Supported Devices Guide
ArcGIS 8.0.2

Using the Supported Devices Guide

Environmental Systems Research Institute (ESRI®) has assigned several levels to define and document the support and functionality of various devices in their ability to work successfully with ArcInfo® Version 8.0.2 and ArcView GIS® 3.2a. System configurations, connections, and peripherals can all contribute to the success or failure of any device working with ArcInfo Version 8.0.2 and ArcView GIS 3.2a.

Additionally, the information contained in this guide changes as new devices and upgrades to existing devices are released; more recent information may be available. Questions or problems regarding a particular device and/or configuration should be directed to either of the following:

ESRI Technical Support

(909) 793-3774
support.esri.com – Check out the new Knowledge Base!
support@esri.com

If you are using this document to help you decide which devices to purchase for use with ArcInfo or ArcView GIS software, please contact your regional sales office, local distributor outside the United States, or:
ESRI Hardware Marketing

www.esri.com/partners/hardware/hw_promo.html
(520) 774-2543.

ESRI support levels

Class 1: Fully supported, in-house at ESRI

Class 2: Conditionally supported, not in-house at ESRI

Class 3: Limited support, has not been tested at ESRI or is limited

Class 4: Not supported, but interface is possible

Class 5: Unknown

Class 6: Not supported

Class 1: Fully supported, in-house at ESRI

Class 1 devices have been tested at ESRI, run successfully with ArcInfo and ArcView GIS software, and have an interface (driver, interface file, etc.) provided with ArcInfo Version 8.0.2 and ArcView GIS Version 3.2a. Any problems that occur with these devices can be tested on-site at ESRI.

Class 2: Conditionally supported, not in-house at ESRI

Class 2 devices have been tested, run successfully with ArcInfo and ArcView GIS software, and an interface is provided with ArcInfo Version 8.0.2 and ArcView GIS Version 3.2a. These devices are not permanently on-site at ESRI, therefore any testing or troubleshooting of problems encountered cannot be conclusive. ESRI does not guarantee the interface unless the device is on-site at ESRI for troubleshooting and software repair. Some Class 2 devices are no longer manufactured or available for testing.

Class 3: Limited support, either has not been tested at ESRI, or has serious limitations

Class 3 devices have limited support because
- They have not been tested at ESRI, but are assumed to work with ArcInfo and ArcView GIS software
- They have been tested and found to have serious limitations or restrictions
- Any known limitations or restrictions and their workarounds (if they exist) are noted for each device.
- An interface is provided for these devices. Users are expected to know how to connect and configure these devices to their computer. ESRI does not guarantee the interface of these devices.

Class 4: Not supported, but interface is possible

No interface is provided or available for the device. However, ESRI believes that it may be possible to build an interface. ESRI takes no responsibility for connecting or configuring the device to the computer. ESRI also takes no responsibility for developing the interface (writing of interface files, etc.).

One important subgroup of Class 4 devices includes those that emulate supported devices. In many cases, these devices work extremely well. However, since ArcInfo and ArcView GIS software are designed for use with the supported device, there may be some operations that an emulating device does not perform well. Any known restrictions or limitations and their workarounds (if they exist) are noted for each device.

Class 5: Unknown

The status or ability to interface this device is unknown at the time of this publishing. New devices as well as devices not included in this document that have not yet been tested fall into this category.

Class 6: Not supported

These devices will not work with ArcInfo or ArcView GIS software. In most cases, unsuccessful attempts have been made to interface these devices.

Supported graphics options

DEC Alpha NT

ArcInfo Version 8.0.2 is compatible with all Microsoft® Windows NT® supported devices and drivers listed in Microsoft's Hardware Compatibility List (HCL) at http://www.microsoft.com/hwtest/hcl. If you do not have Internet access, contact Microsoft Sales in the U.S. at 800-426-9400 for information.

For updated information regarding graphics device support for the DEC Alpha NT, look at the ESRI Technical Support home page http://www.esri.com/usersupport/support/index.html.

Digital UNIX™

Graphics options	Support class	Notes
HX	1	8-plane 2-D
ZLX-E1	1	8-plane 2-D
ZLX-E2	2	24-plane graphics
ZLX-E3	2	24-plane graphics
ZLXp-E1	1	8-plane 2-D/3-D
ZLXp-E2	2	24-plane graphics
ZLXp-E3	1	24-plane graphics
ZLXp-L1	5	24-plane graphics
ZLXp-L2	3	24-plane graphics
ZLXp2-EV2	1	8-plane graphics
PowerStorm 3D30	1	8-plane graphics
PowerStorm 4D20	1	24-plane graphics
Powerstorm 4D50T	1	24-plane graphics
PowerStorm 4D60T	1	32-plane graphics

Hewlett-Packard™ 9000™ Series 700 and 8x7

Graphics options	Support class	Notes
GRX (1)	3	8-bit grayscale
Grayscale (1)	3	8-bit grayscale
CRX	1	8-bit color, 2-D and 3-D vectors
HCRX	1	8-bit color, 2-D and 3-D vectors
Color	1	8-bit color
PVRX (1,3)	3	8-bit color, 3-D solids

CRX-24	1	24-bit color, 3-D vectors
HCRX-24	1	24-bit color, 3-D vectors
CRX-24Z (2)	1	24-bit color
HCRX-24Z (2)	1	24-bit color
CRX-48Z (2)	3	24-bit color
HCRX-48Z (2)	3	24-bit color
TurboVRX, TVRX (2)	3	24 bit color, 3-D solids, visualization
Dual CRX (1)	3	Supports two 8-bit color monitors
Dual HCRX (1)	3	Supports two 8-bit color monitors
Visualize E6 (2)	1	24-bit color, 3-D vectors
Visualize 8 (2)	1	24-bit color, 3-D vectors
Visualize 24 (2)	1	24-bit color, 3-D vectors
Visualize Fx4	1	24-bit color
Visualize Fx6	1	24-bit color

(1) Device has not been tested at ESRI but is assumed to work with ArcInfo and ArcView GIS software.

