

## Using the ECW Compressor

### The ECW compressor has three main purposes:

ECW compression enables very large detailed raster (image) files, e.g. large-scale aerial photographs or maps, to be condensed into a smaller file size. These files may also be georeferenced.

- To compress one image file
- To compress several image files of the same size and shape into one file
- To add georeferencing to an image file

The final ECW file will be easier to manipulate, take up less storage space and, if georeferenced, automatically occupy the correct geo-space in relation to other georeferenced files. This means users can synchronise fading, panning and zooming between one or more maps.

**Please note: you will need the ECW and Goad module to use these files in AEGIS 3**

### Types of files that can be compressed into ECW

Most types of image files can be compressed, typically:

- JPEG (with or without World file)
- TIFF (with or without World file)
- ECW
- GeoTiff
- JPEG-2000
- BMP (with or without World file)

A world file is a separate file paired with an image file that has georeferencing information about the image.

### How to use the ECW compressor

#### Step 1 Adding files

Drag a file (or files) from Windows Explorer or My Computer and drop them onto the grid. All files must be the same height and width, whether measured in pixels or real-world units. Files can also be dragged between cells in the grid.

Extra cells can be created by typing the numbers of rows and columns into the boxes, then clicking on the Update Size button. By typing in smaller numbers, the right-most columns and/or lowest rows can be removed.

#### Step 2 Georeferencing

If one of the files you have dropped into the grid contains geo-referencing information, one or both of the '**Discover**' buttons will be enabled. You can use these to get the correct values into the various edit boxes.

**GB users please note:** some ECW files are supplied without the correct **Projection** and **Datum** information. If you are combining ECW files containing GB Ordnance Survey data, the correct Projection and Datum can be entered by clicking on the '**Reset to Defaults**' button.

If you wish to georeference your file, then add co-ordinates into the Size and position boxes. See the additional note about converting OS national grid to co-ordinates.

### **Step 3 Compressing the files**

- Type in or browse for the name of the ECW file you want to create.
- Choose the compression level. Smaller numbers produce larger, better quality files.
- When you are ready, click on the **Compress** button.

You can save and retrieve the state of the grid of files and the geo-referencing information using the **Save Settings** and **Get Settings** buttons.

If necessary, the software used by the compressor to read the images to be compressed will read a row of them at a time into memory. If the amount of data is too large to hold it all in memory, temporary files are created in the output folder. The process of creating these can be lengthy, and the compressor will possibly not be responsive during this time. It might not be possible to cancel the process until the next stage in the compression is reached.

**Please refer to the Goad and ECW manual for guidance on using ECW files in AEGIS 3**

# Creating an ECW file from several tiles of raster files

Place your raster map tiles here to be converted into one ECW file. Drag the files from Windows Explorer.

If any of your files are georeferenced then you can click on the 'Discover' button which will fill in values automatically

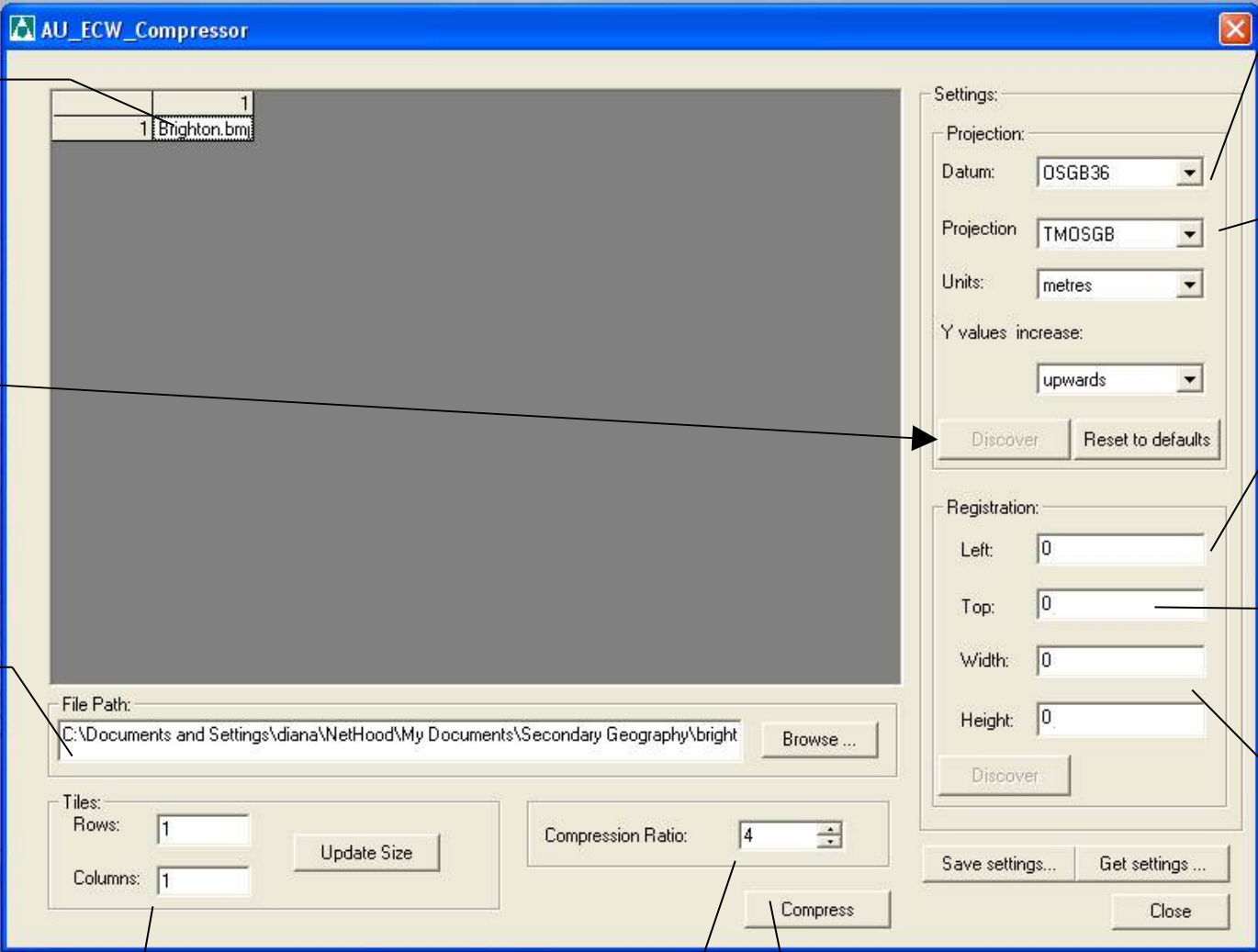
Browse to the folder and type in the filename for the new ECW file

