



# Milestone Certified Solution



Paxton Net2 Integration for Milestone Access 2018 R3

Date certified: 6<sup>th</sup> December 2018

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## **About your company**

At Paxton, we design and manufacture market leading IP access control, door entry and building intelligence systems for smart buildings.

With over 30 years of experience, we put our core values of simplicity, quality and honesty at the heart of everything we do. Our products harness the latest technology to provide powerful, yet easy to install and use solutions. We provide world class technical support and free training to ensure we consistently exceed our customers' expectations, supporting them and their businesses.

We develop systems for the mid-market (such as education, healthcare, retail, leisure, commercial and public sector) and provide solutions suitable for a wide range of sites and requirements. At present, around 25,000 buildings are secured by Paxton globally each year.

Based in Brighton, East Sussex, Paxton manufacture locally and export to over 60 countries worldwide. Our team is constantly expanding internationally, and we currently have over 300 employees located across the globe, with offices in the UK, US, France, Germany, South Africa, Middle East, Scandinavia and Benelux.

Paxton projects include:

Manchester United, graze, Michelin, Cherbourg Airport, Boucheries Nivernaises, Ostermalm Food Hall, Kingsway Park High School and Foyles.

## **About Milestone Systems**

Milestone Systems is a global leader in providing open platform IP video surveillance software. Milestone has provided easy-to-use, powerful video management software in more than 200,000 installations, worldwide.

Milestone XProtect® provides open architecture products that are compatible with more IP cameras, encoders, and digital video recorders than any other manufacturer. Because Milestone provides an open platform, you can integrate today's best business solutions and expand what's possible with future innovations. Visit [www.milestonesys.com](http://www.milestonesys.com) for more.

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## **Executive Summary**

Net2 is an advanced PC based access control solution. Net2 offers centralised administration and control of sites with up to one thousand doors and 50,000 users. Perfectly tailor access privileges to groups or individuals quickly and easily using our intuitive, user-friendly software. Event reports can be generated in a few clicks and the single-door architecture makes specifying, installing and maintaining the system easy. Advanced features such as site graphics, IP camera integration and 'Triggers and Actions' further extend the capabilities of this cutting-edge system.

## **Key features**

- PC based system
- Central control of privileges
- Manage up to 1000 doors, 50,000 users
- Event reporting
- Scalable; add to systems easily
- Integrate other building systems
- Proximity, magstripe or keypads

## **Typical applications**

- Small/medium premises
- Large corporate premises
- Multiple-site premises
- Government buildings
- Universities
- Sports clubs
- Car parks

## **Certified Products**

- Paxton Net2 Integration for Milestone Access 2018 R3  
Tested with Net2 Version 6.00.7508.3984 using SPPaxtonACMv1.2.0.2 plugin  
Compatible with Net2 Version 5.03 onwards
  - o Milestone XProtect 2018 R3
    - o Express+
    - o Professional+
    - o Enterprise
    - o Expert
    - o Corporate
    - o Milestone XProtect Smart Client 2018 R3
  - o Milestone XProtect 2019 R1
    - o Essential+
    - o Express+

- o Professional+
- o Expert
- o Corporate
- o Milestone XProtect Smart Client 2019 R1
- o Husky M50

### **Test Setup**

A simple executable file is run on the same PC as the Milestone server. Connection to the Net2 system is applied within the Milestone Management Console by entering the Host name or IP address of the Net2 server. This does not need to be the same PC that the Milestone XProtect software is installed.

