Digital Preservation Planning:
Principles, Examples and the future with Planets

organized in cooperation with DPC

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Outline

- Introduction to Planets
  - Who are we?
  - What are we doing?
  - Why are we doing it?

- The Planets architecture and components

- A first glimpse at Planets Preservation Planning
The Planets project

- 4-year research and technology development project co-funded by the European Union
- Addresses core digital preservation challenges
- Started June 2006 with €15m budget
- Coordinated by the British Library
- 16 partners
  - national libraries and archives
  - leading technology companies
  - research universities
- Builds on strong digital archiving and preservation programmes
Planets partners

- The British Library
- National Library, Netherlands
- Austrian National Library
- State and University Library, Denmark
- Royal Library, Denmark
- National Archives, UK
- Swiss Federal Archives
- National Archives, Netherlands
Planets partners

- Tessella Plc
- IBM Netherlands
- Microsoft Research
- Austrian Research Centers GmbH

- Hatii at University of Glasgow
- University of Freiburg
- Vienna University of Technology
- University of Cologne
The Planets team

All Staff Meeting, February 2007
Aims and objectives

- **Increase Europe’s ability to ensure long-term access to its cultural and scientific heritage**
  - Improve decision-making
  - Control costs through increased automation and scalable infrastructure
  - Ensure wide adoption across the user community
  - Establish a market place for preservation services and tools

- **Build practical solutions**
  - Integrate existing expertise, designs and tools
  - Deliver tools and services for operational environments
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Planets Architecture

- Preservation Planning Services
- Preservation Action Services
- Test Bed: evaluation and validation services
- Characterisation Services

Interoperability Framework

- Digital Content
- Organisational Context
- External Context
- Technical Environment
Preservation Action

- Transform content
  - Pluggable infrastructure for third-party migration tools

- Transform environment
  - Dioscuri:
    Modular emulation of the full hardware/software environment
  - Universal Virtual Computer (UVC):
    provides a layered durable approach to emulation

- Preservation Action Tools registry
- XML language for describing preservation action tools
Preservation Characterisation

- Characterisation framework
  - Unifies tools for identifying file formats and extracting object properties

- Characterisation registry
  - Based on the file format registry PRONOM

- eXtensible Characterisation Languages (XCL)
  - Family of XML languages for characterising digital objects

- Comparator verifies effects of preservation actions
Infrastructure and Testbed

- Interoperability Framework provides common basis
  - JBoss Application Server
  - Logging, Security Services
  - Registry services
  - User management and Single-Sign-On

- Planets Testbed
  - Controlled environment for the execution of experiments
  - Accumulated experience base collected in registry
Preservation planning

- Collection profiling services
- Technology watch services
- Risk assessment of digital objects
- Preservation planning methodology
- Tool support: Plato, the Planning Tool
Summary

- Planets methods, tools, and services help organisations diagnose and treat problems with their digital objects
- High levels of automation and scalable components reduce costs and improve quality
- Empirical data enables improved decision making
- Find out more: http://www.planets-project.eu
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Preservation Planning

Why Preservation Planning?

- Several preservation strategies developed
  - For each strategy: several tools available
    - For each tool: several parameter settings available
- How do you know which one is most suitable?
- What are the needs of your users? Now? In the future?
- Which aspects of an object do you want to preserve?
- What are the requirements?
- How to prove in 10, 20, 50, 100 years, that the decision was correct / acceptable at the time it was made?
Preservation Planning

Preservation Planning Workflow
- Originally developed within the DELOS DP Cluster
  now refined and integrated within PLANETS
- Based on Utility Analysis
- Follows the OAIS model
- Consistent with requirements specified by OCLC/TRAC and
  Nestor criteria catalogue
Preservation Planning Workflow
Preservation planning

- Evaluating preservation strategies
- Variety of solutions and tools exist
- Each strategy has unique strengths and weaknesses
- Requirements vary across settings
- Decision on which solution to adopt is complex
- Documentation and accountability is essential

- Preservation planning assists in decision making
- Evaluation of strategies on representative sample content according to specific requirements
Thank you very much for your attention and
Enjoy the Workshop!

www.planets-project.eu

http://www.ifs.tuwien.ac.at/dp