CDD-LIVE!
Firmware Update

We are delighted to announce a firmware update for the CDD range which adds a new feature enabling the speakers to be configured for use on a network with a Static IP address as an alternative to the default dynamic IP.

Which Products may be updated?

The firmware is applicable to all products in the CDD-LIVE range;-

- **CDD-LIVE 8**
- **CDD-LIVE 12**
- **CDD-LIVE 15**
- **CSX-LIVE 118**
- **CSX-LIVE 218**

Dynamic IP v Static IP, do I need it?

The majority of Ethernet-equipped products (computers and IoT devices, for example) are connected to local area networks (LAN's) which automatically assign the connected products with an IP address, via a DHCP server (Dynamic Host Configuration Protocol) which is built in to the network infrastructure. CDD-LIVE products default to being configured in this way, which is termed Dynamic IP. The DHCP server manages the issuing of IP addresses to ensure that each connected device on the network has its own unique IP address.

When building small LAN's for use with CDD-LIVE products, MLA products and control computers, it is advisable to use Dynamic IP address allocation so that configuration is automatic. This means that a router (defined as an Ethernet switch which includes a DHCP server) must be part of the network. In the case of CDD-LIVE, we recommend the purchase of a Wifi router, which can be obtained from any IT hardware shop. When using CDD-LIVE with MLA systems, the ZoneDirector Wifi management router in the MLA Master Rack, performs the DHCP server function.

Static IP addressing is used when the user prefers to know that the IP address of the product won't change. In this instance it is common practice to label the product with its IP address, in order to help with setting up and fault-finding the network.

CDD-LIVE products actually have two IP addresses, one for control data and the other for Dante audio. In the Dynamic IP configuration, both these IP addresses are set by the DHCP server as adjacent numbers, e.g. 192.168.0.1 and 192.168.0.2. In the Static IP case, as well as setting up the control IP address (see below), the user also has to set the Dante IP address in Dante Controller. Whilst this sounds complicated, due to the static nature of the IP addresses once it is done, it will stay the same unless changed manually.

For all systems not using a network, just utilising the rear-panel selected presets or modest sized networks using a DHCP enabled router we would recommend proceeding with the firmware upgrade but **keep your CDD-LIVE speakers in Dynamic IP mode unless you have a specific reason to switch to Static IP.**

What happens if I don't have a router/DHCP server?

If a CDD-Live product is connected to a network that doesn't have a router/DHCP server present, including a direct one-to-one connection to a PCs Ethernet port, it will self-assign an IP address in the same range as the PC which takes about one minute. This is not an ideal way of operating however as the time taken for the CDD-LIVE cabinets to self-assign can be a problem, particularly with large systems.
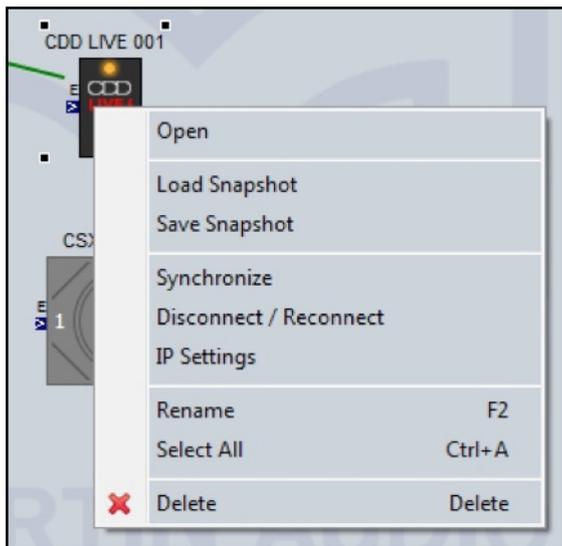
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Using CDD-LIVE in Static IP Mode

Do NOT change CDD-LIVE speakers to Static IP unless you have a specific reason to do so and have a good understanding of Ethernet Network protocols!
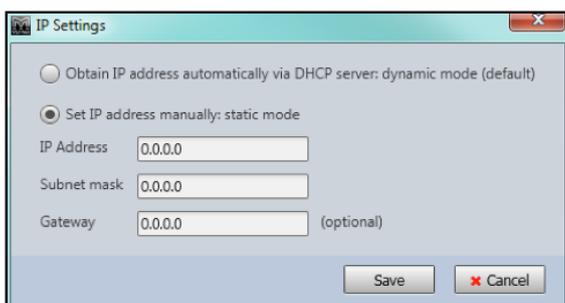
The option for changing IP mode is found in the right-click menu for CDD-LIVE speakers in the Vu-Net System Diagram;-

