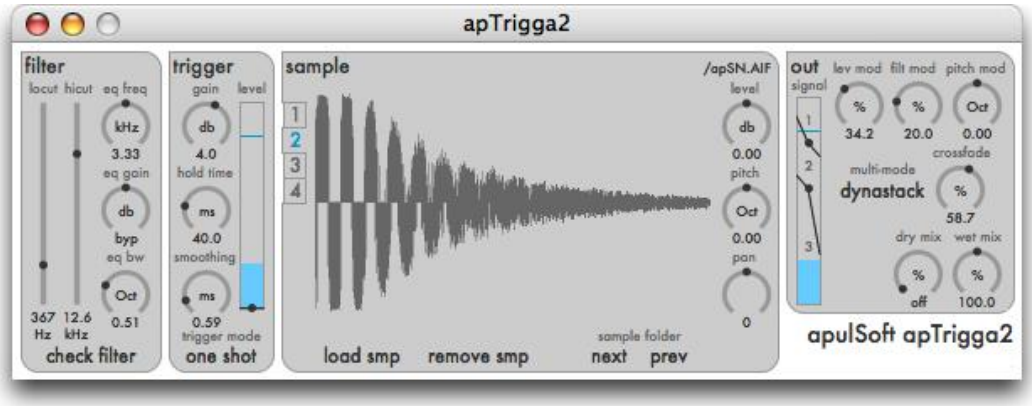
apulSoft apTrigga v2.3.3 Manual

audio sample trigger plugin
(VST/AU Mac OSX, VST win)

http://www.apulsoft.ch

VST plugin technology by Steinberg.
AU plugin Technology by Apple.
Manual written with LaTeX on June 21, 2008

Introduction



apulSoft apTrigga is an audio plugin (VST/AU mac OSX, VST win) to generate a trigger signal from an audio source. This signal is used to trigger mono or stereo samples (aiff, wav & sd2), which can be dropped directly onto the plugin interface. apTrigga features a filter section to extract specific frequencies from the source material. Volume, pitch, a 4-pole low-pass filter and multi sample selection can be modulated by the trigger intensity.

apTrigga can be used to replace recorded drum instruments with sampled drums, to extract rhythmical elements from drumloops or to spice up drum mixes with short attack samples. Due to its zero sample latency apTrigga works great for live drum triggering.

Contents

1 End User License Agreement

END-USER LICENSE AGREEMENT FOR apulSoft

This apulSoft End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and apulSoft for the software accompanying this EULA, which includes computer software and electronic documentation ("SOFTWARE PRODUCT" or "SOFTWARE"). By exercising your rights to make and use copies of the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, you may not use the SOFTWARE PRODUCT.

DISCLAIMER OF WARRANTY

This product is provided on an "AS IS" basis, without warranty of any kind, expressed or implied, including any warranties of fitness for a particular purpose. The authors shall not be liable for damages of any kind. Use of this software indicates you agree to this.

SOFTWARE PRODUCT LICENCE

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

GRANT OF LICENSE

Installation and Use:
You may install and use copies of the SOFTWARE PRODUCT on all computers you own.
Reproduction and Distribution:
You may not reproduce or distribute the SOFTWARE PRODUCT except to make backup copies, or to install as provided for above.

DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS

Limitations on Reverse Engineering, Decompilation and Disassembly:
You may not reverse engineer, decompile, or disassemble this SOFTWARE PRODUCT.
Software Transfer:
You may permanently transfer all of your rights under this EULA, provided you retain no copies, you transfer all of the SOFTWARE PRODUCT, and the recipient agrees to the terms of this EULA.
Termination:
Without prejudice to any other rights, apulSoft may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

COPYRIGHT

All title and copyrights in and to the SOFTWARE PRODUCT (including any images, text, and "applets" incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT are owned by apulSoft or its suppliers.

