Concerto

Remote Music Education System

User and Administrator Manual

Version 1.0

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SPIS TREŚCI

1. INTRODUCTION

Concerto is a platform for remote music education that enables teachers and students to collaborate online through live video streaming, recording materials, and managing a multimedia file repository. The system was designed with emphasis on ease of use and high quality audio and video transmission.

1.1. System Requirements

- Web browser with WebRTC support (Chrome, Firefox, Edge)
- Internet connection with minimum bandwidth of 5 Mbps
- Microphone and/or camera (for streaming and recording functions)
- JavaScript enabled

1.2. Basic Concepts

- **File Repository** – central location for storing multimedia materials
- **Live Stream** – real-time video and audio streaming
- **Recording Session** – video recording functionality
- **Permissions** – access control for files and folders

2. USER MANUAL

2.1. System Registration

2.1.1. Registration Process

Figure 2.1 presents the Concerto home page before login.

1. Open the Concerto home page in your web browser
2. Click the **“Login”** button (fig: 2.1)
3. Click the **“Register”** button
4. Fill out the registration form:
   - First Name
   - Last Name
   - Email Address
   - Username
   - Password
   - Password Confirmation
5. Click the **“Register”** button
6. Check your email inbox and click the confirmation link

`rysunki/instrukcja/before_login_eng.png`

Rys. 2.1. Main page before login

2.1.2. Account Activation

After confirming your email address, your account requires approval by the system administrator. Without approval, the ability to use the application is limited to the main page view (fig: 2.2).

Figure 2.2 shows the restricted application view for an unverified account.

rysunki/instrukcja/after_login_unverified.png

Rys. 2.2. Main page after login without verification

2.2. System Login

1. Open the Concerto home page
2. Click the **“Login”** button
3. Enter your email address
4. Enter your password
5. Click the **“Login”** button

Figure 2.3 presents the view displayed to a verified user after successful login.

rysunki/instrukcja/after_login_verified_eng.png

Rys. 2.3. Main page after login for verified user

2.2.1. Password Recovery

If you forgot your password:

1. On the login page, click **“Forgot password?”**
2. Enter your email address
3. Check your email and click the password reset link
4. Set a new password

2.3. User Roles

User roles are assigned for each folder separately. A role assigned in a given folder is inherited, which means that in deeper folders the user's permissions will be the same as in the parent folder.

2.3.1. Reader

This is the default role for every approved user. It allows browsing and downloading materials available in the repository.

2.3.2. Contributor

Contributor is a role that allows users to add files and folders and delete them if they own them.

2.3.3. Editor

The editor role is the highest role for a user. It allows full repository editing, including adding, editing and deleting any files and folders.

2.4. File Management

The overall layout of the repository interface is illustrated in Figure 2.4.

`rysunki/instrukcja/file_repository_view_eng.png`

Rys. 2.4. File repository view

2.4.1. Browsing the Repository

The Concerto system offers a unified file repository available to all users with appropriate permissions.

- **Navigation Tree** – located in the left panel and presents the hierarchical folder structure
- **Resources** – clicking the button will show the contents of the folder at the top of the hierarchy
- **Main View** – displays the contents of the currently selected folder
- **Icons** – folders are marked with a directory icon, files have icons corresponding to their type

2.4.2. Folder Navigation

1. Click a folder name in the navigation tree to expand its contents
2. Click again to collapse the folder
3. Click on a folder in the main view to open its contents

4. Use the breadcrumb path at the top to quickly return to parent folders

2.4.3. Uploading Files

1. Make sure you have at least the contributor role
2. Navigate to the folder where you want to place the file
3. Click the **“Upload”** button
4. Select a file from disk (or drag the file to the upload area)
5. Supported formats: audio (MP3, WAV, M4A), video (MP4, AVI), documents (PDF), images (JPG, PNG)
6. Wait for the upload to complete (for large files this may take several minutes)
7. After completion, the file will appear in the folder

Note: Maximum single file size is 5 GB. For very large files, a stable internet connection is recommended.

2.4.4. Downloading Files

1. Find the file in the repository
2. Right-click on the file or use the context menu
3. Select the **“Download”** option
4. The file will be saved to your browser’s default download folder

2.4.5. Playing Multimedia Files

1. Click on an audio or video file in the repository
2. A built-in media player will open
3. Use the player controls to:
   - Play/pause
   - Skip to a selected moment
   - Adjust volume
   - Full screen (for video)

2.4.6. Creating Folders

1. Make sure you have at least the contributor role
2. Navigate to the location where you want to create a new folder
3. Click the **“New Folder”** button
4. Enter the folder name
5. Click **“Create”**

2.4.7. Deleting Files and Folders

1. Make sure your role allows this operation (2.3)
2. Select the file or folder to delete
3. Click the trash icon or select **“Delete”** from the context menu
4. Confirm the operation in the displayed dialog box

Note: Deleting a folder will delete all its contents. This operation is irreversible.

