**Machine vision: MVTec further improves user experience with HALCON 21.05**

* **New and optimized features for even more robust machine vision**
* **Short release cycles make for fast implementation of customer feedback**
* **To be released on May 21, 2021**

**Munich, April 15, 2021** – MVTec Software GmbH ([www.mvtec.com](https://www.mvtec.com)), a leading international provider of machine vision software, will publish a new release of its HALCON standard machine vision software (version 21.05) on May 21, 2021. The new version implements new features in the areas of deep learning and matching as well as improvements to the subpixel bar code reader, Deep OCR, and the integrated development environment HDevelop. HALCON 21.05 Progress gives users the benefit of even more robust machine vision processes and improved usability.

A major highlight in the new HALCON 21.05 version is the Generic Shape Matching feature, which makes MVTec's industry-proven shape matching technologies even more user-friendly and future proof. Users can now implement their solutions much faster and more easily, thanks to a significant reduction in the number of operators required. Moreover, thanks to the unification of HALCON’s different shape matching methods into a single set of operators, users can now integrate new shape-matching-related features more easily. The HALCON Deep Learning Framework is another new feature that enables experienced users to create their own model within the software. As a result, experts can now implement even the most demanding and complex applications in HALCON directly, without being dependent on pretrained networks or frameworks from third-party suppliers. HALCON 21.05 also supports the NVIDIA® TensorRT™inference engine, which can significantly improve the inference performance of applications. In addition to the speedup, users also benefit from significantly lower memory consumption, giving them greater flexibility in their choice of hardware.

**Continuous improvement for better performance and greater user-friendliness**

In addition to the new functions, HALCON 21.05 also improves upon recently released features. For example, the integrated subpixel bar code reader has been optimized for low-resolution codes. Thanks to these improvements, the decoding rate for such codes can increase by up to 50 percent. The Deep OCR feature has also been further expanded: The holistic deep-learning-based approach to OCR now offers much better performances and even greater usability. It handles large images more robustly and words of different lengths can be detected without parameter tuning. Customers also benefit from improved overall stability as well as a greater range of possible applications, thanks to additional character support.

Finally, the MVTec experts have also made the integrated development environment HDevelop even more user-friendly. The new window docking feature has been optimized, so that users have more options for controlling where floating windows open. In addition, a new docking feature known as "Auto-hide" allows widgets that are not currently needed to be quickly minimized to the sidebar and redisplayed as needed. Finally, graphics windows can now be grouped and organized much more conveniently in HDevelop.

**Optimized software, thanks to user feedback**

"With HALCON 21.05 we continue to follow our proven strategy of quickly converting valuable feedback from our users into powerful new features and improvements in our product. Thanks to the short release cycle of the HALCON Progress edition, our customers are always up to date and able to benefit from MVTec’s constant innovation," explains Mario Bohnacker, Technical Product Manager HALCON at MVTec Software GmbH.

**About MVTec Software GmbH**

MVTec is a leading manufacturer of standard software for machine vision. MVTec products are used in all demanding areas of imaging: semiconductor industry, surface inspection, automatic optical inspection systems, quality control, metrology, as well as medicine and surveillance. By providing modern technologies such as 3D vision, deep learning, and embedded vision, software by MVTec also enables new automation solutions for the Industrial Internet of Things aka Industry 4.0. With locations in Germany, the USA, and China, as well as an established network of international distributors, MVTec is represented in more than 35 countries worldwide. [www.mvtec.com](http://www.mvtec.com)

**About MVTec HALCON**

MVTec HALCON is the comprehensive standard software for machine vision with an integrated development environment (HDevelop) that is used worldwide. It enables cost savings and improved time to market. HALCON’s flexible architecture facilitates rapid development of any kind of machine vision application. MVTec HALCON provides outstanding performance and a comprehensive support of multi-core platforms, special instruction sets like AVX2 and NEON, as well as GPU acceleration. It serves all industries, with a library used in hundreds of thousands of installations in all areas of imaging like blob analysis, morphology, matching, measuring, and identification. The software provides the latest state-of-the-art machine vision technologies, such as comprehensive 3D vision and deep learning algorithms. The software secures your investment by supporting a wide range of operating systems and providing interfaces to hundreds of industrial cameras and frame grabbers, in particular by supporting standards like GenICam, GigE Vision, and USB3 Vision. By default, MVTec HALCON runs on Arm®-based embedded vision platforms. It can also be ported to various target platforms. Thus, the software is ideally suited for the use within embedded and customized systems. [www.halcon.com](http://www.halcon.com/), [www.embedded-vision-software.com](file:///%5C%5Cspsc%5Cmvtec%5Coffice%5Cpr_marketing%5Cpublic_relations%5Cpress_releases%5C2021_press_releases%5C2021.02_pi_vision_china_shanghai%5Cwww.embedded-vision-software.com)

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