

Chapter 10 - Next Operating Sessions

As noted in the Chapter 9 Summary, in this Chapter we will run several more operating sessions, review the results and make changes where necessary to get a smooth operation.

Before we start, it is important to note that from this point onwards, there is a real possibility that the cars you see in your trains may differ from what you see here. If you remember way back in the Introduction section of the ProTrak Basics Manual, we looked at a question that was asked of Jim Moir and his response. That question and Jim's answer will explain why the variance between the ProTrak Basics Manual and what you see on your computer screen happen

Let's start the next session – session 27.

Session 27

1. Before we start, let's check to make sure we still have some outstanding Car Orders ⁽¹⁾. On The ProTrak Standard Toolbar, click on "Traffic" then select "Car-orders to/from online customers" from the dropdown list. Figure 10-1 shows the "Car-orders: Customers and Loading Points" window.

Car-orders: Customers and Loading Points									
No.	Firm name	City/State	Siding name	SPOT	Capacity	Occ	Car-orders	Switching train	Blk#
1	Actonvale Station	Actonvale		ACT-01	5 PAX				
2	Weigh scale	Actonvale	weigh scale	ACT08z	Cars: 2	0		202	22
3	Team track	Actonvale	team track	ACT-14	Cars: 2	0	4	202	19
4	Twin State Fruit	Actonvale	door spot	ACT17a	Cars: 1	0	none	202	F-2
5	Twin State Fruit	Actonvale	platform loading	ACT17b	Cars: 1	0	none	202	F-5
6	ACT Yard	Actonvale		ACT-Yd	5 tracks				
7	Wilson & Sons Scrap Metal	Berwick	scrap iron /40211	BER-11	Cars: 3	0	2 for 3 cars	202	29
8	North Star Eng. Lmbr	Berwick		BER-10	Cars: 4	0	4	202	F-32
9	reporting point	Berwick	reporting point	BER02y	reporting point	0			
10	Anglo-America Clays			STLM3s	---		none		0

Figure 10-1

2. Double click on line 7, "Wilson & Sons Scrap Metal" and the window shown in Figure 10-2 will appear.

¹ You may wonder why we are doing this. We really don't need to do this, but some folks may have thought to themselves "Are there still outstanding car-orders?" Checking the status of the car-orders will answer that question.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	All days
3 carloads	0 carloads	0 carloads	0 carloads	0 carloads	0 carloads	0 carloads	0 carloads
scrap iron							
scrap iron							
<input type="radio"/> Show details	<input type="radio"/> Show details	<input type="radio"/> Show details	<input type="radio"/> Show details	<input type="radio"/> Show details	<input type="radio"/> Show details	<input type="radio"/> Show details	<input type="radio"/> Show details

Figure 10-2

3. If we look at the column headed "Monday" we can see there are 3 carloads ordered. These are, in fact, empty cars to be loaded. Click on "Close" to close the "Rule 15 Record of Car-Orders" window. Click on "Close" to close the "Car-orders: Customers and Loading Points" window.
4. OK, time to start the next session. As we did in Chapter 9, on the ProTrak Standard Toolbar, click on "Transportation", then select "'Operations", Run an Operation Session" from the dropdown list. The window like Figure 10-3 will appear ⁽²⁾.

² From time to time you may get an error message saying the line-up is out of date, or that there is no check beside the "Line-up of Trains" entry in the "Traffic" dropdown list. If you receive this message answer "Yes" and/or "OK" as appropriate to the message and any following messages until such time as the window shown in Figure 10-3 appears.

Loading railroad data			
Today's date is	Monday, July 6, 1988	For session	27
The weather is	Clear		
Dispatching is by	TWC: Track Warrant Control		
The cars in each train	3		
Stations and profile	6		
The loading/unloading points	9		
The cars	9		
Train connections ...	3		
There are 8 active cars on the railroad. The loads/empties ratio is 62 / 38			
Finished loading all data. To continue press --> Continue			

Figure 10-3

5. We'll verify that we're where we want to be:
 - a. The data field beside "Today's date is" shows "Monday" (the actual date may be different than the one show).
 - b. The data field beside "For session" shows "27".

Remember at the end of our first operating session, we updated the files in preparation for the next session. When we did that, we reset the "The next operating session..." data field to "Monday" (see Figure 9-38) and as the end-of-session process completed, ProTrak automatically incremented the session counter to "27".
6. Since we haven't added any cars, ProTrak is not asking us to add any additional routing information, and the various counts displayed are the same as those shown in Figure 9-10. Click on "Continue" to move on.
7. If you are not using networked printers, go on to the next step. If you are set up to use "networked printers", you need to enable the "Use network printers" option. On the ProTrak Operations Toolbar, click on "Operations" and look to see if there is a check mark in front of the "Use networked printers" entry in the dropdown list. If it is not checked, click on the "Use networked printers" entry to enable it. If there is a check mark, click on any other blank area of the window.
8. On the ProTrak Operations Toolbar, click on "Switchlist" then select "Print a Switchlist" from the dropdown list. A window similar to the one shown in Figure 10-4 will appear.

#	Symbol	Op RR	Departs	->	Location	Status	Nxt Yard	Cars	Pick	Xtr.
1	SLCH		12:01 AM	-	STL03s		ACT-Yd	2		
2	202		12:01 AM	E	ACT-Yd		BER02y			
3	CHSL		12:01 AM	-	CHI02s		ACT-Yd	5		

Figure 10-4

9. Double-click on the first train in the list – train “SLCH”. Once the blocking process has completed the switchlist for train “SLCH” will print. A copy of the switchlist is included in Appendix G as Figure G-14. At this point you should also note that the “Status” data field in the “Current Trains in...” window for train SLCH has been updated to show “Closed”.
10. Repeat step 9 for each of the remaining trains. Copies of the waybills are included in Appendix G as Figure G-15 (train 202) and Figure G-16 (train CHSL).
11. As we did during the previous session – the one in Chapter 9 - we need to ‘move’ all three trains. On the ProTrak Operations Toolbar click on “Train Movements” and choose “Report Train location” from the dropdown list. Double-click on train “SLCH” in the “Current Trains in...” window and ‘move’ train SLCH to “ACT-Yd”. Do this by clicking on the “ACT-Yd” radio button in the “Reporting movements” window, then clicking on the “Report” button. Select “Print Cutlist and Classify” if asked and finally click on “Close” to close the reporting movements” window. Remember to update the car routing (“Yardmaster”/“Route cars at Yards & Customers”).
12. Repeat step 11 for each of the remaining trains (202 and CHSL). At this point both trains “SLCH” and “CHSL” should show as being in “ACT-Yd” while train “202” should show as being at the “BER-02y” reporting point.
13. Before we continue, as was discussed in Chapter 9, train 202 needs to be ‘double reported’. While still in the “Reporting movements” window double-click on train 202 a second time as we did in Chapter 9. When the “Open this train at: BER02y” window appears click on the “Yes” button. The “Open this train...” window will close and you are returned to the “Reporting movements” window

