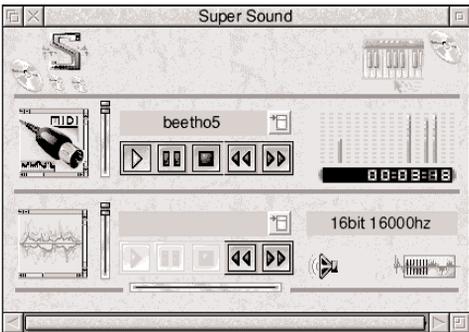


The Super Sound Expansion System

Alan Bonsor examines the first of a new breed of sound expansion systems, which turns his computer into a synthesizer

When the BBC micro was born in 1981 it had one of the best sound systems available on any computer of its generation. Compared to computers like the ZX Spectrum, the Beeb provided a symphony of sound effects. With the launch of the Archimedes in 1987, Acorn once again gave us a computer whose sound facilities put many other systems to shame. Seven years

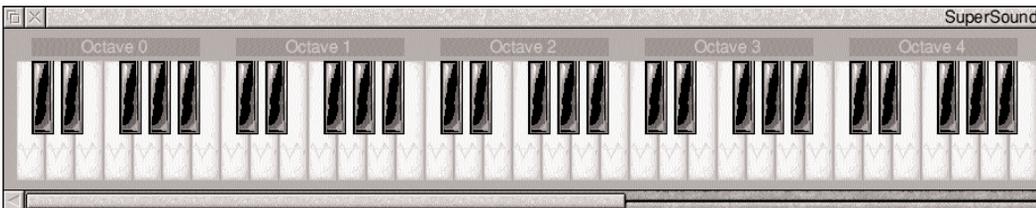


The Super Sound front end

on however, the Risc PC sadly offers nothing new as far as sound is concerned. We've still got superb sound compared to even the fastest Pentium-based PCs, but plug an inexpensive SoundBlaster card into that PC and the fact that Acorn computers have become somewhat dated in the sound department is immediately apparent.

The SoundBlaster card is now one of the most popular expansion cards available for PC compatibles, providing very high quality sound synthesis, effects and MIDI support. It plays an extremely important role in multimedia systems in addition to being used by a multitude of games - in fact no PC game is worth its salt if it doesn't offer decent music and sound effects via

A 9-octave keyboard on screen



SoundBlaster.

Several companies have been stepping into the breach to provide similar sound facilities for the Risc PC and Arc, and Lancashire-based Audio Dynamics has won the race to get the first sound card on the market - the Super Sound Expansion System or SSES 1600.

In case you're wondering why it was originally known as the ESP Sound Expansion System, it was developed by Expressive Software Projects hardware department, which in a company restructuring earlier this year became an independent company called Audio Dynamics.

FEATURES

Compatible with all Acorn 32-bit computers, the Super Sound Expansion System combines a synthesizer and sample playback facility with a

Technical Jargon:

A 16-bit, 32-voice CD quality wave table synthesizer providing 128 instrument and 49 percussion General MIDI sounds in 4Mb of on-board ROM. These can be played from any Acorn MIDI compatible software or an external MIDI device such as a keyboard.

Technical Jargon:

Stereo playback of 8-bit, 8-bit ulaw, 12-bit and 16-bit signed and unsigned samples at frequencies from 1Hz to 60kHz with a 96dB dynamic range.

Technical Jargon:

On-board 68000 processor to ensure minimum ARM sound overhead.

Technical Jargon:

An external 16-channel MIDI interface via three 5 pin DIN sockets (MIDI IN, OUT and THRU), two phono lineout sockets, one 3.5mm jack

standard MIDI interface. It comprises two hardware components: a single width expansion card and an external input/output unit. The expansion card is based around a custom chip set designed by the American synthesizer manufacturer Ensoniq. Its principal features are shown below.

IN USE

As the SSES is 100% Acom MIDI compatible, it can be used with all MIDI compatible software. This includes Maestro, Clares Rhapsody 3, ESP s Notate and Compose World and any other MIDI package you may care to mention. Early versions of the software supplied with the system did have some compatibility problems however. The first time I tried to use the SSES with Rhapsody it crashed when I attempted to play a MIDI file, and when I upgraded to a Risc PC several other problems manifested themselves. Audio Dynamics has been extremely helpful in these situations, and in most

English Translation: You no longer need a MIDI card and MIDI keyboard to be able to get the best out of programs such as Rhapsody 3, Notate and even Maestro. The SSES provides the entire General MIDI set of sound samples which are standard on most MIDI keyboards. The General MIDI samples, known as waves, include pianos, guitars, vocals, pads, bases and a whole range of orchestral sounds. The sample quality is very good, although a purist will probably snigger at the synthesized reel of the sounds.

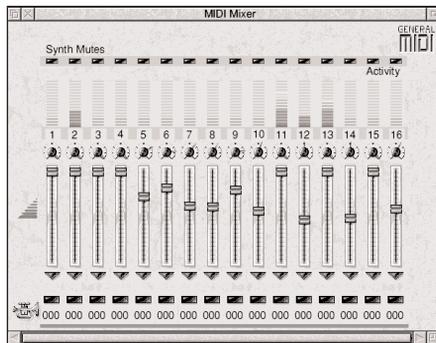
English Translation: Instead of playing a sampled sound, either created by yourself with a sound sampler such as the Lark or Oak Recorder or supplied with programs such as AudioWorks and Digital Symphony through the Archimedes or Risc PC's internal sound system, you can play it back at any speed with CD quality through the SSES.

English Translation: The SSES has its own on-board processor so that it doesn't slow down the computer when generating or playing back samples.

English Translation: The small input/output box which sits next to the computer connects to the expansion card via a 1 metre cable. It provides sockets that enable it to be connected to any MIDI

cases a software update has arrived by return of post.

The SSES is supplied with a program called SuperSound. This little application, with its unusual but attractive front-end, provides direct access to all the General MIDI samples, a MIDI file player, a sample player and a very well implemented nine-octave keyboard. However, I am not very fond of the pop-up menu containing almost 150 General MIDI sample names - finding the one that you want can be very tedious and there is also a non-fatal bug in the software that causes the icon bar menu to appear whenever you click adjust in the sample list menu.



The MIDI Mixer panel

Dragging a MIDI file (type 0 or 1) or one of your own sound samples into the SuperSound window will cause that file to be played, either from RAM or directly from disc if memory is tight. Playback volume and speed can be adjusted, and when playing MIDI files, each of the 16 MIDI channels can be individually altered via the MIDI Mixer.

PRODUCT INFO	
Product	Super Sound Expansion
System	
Supplier	Audio Dynamics 10 Durnford
Close	
	Norden, Rochdale

Audio Dynamics is currently working on a new version of the SuperSound software which should be available by the time you read this. The user-interface is being given a complete facelift and bugs such as the one above are being fixed.

CONCLUSION

The Super Sound Expansion System is an entertaining and well implemented product ideal for anyone who uses music software such as Rhapsody on a regular basis. However, it currently doesn't offer anything that will appeal to non-music/MIDI users. Multimedia

