

CODE - MODULES AND FILES

The term module is used to describe a coherent unit of source code that has a specific purpose, e.g., a class in OO languages. Modules are normally contained in files, but may be stored in other fashions depending on the technology the module is developed in. See the other *CxCheck_Code-Xxx* CxOne checklists for additional issues to watch out for when creating code.

General

- CDM-1* Does the module have a central purpose?
- CDM-2* Is the module defined by the low level design of the system?
- CDM-3* Does the module offer a cohesive set of services?
- CDM-4* Is the module independent of other modules? Is it loosely coupled?
- CDM-5* Have you thought about subdividing the module into component modules and subdivided it as much as you can?
- CDM-6* If you're working in a language that doesn't fully support modules, have you implemented programming conventions that support them?

Encapsulation

- CDM-7* Are the module's interfaces abstract enough so that you don't have to think about how its services are implemented? (i.e., can you treat it as a black box?)
- CDM-8* If appropriate, is the module organized around a common set of data?
- CDM-9* Is the module's internal data hidden from outside users? (e.g., declared private in Java)
- CDM-10* Are the module's services complete enough so that other modules don't have to meddle with its internal data?
- CDM-11* Does the module hide implementation details from other modules?

Physical Organization

- CDM-12* Does each file hold code for one and only one module?
- CDM-13* Are routines within a file clearly separated with blank lines?
- CDM-14* Are all the routines, data, and other elements in each module grouped together logically?

Naming and Comments

- CDM-15* Is the module's name clear?
- CDM-16* Does the module's name match the project's naming conventions?
- CDM-17* Is the module uniquely identified?
- CDM-18* Is the purpose of each module described?
- CDM-19* Are assumptions, context, and environment required by the module documented?
- CDM-20* Is appropriate information about the module's authors available?