14. Repeat steps 9 through 11 once more for each train to finish each train's trip. We've now completed session 27.
15. The final task to do is to run the "Daily Summary". On the ProTrak Operations Toolbar click on "Operations" then select "Exit operations" from the dropdown list. Click on "Yes" when the "Request to stop operations...." question is asked.
16. On the ProTrak Standard Toolbar click on "Transportation" then select "'The Daily Summary', Update the Railroad" from the dropdown list.
17. Make the following changes:
 - a. "The next operation session..." – change to "Monday"
 - b. Reports to print – change to "Also print final car status".Once the changes have been completed click on "OK".

We've now completed the second session (session 27) and, all of the other reports are much the same as those printed from session 26. The only differences may be dates and details of cars. There is one thing that we need to look at however, and we'll deal with that in the Analysis section below.

Session 27 Analysis

When we set up the waybills in Chapter 8, we only concerned ourselves with waybills 21 through 31. We didn't do anything with the waybills which had not been modified that were copied from the Sample Railroad data. These unneeded waybills may cause us some problems in the future. Figure G-17 contains a copy of the "Waybilled cars that could not be delivered" report which was generated out of a different session.

Let's look at the "Waybilled cars...." report (Figure G-17). Look at the "Reason" column on this report. It shows that the car "WC 55161" could not be delivered because "No ConXns" or in 'non-shorthand' terms "No Connections". If we look to the left at the column headed "Siding" we'll get a clue as to why this car could not be delivered – the siding it was supposed to go to does not exist (FST-14).

How do we fix that problem? If we look at the column headed "Waybill" we can see the waybill affected – 45. Let's examine waybill 45.

1. On the ProTrak Standard Toolbar, click on "Traffic" then select "Bills of Lading and Waybills" from the dropdown list. The window shown in Figure 10-5 will appear (a larger version is in Appendix C).

Bill of Lading/Waybills, showing: 72 available, of: 72 total										
#	Nxt	Kind	Commodity	Wgt	Traffic	Freq'y	Shipper/City	Shpr Siding	Consignee/City	Csgn Siding
1		T	diesel fuel	4	local		R&D Fuels/Bufalo, NY	ACT-Yd	fuel track/	ACT-Yd
2		LO	sand, traction	mtly	local		Kraft Sand Dune/Lewes, DE	ACT-Yd	sand track/	ACT-Yd
13			ties, rr, creos	34	local		/		/	
14			rail bonds	68	local		/		/	
15			rail	68	local		/		/	
16			empty	mtly	local		/		/	
17			empty	mtly	local		/		/	
18		HM	steam coal	5	local		R&D Fuels/Bufalo, NY	ACT-Yd	coal track/	ACT-Yd
19			empty	mtly	local		/		/	
20			empty	mtly	**OV		/	NYC01s	/	NEW04s
21		FBC	dimensional lumber	63	in	always	Simpson Timber/Korbel, CA	STL03s	North Star Eng./Berwick	BER-10
22		FBC	dimensional lumber	63	in	always	Landon Lumber/Madison, CT	CHI02s	North Star Eng./Berwick	BER-10
23		XM	plywood	63	in	always	Georgia Pacific/Savannah, GA	STL03s	North Star Eng./Berwick	BER-10
24		XM	plywood	63	in	always	Columbia Plywood/Presque Isle	CHI02s	North Star Eng./Berwick	BER-10
25		LU	adhesives	85	in	always	IMC Chemical P/Sorbin, ME	CHI02s	North Star Eng./Berwick	BER-10
26		LU	adhesives	85	in	always	Delta Chemicals/Searsport, M	CHI02s	North Star Eng./Berwick	BER-10
27		FBC	engineered lumber	35	out	always	North Star Eng./Berwick	BER-10	Builders Supply/Jewett City,	CHI02s
28		FBC	engineered lumber	35	out	always	North Star Eng./Berwick	BER-10	Ryan Homes Co/Thurmond, MD	CHI02s
29		LU	engineered lumber	35	out	always	North Star Eng./Berwick	BER-10	Donohue Inc./Comtois, PQ	CHI02s
30		GB	scrap iron	67	out	always	Wilson & Sons S/Berwick	BER-11	LTV Steel/Henepin, IL	CHI02s
31		GB	scrap iron	67	out	always	Wilson & Sons S/Berwick	BER-11	Nucor Steel/Crawfordvil	NYC01s
32		RB	potatoes	35	**OV	always	Carter Agway/Presque Isle	NYC01s	National Grocer/St Louis, MO	STL03s
33		LO	salt, bulk	93	**OV	always	Sterling Salt/Watkins Glen	CHI02s	Cabot Farmers C/Walden, VT	NYC01s
34		T103AN	chlorine, liqui	35	**OV	always	Michigan Alkali/Wynadotte, M	CHI02s	St Johnsbury Pa/St Johnsbury	NYC01s
35		HT	coal, heating	99	**OV	always	Eastern Associa/Barrett, WV	STL03s	Sowards Carbon/Morrisville,	NYC01s
36		XM	electric motors	35	**OV	always	Westinghouse/Rochester, N	CHI02s	Fairbanks Scale/St Johnsbury	NYC01s
37		XM	bookpaper	31	out	always	Tennessee Pulp/Second Stati	ST2-25	St Regis Paper/Deferiet, NY	NYC01s
38		T103AN	chlorine, liqui	35	in	1/3	BASF Wyandotte/Wynadotte, M	CHI02s	Tennessee Pulp &/Second Stati	BER-10
39		XM	corn meal	35	**OV	always	Waterford Mills/Millington,	CHI02s	Raeform Farms/Raeform, NC	NYC01s
40		GBSR	cold temp steel	98	**OV	always	Algoma Steel/Sault St Mar	CHI02s	Bath Iron Works/Bath, Me	NYC01s
41		FM	tractors	18	in	1/9	Massey Fergus/Brantford, O	CHI02s	Freighthouse/First Statio	FST-14
42		T111A	corn oil	61	**OV	always	Staley/Lafayette, IN	CHI02s	Borden/Fayetteville	STL03s
43		XM	peanut oil	30	in	always	Carters Peanuts/Plains, GA	STL03s	Nabisco Inc/Toledo, OH	CWL-98
44		RSM	meat, frozen, n	24	**OV	always	Lamoille Abbato/Morrisville,	NYC01s	Safeway/Minneapolis,	CHI02s
45		GB	scrap iron	47	out	always	Hagersv'l Scrap/Hagersville	FST-14	IVACO/Nepean, ON	NYC01s
46		XM	matches	35	**OV	always	Eddy Match/Pembroke, ON	NYC01s	Amoco Plastics/Charity Chur	STL03s
47		SM	bookpaper	35	out	always	Tennessee Pulp &/Second Stati	ST2-25	Fayetteville Pu/Fayetteville	STL03s
48		XM	pulp	35	in	always	St Regis Paper/Deferiet, NY	NYC01s	Tennessee Pulp &/Second Stati	ST2-25
49		XM	pulp	45	in	always	Spruce Falls P&/Kapusasing,	CHI02s	Tennessee Pulp/Second Stati	ST2-25
50		XM	newsprint	35	**OV	always	Spruce Falls P&/Kapusasing,	CHI02s	New York Times/NYC	NYC01s

