REASON 3.0: THE DUB IS IN THERE

DUBROOM.COM REVIEW BY MESSIAN DREAD, MAY 2005

It was only a matter of time. Since 1997, we have been releasing computer-created music. Innovations and progressions in technology silence the howling voices of more and more criticizers who say it can't be done. Propellerhead Software has been on the forefront of this struggle too.

So here it is: the first software that *in itself* enables you to produce DUB with a computer alone. And, the Dubroom is the first to review REASON 3.0 from this one perspective: DUBBING IS A MUST.

Review is actually an understatement. But what to say about a program that will let you only scratch the surface after spending one full week reviewing it? Especially when you want to know if DUB can be produced with it? You can only express yourself with an understatement.

This review is therefore an in-depth look at the surface of Reason 3.0. Complete with sound examples straight out of Reason into the MP3 encoder. The examples in this review have all been created during the time of writing this article, everything from scratch. The files are designed as demos. When an example is about a reverb effect, you will really hear that effect. And you will hear it over the rest of the sounds in such a way that it shouldn't be done in any final mix...

This review can even be used as a "Quick-Start" for up and coming DUB producers after they've purchased Reason. Those who want to know "if it can be done" will get answers to their questions. Those who consider buying Reason for the purpose of creating DUB, will be served with the same answer.

The answer is yes. The proof is in the following review...

INTRODUCTION

In the last year of the previous century, I found myself in an English Pub, drinking from an orange juice while listening to the techno music in the background. I was basically enjoying this situation, kind of exotic. The music was tight, as computer music should be. And someone told me, how several Techno producers were using software called "Rebirth" to create their tunes. And getting quite good at it, too!

The company that made Rebirth, Propellerhead Software, was obviously aware of what they were doing. They had made a software version of the infamous TR808 and TB303 machines. These machines were originally created by Roland and out of sale for a long time. But they were sought after by almost every self respecting Techno producer.

Rebirth was basically a little studio. There was a rack with two drum computers and two monophonic synthesizers as well as two basic effects: echo and distortion. This could be connected with other programs but it worked quite good as a stand-alone too.

When I listened to the music, it became clear to me. Indeed, I recognized the sounds. In my mind, I went further and imagined how Rebirth was expanded, how this could become a whole virtual studio. And when it would, computer based DUB producing would definitely reach a next phase

DUB music, or actually Reggae Music, was born on Jamaica. Before there were any sequencers, drumcomputers and midifiles. Well, perhaps they were there, but the Jamaicans were not usually part of that global upper class which could afford these technologies.

When King Tubby first released his "versions" and perfectionized the Art Of DUB, the mixing board became an instrument. The engineer became an artist, too. Using effects, while the *riddim* plays: who says a studio is for fine-tuning and a mixing board for mixing everything together?

Reggae, because of its rhythmic structure, is perfect for *sequencing*. Even stronger, Reggae is predominantly a studio music. It has been developed in the many Jamaican Studio's who all had their bands playing one *riddim* after another into the multitrack recorder. We would call these recordings "Midifiles".

In the 1980's we saw the first drum machines entering the studios, and by the mid 1990's computer based music was here to stay indefinitely. Everywhere, everytime. A new generation of artists and listeners was born, free from the very same prejudice that made many protest the electric guitar in the 1940's.

Music "from a box"? Only preterists would now consider that to be "no music". Most people dance to the rhythm because they can feel it. And so it was not too shocking to find out that by the end of the first "Digital Decade", computer based music was filling the dance charts and the speakers of an average English pub. But it was shocking to realize that this little company called Propellerhead were the first to create a stand alone software that would enable the producer to create music, which appeals to a wide audience.

So here we are, in 2005. Rebirth has already reached the same classic status as the hardware it simulated. And the virtual studio that I imagined that UK Pub? It's called REASON. And Propellerhead has just released version 3.0!

WHAT IS REASON?

Let's be open. Creating DUB music isn't easy. Making your own riddims, and mixing them in DUB style is a skill that has to be trained and developed. It takes a lot of practice to grow from creating music for yourself and creating music, which others will enjoy. Owning your own studio with all the samplers and effects you need doesn't bring you that DUB on a golden plate. And yet you'll need that studio.

Sounds Reason-able, doesn't it?

And so it does.

Reason is the tool that will technically enable you to create DUB with a computer. It turns your computer into a complete studio. Even with the minimum requirements, the word "complete" is not an overstatement. It is possible to create an authentic DUB setting, so that you're able to build on the works of the Fathers of Dub. For example by using "tricks" with the mixing board which other programs simply won't let you do when they're not "in the book"

And the strong part is, that whatever your "level" may be, this is the tool you need. The reason for that is a logical as life itself. It doesn't matter whether you're just beginning or "pro", if you want to make DUB you'll need a studio: when you've reached that "professional" phase, and that is where you create your music for others to enjoy, you'll need it even more!

Reason is *your* studio.

Everything is designed to inspire. Small details like voltage warnings on the backside of effect devices, for example. Or a little animation in the cables when you flip from the front side of your rack to the backside. It has several effects, synthesizers, samplers, drumcomputers, mixing boards and a sequencer section. Oh, and did I mention the two CDR's packed with all kinds of sample material? The quality of everything is professional, too.

The power isn't in the design, though.

It's in the fact that Reason *is* your studio.

What started with the Rebirth software, was taken to the next step with Reason 1.0. And when version 2.0 was introduced to the public, the standard was set. Communities arose, websites that had "Reasonings" in every sense of the word sprung up, and yes, the software brought artists to success! With Reason 3.0, Propellerhead has again set the standard for the "virtual" studio.

The software is versatile, and enables you to make the most complex DUB Set-up. And it the same times, it is open for "newbies" too. Yes, it is quite possible to develop yourselves by merely discovering the endless possibilities of the studio. After all, this is how DUB producers develop themselves, in their own studio. It's even possible to start with some basic set-ups, created for you in the demo songs that come with the software, or on the Web.

So whether you're a "starter" or you're already making music for an audience, Reason is what you want. The software is so widespread and in use that you will always find other producers who can help you along the way. And when you learn something from working in a "real" studio, chances are big that you'll find a way to apply it in your own "virtual" one as well. And often, better.

One look at the enormous merchandizing, books, websites, says it all. Reason is here to stay for a very, very long time. And chances are, you haven't even seen everything yet.

