


# Implementing history preservation and Memento API for Invenio digital library software

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*Background image: Shutterstock*

# Problem

- › **Invenio is used at CERN, DESY, EPFL, SLAC and many more scientific institutions**
- › **At CERN, over 1,000,000 documents in 700 collections**
- › **Library records updated all the time, particularly in HEP**
- › **No way to see the history as of now**

- › **Make history easily accessible**
  - **Exposing versions through Web UI and API**
  - **Implement a new Memento API for browsing historical versions**
- › **Preserve history**
  - **Not all changes are saved, so think of a way an effective way to save them**

- › **Proposed HTTP API**
- › **Provides straightforward access to past versions of resources on the Web**
- › **Used at Mediawiki, Internet Archive**
- › **Two API endpoints for every resource**
  - **Timemap, lists versions**
  - **Timegate, finds the most suitable version**

- › Adding new functionality easy due to Invenio modular design
- › Challenge
  - Version only base format (not precise)
  - Snapshot everything (costly)
  - Trade-off: make admin decide what formats to version
- › Goals partially reached

- › **Allow people to explore the history of publications at digital libraries**
- › **Popularize new HTTP Memento API, which is used now at few sites. Make Web remember its history for the sake of future generations.**

## World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

### [What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

### [Help](#)

on the browser you are using

### [Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#) )

### [Technical](#)

Details of protocols, formats, program internals etc

### [Bibliography](#)

Paper documentation on W3 and references.

### [People](#)

A list of some people involved in the project.

### [History](#)

A summary of the history of the project.

### [How can I help ?](#)

If you would like to support the web..

### [Getting code](#)

Getting the code by [anonymous FTP](#) , etc.