



D&RGW Scenic Line Operations (Standard & Narrow Gauge)



Timeless Rails
A U R O R A 2007

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OPERATIONS DESIGN

What are Operations?



Operations are basically running trains on the layout.

For most of us, 'Operations' consisted of running trains in a continuous loop at some time during our model railroading, and still may be the case.



As with prototype models, 'Operations' has evolved into running trains as an actual railroad operated.

Operating sessions can take any form in between both ends of the spectrum.

Operation Definitions



- For the purposes of illustration, Operating Sessions will be as defined as used and planned by the Lockheed Martin Railroad Club: the Scenic Line Modelers.
- Definitions:
 - SG : Standard Gauge (4' 8 ½")
 - NG: Narrow Gauge (3')
 - DG: Dual Gauge (three rail - an extra rail offset from one SG rail at 3')
- Layout operations are determined by:
 - Layout design
 - Track plan
 - Industry – Agriculture – Cities – Towns – Terrain
 - Locomotives & Rolling Stock
 - Operators desires
- When designing a layout, all of these things should be considered to optimize your level of operating with the trains you want to run.

Layout Design

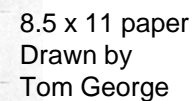


- In the fall of 1997, our club was vandalized and our modules severely damaged. Since the modules began life before we had a clubhouse, we decided to build a new permanent layout.
- We decided we wanted to do a prototype Colorado narrow gauge railroad, challenging to all our skills
- Layout Design Format:
 - We wanted a portion of the layout to still include Standard Gauge
 - The preferred narrow gauge was D&RGW
 - Design for prototypical peak NG operations
- Layout Design Rules:
 - No duck-unders
 - No exit constraints (No Fire code violations)
 - No Dispatcher requirement (thought unnecessary)
 - Operations of trains would be with use of DCC, therefore, trains were to be operated with walk-around capability of Engineer for each train
 - Single decked

Layout Research Dividends

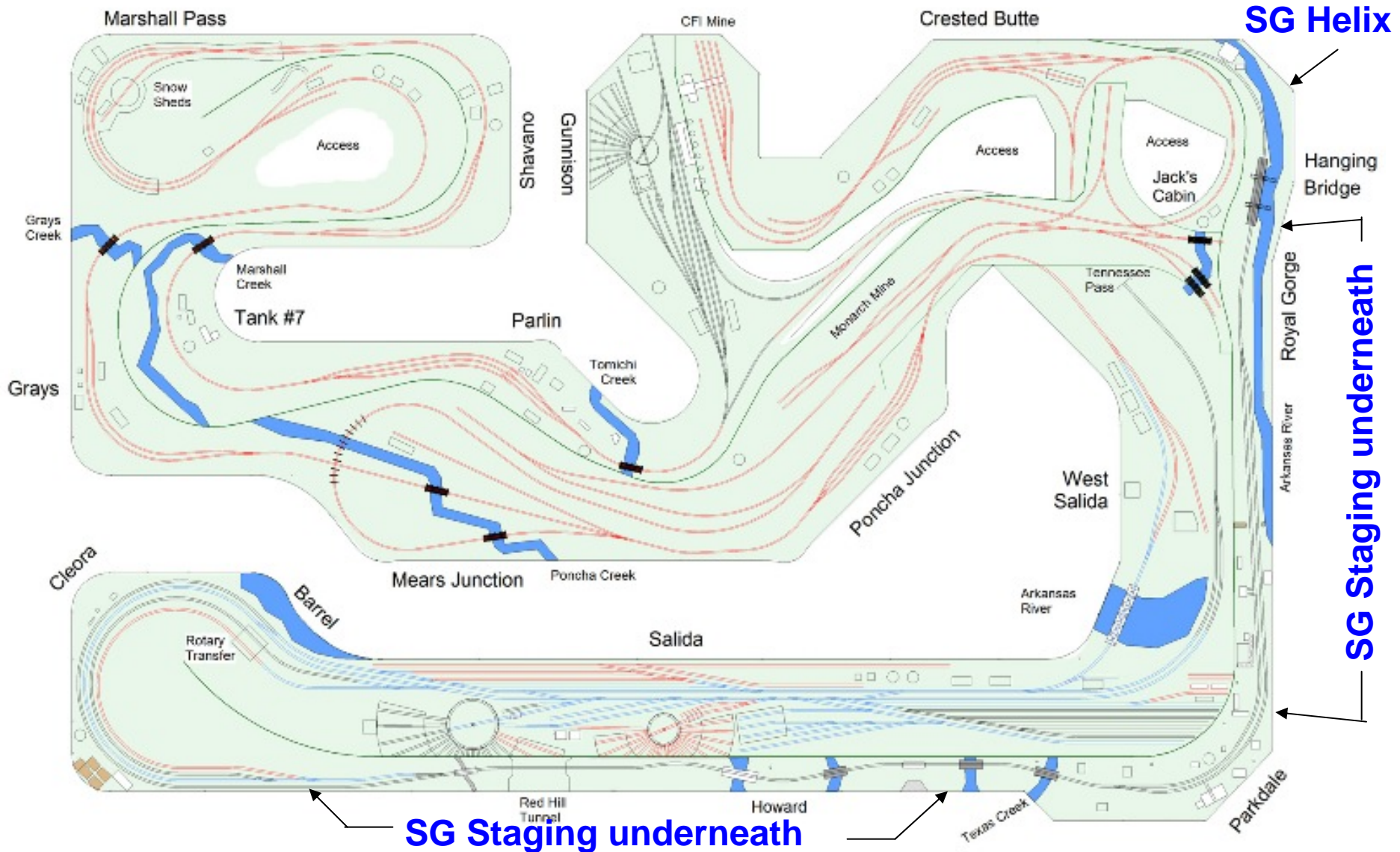


- Approx 1 year of planning was spent at the CRRM library, books, DVDs, magazines, maps, timetables
- Resulting Design Features:
 - 2/3 Narrow Gauge Operations & ~1/3 SG
 - NG: Salida – Gunnison over Marshall Pass with Branch lines to Crested Butte & Monarch
 - Mears Jct – A rare real life crossing of NG over NG
 - Crested Butte – Coke ovens and supplied Anthracite to Pueblo via Barrel Transfer (Salida)
 - Gunnison valley – produce, livestock
 - Monarch – switch backs, limestone to Pueblo via Barrel Transfer
 - Marshall Pass – snow sheds
 - SG: Salida to Royal Gorge
 - Dual gauge operations – Freight transfer/Barrel Transfer
 - SG & NG Passenger
 - Royal Gorge - Hanging Bridge
 - Tennessee Pass – Portal to helix & staging
 - Helix Bypass allows for optional circular loop nonstop running during informal operating



All benchwork was designed from this

Current Layout Design



Operations Design



- The Layout was designed to model a specific era, late 1920s, arguably the peak of NG & SG passenger traffic through Salida
- The Layout was designed for the Engineer to walk around with his train, and manipulate turnouts (by toggle switch)
 - Rio Grande single track mainline (through the Mtns)
 - No Dispatcher needed (?)
 - Trains need run off Time-Tables
 - Era ran Telegraphone (Station to Station) before acquiring radio equipped cabooses in the 40s
 - First CTC signal usage at Tennessee Pass in 1928
- The locomotives, rolling stock, structures, scenery, and track were all modeled off the prototype, so it makes sense to model the Operations from ther prototype as well.
- Limiting layout to a single era has many drawbacks
- Rio Grande changed significantly though the years
 - With some compromises, great opportunities abound
 - Changing eras with operations allowed for variations of models to be duplicated between club members of the identical locomotive or rolling stock



Denver & Rio Grande History

Denver & Rio Grande Heralds



- 1887
 - Denver & Rio Grande RR
 - First Herald adopted 6/87
- 1922
 - The Denver & Rio Grande Western, merged from the D&RGRR and Rio Grande Western
 - Western replaces R.R. on herald
 - Used only 4 years
- 1926
 - Shift Emphasis to SG Main Line
 - New Herald adopted 7/23/26
 - Tri-Color, middle circle - blue
 - Voided 8/27/36

