

Sprint 53 2006-03

Overview

Duration: 29 June - 10 Jul

completed	in progress	on hold	review	to do
65				

(vs record 77 completed sprint 50)

Epic	Story	Owner	Deliverables	Link
Validation	1) Re-run advanced IMs a) TACC OpenSees 2) Srf generation Subduction specific behaviour for GCMT (Robin to add more info) 3) SRF gen with roughness (identify 4 faults to interrogate vertical extent of roughness - adjust plotting to address) a) WairarapNich 4) Implement HF 1d velocity model perturbation 5) Help Mike with first automated workflow runs	1) Jonney 2) James 3) Viktor 4) James 5) James	1. Done 1a. re-built Opensees for Maui which solved the issue with 3D model 1b. Spear_3D model on one event and passed to Vahid 1c. running 3D model on v20p5p8 blocked until verified by Vahid 2. Done. GCMT type 1, tect_type SUBDUCTION_INTERFACE now uses the Skarlatoudis magnitude-area scaling relationship 3. Deferred to attend to other high priority tasks. 4. Done. HF 1d vm being perturbed independently from source generation 1d vm 5. Mike is able to go from a gcmt file to IM_calc output, still getting set up in his environment though	1) Building OpenSees on Maui 4&5) Ground motion simulation run manual (20p07)
Ground Motion DB	1) Ground Motion Extraction/ NoisePy 2) Hikurangi Geometry 3) Mw Reconciliation (comparison : John Ristau vs international dataset) 4) Comparison with VH2017	1) Viktor 2) James 3) ? 4) ?	1. On hold until external repo cleaned 2. Deferred as relatively low priority	Hikurangi surface geometry
Cybershake	1) Running 200m sims LF only - on Maui (until Maui comm allocation uses 500k) 2) Empirical / Cybershake / ratio hazard maps Plan for next CS <ul style="list-style-type: none"> Additional basin models Modifications to Vs30 SimMethodology based on validation Piping through uncertainty (in source and VM) Simulation with velocity model variations (no generation workflow) 	Jason	1) 480 / 500k CH used on subscription. 6853 realisations completed. 2) Ratio maps for CS 20p4/ 20p6 completed. Zoomed maps to be interrogated. CS19p5 / 20p4 ratio maps to be looked at / more periods run.	Cybershake v21p1 CS20p4 Result Interogation
Slurm Workflow	1. Workflow on TACC 2. CH estimation based on linear regression 3. Integrate with pre-processing (starting with VM) a. Separate db creation out of install 4. Near-real time Simulation plan 5. New E2E test - confirm what HF version to use (20.4.1.4)	1. James 2. Jason / Ethan 3. Jonney 4. Jonney	1. Mostly working. Currently locked out though. Simulation ran to completion with 160 cores as per 2. Good progress for LF. Need to add SRF subfault collection for estimation. blocked URL 3. main features has been split into separate function and library to import. 3a. no new progress. 4. blocked by #3	1) Kisit and Tacc simulation validation 2) 3. Adding Pre-processing into automated workflow
Workflow Calc	1) BA18 site amp - a. Plot revised interpolation function b. Generate results	1) Jason	1) No new progress	
SeisTech	1. GM Selection for Empirical a. Integrate basic (single branch) empirical GMS (Testing) 2. Automate documentation 3. Front-end	1. Daniel / Claudio 2. Background task (Jason) 3. Andy	1) No progress done on GMS 3) Claudio & Jason reviewed Andy's PR for all his UI improvements	Roadmap (scientific functionality list) Production - TODO (longer term tasks) Frontend

Machine Learning	1. NN - GMM <ul style="list-style-type: none"> a. Switch to realisation based training samples b. Update model for mean, sigma estimation and use NLL as loss 2. GM Classifier (Validate updated model)	Claudio	1) a) Mostly done, currently still having some I/O performance issues found issue a of 13 /07 just requires some tidy up to be fully runnable again b) Implemented, not fully tested due to I/O issues 2) Minor progress (added additional feature, no testing done though)	
Web /Data Portal	1. SimAtlas simulation+animation: <ul style="list-style-type: none"> a. Batch 5 - keeping continual work 2. GIS interface for Andrew 3. NZVM viewer	1. Jonney 2. 3. Viktor	1. A few crashes caused by running another plot/gmt while in mid-progress, restarted from clean, 2 animation has been generated since. 2. sites that aren't approved aren't visible publicly, can't approve points currently can: change password upload csv data or single point specification stores uploader, upload time, approver, any metadata in the forms view points uploaded and not approved if signed in preview points (currently just location) once uploaded csv/single point form submitted discard preview or store it 3. 1km^3 grid made, processed 400m^3 grid ready to upload	2.: http://hypocentre:5099 https://github.com/ucgmsim/SiteTesting
Data	1. Isilon vs Nearline 25Tb swap	1. Sung	In progress. Isilon usage has dropped to 7Tb from 23Tb. Ready to host more data.	Isilon vs Nearline
Misc	1. Velocity Model basins 2. Topo regions 3. Discuss Hypocentre ver.2? 4. Poster abstracts	1. Jason 2. Viktor 3. Whole team 4. James, Claudio Viktor, Jason	1. Balclutha, Wakatipu, Mosgiel/Waihola, Murchison, Mackenzie, Wanaka, Alexandra, Ranfurly, Otago NE 1-5 have been added to the velocity model. Waikati River & Murchison basin is nearly able to be added too. 2. Finished, function for auto region 3. Sung to check budget 4. Some done and submitted on slack	1.Basin Modelling
IM Calc				
Bug fixes				
Seismic risk				
Empirical engine				