

reference

October 31, 2022

Title What the Package Does (One Line, Title Case)

Version 0.0.0.9000

Description What the package does (one paragraph).

License MIT + file LICENSE

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.0

Collate utils.R project.sirius.v4.R tools-colors.R tools-methods.R
tools-default_visualize.R tools-modify_ggset.R tools-export.R
tools-MSnbase-MODIFIED_compareSpectra.R tools-yaml.R tools-report.R
base-generic.R extra-generic.R main-generic.R
class-VIRTUAL_slots.R class-melody.R
class-project_conformation.R class-project_metadata.R
class-project_api.R class-project_dataset.R class-project.R
class-statistic_set.R class-mcn_dataset.R
class-msframe.R class-command.R class-ggset.R class-report.R
class-section.R class-nebula.R class-mcnebulae.R
methods-initialize_mcnebulae.R
extraMethods-collate_data.R methods-filter_structure.R
methods-filter_formula.R methods-filter_ppcp.R
methods-create_hierarchy.R methods-create_reference.R
methods-create_features_annotation.R
methods-create_stardust_classes.R methods-cross_filter_stardust.R
methods-backtrack_stardust.R methods-create_nebula_index.R
methods-compute_spectral_similarity.R
methods-create_parent_nebula.R methods-create_child_nebulae.R
methods-create_parent_layout.R methods-create_child_layouts.R
methods-activate_nebulae.R methods-visualize.R
extraMethods-draw_structures.R extraMethods-draw_nodes.R
methods-annotate_nebula.R extraMethods-binary_comparison.R
extraMethods-report.R

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

Imports BiocStyle,

bookdown,
 crayon,
 data.table,
 dplyr,
 ggimage,
 ggraph,
 ggsci,
 ggtext,
 grid,
 gridExtra,
 grImport2,
 igraph,
 knitr,
 pbapply,
 rlang,
 rmarkdown,
 stringr,
 styler,
 svglite,
 tidyr

Depends ggplot2**R topics documented:**

activate_nebulae,mcnebula,function,function-method	3
annotate_nebula,ANY,character-method	5
backtrack-class	6
backtrack_stardust,mcnebula,missing,missing,missing-method	6
binary_comparison,ANY,formula,function,ANY,character-method	7
code_block-class	9
collate_data,ANY,character,function-method	11
command-class	13
compute_spectral_similarity,mcnebula,logical,logical,missing,missing-method	14
create_child_layouts,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY-method	16
create_child_nebulae,mcnebula,numeric,numeric,logical-method	17
create_features_annotation,mcnebula,missing,missing-method	18
create_hierarchy,mcnebula,function-method	19
create_nebula_index,mcnebula,logical-method	20
create_parent_layout,mcnebula,character,numeric-method	21
create_parent_nebula,mcnebula,numeric,logical-method	22
create_reference,mcnebula,ANY,ANY,ANY,ANY,logical,ANY-method	23
create_stardust_classes,mcnebula,numeric,numeric,logical,logical-method	24
cross_filter_stardust,missing-method	25
dataset-class	27
draw_nodes,mcnebula,character,character,logical,logical,logical,logical-method	28
draw_structures,mcnebula,character-method	30

export-class	31
filter_formula,mcnebula,function,logical-method	32
filter_msframe,msframe,function,formula-method	33
filter_ppcp,mcnebula,function,logical-method	33
filter_structure,missing,missing,missing-method	34
fun_modify	35
ggset-class	36
history_rblock,numeric,missing,missing,numeric-method	37
include_figure,character,character,character-method	39
include_table,data.frame,character,character-method	40
initialize_mcnebula,mcnebula,ANY-method	40
layerSet-class	42
mcnebula-class	43
MCnebula2	47
mcn_dataset-class	47
melody-class	48
msframe-class	50
nebula-class	52
project-class	56
project_api-class	58
project_conformation-class	59
project_dataset-class	61
project_metadata-class	62
reference-class	64
report-class	65
section-class	66
set_nodes_color,mcnebula,character-method	68
set_ppcp_data,mcnebula,character-method	69
set_ration_data,mcnebula,logical-method	70
set_tracer,mcnebula,character,character,character-method	71
statistic_set-class	72
subscript-class	73
visualize,mcnebula,character,function,missing-method	74
Index	76

activate_nebulae,mcnebula,function,function-method
...
Description
...
activate_nebulae(): get the default parameters for the method activate_nebulae.
activate_nebulae(x, ...): use the default parameters whatever 'missing' while performing the method activate_nebulae.
FUNCTION_DESCRIPTION
...

Usage

```
## S4 method for signature 'mcnebula`,`function`,`function`'
activate_nebulae(x, fun_default_parent, fun_default_child)

## S4 method for signature 'missing,missing,missing'
activate_nebulae()

## S4 method for signature 'mcnebula,ANY,ANY'
activate_nebulae(x, fun_default_parent, fun_default_child)

ggset_activate_parent_nebula(x)

ggset_activate_child_nebulae(x)
```

Arguments

```
x                ...
fun_default_parent
                ...
fun_default_child
                ...
```

Details

```
...
DETAILS
...
```

Value

```
...
OUTPUT_DESCRIPTION
...
```

Examples

```
## Not run:
activate_nebulae(...)

## End(Not run)
## Not run:
if(interactive()){
  #EXAMPLE1
}

## End(Not run)
## Not run:
if(interactive()){
```

```
#EXAMPLE1  
}  
  
## End(Not run)
```

```
annotate_nebula, ANY, character-method  
...
```

Description

...

Usage

```
## S4 method for signature 'ANY,character'  
annotate_nebula(x, nebula_name)
```

Arguments

x	...
nebula_name	...

Details

...

Value

...

See Also

[draw_nodes](#), [draw_structures...](#)

Examples

```
## Not run:  
annotate_nebula(...)  
  
## End(Not run)
```

backtrack-class	<i>Share slots and methods for classes inherite from VIRTUAL_backtrack</i>
-----------------	--

Description

...
backtrack, backtrack<-: getter and setter for the backtrack slot of the object.

Usage

```
## S4 method for signature 'ANY'  
backtrack(x)  
  
## S4 replacement method for signature 'ANY'  
backtrack(x) <- value
```

Arguments

value The value for the slot.

Slots

backtrack ...

backtrack_stardust,mcnebula,missing,missing,missing-method
...

Description

...
...
...

Usage

```
## S4 method for signature 'mcnebula,missing,missing,missing'  
backtrack_stardust(x)  
  
## S4 method for signature 'mcnebula,character,missing,ANY'  
backtrack_stardust(x, class.name, remove)  
  
## S4 method for signature 'mcnebula,missing,numeric,ANY'  
backtrack_stardust(x, rel.index, remove)
```

Arguments

x ...
class.name ...
remove ...
rel.index ...

Details

...

Value

...

See Also

[cross_filter_stardust](#)

Examples

```
## Not run:  
backtrack_stardust(...)  
  
## End(Not run)  
## Not run:  
backtrack_stardust(...)  
  
## End(Not run)  
## Not run:  
backtrack_stardust(...)  
  
## End(Not run)
```

binary_comparison,ANY,formula,function,ANY,character-method
...

Description

...

binary_comparison(): get the default parameters for the method binary_comparison.

binary_comparison(x, ...): use the default parameters whatever 'missing' while performing the method binary_comparison.

Usage

```
## S4 method for signature 'ANY,formula,`function`,ANY,character'  
binary_comparison(x, formula, fun_norm, top_coef, contrasts)  
  
## S4 method for signature 'missing,missing,missing,missing,missing'  
binary_comparison()  
  
## S4 method for signature 'ANY,ANY,ANY,ANY,ANY'  
binary_comparison(x, ..., formula, fun_norm, top_coef, contrasts)
```

Arguments

x	...
formula	...
fun_norm	...
top_coef	...
contrasts	...
...	...

Details

...

Value

...

See Also

```
stats::model.matrix(), limma::makeContrasts(), limma::lmFit(), limma::eBayes(), limma::contrasts.fit(),  
limma::topTable()...
```

Examples

```
## Not run:  
binary_comparison(...)  
  
## End(Not run)
```

code_block-class ...

Description

...

...

...

code_block, code_block<-: getter and setter for the code_block slot of the object.

codes, codes<-: getter and setter for the codes slot of the object.

new_code_block: ...

new_code_block(): get the default parameters for the method new_code_block.

new_code_block(x, ...): use the default parameters whatever 'missing' while performing the method new_code_block.

new_code_block_figure: ...

new_code_block_table: ...

call_command: Format 'code_block' object as character.

Usage

```
## S4 method for signature 'code_block'
show(object)
```

```
## S4 method for signature 'code_block_table'
show(object)
```

```
## S4 method for signature 'code_block_figure'
show(object)
```

```
## S4 method for signature 'heading'
show(object)
```

```
## S4 method for signature 'section'
show(object)
```

```
## S4 method for signature 'ANY'
code_block(x)
```

```
## S4 replacement method for signature 'ANY'
code_block(x) <- value
```

```
## S4 method for signature 'code_block'
codes(x)
```

```
## S4 replacement method for signature 'code_block'
codes(x) <- value

## S4 method for signature 'character,character,list,logical,`function`'
new_code_block(language, codes, args, pretty, fun_pretty)

## S4 method for signature 'missing,missing,missing,missing,missing'
new_code_block()

## S4 method for signature 'ANY,ANY,ANY,ANY,ANY'
new_code_block(language, codes, args, pretty, fun_pretty)

## S4 method for signature 'character'
new_code_block_figure(name, caption, ...)

## S4 method for signature 'character'
new_code_block_table(name, ...)

## S4 method for signature 'code_block'
call_command(x)
```

Arguments

value	The value for the slot.
language	...
codes	...
args	...
pretty	...
fun_pretty	...
name	...
caption	...
...	...

Slots

```
codes ...
command_name ...
command_function ...
command_args ...
```

See Also

[command-class](#)

Other call_commands: [ggset-class](#), [report-class](#), [section-class](#)

Examples

```
## Not run:
new('code_block', ...)

## End(Not run)
## Not run:
new('code_block_table', ...)

## End(Not run)
## Not run:
new('code_block_figure', ...)

## End(Not run)
## Not run:
new_code_block(...)

## End(Not run)
## Not run:
new_code_block_figure(...)

## End(Not run)
## Not run:
new_code_block_table(...)

## End(Not run)
## Not run:
call_command(...)

## End(Not run)
```

collate_data, ANY, character, function-method

...

Description

```
...
collate_data(): get the default parameters for the method collate_data.
collate_data(x, ...): use the default parameters whatever 'missing' while performing the method
collate_data.
...
```

Usage

```
## S4 method for signature 'ANY,character,`function`'
collate_data(x, subscript, fun_collate, ...)

## S4 method for signature 'missing,missing,missing'
```

```

collate_data()

## S4 method for signature 'ANY,ANY,ANY'
collate_data(x, subscript, fun_collate, ...)

## S4 method for signature
## 'ANY,
##   project_metadata,
##   character,
##   missing,
##   missing,
##   missing,
##   missing,
##   missing'
read_data(x, project_metadata, subscript)

## S4 method for signature
## 'missing,
##   missing,
##   character,
##   character,
##   character,
##   character,
##   `function`,
##   `function`'
read_data(subscript, path, .features_id, .candidates_id, fun_read, fun_format)

```

Arguments

x	...
subscript	...
fun_collate	...
...	...
project_metadata	...
path	...
.features_id	...
.candidates_id	...
fun_read	...
fun_format	...

Details

...

Value

...

