Signaller Operations Guide

Version 2.0.0

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Mainline signals in SCR have 2, 3 or 4 aspects. These are known as **Danger**, **Caution**, **Preliminary Caution**, and **Proceed**. These work on a 'block' based system. In short, one train in one block at one time.

Danger

The Driver must stop. The block ahead is either occupied by another train or being controlled by a Signaller and could be about to be occupied by another train.

Caution

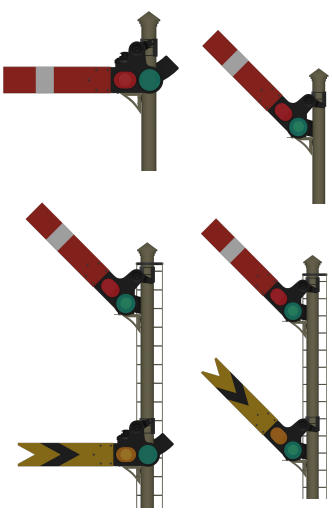
The Driver should be ready to stop at the next signal as it may be at Danger. To ensure they are able to stop they should go no faster than 45 MPH.

Preliminary Caution

Often used at higher line speeds where Drivers may need longer to slow down. Preliminary Caution gives advance notice that the next signal is displaying a Caution aspect allowing Drivers to slow down smoothly.

Proceed

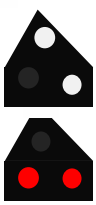
The line ahead is clear and the Driver may proceed at the line speed. It can be assumed that the next signal will show either a Proceed or Cautionary aspect.



Semaphore Signals

Semaphore signals can only display 3 aspects.

Danger - all arms are horizontal.
Caution - requires the yellow arm to be present and for it to be horizontal with the red arm raised.
Proceed - all arms raised.



Shunt Signal

These signals are only found on depots and sidings.
Two diagonal white lights = Proceed.
Two horizontal red lights = Danger.

Glossary of Terms

AWS (Automatic Warning System): *Used to give a warning sound to the driver if there is a significant drop in the line speed or the next signal is at an aspect other than Proceed.*

TPWS (Train Protection Warning System): *Used to stop trains after passing the signal at danger in order to prevent an accident.*

TRTS (Train Ready To Start): *Used for communication between Signallers and Dispatchers to be alerted when the train is ready to depart.*

Rollback: Used to describe signals that automatically revert to their previous manual state after no longer occupied.

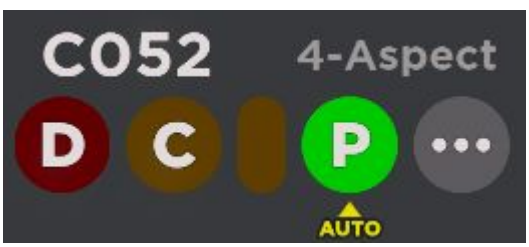
The Signalling System

When you first take control of a desk, check where all trains are and where they are going. **You must not revert a signal to Danger in front of a train unless it is at least three blocks away so the train has plenty of time to stop and not SPAD.** If there is a train at a station, allow it depart before changing the signal.

Points and Signals

To change a signal, select it on the screen and a box will show up (example right).

Click the required button (or use hotkeys on keyboard) to change.



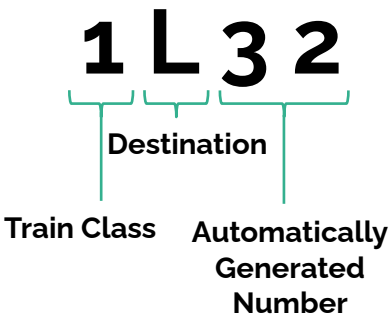
Proceed: When "P" is selected, the aspect will change to green. *Shortcut: [3]*
Caution: When "C" is selected, the aspect will change to yellow. *Shortcut: [2]*
Danger: When "D" is selected, the aspect will change to red. Shortcut: [1]

Auto represents what state that signal would currently be at under automatic control. Points are controlled automatically by the train's destination - you only have to control signals and give trains the right priority.

Train Describer Block

This indicates the position of a train on the network, either passing or waiting to pass a signal, or in a station. If the train is waiting, set the signal to clear as soon as you can so it can proceed. Use the headcode to influence your decision when choosing which train to go first, with reference to the priorities list.

