Trainz™ Paint Shed Customization Guide

AURAN

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Contents

Introduction

Welcome to the *Trainz™ Paint Shed Customization Guide*. The purpose of this document is to assist the production and installation of custom *Trainz™ Paint Shed* assets. We are assuming that third party developers have a sound knowledge of creation and manipulation of model and texture files so therefore only give references to model requirements, rather than a modeling tutorial.

Overview

The skins folder within Paint Shed install contains all the model, texture and configuration files for using Paint Shed to install a new custom painted train or rolling stock item.

Typical directory structure:
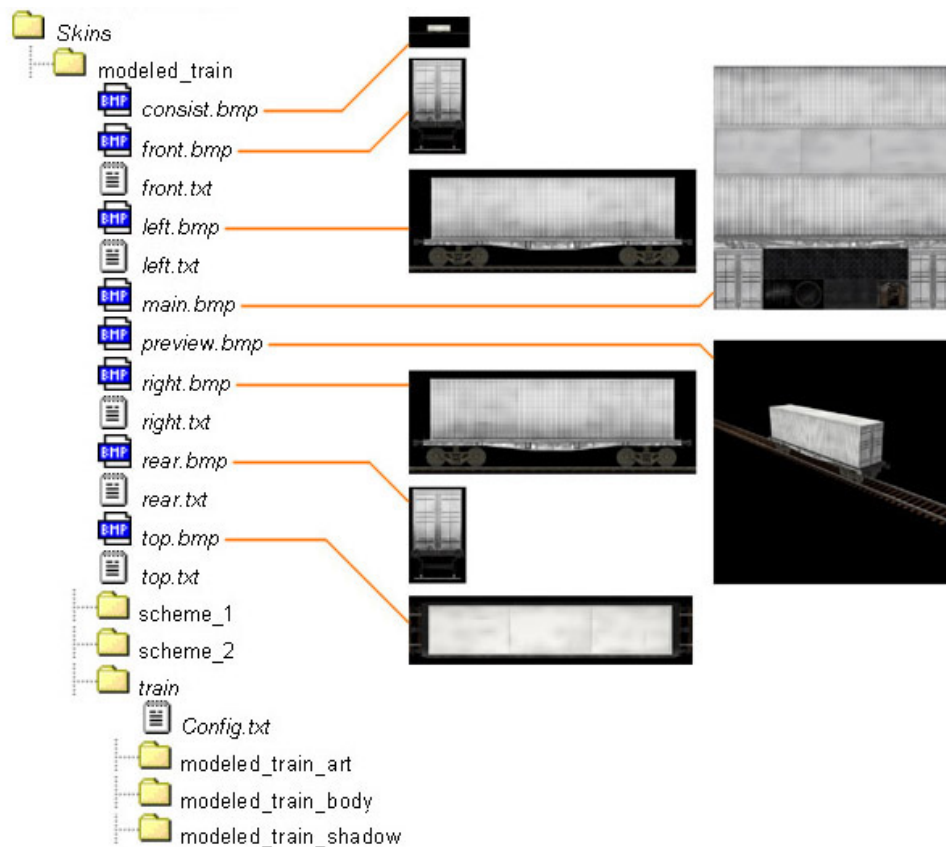
Skin folder:

This folder contains detail maps (8-bit .bmp format) that Paint Shed colours using the masks from a scheme subfolder. The detail maps are used for the Paint Shed interface and as templates for in game texture files that Paint Shed creates.
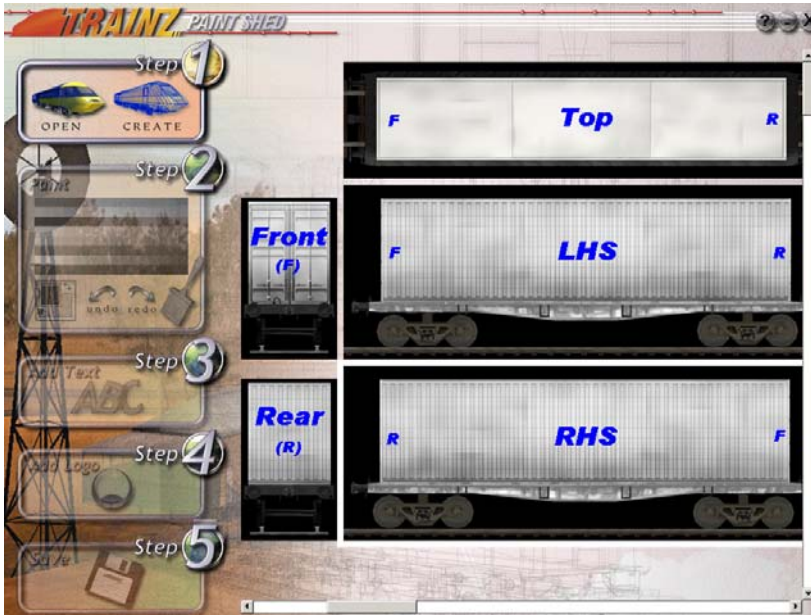

Scheme subfolder/s:

Scheme folder/s contains colouring masks (8-bit .bmp format) that are used to colour the texture and interface detail maps. These must be the same size as the corresponding detail maps.

'train' subfolder:

The train folder contains all the model and texture files that are necessary for installation into trainz.

Maps and masks:
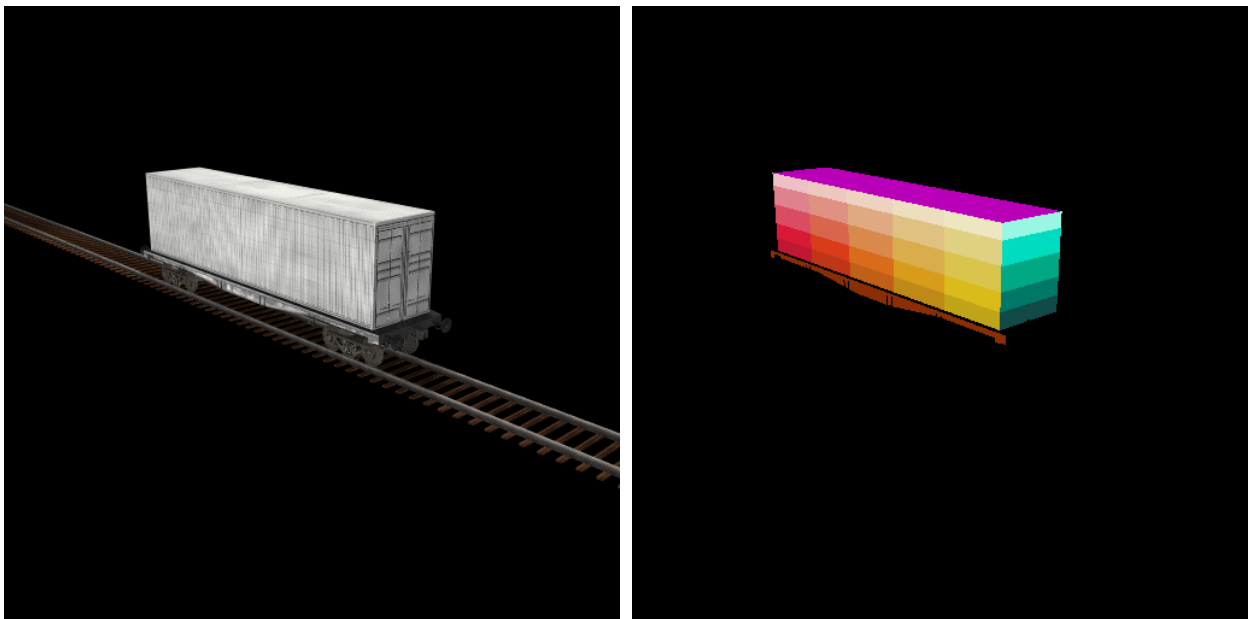
- All maps and masks are 8-bit bmp format files
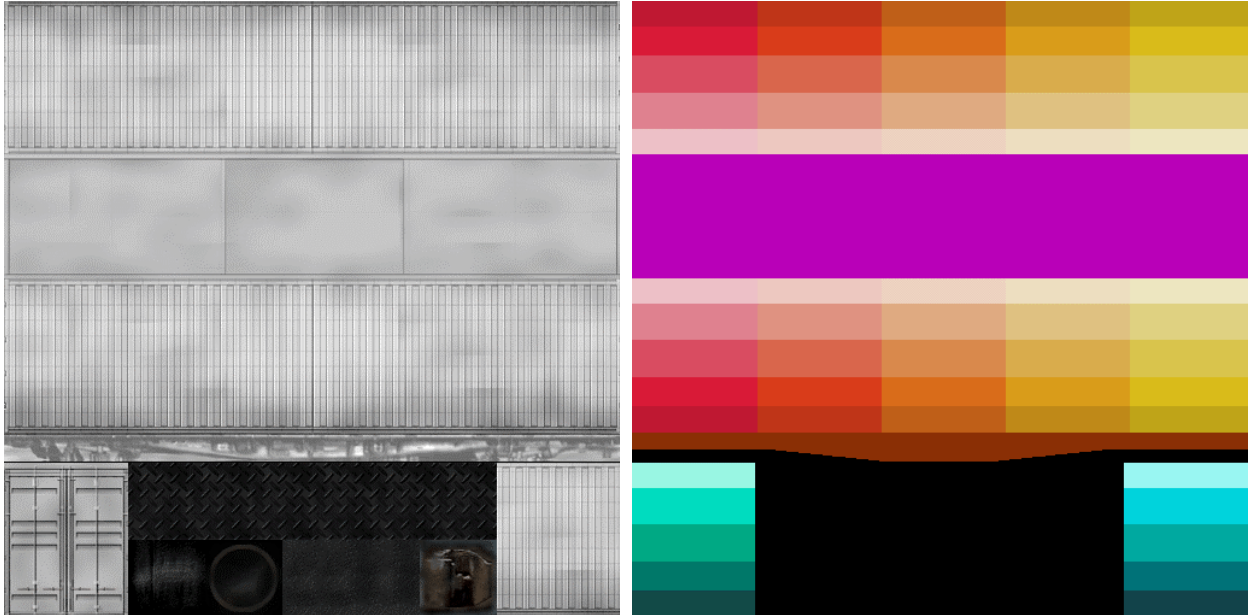
Typical main.bmp and main_mask.bmp (512 x 512 pixel size)

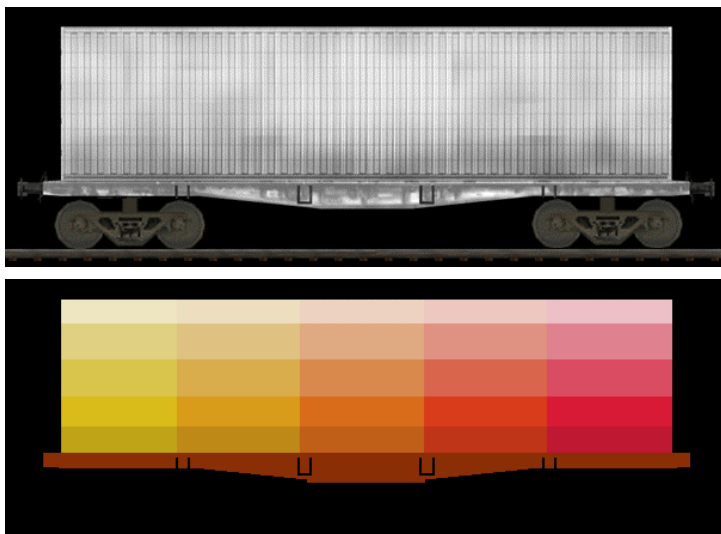Typical consist.bmp and consist_mask.bmp (128 x 64 pixel size)

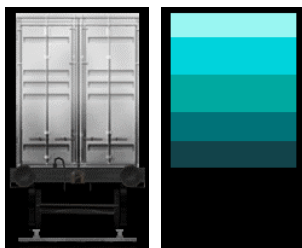Typical preview.bmp and preview_mask.bmp (512 x 512 pixel size)
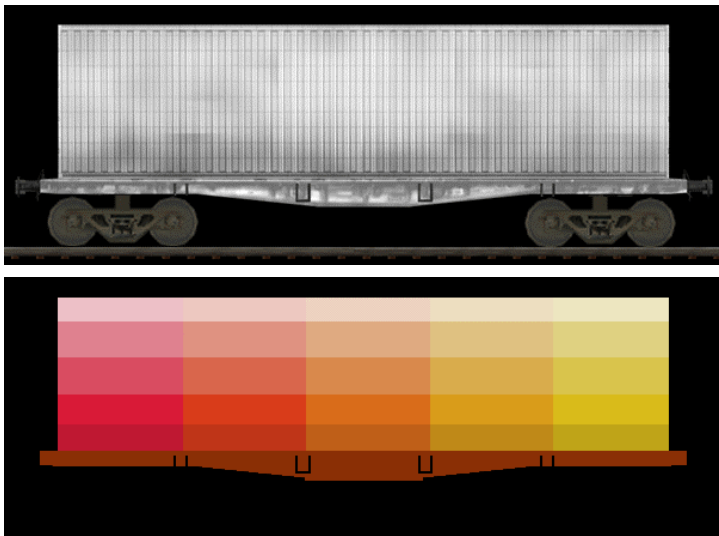
Typical top.bmp and top_mask.bmp

Typical front.bmp and front_mask.bmp

Typical left.bmp and left_mask.bmp

Typical rear.bmp and rear_mask.bmp

Typical right.bmp and right_mask.bmp

Configuration files:

There are configuration files (front.txt, left.txt, rear.txt, right.txt and top.txt) that specify the location of text and logos on the main.bmp with respect to each of the view images (front.bmp, left.bmp, rear.bmp, right.bmp and top.bmp)

NOTE:

- The x and y values define the offset, in pixels, that the logos and text are moved on the main texture with respect to their positions on the view image that they were placed.

- The x value defines the horizontal offset.

- The y value defines the vertical offset.

- Right.txt must have an additional line 'flipped'. The vertical offset is with respect to a main image that has been 'flipped' vertically.
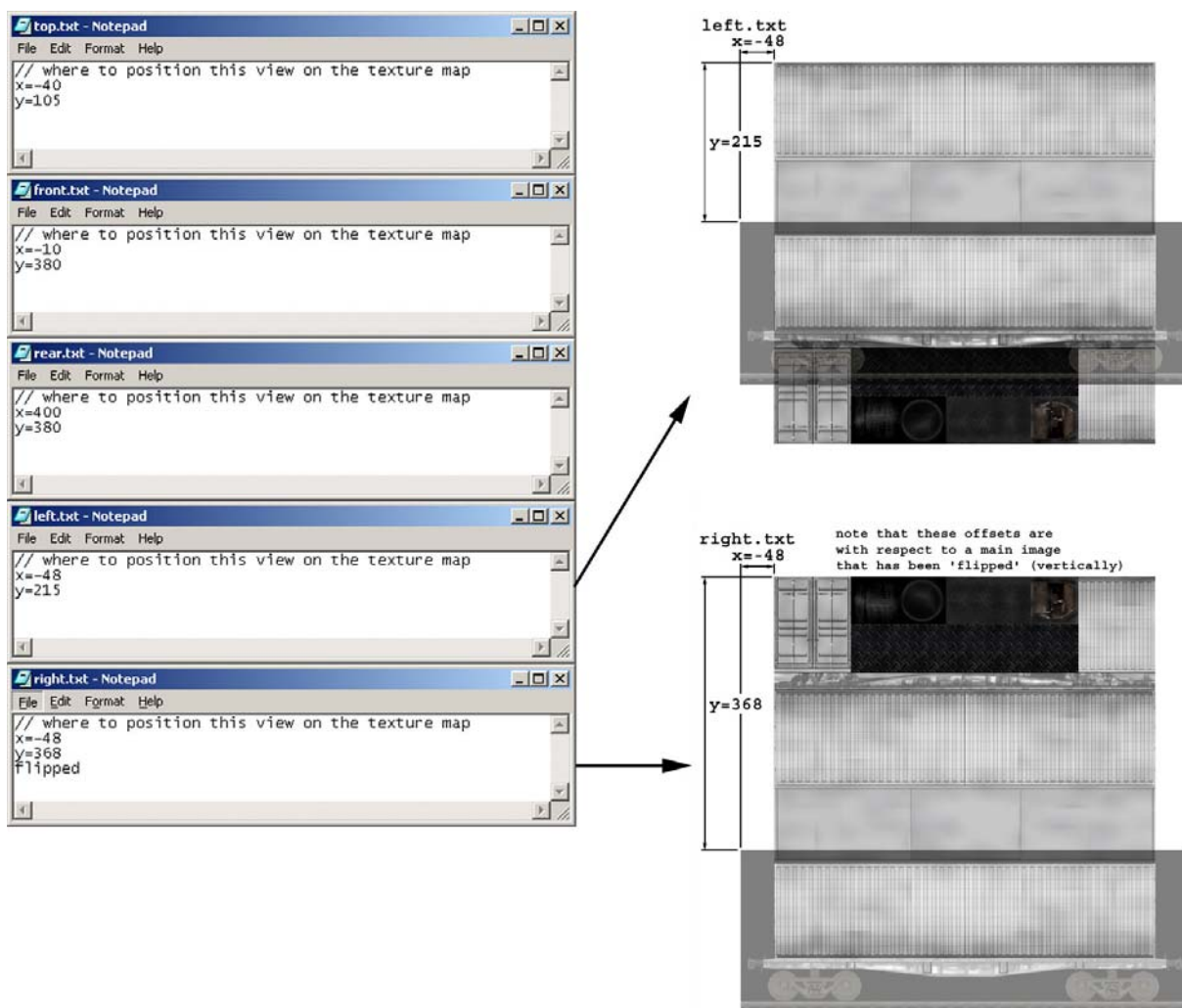
Typical configuration text files

logo placed on left view

logo placed on main

logo moved to correct position
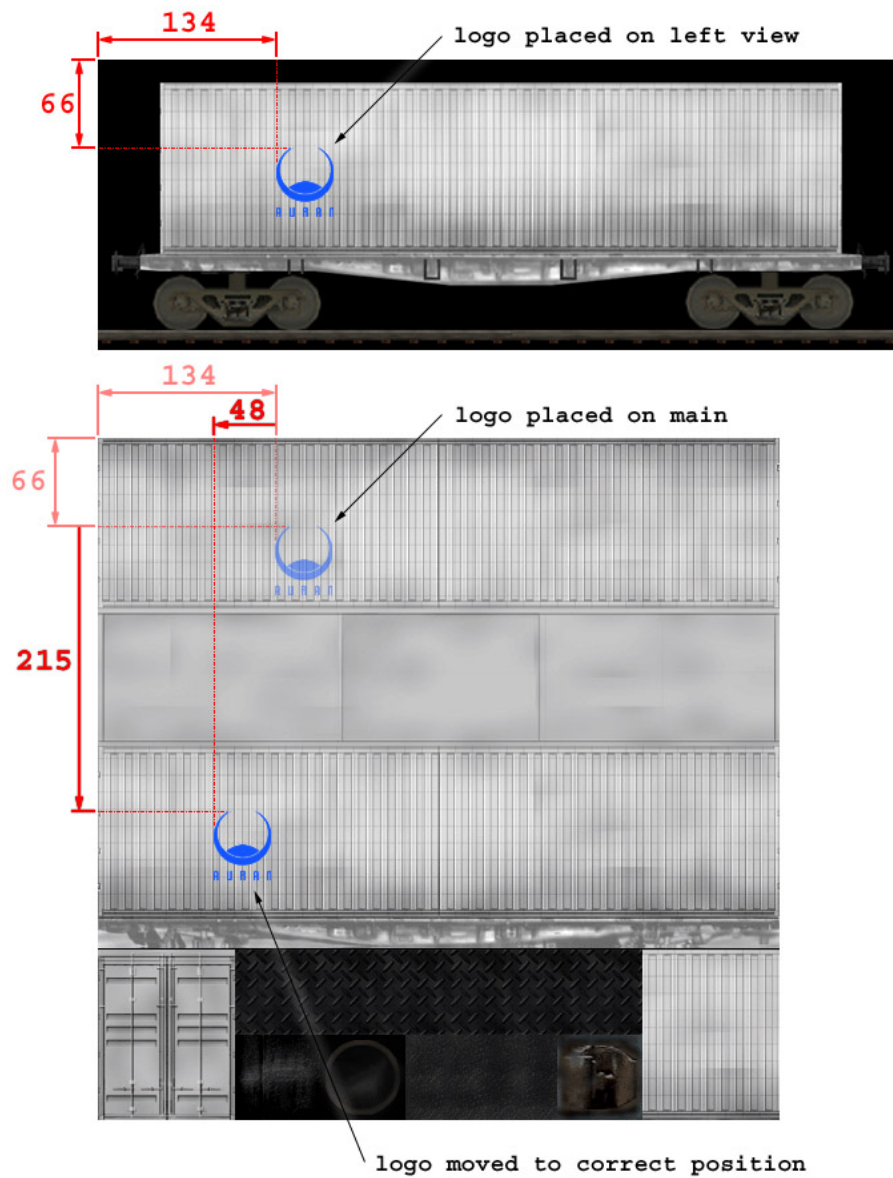
Example of how the program places a logo on the left side.

Creating a New Paint Schemes

This section gives brief guidelines for creation of a new paint scheme for an existing model.

Each paint scheme is created in a subfolder within the model's skin folder. The folder must contain 8-bit bitmap files that are used as masks for colouring in the detail maps. Detail maps (front.bmp, left.bmp, main.bmp …) can be used as templates for creating the mask files.

Typical directory structure for a new paint scheme:
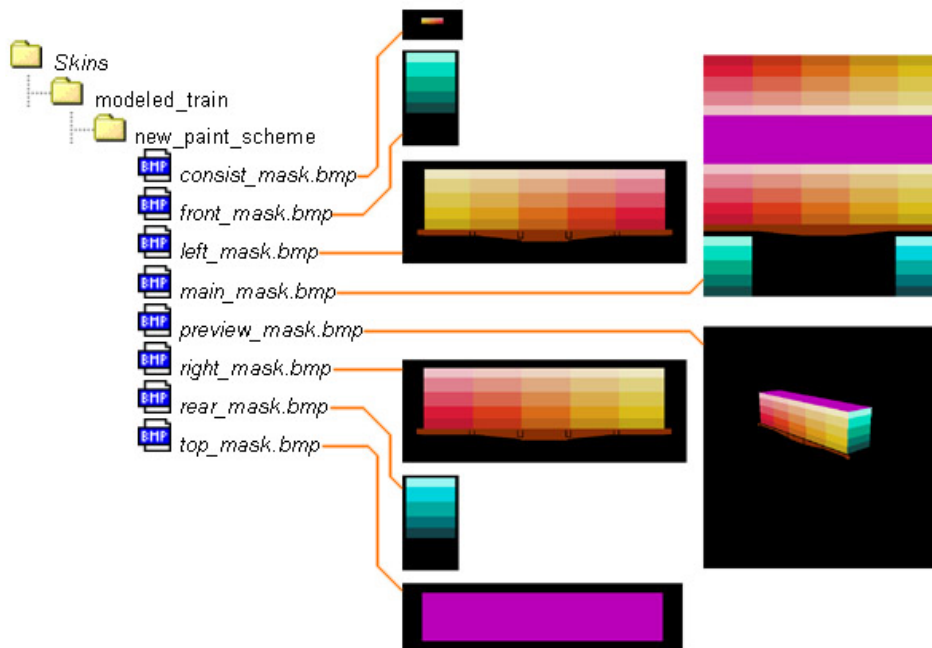
NOTE:

- The mask for the each area of the model needs to be exactly the same RGB colour in every mask bitmap. For example the purple colour on the top of the box shown needs to be exactly the same colour in the top_mask.bmp, preview_mask.bmp and the main_mask.bmp.

- These files should all be 8-bit .bmp files and of the same resolution as the corresponding file in the model's skin folder, eg front.bmp and front_mask.bmp should both be the same resolution.

- All areas that cannot be coloured should be black.

Creating a New Model

Typical directory structure:

- 📁 *Skins*
  - 📁 modeled_train
    - 📁 scheme_1
    - 📁 scheme_2
    - 📁 *train*
      - 📄 *Config.txt*
      - 📁 modeled_train_art
        - 📄 modeled_train_art_512.txt
        - 🖼️ modeled_train_art_512.tga
        - 📄 modeled_train_art_icon.txt
        - 🖼️ modeled_train_art_icon.tga
        - 🖼️ preview.bmp
        - 🖼️ consist.bmp
      - 📁 modeled_train_body
        - 🖼️ main.bmp
        - 📄 main.texture.txt
        - 🖼️ modeled_train_body.pm
        - 🖼️ x.tga
        - 🖼️ y.bmp
        - 📄 *.texture.txt
      - 📁 modeled_train_shadow
   - 🖼️ modeled_train_shadow.pm
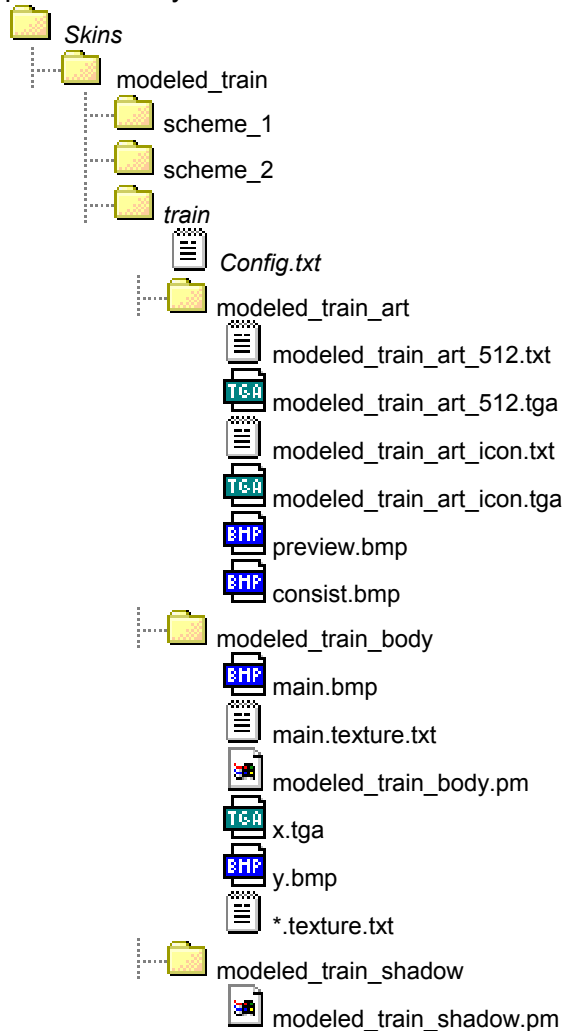
Config.txt :

> Name modeled_train - must be named the same as the skin folder (case sensitive)
> company *painted_company*
> origin *painted_origin*

_art folder :

The _art_512.txt file needs to reference the preview.bmp file as primary texture, and the _art_icon.txt file needs to reference the consist.bmp file as primary texture.

_body folder :

Models should be mapped with using a 512 x 512 pixel texture called main.bmp for all parts of the model that are to be paintable.
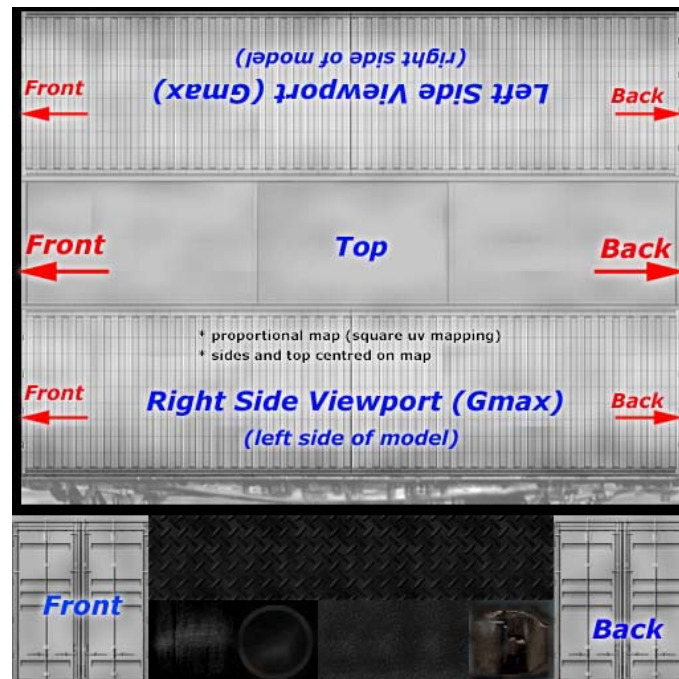
Typical Layout for main.bmp

NOTE:

- The model should be mapped so the side texture and top texture areas are aligned to the centre of the main.bmp texture file.

- The model must be mapped with equal horizontal and vertical texture scaling, otherwise the text and logos placed with Paint Shed will be stretched when used in the game.

- The view detail maps, left.bmp, right.bmp, should have the model aligned to the centre. For example the centre of the main.bmp texture on the model corresponds with the centre of the left.bmp.

- Other parts of the model, such as couplers that will not be repainted, can be textured with another texture map if necessary.

Simple Mask Examples

This mask set would only allow the box to be coloured with a single colour :
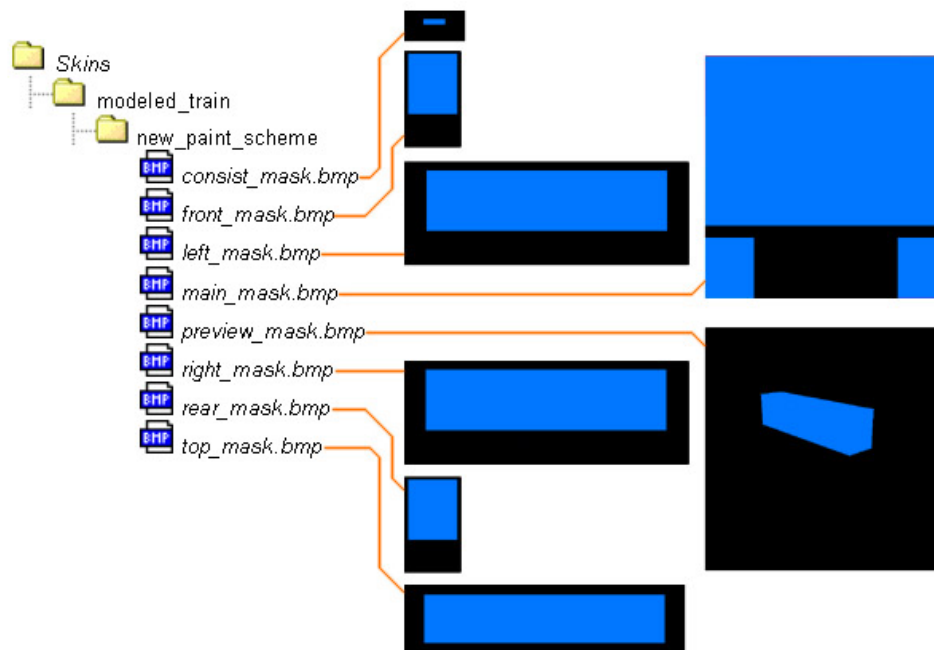
This mask set would allow the four sides and the top of the box to be painted different colours :
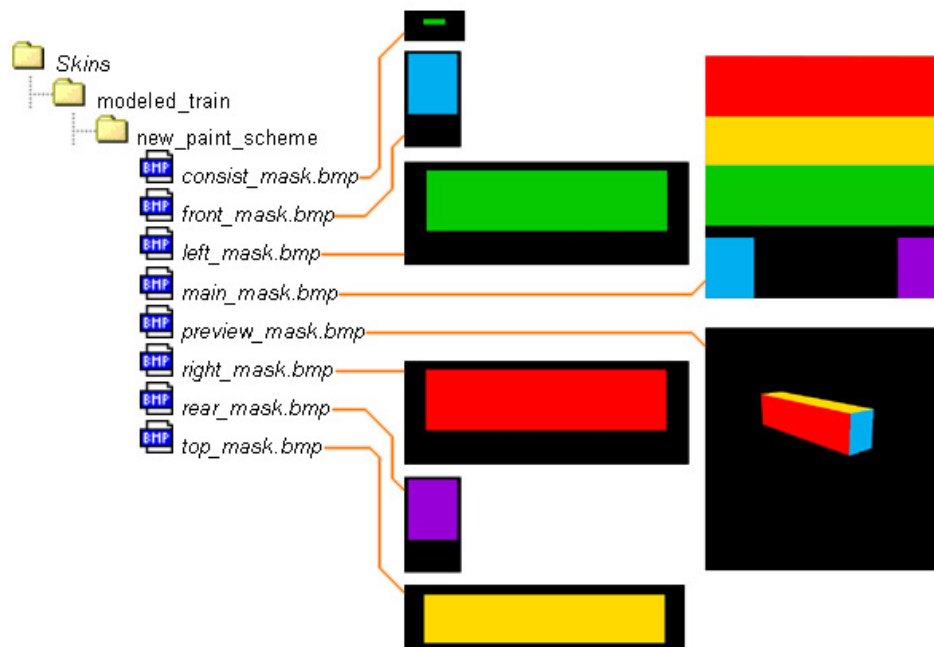
Custom Logos

Custom logos should be saved as .bmp files into the logos subdirectory of the Paint Shed installation. Transparent area of the logo must have RBG value of 255,0,255.