

Chapter 13 - Basic Passenger Train Operations

So far, we've concentrated on the freight side of operations. In this chapter we'll look at passenger train operations and set up a simple train.

A passenger train is in most respects, just another train. There are a few areas where a passenger train differs from a freight train:

- A passenger train may have a fixed consist (i.e. cars are 'permanently' assigned to a train) or a variable consist (i.e. cars are picked up and/or dropped off as the train travels).
- The passenger train does not operate through a town's yard (ex: ACT-Yd), but rather through the passenger station (remember when we set up the passenger station in Chapter 6?). The "-01" station ⁽¹⁾ is for passenger trains exactly as the "-Yd" is for freight. The "01" is not a single track but represents an infinite number of tracks. Note that for smaller stations there may not be a separate station track. The "01" SPOT will simply be the location on the main line where the train will stop for the 5 or so minutes it takes to unload and load passengers before departing for the next station.
- Like a freight, a passenger train needs a schedule (remember the schedules we discussed in chapter 12). Since they are operating on the same track as freights, they must fit into the overall schedule of the railroad.
- Passenger cars only need a waybill if the car is to be picked up and/or dropped off. If a passenger car is permanently assigned to a train it does not need a waybill.
- Car orders are only used when cars are picked up and dropped off and are only needed if you wish to introduce variability to a train's consist. For instance you may wish to have a diner on the train Monday through Friday only.
- Passenger cars must have their own default location (remember setting the default yard in Chapter 7?).

IMPORTANT: Freight and passenger cars must not use the same SPOTs or inadvertent mixing of cars ⁽²⁾ will occur – freight cars will be assigned to passenger trains and vice-versa (use Help/Check Passenger Traffic to identify any such cases).

¹ While we have used the term "station" here, a "01" is more than just a station. It is a place where passenger trains can report and/or where passenger trains can exchange cars.

² The subject of mixed trains is an advanced topic and will be covered in a later portion of the manual.

We're going to set up a simple passenger train which will originate in Castle Rock, proceed to Berwick then Actonvale picking up passengers along the way. From Actonvale it will proceed to the STL03s staging track where it will lay over for several hours, turn and return to Castle Rock stopping at Actonvale and Berwick on the way. This allows folks in the smaller communities of Castle Rock Berwick and Actonvale to spend the day in the "Big City".

Additional Passenger Stations

If you remember in Chapter 6 we set up a passenger station at Actonvale. We need to make a couple of adjustments. Both the track length and siding radius are too small and will cause us problems.

1. On the ProTrak Standard toolbar, click on "Traffic" then select "Customers from the dropdown list. A window like Figure 13-1 will appear.

Customers and Loading Points								
No.	Firm name	City/State	Siding name	SPOT	Capacity	Occ	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	202	19
4	Twin State Fruit	Actonvale	door spot	ACT17a	Cars: 1	0	202	F-2
5	Twin State Fruit	Actonvale	platform loading	ACT17b	Cars: 1	0	202	F-5
6	ACT Yard	Actonvale		ACT-Yd	5 tracks			
7	Wilson & Sons Scrap Metal	Berwick	scrap iron /40211	BER-11	Cars: 3	2	202	29
8	North Star Eng. Lmbr	Berwick		BER-10	Cars: 4	1	202	F-32
9	reporting point	Berwick	set off track	BER02y	Cars: 0	0		
10	Ideal Cement	Castle Rock		CAS-10	Cars: 2	0	202	34
11	Northern Forest Indust.	Castle Rock		CAS-11	Cars: 4	2	202	35
12	Pioneer Ag Services	Castle Rock	Agri-Center	CAS12a	Cars: 3	0	202	37
13	Pioneer Ag Services	Castle Rock	Elevator	CAS12b	Cars: 3	0	202	38
14	Comfort Fuels	Castle Rock		CAS-13	Cars: 2	1	202	39
15	reporting point	Castle Rock	set off track	CAS02y	Cars: 0	0		

Figure 13-1

2. Double-click on the first entry – "Actonvale Station" and a window like Figure 13-2 will appear.

Changing customer: 1 of: 15

Industry name: Actonvale Station

City, State/Prov: Actonvale

Siding SPOT: ACT 01 appears as: ACT-01

Track length: 100 feet Clearance Plate: C

Siding radius: 22 inches Max. car length: 62 feet

Switching railroad: PRO

Railroad subdivision: Middle

Passenger Traffic

Population served: 500 - 1,000 people

Estimated ridership: 5 people per day

ProTrak Industries (All states)

###	Spot	Firm	City
3	ACT-14	Team track	Actonvale
4	ACT17a	Twin State F	Actonvale
5	ACT17b	Twin State F	platform Ic
7	BER-11	Wilson & Son	Berwick
8	BER-10	North Star E	Berwick
10	CAS-10	Ideal Cement	Castle Ro
11	CAS-11	Wilkins Fore	Castle Ro
12	CAS12a	Pioneer Ag S	Castle Ro
13	CAS12b	Pioneer Ag S	Elevator
14	CAS-13	Comfort Fuel	Castle Ro
16	STLM3s	Anglo-Americ	
17		Arthur Farme	
18		BASF Wya...	
19		Bay State Mi	
20		Shurtleff	
21		Worthington	
22		J.M. Huber	,GA
23		Mazda	,MI
24		Internationa	,MN
25		Canada Pa...	Calgary, A
26		Cominco	Calgary, A
27		Chipman ICI	Calgary, A
28		Safeway Fo...	Calgary, A
29		Canada Malt	Calgary, A
30		Haines-Robin	Calgary, A
31		Dunnot Can	Edmonton

Show Specific State

☒ Uncheck for Manual Data Entry

Cancel OK

Figure 13-2

- Look at the data field "Track length". If we have four or five 85 foot passenger cars, it is obvious that a track length of 100 feet is insufficient. Click on the "Track length" data field and change it to 1000 ⁽³⁾.
- Similarly, look at the information displayed beside the "Siding Radius" data field. It shows the maximum car length that can be handled is 62 feet. We need to change that. Click on the "Siding Radius" data field and change the radius value to 33.
- Click "on" OK to save the changes and close the "Changing Customer..." window.

Now that we've adjusted the track length and siding radius values, we can use the Actonvale Station to add similar passenger stations at both Berwick and Castle Rock.

³ While we have only defined one track, ProTrak assumes you know what you are doing and if so directed will send more than one train to a station. The assumption is that there are multiple tracks at the station.

