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SEP72 – LIVE

Martin Karrenbach[1]

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ABSTRACT

This SEP report will be online. The basic structure of the report is very simple with a minimum of requirements to the authors. Each paper in this report lives in its own directory. That directory contains everything which is needed to re-generate the entire paper. This handout is designed to outline the organization to the authors.

INTRODUCTION

This is the second report we will have online. Everybody can read it on their workstations by typing `SEP72`. The components of this report exist on `/r2/sep72` (actually it is a symbolic link to /scr6/sep72). This document outlines the organization and location of the papers which contribute to the report, it exists as `/r2/sep72/Adm/instructions.tex`. You can view it, by going to `/r2/sep72/Adm` and typing `cake instructions`.

The directory `/r2/sep72` consists of paper directories and the directory `Adm`. **Each paper has its own directory!**. The `Adm` directory contains the report file and administrative files (shells and Cakefile). Each author is responsible for his own paper directory.

The next paragraph describes the structure of a paper directory and is mandatory for all authors. We will check the compliance with our minimum set of requirements and authors who dare to be different, will have to contribute "voluntarily" an undisclosed giant amount to the *Friday Beer Fund*.

ORGANIZATION

Each paper directory must contain at least the following:

[1]**email:** not available

a) A file called `paper.tex` (which is your TEXfile).

b) A `Cakefile` that knows how to generate the figures and how to print the paper.

c) A subdirectory `Fig`, that contains vplot and postscript figures.

The following subdirectories are recommended for larger papers:

d) A subdirectory `Src`, that contains all program source code.

e) A subdirectory `Data`, that contains Data files.

f) A subdirectory `Bin`, that will contain the executables, that are produced by the `Cakefile`, when regenerating the figures.

g) A subdirectory `Lib`, that contains sources for libraries you may need to build when regenerating the figures.

STEP BY STEP:

1) Goto `/r2/sep72` and create a directory corresponding to your paper and copy your paper in that directory, e.g. `cp jon1.tex /r2/sep72/jon1/paper.tex`

2) Create a Cakefile that will print the paper and that will create the figures! (Check if that works by doing: `cake figures` and `cake print`).

3) Create a subdirectory `Fig`, that contains the figures in vplot and postscript format.

4) (optional) Create the subdirectories `Src`, `Data`, `Bin` and `Lib`, and copy all necessary files, e.g.

   `cp raytrace.r /r2/sep72/jon1/Src/raytrace.r` , or

   `Cp real.H /r2/sep72/jon1/Data/real.H out=/r2/sep72/jon1/Data/_real.H@`

5) Test if your `Cakefile` is able to generate all figures and make sure the actual data file is there and not only on some scratch directory.

6) If you have figures that take longer than 1 hour to compute, you should enter them into the file `longfigures`.

7) Try to make your figures interactive (bring up movies, etc.). By default, when you click a button on an interactive figure, the figures will be displayed by tube.

8) **Make sure that you don't use absolute pathnames.** Use only pathnames that are relative to your paper directory. E.g. you are in `/r2/sep72/jon1/Fig` and you refer to some data file `/r2/sep72/jon1/Data/junk.H`, use `../Data/junk.H`, instead of giving the absolute name !!!!

EXAMPLE CAKEFILE

The suffix `.idoc` in your `Cakefile` determines what happens, when the reader presses the middle mouse button on an activeplot label. For example `fig1.idoc` brings up a vplot figure using `tube`.

You can start by copying the `Cakefile.example`:

```
cp /r2/sep72/Adm/Cakefile.example /r2/sep72/jon1/Cakefile
```

An example `Cakefile` in your paper directory will look like this

```
#include <SEP.defs>

#define FIGURES ./Fig/myresult.ps ./Fig/mydrawing.ps.save

default&: view

view&:  FIGURES
        texpr -s -v -2 paper.tex

print&:  FIGURES
        texpr -s -2 paper.tex

figures&:
        ! pushd ./Fig ; cake figures; popd


%.idoc&:
        ! pushd ./Fig ; cake %.idoc; popd

clean&:
        -RM_CMD *.dvi *.log *.aux


#include <SEP.obj.rules>
#include <SEP.prog.rules>
```

ACTIVE VS. PASSIVE

Figures can be made active or passive. The following figure is active, using the command:

`\activesideplot{myresult}{width=3.in}{.}{This is the active plot.}`

The following figure is passive, using the command passiveplot:

`\passivesideplot{mydrawing}{width=3.in}{.}{This is the passive plot.}`

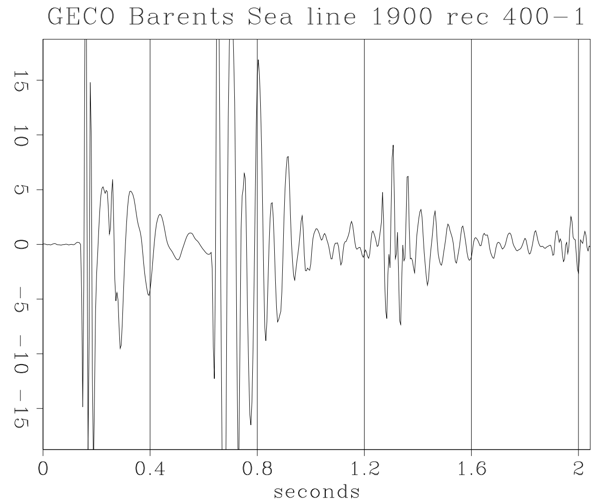

Figure 1: This is the active plot. Clicking on the middle mouse button brings up `tube`. Try it. martin2-myresult [ER]

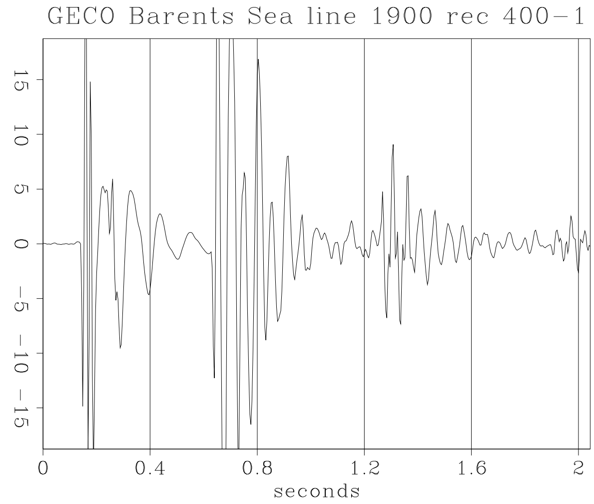

Figure 2: This is the passive plot. martin2-mydrawing [NR]

If you have figures which are not automatically reproducible give them extension `.ps.save` and `.v.save`. This prevents them from getting destroyed in the clean up process, where all `.ps` and `.v` files are removed.

SHORTNOTE VS. REPORT

The **first** line in your document should designate the style in which to format your paper. If you want to have it as a regular article use the LaTeXcommand:

`\sepreport`

If you want to format your paper in form of a shortnote, then use the command:

`\shortnote`

This information is necessary in order to properly include you paper into the report.