



ARIS GRID Editor for ArcMap User's Manual

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<http://www.aris.nl/>

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1. Introduction

The ARIS GRID Editor for ArcMap is designed to edit ESRI GRID datasets easily in ArcMap, without the need of Spatial Analyst. One can, for instance, change the value of a single cell, or change the value of more cells by sketching in the map.

One possible use of the ARIS GRID Editor is to correct errors in an existing GRID. For example, when a GRID is input for a model, NODATA cells and wrong cell values at the edges of the GRID can cause the model to create wrong output data. With the ARIS GRID Editor these cell values can simply be modified.

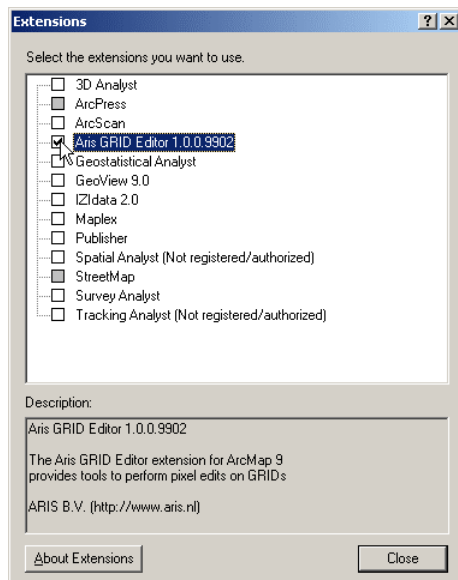
The ARIS GRID Editor can also be used as a sketch tool. The GRID Editor can be used to interactively design plans, which can be processed and evaluated with Spatial Analyst tools immediately.

ARIS GRID Editor can be used with ArcMap version 9.2, 9.3 or 9.3.1.

