

**Ovation**  
MEDIA SERVER & SEQUENCER

**Installation Guide**

9

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# Installation Guide V9.0

# Installation Guide v9.0 : Contents

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# Installation Guide v9.0



Document: Ovation™ Installation Guide v9.0 - rev5

Date: 10th June 2021



# 1 Introduction

## *Thank you!*

Congratulations on your purchase of the **Ovation** Media Server & Sequencer. Ovation is a ground-breaking Media Server and Sequencer with the tools you need to produce and run shows in many spheres of activity. For example:

- Theatres
- Theme Parks
- Museums
- TV Game Shows
- Trade Shows
- AV Presentations
- Radio stations
- Retail Outlets
- Film Festivals

are just a few of the possible applications for Ovation.

**Note: IMPORTANT!** - The first thing you need to do is register your software to acquire your Ovation key(s) and to be included in our user support list.

<http://www.merging.com/register/>

Please also subscribe to the User Forum at:

<http://www.forum.merging.com>

## *Scope*

This document is intended to get you up and running with Ovation and as quickly as possible. For more detailed information about Ovation, Pyramix and VCube please see the PDF User Guides which are installed with the software.

**Important!** If you are installing an upgrade to Ovation please read: **For Users Performing Upgrades on page 11** first.

If you have purchased Ovation as an integrated (Turnkey) system, the installation information in this guide will be redundant, since these systems come with all hardware and software pre-installed. If you are configuring your own system, please refer to the following instructions.

## Windows 10 - IMPORTANT!

**Note:** Merging **strongly recommends** you **defer feature updates** in Windows 10. Windows 10 users should never update to Beta Windows versions or install major new updates before making sure they are supported by Merging. Please refer to our Windows 10 Configuration Guide:

<https://confluence.merging.com/display/PUBLICDOC/Windows+10+Configuration>

### Details about the recommended Windows 10 Defer Update setting

<https://confluence.merging.com/display/PUBLICDOC/Windows+10+Defer+Updates>

### Windows 10 Recommended Version for MassCore

Ovation v9.0 is supported under the following Windows 10 updates:

- **October 2020 update (20H2)** is supported with **Pyramix 25th HotFix 3 & RTX64 3.7.4**
- **May 2020 Update (2004)** is supported with **Pyramix 25th HotFix 3 & RTX64 3.7.4**
- **November 2019 Update (1909)** supported with **Pyramix 25th Anniversary & RTX64 3.7**
- **May 2019 Update (1903)** is 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)**

## Windows Updates

Users wishing to apply Windows updates may refer to the Merging list of validated Compatible Windows updates:

<https://confluence.merging.com/pages/viewpage.action?pageId=25755762>

**Important!** 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.

## Updating from Windows 7 to Windows 10

Users performing an update from Windows 7 to Windows 10 should proceed in this way:

<https://confluence.merging.com/display/PUBLICDOC/Updating+Windows+7+to+Windows+10+for+MassCore>

**Note:** Users wanting to update Windows 10 to another version **must** follow the procedures documented here:

<https://confluence.merging.com/display/PUBLICDOC/Windows+Configuration+Guide>

**Note:** Once the update to the required Windows version has been completed follow this Ovation v9 and MassCore installation Guide.

## For Ovation v9 Native users

Ovation Native users may use the **Windows 10 Anniversary (1607)** update, **Creator** update (1703), **Fall Creator (1709)**, **Spring Creator (1803)**, **October Update (1809)**, **May 2019 Update (1903)**, **November 2019 Update (1909)**, **May 2020 Update (2004)**, **October 2020 update (20H2)**.



## 2 Ovation Versions - Compatibility and Installation Steps

### Native (ASIO on 3rd party hardware):

Compatibility: Windows 7 Professional 64-bit and Windows 10 Professional 64-bit

#### Installation Steps:

- Ovation Software Installation, See: *Ovation Software Installation* on page 18
- Entering Authorization Keys, See: *Ovation Software Registration* on page 20
- Select ASIO and the correct card/device in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

### Native with ASIO/WDM for RAVENNA and Horus / Hapi / Anubis:

Compatibility: Windows 7 Professional 64-bit and Windows 10 Professional 64-bit

#### Installation Steps:

- Install the Merging Audio Device (MAD) provided with your Horus / Hapi / Anubis or available from:

<https://www.merging.com/support/downloads>

- Select ASIO and the correct card/device in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)
- Entering Authorization Keys See: *Ovation Software Registration* on page 20
- Select the desired network adapter in Merging RAVENNA ASIO Panel (*Start Menu > All Programs > Merging Technologies > Merging Audio Device (or 3rd party ASIO Driver)*) will open its panel. Please see details in the Merging Audio Device (MAD) online documentation:

<https://confluence.merging.com/pages/viewpage.action?pageId=70221956>

- Select ASIO/RAVENNA in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*). See: *Configure RAVENNA in the VS3 Control Panel* on page 30.

**Note:** Please download and install the latest ANEMAN application in order to manage and monitor your AoIP devices from:

### Mykerinos only:

Not supported from version 6.x. Last compatible version is Ovation v4.1 32-bit installer.

### MassCore with Mykerinos:

Not supported from version 6.x. Last compatible version is Ovation v5.1 32-bit installer.

## MassCore with RAVENNA and Horus / Hapi / Anubis:

Compatibility: Windows 7 Professional 64-bit and Windows 10 Professional 64-bit.

**Note: Merging strongly recommends** users to perform a Windows Update prior to installing Ovation v9.

### Installation Steps:

- NET-MSC-GBEX1 Installation See: *Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card* on page 28
- Ovation Software Installation, *Ovation Software Installation* on page 18
- Entering Authorization Keys, See: *Ovation Software Registration* on page 20
- MassCore Installation, See: *MassCore Installation* on page 23
- Select MassCore with RAVENNA in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

## Quick Setup Checklist For Systems with Horus / Hapi / Anubis

1. Shut down the system and install the MassCore NET-MSC-GBEX1 PCIe Ethernet controller card. (Card drivers are included in the Pyramix and Ovation installers.)
2. Existing users of 64 bit MassCore must uninstall the previous MassCore version from the MT Security application.
3. MassCore users MUST configure their BIOS settings. *Please see: BIOS Settings* on page 15
4. Disable Windows Firewall in Windows Control Panel Security.
5. Install Google Chrome.
6. Install Ovation v9.x (This will also install Pyramix 25th Anniversary)
7. Enter your new MassCore (RTX64 - 3.0 key in MT Security Settings then import your 25th Anniversary/v9 keys in MT Security Settings.
8. On a fresh install also in MT Security Settings install MassCore from the MassCore Tab.
9. MassCore SMP users (recommended for i7 CPU configurations and above) should launch the VS3 Control Panel and assign 2 cores to MassCore. (A reboot will be required.)
10. In the VS3 Control Panel ensure that RAVENNA is selected in the Hardware section.
11. Configure the Switch/Router (if present) Please refer to the RAVENNA Network Guide.
12. Launch Ovation.
13. You can also launch the MTDDiscovery application and double-click on the Horus / Hapi entry for browser remote access.
14. Ensure that the Horus / Hapi / Anubis is set to the same sampling rate as Pyramix or Ovation. A warning prompt will appear if this is not the case.
15. We recommend Horus, Hapi and Anubis users update to the latest firmware available. Obtainable here:  
<https://www.merging.com/products/interfaces/downloads>
16. Configure I/O as required in Pyramix/Ovation and Horus / Hapi / Anubis. Please download and install the latest ANE-MAN application in order to manage and monitor your AoIP devices from:  
[www.aneman.net/#download](http://www.aneman.net/#download).

## 3 For Users Performing Upgrades

**Note:** Ovation v9 keys are required to run Ovation. Users running MassCore will need a new Mass-Core version (RTX64 - 3.7).

### Ovation

We recommend uninstalling any previous version of Ovation and Pyramix before installing Ovation v9.

From the Windows Control Panel select **Programs and features**.

Remove the installed version of Ovation and Pyramix.

**Note:** Merging recommends installing v9 **BEFORE** uninstalling the previous version of MassCore. **UNLESS** you are planning to update your Windows 10 version and already have a MassCore version installed, then you must follow the update procedure in the documents linked to below. **N.B** In this case the previous version of MassCore **MUST** be uninstalled **BEFORE** uninstalling the previous version of Pyramix/Ovation:

<https://confluence.merging.com/display/PUBLICDOC/Windows+Configuration+Guide>

**Note:** IntervalZero version should read: **IntervalZero RTX64 3.7 version 3.7.4.5222**

### Masscore

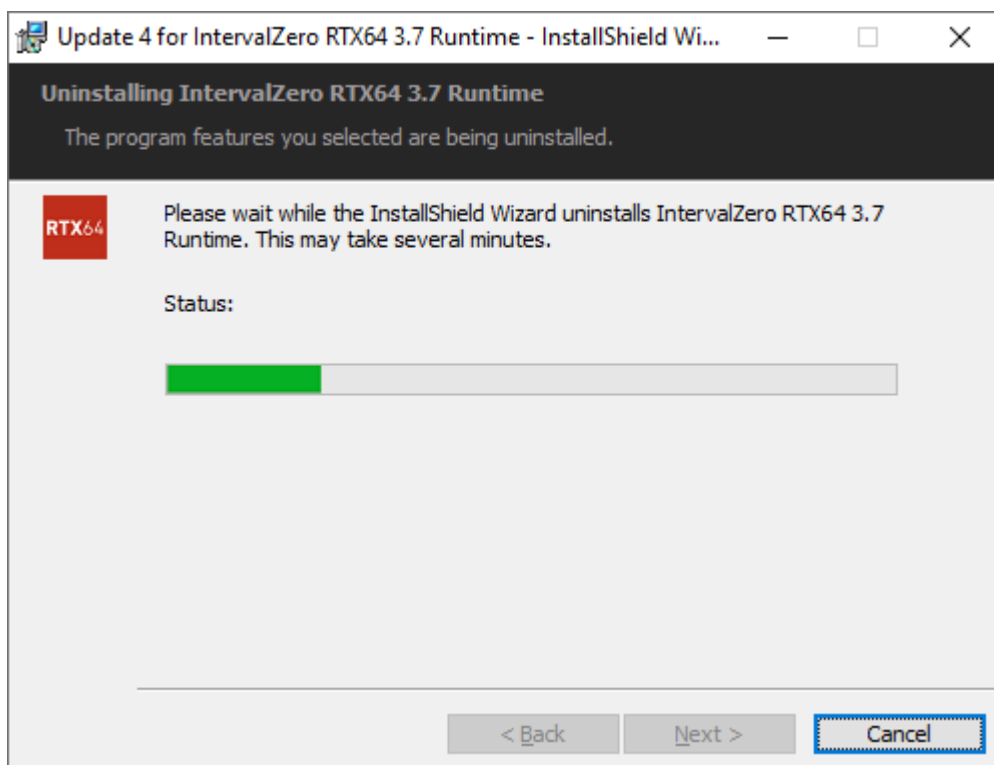
MassCore users running Interval Zero RTX64 version prior to v3.7.0.4983 **MUST** remove the existing MassCore runtime.

