

Karlheinz Essl

# **Sequitur V**

for toy piano and live-electronics

2008-2012

Dedicated to Isabel Ettenauer

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[www.essl.at](http://www.essl.at)

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## **Sequitur** (2008)

for various solo instruments and live-electronics

*Sequitur* is a series of compositions for solo instruments and live-electronics which are written for outstanding soloists. The aim is to create various pieces which use the same computer program – the so-called *Sequitur-Generator* – written in MaxMSP. It generates a complex 8-part canon from the instrument's live input as an accompaniment. Unlike traditional canons, the individual canonic layers do not enter at regular intervals but in a sort of acceleration which results in an increasing structural density. Moreover, the single canonic layers are getting gradually distorted – as if they were decaying. And at last, the 8 parts do not always play together, but are constantly cross-faded by using random operations which results in every-changing and unforeseeable structural interactions where the canon can vary between 1 and 8 voices.

In other words: A strict and mechanical construction principle of the canon (hence the title *Sequitur* from the latin word which translates into "it follows") is subversively excavated. This finally results in an unpredictable system that in fact uses the input of the soloist as its basic material but also shows an autonomous and surprising behaviour.

This dichotomy challenges the soloist who is performing a score which consists of accurately notated musical actions that are separated by fermatas. As the lengths of those fermatas is not indicated, the performer decides how long they should last - according to the output which the computer creates in real time.

Finally, the computer-generated canon structures run through a series of sound transformers (like ringmodulator, detuner, flanger and comb filter) where the sonic shape of the sound is being altered. These are controlled by a sequence of pre-composed preset which can be called by the player by pressing the space on his computer keyboard according to the indications of the score. At each key stroke, the next preset will be loaded which gradually changes the positions of the FX sliders.

The title *Sequitur* advertently relates to the famous "Sequenze" of Luciano Berio. It is an attempt to write a series of pieces which take advantage of the idiosyncratic instrumental possibilities - and confront them with a realtime sound processing environment that has its own secret life.

More information at:

<http://www.essl.at/works/sequitur.html>

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## Sequitur V - Generator

live-electronic part for Karlheinz Essl's "Sequitur V" for toy piano and live-electronics  
© 2008-2012, vs. 2.2 for MacOS X (Universal Binary)

- 1) Connect an audio interface to your Apple computer.
- 2) Attach a contact microphone (like an AKG C 411) to the soundboard of your toy piano or use a dynamic mic (like a Shure SM 57) that points inside the open toy piano. Connect the mic with channel #1 of your audio interface. Adjust the input level thoroughly.
- 3) Plug the Expression Pedal into the first input of the EOWAVE Foot Control and connect the USB cable of this device with your computer. Now you can control the level of the electronics with your footpedal according to the red crescendo/decrescendo signs in the score. A red circle at the end or beginning of a red crescendo/decrescendo sign means that you have to move the pedal to the minimum.

Alternatively, you can also use a MIDI Solution Pedal Controller: Plug the Expression Pedal into the MIDI Solution Pedal Controller. Connect the MIDI OUT of your audio interface with the MIDI IN of the MIDI Solution Pedal Controller using a standard MIDI cable. Afterwards, connect the MIDI IN of your audio interface with the MIDI OUT of the MIDI Solution Pedal Controller likewise. Now you can control the level of the electronics with your footpedal.

If required, you can set the controller number of the pedal in the number box above "p Canon".

- 4) In the grey "Audio Status" window, select your "Core Audio" at "Driver". Then select the name of your audio interface in "Input Devices" and "Output Device". Afterwards, turn "Audio" to "On".
- 5) In the greenish field called "Input", you'll find three rotary knobs which you can use for adjusting the equalization (lo / mid / hi) of the microphone input. (This, however should not be necessary.)

NB: By pressing the <tab> key on your computer, you have to unmute the the microphone before you start playing.

NB: You can empty the delay lines of the canon by pressing the <esc> key on the computer keyboard.

- 6) In the field right to it called "Output" you find two brown vertical sliders. The first ("direct") let you set the volume of the toy piano. The second ("canon") controls the level of the canon with a MIDI pedal (see above).
- 7) The bottom field is dedicated to the "FX". You can play the piece alone by stepping through a sequence of presets according to the indications of the score. In order to switch to the next preset, just press the space bar.
- 8) The large window on the right shows the score of the piece. In order to view it, you need a monitor with a screen resolution of at least 1440 x 900 pixels. To go to the next page, hit the <return> key.
- 9) Recording: if you want to make a recording of your performance, click into the start/stop button above the "p Recorder" box in the top right corner of the main window. When you are finished, click the same button again. This recorder writes two sound files: SEQU-ToyPiano\_xxxx.aif is a mono sound file with the dry and unprocessed input signal whereas SEQU-Electronics\_xxxx.aif is a stereo sound file which contains the electronic part.

## Contact

Dr. Karlheinz Essl  
Studio kHz  
An der Donau-Au 1  
A-3400 Klosterneuburg  
Austria / Europe  
<http://www.essl.at>



rit. molto - - - - - a tempo (♩=72) 5

Musical score for measures 33-41. The score is in treble and bass clefs. Measure 33 starts with a *sfz* dynamic. The piece is marked *rit. molto* until measure 41, where it returns to *a tempo* with a tempo of ♩=72. A circled number 5 is placed above measure 41. The score includes various dynamics: *sfz*, *p*, *pp*, *mf*, and *ff*. There are also trills marked with 'trm' and a triplet of 3. Red wedge-shaped markings are present below the staff, indicating dynamics or phrasing.

Musical score for measures 42-52. The score is in treble and bass clefs. Measure 42 starts with a *f* dynamic. The piece is marked *rit. molto* until measure 52, where it returns to *a tempo* with a tempo of ♩=72. A circled number 6 is placed above measure 52. The score includes various dynamics: *f*, *mf*, *mp*, *p*, *pp*, *mp*, *mf*, and *ff*. There are also triplets of 5, 6, and 7. Red wedge-shaped markings are present below the staff, indicating dynamics or phrasing.

Musical score for measures 53-58. The score is in treble and bass clefs. Measure 53 starts with a *mp* dynamic. The piece is marked *rit. molto* until measure 58, where it returns to *a tempo* with a tempo of ♩=72. The score includes various dynamics: *mp*, *mf*, and *f*. There are also triplets of 3, 5, 6, and 7. Red wedge-shaped markings are present below the staff, indicating dynamics or phrasing.

Musical score for measures 59-64. The score is in treble and bass clefs. Measure 59 starts with a *ff* dynamic. The piece is marked *rit. molto* until measure 64, where it returns to *a tempo* with a tempo of ♩=72. The score includes various dynamics: *ff*, *f*, and *mf*. There are also triplets of 5, 6, and 7. Red wedge-shaped markings are present below the staff, indicating dynamics or phrasing.



103  $\text{♩} = 72$  [14]

mf mp p f p

accel. rit.

7 6 5 3 3 3 3

109  $\text{♩} = 72$  [15]

f p mf p f p mf

3 3 3 3

117 [16]  $\text{♩} = 36$

mf p p mf p mp p

rit.

3 3

124  $\text{♩} = 72$  [17]

p mp mf f ff fff ffff