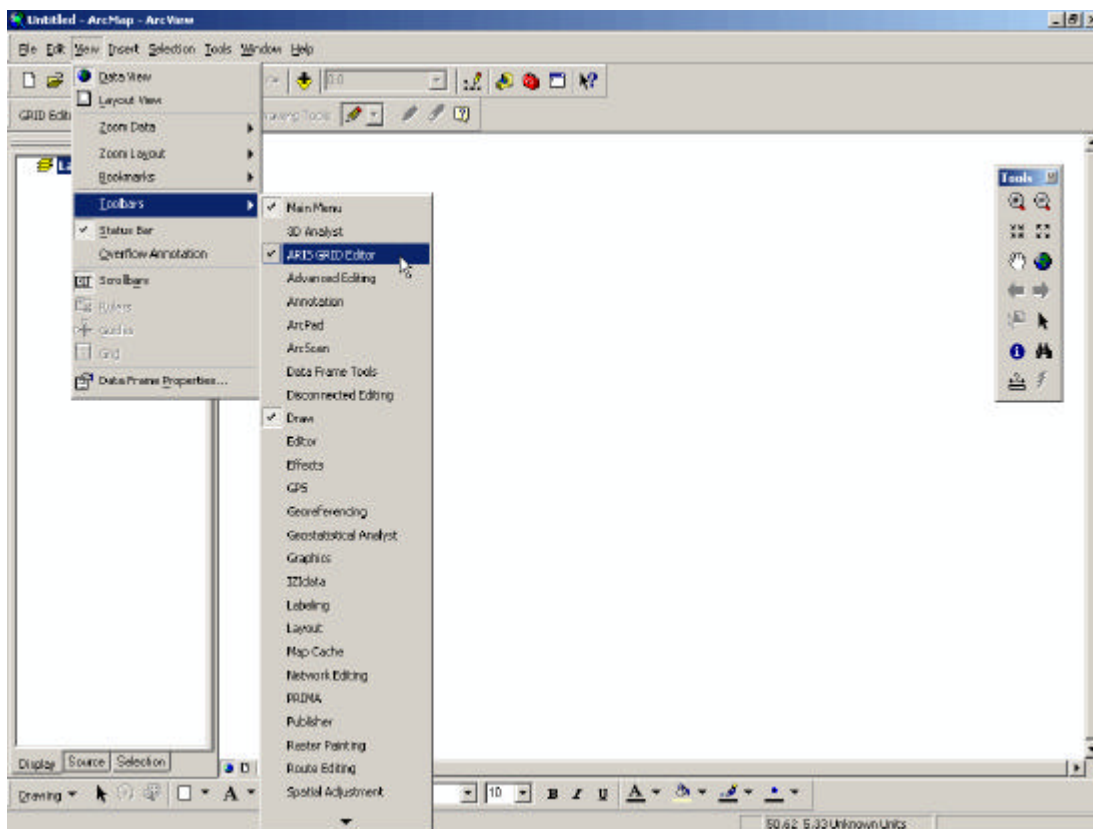
2. Installation

Installation of the ARIS GRID Editor for ArcMap is accomplished by the following steps:

1. Execute the automatic installer, ArisGridEditor.exe. You need to be logged in as a user with administrator privileges to run the installer;
2. In ArcMap, from the *Tools* menu choose *Extensions* and make sure *ARIS GRID Editor* is checked.



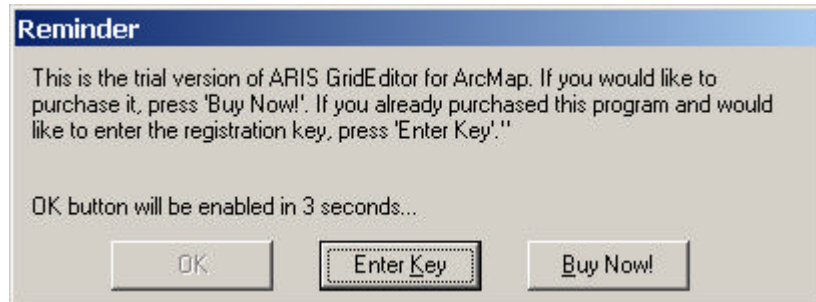
3. The ARIS GRID Editor toolbar should open automatically. If it doesn't, make sure there is a checkmark next to ARIS GRID Editor under *View | Toolbar*



3. Registration

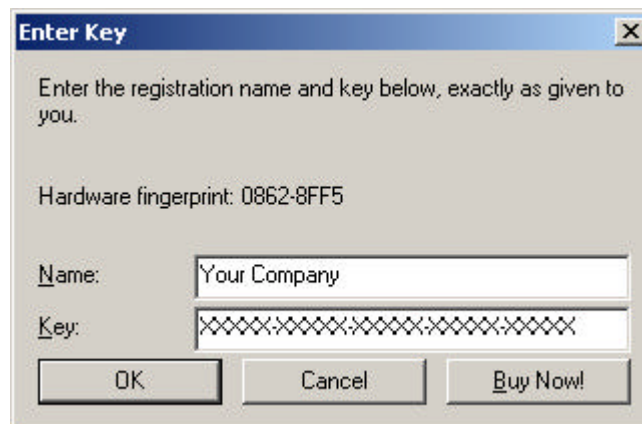
The distributed version of the ARIS GRID Editor is a fully functional trial version. This means it can be used for evaluation purposes for 5 days. After this period, the GRID Editor will be locked until a valid licence key is entered.

While in evaluation mode, each time you start or stop editing a GRID, a reminder message will be shown.



Pressing the *Buy Now!* button will take you to our online store, where you can order this product. Note that you will need the hardware fingerprint of the computer where you want to install the tool, shown in the dialog below (appears when you press *Enter Key*). After you complete your purchase, a personal registration key will be sent to you by email. Please store this key in a safe place.

Pressing the *Enter Key* button will present you with the following dialog, where you must enter your name and the registration key.



Once you have entered a valid registration key, press *OK*. This key will be stored on your pc. The reminder message will not be shown again.



