



Product Corinth

Technical Documentation

→ Key application information and other features.

Team Corinth

7. 9. 2026



Contents

1 Overview	3
2 Online Application	4
2.1 Key Application Information	4
2.2 License Management	4
2.3 Library Content	4
2.4 Other Application Features	5
2.4.1 QR Code Access	5
2.4.2 Accessibility Compliance	5
2.4.3 Augmented Reality (AR)	5
2.4.4 Virtual Reality (VR)	5
2.4.5 Photo of the 3D models	5
2.4.6 3D Printable Models	5
2.4.7 Dissection of 3D models	6
2.4.8 Curriculum-Aligned 3D Model Library	6
2.5 Technical Feature Description: CoriAI Chatbot for 3D Models (Corinth)	6
2.5.1 Overview	7
2.5.2 Functionality	7
2.5.3 Architecture	8

1 Overview

Lifelique Czech is a publisher of Corinth - an interactive educational application containing **1 600+ university verified interactive assets** (predominantly 3D models) designed to support **STEM education in K–12 schools**. The application works **online**.

Recommended:

- **macOS:** Chrome and Safari (latest version).
- **Windows:** Chrome and Edge (latest version).

Smartphones & tablets

- Android: minimum version **Android 14** (2023), Chrome (latest version).
- iOS: **iOS 17** (2023) or **iPadOS 23** (2023), Safari (latest version).

Headsets

- **Meta Quest 3** — Meta Quest Browser (latest).
- **Meta Quest 2** — Meta Quest Browser (latest).
- **Pico 4 series** — Pico Browser (latest).

2 Online Application

2.1 Key Application Information

- Cloud based application, accessible via browser, requiring internet connection.
- Account is created for all teachers and students in the purchasing institution (i.e. school site).
- **15 language versions**, including full localization of Latvian, English, Polish, German, Ukrainian and Russian.
- Dual-language display mode (display two languages simultaneously).

2.2 License Management

Centralized License Control:

- Easily assign, revoke, and monitor licenses across the entire school or district from a single admin portal.

Bulk User Management:

- Import, edit, and assign roles/licenses to hundreds of users at once via intuitive CSV upload and bulk actions.

Granular Role:

- Assign custom roles (e.g., Student, Teacher, Admin)

Real-Time License Overview:

- See exactly how many licenses are assigned, available, and to whom — with clear filters by role and group.

Filtered Bulk Operations:

- Apply changes to selected users using advanced filters (by role, group, license).

2.3 Library Content

The library consists of predominantly interactive 3D models (at least 1 450) but involves also deep-zoom images (at least 110), 360-degree videos (at least 80), videos (at least 40) and galleries (at least 30).

- **Biology** (min. 500 models): human biology, biology of animals, biology of plants.
- **Chemistry** (min. 250 items): interactive periodic table, reactions, molecular structures.
- **Physics** min.(290 models): mechanics, optics, thermodynamics

- **Space** (min. 30) solar system
- **Geology** (min. 125 models): tectonics, cycles, biomes, climate systems.
- **Paleontology & Culture** (min. 110 items): dinosaurs, ancient civilizations, architecture.
- **Mathematics** (Geometry) (min. 180 items): shapes, solids, geometry in nature.

Interactive 3D models are with full rotation on X/Y/Z axes and zoom functions. The user can highlight selected parts of the model, navigate between related thematic 3D models and search them by keyword and topic. Each model has some additional textual information as an introduction.

2.4 Other Application Features

2.4.1 QR Code Access

- Students can use the app via shareable via QR code, direct link, or content access code, without need to register an account.

2.4.2 Accessibility Compliance

- Screen reader compatibility.
- Double AA contrast adherence.
- Alternative input method for students with physical disabilities, using voice to navigate 3D content.

2.4.3 Augmented Reality (AR)

- 3D models can be projected into the real environment using AR functionality. Working on smartphones and tablets (Apple and Android)

2.4.4 Virtual Reality (VR)

- Users can zoom, rotate, dissect, and explore 3D models in full VR space using standard VR controllers.

