

Manchester United - Old Trafford

Manchester United Football Club is using the Net 2 system from Paxton Access to control the egress of fans at its grounds at Old Trafford. Although primarily an access control system, the Net 2 software has been specially adapted to meet the club's exact requirements. The result is a system that is both simple to operate and highly effective, allowing for the upmost flexibility in controlling the crowds.

Manchester United Football Club needs no introduction. With 330 million supporters world wide, its fame has spread well beyond the borders of the UK. As one of the founding members of the UK premier league, its home stadium at Old Trafford has almost iconic status with the club's fans.



With a capacity of 76,000, security and the safe movement of both home and visiting fans on match days is of paramount importance to the club.

On match days, entrance to the ground is controlled via turnstiles, while departure is facilitated via a series of exit gates at the rear of the stands. These gates are collectively opened at around three quarter time to allow for the safe egress of supporters.

Mark Gyves, Manchester United's Electrical Services Manager, explains: "We had a system in place which enabled us to open and lock exit gates on an individual basis. However it would be more convenient to have the flexibility to individually and collectively release and lock these gates. The system was dated, and when the new quadrants were built in 2007, it was not possible to extend the existing system as it was no longer in production.

Garndene Communications Ltd, who has been working with Manchester United since 2004, was asked to source a suitable solution for the new quadrants. They suggested using Net2 – an access control system from Paxton Access. Although the system was required for egress rather than access control, Garndene was confident that the Net2 system could do the job.

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Manchester United used the new Net2 system, installed on the new quadrants, alongside the existing system that was already in place on the established stands. Mr Gyves comments: "Although Garndene was very helpful in keeping our old system up and running it was becoming increasingly difficult to maintain and we were keen to make improvements."

The Facilities Manager at the club, Ian Collins, asked Garndene to quote for replacing the existing system on all the stand exit gates with Net2 and they were awarded the project.

A total of 82 doors in the stadium are now controlled using the system. The door control units are on a dedicated fibre optic network and TCP/IP adaptors are used on the network – this meant that it was not necessary to run additional cabling around the stadium.

Mr Gyves became more involved when the installation was complete and the standard Net2 software had been loaded onto the computer in the control room. From here it was being used to control all the exit gates from the stand.

Although the system as a whole is very sophisticated, the graphical user interface has been designed to be very simple to use. The computer monitor shows a graphical representation of the stadium with each of the doors displayed on the graphic. Contacts are fitted to each gate which indicates the status of the gates so the operator can tell if they are closed and locked, closed and unlocked, or open and unlocked.

If a door is opened locally an alarm event occurs on the screen graphic which can be investigated and then acknowledged once the cause has been established.





Mr Gyves had a clear picture of what changes he would like made to the Net2 software. He spoke to Gardene about designing some bespoke elements. This would involve doors being grouped together in a block, one single icon on the computer screen's graphic could then control that particular block of doors.

Adrian Brown of Gardene says: "We already had a good understanding of the Net2 system and a co-operative relationship with Paxton Access. I was sure that by working closely with them we would be able to meet Manchester United's requirements."

Gardene consulted with Paxton Access on the club's specific needs. Once the parameters were agreed, one of Paxton Access' software developers was assigned to the project.

"It was essential to hit the ground running"

The software was supplied to Gardene and loaded onto the PC in the stadium's control room. Testing on the software was carried out prior to use on a match day, Gardene were on hand to ensure that it all worked as smoothly as possible. "It's always nerve-wracking to try out a new process at such a crucial time, so it was essential that we hit the ground running," says Mr Gyves. "I've been very impressed with Gardene's level of service and with the flexibility they have displayed in meeting our needs. This has proved invaluable and has ensured we're getting the best out of the system as well as creating flexibility for the system operator."

The club is happy with the way the system works for them. "The graphical interface is very easy to manage," comments Mr Gyves. "This is important as we may not always have the same operator available. I am confident that even in an emergency situation, we have a quick and effective system for unlocking all the doors and evacuating any of the stands in a controlled and safe manner."

The software is designed to make it easy to see which doors are locked or unlocked, straight from the graphics. By being able to unlock and lock the doors in blocks, and see by the colour code on the graphic what the status of each door is, the stadium can be emptied effectively. The doors can instantly be locked and secured once each stand is empty. Where required, individual doors in each block may also be unlocked. Access for caterers, for example, is also easily managed from the graphical software.

Adrian Brown of Gardene is very pleased with the result of the collaboration with Paxton Access. "I know there are proprietary systems out there that could come close to doing what Manchester United needed but we wanted to be able to meet their exact requirements and working with Paxton Access has enabled us to do this. I also believe that this solution has been more cost effective for our client and we know that it will accommodate any future expansion plans the club has."

"The software is key to the whole system and the great thing is that it's not static. We are able to manipulate and alter it to suit."

"Gardene and Paxton Access' ability to deliver the software was crucial as we needed it to be precisely tailored to meet our requirements," comments Mr Gyves. "The software is key to the whole system and the great thing is that it's not static. We are able to manipulate and alter it to suit, should we need to make any stadium changes."

System user	Manchester United Football Club
Installer	Gardene Communications Ltd
Type of site	Football Stadium
Type of system	Net2 Access Control
System description	82 doors used for controlling egress



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