

Eindeutige Ortsmarken und Identifikatoren

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200 Jahre Kartenproduktion

Unterschiede Deutschland—Großbritannien



Topographie

Kataster

An aerial photograph of Heathrow Airport in London, showing the main terminal, numerous aircraft on the tarmac, and surrounding infrastructure. Overlaid on the image are several colored lines representing geospatial data: a series of parallel yellow lines forming a large loop around the central terminal area; a magenta line that follows the perimeter of the yellow loop and extends towards the bottom left; a white line that forms a smaller loop to the right of the main yellow loop; and a green line that runs parallel to a road or railway on the right side of the image. Small blue square markers are scattered across the map, particularly near the terminal and along the yellow loop. The text 'Heathrow Airport - London' is visible in several locations on the image.

Heute: Integrierte und interoperable Geodaten

Entwicklung der Geodaten bei Ordnance Survey

1974-1994

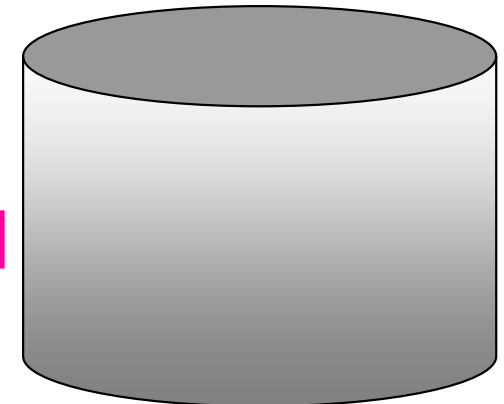
2001



Analoge Karte

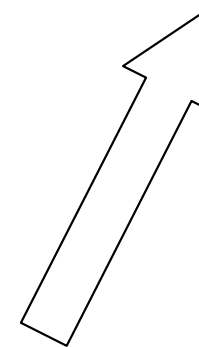
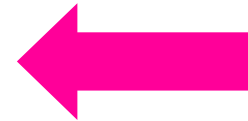
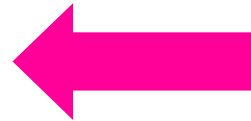


Digitale Karte



Raumbezogene
Datenbank

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e.g., 37.407229, -122.107162

bonn, germany

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Start your Google Earth world

Layers

View: Core

Primary Database

☒ Terrain

☐ Geographic Web

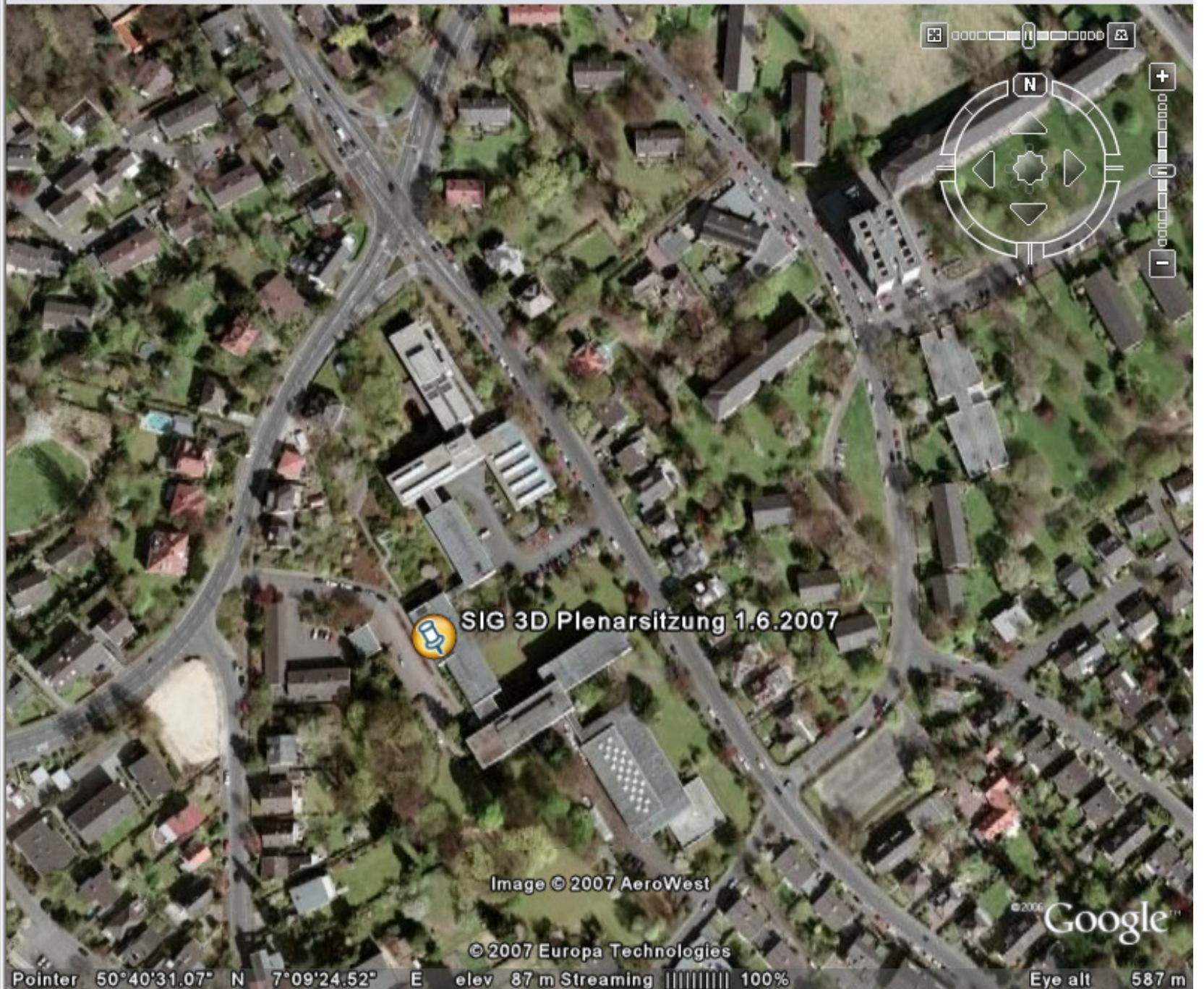
☐ Featured Content

☐ Global Awareness

☐ roads

☐ 3D Buildings

☐ . . .



Google Earth - Edit Placemark

Name:

Latitude:

