Change request log

1. Concept Location:

Step #	Description	Rationale
1	We ran the system	
2	We interacted with the system: after logging in we entered the schedule screen.	To get familiar with some of the features of the system and identify the screens or graphical elements we had to change.
3	We browsed through different tabs of the Mango website.	So that we could get an idea of various functionalities.
4	For this change request, we specifically looked at the "Alarms" and "Help" tabs.	So that we could learn more about how the alarms work and how they can be set.
5	We searched for "mute" keyword using Search functionality of VS Code	Because for this change request, we need to mute the sound by default
6	Out of around 200 results, we inspected the most relevant ones.	Only results pertaining to the sound icon on the header tab were necessary and hence investigated.
7	We pinned the User.java and 2 header.js files in the IDE.	Because we suspected that is where changes are needed to be done.
8	We set the "this.mute" flag on line 129 of build/resources/header.js to true which was previously false and added a breakpoint.	Wanted to check the result
9	We set the "this.mute" flag on line 129 of war/resources/header.js to true which was previously false and added a breakpoint.	Wanted to check the result
10	We set the "mute" flag on line 94 of User.java to true which was previously false and added a breakpoint.	Wanted to check the result
11	We added breakpoints further where the Boolean property "muted" was referenced	We wanted to track its value as we debugged.
12	We ran the code again	To test the changes we made
13	We got the expected outcome	The changes made were correct.

Time spent (in minutes): 140 minutes

Classes and methods inspected:

- src/com/serotonin/mango/vo/User.java/User
  - isMuted()
  - setMuted(boolean muted)
- war/resources/header.js
- build/resources/header.js
- src/com/serotonin/mango/web/dwr/MiscDwr.java/ MiscDwr
  - boolean toggleUserMuted()

2. Impact Analysis:

Step #	Description	Rationale

1	We made a list of methods where “muted” property from User.java was used	To track the methods that could be impacted by the change.
2	We came to conclusion we don’t need to change anything in the methods isMuted(), setMuted() and toggleUserMuted()	Because the existing implementation was handling the flags properly
3	We made a list of references where “this.mute” of both the header.js files were used	To track the methods that could be impacted by the change.

Time spent (in minutes): 30 minutes

Classes and methods inspected:

- src/com/serotonin/mango/vo/User.java/User
  - isMuted()
  - setMuted(boolean muted)
- war/resources/header.js
  - function SoundPlayer()
- build/resources/header.js
  - function SoundPlayer()
- src/com/serotonin/mango/web/dwr/MiscDwr.java/ MiscDwr
  - boolean toggleUserMuted()

3. Actualization

Step #	Description	Rationale
1	We changed the User.java/User class where we set the muted flag to true.	We realized that this was one of the changes required to make the sound off by default.
2	We changed both the header.js files where we set the this.mute flag to true	We realized that this was one of the changes required to make the sound off by default.
3	We identified different test cases	To make sure everything works.

Time spent (in minutes): 15 minutes

Classes and methods inspected:

- src/com/serotonin/mango/vo/User.java/User
- war/resources/header.js
  - function SoundPlayer()
- build/resources/header.js
  - function SoundPlayer()

4. Validation

Step #	Description	Rationale
1	Test case defined: Sound should be mute by default on login	The test passed.
2	Test case defined: If toggled then sound should be on	The test passed.

Time spent (in minutes): 20 minutes

5. Summary of the change request

Phase	Time (minutes)	No. of classes inspected	No. of classes changed	No. of methods inspected	No. of methods changes
Concept location	140	2	1	3	0
Impact Analysis	30	2	1	3	0
Actualization	15	1	1	3	0
Verification	20	2	1	3	0
Total	205				

6. Conclusions

For this change, concept location was relatively easy because the system is small and its architecture and code are not complicated. Concept location, impact analysis, actualization was done using Visual Studio Code, which was very useful. Testing was performed using with the help of unit test cases and debugger to track values. It took us long time to make debugger work, mainly because we had to figure out some local and system configurations.