

**Ovation**  
MEDIA SERVER & SEQUENCER

**Installation Guide**

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# Installation Guide

## IMPORTANT NOTICE:

Please read the following information very carefully before attempting any installation. Failure to comply with the precise instructions may result in damage to your Merging hardware. Please read this entire section of the manual carefully before installation.

## STATIC DANGER NOTICE:

Please note that the Mykerinos and Mykerinos-X boards contain delicate electronic components that can be damaged or even destroyed when exposed to static electricity. Take all necessary precautions not to discharge static electricity when touching any of the Mykerinos components.

## INFORMATION FOR THE USER:

Mykerinos, Mykerinos-X and their daughter cards comply with the following specifications:

### EMC Emissions

EN 55022 : 1994 /A1 : 1995 /A2 : 1997 Class A ITE emissions requirements (EU)

FCC 47 CFR Part 15 Class A emissions requirements (USA)

### EMC Immunity

EN 50082-1: 1992 EMC residential, commercial and light industrial generic immunity standard.

### FCC Notice

This product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

These limits are designed for providing reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions contained in this manual, may cause harmful interference to radio and television communications. However,

there is no guarantee that interference will not occur in a particular installation.

**Note:** Connecting this device to peripheral devices that do not comply with CLASS A requirements or using an unshielded peripheral data cable could also result in harmful interference to radio or television reception. The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

### CE Notice

Such a  marking is indicative that this system's devices meet the following applicable technical standards:

- EN 55022 – "Information Technology Equipment - Radio disturbance characteristics Limits and methods of measurement"
- EN 50082-1: 1992 – "Electromagnetic compatibility – Generic immunity standard Part 1: Residential, commercial, and light industry"

This product is classified for use in a typical Class A commercial environment, and is not designed or intended for use in other EMC environments. The user of this product is obliged for proper use and installation of the product and for taking all steps necessary to remove sources of interference to telecommunications or other devices.

## Hardware Warranty Information

This product is warranted to be free of defects in materials and workmanship for a period of one year from the date of purchase. Merging Technologies, Inc. extends this Limited Warranty to the original purchaser.

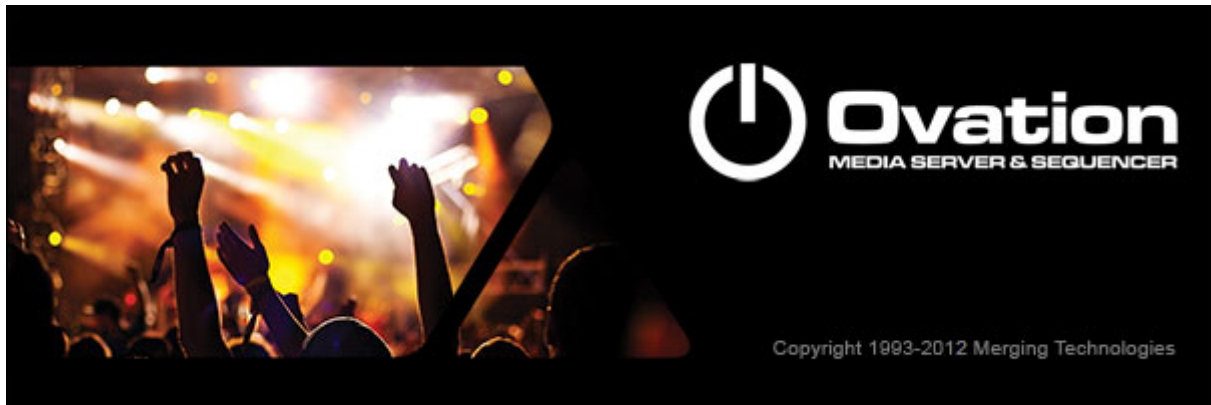
In the event of a defect or failure to conform to this Limited warranty, Merging Technologies, Inc. will repair or replace the product without charge within sixty (60) days. In order to make a claim under this limited warranty, the purchaser must notify Merging Technologies, Inc. or their representative in writing, of the product failure. In this limited warranty the customer must upon Merging Technologies, Inc. request, return the product to the place of purchase, or other local designation, for the necessary repairs to be performed. If the consumer is not satisfied with the repair, Merging Technologies, Inc. will have the option to either attempt a further repair, or refund the purchase price.

This warranty does not cover: (1) Products which have been subject to misuse, abuse, accident, physical damage, neglect, exposure to fire, water or excessive changes in the climate or temperature, or operation outside maximum rating. (2) Products on which warranty stickers or product serial numbers have been removed altered or rendered illegible. (3) The cost of installations, removal or reinstallation. (4) Damages caused to any other products.

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# Installation Guide



Document: Ovation™ Installation Guide 4 - rev5

Date: 21st December 2012

# 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.merging.com/forum/>

## 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.

## Ovation Versions - Compatibility and Installation Steps

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

Compatibility: Windows 7 32 bit and 64 bit, Windows XP SP3

#### Installation Steps:

- Ovation Software Installation, See: **Ovation Software Installation on page 19**
- Entering Authorization Keys, See: **Ovation Software Registration on page 21**
- Select ASIO and the correct card/device in the VS3 Control Panel (**Start Menu > Control Panel > VS3 Control Panel**)

### Mykerinos only:

Not supported.