Denver & Rio Grande Heralds (cont)



- 1934
 - Completion of the Dotsero Cutoff
- 1936
 - Revised Herald
 - TM 24 June 1936
 - White center
 - Not used after 1945
- 1939
 - New Herald intended for Headset Covers of passenger coach seats
 - Flying Rio Grande

Denver & Rio Grande Heralds (cont)



- 1948
 - New Herald Mainline through the Rockies
- 1965
 - The Final Herald
 - Emphasis on Action
 - “Railroad” later changed to “Road”

Grande Passenger Trains (1926-1955)



ROYAL GORGE ROUTE

1 / 2	Scenic Limited	Denver – Salt Lake/Ogden	1906 – Jun 46
1 / 2	Royal Gorge	Denver – Salt Lake/Ogden	1946 - 1967
3 / 4	SL-SF Express / Denver & Eastern Ex	Denver – San Francisco	1921 - 1926
3 / 4	Westerner (Seasonal)	Denver – Ogden	1926 – 1931
		Denver – Pueblo	1932 - 1942
7 / 8	Panoramic (Seasonal)	Denver – Salt Lake/Ogden	1924 – 1931
15 / 16	CO & New Mexico Ex	Denver – Grand Jct	1892 – 1936
		Denver – Glenwood Springs	1936 – 1951

JAMES PEAK ROUTE

2 nd #1	Denver – Ogden
2 nd #4	Ogden - Denver
19 / 20	Mountaineer
7 / 8	Panoramic
	Denver – Ogden

1935-1936

Grande Passenger Trains (1926-1955)



MOFFATT TUNNEL ROUTE

7 / 8	Panoramic	Denver – Ogden	1937 -1939
7 /8	Prospector-Budd Cars	Denver – Ogden	1942
7 /8	Prospector	Denver – Ogden	1947 - 1951
9 /10	Yampa Valley/Mail	Denver – Craig	1954 – 1968
	Exposition Flyer	Denver – Salt Lake	1939 – 1949
17/18	California Zephyr	Chicago – Oakland	Mar 49 - Mar 70
17 /18	Rio Grande Zephyr	Denver – Ogden	1970 - 1983
19 /20	Mountaineer	Denver – Montrose	1927 - 1959

Grande NG Passenger Trains (1926-1955)



MARSHALL PASS ROUTE

315 / 316	-	Salida – Gunnison	1897 -1937
315 / 316	Shavano	Salida – Gunnison	1937 -1940

Colorado–New Mexico ROUTE

215 / 216	-	Alamosa- Durango	1897 -1937
215 / 216	San Juan	Alamosa- Durango	1937 -1951

The Changing of the Grande (1926 -1955)



- **1926**

- The Railroad reorganized, recently reclassified, rebuilt, repainted, and Limited SG rolling stock
 - MDC, Sunshine, Westerfield, & Accurail
 - Truss rods, arch bar trucks, KC brake gear
- D&RGW MOW equipment painted Oxide red
- Passenger traffic at a peak through Salida with both SG & NG
 - Pullman green Heavyweights
 - NG open vestibule coaches
- The McMyler Mechanical or “Barrel” Transfer is designed and built and opens in the fall (Salida)
 - Previously gondola loads transferred by hand
- D&RGW is jointly owned by the Western Pacific and Missouri Pacific
- D&RGW Lounge-Observation Car Glenwood Canon

- **1927**

- All Steel, 36 Seat Dining Cars: Pikes Peak, Castle Peak, Sopris Peak & Twin Peak

The Changing of the Grande (1926 -1955)



- **1928**
 - First 5 K-37s arrive (490-494), take over Monarch freight duty
 - D&RGW Lounge-Observation Car Ogden Canon
- **1929**
 - Big Steam Passenger Locomotives 1700-1713
 - D&RGW Lounge-Observation Cars Spanish Fork Canon & Granite Canon
- **1930**
 - The Depression hits, but the RR is still going, many out of work, passenger traffic declines
 - Second 5 K-37s arrive (495-499)
- **1932**
 - Large steam M-64 4-8-4 and L-131 2-8-8-2
- **1934**
 - Dotsero Cutoff Opened
 - Air conditioning began being added to Passenger Cars

The Changing of the Grande (1926 -1955)



- **1935**
 - **SG coaches, Pullman sleepers, Dining Cars and lounge-observations had A/C**
 - **Scenic Limited, Panoramic, and Westerner.**
 - **14 NG Locomotives shipped with Electric Pyle Lights**
 - **38 NG Passenger cars shipped with steam heat, electric lights, & vestibuled ends.**
 - **NG Coaches received modern upholstered reclining seats**
 - **Dinette Parlor Cars upgraded with 4 seat dining sections & galleys**
 - **Alamosa, Chama & Durango**

The Changing of the Grande (1926 -1955)



- **1936**
 - New Herald goes onto Rebuilds, some equipment, many locomotives
 - Wilson B. McCarthy begins reorganizing and rebuilding the Grande some time in the late 30s
- **Late 1930s**
 - Gunnison Depot replaced with Brick/Stucco Building
 - SG Mikados were modified from two to one sand dome
- **1937**
 - NG Parlor Cars Received Electric Lit Drumheads
- **1939**
 - Archbar trucks, truss rods, KC brakes outlawed on interchanging SG cars
 - Steel underframe cabooses introduced
 - Flying Rio Grande Herald introduced and applied on locomotives and rolling stock
 - Several heralds continue on rolling stock & locos from this point
 - Four of the K-27s with slide valves scrapped
 - Glenwood Canon Lounge-Observation Open Platform enclosed to form a Solarium car

The Changing of the Grande (1926 -1955)



- 1940
 - Class 23 42' NG Flat Cars (6500-6544) from SG Flats
- 1942 - WWII
 - First FTs appear on the D&RGW, Black & Yellow Livery w/ Blk Nose
- 1943(?)
 - Troop trains
 - Moffatt had a collapse and for several months trains were routed thru Salida
 - Walthers comes to mind!
 - L-105 Challengers (although delegated to desert duty)
- 1946 (late)
 - First F3s in Black & Yellow, w/Yellow Nose
- Late 1940s
 - A few 40' NG reefers get ART Orange paint
 - D&RGW finally begin to paint (most) MOW gray (after '45)

The Changing of the Grande (1926 -1955)



- **1949**
 - F5s and F7s in Black & Yellow Livery w/ Yellow Nose
 - Prospector Luxury Train
 - Acquired C&O cars for the Prospector & Royal Gorge, including 3 dome cars (slanted window frames)
- **1950**
 - Grande Gold & Silver replaces Black & Yellow Livery
 - 4 Stripe
 - F7s, PA/PBs
- **1951**
 - NG Pipe Gondolas
- **1955**
 - Last year for NG, track torn up, Monarch is Standard Gauged
 - F9s, GP-9s, RS-3s, SD-7s
- **1956 – End of Steam**
- **1961 – Grande Gold with Single Stripe**



Scenic Line Club Operations

ACCOMMODATIONS

Prototype Operations (1926-1955)



- Our club, in general, shares equipment from the members at large to perform operating sessions
 - This leads to the requirement to design operations to account for varying equipment between Operating sessions
- As club members acquire more and more equipment, many overlaps occur, but can be accommodated by modeling for different times
 - Case in point: of the 15 K-27s, club members have already, or have on order 11.
 - Cabooses, passenger cars, reefers, MOW, and flats also limited.
 - Club Member desires range across a broad spectrum and the difficulty of maintaining a narrow focus on a specific prototype day, month, year, or decade(!) can be detrimental to
- Operations can be modeled by advancing in time a year or more between sessions
 - A few pieces or types of equipment can be replaced or retired
 - Some Equipment get new assignments
 - Occasionally some structural changes, new depots, diesel facilities, etc.
 - Enables the operators use of more equipment and changing of the Grande for 30 years



