

LANDISVIEW Beta v1.0 User Guide

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1. Introduction

LANDISVIEW is a tool, developed at the Knowledge Engineering Laboratory at Texas A&M University, to visualize and animate LANDIS output maps (8-bit/16-bit ERDAS GIS format). It can also convert LANDIS output maps into ASCII and batch files.

LANDISVIEW provides two major functions:

- i. File Viewer: Files can be viewed by adding them sequentially and an output can be generated as a movie file or as an image file.
- ii. File converter: It will convert the loaded files for compatibility with 3rd party software.

Some notable features of **LANDISVIEW** include:

- i. Display cell coordinates and values
- ii. Apply user-defined color palette to visualize files
- iii. Save maps as pictures and animations as video files (*.avi)
- iv. Convert ERDAS files into ASCII grids for compatibility with 3rd party software e.g. Fragstats, a widely used spatial analysis tool

More detailed information regarding the development on LANDISVIEW can be found at http://kelab.tamu.edu/standard/restoration/restoration_tools.htm.

Acknowledgements

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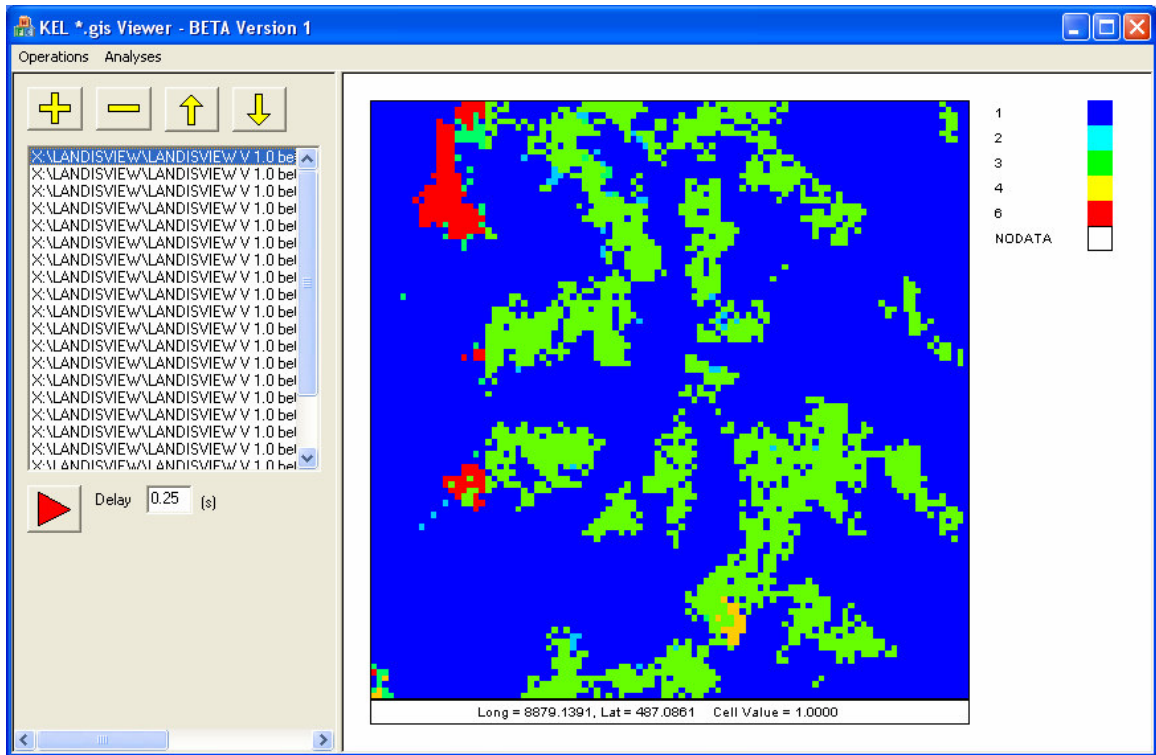
2. Installation

Installing LANDISVIEW is quick and easy. After downloading the landisview.zip file from http://kelab.tamu.edu/standard/restoration/restoration_tools.htm, simply

double click on the file and Winzip should open (if you don't have Winzip or another file compression utility that can unzip files, you will need to download Winzip from the web). Then extract the zipped files to a folder making sure that the file 'gdal13.dll' is in the same folder as 'LANDISVIEW.exe'.

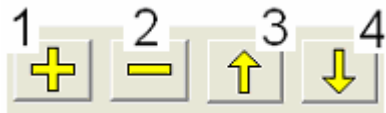
3. Using LANDISVIEW

Once installed, LANDISVIEW is run by opening the LANDISVIEW.exe file. A snapshot of LANDISVIEW (with files added) is shown below:



3.1. Viewing and exporting files

3.1.1 Loading and managing files



- 1 - Opens up a dialog box to select files to be added to a current list
- 2 - Selected files can be removed. Double-click will remove all the files at once
- 3 & 4 - Move the file up and down the list to change the order of display

3.1.2 Sorting the files

After loading all your files, place the pointer over the file window on your screen, and right-click your mouse. You will see four sorting options. You can choose to sort the order of files in ascending, descending, ascending numbers, and descending numbers.

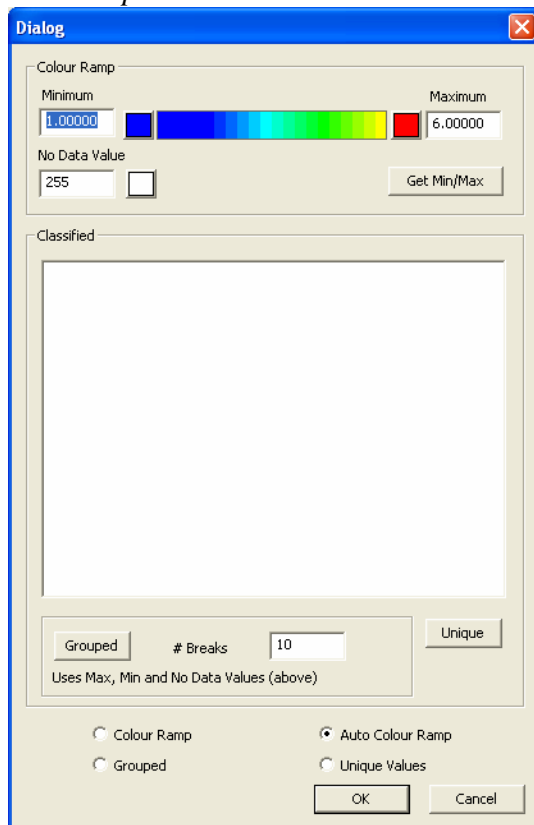
3.1.3 Playing the files



The play button will show each files one by one, in the order it is sorted, until it is stopped. The transition time between each file can be specified in the delay box (seconds).

3.1.4 Changing the way files are displayed in LANDISVIEW

Menu: *Operations > Set colors*



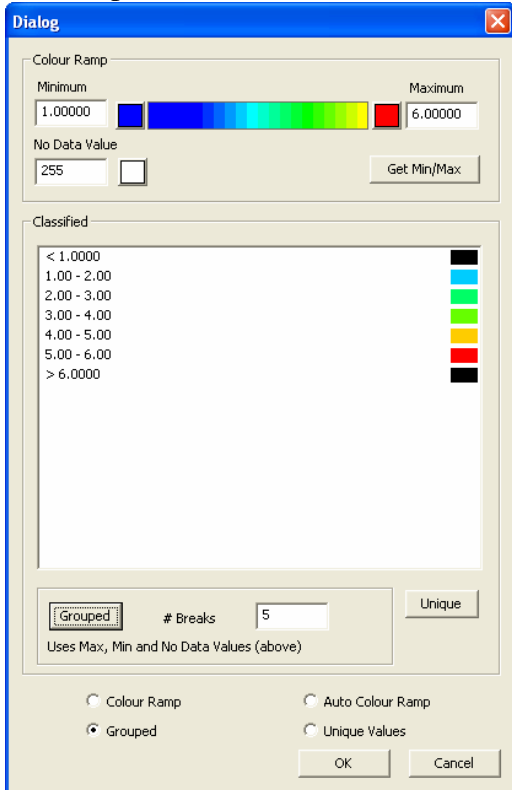
There are four options under this,

- i. *Auto Color Ramp* – This is the default option
- ii. *Grouped*

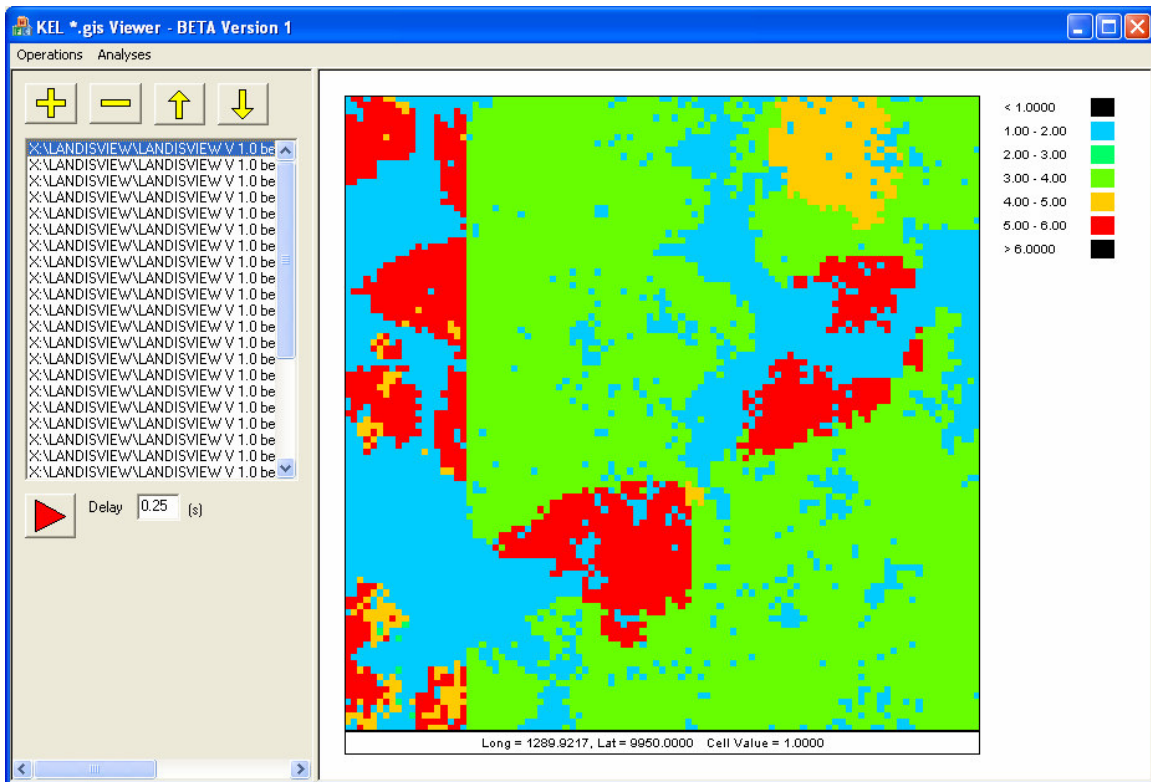
The '# Breaks' edit box controls the number of groups that cell values are classified into. Clicking the 'Grouped' button will display the groupings and colors for each group can be edited.



The Snapshot of the classified fields will be as shown below:



Select 'OK' to apply it to all the files. The files would be displayed like this:



iii. Color Ramp

The 'Get Min/Max' button gets the minimum and maximum cell values by searching through all the loaded files. The Corresponding Color Ramp will be displayed. Currently the color of the Ramp cannot be changed.



