VELOCITY is a software solution that revolutionizes the way organizations create and build large virtual environments for use in defense and security applications.
WHAT IS VELOCITY?

VELOCITY is a software solution that revolutionizes the way organizations manage the production of large virtual environments. Within a best-of-breed tools next generation architecture, VELOCITY provides breakthrough performance in geospatial content management.

From 2D to 3D, clients can seamlessly transform diverse geospatial data streams into rich, dynamic environments, complete with pattern of life, humans, crowds, traffic, interactions, and behaviors.

For use in defense and security applications, VELOCITY is a new technology and methodology aimed at streamlining and integrating massive amounts of GIS data to produce large, realistic 3D geospatial environments. Moreover, VELOCITY scales with evolving requirements.

By using widely-available data, classified information, or a blend, VELOCITY was designed to layer as much or as little data as required. From geo-specific terrain databases needed for mission rehearsals to procedurally generated geo-typical training terrains that save you time and money, Presagis can help you rapidly build a vast or localized environment that fits your budget and schedule.

Whether you are creating a virtual environment to be visible by UAV sensors from 60,000 feet, 10,000 feet on a combat aircraft, from a helicopter at 2,000 feet, or from a human at ground level, the accuracy and representation must be precise, reliable and shareable. Being able to support data with a shareable data format is paramount.
Most customers spend 80% of their time here (2D) 3D

**SCALABLE + FAST**
VELOCY grows with your production pipeline and can manage larger and larger volumes of data.

**AUTOMATED TERRAIN GENERATION**
Quickly create large-scale, detailed terrains through rules-based procedural modeling.

**INTEROPERABLE**
VELOCY builds environments using a wide range of traditional and non-traditional formats, so databases can be shared for joint operations, or integrated in any simulation framework.

**COST-EFFECTIVE**
Through workflow automation and massive distributed build, Velocity will allow you to do more with less as a constant quality level.

**UPDATEABLE**
Thanks to built-in tracking of sources, Velocity will focus on only processing new data and allow you to perform incremental updates rather than reprocessing all of your

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**WORLD TERRAIN**
Rich, Descriptive Model of the World
- More than a terrain skin
- Material classifications for sensors
- Urban environments
- Road networks
- Supports pattern of life

**SUPPORTS ALL STANDARDS**
Multiple Formats In, Multiple Formats Out
- Ingest a very wide variety of geospatial data including point cloud.
- Output for large virtual environments, simulators, image generators, mission planning, and gaming engines

**AUTOMATED**
Powerful Rules-Based
- Frequent source updates
- Analyze and extract data repeatedly
- Fuse new data to old
- Multiple outputs from same source
- Repeatability ensures quality processes

**SCALABLE**
Build the Whole World at Any Resolution
- Distributed processing
- Public/private cloud
- Infrastructure agnostic
- Scripting and virtualization

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**CONTENT IS GETTING HARDER TO PRODUCE**

Data is increasingly critical to modern simulation and training.

Conventional, manual approaches to managing geospatial data are inefficient, costly and incapable of scaling to the levels demanded in building today’s complex virtual environments. New data collection platforms, emerging types of data, demands for greater levels of detail, and sheer volume, threaten to overwhelm the 3D synthetic environments creation pipeline.

As the volume of available data explodes, clients face a stark choice; ignore precious data updates, or streamline processes to manage increased volumes and complexity. Using an efficient and customizable workflow is a critical component in creating realistic, data-rich environments.
WIDE-RANGE OF FORMATS
Format agnostic, VELOCITY supports all major industry formats.

Input:
- Virtually all traditional GIS sources
- Imagery
- Elevation
- Sensor Data
- Point cloud
- Surface Materials
- Land Use Data
- DTM, DSM, DHM
- Hyperspectral
- Imagery
- Material classification
- Coastlines & Waterways
- Bathymetry Data
- Road & other transportation networks
- More...

3D Sources:
- Hand-modeled geo-specific 3D models
- Photogrammetry 3D models
- BIM
- 3D land skin meshes

Output:
- OGC CDB
- FLT
- MFT
- VBS
- JCATS
- OTF
- More...

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