

PRESS RELEASE



HEADLINE

The time is ripe: Berghof establishes „Raspberry Pi“ in industry as well



Contact:

Mark Böttger
Head of Communication and Marketing
mark.boettger@berghof.com
Tel.: 07121/894-267

Berghof GmbH
Arbachtalstr. 26
72800 Eningen
www.berghof.com

April 9th, 2021

TEASER

Hit the sweet spot between computing power and cost: Optimales Verhältnis zwischen Rechenleistung und Kosten: Berghof Berghof is already presenting new series based on the latest "Raspberry Pi" technology - the "Compute Module 4 (CM4)".

HEADER

Behind the scenes, our experienced team of automation developers has been working feverishly on this project for quite some time. Now, with the latest, the fourth "Raspberry Pi" generation "Compute Module 4 (CM4)", the time is ripe: Berghof Automation and Control Solutions, industry pioneer in the field of industrial automation, is now establishing the mini computer, which is extremely popular in the developer scene due to its unique price-to-performance ratio, for industrial use with a complete system of "Raspberry Pi" CODESYS controllers and "Raspberry Pi" industrial PCs. By doing so, the business unit of Berghof Automation GmbH once again lives up to its motto "Pioneering Automation Solutions".

TEXT

There have been continually mounting demands on control systems for modern production plants – and this trend has accelerated rapidly again in the past year, partly as a result of the Corona pandemic. This led to a rapidly

growing importance of remote control and remote service, i.e. remote access and remote maintenance.

Sustainable control systems have to manage multiple tasks simultaneously without compromising their real-time performance and reliability. Motion, IoT tasks, communication, visualization - today's control systems must manage and regulate everything simultaneously. So it's no wonder that a large number of systems have already reached their limits and that there's an ever growing need for performance reserves.

At the same time, technology keeps developing at a rapid pace. Today, decision making on a new controller or a new industrial PC must therefore keep in mind that the selected solution is open with respect to future plans. This is necessary if a company does not want to block paths unnecessarily and be annoyed by this technological dead end later.

In addition, when controllers or industrial PCs are replaced in a given location, for example in an existing control cabinet, the space available is correspondingly limited. For this reason, developers dealing with solutions for use under tough industrial conditions, have had their eyes on the compact, cost-effective and powerful mini-computer Raspberry Pi® for some time now.

Apart from the low price and the attractive performance data, there is quite another aspect that speaks in favor of this small power plant: In the huge, worldwide user community, new and exciting software ideas are constantly being created - as with the Linux software platform - that can be used quickly and easily on all "Raspberry Pi" computers. That's why this device is also very interesting as a basis for industrial PCs.

Until now, however, there has also been a serious weak spot: The first three Raspberry Pi® generations were designed more as a low-cost platform for experimentation and research for students and young developers and less for this professional purpose – and therefore they were, without specially developed extras, only of limited usefulness in that area.

The "Raspberry Pi", until now, has lacked most of the interfaces that are important for modern industrial applications. It was possible to "flange on" these interfaces later, but this was an awkward solution – erasing part of the

price advantage. Even more important: Until now, it was impossible to use "EtherCAT" – which has been by far the most popular and important real-time communication standard in the industrial sector for years.

This has changed with the latest, the fourth Raspberry Pi® generation, the so-called "Compute Module 4 (CM4)" – and therefore many experts expect the mini-computer with the size of a credit card, which has been sold millions of times, to become now also a bestseller for industrial use.

For the "CM4" is not only really fast thanks to true Gigabit Ethernet, a powerful 1,500 MHz QuadCore CPU and a modern GPU that provides 4K resolution, for example – it is also equipped with all the interfaces like USB 3.0 oder Bluetooth 5.0, that are necessary and useful for modern industrial applications, such as the "Industrial Internet of Things" (IIoT) and Industry 4.0. In addition, the RAM size available is no longer just 1024 MB, as before, but optionally - depending on requirements - significantly more.

