



DrMS manual

This manual will help you to learn about all the features and functionality of the DrMS spatial processor plugin. It contains the following subjects:

- Installation
- Buying and Authorization
- Features overview
- The DrMS IN button
- The utility sections
- The processing sections
- The processing tools
- Presets
- DAW application specific notes
- Support
- Version history

Installation

To install DrMS v3, simply download and run the installer for your platform:

[DrMS v3.2 installer for OSX](#)

[DrMS v3.2 installer for Windows](#)

On OSX, everything will be installed automatically in the correct folders.

On Windows, you will be asked for your VST plugins folder (*vstplugins*). The installer will recommend to use the standard folder *C:\Program Files\Steinberg\vstplugins* but this can be changed if required. If you're unsure, leave the standard folder.

The RTAS version is automatically installed in its correct folder.

During installation of the InterLok Driver, Windows might alert that the driver package is not signed. Just press OK, this is not an issue at all.

Even if you don't use all of the supported plugin formats, it's no harm that they are all installed on your computer. They will be ready for use at once whenever you start using a DAW that uses the additional plugin format(s).

Buying and Authorization

Without authorization, DrMS v3 will run for a 14-day trial period. Download DrMS [here](#).

To continue using DrMS v3 afterwards, DrMS v3 must be authorized.

You can authorize DrMS v3 either by having an iLok smart key (containing a DrMS license) connected, or by entering a valid Response code to your Challenge code.

The advantage of the iLok smart key is that you can easily move it from one computer to another, while Challenge/Response authorization is locked to one computer. The advantage of Challenge/Response is that there's no hardware USB dongle required.

To buy and authorize DrMS v3 using an iLok smart key:

- [Buy a DrMS license](#) and enter your iLok User ID during the purchasing process.
- When your purchase has been processed, your DrMS iLok license will be posted into your iLok User Account. You will be notified by email of this.
- Log into your User Account at www.ilok.com to download your DrMS license to your iLok smart key.
- Whenever your iLok containing the DrMS license is connected to your computer, DrMS v3 will be authorized to run.

To buy and authorize DrMS v3 using Challenge/Response:

- When you run DrMS v3, the trial window will come up. Click *Authorize* there, uncheck *"Use my iLok smart key"* in the following page, press *Next* and then copy your Challenge code.
- [Buy a DrMS license](#) and paste your Challenge code during the purchasing process.
- When your purchase has been processed, your Response code will be emailed to you.
- Next time you run DrMS v3, the trial window will come up. Click *Authorize* there, uncheck *"Use my iLok smart key"* in the following page, press *Next* and then enter your Response code.
- DrMS v3 is now authorized to run on your computer.

Features overview

DrMS presents a new way to approach the manipulation of stereo audio. It is based on MS (Mid-Side) processing, although DrMS splits the stereo signal into four sections rather than the normal two, giving you new levels of control: Zoom in, add Depth, change Width or any combination and more.

DrMS has a wide range of applications for mixing, mastering and post production, going from simple MS encoding/decoding, over stereo field and depth enhancement, to fixing mono compatibility issues and more.

At first sight, DrMS can be a bit overwhelming because of the many possibilities. However, the hardware-like interface and clear organisation per section will help you become comfortable with DrMS very fast.

There are 4 main processing sections:

- MID
- SIDE
- FOCUS
- FIELD

Each featuring a similar set of 3 processing tools:

- a High Pass Filter (HPF)
- a Low Pass Filter (LPF)
- a Delay

Besides those, there are 4 utility sections:

- INPUT
- OUTPUT
- OPTION
- FEEDBACK

Finally there's the DrMS *IN* button next to the DrMS *logo*, outside any of the sections.

The level and combination of the different sections, and the used processing tools in them, will result in various changes of the stereo field.

The following overview of each section & tool will guide you through DrMS's functionality.

