tabular

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.

```
> writeLines(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(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(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	

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(ltable(x,caption='Plasma Concentrations',cap.top=FALSE))


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


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

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	

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(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(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(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(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	