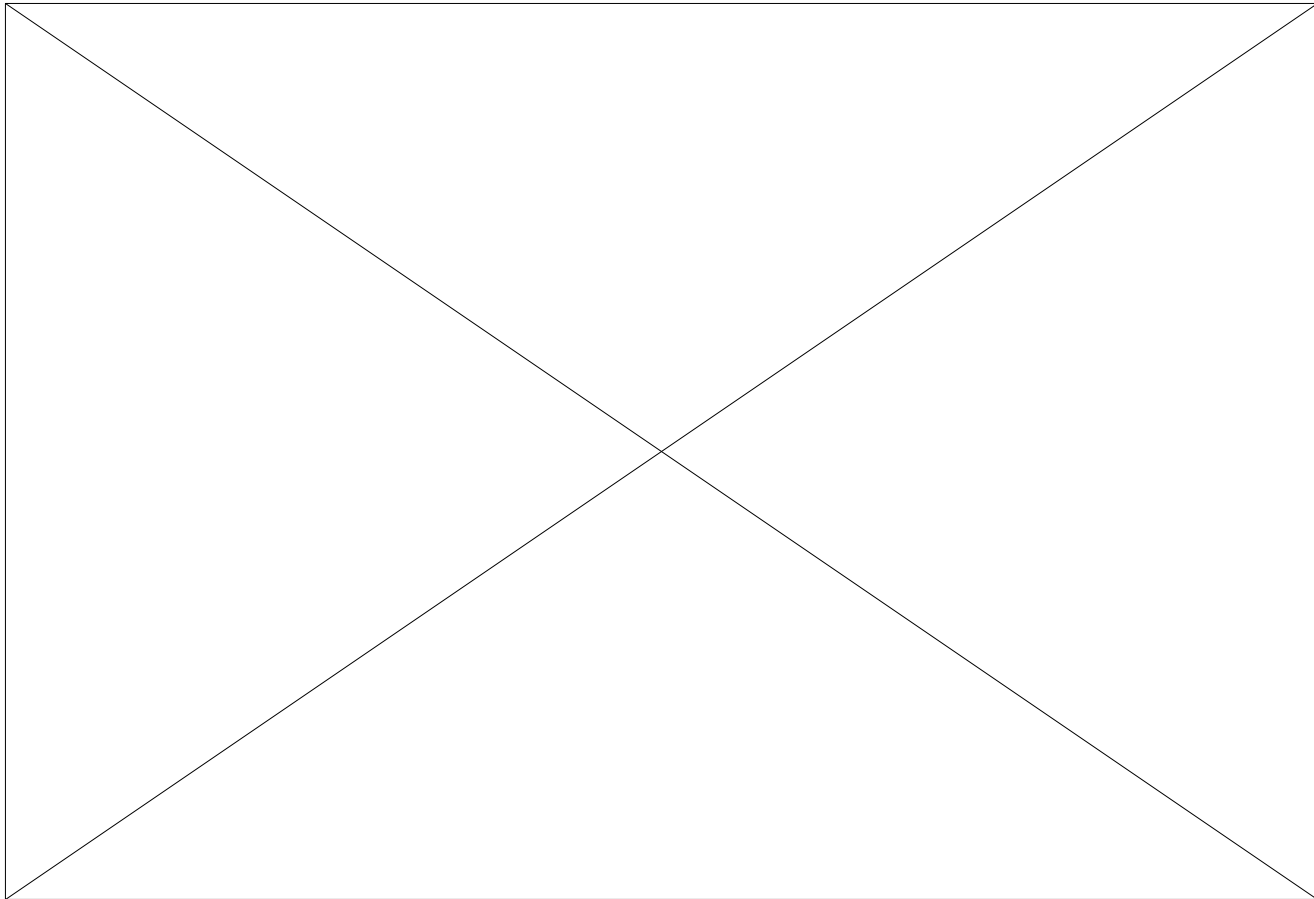




# Google SketchUp...In A Nutshell

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# Video Recap: What is SketchUp?

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- Modeling Software that allows you to sketch or create 3-dimensional models.
- <http://sketchup.google.com/>
- Sketchup 7.1 – Free!
- SketchUp Pro 7 - \$495 for single license



# Brief SketchUp History

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- Developed by startup company @Last Software in 1999.
- Released in August 2000 with slogan “3D for Everyone”.
- SketchUp applies for patent for its “Push/Pull” technology; receiving patent in September 2003.
- Google acquires @Last in March 2006 after showing strong interest in @Last’s development for a Google Earth plugin.
- Google releases free version of SketchUp in April 2006.
- SketchUp 6 released in January 2007.
- SketchUp 7 released in November 2008.
- SketchUp 7.1 released in September 2009.



