

Engineering Report Writing

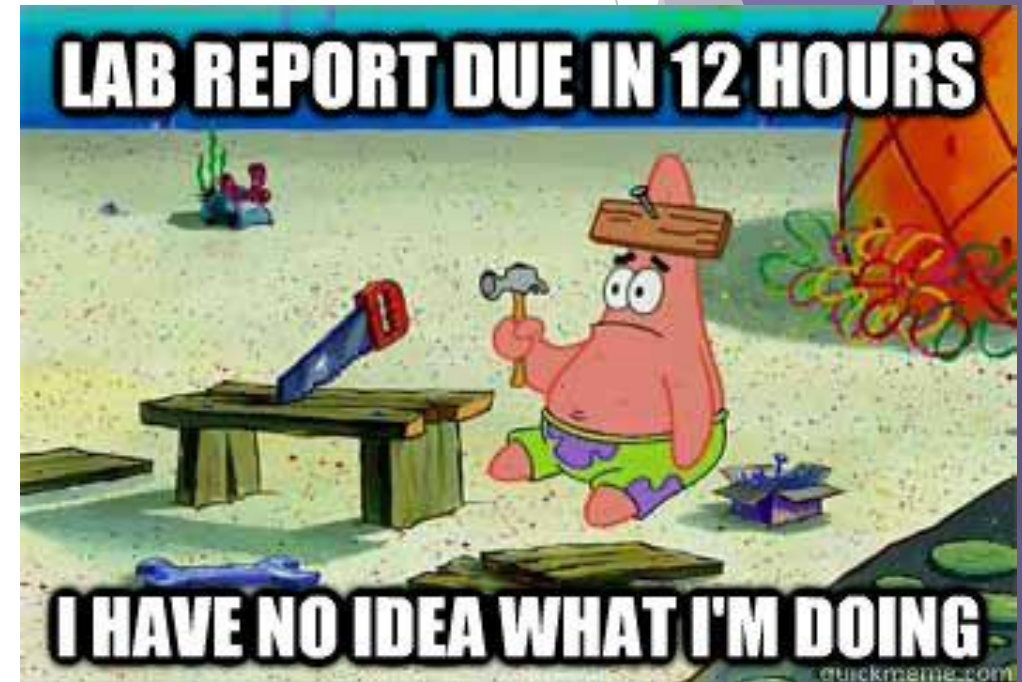
English never goes away....

1. Proposals
2. Progress Reports
3. Procedural Reports
4. Visuals
5. Presentations and Briefings
6. Other type of writing
7. Recommendations

