Ovation

MEDIA SERVER & SEQUENCER

User Manual

VI

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AUDIO FOR THE NETWORKING AGE

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Merging Technologies
Le Verney 4 1070 Puidoux Switzerland
Tel: +41 21 946 04 44
www.merging.com

Installation Guide V6.x

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Installation Guide

Document: Ovation™ Installation Guide v6.2 - rev2

Date: 30th January 2017

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!** 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**.

> **Important!** If you are installing an upgrade to Ovation please read: **For Users Performing Upgrades on page 9** 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.

Native (ASIO on 3rd party hardware):

Compatibility: Windows 7 Professional 64-bit and Windows 8.1 Professional 64-bit

Installation Steps:

- Ovation Software Installation, *See: Ovation Software Installation on page 16*
- Entering Authorization Keys, *See: Ovation Software Registration on page 18*
- Select ASIO and the correct card/device in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

Native with ASIO for RAVENNA and Horus / Hapi:

Compatibility: Windows 7 Professional 64-bit and Windows 8.1 Professional 64-bit

Installation Steps:

- Install the Merging RAVENNA ASIO Driver provided with your Horus / Hapi or available from:

  http://www.merging.com/download

- Select ASIO and the correct card/device in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)
- Optional: Pyramix Software Installation *See: Pyramix Software Installation on page 17*
- If Pyramix Software is installed: Entering Authorization Keys *See: Pyramix Software Registration on page 19*
- 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/RAVENNA in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*). See:

Mykerinos only:

Not supported on version 10.x

MassCore with Mykerinos:

Not supported on version 10.x

MassCore with RAVENNA and Horus / Hapi:

Compatibility: Windows 7 Professional 64-bit

Installation Steps:

- NET-MSC-GBEX1 Installation *See: Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card on page 23*
- Ovation Software Installation, *See: Ovation Software Installation on page 16*
- Entering Authorization Keys, *See: Ovation Software Registration on page 18*
- MassCore Installation, *See: MassCore Installation on page 21*
- Select MassCore with RAVENNA in the VS3 Control Panel (*Start Menu* > *Control Panel* > *VS3 Control Panel*)

Quick Setup Checklist For Systems with Horus / Hapi

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 14*
4. Disable Windows Firewall in Windows Control Panel Security.
5. Increase Scheduling Priority. *Please see: MassCore and Networks on page 10*
6. Install Google Chrome.
7. Install Ovation v6.x (This will also install Pyramix v10.x.)
8. Enter your new v6/v10 keys in MT Security Settings.
9. On a fresh install also in MT Security Settings install MassCore from the MassCore Tab.
10. 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.)
11. In the VS3 Control Panel ensure that RAVENNA is selected in the Hardware section.
12. Configure the Switch/Router (if present) Please refer to the RAVENNA Network Guide.
13. Launch Ovation.
14. You can also launch the MTDiscovery application and double-click on the Horus / Hapi entry for browser remote access.
15. Ensure that the Horus / Hapi is set to the same sampling rate as Pyramix or Ovation. A warning prompt will appear if this is not the case.
16. Configure I/O as required in Pyramix/Ovation and Horus / Hapi. RAVENNA users should consult the RAVENNA Easy Connect Guide.

2 For Users Performing Upgrades

Note: New v6 Keys have been issued for Ovation v6.2 users. Be aware that v5 keys will only work with the Beta versions of Ovation 6.0.

Ovation

We recommend uninstalling any previous version of Ovation before installing Ovation 6.2.

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

Remove the installed version of Ovation.

Note: Merging recommends installing v6.2 BEFORE uninstalling the previous version of MassCore.

Masscore

MassCore users **MUST** remove the existing MassCore runtime.

Once Ovation v6.2 is installed follow these steps:

1. Launch **MT Security Settings** and select the **MassCore** Tab.
2. Choose the **Uninstall MassCore RunTime** option and reboot.
3. 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

4. Launch **MT Security Settings** and Enter your v6 keys including the RTX64-2014 key if those keys are not already present.

   Note: RTX DONGLE USERS (SSK-HUD-RTX) MUST FIRST REINSTALL/REPAIR ITS DRIVER MANUALLY :

http://sentinelcustomer.safenet-inc.com/sentineldownloads/?s=&c=End+User&p=Sentinel+HASP+HL&o=all&t=all#

Select: **Sentinel HASP/LDK - Windows GUI Run-time Installer**

Run the installer following the instructions.

5. Select the **MassCore** Tab and choose the **Install MassCore RunTime** option.
6. A RTX64 Driver approval dialog will appear. Accept it, click on OK to close MT Security panel and reboot the system.

   Note: Please note that the installation process can take some time.A second reboot is required to finalize the installation, the system will automatically restart after 30 seconds on the first reboot.

7. After installation you should see an **Interval Zero** entry in **Windows Control Panel > Programs and Features**. This should read: **Interval Zero RTX64 2014 Runtime with Service Pack 2**. (**Version 2.2.2.3199**)
8. Launch the **VS3 Control Panel** and configure it for **MassCore - RAVENNA** See: **Configure RAVENNA in the VS3 Control Panel on page 26**

3 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/pcconfig

Other Components

- **Graphics Card**: In many situations the Intel Integrated Graphics (where supported by the motherboard and CPU) are perfectly adequate. If a graphics card is desired or required Merging recommend the **ATI FIREPRO** series of PCIe graphics cards. **NVidia** graphics cards are **NOT** compatible with MassCore.
- 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 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
- SXGA 17" monitor or better. Multiple 19" monitors highly recommended.
  Minimum resolution 1280x1024
- 3 button mouse

Ovation MassCore Systems

Certified Operating Systems

- **OS**: We recommend and certify **Ovation Version 6.x and later** under **Windows 7 Professional 64-bit ONLY**.

