

KM50, KM250, KM500, KM1000 - Vektor

Schnittstellenbeschreibung

Version 1.5

1 Allgemeines

Dieses Dokument beschreibt die Austauschformate für das Kartographische Modell 1:50 000 – Vektor Wald (KM50-VW) und das Kartographische Modell 1:50 000 - Vektor Höhenschichtlinien (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.

2 Beschreibung

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

2.1.1 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)

2.1.2 Abgabe Shape

Wald (KM50-VW)

Das Attribut WALD (Integer) kann die Werte 1 bis 4 entsprechend der Strukturierung wie in Punkt 3.1.1 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)“

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

2.2.1 Strukturierung

Das KM250-V ist in folgende Objektbereiche gegliedert:

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

Objektarten:

Verkehr:

Bezeichnung	Dateiname	Geometrietyp
Schienenverkehr	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	PARKPLATZRASTSTAETTE.SHP	Punkt
Flughafensignatur	FLUGHAFENSIGNATUR.SHP	Punkt

Flughafenfläche	FLUGHAFENFLAECHE.SHP	Fläche
Flughafenlandebahn	FLUGHAFENLANDEBAHN.SHP	Linie

Gewässer:

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

Raumgliederung:

Bezeichnung	Dateiname	Geometrietyp
Grenzen	GRENZEN.SHP	Linie
Verwaltungseinheit	VERWALTUNGSEINHEIT.SHP	Fläche
Flächen_mit_besonderer_Nutzung	FLAECHENBESNUTZUNG.SHP	Fläche

Siedlung:

Bezeichnung	Dateiname	Geometrietyp
Siedlungsfläche	SIEDLUNGSFLAECHE.SHP	Fläche
Siedlung	SIEDLUNG.SHP	Punkt
Industriefläche	INDUSTRIEFLAECHE.SHP	Fläche

Höhenschichtlinien:

Bezeichnung	Dateiname	Geometrietyp
Höhenschichtlinien	HOEHENSCHICHTLINIEN.SHP	Linie

Bodenbedeckung:

Bezeichnung	Dateiname	Geometrietyp
Gletscher	GLETSCHER.SHP	Fläche
Bodenbewuchs	BODENBEWUCHS.SHP	Fläche
Ödland	OEDLAND.SHP	Fläche

Einzelsignaturen:

Bezeichnung	Dateiname	Geometrietyp
Gebäudesignatur	GEBAEUDESIGNATUR.SHP	Punkt
Naturobjekt	NATUROBJEKT.SHP	Punkt
Industrieanlagen	INDUSTRIEANLAGEN.SHP	Punkt
Hochbauten	HOCHBAUTEN.SHP	Punkt
Kotensignatur	KOTENSIGNATUR.SHP	Punkt

Namen:

Bezeichnung	Dateiname	Geometrietyp
Geographische Namen	GEOGRAPHISCHENAMEN.SHP	Punkt

2.2.2 Verkehr

Schienenverkehr				Geometrietyp
SCHIENENVERKEHR.SHP				Linie
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
NAME	Text	80		
BAUART	Text	25	mehrgleisig	
			eingleisig	
			Schmalspur	
			Verschiebebahn	
			Industriegleis	
LAGE	Text	3	in Bau	
			TER	Terrestrisch
			BRU	Brücke
			TBR	Talbrücke
			TUN	Tunnel
			GAL	Galerie
			N_A	in Bau

Autobahn				Geometrietyp
AUTOBAHN.SHP				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 ... Halbanschlussstelle #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
AUFDRUCK	Text	10	N_A	in Bau
			rot	
			orange	
			gelb	
			ohne	

Strasse 1.Ordnung				Geometrietyp
STRASSE1ORDNUNG.SHP				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				Geometrietyp
STRASSE2ORDNUNG.SHP				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	

Strasse 3.Ordnung				Geometrietyp
STRASSE3ORDNUNG.SHP				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				Geometrietyp
WEGE.SHP				Linie
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
BAUART	Text	25	Fahrweg	
			Traktorweg	
			Fußweg	
			Fähre	

Lifte				Geometrietyp
LIFTE.SHP				Linie
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
BAUART	Text	3	P	Personenbeförderung
			S	Sessellift
			M	Materialeilbahn
			A	Schrägaufzug
			T	Schrägaufzug im Tunnel

Bahnhof				Geometrietyp
BAHNHOF.SHP				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				Geometrietyp
PARKPLATZRASTSTAETTE.SHP				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				Geometrietyp
FLUGHAFENSIGNATUR.SHP				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				Geometrietyp
FLUGHAFENFLAECHE.SHP				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				Geometrietyp
FLUGHAFENLANDEBAHN.SHP				Linie
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
ZUSTAND	Text	15	befestigt	
LÄNGE	Long Integer	8		Länge in Meter

2.2.3 Gewässer

Fluss				Geometrietyp
FLUSS.SHP				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				Geometrietyp
KUENSTLICHESGEWAESSER.SHP				Linie
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
NAME	Text	50		Gewässername bzw. N_P nicht erfasst
ART	Text	15	Kanal	
			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				Geometrietyp
FLAECHENHAFTESGEWAESSER.SHP				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				Geometrietyp
GEWAESSERSIGNATUR.SHP				Punkt
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
ART	Text	15	Wasserturm	
			Wasserfall	
			Wehr	
WINKEL	Float	5/2	0° - 360°	Winkel in Grad

2.2.4 Raumgliederung

Grenzen				Geometrietyp
GRENZEN.SHP				Linie
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
STATUS	Text	10	BUND	Bundeslandgrenze
			LAND	Landesgrenze
			POLBEZ	Politische Bezirksgrenze

Verwaltungseinheit				Geometrietyp
VERWALTUNGSEINHEIT.SHP				Fläche
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
NAME	Text	50		Gemeindenamen
KENNZAH1	Long Integer	8		Landeskennzahl
KENNZAH2	Long Integer	8		Bezirkskennzahl
KENNZAH3	Long Integer	8		Gemeindekennzahl

Flächen mit besonderer Nutzung				Geometrietyp
FLAECHENBESNUTZUNG.SHP				Fläche
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
NAME	Text	50		
ART	Text	15	NP	Nationalpark
			TP	Truppenübungsplatz

2.2.5 Siedlung

Siedlungsfläche				Geometrietyp
SIEDLUNGSFLAECHE.SHP				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				Geometrietyp
SIEDLUNG.SHP				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)
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	Ő	Ř	Ř	Ů	Ž	Ť
Zeichen in Shape	\$C	%C	%E	%N	\$O	\$R	%R	%U	\$Z	%T

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

Industriefläche				Geometrietyp
INDUSTRIEFLAECHE.SHP				Fläche
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
ART	Text	15	ID	Industriefläche

2.2.6 Höhenschichtlinien

Höhenschichtlinien				Geometrietyp
HOEHENSCHICHTLINIEN.SHP				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

2.2.7 Bodenbedeckung

Gletscher				Geometrietyp
GLETSCHER.SHP				Fläche
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
NAME	Text	50		Name des Gletschers bzw. N_P ... nicht erfasst
ART	Text	15	GL	Gletscher

Bodenbewuchs				Geometrietyp
BODENBEWUCHS.SHP				Fläche
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
ART	Text	15	WA	Wald
			WE	Weingarten
			OB	Obstbau
			HO	Hopfen

Ödland				Geometrietyp
OEDLAND.SHP				Fläche
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
ART	Text	15	FE	Felsen
			GE	Geröll

2.2.8 Einzelsignaturen

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

Naturobjekt				Geometrietyp
NATUROBJEKT.SHP				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				Geometrietyp
INDUSTRIEANLAGEN.SHP				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 N_A (nicht anwendbar) angefügt.
			Wärme	
			Wind	
			Erdöl/Erdg	
WINKEL	Float	5/2	0° - 360°	Winkel in Grad

