

ascii

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ascii
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`ascii` is a R package for writing `asciidoc`, `txt2tags`, `reStructuredText`, `org` or `textile` documents with embedded R code.

1 news

1.1 2010/04/20

- main functions rewritten: it should be easier to add new markup
- add `dimnames` in `ascii.table()`
- `style`, `align` and `valign` accept matrix
- `t/b/l/rgroup` accept several groups (in a list)
- `header` and `footer` accept an integer (number of lines for the header)
- `t/b/l/rstyle` can be "h" (for "header")
- `caption`, `caption.level`, `align`, `valign`, `style`, `frame`, `grid` have `NULL` default value

1.2 2010/02/05

- textile support
- fix a bug in `asciidoc` labeled list, when labels begin with a number
- fix bug with `RweaveDrivers` when `split = TRUE`

1.3 2009/11/25

- fix several bugs in `ascii.freqtable` and `ascii.meanscomp`
- fix several bugs in `asciidoc` table header

1.4 2009/11/24

- version 0.4
- remove extra `\n` when there is no R output
- change the name of Sphinx related functions to ReST
- add methods for `freq()`, `compmeans()` and `CrossTable()` in package `descr`
- remove `cgroup` and `rgroup` arguments in `ascii()` function
- four new arguments: `tgroup` (top), `bgroup` (bottom), `lgroup` (left) and `rgroup` (right)
- new arguments `escape` and `list.escape` in `print.ascii()` function

1.5 2009/10/28

- "results=ascii" for all drivers
- method for `ftable` objects
- method for `packageDescription` objects
- method for `sessionInfo` objects
- fix warning with `asciidoc` list output

1.6 2009/10/24

- small bug fix

1.7 2009/10/24

- version 0.3
- `list.type` can be "label"
- `ascii.simple.list` method
- `rownames` and `colnames` arguments
- `cgroup` for `txt2tags` output
- improve col alignment in `txt2tags` output
- **sphinx** driver and output
- **org** driver and output
- improve row and col span (`cgroup` and `rgroup`)
- remove `SweaveAscii()` function
- `Asciidoc()`, `T2t()`, `Sphinx()` and `Org()` (wrapper for `Sweave("file.Rnw", RweaveXx-x)`)

1.8 2009/07/16

- version 0.2
- `digit` and `format` accept matrix, (each cell can have its own number of digits and format)
- new arguments (`cgroup`, `rgroup`, ...) to define major column and row headings like in `Hmisc::latex()` (only for `asciidoc` output)
- column style and alignment use cell specifiers
- remove `SweaveSyntaxAscii` (bug when `]` is used inside `Sexpr: []`)

1.9 2009/05/11

- `\SweaveOpts{}` now works
- add `SweaveSyntaxAscii(SweaveOpts: [], Sexpr: [])`
- add a simple wrapper for `Sweave()` (`SweaveAscii()`) that use `RweaveAsciidoc` and `SweaveSyntaxAscii` as default

1.10 2009/04/27

- add a `caption.level` argument
- improve `ascii.describe` output (package `Hmisc`)

1.11 2009/04/08

- update `DESCRIPTION` (with homepage)
- support for `describe` function in package `Hmisc`

2 short example

```
<<>>=
x <- matrix(1:4, 2, 2)
x
@
```

gives :

```
> x <- matrix(1:4, 2, 2)
> x
      [,1] [,2]
[1,]     1     3
[2,]     2     4
```

```
<<results=ascii,echo=FALSE>>=
ascii(x, caption = "A simple matrix", width = 30)
@
```

gives :

Table 1 A simple matrix

1.00	3.00
2.00	4.00

3 what ascii provides

ascii provided :

- a generic method for common R objects: `ascii()`. Default argument depends of R object,
- several Sweave drivers: `RweaveAsciidoc()`, `RweaveT2t()`, `RweaveReST()`, `RweaveOrg()` and `RweaveTextile()`.
- some simple wrappers for Sweave ("yourfile.Rnw", `RweaveXxx`) named `Asciidoc()`, `T2t()`, `ReST()`, `Org()` and `Textile()`.

