

RoRIS

Vessel Traffic Management and Information System on Romanian Danube



beneficiary:



RoRIS in brief

The RoRIS (Phase 1) project was aiming to implement and to integrate the pilot system for Danube Naval Traffic Management at several levels: local, regional and national.

The project benefits from the latest European regulations concerning inland navigation, information system design methodologies and other European navigation related standards. In the same time, the system is incorporating state of the art hardware, software, communication systems and technologies.

RoRIS was co-financed by the European Commission within the PHARE programme and was recognized as one of the greatest success story of European inland navigation information system.

1. Overview

Main Stakeholders:

- **Beneficiary:** Romanian Naval Authority
- **Implementing Authority:** Ministry of Transportation, Construction and Tourism
- **Contracting Authority:** CFCU (Central Financing and Contracting Unit) Romania
- EC Delegation in Romania
- RoRIS Supervision Team

- **Consortium Leader: TeamNet - Asesoft International SA** - Leading Romanian IT system integrator with a recognized success in international projects (Phare, WorldBank);
- **Partner:** Centrul de Servicii in Radiocomunicatii - Leader for providing the telecom specialized equipment, services and integrated systems;
- **Sub-Contractor:** SAAB TransponderTech AB - The world's foremost proven provider of transponder technology for maritime applications.

2. RORIS - the numbers

- More than 100 operational people involved
- Over 150,000 hours worked
- Over 500,000 km driven
- 10 Tones of Equipments
- 15 Km of cable used
- 2 major floods during the implementation phase
- 22 local modern VTS centers on 1075 km
- 4 regional RIS centers
- 1 national RIS center
- 7 new constructed pylons and 10 existing pylons serving the VHF network
- 2 dGPS stations covering more than 200 km each
- 3 radars
- 4 AIS base-stations
- 2 CCTV Systems

One integrated System



Integration

3. RORIS - Key Concepts

Overall Design

- Site Visits
- Customization Requirements
- Sub systems design
- Integrated Design

VTS Equipments Implementation

- VHF Network System
- AIS Network System
- Radars
- CCTV
- dGPS

Collaboration and Communication

- Information sharing
- Understanding

Civil Works Infrastructure Design

- New pylons construction
- dGPS stations construction
- Modernization of local and regional centers

Communications Infrastructure Improvement

- TCP/IP network improvement
- Voice communication lines

Information System Implementation

- Tracking and Tracing System (Inland ECDIS)
- Notice to Skippers ,Voyage Management
- RoRIS Portal
- MIS - Statistics



TeaNet's concept: Integration and Coordination

Traffic



4. RORIS - The Process

The tasks performed by TeamNet within the project are:

- Site Evaluation
- Civil Works Development Process
- Communication Infrastructure
- Vessel Traffic System Implementation
- Information System Development and Deployment
- General System Integration
- Training

4.1 Civil Works

- Site Visit Evaluation
- Necessary Infrastructure
- Infrastructure Procurement
- Authorization process
- Civil Works Design
- Civil Works Execution
- Civil Works Finalization

4.2 Equipments

- Site Visit Evaluation
- Solution Design
- Factory Configuration
- Factory Acceptance Tests
- Equipments Delivery
- Installation Operations
- On-site Testing



Inspired

4.3 Information System

- Requirements Analysis
- RIS Standards Analysis
- Solutions Design
- Configuration and Testing
- Final Solution Integration
- Deployment and Installation
- FAT and SAT
- Training

4.4 System Integration

- Understanding
- Design
- Sub Systems Detailed Planning
- Integrated System Planning
- Execution
- Control
- Correction
- Permanent Communication

5. RORIS - Services

- Fairway information service
- Traffic information
- Traffic management
- Calamity abatement
- Fleet management
- Statistics

5. RORIS - Applications

- Electronic Chart Display and Information System Application
- Core Business Application: Ship Reporting and Notice to Skippers
- External Portal
- People involved in specialized European commissions for River Information Services



