Miconic® 10

Elevator Group Control System

A Quantum Leap in Elevator Control Technology

ISO 9001 CERTIFIED

Schindler


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Miconic® 10. The personalized elevator service

Miconic® 10 is the first system to successfully resolve the two fundamental uncertainties of elevator group control:

When an elevator is called,

- how many people are behind that call?
- what is each passenger's destination?

Miconic 10 resolves these questions through a revolutionary interface and an advanced algorithm. It represents a quantum leap forward in the way we use the elevator.

Miconic 10's unique set of benefits includes:

- advance knowledge of every passenger's destination before they even reach the elevator, providing real-time data for advance planning of traffic
- reduced passenger journey times during up-peak traffic of up to 30% against conventional group control
- elimination of crowding during heavy traffic, avoiding competition by passengers for the first available car
- assurance of a dedicated service for people with special needs—while still providing the most efficient trip
- an interface with other building systems, such as security, to create an integrated operating environment
- greater design flexibility for building core configuration.

And Miconic 10 has one other attribute that really sets these claims apart:

It exists, it is available, and it is proven in service.

The passenger perspective

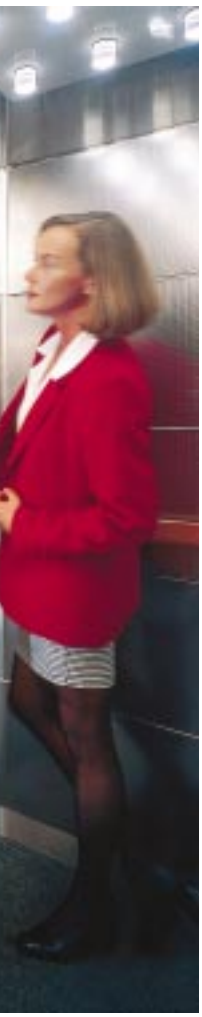
Simplicity and Reassurance

Immediately on keying their destination at the lobby or landing, each passenger is directed to a specially assigned elevator. The journey from then is completely automatic.

The passenger keys in her destination floor on a familiar telephone-style keypad, which has replaced the customary Up and Down call buttons. Immediately, her destination is confirmed, a car is assigned and the car identity shown on the display.

She can walk without hurrying to the assigned elevator, confident that her car, even if not yet there, is assuredly on its way and will not depart before she steps in. While entering, she checks that her destination floor is lit on the indicator set in the car entrance.

Once inside, the doors close and the car moves off to her destination without any further action. She relaxes and enjoys the ride, noticing that the car operating panel provides only special service operations.



At her destination, the floor number on the stop indicator panel flashes to confirm her arrival. She leaves the car, having experienced an efficient and comfortable journey.

Meeting Special Needs

Miconic 10 incorporates special features to accommodate people with special needs, and can be specified to meet or exceed the requirements of the Americans with Disabilities Act (ADA):

- Both visual and audible responses can be provided.
- The elevator assigned will have fewer passengers to allow extra room in the car. Where possible, Miconic 10 will avoid assigning a car with exiting passengers at the boarding floor.
- The doors remain open longer to allow the passenger extra time to enter and exit the car.
- With the ADA-compliant version, mandatory in the USA, the passenger is guided throughout the journey by audible tones. These indicate car assignment and location, as well as the status of doors and arrival at the destination floor.

To activate features for special needs, passengers first press the international wheelchair symbol located on the keypad.

Miconic 10.
A revolution in traffic management

Miconic 10 is a powerful and unique control system based on a simple principle: to bring passengers to their destinations sooner, with less crowding and more comfort than any conventional elevator system.

Miconic 10's advanced software drives a powerful logic program that systematically rationalizes elevator traffic flow.

It employs a sophisticated variable algorithm to manage the complexities of traffic patterns as they change through the day.