Note: MassCore - RAVENNA is ONLY certified under Windows 7 Professional 64-bit.

Ovation Native

Certified Operating Systems

- **OS**: We recommend and certify **Ovation Version 6.x** under **Windows 7 Professional 64-bit** and **Windows 8.1 Professional 64-bit**.

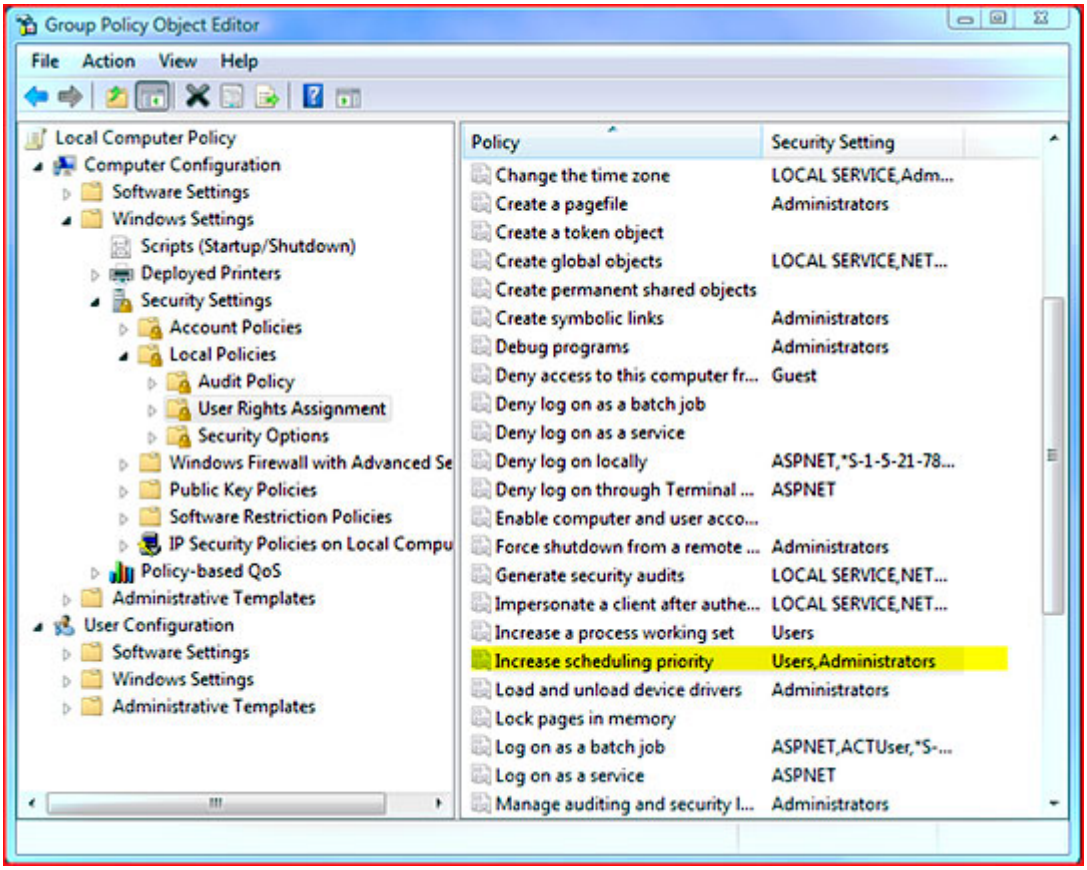
MassCore and Networks

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

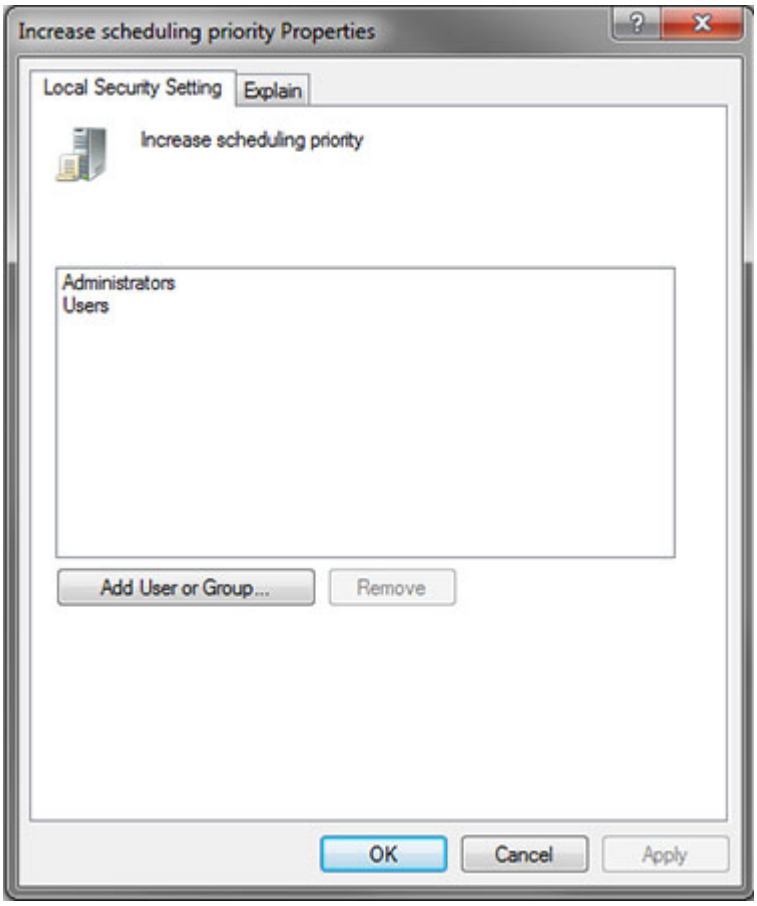
1. Open the **Local Group Policy Editor**.
   Start > Accessories > Run and type or paste **gpedit.msc**).