(2) ArcInfo and ArcView GIS do not take advantage of the Z buffer and/or 3-D vectors.

(3) The PVRX, one of the first consoles for the HP 700 workstation, can no longer be ordered. The CRX family of boards has replaced it.

IBM™ RISC System/6000™ Graphic Displays

Graphics display options	Support class	Notes
5081-16 (1,2,3)	3	16" high-resolution color; IBM Request for Quotation (RPQ) required
5081-19 (1,2,3)	3	19" high-resolution color except the Gt1, Gt1x. IBM Request for Quotation (RPQ) required
6091-16 (2,3)	2	16" high-resolution color
6091-19 (2,3)	1	19" high-resolution color
6091-19i (2,3)	1	19" high-resolution color; higher refresh rates to meet ISO 9241 Part 3 standard; replacement for the 6091 -19. Display cable varies based on graphics adapter
6091-23 (1,2,3)	3	23" high-resolution color, model 150 and all IBM RISC System/6000 graphic adapters
POWERdisplay 16 (2,3)	1	16" high-resolution color, all models
POWERdisplay 17 (1,2,3)	1	17" high-resolution color, all models
POWERdisplay 19 (1,2,3)	1	19" high-resolution color, all models
POWERdisplay 20 (2,3)	1	20" high-resolution color, all models
P Series P50 (1, 3)	3	15" high-resolution color, all models
P Series P70 (1, 4)	3	17" high-resolution color, all models
P Series P200 (5)	1	20" high-resolution color, all models

P Series P201 (1, 5)	1	20" high-resolution color, all models
14V Color Display (2,6)	1	14" high-resolution color, only models 220, 230, 250 and Xstation 140 and 150
15V Color Display (1, 2,6)	3	15" high-resolution color, only models 220, 230, 250 and Xstation 140 and 150
17V Color Display (1,2,6)	3	17" high-resolution color, only models 220, 230, 250 and Xstation 140 and 150

(1) Device has not been tested at ESRI but is assumed to work with ArcInfo and ArcView GIS software.

(2) These graphic displays are no longer available from IBM.

(3) Supports resolution 1280 x 1024; available for all IBM Xstation models and all IBM RISC System/6000 graphic adapters (exceptions listed in the 'Notes' section).

(4) Supports resolution 1600 x 1200; available for all IBM Xstation models and all IBM RISC System/6000 graphic adapters (exceptions listed in the 'Notes' section).

(5) Supports resolution 1600 x 1280; available for all IBM Xstation models and all IBM RISC System/6000 graphic adapters (exceptions listed in the 'Notes' section).

(6) Supports resolution up to 1024 x 768; available for IBM Xstation models and IBM RISC System/6000 graphic adapters listed in the 'Notes' section.

IBM™ RISC System/6000™ Graphic Adapters

Graphic Adapter name	Support class	Notes
Color Graphics Adapter (2)	1	8-bit, 2-D graphics
Grayscale Graphics Adapter (1)(2)	3	4-bit monochrome
High Performance 8-bit 3-D Color Graphics Processor (2)	1	8-bit, 2-D and 3-D graphics
High Performance 24-bit 3-D Color Graphics Processor (2)	1	24-bit, 2-D and 3-D graphics
POWER Gt (1)(2)	1	Requires two (2) VRAM upgrades for 8-bit 2-D graphics. VRAM upgrades included on model M20. Models 220 and M20 only. Gt1 without 8-bit upgrade is untested and unsupported
POWER Gt1b (1)(2)	3	8-bit, 2-D graphics; model 220 only
POWER Gt1x (2)	1	8-bit, 2-D graphics; models 220 and 230
POWER Gt3 (2)	1	8-bit, 2-D graphics
POWER Gt3i (2)	1	8-bit, 2-D graphics; replacement for the POWER Gt3 graphics adapter
POWER Gt4 (2)	1	8-bit, can upgrade to 24-bit, 2-D and 3-D graphics
POWER Gt4i (1)(2)	3	8-bit, 2-D and 3-D graphics
POWER Gt4x (2)	1	8-bit, can upgrade to 24-bit, 2-D and 3-D graphics
POWER Gt4xi 8-Bit Feature (1)	3	8-bit, 2-D and 3-D graphics.

POWER Gt4xi 24-Bit Feature (1)	3	8- or 24-bit, 2-D and 3-D graphics
POWER Gt4e	1	8-bit, 2-D and 3-D graphics
POWER GtO Model 01i (1)(2)	3	Dual 8-bit frame buffers, 3-D graphics
POWER GtO Model 02i (1)(2)	3	Dual 24-bit frame buffer; 24-bit Z buffer, 3-D graphics
E15 (3)	1	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1024x768; series 43P models 120, 133
S15 (3)	1	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; series 43P models 120, 133, 133 (166)
POWER GXT100 (1,2)	3	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1024x768; model 250/25T, 25W only
POWER GXT110P(1)	3	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; series 43P models 140 (166), 140 (200), 240 (1 way), F40 (1 way), E20, E30, F30 models only
POWER GXT120P (1)	3	8-bit, 2-D graphics;1280x1024; series 43P models 140 (166), 140 (200), 240 (1 way), F40 (1 way), F50, H10 and S70 models only
POWER GXT150	1	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; model 250/25T, 25W only
POWER GXT150P	1	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models 40P and 43P only
POWER GXT150M	1	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models with Micro Channel only
POWER GXT150L	1	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models 41T, 41W, 42T, 42W only
POWER GXT155L (1)	3	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models 41T, 41W, 42T, 42W only
POWER GXT250P (1)	3	8-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models 43P series only
POWER GXT255P	1	8-bit and 24-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models 43P series only
POWER GXT500	2	8-bit, 2-D and 3-D graphics; 1280x1024; models 41T, 41W, 42T, 42W only
POWER GXT500P (1)	3	8-bit or 12-bit, 2-D and 3-D graphics; 1280x1024; series 43P models 140 and 240, F40 only
POWER GXT500D	2	8-bit and 24-bit, 2-D and 3-D graphics; 1280x1024; models 41T, 41W, 42T, 42W only
POWER GXT550P (1)	3	8-bit, 12-bit, and 24-bit, 2-D and 3-D graphics; 1280x1024; series 43P models 140 and 240, F40 only
POWER GXT800M (1)	3	8-bit or 24-bit, 2-D and 3-D graphics; 1280x1024; models 397 and 595 only