From the days of Rebirth (Renaissance, for the culti's among us) to the current Age of Reason (Enlightment, all culti's), Propellerhead flies on lonely heights. Thanks to their combination of obvious artistic and technical insight, inspiring designs and progressive character, it is now possible to Create Dub With Computers!

CREATING DUB WITH REASON

Reason isn't the only "Virtual Studio", even though they've set the standard. And there are things that Reason can't really do, like recording several different audio tracks. Yes, there is a possibility to sync Reason with an audio sequencer such as Cubase, or Cakewalk, or even to an external multi-track recorder by using the MIDI SYNC technology.

Some people would consider this to be the very weak spot of Reason. They would argue, that because of this Reason couldn't possibly be a studio. After all, what is a studio without the possibility of recording complete sessions of musicians playing their instruments? And they would have a point, there. But it's not unusual these days to find only electronic devices and a computer with sequencing software to play the hardware in studios that produce very catchy tunes. And for the purpose of creating DUB, this isn't the biggest worry either.

This will become clearer when we realize, how the computer is only a simulator. Software is merely the instruction for a computer to simulate a real life situation. Like a text editor actually is a simulation of a typewriter. And Reason is a simulator of a studio.

To re-create or simulate the DUB studio, it's not necessary to know all the gadgets of the Masters of DUB. The Art is the Art, and when you are an Artist, you will develop your Art. Others will inspire you, but you will not have to know every trick in their book in order to make your own Art. But knowing a few principals never hurts.

Reggae originated in the Jamaican Studio's. Only when it was popularized throughout the world, did live concerts of complete bands become a part of a global Reggae culture. However, the music remains predominantly a Studio Music.

Now, there were two kinds of studios on Jamaica. For example, there was CHANNEL ONE. This Studio recorded the works of the musicians. These musicians formed the Studio Band. The Aggrovators, The Revolutionaries, and later the Roots Radics. They played the instrumental riddims into the multitrack recorder in the control room.

However, when you say DUB, you say KING TUBBY. He had his own studio too, where he mixed his Dubs. This is where the riddims on the multitrack were transformed into the mono/stereo tracks we love so much.

Now if you want to translate this back into our "Virtual Reality", you could say that audio sequencers such as Cubase or Cakewalk are like Channel One, and Reason is like King Tubby's Studio. Reason will give you much more possibilities then Cubase or Cakewalk, when it comes to serious DUB mixing. And like King Tubby received his riddims from Channel One and other studio's, so can you import other people's material into Reason and DUB IT.

Let's take a look in your future Studio, all ye computer based DUB producers.

THE INSTALLATION PROCESS AND OTHER TECH-KNOW

For this review, a special computer was assembled by the Dubroom's Tech-Team. The minimum requirements were met, and the computer was kept as clean as possible. No gadgets, no other software, just Reason 3.0. We used an average sound card, nothing special either.

We wanted to know, what Reason can do on it's own. Especially for the contemporary computer based DUB producers who don't have a band, or a studio, or a mountain of money, it's of crucial essence to know if Reason can do the job on it's own.

So the Tech-Team assembled a computer, connected a monitor, mouse and keyboard and that's it. No midi keyboards, no midi controller hardware.

Although the "Real Life" Dubroom Studio has a stockpile of samples, and a whole heap of other gadgets and thing, none of that is used for this review either. We used the sounds that come with Reason, and only the software itself. The only external software we used was to encode the mp3 files that come with this review.

The Tech-Team didn't install Reason. That would have been too easy. Many people think, that being a computer-based DUB producer means you can assemble any computer and so on. In the Dubroom, this is not so. It's not so that everyone who knows how to create DUB with computers, knows how to create computers.

Fortunately, Propellerhead knows this too. So installing the software was very, very easy. Insert the installation disc, and follow the instructions. Basically, the instructions are when to put which disc in the drive. The software is installed in no time, and is continued as soon as you launch the program for the first time.

You will be asked to enter the registration codes, and after you did, the final phase of the installation process will be completed. That's where it went wrong during our installation process. However, an elbow accidentally hitting the left button of the mouse caused the mistake. A typical situation, a natural situation for a DUB producer. Anyway, the computer halted the installation process. But after a re-set, and a re-launch of Reason, everything went fine.

So the installation process is painless. It's idiot-proof, because even when you make a mistake, you don't have to redo the whole process. When your computer meets the minimum requirements, Reason is installed in 20 minutes at the most. And when you're not an idiot, it will be shorter.

The most time will be taken by copying the two CDR's with the sounds anyway. Previous versions of Reason would let you choose between installing the banks on your Hard Drive and leaving them on disc. This is no longer an option in Reason. And it shouldn't have to be either.

Let's try to get some DUB out of Reason, shall we?

A FIRST REASONING

In a modern studio, it's impossible to work without MIDI technology. A "midi-recorder" called sequencer records and plays instructions for instruments and other devices. This is how you program rhythms into a drum computer, for example. You play the sequencer, and the sequencer "plays" the drum machine.

There's basically two different parts of Reason. There is the "Virtual Studio" with all the "hardware" you need to set up a decent studio, and there's the Sequencer. In the Sequencer, you program the riddim or instrumental track that will be the foundation of your final DUBWISE track. And you'll record the moves on the mixing table later on. So the Sequencer is the heart of the set-up you create in the Studio section.

Before a riddim can be played or programmed into the Sequencer, the Studio has to be set up. This is always a very nice thing to do. And in Reason, it's quite easy too.

You start with an empty rack. Simply "create" devices of any kind by right-clicking on the rack and choosing from a huge menu of devices. Pressing the "tab" button will enable you to flip from the front side of the devices to the back. As you know, that's where the cables go in. And that's where DUB producers will do it different then most of their colleagues.

Reason will automatically connect the device according to a logic that will not always be followed by everyone. For us, it's nice to know that it doesn't have to be that way. Holding the shift button down, while right clicking on the rack will cause the device to pop up without being connected to other devices...

Several different kinds of devices are necessary to make a decent studio. Of course, there are the musical instruments. Reason offers a number of different samplers and synthesizers, as well as a drum computer. Of course you can create multiple devices of the same kind. The effects, more important than the musical instruments, are available in versatility too. Echo, Reverb, Filter, Phaser, Distortion, and more. Reason even has an additional number of "luxurious" effects. And of course, there is the mixing board. Or mixing boards, to be exact.

