

# MDC-X Installation System

**\*\*\* PROFESSIONAL USE ONLY \*\*\***

**THE INSTALLATION SOFTWARE COMES WITH ABSOLUTELY NO  
WARRANTY!  
USE AT YOUR OWN RISK!**

Version 1.51 - April 2021

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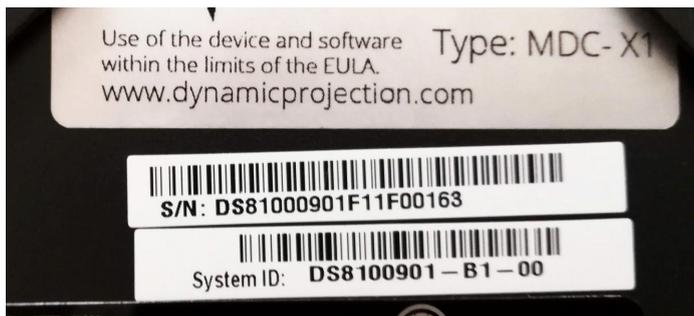
## Important notes

For installing the factory image of the MDC-X to an MDC-X system you need a **USB 3.0 stick with a capacity of at least 8GB**.

Please note that:

- The installation system is for professional use only - we recommend using the upgrade/restore service we offer; for more information please contact our office.
- All data on the MDC-X will be destroyed during the installation so make sure you backup all your data before you proceed with the installation!
- After the installation you have to configure the network interfaces.
- You might have to re-license the system by email which takes some time.
- Some additional setup steps are required.
- You need a Win32, MacOS or Linux system to write the installation image to the USB stick.

The installation system works only with MDC-X hardware models with serial numbers starting with (see the backside of the MDC-X): DS81.... , DS87...., DH170.... DH370.... Or DH470



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**In addition to this manual we offer tutorial videos which cover the whole process of installing the MDC-X system. Please see our support page for more information on that.**

**<https://www.dynamicprojection.com/mdc-support/>**





# Prepare the USB stick

Make sure you have a **USB 3.0** stick with at **least 8GB** ready. USB sticks lower than USB version 3.0 will **NOT WORK!** USB 3.0 sticks usually do have a **BLUE** connector plate.

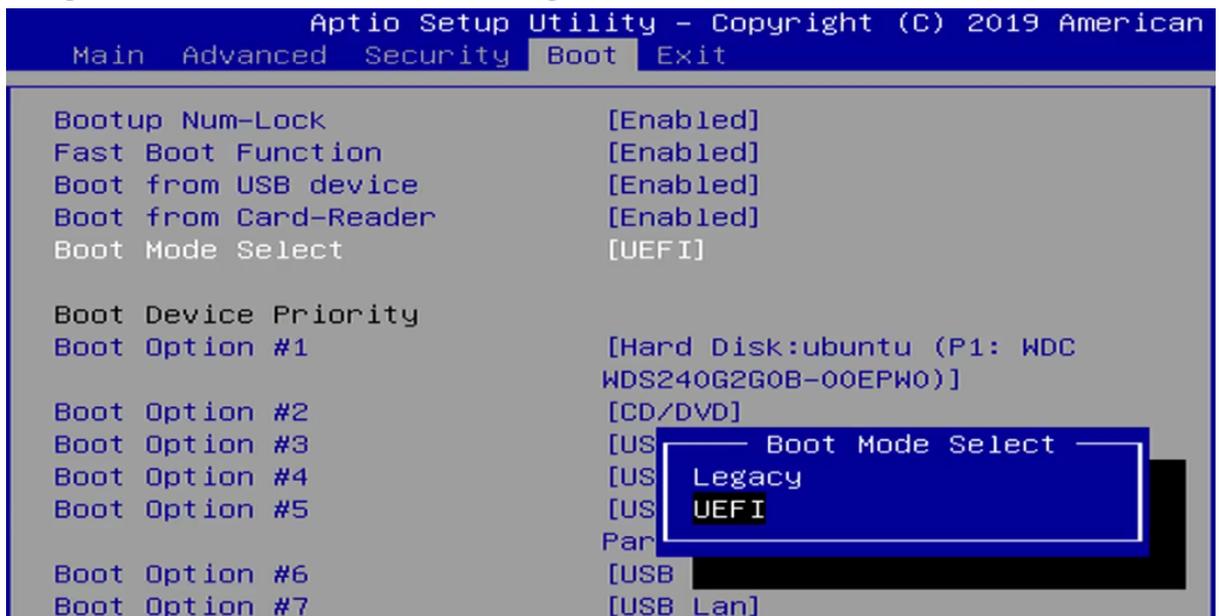
1. Format the USB stick to FAT32 using the formatting program of your operating system.
2. Download the MDC-X installation image (zip file) from <http://www.dynamicprojection.com/mdc-support/>
3. Extract the contents of the zip file to the USB stick.
4. Navigate to the USB stick and check if the file structure looks like in the image below.



