
ANALOGUE
MONSTERS
REPEAT
AMOUNT
DVD
ROM

ANALOGUE MONSTERS 3

version 3.12

I. What is Analogue Monsters?

Analogue Monsters refill is the result of three years of work, sound recording, sample editing and patch building. The sound content is huge: the final selection takes 5.2GB multisamples in 24 bit format, which means more than 6900 perfectly recorded, edited and looped wav files.

The key word of Analogue Monsters project is: 'authentic analogue' sounds. In contrast with **PROTON3**, which uses the Reason's own digital filters to create various synth sounds from basic waveforms, the patches of Analogue Monsters primarily don't use the Reason's digital filters: they use their own original analogue filters giving you a real analogue feeling*.
The refill contains the best sounds of ten legendary synthesizers:

- **Alesis Andromeda A6**
- **Korg Poly800 MKII**
- **Korg MS-20**
- **Korg MonoPoly**
- **Moog Prodigy**
- **Oberheim Matrix-1000**
- **Roland Jupiter 4**
- **Roland Juno-60**
- **Studio Electronics SE-1X**
- **Waldorf Microwave XTk**

This is our concept and the main difference between PROTON3 and Analogue Monsters. When started this project I found that there were 2 ways to achieve the best possible analogue synth sound in Reason. Both methods have advantages and disadvantages, the best thing if we try to combine them:

Synthesis: this is what PROTON3 makes. Advantages: very flexible and powerful. Disadvantage: It uses Reason's digital filters, so it's not authentic, not real analogue.

'Snapshot' recordings: this is Analogue Monsters. Advantages: authentic analogue sounds. Disadvantage: not so flexible, because with this method we can record the 'snapshots of the

sound' only. If we record many sound variations with smoothly different filter settings (and we did!), the result might be very good.

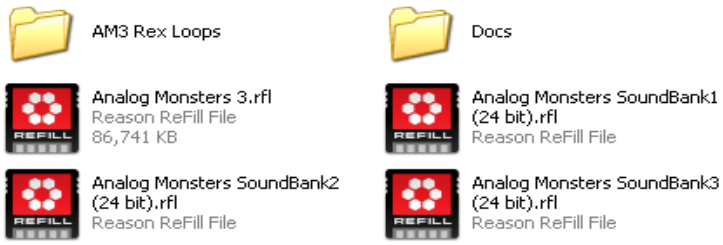
The third way is mixing the 2 methods. This is the most interesting option, using the original analogue filters, combining them with each other and adding the Reason's digital filters can give very interesting new sounds!

II. Installing the refill

Step **1**. Exit from Reason

Step **2**. You can download 2 versions, the '16bit version' and the '24 bit version', both package contains 4 refill files. Choose that version you wish (16 bit version is ideal for composing or if you have older computer with less than 2 GB RAM). After downloaded the package, unpack the rar file, and copy the 4 files (3 soundbanks and 1 patchbank) to one of your sound locations or the main Reason folder as destination.

That's all. You can start browsing for patches in the 'Analog Monsters Patchbank' refill!



III. Refill contents

The **3 soundbank** refills contain the sample material of Analogue Monsters, and an **additional patch bank** refill contains the patches.
On the download page you can find 2 versions, both the 16 bit and 24 bit versions are available. You can use the 16 bit version for composing (to preserve memory resource), and you can replace it with the 24 bit version for the final render. The patch bank doesn't contain any audio data (except the rex loops), just the patches, so it's the same in both versions.

1) Analog Monsters Soundbank1 - this refill contains all multisamples data of Waldorf Microwave XT, Korg Poly800 MKII, Roland Jupiter 4, Roland Juno-60, Korg MS-20, Moog Prodigy and Korg MonoPoly.

2) Analog Monsters Soundbank2 - it contains all multisamples data of Alesis Andromeda A6 and Studio Electronics SE-1X.

3) Analog Monsters Soundbank3 - it contains all multisamples data of Oberheim Matrix synthesizer.

4) Analog Monsters 3 - this is the patch bank. It contains all instrument patches for NN-XT, Combinator, ReDrum, NN-19, and the rex loop files. The rex files are also available in the "AM3 Rex Loops" folder for further tweaking.

With this method we gain a big advantage: the development won't be finished after the refill is released, from time to time we can release updated versions of Analogue Monsters with exciting new patches, and - because this patch bank is a relatively small file - you, as a registered customer will be able to download the updates from reasonbanks.com. You just login, download and replace the old version with the new enlarged version, and it's done! Your Analogue Monster refill remains compatible with your previous works, just becomes enlarged.

