River Network

Document updated: 18.1.2012 js/ English version 25.9.2012 mj

Contents

The spatial dataset of the river network contains Finnish rivers with a catchment area larger than 10 km². It is made by the Finnish Environment Institute (SYKE). The topologically valid and completely connective river network has centerlines of rivers and also "pseudo-rivers" crossing the lakes with correct flow directions. It is based on the shoreline of the topographic database (1:5 000-1:10 000) of the National Land Survey of Finland. The attribute table contains an unique code and information on each river segment of the river network. The river code always changes when one river meets another river e.g. a river junction or a lake. The river network of Finnish rivers with a catchment area larger than 10 km² is used by The Finnish River Information System.

1. Feature Attribute Description

Feature Dataset: Projekti.GEO.Uomaverkosto

Uomaverkosto_net

UomaNro	River code. The river code changes always when one river meets another river (river junction) or a lake. The dataset includes the rivers with a catchment area larger than 10 km².
Pituus_m	Length of the river segment in meters
Paareitti	Main water course of the river. Bifurcating routes are always identified, when the river branches downstream. 1= the main water course 2= the bifurcating route
ValuYlaPa_km2	Size (km²) of the upper catchment area calculated from the end point of the river segment. Based on the national elevation model (DEM25) of The National Land Survey of Finland
ValuLuokka	Size class of the upper catchment area from the end point of the river segment 1 = under 10 km² 2 = 10-100 km² 3 = 100-200 km² 4 = 200-1000 km² 5 = 1000-10 000 km² 6 = over 10 000 km²
Korkeus_m	Altitude (m) from the sea level of the end point of the river segment. Based on the national elevation model (DEM25) of The National Land Survey of Finland.
PaaJakoNro	Number of the main river basin, where the river is located

VhaTunnus	Number of the river basin district where the river is located
Valtio	Country where the river is located FI = Finland RU = Russia SE = Sweden NO = Norway FIRU= Border between Finland and Russia FINO= Border between Finland and Norway FISE= Border between Finland and Sweden FINOSE= Border between Finland, Sweden and Norway FINORU= Boder between Finland, Norway and Russia
RajaTieto	Border information 71 = border water body (lake or river on the border) 72 = river runs from abroad (river's starting point is outside Finnish borders and ending point in Finland) 73 = river runs to abroad (river's starting point is in Finland and ending point outside Finnish borders) 74 = River runs out of and returns to Finland (river's starting point and ending point are in Finland) 75 = River runs to and out of Finland (river's starting point and ending point are abroad)
KvKoodi	International code for the rivers crossing the Finnish border
MuutosPvm	Date when the data has been modified in SYKE

2. UML-model

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                    ┌─────────────────────────────────┐
                    │ ESRI Classes::Object            │
                    ├─────────────────────────────────┤
                    │ +OBJECTID : esriFieldTypeOID    │
                    ├─────────────────────────────────┤
                    │                                 │
                    └─────────────────────────────────┘
```

ESRI Classes::SimpleEdgeFeature

ESRI Classes::SimpleJunctionFeature

Uomat
{GeometryType = esriGeometryPolyline,
HasM = True}

-UomaNro : esriFieldTypeDouble
-Pituus_m : esriFieldTypeDouble
-Paareitti : esriFieldTypeSmallInteger
-ValumaYlaPa_km2 : esriFieldTypeDouble
-ValuLuokka : esriFieldTypeSmallInteger
-Korkeus_m : esriFieldTypeDouble
-PaaJakoNro : esriFieldTypeInteger
-VhaTunnus : esriFieldTypeString
-Valtio : esriFieldTypeString
-RajaTieto : esriFieldTypeSmallInteger
-KvKoodi : esriFieldTypeDouble
-MuutosPvm : esriFieldTypeDate

Risteys
{GeometryType = esriGeometryPoint}

-RisteysNro : esriFieldTypeDouble
-NodeLuokka : esriFieldTypeSmallInteger
-MuutosPvm : esriFieldTypeDate

*   -End5

1   -End3   1   -End4   *   -End6

«GeometricNetwork»**Uomaverkosto**

-NetworkType : esriNetworkType = esriNTUtilityNetwork