Layout Modification Requirements

- **1926**
 - General era of initial design, scenicking, track, structures
- **1938(?)**
 - Remove Salida's Monte Cristo Hotel (which burnt down and became site of Art Deco modern Depot)
 - Remove Original Gunnison Depot with Brick/Stucco Modern Depot
 - New Depot down the track from the original, but not enough room
- **1939**
 - Remove original Salida Stone Depot
 - Add Art Deco Depot
 - Remove NG Roundhouse & TT (Not Doable)
 - SG Roundhouse already includes NG stalls
 - Remove Salida Coaling Station
 - Add Coal Conveyor which used coal from flat bottom NG cars to load SG tenders
- **1942-3**
 - Add Diesel Fuel Tank next to Water Tanks
 - Add Diesel Facilities
 - Add a few contemporary automobiles time-to-time

Layout Design Operation Requirements



- **EB & WB SG Trains through Royal Gorge through Salida in & out of Staging**
- **NG Trains interchange w/ SG on DG Salida track**
- **EB & WB NG Trains built up in Salida/Gunnison, run point to point, over Marshall Pass**
- **NG trains run Monarch & Crested Butte branchlines**

Staging – Pueblo/Grand Junction



- Out of view area to place trains
- Trains are stored until needed to run
- Our staging “deck”, below the main standard gauge peninsula, utilizes a helix for access
- The staging deck features a reverse loop at each end (one is actually at the top of the helix)
 - The reverse loop is required for exiting the staging deck on our single main line
 - Eventually we will add some limited scenery, false fronts of Pueblo & Grand Junction Depots, although the entire deck is both and no end need be designated



Pueblo Depot from trackside

Staging



Eventually, wires suspended above tracks will have a sign hanging by a hook above each engine with its Train No.

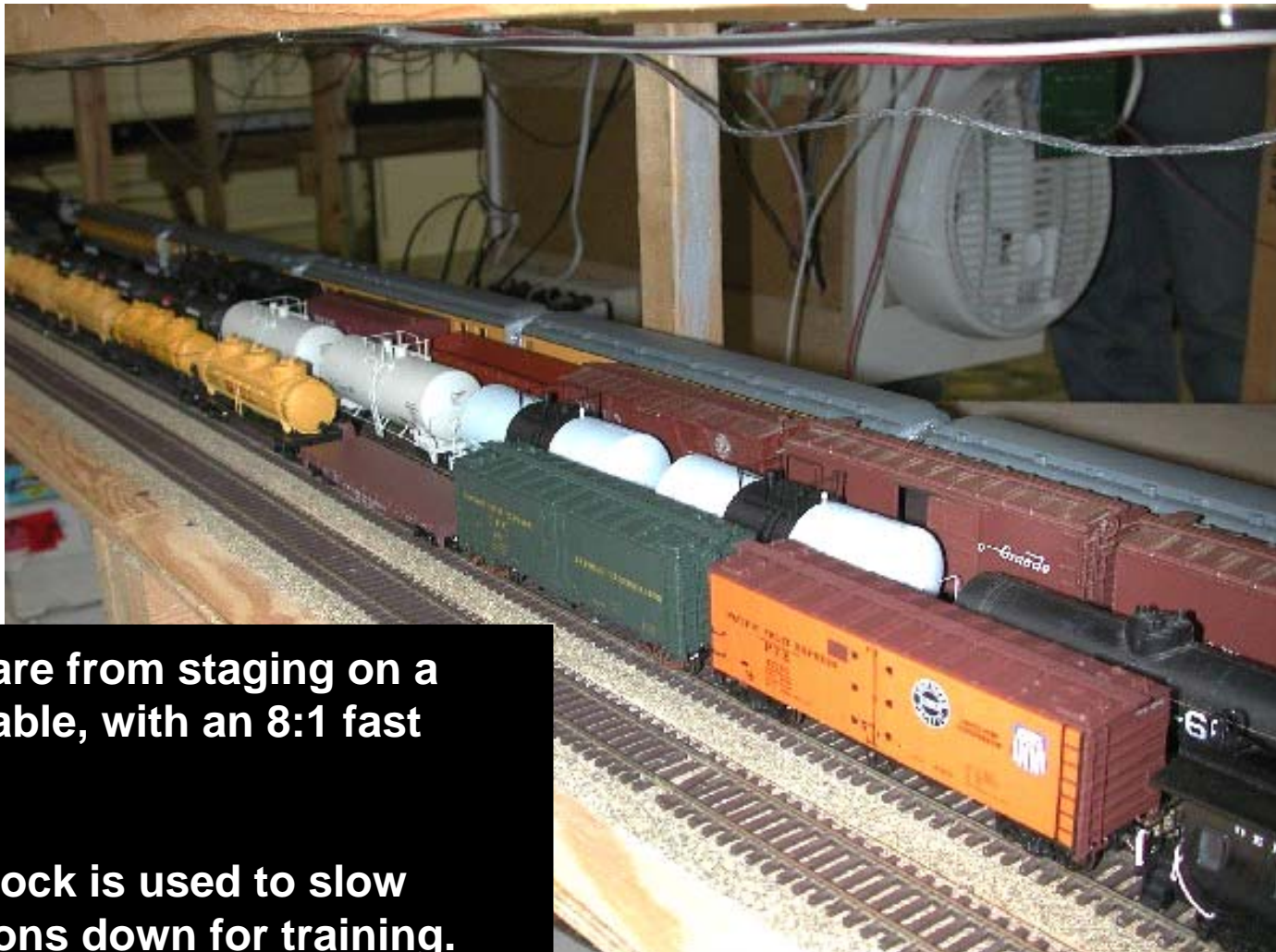
Operators will be able to locate their train and know where to return it during Ops

Outside track is the mainline

Staging



3-5 trains on each staging track (4 staging tracks + 1 main)



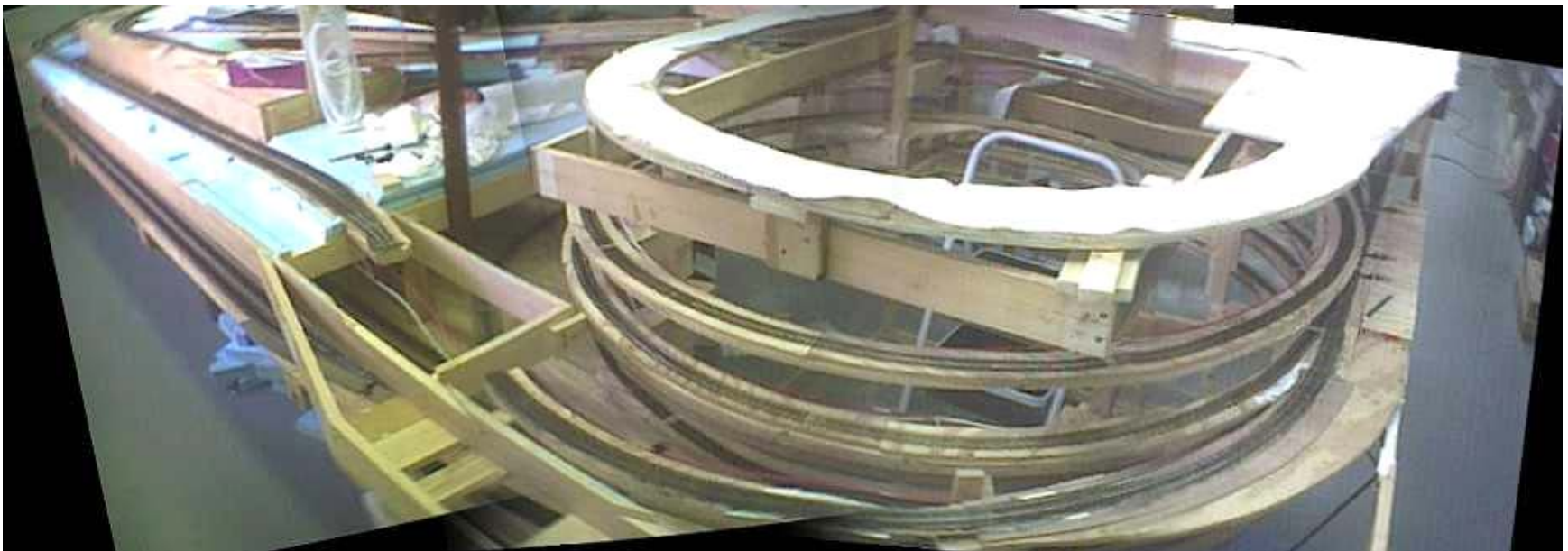
Trains are from staging on a Time-Table, with an 8:1 fast clock.

