trinera

We connect culture with modern technology

We help memory institutions work with data efficiently, automate their processes, and make cultural heritage accessible to the general public.



Looking for a technology partner with deep knowledge of libraries and other memory institutions?

At Trinera, we combine software development, data expertise, user-centered design, meaningful use of AI, and deep understanding of library practice. This helps us work with institutions to create solutions that are not designed in isolation, but respond to the real needs of staff and users.

WHAT WE DO

- **Digital libraries:** We design and implement digital libraries that combine ease of use, clear navigation, attractive design, and intuitive search.
- **Metadata analysis and validation:** Our advanced tools for metadata analysis and management include automated checks, connections to authority databases, and compliance with international standards.
- **Collection websites:** We create visually appealing websites and digital presentations that reflect the content and character of your collections and make them accessible to specialists and the public in a user-friendly way.
- **Process automation and optimization:** We save you time, make data work more efficient, and reduce errors by automating key processes such as cataloging and digitization.
- **Semantic search:** Natural-language search powered by artificial intelligence lets you work with data in greater depth. Our tools make analysis more efficient, improve the relevance of search results, and offer a more intuitive way to access information.
- **Consulting and technical support:** We help you introduce modern technologies and optimize your processes. We offer training, workshops, and expert advice tailored to your specific needs.



DO YOU HAVE AN IDEA OR PROJECT TO DISCUSS?

Feel free to call or write to me.

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Kramerius Digital Library

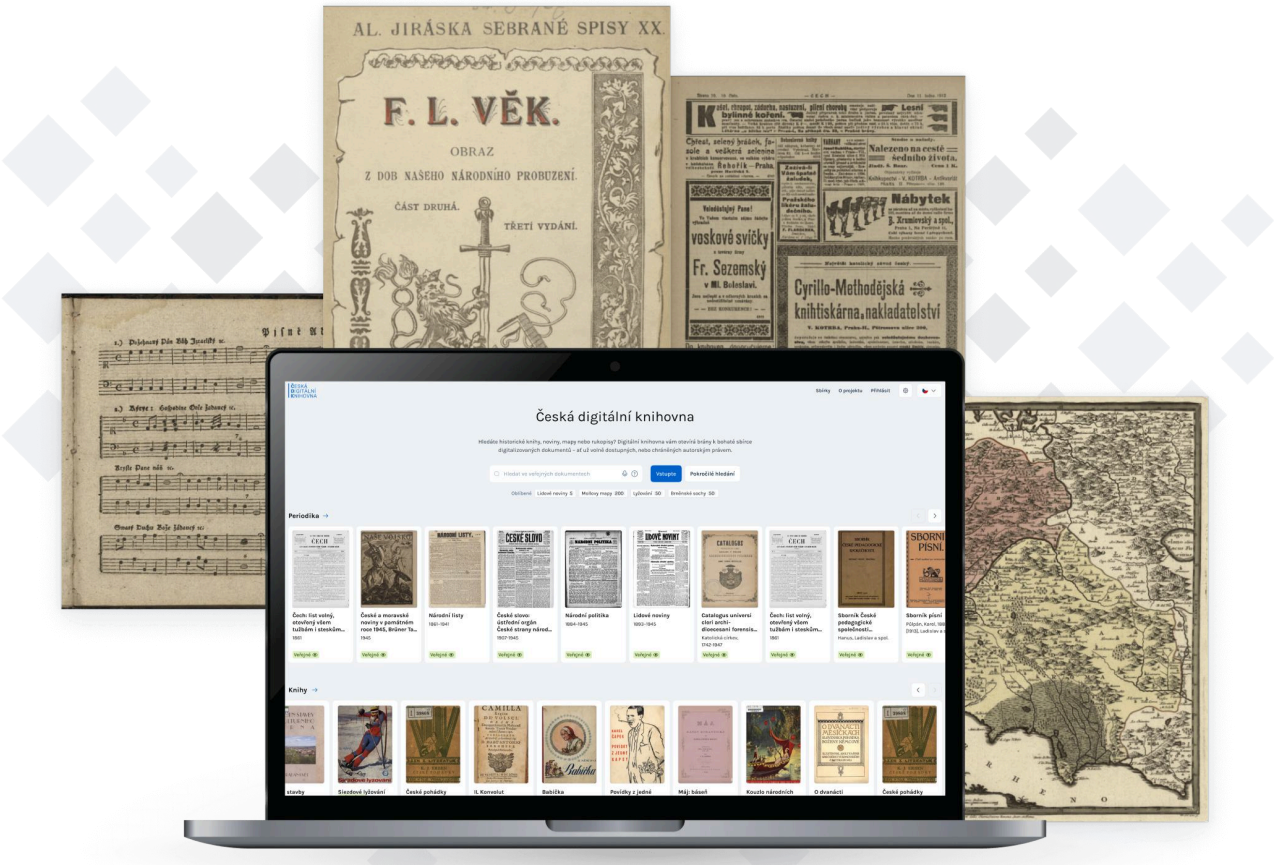
A modern system for libraries, archives, and other memory institutions that has been making cultural heritage accessible to the general public for more than two decades.

