Driver Status for XFree86™ 4.3.0

The XFree86 Project, Inc

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Abstract

This document provides information about the status of the driver and hardware support in XFree86 4.3.0 compared with that in XFree86 3.3.6. Please send updates for this document to <XFree86@XFree86.org>.

1. Introduction

This document contains one section per vendor (organised alphabetically) for each chipset family that is supported in XFree86 3.3.6 or XFree86 4.3.0. It includes information about the status of the drivers and the hardware they support, including a comparison of the level of support between versions 3.3.6 and 4.3.0. Unless otherwise stated, hardware is classified as "supported" if its driver provides basic 2D support. Support for additional features may or may not be present.

In XFree86 3.3.6, several X servers are available; much hardware uses the XF86_SVGA server, which has a set of driver modules that are built into it at compile time. In other cases, X servers for specific chips (or families of chips) are provided (such as XF86_AGX, XF86_Mach64, etc.).

In XFree86 4.3.0, there is only one X server, called "XFree86", which can load driver modules at runtime. Thus there is no specific mention of a server binary when 4.3.0 is discussed; only the XFree86 server is used. Third-party vendors (often the manufacturers of various video chipsets) may provide their own drivers for the XFree86 server, but these third-party modules are beyond the scope of this document.

NOTE: Status information needs to be checked carefully and expanded where possible. E.g., include information about acceleration, multi-head, known problems, hardware known to work on, platform dependencies/limitations, other architectures known to work on (e.g., Alpha, PPC), etc.

2. 3Dfx

3.3.6:

Support (including acceleration) for Voodoo Banshee and Voodoo3 cards is provided by the XF86_SVGA server with the tdfx driver.

4.3.0:

Support for Voodoo Graphics and Voodoo2 chips is provided by the "glide" driver (this requires version 2.x of the Glide library, which is not part of the XFree86 distribution).

Support (including acceleration) for Voodoo Banshee, Voodoo3, Voodoo4, and

Voodoo5 is provided by the "tdfx" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0. The Voodoo Graphics, Voodoo2, Voodoo4, and Voodoo5 are supported only in 4.3.0.

3. 3Dlabs

3.3.6:
Support (including acceleration) for GLINT 500TX (with IBM RGB526 RAMDAC), GLINT MX plus Delta or Gamma (with IBM RGB526 and RGB640 RAMDACs), Permedia with IBM RGB526 RAMDAC, and Permedia 2, 2a, 2v is provided by the XF86_3DLabs server.

4.3.0:
Support (including acceleration) for the Permedia series (including 1, 2, 2a, 2v, 3, and 4) and GLINT series (including 300SX, 500TX, MX, R3 and R4) with the Gamma, Gamma2 or Delta coprocessor is provided by the "glint" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0. The Permedia 3, Permedia 4, GLINT R3, GLINT R4 and Gamma2 are supported only in 4.3.0.

4. Alliance

3.3.6:
Support (including acceleration) for the AT24, AP6422, AT3D is provided by the XF86_SVGA server with the apm driver.

4.3.0:
Support (including acceleration) for the AT24, AT25 and AT3D is provided by the "apm" driver. This driver currently has only incomplete support for the AP6422.

Summary:
The AP6422 is supported in 3.3.6 but not fully in 4.3.0. All other hardware supported in 3.3.6 is also supported in 4.3.0. The AT25 is supported only in 4.3.0.

5. ARK Logic

3.3.6:
Support (including acceleration) for the ARK1000PV, ARK2000PV, and ARK2000MT is provided by the XF86_SVGA server with the ark driver.

4.3.0:
Support (including acceleration) for the ARK1000PV, ARK2000PV, and ARK2000MT is provided by the "ark" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0.

6. ATI

3.3.6:
Accelerated support is provided for the Mach8 chips (by the XF86_Mach8 server), Mach32 chips (by the XF86_Mach32 server), the following Mach64 and Rage chips: GX, CX, CT, ET, VT, VT3, GT, RageII+DVD, RagePro (GB, GD, GI, FP, GQ), VT4, Rage IIC (GV, GW, GZ), Rage LT Pro (LD, LB, LI, LP), Rage LT, Rage XL or XC (GL, GM, GN, GO, GR, GS) and Rage Mobility (LM, LN, LR, LS) (by the XF86_Mach64

server). Unaccelerated support is provided for most of the above (except some early Mach8 and Mach32 adapters), as well the old VGAWonder series chipsets (18800, 18800-1, 28800-2, 28800-4, 28800-5, 28800-6) by the XF86_SVGA server with the ati driver. Accelerated support is provided for the Rage 128 chips by the XF86_SVGA server with the r128 driver.

4.3.0:
: Accelerated support is provided for Mach64, Rage, Rage 128 and Radeon chips by the "ati" driver, as is unaccelerated support for all of the others except the Mach8 and some early Mach32 chips.

Summary:
: All hardware supported in 3.3.6 is also supported in 4.3.0 except for Mach8 and some old Mach32 chips.

7. Avance Logic

3.3.6:
: Support for the AL2101, ALI2228, ALI2301, ALI2302, ALI2308, ALI2401 chipsets. Support is provided by the XF86_SVGA server, using the al2101 driver for the AL2101, and the ali driver for the others. These drivers reportedly work, but they have no maintainer.

4.3.0:
: No Avance Logic chips are supported because the old drivers have not been ported.

Summary:
: No Avance Logic chips are supported in 4.3.0.

8. Chips and Technologies

3.3.6:
: Support (accelerated) for the 65520, 65525, 65530, 65535, 65540, 65545, 65546, 65548, 65550, 65554, 65555, 68554, 69000, 64200 and 64300 is provided by the XF86_SVGA server with the chips driver.

4.3.0:
: Support (accelerated) for the 65520, 65525, 65530, 65535, 65540, 65545, 65546, 65548, 65550, 65554, 65555, 68554, 69000, 64200 and 64300 is provided by the "chips" driver.

Summary:
: All hardware supported in 3.3.6 is also supported in 4.3.0.

9. Cirrus Logic

3.3.6:
: Support (unaccelerated) for the 6410, 6412, 6420 and 6440 is provided by the XF86_SVGA server with the cl64xx driver. Support (accelerated) for the 5420, 5422, 5424, 5426, 5428, 5429, 5430, 5434, 5436, 5446, 5480, 5462, 5464, 5465, 6205, 6215, 6225, 6235, 7541, 7542, 7543, 7548, 7555 and 7556 is provided by the XF86_SVGA server with the cirrus driver.

4.3.0:
: Support (accelerated) for the Alpine (5430, 5434, 5436, 5446, 5480, 7548), and Laguna (5462, 5464, 5465) chips is provided by the "cirrus" driver.

Summary:
: The following chips are supported in 3.3.6 but not in 4.3.0: 6410, 6412, 6420, 6440,

5420, 5422, 5424, 5426, 5428, 5429, 6205, 6215, 6225, 6235, 7541, 7542, 7543, 7555 and 7556.

10. Compaq/Digital

3.3.6:

The old Compaq AVGA chipset is supported by the XF86_SVGA server with the compaq driver. The status of this support is unknown because we don't have any recent test reports, and this driver has no maintainer.

Support (accelerated) for the DEC 21030 TGA 8 plane, 24 plane and 24 plane 3D chips (on Alpha platforms) is provided by the XF86_TGA server.

4.3.0:

No support exists for the Compaq AVGA (its driver hasn't been ported).

Support (accelerated) for the DEC 21030 TGA 8 plane, 24 plane and 24 plane 3D chips (only tested on Alpha platforms) is provided by the "tga" driver.

Summary:

No Compaq AVGA chips are supported in 4.3.0. DEC TGA support is equivalent in both 3.3.6 and 4.3.0.

11. Cyrix

3.3.6:

Support (accelerated) for the Cyrix MediaGX is provided by the XF86_SVGA server with the cyrix driver.