To identify a train, 'headcodes' are used. These contain information about the type of service (priority) and the destination. It is used to help signallers to prepare the route to ensure smooth running for this service.

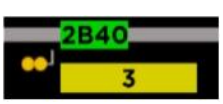


1Xxx	Semi-fast service
2Xxx	Stopping service
3Xxx	Empty Coaching Stock
9Xxx	High priority service

A Airport Central	**H** Newry Harbour	**O** Connolly	**T** Leighton City
B Benton	**I** St. Helens Bridge	**P** Port Benton*	**U** Stepford UFC
C Beechley	**J** Farleigh	**P** Airport Parkway*	**V** Stepford Victoria
D Willowfield	**K** Leighton West	**Q** Esterfield	**W** Westwyvern
E Edgemead	**L** Llyn-by-the-Sea	**R** L. Stepford Road*	**X** Airport Terminal 2
F Whitefield	**M** Morganstown	**R** Rayleigh Bay*	**Y** Berrily
G Greenslade	**N** Newry	**S** Stepford Central	**Z** Airport Terminal 3

Train Reporting
In addition to the train describer block, when trains are in stations, the platforms change colour depending on the status of the train/dispatch process:

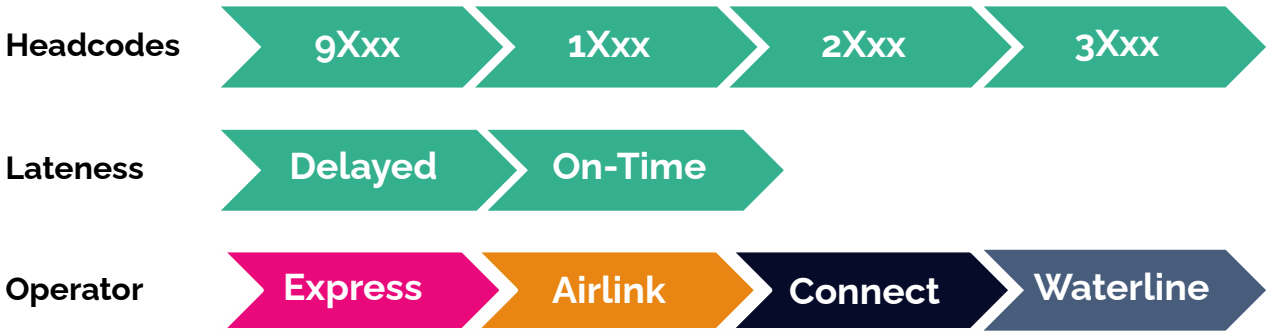
White: Loading passengers



Yellow: Train Ready to Start (TRTS)
The train has loaded and is ready to leave. You should set their path to depart.

Red: The train has been waiting at the platform for over 30 seconds to be cleared.

Signallers have responsibility to keep trains on time in order for everything to run as efficiently as possible. If a delayed train causes delay to other trains, it may get priority. You must give priority to the correct trains and not cause further delay. Trains should be prioritised in SCR as follows:



Services on the mainline always take priority over trains coming off depot.

Example Scenarios

There are trains present at Stepford East Platform 1 & 2. Platform 1 is a **2TXx service** operating at **1 minute** behind schedule. Platform 2 is a **2LXx service** operating **2 minutes** behind schedule. If both trains are ready to depart, which should be cleared first?

The **2LXx service** operating 2 minute behind schedule should be **cleared out of the station first**. Following the priority map above (Headcodes > Lateness > Operator).

1PXx approaches the Benton Crossover while **2BXx** sits at Port Benton not showing TRTS and a **1SXx** express service approaches the same crossover. Which order should services be sent through **assuming all are on time**?

1Sxx being an express service will have the **highest priority** and should be sent first through the crossover. As 2BXx has not yet shown TRTS it will likely have to wait for 1Pxx to terminate.

2DXx approaches the Beechley Triangle **from Financial Quarter** while **1FXx** approaches the junction **from Beechley** and **2VXx** approaches the junction **from City Hospital**. All services are on time.

All trains can clear the junction at the same time as their paths do not conflict. When determining when a path conflicts, you need to look at what signals it sends the trains in front of. If the path is conflicting then you will need to determine which goes first based on priority and position like in the above scenarios.

