Package 'hera'

April 10, 2025

Title Companion to the 'xeus-r' 'jupyter' Kernel
Version 0.1.1
Description Set of R functions to be coupled with the 'xeus-r' 'jupyter' kernel in order to drive execution of code in notebook input cells, how R objects are to be displayed in output cells, and handle two way communication with the front end through comms.
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cell_options

Options for current jupyter cell

Description

Options for current jupyter cell

Usage

```
cell_options(...)
```

Arguments

... options to set locally to the notebook cell. Forwarded to rlang::local_options().

Examples

```
## Not run:
    cell_options(repr.plot.bg = "gray")
## End(Not run)
```

clear_output

Clear output

Description

Clear output

Usage

```
clear_output(wait = FALSE)
```

Arguments

wait

Should this wait

Value

NULL invisibly

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Examples

```
## Not run:
   clear_output()
## End(Not run)
```

Comm

Comm class

Description

Comm class

Comm class

Active bindings

```
id id of the comm. read only.
target_name name of the target for this comm
```

Methods

Public methods:

- Comm\$new()
- Comm\$open()
- Comm\$close()
- Comm\$send()
- Comm\$on_close()
- Comm\$on_message()
- Comm\$print()
- Comm\$clone()

Method new():

```
Usage:
Comm$new(xp, description = "")
Arguments:
xp external pointer to an instance of the C++ class 'xeus::xcomm'
description description of this comm
```

Method open():

```
Usage:
Comm$open(data = NULL, metadata = NULL)
Arguments:
```

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```
data data
 metadata metadata
Method close():
 Usage:
 Comm$close(data = NULL, metadata = NULL)
 Arguments:
 data data
 metadata metadata
Method send():
 Usage:
 Comm$send(data = NULL, metadata = NULL)
 Arguments:
 data data
 metadata metadata
Method on_close():
 Usage:
 Comm$on_close(handler)
 Arguments:
 handler function to call when the comm is closed
Method on_message():
 Usage:
 Comm$on_message(handler)
 Arguments:
 handler function to call when receiving a message
Method print():
 Usage:
 Comm$print()
 Returns: information about the comm
Method clone(): The objects of this class are cloneable with this method.
 Usage:
 Comm$clone(deep = FALSE)
 Arguments:
 deep Whether to make a deep clone.
```

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 ${\tt CommManagerClass}$

Comm Manager class

Description

Instance of the CommManagerClass class.

Usage

CommManager

Format

An object of class CommManagerClass (inherits from R6) of length 11.

Methods

Public methods:

```
• CommManagerClass$new()
```

- CommManagerClass\$register_comm_target()
- CommManagerClass\$unregister_comm_target()
- CommManagerClass\$new_comm()
- CommManagerClass\$comms()
- CommManagerClass\$target_callback()
- CommManagerClass\$preserve()
- CommManagerClass\$release()
- CommManagerClass\$get_comm_info()
- CommManagerClass\$clone()

Method new():

Arguments:

```
Usage:
CommManagerClass$new(..., error_call = caller_env())
Arguments:
... currently unused
error_call see rlang::args_error_context()

Method register_comm_target():
Usage:
CommManagerClass$register_comm_target(
   target_name,
   callback = function(comm, message) {
   }
)
```

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```
target_name name of the comm target, e.g. "jupyter.widgets"
 callback callback function taking two arguments 'comm' and 'message'.
Method unregister_comm_target():
 Usage:
 CommManagerClass$unregister_comm_target(target_name)
 Arguments:
 target_name name of the comm target
Method new_comm():
 Usage:
 CommManagerClass$new_comm(target_name, description = "")
 Arguments:
 target_name name of the target
 description description of the comm
Method comms():
 Usage:
 CommManagerClass$comms()
 Returns: the list of currently open comms
Method target_callback():
 Usage:
 CommManagerClass$target_callback(target_name)
 Arguments:
 target_name name of the comm target
 Returns: the callback for that target name
Method preserve():
 Usage:
 CommManagerClass$preserve(comm)
 Arguments:
 comm instance to preserve
Method release():
 Usage:
 CommManagerClass$release(comm)
 Arguments:
 comm instance to release
Method get_comm_info():
 Usage:
 CommManagerClass$get_comm_info(target_name = NULL)
```

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Arguments:

target_name name of the target to get info about all comm opens. If NULL, info for comms for all targets are returned.

Method clone(): The objects of this class are cloneable with this method.

Usage:

CommManagerClass\$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.

complete

Code completion

Description

Code completion

Usage

```
complete(code, cursor_pos = nchar(code))
```

Arguments

code R code to complete

cursor_pos position of the cursor

Value

a list that contains potential completions as the first item

Examples

```
complete("rnorm(")
```

is_xeusr

display_data

Display data

Description

Display data

Usage

```
display_data(data = NULL, metadata = NULL)
```

Arguments

data data to display metadata potential metadata

Examples

```
## Not run:
    display_data(mtcars)
## End(Not run)
```

is_xeusr

Is this a running xeusr jupyter kernel

Description

Is this a running xeusr jupyter kernel

Usage

```
is_xeusr()
```

Value

TRUE if the current session is running in a xeusr kernel

Examples

```
is_xeusr()
```

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mime_bundle

bundle an object

Description

bundle an object

Usage

```
mime_bundle(x, mimetypes = mime_types(x), ...)
```

Arguments

x an object
mimetypes mime types

extra currently unused parameters

See Also

IRdisplay::prepare_mimebundle which this currently wraps around

Examples

```
mime_bundle(letters)
```

mime_types

MIME types supported by an object

Description

MIME types supported by an object

Usage

```
mime_types(x)
```

Arguments

Χ

an object

Value

a character vector of its supported mime types

View View

Examples

```
mime_types(letters)
mime_types(mtcars)
```

View

View

Description

View

Usage

```
View(x, title)
```

Arguments

x something to display
title title of the display

Examples

```
## Not run:
   View(mtcars)
## End(Not run)
```

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