

# Classes for Input/Output

(Save this for Reference!!)

To open the standard input stream for reading keyboard input use

```
EasyReader console = new EasyReader();
```

`console` is the name you give to the input stream (can be anything you like).

To open a text file for reading use

```
EasyReader inFile = new EasyReader(fileName);
```

`inFile` is the name you give to the input stream associated with the file (can be anything you like);

`fileName` is a `String`.

Call the `bad()` method to check the status of the file. It returns `true` if the file is not opened properly or if there is an error or end of file; `false` otherwise. For example:

```
EasyReader inFile = new EasyReader(fileName);
if (inFile.bad())
{
    System.err.println("Can't open " + fileName);
    System.exit(1);
}
```

Examples for reading data from the keyboard or a file:

```
int n = console.readInt();           // reads an integer
double x = console.readDouble();    // reads a double

char ch = inFile.readChar();        // reads any character,
// including whitespace
String word = inFile.readWord();    // reads a contiguous string of
// non-whitespace characters

// Read and process all lines from a file:
String line;
while ((line = inFile.readLine()) != null)
{
    // process line:
    ...
}
```

## Note:

**`readInt`, `readDouble`, `readChar`, and `readWord` methods do not consume the end of the line after reading the last item. Call `readLine` to get rid of the tail of the line (even if only the `newline` character is left) before calling `readLine` on the next line.**

Call `inFile.close()` to close the file.



To open a text file for writing use

```
EasyWriter outFile = new EasyWriter(fileName);
```

(or

```
EasyWriter outFile = new EasyWriter(fileName, "app");
```

if you want to append data to an existing file). `outFile` is the name you give to the output stream associated with the file (can be anything you like); `fileName` is a `String`.

**Be careful:**

**`new EasyWriter(fileName)` wipes out the contents of the file if it already exists.**

Call the `bad()` method that returns `true` if the file is not created (or opened for appending) properly; `false` otherwise.

Use `print` and `println` methods, the same as in `System.out`, to write data to a file. For example:

```
outFile.print("x = ");  
outFile.println(x);
```

or

```
outFile.println("x = " + x);
```

Call `outFile.println()` to write a blank line.

Call `outFile.close()` to close the file.