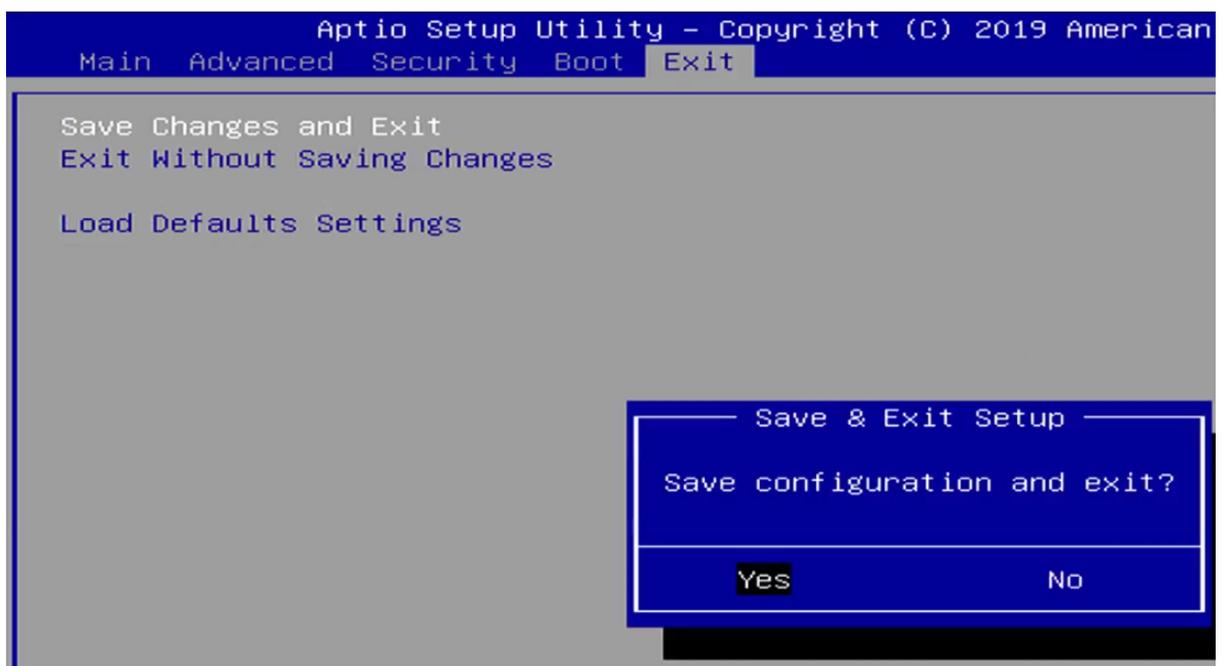
# Prepare the MDC-X system - switch to EFI

**In order to make the boot of the new Installer and the MDC-X operating system possible the system boot mode must be changed to UEFI BOOT MODE.**

1. Start the system, press and hold the DEL key (or F12) on the keyboard until the BIOS screen shows up. (Wireless keyboards often require that you continuously press the DEL or F12 again and again).
2. Navigate to the "Boot" screen and change the boot mode to "UEFI".



3. Save and Exit the BIOS



# Installing the system to the hard drive

Plug a monitor into the dedicated monitor port of the MDC-X; connect a keyboard and mouse.

1. Plug the USB stick into one of the USB ports at the front - use only the BLUE connectors.
2. Turn on the MDC-X by pressing the button at the front.
3. Hold down the F7 key on the keyboard until the following screen shows up.



4. Now select the drive that is the USB device. The naming of this device differs between different USB stick vendors. The USB stick is not a device starting with IB... or P1... In the above case the USB stick is "SandDisk". Use the up/down arrow keys to select the device and press ENTER to boot.  
The USB Stick usually appears as "UEFI: VendorName, Partition 1"

5. Now the main boot screen with three selections will show up.
  - Install the MDC-X operating system : This will start the installation process
  - Memory test : This starts a stress test on the CPU and memory
  - Direct Install : This installs the system without a guided menu

```

GNU GRUB  version 2.04

*Install the MDC-X operating system <ENTER>
MEMTEST
Direct Install - only for certified partners!

Use the ▲ and ▼ keys to select which entry is highlighted.
Press enter to boot the selected OS, `e' to edit the commands before booting or `c' for
a command-line.
The highlighted entry will be executed automatically in 10s.
  