Once Ovation v9 is installed follow these steps:

1. Launch **MT Security Settings** and select the **MassCore** Tab.
2. Choose the **Uninstall MassCore RunTime** option and reboot. (There will be one reboot.)

**Note:** RTX DONGLE USERS (**SSK-HUD-RTX**). The SSK-HUD-RTX dongle is no longer required as of **Pyramix 25th HotFix 3**.

3. The previous Masscore RTX64 will now uninstall:



IntervalZero Uninstall dialog

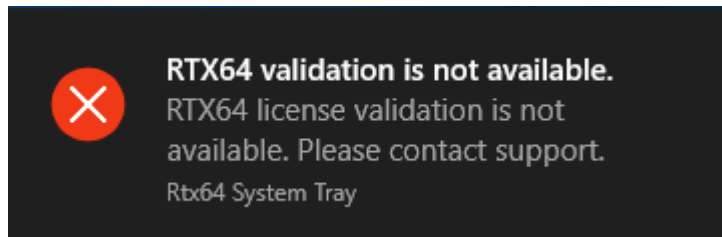
- Once the uninstallation is finished, there is no need to reboot. Launch **MT Security Settings** and enter your **v9** keys or confirm their presence.

**Warning!** If when entering your new MassCore key you experience a failure message, please contact:

[keys@merging.com](mailto:keys@merging.com)

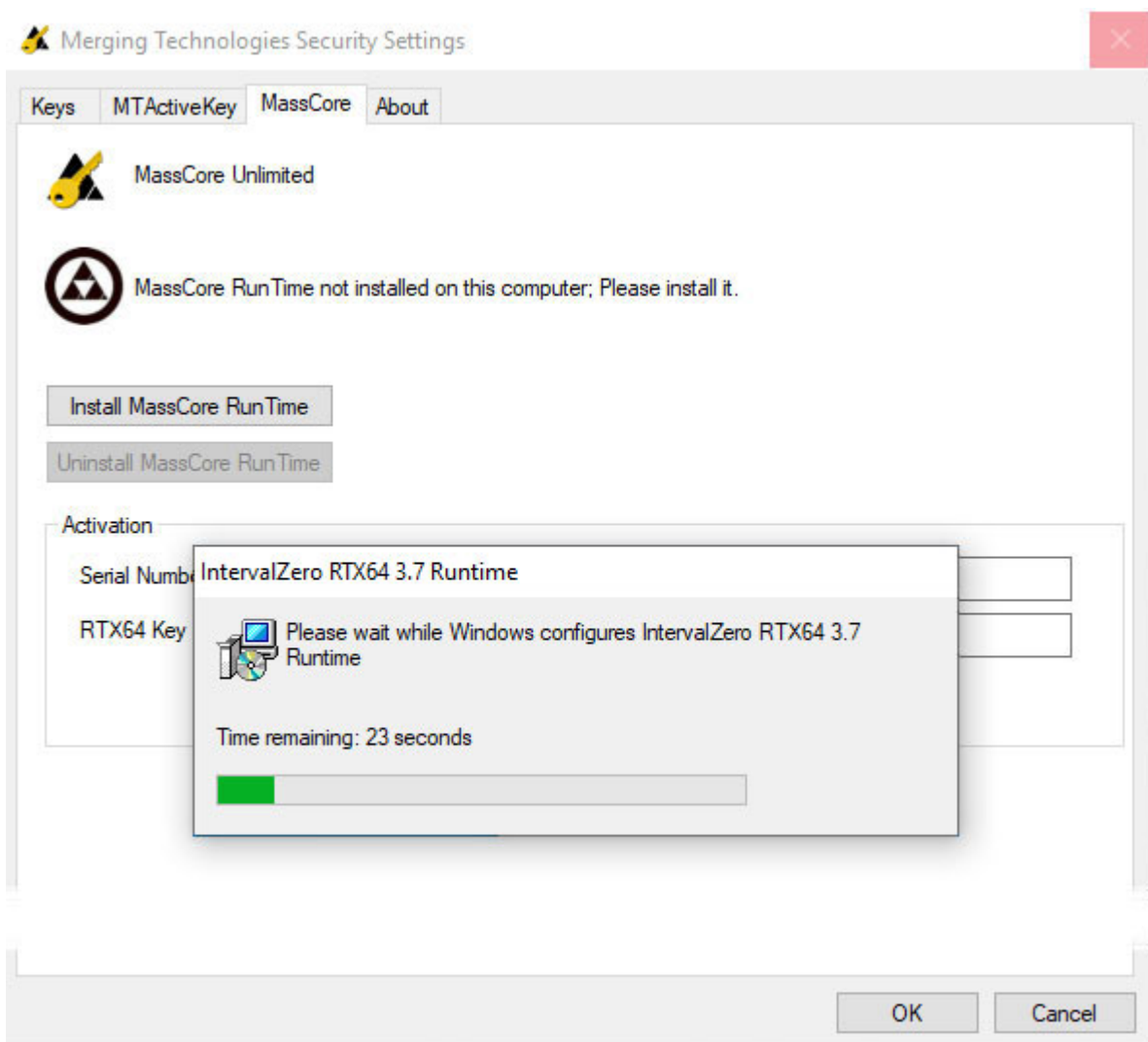
and let us know your Dongle serial number so that Merging can identify your current **MassCore/RTX64 key** and renew it if necessary.

**Note:** Users installing MassCore may see a popup dialog un-authorized license message. Please ignore until reboot.



RTX64 validation is not available dialog

- Select the **MassCore** Tab and choose the **Install MassCore RunTime** option.



MT Security Settings - MassCore tab



6. An RTX64 Driver approval dialog may appear. Accept it, click on **OK** to close the **MT Security Settings** panel and reboot the system.

**Note:** Please note that the installation process can take some time.

7. After installation you should see an **Interval Zero** entry in **Windows Control Panel > Programs and Features**. This should read: **Interval Zero RTX64 3.7 Runtime (Version 3.7.4.5222)**.
8. Launch the **VS3 Control Panel** and configure it for **MassCore - RAVENNA** See: **Configure RAVENNA in the VS3 Control Panel on page 30**

## 4 System Requirements

Wintel platforms tend to increase in number of cores, speed and performance at a tremendous rate. New and faster processors are released almost on a monthly basis. Therefore we have not included suggested Motherboard or Processor specifications here.

We maintain a list of up to date PC configurations in the Support Section of our website at:

<http://www.merging.com/pages/pconfig>

**WARNING:** Since Pyramix v12 - Ovation v8, Intel Core Processors prior to 4th Generation (4XXX) are no longer supported.

Please refer to our system recommendation for more details:

<https://confluence.merging.com/pages/viewpage.action?pagelId=24608853>

### Other Components

- **Graphics Card:** As of Pyramix 12, Ovation 8 and VCube 8, Merging strongly recommends using a dedicated graphic card rather than onboard graphics. Most particularly when the following are required
  - Multiple display outputs,
  - OpenGL UI plugins (Flux, Izotope, ....)
  - Working with video, or when your workflow places high demands on graphics.

Please refer to the Pyramix PC Specifications for all details:

<http://www.merging.com/pages/pconfig>

<https://confluence.merging.com/display/PUBLICDOC/Graphic+cards+recommendations>

- Sufficient HD space and speed for your audio media files. The speed and amount of disk space required depends on sample rate, word length, number of tracks and length of program material.
- A typical 7200 RPM SATA drive is sufficient for 48 tracks at 48 kHz. Higher track-counts and/or higher sampling rates will require an SSD drive and/or multiple drives configured in Raid 0, 1, 10 or 5
- We recommend disks should be formatted as **NTFS** volumes with 64kB block sectors for audio. For video 128kB block sectors are desirable.
- **BD/DVD/CD-ROM** combo drive or better
- Multiple 19" or larger monitors highly recommended.  
**Minimum resolution 1280x1024**
- 3 button mouse

## Ovation MassCore Systems

### Certified Operating Systems

- **OS:** We recommend and certify **Ovation Version 9.x and later** under **Windows 7 Professional 64-bit** and **Windows 10 Professional 64-bit**.

## Ovation Native

### Certified Operating Systems

- **OS:** We recommend and certify **Ovation Version 9.x** under **Windows 7 Professional 64-bit** and **Windows 10 Professional 64-bit**.

## 5 PC Setup

### *Motherboard Drivers and Utilities*

Motherboard drivers should be updated to current versions.

Motherboard Utilities should **NOT** be installed.

Please refer to our Windows configurations guide for more details:

<https://confluence.merging.com/display/PUBLICDOC/Windows+Configuration+Guide>

### *BIOS Settings*

#### **Recommended BIOS Settings**

##### **Boot Device Control**

We recommend that the **UEFI** boot should be disabled and set to:

**Boot Device Control: Legacy only**

##### **Hyperthreading**

Intel® Hyperthreading Technology is supported on 64 bit MassCore systems. This setting is commonly found in Main Bios page, or under CPU configuration. (see the motherboard manual for further details).

- MassCore SMP users: Merging Recommends that Hyperthreading is **enabled** to benefit fully from the real-time engine power, VS3 support and the MassCore multithreaded engine.
- MassCore Non-SMP users: Will gain some of these benefits by **not enabling** Hyperthreading, so that a full single Core is dedicated to MassCore
- For further information refer to the Pyramix User Manual chapter **MassCore & VST Core Allocation**
- Pyramix Native: We recommend that Hyperthreading is **enabled**.

The following features can create MassCore overloads (blinking red **MSC**).

Intel® Speedstep Technology (also known as Enhanced Intel® SpeedStep), as well as CPU C State (or Intel® C-State) features must be **disabled** in the BIOS.

Some Recent Intel boards have a global setting to disable those features known as Intel® Dynamic Power Technology. If present this should be **turned off**. These settings are commonly found in BIOS Power options or CPU Configuration.

