

Case # 2: Fill & Seal + Pack Process

- Simple process with 5 key steps
- Lead time of current process at 130.5 days with 37.85 seconds of value-add work content.
- Issues of lost components, waste, rework
- Excessive paperwork and rework of documentation (FDA issue)
- Floor space capacity issue
- Major issue with on-time delivery
- Regulatory issues with documentation errors



Step 1 Parison positioning

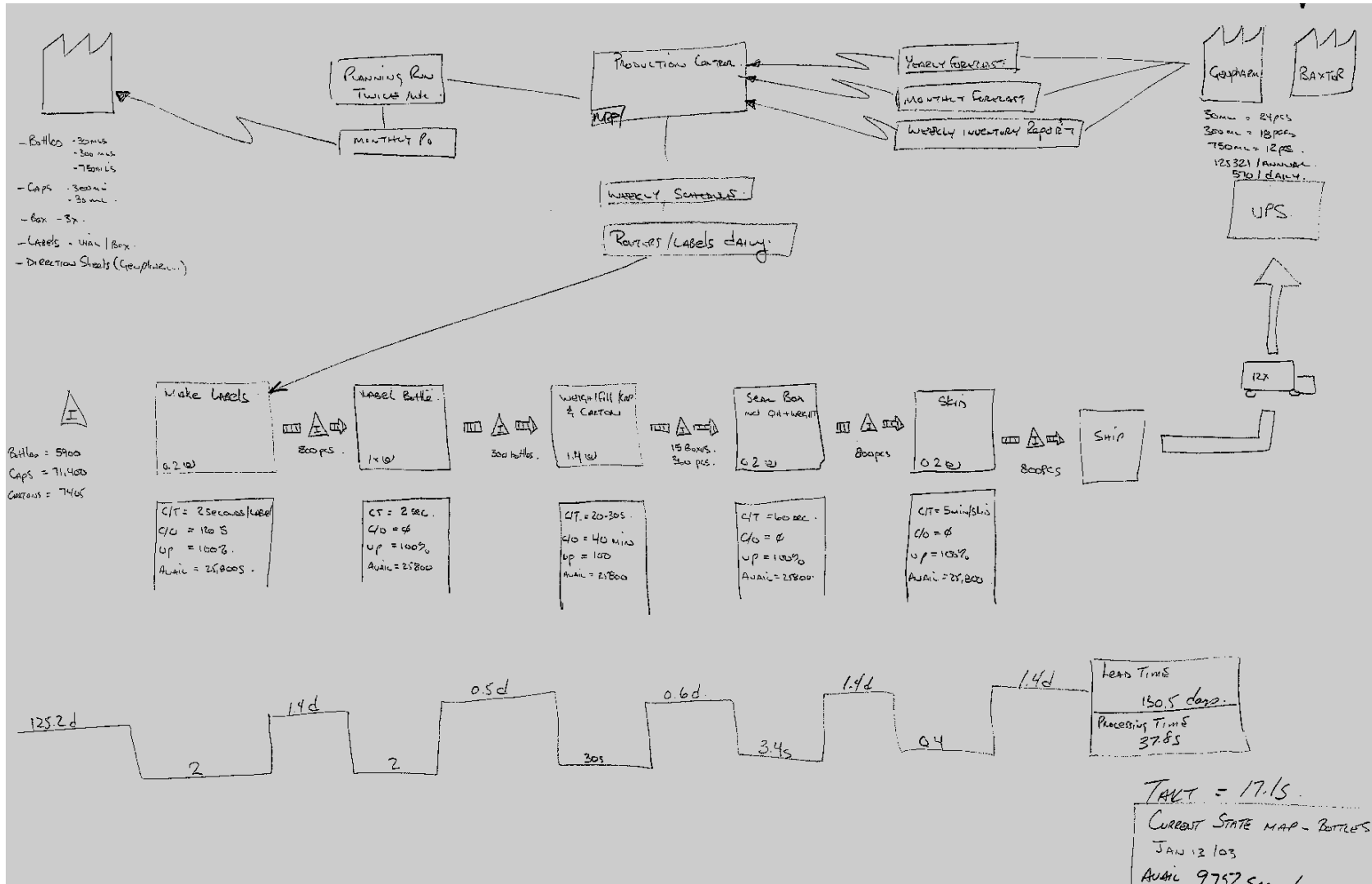
Step 2 Filling mandrel/nozzle insertion and container formation

