



Bolder Sounds

**GRANULAR
VOICES**

**For the Yamaha
Motif XS**

OWNER'S MANUAL

INTRODUCTION

Thank you for purchasing the "Granular Voices" library for the XS. The library contains over 132 MB of new samples, therefore, you will need at least 256 MB of RAM (DIMM's modules) installed in your Motif XS. 512MB is recommended. The Motif XS does not ship with any RAM, you will have to purchase and install it yourself. For more information on what type of DIMMs are needed, and how to install them, please refer to page 295 of your Motif XS owner's manual.

I found myself becoming fascinated with the sound design possibilities of granular synthesis back in 1996. After spending a solid year working with SuperCollider a programming language written by James McCartney I released a CD ROM sample library called "Granular" in various hardware sampler formats such as Akai and Kurzweil as well as audio CD. This granular Voice bank for the Motif XS was extracted from the Bolder Sounds "Granular" collection.

Doing an Internet search on granular synthesis will yield a great deal of information on the topic. If I were to oversimplify an explanation of granular synthesis I would use the analogy of a can of spray paint. The source audio files are loaded into the can and then "sprayed" out at various rates of speed as well as pitches. I particularly like the process of slowing the audio way down so you can hear a sound in slow motion. I've noticed that Super Collider performs this particular technique better than any other granular language or application I've yet to run across.

I always begin by creating a "source" sound file first. This "source" file could either be a single sample of an instrument or a collage of various sounds - a collage of electric guitar volume swells for example. Then this "source" sample is fed through the "granular engine" and played back with various parameters engaged to create a specific effect.

Conversion of "Granular Voices" from Motif ES to Motif XS format, and additional voice programming, was done by veteran programmer Dave Polich of DCP Productions. Dave has been a longtime sound programmer for Yamaha as well as other companies such as Korg and Dave Smith Instruments.

I hope you enjoy working with the Granular Voices XS!

- *Dennis Burns, Bolder Sounds*

HOW TO LOAD THE SOUNDS

WARNING – BACK UP YOUR DATA FIRST

BEFORE YOU LOAD “GRANULAR VOICES XS”, MAKE SURE YOU HAVE BACKED UP (SAVED) ANY DATA IN YOUR PRODUCT THAT YOU MAY WANT TO KEEP.

YOU CAN SAVE YOUR DATA IN A VARIETY OF FORMATS ONTO A USB STORAGE DEVICE, OR AS AN EDITOR FILE VIA USB. CONSULT YOUR PRODUCT’S OWNER MANUAL FOR DETAILS ON SAVING/BACKING UP YOUR IMPORTANT DATA SUCH AS SOUNDS, BEATS, SEQUENCES OR SONGS.

A NOTE ABOUT SHARED SAMPLE DATA

It is recommended that you always load “Granular Voices” as an ALL file. Many of the voices in the library share the same sample data. If you choose to load the individual voices from the library in “Load Voice” mode, one at a time, the Motif XS will always load the associated sample data with each voice, which can result in the same samples being loaded over and over. This will lead to your user RAM getting “filled up” in a hurry, which will result in an overload and the error message “WARNING! SAMPLE MEMORY FULL!”

FROM THE DOWNLOADED ZIP FILE TO USB DEVICE (JUMP DRIVE or FLASH DRIVE) -

1. Insert your USB device into your computer's available USB slot. Its icon should appear on your desktop.
2. If it isn't already open, navigate to the "GRANULAR VOICES XS" folder and double-click on it to open it.
3. Navigate to the folder called "Granular Voices XS ALL File" and double-click to open it.
4. Copy the file called "Granular Voices.X0A" to your USB device's icon (by either dragging the file directly to the icon, or going to your file menu and choosing "Copy" and "To" and selecting the USB device as your destination).
5. When the file has copied completely to your USB device, properly eject the USB device and insert it in the slot labeled "TO DEVICE" on the rear panel of your Motif XS. You will see a screen message that says "Connecting to USB device...".
6. Press the FILE button on the front panel of the Motif XS. Use the cursor buttons to move up to the top of the screen so that the "Device" field is highlighted and turns blue-green. If necessary, turn your jog wheel to the right until you see the name of your USB device in the field. This will indicate that your USB device has been selected.
7. Using the cursor buttons, cursor down to the field marked "Type" and make sure it is set to "all".
8. Press the cursor up button one more time, then use the INC/YES button to select the file name "Granular Voices.X0A." The name should highlight in blue-green.
9. Press SF2 "LOAD" button. The "Granular Voices" library will load 128 voices to User Bank 3. Press the VOICE button, then USER 3 button, then button A1 to begin.

