

# From Imagery to Point Clouds

## Model The World From Imagery Like Never Before!

Get ready to generate high-resolution terrain information from your stereo imagery like never before. LPS eATE<sup>1</sup> is a new technology for automatic terrain extraction, providing an unparalleled environment for creating terrain data. With a flexible architecture, LPS eATE utilizes processing algorithms to achieve superior results.

With sensors achieving increasingly higher resolutions, LPS eATE maximizes their potential to generate high-density accurate results. From satellite to airborne frame and pushbroom sensor technologies, in a wide variety of terrain conditions requiring different densities and output formats, this solution can meet your project requirements.

### What Does LPS eATE Enable You to Do?

- 1. SAVE TIME AND MONEY.** LPS eATE incorporates a host of technology to provide high accuracy surfaces:
  - *Increased reliability and accuracy* with multi-ray matching, including blunder removal and simultaneous utilization of multiple image bands at full radiometric depth
  - *Cleaner building outlines* through segmentation
  - *Highly detailed and accurate surface* through dense pixel-wise matching
  - *Automatic elimination of points from undesired objects* such as buildings and trees with embedded classification
- 2. LEVERAGE YOUR IT INVESTMENT,** thereby adding value to the original hardware investment. With LPS eATE, you can distribute processing on multiple cores or via a networked cluster for high-throughput terrain processing.
- 3. ADAPT TO DIFFERENT TERRAIN.** You have control over a wide variety of processing parameters, allowing optimization for different sensors, geography, scale, and land cover. These parameters can be saved in a reusable strategy library.
- 4. UTILIZE EXISTING DATA.** LPS eATE provides support for a variety of seed elevation sources that can be preserved in the output as desired. You can re-use existing data in densification scenarios and to constrain processing results for a more efficient workflow.
- 5. REDUCE TRAINING AND PROCESS MANAGEMENT EFFORT.** LPS eATE has a completely new user interface and workflow. All setup is done through one intuitive linear interface, and the system automatically creates, manages and merges processing subregions (elements).
- 6. OUTPUT MULTIPLE PRODUCTS** with minimal effort. LPS eATE has options to simultaneously produce TINs, grids or point cloud surfaces. Terrain points can be automatically classified and filtered in the output files to directly yield a bare-earth model. LAS point cloud output can be RGB encoded to yield a photorealistic 3D model.

For more information about LPS eATE, please call +1 770 776 3400, toll free +1 877 GO ERDAS, or visit [www.erdas.com](http://www.erdas.com).

<sup>1</sup> LPS eATE is an add-on module to LPS Core that will eventually replace LPS ATE (LPS Classic ATE).