MassCore Windows GPO Editor Window

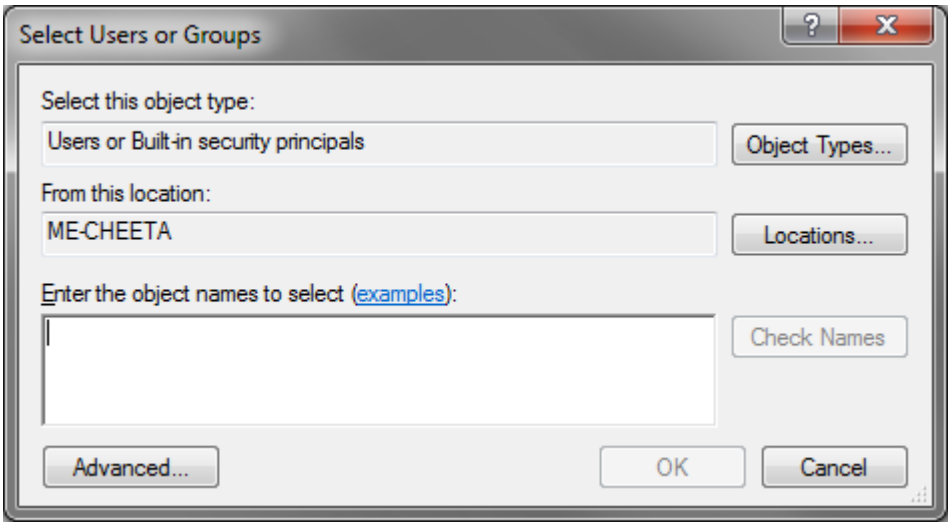
2. Navigate to: **Computer Configuration > Windows Settings > Security Settings > Local Policies > User Rights Assignment**

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



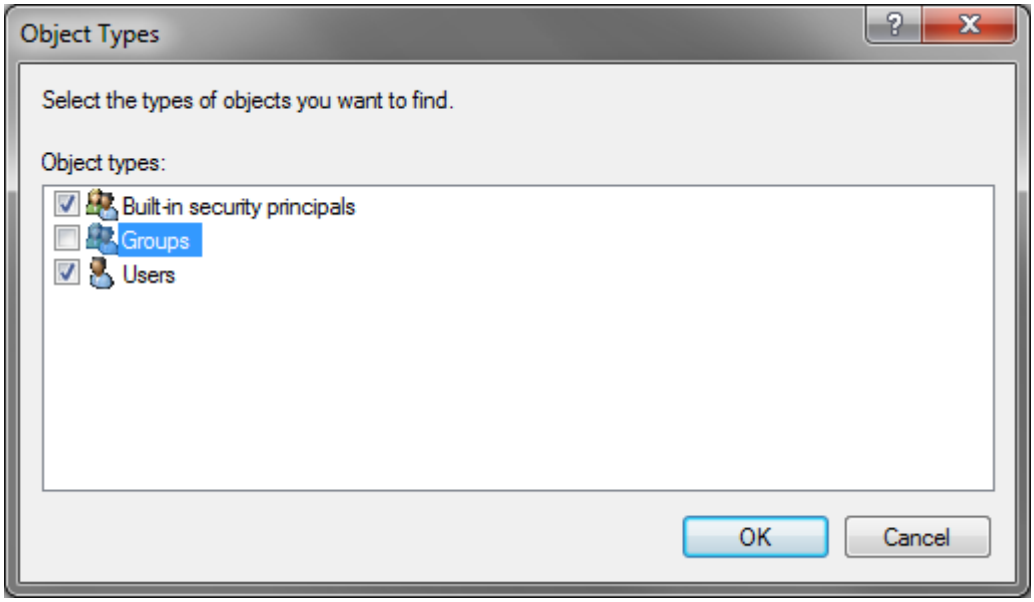
Increase scheduling priority Properties dialog

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



Select Users or Groups dialog

5. Click on the **Object Types** button to open the **Object Types** dialog:



Object Types dialog

6. Ensure that **Groups** is ticked and click on **OK** to close the dialog.
7. 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.
8. The Group name you typed in step **5.)** should now appear in the **increase scheduling priority Properties** dialog list.
9. 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.

4 PC Setup

Motherboard Drivers and Utilities

Please refer to our Windows configurations guide for more details:

http://www.merging.com/resources/img/support/Windows%20Configuration%20guide.pdf

Motherboard drivers should be updated to current versions.

Motherboard Utilities should NOT be installed.

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 Hypertreading 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.

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.

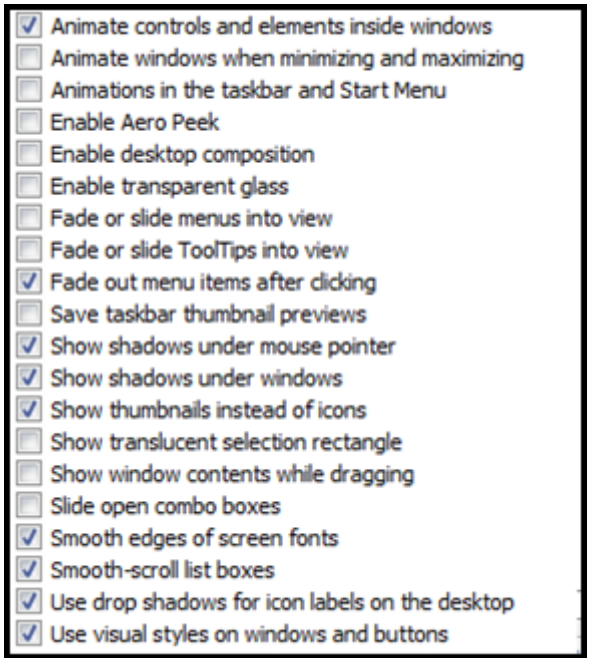
http://www.merging.com/resources/img/support/Windows%20Configuration%20guide.pdf

Please use the following recommended Display settings:

Start by selecting the **Windows 7 Basic Theme** (Especially for MassCore users) from the **Windows Control Panel > Personalization**

Then make the following Advanced Settings.

