

## Deutsche Nationalbibliothek preserves the German national heritage now and for the future.

### Overview

#### Business challenge

Preserving cultural and scientific documents is a challenging duty for national libraries. New digital data formats are often linked to specific hardware or software. Older data is often no longer accessible with modern software. In an effort to tackle these challenges, the German National Library took on the challenge of digitally preserving the country's heritage using open source methods.

#### Solution

IBM Global Business Services has worked for three years with the Library on project kopal (Co-operative Development of a Long-term Digital Information Archive), which was designed and developed to be reused by other cultural heritage institutions. The solution is based on the DIAS (Digital Information and Archiving System), IBM Deutschland GmbH's DIAS-Core and the open-source kopal tools developed by the DNB and the SUB Goettingen (Goettingen State and University Library). Content creation, entry and retrieval are managed by koLibRI (kopal Library for Retrieval and Ingest), an open-source-software library that guarantees future and backwards integration of various diverse data formats.

#### Benefits

- The IBM standard software based DIAS solutions combined with the open-source kopal tools ensure long-term accessibility to documents
- Availability to other institutions offers unprecedented opportunity for collaboration and cooperation in preserving nations' cultural heritage

#### Industry

- Education

### Challenge

The growth of electronic publications changes considerably the task profile of libraries, especially of those libraries that are responsible for preserving the cultural heritage of a nation, such as the German National Library, the Deutsche Nationalbibliothek (DNB). Ensuring long-term accessibility to the heritage of a nation preserved as digital documents provides those libraries with particular challenges. The growing number of scientific Electronic Publications increases the necessity of reliable archiving systems. In the technical arena, new digital data formats are often used that are linked to special programs, and consequently to specific hardware and system software. Older data can often no longer be accessed with modern software. In an effort to tackle this challenge and help preserve Germany's cultural assets the German National Library established a project that would digitally preserve the country's heritage using open source methods.

### Solution

Deutsche Nationalbibliothek engaged IBM Global Business Services to guarantee the secure storage and long-term availability of digital data. The project, named kopal (Co-operative Development of a Long-term Digital Information Archive), was designed and developed to be reused by other cultural heritage institutions and by other institutions that need long-term archiving. The solution is based on the DIAS (Digital Information and Archiving System) and the open-source kopal tools developed by the DNB and the SUB Goettingen (Niedersaechsische Staats- und Universitaetsbibliothek Goettingen/Goettingen State and University Library). Content creation, entry and retrieval are managed by koLibRI (kopal Library for Retrieval and Ingest), the open-source-software library that guarantees future and backwards integration of various diverse data formats. IBM Global Business Services worked with Deutsche Nationalbibliothek over a period of three years, providing consulting, implementation and project management services for kopal. The project has been sponsored by the Bundesministerium für Bildung und Forschung (Federal Ministry of Education & Research) and is hosted by the GWDG (Gesellschaft für wissenschaftliche Datenverarbeitung mbH Goettingen).



## Benefits

The kopal project is a very unique approach of government institutions in Germany collaborating in a co-development partnership with IBM and an IT service provider to jointly work on a long-term solution. It supports the Unesco Charter on the Preservation of Digital Heritage, which asserts the societal importance of preserving the cultural heritage of a nation. In Germany, the Network of Expertise in Long-Term Storage of Digital Resources (nestor) was formed to create a network of expertise in long-term preservation of digital resources. kopal emerged from the nestor initiative, and aims to preserve Germany's national heritage for decades to come.

Based on DIAS (IBM Digital Information Archiving System) the solution allows multiple users to access the archive independently of their location. The solution is therefore best suited to serve the needs of many institutions dispersed all over Germany. koLibRI (kopal Library for Retrieval and Ingest), the open-source-software library, guarantees future and backwards integration of various diverse data formats, differentiating kopal from other archiving solutions which do not offer such a broad scope of data format integration.

The solution is flexible and can be tailored to the various needs of institutional and end-user needs. In the government environment regimentation, rules and processes are normally strict, inflexible and not changed easily. With kopal, institutions can now start transforming their long term archiving processes as the solutions adapts to their needs.

## Why it matters

Preserving cultural and scientific documents is a challenging duty for national libraries. The German National Library, the Deutsche Nationalbibliothek, took on the challenge of digitally preserving the country's heritage through its kopal project. By working closely with IBM and German government institutions, and by using open source methods, the Library has ensured that the technology used for preservation today will be accessible far into the future. The solution was created to be made available to other institutions wishing to digitally preserve documents, offering an unprecedented opportunity for collaboration and cooperation in preserving nations' cultural heritage.

*“Kopal is a model for collaboration in the goal of preserving our heritage. Designed to be shared, the DIAS archive will preserve documents well into the future.”*

—DNB sources

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Route 100  
Somers, NY 10589  
U.S.A.

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12-07  
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