Kramerius is the most widely used open-source system in the Czech Republic for presenting digitized collections and making them accessible. It is used by dozens of institutions, including the National Library of the Czech Republic, the Moravian Library, regional libraries, and other specialized organizations.

Thanks to Kramerius, hundreds of thousands of titles and more than one hundred million digitized pages are available to the public — ranging from historical newspapers and books to maps, manuscripts, prints, sheet music, and other specialized documents.

For users, Kramerius is a place where they can conveniently search, browse, and study digitized documents. It lets them leaf through historical editions, work with scans, and run full-text searches across OCR transcriptions. For memory institutions, it is also an important part of the infrastructure for long-term access to digitized collections and for connecting them with other systems and services.

At Trinera, we have contributed to the development of Kramerius for many years, particularly in the areas of user interface design, new feature design, and making extensive digital collections accessible in a clear and comprehensible form. Our goal is for a digital library to be not only a technical data repository, but a genuinely usable environment for the public, researchers, and library staff alike.



The Moll Collection: A digital presentation of rare maps

Listed by UNESCO, this unique collection of maps and vedute is presented through a modern website. Users can explore the collection by region or through geographic search. Each map and print is available in high resolution for detailed viewing.

The web application serves as a reference solution for the digital presentation of extensive collections where visual detail and territorial, historical, or thematic context play a key role. It functions not only as a means of making collections accessible to the public, but also as a tool for professional research without any risk of damaging the originals.

EXAMPLES OF USE FOR GALLERIES, MUSEUMS, AND ARCHIVES

The Moll Collection serves as a reference solution for the digital presentation of extensive collections where visual detail and territorial, historical, or thematic context play a key role.

- **Access to rare collections:** Creating specialized websites for coherent collections that, for example, require a specific classification system.
- **Detailed study of artworks:** Presenting prints, drawings, or vedute in high resolution so artifacts can be analyzed by experts without handling the originals.
- **Georeferenced collections:** Making photographs, postcards, or plans accessible through an interactive map interface, with search and filtering by historical locations.
- **Historical plans and chronicles:** Publishing large-format works and multi-sheet documents with smooth browsing and comparison of different time layers.

The Moll Map Collection is more than a digital archive of scanned maps. It is a gateway into history, helping experts and general users discover the beauty and context of old maps at a level of detail that was previously unavailable.



Anakon: A tool for the analysis and control of complex data

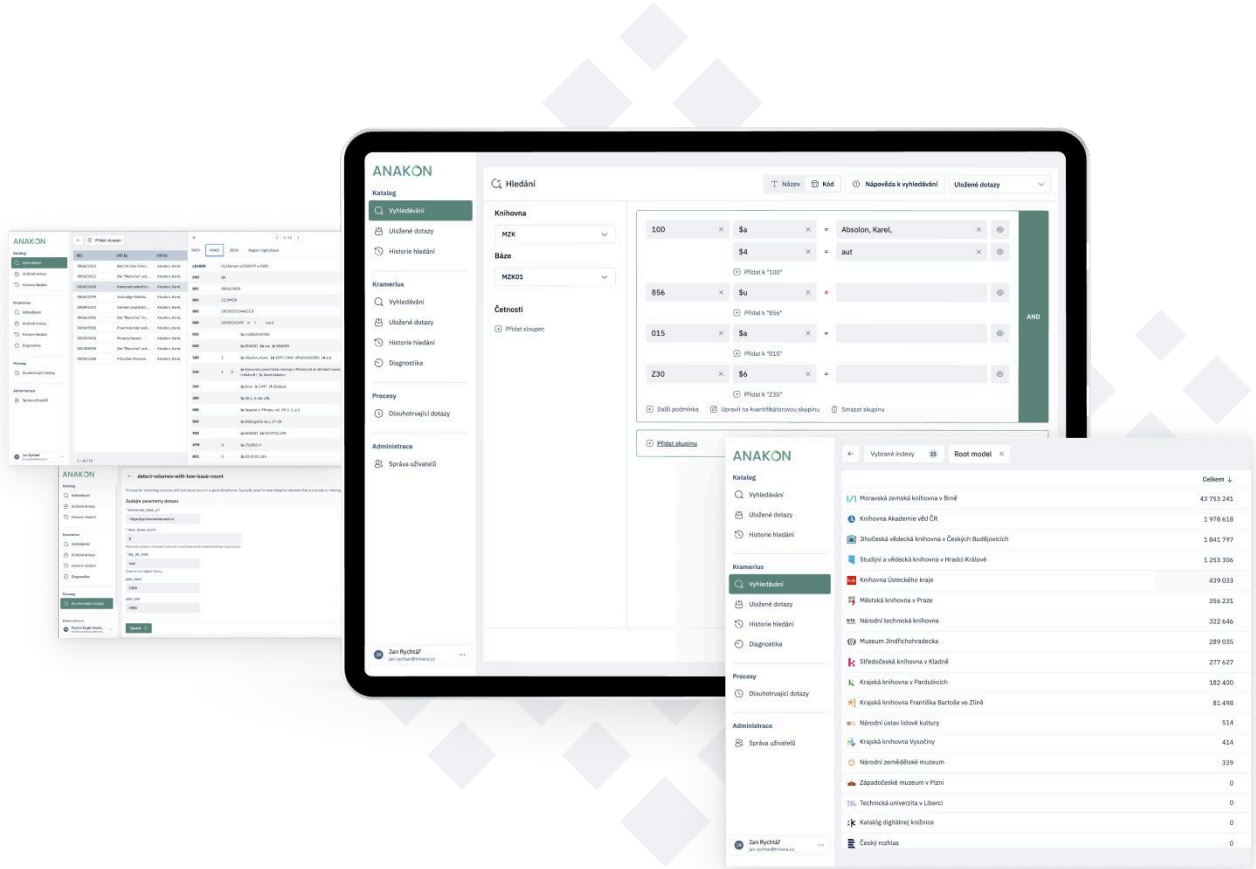
Anakon is an analytical and control tool that enables librarians to work independently with metadata in the MARC 21, MODS, and Kramerius 7 index formats. It allows for advanced record filtering and, above all, systematic and efficient data handling, without programming knowledge or the need for IT department intervention.