### MassCore with Mykerinos:

Compatibility: Windows 7 32 bit, Windows XP SP3

#### Installation Steps:

- Mykerinos Installation, See: **Mykerinos Installation on page 18**
- OvationSoftware Installation, See: **Ovation Software Installation on page 19**
- Entering Authorization Keys, See: **Ovation Software Registration on page 21**
- MassCore Installation, See: **MassCore Installation on page 23**
- Select MassCore with Mykerinos in the VS3 Control Panel (**Start Menu > Control Panel > VS3 Control Panel**)

### MassCore with Ravenna and Horus:

Compatibility: Windows 7 32 bit

#### Installation Steps:

- NET-MSC-GBEX1 Installation See: **Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card on page 25**
- Ovation Software Installation, See: **Ovation Software Installation on page 19**
- Entering Authorization Keys, See: **Ovation Software Registration on page 21**
- MassCore Installation, See: **MassCore Installation on page 23**
- Select MassCore with Ravenna in the VS3 Control Panel (**Start Menu > Control Panel > VS3 Control Panel**)

### Native with ASIO for Ravenna and Horus:

Compatibility: Windows 7 32 bit and 64 bit

#### Installation Steps:

- Optional: NET-MSC-GBEX1 Installation See: **Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card on page 25**  
**Note:** This step is optional since the ASIO driver for Ravenna and Horus supports any Ethernet adaptor, typically in a laptop scenario
- Install the Merging Ravenna ASIO Driver provided with your Horus or available from:  
<http://www.merging.com/download>
- Ovation Software Installation See: **Ovation Software Installation on page 19**
- Entering Authorization Keys See: **Ovation Software Registration on page 21**
- Select the desired network adapter in Merging Ravenna ASIO Panel (**Start Menu > All Programs > Merging Technologies > Merging Ravenna ASIO Driver > Merging Ravenna ASIO Panel**), please see details in the Merging Ravenna ASIO and CoreAudio Guide available in **Start Menu > All Programs > Merging Technologies > Documentation > Merging Ravenna ASIO Driver > Merging Ravenna ASIO Panel**
- Select ASIO with Ravenna in the VS3 Control Panel (**Start Menu > Control Panel > VS3 Control Panel**)



## 2 Ovation Overview

Ovation enables the user to run Cues of many Media and Command types, either manually like a spot player / cartridge machine or automatically against Run-time, Time-of-day or external LTC or MIDI TimeCode. The Ovation Sequencer can be controlled from a hardware controller, touch screens, GPIs, Sony 9-pin (P2) Protocol commands and MIDI.

Ovation consists of three modules, the OVPlayer, OV Controller and the OVSequence Designer / Show Controller. OVPlayer and OV Controller can be embedded into the main Ovation application, or run stand-alone on the same machine or any machine accessible on the network. By default the embedded player is enabled.

Ovation also includes the renowned Pyramix DAW.

For many applications the optional Ovation hardware controller will be highly desirable. VCube fully supports the Merging Technologies Virtual Transport technology.

### Ovation Versions

Ovation is available in three main versions with a number of options.

**Ovation Silver** Designed for cut down systems where simple audio playback is needed.

Add the optional WebServer to be able to take control of your show from ANY web-connected device (Desktop, Laptop, SmartPhone, TabletPC).

Includes:

- Audio playback with up to 48 matrix outputs (with proper hardware)
- VST support
- MIDI and GPI/O support
- Pyramix editing
- Designed for Broadcast Playout, Small theatres, and where connection to a larger system of control is not necessary
- Optional WebServer

**Ovation Gold** Packaged for applications where the event also has show control requirements. Whether being controlled by an external show controller, or running the show itself, Ovation Gold delivers all the tools necessary to run a show, from pre-production to show-time.

Also, with a full Pyramix Virtual Studio Option set in the same box, the Ovation system becomes a true dual-purpose device by turning it into a large track-count recorder/editor/mix system at the touch of a button!

As with the Silver package, you can choose to add the Ovation WebServer option to the Gold package. With the ability to load multiple access points for a single show, distributing information and control has never been simpler.

Includes:

- All the Ovation Silver pack options
- Pyramix VS3 low-latency plugin support
- Support for all other control protocols (LTC, RS-422, MSC, Script/Batch files)
- Pyramix Music Pack
- Optional WebServer

**Ovation Platinum** The ultimate Ovation pack, Ovation Platinum features all the options available with the Gold package and adds to it our vast knowledge and experience in delivering a mix engine of truly astonishing size. In one Ovation Chassis, you can now harness the power of a 384-track mixer with another 384 channels of bussing, configurable as any amount of mono/stereo/surround busses that your show may need! Add to that a comprehensive Scene Snapshot and recall list with integrated glide times and a virtual large-format mixing console is included "in the box."

The Ovation WebServer option is included in the cost.

Includes:

- All the Silver and Gold packages options
- Track count up to 384 I/O @1Fs
- Integration with SmartAV Tango controller
- Support for Oasis/Eucon/HUI protocols
- Scene Snapshots and recall with user programmable glide times for anything from a single band of EQ gain all the way up to the entire mix-engine surface.
- Ovation WebServer option included

**Items included with Ovation:**

- Installation Media with Ovation, Pyramix, VCube and Virtual Transport software. This Installation Guide.
- Sentinel or HASP USB security dongle. The security dongle authorizes both the Ovation application and any optional features.

Complete turnkey systems are available.

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.

## 3 For Users Performing Upgrades

**Note:** New V4 Keys have been issued for Ovation V4 users. Be aware that V3 keys will only work with the Beta and Release Candidate versions of Ovation 4.

### Ovation

We recommend uninstalling any previous version of Ovation before installing Ovation 4.

From the Windows Control Panel select **Programs and features** (Windows 7 or Vista) **Add or remove programs** (Windows XP).

Remove the installed version of Ovation.

### Masscore

MassCore users must remove the existing MassCore runtime by going to Windows **Add or Remove Program / Programs and Features** Control Panel and removing the **Interval Zero RTX runtime**.

Please ensure that you perform a Reboot afterwards.

**Important!** On reboot, in the Windows Boot Manager screen, choose the non MassCore option before installing the new version of MassCore.

Following the install of Ovation V4.0 you will then need to install the new **MassCore Runtime** from the **MT Security Settings : MassCore** Tab.