In Reason 3.0, there's also a Mastering Section that you can put between the master mixing table and the output to your soundcard. But for this first session, this isn't important. For now, we want to know how easy it is to set up the Studio for a DUB session. Most programs look like they've written for computer experts rather then musical artists. Reason would have to be different in order to remain on the lonely heights that it currently is.

To create a basic set up for a First Reasoning takes about as long as it would in "Real Life". Drum, Bass, Piano, Guitar and Horns will do just nice. Reason's 14 channel Mixing Board has four effect out-puts, so a slow and a fast echo will do besides two different kinds of reverb. Some other effects between the instruments and the mixing board will complete the set-up.

Time to check the sounds and pre-sets. It's easy to browse through the different sections and finding a few satisfactory sounds for the different instruments doesn't take long. So this first look to the soundbanks already reveal how there's a well of sounds to be discovered at a later stage, after we've done a first session. When you're not too picky about the pre-sets and know how to connect everything, this will take you a few hours at the most. And during this time, you're absolutely enjoying yourself, realizing that you're only scratching the surface of a very deep ocean...

Now that a basic set-up is constructed, it's time to create a little *riddim*. In Reggae jargon, a *riddim* is a basic track. That means, in Reggae Music, a bassline and a short musical theme usually played by a horn section or a keyboard. Time for some action in the Sequencer!

It's pretty easy to get to the Sequencer. Just above the transport controls you can open and close the screen at will. Or leave it a little open, which will be of use in the later stage, when we make a DUB.

The Sequencer has already recognized the musical instruments and created a track for it. It's easy to create new tracks, and assign them to the mixing board and the effect devices. There are several different windows in the Sequencer: Key and Drum "Lanes" where you can program the riddim. Of course it's also possible to play it using a midi keyboard, but since we want to have a computer running Reason and see what we can do, we're gonna program one.

Needless to say, that it's impossible to say how long it takes before a riddim is ready. Inspiration, experience, your own archives, all these things are relevant in this context. But with a little bit of all of the above, it's pretty easy to create it.

Just take a listen to the following file. It's a basic two-measure loop, with all the instruments running and a little limiting at the end. This is how it sounds before the variations, breaks et cetera are programmed in the Sequencer.

SOUND EXAMPLE 1: dubroom_reason30_01_a_first_reasoning_01.mp3

This riddim is not finished, of course. There have to be variations, themes, and everything else. Only then can we start to make a little DUB. For this first session, it's not really that important to make the best themes and most impressive drum rolls. And it's not necessary to create a drum roll at the start, either. This time, that is. This is how the riddim sounds after a few changes. This is what we're gonna transform into a DUB.

SOUND EXAMPLE 2: dubroom_reason30_01_a_first_reasoning_02.mp3

We're using 12 out of 14 channels from the mixing table. The main output goes through a limiter, which basically keeps the signal from clipping. Take a look at the following list:

1. **BASSLINE** – We've used a patch from the "Subtractor" synthesizer, ran it through an equalizer and a compressor. Channel 1 on this mixing board also has an extra Bass Boost in the EQ.
2. **BASSDRUM** – Straight from the "Redrum" Drum Computer into this channel, with the EQ similar to channel 1.
3. **DRUMS –** This channel contains the complete drum sound minus the bassdrum. Dry, with no EQ setting on the mixing table.
4. **PIANO** – Using the "NN-19 Digital Sampler" for the Piano sound, then through a phaser, into the mixing board.
5. **GUITAR** – Using a sound from the "NNXT" Sampler, which goes through a filter before it enters the Mixing Board.
6. **HORNS** – Using another "NNXT" Sampler and another phaser, before the signal enters Channel 6 on the console.

7. **DRUMS FLANGED** – Using FX output 1 from the "Redrum" Drumcomputer, putting it through the chorus/flanger. This channel contains the snare and the toms
8. **DRUMS PHASED** – From FX output 2 of the "Redrum" Drumcomputer, straight into a phaser. This channel contains the hi hat and the two crash cymbals, as well as the tambourine.
9. **EMPTY**
10. **EMPTY**
11. **EFFECT –** From FX output 1 of the Mixing table to the "RV 7000 Advanced Reverb" using a digital reverb patch.
12. **REVERB** – From FX output 2 of the Mixing Board to another "RV 7000 Advanced Reverb", using a spring reverb patch
13. **FAST ECHO** – From FX output 3 of the mixing board, straight into a Delay and back again
14. **SLOW ECHO** – From FX output 4 of the Mixing Board, straight into another Delay and back again.

This set up is pretty basic. It has the most crucial elements, but it just screams for improvement. However, for a first session it's *Reason-Able*. In the previous sound example, we heard all of the above, except for the slow echo.

Time for some DUBBING! Remember, we've not really taken the time to investigate the fullness of the sounds, the effects and everything else. We just created a basic set up with the major effects. Some effects stand between the instruments and the mixing table, and there are two different echo's and two different reverbs at our disposal.

In an interview with one of the Founding Fathers of DUB, the mighty SCIENTIST, he spoke about the "old days". He spoke about visions he had from automated mixing boards, which could enable him to mix DUBS as if he had a lot of hands. That was then a hope. That is now a thing, which Reason enables every computer based DUB producer to do. Again, the MIDI technology is at the heart of this.

As we already established, the Sequencer is where the riddim is stored. The Sequencer drives the instruments. But it can also drive the mixing board and the effects. In the very same way.

Whenever there's a button, a fader, a slider, whatever, the moves you perform on it during playback of the track can be recorded into the Sequencer. When you then press "rewind", or simply keep playing the same loop, your recorded moves will then be played by the Sequencer as well.

Setting Reason up for the first DUB session is easy too. Create a few sequencer tracks and apply them to the devices you're gonna use in the mix. When you get ideas for other devices along the way, simply create another sequencer track and continue your production.

In the Sequencer window, there's two buttons left of the track's names. One looks like a little keyboard, the other simply is the recording symbol: the Japanese flag, as some would say.

In our set up, one of these tracks is called "Mixing Board". Needless to say where it's applied. When we press the record button on the Sequencer track, and also the record button on the transport control at the bottom, the track starts to play. And every move, every action we perform on the mixing board will be recorded. This is how the DUB is made in REASON 3.0

Are you ready?

