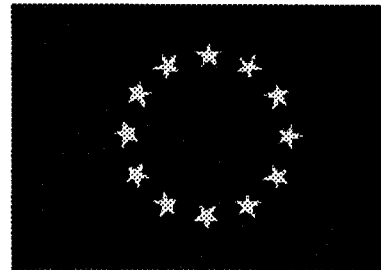
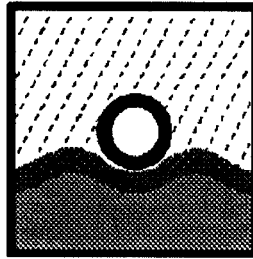
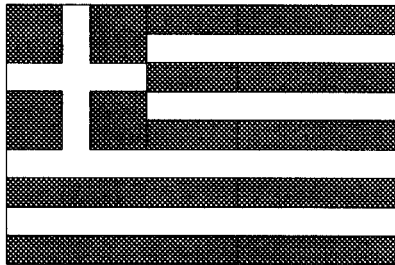


HYDROSCOPE

The new Greek National Database System for Meteorological, Hydrological and Hydrogeological Information

STRIDE HELLAS PROGRAMME 1992-1993

A EC STRIDE research programme of 1st phase value of 1.6 MEcus.



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ABSTRACT

The HYDROSCOPE is a Greek national wide research programme, co-financed by the European Community, as a STRIDE programme, aiming to the constitution of a Greek National Database System for Meteorological, Hydrological and Hydrogeological Information. The HYDROSCOPE Database design and functional characteristics are carefully chosen among the front line of the contemporary state of the art in the domain of Database design and development, and the whole undertaking constitute by its originality an advanced applied research programme. This database would represent by its technical characteristics the state of the art in database system, by means of modern electronic database technology and conceptual design. All the major hydrometeorological data collecting Services and supervising Ministries, University Divisions and Research Institutes, as well as the most important users of these data in Greece are participating in this programme.

INTRODUCTION

The HYDROSCOPE is a Greek national wide research programme, co-financed by the European Community, as a STRIDE programme, aiming to the constitution of a Greek National Database System for Meteorological, Hydrological and Hydrogeological Information (Figs. e & f).

All the major hydrometeorological data collecting Services and supervising Ministries, University Divisions and Research Institutes, as well as the most important users of these data in Greece are participating in this programme. (Figs. a & b)

OBJECTIVES

The leading objective is the establishment of the Greek National Database System for all over Greece collected Meteorological, Hydrological and Hydrogeological Information. This database would represent by its technical characteristics the state of the art in database system, by means of modern electronic database technology and conceptual design :

1. Relational
2. Distributed
3. Multilevel
4. Multitype data storage and retrieval
5. Expandable
6. Operating cost optimised
7. User friendly interface

BENEFITS

- Systematic collection, organisation, validation, processing and publication of long measured data records, that possess the data collection responsible services, generally underexploited until now.
- Contribution in the reliable planning and management of the water resources of the country.
- Contribution in the efforts to cope with floods and drought
- Hydroclimatic parameters estimation and natural and biological environment impacts assessment
- Contribution in the global climate change research
- Development of a single network for co-operation, information exchange and action co-ordination of all the services with activities concerning the hydrological cycle.
- Network planning and operation standardisation of the national hydrometeorological networks.

ORGANISATION - ADMINISTRATION

The National Technical University (NTU, Athens) has the Central Project Management

The **Direction Committee** of the project, formed by D. Tolikas, professor AUT, Project Director, D. Koutsogiannis, Lecturer NTU, Project Director, Th. Xanthopoulos, professor NTU, Advisor, assumes the scientific administration of the project.

The project development co-ordination is secured by the **Co-ordination Secretariat** and the **Sectional Scientific Committees**.

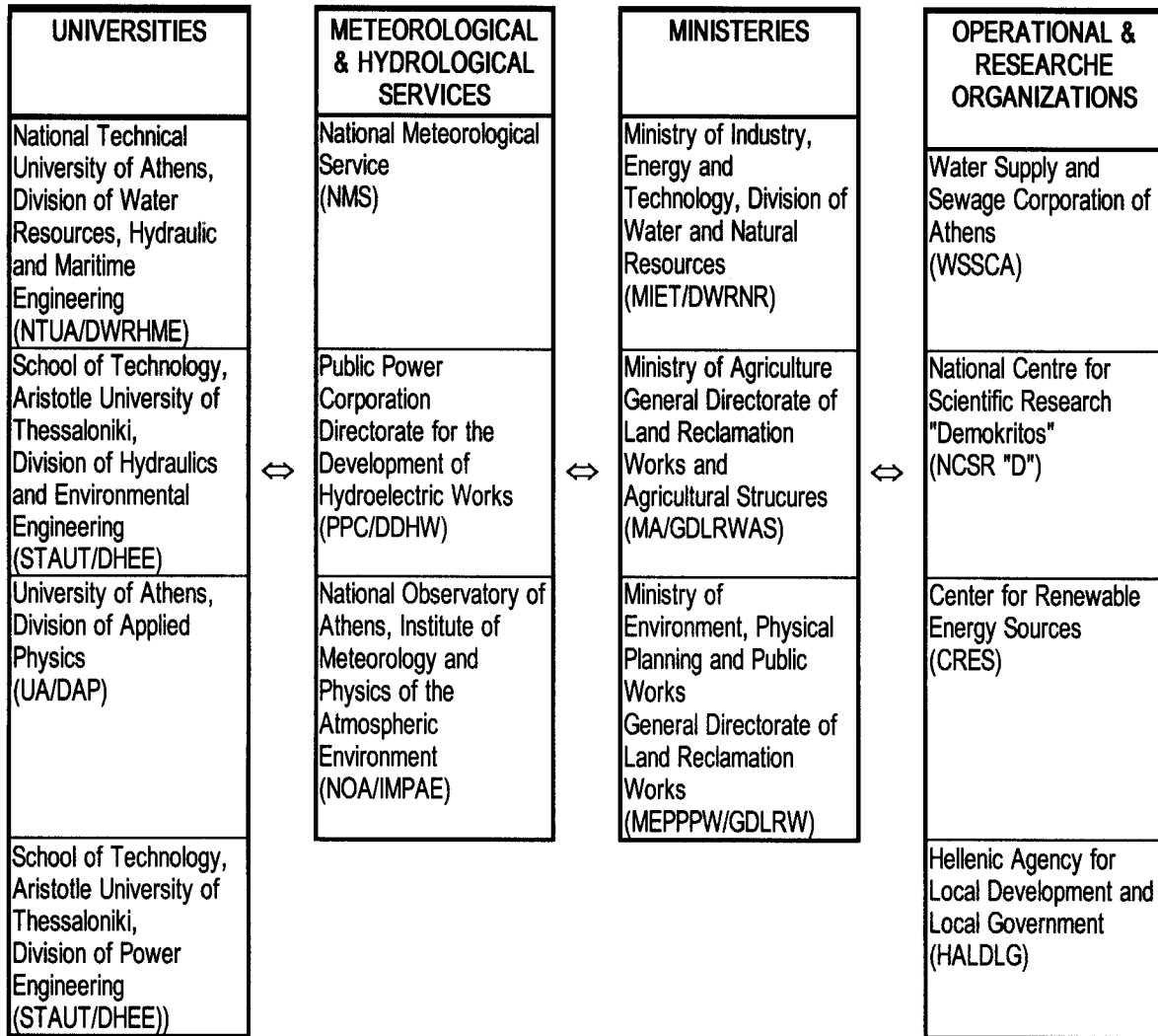


Fig. a. Horizontal Plan of the Coordination Network in HYDROSCOPE.

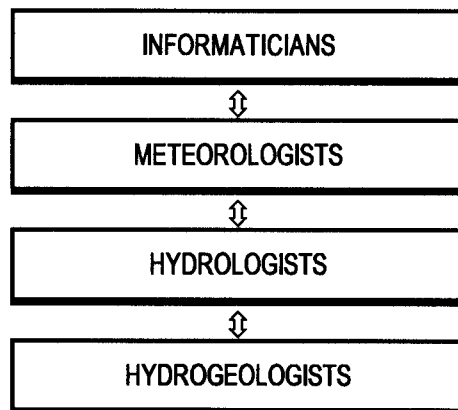


Fig. b. Vertical Plan of the Coordination Network in HYDROSCOPE.

Functional Components of HYDROSCOPE

The HYDROSCOPE Database design and functional characteristics are carefully chosen among the front line of the contemporary state of the art in the domain of Database design and development, and the whole undertaking constitute by its originality an advanced applied research programme (Fig. c & d).

