

# How to generate a kmz file for MapRun

MapRun requires two input files to be created in order to set up a new course. One of these is a geo-referenced orienteering (or other) map file which has been exported in .kmz format.

If you have access to Ocad 10 or above, this can be created very simply, by exporting the file in .kmz format. For those without access to Ocad, there is an alternative method using Open Orienteering Mapper (OOM, free software). This document sets out a simple procedure to create a .kmz file using OOM.

## Geo-referencing your map in OOM

Even if your map has been previously geo-referenced it seems that OOM handles projections in a somewhat different way from Ocad and the following steps should be followed:

1. Open up your mapfile in OOM
2. Open the Map / Georeferencing Dialog box
3. Set Coordinate reference system to "By EPSG code"
4. Set EPSG code to 3857
5. Set Grid scale factor to 1.7 (you may need to fiddle with this later)
6. Identify the lat / long coordinates for a selected point in the middle of your map
  - Pick a location that is easily identifiable on other maps
  - Go to a website such as <https://www.latlong.net/> or else open up Google Earth and use the maps / images to identify the lat / long coordinates for your selected point
7. In OOM, click on "Pick on map" and then select your point using the cursor
8. Type in the lat / long coordinates for this point to the "Geographic coordinates" box
9. Set the Declination to 0
10. Click on Save. If you changed the declination then there will be a pop-up dialog box asking if you would like to rotate your map. Select yes and click ok on the next box
11. Save your new map with a different name (just in case something has gone wrong somewhere!). You can save as .omap for reading into OOM in the future but may also want to save as .ocd to use in Condes etc. (File / Save As - select Ocad from the drop down box)

## Creating a .kmz file

Once you have your map georeferenced in OOM you need to convert it into a .kmz format which can be done via the following steps:

1. To export the map from OOM use File / Export / Image File

2. A dialog box opens up. Edit the Resolution to 150dpi and ensure that the “Save World File” box is ticked (right at the bottom)
3. Select .jpeg from the Save As dropdown box and enter a filename. This should create 2 files with extensions .jpg and .jgw
4. This file can now be converted to .kmz format using a script at the following link:

<http://www.p.fne.com.au/rg/cgi-bin/o-utils.cgi>

5. Scroll down to the section headed “Create a KMZ file (with 512x512 tiles) from a jpg and jgw file”. Enter the names of your .jpg and .jgw files (the latter where it says “jpw”. Then click “Go”. You will be asked to enter a name for the resulting .kmz file

## Check the accuracy of your resulting .kmz file

You should now be able to open this file in Google Earth and check how successfully it has been geo-referenced and scaled:

1. If you have Google Earth installed, then double clicking on the file should automatically open it up in GE
2. Check the location by fading the file to see how well positioned and scaled it
3. If the map needs either rotating, resizing or re-positioning, return to the geo-referencing section, fiddle with the settings and try again. It may take a couple of iterations to get it right.