Working with table environments in texor

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Abstract This is a small sample article to demonstrate usage of **texor** to convert table environments.

1 Introduction

Tables are commonly used in RJ articles to display data in a tabular format. However, there are differences in the way tables are handled by LaTeX and HTML. LaTeX tables have more customization and are usually optimized for printing, whereas the web articles need tables optimized for varying sizes of media. Pandoc converts most of the tables somewhat easily, but is unable to do well with table customization packages and complex tables. Some pandoc extensions are used in order to tackle them, they are : `simple_tables,pipe_tables`

2 Generic tables

Normal LaTeX tables will be converted just fine, even if they include a bit of math and other elements. However do note that the conversion will be done to traditional or pandoc style markdown instead of Rmarkdown specific using `knitr::kable(..)` function. Also any custom LaTeX commands or specific font charactars would not be supported.

Graphics Format	LaTeX	Markdown	Rmarkdown	HTML
PNG	Yes	Yes	Yes	Yes
JPG	Yes	Yes	Yes	Yes
PDF	Yes	No	No	No
SVG	No	Yes	Yes	Yes
Tikz	Yes	No	Yes	No
Algorithm	Yes	No	No	No

Table 1: Image Format support in various Markup/Typesetting Languages

3 Multicolumn tables

EXAMPLE	X		Y	
	1	2	1	2
EX1	X11	X12	Y11	Y12
EX2	X21	X22	Y21	Y22
EX3	X31	X32	Y31	Y32
EX4	X41	X42	Y41	Y42
EX5	X51	X52	Y51	Y52

Table 2: An Example Table with Multicolumn

The above example illustrates a multicolumn table 2, which the **texor** package can handle through subroutines and pre-processing step to transform the LaTeX code.

- The Stream Editor modifies the `\multicolumn{..}` to `\multicolumnx{..}`
- Then a LaTeX macro redefines the `\multicolumnx{..}` to `\multicolumn{---}`, which is accepted by pandoc.
- Finally pandoc reads the table and transforms it to markdown.

Also note that the stream editor is used to rename `table*` environment to `table` environment because the markdown/HTML will not support the specific changes table* environment will bring.

4 Complex tables

A complex table with various other elements like figures, math , code and so on, are also supported by **texor**.

Inline Format	LaTeX Support	Web Support	Rendering
Text	Yes	Yes	*Hello*
Image	Yes	Yes	

CodeBlock	Yes	Yes	```x <- 1:100```
			```y <- dbinom(x,100,prob = 0.5)```
			```plot(x,y)```

Math	Yes	Yes	$e = mc^2$
Link	Yes	Yes	Google
Nested Table	Yes	No	NaN

Table 3: Image Format support in various Markup/Typesetting Languages

5 Wide tables

Widetable environments also gets some perks when converted by **texor** package. They get their own block and separate numbering (although references are shared by figures).

Here is a reference to the table 4 and table 5.

6 Summary

In summary the **texor** package supports:

- some common table environments.
- wide tables.
- some multicolumn tables.
- inclusion of different environments like figure/code in tables.

Bibliography

A. Krewinkel and A. Lucero pandoc 3.0 Release notes *pandoc* 2023 URL https://pandoc.org/releases.html [p]

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index	A	B	C	D	E	F	G	H
1	359.00	NaN	5796.00	0.00	16.14	1.00	NaN	0.00
2	25.73	0.00	1029.20	NaN	40.00	0.68	0.00	0.00
2.1	26.26	0.00	13.40	0.00	2.14	0.68	0.00	NaN
2.2	32.06	20.06	47.64	0.04	1.80	0.68	0.01	NaN
2.3	51.94	420.27	21.17	0.20	1.77	0.74	0.05	NaN
2.4	40.62	30.44	0.90	0.57	1.44	1.31	0.24	NaN
…	…	…	…	…	…	…	…	…

index	I	J	K	L	M	N	O
1	0.00	-1.73	0.00	0.00	0.00	0.00	NaN
2	0.21	-33.41	0.00	0.11	0.00	NaN	-197.85
2.1	0.24	-24.00	0.00	0.15	NaN	0.06	-70.46
2.2	0.6	-19.42	0.00	0.15	0.00	0.11	-16.48
2.3	0.75	-31.77	0.00	0.18	0.01	0.37	-0.82
2.4	0.26	-1.89	0.1	0.55	0.70	0.22	-6.55
…	…	…	…	…	…	…	…

Table 4: A dummy research data

Package	Commits	Version	Last Updated
texor	260	1.1.0	28-Jul-2023
rebib	76	0.2.4	29-Jul-2023
rjtools	314	1.0.11	30-Jul-2023
rmarkdown	3189	2.23	31-Jul-2023

Table 5: A dummy summary of a few CRAN packages