



## Simple MIDI Sequencer (SMS) — Main Features

- Compatible with at least **GNU/Linux + macOS + Windows** Operating systems (Thanks to Purr Data)
- Compliant with **General MIDI 1 (GM 1) specifications** based on Standard MIDI-File (SMF) Format Spec. 1.1
- **GUI** with 15x Zoom levels + Full screen view
- **Modular design architecture** allowing easy and freely reuse of modules (patches/sub-patches) in other projects
- **5x Main Modules with GOP** (Graph-on-Parent – GUI): [pd seq] + [pd display] + [pd ctrls] + [pd audio] + [pd dt]
- **3x Additional Modules** (without GOP): [pd help] + [pd tools] + [pd license]
- **MIDI Sequencer & Player (General Purpose) - [pd seq]**
  - MIDI-In/Out Sequencer for real-time performances
  - Record 1x Track / 16x Channels (Type 0) + SYSEX (System Exclusive)
    - Play SMF (Standard MIDI File) Types 0 (mono-track) and 1 (multi-track) & Text files (Purr Data format) + SYSEX (System Exclusive)
      - Read/Write MIDI files (.mid, .kar & .txt) from/to RAM/HDD-SSD-USB
      - Playback Tempo from 40 to 240-480 BPM
      - Record/Play Chronograph (mm:ss) up to several hours
      - Banner for MIDI & Audio messages from SMS to the performer
- **MIDI-In & Sequencer-Out Activity - [pd display]**
  - Displays MIDI Messages in real-time
  - Notes: channel (1-16) / number-pitch (0-127) / velocity (0-127) / bend (only MSB 0->63<-127) / after-touch & breath like (0-127) / name (C-G#) / octave (with P#60=C4: #0-8 & P-Scale#12-119), •Volume and Expression (CC): levels (0-127), •Control Changes (CC): channel (1-16) / number (0-127) / value (0-127), •Program Changes (PC): channel (1-16) / number (0-127), •SysEx In/Out: flow (240<sub>d</sub>...xxx...247<sub>d</sub> / F0<sub>h</sub>...xx...F7<sub>h</sub>)
- **GM Controllers – PC & CC MIDI-Out - [pd ctrls]**
  - 1x Program Change (PC) + 12x Control Change (CC) Controllers
    - Send predefined & user defined GM Controllers messages to internal/external MIDI equipment: •CC channel (1-16) / number (0-127) / value (0-127) with the possibility to combine MSB & LSB values -and- •PC channel (0-127) / number (0-127)
- **Audio/Voice Recorder & Player - [pd audio]**
  - Direct to/from disk
  - Record/Play stereo Audio tracks with CD/DVD quality (16-bit resolution with user defined 44.1 or 48 kHz sample rate based on Nyquist–Shannon sampling theorem)
    - Write/Read Audio files: free/libre .OGG (Vorbis), Microsoft .WAV, Apple .AIF, Sun/Next .AU and .SND
    - Write Audio files: .MP3... but .MP3 Read is not available yet!
    - Synchronized Copy of MIDI-to-Audio files: Read MIDI from-RAM => Synth / SoundFont => Write Audio to-Disk
      - Recorder/Player Stereo Graphs & Vu-Meters
      - Record/Play Chronograph (mm:ss) up to several hours
- **[pd dt]** - Display current Date & Time (useful when SMS is in full screen view)
- **[pd help]** - An embedded help on How-To use SMS (today only in English)
- **[pd tools]** - 5x useful MIDI/Audio tools
  - MIDI Chords Detector/Guesser (up to 6 notes with Highest MIDI note number limit)
  - MIDI Notes Scaler (scales a stream of numbers to a MIDI note number)
  - MIDI-to-Frequency Converter (convert MIDI Note Nbs to Wave/Signal Frequency Nbs)
  - Frequency-to-MIDI Converter (convert Wave/Signal Frequency Nbs to MIDI Note Nbs)
  - 7x MIDI Channel Status / Hex<sub>(16)</sub>-to-Decimal<sub>(10)</sub> Converters: Note Off/On (8n<sub>h</sub>/9n<sub>h</sub>), Poly Key AfterTouch (An<sub>h</sub>), Control Change (CC) On (Bn<sub>h</sub>), Program Change (PC) On (Cn<sub>h</sub>), Channel AfterTouch (Dn<sub>h</sub>) and Pitch Bend (En<sub>h</sub>)

