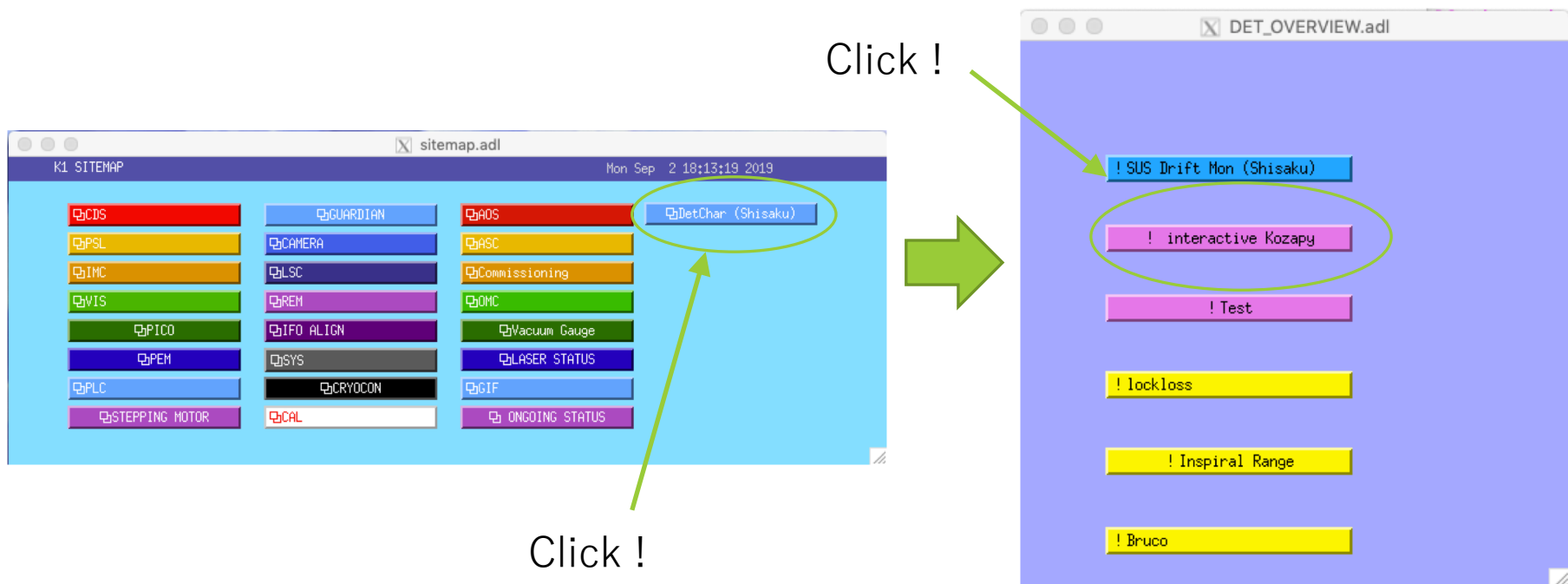


iKozapy tutorial

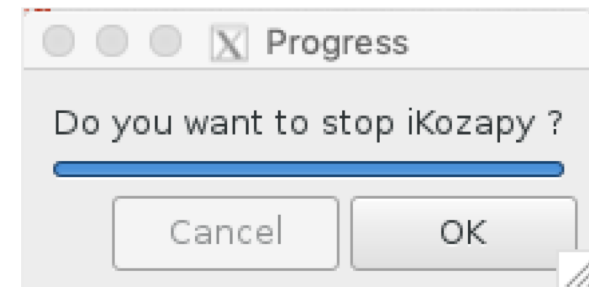
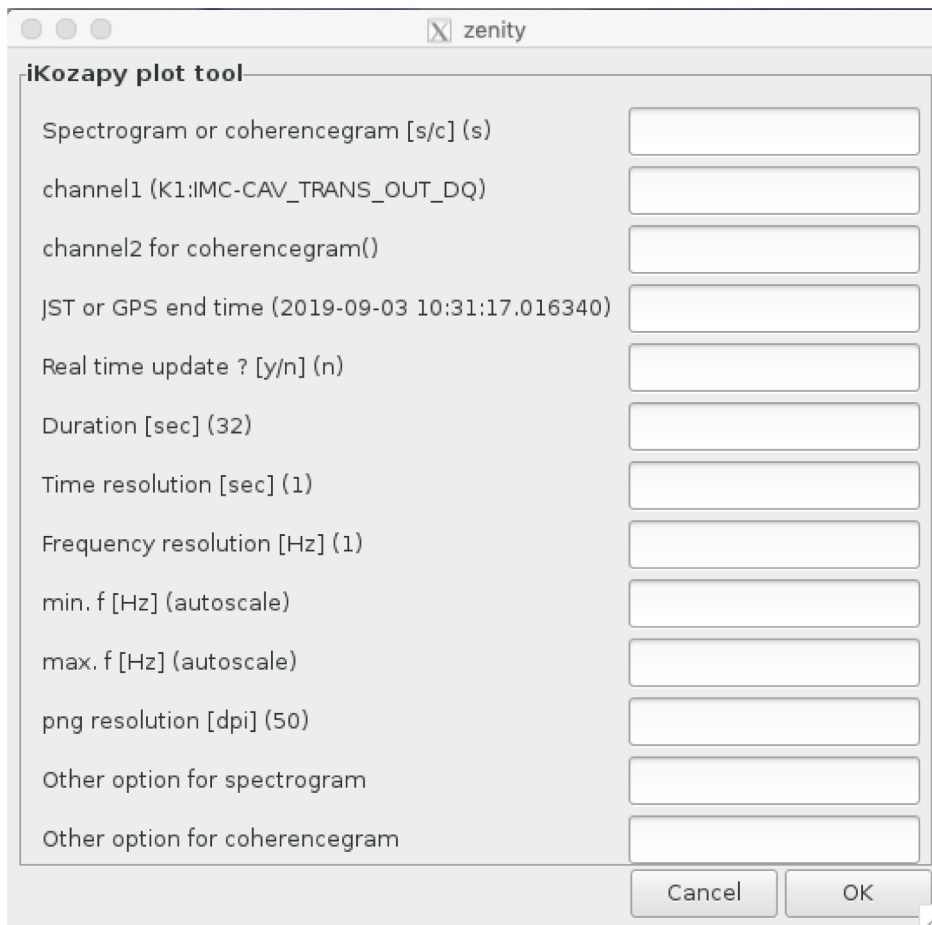
Chihiro Kozakai

Spectrogram/coherencegram tool

- New GUI tool to make spectrogram or coherencegram. It is available on Kamioka PCs.



- You will get 2 windows. You can start from bigger window.



- If not filled default value is applied (value in ()).

s for spectrogram, c for coherencegram

Channel name

2nd Channel name for coherencegram

END time (GPS or JST)

See p7

Data length.

The screenshot shows a window titled "iKozapy plot tool" with a "zenity" icon in the title bar. The window contains several input fields with default values in parentheses. Green arrows point from text labels on the left to specific fields in the dialog:

- "s for spectrogram, c for coherencegram" points to the "Spectrogram or coherencegram [s/c] (s)" field.
- "Channel name" points to the "channel1 (K1:IMC-CAV_TRANS_OUT_DQ)" field.
- "2nd Channel name for coherencegram" points to the "channel2 for coherencegram()" field.
- "END time (GPS or JST)" points to the "JST or GPS end time (2019-09-03 10:31:17.016340)" field.
- "See p7" points to the "Duration [sec] (32)" field.
- "Data length." points to the "Time resolution [sec] (1)" field.

The dialog also includes fields for "Real time update ? [y/n] (n)", "Frequency resolution [Hz] (1)", "min. f [Hz] (autoscale)", "max. f [Hz] (autoscale)", "png resolution [dpi] (50)", "Other option for spectrogram", and "Other option for coherencegram". At the bottom right are "Cancel" and "OK" buttons.

- If not filled, default value is applied (value in ()).