1. **Single click** on the first entry in the “Customers and Loading Points” window – the one marked Actonvale Station. Since this is a passenger station, we can copy this and make changes as appropriate.
2. On the ProTrak Standard toolbar, click on “Edit” then select “Copy an online customer” from the dropdown list. At this point a window like the one in Figure 13-3 will appear. Except for the customer number, this obviously is identical to the window shown in Figure 13-2.

Changing customer: 16 of: 16

Industry name: Actonvale Station

City, State/Prov: Actonvale

Siding SPOT: ACT 01 appears as: ACT-01

Track length: 1000 feet Clearance Plate: C

Siding radius: 33 inches Max. car length: 93 feet

Switching railroad: PRO

Railroad subdivision: Middle

Passenger Traffic

Population served: 500 - 1,000 people

Estimated ridership: 5 people per day

ProTrak Industries (All states)

###	Spot	Firm	City
3	ACT-14	Team track	Actonvale
4	ACT17a	Twin State F	Actonvale
5	ACT17b	Twin State F	platform Ic
7	BER-11	Wilson & Son	Berwick
8	BER-10	North Star E	Berwick
10	CAS-10	Ideal Cement	Castle Ro
11	CAS-11	Wilkins Fore	Castle Ro
12	CAS12a	Pioneer Ag S	Castle Ro
13	CAS12b	Pioneer Ag S	Elevator
14	CAS-13	Comfort Fuel	Castle Ro
17	STLM3s	Anglo-Americ	
18		Arthur Farme	
19		BASF Wya...	
20		Bay State Mi	
21		Shurtleff	
22		Worthington	
23		J.M. Huber	,GA
24		Mazda	,MI
25		Internationa	,MN
26		Canada Pa...	Calgary, A
27		Cominco	Calgary, A
28		Chipman ICI	Calgary, A
29		Safeway Fo...	Calgary, A
30		Canada Malt	Calgary, A
31		Haines-Robin	Calgary, A
32		Dunont Can	Edmonton

Show ☒ Specific State

☒ Uncheck for Manual Data Entry

Cancel OK

Figure 13-3

3. We'll make the following changes:
 - a) Change the “Industry Name” data field to read “Berwick Station”
 - b) Change the “City, State/Prov.” Data field to read “Berwick” (Click in the data field then double click on “Berwick in the right hand panel).
 - c) If you wish you can change the “Population served” and “Estimated ridership” data fields.

Make sure to leave the Track length and Siding radius data fields unchanged (1000 and 33 respectively).

4. Once all the changes have been made, click on "OK". You may get the messages about correcting SPOTs and waybills. Click on "Yes" to allow ProTrak to check and correct any waybills and SPOTs in error.
5. Repeat steps 1 through 4 for Castle Rock.
6. You should now see a window which looks like Figure 13-4 although the entry "5 PAX" will differ if you changed the "Estimated ridership" data field.

Customers and Loading Points								
No.	Firm name	City/State	Siding name	SPOT	Capacity	Occ	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	202	19
4	Twin State Fruit	Actonvale	door spot	ACT17a	Cars: 1	0	202	F-2
5	Twin State Fruit	Actonvale	platform loading	ACT17b	Cars: 1	0	202	F-5
6	ACT Yard	Actonvale		ACT-Yd	5 tracks			
7	Wilson & Sons Scrap Metal	Berwick	scrap iron /40211	BER-11	Cars: 3	2	202	29
8	North Star Eng. Lmbr	Berwick		BER-10	Cars: 4	1	202	F-32
9	reporting point	Berwick	set off track	BER02y	Cars: 0	0		
10	Ideal Cement	Castle Rock		CAS-10	Cars: 2	0	202	34
11	Northern Forest Indust.	Castle Rock		CAS-11	Cars: 4	2	202	35
12	Pioneer Ag Services	Castle Rock	Agri-Center	CAS12a	Cars: 3	0	202	37
13	Pioneer Ag Services	Castle Rock	Elevator	CAS12b	Cars: 3	0	202	38
14	Comfort Fuels	Castle Rock		CAS-13	Cars: 2	1	202	39
15	reporting point	Castle Rock	set off track	CAS02y	Cars: 0	0		
16	Berwick Station	Berwick		BER-01	5 PAX			
17	Castle Rock Station	Castle Rock		CAS-01	5 PAX			

Figure 13-4

Setting the Default Location for Passenger Cars

As was alluded to earlier, passenger cars require a default location which is different than that used by freight cars. The first thing we need to do is to define a new 'industry' then define that location as the default location for our passenger cars.

1. We'll create a customer at Castle Rock called "Coach Yard". From the ProTrak Standard toolbar, click on "Edit" then select "New online customer" from the dropdown list. A window like figure 13-5 will appear.

Changing customer: 18 of: 18

Industry name: New

City, State/Prov:

Siding SPOT: appears as:

Track length: 200 feet Clearance Plate: U

Siding radius: 30 inches. Max. car length: 85 feet

Siding name/commodity:

Switching railroad:

Railroad subdivision:

Switching train: no service Cars blocked at:

Trailing point switch, or switched in either direction: ☐

Facing point switch, switched by turn on return trip: ☐

Number of cars at this SPOT: 0 or 0 feet

Currently loading/unloading in: 0 hours

ProTrak/UFC Ladings

###	STCC	Lading
1	2818106	1-2 Dibromoethane
2	4909166	1-2 dichloroethane
3	4907230	2 methyl butadiene
4	2039191	203 mixed loads
5	4907412	3 chloropropene
6	3291220	abrasive paper
7	3291115	abrasives
8	3574141	accounting machines
9	4907210	acetaldehyde
10	4931401	acetic acid
11	2818644	acetic anhydrid
12	4931304	acetic anhydride
13	4908105	acetone
14	4921401	acetone cyanohydrin
15	2813210	acetylene gas
16	3569121	acetylene generators
17	3241220	acid-proof cement
18	2818101	acrolein inhibited
19	4906810	acrylonitrile
20	2941245	additives fuel
21	2891111	adhesives
22	2828	adipic acid
23	3993232	adv. signs, non-elec
24	3423636	agricultural tools
25	3599942	air cleaner
26	3585757	air conditioning eq

Show ☐ STCC ☒ Special

☒ Uncheck for Manual Data Entry

Cancel OK

Figure 13-5

- The first thing we need to do is set up the "Siding name/commodity" field. Single-click on the "Siding name/commodity" data field, then click on the "Special" radio button at the bottom of the right-hand panel. A window like the one in Figure 13-6 will appear.