A 6:1 clock is used to slow operations down for training.

Stacked Helix



**Four Loops from staging up to Royal Gorge
Required Reverse Loop under Gunnison)
Extra height required on staging deck for reaching and loading equipment
Two more Loops to Tennessee Pass
One Loop (stacked) from Gunnison to Crested Butte**



Passing Sidings



Monarch

Arkansas River

Royal
Gorge

Not always
aesthetically
pleasing, but necessary

Generally, long
passenger trains
will determine SG
sidings

Passing sidings

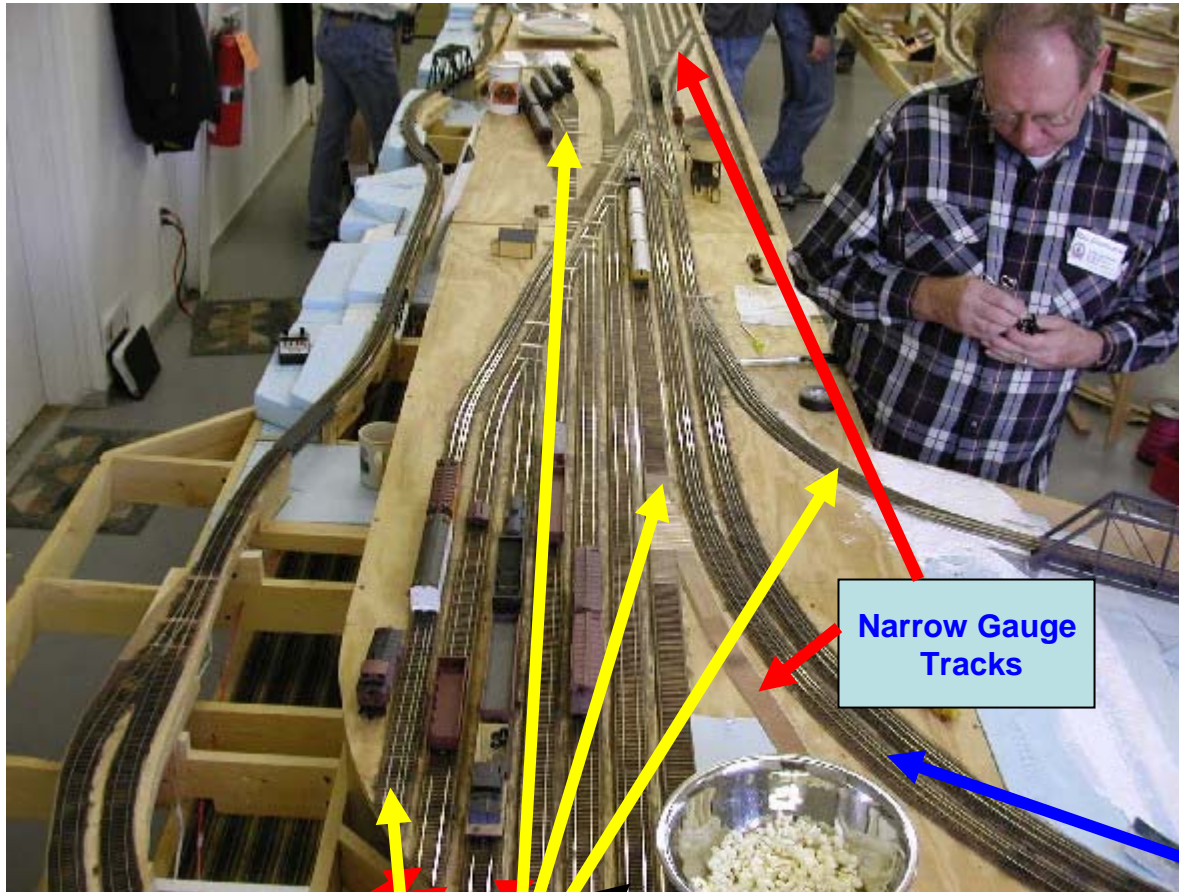
Passing Sidings



Since the D&RGW had a single main, we wanted to run trains that way, and the few spots that had sidings would.

Here is the Parkdale siding, with the depot at the corner.

Salida SG & NG Yard Operations



Salida yards were designed to be close to prototype

Compromises:

- Stub end transfer yard
- Shorten distance between roundhouses
- Narrow width of openinsula eliminated some foreground storage tracks
- Mainline turned along with NG (instead of running straight out of picture)

Narrow Gauge Tracks

Standard Gauge Mainlines (2)

Standard Gauge Tracks

Dual Gauge Tracks

Popcorn bowl serves As temporary NG/SG Freight transfer platform

Passenger SG & NG Operations



Here with a temporary depot, a SG passenger arrives in Salida (the Royal Gorge). In earlier years, the Shavano NG passenger waited upon the SG Scenic Limited from Denver, on the track leading across the Arkansas.

We will build the original stone depot for use up through around 1940, after which it will be replaced with a model of the modern art deco depot, which will be exchanged in place for where previously sat the Monte Cristo Hotel (also to be built).

Mears Junction NG Operations



Mear's Jct was flipped into a "Mirror" image, to be essentially Mirrors Jct



3% Grades

Mears Jct

**Garfield Switchback
(Monarch Branch)**

Operations:

Side track for earlier Hotel

Use for Alamosa 'Staging'

Storage Track

Mainline and Monarch branch line
Jct

Water Tank stop

"Mirror-Image" Advantages:

Gained significant altitude for
Monarch Branch

Increased operational use of Trestle

"Mirror-Image" Disadvantages:

'Opposite' prototype in track layout
Monarch trains never used Trestle

Monarch Branch NG Operations



Limestone from C&FI Mine at Monarch, brought down by hi-side gondolas, to Barrel Transfer at Salida

K-37 at switchback

Train is split in 2:
Header + ½ train goes
up switchback, Pusher
brings up 2nd ½ and
Caboose

**Switchback tail length
determines train
length**



Prototype Monarch Operations



- **Two Crew Shift: Two Trains per day**
 - Each Train hauled 28 empties from Salida
 - 11-12 hour shift"work and turn"trip
- **One Crew Shift: 3x/Week**
 - 56 empty gons from Salida to Maysville
 - 28 set out on Maysville siding
 - 28 to Monarch
- **Shift Work**
 - At Garfield, the train split in half traversed the switchback, then recoupled above.
 - At Monarch, the rear locomotive (helper) & caboose were cut.
 - The head-end locomotive pushed the 28 empties under the Colorado Fuel & Iron (CF&I) limestone loading tipple
 - The Helper put the caboose on the 10 cars on the "drop-in" storage track, rode around the wye, then went down to the switchback to wait for the train.
 - The head-end turned on the wye, put 22 loaded cars on the train
 - At the switchback, 10 cars were cut-off for the helper

