

MFC-CCSD Tool Users Guide (Release 1.0)

The tool is used for automatic cloud and cloud shadow detection in GF-1 WFV imagery. It was developed by Zhiwei Li, Qi Wu and Huanfeng Shen in Wuhan University. If this work has any help for you, please appropriately cite our paper:

Li, Z., Shen, H., Li, H., Xia, G., Gamba, P., & Zhang, L. (2017). Multi-feature combined cloud and cloud shadow detection in GaoFen-1 wide field of view imagery. *Remote Sensing of Environment*, 191, 342-358.

To make sure the program works properly, you may follow these tips:

1) Only can run on Windows platform including Win 7/8/10 64bit system, the RAM of the computer running the program should be not less than 4G.

2) Set a work path for data input and output, the image file named 'GF1_WFV*.tiff' and its header file named 'GF1_WFV*.xml' must both exist in the work path.

3) Check 'Cloud shadow detection' option for cloud shadow detection in GF-1 WFV imagery, and 'Fast mode' to generate a rough cloud and cloud shadow mask rapidly.

4) When you click 'Confirm', the program will run in the background, and the message box will pop up when all masks are both generated. It usually takes about 5 minutes to produce the cloud and cloud shadow mask for single GF-1 WFV scene, or about 30s to generate a rough mask in fast mode (test on a laptop with an Intel Core i5-4210M CPU). The running speed depends on the performance of the computer.

The tool is released for the research purpose only, no commercial use will be allowed. If there have any questions, please don't hesitate and contact Zhiwei Li at lizw@whu.edu.cn

For more details, you can visit our homepage <http://sendimage.whu.edu.cn/en/mfc/>

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