IV. Abbreviations

You can find some abbreviations in the the patch name. They may help you to find what you are looking for.

T : indicates tempo sync. It means that probably this is a rhytmic patch, it has been syncronised with the main tempo (eg. autobass, arpeggio sequence).

R : alternate triggering. In this case at least 3 different samples are mapped to every keys and they alter in random order, it means anytime you press a key, you will hear different sounds. It's very useful to imitate old analog synths and make your musical playing more lifelike.

W: You can morph between different sounds using the modwheel.

V: The patch contains 2 or more velocity splits.

][: wide stereo patch

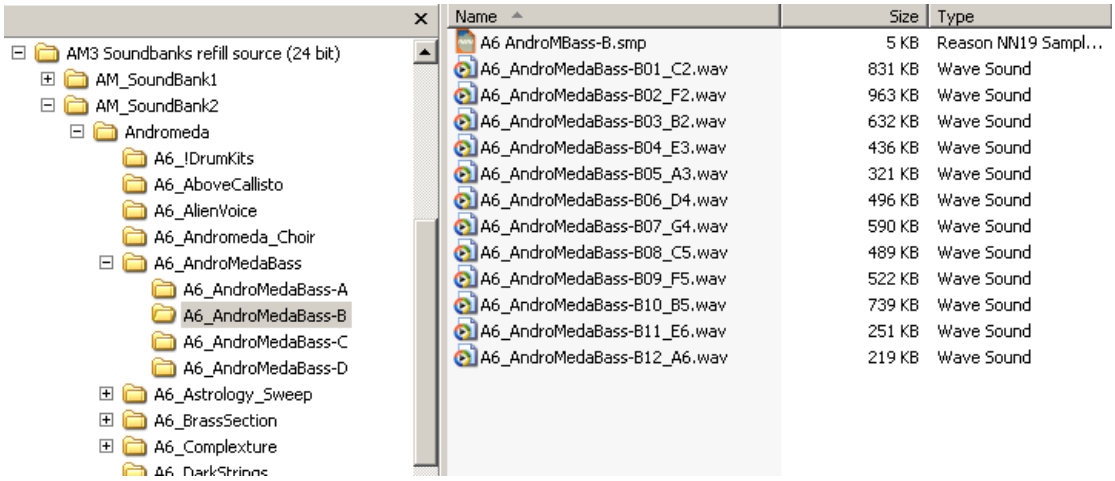
Name**-A**, Name**-B**, Name**-C**, etc.: indicates the variations of the actual patch. In general **-A** means the most hollow version, **-B** is brighter, **-C** is more bright, and so on.

Abbreviations of the Synth's name helps you identify the original instruments:

MW = Waldorf Microwave
KP8 = Korg Poly800 MKII
JP4 = Roland Jupiter 4
J60 =Roland Juno-60
MS = Korg MS-20
MP = Moog Prodigy
MX = Oberheim Matrix
KM = Korg MonoPoly
A6 = Alesis Andromeda A6
SE = Studio Electronics SE-1X
CMB = mixed multilayered patch, using 2 or more synths

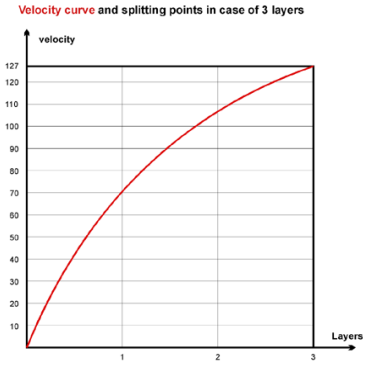
V. Multisamples

One multisample (or layer) can contain 8-15 samples, recorded in different pitches (from C2 to A6). All samples contain the unity note information for quick automapping and all sustained samples are perfectly looped.
The Main Patch (in Proton terminology: the element) can consist of one or more (up to 12) layers. These layers represent variations of different filter settings (cutoff, resonance, filter envelope).
All samples are stored in the 3 Soundbank refills in hierarchical folder structure. The structure is the following: orig. Synth's name -> Patch -> Layer -> Sample.

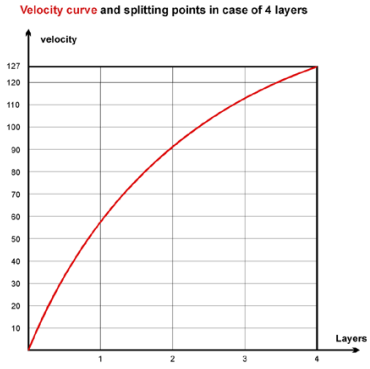


VI. Velocity Ranges

Finding and choosing the proper velocity splitting points is very important: it will determine the whole sound character in live playing. I've made many test and found that a 'soft positive' velocity curve (see the diagrams) was better than the linear one: it gives more natural feeling.