2.4.8. Moving and Renaming

1. Make sure your role allows this operation (2.3)
2. To rename: right-click on the file/folder and select **“Rename”**

3. Enter the new name and confirm
4. To move a file: drag it to the target folder in the navigation tree or use the **“Move”** option

2.5. Video Recording

Figure 2.5 shows the recorder view with preview and recording controls.

rysunki/instrukcja/video_recorder_eng.png

Rys. 2.5. Video recording view

2.5.1. Starting Recording

1. In the main menu, select the **“Record Video”** option
2. The system will ask for access to camera and microphone – click **“Allow”**
3. Select recording devices:
   - Camera (or disable if you only want to record audio)
   - Microphone
4. Camera preview will appear on screen
5. Click the red **“Start Recording”** button

2.5.2. During Recording

- Time indicator shows recording length
- Red dot signals active recording
- You can pause recording with the **“Pause”** button
- To finish, click **“Stop Recording”**

Note: Maximum recording size is 10 GB. Long recordings are automatically divided into smaller segments.

2.5.3. After Recording

1. A preview of the recorded material will be displayed
2. You can play the recording to check quality
3. Select one of the options:
   - **“Save to Repository”** – the recording will be added to the file repository
   - **“Download”** – the recording will be saved on your computer
   - **“Discard”** – the recording will be deleted

2.6. *Live Streaming*

2.6.1. Creating a Stream (Host)

The host workflow and preview window are shown in Figure 2.6.

rysunki/instrukcja/streamer_view_eng.png

Rys. 2.6. Host view for live stream

1. In the main menu, select **“Live Stream”**
2. The system will ask for access to camera and microphone – click **“Allow”**
3. Select devices:
    - Camera
    - Microphone
4. Check the preview in the stream window
5. Click **“Start Stream”**
6. Copy the stream link and share it with participants

2.6.2. During Stream Hosting

- Participant counter shows how many people are watching the stream
- You can temporarily disable camera or microphone
- To end the stream, click **“End Stream”**
- After ending, the stream can be saved to repository, downloaded to device, or deleted

2.6.3. Joining a Stream (Participant)

Participant join options and the connection preview are presented in Figure 2.7.

1. Use the received stream link or use the joining code in the ’Join Stream’ tab
2. Click **“Join Stream”**
3. The system will automatically establish connection
4. The stream will start in the player window
5. You can adjust stream volume and pause it

2.6.4. Stream Quality

The system automatically adjusts stream quality to your internet connection speed:

- **High quality** – requires minimum 5 Mbps
- **Medium quality** – requires minimum 2 Mbps
- **Low quality** – requires minimum 1 Mbps

rysunki/instrukcja/join_stream_eng.png

Rys. 2.7. Join stream view

If you experience fluidity issues, the system will automatically lower quality.

2.7. Changing Interface Language

1. Click the text at the top of the screen with the current language
2. Select your preferred language from the list of available options
3. The interface will change language without needing to refresh the page

   Available languages: Polish, English (and other languages added by the administrator).

2.8. Account Management

2.8.1. Changing Password

1. Go to **“Manage Account”**
2. In the Account Security section, select the ’Signing in’ option
3. In the **’My password’** section, press **’Update’**
4. Enter current password
5. Enter new password (twice)
6. Click **“Save”**

2.8.2. Profile Editing

1. Go to **“Account Settings”**
2. You can edit:
   - First and last name
   - Email
   - Username
3. Click **“Save Changes”**

3. ADMINISTRATOR MANUAL

Figure 3.1 presents the administrator panel with available management tools.

rysunki/instrukcja/admin_tools_eng.png

Rys. 3.1. Admin panel view

3.1. *Admin Panel*

The administrator has access to extended system management functions through the admin panel, available in the **“Admin Panel”** menu.