4. Version History

4.1 Version 1.0

Version 1.0 is the first release of ARIS GRID Editor for ArcMap.

4.2 Version 1.1

Version 1.1 of the ARIS GRID Editor for ArcMap is compatible for ArcGIS 9.0 and 9.1.

4.3 Version 2.0

ArcGIS 9.2 compatibility

Version 2.0 of the ARIS GRID Editor for ArcMap is compatible for ArcGIS 9.2. A typical ArcGIS 9.2 problem was that the eraser assigned 0-values to cells originally having NoData. This problem is now solved.

Additional functionality

- A new command for validating layers has been added to the toolbar.
- The Nodata-value can be used as edit-value.

Bug-fixes

- When toggling the GRID Editor legend dockable window, the value in *New cellvalue* editbox was set to the lowest value in the classification. The problem is solved and the value in the editbox does not change anymore when toggling the window.
- When using a Classified classification for symbology, the mean value of the selected class was not calculated correctly. Now, this problem is solved.
- The editgrid is always visible, also if the original layer is not visible.
- Values outside the original range of the grid can be assigned to the editgrid.

4.4 Version 2.1

Version 2.1 of the ARIS GRID Editor for ArcMap no longer locks the Table Of Contents during editing.

4.5 Version 2.1.1

Bug-fix

In some situations then ARIS GRID Editor caused problems with the ArcMap template Normal.mxt. These (potential) problems have been fixed in this version.

4.6 Version 2.1.2

ArcGIS 9.3 and 9.3.1 compatibility

Version 2.1.2 of the ARIS GRID Editor for ArcMap can be used with ArcGIS 9.3 and 9.3.1 (and ArcGIS 9.2).

Performance

Redesign of the Stop Editing resulted in a performance gain especially with a large GRID.

Bug fixes

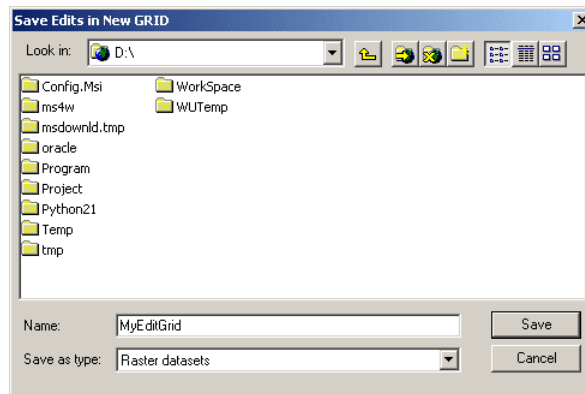
- When the temporary directory resides on a disc with low disc space, the *Stop Editing* menu option could give an error. This problem is solved.
- When no NODATA is defined in the GRID, it is not possible anymore to choose NODATA in the edit session.

5. Using the ARIS GRID Editor

5.1 Start editing

From the GRID Editor dropdown menu, choose *Start Editing*. This option is available if exactly one layer is selected in the ArcMap table of contents, the dataset's format is ESRI GRID and the layer is shown in the Map View.

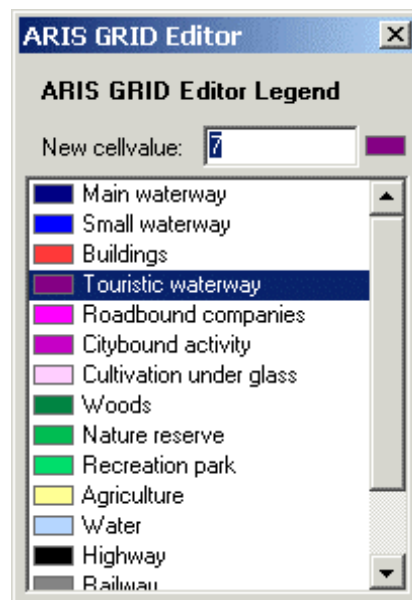
The GRID Editor will ask you for a new name, in which changes will be saved. This way, your original data will always be safe.



