

# MASTER OF SCIENCE IN INFORMATION SYSTEMS AND OPERATIONS

---

**MANPOWER REQUIREMENTS DATABASE FOR THE GREEK NAVY**  
**Kyriakos Sergis-Lieutenant, Greek Navy**  
**B.S., Hellenic Naval Academy, 1995**  
**Master of Science in Computer Science-September 2003**  
**Master of Science in Information Systems and Operations-September 2003**  
**Advisor: Daniel Dolk, Department of Information Science**  
**Second Reader: Rudolph P. Darken, Department of Computer Science**

The Greek Navy is trying to create a Web-enabled Database system, which will enhance and facilitate the process of assigning duties (jobs) to its officers.

This study provides a prototype for implementing the job-to-officers assignment process by creating a manpower Database accessed via the Internet. This prototype is based on the 3-tier architecture, having both the Web and Database design and implementation. Behind the scenes is a multi-criteria decision algorithm that takes the officers' credentials and the officers' and commands' preferences into account and then determines the best distribution of the officers to the available jobs.

This thesis and the supporting research will strive to develop the requirements and a working prototype web site for the detailer, and reduce both manpower and time required to complete the assignment process conducted by the Greek Navy's Department of Personnel.

**KEYWORDS:** Web-enabled Database, Relational Database, Manpower Systems, Three-tier Application, Multi-criteria Decision Problem, Algorithm, Greek Navy, Officer, Command, Credentials, Qualifications, Officer's Preference, Command's Preference