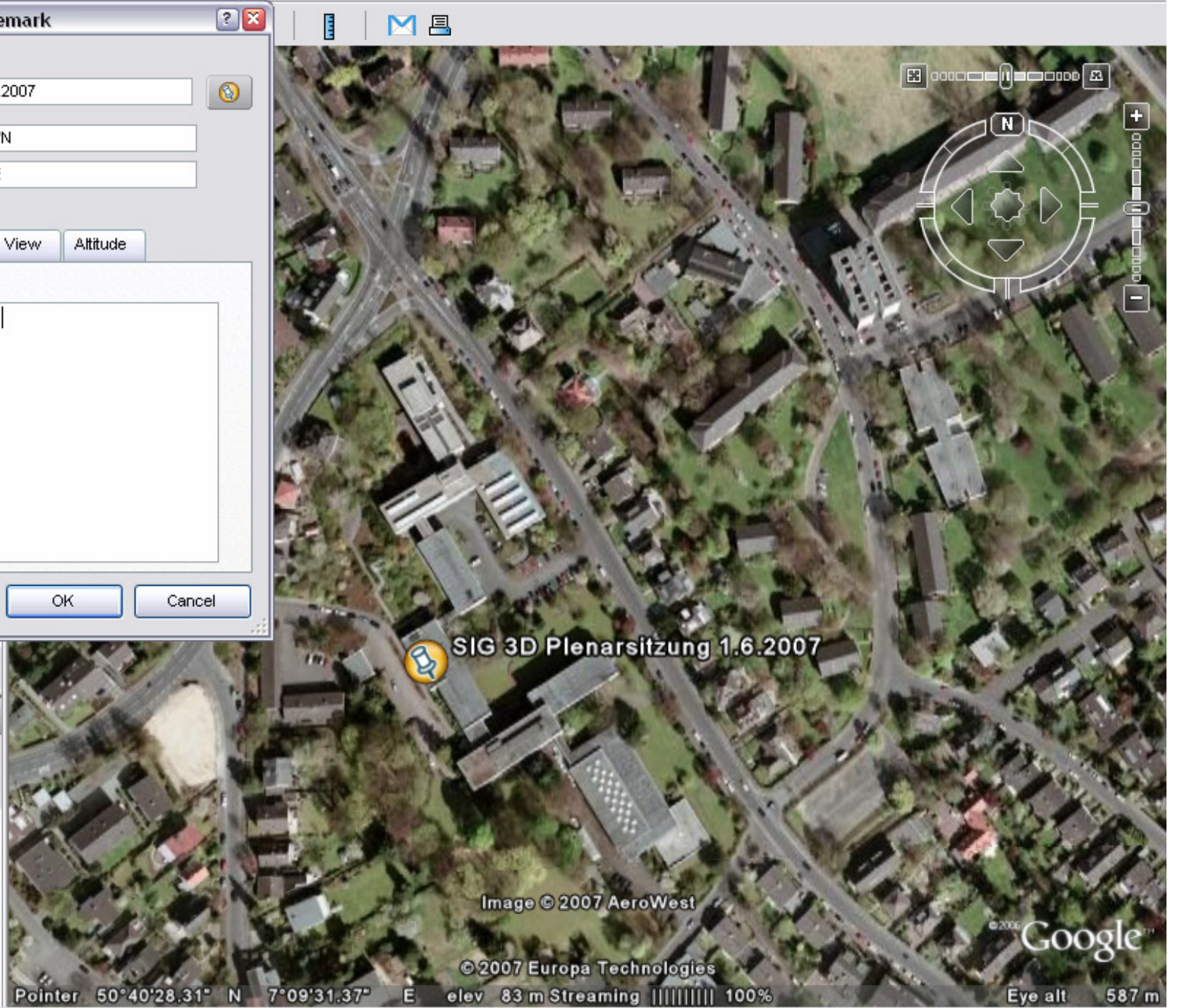
Longitude:

Description Style, Color View Altitude

Description:

OK Cancel

- Layers
- View: Core
- Primary Database
 - ☒ Terrain
 - ☐ Geographic Web
 - ☐ Featured Content
 - ☐ Global Awareness
 - ☐ roads
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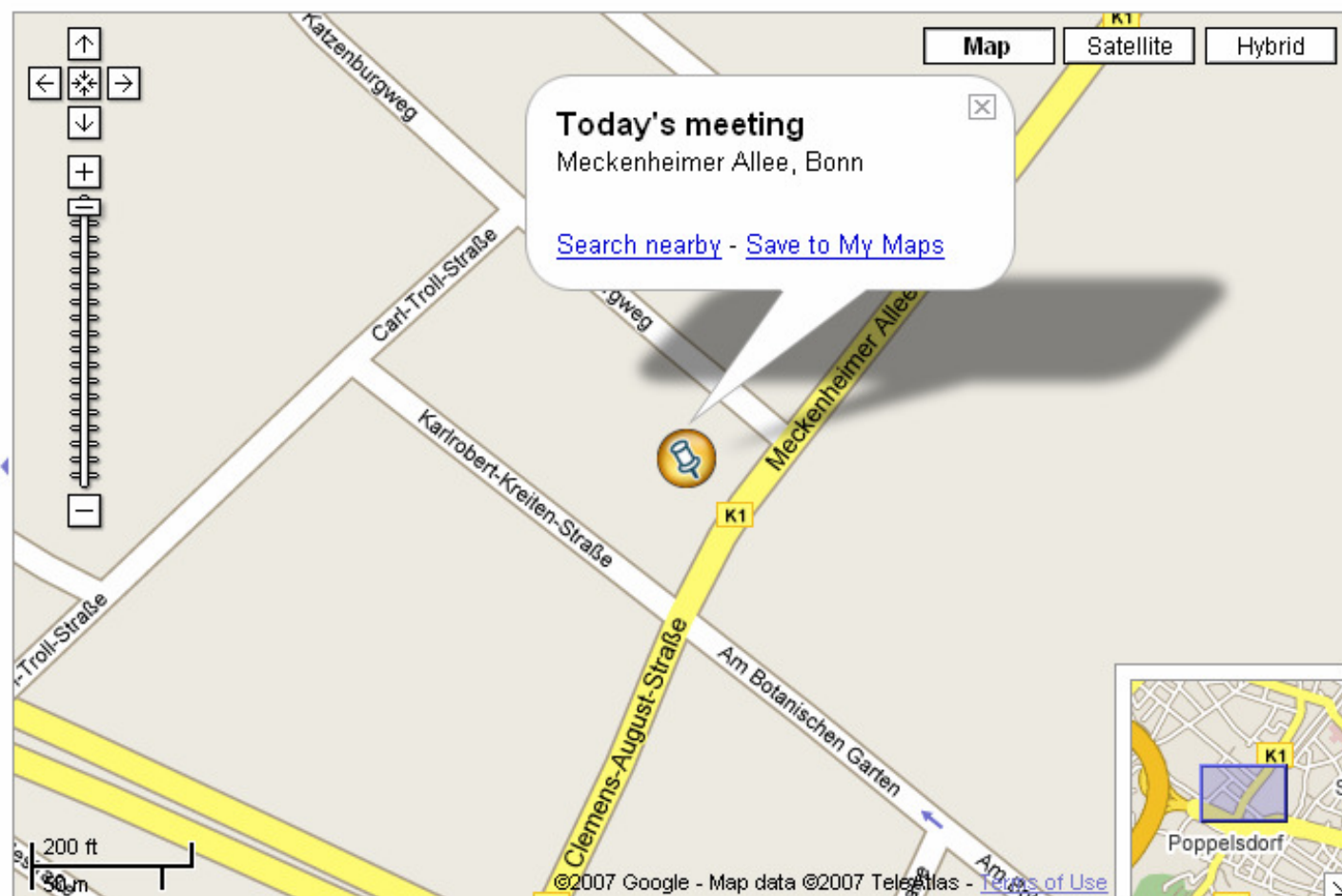
Contents



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Luxor Egypt

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fulltext:

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search

search results

- Central African Republic- Indonesia
- Indonesia- Philippines

place	location	country
Padang	Bossangoa, Ouham	 Central African Republic
Padang	Solok, Sumatera Barat	 Indonesia
Padang	Batanghari, Jambi	 Indonesia
Padang	Tapanuli Utara, Sumatera Utara	 Indonesia
Padang [2°2'0"S 119°59'0"E]	Luwu, Sulawesi Selatan	 Indonesia
Padang	Belitung, Sumatera Selatan	 Indonesia
Padang	Sambas, Kalimantan Barat	 Indonesia
Padang	Klungkung, Bali	 Indonesia
Padang	Padang Pariaman, Sumatera Barat	 Indonesia

Done

[world](#) -> [Asia](#) -> [Indonesia](#) -> [Sumatera Barat](#) -> [Padang Pariaman](#) -> [Padang](#)

Padang Map — Satellite Images of Padang

original name: Padang

geographical location: Padang Pariaman, Sumatera Barat, Indonesia, Asia

geographical coordinates: 0° 57' 0" South, 100° 21' 0" East

■ detailed map of Padang and near places

Welcome to the Padang google satellite map! This place is situated in Padang Pariaman, Sumatera Barat, Indonesia, its geographical coordinates are 0° 57' 0" South, 100° 21' 0" East and its original name (with diacritics) is Padang. See Padang photos and images from satellite below, explore the aerial photographs of Padang in Indonesia.

