



TECH TO BUSINESS

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P3 – Precise Point Positioning (PPP) Software Package Without a Base Station Requirement

TECH ID #: 625.1

Background

Developed by the Geomatics Department at the University of Calgary, P3 is a software package for Precise Point Positioning (PPP) which overcomes the need for a base station in developing GPS applications.

- P3 is a next generation positioning technology that performs position determination based on the processing of un-differenced code and carrier phase data from a single GPS receiver, integrated with widely-available precise GPS orbit and clock products
- It provides globally-attainable positioning accuracy at the centimeter to decimeter level. Currently, such accuracy can be achieved only through differential processing of observations acquired simultaneously from at least two receiver stations
- By eliminating the need for base stations, P3 reduces labor and equipment cost and simplifies operationa logistics, bringing great flexibility to field operations
- P3 has global consistency, another big gain over the differential approach

Areas of Application

P3 has been developed to answer increasing demand for accurate and cost effective positioning systems without the requirement for a base station. The software is adaptable to a wide range of developing applications through demonstrated performance. P3 software is available as an executable or as C++ source code and can be used to develop applications where a base station is not available or does not exist. It can:

- Support positioning applications requiring medium and high accuracies at the decimeter to centimeter level using a single GPS receiver
- Support the development of new PPP-based GPS products using a single GPS receiver without the requirement for a base station

Stage of Development

P3 software is available as an executable or as C++ source code.

TECHNOLOGY



Intellectual Property Status

- Executable and Source code is available for license

Publications

- [P3 Brochure](#)