

Conrail Pavonia Yard Camden, New Jersey Evolution of Physical Change

October 1, 2013



Office of Vice President/Chief Engineer

Pavonia Yard - 1967



***Speed Frate* – low cost yard system gets Pennsylvania's OK at Pavonia**



One operator handles all controls, automatic switching and speed selection.

The bump retarder is radar controlled.




All retarders are weight-responsive, with automatically controlled hydraulic release.

GENERAL RAILWAY SIGNAL COMPANY
A UNIT OF GENERAL SIGNAL CORPORATION

ATLANTA BOSTON CHICAGO MONTREAL NEW YORK OAKLAND ST. LOUIS ST. PAUL

October 23, 1967 RAILWAY AGE

Circle 6 on reader service coupon

The Evolution of Change

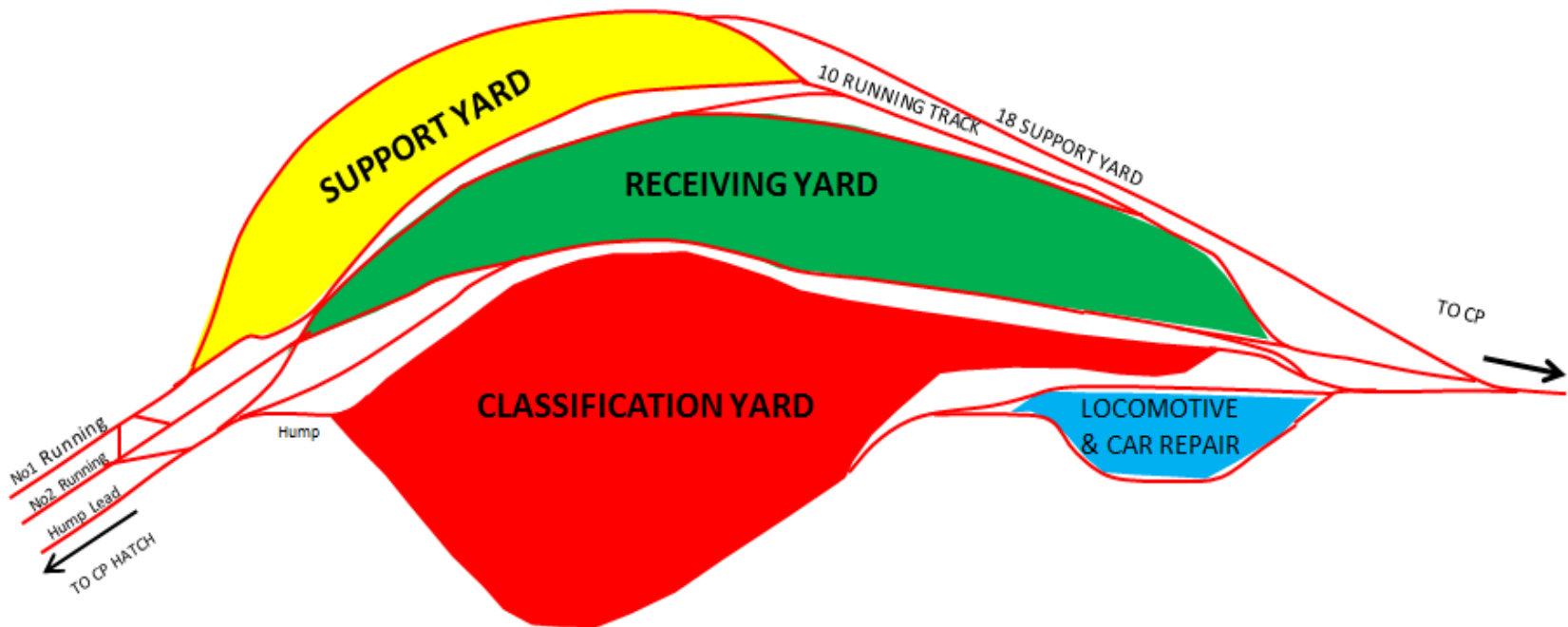
- 1967 – Over 1,000 cars per day were processed during Pennsylvania Railroad Seashore Line operation at Pavonia
- 1976 – Pavonia Yard becomes part of Conrail
- 1987 – Pavonia Yard on average handles 800 cars per day
- During the late 1980's and early 1990's, Conrail rationalizes the South Jersey cluster by retiring many outlying support yards
 - Hump and Classification Yard become customer-based yard for South Jersey, warranting humping of only eastbound traffic flows
 - Westbound traffic flows are flat-switched in the Support Yard

