Design and Implementation of the Multilingual Product Retrieval Agent through XML and the Semantic Networks in EC [*]

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Abstract. Retrieval for products is an important task for e-commerce, since it represents an interface of the customer contact to e-commerce. And e-commerce should provide customers with easily accessible processes in searching. Especially, the product information on the World Wide Web needs integration and standardization to keep the pace of rapid expansion with wide reachable ranges. International standards on product catalogs are converging on UNSPSC (Universal Standard Products and Services Classification). With adoption of this standard, we designed the architecture of a multilingual product retrieval agent. The architecture is based on the central repository model of product catalog management with a distributed updating process. It also includes the perspectives of buyers and suppliers. In addition, the consistency and version management of product information are controlled by UNSPSC. The multilingual product names are resolved by semantic networks, a thesaurus, and product name ontology, which enable the present architecture to be expanded to the Semantic Web applications.