

KM50, KM250, KM500, KM1000 - Vektor

Schnittstellenbeschreibung – Version 1.6.1

Dieses Dokument beschreibt die Austauschformate für das Kartographische Modell 1:50 000 – Vektor Wald (KM50-VW) und das Kartographische Modell 1:50 000 - Vektor Höhengschichtlinien (KM50-VH), welche über den BEV Shop PLUS zu beziehen sind, sowie für das Kartographische Modell 1:250 000 - Vektor (KM250-V), das Kartographische Modell 1:500 000 - Vektor (KM500-V) und das Kartographische Modell 1:1 Million – Vektor (KM1000-V), welche jeweils als unentgeltliches Produkt bereit stehen.

| | |
|--|----------|
| 1 Beschreibung..... | 3 |
| 1.1 Kartographisches Modell 1:50 000 – Vektor (KM50-V)..... | 3 |
| 1.1.1 Strukturierung | 3 |
| 1.1.2 Abgabe Shape | 3 |
| 1.2 Kartographisches Modell 1:250 000 - Vektor (KM250-V) | 4 |
| 1.2.1 Strukturierung | 4 |
| 1.2.2 Verkehr | 6 |
| 1.2.3 Gewässer | 10 |
| 1.2.4 Raumgliederung..... | 11 |
| 1.2.5 Siedlung | 12 |
| 1.2.6 Höhengschichtlinien | 13 |
| 1.2.7 Bodenbedeckung..... | 13 |
| 1.2.8 Einzelsignaturen | 14 |
| 1.2.9 Namen | 15 |

| | |
|---|----|
| 1.3 Kartographisches Modell 1:500 000 - Vektor (KM500-V) | 16 |
| 1.3.1 Strukturierung | 16 |
| 1.4 Kartographisches Modell 1:1 Million – Vektor (KM1000-V) | 21 |
| 1.4.1 General structure..... | 21 |

1 Beschreibung

1.1 Kartographisches Modell 1:50 000 – Vektor (KM50-V)

1.1.1 Strukturierung

Wald (KM50-VW)

Entsprechend ihrer topologischen Beziehung sind die Flächenobjekte (Geometrietyp: Fläche) wie folgt strukturiert:

Ebene 1 Waldflächen

Ebene 2 Waldlichtungen innerhalb der Waldflächen von Ebene 1

Ebene 3 Waldflächen innerhalb der Waldlichtungen von Ebene 2

Ebene 4 Waldlichtungen innerhalb der Waldflächen von Ebene 3

Höhenschichtlinien (KM50-VH)

Entsprechend dem Zeichenschlüssel der ÖK50 sind die Höhenlinien (Geometrietyp: Linie) wie folgt strukturiert:

| Kategorie | Beschreibung |
|---------------------------------------|--|
| Haupthöhenschichtlinien | 100 m Höhenschichtlinien |
| Nebenhöhenschichtlinien | 20 m Höhenschichtlinien |
| Zwischenhöhenschichtlinien | 10 m Höhenschichtlinien |
| Vertiefungen | lokale Vertiefungssymbole |
| Zwischenhöhenschichtlinien 25m | 25 m Höhenschichtlinien (Italien) |
| Haupthöhenschichtlinien Tschechien | 50 m Höhenschichtlinien (Originaldaten aus Tschechien) |
| Nebenhöhenschichtlinien Tschechien | 10 m Höhenschichtlinien (Originaldaten aus Tschechien) |
| Zwischenhöhenschichtlinien Tschechien | 5m Höhenschichtlinien (Originaldaten aus Tschechien) |

1.1.2 Abgabe Shape

Wald (KM50-VW)

Das Attribut WALD (Integer) kann die Werte 1 bis 4 entsprechend der Strukturierung wie in Punkt 1.1.1 aufweisen.

Höhenschichtlinien (KM50-VH)

Attribute:

| Attribut | Type | Länge | Attributwert |
|---------------------|--------|-------|--------------------|
| HOEHE | Double | 10/0 | Höhe in [m] |
| HSL_KAT | Text | 20 | „Haupt_HSL“ |
| | | | „Neben_HSL“ |
| | | | „Zwischen_HSL“ |
| | | | „Vertiefung“ |
| | | | „Zwischen_HSL_25m“ |
| | | | „Haupt_HSL (CZ)“ |
| | | | „Neben_HSL (CZ)“ |
| „Zwischen_HSL (CZ)“ | | | |

1.2 Kartographisches Modell 1:250 000 - Vektor (KM250-V)

1.2.1 Strukturierung

Das KM250-V ist in folgende Objektbereiche gegliedert:

- Verkehr
- Gewässer
- Raumgliederung
- Siedlung
- Höhenschichtlinien (inkl. Attribute)
- Bodenbedeckung
- Einzelsignaturen
- Namen

Objektarten:

Verkehr:

| Bezeichnung | Dateiname | Geometrietyp |
|----------------------|-------------------------|--------------|
| Schienerverkehr | SCHIENENVERKEHR.SHP | Linie |
| Autobahn | AUTOBAHN.SHP | Linie |
| Straße 1.Ordnung | STRASSE1ORDNUNG.SHP | Linie |
| Straße 2.Ordnung | STRASSE2ORDNUNG.SHP | Linie |
| Straße 3.Ordnung | STRASSE3ORDNUNG.SHP | Linie |
| Wege | WEGE.SHP | Linie |
| Lifte | LIFTE.SHP | Linie |
| Bahnhof | BAHNHOF.SHP | Punkt |
| Parkplatz-Raststätte | PARKPLATZRSTSTAETTE.SHP | Punkt |
| Flughafensignatur | FLUGHAFENSIGNATUR.SHP | Punkt |
| Flughafenfläche | FLUGHAFENFLAECHE.SHP | Fläche |
| Flughafenlandebahn | FLUGHAFENLANDEBAHN.SHP | Linie |

Gewässer:

| Bezeichnung | Dateiname | Geometriotyp |
|------------------------|-----------------------------|--------------|
| Fluss | FLUSS.SHP | Linie |
| Künstliches Gewässer | KUENSTLICHESGEWAESSER.SHP | Linie |
| Flächenhaftes Gewässer | FLAECHENHAFTESGEWAESSER.SHP | Fläche |
| Gewässersignatur | GEWAESSERSIGNATUR.SHP | Punkt |

Raumgliederung:

| Bezeichnung | Dateiname | Geometriotyp |
|--------------------------------|------------------------|--------------|
| Grenzen | GRENZEN.SHP | Linie |
| Verwaltungseinheit | VERWALTUNGSEINHEIT.SHP | Fläche |
| Flächen_mit_besonderer_Nutzung | FLAECHENBESNUTZUNG.SHP | Fläche |

Siedlung:

| Bezeichnung | Dateiname | Geometriotyp |
|-----------------|----------------------|--------------|
| Siedlungsfläche | SIEDLUNGSFLAECHE.SHP | Fläche |
| Siedlung | SIEDLUNG.SHP | Punkt |
| Industriefläche | INDUSTRIEFLAECHE.SHP | Fläche |

Höhenschichtlinien:

| Bezeichnung | Dateiname | Geometriotyp |
|--------------------|-------------------------|--------------|
| Höhenschichtlinien | HOEHENSCHICHTLINIEN.SHP | Linie |

Bodenbedeckung:

| Bezeichnung | Dateiname | Geometriotyp |
|--------------|------------------|--------------|
| Gletscher | GLETSCHER.SHP | Fläche |
| Bodenbewuchs | BODENBEWUCHS.SHP | Fläche |
| Ödland | OEDLAND.SHP | Fläche |