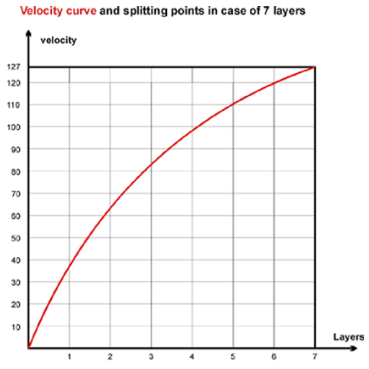
splitting points: 71, 107



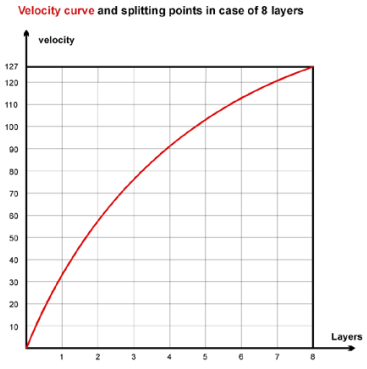
splitting points: 58, 92, 113

splitting points: 48, 79, 102, 116

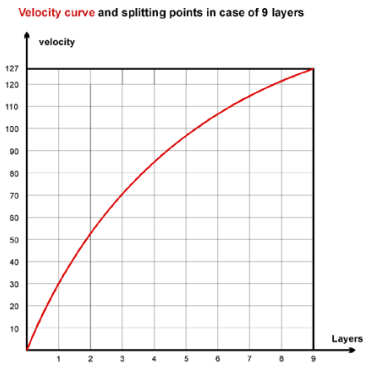
splitting points: 42, 70, 91, 106, 118



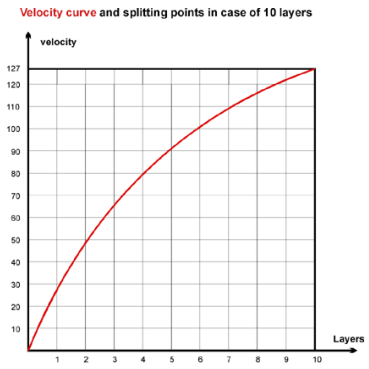
splitting points: 37, 63, 83, 97, 111, 119



splitting points: 33, 57, 76, 92, 103, 113, 121



splitting points: 30, 53, 71, 85, 96, 106, 114, 122



splitting points: 27, 48, 65, 79, 92, 101, 109, 116, 123

Velocity ranges in case of:

2 layers: 1-92, 93-127

3 layers: 1-71, 72-107, 108-127

4 layers: 1-58, 59-92, 93-113, 114-127

5 layers: 1-48, 49-79, 80-102, 103-116, 117-127

6 layers: 1-42, 43-70, 71-91, 92-106, 107-118, 119-127

7 layers: 1-37, 38-63, 64-83, 84-97, 98-111, 112-119, 120-127

8 layers: 1-33, 34-57, 58-76, 77-92, 93-103, 104-113, 114-121, 122-127

9 layers: 1-30, 31-53, 54-71, 72-85, 86-96, 97-106, 107-114, 115-122, 123-127

10 layers: 1-27, 28-48, 49-65, 66-79, 80-92, 93-101, 102-109, 110-116, 117-123, 124-127

VII. The monsters

The Analogue Monsters is based on 10 legendary synthesisers's sound from the 70's up to the present, from Japan, USA and Germany. Our intention was to create as wide selection as possible both in sense of time and in 'geographical area'. Let's see them one by one. If you click on the name of the synth, you can read the technical details.

Alesis Andromeda A6

When I met Andromeda for the very first time, my impressions were: it's huge... it's bloody complex... looks like the inside of a flight deck!;-)

And it sounds as it looks, huge and complex! Alesis Andromeda A6 is a modern huge monster from the present: a true analog synthesizer using two analog oscillators per voice, sub-oscillators, hard and soft sync and it features 16-voice polyphony! Andromeda is completely analog - no emulation!

