



FORTECH Software

Our Services Image Processing

Porting Prototypical Solutions

FORTECH Software has developed a methodology for reliable and efficient transfer of prototypical solutions into products ready to go into production. The methodology is designed to cope with systems processing real world scenes. After completion and validation of a software prototype typical tasks characterize the transfer to cost optimized target systems

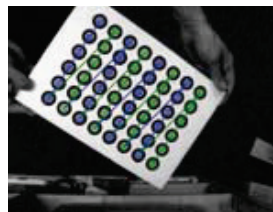
- Replacing floating-point with integer arithmetic
- Partitioning of algorithms for parallel processing on DSP multi-core architectures
- Optimizing memory and computing time
- Adherence to real time requirements
- Verification of functional equivalence (identical answers for the same input data)

For the porting we collaborate closely with the algorithm and hardware developers. We guarantee the functional equivalence between prototype and target system by the automated comparison of intermediate results.

Innovative 3D Applications

In several projects FORTECH Software has been able to gain experience in the extraction of 3D information from real world scenes, using stereoscopic or moving monocular camera systems. The use of 3D information stabilized by a tracker often leads to surprisingly simple solutions compared to 2D processes.

Camera Calibration



A typical problem in image processing is the determination of the intrinsic and extrinsic calibration of the cameras used. We have experience in the implementation of specific application solutions for both forms of calibration in embedded and cost optimized applications.

Optical Tracking

Systems for processing real scenes typically include an environmental model. It administers statistically secured hypotheses, which are derived from observations of the environment. This allows robust identification of objects from video streams even with sporadically missing observations. FORTECH Software offers a plug-in based framework, which supports the efficient implementation of individual optical tracking solutions.