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Data analysis software developed by the IUGONET project

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The Inter-university Upper atmosphere Global Observation NETwork, IUGONET, is an inter-university project by the National Institute of Polar Research, Tohoku University, Nagoya University, Kyoto University, and Kyushu University to build the infrastructure to access, visualize, and analyze the upper atmospheric data accumulated by the five institutions. In this presentation we introduce the data analysis software, UDAS (iUgonet Data Analysis Software), developed by the IUGONET project.

It is essential to comprehensively analyze various kinds of observational data to clarify the mechanism of long-term variations in the upper atmosphere. However, the observational data are individually archived at each institution and the file format of the data is usually different from each other. Since it is difficult to unify the file format because of a variety of data type and limited human resources, we developed data analysis software that can handle the various file formats. UDAS is a plug-in software of TDAS (THEMIS Data Analysis Software suite) that is written in IDL (Interactive Data Language). Once the data providers make the procedures for loading their data, UDAS can download the data files onto the user's computer through the internet and load variables to the IDL workspace. Furthermore, UDAS provides GUI for beginners of IDL. The formal version of UDAS has been released at the IUGONET website in February, 2012.

Keywords: metadata, upper atomosphere, long-term variation, analysis software, database