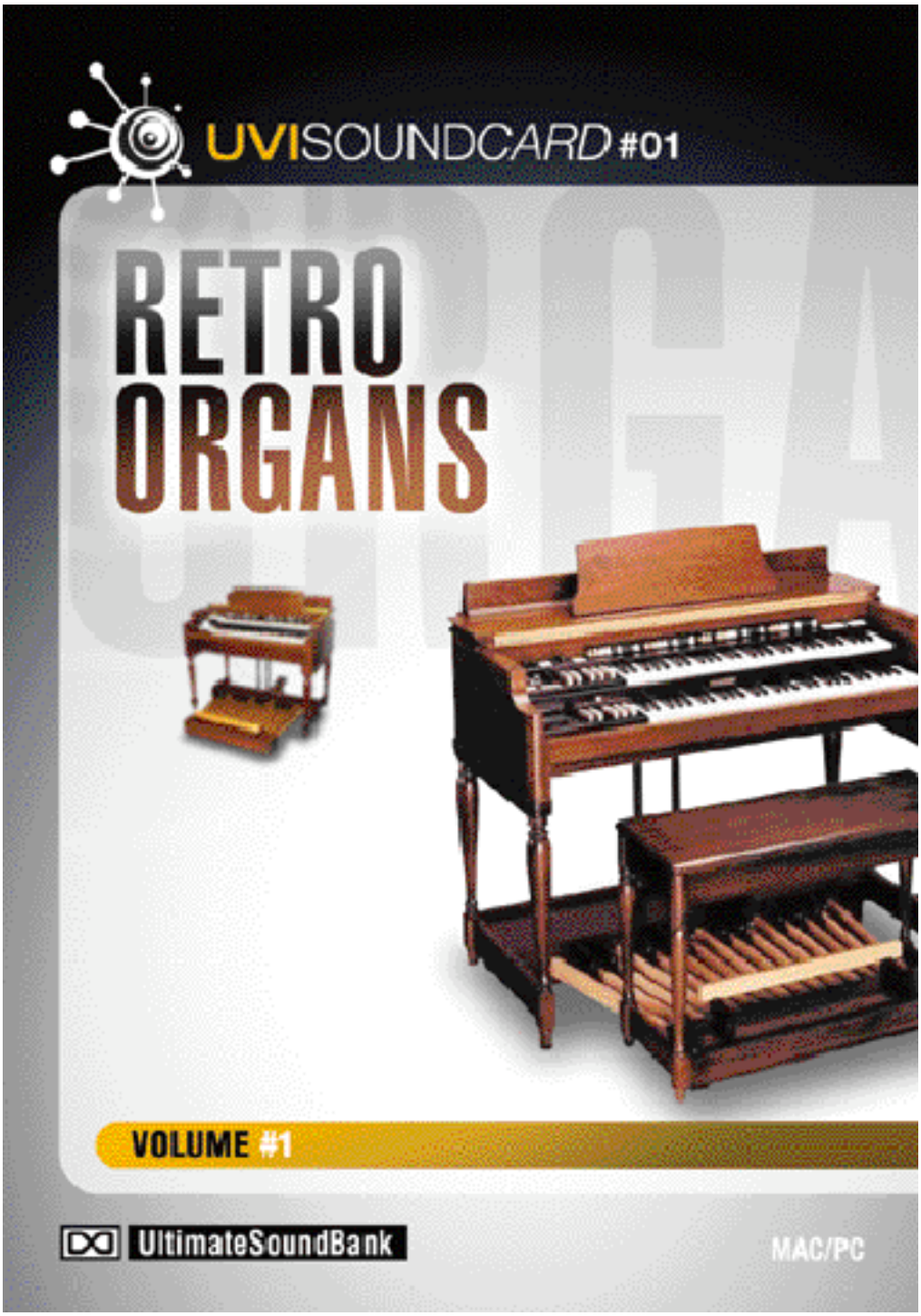

Product Informations

UltimateSoundBank

INTRODUCTION

More than 12.500 samples, 500 presets and 3 gigabytes of great sounds. Years of hard work were necessary to achieve our goal: giving you the best and the most complete collection of organ sounds in a simple plug-in that focuses on giving you easy access to the best features.

Our challenge was to record and reproduce in a very good looking software plug-in the majesty and uncomparable sound of the most famous tone wheel organs and his rotary speaker cabinet. This may seem like a tall order, but keep in mind that USB plug-ins are made by musicians to satisfy their needs too... The sound quality that is obtained with Charlie is very different from other instrument that emulate the organ, and this result was more important than other features.