Enter a new name and press **Save**.

Note: A GRID name can only be 13 characters long, cannot contain any spaces, and cannot start with a number.

After copying your original GRID to the new one, the new GRID will be added to the map as a new layer. The GRID Editor Legend will be opened, and the ArcMap table of contents will be hidden.



The GRID Editor Legend reflects the current raster symbology for your GRID. It is recommended to use a *Unique Values* classification and define the “all other values” symbol.

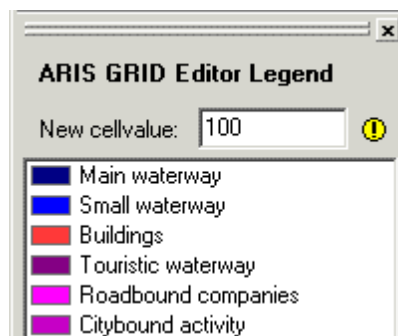
5.2 Editing a GRID

The GRID Editor Legend shows a list of available classes and the *New cellvalue*. Beside the available classes an extra legend item with the NODATA-symbol is added to the list. You can either select a legend item in the list, or manually enter it's numerical value in the edit box. Edited gridcells will be changed to this value.

To use the Nodata-value as New cellvalue, select the NODATA legend item in the list or enter the word *NODATA* in the edit box.

After selecting the desired legend item, choose a *drawing tool* from the *Drawing Tools* dropdown list. These tools work similar to most painting applications, such as *Paint*, *PhotoShop* and *Paint Shop Pro*. See paragraph 4.4 for a description of the available drawing tools.

When a value is entered in the *New cellvalue* editbox that's not defined in the current classification, a yellow exclamation mark is shown, indicating that cells you edit may not show up on the map.



The symbol used for drawing these cells depends on the symbology defined:

Unique Values classification

The cells will typically be drawn using the "all other values" symbol if defined for the symbology. If "all other values" is not defined, new values will be drawn using the NODATA symbol, as defined in the layer properties. It's advised to always set "all other values" to an easily detectable symbology.

Classified or Stretched classification

The cells will typically be drawn using the NODATA symbol that's defined for the symbology.

5.3 Stop editing

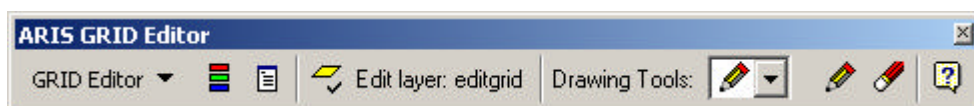
To stop editing, choose Stop Editing from the GRID Editor dropdown menu. The edit session will be closed and the statistics of the new GRID will be recalculated. When new values have been used in the GRID, it may be necessary to change the symbology of the layer (and "Add value" or Add all values" to the legend). New values greater than the original maximum gridvalue, may still be drawn in the "all other values" symbol. Removing the GRID from the TOC and adding it again can solve this problem.

5.4 Cancel editing

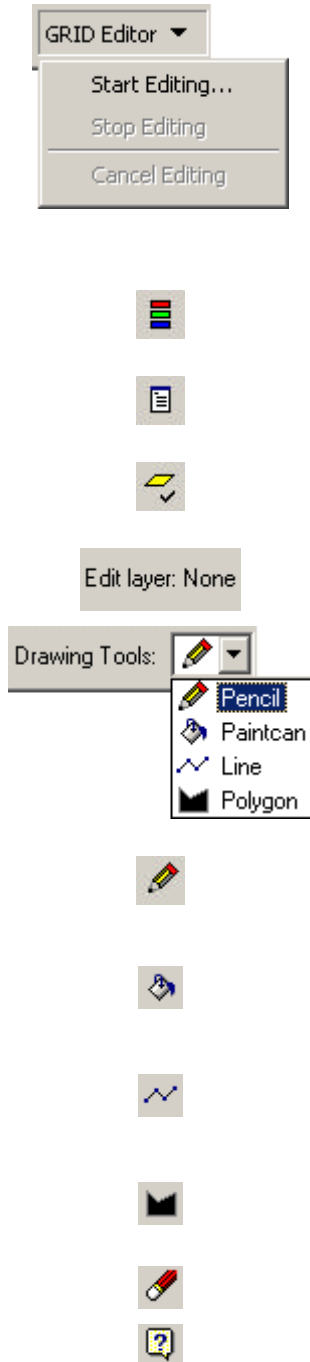
Editing is canceled and the new GRID will be deleted. The editing tools are disabled.

