PRISMA

The WILD Group magazine

INTELLIGENT ELECTRONIC MODULES
MERGE TO CREATE NEW PRODUCTS

▼WILD

▼PHOTONIC

↗ **EDITORIAL**

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EMBEDDED SYSTEMS - THE BACKBONE OF DIGITALISATION.

The Internet of Things has heralded a new era for all of us. The multitude of possibilities it opens has forced almost every industry to sooner or later deal with this topic. From a technical point of view, these are just "normal" systems containing processors and software, so-called embedded systems. The comprehensive ability of these devices to communicate with other systems (networks, WLAN, Bluetooth and many more) opens new opportunities but also creates risks because they become vulnerable to external attacks. Security is becoming the new challenge. Therefore, especially in medical technology, this software must not only be intelligent but also certified and secure.

In recent years, WILD has developed a comprehensive "kit" of software modules. These have been tested, verified and documented for application in medical devices and allow for a quick time-to-market and cost-optimised development for our customers. In combination with its widely diversified expertise in numerous other areas such as optics, mechatronics or fluidics, WILD is thus opening promising future prospects for its customers.

A completely new range of applications is also possible with the UltraCam Panther, a portable reality capture and mapping system that WILD now produces for Vexcel Imaging GmbH. This issue of PRISMA also describes how we systematically optimise our cleanliness standards through constant expansion of our precise cleaning facilities and what awaits you on the new WILD website.

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A TRULY PORTABLE SYSTEM

▼**WILD**

In October 2017, WILD began manufacturing the UltraCam Panther for Vexcel Imaging GmbH. The portable "Reality Capture and Mapping System" by the Graz camera specialist was nominated for the renowned Wichmann Innovations Award at INTERGEO 2017.

Panthers are small, agile, excellent climbers and have exceptional eyesight. The Panther is also a champion of spatial perception. It's no coincidence therefore that Vexcel Imaging GmbH chose this name for its latest product innovation. The mobile "Panther" rucksack model is comprised of a panorama head with 26 individual cameras and a GPS/INS module. These are complemented with a rotating LiDAR system with 32 laser beams that can generate 700,000 points per second.

"The high-resolution panorama images, in combination with the dense 3D point clouds, facilitate recognition of surroundings and allow for an exact distance measurement in all directions. The result are extremely precise 360-degree still images and videos", says Vexcel Imaging CEO Alexander Wiechert, explaining his company's innovative system.

Since the UltraCam Panther fits in a rucksack, it is considered an ideal portable 3D mapping and reality capture system for indoor, outdoor and underground use. As an addition to the UltraCam Mustang, which generates geopositioned panorama images and 3D data on the road, the Panther plays to its strengths in places that are hard to reach.

The application areas of this particularly robust and stable device range from building management and forestry to real estate. Hence, there was great interest among potential customers during the presentation of the Panther at INTERGEO, the leading international congress and trade fair for geodesy, geoinformation and land management that took place in Berlin in late September. "In future, the UltraCam Panther will become an indispensable instrument for mobile measurement and creation of virtual data models", says Stefan Werkl, Head of the Optical Technology Division at WILD.

For 22 years, he and his team have been providing optics and manufacturing expertise to Vexcel for various large, high-tech aerial cameras and 3D modelling systems. "Especially our skills in optical assembly and in glueing technologies are key competencies which play a decisive role in the manufacturing of these devices", Werkl explains. This is why the systems partner is also in charge of the complete production, assembly and final testing of the UltraCam Panther. WILD's calibration facility at the Völkermarkt site has already been adapted to accommodate the new camera head of the UltraCam Panther.

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↗ **PRODUCTION** ↗ **DEVELOPMENT**

THE NERVOUS SYSTEM OF INTELLIGENT MEDICAL TECHNOLOGY.

▼ WILD

WILD develops and manufactures electronic assemblies. In combination with customised software, they turn medical technology products into innovative and intelligent devices.

