

## Change request - 1 log

### 1. Concept Location

Step #	Description	Rationale
1	<i>We ran the system</i>	
2	<i>We interacted with the system: after logging in we entered the schedule screen.</i>	<i>To get familiar with some of the features of the system, and identify the screens or graphical elements we had to change.</i>
3	<i>We searched for "PointDetails" using the regular expression feature of the IDE's search tool.</i>	<i>Because we identified a button in the screen called "Point details"</i>
4	<i>From 579 results, we clicked on the class mango.view. The class was inspected using the Structure window of the IDE.</i>	<i>We selected this class because it contained a method of our interest named pointDetails.setData.</i>
5	<i>We inspected the class pointDetails.setData. We went to this class using the dependency navigator of the IDE editor.</i>	<i>We confirmed this class had to be modified.</i>
6	<i>We searched for "WatchList" using the regular expression feature of the IDE's search tool.</i>	<i>Because we identified a component in the screen called "Watch list"</i>
7	<i>From 1607 results, we clicked on the class mango.view. The class was inspected using the Structure window of the IDE.</i>	<i>We selected this class because it contained a method of our interest named watchList.setDataImpl.</i>
8	<i>We inspected the class watchList.setDataImpl. We went to this class using the dependency navigator of the IDE editor.</i>	<i>We confirmed this class had to be modified.</i>
9	<i>We searched for "HistoryTable" using the regular expression feature of the IDE's search tool.</i>	<i>Because we identified a component in the screen called "History"</i>
10	<i>From 21 results, we clicked on the class dataPointDetails. The class was inspected using the Structure window of the IDE.</i>	<i>We selected this class because it contained a function of our interest named getHistoryTableData.</i>
11	<i>We inspected the function getHistoryTableData We went to this class using the dependency navigator of the IDE editor.</i>	<i>We confirmed this class had to be modified.</i>

**Time spent (in minutes):** 40

*Classes and methods inspected:*

- *mangoSource\war\resources\view.js\mango.view.watchList.setDataImpl*
- *mangoSource\war\resources\view.js\mango.view.pointDetails.setData*
- *mangoSource\war\resources\view.js\ mango.view.custom.setData*
- *mangoSource\war\resources\view.js\ mango.view.initPointDetails*
- *mangoSource\war\resources\view.js\ mango.view.watchList.setPoint*
- *mangoSource\war\resources\view.js\ mango.view.watchList.setPoint*
- *mangoSource\war\resources\view.js\ mango.view.watchList.setPoint*
- *mangoSource\war\WEB-INF\jsp\dataPointDetails.jsp\getHistoryTableData*

### 2. Impact Analysis

Step #	Description	Rationale
1	<i>We made a list of methods called by view.pointDetails</i>	<i>To track the classes that could be impacted by the change.</i>

2	<i>The method <code>initPointDetails</code> was discarded from the list of methods to change</i>	<i>Because it deals with initializing point details instead of displaying the point details</i>
3	<i>The method <code>setPoint</code> was discarded from the list of methods to change</i>	<i>Because it does not deal with the actual displaying of point details</i>
4	<i>We made a list of methods called by <code>view.watchList</code></i>	<i>To track the classes that could be impacted by the change.</i>
5	<i>The method <code>reset</code> was discarded from the list of methods to change</i>	<i>Because it deals with resetting the watch list instead of displaying the point data</i>
6	<i>The method <code>setPoint</code> was discarded from the list of methods to change</i>	<i>Because it does not deal with the actual displaying of point data</i>
7	<i>We made a list of methods called by <code>getHistoryTableData</code></i>	<i>To track the classes that could be impacted by the change.</i>
8	<i>After a thorough inspection, we came to conclusion that no further classes were impacted by the change.</i>	<i>Since change only resulted in change in UI, no underlying classes were impacted.</i>

**Time spent (in minutes):** 30

*Classes and methods inspected:*

- `mangoSource\war\resources\view.js\mango.view.watchList.setDataImpl`
- `mangoSource\war\resources\view.js\mango.view.pointDetails.setData`
- `mangoSource\war\resources\view.js\ mango.view.custom.setData`
- `mangoSource\war\resources\view.js\ mango.view.initPointDetails`
- `mangoSource\war\resources\view.js\ mango.view.watchList.setPoint`
- `mangoSource\war\resources\view.js\ mango.view.watchList.setPoint`
- `mangoSource\war\resources\view.js\ mango.view.watchList.setPoint`
- `mangoSource\war\WEB-INF\jsp\dataPointDetails.jsp\getHistoryTableData`

### 3. Actualization

Step #	Description	Rationale
1	<i>In the <code>view.js</code>, in <code>mango.view.pointDetails.setData</code>, we created a variable named <code>truncValue</code>, passed the <code>state.value</code> and parsed it down to 2 decimal places and passed the same to the <code>innerHTML</code></i>	<i>This was responsible to display the point value on the point details component displaying the Value of sensor.</i>
2	<i>In the <code>view.js</code>, in <code>mango.view.watchList.setDataImpl</code>, we created a variable named <code>truncValue</code>, passed the <code>state.value</code> and parsed it down to 2 decimal places and passed the same to the <code>innerHTML</code></i>	<i>This was responsible to display the point value on the watch list component displaying the Value of sensor.</i>
3	<i>In the <code>dataPointDetails.jsp</code>, in <code>getHistoryTableData()</code>, we added a code line to return the value rounded down to 2 decimals.</i>	<i>This was responsible to populate the history table, hence the change was straightforward.</i>

**Time spent (in minutes):** 10

*Classes and methods changed :*

- `mangoSource\war\resources\view.js\mango.view.watchList.setDataImpl`
- `mangoSource\war\resources\view.js\mango.view.pointDetails.setData`
- `mangoSource\war\WEB-INF\jsp\dataPointDetails.jsp\getHistoryTableData`

## 4. Validation

Step #	Description	Rationale
1	Test case defined: Watch list component Expected output: Values rounded off to 2 decimal places	This is the regular expected behavior. The test passed.
2	Test case defined: Point details component Expected output: Values rounded off to 2 decimal places	This is the regular behavior. The test passed.
3	Test case defined: History Table component Expected output: Values rounded off to 2 decimal places	This is the regular expected behavior. The test passed.
4	Test case defined: Statistics Table component Expected output: Values NOT rounded off to 2 decimal places	This is the regular expected behavior. The test passed.

Time spent (in minutes): 10

## 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	40	5	0	10	0
Impact Analysis	30	5	0	10	0
Actualization	10	5	0	3	3
Verification	10	0	0	0	0
<b>Total</b>	90	20	0	26	3

## 6. Conclusions

*For this change, concept location was relatively difficult because the system is quite complex and multiple sub-changes were involved in different locations. Since quite a few numbers of classes and methods were involved, Impact analysis also had to be thorough and rigorous. The Actualization was quite simple once the Concept location was identified.*