Design by contract and static verification

Static checking

Tools for checking contracts

- A number of tools exist for statically checking that contracts are respected.
- These tools work by a combination of symbolic execution, automated theorem proving, and model checking.
- They do not <u>test</u> the code, <u>they</u> verify it!

Tools for checking contracts

Some examples include

- Esc/Java2
 - http://secure.ucd.ie/products/opensource/ESCJava2/
- Spec#
 - http://research.microsoft.com/en-us/projects/specsharp/
- .NET Contracts
 - http://research.microsoft.com/en- us/projects/contracts/ default.aspx