PSP VintageMeter

Operation Manual

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05-500 Józefosław,
Piaseczno,
Poland.

Overview

The **PSP VintageMeter** is a measurement plug-in. It provides professional VU and PPM metering with accurate overload indicators. All parameters like integration times and reference levels are widely adjustable to make this plug-in suitable for any particular application.

Compatibility

PSP VintageMeter is compatible with applications that can host standard VST, DX and MAS plug-ins. The product has been tested in the following applications:

PC
- Cubase
- Nuendo
- Cubasis VST
- WaveLab
- Logic
- PARIS
- n-Track Studio
- Orion
- Fruity loops
- Cool Edit
- Sonar
- Sound Forge

MAC
- Cubase
- Cubasis VST
- Logic
- sonicWORX
- Spark
- Peak
- Digital Performer
- AudioDesk

If your host application is not listed above we strongly recommend that you install and test the demo versions of our plug-ins for compatibility before purchase. We would also appreciate it if you could provide us with information about your configuration so that we can test it ourselves (contact@PSPaudioware.com).

Minimum System Requirements
- Windows 98
- 128 MB RAM
- Pentium II 300 MHz
- High Color S-VGA 1024x768

- Mac OS 8.6
- 128 MB RAM
- G3 300 MHz
- High Color S-VGA 1024x768

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Controls

Front Panel Controls

PSP VintageMeter's front panel has been designed to provide only essential user interface features including displays and VU-PPM switch.

VU Meters

PSP VintageMeter's analog-style meters indicate VU levels. Normally the meter scale ranges from -20 to +3 however this can be switched to a wider mode (-40 to +6). The meters have an adjustable integration time (300ms by default), which gives standard analog VU needle ballistics. By default, the 0VU reading refers to a -14dBFS sine wave, however this can be adjusted. Use the back panel to change the integration time or reference level.
The meters can also be switched to PPM (Pseudo Peak) mode with adjustable attack and release integration times.
The meters contain overload LEDs which, by default, react to three or more overloads. The overload counter can be adjusted on VintageMeter's back panel. After an overload occurs, the LED fades out, however it remains a dark red color. This indicates that an overload has occurred. Click on the LED to reset it.

VU-PPM Switch

The VU-PPM switch enables changing meters' operation characteristics between VU and Pseudo Peak Metering. See Back Panel Controls for details.

Back Panel Controls

Clicking on the VintageMeter's name opens the Back Panel window with its preferences settings which allow you to adjust the behavior of the meters. Almost all setting are stored when the plug-in is closed and they are recovered whenever a new plug-in's instance is opened. The only setting stored with a project is a meter delay time because it may vary from project to another.
To return to the front panel, click on the about box.

[VU Integr, Time]
The VU Integration Time knob sets the ballistics of the meter's VU needles. The default value is 300ms.

[0VU Reference Level]
The 0VU Reference Level knob sets the sine wave reference level. The default value is -14dBFS.

[PPM integration time]
The PPM integration time knob sets the attack ballistics for the PPM meters. The default value is 10ms.

[PPM return time]
The PPM return time knob sets the return ballistics for the PPM meters.

[Meter delay]
The Meter delay knob is used to compensate for output latency. The default value is Auto.

[Overs counter]
The Overload counter knob sets the number of overloaded samples which makes the overload LEDs light. The default value is 3 samples.

Operation

Working with meters

PSP VintageMeters' meters are designed to work similar to real VU and PPM meters and as well as over indicators. To ensure that they can be used as a useful tool in every situation we supplied them with a set of parameters that are aimed to adjust the meters' behavior to every practical situation. To learn more about those adjustable parameters check Controls -> Back Panel section of this manual.

Standard VU meters are specified to work with 300ms integration time - every other integration time setting gives a response that is not compatible with standard VU time response but allows you to adjust it to your particular needs. As the VU meter show a kind of average level, it has to be calibrated to be useful for real applications. In normal situation the VU meter shows -14dB value relative to peak value. That is why mastering and post production engineers decided to use it as reference level for music. Nowadays hot level practice are the cause for average levels to be much closer to peak value - that is why we decided to give a user such a wide reference level adjustment range.

PPM meters are Pseudo Peak Meters. They show the level value very close to digital peak values. Typically they have 10ms attack and about 1000-2000ms release times. In many cases they are more practical then Digital peak meters. You can achieve perfect digital peak metering by setting attack to 0ms.

Back Panel operation

PSP VintageMeter's Back Panel consists of the plug-in information box and preferences parameters.
Preference parameters are not related to the sound processing. They set the way meters behave.

Using preferences parameters

Preferences parameters allows you to adjust the meters' behavior to your needs. These are: VU integration time, 0VU reference level, PPM integration time, PPM return time and overload counter. They are automatically stored in the Windows Registry or in the Preferences folder under MacOS every time this plug-in is closed. Whenever you start a new instance of the plug-in or start a project with PSP VintageMeter used, all preference parameters are recovered from last settings regardless of the project or even the host application that is used.
There is one more preferences parameter: Meters Delay. It is stored within every single project because every project or any host application may require different settings for this parameter.

Questions and Answers

(Q) ***PSP VintageMeter does not appear in my VST application.***

(A) All VST plug-in files have to be installed into the proper 'Vstplugins' folder. On PC computers VST plug-ins contain the 'dll' extension and they are VSTFx files on Macs. Those files have to be installed into the proper disk folder, all other files like documentation, license and the registration application can be held in another folder. If the PSP VintageMeter does not show in your VST compatible application it maybe the case that the PSP_VintageMeter.dll or PSP_VintageMeter VSTFx file is installed into the wrong disk folder.
In most cases the plug-in should be installed into 'Vstplugins', 'VstPlugIns' or 'Plugins' folder under the main folder of the VST compatible host application. See the appropriate application's manual for more details.

(Q) ***Graphics are very slow to refresh.***

(A) PSP VintageMeter uses a big amount of graphics to enable smooth knobs' and meters' movement. This could cause slow refreshing especially during opening of the editor window or switching between front and back panel. This side effect can be especially visible during heavy CPU and memory usage by mixing and/or other plug-ins. To decrease memory usage set your video driver to 16 bit (high color).

(Q) ***What's the difference between VU and PPM?***

(A) We tried to make the meters similar to analog meters.
A real VU meter works with 300ms integration time - every other setting gives a response that is different from VU type time response. As a VU meter shows a kind of average level it has to be calibrated to be useful for real applications. In a normal situation a VU meter shows -14dB value relative to peak value. That is why mastering and post production engineers decided to use it as reference level for music. Nowadays hot level practice has caused average levels to be much closer to peak value - that is why we decided to give a user such a wide reference level adjustment range.

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(Q) ***Should the Pre metering show levels at >+6dB, when level is less than 0dB in host's metering?***

(A) As VU is an average level, it depends on the reference level in the back panel as well as the audio signal type. If the reference level is set to -14dB it means that 0VU = -14dBFS (like -14dB in Logic) for sinusoidal wave and for normalized music signals can range from 0 to more then +6VU.

Support

If you have any questions about the principles or operation of our plug-ins, please visit our web site www.PSPaudioware.com where you can find the latest product information, free software updates and answers to the most frequently asked questions.
You can also contact us by e-mail: support@PSPaudioware.com. We will gladly answer all of your questions. As a rule we respond within 24 hours.

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User Comments

We welcome any opinions and comments related to PSP VintageMeter. We would also be grateful if you shared with us your experiences using PSP VintageMeter. Please, contact us at: contact@PSPaudioware.com