Einzelsignaturen:

| Bezeichnung | Dateiname | Geometriotyp |
|------------------|----------------------|--------------|
| Gebäudesignatur | GEBAEUDESIGNATUR.SHP | Punkt |
| Naturobjekt | NATUROBJEKT.SHP | Punkt |
| Industrieanlagen | INDUSTRIEANLAGEN.SHP | Punkt |
| Hochbauten | HOCHBAUTEN.SHP | Punkt |
| Kotensignatur | KOTENSIGNATUR.SHP | Punkt |

Namen:

| Bezeichnung | Dateiname | Geometriotyp |
|---------------------|------------------------|--------------|
| Geographische Namen | GEOGRAPHISCHENAMEN.SHP | Punkt |

1.2.2 Verkehr

Schienenverkehr (SCHIENENVERKEHR.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|----------------|------------------|
| NAME | Text | 80 | | |
| BAUART | Text | 25 | mehrgleisig | |
| | | | eingleisig | |
| | | | Schmalspur | |
| | | | Verschiebebahn | |
| | | | Industriegleis | |
| | | | in Bau | |
| LAGE | Text | 3 | TER | Terrestrisch |
| | | | BRU | Brücke |
| | | | TBR | Talbrücke |
| | | | TUN | Tunnel |
| | | | GAL | Galerie |
| | | | N_A | in Bau |

Autobahn (AUTOBAHN.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|--------------------|--|
| KURZBEZ | Text | 10 | | |
| NAME | Text | 80 | | Wenn das Attribut Bauart mit Auf- und Abfahrt belegt ist, wird der Name der Anschlussstelle beigefügt, z.B. Westautobahn #AST Mondsee #AST Anschlussstelle, #HAST ... Halbanchlussstelle #Kn Knoten |
| INT_ROUTE | Text | 20 | | Europastraßennummer bzw. N_A ...nicht anwendbar |
| BAUART | Text | 25 | normal | |
| | | | Teilausbau | |
| | | | getrennte Fahrbahn | |
| | | | Auf- und Abfahrt | |
| | | | in Bau | |
| | | | | |
| LAGE | Text | 3 | TER | Terrestrisch |
| | | | BRU | Brücke |
| | | | TBR | Talbrücke |
| | | | TUN | Tunnel |
| | | | GAL | Galerie |
| | | | N_A | in Bau |
| AUFDRUCK | Text | 10 | rot | |
| | | | orange | |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|------------------|
| | | | gelb | |
| | | | ohne | |

Straße 1.Ordnung (STRASSE1ORDNUNG.SHP) Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|--------------------|--|
| KURZBEZ | Text | 10 | | Kurzbezeichnung der Straße bzw. N_P....nicht erfasst |
| NAME | Text | 80 | | Name der Straße bzw. N_P...nicht erfasst |
| INT_ROUTE | Text | 20 | | Europastraßennummer bzw. N_A ...nicht anwendbar |
| BAUART | Text | 25 | normal | |
| | | | Teilausbau | |
| | | | getrennte Fahrbahn | |
| | | | Auf- und Abfahrt | |
| | | | Ortsgasse | |
| | | | in Bau | |
| LAGE | Text | 3 | TER | Terrestrisch |
| | | | BRU | Brücke |
| | | | TBR | Talbrücke |
| | | | TUN | Tunnel |
| | | | GAL | Galerie |
| | | | N_A | in Bau |
| AUFDRUCK | Text | 10 | rot | |
| | | | orange | |
| | | | gelb | |
| | | | ohne | |

Straße 2.Ordnung (STRASSE2ORDNUNG.SHP) Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|--------------------|--|
| KURZBEZ | Text | 10 | | Kurzbezeichnung der Straße bzw. N_P....nicht erfasst |
| NAME | Text | 60 | | Name der Straße bzw. N_P...nicht erfasst |
| INT_ROUTE | Text | 20 | | Europastraßennummer bzw. N_A ...nicht anwendbar |
| BAUART | Text | 25 | normal | |
| | | | getrennte Fahrbahn | |
| | | | Auf- und Abfahrt | |
| | | | Ortsgasse | |
| LAGE | Text | 3 | TER | Terrestrisch |
| | | | BRU | Brücke |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|--------|------------|------------------|
| | | | TBR | Talbrücke |
| | | | TUN | Tunnel |
| | | | GAL | Galerie |
| AUFDRUCK | Text | 10 | rot | |
| | | orange | | |
| | | gelb | | |
| | | ohne | | |

Straße 3.Ordnung (STRASSE3ORDNUNG.SHP) Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|-----------------------|---|
| KURZBEZ | Text | 10 | | Kurzbezeichnung der Straße bzw. N_P...nicht erfasst |
| NAME | Text | 60 | | Name der Straße bzw. N_P...nicht erfasst |
| INT_ROUTE | Text | 20 | | Europastraßennummer bzw. N_A ...nicht anwendbar |
| BAUART | Text | 25 | normal | |
| | | | getrennte Fahrbahn | |
| | | | Auf- und Abfahrt | |
| | | | Ortsgasse | |
| LAGE | Text | 3 | TER | Terrestrisch |
| | | | BRU | Brücke |
| | | | TBR | Talbrücke |
| | | | TUN | Tunnel |
| | | | GAL | Galerie |
| AUFDRUCK | Text | 10 | rot | |
| | | | orange | |
| | | | gelb | |
| | | | ohne | |

Wege (WEGE.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|------------------|
| BAUART | Text | 25 | Fahweg | |
| | | | Traktorweg | |
| | | | Fußweg | |
| | | | Fähre | |

Lifte (LIFTE.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|---------------------|
| BAUART | Text | 3 | P | Personenbeförderung |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|------------------------|
| | | | S | Sessellift |
| | | | M | Materialeilbahn |
| | | | A | Schrägaufzug |
| | | | T | Schrägaufzug im Tunnel |

Bahnhof (BAHNHOF.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|-------|-------|------------|---|
| NAME | Text | 50 | | Name des Bahnhofs bzw. bei aufgelassenen Bahnhöfen N_P... nicht erfasst |
| FUNKTION | Text | 5 | BHF | Bahnhof |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

Parkplatz-Raststätte (PARKPLATZRASTSTAETTE.SHP) Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|---|
| NAME | Text | 50 | | Name der Parkplatz-Raststätte bzw. N_P... nicht erfasst |
| FUNKTION | Text | 5 | PARK | Parkplatz |
| | | | RAST | Raststätte |

Flughafensignatur (FLUGHAFENSIGNATUR.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|--------|-------|------------|--|
| NAME | Text | 50 | | |
| IATA | Text | 15 | | IATA Code bzw. bei Hubschrauberlandeplätze N_A ... nicht anwendbar |
| ICAO | Text | 15 | | IATA Code bzw. bei Hubschrauberlandeplätze N_A ... nicht anwendbar |
| FUNKTION | Text | 5 | FH | Flughafen |
| NUTZUNG | Text | 15 | zivil | |
| | | | Militär | |
| | | | beides | |
| BEDEUTUNG | Text | 5 | INT | International |
| | | | NAT | National |
| HÖHE | Double | 11/0 | | Höhe in Meter |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