Specifications:
Polyphony: 16 voices
Oscillators: 2 oscillators (with subs) per voice, 5 waveforms available (sine, triangle, square, up saw, down saw)
Filters: 32 total: 2-pole multimode resonating filter per voice, 4-pole lowpass resonating filter per voice
Effects: Digital reverb, chorus, echo, analog distortion, quad pitch-shifting, flange, and more
Arpeggiator: Up, Down, Up/Down, Random
Sequencer: 16-step, analog style; both have MIDI sync
Keyboard: 61 keys (velocity and aftertouch sensitive), Ribbon controller
Memory: Program Memory: 256 preset and 128 user-defined, Mix Memory: 128 user-defined, Memory Card Slot: PCMCIA-format
Control: MIDI (16-parts)
Release Date: 2001

The Korg Mono/Poly

The KORG Mono/Poly is a cool and very unique monophonic/polyphonic analogue synth from the early 80's. It has 4 VCO's which can be shared in 4-voice Polyphonic mode, or linked in Unison for an extremely fat monophonic lead. Each VCO has its own level, tune, and

waveform type control. There are also 2 individual LFO's which can be used to modulate the Pulse Width, envelope and Arpeggiator independently.

Specifications:
Polyphony: 4 Voices
Oscillators: 4 VCO's: triangle / sawtooth / PWM
LFO: 2 LFO's w/ individual rates
Filter: VCF, VCF ADSR
VCA: ADSR Env
Keyboard: 44 keys (no velocity or aftertouch)
Arpeg/Seq: Yes! With very cool effects!:-)
Control: CV/GATE and CV Filter
Effects: Chord Memory VCO sync / modulation
Release Date: 1981

Korg MS-20

This small box looks like a home telephone switchboard!;-) MS-20 was one of Korg's first major successful portable analog monosynths (the first release date is 1978!) and even today it is still a superb little machine. It has two analog oscillators, two VCF filters, two VCAs, sample and hold, a noise generator, an assignable mod-wheel and lots of knobs! The VCF filter section is capable of high-pass, notch and band-reject which is unique and different than your basic lowpass style filter.

Specifications:
Polyphony: Monophonic
Oscillators: 2 VCO's + noise
LFO: One LFO w/ multiple waveforms
Filter: 2 MultiMode VCFs: Lowpass, Highpass, Notch, BandReject (with ADSR)
VCA: 2 VCAs: ADSR + Sample and Hold with an envelope follower
Keyboard: 36 keys (no velocity or aftertouch)
Control: CV/GATE
Release Date: 1978

Korg Poly800 MKII

This small black plastic toy was my very first programmable synthsizer from the late 80's. In the last 15 years I have programmed hundreds of patches, you can find the best ones on the Analogue Monster refill. Poly800 uses 8 DCOs, they can be set into double mode (4 voice polyphony) for really fat sounds. The MKII version contains a digital delay and a digital EQ as well, but they were disabled, because they're too noisy (and Reason has better effects ;p).

Specifications:
Polyphony: 8 voices (4 in doubled mode)
Oscillators: 2 DCO's
LFO: Sine wave, speed & delay and route to osc. or filter
Filter: Mono VCF
VCA: 3 ADBSSR Digital Envelope Generators (2 for amplitude, 1 for pitch)
Keyboard: 49 keys, no velocity or aftertouch
Memory: 64 patches, can be dumped via midi
Control:: MIDI IN/OUT/THRU
Effects: Programmable digital delay and digital EQ (settings can be saved per patch)
Release Date: 1984

Moog Prodigy

Prodigy was an entry-level monosynth from Moog, which has since become a very popular and widely used Bass-synth in techno and electronic music. It's a very simple synth, but thanks to the original 24dB/oct Moog filters, sounds great!

Specifications:
Polyphony: Monophonic
Oscillators: 2 VCO's with sawtooth, triangle, and pulse (narrow/square) waveforms
LFO: Square or Triangle
Filter: 24 dB/oct lowpass w/ cutoff, emphasis, A/D/S envelope
VCA: Attack, Decay, Sustain
Keyboard: 32 keys (no velocity or aftertouch)
Control: CV / Gate
Release Date: 1979

Oberheim Matrix-1000

is the last real analogue synth of Oberheim from the late 80's. The Matrix-1000 is a single-space compact rackmount module. It has the same synth architecture as the Matrix 6.
Each of its 6 voices has 2 DCO's (digitally controlled analogue oscillator), a low pass filter, 2 VCA's, 3 envelope gens, 2 LFO's, and 2 ramp gens. The Matrix-1000 provides an excellent source of pads, textures and ambient sounds.

Roland Juno-60

Although Juno-60 is not an up-to-date instruments (no MIDI!), it's still a very popular analogue synth because it sounds better (punchier) than the subsequent Junos (eg. the Juno-106). Juno-60 is a very rich sounding synthesizers and is a great analog machine with 6-voice polyphony.