You can also dive right into Padang on unique 3D satellite map by [Google Earth](#). And last but not least you will find Padang and Indonesia [travel](#) services offer including cheap flights, cheap hotels and other accommodation deals at the bottom of this page.

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[maps.google.co.uk](#)

[Padang](#)

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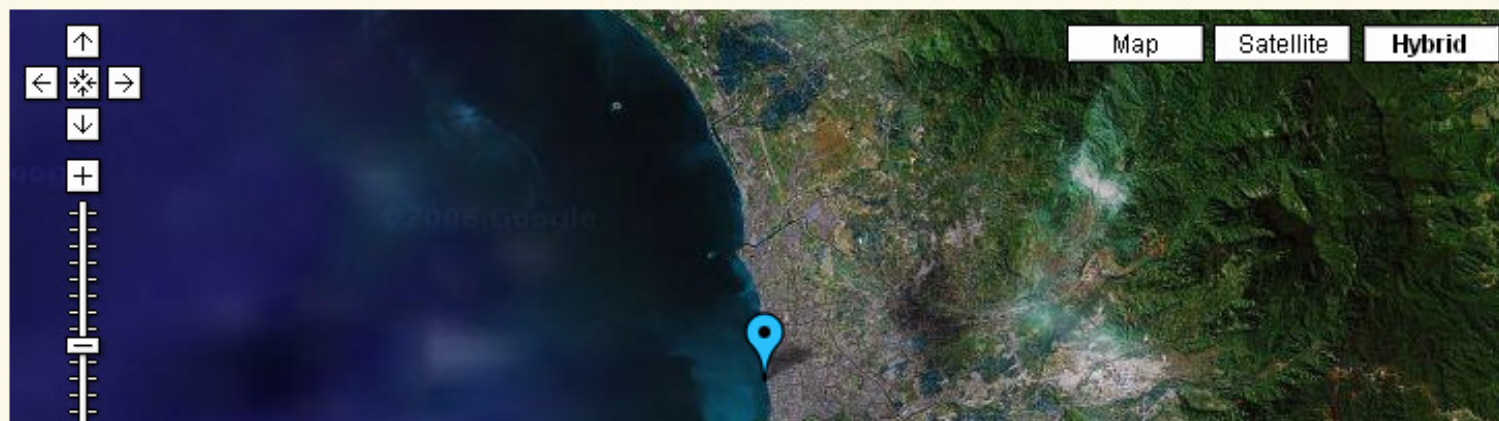
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[Indonesia Map](#)

[Ambon Indonesia](#)

[Satellite Map](#)



Indonesia, its geographical coordinates are 0° 57' 0" South, 100° 21' 0" East and its original name (with diacritics) is Padang. See Padang photos and images from satellite below, explore the aerial photographs of Padang in Indonesia.

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Padang

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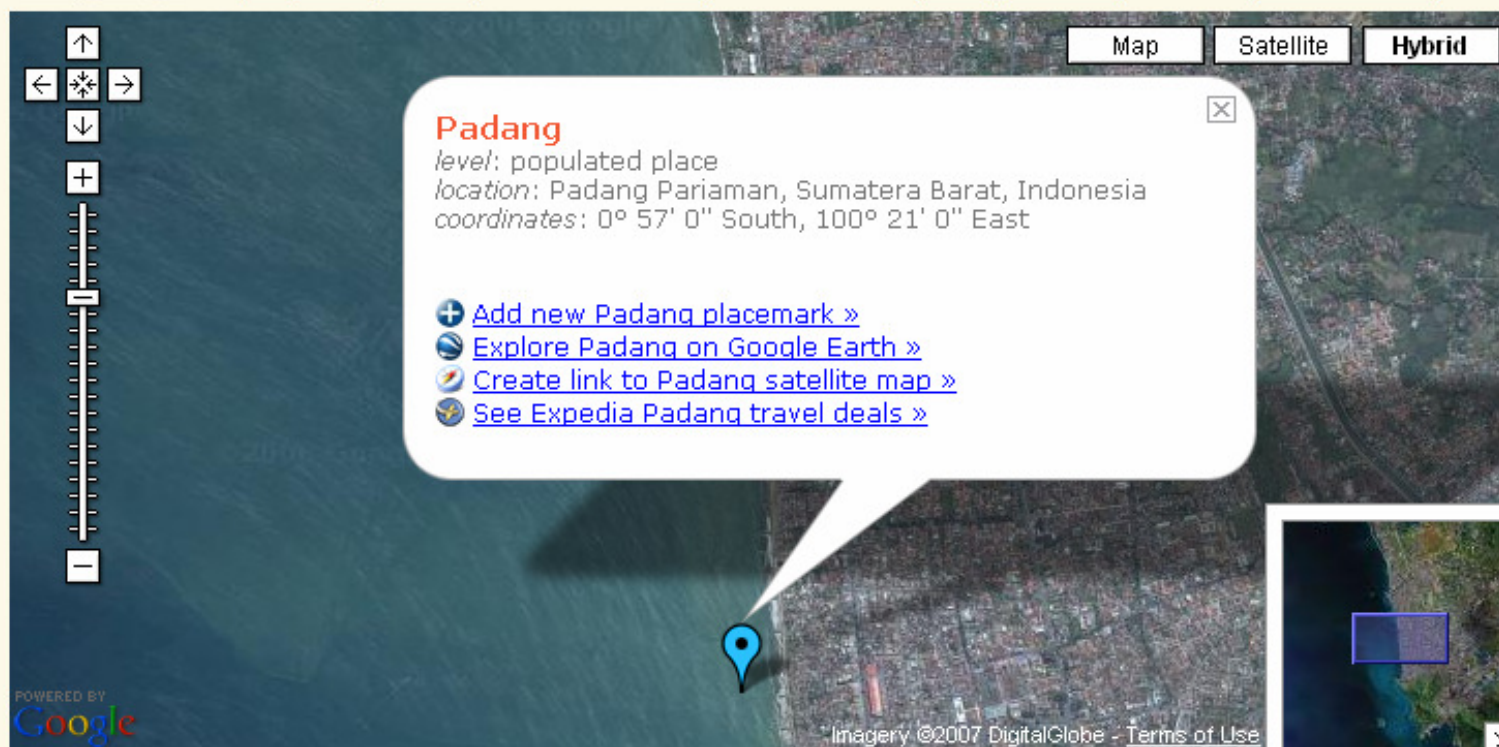
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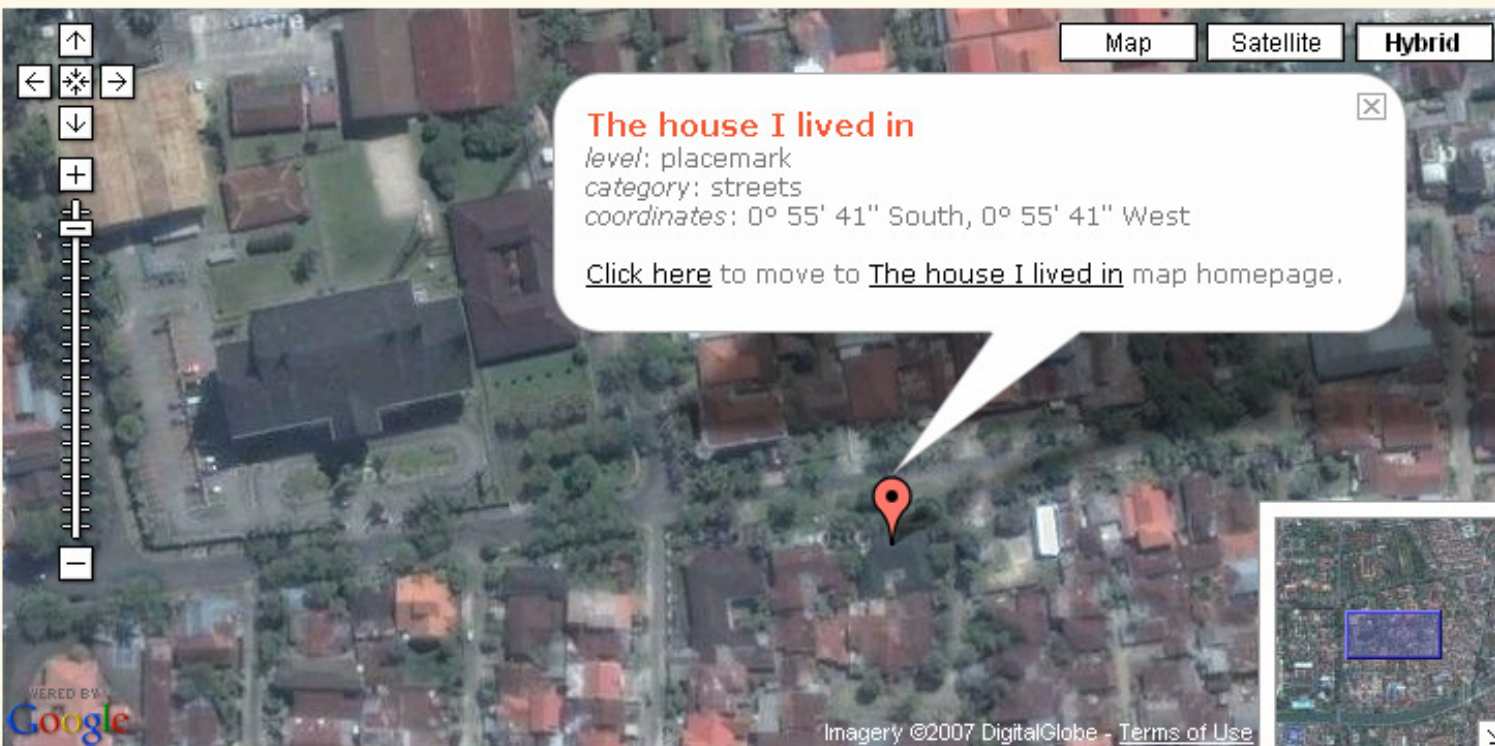
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belum mengetahui bahwa **kartuHALO** dan **simPATT** juga dapat diperoleh di dealer resmi, outlet eksklusif maupun ritel. Dengan kata lain **GraPARi** hanya sebagai salah satu alternatif kemudahan untuk memperoleh dan menutupi pangsa pasar yang tidak tertampung oleh saluran distribusi **Telkomsel** lainnya.

