

OGSTM boundary conditions

4.0

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1 Modules Index

1.1 Modules List

Here is a list of all modules with brief descriptions:

bc_aux_mod	3
bc_data_mod	5
bc_mod	7
nudging_mod	10
rivers_mod	12
sponge_mod	15

2 Data Type Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

bc_mod::bc	19
nudging_mod::nudging	26
rivers_mod::rivers	31
sponge_mod::sponge	37
bc_data_mod::bc_data	22

3 Data Type Index

3.1 Data Types List

Here are the data types with brief descriptions:

bc_mod::bc	19
bc_data_mod::bc_data	22
nudging_mod::nudging	26
rivers_mod::rivers	31

4 Module Documentation

4.1 bc_aux_mod Module Reference

Functions/Subroutines

- subroutine [handle_err1](#) (status, mycount, fileNetCDF)
- subroutine [handle_err2](#) (status, fileNetCDF, varname)
- subroutine [getdimension](#) (fileNetCDF, dimname, n)
- subroutine [readnc_int_1d](#) (fileNetCDF, varname, dim1, ARRAY)
- subroutine [readnc_double_1d](#) (fileNetCDF, varname, dim1, ARRAY)
- subroutine [readnc_slice_float](#) (fileNetCDF, varname, M, shift)
- integer function [count_insubdomain_2d](#) (sizeGLO, idxGLOBAL)
- integer function [count_insubdomain_3d](#) (sizeGLO, idxGLOBAL)
- subroutine [re_indexing_2d](#) (sizeglo, idxtglo, sizeloc, ridxt)
- subroutine [re_indexing_3d](#) (sizeglo, idxtglo, sizeloc, ridxt)

4.1.1 Function/Subroutine Documentation

4.1.1.1 count_insubdomain_2d()

```
integer function bc_aux_mod::count_insubdomain_2d (
    integer, intent(in) sizeGLO,
    integer, dimension(sizeglo), intent(in) idxGLOBAL )
```

4.1.1.2 count_insubdomain_3d()

```
integer function bc_aux_mod::count_insubdomain_3d (
    integer, intent(in) sizeGLO,
    integer, dimension(sizeglo), intent(in) idxGLOBAL )
```

4.1.1.3 getdimension()

```
subroutine bc_aux_mod::getdimension (
    character, dimension(*), intent(in) fileNetCDF,
    character, dimension(*), intent(in) dimname,
    integer, intent(inout) n )
```

4.1.1.4 `handle_err1()`

```
subroutine bc_aux_mod::handle_err1 (  
    integer status,  
    integer mycount,  
    character, dimension(*) fileNetCDF )
```

4.1.1.5 `handle_err2()`

```
subroutine bc_aux_mod::handle_err2 (  
    integer status,  
    character, dimension(*) fileNetCDF,  
    character, dimension(*) varname )
```

4.1.1.6 `re_indexing_2d()`

```
subroutine bc_aux_mod::re_indexing_2d (  
    integer(4), intent(in) sizeglo,  
    integer(4), dimension(sizeglo), intent(in) idxtglo,  
    integer(4), intent(in) sizeloc,  
    integer(4), dimension(4, sizeloc), intent(out) ridxt )
```

4.1.1.7 `re_indexing_3d()`

```
subroutine bc_aux_mod::re_indexing_3d (  
    integer(4), intent(in) sizeglo,  
    integer(4), dimension(sizeglo), intent(in) idxtglo,  
    integer(4), intent(in) sizeloc,  
    integer(4), dimension(4, sizeloc), intent(out) ridxt )
```

4.1.1.8 `readnc_double_1d()`

```
subroutine bc_aux_mod::readnc_double_1d (  
    character, dimension(*), intent(in) fileNetCDF,  
    character, dimension(*), intent(in) varname,  
    integer, intent(in) dim1,  
    double precision, dimension(dim1), intent(inout) ARRAY )
```

4.1.1.9 `readnc_int_1d()`

```
subroutine bc_aux_mod::readnc_int_1d (  
    character, dimension(*), intent(in) fileNetCDF,  
    character, dimension(*), intent(in) varname,  
    integer, intent(in) dim1,  
    integer, dimension(dim1), intent(inout) ARRAY )
```

4.1.1.10 readnc_slice_float()

```
subroutine bc_aux_mod::readnc_slice_float (
    character, dimension(*), intent(in) fileNetCDF,
    character, dimension(*), intent(in) varname,
    double precision, dimension(jpk, jpj, jpi), intent(inout) M,
    integer, intent(in) shift )
```

4.2 bc_data_mod Module Reference

Data Types

- interface [bc_data](#)

Functions/Subroutines

- type([bc_data](#)) function [bc_data_empty](#) ()
- type([bc_data](#)) function [bc_data_default](#) (files_namelist)
- type([bc_data](#)) function [bc_data_year](#) (files_namelist, start_time_string, end_time_string)
- character(len=24) function [get_file_by_index](#) (self, idx)
- integer function [get_prev_idx](#) (self)
- integer function [get_next_idx](#) (self)
- subroutine [set_current_interval](#) (self, current_time_string)
- double precision function [get_interpolation_factor](#) (self, current_time_string)
- logical function [new_interval](#) (self)
- subroutine [bc_data_destructor](#) (self)

4.2.1 Function/Subroutine Documentation

4.2.1.1 bc_data_default()

```
type(bc\_data) function bc_data_mod::bc_data_default (
    character(len=22), intent(in) files_namelist ) [private]
```

4.2.1.2 bc_data_destructor()

```
subroutine bc_data_mod::bc_data_destructor (
    class(bc\_data), intent(inout) self ) [private]
```

4.2.1.3 bc_data_empty()

```
type(bc\_data) function bc_data_mod::bc_data_empty ( ) [private]
```

4.2.1.4 bc_data_year()

```
type(bc_data) function bc_data_mod::bc_data_year (  
    character(len=27), intent(in) files_namelist,  
    character(len=17), intent(in) start_time_string,  
    character(len=17), intent(in) end_time_string ) [private]
```

4.2.1.5 get_file_by_index()

```
character(len=24) function bc_data_mod::get_file_by_index (  
    class(bc_data), intent(in) self,  
    integer, intent(in) idx ) [private]
```

4.2.1.6 get_interpolation_factor()

```
double precision function bc_data_mod::get_interpolation_factor (  
    class(bc_data), intent(inout) self,  
    character(len=17), intent(in) current_time_string ) [private]
```

4.2.1.7 get_next_idx()

```
integer function bc_data_mod::get_next_idx (  
    class(bc_data), intent(in) self ) [private]
```

4.2.1.8 get_prev_idx()

```
integer function bc_data_mod::get_prev_idx (  
    class(bc_data), intent(in) self ) [private]
```