Overclocking is **not** supported.

### *Configuration Guides*

Windows 10 users should refer to the **Merging Windows 10 Configuration Guide**:

<https://confluence.merging.com/display/PUBLICDOC/Windows+10+Configuration>

Merging has a number of specific PC-configuration guides which are available on request. Tell us your system configuration modeled on our recommendations at:

<http://www.merging.com/support/pc-config>

so that we can send you the latest configuration guide. Please contact:

**support@merging.com**



## Display Settings

Ovation requires a minimum display resolution of 1280x1024 in 256 colors which **MUST** be set to **small fonts** mode.

A Merging Windows configuration guide is available here with recommendations.

<https://confluence.merging.com/display/PUBLICDOC/Windows+Configuration+Guide>

**Windows Control Panel > System > Advanced System Settings** opens the **System Properties** window. Select the **Advanced tab > Performance Settings** to open the **Performance Options** window. Choose the **Visual Effects** Tab:

### Windows 7

#### Onboard Graphics (Intel)

☒ Custom:

- ☒ Animate controls and elements inside windows
- ☐ Animate windows when minimizing and maximizing
- ☐ Animations in the taskbar and Start Menu
- ☐ Enable Aero Peek
- ☐ Enable desktop composition
- ☐ Enable transparent glass
- ☐ Fade or slide menus into view
- ☐ Fade or slide ToolTips into view
- ☒ Fade out menu items after clicking
- ☐ Save taskbar thumbnail previews
- ☒ Show shadows under mouse pointer
- ☒ Show shadows under windows
- ☐ Show thumbnails instead of icons
- ☐ Show translucent selection rectangle
- ☐ Show window contents while dragging
- ☐ Slide open combo boxes
- ☒ Smooth edges of screen fonts
- ☒ Smooth-scroll list boxes
- ☒ Use drop shadows for icon labels on the desktop
- ☒ Use visual styles on windows and buttons

#### Dedicated Graphic Card

☒ Custom:

- ☒ Animate controls and elements inside windows
- ☐ Animate windows when minimizing and maximizing
- ☐ Animations in the taskbar and Start Menu
- ☐ Enable Aero Peek
- ☒ Enable desktop composition
- ☐ Enable transparent glass
- ☐ Fade or slide menus into view
- ☐ Fade or slide ToolTips into view
- ☒ Fade out menu items after clicking
- ☐ Save taskbar thumbnail previews
- ☒ Show shadows under mouse pointer
- ☒ Show shadows under windows
- ☐ Show thumbnails instead of icons
- ☐ Show translucent selection rectangle
- ☐ Show window contents while dragging
- ☐ Slide open combo boxes
- ☒ Smooth edges of screen fonts
- ☒ Smooth-scroll list boxes
- ☒ Use drop shadows for icon labels on the desktop
- ☒ Use visual styles on windows and buttons

### Windows 10

☒ Custom:

- ☒ Animate controls and elements inside windows
- ☐ Animate windows when minimizing and maximizing
- ☐ Animations in the taskbar
- ☐ Enable Peek
- ☐ Fade or slide menus into view
- ☐ Fade or slide ToolTips into view
- ☒ Fade out menu items after clicking
- ☐ Save taskbar thumbnail previews
- ☒ Show shadows under mouse pointer
- ☒ Show shadows under windows
- ☐ Show thumbnails instead of icons
- ☐ Show translucent selection rectangle
- ☐ Show window contents while dragging
- ☐ Slide open combo boxes
- ☒ Smooth edges of screen fonts
- ☒ Smooth-scroll list boxes
- ☒ Use drop shadows for icon labels on the desktop



Disable the following settings by unticking the boxes to prevent MassCore peaks:

- Animate Windows when minimizing and maximizing - disable
- Animations in the taskbar and Start Menu - disable
- Aero Peek - disable
- Enable desktop composition - disable (Windows 7 Only)
- Enable transparent glass - disable
- Fade or slide menus into view - disable
- Fade or slide ToolTips into view - disable
- Save taskbar thumbnail previews - disable
- Show translucent selection rectangle - disable
- Show window content while dragging - disable
- Slide open Combo boxes - disable

## ***Power Management***

**N.B.** As with other Digital Audio Workstations and Non-Linear Editors, we recommend setting the PC to the **High Performance** or **RTX64-Recommended** (MassCore Users) Power management schemes.

MassCore is **NOT** designed to support Standby modes.

## ***Aero graphics***

Disable AERO themes for maximum performance. (Windows 7 Only.)

## ***Indexing***

In the interests of better performance we recommend turning Indexing **OFF** for all Data drives in the system.

## ***Other Applications***

Like all real-time applications, Ovation works best when there are no other unnecessary applications or services running.

## ***Ovation Keyboard***

**Note:** ADR/Ovation keyboard users must update the keyboard driver if running on Windows 10 October update (1809) or above. Please refer to the following page for installation information:

<https://confluence.merging.com/display/PUBLICDOC/Pyramix+ADR+and+Ovation+keyboard+install+guide>

## 6 Ovation Software Installation

**Important!** If you have not already done so, before installing the Merging Technologies software for the first time OR as an update please run **Windows Update** and accept any updates marked as **Important**. Note that this can take a considerable time. (Over an hour in some cases.) This is a Microsoft problem.

**Note:** You must have full Administrator Access to install Ovation.

### *Installation Overview:*

**Note:** If you have purchased hardware options such as the NET-MSC-GBEX1 PCIe Ethernet card, the Sync Board and or a Black Magic or AJA video card, please install these following the instructions in the accompanying documentation. The drivers for all of these except BlackMagic cards, Ovation Keyboard and SeaLevel GPIOs are installed automatically with the Ovation software.

**Note:** The SeaLevel GPIO's are no longer installed with the Pyramix software. Please refer to the page here for installations:

<https://confluence.merging.com/pages/viewpage.action?pageId=15139174>

**Note:** Where applicable Blackmagic video card drivers have to be downloaded from the Blackmagic website and installed separately. Merging has certified its applications under Blackmagic Design versions 10.x, 11.4 and 11.5. Please download and install from:

<https://www.blackmagicdesign.com/support>

### **Installer**

The Ovation software uses an automated installer wizard which will install all necessary prerequisites. Installing Ovation will also install Pyramix.

### **Custom Install**

If you choose the **Custom** option you may exclude installation of any of the individual components in the wizard, if the device in question is not present on your machine or if you do not intend to use an item, by un-ticking the tick boxes next to the items listed in the wizard.

**Note:** The security dongle must be in place and the security keys entered before attempting to launch the software.

### *Flux VS3/V3 plug-ins*

Download the Flux Center application in order to install the Flux VS3 plugins:

<https://www.fluxhome.com/download>

More details here:

<https://confluence.merging.com/display/PUBLICDOC/Flux+Download+Center>

Ensure you have valid Merging Flux v3 Keys in order to run these Flux VS3 plug-ins.

### *VB VS3 plug-ins*

VB VS3 plug-ins have a stand-alone installer. Download and run the VB Plug-in - VS3 installer **after** installing Ovation. Run the installer and reboot the system.

<https://confluence.merging.com/display/PUBLICDOC/VB+Plugins+%28VS3%29+standalone+installer>

## 7 Running the Installer

**Note:** If you have a **SafeNet** dongle please remove this before installing Pyramix and replace it after installation is complete.

**Note:** The **HASP** dongle is not supported on 64-bit systems. If you have a **HASP** dongle please contact your Merging Technologies Sales Partner to purchase a **SafeNet** dongle and transfer your keys.

Once the NET-MSC-GBEX1 Ethernet card has been properly installed, you can now install the Ovation 7.x software.

To install the Ovation 9.x software insert the USB memory stick. The installation program will auto-start on a PC where auto-start is configured **on**. Otherwise, double-click on the USB memory stick icon.

Please follow the automatic installation procedure accepting the option to install unsigned drivers and re-boot your PC once setup is complete.

**Note: For Windows 7 Users Only:** The installer checks and verifies if the Windows updates KB3033929 and KB3123479 are present on the system and if not installed already (from running Windows Update manually or automatically) they will be installed for Windows 7. If the updates are required, please be patient. The update can take as long as one hour. This delay is caused by Microsoft. An extra re-boot is required once the updates are installed.

**N.B.** If the **Windows Update Service** is disabled, Windows cannot install any updates, one consequence will be that the MassCore NIC will not work. To check if the Service is running open the **Windows Control Panel**, go to **Administrative Tools > Services** and ensure that the **Windows Update** service is started and therefore running. If the Service is stopped it can be started manually by selecting it and choosing **Start** in the **Action** menu or from the right-click context menu.

**Note:** This update is already embedded in Windows 10.

**Note:** For Windows 7 Users: If the installation appears to freeze for a long period please check that the **Driver Signing** warning dialogue is not hidden behind another Window. Installation will not continue until you click **OK** in this dialog.

**WARNING:** Certain computers do not shut down properly despite the reboot command issued by the installer but only perform a log off. In this case, please activate a full shut down manually.

## 8 Ovation Software Registration

The **Ovation** software and its various software options are protected by an authorization key mechanism which uses a unique registration key number generated by Merging Technologies. Based on purchased software components, this key is unique to your security dongle, your Company Name and your User name. Once you have registered your software you will be provided with this Key or Keys (depending on the chosen options).

If you did not receive this key, have lost it or would like to change the user and/or company name, please contact your Merging Sales Partner with your SafeNet dongle serial #, your User Name, your Company Name and the list of purchased software components. Usually, a key can be issued within one business day, after the verification of your personal data has been completed.

### Entering your Key(s)

After the Ovation installation process you will be prompted to enter your **Authorization Key**. If you click **Yes** the **MT Security Settings** dialog will be launched automatically, allowing the Key or Keys to be entered immediately. If you choose not to enter your Key at this point you can do so later by choosing one of the following procedures:

1. Double-click the file **YourPersonalKeyXXXXX.mtk**. This is attached to the email containing your Key(s).
2. Open the **MT Security Settings Control Panel**  
(Windows Task Bar **Start** > **Control Panel** > **MT Security Settings**),  
click the **Import Key** button and browse for your Key file named:

**YourPersonalKeyXXXXX.mtk**

3. Open the **MT Security Settings Control Panel** (as above), in the **Registration** section select the dongle number corresponding to the SafeNet Key, click the **Enter Key** button and type your **User Name**, **Company Name** and **Key** then click **OK**. Repeat this step for each Keys listed in the email.