5.5 Description of the GRID Editor toolbar

If the GRID Editor toolbar is not visible in ArcMap, make sure *ARIS GRID Editor* is checked in the *View | Toolbars* menu.



The toolbar contains the following commands:



The GRID Editor dropdown menu contains the following options:

Start Editing: The selected layer in the table of contents will be copied to a new layer. The editing tools are enabled for this new layer.

Stop Editing: The edit session will be closed and the statistics of the new GRID will be recalculated.

Cancel Editing: Editing is canceled and the new GRID will be deleted. The editing tools are disabled.

Toggle the visibility of the GRID Editor legend window. This button is enabled when a user starts editing, and disabled when editing is stopped or cancelled.

Toggle the visibility of the ArcMap table of contents.

Validate the selected layer. Determine whether the selected layer can be edited by the GRID Editor. The button is enabled if one layer is selected.

The name of the currently editable layer, or *None* if the GRID Editor is inactive.

The Drawing Tools dropdown list allows the user to change the drawing tool. The command button to the right of the combo box is used to actually perform the drawing operations on the grid.

Pencil: Tool for drawing individual pixels in the selected color. Either click on a cell, or drag the mouse over the map to create a sketch.

Paintcan: Tool for filling connected pixels of the same value. When clicking on a cell, all connecting cells of the same value will be filled with a new value.

Line: Tool for drawing a line point-to-point. Click one or more times to create a *polyline*. Double click to finish drawing, or press the *Escape* key to cancel drawing.

Polygon: Tool for drawing a solid polygon. Click one or more times to create a polygon. Double click to finish drawing, or press the *Escape* key to cancel drawing.

Tool for restoring the original values of individual pixels.

Displays the helpfile.

5.6 Restrictions

There are a number of restrictions that apply while editing a GRID.

- Only rasters in the ESRI GRID format can be edited.
- Only one GRID can be edited at a time.
- You cannot change to Page Layout mode, or change to a different map while editing.
- You cannot open a new ArcMap document, or close the current one.
- Both *Integer* and *Floating Point* GRIDS are supported, although the use of Integer GRIDS is recommended.
- The Data Source of the edit layer can be changed. The ARIS GRID Editor does not detect this change. Edits will be saved in the original data source of the layer and will not be visible in the map anymore.

5.7 Known issues

Setting toolbar visible prior to enabling the extension can result in unhandled errors. Be sure to first enable the extension.

When using the Unique Values classification for symbology, new values can be added to the classification after Stop Editing. New values within the range of the original GRID will be drawn in the right symbol. New values greater than the original maximum gridvalue, will still be drawn in the "all other values" symbol. Removing the GRID from the TOC and adding it again can solve this problem.

When using the Classified classification for symbology, new values within the range of the classification but not yet present in your GRID are shown with the NoData-symbol. This problem typically occurs in ArcGIS 9.2. In ArcGIS 9.3 and 9.3.1 these values will be correctly drawn as "all other values", when "all other values" are defined for the symbology of the layer.

The Current Coördinate System of the Data Frame should be the same as the coordinate system of the grid to be edited. Otherwise changes in the GRID will not correspond with the drawings on the screen. To change the Current Coördinate System choose View | Data Frame Properties... and then Tab Coordinate System.

Sometimes the Map Control has double scrollbars. The extra scrollbars do not influence the performance of the Grid Editor. The problem is being examined.

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