PRIMAVISION TECHNOLOGIES

Pattern Recognition
Image Analysis
Computer Vision

Toppic

is an implementation platform for sophisticated algorithmic **solutions** in the fields of

- Image Analysis
- Computer Vision and
- Pattern Recognition

It provides a toolbox of many modern and sophisticated approaches at your fingertips:

- image segmentation
- contour based object recognition
- object tracking
- pattern classification
- data regression
- robust model estimation
- 3D-vision solutions

Wherever you have to analyse images to make decisions (quality control, object recognition), track moving objects (surveillance tasks), or need 3D-vision capabilities, *Toppic* is the right choice.

Moreover, as a **well designed C++ library** it strikes a new path meeting some very important requirements for algorithmic solutions from a software development point of view:

- object orientation
  - encapsulation of data structures
  - transparent deletion of ressources by reference counting
  - inheritance
  - public and private interfaces
- numerically efficient
- strong type-checking against list of types
- strong constness checking
- many checks at compile-time
- checks at runtime that can be disabled
- automatic object conversion

In addition, due to **generic types** by expoitation of modern C++ template techniques only one place of code has to be maintained, and the algorithms are available for all meaningful types. All this results in

- shorter,
- less error-prone,
- more efficient and
- more readable code

of your applications.

Besides, *Toppic* provides **transparent acceleration** of many algorithms - if proper hardware is available - while encapsulating from e.g. multiple CPUs or GPUs.

Further properties:

- multi-threading safeness
- well matured and generic interfaces
- solutions for tensors of any rank, e.g. volume data, image time series
- well tested

All these features sum up to a well maintained base for your demanding applications.

Currently supported platforms:

- Windows:
  - Win32/64 MSVC++ 2010-13
  - cygwin g++ 4.x.x (32/64bit)
- Linux:
  - g++ 4.x.x (32/64 bit)

Any further questions ?

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Have also a look at our website to see already available solutions based on Toppic:

www.primavision-tec.de

You are gladly invited to discuss your Computer Vision task with us!

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