4.3.0:

The 3.3.6 driver has been ported to 4.3.0, including acceleration support, and is provided by the "cyrix" driver. Feedback is wanted.

Summary:

Cyrix MediaGX users are encouraged to test its support in 4.3.0.

12. Epson

3.3.6:

Support (accelerated) for the Epson SPC8110 is provided by the XF86_SVGA server with the spc8100 driver.

4.3.0:

No Epson chips are supported, because the old driver has not been ported.

Summary:

No Epson chips are supported in 4.3.0.

13. Genoa

3.3.6:

The old Genoa GVGA chipset is supported by the XF86_SVGA server with the gvga driver. The status of this support is unknown because we don't have any recent test reports, and this driver has no maintainer.

4.3.0:

No Genoa chips are supported, because the old driver has not been ported.

Summary:
No Genoa chips are supported in 4.3.0.

14. IBM

3.3.6:
Support for the standard IBM VGA chip (and compatibles) is provided by the XF86_Mono, XF86_VGA16 and XF86_SVGA servers with the generic driver.

Support for the IBM 8514/A chip (and compatibles) is provided by the XF86_8514 server.

Support for the IBM XGA-2 chip is provided by the XF86_AGX server.

4.3.0:
Support for the standard IBM VGA chip (and compatibles) is provided by the "vga" driver.

There is no support for the IBM 8514/A or XGA-2 because the drivers have not been ported.

Summary:
The standard VGA core is supported in both versions, but there is no support for the 8514/A or XGA-2 in 4.3.0.

15. IIT

3.3.6:
Support (accelerated) for the AGX-016, AGX-015 and AGX-014 is provided by the XF86_AGX server.

4.3.0:
No IIT chips are supported, because the old driver has not been ported.

Summary:
No IIT chips are supported in 4.3.0.

16. Integrated Micro Solutions (IMS)

3.3.6:
Support (accelerated) for the IMS Twin Turbo 128 and Twin Turbo 3D is provided by the XF86_SVGA server with the imstt driver.

4.3.0:
Support (accelerated) for the IMS Twin Turbo 128 and Twin Turbo 3D is provided by the "imstt" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0.

17. Intel

3.3.6:
Support (accelerated) for the Intel i740 is provided by the XF86_SVGA server with the i740 driver, and for the Intel i810 with the i810 driver. The i810 is supported only on Linux, and requires the agpgart.o kernel module in order to use modes that require more than 1MB of video memory.

4.3.0:

Support (accelerated) for the Intel i740 is provided by the "i740" driver, and support for the Intel integrated graphics chipsets i810, i810-dc100, i810e, i815, 830M, 845G, 852GM, 855GM and 865G is provided by the "i810" driver. The i810 and i815 chipsets require kernel-level AGP GART support (available on Linux, FreeBSD, and some other BSDs). The 830M and later can be used without AGP GART support, but it is required for full functionality.

Summary:

The i740 and and original i810 are supported in both versions, but the i810/i815 is supported only on Linux, FreeBSD, and some recent NetBSD/OpenBSD versions at present. platforms at present. Support for later versions of the i810 chipset, such as the i815, and for the 830M and later exists only in 4.3.0.

18. Matrox

3.3.6:

Support (accelerated) for the MGA2064W (Millennium I), MGA1064SG (Mystique), MGA2164W (Millennium II) (PCI and AGP), G100, G200 and G400 is provided by the XF86_SVGA server with the mga driver.

4.3.0:

Support (accelerated) for the MGA2064W (Millennium I), MGA1064SG (Mystique), MGA2164W (Millennium II) (PCI and AGP), G100, G200, G400, G450, and G550 is provided by the "mga" driver.

Summary:

All hardware supported in 3.3.6 is also supported in 4.3.0. The G450 and G550 are supported only in 4.3.0.

19. Micronix, Inc. (MX)

3.3.6:

Support for the MX68000 and MX68010 chips is provided by the XF86_SVGA server with the mx driver. The status of this support is unknown because we don't have any recent test reports, and this driver has no maintainer.