```

6. To install the MDC-X system, select the first line and press ENTER. After a few seconds the Installer screen will show up. Use the arrow keys to make a selection and press ENTER.

```

+-----+ MDC-X-9020-EFI +-----+
|
| *** MDC-X Installer ***
|
| ***PROFESSIONAL USE ONLY***
|
| This will install the MDC-X to the harddrive of the system. All data on
| the harddrive will be lost.
| After the installation you have to re-license your system by email -
| please consider this before reinstalling.
|
|                                     <YES, INSTALL MDC-X>          <NO!>
|
+-----+
  
```

7. The main installation menu will offer the following topics:
  - Install: Start the installation
  - Reboot: Reboot the system
  - Shutdown: Turn off the system.



```

+-----+ MDC-X-9020-EFI +-----+
|
| using /dev/nume0n1
| NVME Target
| MDC license found on /dev/nume0n1p2...
| '/target/opt/mdc/RC.txt' -> '/tmp/RC.txt'
| MDC-Touch license found on /dev/nume0n1p2...
| '/target/opt/mdcweb/mdctouch.lic' -> '/tmp/mdctouch.lic'
| using /dev/nume0n1
| Copy data to /dev/nume0n1...please wait
| using /dev/nume0n1
| NVME Target
| Setting up swapspace version 1, size = 16000217088 bytes
| UUID=aa3c7b34-6db3-4431-9054-5b153f317261
| Pass 1: Checking inodes, blocks, and sizes
| Inode 264262 extent tree (at level 1) could be narrower.  Fix? yes
|
|                                     <Ok>
|
+-----+
  
```

- Pressing ENTER on the last page will shutdown the system. The installation of the MDC-X system is now finished and the system will reboot. After the reboot is finished you have to follow the post-install procedure to finalize the setup.

```

+-----+ MDC-X-9020-EFI +-----+
|
| Installation finished - system will reboot...
| Remove the USB stick.
| Press <ENTER> to continue.
|
|                                     <Ok>
|
+-----+
  
```

## Post install setup

After you have installed the MDC-X image the system reboots and you will see the MDC-X main desktop. On the desktop there is one additional folder that was placed by the installer called "POSTINSTALL", you will find additional patches and scripts there. If the folder is empty it means that at the time when the image was made there were no additional patches available.

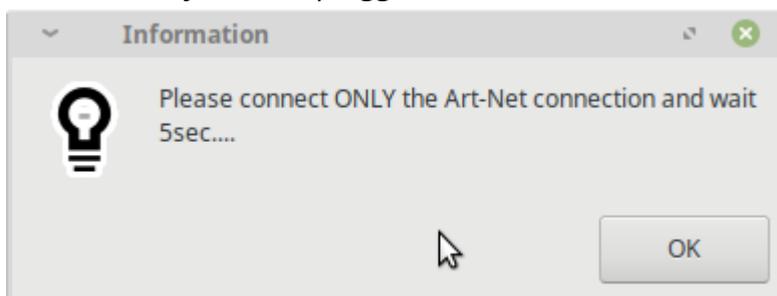
Please follow the instructions below carefully to finalize the installation.

## Installing patches

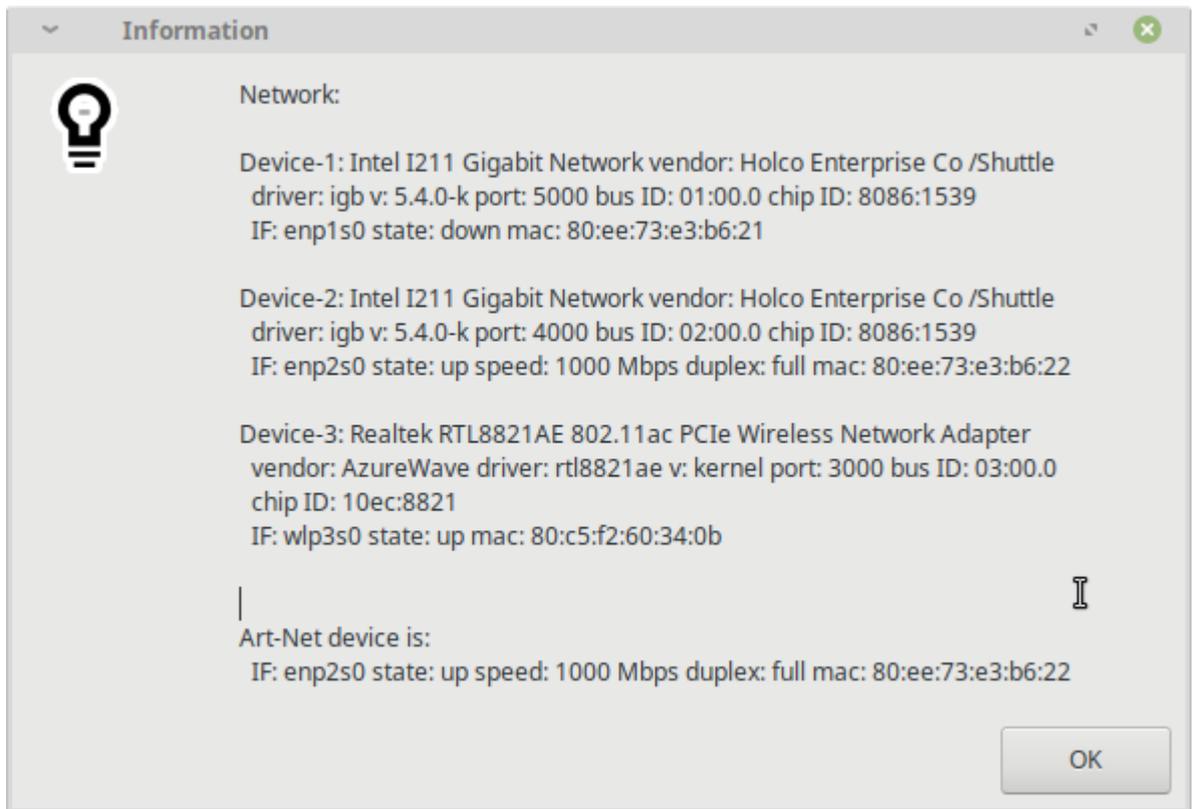
Patches and additional scripts are placed in the "POSTINSTALL" folder on the desktop. To install a patch double click on the .deb file. Press "Install" in the lower right and enter the password "mdcmdc". The patches are the same as the ones you can download from the MDC-X support website. Please check the website later on and install additional patches if needed. After the installation of the patch please reboot the system!

