EARTHDATA
Which data tool is right for you?

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National Aeronautics and Space Administration — NASA

This guide highlights some of the data tools available for discovering, browsing, and accessing NASA Earth science data. By knowing common tasks the tools can accomplish, you'll have more time to process data and maximize scientific return.

KEY
- ✓ (green) User can achieve this task within this tool.
- ◐ (yellow) Task can be partially completed with this tool.
- ✗ (red) Task cannot be completed within this tool alone.

TOPICS: Atmosphere · Biosphere · Climate Indicators · Cryosphere · Human Dimensions · Land Surface · Ocean · Solid Earth · Sun-Earth Interactions · Terrestrial Hydrosphere

DATA TASKS

Legend for cells: ✓ = green (can achieve), ◐ = yellow (partial), ✗ = red (cannot)

Task	Worldview	Giovanni	Earthdata Search	FIRMS	AppEEARS	VEDA	OPeNDAP	EGIS	Panoply
Explore/ Find Data → Co-locate variables[1]	✓	✗	✗	✓	✓	✓	✓	✓	✓
Narrow Down/Subset Data → Subset Spatially for a Point	◐	✓	✓	✗	✗	✓	✓	✓	✗
Narrow Down/Subset Data → Subset Spatially for an Area	◐	✓	✓	◐	✓	✓	✓	✓	✗
Access/Get Data → Download data directly	✗	✓	✓	✓	✓	✗	✓	✓	✓
Customize/Transform Data → Reformat data	✗	✓	✓	✓	✓	◐	✓	✓	✗
Analyze Data → Analyze in-browser	✓	✓	✗	✓	✗	✓	✗	✓	✗
Analyze Data → Correlate variables	✗	✓	✗	✗	✓	◐	✗	✓	✗
Analyze Data → Create time series	✗	✓	✗	◐	✓	✓	✗	✓	✗
Analyze Data → Detect Change	◐	✓	✗	◐	✗	✓	✗	✓	✓
Analyze/Visualize Data → Visualize primary variables	✓	✓	◐	✓	✗	✓	✗	✓	✓
Application Programming Interface (API) available	✗	✗	✗	✓	✓	✓	✓	✓	✗
Download requires Earthdata Login	✗	✓	✓	✗	✓	✗	✓	✗	✗
GIS-Friendly Output/Integration	✓	✓	◐	✓	✓	✓	✗	✓	◐
Programming skills required	✗	✗	✗	✗	✗	◐	✗	✗	✗
📶 Web-based 💻 Local install	Web	Web	Web	Web	Web	Web	Web	Web + Local	Local
🔓 Access 🔍 Browse ⬇ Download	Access, Browse	Access, Browse, Download	Access, Browse, Download	Access, Browse	Access, Browse, Download	Access, Browse	Access, Download	Access, Browse, Download	Access, Download

1. A variable is any of a set of physical properties whose values determine the characteristics or behavior of something. For example, variables of the atmosphere include temperature, pressure, and density.

Earthdata Topic Areas (per tool, shown as topic icons; Panoply = N/A)