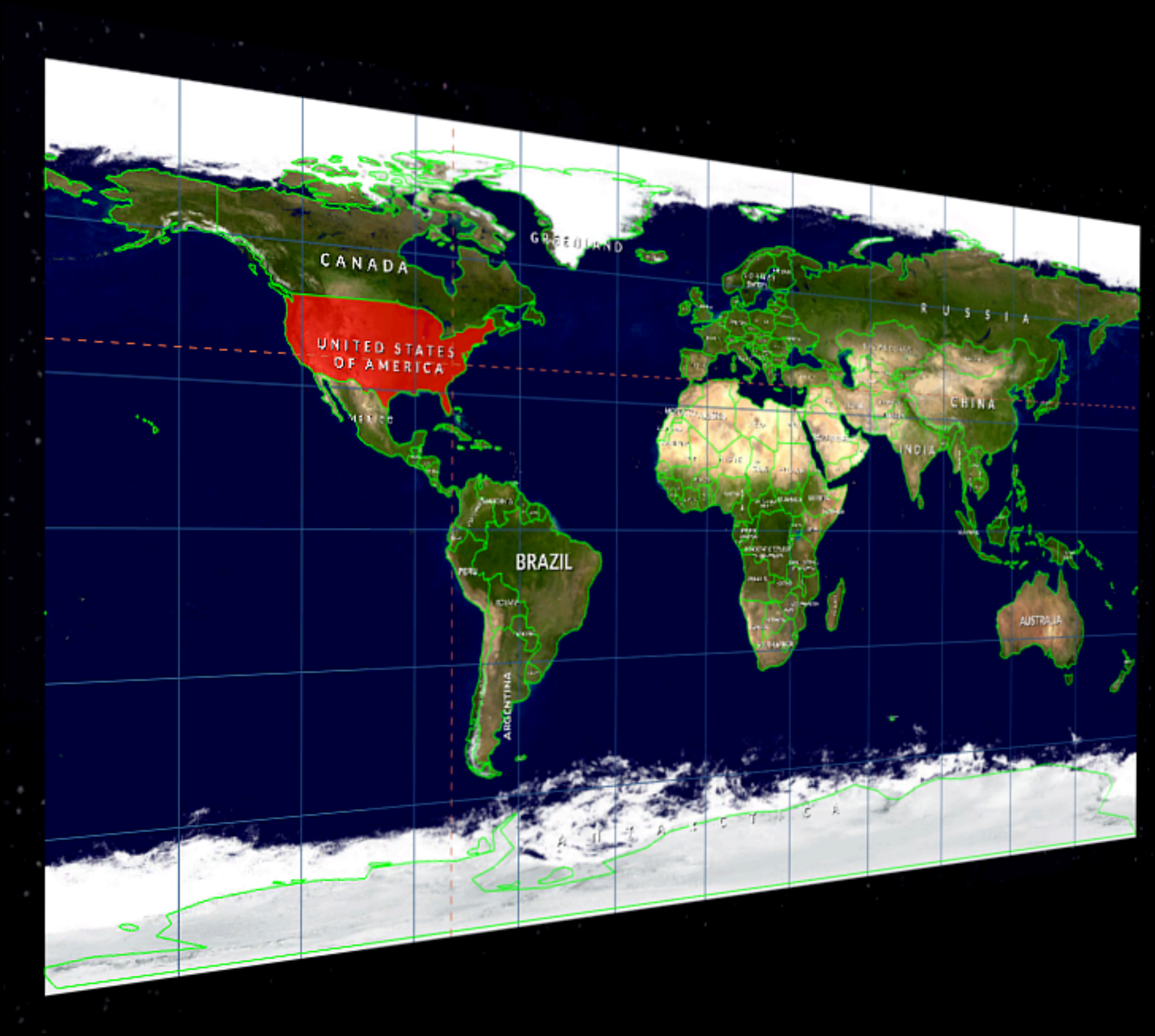
WORLD POLITICAL MAP 2D LITE EDITION



RELEASE NOTES

V.4.3 / SEP.2016

Introduction

Thank you for purchasing!

World Political Map – 2D Lite Edition is aimed at developers who do not require the advanced features of 2D Edition but still need a lightweight, interactive map with selectable countries.

This 2D Lite Edition includes the following features:

- Visualize the frontiers of 177 countries and the location of the 243 most important cities in the world.
- Colorize and also highlight the regions of countries as mouse hovers them.
- Automatically draws country labels, with placement options.
- Quickly locate and center any country, city or custom location.
- Imaginary lines: draw custom latitude, longitude and cursor lines.
- Filter number of cities by population.
- Customization options for colors, labels, frontiers.
- Works on Android and iOS.
- Comprehensive API.
- Dedicated and responsive support forum.