3.2. *User Verification*

3.2.1. Viewing Pending Users

1. In the admin panel, select **“Unverified Users”**
2. You will see a list of users who have registered in the application
3. For each user, the following is displayed:
   - First and last name
   - Username
   - Email address with red or green icon depending on email confirmation
   - User confirmation status
   - Action buttons to approve or delete user

3.2.2. Approving Users

1. The user must first confirm their email address before they can be approved
2. Click the green button next to the user to approve registration
3. Confirm the operation in the displayed dialog box
4. The user can now log in to the system

3.2.3. Rejecting Registration

1. Click the red button next to the user to reject registration
2. Optionally enter a reason for rejection
3. Confirm the operation

4. The user will not be able to log in to the system

3.3. User Permission Management

3.3.1. System Roles

The Concerto system distinguishes the following global roles:

- User - default role without additional permissions
- Moderator - allows all operations in the repository
- Administrator - ability to access the admin panel

3.3.2. Assigning Global Roles

1. In the **“All Users”** panel, find the user
2. Click the blue gear icon next to the user row
3. In the **“Role”** section, select the appropriate role from the dropdown list
4. Click **“Update”**

3.3.3. Folder and File Permissions

1. Go to the file repository
2. Right-click on a folder or file
3. Select **“Manage Permissions”**
4. In the dialog box you will see current permissions for all users and a list of users with assigned permissions
5. To add permissions:
    - Click **“Add User”**
    - Select user from the list
    - Select permission level described in 2.3
    - Click **“Update”**
6. To change permissions: click on an existing entry and select a new level
7. To remove permissions: click the red **’X’** icon next to the user
8. Click **“Update”**

Remember that user permissions for a folder are inherited from the parent folder

3.4. Language and Translation Management

3.4.1. Adding a New Language

The language management dashboard visible in Figure 3.2 is used to add and publish languages.

1. Go to the **“Languages”** tab in admin panel
2. Click the **“+”** button
3. Fill out the form:
    - **Language Code** – two-letter language code (e.g. pl, en, de, fr)
    - **Language Name** – full name (e.g. Polski, English, Deutsch)
4. Click create
5. Check the **“Public”** switch if the language should be visible to users for now

rysunki/instrukcja/concerto_en_languages.png

Rys. 3.2. Language management panel

3.4.2. Translation Management

1. In the **"Admin Panel"** tab, select **"Translations"**
2. The system will display a dynamic form with all interface texts
3. The interface is divided into sections corresponding to application views (e.g. Admin, Authentication, CreateSessionDialog)
4. For each text, fields for all languages are displayed

3.4.3. Editing Translations

Figure 3.3 presents the translations management panel where texts are edited for each language.

rysunki/instrukcja/concerto_en_translations.png

Rys. 3.3. Translations management panel

1. Use filters at the top of the page to find the text you're interested in:
   - Filter by view (e.g. admin)
   - Filter by key (e.g. title)
   - Search by content in different languages

- Select target language to show only fields for given languages

2. Expand the section with the text you want to edit
3. Enter or change the translation in the appropriate field
4. The field displays the current value in each language
5. Click **“Save”** in bottom right corner of the screen. Button appears after making changes to the form.

3.4.4. Changes Summary (Figure 3.4)

rysunki/instrukcja/concerto_en_review_changes.png

Rys. 3.4. Review translations changes modal

1. After clicking **“Save”**, the system will display a summary:
   - List of all modifications (view, key, language, old value, new value)
2. Check if all changes are correct
3. Click **“Confirm and save”** to save changes, or **“Cancel”** to reject them
4. After confirmation, changes will be visible after reloading application window

3.4.5. Publishing a Language

1. After translating all texts in the new language, go to the **“Languages”** tab
2. Find the language on the list
3. Switch the **“Public”** switch next to the language
   - Green color of switch indicates that language is set to public
   - Grey color of switch indicates that language is set not to public
4. The language will become available to all users in the language selector

3.4.6. Hiding a Language

1. Find the language in the **“Languages”** tab
2. Switch the **“Public”** switch next to the language
   - Green color of switch indicates that language is set to public
   - Grey color of switch indicates that language is set not to public
3. The language will no longer be visible to users (but translations will remain in the system)

3.5. Advanced User Management

3.5.1. Deleting a User

1. In the admin panel in the **“All Users”** section, find the user
2. Click the red icon next to the user
3. A confirmation dialog box will be displayed
4. Press **I am sure**, then click **“Save”**
5. The user will not be able to log in

3.6. Advanced Configuration (Keycloak)

Advanced authentication and authorization settings are managed by the Keycloak system:

1. Log in to the Keycloak admin panel (separate URL)
2. You can configure:
   - Password policies (length, complexity)
   - Session duration
   - Two-factor authentication (2FA)
   - Integrations with external identity providers (Google, Microsoft)
   - User groups

Detailed Keycloak configuration is beyond the scope of this document. Consultation with Keycloak documentation is recommended.