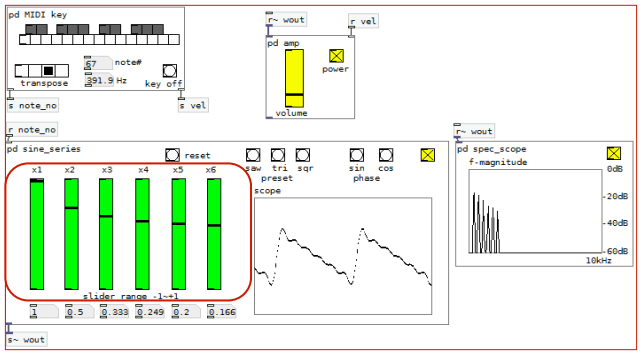
Pure Data (Pd)
音の合成とエフェクトに関する例題

Pure Data Examples for Sound Synthesis and Effects

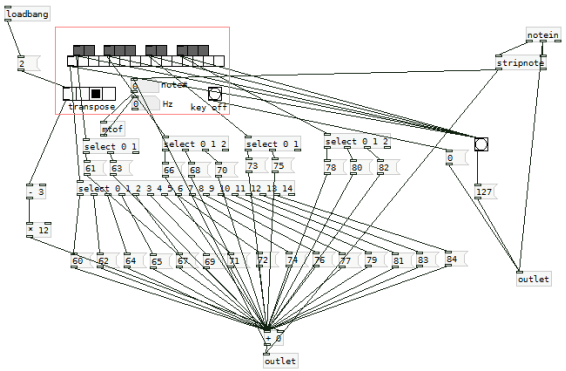
1. 加算合成 Additive Synthesis

6次までの倍音の合成

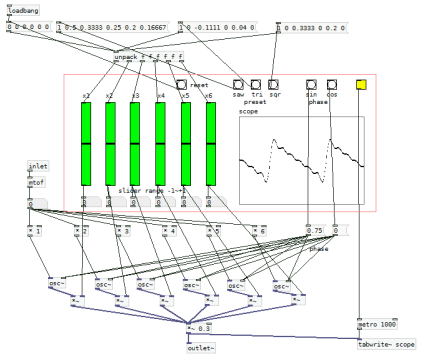
Adding sine waves up to 6th harmonics. ex106b.pd



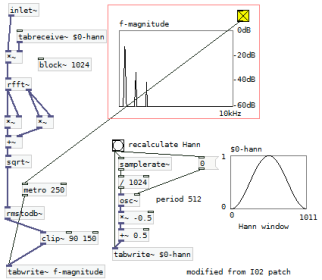
Sub patch "pd MIDI key"

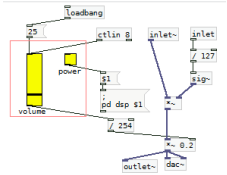


Sub patch "pd sine series"



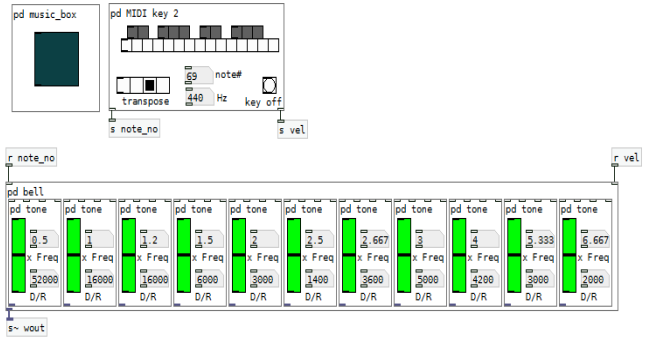
Sub patch “pd spec_scope” & “pd amp”





