

Xphrase

Owner's Manual

by Peter Gorges

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##to be done##

Your musical life is about to change!

Like many of you, I've been working as an arranger and musician in professional studios for years and years. Firstly I was used to recording synthesizers by actually playing them while they were recorded to tape, with no editing options at all. Later, I got used to stacking a dozen samplers on each other and feeding them floppy disks, just for getting a multitimbral arrangement together. And that was some progress because I had MIDI.

Well, much of this has changed. But one task I got never used to, and it was one of the most tedious ones: Creating rhythmical patterns and textures. Sure, I could play them, but since the 80ties a lot of our music is based on phrasing that is unplayable, sequenced, synthesized.

In the „Ante Xphrase Era“ I remember having to fiddle for hours recording a pattern, tediously editing it in the event editor, spreading it across MIDI channels so I had control over stereo position, volume and sound colour at a time, having to set up a couple of synthesizer sounds to play it. And still - that was far away from being musically creative - a simple chord change and I was back to square one, the event editor, that is. I had to „contrive and type“ my music instead of playing it.

Even worse, note and sound creation were separated from each other. When I had come up with a great sounding texture, I could not save it and re-use it somewhere else without - again - being forced to tamper with backups and setups.

To cut a long story short - my suffering is over. And this is why I chose that pretentious headline.

Xphrase is the first professional musical instrument that allows you to „play“ music that had to be „programmed“ before. A synthesizer that creates not only notes but complex phrasings, textures, riffs and lines in no time. A polyphonic super-arpeggiator that creates sounds even synth giants would be proud of.

This doesn't yet come for free. Xphrase is a very complex, very flexible and very powerful tool. While it does amazing stuff just upon the press of a button or a key, to explore it's full potential you will need time, curiosity, an open mind and - this manual. Although we've done our utmost to

make Xphrase very easy to use, extremely intuitive and as self-explaining as possible, there's a lot behind the scenes that you will never explore if you don't read the manual. You've paid some reasonable money for Xphrase, you'd make sure you make the most out of it.

I sincerely hope your way to make music will change with Xphrase as much as my did. What more could you ask from a new kind of musical instrument?

On this occasion, I want to thank and cheer to reFX founder Michael Kleps for a brilliant and inspiring cooperation. No doubt - without this guy and his unique combination of talent, curiosity and determinedness, the ultimate phrase machine would never have become a reality.

A handwritten signature in black ink, appearing to be 'P. Gorges', with a stylized, overlapping 'G' and 'O'.

Peter Gorges

Register Your Software!

Please take a moment to complete and return the registration card enclosed with Xphrase. This will entitle you to technical support, and we'll also keep you up to date with the latest news and updates.

Minimum System Requirements (PC Version)

- Processor: Pentium III, AMD Athlon or Duron
- Processor speed: 450 MHz
- RAM (Cache): 256 MB
- Hard disc: Fast ATA (EIDE) or Ultra SCSI
- Operating system: Windows 98 SE, Windows 2000, Windows ME or Windows XP
- Audio card: Approved MME or ASIO compliant audio card
- Graphic: 16 Bit @ 800 x 600 pixels
- PC equipped according to the specifications of the host software

Installing Xphrase (PC Version)

To install Xphrase on your PC:

1. Insert the Xphrase CD-ROM into your computer.
2. Double-click the CD-ROM icon to open the CD content window.
3. Double-click the Xphrase Installer icon to run the installation program.
4. In the installation program you can choose whether to install the VST version, the DXi version or the Audio Unit version.
5. Follow the instructions of the installation program.

Removing Xphrase (PC Version)

To remove Xphrase from your computer:

1. Open the "Add or Remove Programs" control panel.
2. Select Xphrase and click "Add/Remove".

3. Follow the on-screen instructions.

Minimum System Requirements (Mac Version)

- Processor: Power Macintosh or compatible system
- Processor speed: G3 or better
- RAM (Cache): 256 MB
- Operating System: Mac OS 9.x, Mac OS X version 10.2 where stated
- Audio card: Approved ASIO compliant audio card, e.g. Nuendo 9652
- Graphic: 16 Bit @ 800 x 600 pixels

Installing Xphrase (Mac Version)

To install Xphrase on your Mac:

1. Insert the Xphrase CD-ROM.
2. If the CD window doesn't open automatically, double-click the Xphrase icon.
3. Double-click the Xphrase Installer icon to run the installation program, and follow the on-screen instructions.