NOTE: When you power off your Motif XS, the sample loaded will be lost. You will have to re-load 'Granular Voices.X0A' when you power up your Motif XS again.

FROM THE DOWNLOADED ZIP FILE TO USB CD DRIVE:

1. Connect a USB CD-ROM drive to your Motif XS' "To Device" slot located on the rear panel of the Motif XS. Power up the drive. You will see a message in the XS display that reads "Connecting to USB device...".
2. Insert a blank CD in your computer's CD drive. Its icon should appear on your desktop..
3. Navigate to the folder called "Granular Voices XS ALL File" and double-click to open it.
4. Copy the file called "Granular Voices.X0A" to the CD (by either dragging the file directly to the icon, or going to your file menu and choosing "Copy" and "To" and selecting the CD as your destination).
5. When the file has copied completely to your CD, rename the CD to something you want (like "Motif XS stuff"), properly eject it and insert it in the CD-ROM drive connected to your Motif XS.
6. Press the FILE button on the front panel of the Motif XS. Use the cursor buttons to move up to the top of the screen so that the "Device" field is highlighted and turns blue-green. If necessary, turn your jog wheel to the right until you see the name of your CD in the field. This will indicate that your CD has been selected..
7. Using the cursor buttons, cursor down to the field marked "Type" and make sure it is set to "all".
8. Press the cursor up button one more time, then use the INC/YES button to select the file name "Granular Voices.X0A." The name should highlight in blue-green.
9. Press SF2 "LOAD" button. The "Granular Voices" library will load 128 voices to User Bank 3.
10. Press the VOICE button, then USER 3 button, then button A1 to begin.

NOTE: When you power off your Motif XS, the sample loaded will be lost. You will have to re-load 'Granular Voices.X0A" when you power up your Motif XS again.

HOW THE SOUNDS WERE PROGRAMMED

Software used in the creation of GRANULAR VOICES:

Super Collider - A programming language by James McCartney

Sound Hack - A wonderful sound design tool by Tom Erbe

Logic Audio - Currently known as Logic Pro DAW owned now by Apple. At the time it was owned by Emagic.

BIAS Peak - A two track audio editor by Bias Technologies.

Alchemy - A sample editor and manipulator by Passport which is no longer in existence.

Sound Designer II - A stereo sample editor by Digidesign.

Infinity - An excellent Looping program for the Mac

Evolving sounds or “sound events”.

A number of the Granular soundfiles are really miniature compositions or sound "events" for lack of a better term. For example; the Voice MUTATION takes a while to unfold and eventually loop back to the beginning. Take the time to listen to the entire soundfile. You may find the middle of the soundfile more interesting than the beginning. Also by playing simple intervals such as 2nds 4ths or Octaves etc.. you can create a most interesting "swirling" effect with the event-like soundfiles. Other soundfiles are more traditional like SEA BED which is a lovely pad sound where you can just smell the sea salt in the air.

A List of “Source” sound files and how they relate to the Voice names:

Sea Bed - Created with a conch shell I brought back from Mexico.

Random Universe - Created with a Medieval psaltry.

Artic Bee - A bamboo marimba run through a meat grinder.

Longong - I used the elongated sustain portion of a cymbal and pasted it on to the attack.

Metalmorphic - Wavetable synthesis run through granular synthesis.

Cyways - A metal sheet sample first granulated and the rerecorded at different playback speeds and directions by using the speed of the mouse movement the "scrub" the audio in Sound Designer II.

Harmonic Voice - created my multitracking electric guitar harmonics with a volume swell on each attack. Then I stretched to the extreme which created a lovely organ like quality.