4 features/options

See `?ascii` for a complete description of all arguments.

	asciidoc	txt2tags	rest	org
Arguments				
include.rownames	yes	yes	yes	yes
include.colnames	yes	yes	yes	yes
rownames	yes	yes	yes	yes
colnames	yes	yes	yes	yes
format	yes	yes	yes	yes
digits	yes	yes	yes	yes
decimal.mark	yes	yes	yes	yes
na.print	yes	yes	yes	yes
caption	yes	yes	yes	yes
caption.level	yes	yes	yes	yes
width	yes	no	no	no
frame	yes	yes (all or none)	no	no
grid	yes	no	no	no

	asciidoc	txt2tags	rest	org
valign	yes	no	no	no
header	yes	yes	yes	yes
footer	yes	yes	no	no
align	yes	yes	no	no
col.width	yes	no	no	no
style	yes	yes	yes	yes
tgroup	yes	yes	yes	no
n.tgroup	yes	yes	yes	no
talign	yes	yes	no	no
tvalign	yes	no	no	no
tstyle	yes	yes	yes	no
bggroup	yes	no	yes	no
n.bggroup	yes	no	yes	no
balign	yes	no	no	no
bvalign	yes	no	no	no
bstyle	yes	no	yes	no
lggroup	yes	no	yes	no
n.lgroup	yes	no	yes	no
lalign	yes	no	no	no
lvalign	yes	no	no	no
lstyle	yes	no	yes	no
rgroup	yes	no	yes	no
n.rgroup	yes	no	yes	no
ralign	yes	no	no	no
rvalign	yes	no	no	no
rstyle	yes	no	yes	no
list.type	yes	yes	yes	yes
condense	yes	yes	yes	yes
Output				
html	yes	yes	yes	yes
docbook	yes	yes	no	yes
latex	yes (experimental)	yes	yes (col and row spans not implemented yet)	yes
Feature				
syntax color	yes (but not for R...)	no	yes	yes

5 ascii examples

ascii provides methods for:

```
> methods(ascii)
[1] ascii.anova*          ascii.aov*
[3] ascii.aovlist*        ascii.cast_df*
[5] ascii.character*      ascii.coxph*
[7] ascii.CrossTable*     ascii.data.frame*
[9] ascii.default*        ascii.density*
[11] ascii.describe*       ascii.describe.single*
[13] ascii.factor*         ascii.freqtable*
[15] ascii.ftable*         ascii.glm*
[17] ascii.htest*          ascii.integer*
[19] ascii.list*           ascii.lm*
[21] ascii.matrix*         ascii.meanscomp*
[23] ascii.numeric*        ascii.packageDescription*
[25] ascii.prcomp*         ascii.sessionInfo*
[27] ascii.simple.list*    ascii.smooth.spline*
[29] ascii.summary.aov*    ascii.summary.aovlist*
```

```
[31] ascii.summary.glm*      ascii.summary.lm*
[33] ascii.summary.prcomp*    ascii.summary.survfit*
[35] ascii.summary.table*     ascii.survdiff*
[37] ascii.survfit*           ascii.table*
[39] ascii.ts*                ascii.zoo*
```

Non-visible functions are asterisked

5.1 sessionInfo

```
> ascii(sessionInfo())
R version::
  R version 2.10.1 (2009-12-14), i486-pc-linux-gnu
locale::
  LC_CTYPE=fr_FR.UTF-8, LC_NUMERIC=C, LC_TIME=fr_FR.UTF-8, LC_COLLATE=fr_FR.UTF-8, LC_MONETARY=C, LC_MESSAGES=fr_FR.UTF-8, LC_PAPER=fr_FR.UTF-8, LC_NAME=C, LC_ADDRESS=C, LC_TELEPHONE=C, LC_MEASUREMENT=fr_FR.UTF-8, LC_IDENTIFICATION=C
attached base packages::
  stats, graphics, grDevices, utils, datasets, methods, base
other attached packages::
  ascii_0.6, proto_0.3-8
loaded via a namespace (and not attached)::
  tools_2.10.1
```

R version R version 2.10.1 (2009-12-14), i486-pc-linux-gnu

locale LC_CTYPE=fr_FR.UTF-8, LC_NUMERIC=C, LC_TIME=fr_FR.UTF-8, LC_COLLATE=fr_FR.UTF-8, LC_MONETARY=C, LC_MESSAGES=fr_FR.UTF-8, LC_PAPER=fr_FR.UTF-8, LC_NAME=C, LC_ADDRESS=C, LC_TELEPHONE=C, LC_MEASUREMENT=fr_FR.UTF-8, LC_IDENTIFICATION=C

attached base packages stats, graphics, grDevices, utils, datasets, methods, base

