The SpeakJet Control Application Software v.0.2

You should have come here from the Midibox SpeakJet Project. On this page you'll find descriptions of the Application Software kII for the Core Module, that controls the MBHP-IIC-SpeakJet-Module.

The SJ Control Application Software provides full access to all SJ-Functions via MIDI!

kII is a MIDI control application for the MBHP_SpeakJet Module. By connecting a Core equipped with this program to the SpeakJet Module via IIC you can control nearly all functions of the SpeakJet Chip by Midi-Messages.

kII stands for “Kempelen Two”, Baron Wolfang von Kempelen has been a hungarian inventor and creator of famous automats. Whereas his most famous creatin has been the “Turkish Chessplayer” (which was a late-revealed fake with a chess-player sitting inside), he also invented one of the first talking machines ever. Baron Kempelen lived from 1734 to 1804.

If you are improving the application, please send me an email or PM me in the forum, so I can update the project! *–audiocommander*

Features

- Full MSA and SCP Control via Midi!
- Trigger Allophones and SoundFX by Notes
- Trigger Allophones only by Notes
- Trigger SoundFX only by Notes
- Jaw/Tongue control: set position of jaw and tongue by CC, play pitched Allophone by Notes
- Different Jaw/Tongue sets available: Vowels/Consonants/Pauses
- Change the pitch of currently played Allophones by Notes 0..59
- Play the 5 Oscillators by Notes, one OSC per Channel
- Harmonic subtractive syntesis Multi-OSC playmode by Notes(!)
- Control Waveforms (shapes) of harmonic synthesis Multi-OSC mode
- Change Allophone Pitch by using the 14bit PitchBend-Wheel
- Control Bend with CH_AFTERTOUCH
- Control Speed by CC
- Control Master Volume by CC
- Send Pauses by CC
- Send Next Slow/High/Low/Fast by CC
- Control OSC-Frquencies and Levels by CC
- Control ENV-Frequency and Type by CC
- Control Distortion (OSC 4 & 5) by CC
- Fire Phrases by CC
- Supports System Realtime Messages START, STOP, CONTINUE, RESET
- Send PANIC by Foot & AllNotes/SoundsOFF Messages

- Custom assignable controls by editing the definition listing (IIC_SpeakJetMidiDefines.h)
- AIN sensors to trigger & control natural speech (allophone) output (see HandTracker Control Add-On)

Sometimes it's more important to know what it can't do (yet?):

- Multiple MBHP-IIC-Speakjet Modules (cascaded SpeakJets!) [1)]
- Bankstick support to save patches [1)]
- Phrase storage (use the Phrase-A-Lator from Magnevation via RS232!) [2)]

[1)] would be nice, I'm thinking about it...
[2)] don't wait for it (or help coding :)

Required Hardware

- 1 Core Module
- 1 IIC-SpeakJet Module
- 1 8×1 LCD (optional)

More Infos soon! (In the meanwhile please consult the docs for v0.1)

Download

- preliminary beta: http://www.audiocommander.de/downloads/midibox/kII_026_070918.tgz

MIDI-Implementation-Chart

soon! (In the meanwhile please consult the docs for v0.1)

Tools & Helpers

If you're a developer and are working on your own implementations, you will find these sources useful:

- SpeakJet Control Overview (SCP and MSA Control Overview)
- SpeakJet Definition List (SCP and MSA Command #defines)
- Midi Definition List incl. Note2Frequency definitions (see MIDI Specification)