Scenic Line Monarch Operations



Garfield Switchback



Silver Creek Tank

1

(8) Empties

Switchback tails
Hold Loco+5 cars

2 Locos + 8 Gons + Caboose



2

(4) Empties

(4) Empties + Caboose

Scenic Line Monarch Operations

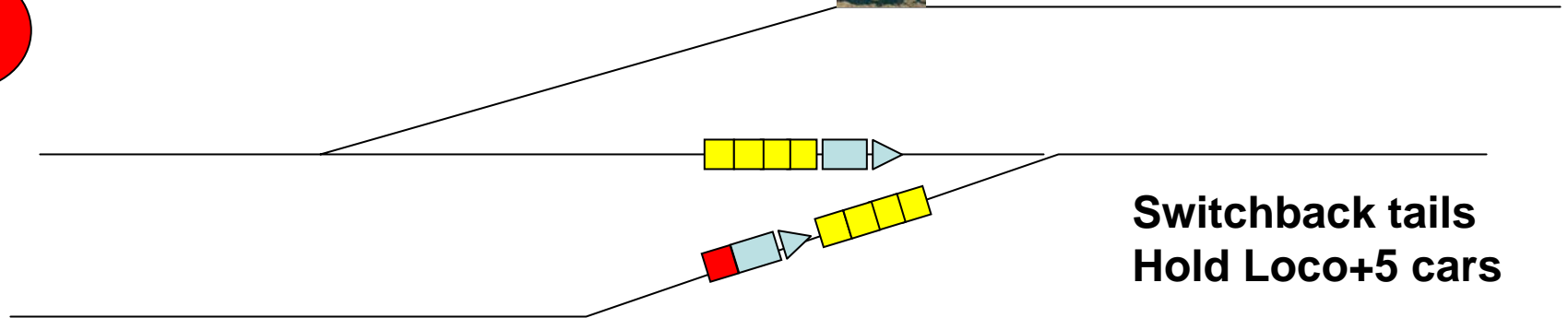


Garfield Switchback



Silver Creek Tank

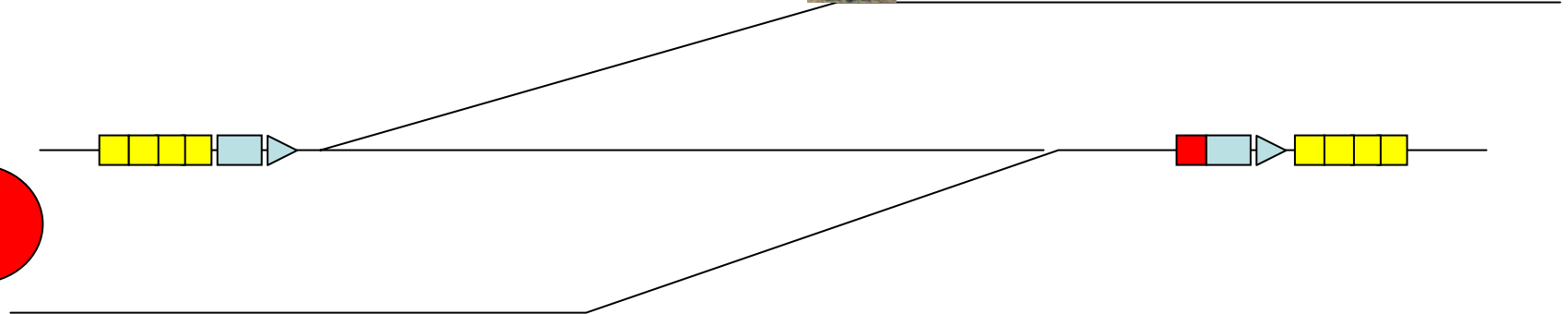
3



**Switchback tails
Hold Loco+5 cars**



4



Scenic Line Monarch Operations



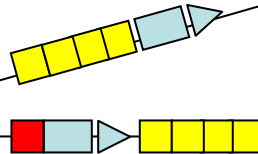
Garfield Switchback



Silver Creek Tank

5

**Switchback tails
Hold Loco+5 cars**



(8) Empties



6

Scenic Line Monarch Operations



Monarch Summit

1

Cut off Helper

(8) Empties

Gravity

(16) Loads

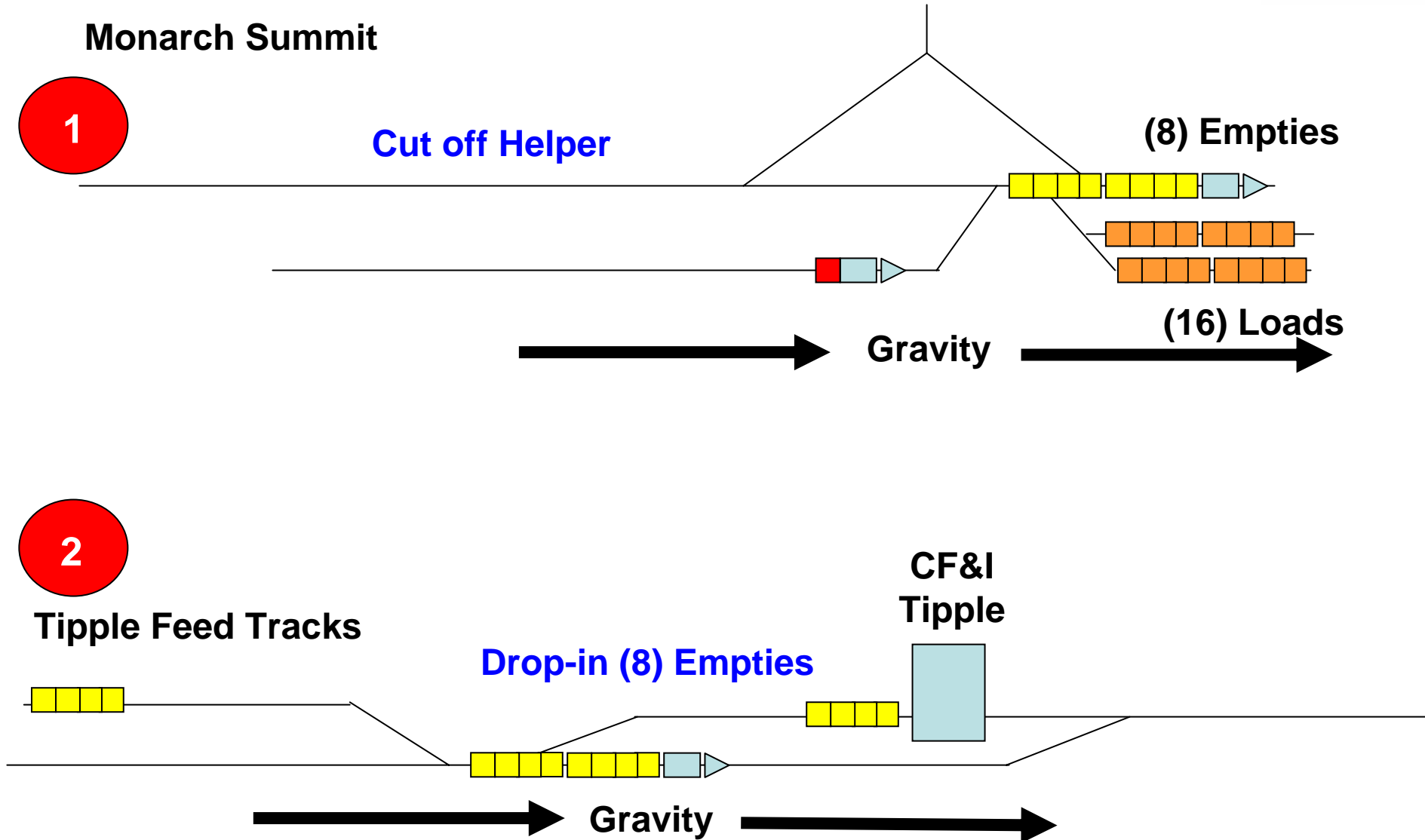
2

Tipple Feed Tracks

Drop-in (8) Empties

CF&I
Tipple

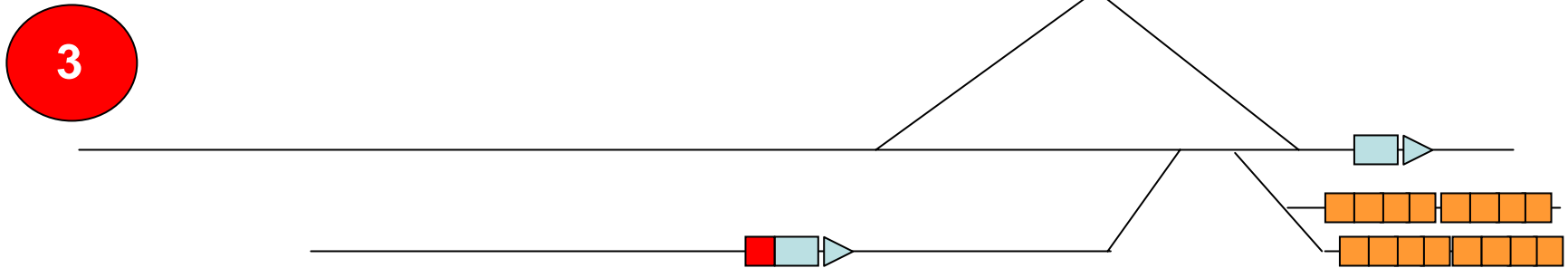
Gravity



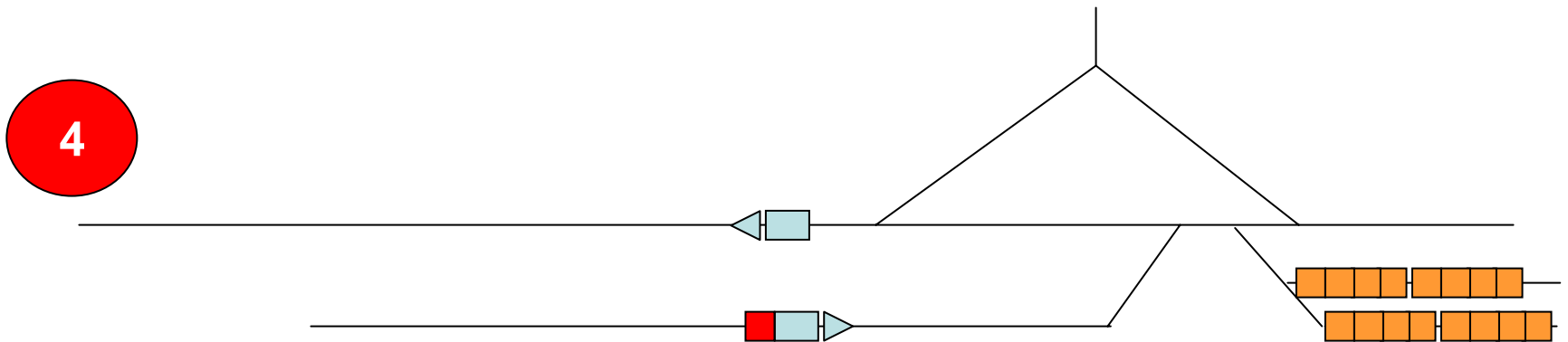
Scenic Line Monarch Operations



Monarch Summit



Turn Road Locomotive (Head-End)



