Pyramix 25th Anniversary Release Notes

Installation

Please consult the Installation Guide located on the Pyramix Installation Media (USB Memory card) for details on the hardware and software installation procedure and Authorization Key registration process.

RAVENNA users will have to install the NET-MSC-GBEX1 PCIe Ethernet card provided by Merging Technologies. TURN YOUR COMPUTER OFF (shut down then switch the power off). Next plug the NET-MSC-GBEX1 card into one of the PCI-Express bus slots on your computer and turn the power back on. The NET-MSC-GBEX1 card will only be operational once the MassCore runtime is installed. Refer to the Pyramix Installation Guide for more details.

- To install the Pyramix Virtual Studio software insert the Pyramix Virtual Studio Installation Media - the installation program should auto-start.
- To install MassCore launch the MT Security Settings, go to the MassCore page and install the MassCore RunTime (a MassCore base key is required along with MassCore 64bit and a RTX64 3.0 key). Refer to installation guide for more details.
- Warning: Make sure that the Windows 10 version you are installing onto is supported by Pyramix, as often update can break the compatibility. All details in the separate Pyramix installation guide.

Updates

Please check our Web site **http://www.merging.com** periodically for information, patches and updates.

Pyramix 25th ANNIVERSARY INSTALLER INFORMATION:

Pyramix 25th Anniversary is compatible with the following Operating Systems
- Windows 7 Professional (64bit): MassCore/RAVENNA, Native & Native/RAVENNA ASIO
- Windows 10 Professional (64bit): MassCore/RAVENNA, Native & Native/RAVENNA ASIO

  Pyramix 25th Anniversary is supported under the Windows 10 updates;
  - November 2019 Update (1909) supported with Pyramix 25th Anniversary & RTX64 3.7
  - May update (1903) supported as of Pyramix v12.0.5 HotFix
    As well as the Meltdown and Spectre Windows updates.
  - Windows 10 Zombieload update is supported with MassCore/RTX64 3.6.2 and 3.7.0
  - October update (1809)
  - Spring Creator (1803)
  - Fall Creator (1709)
  - Creator (1703)
  - Anniversary (1607)

WARNING: Pyramix 25th Anniversary is supported on 4th Generation Intel Core Processors (4XXXK and higher) and will not launch on previous Processors generation
Recommended specification:
https://confluence.merging.com/pages/viewpage.action?pageId=24608853

Pyramix 25th Anniversary installation notes
- Pyramix 25th Anniversary runs on the new Pyramix 25th keys as of the Release Candidate
- Pyramix 25th Anniversary and its HotFix comes with the same MassCore RTX64 v3.7.0.4983 as the Pyramix 25th and the previous Pyramix v12
- The Pyramix 25th Anniversary installer comes only as a 64bit version (64bit OS)
- Before you perform a Windows 10 update on a system already running a MassCore version it will be important for users to remove MassCore from the MT Security MassCore tab prior to performing a system update. Details below.
  Take note that when selecting uninstall MassCore you will need to reboot your system as the uninstallation is completed during the system reboot

  Note #1: We highly recommend users to defer the Windows updates, so that it does not harm your system here for details on how to defer updates
  Windows 10 users should never update to Beta Windows version or major new updates before making sure they are supported by Merging.

  Note #2: Users wanting to update to Windows November 2019 update (1909) must follow the procedure here https://confluence.merging.com/pages/viewpage.action?pageId=60031028
  Users that apply Windows updates must refer to the Merging Compatible Windows updates here Once you have updated your Windows 10, follow the Pyramix v12 and MassCore installation.

  Note #3: Windows 10 May 2020 Update 2004 not compatible with MassCore-RTX64 3.7.

- SSK-HUD-RTX owners can have both a Pyramix v11, v12 or 25th Anniversary MassCore key stored on their dongle and go from a system to the other using their SSK-HUD-RTX
- SSK-HUD-RTX owners should be aware that the Hasp driver 7.80 is not compatible with MassCore/RTX64. Refer to the procedure here:
  https://confluence.merging.com/pages/viewpage.action?pageId=27852814
- A new Cloud Security (dongle-less) is available as of the Pyramix 25th Anniversary
- Pyramix 25th Anniversary Projects are not backward compatible with Pyramix v12.0, users must perform a "Save Special as v12.0" in order to open such project in v12.0
- The VB Plugins (VS3) are no longer installed along Pyramix as of the 25th Anniversary version they come with a standalone installer. Download and run the VB Plugin – VS3 installer after having installed Pyramix.
  https://confluence.merging.com/display/PUBLICDOC/VB+Plugins+%28VS3%29+standalone+installer

Native Installation Notes:
- Pyramix 25th Anniversary requires new keys as of the Release Candidate.
  Warning: Users with v12 keys will not be able to run as of Pyramix 25th Anniversary
- Pyramix 25th Anniversary can be installed on either Windows 7– 64bit or Windows 10 – 64 bit
- It is necessary to remove the previous Pyramix version, if there is one, from the Windows Programs and Features, then reboot your system before installing Pyramix 25th Anniversary

- Follow the Pyramix Installation Guide for all details
- RAVENNA ASIO v12 > is mandatory to update to firmware 3.9.4 and higher and vice-versa.
- ANEMAN installer is not included in the Pyramix Installer.
  Please download and install the latest ANEMAN in order to manage and monitor your AoIP devices from http://www.merging.com/products/networked-audio/aneman

MassCore Installation Notes:

- Refer to the Pyramix 25th Anniversary Installation Guide for installation procedure and details on the specific BIOS settings and system configuration.
- Pyramix 25th Anniversary uses the same MassCore RTX64 v3.7.0.4983 as Pyramix v12.0.5
- Pyramix MassCore users need a RTX64 3.0 key in order to Install and run MassCore. See with your Merging Sales Partners.
- It is necessary to remove the previous Pyramix version, if there is one, from the Windows Programs and Features, and then reboot your system before installing Pyramix. Take note that when selecting uninstall MassCore you will need to reboot your system as the uninstallation is completed during the system reboot
  Unless you are planning to update your Windows 10 it is recommended to first remove MassCore before performing the update. In such case follow the procedure document https://confluence.merging.com/pages/viewpage.action?pageId=60031028
- After installing Pyramix 25th Anniversary MassCore users might need to uninstall their previous MassCore from the MT Security setting, MassCore Tab, depending on the previous Pyramix version you were running. If there is an older version present you will be warned and required to reboot before updating to the latest version.
- If your Pyramix system never had a MassCore version before, users will have to install the new MassCore version from the MT Security Settings > MassCore tab.
  A valid MassCore RTX64 -3.0 key is mandatory.
- Users running MassCore 64bit will not be able to move their license to another system (or the same system after a Windows re-installation) unless first making this demand through Merging keys@merging.com Please justify the reason of your system migration or reinstallation as the RTX64 key is not meant to be frequently renewed.
  If Merging cannot follow up in a quickly enough (in case of emergency or during weekends) then please contact the Interval Zero (RTX) Sales team sales@intervalzero.com
  Note: MassCore/RTX 64bit keys are linked to the system/hardware.
  MassCore users can have their MassCore/RTX 64bit keys stored on a separate Dongle instead of having it linked to a unique system. Refer to the Merging option SSK-HUD-RTX.

