Reading Simple Raw Data Files with R[1]

Following is an example of a tab, or space-delimited data set.

```
v1    v2    v3    v4    v5    v6    v7
62.7  68.3  67.5  2121  1747  2284  1690
65.1  63.5  68.4  66.3  2029  1642  2176
65.6  63.9  69.4  67.4  1993  1603  2138
```

If it were stored as a file called: "c:\data\mydata.txt", the following command in R would read the data properly, and create an object called "mydata1" that holds the data:

```
> mydata1 = read.table("c:/data/mydata.txt", header=T)
```

Note that the slashes are forward "**/**" rather than the usual backslash "\" that is usually used in defining PC files. R wants forward slashes, even on PCs.

"**header=T**" means that there is a header (header - TRUE). A "header" means that the variable names are at the top of the file.

For comma separated files, you would add **sep = ','**. For example, the following command would properly read the data set that follows it.

```
> mydata1 = read.table("c:/data/mydataspc.txt", header=T, sep = ',')
```

```
v1,v2,v3,v4,v5,v6,v7
62.7,68.3,67.5,2121,1747,2284,1690
65.1,63.5,68.4,66.3,2029,1642,2176
65.6,63.9,69.4,67.4,1993,1603,2138
```

For complex data sets, it is probably easiest to read, prepare and clean the data using another package, and then importing the data into R.

> **From R documentation:** (/doc/manual/R-data.html#Spreadsheet-like%20data)
>
> **Fixed-width-format files**
> Sometimes data files have no field delimiters but have fields in pre-specified columns. This was very common in the days of punched cards, and is still sometimes used to save file space. Function read.fwf provides a simple way to read such files, specifying a vector of field widths. The function reads the file into memory as whole lines, splits the resulting character strings, writes out a temporary tab-separated file and then calls read.table. This is adequate for small files, but for anything more complicated we recommend using the facilities of a language like perl to pre-process the file.

See http://staff.washington.edu/glynn/r_import.pdf for information on how to import SAS, Stata and SPSS data sets into R.

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[1] Prepared by Patty Glynn, University of Washington, C:\all\help\helpnew\r_raw.wpd, December 6, 2002