



ABACUS



DESIGNA

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DESIGNA transcends boundaries where it makes sense to do so.	

When you hear the name DESIGNA you immediately think of efficient parking management systems and you would not be wrong. But today DESIGNA offers much more. As the catalyst for an entire sector of industry, in addition to purely technical equipment and the software that goes with it DESIGNA also delivers something that only a very few companies are able to offer – innovative ideas.

For DESIGNA it has never been a question of successfully adapting, but rather of being successfully at the forefront. In order to achieve this, ever since the company was founded it has undergone constant, flexible development. To make sure that this is driven forward over the long term, the company has its own innovation process that ensures that fresh thinking has the space that it needs to flourish.

Yet it is not only a question of target-orientated creation of new, innovative products. It is more a matter of skillfully networking the existing with the new, for example open interfaces that can be extended without difficulty, and the clever implementation of ideas that create genuine added value. The promotion of pilot projects such as using Application Service Providing to operate parking garages over the Internet with a centralised server is therefore only one example from the many future possibilities that we are delighted to be able to offer our customers. In the emerging field of intermobility in particular, these ideas are a long way from being exhausted. DESIGNA is an innovative and reliable partner at its customers’ side, from the initial development of ideas right through to the complete technical implementation of their parking management solutions.



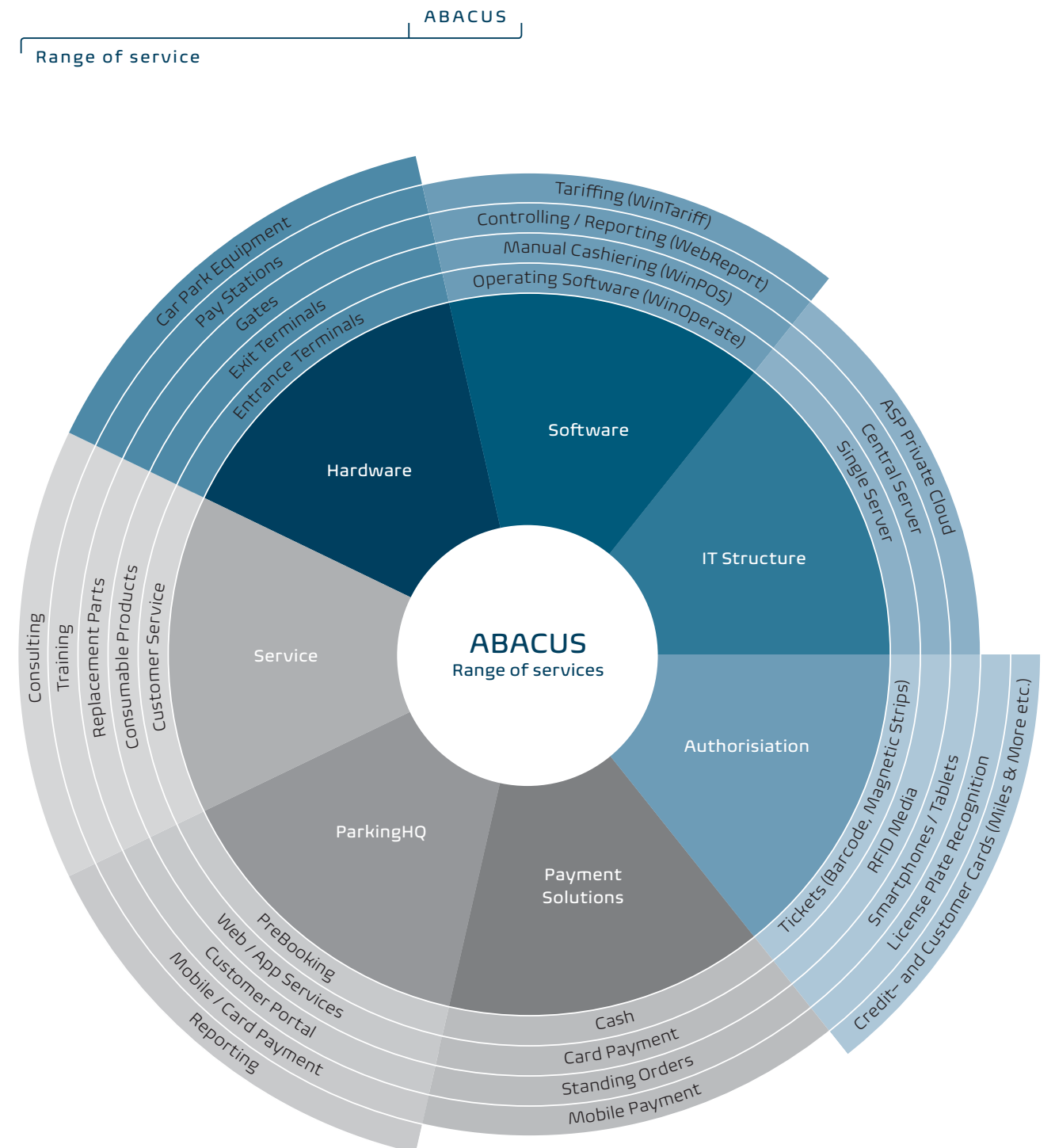
ABACUS

Intro

Requirements may change daily, but at least the answer is always the same: ABACUS.

For DESIGNA, constant questioning and scrutiny are both our passion and responsibility. Only from this stimulus is it possible to create something truly significant. For example a parking management system that sets new standards – ABACUS. From the very beginning, the needs of our customers were at the heart of ABACUS' development. Not only in terms of reliability and user-friendliness, but above all in view of the possibilities for integration and networking. The requirements of major regional and international networked projects were consistently met, through the implementation of internationally recognised hardware and software standards, through the open and transparent interface design and not least through the almost unlimited scalability. Thanks to these features, ABACUS is also already the ideal system for medium-sized systems of between five and 25 terminals – with the option of being able to incorporate these into a larger network in future.

