PART 1 : Introduction

1.1 Resolution Support

EIZO AA41/AC41 support ...

- 640x480 non interlaced at 60Hz
- 800x600 non interlaced at 60Hz
- 1024x768 interlaced at 43Hz
- 1024x768 non interlaced at 60Hz/70Hz

EIZO AA51/AC51 support ...

- 640x480 non interlaced at 60Hz
- 800x600 non interlaced at 60Hz
- 1024x768 interlaced at 43Hz
- 1024x768 non interlaced at 60Hz/70Hz
- 1280x1024 non interlaced at 60Hz/70Hz

1.2 Optimized hardware for Windows 3.0 & OS/2-Presentation Manager

EizoAccel has the optimized hardware to run the GUI software as Windows 3.0 or OS/2 Presentation Manager. This hardware displays high performance graphics by using the driver software attached to the EizoAccel.

1.3 8514/A AI Software Compatibility

The EizoAccel will run all IBM 8514/A compatible programs without any modifications by using the AI adapter attached to the EizoAccel.

1.4 Three EIZO ASICs

The EizoAccel graphics boards use three excellent ASICs : the FIFO, Data Engine, and Flicker Free Cursor. The FIFO ASIC is intended to optimize the host to EizoAccel interface by providing a deep command FIFO and by improving the total throughput.
In addition, the FIFO provides a gateway from the host bus to the internal GS bus. The Data Engine ASIC is intended to add "3 Op Bitblt" and "PFM" capability to the EizoAccel circuit. In addition, the Data Engine provides direct access to the frame buffer for any GS Bus master (including the host processor via the FIFO interbus gateway). The Flicker Free Cursor (FFC) ASIC uses a fast SRAM for storage to provide mixing of 64x64 full depth cursor with pixel data to provide a flicker free graphics cursor.

1.5 Performance Enhancements

These ASICs improve the performance of several key operations :

- 3 Op Bitblt
- Area Fills
- Text
- Pixel transfer to the frame buffer
- Random frame buffer access
- Flicker free graphics cursor

In the power-up operation mode, the Data Engine ASIC is inactive and is transparent to application software. The EIZO drivers enable the Data Engine to perform 3 Op Bitblts -PFM and high speed area fills. In addition, the Data Engine allows any GS Bus master (including the GS FIFO) to directly access the frame buffer through the Data Engine frame buffer windows.

Similarly, in the power-up operating mode, the FIFO ASIC is in-active and is transparent to application software. The EIZO drivers enable the FIFO. The FIFO ASIC is used to expand the depth of the EizoAccel FIFO to provide greater overlap of drawing and setup. The deep FIFO is designed to buffer up to 80 Bit-blt commands for drawing text. This will allow a full length string to be buffered for drawing while the application resumes its computation.

The FIFO is also used to improve the transfer of monochrome and 4 bit data from the host processor to the frame buffer. In addition, the FIFO provides a "gateway" between the host bus and the GS Bus. This allows the host to access devices on the GS Bus including frame buffer memory. Mapping registers are used to map GS Bus memory and IO space onto the host bus.
The Flicker Free Cursor ASIC (FFC) provides a 64x64 full depth cursor to GSS- EIZO aware drivers and applications that neither flickers nor requires constant posting and unposting.

1.6 Before You Begin

- Please be sure that the EizoAccel Graphics Board is correctly installed before configuring the application software. Information for correct installation of EizoAccel can be found in the User's Manual which accompanies the EizoAccel Graphics Board package.

- Ensure that your PC operating system is **MS-DOS** or **PC-DOS version 3.1** or **later**. Please also check that the DOS version will support the required application software.

- Please contact your supplier if your support package is not complete or if you have any trouble copying the files from the disks supplied.

- Backup your EizoAccel Drivers Disks and store the original in a safe place. The copy should then be used for installation.

1.7 EizoAccel Drivers Disk

EIZO supplies the **EizoAccel Drivers Disk** containing the original application drivers for EizoAccel. The disks contain the following application drivers :

EizoAccel AI (Adapter Interface)
Microsoft Windows V3.0
Ventura Publisher (V2.0, V3.0)
ARTLINE Ver 2 (R2.00)
AutoCAD (R10/R11)
AutoCAD 386 (R10/11)
GEM/3 (R3.01, R3.1)
AutoShade (V2.0)
AutoShade (V1.0, V1.1)/AutoSketch (V1.0, V2.0)
3D Studio (V1.0)

Table 1-1

NOTE

1. There may be several floppy disks for the EizoAccel Drivers Disk in the package. When you install the drivers, **use a correct floppy disk** referring to the labels on it.

2. The application drivers in the drivers disk are updated regularly and new application drivers are added. All files contained in each drivers disk are listed in the file **\FILES.LST** which can be printed for quick reference.

3. Information regarding drivers which have been modified after the publication of this manual is contained in the README files in the relevant sub-directory of each driver. **Read the README file** before you install the drivers.