Pelanggan yang datang ke **GraPARi** untuk mendapatkan **kartuHALO** maupun **simPATT** bukan hanya pelanggan perseorangan / individual tetapi juga dealer resmi, outlet eksklusif dan juga ritel. Jenis pemesanan yang dilakukan oleh pihak saluran distribusi tentunya berbeda dalam hal prosedur dan pembayaran.

GraPARI	Alamat	Telepon	Fax
Banda Aceh	Jl. Tgk. Cik Kutakarang, Kec. Kuta Alam, Banda Aceh	0651-26811	0651- 22181
Lhokseumawe (Service Outlet)	Jl. Merdeka No.31, Lhokseumawe 24351	0645-48811	0645-47811
Medan Menara (Service Outlet)	Jl. Guru Patimpus No.1-OPQ Medan	061- 4555811	061-4557581
Medan Selecta	Jl. Listrik No 2 Gedung Selecta Lt.1, Medan 20112	061- 4577811	061-4560155
Tanjung Balai Asahan (Service Outlet)	Jl. Gereja 24B Tjg. Balai Asahan 21311	0623-595811	0623-59188
Pematang Siantar	Jl. Sutomo NO.5-AA Pematangsiantar	0622-430811	0622-430812
Sibolga (Service Outlet)	Jl. MH. Thamrin No.58 Sibolga 22521	0631-24788	0631-21812
Dumai	Jl. Jendral Sudirman No. 211 Dumai 28812	0765-36811	0765-35737
Padang	Ged. Telkom Lt.1 Jl. Batang Tarusan No.3, Padang Baru 25138	0751-442811	0751-442910
Pekanbaru	Jl. Gedung Surya Dumai Lt.1, Jl. Jend. Sudirman No. 395, Pekanbaru 28116	0761-41811	0761-42811

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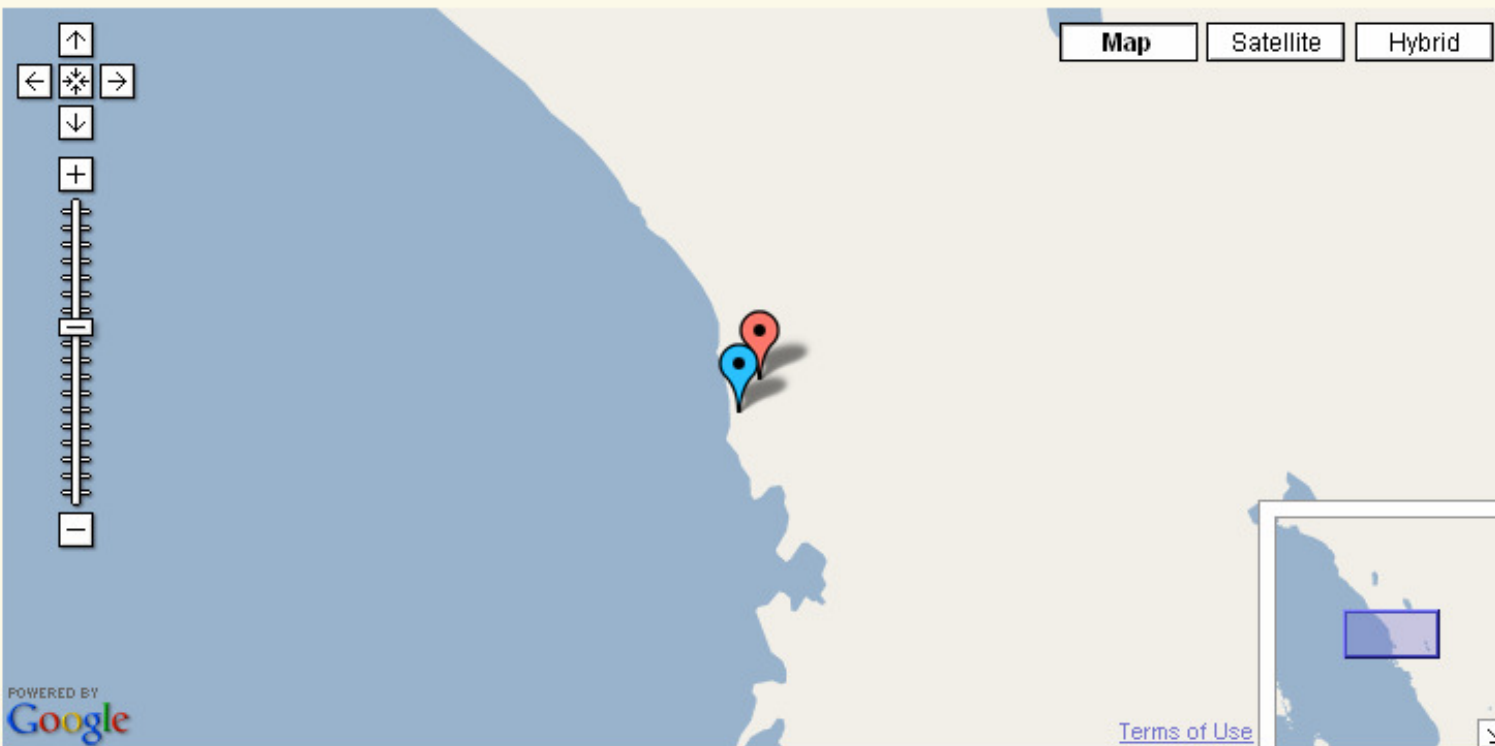
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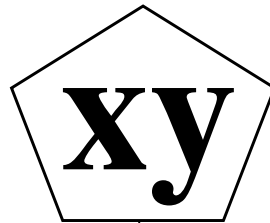
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Geometrie