other attached packages ascii_0.6, proto_0.3-8

loaded via a namespace (and not attached) tools_2.10.1

5.2 vector

```
> ascii(1:4)
|=====|
| 1.00 | 2.00 | 3.00 | 4.00 |
|=====|
```

1.00	2.00	3.00	4.00
------	------	------	------

5.3 matrix

```
> ascii(VADeaths, include.rownames = T, include.colnames = T, caption = "VADeaths",
+       header = T, col.width = c(1, 2, 2, 2, 2, 2), valign = "middle",
+       align = c("l", "r", "r", "r", "r"), frame = "topbot")
.VADeaths
[frame="topbot",cols="1,2,2,2,2"]
|=====|
1.1+| >.^h| Rural Male >.^h| Rural Female >.^h| Urban Male >.^h| Urban Female
<.^| 50-54 >.^| 11.70 >.^| 8.70 >.^| 15.40 >.^| 8.40
<.^| 55-59 >.^| 18.10 >.^| 11.70 >.^| 24.30 >.^| 13.60
```

```
<.^| 60-64 >.^| 26.90 >.^| 20.30 >.^| 37.00 >.^| 19.30
<.^| 65-69 >.^| 41.00 >.^| 30.90 >.^| 54.60 >.^| 35.10
<.^| 70-74 >.^| 66.00 >.^| 54.30 >.^| 71.10 >.^| 50.00
```

Table 2 VADeaths

	Rural Male	Rural Female	Urban Male	Urban Female
50-54	11.70	8.70	15.40	8.40
55-59	18.10	11.70	24.30	13.60
60-64	26.90	20.30	37.00	19.30
65-69	41.00	30.90	54.60	35.10
70-74	66.00	54.30	71.10	50.00

5.4 data.frame

```
> ascii(iris[1:10, ], include.rownames = F, caption = "iris", width = 75,
+       align = "c", valign = "bottom", frame = "topbot", grid = "none")
.iris
[frame="topbot",grid="none",width="75%"]
```

```
^.>h| Sepal.Length ^.>h| Sepal.Width ^.>h| Petal.Length ^.>h| Petal.Width ^.>h|
Species
^.>| 5.10 ^.>| 3.50 ^.>| 1.40 ^.>| 0.20 ^.>|
setosa
^.>| 4.90 ^.>| 3.00 ^.>| 1.40 ^.>| 0.20 ^.>|
setosa
^.>| 4.70 ^.>| 3.20 ^.>| 1.30 ^.>| 0.20 ^.>|
setosa
^.>| 4.60 ^.>| 3.10 ^.>| 1.50 ^.>| 0.20 ^.>|
setosa
^.>| 5.00 ^.>| 3.60 ^.>| 1.40 ^.>| 0.20 ^.>|
setosa
^.>| 5.40 ^.>| 3.90 ^.>| 1.70 ^.>| 0.40 ^.>|
setosa
^.>| 4.60 ^.>| 3.40 ^.>| 1.40 ^.>| 0.30 ^.>|
setosa
^.>| 5.00 ^.>| 3.40 ^.>| 1.50 ^.>| 0.20 ^.>|
setosa
^.>| 4.40 ^.>| 2.90 ^.>| 1.40 ^.>| 0.20 ^.>|
setosa
^.>| 4.90 ^.>| 3.10 ^.>| 1.50 ^.>| 0.10 ^.>|
setosa
```

5.5 row (and col) headings

```
> library(reshape)
> ff_d <- melt(french_fries, id = 1:4, na.rm = TRUE)
> toto <- cast(ff_d, treatment + subject ~ variable, mean, margins = "treatment")
> ascii(toto[, -1], lgroup = paste("Treatment:", as.character(unique(toto[,
+ 1]))), n.lgroup = c(table(toto[, 1])), rstyle = "s", lvalign = "middle",
+ include.rownames = F)
```

```
1.1+| h| subject h| potato h| buttery h| grassy h| rancid h| painty
```


