





Philly DI User's Guide

Make Believe Studios Philly DI Users Guide

Metric Halo

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1. Intro & Operation

"My name is George Hajioannou and I was lucky to not only get to know Joe Tarsia but to become a colleague and a friend. He was a true audio visionary and his role at Sigma Sound Studios put Philadelphia on the musical map.

One of the promises I made to Joe Tarsia was to perpetuate the Sigma Sound Studios name in a positive light. This plug in is an exact copy of the Sigma Sound Studios Direct Box that Joe and I created. There were 50 made and were all signed by Joe.

It took two years to create this Direct Box and bring it to market. Every unit was quickly sold so this is a truly rare and special piece of gear." - George Hajioannou



The Philly DI is a plug-in based on the rare custom-built DI created by Joe Tarsia, founder and owner of Sigma Sound Studios (Philadelphia/New York).

"In 1967, before stock consoles and turn key studios, I and some believers, wire by wire, component by component, built Sigma's first studio. Primitive by todays' standards the console had just 12 inputs that fed a then state-of-the-art 8 track tape machine. It was then that I built the first Sigma DI. We wanted a general purpose direct box that would not only direct inject electric keyboards, but more importantly would get the best out of the electric bass and guitar. The unexpected results were astonishing: the Sigma DI quickly became the favorite of the bass and guitar players.

Always looking for the better mousetrap, as new DIs came to market we put our box to the test. In every head to head comparison with both active and passive store bought DIs, the Sigma box came out on top.

You know the sound; you hear it in the recordings of the Jays, Lou Rawls, Teddy Pendergrass, the Stylistics, the Spinners, MFSB, Grover Washington Jr and Patti LaBelle. It's 'The Sound of Philadelphia'.

The day Sigma opened its doors and the 35 years that followed, it was the only DI I used for recording musicians like Ronnie Baker, Gerald Veasley, Steve Beskrone, Bob Babbitt, Anthony Jackson and many others.

It was only at the urging of a musician friend, who wanted a Sigma DI of his own that I considered building a few. Unfortunately I found that the heart of the Sigma DI, a high quality audio transformer, had been out of production for years and is now just about impossible to find. We spent months searching supply houses, the web and electronic equipment manufacturers to find just 50 of the rare transformers." - Joe Tarsia

The MB Philly DI plug-in is a lovingly crafted digital emulation of a pristine original hardware unit provided by George Hajioannou of Studio Logic Sound - with a couple of twists...

In this plug-in, the standard signal path as it was used for tracking in the studio is emulated in full: instrument -> DI -> leveling/flavor compressor stage -> console line in.

In consultation with many engineers familiar with the Sigma setup, we've captured not only the sound of the original DI, but also provide a one-knob compressor stage which effectively reproduces the action and character of that leveling stage.

As a result, the controls in MB Philly DI are super straightforward: **Drive** to set the gain into the transformer stage, and **Comp** to set the degree of dynamics control.

Drive



The transformer in the DI has so much headroom it actually requires quite a bit of drive to engage the transformer saturation. We added a volume compensated drive control to allow you to put the signal into the sweet spot of the transformer.

The Drive setting has a range of ±24dB, with the default in the middle at 0.00.

Comp



Since the DI was almost always used with a leveling amp, we include a one knob compressor; simply turn the Comp knob to engage the compressor - it is gain compensated and has a fixed attack and release.

The Comp setting spans from 0 to a maximum setting of 40.

Use the MB Philly DI to recreate that classic Philadelphia sound on lead vocals, bass, guitar, keyboards and all sorts of other sources you might ordinarily not think of for a DI plug-in.

2. Plug-In Header Bars

All Metric Halo and Make Believe family plug-ins display the MH header bar at the top of the plug-in window. This header bar allows you to organize and access all your presets across all supported plug-in formats on Mac, Windows and Metric Halo hardware DSP via MIOConsole3d.