Sound is always the first priority!

A- Retro Organs HISTORY

1- The creators

Both preset and soundbank name are displayed for your convenience.

Stephane Briand : Sound Engineer.

Stéphane has been one of Guillaume Tell Studio's sound engineer for quite a while. He was here and gave us precious help when recording and capturing the real essence of the electric organ sound.

Geoffroy Soulaine : Sound Designer.

"Jeff" has a real passion for organ sound, both as a keyboard player and a Sound Designer. The original idea of this plug-in originated from his dream: having easy access to beefy organ sounds on his laptop computer.

2- Guillaume Tell Studios

The recording sessions were made in one of the best studios in the world : Guillaume Tell (Paris, France). The team spent long nights in Studio A (famousfor its remarkable accoustics) to shape the organ sounds and capture them, a gruelling job that demands a lot of patience and precision.
http://www.guillaumetell.com

Guillaume Tell Studios credits include :

Artists

Pedro Abrunhosa, Brian Adams, Charles Aznavour, Joan Baez, Ray Baretto, Jimmy Barnes, Miguel Bose, Busta Flex , Ray Charles, Phil Collins, Deacon Blue, Deep Forest, Depeche Mode, Manu Dibango, Brian Ferry, Fugees, Peter Gabriel, Stan Getz, Gipsy King, Charlie Haden, Haris Halexiou, Johnny Hallyday, Latoya Jackson, Jean Michel Jarre, Elton John, Judas Priest, INXS, Iron Maiden, Salif Keita, Michel Legrand, Ute Lemper, Cheb Mami, Helen Meryll, Marcus Miller, Liza Minelli, Eddy Mitchell, Gary Moore, Ozzy Osbourne, Pet Shop Boys, Oxmo Piccino, Prince, Radiohead, Nile Rodgers, Rush, Saint Preux, Debora Seffer, Paul Simon, Simple Minds, Sound Garden, Sting, 3T, Toure Kounda, Vangelis, Roger Waters, Worlds Apart, Yes, Youssou N'Dour…

Producers

Georges Acogny, Prince Charles Alexander, Tom Lord Alge, Mario Barreiros, Dave Bascombe, Michael Beinhorn, Steve Boyer, Michael Brauer, Stuart Bruce, Bob Clearmountain, Simon Climie, Bruce Fairbairn, Stephen Hague, A.Harwood, Jon Kelly, Chris Kimsey, Bruce Lampcov, Mick Lanaro, Robert John (Mutt) Lange, Clive Langer, Frank Langolf, Mars Lasar, Hal Lindes, Malcom McLaren, Daniel Miller, Chris Nea , Mark Opitz, Hugh Padgham, Nick Patrick, Phil Ramone, Daniel Richard, Peter Roos, Doug Ryder, Mark Saunders, Ian Taylor, Chris Thomas, Tom Tucker, Tony Visconti, Don Was, Alan Winstanley, Youth…

The list goes on and on…

A- GEAR and TECHNIQUES

1- Listing

Instruments :

The best and most famous electric organ of all times, recently brought back to the original 40's specs. Other famous european electric organs are featured, as well as an amazing vintage ***rotating speaker system*** in absolutely perfect condition.

Some of the instrumens have been processed through Guitar amplifiers :
Marshall JTM 45, JCM 800, Plexi, Fender Bassman, Twin Reverb, Matchless Chieftain, Soldano Hot Rod, Vox AC 30.

Microphones :

Neumann U87, U67 and U47 Fet. Sennheiser MD421, AKG C414.

Compressors, pre-amplifiers & co :

Tubetech, Avalon AD2044, UREI 1176, Neve Prism, Jensen 990, Manley Variable-Mu, Manley Massive Passive, and even the excellent pre-amps of the SSL 9000 desk. Manley Direct Box, Avalon U5.

Audio Interfaces and converters :

Apogee AD-8000 special edition with TEFLON solders & the brilliant MOTU HD192.

Audio Software :

MOTU Digital Performer and MachFive, BIAS Peak, Waves, Infinity.

2-Microphones

After many different attempts, we decided to go for the following technique:
We put two mikes at a square angle, one facing directly the rotating speaker, the other one facing sideways. We used one other mike (usually a Neumann U47FET) to record the bass output.

