16.660 / 16.853 / ESD.62J Introduction to Lean Six Sigma Methods
January (IAP) 2008

S & A Hot Dogs

Sasha and Andy have opened a hot dog stand at their local park. They offer a hot dog with choice of fresh fruit and beverage to walk up customers between 10 AM and 2 PM. Customers put on their own condiments. Customers say their hot dogs are good, but the wait is a little long.

After two weeks, they have a brisk, and growing business. Andy and Sasha notice they are barely keeping up with the customer demand, and making a little money after buying their supplies at the end of each day. They would like to improve their process to meet growing customer demand. They collected the following data for their business processes and need help analyzing it.

	Process step	Data for average day	T/O*
1	Sasha takes orders, collects the money, and chats with the walk up customers.	60 sec spent taking customer order customer 50 customers per day Average order is for 2 dog/fruit/beverage combos	
2	Sasha tacks order-in on Andy's board. Andy takes order from board.	Order-in spends 30 sec on board	
3	Andy gets a cooked hot dog. If one isn't already cooked, Andy adds more dogs to the grill trying to estimate upcoming demand	Time spent to produce a cooked hot dog is 50 sec	
4	Andy puts dog in bun, wraps it in foil, adds fruit of choice and puts in serving container.	Takes 20 sec per dog, about half the time spent adding fruit and putting in serving container.	
5	If order isn't complete, Andy repeats steps 4-5. Otherwise goes to step 2.	10 sec per dog	
6	Andy puts completed order on Sasha's counter	Order spends 30 sec on counter	
7	Sasha checks the order	10 sec per order 10% of the orders returned to Andy	
8	Sasha adds beverage	10 sec per order	
9	Sasha calls customer to stand, delivers order and chats a bit	30 sec per customer	
10	Andy sets up his work area, keeping it clean and stocked	10 min each hour	
11	Sasha fills up condiments, keeps serving counter clean, and bags trash	10 min each hour	
		Cycle Time	

* T/O = Time per order in seconds. Include rework time.

As a first step, they have asked that you draw a process map for the above 11 Process Steps listed in the left hand columns. Later you will work with the data.