## Network setup

1. Plug a network cable to the "Art-Net" port of the MDC-X and connect it to a Mirror Head or network switch. Make sure those are turned on and the network is alive.
2. To setup the network connections please launch the "mdc-network-detect.sh" script from the "POSTINSTALL" folder by double click it.
3. Confirm that you have plugged in the ART-NET connection.

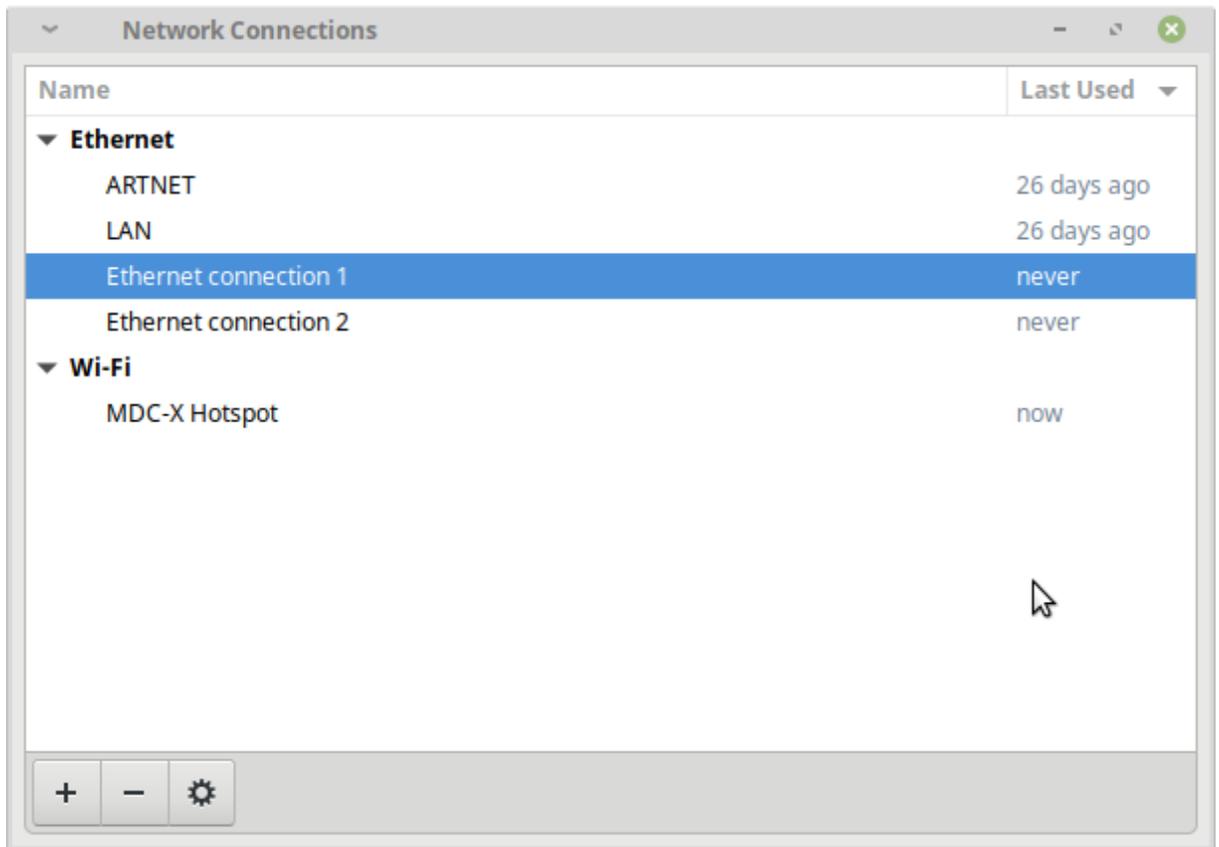


