CAR ORDERS
By Hank TenWolde   7/26/10

Imagine, if you will, a car forwarding system that lets you spot and pickup cars and move trains with a minimum of paperwork.   A system, that allows for as much or as little switching as a crew wishes. It even allows a train crew to do no work and not affect any other part the operation. CAR ORDERS is a method to do just that. It is based on a customers need for a certain type of car and not tied to that cars number.
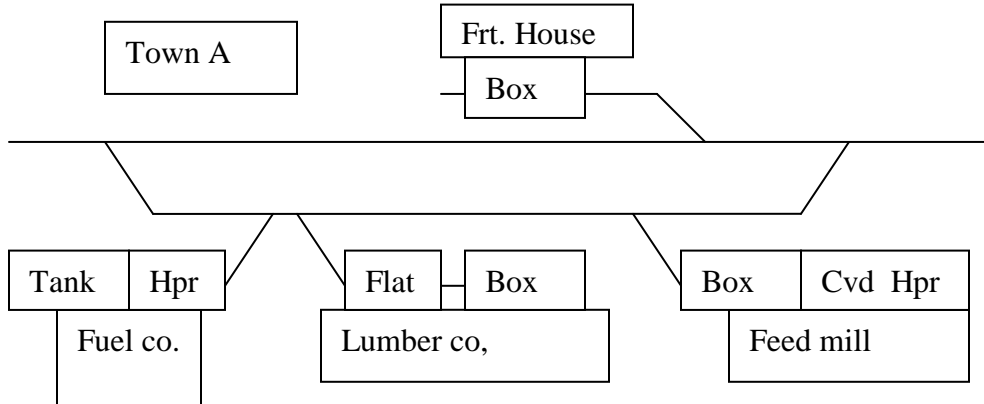
THE CAR ORDER FORM
The form below shows the basic information needed.   The form can look like this or can be made to look like prototypical car form. That is up to you. All that is needed is to include the information highlighted.

TOWN A	The location (Town, Yard, interchange) this card is assigned to	TOWN A
CAR ORDER		**PICKUP ORDER**
40' FLAT	Car type	40' FLAT
W/LUMBER LOAD TO BE SETOUT AT:		EMPTY TO BE PICKED UP AT:
	Car location (Pickup order side only)	TOWN A LUMBER CO.
		PICKUP THIS CAR AND ROUTE:
TOWN A LUMBER CO.	Car destination	
		WESTBOUND
WHEN CAR HAS BEEN SETOUT TURN THIS ORDER AND AND PLACE IN THE PICKUP POCKET		WHEN CAR HAS BEEN PICKED UP TURN THIS ORDER AND PLACE IN
TURN (HOLD)	The paper shuffle	CAR ORDERS

1. The location part shows what town this card is supposed to be located at. If it turns up someplace else on the layout you simply return it the town listed.
2. Car type is self explanatory, and note there is no car number or reporting marks needed.   You can even specify that a car is loaded or empty (i.e. Flat Car with Lumber load as shown in the example).
3. The Car Location, on Pickup Order side only, shows only where the car is located for the purpose of picking it up from a local industry.
4. The Car Destination on the Car Order side shows where to spot the incoming car and on the Pickup Order side where the car is to go once it leaves the industry.
5. The paper shuffle informs the operator what to do with card once the movement is complete (more on this later).

SETUP

To determine how many orders you will need make a spreadsheet as shown below. Listing industries, number of car spots, and car types by column across the form. We will use Town A. diagram shown below to show how to make up a sample spreadsheet.

Town A   Frt. House
                  Box

Tank Hpr   Flat Box   Box Cvd Hpr
  Fuel co.   Lumber co,   Feed mill

Our sample spreadsheet would look like this:

Town A Industry	# Car spot	Box	Flat	Hopper	Covered Hopper	Tank
Frt. House	1	1				
Fuel Dealer	2			1		1
Lumber Co.	2	1	1			
Feed Mill	2	1			1	

1. The number of car spots is the actual number of cars that can be physically spotted at a particular industry. In this case the fuel dealers siding is long enough to spot two cars. One for coal and one for oil. The Frt. House on the other hand is on a long siding but the actual freight house can handle only one car so it gets only one spot.
2. Now make out one Car Order for each type of car to go to an industry. In this case one for a box car to the Frt. House, one each for a hopper, another for a tank car, to the fuel dealer, and so on.