To change the number of tiles in the rows and columns, type in the suitable numbers then click on 'Update size'

Smaller numbers here produce larger, better quality files

Click here to create your new ECW file when you have verified all the settings

A note about co-ordinates  
If using the UK OS grid references, then convert them to numbers – see accompanying sheet on how to do this.



Several Datum settings are offered. This one is for UK grid references

Several map projections are recognised. This one is for OS maps

Enter the extreme west (or left) co-ordinate

Enter the extreme north (or top) co-ordinate

Enter the width and height of the final map in the Units chosen above

# Converting Ordnance Survey Grid References to numbers

				<b>HP</b> (4 12)		
			<b>HT</b> (3 11)	<b>HU</b> (4 11)		
	<b>HW</b> (1 10)	<b>HX</b> (2 10)	<b>HY</b> (3 10)	<b>HZ</b> (4 10)		
<b>NA</b> (09)	<b>NB</b> (19)	<b>NC</b> (29)	<b>ND</b> (39)			
<b>NF</b> (08)	<b>NG</b> (18)	<b>NH</b> (28)	<b>NJ</b> (38)	<b>NK</b> (48)		
<b>NL</b> (07)	<b>NM</b> (17)	<b>NN</b> (27)	<b>NO</b> (37)			
	<b>NR</b> (16)	<b>NS</b> (26)	<b>NT</b> (36)	<b>NU</b> (46)		
	<b>NW</b> (15)	<b>NX</b> (25)	<b>NY</b> (35)	<b>NZ</b> (45)		
		<b>SC</b> (24)	<b>SD</b> (34)	<b>SE</b> (44)	<b>TA</b> (54)	
		<b>SH</b> (23)	<b>SJ</b> (33)	<b>SK</b> (43)	<b>TF</b> (53)	<b>TG</b> (63)
	<b>SM</b> (12)	<b>SN</b> (22)	<b>SO</b> (32)	<b>SP</b> (42)	<b>TL</b> (52)	<b>TM</b> (62)
	<b>SR</b> (11)	<b>SS</b> (21)	<b>ST</b> (31)	<b>SU</b> (41)	<b>TQ</b> (51)	<b>TR</b> (61)
<b>SV</b> (00)	<b>SW</b> (10)	<b>SX</b> (20)	<b>SY</b> (30)	<b>SZ</b> (40)	<b>TV</b> (50)	

The Ordnance Survey National Grid system is based on co-ordinates with an origin to the south west of Britain.

The country is divided into 100km squares on this grid and normally the two letters denoting the grid square are at the beginning of a national grid reference.

e.g. TL123456

The ECW compressor requires separate eastings and northings in numbers to a scale of metres. This is a 10-figure grid reference with the two letter prefix.

e.g TL1234056780

Use the key map to convert a 10-figure grid reference in ECW as follows:

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Grid reference **TL1234056780** can be divided into an easting and northing

**T12340** is the easting and **L56780** is the northing

Look on the map to see which numbers correspond to **T** and **L**

**TL1234056780**

Grid easting is **T12340**

Grid northing is **L56780**

Numerical grid easting is **512340**

Numerical grid northing is **256780**

If you need help in working out grid references, then go to the [Ordnance Survey Map Zone](#).