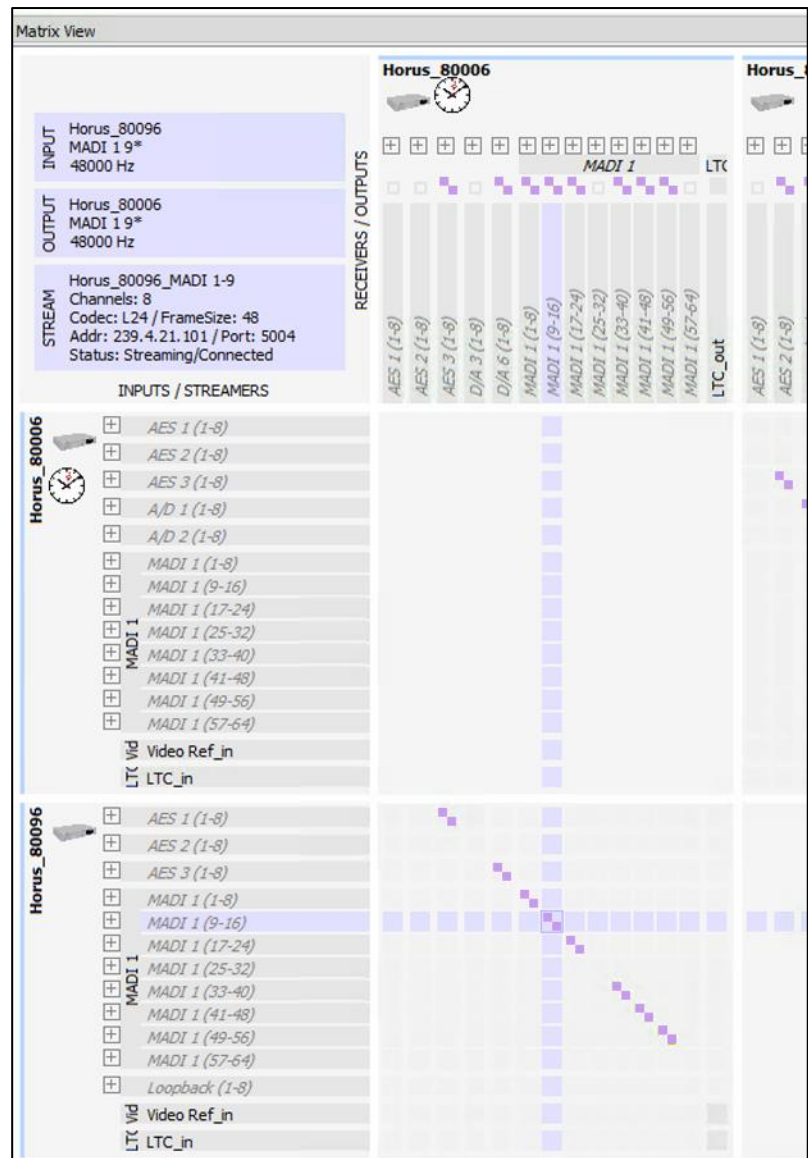
Connection Type

As of ANEMAN v1.1.7 users with Devices supporting Unicast will now see a new Connection options layout in the Matrix view, as you have now the choice between Multicast (default connection in prior ANEMAN version) and the new Unicast support.
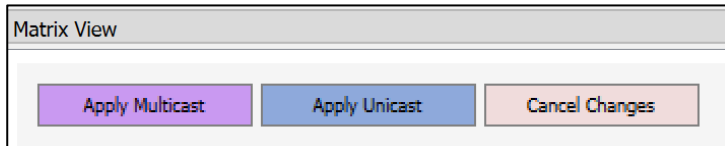
Apply Unicast:

Unicast transmission/stream sends IP packets to a single recipient on a network (e.g. a multi-channel stream between a console, a DAC and a recorder/DAW).. This uses a point-to-point connection between the sender and receiver. Since each additional receiver adds its own individual streamer, network traffic increases with every additional unicast stream. *(requires Horus/Hapi firmware 3.9.3b38957 and higher)*

Apply Multicast:

Multicast transmission sends IP packets to a group of hosts on a network. (e.g. program stream to journalists' desktops). At the sending end this only requires one streamer. Network switches are aware which participants (receivers) should receive any particular multicast and forward packets only to registered nodes. In multicast set-ups the network traffic only increases on the last (closest to receiver node) segment(s) of the network path.

Unicast vs. Multicast

UNICAST   **MULTICAST**

Adding and removing connections

Clicking the matrix cells will either try to add a pending connection or remove an existing connection. **Connections add or remove are sent to the device in bulk by clicking « apply multicast/unicast » for the connection command to be sent to the network.** Resetting the current routing can be done by clicking « Cancel routing ».

Clicking a collapsed cell (collapsed input AND output) will automatically create or delete a connection in all 8 diagonal cells of the collapsed sub matrix.

If connections in the collapsed sub matrix are not diagonal, a special icon is used.

Progress Bar and waiting pop up

On the bottom right of the application window, there is a progress bar that will indicate the number of actions that are remaining to be sent to the network. Once there are no actions left, the text indicates "ready for next operation".
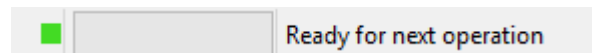
If the number of remaining actions is large enough, a window will pop up, asking the user to wait.