Examples

```
## Not run:
collate_data(...)

## End(Not run)
## Not run:
read_data(...)

## End(Not run)
```

command-class	...
---------------	-----

Description

```
...
command_name, command_name<=: getter and setter for the command_name slot of the object.
command_function, command_function<=: getter and setter for the command_function slot of the
object.
command_args, command_args<=: getter and setter for the command_args slot of the object.
new_command: ...
call_command: ...
```

Usage

```
## S4 method for signature 'command'
show(object)

## S4 method for signature 'command'
command_name(x)

## S4 replacement method for signature 'command'
command_name(x) <- value

## S4 method for signature 'command'
command_function(x)

## S4 replacement method for signature 'command'
command_function(x) <- value

## S4 method for signature 'command'
command_args(x)

## S4 replacement method for signature 'command'
command_args(x) <- value
```

```
## S4 method for signature '`function`,character'
new_command(fun, ..., name)

## S4 method for signature '`function`,missing'
new_command(fun, ..., name)

## S4 method for signature 'command'
call_command(x)
```

Arguments

value	The value for the slot.
fun	...
...	...
name	...

Slots

```
command_name ...
command_function ...
command_args ...
```

Examples

```
## Not run:
new('command', ...)

## End(Not run)
## Not run:
new_command(...)

## End(Not run)
## Not run:
call_command(...)

## End(Not run)
```

```
compute_spectral_similarity,mcnebula,logical,logical,missing,missing-method
...
```

Description

```
...
compute_spectral_similarity(): get the default parameters for the method compute_spectral_similarity.
compute_spectral_similarity(x, ...): use the default parameters whatever 'missing' while
performing the method compute_spectral_similarity.
```

Usage

```
## S4 method for signature 'mcnebula,logical,logical,missing,missing'
compute_spectral_similarity(x, within_nebula, recompute)

## S4 method for signature 'missing,missing,missing,missing,missing'
compute_spectral_similarity()

## S4 method for signature 'mcnebula,ANY,ANY,ANY,ANY'
compute_spectral_similarity(x, within_nebula, recompute, sp1, sp2)

## S4 method for signature
## 'missing,missing,missing,lightSpectrum,lightSpectrum'
compute_spectral_similarity(sp1, sp2)

## S4 method for signature 'missing,missing,missing,data.frame,data.frame'
compute_spectral_similarity(sp1, sp2)
```

Arguments

x	...
within_nebula	...
recompute	...
sp1	...
sp2	...

Details

...

Value

...

Examples

```
## Not run:
compute_spectral_similarity(...)

## End(Not run)
```

```
create_child_layouts,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY-method
```

```
...
```

Description

```
...
```

`create_child_layouts(x, ...)`: use the default parameters whatever 'missing' while performing the method `create_child_layouts`.

`create_child_layouts()`: get the function for generating default parameters for the method `create_child_layouts`.

Usage

```
## S4 method for signature 'mcnebula,ANY,ANY,ANY,ANY,ANY,ANY'
create_child_layouts(
  x,
  ggraph_layouts,
  seeds,
  grid_layout,
  viewports,
  panel_viewport,
  legend_viewport
)

## S4 method for signature
## 'missing,missing,missing,missing,missing,missing'
create_child_layouts()
```

Arguments

```
x                ...
ggraph_layouts  ...
seeds           ...
grid_layout     ...
viewports       ...
panel_viewport  ...
legend_viewport
...
```

Details

```
...
```


Value

...

Examples

```
## Not run:
create_child_layouts(...)

## End(Not run)
```

create_child_nebulae,mcnebula,numeric,numeric,logical-method
...

Description

...

create_child_nebulae(): get the default parameters for the method create_child_nebulae.

create_child_nebulae(x, ...): use the default parameters whatever 'missing' while performing the method create_child_nebulae.

Usage

```
## S4 method for signature 'mcnebula,numeric,numeric,logical'
create_child_nebulae(x, edge_cutoff, max_edge_number, use_tracer)

## S4 method for signature 'missing,missing,missing,missing'
create_child_nebulae()

## S4 method for signature 'mcnebula,ANY,ANY,ANY'
create_child_nebulae(x, edge_cutoff, max_edge_number, use_tracer)
```

Arguments

x	...
edge_cutoff	...
max_edge_number	
	...

Details

...

Value

...

Examples

```
## Not run:
create_child_nebulae(...)

## End(Not run)
```

```
create_features_annotation,mcnebula,missing,missing-method
...
```

Description

...

Usage

```
## S4 method for signature 'mcnebula,missing,missing'
create_features_annotation(x)

## S4 method for signature 'mcnebula,data.frame,numeric'
create_features_annotation(x, extra_data, column)

## S4 method for signature 'mcnebula,data.frame,missing'
create_features_annotation(x, extra_data)
```

Arguments

x	...
extra_data	...
column	...

Details

...

Value

...

Examples

```
## Not run:
create_features_annotation(...)

## End(Not run)
```

```
create_hierarchy,mcnebula,function-method
...
```

Description

...

`create_hierarchy()`: get the default parameters for the method `create_hierarchy`.

`create_hierarchy(x, ...)`: use the default parameters whatever 'missing' while performing the method `create_hierarchy`.

Usage

```
## S4 method for signature 'mcnebula`,`function`'
create_hierarchy(x, fun_organize)

## S4 method for signature 'missing,missing'
create_hierarchy()

## S4 method for signature 'mcnebula,ANY'
create_hierarchy(x, fun_organize)
```

Arguments

x	...
fun_organize	...

Details

...

Value

...

Examples

```
## Not run:
create_hierarchy(...)

## End(Not run)
```

```
create_nebula_index,mcnebula,logical-method
```

```
...
```

Description

```
...
```

```
create_nebula_index(): get the default parameters for the method create_nebula_index.
```

```
create_nebula_index(x, ...): use the default parameters whatever 'missing' while performing  
the method create_nebula_index.
```

Usage

```
## S4 method for signature 'mcnebula,logical'  
create_nebula_index(x, force)
```

```
## S4 method for signature 'missing,missing'  
create_nebula_index()
```

```
## S4 method for signature 'mcnebula,ANY'  
create_nebula_index(x, force)
```

Arguments

x	...
force	...

Details

```
...
```

Value

```
...
```

Examples

```
## Not run:  
create_nebula_index(...)  
  
## End(Not run)
```

```
create_parent_layout,mcnebula,character,numeric-method
```

```
...
```

Description

```
...
```

```
create_parent_layout(): get the default parameters for the method create_parent_layout.
```

```
create_parent_layout(x, ...): use the default parameters whatever 'missing' while performing
the method create_parent_layout.
```

Usage

```
## S4 method for signature 'mcnebula,character,numeric'
create_parent_layout(x, ggraph_layout, seed)
```

```
## S4 method for signature 'missing,missing,missing'
create_parent_layout()
```

```
## S4 method for signature 'mcnebula,ANY,ANY'
create_parent_layout(x, ggraph_layout, seed)
```

Arguments

```
x                ...
ggraph_layout    ...
seed             ...
```

Details

```
...
```

Value

```
...
```

Examples

```
## Not run:
create_parent_layout(...)

## End(Not run)
```

```
create_parent_nebula,mcnebula,numeric,logical-method
```

```
...
```

Description

```
...
```

`create_parent_nebula()`: get the default parameters for the method `create_parent_nebula`.

`create_parent_nebula(x, ...)`: use the default parameters whatever 'missing' while performing the method `create_parent_nebula`.

Usage

```
## S4 method for signature 'mcnebula,numeric,logical'
create_parent_nebula(x, edge_cutoff, remove_isolate)
```

```
## S4 method for signature 'mcnebula,missing,missing'
create_parent_nebula(x)
```

```
## S4 method for signature 'mcnebula,numeric,missing'
create_parent_nebula(x, edge_cutoff)
```

Arguments

```
x                ...
```

```
edge_cutoff      ...
```

```
remove_isolate  ...
```

Details

```
...
```

Value

```
...
```

Examples

```
## Not run:
create_parent_nebula(...)

## End(Not run)
```

```
create_reference,mcnebula,ANY,ANY,ANY,ANY,logical,ANY-method
...
```

Description

...

Usage

```
## S4 method for signature 'mcnebula,ANY,ANY,ANY,ANY,logical,ANY'
create_reference(x, from, subscript, data, columns, fill, MoreArgs)

## S4 method for signature
## 'mcnebula,missing,missing,missing,missing,missing,missing'
create_reference(x)

## S4 method for signature
## 'mcnebula,character,missing,missing,missing,missing,missing'
create_reference(x, from)

## S4 method for signature
## 'mcnebula,missing,character,missing,missing,missing,missing'
create_reference(x, subscript)

## S4 method for signature
## 'mcnebula,missing,missing,data.frame,character,missing,missing'
create_reference(x, data, columns)

## S4 method for signature
## 'mcnebula,missing,missing,data.frame,integer,missing,missing'
create_reference(x, data, columns)

## S4 method for signature
## 'mcnebula,missing,missing,data.frame,missing,missing,missing'
create_reference(x, data)
```

Arguments

x	...
from	...
subscript	...
data	...
columns	...
fill	...
MoreArgs	...

Details

...

Value

...

Examples

```
## Not run:
create_reference(...)

## End(Not run)
```

```
create_stardust_classes,mcnebula,numeric,numeric,logical,logical-method
...
```

Description

...

`create_stardust_classes()`: get the default parameters for the method `create_stardust_classes`.

`create_stardust_classes(x, ...)`: use the default parameters whatever 'missing' while performing the method `create_stardust_classes`.

Usage

```
## S4 method for signature 'mcnebula,numeric,numeric,logical,logical'
create_stardust_classes(
  x,
  pp.threashold,
  hierarchy_priority,
  position_isomerism,
  inherit_dataset
)

## S4 method for signature 'missing,missing,missing,missing,missing'
create_stardust_classes()

## S4 method for signature 'mcnebula,ANY,ANY,ANY,ANY'
create_stardust_classes(
  x,
  pp.threashold,
  hierarchy_priority,
  position_isomerism,
  inherit_dataset
)
```


Arguments

x ...
pp.threashold ...
hierarchy_priority ...
position_isomerism ...
inherit_dataset ...

Details

...

Value

...

Examples

```
## Not run:  
create_stardust_classes(...)  
  
## End(Not run)
```

cross_filter_stardust,missing-method
...

Description

cross_filter_stardust(): get the default parameters for the method cross_filter_stardust.
cross_filter_stardust(x, ...): use the default parameters whatever 'missing' while performing the method cross_filter_stardust.
cross_filter_stardust include 3 parts: cross_filter_quantity,
...
...
...

Usage

```

## S4 method for signature 'missing'
cross_filter_stardust()

## S4 method for signature 'mcnebula'
cross_filter_stardust(
  x,
  min_number,
  max_ratio,
  types,
  cutoff,
  tolerance,
  hierarchy_range,
  identical_factor
)

## S4 method for signature 'mcnebula,numeric,numeric'
cross_filter_quantity(x, min_number, max_ratio)

## S4 method for signature 'mcnebula,character,numeric,numeric'
cross_filter_score(x, types, cutoff, tolerance)

## S4 method for signature 'mcnebula,numeric,numeric'
cross_filter_identical(x, hierarchy_range, identical_factor)

```

Arguments

x	...
min_number	...
max_ratio	...
types	...
cutoff	...
tolerance	...
hierarchy_range	...
identical_factor	...
	cross_filter_score, cross_filter_identical.

Details

...

...

...

Value

...
...
...

Examples

```
## Not run:
cross_filter_quantity(...)

## End(Not run)
## Not run:
cross_filter_score(...)

## End(Not run)
## Not run:
cross_filter_identical(...)

## End(Not run)
```

dataset-class

Share slots and methods for classes inherite from VIRTUAL_dataset

Description

...
dataset, dataset<-: getter and setter for the dataset slot of the object.

Usage

```
## S4 method for signature 'ANY'
dataset(x)

## S4 replacement method for signature 'ANY'
dataset(x) <- value
```

Arguments

value The value for the slot.

Slots

dataset ...

See Also

Other datasets: [mcn_dataset-class](#), [project_dataset-class](#)

draw_nodes,mcnebula,character,character,logical,logical,logical,logical-method

...

Description

...

`draw_nodes()`: get the function for generating default parameters for the method `draw_nodes`.

`draw_nodes(x, ...)`: use the default parameters whatever 'missing' while performing the method `draw_nodes`.

`show_node()`: get the default parameters for the method `show_node`.

...

`show_node(x, ...)`: use the default parameters whatever 'missing' while performing the method `show_node`.

