# Product Engineering Guide

OSM v20 Baxall v10

Introduction

The Baxall OSM links the Baxall ZMX+ series duplex and triplex video multiplexers to ObServer. A multiplexer provides facilities for surveillance monitoring and can record images from connected cameras to an external video recorder (VCR). The purpose of multiplexing is to reduce the number of VCRs and cassettes required on a site. A PAL compatible TV shows a series of 25 still pictures per second, which gives the impression of motion. Normally a VCR would record every picture, however a multiplexer uses time division multiplexing, which combines all the camera signals, one picture from each and then back to the first. This means that a small amount of information is lost.
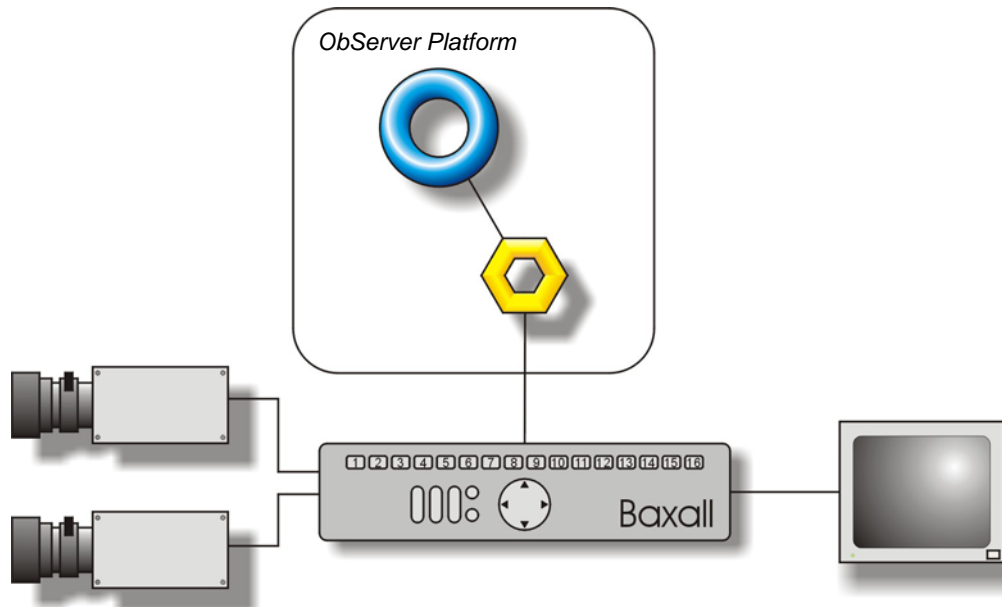
Supported Range

- ZMX+/BD/10 - Up to 10 camera inputs and 10 alarm inputs Duplex multiplexer.
- ZMX+/BT/16 - Up to 16 camera inputs and 16 alarm inputs Triplex multiplexer.
- ZMX+/CD/16 - Up to 16 camera inputs and 16 alarm inputs Duplex multiplexer.
- ZMX+/CT/10 - Up to 10 camera inputs and 10 alarm inputs Triplex multiplexer.

Notes

There is also a keypad emulation object that allows key-presses to be sent to the system.
The Baxall system does not report alarms to ObServer. If alarms are needed then an AlarmGen device will be required.

Engineering

Step 1 – Install OSM

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

Step 2 – Connect COM Port to the Baxall System

Using cable, connect the Baxall system to a COM port of the PC. Refer to the section 'Cable' below for details of the cable.

Step 3 – Plug in the Baxall OSM to ObServer

Use object engineering software to locate the ObServer Setup object. Assign the Baxall 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 4 – Configure the Baxall OSM

The COM Port, baudrate, device number and alarm polling facilities are configured using objects. Use object engineering software to view and modify the objects within the OSM.

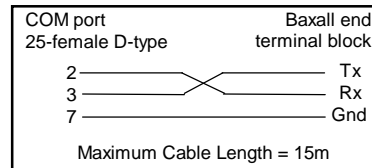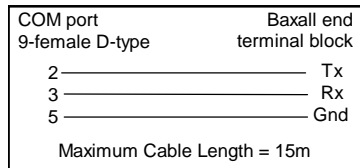### Step 5 – Access Objects within the Baxall System

Values from the Baxall 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 Baxall hardware is as follows:

```
┌─────────────────────────────────────┐      ┌─────────────────────────────────────┐
│ COM port                  Baxall end │      │ COM port                  Baxall end │
│ 9-female D-type       terminal block │      │ 25-female D-type      terminal block │
│   2 ─────────────────────────── Tx   │      │   2 ─────────────\  /────────── Tx   │
│   3 ─────────────────────────── Rx   │      │   3 ─────────────/  \────────── Rx   │
│   5 ─────────────────────────── Gnd  │      │   7 ─────────────────────────── Gnd  │
│                                      │      │                                      │
│     Maximum Cable Length = 15m       │      │     Maximum Cable Length = 15m       │
└─────────────────────────────────────┘      └─────────────────────────────────────┘
```

Objects

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

Object[1]	Label	R/W	Type
S*c*	Baxall System connected to channel *c*	-	*[Baxall v10]*
M*c*	Baxall Module connected to channel *c*	-	*[OSM v20\Baxall v10]*

Notes

[1]   The ObServer channel number, *c*, is a number in the range 1…40.