EGS Spectrum 6.2 Review

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%%  EGS Spectrum 6.2 Review                     By:  David Tiberio       %%
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EGS Spectrum 28/24
EGS software version 6.2
2 megabytes RAM
Distributed by GVP

This week I received my second EGS Spectrum board. That should tell you how
much I like this board. Previously we had ECS A3000's, and about a month
ago we purchased a Retina board (the original Zorro II board). At the time
the price had just dropped to $330, so I picked one up. When the EGS
Spectrum dropped in price to about $375 I decided to buy one, and a second
to replace the Retina, after I realised how powerful it was on a Zorro III
machine. Please note that I cannot compare the EGS Spectrum to the Retina
on a Zorro II machine such as the A2000 since I do not have one.

EGS is the name of the extension to the Amiga operating system, and not the
hardware itself. Developed by Viona, the software is licensed to various
graphic board manufacturers. I spoke to Kermit Woodall at the Toronto
World of Amiga show and he insisted that EGS can be ported to almost any
graphics board in an extremely short time, and that the license fee for
each board is minimal, so write or call your board manufacturer and request
an EGS port!

Unlike the Retina, the Spectrum appears to operate at the same speed in any
resolution. In other words, dragging a window in a 24 bit screen is about
as fast as dragging it in an 8 bit screen, or a 3 bit ECS screen. Scrolling
is very quick and powerful, even for 24 bit images. EGS can also move large
bitmaps very smoothly, such as dragging a window without bounding boxes!

Some interesting features are the ability to use two monitors on one board,
using the EGS display and the native Amiga display. This would allow you to
have a virtual Workbench where some apps appear on one monitor and some on
the other, and possibly some on both. The mouse will move from one monitor
to the next. I have not tried this setup yet and am not sure exactly how it
works.

The board is also compatible with the EMPLANT Macintosh emulator, and was
quite fast. I was not pleased with the monitor support, but it may be
because I have not tinkered with the screenmodes properly. The Retina
supported "millions" of colors on the EMPLANT, while I have only been
able to access "256" colors using the EGS Spectrum. The Retina
automatically promotes screenmodes to the highest bitplane depth supported
by the OS or board, while the EGS only promotes screenmodes to predefined
EGS modes that have been configured to the monitor. My IDEK DR3114 monitor
has decent support, as does the CBM1950. I cannot comment on multiscan
monitors which will probably access better screenmodes.

EGS will not promote screenmodes like the Retina (although they include
what they call an EGS screen promotor). What it instead does is create new
scxreenmodes that you can use from most programs. For example, I have modes
like the following on Workbench 2.04 or greater:

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    : NTSC:High Res                   16 colors
    : NTSC:High Res Laced             16 colors
    : NTSC:Super-High Res              4 colors
    : NTSC:Super-High Res Laced        4 colors
    : LEGSa:EGS 640x480              256 colors
    : LEGSa:EGS 800x600              256 colors
    : LEGSa:EGS 1024x724             256 colors
    : LEGSa:EGS 1280x900             256 colors
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        : LEGSa:EGS 1600x1280            256 colors
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A board such as the Retina would not have the LEGSa: modes, but it will
promote the NTSC: modes on an ECS machine to 256 colors instead of 16 or
4. These monitor modes are for Intuition, which is what most Amiga programs
run under. EGS modes however can use up to 16,777,216 colors or 65536 colors
in those same screenmodes (with some limits as screen sizes increase). If
memory is a problem, screens are buffered to Fast RAM when not displayed.

Since EGS can be used seperate to Intuition, there are new features
available that are not provided by Commodore via the Workbench. Think of
the EGS system as a new Workbench on your system which runs along with
your other software at the same time, on its own screen. Three major
additions are support for 24 bitplane screens as opposed to only 8 on AGA
or 5 on ECS/OCS, along with automatic dithering of all imagery. If you open
a 1 bitplane screen, using only black and white or monochrome, you can
display dithered 24 bit images automatically on the EGS work area. Third,
EGS has screenmodes that are easier to program for various chip sets and
graphics boards. In other words, programs do not have to worry about
whether a machine is ECS or AGA. Software generally works on boards such
as the Spectrum, Piccolo, the EGS-110, IV24, etc, without modification.