Pyramix 25th Anniversary users must refer to the Installation Guide for details
https://www.merging.com/uploads/assets/Installers/beta/JANUS_X.0_Beta2/Pyramix_25th_Beta2/Pyramix_25th_Installation_Guide.pdf

Warning:
- Windows 7 users could see this error: " Installation of KB3033929 has failed", potentially this update is already installed, proceed with YES
- Additional Online installation notes are available here:
  https://confluence.merging.com/display/PUBLICDOC/Installation+Notes+v11

Merging Windows 10 Configuration Guide
https://confluence.merging.com/display/PUBLICDOC/Windows+10+Configuration

Note: At the Pyramix launch a warning message box will be displayed if your system updates settings are not configured upon Merging's recommendations.

Merging Windows 10 November 2019 update & Configuration Guide
https://confluence.merging.com/pages/viewpage.action?pageId=60031028

Notes:
- *Anubis must be running ASIO v12.0.1 and higher with ANEMAN 1.1.7 and higher.*
- *For users with Pyramix and VCube installed on the same system, it is mandatory that you upgrade to VCube 9 to run alongside Pyramix 25th Anniversary*
- *MassCore RTX64 users upgrading their processor on a system that was running MassCore previously must follow a specific procedure, contact support@merging.com for more details.*
- *A MTCleanUp utility is available through Merging's Support for those having install issues Please refer to the Knowledge Base*
  https://confluence.merging.com/display/PUBLICDOC/MT+Cleanup

Pyramix 25th Anniversary Release Notes

New with Pyramix 25th Anniversary:

New keys and packs!
Pyramix 25th Anniversary require new keys as of the Release Candidate. Merging also has redone the Packs and Options.
Warning: Users with v12 keys will not be able to run Pyramix 25th Anniversary.

New project format
Pyramix 25th Anniversary projects are not compatible with Pyramix v12.0, use the new Save Special as v12.0 in order to open a Pyramix 25th Anniversary project in the previous v12.0.

New: Native Audio Engine multi-threading support.
Improved performance to the Pyramix Native Engine now based on a multi-threading architecture. The native audio engine will now use multiple threads to process the plugins and the audio input/output. The number of threads that the audio engine runs on is configured by a mechanism that will decide the optimal number of threads.

Note: Native limitation on Strip number count was lifted allowing MassCore Project, specifically Mixers to be fully modified under Native. Hardware IO limitation remains according to new Packs.
Warning: Performance will vary with system configurations.

MassCore VST distribution enhanced.
Pyramix MassCore users will benefit form more VST performance and better distribution as of this Pyramix 25th Anniversary version.

Video playback engine revamping.
Merging has addressed video playback performances issues with its latest work on the Video engine, now allowing users to have increased performance on video playback for all formats and it will also greatly improve the 360 resolutions 2 x FPS formats playback.

SRC playback engine revamping.
Merging has addressed sampling rate conversion playback performances issues with its latest work on the Pyramix 25th Anniversary playback engine.

New QLM Cloud based security as of the beta2
A new security has been implemented for new users needing to run Pyramix, Ovation or VCube without a Merging SafeNet Dongle. This Cloud based security is a dongle-less solution.

Note: SafeNet keys cannot be transferred to QLM security model for a chosen release. This process can only be done for now at the Upgrade stage.
QLM activation/deactivation
https://confluence.merging.com/pages/viewpage.action?pageId=65437899
QLM SelfHelp Tool
https://confluence.merging.com/pages/viewpage.action?pageId=65437985
MTSecurity troubleshooting
https://confluence.merging.com/pages/viewpage.action?pageId=65437939
QLM FAQ
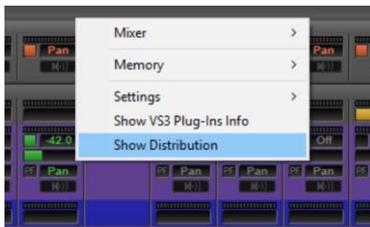https://confluence.merging.com/pages/viewpage.action?pageId=65437961

New. Dialog window for Plugins and distribution information

This Distribution dialog is available in order for the user to understand the current load and distribution of the Plugins in use. In case of overload, one can now easily identify from where the overload might be coming from.

This dialog is accessible from Mouse+Right Click on the Pyramix Mixer and selecting *"Show Distribution"*

The Distribution Dialog will show:
- The Cores Available
- The Strips and Auxes
- VS3 FX
- VST FX
- The Assignation of the core
- The CPU load
- And the Buses (Tab)

Plugin Engine Notice:
The plugins engine Core distribution is done automatically for optimal performance. The total Core load of the Strips plugins will be processed first, followed by the total Core load of the Bus plugins. The engine is sequentially performing those two processing tasks. Meaning that a high Core load on the Strips plugins side is not summed with a high Core load on the Bus plugins side.

Changing a designated Core load to another one is not possible (unless modifying the Mixer configuration) and in no way would it change the total sum of processing passed to the engine for the chosen plugins.

About the Plugins Distribution Core Reading:
We measure the time duration of the plugin itself. Time to process Audio Frame / Duration of the plugin itself * 100 = Load for a single plugin**.** We then compute the multiple plugins (on a chosen Strip or Bus by example) and we calculate the summation of those.

Do not to confuse with the readings below.

Pyramix CPU reading:
The CPU load displayed in the Pyramix bottom bar is not the CPU usage as computed in Windows task manager. CPU load in Native is computed in this way: (time to process audio frame) / (duration of one frame) * 100. Thus, it is the percentage of time used to process in one audio frame duration; this indicator is more useful than CPU Usage because it takes in account CPU stall during processing time.
In MassCore based systems the CPU: load indicator is supplemented by a VST: Core load indicator in the Title Bar. Refer to the Pyramix User Manual for more details.

Windows Task Manager:
Then windows will on its Task Manager CPU measures the CPU time as a percentage of the CPU's capacity.

So, in the end you just cannot open those 3 Windows and expect to have the same readings.