4. The next screen will show you all connections on the system, but only one of the is in the UP state; that is the Art-Net connection. At the bottom of the screen you see this connection with the corresponding MAC address. Do not close this window when you go to the next step!

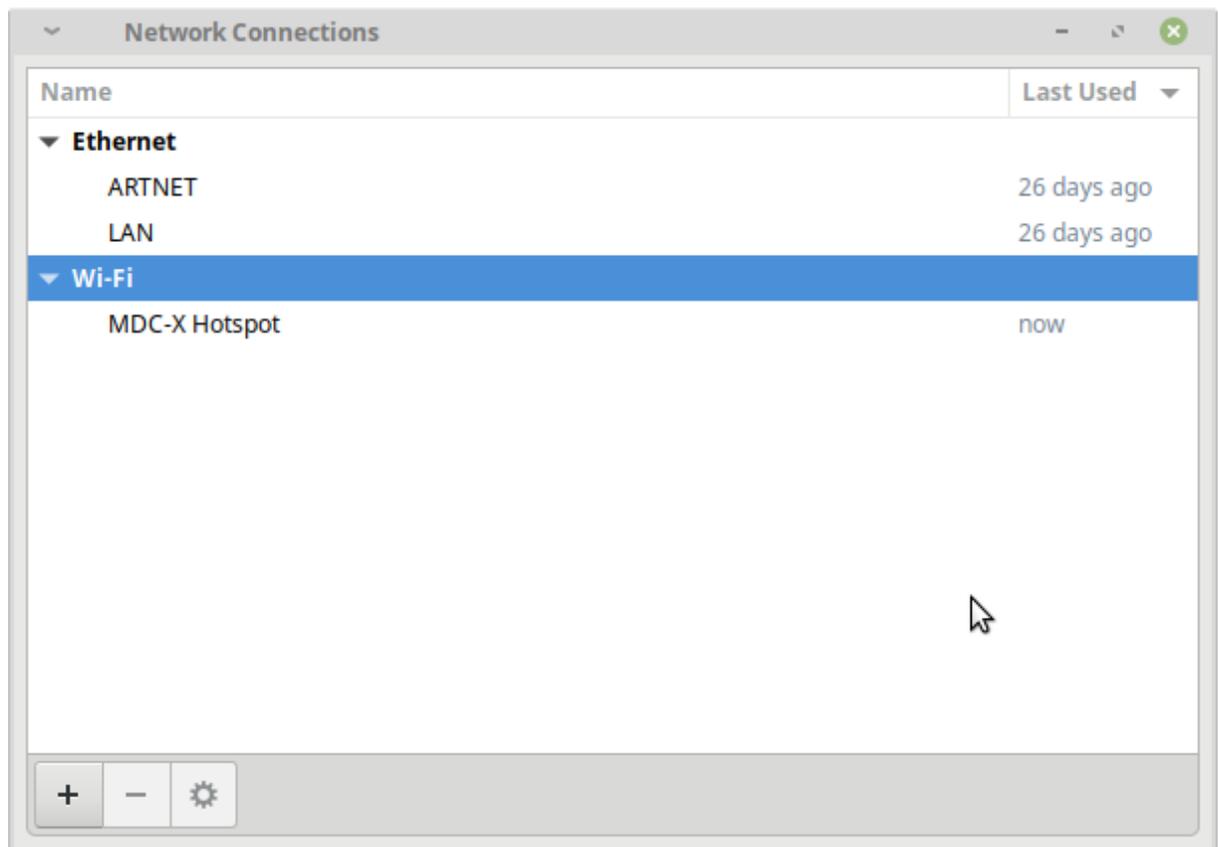


5. Open the MDC Launcher and start "3.7 Network Connection". When the window opened delete all connections except "ARTNET", "LAN" and "MDC-X Hotspot".

