

Waves V5.2

Release Notes and information



This document lists general information, installation instructions, demo info, authorization info as well as specific information on supported host applications, sample rate support charts and known issues.

This document covers MAC OS-X and Windows XP.
We hope you will find this document useful and informative.

The Waves team.

1. General Information

Waves Digital Audio Processors are software modules designed to provide professional audio processing as Plug-Ins within a wide range of supported audio host applications.

Waves V5 is a new generation of the software. V5 presents the integration of many efforts to make Waves Plug-Ins better than ever.

New for Waves V5.2 – Netshell

Waves V5.2 users will be given an option to install the Waves Netshell. Users of the Waves APA hardware should select 'yes' and follow the installation instructions. Otherwise, please select 'no'.

The Netshell plug-ins as of this release are:

- L3
- IR-Series (IR-1, IR-L, IR-360)
- LinEQ
- LinMB
- C4
- RVerb
- RChannel (with external side-chain disabled)
- SoundShifter
- Morphoder
- TransX (Multi)
- Q-Clone

What's new in V5.0

V5.0 release includes new builds of all the plug-ins for Mac OS-X and Windows. A new bundle – **Waves Musicians Bundle 2** – is also introduced in this release.

Note! Mac OS-9 is no longer supported in Waves V5.

OS-9 users can contact Waves sales at 1-865-909-9200 for information about relevant product versions for this OS.

Tempo Sync

Four plug-ins have been upgraded with a new feature of automatic tempo sync.

The plug-ins are: **Enigma**, **MetaFlanger**, **MondoMod** and **SuperTap**.

The new functionality enables those plug-ins to lock to the host application's tempo and tie the relevant controls to that externally controlled tempo.

Morphoder MIDI Control

Morphoder, part of the Transform bundle, now becomes a true virtual instrument. In all supported host applications you will be able to assign a MIDI track output to an open instance of the Morphoder and play its internal carrier from a MIDI track using recorded MIDI data or live playback from a MIDI controller.

Waves 360° Bundle for Windows

The Waves 360° Surround Tools Bundle is now available for ProTools TDM running on Windows.

Waves 360° Bundle – Native

On both Mac & PC, the Waves 360° Bundle now supports Native processing, running as RTAS & HTDM.

HTDM Support

All Waves plug-ins now support Digidesign's HTDM architecture, enabling Native processing while maintaining important TDM functionalities such as changing a track's number of outputs (mono ->stereo, mono/stereo ->surround), inserting a plug-in on Aux and/or Master tracks and more.

Note! – ProTools TDM 6.4cs4 or above is required for HTDM support.

HD Accel Support for Windows

Digidesign's new HD Accel hardware is now supported for Windows.

96khz Support On HD Accel

Several plug-ins are now supported at 96khz sample rate on Digidesign's new HD Accel DSP cards.

The enhanced plug-ins are:

C4, SuperTap*, Morphoder, LinMB, LinEQ (Broadband Mono component only).

* SuperTap is now also supported up to 192khz in Native process.

Digi 002 and Command/8 Control Surface support

All Waves plug-ins are now officially mapped to Digidesign's Digi 002 and Command|8 control surfaces.

Automatic Delay Compensation support for Pro Tools

All Waves plug-ins are adapted to support the new Automatic Delay Compensation feature in ProTools 6.4

The Waves V5 plug-ins support major Plug-In architectures and host applications as follows –

MAC OS-X

WaveShell-DAE 5.0 - Provides compatibility with Digidesign systems from Pro-Tools LE to Pro-Tools TDM using the MIX hardware generation, or HD and HD Accel systems.

WaveShell-DAE integrates support for Digidesign's 4 different plug-in types – TDM, RTAS, HTDM and AudioSuite.

Upon first launch of Waves V5.0, or later by holding the "Shift" key during ProTools launch, the user will be prompted to choose the desired type/s.

Waves users with Digidesign systems can read important information in the DAE chapter.

WaveShell-DAE 5.2 – Provides Netshell support for the Netshell enabled plug-ins. Officially supported on Digidesign Pro-Tools TDM 6.7 and 6.9 using HD/HD Accel hardware.

WaveShell-VST 5.0 – Provides compatibility with some of the leading VST host applications. Officially supported are –

Steinberg Cubase SX 2.2, NUENDO 2.2 | TC-Works SPARK 2.8.2 | Bias Peak 4.1.1

WaveShell-VST 5.2 – Provides Netshell support for the Netshell enabled plug-ins. Officially supported on: Steinberg Cubase SX 3.0.2, NUENDO 3.0.2

WaveShell-AU 5.0 – Provides compatibility with the leading Audio Units host applications.

Emagic Logic Audio 6.4.2 | GarageBand 1.1 | Bias - Peak 4.1.1 | TC-Works - SPARK 2.8.2 (Within SPARK FX Machine use either as Audio Units or VST).