**Note:** Windows XP users must upgrade to **SP3**.

## 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>

### Other Components

- **Graphics Card:** The recommended graphics cards are the **ATI FIREPRO** series of PCIe graphics cards.
- Sufficient HD space and speed for your audio media files. The speed and amount of disk space required depends on sample rate, wordlength, 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 multiple drives configured in Raid 0, 1, 10 or 5
- We recommend disks should be formatted as **NTFS** volumes with 64kB block sectors.
- **DVD/CD-ROM** combo drive or better
- SXGA 17" monitor or better. Multiple 19" monitors highly recommended.  
**Minimum resolution 1280x1024**
- 3 button mouse

### *Mykerinos Systems*

#### Certified Operating Systems

- **OS:** We recommend and certify **Ovation Version 4.0 and later** under **Windows 7 Professional (32-bit version)** and **Windows XP SP3 Professional (32-bit version)**.

**Note: NEVER** attempt to install Ovation on Windows **NT Server**)

### *Ovation MassCore Systems*

#### Certified Operating Systems

- **OS:** We recommend and certify **Ovation Version 4.0 and later** under **Windows 7 Professional**, and **Windows XP SP3 Professional**.

**Note:** MassCore - Ravenna is **ONLY** certified under Windows 7 Professional (32-bit version)

### *Ovation Native*

#### Certified Operating Systems

- **OS:** We recommend and certify **Ovation Version 4.x** under **Windows 7 Professional**, and **Windows XP SP3 Professional**.
- Ovation Native **ONLY** (versions from 3.x onwards) is certified to work under Windows 7 - 64bit. **N.B.** Ovation Native is **NOT** certified for Windows XP64 or Vista64 versions.

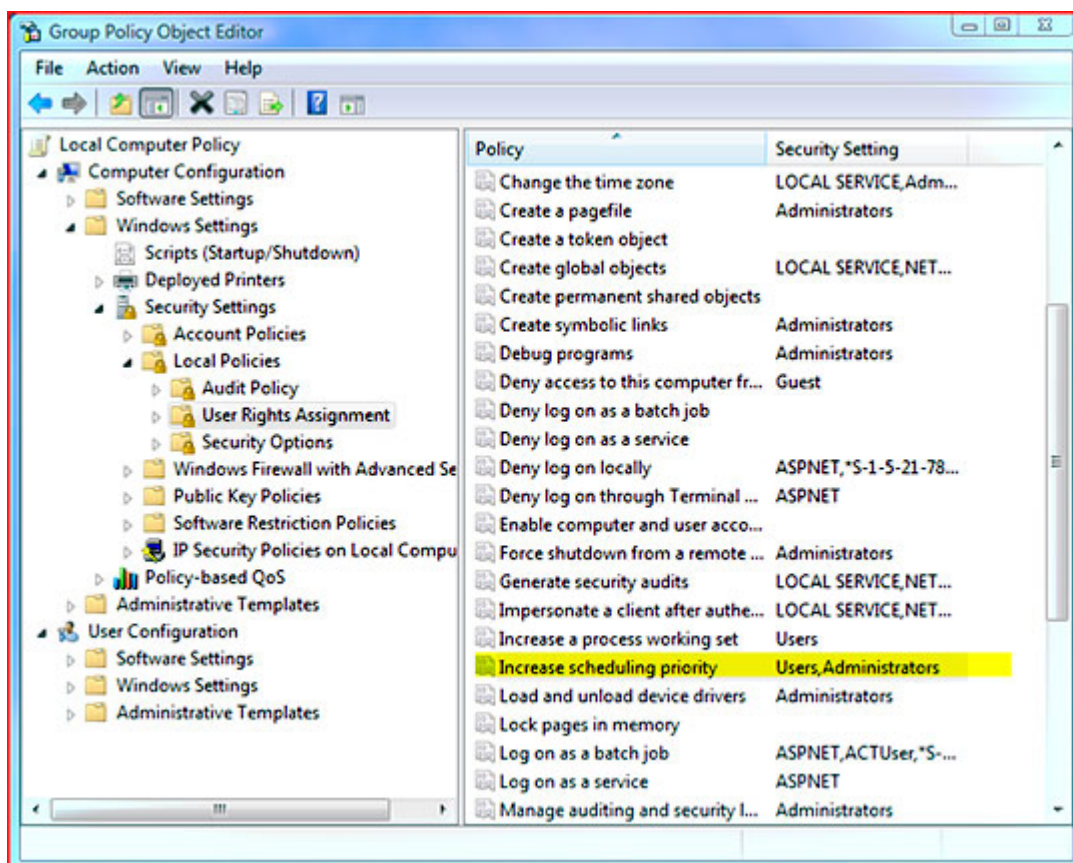
## MassCore and Networks

### Increase Scheduling Priority

For satisfactory operation over a network, you must add the User Group to which the User belongs to “Increase Scheduling priority policy” with the help of **gpedit.msc**. If the Machine belongs to a domain the **Administrator** of the domain must do this, if not then the Administrator of the system.