The Evolution of Change

- Post-split, Pavonia Yard handled between 600 and 750 cars per day, excluding unit train operations
- By 2009, freight traffic requiring processing over the Pavonia Hump was in the 300-350 range
- These volumes further supported the cessation of humping activity to reduce operating and maintenance expenses and the avoidance of near-term capital investment
- The introduction of recently developed technology allowed for automated flat switching and single person remote crews to operate without any utility personnel

Pavonia Yard Track Layout

PAVONIA YARD



Support Yard Under Construction



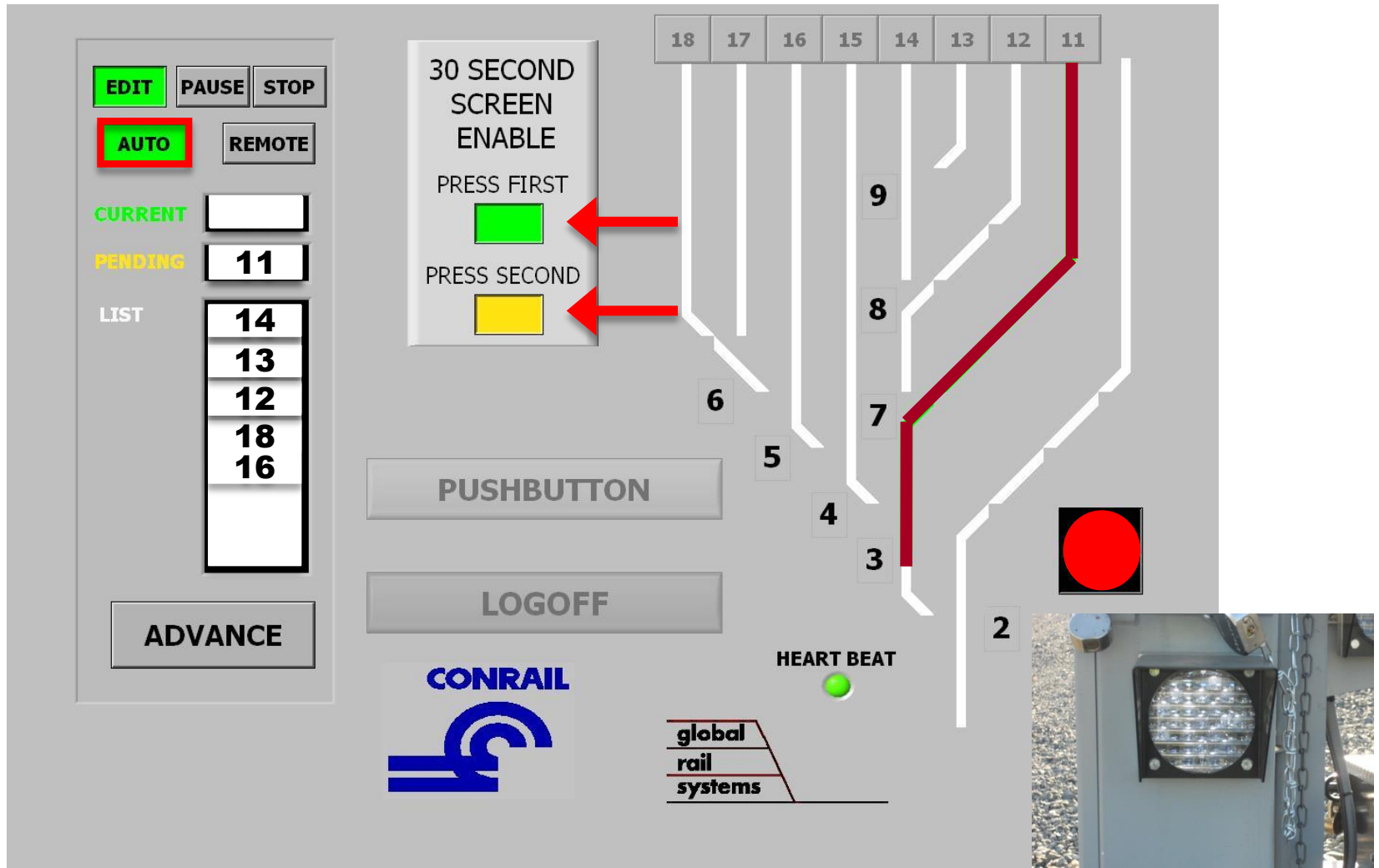