The two main mikes were placed between 30 and 60 cm to the rotating speaker in order to have the best compromise between the direct sound and the room, more distance would have rendered the sound slow and unnatural.

Every single note of the organs were sampled until the very end of their release for increased realism.

Before even trying to record the sounds, we had to put the organ on the floor (instead of the huge castor wheel riser it laid on) because the wheels created vibrations that prevented us from getting a clean sound. We did the same with the rotating speaker and placed them on an absorbing floor to avoid further vibrations.

3- Guitar Amplifiers

This technique has been successfully used in many best-selling albums and by artists from very different backgrounds. The use of guitar amplifiers creates new soundscapes, a warmer sound only made possible by the typical compression and distortion of the amplifier stage as well as the compression of the speaker cone.

4- D.I Boxes

We used D.I. boxes to capture the direct output sound of the organ. This was done to get the purest sound without the rotating speaker system, and therefore to allow further treatment of the sound via plug-in effects or/and external gear.

C- SAMPLING : the best way to capture the real sound

Other Organ instruments use modeling but we consciously decided on a different approach: we used sampling in order to capture and reproduce the real organ sound, including the rotating speaker cabinet in action. At this same time, we really believe that nothing can compete with the accuracy and realism achieved by High Quality sampling.

With this in mind, we developed a complete recording technique to add a high level of expression to our samples. Of course, sampling means that there cannot be drawbars on the plug-in, but we feel that the resulting sound justifies this: instead of searching the right Drawbar setting by yourself, why not enjoy a huge selection of classic drawbar settings built by pro players?

1 - What are the drawbars?

Each drawbar represents some of the harmonics of the organ sound and the postion of each drawbar sets the level of each harmonic group...The drawbars are arranged in the standard harmonic overtone series, ie., fundamental, octave, twelfth, fifteenth, seventeenth, nineteenth, and twenty-second harmonic. In addition, a sub-fundamental and sub-fifth (called undertones) were added for more punch.

Only the famous tone-wheel organs build their sound from a combination of pure sine waves, and allows the organist to control the level of each harmonic in real time. Almost all of the other organs use "subtractive" synthesis, where you start with a harmonically rich tone (a square or triangle or other complex waveshape) and remove harmonics with various filters.

2 - Drawbars settings

Please note that the drawbars settings were all but made at random. finding the right settings was a big part of the creative process. We interviewed and gathered as many information as we could from famous organ & keyboard players around the world to make sure we recorded the most creative and musical settings we were given.

3 - Rotating speaker cabinet

The typical tone wheel organ sound is intimately related to the Rotating speaker system...

The unmistakenable sound of a rotating speaker has always been very difficult to replicate, even in recent electronic devices. Although they are huge, very heavy and cumbersome, their rich and complex sound has been used in numerous records for organ sounds and other effects (The Beatles were known to use it on vocals, for instance).

The way this system reproduces sound is unique: two speakers with rotating elements. The bass speaker sits over a large rotating drum that contains a scoop shaped rotating baffle. The treble speaker fires up into a rotating horn. The bass drum and the rotating horn are driven by two different motors, so they spin at different rates.
How such a configuration came to a man's mind is still a mystery today...

Why does the rotating speaker cabinet sounds better when sampled ?

The rotating speaker cabinet applies many differents treatments to the organ sound, you can hear simultaneously :

- tremolo effect (amplitude variation)
- vibrato effect (oscillation of the pitch due to a doppler effect)
- phase shifting
- timbre variation (as the speakers rotate into and out of the wooden cabinet not only does the amplitude and the pitch vary but so does the timbre : a kind of overpowered wah-wah effect)
- reflection (the sound field is moving in three-dimensional space, from side to side, from front to back)
- speed modulation (the speed of the rotating speaker system may be accelerated and slowed down to emphasize and color the music)
- coloration (Rotating speaker systems are tube amplified, and those tubes sound of course better when hot, sampling a rotating speaker system sound must take this into account as well as the sound of the speaker itself).

There's a highly complex serie of sonic phenomena that taken together create the unique sound of the rotating speaker system, therefore, sampling seems once again the best option to faithfuly reproduce these effects, modelling attempts proved too poor and too far from reality for that purpose.

By now you are probably getting a pretty good idea why the sound of this famous rotating speaker system is so hard to reproduce and how hard we had to try before we found the best mikes configuration to get the best out of it.