Be it city-wide networking, airports, shopping, centres, hospitals or hotels and events centres: ABACUS is the economical and above all future proof solution that offers the best protection for your investment. And our success speaks for itself. To date, more than 15,000 DESIGNA systems have been installed worldwide – and that number goes up by two more every day. Thanks to its outstanding features, today ABACUS occupies a market-leading position in terms of technology.



The systems offer a wide range of possible uses and services. The system that manages, tests, networks and – not least – thinks for itself is ABACUS, the intelligent operating system that has been guaranteeing future viability since the year dot.

Single Server



Central Server



ASP Private Cloud



ABACUS

IT Structure

The network that thinks for itself.

Networking is the defining subject in many sectors. We recognised the opportunities for our customers well in advance. For this reason, from the very beginning ABACUS was designed with distinct networking possibilities for major national and international projects. The ABACUS technology supports operators by providing a tailored solution for linking connected car parks with one another by VPN (= Virtual Private Network) and tapping potential synergy and savings effects. Incoming data packages such as speech and video information, external alarms or statistics are bundled, monitored and evaluated in the national centres or international headquarters. A complete overview is therefore guaranteed at all times.

There are no problems whatsoever in implementing enhanced centralised capabilities, the possibility of reacting at lightning speed to ongoing situations and the complete take-over of monitoring and service functions in connected car parks, for example during the night. ABACUS is the system that is ideal for use by all operators, whether as a small- or large-scale solution. How you ultimately want to operate the car park and structure the associated IT system is entirely up to you.

Server concepts

Single Server

The system is operated directly on a server situated in the car park.

- The operator is responsible for scaling, security, data security, server technology and software updates
- Live access to all system data for the connected parks

Central Server

Multiple car parks are operated on a central server over a VPN.

- The operator is responsible for scaling, security, data security, server technology and software updates
- Option to connect to a central control room
- New car parks can easily be connected to the existing server
- Live access to all system data for the connected car parks
- All car parks run on the same software – new features and parking products can be activated quickly across all systems

ASP Private Cloud

One or more car parks are operated over the Internet (VPN) from a certified, high-security processing centre in Kiel, Germany.

