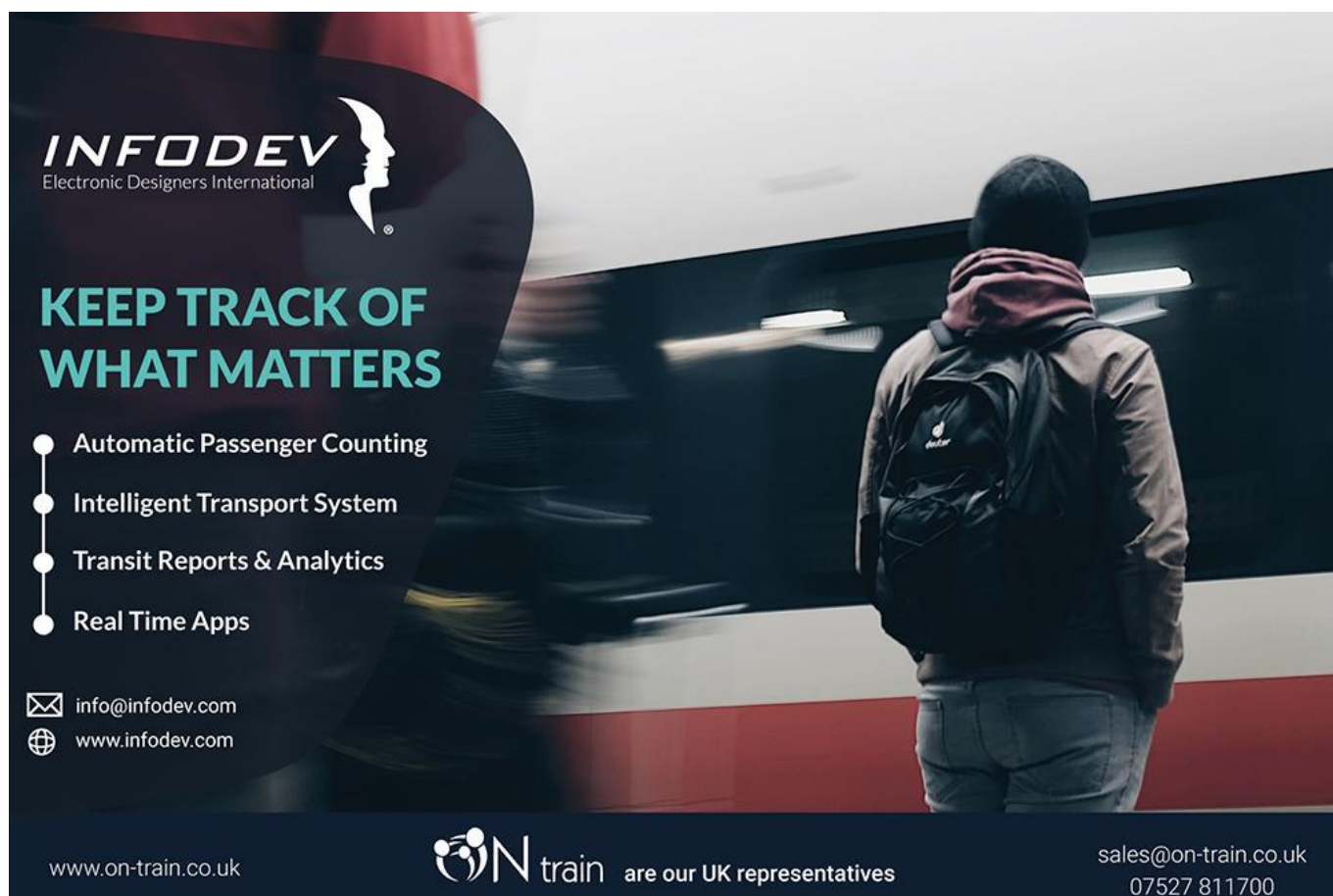


Covid19 : Managing Passenger Density with Infodev EDI – APC Advanced Passenger Counting and AllIM Seat & Space Occupation Systems

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INFODEV
Electronic Designers International

KEEP TRACK OF WHAT MATTERS

- Automatic Passenger Counting
- Intelligent Transport System
- Transit Reports & Analytics
- Real Time Apps

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Whilst transport authorities and operators are responding to COVID-19 and are adapting to the rapidly changing situation, the key question is how to manage passenger density and plan increasing services responsibly and safely, during the economic recovery.

- What should the new schedules be in the coming months ?
- How will passengers respond to the re opening of the economy ?
- How quickly will passenger numbers recover and how can we anticipate demand ?
- How do we handle schools & businesses re opening and prepare for summer leisure travel, whilst avoiding overcrowding ?
- How do we manage customer engagement and directly provide passengers with information that can assist their safe travel ?

