

Structural Metadata Editor

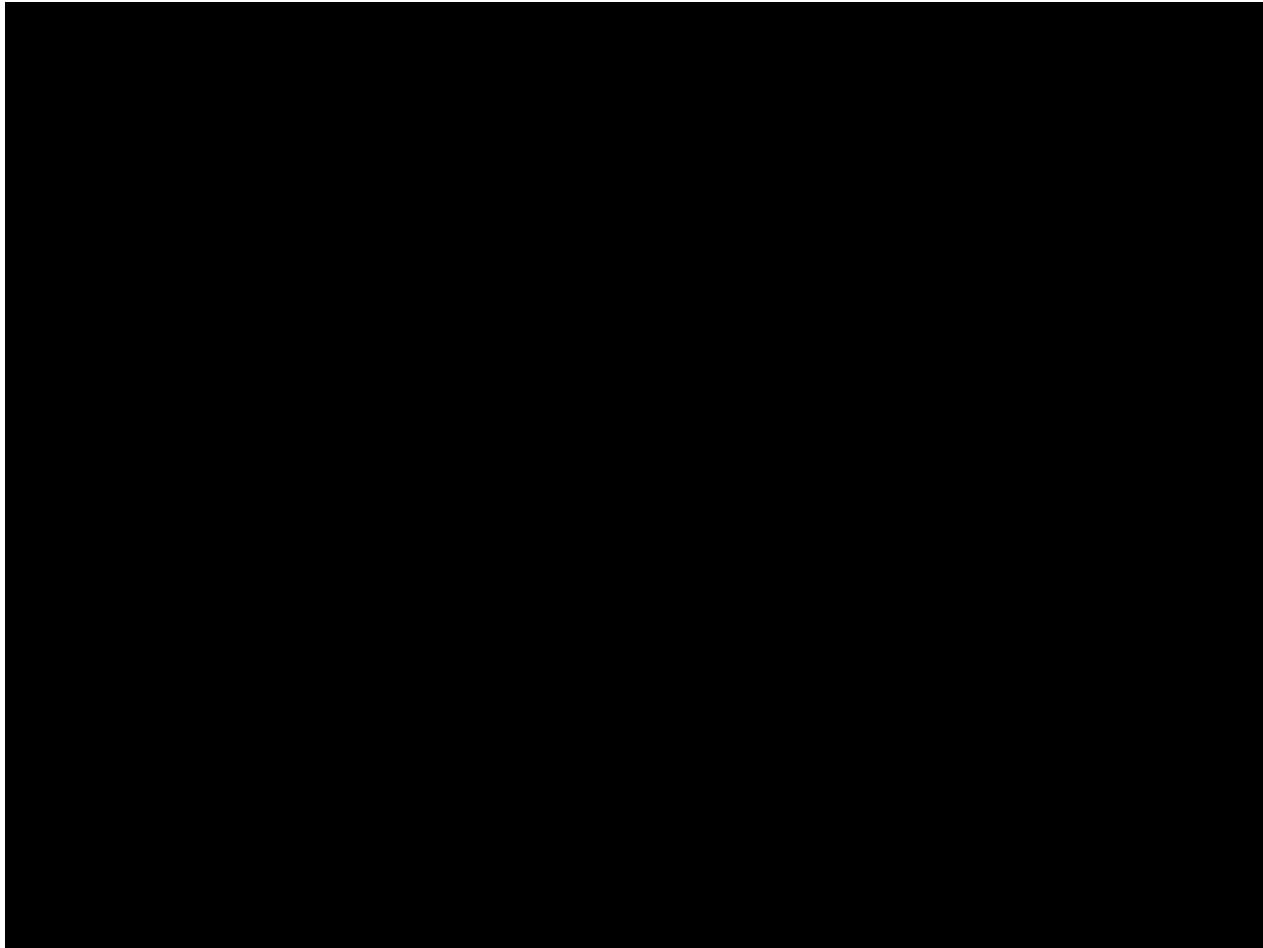
A React component for visualizing and displaying
audio and video clips

