

Construction of web pages and applications for gravity data compiled by GSJ, AIST

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Geological Survey of Japan (GSJ) has collected gravity measurements, and published gravity maps on paper and/or digital media (CD-ROM). A part of these gravity data has been released via the Internet (e.g. G-INDEX in GEO-DB, web page of GSJ for large earthquakes). But there was no web page for systematic gravity data distribution. Then we have constructed web pages and applications for gravity data compiled by GSJ since September 2008, as a theme of the Research Information Database (RIO-DB) managed by the National Institute of Advanced Industrial Science and Technology (AIST).

Web pages and applications for gravity data are installed on TACC (Tsukuba Advanced Computing Center) servers. In this system, Apache for web server, PHP5, and Oracle for RDBMS are used for searching and browsing gravity maps. We also constructed on-demand gravity map drawing system from gravity measurements by using the Generic Mapping Tools (GMT) for expert use.

Prototype of this system contains image database and gravity measurement database of Gravity CD-ROM of Japan, Ver.2 edited by GSJ, AIST for browsing maps and on-demand drawing maps, respectively. In the future we will perform newly gravity corrections on all GSJ compiled data and present Bouguer gravity maps of whole Japan, including several assumed densities, upward continuation, residual anomaly, horizontal gradient, and so on, and gravity measurements of GSJ via this web system.