



Appendix B: Address Standards and Schema Efforts

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Address Standardization Initiatives

1.1 Overview

This document examines some of the efforts presently underway throughout the world to standardize the representation of an Address component. Although there are several initiatives, the efforts most relevant to the higher education community are those mainly focused on defining US Addresses and a representative XML Schema.

1.2 USPS Postal Addressing Standards

The USPS published the Postal Addressing Standards in November 2000. This document describes both standardized address formats and content. The formats portion describes the various elements that appear in an address record while the contents portion describes the characters that constitute the various address elements.

Pros

- This standard has strict guidelines for how different US address formats should be represented including those for military addresses, rural addresses, Post Office Box Addresses etc.
- The standard also includes US state codes and information on how to represent terms in addresses.

Cons

- This standard is only a set of formatting guidelines for postal addresses and has no XML schema definitions.

1.3 ECCMA International Address Element Code

The Electronic Commerce Code Management Association has developed the International Address Element Code, which is a set of elements that can be grouped together to represent an address record. These elements are represented by individual codes. Address format templates are then designed for each country, and for every type of address within that country, by aligning the element codes in particular orders.

Pros

- The code lists provide a set of reusable components that can be used to compose address definitions for any country.
- The templates for US address formats are well developed and handle all types of addresses (military, rural etc).

Cons

- The templates for address specifications are not hierarchical in nature and there is no work being done to represent the templates as XML schemas.



1.4 *HR-XML Consortium Postal Address 1.2*

The HR-XML Consortium is designing an XML schema that will define a postal address that can be used globally to send mail to individuals and organizations and that can be used within other HR-XML schemas.

Pros

- Provides an XML schema for representing US and international addresses.

Cons

- Complex international addresses are tagged as simple address lines, which makes processing (i.e., parsing, matching, validation and verification) impossible.
- This standard is not usable for cases where detailed element creation of address data is important.

1.5 *OASIS CIQ xAL*

The OASIS working group for Customer Information Quality is working on developing XML schemas to represent all forms of address records. Their goal is to represent 36 or more address formats from over 241 countries. This standard is not geared towards representing just postal addresses, but rather to represent address as a component to be used in any application.

Pros

- The XML schema is a work in progress to represent addresses from all the countries in the world.
- This standard is truly global and is application neutral.

Cons

- The XML schema is cumbersome and contains details that may not be necessary for most simple applications.



1.6 References

- Postal Addressing Standards, November 2000, <<http://pe.usps.gov/cpim/ftp/pubs/Pub28/pub28.pdf>>
- ECCMA, August 2003, <<http://www.eccma.org/>>
- HR-XML, October 16 2001, <<http://www.hr-xml.org>>
- OASIS, January 31 2003, <<http://xml.coverpages.org/xnal.html>>