Removing Xphrase (Mac Version)

To remove Xphrase from your computer:

1. Run the Xphrase Installer again (as described above) and select "Uninstall" (from the pop-up located at the top left) when prompted.
2. Select the program component you want to remove and click "Uninstall".

Setting Up Xphrase in Your Host Application

VST version

This section describes how to setup Xphrase with Cubase SX. However, the same procedure applies to most host applications, in doubt refer to the user manual of your host application.

Make sure the host program has been correctly installed and setup to work with your MIDI and audio hardware (eg. a MIDI keyboard and a sound card).

To set up Xphrase:

1. Open the VST Instruments window.



2. Click the “No VST Instrument” label. In the pop-up menu choose Xphrase.



3. Open the Xphrase window by clicking the Edit button in the VST Instruments window.
4. In the VST host application, select Xphrase as the output for a MIDI track, and make sure this track is set up to receive MIDI data from your MIDI keyboard and to transmit on channel 1 or ANY.
5. Xphrase is now set up properly.

DXi version

Please refer to the manual of your host application for instructions on how to set up Xphraze as a DXi instrument.

If you experience any trouble with Xphraze, please check the tips in chapter ##Optimizing System Performance##.

Getting started



The best way to get you started with Xphraze in no time is exploring the factory library. We have provided hundreds of patches, combis and phrazes designed by professional sound-designers, and they show you best what Xphraze can do and what you can do with Xphraze.

Playing Patches

A patch is one sound in Xphraze. To play the patches included...

1. Open Xphrase
2. In the Browser to the left, click the „patch“ icon. Now it displays the factory patch bank.
3. Double-click patches to load them.

The factory patch folder consists of 128 patches. Many more patches are available in the sub folders named by patch categories.

-
- You can navigate the browser just like a normal file browser window on your computer.
-

Playing Combis

A combi is a combination of up to four patches plus a couple of additional functions (click the advanced tab near the Xphrase logo to take a quick look at them).

To load and play combis is just like loading patches, except that you have to select the combi icon in the browser first. As you will notice, combis are far more complex and need more CPU performance.

-
- Since Xphrase can do such a lot of different things, the way how to play a certain combi may not be obvious on the first glance. Here's help: The PDF file „combi_documentation.pdf“ which you find on the Xphrase installation CD gives detailed explanations and playing instructions for all Combis from the factory library.
-

A note on CPU performance

Other than hardware instruments, software instruments like Xphrase have to be designed to be usable on a broad range of hardware - i.e. computer systems. This makes it hard to predict the number of voices or effects achievable on a certain users' system because this depends not only on the CPU, graphic and audio card or RAM but also on how well they combine and how well they are configured.

Xphrase is designed to be extraordinarily flexible here. While it works very well on economic computer systems, it delivers an enormous number of voices and effects on current computer systems.

The factory patches have been designed to work well on any computer, while the combis sometimes are a bit more demanding.

Here's an example that shows the two extremes:

- A patch that creates a pad can get along with one voice per note plus a stereo chorus. Even on an older computer Xphraze can easily play lots of notes of such a patch.
- If the pad, however, is designed using a combi layering four detuned patches, each of which is in unison mode and uses the 24 dB filter, that means that for each note Xphraze has to play 20 voices (5 unison voices per note times four patches) plus 24 dB filters per voice plus four Ensemble effects (Ensemble is very CPU „expensive“ because it uses multiple chorus effect chains).

Now imagine you play six notes at a time. The patch gets along with six simple voices and a chorus effect. The combi has to generate 120 filtered voices plus four ensemble effects - now imagine how that affects CPU demand.

We have designed Xphraze to not limit you in any way. Xphraze allows you to create sounds and music that no other synthesizer is capable of. At the same time, it doesn't actively prevent you from overloading your CPU.

We have provided several means for you to adapt Xphraze' CPU demand to your computers. A detailed explanation of these functions is provided in the chapter [Managing CPU load](#).

