



FILTER RESEARCH 2 DOCUMENTATION

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WELCOME

Thank you very much for purchasing Filter Research 2! You've just purchased a product that will add flair to your productions and help you learn advanced sound design features of Reason. Read on for information on installing the product, and for extensive documentation on each included patch.

INSTALLATION

To install Filter Research 2, simply copy the Refill ([Filter_Research_2.rfl](#)) file to your Reason Refill folder. Note that you will require Reason 4.0+ or Record for these patches to work properly. Reason 3 or lower will **not** work.

As far as hardware requirements, anything that can run Reason 4 will work ok. But keep in mind that some of these patches push the Reason environment very hard, and this may be difficult on older PCs and Macs.

PATCH DOCUMENTATION

The first topic to cover is to remember these patches are **effect** patches. They will not generate any sound on their own, for the most part. You'll need to add them as insert, or send effects in order to hear them.

In some cases, you may also need to turn sequencer playback on before the effect will be audible. In other cases, you may also need to send MIDI notes to the effect. For these patches, make sure the effect has a sequencer track created - and it is selected. If you are using Record, keep in mind insert effects in Record can't receive MIDI. So you'll need to load the effects manually in a regular Combinator inside the rack instead.

The Combinator effect patches are split up into eight separate folders. Each holds a certain class of patch. This will help you quickly find the type of effect you are looking for.

New in Filter Research 2 - Documentation has gone through many evolutionary steps since the original Filter Research. Instead of a simple description, documentation is split into *Performance*, *Modwheel*, *Design* and *Inspiration* sections.

Further, a new folder **Epic Combinators** has been added. These patches are described in general in the documentation, but actually have separate video documentation for each patch.

Below you will find comments on each patch. These comments were written by the each patch's designer. The designers initials are at the end of each patch filename.

JJ= Jeremy Janzen

SB=Samplebasement (David Nyberg)

AF= Adam Fielding

SW=Shaun Wallace

LO=Lewis Osborne

DELAYS AND AMBIENCE

Abrogate

Delays and Ambience
Lewis Osborne

Performance Notes

Rotary 2 controls the length of the Reverse Reverb effect. Button 2 under it switches the SYNC on it. I really like the effect set on 8/16 or 4/16. Use the Tone (Knob 1), Frequency (Knob 3) and Resonance (Knob 4) controls to dial in the sound you want, or sweep.

Modwheel

MW controls the Wet/Dry of the Reverse Reverb effect. Pitch Bend Wet/Dry of Hall Reverb effect.

Design Notes

The ECF-42 Filter and COMP-01 Compressor are set-up in the effects chain after the Reverse Reverb but before the Hall Reverb to better control the sound of the reversed verb.

Inspiration Notes

This patch is my modern take on the 80s drum sound, a la Tom Petty's "Don't Come Around Here No More"

Blow Fly

Delays and Ambience
Lewis Osborne

Performance Notes

Rotary 1, Damages, changes between 4 different Scream settings (modulate, warp, digital, scream). Rotary 2, Freq, controls both P2 on the Scream unit and the Disp Freq of the Spring Reverb. Button 3, CV A, turns on Mod A on the Malstrom synth which is controlling the Length of the Spring Reverb. Button 4, CV B, turns on Mod B which is in turn controlling the Disp Amount of the Spring Reverb. For a smoother sound try turning off Button 3. To stop the insect wings type of reverb sound turn off Button 4.

Modwheel

MW controls P1 of the Scream unit. Pitch Bend controls Decay on Spring Reverb and Low Density Reverb's Dry/Wet.

Design Notes

This patch uses both the RV7000 Reverb unit and a RV-7. The RV-7 is set to my favorite Reverb sound in Reason - Low Density.

Inspiration Notes

With this patch I was going for a grimy dubstep ambience sound to be used on beats and basses.

Bounce Beat

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 3, Bounce - / +, controls the amount and direction of the Delay bounce. At straight up they'll be no "bounce" to the delay. Rotary 4, Delay Time, sets the center of the Delay and Button 4, SYNC, switches from a smooth "bounce" to a jerky in time one.

Modwheel

MW brightens the tone of the patch.

Design Notes

Once again I'm using the CV Output from a Scream unit to control another device, a great trick!

Inspiration Notes

This is a patch I've been working on for awhile and finally feel like I've got it right ;-).

Broken Chamber

Delays and Ambience

Adam Fielding

Performance Notes

This patch makes use of two independent reverb units, with knobs provided to control the amplitude of both reverb units. The "frequency split" knob has the most direct affect on the output signal as this controls the crossover frequency of both reverb units – all frequencies below the crossover frequency are sent to the low reverb, and all above this value are sent to the high reverb. Controls are also provided to affect the timbre utilising EQ and saturation effects.

Modwheel

Controls the decay rate of the included reverb units.

Design Notes

This patch makes use of a single M-Class Stereo Enhancer to split the input signal into two – all frequencies above the crossover frequency are sent to one reverb unit and all below this frequency are sent to another reverb unit. The idea behind this is to produce an unnatural sounding reverb, which is further exacerbated by using an exaggerated spring reverb as the high frequency reverb. Both signals are then combined and sent through a tape Scream4 for additional tape saturation to produce a nice, smooth output signal.

Inspiration Notes

The inspiration for this effect came as a direct result of considering the use of the Stereo Enhancer to split an input signal into two rather than as a simple stereo-enhancing effect. I thought it would be interesting to combine this with two RV7000 units to produce a very unusual sounding reverb effect rather than relying on a standard combination of effects connected in series. Of course, there is nothing stopping the user from tweaking the individual reverb units themselves.

Crazy Delay Destruction

Delays and Ambience

David Nyberg

Performance Notes

Crazy Delay Destruction contains two DDL-1 units. They are hard panned to the left and right. You can control step amount independent for each delay while you can control the feedback for both simultaneously. To spice these delays up there's Tube Drive, Degrade, Phaser and a Tape unit. You can activate these effects thru the 4 Combinator buttons.

Modwheel

The modwheel controls the amount of Degrade.

Design Notes

The audio signal first goes thru an EQ to remove some of it's low frequency's. Then it goes to the two DDL-1 units after first being splitted by an Audio Spider. The signal then goes thru the effect units (Tape, Phaser, Degrade, Tube)

Inspiration Notes

I was listening to a reggae dub track and i wanted to create a delay unit with the right type of ingredients to create instant dub.

Delay Bounce

Delays and Ambience

Shaun Wallace

Performance Notes

Use on sounds you want to sit in the background of a mix. Pads and harmonies work best. This combi will give the sound a very unique sense of space. If the source signal is dark and lacking high frequency content make sure to turn on the reverb bright button to help the sound to stand out more.

Modwheel

Boosts reverb and detune on unison.

Design Notes

This combi is designed using the often successful signal chain of delay -> reverb. The unison is added after the reverb to help give the sound a more lucious sense of space.

Inspiration Notes

I am a big fan of simple yet effective delays. This combi modelled after such a such a signal chain.

Delayverse

Delays and Ambience

Adam Fielding

Performance Notes

This patch works equally well with complex and simple input signals, producing an easily controlled output with “simple” signals and vice versa. Individual controls are provided for each effect, and the reverse reverb tail can be controlled using the “long/short rev” button.

Modwheel

Controls the delay signal low-pass filter cut-off frequency.

Design Notes

This patch splits the input signal into two parallel sections – the first is the “reverse” section in which the signal is passed through a simple RV7000 reverse reverb with an adjustable tail leading into the signal. The second chain consists of a stereo delay pair which in turn is passed through a low-pass filter and Scream4 digital distortion device. These two signals are combined with the dry signal to produce a multi-layered output based on the original input signal.

Inspiration Notes

If there's one effect that I feel doesn't get enough use, it would be the reverse reverb in Reason. It's a fantastic effect, particularly when combined with a long reverse tail. As such, I thought it would be good to build a multi-effect patch using the reverse reverb as a base.

Destructable Reverb

Delays and Ambience

David Nyberg

Performance Notes

You get total control over the destruction of your reverb. The Combinator front panel controllers give you control over the reverb, degrade and EQ. This patch has no dry/wet control on the Combinator but you can of course get that by using it as a send effect.

Modwheel

The modwheel controls the Hi-EQ on the RV7000 reverb. You can use it to add more high frequency's to your sound.

Design Notes

The signal first goes to the reverb followed by the Degrade (Scream4) and it finally passes thru the EQ which you can use to boost frequency's you select using rotary 4.

Inspiration Notes

I love the effect of a totally destroyed reverb. I can appreciate deep techno at times and if you do to then the Destructable Reverb will serve you well. I've added enough control to really destroy that reverb with style ;)

Dirty Gated Verb

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 3, LFO>Filter, controls how much of the randomly sweeping LFO affects the Filter. Filter type is set by Button 1, either a Formant filter or Comb. Rotaries 1 & 2 control the Frequency and Resonance of said filter. Button 3, Envelope Amt, determines how much of the envelope will affect the filter. If you open up the combinator the front panel of Thor has controls for the Attack and Decay of the envelope; as well as buttons for a stereo chorusing effect and slapback delay.

Modwheel

MW controls the rate of LFO as well as the rate of the digital distortion effect, when raised open patch has a nice bit crushing sound to it. Pitch Bend is set up to control the resolution of the digital distortion effect and formant gender when that type of filter is chosen with Button 1.

Design Notes

This patch uses two Scream units one for a Tube / Tape effect and another for more of a bit crushed digital distortion. I'd never thought of using two distortions in a row until I bought Nucleus Soundlab's Synthetic Kits ReFill and checked out Stompp's patch "Boom Boom 125". Check it out!

Inspiration Notes

I was listening to the Burial record "Untrue" the day I designed this patch and wanted a dirty gated reverb sound that would be good for hazy laid back tracks. Light it up and go ;-).

Dreamscape

Delays and Ambience

Adam Fielding

Performance Notes

Introduces a huge reverse reverb and a large reverb to the incoming signal to completely transform the incoming signal. Works well with most signal types due to the nature of the effect itself.

Modwheel

Removes the additional reverb applied to the reverse reverb effects.

Design Notes

The input signal is split into two signals using an MClass stereo imager. The two signals are then fed into individual reverse reverb units with large decay times and individual modulated filter units. These are then sent to the output mixer where an additional, large reverb effect is applied to both bands. This is then sent to a compressor and then to the Combinator's output to produce an interesting, dreamy effect.

Inspiration Notes

With this effect I had wanted to create something useful for more ambient tracks, and decided to create a nice, swirling soundscape-type effect using Reason's reverse reverb effects.

Dubble Plate

Delays and Ambience

Shaun Wallace

Performance Notes

A long drawn out delay with several detuning options. Perfect for tripping delay lines. Use the mod wheel to change delay timings on the fly to really create some interesting patterns.

Modwheel

Boosts detune on unison send unit.

Design Notes

Uses 4 delays panned to their own space. Each is run through a separate reverb.

Inspiration Notes

I am a big fan of simple yet effective delays.

Dub Stepper

Delays and Ambience

Shaun Wallace

Performance Notes

A long drawn out delay with several detuning options. Perfect for tripping delay lines. Use the mod wheel to change delay timings on the fly to really create some interesting patterns.

Modwheel

Changes delay timings.

Design Notes

Uses a combination of time and non-time based delays to create unusual trippy delay lines. Modying the modulation FX will change timbres over time.

Inspiration Notes

I am a big fan of simple yet effective delays. This combi was experiment in the trippy.

Ducking Delay

Delays and Ambience

Shaun Wallace

Performance Notes

Great to use on leads. Will allow initial note/sound to shine through and then uses a delay signal to give the sound an even lush release timbre.

Modwheel

Boosts wet signal of reverb unit. Use the 4th button to turn on the reverb.

Design Notes

Uses the side chain signal from a compressor to duck the delay signal. As the source signal decreases in volume the wet delay signal gets mixed back in.

Inspiration Notes

I am a big fan of simple yet effective delays. This combi was experiment in re-creating a common effect found in dance music.

Dynamic Glitch Reverb

Delays and Ambiences

Shaun Wallace

Performance Notes

This is a lush dynamic reverb. Although due to the nature of these dynamic changes there are slight abnormalities and noises added to the sound. Because of these abnormalities this combinator is best suited for FX sounds.

Modwheel

Reduces Hi EQ amount on both reverb units

Design Notes

Uses LFO's and the amplitude of the source signal to shift and change the Dry/Wet values of the reverb over time.

Inspiration Notes

Throughout this refill I have focused on using dynamics to shape and modify frequency content. This combinator focuses on modifying reverb timbres through LFO's and dynamics.

Echo Flow

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 1 controls the LFO Rate, which is modulating both the decay of the echo and it's wetness. Use Buttons 3 & 4 to turn on and off the modulations for the Rotaries above them. Change Rotary 1, LFO Rate, to bring the echoes in at different times. Use Rotary 2, Echo Rate, to change the Echo Time itself.

Modwheel

MW controls the curve of the LFO. Pitch Bend controls the diffusion of the echo and it's tone.

Design Notes

This patch uses both MOD A and MOD B from a Malstrom synthesizer to control the decay and wetness of the echo effect. The LFO's are set to the same parameters, two are needed so they can be run independently.

Inspiration Notes

DUB!

Four-Way Repeater

Delays and Ambience

Adam Fielding

Performance Notes

Works nicely with most types of instruments, particularly live instrumentation for some interesting glitched up effects – works an absolute treat for producing interesting vocal stutters. Controls are provided for both the dry and wet signal chains, and each individual repeater/delay unit can be disabled using the included buttons. The “delay rate mod” knob controls the delay time on all the delay units, and as such causes a warped effect if the delay units are in use due to the nature in which Reason handles delay signals.

Modwheel

Controls the LP filter cut-off frequency and resonance on the repeater/delay signal.

Design Notes

This patch makes use of four separate delay units – each Matrix controlled – to produce a regular, repeating/glitched effect. I wanted to keep the dry and wet chains completely separate in order to provide controls for both, which resulted in a few mixers being used to control each element. Each Matrix controls the amplitude and feedback amount of each feedback unit, which each being triggered in a regular sequence. As such, each Matrix CV output is split and sent to two separate CV inputs resulting in two CV splitters being used. All of this is summed in the “mixer out” mixer before being sent to the Combinator output.

Inspiration Notes

I've always loved stuttering effects in electronic music, and so decided to experiment using delay units with very short delay times. I also wanted to create something usable, so produced something which followed a set sequence to produce some interesting glitched up effects. Try it out on drums to produce some interesting fills!

Freaked Out Dub

Delays and Ambience

Adam Fielding

Performance Notes

Works particularly well with brass samples and other incidental samples to produce a cavernous, psychedelic sound – I would advise using this sparingly in track sections in which there is plenty of mix-space.

Modwheel

Controls the sweeping filter cut-off frequency.

Design Notes

One of Reason's older effects units gets a look in here in the form of the RV-7 reverb unit. This produces a long, sweeping and somewhat cavernous reverb sound which is then passed through a slowly modulated ECF filter unit before being fed through a Scream4 set to the tape-type distortion to produce a somewhat saturated/compressed output. This is then fed through a Mclass stereo imager, giving the user control over the stereo qualities of the output signal (in particular with the “mono” button) though it is also used to add a little depth to the lower frequencies by default.

Inspiration Notes

Inspired by the likes of Mr. Scruff and Amon Tobin (and a lot of sample-based trip-hop in general), I wanted to create a great sweeping dubby (but... not)-type delay sound to give a lovely trippy atmosphere to any instrument fed into it.

Free Percussion

Delays and Ambience

Adam Fielding

Performance Notes

Use the buttons to enable/disable individual filter bands as required – the more active bands, the more complex the output signal. Controls are included for reverb levels and delay feedback. Reverb is not applied to the dry signal, only the filter bands.

Modwheel

Controls the low-pass filter cut-off frequency and resonance.

Design Notes

The input signal is routed through a tape Scream device in order to introduce some nice tape saturation to the input sound. This is then split, making use of both reverb and delay units with each delay unit routed to separate BV512 vocoder/EQ units used to affect the timbre of each individual band. This can be used to produce either an interesting delay signal for normal instruments though this effect was designed mainly with percussion in mind – for example, routing a Dr REX through this effect can be used to produce complex variations on a simple loop while remaining tempo-synced. Filter controls were added to the modwheel to allow for additional variation and control over the output signal.

Inspiration Notes

As mentioned above, this patch was primarily designed with percussive/drum beats in mind. I've always personally found the EQ feature of the BV512 to be an interesting effect, so decided to create a patch making heavy use of delay and BV512 units to take a relatively simple input signal and add a bit of complexity to it while providing the user complete control over the overall manipulation.

Frequency Split Panning Delay

Delays and Ambience

David Nyberg

Performance Notes

You get control over the step count and diffuse amount of the low frequency delay and high frequency delay individually with rotary 3 controlling the decay on both delay units. The AutoPan can be switched off/on and synced to tempo using button 3 and 4. Dry/Wet controls the amount of delayed sound.

Modwheel

The modwheel controls the rate of the AutoPan.

Design Notes

The signal goes thru Stereo Imagers to be splitted in both a low and a high frequency signal which go to a dedicated RV7000 delay each. The AutoPan pans each delay unit to opposite pan positions by using a modulator of a Malstrom.

Inspiration Notes

The inspiration for this patch came after i did Crazy Delay Destruction. It's designed to add an interesting delay to drum tracks. The panning is out of this world with low and high frequency's going from side to side.

Granular Hats

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 1, Length, controls the Length of the Reverse Reverb either Synced or not depending on Button 1. Rotary 2, Density, controls the Density of the Reverse Reverb effect. Rotary 3, Decay, also controls the Reverse Reverb. Rotary 4, X-Over, controls where the bands are split for the effects. Button 2, RV-7, brings in a Low Density Reverb effect. Button 3, RV-7 Size, controls the size of this reverb. And finally Button 4, MW Step, controls the size of the echo engaged with the Mod Wheel.

Modwheel

MW engages the delay effect, turning vanilla beats into breaks, use the Pitch Bend to increase the Feedback on the Echo.

Design Notes

This patch uses a Stereo Imager to split the bands between Lo and Hi sending each to different effects, another idea I stole from Reason Wizardry (September '09).

Inspiration Notes

This is another effects patch that uses Reason's reverb devices to simulate granular synthesis. Works great on beats.

Key Dubby

Delays and Ambience

Lewis Osborne

Performance Notes

This is a performance combinator that you'll need to create a track for in able to use - to do this click on the combi (right click on a mac) and from the list that comes up choose "Create Track For Combinator". Now if you look on your sequencer there will be a track for this effects device (effects devices generally don't have tracks.) Now you have control of when a delay is going to sound, as well as the Frequency of the Low Pass Filter (the higher up the keyboard you play the more higher the Frequency.) Front Panel controls are fairly self explanatory. Rotary 1, Delay Time, chooses the Delay Time either in ms or steps depending on Button 1. Button 2, Ladder Slope, chooses between either a 24 or 6 dB/oct Low Pass Filter. The Amount of Envelope for the Filter is controlled by Rotary 4 and can be inverted by Button 4. The Frequency and Resonance of the Filter are controlled by Rotaries 3 & 4, respectively. Button 3 engages a Hall Reverb for that true Jamaican Studio One sound.

Modwheel

MW controls the feedback of the Echoes. Pitch Bend controls the decay of the Reverb.

Design Notes

On this patch the delay audio is routed thru a Thor's Filter 3 in stereo, It only appears when a key is pressed because it is being scaled by MIDI Gate, as well as the Global Envelope. The Filter is also being scaled by the Global Envelope and if you open up the combi (Show Devices) you can choose the Attack and Decay of this envelope with the two Rotaries on the front panel of Thor.

Inspiration Notes

King Tubby, Mad Professor, Lee "Scratch" Perry.

Low Density Squiggles

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 1 controls the rate of MOD A, which is controlling the Param Freq of the Multi Delay's EQ. Rotary 2 controls the rate of MOD B, which is controlling the gain of the Multi-Delay's EQ. These are the "squiggles". Sync them to tempo with Buttons 1 & 2. Turn them on and off with Button 3 & 4.

Modwheel

MW sweeps Filter, while increasing the size of the Low Density Reverb. Pitch Bend controls both the decay and damping of Reverb.

Design Notes

When Jeremy initially asked me to come up with some patches for this refill I looked at the original Filter Research and really dug his Planar Filters patches. This takes that idea of modulating EQ in a different direction.

Inspiration Notes

I wanted to make sure and include some patches that were geared towards some slower sounds and not just beats, this patch sounds great on a Rhodes keyboard or any other electric piano when you want to introduce an interesting element.

Marble Drop Delay

Delays and Ambience
Shaun Wallace

Performance Notes

Excellent on FX or one shot sounds in intros and breakdowns.

Modwheel

Boosts LFO rate.

Design Notes

Uses several delays and unison options to create the affect of an object dropping, bouncing, and fading away. The step LFO's on the Malstrom are key to giving it a more realistic timbre.

Inspiration Notes

I am a big fan of simple yet effective delays. This combi was an experiment in simulating the rhythmic tones of a marble dropping on the ground.

Mod Verb

Delays and Ambience
Shaun Wallace

Performance Notes

Excellent on ethnic percussion to provide a distinct natural shifting timbre to the ambience. The two different reverb mod knobs control separate amounts of "mod" on the reverb units. Boost these knobs in order to provide further slight detunings to the reverbed signal.

Modwheel

Increases HF Damp on all reverb units.

Design Notes

This combi uses several reverb units with slightly different mod values. This helps create a lush detuned reverb. It sounds more natural than just sticking a unison effect after the reverb. Although the option to dial in some unison to wet reverb signal was included in case it adds that right bit of flavour to a sound.

Inspiration Notes

The modulation parameter on the RV-7000 is an often overlooked parameter in Reason. This combinator focuses on bringing out the sonic possibilities from this part of the algorithm.

Multi Dub Delay

Delays and Ambience

Lewis Osborne

Performance Notes

This patch has 4 different delay patterns controllable by Rotaries 1 - 4, each delay is in a different frequency. The far left position of each Rotary is OFF, moving the knob to the right chooses between 5 different patterns on each. Each of these delays have a different step count (1/16, 2/16, 3/16, 5/16). Button 1, Send, kills the clean channel so only the effect is heard - use this if you are going to use this combi on a send channel. If you open up the combinator (Show Devices) you can change the panning of each delay on the Main Mixer, currently each delay is panned uniquely.