New Atmos Connect Support

Atmos Connect:

- Support for Dolby Atmos Renderer has been implemented
- Currently only supporting Dolby Atmos Mastering Suite and Production Suite.
- Version 3.4.0 is the currently recommended version.
- Original Atmos RMU is not supported for now

Atmos Connect operation:

- Right-click on the Pyramix or Ovation mixing console and go to menu Settings > Atmos Connect…
- In the Atmos Connect dialog enter the IP address of the computer running the Atmos Mastering or Production Suite
- Click the Connect button
- The log window should display a line like: 192.168.3.99:53039->192.168.3.89:4001: connected

Audio Connection:

- It is then assumed that the 128 first outputs of the Mixing Console are routed to the Renderer through any audio transport available, like:
  - Using MassCore or RAVENNA ASIO to a Hapi/Horus then through MADI to another MADI interface connected to the computer running the Renderer
  - Using a Dante card installed in the PC running Pyramix/Ovation to a Dante interface in the computer running the Renderer
  - Using MassCore or RAVENNA ASIO directly to a RAVENNA/AES67 driver running on the computer running the Renderer
  - Currently Dolby only certifies the two first solutions with a MacOS version of the Renderer.
  - Merging has successfully tested the third solution with a Windows version of the Renderer running on the new Merging Audio Device driver. Please contact us if interested in this (beta only for now) solution.

Beds and Objects mapping:

- Once connected to an Atmos Renderer the Mixing Console will regularly receive the Input Configuration currently active in the Renderer and display all the channels naming and numbering in the console output patches, both in the main mixing console UI in the Masters Output section and drop-down menu and in the Route page Masters Output section.

- Patching from Pyramix/Ovation to the Renderer is then made very easy and verbose:

- Objects busses:

- Pyramix/Ovation Masters Outputs of Objects Busses must be patched to any Renderer Objects. They will be displayed in Green in The Renderer Room Display when actual audio comes through or when they move.
- The Pyramix/Ovation Divergence parameter is mapping to the Atmos Objects Size parameter.
- If the Object Bus is disabled in the Pyramix/Ovation UI, then the objects in this bus are removed from the Atmos Renderer and the objects are rendered internally in the Pyramix/Ovation beds.
- Note: This support is equivalent as what can be seen in other workstations.

- **Beds busses (Pyramix/Ovation General Mixing Busses):**

  - Pyramix/Ovation Masters Outputs of any General Mixing Busses (except Objects Busses) can be patched to any Renderer Beds. In this case no indication is visible in the Renderer, only the actual audio signal will be displayed in the Renderer channel input display.

  - Pyramix/Ovation Masters Outputs of any General Mixing Busses (except Objects Busses) can be patched to any Renderer Objects. In this case the Renderer Object is used as a Virtual Speaker, is made visible in blue in the Renderer Room Display and is positioned in the space at the static and predefined position for that speaker depending on its Channel Typing.

  - Note 1: Wide Left and Wide Right speakers can be patched as Virtual Speakers Objects only. They have no equivalent in any Atmos Beds and must be mapped as objects.
  - Note 2: Any Top Speakers must be patched as Virtual Speakers Objects too. Although the "official" 7.1.2 Atmos Bed contains two Top channels, these channels are Surround only Top Speakers, meaning that any Top/Front or Top/Rear signal can't be differentiated and will be rendered fully from Front to Rear. For this reason, the only way to properly differentiate Top/Front, Top/Side and Top/Rear speakers is to map them as Virtual Speakers Objects using Atmos Connect.
  - Note 3: Other Speakers that have an "official" channel in the Renderer Beds (L, R, C, Ls, Rs, Sl, Sr) can be mapped either as Beds Channels or as Virtual Speakers Objects. The final result may differ from the actual rendering of the Atmos Mastering/Production Suite and the final render in Theatres or Home. This is subject to experimentation.
  - Note 4: LFE must always be mapped to a Beds channel.

New Atmos Speaker Sets:

In order to properly support recently released Dolby Atmos for Music speaker sets (9.1, 9.1.2, 9.1.4, 9.1.6) Merging had to reorganize the list of speakers channel types.

- Wide Left and Wide Right have been added to the list
- Surround Left Center and Surround Right Center have been suppressed from the list
- Dolby Atmos 9.1, 9.1.2, 9.1.4, 9.1.6 speaker sets are now properly supported
- Auro 7.1.4, Auro 13.1 and THM 12.2 speaker sets have been slightly modified, however are still supported

New as of Pyramix 25th HotFix.

3D Panner

A "No Z Axis Bottom" button has been added in the 3D Panning Window, preventing when checked to move below the middle layer of the Z Axis. This is of interest when outputting data to renderers or spatializers not supporting below 0 Z coordinates, such as the Dolby Atmos Renderer.

Note:
This setting is stored globally in the registry and is then effective for all projects subsequently loaded. We plan add it to Mixer settings and make it project specific.
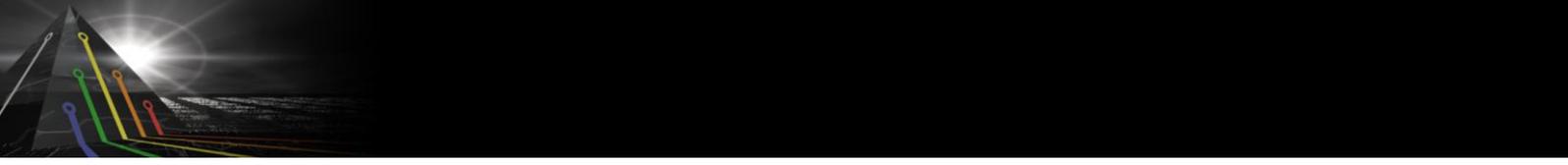
Improvements:

Mixer:

Bus Sends
- Mixing console General Aux/Group Busses Send Gain now allowed to go up to +12dB.
- When send value is above 0 dB both the dB text indicator and slider turns to light red.

Bus Trims
- Mixing console General All Busses Trim Gain now allowed to go up to +20dB.
- When trim value is above 0 dB the dB text indicator turns to light red.
- Double click on any trim value reset to Mute if clicked on left side, or 0dB if clicked on right side

Room: Import / Export a Custom sources x, y, z coordinates and gain.

Once one creates a custom bus, it is now possible to *Save Room* and *Load Room* into another bus from the same project without re-creating it all. You can also export/import it into/from another PMX or Ovation session.
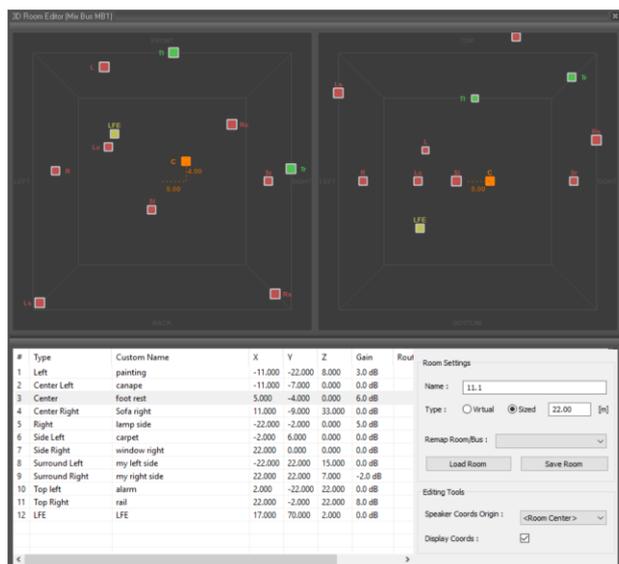
Note: Mixer Room Settings. Gain Parameters is only supported with Sized Room types and not Virtual Room

Dual Pan modifiers updated

- Double-click on the White sends it to the Front-Left
- Double-click on the Red sends it now to the Front-Right
- Double-click on a Speaker sends the White to it
- Double-click on a Speaker with CTRL pressed sends the Red to it

Send Modifier

Pressing CONTROL (CTRL) while enabling a Send now resets it to Mute status instead of 0dB.