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- Generally, the factory patches and combis have been set to a limit of 8 to 12 voices per patch to make sure they work on any computer. With a current computer system, you will be able to use much more voices.
-

The MIDI Keyboard



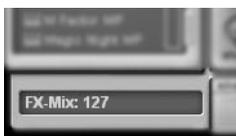
Xphraze features a built-in MIDI keyboard with two wheels. You can use it as a substitute for a missing MIDI keyboard when editing sounds or to actually monitor incoming MIDI events.

Using the MIDI keyboard is simple:

- Click on a key to play it.
 - The keyboard can send velocity values depending on the vertical position you click on. Following a musical logic, the velocity values become higher the closer to the keys' outer edge you click.
 - To turn a wheel click-drag it. The pitch wheel (left) springs back to zero when you release it, the mod wheel (right) doesn't.
-
- The MIDI keyboard sends and „receives“ data on the MIDI channel assigned to the selected patch.
-

Editing and displaying knob values

Parameter display



The parameter display in the left bottom corner of Xphraze shows the value of the knob under the mouse cursor. You can use it to just display values (by moving the mouse over a knob) or to monitor them while editing.

Editing knob values

To turn a knob simply hold-click on it and drag the mouse vertically or horizontally. Two modifier keys make editing even easier:

- Hold Shift for slower knob movement
- Ctrl-click a knob to set it to its default value

The File Browser



Since the usual VST file management system only supports two types of files (fxps and fxbs), Xphraze uses its own file management system which makes managing files more convenient and much faster, plus it gives you a lot more flexibility when it comes to creating your own sounds in Xphraze. On top of that, the file browser allows full-featured file handling even in hosts that are not fully compatible to the VST file handling standard.

The File Browser actually manages and displays files that are in folders on your hard disk, to be more specific: In your Xphraze plug-in folder. This way, the browser conveniently integrates your combis, patches and phrazes into Xphraze' user interface.

-
- ❑ Because all Patches, Combis or Phrazes are normal files on your hard disk, you can use the Windows Explorer resp. the Mac Finder to manage them (e.g. for copying or moving a large number of files from one folder to another).
-

By selecting an icon in the top row you can switch the display between the various file types: Patch, Combi, Phraze and Sample.

-
- ❑ Technically this is just a display filter switching to another file type (e.g. *.fxp for combis or *.xpt for patches)
-

Depending on the file type selected, the browser offers a set of functions accessible via opening a context menu by right-clicking a file. These operations are described in detail below in the respective chapters.

Patches and Combis

To understand how Xphraze works, you need to know the difference between Patches and Combis. If you have ever used a hardware workstation or performance synthesizer, you're probably already familiar with the concept.

Xphraze always runs in Combi Mode. A Combi has four slots from A to D, each of which holds a patch.

In addition to that, the Advanced Page of Xphraze features a Vector Synthesis Module, an Xmix module and four Master Effect Sections which are also part of a Combi.

In short terms:

- A patch is one sound program within Xphraze and a building block of a Combi.
- A Combi is the whole status of Xphraze including patches, vector synthesis, Xmix and master FX.

Playing and managing Combis

To manage Combis in the browser window, select the „Combi“ icon in the top row.

Loading Combis

Either double-click the combi in the Browser window or right-click the Combi name and choose „Load Combi“.

-
- ❑ Depending on the number of Multisamples a combi uses - which can add up to more than 100 MB - loading time may take a few seconds.
-

Deleting a Combi

To delete a Combi, right-click on its browser entry and select „Delete Combi“

Renaming a Combi

To rename a Combi, right-click on its browser entry, select „Rename Combi“ and type a new name or edit the existing one.

Playing and managing Patches

Patch Selector



Basically, all four patch slots are always active and accessible. By using the patch selector, you can select a patch (for editing), solo or mute it.

-
- Active patches, even when not audible, use CPU performance when they receive notes. Make sure you only activate the patches that you want to hear.
-

Selecting a Patch for editing

While there are always four patches available at the same time, you have to select one of them for editing. Just click on the respective button a...d to select a patch.

-
- When editing, make sure the selected patch is the active one. Theoretically Xphrase allows you to play patch b and edit patch a, which may not be what you want.
-

Muting/Soloing a Patch

The yellow LEDs below the patch selectors are activator buttons.

