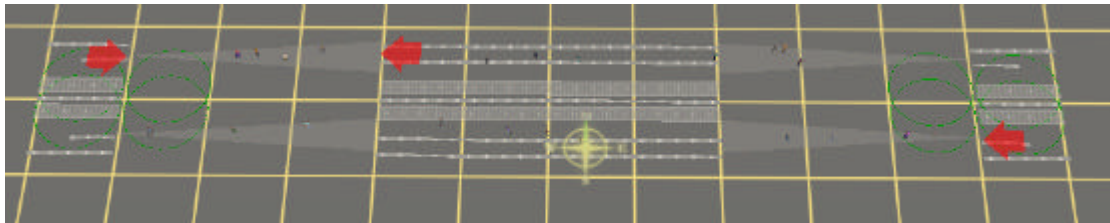


## Getting Started

Follow the sequence below to get a twin track station up and running.

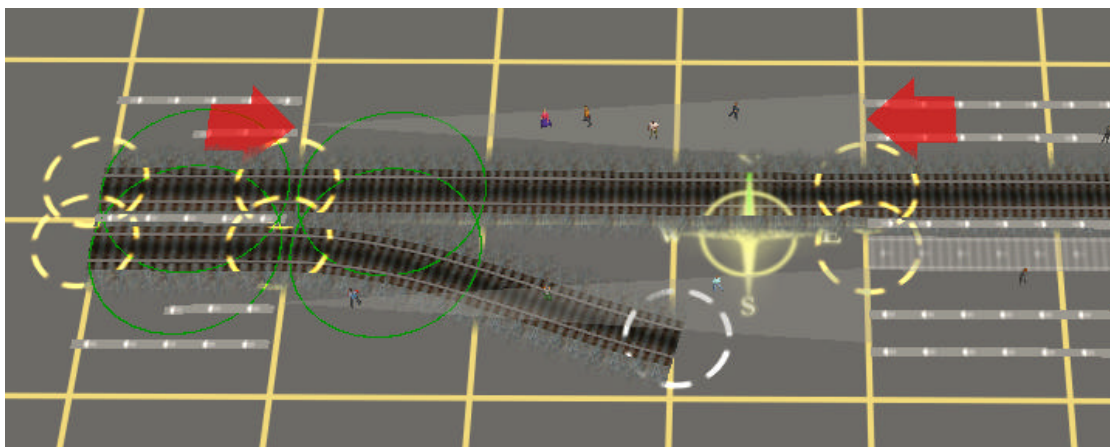
Place a Station Template component (red arrow denotes Platform 1) and two Ramp Templates (rotate so that the red arrows point to the Station Template)



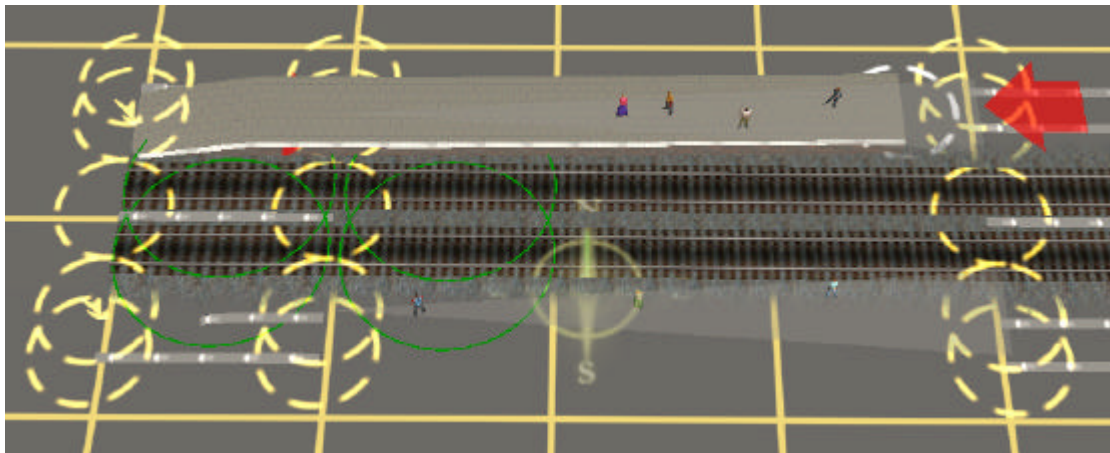
Make sure that the green circles do not overlap



