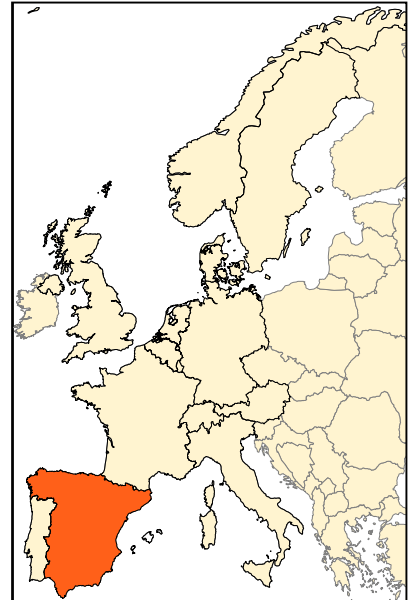


MultiNet Spain & Andorra Release 00.2

For turn-by-turn navigation and
all your high-end mapping applications



General Country Information Spain

Area (km²): 495.995
Population: 39.669.460
N° of Municipalities: 8.096
Capital: Madrid

General Country Information Andorra

Area (km²): 465
Population: 68.877
N° of Municipalities: 1
Capital: Andorra

About MultiNet

MultiNet is an outstanding vector database carrying highly detailed information on the roads of an entire country with details of intersections and junctions plus information on railways and waterways. The Street Network includes house number ranges in many cities and urban areas.

The street and road data provides complete traffic information, including restrictions and blocked passages, indications of toll roads and ferry connections, RDS/TMC information and signposts. MultiNet also has two classifications of the road network, specially tuned for navigation and optimal route calculation.

Administrative areas — ranging from national to local level — are identified, and postal codes are included for many countries. A full categorization of land use indicates the presence of, for example industrial areas, harbors and beaches, woodland and parks, woods, heaths and moors.

Thousands of points of interest (POI) are recorded. These include airports, railway stations, hospitals, garages, petrol stations, hotels, restaurants, post offices, car rental facilities and many more.

MultiNet also contains Update Information on creation, modification and deletion of geographic data, allowing customers to selectively, incrementally or differentially update the digital core map of their application.

Phonetic transcriptions can be obtained optionally. These allow 'Text to Speech' and 'Automatic Speech Recognition' in a variety of applications.

Available countries

Austria, Belgium, Denmark, France & Monaco, Germany, Great-Britain, Italy, Luxembourg, Norway, Portugal, Spain & Andorra, Sweden, Switzerland & Liechtenstein, The Netherlands

New

- ✓ Extension of Street Network
- ✓ Addition of house number ranges
- ✓ Normalisation & increase of Points of interest
- ✓ RDS/TMC information for Madrid, Barcelona & Valencia
- ✓ Built-Up Area names are attributed
- ✓ Introduction of Net 2 classes
- ✓ Availability of International Ferry Connections

Apart from the normal field surveys, quality checks and the processing of product defect reports, a number of improvements have been made.

The Street Network has been extended to 47% of the population. In many areas every single street is now captured in the database allowing you to reach even the smallest local street.

New for Bilbao, Alicante & Elche is the addition of house number ranges. They define in what part and on which side of the street your address is located.

Points of Interest have been normalised and the number has increased up to 38.600.

Avoid traffic jams with RDS/TMC path information, now available for the regions of Madrid, Barcelona & Valencia.

Navigation and route calculation will be improved by the attribution of Built-Up Area names and the introduction of Net 2 classes.

International Ferry Connections are now available in the database.