Hochbauten				Geometrietyp
HOCHBAUTEN.SHP				Punkt
Attribute	Type	Länge	Fixer Wert	Wertbeschreibung
ART	Text	15	Warte	
			Sender	
WINKEL	Float	5/2	0° - 360°	Winkel in Grad

Kotensignatur				Geometrietyp
KOTENSIGNATUR.SHP				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

2.2.9 Namen

Geographische Namen				Geometrietyp
GEOGRAPHISCHENAMEN.SHP				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)
			3	Gebiet(<15km) / Gebirge(<15km) / Tal(<15km)

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

2.3.1 Strukturierung

Das KM500-V ist in folgende Objektbereiche gegliedert:

- Geländedarstellung (inkl. Attribute)
- Gewässer
- Grenzen (Staats-, Landes- und Bezirksgrenzen)
- Siedlungen (Signaturen und geographische Namen)
- Vegetation
- Verkehr

Objektarten:

Geländedarstellung:

Bezeichnung	Dateiname	Geometrietyp
Höhenschichtlinien	Höhenlinien.SHP	Linie
Kotenhöhen	Kotenhöhen.SHP	Punkt
Kotenpunkte	Kotenpunkt.SHP	Punkt

Gewässer:

Bezeichnung	Dateiname	Geometrietyp
Gewässerflächen	Gewässerflächen.SHP	Fläche
Gewässerlinien	Gewässerlinie.SHP	Linie
Gletscher	Gletscher.SHP	Fläche
Seen	Seen.SHP	Fläche
Sumpf	Sumpf.SHP	Fläche

Grenzen:

Bezeichnung	Dateiname	Geometrietyp
Staatsfläche	Staatsfläche.SHP	Fläche
Bundesländer	Bundesländer.SHP	Fläche
Verwaltungsbezirke	Verwaltungsbezirke.SHP	Fläche
Staatsgrenze_Nachbarstaat	Staatsgrenze_Nachbarstaat.SHP	Linie
Nationalparkgrenzen	Nationalparkgrenze.SHP	Linie

Siedlungen:

Bezeichnung	Dateiname	Geometrietyp
Einzelsignaturen	Einzelsignaturen.SHP	Punkt
Ortssignaturen	Ortssignatur.SHP	Punkt
Siedlungsflächen	Siedlungsfläche.SHP	Fläche
Siedlungsnamen	Siedlungsname.SHP	Punkt

Vegetation:

Bezeichnung	Dateiname	Geometrietyp
Wald	Wald.SHP	Fläche

Verkehr:

Bezeichnung	Dateiname	Geometrietyp
Anschlussstellen	Anschlussstelle.SHP	Punkt
Autofähren	Autofähren.SHP	Linie
Bahnen	Bahnen.SHP	Linie
Bahnhöfe	Bahnhof.SHP	Punkt
Flughäfen	Flughafen.SHP	Punkt
Seilbahnen	Seilbahnen.SHP	Linie
Straßen	Straßen.SHP	Linie
Wege	Wege.SHP	Linie

Objektbereich Geländedarstellung

Objektklasse	Beschreibung	Attribut	Type	Länge	mögl. Attributwerte
Höhenschichtlinien Geometrietyp: Linie	Im allgemeinen Höhenschichtlinien mit Äquidistanz 200m und im Flachland auch Hilfs-höhenschichtlinien (z.B. 300m)	HOEHE (in m)	Long Integer	8	„200“ „4000“
		KATEGORIE	Text	30	„Haupt_HSL“ „Neben_HSL“ „Zwischen_HSL“ „Hilfs_HSL (Flachland)“ „Vertiefung“
Kotenhöhen Geometrietyp: Punkt	Höhenangaben	HOEHENWERT	Text	30	z.B.: „1363“ oder „(122)“ „2“ ... Links unten „6“ ... Mitte oben „7“ ... Mitte mitte
		ORIG_JUST (Position des Einsatzpunktes)	Text	30	
Kotenpunkte Geometrietyp: Punkt	Kotenpunkte	kein Attribut			