If you are ever in doubt, don't be afraid to ask somebody.

Sometimes while signalling you may find yourself in a situation where to better reduce delays you may need to go **against** the priority order present on the previous page. This should only be done in certain situations and is recommended for **experienced** signallers only.

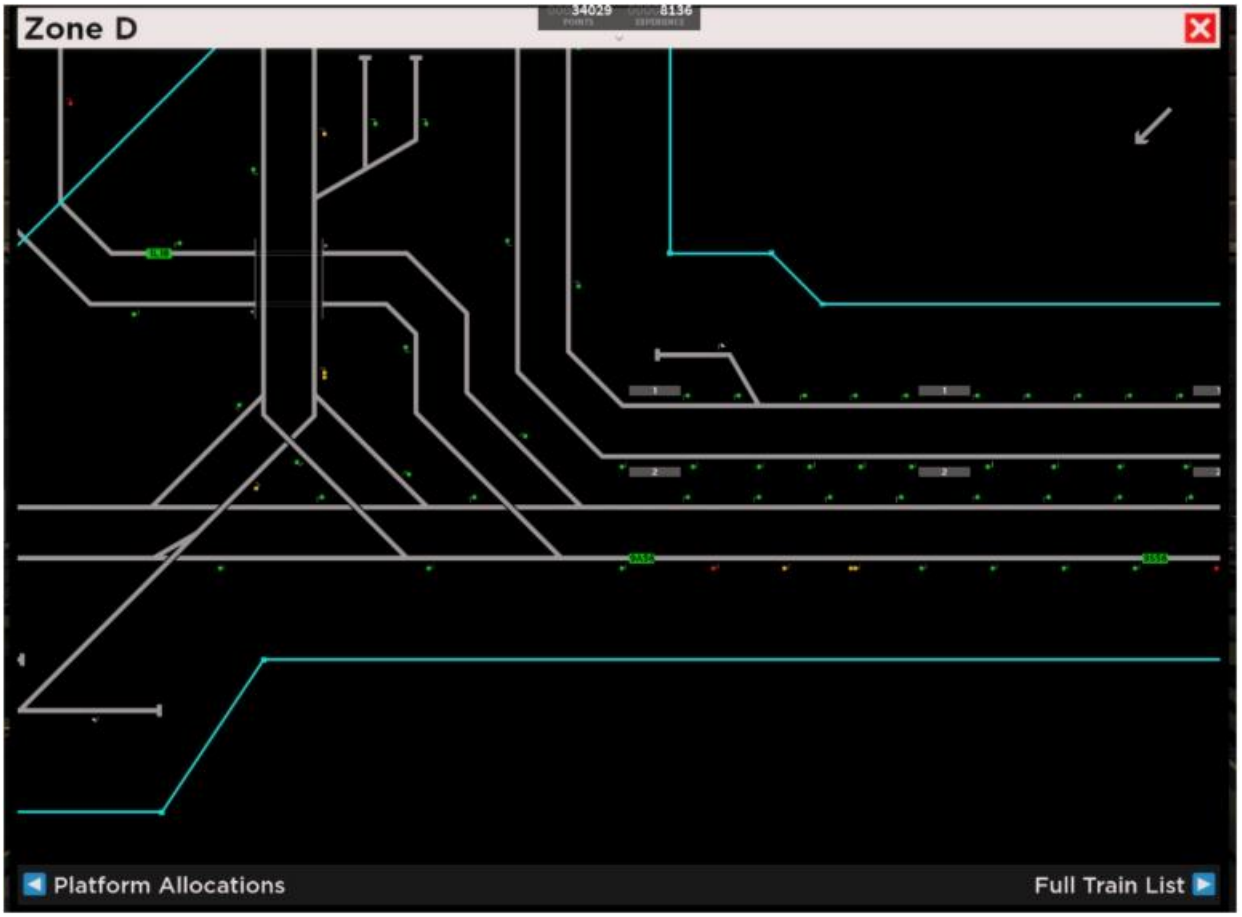
.**Example Scenario**

9P02 and 1S12 are ready to depart at the same time at Stepford Airport Central. Meanwhile, **9P01** has just arrived at Stepford Airport Parkway and has terminated. In what order should these trains be cleared out of Airport Central?	Normally, you'd send out **9P02** first before 1S12 (due to headcode priority). However, since there is only one terminating platform at Airport Parkway (which is currently occupied), it would make more sense to clear **1S12** out of the station first. **9P02** would be stuck waiting for **9P01** to turn around and depart Airport Parkway which would cause delays.
9W00 is driving route R082 and **9L04 is driving route R081**. Both trains are present at Stepford Central and will be ready to depart at the same time. **9W00 is 3 minutes late** while **9L04 is on time**. Which train should be cleared first and why?	Normally, you'd send out **9W00** first before 9L04 (due to lateness priority). However, due to the route(s) service pattern it would make more sense to clear **9L04** first. **R082** stops at Elsemere Junction and Morganstown while **R081** only stops at Leighton City before Llyn. Sending out 9W00 first will just add more delay to 9L04, potentially making the service more than 3 minutes late.

If you are ever in doubt, don't be afraid to ask somebody.

Network Control Panel

The centre screen is the "Network Panel" which shows the entire network as well as the desk's specific zone. The area of control for each zone, including signals and platforms, is displayed by a blue outline. You are not able to control signals outside of the blue outline, as they are not located in your zone.



Clicking on a Platform Shows:
- Station Name
- Platform Number
- Platform Camera
