



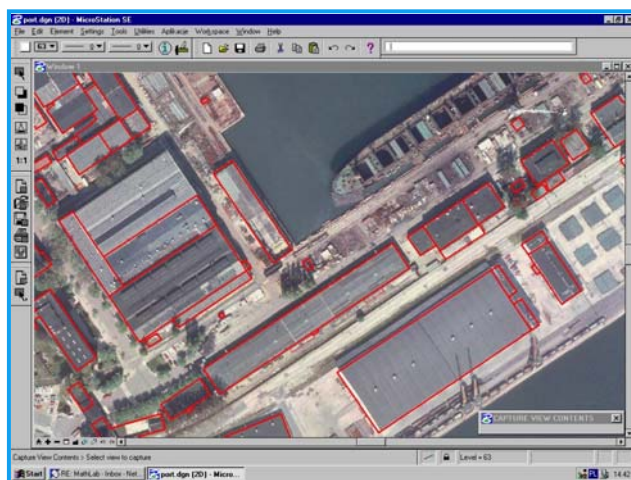
PORT OF GDYNIA

Since 1996 BMT Cordah Sp. z o.o. has assisted Port of Gdynia Authority in development and implementation of a GIS Port Information Management System to support restructure and development of the Port. It refers, particularly, to the functionality of digital map information about land parcels and buildings. The multi-user system, which has to meet high quality CAD/CAM requirements, was developed using MicroStation, a platform of Bentley Systems.

In the first phase of this study, applications architecture was developed to store, process, analyse and present information on land parcels and buildings. A user could make sophisticated queries of purely textual information (e.g. how much space a particular company rents) or in connection with spatial location (e.g. the location of all land parcels belonging to a certain owner). The system was built on digitised base maps of the port terrain of scale 1:500 obtained from the town of Gdynia.



When the digital base maps were assimilated into the system, it became evident that there were discrepancies between ground truth data and map information. In order to check and readjust all map information in a systematic manner, aerial images were used. Colour images of scale 1:26000 were acquired during 1996/1997 within an EU aid program and these became the primary source of ground truth information for the port area.



Processing of aerial images was carried out using EASY PACE® software of PCI®. An orthophotomosaic of the whole port area was produced to serve as the raster background for the Port Geographical Information System. Independent ground survey of the port area using GPS (Global Positioning System) confirmed collocation of features and identified that differences in horizontal dimensions on the orthophotomosaic and the ground to be less than 25 cm.

BMT is engaged in ongoing development of the system.

