

# Holy City Audio Forum

Former Home of SpinCAD Designer

[Skip to content](#)

Search...

[Advanced search](#)

[ Moderator Control Panel ]

## Sample/Hold Rate

Post a reply

Search this topic...

5 posts • Page **1** of **1**

- [Edit post](#) (./posting.php?mode=edit&f=31&p=2505)
- [Delete post](#) (./posting.php?mode=delete&f=31&p=2505)
- [Report this post](#) (./report.php?f=31&p=2505)
- [Warn user](#) (./mcp.php?i=warn&mode=warn\_post&f=31&p=2505&sid=d6d1dcc4501596550704606791e62b4c)
- [Information](#) (./mcp.php?i=main&mode=post\_details&f=31&p=2505&sid=d6d1dcc4501596550704606791e62b4c)
- [Reply with quote](#) (./posting.php?mode=quote&f=31&p=2505)

### Sample/Hold Rate (#p2505)

by **BuGG** » Sun Oct 11, 2015 3:20 am

How can I speed up the sampling rate of the S/H block?

I don't mind hand editing the SpinASM code if required if you could point me in the right direction.

Top

- [Edit post](#) (./posting.php?mode=edit&f=31&p=2506)
- [Delete post](#) (./posting.php?mode=delete&f=31&p=2506)
- [Report this post](#) (./report.php?f=31&p=2506)
- [Information](#) (./mcp.php?i=main&mode=post\_details&f=31&p=2506&sid=d6d1dcc4501596550704606791e62b4c)
- [Reply with quote](#) (./posting.php?mode=quote&f=31&p=2506)

### Re: Sample/Hold Rate (#p2506)

by **Digital Larry** » Sun Oct 11, 2015 6:06 am

Let's take a look at a patch using the sample/hold (since I don't recall off the top of my head):

```
; Patch: Untitled
; SpinCAD Designer version: 952
; Pot 0:
; Pot 1:
; Pot 2:
;
;
; -----
;----- Noise_AMZ
SKP RUN ,2
SOF 0.0000000000,0.6660000000
WRAX REG0,0.0000000000
LDAX REG0
AND $00000001
WRAX REG1,0.0000000000
RDAX REG0,0.5000000000
AND $007FFFFFFF
WRAX REG0,0.0000000000
LDAX REG1
SKP ZRO,4
CLR
LDAX REG0
XOR $00D80000
WRAX REG0,0.0000000000
LDAX REG0
ABSA
WRAX REG2,0.0000000000
;----- Input
;----- Pot 0
;----- SampleHold
SKP RUN ,1
WLDR 0, 20, 4096
LDAX POT0
MULX POT0
```

```

MULX POTO
SOF 0.5000000000,0.1000000000
WRAX RMP0_RATE,0.0000000000
CHO RDAL,2
SOF 1.0000000000,-0.2500000000
SKP ZRC,4
CLR
RDAX REG4,1.0000000000
WRAX REG3,0.0000000000
SKP ZRO,2
LDAX REG2
WRAX REG4,0.0000000000
;----- 2 pole low pass
etc etc etc

```

Looks like the key is here:

```

LDAX POTO
MULX POTO
MULX POTO
SOF 0.5000000000,0.1000000000
WRAX RMP0_RATE,0.0000000000

```

POTO can go from 0.0 to 1.0. Looks like I cube the pot value by using two MULXs. This just affects the overall curve and doesn't affect the end points. However the next SOF statement pins the range from 0.1 to 0.6. So if you want to let that go up higher, increase the first parameter (currently 0.5). You could take it up to 0.9 and still get control over the full pot range (as it will saturate when the value gets to 1.0). Let me know if this is fast enough to float your boat.

You could also make the slow end faster by making the offset higher.

e.g.

SOF 0.5, 0.5

This still maxes out at 1.0 but starts at 0.5.

Top

- [Edit post \(./posting.php?mode=edit&f=31&p=2507\)](#)
- [Delete post \(./posting.php?mode=delete&f=31&p=2507\)](#)
- [Report this post \(./report.php?f=31&p=2507\)](#)
- [Warn user \(./mcp.php?i=warn&mode=warn\\_post&f=31&p=2507&sid=d6d1dcc4501596550704606791e62b4c\)](#)
- [Information \(./mcp.php?i=main&mode=post\\_details&f=31&p=2507&sid=d6d1dcc4501596550704606791e62b4c\)](#)
- [Reply with quote \(./posting.php?mode=quote&f=31&p=2507\)](#)

### **Re: Sample/Hold Rate (#p2507)**

by **BuGG** » Sun Oct 11, 2015 6:45 am

Oh yeah, that gives *more* than enough, thanks!

I really need to dig into SpinAsm a bit, you've spoiled me with SpinCAD....

Top

- [Edit post \(./posting.php?mode=edit&f=31&p=2508\)](#)
- [Delete post \(./posting.php?mode=delete&f=31&p=2508\)](#)
- [Report this post \(./report.php?f=31&p=2508\)](#)
- [Information \(./mcp.php?i=main&mode=post\\_details&f=31&p=2508&sid=d6d1dcc4501596550704606791e62b4c\)](#)
- [Reply with quote \(./posting.php?mode=quote&f=31&p=2508\)](#)

### **Re: Sample/Hold Rate (#p2508)**

by **Digital Larry** » Sun Oct 11, 2015 10:04 am

I suppose I could add max/min speed controls to the S/H block. It wouldn't add any instructions as it is already using a SOF. It would just set the parameters.

The aliaser block is actually a S/H block that goes up into the audio range.

Top

- [Edit post \(./posting.php?mode=edit&f=31&p=2562\)](#)
- [Delete post \(./posting.php?mode=delete&f=31&p=2562\)](#)
- [Report this post \(./report.php?f=31&p=2562\)](#)
- [Warn user \(./mcp.php?i=warn&mode=warn\\_post&f=31&p=2562&sid=d6d1dcc4501596550704606791e62b4c\)](#)
- [Information \(./mcp.php?i=main&mode=post\\_details&f=31&p=2562&sid=d6d1dcc4501596550704606791e62b4c\)](#)

- [Reply with quote \(./posting.php?mode=quote&f=31&p=2562\)](#)

**Re: Sample/Hold Rate (#p2562)**by **iampoor** » Sat Dec 05, 2015 3:43 am**Digital Larry wrote:**

I suppose I could add max/min speed controls to the S/H block. It wouldn't add any instructions as it is already using a SOF. It would just set the parameters.

The aliaser block is actually a S/H block that goes up into the audio range.

YES! 🙄

Top

Display posts from previous:  Sort by   

Post a reply

5 posts • Page **1** of **1**[Return to SpinCADBlocks](#)Jump to:  Quick-mod tools:  **Who is online**Users browsing this forum: **Digital Larry** and 0 guests

Powered by phpBB® Forum Software © phpBB Group

**Administration Control Panel**