- Clicking the activator button switches the mute/unmute status of a patch
 - Right-clicking the activator button solos the patch and selects it for editing.
-
- ❑ You can use these buttons as panic function - muting a patch stops all of its sounding voices.
 - ❑ The activator buttons light up red when the patch plays a note. This way you can monitor which patches are actually playing.
-

Copying a Patch

You can copy a patch to another slot in two simple steps:

1. right-click on the selector button of the source patch and choose „Copy patch“ from the context menu
2. right-click the selector button of the destination patch and choose „Paste“.

Saving a patch

You can save patches separately from the Combi, e.g. to use them as a building block in other Combis. To save a patch:

1. Select „Patch“ and choose the destination folder in the browser window
2. Right-click the selector button and choose „Save patch“.
3. The patch appears in the browser window with a default name (Combi name plus slot name - e.g. „Piano B“ if the Combi is Piano and the patch was in slot B. You can accept that name, rename the patch now or any time later.

Loading a patch to a Combi slot

You have two easy options to load a patch into a combi slot:

- Double-Click: Select the destination slot first, then double-click the patch entry in the Browser to load it.
- Browser: In the browser window (assumed the „patch“ icon is selected), right-click the patch name and choose „Load to slot x“ (with x being the destination slot name).

-
- ❑ Depending on the number of Multisamples a patch uses - which can theoretically add up to more than 100 MB - loading time may take a few seconds.
-

Deleting a patch

To delete a patch from the pool, right-click on its browser entry and select „Delete patch“

Renaming a patch

To rename a patch, right-click on its browser entry, select „Rename patch“ and type a new name or edit the existing one.

-
- ❑ For the time being, we won't deal with the other two file types „Phrases“ and „Msmpl“.
-

Creating new sounds the easy way

The easiest way to create new sounds (combis) is combining patches, thus using them as building blocks. The factory library comes with hundreds of patches. By combining a pad and a metallic decaying sound you can easily create a digital layer sound, or by combining a drum loop with bass line you can create a backing groove.

This is how you easy-create new combis:

1. Open a fresh Xphrase or load the „Init“ Combi from the Factory Bank.
2. Set the browser to display patches
3. Select slot „a“
4. Double-click patches and test-play them.
5. Repeat steps 3 and 4 for all slots until you're satisfied.
6. Tweak the parameters Pitch-Semi, Filter-Cutoff and Amp-Vol resp. Amp-Pan to change the sound character without diving too deep into sound design theory. We'll explain patch parameters in the next chapter.

The Phraze Generator

The concept of a patch in Xphraze is much like and at the same time much unlike what you're used to from other synthesizers.

The basic patch layout with modules such as pitch, filter with envelope, amp with envelope, aux envelopes, LFO and FX section may look familiar to you. In fact, it works pretty similar to the way these modules work in other synthesizers - except for the fact that the Xphraze modules are much more flexible and powerful than in most synthesizers, even the very expensive ones.



The Phraze Generator

The biggest difference though, and the heart of Xphraze, is the Phraze Generator. In a conventional synthesizer or sampler you'd expect a section like „Oscillator“ or „Multisampler“. Well, the Phraze Generator can be an Oscillator, as well as it can be a sample player for multisamples.

But if you try to imagine 32 Oscillators/Multisample Players in a timeline, each of which has its own setting for parameters such as Pitch, Cutoff, Decay, Pan or Volume, and all of them are played in time with your song creating anything from a simple sawtooth to a complex rhythmical phraze - if you manage to imagine that, you're pretty close to what the Phraze Generator can do.

Where is the line between phraze and patch?

As mentioned before, the Phraze Generator is the engine room of Xphraze. In the patch layout, it functions as the oscillator.

A Phraze is a setting of the Phraze generator, i.e. a set of cells with their own waveforms, settings for the cell parameters a.s.o., and phrazes can be saved, loaded, copied and edited separately from a patch.

The Phraze Generator's pitch is controlled by the Pitch section, and it's output signal gets fed into the filter and subsequent patch modules.

In usual synthesizers you can load a Patch and replace it's oscillator „waveform“ by something completely different. Same is true in Xphraze, just in a significantly extended sense: The Oscillator signal in Xphraze can be a very complex rhythmical chord, a melody riff, a bass line, a drum groove, a smoothly crossfading pad, or a mixture of all these.

