

Principles

MacLennan's Principles

- **Abstraction**

- Avoid requiring something to be stated more than once; factor out the recurring pattern.
- Subprograms, user defined types, inheritance

- **Automation**

- Automate mechanical, tedious, or error-prone activities.
- Garbage collection; looping structures

MacLennan's Principles (2)

- **Defense in Depth**

- Have a series of defenses so that if an error isn't caught by one, it will probably be caught by another.
- Array bound being part of type; definite loops.

- **Information Hiding**

- The language should permit modules to be designed so that (1) the user has all of the information needed to use the module correctly, and nothing more; and (2) the implementor has all of the information needed to implement the module correctly, and nothing more.
- Modules, packages, objects