Click on 'IP Settings' which brings up the following window;-
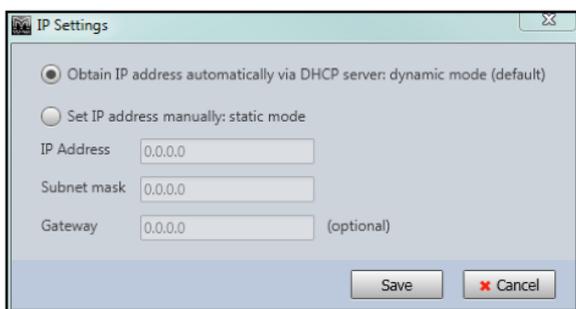
Click on 'Set IP address manually: static mode', the IP address, Subnet mask and Gateway windows previously greyed-out will become available;-

Enter the IP address that you wish to set the CDD-LIVE product to.

Subnet mask is usually set to 255.255.255.0, which means that this CDD-LIVE can communicate with any other product on the same subnet, which has the same IP address in the first three parts xxx.xxx.xxx.

The gateway refers to a device used as a bridge between a LAN and all other IP addresses, usually on a separate LAN which has its own router (hence DHCP server). If communication is required with devices outside of the primary LAN the default gateway needs to be set, usually to the IP address of the second router. For networks with all CDD-LIVE speakers and the PC on the same LAN this can be left at 0.0.0.0.

Click 'Save' and then power-cycle the cabinet, which will set its IP address to the static value entered in the dialogue box shown above.

Once this is done you will no longer be able to see the CDD-LIVE speaker in Vu-Net because Vu-Net is still running on a network with dynamically assigned IP addresses. You will need to close Vu-Net and set your PC to a static IP address in the same subnet as the CDD-LIVE product before you can connect to the CDD-Live product again.

Static IP Networks

Network topology for a Static IP network is no different but the requirement for DCHP support is removed therefore a standard Ethernet switch can be used. Up to eight CDD-LIVE speakers may be daisy-chained using the two network ports on each cabinet. The PC used to connect Vu-Net and route Dante must also be configured for static IP in the same subnet as the CDD-LIVE speakers.

If using Dante it is necessary to set the IP address of the CDD-LIVE speakers within Dante Controller so they can be routed by clicking on a node in the Dane Controller matrix to link a Dante source to the CDD-LIVE input. For full details of Dante Controller operation visit the Audinate website at

www.audinate.com/products/software/dante-controller

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Restoring Dynamic IP Mode

If a cabinet has been used in Static IP mode it will not be possible to discover it on a network running dynamic IP addressing via a DHCP server. This means it isn't possible to change the mode back to Dynamic IP with Vu-Net but fortunately this can be achieved by using the rear panel preset switch.

Press and hold the switch, after three seconds the Preset LED will extinguish indicating that the LEDs are now in level meter mode, keep the button pressed for a further ten seconds until all LEDs illuminate simultaneously. Power cycle the speaker and it is now back in Dynamic IP mode.

How to Update the Firmware

The Vu-Net User guide has a chapter dedicated to Firmware Updates. This can be downloaded from the Martin Audio website here;-

https://martin-audio.com/software

We strongly recommend downloading the guide is you don't already have a copy not just for updating firmware but as a useful manual for using Vu-Net for controlling and monitoring CDD-LIVE or indeed any of Martin Audio's multicellular products. A quick summary of the firmware update is as follows;-

1. First make sure your PC is connected to a good internet connection before connecting to your CDD-LIVE cabinets

2. Run Vu-Net v2.0, without creating a new project, click on the Firmware update button in the bottom right corner of the window;-
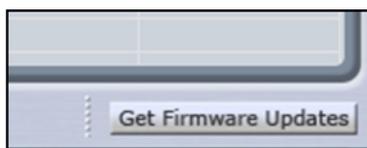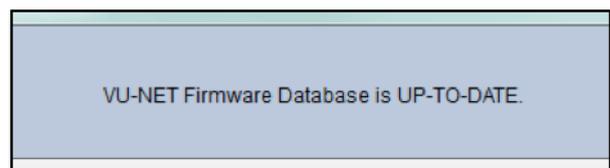