Miconic 10 in Mid-and High-Rise Buildings

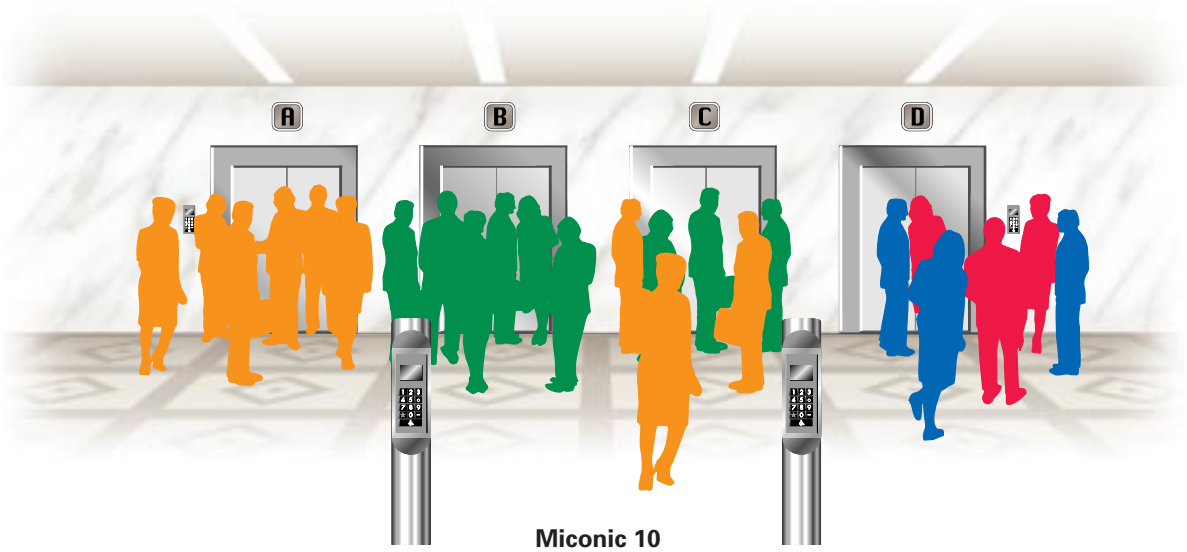
Miconic 10's remarkable passenger handling effectiveness really comes into its own when applied to elevator groups serving multiple-floor intensive traffic. In a corporate building, with, for example, 6-car groups serving 15 or more floors and transporting as many as two thousand people, Miconic 10 delivers a substantial payback in both improved journey times and individual comfort.

Managing efficiently the internal traffic in large, complex buildings is the elevator industry's most challenging task. Miconic 10's new concept of elevator operation more than meets that challenge.

Miconic 10 in Low-Rise Buildings

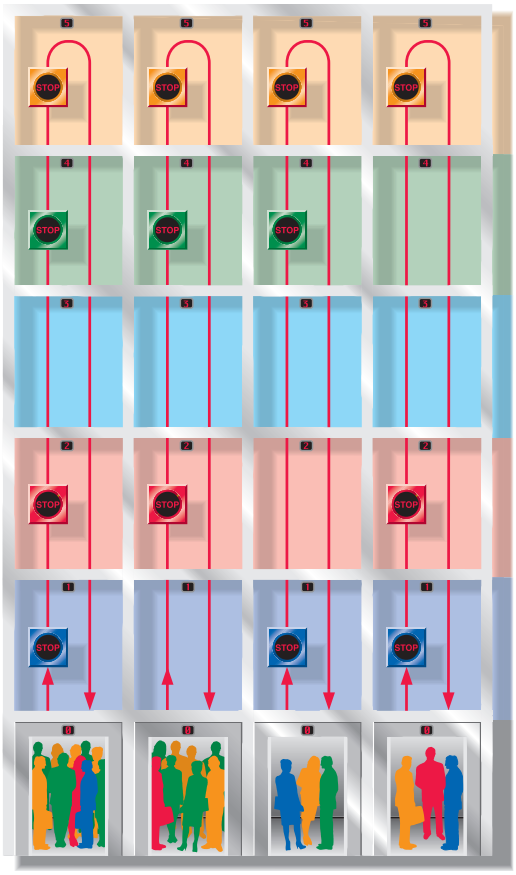
In a 6-floor building such as the example used here, passenger handling capability alone may not be a major issue for management. However, when the benefits of user-friendliness are added to increased efficiency, the Miconic 10 package becomes an attractive and viable proposition.