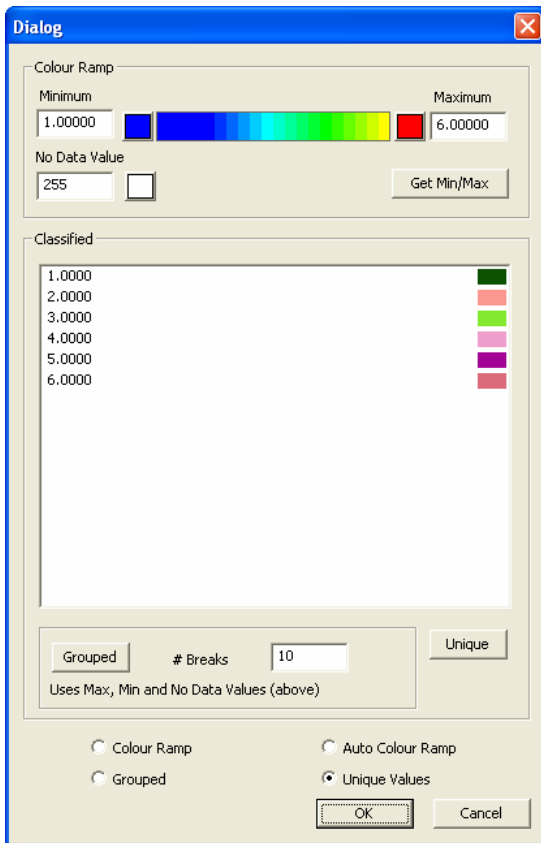
The 'No Data' value and color can be changed to the number which represents the missing cell value in the actual file

iv. Unique values

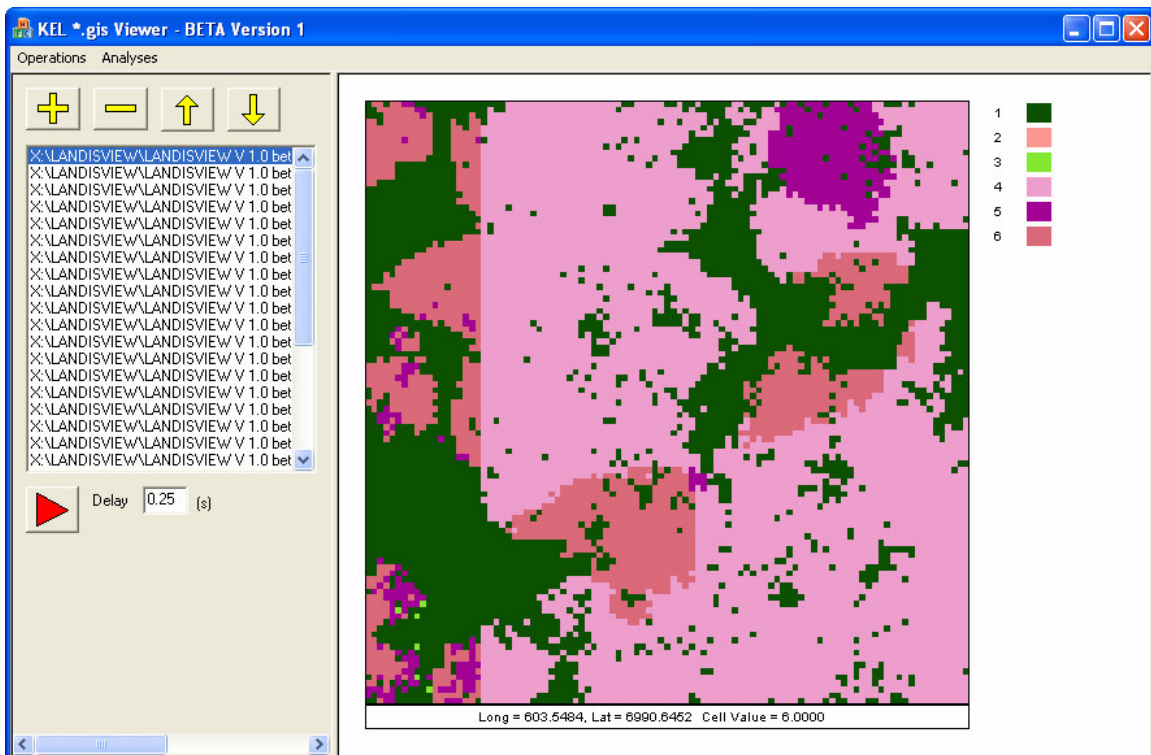
Colors for Unique values can be obtained by using the 'Unique' button



