

Development of gtool4: a self-descriptive storage format for multi-dimensional numerical data

Eizi TOYODA[1], Masaki Ishiwatari[2], Yoshi-Yuki Hayashi[3], Takeshi Horinouchi[4], Koji Akahori[5], Atusi NUMAGUTI[6], GFD Dennou Club Davis Project Hayashi Yoshi-Yuki

[1] Math. Sci., Univ. Tokyo, [2] Graduate School of Environmental Earth Science, Hokkaido University, [3] Earth and Planetary Sci., Hokkaido Univ., [4] Radio Atmos. Sci. Center, Kyoto Univ., [5] Computational Sci. and Eng., Nagoya Univ., [6] EES, Hokkaido Univ.

<http://www.gfd-dennou.org/arch/davis/>

Storage format for multi-dimensional numerical data is developed, on the assumption of mainly using in research of geophysical fluid phenomena. In order to achieve platform-independency, netCDF is used for low-level file format. NetCDF conventions for variable and attributes is made in respect of self-descriptiveness, coexistence of visualization information, independence to the grid-structure. Visualization and analysis software written in Fortran 90 is now under development in order to demonstrate self-descriptiveness of the data format.