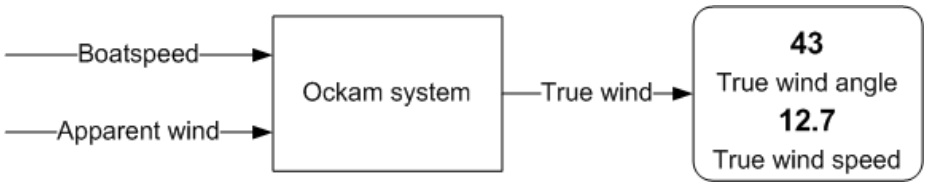
OCKAM INSTRUMENTS, INC.

# Ockam System Overview

This paper describes the Ockam system so customers and dealers can get an idea how it works and what the physical layout looks like.

## What it does

Functionally, an Ockam system takes in sensor readings, calculates new outputs from them and displays these new data items on displays.

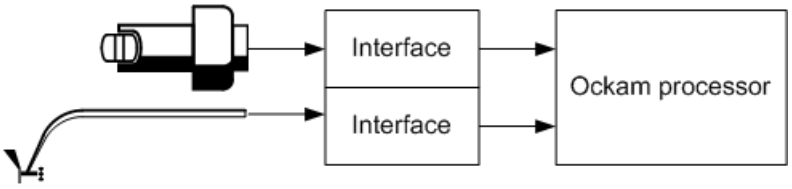



The original data (e.g. boatspeed) is also displayed.

The list of outputs is described beginning here.

## Reading inputs

Sensors themselves are generally specialized to measure one thing, e.g. boatspeed or apparent wind. Traditionally, they have been “analog” devices, delivering a voltage or frequency proportional to the item they measure. Because of the microprocessor revolution, any sensors are now changing to digital types, where their output is a digital “sentence” describing their input.




The Ockam system takes a modular approach where sensors are mated to an interface that then communicates with the processor. This allows changes in sensor design to be accommodated, and if a sensor is not required, the hardware doesn’t have to be included.

Interfaces are described beginning here.

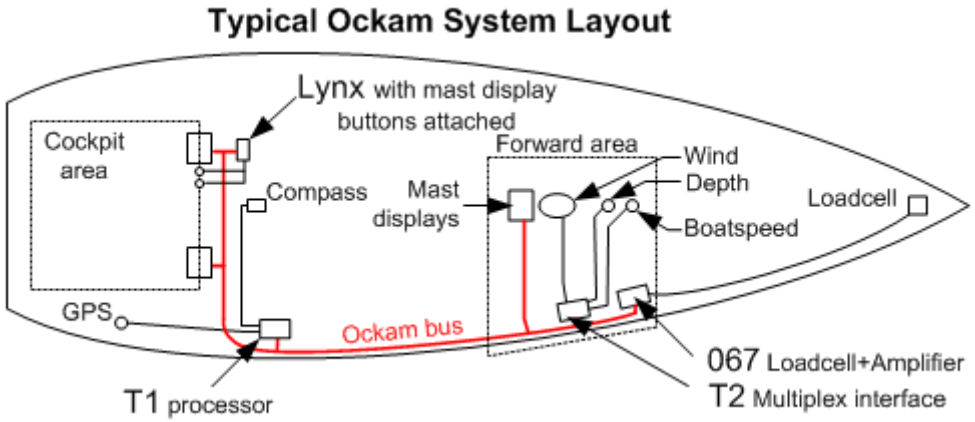
## Displays

Ockam systems display their output on several kinds and sizes of dedicated displays, arranged for easy reading by the crew. Displays are described beginning here.

Additionally, the output can be routed to other onboard devices such as PCs and chart plotters. This is accomplished by several types of interface. These devices are described beginning here.

## Physical layout

All the Ockam system components (interfaces, processor and displays) are connected by a single cable called the Ockam bus. This cable provides connectivity and power for the components.




Notice that the Ockam bus can be branched as needed. The bus and interface design minimizes the total weight of cable needed by 50%.

The Ockam system design philosophy is covered here.

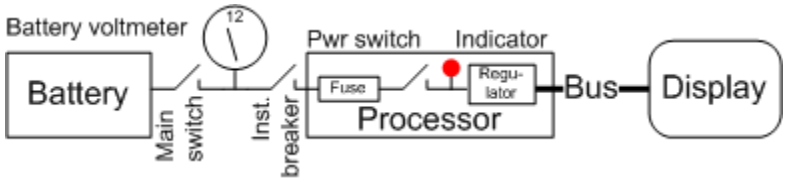
## Ockam bus

The bus is assembled from a few standard BNC components. BNC cable and bayonet connectors mate with a simple ¼ turn and are available worldwide at very nominal cost. The components can be connected and disconnected live without damage.

Bus components are described here.

## Troubleshooting

The Ockam system runs off battery. If there is no operation, you need to check the various switches and fuses between your battery and the Ockam processor.




The troubleshooting pages can help you track problems down.

## Resources

Technical hub: http://www.ockam.com/technical.html