

UDEF

What is the UDEF?

The Universal Data Element Framework (UDEF) is a framework for describing data to enable interoperability. Enterprise and standard specialist vocabularies can be related to each other within the UDEF. A particular feature is support for equivalent vocabularies in different languages. It is easy to use, and its definitions are readily available online.

Overview of the UDEF

The UDEF is based on the concepts of International Standard 11179, and is integrated with the World-Wide Web Consortium's Resource Description Framework (RDF). But it is less complicated than these standards. It is designed for use by the people that understand an enterprise's business operations, rather than specialists in semantic technology.

Using a simple process, you can assign an index to any piece of data, based on the core UDEF vocabulary and imported vocabularies. This index will be the same as that assigned by other UDEF practitioners in your enterprise and in other enterprises. This makes it easy to relate new information to information that you already have stored, which can significantly reduce the cost of configuring and programming interface software.

The system is easy to understand and operate. Only a small amount of training is needed to become a UDEF practitioner, able to index data consistently with other UDEF practitioners.

The UDEF has a core vocabulary plus the ability to import other vocabularies, including standard vocabularies for particular knowledge domains, and enterprise-specific vocabularies used by particular enterprises. The master version of the core vocabulary is developed and maintained by The Open Group. Other bodies may keep copies for convenience. The master versions of the imported vocabularies are developed and maintained by the bodies responsible for them. The Open Group and other bodies may keep copies for convenience.

The core UDEF vocabulary covers the kinds of information most commonly used by enterprises. It has been in existence for several years. It is currently at version 1.21, and consists of parallel English, Dutch, and French language components. It is continually being extended to cover new concepts, in an ongoing process.

The standards and mechanisms for importing other vocabularies, and supporting them once they have been imported, are now defined in principle. These definitions are now being completed, based on the import of the first additional vocabularies.

Why Use the UDEF?

Enterprises today store huge amounts of information of many different kinds. But the more information you have, the harder it is to find what you need. This drives up software costs, as developers spend time locating the right sources of information in the corporate stores. The latest trends in software architecture, particularly SOA, are reducing other cost factors but not this one. It is becoming the most important cost element of software development.

Enterprises can use the UDEF to index their information. Developers can then find information sources more easily, bringing down software costs. It is a standard, so that costs are reduced for interfaces to other enterprises that use the UDEF, as well as within the enterprise itself.

A large enterprise has many different information stores and applications, which organize and categorize data in different ways. The UDEF enables it to categorize data in a standard and consistent way, greatly reducing the cost of programming.

A small enterprise needs to exchange data with large customers, and can realize cost savings if the applications involved have been UDEF-enabled. This means that, with a relatively low investment, an enterprise can index its information and cut its cost of software development.

Development of the UDEF

The UDEF is developed by the UDEF Interested Parties Group and the UDEF Project.

The UDEF Interested Parties Group is for people interested in the UDEF. It is managed by The Open Group to enable those people to obtain and exchange information about the UDEF. Membership is free.

The UDEF Project controls the development of the UDEF. It is a project of the Semantic Interoperability Working Group of The Open Group, and its members are organizations that are Open Group Members. Membership will enable you to have a voice in the development of the UDEF, and to contribute to the overall objectives of The Open Group.

UDEF

International UDEF

The initial version of the UDEF was in the English language. Multiple national language versions of the UDEF will enable information systems with data models defined in different languages to exchange meaningful information without any mutual knowledge of each other's language. This will contribute significantly to The Open Group vision of Boundaryless Information Flow™.

Dutch and French language teams have developed Dutch and French components of the UDEF, equivalent to the English component, and are extending those components as additional definitions are added to the UDEF. Similar teams for German, Traditional Chinese, and South African versions of the UDEF are being formed, while expansion to more languages is anticipated.

A framework for global interoperability

The UDEF is a framework for global interoperability. It is based on concepts of object class and property that are common to many branches of information and knowledge management. Any kind of data item can be considered as being the value of a particular property of a particular object class. The UDEF enables object classes and properties to be consistently and uniquely identified, and hence enables data items to be classified.

The UDEF is enterprise-centric. The classification of data is done from the point of view of a particular enterprise. It is thus necessary to know which enterprise is the basis of a particular item classification in order to interpret that item within other enterprises.

The UDEF has a core vocabulary containing terms that describe basic object classes and properties that are common across enterprises. Other vocabularies, containing terms that describe object classes and properties from specialist knowledge areas or from particular enterprises, can be added. In principle, any object class or property can be identified in the UDEF.

More information

The UDEF: www.opengroup.org/udedefinfo

The UDEF Definitions: www.opengroup.org/udedefinfo/defs.htm

The UDEF Project: www.opengroup.org/projects/udedef

Join the UDEF Interested Parties Group: www.opengroup.org/sophocles2/create_user.tpl?name=udedef

Join The Open Group: www.opengroup.org/member

Extending the UDEF: www.opengroup.org/bookstore/catalog/g064.htm

Gap Analysis Utility: <https://jserver.opengroup.org/UDEF/UdefReport1>

ISO/IEC 11179: isotc.iso.org/livelink/livelink/fetch/2000/2489/Ittf_Home/PubliclyAvailableStandards.htm

About The Open Group

The Open Group is a vendor-neutral and technology-neutral consortium, whose vision of Boundaryless Information Flow™ will enable access to integrated information within and between enterprises based on open standards and global interoperability. The Open Group works with customers, suppliers, consortia, and other standards bodies. Its role is to capture, understand, and address current and emerging requirements, establish policies, and share best practices; to facilitate interoperability, develop consensus, and evolve and integrate specifications and Open Source technologies; to offer a comprehensive set of services to enhance the operational efficiency of consortia; and to operate the industry's premier certification service.

Further information on The Open Group can be found at www.opengroup.org.

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