

⋮

, . - , :

- (,),
- 0 (, ; ,);
- ;
- Surround View .

, ...

, . . . , . . .

:

- , ;
- - . . . ;
- (, .).

() .

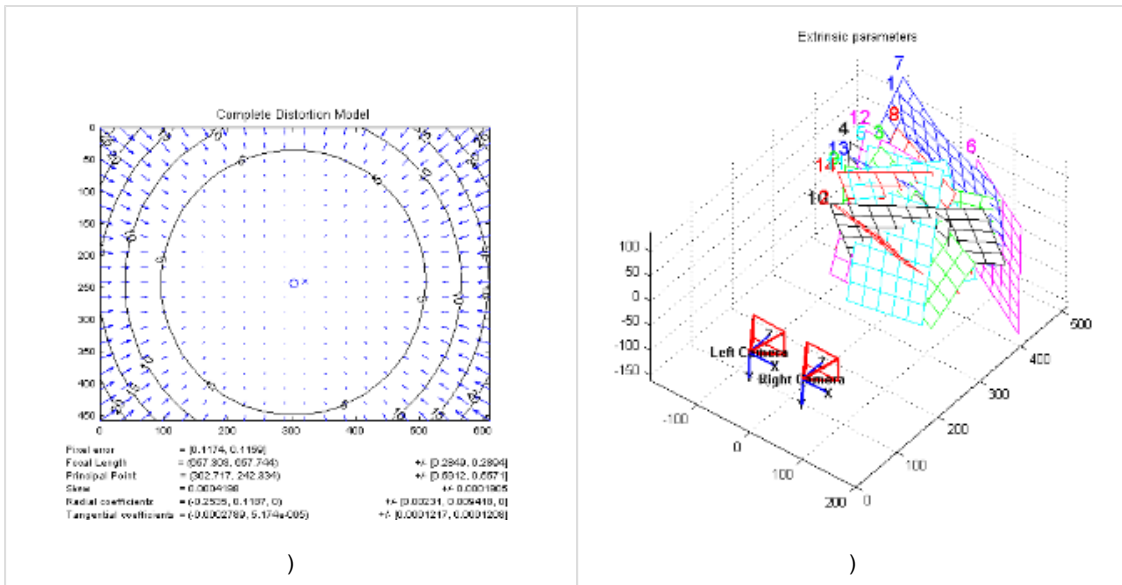
20-30

1.



1- , [1] : , . . .

, [1]. (,) . 2 .



2 - [1]; ;)

:

1. .
2. .
3. . , , , .

1. Python OpenCV
2. OpenCV .
3. OpenCV
4. * Calibration Toolbox MATLAB [1].
5. [2].
- 6.
7. () :
 - (flag)
 -
8. calibrateCameraExtended .
- 9.
10. * 2
 - ;
 - .
11. * :
 - OpenCV
 - initCameraMatrix2D solvePnP OpenCV
 - least_squares scipy.optimize
12. 7-11 . :
 - ,
 - ;
 - .

, «*», .

?

: tolkachev@nkbvs.ru.

1. Bouguet J.-Y. Camera calibration toolbox for matlab []. 2004. URL: http://www.vision.caltech.edu/bouguetj/calib_doc/ (: 30.09.2017).
2. Zhang Z. A flexible new technique for camera calibration // Pattern Analysis and Machine Intelligence, IEEE Transactions on. IEEE, 2000. . 22, 11. . 1330–1334.