

About This Standard

Mandated

Standard Identifier Joint METOC Broker Language (JMBL)

Title of Standard

Joint METOC Broker Language (JMBL) v. 3.31, July 2007.

Standards History

Introduced to Registry	Date Emerging	Date Mandated	Last Status Update	Last Status Review	Inactive/Retired
2008-04-03	n/a	2008-04-03	2008-04-03	2008-04-03	n/a

Standards Body

[Other](#)

[Broken Link?](#)

URL to Access or Acquire

https://disronline.disa.mil/a/DISR/content/Standards_Documentation.jsp

Working Group

Primary Owner Geospatial Intelligence TWG (GWG)
Secondary Interest Application / Messaging TWG

Service Area GEOINT: Geospatial

KIPs No KIP Found

Standard Applicability

2008-03-27

The standard is used by military applications for Web services access to METOC data from the Naval Oceanographic Office, Fleet Numerical Meteorology and Oceanography Center and Air Force Weather Agency. It is not required for coalition or backward compatibility with legacy systems.

Standard Abstract

2008-03-27

JMBL is the result of work begun in 1995 under then-current DoDo directives to define data structuring rules and standards that would improve interoperability and facilitate data exchange. Initial work was by the Joint METOC Data Standardization Working Group. That group was later renamed to its current designation, the Joint METOC Data Management Working Group (DMWG), and is under the guidance of the Joint METOC Board (formally known as the Joint METOC Interoperability Board). This group was tasked to develop a common understanding of the METOC terminology and data attribution. Supporting this goal, the Navy, Air Force, Army, and Marine Corps participated in collaborative sessions to develop the Joint METOC Conceptual Data Model (JMCDM). JMCDM is a conceptual data model of all METOC phenomena, including definitions, sizes, ranges, and other metadata of each item. Once complete, the conceptual model was segmented into like data elements and thirteen physical database segment models were created to aid in storage by subject type. This enabled each service and its underlying components to implement or map their existing legacy

databases into these physical database models. JMBL was subsequently developed to provide a standard, XML-based standard interface in order to avoid the need for multiple point-to-point interfaces. In general, all of the Joint METOC (JM) databases are dynamically populated with perishable environmental data that can be ingested, updated, and deleted on a regular and real-time basis. Numerous METOC service providers at geographically and organizationally disparate locations are involved in the collection, storage, and dissemination of METOC data. External interfaces, external systems, and local applications provide METOC data to multiple databases that collectively form the Virtual Joint METOC database (VJMDB). The management of the data flow into and out of these databases is performed by numerous data storage systems and data management applications in disjoint locations and environments. Access to portions of the VJMDB and these operations is implemented according to discretionary access mechanisms and portable distributed METOC Application Program Interfaces (APIs). Due to the multiple data storage systems employed across the VJMDB, accessing the APIs directly without JMBL would require the users to establish specific point-to-point interfaces with the various METOC providers. JMBL uses unified schema and Community of Interest (COI) semantics to promote interoperability between METOC data consumers and producers. JMBL is implemented in Extensible Markup Language (XML) and consists of five schema, which represent the baseline as approved by the Joint METOC Data Standards Working Group (DSWG). The primary schema are the jmbIRequest.xsd and jmbIResponse.xsd. These schema import three secondary schemas: jmbITypes.xsd, jmbIAttributes.xsd, and jmbIElements.xsd. The primary schema comprise a small set of parent elements and references to the secondary schemas. There is also an optional subscription schema framework that addresses recurring requests and responses. The subscription schema consists of the primary schema, subscription.xsd, and three secondary schemas, subElements.xsd, jmbISub.xsd and subAtts.xsd. Two additional XML documents accompany the JMBL schema to enumerate/define the METOC parameters that can be requested by a user: parameters.xml and compoundParameters.xml.

Profiling Questions

- GEOINT: Geospatial**
- Does your system collect, storage and disseminate METOC data between METOC data providers and user applications?

Products Incorporating This Standard

NA

Relevant Information

For basic information, see <http://www.cffc.navy.mil/metoc/> (available to general public). More detailed implementation guidance can be obtained from <https://www.cnmoc.navy.mil/> or <https://weather.afwa.af.mil/jmbIsupport/docs/JMBLSupport.html>.

Implementation Guidance

There are no known restrictions. There are no known compatibility issues or conflicts with other standards in the current DISR baseline.

Standard Selection Criteria

Net-Centric Interoperability

JMBL provides users with a standard, Web services interface to meteorological and oceanographic (METOC) data from major production centers in DoD. This standard was defined and advanced by the Joint METOC Board as the definitive means of distributing and accessing METOC data via Web services. JMBL specifies a standard language for the exchange of information between METOC data providers and user applications. JMBL uses unified schema and Community of Interest (COI) semantics to promote interoperability between METOC data consumers and producers. Because of its basis in the DISR mandated eXtensible Markup Language (XML), style sheets can be applied to the returned data to support interoperability with legacy system interfaces.

Technical Maturity

This standard was developed by the Joint METOC Board with major participation from Navy, Air Force, Army and Marine Corps. It has been used for approximately four years. It has been implemented as a Web services interface by the Naval Oceanographic Office, Fleet Numerical Meteorology and Oceanography Center and Air Force Weather Agency. Commercial XML utilities can be used to form JMBL requests and parse the JMBL responses.

Public Availability

<https://metadata.dod.mil/mdr/details.htm>

Implementability

JMBL is in use at the Naval Oceanographic Office, Fleet Numerical Meteorology and Oceanography Center and Air Force Weather Agency to provide a Web services interface to METOC data. It is in use by numerous DoD programs as the means for Web services access to METOC data. These programs include NITES-2R, VNE-NCS, GAPS, AFCCS, CDFS II, GTWAPS, WDAC, JWIS, JAAWIN, CDAS, DCGS-A, GCCS-13, and IMETS. It is under review for use by EUROCONTROL, NOAA, and FAA.

Authority

It has been developed and is maintained by the Joint METOC Board, Data Management Working Group. There is an open process for maintaining and developing this standard. This process consists of periodic face-to-face meetings and bi-weekly telephone conferences at which change requests are adjudicated. There is an open process for submitting change requests for evaluation. Additional information is provided under "abstract".

Standard Type Non-Military

Keywords for Search None