GPS App

Introduction.
The GPS app can be used in a number of different ways but is more commonly used for location-specific advertising. If your screens are fitted with a GPS receiver then you can use the GPS app to detect location in order to show adverts that are relevant to that specific area, perhaps displaying adverts from businesses within a mile radius. This is particularly useful if screens are portable like the Taxi Signage or wearable digital screens. GPS tracks the area location of the screens and changes content on the screens accordingly, only showing adverts from local amenities within that area creating a truly targeted campaign.

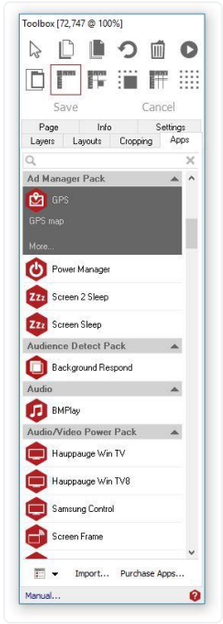
Requirements.
This app requires an active internet connection to access the online map. It also requires geographical positions to be saved into Acquire Variables. This is typically done by the GPS project app with a GPS device.
Known Issues
If your current Regional and Language Settings has it's Decimal Symbol set to anything other than a full stop (".") then the map will fail to display. This should not be a problem in English language settings. For other languages open the Regional and Language Settings window from the Control Panel, select Customize Regional Options and change the Decimal symbol to a full stop (".").

The app is comprised of 2 parts:

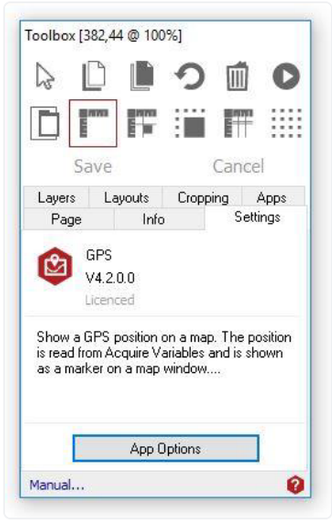
1. **GPS page app:** Control the GPS app on a page within your project.
2. **GPS project app:** Control how the GPS interacts with your project.

Using GPS page app.
To access the app open an existing or new page and select the 'App' tab of the page editor 'Toolbox' (shown). Apps are grouped within the relevant app packs and are displayed red if they have been licenced. For more information about licencing apps go to Licencing apps.

The GPS App requires the Project App to be added at this point. On selecting the Event Manager App from the 'Toolbox' you will be prompted to 'run' the project app if it is not already running.
Select the app from the list or search for it using the search bar. When an app is selected it will be highlighted as shown.



Once you have selected your app draw an area on your page where you would like to use the app.
The **'Settings'** tab within the Toolbox will automatically open when the app is added to the page.
From here you can set your app up by clicking on the **'App Options'** button.



Understanding the Page App Options.

Tracking tab.

Use these controls to set up the Acquire Variables that contain the GPS position to track and how the map is configured.

Map: Select the map type i.e. satellite, hybrid, Road map and choose the initial zoom and whether you want a zoom bar to appear on the map.

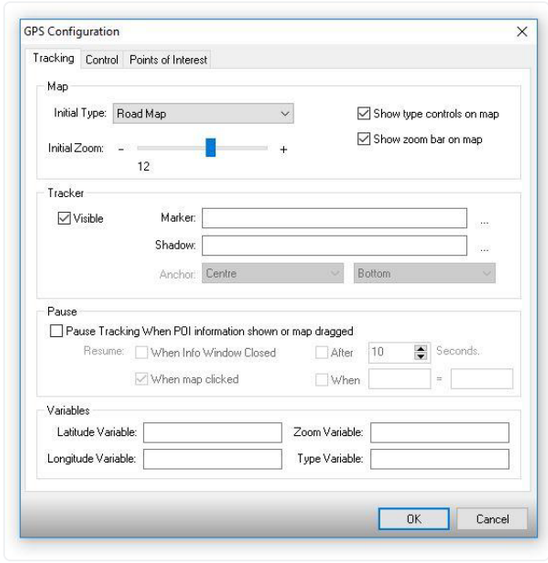
Tracker: Select an image for the marker from the project's media folder to use as the tracker market on the map. Leave blank to use the default marker image.

You can anchor the image to the map by using the Anchor controls in this section.

Pause: You can tell the app to pause the GPS tracking and when to resume it.

Variables: Input longitude and latitude variables These are the variables that contain the GPS position to be tracked.

