

# JJOS XL SAMPLING BIBLE



The Complete Masterclass For Creative Sampling on JJOS 'XL'  
JJOS2XL & JJOS-XL

BY ANDY AVGOUSTI (MPC-TUTOR)

**JJOS XL: The Sampling Bible**  
*(for JJOS XL v3.x)*

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# Introduction

Thank you for purchasing ‘JJOS XL: The Sampling Bible’, and welcome to the exciting world of sampling on JJOSXL!

Throughout this book you will quickly learn many features of JJOS-XL/2XL through the use of practical, step-by-step projects. As JJOSXL is famous for its intuitive and brilliantly creative chopping features, I’ve written each project to initially start by teaching a specific chopping technique and then as the tutorial progresses we’ll use the resulting sample chops to learn many other aspects of the OS, such as drum kit building, writing songs, sample editing, advanced program editing, looping and much, much more.

Due to the advanced and often technically complex nature of JJOSXL, I have assumed that you already have a basic working knowledge of core MPC functionality and are generally comfortable with the ways we can use an MPC in the studio. But if you need a quick refresher of core MPC functionality, I have added a ‘5 Minute’ guide to essential MPC features in **Appendix D** at the end of this book. There you will also find other appendices for beginners, such as an explanation of terms used in this book, a guide to installing JJOSXL and a list of helpful JJOSXL shortcuts.

## Which JJOS version is this book for?

This edition of the book was written to be compatible with the JJOS ‘**XL**’ operating system (3.x) – at the last revision of this book, the current version was 3.44.

Please note that (confusingly), this software is named differently depending on the MPC you are using. The MPC1000 version is called ‘JJOS2XL’, while the MPC2500 version is called ‘JJOS-XL’, but it’s important to note that JJOS2XL and JJOS-XL operating systems are *essentially identical*, and as such this book is valid for both the MPC1000 and MPC2500 versions of the software. Therefore throughout this book, I will simply refer to the software as **JJOSXL**. If you need help installing JJOSXL, please refer to the installation guide in **Appendix B** at the end of this book.

## How to use this book

When you downloaded this book, there should be an accompanying folder called ‘**Tutorial Files**’. Just transfer this folder to your MPCs’ hard drive or CF card –

now as you read through the book, you are able to recreate all the examples in your MPC – nothing beats good old fashioned ‘hands on’ learning.

My advice is to simply work your way through the book from beginning to end as I’ve structured it in what I feel to be the most logical order possible, and on the whole, the topics covered get progressively harder the deeper you get into the book.

Finally, if you notice any errors in the book, please do let me know and I’ll get them fixed as quickly as possible – just send an email to [support@mpc-samples.com](mailto:support@mpc-samples.com). Also if you have any suggestions or feedback, including any JJOSXL or general MPC topics you’d like to see covered in future tutorial books from me, please send them to the same email address. All feedback is very welcome 😊

Happy beat making!

Andy Avgousti, MPC-Tutor

# 001 – Introduction to Destructive Chopping

## Overview

Dedicated chopping functions have been present in MPCs for some time now, and those familiar with Akai OS will be used to using the built in CHOP SHOP, which in JJOS XL is referred to as '**Chop Mode**' ('destructive' chopping). 'Chop mode' allows you to take a sample, slice it into regions, tweak the zone start and end points and then either export each individual slice or create a patched phrase sample.

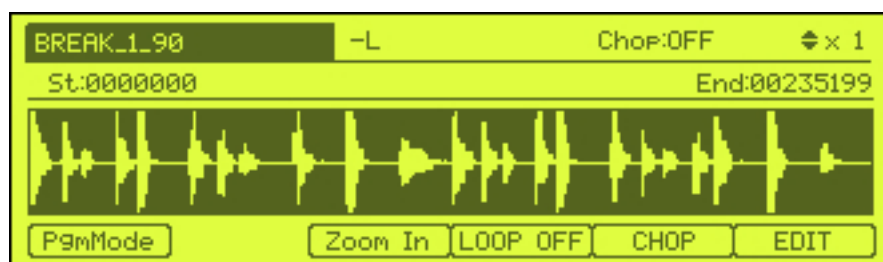
However, JJOS XL introduces a radical new form of chopping called '**Non Destructive Chopping**' (NDC), which completely rewrites the rulebook for sample chopping in an MPC.