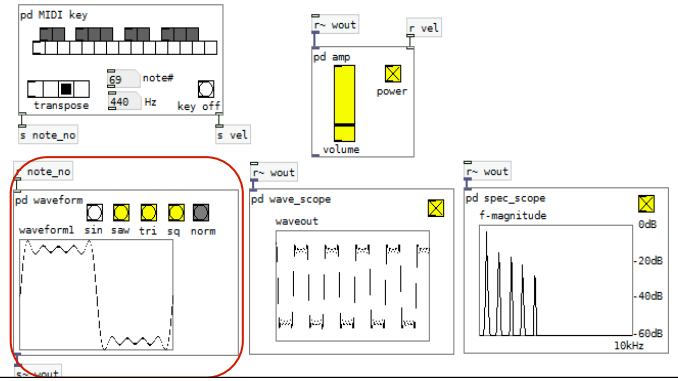
■鐘の音　Bell sound　ex112.pd

高調波の周波数が倍数にない鐘などの音色の合成

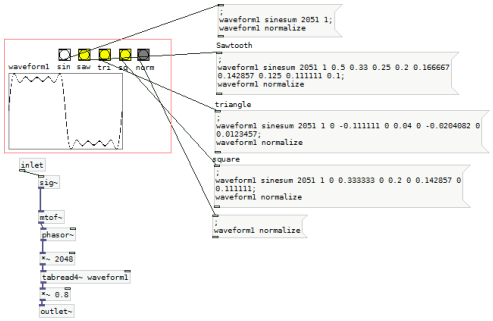


2. 波形テーブルによる減算合成
Wave table synthesis

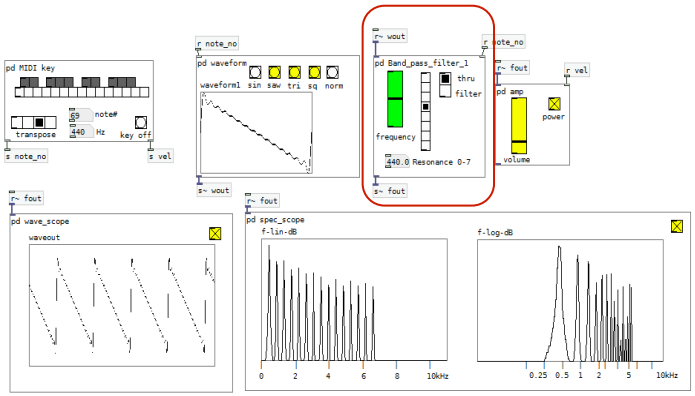
波形テーブル合成 Wave table synthesizer　ex101.pd



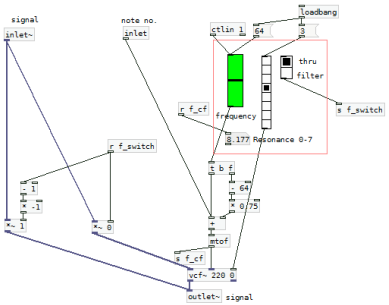
Wave table sub patch “pd waveform”



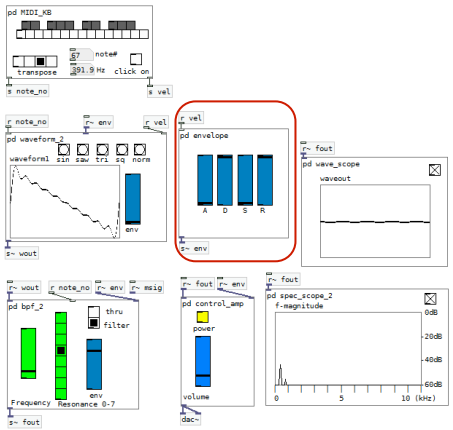
バンドパスフィルターを加える
Adding band pass filter　ex109b2.pd



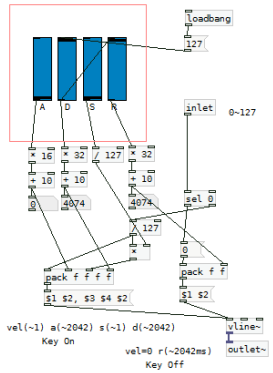
Sub patch “pd band_pass_filter”