Flughafenfläche (FLUGHAFENFLAECHE.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|--|
| NAME | Text | 50 | | |
| IATA | Text | 15 | | IATA Code bzw. bei Hubschrauberlandeplätze N_A ... nicht anwendbar |
| ICAO | Text | 15 | | IATA Code bzw. bei Hubschrauberlandeplätze N_A ... nicht anwendbar |
| FUNKTION | Text | 5 | FH | Flughafen |
| NUTZUNG | Text | 15 | zivil | |
| | | | Militär | |
| | | | beides | |
| BEDEUTUNG | Text | 5 | INT | International |
| | | | NAT | National |

Flughafenlandebahn (FLUGHAFENLANDEBAHN.SHP) Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|--------------|-------|------------|------------------|
| ZUSTAND | Text | 15 | befestigt | |
| LÄNGE | Long Integer | 8 | | Länge in Meter |

1.2.3 Gewässer

Fluss (FLUSS.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|--------------|--|
| NAME | Text | 50 | | Gewässername bzw. N_P nicht erfasst |
| ART | Text | 15 | normal | |
| | | | unterirdisch | unterirdischer Wasserverlauf |
| | | | fiktiv | gedachter Wasserverlauf |
| KATEGORIE | Text | 5 | 1 | Fluss (>75 km) |
| | | | 2 | Fluss (30-75 km) |
| | | | 3 | Fluss (15-30 km) |
| | | | 4 | Fluss (<15 km) |
| | | | 0 | fiktive Achse des flächenhaften Flusses |

Künstliches Gewässer (KUENSTLICHESGEWAESSER.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|--|
| NAME | Text | 50 | | Gewässername bzw. N_P nicht erfasst |
| ART | Text | 15 | Kanal | |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|-----------------|--|
| | | | Wasserleitung | |
| | | | Aquädukt | |
| | | | Staumauer | |
| BAUART | Text | 20 | schiffbar | Wenn das Attribut Art mit Aquädukt oder Staumauer belegt ist, wird N_A (nicht anwendbar) angefügt. |
| | | | nicht schiffbar | |
| | | | oberirdisch | |
| | | | unterirdisch | |

Flächenhaftes Gewässer (FLAECHENHAFTESGEWAESSER.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|--------------|--|
| NAME | Text | 50 | | Gewässername bzw. N_P nicht erfasst |
| ART | Text | 15 | Fluss | |
| | | | See, Teich | |
| | | | Sumpf | |
| | | | Nasser Boden | |

Gewässersignatur (GEWAESSERSIGNATUR.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|-------|-------|------------|------------------|
| ART | Text | 15 | Wasserturm | |
| | | | Wasserfall | |
| | | | Wehr | |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

1.2.4 Raumgliederung

Grenzen (GRENZEN.SHP)

Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|--------------------------|
| STATUS | Text | 10 | BUND | Bundeslandgrenze |
| | | | LAND | Landesgrenze |
| | | | POLBEZ | Politische Bezirksgrenze |

Verwaltungseinheit (VERWALTUNGS-EINHEIT.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|--------------|-------|------------|------------------|
| NAME | Text | 50 | | Gemeindenamen |
| KENNZAHL1 | Long Integer | 8 | | Landeskennzahl |
| KENNZAHL2 | Long | 8 | | Bezirkskennzahl |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|--------------|-------|------------|------------------|
| | Integer | | | |
| KENNZAH3 | Long Integer | 8 | | Gemeindekennzahl |

Flächen mit besonderer Nutzung (FLAECHEBESNUTZUNG.SHP) Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|--------------------|
| NAME | Text | 50 | | |
| ART | Text | 15 | NP | Nationalpark |
| | | | TP | Truppenübungsplatz |

1.2.5 Siedlung

Siedlungsfläche (SIEDLUNGSFLAECHE.SHP) Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|--|
| NAME | Text | 50 | | |
| NAME2 | Text | 50 | | Name in der Sprache nationaler Minderheiten |
| KATEGORIE | Text | 5 | 1 | Siedlung(>100 000 EW) |
| | | | 2 | Siedlung(25 000-100 000 EW) |
| | | | 3 | Siedlung(5 000-25 000 EW) |
| | | | 4 | Siedlung(2 000-5 000 EW) |
| | | | 5 | Siedlung(< 2 000 EW) |
| | | | 6 | Siedlung(EW unbekannt) |
| | | | 7 | Stadtteil außerhalb der restlichen Stadtfläche |
| HS-STATUS | Text | 15 | Bundes HS | Bundeshauptstadt |
| | | | Landes HS | Landeshauptstadt |
| | | | Bez HS | Bezirkshauptstadt |
| | | | keine | kein Hauptstadt |

Siedlung (SIEDLUNG.SHP) Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|---|
| NAME | Text | 50 | | |
| NAME2 | Text | 50 | | Name in der Sprache nationaler Minderheiten |
| KATEGORIE | Text | 5 | 1 | Siedlung (>100 000 EW) |
| | | | 2 | Siedlung (25 000-100 000 EW) |
| | | | 3 | Siedlung (5 000-25 000 EW) |
| | | | 4 | Siedlung (2 000-5 000 EW) |
| | | | 5 | Siedlung (< 2 000 EW) |
| | | | 6 | Siedlung (EW unbekannt) |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|-------------------|
| HS-STATUS | Text | 15 | Bundes HS | Bundeshauptstadt |
| | | | Landes HS | Landeshauptstadt |
| | | | Bez HS | Bezirkshauptstadt |
| | | | keine | keine Hauptstadt |

Die Siedlungsnamen in der Sprache nationaler Minderheiten (Attribut: NAME2) beinhalten Sonderzeichen, die im Shape Format nicht richtig dargestellt werden.

Daher gilt folgende Umsetzungstabelle:

| | | | | | | | | | | |
|------------------|-----|----|----|----|-----|-----|----|----|-----|----|
| Sonderzeichen | Ć | Č | Ě | Ň | Ó | Ř | Ř | Ů | Ž | Ť |
| Zeichen in Shape | \$C | %C | %E | %N | \$O | \$R | %R | %U | \$Z | %T |

| | | | | | | | | | |
|------------------|-----|----|----|-----|----|-----|----|----|-----|
| Sonderzeichen | ć | č | ě | ň | ň | ó | ř | ů | ý |
| Zeichen in Shape | \$c | %c | %e | \$n | %n | \$o | %r | %u | \$y |

Industriefläche (INDUSTRIEFLAECHE.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|------------------|
| ART | Text | 15 | ID | Industriefläche |

1.2.6 Höhenschichtlinien

Höhenschichtlinien (HOEHENSCHICHT-LINIEN.SHP) Geometriotyp: Linie

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|--------|-------|--------------|------------------|
| HÖHE | Double | 11/0 | | Höhe in Meter |
| KATEGORIE | Text | 15 | Haupt_HSL | HSL 500 |
| | | | Neben_HSL | HSL 100 |
| | | | Zwischen_HSL | HSL 50 |

1.2.7 Bodenbedeckung

Gletscher (GLETSCHER.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|---|
| NAME | Text | 50 | | Name des Gletschers bzw. N_P ... nicht erfasst |
| ART | Text | 15 | GL | Gletscher |

Bodenbewuchs (BODENBEWUCHS.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|------------------|
| ART | Text | 15 | WA | Wald |
| | | | WE | Weingarten |
| | | | OB | Obstbau |
| | | | HO | Hopfen |

Ödland (OEDLAND.SHP)

Geometriotyp: Fläche

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|------------------|
| ART | Text | 15 | FE | Felsen |
| | | | GE | Geröll |