Format / Co-ordinate System

Format: GDF-AS (ASCII-Sequential) and GDF-AR (ASCII-Relational)
Co-ordinate System: WGS'84

Contents

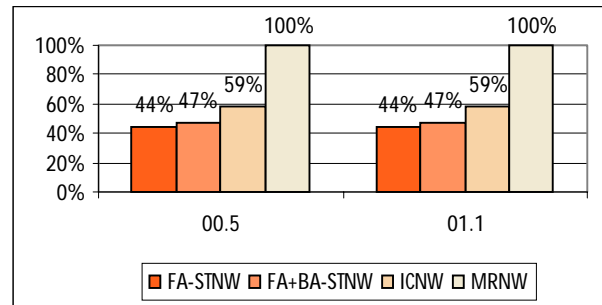
- ✓ Roads (Name, Alternate Name, Blocked Passage, Composite Form of Way, Direction of Traffic Flow, House Number Ranges, Form of Way, Freeway, Functional Road Class, Net Classes, Opening Period, Plural Junction, Positional Accuracy, RDS/TMC Path information, Restricted Time Validity, Road Condition, Road Display Class, Road Geometry Completeness, Route Number, Side of Line, Slip Road Type, Special Restrictions, Stubble, Processing Status, Toll Road, Vehicle Type, Z-Level Information)
- ✓ Intersections (Type, Name)
- ✓ Junctions (Type)
- ✓ Address Areas (Name)
- ✓ Enclosed Traffic Area
- ✓ Ferry Connections (Type, Functional Road Class, Road Display Class, Route Number, Net Classes)
- ✓ Administrative Areas (Centre Point of Feature, Boundary Element, Boundary Element Type & Junction)
 - ✓ Country (ISO Code, Name)
 - ✓ Region (Official Code & Name)
 - ✓ Province (Official Code & Name)
 - ✓ Municipality (Network Type, Official Code & Name, Population, Population Class)
- ✓ Settlements and Named Areas
- ✓ Brunnels (Type & Name)
- ✓ Railways (Railway Edge, Element & Element Junction, Railway Node)
- ✓ Land Cover and Land Use (Name, Type)
 - ✓ Woodland
 - ✓ Park/Garden
 - ✓ Island
 - ✓ Beach/Dune/Sand Area
 - ✓ Industrial Area
 - ✓ Industrial Harbour Area
 - ✓ Moor/Heathland
- ✓ Waterways (Name, Display Class)
- ✓ Points of Interest (Entry Point, Name, Brand Name, Telephone & Fax Number)
 - ✓ Airline Access
 - ✓ Airport
 - ✓ Car Dealer
 - ✓ City Centre
 - ✓ Embassy
 - ✓ Exhibition Centre
 - ✓ Ferry Terminal
 - ✓ Frontier Crossing
 - ✓ Government Office
 - ✓ Hospital/Polyclinic
 - ✓ Hotel or Motel
 - ✓ Important Tourist Attraction
 - ✓ Mountain Pass
 - ✓ Museum
 - ✓ Open Parking Area
 - ✓ Parking Garage
 - ✓ Petrol Station
 - ✓ Post Office
 - ✓ Railway Station
 - ✓ Rent-a-Car Facility
 - ✓ Rent-a-Car Parking
 - ✓ Rest Area
 - ✓ Restaurant
 - ✓ Shopping Centre
 - ✓ Sports Centre
 - ✓ Stadium
- ✓ Relationships (e.g. Road Element in Administrative Area, Service in Administrative Area, Road Element in Built-up Area, etc.)

† Please note that the contents can differ from region to region

Coverage



| | # of Mun. | % of Pop. |
|---------------------------------|-----------|-----------|
| Street Network Fully Attributed | 187 | 44% |
| Street Network Basic Attributed | 302 | 47% |
| Interconnecting Network | 1.762 | 59% |
| Major Road Network | 8.097 | 100% |
| House Number Ranges | 10 | 20% |



Applications

MultiNet can be used in applications such as GIS, on-line mapping and PC applications and in new technologies like WAP and PDA.

It is the ideal base map for advanced turn-by-turn navigation applications and sophisticated traffic management and telematics applications.

Why?

- ✓ MultiNet contains features like RDS/TMC location codes, relationships, phonetic transcriptions* and signposts specially tuned for navigation applications. On top, additional network classifications enable optimal route calculation.
- ✓ The format GDF (CEN: international standard) allows for possible content extensions to meet future technology requirements
- ✓ The product is being updated twice a year.
- ✓ A MultiNet product "Major Roads of Europe" connecting most cities of Europe, is available and can be combined with the detailed country products.

* currently only toponyms for Germany are available.