ELECTRO
GIG

A VERDIMA
COMPANY

Solid Modeling
Animation
Design Visualization
Special Effects
Video

Interactive Media
Graphic Design
Illustration
Photography
Game Design

ELECTROGIG Products
Programs & Documentation

Version 3.2 for
Hewlett-Packard,
Silicon Graphics and
Sun workstations and
Linux Computers

GIG3DGO
GIGVIZ

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ELECTRO
GIG

ELECTROGIG version 3.2 INSTRUCTIONS

INSTALLATION

Welcome to the ELECTROGIG 3D modelling, rendering and animation products. Your ISO 9660-compliant CDROM contains the four products listed below, for Silicon Graphics, Hewlett-Packard and Sun Microsystems workstations and Linux personal computers:

- GIG3DGO
- GIG3DGO Advanced
- GIGVIZ
- GIGVIZ Advanced

BEFORE YOU START.

Before you start your installation, make sure your workstation is switched on and started up. Log in as root and create a terminal window.
Load the CDROM in your CDROM drive. If the CDROM is mounted automatically, or if you know how to mount a CDROM, you can skip the next section. Instructions on mounting your CDROM follow.

MOUNTING YOUR ELECTROGIG CDROM

Confirm that no other applications are using the CDROM drive. If another application is using the CDROM drive, you must quit this application first. On SGI workstations that run IRIX versions earlier than 5.3, it is recommended you mount your ELECTROGIG CD using the System Manager. If this does not work, here is another way to mount the CDROM. Log in as root. Loadathing like:

CDROM: unit 4 on SCSI controller 0

The SCSI unit number in this case is '4'. Next, check the name of the directory where the CDROM will be mounted. A directory should exist named /CDROM or /cdrom. Now, issue the command:

/usr/etc/cdromd -p /dev/scsi/sc0d4l0 /cdrom <Enter>

/usr/etc/cdromd -a <Enter>

Note that the '4' here reflects the SCSI unit number; if another number appears you must use that one instead.

On SGI workstations running IRIX 5.3 and up, the CD should be mounted automatically. In case this does not happen, try using the command:

/usr/etc/mediad -o ro -ip /dev/scsi/sc0d4l0 /CDROM <Enter>

You should now be able to change directories to the /cdrom (or /CDROM) directory.

On Sun workstations running Solaris 2.5, the CDROM drive should mount automatically. Refer to the rmmount manual pages if this does not happen; check these pages also for Sun workstations running previous versions of Solaris.

To mount a CDROM on HP workstations, put the CDROM in the drive and close the drive door. Log in as root. Start the system administration manager by opening a terminal window and typing:

sam <Enter>

Choose *Disks and File Systems*. Choose *CD-ROM, Floppy and Harddisks*. You should now see a list consisting of the disk drives available on your system. The CDROM drive should be listed as 'unused'. Highlight the CDROM drive by clicking it. *Choose Actions, Add a Harddisk Drive, Set Disk Usage and Options*. An entry box will pop up. Enter the *Mount Directory*:

/cdrom <Enter>

Click <YES> to confirm the mounting point. You will return to the *Add a Harddisk Drive* window. Click <OK>. You will return to the *Disk and File Systems* window. The CDROM drive will be listed but its 'use' will have changed to 'cdfs'. Choose *File, Exit*. Choose *Previous Level* until *Previous Level* is grayed out. Choose *Exit SAM*. You will return to the terminal window. You should now be able to change directories to /cdrom.

To mount a CDROM on a Linux PC, put the CDROM in the drive and close the drive door. Log in as root. Now issue the command:

mount -t iso9660 -o ro /dev/cdrom /cdrom

You should now be able to change directories to /cdrom.

SYSTEM REQUIREMENTS

On SGI workstations, you can check your system using the System Manager or the *hinv* command. On HP, use the *ioscan* command, and on Sun workstations, use *dmesg* and/or *prtconf* (as root). On Linux, use *cat /proc/cpuinfo*.

System Requirements HP, Sun and SGI workstations	
Internal (RAM) memory	32 MB
Internal (RAM) memory for Parametric Raytracer	64 MB
Swap space	100 MB
Swap space for Parametric Raytracer	200 MB
Operating system versions supported	IRIX 5.2, 5.3, 6.2, 6.3

	Solaris 2.4 and up	
	HP-UX 9.0.5 and up	

System Requirements for Linux PC's			
	Minimal	Recommended	Ideal
CPU	80486 (66 MHz)	Pentium	Pentium Pro
Internal (RAM) memory	16 MB	32 MB	64 MB
Video Memory	2 MB (800 x 600)	3 MB (1024 x 768)	5 MB (1280x1024)
Linux version	2.0.0	2.0.0	2.0.0
Linux Binaries	ELF	ELF	ELF
X11	Release 6	Release 6	Release 6
X11 Server	Capable of 24 bit at min. Resolution of 800 x 600	Capable of 24 bit at min. Resolution of 800 x 600	Capable of 24 bit at min. Resolution of 800 x 600
Disk space	200 MB	200 MB	200 MB
miscellaneous	Ethernet adapter 3-button mouse	Ethernet adapter 3-button mouse	Ethernet adapter 3-button mouse

Note that if you intend to read in very large models (e.g. CAD files exceeding 15 MB) you will have to scale up your configuration accordingly.

ELECTROGIG INSTALLATION

This section details the installation procedure for all products contained in your ELECTROGIG CDROM.

