



NATIONAL RESEARCH  
UNIVERSITY

Geoapplications development  
<http://rgeo.wikience.org>

## Task 01

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# Practice

Develop a geoapp using NASA WW that (at least):

1. Opens SHP file for Moscow administrative boundaries
  - a) see course site for SHP files
  - b) see example in worldwindx -> Shapefiles
2. Flies to Moscow
3. Draws Moscow admin boundaries as 2D shapes
4. Color polygons using a gradient scale depending on the distance between the Kremlin and the polygon center of mass (you will need to scale distances to get visually varying colors)

# Practice

Example is in worldwindx -> Shapefiles

The screenshot displays the 'World Wind Shapefiles' application window. On the left, there are two panels: 'Layers' and 'Shapefiles'. The 'Layers' panel contains a list of map layers with checkboxes, including 'Stars', 'Atmosphere', 'NASA Blue Marble Image', 'Blue Marble May 2004', 'i-cubed Landsat', 'USDA NAIP', 'USDA NAIP USGS', 'MS Virtual Earth Aerial', 'Bing Imagery', 'USGS Topographic Maps 1:250K', 'USGS Topographic Maps 1:100K', 'USGS Topographic Maps 1:24K', 'USGS Urban Area Ortho', 'Political Boundaries', and 'Open Street Man'. The 'Shapefiles' panel has buttons for 'Open File...' and 'Open URL...', and checkboxes for 'Allow picking' (checked) and 'Allow dragging' (unchecked). The main map area shows a satellite view of a city with numerous colored polygons overlaid, representing shapefiles. Labels for various cities are visible, such as 'Sergiyev Posad', 'Zelenograd', 'Pavlovskiy', 'Mytishchi', 'Balashikha', 'Noginsk', 'Orekhovo-Zuyevo', 'Kolomna', 'Serpukhov', and 'Obrninsk'. A compass rose is in the top right, and a scale bar for 20 km is in the bottom right. At the bottom of the window, the status bar shows 'Altitude 285 km', 'Off Globe', and 'Downloading'.

# Practice

Deadline: 25 Sep 2018

Marking: 1-3 = 7, 1-4 = 10