UK-King's Cross

Background and Description:

A contributor named SMG4 submitted this railway several years ago but publication awaited a timetable. Unfortunately no timetable was submitted so it was left for a long time gathering dust. It was a detailed and impressive layout so on rediscovering it recently it seemed appropriate to resurrect and update it in line with the current track layout, and develop a timetable for it.

The railway includes the lines from King's Cross and Moorgate in the south to Biggleswade on the East Coast Main Line and Royston on the Cambridge Branch, a distance of over 40 miles in all.

The timetable corresponds to the 2021 summer working timetable (courtesy www.realtimetrains.co.uk) and includes all King's Cross and Moorgate services from just before 6:00am to after 2:00pm. Excluded so far are freight and services that avoid King's Cross or Moorgate, notably those running via St Pancras and Thameslink. These may be added at a later date.

Operation is quite intense most of the time - it isn't a railway for the faint-hearted! There are few opportunities for speeding up operation, and 1/2x speed and even 1/4x are required at especially busy times. The 'Actions due' panel is essential for keeping on top of movements. Operating a railway with such heavy traffic certainly makes you appreciate the intricate work of real-world timetable planners!

Operation:

Outline diagram:
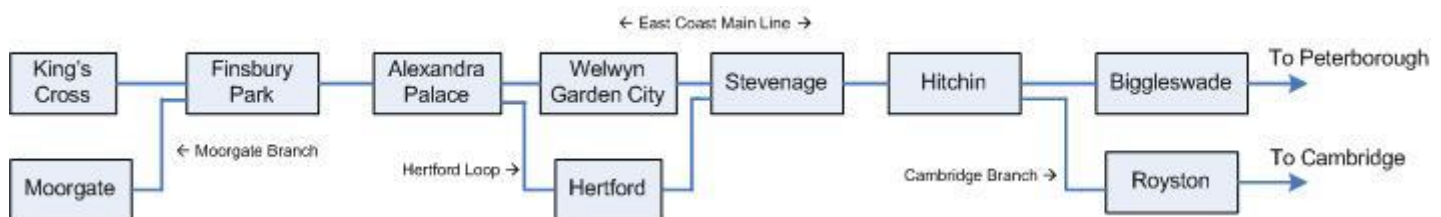
It is recommended to begin with the supplied session with all necessary routes already set. This gives a three minute grace period before any train is at risk of delay, though it's best to start setting additional routes as soon as possible to avoid having to rush later on.

Signals should be located on the left hand side of the track.

Points to note for smooth operation:

- Take care with trains approaching King's Cross. All trains indicate the required platform in the description - keep train information turned on. Note the required platform in good time and route the train accordingly. The Up Fast line can reach any platform but it's best to use it only for platforms 0 - 6 to avoid obstructing other arriving or departing trains. The Up Slow can only reach platforms 7 - 10 and should be used for these platforms.

- Before setting routes into or out of King's Cross check that the points are set appropriately and correct any that aren't to avoid holding up other trains. This also applies to a lesser extent at other locations to avoid trains looping to an adjacent line and back unnecessarily.

- Check King's Cross arrival times for approaching trains. There is often time for them to be held to allow departing trains to pass first or to allow another train to arrive first even though it approaches later.

- In general use fast lines for trains that cover long distances before needing to stop, switching them to and from slow lines according to their future stopping pattern (see detailed service information below). However before switching a train to a fast line check for slower or stopping trains in front that might hold it up - it is sometimes useful to route a fast train temporarily to a slow line to pass a slower train.

- Trains that are scheduled to pass a location must use a line with a platform at that location or the pass will be missed.

- Trains bound for Cambridge must use the Down Slow line at Hitchin.

- Where platforms are shown, other than at King's Cross, only the lowest and highest numbers are labelled. Other platform numbers increase in order from lowest to highest.

- Trains bound for the Hertford Loop must use platform 4 at Alexandra Palace.

- Except when there is ample time for a slow train to get clear allow faster trains priority at the short two-track section at Welwyn North.

- Northbound Moorgate trains normally use platform 8 at Finsbury Park, exceptionally using platform 7.

- Trains that reverse at Welwyn Garden City should normally use platform 4, or exceptionally platform 3.

- Trains that reverse at Hertford North should use platform 3.

- Trains that reverse at Stevenage should use platform 5.