SOUND EXAMPLE 3: dubroom_reason30_01_a_first_reasoning_03.mp3

The above DUB was created in about 20 minutes. It shows, what REASON 3.0 will enable you to achieve, by using some standard effects and instruments, nothing fancy, nothing special, this is the basic power of REASON 3.0

Just a few hours after the program is installed on the Computer, our first Reasoning has brought us something audible. And this could never have been achieved with some other "Virtual Studio's" or even heavyweight sequencers such as Cubase. Not without a significant amount of hardware and/or expensive software plug-in's. And even then, the way everything is connected in this session isn't possible in other programs either.

This is looking good. It will be a real thrilling experience to explore the deeper levels of Reason!

THE EFFECTS

Many producers take too much time in finding the perfect sounds for their tunes in the instruments. They're looking for that particular sound of a guitar or piano. For a DUB producer, this isn't the main issue, of course. After all, the Art of DUB is mainly to transform every original instrument into something completely different by using.... Effects!

Reason has much more different effect devices than instruments. Every thinkable kind is there. Echo's, Reverbs, Filters, Flanger, Phaser. There are even a number completely programmable quality devices. That's not all. There's a vocoder, too. And a couple of "hybrids" between effects and instruments.

Let's take a look at the basic effects. They're all half-sized, that means that you can put two devices next to another in the rack, where the more luxurious effects and all other devices take up the whole width of the rack. Here's a list of the "small effects":

- RV-7 DIGITAL REVERB – Hall, plate and other kinds of reverb are present in a small but powerful device. You'll need to experiment with the settings but it's quite possible to get a decent reverb out of it.
- DDL-1 DIGITAL DELAY LINE – A basic delay, with enough controls to get any echo you want. There's a choice to display and control the echoes with milliseconds, or to have an echo in perfect sync with the rhythm.
- D-11 FOLDBACK DISTORTION – This particular device isn't checked for this review. Usually, distortion is either to get a screaming effect or to add some "dirt" to a mix. But in DUB, this can easily be achieved in other ways.
- ECF-42 ENVELOPE CONTROLLED FILTER – Highly popular in Techno and other synthesizer based music, the ECF-42 will enable you to make a phaser-like effect. This is a very powerful effect, especially in combination with reverb or echo.
- CF-101 CHORUS/FLANGER – From a subtle enrichment of the guitar sound to the creation of a computerized, metallic effect, this little toy will do the job just nicely,
- PH-90 PHASER – Many contemporary producers will tell you how they are influenced by Lee Perry's Black Ark Studio. And if there is one effect that predominated this sound, it was the phaser. When you find the right setting, all you got to do is let it run along the instruments for an "instant" vibe.
- UN-16 UNISON – The UN-16 is a "voice doubler". It works a bit like a chorus. The effect adds delayed and subtly detuned voices to the signal.
- COMP-01 COMPRESSOR/LIMITER – Compression will make a sound fatter. So for the bassline, it's a must to have a little compression. The COMP-01 is a reasonable compressor for such jobs.
- PEQ-2 TWO BAND PARAMETRIC EQ – Last, but definitely not the least effect. It's possible to use this EQ for fine-tuning of instruments, but the other application is more interesting. Because of the clever controls, it's possible to create special effects with the EQ by changing control buttons during the mix.

All in all, a nice list of effects. And because it's possible to create any thinkable combination or layering of these effects, the possibilities are virtually endless. For example, you can have a filter, going through an echo, with a little bit of reverb on top of that. Three effects, layered over each other. And that's just one possibility.

Let's try some of these effects, just to listen to the vibe. For this experience, we create a little drum and bassline, with a piano to play the chords. Nothing special. Every sound file has five different segments, separated by silence. We've used the standard setting on most of the effects, by the way.

SOUND EXAMPLE 1: dubroom_reason30_02_the_effects_01.mp3

Segment 1: dry
Segment 2: Reverb on Drum and Piano
Segment 3: Reverb on Drum, Phaser on Piano, and Echo on Piano
Segment 4: Reverb on Drum, Phaser on Piano, followed by Reverb on the Phaser
Segment 5: Reverb on Drum, Piano through Filter, followed by Reverb on the Filter

SOUND EXAMPLE 2: dubroom_reason30_02_the_effects_02.mp3

Segment 1: dry, with Echo on Piano, followed by Reverb and Unison on Echo
Segment 2: Reverb–EQ chain on drum
Segment 3: Reverb–EQ chain on Drum, Unison on Piano
Segment 4: Reverb–EQ chain and Echo on Drum, Unison on Piano
Segment 5: Reverb–EQ chain on Drum, Unison on Piano, echo on Unison

SOUND EXAMPLE 3: dubroom_reason30_02_the_effects_03.mp3

Segment 1: Chorus on Drums,
Segment 2: Chorus on Drums, Echo on Chorus
Segment 3: Chorus on Drums, Echo on Chorus, Reverb on Echo
Segment 4: Chorus on Drums, Reverb on Chorus
Segment 5: Chorus on Drums, Echo and Reverb on Chorus, Reverb on Echo

As we see, there's an incredible amount of possible combinations, and layers of effects will even gives us a very personal sound. Experimenting with the effects can be time-consuming, though. Before you know it, you're in the midst of the most spectacular DUB effects!

And that's not all. We've only mentioned the standard effects. They're all "half sized" and do what they do. Of course, you can program them to an extend that is beyond satisfaction. And they will bring you killer DUBS when you have the talents.

But Reason goes further. Much further!

In addition to the standard effects, Propellerhead developed a set of Advanced Effect devices. And that is where every DUB producer will start to have an advanced interest *fe true*! Fully programmable, High-Q effects that definitely match hardware equivalents such as the Alesis Midiverb.

There are three advanced effects: a Distortion, a Vocoder and the RV-7000 Advanced Reverb. Let's check out this last device, as it is definitely the most interesting for the DUB producer.

Basically, the RV-7000 can be used as a delay, or a reverb. Or a combination, of course. It has a lot of parameters, all fully programmable. But the pre-sets are pretty impressive, too. And versatile! There's even a "Spring Reverb" simulation that is pretty decent, as well as presets that claim to be "Reggaeish Dub Effect". We're definitely have to check out these effects too.