In Milestone Management Console>Access Control, connection settings are entered to retrieve door, event and user information from the Net2 system:

- Creation of new Access Control system connection including connection details
- Cameras can be associated with doors
- Events can be selected for monitoring via the XProtect Smart Client
- Access request notifications can be set up to notify administrators of event occurrence
- Cardholder information can be viewed and displayed

In Milestone Xprotect Smart Client, Paxton have added a tab called 'PAXTON' that allows the operator to view and edit user information:

- Add new and edit existing users:
  - o Permissions
  - o Information
  - o Credentials
  - o Access Rights
  - o Activation
  - o Anti-passback validity
  - o Intruder Alarm rights
  - o Access Level permissions
  - o Individual door access
  - o Additional custom field entries (as per Net2)

Under the Access Control tab, Milestone users can:

- View events and camera footage associated with the event
  - o Events can be viewed in Live Time, preset and custom timescales
- Open, Close and Hold Open Doors
- View Door status and states
- View Cardholders and relative video footage



**milestone**

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All simulated video streams used in this test were configured at 30 frames per second (FPS). All video streams were configured to use the H.264 video codec. The image resolutions used in this test included the following:

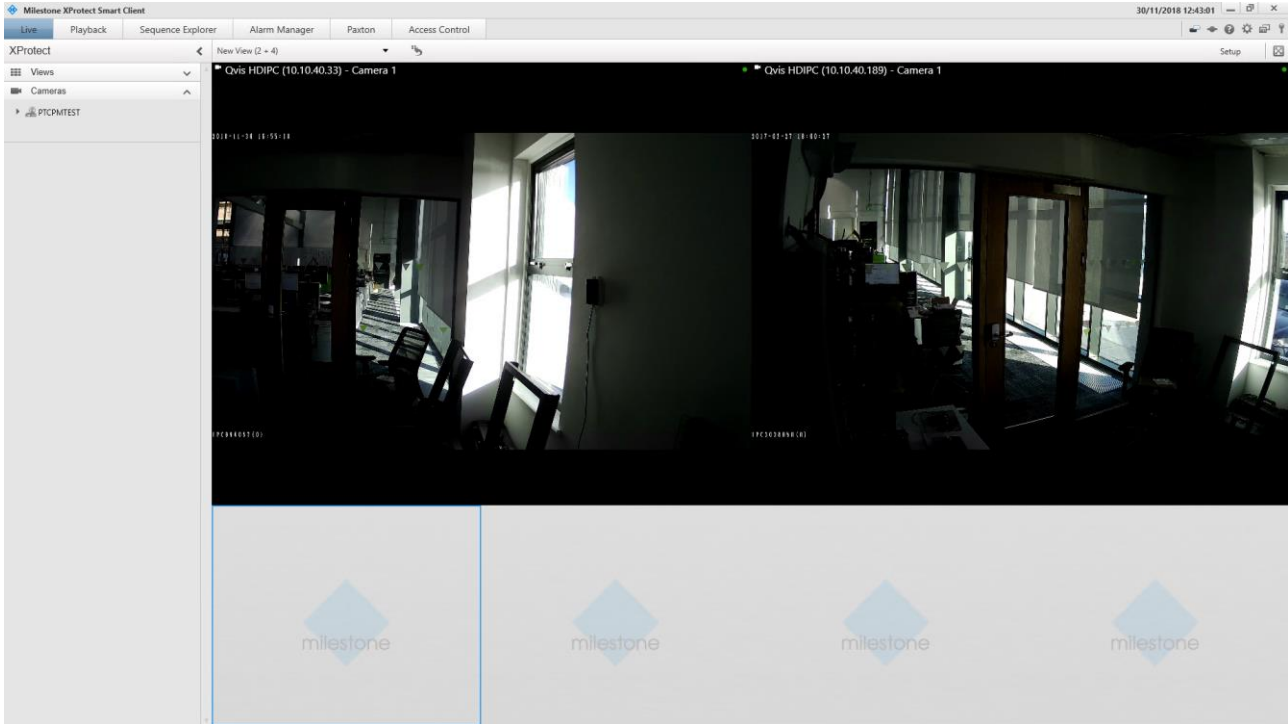
- 1920x1080 (2.1 Megapixel / 1080p / 2.3 Mbit/s)

