Related Commands. Keeping in mind the distinction between memory and disk allows you to understand commands better and use them more confidently. You can know where information is at any point in time. For instance:

- NEW creates a new file in memory, but does *not* create a new file on disk. The file is not created on disk until you SAVE or STORE it.
- STORE performs exactly the same function as SAVE followed by ABORT. STORE saves the current document and clears the display.
- Windows are all allocated in memory. When a new window is opened, part of memory is allocated to that window.
- If a file is too large to fit into memory when using CALL (or when typing in new text), XyWrite automatically creates two files to contain the overflow — one for the overflow at the top of the file, the other for the bottom overflow. (See "Overflow" on the next page.)

Recommendation. To make the best use of your computer's memory, keep files to a size where they fit entirely into available memory. If your file gets so large that it starts scrolling the excess to disk (into the temporary overflow files), try breaking the file into smaller files. This allows you to scroll the text up and down on the screen without delays.

Primary File Buffers. Each file that you open has its own buffer called a Primary File Buffer. The buffer for each file starts small and grows in size as the file grows — the buffer can grow as large as 64K. The file can continue to grow in size *past the 64K*, to the limit of available memory (at which point it begins overflowing to disk). Thus:

> **XyWrite will use *all* available memory before creating temporary overflow files on disk.**

You can open as many as nine files — one in each window. Each will be in its own buffer, and each buffer can grow to 64K (assuming you have enough memory). All Save/Gets are allocated to their own buffer, which can be as large as 50K.

As we just stated, the Primary File Buffer does *not* impose a limit on the size of files you can load into memory.

For example, if your system has 384K of RAM, and you load 40K for DOS and 180K for XyWrite, you can load one file as large as 164K (384K - 40K - 180K) before overflow occurs. The absolute limit to the size of a file, if you include overflow files, is determined by the amount of storage on your disk. We have known applications with single files as large as 10 megabytes.

Overflow. If a file is too large to fit in available memory, the overflow at either end is automatically stored onto disk in temporary overflow files. When this happens, XyWrite displays the message "Making temp file, don't remove *d:*" and an "X" appears in reverse mode in the upper right corner of your screen. **Do not remove the disk that contains the temporary file — you could cause irreparable damage to your data.**

The temporary files appear to be given random names (such as CKDBRBHD.TMP and DMFAABDA.TMP), but in fact their names are derived from the date and time so as to be unique. The names have the extension TMP (temporary). These files are created on the current drive, unless you use the DEFAULT command to change the DR setting. (If you aren't sure on which drive the temporary files are stored, display a window menu. The letter that appears under the heading "DISK" is the letter of the drive that contains the temporary files.)

When you store the file, the parts are recombined and the file is saved as a whole. XyWrite displays the message "OK to remove *d:*" and the "X" disappears from the header.

Constraint Imposed by Primary File Buffer. The Primary File Buffer imposes a limitation on defined blocks of text. (This limitation is seldom encountered in practice.) This constraint is best demonstrated by an example.