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## The Data Exchange Model for Archiving (MEDONA)

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### Abstract

In 2006, a Data Exchange Model for Archiving (MEDONA) was developed by the French Directorate of Archives (Ministry of Culture and Communication) and the Directorate-General for the modernization of the State (Ministry for Economic Affairs, Finance and Industry). The Model is currently being standardized by a working group of the French Association of Standardization including archivists of public archival agencies, storage services providers, software editors and IT consultants. MEDONA provides a model for the various specific transactions, which occur between the archival agencies and its partners (originating agencies, access requesters, other archival agencies, control authorities), i.e.: transfer; delivery; modification notification; destruction notification; restitution. Each transaction is modeled as a scenario for exchange of messages. These messages are formally defined as XML schemas.

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### 1. Introduction

Data processing and office automation, already present in public services, in enterprises and in households for several decades, continue to develop. However, far from the aim of “zero paper” that the emergence of micro-computers had promised us, now we look into the objectives of efficiency, productivity improvement or services of better efficiency and better quality that data processing could bring.

The administration and the public services are taking an active part in this evolution of our society. A typical example is the take-off of electronic administration, which is constantly accelerating nowadays with different governmental programs (DISIC, 2012). No longer at stake now is the massive production of digital information

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nor the extreme automation of the various processes in order to reach the “zero paper”. It’s rather the faculty of systems to organise information and make it available rapidly in an easy to understand form. Electronic exchange plays an important role within a context where mainly the organisation efficiency and the exchange facilitation are looked for. The Data Exchange Model for Archiving or MEDONA is placed at this strategic level of the information system (Banat-Berger *et al.*, 2009; more information, is available through the website of the Service interministériel des Archives de France: <http://www.archivesdefrance.culture.gouv.fr/seda/>). It aims at facilitating the interoperability between the information system of an archival agency and the information systems of its partners: Originating Agency, Access Requester, Control Authority, and Transferring Agency. It provides a framework for the various specific transactions, which may occur: transfer, delivery, destruction, etc.

The Data Exchange Model for Archiving was developed in 2006 by the French Directorate of Archives (Ministry of Culture and Communication) and the General Directorate of the modernization of the State (Ministry of Budget) within the framework of a specific governmental program, dedicated to archival archiving (Banat-Berger, de Solan, 2008). It is currently being standardized by a working group of the French Association of Standardization, including archivists of public archival institutions, storage services providers, software editors and IT consultants. Currently, a draft of standard is open for comments (<http://www.enquetes-publiques.afnor.org/information-et-communication-numerique/pr-nf-z44-022.html>). The future national standard should be published by the end of 2013 (AFNOR, 2013; see also CINES, 2012).

## 2. Scope and key principles

### 2.1. Purpose and principles of development

The MEDONA standard provides a standardized framework for the various information exchanges (data and metadata) between the Archival agency and its partners. Interchanges between several archival agencies (integrated records management offices, public archival agencies, archiving providers) are also to be considered. The MEDONA standard defines activity diagrams and data models according to the UML standard, as well as in message definitions according to XML schemas.

The model presents useful elements for building applications above and below the messages. In particular, it defines the necessary data contained in these systems. This data will then be used to generate messages, by mapping between the model of the relevant databases and the XML schemas of the transactions envisaged in the MEDONA model. The model is generic and adaptable to all types of documents and data, both electronic and in paper format. It is compatible with any metadata standard: it provides a minimum technical metadata set but is open to any other any packaging standard.

Whereas other exchange standards, such as PAIMAS (ISO 20652: Space Data and Information Transfer Systems - Producer-Archive Interface - Methodology Abstract Standard), only cover the first stages of the ingest process defined by OASIS (Open Archival Information System), the situations that are covered by the MEDONA standard include: transfer, delivery, destruction, modification and restitution of digital documents or data between the transferring agency, archival agencies and third party entities. The MEDONA standard defines scenarios used by archival agencies and their partners in order to exchange information within the framework of these transactions. It also provides an implementation model using XML formalism for the exchanged messages. The aim of this work is to promote the interoperability between the information systems of public services and to allow for a better sharing in software developments (Jacobson, 2010).

### 2.2. Targeted audience

The standard is intended in particular for:

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