WaveShell-AU 5.2 – Provides Netshell support for the Netshell enabled plug-ins. Officially supported on: Apple Logic Pro 7.1

WaveShell-MAS 5.0 – Provides compatibility with MOTU Digital Performer 4.1.2

WaveShell-MAS 5.2 – Provides Netshell support for the Netshell enabled plug-ins. Officially supported on: MOTU Digital Performer 4.5.2 and 4.6

Windows

Direct-X – This plug-ins architecture is provided by the makers of Windows, Microsoft. It is the main Plug-Ins architecture of some of the industry's finest hosts and lately has become Automation enabled in Sonar.
Steinberg – Cubase-SX 3.0.1, NUENDO 3.0.1, WaveLab 5.0a | Sony - Sound Forge 8.0a, Vegas Pro 5.0, Acid 5.0a, CD Architect 5.2 | Cakewalk - Sonar 3.1.1 | Adobe - Audition 1.5

WaveShell-DAE 5.0, 5.2 - Provides compatibility with Digidesign systems running Pro-Tools LE or Pro-Tools TDM using the MIX hardware generation, or HD and HD Accel systems. The WaveShell-DAE 5.0.dpm and it's accompaniment the WaveShell-DAE 5.0.dpm.rsr will provide support for Digidesign's TDM, RTAS, HTDM and AudioSuite architectures. Waves users with Digidesign systems can read important information in the DAE section of this guide.

WaveShell-VST 5.0, 5.2 – Provides compatibility with some of the leading VST host applications. Officially supported are –
Steinberg Cubase SX 3.0.1, NUENDO 3.0.1

Other unlisted hosts are not officially supported by Waves and though the plug-ins may work, Waves has not tested them in house for operation in the standards we expect. We aim to support the widest possible range of hosts and will post notices on the Waves web site when we adapt support for more hosts.

The Waves Digital Audio Processors cover a wide range of features and applications minding the highest standards in audio quality. Different processors require different amounts of computational resources and each processor will support processing in Sample Rates as high as possible. The processors were tested for sample rates as high as 192kHz of 24bit audio. Waves Ltd. invests a big amount of R&D to make sure the audio processors are as good as possible. Much thought and hard work are incorporated into each tool as well as consulting with world class professionals and practical testing. Many present such a grand amount of possibilities and subtleties, while others are designed to help you get great results at the least effort to save time in the studio.

We hope you will come to realize the power and value in these tools that are sometimes just superior to anything you could get in hardware.

If you experience any problems with any aspect of usage of Waves products, our technical support crew will be there to provide service and help you solve it.

2. How To Get V5

Waves Digital Audio Processors are sold worldwide by authorized dealers and distributors. For a contemporary list of Waves dealers and Distributors go to Waves web site and look under "How to buy".

The Waves Online store is also open for business and can serve you if you wish to buy online at the retail price. The rest of this chapter applies mostly for Waves users who have version 4.x and need to update to version 5. If you are a new customer just installing your product you can skip this chapter and continue to the next one.

Introduction

Updating your 4.x products to version 5 is simple, whether you are updating online or via your Waves representative. Any Waves 4.x product you own can be updated to version 5.

When an update to version 5 is requested, the Waves online system calculates the price based on the Waves 4.x products registered in your account. Once the price is calculated, all that is needed to complete the process is to purchase the update. Once the process is finished, your account will show your updated products as version 5. Now you will need to install version 5 by either downloading it from the Waves web site or installing from a Waves Version 5 CD, and then authorize.

The version 5 upgrade process is described below. If you encounter any difficulties or have any questions relating to this update process, please contact Waves technical support team.

Getting Version 5 through Waves Web Site

Browse to Waves web site online registration page at <http://register.waves.com/> and log into your account. If you have several accounts you will need to perform this procedure for each one of your accounts.

Please note that to proceed with the update, your products must be registered. An unregistered product cannot be updated.

In your account you will see a "Get Version 5" button. Click it. A new page will open in your browser. This page will display the products you own that are updateable in a list and the total cost of the upgrade to version 5.

To proceed with the update process, click the "Next" button. If you wish to cancel the update process, click "Cancel", and the window will close. Clicking "Next" will open the first page of the transaction procedure. Once the transaction has been completed, the updated products will be displayed as version 5 in your account.

All that is left for you to do now is to install Waves version 5, either by downloading the relevant installers from Waves web site or installing directly from Waves Version 5 CD, and authorize your products.

Getting Version 5 through your local Waves dealer or representative

When you contact your local Waves dealer or representative, be sure you have the user name and email address from your Waves account. The dealer will calculate your price for you. Once you have made the purchase, the dealer will update your account for you. Once the process is finished, your account will show your updated products as version 5.

All that is left for you to do now is to install Waves version 5, either by downloading the relevant installers from Waves web site or installing directly from Waves Version 5 CD, and authorize your products.