Objektbereich Gewässer

Objektklasse	Beschreibung	Attribut	Type	Länge	mögl. Attributwerte
Gewässerflächen Geometrietyp: Fläche	fließendes Gewässer (Fläche)	kein Attribut			
Gewässerlinien Geometrietyp: Linie	fließendes Gewässer (Linie)	KATEGORIE	Text	50	„Strom1“ „Strom2“ „Strom3“ „Fluss1“ „Fluss2“

					„Fluss3“ „Bach“ „imaginäre Gewässerlinie“
Gletscher Geometrietyp: Fläche	bedeutende Gletscher	kein Attribut			
Seen Geometrietyp: Fläche	bedeutende Seen	kein Attribut			
Sumpf Geometrietyp: Fläche	bedeutende Sumpfgebiete	kein Attribut			

Objektbereich Grenzen

Objektklasse	Beschreibung	Attribut	Type	Länge	mögl. Attributwerte
Staatsfläche Geometrietyp: Fläche	Österreichisches Staatsgebiet	kein Attribut			
Bundesländer Geometrietyp: Fläche	Österreichische Bundesländer	BUNDESL	Text	1	„1“ „9“
		BLNAME	Text	30	z.B. „Burgenland“
Verwaltungsbezirke Geometrietyp: Fläche	Politische Verwaltungsbezirke Österreichs	POLBEZNR	Text	5	z.B. „101“
		POLNAME	Text	50	z.B. „Eisenstadt“
		BUNDESL	Text	1	„1“ „9“
Staatsgrenze_ Nachbarstaat Geometrietyp: Linie	Staatsgrenze zw. Österreichs Nachbarländern	kein Attribut			
Nationalparkgrenzen Geometrietyp: Linie	Grenzen der österreichischen oder grenznahen Nationalparks	kein Attribut			

Objektbereich Siedlung

Objektklasse	Beschreibung	Attribut	Type	Länge	mögl. Attributwerte
Einzelsignaturen Geometrietyp: Punkt	Diverse Einzelobjekte	ART	Text	30	„Burg, Schloss“ „Fabrik“ „Kloster, Kirche“ „Schutzhaus“ „Sendeanlage“ „Wärme kraftwerk“
Ortssignaturen Geometrietyp: Punkt	Ortschaften mit weniger als 10 000 Einwohner	NAME	Text	30	„N_P“ zur Zeit nicht befüllt
		STATUT	Text	30	„N_P“ zur Zeit nicht befüllt
		EINW_VON	Long Integer	7	von „100“ bis „1999“
		EINW_BIS	Long Integer	7	von „2000“ bis „9999“

Siedlungsflächen Geometrietyp: Fläche	Ortschaften mit 10 000 oder mehr Einwohner	NAME	Text	30	„N_P“ zur Zeit nicht befüllt
		STATUT	Text	30	„N_P“ zur Zeit nicht befüllt
		EINW_VON	Long Integer	7	von „10000“ bis „2000000“
		EINW_BIS	Long Integer	7	
Siedlungsnamen Geometrietyp: Punkt	Ortschaften mit 10 000 oder mehr Einwohner	NAME	Text	30	z.B. „Abern“
		STATUT	Text	30	„Stadt“ „Markt“ „Dorf“ „N_A“ (N_A: im Ausland nicht anwendbar)
		EINW_VON	Long Integer	7	von „100“ bis „1999“ von „2000“ bis „9999“ von „10000“ bis „24999“ von „25000“ bis „99999“ von „100000“ bis „999999“
		EINW_BIS	Long Integer	7	von „1000000“ bis „2000000“
		ART	Text	30	„Hauptname“ „Endonym“ „Einzelobjekt oder Beifügung“
		ORIG_JUST (Position des Einsatzpunktes)	Text	30	„2“ ... Links unten „7“ ... Mitte mitte „8“ ... Mitte unten „14“ ... Rechts unten

Siedlungsnamen im Ausland beinhalten Sonderzeichen, die im Shape Format nicht richtig dargestellt werden.