It is especially useful in that, regardless of platform, it provides a straightforward, powerful and consistent processing workflow wherever you might be working.

With the constant evolution of computer capabilities opening the door to new production techniques and music delivery formats, the differences between DAW software workflows have become ever more diverse. Many of the major DAWs provide their own plug-in headers within every plug-in instance window, providing their own feature set catering specifically to their internal workflow.

Conversely, other equally popular DAWs provide no added feature support for plug-ins (such as plug-in parameter Undo/Redo), opting instead to insert plugs as a straight processing block.

The plug-in header bar bridges that gap by offering the most asked for plug-in functions in a simple GUI, making all of our plug-ins functions and their presets available to every user on every platform.

The plug-in header bar has two rows of controls, with the Metric Halo logo icon at the top row left.

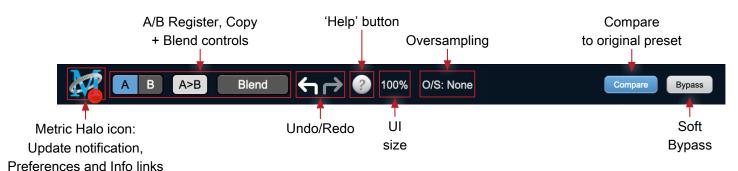
The top row handles plug-in operations, including update notification and download, access to MH online resources, GUI preferences, tooltip help, A/B parameter snapshots, snapshot Blend, plug-in Undo/Redo, Oversampling modes, Compare and soft Bypass.



PhillyDI Plug-in header

The lower row (with the 'hamburger' menu icon at the left) is all about preset management.

Plug-In Header: Top Row



Metric Halo Header Icon

Clicking the MH icon expands the entire plug-in window to the right and opens a multi-function control sidebar with the Preferences tab in focus. This sidebar has context-sensitive tabs across the top for GUI **Preferences**, **About**, and **Current Release Notes**.

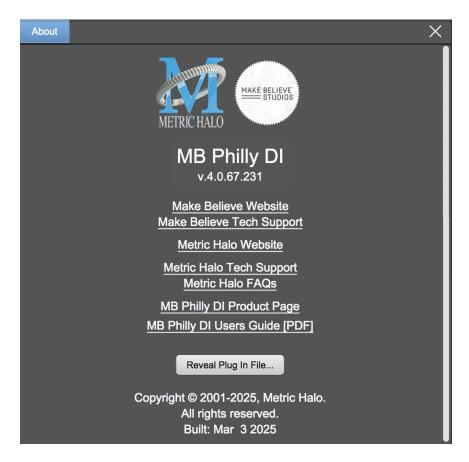


Plug-in control pane tabs

When updates are available for download from Metric Halo, the MH icon will sport a blatant red dot (shown in the header map at the top of this page) and an **Update** tab is added to the sidebar. These tabs are dynamic by design, and additional tabs may appear as new content becomes available.

To close the sidebar, click the MH icon again, or the "X" at the right edge of the tab bar.

About tab



The **About** tab reveals the current plug-in version information and provides convenient web links to product info, support pages and the current manual on the Metric Halo main website.

Clicking the "MB Philly DI Users Guide [PDF]" link will open and display the latest PhillyDI manual in your default web browser.

Reveal Plug-In File... will open the folder containing the current plug-in file, with the plug-in file itself selected. Very handy for troubleshooting on the fly.

Current Release Notes

About

Current Release Notes

Important Notes

- This version of the AAX plugins are currently Native only and do not provide DSP executables for HDX/Carbon DSP chips. As a result, if you upgrade your AAX plugins to v4, you will not able able to use them on the HDX/Carbon DSP chips but they will continue working natively.
- The installer for this version will overwrite earlier versions of the plugins, and the versions installed by this installer require the updated v4 license.