Specifications:
Polyphony: 6 voices
Oscillators: DCO: pulse, saw, and square
LFO: rate and delay
Filter: non-resonant high pass and resonant low pass
VCA: level, ADSR and gate
Arpeg/Seq: Optional external JSQ-60 Sequencer
Keyboard: 61 note keyboard (no velocity or aftertouch)
Control: DCB Roland to Roland sync/interface (Roland MD-8 converts DCB to MIDI for MIDI control)
Release Date: 1982

Roland Jupiter-4

Jupiter 4 was the first Jupiter synth, it was released in 1978. It still has got Moog's style analog filters, so it is a nice analogue synth for creating weird trippy sounds.

Specifications:
Polyphony: 4 voices
Oscillators: 1 VCO per voice (triangle, square, square with PWM) and a switchable on\off sub osc
LFO: 1 LFO (sine, square, ramp up and ramp down)
Filter: HP filter, LP rez filter
VCA: 2 env (ADSR) one for the filter (which you can invert), one for the VCA
Seq: Arpeggiator
Keyboard: 49 keys (no velocity or aftertouch)
Control: TRIG IN to control the arpeggiator
Release Date: 1979

Studio Electronics SE-1X

The SE-1X is the ultimate bass/lead synth of the 21st century: pure analog, monophonic synth-module from the USA, designed to re-create that classic Moog sound perfectly for Hip Hop, R&B and Dance music. The classic Moog sound comes from its 24 dB lowpass voltage controlled analog filter. There is also a 12 dB low-/band-pass filter which emulates the classic sounds of Oberheim synthesizers. The SE-1X is the improved version of the original SE-1.

Specifications:
Polyphony: Monophonic
Oscillators: 3 analog VCO's; Waveforms: triangle, sawtooth and variable width square: Osc2&3 can be synced to Osc1, Noise generator
LFO: 3 LFO's; Waveforms: triangle, sawtooth, reverse sawtooth, square, noise, random.
Controls: delay, key trigger, phase, and midi sync.
Filter: 2 analog filters: 24db Lowpass (classic Moog), 12db Lowpass & Bandpass (classic Oberheim)
VCA: 4 multi-stage envelope generators (ADSR). Env 1 fixed to filter frequency, Env 2 fixed to amp level, Env 3&4 are assignable
Keyboard: None
Memory: 4 ROM Banks (396 locations), 4 RAM Banks (396 locations)
Control: MIDI
Release Date: 2001

Waldorf Microwave XT

Yes, you guessed right, this is my favourite!;-) Strictly speaking, it's not a real analogue synthesizer, nevertheless we had two good reasons for having included: microwave has very unique sounds that adds special colours to the entire collection and we wanted to include a German synth into the collection as well... and it is a real monster: it can easily emulate the sounds of the PPG wavetable synths as well as create squelchy acid-303 lines or boomy Moog bass. It can sounds agressive, but it can be fat and warm as well. Very unique (check out **ORANGE3**!).

Specifications:
Polyphony: 10 voice (expandable to 30)
Synthesis: 2 oscillators per voice of DSP wavetable synthesis; 1 Ring Mod; 1 Noise Source

Memory: 256 internal patches, 64 external card
Filter: 6/12/24 LP/HP, FM Filter, Sin (x)-LP, Dbl LP/HP, 24/12 BP, Band Stop, Waveshaper
VCA: 1 VCA, VCA ADSR, 1 Free Envelope
LFO: 2 LFO's, sine, tri, square, random, S&H
Effects: Chorus, Flanger 1 & 2, Autowah BP, Autowah LP, Overdrive, Delay, Amp Mod
Arpeg/Seq: 16 steps, 128 patterns Control: MIDI (8-parts)
Release Date: 1998

VII. Credits

Andras Haasz: main idea, sample recording & editing, sound design

Marco Raaphorst, Eric Corminier: consultant, giving assistance to keep Andras's mental unity

Kilfish: graphic design, artwork

Dr. Gabor Bardosi: consulting editor of this Users' Guide

Beta testers: Marco Raaphorst (Raapie), Eric Corminier (the Reason.fan), Zoltán Bácsi (ManGroove), Lajos Bíró (vmaast), Gergely Mátravölgyi (GegMan).

Million thanks to:

László Kővári (a.k.a. **Cemalaza** - owner of Jupiter 4, Juno-60, Korg MS-20, Moog Prodigy and Korg MonoPoly)

Tamas Tóth (a.k.a. **MidiTom** - owner of Andromeda)

Kornél Kerekes (a.k.a. **Polisix** - owner of SE1-X)

Thank you boys!