Color coding of connection points

Purple connection points indicate an « ok » Multicast connection (as of v1.1.7)

Pastel Blue connection points indicate an « ok » Unicast connection (as of v1.1.7)

Orange connection points indicate an incomplete connection

Light green and red connection points respectively indicate to be added or removed connections.

Streams

When hovering on a connection point, the user can visualize the stream associated with the connection: all the connections belonging to the same stream will be squared.
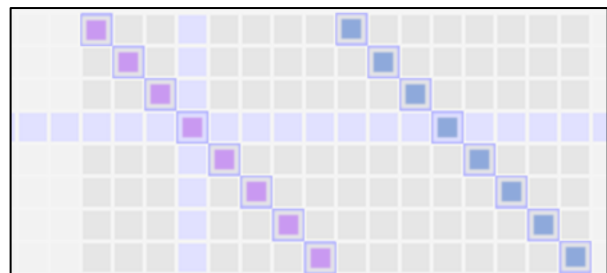
Connection status and error messages

In the info box (top left corner of the Matrix view), the user can get additional information on a connection. If the connection is incomplete, error codes and messages are given to begin the correction of the problem.

Output status and receiver delete

It may be the case that a receiver is present on a device with no attached streamer. You can easily spot the status of an output (busy or note) in the matrix, and right-clicking on this output will give you the ability to delete the attached receiver if needed.

Always proceed with caution when deleting receivers, prefer deleting connections.

As always, an output with a green square means that the receiver is receiving the stream and connected while an orange square will indicate an error.
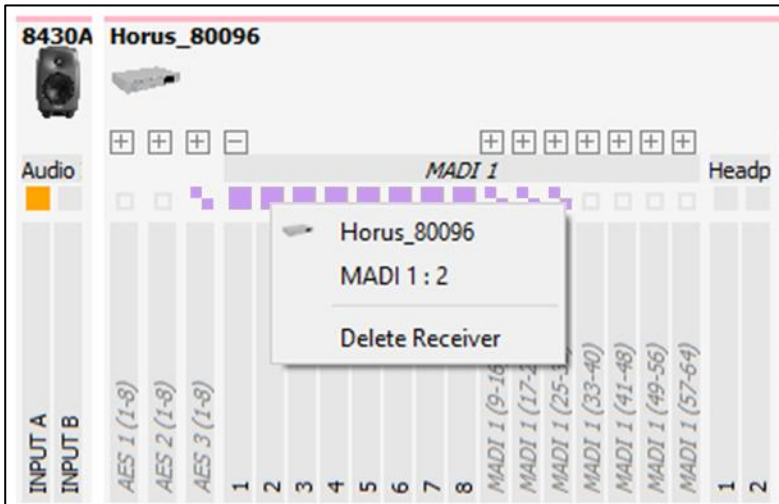

Managing existing streams

An indicator for each device on the sending side of the matrix allow for stream management. As usual, green means nothing to worry about (but some streams may be unused) and red means that at least one stream is in error.

When right clicking the square, a menu will appear where you can remove streams from the device. LTC and TC streamers cannot be removed. Streams prefixed with:

-E- are in an error state

‼ are not connected to anything from ANEMAN point of view. This means that when using other means of connections outside of ANEMAN (NMOS, Dante of manual connections), this information may be wrong.
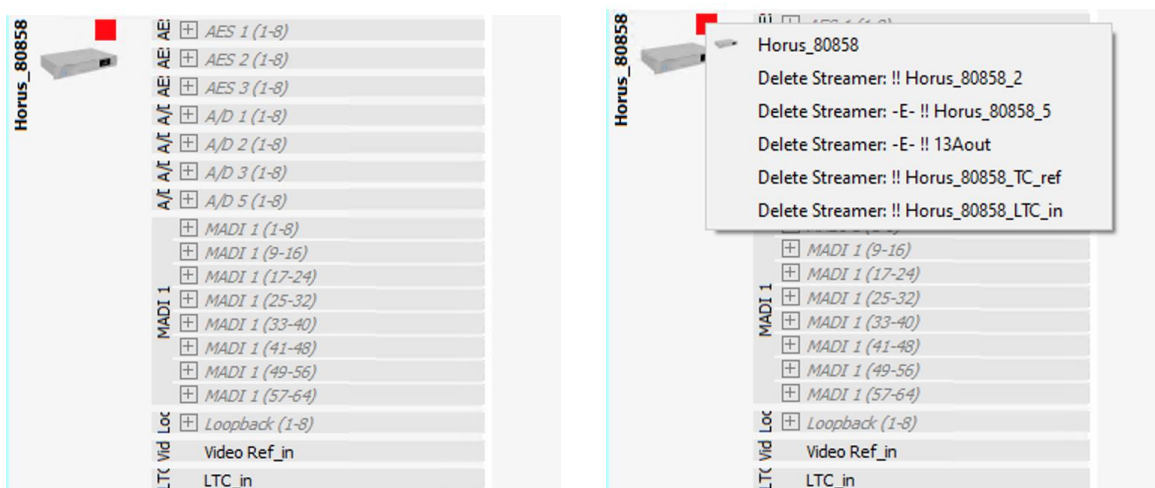
Always proceed with caution when deleting streams, prefer deleting connections.

Advanced operations

Dante/AES67 and SAP

ANEMAN will discover Dante/AES67 streams on the network and show them as standalone devices in the world view. Those devices will only show inputs to be connected to ANEMAN compatible devices. This means that ANEMAN acts as a reverse Dante controller for that matter (Dante controller discovers AES67 streams and connected them to Dante devices). For a full mixed Dante/AES67 setup with ANEMAN you will still need to use Dante Controller.

