

Advanced IM status script

Current state:

Currently each station has its own log file stating when the station started running, if it had any issues while running the OpenSees binary, and what time it finished if available.

New script:

In order to determine which stations are having issues when running OpenSees analysis' on them, we need a status script to tell us the state of each station and component at the end of a run.

This script will create a status file with the following properties:

The columns of the file will be:

- Station
- Component
- Status
- Start time
- End time

The available status' will be:

- Not started
- Finished (successfully)
- Crashed (Due to OpenSees issue)
- Not finished (Due to WCT time out)

There is no running state as this script only runs after the slurm/HPC job has completed (Specifically the calculate_ims.py part).

This script will run automatically at the end of the advanced workflow step if the wall clock limit has not been reached.

This script will need to be run manually if the wall clock limit has been reached.

The script will optionally have an argument to provide the job id of the slurm/HPC job, and use that to determine the end time of any station that has started but not finished.

In the case that the realisation has been re-run and there are completed stations from a previous run, then those rows will be marked as completed, with no start or end time.

Example output of the new script

```
,station,model,component,status,start_time,end_time
0,RPCS,ATC_Steel_SCBF_3Story,000,crashed,2021-06-15 14:00:48,2021-06-15 14:01:48
121,320138b,ATC_Steel_SCBF_3Story,000,crashed,2021-06-15 14:12:45,2021-06-15 14:13:55
141,RPCS,ATC_Steel_SCBF_3Story,090,not_finished,2021-06-15 14:01:48,
262,320138b,ATC_Steel_SCBF_3Story,090,not_converged,2021-06-15 14:13:55,2021-06-15 14:15:02
3,0200df5,ATC_Steel_SCBF_3Story,000,finished,2021-06-15 14:00:48,2021-06-15 14:01:52
187,1201663,ATC_Steel_SCBF_3Story,090,finished,2021-06-15 14:07:13,2021-06-15 14:08:09
192,1201668,ATC_Steel_SCBF_3Story,090,finished,2021-06-15 14:07:48,2021-06-15 14:08:39
191,1201667,ATC_Steel_SCBF_3Story,090,finished,2021-06-15 14:07:27,2021-06-15 14:08:21
190,1201666,ATC_Steel_SCBF_3Story,090,finished,2021-06-15 14:07:23,2021-06-15 14:08:17
189,1201665,ATC_Steel_SCBF_3Story,090,finished,2021-06-15 14:07:25,2021-06-15 14:08:20
```

Return Code list

```
1 (01) - some models has station that has not been started, resuming with automated workflow is possible.
2 (10) - some models has either not finished within time limit or crashed. manual intervention is recommended.
3 (11) - both above.
```