Modwheel

MW controls the initial X-Over Freq control dividing the bands. Pitch Bend changes the Damage Type of the Scream unit.

Design Notes

Another patch inspired by the September '09 issue of Reason Wizardry!

Inspiration Notes

DJ Spooky - his Trojan Remix record and In Fine Style mix are not to be missed!

Multi-Repeater

Delays and Ambience

Adam Fielding

Performance Notes

Works particularly well with percussive sounds to produce quirky variations on the input signal, but can also be used to create interesting stuttering effects on other instruments such as vocal channels.

Modwheel

Controls the filter resonance on both delay signals.

Design Notes

The input signal here is split into two channels and fed into a 14:2 mixer. Both channels then make use of two delay aux send channels which in turn are modulated using two Matrix devices to produce some interesting gated/chopped delay sounds. The feedback amount on the delay units and amplitude of all four channels are controlled by these Matrix devices, and as such make use of heavy CV routing from these two sources. For additional variation, users can draw in their own Matrix curves for some more distinctive effects.

Inspiration Notes

I had contemplated creating a simple “beat repeat” device, but decided to create something a little more creative instead – there are plenty of beat repeat devices in existence, both inside and outside of Reason so it seemed only right to apply the same sort of principles to something a bit more interesting.

Pattern Band Delay

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 1 controls the level of the Delay effect. Rotary 2 the timing of the echo, sync'd to tempo when Button 2 is engaged. Button 1, Low Density, turns on a Low Density Reverb. Button 3, Gate ON, turns the gate on the delay on, threshold of which is controlled by Rotary 3 (which also controls the size of the Low Density Reverb.) Rotary 4 controls the different patterns of the echo bands (echo is being sent thru a vocoder). Try running a disco beat thru this effect with a tempo around 90bpm for a cool laid back effect.

Modwheel

MW controls the feedback of the Echo. Pitch Bend controls the Shift of the Vocoder.

Design Notes

This patch uses a BV512 vocoder in the effects loop of a mixer being modulated by itself then sent thru an echo effect and a reverb. Sounds lovely on pads!

Inspiration Notes

Boss makes a guitar pedal called the Slicer that slices audio into patterns, recently at the music store I tried running these thru the effects loop of a pedal and really dug the sound of ringing chords with this set-up. This patch comes from that idea.

Phased Double Delay

Delays and Ambience

David Nyberg

Performance Notes

The Combinator controls are mapped to control the most important parameters of the delays and phaser. You can control delay steps, select straight or triplet delay, phaser frequency, phaser mod rate and phaser width while controlling phaser split and feedback with the modwheel.

Modwheel

The modwheel lowers the Split on the phaser and raises the feedback. This totally changes the phase effect.

Design Notes

Phased Double Delay contains 2 delays. One main delay and a second delay which delays the delayed sound from the main delay (It's OK if you need to read that more than once!). A Malstrom caters for panning modulation of both delays.

Inspiration Notes

I love the sound of a phaser and this combination of that sound and a crazy delay makes it even better!

Ricochet Ringer

Delays and Ambience

Lewis Osborne

Performance Notes

Press Play! Use Buttons 1 & 2 to change the rates for the patterns. For more control open up the combi and dial in the exact timing you want on the Malstrom synth. MOD A is controlling the Pattern Left Matrix. MOD B is controlling the Pattern Right Matrix.

Modwheel

MW increases the feedback of the delays. Pitch Bend changes the type of distortion.

Design Notes

This patch has a delay on both the right and left channels. Both delays have their steps being modulated by two different Matrix Sequencer. These Matrix Sequencers in turn have their patterns being randomly changed by two different LFOs. Creating an ever changing patterns of delays!

Inspiration Notes

glitch. Glitch. GLITCH!

Shifting Walls

Delays and Ambience

Adam Fielding

Performance Notes

Adds an unnatural shifting reverb to any incoming signal. Works well as an effect on lead instruments and atmospheric percussion. Controls are included for reverb, saturation and filter effects.

Modwheel

Reduces the main reverb decay length.

Design Notes

This patch makes use of a serial sequence of filters and reverb effects to produce an interesting, swirling output. The input signal is passed through an Mclass compressor, which is then split and sent to an initial bandpass filter (modulated by an included LFO provided by a Subtractor synth). This is then passed through an RV7000 unit to produce a huge, swirling reverb sound (though this can be tamed by using the modwheel should the user require). This in turn is then passed through a tape Scream4 to provide an additional layer of saturation before being passed through a further RV7000 to introduce a subtle delay effect. All of this combines to produce an interestingly creative ambient effect.

Inspiration Notes

This patch was inspired by some of the strange, swirling effects used predominantly in some of Amon Tobin's music. Interestingly enough, this patch works very nicely with musical passages and samples and adds an alien sound to something that could otherwise sound quite familiar.

Shimmeron DelayVerb

Delays and Ambience

David Nyberg

Performance Notes

Rotary 1 controls the decay of the reverb and delay simultaneously. You can control the EQ modulation's frequency using rotary 2 and you can switch it off/on using button 1. Denser adds a

3/16 delay. Shimmer activates the BV-512 which vocodes the signal with itself to add some vocoder magic to the sound. Rotary 4 control the tape speed to warm up the sound. There's no control for dry/wet so if you need that you can use it as a send effect.

Modwheel

The modwheel can be used to lower the amount of tape compression.

Design Notes

The signal first enters the reverb and is then send to the Scream 4 which adds a tape sound to the signal. It then goes to the delay. After the delay it goes thru the vocoder where it is modulated with itself. A Malstrom is used to modulate the EQ on the reverb.

Inspiration Notes

I set out to make a crazy effect which totally transforms the input signal into one big shimmering sound. Works great on pads, strings and synth chords.

Smearable Pad Gate (RUN)

Delays and Ambience

David Nyberg

Performance Notes

Make sure Run Pattern is activated on the Combinator. Rotary 1 is used to let the Matrix control channel 1's volume on the mixer. Rotary 2 controls delay dry/wet. Rotary 3 controls the dry/wet mix of Smear which contains both reverb and delay to thicken up the sound. Rotary 4 let's you select different gate patterns. The buttons control the compressor, phaser, smear high boost and width (width mixes in a chorussed version of the signal). The run patterns button on the Combinator needs to be activated.

Modwheel

The modwheel controls the phaser's frequency.

Design Notes

Smear adds reverb and delay to thicken up the sound. A Matrix has been connected to modulate rotary 1 which in turn controls the level of the signal on the mixer. A phaser and a compressor were added to thicken up the sound even more.

Inspiration Notes

I like the sound of big pads being rhythmically gated and this patch offers you a gate with a twist.

Sunday Morning Verb

Delays and Ambience

Shaun Wallace

Performance Notes

This combinator is an interesting reverb. It dynamically reacts to the amplitude of the source signal. Due to this the sound appears extremely spacious in the beginning and then fades out as the source signal does.

Modwheel

Shifts the diffusion setting to minimum to give the impression of a delay effect rather than a reverb.

Design Notes

The decay and dampness of the reverb will respond to the amplitude of the source signal by utilizing the auto cv output on back of the Scream unit. This reverb will sound a bit different than usual because it uses the echo algorithm with a high diffusion setting.

Inspiration Notes

Having a reverb easily match the dynamics of a source signal/s is always tricky business. This is an experiment in solving this problem.

Reverberator

Delays and Ambience

Adam Fielding

Performance Notes

This effect applies a multi-band reverb effect to the incoming signal. This can produce some interesting results with a variety of signal types to introduce a loose, dreamy quality to the sound.

Modwheel

Controls the width of the two included stereo imagers.

Design Notes

The input signal is split into three by using two MClass stereo imagers. This produces a low, mid and high band for further processing. These three bands are sent to separate mixer channels where three separate reverb effects are applied. The low reverb effect is relatively short, the mid reverb effect has a longer tail and the high reverb effect has a much larger tail. This is all combined to produce a dreamy, somewhat unnatural sound overall. The mixer output is sent through a tape Scream4 which can be enabled by the user with the included Combinator controls.

Three Band Delay

Delays and Ambience

Adam Fielding

Performance Notes

Use the crossover controls to control the frequency range of each band – crossover A controls the crossover between the low/mid bands, and crossover B controls the crossover between the mid/high bands. If you'd rather use the device as a send effect, you can do so by toggling the dry signal off using the included “dry” button. Individual bands can similarly be disabled using the included buttons.

Modwheel

Controls the amplitude of the three delay signals.

Design Notes

This patch makes use of two MClass stereo imagers to produce three individual outputs, each falling within different frequency ranges which can be controlled by the user. These are then sent to individual delay/modulated filter chains which are then sent back to the mixer. This allows for the dry signal to be muted as opposed to using the aux sends included on the mixer. The filters are modulated using a CV signal generated using a single Subtractor unit.

Inspiration Notes

This is another one of those patches that I thought I'd personally find quite useful – a multi-band delay unit. I like the idea of using the MClass stereo imager to produce separate frequency bands for effects such as this, so the creation of this patch was a bit of a no-brainer, really.

Throaty Ambience

Delays and Ambience

Adam Fielding

Performance Notes

Works well with more melodic instruments to produce a sweeping, atmospheric vocal-esque effect. Controls are provided for the dry and reverb signals, with filter sweep controls provided for additional control.

Modwheel

Controls the filter resonance on the formant filter.

Design Notes

This patch makes use of two stages – firstly, the signal is sent to the Combinator and split into two. These signals are sent to the output mixer and reverse reverb units respectively. The reverse reverb signal is then split and sent to the output mixer and to a Thor device. The Thor is used as a formant filter, with the LFO controlling the filter frequency and gender variables to produce a

slow, cavernous vocal-type effect. This signal is then sent to the output mixer, where all of the three signals are combined. This is then sent to an additional EQ unit before being sent to the Combinator's output.

Inspiration Notes

I had the idea for this patch while listening to some ambient music – I noticed an interesting vocal line and thought it would be interesting to try and replicate that sort of effect. As such, I decided to use the RV7000 to produce a nice, sweeping effect which could then be combined with a formant filter to give a controllable (and slightly ethereal) effect.

Time Designer

Delays and Ambience

Shaun Wallace

Performance Notes

The LFO -> Pan is on by default to show how drastic this combinator can be. With it turned off the effect will be more subtle. Experiment and have fun with this, the timing differences in different frequency regions can cause drastic effects to the timbre of the source signal.

Modwheel

Increases LFO -> Pan rate.

Design Notes

Shifting different frequency bands my milliseconds can cause our entire perception of the sound to change. This combinator splits the source into four different frequency ranges then allows the user to change the micro timings of the regions with the combinator controls.

Inspiration Notes

The simplicities of panning and time based effects can lead to some interesting results. This is an experiment in trying to create an effect that allows the user to add millisecond timing delays to different frequency groups.

Trance Clap Reverb

Delays and Ambience

Shaun Wallace

Performance Notes

This combinator was specifically design for claps in dance music. Although it will work well with any sounds you want to have an initial lush reverb sound.

Modwheel

Boosts unison detune and hi eq on the reverb unit. Decreases filter frequency on the BP filter.

Design Notes

This reverb works a bit differently from the traditional gated reverb. The decay will as the amplitude of the source signal does. This creates a more dynamic natural reverb. The gate is still active on the reverb unit to provide a quick cut off to any troublesome reverb tails.

Inspiration Notes

I am a big fan of the heavily reverb and gated claps in trance songs. This combinator uses both the traditional gated reverb method along with mapping some parameters to the dynamics of the input signal.

Underwater Surfacing

Delays and Ambience

Adam Fielding

Performance Notes

This patch splits the incoming signal into two parts – the low signal and the high signal. The crossover frequency for both signals can be controlled using the mod-wheel, with the amplitude of each signal being controlled using the first two knobs on the Combinator. By modifying the chorus mod rate, the crossover frequency and channel levels you can achieve some pretty interesting results with melodic signals.

Modwheel

Controls the crossover frequency of the low/high signals.

Design Notes

The input signal is sent to an MClass stereo imager whereby the signal is split using the separate outputs provided. These signals are then sent through two independent chains – the low signal is sent through a Scream4 tape unit where some extreme compression is applied before being sent to the output mixer. The high signal is modified in a somewhat different manner – first, the signal is sent through a chorus unit which, by default, has an incredibly rapid LFO rate setting, producing a rapid “bubbling” effect. This is then sent through a modulated band-pass filter to produce a more sweeping effect before being sent through an EQ. This signal is then sent to the output mixer where some slight reverb is applied to the high signal.

Inspiration Notes

This is one of those patches that started off as a fairly simple concept before I decided to apply some more extreme effects to it. I had originally planned on splitting the signal as-is here and then filtering the low and high parts independently – however, I decided it would be far more interesting to apply some more extreme effects to each band.

Undulating Reverberation

Delays and Ambience

Lewis Osborne

Performance Notes

Rotary 1 controls the Rate of LFO 2, which is controlling the Delay Time (Rotary 2). Button 1 controls the waveform of LFO 2 (either a sawtooth wave or a random sweeping curve). Button 2 switches the Delay Time from sync'd to ms. Rotary 3 Controls the Wet/Dry of the Reverb, while Rotary 4 controls the Reverb's Decay. Use Button 4, Gate, to turn on the Reverb's Gate. More controls are available inside of the combinator (Show Devices) on the front panel of Thor.

Modwheel

MW controls the Frequency of the Low Pass Filter. Pitch Bend controls the Filter Envelope.

Design Notes

Here's another patch that uses the Auto CV Output on the backside of a Scream unit to trigger the Global Envelope Gate on Thor. Try flipping the rack around and pulling out the connection to hear how much of an effect it makes on the patch.

Inspiration Notes

I regularly go swimming and one of the pools I go to has underwater speakers built into it. I was thinking of that sound when designing this patch.

Vocal Verb

Delays and Ambience

David Nyberg

Performance Notes

You can control the decay of the low and high frequency reverb individually. Further controls allow you to fine tune the reverb. Button 3 let's you choose between a plate or spring reverb. Reflections boosts the amount of diffusion.

Modwheel

Use the modwheel to control the Hi EQ on the high frequency reverb.

Design Notes

The input signal is being split into low and high frequency signals by stereo imagers. Both signals are being send to RV7000 reverbs.

Inspiration Notes

I work a lot with vocalists so i needed a nice vocal reverb with individual control for low and high frequencies.

DISTORTION AND SATURATION

8-bit Rhythm

Distortion and Saturation

Shaun Wallace

Performance Notes

Works excellent with drums or any type of simple short sound you want a rhythmic 8-bit mashup created with.

Modwheel

Changes the Filter Resonance on the Malstrom filters.

Design Notes

The key to this combinator is modulating the Sample Rate on the Digital algorithm on the Scream Unit. This provides a constant motion to the chiptunish timbre on the device.

Inspiration Notes

I am big fan of old school chiptune sounds. This combinator is just another fun experiment in making 8-bit inspired rhythmical nonsense.

Back to Mono

Distortion and Saturation

Adam Fielding

Performance Notes

This patch works nicely with most input signals, though is probably more likely to sound authentic using recorded material rather than complex synth sounds. Can be used to add an interesting effect to individual instruments or groups of sounds. Additional noise is only introduced when the sequencer is being played or the “run pattern devices” button is turned on.

Modwheel

Controls an additional phase/warbling modulated effect.

Design Notes

The input signal is first passed through a controllable Scream4 tape unit to add a nice layer of saturation to the input signal. This in turn is then fed to the mixer where additional reverb may be applied before finally before being processed by the Thor and Mclass units. The Thor device adds a layer of noise and crackle using the in-built noise oscillators, resulting in a sort-of vinyl-esque sound. The EQ unit is used to boost the mids/low-mids to give the input signal a more “boxy” sound before, finally, a Stereo Imager is used to allow the user to convert the input signal

into a mono signal. The Scream4 also doubles up as a CV generator, controlling the amplitude of the crackle and hiss signals automatically based on the amplitude of the input signal.

Inspiration Notes

There's something quite welcoming about a nice, saturated vinyl sound that never really seems to get old for me. As such, I thought it would be nice to offer the flexibility of applying this type of effect to individual instruments and samples.

Bitter Freak

Distortion and Saturation

Lewis Osborne

Performance Notes

Rotary 1, Freak, controls P2 of the 2nd Scream unit and is either modifying the Rate of a Digital distortion or the Frequency of a Feedback distortion. Rotary 3, labelled Auto Rate, controls Mod A's rate which is sweeping the Shift of the Vocoder and slightly adjusting the Rate of the Digital Distortion, when Button 4, Auto Shift, is engaged. Button 3, Auto Curve, changed the curve of this modulator. When turning on Button 1, Bitter/Freak, the distortion unit changes to Feedback and Mod B is engaged making the Frequency control for the distortion sweep the mid to upper bands. If your feeling really adventurous try opening up the combinator and adjusting the controls on the front of the Thor device!

Modwheel

MW increases the decay of the Reverb. Pitch Bend adjusts the EQ.

Design Notes

This patch uses a BV512 to Vocode itself, a lovely trick that works great on beats.

Inspiration Notes

Gritty funky up beats!

Black and White Split

Distortion and Saturation

Adam Fielding

Performance Notes

Distorts and compresses the input signal to a large degree. Designed primarily with drums in mind, but can produce interesting results with bass and vocals. Controls are provided for individual channel amplitudes (low/mid/high).

Modwheel

Controls the damage on the Scream4 units and the input gain on the compressor on the high channel.

Design Notes

The input signal is first split into three discrete signals before being sent through three separate signal chains (low/mid/hi). The first channel (low) is sent through a BV512 vocoder with a mid/high cut and a modulated shift parameter controlled by a single Subtractor's LFO. This signal is then sent through a tape scream effect with a high cut enabled by default. The second channel (mid) is sent through a Scream4 unit set to fuzz distortion with a mid boost and low/high cut. The third channel (high) is sent through a stereo imager to roll off the lows and highs before being sent through a compressor and then through to the mixer. At the mixer, delay is then added to the third channel and the sum of these channels is sent to the Combinator's output.

Inspiration Notes

This was initially inspired by the dirty drum sound found at the beginning of the Doves' track "Black and White Town" – as time went on it took on a bit of a life of its own, mind.

Broken Gate

Distortion and Saturation

Adam Fielding

Performance Notes

Works equally well with percussive and melodic sounds, and can be used with live instrumentation to produce some interesting live effects. Use the Gate Pattern knob to toggle between four distinct gate sequences. Controls are also provided to control the level of distortion applied to the incoming signal.

Modwheel

Controls the bit-depth of the incoming signal – higher modwheel values result in a lower bit-depth.

Design Notes

The input signal is sent to two distinct Scream4 digital distortion units – one per channel. The sample rate on both Scream4 units is controlled by an LFO generated by a simple Subtractor unit – the CV signal produced by this Subtractor is split and sent to both Scream4 units, with one CV signal mirroring that of the other. This is all sent to a 14:2 mixer which itself is controlled by the included Matrix device. This Matrix device is used to control the amplitude of the channel, creating a gate-type effect. An additional sweeping filtered delay aux send is also included for some additional variation.

Inspiration Notes

I had originally intended for this patch to be more of a VGM/8-bit distortion device, but quickly decided to take it in another direction (i.e. by adding more effects!) once I got going.

Buzz Machine

Distortion and Saturation

Shaun Wallace

Performance Notes

Excellent for use on dance leads. Can provide a slight chip-tunish timbre if the wet signal is mixed in subtle enough. For a chiptune timbre run simple synth sounds through this combi.

Modwheel

Shifts comb filter frequencies.

Design Notes

Uses different comb filters on the left and right channels to create a stereo buzz effect. The key to this combi is the modulation of the filters and treating the left and right channels differently to increase the stereo effect.

Inspiration Notes

I am a big fan of the type of searing seriously detuned dance leads. There are several methods to achieve this type of sound and this is one of them.

Destruction Designer

Distortion and Saturation

Shaun Wallace

Performance Notes

Works well on percussion and bass sounds. Automating the P1 and P2 combi knobs can really spice up some percussion patterns. Be careful this combi can take up a lot of space in a mix.

Modwheel

Cuts high frequencies.

Design Notes

Uses 4 Scream units with slightly different settings to provide some wild timbres. Treating the left and right channels separately and hard panning them helps each timbre to stand out more in the stereo field.

Inspiration Notes

This is another combinator inspired by combining several distorted sounds for unique timbres.

Distortion Splitter

Distortion and Saturation

Shaun Wallace

Performance Notes

This combinator creates a fairly aggressive tone. Excellent for use on bass and FX. Use the X-Over Freq knob to switch which band of frequencies is sent to either Scream unit.

Modwheel

Cuts mid range frequencies.

Design Notes

Two BV512 units are used to separate and mix between frequency bands. One unit will send its signal to a distortion unit while the signal from the other BV512 unit will remain dry. The parameter knobs 1 and 2 on the Scream unit are also mapped to follow the amplitude of this source signal. This gives the distortion a more vibrant and interactive tone.

Inspiration Notes

I love the ability to send single frequency ranges to FX units. I thought one of the most practical forms of this would be to use a Scream unit with switchable tube and tape algos.

Electro Bass Enhancer

Distortion and Saturation

Shaun Wallace

Performance Notes

This combi as the name implies is specifically designed for use on bass sounds. Make sure to tweak the saturate and tape combi knobs to perfection when using this combi.

Modwheel

Boosts the detune of the unison units.

Design Notes

The key to this combi is the signal chain. (Saturate -> Detune Pre -> Tape -> Detune Post -> EQ)

Inspiration Notes

I love distortion and everything about it. Bass frequencies in particular are fun to experiment with as timbres evolve slower. This gives a little bit more time and space more distorted effects to really work their magic.

Fearless Fuzzer

Distortion and Saturation

David Nyberg

Performance Notes

On the front panel you will find controls for the filter (cutoff, resonance, VCF Mod, VCF Mod Speed and VCF Mod A/B which switches thru Tri and Random waveforms for modulation respectively). Button 1 is used to switch between 2 Scream 4 Body types while button 4 lowers presence of the fuzz effect.

Modwheel

The modwheel adds extra control for the Scream 4 Body Section by controlling it's parameters.