POWER GXT800P (1)	3	8-bit or 24-bit, 2-D and 3-D graphics; 1280x1024; series 43P models 140 and 240, F40 only
POWER GXT1000 Model 001 (1)	3	8-bit, 12-bit, and 24-bit, 2-D and 3-D graphics; 1280x1024; all models
POWER GXT1000 Model 001 PCI (1)	3	8-bit, 12-bit, and 24-bit, 2-D, 3-D graphics via Softgraphics; 1280x1024; series 43P models only
POWER GXT1000 Model 002 (1)	3	8-bit, 12-bit, and 24-bit, 2-D, 3-D graphics; 1280x1024; all models
POWER GXT1000 Model 002 PCI (1)	3	8-bit, 12-bit, and 24-bit, 2-D, 3-D graphics via Softgraphics; 1280x1024; series 43P models only
5086 Graphics Processor Model 01i (1,2)	3	8-bit, 2-D graphics; 1280x1024; M20 and 200 series
MVP Power Multi-Monitor Graphics Accelerator (1)	3	8-bit, 2-D
MEGATEK Mg24 (2,3)	6	8-bit and 24-bit, 2-D graphics, 3-D graphics via Softgraphics; 1280x1024; models with MicroChannel only

(1) Device has not been tested at ESRI but is assumed to work with ArcInfo and ArcView GIS software.

(2) These adapters are no longer available from IBM.

(3) These adapters are not recommended for use with ArcInfo and ArcView GIS software.

Silicon Graphics™ 4-D Workstations and Indigo™

Graphics options	Support class	Notes
Entry Base System	1	8-bit color
XL	1	8/24-bit color, model Indigo2
Indy	1	8-bit color, model Indy R4000
	1	24-bit color, model Indy R4000
XZ (3, 4)	3	24-bit color, 24-bit Z buffer
XS/XS24 (3)	2	8/24-bit color
	3	8/24-bit color, 24-bit Z buffer
Elan (3)	1	24-bit color, 24-bit Z buffer
Extreme (3)	1	24-bit color, 24-bit Z buffer
VGXT (2,3)	3	48-bit color, 24-bit Z buffer, model Crimson™
VTX (3)	5	192-bit color, 32-bit Z buffer, model Onyx™
Reality Engine (3, 4)	3	192-bit color, 32-bit Z buffer, model Crimson
Reality Engine,2 (3,4)	3	192-bit color, 32-bit Z buffer, model Onyx
Impact (3,4)	3	24-bit color, 24-bit Z buffer

Solid Impact	1	24-bit color, 32-bit double buffer, 24-bit Z buffer
Maximum Impact	1	24-bit color, 32-bit double buffer, 24-bit Z buffer, video
CRM	1	32-bit frame buffer, Z buffer

(1) Device has not been tested at ESRI but is assumed to work with ArcInfo and ArcView GIS software.

(2) Device has been tested and found to have serious limitations or restrictions. Any known limitations or restrictions and their workarounds (if they exist) are noted for each device.

(3) ArcInfo and ArcView GIS do not take advantage of the Z buffer.

(4) Device has been tested off-site and no serious limitations were found.

Sun™ SPARC™ and Ultra™ Systems

Graphics options	Support class	Notes
MG1, MG2, MG2plus	5	1-bit monochrome frame buffer; SBus,VME
CG3, CG3plus	1	8-bit indexed color frame buffer; SBus
TGX or GX (CG 6)	1	8-bit color with 2-D acceleration; SBus, P4
TGXplus or GXplus	2	8-bit indexed color double buffered 2-D/3-D frame buffer accelerator; SBus
TC (1)	5	24-bit color—low-end true color frame buffer; SBus,P4
GS (1)	5	24-bit color—frame buffer accelerator; SBus
GT (1)	3	24-bit color—double buffered, 3-D accelerator; SBus
ZX (1)	2	24-bit color—high-end 3-D accelerator; SBus
SX (1)	1	24-bit color—frame buffer, real-time video (display only); embedded SS10SX
SunVideo	5	Real-time video (record and display); SBus
CG2, CG5	5	8-bit frame buffer Sun-4/x; VME
CG4	5	8-bit frame buffer Sun-4/x; P4
VITec RasterFLEX-32 (1)	1	24-bit color
S24 (1)	2	24-bit color frame buffer
Creator (1)	1	24-bit color accelerated 2-D/3-D graphics
Creator 3D (1)	2	24-bit color double buffering, high-performance 3-D

(1) For more details on how to run ArcInfo and ArcView GIS with a 24-bit graphics card, refer to ArcInfo's or ArcView GIS System setup for Sun.

Windows NT–Intel

ArcInfo Version 8.0.2 and ArcView GIS 3.2a are compatible with all Microsoft® Windows NT® supported devices and drivers listed in Microsoft's Hardware Compatibility List (HCL) at http://www.microsoft.com/hwtest/hcl. If you do not have Internet access, contact Microsoft Sales in the U.S. at 800-426-9400 for information.

For information regarding graphics device support for the Intel NT, look at the ESRI Technical Support home page http://www.esri.com/usersupport/support/index.html.

X terminal options

ArcInfo and ArcView GIS support several UNIX window managers (such as Motif™ and OpenWindows™); it can also support X-Windows on X-terminals available from several of the computer hardware manufacturers.

These devices are medium-to high-resolution color or monochrome graphic terminals (with mouse and keyboard), which normally attach to an Ethernet-based network to run applications on a host computer or file server. The terminals support the manufacturer's version of the X Windows user interface, which is used to manage multiple windows and applications on a host system or across a network.
X terminals offer the following features:
- X Windows user interface tools
- Multiple application execution (multi-tasking)
- Multiple machine access
- Support for Ethernet™ Telnet™, TCP/IP, DECnet™ or other network protocols
- Terminal emulation (via serial connection)
- High-resolution, bit-mapped color graphics
- Easy setup and system administration (for ArcInfo, refer to *ArcDoc > System Administration > Interfacing graphics devices > Setting up your workstation > X based displays*).
- Small footprint, quiet operation.

These devices typically include a small amount of local memory and graphics co-processors to accelerate the display of graphics. The host system typically requires additional memory in order to provide satisfactory performance.

The use of X Windows terminals increases the load on the host system, as they require X Windows processing and additional network activity, in addition to the actual process or application being run. It is important to note that these devices differ from workstations in that they do not run an operating system or contain disk space, and are reliant on the host system for processing power and disk storage. However, an X terminal's graphics co-processor takes the load of the hosts' system central processing unit (CPU). The impact on system performance is at least that of adding an asynchronous (or 'dumb') terminal.

The mixing of hardware and X server protocols from different vendors may cause problems, as the respective implementation of X Windows may be different. Also, the use of these X terminal devices requires a floating seat or multi-user software license on the host system, as would adding other graphics terminals or personal computers.
The recommended minimum configuration for supported X terminals is as follows:
- Requires X11 R5 server or higher
- Requires correct fonts
- Requires binaries or executables (software that resides on the host that supports X terminal operation)
- Proper operating system license to allow non-CPU device to access the operating system
- Correct keyboard for interfacing to the operating system.

It should be noted that ESRI does *not* guarantee compatibility of these devices with *any* host. Those hosts that have been tested successfully with the supported X terminals are listed.

Supported Devices Guide

Users are responsible for setting up an X Windows environment from the host. Within ArcInfo, the X terminal must be able to perform the following commands successfully:

- DISPLAY 9999 (sets display size; produces graphics display)
- &TERM 9999 (sets terminal type)

Manufacturer	X-terminal Model	Notes
IBM	XStation 120	Has not been tested at ESRI.
IBM	XStation 130, XStation 150 XStation 160	Tested in the past using an IBM RISC System/6000 server, however, not tested with latest version and is assumed to work.
IBM	XStation 140	Has not been tested at ESRI, but is assumed to work.
NCD	X-terminals	Tested in the past using a Sun SPARCstation server, however, not tested with latest version and is assumed to work
NCD	MCX	Tested in the past using a Sun SPARCstation server, however not tested with latest version. Can use any PC monitor, however, not tested at ESRI.
NCD	HMX Pro 24, HMX Pro, 19C	Has not been tested at ESRI.
Hewlett-Packard	700 RX, Envisex	Has not been tested at ESRI.

PC X server software

There is still an interest in the use of X Windows and network-based computing among many ArcInfo and ArcView GIS users because of the feasibility of using personal computers in conjunction with their GIS network. X Windows emulation software packages, often called 'PC-X servers', allow a personal computer to mimic an X terminal: attach to a high-speed computing network, access a host or server system, perform applications there, and provide graphics display and windowing capabilities.

The following is a table of X server software is available for all supported UNIX computer systems.

ESRI does not guarantee compatibility of this type of software with any host. Contact the particular manufacturer to ensure that the target X-server software can meet these requirements.

Users are responsible for setting up an X Window environment from the host to a PC using X server software. Within ArcInfo Version 8.0.2, X server software must be able to perform the following commands successfully:
- DISPLAY 9999 (sets display size; produces graphics display)
- &TERM 9999 (sets terminal type)

Type	X server software	Support class for UNIX	Notes
Emulators	PC TGRAPH-07	3	
	Mac TGRAPH-07	3	
	Mac VersaTerm™ (1)	3	Menu picks with mouse may be misregistered
	Pathworks™ for DOS and Macintosh™	3	
	PC Xoftware/32™ for Windows	3	
	PC Xview™ for Windows	3	
	PC Xvision™ for Windows	3	
	PC eXcursion™ for Windows	3	
	PC Reflection X™ V6.0	3	
	PC eXceed™	3	XDM support to Digital UNIX is not supported
	Windows 95	3	
	Windows NT		
	PC Xware™		
	Version 4.01 for Windows 95	3	
	Version 5.0 Windows NT	3	

(1) Device has been tested and found to have serious limitations or restrictions.

For ArcInfo, refer to *ArcDoc > System administration > Interfacing graphics device > Setting up your workstation > X-based displays* for more information regarding advantages of X-emulation, recommended minimum software/hardware configurations and networking considerations.

Supported Devices Guide

Supported digitizers

Digitizers are electronic drafting boards used to create and edit geographic data from hardcopy sources. They may also be used to make menu picks from menus on the digitizer surface.

The following table displays the digitizer support class for NT Desktop, and the support class and available digform files for UNIX and NT Workstation by digitizing mode (Point and Stream). For additional information, be sure to check the "Notes" column and the footnotes.

ESRI supports direct connection of the digitizers to the UNIX or NT host only via an RS-232 interface.

Digitizing from an X terminal serial port or third-party interface is possible in many cases, but it may require information and support from the UNIX computer system and digitizer vendors and is *not* supported by ESRI.