Usually these are set by the GPS project app which gets their values from an attached GPS device.



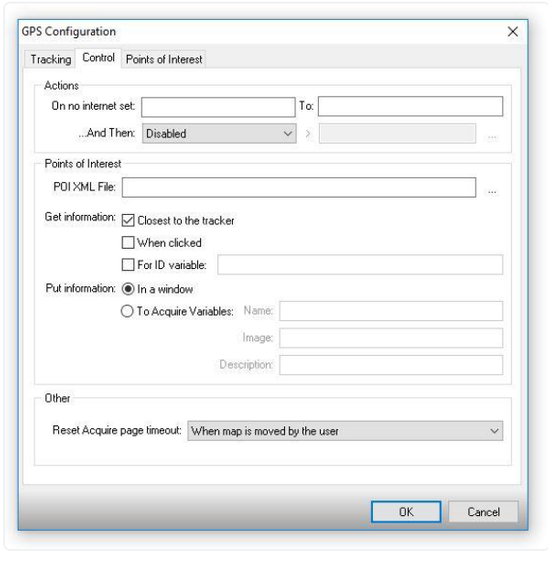
Control tab.

Use these controls to define how the app interacts with your project.

Actions: If the app fails to connect to the online map a simple message is displayed. You can also enter an Acquire Variable name and add a value to it, which could include an action to perform, such as jump to page.

Points of Interest: Define where to save your POI files and how to display them. Enter the file name where you'd like to save the POI file. This will be located in the project's media file.

Use the **'Get Information'** options to define when to provide the user with information about the POI i.e. when closest to the tracker, when clicked or for ID visible. For the last option you must enter an Acquire Variable. If this variable is set to a valid POI ID then information about that POI will be shown



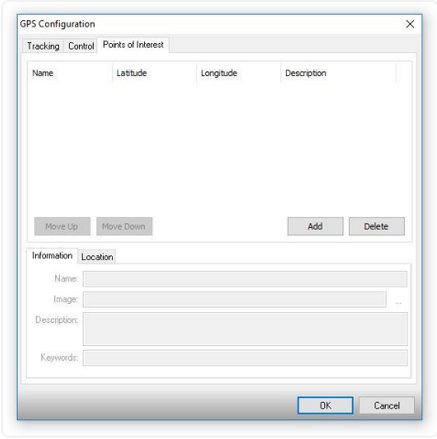
This variable will typically be set by an external "POI Selector" program. A POI ID is an internal value, stored in the XML file and therefore can only be meaningfully set by an application that can read POI XML files.

Use the 'Put Information' options to define where you want information to be displayed. You can choose from a standard window or to Acquire Variables which mean that the POI will be saved to the entered Acquire Variables. These can be used elsewhere in your project to show the information.

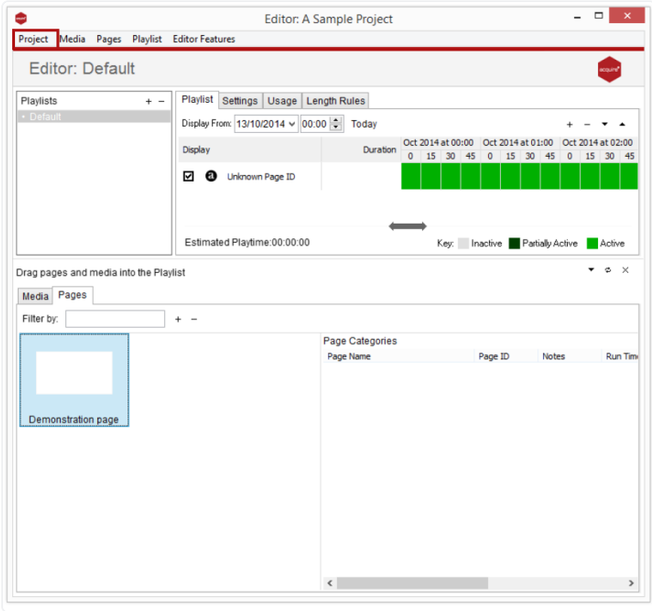
Points of Interest tab.

This is an overview of the defined POI. They appear as a list in the viewing window. Double click an item to edit its position in a map. You can also select it and use the "Find on map" button in the Location section to do this.