3. This will open the Firmware Updater window which looks like this;-
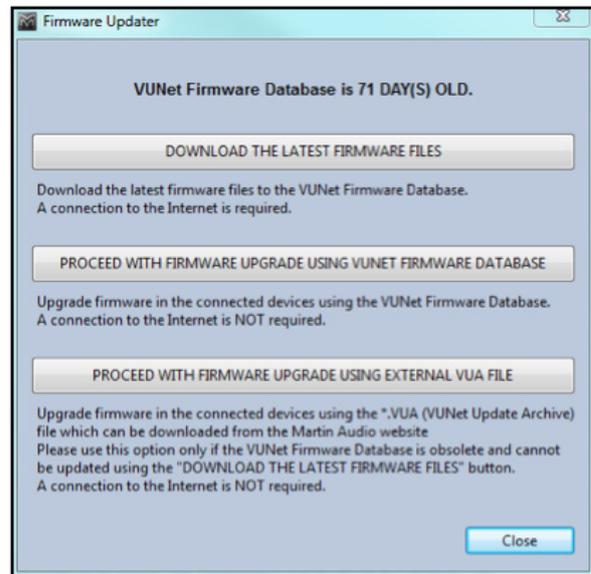
4. At the top of the window we can see how old the firmware database is. Select 'DOWNLOAD THE LATEST FIRMWARE FILES'. This will connect to the Firmware Server over the web and will download the latest firmware files including the new version for the CDD Live range. You will see the following window while the download is in progress;-
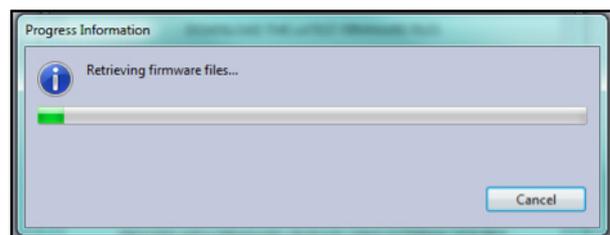
The progress bar usually moves very rapidly but the speed is dependent on the speed of your internet connection. Once completed you will see the text at the top of the window change;-


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5. Now connect all of your CDD Live speakers using a network that has DHCP support (if necessary you can disconnect your internet connection as it is no longer required). **We strongly recommend a wired connection from the PC to the network router and NOT wi-fi when running firmware updates, if network connectivity is lost mid-update it can leave speakers in an unusable state.** The CDD User Guide has details of how to create networks using the CDD range.

6. Now from the same window, select 'PROCEED WITH FIRMWARE UPGRADE USING VUNET FIRMWARE DATABASE' Vu-Net will scan the network for connected CDD speakers;-
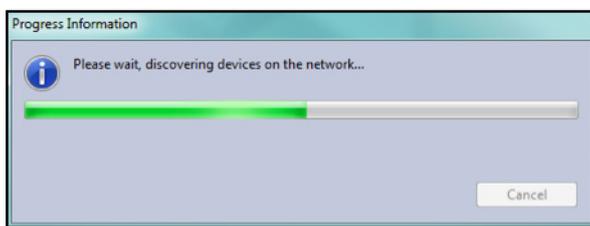
When the scan is completed a window will appear showing a list of all devices found together with their type, U-Net serial number and firmware version. They will all show that a firmware update is available;-
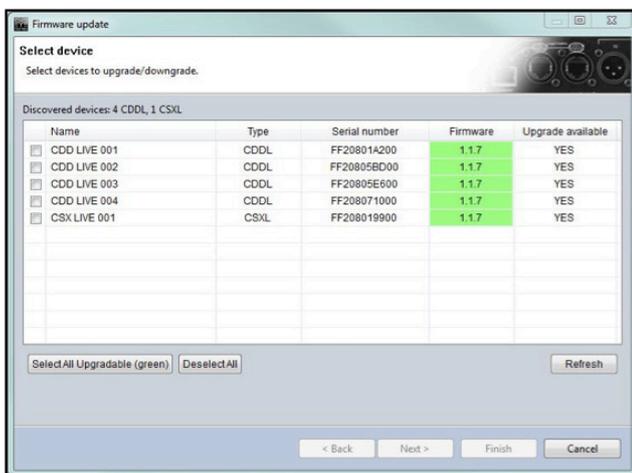
As you can see, the CDD-LIVE products found have firmware version 1.1.7, the current Production release, installed which is highlighted as a new version is available signified by the "YES" in the final column.