4.2.1.9 new_interval()

```
logical function bc_data_mod::new_interval (  
    class(bc_data), intent(in) self ) [private]
```

4.2.1.10 set_current_interval()

```
subroutine bc_data_mod::set_current_interval (  
    class(bc_data), intent(inout) self,  
    character(len=17), intent(in) current_time_string ) [private]
```

4.3 bc_mod Module Reference

Data Types

- interface [bc](#)

Functions/Subroutines

- type([bc](#)) function [bc_empty](#) ()
- type([bc](#)) function [bc_default](#) (files_namelist)
- type([bc](#)) function [bc_year](#) (files_namelist, start_time_string, end_time_string)
- character(len=24) function [get_file_by_index](#) (self, idx)
- integer function [get_prev_idx](#) (self)
- integer function [get_next_idx](#) (self)
- subroutine [set_current_interval](#) (self, current_time_string, new_data)
- double precision function [get_interpolation_factor](#) (self, current_time_string, new_data)
- subroutine [load](#) (self, idx)
- subroutine [swap](#) (self)
- subroutine [actualize](#) (self, weight)
- subroutine [apply](#) (self, e3t, n_tracers, trb, tra)
- subroutine [apply_nudging](#) (self, e3t, n_tracers, rst_tracers, trb, tra)
- subroutine [apply_phys](#) (self, lat, sponge_t, sponge_vel)
- subroutine [bc_destructor](#) (self)

4.3.1 Function/Subroutine Documentation

4.3.1.1 actualize()

```
subroutine bc_mod::actualize (
    class(bc), intent(inout) self,
    double precision, intent(in) weight ) [private]
```

4.3.1.2 apply()

```
subroutine bc_mod::apply (
    class(bc), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra ) [private]
```


4.3.1.3 apply_nudging()

```
subroutine bc_mod::apply_nudging (
    class(bc), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) rst_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra )
```

4.3.1.4 apply_phys()

```
subroutine bc_mod::apply_phys (
    class(bc), intent(inout) self,
    double precision, dimension(jpj, jpi), intent(in) lat,
    double precision, dimension(jpj, jpi), intent(out) sponge_t,
    double precision, dimension(jpk, jpj, jpi), intent(out) sponge_vel )
```

4.3.1.5 bc_default()

```
type(bc) function bc_mod::bc_default (
    character(len=22), intent(in) files_namelist ) [private]
```

4.3.1.6 bc_destructor()

```
subroutine bc_mod::bc_destructor (
    class(bc), intent(inout) self )
```

4.3.1.7 bc_empty()

```
type(bc) function bc_mod::bc_empty ( ) [private]
```

4.3.1.8 bc_year()

```
type(bc) function bc_mod::bc_year (
    character(len=27), intent(in) files_namelist,
    character(len=17), intent(in) start_time_string,
    character(len=17), intent(in) end_time_string ) [private]
```

4.3.1.9 get_file_by_index()

```
character(len=24) function bc_mod::get_file_by_index (  
    class(bc), intent(in) self,  
    integer, intent(in) idx ) [private]
```

4.3.1.10 get_interpolation_factor()

```
double precision function bc_mod::get_interpolation_factor (  
    class(bc), intent(inout) self,  
    character(len=17), intent(in) current_time_string,  
    logical, intent(out), optional new_data ) [private]
```

4.3.1.11 get_next_idx()

```
integer function bc_mod::get_next_idx (  
    class(bc), intent(in) self ) [private]
```

4.3.1.12 get_prev_idx()

```
integer function bc_mod::get_prev_idx (  
    class(bc), intent(in) self ) [private]
```

4.3.1.13 load()

```
subroutine bc_mod::load (  
    class(bc), intent(inout) self,  
    integer, intent(in) idx ) [private]
```

4.3.1.14 set_current_interval()

```
subroutine bc_mod::set_current_interval (  
    class(bc), intent(inout) self,  
    character(len=17), intent(in) current_time_string,  
    logical, intent(out), optional new_data ) [private]
```

4.3.1.15 swap()

```
subroutine bc_mod::swap (  
    class(bc), intent(inout) self ) [private]
```

4.4 nudging_mod Module Reference

Data Types

- interface [nudging](#)

Functions/Subroutines

- subroutine [init_members](#) (self, bc_no_nudging, data_file, n_vars, vars, vars_idx, rst_corr, n_tracers)
- type([nudging](#)) function [nudging_default](#) (bc_no_nudging, data_file, n_vars, vars, vars_idx, rst_corr, n_tracers)
- character(len=24) function [get_file_by_index](#) (self, idx)
- integer function [get_prev_idx](#) (self)
- integer function [get_next_idx](#) (self)
- subroutine [set_current_interval](#) (self, current_time_string, new_data)
- double precision function [get_interpolation_factor](#) (self, current_time_string, new_data)
- subroutine [load](#) (self, idx)
- subroutine [swap](#) (self)
- subroutine [actualize](#) (self, weight)
- subroutine [apply](#) (self, e3t, n_tracers, trb, tra)
- subroutine [apply_nudging](#) (self, e3t, n_tracers, rst_tracers, trb, tra)
- subroutine [apply_phys](#) (self, lat, sponge_t, sponge_vel)
- subroutine [nudging_destructor](#) (self)

4.4.1 Function/Subroutine Documentation

4.4.1.1 actualize()

```
subroutine nudging_mod::actualize (
    class(nudging), intent(inout) self,
    double precision, intent(in) weight ) [private]
```

4.4.1.2 apply()

```
subroutine nudging_mod::apply (
    class(nudging), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra ) [private]
```

4.4.1.3 apply_nudging()

```
subroutine nudging_mod::apply_nudging (
    class(nudging), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) rst_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra )
```

4.4.1.4 apply_phys()

```

subroutine nudging_mod::apply_phys (
    class(nudging), intent(inout) self,
    double precision, dimension(jpj, jpi), intent(in) lat,
    double precision, dimension(jpj, jpi), intent(out) sponge_t,
    double precision, dimension(jpk, jpj, jpi), intent(out) sponge_vel )

```

4.4.1.5 get_file_by_index()

```

character(len=24) function nudging_mod::get_file_by_index (
    class(nudging), intent(in) self,
    integer, intent(in) idx ) [private]

```

4.4.1.6 get_interpolation_factor()

```

double precision function nudging_mod::get_interpolation_factor (
    class(nudging), intent(inout) self,
    character(len=17), intent(in) current_time_string,
    logical, intent(out), optional new_data ) [private]

```

4.4.1.7 get_next_idx()

```

integer function nudging_mod::get_next_idx (
    class(nudging), intent(in) self ) [private]