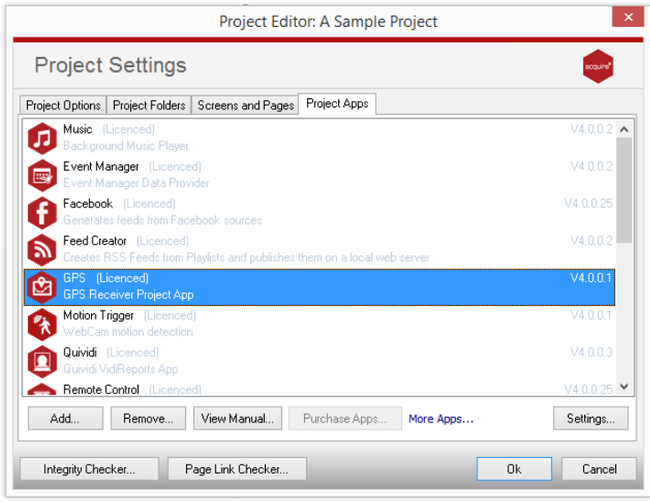
Use the ‘move’ buttons to shift the selected items up and down the list. Press Add and a new Point of Interest will be added to the list. Press Delete and all the selected items will be removed from the list.
POIs are made up of Information and location. These parts are edited within the relevant tabs.



Using the GPS project app.
From the main Editor page, as shown, click on the **Projects** tab and **select settings**.

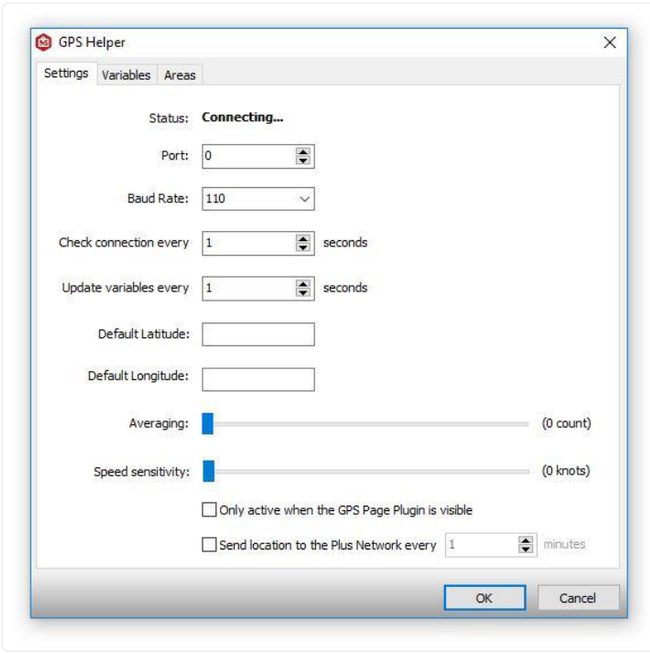


From the Project settings screen navigate to the **‘Project Apps’** tab and click the **‘Add’** button and select the GPS app from the list.
Once this has been activated it will appear in the Project apps list as shown.
Refer to the Licencing Apps section for more information about licencing apps.
From here double click on the app to open the configuration window.



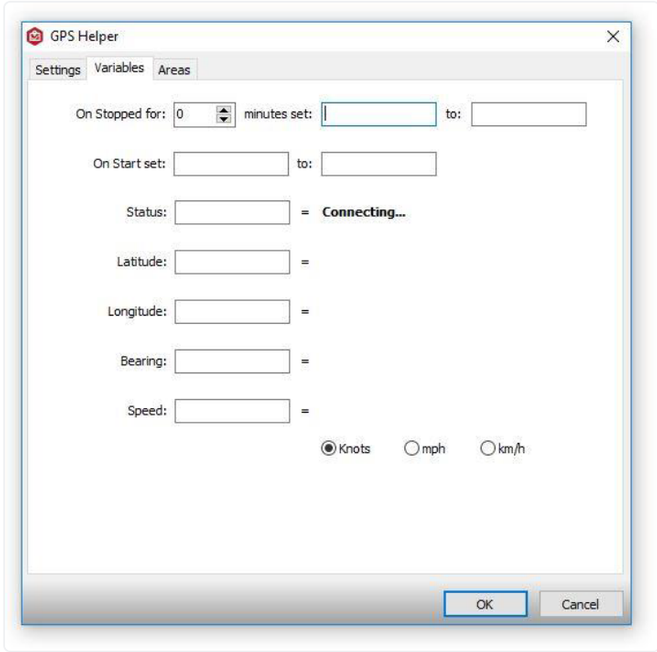
Understanding the Project app Settings.
Use these controls to set up your receiver and how it collects the data.
Settings tab.