Figure 10-5

- Look at line 45. This shows that a gondola (kind=GB) full of scrap iron (commodity) is to be shipped from Hagersv'l Scrap in Hagersville (shipper/city). Hagersville Scrap is listed as being in SPOT FST-14 (shpr siding) but we don't have any SPOTs with a Zone code of FST. That is obviously the problem so what do we do to fix it?
- If you go back and take a further look at the "Bills Of Lading/Waybills" window, you will remember that we changed all the waybills from 21 through 31. Waybill 45 is left over from the sample data.
- We have two options to deal with the problem:
 - Add the missing industry and correct the waybill SPOT to show the new spot for the industry; or
 - Delete all of the waybills from 32 onward.

If we were to chose the first option and make corrections for waybill 45, it is likely that the same problem would re-appear later for other waybills. In addition, Hagersville Scrap is not an industry that we plan to have on our railroad. This means that the second option, deletion, is what we'll do.

5. Click on "Close" to close the "Bills of Lading/Waybills" window. From the ProTrak Standard Toolbar, click on "Administration" then select "Limits on Equipment, Railroad & Traffic" from the dropdown list.
6. This window is familiar to us as we've made changes to other fields here previously. Change the data field beside "Bills-of-Lading/waybills" to read "31". Click on "OK" then click on "Yes" twice to confirm and reconfirm the action. Finally click on "Close" to close the "Setting Operating Limits" window.
7. As a final check, click on "Traffic" on the ProTrak Standard Toolbar then select "Bills of Lading and Waybills" from the dropdown list. You can now see that with the exception of waybills 1 through 20, all of the waybills are ones that we created.
8. Another thing to note is that the invalid "Csgn Siding" values for waybills 1, 2 and 18 have been changed. They originally showed "FST-14" or "FST-Yd"; they now all read ACT-Yd (See Figure 8-28).
9. There is still one waybill with an invalid SPOT – waybill 20. Double click on that waybill. You will see a window similar to Figure 10-6. Since waybills 1 through 20 are 'special' waybills, you are being warned of this before you change things.



Figure 10-6

10. Click on "Yes" and the window shown in Figure 10-7 will appear.

Uniform Bill of Lading. Not Negotiable: 20 of: 72 available, of: 31 total

Shipper city: []
 company: []
 siding number: NYY01s
 Consignee city: []
 company: []
 siding number: NEW04s

Load/Commodity: empty STCC []
 Ordered car kind: XM Car quality: A
 Scaled weight: 0.0 tons
 Volume: 0 cubic feet
 Inside Length: 36 ft

Perishable handling: No service required
 Ship during months: JFMAMJJASOND

Charges \$ 0.00 @ 0.00 /cwt @ 100 % division
 Make this shipment: Every time ordered

Shippers routing: via connections
 Not subject to demurrage.
 Continuing in transit: 0

Manual Data Entry

Show online data

Test for possible cars for this shipment Cancel Save Save and Close

Figure 10-7

11. If there are stations showing in the right hand Panel click on the "Consignee siding number" data field then go on to step 12. If the right hand panel is grey, click on the "Show online data" checkbox at the bottom of the right hand panel then click on the "Consignee siding number" data field.
12. Since this waybill has neither shipper company nor consignee company, the waybill is in essence not in use. We'll simply change the "Consignee siding number" data field to a valid value by double-clicking on CHI02s in the right hand panel. Now all of the data that is shown is valid.
13. Click on "Save and Close" to close the "Uniform Bill of Lading: Not Negotiable: 20 of: 72" window.
14. Click on "Close" to close the "Bills Of Lading/Waybills" window.

Let's run another session.

Session 28

1. Before we start session 28 let's take a moment to discuss "Double Reporting". Here's Jim Moir's whys and wherefores on "Double Reporting":

"The issue of Double Reporting has to do with pickups and setouts both occurring at the turning point. While it does no harm to double report every turn, it is seldom necessary; however every turn needs to be examined closely at the turning point to determine if double reporting is required.

For example, a car may be picked up from a local customer's spot at the turning point then setoff at the interchange track at the same turning point where it will be picked up by a different train. We need to avoid "losing sight" of the car. This would happen if there was only one report, where the car would be moved **by the program** on to the train at its pickup location but would not show its setoff location, both at the turning point. Rather the car needs to be listed as pickup on the first switchlist, and then listed as a setoff on a second switchlist.

The first report picks-up any cars at the turning point. The second report sets off any cars just picked up."

While not the same, a related issue is car routing. Let's look at why and when we need to run the "Route cars at yards and customers" routine (Yardmaster/Route cars at yards and customers). The "Route cars..." routine only need to be run if there are facing point customers to be switched on the return leg of a turn and there are cars for the facing point customer that have been delivered to the yard or "y" track by another train.

Here are Jim Moir's suggestions on the topics of double reporting and running the "Route cars..." routine:

I suggest the user examine the train, on screen. While in the "Reporting movements" window (Train Movements/Report a Train), examine the list of cars in the right hand panel of the window. From there the user can decide whether it is necessary to double report the train and/or run the "Route cars" routine. It is also advisable to look at the "Exceptions/Cars in zone" window to see if there are any 'routable' cars.