To digitize with ArcMap, you will need to install the required Windows driver for your digitizer, which should be available from the manufacturer. Please consult your the digitizer manufacturer's documentation, website or customer services for additional help. NOTE: your digitizer setup for ArcMap may not be compatible for use with ArcInfo Workstation and vice versa. If you plan to use your digitizer with both ArcMap and ArcInfo Workstation, you will need a com port and setup for both. Please refer to the ESRI Technical Support website (www.esri.com/techsupport) for help.

To customize a digitizer interface with ArcInfo Workstation, the digitizer format file can be found in ARCHOME/digform, prefixed by "dig_".

Digitizer name	ArcMap	ArcInfo Workstation Point	ArcInfo Workstation Stream	Notes
Altek AC90C	5	5 altek	5	Discontinued
Altek AC30	5	5 altek30	5	Discontinued
Altek AC31	3 (4)	1 altek	5	Vendor Driver causes beeping from computer
Altek AC32	3 (4)	1 altek	5	Vendor Driver causes beeping from computer
Altek AC40C	5	5 altek	5	
Altek AC41	3 (4)	1 altek	1 altek	Vendor Driver causes beeping from computer
Altek Datatab II	5	5 altek	5	
Altek Datatab IV	5	5 altek31	5	
CalComp 2000	5	5 2000	5	
CalComp 2300	5	5 9100	5	Discontinued
CalComp 2500	5	5 2500	5	Discontinued

Device				
CalComp 8000	6	6 9000	6	Discontinued
CalComp 9000	5	5 9000	5	Discontinued
CalComp 9100	5	3 9100	3 9100	Discontinued
CalComp 9500	5	3 9500	3 9500	
CalComp 33000 Series	5	3 9100	3 9100	
CalComp 34000 Series	1	1 9100	1 9100	Drawing Board III
CalComp Drawing Slate II	1	1 9100	1 9100	
CalComp EstiMat	6	3 9100	3 9100	
GTCO Accutab	6	1 gtco16	1 gtcostrm	
GTCO Digi-Pad	5	5 gtco	5	
GTCO Sketchmaster	5	5 gtcosket	5	
GTCO Super L	5	5 (3)	5 (3)	
GTCO Super L II	6	1 gtco16	1 gtcostrm	
GTCO Ultima	6	6	6	
GTCO 2024 Rollup	6	1 gtco16	1 gtcostrm	
GTCO 2024 Rollup II	6	1 gtco16	1 gtcostrm	
GTCO 3036R Roll Up	6	1 gtco16	1 gtcostrm	
GTCO Ultima II	5	3 9100	3 9100	Set to emulate CalComp 9100
Houston Instruments Complot 7000	6	6	6	Requires developing a customized format file
Houston Instruments HIPAD	6	6	6	
Houston Instruments HIPAD1	6	6	6	
Kurta IS/One	5	5 kurtais1	5	
Kurta IS 3	5	5 kurtais3	5	
Numonics 2000	5	5 numo2000	5	
Numonics 2200	5	5 numo	5	
Numonics Accugrid	5	5 accu	5 accu	Set to emulate CalComp 9100
Numonics Accugrid III	5	5 accu	5 accu	Set to emulate CalComp 9100
Numonics GridMaster	5	5 sgbp2	5	
Summagraphics Summagrid V	1	1 sg5	5	Download link below
Summagraphics 2000	5	5 mgrid	5	
Summagraphics Bit Pad I	5	5 sgbp1	5	
Summagraphics Bit Pad II	5	5 sgbp2	5	
Summagraphics Microgrid	5	5 sgmg3	5	
Summagraphics Microgrid II	5	5 sgmg3	5	
Summagraphics Microgrid III	5	5 sgmg3	5	

Summagraphics MM1201	5	5 sg1201	5
Summagraphics SummaGrid IV	5	3 sgfour	3
Summasketch Professional I	6	6 ss2pp	6
Summasketch II	6	6 ss2	6
Summasketch Professional II	6	6 sspro2	6
Summasketch Professional II plus	6	6 ss2pp	6
Summasketch Professional III	5	5 sspro3	5

(1) Device has not been tested at ESRI but is assumed to work with ArcInfo software.

(2) Supports stream mode digitizing. The format file listed has been modified to enable stream mode when using this make/model of digitizer.

(3) See "Adding a digitizer interface" to create customized format files.

(4) Device has been tested and found to have serious limitations or restrictions. Any known limitations or restrictions and their workarounds (if they exist) are noted for each device.

Supported Scanners

ArcScan™ provides software tools that allow ArcInfo software users to import, correct, edit, vectorize, print, and export scanned raster documents. ArcScan works with raster data output by scanners that convert map information to raster images.

ArcInfo and ArcScan are hardware independent and support several industry-standard raster data formats. For a scanner to be usable with ArcInfo, it must output data in one of these standard formats, preferably TIFF or RLC. ArcScan has been tested with scanners from the leading manufacturers. Large format scanners are available from several vendors, including IDEAL Scanners and Systems, Vidar Systems Corporation, and others. Additionally, scanners from select manufacturers are made available through ESRI and can be found at www.esri.com/hwpromo.

Look for the following characteristics when selecting scanning hardware for use with ArcScan:
- Well-constructed, reliable devices
- Support for E-size scans at 300–600 DPI optical resolution
- Support for 8-bit grayscale and bi-tonal output
- Adjustable and dynamic threshholding capabilities
- Capable of meeting accuracy requirements of target GIS database
- Data output in a format directly accessible to ArcInfo (e.g., RLC, TIFF 5.0)
- Convenient platform support (i.e. Windows98, WindowsNT, etc.)
- A simple, intuitive, and fully functional user interface
- Local installation and support services

Supported printers

ESRI supports Ethernet and direct connection of printers and plotters to a computer workstation or server via an RS-232 or parallel interface. The user is responsible for connecting and establishing communications between the printer and the host.

