



DiGMapGB-50 Additional Information Note

- for customers of

1:50 000 scale Digital Geological Map of Great Britain data

This note should be read in conjunction with “DiGMapGB General Information Notes” for customers of digital geological map data at all scales.

1 Caution

Do not over-enlarge the data; for example do not use 1:50 000 nominal scale data at 1:25000 or 1:10 000 working scale. The scale of the original information is indicated by the nominal scale attribute (NOM_SCALE) embedded in the data.

The 1:50 000 scale geological maps are generalised from detailed 1:10 000 scale maps by cartographic selection, modification, simplification or exaggeration. The generalised geological lines were fitted to Ordnance Survey 1:50 000 (or 1:63 360) topographic bases available at the time of publication, as indicated by the nominal OS year attribute (NOM_OS_YR). The digital data do not necessarily fit other topographic bases, including more modern OS ones.

The 1:50 000 data may be used as a guide to the geology at a local level, but should not be relied on for site specific geology. If detailed information is required then the 1:10 000 (or 1:10 560) scale maps or digital data, usually the most-detailed interpretations available, should be consulted.

2 Sources of 1:50 000 scale information

Each DiGMapGB-50 digital tile is typically based on the latest 1:50 000 (or 1:63 360) scale geological map. For some maps, especially in areas of complicated geology, the Bedrock and Superficial (formerly ‘Solid’ and ‘Drift’) geology themes are published as separate editions. Some changes may have been made to the published linework but major revisions have generally been avoided. In exceptional cases, where the published maps are seriously deficient and new mapping is available, geological lines have been imported from recent 1:10 000 or 1:25 000 scale maps. Those geological maps that were only available as paper copies have been digitised for DiGMapGB-50. Recently published maps, compiled digitally, have been reprocessed to the same standard. In some areas where there are no suitable geological maps published, new geological lines have been compiled for DiGMapGB-50 by fitting the best available old linework to modern topographic bases. The sources of information specific to each digital tile are available.

Where there are no DiGMapGB-50 tiles available BGS can supply 1:250 000 scale Bedrock digital data (DiGMapGB-250) which is usually the best alternative.

3 DiGMapGB-50

The Digital Geological Map of Great Britain project started in 1998 and the first edition of the 1:50 000 scale dataset was completed and released as DiGMapGB-50 Version 1 in 2001. Version 2 was released in 2004 after further rationalisation of nomenclature and re-fitting of tiles to remove cartographic misfits where possible. Customers holding a current licence will be entitled to these upgrades. Major misfits, due to different ages of mapping, may remain between neighbouring tiles and these will not be resolved until the maps are resurveyed.

Each available geological map in England & Wales and Scotland is now obtainable as a digital file. See http://www.bgs.ac.uk/products/digitalmaps/digmapgb_50.html# for details.



Work continues to upgrade the dataset by the addition of new or replacement digital tiles, the revision of existing ones, and the inclusion or attribution of additional features.

4 Changes from DiGMapGB-50 Version 1 to Version 2

The change from Version 1 to Version 2 reflects a major re-fitting exercise affecting the Bedrock and Superficial themes (formerly Solid and Drift) of the entire DiGMapGB-50 dataset. The margins of each 1: 50 000 scale digital tile have been re-examined and re-fitted as appropriate, removing where possible those minor misfits in the linework which often reflect changes in cartographic compilation procedures over time rather than any misfit in the original 1:10 000 or 1:10 560 scale detailed geological linework. The final stages of this re-fitting exercise are still continuing. No attempt has been made to remove major line-misfits, where caused by mapping of different vintage, that currently have no solution; these will require re-survey to resolve.

In addition there has been a review of the polygon attribution or Lex-Rock codes. Obsolete and unnecessary names have been removed, specific names have been given to some unnamed units, and some names have been updated. The stratigraphic framework of the Carboniferous for example is currently undergoing a major revision and most of this nomenclature has been adopted in V2; again this work is continuing in order to resolve outstanding problems. The lithology codes have been rationalised to reduce the mosaic of lithological changes attached to the same geological unit on different tiles, which are not thought to represent genuine changes in lithology. For example Alluvium had a wide range of 'Rock' codes in V1. These have been reduced to just a few in V2 on the basis that at 1:50 000 scale the data should be generalised and simplified; detailed differences will be retained in the 1:10 000 scale dataset as this is created. Many new lithology codes have been created for a variety of mixed lithologies and their use always represents a compromise. If a code is for a very complex mixture it might only be applicable for one unit on one tile and possibly trivial difference in lithology can create misfits between tiles. At the other extreme if only the dominant lithology is coded in order to create a more seamless fit then significant geological detail is likely to be missed. DiGMapGB seeks to provide a pragmatic balance between detail and utility; neither over simplicity nor excessive detail.

The Artificial and Mass Movement themes are largely unaffected by this apart from correcting obvious errors in coding; for example there has been no attempt to update the coding or outline of artificial polygons to reflect recent changes on the ground, or to refit landslips.

Linear features such as coal seams and marine bands are now included as the standard fifth theme in DiGMapGB-50 V2_10.

The polygon data structure reflected by the "10" suffix (as in Version 1_10 and Version 2_10) is the same. This means that information fields attached to each polygon are the same, though the content of some of these fields may have changed as a consequence of continual upgraded to the BGS Lexicon of Named Rock Units. Thus if the age of a rock unit X is revised in the Lexicon then when the DiGMapGB data containing X are re-processed this revised age is attached to all polygons of X. As an increasing number of rock units are formalised so the revised Lexicon information will include improved hierarchical information allowing better selections to be made, for example selecting a parent Group rather than the component Formations.