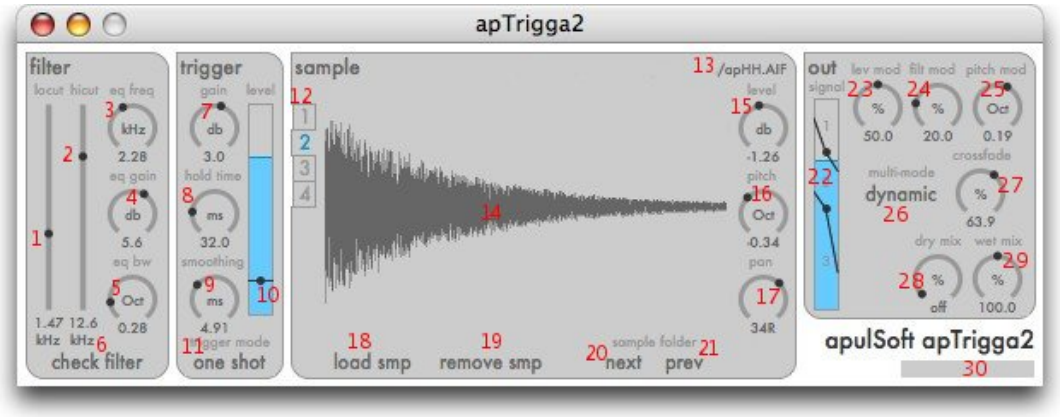
2 System Requirements

- Mac OS X
  - Mac OS X 10.2.6 or better, 10.3 recommended.
  - An AU or VST host.
  - Samples in .WAV, .AiFF, SD2 format.
- Windows
  - Windows 98 SE of better, Windows 2000 & XP recommended.
  - A VST host.
  - Samples in .WAV or .AiFF format.
  - An application to view pdf files to read the manual (Acrobat Reader).

3 Installation

- Mac OS X
  - There is no need to delete apTrigga v1.0 or v1.1! Both versions (1&2) can be used at the same time.
  - If you previously installed apTriggaDemo or apTrigga2demo, erase all installed parts. These can be found in the ”/Library/Audio/Plug-Ins/Components” and ”/Library/Audio/Plug-Ins/VST” folders.
  - Close all AU/VST hosts.
  - Mount the disc image by double-clicking ”apTrigga2***.dmg”.
  - Double-click ”Install apTrigga2.mpkg” or ”Install apTrigga2demo.mpkg”. Follow the standard OSX installation procedure.
  - Open a host and open apTrigga2!
  - (Full Version) Enter your ID/serial in the edit fields (copy/paste might not work in all hosts)
- Windows
  - Close all VST hosts.
  - Open the ”apTrigga2***.zip” folder by double-clicking it.
  - Launch the apTrigga2 installer by double-clicking ”apTrigga2-setup.exe” and follow the installation procedure.
  - Open a host and open apTrigga2.
  - (Full Version) Enter your ID/serial in the edit fields (copy/paste might not work in all hosts)

4 Controls Description



All sliders and knobs and can be click & dragged with the mouse. A finer resolution can be obtained by holding the shift key at the same time. Knobs have a even finer resolution mode activated by holding the alt key while dragging. By clicking knobs and faders and pressing the strg(win) / apple(mac) key, these controls will jump to their default values.

1. Low-cut filter cutoff frequency. If set to the minimum the low-cut filter is completely bypassed and uses no cpu power.
2. High-cut filter cutoff frequency. If set to the maximum the high-cut filter is completely bypassed and uses no cpu power.
3. Peak filter center frequency.
4. Peak filter gain in decibel. If this is set to 0.0 db the peak filter is completely bypassed and uses no cpu power.
5. Peak filter bandwidth in octaves.
6. Filter section check button. Activate it to hear the output of the filter sections to check your filter settings.
7. Pre-trigger gain. Use this to make up for level changes caused by the filter section. The level indicator(10) should peak at the top to get optimal results.
8. Hold time of the trigger algorithm. Once the trigger level(10) passes below the threshold level(9) the algorithm waits for this amount of time before getting ready to trigger again. For low frequency triggering set this to a high value to prevent triggering the waveforms themselves.

9. Trigger signal smoothing. This adjusts how fast the trigger reacts to signal changes such as the end of the trigger period in gate mode. If you notice clicks in the apTrigga output signal, try a higher setting. For very percussive sounds it's best to use a low value.

10. Trigger level meter and threshold level. This control shows the input level of the trigger section (the plugin input converted to mono and then processed by the filter section). The handle is used to set the minimal trigger threshold level.

11. Trigger mode. Clicking this will open a pop-up menu to make a selection. **one shot** means samples are always played to their ends unless they are triggered again. **gate** means the sample is cut off once the trigger level passes below the threshold and if at least **hold time** has passed since triggering occured. **loop** is an experimental mode similar to gate but loops the entire sample as long as the gate is open.

12. Sample select. Use this control to click through the 9 sample panes. Every time the lowest slot is filled with a sample, another number is added to the control. For the dynamic modes, sample 1 always has to be the loudest sample. In manual multi mode, this control selects the sample to be played.

13. Sample filename and path. The path and file name of the currently viewed sample. If a sample can't be loaded its filename and path will still appear here. The demo version does not store the paths and places a reminder here.

14. Sample display. Here you see an overview of the sample loaded into the currently selected pane. If there is no sample loaded, if a file can't be found or if a file is not in a supported format this will read: "sample not loaded!". You can drag & drop files onto this display to load them. If a sample is stereo, two waveforms are displayed. The display accounts for changes in sample level and can thus be used to graphically match the volumes of several samples in a set.
    If the display is clicked with the mouse, the selected sample will be played without any out-section modulation. If you shift-click the display, you can generate a dynamic trigger event. The higher you click the "louder" the trigger event will be. This event is processed like any trigger input and can thus be used to check the complete plugin settings.

