Introduction to the GeoConvert tool

The Aerofly FS 2 GeoConvert tool allows you to convert aerial images in WGS84 coordinates and PNG, TIF and BMP image format to Aerofly FS 2 compatible aerial images.

Important note: This tool is not a simple plug and play solution, it requires some work on your side and you need some basic understanding on how earth coordinates work. It's also your responsibility to obtain aerial images, GeoConvert does not perform this step for you. We have added some tutorials however that show you some ways on obtaining aerial images.

General procedure

- All your input aerial images have to be in the folder 'input_aerial_images'. Currently, the image formats TIF, PNG and BMP are supported.
- Each aerial image must have an accompanying configuration file with the extension AIC that tells GeoConvert how to source this image. Here is a sample

```
<[file][][]
    <[tm_aerial_image_definition][][]
        <[string8][image][your_aerial_image.bmp]>
        <[string8][mask][]>                             // optional
alpha mask / GeoConvert also supports Tiff images with alpha channel
        <[vector2_float64][steps_per_pixel][3.57627868652344e-06
-2.68220901489258e-06]>
        <[vector2_float64][top_left][-81.8330883979797 24.5659098029137]>
        <[string8][coordinate_system][lonlat]>
        <[bool][flip_vertical][false]>                  // set to true
if image is saved bottom to top
    >
>
```

- GeoConvert will automatically convert TFW and INF files to AIC files, but it's strongly recommended to check the AIC files after conversion.

- aerofly_fs_2_geoconvert.exe is a command line tool that expects another

```
configuration file that tells where to generate aerial images and in what
resolution. Here is a sample that generates aerial images for the Key West
Florida region:
```

```
<[file][][]
    <[tmcolormap_regions][][]
        <[bool]   [write_ttc_files][true]>
        <[string8][folder_destination_ttc][./scenery/images/]>
        <[bool]   [always_overwrite][true]>

        <[list][region_list][]

            <[tmcolormap_region][element][0]
```

```
                   <[uint32]                  [level]   [9]>
                   <[vector2_float64]         [lonlat_min]   [-81.84 24.52]>
                   <[vector2_float64]         [lonlat_max]   [-81.71 24.60]>
          >


          <[tmcolormap_region][element][0]
              <[uint32]                  [level]   [11]>
              <[vector2_float64]         [lonlat_min]   [-81.84 24.52]>
              <[vector2_float64]         [lonlat_max]   [-81.71 24.60]>
          >


          <[tmcolormap_region][element][0]
              <[uint32]                  [level]   [12]>
              <[vector2_float64]         [lonlat_min]   [-81.84 24.52]>
              <[vector2_float64]         [lonlat_max]   [-81.71 24.60]>
          >


          <[tmcolormap_region][element][0]
              <[uint32]                  [level]   [13]>
              <[vector2_float64]         [lonlat_min]   [-81.84 24.52]>
              <[vector2_float64]         [lonlat_max]   [-81.71 24.60]>
          >


          <[tmcolormap_region][element][0]
              <[uint32]                  [level]   [14]>
              <[vector2_float64]         [lonlat_min]   [-81.84 24.52]>
              <[vector2_float64]         [lonlat_max]   [-81.71 24.60]>
          >
       >
    >
>
```

For aerial images to appear at larger distances and to keep texture usage low,
Aerofly FS 2 uses textures with a varying coverage. At the base the whole earth
is covered by a single texture, we call that level 0. As a next step the whole
earth is covered by 2x2 level 1 textures, then 4x4 level 2 textures and so on.
Its recommended that your aerial images are converted to level 9, 11, 12, 13 and
14 to give a good coverage. Level 14 is roughly 1m per pixel.

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