Holy City Audio Forum

Former Home of SpinCAD Designer
Skip to content

Search...   Search
Advanced search

[Moderator Control Panel]

Shimmer reverb problem

Post a reply

Search this topic...   Search

11 posts • Page **1** of **1**

- Edit post (./posting.php?mode=edit&f=30&p=3268)
- Delete post (./posting.php?mode=delete&f=30&p=3268)
- Report this post (./report.php?f=30&p=3268)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3268&sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3268&sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3268)

Shimmer reverb problem (#p3268)

by **ruggine** » Sat Oct 13, 2018 10:05 am

Hello,
I'm trying to make a working shimmer but I have not suceeded yet. The problem is that I get a "machine gun" noise coming form the output (I think due to the feedback) even if all my three knobs are at 0%. In the attached project, one pot controls the gain of the feedback and the other two change some reverb's parameters (decay and filter). I also tried to put some LP and HP in the feedback to block some unwanted frequencies but still get the same noisey output. I also tried the adjustable pitch shift block and at maximum I got the same problem, but it seemed to work with a lower pitch, but then I was not getting the shimmer effect anymore.

I forgot to mention that everything works fine on the simulator but issues start when I try the code in the fv1.

Thank you very much for your help!

Attachments
Shimmer.zip (./download/file.php?id=185)
(3.96 KiB) Downloaded 61 times
Top

- Edit post (./posting.php?mode=edit&f=30&p=3269)
- Delete post (./posting.php?mode=delete&f=30&p=3269)
- Report this post (./report.php?f=30&p=3269)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3269&sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3269)

Re: Shimmer reverb problem (#p3269)

by **Digital Larry** » Sun Oct 14, 2018 7:16 am

I can't answer your question outright, but I can give you some general pointers.

#1 you might want to reduce the gain going into the reverb block. Since reverbs are by nature regenerative (containing feedback loops) there is always the possibility of the signal building up to the point of distortion.

#2 Note that the shimmer implementation as shown is the only method currently possible with SpinCAD (where the feedback can only come into the reverb input because there's no other input). My sense is that the ideal way to do this is to insert the pitch shift within the reverb's delay ring, but that requires editing the Spin ASM by hand. One of these days I might develop a reverb block which brings the reverb ring loop points out for external connection.

#3 Patches with feedback loops often build up excessive DC which will eventually cause the patch to lock up on the FV-1. I don't know what is going on internally when this happens, but it can be cleared by switching programs then back. To manage this I often put an HPF in the feedback loop, which I see you have already done.

#4 Try making extreme adjustments to parameters like the HPF frequency, just to see whether that will really help at any point. Sometimes you might be tempted to just adjust things a little bit, but this will waste time if it doesn't matter how far you adjust it.

#5 Try using 2 instead of 3 delay lines in the reverb block. I haven't used this recently but these reverb blocks started from reference code that had 4 delay lines. I think there is something weird about using 3, a phase inversion or something like that. I've never seen a reference reverb patch with 3 delay lines.

Top
- Edit post (./posting.php?mode=edit&f=30&p=3270)
- Delete post (./posting.php?mode=delete&f=30&p=3270)
- Report this post (./report.php?f=30&p=3270)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3270& sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3270& sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3270)

Re: Shimmer reverb problem (#p3270)

by **ruggine** » Sun Oct 14, 2018 12:44 pm

Thank you very very much for your fast and exhaustive answer. I'll try every suggestion you made and let you know. Unfortunately I won't be able to get my hands on the fv1 until the end of the week. I'll start working on spincad project.

Top
- Edit post (./posting.php?mode=edit&f=30&p=3284)
- Delete post (./posting.php?mode=delete&f=30&p=3284)
- Report this post (./report.php?f=30&p=3284)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3284& sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3284& sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3284)

Re: Shimmer reverb problem (#p3284)

by **ruggine** » Fri Oct 26, 2018 1:08 pm

Hello,

is it normal that when the feedback gain gets too high the output of the fv1 acts like a tremolo (it comes and goes periodically)? I am asking this just to be sure there is nothing wrong with my board.

Thank you

Top

- Edit post (./posting.php?mode=edit&f=30&p=3285)
- Delete post (./posting.php?mode=delete&f=30&p=3285)
- Report this post (./report.php?f=30&p=3285)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3285&sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3285)

Re: Shimmer reverb problem (#p3285)

by **Digital Larry** » Sat Oct 27, 2018 6:45 am

Well all I can say is that occasionally when my patches get out of control the FV-1 will lock up completely. But I have nothing to do with the FV-1 chip itself so that question is best directed at Frank over on the Spin forum.

