

Software	Feature Name	Difficulty
Mango	Horizontal CSV	Medium (Est. 2 files; 200 LOC)

**Learning Goals:**

- Perform concept location through an advanced change request
- Perform impact analysis and make technical decisions based on the analysis results
- Practice reverse engineering
- Practice writing test cases with full coverage
- Practice design for usability
- Document software design and analysis

**Current Behavior**

The report page allows the user to select a set of nodes and time period to generate a report for. This report is in the form of a csv file with the notable quality that all of the user selected sensors are in the same column. These sensors are only differentiated by the “Point Name” column.

Point name	Time	Value	Rendered	Annotation
GH - 3_Light_1IND	2013/10/06 21:43:19	false		0
GH - 3_Light_1IND	2013/10/06 21:43:29	true		1
GH - 3_Light_1IND	2013/10/06 21:54:29	false		0
GH - 3_Light_1IND	2013/10/06 21:54:39	true		1
GH - 3_Light_1IND	2013/10/06 22:00:09	false		0
GH - 3_Light_2IND	2013/09/30 09:59:53	true		1
GH - 3_Light_2IND	2013/09/30 10:01:03	false		0
GH - 3_Light_2IND	2013/09/30 10:01:13	true		1
GH - 3_Light_2IND	2013/09/30 10:12:13	false		0
GH - 3_Light_2IND	2013/09/30 10:12:23	true		1

**Expected Behavior**

For ease of readability, each sensor should have its own Point Name, Time, Value, Rendered, and Annotation columns.

Point name	Time	Value	Rendered	Annotation	Point name	Time	Value	Rendered	Annotation
GH - 3_Light_1IND	2013/09/30 09:59:53	true	1		GH - 3_Light_2IND	2013/09/30 09:59:53	true	1	
GH - 3_Light_1IND	2013/09/30 10:01:03	false	0		GH - 3_Light_2IND	2013/09/30 10:01:03	false	0	
GH - 3_Light_1IND	2013/09/30 10:01:13	true	1		GH - 3_Light_2IND	2013/09/30 10:01:13	true	1	
GH - 3_Light_1IND	2013/09/30 10:12:13	false	0		GH - 3_Light_2IND	2013/09/30 10:12:13	false	0	
GH - 3_Light_1IND	2013/09/30 10:12:23	true	1		GH - 3_Light_2IND	2013/09/30 10:12:23	true	1	
GH - 3_Light_1IND	2013/09/30 10:35:33	false	0		GH - 3_Light_2IND	2013/09/30 10:35:33	false	0	
GH - 3_Light_1IND	2013/09/30 10:35:43	true	1		GH - 3_Light_2IND	2013/09/30 10:35:43	true	1	
GH - 3_Light_1IND	2013/09/30 10:46:43	false	0		GH - 3_Light_2IND	2013/09/30 10:46:43	false	0	
GH - 3_Light_1IND	2013/09/30 10:46:53	true	1		GH - 3_Light_2IND	2013/09/30 10:46:53	true	1	
GH - 3_Light_1IND	2013/09/30 10:57:53	false	0		GH - 3_Light_2IND	2013/09/30 10:57:53	false	0	
GH - 3_Light_1IND	2013/09/30 10:58:03	true	1		GH - 3_Light_2IND	2013/09/30 10:58:03	true	1	
GH - 3_Light_1IND	2013/09/30 11:09:03	false	0		GH - 3_Light_2IND	2013/09/30 11:09:03	false	0	