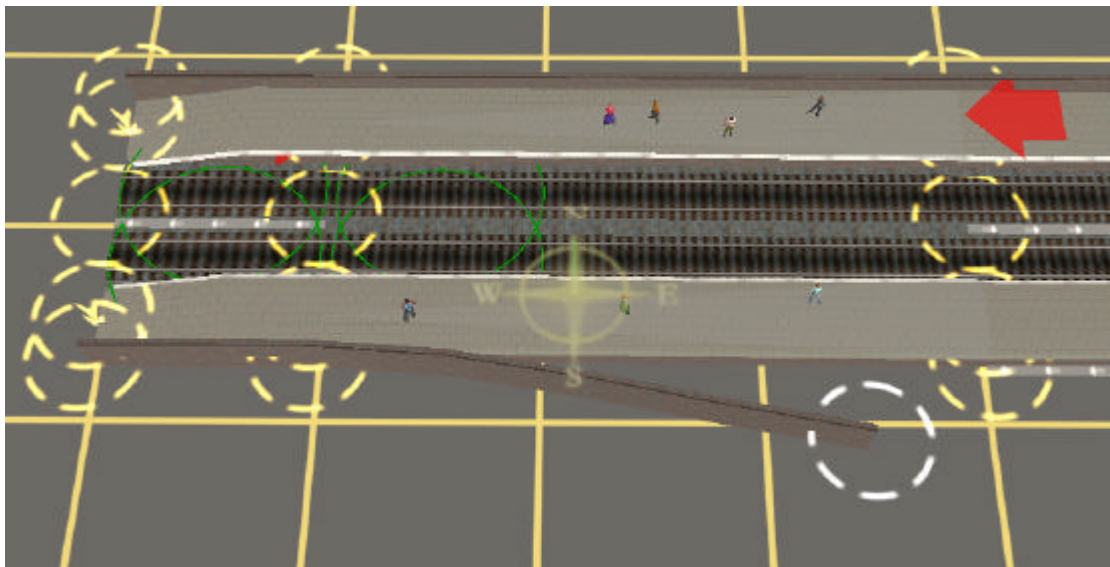
Attach tracks to the track splines, the built in splines will update to match.



Moving outwards from the tracks, attach platforms to the next set of splines. Again the splines will update and ramps will be formed automatically.



Finally add perimeter walls to the outermost markers.



### Capabilities

The station kit can be used to create stations which are partially spline based and of varying sizes and configurations. The stations can be constructed with or without SP2 passenger capability. The addition of SP2 features restricts but does not remove the geometrical flexibility of the system. Stations can be flush with the adjacent terrain, at normal platform height, elevated on piers or viaducts or subsurface. AJS Tunnel Kit portals are closely integrated and can be used as station entrance portals. The kit includes glazed roof components and the ramps and portals can be configured to control camera angle and to turn off rain and snow if the station is roofed.

All of the platform templates use surveyor-only invisible track as placeholders for paving, walls and so on. As long as the invisible tracks are not updated (by attaching spline components) the templates will be invisible in the Driver module except for passengers and short lengths of track. In this case you can use them as a basis for your own scenery items, the fact that the displayed track length is less than the

effective length of the active platform and that passenger height and placement can be edited in place makes them particularly flexible for this use.

## COMPONENTS

### Component Location

Most components will be found under AJS/Station Kit in the menu location listed below. Where this is not the case the menu address will be given in the list.