This version of the plugins is a complete rewrite of the hostside components of the plugins, and is now based on Metric Halo's MHShell plugin technology. This provides a number of significant benefits to owners of the plugins:

- All plugins are now built under a unified shell so they all inherit the base functionality of the shell, including:
 - New look, including skin choice and preferences
 - MH Logo Details view
 - Software update tracking
 - Quick Links to product pages, manuals, and tech support
 - o Undo/Redo
 - A/B snapshots, and snapshot blend
 - More flexible resizability
 - Common controls in the header bar (Help, Resize, Pane Disclosure)
- Unified build architecture, so all plugins on all platforms (MIO, Mac, Win) receive all updates and improvements simultaneously.
- Added support for VST3, so now all plugins support AU, AAX, VST2 and VST3 on macOS, and AAX, VST2, and VST3 on Windows.

Current Release Notes example

Current Release Notes lists a synopsis of major changes (a snippet of which is shown above), with feature and bugfix revisions for the most recent software releases listed below.

Please note that on Windows, the release notes will not be displayed in the pane, and a link to the release notes will be displayed instead. You can click the link to view the release notes using your current default web browser.

Update notification tab



Update tab (only appears when an update is available)

The **Update** tab will contain a link to download the new installer package in the header at the top of the pane.

Below the download link header will be release notes detailing the major changes included in the update, with bugfix revisions for the most recent software releases listed further below. Windows users will see a link to view the release notes using your current default web browser.

Click the Installer link to download, unzip and run the installer manually, preferably when your audio software is inactive so it can properly scan the new versions at launch.

Plug-in Snapshot Registers: A/B



Plug-in Header: Snapshot Registers: A/B

The A and B buttons control the A and B state registers. The A/B registers are used to store modified parameter snapshots in addition to the original saved preset called up by **Compare**.

The Blend function can be used to smoothly morph between the parameters set in the A and B registers, and Blend is a mappable parameter so it can be operated with external MIDI control. Details of the A/B Snapshot Blend feature follow on the next page.

For each of the A and B buttons the visual display tells you the state of the register:

- Light Grey means the register is empty
- Dark Grey means it has settings, but is unselected
- Blue means it has settings and is selected

You can perform the following actions:

- Clicking on an empty register takes a snapshot of the current settings and saves them to the register.
- Clicking on an unselected filled register copies the register parameters to the current active plugin settings.
- Clicking on a **selected** register toggles to the other register; this lets you toggle between the register settings without having to move the mouse.
- The Copy button will show N/C and remain inactive until one or both of the registers is in use. The Copy button will alternate between A>B (copy A to B) or B>A (copy B to A) depending on which register is selected. Clicking the Copy button then copies the settings from the selected register to the target register, overwriting the prior contents (if any).
- <Option> clicking on a register snapshots the current settings and saves them to the register, overwriting the prior contents (if any).
- Changing settings when a register is selected will update the settings in the register to reflect the change.

Snapshot Blend

The Blend button allows you to interpolate (or morph) between the parameter snapshots stored in the A and B registers. It becomes active when both A and B have a parameter set stored.

Blend is a MIDI-mappable parameter so it can be operated in realtime with external MIDI control and/ or automated in the DAW. This allows you to automate a transition from the A \rightarrow B register, the B \rightarrow A register or any setting between the two.



Plug-in Header: Snapshot Blend

The Blend button's visual display tells you the state of the register:

- Light Grey means it is empty
- Dark Grey means it has settings, but is unselected
- Blue means it has settings and is selected

Click on Blend to popup the blend control. Slide all the way to the left to apply the settings in the A register. Slide all the way to the right to apply the settings in the B register. Intermediate settings for blend will give you intermediate settings for any parameter that is different in register A and B. The blend control does not change the state of Bypass.

Note that the Blend is not a parallel processing mode where two instances of the processor are running the A and B settings and the output is a parallel blend of the two settings. Rather, Blend interpolates the parameter settings of the two registers to one instance of the processor. You can see the parameter controls move between A and B settings as you slide the Blend control.