Design Notes

The signal is first being fed to the Thor Type 2 24dB/Oct low-pass filter from where it goes into the Scream 4 set to the fuzz algorithm. The output of the Scream 4 unit is then split and routed direct to a mixer channel as well as being fed to a chorus which is in turn connected to it's own mixer channel. Rotary 4 functions as a dry/wet control for the chorus unit.

Inspiration Notes

I wanted to create a bizarre fuzz effect and Fearless Fuzzer became just that! Modulated filter in combination with super heavy fuzz will turn a dull guitar riff into a monster.

Filter Destruction

Distortion and Saturation

Shaun Wallace

Performance Notes

This is excellent for hi-hat and/or simple percussion patterns. Can work good on more harmonic material if you want something with a little edge or to spice up a breakdown.

Modwheel

Boosts filter frequency.

Design Notes

This combi utilizes the filters on the Malstrom in tandem with the LFO's and Shaper effect to provide slightly distorted rhythmical variations to loops. The shaper position is modified in at the same time as the filter frequency for more drastic timbre shifts.

Inspiration Notes

I am a big fan of the step LFO's on the Malstrom and simple distortion effects.

Fragment Cruncher

Distortion and Saturation

Lewis Osborne

Performance Notes

Rotary 1 switches the Curve of Mod B, which is being used to modulate the rate of a digital distortion and the filter when Button 1 is on. Rotary 2 changes the rate of this LFO. Rotary 4 changes both P1 and P2 of the digital distortion sweeping between different sounds of bit reduction.

Modwheel

MW raises the Frequency of the filter. Pitch Bend controls the Body Resonance of the digital distortion.

Design Notes

The Malstrom synthesizer has some of the most interesting LFOs in Reason. This patch takes advantage of many of those great curves to modulate distortion.

Inspiration Notes

Bit reduction is my favorite type of distortion and with it's parameters being modulated by LFOs it keeps the sound interesting and fresh.

Fuzzinate

Distortion and Saturation

Adam Fielding

Performance Notes

Processes the sound to produce a unique distorted effect. Works well with live instruments to produce a nice fuzzed-up sound. Controls are included for the distortion devices, filters and sweeping controls.

Modwheel

Controls the AM filter resonance, producing a more ringy sound.

Design Notes

The input signal is split into two separate signals. The first signal is sent through a D-11 distortion unit before being sent through a Malstrom and then onto the output mixer. The second channel is sent through a fuzz-type Scream4 device with a high-cut EQ before being sent to the second mixer channel. The Malstrom in this case is used to introduce an AM filter to the first channel with the frequency controlled by one of the Malstrom's modulation curves.

Inspiration Notes

This patch was a good excuse for me to break out the D-11 distortion unit and focus on producing a two-channel distortion effect with one channel using a more typical distortion channel and the other using some more unusual effects.

Ground Cracks Open

Distortion and Saturation

Adam Fielding

Performance Notes

Introduces a fuzzed up-type of distortion and compression to the input signal as well as some independent channel filtering. Controls are provided for the filter and distortion units, providing plenty of control over the timbre of the output.

Modwheel

Controls the damage control on the included distortion units.

Design Notes

The input signal is sent through two individual filter units (one per channel) before being combined and passed through a large Scream4 fuzz-type distortion unit. A slight amount of reverb is then applied by using an RV7000 before finally being sent through a tape-style Scream4 unit for some additional compression and saturation. The two filters are CV controlled using a CV signal generated by an included Subtractor device – this CV is then split and sent to the filters. This is also used to produce a sweeping effect on the fuzz Scream4 by controlling the body scale.

Inspiration Notes

This was inspired by some of the nastier drum sounds found on Aphex Twin's album Drukqs – there's some great, crunchy drum sounds on there and this was my attempt at recreating some of that nasty distortion.

Guitar Smasher

Distortion and Saturation

David Nyberg

Performance Notes

Rotary 1 and 2 are used to control the in and output gain on the Feedback effect. Rotary 3 and 4 control the Lo and Hi faders on the Cut section of the Feedback effect. Button 1 activates the signal coming from the chorus on the mixer which makes the sound ultra wide (controllable by MW). Button 2 raises the input gain of the distortion effect to give more severe distortion. Button 3 and 4 are used to activate each of the 2 Malstrom modulators controlling the feedback effect.

Modwheel

The modwheel can be used to lower the width of the Ultra Stereo control.

Design Notes

The signal first goes thru a compressor for a pre squash. It will then go thru Tape, Distortion and Feedback respectively. From there it will be splitted. One of the splits is connected directly to a mixer channel and the other split goes thru a chorus and stereo imager unit which provide the Ultra Stereo effect. Just before being send to the outputs of the Combinator the signal goes thru a Thor which flips the phase around to the original phase of the sound being fed into this patch (this is because the Scream 4 inverts the signal phase and the signal always goes thru all 3 Scream 4 units which results in the phase being inverted after leaving the last unit in comparison to the original input signal).

Inspiration Notes

I love a dark flangy edge to guitars so i gave it a try and i believe it came out pretty good. Works wonders on darker synth sounds too.

Gunshot Residue

Distortion and Saturation

Lewis Osborne

Performance Notes

Most of theses controls are fairly straight forward except Button 1, Trigger Step, changes the echo time of the RV-7000 giving a different feel to the effect. Button 2, Trigger Shuffle, changes the Pre Delay time on the echo giving a bit of a "shuffle" to the residue. Button 3, Comp Attack, lengthens the Attack time of the Compressor and turns off the Adapt Release. Button 4, Resonance, turns up the Resonance on the Right and Left Filters.

Modwheel

MW shortens the decay of the echo creating a staccato effect, try rocking it back and forth to create unique patterns and a more funky feel. Pitch Bend changes the Body Type on the Scream units.

Design Notes

This patch uses a Delay unit run thru a Scream, which has no audio running out the back of it. Why? To off-set the time of the Auto CV Output. The output of this is running into the ECF-42s Freq CV input modulating the Frequency. This makes the Frequency rise and fall off step. A cool idea I learned from EditEd.

Inspiration Notes

This patch takes the Right and Left channel Bit Crusher idea from Stompp (aka Tom Pritchard) and adds a little something something to it. Check out his patch "Bit Crusher" from the first Filter Research and you'll see where I'm coming from...

Kicking Bricks

Distortion and Saturation

Adam Fielding

Performance Notes

Introduces a unique compression-type of effect to create a heavily saturated output sound. Works particularly well with percussive and bass-type sounds to create big-beat type sounds. The “band count” encoder can be used to make drastic changes to the overall timbre, so experiment with this if you don’t immediately get the output you’re after.

Modwheel

Controls the shift parameter on the included BV512 EQ device.

Design Notes

This effect makes use of some of the more unique properties of Reason’s devices, namely the BV512 EQ and Scream4 tape saturation. The input signal is first sent through a tape Scream4 device to apply a healthy amount of saturation before being sent through a BV512 EQ for further equalisation and to slightly modify the input signal. This is then sent through a MClass compressor and EQ before being sent through an RV7000 reverb unit for some additional reverb. All of this comes together to produce a nice, meaty output signal which is then sent to the Combinator’s output.

Inspiration Notes

With this patch I had wanted to create a nice, useful distortion effect for use with loops and breaks while making use of some of the more unique properties of the BV512’s EQ section. As such, it works nicely for creating huge, meaty drums out of most loops but also works well with bass-type sounds – particularly bass guitars.

Mechanized Dissent

Distortion and Saturation

Lewis Osborne

Performance Notes

Rotary 1, Destination, controls the destination amount of Mod 9 in Thor's modulation matrix. This is controlling the + / - amount that LFO 2 effects the Global Envelope's Decay. Rotary 2, Rate, controls the rate of LFO 2. Rotary 3, Curve, controls the curve of LFO 2. Button 2, SYNC, determines if LFO 2 will be tempo synced. Button 3, FM, determines how much S.Curves 1 & 2 will modulate Filters 1 & 2 Frequency Modulation. Open up the combi (Show Devices) for more controls on the front panel of Thor!

Modwheel

Turns up the send on the Reverb and decreases it's delay while lowering the Frequency of Filter 1's Frequency (which is being modulated by the Sequencer Gate.) Try playing with this when Rotary 1 is turned pass 100. Rock it back and forth for some sick sick sounds that'll leave Brian Warner jealous.

Design Notes

I wanted to create a combi for Industrial Beats for this refill, something dirty with real noise possibility. The Global Envelope in Thor is being fed to Filters 1 and 2's audio in, this is what gives this patch its magic.

Inspiration Notes

Throbbing Gristle, NIN, Pailhead, etc...

Mod My Amp

Distortion and Saturation

Shaun Wallace

Performance Notes

Adds some slightly shifting timbres. Excellent to use to add a bit of unusual distortion and modulation to a sound. The loudness cut button decreases 2kHz by 12db in order to keep the sound under control. If you want the sound to really tear through a mix turn this button off.

Modwheel

Cuts highs and boosts mids from the input signal.

Design Notes

Using two Scream units in serial is an excellent way to really shape a sound. The combination uses LFO's and the modulate and feedback algorithms to provide sweeping distorted effects to a source signal.

Inspiration Notes

I am a big fan of simple yet effective delays. This combi was an experiment in simulating the rhythmic tones of a marble dropping on the ground.

Multiple Scream Sweeps

Distortion and Saturation

Adam Fielding

Performance Notes

Works nicely with regular rhythmic sounds, but can also be used as an interesting distortion/modulation patch with other instruments. Sweep controls are provided, and individual distortion

units can be disabled – this is particularly useful for paring back the output signal before a large melodic/song change.

Modwheel

Controls the damage amount on the distortion units.

Design Notes

The input signal is split into four and sent to four separate Scream4 units, each chosen and modified to support a mirroring Scream4 unit. These signals are then sent to a 14:2 mixer in which the amplitude of each channel is controlled by two different CV signals generated from a single Malstrom. The modulation curves are both set to simple triangle waveforms, thus producing a nice “sweeping” sound across all four channels. These four channels are then sent through a reverb unit and output.

Inspiration Notes

I thought it would be interesting to combine several distinct forms of distortion in some way, and set about trying to produce a patch that would produce an interesting distorted combination. However, in an attempt to keep it under control I decided to smoothly modulate the levels of each distortion channel.

Parallel + Serial Crusher

Distortion and Saturation

Shaun Wallace

Performance Notes

Excellent to use to really give percussion that classic 8-bit feel. Also excellent for avant garde music to give sounds a bit of edge. The Par/Ser knob morphs between the routings.

Modwheel

Boosts mid range frequencies.

Design Notes

This combinator uses Scream units with the digital algorithm run in serial and parallel to achieve its unique sound. This provides much sharper and more pronounced distortions than a normal scream. This is because the signal is between bit crushed and rate reduced multiple times.

Inspiration Notes

This combinator was inspired by 8-bit sounds and a need to further explore the possibilities of digitally destroying sounds in serial signal chains.

Prodigy Drum Mixer

Distortion and Saturation

Shaun Wallace

Performance Notes

Use on percussion and kits. The first three combi knobs will increase the amount of signal sent to each of these devices on auxiliary sends. Tweak and experiment till you get the sound that best fits your mix.

Modwheel

Boosts mid range frequencies.

Design Notes

This combinator uses a tape distortion, compressor, and auto-gain compressor all on aux sends. The two compressors are also fed back into the tape distortion. Using aux sends to mix between heavily compressed and distorted signals and dry signals is one of the keys to Prodigy sound.

Inspiration Notes

This combinator was inspired by overly punchy and distorted beats of Liam Howlett of the Prodigy.

Recursive MultiSizzle

Distortion and Saturation

Adam Fielding

Performance Notes

Applies a multi-band, modulated distortion effect to the incoming signal. Can be used to introduce some interesting rhythmic touches to melodic signals, though was designed primarily with percussion in mind.

Modwheel

Controls the damage control parameter on the three Scream4 units.

Design Notes

The input signal is split into three by using two MClass stereo imagers. These signals are then fed into individual modulated Scream4 units of differing types before being mixed together and sent to the Combinator's output. The Scream4 units themselves are modulated via two CV signals produced using two modulation curves on a Malstrom unit. These are sent to the Scream4 units to produce (by default) tempo-synced modulated effects, the most obvious of which is the recursive ramp-type modulation on the high-band to produce a nice percussive “sizzling” type effect.

Inspiration Notes

I really am a sucker for the nice recursive ramp-type modulation curve on the Malstrom, so decided to combine this with some Scream4 units to produce a unique, usable effect.

Repercussion

Distortion and Saturation

Lewis Osborne

Performance Notes

Rotary 1, Low Click, controls the tone of the Low End. Button 1, Low Crunch, kicks in a distortion on the low frequencies. Button 2, Mid Mod, turns on the Mid Scream which is set to Feedback. The Size and Frequency controls for the Feedback are controlled by Rotary 2, Mod Control. Button 3, Bitter High, turns on the High Scream, which is set to a digital distortion. The controls for this distortion are modified by Rotary 3. Button 4, Gate, turns the gate on the Reverb, Rotary 4 set the hold time for the gate.

Modwheel

MW Controls the Wet/Dry of Reverb. Pitch Bend controls the Reverb Decay.

Design Notes

Band splits, different Screams on the Lo, Mid, and Hi bands - I obviously learned this from Reason Wizardry ;-).

Inspiration Notes

This is another patch set up for basic percussion effects. I was listening to the Beastie Boys' Hello Nasty the day I designed this patch and wanted to create a combinator that thickened up drums, yet wouldn't draw attention away from whatever else is going on in the song.

Scream Sequencer

Distortion and Saturation

Shaun Wallace

Performance Notes

Use the Matrix units to sequence the damage type and distortion parameters over time. This is extremely fun to run simple percussion pattern through.

Modwheel

Switches between 4 different preset patterns for the sequence.

Design Notes

Basically each of three Matrix units can be used to dial in a different preset on two separate Scream units. This allows for some wild and untamed timbres to emerge.

Inspiration Notes

The Matrix is old workhorse that is an excellent modulation source for dialing in sequenced madness.

Scream Some More

Distortion and Saturation

Adam Fielding

Performance Notes

This patch can be used to create interesting effects with harmonic/melodic input signals, though can also be used to distort drums effectively as well. Controls are provided for each individual effect.

Modwheel

Controls the damage level on the “modulate” distortion unit.

Design Notes

This patch makes use of four units to distort the input signal. The first unit is a tape-based Scream4 used to saturate the incoming signal before being passed onto a Scream4 using the “modulate”-type distortion effect. The frequency of this unit is controlled by a merged CV signal generated by the following Malstrom and the auto-CV output of the Scream4 itself. Thus, the frequency is controlled by the Malstrom's modulation curve and the amplitude of the incoming signal combined. This signal is then fed through a Malstrom where modulated AM filters are used to further distort the incoming signal. This is all fed through one final RV7000 before being output.

Inspiration Notes

This patch was really an excuse for me to use the Scream4 units combined with a Malstrom to completely mutilate the incoming signal based on variables provided by the incoming signal itself. The interconnected nature of this patch makes it interesting for use with both transient and melodic signals.

Spectral Distortion

Distortion and Saturation

Shaun Wallace

Performance Notes

Use the knobs to dial in which frequency range is fed into the Scream distortion unit. This is excellent to use on percussion when maybe you just want to brighten up certain part of the signal.

Modwheel

Boosts mid range frequencies and reduces hi end on the Scream unit.

Design Notes

Two BV512 units are used to separate and mix between frequency bands. One unit will send its signal to a distortion unit while the signal from the other BV512 unit will remain dry. The parameter knobs 1 and 2 on the Scream unit are also mapped to follow the amplitude of this source signal. This gives the distortion a more vibrant and interactive tone.

Inspiration Notes

I love the ability to send single frequency ranges to FX units. I thought one of the most practical forms of this would be to use a Scream unit with switchable tube and tape algos.

The Crusher

Distortion and Saturation

Adam Fielding

Performance Notes

Introduces a heavy amount of bitcrushing to the input signal. Works well with percussive effects to produce a manic, VGM-esque output.

Modwheel

Controls the damage amount on the two included Scream4 units.

Design Notes

The input signal is split into two bands using a single MClass stereo imager. These two signals are then sent into separately modulated digital-type Scream4 units before being sent to the output mixer where some additional delay is applied to the high-band signal. This is then compressed and sent to the Combinator's output. The Scream4 units themselves are modulated using CV signals generated by an included Malstrom unit. By default, this produces an interesting rhythmic yet chaotic effect. The delay signal itself is also filtered, with the filter being modulated by one of the modulation curves used to modulate one of the Scream4 units. This is all combined and sent to the Combinator's output.

Inspiration Notes

I had wanted to create a patch focussed on bitcrushing, but at the same time wanted to produce something with a bit of a unique edge to it. As such, I opted for a multi-band multi-modulated approach to proceedings to produce a unique slant on a familiar concept.

EPIC COMBINATORS

This patch category is new with Filter Research 2. It only contains five patches, but each Combinator is an extremely complex effect. So complex, in fact, that the documentation for the Epic Combinators is included as videos with your product download instead of text in this PDF. In a video format it is easier to describe the patches in-depth, so you'll be able to maximize your understanding and use of them.

Please refer to the videos for details on the design and performance of these amazing new patches!

EXTREME

Alien Rhythms (RUN)

Extreme

David Nyberg

Performance Notes

Make sure Run Pattern is activated on the Combinator. Rotary 1 is in use, it let's Matrix "Mod A" control the level of channel one of the mixer which results in the gating effect. Rotary 2 let's you control the cutoff frequency of the mixer, Keep in mind that if you have Mod C active (use button 4) you are basically setting a new threshold level from where modulation starts. Rotary 3 controls the dry wet control on both the RV7000 Reverbs which let's you control the thickness of the sound. You can control the degradation of the alien transmission using rotary 4. Button one activates the Overdrive effect. Buttons 2 to 4 are used to activate each of the 3 Matrix modulators.

Modwheel

The modwheel functions as a stargate and let's you explore other alien dimensions.

Design Notes

The signal runs thru 2 RV7000 Reverb's to thicken up the sound. After that it's connected to a compressor which thickens up the sound even more before it goes to a Scream 4 with a tape setting. Now the signal will be send to the CF-101 chorus with a flange setting. The filter is connected after the flange unit but before the overdrive and bitcrusher (digital) effects. 3 Matrix sequencers are used to send CV to mixer channel level (gating), flanger delay amount and filter cutoff on the ECF-42. The ECF-42 filter envelope is being triggered by the gain reduction gain CV output of a compressor which gets it's sound from an audio splitter splitting the main signal. This makes the response of the envelope more organic sounding.

Inspiration Notes

This patch really is the product of pure experimentation. This effect turns all your sounds into alien rhythms. The controls let you change the sound drastically.

Auto Sequencer

Extreme

Shaun Wallace

Performance Notes

This combinator works best at taking short timbres and making 4 to 6 beat rhythmical patterns out of them. It also makes for one mean massive delay machine if the "feed" knobs are turned up. Excellent to use on FX sounds in dance oriented tracks. Turn on the extend pattern button to turn on the 5th and 6th beats in the delay sequence.

Modwheel

Increases volume of send effects.

Design Notes

There are 6 delays evenly spread apart time wise. Therefore a single note will be repeated six times in a row. Each of these repeats is fed into a separate traditional delay named "feed."

Inspiration Notes

Some of the greatest and most creative musical results involve a bit of randomness. Just ask John Cage. This combi was designed to infuse controlled timed and mistime randomness, making sequences out of short musical timbres.

Beat Juggs

Extreme

Lewis Osborne

Performance Notes

Pretty simple controls on this one: Buttons 1 - 4 turn on the different Beat Juggling channels. Each one is set up on a different count running randomly (which is why Rotaries 1 - 4 are marked "in use" - you can turn them if you like to get different patterns.)

Modwheel

Mod Wheel and Pitch Bend control the P2 and P1 knobs of internal Scream unit, set to Digital for a Bit starving effect.

Design Notes

I've been trying to figure out a way to set-up a random multi-channel beat repeater and always ran out of knobs when using a combinator to do it. Then it hit me one day... you can use Thor to control CVs!

Inspiration Notes

Instant DJ Shadow. Speaking of DJ Shadow, if you haven't seen the documentary "Dark Days" in which his music is heavily featured it is definitely worth checking out!

Body Designer

Extreme

Shaun Wallace

Performance Notes

Excellent to use on percussion or synth sounds. Can provide subtle natural resonances to acoustic instruments. If used on acoustic instruments for a natural sounding affect make sure to only mix in a small amount of the wet signal.

Modwheel

Shifts volume levels between different body types.

Design Notes

There are 5 Scream units that each utilize a different Body algorithm. This is to help simulate or overemphasize natural tones and resonances in a sounds.

Inspiration Notes

I always love the concept of physical modelling. One of the hardest parts of physical modelling is copying the natural resonances and tones of an acoustic instrument. This combi was designed to help add in a bit of natural body to any type of sound.

Crispy Conversations

Extreme

Adam Fielding

Performance Notes

Applies heavy filtering and shaper-based effects to the incoming signal. Controls are provided for both filter and distortion channels. Definitely a more off-kilter filter effect – works nicely with drums and percussion to produce a sharp, distorted sound.

Modwheel

Controls the filter resonance of the Thor's formant filters.

Design Notes

The input signal is sent to a single Thor unit where each channel is processed separately using filters 1 and 2. Both filters are controlled by the LFO and step sequencer to create a rhythmic yet sweeping modulated filter. Step sequencer curve 1 controls the shaper drive (which filter 1 passes through). Filter 1 is sent through the shaper and then to the left output, while filter 2 is sent to the right output. The left output (output 1) is sent through a single Scream4 fuzz-type unit for additional distortion before being sent to mixer channel 1. The right output (output 2) is sent directly to mixer channel 2. The panning of both channels is controlled by a single CV value, which is split and inverted for channel 2. An additional filtered delay effect is applied to the shaper channel.

Inspiration Notes

Before setting about making this patch I decided to create something that would use the most of Thor's unique processors and filters – as such, I decided to create a patch heavily revolving around formant filters and the waveshaper capabilities of Thor.

