

Latency in Miditzer

Latency

Latency is the time lapse between pressing a note and hearing the sound. This is a common phenomenon with pipe organs due to the distance between the pipes and the organ console. This can be frustrating to organists new to real or virtual pipe organs causing their playing to progressively slow as their ear waits for the sound to be heard especially with fast pieces.

A new version of Miditzer is currently underway that is aiming to significantly reduce latency by upgrading the version of FluidSynth, involved in processing Miditzer's sound.

Causes

There are a number of likely causes of latency including:

- The PC (or laptop) specifications do not meet the recommended requirements for Miditzer.
- Miditzer is competing with too many other processes on the PC.
- Miditzer is running at too low a priority.
- The FluidSynth settings within Miditzer setup are poorly set.

Setting Miditzer's Run Priority

A simple way to increase the run priority of Miditzer is to create a batch file and "SEND" that batch file to the desktop so it can be run from there. Increasing priority means Miditzer will get a greater share of the PC's processing power.

1. Open NotePad and copy/paste the lines of code below (between the +++'s).

Note: you may need to change the name of the path "**Program Files (x86)**" to wherever your "Miditzer Style 216" folder resides.

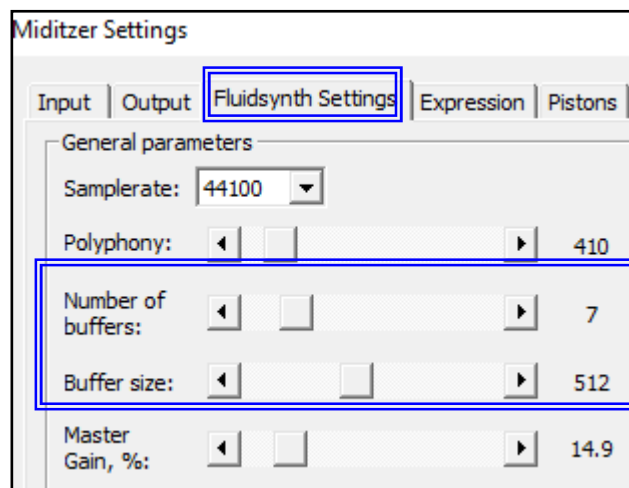
```
+++++  
@echo off  
:start  
cls  
cd \  
cd \Program Files (x86)\Miditzer Style 216  
start /high Miditzer216.exe  
:end  
+++++
```

2. Save the file as "StartMidityzer.bat" and copy it to your "Midityzer Style 216" folder.

3. You can SEND the batch file to the desktop as a short-cut and run it from there. Right-click on the batch file and select "Send To" ... "Desktop (create shortcut)". Test to ensure that the desktop icon does open Midityzer.

What To Do In Midityzer

1. Click on the Yellow Midityzer icon in the top left corner of the onscreen console and select "Midityzer Settings".
2. On the "FluidSynth" tab, reduce the "Number of Buffers" (click the slider end tab) from the default 8 to say 6 and listen to the impact. Try even 5 but if you get poor sound, move it back up 1 at a time.
3. You can also adjust the "Buffer Size" marginally - it's a bit "hit and miss" and the optimal settings are different for different PCs. So play around with these two parameters.



PC Performance Tweaks

The following are things you can try in order to get the best performance out of Miditzer if your PC is struggling. You should ***make any changes one at a time with caution*** and check the impact. These settings are for Windows XP and will have their equivalents in later Windows releases.

CAUTION: You should seek assistance and advice before making any of these changes especially if you don't understand fully the impact the changes will make to other programs/processes you may want to run on the PC.

- Turn off any **unnecessary services or programs** in Windows that run in the back ground.
- Switch off **Power Schemes**: Start>Settings>ControlPanel>PowerOptions>“Always On”. Set: “Turn off monitor” and “Turn off hard discs” to “Never”.
- Disable **Automatic Desktop Cleanup**: Start>Settings>ControlPanel>Display>Desktop>CustomizeDesktop. Untick "Run Desktop Cleanup Wizard every 60 days.
- Disable **Hide Inactive Icons**: Start>Settings>TaskbarAndStartMenu>Taskbar TAB. Uncheck "Hide Inactive Icons".
- Set **Visual Effects** to "Best Performance": Start>Settings>ControlPanel>System>Advanced>PerformanceSettings>VisualEffects Tab. “Adjust for best performance”
- Disable **Remote Assistance**: Start>Settings>ControlPanel>System>Remote. Untick “Allow remote assistance invitations to be sent from this computer”
- Disable **Automatic Updates**: Start>Settings>Control>System>Automatic Updates. Turn off automatic updating with “I want to update my computer manually”.
- Disable **Internet Synchronize Time**: Start>Settings>Control Panel> Date and Time>Internet Time. Untick "Automatically synchronize with internet time server".
- Disable **Windows Sounds**: Start>Settings>ControlPanel>SoundsAndAudio Devices>Sounds Tab. Set Sound Scheme to “None”.
- Disable **System Restore**: Start>Settings>Control Panel> System> System Restore Tab. Tick the "Turn off System Restore on all Drives" .
- Disable **Fast User Switching**: Start>Settings>ControlPanel>UserAccounts. Change the way users log on or off: Untick “Use Fast User Switching”
- Set **Processor Scheduling** to background services rather than programs. Start>Settings>ControlPanel>System>Advanced>PerformanceSettings>Advanced Tab. Set to “Background Services”.

- Switch Off **Desktop Background Image**: Right Click Desktop>Properties>Desktop Tab. Set Background to "None".
- Disable **Screen Saver**: Right Click Desktop>Properties>Screen Saver: "None".
- Switch Off **Hibernation**: Start>Settings>ControlPanel>PowerOptions>Hibernate. Untick "Hibernation".
- Set **Do Not Map Through Soundcard**: Start>Settings>ControlPanel>Sounds AndAudioDevices>Hardware Tab. Highlight your soundcard from the list; Properties>AudioDevices. Highlight your soundcard from the list)> Properties: "Do not map through this device". Applications may still try to play sounds through your "pro" soundcard, so it is recommended that you disable this.
- **Startup and Recovery Options**: Right-click on My Computer and click on Properties>Advanced>StartUp & Recovery Settings. Uncheck "Automatically Restart".
- **Disable Error Reporting**: Start>Settings>ControlPanel>System>Advanced TAB>Error Reporting>Click the Disable Error Reporting box (Tick the "But Notify Me When Critical Errors Occur" if you prefer).
- **Fixed Swap File** (Virtual Memory)
Select the Advanced tab of the Systems applet and then select the Performance settings button. Then select the Advanced page. In here it is possible to customise the Virtual Memory. For custom size, this is often recommended to be 1.5 to 2 times the amount of your total RAM for both initial and maximum size. Set this to a fixed minimum and maximum value according to your existing RAM
- **Disable Offline Files**: Start>Settings>ControlPanel>FolderOptions>Offline Files. Untick "Enable Offline Files".