KCS 3rd Subdivision

Dispatch Console Operating Instructions

Console Orientation

The Dispatch Console consists of three screens, from left to right:

- Left screen: System clock (in upper left), interface with 2nd sub (bottom right)
- Center screen: CTC system control (your main screen)
- Right screen: Train Status (top), interface with 4th sub (bottom)

CTC System Orientation (center screen)

Siding name and length

Industry spurs: position is indicated on but not controlled by CTC system

Train number in block. Right-click to set, left-click and drag to move (if in wrong block.)

Gray: Unbonded track or siding

CTC controlled track switch examples. Left-click to change position (normal or reversed). Cannot change if cleared (green) or occupied (red).

Violet: Names of control points. Crews may request local control or track and time here.

Red: Occupied Block. Right-click to set train number.

CTC control point signal: left-click to clear (or revoke clearance), right click for other options such as stacking or fleeting.

Note on Sallisaw: *Sallisaw siding is the shortest siding on your territory, and is considered Yard Limits, so the Sallisaw job does NOT need your authority to occupy that track. It will be tied up often while the Sallisaw job works there. You can request that the Sallisaw job clear up for you, but it is best not to count on using Sallisaw Siding for meets.*

CTC System Operation

Note: "Click" refers to clicking the left button on the computer mouse. "Right-Click" refers to clicking the right button on the computer mouse.

Clearing routes: Click on any signal symbol which is colored white. It will change to green if the signal can be cleared, and the block(s) protected by that signal will turn green. Otherwise (if the next block is occupied or there is another conflict) an error message will come up.

Revoking routes: Sometimes the situation changes and a cleared (green) signal needs to be reset (dropped) to red. If a train is approaching the signal (is in the block adjacent to the signal) you MUST contact the train FIRST before revoking clearance. Otherwise an accident or collision may result. If the train is at least one full block a way, you can revoke the route without contacting the train: the engineer will see an "approach" signal and know that the next signal will be stop (red). To revoke a cleared route: click on the green signal symbol. It will drop to red.

Setting switch positions (also known as "lining switches"): You can only change a switch position if the color of the switch display is white, which means the switch is unoccupied and no route is cleared through the switch. If you wish to operate a switch that has a route cleared through it, you must first revoke the route. When a switch can be moved (it is colored white), click on the switch symbol to line it to the other route.

Setting up meets: Use the Train Status display to get the train lengths, and look at the CTC display to check the siding lengths, and make sure at least one of the meeting trains can fit in the siding.

Granting Track Authority/Local Control. Normally the CTC controlled switches are locked and can only be operated by the dispatcher. When trains work in an area, they need to be able to control those switches. Also they need to be granted "Track & Time" authority in order to make switching moves. Right-click on a given block and select "Grant Track Authority" to grant Track & Time. This will also release the lock on the switches in that block and enable the crew to control them. The track section will turn blue. When the work is done, right-click the same block and select "Remove Track Authority".

Positioning Train Symbols: When a train occupies a block, that block turns red. As trains arrive on your subdivision, or if they leave the controlled portion of your railroad for uncontrolled areas (yards, industry sidings, etc.) and then re-appear on your territory, you will need to indicate which train is in the occupied block. You do that by right-clicking on the occupied (red) block, and selecting "Position Train" from the menu that pops up. There will be a list of trains in the order in which they are scheduled to run (and it won't include trains that have already terminated). Scroll down to and click on the correct train number. The train number should automatically follow the train as it moves across the territory.

Re-Positioning Train Symbols: Sometimes a train symbol won't follow the train as it moves across the territory. This can happen for a variety of reasons. If this happens and a train symbol is in the incorrect block, click on that symbol and HOLD DOWN THE MOUSE. Then, drag the symbol to the correct block, and release the mouse. It is your responsibility to insure that trains are indicated correctly – other train management systems depend on it.

Train Status Use and Operation.

Train number/ symbol

Last siding or work location

Train name or description

Where this train originates

Where the train works

Where the train terminates

Lead locomotive (DCC consist address)

Click this to terminate each train when the crew calls to terminate their run.

Train length (ties to traffic manager, updates as train works)

Crew list and crew assignment dropdown

At the top of the right-most screen is the Train Status Display pictured above. This is your run sheet: it shows all trains scheduled to run across the 3rd sub during your shift, when they are expected to depart from their point of origin on your sub, which towns the trains work (if any), the crew on the train, the length, and other important information. It is all automatic, except, you must assign the crews and terminate trains.

Notes:

Assigning Crews. As crews call in to mark up on trains, it is your job to click in the "Crew" box, which brings up a drop-down box listing all available crew, and then select the name of the crew for that train.

Terminating Trains. As crews call in to complete their runs (or as you note them leaving your territory), click on the row where that train is listed, and then click the Terminate Train button at the bottom of the status window. This will remove the train from the Train Status screen.

Symbol. This is the train number for scheduled trains, or the shorthand symbol for locals ("FSD" for "Fort Smith Dodger" etc.). This identifier appears on the CTC screen and moves with the train.