#### Procedure

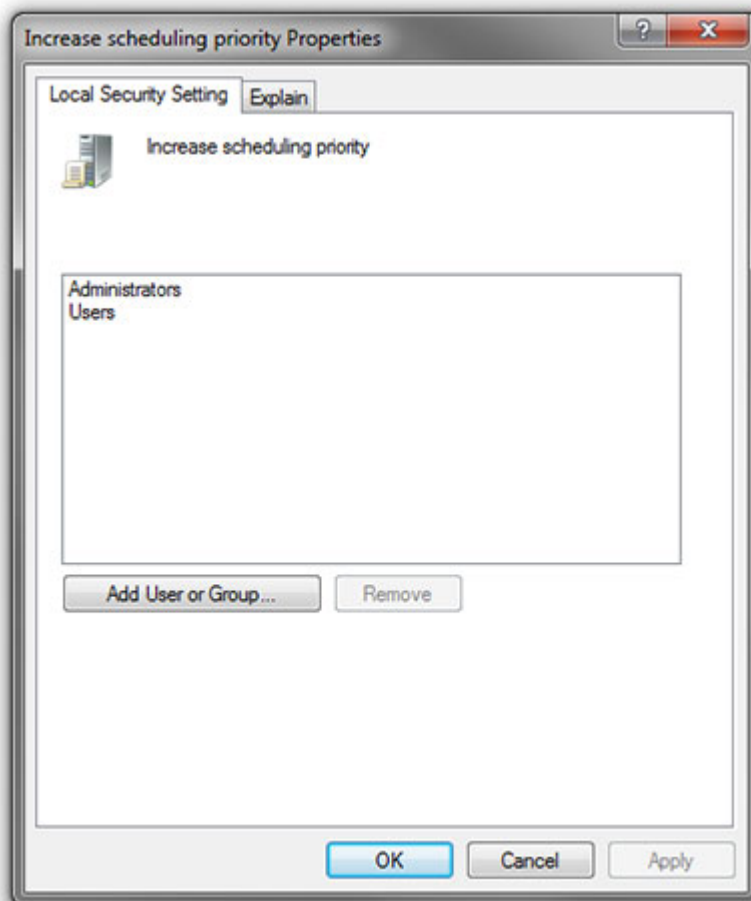
1. Open the **Local Group Policy Editor**.  
**Start > Accessories > Run** and type or paste **gpedit.msc**).



MassCore Windows GPO Editor Window

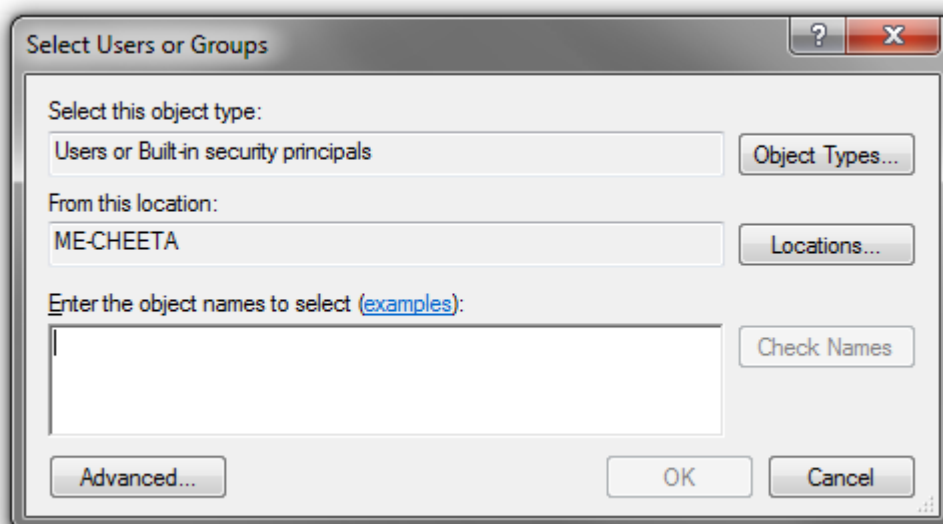
2. Navigate to: **Computer Configuration > Windows Settings > Security Settings > Local Policies > User Rights Assignment**

3. Double-click on **Increase scheduling priority** to open the **Increase scheduling priority Properties** dialog:

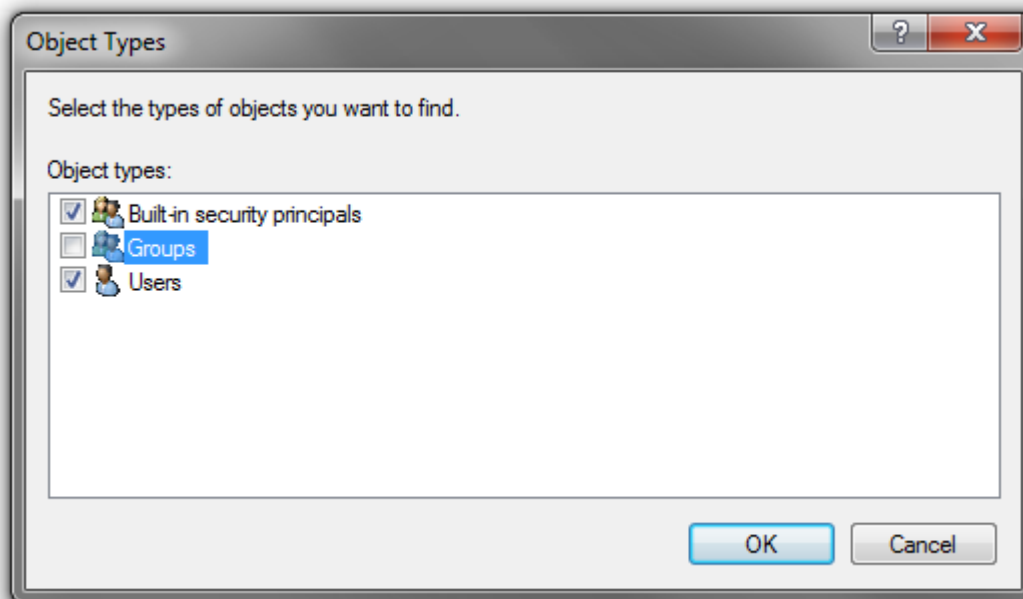


**Increase scheduling priority Properties dialog**

4. Click on the **Add User or Group** button to open the **Select Users or Groups** dialog:



- Click on the **Object Types** button to open the **Object Types** dialog:



**Object Types dialog**

- Ensure that **Groups** is ticked and click on **OK** to close the dialog.
- In the **Select Users or Groups** dialog type the name of the User Group the user or users belong to (e.g. **Users**) in the **Enter the object names to select** field and click on the **OK** button to close the dialog.
- The Group name you typed in step 5.) should now appear in the **increase scheduling priority Properties** dialog list.
- Click on the **OK** button to close the dialog.

