

ascii

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

1 news

1.1 2009/xx/xx

- 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

1.2 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

1.3 2009/10/24

- small bug fix

1.4 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)`)

1.5 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: []`)

1.6 2009/05/11

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

1.7 2009/04/27

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

1.8 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()` and `RweaveOrg()`.
- some simple wrappers for `Sweave("yourfile.Rnw", RweaveXxx)` named `Asciidoc()`, `T2t()`, `ReST()` and `Org()`.

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 |
| 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 |
| bgroup | yes | no | yes | no |
| n.bgroup | yes | no | yes | no |
| balign | yes | no | no | no |
| bvalign | yes | no | no | no |
| bstyle | yes | no | yes | no |
| lgroup | 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 |

| | asciidoc | txt2tags | rest | org |
|-----------------|------------------------|-----------------|---|------------|
| 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.ftable*
[15] ascii.glm*            ascii.htest*
[17] ascii.integer*        ascii.list*
[19] ascii.lm*             ascii.matrix*
[21] ascii.numeric*        ascii.packageDescription*
[23] ascii.prcomp*         ascii.sessionInfo*
[25] ascii.simple.list*    ascii.smooth.spline*
[27] ascii.summary.aov*    ascii.summary.aovlist*
[29] ascii.summary.glm*    ascii.summary.lm*
[31] ascii.summary.prcomp* ascii.summary.table*
[33] ascii.survdiff*       ascii.table*
[35] ascii.ts*             ascii.zoo*
```

Non-visible functions are asterisked

5.1 sessionInfo

```
> ascii(sessionInfo())
R version::
  R version 2.10.0 (2009-10-26), 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_0.4, proto_0.3-8
loaded via a namespace (and not attached)::
  tools_2.10.0
```

R version R version 2.10.0 (2009-10-26), 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_0.4, proto_0.3-8

loaded via a namespace (and not attached) tools_2.10.0

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 = "lrrrr", frame = "topbot")
.VADeaths
[frame="topbot",valign="middle",options="header",cols="1,2,2,2,2"]
|=====
<.^|      >.^| 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
|=====
```

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",valign="bottom",options="header",width="75%"]
|===== ←
^.>| 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
|=====

```

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 |

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 = c("Treatment", paste("Treatment:",
+   as.character(unique(toto[, 1])))), n.lgroup = c(1, table(toto[,
+   1])), rstyle = "s", lvalign = "middle")
[options="header"]
|=====
.1+.^| Treatment | subject | potato | buttery | grassy | rancid | painty
.13+.^| 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+.^| 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+.^| 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
|=====
```

| Treatment | subject | potato | buttery | grassy | rancid | painty |
|-----------------|---------|--------|---------|--------|--------|--------|
| 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 |
| 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::
  10.0
year::
  2009
month::
  10
day::
  26
svn rev::
  50208
language::
  R
version.string::
  R version 2.10.0 (2009-10-26)
```

platform i486-pc-linux-gnu

arch i486

os linux-gnu

system i486, linux-gnu

status, major 2

minor 10.0

year 2009

month 10

day 26

svn rev 50208

language R

version.string R version 2.10.0 (2009-10-26)

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
[options="header"]
|=====
|      | 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     |
|=====
> ascii(anova(glm.D93), caption = "anova glm.D93", include.rownames = T)
.anova glm.D93
[options="header"]
|=====
|      | 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       |
|=====

```

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$tobgp) <- "Tobacco group"
> label(esoph$nccontrols) <- "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
|=====

