



Technologies for Online Data Management of Oceanographic Data

G. Zodiatis (1), D. Hayes (1), A. Karaolia (1), S. Stylianou (1), A. Nikolaidis (1), I. Constantinou (1), S. Michael (1), G. Galanis (1,2), and G. Georgiou (1)

(1) UNIVERSITY OF CYPRUS, OCEANOGRAPHY CENTRE, Nicosia, Cyprus (gzodiac@ucy.ac.cy, +357-22892575), (2) Hellenic Naval Academy, Section of Mathematics, Piraeus, Greece

The need for efficient and effective on line data management is greatly recognized today by the marine research community. The Cyprus Oceanography Center at the University of Cyprus, realizing this need, is continuously working in this area and has developed a variety of data management and visualization tools which are currently utilized for both the Mediterranean and the Black Sea.

Bythos, CYCOFOS and LAS server are three different systems employed by the Oceanography Center, each one dealing with different data sets and processes. Bythos is a rich internet application that combines the latest technologies and enables scientists to search, visualize and download climatological oceanographic data with capabilities of being applied worldwide. CYCOFOS is an operational coastal ocean forecasting and observing system which provides in near real time predictions for sea currents, hydrological characteristics, waves, swells and tides, remote sensing and in-situ data from various remote observing platforms in the Mediterranean Sea, the EEZ and the coastal areas of Cyprus. LAS (Live Access Server) is deployed to present distributed various types of data sets as a unified virtual data base through the use of OpenDap networking. It is first applied for providing an integrated, high resolution system for monitoring the energy potential from sea waves in the Exclusive Economic Zone of Cyprus and the Eastern Mediterranean Levantine Basin.

This paper presents the aforementioned technologies as currently adopted by the Cyprus Oceanography Center and describes their utilization that supports both the research and operational activities in the Mediterranean.