**Note:** that the **Groups** selection in the **Object Types** dialog is temporary and must be selected every time you wish to add or remove a Group.

## 5 PC Setup

### *Motherboard Drivers and Utilities*

Motherboard drivers should be updated to current versions.

Motherboard Utilities should NOT be installed.

### *BIOS Settings*

#### **Recommended BIOS Settings**

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

Intel® Hyperthreading Technology (or Intel® HT Technology) is not supported by MassCore, this setting must be disabled for the relevant CPUs. This setting is commonly found in Main Bios page, or under CPU configuration. (see the motherboard manual for further details).

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.

### *Display Settings*

Ovation requires a minimum display resolution of 1280x1024 in 256 colors which **MUST** be set to **small fonts** mode. In Windows 7 and Vista environments we strongly recommend turning **OFF** the Aero feature for maximum performance.

### *Power Management*

**N.B.** As with other Digital Audio Workstations and Non-Linear Editors, we recommend setting the PC to an **Always On** Power management scheme. (In Windows XP: **Start > Settings > Control Panel** double-click **Power Options**. Choose **Always On** from the **Power Schemes** drop down list.) This allows the monitor to be turned off by the system but disables hard-disk spin down and Standby.

The Mykerinos and Mykerinos-X cards are **not** designed to support Standby modes.

### *Aero graphics*

Windows 7 users should disable AERO themes for maximum performance.

### *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.



## *Recommended options*

**Internet Connection** (this will allow you to upgrade the software easily by connecting to our Web site, and to communicate queries or suggestions to Merging by Email).

**PCI MIDI Interface** card (where none is fitted to the motherboard) or Sound Card with Midi interface or USB MIDI driver (where appropriate) for customers wishing to use Ovation MIDI functions, for example to interface Ovation with an external Midi remote controller such as:

- J.L. Cooper MCS-series
- Raditek SAC-2k
- Mackie Control

or external digital mixer such as:

- Sony DMX-R100
- Yamaha DM-2000
- Yamaha DM-1000
- Yamaha 02R-96

## 6 Mykerinos Installation

### IMPORTANT NOTICE:

Please read the following information very carefully before attempting any installation. Failure to comply with the precise instructions may result in damage to your Merging hardware. Please read the entire chapter carefully before installation.

### STATIC DANGER NOTICE:

Please note that the Mykerinos Audio Board contains delicate electronic components that can be damaged or even destroyed when exposed to static electricity. Please take all of the necessary precautions when handling the Mykerinos board and all other PC computer cards.

### *Mykerinos Card Installation*

**Note:** Note: for multiboard installation care must be taken in the selection of the PC chassis components to ensure adequate thermal dissipation through sufficient fan air cooling.

#### Inserting the Mykerinos Audio Board(s)

- Make sure the computer is turned off (and unplugged) before installing the Mykerinos board.
- To avoid the possibility of static electricity damage to the PC or the Mykerinos board(s) please use an anti-static strap to connect yourself to a known good earth.
- Remove the computer covers required to gain access to the peripheral slots.
- Locate a free PCI (Mykerinos) or PCI-e (Mykerinos-X) slot. It is generally inadvisable to use the slot adjacent to an AGP slot. Remove a slot / bracket for the chosen slot(s) (if needed)
- Insert the Mykerinos board(s) into the chosen slot(s)
- Ensure each Mykerinos is properly seated in the slot
- Fit any extra break-out connector brackets (if applicable)
- Fasten the mounting screw to secure the Mykerinos back-plate to the PC frame

#### Multi-board Installation

- For multiboard installation it is advisable to insert all Mykerinos boards in adjacent slots sharing the same PCI bus segment. Please refer to PC motherboard documentation.
- In order to enable multi-board operation, all Mykerinos cards in the PC must to be connected together using a special HDTDM ribbon cable with 30 pin plugs. This cable has to be plugged into the multi-pin connectors located on the top edge of the I/O daughter cards. Please contact your Merging Technologies Sales Partner for information on how to order the HDTDM ribbon cable.

**Note:** to reduce the risk of electro-magnetic interference being induced by other PCI cards into the highly sensitive Mic Preamp circuitry, systems equipped with Merging's **DUAL** (Analog + AES) daughtercard are best installed in a slot with no other card inserted in the immediately adjacent slot. (I.e. the component side of the card, which will be on the left looking from the front of a conventional PC chassis.)

## 7 Ovation Software Installation

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

### Installation Overview:

**Note:** Note: If you have purchased hardware options such as Mykerinos cards, the NET-MS-GBEX1 PCIe Ethernet card, the Sync Board and or an AJA video card, please install these first following the instructions in the accompanying documentation.

### Installer

The Ovation software uses an automated installer wizard which will install all necessary prerequisites. We use a unified installer package containing the current versions of Pyramix, VCube and Ovation. The initial installer screen offers the choice of Pyramix, VCube and Ovation. Choosing Ovation will also install Pyramix.

You may exclude the 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 VCube

### Driver Signing

**Important!** Before attempting to install the Ovation software on a Windows XP system please check the following setting:

**Start > Settings > Control Panel > System : Hardware**

Click on the **Hardware** Tab, then click on **Driver Signing**. The **Driver Signing Options** dialog opens:



Windows Driver Signing Options dialog

Make sure the middle option **Warn** is selected.

**Note:** This dialog is not available in Windows 7 or Windows Vista. Vista is preset to **Warn**.

## Running the Installer

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

Once the NET-MSC-GBEX1 Ethernet card and or Mykerinos card(s) have been properly installed, you can now install the Ovation 4.x software.

To install the Ovation 4.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 (one per Mykerinos board) and re-boot your PC once setup is complete.

**Note:** 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 properly shut down 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 or Mykerinos board serial number, 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).

In a multi-board system only one key is required for all connected boards. The master board validates the others.

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 Mykerinos 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 called

**YourPersonalKeyXXXXX.mtk**

3. Open the **MT Security Settings Control Panel** (as above), in the **Registration** section select the board number corresponding to the serial number for your Keys or HASP Key for a dongle, 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.

The key system is "smart". Only one key or set of keys is required regardless of the number of boards in a system. Any card can hold this key set as the authorization is processed based on a "Logical OR" of all keys present on any and all Mykerinos boards. Of course this Logical OR will only process keys with identical User Name and Company Name to the one entered in the key enabling window.

## 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.

## Keys

At any time you can check the serial number of your Security dongle or Mykerinos card(s) and the software options enabled in your system in the **MTSecurity** application.

## 9 MassCore Installation



### System Requirements

A quad core Intel processor is the minimum requirement.

### Conditions

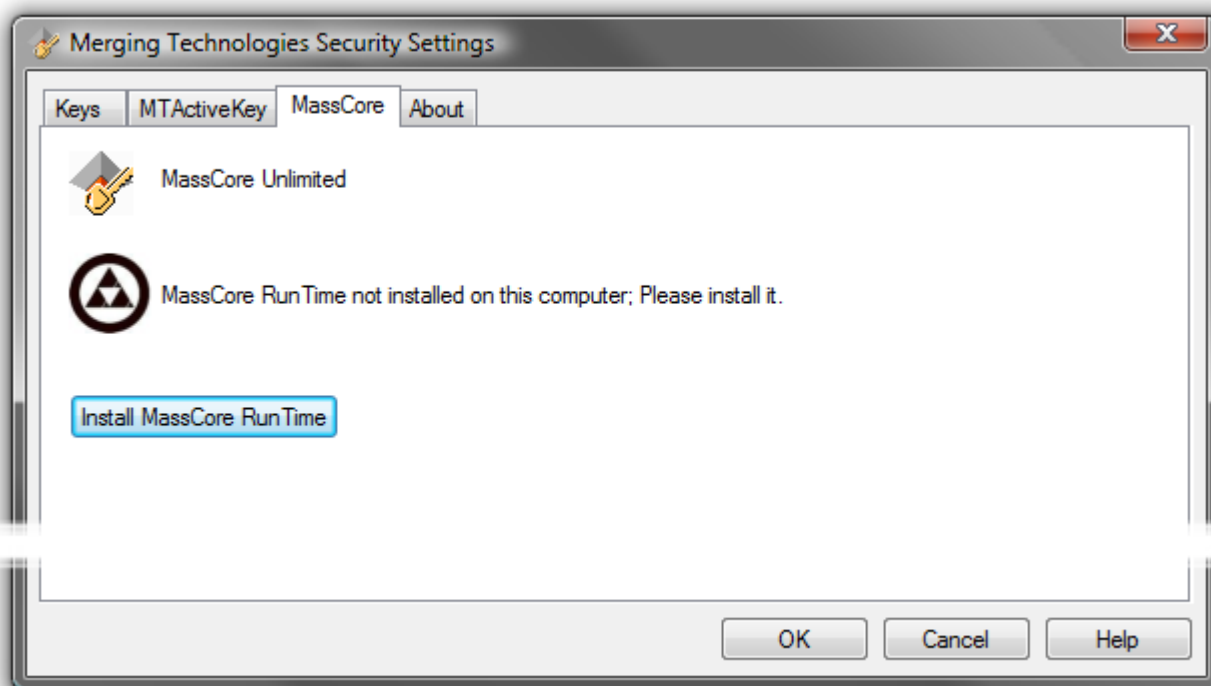
- You **MUST** be logged in as an **Administrator** to install **MassCore**

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

- You must have at least one Mykerinos board or a NET-MSC-GBEX1-Ethernet card in your system.
- You must have a MassCore 48 (Base) Key in order to proceed with the installation. Please contact your Merging Technologies Sales Partner if you do not have this option but want to use MassCore.

### MassCore Installation

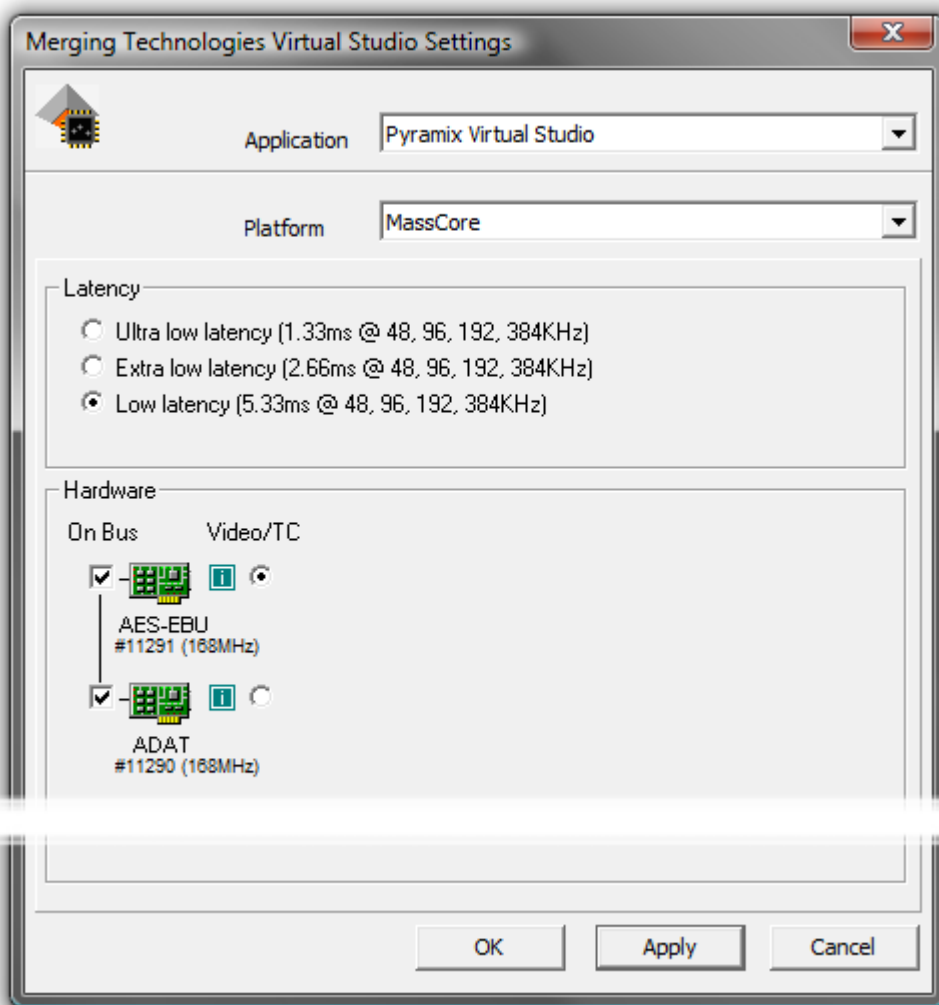
1. Install V4.x Ovation.exe
2. Restart your system after the Ovation install
3. Enter Your Key(s) in **MT Security Panel** (make sure you have a valid MassCore key)
4. In the **MT Security Panel** select the MassCore Tab
5. Press the **Install MassCore RunTime** button (will only be enabled if the MassCore Base Key is present)