The support level ratings for the following listed devices are based on their ability to correctly interpret and render graphics using ArcInfo Version 8.0.2, ArcPress for ArcInfo Version 8.0.2 and ArcView GIS Version 3.2a output formats. Each device was tested using the most current released firmware available at the time.

PostScript (.eps, .ps), Windows Metafile (.wmf), and Enhanced Windows Metafile (.emf) are supported by ArcInfo and ArcView GIS software. Because these formats are supported on a wide variety of desktop and large format printers, ESRI has not listed each and every supported printer. If you are unsure whether a specific printer will support these formats, check the 'Standard Printer Input Formats' listed for each printer in the Printer Specifications section.

Key to reading supported printers guide

The printer in the following example is supported by drivers in ArcInfo, ArcPress and ArcView GIS software. Each driver is listed with its corresponding support class in front and any footnotes following. In this example, both ArcInfo and ArcView GIS support the Hewlett-Packard DesignJet 1050C and 1055CM with postscript with a class 1 rating while ArcPress supports the same printer with either rtl36_cmy or rtl36_bw with a class 1 rating.

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
Hewlett-Packard DesignJet 1050C, 1055CM	E/A0	1 Windows (d) 1 PostScript (d) 1 ArcPress RTL	6 hpgl 3 hpgl2 (d) 3 rtl 1 postscript (d)	1 rtl36_cmyk 1 rtl36_bw		

Printers and plotters

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
Inkjet						
CalComp CrystalJet	42", 54"		3 colorhcbs (d) 3 hpgl2 (d) 3 rtl 3 postscript (d)	3 ccrf36_il	3 postscript (d)	

Supported Devices Guide

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
CalComp TechJet, TechJet GT, TechJet GT/PS, TechJet 175I	D/A1, E/A0		3 calcomp (c,d) 3 colorhcbs (d) 3 hpgl (c,d) 3 hpgl2 (d) 3 rtl 3 postscript (d)	3 ccrf36_il	3 postscript (d)	
CalComp TechJet 5500	D/A1, E/A0		3 calcomp (c,d) 3 colorhcbs (d) 3 hpgl (c,d) 3 hpgl2 (d) 3 rtl 3 postscript (d)	3 ccrf36_il	3 postscript (d)	
ENCAD NovaJet I (Rev J)	E/A0		3 hpgl 6 rtl	6 rtl36_cmyk 6 rtl36_bw		ArcInfo and ArcPress RTL not supported
ENCAD NovaJet II (Rev C)	E/A0		3 hpgl 6 rtl	6 rtl36_cmyk 6 rtl36_bw		ArcInfo and ArcPress RTL not supported
ENCAD NovaJet III, IV	D/A1, E/A0		6 rtl	1 rtl36_cmyk 1 rtl36_bw		ArcInfo RTL not supported
ENCAD NovaJet Pro series	E/A0, 50"		6 rtl	3 rtl36_cmyk 3 rtl36_bw		ArcInfo RTL not supported
ENCAD NovaJet Pro e series	42", 60"		6 rtl	3 rtl36_cmyk 3 rtl36_bw		ArcInfo RTL not supported
ENCAD NovaJet 600e series	42", 60"		1 hpgl2 (d) 6 rtl	3 rtl36_cmyk 3 rtl36_bw		ArcInfo RTL not supported
ENCAD NovaJet 700 sereis	42", 60"		1 hpgl2 (d) 6 rtl	1 rtl36_cmyk 1 rtl36_bw		ArcInfo RTL not supported
EPSON Stylus 800, Photo	A/A4			6 eppro_cmyk 6 eppro_bw		PostScript supported via vendor upgrade
EPSON Stylus Pro, Pro XL	A/A4, B/A3			1 eppro_cmyk 1 eppro_bw		

Supported Devices Guide

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
EPSON Stylus 1500	A/A4, B/A3			3 eppro_cmyk 3 eppro_bw		ArcPress driver does not support 1440 dpi
EPSON Stylus 1520, 3000	A/A4, B/A3, C/A2			1 eppro_cmyk 1 eppro_bw		ArcPress driver does not support 1440 dpi
Hewlett-Packard DesignJet 250C	D/A1, E/A0		3 hpgl (d) 3 hpgl2 (d) 3 rtl	3 rtl36_rgb 6 rtl36_cmyk 6 rtl36_bw		
Hewlett-Packard DesignJet 350C	D/A1, E/A0		3 hpgl (d) 3 hpgl2 (d) 3 rtl	3 rtl36_cmyk 6 rtl36_rgb 3 rtl36_bw		
Hewlett-Packard DesignJet 450C, 455CA	D/A1, E/A0	1 Windows (d) 6 PostScript 1 ArcPress RTL	3 hpgl2 (d) 3 rtl 6 postscript	1 rtl36_cmyk 6 rtl36_rgb 1 rtl36_bw		
Hewlett-Packard DesignJet 650C	D/A1, E/A0		3 hpgl 3 hpgl2 (d) 3 rtl 3 postscript (d)	3 rtl36_cmyk 3 rtl36_rgb 3 rtl36_bw		
Hewlett-Packard DesignJet 750C, 750C Plus, 755CM (E-size only)	D/A1, E/A0	1 Windows (d) 1 PostScript (d) 1 ArcPress RTL	6 hpgl 3 hpgl2 (d) 3 rtl 1 postscript (d)	1 rtl36_cmyk 1 rtl36_bw	1 postscript (d)	
Hewlett-Packard DesignJet 800, 800PS	42"	1 Windows (d) 1 PostScript (d) 6 ArcPress RTL		6 rtl36_cmyk 6 rtl36_bw		A new ArcPress driver is being developed for ArcGIS 8.1
Hewlett-Packard DesignJet 1050C, 1055CM	E/A0	1 Windows (d) 1 PostScript (d) 1 ArcPress RTL	6 hpgl 3 hpgl2 (d) 3 rtl 1 postscript (d)	1 rtl36_cmyk 1 rtl36_bw		