Dancing Bit

Extreme

Lewis Osborne

Performance Notes

Use Rotaries 1 - 3 to create either a short or long envelope to control the Scream unit. Buttons 2 & 3 control the amount of CV going to the Scream unit, creating a completely different effect at the touch of a button. Random Delay, Button 4, enables the Matrix Sequencer, which is controlling the Delay Time on the Chorus inside of Thor. If you open up the combinator (Show Devices) more controls are available on the front of Thor, including LFO Rate (Rotary 2), Heavy Resonance (Button 2), Stereo (Rotary 1) and a Short Envelope Release control on Button 1. The Pitch Bend is doing double duty controlling P1 and sweeping the EQ on the Scream Unit.

Modwheel

MW opens up the Sustain on the Global Envelope giving a more straight effect. Try sweeping it up and holding it open for Choruses or to add interest on a Verse.

Design Notes

The Global Envelope inside Thor is being used to control both P1 and P2 on the Scream Unit. P2 is also being modified by LFO 2.

Inspiration Notes

This patch was one of those "happy accidents" that happens when you try plugging different things into each other on the back side of Reason's rack. Dig it!

Dancing Comb

Extreme

Lewis Osborne

Performance Notes

Button 1, Mod/Warp switches the Scream unit to different distortion types and depending on the type either Bias or Frequency is controlled by the Pitch Bend. Rotary 3, Scale, controls the Scale on the Body of the Scream unit. While Dancing Scale, Button 3, controls whether or not the Auto Output from Scream is set to control the Scream's Body's Scale. For extra control open up the combinator and play with the control on the front panel of Thor, or best yet open up Thor and adjust the Freq and Res of the Comb Filter for some really extreme sounds!

Modwheel

MW sends this patch into the stratosphere increasing the Chorus Feedback, Delay Feedback, Chorus Amount and Delay Amount.

Design Notes

Another "Dancing" patch made on the same day as "Dancing BIT" and "Dancing Bands".

Inspiration Notes

With this patch I was trying to create a Sci-Fi rhythm sound that could be used in 70s cinema - a la "Barbarella".

Dynamic Contour Amplifier

Extreme

Shaun Wallace

Performance Notes

Works well on sounds you want to appear larger and louder than they are.

Modwheel

Boosts soft clip amount to quell any abnormally loud signals.

Design Notes

Uses a compressor to track the gain reduction amount on the source signal. The source signal is separated into 4 different bands. The amplitude of these bands is then increased by the gain reduction value of the compressor. Note the signal from the compressor is never mixed in.

Inspiration Notes

Throughout this refill I have focused on using dynamics to shape and modify frequency content. This is one such experiment.

Electro Shock Key

Extreme

Lewis Osborne

Performance Notes

This patch is an interactive patch that is played on your keyboard. To use create a track for the device and control with keys. Two different effects are available - one below C3 and one above. The - C3 effect can either be a sub bass sound when Button 1 is pressed, the pitch of which is controlled by the Pitch Bend wheel or a biting distortion sound. The + C3 effect is a delayed effected. Both effects are only available when keys are pressed, other wise no sound will come thru! Rotary 2, labelled Mod, controls what type of timbre from Osc 1 will effect Filter 3, like wise with Button 2, X-Fade.

Modwheel

MW controls the shaper drive to the + C3 keys effect.

Design Notes

When audio is routed thru Thor's first two Filters they need a trigger to sound. That's why keys need to be pressed for this patch to make any noise, similar to when you run audio thru a Minimooog Voyager.

Inspiration Notes

I love effects patches that can be played, here's an extreme example of one.

Existential Sputter

Extreme

Lewis Osborne

Performance Notes

Use Rotaries 1 & 2 to control the rates of the two LFOs in Malstrom. Buttons 1 & 2 change the curve of the LFOs. Button 3 changes the delay time of the right channel delay from 7/16 to 8/16. Rotaries 3 & 4 control the delay and reverb levels. Button 4 controls the Shaper amount.

Modwheel

MW controls the Frequency of the Filters, while the Pitch Bend controls the Resonance.

Design Notes

This patch uses a Spicer CV to merge two different LFOs from a Malstrom synthesizer thereby creating a new LFO waveform, a little trick I learned from a patch by Adam Fielding in Nucleus SoundLab's Viral Outbreak, a killer ReFill that includes some amazing samples from an Access Virus synthesizer.

Inspiration Notes

With this patch I was going for the kind of crazy filtering effects one can come up with using a Sherman Filterbank.

Exterminate

Extreme

Adam Fielding

Performance Notes

Feed any signal into this effect to produce a heavily filtered output using Malstrom's AM filters. Controls are included for filter modulation rates, tempo-sync controls. The output signal is also slowly panned, with each channel panning from left to right (or vice versa) using one of the Malstrom's modulation curves. This has no effect if the "stereo spread" knob is turned right down.

Modwheel

Modifies the AM filter frequency on both channels.

Design Notes

This effects patch is relatively straightforward, making heavy use of the modulation and filtering possibilities of the Malstrom synth. The input signal is fed through two modulated AM filters, with each channel being filtered independently. This is modulated using one of the Malstrom's more unusual modulation curves. This signal is then compressed and sent to the master mixer, where one of the Malstrom's modulation curves is used to modulate the panning of each individual channel to produce a slow, sweeping stereo effect.

Inspiration Notes

The idea with this patch wasn't to produce a massively complex filter, but to produce a rhythmic modulated filter with plenty of options for altering the timbre of the output signal. The patch title probably goes some way to giving away what sort of sound I was going for...

Extreme Deform Chorus

Extreme

Adam Fielding

Performance Notes

As the name of this patch suggests, the output produced by this Combinator can be a bit on the noisy side. Controls are provided for distortion/damage control, chorus modulation controls and delay controls. As this patch makes heavy use of Thor's delay and chorus units, these controls in particular have a large impact on the overall sound of the patch.

Modwheel

Controls the dry/wet response of the delay signal.

Design Notes

The input signal is first sent to two separate unison devices, one per channel, with the detune value of each unison device controlled by a single CV signal which is inverted on the right channel. This signal is then sent to a single Thor device whereby delay and chorus effects are applied to the incoming signal, further modulating the signal. This in turn is then sent through a Scream4 for some user-controllable distortion before being compressed and sent to the Combinator's output.

Inspiration Notes

This patch brings together everything I love about Reason's potential for destroying sounds – some Scream4 distortion, Thor's audio modulation and some extreme compression.

Freaked

Extreme

Adam Fielding

Performance Notes

A more extreme effect, particularly useful for flourishes/fills and to add a bit of variation to an existing track. Controls are provided for the three distinct effects (shaper/filter/delay).

Modwheel

Controls the AM filter resonance on both left and right filter channels.

Design Notes

This patch makes use of three separate effects to completely transform the incoming signal. First, the signal is split and sent to two Malstrom synth units for processing using the shapers. The shaper type can be set to sine or clip using the provided controls to provide two distinct variations. This signal is then sent through a modulated AM filter, which in turn is sent to the output mixer whereby the signal is split and sent to a chorus unit as an aux send. This chorus unit is in turn controlled using one of the modulation curves on one of the Malstrom units, producing a strange, warped effect.

Inspiration Notes

The Malstrom is a fantastic synth for audio manipulation, and so I decided to make the most of that in this case by utilising both shapers and filters on the included Malstrom units to completely transform the incoming sound. With an extreme effect in mind, I decided to use AM filters to produce a strange, warped effect. The chorus effect was added just to give it an extra warped effect.

Freak State

Extreme

Lewis Osborne

Performance Notes

Rotaries 1 & 2, control the Resonance and Frequency modulation patterns. When Button 2, Auto, is engaged a Malstrom synthesizer modulates the Matrix devices creating random patterns of Frequency, Resonance and Gate Triggering! Rotaries and Buttons 3 & 4 control the Spring Reverb effect adding the "freaky" aspect of the patch. Button 1 chooses the Filter type, either 12 or 24dB/octave Low Pass Filters.

Modwheel

MW increases the Decay of the Spring Reverb and the Frequency of the Filter. Pitch Bend controls the Envelope Amount of the Filter.

Design Notes

The original version of Filter Research had a great patch by Stompp (aka Tom Pritchard) called Autofilter Beats. This patch used a Matrix device to modulate an ECF-42's Frequency and Resonance. I dug his idea and decided to take it a step further by modulating the Gate Trigger and introducing a Malstrom into the patch to automatically change the patterns.

Inspiration Notes

At home when I'm working on patches I generally leave the television on in the background muted. Soylent Green was playing the day I designed this patch, but I assure you no humans were harmed in the making of this patch ;-)

Funky Critters

Extreme

Adam Fielding

Performance Notes

This patch was made primarily with percussive use in mind, though of course can also be used with other input types. Can be used to create some nice crunchy percussive and bass-type effects. Controls are included to control the filter modulation amount and base filter values.

Modwheel

Controls the filter resonance on the Malstrom filters.

Design Notes

The input signal is sent to two separate BV512 EQ devices – one per channel – with EQs and modulated shift values mirroring each other to produce an interesting spread sound. Both of these signals are then merged and split to form two independent channels. The first is sent directly to the output mixer, while the other is sent to a Malstrom for further modulation and filtering. The Malstrom uses two comb filters, with one modulation curve controlling the filter value – this modulation curve is set to one of the Malstrom's exponential modulation curves by default. Modulation curve A is CV split to control both the panning of the two mixer channels and the shift parameters on the BV512 units. The Malstrom signal is then sent to the output mixer, where both channels are mixed and then sent through an EQ/Comp chain.

Inspiration Notes

This patch was designed as a combination of two of Reason's more unique effects – the BV512 EQ which has quite a unique sound and the Malstrom, particularly with regards to the Malstrom's more interesting modulation curves.

Glitcher

Extreme
Shaun Wallace

Performance Notes

This is excellent for hi-hat and/or simple percussion patterns. Can provide very unique microtonal rhythms to musical ideas. Use the glitch delay knob to add in quicker timbral variations.

Modwheel

Boosts foldback on distortion unit.

Design Notes

Each audio signal's amplitude value is modulated by its own amplitude. This provides for choppy and unpredictable microtonal rhythms.

Inspiration Notes

Thor's ability to mangle CV signals is just as good as its ability as a synth. :)

Glitter Phase

Extreme
Lewis Osborne

Performance Notes

Rotary 1, Length, sets the Delay amount being sputtered. Button 1, Auto Length, switches up the Length of Rotary 1. Rotaries 2 & 3 control the Frequencies of the left and right Filters. Button 2 changes the Rate of the Auto Length LFO. Button 4, Low Warp / Bit changes the low frequencies from a thud to distorted grit.

Modwheel

MW increases the rate on the LFO assigned to modulate the Filters while strengthening the Resonance.

Design Notes

This patch was the logical progression for the many glitching combis I've posted on my blog (resonantfilter.blogspot.com)

Inspiration Notes

Sputtering glitchy goodness or badness depending on your POV.

Grainger

Extreme

Lewis Osborne

Performance Notes

Rotary 1, Time Rate, controls the rate of MOD A on the Malstrom synthesizer which is being used to modulate the time of the echo inside of a RV-7000 reverb unit (see Rotary 3.) Rotary 2, Decay Rate, chooses the rate of MOD B on the Malstrom synthesizer which is being used to modulate the decay of the Echo (see Rotary 4.) Button 1, Curve Time, chooses the curve of MOD A. Button 2, Curve Decay, chooses the curve of MOD B. This patch also uses the Output CV on the back of Scream to control many of the parameters of the Scream unit itself. If you open up the combinator (Show Devices) these can be controlled on the front panel of the Thor Synthesizer.

Modwheel

Controls the rate of LFO 2 inside of Thor, which is being used to modulate the Damage Control of the Scream unit. Raising the MW lowers the volume a bit and creates the sense that the sound is slowing down when done quickly.

Design Notes

This patch uses a Malstrom synthesizer to modulate the parameters inside a RV-7000 Reverb unit to mimic the sound of grain synthesis.

Inspiration Notes

This patch uses some of the many tricks Mr. Ned Rush posts on his Youtube channel (<http://www.youtube.com/user/MrNedRush>). Check out his "Reason 4 Reverb Tricks" and "More Reverb Tricks" videos.

Great Destroying

Extreme

Adam Fielding

Performance Notes

This patch produces an extremely filtered and gated output signal. Works well with percussive signals to produce a “broken” drum sound, though can also be used to add a rhythmic element to other more melodic signals. Controls for filter modulation and amplitude modulation are included.

Modwheel

Controls the low-pass filter cut-off frequency and resonance.

Design Notes

The input signal in this patch is sent, in order, through a series of Scream 4 and filters to produce a hugely modulated output signal. The signal is first fed through a Scream4 set to tape distortion to introduce some pre-compression and saturation before filtering the signal. This signal is then passed to an included Malstrom utilising two modulated AM filters, the controls for which are provided on the Combinator. This signal is then sent to two mixer channels – one for the left signal and one for the right. The amplitude of both of these channels is controlled by the Malstrom's other modulation curve, introducing some interesting gate-type effects.

Inspiration Notes

The idea for this patch came as a result of wanting to create an effect that could approximate some of the extreme percussive mangling sounds found in Nine Inch Nail's album Year Zero, in particular the track The Great Destroyer. This track makes heavy use of filters and distortion towards the end to produce an “out of control” sound which I thought would be fun to approximate in Reason.

Harmonic Enhancer

Extreme

Shaun Wallace

Performance Notes

This is a heavy duty CPU intense combi. Although do not let that turn you away from trying this out on EVERYTHING! You want a crunchy harmonically rich sound without having to overly EQ and compress a signal to perfection, then this is the combinator for you. The strength knob controls how much the fundamental frequency will be decreased; in turn increasing all other harmonics.

Modwheel

Applies a shift to what frequencies are being decreased.

Design Notes

In essence this combinator evens out the amplitudes of each frequency band. The louder the frequency band is the more its amplitude will be decreased. This in turn increases the perceived harmonics of the sound and decreases the amplitude of the fundamental frequency.

Inspiration Notes

I have always wanted a harmonic exciter/enhancer in Reason. Compressor's are a nice way to achieve this at times, but I wanted to literally try and re-invent the wheel on this one.

Junk Sick Beats

Extreme

Lewis Osborne

Performance Notes

Rotaries 1 & 2 control the Frequencies of the Filters, either Low Pass or AM depending on Button 2. Button 1, Mod A, engages a modulator for the Filter Envelope Gate. Button 3, ElektoniK, turns on track 2 on the mixer, this channel is the sound of Osc A on the first Malstrom run thru all sorts of glitchy effects, instant unnerving ambience.

Modwheel

MW increases the Frequency of the Filters, raises the feedback of the delay, and changes the shaper type and motion on the ElektoniK channel. Pitch Bend controls the Spread amount of the Malstrom synths.

Design Notes

This patch uses some of the glitch techniques that Rob from Reason101.net demonstrates in his "Auto Glitcher Effect" video available on his site (<http://www.reason101.net/patches/effects-patches/auto-glitcher-effect/>).

Inspiration Notes

It's 5 am, you've been at the club since yesterday afternoon, the drugs are starting wear off and you just realized you have no ride home... this is that sound.

Key Bounce

Extreme

Lewis Osborne

Performance Notes

This is a performance combinator that you'll need to create a track for in able to use - to do this click on the combi (right click on a mac) and from the list that comes up choose "Create Track For Combinator". Now if you look on your sequencer there will be a track for this effects device (effects devices generally don't have tracks.) Now you can use your keys to "bounce" the delay time and feedback! Try playing notes from the top to bottom of your keyboard. Both quick stabs and held notes. The great thing about this patch is you can record your effects in the sequencer and edit them later. The amount of the bounce is being scaled by the Global Envelope inside of Thor, so there's controls for these on the front of the combinator (Rotaries 2 - 4, Buttons 1 - 3). The Delay Time itself is set by Rotary 1 in milliseconds. Rotary 4, Sustain is being modulated by LFO 1 of the Thor synth when Button 4 is on. The rate of this LFO can be controlled inside of the combinator on the front panel of Thor (Rotary 2.)

Modwheel

MW controls the Frequency of the High Pass Filter. Pitch Bend controls the tone of the combi.

Design Notes

When I figured out that you could control any parameter inside of Thor with MIDI Note and Gate I started to dream up different effects devices. This comes from that discovery.

Inspiration Notes

I love effects that adapt and change within a song. This patch gives the user the ability to do just that.

Lope

Extreme

Lewis Osborne

Performance Notes

Rotary 1 & 2 control the Frequency and Resonance of a Low Pass Filter, courtesy of Reason's Thor synth. Rotaries 3 & 4 sculpt the global envelope's sound, which is set to control the LPF. Button 3, Invert, inverts the envelope. Button 4, LFO, turns on the LFO2 which is modulating the Frequency of the LPF. Button 2, Mod Env Res, switches on the Mod Enevelope which is controlling the Resonance of the LPF. And finally on the front panel, Button 1, Tube / Disto, chooses the type of Distortion - either a Tube sound or a Feedback fed thru a Foldback distortion. If you open up the combi there's even more controls available on the front panel of Thor for Chorus (Button 1), Delay (Button 2), Chorus Feedback (Rotary 1), and Envelope Follower (Rotary 2.) Tweak those knobs!

Modwheel

MW controls LFO2's rate (which is modulating the LPF's frequency.) Pitch Bend controls the rate of the delay. Try rocking it up to the top for a shuffle or down to the bottom for a rock steady beat.

Design Notes

This patch has two different possible distortion sounds fed thru a self oscillating Low Pass Filter being heavily modulated by multiple envelopes and LFOs for a robotic sci-fi feel. If that wasn't enough modulating going on both Scream unit have CVs running in the backside controlling Body Scale, and the second Scream has more CVs controlling Feedback Size and Feedback Frequency!

Inspiration Notes

This patch is geared towards beats, try sending something with a little swing thru it!

Margin Walker

Extreme

Lewis Osborne

Performance Notes

Rotaries 1 & 2 control the volume of the independent bands, Lo & Hi. Button 1 turns on the Flanger sound. Button 2 the Reverb effect. Buttons 3 & 4 turn on the modulations for Global Envelope Amount and it's Hold property.

Modwheel

Increases the Delay's Feedback and Frequency of the Low Pass Filter. Pitch Bend controls the Body Resonance in the two Scream units.

Design Notes

This patch splits the bands into Hi and Lo using a Stereo Imager, with different effects on the two different bands. Check out the September '09 issue of Reason Wizardry for this and other cool tips for creating effects patches.

Inspiration Notes

I was thinking of the guitar sound on the intro to Fugazi's "Margin Walker" when creating this patch, a flanging delay with interesting timbres. "You make yourself so beautiful, You make yourself so, so beautiful. And now I feel, I feel like, I'm going to set myself on FIRE!"

Pacman Returns

Extreme

Adam Fielding

Performance Notes

Hugely transforms the input signal into a rapidly modulated VGM-esque sound. Works equally well with most inputs, with controls provided for modulation rates. Use the included controls to alter the timbre to your suiting.

Modwheel

Reduces the filter frequency resonance, resulting in a less extreme effect.

Design Notes

The input signal is sent through a single effects chain consisting of a Malstrom, digital Scream4 bitcrusher effect and then through to the output mixer where a delay aux send is applied to the signal. The Malstrom is where the real modulation comes into effect, with two low pass filters being employed with a step-based modulation curve and high resonance values used to produce a VGM-type of sound. This output is then sent through the Scream4 to further degrade the output and to produce a more authentic arcade-type sound.

Inspiration Notes

The patch title should be a bit of a giveaway here – I've always liked some of the noisier (yet strangely fat) sounds produced by old arcade games, so this is my sort of homage to that.

Phase Inverted Filter

Extreme

Shaun Wallace

Performance Notes

Due to the design of this combinator the effect can be subtle or drastic. Each of the four knobs will alter the sound of a frequency band shifting harmonics from the phase inverted filters.

Modwheel

Boosts stereo width.

Design Notes

The source signal is broken up into 4 different frequency ranges. Each signal is then phase inverted and fed into a comb filter. By phase inverting the signal it will cancel out some of natural timbres and only leave the audio content altered by the comb filters left in the signal.

Inspiration Notes

This combinator was inspired by Thor's hidden ability to phase invert a signal. Thank you James Bernard. :)

Phase Space Delay

Extreme

Shaun Wallace

Performance Notes

This is a trippy effect. It can completely and randomly shift the stereo image of a source signal. It will interact to the source signal due to its phase cancellation properties. Have fun and experiment with this one. :)

Modwheel

Boosts mid range frequencies.

Design Notes

The weird panning and movement is caused by phase cancellation from the tube and tape algorithms on the scream unit.

Inspiration Notes

Ever noticed how when you set up a Scream unit on an auxillary send and use the tube and/or tape algorithm it causes phase cancellation? This combinator was an experiment to create a trippy delay using phase cancellations caused by those algorithms.

Reso Ringer

Extreme

Lewis Osborne

Performance Notes

Rotary 1 controls P1 of the Scream distortion unit which is set to either Modulate or Digital depending on Button 1. Rotary 2, Decay, controls the Decay setting of the Reverb. Rotary 3, Character, determines the Wet/Dry amount of the Reverb. Rotary 4, Pattern, switches between 6 different Matrix Sequencer patterns which are being used to modify both the Filter Envelope Gate Trigger and the Filter's Frequency.

Modwheel

MW controls the Frequency of the Filter. Pitch Bend controls the Resonance.

Design Notes

I often forget that the Matrix Sequencer has not just a note and gate out but a curve setting as well. This patch uses both the gate and curve CVs to great effect.

Inspiration Notes

Sick sick sick distorted beats!

Robot Clicks

Extreme

Adam Fielding

Performance Notes

With the default settings, this patch applies a hefty amount of compression to the incoming signal – as such, it is quite an obvious effect. Works well with rhythmic instruments for some additional distortion, though can be used with less rhythmic sounds to produce a semi-rhythmic output. Controls are provided for the included comb filter and modulation curves.

Modwheel

Controls the comb filter resonance value.

Design Notes

The input signal is first sent through a Scream4 unit set to tape distortion to apply a generous amount of tape saturation to the incoming signal. This gives the following Malstrom unit plenty to work with, which itself applies a modulated comb filter to both left and right channels. This

comb filter is modulated using an erratic modulation curve, producing a somewhat off-kilter result. This modulation curve is user controllable, as are the filter controls. This output signal is then sent through an additional MClass compressor to smooth over any sudden transients before being sent to an additional EQ to provide the user with a somewhat more palatable output signal.

Inspiration Notes

The Malstrom comb filter strikes again! I love the harsh nature of the Malstrom's comb filter, and decided to take it to a bit of an extreme degree here by creating a patch that produces a sort-of “broken robot” type of sound.

