An overview of the plot and stats functions in the `surveyor` package

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March 3, 2012

`surveyor` is a package that makes it easy to create graphical crosstabs from survey data files.

1 Introduction

blah

2 Create test data and a surveyor object

```
> library(surveydata)
> library(surveyor)
> library(ggplot2)
> library(lattice)
> qData <- data.frame(
+     Q1 = c("Yes", "No", "Yes", "No", "Yes"),
+     Q2 = c(1, 1, 1, 0, 0),
+     Q3 = c("A", "B", "C", "B", "A"),
+     Q4_1 = c("Yes", "No", "Yes", "No", "Yes"),
+     Q4_2 = c("Yes", "Yes", "No", "No", "Yes"),
+     Q5_1 = c(1, 1, 1, 0, 0),
+     Q5_2 = c(0, 0, 1, 1, 1),
+     Q6_1 = c("A", "B", "C", "B", "A"),
+     Q6_2 = c("C", "B", "A", "B", "C"),
+     crossbreak = c("AAA", "AAA", "BBB", "BBB", "BBB"),
+     crossbreak2 = c("DDD", "EEE", "DDD", "EEE", "DDD"),
+     weight = c(0.9, 1.1, 0.8, 1.2, 1.0)
+ )
> varlabels(qData) <- c(
```

```
+     "Single question with yes/no input",
+     "Single question with binary input",
+     "Single question with multiple options",
+     "Multiple question with yes/no input: XX",
+     "Multiple question with yes/no input: YY",
+     "Multiple question with binary input: XX",
+     "Multiple question with binary input: YY",
+     "Multiple question with multiple options: XX",
+     "Multiple question with multiple options: YY",
+     "crossbreak",
+     "crossbreak2",
+     "weight")
> qData <- as.surveydata(qData)
```

Next, set up a surveyor object. For the sake of illustrating the different options, we create two surveyor objects:

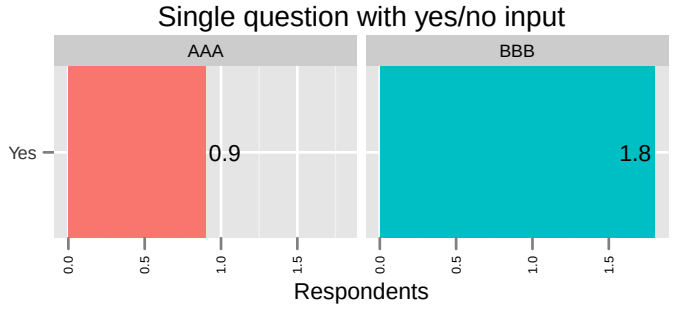
- sg: `surveyor` object for `ggplot` graphics
- sl: `surveyor` object for `lattice` graphics

```
> s <- as.surveyor(qData, qData$crossbreak, qData$weight)
> sg <- surveyorUpdateDefaults(s, outputType = "device", addPlotTitle = TRUE)
> sl <- surveyorUpdateDefaults(sg, fastgraphics=TRUE)
>
```

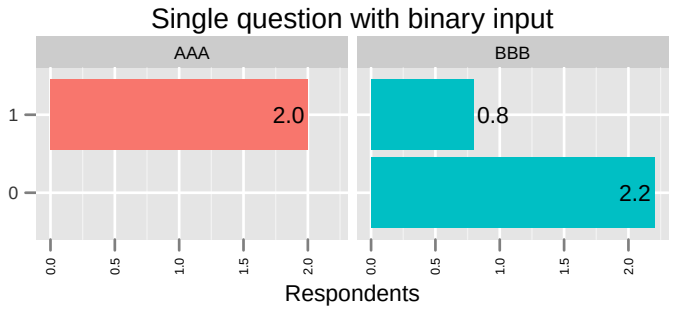
3 Demonstrating the different plotBar options

3.1 bar plots with ggplot

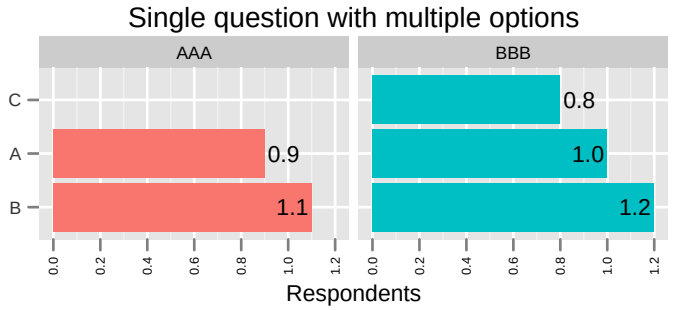
```
> x <- plotBar(statsBin(codeQuickArray(sg, "Q1")))
> print(x$plot)
```



