



Planned Railroad Routing



Decapod Systems 3850 Woodman Troy, Michigan 48084 USA (248) 643-7040
EMAIL at "jimbotsko@juno.com"

The Planned Railroad Routing System (PRR) generates the information required to move freight (or passenger) cars on a railroad. It simulates industries generating traffic by requesting empties and shipping loads. The industries create the movement requirements and the railroad serves the industries. The program maintains an operating plan for your railroad developed by the data that you enter and provides the following:

- Car routing by industry
- Unique car assignments for each industry
- Allows cars to be assigned to stay at industries any number of sessions
- Assigns cars to trains
- Creates train assignments to serve towns
- Creates a switchlist for each train in order by town served by the train
- Optionally creates switchlists by town for each train serving that town, for yardmasters, trains can be listed in schedule sequence separately for each town
- Controls train lengths
- Output to printer, disk, or screen from all programs

The industries can have up to 10 destinations to ship to, creating a variety of traffic and routings for cars. You assign trains to provide service to the towns on the layout through a train schedule file. When a switchlist is run, the program assigns cars to the proper trains to route them to their destination industries in those towns. The switchlists are printed out for each train and list the pickups and setouts for the train in order by town. In addition the final destination of the cars is listed on pickup for blocking and the final destination town on setouts for classification by yard crews on intermediate moves. Your job as train crew is to make the pickups and deliveries to specific industries. These system's job is to find the shippers and receivers, assign the cars, keep the records, and provide you with the necessary paperwork to do your job. There is also an option to print the location of all cars at the start of a session, before the switchlist is generated. The program has the following features which make it valuable to you:

- Totally menu driven (absolutely no programming required)
- You can add, change, or delete from any file through the menus
- Automatic record keeping for car locations
- Fits any type of track plan
- Minimum effort required to set up operating sessions

All data entry is done through menus. Each screen describes to you in plain English what data is needed for a particular entry. All data can be printed out to check your input and provide documentation. Each step of the program is described in a manual that explains what the program will ask, what answers it expects, and what these answers cause the program to do.

The data describes your system and allows you to build a unique operating system custom fitted to your layout and operations plan. There is some paperwork and data entry required to set up the system to make it unique to your railroad. However, once the data entry is complete and satisfactory, you need only to run the program to generate new switchlists. You can spend your hobby time operating the railroad not shuffling paper.

The data for PRR is contained in 4 files:

- Car File
- Industry File
- Train File
- Town File



Planned Railroad Routing



The car file maintains information describing the roadname, number, car type, current location, destination, load/empty status, and current layover status. The car type can be one character to 2 characters, such as H for hopper, XM for automobile box car, or HF for heavy duty flat. You assign your car types and use them accordingly. The car file is updated to new locations each time a switchlist is run. The industry file contains the industry name, town location, siding capacity, frequency of car requests, the number sessions required to handle a car, a list of shipping destination for loaded cars, a list of car types the industry uses, and a proportion of loads and empties used. The number of sessions to handle a car allows you to designate for each industry whether the car will be unloaded (or loaded) in one operating session, or 2, or 3, or more. The train file maintains the train name or number, the direction of travel, the towns serviced in order of travel, and a list of the car types the train will handle. The town file is a list of the town names from east to west on the railroad. This is a logical east to west designation for the operating department, the actual railroad can run north-south.

The system is made up of three major programs, an editor, a router, and a data analyzer. The PRR editor is used to create or modify data files. Because the system is data driven and uses independent files, multiple files of a given type may be created and used at different times. For example, two or more train schedules can be tried to run the same railroad or a 1940s car list and a 1990s car list may be maintained. You can also change one part of the system by changing its file and continue to use the rest of the files. The PRR router uses the files to route cars to industries and yards, assign them to trains, and generate switchlists for the trains. It also optionally prints out a status of the railroad at the beginning of each operating session. The data analyzer reads the data file and provides reports on the percentage of cars routed to each industry by car type and the percentage on the railroad. It identifies car types that may be in the system and not used by any industry, and car types requested by industries, that do not exist on the railroad. It lists train and the towns it serves and identifies towns that are not served. The analyzer also lists each industry and identifies the train that serves it.