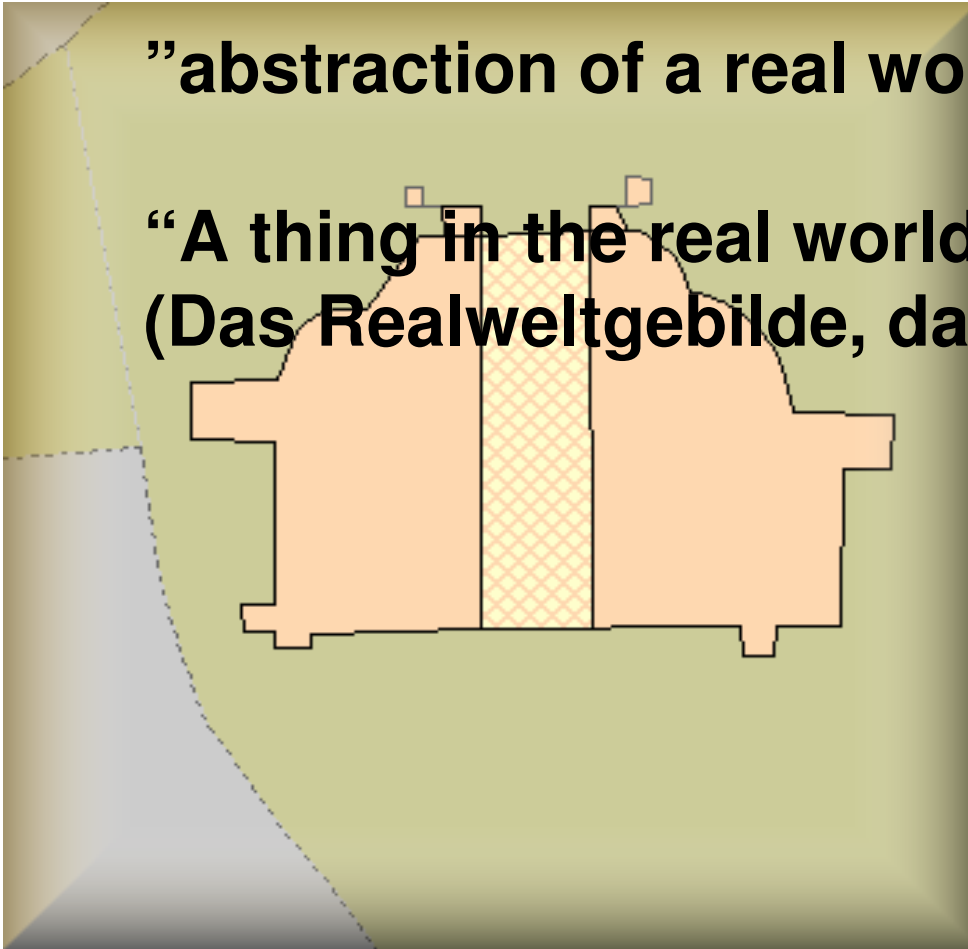


Was ist ein “Feature”?

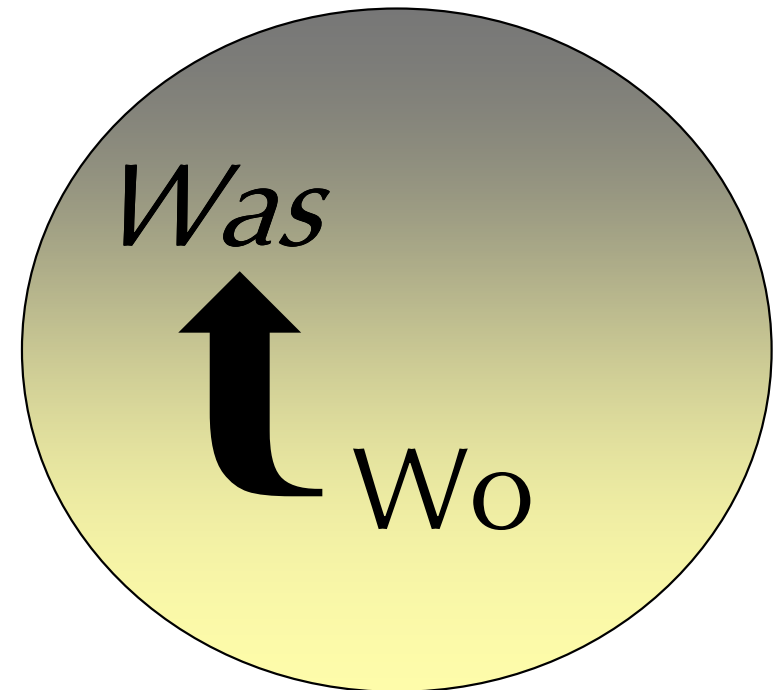
”abstraction of a real world phenomenon” [ISO]

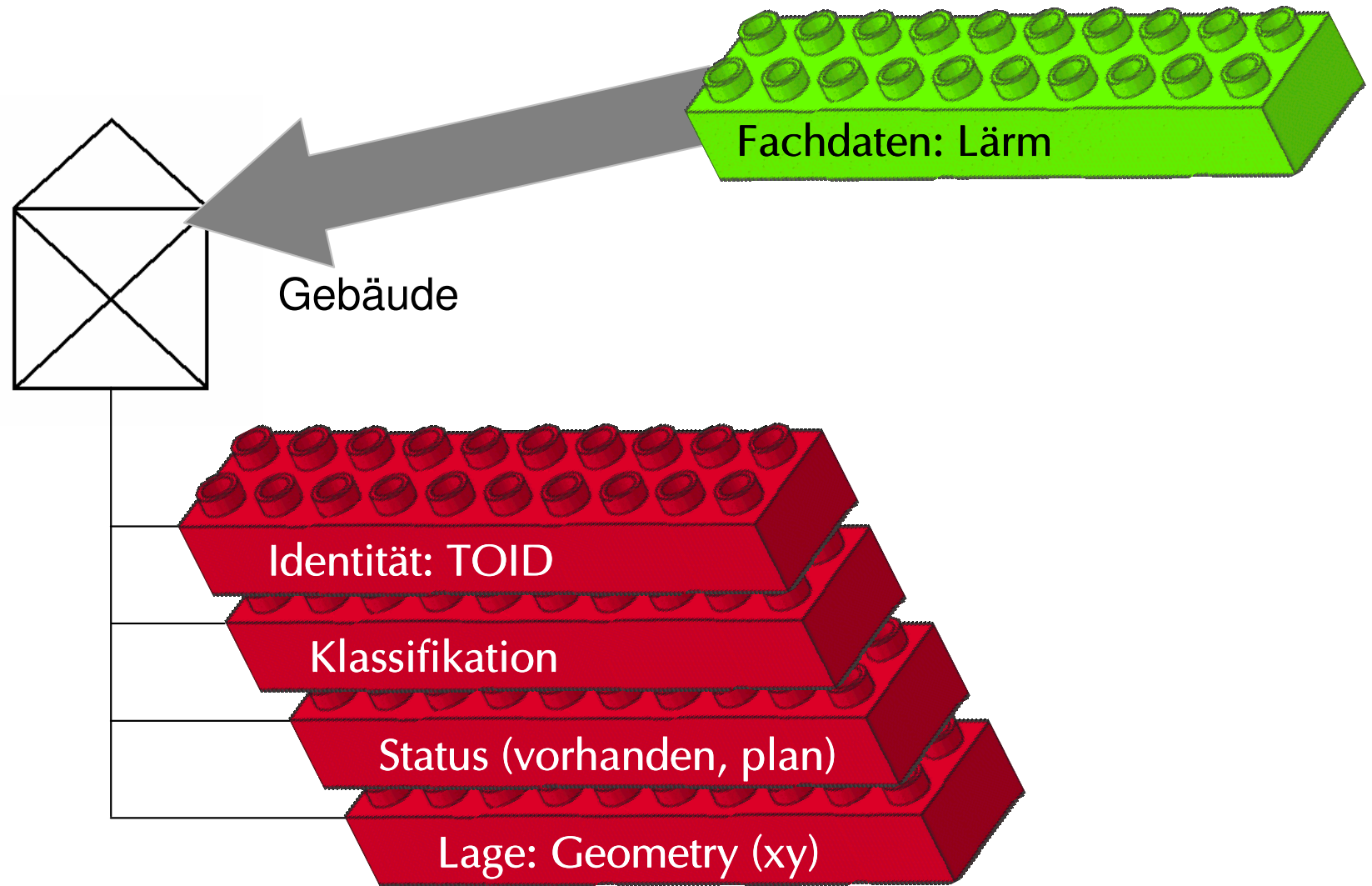
“A thing in the real world.”

