

# Product Engineering Guide

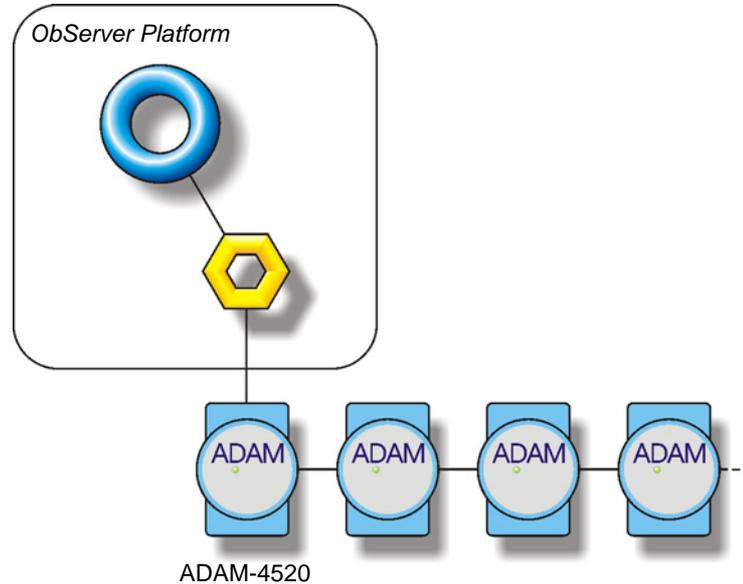
## OSM v20 ADAM v11

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### Introduction

The ADAM OSM links a network of Advantech 4000 series Data Acquisition Modules to ObServer, via an ADAM-4520 converter. There are several different modules, each with a combination of digital and analogue input/output. These modules provide networked input and output, but control for the I/O must be provided from elsewhere.

An ADAM-4520 module (RS232 to RS485 converter) is required for the OSM to access the ADAM network.



### Supported Range

- ADAM-4011 Thermocouple Input Module
- ADAM-4012 Analogue Input Module
- ADAM-4013 RTD Input Module
- ADAM-4014D Analogue Input Module with LED display
- ADAM-4017 8-channel Analogue Input Module
- ADAM-4018 8-channel Thermocouple Input Module
- ADAM-4021 Analogue Output Module
- ADAM-4050 Digital I/O Module with 7-digital input channels and 8-digital output channels
- ADAM-4052 Isolated Digital Input Module with 8-digital input channels
- ADAM-4053 16-channel Digital Input Module
- ADAM-4060 Relay Output Module with 4-relay channels
- ADAM-4080 Counter/Frequency Input Module
- ADAM-4080D Counter/Frequency Input Module with LED display

### Notes

The ADAM Compass Point can scan the first 8 digital inputs from up to 4 ADAM-4050, 4052 or 4053 modules, and generate alarms from these inputs to the Compass Network.

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## **Engineering**

### **Step 1 – Install OSM**

The ADAM OSM is installed automatically with all ObSys editions. Refer to the 'ObSys CD sleeve' for details on how to install ObSys.

### **Step 2 – Configure ADAM System**

Configure each of the ADAM modules using the ADAM 4000 series utility software. Each module should have a unique address, the same baudrate (default 9600), and the checksum status should be disabled (default). Modules with analogue values should have their data format set to engineering units.

### **Step 3 – Connect COM Port to ADAM System**

Using cable, connect the ADAM-4520 to a COM port of the PC. Refer to the section 'Cable' below for details of the cable.

### **Step 4 – Plug in ADAM OSM to ObServer**

Use object engineering software to locate the ObServer Setup object. Assign the ADAM OSM to an available channel. Refer to '[ObServer v20 Application Engineering Guide](#)'.

Note: After inserting the OSM, your engineering software may need to re-scan the ObServer object in order to view the OSM.

### **Step 5 – Configure ADAM OSM**

The COM port, baudrate, alarm polling facilities, and alarm destination are configured using objects. Use object engineering software to view and modify the module objects within the OSM.

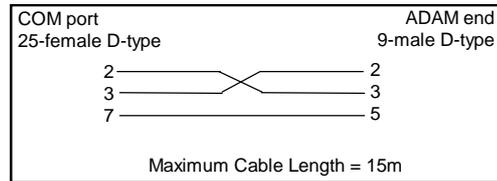
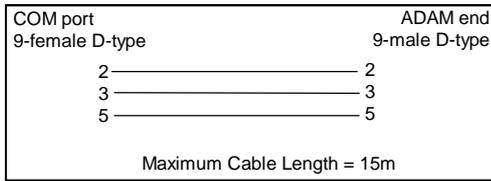
### **Step 6 – Access Objects within the ADAM System**

Values from the ADAM system are made available as objects from ObServer. Any object software that is connected to the ObServer can access these objects.

# Engineering Reference

## Cable Specification

The cable between COM port and the ADAM-4520 hardware is as follows:



## Objects

When the OSM is loaded the following objects are created within ObServer, use object software to access these objects.

Object <sup>[1]</sup>	Label	R/W	Type
Sc	ADAM System connected to channel c	-	[ADAM] <sup>[2]</sup>
Mc	ADAM Module connected to channel c	-	[OSM v20\ADAM v11]

## Notes

- [1] The ObServer channel number, c, is a number in the range 1...40.
- [2] This object has a variable content and as such requires scanning.