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:



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
- 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 an **Always On** Power management scheme. This allows the monitor to be turned off by the system but disables hard-disk spin down and Standby.

Aero graphics

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.

5 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 are installed automatically with the Ovation software.

Note: Where applicable BlackMagic video card drivers have to be downloaded from the BlackMagic website and installed separately.

Installer

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

Flux VS3/V3 plug-ins

The Flux plug-ins are not bundled in the installer, they must be installed separately. Two versions are available, 32-bit and 64-bit. Download the 64-bit installer for Pyramix 10 and ensure you have valid Merging Flux v3 Keys in order to run these Flux VS3 plug-ins.

https://www.fluxhome.com/download

Please download the **Flux VS3 for Pyramix v10** installer.

VB VS3 plug-ins

VB VS3 plug-ins are installed by default with a complete Ovation install. If you do not wish to have them installed, e.g. in evaluation mode or if you do not have valid keys then select **Custom** during the Pyramix install and remove them from the install by right-clicking on them.

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 6.x software.

To install the Ovation 6.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: 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, Windows 8.1 only needs KB3123479. 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: 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.

6 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).

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 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.

Evaluation Mode

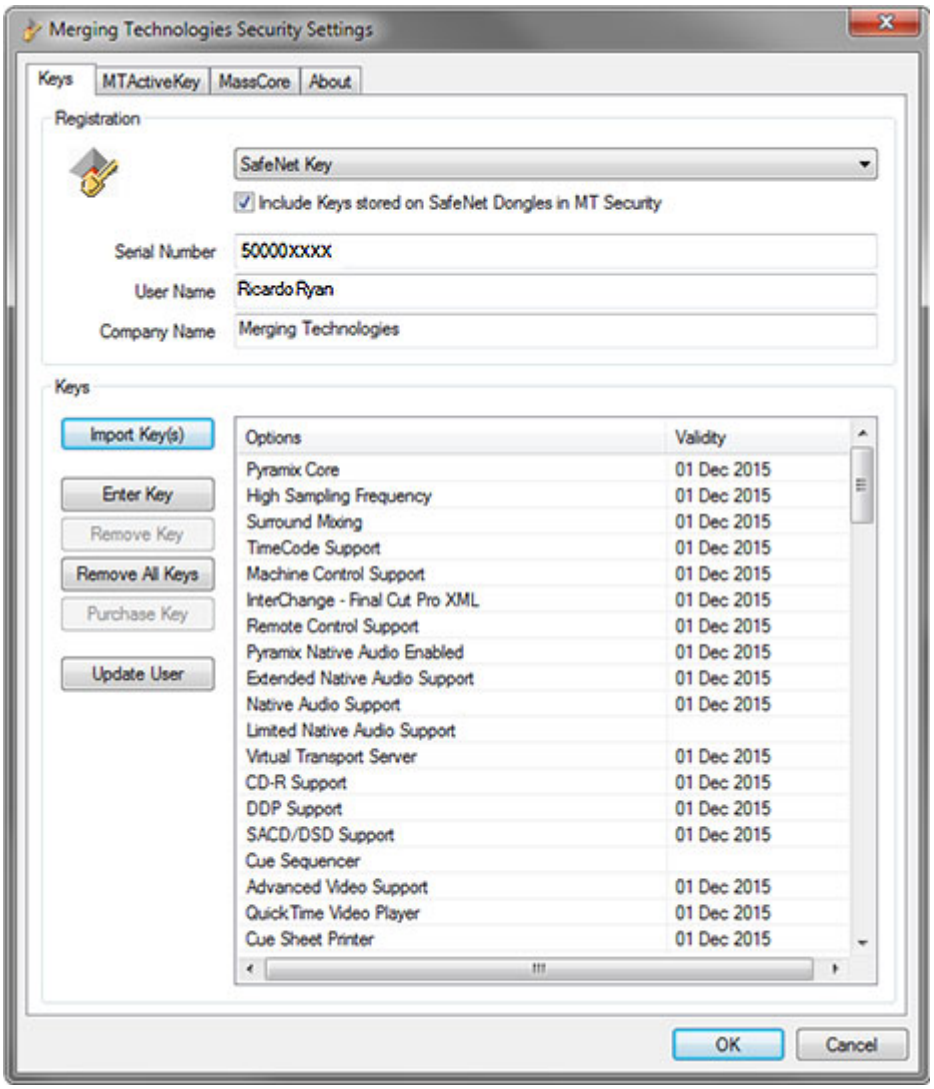
If started without a valid registration key, the software will recognize that no valid key is available and will start in "evaluation" mode, which only allows for basic operation of the software as follows:

- 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 and the software options enabled in your system in the **MTSecurity** application.



MT Security Settings - Keys tab

7 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. Please contact your Merging Technologies Sales Partner if you do not have this option but want to use MassCore.

MassCore Installation

1. Install v5.x Ovation.exe
2. Restart your system after the Ovation install
3. If you had a previous version of MassCore installed, open the VS3 Control Panel and choose the **Uninstall MassCore RunTime** option and reboot. There will be two consecutive reboots.
4. Once MassCore had been removed, reboot selecting the NON-MassCore Windows Boot line. If you experience any problems please refer to the Troubleshooting document here:

http://www.merging.com/uploads/assets/Installers/Pyramix_8_1/IntervalZeroRTX_Uninstall_Troubleshoot.pdf

5. 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.)