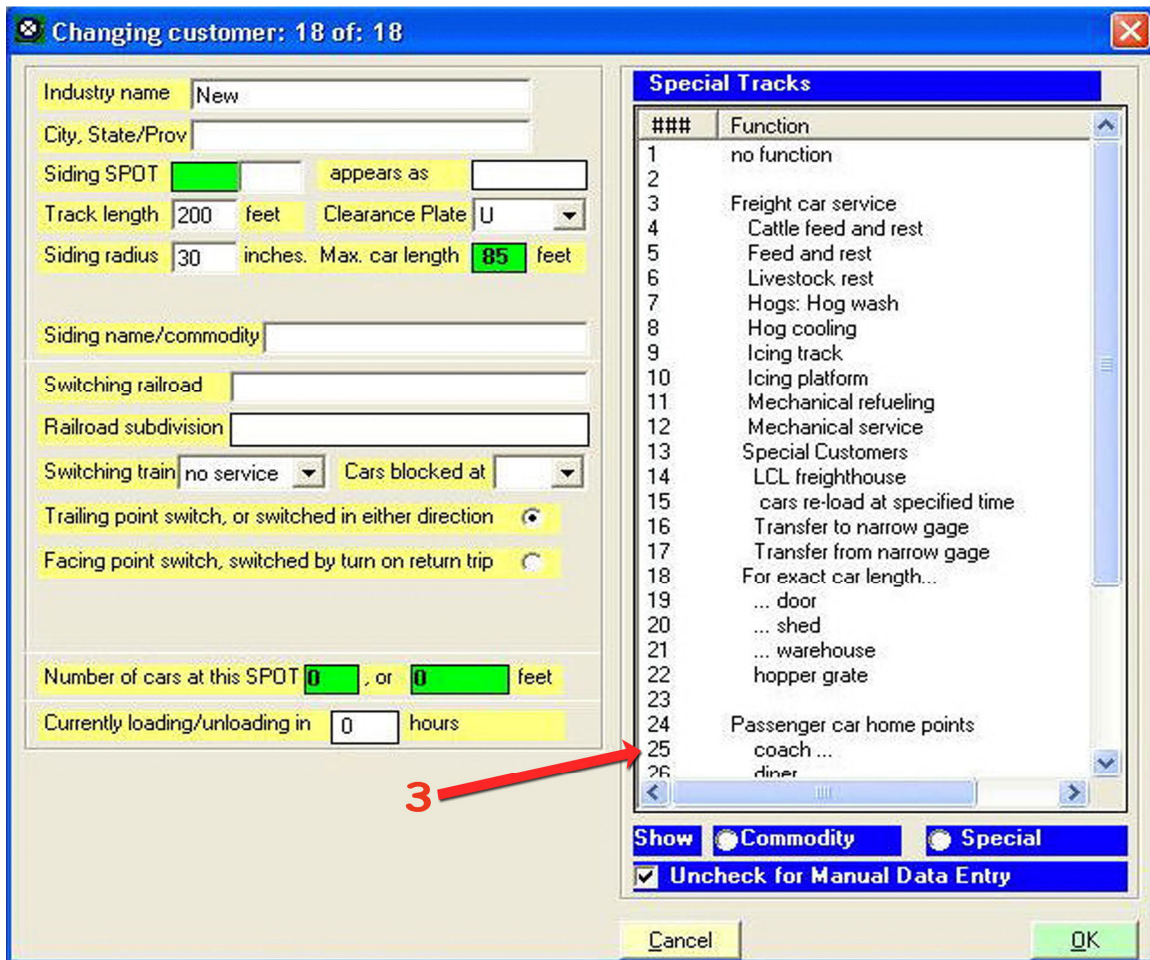


Figure 13-6

- As you can see, the right hand panel contains a list of special siding names (or partial names) that are recognized by ProTrak which treats them in a distinctive fashion depending on the name. We'll double click on the entry "coach..." (entry 25 in window 13-6) ⁽⁴⁾.

⁴ The "coach..." entry means the "..." can be replaced by any word or phrase. ProTrak is looking for a siding name starting with the word "coach". "Coach Yard", "coach tracks" and "Coach Cleaning" would all be acceptable. The word "coach" may have the first letter capitalized or not – ProTrak automatically converts any upper case "C" to a lower case "c" then makes the comparison.

The balance of the data fields are as we have done in the past:

- a. Industry Name: Castle Rock Coach Yard
- b. City, State/Prov. Castle Rock
- c. Siding SPOT CAS-40
- d. Track length 1000
- e. Siding radius 33
- f. Switching Railroad ProTrak Demonstrator
- g. Switching Train leave as “no service”
- h. Cars blocked at 1

All of the remaining fields can be left unchanged. Figure 13-7 shows what the “Changing Customer....” window should look like.

Changing customer: 18 of: 18

Industry name: Castle Rock Coach Yard

City, State/Prov: Castle Rock

Siding SPOT: CAS 40 appears as: CAS-40

Track length: 1000 feet Clearance Plate: U

Siding radius: 33 inches. Max. car length: 93 feet

Siding name/commodity: coach ...

Switching railroad: PRO

Railroad subdivision:

Switching train: no service Cars blocked at:

Trailing point switch, or switched in either direction: ☒

Facing point switch, switched by turn on return trip: ☐

Other switching trains:

Number of cars at this SPOT: 0, or 0 feet

Currently loading/unloading in: 0 hours

ProTrak Industries (All states)

###	Spot	Firm	City
3	ACT-14	Team track	Actonvale
4	ACT17a	Twin State F	Actonvale
5	ACT17b	Twin State F	platform lc
7	BER-11	Wilson & Son	Berwick
8	BER-10	North Star E	Berwick
10	CAS-10	Ideal Cement	Castle Ro
11	CAS-11	Wilkins Fore	Castle Ro
12	CAS12a	Pioneer Ag S	Castle Ro
13	CAS12b	Pioneer Ag S	Elevator
14	CAS-13	Comfort Fuel	Castle Ro
18		New	
19	STLM3s	Anglo-Americ	
20		Arthur Farn	
21		BASF Wya...	
22		Bay State Mi	
23		Shurtleff	
24		Worthington	
25		J.M. Huber	,GA
26		Mazda	,MI
27		Internationa	,MN
28		Hub City Fee	Aberdeen
29		Federal Pape	Acme, NC
30		Acton Limest	Acton, ON
31		SidRichardso	Addis, LA
32		Dunlop Can...	Ajax, ON
33		Phelps-Dod	Am, AZ

Show ☒ Specific State

☒ Uncheck for Manual Data Entry

Cancel OK

Figure 13-7

4. Before we finalize this new customer, let's go back and look at the "Siding name/commodity" data field. As was noted in the footnote when we first look at the 'special' names, the "..." in the 'special' siding name can be replaced by any word or phrase. Let's make the siding name more meaningful. Click in the "Siding name/commodity" data field; erase the "..." and type in the word "yard". Make sure there is a space between the words "coach" and "yard". The siding name should now read "coach yard"

and because ProTrak sees the word “coach” at the start of the name ProTrak knows that this is a passenger related track.