How else can we check them but by listening? We'll use the same riddim of drum, bass and piano. Two RV-7000's will definitely give us a good impression of what can be achieved at a later stage, when we'll program the Reverb for ourselves. We will apply one RV-7000 over the drums, and another over the piano. Let's have a listen:

SOUND EXAMPLE 4: dubroom_reason30_02_the_effects_04.mp3
Drums: Dub Slappy Spring Reverb
Piano: Reverse Repeat

SOUND EXAMPLE 5: dubroom_reason30_02_the_effects_05.mp3
Drums: 201 Spring Reverb
Piano: Space Echo 1

SOUND EXAMPLE 6: dubroom_reason30_02_the_effects_06.mp3
Drums: RV-1 SpringVerb + occasional Sky-Fi Hit
Piano: Sky Fi Hit

SOUND EXAMPLE 7: dubroom_reason30_02_the_effects_07.mp3
Drums: Reso Robot Verb + Rolling Fit Multi Tap Hits from the Reso Robot Verb
Piano: Rolling Fit Multi Tap

SOUND EXAMPLE 8: dubroom_reason30_02_the_effects_08.mp3
Drums: 80's Gated Verb + Bright Long Hall Hits
Piano: Bright Long Hall

SOUND EXAMPLE 9: dubroom_reason30_02_the_effects_09.mp3
Drums: Choir Plate
Piano: Film Score

Let's put the Maximizer between the master output and the soundcard, and make a very quick DUB mix. Just for fun. Here's a short Dub, with some fast and slow echo added to the two RV-7000 devices. The bass and drumline have been slightly changed, and some basic mixing already creates a nice DUB vibe. The following track was created in about 15 minutes.

SOUND EXAMPLE 10: dubroom_reason30_02_the_effects_10.mp3

Two RV-7000's can transform a piano and a drum, from their pre-sets alone. We've just established that they do that pretty fair. However, it's clear that the program functions will be necessary in order to create some deeper effects that will suit the need for a serious DUB producer.

For the following Sound example, we'll use a Subtractor, going through an EQ and subsequently through a compressor for the bassline. For the chords, we use the NN-XT. A Redrum Drum Machine provides the rhythm. For the effects, we've programmed two RV 7000's with a Spring and a Digital Reverb from scratch. Two echo machines complete the setup. A basic Dub set up. The following sound example shows some use of these effects.

SOUND EXAMPLE 12: dubroom_reason30_02_the_effects_11.mp3

Just like Rebirth looked back at what is now regarded to be some "Golden Age", Reason does the same. With the Spring Reverb function, Propellerhead looks at one of the most wanted analogue effects. There's enough dirt in the Spring Reverb simulation to have that challenging sound, which can easily be improved by changing a few parameters.

There's enough niceness in the Digital Reverb too. The echoes aren't that spectacular, though. But then, hardly any serious DUB producer would use the internal feedback of a delay but instead loop it through the mixing table for more control.

We didn't even go through all the effects. There's a great Vocoder, fully programmable although it's not easy to see how it works. But that's a tenet of the Vocoder, too. It's kind of a hybrid between a musical instrument and an effect. And will most definitely provide an extra dimension to your music.

All in all, when you're into producing DUB music, this quick look at the Effects that come with Reason will surely have convinced you that you really want this program. The effects are high to top quality, there's enough room for programming your own pre-sets as well.

THE MIXING BOARDS

Who says “DUB”, says “Re-Mix”. Is it therefore a coincidence, that Reason’s Main Mixing Board is called the *reMIX*? As with all devices in Reason, it’s possible to create several Mixing Boards to create complex set-ups for your DUB Studio. But for this review, we’ve only created one.

Actually, there are two different mixing boards in Reason 3.0, a novelty. There’s an auxiliary board too, which we, for now, simply mention.

First we deal with the Main Board. The *reMIX VIRTUAL TEC MX 28-4-14*.

It’s a 14 channel stereo board, with a two band EQ per channel. There are no gain buttons. Perhaps a tip for Reason 3.5? There are four stereo FX outputs. One can be assigned “pre “or “post”. When you select “post”, the output will work independently from the fader at the bottom of each channel. Oh yes, there are four returns too. But in a DUB set-up, these returns are of little use.

Take the typical DUB echo, for example. Many think that a long echo in a DUB means, that some pre-set is used with a long decay of the echoes. However, this is one of the biggest misunderstandings. In Reason, it’s easy to connect and set the Delay devices according to that standard DUB setting.

The reMIX is a powerful board, especially because it enables you to connect any device in any way you want. Without being hindered by standard procedures which so many software developers program into their software like the ten commandments: unchangeable rules: take it or leave it. And as you know, there isn’t a single DUB producer that doesn’t break at least one of the Ten Commandments of Music Production.

The way we’ve connected our Delays in Reason, is as follows: Aux output 1 goes to the input of the Digital Delay, and the output of the Delay goes into channel 11. The Digital Delay is set to “Wet”, so that the original signal will not come back at the mixing table, creating the Doubler Effect so to speak. Also, feedback is set to zero. So when a signal is sent to the Digital Delay, the device will give the delayed signal back to the mixing table.

Opening aux button 1 on channel 11 will subsequently enable you to create echoes as long as you like. It’s easy to find the right setting for Aux 1 on Channel 11, by the way. Just play a bit with the slider and the aux button until you found the right balance. Putting the slide up will then give you more echo, putting it down makes the echo fade away just nicely.

Most programs won’t let you do the above, and yet it’s the only way to connect the Digital Delay. The mixing board, and what you do on it, decides the sound of the echo. Not the Digital Delay itself. Even with a real Tape Echo it’s done this way.

The Reason Mixing Board enables you to create several layers of effects, as said earlier in this review. The combinations are endless, and with a little bit of smart thinking you can easily develope many special effects.

Reason also comes with some extra gadgets to help you create a more complex set-up. For example, when you want to use a lot of different effects and you want to have the possibility to create any combination at any time during the mix, you must come up with a smart set up.

Reason comes with a smaller mixing board too, which will let you mix 6 different channels, and has one auxiliary output and return. A smart little toy that will enable you to create a sub-mix in just a few seconds.

For an even more primitive mixing board, Reason has the “Spider Audio Merger And Splitter”, where you can simply make one signal from several inputs or vice versa. Possibilities enough.

The effects are High Quality, the Mixing Board is good enough, and finally enables the computer based DUB producer to create an authentic DUB set up. When you know that you can use samples to create the sound of your instruments, you can imagine that Reason will surely do the technical aspect for you.

