Information for i740 Users

Precision Insight, Inc.

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1. Supported Hardware

- Intel 740 based cards.

2. Features

- Full support for 8, 15, 16, and 24 bit pixel depths.
- Hardware cursor support to reduce sprite flicker.
- Hardware accelerated 2D drawing engine support for 8, 15, 16 and 24 bit pixel depths.
- Support for high resolution video modes up to 1600x1200.
- Support for doublescan video modes (e.g., 320x200 and 320x240).
- Support for gamma correction at all pixel depths.
- Fully programmable clock supported.
- Robust text mode restore for VT switching.

3. Technical Notes

- Hardware acceleration is not possible when using the framebuffer in 32 bit per pixel format.
- Interlace modes cannot be supported.

4. Reported Working Video Cards

- Real3D Starfighter AGP
- Real3D Starfighter PCI
- Diamond Stealth II/G460 AGP
- 3DVision-i740 AGP
- ABIT G740 8MB SDRAM
- Acorp AGP i740
- AGP 2D/3D V. 1N, AGP-740D
- AOpen AGP 2X 3D Navigator PA740

- ARISTO i740 AGP (ART-i740-G)
- ASUS AGP-V2740
- Atrend (Speedy) 3DIO740 AGP (ATC-2740)
- Chaintech AGP-740D
- EliteGroup(ECS) 3DVision-i740 AGP
- EONtronics Picasso 740
- EONtronics Van Gogh
- Everex MVGA i740/AG
- Flagpoint Shocker i740 8MB
- Gainward CardExpert 740 8MB
- Genoa Systems Phantom 740
- Gigabyte Predator i740 8MB AGP
- Hercules Terminator 128 2X/i AGP
- HOT-158 (Shuttle)
- Intel Express 3D AGP
- Jaton Video-740 AGP 3D
- Jetway J-740-3D 8MB AGP, i740 AGP 3D
- Joymedia Apollo 7400
- Leadtek Winfast S900
- Machspeed Raptor i740 AGP 4600
- Magic-Pro MP-740DVD
- MAXI Gamer AGP 8 MB
- Palit Daytona AGP740
- PowerColor C740 (SG/SD) AGP
- QDI Amazing I
- Soyo AGP (SY-740 AGP)
- Spacewalker Hot-158
- VideoExcel AGP 740
- ViewTop ZeusL 8MB
- Winfast S900 i740 AGP 8MB

5. Configuration

The driver auto-detects all device information necessary to initialize the card. The only lines you need in the "Device" section of your XF86Config file are:

```
Section "Device"
    Identifier "Intel i740"
    Driver     "i740"
EndSection
```

or let `xf86config` do this for you.

However, if you have problems with auto-detection, you can specify:

- VideoRam - in kilobytes
- DacSpeed - in MHz
- MemBase - physical address of the linear framebuffer
- IOBase - physical address of the memory mapped IO registers

6. Driver Options

- "NoAccel" - Turn off hardware acceleration
- "SWCursor" - Request a software cursor (hardware is default)
- "SDRAM" - Force the use of SDRAM timings
- "SGRAM" - Force the use of SGRAM timings
- "SlowRam" - Force the use of slower ram timings
- "Dac6Bit" - Force the use of a 6 Bit Dac (8 Bit is the default)
- "UsePIO - Force the use of programmed IO (Memory mapped is the default)

Note: the i740 X server should automatically detect whether your card has SGRAM or SDRAM. Use the "sgram" and "sdram" options if it is incorrectly detected.

7. Known Limitations

- Certain drawing operations are very slow when using 24 bit pixel depth mode.

8. Author

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This driver was donated to The XFree86 Project by:

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$XFree86: xc/programs/Xserver/hw/xfree86/doc/sgml/i740.sgml,v 1.3 2000/03/04 00:26:30 dawes Exp $