FUNCTION_DESCRIPTION

Usage

S4 method for signature

'mcnebula,character,character,logical,logical,logical,logical'

```
draw_nodes(
  x,
  nebula_name,
  nodes_color,
  add_id_text,
  add_structure,
  add_ppcp,
  add_ration
)
```

S4 method for signature

'missing,missing,missing,missing,missing,missing,missing'

```
draw_nodes()
```

S4 method for signature 'mcnebula,character,ANY,ANY,ANY,ANY,ANY'

```
draw_nodes(
  x,
  nebula_name,
  nodes_color,
  add_id_text,
  add_structure,
  add_ppcp,
  add_ration
)
```

```
## S4 method for signature 'missing,missing,missing,missing'
show_node()

## S4 method for signature 'ANY,character,ANY,ANY'
show_node(x, .features_id, panel_viewport, legend_viewport)

ggset_activate_nodes(
  x,
  .features_id,
  nodes_color = "#FFF9F2",
  add_ppcp = T,
  add_ration = T
)
```

Arguments

```
x                ...
nebula_name      ...
nodes_color      ...
add_id_text      ...
add_structure    ...
add_ppcp         ...
add_ration       ...
.features_id     ...
panel_viewport   ...
legend_viewport  ...
...
```

Details

```
...
...
DETAILS
```

Value

```
...
...
OUTPUT_DESCRIPTION
```

Examples

```
## Not run:
draw_nodes(...)

## End(Not run)
```

```
## Not run:
show_node(...)

## End(Not run)
## Not run:
if(interactive()){
  #EXAMPLE1
}

## End(Not run)
```

draw_structures,mcnebula,character-method
...

Description

...

...

Usage

```
## S4 method for signature 'mcnebula,character'
draw_structures(x, nebula_name)

## S4 method for signature 'ANY,character'
show_structure(x, .features_id)
```

Arguments

x	...
nebula_name	...
.features_id	...

Details

...

Value

...

Examples

```
## Not run:
draw_structures(...)

## End(Not run)
## Not run:
show_structure(...)

## End(Not run)
```

export-class

Share slots and methods for classes inherite from VIRTUAL_export

Description

...

export_name, export_name<-: getter and setter for the export_name slot of the object.

export_path, export_path<-: getter and setter for the export_path slot of the object.

Usage

```
## S4 method for signature 'ANY'
export_name(x)

## S4 replacement method for signature 'ANY'
export_name(x) <- value

## S4 method for signature 'ANY'
export_path(x)

## S4 replacement method for signature 'ANY'
export_path(x) <- value
```

Arguments

value The value for the slot.

Slots

```
export_path ...
export_name ...
```

```
filter_formula,mcnebula,function,logical-method
...
```

Description

...

`filter_formula()`: get the default parameters for the method `filter_formula`.

`filter_formula(x, ...)`: use the default parameters whatever 'missing' while performing the method `filter_formula`.

Usage

```
## S4 method for signature 'mcnebula`,`function`,`logical'
filter_formula(x, fun_filter, ..., by_reference)
```

```
## S4 method for signature 'missing,missing,missing'
filter_formula()
```

```
## S4 method for signature 'mcnebula,ANY,ANY'
filter_formula(x, fun_filter, ..., by_reference)
```

Arguments

param ...

Details

...

Value

...

Examples

```
## Not run:
filter_formula(...)

## End(Not run)
```

<code>filter_msframe,msframe,function,formula-method</code>
<code>...</code>

Description

...

Usage

```
## S4 method for signature 'msframe`,`function`,`formula'
filter_msframe(x, fun_filter, f, ...)
```

Arguments

<code>x</code>	<code>...</code>
<code>fun_filter</code>	<code>...</code>
<code>f</code>	<code>...</code>
<code>...</code>	<code>...</code>

Details

...

Value

...

Examples

```
## Not run:
filter_msframe(...)

## End(Not run)
```

<code>filter_ppcp,mcnebula,function,logical-method</code>
<code>...</code>

Description

...

`filter_ppcp()`: get the default parameters for the method `filter_ppcp`.

`filter_ppcp(x, ...)`: use the default parameters whatever 'missing' while performing the method `filter_ppcp`.

Usage

```
## S4 method for signature 'mcnebula`,`function`,logical'
filter_ppcp(x, fun_filter, ..., by_reference)

## S4 method for signature 'missing,missing,missing'
filter_ppcp()

## S4 method for signature 'mcnebula,ANY,ANY'
filter_ppcp(x, fun_filter, ..., by_reference)
```

Arguments

```
param          ...
```

Details

```
...
```

Value

```
...
```

Examples

```
## Not run:
filter_ppcp(...)

## End(Not run)
```

```
filter_structure,missing,missing,missing-method
```

```
...
```

Description

```
filter_structure(): get the default parameters for the method filter_structure.
filter_structure(x, ...): use the default parameters whatever 'missing' while performing the
method filter_structure.
...
```

Usage

```
## S4 method for signature 'missing,missing,missing'
filter_structure()

## S4 method for signature 'mcnebula,ANY,ANY'
filter_structure(x, fun_filter, ..., by_reference)
```

```
## S4 method for signature 'mcnebula`,`function`,`logical`
filter_structure(x, fun_filter, ..., by_reference)
```

Arguments

- x [mcnebula](#) object.
- fun_filter function. e.g., [dplyr::filter\(\)](#), [dplyr::slice\(\)](#) [head\(\)](#)...
- ... parameters pass to 'fun_filter'.
- by_reference ...

Details

...

Value

...

Examples

```
## Not run:
filter_structure(...)

## End(Not run)
```

fun_modify	...
------------	-----

Description

- ...
- modify_default_child: ...
- modify_set_labs_and_unify_scale_limits: ...
- modify_annotate_child: ...
- modify_rm_legend: ...
- modify_set_margin: ...
- modify_unify_scale_limits: ...
- modify_set_labs: ...

Usage

```

modify_default_child(ggset, x)

modify_set_labs_and_unify_scale_limits(ggset, x)

modify_annotate_child(ggset, x)

modify_rm_legend(ggset)

modify_set_margin(ggset, margin = grid::unit(rep(-8, 4), "lines"))

modify_unify_scale_limits(ggset, x)

modify_set_labs(ggset, x)

```

Arguments

```

ggset      ...
x          ...

```

Details

```

...

```

ggset-class	...
-------------	-----

Description

```

...
show_layers: ...
new_ggset: ...
mutate_layer: ...
call_command: plot as 'ggplot' object.

```

Usage

```

## S4 method for signature 'ggset'
show_layers(x)

## S4 method for signature 'ANY'
new_ggset(...)

## S4 method for signature 'ggset,numeric'
mutate_layer(x, layer, ...)

```

```
## S4 method for signature 'ANY,character'
mutate_layer(x, layer, ...)

## S4 method for signature 'ggset'
call_command(x)
```

Arguments

```
x          ...
...        ...
layer      ...
```

Slots

```
layers ...
```

See Also

Other layerSets: [layerSet-class](#), [report-class](#)

Other call_commands: [code_block-class](#), [report-class](#), [section-class](#)

Examples

```
## Not run:
new('ggset', ...)

## End(Not run)
## Not run:
show_layers(...)

## End(Not run)
## Not run:
new_ggset(...)

## End(Not run)
## Not run:
mutate_layer(...)

## End(Not run)
```

Description

...

`history_rblock()`: get the default parameters for the method `history_rblock`.

`history_rblock(x, ...)`: use the default parameters whatever 'missing' while performing the method `history_rblock`.

Usage

```
## S4 method for signature 'numeric,missing,missing,numeric'
history_rblock(nrow, exclude)
```

```
## S4 method for signature 'missing,missing,missing,missing'
history_rblock()
```

```
## S4 method for signature 'numeric,ANY,ANY,ANY'
history_rblock(nrow, pattern_start, pattern_end, exclude)
```

```
## S4 method for signature 'missing,character,character,ANY'
history_rblock(pattern_start, pattern_end, exclude)
```

Arguments

<code>nrow</code>	...
<code>exclude</code>	...
<code>pattern_start</code>	...
<code>pattern_end</code>	...

Details

...

Value

...

See Also

[report-class](#), [code_block-class](#)...

Examples

```
## Not run:
history_rblock(...)

## End(Not run)
```

`include_figure,character,character,character-method``...`

Description`...`**Usage**

```
## S4 method for signature 'character,character,character'
include_figure(file, name, caption)
```

Arguments

<code>file</code>	<code>...</code>
<code>name</code>	<code>...</code>
<code>caption</code>	<code>...</code>

Details`...`**Value**`...`**See Also**

[report-class](#), [code_block-class](#)...

Examples

```
## Not run:
include_figure(...)

## End(Not run)
```

include_table,data.frame,character,character-method
...

Description

...

Usage

```
## S4 method for signature 'data.frame,character,character'
include_table(data, name, caption)
```

Arguments

data	...
name	...
caption	...

Details

...

Value

...

Examples

```
## Not run:
include_table(...)

## End(Not run)
```

initialize_mcnebula,mcnebula,ANY-method
...

Description

...

...

Usage

```
## S4 method for signature 'mcnebula,ANY'
initialize_mcnebula(x, sirius_version, sirius_project, output_directory)

## S4 method for signature 'melody,ANY'
initialize_mcnebula(x)
```

Arguments

x [melody](#) object.

sirius_version character. e.g., "sirius.v4".

sirius_project character. The path of SIRIUS project space.

output_directory
character. The path for output.

Details

...

...

Value

[mcnebula](#) object.

[melody](#) object.

See Also

[ggsci::pal_simpsons\(\)](#), [ggsci::pal_igv\(\)](#), [ggsci::pal_ucscgb\(\)](#), [ggsci::pal_d3\(\)](#)...

Examples

```
## Not run:
initialize_mcnebula(...)

## End(Not run)
## Not run:
initialize_mcnebula(...)

## End(Not run)
```

layerSet-class

Share slots and methods for classes inherite from VIRTUAL_layerSet

Description

```
...
layers, layers<=: getter and setter for the layers slot of the object.
add_layers: ...
delete_layers: ...
move_layers: ...
```

Usage

```
## S4 method for signature 'layerSet'
layers(x)

## S4 replacement method for signature 'layerSet'
layers(x) <- value

## S4 method for signature 'layerSet'
show(object)

## S4 method for signature 'layerSet'
add_layers(x, ...)

## S4 method for signature 'layerSet,numeric'
delete_layers(x, layers)

## S4 method for signature 'layerSet,numeric,numeric'
move_layers(x, from, to)
```

Arguments

x	...
value	The value for the slot.
...	...
layers	...
from	...
to	...

Slots

```
layers ...
```

See Also

Other layerSets: [ggset-class](#), [report-class](#)

Examples

```
## Not run:
add_layers(...)

## End(Not run)
## Not run:
delete_layers(...)

## End(Not run)
## Not run:
move_layers(...)

## End(Not run)
```

mcnebula-class	...
----------------	-----

Description

...

`latest(x, slot, subscript)`: get the data in slot (`mcn_dataset(object)` or `prject_dataset(object)`) and format as 'tbl'.

`latest()`: get the default parameters for the method `latest`.

`latest(x, ...)`: use the default parameters whatever 'missing' while performing the method `latest`.

`creation_time, creation_time<=`: getter and setter for the `creation_time` slot of the object.

`ion_mode, ion_mode<=`: getter and setter for the `ion_mode` slot of the object.

`palette_set, palette_gradient, palette_stat, palette_col`: fast channel to obtain the downstream slot. For `palette_set`, e.g., getter for the `palette_set` slot in sub-object of `melody` slot of the object. `palette_set(melody(object))` equals to `palette_set(object)`.

`reference`: fast channel to obtain the downstream slot, getter for the `reference` slot in sub-object of `mcn_dataset` slot of the object. `reference(mcn_dataset(object))` equals to `reference(object)`.