1.2.8 Einzelsignaturen

Gebäudesignatur (GEBAEUDESIGNATUR.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|-------|-------|------------|--|
| ART | Text | 15 | Burg | |
| | | | Kirche | |
| | | | Ruine | |
| | | | Schloss | |
| | | | Schutzhaus | |
| | | | Leuchfeuer | |
| | | | Fabrik | |
| NAME | Text | 50 | | Name des Gebäudes bzw. N_P ... nicht erfasst |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

Naturobjekt (NATUROBJEKT.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|-------|-------|------------|---|
| NAME | Text | 50 | | Name des Naturobjekts bzw. N_P nicht erfasst |
| ART | Text | 15 | Höhle | |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

Industrieanlagen (INDUSTRIEANLAGEN.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|---|
| ART | Text | 15 | Bergwerk | |
| | | | Kraftwerk | |
| | | | Sonde | |
| | | | Tank | |
| ELEMENT | Text | 10 | Wasser | Wenn das Attribut Art mit Bergwerk belegt ist, wird |
| | | | Wärme | |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|-------|-------|------------|------------------------------------|
| | | | Wind | N_A (nicht anwendbar) angefügt. |
| | | | Erdöl/Erdg | |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

Hochbauten (HOCHBAUTEN.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|-------|-------|------------|------------------|
| ART | Text | 15 | Warte | |
| | | | Sender | |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

Kotensignatur (KOTENSIGNATUR.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|--------------|-------|-------------------------|---|
| NAME | Text | 50 | | Name des Berges, Name des Passes bzw. N_P nicht erfasst |
| HÖHE | Long Integer | 8 | | Höhe in Meter |
| LAGE | Text | 30 | kleiner Pass | |
| | | | großer Pass | |
| | | | Kreuzung | |
| | | | Berg | |
| | | | höchste Gebietserhebung | |
| | | | höchste Blatterhebung | |
| sonstige | | | | |
| WINKEL | Float | 5/2 | 0° - 360° | Winkel in Grad |

1.2.9 Namen

Geographische Namen (GEOGRAPHISCHENAMEN.SHP)

Geometriotyp: Punkt

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|--|
| TEXT | Text | 40 | | |
| ART | Text | 20 | Gebiet | |
| | | | Gebirge | |
| | | | Tal | |
| KATEGORIE | Text | 5 | 1 | Gebiet(>50km) / Gebirge(>30km) / Tal(>30km) |
| | | | 2 | Gebiet(15-50km) / Gebirge(15-30km) / Tal(15-30km) |

| Attribute | Type | Länge | Fixer Wert | Wertbeschreibung |
|-----------|------|-------|------------|---|
| | | | 3 | Gebiet(<15km) / Gebirge(<15km) / Tal(<15km) |

1.3 Kartographisches Modell 1:500 000 - Vektor (KM500-V)

1.3.1 Strukturierung

Das KM500-V ist in folgende Objektbereiche gegliedert:

- Bodenbedeckung (Waldfläche und Felsen)
- Geländedarstellung
- Gewässer
- Grenzen (Verwaltung, natürliche und kulturelle Raumgliederung)
- Siedlung
- Verkehr

Objektarten:

Bodenbedeckung:

| Bezeichnung | Dateiname | Geometrietyp |
|----------------|--------------------|--------------|
| Bodenbedeckung | Bodenbedeckung.shp | Fläche |

Geländedarstellung:

| Bezeichnung | Dateiname | Geometrietyp |
|-------------|-----------------|--------------|
| Höhenpunkte | Höhenpunkte.shp | Punkt |
| Höhenlinien | Höhenlinien.shp | Linie |

Gewässer:

| Bezeichnung | Dateiname | Geometrietyp |
|-----------------|---------------------|--------------|
| Gewässerflächen | Gewässerflächen.shp | Fläche |
| Gewässerlinien | Gewässerlinie.shp | Linie |

Grenzen:

| Bezeichnung | Dateiname | Geometrietyp |
|---------------------------------|-------------------------------------|--------------|
| Verwaltungseinheiten Österreich | Verwaltungseinheiten Österreich.shp | Fläche |
| Staatsgrenzen | Staatsgrenzen.shp | Linie |
| Raumgliederung | Raumgliederung.shp | Fläche |

Siedlung:

| Bezeichnung | Dateiname | Geometriertyp |
|------------------|----------------------|---------------|
| Einzelsignaturen | Einzelsignaturen.shp | Punkt |
| Ortssignaturen | Ortssignaturen.shp | Punkt |
| Siedlungsflächen | Siedlungsflächen.shp | Fläche |

Verkehr:

| Bezeichnung | Dateiname | Geometriertyp |
|-----------------|---------------------|---------------|
| Bahnen | Bahnen.shp | Linie |
| Lifte | Lifte.shp | Linie |
| Straßen | Straßen.shp | Linie |
| Verkehrsanlagen | Verkehrsanlagen.shp | Punkt |

Objektbereich Bodenbedeckung:

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--|-----------------------|-----------|------|-------|---------------------------|
| Bodenbedeckung Geometriertyp: Fläche | Waldfläche und Ödland | OBJEKTART | Text | 20 | „Felszeichnung“ „Wald“ |

Objektbereich Geländedarstellung:

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--|---|-----------|------------------|-------|---|
| Höhenpunkte Geometriertyp: Punkt | Höhenpunkte | OBJEKTART | Text | 25 | „Berggipfel“ „Passhöhe“ „sonstige Höhenangabe“ |
| | | HOEHE | Short Integer | 4 | „Wert“ (in Meter) |
| Höhenlinien Geometriertyp: Linie | allgemein Höhen-linien mit 200m Äquidistanz, für die Höhen 100, 300, 500 und 700m auch Hilfshöhenlinien | OBJEKTART | Text | 20 | „HauptHL“ „HauptHL_Gletscher“ „NebenHL“ „NebenHL_Gletscher“ „HilfsHL“ |
| | | HOEHE | Short Integer | 4 | „Wert“ (in Meter) |

Objektbereich Gewässer:

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|---|---|-----------|------|-------|---|
| Gewässerflächen Geometriertyp: Fläche | fließendes, stehendes und gefrorenes Gewässer | OBJEKTART | Text | 25 | „Flussfläche“ „Kanalfäche“ „See“ „Feuchtgebiet“ „Gletscher“ |
| | | NAME | Text | 50 | „Name“ (z.B. Wolfgangsee) „keine Angabe“ |

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--|---------------------|-----------|---------------|-------|--|
| | | NAME_2 | Text | 50 | „Name“ (z.B. Kammersee) „keine Angabe“ |
| | | HOEHE | Short Integer | 4 | „Wert“ (z.B. 1484) „-99“ (= keine Angabe) |
| | | FLAECHE | Short Integer | 4 | „Wert“ (in km ² gerundet) „-99“ (= keine Angabe) |
| Gewässerlinien Geometrietyp: Linie | fließendes Gewässer | OBJEKTART | Text | 25 | „Fluss“ „Kanal“ „Hafen“ |
| | | NAME | Text | 50 | „Name“ (z.B. Ybbs) „keine Angabe“ |
| | | NAME_2 | Text | 50 | „Name“ (z.B. Ois) „keine Angabe“ |
| | | LAGE | Text | 20 | „unterirdisch“ „oberirdisch“ |
| | | BREITE | Text | 8 | „0,1mm“ „0,15mm“ „0,2mm“ „0,3mm“ |

Objektbereich Grenzen:

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--|---|------------|---------------|-------|---|
| Verwaltungseinheiten Österreich Geometrietyp: Fläche | Verwaltungseinheiten auf Österreichischem Staatsgebiet | OBJEKTART | Text | 30 | „Staatsfläche“ „Bundesland“ „Verwaltungsbezirk“ „Gerichtsbezirk“ |
| | | NAME | Text | 30 | „Name“ (z.B. Rust) |
| | | KENNZAHL | Short Integer | 4 | „Wert“ (z.B. 3061) |
| Staatsgrenzen Geometrietyp: Linie | NAME_1 und NAME_2 nennt die beiden Staaten die getrennt werden | OBJEKTART | Text | 30 | „Staatsgrenze Österreich“ „Staatsgrenze Ausland“ |
| | | NAME_1 | Text | 20 | „Name“ (z.B. Ungarn) |
| | | NAME_2 | Text | 20 | „Name“ (z.B. Slowakei) |
| Raumgliederung Geometrietyp: Fläche | Nationalparks, große Gebirge, Täler, Becken und kulturelle Regionen Nationalparks haben für die AUSDEHNUNG keine Angabe | OBJEKTART | Text | 20 | „Gebirge“ „Gebiet“ „Tal, Becken“ „Nationalpark“ |
| | | NAME | Text | 50 | „Name“ (z.B. Karnische Alpen) |
| | | NAME_2 | Text | 50 | „Name“ (z.B. (Alpi Carniche)) „keine Angabe“ |
| | | AUSDEHNUNG | Text | 15 | „>75km“ |

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--------------|--------------|----------|------|-------|--|
| | | | | | „50-80km“ „25-60km“ „15-30km“ „6-20km“ „>10km“ „keine Angabe“ |

Objektbereich Siedlung:

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|---|---------------------------------------|-----------|------------------|-------|---|
| Einzelsignaturen Geometriotyp: Punkt | Diverse Einzelobjekte | OBJEKTART | Text | 50 | „Burg, Schloss“ „Kloster, Kirche“ „Sendemast“ „Wärmekraftwerk“ „Wasserkraftwerk“ |
| | | NAME | Text | 50 | „Name“ (z.B. Kraftwerk Dürnrohr) „keine Angabe“ |
| Ortssignaturen Geometriotyp: Punkt | Ortschaften unter 10 000 Einwohner | OBJEKTART | Text | 25 | „Siedlung klein“ „Siedlung groß“ |
| | | NAME | Text | 50 | „Name“ (z.B. Hornstein) |
| | | NAME_2 | Text | 50 | „Name“ (z.B. (Voriřtan)) „keine Angabe“ |
| | | STATUT | Text | 30 | „Stadt“ „Stadtteil“ „Markt“ „Minderstadt“ „Dorf“ |
| | | EINWOHNER | Long Integer | 7 | „Wert“ (z.B. 1066) „-99“ (= keine Angabe) |
| | | HOEHE | Short Integer | 4 | „Wert“ (in Meter) „-99“ (= keine Angabe) |
| Siedlungsflächen Geometriotyp: Fläche | Ortschaften ab 10 000 Einwohner | OBJEKTART | Text | 30 | „Siedlungsfläche“ „Industriefläche“ |
| | | NAME | Text | 50 | „Name“ (z.B. Bratislava) „keine Angabe“ |
| | | NAME_2 | Text | 50 | „Name“ (z.B. (Preßburg)) „keine Angabe“ |
| | | STATUT | Text | 30 | „Stadt“ „Stadtteil“ „Markt“ „Dorf“ „keine Angabe“ (= nur für Industrieflächen) |
| | | EINWOHNER | Long Integer | 7 | „Wert“ (z.B. 90475) „-99“ (= nur für |

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--------------|--------------|----------|------------------|-------|---|
| | | | | | Industrieflächen) |
| | | HOEHE | Short Integer | 4 | „Wert“ (in Meter) „-99“ (= keine Angabe) |

Objektbereich Verkehr:

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|---|--|-----------|-----------------|-------|---|
| Verkehrsanlagen Geometriotyp: Punkt | Internat. Flughäfen, Bahnhöfe, Anschlussstellen von Autobahn und Schnellstraße, und niveaugleiche Bahn-Straßenkreuzung | OBJEKTART | Text | 30 | „Anschlussstellen“ „Bahnhof“ „Flughafen“ „Bahn-Straßenkreuzung“ |
| | | NAME | Text | 50 | „Name“ (z.B. Wien/Schwechat) keine Angabe |
| | | WINKEL | Long Integer | 10 | „Wert“ (z.B. 359) |
| Bahnen Geometriotyp: Linie | öffentliche und private Normal- und Schmalspurbahnen | OBJEKTART | Text | 30 | „Bahn mehrgleisig“ „Bahn eingleisig“ |
| | | SPURWEITE | Text | 20 | „Normalspur“ „Schmalspur“ „Breitspur“ |
| | | LAGE | Text | 25 | „ebenerdig oder Brücke“ „Tunnel“ „Tunnel tief“ |
| | | ZUSTAND | Text | 15 | „im Betrieb“ „im Bau“ |
| Bahnen Geometriotyp: Linie | Standseilbahnen, Kabinenseilbahnen > 1,5km Länge und Sessellifte > 3km Länge | OBJEKTART | Text | 30 | „Standseilbahn“(Schrägaufzug) „Seilbahn“ „Sessellift“ |
| | | SPURWEITE | Text | 20 | „Normalspur“ „Schmalspur“ „Breitspur“ „keine Angabe“ (für Seilbahn, und Sessellift) |
| | | LAGE | Text | 25 | „ebenerdig oder Brücke“ „Tunnel“ „Tunnel tief“ „über Grund“ (für Seilbahn und Sessellift) |
| Straßen Geometriotyp: Linie | Autobahnen, Schnellstraßen und bedeutende Straßen Fahr- und Fußwege mit wichtiger | OBJEKTART | Text | 30 | „Autobahn“ „Autobahn schmal „ (richtungsgetrent) „Schnellstraße“ „Schnellstraße schmal“ (richtungsgetrent) |

| Objektklasse | Beschreibung | Attribut | Type | Länge | mögl. Attributwerte |
|--------------|--|----------|------|-------|--|
| | Verbindungsfunktion Autofähren über Seen oder Flüsse | | | | „Straße 1“ „Straße 1 schmal“ (richtungsgetrent) „Ortsstraße 1“ „Straße 2“ „Straße 2 schmal“ (richtungsgetrent) „Ortsstraße 2“ „Straße 3“ „Ortsstraße 3“ „Fahrweg“ „Fußweg“ „Fährlinie“ |
| | | KURZBEZ | Text | 20 | „Name“ (z.B. A22) „keine Angabe“ |
| | | LAGE | Text | 15 | „Terrestrisch“ „Tunnel“ „Tunnel tief“ „Brücke“ „Brücke hoch“ „am Gewässer“ |
| | | ZUSTAND | Text | 15 | „im Betrieb“ „im Bau“ |

1.4 Kartographisches Modell 1:1 Million – Vektor (KM1000-V)

1.4.1 General structure

1.4.1.1 About KM1000-V

Data of KM1000-V is the Austrian part of EuroGlobalMap (EGM) the pan-European vector dataset at small scale. EGM Database is intended to be used in map scale 1:1 000 000. Detailed specifications are described in [EGMspec3-0se.pdf](#). This document is a summary of the most relevant specifications.