```

4.4.1.8 get_prev_idx()

```

integer function nudging_mod::get_prev_idx (
    class(nudging), intent(in) self ) [private]

```

4.4.1.9 init_members()

```

subroutine nudging_mod::init_members (
    class(nudging), intent(inout) self,
    class(bc), intent(in), target bc_no_nudging,
    character(len=11), intent(in) data_file,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) vars_idx,
    double precision, dimension(n_vars), intent(in) rst_corr,
    integer, intent(in) n_tracers ) [private]

```

4.4.1.10 load()

```
subroutine nudging_mod::load (
    class(nudging), intent(inout) self,
    integer, intent(in) idx ) [private]
```

4.4.1.11 nudging_default()

```
type(nudging) function nudging_mod::nudging_default (
    class(bc), intent(in), target bc_no_nudging,
    character(len=11), intent(in) data_file,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) vars_idx,
    double precision, dimension(n_vars), intent(in) rst_corr,
    integer, intent(in) n_tracers )
```

4.4.1.12 nudging_destructor()

```
subroutine nudging_mod::nudging_destructor (
    class(nudging), intent(inout) self )
```

4.4.1.13 set_current_interval()

```
subroutine nudging_mod::set_current_interval (
    class(nudging), intent(inout) self,
    character(len=17), intent(in) current_time_string,
    logical, intent(out), optional new_data ) [private]
```

4.4.1.14 swap()

```
subroutine nudging_mod::swap (
    class(nudging), intent(inout) self ) [private]
```

4.5 rivers_mod Module Reference

Data Types

- interface [rivers](#)

Functions/Subroutines

- subroutine `set_global_size` (self)
- subroutine `set_global_idx` (self)
- subroutine `set_size` (self)
- subroutine `reindex` (self)
- subroutine `init_members` (self, bc_name, n_vars, vars, var_names_idx)
- type(`rivers`) function `rivers_default` (files_namelist, bc_name, n_vars, vars, var_names_idx)
- type(`rivers`) function `rivers_year` (files_namelist, bc_name, n_vars, vars, var_names_idx, start_time_string, end_time_string)
- integer(4) function `get_global_size` (self)
- subroutine `load` (self, idx)
- subroutine `swap` (self)
- subroutine `actualize` (self, weight)
- subroutine `apply` (self, e3t, n_tracers, trb, tra)
- subroutine `apply_nudging` (self, e3t, n_tracers, rst_tracers, trb, tra)
- subroutine `apply_phys` (self, lat, sponge_t, sponge_vel)
- subroutine `rivers_destructor` (self)

4.5.1 Function/Subroutine Documentation

4.5.1.1 actualize()

```
subroutine rivers_mod::actualize (
    class(rivers), intent(inout) self,
    double precision, intent(in) weight ) [private]
```

4.5.1.2 apply()

```
subroutine rivers_mod::apply (
    class(rivers), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra ) [private]
```

4.5.1.3 apply_nudging()

```
subroutine rivers_mod::apply_nudging (
    class(rivers), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) rst_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra )
```

4.5.1.4 apply_phys()

```
subroutine rivers_mod::apply_phys (
    class(rivers), intent(inout) self,
    double precision, dimension(jpj, jpi), intent(in) lat,
    double precision, dimension(jpj, jpi), intent(out) sponge_t,
    double precision, dimension(jpk, jpj, jpi), intent(out) sponge_vel )
```

4.5.1.5 get_global_size()

```
integer(4) function rivers_mod::get_global_size (
    class(rivers), intent(in) self ) [private]
```

4.5.1.6 init_members()

```
subroutine rivers_mod::init_members (
    class(rivers), intent(inout) self,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=23), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx ) [private]
```

4.5.1.7 load()

```
subroutine rivers_mod::load (
    class(rivers), intent(inout) self,
    integer, intent(in) idx ) [private]
```

4.5.1.8 reindex()

```
subroutine rivers_mod::reindex (
    class(rivers), intent(inout) self ) [private]
```

4.5.1.9 rivers_default()

```
type(rivers) function rivers_mod::rivers_default (
    character(len=22), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=23), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx ) [private]
```

4.5.1.10 rivers_destructor()

```
subroutine rivers_mod::rivers_destructor (
    class(rivers), intent(inout) self )
```

4.5.1.11 rivers_year()

```
type(rivers) function rivers_mod::rivers_year (
    character(len=27), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=23), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    character(len=17), intent(in) start_time_string,
    character(len=17), intent(in) end_time_string ) [private]
```

4.5.1.12 set_global_idxt()

```
subroutine rivers_mod::set_global_idxt (
    class(rivers), intent(inout) self ) [private]
```

4.5.1.13 set_global_size()

```
subroutine rivers_mod::set_global_size (
    class(rivers), intent(inout) self ) [private]
```

4.5.1.14 set_size()

```
subroutine rivers_mod::set_size (
    class(rivers), intent(inout) self ) [private]
```

4.5.1.15 swap()

```
subroutine rivers_mod::swap (
    class(rivers), intent(inout) self ) [private]
```

4.6 sponge_mod Module Reference

Data Types

- interface [sponge](#)

Functions/Subroutines

- subroutine [set_global_size](#) (self)
- subroutine [set_global_idx](#) (self)
- subroutine [set_size](#) (self)
- subroutine [reindex](#) (self)
- subroutine [init_members](#) (self, bc_name, n_vars, vars, var_names_idx, alpha, reduction_value_t, length)
- type([sponge](#)) function [sponge_default](#) (files_namelist, bc_name, n_vars, vars, var_names_idx, alpha, reduction_value_t, length)
- type([sponge](#)) function [sponge_year](#) (files_namelist, bc_name, n_vars, vars, var_names_idx, alpha, reduction_value_t, length, start_time_string, end_time_string)
- integer(4) function [get_global_size](#) (self)
- subroutine [load](#) (self, idx)
- subroutine [swap](#) (self)
- subroutine [actualize](#) (self, weight)
- subroutine [apply](#) (self, e3t, n_tracers, trb, tra)
- subroutine [apply_nudging](#) (self, e3t, n_tracers, rst_tracers, trb, tra)
- subroutine [apply_phys](#) (self, lat, sponge_t, sponge_vel)
- subroutine [sponge_destructor](#) (self)

4.6.1 Function/Subroutine Documentation

4.6.1.1 [actualize\(\)](#)

```
subroutine sponge_mod::actualize (
    class(sponge), intent(inout) self,
    double precision, intent(in) weight ) [private]
```

4.6.1.2 [apply\(\)](#)

```
subroutine sponge_mod::apply (
    class(sponge), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra ) [private]
```