For the moment, let's look at a scenario where Train 202 needs to both be double reported and have the "Route cars..." routine run. We need to assume that the 'y' track BER-02y is long enough to hold one or more cars. Here's what we would need to do:

- a. Move Train 202 to Berwick;

- g. Report Train 202 at BER02y a second time (Train Movements/Report Train location). When you click on "Report" you will get the message in Figure 10-9;

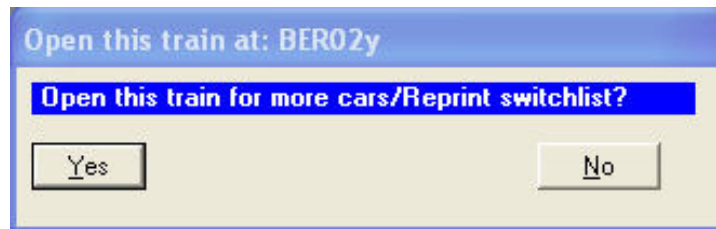


Figure 10-9

- h. Click on the "Yes" button ⁽³⁾;
- i. Print out the revised switchlist (Switchlist/Print a Switchlist). You should now see both the car we picked up at BER10 and the one set out by a previous train.
- j. Switch BER10 - NSEL.
- k. Move train back to Actonvale.

OK, let's get on with running session 28.

2. Start a new session ("Transportation"/"Run an Operating Session"). Check to see that the session number shows "28" then click on "Continue". Don't forget to check on network printing if you are using it.
3. Print out the switchlists ("Switchlist"/"Print a Switchlist") for all three trains.
4. 'Move' each of the through trains to their initial destination (ACT-Yd) Trains are 'moved' by reporting them ("Train Movements"/"Report a Train location"). The details of how to report a train are set out in Chapter 9 in the section labeled "Train Movements. Don't forget to print new switchlists for each train after you report the train. Also don't forget to look at train 202 to see if it needs to be double-reported.
5. Finally move each train to their final destination and report them.

³ If you think this looks familiar, you're correct. The sequence of re-opening a train to allow cars to be set off or added is the same as we dealt with in chapter 9. The difference between the sequencing shown here and that shown in Chapter 9 is that there is no "Set off cars from train, Trim pickups to train?" question (Figure 9-21). The "Set off cars from train, Trim pickups to train?" question is only asked at a "Yd" location, not at "y" reporting location like BER02y, nor at a staging track (a SPOT ending in 's')

6. Exit operations ("Operations/Exit Operations") and run the Daily Summary ("Transportation"/"The Daily Summary", Update the Railroad").
7. Remember to change the next operating session day to "Monday" and the report printing selection to "Also print final car status". Click on "OK".
8. You will notice that you are now presented with a new window as is shown in Figure 10-10.

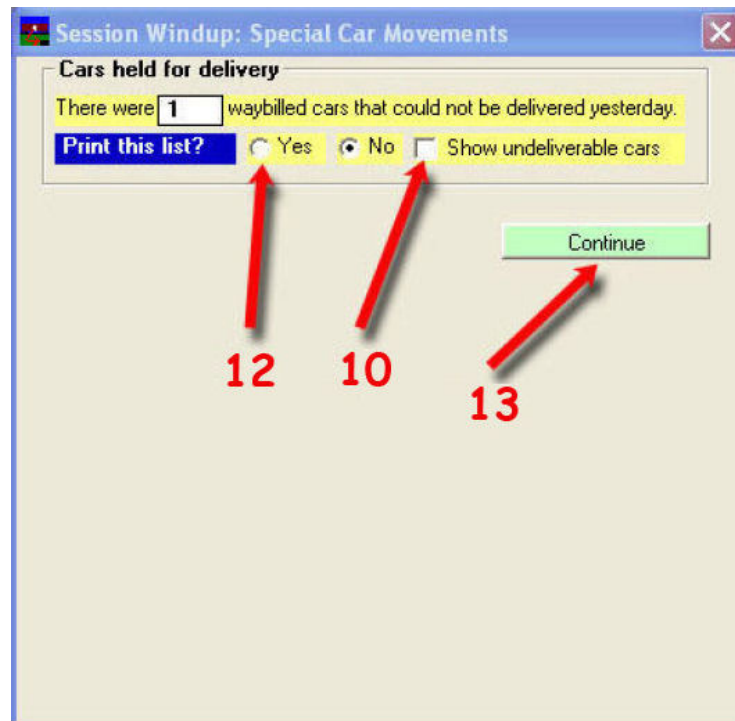


Figure 10-10

9. This window shows that there is one waybilled car that could not be delivered. We need to look at this and see why.
10. Click on the "Show undeliverable cars" check box. A new window like the one shown in Figure 10-11 will appear.

