

## Workflow 1: Test ASAP

### 1. Get starting point

Read WHSimThing file

Read ASAP, VPA, or SAM and convert to WHSimThing structure

2. Modify settings, e.g., change M, include missing catch, change q, add fleet, change selectivity, etc.

Save the new decisions in WHSimThing format

### 3. Create operating model truth

### 4. Create observations with known error properties

Requires making decisions and saving in WHSimThing format

### 5. Run ASAP and collect important output

Need to define input settings for ASAP somewhere, should be easy to match truth if desired or modify from true values, want to save these choices in WHSimThing structure as well

### 6. Repeat steps 4-5 many times

### 7. Summarize results comparing ASAP estimates to true values

### 8. Save results

## Workflow 2: MSE

### 1. Get starting point (same as above)

### 2. Modify settings and save in WHSimThing format

3. Set up MSE settings, e.g., nProjYear, control rule, skip year, etc. and save in WHSimThing format

Should be easy to run with same settings for a number of different control rules

### 4. Create initial operating model truth

### 5. Create observations with known error properties

### 6. Run assessment model

### 7. Apply control rule to determine future harvest

### 8. Remove harvest from true population according to MSE settings

### 9. Repeat steps 5-8 until reach nProjYear

### 10. Repeat steps 4-9 many times

11. Summarize results comparing estimates to true values and stats such as avg catch, min SSB, etc. to compare to other control rules

### 12. Save results

## Overarching thoughts

How keep this repeatable, want to be able to send rdat or some such file to someone else and have them get same results - need random seed setting and all user input saved

saveu

Not sure how much we want to run through Shiny versus run through R command lines

Should we worry about parallelization from the get go, or deal with it later?