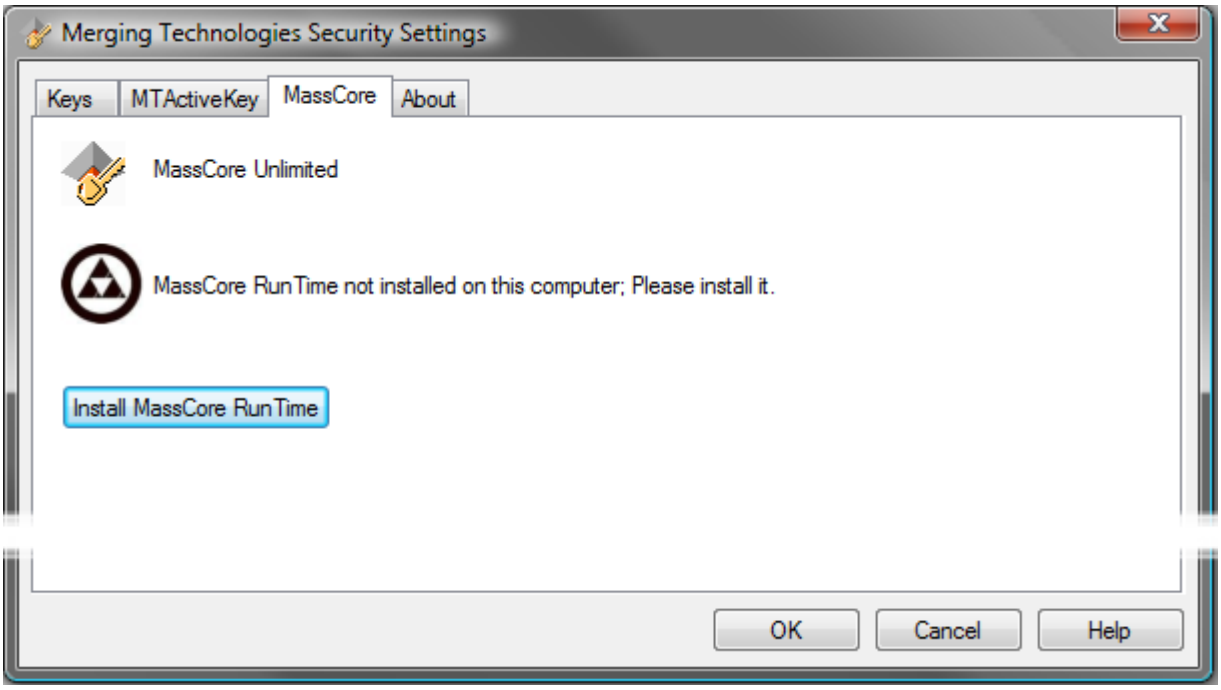
   Note: RTX Dongle Users (SSK-HUD-RTX) MUST FIRST INSTALL ITS DRIVER MANUALLY (or reinstall/repair if it was previously installed)

http://sentinelcustomer.safenet-inc.com/sentineldownloads/?s=&c=End+User&p=Sentinel+HASP+HL&o=all&t=all#

Select: **Sentinel HASP/LDK - Windows GUI Run-time Installer**

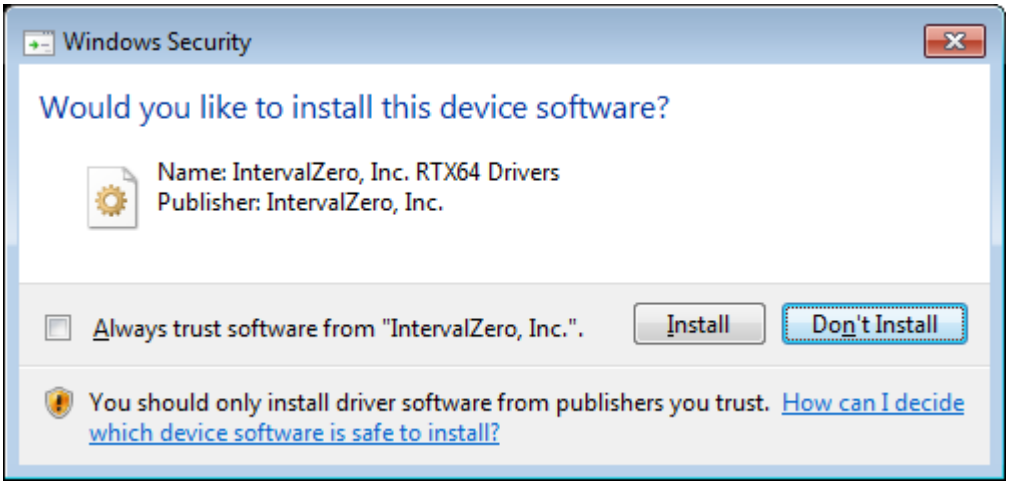
6. For automatic RTX licence validation on 64-bit systems ensure the system is connected to the Internet during the MassCore installation.
7. In the **MT Security Panel** select the MassCore Tab

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.