4.6.1.3 [apply_nudging\(\)](#)

```
subroutine sponge_mod::apply_nudging (
    class(sponge), intent(inout) self,
    double precision, dimension(jpk, jpj, jpi), intent(in) e3t,
    integer, intent(in) n_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) rst_tracers,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(in) trb,
    double precision, dimension(jpk, jpj, jpi, n_tracers), intent(inout) tra )
```

4.6.1.4 apply_phys()

```
subroutine sponge_mod::apply_phys (
    class(sponge), intent(inout) self,
    double precision, dimension(jpj, jpi), intent(in) lat,
    double precision, dimension(jpj, jpi), intent(out) sponge_t,
    double precision, dimension(jpk, jpj, jpi), intent(out) sponge_vel )
```

4.6.1.5 get_global_size()

```
integer(4) function sponge_mod::get_global_size (
    class(sponge), intent(in) self ) [private]
```

4.6.1.6 init_members()

```
subroutine sponge_mod::init_members (
    class(sponge), intent(inout) self,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    double precision, intent(in) alpha,
    double precision, intent(in) reduction_value_t,
    double precision, intent(in) length ) [private]
```

4.6.1.7 load()

```
subroutine sponge_mod::load (
    class(sponge), intent(inout) self,
    integer, intent(in) idx ) [private]
```

4.6.1.8 reindex()

```
subroutine sponge_mod::reindex (
    class(sponge), intent(inout) self ) [private]
```

4.6.1.9 set_global_idxt()

```
subroutine sponge_mod::set_global_idxt (
    class(sponge), intent(inout) self ) [private]
```

4.6.1.10 set_global_size()

```
subroutine sponge_mod::set_global_size (
    class(sponge), intent(inout) self ) [private]
```

4.6.1.11 set_size()

```
subroutine sponge_mod::set_size (
    class(sponge), intent(inout) self ) [private]
```

4.6.1.12 sponge_default()

```
type(sponge) function sponge_mod::sponge_default (
    character(len=22), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    double precision, intent(in) alpha,
    double precision, intent(in) reduction_value_t,
    double precision, intent(in) length ) [private]
```

4.6.1.13 sponge_destructor()

```
subroutine sponge_mod::sponge_destructor (
    class(sponge), intent(inout) self )
```

4.6.1.14 sponge_year()

```
type(sponge) function sponge_mod::sponge_year (
    character(len=27), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    double precision, intent(in) alpha,
    double precision, intent(in) reduction_value_t,
    double precision, intent(in) length,
    character(len=17), intent(in) start_time_string,
    character(len=17), intent(in) end_time_string ) [private]
```

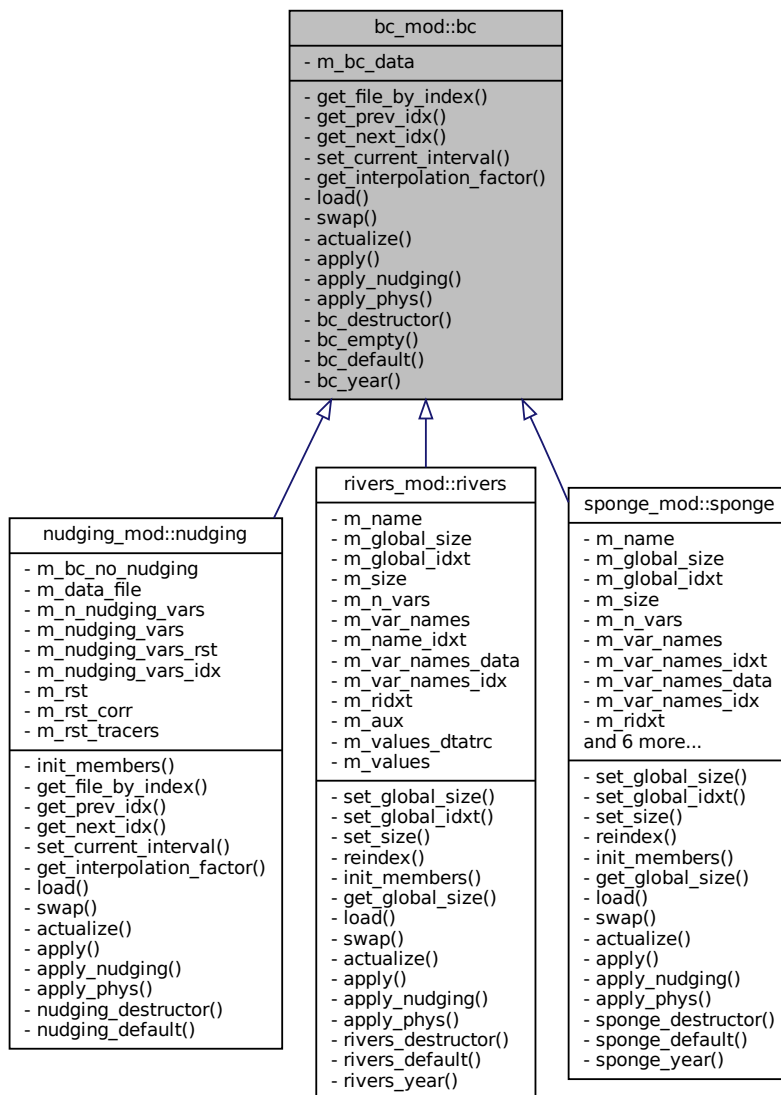
4.6.1.15 swap()

```
subroutine sponge_mod::swap (
    class(sponge), intent(inout) self ) [private]
```

5 Data Type Documentation

5.1 bc_mod::bc Interface Reference

Inheritance diagram for bc_mod::bc:



Private Member Functions

- procedure [get_file_by_index](#)
- procedure [get_prev_idx](#)
- procedure [get_next_idx](#)
- procedure [set_current_interval](#)
- procedure [get_interpolation_factor](#)
- procedure [load](#)

- procedure [swap](#)
- procedure [actualize](#)
- procedure [apply](#)
- procedure [apply_nudging](#)
- procedure [apply_phys](#)
- procedure [bc_destructor](#)
- type([bc](#)) function [bc_empty](#) ()
- type([bc](#)) function [bc_default](#) (files_namelist)
- type([bc](#)) function [bc_year](#) (files_namelist, start_time_string, end_time_string)

Private Attributes

- type([bc_data](#)), pointer [m_bc_data](#) => null()

5.1.1 Member Function/Subroutine Documentation

5.1.1.1 [actualize\(\)](#)

```
procedure bc_mod::bc::actualize ( ) [private]
```

Implemented in [sponge_mod::sponge](#), [rivers_mod::rivers](#), and [nudging_mod::nudging](#).

5.1.1.2 [apply\(\)](#)

```
procedure bc_mod::bc::apply ( ) [private]
```

Implemented in [sponge_mod::sponge](#), [rivers_mod::rivers](#), and [nudging_mod::nudging](#).

