London Underground – A Simulation Study: Step 3

The signalling structure has been implemented by attaching to every network node a resource which is accessible via the method **`getResource()`** and adding the request and release of resources in the **`process()`** method of the class Train.

A signalling block consists of the track upto a station and within the station. When a train is moving towards a station or is stationary in the station it holds a lock on the resource of that station. A train will only start moving out of a station once it has secured the lock on the next station. When the train has moved a few seconds out of a station, it releases the lock on the station.

Note that until now the behaviour of the system is deterministic. Multiple runs produce identical traces without resolving to random seed values.

Changes in v3:

- Inherits changes to v3 from step 2
- The Resource is stored in a variable resource and is now accessible via the method **`getResource().`**

Changes in v4:

- Inherits changes to v4 from step 2