**Formal Systems Development**

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Examples:

* Cleanroom
* the [B development method](http://www.b-core.com/)
* [JML](http://jmlspecs.org/)

Advantages:

* guarantees that the system satisfies its specification
* good for proving safety or security properties of systems

Disadvantages:

* requires that developers have some mathematical expertise
* requires that the requirements for the system are well understood before specification begins
* doesn't work well for many types of systems (user interfaces, systems with high interactivity)