|=====
| 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
|=====

*nccontrols : 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
=====

```

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(warbreaks$wool, warbreaks$tension, dnn = c("Wool",
+ "Tension")))
*Cell Contents*

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

[options="header"]
|=====
.1+s|  | L      | M      | 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 | |

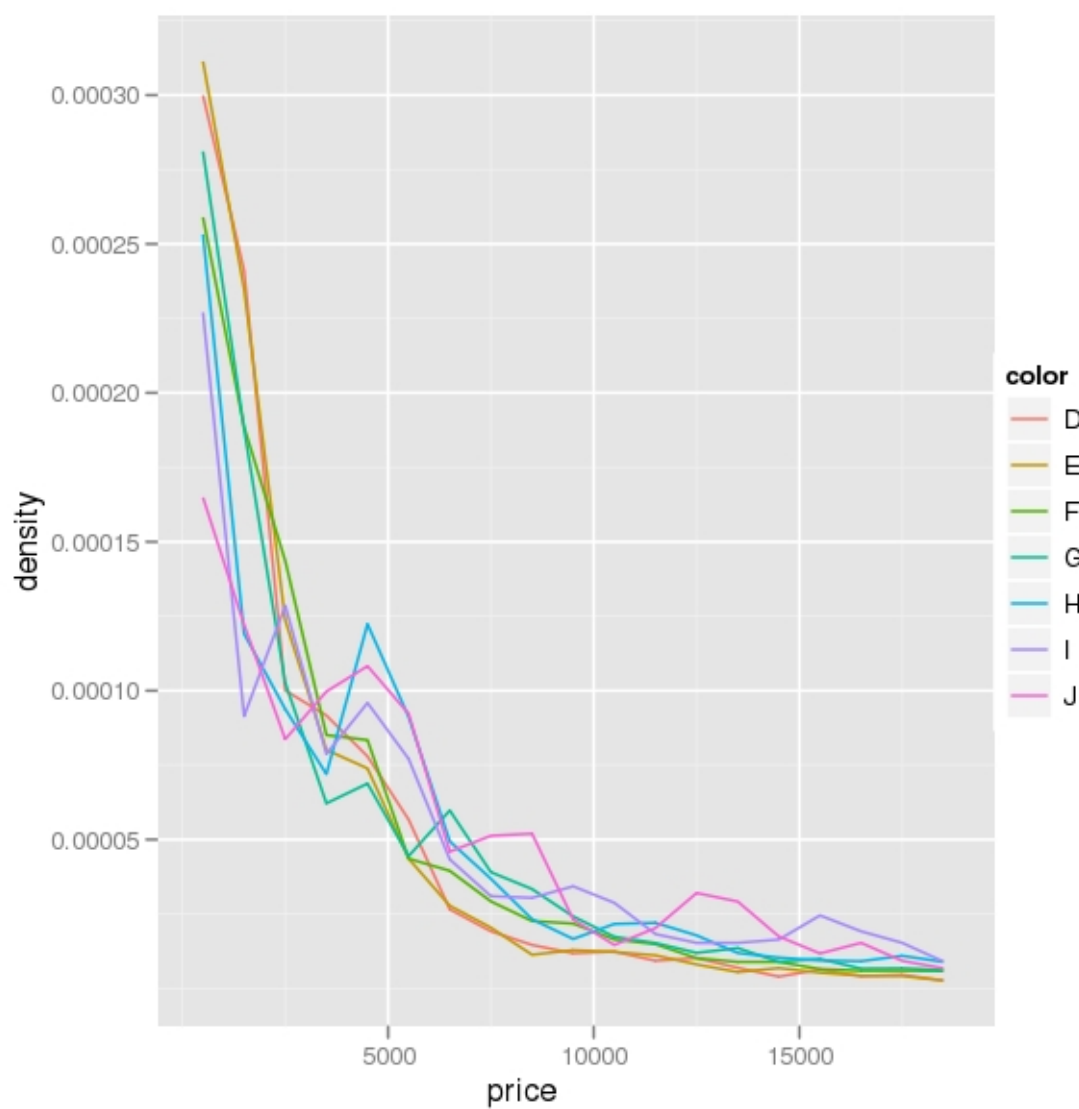
| | L | M | H | Total |
|-------|-------|-------|-------|-------|
| B | 0.167 | 0.167 | 0.167 | |
| | 9 | 9 | 9 | 27 |
| | 9.0 | 9.0 | 9.0 | |
| | 0.000 | 0.000 | 0.000 | |
| | 0.333 | 0.333 | 0.333 | 0.500 |
| | 0.500 | 0.500 | 0.500 | |
| Total | 0.167 | 0.167 | 0.167 | |
| | 18 | 18 | 18 | 54 |
| | 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 |
| 5      | 23.62 | 181.30  | 11.62 | 65.55 |
| 6      | 29.44 | 190.17  | 10.27 | 79.10 |
| 7      | 59.12 | 216.48  | 8.94  | 83.90 |
| 8      | 59.96 | 171.86  | 8.79  | 83.97 |
| 9      | 31.45 | 167.43  | 10.18 | 76.90 |
| (all)  | 42.13 | 185.93  | 9.96  | 77.88 |
> print(ascii(res), "rest")
+-----+-----+-----+-----+-----+
| month | ozone | solar.r | wind | temp |
+=====+=====+=====+=====+=====+
| 5      | 23.62 | 181.30  | 11.62 | 65.55 |
+-----+-----+-----+-----+-----+
| 6      | 29.44 | 190.17  | 10.27 | 79.10 |
+-----+-----+-----+-----+-----+
| 7      | 59.12 | 216.48  | 8.94  | 83.90 |
+-----+-----+-----+-----+-----+
| 8      | 59.96 | 171.86  | 8.79  | 83.97 |
+-----+-----+-----+-----+-----+
| 9      | 31.45 | 167.43  | 10.18 | 76.90 |
+-----+-----+-----+-----+-----+
| (all)  | 42.13 | 185.93  | 9.96  | 77.88 |
+-----+-----+-----+-----+-----+
> print(ascii(res), "org")
|-----+-----+-----+-----+-----+
| month | ozone | solar.r | wind | temp |
|-----+-----+-----+-----+-----+
| 5      | 23.62 | 181.30  | 11.62 | 65.55 |
| 6      | 29.44 | 190.17  | 10.27 | 79.10 |
| 7      | 59.12 | 216.48  | 8.94  | 83.90 |
| 8      | 59.96 | 171.86  | 8.79  | 83.97 |
| 9      | 31.45 | 167.43  | 10.18 | 76.90 |
| (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 dblatex, 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/>

There is another way to create org documents with embedded R code : [org-babel](#). Thanks to [Erik Iverson](#) 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](#).