**CTC Web Overview**

# CTC Overview Graphics

## CTC Overview General Instructions

This application is divided into a few key types of displays:
- Single image view – From the Territory Selection screen, click on a territory name or select the particular territory checkbox, and click on View.
- 4 View – Select 2 to 4 images, and click View to see multiple images on one screen.  Your PC's video resolution will determine how well you can see the separate images.
- Rotated Single View.  Images will rotate over a pre-defined list at regular intervals.  Select the territories you wish to view, and click on Rotate.

Toolbar in Single image view or Rotated Single View:  Left Click on image to present toolbar, Left Click on image to hide the toolbar.
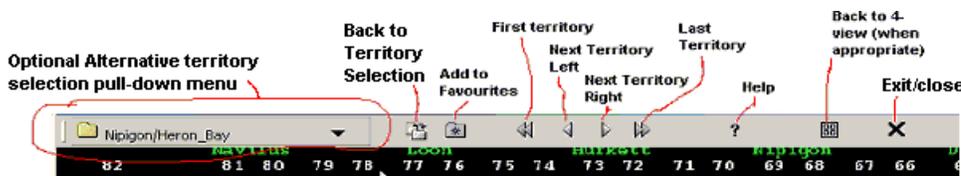


4- View points:
- Each of the 4 images will update at regular user-specific intervals.
- Click on one of the views to expand to a single image view of that territory, and click on the "Back to 4-view" button to return to the 4-view.
- To go from the 4-view back to the Territory Selection screen, click on an image to get a Single view, then click on the Back to Territory Selection Screen button as above.

Rotated Single View points:
- To stop the Rotating view, click the Back to Territory Selection button.
- All toolbar options (except the Back to 4-view button) operate while in Rotated View.  However the image will continue to rotate while you are  making selections.

## Location Station Name



### Station Name & Number

Each station has a name and one or more locations defined by the location numbers.

Under normal conditions, station names are green and location numbers are white. When auxiliary devices or alarms are activated, the station name and the particular location number involved will change to yellow or red.
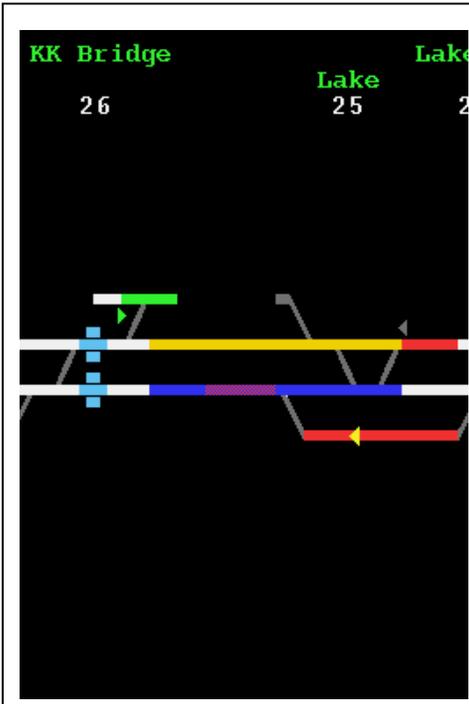
## Control & Indication Arrows



### Control and Indication arrows:

### Orange Control Arrow
When any control is sent to a remote location, the orange control arrow is momentarily displayed to the left of the station number.

### White Indication Arrow
When a remote location sends back an indication, the white Indication arrow is momentarily  displayed located to the right of the station number.

### Recall Bar
The yellow bar beneath the location number indicates that the office is awaiting a response from the location.  For example, it appears when a location recall is sent and no response at all has been received.  It also appears when a device such as a Snow Melter has been requested on or off, but the location has not yet responded accordingly.

## Track Graphics        **Back to Top**

### Track Graphics

| Track Colour | Meaning |
| --- | --- |
| White | Unoccupied, no signals or blocks requested or lined. |
| Red | Occupied track or track circuit. |
| Red with Yellow Arrow | Office generated occupancy for a non-signalled track. |
| Blue | Blocked track for CTC authority or manual track block. |
| Light Blue | Open drawbridge indication |
| Purple | Track which is both blocked and occupied. |
| Yellow | Signal requested to clear or stop, but not yet confirmed. |
| Green | Signal cleared over track. |

Although all blocked tracks have the same colour you can determine the type of blocking applied by the colour of the blocking bars located below the track(s).