# OS Requirements

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## Supported Environments

- Windows XP
- Windows Vista and Windows 7
- Mac OS X

## Unsupported Environments

- Windows 2000
- Linux
- VMWare



# Windows XP Hardware & Software

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## **Recommended Requirements**

- Microsoft Service Pack 2, Internet Explorer 6.0 or higher
- 2+ GHz processor, 2+ GB RAM, 500 MB hard-disk space, 3D class Video Card with 512+ MB of memory

## **Minimum Requirements**

- 600 MHz processor, 128 MB RAM, 128 MB hard-disk space
- 2+ GHz processor, 2+ GB RAM, 500 MB hard-disk space, 3D class Video Card with 128 MB of memory



# Windows Vista & 7

## Hardware & Software

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### **Recommended Requirements**

- Internet Explorer 6.0 or higher
- 2+ GHz processor, 2+ GB RAM, 500 MB hard-disk space, 3D class Video Card with 512+ MB of memory

### **Minimum Requirements**

- 1 GHz processor, 1 GB RAM, 16 GB hard-disk space
- 2+ GHz processor, 2+ GB RAM, 500 MB hard-disk space, 3D class Video Card with 256 MB of memory



# Mac OS X Software & Hardware

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## Recommended Requirements

- Mac OS X 10.4.1, 10.5+, and 10.6+, QuickTime 5.0, Safari.
- 2.1+ GHz G5/Intel processor, 2 GB RAM, 400 MB hard-disk space, 3D class Video Card with 512+ MB of memory

## Minimum Requirements

- 1 GHz PowerPC G4, 512 GB RAM, 160 MB hard-disk space
- 2+ GHz processor, 2+ GB RAM, 500 MB hard-disk space, 3D class Video Card with 128 MB of memory
- 3 button, scroll-wheel mouse



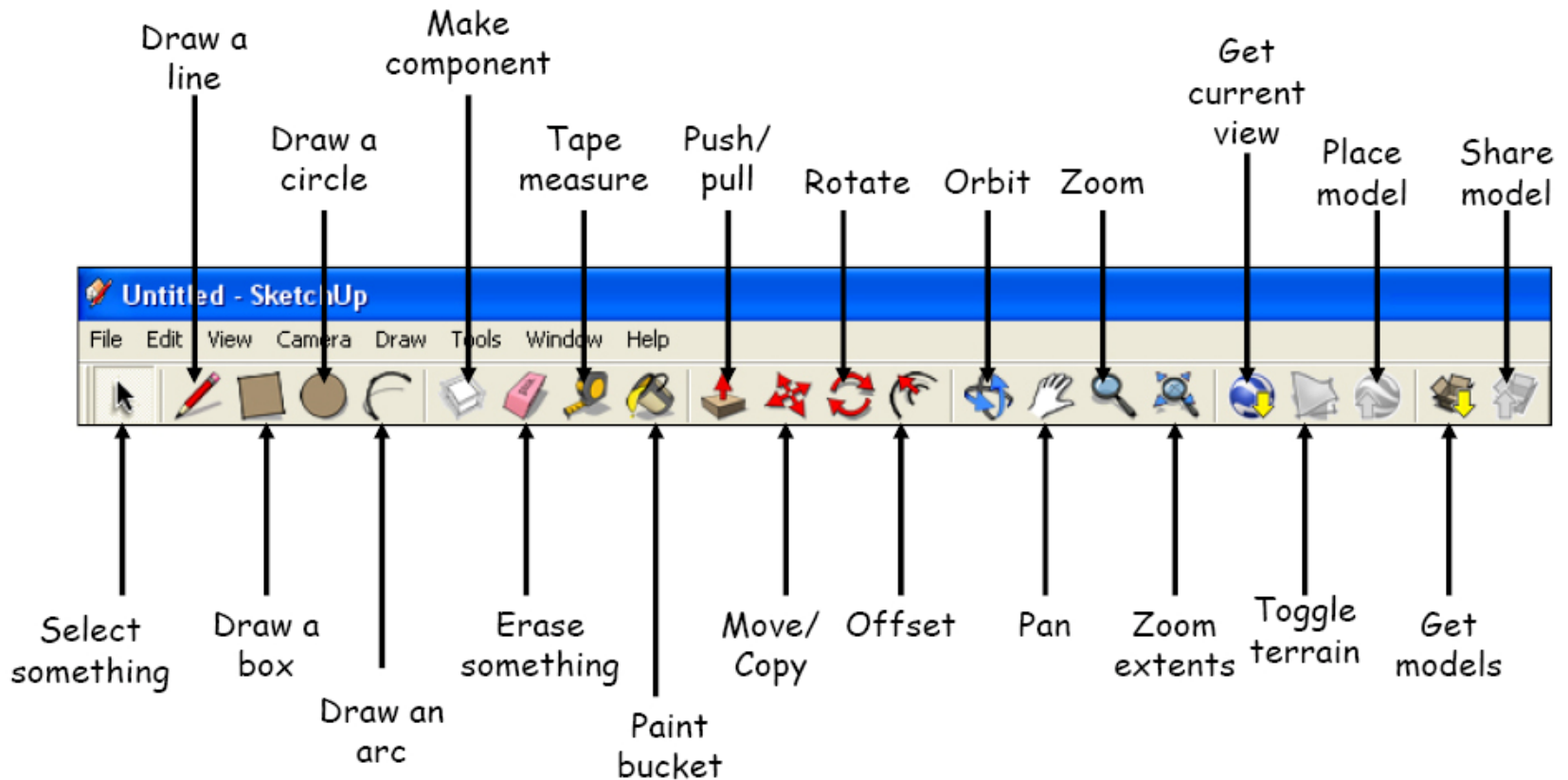
# SketchUp Demonstration...