- DESIGNA IT experts are responsible for server structure and software
- Guaranteed operational reliability and data security, live access to system data for the connected car parks
- Guaranteed protection against virus and hacker attacks, automatic backups (daily)
- No costs for the server IT or the 24/7 hotline with direct access to the DESIGNA IT experts
- Additional car parks connected in an extremely short time
- The latest software on all systems at all times
- New features and parking products integrated in an extremely short time

ASP Private Cloud

ASP Private Cloud – the reliable route to greater security in the IT field.

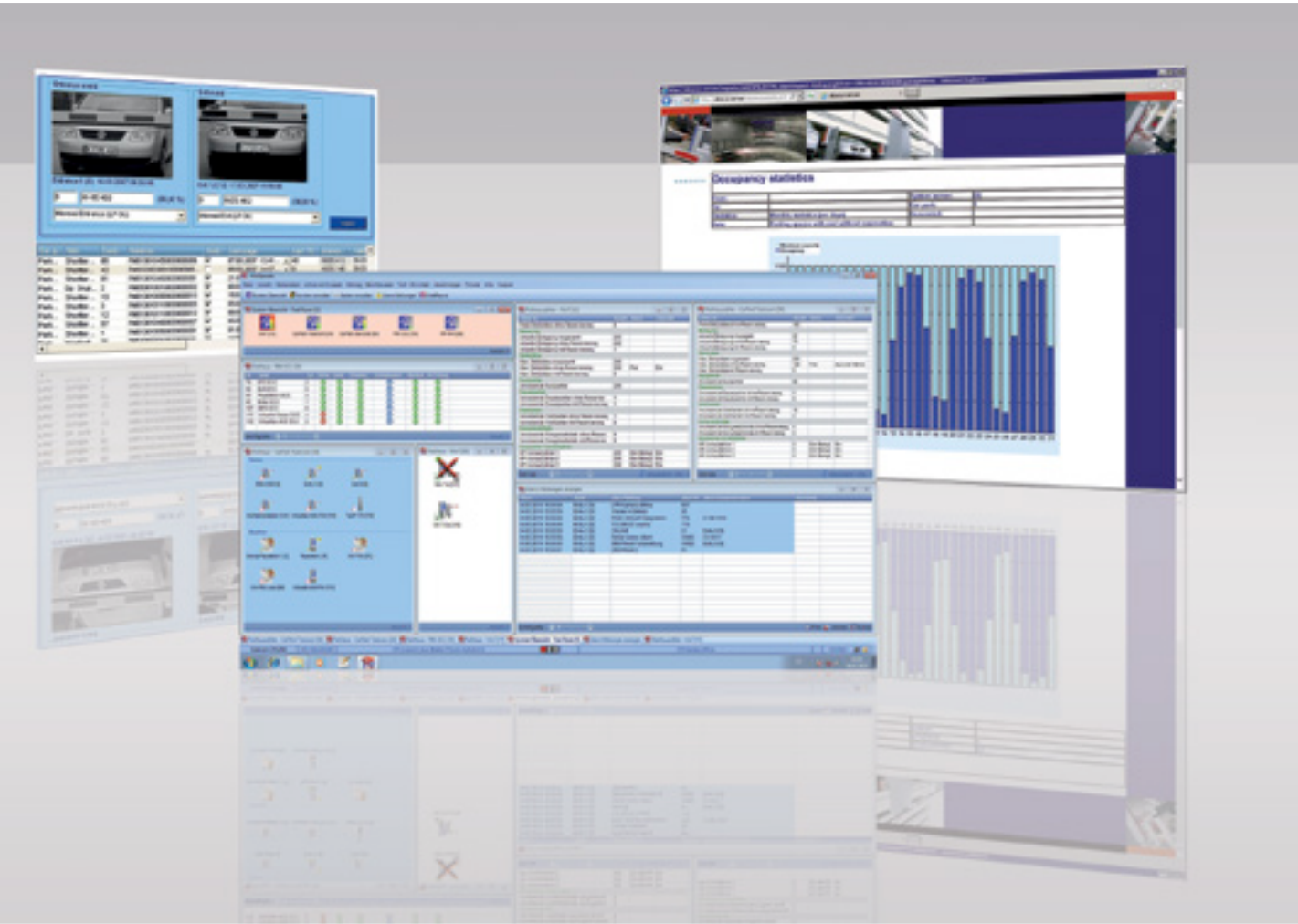
In order to fully exploit the technical and financial possibilities of modern parking management you must be able to rely on a smooth-running, fail-safe and optimally tailored IT structure. This requires a large outlay on technology and expertise and many hours of work. Instead of installing a separate server for each car park or connecting multiple car parks on a central server as is usually the case, with ASP (Application Service Providing) Private Cloud, since as far back as 2008 DESIGNA has been the world's only manufacturer to offer its customers the opportunity to network their systems over the internet and operate them via a high-security, certified processing centre. ASP Private Cloud customers are delighted with the operational reliability of their systems and the best possible protection from hacker and virus attacks. To date, more than 160 million entries and exits have been carried out with ASP Private Cloud.