15. Sample level. The volume of the selected sample can be adjusted with this knob.

16. Sample pitch. The pitch of the selected sample can be adjusted with this knob.

17. Sample pan. The panorama of the selected sample can be adjusted with this knob. This works for both mono and stereo samples if the plugin is inserted in a stereo channel. If apTrigga is used on a mono channel, this control would have no effect and thus the handle is hidden.

18. Load sample. Click on this control to open a file selector to select an AiFF, WAV or SD2 (mac only) sample file. The same can be done by dragging and dropping a file onto the sample display (14).

19. Remove sample. This removes the selected sample and decreases the number of samples by one.

20. Next sample in folder. The directory of the selected sample is scanned and the next loadable file is loaded. If no sample is loaded in the selected slot or if there is only one sample inside a folder, this control does nothing. Use this to quickly scan through folders of samples. **This control does not switch to the next sample pane!**

21. Previous sample in folder. Similar to the last control described, but the previous file inside the folder is searched and loaded. **This control does not switch to the previous sample pane!**

22. Signal meter & dynamic levels. This control shows the signal generated by the trigger section. It is used for all the modulations possible with apTrigga2. If multiple samples are loaded and a dynamical mode is used, the control also features adjustable level handles to set up the dynamical multi-sample modes. The steepness of the handle lines represents the amount of crossfade (26) used in dynamic mode. By watching the peak of the signal (dark blue line), the numbers of the triggered samples and their ratio can be determined.

23. Amount of level modulation. This control indicates how much the level of the triggered sample is modulated by the trigger section output signal. A setting of 100% can lead to muted samples, a setting of 0% means all triggered samples have the same volume.

24. Amount of filter modulation. This control determines the maximum amount of cutoff frequency modulation of the 4pole output filter. 100% means the filter cutoff is set to 0 Hz if the signal reaches its lowest level. The top level always opens the filter completely. By setting this to zero the filter can be turned off and cpu usage can be lowered.

25. Amount of pitch modulation. This control determines the maximum amount of pitch modulation. The shown value is multiplied by the trigger signal and added to the sample pitch level(16) of any played sample.

26. Multisample mode. This control only works if more than one sample is loaded. Clicking on it will open the pop-up menu with the available modes:

dynamic: The samples are played and crossfaded according to the levels set up in the signal meter(21).
sequence: Every time the trigger is activated, the next sample is played.
If you need to make sure the first sample is played at some specific point of an arrangement (the counter is reseted), automate this control and set it to sequence.
random: A random sample is played everytime a trigger event occurs. This cannot be controlled, it's not possible to get the same order twice.
stack: All samples are mixed together and played back at the same time.
dynastack: Samples are stacked up and mixed together according to the levels set up in the signal meter. The higher the trigger intensity, the more samples are played back, starting from the sample with the highest number.
manual: The currently selected sample is always played. The sample selection control(12) can be automated. That way the manual mode can be used to change the played back sample during a song.

27. Crossfade. If multiple samples are loaded and a dynamical mode is activated, this knob controls how much crossfading is applied.

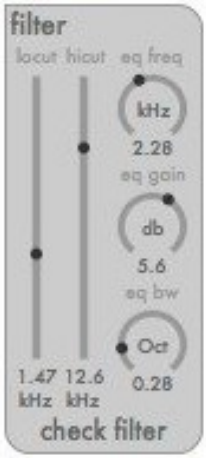
28. Dry signal percentage. This specifies the amount of the unprocessed input signal mixed to the output of the plugin. The input filter section has no effect on this signal.

29. Wet signal percentage. This stands for the level of the triggered samples mixed to the plugin output. If this is set to zero, you won't hear any sample even if you trigger manually!

30. A text field. The demo version will output **demo version**. The full version outputs **unauthorized** before being registered and your email address once it is registered on a machine. If you click on **apulSoft apTrigga2**, a splash screen will be displayed.

5 Plug-In-Sections Description

5.1 Filter Section



The apTrigga filter section is designed to prepare the input audio signal for triggering. It is possible to cut high or low frequencies and to boost or dampen frequency region using a peak filter. These filters will not affect the output of the plugin! The filtered input signal can be checked (heard) by activating the **check filter** button.

Please consider that cutting high frequencies can affect the trigger precision as any fast transients (attacks) include a significant amount of high frequencies.

Cutting low frequencies however is recommended in most cases as low frequencies can't be used as a precise source of rhythmic information. Low frequencies sometimes confuse the trigger algorithm as they are the largest waves in a graphical way of looking at things. Unless there is a desperate need for processing power, the low cut fader should be set to 80-200 Hz.