5.1.1.3 [apply_nudging\(\)](#)

```
procedure bc_mod::bc::apply_nudging ( ) [private]
```

Implemented in [sponge_mod::sponge](#), [rivers_mod::rivers](#), and [nudging_mod::nudging](#).

5.1.1.4 [apply_phys\(\)](#)

```
procedure bc_mod::bc::apply_phys ( ) [private]
```

Implemented in [sponge_mod::sponge](#), [rivers_mod::rivers](#), and [nudging_mod::nudging](#).

5.1.1.5 bc_default()

```
type(bc) function bc_mod::bc::bc_default (
    character(len=22), intent(in) files_namelist ) [private]
```

5.1.1.6 bc_destructor()

```
procedure bc_mod::bc::bc_destructor ( ) [private]
```

5.1.1.7 bc_empty()

```
type(bc) function bc_mod::bc::bc_empty ( ) [private]
```

5.1.1.8 bc_year()

```
type(bc) function bc_mod::bc::bc_year (
    character(len=27), intent(in) files_namelist,
    character(len=17), intent(in) start_time_string,
    character(len=17), intent(in) end_time_string ) [private]
```

5.1.1.9 get_file_by_index()

```
procedure bc_mod::bc::get_file_by_index ( ) [private]
```

Implemented in [nudging_mod::nudging](#).

5.1.1.10 get_interpolation_factor()

```
procedure bc_mod::bc::get_interpolation_factor ( ) [private]
```

Implemented in [nudging_mod::nudging](#).

5.1.1.11 get_next_idx()

```
procedure bc_mod::bc::get_next_idx ( ) [private]
```

Implemented in [nudging_mod::nudging](#).

5.1.1.12 `get_prev_idx()`

```
procedure bc_mod::bc::get_prev_idx ( ) [private]
```

Implemented in [nudging_mod::nudging](#).

5.1.1.13 `load()`

```
procedure bc_mod::bc::load ( ) [private]
```

Implemented in [sponge_mod::sponge](#), [rivers_mod::rivers](#), and [nudging_mod::nudging](#).

5.1.1.14 `set_current_interval()`

```
procedure bc_mod::bc::set_current_interval ( ) [private]
```

Implemented in [nudging_mod::nudging](#).

5.1.1.15 `swap()`

```
procedure bc_mod::bc::swap ( ) [private]
```

Implemented in [sponge_mod::sponge](#), [rivers_mod::rivers](#), and [nudging_mod::nudging](#).

5.1.2 Member Data Documentation

5.1.2.1 `m_bc_data`

```
type(bc_data), pointer bc_mod::bc::m_bc_data => null() [private]
```

5.2 `bc_data_mod::bc_data` Interface Reference

Private Member Functions

- procedure [get_file_by_index](#)
- procedure [get_prev_idx](#)
- procedure [get_next_idx](#)
- procedure [set_current_interval](#)
- procedure [get_interpolation_factor](#)
- procedure [new_interval](#)
- procedure [bc_data_destructor](#)
- type([bc_data](#)) function [bc_data_empty](#) ()
- type([bc_data](#)) function [bc_data_default](#) (files_namelist)
- type([bc_data](#)) function [bc_data_year](#) (files_namelist, start_time_string, end_time_string)

Private Attributes

- integer [m_n_files](#)
- character(len=24), dimension(:), allocatable [m_files](#)
- character(len=17), dimension(:), allocatable [m_time_strings](#)
- integer [m_n_times](#)
- double precision, dimension(:), allocatable [m_times](#)
- integer [m_prev_idx](#)
- integer [m_next_idx](#)
- logical [m_new_interval](#)

5.2.1 Member Function/Subroutine Documentation

5.2.1.1 bc_data_default()

```
type(bc\_data) function bc_data_mod::bc_data::bc_data_default (  
    character(len=22), intent(in) files_namelist ) [private]
```

5.2.1.2 bc_data_destructor()

```
procedure bc_data_mod::bc_data::bc_data_destructor ( ) [private]
```

5.2.1.3 bc_data_empty()

```
type(bc\_data) function bc_data_mod::bc_data::bc_data_empty ( ) [private]
```

5.2.1.4 bc_data_year()

```
type(bc\_data) function bc_data_mod::bc_data::bc_data_year (  
    character(len=27), intent(in) files_namelist,  
    character(len=17), intent(in) start_time_string,  
    character(len=17), intent(in) end_time_string ) [private]
```

5.2.1.5 get_file_by_index()

```
procedure bc_data_mod::bc_data::get_file_by_index ( ) [private]
```


5.2.1.6 `get_interpolation_factor()`

```
procedure bc_data_mod::bc_data::get_interpolation_factor ( ) [private]
```

5.2.1.7 `get_next_idx()`

```
procedure bc_data_mod::bc_data::get_next_idx ( ) [private]
```

5.2.1.8 `get_prev_idx()`

```
procedure bc_data_mod::bc_data::get_prev_idx ( ) [private]
```

5.2.1.9 `new_interval()`

```
procedure bc_data_mod::bc_data::new_interval ( ) [private]
```

5.2.1.10 `set_current_interval()`

```
procedure bc_data_mod::bc_data::set_current_interval ( ) [private]
```

5.2.2 Member Data Documentation

5.2.2.1 `m_files`

```
character(len=24), dimension(:), allocatable bc_data_mod::bc_data::m_files [private]
```

5.2.2.2 `m_n_files`

```
integer bc_data_mod::bc_data::m_n_files [private]
```

5.2.2.3 `m_n_times`

```
integer bc_data_mod::bc_data::m_n_times [private]
```

5.2.2.4 m_new_interval

```
logical bc_data_mod::bc_data::m_new_interval [private]
```

5.2.2.5 m_next_idx

```
integer bc_data_mod::bc_data::m_next_idx [private]
```

5.2.2.6 m_prev_idx

```
integer bc_data_mod::bc_data::m_prev_idx [private]
```

5.2.2.7 m_time_strings

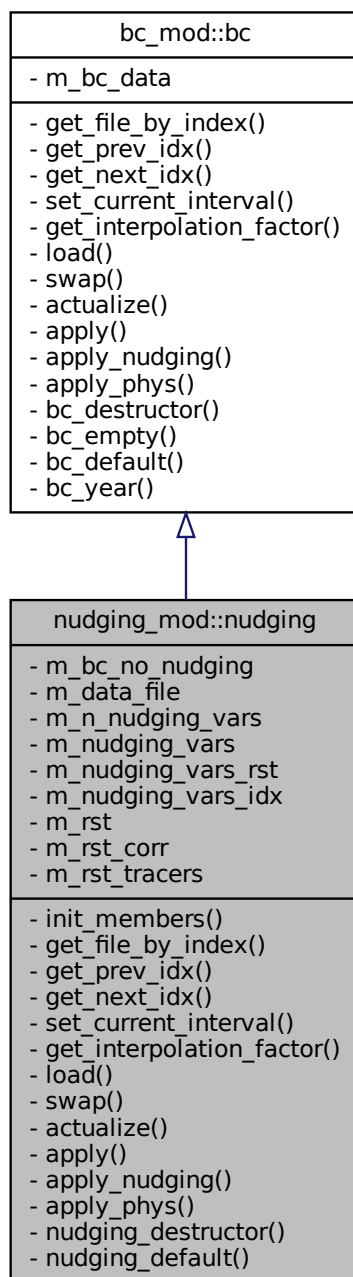
```
character(len=17), dimension(:), allocatable bc_data_mod::bc_data::m_time_strings [private]
```