### Changing or re-entering a Key

Should you need to subsequently change or re-enter a **Key**, follow the appropriate option above.

### QLM Cloud based security

For users needing to run Pyramix, Ovation or VCube without a Merging SafeNet dongle cloud based security is available.

**Note:** SafeNet keys cannot be transferred to QLM security for a chosen release. This process can only be undertaken at the upgrade stage.

For further information about cloud security please see the following online documentation:

#### Cloud Licenses 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=65437961>

### Evaluation Mode

If started without a valid registration key, the software will recognize that no valid key is available and will start in "evaluation" mode, which only allows for basic operation of the software as follows:

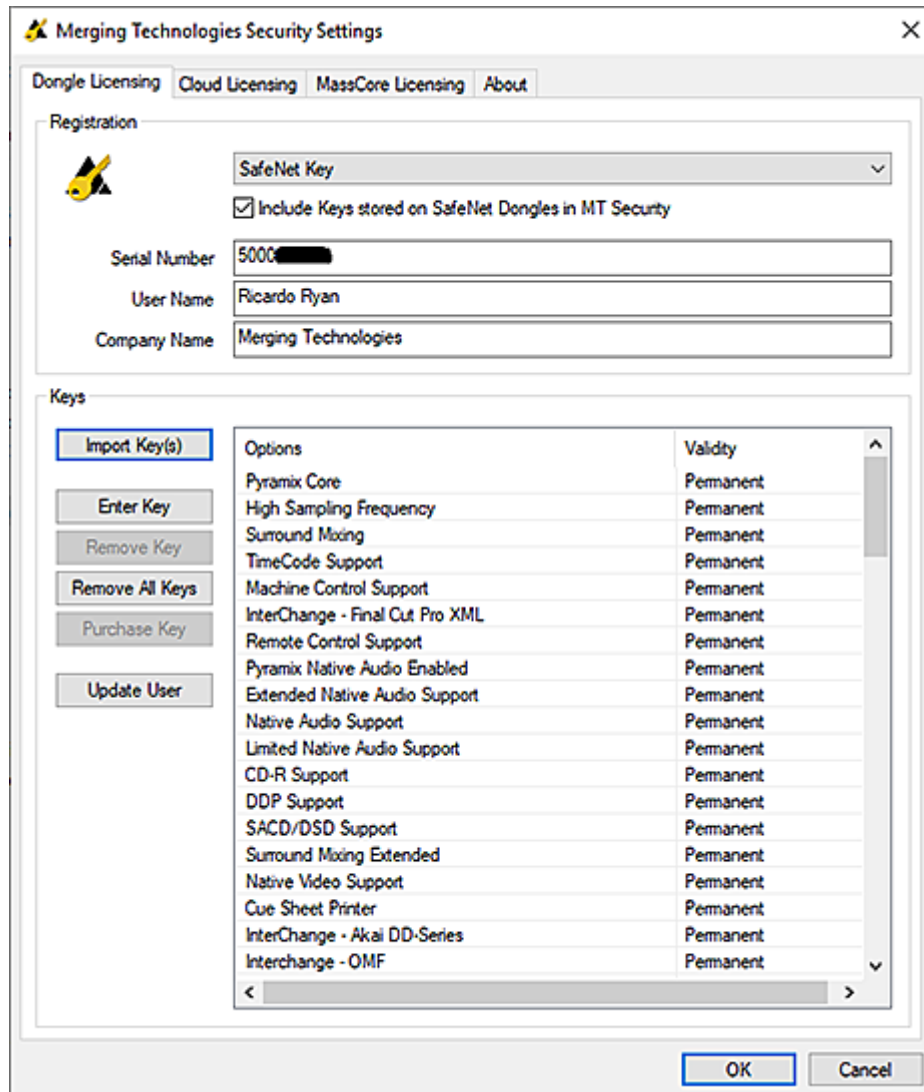
- Limited to 2 channels of I/O on host soundcard
- No **Project** > **Save** function
- Tone is added to new recordings
- All optional extra cost features are deactivated

All editing functions, playback, file type conversions etc. are fully functional. Only one Cue List can be opened.

## Keys

At any time you can check the serial number of your Security dongle and the software options enabled in your system in the **MTSecurity** application.

### Dongle Licensing Tab



**Merging Technologies Security Settings**

Dongle Licensing | Cloud Licensing | MassCore Licensing | About

**Registration**

SafeNet Key

☒ Include Keys stored on SafeNet Dongles in MT Security

Serial Number: 5000

User Name: Ricardo Ryan

Company Name: Merging Technologies

**Keys**

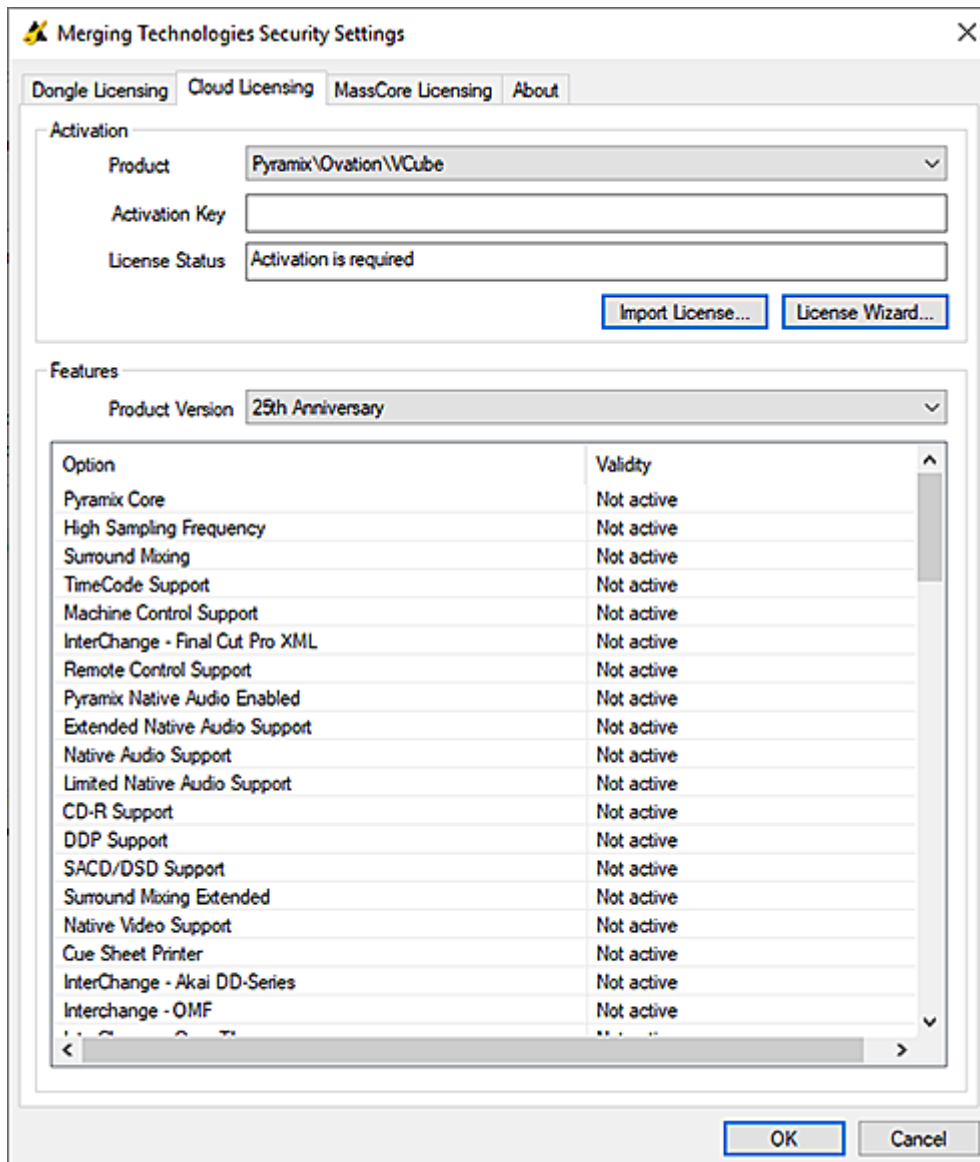
Import Key(s) | Enter Key | Remove Key | Remove All Keys | Purchase Key | Update User

Options	Validity
Pyramix Core	Permanent
High Sampling Frequency	Permanent
Surround Mixing	Permanent
TimeCode Support	Permanent
Machine Control Support	Permanent
InterChange - Final Cut Pro XML	Permanent
Remote Control Support	Permanent
Pyramix Native Audio Enabled	Permanent
Extended Native Audio Support	Permanent
Native Audio Support	Permanent
Limited Native Audio Support	Permanent
CD-R Support	Permanent
DDP Support	Permanent
SACD/DSD Support	Permanent
Surround Mixing Extended	Permanent
Native Video Support	Permanent
Cue Sheet Printer	Permanent
InterChange - Akai DD-Series	Permanent
Interchange - OMF	Permanent

OK | Cancel

MT Security Settings - Dongle Licensing tab

## Cloud Licensing Tab



**Merging Technologies Security Settings**

Dongle Licensing | **Cloud Licensing** | MassCore Licensing | About

**Activation**

Product: Pyramix\Ovation\VCube

Activation Key:

License Status: Activation is required

[Import License...](#) [License Wizard...](#)

**Features**

Product Version: 25th Anniversary

Option	Validity
Pyramix Core	Not active
High Sampling Frequency	Not active
Surround Mixing	Not active
TimeCode Support	Not active
Machine Control Support	Not active
InterChange - Final Cut Pro XML	Not active
Remote Control Support	Not active
Pyramix Native Audio Enabled	Not active
Extended Native Audio Support	Not active
Native Audio Support	Not active
Limited Native Audio Support	Not active
CD-R Support	Not active
DDP Support	Not active
SACD/DSD Support	Not active
Surround Mixing Extended	Not active
Native Video Support	Not active
Cue Sheet Printer	Not active
InterChange - Akai DD-Series	Not active
Interchange - OMF	Not active

[OK](#) [Cancel](#)

MT Security Settings - Cloud Licensing tab

## 9 MassCore Installation



### System Requirements

A quad core Intel processor is the minimum requirement.