Video Stream properties:

<b>General</b>	
Brightness	50
Contrast	50
Saturation	<b>41</b>
<b>Video stream 1</b>	
- Media profile	<b>profile0</b>
Codec	H264 Baseline Profile
Frames per second	15
Keep Alive type	Default
Max frames between keyframes	<b>15</b>
Max frames between keyframes mode	Default (determined by driver)
Maximum bit rate (kbit/s)	<b>2700</b>
Quality	<b>40</b>
Resolution	2592x1520
Streaming method	<b>RTP/RTSP/TCP</b>
<b>Video stream 2</b>	
- Media profile	<b>profile 1</b>
Codec	H264 Baseline Profile
Frames per second	<b>7</b>
Keep Alive type	Default
Max frames between keyframes	<b>20</b>
Max frames between keyframes mode	Default (determined by driver)
Maximum bit rate (kbit/s)	<b>640</b>
Quality	<b>0</b>
Resolution	640x480
Streaming method	<b>RTP/RTSP/TCP</b>

## Performance Results / Features Tested Described

N/A



 This screenshot shows the 'Access Control' administration section of the Milestone XProtect Smart Client. It includes a search bar for cardholders, a table of events, and a video preview window.
 

Time	Event	Source	Cardholder
29/11/2018 21:57:54	Door opened	Group 1 - Live Door 1	
29/11/2018 15:47:42	Door opened	Group 1 - Live Door 1	
29/11/2018 15:47:41	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 3 - Live Door 3	
29/11/2018 13:53:59	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:52	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:51	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:51	Door opened	Group 1 - Live Door 1	
29/11/2018 13:53:51	Door opened	Group 1 - Live Door 1	
29/11/2018 13:52:48	Access permitted - token or	Group 3 - Live Door 3	Michael Harris

 The video preview window on the right shows a man in a dark sweater working at a desk. Below the video, there is an event detail panel titled 'Door opened' with a play button icon, indicating the video is paused at that event.
 

**Door opened**  
 WithExitButton  
 Time: 29/11/2018 13:53:59  
 Source: Group 3 - Live Door 3



Milestone XProtect Smart Client

06/12/2018 11:48:43

Live Playback Sequence Explorer Alarm Manager Paxton Access Control

Access control administration

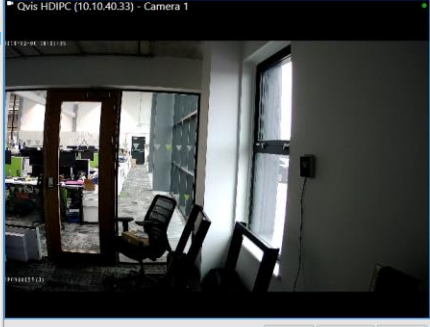
Events Doors Cardholders

Search doors

Door All states All doors

Name	State
Group 1 - Live Door 1	Door state unknown
Group 2 - Live Door 2	Door state unknown
Group 3 - Live Door 3	Door state unknown
Live Door 4	Door state unknown
Live Door 5	Door state unknown

Qvis HDIPC (10.10.40.33) - Camera 1



Open Hold Open Close

Group 2 - Live Door 2

Type: Door Unit  
 Categories: Door  
 State: Door state unknown  
 State updated: 06/12/2018 11:48:33

Milestone XProtect Smart Client

06/12/2018 11:49:29

Live Playback Sequence Explorer Alarm Manager Paxton Access Control

Access control administration

Events Doors Cardholders

Search cardholders

Name	Type
William Adams	User
Emily Wrench	User
Test Test	User
Nick Smith	User
Derek Walker	User
Mike	User
Bob	User
Kate	User
Dan	User
Josh	User
Bob	User
Kate	User
Kate	User
Jack	User
Chris	User
Kev	User
Bob	User
Pob	User
Test	User
Adelle Slater	User
Alexander Thomas	User
Violet Ferguson	User
Mohamed Brown	User
Catherine Roberts	User
Debbie Black	User
Craig Green	User
Michael Johnston	User
Kelly Patel	User
Felix Mason	User
Kelly Roberts	User
Elanor Palmer	User
Louis Wright	User
James Cameron	User
Chris Hall	User
Tom Stewart	User
Lesley Duncan	User
Amanda Loynes	User
Paul Wallace	User
Tom Palmer	User

