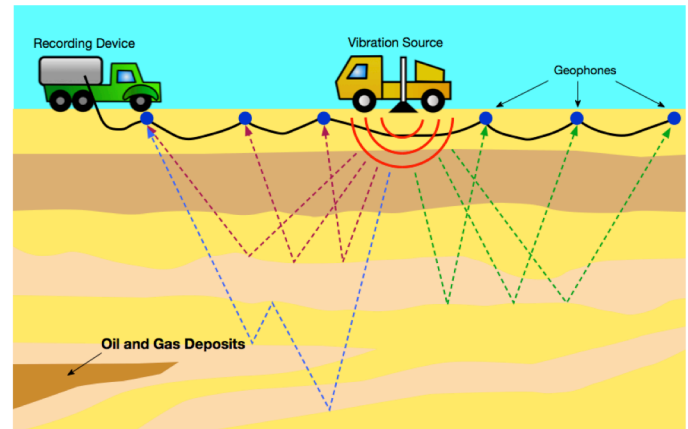


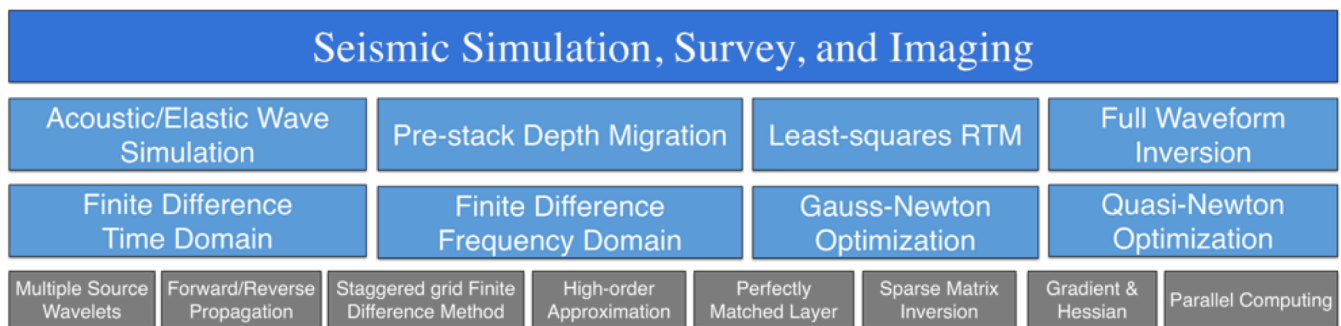
Purpose of S3I

- Provides an easy MATLAB®-based library to simulate seismic imaging
- Produces synthesized data for any given velocity model
- Targets students as well as professionals in exploration geophysics
- Provides an efficient implementation of the processing pipeline for seismic imaging
- Provides a platform to build other features such as interpretation and reservoir modeling



Seismic Survey

Structure of S3I Library



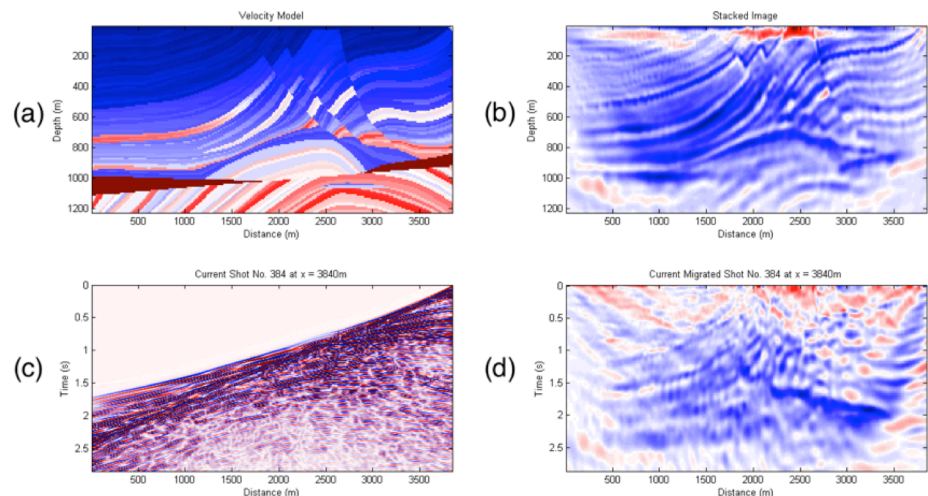
Main Functions of S3I

- Acoustic/elastic wave simulation
- Pre-stack depth migration
- Least square RTM
- Full waveform inversion

Other Features

- Open source
- Detailed user guide
- GUI for seismic survey
- C MEX-files enhanced
- Parallel computing

Imaging Example



Reverse Time Migration

- | | |
|-------------------------------|----------------------------|
| (a) True velocity model | (b) Aggregated RTM result |
| (c) Seismic data for one shot | (d) Migrated image for one |

Download url: cegp.ece.gatech.edu/codedata/s3i/