To save processing power, the three filters can be completely bypassed by moving the faders to extreme positions (high- and lowcut) and/or by moving gain to 0 db (peak-eq). This can be achieved by reseting the knobs/faders (apple-click/strg-click).

5.2 Trigger Section

The level of the signal leaving the filter section in displayed in the trigger meter. Use the **gain** control to make up for level changes caused by filtering. To get the best results the level should just touch the top of the meter on the loudest peaks.

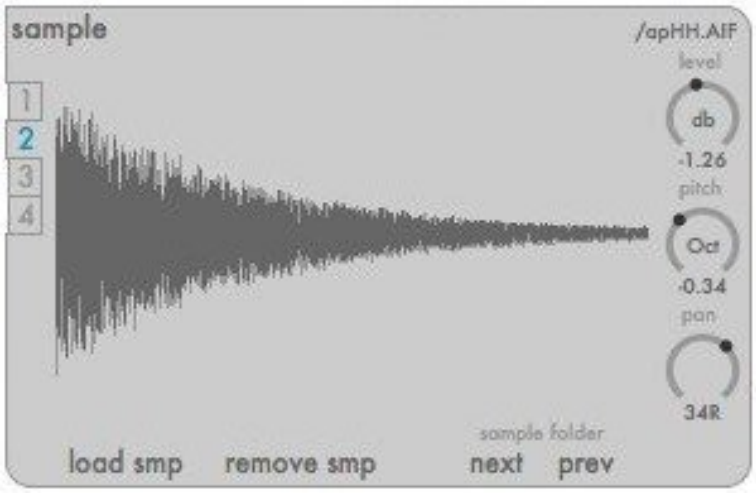
The threshold level is marked by a handle inside the trigger meter. It is the minimal level which will trigger samples. Move it to the desired position. The lower the threshold is set, the larger the dynamic range gets to be used to modulate the output of apTrigga

The **hold time** control displays how long a maximal modulation signal is held. This corresponds to the minimal time interval between two trigger events. It does not affect latency in any way. If you want to trigger on low frequency content (bass drum track,...) use a high hold time to prevent stuttering. If you need to trigger very fast material (up tempo high-hats, snare rolls), use a low hold time. Generally spoken, use a hold time as low as possible which doesn't produce wrong triggering. Sometimes some low-cutting helps to get rid of unwanted trigger events.

Trigger **smoothing** represents the amount of time the trigger algorithm uses to adjust to dynamic changes. It does not affect latency. The more percussive the sounds used with apTrigga are, the shorter this time should be chosen. In conjunction with the gate trigger mode, smoothing is similar to a AHR(attack-hold-release) envelope, where smoothing is both the attack and the release time. If clicks are heard in the trigger output, smoothing time should be increased.
Note: If smoothing is set to a higher value than hold time, fast sequences of trigger events can lead to non-linear output-signals (clicks)!

The **trigger mode** setting can be either **one shot**, **gate** or **loop**. With **one shot**, samples are always played to their ends unless the threshold is surpassed again. **gate** mode cuts off triggered samples once the hold time has passed since the signal dropped below the threshold. **loop** also cuts off trigger samples the same way as gate but loop the entire sample in case it is shorter than the triggered time interval.

5.3 Sample Section

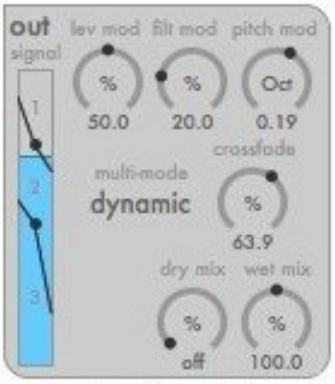


apTrigga's sample section consists of up to nine sample panes which can be filled with sample files in AiFF, wav or sd2 (mac) format. Panes are added as samples are loaded. All the controls inside the sample section only affect the currently se-

lected sample. For a detailed description of the controls refer to the controls section of this manual.

The sample section responds to drag and drop and it can be clicked to manually trigger a selected sample.

5.4 Out Section



The out section is used to set up modulation by the trigger intensity. It equally affects all samples played, the samples are mixed together if necessary before entering the out section.

In apTrigga there are four types of modulation, all controlled by the signal coming from the trigger section, displayed in the signal meter. Level modulation controls the volume of the wet output, filter modulation changes the cutoff of a 4pole low-pass filter inserted just before the final mixer, pitch modulation transposes samples and dynamic sample selection selects samples according to the signal intensity and the handles on top of the signal meter.

6 Midi Input

6.1 Supported Midi Commands

Starting from v2.2 apTrigga supports midi input. Note-On messages are converted to trigger events which makes it possible to play samples with apTrigga and a midi-keyboard. Please consult the manual of your DAW to find out how to send midi data to a VST/AU plugin. **Note:** Not all hosts support this feature .