Table 3 iris

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.10	3.50	1.40	0.20	setosa
4.90	3.00	1.40	0.20	setosa
4.70	3.20	1.30	0.20	setosa
4.60	3.10	1.50	0.20	setosa
5.00	3.60	1.40	0.20	setosa
5.40	3.90	1.70	0.40	setosa
4.60	3.40	1.40	0.30	setosa
5.00	3.40	1.50	0.20	setosa
4.40	2.90	1.40	0.20	setosa
4.90	3.10	1.50	0.10	setosa

```
.13+^.^h| Treatment: 1 | 3      | 6.22    | 0.37    | 0.19    | 2.11    | 3.11
| 10      | 9.96    | 6.75    | 0.58    | 4.02    | 1.38
| 15      | 3.36    | 0.72    | 0.42    | 3.96    | 3.26
| 16      | 6.50    | 3.26    | 0.76    | 4.12    | 1.23
| 19      | 9.38    | 3.06    | 2.02    | 5.36    | 2.77
| 31      | 8.84    | 0.44    | 0.09    | 5.94    | 3.21
| 51      | 10.68   | 2.64    | 1.05    | 5.15    | 1.96
| 52      | 5.06    | 0.81    | 0.88    | 4.29    | 2.65
| 63      | 6.78    | 0.03    | 0.00    | 6.05    | 3.85
| 78      | 3.62    | 0.73    | 0.54    | 1.50    | 3.49
| 79      | 8.06    | 0.28    | 0.34    | 0.57    | 0.00
| 86      | 4.18    | 1.77    | 0.81    | 5.49    | 4.11
| (all)   | 6.89    | 1.78    | 0.65    | 4.07    | 2.58
.13+^.^h| Treatment: 2 | 3      | 6.74    | 0.59    | 0.11    | 3.14    | 2.48
| 10      | 9.99    | 6.98    | 0.47    | 2.15    | 0.82
| 15      | 4.41    | 1.31    | 0.34    | 2.29    | 2.06
| 16      | 6.45    | 3.37    | 1.05    | 3.40    | 0.46
| 19      | 8.64    | 2.45    | 1.14    | 5.41    | 4.16
| 31      | 8.03    | 0.62    | 0.16    | 6.05    | 5.06
| 51      | 9.98    | 3.79    | 1.57    | 4.67    | 2.25
| 52      | 5.51    | 1.02    | 1.18    | 4.22    | 2.19
| 63      | 8.41    | 0.10    | 0.01    | 5.09    | 4.36
| 78      | 3.78    | 0.29    | 0.76    | 1.55    | 2.73
| 79      | 7.94    | 0.69    | 0.26    | 1.03    | 0.00
| 86      | 3.99    | 2.06    | 0.78    | 4.52    | 2.84
| (all)   | 7.00    | 1.97    | 0.66    | 3.62    | 2.46
.13+^.^h| Treatment: 3 | 3      | 5.29    | 0.77    | 0.09    | 2.86    | 2.87
| 10      | 10.03   | 6.45    | 0.14    | 3.11    | 0.69
| 15      | 3.96    | 0.99    | 0.44    | 2.55    | 2.37
| 16      | 6.86    | 2.70    | 1.12    | 3.20    | 0.56
| 19      | 8.74    | 1.73    | 2.07    | 7.24    | 3.90
| 31      | 9.03    | 0.65    | 0.17    | 6.58    | 5.13
| 51      | 10.22   | 3.13    | 1.35    | 4.92    | 2.54
| 52      | 5.47    | 0.86    | 0.77    | 3.16    | 2.66
| 63      | 8.06    | 0.07    | 0.12    | 6.18    | 3.10
| 78      | 4.00    | 0.70    | 0.67    | 1.19    | 3.52
| 79      | 7.73    | 0.57    | 0.12    | 1.18    | 0.03
| 86      | 3.87    | 1.63    | 0.94    | 4.11    | 3.03
| (all)   | 6.97    | 1.72    | 0.68    | 3.87    | 2.53
=====
```

	subject	potato	buttery	grassy	rancid	painty
	3	6.22	0.37	0.19	2.11	3.11
	10	9.96	6.75	0.58	4.02	1.38
	15	3.36	0.72	0.42	3.96	3.26
	16	6.50	3.26	0.76	4.12	1.23

Treatment:

1

	19	9.38	3.06	2.02	5.36	2.77
	31	8.84	0.44	0.09	5.94	3.21
	51	10.68	2.64	1.05	5.15	1.96
	52	5.06	0.81	0.88	4.29	2.65
	63	6.78	0.03	0.00	6.05	3.85
	78	3.62	0.73	0.54	1.50	3.49
	79	8.06	0.28	0.34	0.57	0.00
	86	4.18	1.77	0.81	5.49	4.11
	(all)	6.89	1.78	0.65	4.07	2.58
Treatment: 2	3	6.74	0.59	0.11	3.14	2.48
	10	9.99	6.98	0.47	2.15	0.82
	15	4.41	1.31	0.34	2.29	2.06
	16	6.45	3.37	1.05	3.40	0.46
	19	8.64	2.45	1.14	5.41	4.16
	31	8.03	0.62	0.16	6.05	5.06
	51	9.98	3.79	1.57	4.67	2.25
	52	5.51	1.02	1.18	4.22	2.19
	63	8.41	0.10	0.01	5.09	4.36
	78	3.78	0.29	0.76	1.55	2.73
	79	7.94	0.69	0.26	1.03	0.00
	86	3.99	2.06	0.78	4.52	2.84
	(all)	7.00	1.97	0.66	3.62	2.46
Treatment: 3	3	5.29	0.77	0.09	2.86	2.87
	10	10.03	6.45	0.14	3.11	0.69
	15	3.96	0.99	0.44	2.55	2.37
	16	6.86	2.70	1.12	3.20	0.56
	19	8.74	1.73	2.07	7.24	3.90
	31	9.03	0.65	0.17	6.58	5.13
	51	10.22	3.13	1.35	4.92	2.54
	52	5.47	0.86	0.77	3.16	2.66
	63	8.06	0.07	0.12	6.18	3.10
	78	4.00	0.70	0.67	1.19	3.52
	79	7.73	0.57	0.12	1.18	0.03
	86	3.87	1.63	0.94	4.11	3.03
	(all)	6.97	1.72	0.68	3.87	2.53

