

I/O Streams

2-6-2011

Opening Discussion

- Minute essay comments
 - Futures?
 - Weekend availability.
 - Understanding vs. using parallel.
 - Fuzzy on parallel not ideal for midterm.
 - Parallel is one of the strengths of Scala.

Streams

- Data goes passed like water in a stream.
- This is different from random access data where you can look anywhere you want at any time.
- Streams are more general because they don't allow you complete access.

java.io Package

- InputStream and OutputStream form bases of trees that work with bytes.
- Reader and Writer form bases of trees that work with chars.
- File streams access files.
- File class is very handy.

Wrapping Streams

- You can wrap one stream in another to provide additional functionality.
- Buffered types improve performance.
- `DataInputStream` and `DataOutputStream` allow binary data.

Serialization

- `ObjectInputStream` and `ObjectOutputStream` allow serialization.
- This writes an object to a stream or reads an object from a stream.
- Scala also has a pickling library we might discuss later.
- You have to add annotations.
 - `@serializable` – on the class
 - `@SerialVersionUID(123)` – on the class
 - `@transient` – on members

Code

- Let's spend the rest of our time putting some things into the code.
- Ideally we'll get it so we can do a bit of drawing and save the drawings.

Minute Essay

- What is the primary advantage of the Java stream model?
- Quiz #2 is next class.