### Conditions

- You **MUST** be logged in as an **Administrator** to install **MassCore**

**Note:** You do not need to be logged in as an Administrator to **RUN** Ovation with MassCore™, just to install it.

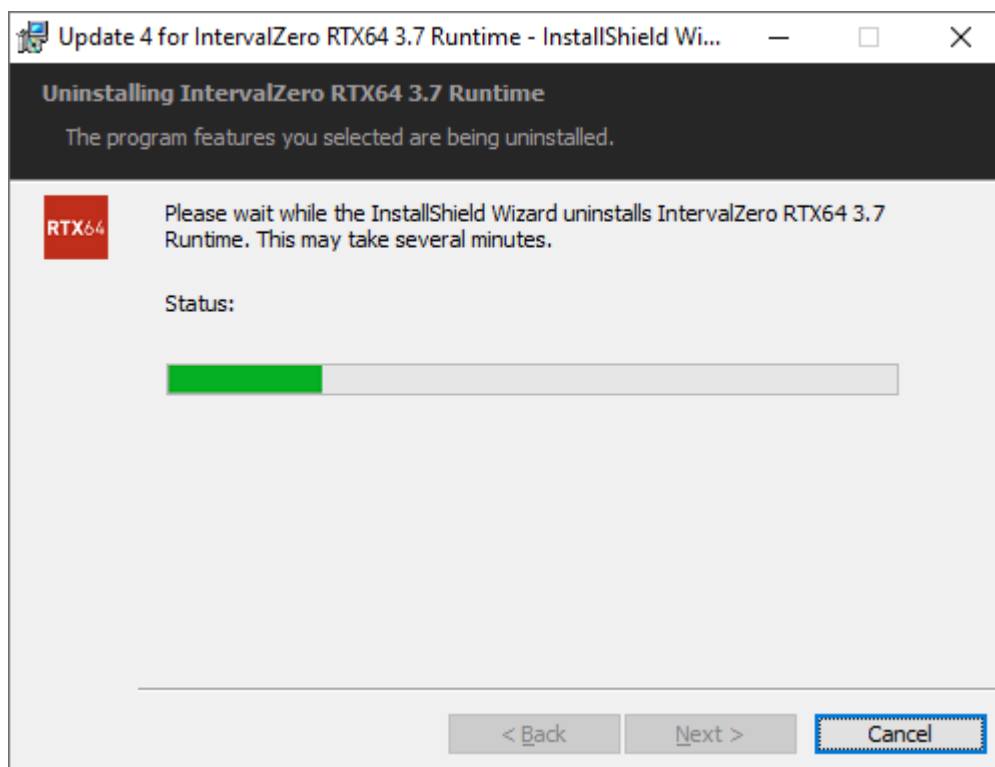
- You must have a NET-MSC-GBEX1-Ethernet card in your system.
- You must have a MassCore 48 (Base) Key in order to proceed with the installation. You must also have a MassCore 64bit (Base) key and an RTX 64 key. Please contact your Merging Technologies Sales Partner if you do not have these options but want to use MassCore.

### MassCore Installation

- Install v9.x Ovation.exe.
- Launch **MT Security Settings** and select the **MassCore** Tab.
- Reboot selecting the **NON-MassCore** Windows Boot line. If you experience any problems please refer to the troubleshooting document here:

<https://confluence.merging.com/display/PUBLICDOC/MassCore+Uninstall+Troubleshooting>

- The previous Masscore RTX64 will now uninstall:



IntervalZero Uninstall dialog

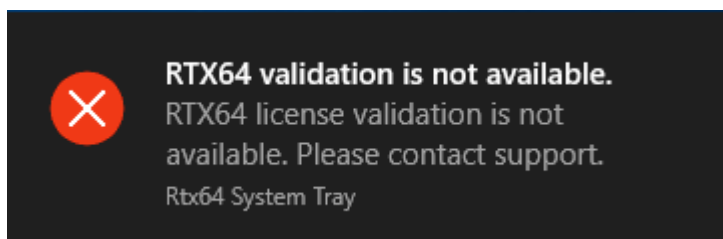
- Once the uninstallation is finished, there is no need to reboot. Launch **MT Security Settings** and enter your **v9** keys or confirm their presence.

**Warning!** If when entering your new MassCore key you experience a failure message, please contact:

[keys@merging.com](mailto:keys@merging.com)

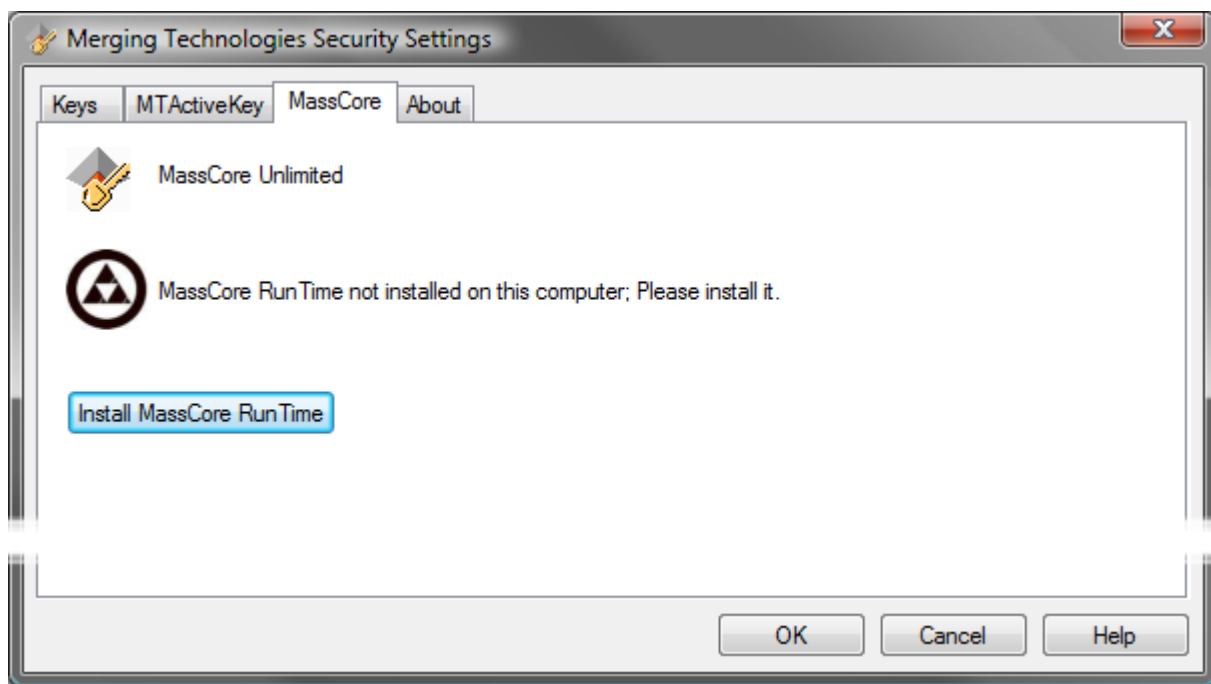
and let us know your Dongle serial number so that Merging can identify your current **MassCore/RTX64 key** and renew it if necessary.

**Note:** Users installing MassCore may see a popup dialog un-authorized license message. Please ignore until reboot.



RTX64 validation is not available dialog

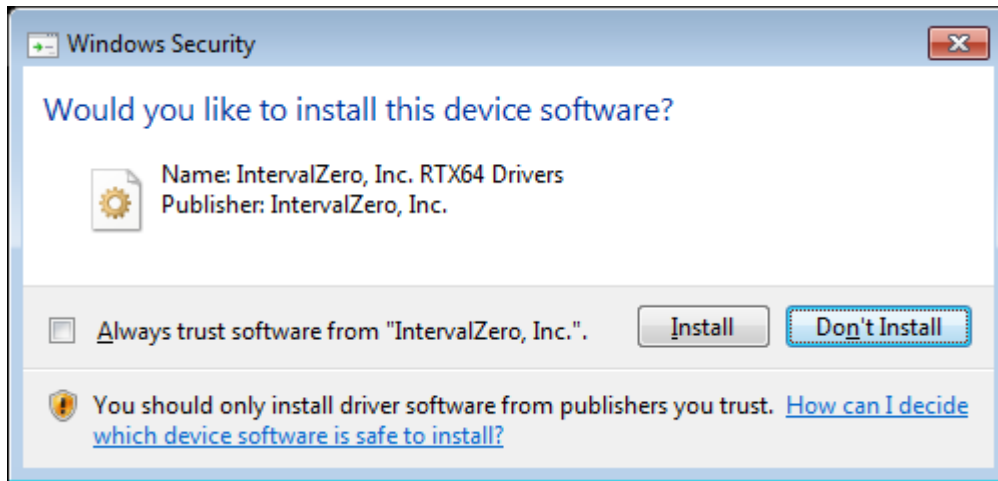
6. Enter Your Key(s) in **MT Security Panel** (Make sure you have a valid MassCore key.) The MassCore 64bit and RTX64 keys are required for 64-bit systems.)
7. In the **MT Security Panel** select the MassCore Tab
8. Press the **Install MassCore Run Time** button (will only be enabled if the **MassCore base, MassCore 64bit** keys and a valid RTX64 license code are present..  
*Please note that the installation process can take some time to proceed.*



