Hardware and Software to Support GIS

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Hardware

• Creating
  – In the air – Photogrammetry, Lidar
  – On the ground – Lidar, Surveying, GPS
  – In the Office – Scanning, Digitizing, COGOing

• Using
  – Office – PCs/Workstations
  – Field – GPS/Mobile Phones/Tablets

• Publishing
  – Internet/Intranet – Servers/Network
  – Cloud - Virtual
Planes, Trains and Automobiles
Film based Photogrammetry
Digital Photogrammetry
Airborne Lidar
Terrestrial Lidar
Surveying
GPS

Cost:
~$100

Cost:
~$500

Cost:
~$5,000

Cost:
> $10,000

Accuracy:
< 15 Feet

Accuracy:
< 3 Feet

Accuracy:
< 1 Foot

Accuracy:
< 0.1 Foot
Scanning and Digitizing
PCs/Workstations/Peripherals
Mobile Devices
Servers / Networks
Cloud Infrastructure
Software

• Desktop
  – Generic Vector/Raster
  – Raster
• Mobile/GPS
• Server/Web
Desktop GIS Software

- ESRI ArcGIS [www.esri.com](http://www.esri.com)
Desktop Raster GIS Software

- ERDAS Imagine [http://www.erdas.com/Homepage.aspx](http://www.erdas.com/Homepage.aspx)
Mobile GIS/GPS Software

Server/Web based GIS

- ESRI ArcGIS Server

- Autodesk MapGuide
  http://usa.autodesk.com/adsk/servlet/pc/index?id=6546938&siteID=123112

- Pitney Bowes MapInfo Exponare
  http://www.pbinsight.com/products/location-intelligence/applications/mapping-analytical/exponare/

- Open Source:
  - MapServer http://mapserver.org/
  - GeoServer http://geoserver.org/display/GEOS/Welcome
Thanks and Questions

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