Switching Kiosk and Camera Monitor



Switching Kiosk and Camera Monitor



Switching Kiosk – Automatic Mode



Switch Indications



Demonstration

18

CURRENT

17

PENDING

17
15

LIST

18

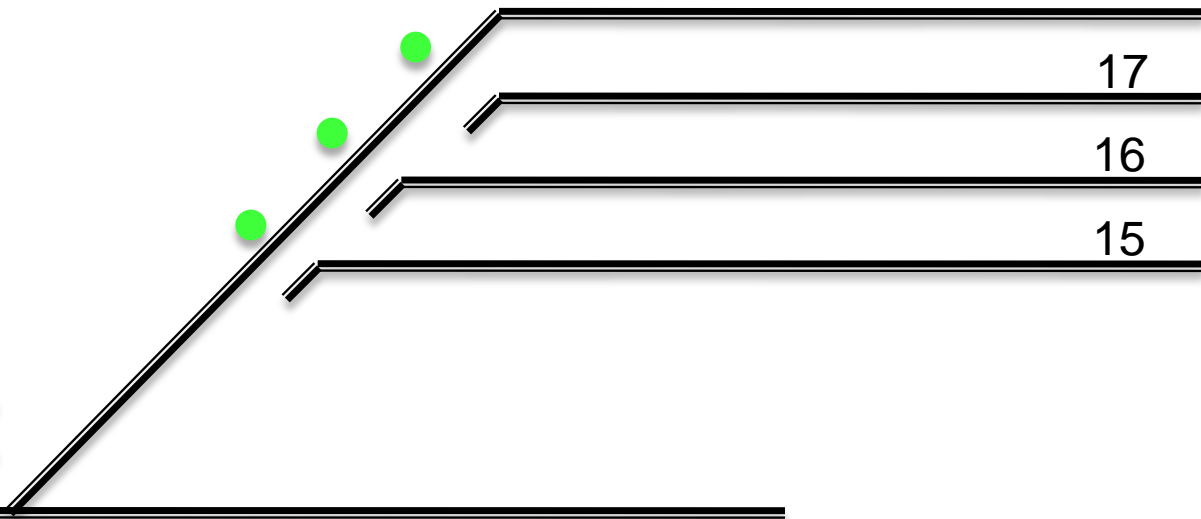
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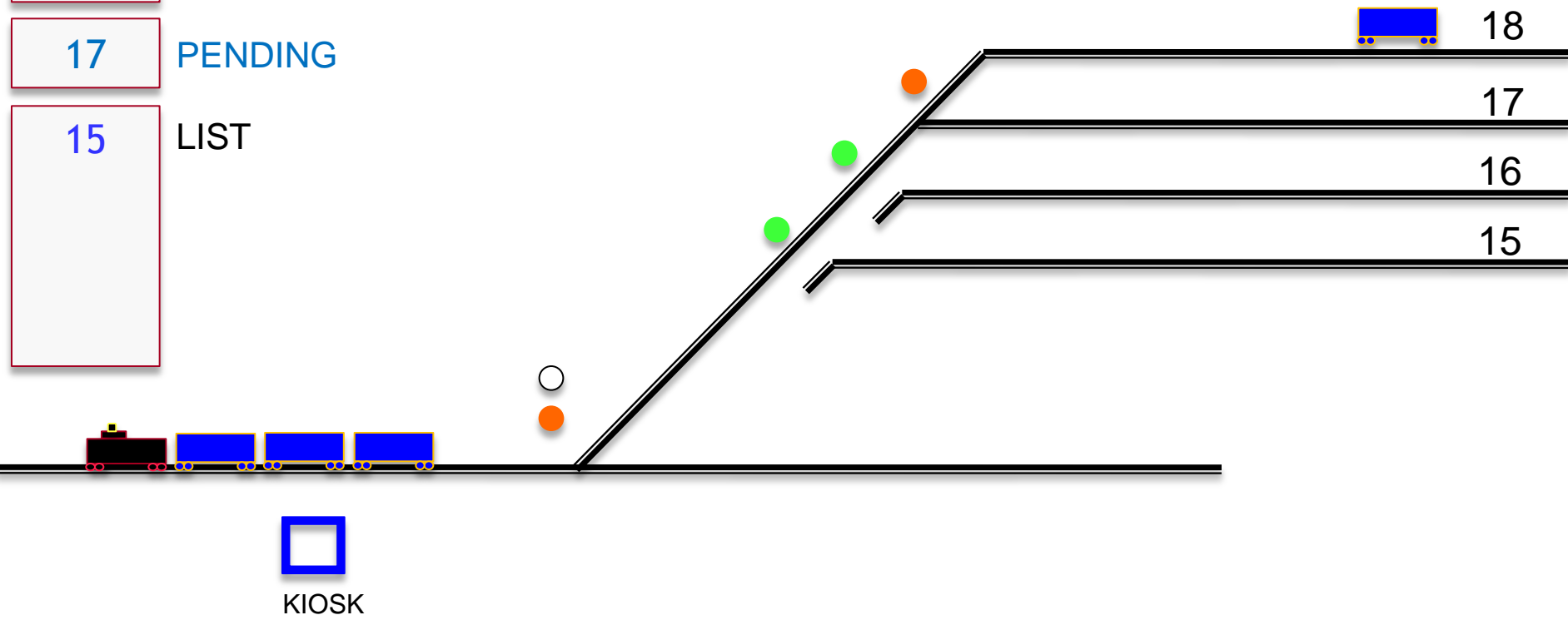