V53 merging Technologies Security Settings dialog

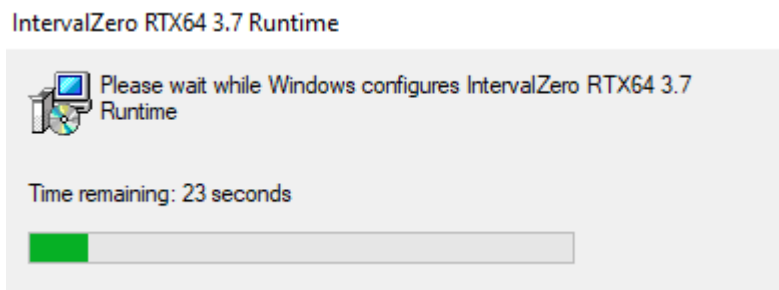


9. A **Windows Security** RTX Driver approval dialog will appear:



VS3 Merging Technologies Virtual Studios Settings dialog

10. Click **Install**. The installation progress window will appear:

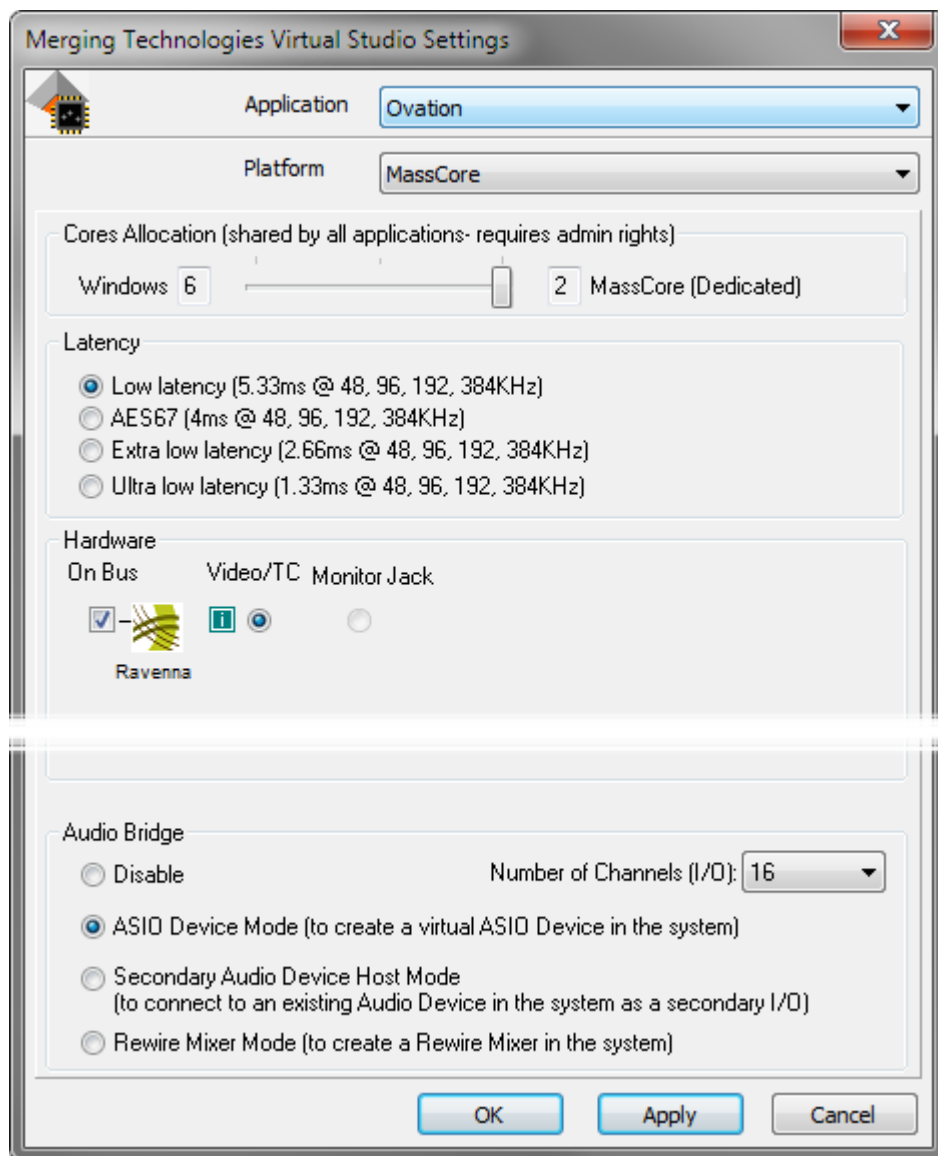


RTX64 Install Progress dialog

11. When the install completes, click on **OK** in the Merging Technologies Security Settings dialog to close it.
12. Restart System after the install.

**Note:** Please note that the installation process can take some time. After installation you should see an **Interval Zero** entry in **Windows Control Panel > All Control Panel Items > Programs and Features**. This should read: **IntervalZero RTX64 3.7 Runtime (Version 3.7.4.5222)**.

Launch the **VS3 Control Panel**:



VS3 Merging Technologies Virtual Studios Settings dialog

13. In the Platform section select **MassCore**

14. We recommend the use of Low latency or **AES67** modes by default. Ultra low latency & Extra low latency are available for Horus / Hapi / Anubis users with Ovation v9.x recommended configurations.

<http://www.merging.com/pages/pconfig>

We also recommend that users working in DXD and DSD use **Low Latency**.

## 64 Bit MassCore Notes

- Double licence protection, both MassCore 64bit and RTX64 keys are required BEFORE MassCore installation. The MassCore 64 bit installation can be performed only if these two keys are present.
- The RTX64 Activation key licence is authorized by an online tool on Interval Zero's site after the Merging software (MassCore) installation is complete.
- Note that the RTX64 MassCore licence can only be installed ONCE per Windows installation, since it is locked to the system.
- At present if there is a requirement use MassCore Pyramix on two different computers regularly, it will be necessary to purchase a second MassCore 64bit Base key. **Note** that a solution exists for those who would like to have their MassCore/RTX64bit keys stored on a dongle (Hasp/IntervalZero), instead of having them linked to a unique system. This allows users to move their MassCore/RTX64 licensing to different systems by carrying two dongles (Merging-SafeNet & IntervalZero-HASP). This solution requires the purchase of an additional dongle. Please contact your local Merging Technologies sales office if you require this option.(Reference: SSK-HUD-RTX).

## Re-licencing MassCore 64 bit RTX

If a systems needs to be re-licenced for example after a Windows OS re-installation process or if it is necessary to move the licence to another system, then you should contact us at:

[keys@merging.com](mailto:keys@merging.com)

Please give the reason for your system migration or re-installation since the RTX64 key is not meant to be renewed frequently.

If Merging cannot follow up with a timely response (in emergency or at weekends) please contact the Interval Zero (RTX) sales team.

Please ensure that you have the RTX64 Authorization Key number (IZRTX64-030-XXXX-XXXX...) when doing so.

Interval Zero Support team:

[sales@intervalzero.com](mailto:sales@intervalzero.com)

**Note:** This does not apply to new systems running **RTX64 3.7.4** and higher.

## 10 MassCore - RAVENNA



### Certified Operating Systems (OS) for RAVENNA

Ovation Version 9.x MassCore in RAVENNA mode is certified under Windows 7 Professional (64-bit versions) and Windows 10 Professional (64-bit versions).

### System Requirements

We maintain a list of up to date PC configurations in the Support Section of our website at:

<http://www.merging.com/pages/pconfig>

Please refer to the MassCore-RAVENNA recommendations (Quad-Core is the minimum requirement)

### Required Hardware

The Merging Technologies NET-MSC-GBEX1 PCIe Ethernet controller card is required for MassCore - RAVENNA.

### *Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card*

The NET-MSC-GBEX1 PCIe card should be installed in your computer before installing Ovation v9.x.

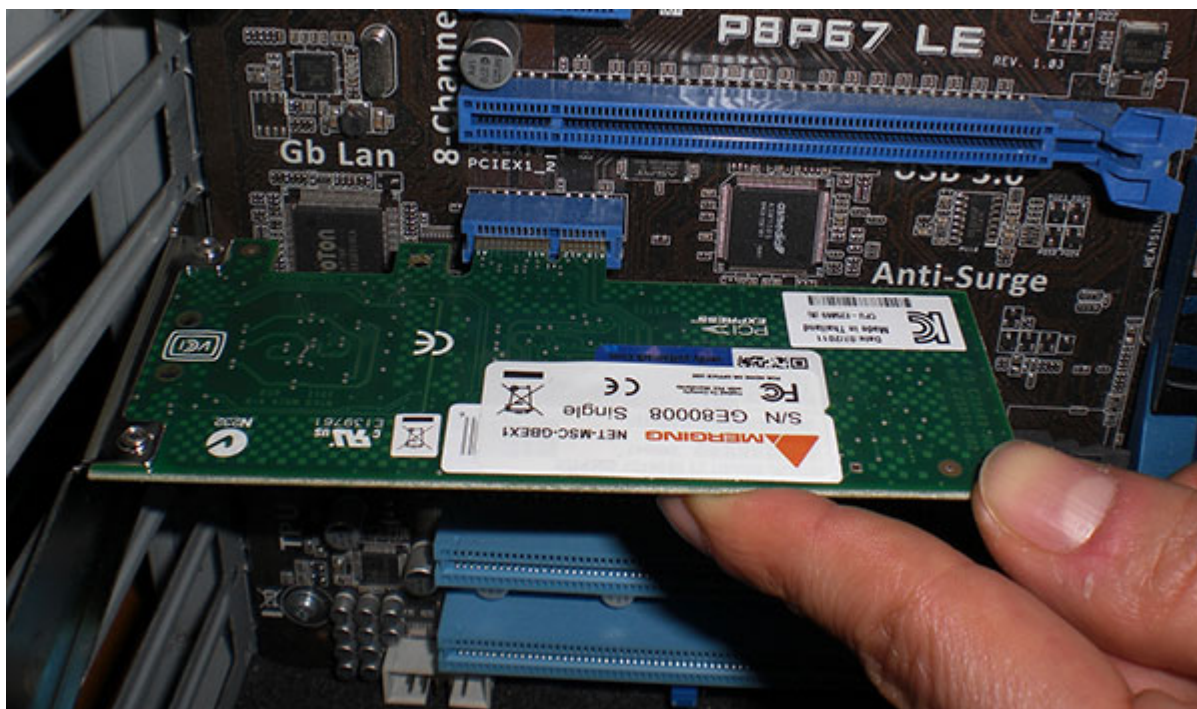


The NET-MSC-GB EX1 card

### Procedure

1. Power down your PC and switch it off at the wall. Remove the screws securing the top or side of the case and carefully slide off the panel.
2. An anti-static wristband is sensible precaution whenever working with sensitive electrical equipment. Keeping one hand on a metal part of the case will have the same effect, though you may need both hands when installing certain items of hardware.
3. Locate an empty PCIe slot and remove the metal backing plate by removing the screw holding it in place and carefully sliding it up and out. In some cases, there are no backing plates and you will need to remove a length of metal instead. Do this using a flat-blade screwdriver and/or pliers, taking care to avoid any sharp edges left behind.

4. Remove the NET-MSC-GBEX1 card from its protective anti-static envelope and align it with the vacant PCIe slot as shown below.



Installing the NET-MSC-GB EX1 card

5. Push down, gently at first, ensuring you have the pins aligned correctly with the slot, and then apply more pressure to slot the card fully home.
  6. Use the screw which was used to retain the backing plate to secure the card in place and check that the card sits comfortably.
  7. Finally, replace the case cover(s) and switch the machine back on at the socket.
  8. At the next power up and boot Windows will discover the Merging Ethernet PCIe card.
- Ovation v9.x can now be installed.

