

# Project report No.1 : Setup for FTAN analysis

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## Preliminary results

So far what has been done is of the following...

- The making of a saving\_adama.m script that gets two stations and saves the ncfs into SAC files
- The acquisition of some requirement packages and functions like FTANos (package to generate FTAN spectrograms) and mksac.m which is how we make the SAC files

What has been achieved...

- Through the representation of sac files we are able to compress the amount of storage needed for the ncf for two stations from 3,348kb all the way to a measly 240kb. (This is for 8 station pairs)
- A second benefit of this is that we are able to insert these files directly into the FTANos package object named FTANos which is able to digitize the FTAN plots

## Script explanations

- saving\_adama.m
  - It is exactly like theloading\_adama.m script provided except it adds the respective lines in order to save those loaded ncfs into SAC files.
- plotting\_adama.m (AI generated)
  - It is the same as saving\_adama.m but instead of saving it is able to plot the ncf waveform with respect to time. It also somehow can plot the phase velocity curves that is generated by Akiestimate (I think) based off the loaded raw data (let it be known that I have no idea why it decided to generate that)
- FTAN.py
  - We load in the SAC files, and iteratively save them into a FTANimages folder

## What must be done...

The data is not sufficient yet. The images generated seem to look funny. We do not know if the data is formatted correctly in order for the FTANos package to interpret it. Further investigation must be done...