`specific_candidate, hierarchy, stardust_classes, nebula_index, spectral_similarity, features_annotation, features_quantification, sample_metadata`: fast channel to obtain data (mostly 'tbl' or 'data.frame') inside the downstream slot ('list'). e.g., getter for the data named `specific_candidate` in `reference` slot (a 'list') in sub-object of `mcn_dataset` slot of the object. `reference(mcn_dataset(object))$specific_candidate` equals to `specific_candidate(object)`.

`spectral_similarity<=, features_quantification<=, sample_metadata<=`: fast channel to replace data (mostly 'tbl' or 'data.frame') inside the downstream slot ('list'). e.g., setter for the data named `spectral_similarity` in `reference` slot (a 'list') in sub-object of `mcn_dataset` slot of the

object. reference(mcn_dataset(object))\$spectral_similarity<- similar to spectral_similarity(object)<-. But the latter not only replace and also validate.

classification: fast channel to obtain data deeply inside the downstream slot ('list'), getter for the data named ".canopus" in dataset slot (a 'list') in sub-object of project_dataset slot of the object. tibble::as_tibble(entity(dataset(project_dataset(object))\$.canopus)) equals to classification(object).

Usage

```
## S4 method for signature 'mcnebula'
show(object)

## S4 method for signature 'mcnebula,character,ANY'
latest(x, slot, subscript)

## S4 method for signature 'missing,missing,missing'
latest()

## S4 method for signature 'mcnebula,ANY,ANY'
latest(x, slot, subscript)

## S4 method for signature 'mcnebula'
creation_time(x)

## S4 replacement method for signature 'mcnebula'
creation_time(x) <- value

## S4 method for signature 'mcnebula'
ion_mode(x)

## S4 replacement method for signature 'mcnebula'
ion_mode(x) <- value

## S4 method for signature 'mcnebula'
palette_set(x)

## S4 method for signature 'mcnebula'
palette_gradient(x)

## S4 method for signature 'mcnebula'
palette_stat(x)

## S4 method for signature 'mcnebula'
palette_col(x)

## S4 method for signature 'mcnebula'
palette_label(x)
```

```
## S4 method for signature 'mcnebula'
reference(x)

## S4 method for signature 'mcnebula'
specific_candidate(x)

## S4 method for signature 'mcnebula'
hierarchy(x)

## S4 method for signature 'mcnebula'
stardust_classes(x)

## S4 method for signature 'mcnebula'
nebula_index(x)

## S4 method for signature 'mcnebula'
spectral_similarity(x)

## S4 replacement method for signature 'mcnebula'
spectral_similarity(x) <- value

## S4 method for signature 'mcnebula'
features_annotation(x)

## S4 method for signature 'mcnebula'
features_quantification(x)

## S4 replacement method for signature 'mcnebula'
features_quantification(x) <- value

## S4 method for signature 'mcnebula'
sample_metadata(x)

## S4 replacement method for signature 'mcnebula'
sample_metadata(x) <- value

## S4 method for signature 'mcnebula'
classification(x)
```

Arguments

x	mcnebula object
slot	Character. Slot name.
subscript	numeric or character. The sequence or name for dataset in the 'list'.
value	The value for the slot.

Slots

creation_time ...
ion_mode ...
melody ...
mcn_dataset ...
statistic_set ...
project_version ...
project_path ...
project_conformation ...
project_metadata ...
project_api ...
project_dataset ...
parent_nebula ...
child_nebulae ...
export_path ...
export_name ...

See Also

[tibble::as_tibble\(\)](#)

Other nebulae: [nebula-class](#)

Other latests: [mcn_dataset-class](#), [msframe-class](#), [project_dataset-class](#)

Other subscripts: [msframe-class](#), [subscript-class](#)

Examples

```
## Not run:  
new('mcnebula', ...)  
  
## End(Not run)  
## Not run:  
latest(x)  
latest(x, "project_dataset")  
latest(x, "mcn_dataset")  
  
## End(Not run)
```

MCnebula2	...
-----------	-----

Description

...

Arguments

... ...

Details

...

mcn_dataset-class	...
-------------------	-----

Description

...

mcn_dataset, mcn_dataset<-: getter and setter for the mcn_dataset slot of the object.

latest: get the first data in dataset slot and format as "tbl".

extract_mcnsset: For fast extract data in object which containing mcn_dataset slot. Normally not used.

Usage

```
## S4 method for signature 'ANY'
mcn_dataset(x)

## S4 replacement method for signature 'ANY'
mcn_dataset(x) <- value

## S4 method for signature 'mcn_dataset,ANY,ANY'
latest(x)

## S4 method for signature 'ANY,character'
extract_mcnsset(x, subscript)
```

Arguments

x ...

value The value for the slot.

subscript ...

Slots

dataset ...
 reference ...
 backtrack ...

See Also

Other datasets: [dataset-class](#), [project_dataset-class](#)

Other latests: [mcnebula-class](#), [msframe-class](#), [project_dataset-class](#)

Examples

```
## Not run:
new('mcn_dataset', ...)

## End(Not run)
## Not run:
latest(...)

## End(Not run)
## Not run:
extract_mcset(...)

## End(Not run)
```

melody-class	...
--------------	-----

Description

...

melody, melody<=: getter and setter for the melody slot of the object.

palette_set, palette_set<=: getter and setter for the palette_set slot of the object.

palette_gradient, palette_gradient<=: getter and setter for the palette_gradient slot of the object.

palette_stat, palette_stat<=: getter and setter for the palette_stat slot of the object.

palette_col, palette_col<=: getter and setter for the palette_col slot of the object.

palette_label, palette_label<=: getter and setter for the palette_label slot of the object.

Usage

```
## S4 method for signature 'melody'
show(object)

## S4 method for signature 'ANY'
melody(x)

## S4 replacement method for signature 'ANY'
melody(x) <- value

## S4 method for signature 'melody'
palette_set(x)

## S4 replacement method for signature 'melody'
palette_set(x) <- value

## S4 method for signature 'melody'
palette_gradient(x)

## S4 replacement method for signature 'melody'
palette_gradient(x) <- value

## S4 method for signature 'melody'
palette_stat(x)

## S4 replacement method for signature 'melody'
palette_stat(x) <- value

## S4 method for signature 'melody'
palette_col(x)

## S4 replacement method for signature 'melody'
palette_col(x) <- value

## S4 method for signature 'melody'
palette_label(x)

## S4 replacement method for signature 'melody'
palette_label(x) <- value
```

Arguments

value The value for the slot.

Slots

palette_set ...
palette_gradient ...

```
palette_stat ...
palette_col ...
palette_label ...
```

See Also

[ggsci::pal_simpsons\(\)](#), [ggsci::pal_igv\(\)](#), [ggsci::pal_ucscgb\(\)](#), [ggsci::pal_d3\(\)](#)...

Examples

```
## Not run:
new('melody', ...)

## End(Not run)
```

msframe-class	...
---------------	-----

Description

```
...
msframe, msframe<-: getter and setter for the msframe slot of the object.
latest: get data inside entity(object) and format as 'tbl'.
entity, entity<-: getter and setter for the entity slot of the object.
...
```

Usage

```
## S4 method for signature 'msframe'
show(object)

## S4 method for signature 'ANY'
msframe(x)

## S4 replacement method for signature 'ANY'
msframe(x) <- value

## S4 method for signature 'msframe,ANY,ANY'
latest(x)

## S4 method for signature 'msframe'
entity(x)

## S4 replacement method for signature 'msframe'
entity(x) <- value
```

```
## S4 method for signature 'msframe,missing,missing,missing,missing,`function`'
format_msframe(x, fun_format)

## S4 method for signature
## 'data.frame,missing,missing,missing,missing,`function`'
format_msframe(x, fun_format)

## S4 method for signature
## 'msframe,character,missing,character,missing,missing'
format_msframe(x, names, types)

## S4 method for signature 'msframe,missing,missing,missing,missing,missing'
format_msframe(x)

## S4 method for signature
## 'msframe,missing,`function`,missing,`function`,missing'
format_msframe(x, fun_names, fun_types)

## S4 method for signature 'msframe,`function`,missing'
filter_msframe(x, fun_filter, f, ...)
```

Arguments

x	...
value	The value for the slot.
fun_format	...
names	...
types	...
fun_names	...
fun_types	...

Details

...

Slots

entity ...
subscript ...

See Also

[tibble::as_tibble\(\)](#)

Other subscripts: [mcnebula-class](#), [subscript-class](#)

Other latests: [mcn_dataset-class](#), [mcnebula-class](#), [project_dataset-class](#)

Examples

```
## Not run:
new('msframe', ...)

## End(Not run)
## Not run:
latest(...)

## End(Not run)
## Not run:
format_msframe(...)

## End(Not run)
```

nebula-class	...
--------------	-----

Description

```
...
...
...

parent_nebula, parent_nebula<=: getter and setter for the parent_nebula slot of the object.
child_nebulae, child_nebulae<=: getter and setter for the child_nebulae slot of the object.
igraph, igraph<=: getter and setter for the igraph slot of the object.
tbl_graph, tbl_graph<=: getter and setter for the tbl_graph slot of the object.
layout_ggraph, layout_ggraph<=: getter and setter for the layout_ggraph slot of the object.
grid_layout, grid_layout<=: getter and setter for the grid_layout slot of the object.
viewports, viewports<=: getter and setter for the viewports slot of the object.
ggset, ggset<=: getter and setter for the ggset slot of the object.
panel_viewport, panel_viewport<=: getter and setter for the panel_viewport slot of the object.
legend_viewport, legend_viewport<=: getter and setter for the legend_viewport slot of the object.
structures_grob, structures_grob<=: getter and setter for the structures_grob slot of the object.
nodes_ggset, nodes_ggset<=: getter and setter for the nodes_ggset slot of the object.
nodes_grob, nodes_grob<=: getter and setter for the nodes_grob slot of the object.
ppcp_data, ppcp_data<=: getter and setter for the ppcp_data slot of the object.
ration_data, ration_data<=: getter and setter for the ration_data slot of the object.
ggset_annotate, ggset_annotate<=: getter and setter for the ggset_annotate slot of the object.
```

Usage

```
## S4 method for signature 'parent_nebula'
show(object)

## S4 method for signature 'child_nebulae'
show(object)

## S4 method for signature 'ANY'
parent_nebula(x)

## S4 replacement method for signature 'ANY'
parent_nebula(x) <- value

## S4 method for signature 'ANY'
child_nebulae(x)

## S4 replacement method for signature 'ANY'
child_nebulae(x) <- value

## S4 method for signature 'ANY'
igraph(x)

## S4 replacement method for signature 'ANY'
igraph(x) <- value

## S4 method for signature 'ANY'
tbl_graph(x)

## S4 replacement method for signature 'ANY'
tbl_graph(x) <- value

## S4 method for signature 'ANY'
layout_ggraph(x)

## S4 replacement method for signature 'ANY'
layout_ggraph(x) <- value

## S4 method for signature 'ANY'
grid_layout(x)

## S4 replacement method for signature 'ANY'
grid_layout(x) <- value

## S4 method for signature 'ANY'
viewports(x)

## S4 replacement method for signature 'ANY'
viewports(x) <- value
```

```
## S4 method for signature 'ANY'
ggset(x)

## S4 replacement method for signature 'ANY'
ggset(x) <- value

## S4 method for signature 'ANY'
panel_viewport(x)

## S4 replacement method for signature 'ANY'
panel_viewport(x) <- value

## S4 method for signature 'ANY'
legend_viewport(x)

## S4 replacement method for signature 'ANY'
legend_viewport(x) <- value

## S4 method for signature 'ANY'
structures_grob(x)

## S4 replacement method for signature 'ANY'
structures_grob(x) <- value

## S4 method for signature 'ANY'
nodes_ggset(x)

## S4 replacement method for signature 'ANY'
nodes_ggset(x) <- value

## S4 method for signature 'ANY'
nodes_grob(x)

## S4 replacement method for signature 'ANY'
nodes_grob(x) <- value

## S4 method for signature 'ANY'
ppcp_data(x)

## S4 replacement method for signature 'ANY'
ppcp_data(x) <- value

## S4 method for signature 'ANY'
ration_data(x)

## S4 replacement method for signature 'ANY'
ration_data(x) <- value
```

```
## S4 method for signature 'ANY'
ggset_annotate(x)

## S4 replacement method for signature 'ANY'
ggset_annotate(x) <- value
```