Mutation - I forget the sound source on this one, but it was something metallic. I used Sound Hack to separate the attack transient from the "pitched" part of the sound and later re-mixed them.

Wavetable - A wave table sample, I believe it was from a Korg Wavestation.

Monochord - A most unusual Koto-like instrument with many strings on one side tuned all in unison, and the other side of the instrument looks more like a Koto with different pitched strings as well as moveable bridges. The sample was taken from the side with the unison strings.

Pentatonic - Is a multi-track collage made with the Major pentatonic scale played on an electric guitar.

Glocken - A soundfile with combinations of crystal and metallic sounds.

Moogular - Created with a Realistic (Radio Shack) monophonic synthesizer which has real Moog ® oscillators.

Minor Pad - A multi-track minor chord sound created with a Fender Stratocaster.

Opaque - This soundfile was created with a child size toy vibraphone.

Arcweldr – granulated and looped sample of sparks from an arc welder’s torch.

Glasscrakl – waveform derived from a recording of a glass windshield cracking apart.

MetalCrusher – metal crushing machine sound.

Waterbubble – bubbling liquid sound.

BulletDrp - .32 caliber bullet casing ejected onto a concrete floor.

Scatter – small metal and ceramic objects thrown across a concrete floor

VOICE DESCRIPTIONS

USER BANK 3, starting with A01:

A01 – Sea Bed

Dark smooth pad sound using the “Sea Bed” waveform.

A02 – Sea Bed Octave

Variation of “Sea bed” with dual waveforms pitched an octave apart.

A03 – Sea Bed Layer

Layer of Sea Bed waveforms.

A04 – Random Uni

Constantly morphing and pitch-changing, evolving metallic wave texture.

A05 – Sea Split 1

Split voice – Sea Bed up to B2, Sea Bed Octave from C3 on up.

A06 – Sea Spllit 2

Split voice – Sea Bed Octave up to C3, Sea Bed from C#3 on up.

A07 – Artic Bee

Wildly panning, metallic/wooden modulated texture, like a sci-fi robot insect flying around, hence the “bee” in the name.

A08 - Longong 1

Evolving metallic gong pad.

A09 – Longong 2

Struck gong attack morphing into elongated metallic pad.

A10 – Longong 3

Variation struck gong morphing into metallic gong pad.

A11 – Longong 4

Variation struck gong morphing into metallic gong pad.

A12 – Metal Morf 1

Metallic, droning granular wavetable pad.

A13 – Metal Morf 2

Variation of metallic, droning granular wavetable pad.

A14 – Metal Morf 3

Variation of metallic, droning granular wavetable pad.

A15 – Metal Morf 4

Variation of metallic, droning granular wavetable pad.

A16 - Metal 1&2

Layer of Metal Morf 1 and Metal Morf 2.

B01 – Metal 1& 3

Layer of Metal Morf 1 and Metal Morf 3.

B02 – Metal 1&4

Layer of Metal Morf 1 and Metal Morf 4.

B03 – Metal 2&3

Layer of Metal Morf 2 and Metal Morf 3.

B04 – Metal 2&4

Layer of Metal Morf 2 and Metal Morf 4.

B05 – Metal 3&4

Layer of Metal Morf 3 and Metal Morf 4.

B06 – Metal 1+2+3

Layer of Metal Morf 1, Metal Morf 2, and Metal Morf 3.

B07 – Metal 1+3+4

Layer of Metal Morf 1, Metal Morf 3, and Metal Morf 4.

B08 – Metal 2+3+4

Layer of Metal Morf 2, Metal Morf 3, and Metal Morf 4.

B09 – Metal 1+2+3+4

Layer of Metal Morfs, 1, 2, 3 and 4.

B10 – Metal LongGong

Layer of Metal Morfs 1,2, 3, and Longong 2.

B11 – Metal Bee

Layer of Metal Morf 1, Artic Bee, Metal Morf 3, and Longong 2.

