ARTYDOC, a new digital archive of meteorological documentation

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Servei Meteorològic de Catalunya

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OVERVIEW

• Background and motivation of the project
• Main features of the digital documents
• What is ARTYDOC and how it works
In 2016, WMO addressed the four key activities of data rescue:

- cataloguing and storing of paper media to minimize the deterioration;
- imaging paper records for improving preservation and accessibility;
- digitizing data into computer compatible form;
- and continuous updating of digital records to up-to-date media and formats
Since 2001, many internal DARE projects have been undertaken at SMC trying to digitize and unify in a single repository as many climate documentation as possible.
Flow-chart strategy 1 (2001-2005)

Identification of repositories

Document consultation **within** the archive

Digitalization

- Risk of document degradation
- No digital preservation
- Time consuming during QC process
Flow-chart strategy 2 (2005-2013)

- Professional imaging is very expensive
- The original documents demands restoration in many cases
- Wide range of digital storage platforms: DVDs, CDs, external hard disks...
Flow-chart strategy 3 (since 2013)

1. Identification of repositories + donations from observers
2. Restoration of more deteriorated docs
3. HD Digital Camera and equipment + professional imaging
4. Digital copy of both data and documentation
5. Original documents stored at the Catalan National Archive
6. Final extraction of data
BACKGROUND AND MOTIVATION OF THE PROJECT

HUGE AMOUNT OF DIGITAL INFORMATION !!!!

6.1 TB ... and growing! (August 2018)

- Need for a unique and save storing system: NAS (Network Attached Storage) with 14 TB of capacity
- Need for a usable and reliable cataloguing tool
MAIN FEATURES OF THE DIGITAL INFO: TYPOLOGY

Manuscripts

Meteorological sheets and loggbooks

Publications

Photos

Strip charts

Historical Press
• **542,000 digital files** in a variety of formats (png, tiff, bmp, jpg, pdf) and of different quality/resolution.

Where do digital files come from?
86% of the volume comes from SMC archives (higher resolution)
• ARTYDOC is the solution for storage, management, cataloguing, description and dissemination of the climate digital information at SMC.

• Web-based software

• Software developed by ARTYPLAN a leading Catalan company highly specialized in any print and copy service ([www.artyplan.com](http://www.artyplan.com)). In 2003 started a new division: Document. This division linked to the world of the archives, biblioteconomics, documentation and TIC.

• ARTYDOC for climatic digital archives is being developed jointly with SMC.
WHAT IS ARTYDOC AND HOW IT WORKS

• DESIGN: the main point is how the information is internally classified according to the variety of info and digital formats.

• CATEGORIES:

  1. Numerical data (sheets)
  2. Publications and historical press
  3. Correspondence
  4. Photographies: weather stations, weather phenomena, weather instruments, phenology stages
  5. Strip charts (thermographs, pluviographs...)
WHAT IS ARTYDOC AND HOW IT WORKS
WHAT IS ARTYDOC AND HOW IT WORKS

Searcher of digital files

Navigation menu

Last entries
WHAT IS ARTYDOC AND HOW IT WORKS

Several filters can be implemented

Results in a list format
WHAT IS ARTYDOC AND HOW IT WORKS

Searcher of digital files

Several filters can be implemented

Results on a visual navigator
WHAT IS ARTYDOC AND HOW IT WORKS

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Nom de la estacion meteorològica:
Central Nuclear de Vandellos

Municipi:
Vandellos i Poblat del Infant

Comarca:
Baix Camp

Variables:
Precipitació - Meteor - Direcció del Vent

Resolució temporal:
Diària

Format:

Targetes:

Productor:
Agència Estatal de Meteorologia

Font de procedència:
Banco Nacional de Datos (INM)

Informador:
Administradors

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<td>Data final: 1973/12/31</td>
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<td>Data creació: 2017/06/28</td>
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Datos:

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WHAT IS ARTYDOC AND HOW IT WORKS
WHAT IS ARTYDOC AND HOW IT WORKS: SUMMARY

GOOD NEWS

• ARTYDOC fits well SMC demands for digital storing and cataloguing

• Useful tool for preservation and consultation

• Is fully transparent: the administrator has full capacity for adding new requirements

• Very adequate for QC purposes and metadata sources

• All kind of digital documents can be catalogued: weather stations, phenological stages, weather phenomena, instrumentation...

• About 70% of the images are already catalogued

• The platform will be publicly accessible soon (hopefully)
WHAT IS ARTYDOC AND HOW IT WORKS: SUMMARY

MORE TO COME...
• Explore a similar experience as DRAW project (Data Rescue: Archives and Weather) 
  [https://citsci.geog.mcgill.ca](https://citsci.geog.mcgill.ca)

Project allows volunteers to participate in the transcription of historical weather logs captured at the McGill University McLeod Observatory from 1863 to 1963 (Canada) = CITIZEN SCIENCE

Data from the Observatory at the University of Barcelona (1855-1936)
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**Observaciones EN 24 HOREAS**

- Temperatura máxima del día: 16.4
- Humedad: 85
- Tensión del vapor: 6.7
- Lluvia total en millímetros: 0.4
- Evaporación: 1.7
- Recorrido total del viento en km.s: 1.6
- Temp. mínima a 0.10 m. del suelo: 1.6
- Velocidad del viento: 1.7
- Duración de la lluvia: 0.3
- Estado del mar: 75
- Lluvia total de nubes: 0.5

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University of Barcelona (24-jan-1925) - SMC digital archive
Nagyon köszönöm!