5.2.2.8 m_times

```
double precision, dimension(:), allocatable bc_data_mod::bc_data::m_times [private]
```

5.3 nudging_mod::nudging Interface Reference

Inheritance diagram for nudging_mod::nudging:



Private Member Functions

- procedure [init_members](#)
- procedure [get_file_by_index](#)
- procedure [get_prev_idx](#)

- procedure [get_next_idx](#)
- procedure [set_current_interval](#)
- procedure [get_interpolation_factor](#)
- procedure [load](#)
- procedure [swap](#)
- procedure [actualize](#)
- procedure [apply](#)
- procedure [apply_nudging](#)
- procedure [apply_phys](#)
- procedure [nudging_destructor](#)
- type([nudging](#)) function [nudging_default](#) (bc_no_nudging, data_file, n_vars, vars, vars_idx, rst_corr, n_tracers)

Private Attributes

- class(bc), pointer [m_bc_no_nudging](#) => null()
- character(len=11) [m_data_file](#)
- integer [m_n_nudging_vars](#)
- character(len=3), dimension(:), allocatable [m_nudging_vars](#)
- character(len=5), dimension(:), allocatable [m_nudging_vars_rst](#)
- integer(4), dimension(:), allocatable [m_nudging_vars_idx](#)
- double precision, dimension(:, :, :), allocatable [m_rst](#)
- double precision, dimension(:), allocatable [m_rst_corr](#)
- double precision, dimension(:, :, :), allocatable [m_rst_tracers](#)

5.3.1 Member Function/Subroutine Documentation

5.3.1.1 actualize()

```
procedure nudging_mod::nudging::actualize ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.2 apply()

```
procedure nudging_mod::nudging::apply ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.3 apply_nudging()

```
procedure nudging_mod::nudging::apply_nudging ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.4 apply_phys()

```
procedure nudging_mod::nudging::apply_phys ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.5 get_file_by_index()

```
procedure nudging_mod::nudging::get_file_by_index ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.6 get_interpolation_factor()

```
procedure nudging_mod::nudging::get_interpolation_factor ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.7 get_next_idx()

```
procedure nudging_mod::nudging::get_next_idx ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.8 get_prev_idx()

```
procedure nudging_mod::nudging::get_prev_idx ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.9 init_members()

```
procedure nudging_mod::nudging::init_members ( ) [private]
```

5.3.1.10 load()

```
procedure nudging_mod::nudging::load ( ) [private]
```

Implements [bc_mod::bc](#).

5.3.1.11 nudging_default()

```

type(nudging) function nudging_mod::nudging::nudging_default (
    class(bc), intent(in), target bc_no_nudging,
    character(len=11), intent(in) data_file,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) vars_idx,
    double precision, dimension(n_vars), intent(in) rst_corr,
    integer, intent(in) n_tracers ) [private]

```

5.3.1.12 nudging_destructor()

```

procedure nudging_mod::nudging::nudging_destructor ( ) [private]

```

5.3.1.13 set_current_interval()

```

procedure nudging_mod::nudging::set_current_interval ( ) [private]

```

Implements [bc_mod::bc](#).

5.3.1.14 swap()

```

procedure nudging_mod::nudging::swap ( ) [private]

```

Implements [bc_mod::bc](#).

5.3.2 Member Data Documentation

5.3.2.1 m_bc_no_nudging

```

class(bc), pointer nudging_mod::nudging::m_bc_no_nudging => null() [private]

```

5.3.2.2 m_data_file

```

character(len=11) nudging_mod::nudging::m_data_file [private]

```

5.3.2.3 m_n_nudging_vars

```

integer nudging_mod::nudging::m_n_nudging_vars [private]

```

5.3.2.4 m_nudging_vars

```
character(len=3), dimension(:), allocatable nudging_mod::nudging::m_nudging_vars [private]
```

5.3.2.5 m_nudging_vars_idx

```
integer(4), dimension(:), allocatable nudging_mod::nudging::m_nudging_vars_idx [private]
```

5.3.2.6 m_nudging_vars_rst

```
character(len=5), dimension(:), allocatable nudging_mod::nudging::m_nudging_vars_rst [private]
```

5.3.2.7 m_rst

```
double precision, dimension(:, :, :, :), allocatable nudging_mod::nudging::m_rst [private]
```

5.3.2.8 m_rst_corr

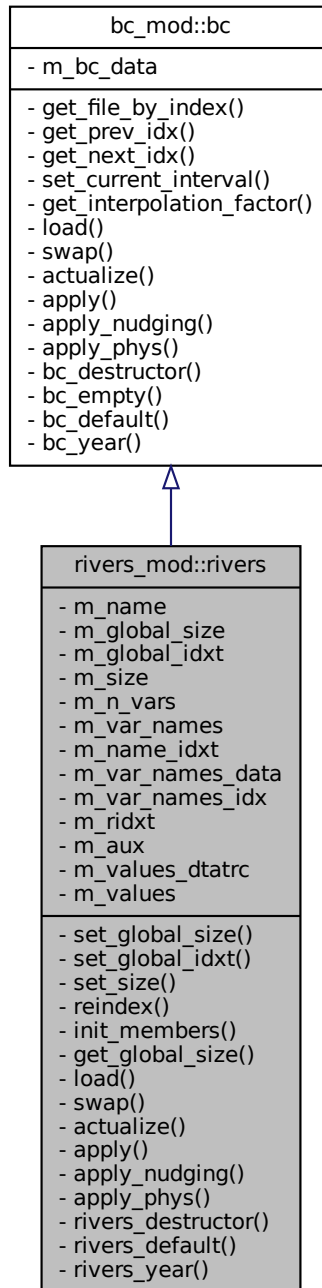
```
double precision, dimension(:), allocatable nudging_mod::nudging::m_rst_corr [private]
```