Station. Each town or control point (sidings, etc.) is identified in the KCS Timetable as a "Station". This box shows the last such control point that the train has passed (last known station).

Time. The time the train actually appeared on your territory (on the CTC screen).

ETD is the time the train is scheduled to depart from the origin point ON YOUR SUB, NOT from origin points in the neighboring 2nd or 4th subs (see "Origin" below: trains with a Shreveport "Origin" will depart from Heavener on your sub around the ETD time; trains with a Pittsburg "origin" should depart from Watts on your sub at around the ETD time.) The ETD is a good guide but the KCS isn't a scheduled railroad and doesn't adhere to a strict timetable.

On Duty. The time at which the crew of this train marked up on duty.

Off Duty. The time the crew of the train relinquished the train and/or went off duty.

Train Name. This is the full name or description of the train, i.e. "Ft. Smith Dodger", "BN Coal Load" etc.

Origin. The location (on OR off your territory) where the train originates or the last crew went on duty. Shreveport LA is the crew change point for the 4th sub (south of your sub) and represents south staging. Trains with an "Origin" of Shreveport will appear on your screen at Page (just south of Heavener). Pittsburg KS is the crew change point for the 2nd sub (north of your sub) and represents north staging. Trains with an "Origin" of Pittsburg will appear on your screen at Watts. See "ETD" above. See "Communicating with Neighboring Dispatchers" later in this manual.

Work. These are the locations (stations – see "Station" above) where each train is scheduled to do work (pickups, setouts, passenger stops, etc.) Abbreviations are used as follows:

- WV: Westville
- ST: Stilwell
- MC: Marble City
- HV: Heavener

Destination. The location (on OR off your territory) where the train terminates. Shreveport LA is the southbound terminating point for the 4th sub (south of your sub) and represents south staging. Trains with a Destination of Shreveport will leave your screen at Page (just south of Heavener). Pittsburg KS is the terminating point for the 2nd sub (north of your sub) and represents north staging. Trains with a Destination of Pittsburg will leave your screen at Watts. See "Communicating with Neighboring Dispatchers" later in this manual.

Direction. This is the direction the train runs over your subdivision. KCS trains are either NB (northbound) or SB (southbound) except Dodgers which turn at some location so are listed as NB/SB. MP trains run EB and WB and only interact with your subdivision at the MP interlocker at Sallisaw.

Engine. This is the lead locomotive used to identify the train. It is also the address the crew needs to dial up on the throttle to control the locomotive consist.

Length. Note that the sample display shows lengths of "0" above. During an actual shift, the lengths will be pulled from the Traffic Management System and will automatically update as trains pick up and drop off cars.

Communicating with Neighboring Dispatchers

In 1982 the KCS dispatch center was located in Shreveport, LA. To reduce noise and ambiguity, you communicate with the neighboring dispatch consoles by sending train information directly to their consoles. Conversely, you receive train information from your neighboring dispatchers in the same way. There are two dispatch consoles adjacent to yours: the 2nd sub to your left, which controls train movements to your north (between Watts, OK and Pittsburg, KS), and the 4th sub to your right, which controls train movements to your south (between Heavener, OK and Shreveport, LA).

Positioning Trains on your CTC Display (accepting trains).
You will hear a bell when a train arrives in a block in your subdivision from an adjacent subdivision. You can look at the neighboring dispatcher's screen to see the train number that is arriving. Then right-click on the same block on your own (center) CTC screen (see "CTC System Operation"). When the popup menu comes up, choose "Position Train", then select the matching train from the menu (trains appear in order of scheduled departure).

Sending trains to neighboring subdivisions.
When sending a train to a neighboring dispatcher, check to see if that dispatcher's screen is showing the correct train number. If not, right-click on the red occupied block on that dispatcher's screen, select "assign train" from the menu that comes up, then pick the correct train number. Be sure and click the left-facing arrow for NB (left-heading) or the right-facing arrow for SB (right-heading) trains. Finally click "Ok". If you did this correctly, you'll see the train number on that dispatcher's screen.

Specifics when working with the 2nd sub dispatcher.
Watts has two main tracks set up for right-hand directional running. The 2nd sub dispatcher will send you trains on the SB (bottom) main without any advance notice. You will hear a bell when a new train arrives in the south-most Watts block. You can then assign that train to the same block on your CTC screen using the method described above (look at the left-most, 2nd sub, screen to get the train number). When sending trains to the 2nd sub, always line them to the top (northbound) block, and make sure that the correct number shows up on that track on the 2nd sub dispatcher's screen (see "Sending trains" above.)