4.3.0:

No MX chips are supported, because the old driver has not been ported.

Summary:

No MX chips are supported in 4.3.0.

20. National Semiconductor

4.3.0:

Support for the SC1x00, GX1, and GX2 is provided by the "nsc" driver.

21. NCR

3.3.6:

Support for the old NCR 77C22 and 77C22E chips is provided by the XF86_SVGA server and the ncr77c22 driver. The status of this support is unknown because we don't have any recent test reports.

4.3.0:

No NCR chips are supported, because the old driver has not been ported.

Summary:
No NCR chips are supported in 4.3.0.

22. NeoMagic

3.3.6:
Support (accelerated) for the NeoMagic NM2070, NM2090, NM2093, NM2097, NM2160 and NM2200 chipsets is provided by the XF86_SVGA server with the neo driver.

4.3.0:
Support (accelerated) for the NeoMagic NM2070, NM2090, NM2093, NM2097, NM2160, NM2200, NM2230, NM2360 and NM2380 chipsets is provided by the "neomagic" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0. The NM2230 and later chips are supported only in 4.3.0.

23. NVIDIA

3.3.6:
Support (accelerated) for the NV1, Riva 128, 128ZX, TNT, TNT2 (Ultra, Vanta, M64), GeForce (DDR, 256) and Quadro is provided by the XF86_SVGA server and the nv driver.

4.3.0:
Support (accelerated) for the Riva 128, 128ZX, TNT, TNT2 (Ultra, Vanta, M64), GeForce (DDR, 256), Quadro, GeForce2 (GTS, Ultra, MX), GeForce3, and Quadro2 is provided by the "nv" driver.

Summary:
All chipsets supported in 3.3.6 except the NV1 are also supported in 4.3.0. Support for the newer chips listed above (starting with the GeForce2) is available only in 4.3.0.

24. Number Nine

3.3.6:
Support (accelerated) for the Imagine 128, Ticket 2 Ride, Revolution 3D and Revolution IV is provided by the XF86_I128 server.

4.3.0:
Support (accelerated) for the Imagine 128, Ticket 2 Ride, Revolution 3D and Revolution IV is provided by the "i128" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0.

25. Oak Technologies, Inc.

3.3.6:
Support for the OTI067, OTI077, and OTI087 (the latter with some acceleration) is provided by the XF86_SVGA server and the oak driver.

4.3.0:
No Oak chips are supported, because the old driver has not been ported.

Summary:
No Oak chips are supported in 4.3.0.

26. Paradise/Western Digital

3.3.6:
Support for the Paradise PVGA1 and the Western Digital WD90C00, 90C10, 90C30, 90C24, 90C31 and 90C33 chipsets is provided by the XF86_SVGA server with the pvga1 driver. The status of the support for some of these chipsets is uncertain because we don't have any recent test reports, and this driver has no maintainer.

4.3.0:
No Paradise/Western Digital chips are supported, because the old driver has not been ported.

Summary:
No Paradise/Western Digital chips are supported in 4.3.0.

27. RealTek

3.3.6:
Support for the RealTek RTG3106 is provided by the XF86_SVGA server and the realtek driver. The status of this support is unknown because we don't have any recent test reports, and this driver has no maintainer.

4.3.0:
No RealTek chips are supported, because the old driver has not been ported.

Summary:
No RealTek chips are supported in 4.3.0.

28. Rendition/Micron

3.3.6:
Support for the Verite 1000, 2100 and 2200 is provided by the XF86_SVGA server with the rendition driver.

4.3.0:
Support for the Verite 1000, 2100 and 2200 is provided by the "rendition" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0.

