



- ▶ Learn the lab technician workflow to understand the unique user needs and effectively advocate for them
- ▶ Investigate all bug reports and user issues, turn them into action items for the development team
- ▶ Present bug reports and user research to project team, add approved items to task list
- ▶ Produce mockups of proposed features and enhancements, develop into prototypes

- ▶ Create a process map of the pen and paper workflow, noting order of steps and average time taken
- ▶ Perform usability testing, heuristic analysis, and informal interviews to understand what key functionality was not yet present
- ▶ Discuss research with project team, determine what to add to the task list and which features are priority
- ▶ Produce wireframes of new feature concepts, iterate based on user feedback and testing
- ▶ Advance concepts to high fidelity prototypes, get approval for final designs
- ▶ Regularly check back to determine biggest bottlenecks to overall efficiency

THE PROCESS

Current Process Workflow 7/25/16

w/ Barbara Lee

1. Vendor sends shipping notice of candles w/ submission form
2. Receive & print form, compare form to mfr. data sheet in email to verify receipt of all sub. sheets (~1 min)
3. Get next avail. lot # (~1 min)
4. Assign next avail. lot # to submission form
5. Log candle data in db (3-5 min/lot), ~~fill out, attach~~ ^{3 sets}
6. Print tracking form & data sheet (1-2 min)
7. Candle arrives at lab, record ~~rec'd date~~ ^{est. of log-in} & sub form
8. Match shipment to tracking form & data sheet (5 min)
9. Take candles to burn room & prep (20 min)
 - P - attach lot & candle # (2 min/lot)
 - P - record init. weights & log in db (5-10 min)
 - P - set data sheet by lot until 1st lighting
10. Start burn test @ next scheduled lighting
- T - 2 hr flame height test (5 min)/shelf
- E - 4 hr melt pool observations (10 min)/shelf
- S - trim wicks - melt pool data ^{observe first} _{then melt pools} 1x3
- T - repeat to completion ^{work in pairs}
11. Take candles to prep room for completion (1-2 min)
 - P - final weights if needed (1-2 min)
 - O - post burn observations (1-2 min)
 - T - candle total weight (1-2 min)
 - packing & storing (5 min)
 - store data sheets in folder (1-2 min)
12. Enter data in db (30-40 min)
13. Run report, print & add to folder (1-2 min)
14. Leave for Brent to review
15. Verify data for consistency & integrity
16. Submit data through db to website

~122 min CP time

Process Tracking

7/25/16

Step	Date Performed	Time Taken
✓ 1-2	7/26/16 @ 11:45a	7 min / 10 lots
✓ 3-4	7/26/16 @ 11:52a	6 min / 10 lots
✓ 5	7/26/16 @ 11:58a 7/26/16 @ 12:10p	10 min / lot 20 min / 10 lots
✓ 6	7/26/16 @ 12:30p	15 min / 10 lots
✓ 7-8	7/26/16 @ 11:15a	17 min / 10 lots
✓ 9	7/26/16 @ 10:00a 7/26/16 @ 10:50	A- 20 min B- 20 min C- 10 min (10 lots) A- 15 min B- 20 min C- 5 min (13 lots)
✓ 10A	7/22/16 @ 8:30a 7/25/16 @ 3:05p 7/27/16 @ 2:30	~15 min / shelf ~4 min / lot 6 min / 2 lots
✓ 10B	7/25/16 @ 12:30p 7/25/16 @ 5p 7/27/16 @ 12:30p	20 min / 3 lots, ~7 min / lot b 25 min / 25 candles, ~3 min / lot 18 min / 25 candles, ~8 min / lot
✓ 11A	7/25/16 @ 11:45am 7/27/16 @ 1:20p	2 min / lot 7 min / 25 candles
✓ 11B	7/25/16 @ 11am 7/27/16 @ 1:30p	~5 min / lot 5 min / 25 candles
✓ 11C	7/25/16 @ 11:50am 7/27/16 @ 1:35p	2 min / lot 3 min / lot
✓ 11D	7/25/16 @ 11:52am 7/27/16 @ 1:45p	1 min / box (did not store) 6 min / boxes (w/ storing)
✓ 11E	7/25/16 @ 11:55am 7/27/16 @ 1:50	2 min / folder 3 min / folder
✓ 12	7/26/16 @ 1:50p 7/27/16 @ 10:40a 7/27/16 @ 3:30p	30 min / lot (+30 min checking) 40 min / lot (+20 min corrections) 40 min / lot (+15 min corrections)
✓ 13	7/26/16 @ 3:20p 7/27/16 @ 4:30	5 min / report 5 min / report
✓ 10c	7/26/16 @ 4p	15 min / 5 lots 3/lot
✓ 10D	7/25/16 @ 5:10p 7/26/16 @ 5:25p	2 min / lot (w/ partner) 2 min / lot (w/ partner)
✓ 15	7/26/16 @ 3:30p	10 min / report
✓ 16	7/26/16 @ 3:45p	1 min / report