1.4.1.2 Data format and file table

Data of KM1000-V is stored in these files:

| Shape Files | Description | Type |
|-------------------------|--------------------|-------|
| KM1000_AIRFLD_POINT.shp | Airport / Airfield | Point |

| Shape Files | Description | Type |
|---------------------------|--------------------------------|--------------|
| KM1000_DAM_LINE.shp | Dam/ Weir | Line |
| KM1000_ELEV_POINT.shp | Height point | Point |
| KM1000_GLACIER_AREA.shp | Glacier | Area |
| KM1000_ISLAND_AREA.shp | Island | Area |
| KM1000_LAKE_AREA.shp | Lake | Area |
| KM1000_NAME_POINT.shp | Named location | Point |
| KM1000_POLBND_AREA.shp | Administrative area | Area |
| KM1000_POLBND_LINE.shp | Administrative boundary | Line |
| KM1000_RAILRD_NODE.shp | Railway station | Point (Node) |
| KM1000_RAILRD_LINE.shp | Railway | Line |
| KM1000_RESERVOIR_AREA.shp | Reservoir | Area |
| KM1000_ROAD_LINE.shp | Road | Line |
| KM1000_BUILTUP_AREA.shp | Built-up area | Area |
| KM1000_BUILTUP_POINT.shp | Built-up point | Point |
| KM1000_SPRING_NODE.shp | Spring/ Water hole (connected) | Point (Node) |
| KM1000_WATRCRS_AREA.shp | Watercourse | Area |
| KM1000_WATRCRS_LINE.shp | Watercourse | Line |

| Info Tables | Description |
|---------------|--|
| ADMIN_ISN.dbf | This table includes the names of the administrative hierarchy levels |
| EGM_CHR.dbf | This table describes the national character sets used for each language. |
| SHN_NAM.dbf | The table includes the names of the units of all administrative levels. |

1.4.1.3 Elevation

Some features have height or depth values stored as attributes. Elevation values are stored in meters. The differences between national vertical datums are ignored and the elevation values will be taken to be in reference to the Mean Sea Level.

1.4.1.4 Description of Attributes

KM1000_airfld_point

Airport/ Airfield

Definition: A defined area used for landing, take-off, and movement of aircraft including associated buildings and facilities

EGM - Feature class: AirfldP

Feature type: Point

Primitive type: Isolated node

Portrayal criteria: All airports having regular passenger traffic.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|--|
| FCODE | FACC feature code | GB005 Airport/ Airfield |
| USE | Usage | 0 Unknown 4 National (Only domestic flights) 23 International (Only international or domestic and international flights) 998 Not applicable |
| IKO | ICAO 4-letter designator. International Civil Aviation Organization location identifier as designated in ICAO document 7910. | UNK Unknown N_A Not applicable |
| IAT | IATA 3-letter designator. | UNK Unknown N_A Not applicable |
| ZV3 | Airfield elevation | 1245 (Example) -29999 Unknown -29997 Unpopulated |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | FIN (Example) Finnish N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | SWE (Example) Swedish N_A Not applicable |

KM1000_dam_line

Dam/ Weir

Definition: A permanent barrier across a watercourse used to impound water or to control its flow.

EGM - Feature class: DamL

Feature type: Line

Primitive type: Edge

Portrayal criteria: Dams with remarkable national meaning or longer than 2000 meters.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|-------------------|---|
| FCODE | FACC feature code | BI020 Dam / Weir |

KM1000_elev_point

Height point

Definition: A designated location with an elevation value relative to a vertical datum.

EGM - Feature class: ElevP

Feature type: Point

Primitive type: Isolated node

Portrayal criteria: 1 - 30 remarkable height points for each country. At least the highest point of the country.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|---|
| FCODE | FACC feature code | CA030 Height point |
| ZV2 | Elevation above a given datum to the highest portion of the feature. | 1245 (Example) -29999 Unknown |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_P Unpopulated N_A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_P Unpopulated N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown Päijänne (E N_P Unpopulated N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_P Unpopulated N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | FIN (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | DAN (Example) N_A Not applicable |

KM1000_glacier_area

Glacier

Definition: A large mass of snow and ice moving slowly down a slope or valley from above the snowline.

EGM - Feature class: LandiceA

Feature type: Area

Primitive type: Face

Portrayal criteria: Glaciers larger than 3 km².

| Attribute | Definition | Value/Code or Example Value description |
|-----------|------------------------------------|---|
| FCODE | FACC feature code | BJ030 Glacier |
| NAMN1 | Name of the feature in the primary | UNK Unknown |

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| | language with the national characters. | N_A Not applicable N_P Unpopulated |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable N_P Unpopulated |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable N_P Unpopulated |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable N_P Unpopulated |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | LIT (Example) N_A Not applicable |

KM1000_island_area

Island

Definition: A land mass smaller than a continent and surrounded by water

EGM - Feature class: IslandA

Feature type: Area

Primitive type: Face

Portrayal criteria: Islands larger than 3 km². Smaller islands in water area can be portrayed if considered as landmark because containing an important settlement, etc.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|---|
| FCODE | FACC feature code | BA030 Island |
| NAMN1 | Name feature in first national language | UNK Unknown N_A Not applicable |
| NAMN2 | Name of feature in second national language | UNK Unknown N_A Not applicable |
| NAMA1 | Name of feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | CES (Example) N_A Not applicable |

KM1000_lake_area

Lake

Definition: A body of water surrounded by land.

EGM - Feature class: LakeresA

Feature type: Area

Primitive type: Face

Portrayal criteria: Lakes larger than 0.5 km². Lakes being part of the water network have to be topologically connected to watercourses.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|--|
| FCODE | FACC feature code | BH080 Lake |
| HYC | Hydrological category. Identifies the annual water content of the feature. | 0 Unknown 6 Non-Perennial/Intermittent/Fluctuating 8 Perennial/Permanent 998 Not applicable |
| NHI | National hydrological identification code. First two characters are the 2-character country code. | N_P Unpopulated N_A Not applicable |
| ZV2 | Highest Z-value. Elevation above a given datum to the highest portion of the water body (= surface of water body) in meters. | 1245 (Example) -29999 Unknown -29997 Unpopulated |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | CES (Example) N_A Not applicable |

KM1000_name_point

Named location

Definition: A geographic place on the earth, not normally appearing as a feature on a map, but having a name that is required to be placed on a map.

EGM - Feature class: NameP

Feature type: Point

Primitive type: Isolated node

Portrayal criteria: Cartographic text needed for named place at scale 1:1 000 000 that cannot be put into attributes or features.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|---|
| FCODE | FACC feature code | ZD040 Named location |
| CNL | Category code for the named location | 10 Boundaries 20 Hydrography 21 Sea or part of the sea 22 Bay 23 Fjord 24 Part of a lake 25 Marsh/Swamp or wetland 26 Sandbank, sea area 27 Beach 30 Miscellaneous 40 Settlement and named location 41 Settlement 42 Mountain range 43 Highland 44 Plain 45 Valley 46 Name of region 47 Headland / peninsular 48 Gorge 49 Peak 50 Transportation and infrastructure 60 Vegetation and soil 61 Ground surface element 62 Agricultural area, plantation 63 Woods / forest |
| NAMN1 | Name of the feature in the primary language with the national characters. | Jura (Example) |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | Jura (Example) |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | NOR (Example) |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | FIN (Example) N_A Not applicable |

KM1000_polbnd_area

Administrative area

Definition: An area controlled by administrative authority.

