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计算机软件著作权登记证书

证书号： 软著登字第1357079号

软件名称： Yaira实测数据多维可视化软件  
[简称： Yaira]  
V1.0

著作权人： 王浩舟;常雅荃;张增信

开发完成日期： 2016年04月20日

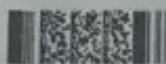
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No. 01118284

副本

2016年07月12日

**National Copyright Administration of the People's Republic of China**  
**Computer software copyright registration certificate**

Certificate No.: Software 1357079

Software Name: Yaira Multi-dimensional Field Data Visualization Software

[Yaira] V1.0

Copyright Owners: Haozhou Wang, Yaquan Chang, Zengxin Zhang

Completion Date: 20 April 2016

First Publish Date: Unpublished

Acquisition Ways of the Copyright: Original Acquisition

Range of Copyright: All Rights

Patent No.: 2016SR178462

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12 July 2016

National Copyright Administration of the People's Republic of China

The computer software copyright protection

Special registration stamp

## Software description

The empirical experiments in ecology always need a large amount of data in large spatial gradients and long-time period. However, computing these data still needs strong programming abilities and the figures are typically designed for researchers (Grainger et al, 2016). As the interdisciplinarity is one of the key terms in ecology area, there is a need to develop interpolation software with better visualization for a wide range of audiences with easy to use interface. To enhance spatial and temporal visualization ability of field data and provide a user-friendly graphical user interface, we developed the Yaira Multi-dimensional Field Data Visualization Software. It was written in Matlab, transferring field data into three dimensional spatial and temporal patterns by using linear, nearest neighbour, and spline interpolations. This software provides an easy-to-use, offline data visualization interface by importing data from excel and showing clear spatial and temporal patterns.

### Reference

Grainger, S., Mao, F. and Buytaert, W., 2016. Environmental data visualisation for non-scientific contexts: Literature review and design framework. *Environmental Modelling & Software*, 85, pp.299-318.

### Author contribution:

Yaquan Chang and Haozhou Wang developed the initial idea. Yaquan Chang provided the theories for interpolation methods and Haozhou Wang wrote the majority programming. Yaquan Chang and Haozhou Wang designed the interface and test the software together. Zengxin Zhang provided some technical skill support.

### Example of the software:

