

Summary: Street Address Data Standard (Final Draft)

The *United States Street, Landmark, and Postal Address Data Standard* (formerly the Street Address Data Standard) is a draft data processing standard for United States address information. The draft standard defines and specifies elements and structures for creating and organizing address data, defines tests of address data quality, and facilitates address data exchange. An address, as defined in the draft standard, specifies a location by reference to a thoroughfare or landmark; or it specifies a point of postal delivery. The draft standard has four parts: Data Content, Data Classification, Data Quality, and Data Exchange.

The Data Content part defines the simple and complex data elements that comprise an address, and the attributes that describe those elements. Categories of data elements include: address number, street name, occupancy, landmark names, place names, and postal delivery points such as post office boxes. Attributes describe the address and comprise the record-level metadata for addresses. Categories of attributes include address identifiers, geospatial coordinate systems and values, address descriptors, address schema, dates of origin and retirement, data set, and address authority identifiers. For each element and attribute, XML tags and syntaxes are provided. The Data Content part also defines simple and complex elements. Simple elements are those defined independently of all other elements. Complex elements are combinations of simple or other complex elements.

The Data Classification part defines address classes by their syntax: the data elements and the order in which the elements are arranged. Classifying addresses by syntax rather than semantics or meaning allows the users of the standard to focus on record structures, without requiring any assumptions about what the address locates. XML tags and syntaxes are given for each class. Eleven classes are defined and presented in three groups:

1. Thoroughfare classes specify a location by reference to a thoroughfare.
2. Landmark classes specify a location by reference to a named landmark.
3. Postal classes specify points of postal delivery that have no definite relation to the location of the recipient, such as a post office box.

A 12th class, the general class, can hold addresses of unknown or mixed classes, such as general-purpose mailing lists.

The Data Quality part checks the internal consistency, both tabular and spatial, of address elements, attributes, and classes. The tests cover attribute (thematic) accuracy, logical consistency, completeness, positional accuracy, and lineage. Each test is named, described, categorized, and presented in SQL-based pseudocode.

The Data Exchange part defines an XML schema document (XSD) to provide a template for the data and metadata needed for address data exchange. It also provides information on preparing data for transmittal (normalizing and packaging) and receipt (unpackaging and localizing). Exchange modes are provided for monolithic (complete dataset) exchange and transactional (adds and deletes) exchanges. XML is used to make address data exchange simpler, more flexible, and more reliable.

The *United States Street, Landmark, and Postal Address Data Standard* has been drafted by the Urban and Regional Information Systems Association (URISA) Address Standard Working Group, with support from the National Emergency Number Association and the U.S. Census Bureau, for submittal to the U.S. Federal Geographic Data Committee.