KIOSK



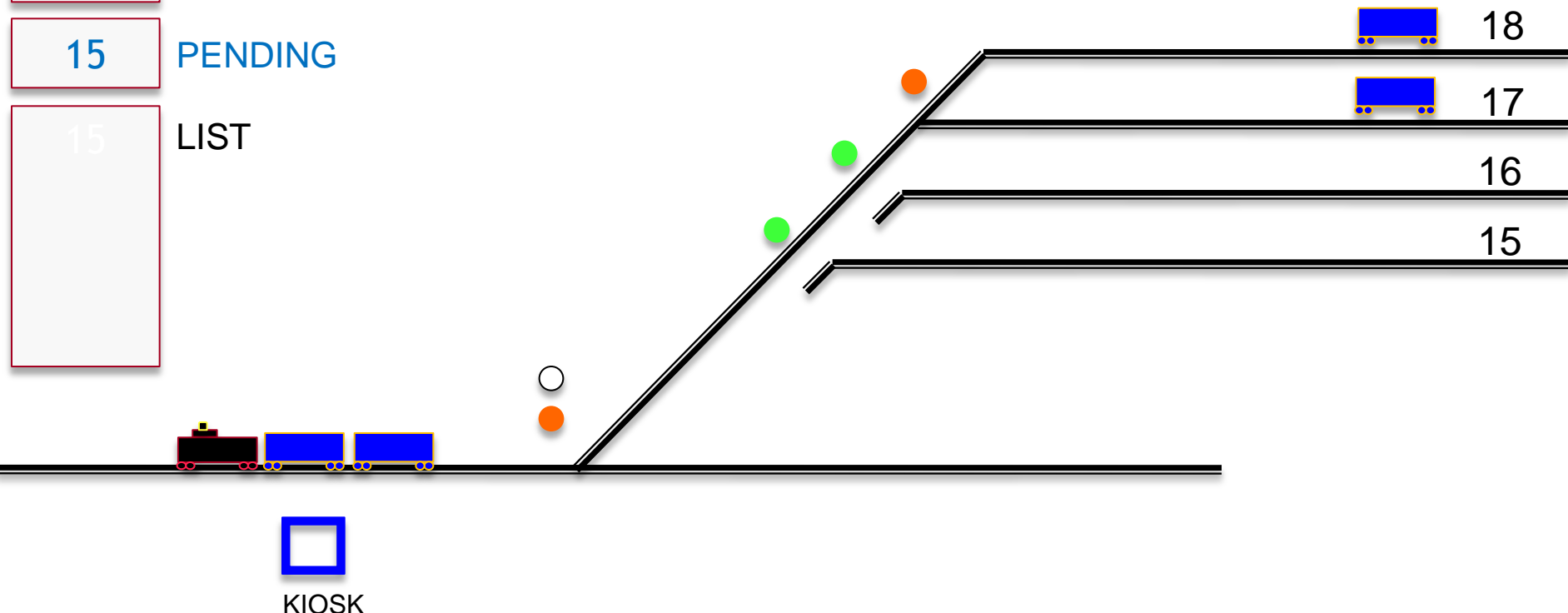
DEMONSTRATION

- 17 CURRENT
- 17 PENDING
- 15 LIST



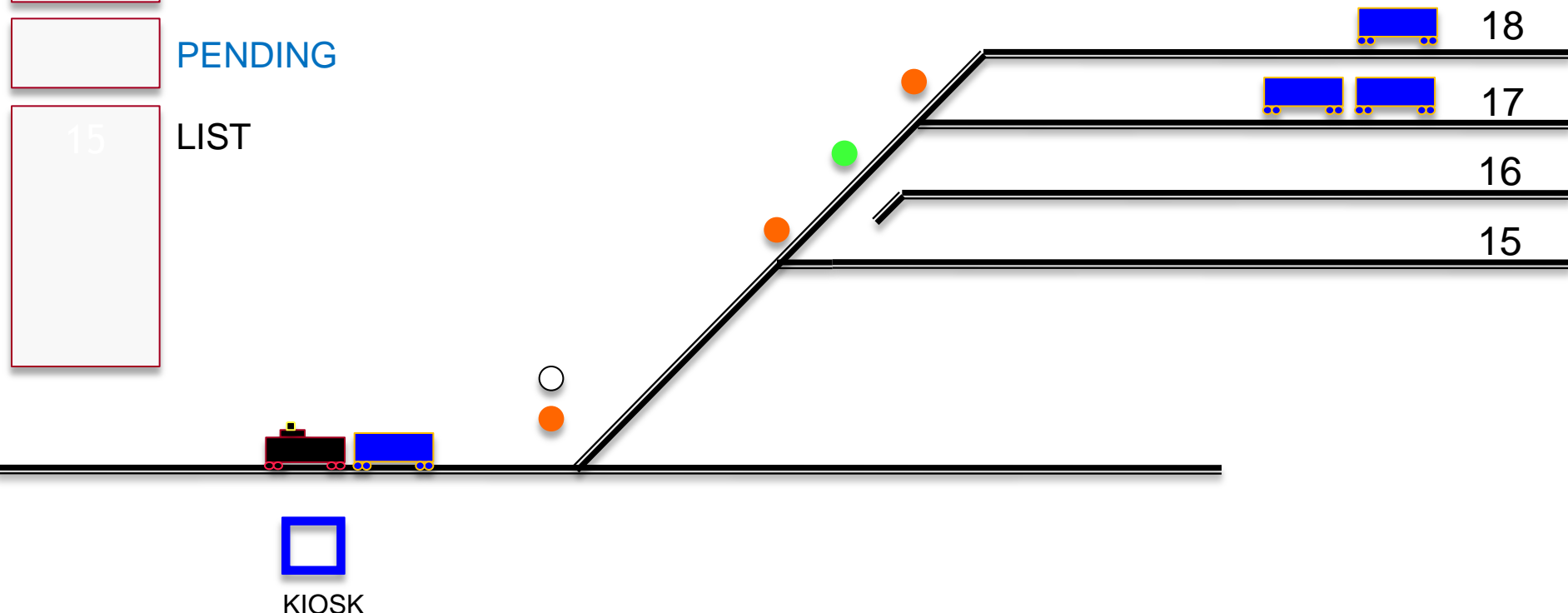
DEMONSTRATION

- 17 CURRENT
- 15 PENDING
- 15 LIST



DEMONSTRATION

- 15 CURRENT
- PENDING
- 15 LIST



Cameras views from kiosk

The screenshot displays a kiosk interface for monitoring a railway yard. It features four camera views arranged in a 2x2 grid:

- Top Left:** View of tracks with a train, labeled "Kiosk PTZ".
- Top Right:** View of tracks with a train, labeled "State St".
- Bottom Left:** View of tracks, labeled "Support Yard".
- Bottom Right:** View of tracks with a blue-roofed structure, labeled "Kiosk".

Each view includes a timestamp: "Tue, Oct 09, 2012 PM02:17:28".

The right side of the interface contains a control panel:

- NVR Client CONCERT** logo.
- NVR5.63
- Buttons: "Group Connect", "List Connect".
- Tree view for "CAMDEN YARD" with sub-items: "State St", "Lunch room", "Front Entrance", "Plot left", "Side steps", "Plot right", "Kiosk", "Kiosk PTZ", "Support Yard", "Kiosk Screen", "Camera11", "Camera12", "Camera13", "State St".
- Search field: "State St".
- Buttons: "Con ALL", "Dis ALL".
- Buttons: "PTZ Control", "Color/Audio Adjust", "DI/DO Control".
- Large power button.

The bottom status bar shows:

- Time: "Tue, Oct 09, 2012 PM02:17:43".
- CPU usage: "CPU: 7%".
- System info: "1: CAMDEN YARD Kiosk PTZ".
- Navigation icons: "SETUP", "SEARCH", "RE-SETUP", "RE-SEARCH", "LOCAL LOG", "REMOTE LOG", "CHAT", "LOCK".

West End Support Yard View

2012-10-09 Tue 13:57:13

NVR Client
CONCERT

NVR5.63

Group Connect
List Connect
PTZ Control
Preset Call
Speed
Relays Wipers
Zoom
Focus
Iris
Auto Pan
Color/Audio Adjust
DI/DO Control

