

JK Junction Kit – Texture Customisation Guidelines

This file contains detailed instructions for modifying textures for the junction kit components and for producing matching track. All that is required is a reasonable degree of confidence in copying and editing text files and some experience of resizing, cutting and pasting image files in Paint Shop or Photoshop.

Textures created as outlined below will automatically be available for use with the junction kit. There will be no need to modify any of the mesh components or scripts nor will there be any need to alter the textures supplied with the download as there are easier ways of setting your new textures as the default.

I have found it easier to create the file structure using dummy files, dealing with the graphic aspects once the texture is correctly installed.

These modifications should be treated as being for personal use only.

Publication

If you want to make your textures available on any route uploaded to Auran they will need to be built into my libraries in order to be available for your users. If you wish to do this please package up your files in a zip archive and send them to me. Do this in plenty of time as there may be some delay before I can upload.

You will need to supply image files and texture.txt files conforming to this specification. You should also supply an icon asset to Auran standards, with or without transparency. Look at kuid 122285 4093 for an example.

The license for the texture libraries is as follows:

'Free for personal use and may be included in items made available on the same basis. Not to be used as part of any item offered for sale without prior written consent. Includes textures copyrighted by other authors. Their consent will also be separately required for commercial use.'

To simplify matters you may wish to allow me to make this decision on your behalf, please let me know. In practice I shall require a royalty, payable to charity, for any commercial use.

These are my recommendations only, there will be other ways of doing it.

I reserve absolute discretion to include or not to include your file.

Textures

The texture files in the individual object directories are placeholder files only and are not seen in Trainz except where there are errors in the installation. To modify the textures you need to deal with the images in the texture libraries alone.

In each case your new texture can be any size you want as long as the proportions are the same as the originals. Trainz will rescale the textures to fit. The textures can be jpg, bmp or uncompressed tga. Tga will give better sharpness and colour than jpg at the expense of file size. The opacity file should always be a bmp. Where opacity is used the diffuse and opaque textures must be of the same size.

Many hold the view that the use of jpgs for textures will affect performance. As far as I know Auran haven't confirmed or denied this.

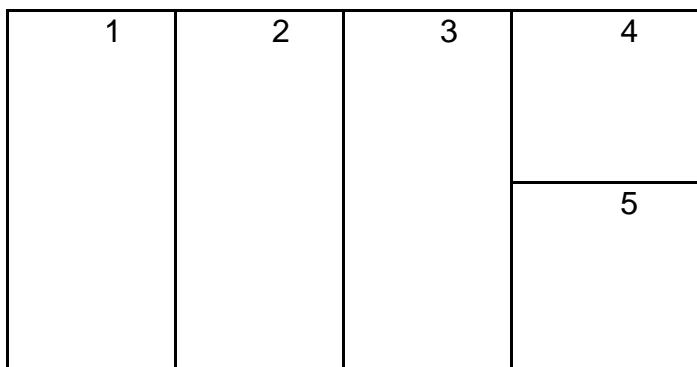
Create folders, texture.txt and image files as described at the end of this document.

Load each file into Paint Shop or Photoshop, do something obvious to it like making it a colour negative of itself. Save the files and test it out in Trainz to make sure you have all the files in the right place with the right names.

Look at the supplied image files to get a better idea of how each texture needs to be laid out.

Rail Texture

There is one file to alter here, rail.tga although in many cases you will be able to reuse one of the supplied files. This is a 64 x 32 tga. The file is split into 5 sections, each 32 x 16 or 16 x 16 pixels.



The height of the file is scaled to represent 0.25 metres or one sleeper. The various sections are organised as follows:

1. Side of all rails, left at the bottom. Due to the way the mesh is constructed not all of this area is actually seen in game. Use the existing rail.tga as a guide to where to place your picture elements. Representations of chairs or fixings should be kept to the centre to prevent them appearing in areas where they are not required.

2. Running rail surface.
3. Check rail surface.
4. 'Merge' area between running rail and check rail surface. The top and bottom of this area should match the top and bottom of area 2 and the right hand edge should match the top and bottom edges of area 3.
5. Cut ends of check rails.

Ballast Texture Library

Ballast.tga is a straightforward ballast texture. The height of the file is scaled to 4 metres, the width to 3.4 metres. The left hand half is mapped to the ballast mesh on one side, the right to the other. The texture should be tileable vertically and any strong variations will show up on the objects as a repetitive pattern. The central pixels will match to the track texture at the edge line of the sleepers. If you choose to have variations along the edges, weed growth or whatever, you should bear in mind that this will be affected by the edge transparency.

