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|----------|--------|--------|-------|--------|------|---------|-------|----------------------|
| electric | fuerte | groovy | hydro | indigo | jade | kinetic | lunar | Documentation Status |
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vision_opencv: [cv_bridge \(/cv_bridge?distro=kinetic\)](#) | [image_geometry \(/image_geometry?distro=kinetic\)](#)

Package Links

- [Tutorials \(/vision_opencv/Tutorials\)](#)
- [FAQ \(http://answers.ros.org/questions/scope:all/sort:activity-desc/tags:vision_opencv/page:1/\)](http://answers.ros.org/questions/scope:all/sort:activity-desc/tags:vision_opencv/page:1/)
- [Changelog \(http://docs.ros.org/kinetic/changelogs/vision_opencv/changelog.html\)](http://docs.ros.org/kinetic/changelogs/vision_opencv/changelog.html)
- [Change List \(/vision_opencv/ChangeList\)](#)
- [Reviews \(/vision_opencv/Reviews\)](#)

Dependencies (3)

Used by (1)

Jenkins jobs (10)

Package Summary

✓ Released ✓ Continuous integration ✓ Documented

Packages for interfacing ROS with OpenCV, a library of programming functions for real time computer vision.

- Maintainer status: maintained
- Maintainer: Vincent Rabaud <vincent.rabaud AT gmail DOT com>
- Author: Patrick Mihelich, James Bowman
- License: BSD
- Bug / feature tracker: https://github.com/ros-perception/vision_opencv/issues (https://github.com/ros-perception/vision_opencv/issues)
- Source: git https://github.com/ros-perception/vision_opencv.git (https://github.com/ros-perception/vision_opencv) (branch: kinetic)

1. Documentation

The `vision_opencv` stack provides packaging of the popular OpenCV library for ROS. For information about the OpenCV library, please see the OpenCV main page at <http://opencv.org/> (<http://opencv.org/>) links to complete documentation for OpenCV, as well as other OpenCV resources (like the bug tracker on <http://code.opencv.org/> (<http://code.opencv.org/>))

For OpenCV `vision_opencv` provides several packages:

- `cv_bridge (/cv_bridge)`: Bridge between ROS messages and OpenCV.
- `image_geometry (/image_geometry)`: Collection of methods for dealing with image and pixel geometry

In order to use ROS with OpenCV, please see the `cv_bridge (/cv_bridge)` package.

As of electric, OpenCV is a system dependency.

2. Using OpenCV in your ROS code

OpenCV2 is the official version supported on Indigo and Jade. To use it, you just need to add a dependency on opencv2 and find_package it in your CMakeLists.txt as you would for any third party package:

```
find_package(OpenCV)
include_directories(${OpenCV_INCLUDE_DIRS})
target_link_libraries(my_awesome_library ${OpenCV_LIBRARIES})
```

You can also use OpenCV3: in that case, add a dependency to opencv3. But make sure that none of your dependencies depends on OpenCV2 (as you would get linked to both the OpenCVs which would most likely create a symbol conflict).

If you have OpenCV2 installed and the the ROS OpenCV3, OpenCV3 will be find_package-ed first. If you do not want to compile against OpenCV3 but still wish to have it installed, just find_package OpenCV2 as follows:

```
find_package(OpenCV 2 REQUIRED)
```

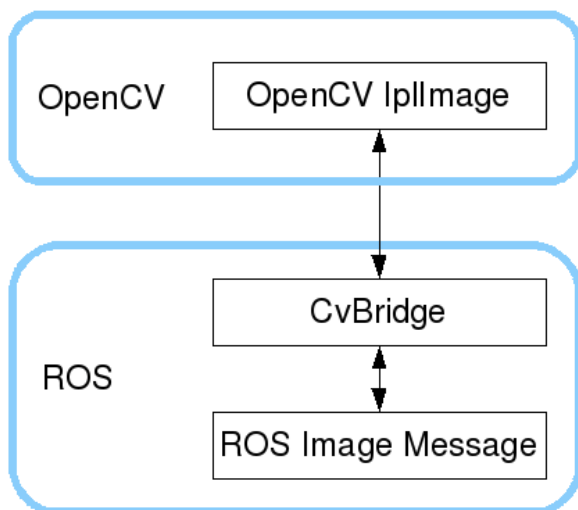
3. Report an OpenCV specific Bug

If your issue is related to the OpenCV packaged in ROS (it is too old, you would like to see a backport in there ...), please file a bug for vision_opencv using the link provided at the top of this page.

For issues specific to OpenCV:

- Send your question to the [OpenCV Answers](http://answers.opencv.org/) (<http://answers.opencv.org/>).
- [Report a bug](https://github.com/Itseez/opencv/issues) (<https://github.com/Itseez/opencv/issues>).

4. Tutorials



- To learn how to interface OpenCV with ROS, read the tutorials here (/cv_bridge/Tutorials).

- For more information about OpenCV, read the documentation on [OpenCV documentation](http://docs.opencv.org/) (<http://docs.opencv.org/>) or the tutorials on [OpenCV tutorials](http://docs.opencv.org/doc/tutorials/tutorials.html) (<http://docs.opencv.org/doc/tutorials/tutorials.html>).
- *OpenCV development meetings are listed* [here](http://code.opencv.org/projects/opencv/wiki/Meeting_notes) (http://code.opencv.org/projects/opencv/wiki/Meeting_notes)

5. OpenCV3

Since Indigo, there is a package for OpenCV3. Information about it is detailed at [opencv3 \(/opencv3\)](#).

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