5.6 summary.table

```
> ascii(summary(table(1:4, 1:4)))
* Number of cases in table: 4
* Number of factors: 2
* Test for independence of all factors:
** Chisq = 12, df = 9, p-value = 0.2133
** Chi-squared approximation may be incorrect
```

- Number of cases in table: 4
- Number of factors: 2
- Test for independence of all factors:
 - Chisq = 12, df = 9, p-value = 0.2133
 - Chi-squared approximation may be incorrect

5.7 labeled list

```
> ascii(version)
platform::
```

```

i486-pc-linux-gnu
arch::
  i486
os::
  linux-gnu
system::
  i486, linux-gnu
status::

major::
  2
minor::
  10.1
year::
  2009
month::
  12
day::
  14
svn rev::
  50720
language::
  R
version.string::
  R version 2.10.1 (2009-12-14)

```

platform i486-pc-linux-gnu

arch i486

os linux-gnu

system i486, linux-gnu

status, major 2

minor 10.1

year 2009

month 12

day 14

svn rev 50720

language R

version.string R version 2.10.1 (2009-12-14)

5.8 glm

```

> counts <- c(18, 17, 15, 20, 10, 20, 25, 13, 12)
> outcome <- gl(3, 1, 9)
> treatment <- gl(3, 3)
> d.AD <- data.frame(treatment, outcome, counts)
> glm.D93 <- glm(counts ~ outcome + treatment, family = poisson())
> glm.D93
Call:  glm(formula = counts ~ outcome + treatment, family = poisson())

Coefficients:
(Intercept)      outcome2      outcome3  treatment2  treatment3
  3.045e+00   -4.543e-01   -2.930e-01    8.717e-16    4.557e-16

Degrees of Freedom: 8 Total (i.e. Null);  4 Residual

```

```

Null Deviance:      10.58
Residual Deviance: 5.129      AIC: 56.76
> ascii(glm.D93, caption = "glm.D93")
.glm.D93
|=====|
1.1+| h| Estimate h| Std. Error h| z value h| Pr(>|z|)
| (Intercept) | 3.04      | 0.17      | 17.81    | 0.00
| outcome2    | -0.45     | 0.20      | -2.25    | 0.02
| outcome3    | -0.29     | 0.19      | -1.52    | 0.13
| treatment2  | 0.00      | 0.20      | 0.00     | 1.00
| treatment3  | 0.00      | 0.20      | 0.00     | 1.00
|=====|
> ascii(anova(glm.D93), caption = "anova glm.D93", include.rownames = T)
.anova glm.D93
|=====|
1.1+| h| Df   h| Deviance h| Resid. Df h| Resid. Dev
| NULL      |         |          | 8.00      | 10.58
| outcome   | 2.00    | 5.45     | 6.00      | 5.13
| treatment | 2.00    | 0.00     | 4.00      | 5.13
|=====|

```

Table 4 glm.D93

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	3.04	0.17	17.81	0.00
outcome2	-0.45	0.20	-2.25	0.02
outcome3	-0.29	0.19	-1.52	0.13
treatment2	0.00	0.20	0.00	1.00
treatment3	0.00	0.20	0.00	1.00

Table 5 anova glm.D93

	Df	Deviance	Resid. Df	Resid. Dev
NULL			8.00	10.58
outcome	2.00	5.45	6.00	5.13
treatment	2.00	0.00	4.00	5.13

5.9 describe

```

> library(Hmisc)
> label(esoph$agegp) <- "Age group"
> label(esoph$alcgp) <- "Alcohol group"
> label(esoph$tobgp) <- "Tobacco group"
> label(esoph$ncontrols) <- "Number of control"
> label(esoph$age) <- "Age"
> units(esoph$age) <- "Years"
> ascii(describe(esoph))
.esoph
* 6 Variable
* 88 Observations

*agegp : Age group*

|=====|
| n | missing | unique
| 88 | 0      | 6
|=====|
|=====|