You can use this asset to show or allow the player to choose a location in your strategy game or application, in mission briefings, interactive reports, statistical and educational software, Earth hud locator, etc.

QuickStart and Demo Scene

1. Import the asset into your project or create an empty project.
2. Open scene "MapDemo" in Demo folder.
3. Run and experiment with the demonstration.

The Demo scene contains a WorldMap2D instance (the prefab) and a Demo gameobject which has a Demo script attached which you can browse to understand how to use some of the properties of the asset from code (C#).

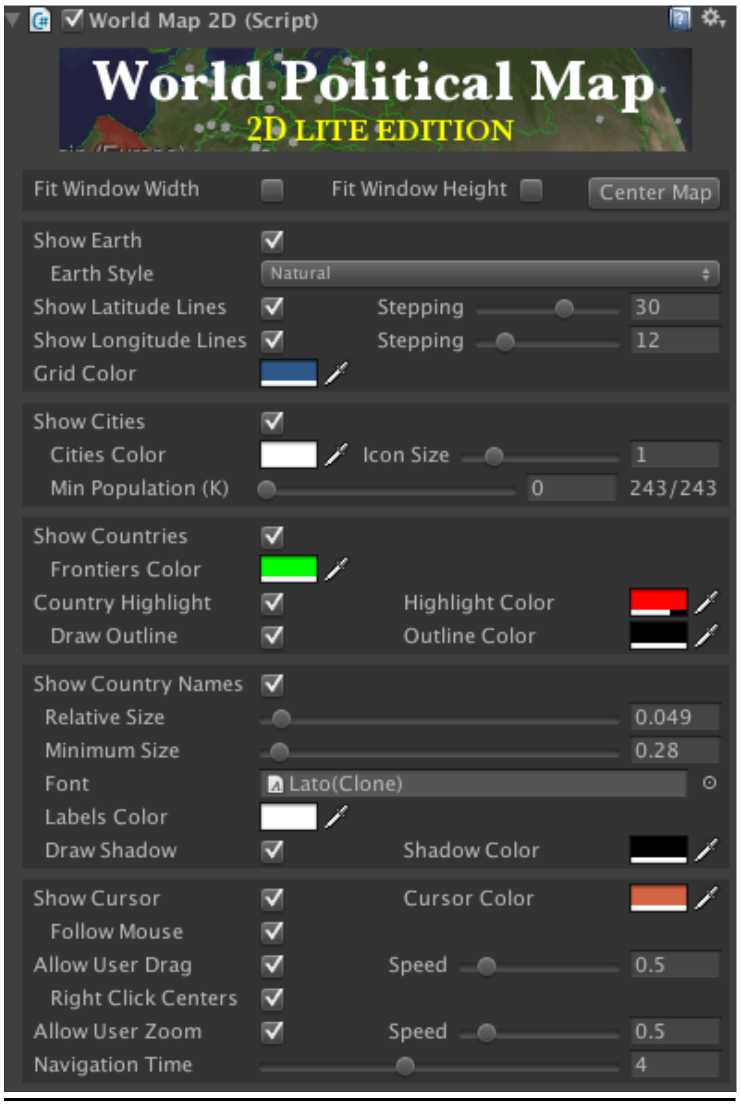
Support & Contact info

We hope you find the asset easy and fun to use.
Feel free to contact us for any enquiry.

Kronnect Games
Email: contact@kronnect.me
Kronnect Support Forum: http://www.kronnect.me

How to use the asset in your project

Drag the prefab “WorldMap2D” from “Resources/Prefabs” folder to your scene.
Select the GameObject created to show custom properties:


World Map 2D (Script)

World Political Map
2D LITE EDITION

Fit Window Width ☐ Fit Window Height ☐ Center Map

Show Earth ✓
Earth Style: Natural
Show Latitude Lines ✓ Stepping 30
Show Longitude Lines ✓ Stepping 12
Grid Color

Show Cities ✓
Cities Color — Icon Size 1
Min Population (K) 0 243/243

Show Countries ✓
Frontiers Color
Country Highlight ✓ Highlight Color
Draw Outline ✓ Outline Color

Show Country Names ✓
Relative Size 0.049
Minimum Size 0.28
Font: Lato(Clone)
Labels Color
Draw Shadow ✓ Shadow Color

Show Cursor ✓ Cursor Color
Follow Mouse ✓
Allow User Drag ✓ Speed 0.5
Right Click Centers ✓
Allow User Zoom ✓ Speed 0.5
Navigation Time 4

Custom Editor Properties

Fit Width/Height/Center Map: controls and center how the map can be moved over the screen.