5.3.2.9 m_rst_tracers

```
double precision, dimension(:, :, :, :), allocatable nudging_mod::nudging::m_rst_tracers [private]
```

5.4 rivers_mod::rivers Interface Reference

Inheritance diagram for rivers_mod::rivers:



Private Member Functions

- procedure [set_global_size](#)
- procedure [set_global_idx](#)
- procedure [set_size](#)

- procedure [reindex](#)
- procedure [init_members](#)
- procedure [get_global_size](#)
- procedure [load](#)
- procedure [swap](#)
- procedure [actualize](#)
- procedure [apply](#)
- procedure [apply_nudging](#)
- procedure [apply_phys](#)
- procedure [rivers_destructor](#)
- type([rivers](#)) function [rivers_default](#) (files_namelist, bc_name, n_vars, vars, var_names_idx)
- type([rivers](#)) function [rivers_year](#) (files_namelist, bc_name, n_vars, vars, var_names_idx, start_time_string, end_time_string)

Private Attributes

- character(len=3) [m_name](#)
- integer(4) [m_global_size](#)
- integer(4), dimension(:), allocatable [m_global_idxt](#)
- integer(4) [m_size](#)
- integer [m_n_vars](#)
- character(len=3), dimension(:), allocatable [m_var_names](#)
- character(len=12) [m_name_idxt](#)
- character(len=7), dimension(:), allocatable [m_var_names_data](#)
- integer(4), dimension(:), allocatable [m_var_names_idx](#)
- integer(4), dimension(:, :), allocatable [m_ridx](#)
- double precision, dimension(:), allocatable [m_aux](#)
- double precision, dimension(:, :, :), allocatable [m_values_dtatrc](#)
- double precision, dimension(:, :), allocatable [m_values](#)

5.4.1 Member Function/Subroutine Documentation

5.4.1.1 [actualize\(\)](#)

```
procedure rivers_mod::rivers::actualize ( ) [private]
```

Implements [bc_mod::bc](#).

5.4.1.2 [apply\(\)](#)

```
procedure rivers_mod::rivers::apply ( ) [private]
```

Implements [bc_mod::bc](#).

5.4.1.3 apply_nudging()

```
procedure rivers_mod::rivers::apply_nudging ( ) [private]
```

Implements [bc_mod::bc](#).

5.4.1.4 apply_phys()

```
procedure rivers_mod::rivers::apply_phys ( ) [private]
```

Implements [bc_mod::bc](#).

5.4.1.5 get_global_size()

```
procedure rivers_mod::rivers::get_global_size ( ) [private]
```

5.4.1.6 init_members()

```
procedure rivers_mod::rivers::init_members ( ) [private]
```

5.4.1.7 load()

```
procedure rivers_mod::rivers::load ( ) [private]
```

Implements [bc_mod::bc](#).

5.4.1.8 reindex()

```
procedure rivers_mod::rivers::reindex ( ) [private]
```

5.4.1.9 rivers_default()

```
type(rivers) function rivers_mod::rivers::rivers_default (
    character(len=22), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=23), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx ) [private]
```

5.4.1.10 rivers_destructor()

```
procedure rivers_mod::rivers::rivers_destructor ( ) [private]
```

5.4.1.11 rivers_year()

```
type(rivers) function rivers_mod::rivers::rivers_year (
    character(len=27), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=23), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    character(len=17), intent(in) start_time_string,
    character(len=17), intent(in) end_time_string ) [private]
```

5.4.1.12 set_global_idx()

```
procedure rivers_mod::rivers::set_global_idx ( ) [private]
```

5.4.1.13 set_global_size()

```
procedure rivers_mod::rivers::set_global_size ( ) [private]
```

5.4.1.14 set_size()

```
procedure rivers_mod::rivers::set_size ( ) [private]
```

5.4.1.15 swap()

```
procedure rivers_mod::rivers::swap ( ) [private]
```

Implements [bc_mod::bc](#).

5.4.2 Member Data Documentation

5.4.2.1 m_aux

```
double precision, dimension(:), allocatable rivers_mod::rivers::m_aux [private]
```

5.4.2.2 m_global_idxt

```
integer(4), dimension(:), allocatable rivers_mod::rivers::m_global_idxt [private]
```

5.4.2.3 m_global_size

```
integer(4) rivers_mod::rivers::m_global_size [private]
```

5.4.2.4 m_n_vars

```
integer rivers_mod::rivers::m_n_vars [private]
```

5.4.2.5 m_name

```
character(len=3) rivers_mod::rivers::m_name [private]
```

5.4.2.6 m_name_idxt

```
character(len=12) rivers_mod::rivers::m_name_idxt [private]
```

5.4.2.7 m_ridx

```
integer(4), dimension(:, :), allocatable rivers_mod::rivers::m_ridx [private]
```

5.4.2.8 m_size

```
integer(4) rivers_mod::rivers::m_size [private]
```

5.4.2.9 m_values

```
double precision, dimension(:, :), allocatable rivers_mod::rivers::m_values [private]
```

5.4.2.10 m_values_dtatrc

```
double precision, dimension(:, :, :), allocatable rivers_mod::rivers::m_values_dtatrc [private]
```

5.4.2.11 m_var_names

```
character(len=3), dimension(:), allocatable rivers_mod::rivers::m_var_names [private]
```

5.4.2.12 m_var_names_data

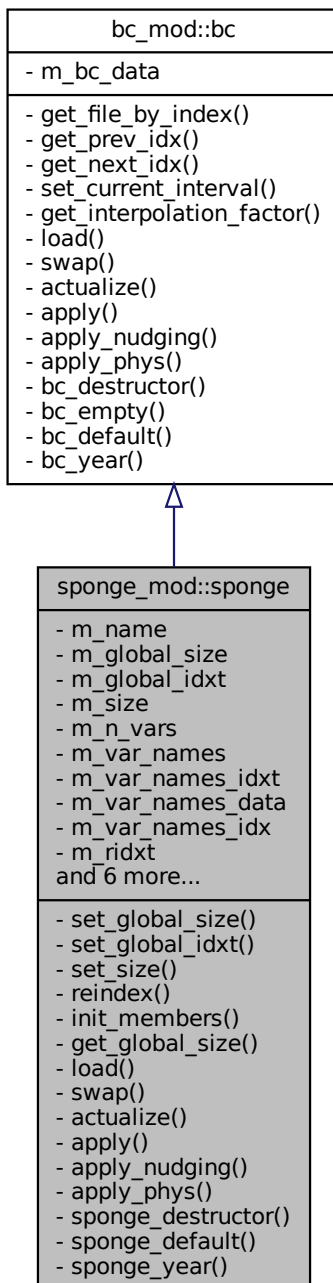
```
character(len=7), dimension(:), allocatable rivers_mod::rivers::m_var_names_data [private]
```