State St

Tue, Oct 09, 2012 PM01:57:28
CPU: 5% Window11 none

SETUP SEARCH RE-SETUP RE-SEARCH LOCAL LOG REMOTE LOG CHRT LOCK

Removal of retarders and hump lead



Retarder removal



Hump Lead looking east



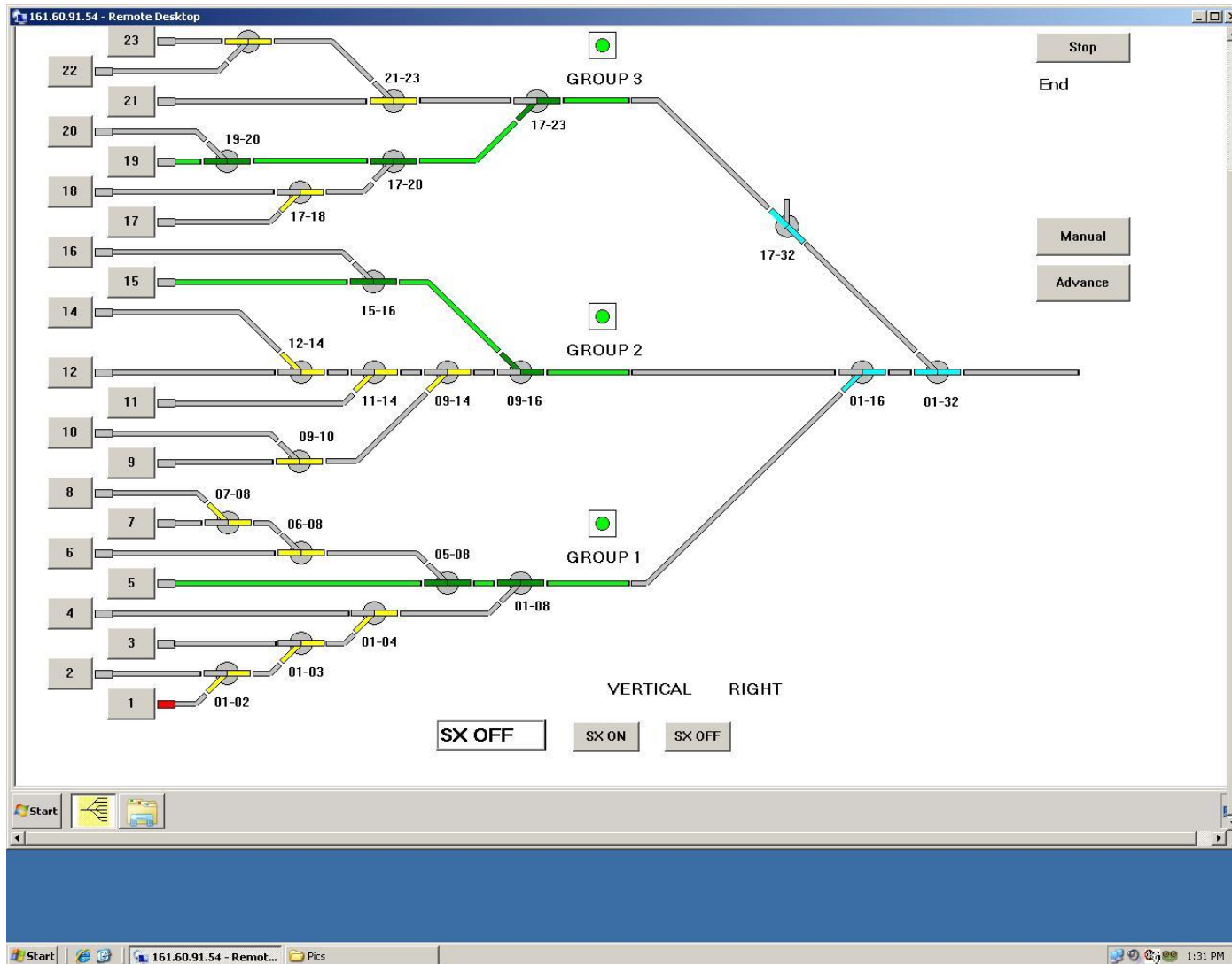
Reprofiled Class Yard Switching Lead



Reprofiled Class Yard Switching Lead



Kiosk Screen – Class Yard



Receiving Yard



Receiving Yard