Configuration file

Next to the *aneman.exe* file, you can add a *aneman.conf* config file. It is a JSON where you can put one or many of the following parameters

```
{
CheckAnemans: true | false,          // Active or desactive checking for other ANEMAN (def: true)
OnlyManualDiscovery: true | false,   // Only does manual discovery (def: false)
destIPtypes: "X.X.X.X",              // Allow custom;ulticast IP when creating stream, one letter per
                                     // IP byte: S for static, I for increment
destIPaddress "X.X.X.X",             // Custom IP when creating stream, classic IP form. Numbers
                                     // associated with I will be incremented on subsequent stream
                                     // creation. Numbers with S will be copied as is.
LogLines: <number>,                  // Number of log lines to keep in memory (def: 1000)
LogEngine: "yes" | "no",             // Log engine, used for debug (def: "no")
LogDevices: "yes" | "no",            // Log devices, used for debug (def: "no")
BreakStreamsForOptimize: "yes" | "no",   // Allow to del/recreate stream for optimization
                                         // default: no
PluginDirectory: <system path>,      // Custom path for plug-in directory
ExeDir: <system path>                // Custom directory when looking for something in the exe dir
StoreDir: <system path>              // Custom path to store data
SimulationDirectory: <system path>   // Custom path for simulation files
StaticServices: <system path>        // Custom path for static services
LogDirectory: <system path>          // Custom path to store logs
DevicesNotifyThreads: <number>       // Number of threads to handle notification (debug)
}
```

Please check with Merging's support when trying those options.

Declaring static devices

When using ANEMAN on complex networks, discovery using MDNS might not be available. You can create files in the *StaticServices* directory to declare devices. ANEMAN will check periodically if the device service is open.

Devices found by MDNS AND declared with Static Services may crash the software.

Path of the *StaticServices* directory is:
Mac: <home dir>/Merging Technologies/Aneman/StaticServices
Win: <home dir>/AppData/roaming/Merging Technologies/Aneman/StaticServices

The directory should contain .json files where each line of the file is a JSON object of the form:
{"Ip":"192.168.1.159","Origin":"MDNS","Port":80,"Subtypes":["_merging_zman"],"Txt":{}, "Type":"Merging Technologies MT ZOEM (on zoem_110341)._http._tcp.local"}

Where the following fields should be adapted to the device you want to declare:
Ip: the IP of the device
Port: the port of the service (80 for HAPI, HORUS, ANUBIS and 9090 for ASIO, VAD, MassCore)
Subtypes: should be an array containing one string base on the product type
"_merging_horus" for HAPI and HORUS
"_merging_zman" for ANUBIS and OEM devices based on ZMAN
"_merging_CoreAudio" for VAD
"_merging_asio" for ASIO
Type: must be of the form <name>._http._tcp.local

Please contact merging support if you have any question.

Limitations

When trying to apply a connection, the following restrictions apply:

- Connection require devices to have the same sampling rate and to be in the same IP subnet.

- Input and output devices must not be the same device, except ANUBIS

- When recalling a device configuration from the device menu, it will recall streamers and receiver. Do not forget to clean the device when recalling connections using ANEMAN.
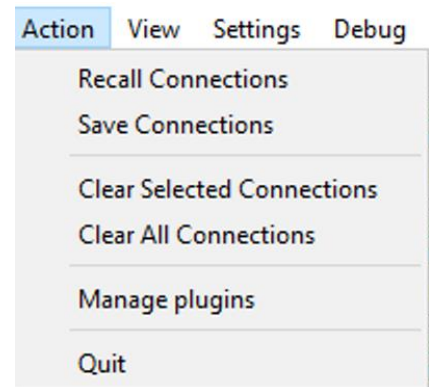
ANEMAN's menus

Action ::Save connections

Once the setup is done, it can be saved using the Save Connections action in the menu. This will save the connection state between the selected devices.

If you want to save the whole network, just make sure no device is selected.

Action::Recalling configuration

Saved connections configuration can be recalled by using Recall Config in the action menu. Recalling a configuration will not overwrite existing connections, it may be necessary to clear all connections before performing a recall.

Action::Clearing selected/all connections

This will remove every streamer and receiver of selected (or all) devices on the network. This action can be used to «clean » a device that may badly respond to configuration.

Note: Clear Connections will not clear the internal connection of the MERGING+ANUBIS

View menu

The items in this menu allows the user to display either; The Matrix, the Log, the devices or PTP tab
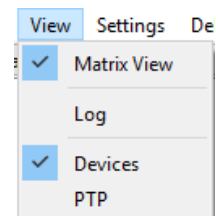
Log Window

You can show a log window from the View menu, this window shows you the history of the events that happened on the network. For now (beta 2 version), it only shows Device discovery (devices added and removed in ANEMAN).

Settings::Dock icon

This option when selected allows ANEMAN to always be running as a task. This can be useful when using Sampling Rate zones and making sure that all devices sampling rate change adequately together at all times.