When complete there will be seven Car Orders for Town A.

If you have only one town on your layout you are done. If there are more towns follow the same process with each to make out Car Orders for those towns.

Note that only one Car Order is made out for each car spot. This prevents the siding from becoming overcrowded. However if you find that an industry is not getting the traffic you would like, simply make out another car order. You will reach a saturation point where to much traffic is going an industry, in that case just throw away one of new car orders. One of the things I have observed in operating on layouts is the small industry just a little bigger than a 40' box car getting two or three cars spotted there. Car Orders setup eliminates this problem.

HOW IT WORKS

Let's start out with the premise; you have a small layout, with only our Town A on it.

Town A		Frt. House

Fuel co.		Lumber co,		Feed mill

Car Orders	Pickup Orders
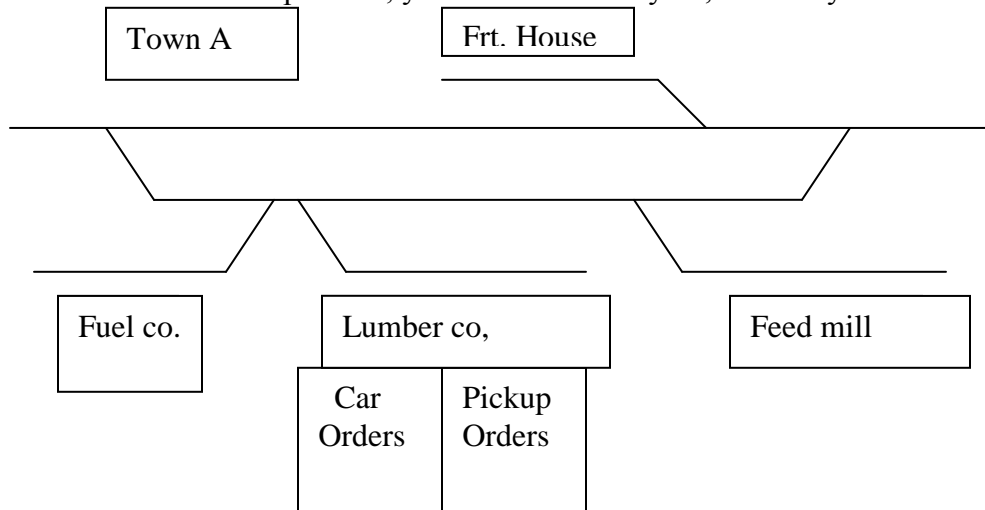
At the site of Town A we have placed two card pockets as seen above. In one we place the Car Orders for cars to be spotted. In the other we place the Pickup Order for cars at the industries in town waiting to be picked up.

1. When a train arrives in our town the crew matches Car Orders against cars in their train by car type. These are the cars they will set out. Cars not matched will continue on with the train when it leaves. Car Orders not matched are returned to the Car Orders pocket. When a car is setout the Car Order is turned to the Pickup Order side and placed in the Pickup Order pocket.
2. Our crew also selects Pickup Orders to determine which cars it will pickup during its work in Town A. However they will pickup cars headed in the direction of their train only. All other Pickup orders are left in the Pickup Order pocket. When the work is complete they turn the order to the Car Order side and place the order in the Car Order pocket.
3. In all cases the orders stay at that town ready for the next train when it arrives.

As can be seen once a train completes its work and leaves, the Car Orders and Pickup Orders are ready for the next train to arrive. Since no paperwork is needed, whatever the makeup of the train as it starts its run will determine how many cars are setouts and pickups. This creates the normal ebb and flow of traffic at the various industries. Also, say, you have only one box car but there are several industries that have Car Orders for a box car. Which one gets it? The answer is simple, the first box car Car Order you come to is where the car goes. The others will have to wait for the next train.

