

What is a Data Standard?

VITA Enterprise Applications Division (VEAD) – Data Management Group
September 2009

When a data standard is in the form of a data model, it will contain both high level concepts and myriads of details. Which parts of the model are binding upon agencies within the Commonwealth and where is their freedom?

A data standard states, that based upon extensive research and discussion, if an application is going to support all the data that the Commonwealth of Virginia (COV) needs in a given subject area, then it must include all of the data in the model. The standard model, over time, should come to represent all the data which is needed by any agency. The model as a standard does not say that every agency must carry all data in the model. Agencies only need to maintain the data they need. It does say that if an agency maintains data in the model, the data should be designed consistent with the model.

Relationships

When the model represents a relationship, it says that any application that intends to support the COV's needs must support the minimum complexity shown. It does not prohibit an agency from creating an application or buying a product with general structures which support a superset of functionality. Nor does the model demand that applications have tables which exactly correspond to the model. It does require that applications be able to receive and store data in a way that the business meaning of the model is preserved.

Data Elements

Data element lengths and types are strongly recommended – just short of binding. In some cases, using shorter or longer lengths will make the intended usage impossible by creating a situation where one application sends data which is longer than a receiving application can accept. Using a numeric data type where a standard specifies character, will set the stage for errors if a coding scheme changes from using only numerals to using numerals and letters.

Agencies should avoid using data element names with any meaning other than that specified in the standard. Agency data dictionaries should make it clear if legacy systems name data elements in conflict with a standard. It is expected that the data defined in the standard will often be stored under various aliases. Agency data dictionaries should refer to the COV standard data element names in the definitions.

Implementation Freedoms

The data model is biased toward business clarity and does not mandate a specific physical implementation. For example, a model may show a series of flags, but an implementation could represent each flag by a row in a table. Showing such a table in the data standard could obscure the business meaning of the flags. A model may show an entity with sub-types, but an implementation could roll the sub-types into one table.

Any questions or suggestions related to a data standard should be sent to the Data Management Group of the VITA Enterprise Applications Division (VEAD) via ea@vita.virginia.gov.