# Köln/Bonn Airport updates for the new millennium thanks to Datalogic and Vanderlande - Datalogic

We offer innovative solutions for many industrial sectors, from manufacturing, retail, healthcare and transportation logistics.

With the advent of the new millennium, the “Konrad Adenauer” airport in Köln/Bonn, Germany, estimates handling over 7.5 million passengers, that means a large amount of luggage will be sorted by Datalogic.

Köln/Bonn Airport, one of the biggest airports in Germany, is updating its structure for the new millennium as it expects an increase of over 2.5 million passengers per year. In order to offer them its usual level of service, the airport developed the greatest building project in its history – worth about 600 million DM – with Vanderlande as the system integrator and Datalogic as the supplier of the bar code reading stations! The project comprises the new Terminal 2, with car parking, a new access system, underground railway station and suburban trains. At the moment, the airport can handle about 5 million passengers, but after the completion of Terminal 2, the airport will be able to handle about 11 million passengers per year. During peak hours, Terminal 2 will handle up to 3000 items of luggage. The system integrator chosen by the airport company was Vanderlande Industries, an international company based in Veghel, the Netherlands, with a worldwide reputation in innovative materials handling systems for distribution centres, mail order, parcel handling and production companies – and of course, a world-class supplier of baggage handling systems for airports, with an experience of around 250 airports and 700 distribution centres world-wide. The complete Köln-Bonn airport project was managed by Vanderlande Germany, located in Mönchengladbach, Germany. After a long series of very strict competitive trials, Vanderlande selected Datalogic as the supplier of the automatic reading systems. Datalogic provided 3 reading tunnels, with a total of 36 DS8100 super scanners and 3 SC8000 system controllers, as well as 55 DLL6010-M1 hand-held scanners, in a special version for the airport. Datalogic was not just the only manufacturer to offer both hand-held and fixed-position scanners, but it was also the only one who could come up with a special customised version of the hand-held scanners meeting the precise needs of the airport. Further partners in the project were: Beumer Maschinenfabrik, head- quartered in Beckum, Germany, for the supply of the complete sorter control system, and Planar, based in Dortmund, Germany, who were responsible for the host PC controlling baggage sorting and tracking.

## THE LUGGAGE PATH

From 40 check-in counters, the luggage is forwarded by elevators to a lower area containing the whole conveyor system. Through the conveyors, all items are then directed by different verti-sorters and standard sorters to 3 Datalogic reading stations directing each piece of luggage to the correct plane. Each scanner tunnel consists of 4 DS8100-2000 super scanners, 8 DS8100-2000 super scanners with deflecting mirrors, 1 SC8000 System Controller, 1 modem for remote diagnosis and 1 optical indicator for reading results on top of the tunnel (with a yellow light for the trigger signal, a red light meaning no read and a green light for good read).

Last, but not least, the tunnel includes 1 manual reading system – the laser gun DLL6010-M, The

Dragon™ - equipped with separate keyboard, to be used for emergency handling, in case of failure in the automatic system. After the reading takes place, luggage is forwarded to a helix-sorter and then to the slides for the different planes. At the end of the slides, luggage is once more checked by means of 55 pieces of Datalogic's DLL6010 laser gun, The Dragon™, in a special version for the airport called "Ampelscanner". "Ampell" in German means crossing light and in fact the reader integrates 3 LEDs: green, yellow and red. Green signals that the piece of luggage may be loaded, yellow that it was sorted wrongly and red that the item is not released for loading. In order to adjust to the special needs of the application, the reader was also modified in terms of housing (extremely high shock resistance – the airport asked for resistance if fork-lifts were to ride over the readers), communication (with Planar's display terminal) and of course soft- ware (according to the airport's and Planar's duty booklet).

## DATALOGIC'S READERS INVOLVED IN THE PROJECT

Datalogic patented technologies, innovations and top performance are the main features of the DS8100, the most powerful bar code reader on the market. Using the knowledge and experience gained from thousands of installations, Datalogic has developed a fully integrated and compact solution featuring ACR™, 2nd generation bar code image reconstruction, ASTRA™ (Automatically SwiTched Reading Area) allowing the largest depth of field on the market with no mechanical autofocus and PackTrack™ reducing up to only 50mm the minimum required parcel gap in omni-directional reading applications.

The application also involves the DLL6010-M, the Dragon™, a world-class laser gun characterised by ruggedness, reliability and durability. The reader is a tough yet ergonomic product with optimum manageability designed to work reliably and consistently in harsh operating environments. Finally, the SC8000 system controller satisfies all the needs of applications in the logistics field and is fitted with specialised hardware and software to collect data from Datalogic bar code readers at 1.25 Mb/second.