Individual Projects: Delivery

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with thanks to Tony Field

You only have **one thing** left to hand in! But it's an important thing and you have put a lot of work into it, so it's worth making sure you do it **right**. That is what today is for.

There is always the worry that you are not quite sure what to hand in where / when / how, so I am going to go through the steps you need to complete.

I also want to share some advice about what makes a good report / presentation: what will go down well with markers. Reports and presentations are not as fun as writing programs, but by putting a small amount of thought in you can make a big difference – and make yourself really stand out! It's not all about who wrote the best program...

Note: No "Outline of my talk"

Overview

- Suggested report structure
- Suggested report content
- Report assessment
- Submitting the report
- ...

- "Signposts" during the talk are fine

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I introduced my talk by **talking to** the audience, not reading from an outline slide. Why?

Your aim is to engage with the audience. In the introduction you must get over all the reasons they should pay attention to the rest of the talk. This is better achieved by addressing them directly than reading.

Reading off slides lets people's attention wander because they will start reading bits for themselves.

Later on, it is perfectly OK to include signpost slides that remind the audience of where you have got to and what else there is to come.
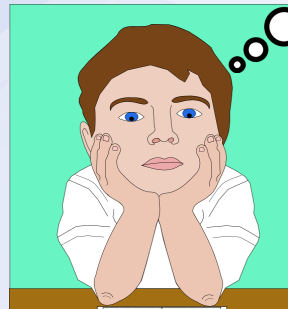
The purpose of this talk is not the same as yours, so I will not follow ALL my own advice.

I am including text that you can refer to later when I publish the slides. You do not need to do that.

More about the purpose of your talk later ...

Deadlines

September

M	T	W	T	F	S	S
2	3	4	5	6	7	8
9	10	11	12	13	14	15

- Report + Archive: **4pm, 6th September**
- **NO extensions**
- Presentation: flexible but should be **+/- 1 week**

The report deadline is 4pm on September 6th. Extensions will only be granted in exceptional circumstances so make sure you are on time.

Your presentation should be given within a week either way of this date, ideally before. The exact time, date and place should be arranged with your supervisor.

Report Submission 1

- Print **three** copies
- Print **three** CATE cover sheets
- Get a **clearance form** from the library
- Take it all to room 370 (SAO) **well before** 4pm on 6th Sep
- List of submission days / times will be published

You need three printouts of your report, plus three CATE cover sheets. You also need a clearance form from the library to confirm you have returned all your books.

Take all the printed material to the SAO. There will be binding supplies and equipment available there.

There are about 150 of you submitting reports so you cannot all do it at once. You might have to wait for the printer, the binding machines etc. Allow plenty of time. It is **your responsibility** to complete the whole task on time.

You will be able to submit on several days leading up to the deadline.

Report Submission 2

- Submit to CATE:
    - report.pdf
    - archive.[tar.gz,tgz,zip]

You also need to submit an electronic copy of your report and a separate archive containing any software you have developed via CATE in the usual way.

The Report: Why Care?

- Principally this (from the Project Guidelines):

    "A project will not be recommended for a Pass/Merit/Distinction if **the report** is not at the level of a Pass/Merit/Distinction, respectively"

- You can write the greatest program ever, but if the report is no good you will not get a high mark

So, if you write a great program and get lots of exciting results that is all you really need to get a top mark, right? Wrong. You must also produce a top quality report.

Writing up your work is an important part of any project. If you are not able to communicate what you have done to the rest of the world, then its value is completely lost. So, you must produce a good report.

Project Assessment

- Your assessors are your supervisor and a second marker

- Your mark will be based on what you convey about your project in your report and presentation

- See **Project Guidelines** (CATE > Projects > Info Button) for detailed assessment criteria

In the first instance you will be assessed by two people: your supervisor and a second marker. They will each come to their own mark, although they will discuss the merits of the project before doing so.

Some projects will also be "moderated" by other assessors to ensure consistency across result boundaries.

The Report: Why Care?

