

# Change midi instrument

June 8, 2020

```
[82]: from mido import MidiFile, Message
```

## 1. Calimix

```
[110]: SD='results/Calimix/SD.mid'  
       SC='results/Calimix/SC.mid'  
       SF='results/Calimix/SF.mid'  
       LA='results/Calimix/LA.mid'
```

```
[111]: SD_mid=MidiFile(SD)  
       SC_mid=MidiFile(SC)  
       LA_mid=MidiFile(LA)  
       SF_mid=MidiFile(SF)
```

```
[112]: def change_all_instrument(tracks, num, cha):  
       for i in tracks:  
           i.insert(0,Message('program_change', program=num, time=0, channel=cha))
```

```
[113]: def change_all_channel(tracks, num):  
       for i in tracks:  
           for j in i:  
               try:  
                   j.channel=num  
               except Exception:  
                   print(j)
```

```
[115]: change_all_instrument(SD_mid.tracks, 56,0)# Trumpet  
       change_all_instrument(SC_mid.tracks, 40,1)# violin  
       change_all_instrument(SF_mid.tracks, 19,2)# church organ  
       change_all_instrument(LA_mid.tracks, 97,3)# soundtrack
```

```
[114]: change_all_channel(SC_mid.tracks, 1)  
       change_all_channel(SF_mid.tracks, 2)  
       change_all_channel(LA_mid.tracks, 3)
```

```
<meta message track_name name='Track 0' time=0>  
<meta message set_tempo tempo=500000 time=0>  
<meta message end_of_track time=0>  
<meta message track_name name='Track 0' time=0>
```

```

<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 1' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 2' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 3' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>

```

```

[116]: SD_mid.tracks.extend(SC_mid.tracks)
       SD_mid.tracks.extend(LA_mid.tracks)
       SD_mid.tracks.extend(SF_mid.tracks)
       SD_mid.save('results/calimix_various.mid')

```

The various instrument version feels more urgent

## 2. Texas

```

[117]: AU_mid=MidiFile('results/Texas/AU.mid')
       DA_mid=MidiFile('results/Texas/DA.mid')
       EI_mid=MidiFile('results/Texas/EI.mid')
       HS_mid=MidiFile('results/Texas/HS.mid')

```

```

[118]: change_all_channel(DA_mid.tracks, 1)
       change_all_channel(EI_mid.tracks, 2)
       change_all_channel(HS_mid.tracks, 3)

```

```

<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>

```

```

[119]: change_all_instrument(AU_mid.tracks, 27,0)# electric guitar (clean)
       change_all_instrument(DA_mid.tracks, 33,1)# electric bass (finger)
       change_all_instrument(EI_mid.tracks, 4,2)# electric piano
       change_all_instrument(HS_mid.tracks, 118,3)# synth drum

```

```
[120]: AU_mid.tracks.extend(DA_mid.tracks)
AU_mid.tracks.extend(EI_mid.tracks)
AU_mid.tracks.extend(HS_mid.tracks)
AU_mid.save('results/Texas_various.mid')
```

The drum beat gives more tense feeling

### 3. NY mix

```
[121]: WY_mid=MidiFile('results/NYmix/WY.mid')
AL_mid=MidiFile('results/NYmix/AL.mid')
SA_mid=MidiFile('results/NYmix/SA.mid')
ES_mid=MidiFile('results/NYmix/ES.mid')
```

```
[122]: change_all_channel(AL_mid.tracks, 1)
change_all_channel(SA_mid.tracks, 2)
change_all_channel(ES_mid.tracks, 3)
```

```
<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
<meta message track_name name='Track 0' time=0>
<meta message set_tempo tempo=500000 time=0>
<meta message end_of_track time=0>
```

```
[123]: change_all_instrument(WY_mid.tracks, 40,0)# violin
change_all_instrument(AL_mid.tracks, 10,1)# music box
change_all_instrument(SA_mid.tracks, 52,2)# choir aahs
change_all_instrument(ES_mid.tracks, 54,3)# synth choir
```

```
[124]: WY_mid.tracks.extend(AL_mid.tracks)
WY_mid.tracks.extend(SA_mid.tracks)
WY_mid.tracks.extend(ES_mid.tracks)
WY_mid.save('results/NYmix_various.mid')
```

Using people's singing to represnet a feeling of emptiness and terror

```
[ ]:
```