(Das Realweltgebilde, das wir beschreiben wollen)

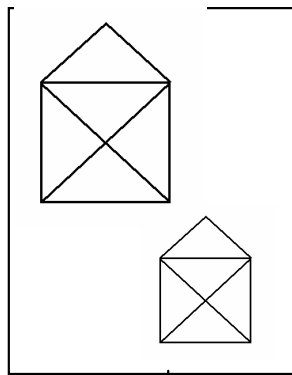


Datenmodel-Vision: Geometrie ist ein Attribut.





Objekt-Referenzierung



Gelände (Grundstück)

Identität: TOID

Funktion: Wohnen

Status: aktiv (vorhanden)

Lage: Grundriss

Name: Hausnr/name

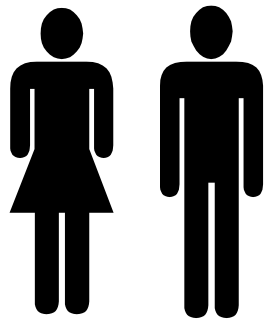
Grundrissgeometry

Text Hausnummer

Postzustellung (B'Kasten)

Postadresse

Gebrauch analoger Karten



Ordnance
Survey®



www.ordnancesurvey.co.uk

Fachdaten oder Fragestellung

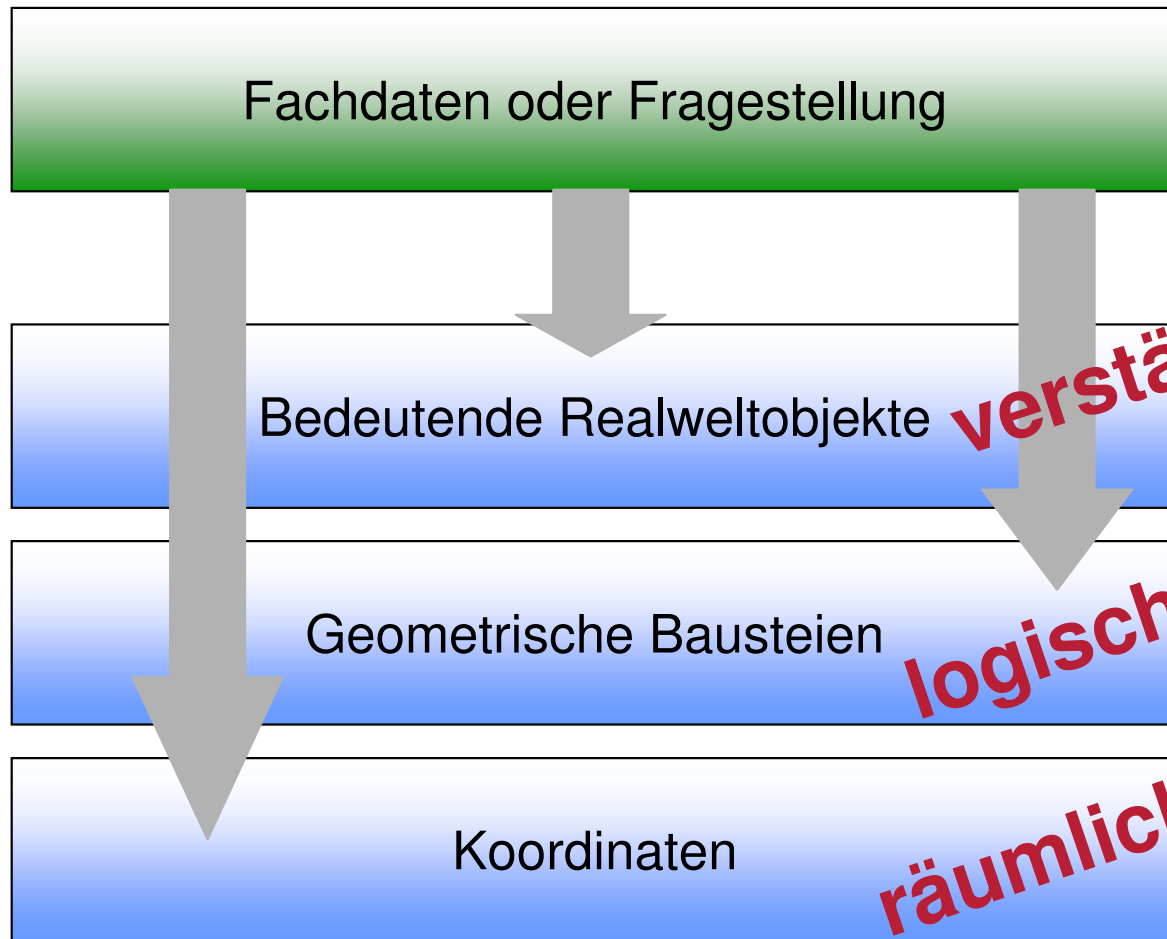
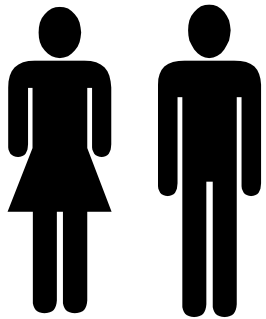
Bedeutende Realweltobjekte