Supported Devices Guide

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
Hewlett-Packard DesignJet 2000C, 2500CP	E/A0	1 Windows (d) 1 PostScript (d) 1 ArcPress RTL	6 hpgl 3 hpgl2 (d) 3 rtl 1 postscript (d)	1 rtl36_cmyk 1 rtl36_bw		
Hewlett-Packard DesignJet 3000C, 3500CP	54"	1 Windows (d) 1 PostScript (d) 1 ArcPress RTL	6 hpgl 3 hpgl2 (d) 3 rtl 1 postscript (d)	1 rtl36_cmyk 1 rtl36_bw		
Hewlett-Packard DesignJet 5000, 5000PS	60"	1 Windows (d) 1 PostScript (d) 6 ArcPress RTL		6 rtl36_cmyk 6 rtl36_bw		A new ArcPress driver is being developed for ArcGIS 8.1
Hewlett-Packard Professional Series 2500C, 2500CM		3 Windows (d) 3 PostScript (d) 3 ArcPress PCL		3 pcl_cmy 3 pcl_bw		
Hewlett-Packard Color Pro GA, CAD		6 ArcPress		6 rtl36_cmyk 6 rtl36_bw		
Hewlett-Packard DeskJet 1000C	A/A4, B/A3			6 pcl_cmy 6 pcl_bw		
Hewlett-Packard DeskJet 1100C, 1120C	A/A4, B/A3			3 pcl_cmy 3 pcl_bw		
Hewlett-Packard DeskJet 1200C, 1200C/PS, 1600CM	A/A4		3 hpgl2 (d) 3 postscript (d)	1 pclc_cmy 1 pclc_bw	3 postscript (d)	
Hewlett-Packard PaintJet XL	A/A4		3 hpgl 3 hpgl2 (d)	3 pclc_cmy 3 pclc_bw		
Hewlett-Packard PaintJet XL300	A/A4, B/A3		6 hpgl2 (d) 3 postscript (d)	3 pclc_cmy 3 pclc_bw	3 postscript (d)	

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
Hewlett-Packard 300M (monochrome only)	D/A1, E/A0		3 hpgl 3 hpgl2 (d) 3 rtl 3 postscript (d)		3 postscript (d)	Ethernet, memory upgrades onboard PostScript available. B/W only.
Hewlett-Packard 600M (monochrome only)	D/A1, E/A0		3 hpgl (a) 3 hpgl2 (d) 3 rtl 3 postscript (d)		3 postscript (d)	
IBM Lexmark 4079	A/A4, B/A3		3 postscript (d)		3 postscript (d)	
RasterGraphics PiezoPrint 5000	54"		4 postscript	3 rgp54_cmyk 3 rgp54_bw	4 postscript	PostScript requires serveware
Tektronix Phaser II	A/A4		3 postscript (a)		3 postscript	
Tektronix Phaser III	A/A4, B/A3		3 postscript		3 postscript	
Tektronix Phaser 140	A/A4		3 postscript (d)		3 postscript (d)	
Tektronix Phaser 340	A/A4		3 postscript (d)		3 postscript	
Tektronix Phaser 550	A/A4		3 postscript (d)			
Tektronix Phaser 600	E/A0		3 postscript (d)			
Tektronix Phaser 780	A/A4 B/A3	3 Windows 3 PostScript		3 pclc_cmy 3 pclc_bw	3 postscript (d)	
Tektronix Phaser 850	A/A4	3 Windows 3 PostScript 3 ArcPress PCL		3 pclc_cmy 3 pclc_bw	3 postscript (d)	
Laser						
Hewlett-Packard Color Laser 5M	A/A4		3 postscript (d)	3 pclc_cmy 3 pclc_bw		
Hewlett-Packard LaserJet 4000	A/A4		3 postscript (d)	3 pclc_bw		

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
Hewlett-Packard Color LaserJet 8500	A/A4, B/A3	3 Windows (d) 6 PostScript 6 ArcPress	6 postscript	6 pclc_cmy 6 pclc_bw		Not PostScript enabled
Hewlett-Packard Color LaserJet 8500N, 8500DN, 8550 series	A/A4, B/A3	1 Windows (d) 1 PostScript (d) 6 ArcPress	3 postscript (d)	6 pclc_cmy 6 pclc_bw		
Sun SPARCprinter	A/A4		3 postscript (a)			B/W only
Electrostatic						
CalComp 5700 series			3 calcomp (a) 3 colorhcbs (a,c)			
CalComp 5800 series			3 calcomp 3 colorhcbs (a,c)			
CalComp 57000 series			3 calcomp (a) 3 colorhcbs (c)			
CalComp 58000 series			3 calcomp 3 colorhcbs (c)	3 ccrf36_cmyk (g) 3 ccrf36_bw (g)		
CalComp 67000 series			3 calcomp (a) 3 colorhcbs (a) 3 hpgl (a) 3 cgm (b)			
CalComp 68000 series			3 calcomp (c) 3 colorhcbs (c) 6 hpgl 3 cgm (d)	3 ccrf36_cmyk 3 ccrf36_bw		
Hewlett-Packard 7600/355			3 hpgl 3 hpgl2 (d)			
Hewlett-Packard 7600/250 & 255			3 hpgl 3 hpgl2 (d)			
Phoenix Precision Graphics	E/A0			3 ccrf36_cmyk		

