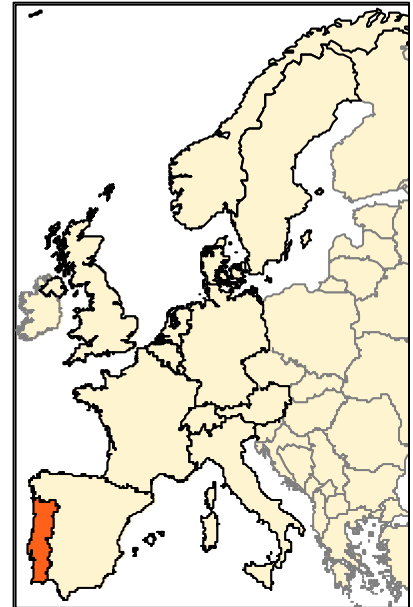


MultiNet Portugal Release 00.1

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



General Country Information

| | |
|--------------------------|-----------|
| Area (km ²): | 92.083 |
| Population: | 9.979.450 |
| N° of Municipalities: | 275 |
| Capital: | Lisbon |

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.

New

- ✓ Extension of Street Network with the city of Porto
- ✓ House number ranges available for Lisbon
- ✓ Addition of sea polygon

Next to the normal field surveys, quality checks and the processing of product defect reports the following improvements have been made:

In Lisbon and Porto all streets have been captured in the database which allows you to reach even the smallest local street.

Looking for an address in Lisbon? No problem, thanks to our house number ranges, you will be able to define in what part and on which side of the street your address is located.

The sea polygon is now included, which fits exactly with the sea polygon of MultiNet Spain.

Format / Co-ordinate System

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

Available countries

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

Contents

- ✓ Roads (Name, Alternate Name, Blocked Passage, Composite Form of Way, Coverage Flag, Direction of Traffic Flow, House Number Ranges, Form of Way, Freeway, Functional Road Class, Plural Junction, Positional Accuracy, Restricted Time Validity, Road Condition, Road Display Class, Route Number, Slip Road Type, Special Restrictions, Stubble, Processing Status, Toll Road, Vehicle Type)
- ✓ Intersections (Name, Type)
- ✓ Junctions (Type)
- ✓ Address Areas (Name)
- ✓ Administrative Areas (Centre Point of Feature, Boundary Element, Boundary Element Junction)
 - ✓ Country (ISO Code, Name)
 - ✓ District (Official Code & Name)
 - ✓ Municipality (Network Type, Official Code & Name, Population, Population Class)
 - ✓ Settlement (Official Name)
- ✓ Settlements and Named Areas (Name)
- ✓ Brunnels (Type, Name)
- ✓ Railways (Railway Edge, Element & Element Junction, Railway Node)
- ✓ Land Cover and Land Use (Name, Type)
 - ✓ Park/Garden
 - ✓ Island
 - ✓ Industrial Area
- ✓ Waterways (Name, Display Class)
- ✓ Points of Interest (Entry Point, Name, Brand Name, Telephone & Fax Number)
 - ✓ Airline Access
 - ✓ Airport
 - ✓ Car Dealer
 - ✓ City Centre
 - ✓ Ferry Terminal
 - ✓ Frontier Crossing
 - ✓ Government Office
 - ✓ Hospital/Polyclinic
 - ✓ Hotel or Motel
 - ✓ Open Parking Area
 - ✓ Parking Garage
 - ✓ Petrol Station
 - ✓ Post Office
 - ✓ Railway Station
 - ✓ Rent-a-Car Facility
 - ✓ Rent-a-Car Parking
 - ✓ Rest Area
 - ✓ Restaurant
 - ✓ Shopping Centre
 - ✓ Stadium
- ✓ Relationships (e.g. Road Element in Administrative Area, Service in Administrative Area, Road Element in Built-up Area, etc.)

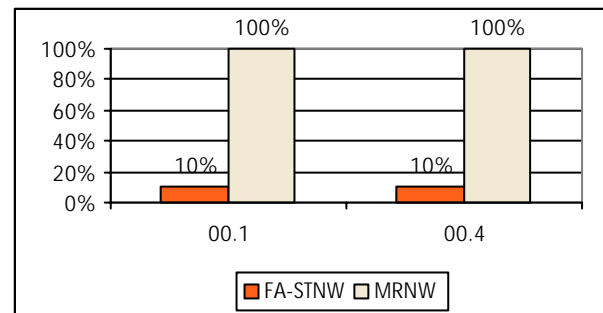
‡ Please note that the contents can differ from region to region

Coverage



| | # of Mun. | % of Pop. |
|---------------------------------|-----------|-----------|
| Street Network Fully Attributed | 2 | 10% |
| Major Road Network | 275 | 100% |
| House Number Ranges | 1 | 7% |

Overview of present and future Coverage



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.

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