Show Earth: shows/hide the Earth. You can for example hide the Earth and show only frontiers giving a look of futuristic UI.

You may want to not hide the Earth, but instead use the Solid Color style, which will hide the Earth, but will prevent the geographic elements and lines to be seen when they’re on the back of the sphere.

Show Latitude/Longitude Lines: will activate/deactivate the layers of the grid. The stepping options allow you to specify the separation in degrees between lines (for longitude is the number of lines).

Grid Color: modifies the color of the material of the grid (latitude and longitude lines).

Show Cities: activate/deactivate the layer of cities.

- **Min Population (K)**: allows to filter cities from current catalog based on population (K = in thousands). When you move the slider to the right/left you will see the number of cities drawn below. Setting this to 0 (zero) will make all cities in the catalog visible.

- **Show Frontiers:** show/hide all frontiers. It applies to all countries, however you can colorize individual countries using the API.

- **Frontiers Color:** will change the color of the material used for all frontiers.

- **Country Highlight Enabled**: when activated, the countries will be highlighted when mouse hovers them. Current active country can be determined using *countryHighlighted* property.

- **Country Highlight Color**: fill color for the highlighted country. Color of the country will revert back to the colorized color if used.

- **Draw Outline** and **Outline Color**: draws a colored border around the colorized or highlighted country.

- **Show Country Names**: when enabled, country labels will be drawn and blended with the Earth map. This feature uses RenderTexture and has the following options:

    - **Labels Quality**: controls the size of the RenderTexture, thus affecting to the resolution of the labels shown in the map. Low quality uses a texture of 2048x1024, Medium 4096x2048 and High 8192x4096.
    - **Relative Size**: controls the amount of "fitness" for the labels. A high value will make labels grow to fill the country area.
    - **Minimum Size**: specifies the minimum size for all labels. This value should be let low, so smaller areas with many countries don't overlap.
    - **Font**: allows you to choose a different default font for labels (factory default is "Lato"). Note that using the decorator component you can assign individual fonts to countries.
    - **Labels and shadow color**: they affect the Font material color and alpha value used for both labels and shadows. If you need to change individual label, you can get a reference to the TextMesh component of each label with Country.labelGameObject field.

- **Show Cursor:** will display a cross centered on mouse cursor. Current location of cursor can be obtained with *cursorLocation* property when *mouseOver* property is true.

- **Respect Other UI:** prevents map interactions while pointer is on UI (buttons, labels, …)

- **Navigation Time**: time in seconds for the fly to commands. Set it to zero to instant movements.

- **Autorotation Speed:** will make the Earth continuously rotate around its axis. Set it to zero to disable autorotation.

- **Allow User Rotation:** whether the user can rotate the Earth with the mouse. You can implement your own interactions setting this to false and modifying the rotation / position fields of the gameObject transform.

- **Allow User Zoom:** wether the user can zoom in/out the Earth with the mouse wheel.

- **Zoom Speed:** multiplying factor to the zoom in/out caused by the mouse Wheel (Allow User Zoom must be set to true for this setting to have any effect).

Choose Reset option from the gear icon to revert values to factory defaults.

Programming Guide (API)

You can instantiate the prefab "WorldMap2D" or add it to the scene from the Editor. Once the prefab is in the scene, you can access the functionality from code through the static instance property:

```
Using WPMF;

WorldMap2D map;

void Start () {
map = WorldMap2D.instance;
        ...
}
```

(Note that you can have more WorldMap2D instances in the same scene. In this case, the instance property will returns the same object. To use the API on a specific instance, you can get the WorldMap2D component of the GameObject).

Most of the public API and properties are located in WorldMap2D script inside Scripts/Core folder. Below is a list of them:

Public Properties & Methods

Country related

map.countries: the array of Country objects. Note that the number and indexes of countries varies between the low and high-definition geodata files (reloaded when you change the frontiersQuality property in the inspector or in the API).

map.GetCountryIndex(name): returns the index of the country in the array.

map.GetCountryIndex(ray, out countryIndex, out regionIndex): find the country pointed by the ray.

map.GetCountryNames(groupByContinent): returns an array with the country names, optionally grouped by continent.

map.countryHighlighted: returns the Country object for the country under the mouse cursor (or null).

map.countryHighlightedIndex: returns the index of country under the mouse cursor (or null if none).

map.countryRegionHighlighted: returns the Region object for the highlighted country (or null). Note that many contries have more than one region. The field mainRegionIndex of the Country object specified which region is bigger (usually the main body, being the rest islands or foreign regions).