It’s a matter of talent, and development. Skillful DUB doesn’t come instantly, even with Reason. Software that promises you instant success or result, won’t deliver. Reason isn’t that kind of software, and still, because of its quality and functionability, you will be working on your first DUB in no time. And now that we’ve established this, let’s take a deep dive into the Sounds and the Instruments that play them.

THE SOUND CREATORS

In a contemporary DUB studio, the sequencer plays the music. And the sequencer itself contains the instructions, the notes. This is different then the average *Recording Studio*, where the Sequencer is a Multi Track Audio Recorder that records the sounds of the instruments.

Talking about instruments, Reason has a lot of them. And two CDR's packed with sounds and presets to keep you going on for a long time. But before we deal with the sounds, let's take a closer look at the devices that play the sounds.

- **SubTractor Analog Synthesizer** – A High Quality Synth with too many control buttons so that it is a little studio in itself
- **Malstrom Graintable Synthesizer** – This device is a hybrid between a synthesizer and an effect device, like the Vocoder.
- **NN19 Digital Sampler** – The first sampler came with Reason 1.0
- **NN-XT Advanced Sampler** – The follow-up for the NN19, with a lot of programmable parameters for fine-tuning and creation of your own samples.
- **Dr.REX Loop Player** – This device is the connection between midi and audio, as we will see later.
- **Redrum Drum Computer** – With many interesting knobs, outputs and functions, the Redrum is a little sampler in itself where the drum functions are simply outstanding.
- **ReBirth Input Machine** – When you're the happy owner of the ReBirth package, with this device you can synchronize the two programs which basically mean you have two monophonic synthesizers and two 80's style Drumcomputers at your disposal, all of them with a classic sound that is appreciated in the Techno and Electro scenes.

Roughly spoken, you can divide them in two main categories: The Synthesizer and the Sampler. They both have a lot of specific applications, but when it comes to sound creation in general, the very same two categories dominate the technique of Digital Production.

A computer can generate sound from what is called "synthesis". Basically, without getting into boring technical details too much, this means the computer "reads" instructions and translates it into something audible.

A computer can also generate sound from a previous sound recording and can then subsequently do something with that sound recording. This technology is called "Sampling".

Now there are many crossover elements in Music Production. For example: when you sample a synthesizer, you make use of both technologies. But in order to get a principal oversight on the Art of DUB, it's necessary to know a few boring details such as the above. We need it to know how to treat the musical instruments in our Studio.

Reason primarily deals with the sampling technologies. But there are two Synthesizers: the Malstrom Graintable Synthesizer, and the SubTractor Analog Synthesizer. Let's deal with the SubTractor first

The niceness of the synthesizer is that it can create sounds through programming. A Synthesizer can sound like a brass section, for example. But it will always sound like a brass patch of a synthesizer. Some people hate it, and others simply love it. Many who hate it, though, like the sound of the Hammond Organ. And they forget how that also is an instrument which uses electronics to create it's sound, based on a "Real Life" instrument!

The SubTractor is a High Quality synthesizer. It can produce a bass sound that goes below what any bass guitar can do. Especially when you've found the right patch and combination with EQ and compression. The organ patches are wonderful, and with a little bit of creativety you can easily create your own sounds from scratch.

The Malstrom Graintable Synthesizer is different than the SubTractor. It's not just an "Advanced SubTractor". Even without knowing anything about Synthesis, there are enough controller buttons on the Synthesizer to create that special Techno-ish sound that goes surprisingly well with a simple Steppers Drums with tight bassline.

The Rebirth Input Machine can arguably also be seen as a synthesizer. But because this review is about Reason and we won't be using Rebirth, it's simply mentioned here. Suffice to say, that Rebirth makes in itself use of the synthesis-technology.

Let's take a closer look at the two samplers. The NN19 and its successor, the NN-XT Advanced Sampler. The only difference between the two is, that the NN-XT can do everything the NN19 can do, plus extras.

These extras are manifold. It's possible, for example, to read soundfonts. A soundfont is a collection of samples with instructions for samplers how to play the sounds. The file format, (*.sf2) is open, and that means you can find a lot of them on the Internet.

The NN-XT contains two windows, where the NN19 only has one. The "Remote Editor" screen of the NN-XT gives you the possibility to control the Sampler to its finest detail. It's just too bad, that you can't record any of the functions in the Remote Editor. It truly is. Because it would have increased the functionability of the NN-XT during DUB mixing session significantly.

For now, we can establish that both Samplers do their work pretty good, actually they both do it very well! The parameters on both instruments give enough control too.

Then next sampling device is the Dr. REX Loop Player. We haven't been using this device yet, as we've only been using the internal sounds of the Reason Studio and made our own *riddims*.

Dr. REX can be your connection between pre-recorded material created by another Studio or Software program and Reason. But you'll need another piece of software called "ReCycle" to create the files that can be read by the Dr. REX player.

Later, when we check the sound for the different instruments, we'll take a closer look at the loops that come with Reason, and especially the "Dub" section will have our full attention. For now, let's establish that the Dr. REX Loop Player is very interesting for the use of pre-recorded material, whether they may be short Loops or long parts.

And it should be mentioned here too, how the DRUMDROPS.com DVD-ROMS (reviewed by DUBROOM.com) are a very welcome source for the dr. REX player.

The Re-Drum Drum Computer, as already established, is a very simple yet powerful Rhythm Machine. You can use up to ten different channels, of which channels 8 and 9 can be selected as "exclusive", which means you can use a closed hi-hat sample on one channel, and open hi hat on the other, for some nice patterns. Each channel has it's own specific parameters, which can be used for either fine-tuning or special FX (Pitch Bend, etc). The machine also has an internal pattern editor for quick auditioning of sounds, or for another use for which you don't need the sequencer...

The Sound Creators in Reason? They're beyond the average quality of their hardware equivalents. Especially when your goal is to mix with effects in any possible way, the samplers and synthesizers will do just nice, thank you. Every device does exactly that what it's supposed to do, and even more.

THE SOUNDS

Reason comes with two different CDR's packed with sounds and presets for every single instrument and effect device. The most important one has the obvious but nevertheless useful title Factory Sound Bank. The other one is intimidatingly called "Orkester".

Let's deal with the Orkester Disc first.

Propellerhead surely knows how to be original. That is the first impression you get, after checking out the Orkester. It really *is* an Orkester! Professional classical musicians have played their instruments in the Swedish Atlantic Studio. And they've played them all!