Opacity.bmp is scaled and mapped in exactly the same way. To reduce the width of the ballast you need to increase the width of the black areas at the edges. You can omit opacity if you wish.

Sleeper Texture library.

Sleepers.tga is scaled vertically and horizontally to 4 metres and eight sleepers. The size of the sleepers should be regarded as a maximum but they may be reduced without problems. To minimise repetitive patterning the vertical starting position of the various areas of mapping has been randomised. You should keep to eight sleepers as anything else will give you big problems.

The edges of the various polygons which make up the sleeper meshes terminate along the line of the sleeper edge which means that the outer areas of the texture are not used. The width in use is 2.6 metres.

Paths and Files

The path and file conventions set out below are not mandatory but if you use them as described you will find it easier to maintain your installation. The libraries are likely to be updated more frequently than the objects in the Junction Kit and, due to the way Auron have organised user content, you will need to modify their *config.txt* files every time you download new versions of the libraries.

Create a new subdirectory called *user* within each of these folders. Your custom texture files will be placed in these subfolders.

Kuid2 122285 4010 n

user

Kuid2 122285 4011 n

user

Kuid2 122285 4012 n

user

The following rules **are** mandatory. Your textures will not show up correctly if they are not followed.

1. In every case the index numbers in the *textures* section must start at 1 and run consecutively without any gaps in the sequence.
2. All three of the indices for each texture must be the same.
3. An entry must be made (and a corresponding texture.txt file must exist) in all three libraries although the referenced files need not be unique.

When you download an update your custom textures will be replaced in the game by the new contents of the libraries. Following an update you will need to renumber your own files and move them to the new library if you want access to the full range of official textures as well as your custom ones. Unfortunately I can't see any way of avoiding this as the texture library system won't accept names in lieu of numbers.

Sleeper Texture Library

Folder ***kuid2 122285 4012 n***

Edit the config.txt in this folder as follows:

In *icon-table* add a kuid for the icon to represent the track in the 'Object Properties' window in surveyor. This must be present and must be in standard Trainz format as defined in the CCG. If you don't have one available you can use kuid:122285:4095 which is included in the junction kit.

In *string-table* enter the text string which will be used to name the track in 'Object Properties'

In *textures* enter the relative path and name of the texture description file for the sleeper texture.

CONFIG.TXT

```
kuid <kuid2:122285:4012:3>
kind texture-group
username JK Sleeper Texture Library
icon-table {
    0 "<kuid:122285:4000>"
    1 "<kuid:122285:4091>"
    2 "<kuid:122285:4091>"
    3 "<kuid:122285:4091>"
    4 "<kuid:122285:4091>"
    5 "<kuid:122285:4093>"
    6 "<kuid:122285:4093>"
    7 "<kuid:122285:4094>"
    8 "<kuid:122285:4094>"
    9 "<kuid:122285:4094>"
    10 "<kuid:122285:4091>"
    11 "<kuid:122285:4095>"
}
string-table {
    0 "Edit Mode Selected"
    1 "JK Default"
    2 "MB Finescale Track"
    3 "JK Timber"
    4 "JK Concrete"
    5 "VMD Dark Brown"
    6 "VMD Dark Grey"
    7 "Perchpole"
    8 "Perchpole Grey"
    9 "Perchpole Red"
    10 "JK Concrete DP"
    11 "My Track"
}
textures {
    0 "Edit.texture"
    1 "JKDefault.texture"
    2 "MBFinescale.texture"
    3 "JKTimber.texture"
    4 "JKConcrete.texture"
    5 "VMDDBrown.texture"
    6 "VMDDGray.texture"
    7 "PP.texture"
    8 "PPGrey.texture"
    9 "PPRed.texture"
```

```
10 "JKPhotoC.texture"  
11 "user/MyTrack.texture"  
}  
category-region-0 all  
category-era-0 all  
category-class "JO"  
trainz-build 2.0  
description "Junction kit texture library"
```

Folder **kuid2 122285 4102 n \user**

Create a new file here called MyTrack.texture.txt and open it in Notepad. Add these lines.

MYTRACK.TEXTURE.TXT

```
Primary=MyTrack.tga <- the name of your sleeper texture file  
Tile=st
```

Copy MyTrack.tga into this folder.

Ballast Texture Library

Folder **kuid2 122285 4011 n**

Edit the config.txt in this folder as follows:

In *textures* enter the relative path and name of the texture description file for the ballast texture.