Although answers to these questions will vary by region and local population; you can derive service specific answers by utilising the data provided by the Infodev EDI – Passenger Counting and Seat and Space Occupancy Systems and use this to provide passengers with density and space availability information directly to their phone, on train or to station based information systems.

Infodev EDI Equipment is Widely Fitted to UK Rail Vehicles Providing Data to many Operators with Superb Accuracy in Real Time.

Science-based data has been the predominant source of solutions for decision makers in this pandemic, offering an essential part to play in helping to manage density and protect people. Through our Automatic Passenger Counting (APC) technology, which is installed all over the world, highly accurate counts by train, carriage, compartment and service are collected. Passenger Counting and Seat and Space Occupancy systems are specifically designed to monitor and report the statistical behaviour of passengers in the public transport environment provided in real time.

Infodev solutions unleash the cumulative expertise accrued since the first systems were developed and installed by Infodev over 25 years ago. Infodev technology has always made available highly accurate ridership data, which when complemented by powerful analysis tools provides the information that operators need and passengers demand.

Typical APC Real Time Project Example – Roosendaal to Zwolle in The Netherlands.

INFODEV EDI's solution to passenger counting is unique because of how accurate and detailed occupancy at compartment level is determined and because this can also be communicated in real time to passengers and railway management alike. Please click on the video below to see the solution in action.

As an example 11 high-capacity trains were equipped, covering the trip from Roosendaal to Zwolle, over 270 sensors were installed. Furthermore, 800 passengers were provided with the specially designed apps on their mobile, which showed a virtual representation of the train. The occupancy rate was shown using a colour-coded space occupancy information. A large, impressive LED display was also installed at one station, providing useful information to passengers in real time regarding which train compartment to board. Special information was also shown for people in wheelchairs and with bicycles. A system using multiple colours was used to convey the level of car occupancy and special entrances. INFODEV EDI's solution also provided accuracy validation tools and real-time communication with the onboard management system.

INFODEV EDI's Automatic Passenger Counting solution made it possible for the client to try a new and innovative way to improve their customer service and, thus, to conquer one of the challenges brought by the sphere of transportation. A smartphone app and LED displays are only two of the many applications available for providing occupancy data to passengers and management. The data acquired through INFODEV EDI's APC systems not only provided insightful counting information, but were also an important innovation factor within the railway industry. For example, the Regional Control Centre Rail in Rotterdam made use of various internal applications through this counting data, such as timetable planning and

better management of service disruptions. In short, INFODEV EDI's APC solution provides valuable information upon which investment, revenue protection, passenger density, service or timetabling decisions can be made.

Next Generation Seat and Space Occupancy

In addition to the company's time proven APC system, Infodev EDI is proud to present its new detection technology; AllIM®. Based on AI technology, our new system combines our proven APC algorithms with an advanced AI approach, putting Infodev at the forefront of innovation. AllIM provides an addition to the highly successful Infodev EDI suite of products and services.

Infodev technology captures multiple images of each train, bus or vehicle compartment, at a high frame rate. Those images are processed and analysed in real time with Infodev's A.I. based detection algorithms to measure the number of passengers standing, the number of free seats available and also to detect objects, such as luggage. This is a full train / bus solution covering every compartment or vehicle.

Graphic shows typical AIIM output showing passenger numbers and seat occupation. This format or any derivative can be provided to Passenger Information Systems.

Discover More About the Needs of Your Passengers

Learn more about your passengers while respecting their privacy. With Infodev's AIIM® Technology you can get access to anonymous, highly valuable data in real time, providing:

- Occupancy levels (all systems)
- Numbers of passengers (all systems)
- Number of seats available (With AIIM)
- Number of suitcases in the vehicle (With AIIM)
- Number of bicycles in the vehicle (With AIIM)
- Number of wheelchairs (With AIIM)

UK Train Operators Choose Infodev

In the UK alone Infodev EDI equipment is fitted to train classes 142, 144, 150, 153, 155, 156, 158, 165, 168, 170, 185, 220, 221, 222, 230, 315, 321, 322, 323, 333, 442 and HST. Further UK projects are in progress now.

Long Term Look After Packages

Infodev equipment is supported in long term operation by technicians in the Netherlands and the UK keeping this reliable equipment counting, with many systems showing continued service in the UK for over 10 years.

Download the Infodev EDI Rail Brochures

[Download the Infodev EDI – Rail Advanced Passenger Counting Brochure](#)

[Download the Infodev EDI – AIIM Seat & Space Occupancy Brochure](#)

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