There must be some reason as to why Propellerhead decided to pack a CDR full of material that will not be directly associated with the very nature of Reason and most of it's users: the producers of electronic music. A good subject for a long winter evening with a philosopher, perhaps.

However, don't let all of this intimidate you. After all, these are just sounds and you don't buy Reason for these sounds. And it doesn't mean you shouldn't check them either. Because they're packed with some really impressive horn sections, for example. And percussion instruments of various kinds, too. Worthwile!

The Factor Sound Bank obviously needs a little more investigation. It contains all the pre-sets for the Advanced Effect devices, loops, sounds and the rest. And the sounds, of course.

The following sound example has a brass sample running through the Sampler and a guitar loop taken out of the Factory Sound Bank running through the Dr Rex. The two Guitar Loops have a different tempo than the track itself, but as you can hear, something sounds really okay here!

SOUND EXAMPLE 1: dubroom_reason30_03_the_sounds_01.mp3
SOUND EXAMPLE 2: dubroom_reason30_03_the_sounds_02.mp3

Talking about loops, fortunately the Factory Sound Banks has them galore. The Dr. REX Loop Player simply won't play without "REX-Files", which can be created by using Propellerhead's Recycle software. And since not all of us have that software, the dr. REX player is virtually useless without prepared files.

The Sound Bank comes with a number of loops, also a special "Dub" series. The tempos on the loops are between 60-90 BPM. Most people would prefer to have the same loops mapped as 120-180, and because you can't tell dr REX that you want it that way, the loops are of little use. However, you can also load them in the NN-XT Sampler.

The percussion loops are very interesting. They contain a variety of rhythm instruments from all over the world, which you will not find in your General Midi set. What to think about the Dharbouka, the Dholki and the Kahon?

There's an enormous collection of different drum and percussion kits available, too. Electronic and acoustic instruments are presented in a balance that leans more towards the electronic side than the acoustic.
The NNXT Sampler has a lot, really a lot of very interesting sounds. The usual, necessary instruments are there in unusual high quality. Especially when you take into consideration that this is literally the Factory Sound Bank, you get the most of that *fe real*!

Lets give our current Riddim some Piano, Organ, Guitar and Brass. This is a standard instrumentation for a Reggae Studio Band. We're letting it play as instrumental, and then apply a little DUB mixing after that, just for fun. The Spring Reverb, by the way, is our own pre-set that we created from scratch.

SOUND EXAMPLE 3: dubroom_reason30_03_the_sounds_03.mp3

The sounds are more, more, much more then okay. They are more than what you can expect of a "Factory Sound Bank". Does Propellerhead like to describe their products with understatements, or don't they realize they have made the tool for the computer-based DUB producer to develop themselves to higher heights?

THE ART OF REASONING

Now that we've scrolled through the major functions and possibilities of Reason, it's time to look at all of this from yet another perspective. We've seen how Reason creates the environment in which a true DUB Studio can be created. When you know a little bit about DUB and Riddims, you will obviously be able to create a professional product by using Reason alone.

It surely helps, when you have worked in a Studio before. It sure helps, when you've created DUB with computers before, too. And when you've done both, Reason will open its gates for you quite fast.

But how is this, when you have close to no knowledge? When you're a starter? Or when your Studio experience is better than your knowledge about working with Computers?

How easy is it to learn the Art of Reasoning?

It's easier, then to learn the Art of Dub.

And this is an intelligent aspect of Reason itself. The complexity of the software is as complex as a Studio. Using the devices is as difficult as having their hardware equivalents in your studio. An old saying and song comes to mind: "You Can Get It If You Really Want". Therefore, it totally depends on your own wishes, your own ambition, your reason to Reason!

So before you can find the answer for yourself, it's good to know as to why you want to know the answer. Why do you want to be able to control Reason?

When you want to (learn to) produce DUB with computers, you will surely find your way into the program. It's very user-friendly, when you're a producer that is. Not, when you only want a "cheap ride". But you've probably didn't even manage to come this far if you're not really interested. And when you've come this far, you can safely assume that buying Reason will not bring you a disappointment.

Even stronger.

It's easy to (to learn) the Art of Reason, when you (want to learn to) create DUB with Computers. Creating devices, using the sequencer, the extensive help function gives you detailed information for every single action and device. Logical thinking goes hand in hand with creativity, and Reason proved to be able to deal with the logic of a DUB producer with some experience too. The instruments and their sounds are versatile, and even the effects will enable you to create your own sound by layering and other methods.

So yes.

The Art of Reasoning is, to reach an *overstanding*. And the Art of Reasoning is not to learn the in's and out's as dominated by the Software Developers. The Art of Reasoning is to teach Reason how to handle your specific needs. The quality of the software is in its ability to adjust itself to the user. Because the user of Reason is the producer of music that will touch the hearts of people, if only to make them *rock and groove to the rhythm of the drum and bassline*.

THE GOOD, THE BAD AND THE UGLY

There's a lot to say against making lists of (dis)advantages because they're never complete and leave out a lot of other relevant aspects. So the following shouldn't really be seen without the context of the whole review. We've been asking ourselves, how far can we come when we want to professionally produce DUB music with the use of Reason alone. And we came quite far, after scratching the surface.

So before we make a list, we can easily make the conclusion that REASON 3.0 opens the computer for every DUB producer. Buy it, you have no excuse.

Having said that, let's make a list.

THE GOOD

Good points are those particular things that go beyond reasons to buy Reason 3.0. It should be suffice to say that basically you have no excuse not to buy this software if you're looking to produce DUB with computers.

- Completely open for any possible DUB set up.
- Fully programmable Hi-Q effects and instruments.
- Professional Sounds for the instruments
- Rightfully to be called a Stand Alone Professional DUB Studio.
- Software that has set the standard from a company with a tradition of setting standards on contemporary music production.
- Exchanging of files and ideas with other producers is easy because of the large community of Reason users.
- Reason is able to read open file formats such as wav and sf2.
- Many ways of linking Reason with other software or external MIDI devices.

THE BAD

Bad points can be considered as our description of the agenda at the "Reason Improvement Department" at Propellerhead. We think that these points, or at least some of them, will be fixed in a next update.