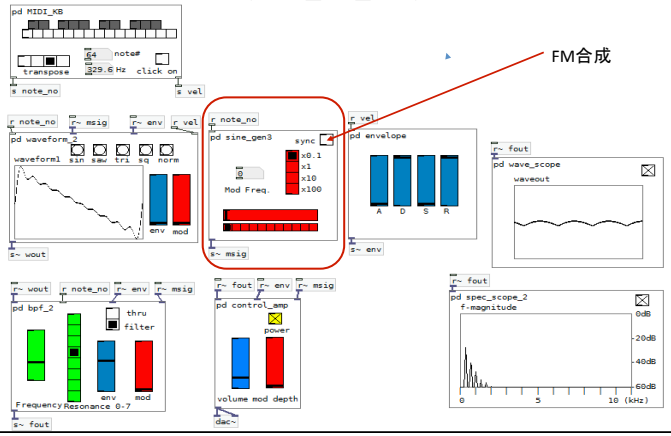
エンベロープジェネレータを加える
Adding envelope generator　ex111a.pd



Sub patch “envelope”

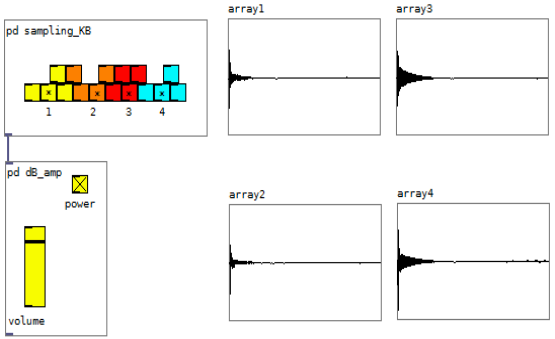


変調用のサイン波発振器を加える
Adding sine wave oscillator for modulation
Synth_wt_02.pd

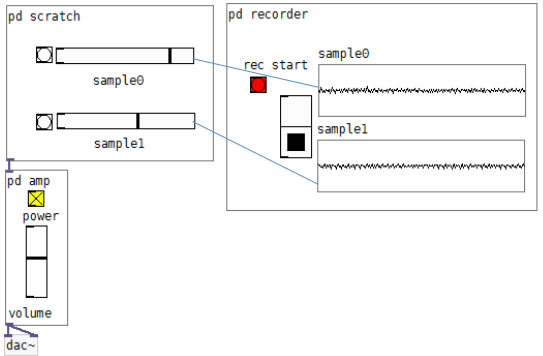


3. サンプリング音源 Sampling

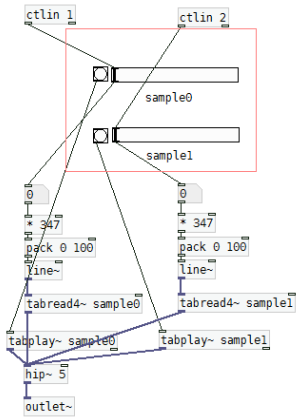
カリンバのサンプリング Sampling of Kalimba(Mbira) ex118.pd



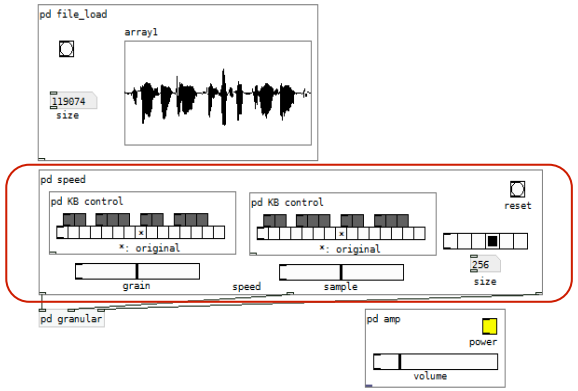
スクラッチ・サウンド
Scratch sound scratch_002a.pd