Meter Bridge

New Peak Overload setting.
The permanent overload peak can be reset by pressing the P key
(as in the Mixer).

Albums Publishing

Added support from DiscWrite & Pyramix for 5.1.4 target destination, this applies to formats:
WAVE, FLAC, AIFF and MTFF.

File formats summary

File Format	Max number of channels	Max sampling rate	Available pre-encoding bit rates
Wave	8 (and 5.1.4)	352.8	16/24/32FP
AIFF	8 (and 5.1.4)	352.8	16/24/32FP
MTFF	6 (and 5.1.4)	352.8	16/24/32FP
PMI	2	44.1	16
Flac	8 (and 5.1.4)	352.8 Khz	16/24
Ogg Vorbis	128	192	16/24/32FP
MP3	2	48 kHz	16/24/32FP
AAC	48	96 kHz	16/24/32FP
DSDIFF	2/5/6	DSD64 to DSD256	NA (1bit)
DSF	6	DSD64 to DSD256	NA (1bit)

Warning: 3rd party application might not be able to read those files as the native formats have their default limitations.

RAVENNA ASIO Driver v13

New version of the ASIO driver, supporting latest changes and ST-2022-7

Merging Audio Device (MAD) 1.0

This new ASIO RAVENNA/AES67 device supports Multi ASIO Clients and integrates WDM Support. With this new Device Driver multiple applications running ASIO can be launched in parallel on a same system, sharing the same sampling rate and at the same time multiple applications running WDM can be launched in parallel and have their own sampling rate automatically converted to the ASIO sampling rate. This allows monitoring the Windows system sound   and any application (such as Spotify, YouTube, PC Sounds files,…) along with any ASIO   applications.

Refer to the online MAD documentation for all details.
https://confluence.merging.com/display/DSI/MAD+Docs

- Two different modes supported
    - General mode (Pro usage for Anubis, Hapi and Horus)
    - NADAC mode (HiFi usage for NADAC users)
- Multi-Client ASIO and thus hosts supported
- Bridge channels support between ASIO clients
- WDM Support
- Bridge channels support for WDM and Host.
  Note: One sampling rate at a time supported for ASIO (The default host one). WDM supports SRC.

MAD Infrastructure Pack (PSO-MAD-INF) required for:
- Virtual Machine Support
- ST2022-7 Support
- NMOS Support

ANEMAN 1.2.3:

ANEMAN v1.2.3 Release Notes:
- 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
- Improvement. Streams management
- Improvement. Merging Devices discover and undiscover time
- Improvement. Support for 4K display resolution
- Fixed issue with devices being ejected
- Fixed. Long timeout with some devices not appearing as Merging Devices
- Reliability improvements

Important: The ANEMAN comes as a separate installer.
Please download and install the latest ANEMAN in order to manage and monitor your AoIP devices from https://www.merging.com/products/aneman

Warning: RAVENNA Easy Connect is not supporting MERGING+ANUBIS, it is recommended to use ANEMAN to manage your Anubis AoIP network connections

Fixed Bugs in Pyramix 25th Anniversary HotFix1:

Requires Pyramix 25th / Ovation 9 / VCube 9 keys

- PMX125-45: Fixed. Wrap MXF - Active Format Description was not meeting requirements of Application Specification
- PMX125-84: Fixed. Mixer: Naming/Labelling of Object Buses was inverted
- PMX125-106: New. ATMOS: Create a preference that prevents Pyramix panner to go below 0 (positive only values)
- PMX125-108: Fixed. AAF compliance issues
- PMX125-110. Fixed Final Check crash under Pyramix Native.
- PMX125-111: Fixed. Random issue in the Pyramix Realtime Multi-threading engine that could impact Playback and Mixdowns
- PMX125-120: Fixed. Potential glitches if waveforms are generated during mixdown
- RAV-1324: Fixed. MIDIPre control is limited to a maximum of 10 devices
- Fixed. Fixed. Atmos issue with object multi-channels.
- Fixed. Fixed. Mixer. Removed configured page limitation to use more than 96 output channels
- Fixed. MIDIPre control is limited to 10 devices
- Fixed. Insert keyboard shortcut/icon clip insert corrective
- Fixed. RAVENNA ASIO v13.0.4> Excluded security from installer
- Fixed. RAVENNA ASIO long discovery timeout at sampling rate change
- Fixed. Marian card exposed weakness in Pyramix host ASIO implementation

Fixed Bugs in Pyramix 25th Anniversary (post RC1):

New keys required for Pyramix 25th / Ovation 9 / VCube 9 (as of the RC1)

- RAV-1270: Fixed. MAD ASIO can stop working when some ASIO host requests SR change.
- PMX125-66: Fixed. Fabfilter VST3 issue with surround formats in Mixer
- PMX125-77: Fixed. Dither can cause corruption on processed files.
- PMX125-78: Fixed. Delete Media option was removed from edit options
- PMX125-80: Pyramix in cases was failing to re-attach to ASIO and Object Bus issue
- PMX125-89 & PMX125-90: Fixed. Audio Engine Distribution dialog improvement
- PMX125-92: Removes Varispeed option in Format & Sync settings - Native.
- Fixed. Pyramix Crash if tempo section has more than one Bars and Beats (hold & drag)
- Fixed. MAD NADAC WDM channels 2 or 8
- Fixed. MassCore load issue.