~202 min CP time

~155 min CP time

~505 min CP time

SEA Candle App - Design Assessment

Melt Pool Indicator

Based on technician feedback, it's come to my attention that melt pool temperatures are causing some difficulties in their current implementation.

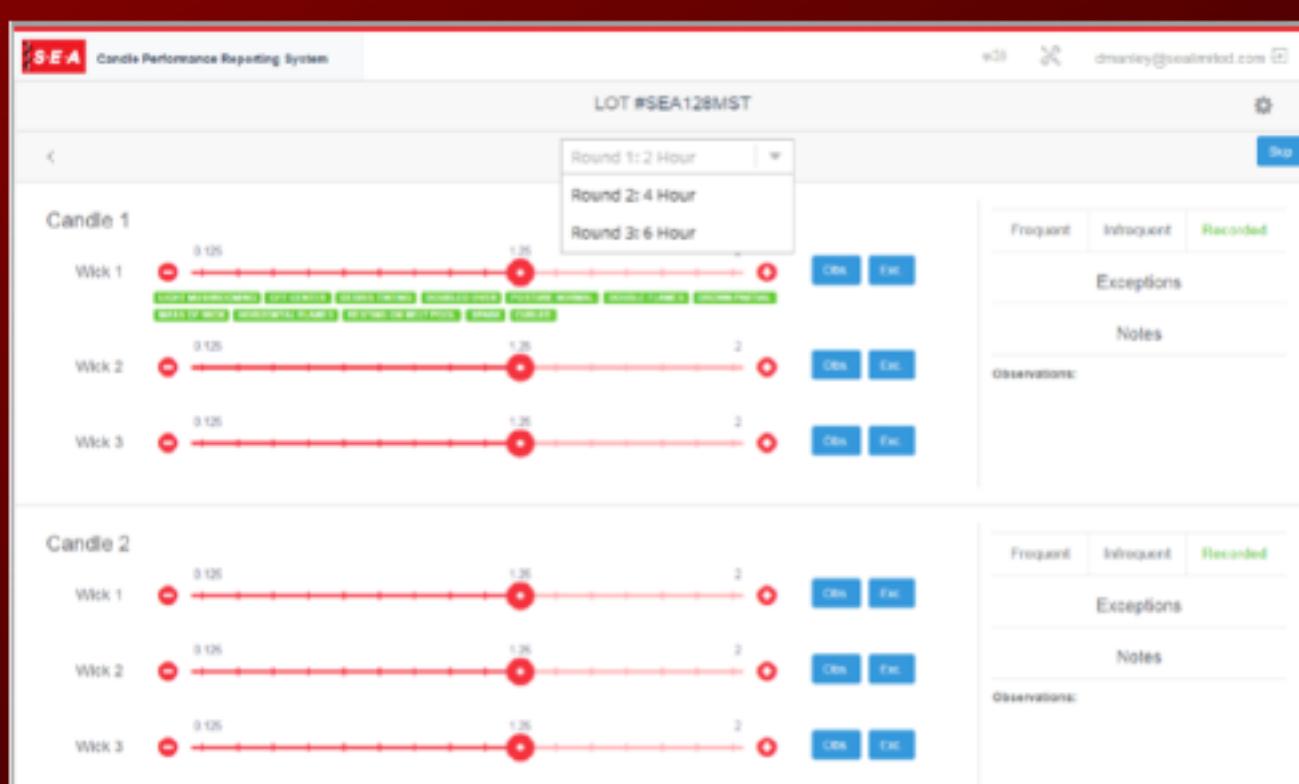
Issues include:

- Techs are not always aware of when to take temperatures
- No paper record to give a visual reminder
- Melt pool data requires menu diving; data has low visibility

In response to this, I've developed a prototype for a melt pool indicator that would live on the Edit Lot page, so a technician cannot go into the Observation Page without seeing it. The Indicator lists the 3 rounds of melt pool data, and for each one, will display the status of the melt pool data. The indicator is viewable at the bottom right of the following screenshot:

The screenshot shows the 'Edit Lot' page of the SEA Candle Performance Reporting System. On the left, there is a form with various input fields: Barcode # (SEA143MST), Batch Code (ACCTTEST), Candle Size (14.5 oz), Container Type, Fragrance House (Unknown), Trend (Post Production), Wick Size (WI 765), Fragrance Code, Date Shipped, and Date Received. On the right, there is a 'Toolbar' section with five buttons: 'Go to Pre-Burn', 'Go to Observations', 'Go to Post-Burn', 'Go to Melt Pool' (which is highlighted in blue), and 'Generate Report'. Below the toolbar, there is a 'Melt Pool' section with three status entries: Day One: Complete, Mid Point: Ready for Data, and End-of-Life: Not Taken.

The indicator would feature the following status levels:



Recommendation: Change the “Round #” part of the header section to a drop down menu, allowing for quick access to any round of data for the lot

Wireframe - Extra File Upload View

2/7/17

SEA Candles!

Q G Axis Dev

Extra File Upload - Lot SEAS00

Common
Files

Drag & drop files here

Toolbar

Lot edit
Pre-burn
Observations
Melt Pool
Post burn
Report
Exemption

Extra File Upload - SEA000

File 1.xls
DC1N0024.jpg
postburn.png

Extra File Upload: PCC1003MST



Drag files on to this page to upload,
or click the file or camera icon.



Toolbar

[Loc Edit](#)[Go to Pre-Burn](#)[Go to Observations](#)[Go to Mell Pool](#)[Go to Post-Burn](#)[Generate Report](#)

Extra File Upload: PCC1003MST

File Name	Date Uploaded	Client Visibility	Delete	
candledatapcc1003mst.xls	1/27/2016 3:26 PM			
DCIM1092.jpg	1/27/2016 3:27 PM			
candlelotdata-final.pdf	1/27/2016 4:02 PM			

Toolbar

- [Lot Edit](#)
- [Go to Pre-Burn](#)
- [Go to Observations](#)
- [Go to Melt Pool](#)
- [Go to Post-Burn](#)
- [Generate Report](#)

User Experience Report

SEA Candle App

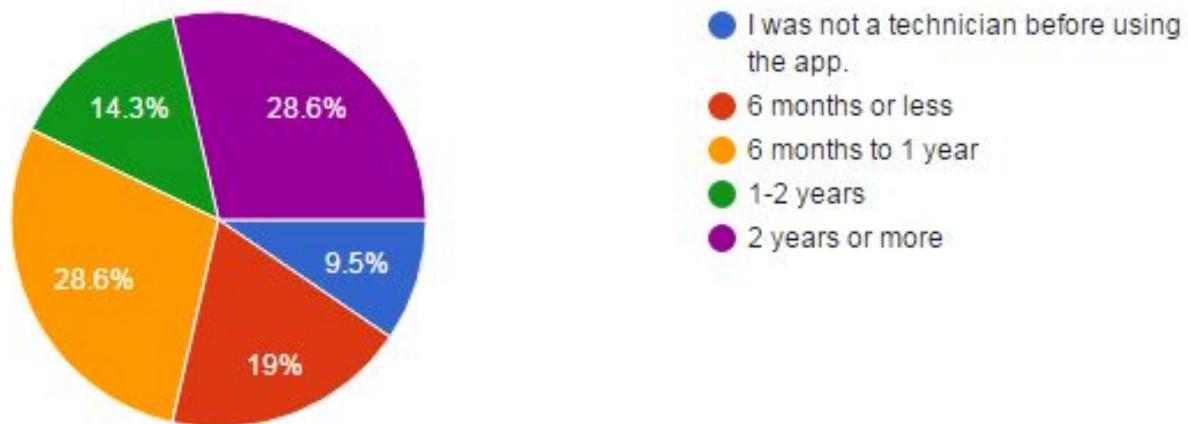
Overview

This document consolidates the results of the user experience survey for the candle lab, conducted March 29th through April 5th, 2017. The purpose of the survey was to gauge current levels of satisfaction with the Candle App, to determine the perception of the app's speed, and to find out where the app is falling short of user expectations.