Rolling Beats

Extreme

Lewis Osborne

Performance Notes

Button 2 engages a Malstrom MOD being used to switch up the stuttering Delay pattern of Rotary 2. Button 4 changes the flow of Thor's step sequencer, which is being used to Modulate many different parameters inside of Thor itself. Open up the combinator (Show Devices) for even more controls on the front panel of Thor, including Frequency and Resonance for the Filter.

Modwheel

MW increases the decay of the Echo.

Design Notes

This patch has a lot of different modulations going on in it. From Filter types changing inside of Thor to Delays sputtering in and out. Check out the inside for some crazy patching!

Inspiration Notes

Whale songs and Icelandic dance parties.

Sequence Madness

Extreme

Shaun Wallace

Performance Notes

Use the matrix units to sequence in the on/bypass status of each effect. The four combinator knobs control various parameters within each effect. As this knobs are turned up the timbre and intensity of the effect will increase.

Modwheel

Shifts EQ parameters to boost and cut frequencies.

Design Notes

Basically each of three Matrix units can be used to dial in a different preset on two separate Scream units. This allows for some wild and untamed timbres to emerge.

Inspiration Notes

The Matrix is old workhorse that is an excellent modulation source for dialing in sequenced madness. This combinator was another experiment in getting unique results using the Matrix.

Sequenced Movement

Extreme

Lewis Osborne

Performance Notes

Rotaries 1 & 2 control the Frequency and Resonance of the LPF. Turn down the Resonance to get rid of the "movement". Rotary 3 controls the envelope amount. Try turning this up to get "birds" as they call them in the Ham radio world. Rotary 4 determines the LFO rate, the curve of which is controlled by Button 4 - try turning the button on and off to create new sequences. Button 1 chooses between Filter Mode.

Modwheel

MW controls the decay of the Delay.

Design Notes

This patch uses a Low Pass Filter in Thor to create "tones" from Resonance, LFOs and self oscillation.

Inspiration Notes

Shortwave radio test signals.

Spectral Enhancer

Extreme

Shaun Wallace

Performance Notes

Use the knobs to dial in which frequency range is fed into each Scream unit. The Ctrl knobs (2nd & 4th combinator knobs) Alter frequency shifting parameters on the BV512 unit. This is an excellent alternative for providing small timbre shifts to a sound to sit in a mix.

Modwheel

Boosts mid range frequencies on the Scream unit.

Design Notes

Two BV512 units are used to separate and mix between frequency bands. One unit will send its signal to a tape distortion unit while the signal from the other BV512 unit will be sent to a tube distortion unit. This is similar to the Spectral Distortion combinator except the user chooses what frequencies band are sent to either a tape or tube algorithm.

Inspiration Notes

I love the ability to send single frequency ranges to FX units. This is similar to the Spectral Distortion combinator except the user chooses what frequencies band are sent to either a tape or tube algorithm.

Spectral Stereo Imager

Extreme

Shaun Wallace

Performance Notes

Use the knobs to dial in which frequency range is fed into the stereo imager unit. This works excellent on pads and FX to give them a greater sense of space without relying on too many of the traditional effect units.

Modwheel

Changes x-over frequency for the stereo imaging unit.

Design Notes

Two BV512 units are used to separate and mix between frequency bands. One unit will send its signal to a stereo imager unit while the signal from the other BV512 unit will be mixed in dry.

Inspiration Notes

I love the ability to send single frequency ranges to FX units. This combinator focuses on spreading different frequency ranges across the stereo spectrum.

Splatter

Extreme

Lewis Osborne

Performance Notes

Pitch Bend controls the Feedback of the Delay. The rest of the front panel controls are fairly self explanatory. If you open up the patch (Show Devices) Thor's front panel has controls for Frequency (Rotary 1), Bit (Rotary 2), LFO (Button 1), and Delay (Button 2).

Modwheel

MW controls the rate of LFO 2, which is controlling the Filter, with Button 3 turned on this is hardly noticeable though ;-).

Design Notes

Thor's front panel knobs can be used for many things. One thing I sometimes forget is using the CV outs one can control the CV ins of other devices with Thor's front panel Rotaries. On this patch Rotary 2, Bit, is controlling P2 on the Scream device. When you turn the knob to the right it's just like turning P2 to the left!

Inspiration Notes

I collect old rhythm machines and love running them thru effects devices. One of my favorite set-ups is an Acetone Rhythm Ace thru an Electro Harmonix Big Muff into a Moogerfooger Filter and finally into a Casper Electronics Echo Bender. This patch is inspired by that set-up.

Stereo Copier

Extreme

Lewis Osborne

Performance Notes

Button 1 engages the Copier. Rotary 1 controls the Copy Amount. Button 2 syncs the copy to tempo. Button 3 engages MOD A, which modulates the feedback of the copier creating different patterns. When Tempo Sync is on as well as Button 3 the right side of the copier plays off the left in a unique fashion (courtesy of Step Length.) Rotaries 3 & 4 control the Rate and Curve of MOD A. Button 4, Copy Filter, turns on the Filter which is being modulated by MOD B, whose curve is chosen with Rotary 4. Which I know sounds confusing, but try playing with it a bit and I'm sure it'll be more clear ;-).

Modwheel

MW controls the rate of MOD B, which is modulating the Filter. Pitch Bend sweeps the Filter.

Design Notes

This patch is based on the Copy Machine patch I put out on my blog last summer (<http://resonantfilter.blogspot.com/2009/07/copy-machine.html>). I always meant to update it to stereo and this is the new version!

Inspiration Notes

One of my favorite plug-ins is Shuriken's Copy Shop (http://www.shuriken.se/?page_id=89). This is an updated version for Reason.

Stereo Stutter

Extreme

Lewis Osborne

Performance Notes

Controls are mirrored on the front panel for the Left and Right channels. Rotaries 1 & 4 control the stutter interval. Rotaries 2 & 3 control the pattern. Buttons 1 & 4 Sync the stutter to tempo. Buttons 2 & 3 turn on the stutter. Try using different patterns for each channel, or a slightly different interval for one! Open up the combi (Show Devices) for some glitch effects controlled by the front panel of each Thor.

Modwheel

MW controls the Chorus Wetness, which is set to a flanging effect. Pitch Bend controls the Damage type.

Design Notes

This patch uses Matrix Sequencers routed into Thor synths controlling the Delay Feedback, Delay Level, as well as the audio input level - killing the audio-in when the effect is engaged.

Inspiration Notes

This one is based on an effects pedal by Square Wave Parade called the Teaspoon. A killer sampler for stutters and glitch. (<http://thesquarewaveparade.com/>)

Stereo Time Shifter

Extreme

Shaun Wallace

Performance Notes

This combinator works excellent on background noises and FX. It provides some very unique and unexpected results. The first two combinator knobs will help to offset the timing of the left and right channels in order to alter the sense of the stereo delay and fattening effect.

Modwheel

Boosts feedback on delay units to create comb and longer delay effects.

Design Notes

Our perception of panning is caused by two things, difference in time and volume of the left and right channels. In digital audio since we treat left and right channels separately it makes them easier to manipulate. The microtiming of the delays are constantly being shifted along with the pan values to allow for an erratic almost chaotic sense of stereo panned delays.

Inspiration Notes

The simplicities of panning and time based effects can lead to some interesting results. This is an experiment in trying to create an interesting delay and fattening effect.

Tinterhooks

Extreme

Lewis Osborne

Performance Notes

Fairly straight forward controls on the front panel of this combi, save for Button 3, Oscillator. Which engages OSC A on the Malstrom synthesizer creating a disturbing background ambience to the effect. The Pitch Bend wheel controls the shifting of this oscillator.

Modwheel

MW lowers the Frequency of the Filters and controls the rate of MOD A, which is modulating the Filters. Try sweeping the Mod Wheel to 127 and holding it there for a few bars - works great for a bridge or verse.

Design Notes

The MClass Compressor has a CV Out (just like the Scream 4) and is used in this patch to control the Gate of the Malstrom synthesizer. Which is what creates the background ambience from an oscillator called BlurbFlies.

Inspiration Notes

I watch a lot of Sci-Fi movies. Probably my favorite one is Children of Men, which I had playing in the background when I designed this patch.

Tone Modifier

Extreme

Shaun Wallace

Performance Notes

Do you have a favorite over-used in your productions? If so running it through the combinator will help re-organize the frequency and harmonic content of the sound to make it sound like new again. Mix between different comb filters and modify the settings to get various microtonal variations on a sound.

Modwheel

Boosts the rate of the LFO's that modulate the comb filter frequency.

Design Notes

Uses a phase cancelled signal run through separate comb filters to re-organize and shape the microtonal properties of a sound.

Inspiration Notes

This is one of several experiment in using phase cancellation and comb filters to alter the timbre of a sound.

Vista Flare

Extreme

Lewis Osborne

Performance Notes

Use Rotaries 1 & 2 to choose Filter types for the Left and Right channels inside Malstrom. Try using different filter types for each channel! Rotary 3 determines the type of Shaper and amount, while Button 3 turns on said Shaper. Rotary 4, controls the Frequency of the Spring Reverb effect that is on when Button 4 is engaged. Button 1 turns on a LPF. Button 2 turns on two LFOs controlling Malstrom's Filters.

Modwheel

MW controls the Feedback of the Delays and Filter Frequency. Pitch Bend controls the Frequency of the Filter.

Design Notes

This patch uses multiple filters - first being an ECF-42 on LP 12 that darkens the sound coming in followed by Filters A & B inside of a Malstrom synthesizer. The filter types for these two are controllable on the combis front panel making the sound variables of the patch very extensive.

Inspiration Notes

I love effects patches that you can route a beat into and it seems to create a whole bed of noise. This is one of those effects patches.

Waterworld

Extreme

David Nyberg

Performance Notes

Rotary 1 is used to let Mod A on the Malstrom control the parametric EQ frequency on the RV7000 Reverb. This creates the bubble sound. Rotary 2 controls the feedback of the chorus. Rotary 3 controls the dry/wet mix of the reverb. Rotary 4 controls the rate of Mod A (causing the bubbling) with button 4 letting you choose between 2 levels for the bubbles. Button 1 and 2 are used to activate the unison and chorus effects respectively. Button 3 enables the feedback effect which turns the sound into techno in an instant!

Modwheel

Use the modwheel to cycle thru waveform 17 to 31 of Mod A on the Malstrom. Which will change the sound of the bubbles.

Design Notes

The signal first passes thru the unison and chorus and reverb effects to make sure the sound is all over the place. After that it will go thru the feedback effect and finally thru the compressor. I used a Malstrom to create the water effect by modulating the Parametric EQ frequency of the reverb and the detune parameter on the unison.

Inspiration Notes

Would you believe it when i say that i got the inspiration while doing the dishes?

Wave Transformer

Extreme

David Nyberg

Performance Notes

Use this effect on basic analog waveforms like saw, square, etc. You can create very interesting sounds using the self explanatory Combinator front panel controls to shape the sound.

Modwheel

The modwheel can be used to lower the dry/wet mix of the chorus which narrows the stereo field.

Design Notes

The signal first goes thru the Scream 4 with Digital or Scream settings after which it goes to the reverb, Thor (functions as VCF and VCF modulator) and compressor.

Inspiration Notes

I wanted to make an effect which turns a dull basic waveform into something else.

You're Doing It Wrong

Extreme

Adam Fielding

Performance Notes

This patch will take any input signal and produce a hugely compressed, nasty output. As such, I wouldn't recommend using it on backing instruments – as an effect on lead instruments and drums it works very nicely, but sparing use is recommended.

Modwheel

Controls the low-pass filter cut-off frequency and resonance.

Design Notes

This is a fairly straight-forward patch with one singular purpose – to compress and saturate the incoming signal as much as possible. As such, it makes use of two Mclass Maximizers to

completely flatten the incoming signal – though the degree to which this occurs is based on the level of the incoming signal and whether the first Maximizer is left enabled. Secondly, this is passed through a tape-Scream4 device to completely saturate this already compressed signal. The “body” of this Scream4 introduces some interesting modulated effects to the signal, though this too can be disabled. Finally (because the signal hasn't been broken enough) the signal is sent through a Stereo Widener effect and a simple low-pass filter effect.

Inspiration Notes

This patch was designed with one sole purpose in mind: to create the most ridiculous compression patch in Reason. I'm sure this isn't what the Maximizers were designed for, but that's half the fun really.

FILTERS

48db BP Filter

Filters

Shaun Wallace

Performance Notes

This is an all purpose 48db Band Pass filter. It features a 24db Low Pass filter before the BP filter. This allows the user to use this filter combination for formant effects on sounds.

Modwheel

Boosts filter drive on the BP and LP filters.

Design Notes

Running a signal through multiple filters in serial order allows you to increase the "slope" or db reduction at a given frequency. The 48db BP filter is achieved through this routing.

Inspiration Notes

Gigantic filter sweeps are common in electronic music genres. Using a filter with a higher slope value allows the user to create more drastic filtering effects not commonly heard when using Thor as a filter.

48db HP Filter

Filters

Shaun Wallace

Performance Notes

This is an all purpose 48db High Pass filter. It features a 12db Band Pass filter before the HP filter. This allows the user to use this filter combination for excellent sweeping effects on percussion and/or FX sounds. Turn on the Filter FM button to drastically increase brightness.

Modwheel

Boosts filter drive on the HP and BP filters.

Design Notes

Running a signal through multiple filters in serial order allows you to increase the "slope" or db reduction at a given frequency. The 48db HP filter is achieved through this routing.

Inspiration Notes

Gigantic filter sweeps are common in electronic music genres. Using a filter with a higher slope value allows the user to create more drastic filtering effects not commonly heard when using Thor as a filter.

96db LP Filter

Filters

Shaun Wallace

Performance Notes

This is an all purpose drastic 96db Low Pass filter. It features the option for pre and/or Post filter distortion using the Scream unit. The Type I/II button allows the user to switch the type of LP filter used to help add flexibility in modifying timbres.

Modwheel

Boosts Pre and Post filter distortion.

Design Notes

Running a signal through multiple filters in serial order allows you to increase the "slope" or db reduction at a given frequency. The 96db LP filter is achieved through this routing.

Inspiration Notes

Gigantic filter sweeps are common in electronic music genres. Using a filter with a higher slope value allows the user to create more drastic filtering effects not commonly heard when using Thor as a filter.

ADSR Filter

Filters

Lewis Osborne

Performance Notes

Use the Attack, Hold, and Decay knobs (1-3 respectively) to design the type of filter envelope you want. Rotary 4, Env Amt, adjusts how much of the sound is controlled by the envelope. Also, if you open up the combi (Show Devices) Thor's front panel has controls for the Frequency and Resonance of the filter. As well as a button marked "Bubble" that engages a strange chorusing effect as well as a delay engaged with button 2.

Modwheel

MW controls the sustain of the Global Envelope. Sweep it up to open up the envelope. leave it closed for a more "bubbling" type of sound. Pitch Bend changes the Shaper type.

Design Notes

If you look on the back of the Scream 4 unit I'm using the "Auto CV Output" to control the "Gate Trig" on Thor's Global Envelope. This output on Scream is very useful, another cool trick I learned from Reason Wizardry (November '09).

Inspiration Notes

I started off as a guitar player and have always been jealous of the wonderful envelope filter sections available on many analog synthesizers. Thor's global envelope section is great example of that technology in software, the "loop" function is what makes it a blast to play around with though ;-)

BassDrum Beefer

Filters

David Nyberg

Performance Notes

Use the various controls to shape bassdrums. There's an EQ boost, 2 types of compression (M-Class and tape), tape speed control, reverb, degrade and Filthor (a Thor filter which dampens the sound).

Modwheel

The modwheel controls the cutoff frequency of Filthor.

Design Notes

The input sound first passes thru a compressor to beef it up with. It then goes thru the EQ, Scream 4 (Tape), RV7000 Reverb, Scream 4 (Degrade) and finally thru a Thor (Filthor) with a type 2 24dB/Oct lowpass ladder filter setting.

Inspiration Notes

Sometimes you just need a big reverbed bassdrum. This patch let's you mangle it even further.

Busy Bee

Filters

Adam Fielding

Performance Notes

Although designed with long, sustained/melodic sections in mind, this patch also works nicely with rhythmic/percussive type sounds. Use the sweep controls to control the formant filter.

Modwheel

Controls the formant filter resonance.

Design Notes

The input signal is split into two and fed into both a sub-mixer and a BV-512. This BV-512, acting as an extreme EQ unit, is then sent through an Mclass compressor to create a pronounced, somewhat breathy sound. The levels of both of these signals can be controlled using the included "dry" and "filter" controls. This in turn is then fed into a Thor, where a formant filter is used –

itself being modulated by one of the included LFOs. This is then sent through a Scream4 for additional saturation, with the resulting signal being output.

Inspiration Notes

My original intention here was to create a patch that would exacerbate breathy vocal sections, but quickly turned into something somewhat more bizarre (and, frankly, interesting). I love it when that happens.

Comb Forward

Filters

Adam Fielding

Performance Notes

Introduces a two-stage filter to the input signal – a comb filter followed by some saturation and formant filtering. Works well with sustained melodic signals to produce a warped output, though can also be used to produce interesting rhythmic effects on percussive signals.

Modwheel

Controls the resonance of the comb filters.

Design Notes

The signal is first sent through a Malstrom unit where some initial comb filtering is applied to the signal. This filtered signal is then split into two via an MClass stereo imager. The low signal is sent through a tape-based Scream4 before being sent to the output mixer. The high signal is sent through a modulated formant filter provided by one of Reason's Thor units before being sent to the output mixer. Delay is added to the high/formant-filtered signal via an aux-send filtered delay. The mixer output is then sent to the Combinator's output.

Inspiration Notes

With this I really wanted to combine the strengths of both the Thor and Malstrom units in Reason – as such, I decided to use the gritty Comb filters of the Malstrom with the Thor's formant filter.

Comb Slice

Filters

Adam Fielding

Performance Notes

This effect utilises one Thor instance as a multi-filter unit, filtering the input signal through both comb filters and formant filters. The amplitude of both signals can be controlled using the included Combinator controls. Controls for the sweeping filter are also included.

Modwheel

Controls the comb filter and formant filter resonance to produce a more extreme output signal.

Design Notes

This patch makes use of the filter and modulation capabilities of the Thor to produce two individual output signals, both of which are sent to the output mixer. The first signal is fed through the Thor's comb filters, the frequency of which is controlled by one of the Thor's LFOs. This signal is then split – one signal is sent to the mixer and the other is then sent to the formant filter for additional processing. This formant filter is also modulated using the same LFO controlling the comb filters. Both signals are combined and sent to an aux-send delay chain which may be disabled by the user.

Inspiration Notes

This patch was inspired by the idea of using one Thor device to produce two distinct output signals, using the modular capabilities of the Thor to override the default signal chain.

Combing Channels

Filters

Adam Fielding

Performance Notes

Given the rhythmic nature of this patch, it works particularly well with snappy percussive-type sounds, though can be used as a complex delay-type effect with other instruments. Controls are mostly self explanatory, though if the delay is proving too tricky to tame then the “zero feedback” button might be particularly useful.

Modwheel

Controls the comb filter resonance on both delay signals.

Design Notes

The input signal here is split into three – the dry signal and two delayed signals. The two delayed signals are timed independently and passed through individual comb filters, both of which are modulated using Thor's in-built LFOs. These signals are then fed through separate BV512 EQ units to produce two very different delay signals before being sent to the output mixer where some additional reverb is applied to the delay signals.

Inspiration Notes

The idea for this patch came about after listening to Amon Tobin's fantastic Chaos Theory Soundtrack – there's a of interesting drum programming and some particularly chaotic textural work going on, so I thought it would be nice to produce a sweeping, comb-based patch to go some way into creating complex (yet easily controlled) layers based on a simple input signal.

Deformed VGM Wah

Filters

Adam Fielding

Performance Notes

Pass a signal through the effect for a tempo-synced comb-filter/chorus effect. As the patch uses a Thor (including a step sequencer) either the sequencer must be running or the “run pattern devices” button must be enabled on the Combinator.

Modwheel

Controls the low-pass filter cut-off frequency and resonance.

Design Notes

This patch utilises three stages of filtering, modulation and delay effects to produce an interestingly modulated output signal. The comb filters are modulated via the Thor's built in step sequencer and LFOs, while the delay section of the Thor is also used as a modulation effect rather than as a standard delay effect with controls provided to the user for additional tweaking. The delay itself is modulated by one of the LFOs and this signal is then sent to a delay chain via the mixer, with chorus effects applied separate channels to produce an interesting stereo field.

Inspiration Notes

This patch came about as a result of experimenting with the Thor's delay unit as a modulation effect rather than as a traditional effect, which I then built around to produce a complex filter/modulation chain using Thor's built in step sequencer.

Dirty Drum Toolkit

Filters

Adam Fielding

Performance Notes

Designed primarily with drums in mind (particularly acoustic drums), this can be used to introduce an additional bit of punch/sheen to drum signals by adjusting the band frequencies using the knobs included on the Combinator.

Modwheel

Controls the output gain on the included MClass limiter to produce a louder, more heavy output.

Design Notes

The input signal is first fed through an MClass limiter where it is heavily attenuated. This attenuated signal is then split and sent into three MClass EQ units for individual processing. The default values of these EQ units was designed with drums in mind, though can be modified using the included Combinator controls. All three signals are compressed individually, with the mid

signal also having an additional widening effect and reverb effect applied. These signals are combined and sent to the Combinator's output to provide an enhanced drum sound.

Inspiration Notes

This was more of a flexible-tool approach for me than most of my patches, and was designed with the sole intention of modifying drum sounds.

DJ EQ

Filters

David Nyberg

Performance Notes

The Bass and Treble rotary's are used to control the levels of the bass and treble signals. There's a X-Over frequency control which determines where the bass stops and the treble begins. Button 3 selects between a mono and a stereo delay and button 4 sets the setp count for the mono delay. Use rotary 4 to control the amount of delayed sound.

Modwheel

Use the modwheel to control diffusion of both mono and stereo delays.

Design Notes

Stereo Imagers are being used to split the signal into low and high frequency signals. The delay is connected as a send effect on the low/high mix.

