SeisFinder CLI and web version

New version of SeisFinder has both web and CLI features.

The SeisFinder DB is not relying on IMDB anymore. It gets the ims from the csv file. There is a new column called 'im-path' is added in the SimRun table. The tables IMDB, Station and StationSet are not being used anymore.

For creating the waveform files, the II file is created from the binary file for which the bin_path is in SimRun table. The waveform component files (000, 090 and ver) are created on the fly. the new DB structure is shown below.



CLI version

To run for a single location: python event_search.py <simrunsetname> <eventname> -s <latitude> <longitude> <realisation>

```
aas105@hypocentre ~/seisfinder2/CLI/event (git)-[event_search] % python event_search.py v17p9 AlpineF2K -s
-43.3 173.0 -r AlpineF2K_HYP01-21_S1244
```

```
To run for multiple locations:python event_search.py <simrunsetname> <eventname> -m <input-location-csvfile> <realisation> aas105@hypocentre ~/seisfinder2/CLI/event (git)-[event_search] % python event_search.py v17p9 AlpineF2K -m /home /aas105/seisfinder2/CLI/sample.csv -r AlpineF2K_HYP01-21_S1244
```

For single location specify the latitude and longitude. For multiple locations specify the csv file path. Sample content of input csv file is shown below:

-43.5,172 -43.8,172.7 -43.7,173.0

Output

The output zipfile contains the waveform files of the station along with an intensity measures csv file and a location metadata csv file.

The contents of the zip file for single location is shown below.

< > Location: /4f5b6aca-c5c8-40da-8992-ab4fc6e7f12d/					
Name	Size	Туре	Modified		
ims.csv	4.3 kB	CSV docum	03 August 2018, 14:00		
KPOC.000	282.9 kB	unknown	03 August 2018, 14:00		
KPOC.090	282.9 kB	unknown	03 August 2018, 14:00		
KPOC.ver	282.9 kB	unknown	03 August 2018, 14:00		
location_metadata.csv	203 bytes	CSV docum	03 August 2018, 14:00		

The contents of the zip file for multiple locations is shown below.

Location: /ad81d18f-3305-47e4-89ae-76ea4146b6f5/					
Name 🔺	Size	Туре	Modified		
GODS.000	282.9 kB	unknown	03 August 2018, 14:01		
GODS.090	282.9 kB	unknown	03 August 2018, 14:01		
GODS.ver	282.9 kB	unknown	03 August 2018, 14:01		
HORC.000	282.9 kB	unknown	03 August 2018, 14:01		
HORC.090	282.9 kB	unknown	03 August 2018, 14:01		
HORC.ver	282.9 kB	unknown	03 August 2018, 14:01		
ims.csv	8.9 kB	CSV docum	03 August 2018, 14:01		
location_metadata.csv	400 bytes	CSV docum	03 August 2018, 14:01		
1.5 MQZ.000	282.9 kB	unknown	03 August 2018, 14:01		
MQZ.090	282.9 kB	unknown	03 August 2018, 14:01		
MQZ.ver	282.9 kB	unknown	03 August 2018, 14:01		

ims.csv contains the values for station, component, PGA, PGV, CAV, AI, Ds575, Ds595, MMI and pSAs for different periods stating from pSA_0.01 to pSA_10.0.

location_metadata.csv contains these information: VERSION,EVENT,REALISATION,LATITUDE,LONGITUDE,STATION NAME,STATION LATITUDE, STATION LONGITUDE,DISTANCE

WEB version

```
aasl05@hypocentre ~/seisfinder2/CLI/event (git)-[event_search] % python event_search.
py
 * Serving Flask app "event_search" (lazy loading)
 * Environment: production
 WARNING: Do not use the development server in a production environment.
 Use a production WSGI server instead.
 * Debug mode: on
 * Running on http://hypocentre:5000/ (Press CTRL+C to quit)
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 213-432-888
```

In the browser type,

http://hypocentre:5000/selection

Choose single/multiple in the selection page.

Selection

- Single
- Multiple

Send

The screenshots for single location is shown below.

Simrunsetv17p9 EventAlpineF2K RealisationAlpineF2K_HYP01-21_S124 Latitude -43.3 Longitude173.0

The screenshots for multiple locations is shown below.

Simrunsetv17p9 EventAlpineF2K RealisationAlpineF2K_HYP01-21_S124 CSV file Choose file locations.csv Send

The resulting zip files are the same for WEB and CLI versions.