The DrMS *IN* button

The DrMS *IN* button next to the DrMS *logo*, outside any of the sections, allows you to activate or bypass DrMS as a whole, except for the INPUT *Gain*, which always remains active to allow easy level-matched A/B comparison of processed and unprocessed signal.

DrMS is active when the DrMS *IN* button is lighted up.

Shift-clicking the DrMS *logo* next to the DrMS *IN* button will turn DrMS in *Low Latency* (322 samples) mode and is shown by a blue DrMS *IN* button. *Shift-clicking* the DrMS *logo* again will return DrMS to *High Latency* (1090 samples) mode, indicated by the standard green DrMS *IN* button.

For most uses, using the standard High Latency mode is recommended, as it will offer the highest quality when using any HPF or LPF in DrMS. Low Latency mode can be useful however to save CPU on older systems, or to lower DrMS's latency when it is running in series with other high latency plugins inside ProTools HD and combined are exceeding ProTools HD's 4096 samples latency compensation limit.



The utility sections

INPUT

The INPUT section features a *Gain* control and a *Format* selector. The green LED shows signal presence on input, the red LED indicates clipping.

The INPUT *Gain* allows to adjust the volume of the incoming signal if needed, for example to avoid digital overs later on in the processing. This control is always active, even when DrMS is bypassed using the DrMS *IN* button, to allow level-matched A/B comparison. Use *Alt-click* to set the *Gain* to 0.0dB.

The INPUT *Format* switch selects the stereo format DrMS expects to receive at its inputs. Since DrMS internally works in MS mode, the switch will decide if an MS-encoder is active (in case of *LR* input) or not (in case of *MS* input).



OUTPUT

The OUTPUT section features a *Gain* control and a *Format* selector. The green LED shows signal presence on output, the red LED indicates clipping.

The OUTPUT *Gain* allows to adjust the volume of the outgoing signal if needed, for level matching when AUTOGAIN (see further) isn't being used. This control will be bypassed when DrMS is bypassed using the DrMS *IN* button, to allow level-matched A/B comparison. Use *Alt-click* to set the *Gain* to 0.0dB.

The OUTPUT *Format* switch selects the stereo format DrMS will output. Since DrMS internally works in MS mode, the switch will decide if an MS-decoder is active (in case of *LR* output) or not (in case of *MS* output).



OPTION

The OPTION section sets AUTOGAIN settings and CtrSOLO (CenterSOLO) behavior.

AUTOGAIN can be activated with its *IN* button, standard is it on.

AUTOGAIN will automatically adjust the output gain of DrMS to ensure the processed signal is level-matched as good as possible to the original unprocessed signal. This makes A/B comparison a breeze as changing certain parameters won't result in a volume jump that can happen without using AUTOGAIN.

AUTOGAIN is only being updated whenever actual DrMS parameters are adjusted, it stays constant when you're done.

The 2nd AUTOGAIN control is there to *lock* the current gain value. In normal mode, this AUTOGAIN *Lock* switch is in *unlocked* mode, meaning the AUTOGAIN circuit will continue to update its value whenever you adjust a DrMS parameter.

When the AUTOGAIN *Lock* is in *locked* position, the AUTOGAIN output gain value will not be updated anymore, but will be kept at the value it had on the moment of switching *locked* mode in. This way you can easily keep the then set AUTOGAIN gainsetting and continue tweaking from there without the gain level being further adjusted.

Note: while it is technically possible, it's strongly recommended NOT to automate the AUTOGAIN value parameter (AGNval) in any case, as this can result in unexpected gain behaviour and has no useful applications.

When the CtrSOLO *IN* button is active, the signal of the soloed main processing section(s) will be presented as a monophonic stereo-centered signal (CenterSOLO). For the MID and FIELD sections this will make no difference. For SIDE and FOCUS, the otherwise stereospreaded signal will now be heard as a mono signal. This can be an aid in setting the processing tool parameters of a soloed processor section.