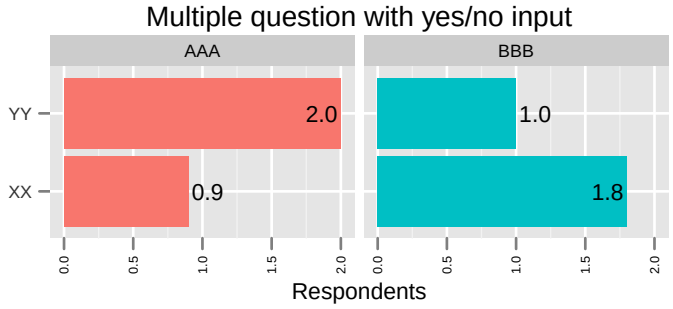
```
> x <- plotBar(statsBin(codeQuickArray(sg, "Q2")))
> print(x$plot)
```



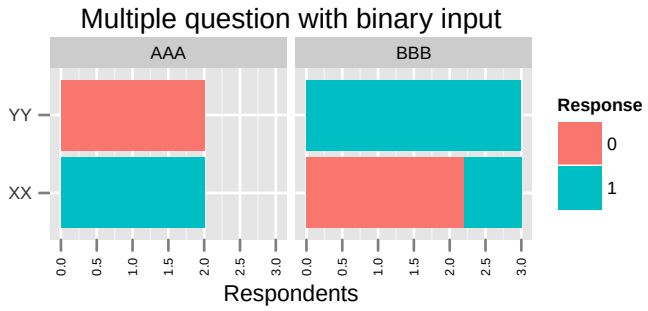

```
> x <- plotBar(statsBin(codeQuickArray(sg, "Q3")))
> print(x$plot)
```



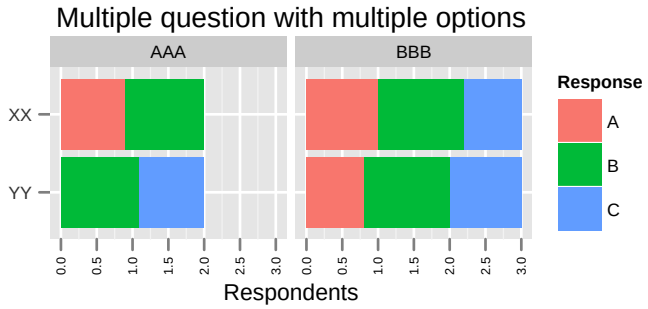

```
> x <- plotBar(statsBin(codeQuickArray(sg, "Q4")))
> print(x$plot)
```



```
> x <- plotBar(statsBin(codeQuickArray(sg, "Q5")))
> print(x$plot)
```

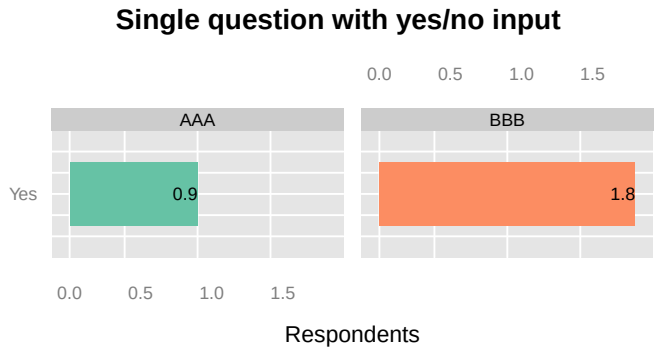



```
> x <- plotBar(statsBin(codeQuickArray(sg, "Q6")))
> print(x$plot)
```

