Disk First Aid: Invalid PEOF Error (2/95)

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TOPIC --

Disk First Aid reports an "Invalid PEOF" error with some numbers after it. It says it is unable to repair the problem. Norton Utilities Disk Doctor reports no error could be found. What is an Invalid PEOF?
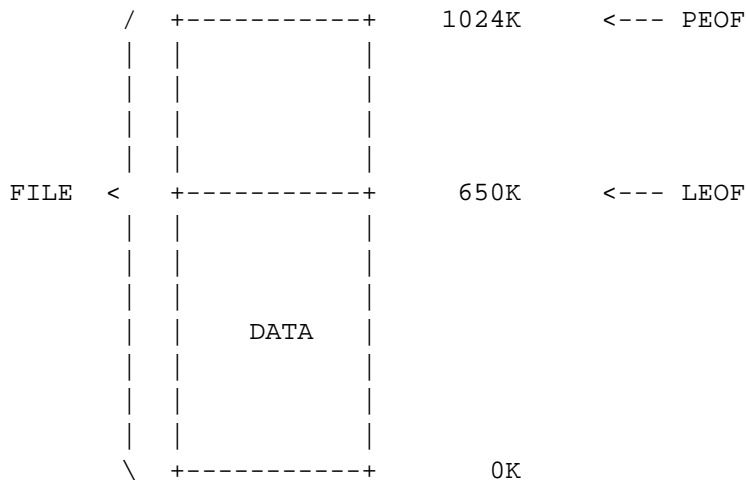
DISCUSSION --

An "invalid PEOF" is an invalid Physical End Of File.

This error means Disk First Aid found a problem with the length of a particular file and cannot fix it. Macintosh files have two end of file markers -- a Logical End Of File (LEOF) and a Physical End Of File (PEOF). The logical end of file is the number of bytes allocated to data in a file. The physical end of file is the number of bytes currently allocated to the whole file.

The Macintosh allocates "blocks" of space to files on a volume (disk) for efficiency in reading/writing the files. The block size varies depending on the volume size. Most files never completely fill up their allocated blocks.

For example, if a given block size for a volume is set to 512K bytes and a file is allocated 2 blocks (1024 bytes total in file), a file with 650 bytes of data would have an LEOF of 650 and a PEOF of 1024, as this diagram illustrates:

```
          /  +----------+     1024K      <--- PEOF
          |  |          |
          |  |          |
          |  |          |
          |  |          |
  FILE  <    +----------+      650K      <--- LEOF
          |  |          |
          |  |          |
          |  |          |
          |  |   DATA   |
          |  |          |
          |  |          |
          |  |          |
          \  +----------+       0K
```

If the PEOF is less than the LEOF, then problems with reading a file may occur. Disk First Aid is finding a PEOF allocation problem. Of course, if this problem is in the Desktop files or the System file, then system crashes and other anomalies may result.

If Disk First Aid cannot repair the problem, you should consider backing up the data and reformatting the drive -- even if other utilities give the drive a clean bill of health. Each disk utility program is good at finding different problems. Trusting your data to only one utility is never wise. The conflicting reports are usually a sign that something is wrong with the file system and it needs to be fixed.

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07 Feb 1995 - Added keyword; added diagram; updated discussion.

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