The A/B and Blend settings are stored and recalled as part of the plug-in state, but are not saved as individual presets in the preset bar.

While you can use the blend with arbitrary A and B settings we find it works best when you craft the settings in the two registers in such a way as they are related to each other. Specifically, if an indexed (stepped) parameter is different between the two settings, the interpolated value will snap to one of the indexes between the two settings, which can be jarring.

It is best if the parameters that you blend are smooth parameters (e.g. gains, frequencies) and make sure the indexed parameters (enables, modes, band types) are set the same for both registers.

The easiest way to do this is to load the same setting into both registers and then tweak the settings of one of the registers.

This works especially well if you make one of the registers be the basic settings with all the gains or thresholds flattened out so that you can smoothly interpolate between a setting and effectively bypassed - we have found that this allows you to zero in a perfect configuration between too much and too little.

Plug-in Undo/Redo

All the plug-ins provide support for undo/redo from the plug-in header bar.



Plug-in Header: Undo/Redo

The left and right curved arrows represent Undo (Left) and Redo (Right). These arrows are grey when there is nothing to Undo or Redo.

The arrows are white when it is possible to Undo (Left) or Redo (Right). Clicking the left arrow when it is white will undo the last action you made in the plug-in. When you undo something that change is placed on the redo stack, and the Redo button will turn white.

Clicking the Redo button (when it is white) will restore the state that the last Undo changed.

If the Redo button is white and you make a change in the plug-in, the Redo button will go grey as the redo buffer will be cleared.

Help Button



Help Butto

This button toggles the tooltip display. When enabled, tooltips will be shown when the mouse hovers over a control. When the tooltip display is disabled, you may still see tooltips by holding down the ? key and hovering over a control.

UI Size Selector

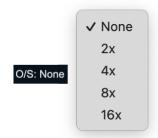


UI Size Selector

This pull-down menu lets you set the plug-in UI size to taste.

The size is remembered and applied the next time you insert a Philly DI plug-in.

Oversampling Selector



Oversampling Multiplier Selector

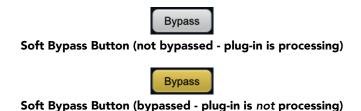
Oversampling may be selected for each instance of PhillyDI, from 2x to 16x. The default Oversampling setting is **None**.

Compare Button



To use the compare button, a preset must first be loaded. The compare button will be lit up when the current settings differ from the selected preset. If you click this button while it is lit, the preset settings will be restored, but you can still return to the changes you made by clicking on the button again. It is important to note that any changes you make to activate the compare light are always for comparison to the last loaded preset.

Soft Bypass



When glowing yellow, this button will maintain the time delay through the channel and will continue to show metering, but will cleanly disable the processing.

Plug-In Header: Preset Row

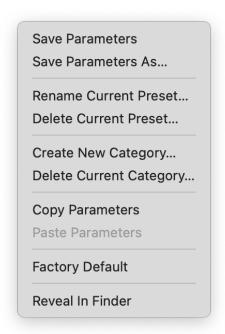


"Hamburger" menu:

Preset operations

Plug-in Hamburger menu

The preset and parameter functions within the hamburger menu break down as follows:



- Save Parameters saves the current plug-in parameters to the current preset.
- Save Parameters As... opens a dialog box where you can name and choose a category to save your current plug-in settings.
- Rename Current Preset... lets you rename the current preset.
- Delete Current Preset... deletes the current preset.
- Create New Category... lets you create a new preset category for the current plug-in type.
- **Delete Current Category...** deletes the current preset category.
- Copy Parameters copies the current parameter set so you can paste them to another instance of the same type plug-in.
- Paste Parameters pastes the copied parameters. Note that pasting a parameter set over an existing named preset will change the preset name field to: [No Preset].
- Factory Default loads the factory default settings for this plug-in.
- Reveal In Finder opens the folder in which the current preset is saved.