Time resolution is time bin width

Frequency resolution
(* $dt > 1/df$ is required)

Minimum frequency of the plot

Minimum frequency of the plot

PNG resolution, dot per inch

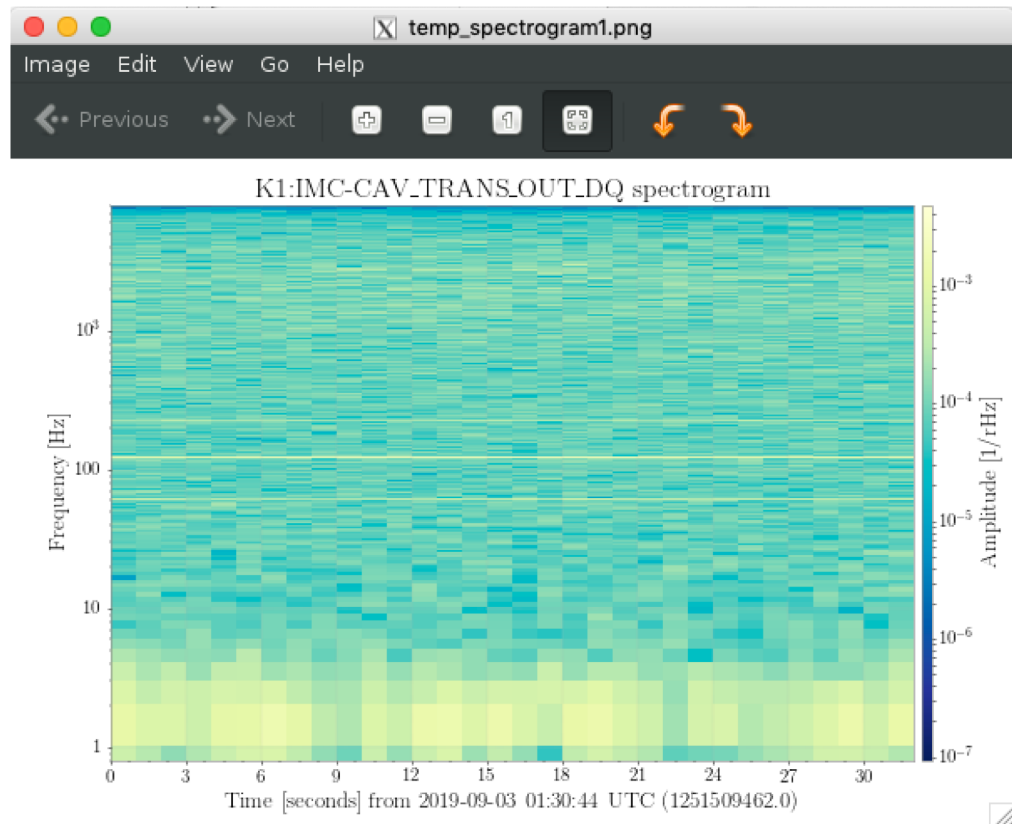
You can add any option available in
kozapy code.
e.g.) -w will apply whitening.

The screenshot shows a window titled "zenity" containing a dialog box titled "iKozapy plot tool". The dialog box has several input fields with their respective labels and default values in parentheses:

- Spectrogram or coherencegram [s/c] (s)
- channel1 (K1:IMC-CAV_TRANS_OUT_DQ)
- channel2 for coherencegram()
- JST or GPS end time (2019-09-03 10:31:17.016340)
- Real time update ? [y/n] (n)
- Duration [sec] (32)
- Time resolution [sec] (1)
- Frequency resolution [Hz] (1)
- min. f [Hz] (autoscale)
- max. f [Hz] (autoscale)
- png resolution [dpi] (50)
- Other option for spectrogram
- Other option for coherencegram

At the bottom right are "Cancel" and "OK" buttons. Green arrows from the text on the left point to the following fields: "Time resolution [sec] (1)", "Frequency resolution [Hz] (1)", "min. f [Hz] (autoscale)", "max. f [Hz] (autoscale)", "png resolution [dpi] (50)", and "Other option for spectrogram".

