

3D Generalisation

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Reasons for 3D generalisation

- perception
 - distinction between important - not important
- optimisation
 - data transfer
 - display performance
 - minimal dimensions

? Input data

- 'raw' source data
 - 3D point clusters
 - high-density triangular data
 - e.g. laser scanning data
 - generation of MR 3D models
 - 3D feature extraction
 - interpretation is important
- 3D 'map models'
 - 3D generalisation

Generation & Handling of 3D Models

- (automatic) derivation of low-resolution models
 - base data set
 - ideal solution
 - ☹ might have to wait for ever
- separate generation of each representation
 - for practical reasons
- integration 2D & 3D
 - bi-directional benefits

Generalisation Operations

- simplification
 - scale-space approaches etc.
 - main ongoing activity
- enhancement
- symbolisation - for important, remote objects
- aggregation
 - urban blocks - potential problems with terrain
- hierchical object 'build-up'

Special Case

- 'virtualised real-world'
- 1:1 representation of the real world
- ? no 2D equivalent

Issues

- which 2D concepts can be used in 3D?
- It's not a question of 'can you do it' but rather 'how hard is it'
- extend to additional dimensions?