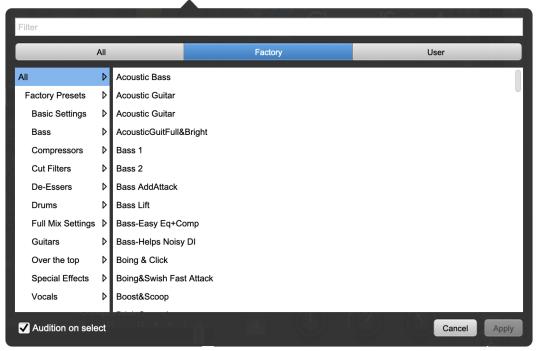
Preset Step-Through Buttons



Preset Step-Through Buttons

These buttons step through Factory and User Presets in succession, as they are listed in the Preset Selector window. The left arrow chooses the previous preset. The right arrow chooses the next preset.

Preset Name/selector menu:



Plug-in Header: Preset selector menu (ChannelStrip shown)

The Preset selector will open to show all the available preset categories, and the presets within those categories.



Preset selector menu: Audition on select

With "Audition on select" enabled at the bottom of the window, selecting a preset will temporarily load those parameters so you can hear the effect on the audio you are playing, without actually committing to the preset.

Click Cancel to revert to your previous settings and close the selector window.

Hit Apply to commit the new preset parameters and close the preset selector window.

3. Installation

For both Mac and Windows, there is a single standard installer for Philly DI containing all plugin formats that allows you to decide which formats you would like to use.

Mac

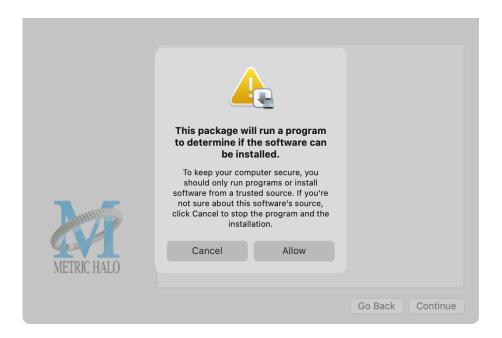
Please note— The following graphics show installation on a macOS 12 system; the process may be slightly different in other versions of the OS, but the basic concepts are the same. Small details such as file sizes shown may vary with subsequent releases.

• Double-click the "MBPhillyDI.pkg" application



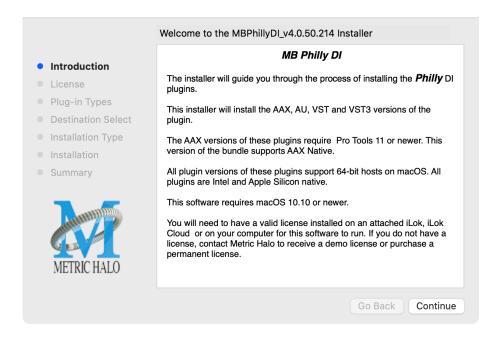
MBPhillyDI.pkg

• The first window requests permission for the installer program to scan for the presence of earlier versions of Metric Halo plug-ins. Clicking "Cancel" will quit the installer. Click "Allow" to proceed:



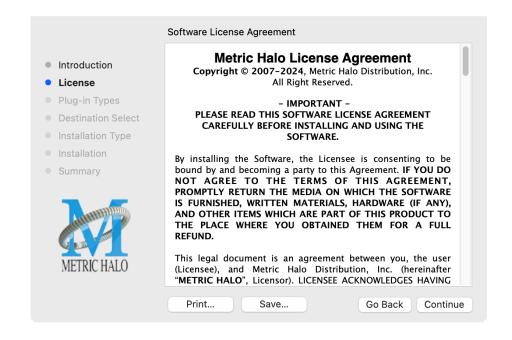
Click "Allow" to proceed...