Confirm that you can read your CDROM. Under Solaris, type:
        cd /CDROM/gig <Enter>
        ls <Enter>

On SGI, HP or Linux, just type:
        cd /cdrom <Enter> (or /CDROM)
        ls <Enter>

You should see:

archives	generic	go	hp	linux
mpeg	pictures	readme.txt	sgi	sun

On HP, these names will appear in the uppercase, sometimes with a ';1' extension. This is caused by the way HP reads ISO 9660 CDROM's. The installation script will take care of this by linking these names to normal filenames.

The files contain:

readme.txt	- a short version of this file
go	- start up script
archives	- directory containing the GIG files and executables
generic	- directory containing installation scripts
hp	- directory containing HP installation scripts
linux	- directory containing Linux installation scripts
sgi	- directory containing SGI installation scripts
sun	- directory containing Sun installation scripts
mpeg	- directory containing sample animation files
pictures	- directory containing sample image files

To start up on SGI, Sun or Linux workstations type:
        ./go <Enter>
For HP workstations you have to use
        ./"GO;1" <Enter>
(Read also the 'HP specific links' paragraph below.)

After you start the 'go' script, a menu will pop up. You can choose from the following options:

- choose **MPEG Movies** to watch some stunning sample animations
- choose **24 Bit Images** to view beautiful high resolution images
- choose **GIG Showreel** to view an MPEG movie with sound of the official GIG 3.2 demo reel
- **Install** starts the installation utility
- choose **Read Me** to browse through (a shorter version of) this file
- **Quit** quits

Now choose *Install*.

WARNING: *the ELECTROGIG software has to be installed in a custom made account. You therefore have to specify a username. Be careful not to use an existing username, for that would overwrite existing .cshrc and .login files.*

Once you select a username, the installation software will check for an existing installation. It will tell you what parts of the ELECTROGIG software are already installed (modeller, renderer, demos, tutorials). A basic installation consists of the modeller and the renderer. This requires about 100 MB of disk space. Adding the demos and tutorials will require another 40 MB.
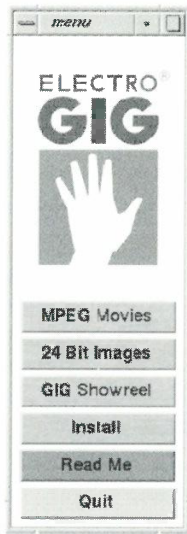
If you want a non-standard installation you can now change the group and the home directory of the gig user. The field 'tcp/ip' port normally does not require changes. Only when another service is already provided on that port, you must choose a different one.
If you are happy with the settings for the username, group and home directory, click on install.
When the installation is completed, a machine identification will be shown in the installation window. You can send this identification string to your sales contact. From this string a password for your machine can be created. You will receive your password by fax ONLY; this fax will also contain instructions on installing your password.

Please note that the demo and tutorial files are scene and animation descriptions; they are not digital images or movies. The images and MPEG movies we supply as sample artwork will not be installed on your harddisk.
If you do want them on your harddisk, you can manually copy the files you want from the mpeg/ and pictures/ subdirectories on the CDROM.
If you want to install demo and tutorial files without installing GIG3DGO of GIGVIZ itself, you must log in as the gig user (i.e. not as root!), and execute ./go in the CDROM root directory.

UPDATING AN EXISTING INSTALLATION

Log in as root, just as for a normal installation, and execute the installation script in the CDROM root directory. Choose the install option and type the name of the existing GIG user account. The install script will tell you what parts have already been installed.
Select the parts you want to update. We suggest that you update at least the modeller and the renderer. If you now click install, the installation script will replace your old ELECTROGIG software with the new 3.2 release. The 3.2 release requires a new password. In other words, if you install the 3.2 software over a previous version, you will have to obtain a new license key.

HOW TO START YOUR SOFTWARE

Log out of the root account, and log in again as gig. If you installed your software with a non-standard user name, log in using the name you selected. When you log in, your software should start automatically. If it does not, you can start it manually by typing in a window:

        startgig <Enter>

If you do not have a password for your software or your license key is incorrect, the software will run in demo mode only. You will not be able to save your work or use the rendered images.

KEYBOARD SHORTCUTS

u	to go up in the CSG tree
l	to go left in the CSG tree
r	to go right in the CSG tree
w	to write a screen dump to file: gigsdump.tif in the production directory of the active project (for SGIworkstations only).
m	to change the mouse tracking speed (default set to: 4)
x	to save an animation file (save ani)
y	to save a still file (save still)
-	to step 1 frame backwards in the animation
+	to step 1 frame forwards in the animation
1	to activate cam1
2	to activate cam2
3	to activate cam3
a	to toggle between the anicam or modelling cam
z	to zoom the camera
p	to move (Position) the camera
o	to orbit the camera (orbit coi)
I	to track the camera
f	to focus the camera (magnify)
c	to select a coi for the camera
h	to activate this Online manual (help)
P	to move the active model
O	to rotate the active model

I	to scale the active model
n	to name (tag) current solid
v	to display the postion of the active camera
j	to activate or create a project (set project)
g	to activate a tag (get solid tag)
q	to togle between xy, x, y and x=y (xy)
t	to raytrace the active window (render window)
s	to create a rendering subwindow
S	to deactivate a rendering subwindow
d	to select render detail
k	to render the active window using the raysketcher.

In the Organic and Particles tools, the following keyboard shortcuts are available:

u	to go up in the CSG tree
l	to go left in the CSG tree
r	to go right in the CSG tree
-	to step 1 frame backwards in the animation
+	to step 1 frame forwards in the animation
=	to step 1 frame forwards in the animation
Ctrl r	to start recording (record)

ELECTROGIG Technology is a member of the Verdima Group

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This CDROM also contains sample rendered ELECTROGIG images and animations, as well as material for use with the GIG3DGO and GIGVIZ tutorials.