UNIVERSITÀ DEGLI STUDI
DI TRENTO

Nomadic Comunication
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Report 1: On the Organization of Nomadic Laboratories

Group N. 0

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Abstract

This report describes the experimentation activity of three years of Nomadic Communications Lab organization. Results show that i) real-life systems are prone to failures and chaos; ii) self-organization is typical of non-human societies; and iii) technology does not simplify human life.

This report should not be construed in any way as a serious experiment, nor taken ad mockery by anybody. It is only a way of showing formalities and structure of a possible report. Try to have your abstract stay in the front page, then have a Table of Content in the second page, then move to the body of your work in another page.

Contents

1 Introduction

The goal of this experimenatal activity is understanding the behavior of complex systems, like a University class of at least 20 students, when faced with complex tasks, like running experiments on their own using non-stable equipment with a Nomadic approach because of the lack of space. Eq. (1) reports a classical representation of how a system large enough, with mass M can genrate a quantity of energy sufficient to distroy itself. C is the speed of ligh that we can approximate, for our purposes to $C \simeq 310^8$ m/s.

$$E = MC^2 \tag{1}$$

Based on the experience done in the first year we decided that the nubber of groups N_G in the lab should be

$$N_S/4 < N_G < N_S/2$$

where N_S is the number of stundents in class, in order to ensure best results. Since this equation will never be used in the report there is no need to number it, because it will never be referenced.

2 Testbed Setup

In order to organize Lab lessons you need the following equipment and personnel:

- Good technicians setting up devices (no technician, no labs);
- Willfull students, if they are not willfull, just set lab reports compulsory for the exam, and they will cooperate;
- 1-2 rooms of adequte size;
- Laptops, switches, servers, APs, and the relative relevant software.

Organizazion normally requires a few weeks in advance in order to have something working with good probability, say a confidence level [1][1] in the experiments larger than 90%.

[1]This is a footnote just to clarify that we can use the definition of confidence levels and intervals from MathWorld, but there are many other textbooks and papers reporting the same

2.1 Parameters

Parameters are normally summarized in tables, like Table 2.1, where no paramenters are defined and values are not indicated, because we lack fantasy.

Column 1	Column 2	Column 3	X_y	Result
Row 1	Value 1	Value 2	Value 3	-
Row 2	Value 4	Value 5	Value 6	-
Row 3	Value 7	Value 8	Value 9	-
Row 4	Value 10	Value 11	Value 12	-
Row 5	Value 13	Value 14	Value 15	-
Row 6	Value 16	Value 17	Value 18	Average

Table 1: A table of paramenters without any meaning

2.2 Sectioning

How a document is organized is very important, just as it is important that Labs are organized in such a way that students know when and wehre their Labs are.

Organization of a document is obtained through sectioning (and sub-part of them). Chapters are normally used only in books or very long reports (say more than 40 pages). It is important that Sections have lables, so that they can be referred, for instance the Conclusions of this reports are drawn in Sect. 4. Normally there is no need for more than 3 levels of sectioning, it is bad-word-like formatting to have zillions of sections without content at all!!

3 Results

Results are normally presented in forms of tables or, better in terms of plots reported in Figures. As you can see in Fig. 1 a plot is a 2 or 3 dimensional graph, where ordinates are reported as a function of one or more abscissae. All axes must be labled and report the relevant unit of measures, and the plots should give meningful information on the experiment in a clear form. This is not true for Fig. 1 because:

1. The results are not realted to the topic we are discussing, but to experiments in a real lab;

2. The labels and keys are too small, they should be roughly as large as normal text, say that if you use 12pt text as in this sample, the fonts in figures should not be smaller than 10pt . . . and you shouls be careful about scaling;

3. There are no confidence intervals, which means that they can well be random numbers.

Additional nonsensical results are reported in Sect. 3.1.

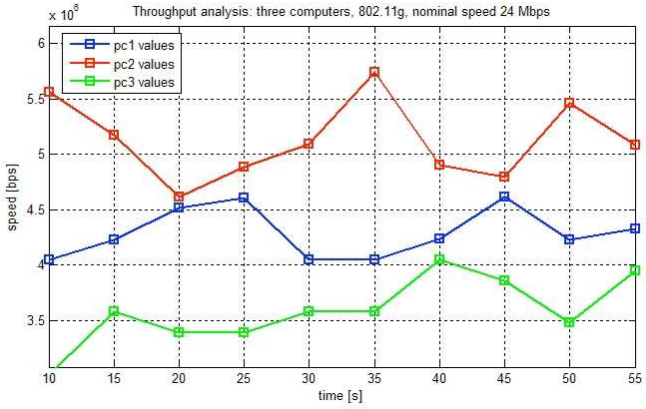
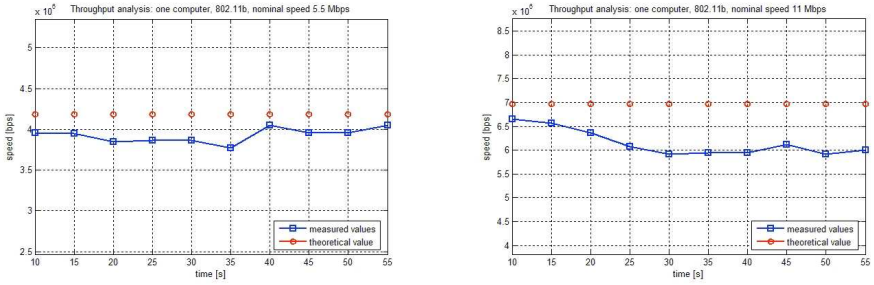


Figure 1: Sample plot of a meaningless throughput, with fonts too little to read

3.1 More Results

Figures can also be coupled using the `\subfigure` command as exemplified in Fig. 2.



(a) Short title sub1 (b) Short title sub2

Figure 2: Full caption.

3.2 Yet Additional Results

bla, bla, bla, bla ...

4 conclusions

All the info on this typesetting tools, which is LaTeX can be found in either [2] or on-line at [3]. This last section is to highlight the need to draw some form of conclusions to your work, as well as to highlight the need for a proper and torough bibliography, where you list (and cite in the text) all the sources you used to write the report.

References

[1] Eric W. Weisstein, "Confidence Interval," From MathWorld–A Wolfram Web Resource, `http://mathworld.wolfram.com/ConfidenceInterval.html`

[2] Leslie Lamport, *LaTeX: A Document Preparation System*, (2nd Edition), Addison-Wesley Series on Tools and Techniques for Computer Typesetting, Paperback, 1994

[3] Latex Wikibook, `http://en.wikibooks.org/wiki/LaTeX`