-
- Phraze Generator = sound creation
Patch = Phraze Generator + sound shaping.
-

If you understand this concept, you've pretty much understood how Xphraze basically works. Then again, you still probably can't imagine how much sonic potential that means practically.

Sync you to the music

Music isn't based on milliseconds, music is based on notes, bars, and measures. Consequently, everything in Xphraze is based on note units as well. The Phraze generator resolution, the envelope times, the LFO rates, FX delay times - you can set all these parameters according to your song, and they change with the song tempo

Sure, for some modules you can alternately choose time-based settings, but the important aspect of what this means is that Xphraze is not just a sound synthesizer, it's a phrase and music synthesizer. Playing a chord may produce a chord sound, but it might as well produce a whole musical phrase.

This also implies that not only arpeggios or chord patterns, but also envelope times, LFO modulations or delay times always match to your song tempo. All synthesizer parameters can exactly be tweaked to fit into your song's timing. That's become quite normal for LFOs or FX parameters in software synthesizers, but imagine attack times that can be exactly one bar long or imagine the spectrum of the sound changing in 8th note intervals.

Please keep that in mind when working with Xphrase - you can use it as a conventional time-based synthesizer, but you'd actually underchallenge it.

Playing Phrases

You can change the phrase within a patch by editing it or just by loading another one.

Phrase Buffers



The Phrase Generator holds 4 Phrases at a time. In most cases patches will just use the first one, and that's the case with most factory patches.

However, the four Phrases are stored in 4 buffers, represented by four numbered buttons to the left of the cell area.

To switch buffers, you have three options:

- Click on one of the four phrase buttons.
- Send a program change. Program Change numbers 1-4 select buffers in Patch Slot A, Program Change numbers 5-8 in B, 9-12 in C and 13-16 in D. This scheme allows you to switch buffers in Patches individually even if all Patches share the same MIDI channel.
- Use the Xmode function described `##here##`, allowing you to switch buffers with the keys on your MIDI keyboard.

Phrase Name



You can view and alter the name of a Phrase in the Phrase Name Display at the top left of the Phrase Generator. To change the name, just click it and type your changes.

Saving phrases

You can save phrases separately from the Patch, e.g. to use them as a building block in other Patches. To save a Phrase:

1. Right-click the Phrase buffer you want to save.
2. Select „Save Phrase“ from the context menu.
3. The browser display automatically switches to Phrase mode. The new Phrase appears in the browser window. You can rename it here now or any time later.

Copying Phrases

You can deliberately copy phrases between buffers and patches.

To copy a phrase:

1. Right-click the Phrase buffer you want to copy.
 2. Select „Copy Phrase x“ from the context menu.
 3. Right-click the destination buffer - which can be any buffer in any patch - and select Paste from the context menu.
-
- When a phrase is copied, this includes the cell parameter assignment as well as the global phrase parameters. If you only want to copy cell values, make use of the cell copying functions described below.
-

Initializing Phrases

You can initialize a phrase including cell parameters and triggers in one go:

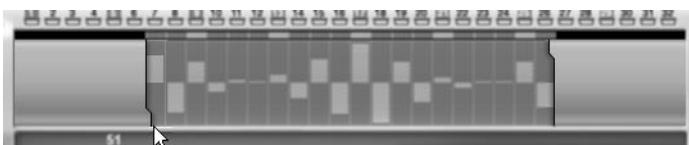
1. Right-click the Phrase buffer you want to initialize.
2. Select „Init Phrase x“ from the context menu.

Loading phrases

You have two easy options to load a patch from the pool into a buffer:

- Double-Click: Select the destination first, then double-click the Phraze entry in the Browser to load it.
- Browser: In the browser window (assumed the „phraze“ icon is selected), right-click the phraze name and choose „Load to phraze-x“ (with x being the destination buffer).

Setting Start and End of a Phraze



You can change the start and end point - ... cell, to be exact - of a phraze by dragging the silver handles at the borders of the cell area.

-
- This is a very convenient and quick way to create variations.
-

Setting the Phraze Loop



Loop ruler with loop set from cell 5 to cell 10

You can set any range of cells to be looped while the note is held.

After note-on, cell playback will run from the Phraze Start through to the Loop End, then jump back to the Loop Start and repeat this while the note is held. After note-off, playback will proceed to the Phraze End.

