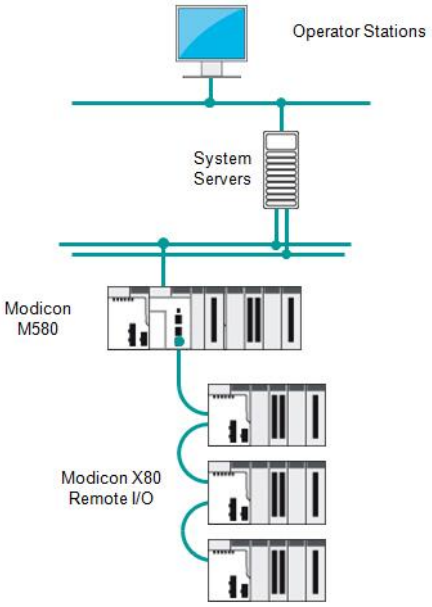
Introduction to Time Stamping

System

System time stamping provides a consistent SOE (sequence of events), time stamped at the source, in order to allow the user to analyse the source of abnormal behaviour in a distributed automation system.

The SOE is displayed in an alarm summary or SOE page of a client (such as a SCADA).

Each source of time stamped event of the SOE is a discrete I/O value change (transition) detected by a time stamping module, this event is then passed through to OFS and straight to the SCADA.



Introduction to Time Stamping (cont.)

Benefits

There are many benefits of **system time stamping**:

- removes the need for PLC programming.
- **Direct communication** between the **time stamping modules** and the **client**. If the time stamping modules are in a Modicon X80 Remote I/O drop, the **PLC communication bandwidth is not used**.
- Consistency of data (I/O values) between the process (**time stamping modules**) and the client (**SCADA**).
- **Time quality information** associated with each **time stamped event**.
- No loss of events in normal operating conditions:
- A buffer is available to store the events in each time stamping module. The event storage is stopped when the buffer is full.
- **Rising and falling** edges transitions are stored for each **discrete I/O**.
- Where available, Hot Standby configurations on the PLC and/or redundant SCADA are managed.