# An Approach For File Splitting And Merging

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*Abstract*

*File Splitter is a program which does not require installation and can be used to split files to multiple chunks as well as to merge multiple chunks into a single file.*

*File Splitter is a software which is used to split the user specifying file according to the user specifying size. It is very difficult to transfer one big file from one end to another through any media like internet or small storage like Floppy, Pen drive, CD etc. This software helps to overcome this problem. The split portions of file may carry some temporary information to denote the number of split part and total number of parts etc. This idea is used to split big files to small pieces for transferring purpose, uploading etc. In the destination side, these parts of file can be jointed to form the original source file.*

*Splitting process is mainly aiming in the area of file transferring from one end to another. There are three techniques to split the file.*

1. *Split in the size of 1.4MB (Floppy size)*
2. *Split in the size of 650MB(CD size)*
3. *User specifying size, Here file will be split equally in the specified size*

*To ensure the security, the user can include password to split and combine the files. This split portion will be in non readable format and will be encrypted. If the user has given password to split, the same password is required to do the combining option. This program is developed using Java and can implement in .NET also.*

*Keywords— Microsoft Visual C# Dot Net*

**1.    Introduction:**    A de-multiplexer for digital    media files,    or media    de-multiplexer commonly    called    a file    splitter is software that de-multiplexes or    splits, individual streams of a media file, e.g., audio, video, or subtitles and sends them to their respective decoders for actual decoding.  Media file splitters are not decoders themselves, but separate program streams from a file and supply them to their respective audio, video, or subtitles  decoders,  some  software  based  examples  include FFmpeg (via  ffdshow), MPEG-2,  MPEG-4, Flash Video, or RealMedia etc.

### A.    What is The File Splitter?

The File Splitter is a Windows program that will split any file into pieces of any size and later combine the pieces to form the original file. This could prove useful in a number of situations:

• Suppose you need to transfer a file from one stand-alone computer to another. A floppy disk is often the only possible means for transferring the file, but if the file is larger than 1.44 megabytes, it won't fit on a single floppy. Simply split the file onto floppy disks, and then copy the pieces from the floppy disks to the other computer and easily reconstruct the original file.

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- Many email systems place a limit on the size of an email message. What if you want to email someone a file that is larger than the maximum size? Split the file into pieces smaller than the limit and email the individual pieces.
- There are many other possibilities for using The File Splitter. I'm sure you can think of a situation where The File Splitter would be helpful.

Here are complete features:
- New fast engine to split large files
- Supported any type of files (mp3, wav, rar, zip, exe, avi, mpeg, mpg, mid etc.)
- Split any file to equal-sized segments
- User friendly interface
- Files with more than 2Gb size support

### B.     Technologies used

This project is developed in java. Java is a programming language originally developed by Sun Microsystems (which is now a subsidiary of Oracle Corporation). Java is an object-oriented language so all features of object-oriented programming are also available in java such as class, objects, abstraction, encapsulation, polymorphism, inheritance, etc. Java is a general purpose programming language with a number of features that make the language well suited for use on the World Wide Web. Java is simple, secure, portable, object-oriented, robust, multithreaded, architecture neutral, interpreted, high performance, distributed and dynamic. The most striking feature of java is that it is a platform independent language.  Java is the first programming language that is not tied to any particular hardware or operating system. Programs developed in java can be executed anywhere on any system.

*Key Benefits of Java*
- It is easy to use.
- It reduces programming effort.
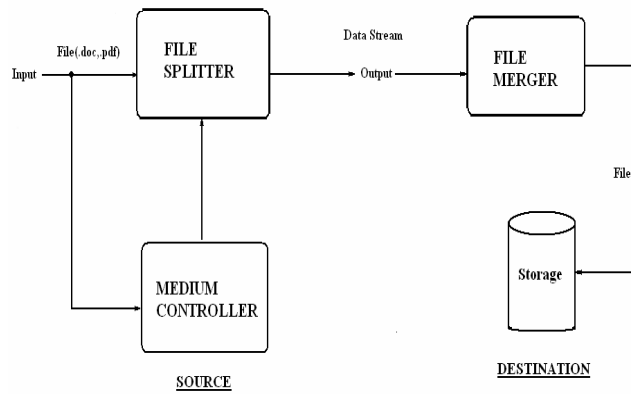- It increases program speed and quality.

It is flexible.

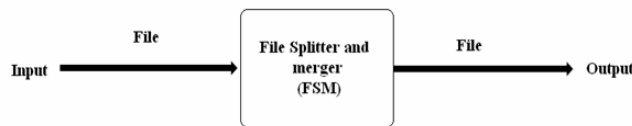### 2.     Implementation:

### A. Proposed Approach

File Splitter tool is very useful tool to split the file into chunks AND we can use the same tool to join the already split files. A File Splitter, is software that splits, individual streams of a file, e.g., audio, video, or subtitles and sends them to their respective decoders for actual decoding. Usually a suffix is appended to the filename with a number, and at time of recombination, the files need to be combined in the order indicated by the suffix. So if you have largefile.zip, it might split it into largefile.zip.001,largefile.zip.002, largefile.zip.003, largefile.zip.004.That information needs to be preserved. You can change the prefix, but you must do it consistently. Sometimes splitting does follow a specific format and changes the underlying format a bit. This is common with the built-in splitting mechanisms of archive formats.
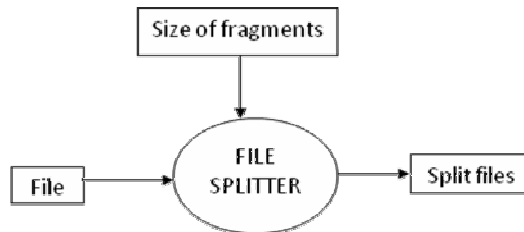
## B. Block Diagram



THE BASIC BLOCK DIAGRAM OF FILE SPLITTER
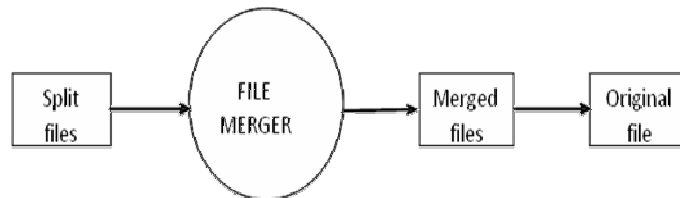
## C. Zero Level DFD (Data Flow Diagram)



0 - Level DFD

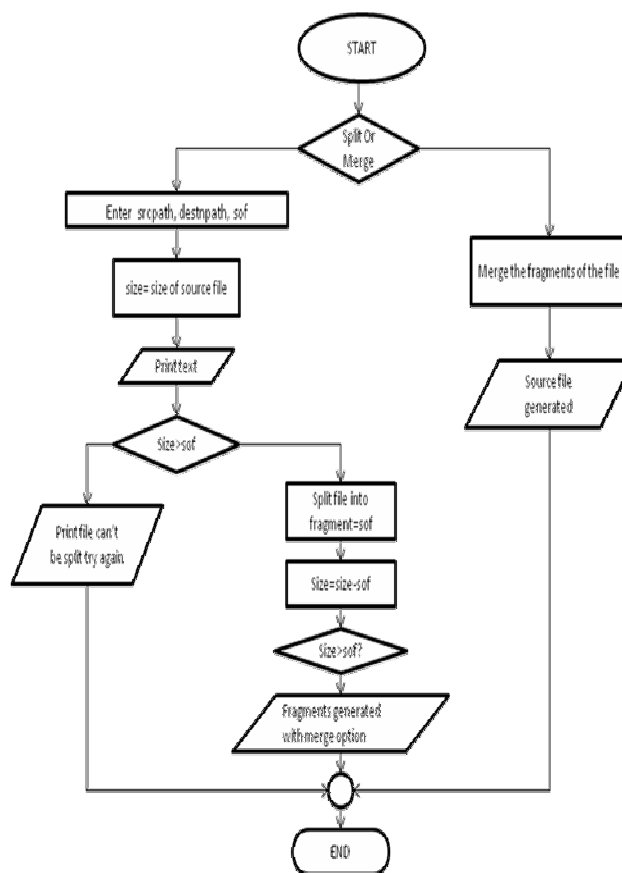## D. Level 1 DFD for File Splitter (Data Flow Diagram)



## E. Level 1DFD for File Merger(Data Flow Diagram)

**Algorithm**

1. If file is to be split go to step 2 else merge the fragments of the file and goto step 10.
2. Input  srcpath, destnpath, sof
3. size= size of source file
4. Print size
5. If size>sof  goto step 6  else print file cannot be split and goto step 10
6. Split into fragment=sof
7. size=size-sof
8. If size>sof  goto step 6
9. We get fragments with merge option
10. End
11. Flowchart



**3.** **Approached Result & Conclusion:** File Splitter is a reliable application that lets you split your large files(like self-extracting archives, zip archives, disk images, music, video, backup, image, log, large text, document files…)into set of smaller files called chunks or pieces. These pieces are easier to copy to floppy or any removable media disk; distribute over internet, networks; archive to CD, DVD, USB flash drives and any other storage area; exchange using instant messaging clients or instant messenger programs etc. After sending the pieces to the desired user the chucks can be merged using the file merger. The original file is left intact - the split files are created from the original.

**4.**     **Application and Future work:** Original File Splitter is a simple file cutter. It can quickly split large file (compressed archives, video clip, audio file, song, music, movie, backup, zip, picture, log, large text and document file) into several smaller files and save them. You decide what the size of one split file segment should be. Later you can join these files into one original file. The original file is left intact - the split files are created from the original. Your can use this software, for example, for breaking a file into segments to fit on multiple diskettes, CD, DVD or USB sticks. Split a large file into smaller files so that they can be easily sent via e-mail.

This could prove useful in a number of situations:

•     Send your files via email, instant messaging, and online hosting services without size restriction.

•     Share files over the Internet easier and avoid large downloads which may become truncated.

•     Transfer any file from a computer to another using floppies or any other removable storage device.

Backup large files on several CD, DVD or USB sticks.

**5.**     **References:**

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