Rule 1. Use IEEE 830 for
- a standard format,
- a completeness check, and
- a checklist of good requirement characteristics.
Reason: To establish consistency between documents.

Rule 2. Use models for
- functional relationships,
- data flow,
- data structure, and
- performance.
Reason: To express complete requirements.

Rule 3. Limit the structure of paragraphs to a list of individual sentences.
Reason: To increase the traceability and modifiability of each requirement; and to increase the ability to check for completeness.

Rule 4. Limit the structure of each sentence to a simple sentence that is, noncompound verbs or objects.
Reason: To increase the verifiability (testability) of each requirement.

Rule 5. Limit the verbs and objects in the sentences to a small set with a single specified definition for each word.

Figure 6. Rules of order for specifying software requirements.

see that 830 is not a panacea, but it does take a significant step toward establishing a reference for professional practice, and it can help us prevent errors.

Some rules to help us specify the necessary information in accordance with the 830 list of good requirements characteristics are provided in Figure 6. These rules are important. They do for requirements specifications exactly what the structured programming constructs do for programming. They reduce the probability of errors.

In the United States, at least four organizations are presently applying IEEE 830. To date, we at the Standards Department have received mostly favorable comments about these efforts. We are now actively seeking "war stories" dealing with IEEE 830 as well as with all other IEEE standards. Please contact Bob Poston if you have any experiences to share.

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