

R

1,文件输入

当前路径下: `source("filename")`

2, textoutput

`sink("filename"),append`参数, `split`参数

3, 图像输出

ggplot2:

- 官网: <http://had.co.nz/ggplot2>
 - CRAN下载: <http://cran.r-project.org/web/packages/ggplot2/>
 - 本书网页: <http://had.co.nz/ggplot2/book>
 - 讨论组: <http://groups.google.com/group/ggplot2>
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R的图形包概述: <http://cran.r-project.org/web/views/Graphics.html>

装饰属性

```
set.seed(1410) # Make the sample reproducible
dsmall <- diamonds[sample(nrow(diamonds), 100), ]
qplot(carat, price, data = dsmall, colour = color)
qplot(carat, price, data = dsmall, shape = cut)
```

Alpha值

```
qplot(carat, price, data = diamonds, alpha = I(1/10))
qplot(carat, price, data = diamonds, alpha = I(1/100))
qplot(carat, price, data = diamonds, alpha = I(1/200))
```

几何对象

- `geom` = "point", 画散点图, 当提供x,y时为缺省选项
 - `geom` = "smooth", 画平滑曲线及标准误
 - `geom` = "boxplot", 画箱线图
 - `geom` = "path" 或 `geom` = "line", 画连线
 - `geom` = "histogram", 画直方图, 当只提供x时为缺省选项
 - `geom` = "freqpoly", 画频率多边形
 - `geom` = "density", 画密度曲线
 - `geom` = "bar", 画柱形图
-

平滑曲线

```
qplot(carat, price, data = dsmall, geom = c("point", "smooth"))
qplot(carat, price, data = diamonds, geom = c("point", "smooth"))
```

- `method = "loess"` , 对于较小的n为缺省拟合方式($n < 1000$)
- 弯曲程度取决于span

```
qplot(carat, price, data = dsmall, geom = c("point", "smooth"), span = 0.2)
```

```
qplot(carat, price, data = dsmall, geom = c("point", "smooth"), span = 1)
```

```
qplot(carat, price, data = dsmall, geom = c("point", "smooth"), method = "gam",  
      formula = y ~ s(x))
```

```
qplot(carat, price, data = dsmall, geom = c("point", "smooth"), method = "gam",  
      formula = y ~ s(x, bs = "cs"))
```