## Switch Graphics        **Back to Top**
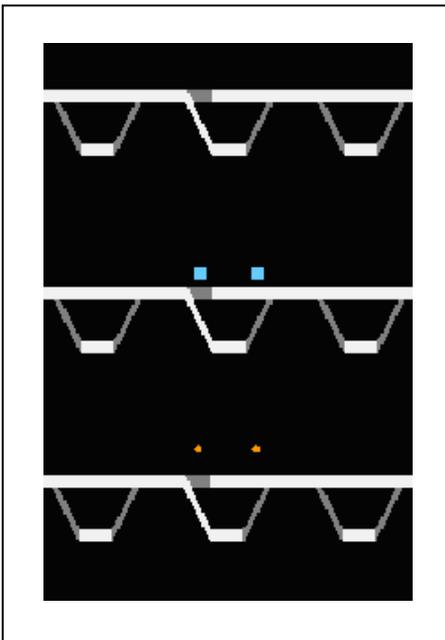
### Switch Graphics

#### Switch Normal and Reverse
The white portion within a switch designates the route that the track is lined for.

#### Switch Block
A Blue square at a switch indicates switch blocking. A switch block which is requested on or off, but not confirmed appears green or red.
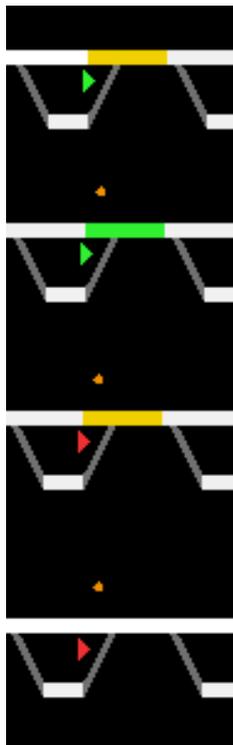
#### Switch Lock
An orange dot indicates the switch is locked. A switch lock appears when the track is occupied or when a signal is requested, confirmed or running time.

## Signal Graphics        **Back to Top**

### Signal Graphics

### Clear Requested
A green triangle with yellow track indicates a signal has been requested but is not yet clear.
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### Clear Signal
A green triangle with green track is a clear signal.

### Stop Requested
A red triangle with yellow track is a stop requested signal.  The RTC has requested that the signal go to stop, but the field location has not yet responded with a stop indication.

### Time Running
A red arrow with white track means a signal was previously cleared, then  stop requested.  The field has confirmed that the signal has gone to stop.  The signal is now in running time and the route will remain locked until the field location runs a timer and releases the route.

## Signal and Switch Automatics                                    **Back to Top**
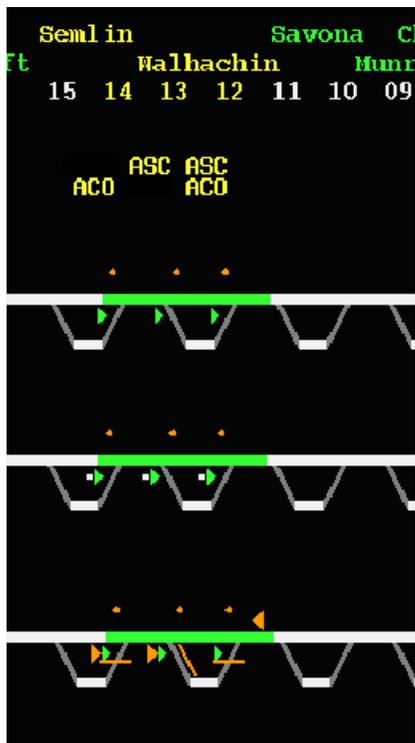
### Signal and Switch Automatics

There are a variety of controls that can be set up in advance that automatically perform particular signal or switch functions when a set of predetermined conditions are satisfied.

