

OpenCV – Open Source Computer Vision Library

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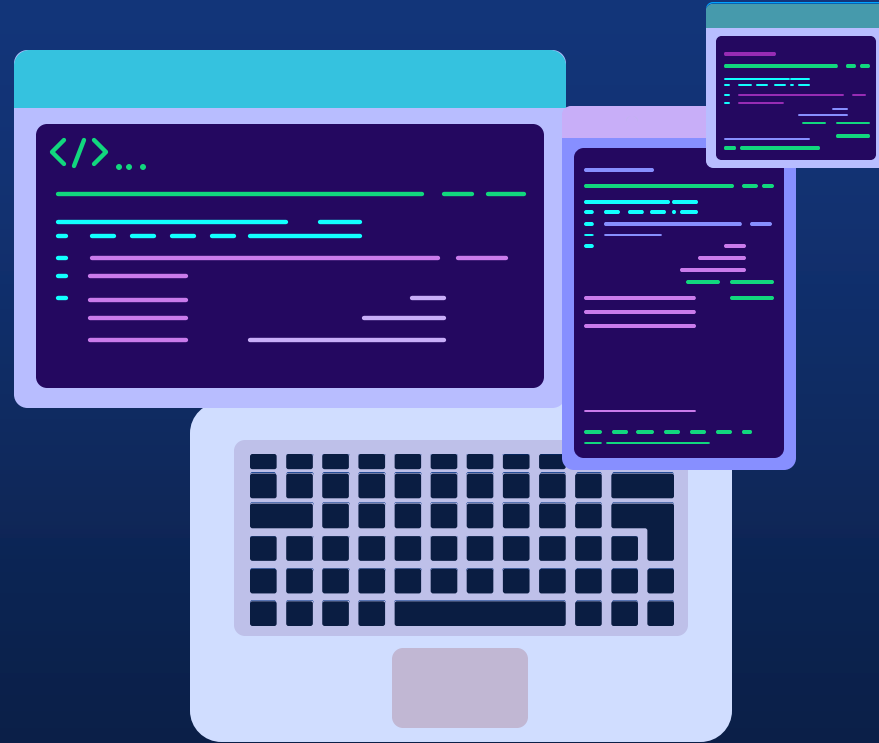


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OpenCV Purpose



Created to Provide

a common infrastructure for computer vision applications and to accelerate the use of machine perception in commercial products



Helping People

to build sophisticated vision applications quickly and collaboratively.



License allows

that any variation of the original product could be used for personal or commercial uses

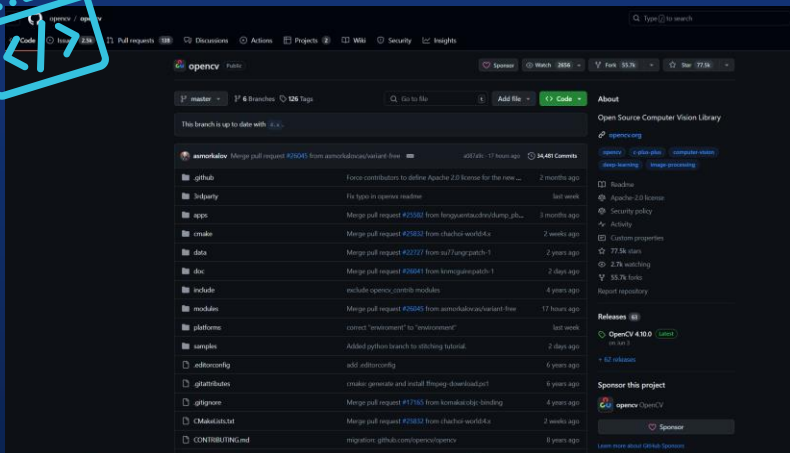


Source code and Technologies

The source code is available on Github

The main languages used are C++, C and Python

OpenCV is compatible with various platforms and operational systems



License and Contribution Guidelines



BDS

OpenCV 4.4 and inferior

Basic redistribution license, with no significant commercial impact



Apache 2

OpenCV 4.5 and superior

Permissive license, with derivative projects having the freedom to choose their own license

License and Contribution Guidelines



Coding Standards

A high level of standards, style, and best practices is required to contribute to the project



Maintenance

This helps maintain consistency and makes the project easier to manage



Documentation and Usage

Extense Documentation
Available

Easy to Compile (plug
and play)

Source code complexity is
higher (C++ Coding Style)

The screenshot shows the OpenCV website documentation page for OpenCV modules. The page title is "OpenCV modules" and the version is "4.10.0-dev". The navigation menu includes "Main Page", "Related Pages", "Namespaces", "Classes", "Files", "Examples", and "Java documentation". The main content area lists the following modules:

- Introduction
- OpenCV Tutorials
- OpenCV-Python Tutorials
- OpenCV.js Tutorials
- Tutorials for contrib modules
- Frequently Asked Questions
- Bibliography
- Main modules:
 - core, Core functionality
 - imgproc, Image Processing
 - imgcodecs, Image file reading and writing
 - video, Video I/O
 - highgui, High-level GUI
 - video, Video Analysis
 - calib3d, Camera Calibration and 3D Reconstruction
 - features2d, 2D Features Framework
 - objdetect, Object Detection
 - dnn, Deep Neural Network module
 - ml, Machine Learning
 - tann, Clustering and Search in Multi-Dimensional Spaces
 - photo, Computational Photography
 - stitching, Images stitching
 - gapi, Graph API
- Extra modules:
 - alphamat, Alpha Matting
 - aruco, Aruco markers, module functionality was moved to objdetect module
 - bgsegm, Improved Background-Foreground Segmentation Methods
 - bioinspired, Biologically inspired vision models and derived tools
 - cannocp, Ascend-accelerated Computer Vision
 - mcalib, Custom Calibration Pattern for 3D reconstruction
 - cudartnn, Operations on Matrices
 - cudatpsegm, Background Segmentation
 - cudarococ, Video Encoding/Decoding
 - cudafastps2d, Feature Detection and Description



Creator and Governance

Gary Bradsky

Creator of OpenCV,
developed the library
while working on Intel



Open Source Vision Foundation

Non-profit organization
currently responsible for
managing OpenCV, with
several developers
responsible for maintaining
the library

OpenCV Community



Roadmap

Each year, a "roadmap" is created and published on GitHub, outlining the tasks to be accomplished that year


External Contributions

Contributions are made in the form of issues in the GitHub repository

Financial Decisions

Decisions are made by the developers responsible for OpenCV (as described in the documentation).

On the OpenCV website, there is a forum where anyone who needs help can ask questions. The community assists new users.





How it's maintained

The Open Source Vision Foundation is a non-profit organization, but it accepts donations of time and money to maintain OpenCV. There are no exact figures on how much they've raised, but it is known that they have secured contracts ranging from \$6,000 to \$100,000.