In this book I want to take an in-depth look at both chopping methods, with examples showing you to relative merits of each technique based on the end result you wish to achieve.

## Loading the Break

What's a chopping tutorial without a cool break to chop up? Go to **LOAD** (MODE and pad 2) and on the right hand side, using the cursor keys to highlight the '**Tutorial Files**' folder. Press the right cursor to 'enter' this folder and locate the '**Chapter 1**' folder; again, right cursor on this folder to enter it. Scroll your data wheel to locate the '**BREAK\_1\_90.WAV**' file. To load the sound into memory, hit DO IT (F6).

With our sample in memory, go to **TRIM** (MODE and pad 6).





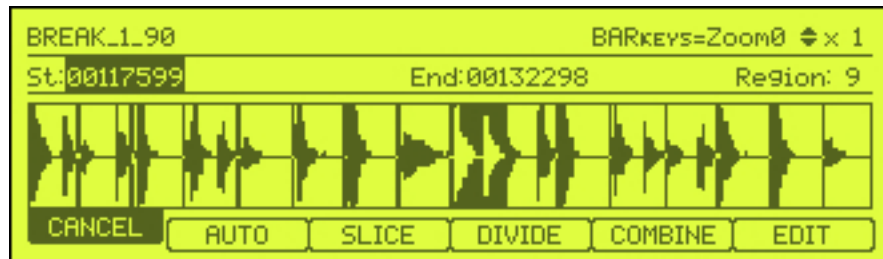
This break sample has already been trimmed and looped and as you can tell from the sample name, its tempo is 90 BPM. First off, let's preview that sound. If you press pad 5 the break will continuously playback looped until you press the STOP transport key (or pad 1). Alternatively press and hold pad 1 for a 'NOTE ON' style play back.

### ***Detecting Tempo***

Don't forget, a quick way to see the tempo of a looped break is to go to **EDIT > TIMESTRETCH > TEMPO (F2)**. For perfect results, enter the time signature (1/4 for 4/4 beats) and the number of beats (8 in this case). Then press MANUAL (F5) – look at the '**Original tempo**' parameter.

## **The Destructive Chopping Screen**

To start the destructive chopping process, press **CHOP (F5)**:



Here, JJOS has chopped our break into many regions. Let's take a quick look at this new screen. Starting on the top row:

- **BREAK\_1\_90** – our sample name
- **BARkeys=Zoom0** – this tells us we can use the BAR keys to zoom into the sample (more about this later). It also tells us the *horizontal* zoom magnification of our waveform (how far we've zoomed in the waveform width). A value of 0 means we've not yet zoomed in.
- **x1** – this is the vertical zoom magnification (i.e. how much we've zoomed in on the waveform height). By default, this is a magnification of 1.

On the second row:

- **St: 00117599** – this is the start point of the *currently selected region*
- **End: 00132298** – this is the end point of the currently selected region

- **Region: 9** – this is the currently selected region number (defaults to 9)

On the third row we have the waveform itself, and on the fourth row we have a number of editing functions which we'll look at as we progress.

## **Navigating in Chop Mode**

While you are in CHOP mode, you are not able to manually select the top row of the screen with your cursor, your cursors will only move around the second row in order to select start and end points and the 'Region' selector.

There's two ways to select a specific region in your chopped sample. You can use the cursor (arrow) keys to highlight '**Region:9**' at the right hand side of the screen and use the data wheel to scroll to the region number you require. As you change the region number, the waveform display changes to reflect the currently selected region (it will have a light waveform against a dark background).

If you scroll the region number clockwise as far as possible, it will stop at **16**. This represents the total number of regions that JJOS has chopped the break into.

