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1.5: The Function 'main'

Every Java application contains a function declared as public static void main(String [] argv). This serves the same purpose as C's main function, but with some differences. First of all, Java's main does not return a status value to its environment. (That's what void means: no value, like the normal English meaning "empty.") The second difference is more interesting. While C's main needs two parameters to describe the command-line arguments, Java's main needs only one. This is because in C there is no way to know how long the list argv is without passing the length as a separate parameter. In Java, however, lists (or more properly, *arrays*) are *self-describing.* You can literally ask the list of arguments how long it is, making the argc parameter redundant. For example, in the program above, we could change the line

```
for (i=1; i<=10; i++)
```

to

```
for (i=1; i<=argv.length; i++)
```

This would sum the integers (1 ... <number of arguments>) instead of (1 ... 10). This self-describing property of arrays is the first glimmer of what we'll soon see to be a very important design principle in Java.

public and static are pretty interesting too, but we won't discuss these yet.