CONFIG.TXT

```
kuid <kuid2:122285:4011:3>  
kind texture-group  
username JK Ballast Texture Library  
textures {  
    0 "Edit-B.texture"  
    1 "JKDefault-B.texture"  
    2 "MBFinescale-B.texture"  
    3 "JKTimber-B.texture"  
    4 "JKConcrete-B.texture"  
    5 "VMDDBrown-B.texture"  
    6 "VMDDGray-B.texture"  
    7 "PP-B.texture"  
    8 "PPGrey-B.texture"  
    9 "PPRed-B.texture"  
    10 "JKPhotoC-B.texture"  
    11 "user/MyTrack-B.texture"
```

```
}  
category-region-0 all  
category-era-0 all  
category-class "JO"  
trainz-build 2.0  
description "Junction kit texture library"
```

Folder **kuid2 122285 4011 n \user**

Create a new file here called MyTrack-B.texture.txt and open it in Notepad. Add these lines.

MYTRACK-B.TEXTURE.TXT

```
Primary=MyTrack-B.tga <- the name of your ballast texture  
Alpha=MyTrack-B-Opacity.bmp <- the name of your ballast alpha texture  
Tile=st
```

Copy MyTrack-B.tga into this folder.

The alpha texture is optional and does not have to be unique. If another suitable file exists in your user folder you can refer to it as many times as you wish.

Rail Texture Library

Folder **kuid2 122285 4010 n**

Edit the config.txt in this folder as follows:

In *textures* enter the relative path and name of the texture description file for the rail texture.

CONFIG.TXT

```
kuid <kuid2:122285:4010:3>  
kind texture-group  
username JK Rail Texture Library  
textures {  
    0 "Edit-R.texture"  
    1 "JKDefault-R.texture"  
    2 "MBFinescale-R.texture"  
    3 "JKTimber-R.texture"  
    4 "JKConcrete-R.texture"  
    5 "VMDDBrown-R.texture"  
    6 "VMDDGray-R.texture"  
    7 "PP-R.texture"  
    8 "PPGrey-R.texture"  
    9 "PPRed-R.texture"  
    10 "JKPhotoC-R.texture"
```

```
    11 "user/MyTrack-R.texture"  
}  
category-region-0 all  
category-era-0 all  
category-class "JO"  
trainz-build 2.0  
description "Junction kit texture library"
```

Folder **kuid2 122285 4010 n \user**

Create a new file here called MyTrack-R.texture.txt and open it in Notepad. Add these lines.

MYTRACK-R.TEXTURE.TXT

```
Primary=MyTrack-R.tga <- the name of your rail texture  
Tile=st
```

Copy MyTrack-B.tga into this folder.

The texture does not have to be unique. If another suitable file exists in your user folder you can refer to it as many times as you wish.

Creating Matching Tracks

Copy one of the Junction Kit track folders, kuid2 122285 4100 n for 2 metre segment lengths or kuid2 122285 4101 n for 8 metres, to ... \Program Files\Auran\TRS2004\World\Custom\track

Edit the file as described below.

My track names use a three digit code (Rail Texture – Ballast Texture – Segment Length) It is not safe for you to use the same coding as I will almost certainly issue tracks with these names on the next library update.

CONFIG.TXT

```
kuid <kuid2:122285:4100:3> <- change to your own kuid  
region AJS  
type Junction Kit  
username "JK Track A01-00-02 Default 2m" <- change to your own name  
kind track  
mini 43  
rgb 255,200,0  
length 2  
istrack 1  
width 4  
bendy 1  
trainz-build 2.0
```



```
asset-filename track
category-class TR
category-region-0 all
category-era-0 all
description "Junction Kit track, grey ballast & dark timber sleepers, 2 metre
segments" <- provide your own description
```

Delete these files from the new folder:

Ballast.tga
Opacity.bmp
Rail.tga
Sleepers.tga

Copy these files from the relevant texture library and rename them as noted.

MyTrack.tga	→	sleepers.tga
MyTrack-B.tga	→	ballast.tga
MyTrack-B-Opacity.bmp	→	opacity.bmp
MyTrack-R.tga	→	rail.tga

If you have changed any of the image types (to jpg for instance) you will need to open up and correct the corresponding texture.txt file.

Finishing

Run Trainz, test your new tracks and textures and then go back and correct your typing errors. If you get the whole thing right first time you are either superhuman or you didn't need to read this document at all.

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