



# HALCON

a product of MVTec

**BENEFIT FROM SHORT  
RELEASE CYCLES WITH  
HALCON PROGRESS**

EN

**NEW  
VERSION  
21.05**

# New Features in HALCON 21.05

## GENERIC SHAPE MATCHING

HALCON 21.05 introduces Generic Shape Matching, which makes MVTec's industry-proven shape matching technologies even more user-friendly and future-proof. By significantly reducing the number of required operators, users can now implement their solutions much faster and easier. 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 smoothly.



Industry-proven shape-based matching for robust localization of objects

## HDEVELOP USABILITY IMPROVEMENTS

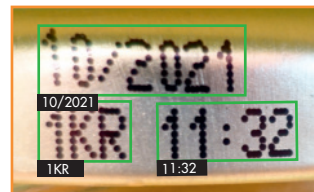
HDevelop's new window docking has been improved. Users have now more options to control the position where floating windows are opened. In addition, HDevelop now also includes a new docking feature called "Auto-hide". This allows users to quickly minimize widgets they currently don't need into the sidebar and easily bring them back when needed. Finally, graphics windows can now be grouped and organized in a much more convenient manner.



Group and organize graphics windows in the new Canvas

## DEEP OCR IMPROVEMENTS

With Deep OCR, HALCON includes a holistic deep-learning-based approach to OCR. Compared to other algorithms, this technology can localize characters much more robustly, regardless of their orientation, font type, and polarity. With HALCON 21.05, the performance and usability of Deep OCR have been improved. Big images are now handled more robustly and the result now contains a list of character candidates with corresponding confidence values, which can be used to further improve the recognition results. Customers also benefit from an overall improved stability as well as from the fact that they can address a wider range of possible applications, thanks to additional character support.



Improved robustness and extended character support for Deep OCR

## TRY HALCON FOR FREE

Download HALCON and contact your local distributor for a free evaluation license or use our free application evaluation service. [www.halcon.com/now](http://www.halcon.com/now)



## HALCON DEEP LEARNING FRAMEWORK

HALCON 21.05 introduces a first version of the HALCON Deep Learning Framework. This framework allows experienced users to create their own models within HALCON. With this feature, experts can now realize even the most demanding and highly complex applications in HALCON without having to rely on pretrained networks or third-party frameworks.

## NVIDIA® TensorRT™ OPEN INFERENCE INTEGRATION

HALCON 21.05 introduces support for the NVIDIA TensorRT inference engine. This can significantly increase the inference speed of applications and thus enables faster production cycles. In addition to the speedup, users also benefit from a significantly lower memory consumption, which increases hardware flexibility.

## SUBPIXEL BAR CODE READER IMPROVEMENTS

HALCON's subpixel bar code reader is capable of reading codes with very thin bars. In HALCON 21.05, the subpixel bar code reader has been improved regarding low-resolved codes. The decoding rate for those can now increase up to 50%.

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