Welcome to the XCL project

Project Summary

Today file format definitions are formulated in natural languages. A programmer who wants to decode, encode or render the information has to read through the specification document before translating it into a programming language. Usually the authors of a format definition provide at least a library for the developed format. While this is a well proven process the translation from one format into another format is often an error-prone undertaking. For content holders format conversion is a basic instrument to assure long term access to their digital resources. However today there is no standardised automatic procedure for the evaluation of format conversions available. The **XCL** technology is a highly abstracted and formalised proposal to solve this problem. The idea is to develop a formal **eXtensible Characterisation Extraction Language (XCEL)** that can be used by file format designers or content holders to describe the structure of binary files. With such a description a machine will be able to extract properties from the binary object and to translate it into a generic comparable representation in an **eXtensible Characterisation Definition Language (XCDL)**

XCDL summary

The XCDL is designed with respect to the overall goal to provide a means for describing digital objects. The underlying technology is primarily XML and XML schema which are the technical backbone of the language. The realisation of the XCDL is the instantiation of the XCDL (the XCDL document) applied to a digital object. Digital objects are characterised through certain attributes, the properties of the digital objects. A property has always a dedicated value. Each XCDL document therefore describes digital objects through the specification of its properties values.

XCEL summary

Together with the Extensible Characterisation Definition Language (XCDL) the Extensible Characterisation Extraction Language (XCEL) builds the Extensible Characterisation Language (XCL). The objective of the XCEL is to describe structures and meanings of digital objects in a machinereadable way. The underlying technology of the XCEL is XML and XML Schema. The idea is to provide an extensible set of XML Schemas defining an XML dialect which enables a file format expert to transform any specified format into a machinereadable XCEL description. In the future it should also be possible to describe composite objects with the XCEL, i.e. objects that include more than one file (e.g. OOXML format). As an XML format the XCEL describes structures in a treelike form.

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