Arguments

value	The value for the slot.
-------	-------------------------

Slots

```
parent_nebula ...
child_nebulae ...
igraph ...
tbl_graph ...
layout_ggraph ...
grid_layout ...
viewports ...
panel_viewport ...
legend_viewport ...
ggset ...
structures_grob ...
nodes_ggset ...
nodes_grob ...
ppcp_data ...
ration_data ...
ggset_annotate ...
```

See Also

Other nebulae: [mcnebula-class](#)

Examples

```
## Not run:
new('nebula', ...)

## End(Not run)
## Not run:
new('parent_nebula', ...)

## End(Not run)
## Not run:
new('child_nebulae', ...)
```

```
## End(Not run)
```

```
project-class      ...
```

Description

```
...
```

project_version, project_version<-: getter and setter for the project_version slot of the object.

project_path, project_path<-: getter and setter for the project_path slot of the object.

file_name, file_api, attribute_name: fast channel to obtain the downstream slot. e.g., getter for the file_name slot in sub-object of project_conformation slot of the object. file_name(project_conformation(object)) equals to file_name(object).

project_metadata: fast channel to obtain the downstream slot, getter for the project_metadata slot in sub-object of project_metadata slot of the object. project_metadata(project_metadata(object)) equals to project_metadata(object).

methods_read, methods_format, methods_match: fast channel to obtain the downstream slot. e.g., getter for the methods_read slot in sub-object of project_api slot of the object. methods_read(project_api(object)) equals to methods_read(object).

match.candidates_id, match.features_id: fast channel to obtain data (mostly 'tbl' or 'data.frame') inside the downstream slot ('list'), getter for the data named match.candidates_id in methods_match slot (a 'list') in sub-object of project_api slot of the object. methods_match(project_api(object))\$match.candidates equals to match.candidates_id(object).

get_upper_dir_subscript: ...

Usage

```
## S4 method for signature 'ANY'
project_version(x)
```

```
## S4 replacement method for signature 'ANY'
project_version(x) <- value
```

```
## S4 method for signature 'ANY'
project_path(x)
```

```
## S4 replacement method for signature 'ANY'
project_path(x) <- value
```

```
## S4 method for signature 'ANY'
file_name(x)
```

```
## S4 method for signature 'ANY'
```



```
file_api(x)

## S4 method for signature 'ANY'
attribute_name(x)

## S4 method for signature 'ANY'
metadata(x)

## S4 method for signature 'ANY'
methods_read(x)

## S4 method for signature 'ANY'
methods_format(x)

## S4 method for signature 'ANY'
methods_match(x)

## S4 method for signature 'ANY'
match.candidates_id(x)

## S4 method for signature 'ANY'
match.features_id(x)

## S4 method for signature 'ANY,character,missing'
get_upper_dir_subscript(x, subscript)
```

Arguments

x	...
value	The value for the slot.
subscript	...

Slots

```
project_version ...
project_path ...
project_conformation ...
project_metadata ...
project_api ...
project_dataset ...
```

See Also

Other projects: [project_api-class](#), [project_conformation-class](#), [project_dataset-class](#), [project_metadata-class](#)

Examples

```
## Not run:
new('project', ...)

## End(Not run)
## Not run:
get_upper_dir_subscript(...)

## End(Not run)
```

project_api-class	...
-------------------	-----

Description

```
...
project_api, project_api<=: getter and setter for the project_api slot of the object.
methods_read, methods_read<=: getter and setter for the methods_read slot of the object.
methods_format, methods_format<=: getter and setter for the methods_format slot of the object.
methods_match, methods_match<=: getter and setter for the methods_match slot of the object.
```

Usage

```
## S4 method for signature 'project_api'
show(object)

## S4 method for signature 'ANY'
project_api(x)

## S4 replacement method for signature 'ANY'
project_api(x) <- value

## S4 method for signature 'project_api'
methods_read(x)

## S4 replacement method for signature 'project_api'
methods_read(x) <- value

## S4 method for signature 'project_api'
methods_format(x)

## S4 replacement method for signature 'project_api'
methods_format(x) <- value

## S4 method for signature 'project_api'
methods_match(x)
```

```
## S4 replacement method for signature 'project_api'
methods_match(x) <- value
```

Arguments

value The value for the slot.

Slots

```
methods_read ...
methods_format ...
methods_match ...
```

See Also

Other projects: [project-class](#), [project_conformation-class](#), [project_dataset-class](#), [project_metadata-class](#)

Examples

```
## Not run:
new('project_api', ...)

## End(Not run)
```

```
project_conformation-class
...

```

Description

```
...
project_conformation, project_conformation<=: getter and setter for the project_conformation
slot of the object.
file_name, file_name<=: getter and setter for the file_name slot of the object.
file_api, file_api<=: getter and setter for the file_api slot of the object.
attribute_name, attribute_name<=: getter and setter for the attribute_name slot of the object.
```

Usage

```
## S4 method for signature 'project_conformation'
show(object)

## S4 method for signature 'ANY'
project_conformation(x)
```

```
## S4 replacement method for signature 'ANY'
project_conformation(x) <- value

## S4 method for signature 'project_conformation'
file_name(x)

## S4 replacement method for signature 'project_conformation'
file_name(x) <- value

## S4 method for signature 'project_conformation'
file_api(x)

## S4 replacement method for signature 'project_conformation'
file_api(x) <- value

## S4 method for signature 'project_conformation'
attribute_name(x)

## S4 replacement method for signature 'project_conformation'
attribute_name(x) <- value
```

Arguments

value The value for the slot.

Slots

```
file_name ...
file_api ...
attribute_name ...
```

See Also

Other projects: [project-class](#), [project_api-class](#), [project_dataset-class](#), [project_metadata-class](#)

Examples

```
## Not run:
new('project_conformation', ...)

## End(Not run)
```

```
project_dataset-class ...
```

Description

...

project_dataset, project_dataset<-: getter and setter for the project_dataset slot of the object.

latest: get the first data in dataset slot ('list') and format as 'tbl'. The latest(object) equals to `tibble::as_tibble(entity(dataset(object)[[1]]))`

extract_rawset: For fast extract data in object which containing project_dataset slot. Normally not used.

Usage

```
## S4 method for signature 'ANY'
project_dataset(x)

## S4 replacement method for signature 'ANY'
project_dataset(x) <- value

## S4 method for signature 'project_dataset,ANY,ANY'
latest(x)

## S4 method for signature 'ANY,character,ANY'
extract_rawset(x, subscript)

## S4 method for signature 'ANY,character,`function`'
extract_rawset(x, subscript, fun_collate, ...)
```

Arguments

x	an object contain project_dataset slot.
value	The value for the slot.
subscript	character. Specified the data in dataset slot in project_dataset slot. See VIRTUAL_subscript-class .
fun_collate	function. If the specified data not exists in dataset slot, it will be used to collate data. This parameter is not for normal use.
...	parameters passed to 'fun_collate'.

Slots

dataset ...

See Also

[tibble::as_tibble\(\)](#)

Other projects: [project-class](#), [project_api-class](#), [project_conformation-class](#), [project_metadata-class](#)

Other datasets: [dataset-class](#), [mcn_dataset-class](#)

Other latests: [mcn_dataset-class](#), [mcnebula-class](#), [msframe-class](#)

Examples

```
## Not run:
new('project_dataset', ...)

## End(Not run)
## Not run:
latest(object)

## End(Not run)
## Not run:
extract_rawset(object, ".f3_fingerid")

## End(Not run)
```

project_metadata-class

...

Description

...

project_metadata, project_metadata<-: getter and setter for the project_metadata slot of the object.

latest: get the first data in metadata slot and format as "tbl".

metadata, metadata<-: getter and setter for the metadata slot of the object.

add_dataset: ...

extract_metadata: ...

get_metadata: ...

Usage

```
## S4 method for signature 'project_metadata'
show(object)

## S4 method for signature 'ANY'
project_metadata(x)

## S4 replacement method for signature 'ANY'
```

```

project_metadata(x) <- value

## S4 method for signature 'project_metadata,ANY,ANY'
latest(x)

## S4 method for signature 'project_metadata'
metadata(x)

## S4 replacement method for signature 'project_metadata'
metadata(x) <- value

## S4 method for signature 'project_metadata,list'
add_dataset(x, list)

## S4 method for signature 'ANY,character'
extract_metadata(x, subscript)

## S4 method for signature 'ANY,character,ANY,ANY,ANY'
get_metadata(x, subscript)

## S4 method for signature
## 'missing,character,project_metadata,project_conformation,character'
get_metadata(subscript, project_metadata, project_conformation, path)

```

Arguments

x	...
value	The value for the slot.
list	...
subscript	...
project_metadata	
	...
project_conformation	
	...
path	...

Slots

metadata ...

See Also

Other projects: [project-class](#), [project_api-class](#), [project_conformation-class](#), [project_dataset-class](#)

Examples

```

## Not run:
new('project_metadata', ...)

```

```
## End(Not run)
## Not run:
latest(...)

## End(Not run)
## Not run:
add_dataset(...)

## End(Not run)
## Not run:
extract_metadata(...)

## End(Not run)
## Not run:
get_metadata(...)

## End(Not run)
```

reference-class

Share slots and methods for classes inherite from VIRTUAL_reference

Description

...

reference, reference<-: getter and setter for the reference slot of the object.

Usage

```
## S4 method for signature 'ANY'
reference(x)

## S4 replacement method for signature 'ANY'
reference(x) <- value
```

Arguments

value The value for the slot.

Slots

reference ...

report-class	...
--------------	-----

Description

...

show_layers: show layers slots in a pretty and readable style.

yaml, yaml<-: getter and setter for the yaml slot of the object.

new_report(): get the default parameters for the method new_report.

new_report(x, ...): use the default parameters whatever 'missing' while performing the method new_report.

new_report: ...

call_command: Format 'report' object as character, which can be output by writelines() function as '.Rmd' file and than use rmarkdown::render as pdf, html, or other format files.

Usage

```
## S4 method for signature 'report'
show_layers(x)

## S4 method for signature 'ANY'
yaml(x)

## S4 replacement method for signature 'ANY'
yaml(x) <- value

## S4 method for signature 'missing'
new_report(..., yaml)

## S4 method for signature 'character'
new_report(..., yaml)

## S4 method for signature 'report'
call_command(x)
```

Arguments

value	The value for the slot.
...	...
yaml	...

Slots

yaml ...

See Also

`writeLines()`, `rmarkdown::render()`...
Other layerSets: `ggset-class`, `layerSet-class`
Other call_commands: `code_block-class`, `ggset-class`, `section-class`

Examples

```
## Not run:
new('report', ...)

## End(Not run)
## Not run:
show_layers(...)

## End(Not run)
## Not run:
new_report(...)

## End(Not run)
## Not run:
call_command(...)

## End(Not run)
```

section-class	...
---------------	-----

Description

...
...
heading, heading<=: getter and setter for the heading slot of the object.
level, level<=: getter and setter for the level slot of the object.
new_heading: ...
call_command: Format 'heading' object as character.
paragraph, paragraph<=: getter and setter for the paragraph slot of the object.
new_section(): get the default parameters for the method new_section.
new_section(x, ...): use the default parameters whatever 'missing' while performing the method new_section.
new_section: ...
call_command: Format 'section' object as character.