PRR makes it easy to develop and maintain an operating system on any model railroad. The program does not to any actual electrical control and requires no changes to the layout or wiring. It does the bookkeeping and drudgery required to give interesting operating data. You still run the trains and make the switching moves.

The system disk includes two sets of files containing the data needed for using PRR with two sample model railroads; one is very simple and one is moderately complex. These two railroads and their data are described the appendices to the manual. A sample switchlist is included for each railroad and your can use this data to generate additional sample switchlists for each system as examples. The amount of data that can be used with the system is listed in the table below:

	Capacity	Capacity (Introductory Version)
Towns	200	5
Industries	300	10
Trains	100	8
Cars	2500	25

The program is written in a Visual Basic and is very efficient. It will run under WINDOWS 95G, WINDOWS 98, and newer versions of Windows. It is very easy to set an icon on a windows screen to start up and run the software, and instructions are included in the manual to do this.



Planned Railroad Routing



Sample Menu Screens for PRR

Sample Industry Editor Screen

Form1
Current File C:\AJim\PRR\Jimfrtvb\industvb

Total Industries 49

Industry 5 Stout Merchante

Town 8 Connellsville

Capacity 5

Industry Type 0 Active

Percent Request 100

Layovers 1

Up
Down

Car Types Used	Destinations	Load/Empty
x 1	Harrisburg	1 Load
x 10	Freight Station	0 Empty
x 12	Freight Station	0 Empty
x 43	Youghigheny Foundry	0 Empty
x 24	WM RR Interchange	0 Empty
x 28	Freight Station	0 Empty
g 34	Public Delivery	0 Empty
g 35	Pittsburgh	0 Empty
f 37	Cleveland	0 Empty
f 46	Cushing_Associates	0 Empty

Return to Main Menu Add Delete Go To Index Save File Print

Sample Car Editor Screen

Car Editor
Current File C:\AJim\PRR\Jimfrtvb\carsjvb

Total Cars 229

Roadname	Number	Car Type
1 ERIE	62907	x

Current Status

Current Load Status 1 Load

Current Location 42 National Biscuit Co

Current Destination 42 National Biscuit Co

Current Layovers 1

Up
Down
Add
Delete
Go To Index
Save File
Print
Return to Main Menu



Planned Railroad Routing



PRR Sample RR March 24 1999 Input file: carsa Output file: carsa2

Switchlist for train EB-1

Ambridge

PICKUPS				AT LOCATION	DESTINATION
N&W	346987 h	load		Interchange PRR	Monongehela
N&W	20894 h	empty		Interchange PRR	Beaver Creek
B&O	105674 f	empty		Interchange PRR	Bentleyville
GULF	6821 t	load		Interchange PRR	Bentleyville

Monongehela

PICKUPS				AT LOCATION	DESTINATION
UC	6784 h	empty		Herring's Coal and	FBeaver Creek

SETOUTS				AT LOCATION	DESTINATION
N&W	346987 h	load		Herring's Coal and	FMonongehela

Bentleyville

PICKUPS				AT LOCATION	DESTINATION
C&O	234765 x	empty		Olsen's Merchantile	Bentleyville
CB&Q	3885 g	empty		yard	Bentleyville
MIL	62734 g	load		Spang Chalfant Pipe	Ambridge
PRR	675008 x	empty		yard	Bentleyville

SETOUTS				AT LOCATION	DESTINATION
PRR	675008 x	empty		Spang Chalfant Pipe	Bentleyville
CB&Q	3885 g	empty		Spang Chalfant Pipe	Bentleyville
C&O	234765 x	empty		yard	Bentleyville
N&W	20894 h	empty		yard	Beaver Creek
UC	6784 h	empty		yard	Beaver Creek
B&O	105674 f	empty		yard	Bentleyville
MIL	62734 g	load		yard	Ambridge
GULF	6821 t	load		Car Shops	Bentleyville