VS3 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**

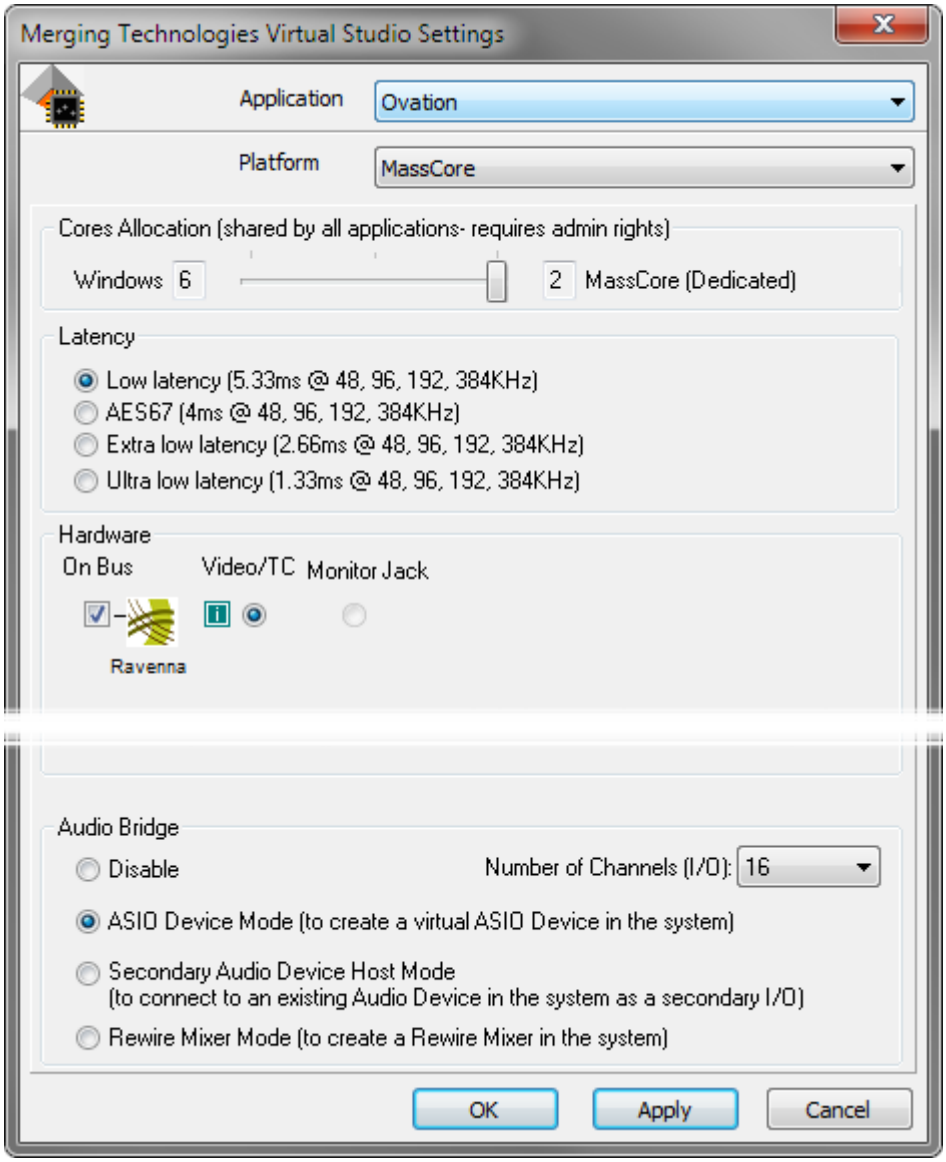
11. Restart System after the install.

Note: Please note that the installation process can take some time. A second reboot is required to finalize the installation, the system will automatically restart after 30 seconds on the first reboot.
Please also note: After installation you should see an **Interval Zero** *entry in* **Windows Control Panel > Programs and Features**.*This should read:* **Interval Zero RTX64 2014 Runtime with Service Pack 2**. (**Version 2.2.2.3199**).

12. Launch the **VS3 Control Panel**

13. In the Platform section select **MassCore**
14. We recommend the use of Low latency mode by default . Ultra low latency & Extra low latency are available for Horus / Hapi users with Ovation v6.x recommended configurations.

http://www.merging.com/pages/pcconfig



VS3 Merging Technologies Virtual Studios Settings dialog

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

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 (RTX64-XXX-XXXX-XXXX…) when doing so.

Interval Zero Support team:

sales@intervalzero.com

8 MassCore - RAVENNA

Certified Operating Systems (OS) for RAVENNA

Ovation Version 5.x MassCore in RAVENNA mode is certified under Windows 7 Professional (32-bit and 64-bit versions) 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/pcconfig

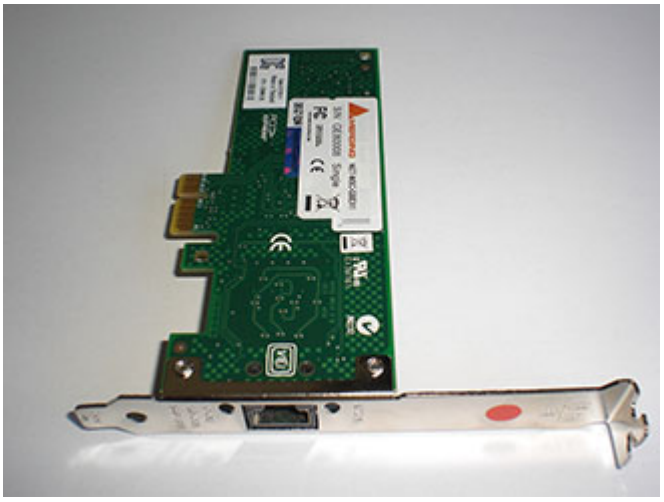
Please refer to the MassCore-RAVENNA recommendations (Quad-Core is the minimum requirement)

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 v5.x.

