



“The implementation of Andover Continuum has greatly improved the service we can provide at Manchester United. We are confident that the power and flexibility of the Andover system means we are able to keep pace with the club’s continuing development off the pitch.”

*Allan Bird
Maintenance Manager
Group Services Dept, Manchester United*

PROJECT AT A GLANCE

Project Type:
HVAC & Access Control

Location:
Manchester, England

Number of Buildings: 4

Applications:
Temperature and Access Control

Total System Points: 1,944

Andover Continuum Equipment Installed:

- 3 – CX9400 Master Controllers
- 1 – CyberStation™
- 14 – DCX250s
- 27 – LCX810s
- 3 – LCX800s
- 10 – TCX870s
- 11 – TCX851s
- 4 – TCX853s
- 20 – SCX920s
- 24 – TCX867s
- 1 – ACX780
- 1 – ACX700
- 6 – AC1
- 3 – CX9900 + Modules

Network:

Client sitewide TCP/IP
IT Network

TAC Helps United Achieve Off-Pitch Goals

It’s only right that the Premiership’s leading team should have the Premiership’s best stadium. Just as the Manchester United players rely on their backroom staff to ensure they remain in peak condition, Old Trafford relies on a TAC system to guarantee its continued smooth operation.

In addition to the more ‘traditional’ facilities of a football stadium (such as changing rooms, players’ lounge, medical room and offices), Old Trafford also includes a museum, the World’s largest official megastore, corporate suites and a television production studio, which hosts MUTV.

The Andover Continuum system provides HVAC and access control for the 68,000 all-seater stadium.

The Andover Continuum network supports the industry standard Ethernet TCP/IP protocol, allowing the connection of all discrete systems onto the site-wide client’s IT network included within the stadium and ticket office.

In addition to Old Trafford, the system is also responsible for environment at the club’s training facilities, located several miles from the ground at Carrington. These facilities include a multi-pitch training ground, sports hall, gym, swimming pool and office accommodation. Carrington is linked via a CX9900 controller to the Old Trafford front-end workstation over the IT network.

The initial works at Old Trafford included the redevelopment of the North Stand built in time for Euro 1996. Second Tiers were added to the West and East stand in 2000, with the East stand accommodating private viewing boxes and office space. This is secured by an Andover Continuum access control system, utilizing 13 card readers and 200 cardholders.



Five Ethernet network controllers are sited strategically in the North, South, West and East stands of the ground, and within the ticket office. An operator's graphics workstation is located in the Facilities building.

Manchester United

Over 110 custom-developed color screens on the workstation provide a user-friendly operating system. Starting with a stadium layout, the pyramid style graphics structure drops down to individual rooms and plant within each stand via its corresponding levels. Accurate zone layouts are assured by directly importing the architectural drawings into the graphics.

The graphic system also includes a unique 'one-touch hot button' for use on match days. The button brings services into a pre-defined mode for a set time period - thereby reducing preparation time on match days and saving the need for reprogramming the system after each match. Power usage

in the stadium runs at 2.4 megawatts a day, increasing to 3.5 to 4 megawatts on match days. The system monitors power usage across the stadium.

The TAC solution has greatly improved maintenance procedures at the club and enables staff to provide a greater level of service to its occupiers. Adjusting time schedules or room set points on match days is now swift and effective.

Maintenance staff can obtain data about plant operation from strategically positioned touchscreens. These units have simple, specific graphics with password protection.