Inspiration Notes

For years i was very active in DJ'ing. I love the sound of the dj mixer's kill switches and so i made one. I've included a delay to add some interest to the cutting.

Driven To The Edge

Filters

Adam Fielding

Performance Notes

Works particularly well with melodic instrumentation, though can also be used to produce some interesting filtered/stuttering rhythmic effects in percussion. Use the filter and shaper controls to transform the sound – should you require, both automatic filter sweeps can be disabled using the provided controls.

Modwheel

Controls the step sequencer speed controlling the “stuttering” effect – this has no effect if the “stutter pattern” button is not in use.

Design Notes

The input signal is split into two separate Thor devices, both configured in a similar manner so as to effect each channel individually. First, the signal is filtered using an LFO-controlled low-pass filter before being passed through Thor's distinctive wave-shaper. This adds an interesting character to the sound, and the filter itself is controlled using the built-in step sequencer to produce a simple gating effect. This is then sent through Thor's delay unit, combining to produce a ringing, over-driven effect. This in turn is then passed through to a Scream4 distortion unit for additional saturation.

Inspiration Notes

The idea for this came about after listening to an old EP of mine combining a jazz-inspired brass section and electronic drums. It's an interesting juxtaposition of styles and my original intention was to create a simple percussive effect. However, I decided to try the patch early on with some guitars and horn samples and decided to work around that instead.

Ducking EQ Fattener

Filters

Shaun Wallace

Performance Notes

Great to use on leads and pads. Really helps to emphasize the release signal of a sound. Work best on mono sounds.

Modwheel

Boosts attack on compressor controlling the ducking signal.

Design Notes

Uses the side chain signal from a compressor to duck the EQ'ed signal. As the source signal decreases in volume the wet EQ'ed signal gets mixed back in.

Inspiration Notes

This was a modification of the Ducking Delay combi. I wanted to focus on shaping the release of a sound through cutting and boosting frequencies.

Judder

Filters

Lewis Osborne

Performance Notes

Rotary 1, Pattern, switches between 5 different patterns on the ReDrum. Button 1, Attack, lengthens the Attack on the Global Envelope inside of Thor. Button 3, LFO Wave, changes the LFO wave from a Sine Wave to a Saw. Button 4, engages the LFO, which is modulating the Envelope amount on the Formant Filter. Open up the combinator (Show Devices) for extra

controls on the front panel of Thor. Including Shaper Amount (Rotary 1), Formant Gender (Rotary 2), Chorus (Button 1), and Delay (Button 2).

Modwheel

MW controls the X axis of the Formant Filter. Pitch Bend controls the Y axis of the Formant Filter.

Design Notes

This patch uses a ReDrum Drum Machine's CV outs to control different parameters inside a Thor synthesizer. When I first bought Reason I tried to do this and couldn't figure out why it didn't work until some nice bloke on the PUF clued me in - you have to change the Decay/Gate switch to Gate Mode!

Inspiration Notes

Watched the movie "Crazy Heart" last night with my Pops, great movie... sad, lonely, and broken hearted - the sound of a Formant Filter.

Metallercise

Filters

Adam Fielding

Performance Notes

This patch works particularly well with rhythmic key-stabs, transforming a simple melodic part into an alien percussive instrument. Try using it with a Wurly, playing the same note at different velocities. Add a little delay into the mix and you've got an unusual sounding percussive instrument. Works equally well with other types of instruments.

Modwheel

Controls the modulation amount on both included chorus units.

Design Notes

This patch makes use of one of Reason's oft-overlooked effects – the simple CF-101 chorus unit. By making use of slowly modulated delay rates and extreme feedback settings, these chorus units are essentially used as extreme comb filters to transform any incoming signal into a metallic-sounding instrument. Each channel is passed through a separate chorus unit, both of which are modulated using a CV signal generated by an included Subtractor. These are both EQ'd and compressed to produce the output signal.

Inspiration Notes

This is a nice little effect I like to use in a lot of my tracks – something I stumbled upon purely by accident many, many years ago when I was working on an ambient track entitled Contact. I used a Wurly-multisample from the Electromechanical refill to produce a very unusual, yet

strangely melodic, lead sound. I still use this effect sporadically in my more recent music for interesting percussive flourishes and effects.

Multiramp Morph

Filter

Adam Fielding

Performance Notes

Splits the input into a low and high band and processes each band independently. Can produce interesting rhythmic modulations with melodic sounds – can be used to create some interesting and unusual sounds with more organic instrumentation such as guitars and bass.

Modwheel

Controls the saturation amount on the low-band channel.

Design Notes

The input signal is passed through an MClass stereo imager where it is then split into two separate signals – the low and high bands. The low band is sent through a BV512 EQ where a high cut is applied, followed by some tape saturation courtesy of a Scream4 device before being sent to the output mixer. The high band channel is sent through a Malstrom for filtering before being sent to the output mixer. The Malstrom uses both modulation curves to control the filter frequency on both channels – by using a stepping modulation curve and a sinewave modulation curve, this results in a sweeping/stepped output. Delay is applied to the high band mix channel and the result is then sent to the Combinator's output.

Inspiration Notes

This patch is another one of my VGM-inspired patches, though I attempted to make something a little less extreme with this patch – hence the multi-band approach. The input signal is still very much recognizable, but the filter is still quite extreme.

Notched Up

Filters

Adam Fielding

Performance Notes

Can produce interesting results with live instrumentation such as guitars and vocals, but works equally well with percussion to produce some variable sweeping effects. Controls are provided for both filter and reverb units, as well as additional effects devices.

Modwheel

Controls an additional delay aux send effect – use the mod wheel to send the effected signal to an additional filtered delay with a high feedback value for additional sweeping effects.

Design Notes

This patch makes use of two opposing LFO controlled notch filters provided by the Thor synthesiser. The input signal is sent to an MClass compressor before being sent to two separate Thor units – two Thors were used as opposed to one single Thor so as to keep the entire Combinator free of sequencer control. These two filters are modulated using the same LFO signal (split and sent from the first Thor), but are modulated inversely. These signals are then passed to the mixer, where additional reverb and delay effects are applied accordingly as well as additional stereo and EQ effects.

Inspiration Notes

With this patch I had originally intended to create some sort of effect involving a sweeping notch filter. However, as I started working on the patch I decided to take it in a different direction and started using more complex LFO signals to control the notch filter. From this, I decided to start including additional filters and effects until coming up with the patch you see now.

Parallel + Serial Compressor

Filters

Shaun Wallace

Performance Notes

A simple expansion upon the compressor model. This combinator focuses on utilizing the unique timbral shaping qualities of running multiple compressors. Works excellent on bringing out unique tones in ethnic percussion. The Par/Ser knob morphs between the routings.

Modwheel

Feeds signal to foldback distortion on an auxiliary send.

Design Notes

This combinator uses the Dry/Wet mixer model to create a signal that is both compressed through serial and parallel chains of compressors. By using this model the user can morph between the two signal chains.

Inspiration Notes

This combinator was my first experimentation off of morphing between serial and parallel signal chains of similar devices.

Pattern Pole

Filters

Lewis Osborne

Performance Notes

Buttons 1 - 4 control the Attack, Decay, Sustain, and Release of the Filter Envelope. Rotary 3 controls the Envelope Amount. Rotary 4, Gate Pattern, controls the pattern of the envelope gate trigger with 5 different patterns.

Modwheel

Increases the Foldback Distortion.

Design Notes

This is a 4 pole Filter that uses a Matrix Sequencer to control the Envelope Gate.

Inspiration Notes

One of my favorite tricks with my effects pedals is to use a drum machine to trigger the envelope on my Low Pass Filter. This creates unique patterns in the filter not necessarily based around what's being fed into the Filter itself. This patch is a software version of that idea.

Phase Filter Kit

Filters

Adam Fielding

Performance Notes

This patch works nicely with all kinds of inputs, though with the additional modulated filter controls (opened up by turning the filter frequency down using the fourth knob by default) it can be used to apply a nice additional rhythmic element to both melodic and percussive sounds. Use the “two-band phase” button to toggle between two inverted notch filters (one per channel) or one single notch filter.

Modwheel

Adds an additional modulated chorus effect to the signal.

Design Notes

This patch makes use of two Thor-based notch filters to produce a slow, sweeping sound. The input signal is routed to both Thors, where the filter is applied. The filter is modulated using the Thor's built in LFO. An additional Thor chorus is applied using the modwheel. These signals are then sent to a line mixer whereby additional compression is applied to the signal by default. This signal is then passed through to a single Malstrom which, with the default settings, does not affect the sound until the fourth rotary is dialed back by the user. When this happens, the filter frequency is modulated by one of the Malstrom's modulation curves to produce a rhythmic, modulated sound on top of the phaser.

Inspiration Notes

I can't count the number of times when I've wanted to use a phaser-type effect without resorting to Reason's default phaser devices, so I thought it would be beneficial from a personal point of view to produce a patch that did it all for me... with some additional functionality on top of that, of course.

Phased Monereo Fats

Multi-Effects

Adam Fielding

Performance Notes

Processes the input signal in two ways – distortion is applied to a mono version of the input signal, while a modulated stereo phaser effect is applied to the mids/highs. Works nicely with percussive sounds but can also be used to interesting effect with more bass-heavy sounds as well.

Modwheel

Controls the reverb decay time.

Design Notes

The input signal is split into two channels – the first channel is sent through an MClass stereo imager to reduce all stereo information, resulting in a mono output. This mono signal is then sent through a tape Scream4 for additional compression and saturation before being sent to the mixer. The second channel is sent through an MClass stereo imager where the input signal is widened and the lows are cut. This signal is then sent through two phaser units – one per channel – which are each modulated by an LFO generated by a Subtractor device. This CV signal is also used to control the panning of each phaser channel. Reverb is then applied to both the phaser and mono signals, and the mixer signal is then sent to the Combinator's output.

Inspiration Notes

This was inspired by some of the more unusual drum sounds employed in a few more recent Nine Inch Nails tracks – although the output isn't massively NIN-esque by default, a little tweaking with the provided controls certainly takes care of that.

Propellernaught

Filters

Adam Fielding

Performance Notes

Works with both rhythmic and non-rhythmic input signals to produce (by default) some interesting, pulsing/phased effects. Controls for the input delay, filter modulation and phaser

effects are included on the Combinator. If you need the Combinator to roll off, the delay decay knob should come in useful.

Modwheel

Controls the modulated BP filter resonance value.

Design Notes

Technically, this patch could also fall into the “delays and ambience” category but the modulated filter here is what gives it its characteristic sound. The input signal is sent through a delay unit which, by default, makes use of a high decay value to produce a nice wall of sound ready for the modulated filter to use. This signal is then sent through a Malstrom synth where the signal is filtered using a bandpass filter. This bandpass filter is modulated using one of the exponential-decay modulation curves to give a sort of stuttering effect. This signal is then sent through a phaser before being sent to the Combinator's output.

Inspiration Notes

As mentioned above, this could just as well fall under a different category – this patch started life as an extreme delay effect, and it was only after going down this route that I decided that the delayed signal would provide ample material for further filtering. As such, I decided to include the Malstrom and made use of its unique modulation curves to produce this effect.

Psych Fall

Filters

Adam Fielding

Performance Notes

Generates a modulated filter effect using a step-sequencer controlled filter unit. Works well with percussive sounds but can also be used with melodic parts to create a more rhythmic, bouncing type of effect.

Modwheel

Controls the filter resonance on the Thor filters.

Design Notes

This patch makes use of a single step-sequencer controlled Thor unit. Audio is sent through the audio input on the Thor device, which controls both filter units using the sequencer curves to produce a tempo-synced, stereo filter effect with variable modulations on both filter units. The output from these filters is then passed through a single Scream4 unit for additional distortion before being sent to the Combinator's output.

Inspiration Notes

With this patch I had wanted to create a nice, rhythmic filter effect making use of Thor's filter units to create an interesting stereo filter effect making use of Thor's included step sequencer curves and LFOs to create a sweeping, modulated filter effect.

Punchy Ringer

Filters

Adam Fielding

Performance Notes

This effect applies an AM filter and some unique BV512 filtering to produce an interesting modulated filter-type effect. Works well with percussive sounds and can be used to produce interesting mechanical effects with more melodic instrumentation.

Modwheel

Controls the damage control parameter on the low-band Scream4 unit.

Design Notes

The input signal is split into two discrete signal paths. The first signal path (the high path) is sent through a low-cut BV512 EQ unit before being sent through a Malstrom. This signal is then sent to an MClass compressor before being sent to the output mixer. The second signal (the low path) is sent through a BV512 high-cut EQ before being distorted via a tube-type Scream4 unit. This is then sent to the output mixer. The Malstrom introduces an AM filter into the high path which itself is modulated via one of the Malstrom's modulation curves. These two signals are then combined and sent to the Combinator's output.

Inspiration Notes

With this effect I wanted to create something a bit more quirky yet mechanical sounding. As such, I decided to employ both the unique characteristics of the BV512 EQ-type units and the Malstrom's AM filter.

Scrape a Living

Filters

Adam Fielding

Performance Notes

The overall timbre of this patch can be transformed using the included comb-filter controls. For more immediate results, use the comb mode buttons to transform the timbre. Lower comb filter frequency values result in longer "trails" and a more extreme effect.

Modwheel

Adds a simple high-feedback delay signal into the output signal.

Design Notes

The input signal here is split into 4 separate signals. One signal remains dry and is not processed in any way. The other three are fed to independent, high resonance comb filters to produce an extreme “scraping”-type effect when mixed together. By automating the included buttons and knobs, some interesting and complex effects can be produced. Each comb filter is slowly modulated by an included LFO, resulting in a slowly sweeping comb filter sound by default.

Inspiration Notes

I love the sound of extreme comb filtering, so it only seemed right that I should create a multi-comb filter patch to transform the incoming signal in such an extreme manner.

Skulker

Filters

Lewis Osborne

Performance Notes

Rotary 1, FM - / +, controls the amount of Frequency Modulation being effected by Thor's Step Sequencer's S.Curve 1. Button 1, Random, sets Thor's Step Sequencer to Random mode. Rotary 4, Funk, changes the Global Envelope Decay amount, giving beats a "funky" feel when at 127. Button 3, Release, changes the Global Envelope's Release amount. Button 4 changes the Comb Filter mode. Open up the combinator (Show Devices) for some really crazy glitch controls on the front panel of Thor.

Modwheel

MW lowers the Frequency of the Comb Filter and subtly raises the Resonance. Pitch Bend plays with the EQ.

Design Notes

In the last Filter Research ReFill there was a patch by Tom Pritchard called "Makes Beats into Bass" that I really dug. This is it's funky cousin.

Inspiration Notes

Space Funk the kind played at Zeta Reticuli dance parties by 8 foot aliens.

Takeoff

Filters

Adam Fielding

Performance Notes

Produces a propeller-esque effect using a Thor and Scream4 unit. The “run pattern devices” button must be enabled for this effect to produce any sound.

Modwheel

Controls the low-pass filter resonance values in the included Thor.

Design Notes

This device makes heavy use of Thor's capabilities. The input signal is sent to a Thor unit where it is sent through two inversely modulated low-pass filter units. The amplitude of this signal is modified by a rapidly progressing pattern programmed into the step sequencer to produce a rapidly stuttering output which is almost propeller-sounding. Some additional delay and chorus effects are applied using the Thor's in-built effects. This signal is then sent into a tape Scream4 whereby a large tape distortion effect is applied to the signal to produce a more cavernous sound when combined with the delayed signal.

Inspiration Notes

With this patch I had intended to produce an effect similar to one I had utilised in an earlier track, whereby a huge amount of tape saturation is applied to a long delay signal to produce a cavernous-yet-controllable output.

Terminator Malfunction

Filters

Adam Fielding

Performance Notes

Introduces a comb-filter-esque effect using a combination of delay units and a large, modulated reverb signal. Works very nicely with percussive sounds.

Modwheel

Controls the delay time on the delay units.

Design Notes

The left and right signals are sent through individual filter-delay chains, with the filter on each chain being inversely modulated by a CV signal produced by an included Malstrom unit. These signals are then sent to the output mixer where they are then sent to an RV7000 unit. This RV7000 signal is then filtered using an ECF-42 unit which itself is heavily modulated by the second CV signal produced by the Malstrom's second modulation curve. This is all combined and then sent to the Combinator's output.

Inspiration Notes

I had originally intended for this to be a more extreme delay/ambient-type effect, but as the patch itself developed I decided it would work better with the delay units working in an almost comb-filtering capacity.

Tincan Buffer

Filters

Adam Fielding

Performance Notes

This Combinator features a modulated AM filter combined with a buffered delay chain. Works well with melodic instruments, though can also be used to create interesting percussive variations if required. Use the “destroy” button to introduce some unique Malstrom-powered distortion to proceedings, and try experimenting with the “delay time” control to keep things nice and varied. There are 4 delay patterns, so try each one out to see which works best.

Modwheel

Controls the filter resonance on the modulated AM filter.

Design Notes

The input signal is sent through a single Malstrom unit for some modulated AM filtering using a simple pulse-style modulation curve. This signal is then sent to a 14:2 mixer channel where the aux sends are then used to apply some additional unison and delay effects. The delay unit is controlled by an included Matrix device, as is the amplitude of the delay aux return – by using the same curve to control feedback and amplitude controls, this allows for the creation of interesting delay effects while remaining controllable by the user. Both of these signals are combined and sent to the Combinator's output.

Inspiration Notes

With this patch I was inspired to try creating something geared primarily towards extreme vocal modification, though ended up with something useful with all kinds of instruments. The potential in Reason for small glitched-up effects using buffered delays is something I have a fondness for, so combining that with some Malstrom-flavoured filtering seemed like a neat idea.

Tramampoline

Filters

Adam Fielding

Performance Notes

Creates a nice, bouncing-type effect using filters modulated using two modulation curves. This produces a rhythmic/mechanical type of effect, useful for percussive elements and melodic elements to introduce a bit of a twisted edge.

Modwheel

Controls the filter resonance of the included comb filters.

Design Notes

The input signal is initially split into two – one signal is sent to the mixer to introduce a dry element (which can be controlled by the user), while the other is sent to the effects chain consisting of a Malstrom and compressor before being sent to the mixer where some additional reverb is applied. The Malstrom uses two modulation curves to control the comb filters,

producing an interesting/bouncing type of comb-filter sound characteristic of the Malstrom unit itself. These two signals are then mixed together and sent to the Combinator's output.

Inspiration Notes

I had originally planned to create a more “bouncy” type of effect using Thor's low-pass ladder filters to produce a nice, modulated bouncing type of effect. However, I opted to go with the Malstrom in the end, using its comb filters to produce a more characteristically mechanical effect, giving the effect a more unusual edge.

Vocal Formant Control

Filters

Shaun Wallace

Performance Notes

Use the knobs to tame any peaks in range of a vocal formant. Works extremely well on other sounds besides vocals. Can really add life and an organic texture to a synth lead.

Modwheel

Boosts shift and HF emphasis on the BV512 unit.

Design Notes

In essence this combinator evens out the amplitudes of each frequency band commonly located in the vocal formant range. The louder the frequency band is the more its amplitude will be decreased. This in turn increases the perceived harmonics of the sound and decreases the amplitude of the fundamental frequency.

Inspiration Notes

This combinator uses similar concepts and controls as the harmonic enhancer combinator except it focuses on frequencies found within the vocal formant. This allows for the user to have finer control over this range of frequencies.

Wave Sweep

Filters

Adam Fielding

Performance Notes

Produces a nice, sweeping effect which is useful with most input signals. The EQ frequencies can be controlled using the first knob – the higher the value, the higher/lower the two EQ bands are set. Lower values produce a more obvious sweeping effect, which is also determined by the Q-curve width (also controllable).

Modwheel

Introduces a reverse reverb into the signal chain to produce some sweeping variations.

Design Notes

The main focus of this patch is the sweeping MClass EQ unit. This is controlled via the first knob on the Combinator, which itself is controlled by a steady LFO generated by the included Subtractor unit. This knob inversely controls both EQ bands, producing the sweeping effect. Extensive controls were provided to the user, allowing for simple phaser-type effects through to less obvious sweeping effects. This is then sent to an RV7000 reverb unit, allowing for some additional variation courtesy of the modwheel. This is then sent to the output mixer where an additional aux send chorus effect is applied to the incoming signal by default. This signal is then compressed and sent to the output.

Inspiration Notes

This was my take on a somewhat less typical notch-filter. With the default settings, the Q curve is pretty wide so the effects are fairly obvious. However, with some additional tweaking of the Combinator controls the user can get some interesting results out of it.

MODULATIONS

Azure Texture

Modulations

Lewis Osborne

Performance Notes

Rotary 1, Filter Mode, switches between the five different filters in a Malstrom synthesizer. The Frequency and Resonance Knobs control the respective controls of whatever Filter is chosen with Rotary 1. While Rotary 4, Filter Envelope, sweeps between different settings of (ADSR) of the Filter Envelope, while also controlling the Attack and Decay of the Vocoder (which in turn is being used to modulate the Filter Envelope, Filter, and Phaser Frequency.) Button 1, Pattern, changes not only the pattern of the Matrix, but also many parameters of the Phaser.

Modwheel

MW Controls the Feedback of the Phaser. Pitch Bend controls the Width of the Phaser and HF Damp of Reverb.

Design Notes

This patch uses the individual out on the back of a BV512 Vocoder unit to modulate different parameters. The Vocoder itself is being controlled by a Dr. Rex, which is playing a pattern set-up in the Matrix sequencer.

Inspiration Notes

Once again an idea gleaned from Reason Wizardry (December '09).

Bass Chorus

Modulations

David Nyberg

Performance Notes

Rotary 1 is used to set the frequency from which the chorus starts working. Rotary 2 to 4 control the various chorus parameters. Button 1 allows you to mute the low frequency band so you can monitor the chorussed high frequency band. Button 2 syncs the chorus modulation LFO. Button 3 raises the feedback of the chorus to add a bit of flanging to the sound. Button 4 let's you apply tape saturation to the sound.

Modwheel

Raise the modwheel to mix between M-Class compression and Scream 4 tape compression.

Design Notes

The signal gets splitted into a low and high frequency signal and only the high frequency signal goes into the chorus. This keeps the low frequency's free from rumble while still maintaining the

sound of a chorus. I've added a Scream 4 with a tape setting for some analog sweetness and a compressor at the end of the signal chain.