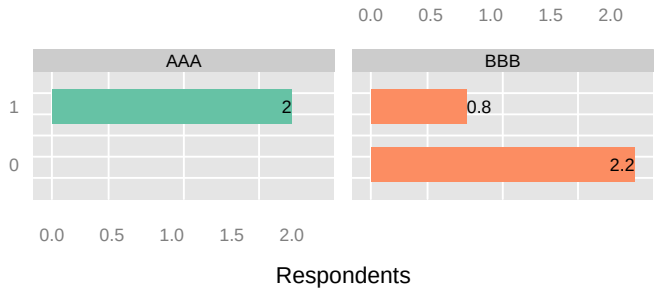


3.2 bar plots with lattice

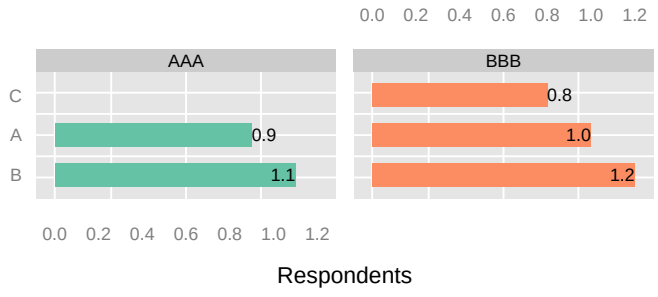
```
> x <- plotBar(statsBin(codeQuickArray(sl, "Q1")))
> print(x$plot)
```



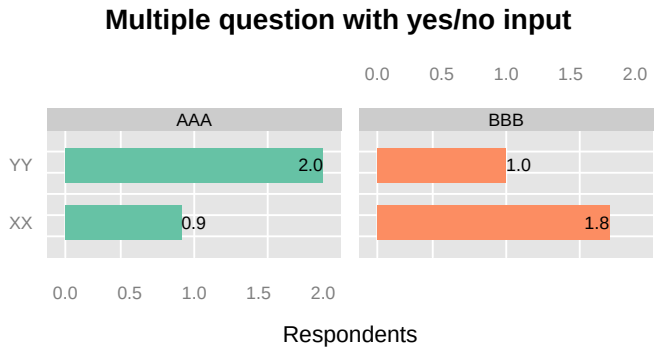

```
> x <- plotBar(statsBin(codeQuickArray(sl, "Q2")))
> print(x$plot)
```



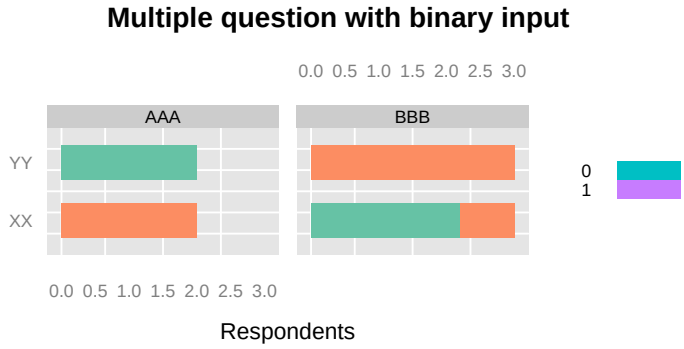

```
> x <- plotBar(statsBin(codeQuickArray(sl, "Q3")))
> print(x$plot)
```



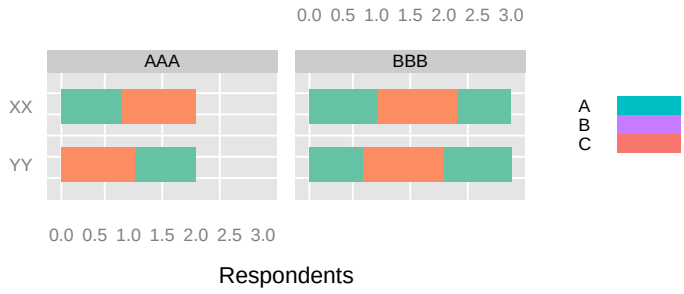

```
> x <- plotBar(statsBin(codeQuickArray(sl, "Q4")))
> print(x$plot)
```




```
> x <- plotBar(statsBin(codeQuickArray(sl, "Q5")))
> print(x$plot)
```



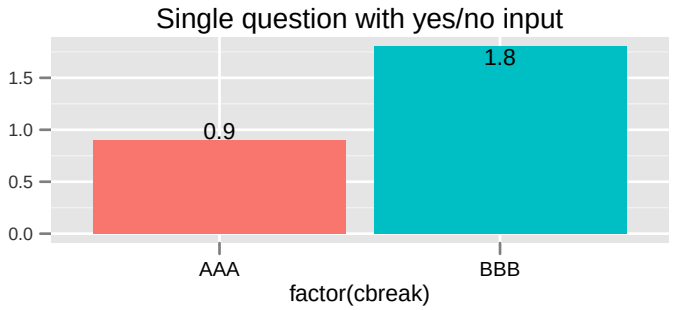

```
> x <- plotBar(statsBin(codeQuickArray(sl, "Q6")))
> print(x$plot)
```