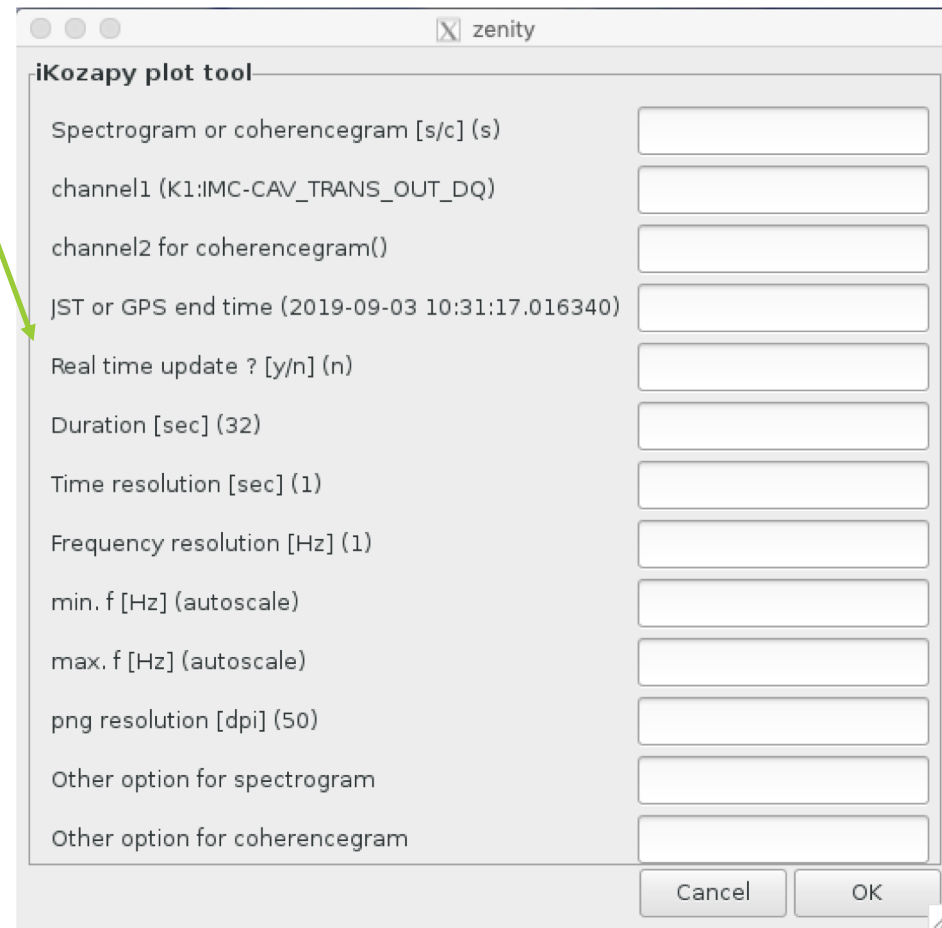
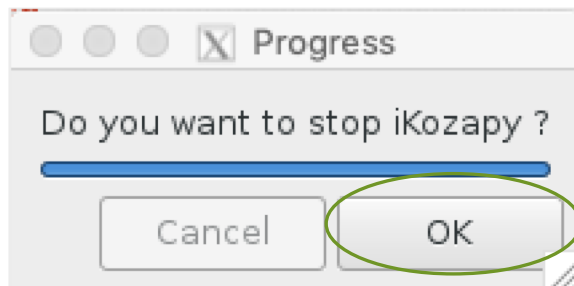
- Click “OK” and you will get the plot in ~10 sec (depends on parameter)



If you need to save the picture, please do it from “Image” tab. Or it will vanish later.

Real time update

- If you set y, the spectrogram will be updated automatically using the most recent data with interval of ~10 sec (depends on parameter).
- When you want to stop it, please press the “OK” in the small window to break infinity loop.



If you don't like GUI...

- Please try Kozapy. <https://github.com/gw-detchar/Kozapy>
- You can start with only 3 commands in k1sum0/k1sum1/k1det0.
 - <http://klog.icrr.u-tokyo.ac.jp/osl/?r=9923>
- More flexible and better for multiple plots.
- No function for real time update.