

Change request log

1. Concept Location

Step #	Description	Rationale
1	<i>We setup the project and ran it on the tomcat server</i>	
2	<i>I tested the existing behavior of the users page and tried to update the password for admin as well as regular users.</i>	<i>To understand the existing behavior before</i>
3	<i>I searched for the term new password based on the UI screen but got no where</i>	<i>I started with a top down approach to start from the UI and move towards the backend service</i>
4	<i>I searched for the Update users in the project to search for the function updating the Users table</i>	<i>Since the top down approach had many possible routes I checked the bottom up approach which helped me limit the routes</i>
5	<i>I added print statements in multiple places and print the properties of user to figure out which property is coming in as null</i>	<i>To understand the exact flow of the entire event and check for the bug</i>
6	<i>I noticed the update query in update function of UserDao class included home URL changes whereas the home URL update is set using different approach</i>	<i>The users page form does not include Home URL and it is setup from the header section instead and hence it was causing the null error</i>
7	<i>We decided that class UserDao needed to be updated and was marked as located</i>	<i>To fix the issue we needed to fix the update method in UserDao class and hence had to be modified</i>

Time spent (in minutes): 90

Classes and methods inspected:

- `Src/com/serotonin/mango/db/dao/UserDao`
 - `void updateUser(User user)`
 - `public void saveUser(final User user)`
- `com/serotonin/mango/web/dwr/UsersDwr`
 - `public DwrResponseI18n saveUserAdmin(int id, String username, String password, String email, String phone, boolean admin, boolean disabled, int receiveAlarmEmails, boolean receiveOwnAuditEvents, List<Integer> dataSourcePermissions, List<DataPointAccess> dataPointPermissions)`

2. Impact Analysis

Step #	Description	Rationale
1	<i>Back tracked from the Update User function to make sure all the possible routes do not update the Home URL</i>	<i>To make sure that we do not break any functionality I verified that updating home url in this query is meaningless</i>
2	<i>We verified the ways to update user using setHomeURL and found the setHomeUrl function in MiscDwr class which is used via header to update home URL and does not use the UserDao's updateUser function</i>	<i>Making sure that UpdateUser function is not used to update the home URL</i>

Time spent (in minutes): 120

List the classes and methods that you inspected.

- `Src/com/serotonin/mango/db/dao/UserDao`

- `void updateUser(User user)`
 - `public void saveUser(final User user)`
- `src/com/serotonin/mango/web/dwr/UsersDwr`
 - `public DwrResponse118n saveUserAdmin(int id, String username, String password, String email, String phone, boolean admin, boolean disabled, int receiveAlarmEmails, boolean receiveOwnAuditEvents, List<Integer> dataSourcePermissions, List<DataPointAccess> dataPointPermissions).`
- `src/com/serotonin/mango/web/dwr/MiscDwr`
 - `public void setHomeUrl(String url)`

3. Actualization

Use the table below to describe each step you followed when changing the code. Include as many details as possible, including why classes/methods were modified, added, removed, renamed, etc.

Step #	Description	Rationale
1	<i>I removed the homeUrl=? Part from the SQL Query in Update User function</i>	<i>Made the primary change to remove error</i>
2	<i>Removed the variable used to fill the homeURL from the update function as well</i>	<i>A secondary change to fix the primary change</i>
3	<i>Did a quick round of testing to make sure the update function as well as the set homeUrl features worked as expected</i>	<i>A quick sanity test of features to gauge the impact of the fix</i>

Time spent (in minutes): 40

List the classes and methods that you inspected and separately the ones you changed.

- `Src/com/serotonin/mango/db/dao/UserDao`
 - `void updateUser(User user)`
 - `public void saveUser(final User user)`
- `com/serotonin/mango/web/dwr/UsersDwr`
 - `public DwrResponse118n saveUserAdmin(int id, String username, String password, String email, String phone, boolean admin, boolean disabled, int receiveAlarmEmails, boolean receiveOwnAuditEvents, List<Integer> dataSourcePermissions, List<DataPointAccess> dataPointPermissions).`
- `src/com/serotonin/mango/web/dwr/MiscDwr`
 - `public void setHomeUrl(String url)`

4. Validation

Use the table below to describe any validation activity (e.g., testing, code inspections, etc.) you performed for this change request. Include the description of each test case, the result (pass/fail) and its rationale.

Step #	Description	Rationale
1	<i>Update the admin user details</i>	<i>User Saved Accurately The test passed.</i>
2	<i>Update the guest user details</i>	<i>User Saved Accurately The test passed.</i>
3	<i>Update the general user details</i>	<i>User Saved Accurately The test passed.</i>
4	<i>Updated the homeURL and re-logged in to check if function works</i>	<i>Home URL updated correctly The test passed.</i>

Time spent (in minutes): 50

5. Summary of the change request

Summarize the time spent on each phase.

Phase	Time (minutes)	No. of classes inspected	No. of classes changed	No. of methods inspected	No. of methods changes
Concept location	90	2	0	3	0
Impact Analysis	120	3	0	4	0
Actualization	40	1	1	1	1
Verification	50	0	0	0	0
Total	300	6	1	8	1

6. Conclusions

For this change, the location was a bit tricky to find but the impact analysis took even more time as I needed to go through all the routes to make sure nothing breaks as well as check the home URL feature works as expected. The actual fix and validation were pretty simple and easily executed.