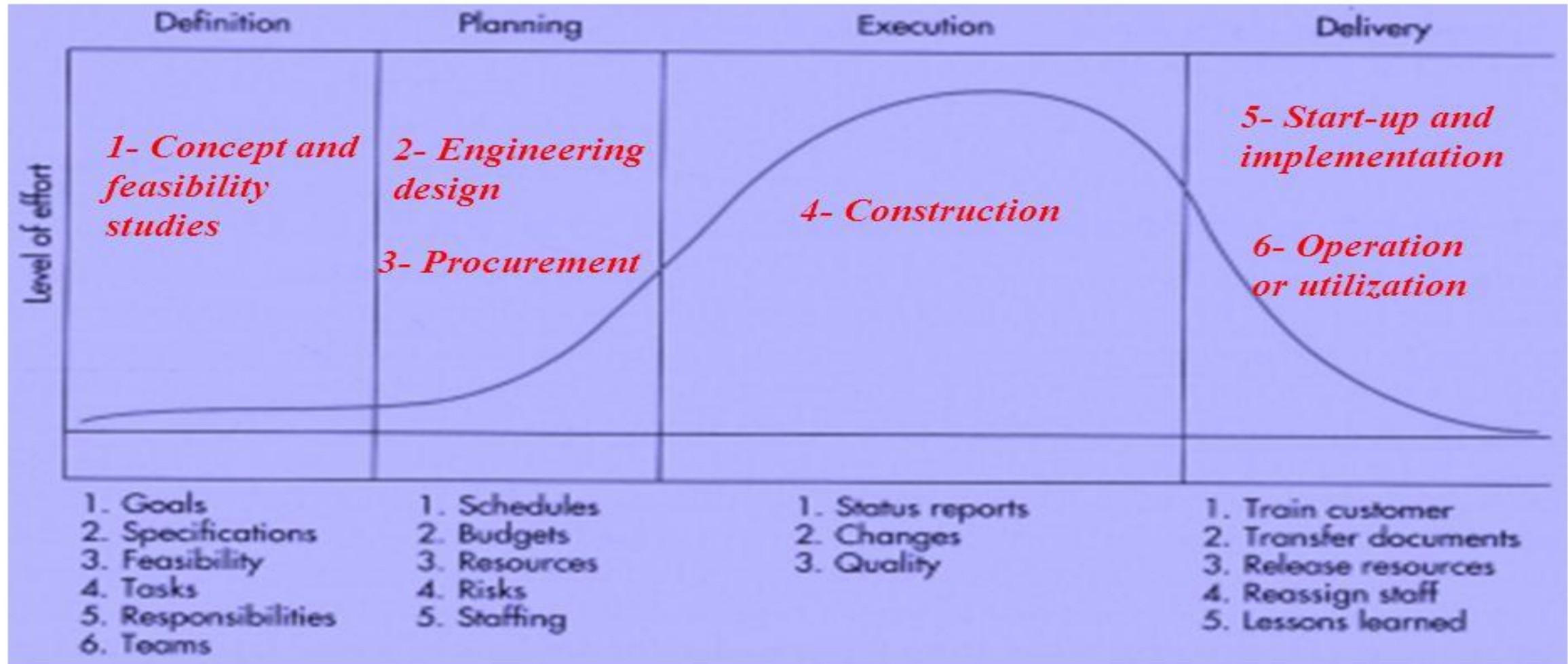


Overview:

- What types of reports might you encounter at work?
- What types of programs might you use?
- What areas do you struggle with when writing reports?
- Engineering is full of redundancy



Phases of Project Life Cycle



Proposals

What are Proposals? Specialized, technical business documents that offer persuasive solutions to problems. You must SELL your idea.

Two types: Formal and Informal

Formal Proposals:

- Typically in response to a Request for Proposal
- General Outline:
 - Executive Summary
 - Technical Volume
 - Management Volume
 - Cost Volume
 - Resource Volume
- Typically expensive, time consuming team task and mostly likely something that your boss will not have you do without guidance

Proposals: Informal

Usually designed to address a solution to a problem

General Outline:

1. Introduction (Purpose, Background and Scope)
2. Discussion (Approach, Result, Statement of Work)
3. Resources (Personnel, Facilities/Equipment)
4. Costs (Fiscal, Time)
5. Conclusion (Summary)
6. Contact Information

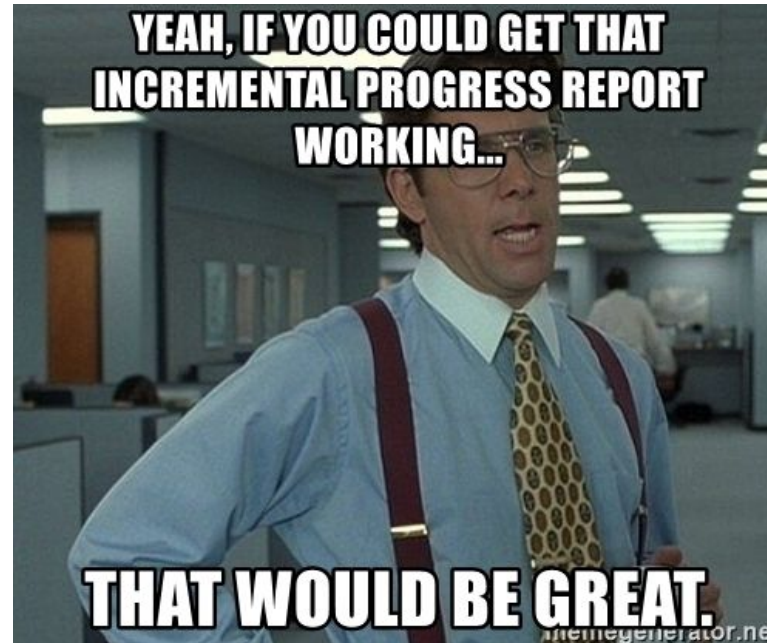
Include a Title Page, and a Cover Letter (especially if going outside your organization)

Progress Reports

What are Progress Reports? They document the status of a project; describing the various tasks that make up the project and analyze the progress that has been made towards completion.

They should cover three things:

1. Reviewing the problem that was the impetus for your proposal
2. Describing the solution that you are implementing
3. Evaluate how well you are doing