B12 – Cyway 1

Granulated metal sheet re-recorded at different playback speeds and directions. In lower octaves it has a noise swoosh quality, in upper octaves it morphs into a metal shaker-style texture. Play rolling arpeggios with different fingerings for different rhythmic variations and repeats.

B13 – Cyway 2

Variation of cyway sound.

B14 – Cyway 3

Variation of cyway sound.

B15 – Cyway 4

Variation of cyway sound.

B16 – Cyway 5

Variation of cyway sound.

C1 – Cyway 6

Variation of cyway sound.

C2 – Cyway 7

Variation of cyway sound.

C3 – Cyway 8

Variation of cyway sound.

C4 – Cyway 9

Variation of cyway sound.

C5 – Cyway 10

Variation of cyway sound.

C6 – Cyway 11

Variation of cyway sound.

C7 – Cyway 12

Variation of cyway sound.

C8 – Cyway 13

Variation of cyway sound.

C9 – Cyway 14

Variation of cyway sound.

C10 – Cyway 15

Variation of cyway sound.

C11 – Cyway 16

Variation of cyway sound.

C12 – Cyway 17

Variation of cyway sound.

C13 – Cyway 18

Variation of cyway sound.

C14 – Cyway 19

Variation of cyway sound.

C145– Cyway 20

Variation of cyway sound.

C16 – Cyway 21

Variation of cyway sound.

D1 – Cyway 22

Variation of cyway sound.

D2 – Cyway 23

Variation of cyway sound.

D3 – Cyway 24

Variation of cyway sound.

D4 – Cyway 25

Variation of cyway sound.

D5 – Cyway 26

Variation of cyway sound.

D6 – Cyway 27

Variation of cyway sound.

D7 – Cyway 28

Variation of cyway sound.

D8 – Cyway 29

Variation of cyway sound.

D9 – Cyway 30

Variation of cyway sound.

D10 – Harmonic Voice

Sound created by multitracking electric guitar harmonics with a volume swell on each attack, then extremely stretched for an organ-like quality.

D11 – Mutation

Vocal-synth pad sound that adds evolving metallic spectral timbre the longer you hold down a note.

D12 – Wavetable 1

Granulated, metallic-glassy, swirling and modulated pad with vector synth qualities.

D13 – Wavetable 2

Darker variation of the wavetable sound, vectoring at times into extremely low end as well as simultaneously exhibiting undulating higher metallic overtones.

D14 – Monochord

Granulated sample texture evolving from a Koto-like stringed instrument.

D15 – Penta 1

Sound collage made from an electric guitar playing pentatonic scale notes. Hold down the keys to hear the pitches evolve.

D16 – Penta 2

Variation of the Penta sound.

E1 – Penta 3

Variation of the Penta sound.

E2 – Crystal FM

Dark, swirling pad with higher glassy and metallic overtones swimming within it.

E3 – Glocken 1

Combination of crystal and metallic bell sounds, with a slower, rounded attack.

E4 - Glocken 2

Combination of crystal and metallic bell sounds with a percussive attack.

E5 – Moogular 1

Granulated Moog® synthesizer oscillators, with a somewhat “vocoder” or robotic vocal texture.

E6 – Moogular 2

Variation of Moogular sound, a bit less modulated.

E7 – Minor Pad

Granulated pad created using combined electric guitar minor chords.

E8 – Opaque

Granular pad created using a child’s toy vibraphone as the original sound source. Smooth, glassy, metallic, bell-overtones.

E9 –Crystonic

Hollow metallic dark pad sound.

E10 – Glocken Split

Split voice using Glocken textures.

E11 – Glocken Layer

Voice using layered glocken textures.

E12 – Glocken X-fade

Layered voice which crossfades one glocken texture into another.

E13 – Glocken SeaBed

Layer of Glocken and SeaBed textures.

E14 – Moog Minor

Layer of Moogular and Minor Pad sounds.

E15 – Opaque Bed

Magical sounding layer of floating Opaque and Sea Bed sounds.

E16 – Penta Mix

Droning metallic Penta pad.

F1 – Calm Seas

Four-part layer of Sea Bed and XS string, choir, and bell waves.