### Platform Templates [F3/Scenery/Objects]

A variety of templates are available. They are name coded '*AJS Platform PxNNNrRRRt*', where:

*P* = Number of platforms

*NNN* = *L* length in metres.

*RRR* = track radius in metres or *s* for straight templates.

*ti* = track inside platform

*tx* = track outside platform

*Q* = tram or bus queue

### Length

The nominal operational length, the distance between the outer ends of the triggers which control stopping points. Under normal circumstances an AI train which is shorter than the platform length will not stop outside these limits. It is also the length over the extreme ends of passenger attachments. In practice you can extend the visual length of the platforms using platform splines and ramps and the platforms will accept and load longer trains but any car which stops outside the nominal length will not have its doors opened by the station script.

### Radius

Measured at the centre line between the two tracks for twin platforms and at a point 1.75 metres from the track centre for single platforms. This means that a 300 metre radius single platform will have the same profile as the inner track of a twin platform template of the same radius.

### Stopping Positions

By default AI trains stop at the centre of the operational length of the platform. This is calculated by number of vehicles rather than the actual length of the train so if you have a train which consists of a four car dmu pulling four coal wagons you will get a silly answer (but then you will have asked a silly question) If you have defined the platform as a Terminal Station the front of the train will stop instead at the far end of the operational length.

### Variable Height.

The height of the platforms and passenger attachment points default to 1.3 metres but this can be changed in Surveyor via the Object Properties dialogue. The height indication is approximate only. The default height can be altered by modifying the custom tag 'passenger-height' in config.txt. The allowable range is zero to 1.5 metres.

### Passenger Positioning

The positioning in plan of the passenger attachment points can also be modified via the Object Properties dialogue. This allows for a greater degree of control over passenger placement where the end sections are curved.

### Surveyor Only Indications.

If you don't attach splines to the built-in nodes the only parts of the template which will be visible in Driver are the central fixed track section and the passengers. This allows the templates to function as 'invisible platforms' to act as a functional base for your own visual station components.

To help with alignment there are a number of surveyor-only indicators. The limits of the operational length and the limits of passenger attachments are defined in surveyor only by semi transparent triangular markers. These markers animate along with passenger height and placement to indicate the areas where platforms need to be provided.

The first platform in each multi track template is indicated by a red arrow at the start of the fixed section. Trainz thinks of this platform as Platform 1.

There are linear indicators representing the position of attached tracks and splines.

Lastly there are red circles close to the extreme ends of the templates. These represent the position of the triggers which control end of platform stopping. To avoid problems with the AI and the platform and weather scripts you should ensure that each track runs through some part of the corresponding trigger area and that these circles do not overlap the corresponding circles on ramps and portals.

### **Spline Attachments**

Each twin track template contains two tracks with a spline running down the centre line between them. There are two additional splines running outside each track. The centre spline is intended for roofs and the spline flanking the tracks for platforms. The outermost spline paths are intended for perimeter walls but can also be used to produce wider platforms.

### **Ramp Templates [F3/Scenery/Objects]**

Ramp templates contain the same spline point attachments as platforms and tunnel portals but the platform points are configured to produce a ramp when a platform spline is attached. The ramp components have a built in script facility to control camera angle and (since it doesn't usually snow inside Paddington) to define whether or not external weather conditions are displayed within the station. The script is disabled by default but it can be set up via the properties button in [F5/Scenery/Objects]

### **Terminal Templates**

Terminal templates are similar to ramp templates but do not have auto-forming ramps. There are additional spline paths to produce end paving. Terminal templates do not presently have a script.

