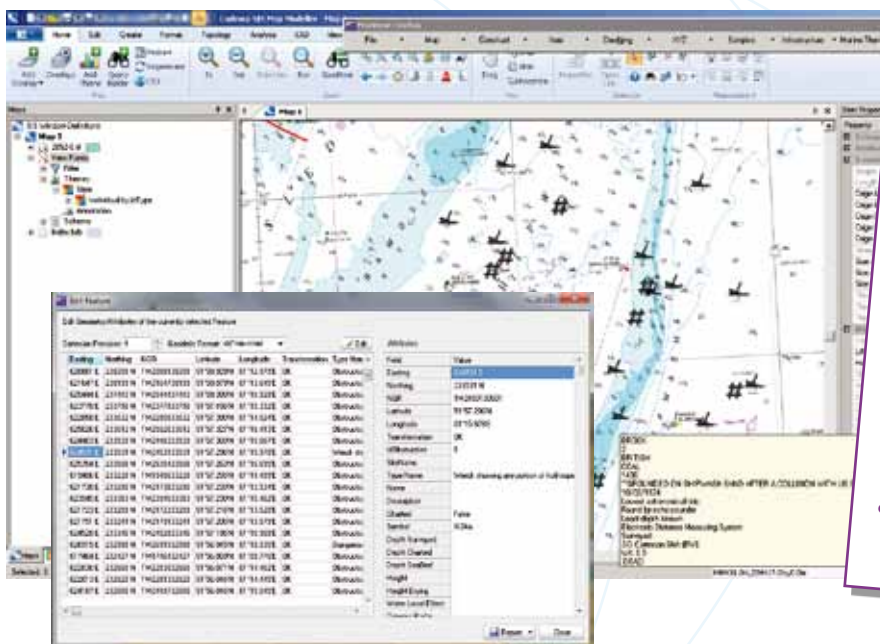# Maritime Toolbar

Infrastructure & Asset Management Extension

Tools to meet the workflow demands of the maritime user

Key Benefits:

- Implements the philosophy of 'lean' management
- Streamlines data and information exchange
- Tailor-made to support common maritime datasets
- Easy access and querying of complex datasets
- Greater analysis options when linked to GIS
- Reports customised to individual organisations

Geographic Information Systems (GIS) offer multiple benefits to maritime users wishing to acquire, analyse and disseminate environmental, asset and business data using 'location' as a common factor. *Maritime Toolbar Extensions* **build on the data management and manipulation tools inherent in GIS and** **OceanWise** *Maritime Toolbar* **to address particular workflow demands within an overall maritime information infrastructure.**

Organisations carry out specific tasks to address business and operational needs. Efficiency is improved by breaking these tasks down into well-defined steps or processes. Each process often relies on data that is developed as a result of a previous task, output from a different system or is acquired externally. The interface between processes can be a source of major inefficiencies and frustration, either because information is not easily accessible or requires considerable preparation

before it can be used. **Maritime Toolbar** and its **Workflow Extensions** uses the philosophy of lean process management by providing the tools required to manage common data as a central resource and streamlining the exchange of data between processes, systems and external stakeholders.
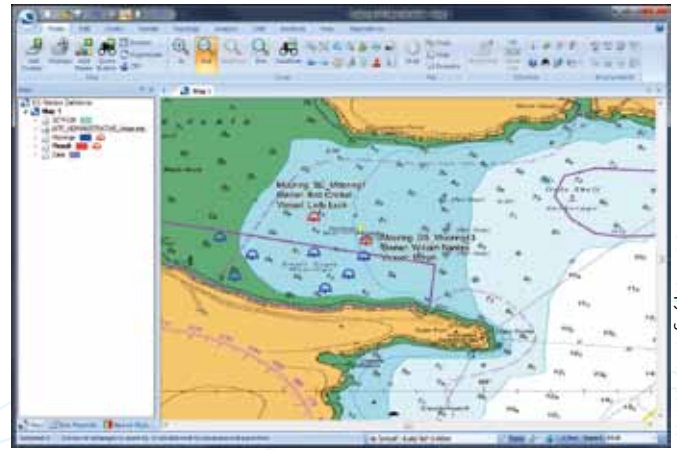
Maritime Toolbar Workflow Extensions have been developed in collaboration with port operators to meet their exact requirements. However, they will be of benefit to other maritime users involved in planning, constructing and operating all types of coastal or offshore infrastructure. Other Extensions are currently available for the following maritime processes:

- Hydrographic Survey Management
- Dredging and Licensing Management
- Environmental Samples Management

Each extension can be installed alone or in combination depending on individual requirements. Extensions for other maritime processes are in development, please contact **OceanWise** for further details.
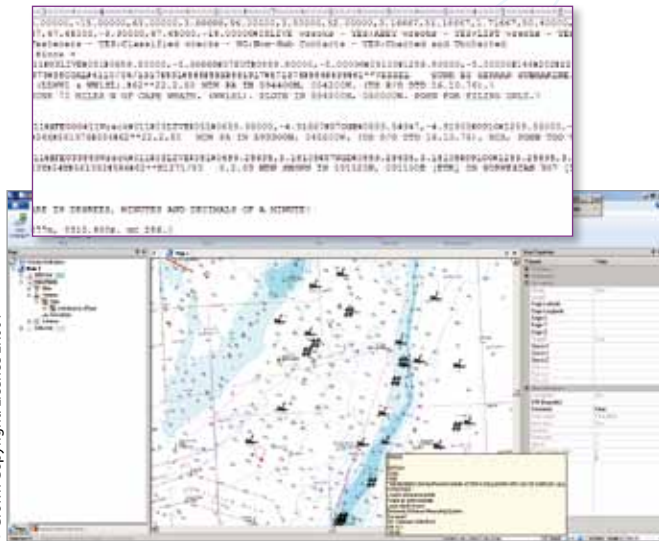
Infrastructure and Asset Management

Knowing the location of infrastructure and other assets for situation awareness and decision support, and being able to disseminate this information using hardcopy or PDF plans and reports, or via web services, is an excellent example of how GIS can be best utilised. Being able to attach attributes to this location data to facilitate monitoring, maintenance and planning brings even greater benefits. Linking business data to a location, and exchanging this information with other internal departments or external stakeholders, such as local and national authorities, lighthouse boards and hydrographic offices, is a common requirement. Creating a central database of this valuable data as a key component of an information infrastructure and sharing it with related tasks easily and efficiently has real advantages.

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Record and analyse the location of moorings and link to vessel and owner details

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Exchange wrecks and obstruction data with Hydrographic Offices easily

Example Infrastructure and Asset datasets include:

- Navigational Aids
- Mooring Buoys
- Security Cameras
- Wrecks
- Office Buildings
- Warehouses
- Cranes
- Pipelines and Cables
- Roads and Walkways

Search for data records including by location and easily display and export results
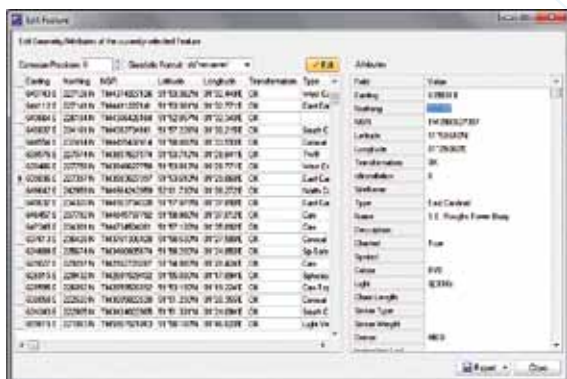
Maritime infrastructure exists on land and sea and includes a variety of different natural and manmade objects, the location and characteristics of which can be represented digitally in GIS. Attributes can be extended to include related data contained within the same department or by linking to other departmental databases, which are exposed for this purpose.

Maintain location, attributes and maintenance history of navigational aids

Maritime Toolbar and its **Workflow Extensions** run as a standalone application or as an 'Add-In' to Cadcorp SIS, which provides the spatial or mapping functionality. At their core is **Ocean Database**, comprising a bespoke data model developed from many years' hands-on experience. **Ocean Database** can be realised in a range of Relational Database Management Systems (RDBMS), such as Oracle, Microsoft SQL and PostgreSQL, and is at the heart of the **OceanWise**'s maritime information infrastructure product and service range. Data templates, exchange standards and reports provide the link with stakeholders. They can be customised to contain user details, logos and to match with specific regulatory regimes or practices.