• The installer dialog will appear:



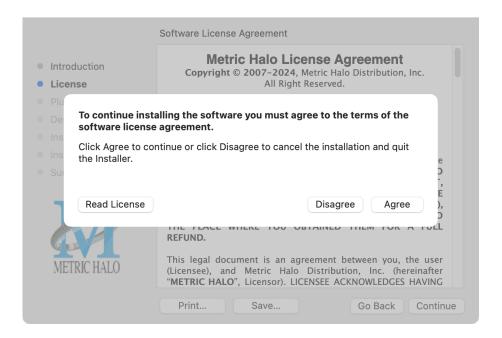
Click "Continue"...

• Now you will see the Metric Halo License Agreement:



After you have read it, click "Continue"...

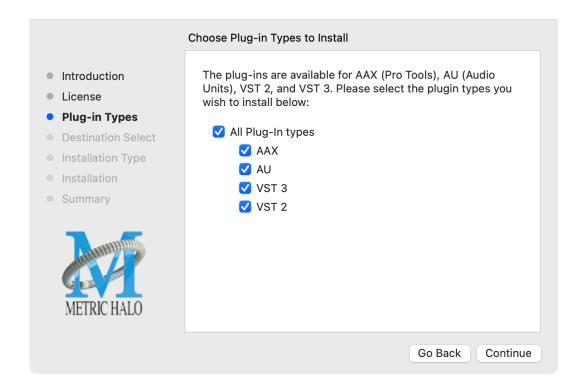
• Next, click "Agree" to accept the License Agreement:



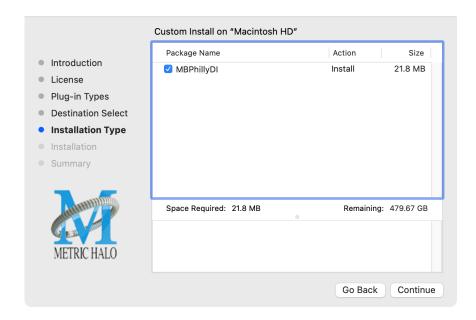
- The default installation will install Audio Unit, VST2, VST3 and AAX plug-ins to their respective folders in the root Library directory:
 - AU to /Library/Audio/Plug-Ins/Components
 - VST2 to /Library/Audio/Plug-Ins/VST
 - VST3 to /Library/Audio/Plug-Ins/VST3
 - AAX to /Library/Application Support/Avid/Audio/Plug-Ins

Selecting any one or more specific plug-in types will install or upgrade only those formats, leaving older plug-ins in unselected format types untouched.

Your plug-in format selection will be saved as a preference and pre-set automatically for future Metric Halo family plug-in installations on this computer. Of course you may change your selections at that time.

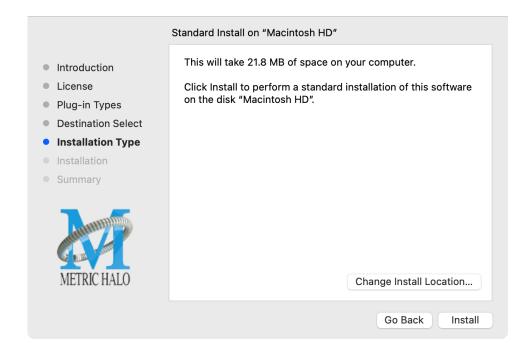


• Since there is only one plug-in to be installed, the "Custom Install" page really only serves to verify whether you are installing or updating PhillyDI.



Click "Install" to proceed.

• The final confirmation window displays the total size of the selected installation. Hit "Install" to proceed.