Daher gilt folgende Umsetzungstabelle:

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

Sonderzeichen	ć	č	ě	ň	ň	ő	ř	ű	ý
Zeichen in Shape	\$c	%c	%e	\$n	%n	\$o	%r	%u	\$y

Objektbereich Vegetation

Objektklasse	Beschreibung	Attribut	Type	Länge	mögl. Attributwerte
Wald Geometrietyp: Fläche	Waldfläche	kein Attribut			

Objektbereich Verkehr

Objektklasse	Beschreibung	Attribut	Type	Länge	mögl. Attributwerte
Anschlussstellen Geometrietyp: Punkt	Anschlussstellen auf Autobahnen und Schnellstraßen	kein Attribut			
Autofähren Geometrietyp: Linie	Autofähren über große Seen oder Flüsse	kein Attribut			
Bahnen Geometrietyp: Linie	Alle öffentlichen und privaten Normal- und Schmalspurbahnen	ART	Text	30	„Normalspurbahn“ „Schmalspurbahn“
		NIVEAU	Text	30	„ebenerdig oder Brücke“ „Tunnel“
		GLEISANZ	Text	30	„eingleisig“ „mehrgleisig“
Bahnhöfe Geometrietyp: Punkt	Bedeutende Bahnhöfe	kein Attribut			
Flughäfen Geometrietyp: Punkt	Große Flughäfen	kein Attribut			
Seilbahnen Geometrietyp: Linie	Kabinenseilbahnen und sehr große Sessellifte	ART	Text	30	„Kabinenseilbahn“ „Sessellift“
Straßen Geometrietyp: Linie	Autobahnen, Schnellstraßen und bedeutende Straßen	ART	Text	30	„Autobahn“ „Schnellstraße“ „Hauptverbindung“ „Nebenverbindung“ „sonstige Straße“ „Hauptverbindung in Siedlung“ „Nebenverbindung in Siedlung“
		NIVEAU	Text	30	„ebenerdig“ „Brücke“ „Tunnel“
Wege Geometrietyp: Linie	Bedeutende Fahr- und Fußwege	ART	Text	30	„Fahrweg“ „Fußweg“

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

2.4.1 General structure

2.4.1.1 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 [EGMspe3-0se.pdf](#). This document is a summary of the most relevant specifications.

2.4.1.2 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
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.

2.4.1.3 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.

2.4.1.4 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 language with the national characters.	UNK Unknown 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: LakeresAFeature type: AreaPrimitive type: FacePortrayal 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: NamePFeature type: PointPrimitive type: Isolated nodePortrayal 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: PolbndAFeature type: AreaPrimitive 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 (<i>Example</i>) XXYY000 (<i>Example</i>) For in dispute areas between countries XX and YY
SHN1	ID Code of 1st order administrative unit.	FI600000 (<i>Example</i>) N_A Not applicable (if country has no more than the country level in EGM)

SHN2	ID Code of 2nd order administrative unit.	FI108000 (<i>Example</i>) 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.	DE01005300000 (<i>Example</i>) 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 (<i>Example</i>) 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: POLBNDLFeature type: LinePrimitive type: EdgePortrayal 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: RailrdCFeature type: PointPrimitive 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: RailrdLFeature type: LinePrimitive type: EdgePortrayal 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 waterEGM - Feature class: LakeresAFeature type: AreaPrimitive type: FacePortrayal 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 useEGM - Feature class: RoadLFeature type: LinePrimitive type: EdgePortrayal 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
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KM1000_buildup_area

Built-up area

Definition: An area containing a concentration of buildings and other structures.EGM - Feature class: BuiltupAFeature type: AreaPrimitive 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)
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: BuiltupPFeature type: PointPrimitive type: Isolated nodePortrayal 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 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	25000 (Example) -29999 Unknown -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: SpringCFeature type: PointPrimitive 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_watcrs_area

Watercourse

Definition: A natural or man-made flowing watercourse or stream.EGM - Feature class: WatcrsAFeature type: AreaPrimitive type: FacePortrayal criteria: Watercourse with width \geq 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: WatcrsLFeature type: LinePrimitive type: EdgePortrayal 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 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