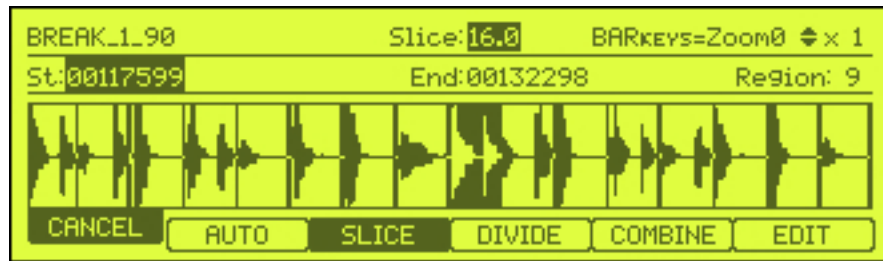
An alternative way to select regions is to *just* use the cursor keys. Simply cursor all the way to the right until the '**Region**' parameter is selected (as you did before) but then simply continue pressing the right cursor key. You'll see the region number increase with each cursor press. To select a lower region, just left cursor until you reach the '**St**' point and just continue pressing the left cursor key. I tend to use this 'cursor-only' method for most of my chopping sessions because generally speaking it fits better into my usual chopping workflow (as we'll see over the next three chapters of the book).

To perform a general 'ONE SHOT' preview of a region, press any of the pads on the second from bottom row (pads 5 to 8). You can perform a NOTE ON preview by pressing and holding pads 1 to 4. With the NOTE ON preview, the region only plays back for as long as you are holding down the pad (which is identical to the way a NOTE ON pad plays back in PROGRAM). I'll take a closer look at all the more advanced region-previewing options shortly.

## **A Basic Chop**

Whenever you hit the CHOP button, the default chop is 16 'equal' regions – so for example, if your break was 16,000 samples long, you'd have 16 regions each 1000 samples in length. I'm going to revisit this default 16 region chop at the end of this chapter, but I first want to run through some basic concepts of destructive chopping and it will be easier to use a smaller, four region chop for this.

So first, let's 're-chop' this break into just four regions – to do this, press **SLICE** (F3):



You can now use the data wheel to select the new number of slices, via the '**Slice**' parameter at the middle top of the screen. To move in 'whole' numbers, hold down the **SHIFT** key while you scroll, otherwise you'll move in one tenth of a slice (we'll investigate this aspect in more detail in chapter 5).

Select **4** slices (**4.0**) and press the **SLICE (F3)** button again to return to normal chop editing. Use your cursor to preview your four new region, using any of the 'ONE SHOT' pads (5 to 8).

These four regions are set automatically, simply by looking at the length of the entire break and dividing that length by 4. As such you may find that the regions do not fall *exactly* at the very beginning of a drum hit – sometimes they be a bit early, sometimes they'll start too late. So normally this means we will need to edit the start and end points to make the region edits as tight as possible.

### ***Do not leave 'CHOP'!!***

Once you enter the 'CHOP' screen, be aware that in 'Destructive' chopping mode, JJOS will never remember any custom edit points you create, and there is no way to save them. So don't start an editing session without the intent of completing a sliced program or patched phrase creation at the end of it. You can't even go back to the TRIM screen without losing your custom chops!

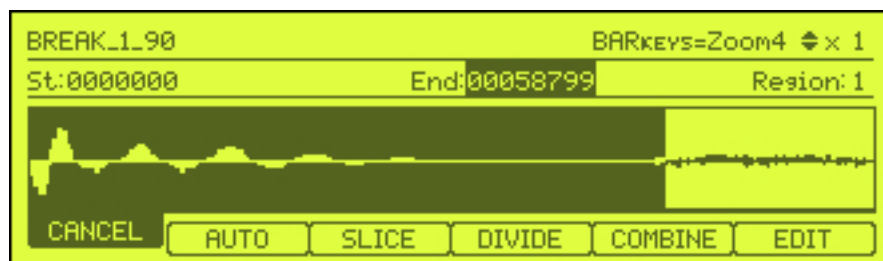
Editing the start and end points is almost identical to editing start and end points TRIM mode (except you cannot use the Q-Link sliders to change edit point values) so it's a case of using the data wheel in combination with the 'zooming' functions and cursor keys.

