Plato: A Preservation Planning Tool Integrating Preservation Action Services

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Abstract. The creation of a concrete plan for preserving a collection of digital objects of a specific institution necessitates the evaluation of available solutions against clearly defined and measurable criteria. This process is called preservation planning and aids in the decision making process to find the most suitable preservation strategy considering the institution's requirements, the planning context and available actions applicable to the objects contained in the repository. Performed manually, this evaluation promises to be hard and tedious work, inasmuch as there exist numerous potential preservation action tools of different quality. In this demonstration, we present Plato [4], an interactive software tool aimed at creating preservation plans.

Plato

The preservation planning tool Plato[1] implements the PLANETS[2] Preservation Planning approach [3] which provides an approved way to make informed and accountable decisions on which solution to implement in order to optimally preserve digital objects for a given purpose. The tool is integrated into the PLANETS Interoperability Framework based on open J2EE and web technologies. This environment guarantees loose coupling of services and registries for preservation action and characterisation through flexible discovery and invocation.

For format identification and property extraction, services such as DROID[3] and JHove[4] are used; based on this information, Plato discovers applicable action services such as emulation tools or migration services provided by CRiB [2] through available registries. Comparison and validation of objects as an essential feature of the system maps the specified requirements such as essential object characteristics to measurable criteria that can be compared automatically. Thereby, it considerably improves the repeatability, documentation, and automation of preservation planning.

To not impose any technical restrictions on the user Plato has been developed with very close attention to the web user interface when determining the

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[1] http://www.ifs.tuwien.ac.at/dp/plato
[2] http://www.planets-project.eu
[3] http://droid.sourceforge.net
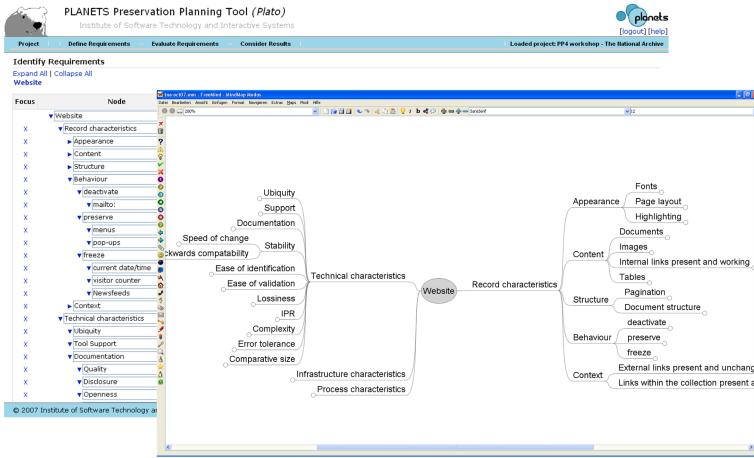[4] http://hul.harvard.edu/jhove

Fig. 1. Requirements tree in Plato

requirements. Figure 1 shows the requirements for a preservation endeavour of a web archive laid out in a tree structure. The tool offers a fully flexible way to enable the specification of a wide range of measurement scales. As the definition of requirements in a tree structure is often done in a workshop setting, Plato also supports tree import from mind-mapping software[5].

The applicability and usefulness of the tool has been validated in a series of workshops and case studies which involved a wide range of institutions [1,3].

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[5] `http://freemind.sourceforge.net`