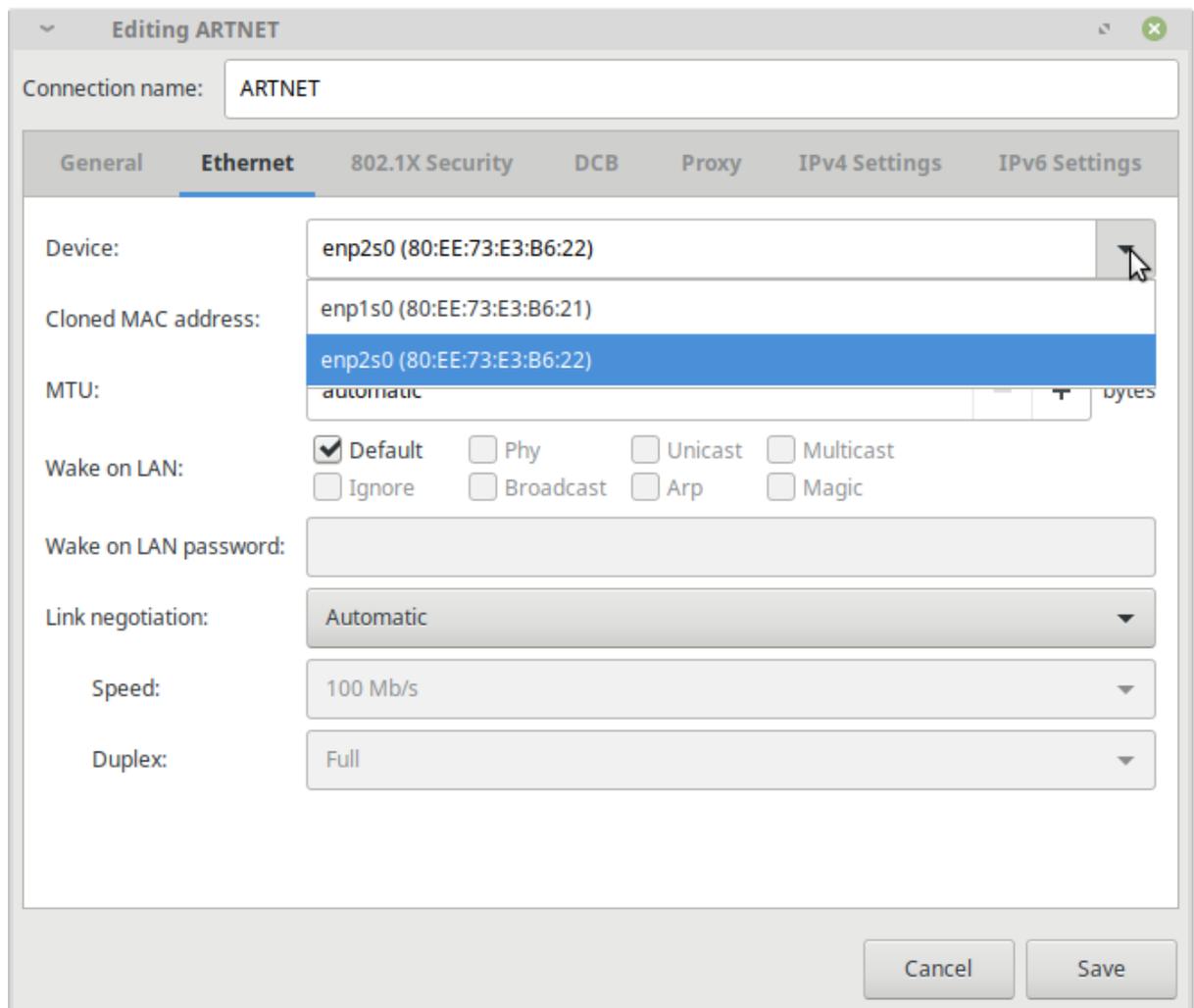
Before deletion:



After deletion:

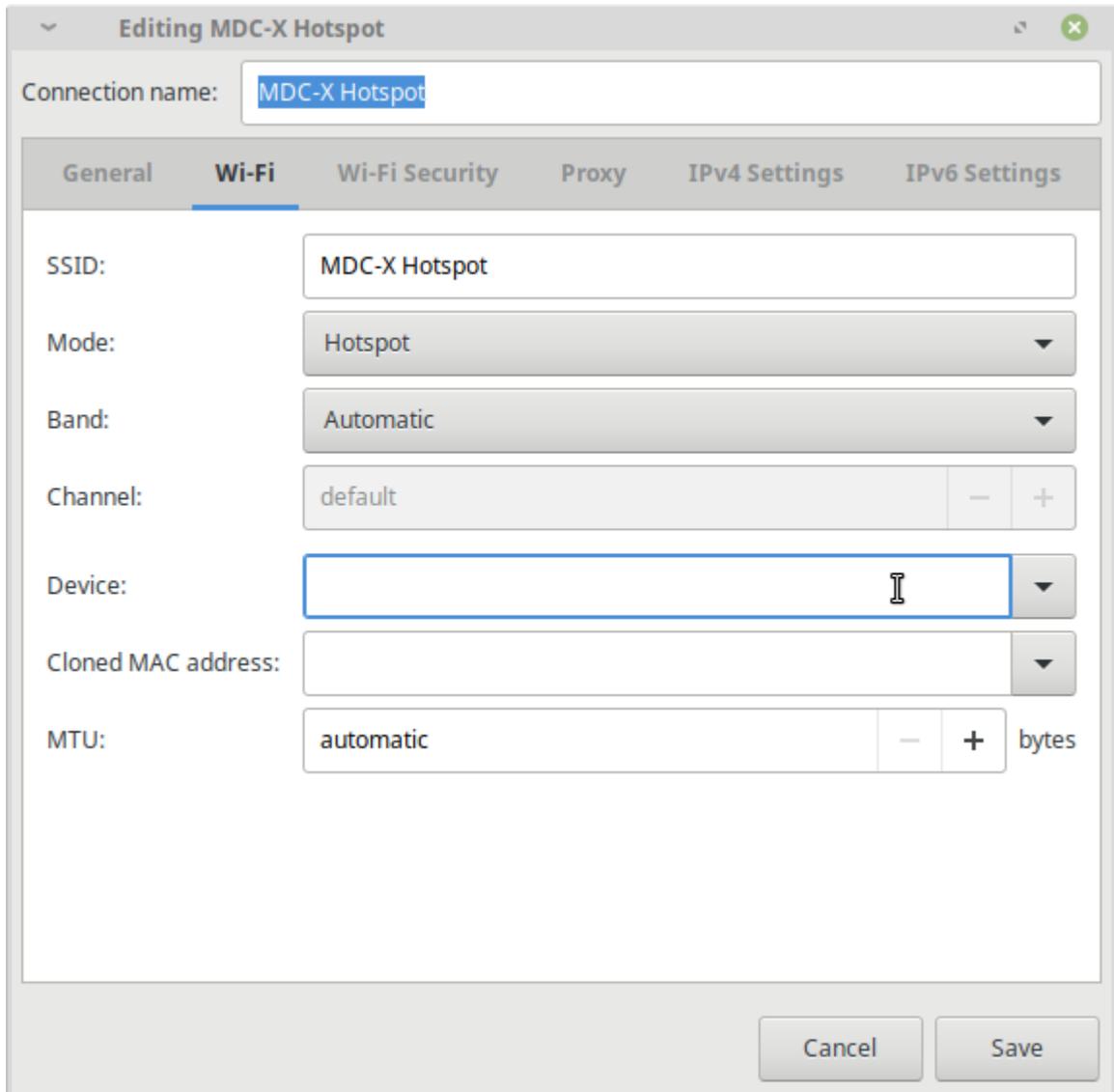


6. Once all connections are deleted, double click the "ARTNET" connection and change "Device:" to the device and EXACT MAC address that was detected before with the connection program.



- Now open the "LAN" connection and select the other device so that it matches the MAC address of the device that is not the WiFi adapter.

- Repeat the process for the WiFi connection. Be careful that the “Device” on the WiFi page is somewhere else in the dialog!



The screenshot shows a window titled "Editing MDC-X Hotspot" with a close button in the top right corner. Below the title bar is a text field for "Connection name:" containing "MDC-X Hotspot". Below this is a tabbed interface with tabs for "General", "Wi-Fi", "Wi-Fi Security", "Proxy", "IPv4 Settings", and "IPv6 Settings". The "Wi-Fi" tab is selected and highlighted. The "Wi-Fi" tab contains several fields: "SSID:" with the value "MDC-X Hotspot"; "Mode:" with a dropdown menu set to "Hotspot"; "Band:" with a dropdown menu set to "Automatic"; "Channel:" with a text field containing "default" and minus/plus buttons; "Device:" with an empty text field and a dropdown arrow, which is currently highlighted with a blue border and a text cursor; "Cloned MAC address:" with an empty text field and a dropdown arrow; and "MTU:" with a text field containing "automatic" and minus/plus buttons, followed by the text "bytes". At the bottom right of the dialog are "Cancel" and "Save" buttons.

- After you have finished, reboot the system.