This is only possible through the use of DESIGNA's existing professional IT infrastructure. With the ASP Private Cloud solution, DESIGNA is able to take over the fail-safe operation of the central server and open up the possibility to operators of leasing sector specific applications over the Internet, saving on expensive investment in IT structures and know-how and thus concentrating fully on their core competences. This new form of IT structure will allow our customers to make cost savings of up to 30 %. ASP Private Cloud customers benefit at all times from the most up-to-date server technology and the DESIGNA experts' IT know-how. Operating risks resulting from server malfunctions and deliberate interference by third parties are reliably prevented. With ASP Private Cloud, our customers have constant access to the latest software and can rely on the most up-to-date security standards on all systems. ASP Private Cloud makes unlimited systems scalability possible for our customers, from individual car parks through to systems that are networked internationally. Furthermore, the customer has complete cost control over the entire system life cycle. The central server is run from a professional computing centre and thus fulfils all reliability and data security requirements. DESIGNA's recognised IT excellence in combination with the latest server technology means that the term system stability has assumed a new dimension.



Benefits of ASP Private Cloud

- Full control over every terminal in your systems, thanks to system-wide networking
- Economical – up to 30 % cost savings
- Scalable to any degree, it is extremely quick and easy to add new terminals or entire car parks to the central server
- Highest security standards, through automated backups, software updates and state-of-the-art, centrally installed maintenance tools
- Latest server technology, ensures that the risk of manipulations (from within or externally) is minimised
- Constant availability



Software

ABACUS

The easy thing is the most difficult.
The software.

We all know that software programmes can make a person's working life easier. Or more difficult. DESIGNA software makes sure that they become an essential tool. Consequently, an elementary building block in our software architecture is a clear user interface that is operated intuitively. No matter whether as a multi-faceted control tool or essential checking unit. The standard presentation of complex data and processes, in a visual nutshell, is one of the greatest strengths of the ABACUS software. Presentations that clarify rather than distort. And functions that help instead of hinder.

Be it for operation, reporting or device control: based on international standards such as Windows, technically mature applications are available that guarantee a reliable, efficient and interface-compatible operation of your system or parking network, even over a long term – and, depending on the task and usage environment, over the Internet via VPN too. To do this, every transaction during a parking event is assigned to the respective ticket in the central SQL database, saved in uncompressed form over several months and made available to the reporting system. From here it is only a small step to your company database: data can be imported seamlessly into third-party systems (like SAP) or other business software. On the terminal side a Linux operating system that has been specifically optimised for this task takes over functional control and communication with the Windows server. As open source software with a global developer basis, Linux is synonymous with absolute stability, scalability and security.

Software

WinOperate

- The central application for control, monitoring and process visualisation of all operations in the system

WebReport

- All of the important statistics and evaluations are available to you via this web-enabled application by encrypted Internet access wherever you are in the world