1. In the Port and Baud Rate section, enter your GPS receiver device details. (These will be on the player machine.)
2. Define how frequently (in seconds) you wish the connection to be checked and variables updated.
3. Enter the frequency in seconds that the GPS data will be processed.
4. Averaging – to help overcome GPS 'jitter', which results from minor positioning inaccuracies, the project app can be set to average out the distance and speed results. The value here represents the previous number of GPS data to use for this average.
5. Jitter can also affect speed. Any speed below the value input here will be classed as stationary.



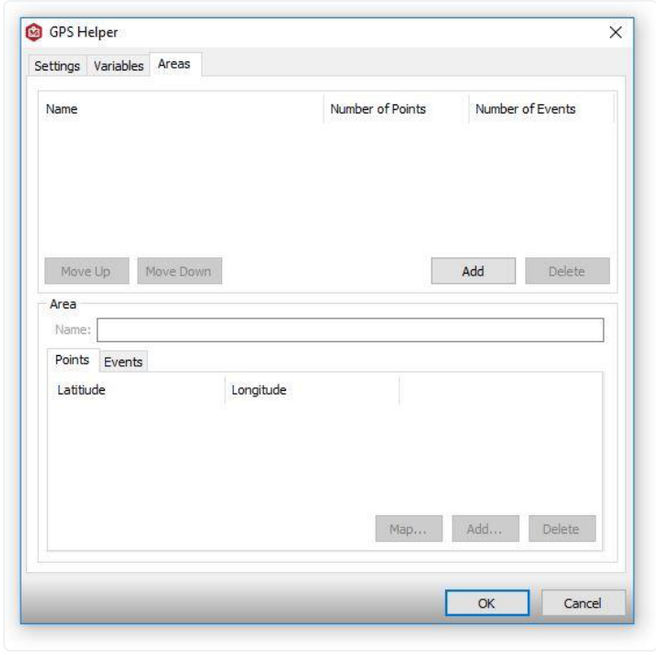
Variables tab.
On Stopped for: Enter a number of minutes, a variable name and a value. If the GPS remains stationary for this time then the variable will be set with the value.
On Start set: Enter a variable name and value. The variable will be set with the value when the GPS starts moving again after a stop.

In the status, latitude, longitude, bearing and speed boxes, enter the names of the variables that will be set with the GPS data.
Status: Connection & data reception e.g. ‘Connected’ or ‘not connected’
Latitude/Longitude: Current position. This can be displayed by the GPS Page app.
Bearing: True Bearing angle.
Speed: Velocity in desired units (knots by default but can be set to MPH or KmPH)



Areas tab.
An **“area”** is a geographical polygonal region defined by a number of latitude/longitude points.
When the project app, using the current GPS position, determines that you have moved in or out of an area an Acquire Variable can be set.

Use these controls to define your areas and variables.



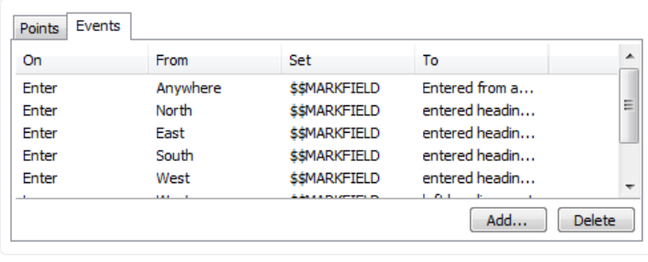
The top section will show defined areas. Double click an item to edit it in a map.
Use the Move buttons to shift the position within the list up and down.
Use the Add and Delete buttons to add and delete items from the list.

This panel shows details about the area selected in the above list.
You can edit the reference name using the box.
The points tab will allow you to define its geographical area and in the events tab you can set variables on entering/leaving the area. (see below).

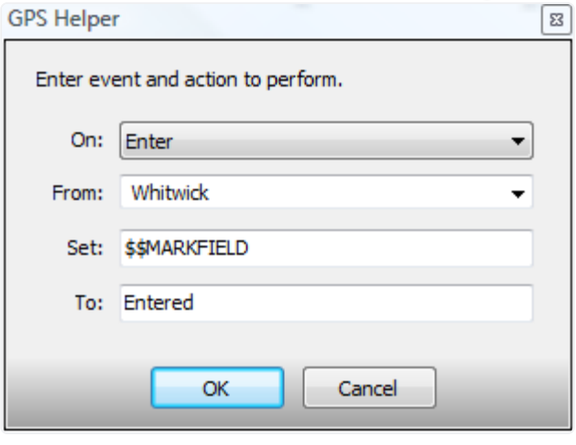
Points tab.
Points list: This is a list of the geographical points that define the selected area.

as:light **Note:** If there are only two points this defines a rectangle, the first point being it's upper/left corner & second it's lower/right. Using the Map button, you can define your area using a maps.