Adam Arling
Senior Front-End Developer
Northwestern University

Dananji Withana
Front-End Developer
Avalon Media System
Indiana University

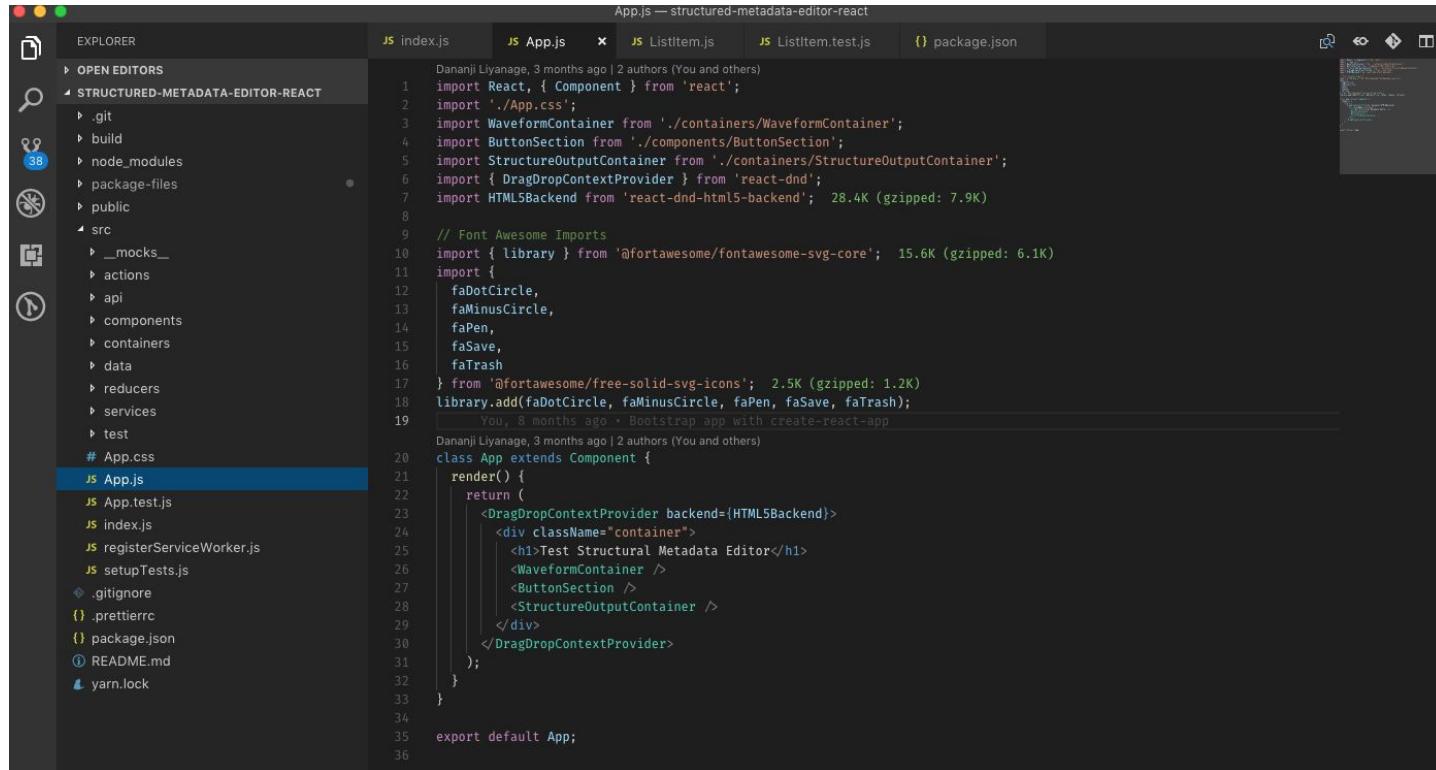
1. Introduction
2. What is the Structural Metadata Editor?
 - a. A micro application
 - b. A ReactJS component
 - c. Encapsulates UI display and user interaction within the component
3. Why have we developed it?
 - a. To replace previous XML editor in Avalon
 - b. Provide visual of waveform itself, and allow for more granular control
 - c. Enhanced web-based UI for editing (represent data as JSON)
4. What packages / libraries does it use?
 - a. React/Redux
 - b. Peak.js (BBC)
 - c. RXJS
 - d. React Bootstrap
5. Where does it / will it live?
 - a. (development) <https://github.com/avalonmediasystem/structured-metadata-editor-react>
 - b. (packaged NPM module) <https://github.com/avalonmediasystem/react-structural-metadata-editor>
 - c. Imported into Avalon 6
 - d. Will import into Avalon 7

What is the Structural Metadata Editor (SME)?



avalon
MEDIA SYSTEM

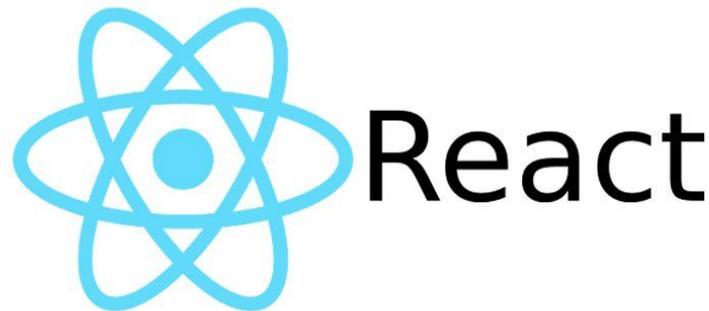
SME is/can be a standalone application



The screenshot shows a code editor interface with the following details:

- Explorer View:** Shows the project structure:
 - STRUCTURED-METADATA-EDITOR-REACT
 - ↳ .git
 - ↳ build
 - ↳ node_modules
 - ↳ package-files
 - ↳ public
 - ↳ src
 - ↳ __mocks__
 - ↳ actions
 - ↳ api
 - ↳ components
 - ↳ containers
 - ↳ data
 - ↳ reducers
 - ↳ services
 - ↳ test
 - ↳ # App.css
 - JS App.js (selected)
 - JS App.test.js
 - JS index.js
 - JS registerServiceWorker.js
 - JS setupTests.js
 - ↳ .gitignore
 - ↳ .prettierrc
 - {} package.json
 - ① README.md
 - ⚠️ yarn.lock
- Code Editor:** Displays the content of `App.js`. The code imports various components and styling from external packages like React, App.css, and fontawesome. It defines a `DragDropContextProvider` component that wraps a `div` containing a `h1` and three other components (`WaveformContainer`, `ButtonSection`, and `StructureOutputContainer`). The code is annotated with comments explaining its purpose.