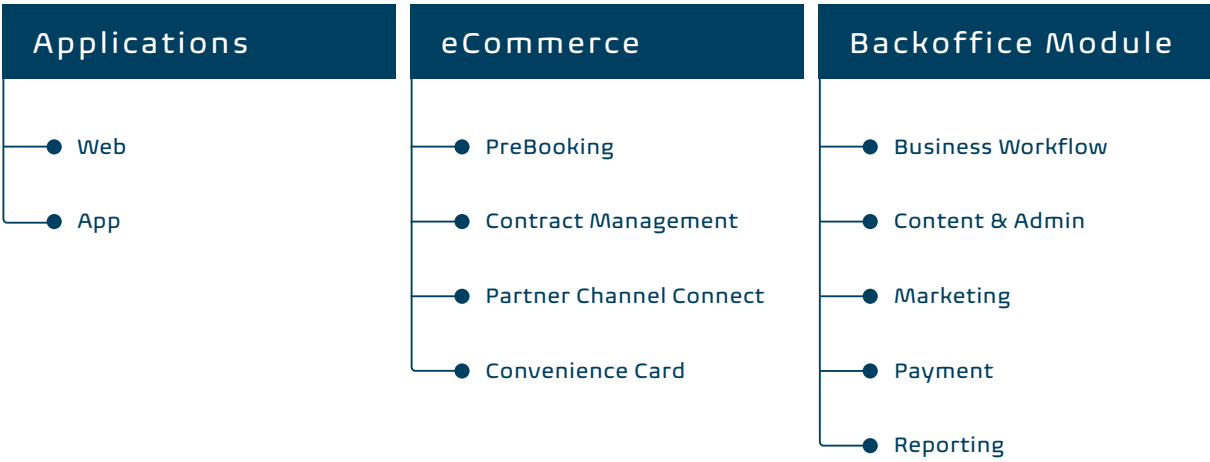
WinTariff

- This application enables the car park operator to configure the tariff structure

WinPOS

- This application, which can run on any PC, offers multiple options for taking payments manually. The possible use of a touch screen saves valuable space at the point of sale

Overview ParkingHQ



ParkingHQ – A strong partner opens up new possibilities.

As of now, DESIGNA is extending its parking competence in the growing field of internet-supported applications and services with ParkingHQ. This is to be made possible by its newly established alliance with ilogs information logistics GmbH. ilogs has over 10 years’ experience in designing and developing web-based, innovative business process solutions, and many well-known companies have already been successfully supported in the implementation and optimisation of their business processes. In future the entire capability of this company will be included in many DESIGNA products, thereby opening up new possibilities to our customers in the large field of intermobility, for example through the integration of internet-based applications and customer loyalty systems such as pre-booking, city networking systems and city cards. The future competitiveness of our customers will be considerably enhanced by this partnership.



Parking information as a valuable service on the Internet – and as an app.



A new service is capturing the hearts of customers. DESIGNA enables car park operators to present information about their connected car parks with an operator-specific internet solution directly onto a smartphone or on the internet in an informative way. This practical application provides dynamic information about the occupancy status and capacity of the car park, plus additional car park information such as prices, equipment, accessibility, directions, services and even booking the parking space required. A beneficial service that your customers are sure to be keen to use.

Your car park on the Internet

- Problem-free addition of free parking spaces – no matter how many there are
- No effort – easy to use via existing modules
- Comprehensive range
- Quick-check function – a list of free spaces
- Practical price comparison – all the prices at a glance
- Reservation of the chosen parking space – available as an option
- Services at a glance – a list of car park services, incl. opening times
- Directions – free spaces are shown on a mini map



ABACUS

Authorisation

Security and service thanks to flexible authorisation processes.

Only when there is support for a large number of different handling and billing methods can a system be optimally integrated into different operating environments and thus provide a smooth authorisation procedure. ABACUS not only supports barcode and magnetic strip technology (side and middle-strip variants), it also supports all the latest smartcard technologies for authorisation. For season parkers, the smartcard is the most convenient form of parking. Located inside the car's front windscreen, the barrier opens as soon as the car approaches a specific defined area on the car park barrier. Completely contactless. This is made possible by an invisible RFID tag (RFID = radio frequency identification) on the smartcard.

Another option for authorisation is the Licence Plate Recognition system LPR, which uses a camera installed at the entrance and exit to reliably check the approaching customer automatically and with a high level of reliability based on the vehicle licence plate, which it checks for valid access authorisation using integrated recognition software. In conjunction with licence plate recognition, season parkers are able to enjoy VIP services. Once they are stored in the VIP list, customers are able to enter and exit without a ticket. In addition to receiving additional operating data covering car park occupancy, duration of stay and origin of the vehicles, by using the LPR system operators and their customers benefit from one thing in particular above all else: security and service.

