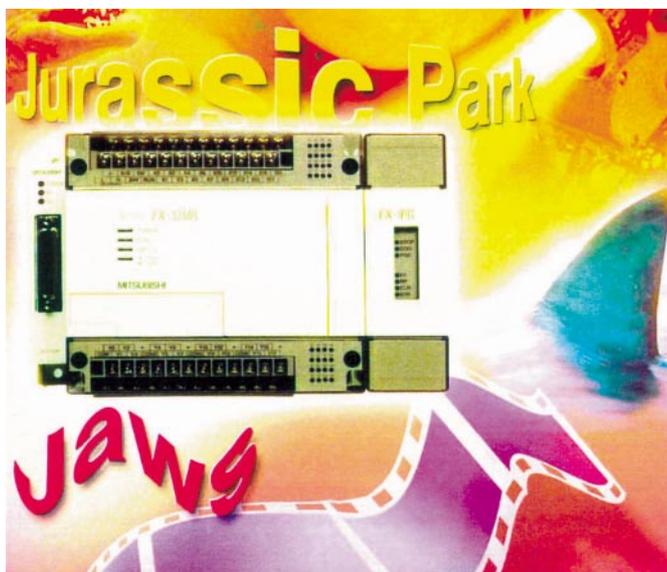


Industry: Building Management /// Leisure

Products Used: FX PLCs

# PLCs star rises in the movies

Cinema projection is no longer the cloth-capped black art of yesteryear, but is as high tech and sophisticated as the latest Spielberg epic. Jack Roe (CS) Ltd is developing state of the art automated projection systems, using a design philosophy based on industrial programmable logic controllers (PLCs) from Mitsubishi Electric.



Traditionally projection systems have been individually built for each separate cinema, using relays, custom-made PCBs and hardwiring. Jack Roe realised that the way forward was with a rationalised modular design. Amongst objectives they listed were ease of installation and use, simple to maintain and upgrade in the field, and a proven, robust and flexible technology platform. Programmable logic controllers were identified as satisfying all these requirements and originally the Mitsubishi F Series was chosen for the task, but now the latest FX series are used.

Virtual reality special effects such as wind machines, laser displays and even movements of the seats can also be sequenced into the presentation with ease, thanks to the PLCs' processing power. PLCs can even be integrated with the fire alarms, to shut down the projector and illuminate the escape routes automatically.

Mitsubishi-based control really comes into its own in multiplex cinemas, where the same print is laced through various projectors and shown on multiple screens within the complex and all the projectors need to start and stop simultaneously.

The processing logic of the FX PLCs is ideal for this sort of sequencing and monitoring task. The inherent reliability and tolerance of the industrialised Mitsubishi PLCs also pays off in the modern projection room, where temperatures can rise steadily due to the Xenon lamp at the heart of the projector. These lamps also produce a lot of radio frequency interference, particularly during ignition. And with changing cultural habits and increasing financial pressures, the systems are in use for longer and longer periods between shut down and maintenance.

PLCs are now so flexible and reliable that they lend themselves perfectly to a host of Building Management System (BMS) type control applications.

*Application story first released October 1999 by Mitsubishi Electric UK*