Usage

```
## S4 method for signature 'ANY'
heading(x)

## S4 replacement method for signature 'ANY'
heading(x) <- value

## S4 method for signature 'heading'
level(x)

## S4 replacement method for signature 'heading'
level(x) <- value

## S4 method for signature 'character,numeric'
new_heading(heading, level)

## S4 method for signature 'heading'
call_command(x)

## S4 method for signature 'section'
paragraph(x)

## S4 replacement method for signature 'section'
paragraph(x) <- value

## S4 method for signature 'missing,missing,missing,missing'
new_section(heading, level, paragraph, code_block)

## S4 method for signature 'ANY,ANY,ANY,ANY'
new_section(heading, level, paragraph, code_block)

## S4 method for signature 'character,numeric,character,maybe_code_block'
new_section(heading, level, paragraph, code_block)

## S4 method for signature '`NULL`,numeric,character,maybe_code_block'
new_section(heading, level, paragraph, code_block)

## S4 method for signature 'section'
call_command(x)

## S4 method for signature '`NULL`'
call_command(x)
```

Arguments

value	The value for the slot.
heading	...
level	...

```
paragraph    ...
code_block   ...
```

Slots

```
heading ...
paragraph ...
code_block ...
.Data ...
level ...
```

See Also

Other call_commands: [code_block-class](#), [ggset-class](#), [report-class](#)

Examples

```
## Not run:
new('section', ...)

## End(Not run)
## Not run:
new('heading', ...)

## End(Not run)
## Not run:
new_heading(...)

## End(Not run)
## Not run:
call_command(...)

## End(Not run)
## Not run:
new_section(...)

## End(Not run)
## Not run:
call_command(...)

## End(Not run)
```

```
set_nodes_color,mcnebula,character-method
```

```
...
```

Description

...

set_nodes_color(): list the recommended attribute for the method set_nodes_color.

Usage

```
## S4 method for signature 'mcnebula,character'
set_nodes_color(x, attribute)
```

```
## S4 method for signature 'mcnebula,missing'
set_nodes_color(x)
```

Arguments

param ...

Details

...

Value

...

See Also

[activate_nebulae\(\)](#), [visualize\(\)](#)...

Examples

```
## Not run:
set_nodes_color(...)

## End(Not run)
```

set_ppcp_data,mcnebula,character-method

...

Description

...

set_ppcp_data(): get the function for generating default parameters for the method set_ppcp_data.

set_ppcp_data(x, ...): use the default parameters whatever 'missing' while performing the method set_ppcp_data.

Usage

```
## S4 method for signature 'mcnebula,character'
set_ppcp_data(x, classes)

## S4 method for signature 'missing,missing'
set_ppcp_data()

## S4 method for signature 'mcnebula,ANY'
set_ppcp_data(x, classes)
```

Arguments

```
x          ...
classes    ...
```

Examples

```
## Not run:
set_ppcp_data(...)

## End(Not run)
```

```
set_ration_data,mcnebula,logical-method
...
```

Description

```
...

set_ration_data(): get the default parameters for the method set_ration_data.

set_ration_data(x, ...): use the default parameters whatever 'missing' while performing the
method set_ration_data.
```

Usage

```
## S4 method for signature 'mcnebula,logical'
set_ration_data(x, mean)

## S4 method for signature 'missing,missing'
set_ration_data()

## S4 method for signature 'mcnebula,ANY'
set_ration_data(x, mean)
```

Arguments

x	...
mean	...

Examples

```
## Not run:
set_ration_data(...)

## End(Not run)
```

set_tracer,mcnebula,character,character,character-method
...

Description

...

set_tracer(): get the function for generating default parameters for the method set_tracer.

set_tracer(x, ...): use the default parameters whatever 'missing' while performing the method set_tracer.

Usage

```
## S4 method for signature 'mcnebula,character,character,character'
set_tracer(x, .features_id, colors, rest)

## S4 method for signature 'missing,missing,missing,missing'
set_tracer()

## S4 method for signature 'mcnebula,ANY,ANY,ANY'
set_tracer(x, .features_id, colors, rest)
```

Arguments

x	...
.features_id	...
colors	...
rest	...

Details

...

Value

...

See Also

[create_nebula_index\(\)](#)

Examples

```
## Not run:
set_tracer(...)

## End(Not run)
```

statistic_set-class ...

Description

...

statistic_set, statistic_set<=: getter and setter for the statistic_set slot of the object.

design_matrix, design_matrix<=: getter and setter for the design_matrix slot of the object.

contrast_matrix, contrast_matrix<=: getter and setter for the contrast_matrix slot of the object.

top_table, top_table<=: getter and setter for the top_table slot of the object.

Usage

```
## S4 method for signature 'ANY'
statistic_set(x)

## S4 replacement method for signature 'ANY'
statistic_set(x) <- value

## S4 method for signature 'ANY'
design_matrix(x)

## S4 replacement method for signature 'ANY'
design_matrix(x) <- value

## S4 method for signature 'ANY'
contrast_matrix(x)

## S4 replacement method for signature 'ANY'
contrast_matrix(x) <- value

## S4 method for signature 'ANY'
top_table(x)

## S4 replacement method for signature 'ANY'
top_table(x) <- value
```


Arguments

value The value for the slot.

Slots

design_matrix ...
 contrast_matrix ...
 dataset ...
 top_table ...

Examples

```
## Not run:
new('statistic_set', ...)

## End(Not run)
```

subscript-class	<i>Share slots and methods for classes inherite from VIRTUAL_subscript</i>
-----------------	--

Description

...
 subscript, subscript<=: getter and setter for the subscript slot of the object.

Usage

```
## S4 method for signature 'ANY'
subscript(x)

## S4 replacement method for signature 'ANY'
subscript(x) <- value
```

Arguments

value The value for the slot.

Slots

subscript ...

See Also

Other subscripts: [mcnebula-class](#), [msframe-class](#)

```
visualize,mcnebula,character,function,missing-method
```

```
...
```

Description

```
...
```

```
visualize(x): get a 'tbl' about child-nebulae candidates for visualize methods to visualize.
```

```
visualize(): get the default parameters for the method visualize.
```

```
visualize(x, ...): use the default parameters whatever 'missing' while performing the method visualize.
```

```
visualize_all(): get the default parameters for the method visualize_all.
```

```
visualize_all(x, ...): use the default parameters whatever 'missing' while performing the method visualize_all.
```

```
...
```

Usage

```
## S4 method for signature 'mcnebula,character`,`function`,`missing'
```

```
visualize(x, item, fun_modify)
```

```
## S4 method for signature 'mcnebula,missing,ANY,missing'
```

```
visualize(x, fun_modify)
```

```
## S4 method for signature 'missing,missing,missing,missing'
```

```
visualize()
```

```
## S4 method for signature 'mcnebula,ANY,ANY,ANY'
```

```
visualize(x, item, fun_modify, annotate)
```

```
## S4 method for signature 'mcnebula,numeric`,`function`,`missing'
```

```
visualize(x, item, fun_modify)
```

```
## S4 method for signature 'mcnebula,numeric_or_character`,`function`,`logical'
```

```
visualize(x, item, fun_modify, annotate)
```

```
## S4 method for signature 'missing,missing,missing,missing'
```

```
visualize_all()
```

```
## S4 method for signature 'mcnebula,ANY,ANY,ANY'
```

```
visualize_all(x, newpage, fun_modify, legend_hierarchy)
```

```
## S4 method for signature 'mcnebula,logical`,`function`,`logical'
```

```
visualize_all(x, newpage, fun_modify, legend_hierarchy)
```

Arguments

<code>x</code>	<code>...</code>
<code>item</code>	<code>...</code>
<code>fun_modify</code>	<code>...</code>
<code>annotate</code>	<code>...</code>
<code>newpage</code>	<code>...</code>
<code>legend_hierarchy</code>	<code>...</code>

Details

`...`

Examples

```
## Not run:  
visualize(...)  
  
## End(Not run)  
## Not run:  
visualize_all(...)  
  
## End(Not run)
```

Index

- * **backtracks**
 - backtrack-class, 6
- * **call_commands**
 - code_block-class, 9
 - ggset-class, 36
 - report-class, 65
 - section-class, 66
- * **datasets**
 - dataset-class, 27
 - mcn_dataset-class, 47
 - project_dataset-class, 61
- * **exports**
 - export-class, 31
- * **latests**
 - mcn_dataset-class, 47
 - mcnebula-class, 43
 - msframe-class, 50
 - project_dataset-class, 61
- * **layerSets**
 - ggset-class, 36
 - layerSet-class, 42
 - report-class, 65
- * **nebulae**
 - mcnebula-class, 43
 - nebula-class, 52
- * **projects**
 - project-class, 56
 - project_api-class, 58
 - project_conformation-class, 59
 - project_dataset-class, 61
 - project_metadata-class, 62
- * **references**
 - reference-class, 64
- * **subscripts**
 - mcnebula-class, 43
 - msframe-class, 50
 - subscript-class, 73
- .child_nebulae (nebula-class), 52
- .code_block (code_block-class), 9
- .code_block_figure (code_block-class), 9
- .code_block_table (code_block-class), 9
- .command (command-class), 13
- .ggset (ggset-class), 36
- .heading (section-class), 66
- .mcn_dataset (mcn_dataset-class), 47
- .mcnebula (mcnebula-class), 43
- .melody (melody-class), 48
- .msframe (msframe-class), 50
- .nebula (nebula-class), 52
- .parent_nebula (nebula-class), 52
- .project (project-class), 56
- .project_api (project_api-class), 58
- .project_conformation
 - (project_conformation-class), 59
- .project_dataset
 - (project_dataset-class), 61
- .project_metadata
 - (project_metadata-class), 62
- .report (report-class), 65
- .section (section-class), 66
- .statistic_set (statistic_set-class), 72
- activate_nebulae
 - (activate_nebulae, mcnebula, function, function-method), 3
- activate_nebulae(), 69
- activate_nebulae, mcnebula, ANY, ANY-method
 - (activate_nebulae, mcnebula, function, function-method), 3
- activate_nebulae, mcnebula, function, function-method, 3
- activate_nebulae, missing, missing, missing-method
 - (activate_nebulae, mcnebula, function, function-method), 3
- add_dataset (project_metadata-class), 62
- add_dataset, project_metadata, list-method
 - (project_metadata-class), 62
- add_layers (layerSet-class), 42

[illegible]

19	create_hierarchy,missing,missing-method	create_reference,mcnebula,missing,missing,data.frame,character,mcnebula-method	23
	(create_hierarchy,mcnebula,function-method),	(create_reference,mcnebula,ANY,ANY,ANY,ANY,logical-method),	
19	create_nebula_index	create_reference,mcnebula,missing,missing,data.frame,integer,mcnebula-method	23
	(create_nebula_index,mcnebula,logical-method),	(create_reference,mcnebula,ANY,ANY,ANY,ANY,logical-method),	
20	create_nebula_index(), 72	create_reference,mcnebula,missing,missing,data.frame,missing,mcnebula-method	23
	create_nebula_index,mcnebula,ANY-method	(create_reference,mcnebula,ANY,ANY,ANY,ANY,logical-method),	
	(create_nebula_index,mcnebula,logical-method),	23	
20	create_nebula_index,mcnebula,logical-method,	create_reference,mcnebula,missing,missing,missing,missing,mcnebula-method	23
	(create_nebula_index,mcnebula,logical-method),	(create_reference,mcnebula,ANY,ANY,ANY,ANY,logical-method),	
20	create_nebula_index,missing,missing-method	create_stardust_classes	23
	(create_nebula_index,mcnebula,logical-method),	(create_stardust_classes,mcnebula,numeric,numeric,logical-method),	
20	create_parent_layout	create_stardust_classes,mcnebula,ANY,ANY,ANY,ANY-method	24
	(create_parent_layout,mcnebula,character,numeric-method),	(create_stardust_classes,mcnebula,numeric,numeric,logical-method),	
21	create_parent_layout,mcnebula,ANY,ANY-method	create_stardust_classes,mcnebula,numeric,numeric,logical,logical-method,	24
	(create_parent_layout,mcnebula,character,numeric-method),	create_stardust_classes,missing,missing,missing,missing,missing,mcnebula-method	
21	create_parent_layout,mcnebula,character,numeric-method,	(create_stardust_classes,mcnebula,numeric,numeric,logical-method),	24
	(create_parent_layout,mcnebula,character,numeric-method),	24	
21	create_parent_layout,missing,missing,missing-method	creation_time (mcnebula-class), 43	24
	(create_parent_layout,mcnebula,character,numeric-method),	(mcnebula-class), 43	
21	create_parent_nebula	creation_time<- (mcnebula-class), 43	24
	(create_parent_nebula,mcnebula,numeric,logical-method),	(mcnebula-class), 43	
22	create_parent_nebula,mcnebula,missing,missing-method	cross_filter_identical	25
	(create_parent_nebula,mcnebula,numeric,logical-method),	(cross_filter_stardust,missing-method),	
22	create_parent_nebula,mcnebula,numeric,logical-method,	cross_filter_identical,mcnebula,numeric,numeric-method	25
	(create_parent_nebula,mcnebula,numeric,logical-method),	(cross_filter_stardust,missing-method),	
22	create_parent_nebula,mcnebula,numeric,missing-method	cross_filter_stardust	25
	(create_parent_nebula,mcnebula,numeric,logical-method),	(cross_filter_stardust,missing-method),	
22	create_reference	cross_filter_stardust,missing-method	25
	(create_reference,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY-method),	(cross_filter_stardust,missing-method),	
23	create_reference,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY,ANY-method,	cross_filter_score	25
	(create_reference,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY,ANY-method),	(cross_filter_score,mcnebula,character,numeric,numeric-method),	
23	create_reference,mcnebula,character,missing,missing,missing,missing,missing-method,	(cross_filter_score,mcnebula,character,numeric,numeric-method),	25
	(create_reference,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY,ANY-method),	(cross_filter_score,mcnebula,character,numeric,numeric-method),	
23	create_reference,mcnebula,missing,character,missing,missing,missing,missing-method,	(cross_filter_score,mcnebula,character,numeric,numeric-method),	25
	(create_reference,mcnebula,ANY,ANY,ANY,ANY,ANY,ANY,ANY-method),	(cross_filter_score,mcnebula,character,numeric,numeric-method),	