- State: Driver Only, Dispatcher Active, Dispatcher + Guard Active

Clicking on a Headcode shows:
- Train Destination
- Current Status: On Time or Delay
- Operator & Rolling Stock
- Next Stop

The color of each headcode changes depending on the level of delay. Services that are operating on schedule are **green**, while services falling behind schedule (with a delay from 1 to 4 minutes) are **yellow**. Services that are semi delayed (between 5 to 9 minutes) are **orange** with **red** representing a service that is severely delayed (10+ minutes)

*Clicking on a signal gives you the option to change its status. **Not** all signals are **controllable**. Clicking the three dots opens an information panel (image to your right).*

A train that passed a signal at danger (SPAD) or did not react to the AWS alert in time will have a red border around its headcode.

Rollback Toggle

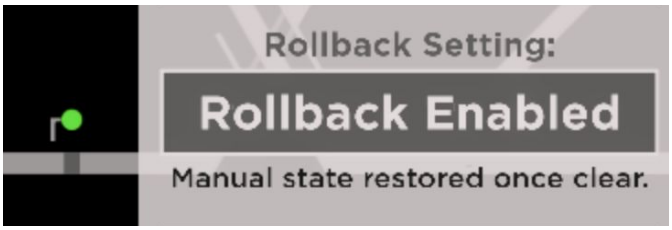
The Rollback Setting toggle gives you more flexibility with how you set up and control your desk. This feature can help you customize your signalling experience so it works best for you, giving you some additional flexibility within the current set of signalling protocol.

Every time you log onto a zone, the map will load the **default** rollback preferences.

Clicking on the 3 dots and opening the information panel gives you the ability to change the rollback setting. Simply **click** on the Rollback Enabled/Disabled box to change the preference set for that signal.

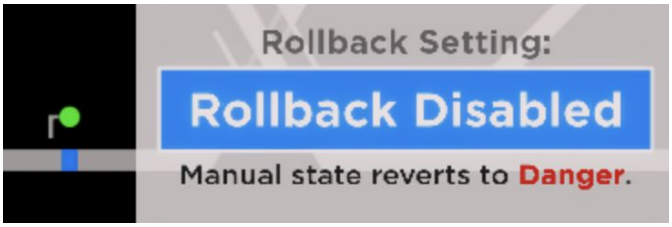
When a signal has **Rollback Enabled**, the signal will return to its previous manual state after occupied. This means that the signal will **not remain** at a Danger aspect once the block is no longer occupied.

Signals with rollback enabled are indicated with a gray line present next to the signal.



When a signal has **Rollback Disabled**, the signal will not return to its previous manual state after occupied. This means that the signal **will remain** at Danger after the block has been occupied.

Signals with rollback disabled are indicated with a blue line present next to the signal.