When sending trains to the 2nd sub, make sure the correct train number appears here. If not, right-click on this rectangle, and select "Assign Train". Then choose the correct train number, click the left facing direction arrow and then click "OK".
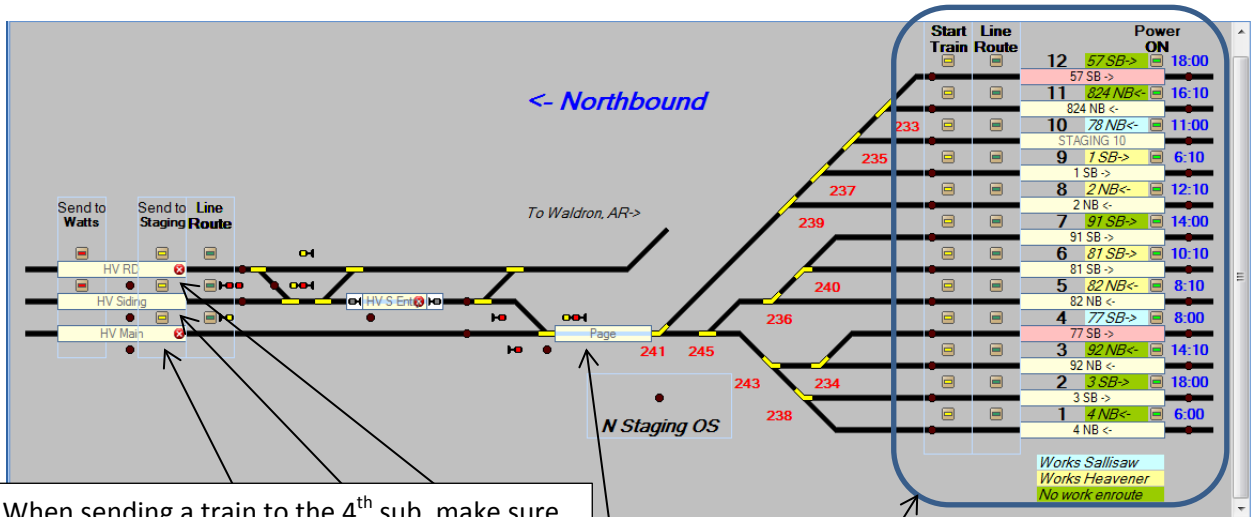
Staged trains and staging yard controls (generally the dispatcher needn't be concerned with this – see Appendix for info).

Here is where you can see trains entering your sub from the 2nd sub. Assign these trains to your CTC display so you can track them (see "CTC System Operation".)

Specifics of working with the 4th sub dispatcher.

There is no passing siding between the 4th sub and Heavener Yard, so the 4th sub dispatcher will contact you on the radio before clearing trains to Page. If you accept the train, it will appear in Page on your right-most screen. Set the train number in Page on your CTC display to the same number as shown on the 4th sub screen (see "Positioning Trains on your CTC Display" above). Likewise, when sending trains to the 4th sub, don't wait until they get to Page or the 4th sub dispatcher won't be able to correctly route the train. Rather, make sure that the corresponding track in Heavener on the 4th sub dispatcher's screen (the right-most screen) has the correct train number showing. If not, use the procedure outlined above to set the train number for the appropriate track in Heavener yard. Next simply clear the signal south out of Heavener and the train should depart.

When sending a train to the 4th sub, make sure the correct train number appears on the correct track here. If not, right-click on this rectangle, and select "Assign Train". Then choose the correct train number, click the right facing direction arrow and then click "OK".

Staged trains and staging yard controls (generally the dispatcher needn't be concerned with this – see Appendix for info).

Here is where you will first see trains entering your sub from the 4th sub. Assign these trains to your CTC display so you can track them (see "CTC System Operation".)

Appendix: Advanced Operations

The staging yard and trackage at each end of the layout (representing the 2nd and 4th subs) is mostly automated and is controlled by Railroad & Co.'s "Train Controller" software. Our eventual plans are to move this to JMRI automation and better incorporate this all into the main CTC display for simplicity. In the meantime, for those interested, here is the full low-down on the controls you see for the two "neighboring dispatcher" displays. This is presented for reference purposes: you do not need to know any of this to successfully dispatch the KCS 3rd Sub.

The 2nd sub interface screen is shown below as an example. Functions are identical for the 4th sub screen.

Indicates the train number normally assigned to the track below, and it's direction of travel. Green: no work. Yellow: works Heavener. Blue: works Sallisaw.

The green buttons turn the power on to the track below.

Train block. Shows red when occupied and track power is on. Gives the symbol of the train in the block, if any.

If a train is stuck or stalled in this block, and the correct train number is shown in the block, click this to send that train to staging. If no train number, or the wrong train number is here, use the "Assign Train" procedure described in this manual to place the correct train in the block.

Push this button to set all the switches to line a route to or from this track.

Push this button to automatically send the train on this track South to Watts.

Switch numbers (DCC turnout addresses).

Suggested departure times for each train (*subject to change: train status screen overrides this*).

If a train or equipment occupies ANY of the switches in the staging yard ladder, this indicator turns red (and the switches cannot be thrown).

Switch symbol. Shows current switch position. Click to toggle (throw) the switch.

Signal: displays the true aspect of signal in the field (on the layout).