EGM - Feature class: PolbndA

Feature type: Area

Primitive type: Face

Portrayal criteria: Each administrative unit consists of one main area and occasionally of one main area with exclave(s). Exclaves bigger than 3 km² included. If a country has national administrative levels below a country level, then the lowest level in EU-countries is a level equivalent to NUTS3 level and in other countries the lowest level is comparable to this level.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| FCODE | FACC feature code | FA001 Administrative area |
| TAA | Type of the administrative area | 0 Unknown 1 Mainland 3 Exclave or island 4 Condominium 7 Water only |
| SHN0 | Id-code of country-level (ISO 3166 Nation Code + number of zeros, so that fields SHN0 – SHN4 have equal width). | FI000000 (Example) XXYY0000 (Example) For in dispute areas between countries XX and YY |
| SHN1 | ID Code of 1st order administrative unit. | FI600000 (Example) N_A Not applicable (if country has no more than the country level in EGM) |
| SHN2 | ID Code of 2nd order administrative unit. | FI108000 (Example) N_A Not applicable (if country has no more than the 1st order national level in EGM) |
| SHN3 | Id-code of the 3rd order administrative unit. | DE010053000000 (Example) N_A Not applicable (if country has no more than the 2nd order national level in EGM) |
| SHN4 | Id-code of the 4th order administrative unit. | GB11QL0000 (Example) N_A Not applicable (if country has no more than the 3rd order national level in EGM) |

KM1000_polbnd_line

Administrative boundary

Definition: A line of demarcation between controlled areas.

EGM - Feature class: POLBNDL

Feature type: Line

Primitive type: Edge

Portrayal criteria: Boundary of an entity controlled by an administrative authority, this entity can be composed of several areas. All international boundaries.

If a country has national administrative levels below a country level, then in EU countries all levels from country level to a level equivalent to NUTS3 are stored and in other countries all levels from country level to a comparable level (i.e. LEVEL4 for CEEC countries) are stored. This

feature type is used also to close the administrative areas in those cases, when the location of the real international boundary is not stored on sea area.

Quality criteria: International boundaries have to be geometrically consistent with topographical features (mainly the hydrographical ones). Geometrical consistency is recommended at lower level.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| FCODE | FACC feature code | FA000 Administrative boundary |
| USE | Usage. Code indicates the level of administration in the country's hierarchy. | 23 International boundary 26 1st order national boundary 30 2nd order national boundary 31 3rd order national boundary 111 4th order national boundary 981 For all lines closing the administrative units in those cases, where the international boundary is not portrayed in the dataset. |
| BST | Boundary status type | 1 Definite 2 Indefinite 3 In Dispute -32768 Null/No value (for USE = 984) |

KM1000_railrd_node

Railway station

Definition: A stopping place for the transfer of passengers and/or freight.

EGM - Feature class: RailrdC

Feature type: Point

Primitive type: Connected node

Portrayal criteria: Important main railway stations used for regular passenger traffic inside or near settlements.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|---|
| FCODE | FACC feature code | AQ125 Railway station |
| NAMN1 | Name feature in first national language | UNK Unknown N_A Not applicable |
| NAMN2 | Name of feature in second national language | UNK Unknown N_A Not applicable |
| NAMA1 | Name of feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | FRE (Example) N_A Not applicable |

KM1000_railrd_line

Railway

Definition: A rail or set of parallel rails on which a train or tram runs.

EGM - Feature class: RailrdL

Feature type: Line

Primitive type: Edge

Portrayal criteria: Railway routes used for regular transportation of goods and passengers.

Important industry railways can be included. Metro lines (= underground urban railways), tram lines or streetcar lines inside city areas are excluded.

Railways are represented by one line regardless of the number of tracks.

Railway yards are excluded. Railway lines shorter than 2 km are excluded.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|--|
| FCODE | FACC feature code | AN010 Railway |
| EXS | Existence Category (the state or condition of the feature). | 0 Unknown 5 Under construction 6 Abandoned/Disused 28 Operational |
| LOC | Location category. Status of feature relative to surrounding area or water. | 0 Unknown 8 On ground surface 25 Suspended or elevated above ground or water surface (= bridge length more than 1000 m.) 40 Underground (= tunnel length more than 2000 m.) |
| RSU | Seasonal availability. | 0 Unknown 1 All year 2 Seasonal 997 Unpopulated |
| FCO | Feature configuration (code for the number of tracks) | 0 Unknown 2 Multiple 3 Single |
| RRA | Railway power source. | 0 Unknown 1 Electrified track 3 Overhead electrified 4 Non-electrified |
| GAW | Gauge width (cm). The width of a single pair of rails, measured along the shortest distance from inside rail to inside rail. | 0 Unknown 143 (Example) 143 centimeters (actual value) -29999 Unknown -29997 Unpopulated -29998 Not applicable for 'monorails' |
| RGC | Railway gauge category. | 0 Unknown 1 Broad (broader than 1435 mm) 2 Narrow (narrower than 1435 mm) 3 Normal (European 1435 mm) 998 Not applicable for "monorails" |

KM1000_reservoir_area

Reservoir

Definition: A man-made enclosure or area formed for the storage of water

EGM - Feature class: LakeresA

Feature type: Area

Primitive type: Face

Portrayal criteria: Reservoirs larger than 0.5 km². Reservoirs being part of the water network have to be topologically connected to watercourses.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|--|
| FCODE | FACC feature code | BH130 Reservoir |
| HYC | Hydrological category. Identifies the annual water content of the feature. | 0 Unknown 6 Non-Perennial/Intermittent/Fluctuating 8 Perennial/Permanent 998 Not applicable |
| NHI | National hydrological identification code. First two characters are the 2-character country code. | N_P Unpopulated N_A Not applicable |
| ZV2 | Highest Z-value. Elevation above a given datum to the highest portion of the water body (= surface of water body) in meters. | 1245 (Example) -29999 Unknown -29997 Unpopulated |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | FIN (Example) N_A Not applicable |

KM1000_road_line

Road

Definition: An open way maintained for vehicular use

EGM - Feature class: RoadL

Feature type: Line

Primitive type: Edge

Portrayal criteria: Roads that form up a logical transportation network at a map scale 1:1 000000. Roads can be omitted for cartographic reasons in those areas where the road

network is very dense. Low-class roads can be added if these roads are important routes in settlement structure. Roads are represented by one line regardless of the number of lanes or carriageways. Road lines shorter than 2 km are excluded. All European roads (E-roads) are included.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| FCODE | FACC feature code | AP030 Road |
| EXS | Existence Category (the state or condition of the feature). | 0 Unknown 5 Under construction 6 Abandoned/Disused 28 Operational |
| LOC | Location category. Status of feature relative to surrounding area or water. | 0 Unknown 8 On ground surface 25 Suspended or elevated above ground or water surface (= bridge length more than 1000 m.) 40 Underground (= tunnel length more than 2000 m.) |
| RSU | Seasonal availability. | 0 Unknown 1 All year 2 Seasonal 997 Unpopulated |
| RTT | Intended use of the route. | 0 Unknown 14 Primary route (= major, long-distance road) 15 Secondary route (= regional road) 16 Limited access route (= motorway) 984 Local road |
| MED | Median category. | 0 Unknown 1 With median 2 Without median |
| RST | Road surface type. | 0 Unknown 1 Paved 2 Unpaved |
| RTN | Official national route number. | UNK Unknown A1#A45 (Example) If more than one official national route number (# = delimiter) N_A Not applicable |
| RTE | Route number (national) | UNK Unknown E18#E35 (Example) If more than one official national route number (# = delimiter) N_A Not applicable |

KM1000_buildup_area

Built-up area

Definition: An area containing a concentration of buildings and other structures.

