Integrating new architectures

- Broadly speaking, there are two options:
  - Load different banks+maps at the same time
    - As is done in C version of ss-shifted ftksim
    - Requires heavy modification of code
    - Needs a lot of memory to load the banks
  - Independently process different banks
    - Much cleaner – a lot fewer changes
    - Roadfinder only needs memory for 1 bank
    - Easily extensible

- Next page shows the detailed plan

  - Legend:
    - no change, minor change, major change
SS-shifted architecture

- Run roadfinder with default bank
- Run roadfinder with ss-shifted bank
- Merge 4 subregions in default bank
- Merge 4 subregions in ss-shifted bank
- Run a new executable (road+hit filter)
  - Produces a final list of roads+hits
  - Easy to add 1/4-shifted banks in the future
- Run standard track fitter
**SCT-first architecture**

- Run full chain in SCT-only configuration
  - Road finder + subregion merger + track fitter
- Run modified roadfinder job on pix+tracks
  - With small changes to handle SCT tracks
- Merge subregions
- Run standard track fitter

**Additional notes:**

- Can easily combine with ss-shifted approach
- Multiple runs will be transparent to end user
  - ./ftk.py -q threaded_4 -n10000 -a fullchain