Using the Contributed Libraries in ADMB

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What are libraries?

Contributed libraries are a series of custom functions written by contributors to the ADMB project.

E.g., code for a normal negative log likelihood

\[0.5 \times \log(2 \times \pi) + \log(\text{std}) + 0.5 \times \text{square}(x - \mu)/(\text{std} \times \text{std});\]
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Could be replaced with

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Could be replaced with

\[ \text{dnorm}(x, \mu, \text{std}); \]
How to use the contributed libraries

With version 10.2, you can now include the custom libraries in the GLOBALS_SECTION

To this you simple use:

GLOBALS_SECTION
   #include <library_name>
Example using simple.tpl

This ...

```
PROCEDURE SECTION
    pred_Y=a*x+b;
f=(norm2(pred_Y-Y));
f=nobs/2.*log(f);
```

is the same as:

```
PROCEDURE SECTION
    pred_Y=a*x+b;
f=dnorm(pred_Y-Y);
GLOBAL SECTION
    #include <statsLib.h>
```
Contributed Libraries

To date the contributed libraries are:

- statsLib
- ecolib
- qfclib

To learn more about these libraries see the ADMB documentation use
http://admb-project.org/documentation/api/

A detailed list of function prototypes and documentation for each library can be found at the above link. For example the statsLib contribution can be found at:
http://admb-project.org/documentation/api/statsLib_8h.html
The End