Fixed Bugs in Pyramix 25th Anniversary RC1:

- PMX125-35: Fixed. Compressed format Media Manager relink inconsistencies
- PMX125-37: Fixed. Random Crash changing the panner routing and levels.
- PMX125-38: Fixed. DSD Project: The Mixer does not show the Rec tracks enabled.
- PMX125-49: Fixed. Background Recorder not chasing Internal Machine
- PMX125-55: Fixed. Mixer: Have option or modifier that will not enable the send at 0dB but from Mute. Now using CTRL click on send will set it to Mute
- PMX125-59: Fixed. Mixer: Show distribution Aux Groups & VCA plugin identification wrong
- PMX125-65: Fixed. Mixer: Not possible to reset the Dual Pan with a modifier.
- PMX125-71: Fixed. Timeline Auto-Ripple Broken (some tracks not rippling correctly)
- PMX120-182: Fixed. FX Rendering potential hang when processing multiple clips to MP3 and FLAC with some VST plugins
- PMX111-293: Fixed. TC Overlay vs Graphics compensation
- GAIA-1255: Fixed. At project closure the "Video Output" window shows the last picture
- Fixed. DSD Metering wrong and showing full scale meters on the software when the Device stream is not connected

- Native limitation on Strip number count was lifted allowing MassCore Project, specifically Mixers to be fully modified under Native.
Warning: Performance will vary with system configurations.

Fixed Bugs in Pyramix 25th Anniversary Beta2:

- PMX120-182: Fixed. FX Rendering potential hang when processing multiple clips to MP3 and FLAC with some VST plugins
- PMX125-31: Fixed. Playback DSDIFF64 glitch in DXD project
- PMX125-41: Fixed. DSDIFF -DSD256 recording it corrupted at wrong sampling rate within Handler.
- Fixed. Potential crash in Automation record
- New. Atmos Connect Support
- New. Album Publishing 5.1.4 (10 channels) support for format WAVE, FLAC, AIFF and MTFF
- Fixed. Panner: Stereo and all Front only speakers layout are not affected anymore by front/rear moves. It was already the case for Top/Bottom moves. This is only now available from a registry key. Please contact qa@merging.com for more details.

Fixed Bugs in Pyramix 25th Anniversary Beta1:

- New: Native Multi-thread Support
- New: Atmos speaker sets
- Improved: SRC engine, better performance and less glitches
- Improved: Media Handlers, better performance (such as DSD)
- Improved: MassCore VST: optimize threads distribution
- Improved: Video Playback performance
- Installer: Removed the custom choice due to incompatibility issues
- PMX110-112: Fixed. Crash when naming strip/bus with special characters
- PMX111-22: Fixed. SRC creates noise when the same file is crossfaded into itself under SRC.
- PMX111-30: Fixed. Playback performance problem (DSD256 medias in DXD project)
- PMX111-35: Fixed. "Peak Hold" function at Meter Bridge window similar to the Mixer Peak Hold behavior.
- PMX111-123: Fixed. IRT analyzer KLV grid line warnings remaining with MXF.
- PMX111-305: Fixed. MXF error TransferCharacteristics issue
- PMX120-94: Fixed. Album Publishing cannot create files on network path
- PMX120-112: Fixed. Time Line Playback SRC: Burst noises when crossfading media with different sample rates
- PMX120-119: Fixed. VST Routing UI corrupted at times.
- PMX120-126: Fixed. Post FX Record could never start (depending on strip FX delays)
- PMX120-132: Fixed. Wrap adds 2 black frames at the end of the file, without warning. Warning added in Wrap UI
- PMX120-137: Fixed. Pyramix video reverse playback not working without stop
- PMX120-139: Fixed. Record Dubbing mode doesn't reset the "Post FX Record"
- PMX120-140: Fixed. Switch Pre/Post FX Record doesn't update de compensation delay
- PMX120-144: Fixed. Native Audio Engine distribution algorithm with VST weight support
- PMX120-145: Fixed. Album Publishing removed SRC filter type when it does not apply.
- PMX120-148: Fixed. Some MXF (OP-1) video file once imported in Pyramix bring in a small audio must at the end
- PMX120-149: Fixed. Record in WSD with one file per track option makes PMX crash

- PMX120-340: Fixed. Mixer: Crash on rebuild if configure page is open and adding Tracks /strips form timeline. Warning message, recommending users to exit configure page.
- PMX125-15: Fixed. Plugins distribution can break Bus outputs (Native or MassCore)
- PMX125-17: Fixed. VST burst of sound leak at insert, like buffer released.
- HEL-638: Fixed. EUCON softkeys are sent multiple times after a mixer rebuild. Requires EuCon 19.12.1 and higher.
- RAV-992: Fixed. Bonjour from Eucon and Merging Bonjour conflicting
- RAV-1021: Fixed. Switching between Pyramix projects when Horus/Hapi/Anubis is Sample Rate Master of MassCore could make Pyramix crash
- RAV-1048: Fixed. Sink's auto-map doesn't work
- HEL-609: Fixed. DNXHD 10bit support on both PMX and VCube
- GAIA-1374: Fixed. Edit MXF files with "Auto-Scale Individual Waveform" causes Pyramix crashes
- Fixed. Panner: Stereo and all Front only speakers layout are not affected anymore by front/rear moves. It was already the case for Top/Bottom moves.

Fixed Bugs in V12.0.6 HotFix (UnReleased):

- PMX120-132: Fixed. Added warning for unsupported Wrapped formats that could add 2 black frames at the end of the file.
- PMX120-154: Fixed. 320 CBR Mp3 generated with a sample rate of 8kHz instead of 44.1kHz
- PMX120-172: Fixed. Hang or crash with Avid S3 when recalling the mixer memory states that include VST's
- PMX120-179: Fixed. Custom Target settings will not persist when closing/reopening DiscWrite.
- PMX111-123: Fixed. IRT analyzer KLV grid line warnings remaining with MXF.
- PMX111-276: Fixed. Loading Pyramix Setting might crash Pyramix
- PMX111-347: Fixed Mix Group set gain by typing
- RAV-1021: Fixed. Switching between Pyramix projects when Horus/Hapi/Anubis is Sample Rate Master of MassCore can make Pyramix crash
- Fixed. Potential crash in Automation track drawing
- Fixed. MT Audio Bridge first channel offset on Direct outputs.
- Fixed. Fixed display issue in the panning window for Ambisonic decoders: the rotations controls were displayed even in Decoder Only mode, and the target speakers were not displayed when decoding Ambisonic

Pyramix 25th Anniversary Product Changes:

- New 25th Anniversary keys are required as of the Pyramix 25th Anniversary Release Candidate
- New Packs and Options as of the Pyramix 25th Anniversary, Ovation 9 and VCube 9
- New. Cloud security (dongle-less) available
- New. Pyramix Native Multi-Tread Support
- New. Pyramix Native limitation on Strip number count was lifted.
  Warning: Performance of mixer size with vary with systems configurations.
- Pyramix 25th Anniversary project are not backwards compatible. New save Special as v12.0 added.
- Change. Varispeed option under Format & Sync settings no longer supported
- RAVENNA Easy Connect is no longer supported and is not installed along Pyramix since v12.
- Installer:
  o The VB Plugins (VS3) are no longer installed along Pyramix as of the 25th Anniversary version they come with a standalone installer.
  Download and run the VB Plugins–VS3 installer after having installed Pyramix.
  https://confluence.merging.com/display/PUBLICDOC/VB+Plugins+%28VS3%29+standalone+installer
  o WARNING: Pyramix 25th Anniversary is supported on 4th Generation Intel Core Processors (4XXXK and higher) and will not launch on previous Processors generation
  Recommended specification:
  https://confluence.merging.com/pages/viewpage.action?pageId=24608853

