Formatting Tables with latexpdf

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Introduction

The R package 'latexpdf' supports rich aesthetics for embedding tables in PDF documents, illustrated below. Be sure to set chunk option 'results' to 'tex'. Although illustrations us as.ltable(), many arguments are passed through to as.tabular(). See also as.pdf() for creating stand-alone table images.

Examples

We make a sample data frame.

```
> x <- data.frame(
+   study=c(rep('PROT01',5),NA),
+   subject=rep(c(1001,1002),each=3),
+   time=c(0,1,2,0,1,2),
+   conc=c(0.12,34,5.6,.5,200,NA)
+ )
> x
```

```
   study subject time   conc
1 PROT01    1001    0   0.12
2 PROT01    1001    1  34.00
3 PROT01    1001    2   5.60
4 PROT01    1002    0   0.50
5 PROT01    1002    1 200.00
6   <NA>    1002    2     NA
```

Now we try various invocations.

```
> library(latexpdf)
> writeLines(as.ltable(x))
```

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,environments=NULL))
```

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,caption='Plasma Concentrations',label='pctab'))
```

Table 1: Plasma Concentrations

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,caption='Plasma Concentrations',cap.top=FALSE))
```

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

Table 2: Plasma Concentrations

```
> writeLines(as.ltable(x,grid=TRUE,caption='grid is TRUE'))
```

Table 3: grid is TRUE

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,grid=TRUE,caption='Includes Walls',walls=1,rules=c(1,2,1)))
```

Table 4: Includes Walls

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,grid=TRUE,caption='Custom Breaks',
+     colbreaks=c(0,2,0),rowgroups=x$subject
+ ))
```

Table 5: Custom Breaks

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,grid=TRUE,caption='Custom Justify',
+     numjust='left',charjust='right'
+ ))
```

Table 6: Custom Justify

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(as.ltable(x,grid=TRUE,caption='Decimal Align',
+     justify=c('center','left','right','decimal')
+ ))
```

Table 7: Decimal Align

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34
PROT01	1001	2	5.6
PROT01	1002	0	0.5
PROT01	1002	1	200
	1002	2	

```
> writeLines(as.ltable(x,grid=TRUE,caption='Not Verbatim',
+     justify=c('center','left','right','decimal'),
+     verbatim=FALSE
+ ))
```

Table 8: Not Verbatim

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34
PROT01	1001	2	5.6
PROT01	1002	0	0.5
PROT01	1002	1	200
	1002	2	

```
> writeLines(as.ltable(x,grid=TRUE,caption='Custom Column Width',
+     justify=c('center','left','right','decimal'),
+     colwidth=c(NA,NA,NA,'2cm')
+ ))
```

Table 9: Custom Column Width

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34
PROT01	1001	2	5.6
PROT01	1002	0	0.5
PROT01	1002	1	200
	1002	2	

```
> writeLines(as.ltable(x,caption='Row Colors',rowcolors=c('white','lightgray')))
```

Table 10: Row Colors

study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(
+   as.ltable(
+     x,
+     caption='Row Groups',
+     rowgroups=as.character(x$subject),
+     rowgrouplabel='groups',
+     rowgrouprule = 2
+   )
+ )
```

Table 11: Row Groups

groups	study	subject	time	conc
	PROT01	1001	0	0.12
1001	PROT01	1001	1	34.00
	PROT01	1001	2	5.60
	PROT01	1002	0	0.50
1002	PROT01	1002	1	200.00
		1002	2	

```
> writeLines(
+   as.ltable(
+     x,
+     caption='Column Groups',
+     colgroups=c('demographic','demographic','clinical','clinical')
+   )
+ )
```

Table 12: Column Groups

demographic		clinical	
study	subject	time	conc
PROT01	1001	0	0.12
PROT01	1001	1	34.00
PROT01	1001	2	5.60
PROT01	1002	0	0.50
PROT01	1002	1	200.00
	1002	2	

```
> writeLines(
+   as.ltable(
+     x,
+     caption='Row and Column Groups',
+     rowgroups=as.character(x$subject),
+     colgroups=c('demographic','demographic','clinical','clinical'),
+     rowgrouprule = 1,
+     grid=TRUE
+   )
+ )
```

Table 13: Row and Column Groups

	demographic		clinical	
	study	subject	time	conc
1001	PROT01	1001	0	0.12
	PROT01	1001	1	34.00
	PROT01	1001	2	5.60
1002	PROT01	1002	0	0.50
	PROT01	1002	1	200.00
		1002	2	