- Your ability to **communicate your work** is being assessed

- Your second marker has no idea what you have been doing

- You need to convince them you know what you are talking about

In science, communicating what you have done is just as important as doing the work itself.

Your report is also the main way for the second marker to get a detailed explanation of what you have done. So, it is very important for your assessment.

The Report: What Is It?

- Your report should:
    - Principally, describe what **you did**
    - Probably also what **you learned** (i.e. what other people did), but make it clear **which is which** (reference)
    - **Don't assume we will know!**

- It's all about YOU!

The report will describe describe both what you have done and what you have learned along the way. It is important to distinguish between these two. It is important for the assessors to know what is your own work, ideas etc., and what you have read about.

The second marker, in particular, will need this to be clearly spelled out. You should not assume that the second marker is so familiar with the area that they will know when you are talking about something that you have read. And if you do not make it clear then it will count against you, so give references for everything, even things that seem quite basic to you.

Report: Suggested Structure

- Introduction
    - Motivation
    - Aims
    - Contributions (**what you have done**)
- Background
- Design / Theory
- Implementation
- Results & **Evaluation**
- Conclusions & Future Work (what you **would** have done)
- Bibliography
- Appendices

Your introduction needs to not only introduce the problem you addressed, but also **summarise the outcome of the project**. This is where you can talk up what you have done, before going on to give all the detail in what follows.

You should also ensure that you provide some sort of evaluation of what you have done. To what extent have you solved the stated problem? How does your work compare to other peoples approaches? You should show that you have thought about this.

A "future work" section saying what you could have gone to do do if you had more time is very useful.

Your Reader: The Second Marker

- Wants to get to the root of what you did quickly

- Knows roughly the same about your topic as you did when you started

- Will assume you don't understand if you cannot explain something

Think a lot about the second marker when writing your report. They need to find out exactly what you have done, and how well, to give you the correct mark. Your job is to help them do this. Make sure you provide suitable explanations of all necessary background material. Second markers will not automatically know this material, nor will they want to have to go and look it up elsewhere.

Your Reader: The Second Marker

- Get their attention
- Keep their attention
- **Help them** see how great you are

Make your report as easy to follow and interesting as possible. You are not being marked on your English writing abilities, but the more interesting you make the report, the better the more closely the marker will follow what you are saying and the better their understanding of your work.

Get Their Attention

- Be clear about your achievements
    - State them clearly in the Introduction
- General strategy:
    - give headline
    - then give detail

Start by highlighting all the best things about the project. This will motivate your markers to read the main report closely.

This strategy can also be applied on a small scale throughout the report. When introducing new material you can start by simply stating the definition, or result, etc., and following up with more detail. This is a good way to hold the readers attention.

Get Their Attention: Example

Introduction

When C programs access memory illegally it's very hard to uncover what happened. (give example ...)

Bounds checking is a really powerful way to uncover many subtle bugs in C programs. (give example ...) This is not currently a standard C feature.

In this project I have built a state of the art bounds checker for gcc...

Get Their Attention: Example

Design

The server implementation described in Chapter 4 is capable of handling up to ten times as many client requests per second as a Bijingo installation running on the same machine. The key design features that enable this level of performance are ...

Help Them Understand

- **Examples, examples, examples!**
- Do not give a long rambling explanation if a simple example is better
- Use **tables** and **diagrams** as much as possible
- Summarise at the beginning and end of chapters
- Repetition is fine, if it aids understanding
- **Address limitations head on**

Examples are a huge aid to understanding. Include as many as you can. Even where a detailed text explanation is required, the reader will be very grateful for an example to confirm their understanding.

Repeating definitions and examples, briefly, is fine if the reader is likely to have forgotten them at the point they become relevant later in the report.

If there is an obvious limitation or drawback in your work then say so, don't avoid the issue – it will just look like you have not thought of it.

Questions About
The Report?

