

Sprint 50 2005-02

Overview

Duration: 18 May - 29 May

completed	in progress	on hold	review	to do
77				

(vs record 77 completed sprint 50)

Epic	Story	Owner	Deliverables	Link
Validation	1) 400m Whole NZ validation run (tectonic classification) 2) Re-run advanced IMs 3) Assist Sarah with vs30 runs	1) Robin 2) Jonney 3) James	1) Underway 2) Started, not sure of the status. Vahid supplied new model 3) Done	
Ground Motion DB	1) Ground Motion Extraction 2) Hikurangi Geometry 3) Tectonic Classification 4) Mw Reconciliation (comparison : John Ristau vs international dataset) 5) Comparison with VH2017	1)Viktor 2) James 3) Mike / James 4) ? 5) ?	1) On hold until more progress with NoisePy 2) Some progress made. Still some issues though 3)(Mike? Robbin thinks it's stable)	Hikurangi surface geometry
Cybershake	1) Cybershake Subduction (8 faults) : Complete BB after IM plot checks 2)Running 200m sims LF only - on Kisti / Maui (until Maui allocation leaves 100k) 1. lower south island / all rels (KISTI)(Maui) 2. Central South island / all rels (Maui) 3. all faults/1 rel (KISTI) (Maui) 4. remaining faults /all rels (KISTI) 4) Empirical DS - DB calculation 5) Empirical / Cybershake / ratio hazard maps	1)Jason 2) Sung	1) Subduction is complete 2) South and Central South island is completed. The remaining ~50 faults in the South Island have been installed and will run over first week of June. Then some quick validation of the south island before starting the NI. (on Maui) (500k on subscription and 500k on merit for remainder of CS 200 v20p6) 4) Checkpointing is being implemented. Have plans to reduce memory requirement but will need to investigate performance impact. 5) Waiting on DS / 200m SI for more plots. Subduction and Subduction + 400m maps were produced. (Check Kisti /Stampede2 can handle memory requirements)	2)PBS

Slurm Workflow	1. Generalize hacks for KISTI 2. CH estimation based on linear regression 3. Integrate with pre-processing (starting with VM) a. Separate db creation out of install b. Create generic slurm for the rest of install, make install operate on each fault c. Create a generic slurm for VM generation 4. Pre-processing - GCMT to realisation – add some conditional logic about tectonic type (Brendon / Robin to consult about conditional parameters)	1. James 2. Jason / Brendon 3. Jonney 4. James	1) Deferred 2) Maui 400m CS data passed to Brendon 3) Deferred 4) Done: Subduction gcmt source srfs can be generated now	
SeisTech	1. GM Selection for Empirical a. Integrate workflow into seistech master b. Synthetic tests for GCIM between Empirical and Simulation (1 rupture, N ruptures) c. For Daniel: - what tasks for him to do? d. Testing, trial calculations 2. Automate documentation 3. Front-end a. Milestone #2 i. a ut h e nt ic at ion.	1. Daniel / Claudio 2. Background task (Jason) 3. Andy	1) a) Empirical core functionality added b) Testing to be done once empirical GMS is also integrated	Roadmap (scientific functionality list) Production - TODO (longer term tasks)

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iii. Cal mocked Apple from the front end and suggested JSON. To demonstrate a nice example of full functionality of the frontend

	c. Milestone #4: API – 2		
	i. Create an API proxy - include the necessary tags for restricting the access		