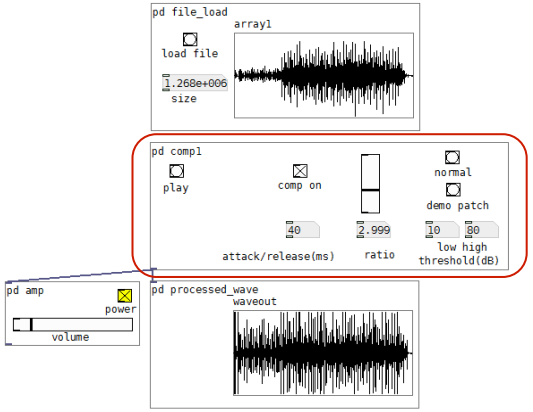
Sub patch “pd scratch”



グラニュラー合成
Granular synthesis (test version)　ex119.pd

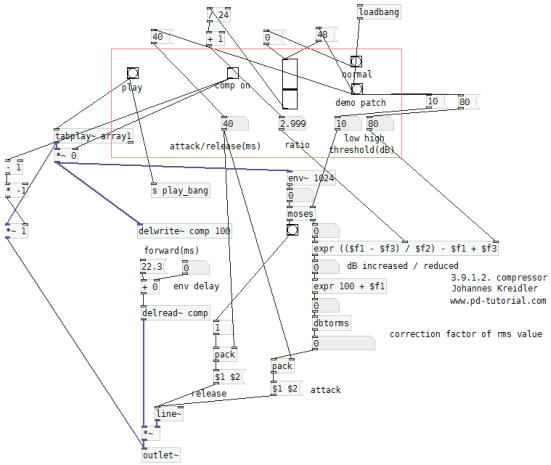


4. ダイナミックレンジの調整
Dynamic Range Compression

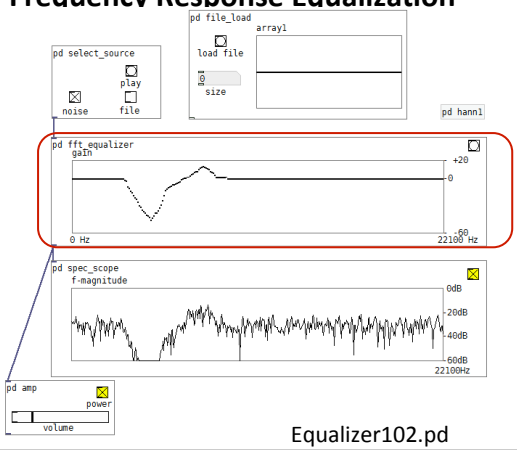


コンプレッサー　compressor101.pd

Sub patch “pd comp”

