

The background of the slide features a large, faint, light-colored graphic of the ERPANET logo. The logo is a complex network diagram with various nodes and connecting lines. The word "erp" is written in a stylized orange font, and "training" is written in a purple font, both overlaid on the network diagram.

# *erp*training

The OAIS Reference Model:  
**Interpretation and Implementation**

**ERPANET OAIS Training Seminar, København  
November 28th-29th 2002**

## ERPANET OAIS Training Seminar Briefing Paper

<b>INTRODUCTION</b>	<b>3</b>
<b>THE SEMINAR</b>	<b>3</b>
<b>SEMINAR TOPICS</b>	<b>4</b>
<b>SEMINAR CHALLENGES</b>	<b>4</b>
<b>PROGRAMME</b>	<b>5</b>



DET KONGELIGE BIBLIOTEK

## **Briefing Paper**

### **Introduction**

ERPANET's first training seminar will focus on the Open Archival Information System (OAIS) Reference Model. Developed by an international consortium, the Consultative Committee for Space Data Systems (<http://www.ccsds.org/>), this reference model presents a framework for the long-term preservation of information. In 2002 the model was formally approved as an ISO (International Standards Organisation) Standard (ISO 14721:2002), and is currently awaiting publication. This model has generated a great deal of discussion and action among a wide range of information creators and preservers and has been taken as a basis for the development of several high-profile preservation initiatives<sup>1</sup>. The reference model also provides a basis for further standardization in the area of preservation, establishing common terms, concepts, and significant relationships. It aims to improve vendor awareness of preservation functions. While the model does not go into specific requirements, it identifies the recommended processes and metadata necessary to preserve and make available digital information.

There are numerous projects and initiatives designed to investigate the major problems inherent in digital preservation, and the main challenge lies in identifying the necessary data and information management framework and processes. The OAIS model provides clarification and structure to these processes, and an understanding of the model will enable implementers to decompose the structures and relationships into meaningful strategies and actions. These are necessary to meet the challenges posed by preserving increasingly complex, distributed and irreplaceable digital resources.

### **The Seminar**

This two-day training seminar provides accessible and transferable training to participants on the OAIS model itself, its functionalities, and its wider potential applications. As a high-level technical model, it should not be taken as a recommended design, or implementation mechanism. What then, does it mean for those concerned with finding solutions to the preservation of digital information? Participants will gain familiarity with the main features of the model, and examine some of the processes involved in its interpretation and application. In particular, they will acquire an appreciation of how to move from model to implementable preservation solution. Lecturers will share the experience gained by their organisations and institutions in employing the model in the development of their own preservation initiatives. These efforts range from those undertaken by commercial organisations and public sector institutions, to digital libraries, archives and scientific data centres. Discussions and analyses are essential to the better understanding of the model's range of potential applications, as well raising awareness of its limitations. Participants will acquire this through practical breakout activities. Expert speakers will contribute their experiences, accumulated knowledge and familiarity of

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<sup>1</sup> Including NEDLIB (Networked European Deposit Library), CEDARS, NSSDC (National Space Science Data Center), and SIPAD (Système d'Information, de Préservation et d'Accès aux Données) at the French Space Agency Plasma Physics Archive

the model in order that the participants can also share this knowledge with colleagues in their home institution.

### **Seminar Topics**

By exploring the model's functionality, application, and limitations, the seminar will address the areas of difficulty and relate the model to other activities, processes, and initiatives in the field of digital preservation. It will focus on seven main areas:

#### **✘ A walkthrough of the OAIS model**

This session will focus on presenting a step-by-step overview of the model, to introduce its richness, clarify its essential concepts, and identify the activities that lie in its framework.

#### **✘ OAIS functionality**

Here, participants will explore the various characteristics and relationships inherent in the model and in the management and processing of data and information.

#### **✘ Interpretation of the model**

Participants will gain an understanding of the methods used to interpret the model and contextualise it.

#### **✘ OAIS metadata**

The significant preservation role of metadata is widely recognised, and this session examines how the OAIS model utilises and manages metadata.

#### **✘ Current applications of the OAIS model**

Case studies and scenarios provide exciting opportunities to both understand the model and how it has been deployed. Representatives from a range of institutions will explain the decisions, challenges, responsibilities, and implications of basing their preservation strategies and solutions on the OAIS model.

#### **✘ Potential limitations of the OAIS model**

All models have limitations and this session will explore those that are unique to the OAIS model.

#### **✘ Practical activities**

Two practical sessions will allow participants the opportunity to discuss the OAIS model with experts who have interpreted and applied it. These sessions will also facilitate discussion amongst the participants who might wish to bring the problems and examples from their own institutions. The groups will look at how best to address these issues.

### **Seminar Challenges**

As an outcome of the seminar, participants will be able to respond to the following challenges.

- ✘ What are the main concepts and preservation principles of the OAIS model?
- ✘ How can this high-level model be applied in practice?
- ✘ Why should I build an OAIS compliant system?
- ✘ How can the functionality of the OAIS model be built into a system?

- ✘ How does this model and its development relate to other digital preservation systems and initiatives?
- ✘ Can this model apply to all types of data and information?
- ✘ What can be learned from the existing implementations of the model?
- ✘ Where will the standards and specifications needed to implement the model come from?
- ✘ Will there be a certification process for OAIS compliant preservation systems?
- ✘ Does this model provide a useful mechanism to preserve digital information in the long-term?

This seminar has been designed to appeal to a broad array of information professionals, public bodies, commercial as well as non-profit organisations, researchers, and anyone with an interest in learning more about the preservation of digital information.

## Programme

### Thursday 28<sup>th</sup> November

09:00	<b>Welcome</b> <i>Karl Krarup (Det Kongelige Bibliotek)</i>
09:15	<b>Introduction</b> <i>Seamus Ross (ERPANET)</i>
09:30	<b>OAIS Model Introductory Session</b> <i>David Holdsworth (CEDARS)</i>
10:15	<b>OAIS functionality</b> <i>Robin Dale (Research Libraries Group)</i>
11:00	Break
11:15	<b>Interpretation of the OAIS model</b> <i>Derek Sergeant (CAMiLEON)</i>
12:30	<b>Lunch</b>
13:30	<b>OAIS metadata</b> <i>Julien Masanès (Bibliothèque nationale de France)</i>
14:15	Break
14:30	<b>Practical Session 1 – OAIS Interpretation</b>
17:00	<b>Finish</b>

### Friday 29<sup>th</sup> November

09:00	<b>Current applications of the OAIS model</b> <i>Deborah Woodyard (British Library)</i> <i>David Giaretta (CCLRC Rutherford Appleton Laboratory (RAL))</i>
11:15	Break
11:30	<b>Current applications of the OAIS model (cont.)</b> <i>Najla Semple (Edinburgh University Library)</i>
12:30	<b>Lunch</b>
13:30	<b>OAIS limitations</b> <i>Hans Hofman (Nationaal Archief van Nederland, ERPANET)</i>
14:30	Break
14:45	<b>Practical Session 2 – OAIS Implementation</b>
16:30	<b>Next Steps</b>
17:00	<b>Finish</b>