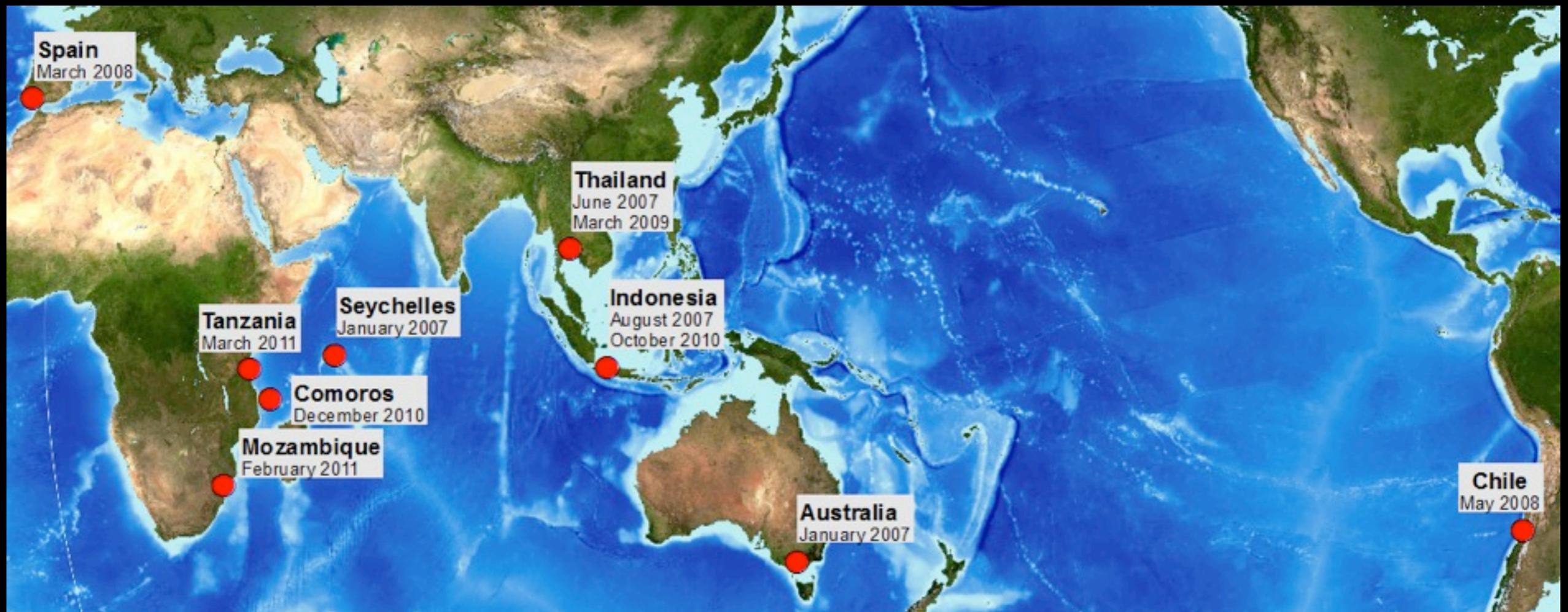


Introduction to ComMIT

What is ComMIT?

An easy-to-use tool for tsunami inundation modeling with the MOST model

- ComMIT and MOST are developed by the NOAA Center for Tsunami Research, Seattle, USA
- Ten ComMIT training programs, most funded by UNESCO, have been completed worldwide since 2007
- A global community of tsunami modelers



ComMIT: an easy-to-use tsunami inundation model

Set up source scenarios using NOAA's tsunami propagation database

The screenshot shows the ComMIT software interface for tsunami inundation modeling. The window title is "Phuket: ComMIT: Community Model Interface for Tsunami 1.5.0 beta". The status bar indicates "Phuket stopped: step 0 of 550". The interface includes a "Start model" button and a "Phuket" dropdown menu. The main window is divided into several sections:

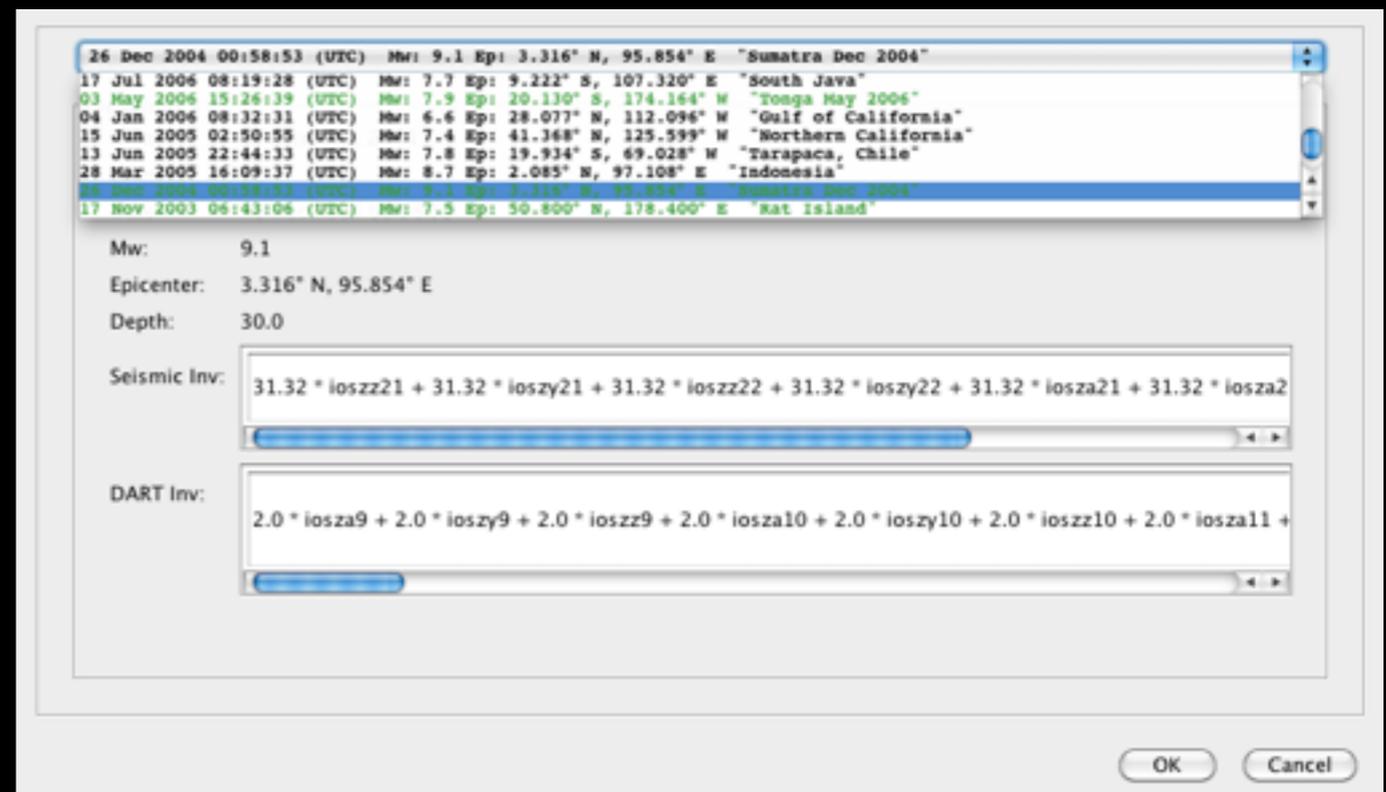
- Model Setup:** A map of the Phuket region with a grid overlay. A red box highlights the "Phuket A-Grid" source area.
- Total Magnitude:** A dropdown menu set to "8.1 Mw".
- Source Scenarios Table:**

Name	% Mag	Slip
iosza16	33.3	2.64
ioszz16	33.3	2.64
ioszz17	33.3	2.64
- Parameters:** A list of numerical parameters for the model, including "Minimum amp. of input offshore wave (m)", "Minimum depth of offshore (m)", "Dry land depth of inundation (m)", "Friction coefficient (n²)", "Let A-Grid and B-Grid run up" (checked), "Max eta before blow-up (m)", "Time step (sec)", "Total number of time steps in run", "Time steps between A-Grid computations", "Time steps between B-Grid computations", "Time steps between output steps", "Time steps before saving first output step", and "Save output every n-th grid point".
- Model output log:** A text area showing the following output:

```
B-Grid
maximum delta-T (CFL): 16.900 seconds
at depth: -435.240 meters, grid location i = 0, j= 22
C-Grid
maximum delta-T (CFL): 14.200 seconds
at depth: -68.450 meters, grid location i = 0, j= 9
New site created.
Max suggested timestep: 14.190
```