When closing ANEMAN with this option enabled you will notice that it keeps running in the Taskbar and that you can Maximize ANEMAN from the Mouse+Right click menu
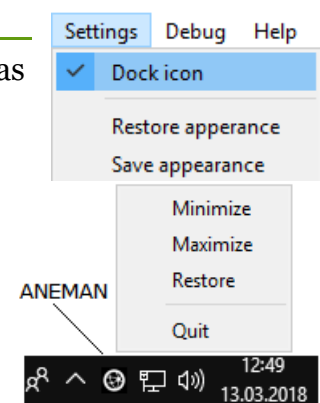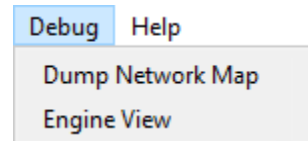
Settings::Restore or Save appearance

Those options allow the user to save or restore the ANEMAN appearances.

Dump Network Map

If think you find a bug, or want assistance on a behavior of the software that you cannot understand, you can assist us in improving the software by sending the report generated by the Dump Network Map action in the Debug Menu.
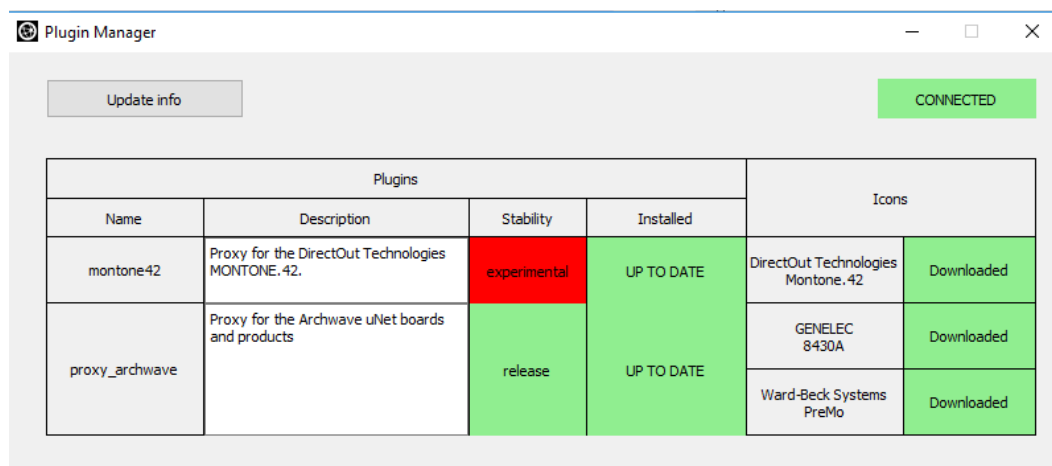
Plugins

Managing plugins and device icons

ANEMAN embeds a plugin manager accessible from the action menu. Opening the plugin manager will bring a window showing the status of currently installed plug-ins and available plugins. For each plugin you will be able to download icon for the devices supported by this plugin.

Plugins marked as **outdated** must be deleted before the newer version can be installed.

NOTE: An internet connection is required for the plug-in manager to work. And you will need to restart ANEMAN after downloading a new plugin.

Removing plug-ins?

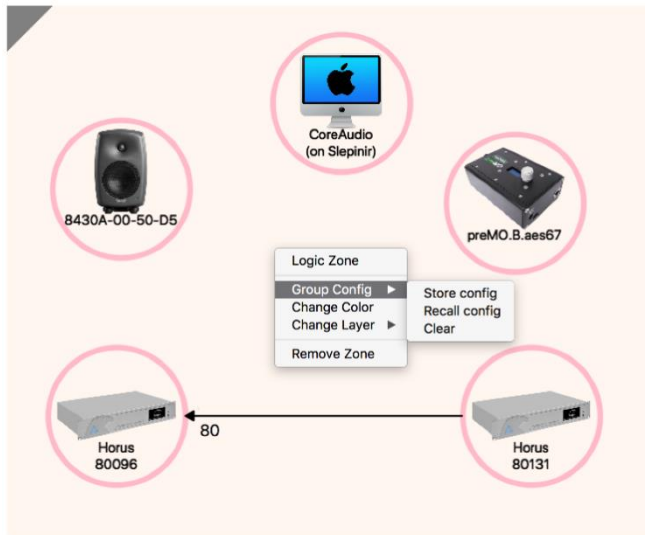To remove plug-ins, remove the files in the plugin's directory

Windows: C:\ProgramData\Merging Technologies\Aneman\plugins or C:\Users\<username>\AppData\roaming\Merging Technolgies\aneman\plugins

MacOS: /Users/<username>/ Merging Technologies/aneman/plugins

Zones
Advanced configuration of zones

Users can use the zone to manage patches and device grouping.

Change color: update the color of the group

Store config: save the group configuration (streamer / receiver, including names and destination IPs), and sampling rate

Recall config: restore a group configuration. **THIS WILL WIPE CURRENT CONFIGURATION**

Clear: wipe current group configuration

Easy Connect Replacement

Use ANEMAN with Merging's Pyramix/Ovation as an Easy Connect Replacement

Inputs and Outputs Connections:

Easy Connect:

Example for the AD module and Headphone connections. The Inputs modules of the Horus/Hapi were listed on the Right starting with the Inputs and followed by the Outputs modules.