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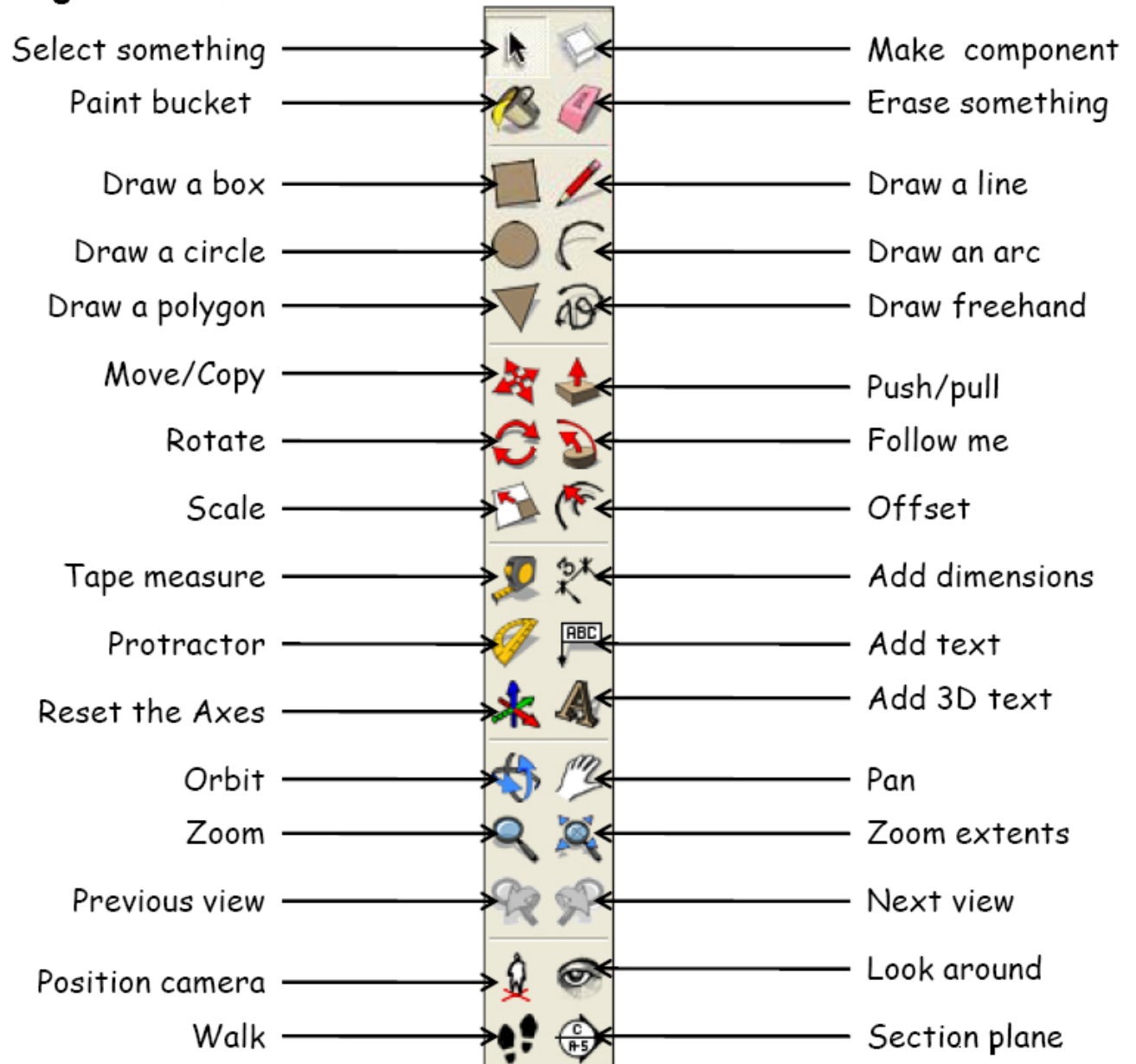