Inspiration Notes

This is again a patch which i created while producing music. It's a very useful tool when you want chorus on your bass without your low frequency's getting out of control. I have tape saturation and 2 types of compression morphable with the modwheel.

Binary Ramp

Modulations

Adam Fielding

Performance Notes

Controls are provided for modulation and filter controls – by default the included vocoder and filter are used to produce an interesting synthetic tremolo-type effect. However, this can be modified using the “curve switch” button which switches the modulation curve from a simple ramp to a more complex modulation curve, producing a more random effect.

Modwheel

Controls the comb filter resonance on the output signal.

Design Notes

The input signal is sent through a BV512 and then through a Malstrom device for additional filtering. Rather than using the BV512 as a standard vocoder, the Malstrom produces a CV signal which is used to modulate the BV512 input signal on alternate bands. By default, the ramp modulation curve produces an alternating on/off signal on alternate bands, resulting in an interesting stuttering-type effect. However, this can be modified by switching the modulation curve. This signal is then in turn passed through the Malstrom for additional comb filtering, which is controlled by a simple sine-based modulation curve by default.

Inspiration Notes

The BV512 is an interesting device for frequency-independent modulation, and so I thought it would be interesting to couple this up with the modulation possibilities offered by the Malstrom. As such, this patch makes heavy use of CV routing to produce a modulation signal for the BV512 based on one of the Malstrom's modulation curves.

Drunken Chorus

Modulations

Lewis Osborne

Performance Notes

Rotary 4, labelled CV > Rate, controls how much of the CV input effects the rate of the Chorus + or -, at dead center the CV input will have no effect. Button 4, Env Loop, turns the envelope

loop on the Global Envelope - while this only makes a subtle difference in the sound of the patch I like having the choice on the front panel. Also inside of the combinator (Show Devices) Thor's front panel has controls for a delay that can be turned on with Button 1 and controlled with Rotaries 1 and 2.

Modwheel

MW controls the envelope amount on the Low Pass Filter, the higher you raise the Mod Wheel the less of an envelope. Pitch Bend on this one controls the rate of the LFO as well as the Attack and Decay of the envelope.

Design Notes

Here's another patch that uses the CV Output from a Scream device to arm the trigger of an envelope and make a chorus teeter.

Inspiration Notes

Reason's Thor synthesizer has a great effects section that has so many possibilities available courtesy of the modulation matrix. Every time I sit down I find a new way of using the internal routing to come up with sounds I've always wanted to create.

Dynamic WahWah

Modulations

Shaun Wallace

Performance Notes

This is an excellent effect to subtly mix into an E-Piano for some extra movement and timbre.

Modwheel

Boosts the rate of the LFO's that one of the frequency bands

Design Notes

Uses an EQ and a the Body section of a Scream to simulate a WahWah effect. The key is that the movement of the EQ is based upon the dynamics of the source signal and an LFO.

Inspiration Notes

I always love simple WahWah effects used on E-Pianos.

E-Piano Formant Enhancer

Modulations

Shaun Wallace

Performance Notes

This patch was specifically designed for E-Pianos. Works great to add an extra bit of modulation to Rhodes pianos. The tone knobs modify different parameters on the formant filters.

Modwheel

Boosts the filter drive of the formant filters.

Design Notes

Uses two separate formant filters for the left and right channels. Employs LFO's to give a subtle hint of movement to help the effect blend better into a sound.

Inspiration Notes

I use E-Piano's all of the time in productions. I am a big fan of giving glassy Rhodes pianos an extra kick in the mix.

Emphatic Chorus

Modulations

Shaun Wallace

Performance Notes

Each of the buttons allows the user to add in a bit of delay and feedback into the signal. To get a lush chorus sound make sure to keep the stereo pan combi knob all the way to the right.

Modwheel

Increases the amplitude of the detuned unison module on the auxiliary send.

Design Notes

The key to this combinator is using 4 separate chorus units and different values. Since each chorus is panned to have its own space it emphasizes the separate detunings in the stereo field. This is key to establish the feel and sound of a lush wide chorus.

Inspiration Notes

Lush choruses are always a fav of mine. They can really add some spice to an otherwise simple sound.

Fake Chorus

Modulations

Shaun Wallace

Performance Notes

The first two combi knobs best serve as a way to shape the tone and texture of the chorus effect. The detune knob will give the sound a more lush timbre.

Modwheel

Increases drive on comb filters.

Design Notes

Comb filters can help increase small tuning differences in sounds. Using two separate comb filters run through two separate unison devices helps to create a lush smooth detune effect.

Inspiration Notes

Comb filters are interesting devices that often better used to slightly twist timbres and simulate others effects. This is an experiment in trying to recreate a chorus using two comb filters.

Instant Shimmer

Modulations

David Nyberg

Performance Notes

This effect works best on mid/high frequency sounds. It uses unison, chorus/flanger and phaser to add instant shimmer to your sound.

Modwheel

Use the modwheel to control the speed of the PH Freq Mod (phaser frequency modulator).

Design Notes

Modulator A on the Malstrom modulates the frequency control on the phaser which creates the sweeps. You can control it's rate using rotary 3. Includes Unison and Chorus/Flanger to widen the sound. A tape saturation effect (Scream 4) is added to make the sound a bit more analog.

Inspiration Notes

Works well on drums, synths, strings and vocals. Everything you would like to add a shimmer to.

Key Phaser

Modulations

Lewis Osborne

Performance Notes

This is a performance combinator that you'll need to create a track for in able to use - to do this click on the combi (right click on a mac) and from the list that comes up choose "Create Track For Combinator". Now if you look on your sequencer there will be a track for this effects device (effects devices generally don't have tracks.) For the effect to sound press keys on keyboard between C 0 and C 2. Combi controls are: Rotary 1, Phaser Rate, controls the rate of the Phaser in ms or steps depending on Button 1. Rotary 2, Spring Length, controls Length of Spring Reverb when Button 2 is engaged. The Disp Frequency of the Spring Reverb is controlled by the Pitch Bend Wheel. Rotary 3, Echo Lvl, controls the Wet/Dry sound of the echo on the effects. Button 3, Echo Time, chooses the Echo time either 3/16 or 1/16. Button 4, Grit Type, chooses between a Feedback Distortion or an Overdrive one, the level of which is chosen by Rotary 4.

Modwheel

MW controls the Feedback of the Phaser.

Design Notes

If you look inside this combinator you'll see it has 25 delays and phasers set-up going into multiple mixers. The delays are set-up in ms from 1 to 25. Short delays like this are used to create both phaser and chorusing effects and when set up on a keyboard become playable!

Inspiration Notes

Another idea taken from the September '09 issue of Reason Wizardry!

Lovely Dubbly

Modulation

Adam Fielding

Performance Notes

Adds modulated unison and chorus effects to the input signal as well as a dub-inspired delay. Controls are provided for the delay signal, unison amount and chorus feedback values. Chorus feedback is mirrored on each channel.

Modwheel

Controls the chorus modulation amount.

Design Notes

Each input channel is sent through a separate unison and modulated chorus unit, the latter of which are controlled by a single CV signal generated by a Subtractor. The output of both of these channels is then sent to individual mixer channels, the panning of which is controlled by the CV signal used to control the chorus units. Delay is then applied to both channels and the mixer output is sent to the Combinator's output.

Inspiration Notes

This was initially designed as a nice dubby guitar-type effect, with some psychedelic unison and chorus effects used to give it more of a surreal edge.

Mod Chorus

Modulations

Shaun Wallace

Performance Notes

Works excellent on percussion loops. Works with any type of sound that could use a bit of chorus and distortion to help it stand out in a mix. Use the filter frequency combinator knob to dial in some cool LP filter sweeps.

Modwheel

Shifts stereo spreader from boosting the stereo image to adding more of a mono signal.

Design Notes

Uses a combination of filter drive and chorus to create a slightly more gritty chorus than normal. Treating the left and right channels separately helps to provide a more distinct stereo image.

Inspiration Notes

I love the chorus unit on Thor. This was an experiment in using Thor's filter to help give the chorus a bit of added color.

Multi-Band Gater

Modulations

Adam Fielding

Performance Notes

This patch was designed with slow, melodic sounds in mind such as pads or guitars. However, it can produce some interesting results with percussion and vocals, adding a nice additional rhythmic element to both. Controls are provided for each of the three separate bands – each band has an independently assigned gate sequence attached to it, so try changing the patterns to see which suits your needs.

Modwheel

Controls the crossover frequency of all three bands.

Design Notes

This patch makes use of two MClass stereo imagers to produce three separate bands – low, mid and high bands respectively. These three bands are output separately to a 14:2 mixer where additional delay is applied via an aux send. The amplitude of each mix channel is controlled by an independent Matrix unit – three Matrix units are provided, one for each channel. By using different patterns on each channel, interesting rhythmic effects can be produced. Of course, there is nothing stopping the user from applying additional effects to each band for some additional variation.

Inspiration Notes

Multi-band gating seems to be one of those effects that crops up a lot in electronic music, and one that I figured would be fun to replicate using Reason.

Organic Chorus

Modulations

Shaun Wallace

Performance Notes

The left and right time knobs will set different mistimings within the various effect units. This will alter the perceived panning and space of the source signal. The stereo spread knobs will affect the timing of the signal in order to make quick changes to its stereo position.

Modwheel

Increases auxillary signal of Scream unit.

Design Notes

This combi feeds two stereo signals through two separate chorus units. Thor's Filter 3 inputs are great for providing a sound a better sense of space, especially when that sound is then fed through chorus units. The delay units on Thor are only used to further detune the signals. The slight mistiming between the signals using delay units also adds a bit of stereo separation and space to the chorus.

Inspiration Notes

This combinator was an experiment in using Thor's delay modules to further detune signals after they had been run through a chorus unit.

Pumper

Modulations

Adam Fielding

Performance Notes

Designed for use with long, sweeping synth patterns and sustained notes. The “pumping” sound triggers once every beat, and controls are included for delay and sidechain compression settings. It can also be used to create some interesting effects using percussive signals.

Modwheel

Controls the ratio of the sidechain compression, resulting in a more pronounced “pumping” sound.

Design Notes

The input signal is first passed through a Scream4 device to compress the incoming signal while also slightly distorting the sound. This is then passed through to a simple mixer where an aux-send delay is applied to the overall signal, giving the following devices plenty to work with. This is then passed to a Mclass compressor which is sidechained to a Thor. This Thor produces a bassdrum-type sound once every beat, with decay controls provided to the user – thus resulting

in a pronounced “pumping”-type effect. To smooth things over after the delay signal is fed in, this is then passed through one final Mclass compressor and sent to the Combinator’s output.

Inspiration Notes

Although sometimes seen as an overused effect (particularly in dance music), I certainly wouldn’t deny the fact that used in the right context massive amounts of sidechain compression can give a track a certain amount of energy. As such, I thought it would be good to produce a patch allowing the user to introduce the “pumping” effect without having to worry about re-routing existing drums while allowing for use on individual instruments (or groups).

Super Voice

Modulations

Shaun Wallace

Performance Notes

This combinator works excellent on synths and vocals. Anything you would traditionally use the unison unit on to create a wider more pronounced detuned sound works perfectly with this combi. Automating the filter resonance and frequency can really add some life to pads and FX.

Modwheel

Increases LFO speed.

Design Notes

The key to this combinator is not in layering several unison units with different detune settings but it is the filters. The various filters help to give each detuning a different unique timbre and sense of space.

Inspiration Notes

I am big fan of Gregorian chant or any large expansive detuned sounds.

Swirler

Modulations

Adam Fielding

Performance Notes

By default, this patch produces an almost VGM-esque “laser”-type sound. As such, long, sustained inputs or rhythmic sounds can produce some interesting results. Use the mod-wheel to introduce some variation – the “swirl” knob in particular has an immediate effect on the output signal.

Modwheel

Controls the modulation amount on both chorus units to produce a more recognizable comb filter-esque sound.

Design Notes

Both input channels are fed into separate chorus units which are in turn sent to a simple line mixer. These chorus units are heavily modulated using a single Subtractor device which, by default, produces an almost VGM-esque output. This signal is then sent through a single Scream4, Mclass compressor and Mclass EQ unit to further colour the output signal. The main CV work comes into play with the two chorus units, which themselves are the main source of modulation here. Both chorus units are modulated in a “mirrored” fashion using one single CV signal, which each controlling the delay variable on the chorus units. This can be used to produce a slow, sweeping effect or (as is the case by default) a rapid modulated effect.

Inspiration Notes

One of the more frequently requested features in Reason is the replacement/update of the chorus devices. While I can see where people are coming from, the current devices are ripe for abuse – as is the case here. What can I say, I just like delay-based effects of all varieties!

Unison Clone

Modulations

Shaun Wallace

Performance Notes

Use this combinator as a traditional detune unit. To alter the perceived detuning experiment with the different combinator knobs. The two tone knobs will alter the comb filter's parameters.

Modwheel

Changes LFO shape/curve.

Design Notes

This combinator treats the left and right channels with different comb filters. The key to the detuning effect is using very slow LFO's to modulate the comb filter frequency.

Inspiration Notes

This combinator was another experiment in using comb filters to alter the perceived detuning of a sound.

Vocal Fattener

Modulations

David Nyberg

Performance Notes

Rotary 1 and 2 are in use for modulation of delay times. This causes subtle shifting in the sound so that each layer sounds a bit different from the others making the total sound more pleasing. You can switch this off/on using button 1. Rotary 3 is used to expand the stereo field. Rotary 4

controls the amount of reverb with button 4 letting you choose between hall and plate reverb. Button 3 activates the low shelf filter on the M-Class equalizer to remove much of the low frequency's.

Modwheel

The modwheel is used to lower the amount of high frequency's in the output sound by controlling the gain of the high-shelf on the M-Class equalizer.

Design Notes

The signal get's split into 4 signals, 1 to 3 are fed into unison, chorus, phaser and the 4th signal remains dry. This is the center signal (mono/stereo depending on input signal). The other signals are panned. The unison and phaser signals are delayed a bit and have their delay times modulated by the Malstrom modulators.

Inspiration Notes

I wanted to create a patch which stacks vocals. It's an alternative if all you have is one take of vocals to work with. Or it could ofcourse be used as a creative effect to add some spice to vocals or other sounds.

Voice Selector

Modulations
Shaun Wallace

Performance Notes

The combinator works well on sounds that need a bit of detuning and spacing in different frequency ranges. Each knob controls the dry/wet values for a different unison run through each frequency range.

Modwheel

Increases the detune on every detune unit up to a value of 127.

Design Notes

The source signal is split up into four different frequency ranges. Each of the ranges is fed into a different unison unit. Each unison has different detune settings to help give each frequency range within the sound its own sense of space.

Inspiration Notes

I love the ability to to send different frequency ranges to different FX units.

Warped Harmonies

Modulations

Adam Fielding

Performance Notes

Makes extensive use of Thor's built in delay effect to produce an unusual discordant effect on the input signal. An additional level of modulation can be introduced using the modwheel, which controls the (heavily modulated) chorus dry/wet amount.

Modwheel

Controls the dry/wet amount of the chorus signal, introducing additional modulation into the signal chain.

Design Notes

This patch is relatively straightforward on the surface, though makes heavy use of Thor's modulation capabilities and built-in effects (filters notwithstanding). The signal is first passed through a Scream4 device in order to compress and saturate the incoming signal, though this can be disabled by the user. This is then passed to the Thor where most of the modulation takes place. First, the signal is passed through a slowly sweeping notch filter in order to produce a slow, phaser-type sound. This in turn is passed through the Thor's delay and chorus units, both of which are used primarily to produce unusual modulations as opposed to being used in the “intended” manner. The delay modulation amount is controlled by the same LFO responsible for controlling the notch filter frequency, and the chorus amount is controlled by the modwheel. What this means is that, over time, the input signal becomes slowly discordant and unusual sounding as the delay modulation amount increases. This signal is then passed through a final EQ unit .

Inspiration Notes

The idea for this patch came about simply as a means to take advantage of Thor's delay and chorus modulation capabilities to produce something quite unusual sounding without using the effects for their intended purposes.

MULTI-EFFECTS

Acoustic Drum Sweetener

Multi-Effects

David Nyberg

Performance Notes

The controls on the frontpanel are very self explanatory. The smile curve boosts the low and high frequency's on the M-Class equalizer. Button 3 (Turn Digi!) activates a Scream 4 with a digital effect and modulation for it by the Malstrom. Button 4 activates soft clip on the maximizer for when you are really cranking things up.

Modwheel

Raising the modwheel lowers the levels of the echo and reverb channels.

Design Notes

The signal first goes into an Audio Spider where it get's splitted into 3 signals. There's one channel going into reverb, one into echo and the third goes straight into the mixer (dry channel). A Scream 4 with a tape effect has been connected to the mixer as a send effect so that the tape sound is blended in with the original sound. The mixer's main outputs are connected to the Scream 4 with digital effect first, then it goes thru the M-Class eq, compressor and limiter respectively. A Malstrom is modulating parameter 2 on the Scream 4 with digital effect.

Inspiration Notes

I love playing drums. It's by far my favourite instrument and for my taste this patch has just the right things to fatten up any acoustic drum performance.

Alligator

Multi-Effects

Lewis Osborne

Performance Notes

Rotaries 1 & 2 switch the pattern for the High and Low gates, While Rotary 3 controls the frequency range going to each. Button 1, marked "Low Frequency" changes the tone of the Low pattern. The real "easter eggs" here are the Mod and Pitch Bend wheels. The Pitch Bend controls the Filter for the High Pattern, while engaging a modulator on the High Frequency itself. The Pitch Bend also increases the decay on the Spring Reverb. See below for the Mod Wheel.

Modwheel

Now the MW plays with the Low Frequency Filter, turning up the Resonance and turning down the Envelope. At it's top height it engages a sine wave shaped modulator on the Low Frequency Filter's Frequency (now that's a mouth full.) The MW also increases the decay on the Echo.

Design Notes

The September '09 issue of Reason Wizardry showed how to use Reason's Stereo Imager to split frequencies when creating effects patches. This patch started from that idea and became a multi-band gating effect.

Inspiration Notes

My XIOSynth keyboard has one of the coolest gating effects I've ever seen on a hardware synthesizer - called a "Gator". I wanted to take it a step further with this patch.

Back Gate

Multi-Effects

Lewis Osborne

Performance Notes

Rotary 1 switches between 12 different patterns controlling the Level of channel 1 in the Mixer. Turn down Rotary 3, Slapback, to really hear the gating - turn it back up for a smoother sound. Button 1, labelled Auto, turns on Mod A in the Malstrom synthesizer, which is being used to automatically switch between the patterns on Rotary 1. The rate and curve of the modulator are controlled by Rotary 4 and Button 4, respectively.

Modwheel

MW controls the tone of the patch. While the Pitch Bend sweeps the EQ.

Design Notes

With this patch I was trying to create a combinator that turned straight beats into crazy breaks. Turn the Auto button on and enter Glitchy Electro-Clash territory.

Inspiration Notes

I was listening to a lot of DJ Spooky when I created this patch and it shows.

Beat Mangler

Multi-Effects

David Nyberg

Performance Notes

What you see is what you get mostly on the frontpanel. The VCF LFO waveform can be changed from sine to a gated fade out waveform using button 4.

Modwheel

The modwheel lowers the bit depth.

Design Notes

The signal first goes thru the delay. Then it goes thru the digitizer (Scream 4) after which it get's splitted into 2 signals. One signal is fed to the Thor with a filter setting and the other is connected to an M-Class compressor which is used as an envelope generator (the audio outputs are not used) thru the use of it's gain reduction CV output.

Inspiration Notes

By now you are probably noticing that i really like the sound of bitcrushing and so it ended up in this patch too. I added a delay to make the sound more scattered and a modulated filter to spice it up.

Bubbling Up

Multi-Effects

Lewis Osborne

Performance Notes

Button 1, labelled Disto LFO PB, turns on MOD A (set to a Sine Wave) on the first Malstrom synth which is being routed to control the Damage Control on the Scream unit. Use the Pitch Bend to change the rate of this modulation. Button 2, Sat/Noise MW, switches the shaper types in the Malstroms from Saturation to Noise. If you open up the combinator (Show Devices) Thor's front panel has further controls including the Delay Time, Delay Feedback (Rotaries 1 & 2) as well as a cool chorus effect on Button 2, Sputter Chorus.

Modwheel

MW is controlling the amount of the Shaper from 0 - 127. Use Button 2 to choose Shaper type.

Design Notes

Another patch that uses the Global Envelope in Thor to control Filter 3. I love the way you can control a Low Pass Filter with this envelope when set to loop as it is in this patch.

Inspiration Notes

I'd recently picked up NIN's Ghosts from the library and subconsciously was effected by many of the songs on their when designing this patch.

Classic Pedal Board

Multi-Effects

David Nyberg

Performance Notes

This patch is setup pretty basic but with the right settings you can get a very cool sound out of it. The 4 Combinator buttons are setup to switch each effect off/on. The Rotary's are used to control certain parameters of each effect: Gain for the Tube Drive, Intensity which controls the mod amount on the chorus, frequency of the phaser and the amount of compression which controls the compressor's threshold, ratio and output gain. If you need to do any deeper adjustments it's of course easy to open up the Combinator and do whatever you like.

Modwheel

The modwheel controls the rate of the phaser.

Design Notes

The signal first travels thru a Scream 4 with a tube effect. It then is connected to chorus, phaser, compressor and limiter (and in that order). As a guitar is a mono instrument i made the patch to be mono in and stereo out.

Inspiration Notes

I like stomp boxes a lot and i wanted to create an effect which feels like a series of stomp boxes. Slam it on your guitar or anything else you'd like to be stomped and have it all over the place!

Drum Mass

Multi-Effects

David Nyberg

Performance Notes

The front panel offers you control over the low and high frequency delay's, dry/wet and gate off/on for the reverb, compression amount and soft clip as well as buttons to activate saturation for the low frequency band and a phaser for the high frequency band.

Modwheel

The modwheel is used to increase the decay on both the low and high frequency delays.