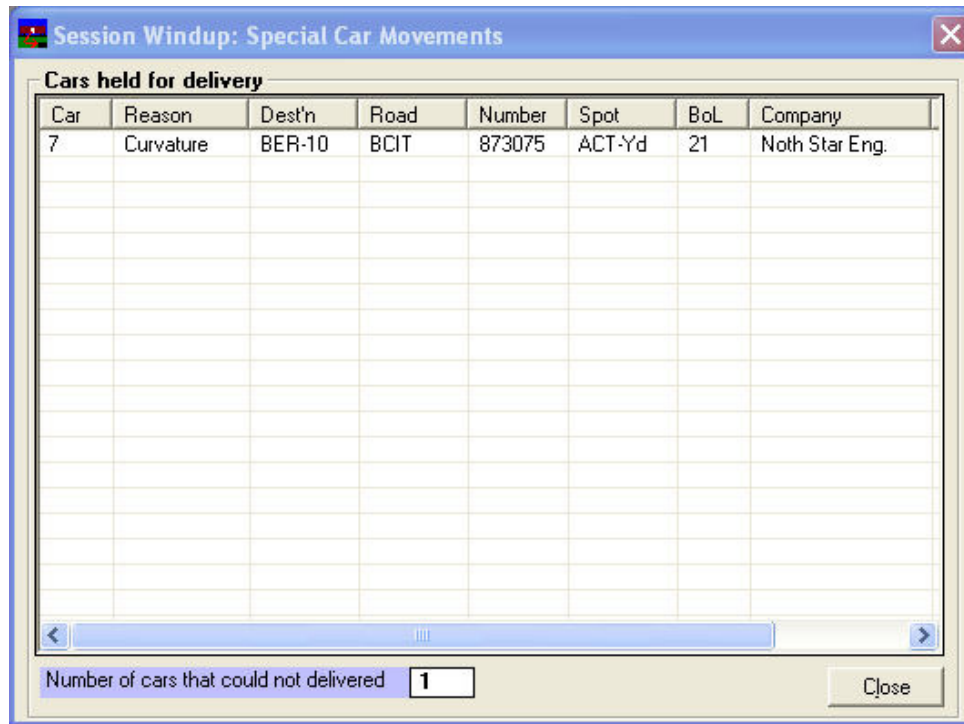


Figure 10-11

11. As you can see in the column marked "Reason" it indicates the car could not be delivered because of "Curvature". We'll discuss that problem and the solution in the Analysis section. For now let's just click on "Close" to close the "Cars held for delivery" window and you will find that you are back in the window shown in Figure 10-10. We can get a printed copy of this report if we want, and we might want to do just that if there were a number of cars shown in Figure 10-11.
12. To get the report, click on the "Yes" radio button. You will notice that the "Continue" button now reads "Print and Continue".
13. Click on "Print and Continue". The printed report is shown in Figure G-18.
14. We're now back to the "Daily Summary and Update" window. Once the "Car Distribution Report" window closes (see Figure 9-39), you are now presented the "General Manager's Daily Summary" (see Figure 9-40). As we did in Chapter 9, we'll ask ProTrak to show us the "Cars needed for Freight Traffic" window (see Figure 9-41) and we will ask for the "Request for Quotes" report to be printed by clicking on the "Yes" radio button, then clicking on "OK".

15. We are now back at the "General Manager's Daily Summary" window. As we did in Chapter 9, we'll click on the "Yes" radio button at the question "Print the listing of cars in switching districts?" (see Figure 9-42).
16. To finalize the update, click on the "Print and Close" button ⁽⁴⁾. The "Operations Pre-Processor" window (similar to Figure 9-7) will briefly appear, close automatically and the "Financial Summary" window (see Figure 9-43) will appear. Click on "Close" to close the "Financial Summary" window.
17. We've now completed session 28.

Session 28 Analysis

1. As we can see from the "Waybilled cars that..." report (Figure G-18) ⁽⁵⁾, the FBC car BCIT 873075 could not be delivered due to "Curvature". How do we correct that?
2. First, since curvature issues relate directly to the length of a car, we need to check to see how long this car is. On the ProTrak Standard Toolbar click on "Traffic" then select "Freight and passenger cars" from the dropdown list. With the "Rolling stock (Cars)" window open, we can check the length of the car. The BCIT 873075 car is on line 7 and the length of it is indicated as being 80 feet. Click on "Close" to close the "Rolling stock (Cars)" window
3. Now let's look at the overall setup of our railroad. On the ProTrak Standard Toolbar, click on "Administration" then select "Middle Notes" from the dropdown list. Down near the bottom of the "Middle characteristics" window you can see a data field labeled "Minimum Middle radius is". This is currently set to 30 inches and the green background text below that data field indicates this can handle cars up to 82 feet. That means that the overall setup of the main trackage can handle the cars. Click on "Cancel" to close the "Middle characteristics" window.
4. There is one final thing to check – the customer. Remember that the "Minimum Middle radius" does not apply to customer sidings. On the ProTrak Standard Toolbar, click on "Traffic" then select "Customers" from the dropdown list. The car in question in Figure G-18 shows the "Consignee" to be "North Star Eng", so let's look at that customer.

⁴ If we had selected the "No" radio button in step 15, the label on the button would simply be "Close" rather than "Print and Close".

⁵ Report was taken from a previous run of session 27.

Double click on "North Star Eng. Lumber" (line 8) on the "Customers and Loading Points" window. The "Changing customer: 8 of: 9" window will open and we can see that the "Siding radius" is set to 24 inches. The green data field to the right of the "Siding radius" data field shows that cars longer than 68 feet cannot be handled. We need to change that.

5. Place your mouse cursor in the "Siding radius" data field and increase the value there to 28. Move out of that data field by clicking on any other data field and you will see the "Max. car length" data field has been updated. With a siding radius of 28, the longest car that we can handle is 79 feet – not long enough for the FBC car. Go back to the "Siding radius" data field and change it to 30, then click on any other data field. You can now see that cars up to 85 feet can be handled and that is sufficient for the 2 FBC cars we currently have defined. Click on "OK" to close the "Changing customer..." window and return us to the "Customers and Loading Points" window. Click on "Close" to close the "Customers and Loading Points" window.

Let's run another session. As we run these 'paper' sessions, we are working out the bugs (as with the siding radius) as well as starting to distribute cars around the railroad.

Session 29

1. Start a new session ("Transportation"/"Run an Operating Session"). Check to see that the session number shows "29" then click on "Continue". Don't forget to check on network printing.
2. Print off the switchlist for all three trains ("Switchlist"/"Print a Switchlist"). The three reports are shown in Appendix G as Figures G-19 through G-21. As you can see, we're starting to get a better movement of cars as all three trains now have cars in them. Train SLCH has two cars to be set off at ACT Yard (Figure G-19). Train 202 has two cars – one loaded with dimensional lumber and one loaded with plywood (or OSB) in the train and destined for North Star in Berwick (Figure G-20). When train 202 reaches Berwick it has two cars loaded with scrap iron to pick up. Train CHSL has one car for setoff at ACT Yard (Figure G-21).
3. 'Move' all three trains one location each (to ACT-Yd for SLCH and CHSL; to BER-02y for 202) then print out the new switchlists for each. The three switchlists are shown in Appendix G as figures G-22 through G-24. Let's look at each of the switchlists:

4. Train SLCH shows one car which was already on the train which is destined to the CHI02s staging track (Figure G-22). Also note that, since CHI02s is the final destination for train SLCH, there is no message about picking up a new switchlist.
5. Train 202 shows two cars loaded with scrap iron on the train (Figure G-23). As with train SLCH, once train 202 reaches ACT, it terminates so there is no message about a new switchlist.
6. Train CHSL no cars on the train which is destined to the STL03s staging track (Figure G-24). Again no switchlist message as train CHSL terminates at STL03s.
7. 'Move' the three trains to their final destination, stop operations ("Operations"/"Exit Operations"), then run the "Daily Summary" ("Transportation"/""The Daily Summary", Update the railroad"). Remember to change the next day to Monday" and the printing option to "Also print final car status".
8. As happened in session 28, we have three cars which could not be delivered. The reasons are shown on the report in figure G-25. "No Length" meaning there is not enough room in the siding at BER-10 to set this car out. We'll investigate this further later. When Jim Moir was asked about the reason for the "Extra Car" message, here is what he had to say:

The reason "Extra", for a car that is not delivered today, means that a train in the car's route was overlength at the time that car-routing last ran.

This is not necessarily a problem, especially if it applies to only a few cars. Cars may show "Extra" during the session and the reason may "go away" by itself. The timing is important. A train may get overlength, with assigned cars as pickups, before that train sets out cars at a yard. When the setouts are done, the pickups as extras may get placed in the train and will no longer appear as "Extras".