5. Click on “OK” to accept the new ‘customer’.
6. Click on “Close” to close the “Customers and Loading Points” window.
7. Now that we have the coach yard set up as location CAS-40, we can set up the default passenger car location. On the ProTrak Standard toolbar, click on “Administration” then select “SPOT Format and special SPOTs” from the dropdown list. A window like Figure 13-8 will appear.

SPOT or ZTS (Zone/Track/Spot) Code Formats

Interchange track codes

Primary receiving track: 98

Primary delivery track: 99

Second receiving track: 97

Second delivery track: 96

Default yard location

A freight car's first location: ACT-Yd

A passenger car's first location: ACT-01

Special spot codes

"x", cleaning track used: ☒ Yes ☐ No

"i", RIP track used: ☒ Yes ☐ No

"z", Weigh scales in use: ☒ Yes ☐ No

"s" is staging track

"y" is a yard track, or set out track

"L" is a lead track

Car ferry on main track

A car ferry is use to move cars between stations on main track. ☐ Yes ☒ No

Narrow Gauge Subdivision

Railroad has a narrow gage subdivision. Lading is transfered between cars. ☐ Yes ☒ No

Buttons: Cancel, Unlock, Apply

Figure 13-8

8. Click on the dropdown arrow beside the “A passenger car’s first location” data field. You should see all of the “01” locations (ACT-01, etc) and also “CAS-40” which is what we will select. The reason we are able to see CAS-40 is because we selected “coach...” back in step 3 – now you know why we set the “Siding name...” data field to “coach...”

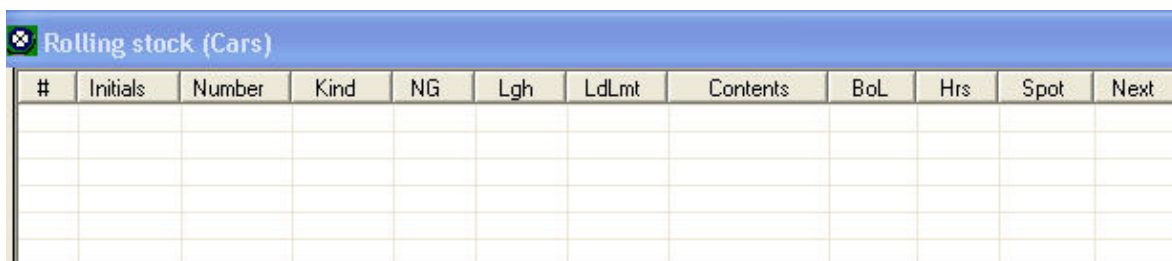
9. Before we can save this change, we need to click on “Unlock”, click on “Yes” on the “Settings in use” window, and then click on “Apply” on the “SPOT or ZTS...” window.

The new default location for passenger cars has now been established.

Adding Passenger Cars

We’ve now got all the passenger stations set up, now we need to add some passenger cars. For our purposes, we’ll assume that since this is a short local passenger train there no need for anything other than coaches on the train. Let’s add the three coaches.

1. On the ProTrak Standard toolbar, click on “Traffic” then select “Passenger cars”⁽⁵⁾ from the dropdown list. A window like the one shown in Figure 13-9 will appear. This window should be familiar to you as it is the same one as was used to enter all of the freight cars in Chapters 7 and 12.



#	Initials	Number	Kind	NG	Lgh	LdLmt	Contents	BoL	Hrs	Spot	Next

Figure 13-9

2. Click on the “Single New Car” button at the bottom of the window to open up a window similar to the one shown in Figure 13-10. Note that you may get a message about correcting SPOTs; if so click on “Yes”

⁵ Even though there is an entry in the dropdown list which reads “Freight and passenger cars”, we will not use it. We will use the “Passenger cars” entry as it will display only the passenger cars on the railroad. Note that any car entered while in the “Passenger cars” window will subsequently appear when the “Freight and passenger cars” entry is selected.

Changing active car: 56 of: 56

Reporting marks: **PRO** Car kind: **XM**
 Number: **56** Car class: **XM**

Length over couplers, ft: **50** Plate: **C**
 Volume, cuft: **5000**

Built date: **Nov** **1973** Gross Wgt, lbs: **220,000**
 Bearing: **D 220,000 lbs** Light Weight, lbs: **56,300**
 Bearing kind: **Roller** Load Limit, lbs: **163,700**

Return Empty To: **PRO car distributor**
 Load restricted to:
 Restrictions on use: **U** Quality: **A**

Waybill: **0** Contents: **empty** **0 tons**
 Location of car: **ACT-Yd** B-end faces: **East**
 Consignee is: **first shipper** at **ACT-Yd**

Weight of model car, oz: **4.0** Rolling resistance, %: **1.0**
 Model last inspected on: **1** **Dec** **2009**
 Model car is owned by: **John Smith**

Railroads in Official Guide

###	Initial	Railroad
1	PRO	ProTrak Demonstrator
2	ATSF	Atchinson, Topeka &
3	BN	Burlington Northern
4	CR	Conrail
5	CSX	Chesapeake Seaboard
6	NS	Norfolk Southern Rai
7	SP	Southern Pacific
8	UP	Union Pacific
9	CP	CP Rail
10	CP	Canadian Pacific
11	CN	Canadian National
12	A&EC	Atlantic & East Caro
13	AA	Ann Arbor
14	AA	Michigan Interstate
15	AC	Algoma Central
16	ACL	Atlantic Coast Line
17	AD	Atlantic & Danville
18	ADN	Ashley, Drew & North
19	AL	Almanor Railroad
20	ALM	Arkansas & Louisiana
21	ALS	Alton & Southern
22	AMR	Aracata and Mad Rive