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
RasterGraphics ColorStation 400	E/A0		3 calcomp (c) 3 colorhcbs (c) 3 hpgl (c) 3 hpgl2 (c) 3 postscript	3 rgi36_cmyk 3 rgi36_bw	3 postscript	
RasterGraphics ColorStation 800	F		3 calcomp 3 colorhcbs 3 hpgl 3 hpgl2 3 postscript		3 postscript	
Synergy Versatec ecp42 (1), c2568, ce3244, ce3436			3 postscript 3 vcgl			Color or B/W.
Versatec 8900 Series I	E/A0		3 calcomp 3 hpgl 3 vcgl	3 vrf36_cmyk (g)		
Versatec 8900 Series II	E/A0		3 calcomp (c) 3 vpgl (c, d) 3 vcgl2 (c, d)	3 vrf36_cmyk		
Versatec other mono and color electrostatics			3 vcgl (a, e)			Printer must support VCGL - contact Xerox Engineering Services for a list of Versatec printers and their VCGL compatibility. Color or B/W.
Thermal						
CalComp Colormaster Plus 6600 VRC			3 calcomp 3 colorhcbs (c)			

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
CalComp Colormaster Plus 6600 PS, PS XF			3 postscript (d)		3 postscript (d)	
CalComp 52000 series DrawingMaster Plus			3 calcomp 3 colorhcbs (b,c) 3 hpgl			Color emulation does not work 100%; OPAQUE mode using the color white produces a transparent effect. Red or B/W.
CalComp Colorview 5900 VRC Series			3 calcomp 3 colorhcbs (c)			
Seiko ColorPoint II			3 postscript			
Versatec 8800			3 vcgl			
Pen						
CalComp 1039			3 calcomp (a)			
CalComp 1040 series, 1050 series			3 calcomp			
CalComp 1070 series			3 calcomp (a)			
CalComp 2024 PaceSetter			3 calcomp (a)			
CalComp 2036 PaceSetter			3 calcomp			
CalComp 4036 Classic			3 calcomp			
Hewlett-Packard 7220			3 hpgl (a)			
Hewlett-Packard 7470, 7475, 7550			3 hpgl			

Printer model	Size	ArcMap Engines	ArcInfo Workstation Drivers	ArcPress Drivers	ArcView 3x Drivers	Notes
Hewlett-Packard 7570 DraftPro, 7570 DraftPro DXL, 7570 DraftPro EXL			3 hpgl (a)			
Hewlett-Packard DraftPro +			3 hpgl, hpgl2 (c)			
Hewlett-Packard 7580, 7585			3 hpgl			
Hewlett-Packard 7586			3 hpgl			
Hewlett-Packard 7595 DraftMaster I			3 hpgl			
Hewlett-Packard 7595 DraftMaster I SX, SX +			3 hpgl, hpgl2 (c)			
Hewlett-Packard 7596 DraftMaster II			3 hpgl			
Hewlett-Packard 7596 DraftMaster II RX, RX+, MX, MX +			3 hpgl, hpgl2 (c)			
IBM 6180, 6182 AutoFeed 6184 (a), 6186, 7372			3 hpgl			IBM RISC System/6000 only
Zeta 800/900 series			3 zeta			

Footnotes

(a) Device has not been tested at ESRI but is assumed to work with ESRI software.

(b) Device has been tested and found to have serious limitations or restrictions. Any known limitations or restrictions and their workarounds (if they exist) are noted for each device.

(c) MARKERPEN, LINEPEN, PENSIZE, TEXTPEN not supported by printer.

(d) Some large files may not print due to memory/hard drive size limitations.

(e) A list of Versatec printers named vmodel.dat can be viewed or printed from the *$ARCHOME/plotters/vcglparameters* directory on supported UNIX platforms.

(f) Some large files may not print due to memory limitations. Additional memory upgrades available.

(g) Driver support requires controller upgrade from hardware vendor.

PostScript products and a list of manufacturers can be obtained from Adobe Systems, Inc. Contact one of the following offices listed below.

Adobe Systems offices

Adobe Systems Incorporated develops, markets, and supports PostScript products and technologies that enable users to create, display, print, and communicate electronic documents.

Adobe Systems, Incorporated

www.adobe.com

Memory limitations using PostScript and ArcInfo RTL or HPGL2

Although support levels are based on the ability of the printer to correctly interpret and render ArcInfo metafiles, some models may be subject to memory limitations when processing raster (image) data.

HPGL/2 translates each pixel of raster data into a polygon, resulting in very large output files. Neither PostScript, ArcInfo RTL or HPGL/2 is read immediately, so the entire contents of the file must be loaded into the printer's memory for rasterization before imaging. When trying to render large files containing raster data to these devices, the printer's on-board memory or hard disk, if available, may fill up, aborting the image.

Third party, on-host rasterizers such as ArcPress, ZEH, Image Alchemy PS and others, can convert PostScript to a raster printer format that is rendered immediately. These software packages utilize the processor and hard drive of the host to rasterize the metafiles, thereby allowing the printer to maintain a minimum configuration. However, because they use the host resources, care should be taken to ensure that there is enough hard drive space and swap to run this type of software.

Not all third-party rasterizers offer output formats for all types of printers. Contact the manufacturer for questions concerning availability/compatibility of output formats and platforms.

Third-party network print servers

The following table specifies third-party TCP/IP network print server vendors and their products that have been tested successfully at ESRI with UNIX computers.

Vendor	Product(s)	Notes
ENCAD (800) 45-ENCAD www.encad.com Tektronix www.tektronix.xerox.com	XCD Printer Server	Contact vendor for details.

Third party, host-based interpreters

The following table specifies third party, host-based interpreter vendors and their products that support ESRI ArcInfo Version 8.0.2 and ArcView GIS Version 3.2a. Call the software vendors for a current list of supported operating systems.

Vendor	Product	Notes
ESRI, Inc. (800) 447-9778 www.esri.com	ArcPress	Recommended by and fully supported by ESRI. Contact your Regional Office or International distributor for more details.
Handmade Software, Inc. www.handmadesw.com	Image Alchemy PS	Not available for all platforms. Check with manufacturer for platform availability
Xerox Engineering Services www.xes.com	ServeWare	Contact vendor for up to date information.
ZEH Graphics Systems, Inc. (281) 589-7757 www.zeh.com		Contact vendor for current products.