Conventional



Miconic 10

How Miconic 10 rationalizes traffic



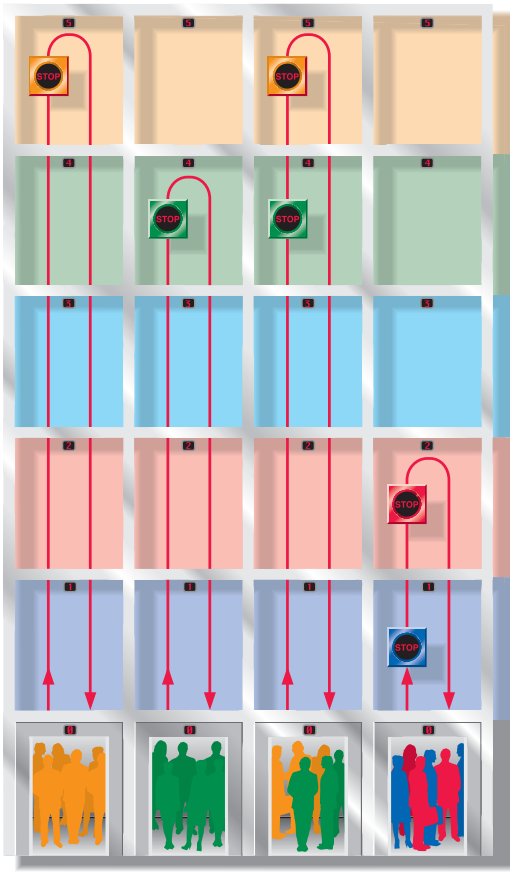
Car A	Car B	Car C	Car D
10 Pax.	8 Pax.	3 Pax.	3 Pax.
4 Stops	3 Stops	3 Stops	3 Stops

Conventional

In this simplified example of a classic up-peak situation, 24 people call elevators over a period of a few seconds to travel from the lobby to a variety of floors.

With the **conventional control** the first 10 arrivals cram themselves into the first available car. The next 8 fill up the second, and the few remaining occupy the other cars.

This random behavior by passengers means that every car has multiple destination stops, so journey times are slowed. And the majority of passengers suffer overcrowding.



Car A	Car B	Car C	Car D
6 Pax.	6 Pax.	6 Pax.	6 Pax.
1 Stops	1 Stops	2 Stops	2 Stops

Miconic 10

Miconic 10, on the other hand, knows not only that the comfortable car load is 6 persons, but also that floors 4 and 5 have the highest call density in up-peak traffic.

It directs the 6 passengers traveling to each of the two busy floors to individually assigned cars, and rationally distributes the remainder.

As a result, Miconic 10 ensures that all the passengers experience a speedy one- or two-stop ride, no-one suffers overcrowding and time to destination is faster.


CONTROLLER
CONTROLLER
CONTROLLER
CONTROLLER
DRIVE
DRIVE
DRIVE
DRIVE
6
CAR C
5
4
CAR D
3
CAR A
CAR B
2
1
1

2) Miconic 10 registers the calls and analyzes elevator status. It selects cars A and B for assignment due to the shorter time they require to answer the calls, achieving minimum waiting time.

Its algorithm groups passengers with the same departure and/or destination floors. It also allows individualized service to different destinations under light traffic. So initially it aims to give everyone a one-stop trip by allocating the passenger for floor 5 to Car A and the two for floor 2 to Car B.

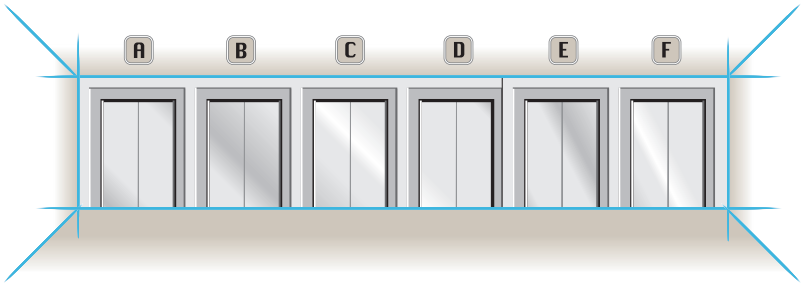
3) A further call is keyed by a passenger at floor 3 requesting travel to floor 5. Miconic 10's algorithm favors grouping passengers by destination, so it modifies its assignment of Car A to collect the additional passenger on the way up.

