

**Report Format for Forestry 1001:**

**Notice that title headings should be bold and centered  
followed by:**

**Your Name  
Group Number  
Lab Day**

## **PROBLEM DEFINITION**

Major section heading should be bold and in capital letters. Text begins 3 lines below major section headings and all text double-spaced. The first line of the paragraph is indented. The number of indented spaces is not important as long as it is consistent. I use the ½-inch tab stop.

The outline should follow the problem solving strategy: problem definition, solution strategy, problem solution, and solution evaluation. You may start your sections using these headings or the tradition headings of a technical report: introduction, methods, results, and discussion and conclusions. Remember the audience for your report is your client and you want to convey an understanding of his problem, explain your solution strategy, clearly describe the results and evaluate the nature of your solution and its implications on the client.

Within the problem definition section make sure you cover all **PDF** abilities. You should not place these elsewhere in the body of the text. While it is important to cover all **PDF** abilities, you should not have section heading which identify the abilities (i.e., PDF1-1) nor identify the abilities within the body of the text. The abilities are a guideline for you and an evaluation tool for me. For your client, they are totally meaningless. The main purposes of report writing in Forestry 1001 are: 1) give you an opportunity to demonstrate various abilities required in the course; 2) help you learn the art of conveying technical information to non-technical audiences; and 3) enable you to build a portfolio of example writing.

## **SOLUTION STRATEGY**

### **Subsection Formats**

Again, there are 3 lines between the major headings, both above and below. Subheadings only have two lines between them and the text. Notice that first order subheadings are bold and in title case (i.e., first letter in each word capitalized). I started this section on a new page because there was not room for the headings and text on the previous page. Without starting on a new page, you would have only seen the section and the subsection titles without any accompanying text. These section titles left alone at the bottom of a page are called widows and you should avoid having widows in any report you write.

### **Details of the Solution Strategy**

In the solution strategy section, you want to cover the solution strategy abilities and any associated technical abilities. For example, you would describe your sampling strategy in this section.

Generally you would start this section with an overall strategy statement. An overall strategy statement is generally a one or two sentence “this is what I am going to do” statement. A strategy does not include details, the details are tactics which should follow your stated strategy.

The tactics are your detailed methods for solving the problem. Here you explain the step by step process you used for solving the problem. The flow should be logical and follow the steps you used; however, avoid using “First I did ..., then I ...” Tactics may be explained in a point or outline form also:

- When I started to write this format guide, I first reviewed the major problems I observed in Forestry 1001 reports over the last two years.
- I knew I needed to convey an overall outline to the students, so I adopted the problem solving main headings and would use the body of the text for the details.
- Another goal of this format guide was to illustrate the proper construction and use of tables and figures. I decided to do this in the Problem Solution section since this is most likely where students would be using tables and figures in their text.
- A final goal was also to illustrate the use of citations and references. With these, I used the Solution Evaluation section.
- Notice punctuation for the outline format. You start with a colon (:) at the end of your last sentence and each outline section ends with a period. I used this format since my outline sections were multi-sentences. If each section was a single sentence, I could have used semicolons (;).

## **PROBLEM SOLUTION**

This is the section where you convey your results. Generally results are summarized into tables and figures. Tables should always be referenced within the body of the text (Table 1), and then described or summarized. Table 1 is used in this report to illustrate the proper formatting for tables. The important points to note are: 1) tables never have vertical lines; 2) tables only have horizontal lines within the heading section and at the bottom of the table; 3) column headings include units; 4) decimals are aligned within a column; and 5) every table has a number and a title which describes what, where, and when the data within the table were collected.

Tables are separated from the body of the text by 3 lines top and bottom and are single spaced within both the title and the body of the table.

Table 1. A sample table showing the proper format for constructing tables. Remember that each table must have a number and title. The title should describe what, where, and when the data within the table were collected. Tables should be cited within the body of the text and summarized or explained.

Row Title	Major Column 1 (units)	Major Column 2 (units)		blank separator column	Major 3 (units)	
		sub 1	sub 2		sub 1	sub 2
row headings are left justified	values in cells right justified		note that column headings are centered			0.00 0.00 decimals aligned within columns 0.00

Figures are similarly constructed, referenced and explained within the text (Fig. 1). As shown in figure 1, you can see there are similarities and differences between tables and figures. The similarities are: 1) both have titles which explain what, where, and when the data were collected; and 2) both have units clearly identified. The differences are: 1) figure titles are placed at the bottom of figures; 2) figures are a graphical depiction of data; and 3) figures may include a legend defining symbols.