Show ☒ Private Lines
☒ Uncheck for Manual Data Entry

Cancel De-activate Inventory OK

Figure 13-10

- Since the passenger cars are our own, the "Reporting marks" are correct – "PRO" but we'll change the "Number" data field to "10013"⁽⁶⁾.
- The "Car Kind" data field also needs to be changed to "PA" (double click on "P" in the right hand window then click on the "Show Specific Kind" radio button to get the full listing of passenger cars). Double click on the "PA" entry and you will note that while the "Car Kind" data field has changed to "PA", the "Car Class" data field has remained at "P". This is OK.
- At this point you should also have noticed a new data field appear under the "Number" data field. This data field allows us to give the car a name – something that we see all the time on the prototype railroads. We'll call

⁶ If you remember when we first entered cars in Chapter 7, if we chose to enter a new car (as opposed to copying and editing), the car number defaulted to the next entry number (or line number). This happened when we entered a car numbered PRO 9, remember? You may wonder why the default car number here is 56 rather than 1; the answer is that all cars, both passenger and freight, are stored in the same file. Since we've entered 55 freight cars, the passenger car we are about to enter has a default number of 56.

- car 10013 “Lake Woebegone” (ignore the additional window which has popped up in the right hand panel) ⁽⁷⁾.
6. A length of “50” feet seems a bit short so let’s change that to “85”.
 7. Even empty, passenger cars are relatively heavy. Change the “Light weight” data field to read 140,000. We’ll assume all our passenger cars are of the “lightweight” variety ⁽⁸⁾.
 8. If it doesn’t already show it, change the “Location of car” data field to read CAS-40.
 9. We can leave the remaining data fields as is. Here’s what your “Changing active car...” window should look like (Figure 13-11).

Changing active car: 56 of: 56

Reporting marks: **PRO** Car kind: **P**

Number: **57** Car class: **P**

Name:

Length over couplers, ft: **85** Plate: **B**

Passenger capacity: **0**

Built date: **Nov** **1973** Gross Wgt, lbs: **220,000**

Bearing: **D 220,000 lbs** Light Weight, lbs: **86,300**

Bearing kind: **Roller**

Return Empty To: **PRO car distributor**

Waybill: **0** Contents: **mty** **0 tons**

Location of car: **CAS-40** B-end faces: **West**

Consignee is: at: **CAS-40**

Weight of model car, oz: **4.0** Rolling resistance, %: **1.0**

Model last inspected on: **10** **Feb** **2010**

Model car is owned by: **John Smith**

ProTrak Industries (All states)

###	Spot	Firm	City
1	ACT-01	Actonvale St	Act
2	ACT08z	Weigh scale	Act
3	ACT-14	Team track	Act
4	ACT17a	Twin State F	Act
5	ACT17b	Twin State F	platt
6	ACT-Yd	ACT Yard	Act
7	BER-11	Wilson & Son	Ber
8	BER-10	North Star E	Ber
9	BER02y	reporting po	Ber
10	CAS-10	Ideal Cement	Cas
11	CAS-11	Wilkins Fore	Cas
12	CAS12a	Pioneer Ag S	Cas
13	CAS12b	Pioneer Ag S	Elev
14	CAS-13	Comfort Fuel	Cas
15	CAS02y	reporting po	Cas
16	BER-01	Berwick Stat	Ber
17	CAS-01	Castle Rock	Cas
18	CAS-40	Castle Rock	Cas
19	STLM3s	Anglo-Americ	
20		Arthur Farme	

☒ Uncheck for Manual Data Entry

Cancel De-activate Inventory OK

Figure 13-11

10. Click on “OK” to accept the car.

⁷ While it is not normal for coaches to be named, it is not unheard of. We’re doing it here to demonstrate the car name feature.

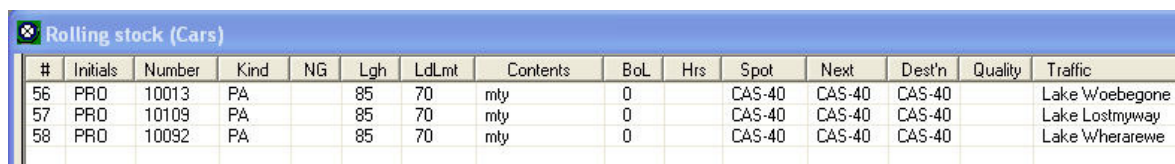
⁸ Lightweight passenger cars are usually in the range of 130,000 to 140,000 lbs with heavyweight cars weighing up to 60,000 lbs more.

Repeat steps 2 through 10 for the other two cars:

<u>Car Number</u>	<u>Name</u>
10109	Lake Lostmyway
10092	Lake Wherearewe

Both cars are type “PA”, have a lightweight of 140,000 and are located at CAS-40.

11. Once all the changes have been made the window should look like the one in Figure 13-12 ⁽⁹⁾.



#	Initials	Number	Kind	NG	Lgh	LdLmt	Contents	BoL	Hrs	Spot	Next	Dest'n	Quality	Traffic
56	PRO	10013	PA		85	70	mtv	0		CAS-40	CAS-40	CAS-40		Lake Woebegone
57	PRO	10109	PA		85	70	mtv	0		CAS-40	CAS-40	CAS-40		Lake Lostmyway
58	PRO	10092	PA		85	70	mtv	0		CAS-40	CAS-40	CAS-40		Lake Wherearewe

Figure 13-12

12. Click on “Close” to close the “Rolling stock (cars)” window.

Adding a Passenger Train

We’ve worked with adding a train in the past (Chapter 5) and we need to add one more train to be our passenger train. It would seem that we need two trains – one to go from Castle Rock to West Staging and one to return to Castle Rock from West Staging later in the day. If we define two separate trains (as we did with the through trains like CHSL and SLCH), the second train will not run on the same day as the first train. If we look at train CHSL, it runs from CHI02s to STL03s where it remains until the end-of-day process is run. The next day, SLCH runs from STL03s to CHI02s. Since our passengers don’t want to stay overnight in “The Big City”, we’ll use the following technique to set up a same day, outbound and inbound, passenger train.