### **Tunnel Portal Templates [F3/Scenery/Objects/AJS/Tunnel Kit]**

The tunnel portals are part of the AJS Tunnel Kit. They can be used with sub surface stations to provide station entrance portals. They have the same spline point configuration as the platforms and will automatically form ramps in the same way. Camera/Weather scripts are included and are enabled by default. You can turn the scripts off using the properties button in [F5/Scenery/Object]

### **Group Edit Bar [F3/Scenery/Objects]**

This is a fixed track component that can be used to connect two platform or ramp templates together into one unit. The nodes on the group bar will lock onto the track nodes on the template (the bar must be dropped onto the template rather than vice

versa) The units can be stacked or offset as required to group a complete station throat.

After forming the group the whole assembly can be moved or rotated as one unit and splines attached to the other end will realign to suit. It is possible to adjust the height of individual templates within the group without affecting the grouping. This enables you to form split level station arrangements and adjust the overall plan to your requirements.

The intention is that the bars are deleted once editing is complete but they can be left in place for most configurations. If this is done track updating will still be possible although there can be problems with spline height if the group bar component is not at ground level..

### **Spline Based Components [F3/Scenery/Splines]**

The tracks and splines defined within the platform and ramp components have a direction. This is shown by arrows in the surveyor only representation. Most of the spline components are asymmetrical and need to be drawn in the direction of the arrows to avoid showing up back to front. Users in the New World should remember that these are UK components and, that since we drive on the left, this is the way the templates and splines have been set up.

Spline components are defined as roads with carrate set to zero. This is to enable them to connect to the templates, to enable them to produce smooth curves and to prevent them from accidentally attaching to tracks. There are a couple of side effects of this definition. Firstly the splines can be attached to each other to form junctions which can be smoothed using F3/Tracks/Straighten. Secondly if you accidentally attach a real road to one of these splines you are likely to see cars driving along your platforms!

### **Track & Spline Erasers [F3/Scenery/Splines]**

These are surveyor only invisible splines with an indication of spline direction built into the mesh. The station and ramp template components use these tracks and splines when initially placed and if they are not updated they will be invisible in Driver.

You can use the erasers to prevent the updating of splines by attaching a short length temporarily to one vertex. You can use them to erase any existing attached spline (provided there is nothing attached to the other end)

### **Platform Splines [F3/Scenery/Splines]**

Platform splines are to UK standards, Pre-war (no white line) and Post-war variants are provided. The paving is cambered to reduce texture flashing where overlaps occur but there is an element of compromise in this and any white lines may become visible and flash as you zoom out.

Where additional paving at platform level is required the platform splines can be drawn freeform to provide this. With care the in built camber will reduce texture overlap artefacts to a minimum.

The platform splines include a floor plane set just below ground level and rendered black both sides. This forms a floor for subsurface and elevated stations and a roof for the void below elevated stations

### **Wall Splines [F3/Scenery/Splines]**

Wall splines attach to the outermost spline points on the templates. By default they will 'run off' the end of the ramp templates without any change in coping height but if required their spline height can be lowered by the distance of the platform height so that their copings follow the line of the ramp. This can only be done with spline points which are free from the template.

### **Elevated Station Perimeters [F3/Scenery/Splines]**

These splines should be attached to the wall connections. Like an iceberg most of the component will be underground. You can use the Scenery Height Adjustment tool to bring the station and ramp templates up above ground level. Attached splines and tracks will follow along for the ride.

There are one or two limitations here. The readout for this tool gives an elevation relative to ground level at the template origin which is not particularly helpful if the ground isn't flat. Similarly if the height of the ground at the template origin is changed the template itself will also be affected. The Group Edit Bar will not allow any change in the height of splines which are attached to it (although it does allow changes in template height).

### **Subsurface Station Perimeters [F3/Scenery/Splines]**

It is usually more convenient to build subsurface stations at ground level and raise the ground over the station after you have finished construction. You need to be aware that when you alter the ground level at the insertion point of a template the height of the template itself will be affected. If you want to place cameras inside subsurface stations you will need to do this before raising the ground. If you are using my tunnel portals as station entrances you will probably want to disable camera and weather control as these would usually be dealt with at the point where the tracks enter the tunnel system.