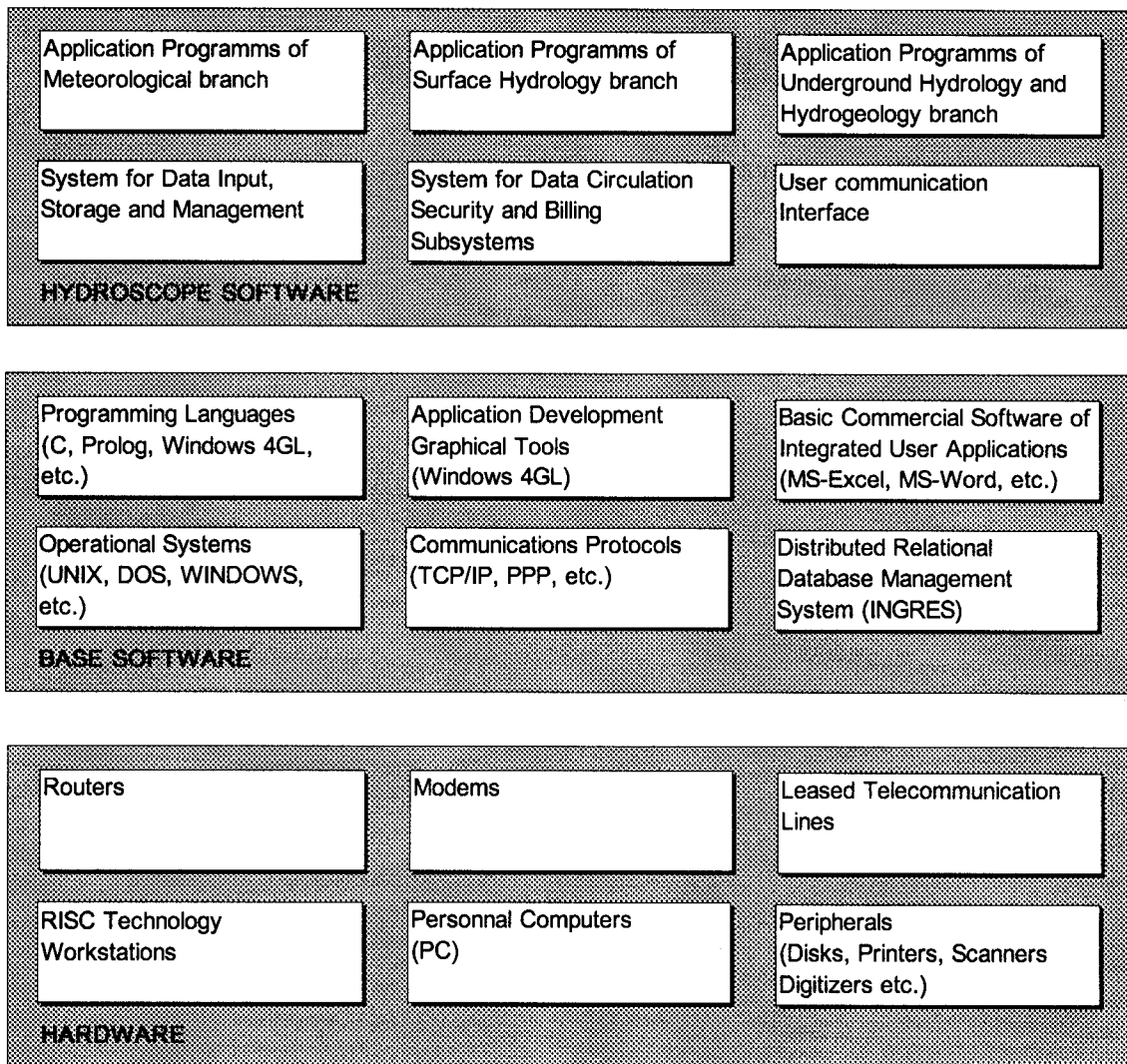
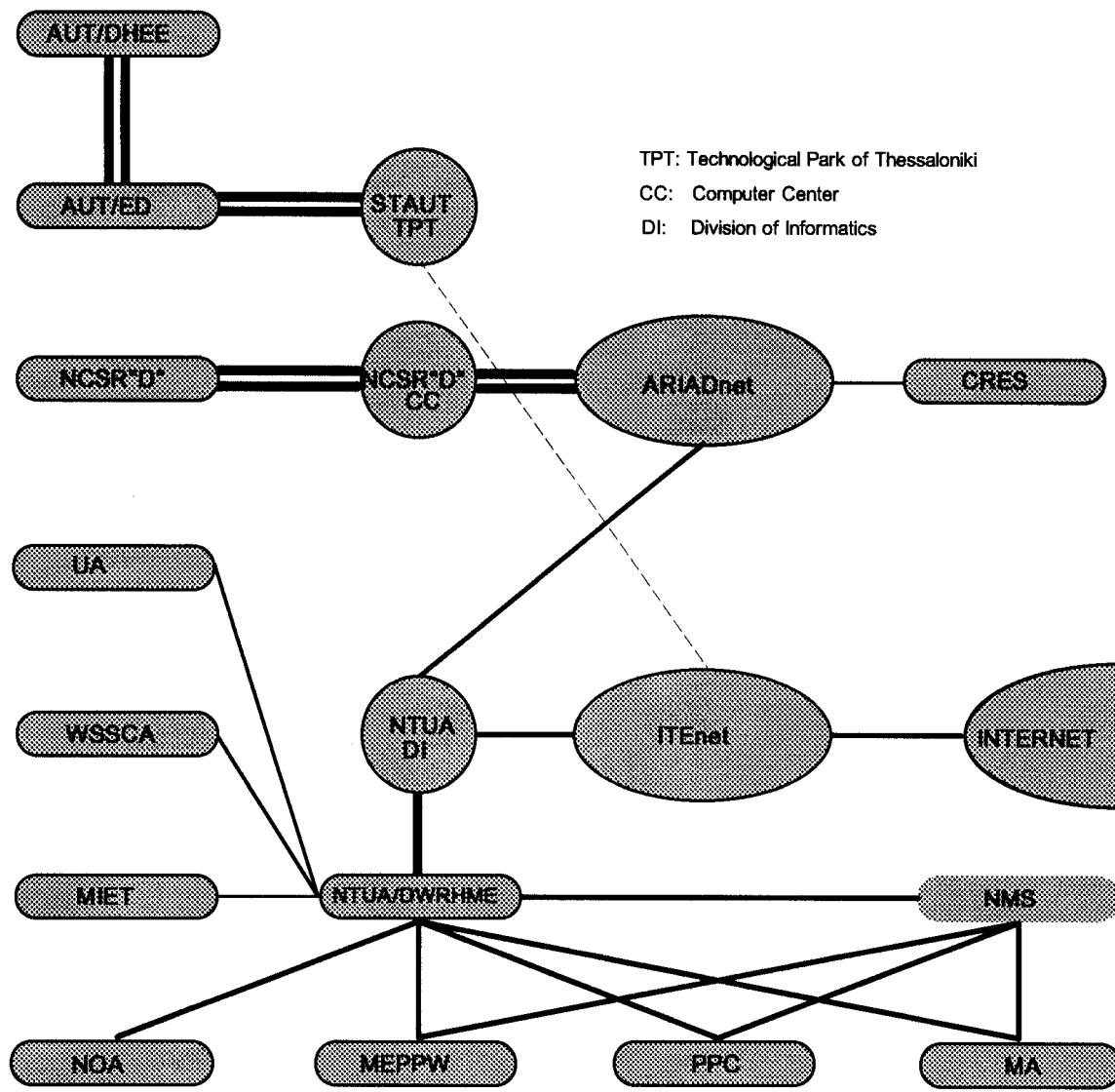