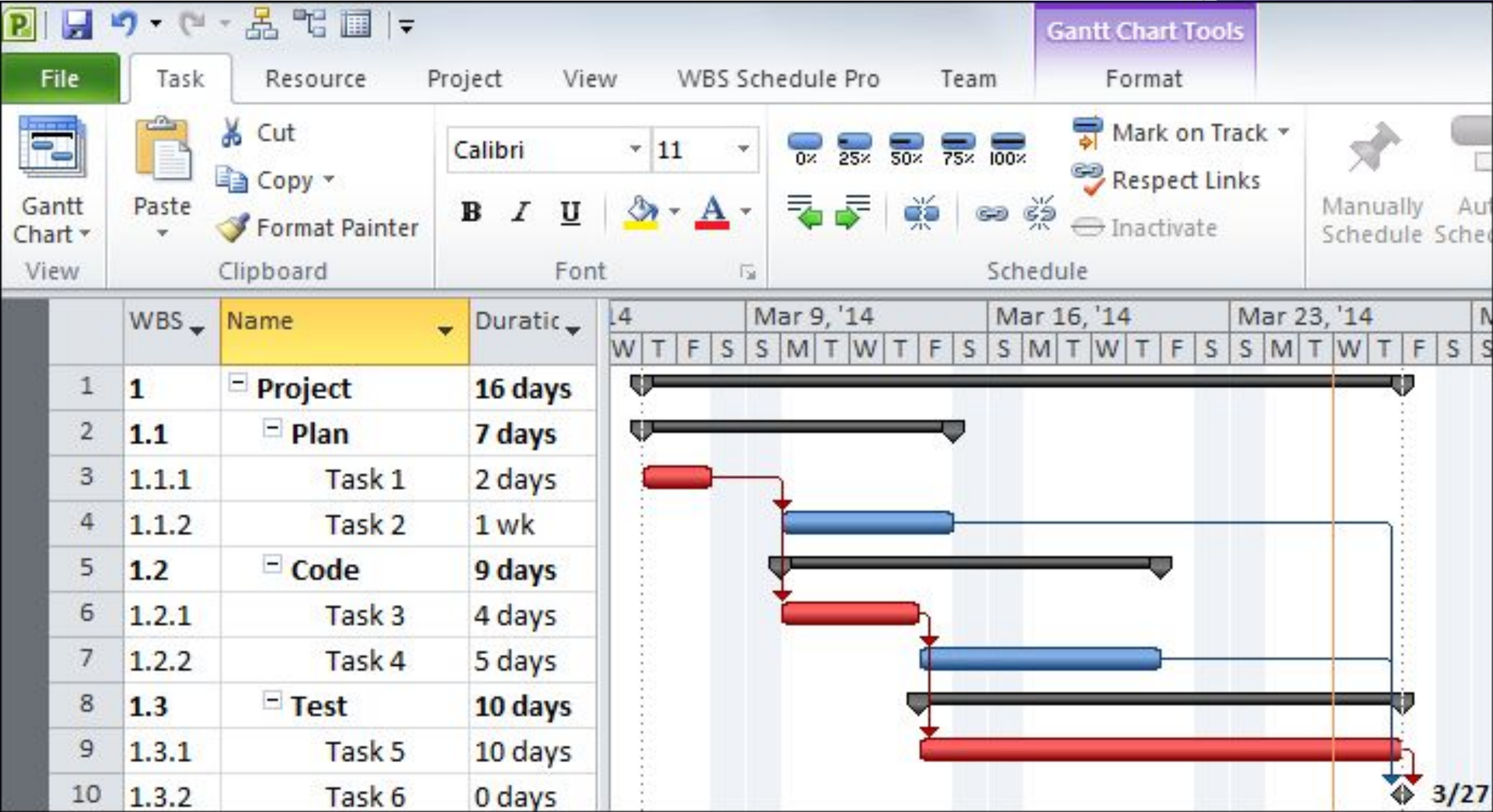


Progress Reports: Outline

General Outline:

1. Introduction (Purpose, Background, Scope)
2. Status
 - a. Tasks Completed: Description, how it was accomplished, how long it took, and difficulties encountered
 - b. Tasks Remaining: Description, things that still need to be accomplished, provide timetable and strategy, describe potential risks)
3. Conclusion (Summary, Evaluation, Forecast, Contact)

Microsoft Project



Procedural Reports

- Test Procedures
 - Extensive word documents
 - Go into every detail of a test (I mean every detail)
 - Converting tables from excel to word
 - Using referencing section of word to format your document
- “Lab Reports” or Test Reports
 - Simple document that explains the results of the procedure
 - Overview of task at hand, relevance, and procedure

Do's and Don'ts of Procedural Reports

- Do:
 - Make pictures and visuals very clear
 - Instructions for procedure/set up should be very “simple” for user
 - Make sure only one form of the document is being edited
- Do Not:
 - Use 1st person pronouns (I, We, Our, etc)
 - Forget steps or relevant information

Visuals

What are they? Presentations of ideas that exploit our sense of sight to communicate a large amount of data quickly and efficiently.

Types: Equations, formulas, figures, diagrams, drawings, illustrations, graphs, charts, schematics, maps, photographs, and tables.

Absolutely ESSENTIAL, but they must have a reason for being there

Guidelines for good visuals:

- Reproducibility
- Simplicity
- Accuracy



Presentations and Briefings

- Different types of presentations:
 - Beginning/End
 - Progress
 - Problem arise
 - Readjusting work duties
- Heavy reliant on powerpoint
- Key items for Briefings:
 - Always reference the project/problem/task
 - Visuals
 - Simplicity

Other Types of Writing

- Descriptions of Mechanisms
- Descriptions of Processes
- Feasibility and Recommendation Reports
- Instructions and Manuals
- Research Reports
- Abstracts and Summaries (Descriptive Abstracts, Informative Abstracts, Executive Summaries)
- Other Business Communications:
 - General Business Letter
 - Memoranda
 - E-mails

Recommendations

- Pocket Book of Technical Writing
- Always ask for help
- Teamwork
- Learn your company's various programs
- Checking on revisions of documents
- Taking classes in all things Microsoft
 - Excel
 - Word
 - Project
 - Powerpoint

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