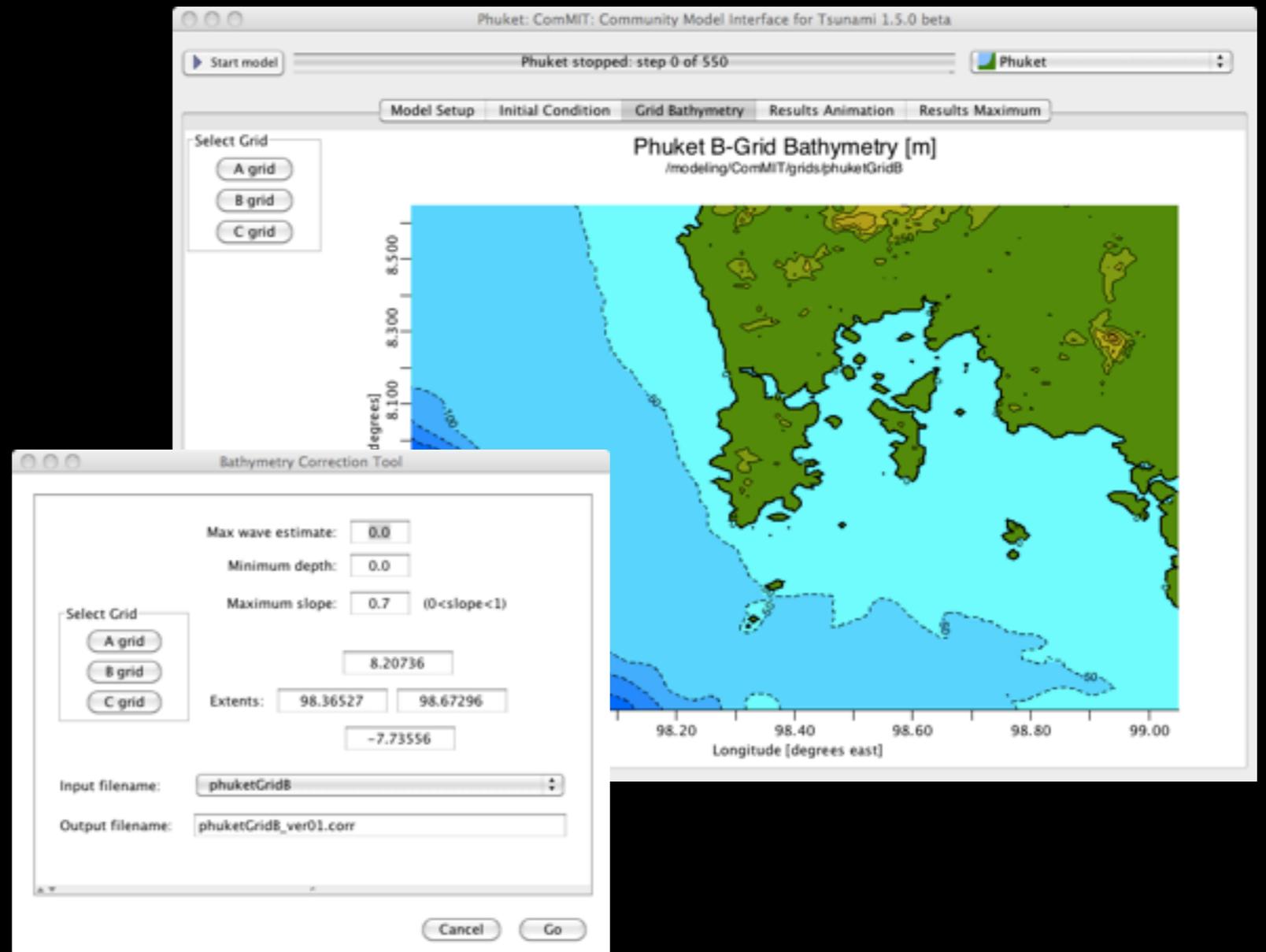
ComMIT: an easy-to-use tsunami inundation model

Run models of current or past tsunami events using source specifications from DART inversion.



