

## Why Portus®?

The expansion of ocean observing networks and modelled ocean data together with the operational integration of new ocean forecasting tools is resulting in a continuous and accumulative growth of data. This is producing a certain dispersion of the information, creating deficiencies in terms of exploitation capabilities.

PORTUS by QUALITAS gives response to the main challenge organizations are facing today, which is **to make information usable**. Discovery and access to information is provided in an easy and straightforward way. All kinds of data, whether measured or modelled (historic, real-time or forecast), are made accessible through a familiar GOOGLE Maps™ interface. Special attention is paid to get the most out of SeaSonde® HF radar capabilities.

**Permissions and authorizations to access information** and tools are structured in an efficient and secure way, based on multiple criteria. General public and specialized stakeholder, system user and system operator are some of the user profiles that are taken into account.

**Information exchange** and cohabitation with third party IT solutions are a strict requirement in any new system or application development. Investment and operation costs can only be afforded through a leveraged approach, in which different IT technologies and software applications provided by various suppliers cohabitate together. PORTUS by QUALITAS understands this point as one of its primary design requirements and brings a response for it by providing intercommunication with third party systems and flexibility to give a tailored response to different customer needs.

**Information shall be available time and location independent.** Therefore, PORTUS® by QUALITAS provides protected access to all information and tools through the web or through private Intranets.

## Features

- » **Flexible** Marine Information System with special focus on SeaSonde® HF Radar
- » **Friendly** Google Maps™ based multisource data visualization interface
- » **Specialised** tools to take the most out of HF Radar (QA/QC, data fusion and forecast products, etc.)
- » **Secure** data storage and management (historic, real-time, forecast)
- » **Multilayer** web based secured access through Internet or Intranet
- » **Powerful** export capabilities in a wide range of standard and non-standard formats and data serving to other client's systems



## Visualization and Data Management

- » Graphic and table based 2D data
- » Different zoom levels
- » HF radar operation tools
- » Movie generation from time-series data
- » Calendar based access to information (historic, real-time, forecast)
- » Internet or Intranet secured web access

## Data Processing

- » Highly reliable QA/QC processes
- » 2D surface current maps from HF Radar using Open Mode Analysis (OMA) combining method technique
  - Smooth, two-dimensional current fields with no gaps
  - Generates currents closer to the coast
- » Portus is able to generate e-mail alerts when threshold values are reached for different physical parameters or when system malfunction occurs
- » Tailored Developments

## Export and data serving

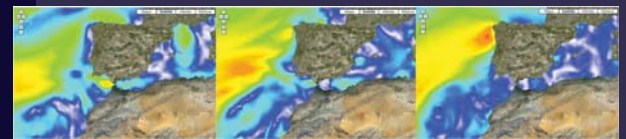
- » Seamless integration into existing third party and final user systems
- » Data can be exported in ASCII format or in the commonly used scientific data format netCDF
- » Portus® provides these two protocols to serve georeferenced maps
  - Tile Map Services (TMS)
  - Web Map Services (WMS)
- » Georeferenced PNG data maps can also be generated
- » OPeNDAP and FTP protocols are supported
- » Other tailored solutions can be provided

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Detailed currents information is shown for each point by clicking in the 2-D vector data layer.

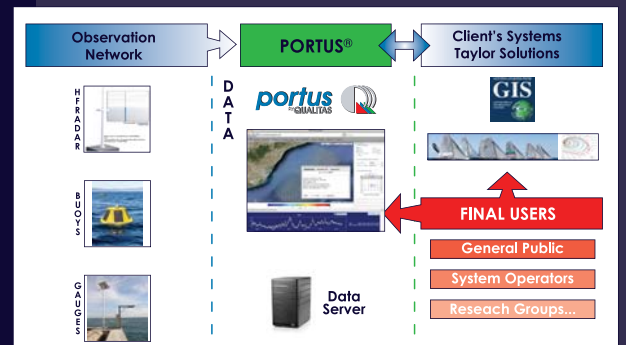
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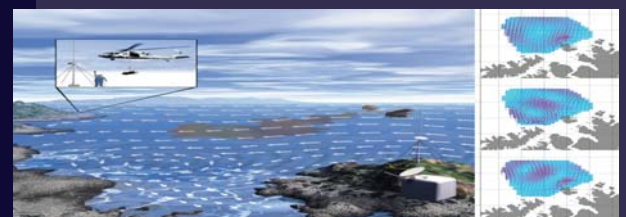
Portus generates movies from time-series data.



Data representation by means of tables and graphics is provided



Exportation and data integration with third party's software and systems is a key feature in PORTUS



Open Mode Analysis combining method technique was used to get 2D currents map without gaps in a HF Radar rapid deployment exercise in Norway using PORTUS®

## About QUALITAS

Created in 2002, QUALITAS has its main activity in providing technology and data intensive solutions to the operational oceanography, offshore, search and rescue, navigation and marine renewable sector focused on:

- » Ocean Observing Technologies
- » Information Management Systems
- » Decision Support Tools
- » Customized Software Solutions

QUALITAS activity in providing systems and solutions is ISO 9001 and ISO 14001 certified.

VER5/2011