Geometrische Bausteine

Koordinaten



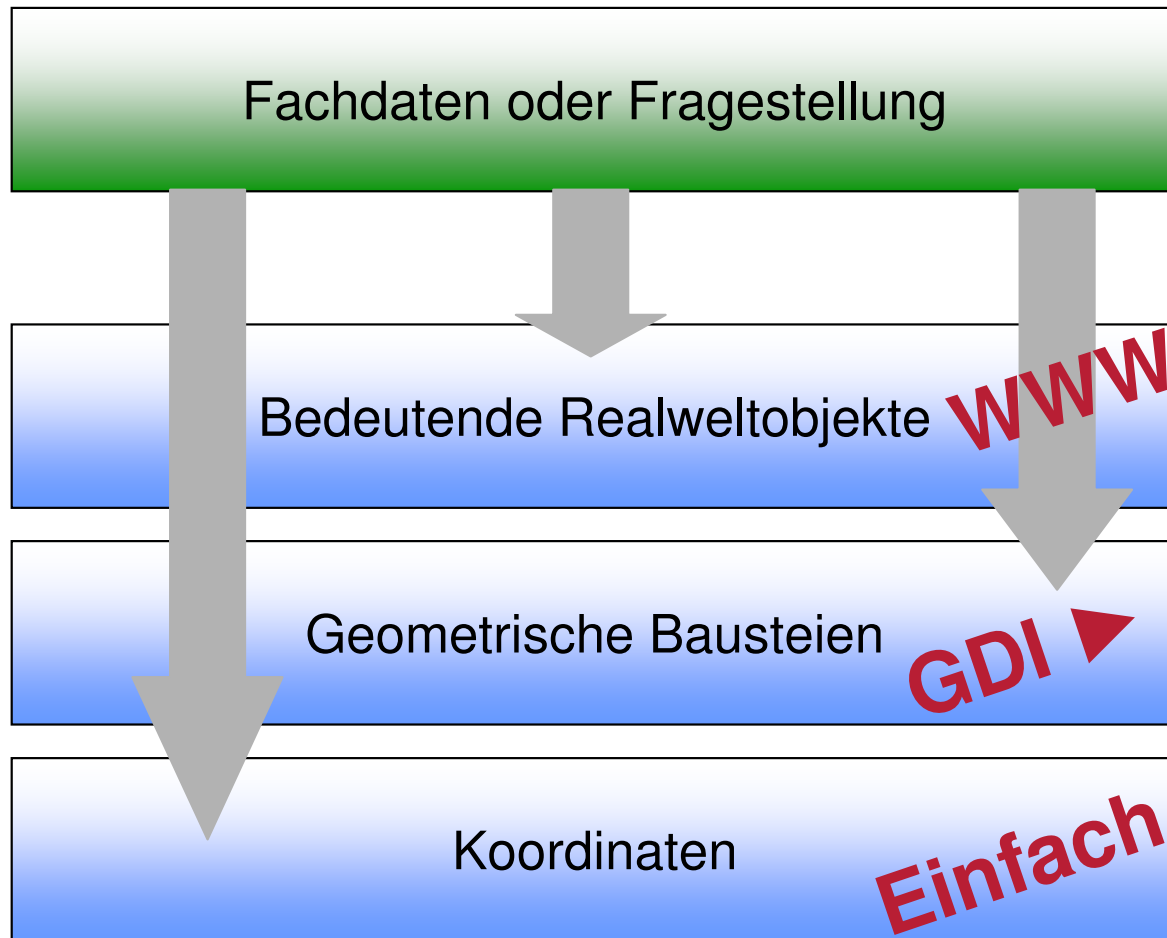
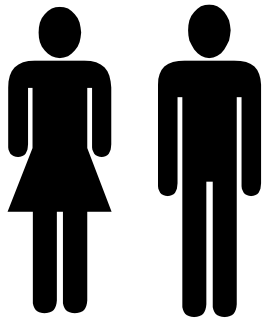
Gebrauch digitaler Geodaten



verständlich
logisch
räumlich



Gebrauch digitaler Geodaten



WWW, aber nicht GEO
Webinfos

GDI **OS**
DNF, TOID

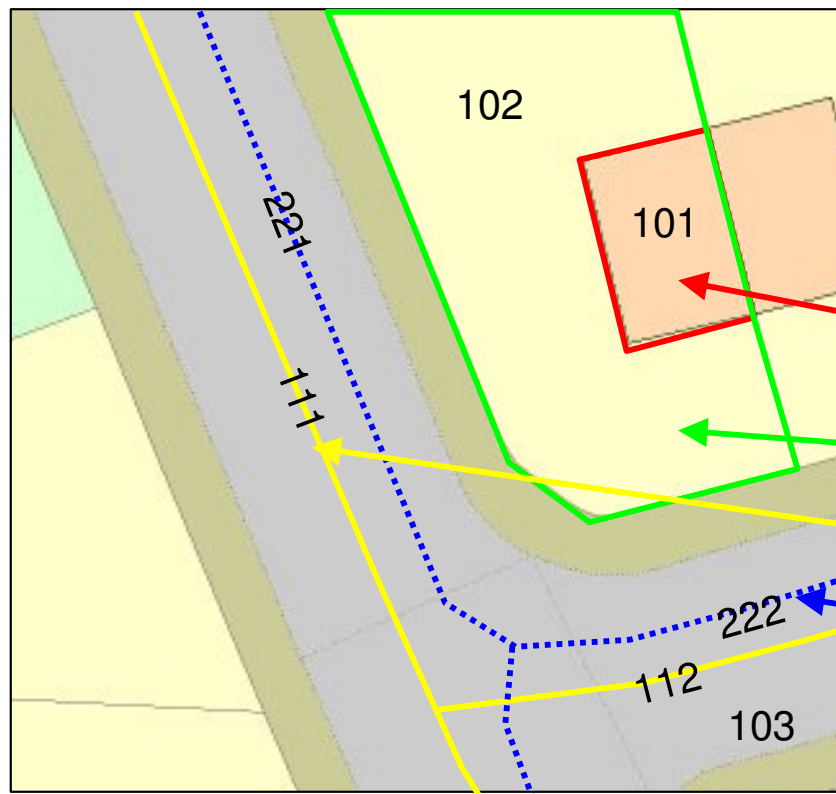
Einfach, Google
Geotagging



DNF – enabling easier sharing of geographic information

- Keine GDI an sich, aber unterstützt
 - Datenverknüpfung
 - Datenerfassung
 - Datenaustausch und -integration
- Offene Prinzipien (*store once-use many times*)
- Kontinuierliche Weiterentwicklung in Partnerschaft mit Verwaltung und Privatwirtschaft
- www.dnf.org

Logisches Referenzmodell (Datenverknüpfung)



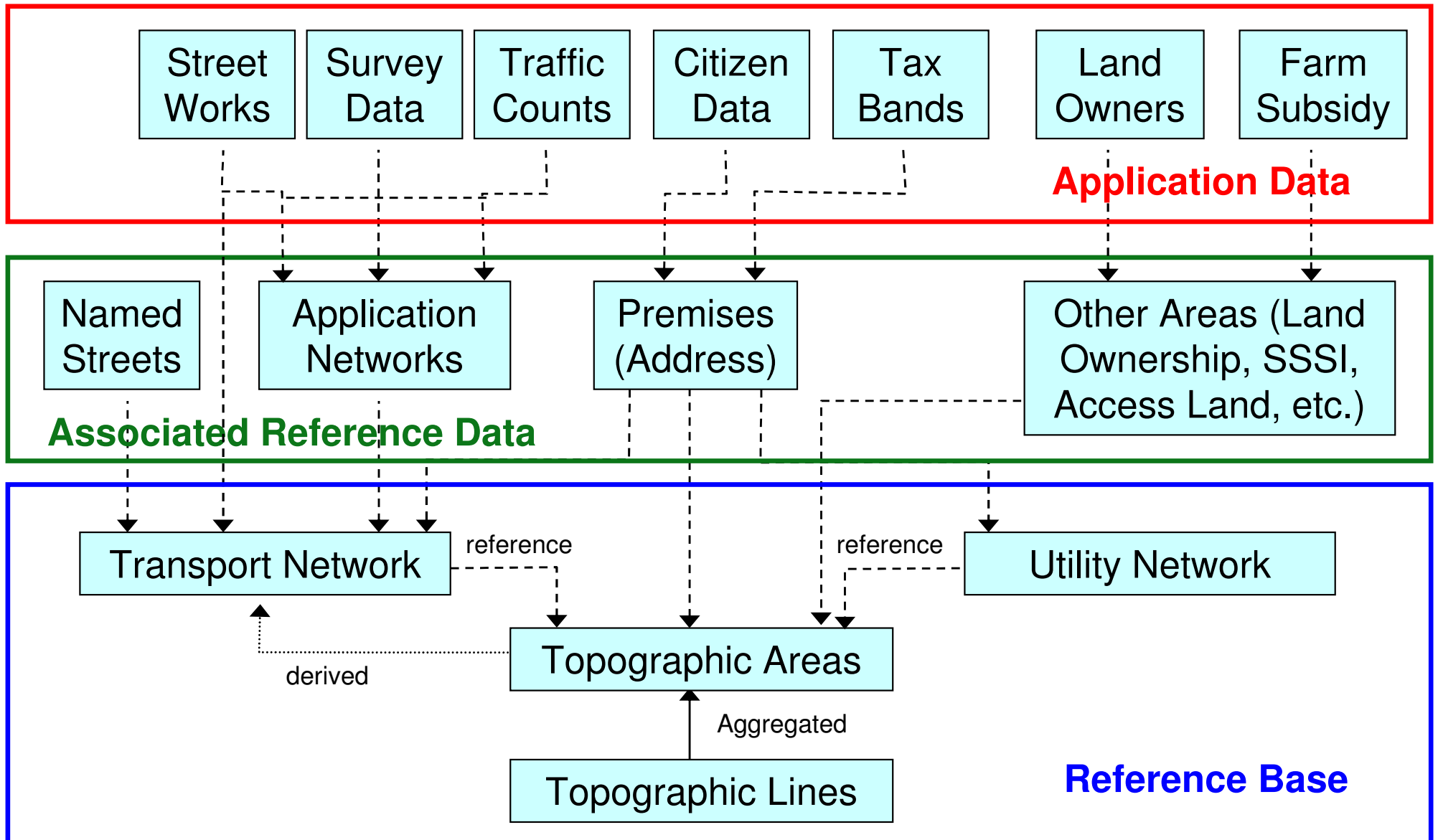
Grundstück
ID: 7654
Adresse: Markt Strasse 1
Gebäude Ref: 101
Flstck Ref: 101, 102
Zugang Ref: 111
EVU Ref: 222