Detailed Service Routing Information: (bearing in mind the above 'points to note')

UF = Up Fast; US = Up Slow; US1 = Up Slow 1; US2 = Up Slow 2
DF = Down Fast; DS = Down Slow; DS1 = Down Slow 1; DS2 = Down Slow 2;
KC = King's Cross; XX = any two digits

Feeder Services:
      Normal feeder headcodes begin with number 5 and start from various depots and sidings. Note the stopping pattern and route so as to avoid interference with other traffic as far as possible. In particular note final arrival times as these are often quite generous allowing them to be held back to await earlier arrivals.
      Two light engine runs are included, 0P03 and 0P04.
      0P03 (enters at 09:46) takes a quite complex route, running from Bounds Green Depot to King's Cross, reversing then running to Stevenage via Ferme Park Sidings and the Hertford Loop, reversing again then back to Bounds Green Depot again via the Hertford Loop.
      0P04 (enters at 13:46) in reality makes the same run as 0P03, but as this simulation ends after 14:00 it only runs to King's Cross and then remains there.

Finishing Services:
      All these apart from 3D12 have headcodes beginning with number 5 and run to various depots and sidings. Note the stopping and passing pattern for each (some of which are quite complex) and route accordingly, avoiding interference as far as possible with other traffic.
      3D12 is an empty stock train that runs from and back to Kings Cross via Finsbury Park Waiting Area and Bowes Park Reversing Siding.

Long distance main line services from KC:
      1P02 DF until before Hitchin then DS to exit
      1P06 DF until after Knebworth then DF or DS at Stevenage but DS before Hitchin to exit
      Others DF to exit (possible DS at Stevenage if service stops there and a non-stop service following)

Long distance main line services to KC:
      All UF to KC approach (possible US at Stevenage if service stops there and a non-stop service following)

KC to Stevenage, Letchworth & Cambridge:
      2CXX & 2R14 DF to just before Potters Bar then DS to Hitchin then leave main line for the Cambridge Branch
      1C04 DF to just before Hitchin then DS and leave main line for the Cambridge Branch

From Cambridge & Letchworth to KC:
      2CXX, 2R03 & 2R33 US after joining from Letchworth as far as Potters Bar then UF to KC approach
      1C03 UF after Hitchin to KC approach

KC to King's Lynn & Ely:

    1TXX DF to just before Hitchin then DS and leave main line for the Cambridge Branch

King's Lynn & Ely to KC:

    1TXX UF after joining from Letchworth to KC approach

Moorgate to Hertford & Stevenage:

    2FXX Down Moorgate to Finsbury Park platform 8 then DS1 switching to DS2 just before to Alexandra Palace then Hertford Loop to Stevenage platform 5 (services reverse here to form 2JXX services back to Moorgate).

    2BXX Down Moorgate to Finsbury Park platform 8 then DS1 switching to DS2 just before to Alexandra Palace then Hertford Loop to Hertford North platform 3 (services reverse here to form 2JXX services back to Moorgate).

Stevenage & Hertford to Moorgate:

    2J12 forms from feeder 5J12 from Letchworth, takes US to Stevenage platform 1 then runs to Alexandra Palace via Hertford Loop, then US1 to Finsbury Park platform 1 or 2 and takes Moorgate Branch to Moorgate.

    Other 2JXX services form from 2FXX & 2BXX at Stevenage & Hertford North respectively, run via Hertford Loop to Alexandra Palace, then US1 to Finsbury Park platform 1 or 2 and take Moorgate Branch to Moorgate.

Moorgate to Welwyn Garden City:

    2VXX Down Moorgate to Finsbury Park platform 8 then DS to Welwyn Garden City platform 4 (services reverse here to form 2KXX services back to Moorgate).

Welwyn Garden City & Finsbury Park to Moorgate:

    2KXX form from 2VXX at Welwyn Garden City platform 4, take US to Finsbury Park platform 1 or 2 and take Moorgate Branch to Moorgate.

Further Development:

The railway is available for development on the GitHub Development site at

https://github.com/Railway-Op-Sim/UK-KingsCross. Both the railway and timetable can be extended; services via St Pancras and Thameslink are currently omitted as are freight services, so these are good candidates for inclusion.

Anyone wishing to contribute but unfamiliar with GitHub should leave a message on Discord in the 'project-talk' channel and help will be provided.

Credits:

SMG4 original railway build

Real Time Trains (realtimetrains.co.uk)

London North Eastern Sectional Appendix June 2021