Press the left cursor key until region **1** is the currently selected region. You should see that the 'Start point (**St**)' is currently selected. Press **pad 5** to preview

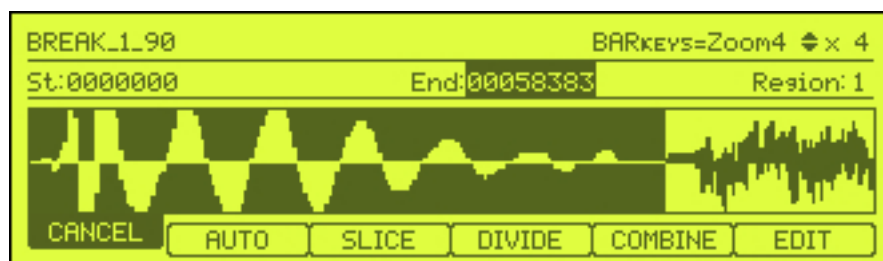
the region. Now press **pad 8** and notice how JJOS makes sure the '**end point**' of that region is now selected. Switching your preview pad between left side pads and right side pads will allow you to switch quickly between 'start' and 'end' point, speeding up your workflow (this works in TRIM as well) – we'll be using this throughout the book. You can also use pad **6** for a 'start point' one shot preview, and pad **7** for an 'end point' one shot preview.

The same is true for the bottom row (pads 1 to 4) – except these are the NOTE ON equivalents (they require you to hold down the pad rather than just press it).

With region **1** selected, make sure the '**end**' point is currently highlighted (i.e. preview the region with pad 7 or 8). Zoom in to the end point of region 1 using either the right BAR key, or **SHIFT** and '**right**' cursor. Zoom in a total of four times (it will say '**Zoom4**' on the top line of the screen) and you'll see that when you examine the waveform, the region end is clearly chopping off the start of the hat at the beginning of region 2.

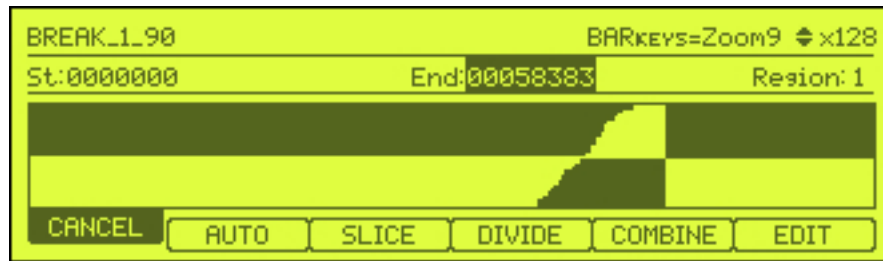


Now press the **up cursor** until the waveform height in the top right hand corner indicates '**x4**' – this has increased the waveform height magnification (vertical magnification). Now turn the data wheel to the left (anti clockwise) to set the end point to **00058383**. You can now see you're positioned just before the start of the next 'hit' in your waveform.

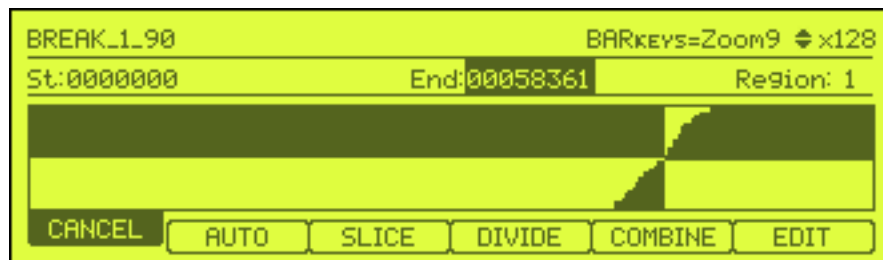


You can preview this using an 'end point' preview (pad 7 or 8) and it should sound fine, so you could leave it there. But I want to show you how to get as accurate as possible, because as we'll see later, once you commit your edits in standard chop mode, there's no going back to fix any inaccuracies.

So, zoom horizontally as far as possible using the right BAR key (until you reach **zoom9**) and use the up cursor to increase the waveform height to '**x128**'.



Set your end point to **00058361** using the data wheel. As you can see, this is the exact zero crossing before your next 'hit' begins and the perfect place for an accurate end point.



Repeat this process for the region 2 and region 3 end points – remember region 4's end point is actually the end point of the entire sample, so there's nothing to set there (this sample is already perfectly looped, so the end point of the last region and the start point of the first region should already be perfect). I set mine as follows:

Region 2 End Point: **00117666**

Region 3 End Point: **00176251**

Region 3 was tricky as it simply wasn't clear when the exact end point was; the MPC screen just isn't accurate enough, so we just make a good guess and check with our ears.