You can set Loop Start and Loop End independently from Phraze Start/End. The orange-coloured ruler (green in drum mode) right above the cell area is the loop ruler. Usually the loop start is cell 1, the loop end is cell 32.

- To change loop start point, click-drag cell 1 within the loop ruler and move it to the desired loop start.
 - Change the loop end accordingly by click-dragging cell 32 in the loop ruler to another cell.
-
- ☐ You can for example program a patch to run through 8 different waveforms after key on, crossfade between two pad samples while keys are held and end as a crash cymbal in the note release phase.
-

Setting the Loop Mode

The Loop Mode parameter to the right of the Phrase Generator determines playback during the loop phase. This is how the Loop works:

- On note-on, playback starts from Phrase Start and reaches Loop End. From here until note-off, the Loop Mode takes over:

Mode	Loop Cycle (repeated)
off	no loop
 fwd	... jumps to Loop Start, plays to Loop End ...
rvrs	... plays backwards to Loop Start, jumps to Loop End ...
altn	... plays backwards to Loop Start, plays to Loop End ...
alt2	like altn, but Loop Start/End cells get repeated

- After note-off, playback plays through from current cell to Phrase End.

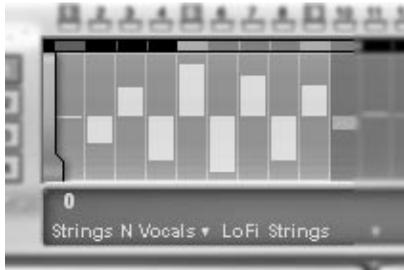
Choosing a Cell Multisample

##phrase_multisamplemenu.tif##

For each Cell you can select a Multisample from the Multisample Menu.

- ☐ A Multisample may e.g. be an instrument, a drumkit, or any sample or multisample you have imported into Xphrase. Xphrase comes with more than 200 Multisamples to choose from.
-

By using different Multisamples in a phrase, you can create rhythmical sequences of waveforms, instruments as well as morphing pads.



In this example, the multisample „Lofi Strings“ from the category „Strings N Vocals“ is chosen for the selected cells.

To choose a multisample for a selection of cells:

1. Select the cell(s) by clicking them.

Choosing a category

2. Select a category from the category list by clicking the category name in the Multisample selector and choosing an entry from the menu.
3. Select a Multisample from the Multisample menu by clicking the Multisample name in the sample selector and choosing a new Multisample.

-
- You can change the Multisample for any number of selected cells at a time. For more info on selecting multiple cells please refer to [##Selecting Cells##](#).
 - Multisamples only change in cells whose cell trigger is activated. The multisample selection of untriggered cells gets ignored.
-

Setting Cell Triggers



The line of „LEDs“ right below the Cell numbers is the Trigger Ruler.

- ❑ This ruler also contains the playback pointer, a red LED that runs through the trigger ruler while the phrase is being played, indicating the currently played cell.

An active (green) LED in the trigger ruler means that when the playback pointer reaches this cell, the Multisample gets retriggered - i.e. played from the start.

Multisample triggers affect the Phrase Generator only - they are irrelevant for patch modules such as envelopes or LFOs.

The fact that a cell is not triggered does not mean it doesn't sound! It just means that the currently playing Multisample is sustained.

- ❑ In order to mute a Cell, just set its volume to zero.
- ❑ The start cell always gets triggered on key-on no matter if its cell trigger is activated or not. In Drum Mode however, this can be undesirable, therefore the first cell needs a trigger as well to be audible.

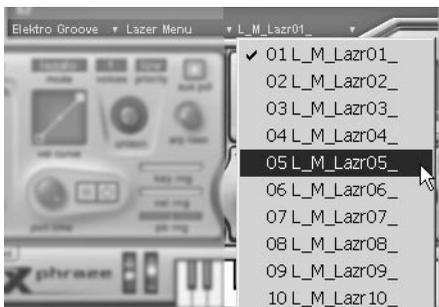
Global phrase parameters



To the right of the Phrase Generator there are five parameters determining global settings of the Phrase.

Drum Mode

When activating the little keyboard icon, the Multisample is set to drum mode. The cell area changes to green, and the Multisample Selector is extended by a third column.