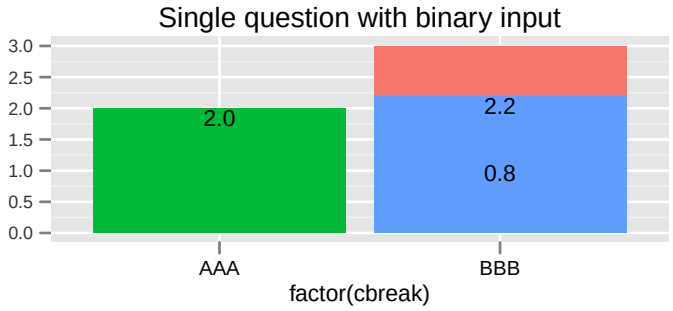
4 Demonstrating the different plotColumn options

4.1 Column plots with ggplot

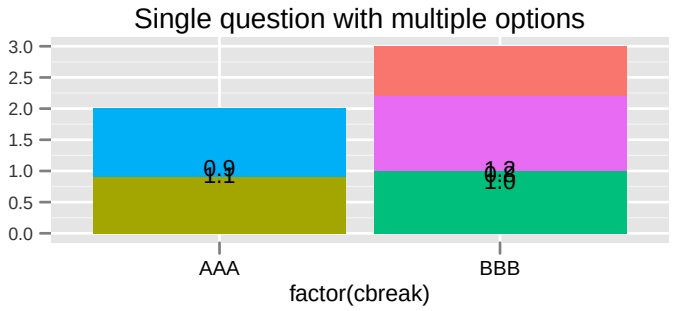
```
> x <- plotColumn(statsBin(codeQuickArray(sg, "Q1")))
> print(x$plot)
```



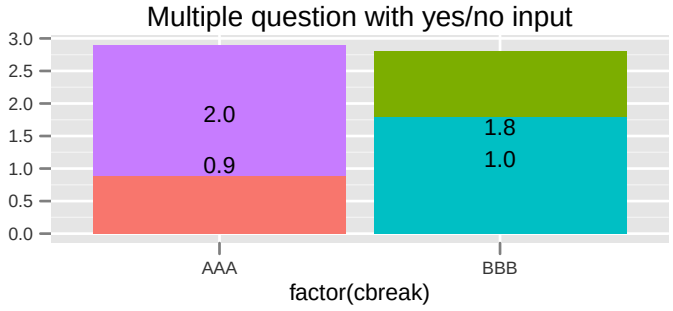

```
> x <- plotColumn(statsBin(codeQuickArray(sg, "Q2")))
> print(x$plot)
```



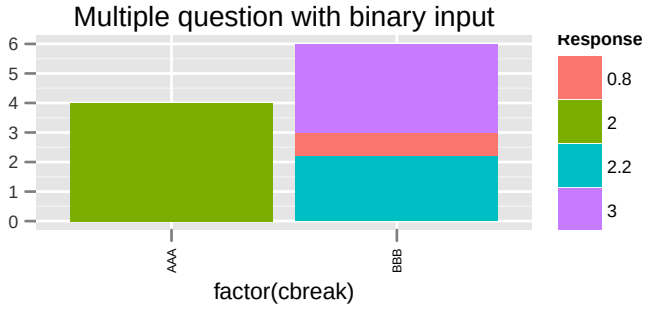

```
> x <- plotColumn(statsBin(codeQuickArray(sg, "Q3")))
> print(x$plot)
```



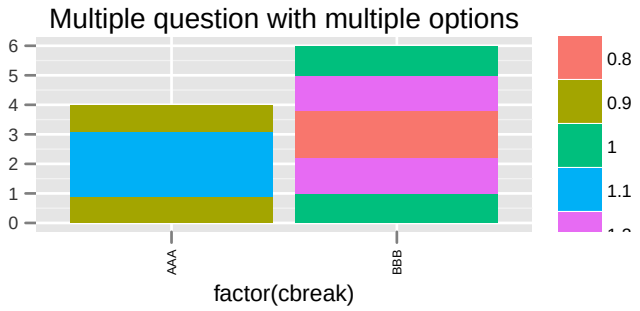

```
> x <- plotColumn(statsBin(codeQuickArray(sg, "Q4")))
> print(x$plot)
```




```
> x <- plotColumn(statsBin(codeQuickArray(sg, "Q5")))
> print(x$plot)
```