The Presentation

- By arrangement with supervisor and second marker
- Could be before or after report is submitted
- A talk by you, and demo of your program
- Discuss format with your supervisor
    - Timing
    - Content
- **Compulsory** – no presentation, no project mark

You should talk to your supervisor about when and where your presentation will be. Make sure you know how long you should talk for, and what content your supervisor expects. A demonstration of your software will probably be required.

The presentation is **compulsory**.

The Presentation

- Your other opportunity to show off your achievement
- Assessors chance to find out what you really did
- Be prepared for questions
- The purpose is to make sure you get the right mark

Whether it is before or after you submit your report, your talk is your chance to engage directly with your assessors and highlight why your project deserves a high mark.

The markers will be trying to assess what you have done and your level of understanding of the material. They will want to ask you questions, so be prepared for this.

Your Audience

- Second marker again!
- **Might** have read your report
  - Pre-deadline – provide a draft
- **Has not** looked at your code
- Will not automatically get what you are talking about or know the context

You should not assume that your markers will have read your report prior to your presentation – even if you have submitted it. Nor that they have looked at your code (this is very unlikely). Pitch your explanations for an audience that is new to this work.

Your Job: Make It Interesting!

- Be Enthusiastic
- The Start is Key
  - Like the report intro
  - Get your headlines in and get their attention
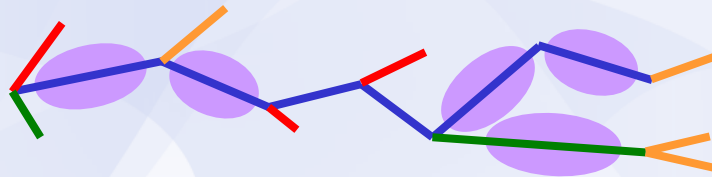- Be Brief
  - But provide key technical detail

Just as with the report, you need to try to highlight the good things about the work, and keep the audience entertained. Your presentation skills are ot being assessed, but the better they are the better the markers will understand what you have done.

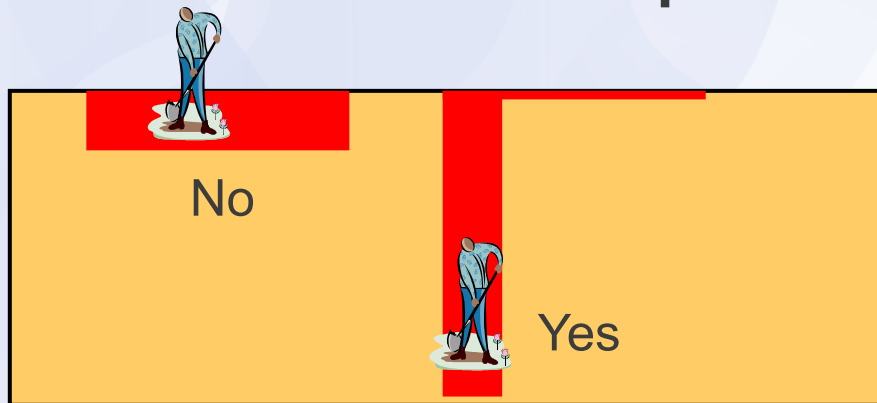You are unlikely to have long enough to cover everything you have done. Nor would the markers want you to. You should tell the "story" of the project, highlighting the most interesting parts. This is the "critical path", shown in blue on the slide. Some steps (the purple blobs) will need some detail, others can just be quickly summarised.

Narrow and Deep

No

Yes

- Do not just skim over everything
- You need to give detail, but only in selected areas

Even though your aim should be to be relatively brief, you need to give detail in the right areas. Pick these carefully and do not just give a shallow summary of the whole project.

Use examples and diagrams

- Examples and diagrams are key weapons – use them in place of text whenever possible
- Some of the best talks have little or no linking text at all

REMARK: I am using plenty of text here so you can read the slides later on!

Make your slides as visual as possible. You do not need to include text to be referred to after the presentation, as I am doing here, because your markers have your report. You are free to make the slides as vibrant and eye-catching – and of course helpful for understanding – as you are able.

