

```
% Rust and Matlab Audio File Imports
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```
rust_file1 = 'MajorTom16_out.wav'
```

```
rust_file1 =  
'MajorTom16_out.wav'
```

```
[ry1, Fsr1] = audioread(rust_file2);  
rust_file2 = 'Piano_out.wav';  
[ry2, Fsr2] = audioread(rust_file3);
```

```
out_file1 = 'MajorTom16_matlab.wav';  
[my1, Fsm1] = audioread(out_file2);  
out_file2 = 'Piano_matlab.wav';  
[my2, Fsm2] = audioread(out_file3);
```

```
% Generate x axis for plot
```

```
diff1 = minus(ry1, my1);  
diff2 = minus(ry2, my2);  
t1 = seconds(0:1/Fsr1:(size(diff1,1)-1)/Fsr1);  
t2 = seconds(0:1/Fsr2:(size(diff2,1)-1)/Fsr2);
```

```
% Plot Matlab and Rust vibrato implementations for 2 audio files
```

```
t = tiledlayout(2,1);  
nexttile  
plot(t1, ry1)  
hold on  
plot(t1, my1)  
legend({'Rust', 'Matlab'}, 'Location', 'northwest')  
hold off  
title('Audio 1 Difference between Rust and Matlab Vibrato Implementations')  
ylabel('Amplitude')  
xlabel('Time (sec)')  
  
nexttile  
plot(t2, ry2)  
hold on  
plot(t2, my2)  
legend('Rust', 'Matlab')  
hold off  
title('Audio 2 Difference between Rust and Matlab Vibrato Implementations')  
ylabel('Amplitude')  
xlabel('Time (sec)')
```