The "Extra" may apply to just one train in the car's route or to more than one train. As the trains move about the railroad, the "Extra" reason may go away.

However if a large number of cars show "Extra" when the session is complete you should think about either increasing allowable train length or adding additional trains. Looking at "Yard Operations/List

cars in yard", and clicking on the Destination column header will show where the extra cars are going. From "Exceptions/Show cars in train", or your train line-up, you can figure out which train, or train is permanently overlength and may have to be adjusted.

(Since Jim's comments are somewhat cryptic, here are the detailed steps to take to view the cars in ACT yard. On the ProTrak Operations Toolbar, click on "Yardmaster" then select "Print Tag list for a yard" in the "Yard Operations" section of the dropdown list. A new window will open titled "Yardmaster at: ACT Yard". From the list in the right hand panel, double-click on "List/print cars in yard" and a new window will open labeled "ACT: Non-routed cars in this yard: 'x' cars" (where 'x' is a number).

To view the "Exceptions/Show cars in train", again on the ProTrak Operations toolbar, click on "Exceptions" then select "Show cars in train". A window titled "Listing of all cars assigned to trains" will open and, as the title indicates, shows all cars on any train. Once you close the "Listing of all cars..." the "Current Trains in Line-up..." window will open also showing all trains with the number of cars in each train as well as any pickups and 'extras'.)

However, at the beginning of Operations (the first few sessions) "Extras" may be noted. In the first dozen or so computer sessions it is common to see "Extra Car" comments. Nothing should be done until the cars have been moved and distributed into trains in staging and or to customers' spots. If "Extras" persist, then adjust train lengths, customer spot lengths or the number of trains. Traffic (car-orders) should be adjusted only as a very last measure.

9. It is probably a good thing to look at the "CAR-ORDERS NOT FILLED TODAY" report shown in Figure G-27 ⁽⁶⁾. As you can see there were some car-orders that could not be filled for two different reasons – "Kind" and Length". "Kind" indicates that ProTrak feels there are an insufficient number of cars of types GB and FBC. "Length" indicates that even if there were sufficient cars, there is not enough room in the destination track to set out the cars for those waybills.
10. One other report to look at is the "List of cars at loading SPOTs..." report shown in Figure G-28 ⁽⁷⁾. This report shows that there are two cars at BER-10.

⁶ This report is part of the "Daily Summary"

⁷ This report is part of the "Daily Summary"

11. One last thing to do is to check to see that we've done what ProTrak thinks we've done. We need to check the current location of all the cars. On the ProTrak Standard Toolbar click on "File" then select "Print listings of railroad data" from the dropdown list. On the toolbar in the "Printing" window, click on "Traffic" then select "Freight and MOW cars" from the dropdown list. On the "Printing freight/MOW cars" window click on "OK", once the window is updated click on the "Location" radio button, and finally click on "Print" to send the report to the printer. This report will allow you to check that all the cars are in their correct location. If not, you may have to use the "0-5-0" locomotive (a.k.a. your hand) to put them where they should be. A copy of this report, the "Official Railway Equipment Register: Cars", is shown in Appendix G as Figure G-29.
12. Click on "Close" to close the "Printing" window.

Session 29 Analysis

Well things are getting better; we've managed to see quite a bit of movement of cars.

1. Train 202 picked up two carloads of scrap iron at BER-11.
2. Looking at Figure G-25 we see that the bulkhead flat destined for North Star could not be delivered. The reason shown is "No Length". This is due to the fact that there is already one car in that siding (MRL 30004 – see Figure G-28). The 'free' length remaining in the siding is insufficient to allow car SSAM 38710 which is 80 feet long to fit in.

We have three options – ignore for now and allow a later train to pick it up, adjust the waybills and car-orders or increase the siding length. In the real world, it is likely that we will be unable to extend a siding and for now we don't want to do anything with the waybills and car-orders. In our case, we'll just leave the car sitting in ACT yard where it will likely be picked up during the next session.

3. Looking at Figure G-26 we can see the following:
 - a. The two GB cars are shown as loaded with scrap iron and have been setout in ACT-Yd. They are ready to be delivered to CHI02s in the next session.
 - b. There is one empty car in the staging tracks CHI02s to be delivered to "999-Yd". "999-Yd" is a generic reference to a car's home yard where the home yard is off-line. Cars whose destination is shown as "999-Yd" will be unloaded/loaded at the start of the next session.

- c. There are two cars (1 FBC and 1 XM) in ACT-Yd which are slated to be delivered to customers during the next session.
- d. There are two cars at BER-10 which are empty and ready to start their return to their home railroad in the next session.
- e. Finally, there is currently one car in ACT-Yd which is empty and is to be sent back to its 'home yard'.

We'll run two more sessions and you may print out switchlists, cutlists, etc as you desire. As you already are familiar with those reports, none of the reports for the next two sessions will be in Appendix G.

Sessions 30 and 31

1. Start the next session, Session 30. Print off switchlists for each train. A quick look at the Line-up of trains for Session 30 shows train CHSL having a car which will be setout at ACT-Yd while train 202 will pickup 1 car at Berwick.
2. 'Move' each of the trains to the next location for each of them using "Train Movements". Again, check train 202 to see if it needs double reporting then print out switchlists for each of the trains.
3. 'Move' each of the trains to their final location.
4. Exit Operations and run the "Daily Summary" reports. Don't forget to change the next day to Monday and select the usual printing option.
5. Using the File/Print listings of railroad data on the ProTrak Standard Toolbar, print out a list of all cars sorted by location.
6. That ends Session 30. Repeat steps 1-5 for Session 31.

Analysis of Sessions 26 through 31

By now you should be getting a feel for how ProTrak has 'aged' your cars and how the distribution of them has gone on. On the next few pages are charts showing the movement of each of the trains and each of the cars on a session-by-session basis as well as some comments about what happened during the session.