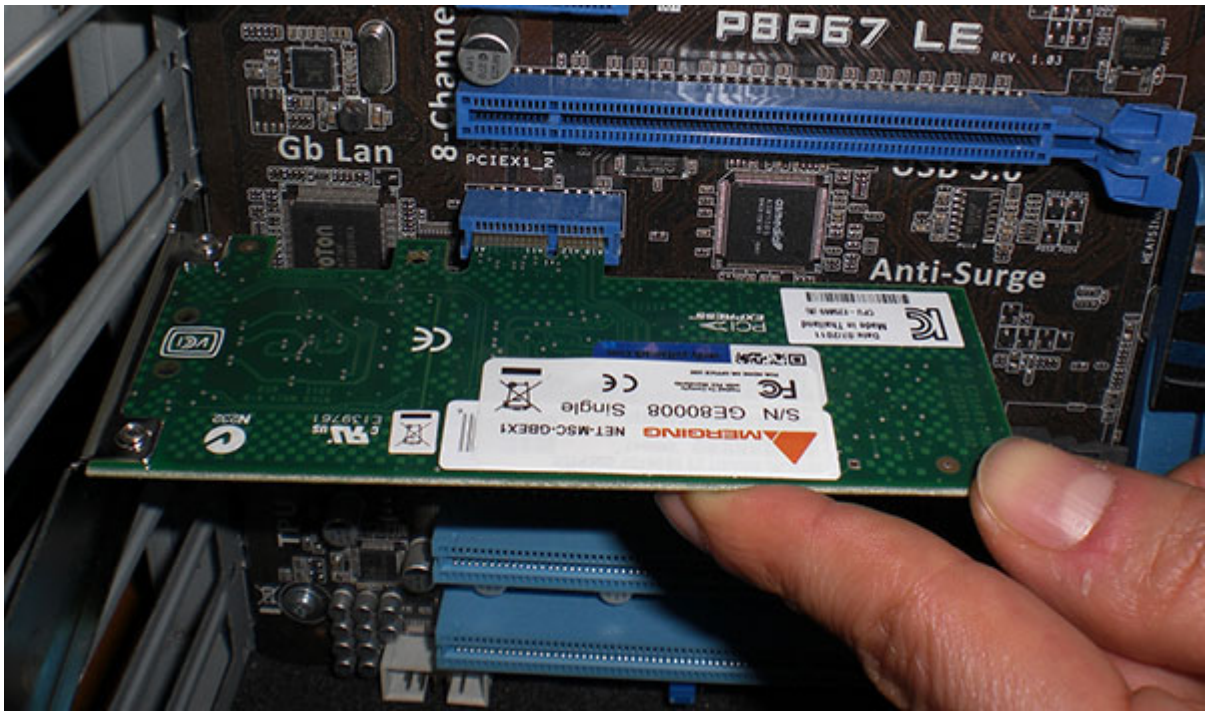


The NET-MSC-GB EX1 card

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 v5.x can now be installed.

Required Software

In order to operate Ovation with RAVENNA and Horus / Hapi, Ovation v6.x must be installed. The Ovation v6.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

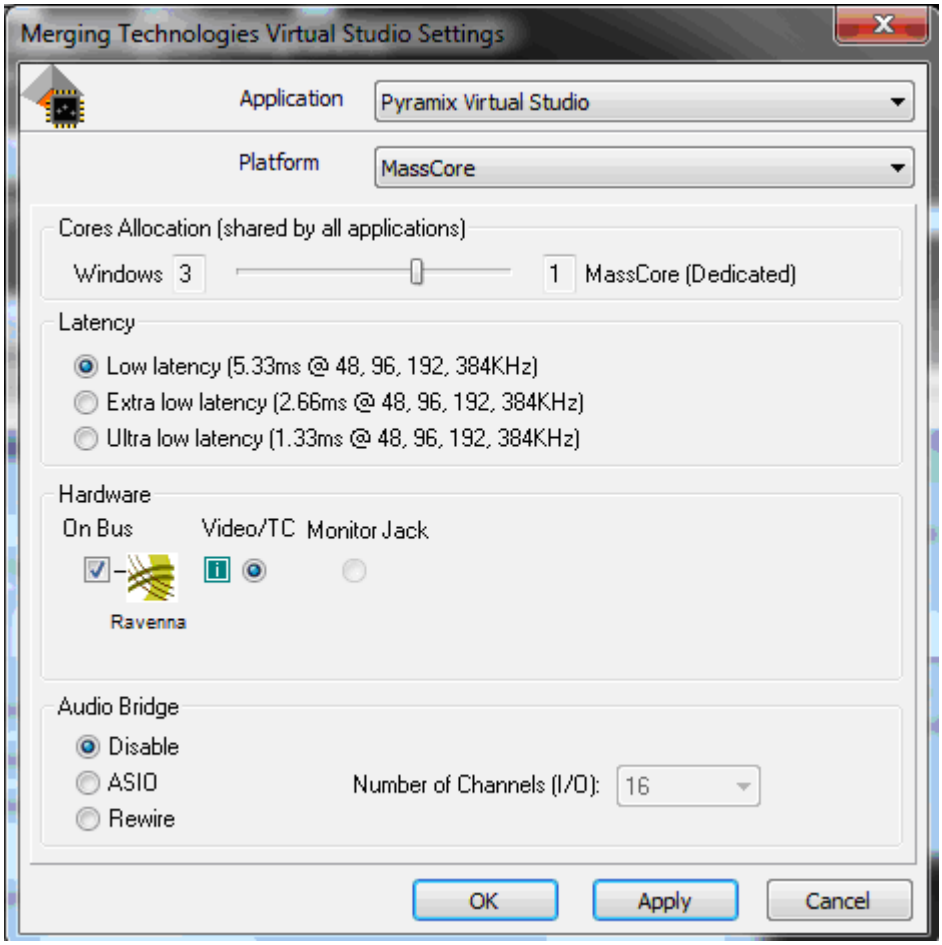
Launch **MTSecurity settings** and enter your Ovation v6.x keys. **Please see Entering your Key(s) on page 18**

Install MassCore

Please see: MassCore Installation on page 20

> **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 possession 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 v5.x, you must ensure that a **PTP Master*** is present on your RAVENNA network. Merging Technologies recommends using its **Horus** or **Hapi** converters as PTP Master.

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

Note: As of v6.x RAVENNA mode supports all three Latency modes. (VS3 Control Panel) To enable RAVENNA I/O connections please refer to the separate RAVENNA Easy Connect Guide.

Note: Merging Technologies highly recommend **Low Latency** mode 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 demandingon performance, depending on system configuration and user workflow.