- Holding the SHIFT button while creating a device will prevent "auto-connect". It's not possible to disable auto-connect at all.
- Sometimes, pressing "search", canceling the search, and browsing back to the previous page seems to be the only way to re-open a file in Reason after it's created using the "Save As..." function. That is, as soon as you created them. During next sessions with Reason, the files will be listed.
- It's not possible to open wav files in the Dr. REX Loop Player.
- It's not possible to use DirectX or VST Plug-ins as effects.
- It's not possible to record audio tracks as in a Recording Studio.
- There have been complaints on the Internet about the possible hi and low end cutting of certain sounds in Reason. We haven't heard it.

THE UGLY

In this context, when we find something ugly, we see stuff that hurts our senses. We know it's there, but we don't like to look at it. Below you will find a few points that we'd prefer to ignore in Reason.

- The Distortions are nice, good quality too, but completely irrelevant for producing DUB unless you want to make a heavy metal guitar or hardcore house bas drum as your specific trademark.
- Too bad that there isn't an "advanced phaser"
- Too bad it's not possible to record automation in the remote editor windows of the various devices.
- It's not possible to have Reason full-screen at 800x600 Resolution. It's not bad, it's just that the Reason program window could be perhaps 5% bigger.
- It's not possible to save your tracks as an MP3 file.

All in all, Propellerhead can be rightfully proud of what they've achieved. They have provided the tool, and because it's still under development there are minor points. None of these points is a reason not buy Reason, the totality of these points are also not a reason not to buy Reason.

DUBBING IS A MUST

Yes, it can be done. And that is an understatement. It is not only possible to create DUB with Reason; the software is simply made for it. When you want to make DUB, it can be done.

And we know: Dubbing Is A Must. Or at least, we should know it.

Producing DUB is not the same as creating a riddim. Producing DUB is creating a riddim to DUB IT. And because it's not easy to create DUB with sequencers such as Cubase and Cakewalk, a lot of people simply make a riddim, apply some effects over them and that's it.

Sequencers are for fine-tuning, for mixing several audio tracks into one. These programs won't let you connect everything the way you want, for example. Synchronizing Midi and Audio is the complaint number one among the producers too. The only solution to this collection of problems is to buy a lot of hardware or to get into Reason.

The fact that the software is in frequent use by producers of electronic music brings another prejudice to the surface. Many people do not realize how much Trance, Techno and other electronic forms of Dance Music have in common with DUB and yes, even with Reggae Music. And so they think that software such as Reason cannot be anything for a DUB or Reggae producer. A prejudice, which seriously disables a personal progression!

There are also a lot of preterist producers who basically claim that the best Reggae of today is the Reggae that "sounds old". They claim that Reggae and DUB music had some golden age in the 1970's, and their attitude is basically that "the only good Reggae is retro-Reggae". One can even wonder as to why these people make music anyway, unless they are preterists who think they can bring back the "good ole days" by imitating them.

Another prejudice is the idea that music must be "played" by "musicians". The reason why many think it really is like that, is because the midifiles of many contemporary producers sound like they should have been played by musicians. The tightness that comes with sequencing isn't recognized as one of the strongest parts of Digital music production, when these midifiles suck.

Reggae is primarily a studio music. Riddims are recorded. Look at them as midifiles. What do you do with the midifiles, with the riddims? In Reggae, the vocalists and the DUB mixers take care of the riddims produced in the Studio. A boring riddim can even, in theory, become a killer tune with some right DUB mixing or good singing/chanting on top of it.

When you know all these things, when you know how prejudice disables many from developing themselves in this current day and age, then you have no reason not to get into the studio, which Propellerhead Software created for you. When you know how Dubbing Is A Must, why then continue to struggle with audio sequencers that aren't even designed for DUBBING?

Maybe you hear people say how they only buy old Reggae, or that they don't like to listen to digitally created music anyway. Maybe you think about ways to reach those people with your music. Don't even bother with it, though. These preterists think that Reggae is museum music. Every time they claim how the "old is the best", they are doing some pathetic attempt to declare Reggae Dead.

There's more. Because most people of today have absolutely no problem with Digital Music. The dances are full! More people visit a dance than concerts. And it's not unusual

to pay more money to get into a Dance Part then for a live concert. Music, created by Reason or other software, rules.

When you listen to the electronic dance music, it's obvious how DUB is the inspiration for it. Rhythm, effects, skillful mixing in and out of instruments, all of these obvious DUBWISE techniques is incorporated and people dig it to the fullness.

But where is the DUB? Unfortunately, still in the back of the Reggae Collections in the Record Stores. And magazines are filled with crazy statements claiming how DUB is a music of the past, too. Where the whole world is dancing to the rhythm of a drum and bassline. If these people even hear a glance of Reggae, they all start to cheer and dance more. So it's clear: DUBBING A MUST.

Where are you waiting for? Get some Reason!

CONCLUSION

Even an in-depth review can only scratch the surface of this incredible piece of software. Especially when looked at it from the perspective of creating DUB, and after establishing the endless technical possibilities, it can be said without apology that Reason 3.0 is what the computer based DUB producer of today is waiting for.

While you are producing your music, you're already dealing with the sounds and the effects. You're building your tune on the vibe rather then your technical insight. This means, your final product will simply be the climax of your own experience. Reason definitely takes the boring school vibe out of computer based DUB production. Making the riddim and dubbing it will be the methods of which you will be educating yourself.

Propellerhead Software knows very well, that producing music is an esthetic experience. Professionalism doesn't show in the amount of knowledge you managed to memorize. Making music is not the same as making cookies. Professionalism consists out of the ability to produce music that others will enjoy.

The technical know-how comes as a natural fact, when you are developing yourself in the good way. You start to see the need for a compressor, for example, because you constantly think about ways of making a fatter bass. Technical books filled with formula's that only trigger your school-trauma's become interesting, because you know what you want to reach. And all these things come naturally in an environment such as created by the developers of Reason.

The requirements are remarkably low for the high quality; the price is remarkably low for a complete studio with sequencer. The sounds are professional and because of the very large online community of Reason users, your collection is only bound to grow. Reason even reads open standards such as WAV and SF2, opening the door to other communities too.

Releasing your music is easy, too. Reason will write your final product as a wave file, enabling you to use other software for further processing of the mix. Reason does have an internal mastering section, so the other software could in principal be limited to an MP3 encoder or CD burner.

There are only a few reasons not to get the software.

The first one may be, that you already own a big studio with musicians and digital devices. The second one may be, that you're not interested in creating DUB. The third one can only be, that you already own it.