Fig. c



TPT: Technological Park of Thessaloniki
 CC: Computer Center
 DI: Division of Informatics

LEGEND

- ANALOG LEASED LINE 9.6 kbits/s
- ANALOG LEASED LINE 14.4 kbits/s
- DIGITAL LEASED LINE 64 kbits/s
- PRIVATE LINE 144 kbits/s
- ==== ETHERNET LINE
- ▭ HYDROSCOPE NODE
- OTHER NETWORK NODE
- ◉ ACADEMIC DATA NETWORK

Fig. d. WIDE AREA NETWORK TOPOLOGY IN HYDROSCOPE

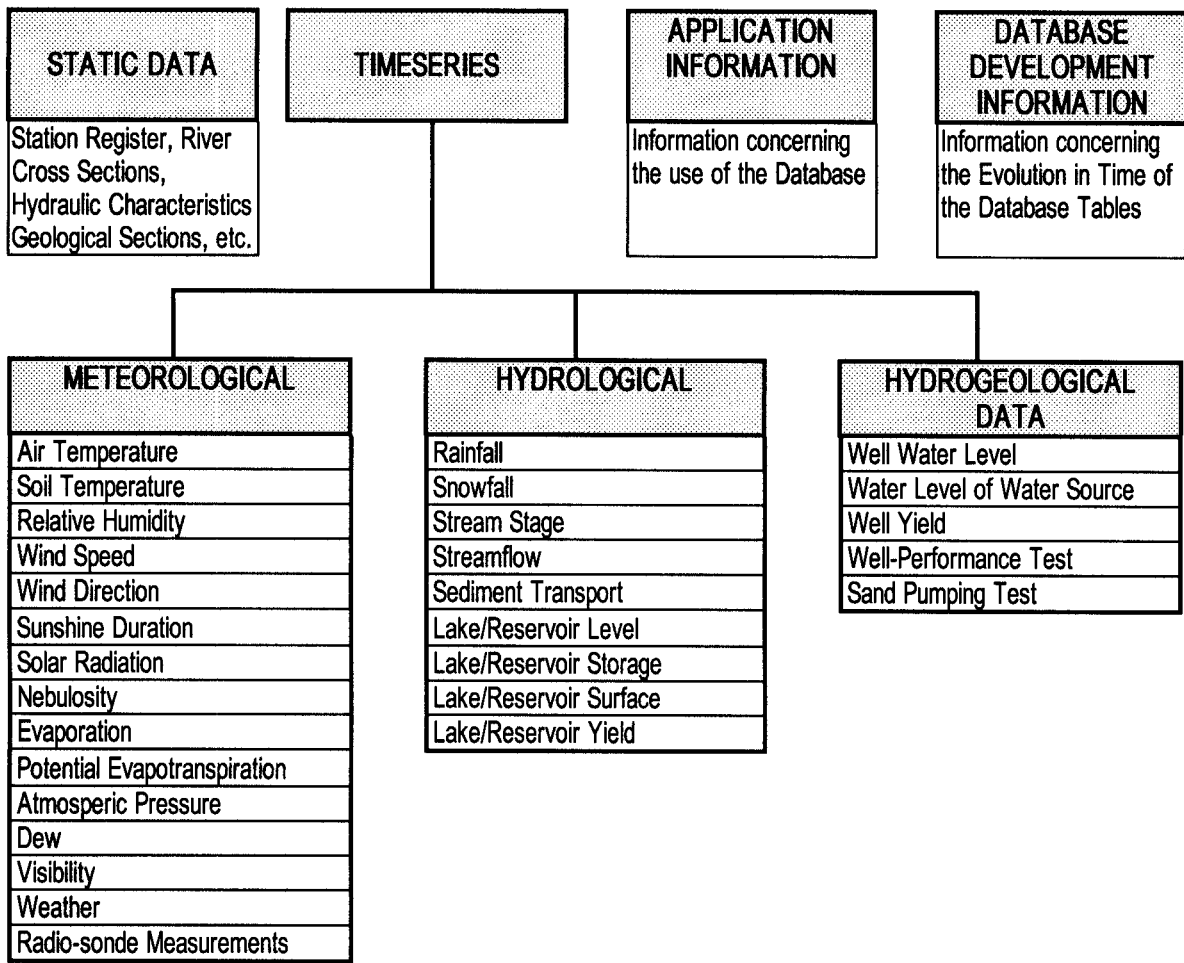


Fig. e. HYDROSCOPE Data Types

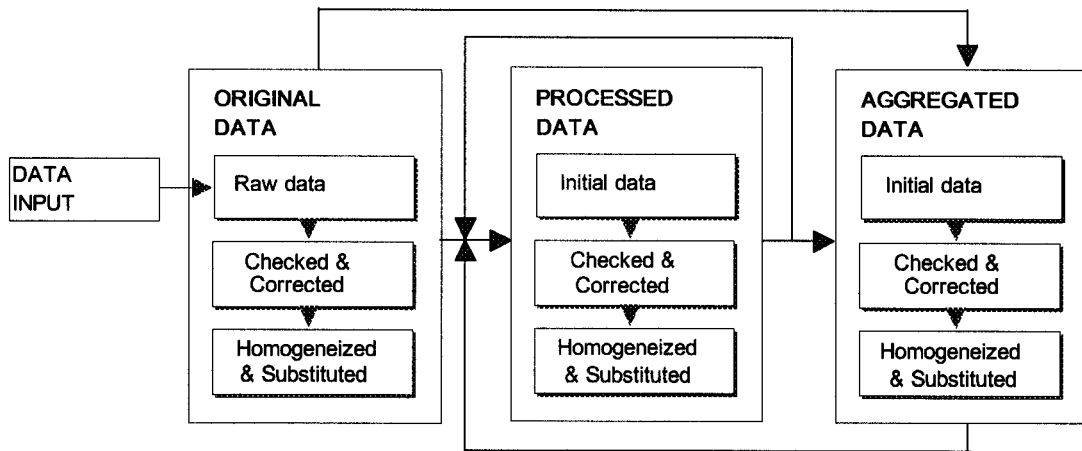


Fig.f. Typical Data Processing Forms