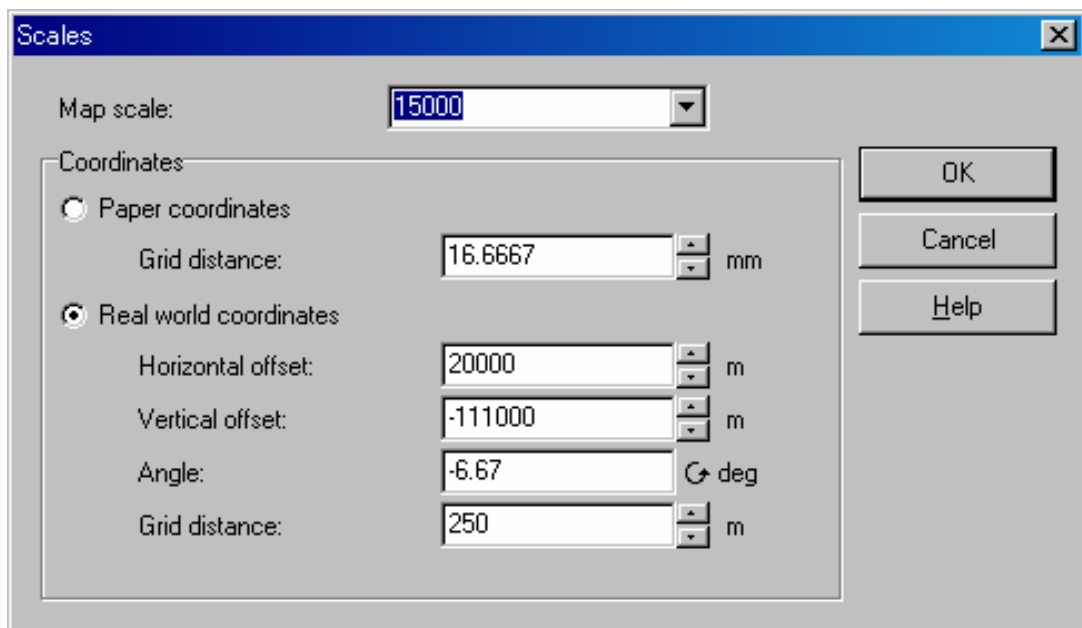# How to adjust GPS positions to basemap

1. Basic Knowledge
- OCAD supports Real World Coordinates.
- Trimble XR software, GPS Pathfinder office, supports every local coordinates (17 kinds of Japanese local coordinates), all nations, and also all over the world.
- Every local basemap may be made according to local coordinate.

2. What to do at first (only first time)
To know your local coordinate
Adjust OCAD file coordinate to your local coordinate.

Real sample of one woc2005 map,
    map center (or several mapping center) point located from local coordinate standard position, horizontally 20000m east, vertically 111000m south.
  Magnetic north is 6.67deg to west.

3. How to adjust GPSdata to basemap (every time after gps measurement to renew)
Export GPS data as DXF file format according to local coordinate through trimble software GPS Pathfinder office.
Import the dxf file to Ocad.
Change point feature to one ocad point feature, and Change line feature to one ocad line feature. Also text to one ocad text.
Scanned basemap should be adjust to local coordinate.

4. Print basemap
And print as usual, go mapping with your basemap!!

That's all we do.
It takes 15min. from the beginning.
After every gps measurement, it takes a few minutes to renew basemap.