Only banks of 8 channels at a time could be connected. (except of the Headphones)
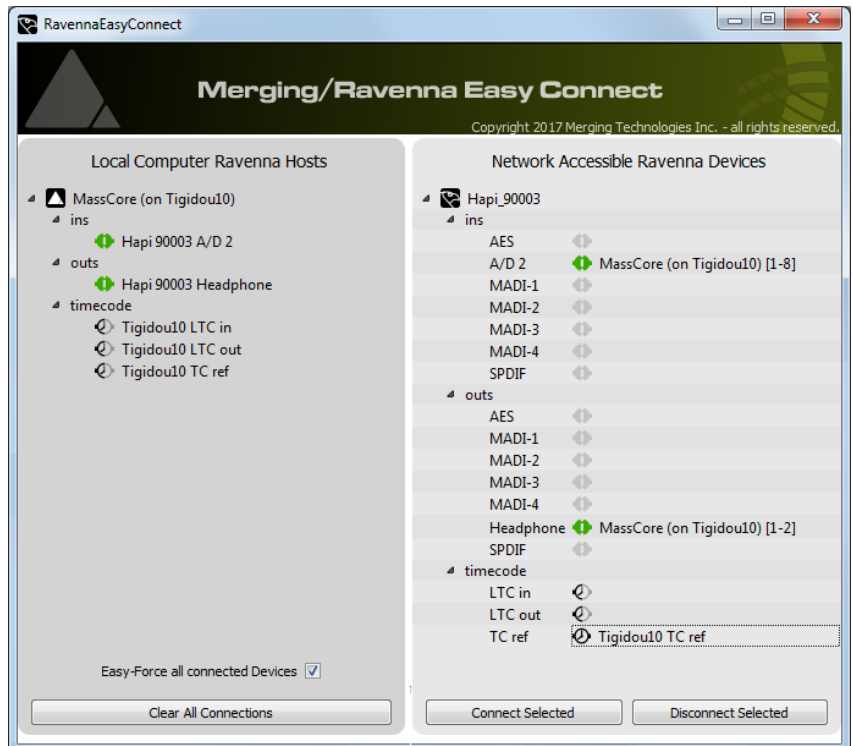
ANEMAN:

In order to connect similar modules you will first need to select both the Hapi and MassCore (or ASIO) entry in the ANEMAN Zone view.

Connecting modules can be done in un-collapsed mode or collapsed, and in single channels or banks of 8 channels. The Inputs Streamer (e.g. AD8 Hapi) being on the right side of the Matrix view and the Outputs Receivers (e.g. Hapi headphones) on the Top Row of the Matrix View
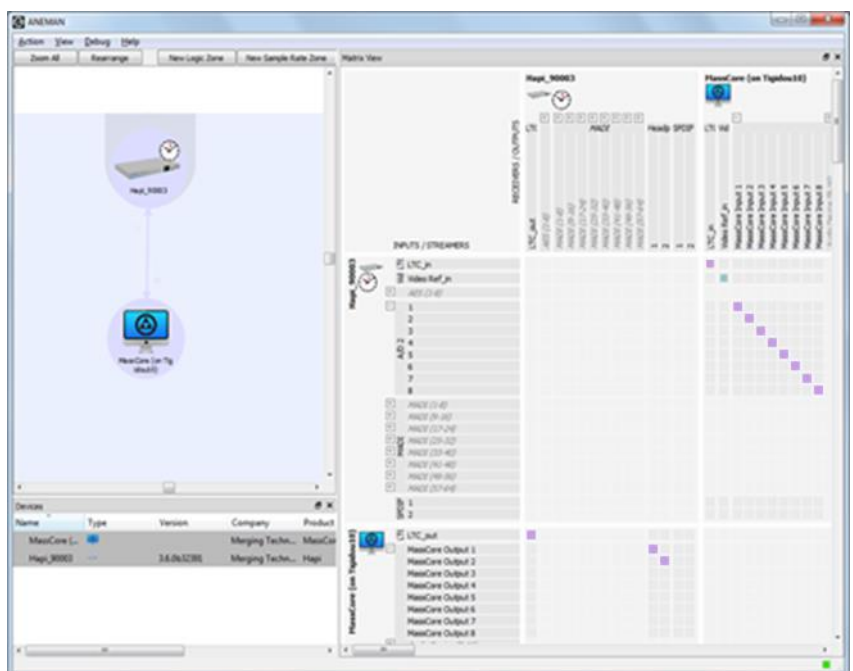
Force devices to follow the same sampling rate:

Easy Connect: Has the Easy-Force all connected Devices to follow the same Sampling Rate or Framing (Latency mode)
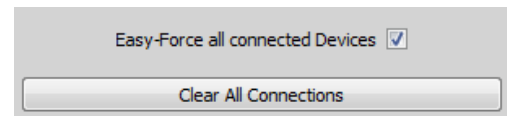
ANEMAN: As of the first beta version of ANEMAN you can force all devices to the same sampling rate, for the Framing mode this is not the case yet and will have to be done manually on the devices.

To Force Sampling Rate in ANEMAN you will need to create a New Sample Rate Zone, a special Logic zone in which the devices all share the same sample rate.
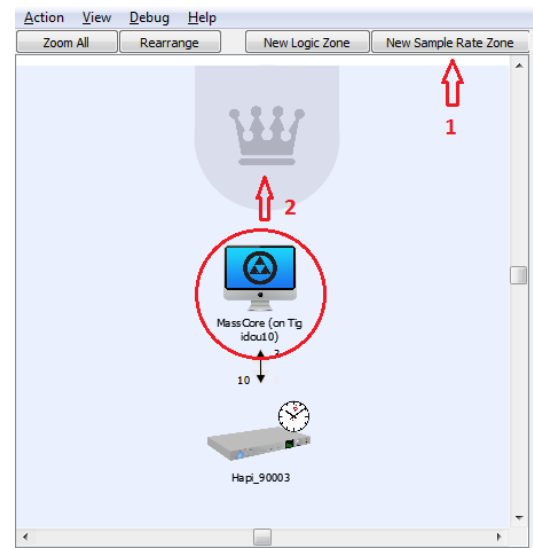
You select one of the devices in the group to be the Master and place it on the crown at the upper center of the zone (the Master zone). We will use the MassCore in the example here.