```

```

1.1+| | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+
| Frequency | 15      | 15      | 16      | 16      | 15      | 11
| %          | 17      | 17      | 18      | 18      | 17      | 12
|=====

*alcgp : Alcohol group*

|=====
| n | missing | unique
| 88 | 0      | 4
|=====

0-39g/day (23, 26%), 40-79 (23, 26%), 80-119 (21, 24%), 120+ (21, 24%)

*tobgp : Tobacco group*

|=====
| n | missing | unique
| 88 | 0      | 4
|=====

0-9g/day (24, 27%), 10-19 (24, 27%), 20-29 (20, 23%), 30+ (20, 23%)

*ncases*

|=====
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95
| 88 | 0      | 10      | 2.273 | 0.0 | 0.0 | 0.0 | 1.0 | 4.0 | 5.3 | 6.0
|=====

|=====
1.1+| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 9 | 17
| Frequency | 29 | 16 | 11 | 9 | 8 | 6 | 5 | 1 | 2 | 1
| %          | 33 | 18 | 12 | 10 | 9 | 7 | 6 | 1 | 2 | 1
|=====

*ncontrols : Number of control*

|=====
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95
| 88 | 0      | 30      | 11.08 | 1.0 | 1.0 | 3.0 | 6.0 | 14.0 | 29.1 | 40.0
|=====

lowest: 1 2 3 4 5, highest: 40 46 48 49 60

*age : Age [Years]*

|=====
| n | missing | unique
| 88 | 0      | 6
|=====

|=====
1.1+| | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+
| Frequency | 15      | 15      | 16      | 16      | 15      | 11
| %          | 17      | 17      | 18      | 18      | 17      | 12
|=====

```

ESOPH

- 6 Variable
- 88 Observations
- agegp : Age group**

n	missing	unique
88	0	6

	25-34	35-44	45-54	55-64	65-74	75+
Frequency	15	15	16	16	15	11
%	17	17	18	18	17	12

alcgp : Alcohol group

n	missing	unique
88	0	4

0-39g/day (23, 26%), 40-79 (23, 26%), 80-119 (21, 24%), 120+ (21, 24%)

tobgp : Tobacco group

n	missing	unique
88	0	4

0-9g/day (24, 27%), 10-19 (24, 27%), 20-29 (20, 23%), 30+ (20, 23%)

ncases

n	missing	unique	Mean	.05	.10	.25	.50	.75	.90	.95
88	0	10	2.273	0.0	0.0	0.0	1.0	4.0	5.3	6.0

	0	1	2	3	4	5	6	8	9	17
Frequency	29	16	11	9	8	6	5	1	2	1
%	33	18	12	10	9	7	6	1	2	1

ncontrols : Number of control

n	missing	unique	Mean	.05	.10	.25	.50	.75	.90	.95
88	0	30	11.08	1.0	1.0	3.0	6.0	14.0	29.1	40.0

lowest: 1 2 3 4 5, highest: 40 46 48 49 60

age : Age [Years]

n	missing	unique
88	0	6

	25-34	35-44	45-54	55-64	65-74	75+
Frequency	15	15	16	16	15	11
%	17	17	18	18	17	12

5.10 CrossTable

```
> library(descr)
> ascii(CrossTable(warpbreaks$wool, warpbreaks$tension, dnn = c("Wool",
+ "Tension")))
*Cell Contents*

* N
* Expected N
```

```
* Chi-square contribution
* N / Row Total
* N / Col Total
* N / Table Total

|=====
1.1+| h| L      h| M      h| H      h| Total
.6+^.^s| A | 9      | 9      | 9      | 27
| 9.0    | 9.0    | 9.0    |
| 0.000  | 0.000  | 0.000  |
| 0.333  | 0.333  | 0.333  | 0.500
| 0.500  | 0.500  | 0.500  |
| 0.167  | 0.167  | 0.167  |
.6+^.^s| B | 9      | 9      | 9      | 27
| 9.0    | 9.0    | 9.0    |
| 0.000  | 0.000  | 0.000  |
| 0.333  | 0.333  | 0.333  | 0.500
| 0.500  | 0.500  | 0.500  |
| 0.167  | 0.167  | 0.167  |
.2+^.^s| Total | 18      | 18      | 18      | 54
| 0.333  | 0.333  | 0.333  |
|=====

*Statistics for All Table Factors*

Pearson's Chi-squared test::
  Chi^2 = 0, d.f. = 2, p = 1
```

