

# » Application Story «

ETX® in Infotainment



## Infotainment with a robust IPC core

ETX® turns infotainment displays into full-fledged computers



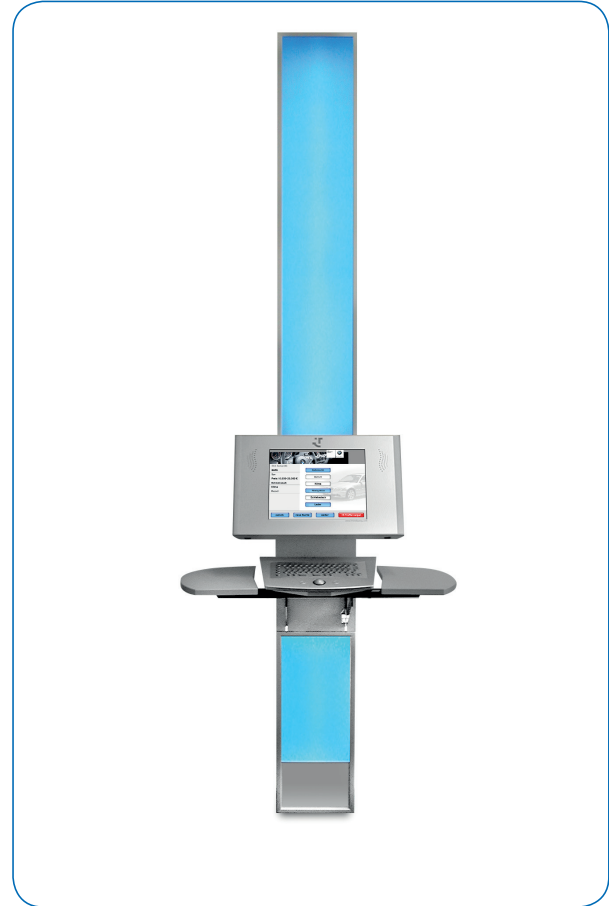
When it comes to perfect POS/POI infotainment, computer technology is the only platform that can combine all potential media. That is why friendlyway has equipped their d-sign infotainment monitors – with screen diagonals up to 40" – with the most up-to-date PC functionalities, including touchscreen. The PC systems have a very flat construction, with depths from 5 cm to 10 cm, and are designed for long-term availability, based on ETX® computer-on-modules from Kontron. The system integration is implemented by ies Industrie-Elektronik Schmitz.

friendlyway has been developing hardware and software solutions for self-service and digital display systems since 1998. More than 10,000 friendlyway systems and software packages have been installed in recent years. Thus, friendlyway self-service solutions are top sellers in Europe and North America. friendlyway stations have developed into true classics, and thousands of companies are pleased with their timeless elegance. The friendlyway classic can be found in the Museum of Modern Art in New York and in San Francisco, to name just two locations.

The newer d-sign product line is targeted on the rapidly growing market for digital signage in large and prestigious buildings, such as shopping, conference, and training centers; communal facilities; and sprawling corporate buildings. Attractive displays from 7" to 40" serve as space-saving digital door plates, advertising displays, trade show information systems, or shelf displays. The wall-mounted version requires no floor space at all. In the installed version, practically any object can mutate into a POS/POI solution. However, simply equipped with a display function, they can only be operated by nearby computers. There are also long-distance solutions for monitors that can bridge distances of up to 40 meters, but these are not sufficient in large facilities. Furthermore, only a limited number of monitors can be controlled by one PC system. Thus, the use of pure displays operated by a central computer is limited to smaller installations. For this reason in particular, friendlyway also offers solutions with integrated PC function, so that they can be linked in the IT infrastructure via Ethernet, just like regular PCs. Equipped with features such as touchscreen, camera, microphone, and sound, they can perform countless functions. Enhanced with external keyboards, WLAN connections, pass-through card readers, proximity sensors, or even door openers, the areas of use are nearly unlimited. It is only the software that ultimately determines what the dedicated function of the d-sign solutions are. Used in POS/POI systems, these solutions have non-manipulable user interfaces appropriate to their use. The development of such solutions is one of the core competences of friendlyway and – along with sophisticated design and excellent customer service – has contributed significantly to the success of this still rather young company. "Most customers don't want just



the bare bones," says Andreas Stütz, Executive Director of friendlyway, Unterföhring near Munich, Germany.



### User and administrator software included

Special software solutions are ready-made for a wide variety of uses of the d-sign terminal and are included free in the system delivery, which is a significant added value for users: the user and administrator friendly solutions range from room planning and digital door signs to visitor greeting by the "virtual receptionist" and a secure browser up to time and remote control of the media that can be employed as needed. Moreover, friendlyway has already developed special industry solutions for hotels, schools, hospitals, cities and communities, research institutes, banks, insurance companies, restaurants, airports, gas stations, trade shows, shopping centers, museums, and car dealership and rental agencies. friendlyway has achieved high demand for the systems introduced at the end of 2004, particularly among clientele where constant, interactive communication promises users a special advantage. Conference centers, exhibition halls, museums, and company headquarters are among the classic users in the facility management industry; in the future, this will extend to cruise ships in order to inform passengers of current weather data, routes, and the daily schedule. But these space-saving terminals are also used in classic POS applications.

## Royal Navy informs „landlubbers“ with friendlyway d-sign

The friendlyway d-sign 40 LCD monitor has been used by the British navy since September, 2005. It is used for public relations work on board and is meant to inform interested „landlubbers“ about the navy’s missions. The large, elegant 40 inch designer display is particularly well-suited for use by the navy, primarily through the fanless high-performance PC integrated into the housing and the very robust aluminum housing.