### ***Does it really matter?***

For tiny errors you'll get away with a slightly imperfect edit 90% of the time. The old adage '*if it sounds right, it is right*' will certainly mean you save yourself a lot of time making unnecessary edits to your samples. But often for the sake of a couple of extra minutes editing you can save yourself more hassle later on when you may find a sloppy edit is

causing issues in your beat.

It's also worth pointing out that in 'Destructive Chopping', once we've exported our slices there's no easy way back to 'fix' things – if you've set your start point too late or your end point too early, you'll have to start the whole chopping process all over again (at least for those regions).

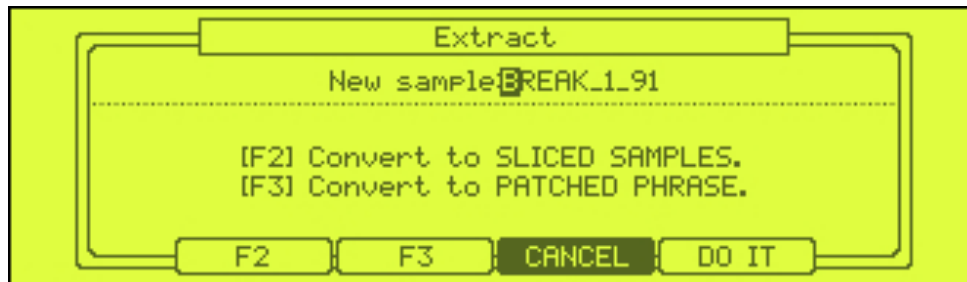
## Understanding the concept of a 'shared' edit point

Perhaps the most fundamental concept of destructive chopping is that adjacent regions within your break 'share' the same edit point. For example, the 'end' point of region 2 is also the 'start' point of region 3. So if you reduce the end point of region 2 by 10 points, you are also changing the start point of region 3 by 10 points.

This means you always have to be aware how your edits in one region may be affecting the edit point of another. I will look at this in more detail in chapter 2 when we look at the more advanced pad previewing options.

## Creating Your Slices

With your regions now set, press **EDIT** (F6).



At this stage we now have three options. If you press **DO IT** (F5), JJOS will extract only the currently selected region and make a single sample from only that region. If you press **F2**, JJOS will create individual samples from each region and optionally assign each sample to a pad in a new program (**SLICED SAMPLES**). Finally if you press **F3**, you will create a **PATCHED PHRASE** sample. Patched phrase samples will be looked at later in this book (chapter 3).

So press F2 to bring up the following 'Convert' screen:



The '**Release**' setting will ensure that the end of each region is not abruptly chopped; instead JJOS will add a little artificial decay to the end of the sample, which is similar to what the software Recycle does. This way each slice works must better as a standalone sample and will also play much more nicely when we use the slices in our own sequences. Without a little release added to the end of the sample, you'll often hear clicks and pops when using your chops. A release of **30** should do the trick nicely.

Set '**Create new program**' to **YES** and hit **DO IT**. You'll now see a new sample on screen; this is actually your fourth region, which JJOS has named '**BREAK\_1\_90-04**'. Scroll to the left and you'll see three other new samples, each one being named after the relevant region they came from.

*Also notice that if you select the original BREAK\_1\_90 sample, it is no longer within the 'CHOP' screen, and if you press CHOP, you are back at the default 16 regions, so there's no returning to 'tweak' those four regions you originally set – you'd have to start all over again if you messed up!*

Now go to **PROGRAM** (MODE and pad 7). Here you'll find a new program called '**BREAK\_1\_90**' and on pads A1 – A4 you'll find your sliced regions already assigned.

