

Development of Crustal Activity Data Integrated Analysis System

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The Geographical Survey Institute (GSI) has been conducting geodetic surveys for about 120 years since Meiji era. In addition, GSI has recently deployed a continuous GPS array over the Japanese islands, acquiring a large amount of precise deformation data everyday. Those observation data have been stored in individual databases separately, which makes it difficult for users to utilize those observation data. We, as a part of the Integrated Technology Development Project 'Technical Development of Integrated Analysis of Crustal Activity Data' by the Ministry of Land, Infrastructure, and Transportation, developed the 'Crustal Activity Data Integrated Analysis System'. This system enables users to access crustal deformation data easily.

The system has following characteristics. (1) Different types of observation data, such as triangulation, trilateration, leveling, tide gauges, and GPS, are stored in a unified database system, and users can access those observation data via a unified user-interface. (2) The system is operated as a server-client system in a local area network. A single server can serve all the users on the same network. (3) WWW browser is used for the user-interface so that clients need neither a special software nor training. (4) Users can conduct simple analysis and make graphics through interactive operations. (5) Users can view and download graphics in either the Postscript or the JPEG format. (6) The whole system is constructed by using free software.

We will present an overview of the system and demonstrate how it works at the meeting.