

How To Compress Files In ZIP Format



Posted on January 21, 2010

By [mkyong](#)

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Java comes with “**java.util.zip**” library to perform data compression in Zip format. The overall concept is quite straightforward.

1. Read file with “**FileInputStream**”
2. Add the file name to “**ZipEntry**” and output it to “**ZipOutputStream**”

1. Simple ZIP example

Read a file “**C:\spy.log**” and compress it into a zip file – “**C:\MyFile.zip**”.

```
package com.mkyong.zip;

import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.zip.ZipEntry;
import java.util.zip.ZipOutputStream;

public class App
```

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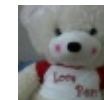
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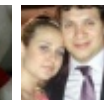
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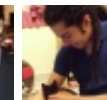
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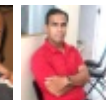
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D

```

{
    public static void main( String[] args )
    {
        byte[] buffer = new byte[1024];

        try{

            FileOutputStream fos = new FileOutputStream("C:\\MyFile.zip");
            ZipOutputStream zos = new ZipOutputStream(fos);
            ZipEntry ze= new ZipEntry("spy.log");
            zos.putNextEntry(ze);
            FileInputStream in = new FileInputStream("C:\\spy.log");

            int len;
            while ((len = in.read(buffer)) > 0) {
                zos.write(buffer, 0, len);
            }

            in.close();
            zos.closeEntry();

            //remember close it
            zos.close();

            System.out.println("Done");

        }catch(IOException ex){
            ex.printStackTrace();
        }
    }
}

```



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2. Advance ZIP example – Recursively

Read all files from folder “C:\testzip” and compress it into a zip file – “C:\MyFile.zip”. It will recursively zip a directory as well.

```
package com.mkyong.zip;

import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.ArrayList;
import java.util.List;
import java.util.zip.ZipEntry;
import java.util.zip.ZipOutputStream;

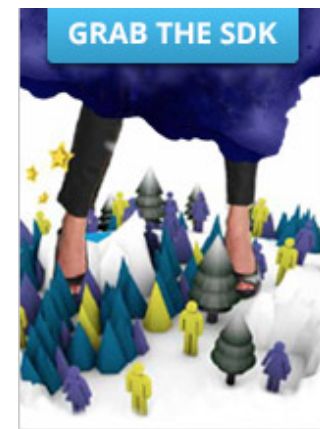
public class AppZip
{
    List<String> fileList;
    private static final String OUTPUT_ZIP_FILE = "C:\\MyFile.zip";
    private static final String SOURCE_FOLDER = "C:\\testzip";

    AppZip(){
        fileList = new ArrayList<String>();
    }

    public static void main( String[] args )
    {
        AppZip appZip = new AppZip();
        appZip.generateFileList(new File(SOURCE_FOLDER));
        appZip.zipIt(OUTPUT_ZIP_FILE);
    }

    /**
     * Zip it
     * @param zipFile output ZIP file location
     */
    public void zipIt(String zipFile){

        byte[] buffer = new byte[1024];
```



```

try{

    FileOutputStream fos = new FileOutputStream(zipFile);
    ZipOutputStream zos = new ZipOutputStream(fos);

    System.out.println("Output to Zip : " + zipFile);

    for(String file : this.fileList){

        System.out.println("File Added : " + file);
        ZipEntry ze= new ZipEntry(file);
        zos.putNextEntry(ze);

        FileInputStream in =
            new FileInputStream(SOURCE_FOLDER + File.separator + file);

        int len;
        while ((len = in.read(buffer)) > 0) {
            zos.write(buffer, 0, len);
        }

        in.close();
    }

    zos.closeEntry();
    //remember close it
    zos.close();

    System.out.println("Done");
}catch(IOException ex){
    ex.printStackTrace();
}
}

/**
 * Traverse a directory and get all files,
 * and add the file into fileList
 * @param node file or directory
 */
public void generateFileList(File node){

```

```

//add file only
if(node.isFile()){
    fileList.add(generateZipEntry(node.getAbsoluteFile().toString()));
}

if(node.isDirectory()){
    String[] subNote = node.list();
    for(String filename : subNote){
        generateFileList(new File(node, filename));
    }
}

}

/**
 * Format the file path for zip
 * @param file file path
 * @return Formatted file path
 */
private String generateZipEntry(String file){
    return file.substring(SOURCE_FOLDER.length()+1, file.length());
}
}

```

Output

```

Output to Zip : C:\MyFile.zip
File Added : pdf\Java-Interview.pdf
File Added : spy\log\spy.log
File Added : utf-encoded.txt
File Added : utf.txt
Done

```

Follow Up

You may interest at this – [How to decompress it from a Zip file](#)

Reference

1. [Compressing and Decompressing Data Using Java APIs](#)

Tags : [io](#) [java](#) [zip](#)



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May 31, 2012 at 2:44 am

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Reply



GuoTao

May 24, 2012 at 5:16 pm

Hi Yong,
it's necessary to considered that compressing directories which are empty in the example of 'Advance ZIP example – Recursively'.
thank you for sharing,I like the platform.

Reply



sadanand

April 30, 2012 at 6:22 pm

Thank You, Mr Kong, U r simple a rock star...

Reply



nagarjuna

November 8, 2011 at 3:39 pm

can u send me the program for created zip file is automatically send to mail through our gmail.....

Give me reply to my mail nagarjuna.gottimukkala@gmail.com

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