map.countryRegionHIghlightedIndex: returns the index of the region of currently highlighted country for the regions field of country object.

map.countryLastClickedIndex: returns the index of last country clicked.

map.enableCountryHighlight: set it to true to allow countries to be highlighted when mouse pass over them.

map.fillColor: color for the highlight of countries.

map.showCountryNames: enables/disables country labeling on the map.

map.showOutline: draws a border around countries highlightes or colored.

map.outlineColor: color of the outline.

map.showFrontiers: show/hide country frontiers. Same than inspector property.

map.frontiersColor: color for all frontiers.

map.RenameCountry(oldName, newName): allows to change the country's name. Use this method instead of changing the name field of the country object.

map.BlinkCountry(country, color1, color2, duration, speed): makes the country specified toggle between color1 and color2 for duration in seconds and at speed rate.

map.FlyToCountry(name): start navigation at *navigationTime* speed to specified country. The list of country names can be obtained through the cities property.

map.FlyToCountry(index): same but specifying the country index in the countries list.

map.ToggleCountrySurface(name, visible, color): colorize one country with color provided or hide its surface (if visible = false).

map.ToggleCountrySurface(index, visible, color): same but passing the index of the country instead of the name.

map.ToggleCountryMainRegionSurface(index, visible, color, Texture2D texture): colorize and apply an optional texture to the main region of a country.

map.ToggleCountryRegionSurface(countryIndex, regionIndex, visible, color): same but only affects one single region of the country.

map.HideCountrySurface(countryIndex): un-colorize / hide specified country.

map.HideCountryRegionSurface(countryIndex): un-colorize / hide specified region of a country.

map.HideCountrySurfaces: un-colorize / hide all colorized countries (cancels ToggleCountrySurface).

Cities related

map.cities: return a List<City> of all cities records.

map.GetCityNames: return an array with the names of the cities.

map.cityHighlighted: returns the city under the mouse cursor (or null if none).

map.showCities: show/hide all cities. Same than inspector property.

map.minPopulation: the mínimum population amount for a city to appear on the map (in thousands). Set to zero to show all cities in the current catalog. Range: 0 .. 17000.

map.FlyToCity(name): start navigation at *navigationTime* speed to specified city. The list of city names can be obtained through the cities property.

map.FlyToCity(index): same but specifying the city index in the cities list.

Earth related

map.showEarth: show/hide the planet Earth. Same than inspector property.

map.earthColor: the currently color used in the Earth when style = SolidColor.

map.showLatitudeLines: draw latitude lines.

map.latitudeStepping: separation in degrees between each latitude line.

map.showLongitudeLines: draw longitude lines.

map.longitudeStepping: number of longitude lines.

map.gridLinesColor: color of latitude and longitude lines.

User interaction

map.mouseIsOver: returns true if mouse has entered the Earth's sphere collider.

map.navigationTime: time in seconds to fly to the destination (see FlyTo methods).

map.allowUserDrag/map.allowUserZoom: enables/disables user interaction with the map.

map.mouseWheelSensibility: multiplying factor for the zoom in/out functionality.

map.mouseDragSensibility: multiplying factor for the drag functionality.

map.showCursor: enables the cursor over the map.

map.cursorFollowMouse: makes the cursor follow the map.

map.cursorLocation: current location of cursor in local coordinates (by default the sphere is size (1,1,1) so x/y/z can be in (-0.5,0.5) interval. Can be set and the cursor will move to that coordinate.

map.fitWindowWidth: makes the map occupy the width of the screen.

map.fitWindowHeight: makes the map occupy also the height of the screen.

map.CenterMap(): positions the map in front of the main camera.

map.FlyToLocation (x, y, z): same but specifying the location in local Unity spherical coordinates.

map.respectOtherUI: prevents map interactions while pointer is on UI (buttons, labels, …)

Labels related

map.showCountryNames: toggles countriy labels on/off.

map.countryLabelsSize: this is the relative size for labels. Controls how much the label can grow to fit the country area.

map.countryLabelsAbsoluteMinimumSize: minimum absolute size for all labels.

map.labelsQuality: specify the quality of the label rendering (Low, Medium, High).

map.showLabelsShadow: toggles label shadowing on/off.

map.countryLabelsColor: color for the country labels. Supports alpha.

map.countryLabelsShadowColor: color for the shadow of country labels. Also supports alpha.

map.countryLabelsFont: Font for the country labels.

Other

map.ToggleContinentSurface(name, visible, color): colorize countries belonging to specified continent with color provided or hide its surface (if visible = false).

map.HideContinentSurface(name): uncolorize/hide countries belonging to the specified continent.