As a special feature it's also possible to realtime modulate apTrigga2's engine with the pitch-bend. The pitch-bend value is added to the signal level which is used to modulate the playback according to the modulation knobs. This means you can control volume/filter cutoff/pitch/dynamic sample selection with the pitch-bend while the sample is being played back.

Additionally, some midi controllers are built into apTrigga for real-time performance.

CC70: Samplepane-select. Useful in combination with the manual multi-mode
CC71: Dry Level percentage.
CC72: Wet Level percentage.
CC73: Dry-Wet crossfade with a sum of 100% for the two values.

6.2 How To Send Midi To apTrigga2

Obviously, apulSoft can't provide a manual for all the possible hosts out there. Here's how to do it for some major hosts:

In Logic, apTrigga2 can be inserted into an instrument slot. Audio needs then to be sent to apTrigga via the sidechain menu and midi comes from the instrument track it is inserted into.
In Cubase SX there will be an additional virtual midi output as soon as apTrigga2 is inserted anywhere. It can be used with any midi track after that.
In Ableton Live 4, apTrigga2 can be dropped onto a midi track and receives midi from that track. As long as there is no Instrument inserted, it will also receive NoteOn/Off Information. To get audio into the track, live's track input menu has to be used.
In DP4, midi does not work with the AU version as DP4 does not support midi input for AU Plugins yet. (4.12) It is possible to use AudioEase's VST2MAS adapter with apTrigga2. In that case, DP will create a virtual midi port for the plugin.

7 CPU Usage

Depending on how it is used, apTrigga uses different amounts of processing power.

Less CPU usage	More CPU usage
mono samples	stereo samples
fewer samples loaded	more samples loaded
filter section bypassed	filter section on
filter modulation bypassed	filter modulation on
samples use original pitch	samples transposed, pitch modulation on
random/seq./manual multimode	dynamical/stack multimode
gate/loop trigger mode	one shot trigger mode
inserted in mono channel	inserted in stereo channel
midi pitch bend not used	midi pitch bend used

Note: Transposing samples via the **sample pitch** control and using **pitch modulation** uses a high quality sample rate conversion algorithm. This requires heavy calculating, but the load does not add up if both those options are used.

The biggest cpu usage is caused by the dynastack multimode with many samples and heavy crossfading, as this mode requires the plugin to transpose and crossfade all samples at the same time.

8 Sample File Formats

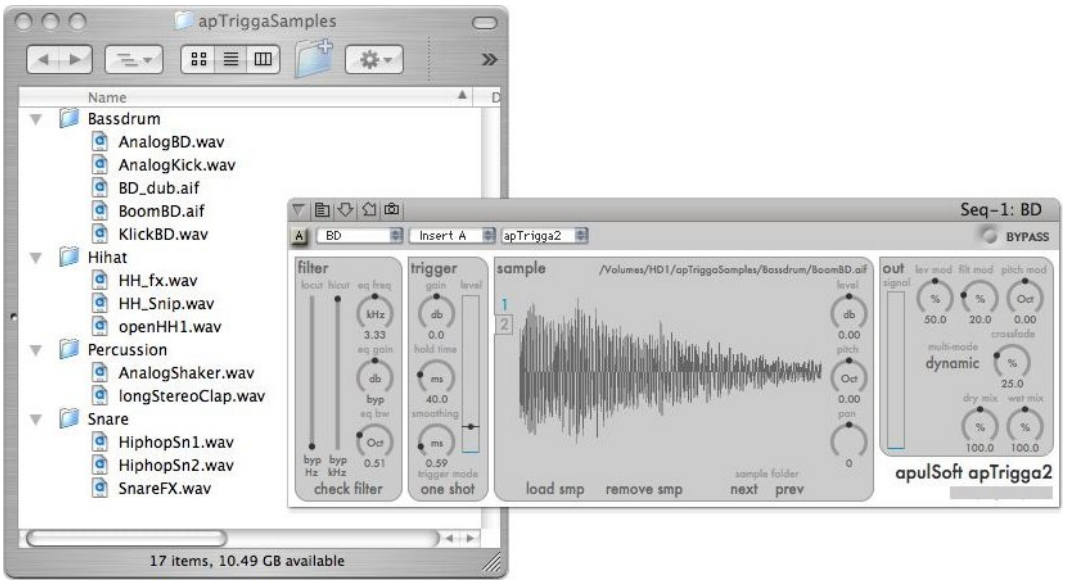
apTrigga accepts uncompressed WAV, AiFF and SD2(mac) files with bitdepths of 8, 16, 24, 32 and 64 bits, mono and stereo. If you try to load an unsupported file, its path and name will still be displayed, but there will be no waveform overview. The same thing happens if a file can't be found anymore.