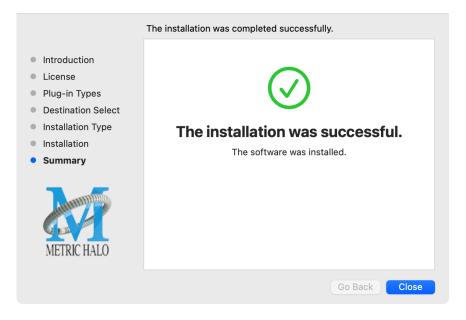


• If present, Touch ID/Face ID will execute the installation once it recognizes your biometrics:



Otherwise, enter your login password as usual and click "Install Software".

• Once the installer has finished, you'll see this dialog:



If you do not see the "Installation Successful" message, contact MH Support.

That's it! Enjoy using Philly DI!

Windows

Please note – The following graphics show installation on a Windows 11 system; the process may be slightly different in other versions of the OS, but the basic concepts are the same. Small details such as file sizes shown may vary with subsequent releases.

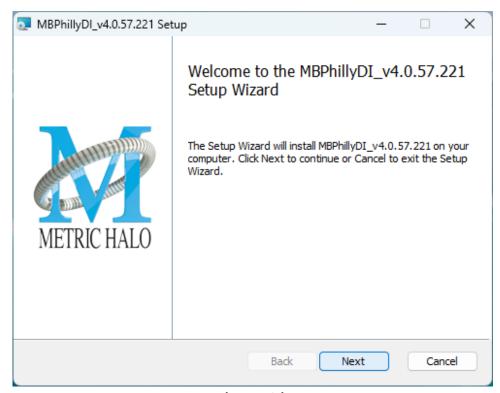
• Double-click the "MBPhillyDI" installer application.



MBPhillyDI

Installer

• The installer dialog will appear:



Welcome Dialog

Click "Next" to proceed.

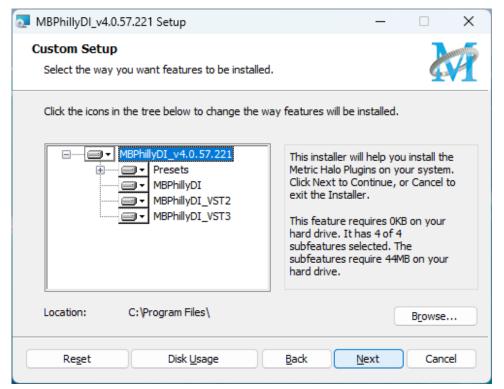
• Read the Metric Halo License Agreement:



License Agreement

After you have read it, click next to "I accept the terms of the License Agreement" and click "Next".

• Custom Setup Options



Custom Setup

The Windows installer **Custom Setup** page allows you to refine the features to be installed and their location.

By default, VST2, VST3 and AAX will be selected for installation to the C:\Program Files\ folder. Specifically:

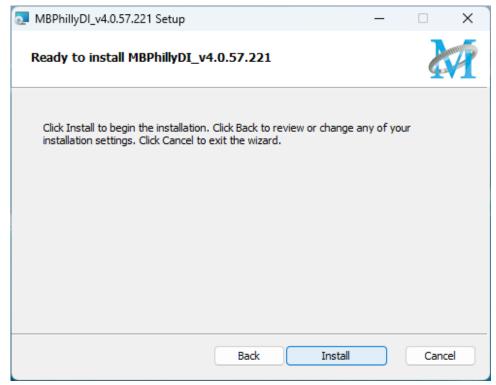
- VST2 to C:\Program Files\Common Files\Steinberg\VST2
- VST3 to C:\Program Files\Common Files\VST3
- AAX to C:\Program Files\Common Files\Avid\Audio\Plug-ins

These default locations are the most commonly used and should be recognized automatically by most DAWs. See your host DAW software Plug-Ins Location Preferences to verify the above directories are in your DAWs Plug-In Locations list.

If not, then you can either click **Browse** to change the installation target folder (the Browse button is in the lower right of the installer Custom Setup window), or add the locations listed above to the DAW Plug-Ins Location Preferences.

When you have made your selections, click "Next" to continue.

