

Package ‘IRdisplay’

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Title 'Jupyter' Display Machinery

Description An interface to the rich display capabilities of 'Jupyter' front-ends (e.g. 'Jupyter Notebook') <<https://jupyter.org>>.

Designed to be used from a running 'IRkernel' session <<https://irkernel.github.io>>.

Version 1.1

URL <https://github.com/IRkernel/IRdisplay>

BugReports <https://github.com/IRkernel/IRdisplay/issues/>

Depends R (>= 3.0.1)

Suggests testthat, withr

Imports methods, repr

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NeedsCompilation no

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`display`*Create and use multiple available reprs*

Description

Both functions create a mimebundle for multiple reprs. `display` proceeds to publish it using [publish_mimebundle](#). `prepare_mimebundle` returns it (see *Value* for details)

Usage

```
display(  
  obj,  
  ...,  
  mimetypes = getOption("jupyter.display_mimetypes"),  
  error_handler = stop  
)
```

```
prepare_mimebundle(  
  obj,  
  mimetypes = getOption("jupyter.display_mimetypes"),  
  metadata = NULL,  
  error_handler = stop  
)
```

Arguments

<code>obj</code>	The object to create representations for
<code>mimetypes</code>	Mimetypes to create reprs for. The defaults are defined by the option <code>jupyter.display_mimetypes</code> . (see: IRdisplay-options)
<code>error_handler</code>	Function used when errors in individual reprs occur
<code>metadata, ...</code>	Metadata to attach to the result (can be expanded by additional metadata)

Value

`prepare_mimebundle` returns a list with items corresponding to the parameters of [publish_mimebundle](#) (data and metadata)

See Also

[publish_mimebundle](#)

Examples

```
bundle <- prepare_mimebundle(diag(3))  
  
## Not run: ## (Run inside of an IRkernel)  
display(help(display))
```

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

display_<image>	<i>Display a specific image output</i>
-----------------	--

Description

Either data or file must be passed.

Usage

```
display_png(data = NULL, file = NULL, width = NULL, height = NULL)
```

```
display_jpeg(data = NULL, file = NULL, width = NULL, height = NULL)
```

```
display_pdf(data = NULL, file = NULL, width = NULL, height = NULL)
```

```
display_svg(data = NULL, file = NULL, width = NULL, height = NULL)
```

Arguments

data	The data as a raw vector (character vector for display_svg)
file	The path to a file or a connection containing the content
width	The width to display the image
height	The height to display the image

See Also

[display_<text>](#)

Examples

```
## Not run: ## (Run inside of an IRkernel)
display_png(file = 'image.png')
display_svg('
<svg xmlns="http://www.w3.org/2000/svg" viewBox="-1 -1 2 2">
  <circle r="1"/>
</svg>
')
display_jpeg(file = url('https://dummyimage.com/600x400.jpg', 'wb'), width = 100)
## End(Not run)
```

display_<text>	<i>Display a specific textual output</i>
----------------	--

Description

Either data or file must be passed.

Usage

```
display_text(data = NULL, file = NULL)
display_json(data = NULL, file = NULL)
display_javascript(data = NULL, file = NULL)
display_html(data = NULL, file = NULL)
display_markdown(data = NULL, file = NULL)
display_latex(data = NULL, file = NULL)
```

Arguments

data	The code or markup content as a character vector
file	The path to a file or a connection containing the content

See Also

[display_<image>](#)

Examples

```
## Not run: ## (Run inside of an IRkernel)
display_text('Just text')
display_markdown('[MD](http://commonmark.org) *formatted*')
display_javascript('execute(this)')
## End(Not run)
```

IRdisplay-options	<i>IRdisplay options</i>
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Description

Some [options](#) to control the formats [display](#) and [prepare_mimebundle](#) emit, and the function they use to display them.

Usage

```
irdisplay_option_defaults
```

Format

An object of class list of length 3.

Options

`jupyter.display_mimetypes` The default is all MIME types supported by Jupyter.

`jupyter.base_display_func` Function used by [display](#) and all [display_<text>](#) / [display_<image>](#) functions. Has the signature `function(data, metadata = NULL)`. Per default emits a [warning](#), and is set when running an IRkernel.

`jupyter.clear_output_func` Function used by [clear_output](#). Has the signature `function(wait = TRUE)`. Per default emits a [warning](#), and is set when running an IRkernel.

<code>publish_mimebundle</code>	<i>Display data by mimetype, with optional alternative representations.</i>
---------------------------------	---

Description

`publish_mimebundle` calls the function stored as option value of `jupyter.base_display_func`, `clear_output` calls the value of option `jupyter.clear_output_func`. (see: [IRdisplay-options](#))

Usage

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

```
clear_output(wait = TRUE)
```

Arguments

`data` A named list mapping mimetypes to content ([character](#) or [raw](#) vectors)

`metadata` A named list mapping mimetypes to named lists of metadata, e.g. `list('image/png' = list(width = 5))`

`wait` Wait to clear the output until new output is available. Default TRUE. If FALSE, clears the existing output immediately before the new output is displayed.

Functions

- `clear_output`: Clear the output from the current cell.

See Also

[prepare_mimebundle](#)

Examples

```
## Not run: ## (Run inside of an IRkernel)
publish_mimebundle(list('text/html' = '<h1>Hi!</h1>'))
publish_mimebundle(
  list('image/svg+xml' = '<svg xmlns="http://www.w3.org/2000/svg"><circle r="100"/></svg>'),
  list('image/svg+xml' = list(width = 100, height = 100)))

for (i in 1:5) {
  Sys.sleep(.2) # simulate work
  clear_output() # clear previous iteration
  cat(i) # alternative: IRdisplay::display(i)
  flush.console() # make output available
}
## End(Not run)
```

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