1. On the ProTrak Standard Toolbar click on “Scheduling” then select “Establish Train jobs and yarding” from the dropdown list. A window like Figure 13-13 will appear.

⁹ The entries in the “Next” and “Dest’n” columns may show either CAS-40 or ACT-Yd.

Listing of train jobs											
No.	Symbol/Number	Connecting	Mvg	Op RR	Time	Days	Origin Terminal	Origin	Final Terminal	Terminal	E/W
1	SLCH	CHSL	OK		1:01 AM	Daily	St Louis, MO	STL03s	Chicago, IL	CHI02s	East
2	CHSL	SLCH	OK		9:00 AM	Daily	Chicago, IL	CHI02s	St Louis, MO	STL03s	West
3	202		OK		6:30 AM	Daily	Actonvale	ACT-Yd	Castle Rock	CAS02y	East
4	SENY	NYSE	OK		2:30 PM	Daily	Seattle, WA	SEA01s	New York, NY	NYC01s	East
5	NYSE	SENY	OK		6:00 AM	Daily	New York, NY	NYC01s	Seattle, WA	SEA01s	West

Figure 13-13

- On the ProTrak Standard Toolbar click on “Edit” then select “New Train” from the dropdown list. A figure similar to Figure 13-14 will appear.

Changing train: 6 of: 6

Identifier
 Symbol/number: 6 Class: X
 Marketing name:
 Operating Railroad: PRO, ProTrak Demonstrator

Work and Blocking
 Origin station:
 Terminal station:
 Departure at: 7:00 AM on Daily
 Yard blocking: 1) 6) 2) 7) 3) 8) 4) 9) 5) 10)
 These are the train reporting locations.

Traffic
 Traffic: All traffic **all traffic**

PRO Train Numbers/Symbols

###	Symbol	Origin
1	SLCH	St Louis, MO
2	CHSL	Chicago, IL
3	202	Actonvale
4	SENY	Seattle, WA
5	NYSE	New York, NY

☒ Uncheck for Manual Data Entry

Reports
 Switchlist: Primary
☐ Assign work notes at work locations
 Print yard cutlist by: car standing order in train

Speeds
 Maximum allowed speed, mph: 50
 Minimum speed, based on: Drag

Tonnage, HP/Ton Ratings
 Maximum length, in cars: 10 or 500 feet
 Maximum rated tonnage: 858 tons 1,716 1:1 tons
 HP/Ton rating: 1.0 HP required: 1,716
 Lashup/consist: with HP/ton HP

Cancel OK

Figure 13-14

- Passenger train definition requires a slightly different approach than we've used in the past. The first item we must deal with is the data field labeled “Traffic” (see Figure 13-15).

Changing train: 6 of: 6

Identifier
 Symbol/number: 6 Class: X
 Marketing name:
 Operating Railroad: PRO, ProTrak Demonstrator

Work and Blocking
 Origin station:
 Terminal station:
 Departure at: 7:00 AM on Daily
 Yard blocking: 1) 1) 6)
 These are the train reporting locations: 2) 7)
 3) 8)
 4) 9)
 5) 10)

Traffic
 Traffic: All traffic **all traffic**

PRO Train Numbers/Symbols

###	Symbol	Origin
1	SLCH	St Louis, MO
2	CHSL	Chicago, IL
3	202	Actonvale
4	SENY	Seattle, WA
5	NYSE	New York, NY

☒ Uncheck for Manual Data Entry

Reports
 Switchlist: Primary
☐ Assign work notes at work locations
 Print yard cutlist by: car standing order in train

Speeds
 Maximum allowed speed, mph: 50
 Minimum speed, based on: Drag

Tonnage, HP/Ton Ratings
 Maximum length, in cars: 10 or 500 feet
 Maximum rated tonnage: 858 tons 1,716 1:1 tons
 HP/Ton rating: 1.0 HP required: 1,716
 Lashup/consist: with HP/ton HP

Buttons: Cancel OK

Figure 13-15

4. Click on the dropdown arrow beside the “Traffic” data field and select “Passenger Service”. Other than changing the text displayed in the green box to the right of the “Traffic” data field, you will not see any other immediate changes. You will, however, see the importance of the “passenger Service” selection later on.
5. In the “Identifier” area, let’s make the following changes:

Symbol/Number	100/101
Class	1
Marketing Name	Intercity Express
Operating Railroad	Leave as “PRO, ProTrak Demonstrator”
6. You’ve noticed that the value we entered in the “Symbol/number” data field has a “/” in the middle of it - “100/101”. If we were to enter the train number as 100, then create a second train numbered 101, ProTrak will assume that you have two separate consists. Earlier, we set up our through trains operating from staging to staging as two separate trains with unique IDs (CHSL and SLCH for example). If we did things in a similar fashion with our passenger train, train 100 would run today, lay over until tomorrow when it would run as train 101. This is not what we want to happen. What we want is a train that runs from A to B early in the day, then back from B to A later in the same day using a common consist. The “xxx/yyy” format is used where a train will travel one direction as the first train number (100 in our case), turn and return as the second number

- (101 in our case) **both on the same day**. It is a common occurrence in the prototype world to see trains listed in the “xxx/yyy” fashion.⁽¹⁰⁾
7. In the “Work and Blocking” box, click on the “Origin Station” data field and double-click on “Castle Rock” from the list in the center panel. If just the staging tracks are shown click on the “Stations” radio button at the bottom of the center panel to display the station names.
 8. Click on the “Terminal Station” data field and double-click on “STL03s” from the list in the right hand panel. Again you may need to change the radio button at the bottom of the center panel – this time to “Staging”.
 9. For now we’ll leave the “Departure” data fields unchanged.
 10. Click on the “Yard Blocking 1)” data field. Here is where the change we made in step 4 above becomes evident. Look at the center panel of the “Changing trains...” window. Rather than seeing “ACT-Yd” and the two reporting points as we would have expected if we were working with a freight train, we see the three passenger “stations” - “ACT-01”, “BER-01” and “CAS-01”. Since train 100 leaves from Castle Rock, double-click on “CAS-01” in the center panel.
 11. Click on the “Yard Blocking 2)” data field and double-click on “STL03s” in the center panel. Note: Leave the two data fields that appeared at the bottom of the left hand panel (the ones in the “What happens in staging” box) unchanged. The “In staging” data field should read “entire train is reversed intact (loop)” and the “Equipment exits staging as train” data field should be blank.
 12. Click on “Yard Blocking 3)” data field and double-click on “CAS-01”. At this point you should see a radio button to the left of the “Yard blocking 2)” data field and the message “Train turns at STL03s” should be visible at the bottom of the left hand panel.
 13. Figure 13-16 shows what your “Changing Train...” window should look like.