**Automatic Clear Out and Automatic Signal Clear -   Icons below location numbers**
ASC  - Automatically keeps two signals cleared ahead of a train
ACO  - Automatically moves a switch to the opposite position and clears a signal away from a station.  It is used to clear out trains after a meet

**Fleeting (or Field Fleeting)  -  White or green rectangle behind signal**
Any signal with Fleeting automatically keeps the signal cleared as soon as possible after each movement.  Field Fleeting looks identical, except the function is located at the field location.

**Signal or Switch Stacking  -   Orange triangle and orange line**
Stacking is more versatile than other automatics and can precondition any signal for any route.  At simple locations it functions the same as ASC and ACO, but is more valuable at complex locations.  The flat or diagonal orange bar indicates intended switch position.

**Field Blocking**                                              <span style="color:blue">**Back to Top**</span>
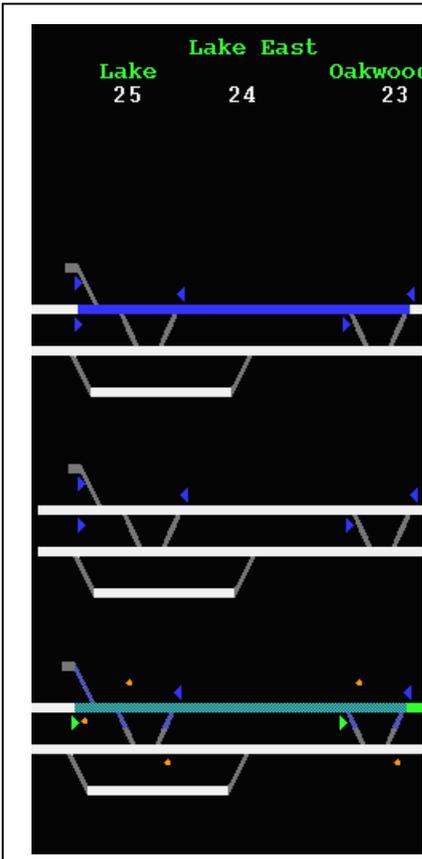
| | |
|---|---|
|  | **Blue Arrow – Field Blocking**<br><br>**There are two circumstances where field blocking is displayed in graphics.**<br><br><br><br>**Field Block is requested  On or Off**<br>Whenever an authority is issued or cancelled, controls are sent to the field to apply or remove the appropriate field blocks at the locations affected.  Field blocking is normally not displayed on graphics, but appears during the transition when the field has not yet confirmed that blocking is in the requested state.<br><br><br>**Field Block is pending to allow Signal through Blocking**<br>In situations that allow, a signal may be cleared through some forms of blocking.  To permit the signal to clear, the conflicting field block must be removed.  Such field blocks are changed to pending and appear on the screen as blue triangles. |

**Location Devices and Alarms**                               <span style="color:blue">**Back to Top**</span>
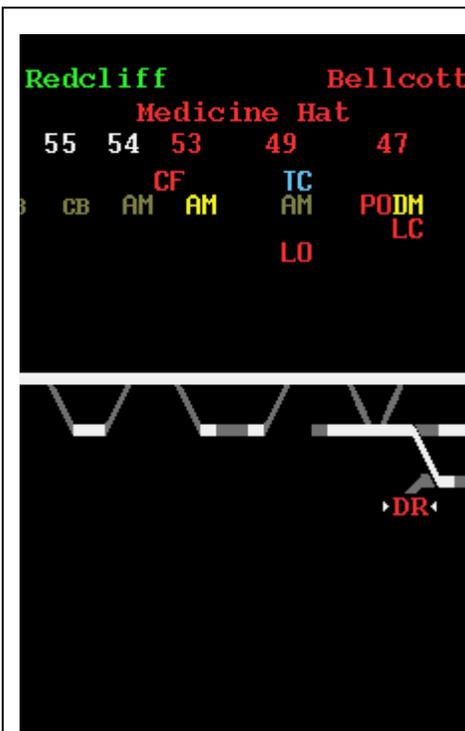
| | |
|---|---|
|  | **Location Devices and Alarms**<br><br>A device or alarm may be located directly beneath the location number or just above or below the track.  If a device is on, the location number and station that operates the device may change to yellow or red depending on the device that is involved.<br><br>**List of the Most Common Devices**<br><br>CF   -   Code Failure - communications are down<br>LC   -   Local Control  - Location is controlled by personnel at the site.<br>TC   -   Technician Control – Location is controlled from the Technician's workstation.<br>LO   -   Light Out - burnt out signal bulb<br>PO   -   Power Off<br>SD   -   Slide or slip detector<br>DR   -   Power Derail<br>SM   -   Snow melter  (RTC controllable)<br>AM   -   Automatic snow melter<br>DM   -   Dual control snow melter<br>EM   -   Electric snow melter<br>CB   -   Cold air blower  (not controllable)<br>AUX  -   Auxiliary device |

