1.1. CmdRunner

The CmdRunner package contains the Command Runner utility classes. The command runner (as a whole) allows you to schedule tasks as threads in a queue. It uses a simple interface that can be extended easily so that the command runner can run your classes.

1.1.1. The Command Interface

The first thing to do when you want the command runner to run something is to implement the command interface in the class that contains the operation you wish to run. This is a simple interface that requires you to implement an execute method. The interface definition looks like this:

```
package com.ebay.kernel.cmdrunner;
/**
 * All commands that are to executed by this framework must
 * implement this interface.
 */
public interface Command
{       //
        // API
        //
        void execute() ;
}
```

The execute method should perform a task from your class. This means that should anyone make an execute() call using this implemented interface, your class should perform a preset function defined in your execute() method. This allows other programs to execute your classes as stand-alone modules in a command queue.

1.1.2. CmdRunner and ExecutionPolicy

Once you have at least one class that implements the command interface, you can insert it into the CommandQueue to be executed. This is accomplished by constructing a new CmdRunner object, which creates a CommandQueue. Once constructed, the CmdRunner's add() method puts things into the queue. You would call the method like so:

```
myCommandRunner.add(Command command, String id,
                    ExecutionPolicy policy);
```

The `command` parameter is an object that implements the command interface (like your class). The `id` parameter is a unique identification string that is used by CmdRunner and other objects to handle the Command during operation; you should define this in some way that is easily remembered. The `policy` parameter describes how and when the command should be executed. In order to customize how and when your command should be executed, you should create an ExecutionPolicy Object with the following constructor:

```
ExecutionPolicy(long mustStartByTime,
                long mustNotStartBeforeTime,
                long mustEndByTime)
```

The parameters are fairly straightforward and are compared to the system time to determine times of execution. All of these parameters should be in milliseconds (they will be compared with a System.currentTimeMillis() function as described on the Sun website here: http://java.sun.com/j2se/1.4.1/docs/api/java/lang/System.html#currentTimeMillis())

From this point on, the CmdRunner is a black box and will handle all of the internal details of making your commands execute as you have directed.