3. Products

Waves Digital Audio Processors products are sold separately and at different price points for

- Native processing using the host computer CPU to process audio in real time.
- TDM using Digidesign's DSP hardware to process audio in real time. The authorization for TDM includes Native functionality in all supported hosts.

With the release of version 5.0 our product line includes 44 separate plug-ins with over 120 separate units of which you can run as many as your DAW will allow. In contemporary computers and audio workstation this goes to a very high count allowing you to dress full multichannel mixes with state of the art EQ, Dynamics, Creative Effects processing and Restoration.

Waves Ltd. distributes its Software Audio Processors in bundles. The bundles are collections of plug-ins compiled by application type i.e. Scientific Mixing essentials - NPP and Gold bundles, Sound sweetening tools – Renaissance Maxx, Purist Quality Mastering – Masters bundle and Noise reduction and recovery of damaged audio – Waves Restoration.

Waves Digital Audio Processors V5.2 includes the following products:

Waves Diamond Bundle - This is the most comprehensive collection of tools we ever sold in a single package. Including:
Waves Platinum, Waves Restoration and Waves Transform Bundle.

Waves Platinum Bundle - This is a comprehensive collection of tools sold in a single package. Including:
Waves Gold Bundle, Renaissance Maxx and Waves Masters Bundle.

Waves Broadcast and Production Bundle - This is a comprehensive collection of tools sold in a single package. Including:
Waves Restoration, Renaissance Maxx and Waves Masters Bundle.

Waves Gold Bundle – The Gold Bundle is included in the Platinum Package and bundles all the Waves essentials, FX and some sweeteners into one box. Including:
C1-Compander, DeEsser, IDR, L1-UltraMaximizer, S1-Stereo Imager, Q10-Paraphoric EQ, SuperTap, TrueVerb, Renaissance Compressor, Renaissance EQ, Renaissance Reverb, MetaFlanger, MondoMod, Doppler, Enigma, UltraPitch, AudioTrack, C4-Multiband parametric, PAZ, MaxxBass, PS22 & DLA (TDM Only).

Native Power Pack – The Basic native processing toolset. Including: C1-Compander, DeEsser, L1-UltraMaximizer, S1-Stereo Imager, Q10-Paragrophic EQ, SuperTap-2taps, TrueVerb and IDR. This bundle's components are included in the Waves Gold Bundle. The NPP is native only.

Renaissance Maxx – Next generation tools offered in a cost effective collection. Including: Renaissance Compressor, Renaissance EQ and Renaissance Reverb (These components are included in the Waves Gold Bundle). Renaissance VOX, Renaissance Bass, Renaissance DeEsser and Renaissance Channel. This complete bundle is part of the Waves Platinum package

Waves Masters Bundle – Purist quality processors with a focus on audio mastering for CD's DVD's etc. Quality wise this is the supreme team Including: L2-UltraMaximizer, Linear Phase EQ, Linear Phase MultiBand. This bundle is part of the Waves Platinum package.

Waves Restoration – An Intensive Care Unit for audio in need of noise or click reduction. Including: X-Noise, X-Click, X-Crackle and X-Hum. This bundle is part of the Waves Diamond package.

Waves Transform Bundle – The next step of secret weapon processors. Amazing transformations of time, pitch, identity, punch and more including: Doubler, Morphoder, TransX and SoundShifter.

Waves Musicians Bundle – The amazing value and easy to use toolkit. Including MetaFlanger, SuperTap, Renaissance VOX, Renaissance Axx and Doubler. The Musicians Bundle is native only.

Waves Musicians Bundle 2 – A different choice of an amazing value and easy to use toolkit. Including: SuperTap, Doubler, Renaissance VOX, Renaissance EQ and Renaissance Compressor. The Musicians Bundle 2 is native only.

Waves 360° Surround Tools – A complete set of Surround Audio processing, mixing & mastering tools including Bass Management and monitoring calibration as well as panning, reverberation, compression and limiting.

Waves IRx Parametric Convolution Reverb – The breakthrough sampled acoustics reverb with total parametric control and an amazing collection of sampled Halls and venues.

Waves L3 Ultramaximizer and Multimaximizer – Waves L3 is succeeding the L1 and L2 and brings on further breakthrough technologies for more musical peak limiting with potential for more loudness and a great palette of sounds.

Waves Q-Clone – The EQ cloning plug-in which allows you to clone any analog hardware EQ device and use its EQ curves on unlimited tracks of your digital recording session.

Over the years Waves has sold individual plug-ins and bundles that eventually became part of a different bundle and their original retail was discontinued. However upgrade paths to newer versions were maintained and no product was abandoned without a path to the newer version. Products like TDM bundle, TDM2, NPP2, Renaissance Collection 2, C4, L2 and any other version 3 product you may have is upgradeable to version 5.