29. S3

3.3.6:
Support (accelerated) for the S3 911, 924, 801, 805, 928, 864, 868, 964, 968, Trio32, Trio64, Trio64V+, Trio64UV+, Aurora64V+, Trio64V2, and PLATO/PX is provided by the XF86_S3 server and the XF86_SVGA server with the s3_svga driver. Support (accelerated) for the ViRGE, ViRGE/VX, ViRGE/DX, ViRGE/GX, ViRGE/GX2, ViRGE/MX, ViRGE/MX+ is provided by the XF86_S3V server. Support (accelerated) for the ViRGE chipsets, as well as the Trio3D and Trio3D/2X, is provided by the XF86_SVGA server with the s3v driver. Support (accelerated) for the Savage3D, Savage3D/MV, Savage4, and Savage2000, is provided by the XF86_SVGA server with the s3_savage driver on some OSes (Linux, *BSD).

4.3.0:
Support (accelerated) for the 964 (revisions 0 and 1), 968, Trio32, Trio64, Trio64, Trio64V+, Trio64UV+, Aurora64V+, Trio64V2, and PLATO/PX is provided by the "s3" driver (however, only models using the IBM RGB 524, Texas Instruments 3025, or an internal TrioDAC RAMDAC chip are supported). Support (accelerated) for the ViRGE, ViRGE/VX, ViRGE/DX, ViRGE/GX, ViRGE/GX2, ViRGE/MX, ViRGE/MX+, Trio3D and Trio3D/2X is provided by the "s3virge" driver. Support (accelerated) for the Savage3D, Savage3D/MV, Savage4, Savage2000, and SuperSavage, is provided by the "savage" driver. Support for the other S3 chipsets has not yet been ported.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0 except for the 911, 924, 801, 805, 928, 864, and 868, and versions of the 964 and 968 that do not use the RAMDAC chips listed above. The SuperSavage chipset is supported only in 4.3.0.

30. Silicon Graphics, Inc. (SGI)

3.3.6:
No SGI hardware is supported in 3.3.6.

4.3.0:
Unaccelerated support for the SGI Indy's Newport (a.k.a. "XL") cards is provided by the "newport" driver.

Summary:
SGI hardware is supported only in 4.3.0.

31. Silicon Integrated Systems (SiS)

3.3.6:
Support (accelerated) for the SiS 86C201, 86C202, 86C205, 86C215, 86C225, 5597, 5598, 6326, 530, 620, 300, 630 and 540 is provided by the XF86_SVGA server with the sis driver.

4.3.0:
Support (accelerated) for the SiS 5597, 5598, 6326, 530, 620, 300, 540, 630, 730, 315, 550, 650, 651 and 740 is provided by the "sis" driver. The Xabre (SiS 330) might be supported by this is completely untested.

Summary:
Support for the 86C201, 86C202, 86C205, 86C215 and 86C225 is currently only available in 3.3.6. Support for some newer chipsets is only available in 4.3.0.

32. Silicon Motion, Inc.

3.3.6:
Support (accelerated) for the Lynx, LynxE, Lynx3D, LynxEM, LynxEM+ and Lynx3DM chips is provided by the XF86_SVGA server with the smi driver.

4.3.0:
Support (accelerated) for the Lynx, LynxE, Lynx3D, LynxEM, LynxEM+ and Lynx3DM chips is provided by the "siliconmotion" driver.

Summary:
All hardware supported in 3.3.6 is also supported in 4.3.0.

33. Sun Microsystems

3.3.6:
: No Sun hardware is supported in 3.3.6.

4.3.0:
: Sun BW2 framebuffers are supported by the "sunbw2" driver. Sun CG3 framebuffers are supported by the "suncg3" driver. Sun CG6 framebuffers are supported by the "suncg6" driver. Sun CG14 framebuffers are supported by the "suncg14" driver. Sun FFB framebuffers are supported by the "sunffb" driver. Sun LEO framebuffers are supported by the "sunleo" driver. Sun TCX framebuffers are supported by the "suntcx" driver.

Summary:
: Sun hardware is supported only in 4.3.0.

