

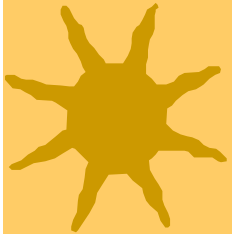
Computer Graphics

Gail Guarino

February 2004

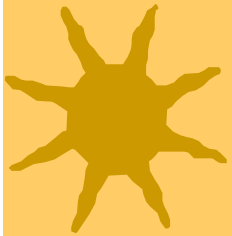


Graphic Sources



★ The Internet

- <http://ausmall.com.au/freegraf/freegrfa.htm>
- <http://www.freegraphics.com>
- Copyright



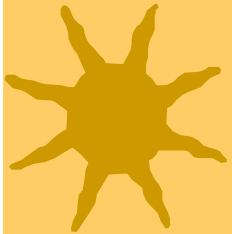
★ Scanners

- Hand-held
- Flat bed

★ Digital Cameras

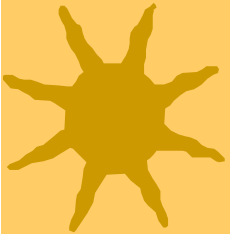
★ Clip Art

★ Original Art Work

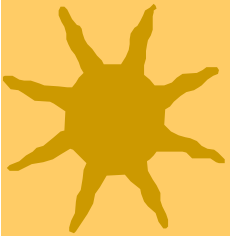




Graphic Types - Vector



★ Vector graphics are generated by computer-aided drafting (CAD) programs and drawing programs.



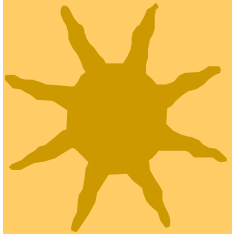
- Images are created and stored as connecting lines and shapes
- Require minimum storage space
- Resize and massage well



I'm a Vector Graphic



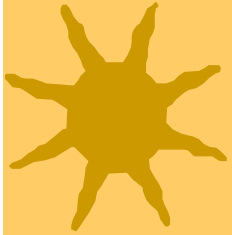
Vector Graphics Programs & File Types



★ Adobe Illustrator (ai) & PageMaker (pmd)

★ AutoCAD (adi, dwg)

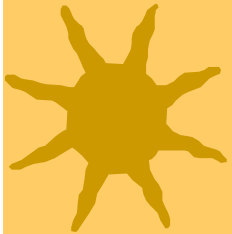
★ Corel Draw (cdr)



★ Macromedia Freehand (fh1), Fireworks (png), & Flash (fla, swf)

★ Micrografx Designer (drw)

★ MetaDraw (wmf - MS Clipart)

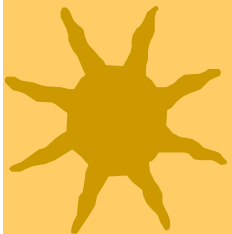
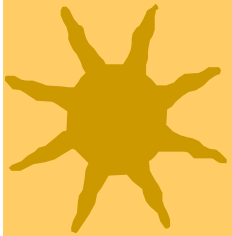
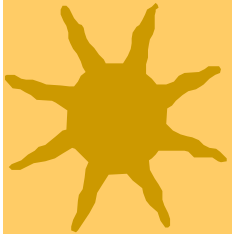


★ EPS – Encapsulated Postscript (draw & most Adobe programs)





Graphic Types -Bit-mapped (*Raster*)



★ Bit-mapped graphics are generated by paint or photo programs

– comprised of square dots or pixels (picture elements.)

– Larger file size than vector graphics

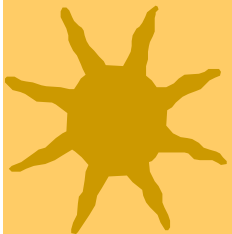
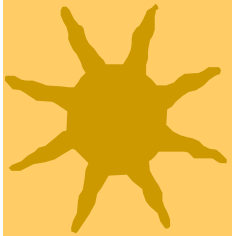
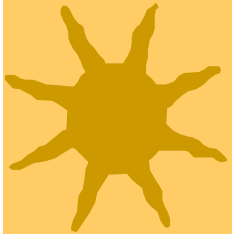
– Do not resize or massage well

– Rectangular in shape – some file formats allow transparency





Bit-mapped Graphics Programs & File Types

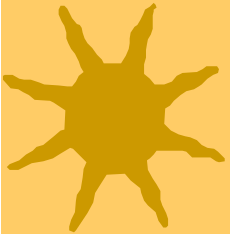


- ★ Adobe Photoshop (psd)
- ★ Microsoft Photo Editor (tga)
- ★ Picture It
- ★ Microsoft Paint (bmp) Windows wallpaper
- ★ Paintbrush (pcx)
- ★ GIF – Graphic Interchange Format - Web
 - 256 colors - Compressed format - 1 transparent color
- ★ JPEG – Joint Photographic Experts Group - Web
 - Millions of colors - Compressed format - lossy
- ★ TIFF – Tagged Image File
 - Scanners - Varying Resolutions



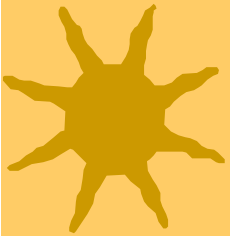


Color



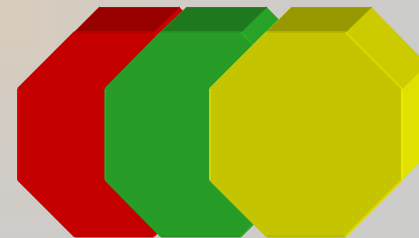
★ CMYK – Cyan, Magenta, Yellow = Black

- Reflected light
- Inks, paints
- Printers



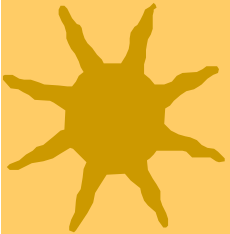
★ RGB – Red, Green, Blue = White

- Direct Light
- Monitors
- Red & Green make yellow



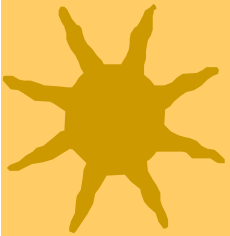


Output Quality



★ Screen or Web

- 72 Dots per inch (dpi)
- Quality versus file size
- GIF or JPG bit-maps



★ Print

- Minimum of 300 dpi
- Bit-mapped and vector
- Spot versus Process color