¹⁰ The ‘turn’ may occur in staging, as we have done here, or it could occur at a passenger station.

Changing train: 6 of: 6

Identifier Symbol/number: 100/101 Class: 1 Marketing name: Intercity Express Operating Railroad: PRO, ProTrak Demonstrator		Possible Train Yardsidings <table border="1"> <thead> <tr> <th>###</th> <th>No.</th> <th>Spot</th> <th>City</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>ACT-01</td> <td>Actonvale Station</td> </tr> <tr> <td>2</td> <td>16</td> <td>CAS-01</td> <td>Castle Rock Station</td> </tr> <tr> <td>3</td> <td>17</td> <td>BER-01</td> <td>Berwick Station</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td>1</td> <td>NYC01s</td> <td>New York, NY</td> </tr> <tr> <td>6</td> <td>2</td> <td>CHI02s</td> <td>Chicago, IL</td> </tr> <tr> <td>7</td> <td>3</td> <td>STL03s</td> <td>St Louis, MO</td> </tr> <tr> <td>8</td> <td>4</td> <td>SEA01s</td> <td>Seattle, WA</td> </tr> </tbody> </table>		###	No.	Spot	City	1	1	ACT-01	Actonvale Station	2	16	CAS-01	Castle Rock Station	3	17	BER-01	Berwick Station	4				5	1	NYC01s	New York, NY	6	2	CHI02s	Chicago, IL	7	3	STL03s	St Louis, MO	8	4	SEA01s	Seattle, WA	Reports Switchlist: Primary <input type="checkbox"/> Assign work notes at work locations Print yard cutlist by: car standing order in train	
###	No.	Spot	City																																						
1	1	ACT-01	Actonvale Station																																						
2	16	CAS-01	Castle Rock Station																																						
3	17	BER-01	Berwick Station																																						
4																																									
5	1	NYC01s	New York, NY																																						
6	2	CHI02s	Chicago, IL																																						
7	3	STL03s	St Louis, MO																																						
8	4	SEA01s	Seattle, WA																																						
Work and Blocking Origin station: Castle Rock Terminal station: St Louis, MO Departure at: 7:00 AM on Daily Yard blocking: 1) CAS-01 6) These are the train reporting locations: 2) STL03s 7) 3) CAS-01 8) 4) 9) 5) 10)		Speeds Maximum allowed speed, mph: 50 Minimum speed, based on: Drag		Tonnage, HP/Ton Ratings Maximum length, in cars: 10 or 500 feet Maximum rated tonnage: 858 tons 1,716 1:1 tons HP/Ton rating: 1.0 HP required: 1,716 Lashup/consist: with HP/ton HP																																					
Traffic Traffic: Passenger service Passenger		<input checked="" type="checkbox"/> Uncheck for Manual Data Entry																																							
Train turns at STL03s																																									
Cancel		OK																																							

Figure 13-16

We've now got the passenger train set up. The train will leave Castle Rock, pass through "Berwick" then "Actonvale", stopping to pick up passengers (once we complete the scheduling later in the chapter) and finally ending up in West Staging. As previously noted, because we entered the train number as 100/101 the train will enter staging as train 100, reverse intact and exit staging as train 101 later in the day.

14. Click on "OK" to accept Train 100/101 and close the "Changing train..." window.

15. Figure 13-17 shows what your "Listing of train jobs" window should now look like (you may have to re-open the "Listing of train jobs" window). Scroll the "Listing of train jobs" window to the extreme right hand side and you will note that the column headed "Traf" shows a "P" for train 100 signifying that this is a passenger train.

Listing of train jobs													
No.	Symbol/Number	Connecting	Mvg	Op RR	Time	Days	Origin Terminal	Origin	Final Terminal	Terminal	E/W	Traf	2nd Train
1	SLCH	CHSL	OK		1:01 AM	Daily	St Louis, MO	STL03s	Chicago, IL	CHI02s	East		...
2	CHSL	SLCH	OK		9:00 AM	Daily	Chicago, IL	CHI02s	St Louis, MO	STL03s	West		...
3	202		OK		6:30 AM	Daily	Actonvale	ACT-Yd	Castle Rock	CAS02y	East		...
4	SENY	NYSE	OK		2:30 PM	Daily	Seattle, WA	SEA01s	New York, NY	NYC01s	East		...
5	NYSE	SENY	OK		6:00 AM	Daily	New York, NY	NYC01s	Seattle, WA	SEA01s	West		...
6	100/101		OK		7:00 AM	Daily	Castle Rock	CAS-01	St Louis, MO	STL03s	West	P	...

Figure 13-17

16. Click on "Close" to close the "Listing of train jobs" window.

17. If you remember earlier in the chapter when we set up the customer “Castle Rock Coach Yard” we left the “Switching train” data field set to “no service” (see point 4 in the “Setting the Default Location for Passenger Cars” section earlier in this chapter). Now that we have a passenger train we need to go back and add train 100/101 as the “Switching train” for customer CAS-40.
18. On the ProTrak Standard toolbar, click on “Traffic” then select “Customers” from the dropdown list. Once the “Customers and Loading Points” window opens, double click on the entry for “Castle Rock Coach Yard” (customer 18). Once the “Changing Customer...” window is displayed, click on the dropdown arrow beside the “Switching train” data field and select “100/101” from the list.
19. Click on “OK” to accept the “Changing Customer...” window then click on “Close” to close the “Customers and Loading Points” window.
20. One last thing to do is to create a new train lineup by clicking on “Scheduling” then selecting “Line-up of Trains” from the dropdown list. You may see a window appear briefly and then return you to the “Line-up of Trains...” window. If you did not see the window appear and then close, you will see a message saying “No changes have been found in the existing Line-up. Do you want to form a new Line-up?”. Click on “Yes” to see the lineup. Once you’ve looked at the lineup you can close the “Line-up of Trains...” window.

Scheduling the Passenger Train

We’ve now got our passenger stations, passenger cars and passenger trains defined. Now we need to schedule our train. Remember the process we used in chapter 12 to schedule our trains? We’ll use the same process to schedule train 100/101.