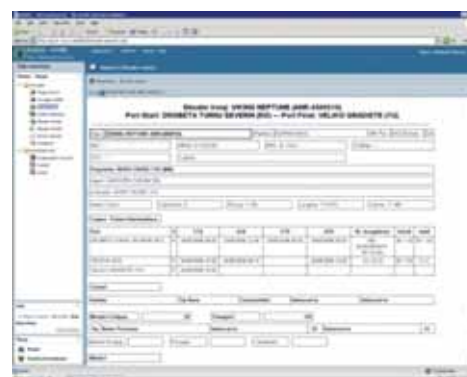
TemNet - ASESOFIT . creating value through integration

Knowledge

6. Applications: Notice to skippers

TeamNet took part to several European seminars and workshops in order to incorporate in its software solutions the latest findings of the European R&D organisations and research programmes as highlighted by COMPRIS, ViaDonau, The Danube Commission etc.

- 100% compliant with Central Commission for Navigation on the Rhine Standard for Notice to Skippers, version 1.0
- easy to use application
- 3 languages translation already implemented: English, Romanian, Russian
- 3 presentation forms to the final user: html, text and XML file
- operational in all sites of RoRIS system
- external subscriptions and internal distributing flows
- WAP access (www.roris.ro)
- suggestions for improving the standards
- Traffic, Data and Ice Sections are divided into specific sub-components, following the RIS Standard requirements
- All data dictionaries/indexes are easy to choose by the user
- Single point for administrating / managing dictionaries
- Search function for all of the dictionaries
- Managing Flow: Project -> Ready For Publication -> Published -> Inactive
- Validation function
- Generation function; Status History
- XML format is structured on the CCNR Standard format



Easy traffic

7. Applications: Ship reporting

TeamNet designed this application in respect with the latest European standards and regulations.

3 Main components:

- Planning; setting up the Voyage;
- real data; harbor specific activities
- Overview of special cargo voyages: dangerous goods

Satisfy 2 main purposes:

- Authorities point of view about voyages
- International Standard point of view: CCNR Standard

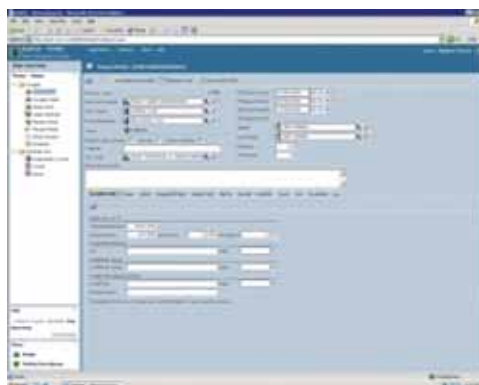
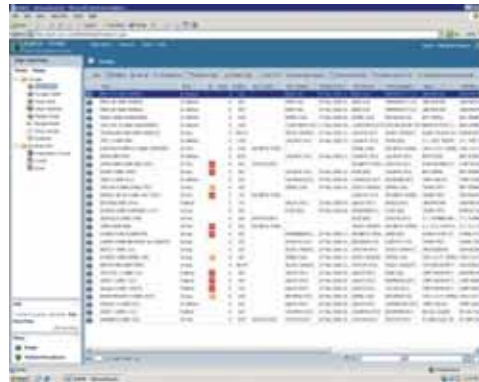
Communicate with ECDIS Application

Registered Data for a Voyage:

- Ship: Identification data, Technical Information, Owner Data
- Voyage Data: Start and Destination Port, Estimated Data (and Actual) , Agent and Renter, Crew Number
- Voyage Details, Voyage Route (all intermediary ports), Units (barges and ships)
- Goods on board; Documents
- Incidents Data

Registered Data for Harbor Activity:

- Actual Dates: entering and leaving port, registration number, crew and passengers numbers
- Port Registry Details
- Convoy In and Out, Goods In and Out, Operations





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