All of these products are available at version 5.2 for all the listed supported host applications. All products work for a 14 days demo period at the first time they are installed on a computer.

Read the next chapter for an overview of the different products and their installation instructions.

4. Installation

To Install any Waves Digital Audio Processors –

The Waves V5.2 DVD Includes Installers for all listed products. When Inserting the Disk into your DVD-Rom drive it will display a set of product installation options as well as buttons to launch multimedia tutorials and this guide. You may select between installing everything to installing just a specific bundle according to your needs.

The options are as follows:

Install Waves Diamond Bundle

Select this to install all products listed Including the Waves Platinum Package, Waves Restoration and Waves Transform. Also, use this installer to install the Waves Broadcast and Production Bundle.

You will have 14 days to demo the ones installed for the first time. If you are updating from a previous 4.x version then your authorizations will not be valid for version 5.2 and the 14 days demo should work.

Install Waves Platinum Bundle

Select this installer to install the following products:

Waves Gold Bundle, Renaissance Maxx and Waves Masters Bundle.

Install Waves Gold Processors

Select this installer to install the following products:

Waves Gold Bundle, Waves TDM bundle 1+2, Native Power Pack Bundle 1+2, Renaissance Collection 1, Waves ProFX.

Install Waves Renaissance Maxx

This will install the Waves Renaissance Collection on your computer.

Install Waves Restoration

This will install the Waves Restoration bundle on your computer.

Install Waves Masters Bundle

This will install Waves Masters Bundle on your computer.

Install Waves 360° Surround Tools

This will install Waves 360° Surround Tools Bundle on your computer.

Install Waves Transform Bundle

This will install the Waves Transform Bundle on your computer.

Install Waves Musicians Bundle

This will install the Waves Musicians bundle on your computer.

Install Waves Musicians Bundle 2

This will install the Waves Musicians bundle 2 on your computer.

Install Waves IRx

This will install The IR-Series Parametric Convolution Reverbs and the basic Impulse Response set.

Install Waves L3

This will install the Waves L3 Ultramaximizer and Multimaximizer on your computer.

Install Waves Q-Clone

This will install the Waves Q-Clone on your computer.

AFTER INSTALLATION

Installing any of the Waves installers will result in the installer creating a Waves folder where requested in the installation process. The Waves folder includes a WaveShells folder, Authorizers folder (Mac), Plug-Ins folder, the Version 5.2 Readme file and this document in electronic pdf format.

The installer will attempt to locate Host application plug-ins folders and install the appropriate WaveShell in it. If you install a host application after Waves is already installed or in some other cases you may need to manually copy a certain WaveShell from the WaveShells folder within the Waves folder to the host application's plug-ins folder.

To be sure, it is recommended to check that the WaveShell - 5.0 is indeed installed in the plug-ins folder of your host application.

Mac

When you run the host application for the first time the WaveShell will prompt you to locate the Waves Plug-Ins folder.

Navigate to the Waves Plug-Ins folder and click Select.

The WaveShell will now scan for its plug-ins and you may see a circling "W" which we call the "Wavelue".

5. Demonstration

For demonstration of Waves Digital Audio Processors version 5.2 you need to install the product of your choice and run it as if it were the real thing. The version 5.2 products will operate in demo for 14 days. The demo is fully featured and only the plug-in about box will pop up on every first launch. After 14 days the demo will expire and you will have to authorize the products to continue using them on that computer.

When the demo expires for some or all of the installed plug-ins you can move them to an Unused Plug-Ins folder or delete them from your computer. Otherwise they will continue to prompt you that the demo expired every time you launch your host application. To eliminate any Waves plug-ins from loading with your host, remove the WaveShell from the host application's Plug-Ins directory.

Important demo note!

All of the Waves Digital Audio Processors version 5.0 share a common demo period, for this reason if you want to demo the Native Power Pack only you will be using up your demo for all other version 5 plug-ins.

Authorizing any amount of version 5 product will extinguish the demo for all the rest of the plug-ins. For these reasons we recommend to use the 14 days demonstrations before authorizing any version 5 product.

Plug-Ins in demo period will display the plug-ins' "about" screen when instantiated.

6. Registration

In order to be able to authorize your Waves product, you will have to register your product with Waves by using the Waves Online Registration and Authorization application.

This service is waiting for you at – <http://register.waves.com>.

You can also select “Users / My Account” from the top menu at the Waves Homepage at - <http://www.waves.com>.

To perform the registration you will have to have your product serial number at hand. You can find the serial number inside the product package in a sealed envelope, or on the online invoice.

The serial number is in the following format: 12345ABCD1234

Be sure you receive your product serial number when you purchase any Waves product. In the process of registration you will be requested to enter some personal information and this product serial number will register you to your purchased product. This will enable you to authorize your product, receive upgrade deals to your registered products and be eligible to receive technical support.

