

Details of data format and file naming convention:

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All files

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All data files have been compressed with the UNIX compress command and should be uncompressed with the UNIX uncompress command, or Winzip or similar on a PC.

IHDTM data

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This is in Arc/Info GRIDASCII format. Grid interval is 50 m. Values are located at grid intersections.

Elevations - HGHT file

These are in units of m/10

Surface type - SURF file

This shows the most hydrologically significant surface type in the 50 m x 50 m square centred on each grid point. Codes used (in order of hydrological significance) are: 0 = sea, 3 = lake, 4 = river, 2 = land (so, for example, if a square contains sea and river, it is coded as sea (0)).

Cumulative catchment area - CCAR file

This shows the area draining through each point, including the area of the 50 m x 50 m square centred on the point. Units are 1/400 sq km (as there are 400 grid points in a square km). Thus a point with no other points draining into it will have a value of 1, and a point on a watercourse with a catchment area of 10 sq km will have a value of 4000.

Outflowing drainage direction - OUTF file

Shows the direction of overland flow - based on surface gradient, with compensations to allow for true slope angle not always being on an integer multiple of 45 degrees.

Codes used are 1 = SW, 2 = S, 3 = SE, 4 = W, 6 = E, 7 = NW, 8 = N, 9 = NE.

7	8	9
4	*	6
1	2	3

Points where flow has been routed uphill are coded in the range 11 to 19.

Points in lakes are coded in the range 21 to 29.

Points in rivers are coded in the range 31 to 39.

This may also be supplied using Arc/Info direction codes (in a file with _AOA_ in the filename), where the codes are: 1 = E, 2 = SE, 4 = S, 8 = SW, 16 = W, 32 = NW, 64 = N, 128 = NE.

32	64	128
16	*	1
8	4	2

Inflowing drainage pattern - INFL file

This is the converse of the OUTF data and shows which of a point's eight neighbours flow towards it. We use it in in-house written software for rapid derivation of catchment areas, but it will probably be of limited use to other users.

Codes used are as follows

Neighbours flowing in	Code
SW	1
S	2
SE	4
W	8
E	16
NW	32
N	64
NE	128

Multiple inflowing neighbours are indicated by summing their codes, e.g.

S & SE	$2 + 4 = 6$
E & N & NE	$16 + 64 + 128 = 208$