[59](#)
 file_name (project-class), [56](#)
 file_name (project_conformation-class), [59](#)
 file_name, ANY-method (project-class), [56](#)
 file_name, project_conformation-method (project_conformation-class), [59](#)
 file_name<- (project_conformation-class), [59](#)
 file_name<-, project_conformation-method (project_conformation-class), [59](#)
 filter_formula (filter_formula, mcnebula, function, logical-method), [32](#)
 filter_formula, mcnebula, ANY, ANY-method (filter_formula, mcnebula, function, logical-method), [32](#)
 filter_formula, mcnebula, function, logical-method, [32](#)
 filter_formula, missing, missing, missing-method (filter_formula, mcnebula, function, logical-method), [32](#)
 filter_msframe (filter_msframe, msframe, function, formula-method), [33](#)
 filter_msframe (msframe-class), [50](#)
 filter_msframe, msframe, function, formula-method, [33](#)
 filter_msframe, msframe, function, missing-method (msframe-class), [50](#)
 filter_ppcp (filter_ppcp, mcnebula, function, logical-method), [33](#)
 filter_ppcp, mcnebula, ANY, ANY-method (filter_ppcp, mcnebula, function, logical-method), [33](#)
 filter_ppcp, mcnebula, function, logical-method, [33](#)
 filter_ppcp, missing, missing, missing-method (filter_ppcp, mcnebula, function, logical-method), [33](#)
 filter_structure (filter_structure, missing, missing, missing-method), [34](#)
 filter_structure, mcnebula, ANY, ANY-method (filter_structure, missing, missing, missing-method), [34](#)
 filter_structure, mcnebula, function, logical-method (filter_structure, missing, missing, missing-method), [34](#)
 filter_structure, missing, missing, missing-method, [34](#)
 format_msframe (msframe-class), [50](#)
 format_msframe, data.frame, missing, missing, missing, missing, (msframe-class), [50](#)
 format_msframe, msframe, character, missing, character, missing (msframe-class), [50](#)
 format_msframe, msframe, missing, function, missing, function, m (msframe-class), [50](#)
 format_msframe, msframe, missing, missing, missing, missing, fun (msframe-class), [50](#)
 format_msframe, msframe, missing, missing, missing, missing, mis (msframe-class), [50](#)
 fun_modify, [35](#)
 get_metadata (project_metadata-class), [62](#)
 get_metadata, ANY, character, ANY, ANY, ANY-method (project_metadata-class), [62](#)
 get_metadata, missing, character, project_metadata, project_co (project_metadata-class), [62](#)
 get_upper_dir_subscript (project-class), [56](#)
 get_upper_dir_subscript, ANY, character, missing-method (project-class), [56](#)
 ggsci::pal_d3(), [41](#), [50](#)
 ggsci::pal_igv(), [41](#), [50](#)
 ggsci::pal_simpsons(), [41](#), [50](#)
 ggsci::pal_ucscgb(), [41](#), [50](#)
 ggset (ggset-class), [36](#)
 ggset (nebula-class), [52](#)
 ggset, ANY-method (nebula-class), [52](#)
 ggset-class, [36](#)
 ggset<- (nebula-class), [52](#)
 ggset<-, ANY-method (nebula-class), [52](#)
 ggset_activate_child_nebulae (activate_nebulae, mcnebula, function, function-method), [3](#)
 ggset_activate_nodes (draw_nodes, mcnebula, character, character, logical, l), [28](#)
 ggset_activate_parent_nebula (activate_nebulae, mcnebula, function, function-method), [3](#)

- ggset_annotate (nebula-class), 52
- ggset_annotate, ANY-method (nebula-class), 52
- ggset_annotate<- (nebula-class), 52
- ggset_annotate<-, ANY-method (nebula-class), 52
- grid_layout (nebula-class), 52
- grid_layout, ANY-method (nebula-class), 52
- grid_layout<- (nebula-class), 52
- grid_layout<-, ANY-method (nebula-class), 52
- head(), 35
- heading (section-class), 66
- heading, ANY-method (section-class), 66
- heading-class (section-class), 66
- heading<- (section-class), 66
- heading<-, ANY-method (section-class), 66
- hierarchy (mcnebula-class), 43
- hierarchy, mcnebula-method (mcnebula-class), 43
- history_rblock (history_rblock, numeric, missing, missing, numeric-method), 37
- history_rblock, missing, character, character, ANY-method (history_rblock, numeric, missing, missing, numeric-method), 37
- history_rblock, missing, missing, missing, missing-method (history_rblock, numeric, missing, missing, numeric-method), 37
- history_rblock, numeric, ANY, ANY, ANY-method (history_rblock, numeric, missing, missing, numeric-method), 37
- history_rblock, numeric, missing, missing, numeric-method, 37
- igraph (nebula-class), 52
- igraph, ANY-method (nebula-class), 52
- igraph<- (nebula-class), 52
- igraph<-, ANY-method (nebula-class), 52
- include_figure (include_figure, character, character, character, layerSet-class), 39
- include_figure, character, character, character, layerSet-class, 39
- include_table (include_table, data.frame, character, character, method), 40
- include_table, data.frame, character, character-method, 40
- initialize_mcnebula (initialize_mcnebula, mcnebula, ANY-method), 40
- initialize_mcnebula, mcnebula, ANY-method, 40
- initialize_mcnebula, melody, ANY-method (initialize_mcnebula, mcnebula, ANY-method), 40
- ion_mode (mcnebula-class), 43
- ion_mode, mcnebula-method (mcnebula-class), 43
- ion_mode<- (mcnebula-class), 43
- ion_mode<-, mcnebula-method (mcnebula-class), 43
- latest (mcn_dataset-class), 47
- latest (mcnebula-class), 43
- latest (msframe-class), 50
- latest (project_dataset-class), 61
- latest (project_metadata-class), 62
- latest, mcn_dataset, ANY, ANY-method (mcn_dataset-class), 47
- latest, mcnebula, ANY, ANY-method (mcnebula-class), 43
- latest, mcnebula, character, ANY-method (mcnebula-class), 43
- latest, missing, missing, missing-method (mcnebula-class), 43
- latest, msframe, ANY, ANY-method (msframe-class), 50
- latest, project_dataset, ANY, ANY-method (project_dataset-class), 61
- latest, project_metadata, ANY, ANY-method (project_metadata-class), 62
- layers (layerSet-class), 42
- layers, layerSet-method (layerSet-class), 42
- layers<- (layerSet-class), 42
- layers<-, layerSet-method (layerSet-class), 42
- layerSet (layerSet-class), 42
- layout_ggraph (nebula-class), 52
- layout_ggraph, ANY-method (nebula-class), 52
- layout_ggraph<- (nebula-class), 52

- layout_ggraph<- ,ANY-method
(nebula-class), 52
- legend_viewport (nebula-class), 52
- legend_viewport,ANY-method
(nebula-class), 52
- legend_viewport<- (nebula-class), 52
- legend_viewport<- ,ANY-method
(nebula-class), 52
- level (section-class), 66
- level,heading-method (section-class), 66
- level<- (section-class), 66
- level<- ,heading-method (section-class),
66
- limma::contrasts.fit(), 8
- limma::eBayes(), 8
- limma::lmFit(), 8
- limma::makeContrasts(), 8
- limma::topTable(), 8
- match.candidates_id (project-class), 56
- match.candidates_id,ANY-method
(project-class), 56
- match.features_id (project-class), 56
- match.features_id,ANY-method
(project-class), 56
- mcn_dataset (mcn_dataset-class), 47
- mcn_dataset,ANY-method
(mcn_dataset-class), 47
- mcn_dataset-class, 47
- mcn_dataset<- (mcn_dataset-class), 47
- mcn_dataset<- ,ANY-method
(mcn_dataset-class), 47
- mcnebula, 35, 41, 45
- mcnebula (mcnebula-class), 43
- mcnebula-class, 43
- MCnebula2, 47
- melody, 41
- melody (melody-class), 48
- melody,ANY-method (melody-class), 48
- melody-class, 48
- melody<- (melody-class), 48
- melody<- ,ANY-method (melody-class), 48
- metadata (project_metadata-class), 62
- metadata,ANY-method (project-class), 56
- metadata,project_metadata-method
(project_metadata-class), 62
- metadata<- (project_metadata-class), 62
- metadata<- ,project_metadata-method
(project_metadata-class), 62
- methods_format (project-class), 56
- methods_format (project_api-class), 58
- methods_format,ANY-method
(project-class), 56
- methods_format,project_api-method
(project_api-class), 58
- methods_format<- (project_api-class), 58
- methods_format<- ,project_api-method
(project_api-class), 58
- methods_match (project-class), 56
- methods_match (project_api-class), 58
- methods_match,ANY-method
(project-class), 56
- methods_match,project_api-method
(project_api-class), 58
- methods_match<- (project_api-class), 58
- methods_match<- ,project_api-method
(project_api-class), 58
- methods_read (project-class), 56
- methods_read (project_api-class), 58
- methods_read,ANY-method
(project-class), 56
- methods_read,project_api-method
(project_api-class), 58
- methods_read<- (project_api-class), 58
- methods_read<- ,project_api-method
(project_api-class), 58
- modify_annotate_child (fun_modify), 35
- modify_default_child (fun_modify), 35
- modify_rm_legend (fun_modify), 35
- modify_set_labs (fun_modify), 35
- modify_set_labs_and_unify_scale_limits
(fun_modify), 35
- modify_set_margin (fun_modify), 35
- modify_unify_scale_limits (fun_modify),
35
- move_layers (layerSet-class), 42
- move_layers,layerSet,numeric,numeric-method
(layerSet-class), 42
- msframe (msframe-class), 50
- msframe,ANY-method (msframe-class), 50
- msframe-class, 50
- msframe<- (msframe-class), 50
- msframe<- ,ANY-method (msframe-class), 50
- mutate_layer (ggset-class), 36
- mutate_layer,ANY,character-method
(ggset-class), 36
- mutate_layer,ggset,numeric-method