Medication which is individually tailored to the individual patient may soon become the standard. In future, 3D data glasses will allow physicians to operate far more precisely. Examples like these may still seem like science fiction but they show that trends such as personalised medicine, wearable devices or the Internet of Things have one thing in common: they are intelligent products with intelligent software.

"The software is the central nervous system of many product innovations and what makes numerous functions possible in the first place", confirms Walter Hernler, expert for electronics and software at WILD. Such rapid technological progress, however, also increases the risk of software errors. The need to maintain a technological edge while complying with strict quality requirements and regulations poses great challenges for many providers. It is therefore understandable that they are more and more inclined to place software engineering in the hands of experts.

The WILD Group realised quite early how important the combination of electronics and software in medical technology and metrology can be. The establishment of WILD Electronics in 2004 allowed the group to develop and produce the first assemblies for in-vitro diagnostics very quickly. These were followed by navigation-guided instruments, medical cameras, microbiological handling devices and biochemical analysis systems. Meanwhile, WILD Electronics has become an expert in embedded systems, which will become increasingly significant in the future with the rise of the "Internet of Things". "We currently have 15 projects running, in which we are in charge of both hardware and software development. We offer our customers the complete spectrum ranging from controls for stepper motors, servomotors and simple microcontrollers to the development of project-specific application software for PCs and mobile devices", stresses Wolfgang Warum, Managing Director of WILD Electronics.

As a result of this product diversity, WILD has been able to develop numerous modules that are not product-specific but have been tested, verified and documented for application in medical equipment. "They allow us to combine the desired functions in a modular system. Therefore, it is no longer necessary to create and test new interface, actuator and sensor modules at a considerable expense. This saves time and costs and minimises the implementation risk", explains developer manager Markus Poßegger

Ask WILD when it comes to risks and side-effects
"Since we mostly develop software as a team, it is important that it can be understood and further developed by everyone", Walter Hernler stresses. For this reason, WILD has put processes in place for quality-assured software engineering. These not only implement the requirements of relevant standards, they also contain guidelines on how software must be created and documented at WILD.

An interface to science and research
In order to evaluate new developments and examine these as to their suitability, WILD also intensively focuses on software in its Technology Roadmap. "This allows us to prepare technologies for the future so that they are available when our customers need them", says Walter Hernler. Carinthia has developed into a hotspot for electronics and software in recent years. Educational centres like the University of Applied Sciences for Medical Information Technology or the Villach Technology Park form links to a vibrant network used by WILD. The Silicon Alps clusters and Human.technology Styria recently launched a cooperation offensive in "health technology" which focuses on the core topic of electronic based systems and acts as a direct interface to science and research. As a specialist in medical technology, WILD is the driving force behind the initiative

↗ **PRODUCTION**

LIGHT FOR LIFE.

▼WILD ▼PHOTONIC

Photonic expands sales of its surgery lights ML600 & ML1000 onto the international market through its own brand "ATO Light for Life".

Photonic recently opened a new chapter in the success story of its Magical Light 600 and 1000 examination and surgery lights. The devices are now being sold globally under Photonic's own brand "ATO Light for Life". The prerequisite for this move was CE marking for the devices, which PHOTONIC has now taken into its own hands. In addition, CE marking is also required as a prerequisite for or to facilitate registration in non-EU member states. "The CE-marked surgery lights also mean a shorter time to market for our potential OEM partners", stresses Photonic Managing Director Thomas Köbel.

The devices have been successfully used in clinics and medical practices for years. As a result of the CE marking, Photonic now expects an increase in demand from international OEM partners and dealers. The next step planned by the specialists for intelligent lighting

solutions is to bring additional versions of the surgery lights onto the market. These may include a model with a focusing feature or with colour mixing options.

Well-advised to your CE marking

The WILD Group already has more than 40 years of experience in the development, production, testing and support of certification of medical equipment. The systems partner provides this expertise to its medical technology customers upon request and accompanies them in their CE marking efforts. WILD thus removes a barrier for entry onto the medical product market, especially for small companies.