Design Notes

Stereo imagers split the signal into low and high frequency bands which get routed to their own processing devices. Each band has a dedicated delay. The reverb and compressor/limiter are connected to the main mixer and affect the whole sound

Inspiration Notes

I really like the 80's sound of gated reverb on drums. It makes them sound larger than life. Combine this with frequency dependent delays, phaser and compression and you really have something to give mass to your drums

Format Groover

Multi-Effects

David Nyberg

Performance Notes

Rotary 1 let's you control the amount of compression. Rotary 2 to 4 are used to control the Thor formant filter. Buttons 1 and 2 let you control modulation for the formant filters X control while buttons 3 and 4 do the same for the Y control.

Modwheel

The modwheel controls tape speed and Hi cut on the Scream 4 with a tape setting which you can use to add some more high frequency's to the output sound.

Design Notes

The sound first goes thru a M-Class compressor and a Scream 4 with a tape effect to fatten up the sound before it enters the formant filter. It is then send to another M-Class compressor and a limiter which keeps the signal from clipping. The formant filter is modulated by the modulators of a Malstrom.

Inspiration Notes

Familiar with that nice VST instrument which mimics a singing Tibetan monk? In this patch the monk does his magic on your grooves ;)

Key Repeat

Multi-Effects

Lewis Osborne

Performance Notes

This is a performance combinator that you'll need to create a track for in able to use - to do this click on the combi (right click on a mac) and from the list that comes up choose "Create Track For Combinator". Now if you look on your sequencer their will be a track for this effects device (effects devices generally don't have tracks.) For the effect to sound press keys on keyboard between C 0 and C 2. If you arm the track and record you can now record your effects in real time and go back in later to edit them! The lower keys in the C0 octave are set-up tempo sync'd for beat juggling. The C1 octave has shorter delay times for glitchy madness. Button 1 turns on a BV512 EQ/Vocoder set up on EQ, with this on the Pitch Bend Wheel sweeps the Shift Knob simulating the sound of Pitch Shifting. Use the Pitch Bend with a key pressed to mimic the sound of Ableton's Beat Repeater!

Modwheel

MW controls the Feedback of the Phaser.

Design Notes

Last year Koshdukai started posting videos on his blog (<http://koshdukaimusicreason.blogspot.com/>) of an effects device he was working on for Reason mimicking Sugar Bytes Artillery. This device used keys to engage the effects, something many of us thought wasn't possible inside of Reason. I tried to figure out for months how he was accomplishing this, using ReDrums, Thors, etc... Didn't occur to me to use the Mixer itself! Jeremy Janzen finally clued me and the rest of us in on how this was done with the September '09 issue of Reason Wizardry and I can't thank him enough ;-). So how is this done? If you open up the programmer of the combi and scroll down to the last 3 Mixer you'll see they're set-up to Receive Notes. Each channel will now let audio thru when that particular key is pressed. In order to have them soloed like on this effects device you just need to leave one key on SOLO and make sure inside of the combinator that the Key Range won't allow that key to receive information and voila! You've got your own set-up for key based effects.

Inspiration Notes

Koshdukai, Mr. Ned Rush (aka rude_NHS), Peff, and Jeremy Janzen.

Lead Enhancer

Multi-Effects

Shaun Wallace

Performance Notes

This is a simple yet effective combinator for getting a good FX signal chain going on leads. Works best on synths and/or guitars. The phaser dry/wet knob is a great to mix just the right amount of movement into the source signal.

Modwheel

Applies Hi EQ cut on Scream unit.

Design Notes

The signal chain is the most important part of this combinator. Putting the overdrive after the unison and phaser allows the user to bring out the harmonics in these two FX to a great extent.

Inspiration Notes

A good signal chain of FX is crucial for getting a lead to sit right in a mix. This combi focuses on giving the user immediate control of these chain of FX to quickly tweak and bring out a lead in a mix.

Lo-Fi Beat Flutter

Multi-Effects

Lewis Osborne

Performance Notes

Rotary 1, Reverb Size, chooses the size of the Reverb sound. This is being modulated by MOD A on a Malstrom synth to create the "flutter" effect. The rate of the fluttering is controlled by Rotary 3. Rotary 2, Predelay, is used to decide how many ms after the sound occurs the reverb will begin. When Button 4, Juggle, is engaged MOD B on the Malstrom will modulate the Predelay with a square wave. The rate of the "Juggle" is controlled by Rotary 4, labelled Juggle Rate. Button 3, Space, changes the room type of the reverb. Button 2, Flange, changes the Wall Irreg amount, which creates a flanging type of effect. Button 1, Gate MW + PB engages the Reverb Gate.

Modwheel

MW controls the threshold of the Reverb Gate. Pitch Bend the release of the Gate.

Design Notes

Reason RV7000 Advanced Reverb is one of my favorite Reverb devices. While many times I'll turn to plug-ins for my long ambient washes, this reverb device excels at off-kilter experimental reverbs with charm.

Inspiration Notes

One of the first bands I was in used to practice in an old African Methodist Episcopal Church that our drummer's father presided over. We'd record all of our practices on a tiny boombox placed on the back pew. These recordings had a wonderful drum sound that I was hoping to capture with this combinator.

Perc Doctor

Multi-Effects

David Nyberg

Performance Notes

The front panel controls include echo steps, echo decay, Beasts (with control for off/on and intensity), A dry/wet rotary, pump high freq button which uses an M-Class EQ to boost the high frequency's. Button 2 controls the decay of the spring reverb while button 4 activates the compressor.

Modwheel

The modwheel controls the ringmod's frequency.

Design Notes

The input signal first gets splitted into one channel which gets connected directly to the mixer (dry/channel) and another channel which gets connected to the Echo directly and after that gets connected to the mixer. The mixer has a RV7000 connected as send effect which in turn has another RV7000 with a reverse reverb effect and a Scream 4 with a ring modulation effect connected to it. This send effect chain is responsible for the Beasts effect controllable from the Combinator front panel.

Inspiration Notes

I like deep modulated and grainy reverb effects so i tried to make something for a song I'm working on and it works pretty well on reverb. If you use it subtly you can really add another dimension to your beats. But if you like it big then that's also an option.

Percussion FX

Multi-Effects

Lewis Osborne

Performance Notes

Button 1 changes the type of Distortion for both the Lo and HI bands. Button 2, LFO Waveform, switches LFO 2 from a sawtooth to a randomly sweeping waveform. Button 4, Gate, turns the gate on the Reverb and increases the Decay on the Reverb. If you open up the combinator (Show Devices) Thor's front panel has additional controls for LFO Amount (Rotary 1), LFO Rate (Rotary 2), Chorus (Button 1), and Delay (Button 2).

Modwheel

MW controls the X-Over Frequency of the Stereo Imager, which is splitting the audio into Lo and Hi bands. Pitch Bend controls the Stereo Width of the Hi Band.

Design Notes

Another patch using tricks culled from the September '09 issue of Reason Wizardry.

Inspiration Notes

With this patch I was trying to create a subtle fx combi particularly for percussion, hence the name Percussion FX.

Rhythmic Chops and Phase

Multi-Effects

Adam Fielding

Performance Notes

Feed any sort of input signal into this patch to produce a slowly sweeping, sequenced/gated output. Particularly useful for introducing some variation into an existing track or for introducing

an additional rhythmic element to a song. Controls are provided for the step sequencer and filters.

Modwheel

Controls the comb filter resonance on both channels.

Design Notes

This patch makes use of a combination of Scream4 distortion devices to saturate both the input and output signals, an RV7000 to introduce additional rhythmic elements in the input stage and a Thor/BV512 combination to filter the incoming signal and to gate the output signal. The Thor uses a step sequencer and single oscillator to produce a modulation signal for the BV512, which in turn is used to modulate the post-filtered output of the Thor. All of this combines to produce an interestingly rhythmic, slow sweeping output.

Inspiration Notes

I came up with the idea for this patch while working on a song myself – I was writing a guitar part and thought it would be great to use some of the effects in Reason to introduce a sort of rhythmic, sweeping sound to the guitar track. It certainly worked, and what started out as a normal electric guitar sound ended up sounding interestingly synthesised.

Rhythmic Organism (RUN)

Multi-Effects

David Nyberg

Performance Notes

Make sure Run Pattern is activated on the Combinator. Rotary 1 controls feedback on the flange and the frequency of the phaser. Rotary 2 controls the rate of the filter modulation while button 2 let's you switch the modulator into sync or free run mode. Rotary 3 and 4 control the frequency and resonance of the Thor 24dB low-pass filter. Button 1 activates the compressor. Button 3 activates the delay with a slap back setting. Button 4 activates the Organism's DNA sequence (Scream 4 digital effect).

Modwheel

Use the modwheel to trash the DNA Sequence (controls the input/output gain and the EQ on the Scream 4).

Design Notes

The signal first get's run thru the flanger and then send to an Audio Spider which splits it into 2 signals. One signal is connected to the phaser and the other directly to the mixer for a dry channel. The mixer's main outputs are connected to a Thor with a 24dB low-pass filter setting. After the filter follow the compressor and the Scream 4 with a digital effect. A second Thor caters for the modulation by using it's sequencer to control parameter 1 and 2 on the Scream 4.

Inspiration Notes

Thor's 24 dB low-pass filter being modulated is a wonderful sound, but just a modulated filter would not really fit in this ReFill so i've added some pretty tasty things to it. Use at your own risk ;)

Ring Bouncer

Multi-Effects

Lewis Osborne

Performance Notes

Rotary 1 switches between 8 different patterns of delay/stuttering. Button 4, Steps, chooses between two different delay settings for the effect. Use Buttons 1 & 2 to change the Filter Envelope's Attack and Decay settings. Button 3, Rate, changes the rate of both MOD A & MOD B on the Malstrom synth, which are modulating the Filter Envelope's Gate Trigger and the Filter's Frequency.

Modwheel

MW controls the Frequency of AM Filter. Pitch Bend controls the stereo width of the filters.

Design Notes

AM filters, also referred to as Ring Modulation work by multiplying two signals together and can create some strange harmonic content.

Inspiration Notes

Dalek beats!

Slurred Beats

Multi-Effects

Lewis Osborne

Performance Notes

Rotary 1, Split, controls the split of the Phaser. Rotary 2, Rate, controls the Rate of the Phaser, which is Sync'd to tempo when Button 2 is on. Rotary 3, Pattern, controls the different "slurred" patterns, at the far right position slurring is off. Button 3, Auto, turns on MOD A on the Malstrom synth which automatically changing the slurring patterns. Button 4, Auto Curve, changes the Curve of MOD A.

Modwheel

MW increases the feedback of the Phaser. Pitch Bend controls the Frequency of the Phaser.

Design Notes

This patch uses a Matrix Sequencer to control the size of a Low Density Reverb, giving the "slurred" sound. The Reverb is run thru a Phaser bringing everything together.

Inspiration Notes

Low Density Reverb is probably my favorite Reverb sound in Reason. While playing around with it I noticed that with the size and decay at 0 no noticeable effect was made from the reverb. With this knowledge in hand I came up with the idea for this patch.

Stereo Gate

Multi-Effects

Lewis Osborne

Performance Notes

Rotary 1 switches between 8 different gating patterns. Button 1, Stereo, turns on a Chorus effect giving the patch its Stereo sound. Button 2, Delay, turns on a 3/16 tempo sync'd delay, whose feedback is controlled by Rotary 2. Rotaries 3 & 4 controls the Filter, which is either a LPF or a Peak depending on Button 4. Button 3 controls the amount that the Global Envelope effects the Filter. Open up combi (Show Devices) for more controls on Thor's front panel, including Chorus Wetness (Rotary 1), Tone (Rotary 2), Attack (Button 1), and Decay (Button 2).

Modwheel

MW controls the HF EMPH on the BV512. Pitch Bend the Shift.

Design Notes

The BV512 also works as a wonderful Equalizer as used in this patch.

Inspiration Notes

This patch was inspired by Audio Damage's Big Seq 2 effects plug-in.

Stuck in Pipes

Multi-Effects

Adam Fielding

Performance Notes

Introduces a tempo-synced semi-melodic element to any incoming signal. Works well with percussive and melodic sounds due to the nature in which the input signal is processed. Controls are provided for channel amplitude, reverb, compression and delay to further shape the overall timbre.

Modwheel

Controls the base frequency of the main peak filter.

Design Notes

The input signal is first passed through a Thor and then split into two distinct signals. The first signal is sent through a Scream4 tape distortion unit (with low-boosting equalisation) before being sent to the output mixer. The second signal is sent through a BV512 unit set to equalisation mode whereby a low-ramp EQ is applied to the signal. The shift knob is modulated by the CV signal generated by the aforementioned Thor. This signal is then sent through an MClass compressor before being sent to the output mixer, where some additional reverb is applied to this channel only. These channels are then mixed and sent to the Combinator's output. The initial Thor makes use of a single peak filter with a high resonance value to produce a semi-melodic/stepping output. The filter frequency is controlled by a single LFO which is synced to the song tempo by default.

Inspiration Notes

This patch was really inspired by the Thor's included peak filter – a filter which I feel is often overlooked by users and sound designers. This was my excuse to redress that balance slightly.

Tarry Plan

Multi-Effects

Lewis Osborne

Performance Notes

Rotary 1, Slur Delay, controls Chorus Delay, Rotary 2, Slur Feedback, control Chorus Feedback. Rotary 3 LFO Rate, controls the LFO Rate which is modulating the Delay Time that Rotary 4 controls. Open up the combi for more controls on Thor's front panel!

Modwheel

MW controls Chorus Modulation. Pitch Bend controls Chorus Rate.

Design Notes

Another strange chorusing effect with some delay modulation thrown in for good measure. Enjoy!

Inspiration Notes

I used to work at a copy center and loved to take pictures and xerox them, just to xerox the copies. This patch sort of reminds me of the slurred images that would be created from xeroxing black and white photos over and over again.

Thicken

Multi-Effects

Lewis Osborne

Performance Notes

Each Rotary is assigned to the level of a different effect - Reverb, Phaser, Chorus, and Unison. Underneath all but the first Rotary are Buttons that correspond to each effect - Buttons 2 & 3 Sync the LFOs of the Phaser and Chorus. Button 4 changes the voice count of the Unison effect. Button 1, turns the Body on a Scream unit set on Tape.

Modwheel

MW controls the different panning patterns. Pitch Bend controls the Feedback of the Phaser.

Design Notes

I wanted to come up with a patch that could be used on pads and atmospheres with this one. Dial in the sound you want!

Inspiration Notes

Rob over at reasonpatchaday.blogspot.com designs some of the greatest effects devices for pads. I was thinking of some of his work when I designed this patch.

Transient Wahverb

Multi-Effects

Adam Fielding

Performance Notes

Works well with percussion and drums, though can also be used with less transient material such as vocals to produce interesting results.

Modwheel

Controls the low-pass filter cut-off frequency and resonance.

Design Notes

This patch makes use of a Scream4 unit to produce a CV signal based on the amplitude of the input signal. This CV signal is then used to control two effects – a reverb unit and a filter unit. Both of these are mixed together to produce the output. Thus, the louder the input signal the longer the reverb decay and the higher the filter frequency value.

Inspiration Notes

This patch came about primarily while designing a patch with the intention of creating a somewhat “tamed” reverb unit, with the reverb only tailing off as the input signal drops in amplitude.

T-Rez

Multi-Effects

Lewis Osborne

Performance Notes

Rotaries 1 - 4 control the patterns of 4 tempo sync'd delays all on different steps. Button 1 turns off the original sound so only the effect can be heard - great if you want to use the device in an effects loop. Open up the combinator (Show Devices) for more controls on the front of each Thor device, including Frequency and Resonance for the LPFs.

Modwheel

Controls the Feedback of the Delays.

Design Notes

4 Different delays going crazy, split from the original audio source courtesy of Reason's Spider Audio Merger & Splitter.

Inspiration Notes

Based upon Jomox's T-Resonantor effects pedal.

VOCODE FILTERS

Dancing Bands

Vocode Filters

Lewis Osborne

Performance Notes

Rotary 1, Pattern, switches between 6 different "Dancing Bands" patterns. Rotary 3, Bands, controls how many bands are effected by the effect from 4 to 512. Button 3, Auto Bands, turns on a MOD A on a Malstrom synth which is using a Sine Wave to switch between the Bands automatically. If you want a smoother switch between bands press in Button 4, labelled Hold. Pitch Bend controls P1 of the Scream unit, creating a quick control of the tone of the patch.

Modwheel

MW increases the Decay and Reverse Dry/Wet parameters on the Slapback Reverb effect. This is different than Rotary 2 in that that controls the over all Dry / Wet of the reverb while this is just for the Dry / Wet inside the effect. Complicated? Yes, but look inside the Reverb and it'll make more sense.

Design Notes

This patch uses Matrix Sequencers routed in to a BV512 Vocoder to create frequency patterns. I used this same idea on my Murf Style Refill available on my blog (<http://resonantfilter.blogspot.com/2009/07/murf-refill.html>).

Inspiration Notes

I was going for a lo-fi take on a Moogerfooger Murf here, my favorite effects pedal ever!

From The Mouths

Vocode Filters

Adam Fielding

Performance Notes

This patch requires two inputs for full control – route any instrument through this like you would any other effect and then use your controller/sequencer to control the playback pitch of the Combinator. Works great with all sorts of instruments, from drums to vocals.

Modwheel

Controls the shift of both included vocoders.

Design Notes

This patch makes use of two elements – the Thor section and the vocoder section. The Thor section generates a simple sawtooth-based signal which is used as the carrier for both vocoders (one for each channel). The signal generated by the Thor is comb filtered and formant filtered to

produce a robot “vocal”-type sound. This is used as the carrier signal for the vocoders which are both modulated by the input source. By giving the user control over the band count and decay of both vocoders, the patch produces a nice stereo signal by default though this can be tweaked by the user.

Inspiration Notes

This was inspired by a track by Hybrid called “Dreaming Your Dreams” from one of my personal favourite albums. The track begins with a really great vocoded/comb-filtered drum pattern which I sought to emulate using this patch. For the full effect, try cutting the lows a little and adding a little delay.

I Robot (RUN)

Vocode Filters

David Nyberg

Performance Notes

Make sure Run Pattern is activated on the Combinator. Rotary 1 and button 1 control the Shift parameter on the vocoder. Rotary 2 and button 2 control a 24dB low-pass filter on the Thor acting as carrier. Rotary 3 sweeps thru the band count settings of the vocoder. Rotary 4 let's you control the dry/wet control on the vocoder. This will not remove the warp effect and is also not a true dry/wet. You can use it to mix a mono (because the modulator is mono only) version of the original signal with the vocoded signal. Button 3 enables the scream 4 with a warp effect which you can control using the modwheel. Button 4 let's you activate the hold function on the vocoder. Use at your own risk. This button let's you capture and hold the frequency's which are present at the moment you press it. Works great as a performance effect.

Modwheel

The modwheel controls the warp parameters (raises sharpness and lowers bias).

Design Notes

The signal first goes to an Audio Spider which splits it into a modulator signal for the vocoder and a signal to feed the M-Class compressor acting as an envelope follower using it's gain reduction CV output to control the filter frequency of the Thor acting as carrier. The carrier Thor is setup to produce a rich sequenced synth sound to give the vocoder lot's of frequency's to work with. The vocoder outputs are connected to a Scream 4 with a warp effect after which it passes the Compressor before it leaves the Combinator. A Malstrom is used to modulate the shift parameter on the vocoder.

Inspiration Notes

This patch is a real techno head's toolbox. It totally transforms your grooves into a robotic frenzy. The frontpanel controls really let you perform the effect. Not really a specific inspiration i just like the sound.

Nuts and Bolts

Vocode Filters

Adam Fielding

Performance Notes

Must have a signal fed into the Combinator while being played either by an external MIDI instrument or using the Combinator's sequencer lane to produce any sort of output. The effect itself introduces a noise-based melodic sound based on the note triggered while using the input signal as a modulator for the included BV512-vocoder units.

Modwheel

Controls the shift parameter on the two BV512 units.

Design Notes

The input signal is fed into two BV512 units as a modulation signal. The carrier signal is produced by a Thor using several noise-based oscillators to produce a crackling yet slightly melodic output. The vocoded output of these two BV512s is then sent to the output mixer via an MClass compressor whereby an additional filtered delay is applied.

Inspiration Notes

I really love the wide variety of possible sounds based solely on Thor's noise-based oscillators, so this was a good excuse for me to bring some of those into the mix while creating a unique-sounding effect.

Rhythmsaw

Vocode Filters

Adam Fielding

Performance Notes

Uses the input signal as the modulation for the included vocoder, transforming the input completely. Use the sequencer or a MIDI controller assigned to the Combinator to change/transpose the vocoder note value as it plays.

Modwheel

Controls the shift parameter on both vocoder units, increasing the difference between the two.

Design Notes

The input signal is sent through two vocoders – one per channel – with the input being sent to the modulator section of each. A single Thor unit generates a harmonically-rich sawtooth-based output which acts as the carrier signal for both vocoder devices. The step sequencer included on the Thor device generates an automatically looping sequence, which can be transposed by the user by sending note values to the Combinator. The output of both vocoders is then sent to the

mixer (one mixer channel per channel), where the panning of each is controlled by an LFO generated by a single Subtractor unit.

Inspiration Notes

This is a more extreme vocoder-based patch – I had decided to create something that would completely change the input, using the input signal as a modulator rather than modifying the input signal directly.

Spectral Vocoder

Vocode Filters

Shaun Wallace

Performance Notes

Use the knobs to dial in which frequency range is fed into the stereo imager unit. This works excellent on pads and FX to give them a greater sense of space without relying on too many of the traditional effect units.

Modwheel

Shifts HF emphasis and increases the attack on the vocoder.

Design Notes

Two BV512 units are used to separate and mix between frequency bands. One unit will send its signal to vocode the source signal while the other signal from the will be mixed in dry.

Inspiration Notes

This is an experiment of using a source signal to vocode itself in different frequency ranges.

CREDITS AND LEGALESE

Jeremy Janzen: Planning, Concept, Patches, Editing, Documentation.
Email: jeremy@nucleus-soundlab.com

Additional patch content, testing and documentation by:

Shaun Wallace
swallace21@gmail.com

Adam Fielding
<http://www.adamfielding.com>

David Nyberg
<http://www.samplebasement.com/>

Lewis Osborne
<http://www.resonantfilter.blogspot.com>

Art and Combinator Backdrop by:

Danny Adler
<http://www.sgxmusic.com>

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