Cell Contents

- N
- Expected N
- Chi-square contribution
- N / Row Total
- N / Col Total
- N / Table Total

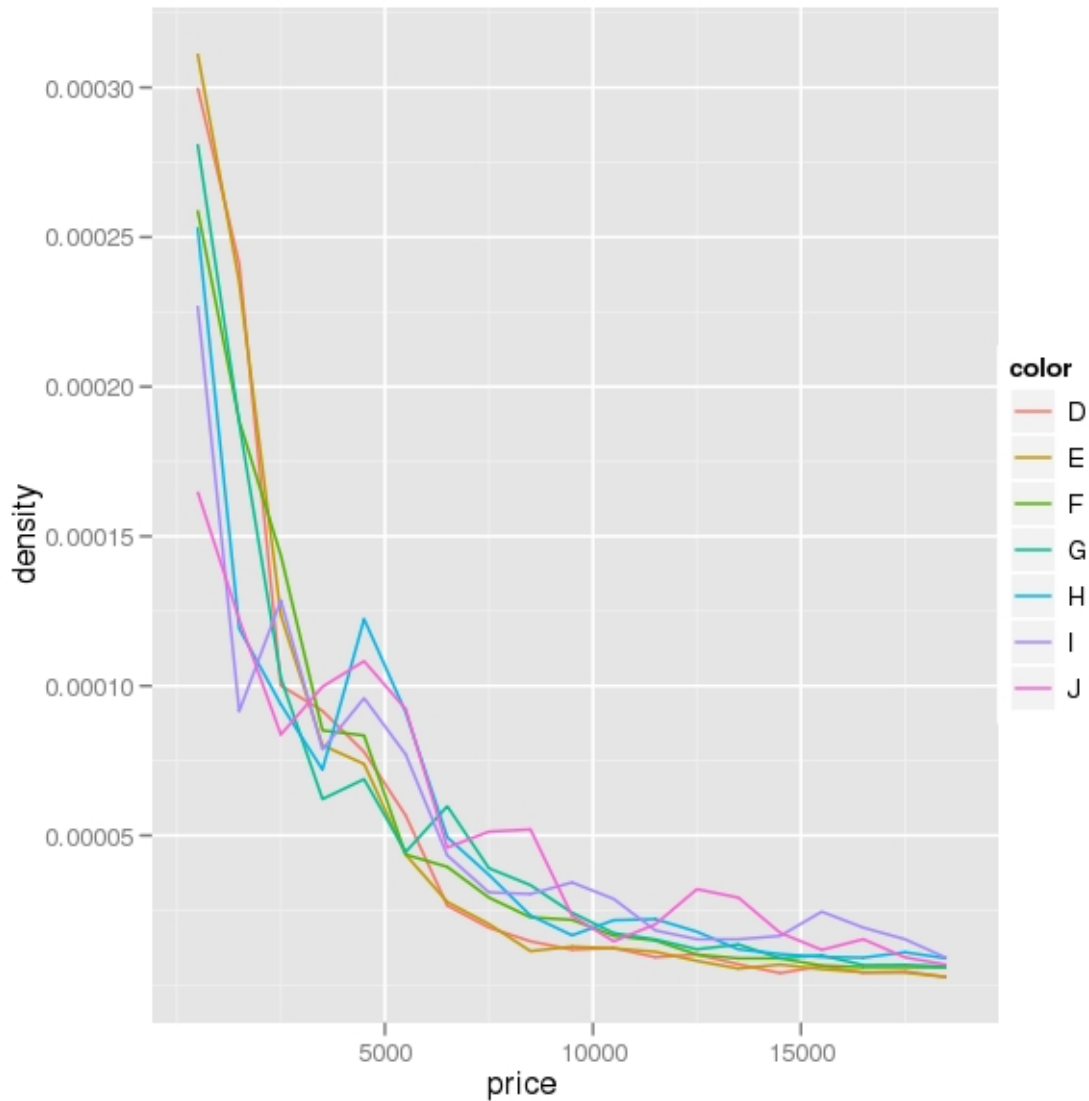
	L	M	H	Total
A	9	9	9	27
	9.0	9.0	9.0	
	0.000	0.000	0.000	
	0.333	0.333	0.333	0.500
	0.500	0.500	0.500	
	0.167	0.167	0.167	
B	9	9	9	27
	9.0	9.0	9.0	
	0.000	0.000	0.000	
	0.333	0.333	0.333	0.500
	0.500	0.500	0.500	
	0.167	0.167	0.167	
Total	18	18	18	54
	0.333	0.333	0.333	