**Power Derails**
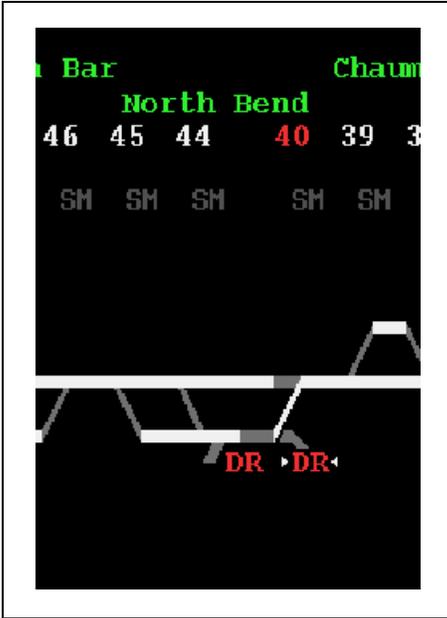
### Power Derails

A power derail is displayed as a graphical representation of a diverging track, plus a DR icon.  The DR icon is shown as red or grey depending on whether the derail is on or off.   The small white arrows next to DR indicate that the derail is not in use and can be restored to the derailing position.

## Train Tags



### Confirmed Train Tags

A Confirmed tag represents a train that is ordered but has not yet departed. Normally a Confirmed tag is yellow. White, Orange and Red denote special handling attributes. See below for more information on colours.

Note there may be up to two confirmed train tags visible on the screen at a given location. If three or more trains are supplied, a blue triangle appears above the tags. As an untagged train passes the location, a confirmed tag will change to Actual and begin following the train's occupancy as a labeled arrow.



### Actual Train Tags

Train tags are located directly underneath the track occupancy associated with the train. The text within the tag is usually the symbol of the train. This is known as an Actual train. The colour of the tag refers to any special handling required for the train.

Normal          - A blue tag with yellow text.
Long             - A blue tag with orange text.
Dimensional    - A blue tag with red text.
Long and Dimensional - An orange tag with red text.
Other            - A blue tag with white text

US Only:
Key Train       - An orange tag with white text

The arrow on the tag shows the direction of movement
Non-directional tags have no arrow.

**Suspended Train Tags**
A red square with black S indicates a train that is temporarily clear of the main track.

## Blocking Bars

### Blocking Bars
The colour of the bars at the bottom of each view refer to the type of authority as listed below.

| Canada | U.S. – Soo Line | U.S. – D&H |
|--------|-----------------|------------|
|        |                 |            |

**CROR - Blocking Bars**

- ▬ Rule 566
- ▬ Relief of Flag Protection
- ▬ TOP / TOP Behind Train
- ▬ Rule 567.1
- ▬ GBO Block
- ▬ Manual Track Block
- ▬ Rule 564 or 564 / 509
- ▬ Rule 568
- ▬ Rule 567

**GCOR - Blocking Bars**

- ▬ Track & Time
- ▬ Foul Time
- ▬ Block Over Signal
- ▬ Manual Track Block
- ▬ Track Permit

**NORAC - Blocking Bars**

- ▬ Foul Time
- ▬ Line 4 Track Out of Service
- ▬ Permissive Block
- ▬ Manual Track Block
- ▬ Line 2 Form D Trk Car
- ▬ Line 2 Form D Train
- ▬ Line 5 Form D Obstructed Track

## CN Territories                                                                 **Back to Top**

Territory views sent from the CNR use a different colour scheme than on CP, but in general operate in the same fashion.



CN Sourced Images :

Red in the middle of a signal indicates a blocked signal

Train Tag

445

Green=lined route

Green in the middle of a signal is a clear signal

Yellow=track occupancy (train)