If you are registering your first Waves product, you will need to select the choice for New Customer – Create a New Account. If you already have an account you may simply log into the system with your username and password, this will get you to your Account management page where you can select “Register Products” to register additional products using the Serial number that you received with your purchase.

Whenever a new account is created an email notice with the important account details will be sent to the email specified in the registration information.

You have to activate your new account within 24 hours.

The Waves Online Registration and Authorization application is live 24/7 except when it temporarily goes down for maintenance. It is full of helpful information to get you through the process successfully. If you have no convenient access to the Internet, you can fill a form and send or FAX it to Waves for manual registration. This however is not a 24/7 service but our staff will handle these quickly within office hours with commitment to serve you within 2 business days.

Once you have successfully registered your copy, you can continue to authorize your software to run on the computer of your choice. You can perform authorizations from any Internet connected computer but remember to collect you product “Challenge” only from the computer on which you wish to install the authorization of your copy.

7. Authorization

Authorization can be carried out only after you registered your product with Waves and collected the product “Challenge” from the computer on which you want to install the Waves Digital Audio Processors authorizations. In the Waves folder you will find an Authorizers folder with the following authorizers –

MAC OS-X

- **Waves Authorizer 5.0** is used for generating a software authorization for Waves V5 processors.
- **Waves iLok Authorizer 5.0** is used for generating an iLok Hardware key authorization for Waves V5 processors.

Windows

- **Authorizer** is used for generating either Hard Drive or iLok authorization for All Waves V5 Processors.

If you have registered, you will have a user name and password with which you can log in to your account page where you will find all of your registered products listed. If you have not yet performed authorization for the product you will see that its status shows as registered. Then at the bottom of the Manage My Account page you will see options to Authorize Disk or Authorize iLok. Select the appropriate option.

Important Authorization Note!

It is important to know that the challenge you are issuing is the correct one for the product that you are trying to authorize. The only way to receive your challenge is by launching the Waves Authorizer program which will provide you your challenge. The Authorizers are installed in the Authorizers folder in your Waves folder.

In the event that your software authorizations are lost due to Hard Disk change or failure, or for any reason, you can Request Reauthorization from your account page, but in many cases using the same response originally generated should work unless the actual authorized computer mainboard or hard drive was changed. Requesting reauthorization and a log of issued responses can be found in your account page.

8. Sample Rate Support.

Waves V5.0 Sample Rate support chart

Waves Digital Audio Processors All Support 44.1 and 48kHz Sample Rates. Many support also higher rates as 96kHz or 192kHz now being used more and more. In some hosts plug-ins may be listed even if the session sample rate is higher then what they can handle. Use this chart to know what to expect.

| Processor | Up to 96K in TDM HD | Up to 192K in TDM HD | Up to 96K in Native | Up to 192K in Native |
|----------------------------|-----------------------------------|-------------------------|------------------------|-------------------------|
| Transform Bundle | | | | |
| Sound Shifter | - | - | + | - |
| Doubler | + | - | + | + |
| | Only 2vox Mono and M/S | | | |
| Morphoder | + (Accel only) | - | + | - |
| Trans-X | Trans-X Wide + Trans-X Multi - | + Trans-X Wide | + | + |
| Waves Gold Bundle | | | | |
| AudioTrack | + | + | + | + |
| MaxxBass | + | + | + | + |
| C4 | + (Accel only) | - | + | + |
| PS22 | + | + | - | - |
| IDR | + | + | + | + |
| L1 | + | + | + | + |
| C1 comp, C1 gate | + | + | + | + |
| C1 comp-gate C1 comp-sc | + | + | - | - |
| S1 | + | + | + | + |
| Q10 | + | + | + | + |
| TrueVerb | + | - | + | - |
| PAZ | + | + | + | + |
| DeEsser | + | + | + | + |
| MetaFlanger | + | + | + | + |
| MondoMod | + | + | + | + |
| SuperTap | + (Accel only) | - | + | + |
| Enigma | + | + | + | + |
| Doppler | - | - | - | - |
| UltraPitch | - | - | - | - |
| DLA | + | + | - | - |
| Renaissance Maxx | | | | |
| Renaissance Channel | + | - | + | + |