Don't 'write out' your talk…

- A temptatation is to write out everything you want to say on the slides or at least have lots of text to jog your memory
- This will certainly mean you won't miss anything
- However, the audience will not read a single word
- Instead they will listen to you as you read out each bit. For a while…
- It will sound very dull and very boring
- Then the audience will think… "I could read this talk later by looking at the slides. I know, I'll do a bit of work on that fluid queue paper I'm writing…"
- Meanwhile, you have some problems:
  - Do you read the text **exactly** as it appears?
  - Or do try to add a few extra words to make it sound more interesting?
  - Or do you skip some of the words, knowing that the audience can fill in the gaps for themselves?
- After a while, you begin thinking to yourself "Hmmm - This isn't going very well"
- Then, just as you are getting to the end of the slide (phew!), you realise…

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Do not be tempted to write out your whole talk on the slides. It will be easier to deliver but very tiresome to watch.

Text is boring…

- That there is another of these 'monsters' on the next slide!
- And the next slide, and the next slide, and the next slide…
- Now you have a dilemma
  - Do you talk through the slides much quicker?
  - Do you start skipping over some points, saying things like "I think that point is pretty obvious", "I probably don't need to say that"…
- Meanwhile, that fluid queue paper is now out and the eyes are down; pens in hands
- Anyone lucky enough to bring a laptop is now doing their email
- The sound of tapping keys and pages turning takes its toll
- You start sweating – pages of text fly by as you stab the 'PgDn' key...
- You run out of excuses as to why you don't need to stop and read out each slide as it flies by
- And then… A revelation…
- You remember that somewhere… later… there's that DIAGRAM…!
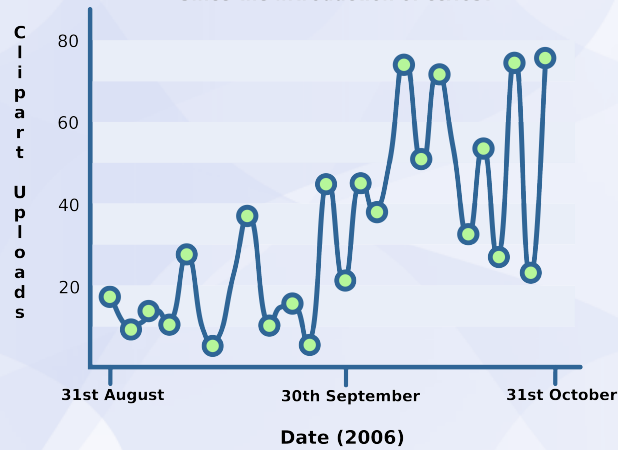
A diagram conveys a lot of information, and engages the audience as they will want to understand it. This helps you achieve your goal.

Avoid excessive technical detail

- Dense clouds of notation will send your audience to sleep

- Present specific aspects only; refer to the report for missing details

- **BUT**… have backup slides to use in response to questions

Overdoing the detail can be a turn-off it it is not really adding to your fundamental story.

If you have detail that you think you might get questions on, make it into an extra slide that you can show only if necessary.

Nerves

You do not need to be nervous. But if you are…

- Remember:
    - The audience is **not** examining your presentation skills
    - You know something the audience doesn't!
    - The audience is **on your side** – they want to find out what you've done
- Script your first few sentences precisely; getting going is often the hardest part

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Nerves are natural – everybody gets them. The best way to combat them is to be familiar with your material, and remember – you are the expert on your project.

Know exactly how you are going to start your talk. Once you get past the first slide you will get into the flow.

The markers have no intention of putting you through an ordeal – they just want to know what it is you have done.

Finish on time

Absolutely without fail, finish on time

- Practice your presentation and time it
- Audiences get restive and essentially **stop listening** when your time is up. Continuing is very counter productive
- Simply truncate and conclude
- **DO NOT** try to rescue the situation by speeding up

Make sure you know how long your talk should be, and then make sure you do not go over. You will lose good will if you run over.

You also need to make sure you leave time for questions.

Questions?