2.4.5 Photo of the 3D models

- Allows users to take screenshots directly within the app while interacting with a 3D model.
- Outputs can be saved or shared for use in presentations or lessons.

2.4.6 3D Printable Models

- 50 curated educational 3D models;
- Provided in industry-standard .STL format;

- Ready for direct 3D printing – no editing needed;
- 3D printed output is fully watertight, clean geometry;
- Optimized for FDM printers and school use;
- Supports tactile learning in biology, physics, geometry;
- Delivered as a ZIP package for easy deployment;

2.4.7 Dissection of 3D models

A new generation of over 500 dissectible 3D models to support **modular decomposition**, **interaction tracking**, and **pedagogically aligned structure breakdown**.

- **Component-based 3D architecture:** Each module is structured from independent mesh components, enabling step-by-step disassembly and reassembly.
- **Interactive part labeling and grouping:** Users can hover, click, or isolate specific components, which are dynamically annotated and categorized.
- **Pedagogical sequencing:** Disassembly steps follow a didactic logic (e.g., organ systems, machine mechanisms) and are mapped to curriculum objectives.
- **Synchronized animations:** Transitions between states (assembled → disassembled) are smooth and highlight dependencies between components.
- **Cross-device optimization:** Modules are fully operational across web, tablet, and VR interfaces with adaptive performance scaling.

2.4.8 Curriculum-Aligned 3D Model Library

Corinth offers a **library of 3D STEM models** that is built to work directly with real school curricula — not as generic visuals, but as **curriculum-mapped learning assets**.

Filter by country, grade, level, interactive asset type.

- This allows teachers to filter the entire interactive asset library by their national or school curriculum and immediately see only the models they are required to teach in a given study object.

2.5 Technical Feature Description: CoriAI Chatbot for 3D Models (Corinth)

- **Feature Name:** CoriAI Chatbot for 3D Models
- **Product:** Corinth Application
- **Type:** Interactive AI Assistant integrated into 3D Viewer

2.5.1 Overview

The CoriAI Chatbot is a context-aware assistant embedded directly within each 3D model in the Corinth application. Users can open the chatbot via a UI element and interact using text or voice. The chatbot provides information about the model and its broader subject area and also enables natural language control of the 3D scene.

2.5.2 Functionality

2.5.2.1 Contextual Q&A

- The chatbot is linked to a specific 3D model (context-aware).
- Users can ask questions about:
 - the model itself (e.g., structure, parts, functions)
 - the broader topic (e.g., biology, physics, history)
- Responses are generated using a Core AI model combined with internal content datasets.

2.5.2.2 Input Methods

- **Text input** – standard chat interface
- **Voice input** (speech-to-text) – spoken queries converted into text for processing

2.5.2.3 AI-driven 3D Model Control

The chatbot interprets natural language commands and maps them to viewer actions:

- camera manipulation:
 - zoom in / zoom out
 - rotate model
 - pan (move the model)
- focus on specific parts of the model

Commands are processed via an intent recognition layer and executed through the 3D viewer API.

2.5.2.4 Object Highlighting / Annotation

- Users can request the chatbot to highlight or mark specific parts of the model (e.g., "Highlight the heart").
- The system identifies the referenced object and visually emphasizes it (e.g., outline, color change, glow effect).
- Optional extension:
 - display labels or annotations tied to the selected part
 - provide contextual explanation immediately after highlighting

2.5.3 Architecture

2.5.3.1 Frontend

- Chatbot UI component (panel/overlay within 3D viewer)
- Input handling (text and audio)
- Response rendering
- Integration with 3D viewer API (camera + object control + highlighting)

2.5.3.2 Backend

- CoriAI engine (LLM)
- Context module (model metadata and structured content)
- Speech-to-text service
- Intent parser (maps user commands to viewer actions)

2.5.3.3 Integrations

- 3D viewer API (camera control, object selection, highlighting)
- Content database (educational data, model structure)

2.5.3.4 Localization and Language Support

- English
- Czech
- Slovak
- Polish
- Planned additional languages, including:
 - German
 - Russian
 - Spanish
 - and others
- Localization covers:
 - text and voice input recognition
 - AI response generation
 - UI elements