### Required Software

In order to operate Ovation with RAVENNA and Horus / Hapi / Anubis, Ovation v8.x or later must be installed. The Ovation v9.x installer includes Apple Bonjour. As of **Ovation v7.0.7 HotFix** the installer no longer includes the ANEMAN application which now comes as a separate installer. Please download and install the latest ANEMAN in order to manage and monitor your AoIP devices from:

[www.aneman.net/#download](http://www.aneman.net/#download)

**Note:** Driver signing. Please tick **Always trust "Merging Technologies"** when the first warning message about unsigned drivers appears.

### Enter your Ovation keys

Launch **MTSecurity settings** and enter your Ovation 9.x keys. **Please see Entering your Key(s) on page 20.**

**Note:** v9 keys are required and MassCore requires an RTX64 key in order to run RTX64 3.7.

### Install MassCore

**Please see: MassCore Installation on page 23**

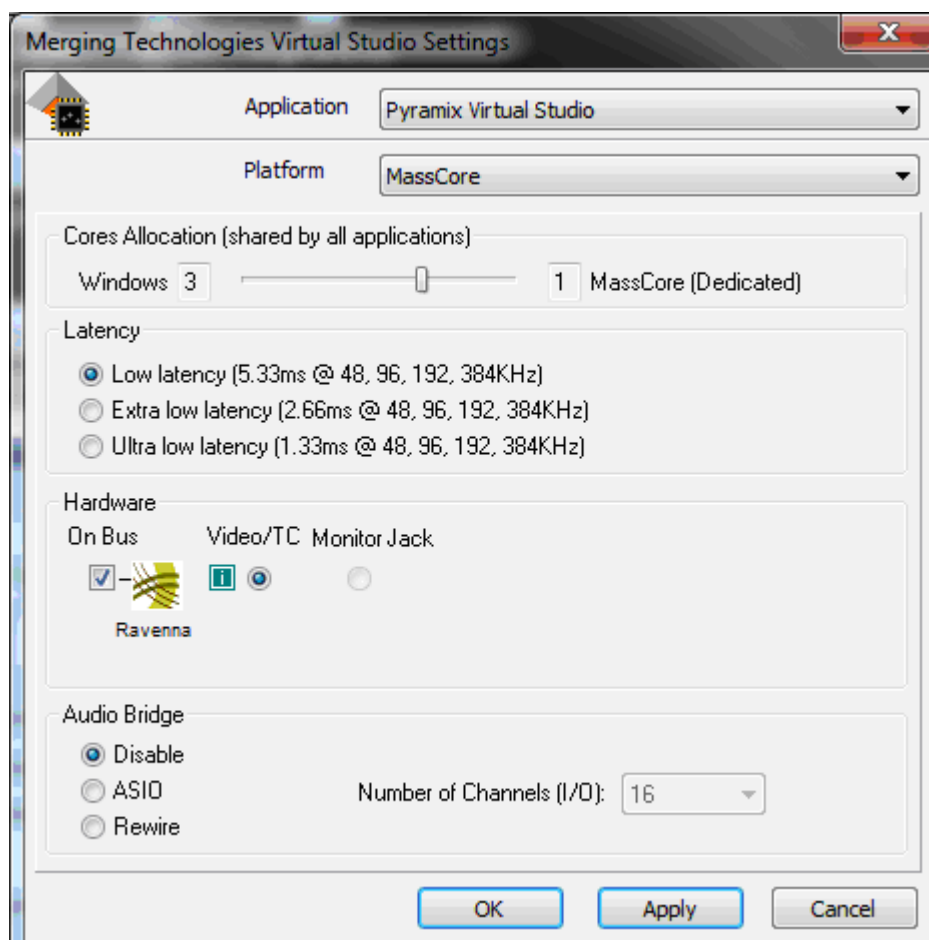
**Note:** A valid MassCore (Base) key and a valid MassCore 64-bit key are mandatory.

The MassCore key is held on the SafeNet dongle. Please make sure that you are in pos-

session of a dongle and valid keys in order to operate Ovation in MassCore-RAVENNA mode.

**Note:** The NET-MSC-GBEX1 Ethernet card requires MassCore in order to function.

### Configure RAVENNA in the VS3 Control Panel



VS3 Merging Technologies Virtual Studios Control Panel

1. Launch the **VS3 Control Panel**
2. **Cores Allocation** Leave on the default setting for now.
3. For now, leave **Latency** on the default setting **Low Latency**
4. Select **Platform : MassCore**
5. Select **Hardware : On Bus** as **RAVENNA** (box ticked)
6. **Audio Bridge** : Set as required.
7. Click on the **OK** button.
8. When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
9. the VS3 control panel will close.

### Before First Launch

Before launching Ovation v9.x, you must ensure that a **PTP Master\*** is present on your RAVENNA network. Merging Technologies recommends using its **Horus, Hapi** or **Anubis** converters as PTP Master.

\* The Precision Time Protocol (PTP) is a protocol used to synchronize clocks throughout a computer network.



**Note:** RAVENNA mode supports all three Latency modes. (VS3 Control Panel)  
To enable RAVENNA I/O connections please refer to the separate ANEMAN User Manual.

**Note:** Merging Technologies highly recommend **Low Latency** or **AES67** modes for optimal performance. The **Extra** and **Ultra** latency modes should only be used on Merging Turnkey systems or approved configurations since these modes can be very demanding on performance, depending on system configuration and user workflow.

**Note:** Horus / Hapi / Anubis users should refer to their respective User Manual for configuration set-up with Ovation.

**Note:** At the first Ovation launch if your system is not configured correctly you might see the message below:

**Your system is not configured according to Merging's recommendations.**

**Note:** Some Windows updates could harm your system, we strongly advise you to **Defer** Windows updates.

More details on the procedure to follow are available here:

<https://confluence.merging.com/display/PUBLICDOC/Windows+10+Defer+Updates>

## Troubleshooting

### RAVENNA: Horus / Hapi / Anubis & Network configuration

Merging recommend that the Ethernet MassCore card and Horus / Hapi / Anubis are configured to obtain an IP address automatically.

### Setting Horus / Hapi / Anubis and Network Card to Obtain IP Addresses Automatically Network Card

1. Open **Network Connections** in the Windows **Control Panel**
2. Right-click on the MassCore Ethernet card NET-MSC-GBEX1 and open **Properties**.
3. Select **Internet Protocol Version 4, TPC/IPv4** (which is the only one activated) and click on **Properties**.
4. Select the **Obtain an IP address automatically** option.
5. Click on **OK** in each dialog to accept the changes and close the dialogs.

### Horus / Hapi

1. Open the **Horus / Hapi Setup > Advanced > Network** page
2. In the **IP address** section select **Auto**

### Setting Fixed IP addresses

**Note:** For users running firmware prior to **3.9.3b38957**, setting a Fixed IP is not recommended due to the fact that the Horus / Hapi Maintenance mode will be only be effective in Auto IP mode. This is mandatory for Firmware updates.

### Note: Anubis

- Open the Anubis **Settings > General** page and browse to the **Network** section.
  - On the **Obtain an IP address** option, select **Auto**.
1. First, check the IP address of the Horus / Hapi device under **Setup > Network**  
To be able to see each other, the Merging Technologies Network card and Horus / Hapi must be in the same range of addresses. (for example **192.168.xxx.xx**).

2. The Horus / Hapi / Anubis IP address can be checked (and changed if required) in the **Horus / Hapi Setup > Network** and **Anubis Settings > General > Network** section.
3. The IP address of the MT Network card can be changed in **Windows Control Panel > Change Adapter Settings**
4. Right click on the Merging Technologies NIC and select **Properties**.
5. Select **Internet Protocol Version 4, TCP/IPv4** (which is the only one activated) and click on **Properties**.
6. Switch to **Use the following IP address** and enter an IP address that is in the same range as the Horus / Hapi / Anubis IP address. The Subnet Mask should be added automatically.
7. Click on **OK** in each dialog to accept the changes and close the dialogs.

## Windows Firewall and UAC

### Recommendation

If not configured correctly, Windows Firewall can block communication between MassCore and Horus / Hapi / Anubis. User Account Control should also be set to **Never Notify**.

### Firewall

- Open the Windows **Control Panel**. Open the **System and Security** section and under **Windows Firewall** disable the Firewall for the Public Network.
- Go back to the Windows **Control Panel** and click on Windows **Firewall**. Click on **Change notification settings**. Ensure **Block all incoming connections, including those in the list of allowed programs** is **NOT** ticked.

### User Account Control

- Open the Windows **Control Panel**. Open the **User Accounts** section and under **Change User Account Control Settings** move the slider down to **Never Notify**.

## Antivirus

### Recommendation

- Merging also recommends that any Antivirus software is properly configured so as to not interfere with the DAW. See this page for further details:

<https://confluence.merging.com/display/PUBLICDOC/Antivirus+and+Merging+Technologies+Softwares>