## Test Licenses and/or Re-License

If a licensed system was detected during the installation the installer tries to move the license to the new installation. This is only possible within the same generation of software releases. To check if you do have a license for MDC and MDC-Touch (you will only have one if you had one before!) follow the instructions:

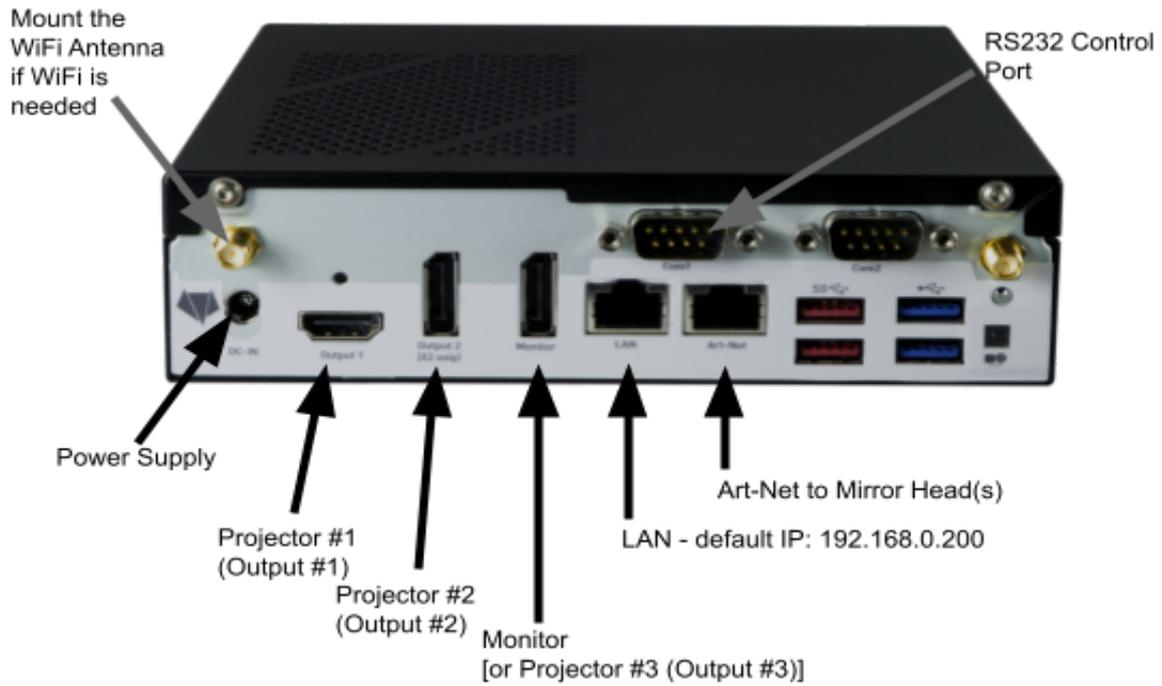
- Use “3.5 Generate Template” on the MDC-Launcher, select “One Mirror Head” and click OK.
- Now use “1.1 Select a MDC Template” and choose “Generic-Template-M1-O0.mdc” (we now assume here that only the Monitor is

connected).

3. Press "PLAY" in the lower left of the MDC program and move the main window to the side so you see the main output screen. If you see a "unlicensed version - [www.dynamicprojection.com](http://www.dynamicprojection.com)" string in the lower left corner you have to re-license your system. Otherwise your license was ported successfully and the installation is finished.
4. To re-license your software quit the MDC program and start "5.0 System Info" on the MDC-Launcher. This will generate all data you need. Press OK.
5. You will now find a file called "sysinfo.txt" in the Documents folder. Copy this file to a USB stick or any other media and send it to us with an email. You **MUST** include the following data:
  - **Subject: MDC-X LICENSE REQUEST**
  - **COMPANY NAME**
  - **YOUR NAME**
  - **SERIAL NUMBER OF THE MDC-X SYSTEM (on the BOTTOM)**
  - **THE "sysinfo.txt" FILE AS AN ATTACHMENT**License requests without all the information above can not be processed! If you need to re-license multiple units please send an email for each unit!
6. After a short time you will receive the license files back which must be installed to the system:
  - The file "RC.txt" must be copied to the "/opt/mdc/" folder.
  - The file "mdctouch.lic" must be copied to "/opt/mdcweb/" (only if you do have a MDC-Touch license)

## Basic MDC-X connection guide

Projector(s), Monitor and Mirror Head units must be connected according to the diagram below in order to work correctly in a factory default setup.



Default Login for NoMachine Remote Desktop Software or local system user: User: mdcuser, Password: mdcmcdc

Default Admin Login for MDC-Touch: User: admin, Password: 1234

Default "MDC-X Hotspot" WiFi login credentials: mdcmcdc123

Default IP of the LAN port: 192.168.0.200/255.255.255.0

Default IP of the ArtNet Port: 2.0.0.2/255.0.0.0

Default IP of the WiFi "MDC-X Hotspot": 10.42.0.1

# Changelog

Version 1.01:

Information about the USB 3.0 requirement was added.

Version 1.51:

Installation instructions for EFI Installer system.