In drum mode the sample selector gets extended by a third column. Here you can select specific single (drum) samples for each cell.

In drum mode the phrase gets no longer transposed by the keyboard, and you can choose individual samples from the multisample for each cell - this is the third column.

As the name indicates, Drum Mode is particularly handy for creating drum grooves using Drum Kit Multisamples.

This is how you create drum patterns in Drum Mode:

1. Set the Phrase to Drum Mode by clicking the keyboard icon. The cell area becomes green.
2. Select an appropriate Multisample - e.g. from the Elektro Groove or Acoustic Groove categories.
3. Select the first Cell and activate its trigger LED.
4. From the third column of the Multisample Selector, select the drum instrument this Cell is supposed to play.
5. Select the next cell you want a drum instrument to play in and activate its trigger LED.
6. Repeat steps 4 and 5 until you've finished setting up the groove.

Trigger Mode

This setting affects how the phrase generator of subsequently played voices are synced.

- Multi: For each note played, a separate cell generator gets started.
- Single: The first note starts the cell generator, subsequently played voices join in. This mode is more suitable for chord patterns.

Resolution

Sets the overall phrase generator resolution in note values.

Xfade

Rather than switching from cell to cell, you can set the Phrase Generator to smoothly crossfade (Xfade) between cells. This is very useful for creating morphing sounds that change their sound color perfectly in sync with your song.

-
- Loop Mode is described on page ###
-

The Cell Parameter Menu



In the Cell Parameter Menu right above the cell area, there are six slots which can be deliberately assigned to cell parameters. We have made this as flexible as possible to suit any taste and application.

Once a cell parameter is selected, you can set or draw values in the cell area. This is how you program phrases, morphing sounds, melody lines and other cool things.

To assign a cell parameter to a slot, right-click the slot and choose a parameter from the context menu:

Parameter	Description	Values	When not assigned
None			
Volume	Modulates the Volume Parameter (Amp Section)	0 ... 127	127
Pan Mod	Modulates the Pan parameter (Amp Section)	L64 ... R64	<C>
Key Oct*	Transposes in octave increments.	-4 ... +4	0
Key Semi*	Transposes in semitone increments	-7 ... +7	0
Coarse Tune	Changes the pitch in semitone increments	-24 ... + 24	0
Fine Tune	Detunes notes in cent increments	-50 ... +50	0
Cutoff	Modulates the Cutoff parameter (Filter Section)	-64 ... +64	0
Resonance	Modulates the Resonance parameter (Filter Section)	-64 ... +64	0
Gate Time	Gates the volume for each cell, gate time is adjustable as a percentage of the cell length	0 ... 100%	100%
Cutoff Decay	When the Cutoff Decay value is between 0% and 50%, Cutoff decays from the Cutoff knob setting (Filter section) to zero, while the percentage determines the decay time. Between 51% and 100%, the decay time is always the full cell length, while the percentage raises the destination cutoff frequency between zero and the Cutoff knob setting.	0 ... 100%	100%

Amp Decay	Creates a volume decay from the current volume. From 0% to 50%, the volume decays to zero while the Amp Decay value determines the decay time. Between 51% and 100%, the decay time is always the full cell length, while the percentage determines the end level.	0 ... 100%	100%
Smp Start*	Adjusts the start point within the sample if the cell is triggered. Very effective with percussive or swept waveforms. Higher values move the start point towards the sample end, the maximum value effects to a random (RND) start point for each cell.	0 ... 99, RND	0
Time Stretch	Sets the individual length of a cell relative to the Phrase Resolution, adjustable from zero to double length.	0 ... 200%	100%
Xfade	Adjusts the individual crossfade length from this cell to the next one relative to the Phrase Xfade. Does not work when Phrase Xfade is set to zero.	0% ... 200%	100%
Fx Mix	Modulates the FX Mix value (FX Section)	0 ... 127	0
FX Parameter	Modulates the 3rd (modulatable) parameter of the FX Section.	0 ... 127	0
Unison	Modulates the Unison parameter (Patch section). Works only when Unison knob is set to a value other than minimum.	-64 ... +64	0
Cell Mod 1/2	Usable as freely assignable modulation sources in the ##mod section##	0 ... 127	0

*works only for cells with activated cell trigger.