Tr1 :002-BREAK_1_90			(DRUM)		Play:MONO		
MIDI IN	PAD	SAMPLE	SOUND	CHOP	DIR	LEV	TUNE
36C_1	A01	BREAK_1_90-01	STREO	--	FOR	80	+00.00
37C#1	A02	BREAK_1_90-02	STREO	--	FOR	80	+00.00
38D_1	A03	BREAK_1_90-03	STREO	--	FOR	80	+00.00
39D#1	A04	BREAK_1_90-04	STREO	--	FOR	80	+00.00
SAMPLE		AMP	FILTER	PITCH	LFOMUTE	OUT FX	

Also notice that the program is set to **MONO** playback (top right of the PROGRAM screen).

## ***MONO vs POLY Programs***

Normally a DRUM program will have a default playback set to POLY. This is short for 'polyphonic' and simply means you can have multiple pads playing pack at the same time. So, if you press pad A1 and then press A2 before A1 has finished playing, you'll hear the two pads overlap.

Destructively chopped DRUM programs in JJOS are set to MONO playback by default. This is short for 'monophonic' and means that only one pad can be heard at any one time. So, if you press pad A1 and then press A2 before A1 has finished playing, A1 playback will end instantly and be replaced with the sound of pad A2. There is no overlapping of sound whatsoever. As we'll see throughout this book, each method has its uses!

Please note that MONO (monophonic) is in no way related to 'mono' (i.e. single channel sample compared to a stereo sample).

You can load up my version of this program from the chapter 1 sub-folder '**Chopped**' – it's called **BREAK\_1\_90.pgm**.

So that's the absolute basics of the destructive chopping process – so far we've learnt how to set the number of regions, how to tweak start and end points and also export our regions as unique slices assigned to pads in a program.

Now to be honest, chopping to four slices is hardly that inspiring, although it was a nice and simple example to show us these basics. In the next chapter I'm going to show you how to accurately and quickly chop drum breaks down to individual hits for the ultimate creative break building tool, but before we finish this chapter, let's take a look at how we can chop our break into smaller 'equal' regions and use the resulting program to seriously rearrange our original break.

## **Experimenting With 'Equal' Region Chopping**

Let's go back to **TRIM** and select the **original BREAK\_1\_90** drum loop and hit **CHOP** (F5). As I mentioned before, the default chop in JJOS is an 'equal' 16 region chop, and this time I want to simply use those default 16 regions for some creative break rearranging.

Select region **1** and press pad **5** to preview it. Now start pressing the right cursor key and preview each chop. They all sound pretty good – now you could go through each region, zoom in and tweak the edit points, but that's not really necessary for this example – we'll have plenty of time in chapter 2 to learn the art rapidly and accurately chopping many regions.



Instead, let's leave the regions as they are (remember they all *sound* fine) and instead go straight to the **EDIT** (F6) screen. As before, hit **F2** (SLICED SAMPLES) and select a release of **30** and '**Create new program:YES**'.

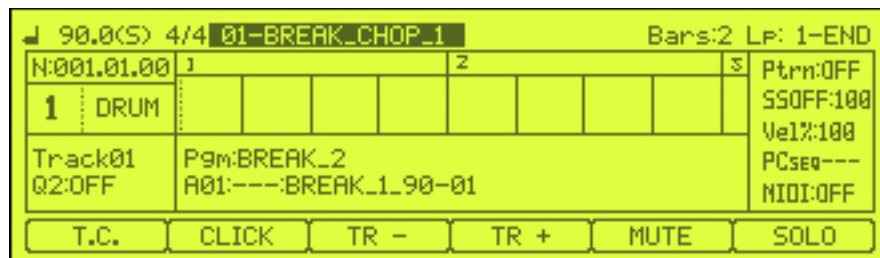
This will now create a new program with 16 splices assigned to the 16 pads in bank A. Go to **PROGRAM** to see this sliced program. Be aware that it will have the exact same name as our previous 4 slice program, so you may wish to rename this program (select the program name in **PROGRAM**, hit **WINDOW**, cursor down to the program name, and move the data wheel to activate the sample naming screen – please see the appendix for more details on how to rename files in JJOSXL). I called mine **BREAK\_2**. You can load up my version from the **Chapter 1 'Chopped'** folder.

Preview all sixteen pads. As this was an 'equal' chop, each pad contains the same amount of audio and presents 1/16<sup>th</sup> of the original 2-bar length. So if you hit each pad in turn from A1 through to A16 at an even, steady pace, you'll be able to easily recreate the original beat.

