Package: IRdisplay (via r-universe)

August 27, 2024

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 1.1.0.9000

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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Encoding UTF-8

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Repository https://irkernel.r-universe.dev

RemoteUrl https://github.com/irkernel/irdisplay

RemoteRef HEAD

RemoteSha d889a75564379ab65372cb2dac92f3b356655236

Contents

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

`obj`	The object to create representations for
`mimetypes`	Mimetypes to create reprs for. The defaults are defined by the option `jupyter.display_mimetypes`. (see: IRdisplay-options)
`error_handler`	Function used when errors in individual reprs occur
`metadata, ...`	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>` *Display a specific image output*

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> *Display a specific textual output*

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 *IRdisplay options*

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`.

publish_mimebundle *Display data by mimetype, with optional alternative representations.*

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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