

“XML Encoding for the Description of Place Information (XDP)”

T. Sakai, t_sakai@dpc.or.jp

R. Plews, rplews@dpc.or.jp

Database Promotion Center (DPC), Tokyo Japan

<http://gisclh.dpc.or.jp/gxml/contents>

Introduction:

In our understanding, the activities of Ubiquitous Web Group are mainly focused on indoor services, linking the Web with various indoor electronic devices. Our interests deal more with spatial location services for mainly outdoor use. Early on, we worked jointly with the Open Geospatial Consortium (OGC) on the convergence of concepts from our spatial encoding specification, G-XML (JIS X-7199), with OGC's Geography Markup Language (GML). GML is currently ISO 19136, and at the DIS level. More recently, our activities have focused on the exchange and linking and of spatial information with digital content data. This activity has resulted in the creation of a new standardized specification. Within the scope of our activities and those of the Ubiquitous Web Group, we believe there exists a similar understanding of the importance of location.

Relationship with Ubiquitous Web Activities:

The concept of location and place is part of the definition of ubiquitous. “Where” is also part of the six essential questions (*who, what, where, when, how, why*). In addition to location, our activities and those of the Ubiquitous Web Group have a similar focus on content. The aim of information utilization for the Ubiquitous Web Group is more focused on indoor services using PCs, TVs, and home electronic devices. In addition to this, we are focusing on outdoor services using devices such as mobile phones, personal digital assistants (PDAs), and car navigation systems used for tracking, navigation, push/pull, and other services. Therefore, collaboration between our two groups will enable any device to access and use the same information anywhere. We believe our work will create demand for new services and applications, thus increasing business opportunities for both groups.

Objectives:

We want to create a link between the digital content of the virtual world with location or places in the outdoor, real world. Our specification is applicable to most all of the digital

content data which is dispersed throughout the Web. Our specification provides a standardized method for encoding the description of the location of a “place” and properties about that “place” using XML and embedding that information with digital content data. When encoded, this data can be used by services for display with background maps, floor plans or deformed map-like diagrams, as shown below in Figure 1.

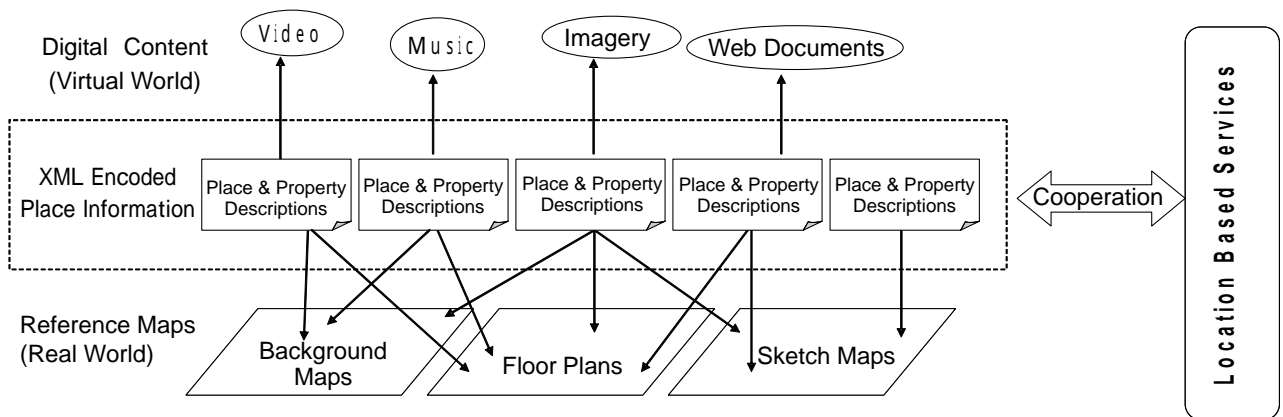


Figure 1. Graphic Overview of XDP Specification Concept

Approach:

The activities and work we have described above is under the IT policy of the Ministry of Economy Trade and Industry (METI). The creation and management of this specification has been carried out by the Database Promotion Center (DPC). The specification we have created is entitled “XML Encoding for the Description of Place Information (XDP)” and will be finalized as a Japanese Industrial Standard (JIS) specification. For more information on XDP please contact the Database Promotion Center. <http://gisclh.dpc.or.jp/gxml/contents>