Maps may be called figures or maps and titled appropriately. Maps should always include: 1) a title and number; 2) a North arrow (true, magnetic or grid); 3) a scale; and 4) a legend explaining features (Map 1).

Tables, figures and maps should always be cited and discussed in the text. Table, figures and maps not cited in the text are ignored when evaluating problem solving reports.

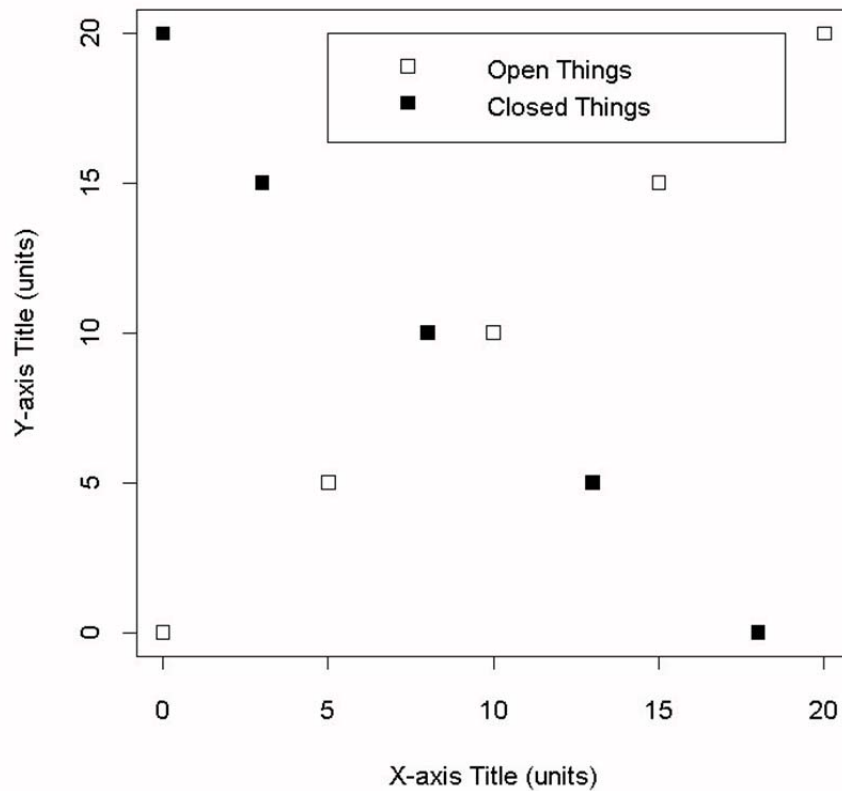


Figure 1. An example figure showing the format for labelling axes and legends. Note that figure titles appear at the bottom of the figure.

## SOLUTION EVALUATION

In the solution evaluation section, you examine the quality of your solution and discuss ways to improve the solution. This section is where results of statistical calculations (means, variances, standard errors, and confidence limits) can be utilized effectively. Assumptions should be carefully examine and their effects quantified where possible. Suggestions for methods to improve the solution also can be included.

Sensitivity analyses are often used in evaluation of solutions. A sensitivity analysis is conducted by altering values within assumptions and determining the effect on the solution.

Assumptions having little effect are generally not important; however, those having large effects are important. Sensitivity analyses can point out key factors to concentrate on to improve the quality of the solution.

Cross-referencing to independent information can also be a valuable tool for evaluating your solution; however, whenever you use other sources, you must give credit by referencing those sources. For example, the Husch et al. (2003) Forest Mensuration text book will probably be a source of much information. Notice the format for text referencing: Author(s) and Date. The citation must also be included in a Literature Cited or References section (see the end of this report). If you are using personal communications, they should be cited as follows: (Name, Title, Organization); for example (Dr. John A. Kershaw, Jr., Professor, Faculty of Forestry and Environmental Management, University of New Brunswick). Not all sources of references carry the same weight. I rank sources of information as follows:

- \* refereed journal articles (Forest Science, Canadian Journal of Forest Research, Journal of Wildlife Management, etc.);

- \* published technical reports (US Forest Service reports, FERIC reports, etc.);

- \* trade journals (Forestry Chronicle, Journal of Forestry, etc.);

- \* text books (Forest Mensuration, etc.);

