Hiking Routes
The Past, the Present and the Future

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11 Nov 2023

SotM-EU
Antwerp
About this talk

- What kind of routes are mapped as route=hiking?
- How do they look like on the ground?
- Can we do better with mapping?
Not in this talk: hikability

- highway types (track, path, steps, ladders)
- trail properties (surface, smoothness, chains and railings)
- difficulty (sac_scale, hiking_technique, hiking_exposure)
Hiking Routes in Europe
Czech Republic: route No. 1

- National operator: Czech tourist club
- total: 40,000km
Czech Republic: color-coded routes
Czech Republic: color-coded routes

<table>
<thead>
<tr>
<th>kct_color</th>
<th>Label</th>
<th>kct_symbol</th>
<th>osm_symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>major</td>
<td>A normal, banded tourist tag</td>
<td>color: white; color_bar</td>
<td></td>
</tr>
<tr>
<td>local</td>
<td>Local brand</td>
<td>color: white; color_corner</td>
<td></td>
</tr>
<tr>
<td>learning</td>
<td>Educational trail (not only from KČT)</td>
<td>color: white; color_backslash</td>
<td></td>
</tr>
<tr>
<td>ruins</td>
<td>A turn to the ruins of a castle or other building</td>
<td>color: white; color_L</td>
<td></td>
</tr>
<tr>
<td>peak</td>
<td>A detour to a peak or viewpoint</td>
<td>color: white; color_triangle</td>
<td></td>
</tr>
<tr>
<td>spring</td>
<td>A turn to a well or spring</td>
<td>color: white; color_bowl</td>
<td></td>
</tr>
<tr>
<td>interesting_object</td>
<td>Detour to another interesting object</td>
<td>color: white; color_turned_T</td>
<td></td>
</tr>
</tbody>
</table>
Czech Republic: color-coded routes

more details: Sun, 3pm room Orangerie
Netherlands: node networks

- network of "knooppunte"
- navigation by node numbers

(C) https://knooppuntnet.nl
Netherlands: node networks with routes

- color-coded routes on top of node network
Switzerland: difficulty-based marking

- easy walking
- mountain hiking
- alpine hiking
Switzerland: to route or not to route
Switzerland: long-distance routes
Germany: land of a thousand operators

- plenty of operators
  - local hiking clubs
  - municipalities
  - tourist organisations
- high variation in
  - coverage
  - signage
  - state of repair
Germany: Zittauer Gebirge
Germany: Franken

Waymarked Trails: Hiking

Last update: 10/22/23 8:36 PM

Routes

- Frankenweg
  - Unterkirchheim, Oberfranken - Hartberg, Schwaben
- Jakobsweg Bayern

Registered routes
- Frankenauer Marienweg
- Frankenauer Schwarzwald-Tage-Wanderung
- Frankenauer Schwarzwald 7-Tage-Wanderung
- Franz-Josef-Kaiser-Weg
- Gollsteinweg-Weißenbrunn
- Gollsteinweg - Tössbrunn
- Hohenweg Unterkirchheim-Obertrubach
- IFS-Weg
- Kulturmuseumweg
- Lauf-Pegnitz
- Lengenfelderweg
- Lenz-Johans-Weg
- Lilachquelle-Kleine Kulm
- Markgrafweg Erlangen-Bayreuth
- Erlangen-Bayreuth
- Muggendorf-Kirchenbech
- Neunhaus-Obenmannstalt
- Obertrubach-Lindenhardt
- Pech- Wiesentau
- Pottenstein-Berndorf

Zoom in to see more routes.
Germany: Neustadt/Harz

(C) CC-by-SA 4.0, Stadtigel
Germany: Harz
Germany: Schwarzwald
<table>
<thead>
<tr>
<th><strong>Other European Countries</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>France</strong></td>
</tr>
</tbody>
</table>
| **Italy/Austria** | numbered routes, signed red/white stripes  
  *(more info: Sat, 12pm room Örangerie”)* |
| **Belgium** | node network  
  + routes 'Grand Randonnee’ |
| **UK** | base network of 'rights of way’  
  + less dense network of long-distance routes |

wide-spread: short local routes with custom signage, nature trails, etc.
Outside the system: Pilgrim Routes

- proliferating all over Europe
- unclear naming and signage
- networks rather than routes
Hiking Routes in OSM
What is a route=hiking?

