

Metrics to track:

- **Number of Parameters per Method**
 - Process for measuring : Use one of the many extensions for Visual Studio with this capability.
 - How we will use it : If our methods are taking too many parameters (>7), they may be doing too much and refactoring may be necessary.
 - Why we will track it : to make sure we don't have methods that need to be refactored into multiple methods.
- **Cyclomatic Complexity**
 - Process for measuring : Use the built in code metrics in Visual Studio 2010
 - How we will use it : If the cyclomatic complexity is too high (>5), we should probably break our methods down into more basic methods that call each other.
 - Why we will track it : A high cyclomatic complexity makes the code (usually unnecessarily) hard to understand. Simpler code is easier to debug.
- **Lines of code per class (excluding comments)**
 - Process for measuring : Use the built in code metrics in Visual Studio 2010
 - How we will use it : Make sure each individual class isn't too long. A class with too many lines may indicate the need to split that class up.
 - Why we will track it : if a single class gets too big, we are likely not taking advantage of our object oriented capabilities.
- **Lines of code per method (excluding comments)**
 - Process for measuring : Use the built in code metrics in Visual Studio 2010
 - How we will use it : If a method gets too big, we will pull out simple chunks of code into helper methods.
 - Why we will track it : if you throw too much logic into one method, it is very hard to debug and not well designed software. It is also much harder to test.
- **Minimum amount of commenting on each method**
 - Process for measuring : Use one of the many extensions for Visual Studio with this capability.
 - How we will use it : If we don't have a minimum amount of commenting on each method, then we will be forced to add it.
 - Why we will track it : Commenting makes code easy to read and helps others understand what is going on. This is good coding style to put in comments and is generally accepted as being useful.
- **Number of characters per line**
 - Process for measuring : Use one of the many extensions for Visual Studio with this capability.
 - How we will use it : If our number of characters per line gets higher than 80, we will break that line into 2 lines.
 - Why we will track it : our coding style guidelines specify ≤ 80 characters per line for readability.