# DIGITAL AUDIO INNOVATIONS

**SPACE STATION PRO THE WORLDS FIRST
MEMORY RESIDENT, SOFTWARE DRIVEN, VIRTUAL SAMPLER
FOR WIN98, 95 AND DOS**

Digital Audio Innovations Space Station Pro combines the flexibility of the PC and Creative Sound Blaster into a High Performance Sampler. The SSPro unites Advanced Sampler and Synth Architecture into a more affordable software package. All the Performance Capabilities of Hardware Samplers and Wave Table Technology merged together in one program. Experience for the first time True Unlimited Wave Control in ways we have been lead to believe are not possible.

| MEMORY RESIDENT | PERFORMANCE | ADVANCED EDITING |
| --- | --- | --- |
| SOFTWARE DRIVEN | INSTRUMENTS | REQUIREMENTS |
| VIRTUAL SAMPLER | MIDI SPECIFICATIONS | PRODUCT |

## MEMORY RESIDENT

Space Station Pro utilises memory in a far superior manner to that of other software packages, locking itself in RAM enabling Crash Resistance. When using the SS Pro live on stage it is vitally important that the software continues to operate even after Hard Disk or Operating System failure.  The SSPro is not a glorified Hard Disk playback system, all Waves playback from RAM. The Larger the RAM size, the more Waves you can load.  Playing Waves back from RAM eliminates all of the noise related with hard disk power drain, and the necessity for fast and expensive SCSI Drives.  Using the PC RAM removes the need to put memory into your audio card and enables all operations to be carried out in Real Time.  SSPro can lock up to 4Gb of RAM and as prices continue to drop, this makes the worlds first true Gigabyte Sampler a thing of the past.  RAM playback allows the true polyphony value to be determined by CPU speeds, enabling the SSPro to run on any processor from a 386DX and above.  Why buy an expensive hardware sampler or hard disk system when all you need is the SSPro's wisdom.

## SOFTWARE DRIVEN

Space Station Pro software interface is the first true Real Time wave controller on the market. All operations directly control areas of memory and perform even faster than most hardware synth's and samplers. Looping, Key Mapping, LFO's and Envelopes can be modified as the waves playback without the need to re-trigger the wave. All aspects of the SSPro can be controlled easily and graphically, with individual areas within the software known as Zones and Levels. All of these areas can be accessed quickly and easily with no more than two mouse clicks. First time user's can navigate themselves around the interface using the Ship, a simple shopping mall style map. Current location is always displayed with a 'you are here' indicator - simply click on the area that you wish to go to, and you are there. The SSPro interface has been designed with Keyboard and sampler user's in mind and does not use the standard windows click, drop, click, drop method. Function buttons have been provided to get you straight to the area you need, as with any physical musical device. Direct online help for the current active Level only, removes the usual time consuming road to nowhere usually associated with standard help files. The power of any software is determined by its interface - if you can't find it, you can't do it. Why waste your time trying to find a function that can't be seen, with the SSPro it will be on the screen.

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## VIRTUAL SAMPLER

Space Station Pro will outperform even some of the most expensive samplers on the market. PC RAM access times are so much faster, that MIDI playback lag times will never exceed 2.9 Milli seconds even when playing back 128 stereo 44Khz waves. This makes the SSPro the most responsive playback device in the world today. The SSPro simulates a sampler to the point that you will totally forget you are using a PC. The SSPro is fully MIDI compatible and 16 part multi-timbral with a massive 128 stereo wave polyphony. There will be no need to buy a voice upgrade module as with hardware samplers - as soon as CPU's reach a speed to handle more than 128 wave polyphony, we will just increase the number free of charge. Why spend £2000.00 on a rack box to look at an LCD, when the SSPro can do it all on your home PC.

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## PERFORMANCE

Space Station Pro will continue to perform in a live situation after total Hard disk failure, which is not as rare as you may think.  When running the SSPro in win 98 or 95, it will continue to respond even after a VXD error and windows is no longer around to Alt Tab to.  If true performance is what you want, then the SSPro is the sampler for you.  Waves of different frequencies can be played back together without any pitch changes.  The Output frequency can be changed on the fly, without the waves slowing down or speeding up.  When changing the Output frequency to a lower setting, the polyphony is immediately doubled without changing the quality of any loaded Waves. Waves in memory can be played back from a sequencer, MIDI keyboard, Mouse or the qwerty keyboard, with MIDI control, and recorded as another Wave. 16 SSPro instruments can be played back simultaneously using external devices, or by a sequencer on the same PC with the use of a second MIDI or sound card.  The SSPro has a full MIDI spec that matches the most expensive Keyboards and samplers on the market.  Waves and instruments can be loaded as you playback and can be played even before they finish loading.  MIDI data can be transmitted using any of the fixed and user mixers.

# INSTRUMENTS

Space Station Pro is shipped with over 2000 instruments constructed from the library of over 4000 wave files also contained on the CD ROM.  Each instrument has been hand crafted by Prof Digi Dimensionizer from Hypnosis Studios, a well established sound developer.  All of the waves used have been provided from Digi's personal collection of analogue and digital synth's and samplers.  The wave library alone is valued at more than the SSPro retail price.  Never before have so many great sounding instruments been given away free of charge.  Over 1000 of the waves are one bar live performances, from drummer Max Beta, Guitarist Tau of Sound, and Digi himself performing on bass and wicked analogue synth's.  Every instrument within the SSPro can consist of 1-128 waves single layer, or 2-256 waves multi layered.  Up to 16 instruments can be saved together as a group for instant re-loading.  The power of all synthesisers lie in their library, and the SSPro displays a mind blowing selection.  When creating your own instruments, waves can be loaded from any of the available sample CD ROM's that come in wav format.  The SSPro will retain the CD ROM volume label, and request that you insert the disk when loading your created instrument.  This will prevent having to save the waves on your hard disk unless you want to.  Instruments (Banks) can be saved with or without the waves, conserving your hard disk space, the same techniques can be applied to instrument Groups.