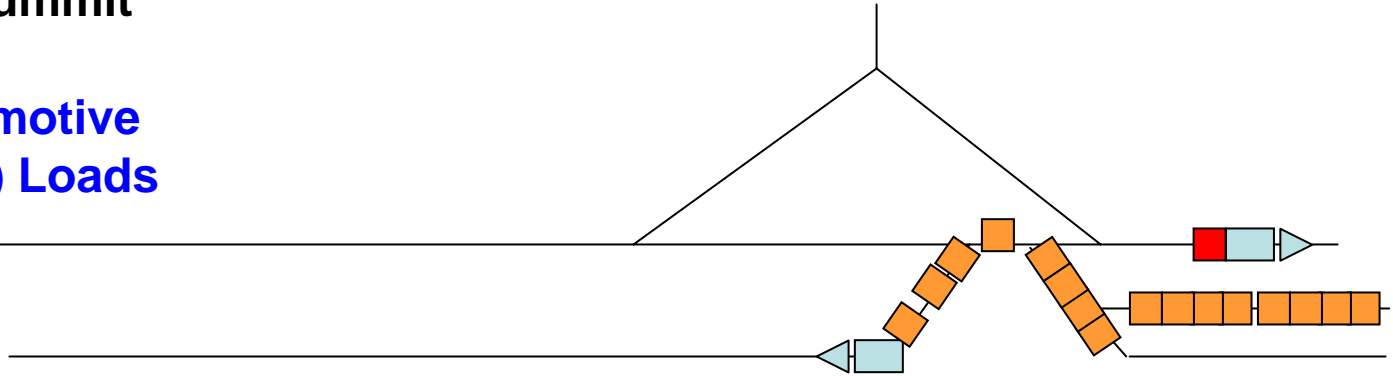
Scenic Line Monarch Operations



Monarch Summit

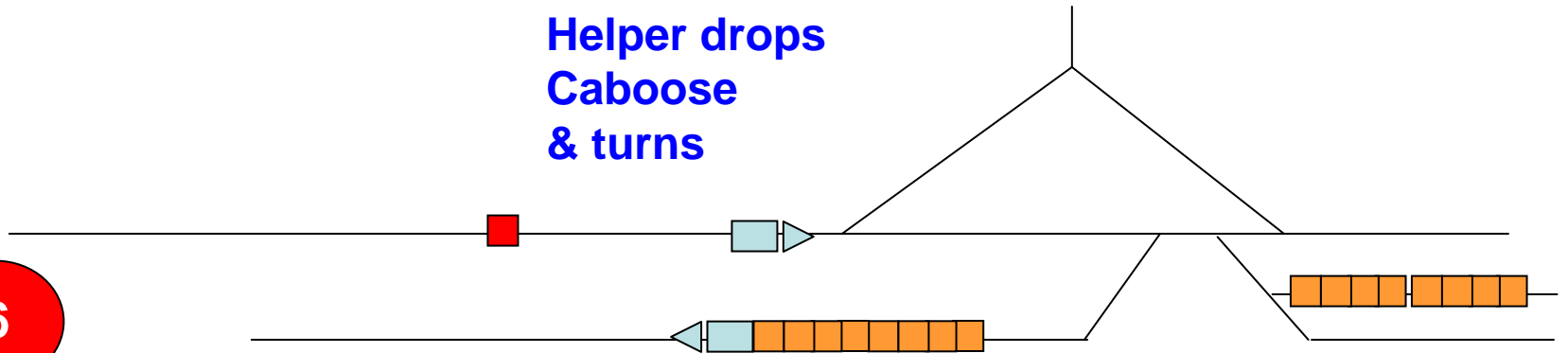
Road Locomotive
picks up (8) Loads

5



Helper drops
Caboose
& turns

6



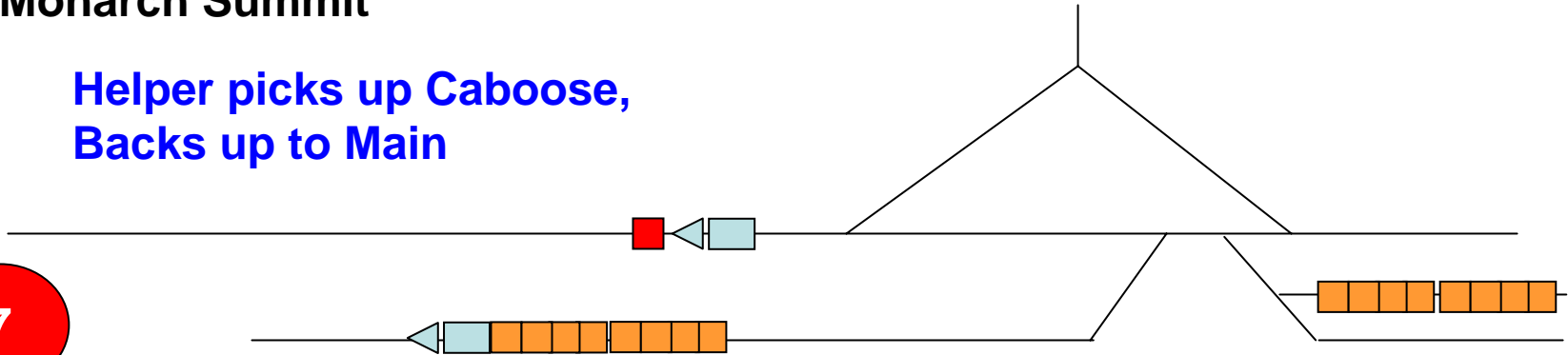
Scenic Line Monarch Operations



Monarch Summit

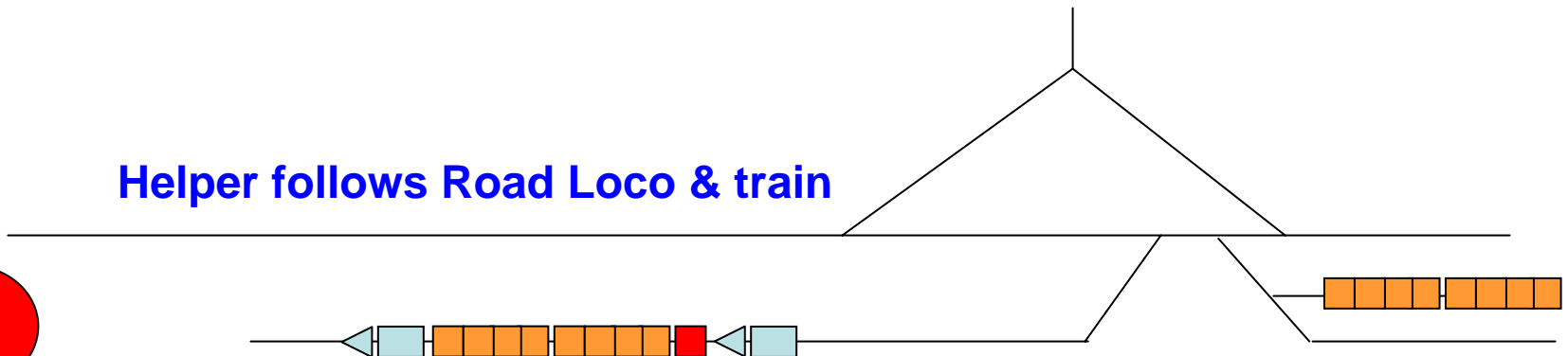
Helper picks up Cabooose,
Backs up to Main

7



Helper follows Road Loco & train

8



Train splits in half again at Garfield Switchback
Afterwards, Helper runs light & follows Road Loco & train to Salida

Car Cards/Waybills (CCWBs) Usage



- Car Cards are made for each freight car (or group of cars permanently lashed together)
- Waybills are inserted in car card to indicate revenue shipment, routing, shipper & buyer
- The car cards/waybills (CCWBs) are gathered into a deck to make a 'train', starting with the first car behind the engine (in order) to the last car.
- The CCWBs are kept track of & in order by the Conductor
 - The Conductor will determine what cars are pulled out of the train at each stop in accordance with Train Orders
 - Train Orders are generally specific instructions and guidelines provided for each train upon dispatch
 - The Yard Master will instruct where cars are to be delivered, and indicate cars to be picked up.
- The Brakeman/Conductor will operate the turnouts for the Engineer who will operate the Train, and deploy Flagmen as required.
 - The Conductor is responsible for keeping track of the Time Table of the Train and other trains (getting clear of the Mainline)
 - The Engineer will perform switching duty as needed, while the Brakeman/Conductor helps with the actual uncoupling of rolling stock.

Car Cards



MicroMark Car Cards

Colored initials for individuals' cars

KIND _____ AAR _____ R.R./No. _____ DESC. _____ EMPTY CAR RETURN TO: _____ _____ _____ <small>Reorder Micro-Mark #82910</small>	KIND _____ GM _____ R.R./No. _____ DESC. _____ EMPTY CAR RETURN TO: _____ _____ _____ <small>Reorder Micro-Mark #82910</small>	KIND GON _____ SL _____ R.R./No. D&RGW 46193 DESC. 40' Drop Bottom EMPTY CAR RETURN TO: _____ Salida, CO _____ _____ <small>Reorder Micro-Mark #82910</small>
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Laminated
with
packing
tape to
protect

(1) Car Card for every Car or tethered set of cars

Waybills



MicroMark Car Cards

FREIGHT WAYBILL 1	
CONSIGNEE	
ADDRESS	
ROUTING	
VIA	
SHIPPER	
ADDRESS	
LADING	
Reorder Micro-Mark #02911	