- \* thesis/dissertations;

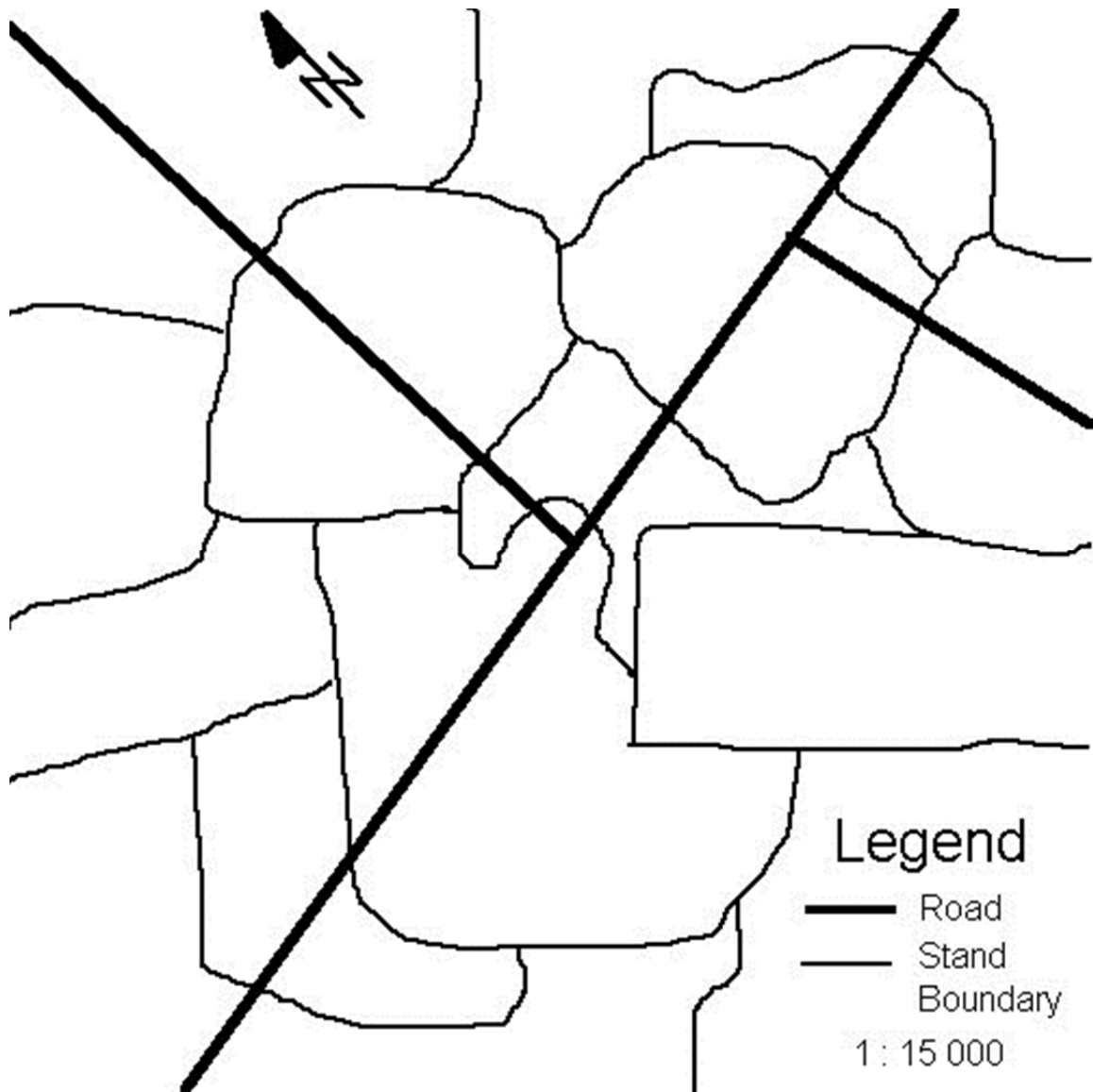
- \* newspaper articles;

- \* web sites;

and

- \* personal communications.

This report has given you only a brief introduction to referencing.



Map 1. An example map format showing scale (representative fraction), legend, and North arrow. Map titles like figure titles appear at the bottom of maps. Maps may also be called figures.

## REFERENCES

Husch, B., T.W. Beers, and J.A. Kershaw, Jr.. 2003. Forest Mensuration. Wiley.