ComMIT: an easy-to-use tsunami inundation model

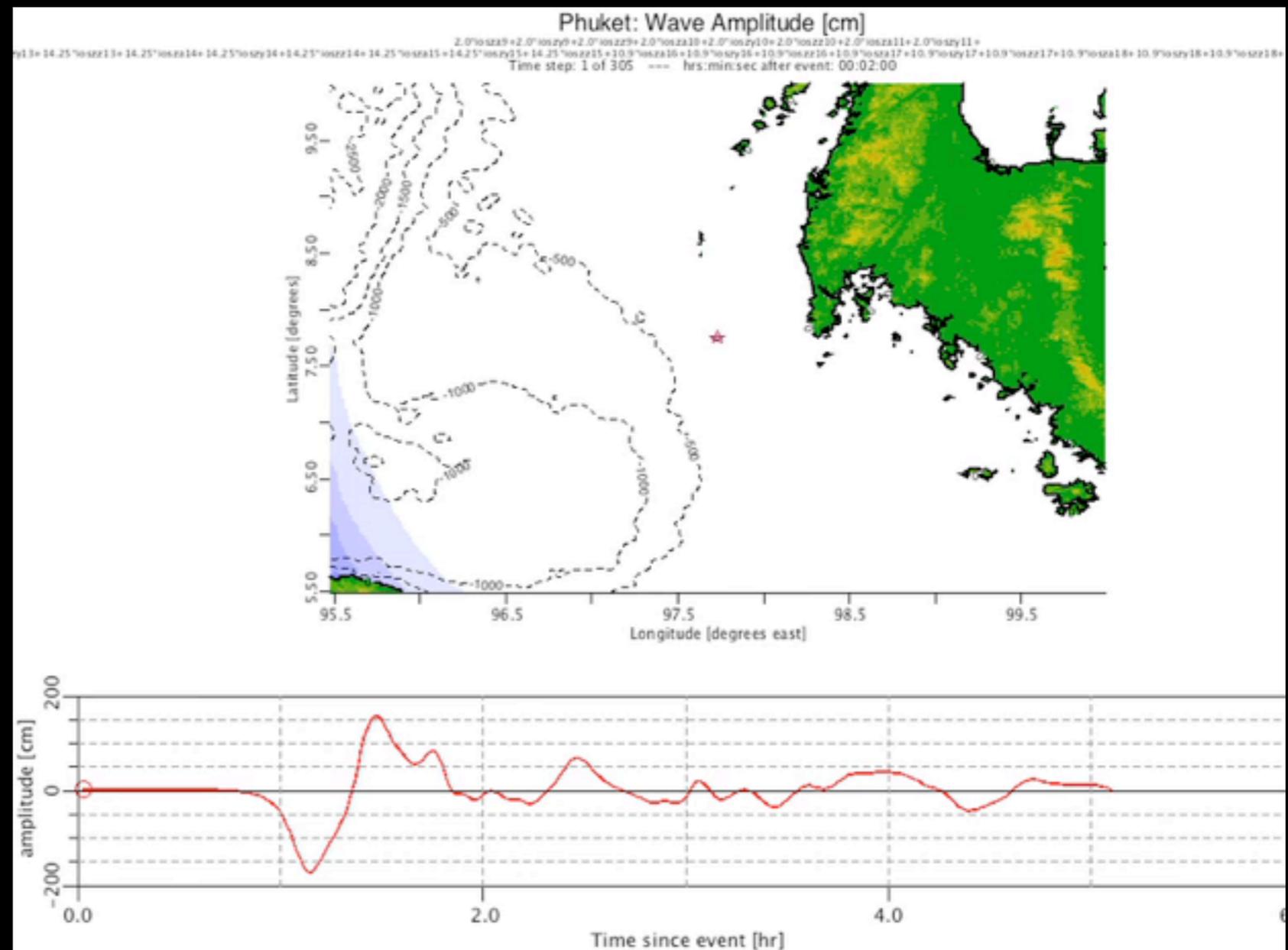
Generate, view and modify bathymetric model grids

