

Custom HAL samples

Samples in this folder are intended to demonstrate functionality replacement mechanism in the OpenCV library.

The **c_hal** is the example of pure C replacement library with all functions returning error. It can be used to verify error handling in the function switching code.

The **slow_hal** contains naive C++ implementations of the element-wise logical array operations (and, or, xor, not) making them twice slower than the default.

Build custom HAL replacement library

1. Create folder for build (for example `<home-dir>/my-hal-build`)
2. Go to the created folder and run cmake: `cmake <opencv-src>/samples/hal/slow_hal`
3. Run make

After build you will find static library in the build folder: `libslow_hal.a`

Build OpenCV with HAL replacement

1. Create folder for build (for example `<home-dir>/my-opencv-build`)
2. Go to the created folder and run cmake:

```
cmake \  
  -DOpenCV_HAL_DIR="<home-dir>/my-hal-build/" \  
  <opencv-src>
```

3. Run make (or `make opencv_perf_core` to build the demonstration test executable only)
4. After build you can run the tests and verify that some functions works slower:

```
./bin/opencv_perf_core --gtest_filter=*bitwise_and*
```