## MIDI SPECIFICATIONS

Space Station Pro MIDI specifications matches that of the most expensive synth's and samplers on the market today. If MIDI control is what you want, then look no further than the spec below. The SSPro is fully MIDI controllable and 16 part multi timbral.

### MIDI SPEC

| Data | Send\Receive | Data | Send\Receive | Data | Send\Receive | Data | Send\Receive |
|------|-------------|------|-------------|------|-------------|------|-------------|
| Note on\off | Yes - Yes | After Touch | Yes - Yes | Poly Pressure | Yes - Yes | Program chg | Yes - No |
| Velocity on\off | Yes - Yes | Pitch Bend | Yes - Yes | Control change | Yes - Yes | System Ex | Yes - Yes |

### CONTROLLER LIST

| CC No | Usage | CC No | Usage | CC No | Usage | CC No | Usage |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 001 | LFO 1-6 Depth(Modulation) | 007 | Channel Volume | 010 | Channel Left\Right (Pan) | 012+013 | Amplitude Env Attack\Rel |
| 016+017 | Balance Env Attack\Rel | 018+019 | Pitch Env Attack\Rel | 020-031 | LFO 1-6 Depth and Time | 044-046 | Resonant Filter 1 |
| 047-050 | MIDI Chase Delay | 051-053 | Resonant Filter 2 | 064 | Holds all Notes | 067-068 | Soft Pedals 1+2 |
| 069 | Hold Held Keys Only | 115 | MIDI Chase On\Off | 116 | Filters Serial\Parallel | 117-118 | Filters 1+2 On\Off |
| 119 | Reset Loop Mode 2 Cells | 120 | Terminates all Waves | 121 | Reset all Controller's | 123 | All Notes Off |

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## ADVANCED EDITING

Space Station Pro contains advanced editing functions that have never been seen before, utilising the true unlimited capabilities of the PC.  Hardware samplers, PCM synth's, and wave table cards treat samples as a single oscillator and pass them through modifiers, like LFO's and Envelopes.  They are then played back from a keyboard which simply changes their pitch.  The SSPro treats each of the Keys as an oscillator allowing a single mapped wave to be passed through the modifiers and controlled separately.  Each Key has its own Pitch, Pan, Volume, Loop points, LFO's and Envelopes, each of which can have its own MIDI control sensitivity's.  Key Mapping within the SSPro allows for single and dual layering, with dynamic velocity switching and cross fading.  Looping within the SSPro can be achieved using several methods. Loop Mode 1, start and end point looping as with conventional samplers.  Loop Mode 2, using Tempo dictated cells that are triggered from Keys.  LFO's within the SSPro can be loaded from the available library, or designed using advanced modelling tools.  Each instrument can have up to six different LFO shapes that can all be controlled using MIDI.  Depth and time can be modulated using another LFO or MIDI controller, including Pitch Bend, After Touch or Poly Pressure.  All six LFO's can be used to Modulate wave Pitch, Pan, Volume and any MIDI Controller.  Envelopes within the SSPro are truly unlimited, allowing as many points as necessary.  Three Envelopes can be used per key, each of which has MIDI controllable attack and release pointers.  Envelopes can be synced to time as with conventional samplers, as well as MIDI and wave length.  Extremely accurate envelopes can be generated using advanced modelling and graphical tools.

# REQUIREMENTS

Space Station Pro started life on 386DX machines back in 1995, and will still operate on this CPU speed - but only at 11Khz output mode, like the earliest hardware samplers. In 1996, 486 CPU's became more affordable, and this type of processor will still perform at 22Khz output mode, like samplers at the beginning of this decade. In 1997, slow Pentium CPU's became more affordable. This type of processor performs at 44Khz output mode, with polyphony values that match samplers still sold on the second hand market for over £500.00. Last year, CPU's speeds rocketed from 200Mhz to 450Mhz, with processors such as the Cyrix 300Mhz M2 costing less that £60.00 new. Tests on the M2 have resulted in polyphony values of more than 64 stereo waves at 44Khz. Used in conjunction with the AWE64 in win 98\95, 128 notes polyphony can be achieved using the SSPro's wave playback and the AWE wave table and physical modeler. When using the AWE SPDIF digital output, crystal clear audio playback will put other samplers to shame.

**Minimum Requirements**

386DX 40, Creative sound blaster 16, single speed CD-ROM, 8MB RAM, 16 colour VGA adaptor, 10Mb HD space and MS Dos 6.

**Recommended Requirements**

Cyrix M2 300Mhz, AWE64, fast CD-ROM, as much RAM as possible, SVGA adaptor, Large IDE Drive, Win 95 OEM B or C but for best performance Dos 6.2 or Win95 Dos.

# PRODUCT

Space Station Pro is currently shipped on CD-ROM, with a 16 page Starting Guide and A5 presentation wallet. The CD-ROM contains over 4000 wave files recorded from analogue and digital synth's\samplers.  These rang from such classics as the Roland Series 100 M, Korg Wave Station and Gem S3.  Over 1000 of the waves on the CD have been recorded from acoustic and drum machines throughout the ages, making the SSPro ideal for Live drummers and percussion players alike.  Over 1000 waves are one bar live performances, making rhythm sections easier to setup than ever before.  Over 2000 instruments constructed from the 4000 plus wave files, make multi timbral playback as obtainable as with any synthesiser.  The 117 page detailed manual is supplied in several formats, full colour HTM, PDF, WPD, and SSPro on line help (HPI).

**Retail Price**
SSPro with Starting Guide and A5 presentation wallet £117.50