

UDEF

What is the UDEF?

The Universal Data Element Framework (UDEF) is a standard way of indexing enterprise information that can produce big cost savings.

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.

The UDEF is easy to deploy. A small amount of training is needed to enable staff to use it. It currently covers the kinds of information most commonly used by enterprises, and there is a simple process for extending it to cover more specialized information used by particular enterprises or within vertical market groups.

This means that, with a relatively low investment, an enterprise can index its information and cut its cost of software development.

Download the UDEF

You can download the UDEF definitions, in XML or in RDF format, for use in your enterprise. To do this, you must join the UDEF Interested Parties Group. Membership in this group is free. As well as enabling you to download the UDEF definitions, it will give you access to more information about the UDEF, and allow you to contact other users of the UDEF, and UDEF experts.

The existing UDEF definitions cover many of the basic data element concepts that may be used within an enterprise. If you find that you need additional UDEF definitions, you can request extensions to the UDEF by sending email to: udef-extension@opengroup.org.

Before doing so, you should read Extending the Universal Data Element Framework. By submitting a request for an extension, you become a Contributor under the UDEF Contribution Agreement, and you agree to the terms of that agreement.

UDEF Project & Interested Parties Group

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 members of The Open Group. 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.

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.

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 mutual knowledge of each other's language. This will contribute significantly to The Open Group vision of Boundaryless Information Flow™.

There are now Dutch and French language components, equivalent to the English component. Work is in progress on German and Traditional Chinese components, while expansion to more languages is anticipated.



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How to use the UDEF

The UDEF is an instantiation of the naming convention specified by the International Standard for Metadata Registries, ISO/IEC 11179. It enables an enterprise to tag its data element concepts (a key metadata definition of that standard) with globally standard identifiers, and hence relate them to similar data element concepts defined by other organizations.

There are six basic steps to follow when mapping data element concepts to the UDEF:

1. Identify the applicable UDEF property word that characterizes the dominant attribute (property) of the data element concept. For example: Name, Identifier, Date, etc.
2. Identify the dominant UDEF object word that the dominant property (selected in step 1) is describing. For example, Person_Name, Product_Identifier, Document_Date, etc.
3. By reviewing the UDEF tree for the selected property identified in step 1, identify applicable qualifiers that are necessary to describe the property word term unambiguously. For example, Family Name.
4. By reviewing the UDEF tree for the selected object identified in step 2, identify applicable qualifiers that are necessary to describe the object word term unambiguously. For example, Customer Person.
5. Concatenate the object term and the property term to create a UDEF naming convention compliant name where it is recognized that the name may seem artificially long. For example, Customer Person_Family Name.
6. Derive a structured ID based on the UDEF taxonomy that carries the UDEF inherited indexing scheme. For example, <CustomerPersonFamilyName UDEFID="as.5_11.10">.

Gap analysis

The UDEF enables rapid comparison of appropriately tagged XML files to determine how their semantics correspond. This simplifies and speeds up development of interface software. You can use the gap analysis utility to do this. Submit two XML files, each containing UDEF IDs as illustrated by the input sample and the target sample. One should be from a source system and the other from a target system that needs to exchange data.

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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