	Session 26					
	Start of Session	1:01 am §	7:00 am	9:00 am §	10:00 am §	End of Session
TRAINS						
SLCH		STL03s	ACT Yd	ACT Yd	ACT Yd	CHI02s
202			ACT Yd	BER	BER	ACT Yd
CHSL				CHI02s	ACT Yd	STL03s
CARS						
THB 3667 (XM)	In ACT Yard	In ACT Yard	<i>*P/U by train SLCH</i>	On train SLCH	On train SLCH	In staging track CHI02s
EBAX 6008 (T103AN)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard
WC 55161 (GB)	In ACT Yard	In ACT Yard	<i>P/U by train SLCH</i>	On train SLCH	On train SLCH	In staging track CHI02s
GVSR 327155 (GB)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	<i>P/U by train CHSL</i>	In staging track STL03s
MRL 30004 (XM)	In ACT Yard	In ACT Yard	<i>P/U by train SLCH</i>	On train SLCH	On train SLCH	In staging track CHI02s
UP 170509 (XM)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	<i>P/U by train CHSL</i>	In staging track STL03s
BCIT 873075 (FBC)	In ACT Yard	In ACT Yard	<i>P/U by train SLCH</i>	On train SLCH	On train SLCH	In staging track CHI02s
SSAM 38710 (FBC)	In ACT Yard	In ACT Yard	<i>P/U by train SLCH</i>	On train SLCH	On train SLCH	In staging track CHI02s

§ Note that Fastclock is optional. The times are shown here simply to show the progression of the session.

* S/O means Set Out, P/U means Picked Up

Here's what happened in session 26

1. When we started out, we printed the switchlists for each of the trains for the first leg of their journey. We then moved all three trains to their first reporting point. This means that even though train SLCH left STL03s at 1:01 am, it didn't leave ACT Yd until all of the other trains had reached their first reporting point, which occurred at 10:00 am. Once all of the trains had been reported at their first reporting point, we moved the trains to their next or final location.

2. At 1:01 am train SLCH left the STL03s staging track with no cars. Figure G-1 shows only the five cars to be picked up by SLCH by the time it reaches the next reporting point. Since the heading "Consist on leaving yard" is not on the switchlist, we know that train SLCH had no cars when it left.
3. At 7:00 am train SLCH has reached ACT Yd, and Train 202 is set to depart ACT-Yd with no cars (see Figure G-2).
4. At 9:00 am train SLCH is still at ACT, and train 202 has reached BER. Train CHSL is set to depart the CHI02s staging track. As with train SLCH, there are no cars on departure, just two cars to pickup later (see Figure G-3)
5. At 10:00 am (an arbitrary time) SLCH is still at ACT and 202 is at BER, both ready to depart. Train CHSL has just arrived at ACT.
6. By the end of the session, all three trains have completed their journey – SLCH is in staging track CHI02s where it will become train CHSL in the next operating session. Train CHSL is in staging track STL03s where it will become train SLCH in the next operating session. Train 202 has returned to ACT Yd and since it has no cars, just terminates.

The table above shows what happened in a 'time-line' fashion. Where cars have been picked up or set out by a train, that action is indicated by the text in italics. In some cases a box in the table will have two actions shown, both a set out and a pickup.

As we noted when we set up the two through trains (CHSL and SLCH) the entire train is reversed intact so all of the cars that each train entered staging with will exit the staging track in the same order they went in. This means that in session 27, train CHSL (the former SLCH from session 26) will leave staging with 5 cars and train SLCH (the former train CHSL) will leave staging with 2 cars.

	Session 27					
	Start of Session	1:01 am	7:00 am	9:00 am	10:00 am	End of Session
TRAINS						
SLCH		STL03s	ACT-Yd	ACT-Yd	ACT-Yd	CHI02s
202			ACT-Yd	BER	BER	ACT-Yd
CHSL				CHI02s	ACT-Yd	STL03s
CARS						
THB 3667 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yard for train SLCH ---- P/U by train SLCH</i>	In staging track CHI02s
EBAX 6008 (T103AN)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard
WC 55161 (GB)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yd for train 202</i>	In ACT Yard
GVSR 327155 (GB)	On train SLCH in STL03s	On train SLCH	<i>S/O in ACT Yard for train 202</i>	In ACT Yard	In ACT Yard	In ACT Yard
MRL 30004 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	On train CHSL	In staging track STL03s
UP 170509 (XM)	On train SLCH in STL03s	On train SLCH	On train SLCH	On train SLCH	On train SLCH	In staging track CHI02s
BCIT 873075 (FBC)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	On train CHSL	In staging track STL03s
SSAM 38710 (FBC)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yard for train SLCH ---- P/U by train SLCH</i>	In staging track CHI02s

Here's what happened in session 27

1. The locations in the "Start of Session" column for Session 27 are the same as those in the "End of Session" column for Session 26, and I'm sure that makes sense to you. The one exception is that a car that was shown as simply being "In staging track X" will now show as being "On train Y in X" ("On train SLCH in STL03s" for example).

2. Car GVSR has been delivered to ACT Yard from an off-line railroad by train SLCH. It will be placed on train 202 in the next session for setout at Wilson and Sons Scrap Metal (BER-11) where a load of scrap iron will be loaded.
3. Similarly, car WC55161 has been delivered to ACT Yard from an off-line railroad by train CHSL. It will also be placed on train 202 in the next session for setout at Wilson and Sons Scrap Metal (BER-11) where a load of scrap iron will be loaded.
4. Due to the "reverse intact" restriction on the cars in the two through trains, some cars will bounce back and forth between CHI02s and STL03s. This is due to a lack of waybills and car orders to load the cars at an offline industry for delivery to an online industry or vice versa. We'll add waybills and car orders to rectify the situation later
5. If you print out a listing of cars as – Active cars by location: ("File"/"Print listings of railroad data"/"Traffic"/"Freight and MOW cars") as we did at the end of Session 26 in Chapter 9 you must remember that this listing has been produced after the end of session reports have been run and shows where the cars will be at the start of the next session. Cars that are shown in the table for Session 27 as being on train SLCH will show in the report as being on train CHSL – they have now been unloaded and re-loaded (if applicable). The same applies to train CHSL. Similarly, train 202 has had cars in ACT Yard assigned to it and the report will show them as being on train 202.
6. You may have noticed that there is one car that did not move – EBAX 6008. This car was in ACT-Yd at the start of session 27 and is still there at the end session 27. A perusal of the report from point 5 above shows that EABX 6008 is destined to be sent to NYC01s. Since we do not currently have any trains destined for NYC01s, EABX 6008 will remain in ACT-Yd.