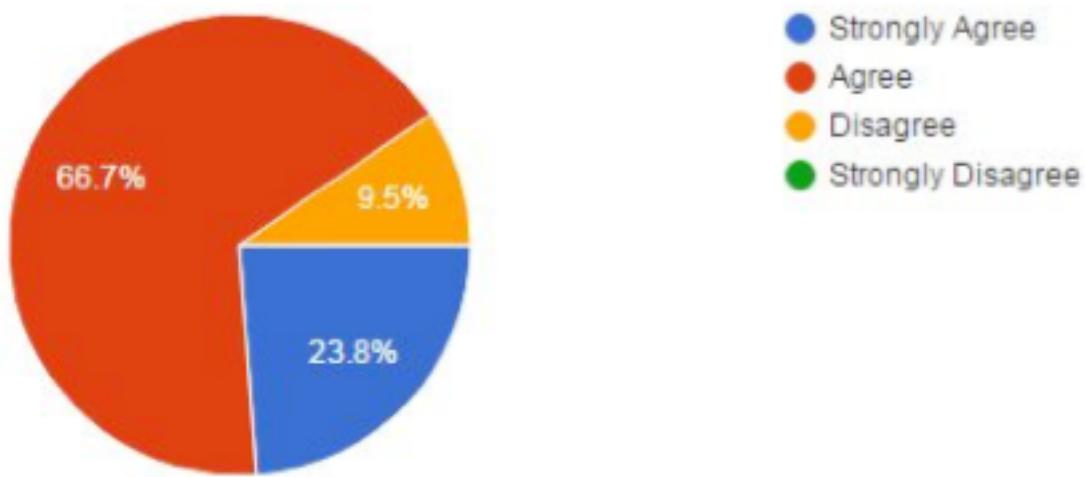
Survey Responses

How long had you worked as a candle technician before using the SEA Candle App?

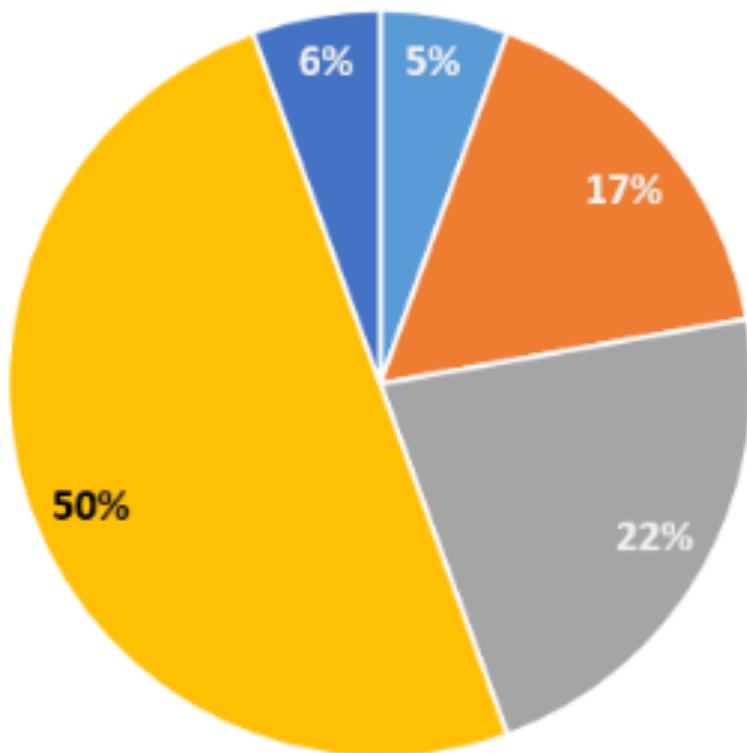
(21 responses)



"The Candle App helps me accomplish my work quickly and easily."
(21 responses)



If you had previously worked as a candle technician, do you feel you're able to complete the process of recording data faster or slower than the old process?