Events tab.
An **"event"** is triggered when you enter or leave an area heading in a certain direction or approaching from another area. This is a list of the events for the current area and what variables & values to set.

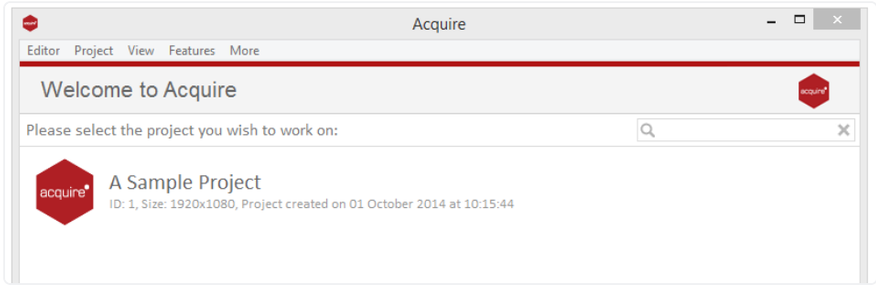


Double click an event to edit it using this window:

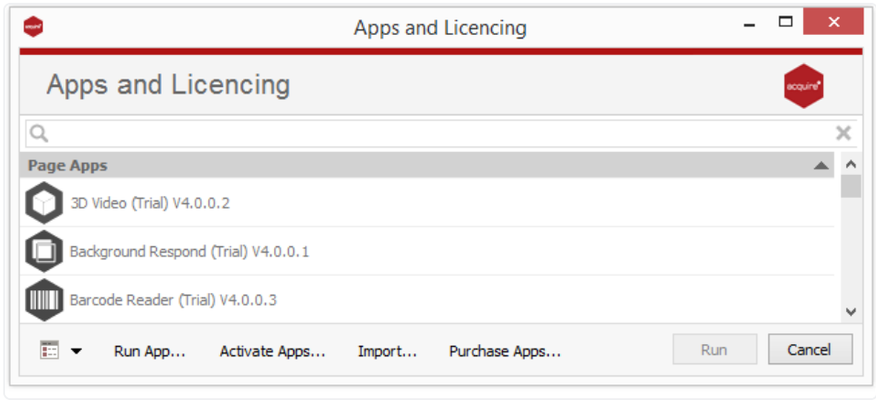


On: When to set the variable: "Enter" or "Leave"
From: A bearing or another area.
Set: A variable name.
To: A value to set the variable.

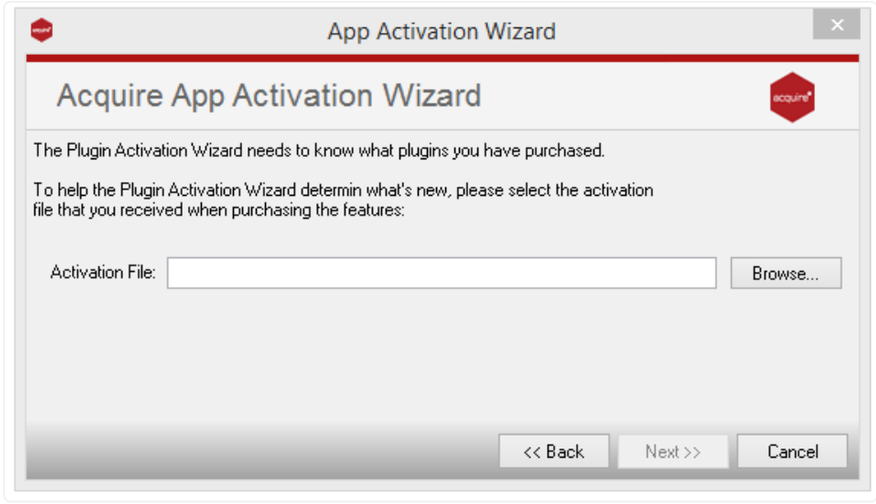
Licencing apps.
On purchasing an app pack you will be provided with a licence key. Save this to your computer.
From the main **'Welcome Screen'** click on **Editor** and select **Apps** and Licencing from the drop down menu.



Click **Activate Apps** and follow the onscreen instructions.



Use the **'Browse...'** button to locate your saved licence key and follow the instructions to activate.



Your apps should now be activated and can be accessed from the apps list or from within a working project or project page.