Every other device in the zone will then be slaved:

- If the Master sample rate changes, the slaves will follow

- If a Slave changes its sample rate, it will automatically be forced back to the one of the zone.

Note : Some devices may not be able to accommodate the sample rate of the zone and may therefore not be able to follow the Master in every case.
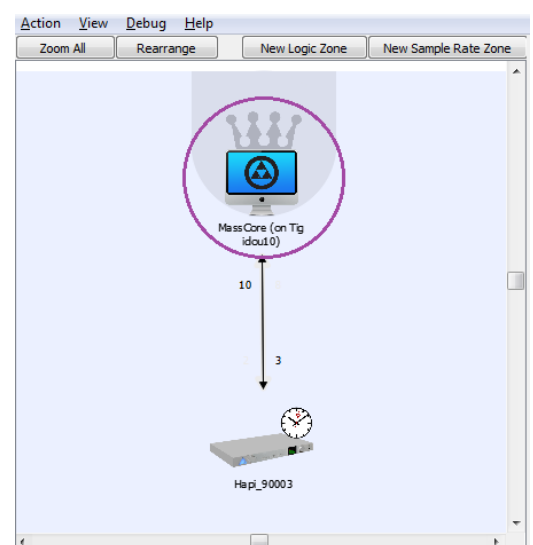
How to Clear Connections:

Easy Connect: Has the "Clear All Connections" and the CTRL+"Clear All Connections" to force the clearing all the connections over a network
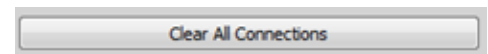

ANEMAN: In order to clear connections, you must select the zone view the devices you want to clear the IO From/To.
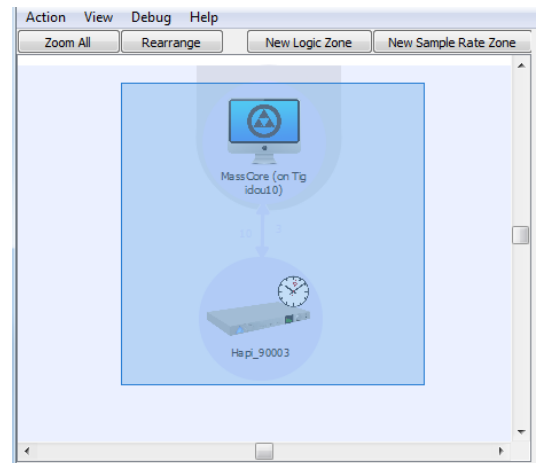
Once the devices are selected go to the Action menu and select the "Clear Selected Connections. This action will clear the connection that those devices have.

You will need to confirm the action.
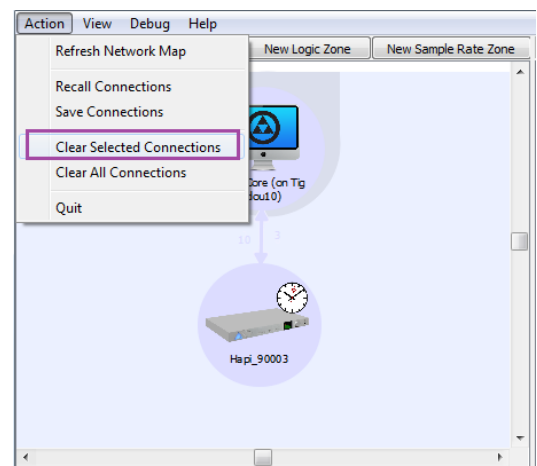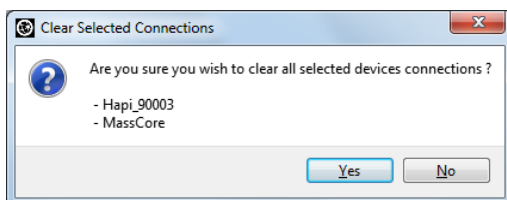
ANEMAN also has the Clear All Connections that should be handled with special care since it will clear all the Connections that exists over your network.

How to make a Video Ref, LTC In and LTC Out Connections:

Easy Connect
Horus/Hapi TimeCode and Video Ref connections can be enabled from RAVENNA Easy
Connect :

LTC in: Connection must be enabled in
order to receive incoming LTC/TimeCode
LTC out: Connection must be enabled in
order to generate outgoing TimeCode
TC ref: Connection must be enabled for
Video reference.