Top

- Edit post (./posting.php?mode=edit&f=30&p=3289)
- Delete post (./posting.php?mode=delete&f=30&p=3289)
- Report this post (./report.php?f=30&p=3289)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3289&sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3289&sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3289)

Re: Shimmer reverb problem (#p3289)

by **ruggine** » Sun Oct 28, 2018 7:39 am

Oh, ok thanks, I'll ask there. Btw I found a bug, I guess, in the rom reverb 1 block. I know this is off topic but I just don't think starting a new thread would be better.
The bug is that you can't use pot 1 because it's still linked to the filter of the reverb in the code.
You have to remove manually the code in your generated asm file in order to assign the pot to other controls. I don't know if this was meant to be like this. Hope this can be of help.

Thank you

Top

- Edit post (./posting.php?mode=edit&f=30&p=3290)
- Delete post (./posting.php?mode=delete&f=30&p=3290)
- Report this post (./report.php?f=30&p=3290)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3290&sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3290)

Re: Shimmer reverb problem (#p3290)

by **Digital Larry** » Sun Oct 28, 2018 8:26 am

> *ruggine wrote:*
> Oh, ok thanks, I'll ask there. Btw I found a bug, I guess, in the rom reverb 1 block. I know this is off topic but I just don't think starting a new thread would be better.
> The bug is that you can't use pot 1 because it's still linked to the filter of the reverb in the code. You have to remove manually the code in your generated asm file in order to assign the pot to other controls. I don't know if this was meant to be like this. Hope this can be of help.
>
> Thank you

Fair enough, thanks for the observation. See: viewtopic.php?f=33&t=1816 (http://holycityaudio.com /forum/viewtopic.php?f=33&t=1816)

Top
- Edit post (./posting.php?mode=edit&f=30&p=3294)
- Delete post (./posting.php?mode=delete&f=30&p=3294)
- Report this post (./report.php?f=30&p=3294)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3294& sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3294& sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3294)

Re: Shimmer reverb problem (#p3294)
by **ruggine** » Wed Oct 31, 2018 5:41 am

Thank you very much for posting it in the right place!

Top
- Edit post (./posting.php?mode=edit&f=30&p=3299)
- Delete post (./posting.php?mode=delete&f=30&p=3299)
- Report this post (./report.php?f=30&p=3299)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3299& sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3299& sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3299)

Re: Shimmer reverb problem (#p3299)
by **Zerikin** » Mon Nov 05, 2018 6:17 am

There are two shimmer programs in this thread as well. I'm planning to convert the 2nd one to a spincad block soon. I just tested them both last night and they work.

http://www.spinsemi.com/forum/viewtopic ... r&start=30 (http://www.spinsemi.com/forum /viewtopic.php?f=4&t=144&hilit=shimmer&start=30)

Top
- Edit post (./posting.php?mode=edit&f=30&p=3312)
- Delete post (./posting.php?mode=delete&f=30&p=3312)
- Report this post (./report.php?f=30&p=3312)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3312&

sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3312&
  sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3312)

Re: Shimmer reverb problem (#p3312)
by **ruggine** » Tue Nov 06, 2018 5:18 pm

Thank you very much for your reply. Yes, I've found that post days ago and ended up using the second code with minor changes, works like a sharm, it never gets to self-oscillation.
Adding it as a block would be a really good thing!

Top
- Edit post (./posting.php?mode=edit&f=30&p=3313)
- Delete post (./posting.php?mode=delete&f=30&p=3313)
- Report this post (./report.php?f=30&p=3313)
- Warn user (./mcp.php?i=warn&mode=warn_post&f=30&p=3313&
  sid=7d357bc30efed689c7cc357689bb7e9d)
- Information (./mcp.php?i=main&mode=post_details&f=30&p=3313&
  sid=7d357bc30efed689c7cc357689bb7e9d)
- Reply with quote (./posting.php?mode=quote&f=30&p=3313)

Re: Shimmer reverb problem (#p3313)
by **Zerikin** » Tue Nov 06, 2018 6:11 pm

I made a block and posted it. Just need it to be added to a release now.

Top

Display posts from previous:	All posts	Sort by	Post time	Ascending	Go	

Post a reply
11 posts • Page **1** of **1**
Return to SpinCAD Designer patches

Jump to:	SpinCAD Designer patches	Go	

Quick-mod tools:	Lock topic	Go	

Who is online

Users browsing this forum: Digital Larry and 0 guests
Powered by phpBB® Forum Software © phpBB Group
Administration Control Panel