ABACUS

Payment features

One thing you can count on – enhanced application and payment options.

The parking management systems of today must be capable of more. For this reason, ABACUS supports all important handling and billing variants. In the standard version, ABACUS supports the side-strip variants at all car park terminals, which have become well-known thanks to their use on debit and credit cards. Technology that pays off for car park customers, particularly when debit cards and credit cards are processed at the entrance and exit, making both a ticket and a trip to the pay station superfluous. For us, the safe processing of credit cards is a particularly important responsibility.

Parking garage operators and their end customers, as well as the financial institutions responsible for the clearing of payments, can with good conscience recommend their credit cards for payment transactions using ABACUS systems. This is substantiated by the ABACUS systems' PA-DSS certification. Accordingly, all systems are audited that safely process, store and relay credit card data in accordance with prescribed standards. With PA-DSS certification of parking management systems, the inspection of our current PM ABACUS system versions enables us to offer our customers the greatest possible credit card processing security. ABACUS offers interfaces to "chip & pin" payment terminals according to EMV guideline.



Hardware

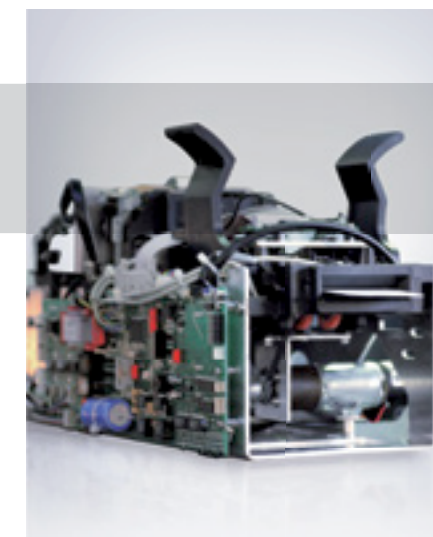
Our standard is success. The hardware.

We are redefining the understanding of the parking technology field. For this reason, we have highly trained engineers who contribute their knowledge to the company. This guarantees our customers the best possible product. Each ABACUS system is carefully tailored to the customer's specific needs, making almost every system unique. Regardless of whether you use terminals of our 120 family or the BlueEdition family in your car parks. All ABACUS components are optimally tailored to their function and explicitly designed to ensure that they interact smoothly. They are unconditionally reliable, impressive in their functional scope and set standards in terms of their adaptability to the future.

The system has a modular technical structure, a cutting edge terminal controller and is based on the consistent use of ethernet standards, meaning that all system components are open for expansion, integration and networking. As a result it is possible to incorporate external alarm signals, information systems or databases into a ABACUS system without any difficulty. And using VPN (virtual private network), large-scale structures can be built extremely cost-effectively.

Heart and brain in one. The multicon.

With the ABACUS the brain is at the heart. Multicon, the intelligent core module for processing tickets and debit or credit cards, is redefining reliability. Key features are its optional range of functions and its extraordinarily high operating speed, for example when issuing tickets. But we would not be DESIGNA if we had not also paid special attention to this module's ease of maintenance as well as all of its innovations. The quick and tool-free access to the ticket guide is therefore just as important to us as the maintenance-free, self-sharpening circular blade for cutting the paper tickets.





Automatic pay station
APS 120 ECO



Entrance / exit control terminal
ENT 120 / EXT 120



Car park barrier
Gate



Entrance / exit control terminal
In + / Out +



Entrance / exit control terminal
In / Out



Automatic pay station
ONE



Barrier-free automatic pay station
Pay EasyAccess

ABACUS

Hardware

Two product families, one success story –
120 & BlueEdition.

Our two product families – 120 and BlueEdition – are the pillars of our success. While the 120 family still guarantees reliability and efficiency, BlueEdition impresses with additional services such as significantly reduced power consumption and the intuitively structured operating concept, best experienced with our revolutionary automatic pay station ONE. We don't look upon general technological change as a risk but as an opportunity. Our target has been and will be to consistently utilise this change for the benefit of our customers. In the fields of ecology and ergonomics as well as in progressive design.