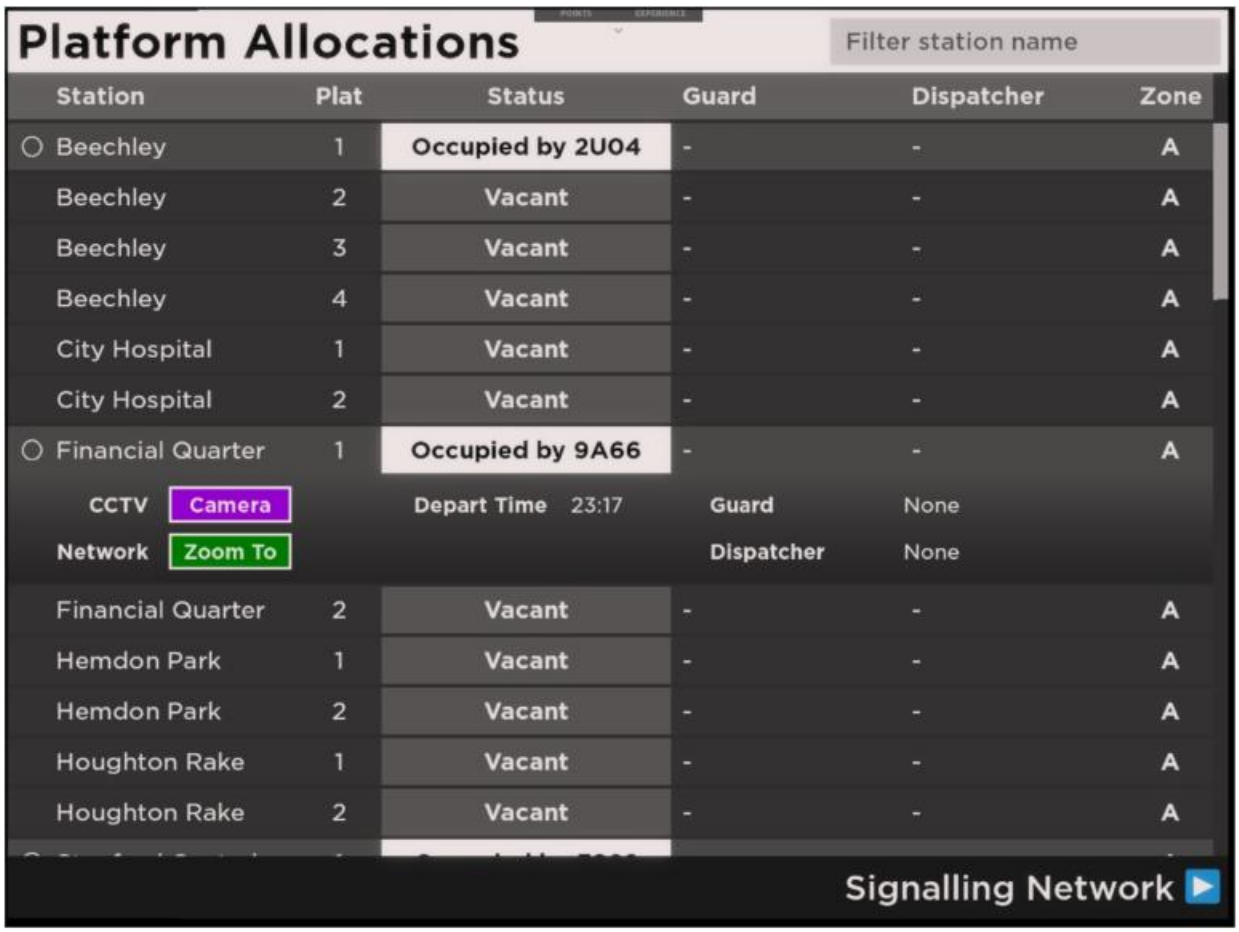


Keep in mind that rollback is only togglable for signals that can be manually controlled on your panel.

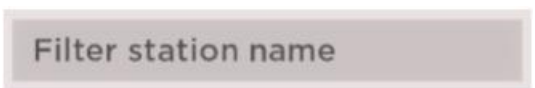
Platform Allocations Panel

The left screen or "Platform Allocations Panel" shows all stations/platforms in the zone you are controlling. There is a plethora of information available, including current occupancy of each platform and when occupied by a train, the name of the Guard and/or Dispatcher.

When a row is selected (as shown at Financial Quarter), additional information is available, including options to use CCTV or view the platform on the network map.