| | | | | |
|---|-----------------------------------|----------------------------|---|---|
| Renaissance Compressor | + | + | + | + |
| Renaissance Equalizer | + | + | + | + |
| Renaissance Reverberator | + | - | + | - |
| Renaissance VOX | + | + | + | + |
| Renaissance Bass | + | + | + | + |
| Renaissance DeEsser | + | +(Mono) | + | + |
| Waves Masters | | | | |
| L2 Ultramaximizer | + | + | + | + |
| Linear Phase Equalizer | +(BB - mono only (Accel only)) | - | + | - |
| Linear Phase Multiband | +(Accel only) | - | + | - |
| Waves Restoration Bundle | | | | |
| X-Noise | +(Mono) | - | + | - |
| X-Click | - | - | - | - |
| X-Crackle | - | - | - | - |
| X-Hum | + | - | + | - |
| Waves 360° Surroun Tools | | | | |
| S360° Panner | + | + | + | + |
| S360° Imager | +(except 5.1 to 5.1) | +(only mono to 5.0 or 5.1) | + | + |
| M360° Manager | + | + | + | + |
| M360° Mixdown | + | + | + | + |
| L360° Limiter | + | - | + | + |
| C360° Compressor | + | - | + | + |
| R360° Compact | + | - | + | - |
| IDR360° | + | - | + | + |
| LFE360° | + | + | + | + |
| Waves Musicians Bundle | | | | |
| Renaissance Axx | +(Demo only) | +(Demo only) | + | + |
| Waves IR-1 Parametric Convolution Reverb | | | | |
| IR-1 | + | | + | |

9. Known Issues

MAC OS-X

GENERAL

- PAZ does not measure quite all the way down to -80dB, so depending on sample-rate the meters (and graph) may not go all the way down. In 44kHz the range is down to about -79dB and in 96kHz down to about -60dB.
- Paz navigate arrows do not get colored when navigating from the key board.
- RenBass and MaxxBass peak-meters do not really measure down to -30dB for low bass, so depending on sample-rate and on the input signal, the meters may not go all the way down.
- In plug-ins containing EQ filters ranging to cutoffs 100Hz and lower (Bass enhancement plug-ins, all equalizers except LinEQ and LinMB), the noise floor of the filters is generally higher by about 6dB in 96kHz than in 48kHz.
- In L2, the 'Ultra' noise shaping with IDR type2 may produce tonal artifacts in the absence of input signal.
- Due to limited resolution of the peak-meters in many plug-ins (PAZ, L1, REQ, RCL and more), the peak-holds will not show input signal if the input is too low (such as -130dB).
- Doppler in loop mode may click when it reaches the end of the cycle and starts again. When processing in AudioSuite Doppler will mute the first 6 samples.
- UltraPitch - when loading settings saved in version 3.2 the pitch and top frequency parameters will get wrong values.
- SuperTap – when loading settings saved with 3.2 Grid mode and Tempo mode will not load correctly, this effects view, not sound.
- Qn text in the plug in GUI- Q1,2,3 Labeled Q4 etc.
- C1 SC and C/G Monitor toggle from the keyboard doesn't work.
- DeEsser tab map will stop at threshold.
- S1 Imager-must enter minus before value to In Gain parameter.
- PS-22 L/R and M/S fields should not accept values from the keyboard (they do). So is SuperTap Grid field.
- Wavshells -Mouse Disappears momentarily when entering values from keyboard.
- The Waves Save/Load system does not support non English fonts.
- MondoMod V5 will not keep backward compatibility for x-factor automation

DAE

- When plug-in parameters are armed for automation the focus is stolen from pro-tools and keyboard events will not reach the host unless you click Return
- Waves no output or no voice assigned in Pro tools (REQ S1 or Rverb and L2 ETC) will produce DC.
- MaxxBass and Rbass TDM - Master bypass is not 24 bit clean.
- Pro Tools Compare button does not work with Waves.
- Pro Tools Command key modifier will not do fine tuning.
- Paz Cursor will not show up in Pro Tools unless you click the Alt Key.
- The plug-ins' 'About' box does not pop-up automatically while in demo period, to avoid a possible crash when a control surface is connected.
- R360° - Due to a bug fix in the "In LFE" control (mute at 0dB), the sound of old sessions may change if the control's value was 0dB.
- The keyboard shortcuts Cut <X>, Copy<C>, Paste<V> and Undo <Z> are no longer functional within Waves plug-ins.
- **HTDM** - CPU overload by HTDM plugins can cause loud noise and distortion.

TDM

- RVerb TDM (DSP) may produce a never-ending tail when the input sound stops, if the reverb time is longer than 2 seconds and on certain inputs. The tail would then stop fading at a floor of -116.9dB.
- DLA plug-in displays the delay shorter by a few samples than should be, due to the extra delay occurring in the DAE I/O. At the moment of writing this text the extra delay is 3 samples (independent of sample-rate), which you should add to the numbers displayed by DLA.
- SuperTap 6 seconds is not compatible with Digidesign HD systems. Sessions saved on MIX hardware with this setting will not load the 6 seconds component.
- Waves is not Varispeed or VSO Variable speed override certified. When using varispeed with Waves plug-ins DSP crashes may occur.

AudioSuite

- Plug Ins will open in mono mode by default. For stereo processing select stereo mode manually.
- When performing an AudioSuite process with a Waves plug-in and hot switching to a non-Waves plug-in there will be an error reporting – "This plugin only processes 47 channels.." Close and reopen the plug-in and all is well.
- Waves Plug-Ins will not allow using overwrite mode.
- Audiosuite plug-ins with side chain don't work if side chain is set to NONE. The workaround is to set the side chain to an audio channel.