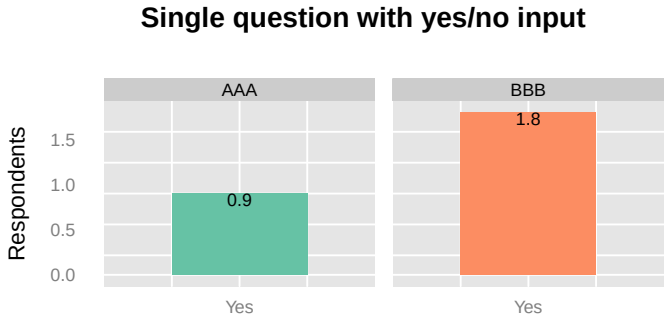



```
> x <- plotColumn(statsBin(codeQuickArray(sg, "Q6")))
> print(x$plot)
```

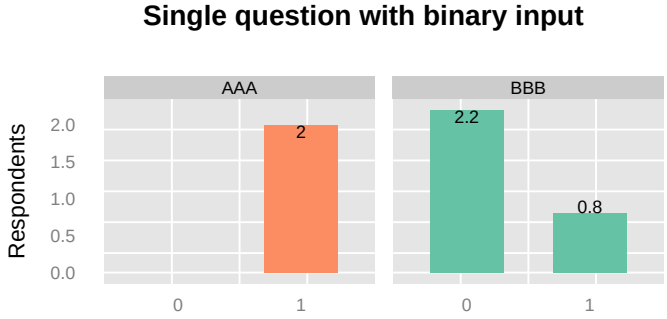


4.2 Column plots with lattice

```
> x <- plotColumn(statsBin(codeQuickArray(sl, "Q1")))
> print(x$plot)
```




```
> x <- plotColumn(statsBin(codeQuickArray(sl, "Q2")))
> print(x$plot)
```

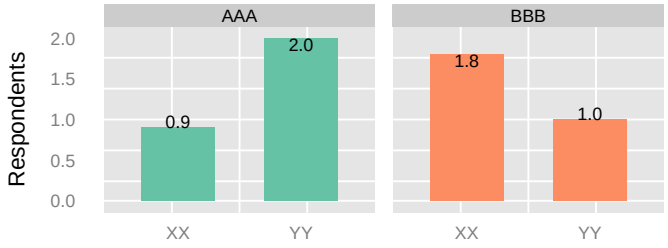


```
> x <- plotColumn(statsBin(codeQuickArray(sl, "Q3")))
> print(x$plot)
```

Single question with multiple options

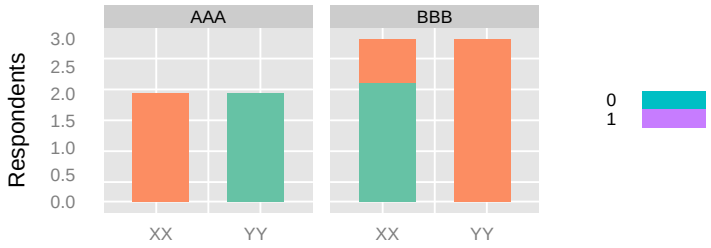

```
> x <- plotColumn(statsBin(codeQuickArray(sl, "Q4")))
> print(x$plot)
```

Multiple question with yes/no input

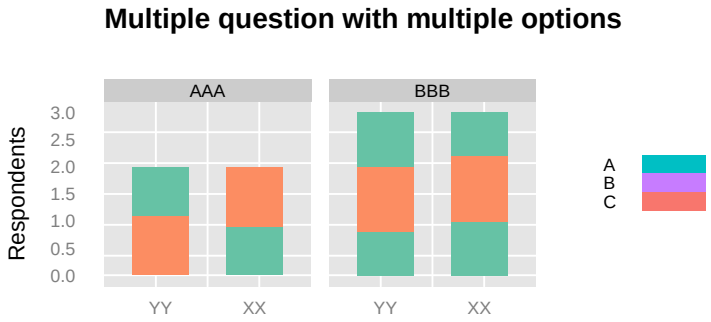



```
> x <- plotColumn(statsBin(codeQuickArray(sl, "Q5")))
> print(x$plot)
```

Multiple question with binary input



```
> x <- plotColumn(statsBin(codeQuickArray(sl, "Q6")))
> print(x$plot)
```



5 Conclusion

The `surveyor` packages makes it easy to analyse survey data files.