If samples with sample rates different from the host's sample rate are loaded, apTrigga2 will try to make up with the sample pitch setting to ensure the sample is played back at correct pitch.
Example: If a 22.05 kHz sample is loaded into a 44.1 kHz project, the sample's pitch setting will be set to -1.0 octaves.

9 Sample File Organization

apTrigga does not copy the contents of sample files loaded into the plugin. It's recommended to organize the samples intended to use with apTrigga inside some folders. apTrigga2 features **next sample**/**prev sample** functions which allow to quickly scan through folders of samples. A nice setup is to make folders for similar sounds (bassdrums/snares/...) and to define plugin presets which refer to these folders.

Note: The **next sample** & **prev sample** knobs do not change the sample pane, they change the sample loaded into the currently selected pane.



10 apTrigga Usage Examples

10.1 Replacing Drums Sounds

Replacing drum sounds on separately recorded drum parts (bassdrum/snare/..) is a thing very easy to do with apTrigga. First click the **check filter** button to hear the recorded sound. Often there is not much filtering needed. If the bassdrum can be heard quite loudly on another track, use some low-cutting. Also try to bring out the attack of the sound by using the peak filter with low bandwidth (0.2 oct) and high gain(+10db) and by scanning through the frequencies. Bassdrums have their attacks usually between 500 Hz and 1 kHz, for instants.

In the trigger section, use the **one shot** mode and a hold time related to the speed at which attacks occur. Move the threshold to the lowest possible position just above the unwanted ”noise” on a track, to get the best dynamic response.

Then load a sample and move dry mix to 0% and wet mix to 100% in the out section. Modulate the level and the out-filter as you like it for a specific sound.

10.2 Adding Sounds To Loops

Sometimes it can be fun to add a sound to a complete stereo loop, for instants a rimshot on top of the loudest snares. To do that, aggressive filtering of the source material is necessary. Try to find a filter setting which makes the peaks you want to use stand out in the trigger meter. If you filter aggressively, you'll need to make up for the level changes with the peak gain knob.

10.3 Using apTrigga With apulSoft spikeGen

spikeGen is a free plugin included with apTrigga. For information about spikeGen, please read the separate spikeGen manual. To set up apTrigga, just select the preset called ”spikeGen” in your host.

10.4 Using The Multisample Modes

10.4.1 Dynamic Mode

The dynamic multisample mode of apTrigga is its most complex feature. Thus it uses a lot more cpu resources than the other modes. To use the dynamic mode you have to load multiple samples. The sample in slot 1 has to be the one used for the loudest peaks, the one with the highest number is to be used for the softest peaks. There is no direct way to change the order of samples loaded! If the samples are in the same folder, it can be done quite quickly with the next sample/prev sample buttons.

In most cases it's a good idea to adjust the levels of the loaded samples with the sample level knob. They should all look similarly ”loud” in the overview, as level modulation is done in the out section of apTrigga.

Once all sounds are ready, the handles on top of the signal meter in the out section allow to control the distribution of the samples over the dynamic range. With the crossfade knob, ranges can be set to overlap and two samples will be accordingly mixed. If crossfade is set to 100%, there will always be two samples played.

10.4.2 Sequential Mode

The sequential mode plays the samples in the order they are loaded. It starts with the sample in slot 1 and increases the slot number with every trigger event.

If you use apTrigga in an arrangement it might be necessary to reset the sequential mode counter to make sure the first sample is played first when the arrangement starts. To achieve this use your hosts automation and automate the **multi-mode** switch in the out-section. Just set it to **sequence** with the automation and the counter will be reseted at that point.

10.4.3 Random Mode

apTrigga's random mode selects a random sample of the loaded samples every-time the trigger is activated. There is no way to influence the behaviour and an arrangment may sound different every time it is played if random mode is used. This mode is intended to be used for natural-feel drum triggering, to simulate the fact that a drummer can't hit a drum exactly the same way every time.

10.4.4 Stack Mode

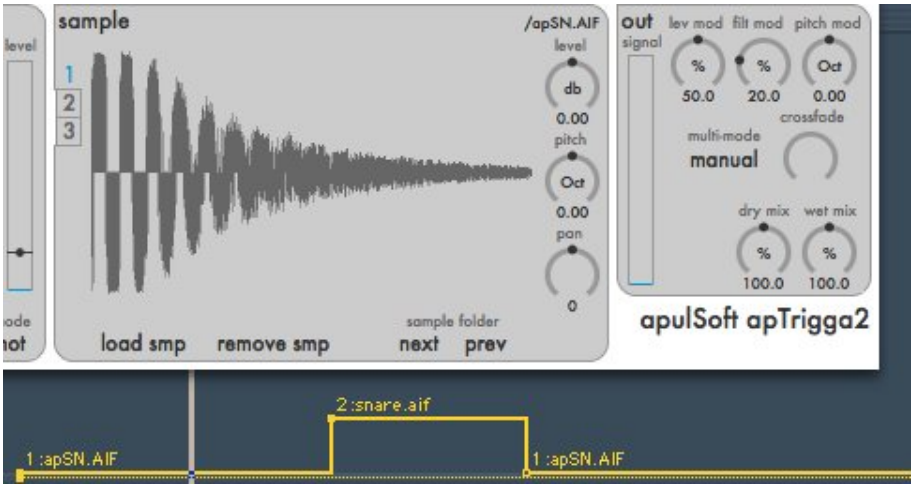
The stack mode just plays back all the samples together. It is useful if you want to create sounds by adding samples. With the controls on the right side of the sample section, the sounds can be altered to create interesting layers (For instants panoramically spread layer sounds).

