

Good Practices for Writing Technical Reports

The following are some good practices to consider for all written documents, especially reports used by engineers in a technical setting.

▪ **Convey or transfer information to the reader.**

This is really the only reason for generating a written document. Common information items that are included in the report are:

- Scope of work
- Qualifications of author(s)
- Budget estimates or proposals
- Background information
- Limitations
- Research protocols
- Error management
- Research findings
- Conclusions, recommendations
- Technology overview
- Regulatory requirements
- Specifications

▪ **Convey that information without ambiguity.**

The reader should not have any question as to what was meant by any portion of the document.

The reader says, "I don't know what you mean."

The reader should not be able to draw an alternate and equally valid interpretation of what was written.

The reader says, "I know what you mean"; the writer responds, "But that's not what I meant!"

▪ **Present the information concisely.**

- Brevity is better.
- Use tables and bullet outlines rather than lengthy prose.
- Use redundancy only for clarity.

▪ **Address the scope completely.**

If the purpose is to address ten elements, then address all ten, not just eight or nine.

▪ **Present the information in a technically correct manner.**

A well-written wrong answer is of value to no one. Be certain that:

- Facts are correct.
- Approaches are logical.
- Data are valid.
- Assumptions are justified and documented.
- Conclusions are logical and defensible.
- Cost and budget estimates are accurate.
- Recommendations are logical and reasonable.

▪ **Consider the need to be in a legally defensible form.**

- What degree of certainty can be attached to it.
- What guarantees or warranties are (or are not) extended.