Design freedom

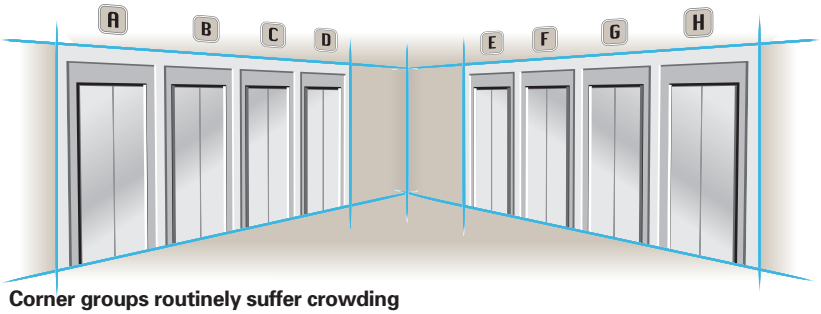
With conventional elevator control every passenger must be able to access any elevator at very short notice. All entrances must be visible and accessible from any point on the landing or lobby. In practice this heavily influences building core lay-out and severely constrains lobby design and functionality.

With Miconic 10 each passenger has only one elevator to consider, and does not need simultaneous sight of all of them. The designer has much greater flexibility in floor-plate layout and more freedom to exploit elevator entrances as a design feature.

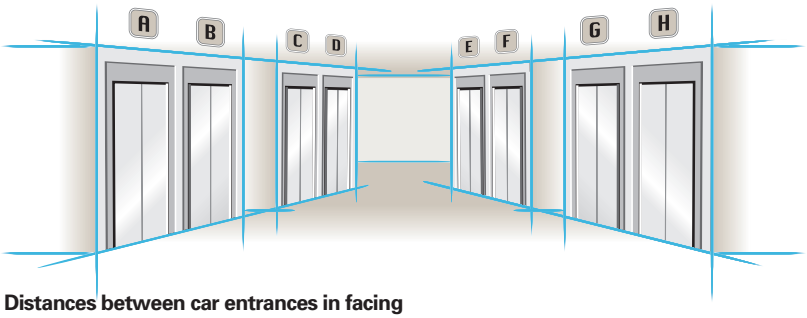
Possible configurations with Miconic 10



In-line groups greater than 4 cars lack practicality when using conventional controllers. Miconic 10 now makes linear configurations totally viable.



Corner groups routinely suffer crowding at the apex. Pre-assignment of passengers eliminates this.



Distances between car entrances in facing groups would normally be minimized. Miconic 10 allows much greater creative use of elevator placement.

Applications of Miconic 10

Miconic 10 may be incorporated into groups of 2-8 elevators.

Its algorithms are well suited to elevator groups having unequal numbers of floors.

It may also be installed as a modernization of systems currently employing Miconic TX or Miconic VX controllers.

Miconic 10 is compatible with the Schindler LobbyVision building management system and Servitel telemonitoring.

Special Service Switching

In addition to its normal function the keypad also gives management the ability to access special features through input of codes programmed into Miconic 10. Typical applications include:

- emergency service use
- dedicated and express VIP journeys
- designating cars for specific building needs such as freight or maintenance
- limiting access to specific floors.

Many security features, such as card readers, PIN number registration, special keys and hands-free radio tags may be integrated into the Miconic 10 terminal. And we are working with owners to develop new features that will help them achieve their individual needs.

What Miconic 10 users say

Regular passenger in Hong Kong:

May Lam, Solicitor, Gammon Construction Limited, Devon House, Hong Kong.

"The system is easy to use, and much simpler than I had expected.

"Waiting times have reduced drastically, especially going down at lunchtime.

"The lift cars are now less crowded, with fewer stops on the way up."

Building administrator in Europe:

Klaus Bellmann, HEW Building, Hamburg, Germany.

"We were modernizing, and Schindler recommended us a radical new system that offered major improvements in performance, availability and efficiency. They were right, too.

"The transition to Miconic 10 in practice was both simple and fast. In our experience this is a logical, straightforward system that has really proved its value.

"Today, everyone who uses our elevators finds Miconic 10 not only better, but completely natural, too."

Passenger with special needs in the USA:

William Ritchhart, blind employee, Ameritech, Indianapolis, Indiana.

"I think it's perfect. Anyone who uses it is going to like it. It's a better system. It exceeds all the current (U.S.) codes and requirements for people with disabilities.

"Miconic 10 tells you exactly where to go. There is no waiting. The speech feature definitely helps me. When developing the system I asked: 'Make it talk to me'. And they did."

System manager and regular user in the USA:

Ted Dowden, Manager, Operations, Ameritech Building, Indianapolis, Indiana.

"It is much more efficient than what we had in the past. The system is very, very reliable.

"I'm excited about some of the things it can do. I want to use it as a security tool eventually.

"I particularly like the Schindler operation. It's a good company, and our local service team is the best. The service is great. These guys really know what they're doing."

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