MassCore Technical Notes:

- MassCore not supported on Core2Duo. Minimum requirement is a QuadCore. Find system recommendations here: http://www.merging.com/support/pc-config
- MassCore is supported under Windows 7 (64bit) and Windows 10 (64bit) with Pyramix v12
- Pyramix 25th Anniversary requires new keys as of the Release Candidate. Merging also has redone the Packs and Options.
  Warning: Users with v12 keys will not be able to run Pyramix 25th Anniversary RC1.
- MassCore runs on the same MassCore version (RTX64 3.0) as Pyramix v12.
- MassCore 64bit: Activation key is linked to the system and not the dongle) and can only be activated once on a dedicated system. This only applies to 64bit. If you need to re-install MassCore/RTX64 bit on another system using the same key this will not be possible if the key has already been used. For such RTX64 Activation Key Replacements, the request can be made at keys@merging.com or in case of a weekend, emergency through the Interval Zero Support team IntervalZero Support site This means that if have you already MassCore 64bit on system and want to move it to another system you must contact Interval Zero and RTX64 to re-issue the key.
- In order to run MassCore 64bit users will need to have both the RTX64bit Activation key and the MassCore 64-bit key.
- MassCore Ultra Low latency mode can generate noise if used on some configurations (Turnkey recommended).
  In such cases we recommend instead the use of the AES67 mode or Extra Low latency mode.
- Pyramix Core indicator overloading (red) issue. Recommendation:
  - Under a 64 bit OS: MassCore RTX 64bit users are allowed to run with Hyperthreading enabled. In such case users will by default have 2 Core allocated to MassCore RTX64, as we leave a pair number of Cores for Windows.
    Merging recommends to having an SMP key under such configurations.
  - If, under the Bios power options, you have entries such as the *Intel SpeedStep* and *CPU C State* make sure that these options are disabled, as they are potential problems for MassCore. Refer to installation guide or the Windows Configuration guide for all details.
- MassCore & CPU load indicator range (as of Pyramix v10.2 and above)
  - Green from 0% to 74% = Safe mode*
  - Orange from 75% to 84% = Moderate Risk*
  - Red from 85%->100% = High Risk
  *MassCore users will have enhanced Core stability when using recommended dedicated Graphic Cards.
  *Native users: Recent laptop owners are often confronted with performance problems when the CPU load is near the mid-point of load, where random CPU jumps can cause sudden glitches. This has also been seen when benchmarking with Non-Merging Applications on recent laptops.
- When the Core indicator blinks (red), it indicates a drop. Only be concerned if it occurred during Playback/Mix down or Record. To reset the Core drop simply click on the Core indicator. For more information please refer to the appropriate section in the User Manual.
- If you have VST Core peaks under MassCore, users should increase their VST Engine Buffer size value, located under the Pyramix Settings. More information is available in the User Manual.
- External Insert plug-ins: The same input and output cannot be used in the External Insert plug-in and the Mixer at the same time, as they are exclusive to either one.

V25th Known issue:

Merging online knowledge database for updates on the known issues
https://confluence.merging.com/Pyramix25thAnniversary

- Pyramix 25th Anniversary uses the same MassCore/RTX64 key as Pyramix v12.0 but requires new 25th Anniversary Merging keys.
- The Windows 10 November update (1909) is compatible with MassCore/RTX64 -3.7, Pyramix 25th Anniversary and higher
  https://confluence.merging.com/pages/viewpage.action?pageId=41713669
- <u>WARNING</u>: Pyramix 25th Anniversary is supported on 4th Generation Intel Core Processors (4XXXK and higher) and will not launch on previous Processors generation
  Recommended specification:
  https://confluence.merging.com/pages/viewpage.action?pageId=24608853
- Custom installation is known to potentially have issues at installation. We recommend that you install the recommended full Pyramix.
- Pyramix 25th Anniversary Projects are not backward compatible with Pyramix v12.0, users must perform a "Save Special as v12.0" in order to open such project in a Pyramix v12.0
- Pyramix projects with v10/v11/v12/25th Bus layout/Structure cannot be saved within a Save Special v9.0 project. A warning message will prevent you from doing so.
- All of the Mixer Amibsonic components cannot be saved within a Save Special v11.1 project and prior, as Ambisonic was not supported at that time.
- Ambisonic decoders only decode to Virtual Rooms with standard channel types and positions. If a custom room is needed, then they need to first decode to a standard bus, having speakers as close as possible to the custom room, then send that bus into the custom bus through a GPS strip
- Saved projects with some tracks unmuted (so that audio plays) will open with all tracks Muted. You are most probably using a Source/Destination project or Template Pyramix where all Track Groups are set to Auto-Solo, Auto-Mute or both by default.
  With both settings enabled at project loading time no track is selected by default and all track groups are then muted.
- Legacy Bus conversions to New General Bus. Due to the architecture of the new busses, mono mix busses are now converted to Mono Aux busses and not anymore to Mono Mix busses. Refer to the Pyramix User manual for more details.
- The listing of the Pyramix supported remote controllers is available here
- Mixdown SRC: The SRC option in the Mixdown is shared with the Media Manager Sampling Rate Conversion tool. Be warned that following a Mixdown that is applying a SRC if you then use the Media Manager Sampling Rate Conversion tool and change the SRC parameters, then those values will also be changed in the Mixdown Dialog Box SRC section.
- TANGO I or II Known issues:
  https://confluence.merging.com/display/PUBLICDOC/General+Bus+Ramses+and+Tango+support
- ISIS controller: New General Bus mapping must be done via the General Settings>project>Controller Mapping where the Bus numbering (order counting the strip) has to be added to the Channel Strip function dialog
- Pyramix Video in timeline: if the Video file is shown as offline at project opening, please refresh your media manager to regenerate the Quickmount
- Pyramix Video in timeline: Opening a project referring to multiple video files or edits can take some time (will indicate finishing for a minute or so), be patient.
- Merging does not recommend users that edit while recording do so with timeline media clips that are not at the same sampling rate as the project. This is because a realtime SRC will have be processed could cause potential performance problems.
- Waves plugins users running with a NVidia graphic card should make sure that they have the Threaded Optimization OFF, if set to ON it may cause issue with Waves VST plugins.
  Refer to link here:
  https://confluence.merging.com/display/PUBLICDOC/Graphic+cards+recommended+settings
- Merging does not recommend to use Disk models: Green, Eco series and Seagate.
- Merging recommends that users with External USB disks to have those configured using the "Better Performance" option under Windows disk properties, profiling tab. Refer to the Merging system configuration guide for more details.
  http://www.merging.com/support/system-configurations
- MassCore: Core indicator will show a peak/overload after a save on large project or when rebuilding the Mixer (project open-close). Simply reset the core indicator by clicking on it.
- VS3 Algorithmix DeNoiser & DeScratcher are supported but will not be maintained anymore

Known issue: They might display "Demo" (while fully functional) until the first project is saved, closed & re-opened.

