

X-Sheet Project Management Integration Guide

Overview

The project management system has been integrated into your existing modular X-Sheet tool structure. It provides organized folder-based project management while preserving all existing functionality.

New Files Created

1. `js/projectManager.js`

- New module following your existing `XSheetApp` namespace pattern
- Handles project folder creation, setting, and file management
- Integrates with existing `FileHandler` for fallback functionality

Modified Files

1. `index.html`

- Added project management buttons in header
- Updated script loading order to include `projectManager.js`
- Added new UI elements for project status display

2. `js/projectData.js`

- Added project folder handle properties
- Added `setProjectFolder()` method
- Enhanced `initNewProject()` to clear project folder references
- Added project folder change event dispatching

3. `js/main.js`

- Integrated `ProjectManager` initialization
- Enhanced audio import to support project-aware importing
- Enhanced save/load to use project folders when available
- Added project management UI elements to the elements object

4. `css/style.css`

- Added styling for project controls section

- Added responsive design for project management UI
- Maintained all existing styles

How It Works

Project Structure

When you create a project, it creates this folder structure:

```
MyProject/  
├─ scenes/      # JSON scene files  
├─ audio/       # Audio files  
└─ README.txt   # Project info
```

Workflow Integration

1. Create Project:

- Creates organized folder structure
- Sets up project references in ProjectData

2. Set Project:

- Selects existing project folder
- Automatically finds/creates scenes and audio subfolders

3. Smart File Operations:

- **Audio Import:** Copies files to project audio folder and loads them
- **Save Scene:** Saves JSON files to project scenes folder
- **Load Scene:** Loads from scenes folder and auto-loads associated audio

4. Fallback Support:

- Works with browsers that don't support File System Access API
- Falls back to existing FileHandler methods when no project is set

Key Features

- **Non-Breaking:** All existing functionality works exactly as before
- **Progressive Enhancement:** Project features only activate when supported and used
- **Smart Audio Loading:** Automatically tries to load audio files when loading scenes
- **Visual Feedback:** Project status indicator shows current project
- **Reset Capability:** Clean reset to fresh X-Sheet state

Usage Instructions

For New Projects:

1. Click "Create Project"
2. Choose where to create your project folder
3. Import audio files (automatically saved to project)
4. Work on your scenes and save them (automatically organized)

For Existing Projects:

1. Click "Set Project"
2. Navigate to your existing project folder
3. Tool automatically finds scenes and audio folders
4. Load existing scenes (audio auto-loads if available)

Legacy Mode:

- If no project is set, everything works as before
- Regular file save/load dialogs are used
- Audio import uses standard file picker

Technical Integration

The system uses your existing modular architecture:

```
javascript

// ProjectManager integrates with existing modules
XSheetApp.ProjectManager.init(
    projectData,          // Your existing ProjectData instance
    audioHandler,         // Your existing AudioHandler instance
    XSheetApp.FileHandler, // Your existing FileHandler module
    elements              // UI elements object
);
```

Browser Compatibility

- **Modern Browsers** (Chrome, Edge): Full project management with File System Access API
- **Other Browsers:** Graceful fallback to existing file handling
- **Feature Detection:** Automatically detects and uses appropriate methods

The project management system seamlessly integrates with your existing modular structure while providing powerful new organizational capabilities for animation projects.