When a train is in the platform, the status will show as "Occupied", changing to "Ready to Start" once the train is ready to leave.



If the list is too long, you can filter by station name for ease and efficiency.

Full Train List Panel

The right screen is the "Full Train List Panel" which shows trains operating across the entire network as well as the desk's specific zone. This includes information such as Headcode, Next stop, Status, Destination, Driver, Guard and Zone.

Selecting a specific train will display information such as destination, current status or delay, rolling stock, Guard's name (if applicable) and operator.

To simplify the list to only show trains in your zone, tick the box in the top right.

Supervisor Desks

There are three Supervisor Desks situated across the network. Two are located in the upper level of the Stepford ROC with the third at Benton Signal Box.

These desks enable the supervision of the Signaller's desks. There is currently no rule enforced for their use but it is advised to avoid going onto Supervisor Desks when you are in the Signaller role.

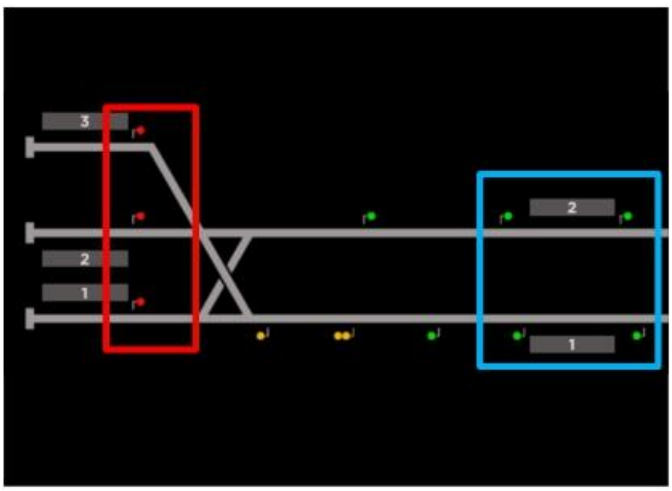
Action	Keyboard/Mouse	Gamepad	Mobile
Adjust Network Plan	Left / Middle Mouse Button	Right Stick	Pan
Shift Network Pan Left	A, Left	N/A	N/A
Shift Network Pan Right	D, Right	N/A	N/A
Shift Network Pan Up	W, Up	N/A	N/A
Shift Network Pan Down	S, Down	N/A	N/A
Slower Pan Speed	Shift (hold)	N/A	N/A
Scroll Network Horizontally	Shift + Mouse wheel	N/A	N/A
Scroll Network Vertically	Mouse Wheel	N/A	N/A
Reset Network Pan	V	RS	N/A
Adjust Network Zoom	CTRL + Mouse Wheel	N/A	Pinch
Snap Network Zoom in	I, CTRL + =	RT	N/A
Snap Network Zoom Out	O, CTRL + -	LT	N/A
Flip CCTV View	R, GUI	RB	GUI
Previous Display	PageUP CTRL + A, CTRL + Left, GUI	D Pad Left	GUI
Next Display	PageDown, CTRL + D, CTRL + Right, GUI	D Pad Right	GUI
Show Platform List Display	Home, CTRL + PageUp, CTRL + Up	D Pad Up	N/A
Show Train List Display	End, CTRL + PageDown, CTRL + Down	D Pad Down	N/A

Action	Keyboard/Mouse	Gamepad	Mobile
Toggle Gamepad Selection	N/A	Select	N/A
Toggle Signal/Platform Selection Mode	N/A	RB, LB	N/A
Set Signal to Danger	1, Num 1, GUI	GUI	GUI
Set Signal to Caution	2, Num 2, GUI	GUI	GUI
Set Signal to Proceed	3, Num 3, GUI	GUI	GUI
Open Signal Panel	Enter, Return, Space, GUI	GUI	GUI
Deselect Object Close Signal Panel Leave CCTV Leave Desk	Delete, Backspace, GUI	B	GUI

When setting up your desk, check where all trains are running, ensure that they are flowing smoothly and not too late in terms of punctuality. Next, you may set up the stations, junctions and depots, as shown in the picture.

You no longer need to set a station's platform signals to Danger unless there is a junction/crossover ahead in the next block.