**Emily Wrench**

No access

Access level: No access  
 AccessLevelId: 0  
 ActivationDate: 13/08/2018 00:00:00  
 Active: True  
 Department: (none)  
 DepartmentId: 0  
 Display Name: Emily Wrench  
 FirstName: Emily  
 Surname: Wrench  
 UserId: 2091  
 LastKnownId: 0  
 LastAccessTime: 01/01/0001 00:00:00  
 AntiPassbackUser: True  
 AlarmUser: False  
 ExpiryDate: 01/01/0001 00:00:00  
 UserIdGuid: 2914b-d9b-751-41db-88b3-be71fd4339e-9  
 LastUpdated: 13/08/2018 21:21:06  
 Global: False

View cardholder events

Milestone XProtect Smart Client

06/12/2018 11:58:06

Live Playback Sequence Explorer Alarm Manager **Pantron** Access Control

Add New User

Name	Department	AccessLevel	Pic	Edit	Delete
Adam Gilday	Managers	All hours, all doors		Edit	Delete
Adam Grant	Administration	All hours, all doors		Edit	Delete
Adam Gray	Accounts			Edit	Delete
Adam Walker	Sales			Edit	Delete
Adam White	Accounts			Edit	Delete
Adelle Gabriel	Sales			Edit	Delete
Adelle Gibson	Contractors			Edit	Delete
Adelle Rodriguez	Directors			Edit	Delete
Adelle Slater	Cleaners	All hours, all doors		Edit	Delete
Adelle Thompson	Managers	All hours, all doors		Edit	Delete
Adelle Wallace	Temporary Staff	All hours, all doors		Edit	Delete
Adelle Young	Warehouse Staff	All hours, all doors		Edit	Delete

User Management

User Access Custom Memo

First Name:

Middle Name:  Activation date: 06 December 2018

Surname:   Expire

Department: (none) 06 December 2018

Telephone:  Ext:

Fax No:   Active

Picture File Name:   Anti-Passback

PIR:   Alarm User

PIR length: 4

Card Administration

Card No:  Add Card

User's cards:  Delete

Save Close

Connection

Net2 Access Control

30/11/2018 12:36:25

Live Playback Sequence Explorer Alarm Manager **Pantron** Access Control

Add New User

Name	Department	AccessLevel	Pic	Edit	Delete
Adam Gilday	Managers	All hours, all doors		Edit	Delete
Adelle Rodriguez	Directors	All hours, all doors		Edit	Delete
Adelle Slater	Cleaners	All hours, all doors		Edit	Delete
Adelle Thompson	Managers	All hours, all doors		Edit	Delete
Adelle Wallace	Temporary Staff	All hours, all doors		Edit	Delete

Net2 Access Control

First name: Adam

Surname: Gilday

Department: Managers

Telephone:  Fax:

Personal number: 714

Valid from: 11/01/2018  Expires end: Never expires

Access rights: Tokens | Other details | Memo | Events | Current validity | Anti-passback | Multizone Intra- |

Access levels

Access level	Add
All hours, all doors	Remove

Individual permissions

Door / Area name	Timezone	Add
		Remove
		Remove All

Temporary permissions

Set a temporary access level

Submit access level

Set for this time period: 00:00 - 30/11/2018 13:36

This user is exempt from Lockdown rules

Get picture Delete picture Bar user Delete record Export vcl Apply

User Management

User Access Custom Memo

First Name: Adam

Middle Name:  Activation date: 11 January 2018

Surname: Gilday  Expire

Department: Managers 30 November 2018

Telephone:  Ext:

Fax No:   Active

Picture File Name:   Anti-Passback

PIR:   Alarm User

PIR length: 4

Card Administration

Card No:  Add Card

User's cards: 0302721 Delete

Save Close

System engineer Pizentel

Connection

**User Management**

User Access Custom Memo

First Name: Adam  
 Middle Name:  
 Surname: Gilday  
 Department: Managers  
 Telephone: Ext.:  
 Fax No.:  
 Picture File Name:  
 PIN:  
 PIN length: 4

Activation date: 11 January 2018  
 Expire  
 06 December 2018  
 Active  
 Anti-Passback  
 Alarm User

Card Administration  
 Card No.:  
 User's cards: 69322721

Save Close Add Card Delete

**User Management**

User Access Custom Memo

Access Level: All hours, all doors  
 Access Level  
 Individual

Card Administration  
 Card No.:  
 User's cards: 69322721

Save Close Add Card Delete

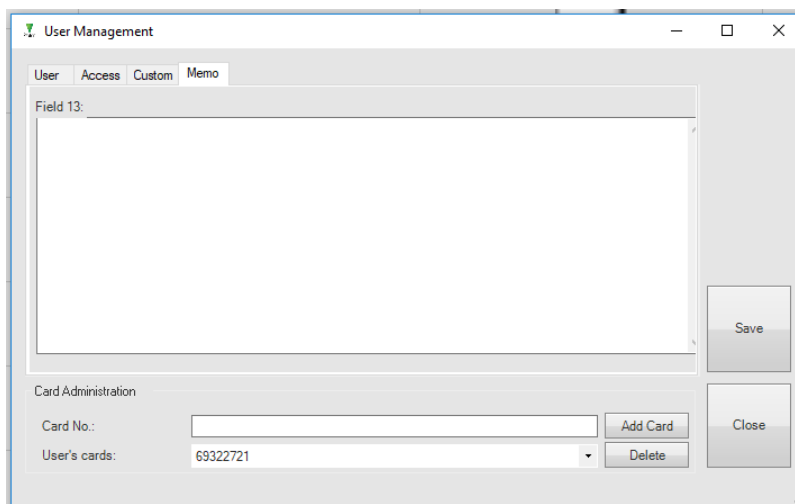
**User Management**

User Access Custom Memo

Field 1:  
 Field 2:  
 Field 3:  
 Field 4:  
 Field 5:  
 Field 6:  
 Field 7:  
 Field 8:  
 Field 9:  
 Field 10:  
 Field 11:  
 Field 12:  
 Field 14: 734

Card Administration  
 Card No.:  
 User's cards: 69322721

Save Close Add Card Delete



### **Conclusion**

The Paxton Net2 MIP Plugin for Milestone XProtect offers a succinct integration between Access Control and Video Management, allows administrators to use a single platform to manage users from a unified interface.

Main Access Control operations are still performed within the Net2 software; this plugin unifies the administration tasks of everyday system use.

### **Resources**

<https://www.paxton.co.uk>

<https://www.paxton.co.uk/docs/Application%20Notes/AN1156.pdf>

<https://www.paxton.co.uk/products.asp?strStage=overview&id=011,24>

<https://www.paxton.co.uk/products.asp?strStage=net2&id=011,24>

[https://www.paxton.co.uk/spotlight.asp?strStage=UK\\_Sales\\_Map&id=012,201](https://www.paxton.co.uk/spotlight.asp?strStage=UK_Sales_Map&id=012,201)

[https://www.paxton.co.uk/how\\_to\\_buy.asp?strStage=distributor\\_list&id=0,147](https://www.paxton.co.uk/how_to_buy.asp?strStage=distributor_list&id=0,147)

<https://www.paxton.co.uk/integration.asp?id=012,154#12>