PAPERWORK SHUFFLE
In this scenario the information at the bottom of the Car Order would read "Turn" and on the Pickup Order side it would say "Car Orders". It is simply a way to let the crew know for sure what to do with the order when they have finished their work. If you wish to add another wrinkle to the flow you can add a Hold pocket to the Car Order and Pickup Order pockets as shown below. You add Hold to the bottom of say about 1/3 of the Car Orders. When the Car is setout the order is not turned but placed in the Hold pocket. When a

crew has completed all its work it simply takes the orders that were in the Hold pocket when they arrived and turn them to the Pickup Order side and place them the Pickup Order pocket.

Town A		Frt. House	

Fuel co.		Lumber co,		Feed mill

Car Orders	Hold	Pickup Orders
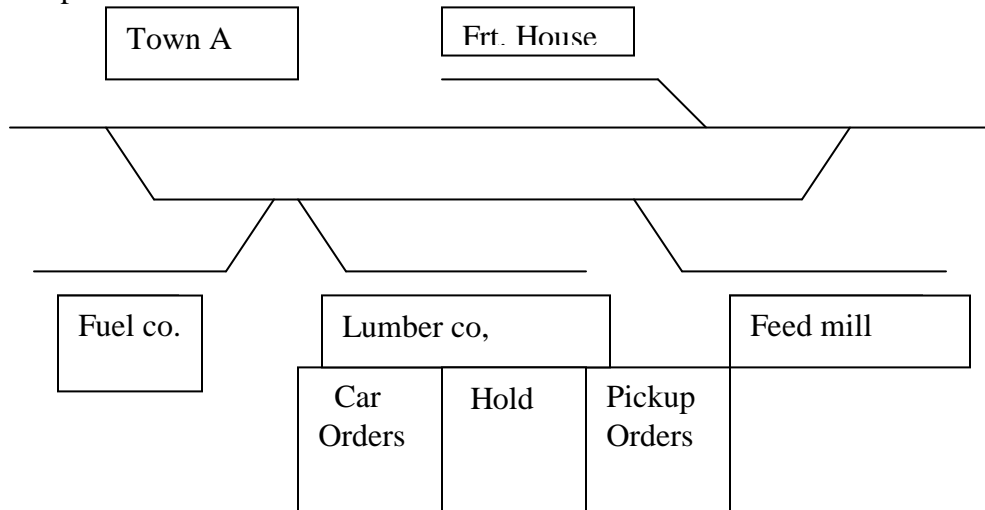
The number of Hold orders can be varied to make more or fewer holds based on the layout owners wishes. You can even add a Setout Pocket, if you wish, so crews can have a convenient place to put orders for cars they have set out.

GOT MORE THAN ONE TOWN
Simple, just repeat this process for each town you have and let the train crews do the work as they arrive in each town.

OK, BUT I WANT A YARD
Say your layout is larger and you have a yard.   From that yard you makeup a local freight that goes out to work a couple of towns and returns. To make this work simply move the Car Order pockets from those towns to the yard. The operations will be as follows;

1. When a Thru Freight arrives at the yard, the yard crew matches Car Orders against the cars in the train. Those going to the town(s) worked by local are setout in the yard. The others continue on as thru cars.
2. When the yard makes up the local freight it uses to Car Orders to determine which cars go into the train.
3. As the local leaves the yard the crew takes the Car Orders with them and makes setouts and pickups just as we noted before. With one exception, they do not turn the Pickup Orders to the Car Order side. But return them with their train to the yard crew.
4. The yard crew uses the information on the Pickup Orders to place the car in the appropriate yard track. They then turn the Pickup Order to the Car Order side and place in the Yards Car Order pocket.
5. When the next thru freight comes to town the cars the local picked up headed in that trains direction are simply added to the train and become thru cars.

THAT'S ALL THERE IS TO IT.
FAQ's

When I have presented a clinic on this subject I have gotten several questions. Most are what if questions and I will provide answers for the ones I get the most.

1. Will this system work with a small layout? Yep- in fact since most small layouts have fewer cars this method keeps the car fleet sort of anonymous. Since you are not looking for a particular car number, only type, you seem to get less of the "I've seen that car at this industry just the other day" feeling.