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OPTIMISED PROCESS CHAIN FOR CLEANER PARTS.

▼WILD

WILD is systematically increasing its cleanliness standards and has recently invested in the renovation of its precision cleaning facilities.
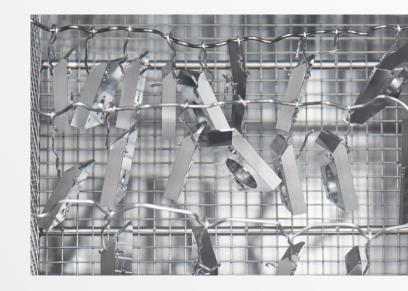
The cleanliness of components, e.g. for high-performance lasers or highly sophisticated optics, has become a decisive quality feature. WILD has therefore been focusing on the development of ideal production conditions for ever more precise and sensitive devices and on the design of stable and economically efficient cleaning processes for years. "In order to meet the high requirements, however, it is also worth considering the material flow and not just the cleaning processes themselves. After all, facility technology alone cannot guarantee reliable and economic cleaning", explains production manager Mario Pföstl.

For this reason, WILD has recently not only adapted and enlarged the facilities for precision cleaning by 60 square metres, it also optimised its process chain. "To minimise the introduction of particles by staff and materials, we have modified our personnel access and material flow concepts. We now apply pre-cleaning procedures for materials, which significantly enhance quality standards. The dressing process for staff has also been divided into two steps. As a result, we have achieved an important improvement in overall cleanliness in these working areas", Mario Pföstl explains. The new precise cleaning area is situated directly next to the autonomously-operated cleanroom for airborne particulate cleanliness classes 6 and 5. These two premises are connected to each other by sluices.

"Our aim is to always be one step ahead of our customers' requirements. For this reason, we have systematically raised our cleanliness standards in recent years and comprehensively modernised our production facilities and our cleanroom to achieve this. Moreover, we will be adding a delivery handling system and a dryer to the precision cleaning process area next year, thus significantly enhancing the degree of automation", Pföstl reveals.

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↗ INTERN

A NEW LOOK WITH MORE CONTENT.

▼WILD

WILD's relaunched website guides customers, partners and potential staff members straight to the information they need.

A new design, a more comprehensive service, a deeper insight into the plethora of competences and direct links to all of the contacts: the relaunched website www.wild.at presents the WILD brand in a clearly-structured, modern look in future. Moreover, the website is now best-suited for viewing on mobile devices thanks to its responsive design.

Quick access to even more content

"Visitors come to our website with completely different expectations but regardless of whether they are potential customers, suppliers or future staff members, we provide every one of them with the most relevant information as quickly as possible. We therefore place great emphasis on enabling interested visitors to find the suitable contact partner online and contact them immediately", says project manager Alexandra Horvath, whose interdisciplinary team of seven is implementing

the relaunch. The new website will also offer a comprehensive insight into WILD's activities as contract manufacturer and development enabler. Moreover, the visual implementation of the site now avoids purely technical content. "Behind every complex assembly and every complete system is the outstanding work of our staff members. With their skills, expertise and experience, they have established the WILD brand as "the most trusted company" for many customers. The objective of the new visual appearance is to make this valuable interaction between humans and technology immediately recognisable", Horvath explains. In addition to the redesign of the websites, Photonic is also working on a new online presence and the WILD Group is expanding its corporate communication into other areas as well, becoming increasingly present on social media platforms such as LinkedIn and Xing.

The WILD Group
The WILD Group comprises the WILD brands based in Völkermarkt, Wernberg (Austria) and Trnava (Slovakia), and the Vienna-based Photonic. We are your reliable partner on a path of continuous growth. We generate an annual group turnover of 95 million euros with a staff of 400 highly qualified workers and employees.