Of course the fun starts when you begin to rearrange the pads into a different order! You can simply start hitting random pads to see what comes out, or you can actually try to remember the layout and try to play something more specific – or a combination of the two.

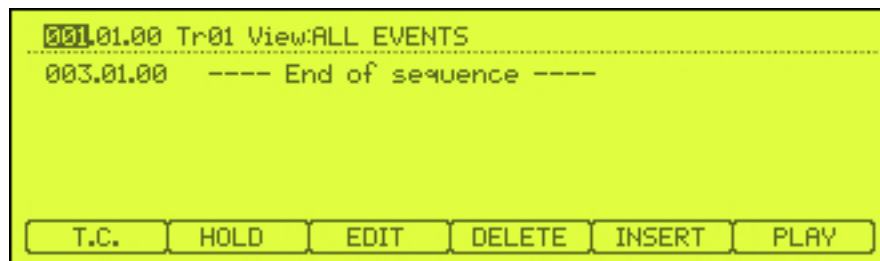
## Using Your Chopped Program

The first thing you can do with your new program is recreate the break. Go to **MAIN** and select a blank sequence. Set the tempo to **90.0**, bars to **2**, '**Loop**' to '**Lp:1-END**' and on track **1**, assign your new **BREAK\_2** program. Press the **FULL LEVEL** button so it is illuminated (this ensures each event you enter is entered at a full velocity of 127). For more information about setting up a sequence in **MAIN**, please refer to the appendix at the end of the book.

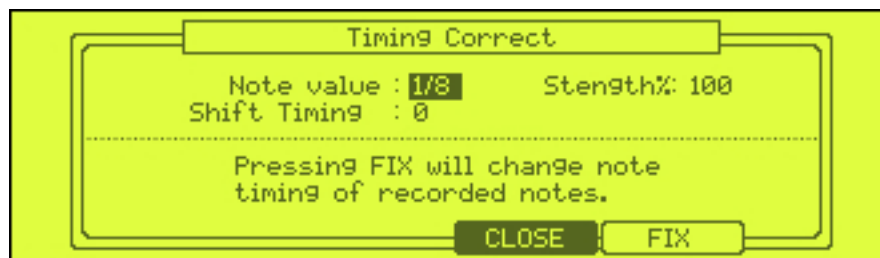


To recreate the break, you can record your events in real time (**RECORD** and **PLAY START**, but with an 'equal' chop, a great way is to use **STEP EDIT** or **GRID EDIT** with '**Auto Step Increment**' enabled. I'll show the STEP EDIT method and GRID EDIT later (you can find out a little more about these in the appendix).

Go to **STEP EDIT** (MODE and pad 14).



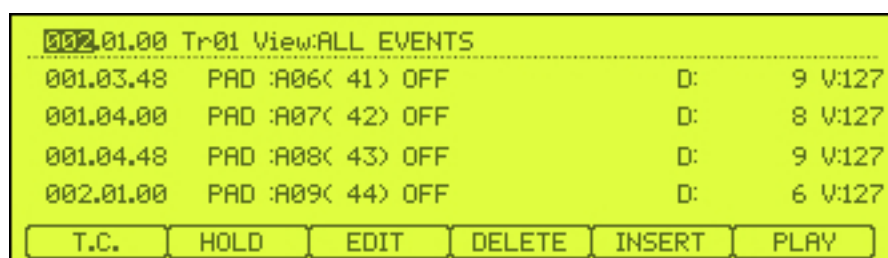
Press **TC** and hold (**F1**) and while holding, spin the data wheel so a quantize 'note value' of **1/8** is set.



Now press **WINDOW** to reveal the 'Step Edit Options' window and set 'Auto step increment: YES' and leave 'Duration of recorded notes: AS PLAYED'.



Press **CLOSE** (F4) and hit the **OVERDUB** transport key so that **STEP EDIT** is ready to record played event information from the pads. Now simply press every pad from A1 through to A16 and you'll see that each time you press a pad, an event for that pad is entered (at a velocity of 127) and the sequencer automatically jumps to the next 1/8<sup>th</sup> quantise point.