The classified fields will be displayed as below,



Select 'OK' to apply the pattern to all the files. The display will be shown as below,



3.1.5 Export as Image file

Menu: Operations > Export As

This Option allows exporting Individual files as Bitmap Images

3.1.6 Export Video

Menu: Operations > Export Video

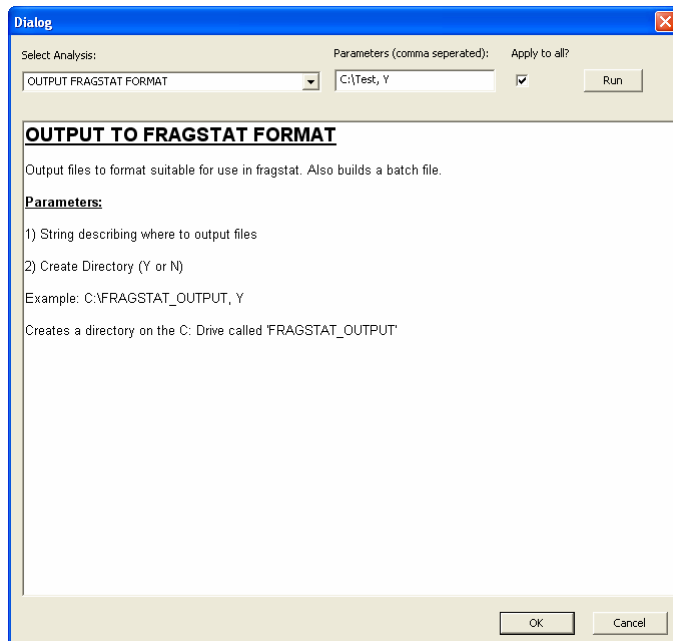
The Graphic obtained by playing all the files can be saved as a video file

3.2 Analyzing files

Menu: Analyses > Toolbox

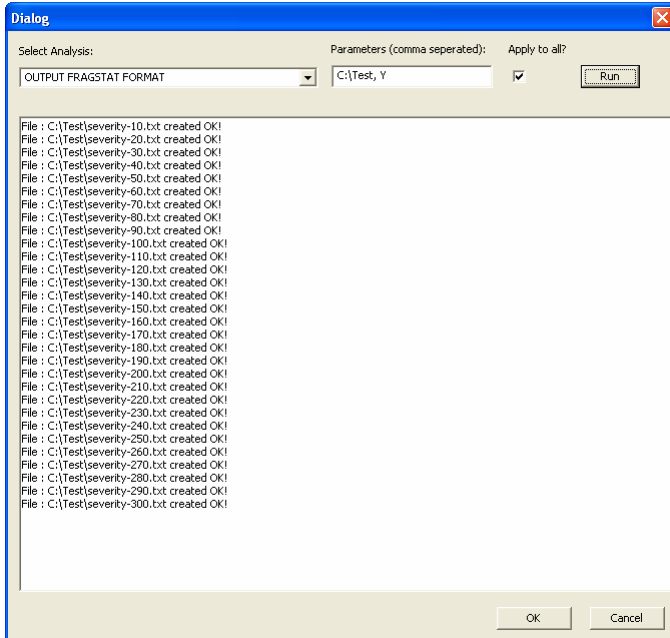
Selecting an analysis from the dropdown causes the edit box to display text detailing how to use the analysis. Within the analysis description are the options that should be specified in the ‘Parameters’ edit box. The check box ‘Apply to all’ determines whether the analysis should be performed on currently selected files or on all files.

For Example a snapshot of the analysis toolbox with ‘OUTPUT TO FRAGSTAT FORMAT’ is shown below:



In this case, the analysis ‘OUTPUT FRAGSTAT FORMAT’ has been selected and the destination folder (where the results are to be saved) is supplied in the ‘Parameters’ text box. Y or N parameter is used to determine whether the destination folder already exists

or should be created. The 'Apply to all' checkbox has been selected so the analysis will be applied to all currently loaded files. The 'Run' button is clicked to run the analyses. After running, the process carried out will be as shown below. Select the button 'OK' to return to the main view.



4. Appendix

4.1 License terms of GDAL library

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