SME is an importable React Component



```
import StructuralMetadataEditor from 'react-structural-metadata-editor'  
...  
return <StructuralMetadataEditor configProps={...config} />;
```

Application logic/events/actions handled inside



The screenshot shows the Avalon Media System's user interface. At the top, there is a timeline with two audio waveforms. The bottom of the timeline features playback controls (play/pause, seek, and volume) and search/filter fields. Below the timeline, there are two input fields: 'Add a Heading' and 'Add a Timespan'. Underneath these fields is the heading 'HTML Structure Tree from a masterfile in server'. A tree view displays a hierarchical structure for 'Haydn Cello Concert - D-1', with levels for 'Act 1', 'Section 3.1', 'Scene 1', and 'Scene 2'. Each node in the tree has edit and delete icons. At the bottom right of the tree view is a 'Save Structure' button.

Why has Avalon developed the *SME*?

Why has Avalon developed the *SME*?

1. Replaces legacy XML editor
 - i. Interact with other APIs
2. Ability to visualize and interact with a waveform.
3. UI now processes JSON instead of XML

What technologies (libraries/packages) does
the *SME* use?



React Redux - State
management

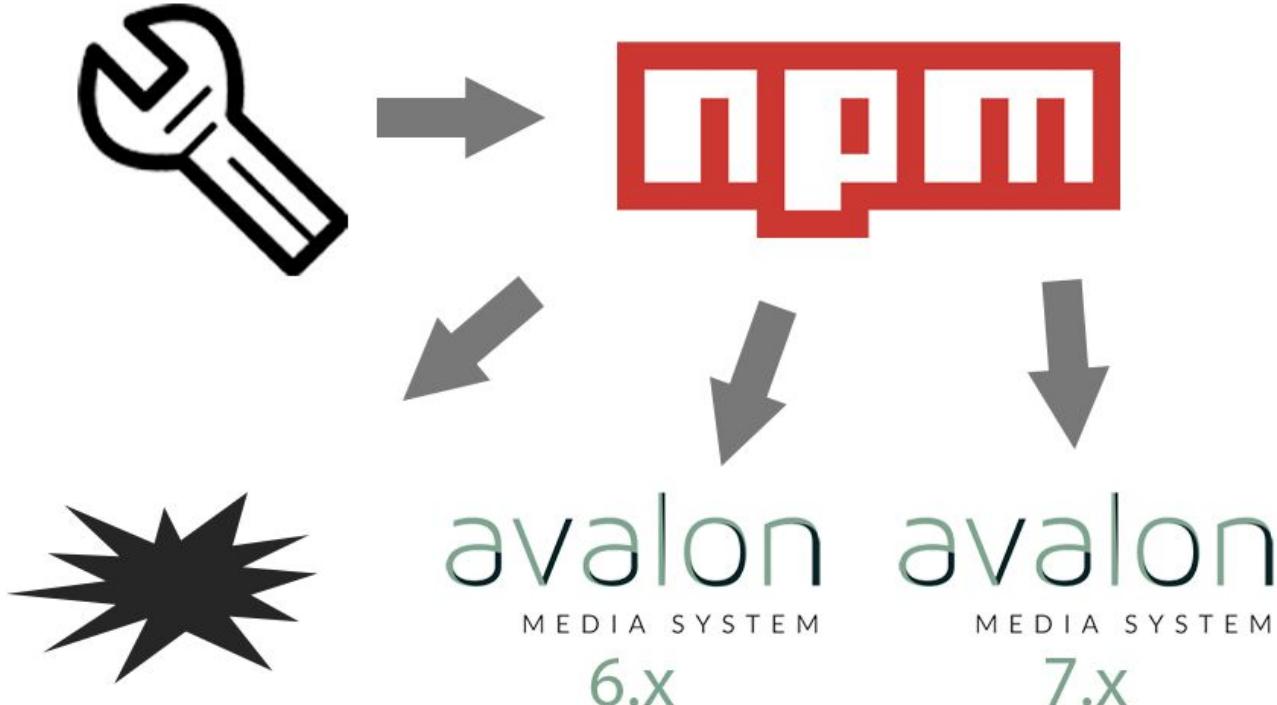


Peaks.js - Visualize waveform



RxJS - Bridge Peaks.js events
with React application

Where does the *SME* live?



github.com/avalonmediasystem/structured-metadata-editor-react

