

Reading a function into R

The R function `buffon` is available on the website as a text file. The file actually names the function:

```
buffon=function(n,l,p){  
.  
.  
.  
}
```

We use the `source` command to read the file. We do not have to use an R assignment (`=` or `<-`) to assign the name `buffon`; that assignment has already been made within the file `buffon.txt`. Hence, the source command has the relatively simple form (appropriate for my directory):

```
source("z:/stat 740/buffon.txt")
```

In class, we will discuss the R commands used in the file. To run the file, we simply type, for example:

```
buffon(1000,10,15)
```

This command generates a plot and prints the output (including an estimate of π) to the main session screen. To save the output, we would instead make an assignment:

```
buffon.out=buffon(1000,10,15)
```

We could ask for a summary of `buffon.out` using either the `attributes` or `summary` command. Or we could simply type `buffon.out` to view its contents.

Text files and R

If we want to make changes to the function, we can edit the original text file, or we can use the `fix()` command in Splus. The `fix()` command is convenient because we do not need to `source` the text file each time we make changes. On the other hand, the changes will not be reflected in the text file. For this

reason, many students find it more convenient to do their editing in the text file.

In addition to saving functions as text files, students often save sections of code as text files, then copy and paste these lines of code into R so that they are executed simultaneously. Of course, the commands entered in a R session can be saved by selecting **Save History...** from the R File menu. These commands can then be edited as a text file and available for later use.