

SeisFinder/Hazard Calculation [Sprint 12]

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Background

Site-based search, hazard calculation, is accommodated by SeisFinder code, which used to take quite a complicated steps to deploy and setup.

Recent change streamlined the deployment significantly (<https://github.com/ucgmsim/seisfinder2/pull/47> , [SeisFinder Command Line Tools](#)), and we wish to further integrate this into the Cybershake workflow.

SeisFinder code is currently not-functional after merging "scenariotest" branch, and these issues should be fixed with high priority.

Notes

Story / Deliverable

I want to use SeisFinder site-search after "scenariotest" branch is merged and bugfixes are made.

When I compute hazard maps, it will only need a single command to compute CS/Emp hazard map and ratio hazard map and histogram of ratio for each IM

When I compute hazard for single/multiple locations, I'd like a simple CLI command that also does plotting hazard curves

When I compute deagg for single/multiple locations, I'd like a simple CLI command

<Design/Plan> When I run SeisFinder site-based search, it will allow me to access the data depending on my access level

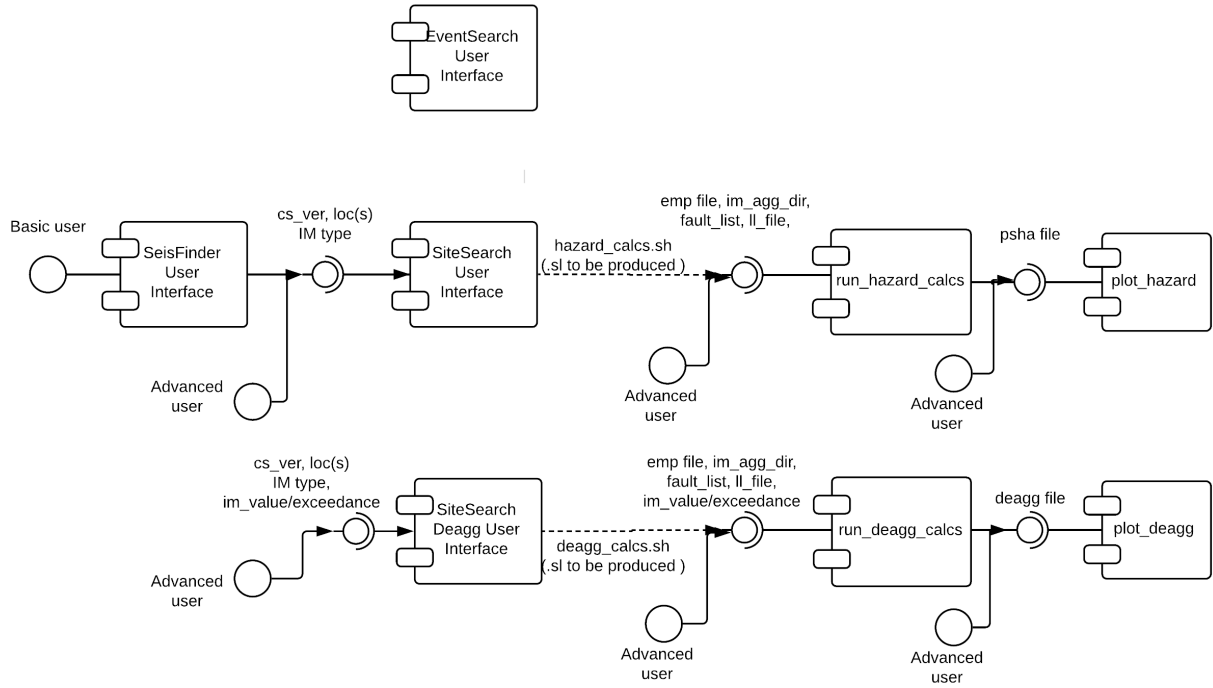
Tasks/Progress

(1)	Complete "scenariotest" branch merge and fix bugs	2 days	Done	https://github.com/ucgmsim/seisfinder2/pull/46
(2)	Write histogram plotting code that displays the ratio between CS and Emp hazard map for a given IM	3 days		
(3)	Write two execution methods 1. via SLURM 2. via CLI to compute hazard for single/multiple locations and plotting hazard curves	2 days	Done	https://github.com/ucgmsim/seisfinder2/pull/50/commits/7c22a29755275916bb4f0f5065dd4218dff88e47
(4)	Write two execution methods 1. via SLURM 2. via CLI to compute deagg for single/multiple locations	2 days	Done	https://github.com/ucgmsim/seisfinder2/commit/33960f5875c8ac53d9251699ebc9ce0b8beb9490
(5)	Plan Access control/Edition/Release	2 days	Done	SeisFinder versions, releases and access control
(6)	Create a diagram that shows the architectural overview and interaction of components	3 days	Done	https://www.lucidchart.com/invitations/accept/90eda8c1-1b56-47d4-84b5-cd2b0cbdbb38

SeisFinder Component Diagram

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Known Issues / To Dos

1. site_search's ArgParse needs revamp. Very counter-intuitive at the moment.
2. site_search and site_search_deagg should generate .sl script and run if executed from Mahuika.