The tool also includes diagnostics and analytics for Kramerius — the diagnostic module can identify issues such as empty titles or invalid UUIDs.

ANAKON ENABLES:

- Create advanced queries over catalog data without any programming knowledge.
- Filter records by logical conditions or text patterns.
- Analyze data across one or more digital libraries at once.
- Compare data between a catalog and Kramerius.
- Diagnose typical problems in digital libraries.
- Visualize and export results for further processing.

Anakon is not a replacement for a traditional cataloging system and does not allow records to be edited directly. It's main value lies in strengthening the role of the librarian as an expert who understands their data and can work with it systematically and independently.

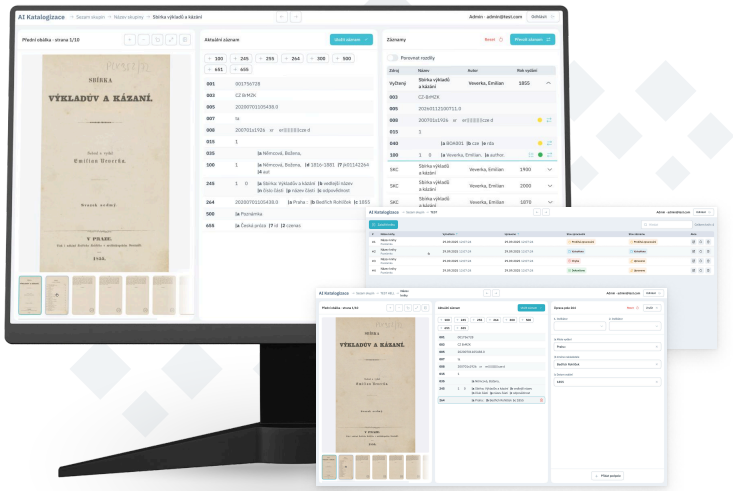


AI Cataloging: An intelligent assistant for modern cataloging

A smart copilot for catalogers that uses artificial intelligence to speed up and improve the creation of bibliographic records from photographs of the title pages and imprint/copyright pages of printed documents.

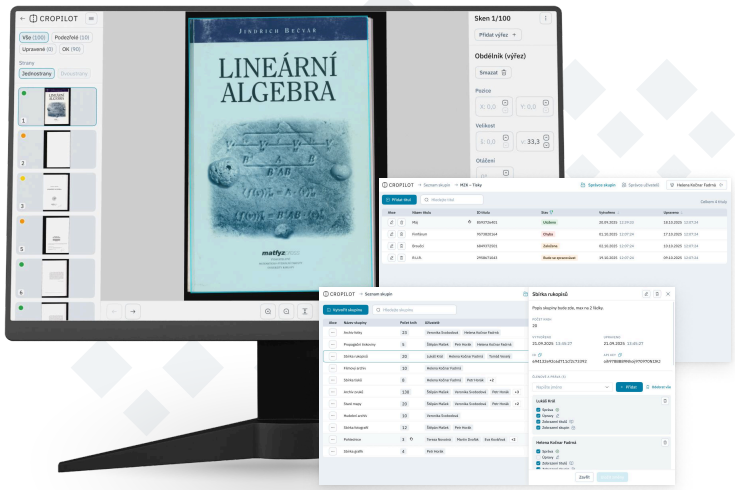
Rather than acting as black-box automation, it creates a well-founded draft record through a series of defined steps. The system extracts bibliographic data, normalizes it, searches authority databases, and compares existing records. Critical data is drawn from authority databases, keeping the process transparent, controlled, and easy to adjust.