The EGS paint program, SpectraPaint, is a very basic paint program with some
interesting features. While it has some nice effects such as edge detection,
it lacks a true Amiga-style interface. Some of the drawing tools are the
type you would expect to find on a cheap Macintosh paint program, such as
drawing with a diagonal line. I can understand that maybe all features
should be supported, but there are not one but two diagonal line gadgets in
the main toolbox for drawing with, one angled left and one angled right.
I can understand that someone might want to draw with a small circle or
square but dedicating two gadgets to diagonal lines is ridiculous. Hopefully
programs like ImageFX by Kermit Woodall will offer more powerful painting
tools.

EGS also includes some tools, such as a nice screenblanker and a calculator
program that draws algebraic functions in 3D. I just had to mention it for
those of you who are into sine waves, matrices, etc. Eh? :)

EGS works with just about any Amiga program I have tried. It does not
guarantee that you will however be able to access more colors or larger
screen sizes, although I found it fairly good at accepting larger screen
sizes. Programs like Deluxe Paint will run under ECS or AGA, while a program
like PageStream can use the new screenmodes. The ECS or AGA screens will be
draggable, while EGS screens currently are not.

I am not going to say that the EGS Spectrum is the best board or that
everyone should buy it, since I have not compared it to other boards such as
the Piccolo, Picasso II, or Rainbow III. But if you have a Zorro III machine
such as an A3000 or A4000, you should look into this board. For the moment,
it has the best price/performance ratio of all the boards out there. If the
Picasso II or Retina ZIII came down in price to under $400, then they also
should be investigated. I intend to pick up a Picasso II board soon so I
will hopefully be able to compare it to that popular board.

The Retina gained popularity as it was the first board released, and the
Picasso II is very popular due to its draggable screens, but the EGS also
offers its retargetable screenmodes which will hopefully be gaining more
software support in the future. The EGS software will work without a
Spectrum board on most Amigas, using OCS, ECS, or AGA chipsets. Look for
the EGS demo on AMINET or orion.etsu.edu.

If anyone is interested in purchasing an EGS Spectrum 24 bit board with
2 megabytes of RAM, the company I work for sells them for $375, which is
a fairly competitive price. For more information, call (800) 730-0082.

- OTHER GRAPHICS BOARDS -

Retina
Retina ZIII

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Merlin
Picasso II
Piccolo (identical to EGS Spectrum)
Rainbow III
EGS Spectrum
EGS 110
IV24
OpalVision
Omnibus
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- SOFTWARE SUPPORT -

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Other than the PD software below, there are few EGS programs. The one I know
of is ImageFX (please note that there may be a specific EGS version).
Soft-Logik has also mentioned PageStream for the EGS, and I am currently
working on a 24 bit character generator for EGS, although I intend to
complete the AGA version first.
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- USENET REFERENCES -

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ftp orion.etsu.edu
directory egs/       (various files)

ftp ftp.luth.se, ftp.wustl.edu, ftp.etsu.edu, ... (AMINET)
TVPEGS2.lha             biz/demo   3.7M+TVPaint EGS demo.
egsdemo.lha             dev/gui    597K+EGSDemo for the Enhanced Graphics System I
egs.lha                 dev/misc   660K+EGS window system demo, Version 4.111
egslibs.lha             dev/misc   271K+EGS libraries, Version 4.111
ML-EGS.lzh              gfx/anim   276K+Demo Animation for Magic Lantern 1.5 (see
mfract12.lha            gfx/fract   17K+Fractalgenerator for EGS with diff fractal
MultiFractalsEGS.lha    gfx/fract   11K+Fractalgenerator for EGS with diff fractal
EGSInsel.lha            gfx/misc     7K+Do render fractal islands under EGS
egsdvi.lha              gfx/show    33K+DVI previewer for the EGS window system
EGSFlick_1.1a.lha       gfx/show   139K+FLI/FLC on EGS - bugfixed for Spectrum
egsprint.lha            gfx/show     8K+Graphic dumping program for EGS and native
egsshow.lha             gfx/show    39K+GIF, JPEG and IFF viewer for the EGS windo
newdrvrs.lha            misc/emu    28K+New emplant drivers: Merlin/Piccolo/egs
ViewTek20.lha           gfx/show   265K+ViewTek v2.00 with support for several 24-
ViewTEK21.lha           gfx/show   425K+ViewTEK v2.1
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As Edward Cayce might say, that is all for the present...
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