

# Digital Preservation Challenge

## Results of the 2nd Competition

Electronic resources are a central part of our cultural and intellectual heritage, but this material is at risk. Digital memory needs constant management, using new techniques and processes, to contain risks such as technological obsolescence. The DPE digital preservation challenge aims to raise awareness amongst researchers of the issue of digital preservation. Three competitions will be held over the lifetime of the DPE project, each including several tasks to solve. The challenge invites participants to overcome the barriers hindering access to (sets of) digital objects. Each object is accompanied by a scenario based on a real life situation. These scenarios are intended to make the challenge more accessible to participants from all backgrounds while not trivialising the serious nature of the digital preservation challenges facing society.

### DPE Challenge

#### Who is Eligible to Enter?

The second Digital Preservation Challenge was open to individuals from any country or discipline. Postgraduate and undergraduate students with a computing science, engineering, or information science background should be especially well-placed to tackle the challenge. This second Digital Preservation Challenge was not open to professional research teams or labs, however future competitions will be planned for these communities.

#### Prizes

1. Prize 3000 Euros
2. Prize 1500 Euros
3. Prize 500 Euros

Awarded at the European  
 Conference on Digital Library  
 (ECDL 2008)  
 Aarhus, Denmark

#### Evaluating submissions

Submissions to the second Digital Preservation Challenge will be assessed by a panel of international digital preservation experts and practitioners. The incremental scoring method the panel uses emphasises the thoroughness and quality of the documentation of the processes used to render the objects rather than the overall outcome itself. In this respect, it may be possible for an individual to win the challenge even if he or she cannot ultimately render all of the objects.

### Challenge Tasks

#### Task 1 File Format Identification

Your company archivist discovered an old tape in a store-room. The content is not known but the label "Master Backup" suggests that is highly valuable. There were four types of files on it, one type of text documents, one type of graphics and two unknown file types. You are asked to identify the unknown file types and display the content of the given sample files in such a way that they may be used in a different application. You are also asked to design an appropriate preservation strategy that will facilitate access to such records, and that can be applied, as far as possible, in an automatic manner. Moreover, you are asked to estimate the cost/effort required to deploy the strategies you propose.

#### Task 2 Proprietary File Format

An image archive received a donation from an artist representing working material from his early years. While ingesting the data into the image archive repository, the system failed to identify some of the file formats. The artists cannot remember the name of the particular application or the computer platform. He also found a related file for one type of the images, but he does not know what the file is. Can you display the images? Include the images in your report in an appropriate form.

#### Task 3 Client Server Database Application

In the beginning of 2003, the Porto Regional Archive (ADP) initiated a project called DigitArq. The goal of the project was to bring together its various finding aids, previously scattered throughout the archive in many different forms and formats, into a single centralised repository based on international standards such as ISAD(G) and EAD. The planned repository would enable the standardisation of all archival procedures and the development of new data services such as search mechanisms and description tools. However, in late 2007 a fire broke out in the server room destroying the server that held all the information produced over the last 25 years. In addition to this all the backup tapes that were kept in a cabinet in the adjoining room were destroyed. Around 80% of the information had been synchronised with a similar repository at the National Archives in Lisbon, and this information was easily recovered. The other 20% had been migrated from an old database that was still kept at the archive but had not been used since 1990. The ADP staff were unable to use the database, so they decided to hire a digital preservation expert to do the job.

#### Task 4 Legacy Emulator

Founded in 1987, the Prix Ars Electronica is an interdisciplinary platform for digital art and media culture. The Prix Ars Electronica is one of the most important awards for creativity and pioneering spirit in the field of digital media. With the rapid change of software tools and frameworks for multimedia authoring their artworks are in danger of becoming inaccessible and unusable. You have been asked to preserve four of these historical digital artworks for future generations and to develop appropriate digital preservation strategies.

#### Task 5 Legacy File Preservation Strategy

Your company wants to preserve their website to document their growth and evolution over time. You are asked to analyse different preservation strategies for websites. The developed strategies will be applied to two internet domains and to analyse their advantages and disadvantages.



### Winners

#### 1st Prize: Alex Mason (Durham University)

Alex Mason was able to solve all the provided challenges showing great skills in data archeology. The proposed digital preservation solutions were outstanding and Alex also provided tools to handle problems emerging in the tasks. His work clearly showed a deep understanding of digital preservation and the challenges associated with it.

Alex was the only participant to implement a preservation solution for the database scenario that allows direct access and further utilisation of the complete data set. Besides, he proposed a video-based approach to solve the task of multimedia art preservation - an outstanding solution.

Altogether, he has proven to have a stunningly deep understanding of the issues at hand and therefore is awarded the first prize of this digital preservation challenge.

#### 2nd Prize: Juan-José Boté Vericad (Universitat Oberta de Catalunya, Universitat de Barcelona)

The second prize goes to Juan-José Boté Vericad. He also managed to solve most of the given tasks, focussing specifically on emulation approaches. Juan-José was able to identify and open all the files provided and access all the data. He suggested good solutions for the problems occurring in the tasks. The solutions were very well designed and accompanied by good analyses and motivations why the specific solutions were recommended.

#### 3rd Prize: Mac Kobus (Stuttgart Media University)

Mac Kobus solved some of the tasks and showed a good understanding for problems associated with the other tasks. His submission focussed specifically on task 2, where he managed to display all the images. He also provided recommendations for generally applicable strategies.

### Submission

3rd Challenge: submission deadline January 15th 2009

For further information and online submission, see: <http://www.digitalpreservationeurope.eu/challenge>