- Warning message "Not Enough Streams available": This happens when reaching the maximum number of record inputs. In such case we recommend that you reduce your input number count or disable any Background Recorders that are consuming inputs
Known issue: If afterwards, you get a constant Message Box showing "Re-activating Project" at each Playback start, close and re-open your project to correct this.
- Pyramix v8.1, Pyramix v9.0, Pyramix v10, Pyramix v11, Pyramix v12 and Pyramix 25th Anniversary Library formats are compatible between such versions but not with the previous Pyramix Releases. In order to open these libraries in an older Pyramix version please make sure that you use the proper Save library option. A "Save as Version 7.X" was added to the list
- Final Check Metering is not supported in DXD/DSD mode
- DiscWrite known issues": https://confluence.merging.com/display/PUBLICDOC/Disc+Write
- Cannot install Pyramix Native: If you have an error and rollback, make sure that you unplug all dongles that could be connected to your system.
- Timeline and Realtime Sampling Rate Conversion: clicks may occur when doing playback or mixdown in a region where 2 overlapping clips refer to the same media with different sampling rate than the Project's.
Workaround: Convert those master clips to the project's sampling rate in advanced
- The ADR Keyboard users:
Windows 10 October 2018 Update (1809) and higher requires ChangeMe version 5.25.8. Previous versions will not work along those Win10 updates.
Follow the installation instruction on our knowledge base to update :
https://confluence.merging.com/display/PUBLICDOC/Pyramix+ADR+and+Ovation+keyboard+install+guide
- Safety Record issue with the take logger: Pressed commands will be applied incorrectly when the transport is stopped. This means that if you press Abort & Delete while in Safety Record, nothing will happen. However, when you come out of Safety Record and Stop, it will apply the command, and delete the take. Handle with care.
- Multiple projects opened simultaneously: We do not recommend users to having more than 8 Projects open at the same time (due to GDI object limitation).
- Cedar users should install the latest certified version for Pyramix v11/v12 64bit
https://confluence.merging.com/display/PUBLICDOC/Cedar+Renderer
- The Render Tool will create a temp file for the CEDAR and Nova v0.99 at the root of the C:\ Be aware that Merging cannot change the Temp file patch of such a third party Render.
- Interchange: A non-embedded AAF export to Pro Tools 7x could generate "Could not complete your request because an unexpected error happened while trying to find an audio media file's format" error message. We recommend the use of AAF Embedded when exporting to ProTools 7. ProTools 8 known to be working properly in this case.
- Media Recoverer and DSDIFF Recoverer, those utilities should allow you to repair a corrupted file
https://confluence.merging.com/display/PUBLICDOC/Media+Recoverer
- Eucon/Euphonix version 3.6 can be installed alongside Pyramix for 64bit users

Media Manager and Library recommendations and changed behaviors
- The Database Location path is set under Settings>Application>Location>Default Database Location. Otherwise the database path will be C:\Documents and Settings\<User Name>\Application Data\Merging Technologies\Pyramix
- For better performance Merging strongly recommends that you move the Database location to your fastest system Drive. SATA2 - 7200 rpm Disks are recommended any disk other that the C:\OS default drive will perform better since it will have lower demands placed upon it.
- \Merging recommends that your Disks have the indexing disabled and that you make sure that the Power Management is set accordingly for better performance.
  - Disable File Indexing:
    1. Open "My computer"
    2. Right click on each drive and select "Properties" from dropdown menu
    3. Un-Check the indexing check box
  - Verify the Power Management:
    Go under Windows Control Panel and open Power options
    - MassCore users Under Windows 7 and Windows 10: Power plan should be set to: "RTX – recommended"
    - Native Users: Make sure you select the "High Performance" power plan
- For ultimate performance Merging recommends that you (not mandatory)
  - Set your Antivirus to off while running Pyramix
  - Set Windows Automatic-Update to "Never Notify"
  - Avoid active internet connection while running Pyramix

- Keeping Mounted Folders when closing and restarting Pyramix can speed up your workflow: Set the option under All Settings>Application>General> "Mount all Media folders that were Mounted at previous Application Exit"
- You can clear the History of the Media Manager under the Media Manager>Media Folder menu, or simply disable the Keep Media Manager History option located in the Pyramix Settings, since this will clear the History at each Pyramix exit.
- Merging recommends Pyramix users save their project on a Disk were no OS resides for better performance (C:\ not recommended).

About Ambisonic

Since Pyramix 12 we include a complete hybrid Channel Based/Ambisonic workflow, allowing for encoding, mixing, rotating and decoding Ambisonic signal directly in the mixing console.

Ambisonic Decoders:
- Ambisonic Decoders supported up to 7th in v12, and the b<>com Decoders are now integrated within the Pyramix mixer as of Pyramix 12.0 and upwards.

VR Pack Key option:
- Ambisonic Strips and Ambisonic Groups of 1st and 2nd order are always decoded even if the VR Pack key is not present
- Ambisonic Strips and Ambisonic Groups of 3rd to 7th order are properly decoded if the VR Pack key is present
- Ambisonic Strips and Ambisonic Groups of 3rd to 7th order are decoded using a 2nd order decoder if the VR Pack key is NOT present

    To summarize, a user will need the VR Pack key to encode and/or decode HOA, meaning 3rd to 7th order. 1st and 2nd orders are free of charge for both encoding and decoding.
    Note: HOA to Binaural is not available into Pyramix but users can run the B<>COM Binaural encoder licence, available in trial. Follow the instruction here for more information:
    https://confluence.merging.com/display/PUBLICDOC/Bcom+plugins

RAVENNA Technical Notes:

- Windows 7 SP1 (64bit) and Windows 10 (64bit) are supported by Pyramix 25th Anniversary MassCore RAVENNA and Native
- Pyramix 25th Anniversary system recommendations. Details here:
  http://www.merging.com/pages/pcconfig
- For ultimate performance we recommend that under ANEMAN you only connect the necessary I/O connections, as every extra RAVENNA connection will use some bandwidth (Core or Network)
- The Network must be Layer 3 compliant and must be a Gigabit network
- Merging has certified new Network Switches for use with Horus/Hapi – Ravenna users will find all details along with the configuration guide here:
  https://confluence.merging.com/display/PUBLICDOC/Network+Switches+for+RAVENNA+-+AES67
  http://www.merging.com/products/horus/downloads
- RAVENNA users should avoid connecting multiple Horus or Hapi units to any a router/Network not certified by Merging. Refer to the Merging RAVENNA Network Guide for details on the certified RAVENNA switches and their configuration. http://www.merging.com/products/horus/downloads
- Only RAVENNA devices can be connected to the Merging PCIe Ethernet Controller Card NET-MSC-GBEX1. Avoid connecting non-RAVENNA devices to this network, such as Tango/Isis/Euphonix controllers or other network devices.
- Don't connect a 100MB Ethernet device if the switch is not multicast; otherwise the flow control will reduce the bandwidth drastically.
- A RAVENNA ASIO driver is available for Horus users that wish to use their notebook GbE Network RJ-45 system socket. Refer to http://www.merging.com/products/horus/downloads

