Qastor

Total Control

Navigating any vessel can be a challenging operation, especially when the mariner is facing difficult conditions like heavy traffic, dense fog or strong current. As ships grow ever larger, the challenge inflates. Building on over a decade of experience Qastor ECS software offers the mariner a tool that can greatly improve his situational awareness, thereby easing the navigation task.

Qastor takes navigation input from a simple NMEA GPS device or AIS pilot plug for situational awareness. If the pilot carries a high-end PPU, Qastor displays very accurate navigation information as well as reliable path predictions.

Qastor displays all the popular electronic chart systems like S-57, Primar, AVCS, C-MAP, ARCS and DENC. Taking vessel draft, under keel clearance and real-time tide into account, Qastor distinguishes between safe and unsafe waters.

Route planning is fully supported in Qastor, from simple passages from A to B, to creation of an entire route network with multiple different end destinations. In large and complex ports this level of route planning is ideal.

The mariner should of course be able to see the traffic around him. AIS integration is a standard feature of Qastor. The closest point of approach of relevant vessels is calculated and presented to allow the pilot to manipulate the meeting point at the earliest possible moment.

Although feature-packed Qastor requires minimal user interaction. Qastor can be configured to behave appropriately for most conditions, reducing the user interaction during maneuvers to an absolute minimum.
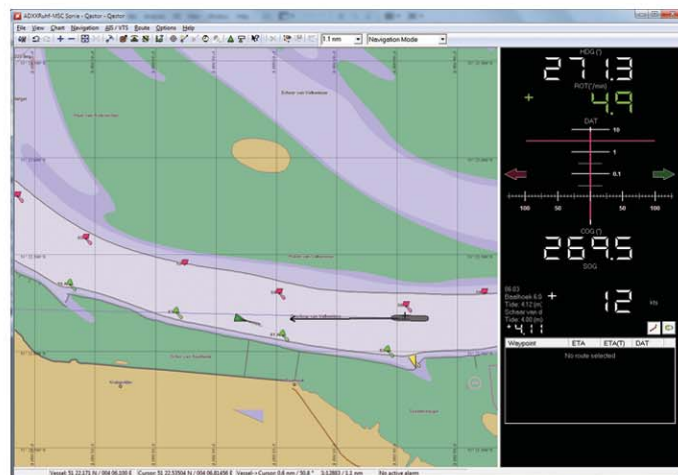
Navigating under difficult conditions

On its own, Qastor is an accurate navigation and information product that takes full advantage of the information available onboard.
If connected to the Internet via Wi-Fi or cell phone network, the Qastor Connect Server can open up a whole new world of information that was previously unavailable, including:

- Real-time hydro-meteorological data including NOAA Ports
- Validated VTS traffic images
- Chart updates
- Easily expandable with new information sources

Docking and lock approach

Docking at an oil terminal or entering a lock is a very critical time for a vessel and the pilot must have a clear and complete awareness of the situation prior to and during ship maneuvers, including approach distances, speeds and directions, as well as precise rates of turn. In particular, the bow and stern speed are vitally important values where certain vessels are prohibited from approaching the key wall or oil terminal with speeds faster than 5 cm/s. For these types of operations Qastor provides two operational modes; "Docking mode" and "Lock approach mode".

On entering one of these modes, the entire Qastor navigation screen changes automatically, only displaying the information necessary for the mariner to focus completely on the current task without being distracted by other events.

"Mooring lines" or "lock lines" further assist in safe maneuvering. The user is able to create his own lines on either the key wall or the lock walls within Qastor. Qastor uses these navigation lines to measure the distance from each side of the vessel to the mooring or lock line.

Qastor can send the docking display information directly to the pilot standing on the bridge wing, via to a PDA or smart phone. In this way the pilot has al the necessary information without having to carry a cumbersome laptop outside.
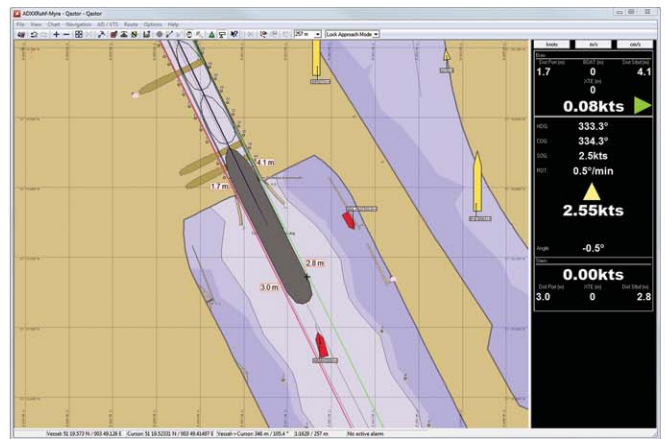
FPSO

In addition to loading and unloading their cargo in ports, oil and gas tankers transfer cargo at FPSO and FSO facilities located offshore. In combination with highly accurate hardware, Qastor provides viable information to assist the pilot and master in monitoring the maneuver.
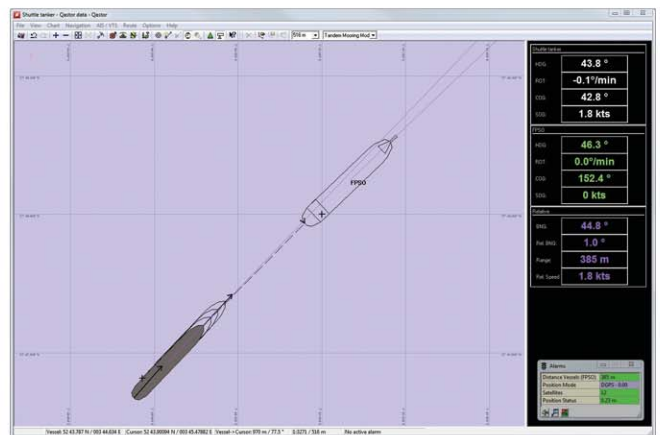
Qastor contains dedicated modes of operation to support tandem mooring, side-by-side mooring and single point mooring.
Qastor displays detailed navigation data for both the vessel and the mooring object. Since this information is hard to detect with the naked eye, Qastor can be of great assistance.
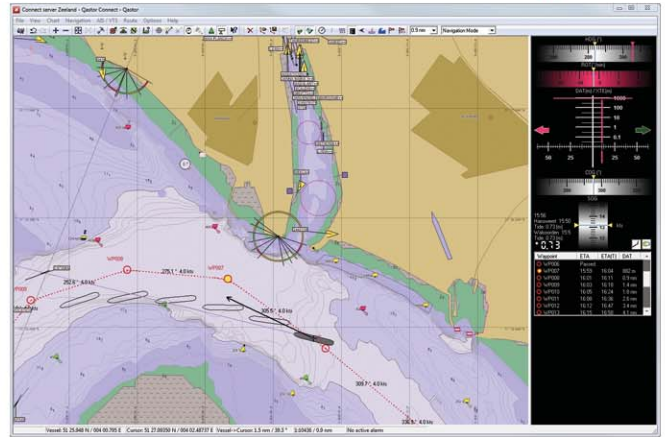
Path prediction

Lock approach mode

FPSO mode - tandem mooring