### Especially flat and quiet

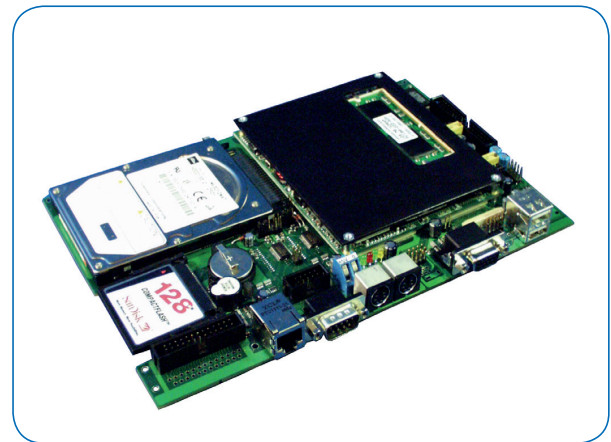
Since space is the deciding factor, particularly for wall installation, care was taken during the design of the d-sign line that the depth of the system never exceeds 10 cm. The thermal design of the large 40" displays represented a special challenge for a completely fanless design; it is provided by the system integrator ies as a complete, electronic installation kit, including display controls and cables. friendlyway and the custom design specialists based in Kierspe, NRW, Germany who were commissioned for the implementation decided to use computer-on-modules based on Kontron’s open ETX® standard, which offers long-term availability and has already proven itself in many – even quite rugged – environmental conditions such as medical technology, automobile technology, or helicopter technology.

### Why a fanless design?

Fanless designs have more areas of use than systems that operate with fans, because they are quiet – thus bothering no one – and lead to reduced air circulation, which is very valuable in antiseptic operating rooms, for example. Furthermore, the MTBF increases by up to 500%, since fans and rotating media are the most susceptible components in a computer system.

## ETX®, the market-leading computer-on-module standard

ETX® modules – which are classified by the independent analysts VDC as the market leader by far in the COM field – have a standardized, extremely compact form factor (95 cm x 114 cm) that offers the user identical mechanical dimensions, the same placement of mounting holes, and a uniform thermal interface to the system housing; also, most important, all electrical signals are guided to the carrier board using the same socket layout and voltage level. The decision to comply with the ETX® COM standard, published in 2000, made it possible to equip friendlyway’s d-sign solutions with suitable performance without appreciable expense. Currently, solutions are primarily based on the Pentium M with 1.1 GHz. Additional performance upgrades are possible. Interestingly, the Pentium M processor’s performance is comparable to that of a 2.3 GHz Pentium 4 processor, but generates significantly less heat and can therefore be operated without a fan, which is particularly significant for the d-sign 40. Another advantage of using COMs for friendlyway is the ability easily to adapt the base circuit board to any new requirements without having to commission a completely new board design. Thus, necessary new developments can be adapted to the latest requirements with the least expense.



## COMs reduce the pressure for electronics developers

Technologies are becoming more complex and demand more and more resources in the development and maintenance of hardware and software. It takes more time and manpower to release products to the market in good time. A significant investment in suitable measuring equipment can often drive development costs to unexpected heights.

The use of COMs allows users to employ proven systems with higher functionality as building blocks, and concentrate fully on their core competence. COMs simplify product maintenance by reducing the parts list from several hundred individual components to just one element. Cancellations of

nonessential components do not require additional redesigns on the computer module, because Kontron guarantees a minimum five years form-fit function on its COMs. Shorter time to market, a lower design risk, always the most up-to-date computer technology, no additional expenses for hardware and software maintenance, more and more manufacturers of devices and systems are using these advantages for a wide variety of applications and industries, because the outsourcing advantage is unmistakable with COMs.

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## About ies

The mid-sized company ies Industrie-Elektronik Schmitz GmbH & Co. KG, based in Kierspe, North Rhine-Westphalia, Germany, is a system partner and distributor of Kontron, with over 35 years of experience in measurement, process control, and automation technology. The company has been involved in the field of embedded computer technology for about 10 years. The abbreviation ies also stands for “intelligent embedded systems”. In 2005, ies achieved sales of 2 million Euro just with embedded computer modules and customer-specific developments based on COM standards from Kontron. ies is a refiner of Kontron products and, thanks to many years of close cooperation with its partner Kontron, facilitates the usability of industrial computer systems, even in the most difficult areas of application.

## About friendlyway

friendlyway specializes in the development and marketing of standard software and system solutions for interactive kiosk systems and digital advertising displays. The technological solutions that have been developed have been sold in Europe, Asia, and – through the subsidiary friendlyway Inc. in San Francisco – in the USA since the 1990s. friendlyway solutions can be rented, leased, or purchased.

## About Kontron

Kontron is a global leader in embedded computing technology. With more than 40% of its employees in research and development, Kontron creates many of the standards that drive the world’s embedded computing platforms. Kontron’s product longevity, local engineering and support, and value-added services, helps create a sustainable and viable embedded solution for OEMs and system integrators.

Kontron works closely with its customers on their embedded application-ready platforms and custom solutions, enabling them to focus on their core competencies. The result is an accelerated time-to-market, reduced total-cost-of-ownership and an improved overall application with leading-edge, highly-reliable embedded technology.

Kontron is listed on the German TecDAX stock exchanges under the symbol “KBC”. For more information, please visit: [www.kontron.com](http://www.kontron.com)

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