Digidesign Control Surface support.

- All control surfaces will update the plug-in in real time but not be updated when moving the plug-in parameters with the mouse on screen. The control Surface value will update only when you make the next change on that parameter on the control surface.
- Changing parameter will not initiate the save on control surface (related to the above).
- All control surfaces will highlight the plug-in's GUI parameters on it's current page but when you go on to the next page the previous page will not be de-highlighted.
- Some Radio button or toggle controls don't work well with control surface and will require your assistance with the mouse.

VST

- VST Automation is not 100% reliable with switches. It does not remember the parameter state, just when it was switched. For example writing automation for an On/Off switch that started "Off" and finished "On" will work in reverse next time unless you manually set it Off again. The timing is also not quite accurate.
- VST Mono to Stereo plug-ins are no longer supported and will not appear in the Waves plug-ins list. Either Mono or Stereo VST plug-ins can be used according to the track's number of channels.

Audio Units

- Waves Mono Audio Units plug-ins do not work in Bias – PEAK 4.11 (VST mono plug-ins work well and can be used instead). This should be resolved in a future release of Peak.
- Tempo Sync in Audio Units - Tempo change will take effect in the plug-in only if the **audio channel has an audio file and the plug-in receives buffers to process** (i.e. you must be in 'play' mode rather than stop).
- Under Logic Audio, Morphoder instrument mono component does not pass sound.
- Under Logic Audio, Morphoder appears twice in the inserts menu due to the newly added MIDI support – both function identically (to use the MIDI functionality Morphoder needs to be opened through the instruments menu).

MAS

- Some plug-ins saved in a project with Waves version 3.2 extend a Disk Error message while loading and fail to load – LinEQ, LinMB, L2, REQ, Rverb, RdeEsser, RCL, C1.
- X-Noise is not properly functional under MAS process. Use it in Track inserts etc.
- Leaving the plug-in “About” screen or keeping the mouse down on a plug-in parameter will eventually mute the sound in all tracks.

SPECIAL NOTES ON SOUNDShIFTER

- Waves SoundShifter is a Heavyweight champion and requires quite a lot of CPU for its process. This may well mean that proper real-time preview at 96kHz is impossible, however the offline process should still be fine as our testing has shown. We recommend to preview by processing short portions and then run on the whole selection.
- At 44.1 and 48kHz RealTime playback and preview is usually fine. We recommend to set your CPU usage to 85% (In the ProTools Playback Engine setup) and buffers to the highest 2048 for the real time. The AudioSuite Buffers should be set to Jumbo for smoothest Real-Time Preview, however this will make the controls feel sluggish. As the preference is global you may want to turn it back to smaller buffers for better control of lighter processors.
- SoundShifter Parametric (P) and Graphic (G) are not compatible with Audio Units and MAS.

WINDOWS

- While demo-ing the Plug-ins in Wavelab, Our Splash screen will pop up behind the plug-ins and not on top of the plug-in.
- In some cases under Cubase SX attempting to load Waves VST will result in Cubase issuing an error message. Re-launching Cubase usually solves this issue.
- DX metering and ProTools AudioSuite preview metering will not be sample accurate.
- When using DX Automation in SONAR, we suggest working with the largest possible buffer size.
- VST Mono to Stereo plug-ins are no longer supported and will not appear in the Waves plug-ins list. Either Mono or Stereo VST plug-ins can be used according to the track's number of channels.
- DirectX mono to stereo plugins are supported only under Soundforge offline processing (not on the online plugin chainer).
- Tempo Sync in Direct-X - Tempo change will take effect in the plug-in only if the **audio channel has an audio file and the plug-in receives buffers to process** (i.e. you must be in 'play' mode rather than stop).
- Tempo Sync is supported on ProTool 6.4.
- Tempo sync will not work under Sonar unless:
 1. In the Sonar "Options | Audio..." dialog, a Playback Timing Master MUST be assigned. If this is set to "--- None ---" tempo sync will not work.
 2. If you patch an effect on a track, you must assign an output or sync will stop responding (Sonar does this for efficiency).
 3. If you patch an effect on a bus, it must have both an input and an output assigned or sync will stop (also for efficiency).
- In WaveLab 4.0 there is no backward compatibility support for Audio Montage sessions with Waves plug-ins. This should be fixed in a future release of WaveLab.
- M360° Surround Manager does not have the "Send Angles" functionality due to a current limitation.
- MondoMod V5 will not keep backward compatibility for x-factor automation
- HD Accel hardware cannot be used running Waves V5 and V4 simultaneously since only V5 supports HD Accel on PC.
- In demo mode under ProTools, the plugin's about box can sometimes be 'stuck' on the taskbar, causing ProTools not to respond. Right click and close it via the taskbar to overcome this.