- (ggset-class), 36
- nebula (nebula-class), 52
- nebula-class, 52
- nebula_index (mcnebula-class), 43
- nebula_index, mcnebula-method (mcnebula-class), 43
- new_code_block (code_block-class), 9
- new_code_block, ANY, ANY, ANY, ANY, ANY-method (code_block-class), 9
- new_code_block, character, character, list, logical, function-method (code_block-class), 9
- new_code_block, missing, missing, missing, missing, missing, missing-method (code_block-class), 9
- new_code_block_figure (code_block-class), 9
- new_code_block_figure, character-method (code_block-class), 9
- new_code_block_table (code_block-class), 9
- new_code_block_table, character-method (code_block-class), 9
- new_command (command-class), 13
- new_command, function, character-method (command-class), 13
- new_command, function, missing-method (command-class), 13
- new_ggset (ggset-class), 36
- new_ggset, ANY-method (ggset-class), 36
- new_heading (section-class), 66
- new_heading, character, numeric-method (section-class), 66
- new_report (report-class), 65
- new_report, character-method (report-class), 65
- new_report, missing-method (report-class), 65
- new_section (section-class), 66
- new_section, ANY, ANY, ANY, ANY-method (section-class), 66
- new_section, character, numeric, character, maybe_code_block-method (section-class), 66
- new_section, missing, missing, missing, missing-method (section-class), 66
- new_section, NULL, numeric, character, maybe_code_block-method (section-class), 66
- nodes_ggset (nebula-class), 52
- nodes_ggset, ANY-method (nebula-class), 52
- nodes_grob (nebula-class), 52
- nodes_grob, ANY-method (nebula-class), 52
- nodes_grob<- (nebula-class), 52
- nodes_grob<-, ANY-method (nebula-class), 52
- palette_col (mcnebula-class), 43
- palette_col, mcnebula-method (mcnebula-class), 43
- palette_col, mcnebula-method (melody-class), 43
- palette_col, melody-method (melody-class), 48
- palette_col<- (melody-class), 48
- palette_col<-, melody-method (melody-class), 48
- palette_gradient (mcnebula-class), 43
- palette_gradient (melody-class), 48
- palette_gradient, mcnebula-method (mcnebula-class), 43
- palette_gradient, melody-method (melody-class), 48
- palette_gradient<- (melody-class), 48
- palette_gradient<-, melody-method (melody-class), 48
- palette_label (mcnebula-class), 43
- palette_label (melody-class), 48
- palette_label, mcnebula-method (mcnebula-class), 43
- palette_label, melody-method (melody-class), 48
- palette_label<- (melody-class), 48
- palette_label<-, melody-method (melody-class), 48
- palette_set (mcnebula-class), 43
- palette_set (melody-class), 48
- palette_set, mcnebula-method (mcnebula-class), 43
- palette_set, melody-method (melody-class), 48
- palette_set<- (melody-class), 48
- palette_set<-, melody-method (melody-class), 48
- palette_stat (mcnebula-class), 43
- palette_stat (melody-class), 48
- palette_stat, mcnebula-method (mcnebula-class), 43

- palette_stat, melody-method
(melody-class), 48
- palette_stat<- (melody-class), 48
- palette_stat<-, melody-method
(melody-class), 48
- panel_viewport (nebula-class), 52
- panel_viewport, ANY-method
(nebula-class), 52
- panel_viewport<- (nebula-class), 52
- panel_viewport<-, ANY-method
(nebula-class), 52
- paragraph (section-class), 66
- paragraph, section-method
(section-class), 66
- paragraph<- (section-class), 66
- paragraph<-, section-method
(section-class), 66
- parent_nebula (nebula-class), 52
- parent_nebula, ANY-method
(nebula-class), 52
- parent_nebula-class (nebula-class), 52
- parent_nebula<- (nebula-class), 52
- parent_nebula<-, ANY-method
(nebula-class), 52
- ppcp_data (nebula-class), 52
- ppcp_data, ANY-method (nebula-class), 52
- ppcp_data<- (nebula-class), 52
- ppcp_data<-, ANY-method (nebula-class), 52
- project (project-class), 56
- project-class, 56
- project_api (project_api-class), 58
- project_api, ANY-method
(project_api-class), 58
- project_api-class, 58
- project_api<- (project_api-class), 58
- project_api<-, ANY-method
(project_api-class), 58
- project_conformation
(project_conformation-class), 59
- project_conformation, ANY-method
(project_conformation-class), 59
- project_conformation-class, 59
- project_conformation<-
(project_conformation-class), 59
- project_conformation<-, ANY-method
(project_conformation-class), 59
- project_dataset
(project_dataset-class), 61
- project_dataset, ANY-method
(project_dataset-class), 61
- project_dataset-class, 61
- project_dataset<-
(project_dataset-class), 61
- project_dataset<-, ANY-method
(project_dataset-class), 61
- project_metadata (project-class), 56
- project_metadata
(project_metadata-class), 62
- project_metadata, ANY-method
(project_metadata-class), 62
- project_metadata-class, 62
- project_metadata<-
(project_metadata-class), 62
- project_metadata<-, ANY-method
(project_metadata-class), 62
- project_path (project-class), 56
- project_path, ANY-method
(project-class), 56
- project_path<- (project-class), 56
- project_path<-, ANY-method
(project-class), 56
- project_version (project-class), 56
- project_version, ANY-method
(project-class), 56
- project_version<- (project-class), 56
- project_version<-, ANY-method
(project-class), 56
- ration_data (nebula-class), 52
- ration_data, ANY-method (nebula-class), 52
- ration_data<- (nebula-class), 52
- ration_data<-, ANY-method
(nebula-class), 52
- read_data, ANY, project_metadata, character, missing, missing, m
(collate_data, ANY, character, function-method), 11
- read_data, missing, missing, character, character, character, ch
(collate_data, ANY, character, function-method), 11
- reference (mcnebula-class), 43
- reference (reference-class), 64

- reference, ANY-method (reference-class),
64
- reference, mcnebula-method
(mcnebula-class), 43
- reference-class, 64
- reference<- (reference-class), 64
- reference<- , ANY-method
(reference-class), 64
- report (report-class), 65
- report-class, 65
- rmarkdown::render(), 66
- sample_metadata (mcnebula-class), 43
- sample_metadata, mcnebula-method
(mcnebula-class), 43
- sample_metadata<- (mcnebula-class), 43
- sample_metadata<- , mcnebula-method
(mcnebula-class), 43
- section (section-class), 66
- section-class, 66
- set_nodes_color
(set_nodes_color, mcnebula, character-method),
68
- set_nodes_color, mcnebula, character-method,
68
- set_nodes_color, mcnebula, missing-method
(set_nodes_color, mcnebula, character-method),
68
- set_ppcp_data, mcnebula, ANY-method
(set_ppcp_data, mcnebula, character-method),
69
- set_ppcp_data, mcnebula, character-method,
69
- set_ppcp_data, missing, missing-method
(set_ppcp_data, mcnebula, character-method),
69
- set_ration_data, mcnebula, ANY-method
(set_ration_data, mcnebula, logical-method),
70
- set_ration_data, mcnebula, logical-method,
70
- set_ration_data, missing, missing-method
(set_ration_data, mcnebula, logical-method),
70
- set_tracer
(set_tracer, mcnebula, character, character-method),
71
- set_tracer, mcnebula, ANY, ANY, ANY-method
(set_tracer, mcnebula, character, character-method),
71
- set_tracer, mcnebula, character, character, character-method,
71
- set_tracer, missing, missing, missing, missing-method
(set_tracer, mcnebula, character, character, character-method),
71
- show (code_block-class), 9
- show (command-class), 13
- show (layerSet-class), 42
- show (mcnebula-class), 43
- show (melody-class), 48
- show (msframe-class), 50
- show (project_api-class), 58
- show (project_conformation-class), 59
- show (project_metadata-class), 62
- show, child_nebulae-method
(nebula-class), 52
- show, code_block-method
(code_block-class), 9
- show, code_block_figure-method
(code_block-class), 9
- show, code_block_table-method
(code_block-class), 9
- show, command-method (command-class), 13
- show, heading-method (code_block-class),
9
- show, layerSet-method (layerSet-class),
42
- show, mcnebula-method (mcnebula-class),
43
- show, melody-method (melody-class), 48
- show, msframe-method (msframe-class), 50
- show, parent_nebula-method
(nebula-class), 52
- show, project_api-method
(project_api-class), 58
- show, project_conformation-method
(project_conformation-class),
59
- show, project_metadata-method
(project_metadata-class), 62
- show, section-method (code_block-class),
9
- show_layers (ggset-class), 36
- show_layers (layerSet-report-class), 65
- show_layers, ggset-method (ggset-class),
36
- show_layers, report-method

(report-class), 65	tbl_graph (nebula-class), 52
show_node	tbl_graph, ANY-method (nebula-class), 52
(draw_nodes, mcnebulas, character, character, logical-method), 28	tbl_graph<-, ANY-method (nebula-class), 52
show_node, ANY, character, ANY, ANY-method	tbl_logical (logical-class), 46
(draw_nodes, mcnebulas, character, character, logical-method), 28	tbl_logical, ANY-method (logical-class), 46
show_node, missing, missing, missing, missing-method	top_table (statistic_set-class), 72
(draw_nodes, mcnebulas, character, character, logical-method), 28	top_table, ANY-method
show_structure, ANY, character-method	top_table<- (statistic_set-class), 72
(draw_structures, mcnebulas, character-method), 30	top_table<-, ANY-method
specific_candidate (mcnebulas-class), 43	viewports (nebula-class), 52
specific_candidate, mcnebulas-method	viewports, ANY-method (nebula-class), 52
(mcnebulas-class), 43	viewports<- (nebula-class), 52
spectral_similarity (mcnebulas-class), 43	viewports<-, ANY-method (nebula-class), 52
spectral_similarity, mcnebulas-method	VIRTUAL_backtrack (backtrack-class), 6
(mcnebulas-class), 43	VIRTUAL_dataset (dataset-class), 27
spectral_similarity<- (mcnebulas-class), 43	VIRTUAL_export (export-class), 31
spectral_similarity<-, mcnebulas-method	VIRTUAL_layerSet (layerSet-class), 42
(mcnebulas-class), 43	VIRTUAL_reference (reference-class), 64
stardust_classes (mcnebulas-class), 43	VIRTUAL_subscript (subscript-class), 73
stardust_classes, mcnebulas-method	visualize
(mcnebulas-class), 43	(visualize, mcnebulas, character, function, missing-method), 74
statistic_set (statistic_set-class), 72	visualize(), 69
statistic_set, ANY-method	visualize, mcnebulas, ANY, ANY, ANY-method
(statistic_set-class), 72	(visualize, mcnebulas, character, function, missing-method), 74
statistic_set-class, 72	visualize, mcnebulas, character, function, missing-method, 74
statistic_set<- (statistic_set-class), 72	visualize, mcnebulas, missing, ANY, missing-method
statistic_set<-, ANY-method	(visualize, mcnebulas, character, function, missing-method), 74
(statistic_set-class), 72	visualize, mcnebulas, numeric, function, missing-method
stats::model.matrix(), 8	(visualize, mcnebulas, character, function, missing-method), 74
structures_grob (nebula-class), 52	visualize, mcnebulas, numeric_or_character, function, logical-method
structures_grob, ANY-method	(visualize, mcnebulas, character, function, missing-method), 74
(nebula-class), 52	visualize, missing, missing, missing, missing-method
structures_grob<- (nebula-class), 52	(visualize, mcnebulas, character, function, missing-method), 74
structures_grob<-, ANY-method	visualize_all, mcnebulas, ANY, ANY, ANY-method
(nebula-class), 52	(visualize, mcnebulas, character, function, missing-method), 74
subscript (subscript-class), 73	
subscript, ANY-method (subscript-class), 73	
subscript-class, 73	
subscript<- (subscript-class), 73	
subscript<-, ANY-method	
(subscript-class), 73	

visualize_all,mcnebula,logical,function,logical-method
 (visualize,mcnebula,character,function,missing-method),
 74

visualize_all,missing,missing,missing,missing-method
 (visualize,mcnebula,character,function,missing-method),
 74

writeLines(), 66

yaml (report-class), 65

yaml,ANY-method (report-class), 65

yaml<- (report-class), 65

yaml<-,ANY-method (report-class), 65