Statistics for All Table Factors

Pearson's Chi-squared test Chi^2 = 0, d.f. = 2, p = 1

5.11 plot

```
> library(ggplot2)
> p <- qplot(price, ..density.., data = diamonds, geom = "freqpoly",
+   binwidth = 1000, colour = color)
> print(p)
```



5.12 other outputs

```
> library(reshape)
> names(airquality) <- tolower(names(airquality))
> aqm <- melt(airquality, id = c("month", "day"), na.rm = TRUE)
> res <- cast(aqm, month ~ variable, mean, margins = "grand_row")
> res
  month  ozone  solar.r   wind   temp
1     5 23.61538 181.2963 11.622581 65.54839
2     6 29.44444 190.1667 10.266667 79.10000
3     7 59.11538 216.4839  8.941935 83.90323
4     8 59.96154 171.8571  8.793548 83.96774
5     9 31.44828 167.4333 10.180000 76.90000
6 (all) 42.12931 185.9315  9.957516 77.88235
> print(ascii(res), "t2t")
|| | month | ozone | solar.r | wind | temp
```



```

| 1 | 5      | 23.62 | 181.30 | 11.62 | 65.55 |
| 2 | 6      | 29.44 | 190.17 | 10.27 | 79.10 |
| 3 | 7      | 59.12 | 216.48 | 8.94  | 83.90 |
| 4 | 8      | 59.96 | 171.86 | 8.79  | 83.97 |
| 5 | 9      | 31.45 | 167.43 | 10.18 | 76.90 |
| 6 | (all)  | 42.13 | 185.93 | 9.96  | 77.88 |
> print(ascii(res), "rest")
+---+-----+-----+-----+-----+
|   | month | ozone | solar.r | wind  | temp  |
+---+-----+-----+-----+-----+
| 1 | 5     | 23.62 | 181.30 | 11.62 | 65.55 |
+---+-----+-----+-----+-----+
| 2 | 6     | 29.44 | 190.17 | 10.27 | 79.10 |
+---+-----+-----+-----+-----+
| 3 | 7     | 59.12 | 216.48 | 8.94  | 83.90 |
+---+-----+-----+-----+-----+
| 4 | 8     | 59.96 | 171.86 | 8.79  | 83.97 |
+---+-----+-----+-----+-----+
| 5 | 9     | 31.45 | 167.43 | 10.18 | 76.90 |
+---+-----+-----+-----+-----+
| 6 | (all) | 42.13 | 185.93 | 9.96  | 77.88 |
+---+-----+-----+-----+-----+
> print(ascii(res), "org")
|   | month | ozone | solar.r | wind  | temp  |
|---+-----+-----+-----+-----+
| 1 | 5     | 23.62 | 181.30 | 11.62 | 65.55 |
| 2 | 6     | 29.44 | 190.17 | 10.27 | 79.10 |
| 3 | 7     | 59.12 | 216.48 | 8.94  | 83.90 |
| 4 | 8     | 59.96 | 171.86 | 8.79  | 83.97 |
| 5 | 9     | 31.45 | 167.43 | 10.18 | 76.90 |
| 6 | (all) | 42.13 | 185.93 | 9.96  | 77.88 |

```

Follow those links to see real examples:

- [with text2tags](#)
- [with reStructuredText](#)
- [with org](#)

6 convert

Sweave process creates a `yourdocument.xxx` file from `yourdocument.Rnw`.

```
Sweave("yourdocument.Rnw", RweaveXxx)
```

You can convert it to html format with the following command:

```

asciidoc yourdocument.txt
or
txt2tags -t html yourdocument.t2t
or
rst2html-highlight --stylesheet-path=pygments-default.css -s rest.rst rest.html
or
Alt-X org-export-as-html

```

or to other formats...

For example, you can see the source of [this documentation](#), the file [generated by Sweave](#), the same file in [docbook format](#), the same file [converted to pdf](#) with dbleatex, and the same file [converted to odt](#) with docbook2odf.

7 more informations

asciidoc <http://www.methods.co.nz/asciidoc>

txt2tags <http://txt2tags.sourceforge.net>

docutils and reStructuredText <http://docutils.sourceforge.net/>

org-mode <http://orgmode.org/>

textile <http://textile.thresholdstate.com/>

There is another way to create org documents with embedded R code : **org-babel**. Thanks to **Erik Iversen** for informing me about org-mode and org-babel.

8 ascii for real

- Derek H. Ogle has written **some vignettes** for the book ‘Analysis and Interpretation of Freshwater Fisheries Data’ using **ascii**.
- **This blog** uses **ascii** and **blogpost** to generate and publish post.
- **This blog** too but with **another method**.