Conformance

The following keywords are used to differentiate between different levels of requirements and optionality, as defined in IEEE Std 100-1992 [RD11].

Shall: indicates a mandatory requirement. To ensure interoperability with other products conforming to this standard, all mandatory requirements must be followed strictly with no deviation.

Should: indicates a recommended but not mandatory requirement. Allows flexibility of choice between several possible alternatives while indicating a strongly preferred alternative. Indicates that a certain course of action is desirable but not mandatory, or indicates that a certain course of action is deprecated but not prohibited.

May: indicates a suggested course of action without implying preference over any other possible course of action.

Introduction

An Argument player is to be created to allow users to listen and watch arguments develop. This document outlines the specifications of this system.

Functional Requirements

Data Information

R1 Data Import

The system shall import all node sets from AIFdb for a chosen program at one time.

Rationale: The data for all node sets is stored on AIFdb and will be imported at one time in order to keep the processing time and loading time of the system down.

Risk: High

Priority: High

R2 Node Layout

The system shall place nodes in a hierarchical structure.

Rationale: Nodes will be displayed in a hierarchical structure in order for all nodes to be clearly legible and so the nodes have clear relationships.

Risk: High

Priority: High

R3 Node Edges

The system shall show edges between nodes.

Rationale: Node edges will be displayed between nodes to show the node relationships.

Risk: High

Priority: High

R4 Data Layout Format

The system shall display the nodes in the AIF format.

Rationale: Nodes will be displayed in AIF format in order to show clear relationship meanings between nodes.

Risk: High

Priority: High

R5 Data Layout

The system shall place nodes in a hierarchical structure.

Rationale: Nodes will be displayed in a hierarchical structure in order for all nodes to be clearly legible and so the nodes have clear relationships.

Risk: High

Priority: High

R6 Location Import

The system shall import each node location in .dot format.

Rationale: Node location will be imported in .dot format in order to allow for accurate layout of nodes.

Risk: High

Priority: High

R7 Data Import

The system shall import each node set in JSON format.

Rationale: Data import will be in JSON format to allow for easy import and layout of nodes.

Risk: High

Priority: High

R8 Number of Nodes

The system shall display a maximum of 12 nodes at one time.

Rationale: A maximum of 12 Nodes will be displayed at one time in order to aid in node legibility and relationship legibility.

Risk: Medium

Priority: Medium

Audio

R9 Argument Audio

The system shall play MP3 files of an argument programme.

Rationale: The system will play MP3 files of an argument so the user can listen to the argument, while watching how it changes.

Risk: High

Priority: High

R10 Audio Volume

The user shall be able to adjust the volume of an MP3 file.

Rationale: The user can adjust the volume of the argument audio so it can suit them and their surroundings.

Risk: Low

Priority: Low

R11 Rewind Audio

The user shall be able to rewind audio.

Rationale: The user will be able to rewind audio files alongside argument nodes to re-listen to argument details.

Risk: Medium

Priority: High

R12 Fast Forward Audio

The user shall be able to fast forward argument audio.

Rationale: The user will be able to fast forward audio files alongside argument nodes to skip argument details.

Risk: Medium

Priority: High

R13 Play Audio

The user shall be able to play argument audio.

Rationale: The user will be able to play audio files alongside argument nodes to listen and watch argument details.

Risk: Medium

Priority: High

R14 Pause Audio

The user shall be able pause argument audio.

Rationale: The user will be able to pause audio files alongside argument nodes to allow them to hold the place of the current programme they are listening to and watching.

Risk: Medium

Priority: High

Speaker Actions

R15 Transcript

The system shall display the programme text transcript of what speakers say while a programme is playing.

Rationale: The system will show a text transcript of what speakers say to help the user keep track of the argument.

Risk: Low

Priority: Low

R16 View Speaker

The system should display the name of the speaker in the argument when they are speaking in the audio file.

Rationale: The system will show the name of the speaker as the audio plays to allow users to distinguish between speakers

Risk: Medium

Priority: Medium

R17 Avatar

The system may display an avatar for each speaker.

Rationale: The system might display an avatar for each speaker to better distinguish between speakers.

Risk: High

Priority: Low

R18 Speech Bubble

The system may display a speech bubble corresponding to a speaker's avatar showing what they said.

Rationale: The system might show a speech bubble corresponding to a speaker's avatar showing what they said so that users can easily see what each speaker was saying.

Risk: High

Priority: Low

Nodes

R19 Add Nodes

The system shall use timing from the MP3 files and node timestamps to add nodes to the display.

Rationale: The system will add nodes using timestamps and MP3 file times so that nodes can be added as user hears the node text from the audio file.

Risk: High

Priority: High

R20 Remove Nodes

The system shall remove the first displayed node on the screen when there are more than 12 nodes displayed.

Rationale: The system will remove the first displayed node on the screen when there are more than 12 nodes in order to keep the relationship between nodes but also aid in legibility.

Risk: High

Priority: Medium

User Interface

R21 Slider

The system shall display a slider when playing argument programmes.

Rationale: The system will show a slider to allow users to view the time remaining but also easily rewind and fast forward the argument programme.

Risk: High

Priority: High

R22 Play

The system shall display a play button.

Rationale: The system will show a play button to allow users to play an argument programme.

Risk: Medium

Priority: High

R23 Pause

The system shall display a pause button while playing an argument.

Rationale: The system will show a pause button to allow users to pause an argument programme and save the state.

Risk: High

Priority: High

R24 Rewind

The system may display a rewind button.

Rationale: The system will show a rewind button to allow users to rewind an argument programme easily.

Risk: High

Priority: Low

R25 Fast Forward

The system may display a fast forward button.

Rationale: The system will show a fast forward button to allow users to fast forward an argument programme easily.

Risk: High

Priority: Low

R26 Select

The user shall be able to select an argument programme from a list.

Rationale: The user will be able to select an argument programme from a list so that it is easy to see what programmes are available.

Risk: High

Priority: High

Non-Functional Requirements

R27 Audio Play Time

The system shall play an MP3 file within 2 seconds of the user clicking play.

Rationale: The system will play an audio file within 2 seconds of the user clicking play as this is within the patience threshold time of a person when using a web site and receiving feedback based on Jacob Neilson's web response times.

Risk: High

Priority: High

R28 Programme Play Time

The system shall open an argument programme within 2 seconds of the user clicking play.

Rationale: The system will play an argument programme within 2 seconds of the user clicking play as this is within the patience threshold time of a person when using a web site and receiving feedback based on Jacob Neilson's web response times.

Risk: High

Priority: High

R29 Internet Connection

The system shall have an internet connection.

Rationale: The system will have an internet connection so that data can be downloaded from AIFdb.

Risk: High

Priority: High

R30 Web Browser

The user shall have an understanding on how to use a web browser.

Rationale: The user will have a basic understanding on how to use a web browser in order to access the system.

Risk: High

Priority: High

R31 Browser support

The user shall have a web browser that supports HTML5.

Rationale: The user will have a web browser that supports HTML5 in order to play content on the web browser.

Risk: High

Priority: High