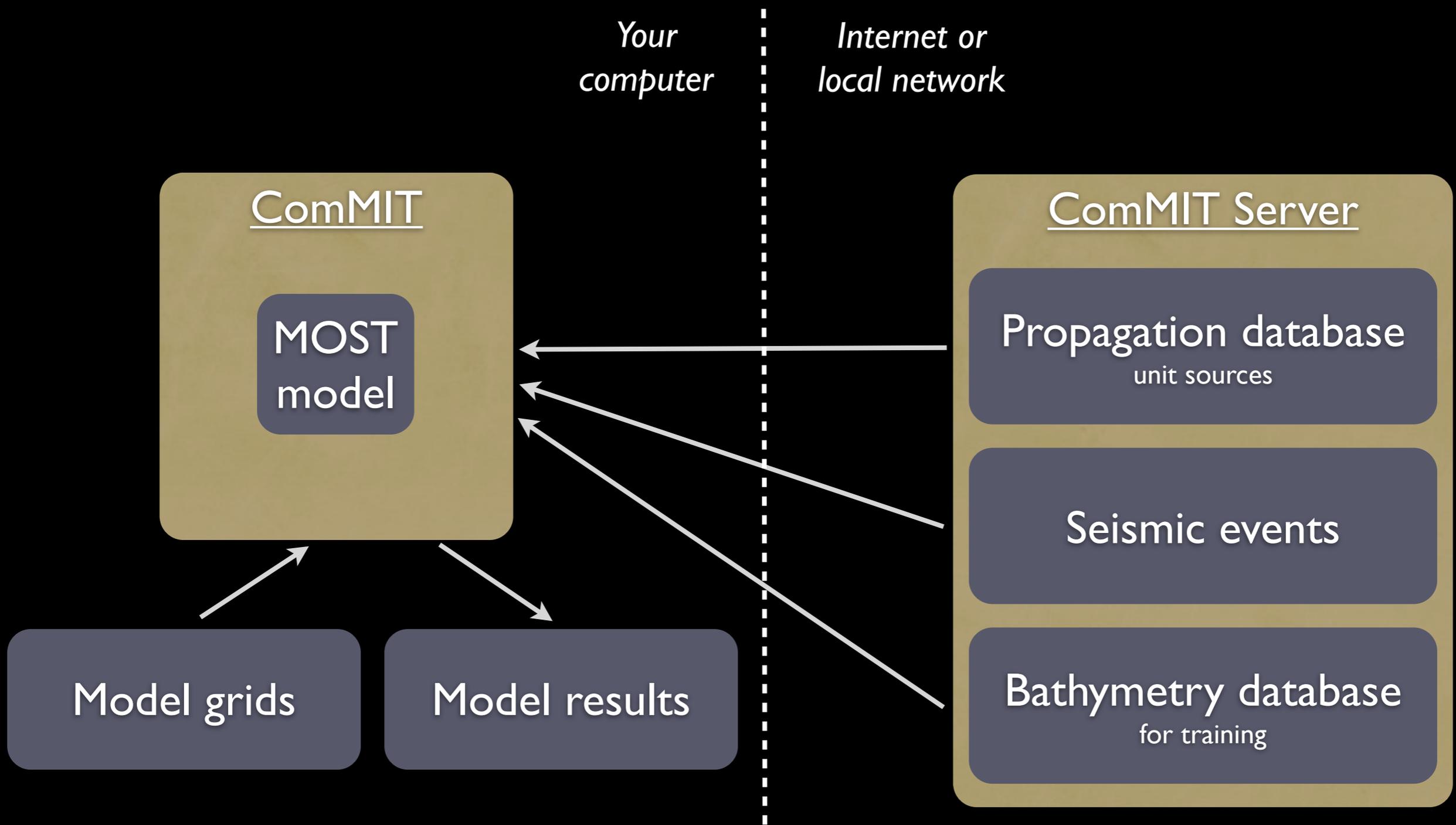


ComMIT: an easy-to-use tsunami inundation model

Run the MOST tsunami inundation model

Display model results timeseries and animations





Let's Try ComMIT!

- We will now disconnect from the internet and connect to a “private” ComMIT training network
 - ➔ This local network (not connected to the Internet) gives us fast access to the databases ComMIT needs. After the training, you can use the same databases over the Internet.
- Use a Web browser to visit this address:
`http://192.168.1.10:8080/ComMIT/`
- Download the ComMIT version for your operating system. If Java is not installed on your computer, download and install it first.
- Follow the Getting Started instructions on the web page to run your first model.

Bathymetry Data

- If you have access to bathymetry data that they would like to create a model with, please bring it in this week
- We can try to use the data and run it in ComMIT
- It is *not* necessary to make the data public - all bathymetry data in ComMIT will stay on that computer

Hazard Assessment Exercise

- The class should divide into four groups
- Each group is assigned a model location:
Hilo, West Port, Seaside, Crescent City
- See the handout for more instructions

Using ComMIT After This Course

Download ComMIT from

<http://nctr.pmel.noaa.gov/ComMIT/>

username: nctr

password: wave

Using ComMIT After This Course



Agenda

- This morning:
 - Introductory lecture on ComMIT
 - Installation of ComMIT
 - Run an initial test model
- This afternoon:
 - Hazard assessment exercise
- Tomorrow morning:
 - Lectures on model development
- Tomorrow afternoon:
 - Start of Participant Inundation Study - create your own models!