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Thread: [Compress multiple files in to 1 file \(and reduce file size by up to 70%\)](#)

matt - February 3, 2017, 1:48 pm

I'm not really a fan of GUI's since I might write code to do something once and then never use it again so I write the most simplistic thing to get the job done, and if I need anything changed I just edit the code. :p So here's my interpretation of a simple file packer using GZIP compression.

Packer

Spoiler ([Click to View](#))

```
Code import java.io.DataOutputStream;
import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.nio.file.Files;
import java.nio.file.Path;
import java.nio.file.Paths;
import java.util.zip.GZIPOutputStream;
import javax.swing.filechooser.FileSystemView;

public class PackGZip {

    private static final File packDir, fileCache;

    static {
        packDir = new File(FileSystemView.getFileSystemView().getHomeDirectory(), "HF"); //this is
the directory of the files it will compress
        fileCache = new File(packDir, "howbow.dat"); //this is the file it will compress to
    }

    public static void compressContents() {
        if(!packDir.exists()) {
            System.out.println("Packing directory does not exist!");
            return;
        }
        File[] datFiles = packDir.listFiles(f -> {
            //write your own custom file filter if you'd like
            return f.isFile();
        });
        try (GZIPOutputStream gzos = new GZIPOutputStream(new FileOutputStream(fileCache));
DataOutputStream dataFile = new DataOutputStream(gzos)) {
            dataFile.writeInt(datFiles.length);
            System.out.println("Appending " + datFiles.length + " entries to config");
            for (File f : datFiles) {
                int length = (int) f.length();
                dataFile.writeInt(length);
                String name = f.getName();
                dataFile.writeUTF(name);
                System.out.println(String.format("Appending to config bytes=%d name=%s", length,
```

```

name));
        byte[] data = readFile(f);
        dataFile.write(data);
    }
} catch (IOException e) {
    e.printStackTrace();
}
}

private static byte[] readFile(File file) {
    try {
        Path path = Paths.get(file.getAbsolutePath());
        byte[] data = Files.readAllBytes(path);
        return data;
    } catch (IOException e) {
        e.printStackTrace();
        return null;
    }
}

public static void main(String[] args) {
    compressContents();
}
}

```

Unpacker

Spoiler ([Click to View](#))

```

Code import java.io.DataInputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.zip.GZIPInputStream;
import javax.swing.filechooser.FileSystemView;

```

```

public class UnpackGZip {

```

```

    private static final File unpackDir, fileCache;

```

```

    static {

```

```

        unpackDir = new File(FileSystemView.getFileSystemView().getHomeDirectory(), "HF"); //this is
the folder the compressed file will be extracted to
        fileCache = new File(unpackDir, "howbow.dat"); //this is the compressed file
    }

```

```

    public static void decompressContents() {

```

```

        if(!unpackDir.exists() || !fileCache.exists()) {
            System.out.println("Your unpacking directory or file cache does not exist!");
            return;
        }

```

```

        try (GZIPInputStream gzios = new GZIPInputStream(new FileInputStream(fileCache));
DataInputStream dataFile = new DataInputStream(gzios)) {
            int length = dataFile.readInt();

```

```

        for (int i = 0; i < length; i++) {
            int buffer = dataFile.readInt();
            String name = dataFile.readUTF();
            byte[] data = new byte[buffer];
            dataFile.readFully(data);
            saveToFile(name, data);
        }
    } catch (Exception e) {
        e.printStackTrace();
    }
}

public static void saveToFile(String name, byte[] data) {
    try (FileOutputStream fos = new FileOutputStream(new File(unpackDir, name))) {
        fos.write(data);
        System.out.println("Saved: " + name);
    } catch (IOException e) {
        e.printStackTrace();
    }
}

public static void main(String[] args) {
    decompressContents();
}
}

```