7. Now click on the 'Select All Upgradable (green)' button which will add a tick in the check box by each CDD-LIVE speaker listed;-
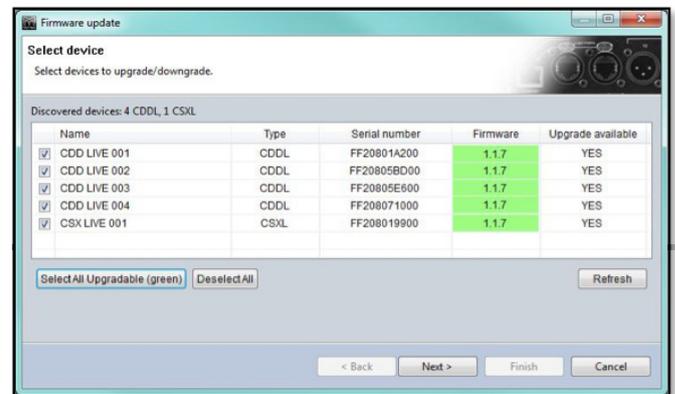
8. Click 'Next >' and the following window appears;-
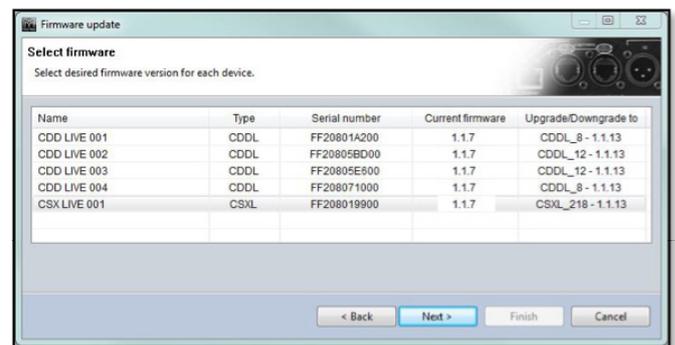
You can see the current firmware installed in each cabinet which is version 1.1.7 and the new version which is 1.1.13.

9. Click 'Next >' to start the update, **observe the warning on the window that appears;-**
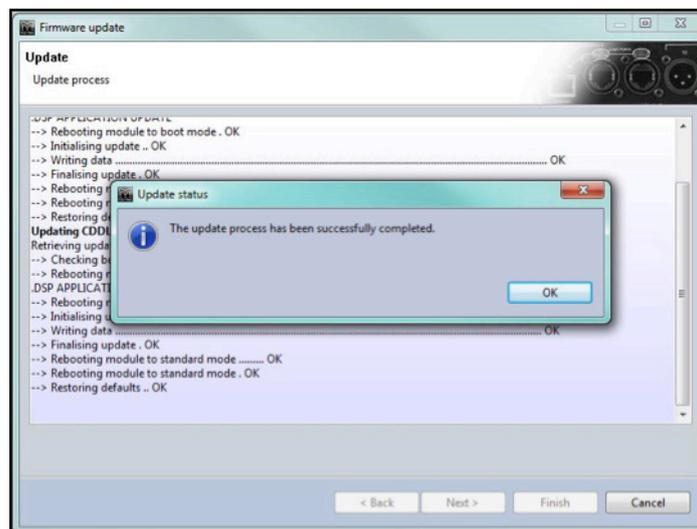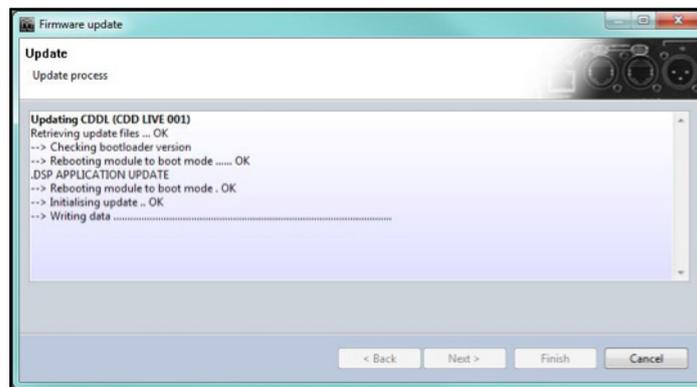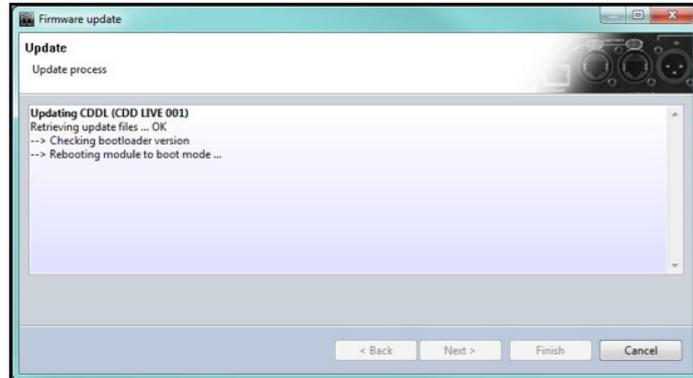
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Click 'Next >' once more to start the firmware update.

10. You will see the update process progressing;-

Click 'OK' and 'Finish' and the update is complete.

Note: when upgrading firmware using the self-assign IP mode of the CDD-Live product, at this stage it will show that the update has failed. This is because when the CDD-Live is rebooted after the firmware update, it will take about 1 minute to self-allocate an IP address. Before this time, Vunet can't reconnect to it.

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