- Much slower ■ A little slower ■ About the same ■ A little faster ■ Much faster

User Experience Report

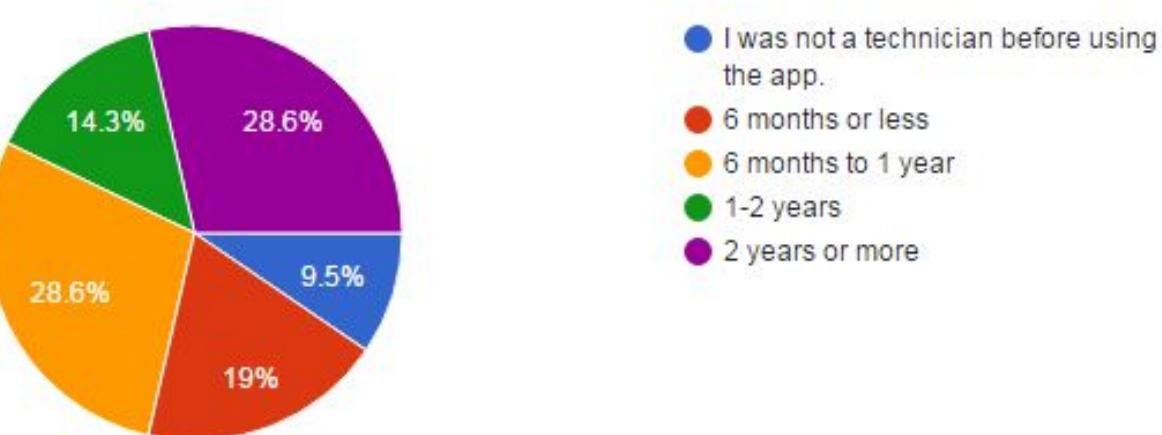
SEA Candle App

Overview

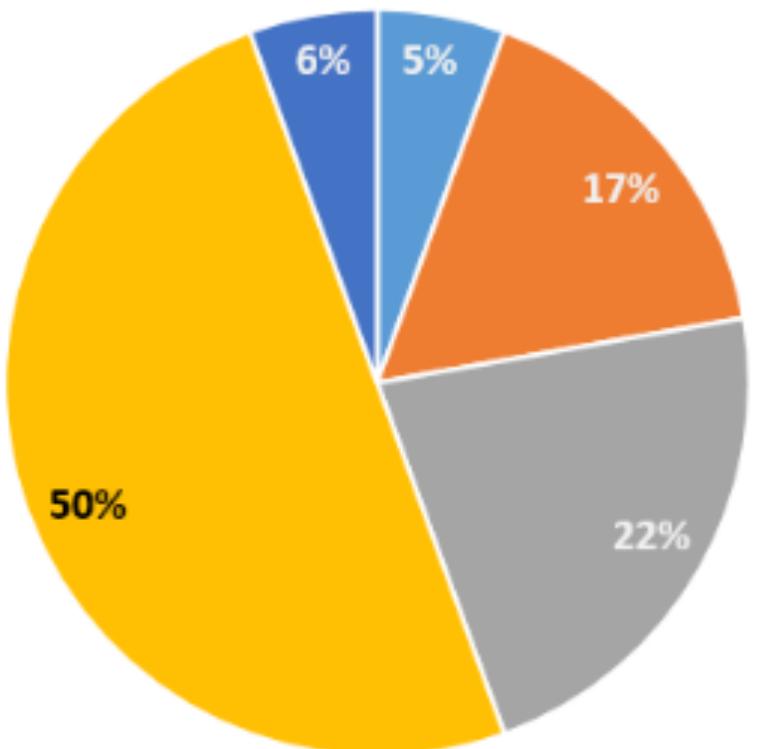
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(21 responses)



If you had previously worked as a candle technician, do you feel you're able to complete the process of recording data faster or slower than the old process?



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THE PROCESS

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THE RESULTS

- ▶ A majority of technicians reported that the app enabled them to accomplish their work faster
- ▶ Data entry tasks almost completely eliminated
- ▶ Temporary staffing needs for the holiday season (busiest candle testing period) were reduced by more than half
- ▶ Fewer full-time technicians needed to accomplish the same amount of work