EGM - Feature class: BuiltupA

Feature type: Area

Primitive type: Face

Portrayal criteria: All built-up areas with equal or more than 50 000 inhabitants AND total size minimum 0.3 km². Minimum size of a discrete area: 0.3 km² (when the same built-up area is splitted to parts). Area 0.3 km² is used as only criteria when the number of inhabitants is unknown.

Certain seamless (= compound) built-up areas can be split into separate parts with common borderlines if it is possible to attach a respective number of inhabitants (expressed by actual or class values) to each area separately. In that case all parts of this certain built-up area are represented as closed areas even if the number of inhabitants of a single part is less than 50 000. Also actual names of each part can be stored. If it's not possible to separate the number of inhabitants, then this certain built-up area is stored unsplit as one area and names of the sub-areas can be stored separated with slash / like: Namex/Namey/Namez

When a certain city is represented as several separated parts, then all these areas have the same name of this city and the same number of inhabitants is stored to every part of this certain city.

An area which does not fulfil the conditions named in the specs but is closed and surrounded by one or several other features of the coverage is called background area (= "hole").

Background areas or sparsely populated areas surrounded by built-up areas smaller than 5 km² (inside built-up areas) are merged to the surrounding built-up areas.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|---|
| FCODE | FACC feature code | AL020 Built-up area |
| PPL | Populated Place Category (actual population number). The number of inhabitants within a built-up area. Unit = 1 inhabitant. | 225 430 (Example) -29999 Unknown -29997 Unpopulated (used when PP1 and PP2 are populated) |
| PP1 | Population lower range. This attribute is used when the actual number of inhabitants is not known but the number of people is expressed using lower range (PP1) and upper range (PP2) values. Each data provider can use its own values to define the population categories. Unit=1 inhabitant | 20000 (Example) -29999 Unknown -29997 Unpopulated (when actual number of inhabitants is stored into PPL) |
| PP2 | Population upper range. This attribute is used when the actual number of inhabitants is not known but the number of people is expressed using lower range (PP1) and upper range (PP2) values. Each data provider can use its own values to define the population categories. Unit=1 inhabitant | 50000 (Example) -29999 Unknown -29997 Not applicable (when actual number of inhabitants is stored into PPL) |

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|---|
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | FIN (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | EST (Example) N_A Not applicable |

KM1000_builtup_point

Built-up area

Definition: An area containing a concentration of buildings and other structures.

EGM - Feature class: BuiltupP

Feature type: Point

Primitive type: Isolated node

Portrayal criteria: All built-up areas with 1 000 – 50 000 inhabitants OR total size less than 0.3 km² (despite the number of inhabitants)

Built-up areas which have less than 1000 inhabitants but are main villages or cities of the regional/local administrative units are included. In that case it should be taken care that all regional/local administrative units have at least main village or city. If the number of inhabitants is not known, then the selection criterion is size less than 0.3 km².

| Attribute | Definition | Value/Code or Example Value description |
|-----------|--|---|
| FCODE | FACC feature code | AL020 Built-up area |
| PPL | Populated Place Category (actual population number). The number of inhabitants within a built-up area. Unit = 1 inhabitant. | 225 780 (Example) -29997 Unpopulated (used when PP1 and PP2 are populated) -29999 Unknown |
| PP1 | Population lower range. This attribute is used when the actual number of inhabitants is not known but the number of people is expressed using lower range (PP1) and upper range (PP2) values. Each data provider can use its own values to define the population categories. Unit=1 inhabitant | 10000 (Example) -29999 Unpopulated -29997 Not applicable (when actual number of inhabitants is stored into PPL) |
| PP2 | Population upper range. This attribute is used when the actual number of inhabitants is not known but the number | 25000 (Example) -29999 Unknown |

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| | of people is expressed using lower range (PP1) and upper range (PP2) values. Each data provider can use its own values to define the population categories. Unit=1 inhabitant | -29997 Not applicable (when actual number of inhabitants is stored into PPL) |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | ITA (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for NAMN2 | ROH (Example) N_A Not applicable |

KM1000_spring_node

Spring/ Water hole

Definition: A natural outflow of water from below the ground surface.

EGM - Feature class: SpringC

Feature type: Point

Primitive type: Connected node

Portrayal criteria: Springs that are considered as landmark by their location or size, or have a tourist interest and that are not related to the water network.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|-------------------|---|
| FCODE | FACC feature code | BH170 Spring/ Water hole |
| SWT | Spring type | 0 Unknown 1 Geyser 2 Hot Spring 3 Fumaroles 999 Other |

KM1000_watrcrs_area

Watercourse

Definition: A natural or man-made flowing watercourse or stream.

EGM - Feature class: WatrcrsA

Feature type: Area

Primitive type: Face

Portrayal criteria: Watercourse with width >= 500 m.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| FCODE | FACC feature code | BH 502 |
| HYC | Hydrological category. Identifies the annual water content of the feature. | 0 Unknown 3 Dry 6 Non-Perennial/Intermittent/Fluctuating 8 Perennial/Permanent 998 Not applicable |
| HOC | Hydrographic origin category | 0 Unknown 4 Man-made 5 Natural |
| EXS | Existence category | 0 Unknown 5 Under construction (for man-made) 724 Navigable and operational 998 Not applicable (for non-navigability) |
| NHI | National hydrological identification code. First two characters are the 2-character Country code. | H08976 (Example) N_P Unpopulated N/A Not applicable |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for the secondary language. | SWE (Example) N_A Not applicable |

KM1000_watcrs_line

Watercourse

Definition: A natural or man-made flowing watercourse or stream.

EGM - Feature class: WatcrsL

Feature type: Line

Primitive type: Edge

Portrayal criteria: Watercourse with width >10-20 m and < 500 m.

| Attribute | Definition | Value/Code or Example Value description |
|-----------|------------------------------------|---|
| FCODE | FACC feature code | BH 502 |
| WIC | Width category of the watercourse. | 0 Unknown |

| Attribute | Definition | Value/Code or Example Value description |
|-----------|---|--|
| | | 1 Width less or equal than 125 m. 2 Width more than 125 m. 997 Unpopulated |
| HYC | Hydrological category. Identifies the annual water content of the feature. | 0 Unknown 3 Dry 6 Non-Perennial/Intermittent/Fluctuating 8 Perennial/Permanent 997 Unpopulated |
| LOC | Location category. Status of feature relative to surrounding area. | 0 Unknown 8 On ground surface 25 Suspended or elevated above ground or water surface (for canals on bridges) 40 Underground 984 Fictitious axes through water areas 997 Unpopulated |
| HOC | Hydrographic origin category | 0 Unknown 4 Man-made 5 Natural 997 Unpopulated |
| EXS | Existence category | 0 Unknown 5 Under construction (for man-made) 724 Navigable and operational 997 Unpopulated 998 Not applicable (for non-navigability) |
| NHI | National hydrological identification code. | H08976 (Example) N_P Unpopulated N/A Not applicable |
| NAMN1 | Name of the feature in the primary language with the national characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NAMN2 | Name of the feature in the secondary language with the national characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NAMA1 | Name of the feature in the primary language with the ASCII characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NAMA2 | Name of feature in the secondary language with the ASCII characters. | UNK Unknown N_P Unpopulated (possible only for fictitious axes) N/A Not applicable |
| NLN1 | ISO 639-2/B 3-char Language Code for NAMN1 | GER (Example) N_A Not applicable |
| NLN2 | ISO 639-2/B 3-char Language Code for the secondary language. | SWE (Example) N_A Not applicable |