2. Ok I have a really big layout. In that case it still works and crews are not juggling big wads of car cards or long computer lists. Classifying trains is quicker since the yard crew switches out only those cars matched to Car Orders. The remainder goes into tracks as thru cars for future mainline trains. Cars coming in on local frts. are classified by info on the Pickup Orders.   It moves quickly and can help keep the operation moving.

3. I have a large industry with several car spots. In this case you make out a Car Order that specifies that type car to that specific spot. When the car arrives it will be spotted at the correct spot and later the pickup order will tell you where to pick it up.

4. What if I do not want to do a lot of switching? Fine. When you take your train out do as much or little as you wish. It will not affect any other operations. The only exception is if you draw that local frt. we talked about earlier. In that case you will have some car orders and **will have to do some work**. When you complete your run just turn the Car Orders to the Pickup Order side and return to the yard. Nothing is affected. However the yard crew might have a few comments.

5. What if I make a mistake?   OMG no one will notice. Since the operation is not dependant on a car making it to a certain destination at a certain time no harm done. The system will correct itself. Someone on some future train may notice that a car is spotted where it is not supposed to be and do something or then again maybe not. In either case again no harm done.

6. Will this work on our club?   You bet, since no order is tied to a specific car, a member who brings in and takes home equipment does not affect the overall operation. And there is no need to hunt down car card/waybills or keep updating computer programs

7. Will it work in any scale?   Umm yes, especially in the smaller scales where car info is hard to read or even in larger scales where the ability to read is not as good as was 4 decades ago.

8. What about interchanges? They work just like any other industry with their own car orders.

9. It does not seem prototypical. It is and it isn't. The emphasis is on switching and getting cars to and from customers. In that respect it is not only fun but in a way prototypical. In the real world empty cars are routed by empty car bills. The agent they are going to and the customer have no idea or even care about the reporting marks and where the car has been or supposed to have been. The actual identification of the car to a customer occurs just before it is spotted.   And by the way that is what we are doing here.

10. Since you make out orders for only a specific spot there is less setup and orders to manage. As an example on my home layout I have spots for 28 cars, a car fleet of

about 60. With the standard car card/waybill system I had 60 car cards and roughly 90 waybills. With Car Orders I have, you guessed it, just 28 orders. We won't even get into the hazels of a computer system.

11. On my home layout I have a few spots that I wanted to have cars arrive on a rather sporadic schedule. To do this I made up car orders but on the bottom of the pickup side they read "special orders". I installed a separate special order pocket and place these orders in it.   At the beginning of each session I take one of these orders and place it in the car order pocket. When the order is filled, and the car has been picked up, the order goes to the back of the special order pocket to await its next turn. There are about a dozen of these on my layout so an order comes up only once every 10-12 sessions. They run the gamut of special machinery coming to a mill, cars going to car repair, and even the ash pit car needing to be emptied.

12. I like to change the cars in my car fleet.   Simple, just put the car on the track, take off the old one if you want. Since Car Orders are not tied to a specific car nothing else needs to be done.

13. What if I change, add, or delete an industry? If you add or change an industry just make out new Car Orders for that industry and you're done. Want to remove and industry? Throw away the old orders, it is just that simple.

14. What about restaging for the next session? Since trains run without all that paperwork, when a train reaches it's destination (say a staging track, or yard) it is automatically ready to go out again. Since the crews advance the orders as they do the work even the towns are ready for the next train. About the only thing one might have to do is add or remove loads and even this can be done by crews as they work if you wish.

15. What about "off spots"? If you make out one order for each spot there will be no off spots. However if you add orders to increase traffic you may have this come up.   Either the crew does not fill the order until the spot is vacant or like with other card systems you add an "off spot" pocket to hold the car order until the car can be spotted.

16. I have a problem with operators forgetting they put car cards in their pockets and taking them home.   Car Orders stay at the town worked, since there is no need to carry the cards around the whole layout the chances of them heading for some other railroaders home is lessoned.

17. You can find out more at yahoo groups. Just link to the carordersmrr group.