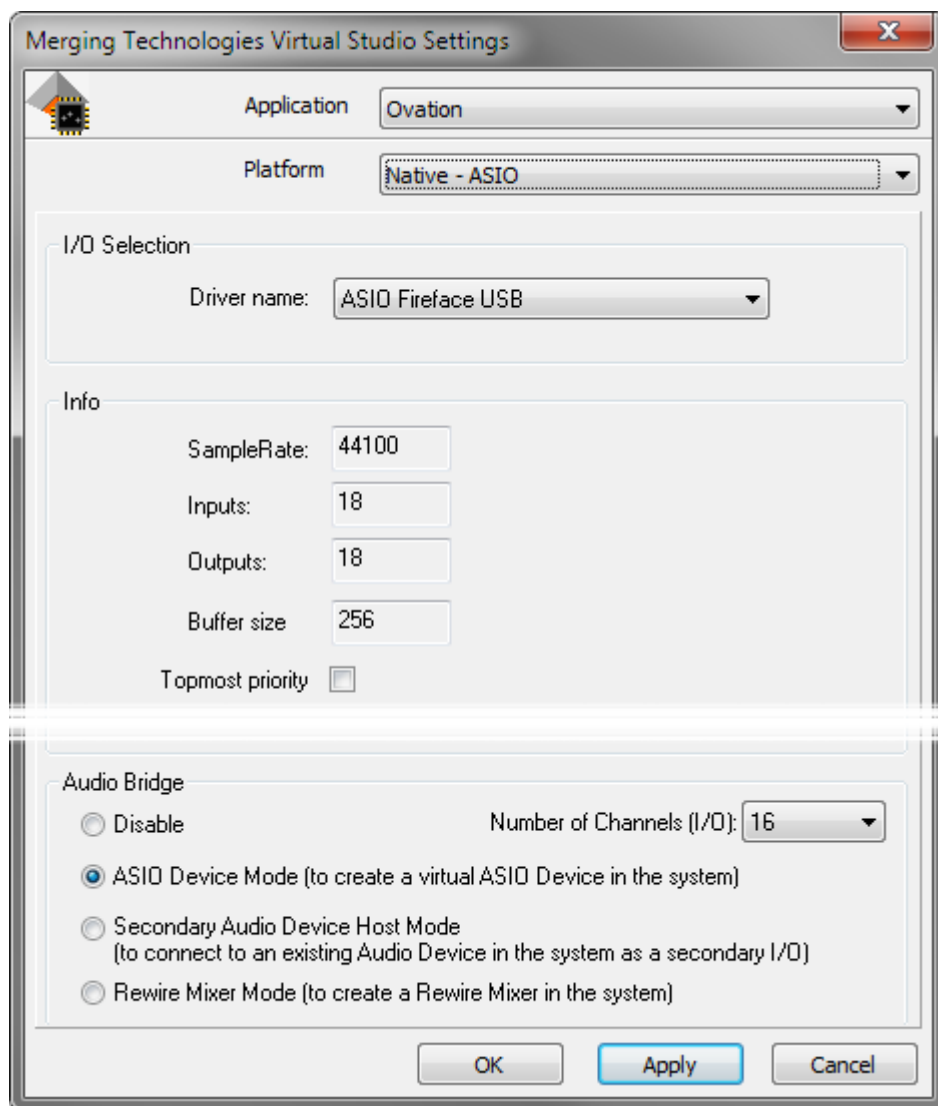


## 11 Native - ASIO/WDM

**Note: Windows October 2020 update (20H2) and May 2020 Update (2009) are supported with Pyramix 25th HotFix 3 & Ovation 9.0.6 HotFix 3, Windows 10 November 2019 Update (1909) is supported as of Pyramix Native 25th Anniversary and above only. Previous Pyramix versions will NOT run under the November 2019 Update (1909).**

Install Ovation and the drivers for your ASIO/WDM device.

### Configure ASIO in the VS3 Control Panel



VS3 Merging Technologies Virtual Studios Control Panel

1. Launch the **VS3 Control Panel** (Start: All Programs > Merging Technologies > VS3 Runtime > VS3 Control Panel)
2. Select **Platform : Native - ASIO**
3. Select **I/O Selection ; Driver name** : Select your ASIO device from the drop-down list
4. **Audio Bridge** : Set as required.
5. Click on the **OK** button.
6. When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
7. The VS3 control panel will close.

The Inputs and Outputs present on the ASIO device will now be available in Pyramix.

## Merging Audio Device

As of Ovation v9 and above Merging recommends that you install the new Merging Audio Device (MAD) if you are working with ASIO and/or WDM. The MAD replaces the previous RAVENNA ASIO Driver.

For more information please refer to the Merging Audio Device Online Documentation:

<https://confluence.merging.com/pages/viewpage.action?pageId=70221956>

## 12 First launch

**Important!** After installation has been completed, please reboot the PC before attempting to launch Ovation. Then open the **VS3 control panel** application.

**Start > All Programs > Merging Technologies > VS3 Runtime > VS3 control panel**

### For Systems with MassCore RAVENNA

Please see: **Configure RAVENNA in the VS3 Control Panel on page 30**

### For Native Systems

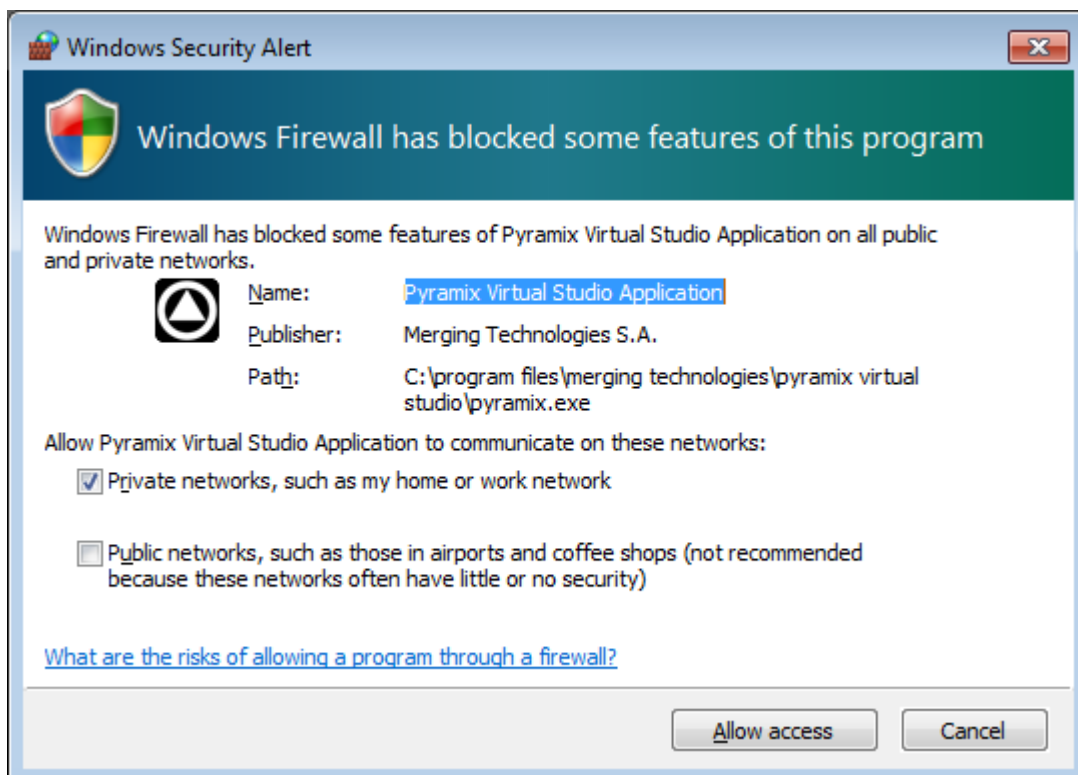
Please see: **Configure ASIO in the VS3 Control Panel on page 33**

### Launch Ovation

Double-click on the **Ovation** desktop icon to launch Ovation.

**Please see important information on next page!**

**Note:** At the first launch a firewall approval dialog may appear:

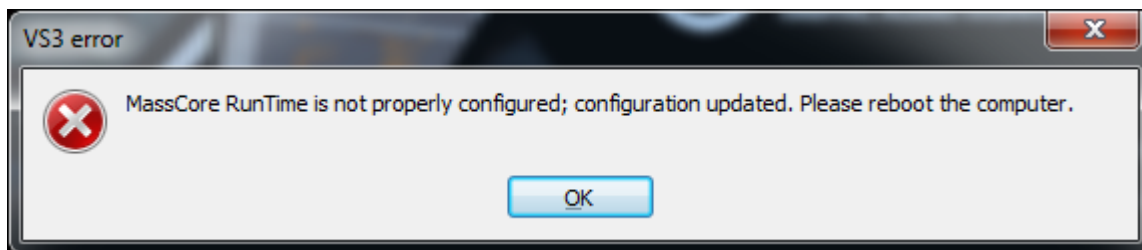


Windows Security Alert dialog - Windows Firewall

Click on **Allow access** since this is necessary to ensure correct Audio Connections and VT2 (Virtual Transport 2) functioning.

**Note:** For further information about options available in the VS3 Control Panel, please see the Pyramix User Manual.

**Note:** At first Ovation launch and or after installing MassCore the following alert box may appear. If it does please reboot the computer one more time:



VS3 error alert box

**Note:** If after a computer restart this error message still appears, please follow the instructions in our knowledge base:

<https://confluence.merging.com/display/PUBLICDOC/MassCore+Runtime+is+not+properly+configured+error+message>

For further assistance please contact:

[support@merging.com](mailto:support@merging.com)

**Note:** At the first Ovation launch if your system is not configured correctly you might see the message below:

**Your system is not configured according to Merging's recommendations.**

**Note:** Some Windows updates could harm your system, we strongly advise you to **Defer** Windows updates.

More details on the procedure to follow are available here:

<https://confluence.merging.com/display/PUBLICDOC/Windows+10+Defer+Updates>

## Documentation

The **Ovation** and **Pyramix User Manuals** and **Quick Start Guide** are available from within the application and may be accessed via the **Help** menu or by pressing **F1**, or online at:

<http://www.merging.com/downloads>

## 13 Troubleshooting

Please visit regularly:

[www.merging.com](http://www.merging.com)

And for the latest Troubleshooting Guide and FAQ sections:

<https://confluence.merging.com/>

## 14 Lost or Stolen Merging Technologies Security Keys

### ***(Sentinel USB Dongles)***

The Merging USB Key carries all the value of your Merging software and the software licence authorization to use it. Please ensure you do not lose the USB key as Merging Technologies cannot be held responsible if this is lost or stolen.

If your USB key is lost or stolen then please make a claim on your insurance in the usual way just as you would for any other item you own. Merging will be happy to confirm the details and value of the software licence and USB key to your insurance company. If your USB key is lost or stolen and a different user should attempt to register for this key, Merging will notify you and the authorities in your country that an attempt has been made to register this stolen item.

If your USB key should become defective or is broken, please ensure this key is returned to merging after requesting and RMA (Return Merchandise Authorization.) Only after the receipt of this key in the Merging Offices will it be determined if it may be exchanged under warranty free-of-charge, or if the damage is outside the warranty scope. In which case only a modest fee to replace it with a new key will be charged (and not the entire value of the software.)

## 15 Contacting Merging

### *International Office:*

**Merging Technologies S.A.**

**Le Verney 4**

**CH-1070 Puidoux**

**Switzerland**

**Phone: +41 21 946 0444**

### *UK:*

**Merging UK (Emerging Ltd.)**

**23 Campbell Court**

**Campbell Road**

**Bramley**

**Hampshire**

**RG26 5EG**

**UK**

**Phone: +44 (0) 118 402 5090**

**Fax: +44 (0) 870 123 1747**

**Email: sales@merginguk.com**

### *USA:*

**Merging USA (Independent Audio)**

**43 Deerfield Road**

**Portland,**

**ME 04101-1805**

**United States of America**

**Phone: +1 (207) 773 2424**

**Fax: +1 (207) 773 2422**

**For all documentation inquiries or suggestions for improvement:**

<http://www.merging.com>



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