



# PROCESS FOR GENERATING GEOREFERENCED IMAGES

*Innovative technique for georeferencing images by native stereoscopy  
and correlation with a reference Digital Terrain Model (DTM)*

## Technological benefits

### Simple but efficient

Automatic location without external image data  
Use of a freely accessible and fully-located global DTM  
Near-instantaneous acquisition along the same focal plane using native stereo imaging without manipulating the detector  
Improvement in location accuracy through image processing

### Reliable

Correlation with a DTM that remains constant over time and is not dependent upon the spectral band  
Native stereoscopy: production of a DTM without any tilting manoeuvres and with a low base-to-height ratio, suitable for rapidly-varying relief (e.g. mountains or cityscapes)

## Invention overview

This process automatically improves the location of an image product and thus georeferences it more accurately by automatically generating the DTM and correlating it with an external DTM.

The location accuracy obtained is as accurate as the external DTM, within 10m for current global DTMs.

## Potential applications

Small optical observation satellites for low-cost missions

Orbiting satellites with offset detector array focal planes

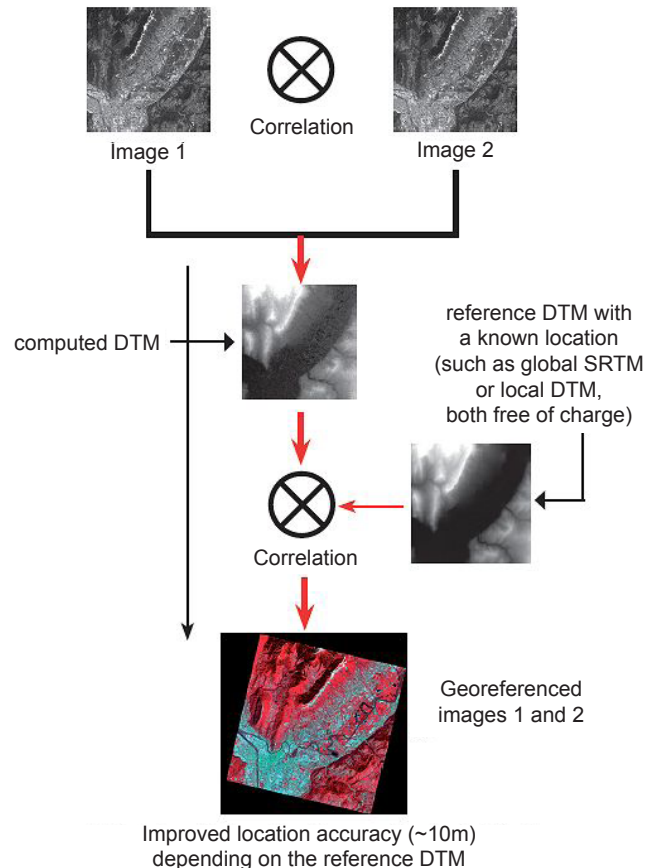
Drones

TRL : 7 (2010)

Patented invention, available under licence

Space technology applications and value-enhancement serving the industry

Same focal plane and narrow stereoscopic angle  
Image location accuracy > 100m



## Commercial benefits

### Optimal design

Use of DTM data available to all users free of charge  
Savings on spaceborne location sensors such as star sensors or gyroscopes: good location accuracy even with an inefficient attitude and orbit determination system

For further information

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