

```

1 module fabm_driver
2
3     implicit none
4
5     private
6
7     public type_base_driver, fatal_error, log_message, driver
8
9     ! =====
10    ! Base type through which FABM communicates with its driver (e.g., for logging and error reporting)
11    ! =====
12    ! A host model that wants to process log message and fatal errors themselves (rather than the default
13    ! behavior: log messages to stdout, fatal error to stdout followed by STOP) must create a derived
14    ! type that extends type_base_driver. To use the custom type, allocate "driver" with the custom type,
15    ! e.g., with "allocate(type_custom_driver::driver)". This must be done before any FABM routine is
16    ! called!
17    ! =====
18
19    type :: type_base_driver
20    contains
21        procedure :: fatal_error => base_driver_fatal_error
22        procedure :: log_message => base_driver_log_message
23    end type
24
25    class (type_base_driver), pointer, save :: driver => null()
26
27    contains
28
29    subroutine base_driver_fatal_error(self, location, message)
30        class (type_base_driver), intent(inout) :: self
31        character(len=*), intent(in) :: location, message
32
33        write (*,'(a,": ",a)') trim(location), trim(message)
34        stop 1
35    end subroutine
36
37    subroutine base_driver_log_message(self, message)
38        class (type_base_driver), intent(inout) :: self
39        character(len=*), intent(in) :: message
40
41        write (*,'(a)') trim(message)
42    end subroutine
43
44    subroutine fatal_error(location, message)
45        character(len=*), intent(in) :: location, message
46        call driver%fatal_error(location, message)
47    end subroutine
48
49    subroutine log_message(message)
50        character(len=*), intent(in) :: message
51        call driver%log_message(message)
52    end subroutine
53
54 end module

```