

## Topic Maps and XTM

### What are Topic Maps?

Topic maps are a way of bringing order and structure to knowledge and information. At their simplest they can be thought of as the index of a book, but at their most sophisticated they open the way to expert systems and even artificial intelligence.

The best way of understanding topic maps is through the Topic-Occurrence-Association model.

- A topic is simply any “thing” which you want to present information about. Topics typically exist in a hierarchy – such as animal-mammal-big cat-tiger.
- An occurrence is a link from the topic to information about that topic, such as the page number in an index, or more typically a URL.
- An association is a link between two topics, such as subsidiary/parent, is in/contains, predator/prey etc.

### What is XTM?

XTM is an XML standard for the representation of Topic Map information. Once put into XTM, topic maps can be readily exchanged between systems, and converted into other data formats (eg web pages, graphics etc).

### Why Are Topic Maps Important?

With information overload becoming every more prevalent and the Internet growing at a rate of TerraBytes every day the challenge is on to organise, manage and use information in better and better ways – be it for routine work, business intelligence, expert systems or even artificial intelligence and the semantic web. Topic Maps and XTM are key technologies in this work.

#### More Information

The XTM specification is at:  
▪ <http://www.isotopicmaps.org>

Excellent general Topic Map resources are:  
• <http://www.topicmaps.org>  
• <http://www.topicmap.com>



### How Are Topic Maps Used?

Topic maps are used to provide structure to information. The existing information is referenced as occurrences through URLs and other pointers, with the topics and associations laid over the top like an index. Topic maps can then enable information to be accessed in a wide variety of ways, from simple hierarchical models to complex relationship searches.

### What Are The Benefits of Topic Maps?

Topic maps can help make sense of your data. You can not only access information faster, but you can more readily pull up related information which may have been missed by a more conventional search. Since the Topic Map lays over your data you can don't have to disrupt your current data storage, and can change systems at any time. A single Topic Map can also index data across a whole variety of different systems. You can also leverage public and commercial maps in order to increase your capability to access your data.

### Next Steps

If you want to manage your information better, and discover relationships between your data that you didn't know existed, then contact us today to find out whether XTM and Topic Maps could help you.

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