ONE colors





Hardware

ABACUS

ONE – the pay station from DESIGNA. Unbeatable.

With the new ONE pay station, the perfect synthesis of design and functionality is making its way onto the automatic pay station market otherwise dominated by the grey standard. The completely revised pay station now allows DESIGNA's passion for innovation to become externally apparent. For the first time we have a pay station consistently responding to customer needs – and not the other way round. An unparalleled harmonious design ensures a clean and modern appearance and at the same a convenience of operation that is unique. Using self-explanatory icons on the gleaming user front of the side panel, users are navigated step-by-step to the next item from the top downwards. This makes adjustments unnecessary for the various languages since the icons convey the next operating step in a way that can be understood by all. Information and interaction are clearly separated from each other. The result is a completely different understanding of what operation involves. With the services it provides, the ONE pay station thus defines a new standard of its own.

Benefits ONE

- Perfect synthesis of design and function
- A harmonising design
- Unique convenience of operation with icons
- Clear physical separation of information and interaction
- Self-explanatory icons, understandable in any country
- Perfect incorporation into any surroundings thanks to being able to select the colour
- Detachable side panel to facilitate transportation and installation
- Intuitive operation for paying that much quicker
- Low power consumption due to intelligent energy management
- Corner element for protecting privacy

The In & Out terminals – efficiency lies in calmness.

The realisation that, in a world of limited resources, energy should be used carefully and intelligently as a matter of course is something that has been reflected for many years in our conduct. Proof is best afforded here by our entrance/exit terminals In & Out, which have the lowest power consumption in their class by far. The new terminals are based on our tried-and-trusted ABACUS operating system and thus all state-of-the-art RFID and networking technologies. Just how much development know-how is concealed within the terminals is shown by the innovative energy management system. The machine stays in sleep mode for as long as no vehicle activity is registered and only wakes up when a vehicle approaches the terminal, effectively reducing the energy required. Furthermore, the design of the In & Out terminals has been influenced by our knowledge about the raised design of current vehicle classes, affecting the position of the ticket slot, and also by a drive to simplify maintenance and servicing work. Your staff therefore no longer have to put themselves in danger standing on the tarmac to refill the terminals with tickets, for example, as the service access has been specially positioned at the side. The entire hood can now be removed for maintenance work so that every component is accessible from three sides. All of these innovations, together with ultramodern processor technology, have been packed in an aluminium housing with a high-quality finish, which, moreover, requires very little space. The best proof that “less” is indeed sometimes “more”.

Benefits In & Out

- Lowest energy consumption of their class
- Future adaptability guaranteed from the ABACUS platform
- Raised level of user-friendliness thanks to intuitive use
- Illuminated ring effectively stops any irritation experienced during the operation
- Heightened level of control panel to reflect today's car sizes
- Optimised service and maintenance friendliness thanks to side accessing
- Service hood fully detachable, technical units accessible from 3 sides
- Little installation space required
- Robust and resistant on account of a high-grade aluminium housing
- Flexible authorisation (magnetic strips, barcode, smartphone, RFID)
- Easy ticket emptying thanks to the flexible bin
- More tickets can be taken up, bin adapts itself to the fill quantity





ABACUS

Service

Facilitator, adviser, partner –
the DESIGNA service department.

The best repair service is still the best when it is not needed. For this reason, quality management and duty of care are enshrined in everything we do. Should there nevertheless be an unexpected system impairment that you are unable to remedy yourself, we will assist you quickly, effectively and directly. Either via our telephone support desk – with qualified engineers who know what they are talking about – via remote maintenance or with one of our highly trained service technicians on site, 24 hours a day, seven days a week.



The DESIGNA quality management system ensures that we not only adhere to our high quality of service at all times but constantly enhance it to benefit you. For us, this includes total support through in-depth advice at each phase of a project as well as intensive training courses in which we familiarise our customers with DESIGNA's products and generate real knowledge. The strongest proof that DESIGNA pays more than just lip service to customer service. Instead it is something that our customers experience on a daily basis.



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