# Getting Started Toolbar

The icons across the top are *really* important:

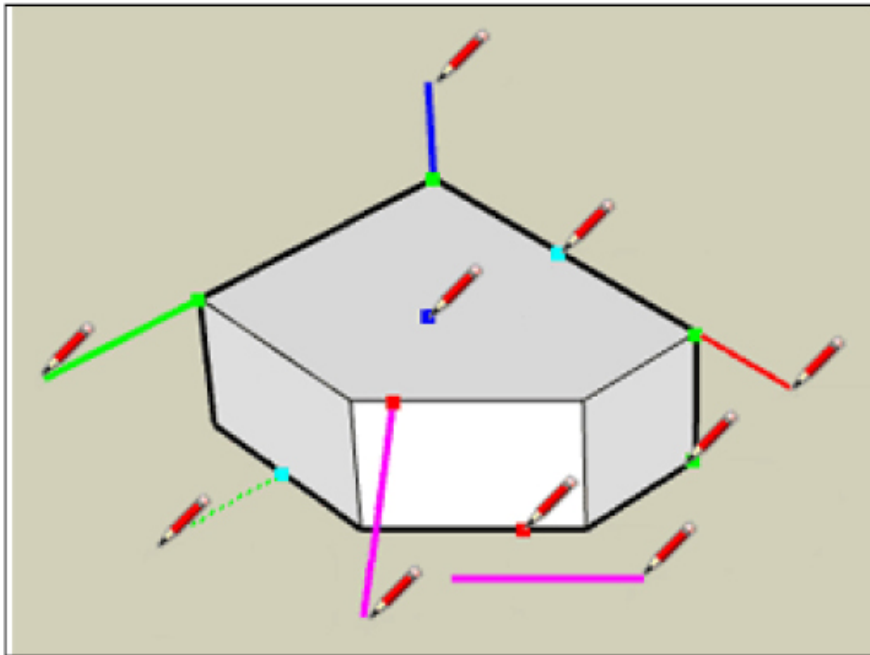


Select View → Toolbars → Large Tool Set



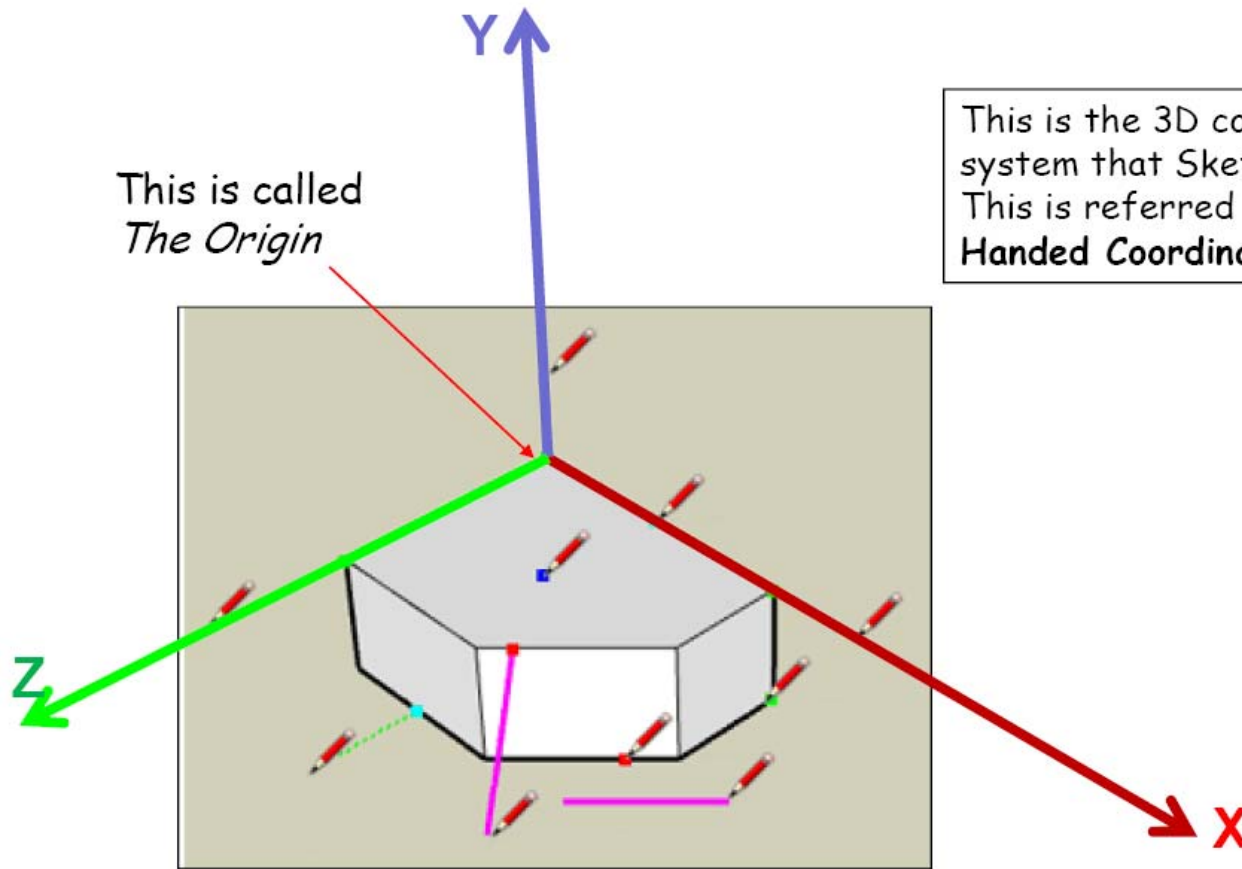
# Inferences

One of SketchUp's key strengths is that it doesn't require you to enter every little piece of information as many 3D computer programs do. Instead, it tries to infer what you really mean by how you do things. Oftentimes it uses colors to tell you what it is inferring.



- Green dots = Endpoints
- Red dots = On an edge
- Cyan dots = Midpoints of edges
- Blue dots = On a surface
  
- Red line = X axis
- Blue line = Y axis
- Green line = Z axis
  
- Magenta line = something is parallel or perpendicular to an edge
  
- ***Hold SHIFT to capture and lock an inference***

# Axis Coordinate System



- Red line = X axis
- Blue line = Y axis
- Green line = Z axis

# Navigating Using Your Mouse



You can also **Orbit** by pushing down on the middle button on the mouse. On many mice, the middle button is also the scroll wheel.



You can also **Zoom** in and out with the scroll wheel on the mouse



You can also “hand move” the screen by pushing down the middle button on the mouse + shift key.



# Other SketchUp Features

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- .skp file
- Exporting files
  - 3D – Collada file (.dae), Google Earth (.kmz)
  - 2D – Windows (.bmp), JPEG Image (.jpg), Tagged Image File (.tif), Portable Network Graphics (.png)
- Ruby (.rb files) – Programming language to write plugins (scripts) for SketchUp. Add customized tools or simplify multi-step operations.
  - [Ruby Scripts](#)



# What Else is Free?

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- Download SketchUp Viewer
- Access to online video tutorials.
  - [SketchUp Training Videos](#)
- Access to Google's 3-D Warehouse.
  - [Google's 3-D Warehouse](#)
- Access to Google SketchUp Blog
  - [Sketchupdate Blogspot](#)
- Add your model to Google Earth.



# SketchUp Recap

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- Help to enhance personal & professional creativity.
- Use to design and plan almost anything.
- Learn basics of 3-D interaction.
- It's fun!