Furthermore, the scalable and effective cooling concepts developed by Berghof allow the full performance to be used reliably even in an industrial temperature range.

Behind the scenes, the experienced developers at Berghof Automation Ltd. have been tinkering with the previous generations for quite some time and have gathered important experiences. This is why Berghof is able to deliver a complete system of controllers and industrial PCs based on them already this year – fully mature and well thought out down to the very last detail. The entire new Berghof "Raspberry Pi" portfolio is certified for worldwide use according to CE, UL, EAC, CCC, etc. and, with the optimized real-time behavior typical of Berghof, is also ideally equipped for difficult applications.

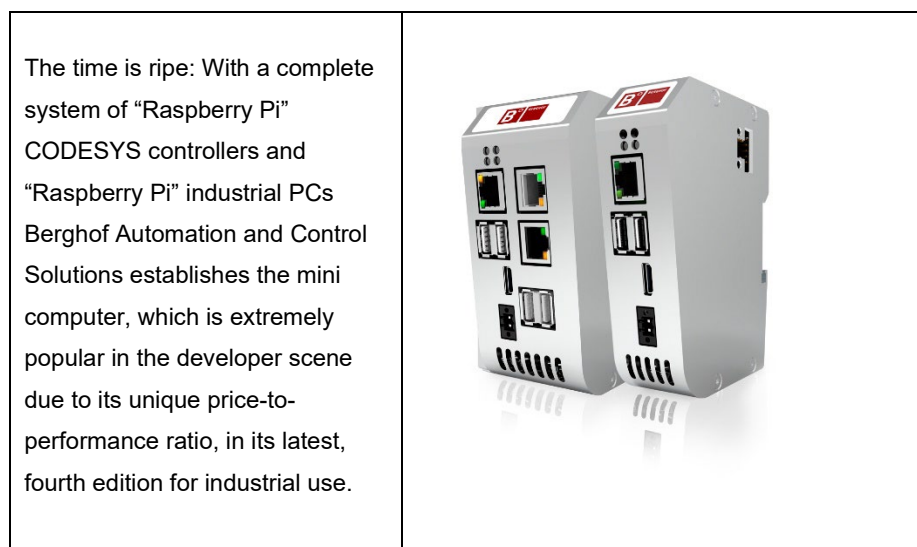
These new Berghof Raspberry Pi® CODESYS controllers and Raspberry Pi® industrial PCs fit – as usual with Berghof – perfectly into the existing, very extensive hardware and software portfolio and can be expanded practically at will thanks to "EtherCAT" standard fieldbus. and, thanks to the "EtherCAT" standard fieldbus, can be expanded with I/O modules practically at will according to the plug & play principle. In addition, there is a large selection of suitable USB peripherals as well as optional high-performance cooling, where necessary and sensible due to the application or installation location.

Thanks to the devices already preconfigured at the factory or the automatic configuration via USB stick, commissioning as well as subsequent updates or expansions can be carried out particularly quick and easy – a Berghof specialty that proves to be a great advantage, especially now in times of the pandemic.

“We have long been setting the goal to establish the Raspberry Pi® in the industrial sector as well. That’s why our in-house development team has intensively discussed, researched, calculated – and waited. For only now, with the ‘Compute Module 4 (CM4)’, are we able to hit the sweet spot between computing power and cost with these devices. A major milestone“, says a pleased Konstantinos Arabatzis, Product Manager at Berghof Automation and Control Solutions.

Or to put it another way, in reference to the well-known logo of Raspberry Pi® with a stylized raspberry: The fruits at Berghof are now, after a long ripening period, full-bodied and delicious – bon appetit!

PICTURES



The wait has paid off: “For only now, with the ‘Compute Module 4 (CM4)’, are we able to hit the sweet spot between computing power and cost with these devices. A major milestone“, says a pleased Konstantinos Arabatzis, Product Manager at Berghof Automation and Control Solutions.

