Brief

HP recommends Windows.

Geospatial event

Talking points

Key Speaking Points for Geospatial Professionals

Reliability
Users rely on workstations to perform spatial and spectral analysis, carry out photogrammetric processes, and produce maps and visual representations, such as 3D models and intelligence reporting and depend on data integrity and accuracy to be maintained throughout the workflow.

Large data files management
Users work with extremely large datasets and variety of formats (e.g. imagery, ground control points, point clouds, look-up tables, thermal and sonar). Data sets can vary in file size can range from MB to several TB and is influenced by type, resolution, spectral bands, associated metadata and size of area of interest.

Faster processing times
Although GPU processing has not been fully leveraged by the key Geospatial ISVs, there are benchmark results for GPU processing by PCI Geomatics.

- Hardware Info: Used Intel® Dual Quad Core™ (24 cores); NVIDIA® Tesla Server (12 GPUs); 48GB RAM
- Results: Orthorectification processing 7x – 60x faster processing times; Pansharpening processing tested on smaller km² and processing went from 40+ minutes to 4+ minutes for an 8x speed-up.

ISV validation
Testing has been done with ESRI and Intergraph.

Mobility
Geospatial professionals' requirements are both mobile and desktop; dual monitors at desktop and would like something light for out in the field.

Budget cycle
Typical buying cycles fit with standard 3 year limited warranty.

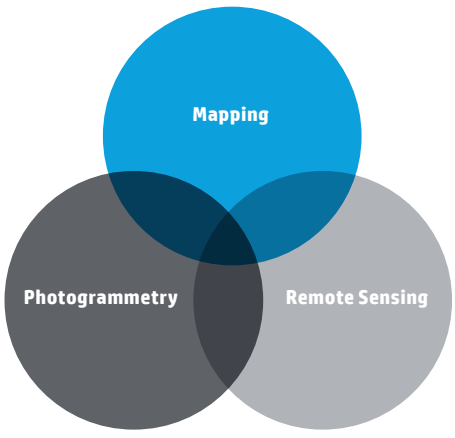
Primary Use Types (Sub-Segments)

Basically three types of users with much overlap.

Mapping
Land and cadastral surveying and other data to create a vector representation of metropolitan, urban and rural geographies as well as transportation networks and public records.

Remote sensing
Collecting and interpreting information about the environment and the surface of the earth from a distance, primarily by sensors which collect reflected spectral signature.

Photogrammetry
The science of making reliable measurements of physical objects and the environment by measuring and plotting data from aerial and satellite images against land features identified in ground control surveys, generally in order to produce planimetric, topographic, and contour maps.



HP recommends Windows.

PC & Business Laptop upsell: Why HP Workstations for Geospatial Apps

Higher speed for computing & data analysis
- Cutting Edge Hyper-threading
- Realize 16 cores for the process in on single machine

Superior visualization power
- Support Open G/L professional graphics cards
- Higher GPU performance
- Up to 6GB independent graphic memory

Better data quality and protection
- DDR3 ECC Registered Memory
- Non-ECC Memory

Data accessing is more reliable and faster
- More RAID configuration options (e.g. JBOD, RAID 0,1,5,10)
- External SATA (eSata)

Unique offering
- Performance Advisor
- Remote Graphics Software (RGS)

How HP Workstations help users

HP Workstations help Mappers perform accurate map production and in-the-field mapping work with fast CPU processing and optimal memory capacity for reliable results processes in multiple CPU based workflows.

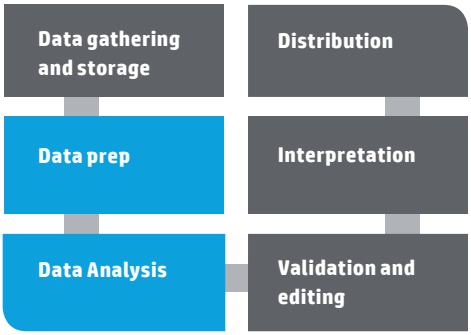
HP Workstations help Remote Scientists perform complex remote sensing computations while managing massive data sets faster than a business PC or laptop. HP workstations offer high-end professional graphics cards and ample memory to process data faster, with greater integrity and lengthy processes in multiple CPU based workflows.

HP Workstations help Photogrammetrists perform complex algorithms involved in estimating three dimensional coordinates on features faster and more efficiently by distributing lengthy processes in multiple CPU based workflows.

Typical workflow

HP workstation can have the biggest impact in workflow in Data Prep and Data Analysis. Data prep and Analysis can be bottleneck processes taking days and sometimes weeks to complete the task.

Workflow often requires:
- Large processor and compute capacity
- Significant memory to reduce errors (data file sizes can be over petabytes in size)
- Professional graphics cards



Recommended solutions per sub-segment

Sub-segments	Suggested desktop solution	Suggested mobile solution
Mapping	**HP Z230 SFF/HP Z230 Tower** Windows 7 Professional Intel® Xeon® E3-1240 v3 3.4 GHZ 16 GB (2x8 GB) DDR3 ECC AMD FirePro™ V3900 or NVIDIA Quadro 4000 2.2 TB 7.2K SATA Drive	**HP ZBook 14** Windows 7 Professional Intel® Core™ i7 4600U AMD FirePro™ M4100 16 GB RAM 320 GB 7200rpm SATA
Remote sensing	**HP Z420** Windows 7 Professional Intel® Xeon E5-2665 2.4GHZ 8 GB ECC DRAM Nvidia Quadro 2000 or AMD FirePro™ V5900	**HP ZBook 17** Windows 7 Professional Intel® Core™ i7- 4800QM AMD FirePro™ M4100 NVIDIA Quadro K2100M 16 GB Memory 320 GB 7200rpm SATA
Photogrammetry	**HP Z620** Windows 7 Professional 2 x Intel® Xeon® E5-2680 2.7GHZ 16 GB ECC DRAM Nvidia Quadro 4000 or AMD FirePro™ V7900	**HP ZBook 17** Windows 7 Professional Intel® Core™ i7-4900QM AMD FirePro™ M4000 NVIDIA Quadro K4100M/5100M 16 GB Memory 320 GB 7200rpm SATA

Learn more
hp.com

4AA4-5013ENW , November 2013