M-OntoMat-Annotizer

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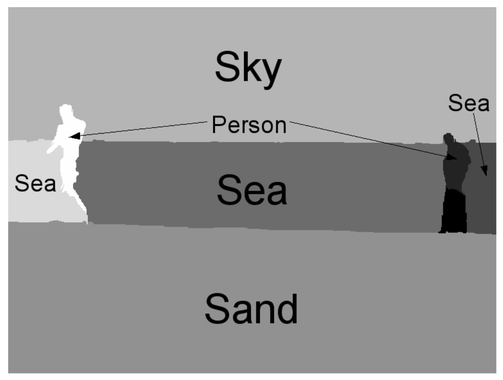
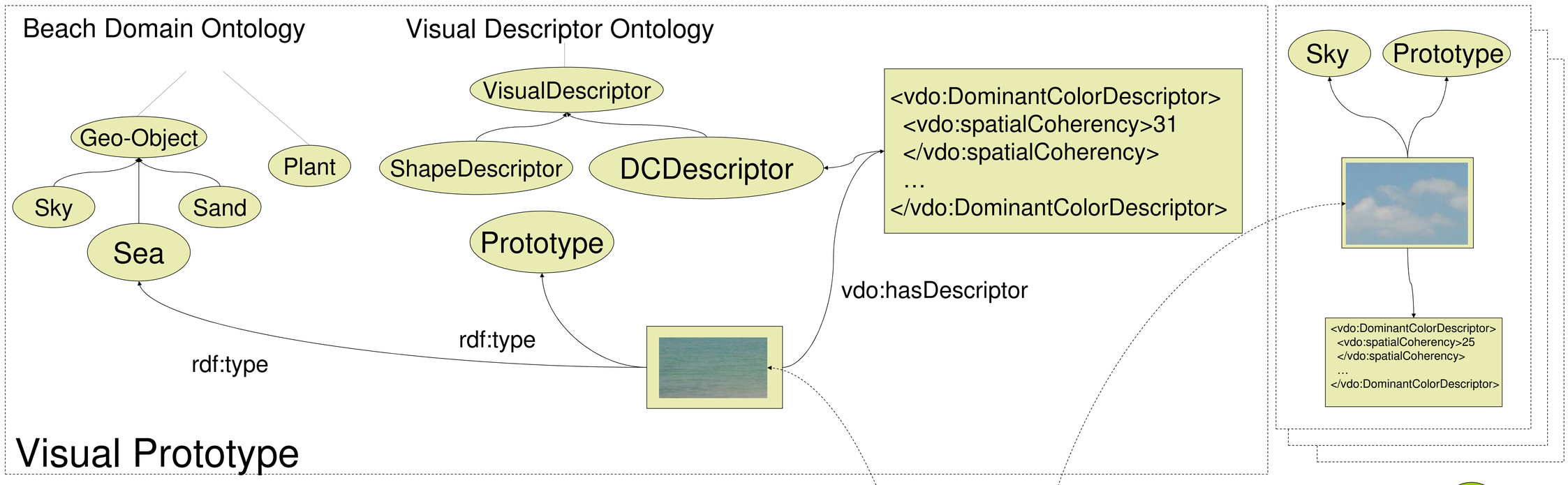
From colors and shapes to semantics.

1 **Analysis**

Annotation of new images with concepts from domain ontologies.



2 Ontology enriched with MPEG-7-compliant descriptors



1 Annotation of new images:

New images are segmented and MPEG-7 visual descriptors are extracted from each segment. By comparison to visual prototypes a distance is computed and the best matching concept is kept as the annotation. The visual prototypes are created in 2 and 3 with M-OntoMat-Annotizer.

2 Visual Ontology:

The core product is a domain ontology enriched with prototypical visual descriptors, the visual prototypes. Such a prototype is an instance of a domain ontology concept.

3 Extraction of Prototypes:

Prototypes are created by selecting a representative region of a concept from an example image by either drawing a shape or using the magic wand tool to compute a segment. By creating a prototype instance from the corresponding domain concept and extracting the desired descriptors (like shape or color) the visual prototype is created and stored as RDF in 2.

3

See also:
K. Petridis et al.: "Knowledge Representation and Semantic Annotation of Multimedia Content", IEE Proceedings on Vision Image and Signal Processing, Special issue on Knowledge-Based Digital Media Processing, Vol. 153, No. 3, pp. 255-262, June 2006.

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