Module 2: Running DLMtool

Tom Carruthers, Adrian Hordyk

## Exercise 2a: An R script for installation and validating installation

The aim of this exercise is to install the DLMtool package to your machine, load the package into R, and test that the package is working correctly on your machine.

### Installing DLMtool from CRAN

First you need to install the DLMtool package from the online repository. Type the following command into the R console, or use the point-and-click option in RStudio:

install.packages("DLMtool")

A pop-up window may ask you to select a CRAN mirror to use. Select the 'Cloud' option (first on the list) or find the mirror that is the closest geographical distance to your location.

The DLMtool package should download to your machine and is ready to be loaded. You only need to do this step for the first time you are using DLMtool on your machine. However, if the DLMtool package is updated you will need to repeat this step to download the latest version.

### Loading the package

Load the DLMtool package into the R session using the code shown in Lecture 2a. A message should appear in the R console alerting you that some dependant packages have also been loaded.

### Validating the installation

* Type Albacore into the R console. Albacore is a built-in example Stock object in DLMtool. The R console should fill with parameters for the Albacore stock. You may need to scroll up to see them all. If you get an error message instead of the stock object in the R console, there is a problem with your DLMtool installation. Repeat the steps above, and if it still doesn't work, cry for help!
* Try several other Stock objects to confirm that they are loaded correctly. You can use the command avail("Stock") to print out all of the available example stock objects in DLMtool.
* Repeat this with several of the Fleet objects built into DLMtool (Tip: use the avail function again with "Fleet").

### Set up parallel processing

Use the setup() function to set up parallel processing on your machine. A message should alert you that snowfall has initialized parallel execution on a number of CPUs. You are now ready to start using DLMtool.