

```

1 // fo1/10/juno/Directory.java
2 //
3 //
4 // Copyright 2003 Ethan Bolker and Bill Campbell
5
6 import java.util.*;
7
8 /**
9  * Directory of JFiles.
10
11  * A Directory is a JFile that maintains a
12  * table of the JFiles it contains.
13  *
14  * @version 1.0
15  */
16
17 public class Directory extends JFile
18 {
19     private TreeMap jfiles; // table for JFiles in this Directory
20
21     /**
22      * Construct a Directory.
23
24      * @param name the name for this Directory (in its parent Directory)
25      * @param creator the owner of this new Directory.
26      * @param parent the Directory in which this Directory lives.
27      */
28
29     public Directory( String name, User creator, Directory parent)
30     {
31         super( name, creator, parent );
32         jfiles = new TreeMap();
33     }
34
35     /**
36      * The size of a Directory is the number of JFiles it contains.
37
38      * @return the Directory's size.
39      */
40
41     public int getSize()
42     {
43         return jfiles.size();
44     }
45
46     /**
47      * Suffix used for printing Directory names;
48      * we define it as the (system dependent)
49      * name separator used in path names.
50
51      * @return the suffix for Directory names.
52      */
53
54     public String getSuffix()
55     {
56         return JFile.separator;

```

```

57     }
58
59     /**
60      * Add a JFile to this Directory. Overwrite if a JFile
61      * of that name already exists.
62
63      * @param name the name under which this JFile is added.
64      * @param afile the JFile to add.
65      */
66
67     public void addJFile( String name, JFile afile)
68     {
69         jfiles.put( name, afile );
70         setDate();
71     }
72
73     /**
74      * Get a JFile in this Directory, by name .
75
76      * @param filename the name of the JFile to find.
77      * @return the JFile found.
78      */
79
80     public JFile retrieveJFile( String filename )
81     {
82         JFile afile = (JFile)jfiles.get( filename );
83         return afile;
84     }
85
86     /**
87      * Remove a JFile in this Directory, by name .
88
89      * @param filename the name of the JFile to remove
90      */
91
92     public void removeJFile( String filename )
93     {
94         jfiles.remove( filename );
95     }
96
97     /**
98      * Get the contents of this Directory as an array of
99      * the file names, each of which is a String.
100
101      * @return the array of names.
102      */
103
104     public String[] getFileNames()
105     {
106         return (String[])jfiles.keySet().toArray( new String[0] );
107     }
108 }

```