*Note: TC ref option must be enabled in order to
lock the MassCore TimeCode to the Horus **Video
In**, if no reference is feeded to the Horus/Hapi
sync port Video Ref input then expect the
MassCore Video Ref indicator to be blinking
yellow in Pyramix.*
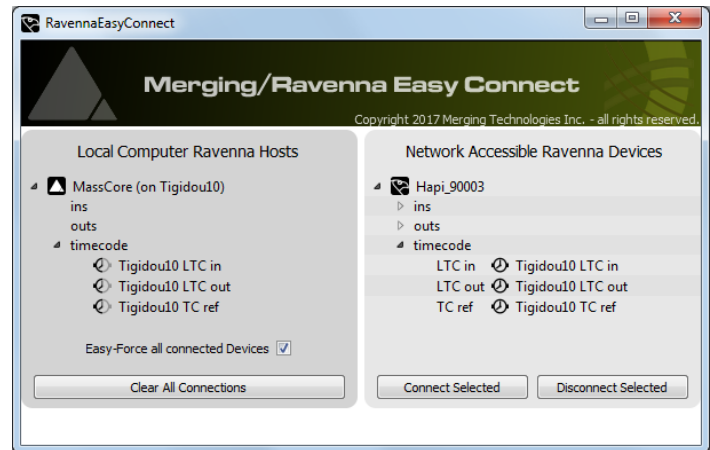
ANEMAN:

LTC in: Connection must be created in order to receive
incoming LTC/TimeCode

Procedure: Make sure you select the Hardware device Inputs
Streamers LTC_In entry and connect it to the MassCore
Receivers/Outputs listed as LTC_In.
Apply to connect, once connected the color should turn to
green.

LTC out: Connection must be created in order to
generate outgoing TimeCode

Procedure: Make sure you select the MassCore
device Inputs Streamers LTC_Out entry and
connect it to the Hardware Receivers/Outputs
listed as LTC_Out.
Apply to connect, once connected the color
should turn to green.

<u>TC ref</u>: Connection must be created for Video reference. Procedure: Make sure you select the Hardware device Inputs Streamers Video Ref_in entry and connect it to the MassCore Receivers/Outputs listed Video Ref_in. Apply to connect, once connected the color should turn to green.

*Note: **TC ref** option must be enabled in order to lock the MassCore TimeCode to the Horus **Video In**, if no reference is feeded to the Horus/Hapi sync port Video Ref input then expect the MassCore Video Ref indicator to be blinking yellow in Pyramix.*

Troubleshooting and Errors

Errors reported in ANEMAN

As of ANEMAN 1.1.6 version some errors are reported directly on the UI for users to see.

In order to see the error place your mouse pointer over the red error, within a sec a message Box will open and display the error
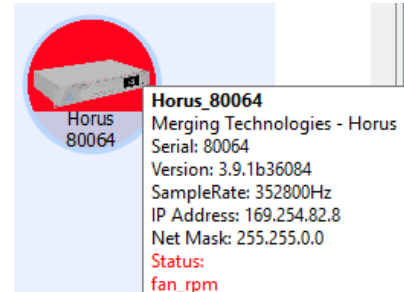
Clear the error from the Mouse+Right Click Context Menu
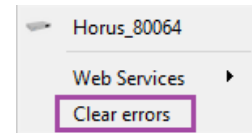
Note: This will not clear the device error notification message, but if an error would occur again ANEMAN would report it. So if you've fixed the issue ANEMAN will no longer report it.

Other error example: When a device frame mode does not match another one when it has too (ASIO RAVENNA & Hapi) ANEMAN will report an error by making the device blink red.*Note: For proper Error reporting users must be on the latest Horus & Hapi firmware.*

Unable to make a connection

If you are unable to make a connection (red highlight on a cell you want to connect), please check the following :

- Both the input and output devices should have the same sampling rate

- Both the input and output devices should be on the same subnet

If those two conditions are true, then you might want to open the configuration page of the receiving device, if the output is busy (for instance, a receiver is configured on an output) the software would not allow you to make a connection.

Quick fix : use the clear device connections action from the action menu to remove every streamer and receiver from that device.

Caution: this might cause other devices to need their connections to be cleared as well.

Streamer/Receiver error codes

Streamer Errors

Error, -1, "Unknown error"
Restart ANEMAN, if the error persists restart the streaming device.

Error -99, "Can not add streamer, check streaming device status"
You have reached the maximum number of streamers that the Device can handle. Try consolidating the network by doing the following steps :
Select the streaming device and all the devices in the same network
Save the connections of those devices (action -> save connections)
Clear those devices (action -> clear selected connections)
Recall the connections (action -> recall connections)

Error -100, "Streamer input not found" Channel mapped to unexisting input
One of the component for the connection is not available
ASIO : make sure you have defined enough Inputs and outputs in Merging RAVENNA ASIO panel, as you cannot make more connections than what has been defined.
Example : if only 8 outputs are set, you can only map a group of 8 outputs.
Remember also that the number of inputs and outputs is sampling rate dependent.
CoreAudio : make sure you have defined enough Inputs and outputs in Merging RAVENNA panel, as you cannot make more connections than what has been defined.
Example : if only 8 outputs are set, you can only map a group of 8 outputs.
The RAVENNA input or output that was previously connected is no longer available on the RAVENNA network.
Example : if you connect AES1 output, and then later you remove it from the RAVENNA network, by reassigning it into the device module menu.

Error -101, "Streamer configuration is wrong, check streamer"

The channels assigned to the streams are in the wrong order, check the advanced pages of the device.

Error, -102, "Streamer input is not connected"
Channels are not mapped to the streamer, check the advanced pages of the device.

Error, -103, "Streamer input not found"
The Input associated to the streamer can not be found, check the advanced pages of the device. This can be caused by a missing I/O module or a different sample rate than when the streamer was originally configured.

Error, -104, "Streamer multicast address is already used, check streamer configuration"
The multicast address of the streamer is already used, change the multicast address in the advanced pages of the device or delete / re-create the connections in ANEMAN.

