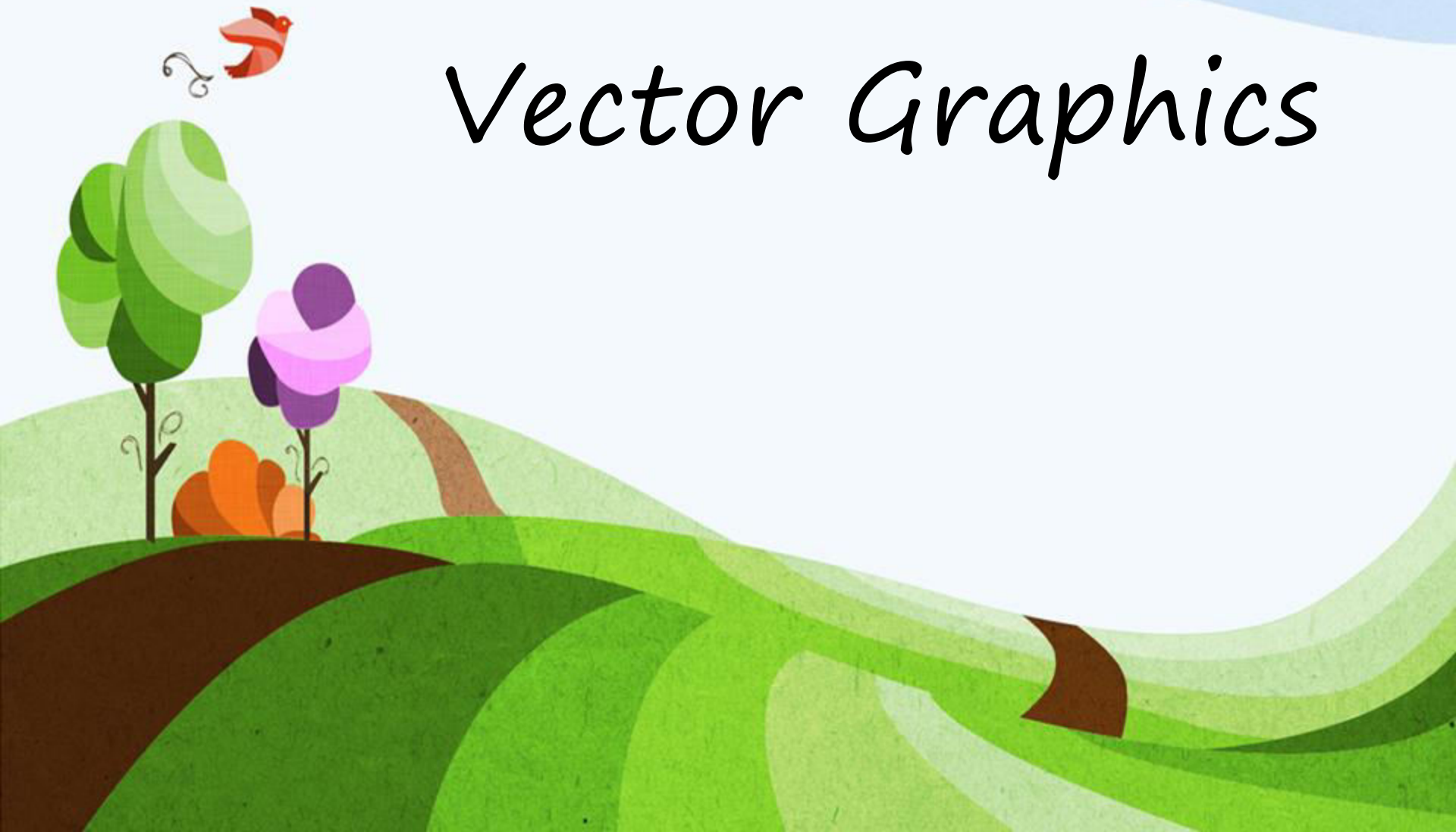


Vector Graphics



Vector Graphics

- Graphics that are based on mathematical formulas that define lines, shapes, and curves.
- Are comprised of paths connected by anchor points.
- Can be 2D or 3D.
- Edited in draw programs.



Examples



Original Image



Resized
Image



Shapes that
make up the
image.

Uses of Vector Graphics

- Graphics that will be scaled (or resized)
- Architectural drawings, CAD programs, flow charts.
- Logos that will be scaled (resized) with loss of quality.
- Illustrations and clip art.
- Graphics on websites.
 - Small file size allows for quick load times.
- Fonts and specialized text effects

Advantages of Vectors

- Scalable – able to change size easily
 - Resolution Independent – Regardless of how much the image is enlarged or reduced, the image definition and quality remain the same.
- Editability – since each vector is made up of separate and distinct objects, each can be edited independently at any time.
- Small File Sizes – easily transferred over the Internet.

Disadvantages of Vectors

- Lower color quality than raster images.
 - They do not support as many colors.
 - Not good for photographic images.
- Limited in the type of effects that can be applied.
- Can be time consuming to create.

Common Vector File Formats

- *AI – Adobe Illustrator*
 - *Native file format for Adobe Illustrator.*
 - *Industry standard used by developers of vector graphics.*
 - *Used to create, save, and archive original artwork.*

Common Vector File Formats

- *EPS – Encapsulated Postscript*
 - *Developed by Adobe but supported by most programs.*
 - *Graphics developers generally save a copy of the AI file in EPS format because it can be opened by computers running different operating systems.*
 - *Most common interchange format for the print industry due to its portability.*
 - *Meta Graphic – can contain both raster and vector data.*
 - *Shapes in vector graphics can be filled with textures and patterns that are raster graphics.*

Common Vector File Formats

- *SVG – Scalable Vector Graphics*
 - *Standard format created by W3C.*
 - *Versatile, all-purpose vector format.*
 - *Works well with web page design.*
- *WMF – Windows Metafile*
 - *Microsoft created format for raster and vector.*
 - *Common format for windows clipart.*