F2 – Calm Seas 2

Layer of XS strings, Choir, and SeaBed and SeaBed Octave waveforms.

F3 – Gong Slider

Combination of granulated gong waveforms with “rolling” gong wave followed by gong “hit”.

F4 – Patience

Melodic metal gong pad. Hold the keys down a long time to hear it evolve.

F5 – Patience 2

Variation of melodic metal gong pad.

F6 – Meltation

Layering of metal morf and mutation waveforms.

F7 – Cy Split 1

Four-way split of various Cyways sounds.

F8 – Cy Split 2

Four-way split of various Cyways sounds.

F9 – Cy Split 3

Four-way split of various Cyways sounds.

F10 – Cy Split 4

Four-way split of various Cyways sounds.

F11 – Cy Layer 1

Four layers of Cyways sounds.

F12 – Cy Layer 2

Variation of four layers of Cyways sounds.

F13 – Cy Layer 3

Variation of four layers of Cyways sounds.

F14 – Roll ‘Em 1

4-way split of different granular textures.

F15 – Roll ‘Em 2

4-way split of different granular textures.

F16 – Roll ‘Em 3

4-way split of different granular textures.

G1 – Roll ‘Em 4

4-way split of different granular textures.

G2 – Sea Organ

Layer of Sea Bed and XS synth strings and FM organ waveform.

G3 – Sea Organ 2

Layer of Sea Bed, Sea Bed Octave, and XS synth strings and FM organ waveform.

G4 – Sea Organ 3

Layer of XS ocarina waveform, organ waveform, and Sea Bed and Sea Bed Octave waves.

G5 – Los Angeles 2019

Dramatic granular synthesis soundscape recalling the opening scene from the sci-fi classic film *Blade Runner*.

G6 – Glass & Stones 1

Glass bell and struck stone textures combined..

G7 – Glass & Stones 2

Struck glass and brass bowls combined with scattered stone textures.

G8 – Spirals

Spiraling, evolving metallic/electronic texture. Move the modwheel and knobs for different effects.

G9 – Necromancers

Metallic spacecraft texture inspired by the sci-fi film *Chronicles of Riddick*.

G10 – Hall of Mirrors

Twisted spatial texture.

G11 – Renewal Chamber

Dark, brooding, swirling hollow pad with modulated spectral and electronic overtones, inspired by the sci-fi film *Logan's Run*.

G12 – Flying Scissor Beams

Metallic light rays crisscross through warped plasma-space.

G13 – Granular Transmission

Glitchy “radiophonic” space transmission sound.

G14 – Neumonic Clouds

Swirling, ambient noise texture with dark melodic underpinnings.

G15 – Titanium Caverns

Ambience of interior of giant metal-walled cavern.

G16 – Magnetic Trails

Spectral electronic noise and trails.

H1 – Robotic Emanations

Oscillating, phase-pulsing robotic overtones, inspired by the sci-fi classic movie *A Clockwork Orange*.

H2 – Warped Symphony

Twisted, warped galactic symphony.

H3 – Atomic Furnace

Dark explosive bursts and metallic machine noise.

H4 – SubLevel D

Ambience of interior of access shaft far below ground.

H5 – Stone Bead Dance

Stone beads suspended from leather strings and shaken rhythmically.

H6 – Ether Scrapes

Ambient electro noise scrapes.

H7 – Floating Plasma

Plasma blobs suspended in space

H8 – Liquid Air Pad

Giant liquefied air molecules and melodic pad ambience.

H9 – Surface of Venus

2000 degree winds blow across a barren alien landscape.

H10 – Ominous Chimes

Dark electro noise landscape and “tolling” chime sounds.

H11 – Space Traffic

Flying space vehicles with Doppler effects.

H12 – Metal Fatigue

Groaning, twisted metal strains.

H13 – In The Nexus

Dark hollow modulated atmosphere with high-pitched modulated spectral drones.

H14 – Skittering Grains

Granulated slivers of audio skip, scatter and slide across a fluid dimensional field.

H15 – Dark Purple

Ultra-dark, brooding, modulated pad sound.

H16 – Radioactive

Distorted radio telescope noise emissions.

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