

Project parameters

In AptCndrX a project is a scene linked to an airport.

Important :

The background of this scene is an image and the vertices of the lines or of the centre of the objects are defined with regards to the centre of this image, and this, in pixels.

The vertices are independent of the geographical coordinates of the scene.
The geographical coordinates are used only for information.

Very important: the image must be an image created with UTM/WGS84 projection: this is the way Condor works. The image could be a Condor tile but it's not necessary.

What is very important is the resolution meters/pixel.

AptCndrX allows that the resolutions in width and height are different but in this case a rectangle will not be shown as a rectangle on the screen.

The UTM coordinates are given in fact in meters, in other words the resolution of the image width and height is theoretically the same.

Numbers : AptCndrX uses the regional parameters; in other words, the decimal point can be a point or a comma depending on your Windows option.

Project parameters

Project: J:\Point_Net\VB\AptCndrX\AptCndr\bin\Debug\Beaune1.CDX [Select]

Condor Scene

Directory: K:\Condor\Landscapes\CEst\ [Select]

Airports:

- Bourg
- Oyonnax
- Thise
- LaVeze
- Montbeliard
- Pontarlier
- Beaune

Lat.: 47.0068016 Runway: 1000

Lon.: 4.89449977 Runway: 50

Alt.: 192 Dir.: 204

Background

Image: K:\Condor\Landscapes\CEst\Working\Terragen\0704.bmp [Select]

4096x4096

Scene centring

Runway centre in the image

X: 2322 Y: 2078

☒ Centring on runway centre

Centring on runway center

Lat. 47.0068016 M/pixel: 5.6263736 N47:00:24.4858

Lon. 4.89449977 M/pixel: 5.6263736 E004:53:40.199

Centring width 2 points

NW SE

Lat. 47.11467672 Y: 0 Lat. 46.90249731 Y: 4095

N47:06:52.8362 N46:54:08.9903

Lon. 4.726108511 X: 0 Lon. 5.021801104 X: 4095

E004:43:33.990 E005:01:18.484

[Check]

[Cancel] [?] [OK]

Project : when you create a new project we need to **locate the corresponding .CDX file.**

This file will contain all the following parameters of the project and the definition of the corresponding elements (3D objects, surfaces, lines ..)

Scene : your « general » scene located in ..\Landscapes\

The corresponding directory contains a YS.APT file (here ESSAI) where are defined all your airports and also:

- The « Airports » directory containing S,O, & G.cx files (and S, G & O.X if you have generated Generic airports)
- The “World” directory with “Objects” and “Textures” directories. The “Textures” directory would contain your textures related to your 3D objects, surfaces and lines, but they can be located in other directories. The “Objects” directory is not used by AptCndrX.

Choose your “general scene” and the airport with which you want to work.

Of course it is supposed you have defined it in CST.

BackGround :

It's the image used as background in AptCndrX

24 bits format only allowed; can be a Bmp or JPG file. Some other formats are accepted like PNG.

Must be in UTM/WGS84 projection

You will locate your objects on this image.

All the elements are located with pixel coordinates in the image; thus, it is not possible to change the image in the project.

Runway centre in the image :

In the background image, pixel coordinates X/Y of the centre of the main runway with origin (0,0) at the NW corner of the image.

Decimal numbers accepted.

Check box « Centring on runway centre » : we define here what we will do now : give information about the scene with the centre of the main runway or using 2 points NW and SE.

Note: the latitude and longitude coordinates are not useful in AptCndrX, there are used only to verify that your object are well located. **What is very important is the resolution Meters/pixel.**

If you choose to centre with 2 points, the resolutions are automatically calculated.

To a visual aspect of the lines, it's better that the resolutions on longitude and latitude are identical.

Check button: click on this button to finish the calculation. Verify and validate with the “OK” button.

Remark:

Once validated, AptCndrX copies automatically the Pistes.dds, TreesFs.dds and R_...dds files in ..\Landscapes\YS_World\Textures

the main runway will be automatically created with the left model of the Piste1.jpg texture and with its characteristics you have declared in CST

The runway will be visible in the AptCndrX main window

Advices for centering:

The resolution is calculated as :

Image width in meters / (width pixel nb – 1) and

Image height in meters / (height pixel nb – 1)

If you use a Condor tile as a background image, and point the mouse on the NE pixel of the image in the main AptCndrX window, you must see 23040 on X and Y (see bottom of the screen)

For a 4096x4096 tile, the resolution is 5.62637363 meters/pixel.

At the beginning of a new project: draw some lines which are reference marks and verify in Condor their localisation. If necessary, adjust the pixel coordinates of the main runway center.

Remark: in CST, if you convert to UTM projection the latitude/longitude coordinates of the 4 corners of a tile, and subtract the these UTM coordinates on X and Y , you should find 23040, +/- 20 meters due to the imprecision of CST (only 4 digits after decimal point); sometimes we find a difference > 50 m.

Forget the imprecision of lat/lon coordinates; what is important is the resolution and the position of the centre of the main runway.