10.4.5 Dynamical Stack Mode

The **dynastack** mode adds samples dynamically, at maximum trigger intensity all samples are mixed together, at lower levels, samples are added according to the levels displayed on the signal meter. The higher the intensity the more samples are played. This mode can for instants be used to trigger a sample and add a rim shot at the highest peaks while still playing back the snare at full level.

10.4.6 Manual Mode

If the **manual** mode is used, apTrigga2 always plays back the currently selected sample. This mode is useful if you want to trigger multiple different samples in an arrangement as the sample select control can be automated and it even reports the sample names to the host. Starting from version 2.2 the sample can also be selected via midi CC 70.



10.5 Weird Things To Do With apTrigga

10.5.1 Using apTrigga2 Just As A Filter

On mono channels apTrigga2 can be used as a normal filter by leaving the **check filter** button activated. The filter section features two steep cut filters and a clean, digital sounding peak eq. Automating the filter cutoffs does not really work, as the cutoffs frequencies are not interpolated by the plugin.

10.5.2 Waveform Distortion

If **holdtime** is set to near 0 ms and the threshold is set to its minimum value, triggering will happen after every zero crossing of the input signal. If a sample with a very fast attack is triggered that way, the result is some unusual distortion of the original signal. Combined with the dynamic mode, the distortion can even react dynamically to the input signal's amplitude.

10.5.3 Generating Strange Bass Lines

Run a drum loop through apTrigga and load a sample of a bass note. Set pitch modulation to 1 octave and the threshold quite low. You should be getting a weird atonal bassline in the groove of the drum loop.

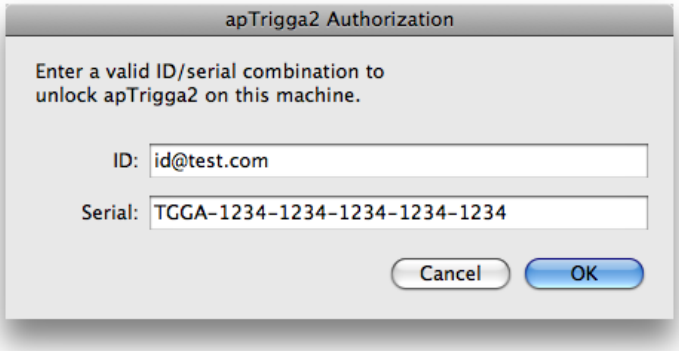
10.5.4 Using apTrigga And spikeGen As A Multisample Drummachine

Create an audio channel with spikeGen and apTrigga as insert effects. In apTrigga, activate the dynamic mode and load nine samples of different drums. Move cross-fade and all modulations to 0%. By entering rhythms in spikeGen while pressing the shift key, you get quantized values which happen to just trigger one of the nine samples thus allowing you to program drum patterns in spikeGen.

10.5.5 Playing back samples with realtime pitch control

If you use apTrigga2.2 as a midi-effect, you can send pitch-bend information to the plugin. Load a long sample and set modulation to 0% lev mod, 0% filter mod and 1 oct pitch mod. Start the sample with a soft note on and you'll be able to control the pitch in realtime with the pitch-bend information.

11 Authorizing apTrigga2



The first time the apTrigga2 plug-in is used on a machine, the ID/serial entry dialog appears once the plugin editor has been opened.
Enter the ID (email address) and the serial number you received by email and press **OK** to register apTrigga2 on that machine.

In case the ID/serial is not accepted, check the following things:

- The serial needs to be an apTrigga2 serial, apTrigga1 serials won't work.
- If copy/paste was used, try typing manually as copy/paste sometimes copies more than intended (white spaces, tab stops etc.)
- Check whether you used the right fields for the entries.
- The serial consists of TGGA and hexadecimal numbers only, so besides TGGA there can only be the numbers 0-9 and the letters A-F, there's no O ('O'tto) or l ('L'ucas).

12 Frequently Asked Questions (FAQ)

- *Can apTrigga v1.1 still be used (in old projects) if apTrigga2 is installed?*
  Yes. If apTrigga v1.1 is properly authorized, apTrigga2 will run totally independently.