Example:



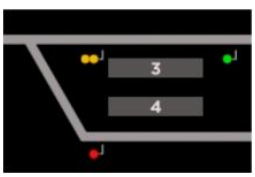
Blue Box
These platforms signals don't need to be set to danger there are no junctions/crossovers ahead.

Red Box
These platform signals need to be set to Danger because there is a junction/crossover ahead. You can change to a Proceed aspect when a train is ready to depart and there is no other train in next block ahead.

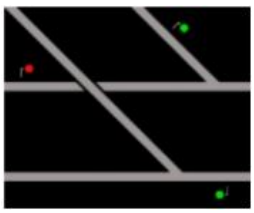
Junctions and Crossovers
At least one of the signals that merges two or more tracks into one can be set to proceed. You cannot allow more than one train to enter the same signalling block. When you have two or more trains waiting to enter the same block, you must follow correct headcode priority as per the previous page.

Handling Junctions
Here are the few techniques you can use when handling junctions:

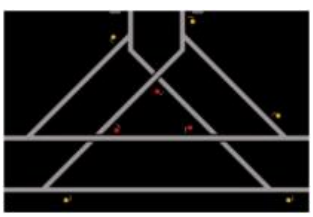
- Have as least one signal set to danger. Set to proceed when train approaches the signal.
- Have a busier line on caution and other line on danger. When a train approaches the danger signal, change the caution signal on the other line to danger and then open the line for the train.
- With the current signalling system, if you know the path of the train won't conflict with another train, you can set the signals accordingly.



Two Tracks Merge to One



Two Track Crossover



Triangular Junction

Zone	Located	Coverage
A	Stepford ROC	Stepford City & Whitefield Branch
B	Beaulieu Park	St Helens Bridge <> Coxly/Beaulieu Park
C	Airport Central ROC	Stepford Airport Area (inc. Airport West)
D	Stepford ROC	Morganstown <> Leighton West
E	Llyn-by-the-Sea	Edgemead <> Llyn-by-the-Sea
F	Benton Signal Box	Benton & WL (excl. MGT. AW <> Esterfield)
G	Stepford ROC	James Street <> Esterfield
H	Rayleigh Bay	Rayleigh Bay Branch

In order to ensure SCR is fun for all players, it is important to note that your role should not be abused. Please ensure you follow all of the rules prescribed below.

- Follow all instructions given to you by Supervisors and above.
- Follow all guidelines, techniques and advice.
- Follow the priorities rule and do not allow trains to leave in the wrong order.
- Admin abuse is not allowed.
- **Use common sense, not all rules will be posted here.**

Full details of the strike matrix are included on the next page.

- Three warnings will result in a strike. Three strikes will result in demotion.
- Demotion to Guard, Dispatcher or Qualified Driver will be determined based on the reasons for your strike/demotion.
- You can leave the SCR Discord once you are fully SG qualified, however using commands is not allowed and can result in a demotion.
- Warnings expire in 3 months, Strikes will expire in 6 months

Rules are applicable to different roles: DS GD SG

WARNING	STRIKE
Small error/mistake	Admin abuse (instant demotion)
Poor signals / communication	No understanding of TRTS (instant demotion)
Being in role with no intention to do the job	Causing major delays
Dispatching trains in wrong order (priorities)	Trespassing / Parkour (whilst on or off duty)
Facing wrong way	Deliberately holding a train without having a reason
Platform parkour/dance-patching	Train surfing
Moving during DS animation	Disrespect to Supervisors/above
Stood at wrong coach	Abusive behaviour/trolling
Not checking doors are closed	Out of station
Not facing a Dispatcher	Riding trains
Standing away from the train unnecessarily	Attempting to derail trains
Causing minor delays	Wrong platform
Giving priority to the wrong trains	Out of station whilst on duty
	Gantry climbing
	Dispatch against a red (danger)
	Misusing the signalling desk
	Mute/Kick without evidence or permission

SCR

The Signaller Managers and our team of Senior Signallers hope you found this booklet useful.

If you are new Trainee Signaller, we wish you luck for your assessment and look forward to seeing you signalling on the Stepford Network.

Driver Handbook	Click Here
Dispatcher Handbook	Click Here
Guard Handbook	Click Here
Signaller Setup Guide	Click Here
Points/XP Per Route	Click Here