34. Trident Microsystems

3.3.6:
: Support (accelerated where the chip supports it) for the TVGA8200LX, TVGA8800CS, TVGA8900B, TVGA8900C, TVGA8900CL, TVGA8900D, TVGA9000, TVGA9000i, TVGA9100B, TVGA9200CXr, TGUI9400CXi, TGUI9420, TGUI9420DGi, TGUI9430DGi, TGUI9440AGi, TGUI9660, TGUI9680, ProVidia 9682, ProVidia 9685, 3DImage975, 3DImage985, Blade3D, Cyber9320, Cyber9382, Cyber9385, Cyber9388, Cyber9397, Cyber9397/DVD, Cyber9520, Cyber9525, CyberBlade/DSTN/i7, CyberBlade/i1, and CyberBlade/i7 is provided by the XF86_SVGA server with the tvga8900 driver.

4.3.0:
: Support (accelerated where the chip supports it) for the TVGA8900B, TVGA8900C, TVGA8900CL, TVGA9000, TVGA9000i, TVGA9100B, TVGA9200CXr, TVGA8900D, TGUI9440AGi, TGUI9660, TGUI9680, ProVidia 9682, ProVidia 9685, 3DImage975, 3DImage985, Blade3D, Cyber9320, Cyber9382, Cyber9385, Cyber9388, Cyber9397, Cyber9397/DVD, Cyber9520, Cyber9525/DVD CyberBlade/Ai1, CyberBlade/i7, CyberBlade/i1, CyberBlade/DSTN/Ai1, CyberBlade/DSTN/i7, CyberBlade/DSTN/i1, CyberBlade/e4, CyberBladeXP, BladeXP is provided by the "trident" driver. (NOTE: the old TVGA ISA/VLbus card support has not been fully tested)

Summary:
: The following (older) chipsets are supported in 3.3.6 and not in 4.3.0: TVGA8200LX, TVGA8800CS, TGUI9420, TGUI9430DGi.

  The TVGA8900B, TVGA8900C, TVGA8900CL, TVGA9000, TVGA9000i, TVGA9100B, TVGA9200CXr, TGUI9400CXi, TGUI9440AGi, TGUI9660, TGUI9680, ProVidia 9682, ProVidia 9685, 3DImage975, 3DImage985 Blade3D, Cyber9320, Cyber9382, Cyber9385, Cyber9388, Cyber9397, Cyber9397/DVD, CyberBlade/DSTN/i1, CyberBlade/DSTN/i7, CyberBlade/i1 and CyberBlade/i7 are supported in both 3.3.6 and 4.3.0.

  The CyberBlade/Ai1, CyberBlade/DSTN/Ai1, CyberBlade/e4, CyberBladeXP, and BladeXP are supported only in 4.3.0.

35. Tseng Labs

3.3.6:
: Support for the ET3000 is provided by the XF86_SVGA server with the et3000

driver. Support for the ET4000AX, and accelerated support for the ET4000/W32, ET4000/W32i, ET4000/W32p, ET6000 and ET6100 is provided by the XF86_SVGA server with the et4000 driver. Support (accelerated) for the ET4000/W32 series and the ET6000 is also provided by the deprecated XF86_W32 server.

4.3.0:
Support for the ET4000AX, and accelerated support for the ET4000/W32, ET4000/W32i, ET4000/W32p, ET6000 and ET6100 is provided by the "tseng" driver.

Summary:
All cards supported by 3.3.6 are also supported by 4.3.0 except for the old ET3000.

36. Video 7

3.3.6:
Support for the Video 7 chipset is provided by the XF86_SVGA server with the video7 driver. The status of this support is unknown because we don't have any recent test reports, and this driver has no maintainer.

4.3.0:
No Video 7 chips are supported, because the old driver has not been ported.

Summary:
No Video 7 chips are supported in 4.3.0.

37. Weitek

3.3.6:
Support (accelerated) for the P9000 is provided by the XF86_P9000 server and accelerated support for the P9100 is provided by the XF86_SVGA server with the p9x00 driver.

4.3.0:
No Weitek chips are supported, because the old drivers have not been ported.

Summary:
No Weitek chips are supported in 4.3.0.

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