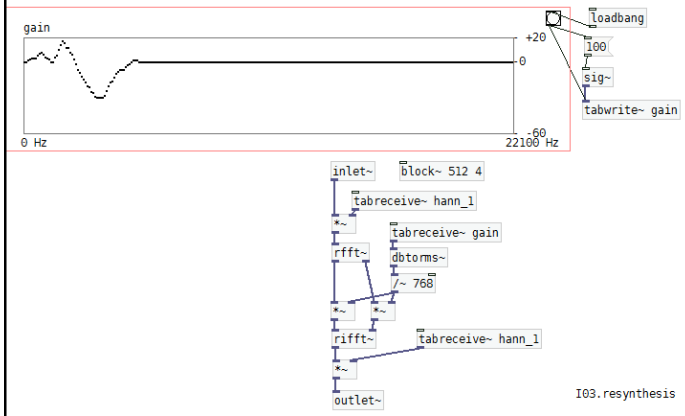


5. 周波数特性の調整
Frequency Response Equalization



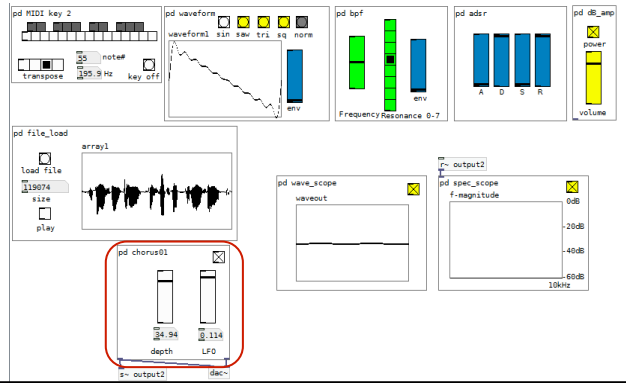
Equalizer102.pd

Sub patch “pd fft _equalizer”

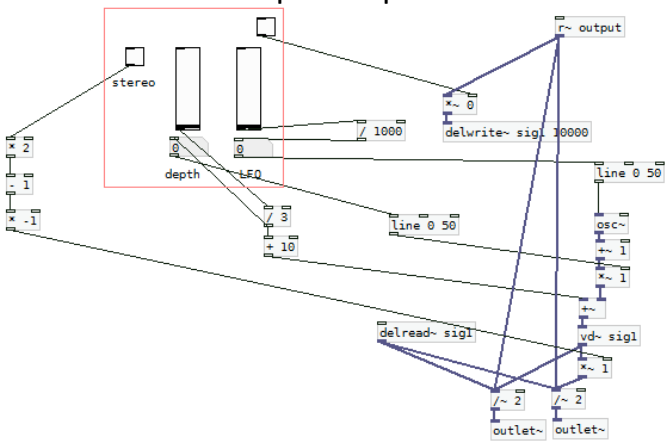


6. 遅延と残響 Delay and Reverberation

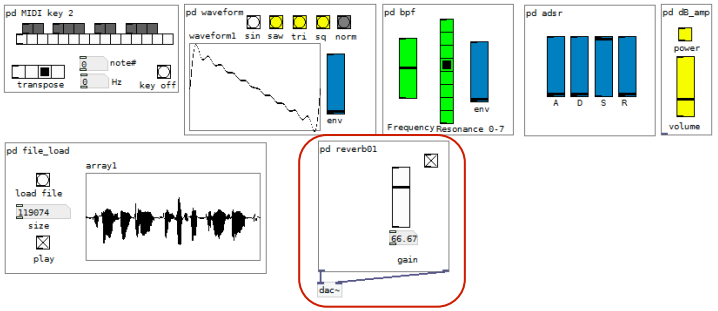
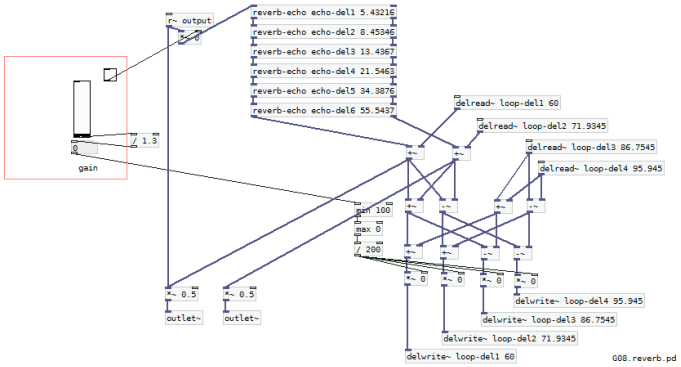
遅延によるコーラス効果 chorus by modulated delay time
spatial_chorus02.pd



Sub patch “pd chorus”



人工残響 Artificial reverberation
spatial_reverb01.pd (with reverb-echo.pd)



Sub patch “pd reverb”