RAVENNA Known issues:

- RAVENNA: Switching from MADI Standard (56) to MADI Extended (64) can generate a small glitch, so please avoid doing so during realtime operations
- Merging recommends the use of ANEMAN in order to manage all RAVENNA I/O connections, please refer to the ANEMAN User Manual installed with Pyramix for more details.
- Non-certified RAVENNA configurations might not be capable of sustaining 384 I/O channels @ 1FS (44.1/48 kHz). If you experience noise similar to static, reduce the RAVENNA I/O channel count enabled in ANEMAN. We also recommend that if you have experience such static noise, do not run MassCore in Ultra Low or Extra Latency mode but rather Low latency mode.
- Merging recommends that RAVENNA users disable the Windows Firewall, as it can partially block or otherwise interfere with some of the RAVENNA I/O connections
- Peaks might show up under the Pyramix Core section if you power OFF or disconnect the Horus/Hapi. Recommendation: A valid connection to an online Horus is always required if the Horus is PTP Master. Reset peaks by Mouse Clicking on the Core indicator section.
- Avoid changing a network address, or disconnecting Ethernet ports on your system when MassCore RAVENNA is running
- The ISIS cannot be used when running RAVENNA with the Merging PCIe Ethernet Controller Card NET-MSC-GBEX1
  Recommendation: Refer to the ISIS support document below
  http://download.merging.com/beta/SupportTools/Docs/AccessoryHardware/ISIS_Vista_or_7_dedicated_lan.pdf
- ANEMAN quick connection guide available here
- DSD issues
  - Background Recorders: If the Mixer is not a DSD compatible Mixer (square mixer), the record fails, but no message will be displayed. We recommend that users create a DSD project prior to enabling and starting to work with Background Recorders in DSD.
  - When creating/opening a DSD project the Horus might not switch accordingly between 64/128/256. This has to be done manually

RAVENNA I/O Connections:
In order to create RAVENNA I/O connections please refer to the ANEMAN User Manual (installed along with Pyramix). ANEMAN Quick Connection Guide here below.
https://confluence.merging.com/display/PUBLICDOC/ANEMAN+-+Quick+Connection+Guide

Each Horus/Hapi will then appear in your ANEMAN application where you will see the name of each of them online. You will be able to dispatch each Horus/Hapi I/O connection from the ANEMAN Matrix. Refer to the ANEMAN guide installed along Pyramix for more details.

Recalling RAVENNA connections for a complete setup.
Despite not yet having a complete recall of IO Connections it is possible on certain setups to recall the Presets store in the device (Horus, Hapi, Anubis) that holds one end of the RAVENNA connections and at the same time recall the ANEMAN save connections that holds the other connections end.
Warning: It is strongly advised that before recalling connection that users clear the existing connections.

Windows Firewall:
The Windows Firewall can block communication between MassCore and Horus. We recommend users to disable the Public Network Firewall
Procedure:
1. Go in Windows Control Panel > Windows Firewall.
2. Click on "Turn Windows Firewall on or off"
3. Go to the Public Network section and select "Turn Off Windows Firewall"

Windows UAC:
User should disabled the Windows User Account Control
Procedure:
1. Go to the Windows Control Panel\All Control Panel Items\User Accounts
2. Open the Change User Account Setting
3. And set it to "Never Notify"

Disable Antivirus:
Some Antivirus such as Avast or Sophos have been known to block the Horus discovery and RAVENNA I/O Connection. Merging also recommends that any Antivirus software is properly configured to not interfere with the DAW. See this page for further details:
https://confluence.merging.com/display/PUBLICDOC/Antivirus+and+Merging+Technologies+Softwares

Pyramix Native Recommendations:

- Windows 7 and Windows 10 - 64bit supported with Pyramix, Ovation and RAVENNA ASIO v12 and v13
- Please refer to our Windows configuration guides to optimize system performance.
- Administrator rights are required to configure VS3 Control Panel and the RAVENNA ASIO panel.
- The Merging RAVENNA ASIO Frame Mode size can be configured to AES67 (6, 12, 48) of RAVENNA mode (64), verify your network and devices configuration.
- The Merging RAVENNA ASIO driver can be set to buffer size multiples of 48 (AES67) or 64 samples (RAVENNA), adjust the buffer size to your system in order to get the best performance
- Configure your Antivirus and Merging Technologies Softwares or turn it off
- Configure your Windows Firewall Windows Firewall Troubleshooting or turn it off for Public Networks
- Put Windows UAC (User Account Control) to the lowest level (disabled).
- Disable the WIFI (disable the Wireless adaptor not only the WIFI connection)
- Disable Bluetooth if active (under Windows Device Manager)
- Set Windows Automatic-Update to "notify me" or don't let Windows check for Updates while running critical real-time operations on Windows 7.
  Set the updates to restart outside active hours on Windows 10.
- Avoid active internet connection while running Pyramix
- Avoid connecting audio interfaces to USB or Firewire hubs, plug it directly into your computer.
- We recommend to activate HyperThreading if allowed by your CPU.
- Power management features must be configured to get a stable system.
- In Windows Control Panel > Power Options, make sure you select the "High Performance" power plan (or "Ultimate Performance" on Windows 10 Spring Creator 1803, October update 1809, May 1903 and November 1909 update). Very common that Powerful laptop are at times in energy saving mode, create a High Performance power plan.
- Avoid using battery power, rather have you power cable connected
- Make sure all unnecessary programs are closed. They can tie up useful resources.
- Turn off any software utilities that run in the background, such as Windows Messenger, calendars, and disk maintenance programs.
- Laptops usually have small graphical resources; Merging recommends you pay extra caution when using the Fixed Cursor option.
- Verify the performance of your Native system.
  On Windows 7 by running the DPC Latency checker: http://www.thesycon.de/eng/latency_check.shtml
  On Windows 10, DPC latencies can be monitored with Latency Mon http://www.resplendence.com/download/LatencyMon.exe
- Laptop users should set their ASIO interface to Topmost Priority in VS3 Control Panel.

Refer to the online documentation for more details
https://confluence.merging.com/display/PUBLICDOC/Native+recommendations