VS3 merging Technologies Security Settings dialog

6. Restart System after install
7. Launch the **VS3 Control Panel**
8. In the Platform section select "MassCore"

9. We recommend by default the use of **Low latency** mode (**Ultra low latency** & **Extra low latency** are available only for Mykerinos-X users currently)



VS3 Merging Technologies Virtual Studios Settings dialog



## 10 MassCore - Ravenna



### Certified Operating Systems (OS) for Ravenna

Ovation Version 4.x MassCore in Ravenna mode is certified under Windows 7 Professional (32-bit version) ONLY.

### 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***

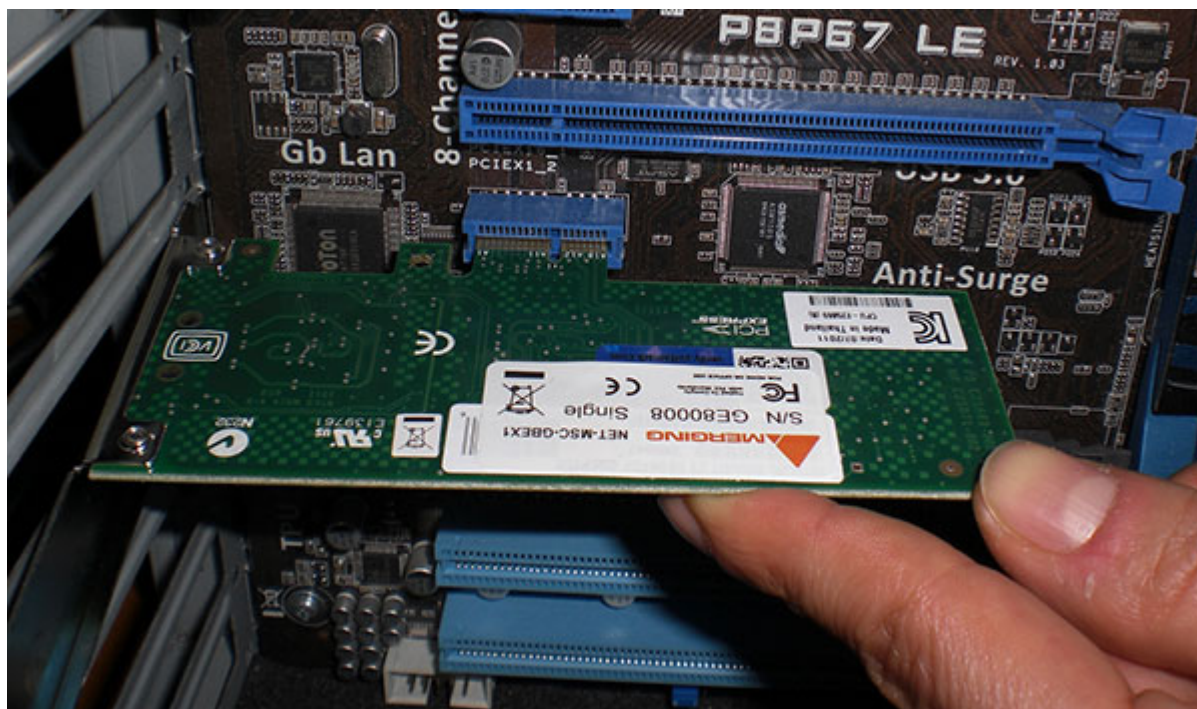
The NET-MSC-GBEX1 PCIe card should be installed in your computer before installing Ovation V4.x.



### 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.

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



- 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.
- Use the screw which was used to retain the backing plate to secure the card in place and check that the card sits comfortably.
- Finally, replace the case cover(s) and switch the machine back on at the socket.
- At the next power up and boot Windows will discover the Merging Ethernet PCIe card.

Ovation V4.x can now be installed.

### Required Software

In order to operate Ovation with Ravenna and Horus, Ovation V4.x must be installed. The Ovation V4.x installer includes; the MassCore-Ravenna Connect utility, MT Discovery tool along with Apple Bonjour.