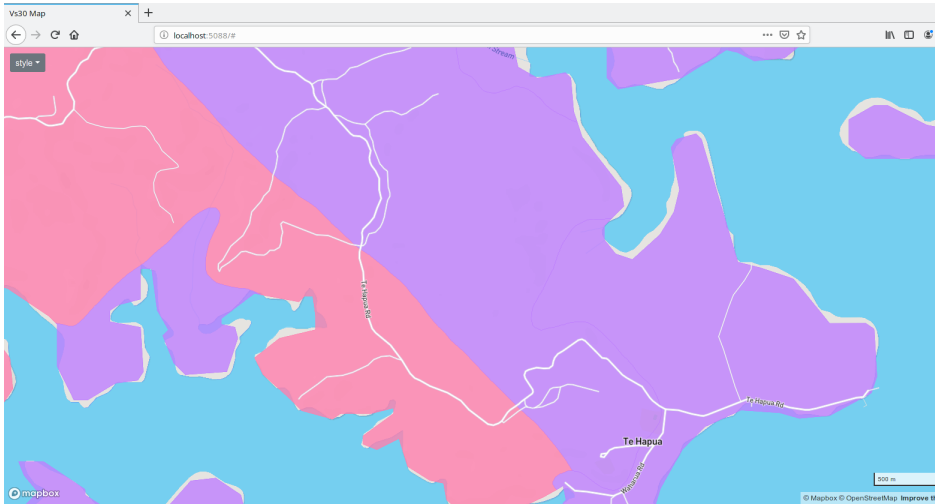
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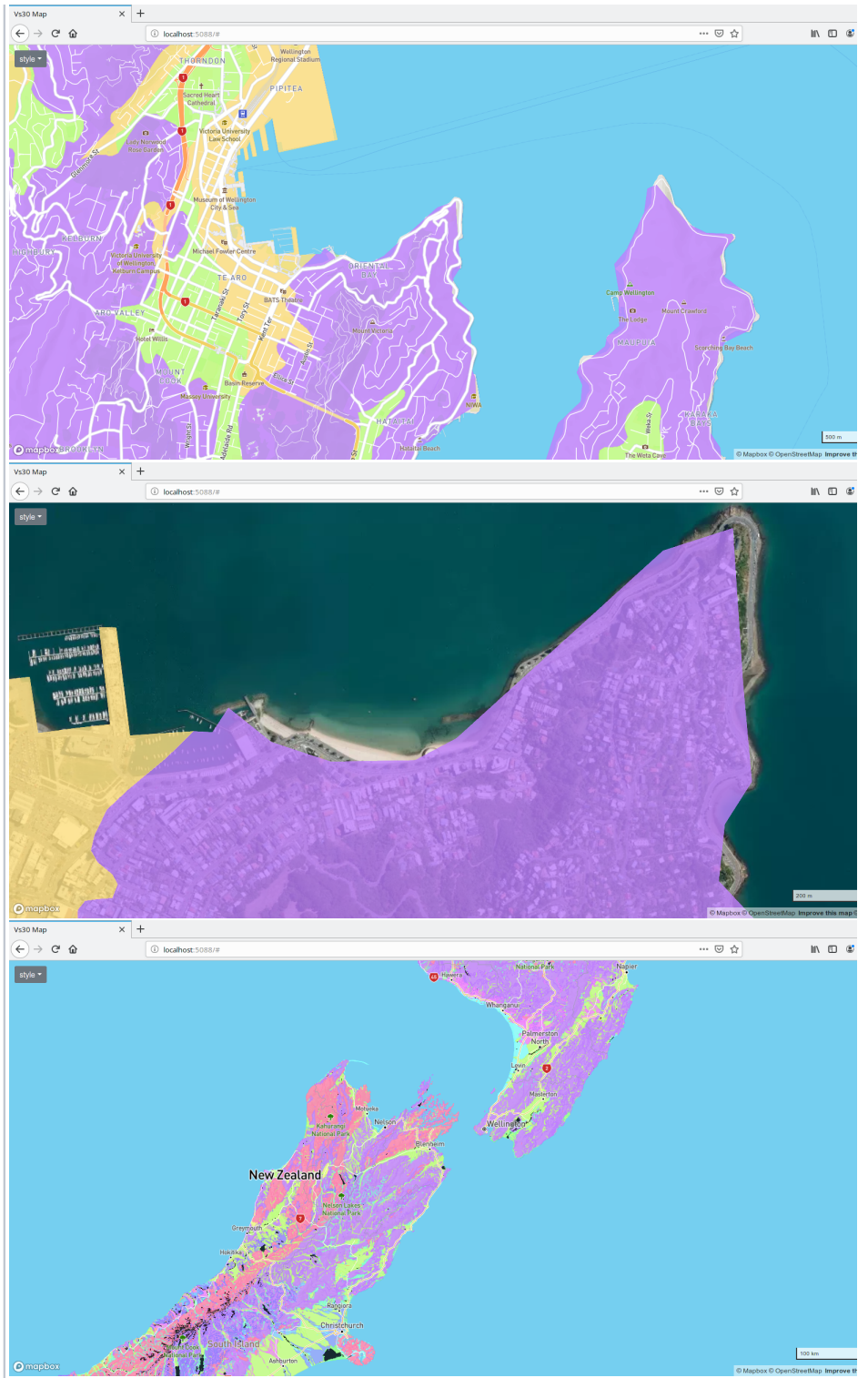
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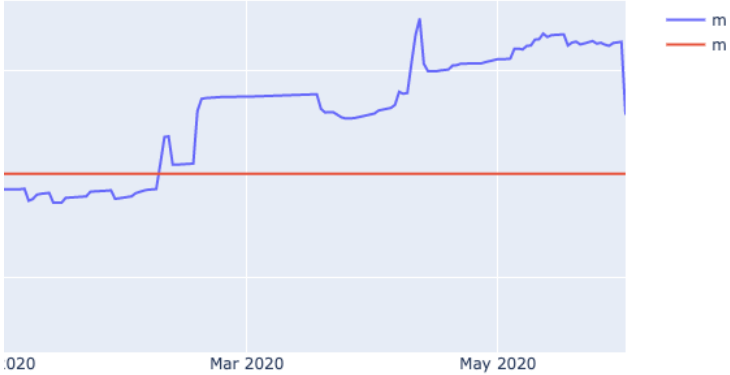
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	ii. Deployment is fully automated via scripts and configuration files. iii. Updates or switch-over is easily achieved utilizing deployment tools. iv. Disruption is kept minimal whenever updated.			
	4) Empirical DS - DB calculation			
IM Calc				
Bug fixes				