- *A sample dropped onto the sample view does not load. What is the problem?*
  apTrigga handles uncompressed WAV, AiFF & SD2 (on mac) files with bit-depths of 8, 16, 24 and 32 Bits. Your file probably has another format or is corrupted. Try converting it to a 24 bit AiFF for smoothest operation.
  Sometimes the plugin window just is not truly activated by the system. Just click on the plugin window to make it the topmost window and drag and drop the sample again.

- *I can't hear a sample! Even if I click on the overview! What shall I do?*
  Maybe the **check filter** button is activated. Or the wet level is at its zero position (off). Deactivate the check filter button and move the wet control to the mid-position and try clicking the overview again. Maybe your host currently muted the plugin. Make sure audio is being run through the plugin and try again.

- *No text shows up in the plugin! What's wrong?*
  This can be caused by missing fonts in your system. Please verify whether you have the Helvetica font on your machine. On mac, the Futura font is used if present and Helvetica if there's no Futura.

- *No controls show up and there's a red unauthorized on the right bottom. What gives?*
  The apTrigga plugin has not yet been registered on the machine or non-valid data was stored. Starting from v2.3 the ID/serial entry box should appear.

- *Why is noise added to the signal every some seconds?*
  This is a restriction of the demo version of apTrigga. Buy the full version at http://www.apulsoft.ch.

- *Why do the samples disappear if a project is reloaded in a host?*
  This is a restriction of the demo version of apTrigga. Buy the full version at http://www.apulsoft.ch.

13 Changelog

- Version 1.0
  - Initial release.
- Version 1.1
  - AU support.
  - Manual uses hyperreferences.
  - A lot more AiFF and WAV files are handled correctly.
  - Distributed as .dmg.sit for users of internet explorer.
  - No more mouse hiding in the GUI.
  - Nicer handles in the GUI.
  - spikeGen included.
- Version 2.0
  - VST Win support.
  - New GUI.
  - Stereo file support.
  - No more internet authorization.
  - Faster and more stable file loading.
  - Plugin uses less CPU for filtering.
  - Sample rate conversion.
  - Pitch modulation.
  - Multisample modes (dynamic with crossfade, sequencial, random).
  - Sample adjustments (level, pitch, pan).
  - CPU usage improvements.
  - Added next/previous sample in folder functions.
  - Added default values (ctrl+Click/apple+Click).
  - Overview drawing optimized.
  - The load sample button disappears less often.
  - Factory presets implemented.

- Version 2.1
  - Less noise at startup of the demo version.
  - Softer noise in the demo version.
  - Corrections to the manual.
  - AU graphics optimized.
  - Three new multi-modes (stack, dynastack, manual)
  - Non-active controls hide handles.
  - Names, vendor strings & version numbers implemented.
  - AU automation improved.
  - Plugin passes AUValidation.
  - Experimental loop mode implemented.
  - More contrast in the GUI.
  - CPU usage improvements.
  - Complete plugin configuration can be tested by shift-clicking the sample display (a dynamical trigger event is produced).
  - Got rid of some interference between the demo and the full AU version.
- Version 2.2
  - Better AU Implementation. (bypass works now, presets work better).
  - Workaround for automation problem in DP4.1x.
  - Improved apTrigga2Auth to check entries better.
  - Support for wave extensible format (uncompressed) added
  - Support for aiff-c format (uncompressed) added
  - Support for 32 bit int, 32 bit float and 64 bit float samples
  - Low and high cut filters now are as steep as originally planned
  - Added a splash screen :)
  - Added a finer resolution mode to the knobs, for precise filtering. (Press alt while dragging)
  - Improved the knob handling, parameters don't jump anymore.
  - Added midi input.
  - Added support for sd2 files.
  - Fixed graphic issues with Logic.
  - Fixed a crash with Logic 6.
  - Browsing sample folders is faster now.
  - Switched positions for prev/next sample buttons. (thx OS)

  - Moved knob labels and values.

- Version 2.3
  - Universal Binary for ppc and intel macs.
  - Now uses pop-up menus for trigger mode and multi mode selection.
  - AU compatibility improvements.
  - Serial entry now included in plug-in.
  - Performance improvements, especially on windows machines.
  - Fixed fonts sizes on mac.
  - Fixed the sample path display update on sample pane changes.
- Version 2.3.1
  - Fixed a compiler-related issue on Mac OS X leading to crashes on some machines.
- Version 2.3.2
  - Less dll dependencies for the windows version.
  - apTrigga2 now has installers.
  - Fixed a bug in the AU version that was preventing loading of old presets.
  - Fixed compatibility with OSX older than 10.3.9
- Version 2.3.3
  - New way of entering the serial info to work around problems in Logic 8.
  - Factory preset names now show up in Digital Performer.