LADING	
ADDRESS	
SHIPPER	
VIA	
ROUTING	
ADDRESS	
CONSIGNEE	
FREIGHT WAYBILL 2	

FREIGHT WAYBILL 3	
CONSIGNEE	
ADDRESS	
ROUTING	
VIA	
SHIPPER	
ADDRESS	
LADING	
Reorder Micro-Mark #02911	
LADING	
ADDRESS	
SHIPPER	
VIA	
ROUTING	
ADDRESS	
CONSIGNEE	
FREIGHT WAYBILL 4	

One Waybill has 4 destinations (2 on each side)
Every loaded car (or set) needs a waybill for shipping

CarCard/Waybill (CCWB)



KIND	FLAT	GM
R.R./No.	D&RGW	22315
DESC.	40' Fish Belly	
FREIGHT WAYBILL 2		
CONSIGNEE		
ADDRESS		
ROUTING	GRAND JCT., CO	
VIA	Tennessee Pass	
SHIPPER		
ADDRESS		
LADING		

KIND	FLAT	AM
R.R./No.	D&RGW	22310
DESC.	40' Fish Belly	
FREIGHT WAYBILL 2		
CONSIGNEE	CF&I	
ADDRESS	Monarch, CO	
ROUTING	SALIDA → BARREL	
VIA	Mechanical Transfer	
SHIPPER	Pueblo Steel CF&I	
ADDRESS	Pueblo, CO	
LADING	Empty	

KIND	GON	AM
R.R./No.	DERGW	1527
DESC.	40'	
FREIGHT WAYBILL 2		
CONSIGNEE	CF&I	
ADDRESS	Monarch, CO	
ROUTING	SALIDA → BARREL	
VIA	Mechanical Transfer	
SHIPPER	Pueblo Steel CF&I	
ADDRESS	Pueblo, CO	
LADING	Empty	

Selected Waybill destination shown protruding from pocket
Key Info to Operator: Route, Destination & Drop Point
Highlighting Routing can aid Conductor when sorting his train

CCWBs – Routing Color Codes



KIND Flat	GM	KIND FLAT	GM	KIND FLAT	GM
R.R./No. TP4W 921		R.R./No. DARGW 21047		R.R./No. DLRW 22316	
DESC. 40' Fish belly		DESC. 42' Fish Belly		DESC. 40' Fish Belly	
FREIGHT WAYBILL 1		FREIGHT WAYBILL 4		FREIGHT WAYBILL 2	
CONSIGNEE _____		CONSIGNEE _____		CONSIGNEE _____	
ADDRESS _____		ADDRESS _____		ADDRESS _____	
ROUTING SALIDA		ROUTING GRAND JCT		ROUTING PUEBLO	
VIA _____		VIA _____		VIA _____	
SHIPPER _____		SHIPPER _____		SHIPPER _____	
ADDRESS _____		ADDRESS _____		ADDRESS _____	
LADING <i>Hvy Pulleys, Gear</i>		LADING _____		LADING _____	
Drop-Off		West-Bound through		East-Bound through	

CCWB Examples



KIND CAB **GM**
R.R./No. DERGW 01459
DESC. Steel - Black

EMPTY CAR

RETURN TO:

Pueblo, CO

Reorder Micro-Mark #82910

**Empty-
No Way Bill**

KIND GON **SL**
R.R./No. UCR 20153
DESC. 40'

FREIGHT WAYBILL 1

CONSIGNEE Pueblo Steel CF&I
ADDRESS Pueblo, CO
ROUTING BARRGW → SALIDA
VIA Mechanical Transfer
SHIPPER CF&I
ADDRESS Crested Butte, CO
LADING Anthracite

**Lots of Data
Highlighting
Helps**

KIND FLAT **AM**
R.R./No. DERGW 22313
DESC. 40' Fish belly

FREIGHT WAYBILL 1

CONSIGNEE _____
ADDRESS _____
ROUTING Ogden - Salt Lake → Denver
VIA Tennessee Pass
SHIPPER _____
ADDRESS _____
LADING _____
Reorder Micro-Mark #82911