Recreational route
- long-distance routes
- access routes to mountain peaks
- village round-trips
- nature learning trails

Signed path for pedestrian traffic
- node networks
- route networks

To be followed start to end.

Pedestrian-friendly connection of places.

Two forms of the same infrastructure.
Tagging - Current Usage

**Classification**  network (95.6%), network:type (33.7%)

**Signage**  osmc:symbol (61.5%), symbol (29.1%), colour (13.1%)

**Naming**  name (55.9%), ref (50.8%)

**Trajectory**  from (17.5%), via (1.13%), to (17.0%)

**Type**  roundtrip (15.0%)

**Other**  operator (37.9%), source (13.1%), note (11.2%), website (11.1%), description (10.6%)

(+ 1170 other keys)
Classification - Current Usage

```
network =
  iwn  long distance paths that cross several countries
  nwn  walking routes that are nationally significant and long distance paths
  rwn  walking routes that cross regions and are regionally significant
  lwn  small local walking routes

network:type =
  node_network  network of numbered junction nodes connected by node-to-node routes
```
Classification - Alternatives

Clean up tag use?

- **iwn** long-distance route (200+ km) crossing multiple countries
- **nwn** long-distance route (100+ km) crossing multiple regions
- **rwn** most important 1-3 day routes within one region
- **lwn** everything else

Find a better classification?

- based on function: long-distance, pilgrimage, base network
- based on distance
- other ideas?
**Naming**

The route is known by this name (e.g. Martinsroute, Eifelsteig)

The route is known by this reference

---

**Recreational routes**

- ✓ Martinsroute
- ✓ Offa’s Dyke Path
- ✗ European Long distance path E 4 - part Germany (region Tegernsee, alternative route)
- ✗ Via Sancti Martini HW-60-12 Claye-Souilly - Igny
- ✗ International Appalachian Trail (Newfoundland)
- ✗ [X12] Richard-Schirrmann-Weg

**Route networks**

- ✓ ref=235
- ✗ [Z] Příbor - Ondřejník
- ✗ Wanderweg Zeutsch-Pößneck (Gelber Balken)
- ✗ yellow
- ✗ 38-39
- ✗ Wanderweg 235
Hiking Routes

Introduction

Hiking Routes in Europe

Hiking Routes in OSM

Summary

Naming

name

The route is known by this name (e.g. Martinsroute, Eifelsteig)

ref

The route is known by this reference

Recreational routes Route networks

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Tagging for the editor
Hiking Routes

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✗ 38-39

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Tagging for the renderer
Towards better naming

1. Use dedicated tags!
   - ref
   - from, via, to
   - symbol
   - description
   - sections

2. Add tags for renderers/editors?
   - label/display_name for a renderable name
   - short_label for a renderable ref

Result: name only set on named routes.
Signage

`osmc:symbol` machine-readable graphical symbol

`symbol` human-readable symbol description

`wiki:symbol` link to image in OSM wiki

What does is describe?

- symbol of the route
- waymarking of the path
- label you want to see on the map??

What is is for?

- making pretty maps
- describing the on-the-ground situation
Route relation members - What makes up a route?

✓ main paths of the route
✓ alternatives, accesses, excursions
?
 stations of a nature learning trail
?
 checkin points
?
 guideposts
✗ sights
✗ accommodation

For backwards compatibility: add POIs as nodes only.
Route sections

Why?
- make long routes editable
- simplify handling of alternatives
- reuse route relations

Problems
- no tagging difference between routes and sections
- names contain section information
- processing superrelations is hard
Tagging Proposal for Sections

```plaintext
segment=main/alternative/excursion/approach/connection
  ■ relation is part of a larger route (with given role)
name=*  
  ■ (main segments only) official name of the route this segment is part of.
stage=<number>
  ■ position of the section within the route
stage:name=*  
  ■ official name of the stage of the route
stage:description=*  
  ■ inofficial description of the stage

```
Summary

Work in progress

- route classification
- naming (+ osmc:symbol)
- signage
- route segments

And also to be discussed

- evolution of node networks
- tagging of almost-node networks
Let’s talk!
Birds of feather session - 15:30, room Columbus

https://waymarkedtrails.org
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