AI Cataloging combines AI with library practice in a practical way. It also includes a modern web-based MARC 21 editor that can be adapted to each institution's needs.



Cropilot: Automating scan cropping with AI

Cropilot is a system for fully automated scan cropping using artificial intelligence. It removes the biggest bottleneck in digitization workflows — repetitive manual page cropping. In our solution, this step is handled by an advanced AI vision model which, after additional training, can also deal with documents in very poor condition or with atypical cropping formats.



MAIN BENEFITS:

- Crop parameters tailored specifically to a particular collection or institution.
- Minimal need for manual review (full automation including page rotation and resolution).
- Increased digitization capacity without growing staff or costs through process automation.
- Stable and consistent output quality.
- Continuous improvement based on feedback.

The system can be integrated into digitization lines (NDK, ProArc), incorporated into existing workflows, or used as a standalone solution.

Our other projects

DIGITIZATION WORKFLOW AUTOMATION

We connect individual digitization steps into a single managed process — from input scans through cropping, loading and converting bibliographic metadata, automated creation of structural metadata and OCR, identifier assignment, and ongoing checks, all the way to generating NDK packages. The modular solution makes it easy to modify, extend, or replace individual components to suit the needs of a specific digitization pipeline, and includes tools for quality control and handling anomalies requiring expert intervention.

NEWSPAPER MEMORY

A web application that uses artificial intelligence to make newspaper content from the turn of the 19th and 20th centuries accessible to the public. Unlike conventional full-text search, the application uses AI-powered semantic search to understand the meaning of queries in natural language, interpret source texts, and significantly facilitate and streamline work with large digital archives.

FILMODEL

A comprehensive cataloging and research tool for detailed processing and retrieval of audiovisual works according to the FIAF manual, including integration with authority databases and image or text materials, built for the needs of the National Film Archive.

MAKARIUS

A digital music library that enables searching and accessing sheet music from various institutions. Thanks to machine processing of musical scores, it can search by a given melody and suggest similar musical works.

JAMU THEATRE INVENTORY

A web application for managing and lending theatrical props, costumes, and equipment. It enables clear searching and filtering of items, including detailed information, images, and availability.

KRAMERIUS STATISTICS MODULE

A tool for collecting, processing, and analyzing visitor logs of digital libraries. It's clear interface with tables and charts allows tracking the use of digitized documents by various parameters, such as document type, license, year of publication, author, or other metadata.

CZIDLO

For a digital document to be archived long-term, made accessible, and reliably retrievable even after many years, it needs a unique and stable identifier. This is precisely the purpose of CZIDLO – the Czech System for Identification and Localization of Digital Documents. It is a tool supporting the national permanent identification system based on the URN:NBN standard.

About Trinera: technology with a librarian's heart

Trinera was founded in 2021 by Jan Rychtář, Pavla Rychtářová, and Martin Řehánek, who brought their experience from the library world directly into software development.

"At Trinera, we are a team of technology, data, and design experts with deep knowledge of the library environment and it's specifics.

With more than 15 years of experience, we understand the challenges that memory institutions face and can address them with tailor-made products.

Beyond saving time, we help institutions respond flexibly to both current and future challenges."



JAN RYCHTÁŘ
CEO
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"I have a deep understanding and long-standing experience in librarianship, which gives me a unique perspective on digitization and metadata formats.

My transition into software development allows me not only to analyze data effectively, but also to design and implement web applications that optimize library processes.

These applications streamline data management and increase efficiency, which is essential for modern library services."



PAVLA RYCHTÁŘOVÁ
Frontend Developer
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"I focus on complex server operations and management, data infrastructure, and ensuring the stability of our innovative solutions. I handle a wide range of tasks, from server installation and configuration to programming robust backend services.

I also serve as the technical guarantor to ensure the high quality and reliability of our products, which is essential for the success of our clients and their operations."



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LUCIE NOVOTNÁ
AI/ML Engineer



MARIÁN HARBIST
Frontend Developer



HUY LE
Full Stack Developer



ALEŠ CHUDÁREK
AI/ML Engineer

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