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- Soundshifter offline components do not accept manual text editing on most fields under Cubase SX and Nuendo.

Netshell Known Issues – V5.2

GENERAL

- Two (or more) host computers with the Netshell software installed cannot share APA(s) on the same network. Each host computer must have a dedicated network environment (either physical or through V-LAN) with the APA(s).
- If the DAW or host computer crash, it is recommended to restart the host computer as well as the APA(s). Otherwise, the Netshell Monitor may not display correct information, and Netshell will not function properly.
- Occasionally you will be able to add more plug-ins than the APA can handle. In such cases, remove the additional plug-ins until the monitor will show no dropouts.
- Netshell HTDM plug-ins are supported at a Netshell latency of 512 samples and above (256 will cause audio drop-outs).

MAC OS-X

General:

- The Digidesign Mbox hardware is not supported.
- In OS-X 10.4 (Tiger) opening the monitor will show a red error message “Last Error: UDP initialization error”. At this point the monitor will not show anything (even if the APA’s were already loaded) until you close and reopen it without this message.
- You may run into problems with Bonjour (formerly known as Rendezvous) networking protocol. To fix this, please restart all systems on your network, then turn off Bonjour and re-start it. For instance, if you are using Bonjour in iTunes, turn off “share my music” under iTunes→ Preferences→ Sharing and then turn it back on.

Logic Pro:

- Following a Netshell installation, you must switch the APA on and wait for it to appear on the Monitor window before the first launch of Logic-Pro. When Logic-Pro launches after the Netshell installation, it will scan for the Netshell plug-ins. If the APA is off, it will ignore them and not display them on the list. When you re-launch Logic-Pro, it will not display the Netshell plug-ins (even if the APA is on) until you initiate another scan of the plug-ins using the AU manager.

- Netshell plug-ins are supported at a Netshell latency of 2048 samples or above. Lower values will cause audio drop-outs.
- Using the Freeze function on a track with Netshell plug-ins will not free up the Netshell plug-ins' load from the APA.
- Pressing Play will cause the Audio Drop-Outs LED in the Netshell monitor to illuminate once. This is only happening when pressing Play and does not indicate a true drop-out. Click on the LED to reset it.

MOTU Digital Performer:

- Switching between Sequences does not free up the Netshell plug-ins' load from the APA.

VST:

- Netshell plug-ins may produce audio delays and gaps during offline processing. Bounce and Freeze functions are functional and supported.
- VST applications such as Cubase SX and Nuendo may need to be launched twice after installing Netshell to scan both VST Shells (5.0 and 5.2).
- When loading a VST session, you will see your APA loading then unloading plug-ins several times. Please be patient.
- When Freezing a track in Nuendo/Cubase, the Freeze window will stay "frozen" until all Netshell plug-ins are off of the APA.

PRO TOOLS:

- Sometimes Pro Tools will not compensate for plug-in latency since the maximum delay compensation in PT TDM (at 44.1k) is 4096 samples.
- There is no delay compensation in Pro Tools LE.
- Netshell is currently supported at a host hardware buffer size of up to 1024 samples. Higher values may cause audio drop-outs.
- When working with HTDM net components make sure to set Pro Tools buffer size to 512 samples. Any other buffer size may cause noise when using both HTDM and RTAS net components.

WINDOWS

- Unplugging the Ethernet cable from the host computer will temporarily reset the Ethernet adapter's Netshell IP address, disabling Netshell functionality. Disable and enable the network connection or restart your computer to restore the Netshell IP address.
- After the Netshell installation, Windows XP may load a bit slower than usual.
- Local Area Connection Status indicator may show a "limited or no connectivity" message in Windows XP with SP2. This does not affect Netshell functionality. Uncheck the "show errors..." option in the connection properties window to remove this message.
- The APA should be switched on only after the host computer has finished booting. Otherwise, the Netshell will not function.
- In rare cases, with certain Ethernet adapters, the Netshell IP configuration may be lost after a host computer restart. If this happens, re-install the Netshell.
- Upon first launch of a Netshell plug-in, Windows XP firewall (when enabled) will display a pop-up message prompting you to block or unblock a DAW application using Netshell. Choose "unblock" to allow working with the Netshell.
- Some Realtek gigabit Ethernet adapters are not supported with the Netshell at gigabit link speed. They can be limited to 100Mbps mode in order to work with the Netshell

VST FOR WINDOWS:

- Automation is not supported in VST with Netshell plug-ins. While the automation parameters are available in the automation menu, the Netshell plug-ins will not respond to automation.
- Changing Netshell latency does not update the plug-ins delay table in the VST plug-in information window. This does not affect actual Netshell plug-in functionality or delay report. Only the plug-in information table is not refreshed.
- When loading a VST session, you will see your APA loading then unloading plug-ins several times. Please be patient.
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