

Web service interfaces at the IRIS Data Management Center (DMC) provide access to a vast archive of seismological and related geophysical data. The DMC has developed FDSN-compatible command line scripts, MATLAB® interfaces and a Java library to support a wide variety of data access needs. Examples of data that may be accessed include: time series data, related metadata, and earthquake information. Users of these interfaces do not need to concern themselves with web service details, networking, or even (in many cases) data conversion. These new core web services are an evolution of the our previous services and represent a new foundation of data access for the DMC. Additionally, as these services conform to an international standard any software written to use them should also work to access information from other data centers with FDSN-compatible web services.

Fetch scripts allow access to the DMC archive and are a comfortable fit for command line users. These scripts are written in Perl and are well suited for automation and integration into existing workflows on most operating systems. For metadata and event information, the Fetch scripts even parse the returned data into simple text summaries. The IRIS Java Web Services Library (IRIS-WS Library) allows Java developers the ability to create programs that access the DMC archives seamlessly. The MATLAB interfaces leverage this library to allow users access to the DMC archive directly from within MATLAB (r2009b or newer), returning data into variables for immediate use. Data users and research groups have developed other toolkits that use the DMC's web services. Notably, the ObsPy framework developed at LMU Munich is a Python Toolbox that allows seamless access to data and information via the DMC services. Another example is the MATLAB-based GISMO and Waveform Suite developments that can now access data via web services. In summary, there now exist a host of ways that researchers can bring IRIS DMC data directly into their workflows. MATLAB users can use `irisFetch.m`, command line users can use the various Fetch scripts, Java users can use the IRIS-WS library, and Python users may request data through ObsPy. To learn more about any of these clients see <http://service.iris.edu/clients/>.

Access information directly from the IRIS DMC without leaving your preferred programming environment or browser. Now, these same methods of access should work with other data centers that implement FDSN webservice.

