

# Explained in 60 Seconds: Virtual Observatory

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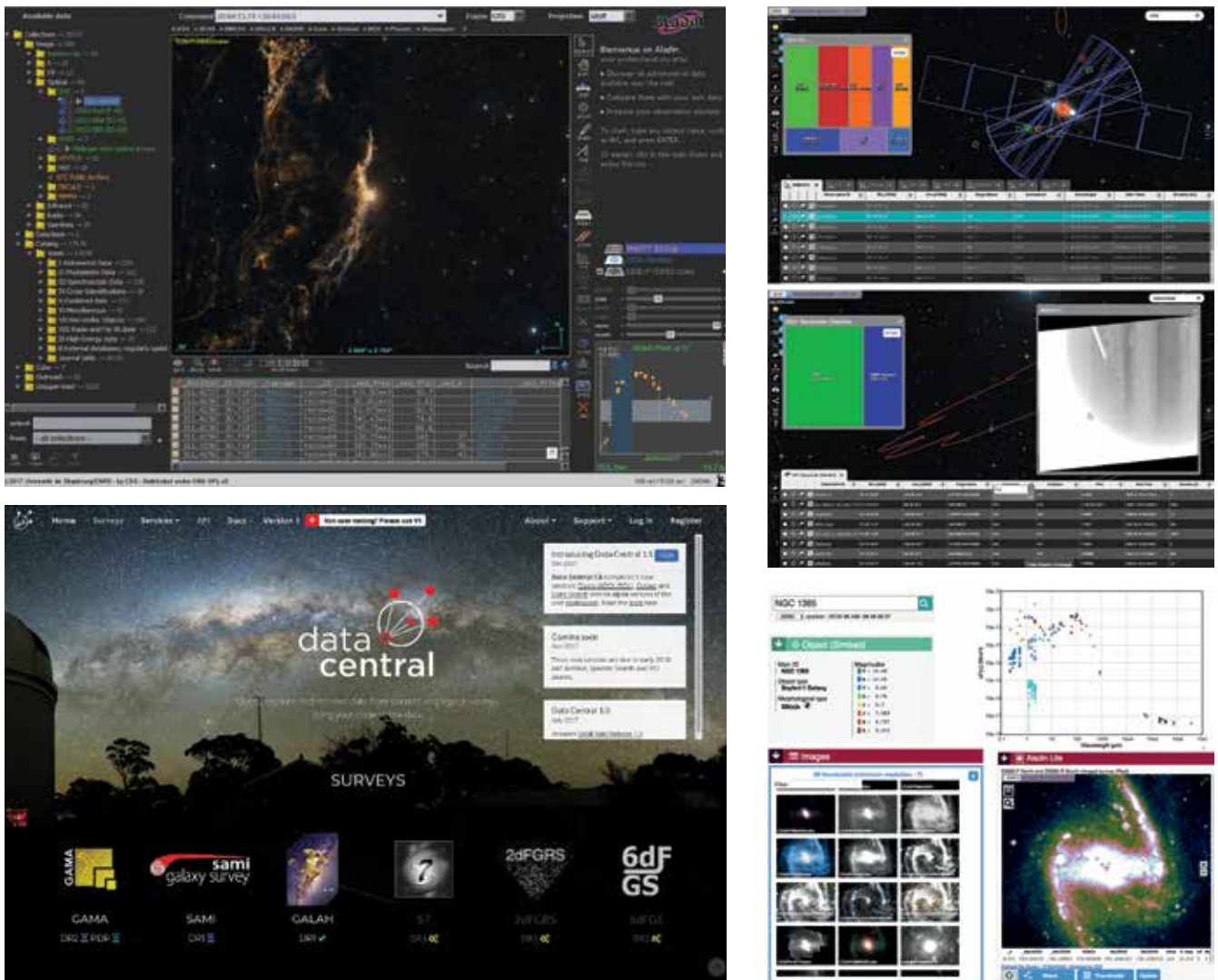
Virtual observatory (VO) is the name given to the idea of a cyber infrastructure for global astronomical research and education activities. Such an infrastructure takes advantage of information technology and big data in astronomy to facilitate international coordination and collaboration and enable global access to data gathered by astronomical observatories. More

than twenty countries and regional members have formed the International Virtual Observatory Alliance (IVOA), a worldwide scientific organisation whose mission is to promote the research and development of a VO internationally<sup>1</sup>. The role of VO projects is to develop tools for end-users, while IVOA defines the protocols and specifications for data compatibility that make

this possible. Important protocols include having a common data format, data models, query languages, data access interfaces and applications.

## Notes

<sup>1</sup> More information on IVOA: <http://ivoa.net/>



**Figure 1.** Samples of virtual observatories interfaces: Aladin Desktop (top left); ESASky (top right); AAO Data Central (bottom left); and CDS Portal (bottom right). Credit: International Virtual Observatory Alliance.