



R2 Mechanics – Local Transcription System for Research & Cultural Memory

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Purpose & Mission

R2 Mechanics was developed to process sensitive audio data – such as oral history, eyewitness interviews or scientific recordings – in a **structured, transparent, and fully offline** manner, and to enhance it visually.

The goal is to offer a modular, GDPR-compliant platform for institutions seeking local control, semantic structuring, and long-term archival capability. The system was developed from the ground up to meet the highest standards in data sovereignty, structuring, and archival permanence.

Target Groups

- Research institutions & universities
 - Archives & museums
 - Oral history projects
 - Ethnographic fieldwork teams
 - Privacy-sensitive organizations
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System Advantages

- **Local processing** (no cloud)
 - **GPU-accelerated transcription**
 - **Interactive HTML output with chapters & timestamps**
 - **Optional: speaker separation and visual scene generation**
 - **Modular and extensible architecture**
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Use Cases

- Transcription of oral history interviews (Audio → HTML)
 - Structured documentation of ethnographic research
 - Offline processing of sensitive archive materials
 - Long-term semantic documentation with navigable output
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Cooperation & Demonstration

A non-operational demonstrator is available upon request for cooperation discussions.
Test runs and technical exchanges are possible for academic institutions.

If you're interested in a specific use case, workshop or pilot project, we welcome your inquiry.

Contact:

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🔗 <https://github.com/R2-Mechanics/r2-mechanics>