Run an ASPM Diagnostic

Originally from Cookbook/Setup\_ASPM\_example.R

ASPM - Age Structured Production Model?

## Example original application

* 2017 ICCAT North Atlantic shortfin mako (SMA) Stock Synthesis model run 3
* Stock Synthesis (version 3\_30\_08 Windows)
* r4ss (version 1.35.1)
* R (version 3.3.2 64 bit)

## Importfrom

* r4ss: SS\_output, SSsummarize, SSplotComparisons

## Procedure

1. Derive the ASPM from the original SMA model (?)
2. Manually run the original and ASPM
3. Summarize results in R using the r4ss package

See next section *ASPM Derivations to Original Model* for more on the ASPM

## 

## ASPM Derivations to Original Model

The ASPM is derived from the original model run,

* Each value of the recruitment deviations parameter vector is set to 0 in SS3.par:
  + recdev\_earl
  + recdev1
  + Fcast\_recruitments
* ASPM SS starter file will read from SS3.par
* In the ASPM control file,
  + Selectivity parameters are read from the par file. This will change phase to negative for all estimated parameters.
  + Fit to all length comp data is turned off:
    - (Likelihood Comp=4 : Likelihood Lambda=0)
    - See “Lamaba Usage Notes” in SS User Manual
  + “recdev phase”, “recdev early\_phase” is negative.
  + Penalty for recruitment Deviations (rec dev) estimation in likelihood is turned off.
    - (Likelihood Comp=10 : Likelihood Lambda=0)
    - See “Lamaba Usage Notes” in SS User Manual