1. On the ProTrak Standard Toolbar click on “Scheduling” then select “Create string diagram” from the dropdown list.
2. The “Which subdivision?” window is now displayed. Double click on the first line - the only entry displayed in the window.
3. The “Creating string diagram...” window is now displayed. Click on the dropdown arrow beside the “Working on train” data field and select “100/101” from the list displayed. Figure 13-18 shows what that window looks like.

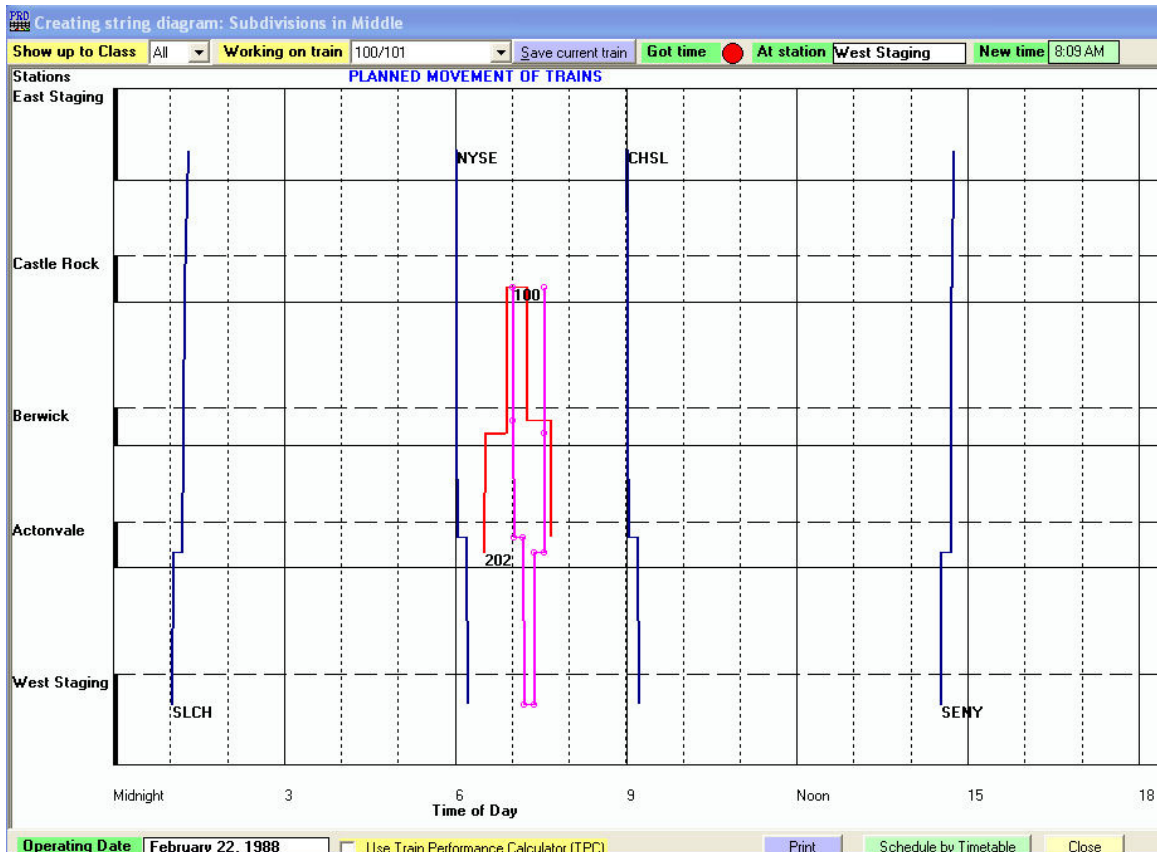


Figure 13-18

4. As you can see, Train 100/101 has been scheduled but we may have an issue with track occupancy at Castle Rock with train 202 but for now, let's save the train as ProTrak has set it up. Click on the "Save current train" button.
5. It is somewhat easier to use the "Timetable" mode to make some of these changes so let's switch to that mode. Click on the "Schedule by Timetable" button at the bottom of the window.
6. The "Train Schedules" window is now displayed. Click on the dropdown arrow beside the "Select Train to Schedule" data field. Select "100/101" from the list displayed. Figure 13-19 shows what the "Train Schedules" window now looks like.

Train
Symbol 100
Call time 7:00 AM

Train yarding plan
 Yard siding 1) CAS-01
 Yard siding 2) STL03s
 Yard siding 3) CAS-01
 Yard siding 4)
 Yard siding 5)
 Yard siding 6)
 Yard siding 7)
 Yard siding 8)
 Yard siding 9)
 Yard siding 10)

Arrival/Departure Times

#	Station	Arrival	Departure
1	Castle Rock		7:00 AM
2	Berwick	7:01 AM	7:03 AM
3	Actonvale	7:04 AM	7:09 AM
4	West Staging	7:13 AM	5:30 PM
5	Actonvale	5:31 PM	5:36 PM
6	Berwick	5:37 PM	5:39 PM
7	next station	5:40 PM	

All stations on PRO

#	Stations	Zone
1	East Staging	EAS
2	Castle Rock	CAS
3	JT Junction	JTJ
4	Berwick	BER
5	Actonvale	ACT
6	West Staging	WST

Instructions
 Select next station from online data. Travel time between stations is calculated for you. To stop/wait at station, select 'Yes' and then enter a departure time later than arrival time.
 Note: Rule 5: If times are same, only departure time is shown.

Cancel Schedule directly on String diagram OK

Figure 13-19

7. Before we go ahead and make any changes, let's discuss stops to pick up passengers. Train 100 starts out at Castle Rock so it is safe to assume that all passengers will be on board prior to departure at 7:00 am. As we did with freight trains earlier, let's assume it takes 1 minute to get from Castle Rock to Berwick. At Berwick we need to give time for any Castle Rock passengers to disembark and for any Berwick passengers to board. A reasonable time would be 2 minutes. Again, as with freight trains we can assume it takes 1 minute to go from Berwick to Actonvale. At Actonvale, for reasons that we'll go into later, we need to wait 5 minutes. From Actonvale to West Staging takes 4 minutes (remember the train has to go around the loop). That's it for train 100.
8. Let's continue with train 101. From West Staging to Actonvale takes 1 minute. Again we need to wait 5 minutes at Actonvale then proceed to Berwick (1 minute), a 2 minute station stop then on to Castle Rock (1 minute).