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

Troubleshooting

RAVENNA: Horus / Hapi & Network configuration

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

Setting Horus / Hapi 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

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 IP address can be checked (and changed if required in the **Horus / Hapi 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**, **TPC/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 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. 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

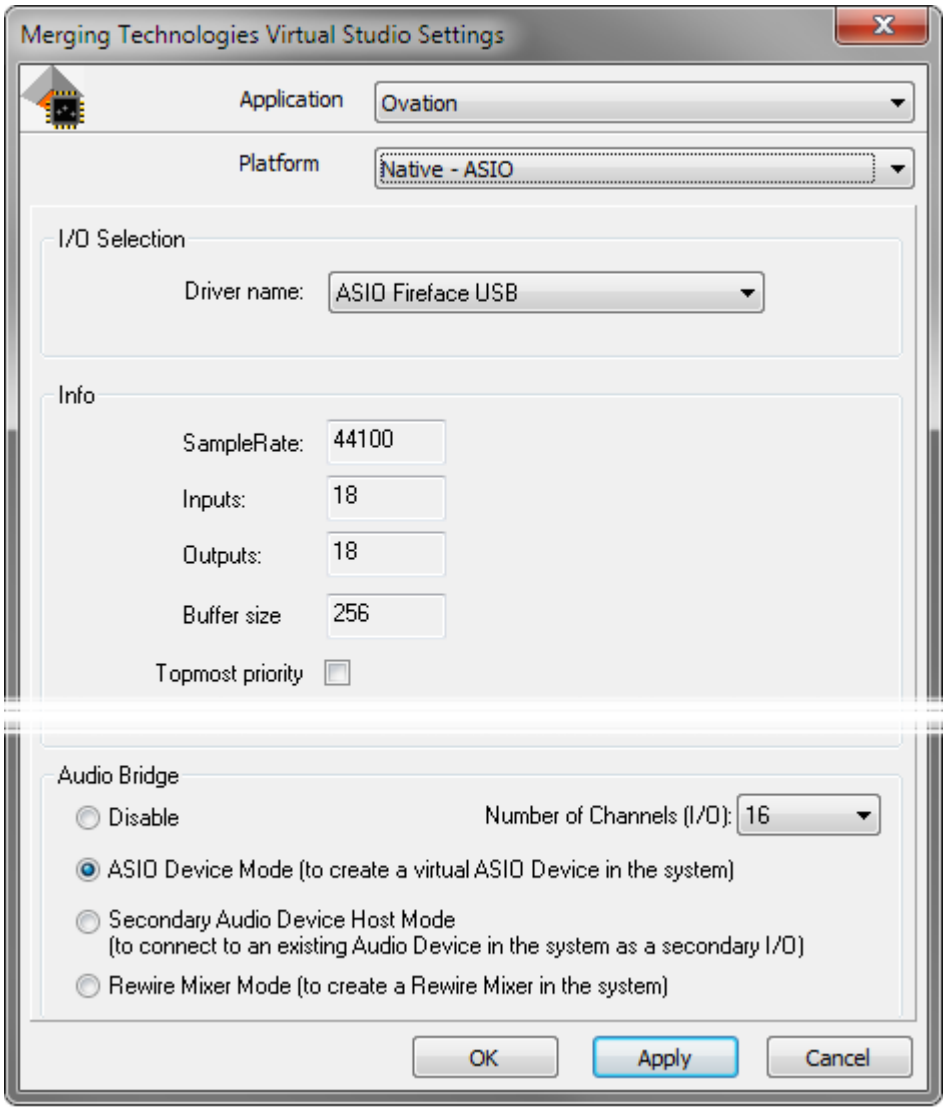
Recommendation

- Merging also recommends that any Antivirus software be disabled. Some Antivirus software such as *Avast* have been known to block the Horus / Hapi discovery and RAVENNA I/O connections.

9 Native - ASIO

Install Pyramix and the drivers for your ASIO 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.

RAVENNA ASIO

If you wish to use the RAVENNA ASIO driver with one of Merging Technologies RAVENNA interfaces. Please see the RAVENNA ASIO Guide here:

http://www.merging.com/uploads/assets/Installers/ravenna/ASIO/Merging%20Ravenna%20ASIO%20Guide.pdf

10 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 26**

For Native Systems

Please see: **Configure ASIO in the VS3 Control Panel on page 29**

Launch Ovation

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

Please see important information on next page!

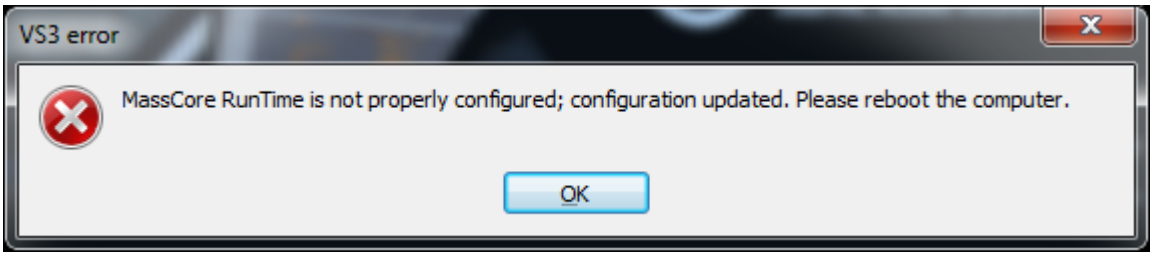
Note: At the first launch a firewall approval dialog may appear:

Windows Security Alert dialog - Windows Firewall

Click on **Allow access** since this is necessary to ensure correct 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

Documentation

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

http://www.merging.com/downloads

11 Troubleshooting

Please visit regularly:

www.merging.com

for the latest Troubleshooting Guide and FAQ sections.

12 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.)

13 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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