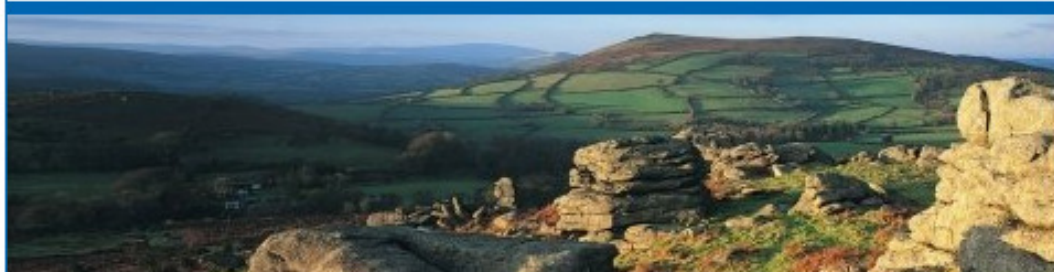
Wie funktioniert DNF Objektreferenzierung?

- “Digital National Framework” baut auf geographischen Objekten auf.
- Jedes Realweltobjekt erhält einen eindeutigen Identifizierer (ID)
- Diese Identifizieren werden als Referenz benutzt um verschiedene Datensätze miteinander zu verbinden.

[ähnliches Konzept in Inspire]

Wie DNF Objekte verbindet





DNF - enabling easier
sharing of geographic
information

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Welcome to the Digital National Framework

Latest News...

- The first DNF technical document on Unique Object Identifiers has been approved for publication by the expert group, and is now available in the new [documentation](#) area.
- The results of the recent consultation on DNF unique identifiers has now been published, and is available in the [papers](#) section of this site. [Click here](#) to download the pdf document.



What's New:

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DNF Registry

Identities

This section of the registry allows organisations to register 4-character codes that are unique to them. On publication of dnf-compliant datasets, identifiers can be prefixed with these codes in order to guarantee uniqueness within the Digital National Framework.

The DNF Expert Group reserves the right to moderate registrations in order to preserve the integrity of the registry.



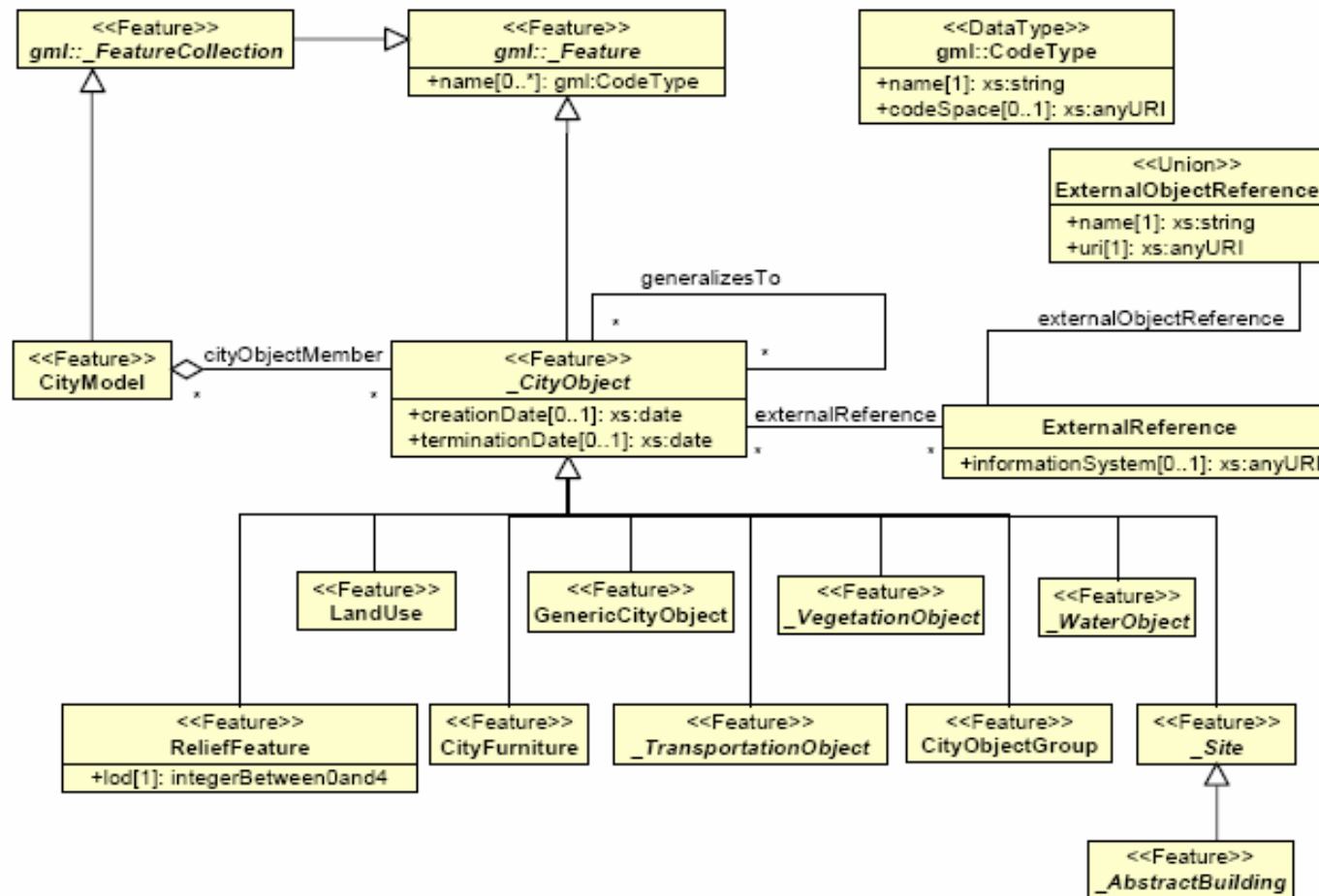
Search for:

Search

[Request Identity](#)

Organisation	Code
Assist Applications Limited	aalt
British Geological Survey	bgsn
Countryside Council for Wales	ccfw

CityGML: Themes



Objektreferenzierung in CityGML

- Sind CityGML-Daten Referenzdaten?
 - Besteht der Bedarf, Fachdaten mit Referenzdaten in CityGML zu verknüpfen?
 - Sollen diese Fachdaten ausgetauscht werden?
- Zukünftiges Thema für SIG3D, insbesondere für die Modellierungs AG

Brauchen wir ein
Referenzmodell für
CityGML?



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GI Consultant

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SO16 4GU

Thank you!