**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 V4.x keys. **Please see Entering your Key(s) on page 21**

**Note:** Ovation V3 keys will only be valid with the Ovation V4 beta versions.

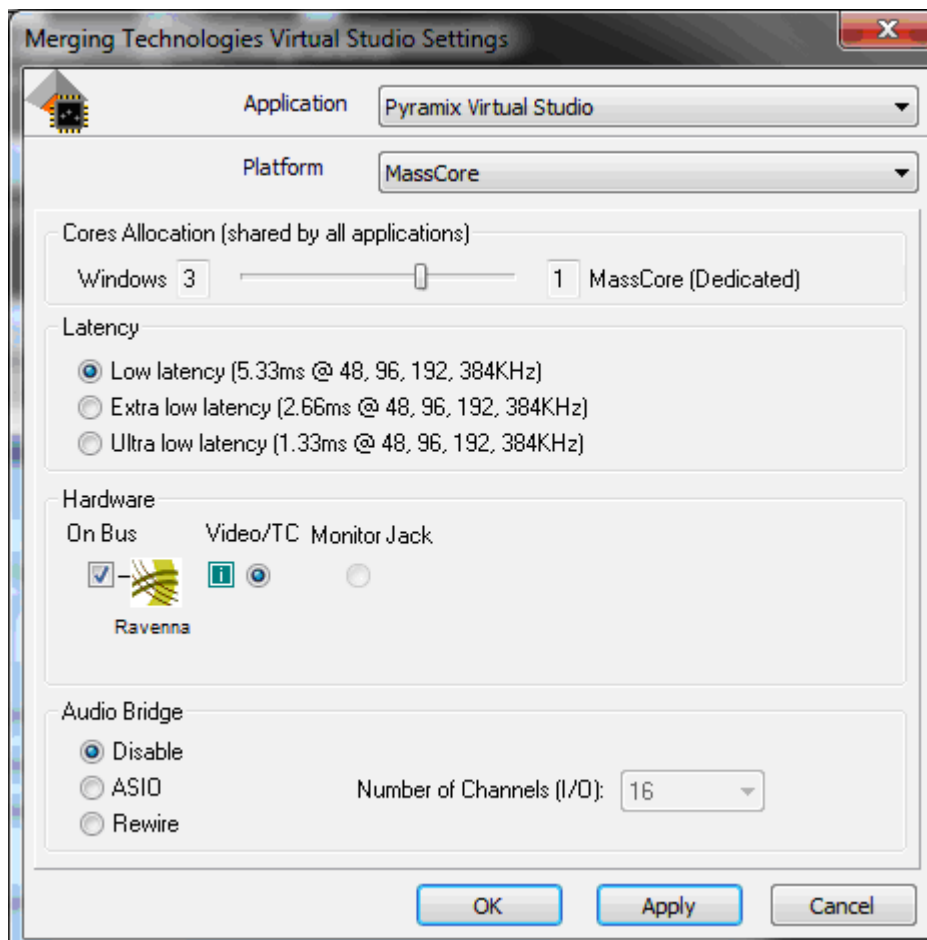
### Install MassCore

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

**Note:** A valid MassCore (Base) key is mandatory.

The MassCore key is held on the Safenet dongle. Please make sure that you are in possession of a dongle and valid keys in order to operate Ovation in MassCore-Ravenna mode.

## Configure Ravenna in the VS3 Control Panel



1. Launch the **VS3 Control Panel**
2. **Cores Allocation** Leave on the default setting for now.
3. **Latency** Leave on the default setting **Low Latency** (only mode supported at present)
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 V4.x, you must ensure that a **PTP Master\*** is present on your Ravenna network. Merging Technologies recommends using its **Horus** converter as PTP Master.

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

**Note:** As of V8.0 Ravenna mode only supports Low Latency mode. (VS3 Control Panel)  
To enable Ravenna I/O connections please refer to the separate Ravenna Easy Connect Guide.

**Note:** Horus users should refer to the Horus User Manual for configuration set-up with Ovation.

## Troubleshooting

### Ravenna: Horus & Network configuration

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

### Setting Horus 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, TCP/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

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

### Setting Fixed IP addresses

1. First, check the IP address of the Horus device under **Setup > Network**  
To be able to see each other, the Merging Technologies Network card and Horus must be in the same range of addresses. (for example **192.168.xxx.xx**).
2. The Horus IP address can be checked (and changed if required in the **Horus Setup page> Network**)
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 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

If not configured correctly, Windows Firewall can block communication between MassCore and Horus.

### Recommendation

- 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.

## 11 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

Follow the instructions above, depending on whether you have one or multiple boards fitted with this exception:

- First - choose **MassCore** from the **Platform** drop-down list.

### For Systems with MassCore and Ravenna

Please see: **Configure Ravenna in the VS3 Control Panel on page 27**

### For systems with a single Mykerinos board:

- Leave all default selections as they are, making sure the **On Bus** checkbox for your Mykerinos card is indeed checked.
- For now, leave all other settings as they are.
- Click on the **OK** button.
- When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
- the VS3 control panel will close

### For systems with a multiboard configuration:

- Make sure there is a check mark in the **On Bus** boxes for each board installed.
- Check that the **Application** combo box is showing **Ovation**. If not, select it from the list.
- Select which board is to provide an external **Video/TC** reference with the radio buttons next to the board icons.
- For now, leave the default **DSP Allocation** and all other settings as they are.
- Click on the **OK** button.
- When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
- the VS3 control panel will close.

### Launch Ovation

Double-click on the **Ovation** desktop icon to launch Ovation. The **User Manual** is available from within Ovation and may be accessed via the **Help** menu or by pressing **F1**, or online at [merging.com](http://merging.com)

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

## 12 Troubleshooting

Please visit regularly:

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

for the latest Troubleshooting Guide and FAQ sections.

## 13 Lost or Stolen Merging Technologies Security Keys

### ***(Sentinel / HASP 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.)

## 14 Contacting Merging

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

<http://www.merging.com>



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