FEEDBACK

When the FEEDBACK *IN* button is active, audio will be fed back from FOCUS into FIELD and vice versa at the chosen *FEEDBACK %*. This section is useful to create additional space and reverb-like effects.

Note that using this section only makes sense when both FOCUS and FIELD are active.

Watch out for your speakers as too high values can result in a loud feedback loop! Higher FEEDBACK % (goes up to 200%) can be appropriate when volume settings in FOCUS and FIELD are conservative.



The processing sections

DrMS has 4 processing sections. Each of the sections has a different purpose in the stereo field, but all share a similar set of processing tools on blue rotaries. We'll first give an overview of the processing sections, after which the common processing tools will be discussed.

The 4 processing sections of DrMS are:

- MID
- SIDE
- FOCUS
- FIELD

An incoming signal is split up into these 4 individual signals that can be processed differently and then are recombined at the output into a stereo stream. Each of the 4 sections has its own function in the resulting stereo signal, with the section level and the used processing defining the impact.

Each of the processing sections has similar master controls:

- a *SOLO* button (use *Shift-click* to solo more then one section at once)
- a phase (\emptyset) switch
- a green 'level' rotary (use *Shift-drag* to finetune, and *Alt-click* for 100% value)
- a main *IN* button under the green rotary

We'll now give an overview of what each section exactly is, and what you can do with it:

(see next page)

MID

- The MID section contains the sum of Left and Right of a stereo signal. This is the center-information of the stereo signal.
- The MID's *IN* button under the *LEVEL* rotary serves as a bypass button for the whole section. When it is off, no processing will happen in this section, and the section level will be 100%. When you switch it in, the *LEVEL* control and all the switched in processing tools become active.
- The *LEVEL* control allows you to lower the volume of the MID signal if needed. In general, you don't need this often as the MID signal is the core of your audio, but it can be helpful if you're after a particular effect.
- The MID's different processing tools can be activated with their *IN* buttons.

SIDE

- The SIDE section contains the difference of Left and Right of a stereo signal. This is the true stereo information of the stereo signal.
- The SIDE's *IN* button under the *WIDTH* rotary serves as a bypass button for the whole section. When it is off, no processing will happen in this section, and the section level will be 100%. When you switch it in, the *WIDTH* control and all the switched in processing tools become active.
- The level of the SIDE section will influence the signal's width, therefore the level rotary is called *WIDTH* in this section. Turning it above 100% will widen the stereo-image, turning it lower will narrow the stereo-image.
- The SIDE's different processing tools can be activated with their *IN* buttons.

FOCUS

- The FOCUS section feeds original unprocessed mid-information to the side-signal of the final stereo output.
- The FOCUS's *IN* button under the *ZOOM* rotary serves as a bypass button for the whole section. When it is off, no processing will happen in this section, and the section level will be 0%. When you switch it in, the *ZOOM* control and all the switched in processing tools become active.
- Raising the level of the FOCUS section will give the impression of zooming in, therefore the level rotary is called *ZOOM* in this section. It allows you to zoom in on the mid-information by making it louder and more stereo.
- The FOCUS's different processing tools can be activated with their *IN* buttons.

FIELD

- The FIELD section feeds original unprocessed side-information to the mid-signal of the final stereo output.
- The FIELD's *IN* button under the *DEPTH* rotary serves as a bypass button for the whole section. When it is off, no processing will happen in this section, and the section level will be 0%. When you switch it in, the *DEPTH* control and all the switched in processing tools become active.
- Raising the level of the FIELD section will give the impression of adding depth, therefore the level rotary is called *DEPTH* in this section. It allows you to make the stereo field deeper and more 3D. You can also use this section effectively to save stereo-information that otherwise would get lost on mono-summation, making a certain stereosignal more mono-compatible.
- The FIELD's different processing tools can be activated with their *IN* buttons.