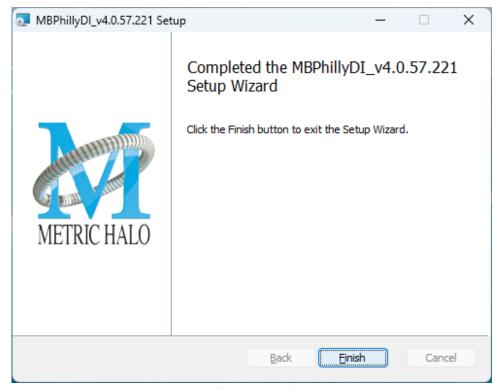
• The next page is a confirmation to continue, offering a last chance to go back and review your selections from the previous window:



Ready to Install

Click "Back" to return to the Setup page, "Cancel" to cancel the installation, or click "Next" to continue.

• Once the installer has finished, you will see this dialog:



Installation Complete

If you do not see the "Installation Successful" message, contact MH Support.

That's it! Enjoy using Philly DI!

Suggested practices and troubleshooting tips

For best results, make sure your DAW is set to scan your audio plug-ins at every launch. This may add a bit of time at launch, but it helps make sure that new and updated plug-ins will be properly registered.

When making changes to DAW Preferences Plug-in Locations, make sure to quit the DAW, finish your installations and restart the DAW so the plug-ins will be properly scanned and ready for you to use.

If new plug-ins do not register, open your Plug-Ins Preferences and clear or reset any plug-in caches, 'ignore' or 'block' lists, then quit and relaunch the DAW to scan and re-register all your current plug-ins. Periodically clearing the plug-in caches is a common studio maintenance practice, especially after installing or removing audio software.

The easiest way to check that your plug-ins have been properly installed is to open C:\Program Files\ and type **vst** in the search field. This will show a list of all your installed VSTs and their locations within nested Program Files sub-directories for comparison against your DAW preferences.

Update Notification (all platforms)

MixHead will automatically check for newer version availability (if your computer is connected to the internet).



Plug-in Update Alert

If a new version is found, the Metric Halo icon in the plug-in header bar will sport a lovely red dot. Click on the dotted icon and check the Update Notification tab for release notes and download instructions.

4. System Requirements

Hosts:

- *Pro Tools™* (*Mac*): Pro Tools 11 or higher running on a Macintosh computer. The v4 software currently supports Native AAX operation only.
- *Pro Tools™* (*Windows*): Pro Tools 10 or higher running on a Windows computer. The v4 software currently supports Native AAX operation only.
- Native (Mac): Any Intel or Apple Silicon-native Mac DAW (64-bit) that supports AU, VST2, VST3 or AAX plug-ins.
- Native (Windows): Any Intel Windows (64-bit) DAW that supports VST2, VST3 or AAX plug-ins.

Operating System:

- Mac: Any Apple Silicon (ARM) or Intel-based Mac running Mac OS X 10.9 or newer
- Windows: Any Intel-based Windows PC running Windows 10 or newer.

Licensing:

• A PACE iLok.com account. You can authorize your v4 license to your computer, iLok Cloud or any 2nd or 3rd generation iLok USB key.

The first generation blue-green iLok USB keys are no longer supported by PACE for new product authorizations.

Please note that prior v2 and v3 licenses are separate and remain valid: you do not have to trade in your old iLok license. Production Bundle v3 and earlier plug-ins will continue to serve on older systems in addition to the v4 installations on newer platforms, with full preset compatibility between v3 and v4.

- One license authorizes the software on any platform.
- The most recent iLok License Manager installer can be found here: iLok License Manager application and driver installers.

Older operating systems may require a specific version of the iLok driver, which can be found here: Legacy iLok application and driver installers.

5. Service and Support

Make Believe Studios takes great pride in the reputation for customer service and support that we have built. If you have any problems, questions, or suggestions please get in touch with us at: your_friends@makebelievestudio.com