Step 3 Container filling with product

Step 4 Sealing

Step 5 Container release

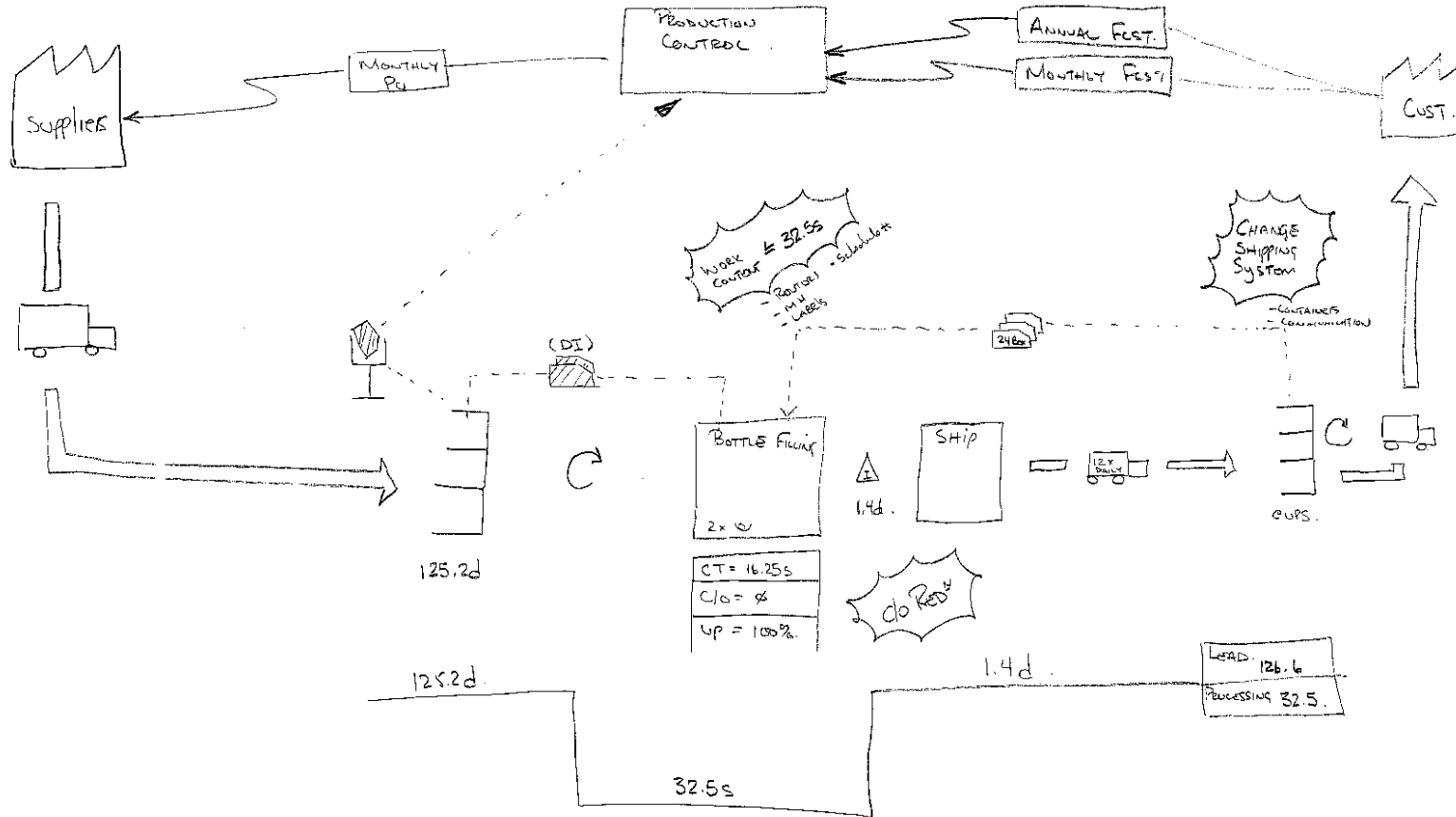
VSM EXAMPLE – CURRENT STATE MAP



Improvements

- Reviewed documentation requirements
- Set up dedicated work cell with single flow
- Internal supermarket contains all components including preprinted labels supplied by quality.....loaded with Kanban system
- Reduced paperwork requirements per value-add review
- Set up supermarket at FG level per pull system

VSM EXAMPLE FUTURE STATE MAP



FUTURE STATE - Bottles
 JAN 14, 2003
 AMAL: 9752
 TAYT: 17.15

Analytics for “new” state

Elements	Old Process	New Process
Lead time	130.5 days	126.6 days
Processing Time	37.85 sec	32.5 sec
Documentation Accuracy	15%	99+%
On-Time Delivery	33.5%	87%.....93% (+2 months)
Inventory Accuracy	54%	>99%
Label Rework	24%	5%
Labor Variance	\$546,000/yr	\$33,786/ yr. (2006)