The processing tools

Each of the processor sections mentioned above has 3 processing tools:

- a High Pass Filter (HPF)
- a Low Pass Filter (LPF)
- a Delay

HPF

- The HPF can be activated with its *IN* button. It will pass the higher frequencies and will filter out the lower frequencies gradually.
- You can switch the HPF from a non-resonant *6dB/octave* slope to a steeper resonant *12dB/octave* filter.
- There are 2 rotary controls:
 - *Frequency* to set the filter cutoff frequency
 - *Resonance* to amplify the audio around the cutoff frequency, with 0.7 being no resonance and 3 maximum resonance.
Note that the Resonance parameter only is active when the filter is set to 12db/octave slope.

The HPF often is good to use on SIDE and FOCUS if you want to keep the low frequencies tight. and mono centered.

LPF

- The LPF can be activated with its *IN* button. It will pass the lower frequencies and will filter out the higher frequencies gradually.
- You can switch the LPF from a non-resonant *6dB/octave* slope to a steeper resonant *12dB/octave* filter.
- There are 2 rotary controls:
 - *Frequency* to set the filter cutoff frequency
 - *Resonance* to amplify the audio around the cutoff frequency, with 0.7 being no resonance and 3 maximum resonance.
Note that the Resonance parameter only is active when the filter is set to 12db/octave slope.

The LPF often is useful to avoid a too large high frequency build up in the combination of the different sections

Delay

The Delay can be activated with its *IN* button. It will shift a full processing section by a certain value. It gives a section a set latency rather than acting as a typical delay(echo) effect. The one rotary for the Delay controls the Delay *time* from 0,00 to 30,0 milliseconds.

The Delay is often interesting to use on the FOCUS and/or FIELD section to create additional depth and space.



Presets

As you will notice during use, the true power of DrMS lies in the combination of the different processing sections and their processing tools. It's best to get accustomed to all the different parameters by experimenting a lot on different material and by checking out the presets that were made by Dylan '3D' Dresdow (Black Eyed Peas, Michael Jackson, Usher) and Emre Ramazanoglu (Shakira, Alexander McQueen, Lou Rhodes).

Presets

- 00 INIT: a neutral setting to start from
- 01 BEP Fizz Synth: a synth preset used in a song of a popular band
- 02 Hi Strings Stretch: nice to open up and widen strings/pads/...
- 03 hUsher Synth: a synth preset used in a song of a popular artist
- 04 Juno Synth Width: for that very wide and full sound
- 05 Beat This!: run loops through this
- 06 Solar Space: very big out-of-this-world space
- 07 Vocal Focal: focus on the vocal
- 08 Vocalokeeish Stereo: get rid of lead vocal, for stereo playback only
- 09 Vocalokeeish Mono: get rid of lead vocal, for mono playback
- 10 AnaMix: put this on your mixbus in your DAW and mix into it
- 11 Gentle Mix Widen: does what it says
- 12 Honey In The Middle: does something nice in the middle of the stereo field
- 13 Inside Out: flips mid and side around!
- 14 Ring Stinger: ringing effect
- 15 Wide and Airy: another obvious one
- 16 High Freq Enhancer: opens up the top end of your mix
- 17 Aux Bus Small Room: use this on a bus as a short reverb
- 18 Aux Bus Reflective Room: use this on a bus as a more live reverb
- 19 MS Encoder: simple mid side encoder
- 20 MS Decoder: simple mid side decoder
- 21 Mid Split: use this one on the first of a doubled track while using Side Split on the other and apply different processing to both tracks.
- 22 Side Split: the companion to Mid Split
- 23 Mono to Stereo: upmix a mono source to stereo, while staying 100% mono-compatible
- 24 Sides To The Centre: side info heard in the center and sides
- 25 No Loss Mono Fold Down: downmix stereo to mono without losing important side channel information

Some features & presets work better on some audio than others, but you'll find out soon enough that DrMS becomes an indispensable tool in your DAW with a wide range of applications including simple MS encoding/decoding, stereo field and depth enhancement, problem solving and creative processing.