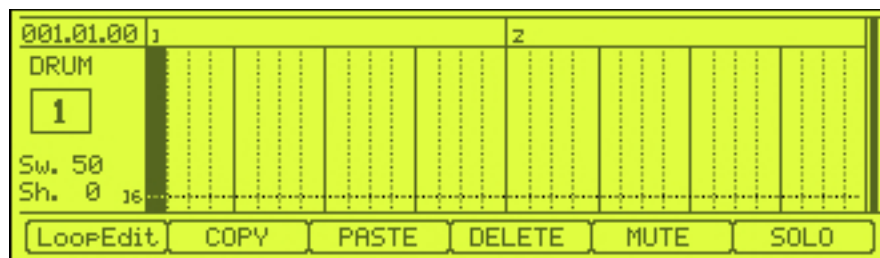
Press **PLAY START** to hear the recreation of the beat – it sounds virtually identical. To hear my version, load up the sequence file **BREAK\_CHOP\_1** from the chapter 1 '**Chopped**' sub-folder. Now it's time to create something more unique – hit the **MAIN** button to return to the main screen.

Let's create a new sequence to work with. Now, one option is select the next blank sequence (highlight the sequence 1 name on the top row and data wheel to the right, although you'd have to set up all the parameters again (tempo, program assignment, loop etc).

Alternatively, simply copy sequence 1 to sequence 2 using the PARAMS function (this copies the sequence parameters, but not the track event data). To do this,

- highlight the current sequence name on the top line of the MAIN page
- hit **WINDOW**
- **COPY** (F5)
- **PARAMS (F3)** - you are now in the new sequence, and all parameters are copied over.

Again you can record your data in real time or program it via STEP EDIT as you did previously. However for variation, this time I'm going to use GRID EDIT. To enter **GRID EDIT**, press **MAIN** twice, or press **MODE** and **pad 15** (again, more about using GRID EDIT in the appendix).



As before, press **WINDOW** to ensure '**Auto Step Increment**' is enabled (the pop up window looks a little different this time) and press the **OVERDUB** button to put the sequencer into 'step' record mode. Now simply start hitting your pads and as with STEP EDIT - your events are entered and the sequencer automatically moves you along each time. You can see little blocks representing your events.

Try to vary the notes you are entering – remember that your snare hits are all in the third column of your pads (A3, A7, A11, A15), so you'll most likely want to place them at the second and fourth beat of each bar (001.02.00, 001.04.00 etc). Beyond that it's really just a case of experimenting until you create something that works for you. To delete any mistakes, use the data wheel to scroll back to the event and hit **DELETE** (F4).

To hear my version, load up the project file **BREAK\_CHOP.prj** from the chapter 1 '**Chopped**' sub-folder, where you'll find three sequences already loaded into memory – **BREAK\_CHOP\_1** (the recreation of the original drum break), **BREAK\_CHOP\_2** (my new break) and (**BREAK\_CHOP\_3**) which contains some ghost notes which I added using real time recording in OVERDUB mode.

## **Tempo Issues**

Pick any of those three sequences, go to the tempo field in the sequence and drop the tempo down to **50BPM (50.0)** and hit PLAY START. As you can hear, the problem with using large chops like this is that each chop is still tempo dependant as it contains a sequence of hits played at a specific tempo. So when you drop the tempo of your sequence, the regions are triggered at 50BPM, but each region is playing at 90BPM. It sounds pretty bad. The same is true if you increase the BPM – try it at **120 BPM (120.0)**. This time the regions are triggered so quickly the previous region is still playing when the next region is triggered or at best the timing sounds all over the place (because it is!).

There are workarounds – you could timestretch your chops to the new tempo, but timestretching is notoriously rubbish when dealing with large tempo changes (we'll use timestretch later in the book for a different sample). Another option is to tune your samples up or down to try to match the new BPM, but this would affect how each pad sounds, so it's not always desirable to dramatically change the pitch of your drums.

So this type of chopping is nice when you want to keep your chopped sequence at the same tempo as the original break. If you wish to take matters further, you'll need to chop your breaks into much smaller regions – in fact, it's simply best to chop right down to the individual drum kits, and we'll look at this in the next chapter.

That's the end of this free preview of the '**JJOSXL Sampling Bible**' – you can purchase the full book at MPC-Tutor.com!

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