Move tracking module into the main opency, refine it

- Author: Vadim Pisarevsky
- Link: The feature request
- Status: Replaced by OE-21 Tracking API
- Platforms: All
- Complexity: 1-2 man-weeks (or more)

Introduction and Rationale

We have quite good <u>tracking module in opency contrib</u>. It may have sense to move it to opency and refine, because object tracking is important part of computer vision.

Proposed solution

Create a dedicated tracking module in the main repository with the best available (within the library) collection of tracking algorithms. It should at least include TLD, KCF, MedianFlow and some other basic tracking algorithms from the current tracking module from opency_contrib. The current API looks good enough but may be should be refined a bit.

At the same time, some old stuff, like meanshift and camshift trackers, should probably be excluded together with the corresponding samples (moved to contrib?).

It would be nice if the module includes some deep learning-based object tracker as well.

Impact on existing code, compatibility

This is the new for the main repository functionality. Maybe some people still use camshift etc. They may be advised to migrate their code to the API.

Possible alternatives

in principle we can retain tracking module inside opency_contrib, but it would be nice to upgrade OpenCV and declare that the tracking API is more or less stable and ready to use.

References

TBD