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# DEVELOPMENT OF THE JAVAFX-BASED IUGONET DATA ANALYSIS SOFTWARE (JUDASFX)

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By Open Access Jounals and Institutional Repositories, many citizens become accessible to research papers. Then it is becoming accessible to research data from papers via research data DOI. After reaching research data from papers, data visualization and analysis software is necessary. In the Inter-university Upper atmosphere Global Observation NETwork (IUGONET) project members have been developing iUgonet Data Analysis Software (UDAS) for domain researchers. Basically, the software needed commercial license and it was difficult to use for the researcher of the next field, data scientist, and citizens. To solve this issue, we started to develop the free data visualization and analysis software for upper atmospheric research data. The software is,

- 100% Free Software: Business licenses are not required. Only Java Runtime Environment (JRE) is necessary for executing the software. The JRE is freely distributed, and it is probably installed in your computer already.
- Windows, Mac OS X, Linux, and Solaris are supported: "Write once, run anywhere" is the key feature of Java Platform. The JudasFX is written in Java, so it runs on multiple operating systems because Java Virtual Machine in JRE absorbs differences of operating systems.
- Java Web Start is supported: Java Web Start is a framework allows users to start application software for the Java Platform directly from the Internet using a web browser. The key benefit is seamless version updating for globally distributed applications.
- GUI & CLI are supported: Graphical User Interface (GUI) as well as Jython*1 Command- line Interface (CLI) are supported.
- Output on high-quality figure is supported: High-quality figure for papers can be output.
- IUGONET metadata database cooperation is supported: It can access to the IUGONET metadata database via the Internet. The obtained metadata is interpreted mechanically, and is used for visualization and analysis.

We will present current status of the software development and discuss future perspective.

*1 Jython is a Python implementation by Java. Python is a de facto
     standard programming language for data centric science.