Error, -105, "Streamer multicast address is undefined, check streamer configuration"

The streamer is missing a multicast address and cannot send data to the network, change the multicast address in the advanced pages of the device or delete / re-create the connections in ANEMAN.

Error -106, "Stream format incompatible with input, check device configuration"
The audio codec is not the same, eg PCM vs DSD.

RTP Receiver Errors

The RTP receivers communicate flags to generate an error code. Flags:
- 0x01 – 1 – The receiver received a packet out of order. May happen when initializing the receiver (just after making a connection)
- 0x02 – 2 – The receiver receives a wrong SSRC. May happen at init or if two streams are received by the same receiver
- 0x04 – 4 – Wrong RTP payload type: bad stream of different Payload in SDP and in the stream
- 0x08 – 8 – Wrong RTP timestamp, may happen at init of it the sender clock changes
- 0x10 – 16 –RTP receiver is receiving the packets
- 0x20 – 32 – Stream has been muted, this means that something went wrong

The errors can be combined to form a byte, hence the hexadecimal notation, for instance 0x30 means we have both 0x10 and 0x20.

If the status of the RTP receiver is not 0x10, ANEMAN uses those values to build a positive error value starting a 100.
> 117 meaning that RTP packet are been received but with out of order packets
> 130 meaning that Packet are received but audio is muted.

The most frequent error:
> 148, generally meaning that receive buffer is too small or PTP is bad
> 132, indicating that no packet is received (no streamer? improper IGMP rooting?)

Receiver Errors

Error, -1, "Unknown error"
Restart ANEMAN, if the error persists restart the streaming device.

Error, -10, "Stream statistics can not be sent or received, check receiving device"
The receiver can not send its statistics, check network configuration and receiving device.

Error -19, "Stream Sample rate is wrong, check sample rate status and groups"
The RAVENNA device and the host sampling rate are not matching
Set the required sampling rate in the device or the host.
You can also use ANEMAN groups, to set any RAVENNA device in the group to follow the host sampling rate.
If you share a RAVENNA device between several hosts, make sure that all hosts are set to the same sampling rate (or all in the same ANEMAN group).

Error -20 "Channel error is wrong, check streamer configuration"
The number of channels between the inputs and the outputs does not match.

Error, -21, "Wrong PTP clock, check PTP status"
Check that the streaming device and receiving device are all on the same clock.

Error, -22, "The stream payload is bad, check streamer configuration"
"Streamer can not be assigned to output, check receiving device routing" Channel map collision
You are routing an input (Source) to an output (Sink) that is already in use.
You can route an input to several outputs, but not several inputs to one output.
Use an available output.
Disconnect the output, then connect to the required input.

Error, -94, "Unicast Error, stream not supported by HAPI or HORUS, please check device"
This error indicates an Unicast Error, you should not encounter this error in conventional use of ANEMAN.

Error, -95, "Unicast stream address mismatch, check network configuration of receiver"
This error indicates an Unicast Error, you should not encounter this error in conventional use of ANEMAN.

Error, -96, "Can not get stream configuration, check network settings (firewall, subnets...)"
The receiving end can not connect to the streaming end to get stream info, check that :
Devices are on the same network subnets (their IPs and Network allow communication between them)
There is no firewall blocking connection on each device (this applies to Virtual Audio Devices only)

Error, -97, "Bad stream info, check streamer configuration"
This error mostly appear in interoperability cases (other Ravenna or AES67 devices than Merging). The stream info retrieved by the receiver is incorrect, check the SDP info, there might be an error in it.

Error, -98, "Can not add receiver, check receiving device status"
The Device has probably exceeded the maximum number of streams it can receive, try consolidating the network by doing the following steps :
Select the streaming device and all the devices in the same network
Save the connections of those devices (action -> save connections)
Clear those devices (action -> clear selected connections)
Recall the connections (action -> recall connections)

Error, -99, "Bad stream info, check streamer configuration"
There is an error in the SDP file.

Error, -100, "Receiver configuration is wrong, check receiver"
The channels assigned to the streams are in the wrong order, check the advanced pages of the device.

Error, -101, "Receiver output is not connected"

Channels are not mapped to the receiver, check the advanced pages of the device.

Error, -102, "Receiver output not found"
The output associated to the receiver cannot be found, check the advanced pages of the device. This can be caused by a missing I/O module or a different sample rate than when the streamer was originally configured.

Error -103, "Receiver output not found"
Channel mapped to unexisting output
One of the component for the connection is not available
ASIO : make sure you have defined enough Inputs and outputs in Merging RAVENNA ASIO panel, as you cannot make more connections than what has been defined.
Example : if only 8 outputs are set, you can only map a group of 8 outputs.
Remember also that the number of inputs and outputs is sampling rate dependent.
CoreAudio : make sure you have defined enough Inputs and outputs in Merging RAVENNA panel, as you cannot make more connections than what has been defined.
Example : if only 8 outputs are set, you can only map a group of 8 outputs.
The RAVENNA input or output that was previously connected is no longer available on the RAVENNA network.
Example : if you connect AES1 output, and then later you remove it from the RAVENNA network, by reassigning it into the device module menu.

Error, -104, "Stream format incompatible with input, check device configuration"
The audio codec is not the same, eg PCM vs DSD .

Error, -105, "Receiver configuration is wrong, check receiver"
Channel map is not supported, this may be cause by a change in samplerate since the configuration of the receiver.