	Session 28					
	Start of Session	1:01 am	7:00 am	9:00 am	10:00 am	End of Session
TRAINS						
SLCH		STL03s	ACT-Yd	ACT-Yd	ACT-Yd	CHI02s
202			ACT-Yd	BER	BER	ACT-Yd
CHSL				CHI02s	ACT-Yd	STL03s
CARS						
THB 3667 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yard for train SLCH</i> ---- <i>P/U by train SLCH</i>	In staging track CHI02s
EBAX 6008 (T103AN)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard
WC 55161 (GB)	In ACT Yard	<i>P/U by train 202</i>	On train 202	<i>S/O in BER-11</i>	At BER-11	At BER-11
GVSR 327155 (GB)	In ACT Yard	<i>P/U by train 202</i>	On train 202	<i>S/O in BER-11</i>	At BER-11	At BER-11
MRL 30004 (XM)	On train SLCH in STL03s	On train SLCH	<i>S/O in ACT Yard for train 202</i>	In ACT Yard	In ACT Yard	In ACT Yard for train 202
UP 170509 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	On train CHSL	In staging track STL03s
BCIT 873075 (FBC)	On train SLCH in STL03s	On train SLCH	<i>S/O in ACT Yard</i>	In ACT Yard	In ACT Yard	In ACT Yard
SSAM 38710 (FBC)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	On train CHSL	In staging track STL03s

Here's what happened in session 28

1. The two gondolas – WC 55161 and GVSR 327155 have been delivered to Wilson and Sons for loading.
2. The Bulkhead flat car BCIT 873075 has been set out in ACT Yard and here's why. When we ran the "Daily Summary" at the end of session 27, there was a waybill asking for a car to be delivered to BER-10. Part of the "Daily Summary" process is the unloading and re-loading of cars in staging, so ProTrak 'loaded' BCIT 873075 on train SLCH. After the "Daily Summary" was run for Session 27, however, we deleted the waybill that had asked for the load on BCIT 873075. As a result, car BCIT 873075 cannot be delivered and has been set out in ACT Yard for the time being.

The same situation exists for UP 170509 and it has also been set out temporarily in ACT Yard.

The balance of the activity during session 28 should be familiar to you. For the next 3 sessions we'll not discuss exactly what has happened. It should all be familiar to you. Suffice to say that you can now see empty gondolas being delivered to Wilson and Sons (BER-11) then in the next session, being picked up as loaded. The pattern for moving these cars in Staging -> ACT Yard -> BER-11 -> ACT Yard -> Staging taking a total of 4 sessions to get the cars from the staging track representing the gondolas' home railroads to Wilson & Sons then returned to the staging track again.

You will also notice that there are a number of cars moving from staging track to staging track without being set out at ACT Yard. This is due to a lack of car-orders for those cars. You've also noted that one car has sat unmoved in ACT Yard because we have no train going to the staging track that represents that car's home railroad.

Here's the movement charts for sessions 29, 30 and 31.

	Session 29					
	Start of Session	1:01 am	7:00 am	9:00 am	10:00 am	End of Session
TRAINS						
SLCH		STL03s	ACT-Yd	ACT-Yd	ACT-Yd	CHI02s
202			ACT-Yd	BER	BER	ACT-Yd
CHSL				CHI02s	ACT-Yd	STL03s
CARS						
THB 3667 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in Yard for train SLCH ----- P/U by train SLCH</i>	In staging track CHI02s
EBAX 6008 (T103AN)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard
WC 55161 (GB)	At BER-11	At BER-11	At BER-11	<i>P/U by train 202</i>	<i>S/O in ACT Yard</i>	In ACT Yard
GVSR 327155 (GB)	At BER-11	At BER-11	At BER-11	<i>P/U by train 202</i>	<i>S/O in ACT Yard</i>	In ACT Yard
MRL 30004 (XM)	In ACT Yard	<i>P/U by train 202</i>	On train 202	<i>S/O in BER-10</i>	At BER-10	At BER-10
UP 170509 (XM)	On train SLCH in STL03s	On train SLCH	<i>S/O in ACT Yard</i>	In ACT Yard	In ACT Yard	In ACT Yard
BCIT 873075 (FBC)	In ACT Yard	<i>P/U by train 202</i>	On train 202	<i>S/O in BER-10</i>	At BER-10	At BER-10
SSAM 38710 (FBC)	On train SLCH in STL03s	On train SLCH	<i>S/O in ACT Yard</i>	In ACT Yard	In ACT Yard	In ACT Yard

	Session 30					
	Start of Session	1:01 am	7:00 am	9:00 am	10:00 am	End of Session
TRAINS						
SLCH		STL03s	ACT-Yd	ACT-Yd	ACT-Yd	CHI02s
202			ACT-Yd	BER	BER	ACT-Yd
CHSL				CHI02s	ACT-Yd	STL03s
CARS						
THB 3667 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yard for train SLCH ---- P/U by train SLCH</i>	In staging track CHI02s
EBAX 6008 (T103AN)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard
WC 55161 (GB)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	<i>P/U by train SLCH</i>	In staging track CHI02s
GVSR 327155 (GB)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	<i>P/U by train SLCH</i>	In staging track CHI02s
MRL 30004 (XM)	At BER-10	At BER-10	At BER-10	<i>P/U by train 202</i>	On train 202	<i>S/O in ACT Yard</i>
UP 170509 (XM)	In ACT Yard	<i>P/U by train 202</i>	On train 202	<i>S/O in BER-10</i>	At BER-10	At BER-10
BCIT 873075 (FBC)	At BER-10	At BER-10	At BER-10	<i>P/U by train 202</i>	On train 202	<i>S/O in ACT Yard</i>
SSAM 38710 (FBC)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard

	Session 31					
	Start of Session	1:01 am	7:00 am	9:00 am	10:00 am	End of Session
TRAINS						
SLCH		STL03s	ACT-Yd	ACT-Yd	ACT-Yd	CHI02s
202			ACT-Yd	BER	BER	ACT-Yd
CHSL				CHI02s	ACT-Yd	STL03s
CARS						
THB 3667 (XM)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yard for train SLCH ----- P/U by train SLCH</i>	In staging track CHI02s
EBAX 6008 (T103AN)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard
WC 55161 (GB)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	<i>S/O in ACT Yard for train SLCH ----- P/U by train SLCH</i>	In staging track CHI02s
GVSR 327155 (GB)	On train CHSL in CHI02s	On train CHSL	On train CHSL	On train CHSL	On train CHSL	In staging track STL03s
MRL 30004 (XM)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	<i>P/U by train CHSL</i>	In staging track STL03s
UP 170509 (XM)	At BER-10	At BER-10	At BER-10	<i>P/U by train 202</i>	On train 202	<i>S/O in ACT Yard</i>
BCIT 873075 (FBC)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	<i>P/U by train CHSL</i>	In staging track STL03s
SSAM 38710 (FBC)	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard	In ACT Yard

Summary

We've seen a good deal of car movements and have looked at what has happened (or not happened in some cases) in each of the sessions. We've also resolved a couple of issues (un-needed waybills and car not delivered due to curvature). Now let's move on to Chapter 11 where we'll set up to service the other industry at Berwick – North Star Engineered Lumber.