The cell area always reflects the values for the currently activated cell parameter. You activate a cell parameter by clicking on it, its display gets inverted.

Modulatable Cell Parameter

The parameter in the sixth slot can be modulated by any source from the mod section. This way you can control cell modulation in realtime - e.g. you can move the sample start point by velocity.

Refer to `##mod section##` for more details.

Editing cells

Selecting a single cell

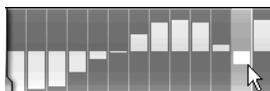
To select a cell, you just need to click on it. It does not change its value yet.

Editing a single cell value



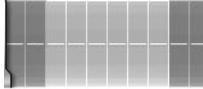
To edit the cells' value, you have to double-click it and drag the mouse vertically to the desired value. To fine-tune values, hold down Shift while dragging. The current value is shown right underneath the cell.

Drawing cell values



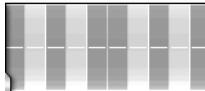
You can draw the curve of a cell parameter freely by double-clicking into the any cell, holding the mouse button and dragging the mouse over a range of cells.

Selecting a block of Cells



You can select a block of adjacent Cells by Shift-clicking the first or the last Cell and dragging the mouse to another Cell.

Selecting non-adjacent cells



Instead of selecting a block of cells you can also select any group of cells that are spread over the cell area. Just Ctrl-click the desired cells to select them.

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- Keyboard shortcut for selecting all cells: Ctrl-A.
-

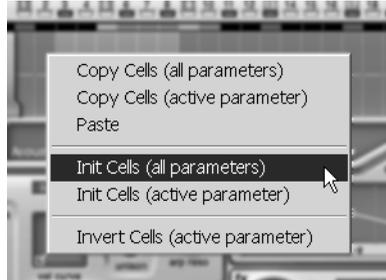
Copying cells

You can copy any selection of cells within the Phraze Generator or to any destination Phraze within Xphraze:

1. Select the cells you want to copy
2. Right click into the cell area and choose Copy Cells (all parameters) to copy the values of all six parameters.
3. To paste the cells, click the first destination cell to select it
4. Then right click the cell and choose Paste from the context menu.

Xphraze' copy/paste algorithm is pretty intelligent and convenient:

- You don't need to select an exactly appropriate number of cells before pasting multiple cells - you just have to select the first one.
- When copying a selection of non-adjacent cells, their order is retained when pasting.



The context menu in the cell area allows for a range of operations to be performed on selected cells

Copying values between parameters

You can select any number of cells, copy the current parameter and paste it to another parameter or another cell selection in any phrase.

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- ☐ This comes in handy e.g. when you want to copy the cutoff values within a phrase to the volume parameter, or when you want to copy the pan values of cells 1-16 to cells 17-32.
-

1. Select the cells you want to copy
2. Right click into the cell area and choose Copy Cells (active parameter) to copy the values of the active parameter.
3. To paste the values, click the first destination cell to select it, then right-click the cell and choose Paste from the context menu.

Initializing Cells

You can initialize the values of any selection of cells for either all six or just the active parameter:

1. Select the cells you want to initialize
2. Right-click into the cell area and choose Initialize cells - either all parameter or active parameter.

Inverting Cell values

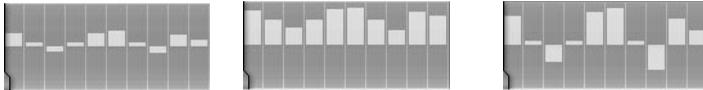
You can invert the cell values for any selection of cells. This is e.g. handy to create counterparts or crossfades between two phrases. The inversion only affects the currently active parameter:

1. Select the cells you want to invert
2. Right-click into the cell area and choose Invert cells (active parameter)

Group-Scaling or -moving cell values

You can scale or change the values of a group of selected Cells at once - no matter if you have selected a block or a loose number of cells:

1. Select the cells you want to alter, then ...
- ... hold Alt, click into one of the selected cells and move the mouse vertically to scale the value bars of all selected cells.
 - ... hold Alt-Shift to not scale but move the values.



The difference between moving and scaling: Original cell values (left), moved (center), scaled (right)

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- ☐ Scaling - technically speaking - is a multiplication of values, while altering is an addition.
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