### **Roof Splines [F3/Scenery/Splines]**

These should be attached to the centre spline point. The initial pack contains a glazed station roof with without stanchions (these exist as a separate spline), the assumption being that the perimeters would be supported on high brick or stone walls or by perimeter buildings. The roof end unit is also defined as a spline to enable it to be attached but this unit should never be allowed to repeat.

### **Car Stop Markers [F5/Track/Trackside]**

A trackside object with editable text which can be inserted between the rails marking stop positions for trains of varying compositions. The accuracy of the stop positions achieved by the script is normally within one or two metres for a train composed of carriages of equal length.

### **Dummy & Invisible Buffers [F5/Track/Trackside]**

Non functioning rail buffers. Intended for use with terminal ramps. All drivers stop well short of red lights, track ends and buffers, all of which seem to act as if they were stop signals. You can tune the track length or add invisible buffers to stop Alastair whilst using dummy buffers to give prototypical appearance. Be prepared for a good deal of trial and error.

### **Junctions**

Junctions cannot be placed directly on any of the nodes attached to the templates. Other than this they can be placed anywhere within the track sections. Auran's documentation suggests that any junction placed between the end triggers and the station template is likely to prevent the station script from properly controlling the train. I have not found this to be the case in general although complex track

configurations in these areas should obviously be avoided. If you place junctions within this area though you are on your own. Headshunts will always be a problem due to the distance Trainz requires between a train and a junction before it is possible to operate the junction lever.

## COMPONENT LIST

## FUTURE DEVELOPMENT

### Driver Commands

Auran's implementation of stations as industry items and the lack of an ability to group more than one industry component into a single entity make it difficult to assemble complete stations from component parts. The 'Drive-To' command is particularly inflexible in this respect. As a result of this each Platform Template will appear on the Drive-To menu as a different first level item. In the short term I suggest naming your stations something like this:

Component 1, Name York [1-2], Platforms 1 and 2  
Component 2, Name York [3-4], Platforms 3 and 4

I will be attempting to produce alternative or replacement driver commands to overcome this and if I am forced to rely on hard coded string chopping this will be the convention I will use.

I haven't written these commands yet, I haven't even started and I don't know whether or not they would be possible or practicable. What are given below are specifications of two rules which I think would be helpful and useful, not only in connection with the Station Kit, but in general use.

### Station Groups

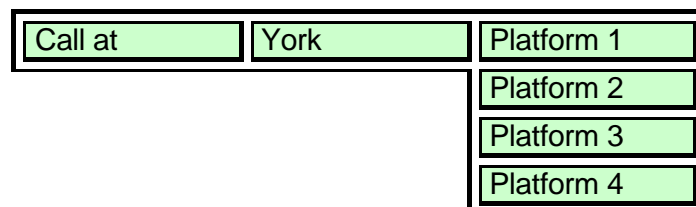
A station group would be one or more station components sharing a common name root (Three components labelled York [1-2], York [3-4] and York [5-6] would be an example)

### Call at command

Passenger oriented replacement for Drive To / Load

Present the user with a menu containing a list of all station groups and their platforms as defined by user selectable names.

Each station group would be presented as a single first level menu so the example above would give:



On selection the AI would drive to the selected platform and load.

### Call at All Stations command

Present the user with a menu containing a list of all station groups and their platforms as defined by user selectable names.

On selection the AI would drive to the selected platform and terminate, calling and loading at any station found en route.

### **LICENSE**

Use as you wish except as part of items offered for sale, in which case please request written consent. I am usually happy to make component source available to those who have a good reason for wanting it.

### **SUPPORT**

No support is offered. I do however provide advice and fixes wherever necessary and possible, please post any queries in the AJS Tunnel Kit forum thread rather than emailing me as this makes it easier for others to track down solutions. Please search this thread before posting queries as it can be a pain answering the same question over and over.

Enjoy.

Andi Smith, July 2004