

JSON Element Parameters:

General:

PatentNumber

Logo 1

Logo 2

CopyrightStatement

Line:

ID

Assignment_Number1

Assignment_Number2

BoxCreatorID: End_BoxID / 0

BoxCreatorID2: Start_BoxID / 0

Color: #xxxxxx

Comment: Array of 2 * Reel-Frame

Date

Popup: Array of Reel-Frame

Ref_Id:

Start_BoxID

End_BoxID

Tooltip

Type : 'Ownership', 'Name Change', 'Security', 'Release', 'License', 'License End'

Type: solid/dash

User_File: Array of (URL * Reel-Frame)

Box:

BorderColor (Hexadecimal)

BorderLinePx

BackgroundColor (Hexadecimal)

Dimensions

Document_file(Icon_Link)

Execution Date

ID

Name(Assignee name)

Shape

Recording Date

Segment

type: "Inventor"

Legend:

Tooltip (from Line element)

Color (from Line element)

Type (from Line element)

Explanation

Popup:

The same as the current version.


BoxMenu

BorderColor: 1, 2, 3, 4 (each member of the array is a hexadecimal color code)

BackgroundColor: 1, 2, 3, 4

Toolbar:

On the top left corner of the page there should be:

A menu icon  , A placeholder for a logo








Under the icon and logo a placeholder for text. For example:

 CompanyLogo

2020 Copyright XYZ Corporation Inc.

When the user hovers over the icon/logo, a toolbar will slide down from the top of the page.

The toolbar should include:

2nd Logo Placeholder PatentNumber       

See below the explanation of these buttons.



Legend: hovering over this icon should open a small tooltip that explains the line colors according to the JSON element.

Showing/hiding of timeline, Security, Release, Licensees, 3rd Parties.

Horizontal Extending sliders of the Segments.

Three modes button that would allow Condensed/Normal/Expanded horizontal distances between the boxes.

Timeline:

Same as the current version. Exception: when using the Forward/BackStep buttons, the timeline should be drawn together with the boxes and lines.

Algorithm 1 Drawing Boxes and Lines:



1. Draw the boxes according to their Execution Dates.

Exception: boxes of Segment 0 (Inventors) are to be at the top regardless of their Execution Dates.

2. Draw the lines between boxes. A line should begin in the box with ID that is stated in the parameters of the line as StartBoxID, and should end in the box with ID that is stated in the parameters of the line as EndBoxID.

Whenever a line has a **Comment**, add a little circle at the base of that line. The circle should blink.

Algorithm 2 - Control Buttons

While Algorithm 1 draws all the boxes and lines at once, the user should be able to draw them one by one, along the time of their occurrence. For that end, there should be a button that resets the illustration, i.e., hides all the boxes and lines from the screen except for the boxes with Segment=0 (Reset Button ). A second button should illustrate the entire illustration at once (Illustrate Button )

ForwardAssignment Button

Each click of this button will show a line according to its **Assignment_Number1** and the box that is connected to its arrowhead (in case that box was not drawn earlier by another line)**:

Show the line* of the next **Assignment_Number1** together with the box that has an **EndBoxID** that is stated in the parameters of that line as **BoxCreatorID**, and together with the box that has a **StartBoxID** that is stated in the parameters of that line as **BoxCreatorID2**.

* Lines with similar **Assignment_Number1** should be shown simultaneously.

BackAssignment Button

Each click of this button will hide a line according to its **Assignment_Number1** and the box that is connected to its arrowhead:

Hide the line* of the next preceding **Assignment_Number1** together with the box that has an **EndBoxID** that is stated in the parameters of that line as **BoxCreatorID**, and together with the box that has a **StartBoxID** that is stated in the parameters of that line as **BoxCreatorID2**.

* Lines with similar **Assignment_Number1** should be hidden simultaneously.

ForwardAssignee Button

Each click of this button will show a line according to its **ID** and the box that is connected to its arrowhead:

Show the line* of the next **ID** together with the box that has an **EndBoxID** that is stated in the parameters of that line as **BoxCreatorID**, and together with the box that has a **StartBoxID** that is stated in the parameters of that line as **BoxCreatorID2**.

BackwardAssignee Button

Each click of this button will hide a line according to its **ID** and the box that is connected to its arrowhead:

Hide the line* of the next preceding **ID** together with the box that has an **EndBoxID** that is stated in the parameters of that line as **BoxCreatorID**, and together with the box that has a **StartBoxID** that is stated in the parameters of that line as **BoxCreatorID2**.

Tooltips:

Lines: hovering over a line will show a tooltip that contains the text stated in that line's **Tooltip** parameter.

Boxes: hovering over a box will show a tooltip that includes a menu from which the user will be able to select one color out of four for the border of the box and one out of four for the background of the box.

The colors are according to the arrays in the **BoxMenu**: **BorderColor**, and **BackgroundColor**

Each user's color selection will send a POST request to the server, which includes the Box' **ID**, **BorderColor**, and **BackgroundColor**.

Popups:

Clicking a line will show its popups. The Line parameter includes a Popup element of an array type. Each index of the array represents a single popup. The definitions of each popup are stated in the Line's **Popup** parameter.

When the user clicks the comment icon in the popup, the current version opens a small editor. When the user edits text and clicks Save, a POST request will be sent to the server, which includes the Line's **ID**, and the user's commented text.

General Notes:

The code should be divided into segments with a heading above each segment:

Page definition

Timeline definition

Boxes definition

Popup definition

Lines definition

Toolbar

Legend

Checkboxes:

Ownership:

- 1) To remove all the lines that enter and exist ownership boxes: Remove all the lines with either StartBoxID or EndBoxID that is equal to the BoxCreatorID of Ownership lines.
- 2) To remove all the ownership boxes: Remove all boxes with ID that is equal to EndBoxID of Ownership lines.
- 3) To remove all the ownership boxes which were created due to a change of name of preceding ownership boxes: Remove all boxes with ID that is equal to BoxCreatorID of Change of Name lines with StartBoxID that is equal to the EndBoxID of Ownership lines.
- 4) To remove the lines that enter or exist the change of name boxes of ownership: Remove all the lines with either StartBoxID or EndBoxID that is equal to the boxes removed in 3).

Security:

Remove the lines of Type = Security parameter.

Remove the boxes with ID that is equal to the CreatorBoxID of security lines. If the Release checkbox is selected then do not remove boxes with ID that is equal to the StartBoxID of Release lines.

Release:

- 1) Remove all the lines that have Type = Release parameter.
- 2) Remove all the boxes with ID that is equal to BoxCreatorID of Release lines, which are NOT the StartBoxID of other lines.

License End: 1) Remove all the lines that have Type = License End parameter. 2) Remove all the boxes with ID that is equal to BoxCreator ID of License End lines.

License: 1) Remove the lines of Type = License parameter. 2) Remove the boxes with ID that is equal to the CreatorBoxID of License lines, which are NOT the StartBoxID of other lines.

New Application:

1. Lines exit boxes from the bottom of a StorBoxID to either the left or right side of an EndBoxID.
- 2.

Line: