

# Weathered Shoulders for X-Plane 10 Runways and Taxiways

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By Andreas Wieberneit

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## Summary

This package will allow you to add weathered shoulders to runways and taxiways in your X-Plane 10 scenery. This beta version includes shoulders for asphalt and concrete runways and taxiways. I intend to add shoulders for gravel and dirt runways and taxiways.



## Request for Feedback

Please note that this is a beta release. I very much appreciate your feedback, in particular in the following areas:

- How do the weathered shoulders blend in on operating systems other than Windows 7 (i.e. on Mac and Linux)? Please look for:
  - Sharp, noticeable edges between the taxiway and the shoulder
  - The shoulder shows in a different color (gamma) than the taxiway

- How do the weathered shoulders work on different types of airport terrain? I have been using them for airports located in California so far, so it would be interesting to see how they work in other climate zones.

## Technical Description

The weathered shoulders have been implemented as “painted lines” (.lin). Each shoulder consists of two files:

- a .lin file that contains the geometry definition
- a .dds file that contains the texture

The shoulders will be drawn on a layer that is lower than X-Plane’s runways, taxiways, and shoulders. If they overlap, concrete shoulders will be drawn below asphalt shoulders (because it is more likely that asphalt is applied over concrete in the real world).

The shoulders are mirrored so you don't need to worry about their direction. They reference “decals”, a feature that has been introduced with and comes as part of X-Plane 10. The decals give the shoulders a (somewhat) 3-dimensional appearance.

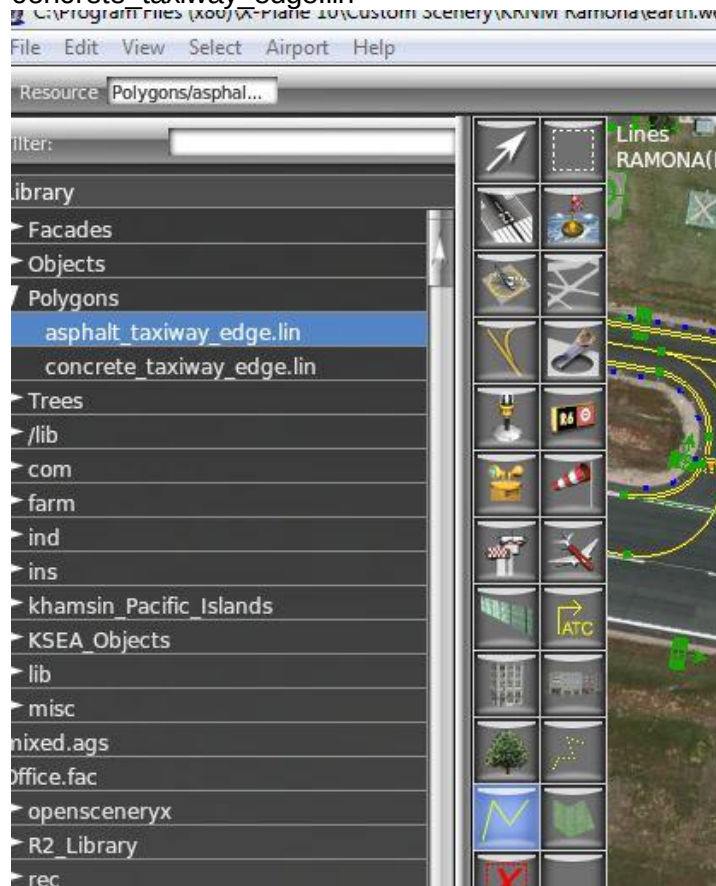
## Usage

- Copy the files included in this package into a subfolder of your custom scenery. Make sure all files (both .lin and .dds) are in the same folder. For this example, let's assume you have the files in a subfolder "Polygons" under your custom scenery folder:



- In WED, in the left pane you will find the following elements under "Polygons":
  - asphalt-taxiway-edge.lin

- concrete\_taxiway\_edge.lin



- In WED, select one of the two provided shoulder types, i.e. asphalt\_taxiway\_edge.lin or concrete\_taxiway\_edge.lin
- Add a shoulder line to your scenery:
  - Using the mouse, add the nodes to the scenery; I recommend that for now you add one shoulder line node adjacent to each node of your taxiway where you want to apply a shoulder; when you reach the last node of your shoulder line you need to double click
  - You can apply rounded corners to your edge line as required by your taxiway; use the same technique that you would use to apply rounded corners to taxiways.
  - Snap the nodes of your shoulder line to the nodes of your runway or taxiway; make sure you are in “snap to vertices” mode:



- This should result in a shoulder object added to your scenery:



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## Attributions

The textures included in this package, although heavily modified, are based on images obtained from CGTextures.com:

"One or more textures on this 3D model have been created with images from CGTextures.com. These images may not be redistributed by default, please visit [www.cgtextures.com](http://www.cgtextures.com) for more information."

## ToDo List

- Add support for gravel and dirt runways and taxiways
- Check gamma on OS other than Windows
- Check appearance on terrain other than hot/dry (e.g. on grass)
- Check feasibility of a patching strip over the boundary
- Check appearance with other types of decals