ProTools users on a PowerPC Mac (G4, G5) can [download and install this presets pack](#), as the ProTools presets included with the DrMS OSX installer are only for IntelMac. To install these presets, simply paste them into the following folder after you installed DrMS v3.0:

Macintosh HD/Library/Application Support/Digidesign/Plug-In Settings/DrMS
Choose to overwrite and replace the previously installed presets.

DAW application specific notes

DrMS is a stereo processor. To use it on a mono channel for upmixing to stereo, you can place a mono-to-stereo unity gain/trim plugin in front of DrMS, or insert DrMS as mono-to-stereo plugin with the DrMS *INPUT Format* switched to *MS*.

ProTools

- DrMS can be found in the Soundfield category under multi-channel plug-ins.
- ProTools users on a PowerPC Mac (G4, G5) can [download and install this presets pack](#), as the ProTools presets included with the DrMS OSX installer are only for IntelMac. To install these presets, simply paste them into the following folder after you installed DrMS v3.0:
Macintosh HD/Library/Application Support/Digidesign/Plug-In Settings/DrMS
Choose to overwrite and replace the previously installed presets.
- It is recommended for DrMS, all other RTAS plugins and ProTools itself, to set an odd number of RTAS processors in the Playback Engine settings of ProTools. The location in ProTools is: *Setup menu > Playback Engine... > RTAS Processors:*
- Note that ProTools on Windows will not make its 'Save (Ctrl+S)' command of the File menu available again when the only difference between the last saved session and the active session is just a DrMS parameter change. Any other change (like open or close the DrMS GUI) will make it available again. We're looking into this.

Reaper

- Older Reaper versions will not correctly recall settings when the "Save as bank" option is enabled in the Reaper preferences. Disabling this option will solve this issue. The location in Reaper is: Options menu > Preferences > VST > Save as bank (larger config data, required by some plug-ins).
- Unlike other Windows VST hosts, Reaper on Windows doesn't seem to refresh the DrMS GUI when you load a preset. It does load the correct settings however. You can refresh the GUI yourself by closing and re-opening it, or by switching between GUI and basic controls. We're looking into this.

BIAS Peak

- DrMS VST is compatible with BIAS Peak, the AU version is not supported.

Support

In case you can't find the answer to your problem in this manual and need support, please contact info@mathewlane.com

Version history

v3.2 - 06/09/2010

- OSX and Windows update, fixing compatibility with the latest Cubase and Nuendo 5 versions, as well as with other VST hosts.

v3.1 - 30/03/2010

- OSX update, increasing compatibility with certain hosts. BIAS Peak now runs the DrMS VST version fine.

v3.0 - 17/12/2009

- Native VST/AU/RTAS plugin for OSX & Windows, supports all major DAWs, no Pluggo Runtime required anymore
- New mastering grade filters
- TiltEQ replaced by LPF
- New Feedback circuit for reverb creation and special effects
- Improved GUI with value displays
- Presets by Dylan '3D' Dresdow (Black Eyed Peas, Michael Jackson, Usher) and Emre Ramazanoglu (Shakira, Alexander McQueen, Lou Rhodes)
- Authorization with choice of using iLok or Challenge/Response

v2.0 - 06/03/2009

- Completely new & improved soundengine.
- Enhanced GUI adding shadow to knobs.
- Easy installation with new installer.

v1.1 - 11/11/2008

- Improved response on HPF frequency dials: more precise control of the low frequency area.
- Smart MCU protocol controller support: clear 6-character parameter naming and 8/16-parameter bank organisation with use of informative 'dummy' parameters to complete each bank for easy bank switching and great overview.
- Fixed the bug that caused incorrect recall on HPF resonance dials.

v1.0 - 28/07/2008

- First release