Seismic risk				
Machine Learning	1. NN - GMM a. Implement an initial basic pipeline with some NN config + flexible feature selection & preprocessing b. Add hypo-depth to NN GMM dataset 2. GM Classifier – see link	Claudio	1) Some additional visualization changes currently in progress 2) Validation iteration, identified a couple of scenarios where GMC is not struggling	
Empirical engine				
Vs30				https://api.mapbox.com/styles/v1/-victor-/ckartgw8p3x071jlpifdt7h31.html?fresh=true&title=view&access_token=pk.eyJ1IjoilXZpa3Rvci0iLCJhIjoIY2pzam9IM2lnMTA5ZjQzcW9rejF3NjVjMCJ9.9OpmgK4HJtmuQ5h8JthBwg 



Misc	1. SimAtlas simulation+animation: a. Test auto workflow with batch 4. (total 100 faults) b. Once batch 4 is done. Keep fueling the fire 2. Data management policy (classification of data importance. 3. NoisePy 4. NeSI allocation: Chat with NeSI, keep subscription allocation separate) 5. Velocity Model basins	1. Sung/Jo nney 2. Sung 4) New allocations till end of August. 5) Tim and Cameron confirmed to work on Basin Modelling over semester break. Remote access for Move software available.	2. HPC Data Management Policy  The graph displays two data series, both labeled 'm' in the legend. The x-axis represents time from February 2020 to May 2020. The blue line shows a series of steps and fluctuations, starting at a low level, rising in late February, peaking in late March, and then rising again in May. The red line is a flat horizontal line at a lower level than the blue line. 4. https://pubs-geoscienceworld-org.ezproxy.canterbury.ac.nz/ssa/srl/article/91/3/1853/583390/NoisePy-A-New-High-Performance-Python-Tool-for
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