**Minimum
INFO**

Micro Mark Optional Loco Cards



No. <u>1505</u> KH	No. <u>1502</u> GC	No. <u>100</u> SL
ROAD <u>D & R G W</u>	ROAD <u>D & R G W</u>	ROAD <u>D & R G W</u>
TYPE <u>4-8-2 L+Mtn</u>	TYPE <u>L+Mtn 4-8-2</u>	TYPE <u>NW-2</u>
DCC ADDRESS <u>1505</u>	DCC ADDRESS <u>1502</u>	DCC ADDRESS <u>100</u>
RETURN LIGHT TO: <u>PUEBLO, CO</u>	RETURN LIGHT TO: <u>pueblo, CO</u>	RETURN LIGHT TO: <u>SALIDA, CO</u>
Reorder Micro-Mark #82912	Reorder Micro-Mark #82912	Reorder Micro-Mark #82912

SLMI SG Train Orders



Train Order Train No. <u>1</u> Type <u>P</u> <i>Scenic Limited</i>			
Ar	MP	Station	De
	119	Pueblo	9:06
9:09	166	R. Gorge	9:11
	171	Parkdale	9:11
SW	212	Cleora	9:12
9:13	215	Salida	9:15
	281	Tenn Pass	9:15
9:20	424	Grand Jct	9:20
Special Instructions:			
STOPS: (2 MIN)			
ROYAL GORGE			
SALIDA			
SWITCH: 1st Main			
@CLEORA			

Passenger

Train Order Train No. <u>52</u> Type <u>S</u> <i>Fall Stock Special</i>			
Ar	MP	Station	De
	424	Grand Jct	
	281	Tenn Pass	
9:00	215	Salida	9:05
	212	Cleora	W
	171	Parkdale	W
	166	R. Gorge	
	119	Pueblo	
Special Instructions:			
Pick Up: Salida			
Cleora			
Parkdale			
WAIT: @CLEORA for			
Scenic Limited			
WAIT: @ PARKDALE for			
Milk Train			

Stock
Special

Train Order Train No. <u>73</u> Type <u>W</u>			
Ar	MP	Station	De
10:36	119	Pueblo	10:35
	166	R. Gorge	10:41
	171	Parkdale	10:41
SW	212	Cleora	10:42
10:43	215	Salida	10:45
	281	Tenn Pass	10:45
	424	Grand Jct	10:47
Special Instructions:			
STOPS: SALIDA			
PICK UP WD			
SET OUT			
SWITCH: 1st Main			
@CLEORA			

Way Freight

More Train Order Examples



Train Order Train No. <u>3</u> Type <u>P</u> <u>PROSPECTOR</u>				
Ar	MP	Station	De	
<u>9:30</u>	119	Pueblo	<u>9:35</u>	
<u>9:41s</u>	166	R. Gorge	<u>9:42</u>	
<u>9:43s</u>	171	Parkdale (W)	<u>9:45</u>	
	212	Cleora	<u>9:46</u>	
<u>9:47s</u>	215	Salida	<u>9:49</u>	
	281	Tenn Pass	<u>9:49</u>	
<u>9:51</u>	424	Grand Jct		

Special Instructions:
 STOPS: ROYAL GORGE (2 MIN)
 PARKDALE (2 MIN)
 SALIDA (2 MIN)

(W) WAIT FOR #16 TO ARRIVE BEFORE DEPARTING

Train Order Train No. _____ Type _____				
Ar	MP	Station	De	
	119	Pueblo	<u>9:41</u>	
	166	R. Gorge	<u>9:47</u>	
	171	Parkdale	<u>9:47</u>	
	212	Cleora	<u>9:48</u>	
	215	Salida	<u>9:50</u>	
	281	Tenn Pass	<u>9:50</u>	
	424	Grand Jct	<u>9:52</u>	

Special Instructions:
 WATCH OUT FOR
 TRAIN #16 @
 ROYAL GORGE (RADIO
 ANCHO)

STOPS: SALIDA

Train Order Train No. <u>71</u> Type <u>W</u>				
Ar	MP	Station	De	
<u>10:00</u>	119	Pueblo	<u>10:05</u>	
	166	R. Gorge	<u>10:09</u>	
	171	Parkdale	<u>10:09</u>	
<u>SW</u>	212	Cleora	<u>10:10</u>	
<u>10:11s</u>	215	Salida	<u>10:13</u>	
	281	Tenn Pass	<u>10:13</u>	
	424	Grand Jct	<u>10:17</u>	

Special Instructions:
 STOPS: SALIDA
 Set out
 Pick up WB
 YIELD TO: #63 @ SALIDA
 Switch: 1st Main
 @ CLEORA

Passenger

Passenger

Way Freight

SLMI Train Orders w/ Loco Cards



No.	ROAD	TYPE	Train Order Train No. <u>62</u> Type <u>FF</u>																																
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Salida CCWB Usages



SG Gondola Car Routing (Loads)

- 1) Loaded Car begins at Barrel Transfer to Salida Transfer Yard**
- 2) Loaded Car picked up at Salida for shipment to Pueblo**

SG Gondola Car Routing (Empties)

- 1) Empty originates at Pueblo (staging) – Send to Salida Transfer Yard**
- 2) Transfer Yard to Barrel Load Track**

General Way Freight

- 1) East & West bound cars dropped & picked up in Transfer Yard**
- 2) Reefers are serviced for Icing and either dropped or picked up.**
- 3) LCL Boxcars / Flats with NG freight to Freight Transfer Platform**

Passenger

- 1) REA Reefers transferred on Depot House Track**

Where do the CCWBs Go?



- Car is in possession of the Conductor
 - In train or in process of being Switched
 - CCWB is retained by Conductor
 - Train Deck of CCWBs are kept in order of cars in train, from head to tail
- Car deposited in Yard or siding
 - CCWB put in appropriate slot of card holder
 - Conductor or Yard Master advances Waybill in Car Card Holder when complete
 - When picking up cars, do not pick up car you just dropped (it is either being loaded, emptied or serviced)
- CCWB ALWAYS follows its parent car around the railroad,
 - It is either in a train with the Conductor or in a yard/siding in an appropriate holder.

Monarch CCWB Usages



Monarch NG High Side Gondola Car Routing (Limestone Loads)

- 1) Loaded Car begins at CF&I Load Tracks to Poncha Jct**
- 2) Poncha Jct to Salida NG Yard**
- 3) Salida NG Yard to Barrel Transfer NG Loaded Track**

Monarch NG High Side Gondola Car Routing (Empties)

- 1) Barrel Transfer NG Empties Track to Salida NG Yard**
- 2) Salida NG Yard to Poncha Jct**
- 3) Poncha Jct to Monarch CF&I Feeder Tracks**

Waybills are 'rotated' by Conductor or Yard Master at completion of switching, from '1' to '2' to '3'. After '3', movements are done for the session.

Crested Butte NG Operations



**A Consolidation makes
The tight radii to bring in
& out empties & loads of
Anthracite in High side
Gons for CF&I**

**A Loco will be assigned
To pick up loads from
CB yard, to take over MP
To Barrel Transfer in
Salida, leaving more
Empties in yard.**

**A mixed daily will also
Make a run from
Gunnison**

**Passengers will be picked up at the Depot
Locos serviced at the Tank and basic engine facilities**

Gunnison NG Operations



Parlin NG Operations



Depot

Stockpens

Passing Siding

Loading Ramp

Tank

Switch Panel



Marshall Pass NG Operations



**Turntable for Helpers
Passing Track
Depot
Tank
Ore Dump Ramp**



Royal Gorge Operations (SG)



**Depot ! (1915)
Coal Bin
(1 mile from Hanging Bridge)**

**Passenger Trains stopped at
Hanging Bridge**



Parkdale Operations (SG)

Stockpen
Freight Platform
Mail Crane

Depot

Tank

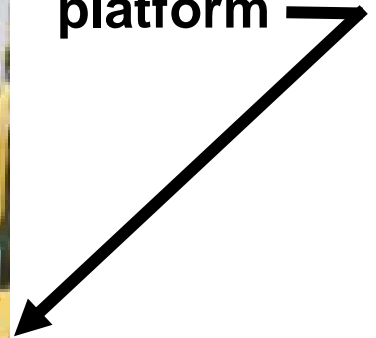
Mail Crane



Parkdale Operations (SG)



**Card Holder
For Stockpen
& freight
platform**





Thankyou for listening