5.4.2.13 m_var_names_idx

```
integer(4), dimension(:), allocatable rivers_mod::rivers::m_var_names_idx [private]
```

5.5 sponge_mod::sponge Interface Reference

Inheritance diagram for sponge_mod::sponge:



Private Member Functions

- procedure [set_global_size](#)
- procedure [set_global_idxt](#)
- procedure [set_size](#)

- procedure [reindex](#)
- procedure [init_members](#)
- procedure [get_global_size](#)
- procedure [load](#)
- procedure [swap](#)
- procedure [actualize](#)
- procedure [apply](#)
- procedure [apply_nudging](#)
- procedure [apply_phys](#)
- procedure [sponge_destructor](#)
- type([sponge](#)) function [sponge_default](#) (files_namelist, bc_name, n_vars, vars, var_names_idx, alpha, reduction_value_t, length)
- type([sponge](#)) function [sponge_year](#) (files_namelist, bc_name, n_vars, vars, var_names_idx, alpha, reduction_value_t, length, start_time_string, end_time_string)

Private Attributes

- character(len=3) [m_name](#)
- integer(4) [m_global_size](#)
- integer(4), dimension(:), allocatable [m_global_idxt](#)
- integer(4) [m_size](#)
- integer [m_n_vars](#)
- character(len=3), dimension(:), allocatable [m_var_names](#)
- character(len=12), dimension(:), allocatable [m_var_names_idxt](#)
- character(len=7), dimension(:), allocatable [m_var_names_data](#)
- integer(4), dimension(:), allocatable [m_var_names_idx](#)
- integer(4), dimension(:, :), allocatable [m_ridx](#)
- double precision, dimension(:), allocatable [m_aux](#)
- double precision, dimension(:, :, :), allocatable [m_values_dtatrc](#)
- double precision, dimension(:, :), allocatable [m_values](#)
- double precision [m_alpha](#)
- double precision [m_reduction_value_t](#)
- double precision [m_length](#)

5.5.1 Member Function/Subroutine Documentation

5.5.1.1 [actualize\(\)](#)

```
procedure sponge_mod::sponge::actualize ( ) [private]
```

Implements [bc_mod::bc](#).

5.5.1.2 [apply\(\)](#)

```
procedure sponge_mod::sponge::apply ( ) [private]
```

Implements [bc_mod::bc](#).

5.5.1.3 `apply_nudging()`

```
procedure sponge_mod::sponge::apply_nudging ( ) [private]
```

Implements [bc_mod::bc](#).

5.5.1.4 `apply_phys()`

```
procedure sponge_mod::sponge::apply_phys ( ) [private]
```

Implements [bc_mod::bc](#).

5.5.1.5 `get_global_size()`

```
procedure sponge_mod::sponge::get_global_size ( ) [private]
```

5.5.1.6 `init_members()`

```
procedure sponge_mod::sponge::init_members ( ) [private]
```

5.5.1.7 `load()`

```
procedure sponge_mod::sponge::load ( ) [private]
```

Implements [bc_mod::bc](#).

5.5.1.8 `reindex()`

```
procedure sponge_mod::sponge::reindex ( ) [private]
```

5.5.1.9 `set_global_idxt()`

```
procedure sponge_mod::sponge::set_global_idxt ( ) [private]
```

5.5.1.10 `set_global_size()`

```
procedure sponge_mod::sponge::set_global_size ( ) [private]
```


5.5.1.11 set_size()

```
procedure sponge_mod::sponge::set_size ( ) [private]
```

5.5.1.12 sponge_default()

```
type(sponge) function sponge_mod::sponge::sponge_default (
    character(len=22), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    double precision, intent(in) alpha,
    double precision, intent(in) reduction_value_t,
    double precision, intent(in) length ) [private]
```

5.5.1.13 sponge_destructor()

```
procedure sponge_mod::sponge::sponge_destructor ( ) [private]
```

5.5.1.14 sponge_year()

```
type(sponge) function sponge_mod::sponge::sponge_year (
    character(len=27), intent(in) files_namelist,
    character(len=3) bc_name,
    integer, intent(in) n_vars,
    character(len=27), intent(in) vars,
    integer(4), dimension(n_vars), intent(in) var_names_idx,
    double precision, intent(in) alpha,
    double precision, intent(in) reduction_value_t,
    double precision, intent(in) length,
    character(len=17), intent(in) start_time_string,
    character(len=17), intent(in) end_time_string ) [private]
```

5.5.1.15 swap()

```
procedure sponge_mod::sponge::swap ( ) [private]
```

Implements [bc_mod::bc](#).

5.5.2 Member Data Documentation

5.5.2.1 m_alpha

```
double precision sponge_mod::sponge::m_alpha [private]
```

5.5.2.2 m_aux

```
double precision, dimension(:), allocatable sponge_mod::sponge::m_aux [private]
```

5.5.2.3 m_global_idxt

```
integer(4), dimension(:), allocatable sponge_mod::sponge::m_global_idxt [private]
```

5.5.2.4 m_global_size

```
integer(4) sponge_mod::sponge::m_global_size [private]
```

5.5.2.5 m_length

```
double precision sponge_mod::sponge::m_length [private]
```

5.5.2.6 m_n_vars

```
integer sponge_mod::sponge::m_n_vars [private]
```

5.5.2.7 m_name

```
character(len=3) sponge_mod::sponge::m_name [private]
```

5.5.2.8 m_reduction_value_t

```
double precision sponge_mod::sponge::m_reduction_value_t [private]
```

5.5.2.9 m_ridxt

```
integer(4), dimension(:, :), allocatable sponge_mod::sponge::m_ridxt [private]
```

5.5.2.10 m_size

```
integer(4) sponge_mod::sponge::m_size [private]
```

5.5.2.11 m_values

```
double precision, dimension(:, :), allocatable sponge_mod::sponge::m_values [private]
```

5.5.2.12 m_values_dtatrc

```
double precision, dimension(:, :, :), allocatable sponge_mod::sponge::m_values_dtatrc [private]
```

5.5.2.13 m_var_names

```
character(len=3), dimension(:), allocatable sponge_mod::sponge::m_var_names [private]
```

5.5.2.14 m_var_names_data

```
character(len=7), dimension(:), allocatable sponge_mod::sponge::m_var_names_data [private]
```

5.5.2.15 m_var_names_idx

```
integer(4), dimension(:), allocatable sponge_mod::sponge::m_var_names_idx [private]
```

5.5.2.16 m_var_names_idxt

```
character(len=12), dimension(:), allocatable sponge_mod::sponge::m_var_names_idxt [private]
```

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