UN Smart Maps

Hidenori

Smart Maps
for the United Nations,
with the United Nations

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UN Open GIS Initiative

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UN Smart Maps Group (SMG)

1. 7th Domain Working Group under UN Open GIS Initiative.
   - The initiative is to identify and develop an open-source GIS bundle that meets the requirements of UN operations.

2. Volunteer group of engineers, educators, and students among others.

3. Open community of practice.
   - Do-ocracy which is common in open-source software community.

4. We define Smart Maps as application of modern web map technologies for informed decision.

5. Vision: keep web maps open for a better world.

6. Mission: test new technologies for future geospatial operations.

History

- 2016: UN Open GIS Initiative
  - ➢ Started a base web map toolkit project as a contribution from a mapping agency.
  - ➢ Thanks to my chief Mr. Eom Kyoung-Soo of UN Geospatial Information Section.

- 2018: UN Vector Tile Toolkit (under DWG4)
  - ➢ An open-source toolkit to produce, host, style and optimize base map vector tiles.
  - ➢ Thanks to our DWG chair Prof. Li Ki-Joune.

- 2022: UN Smart Maps Group (as DWG7)
  - ➢ Participants bring their objectives: base maps, 3D, LLMs, documentation, etc.

https://unopengis.github.io/smartmaps

Open License

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Open Practice

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Open Community

Secured Data

We transfer technology and respect secured data.

Open Community

We test new open-source technologies with open data.

Open Data

UN Smart Maps Projects

1. UN Smart Maps Bazaar
   - ➢ Unlimited import, portable anywhere
   - ➢ PMTiles, 3D Tiles, Inter Planetary File System (IPFS), Raspberry Pi

2. UN Smart Maps Agent
   - ➢ (Open-source) LLMs for human-map interface, multilingualization, etc.

3. Communications and Community Strategy
   - ➢ Meetups and web sites

4. Core Toolkit, Spatial ID implementations ("Rhea")

UN Smart Maps Bazaar

- あとでかく
- UNVT Portable (Raspberry Pi), IPFS, optgeo, 等が複雑に絡んでいる。

UN Smart Maps Agent

- Use of LLMs for human-map interface.
- Open source LLMs.
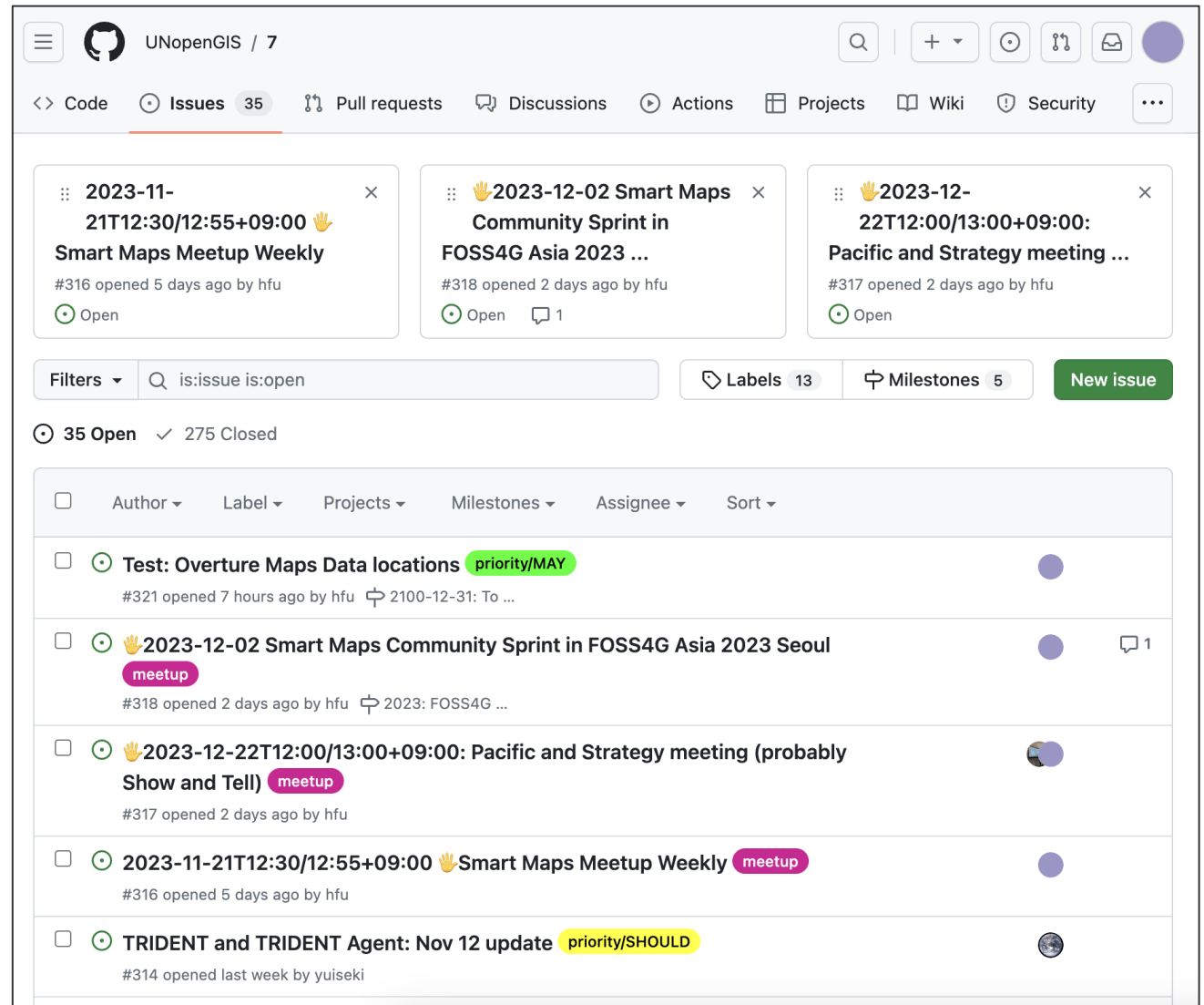
Communications and Community strategy

- Smart Maps Group website https://unopengis.github.io/smartmaps
- Monthly meetings – for Pacific time zones.
- Weekly meetings – 30 minutes every Tuesday.

Capacity building / **technology transfer**

- w/ UN Global Service Center
- w/ UN Missions (pilot project to be formulated)
- w/ Projects and trainings by Japan International Cooperation Agency (JICA)
- w/ Local governments (through non-profit organizations (NPO))
- Through webinars, tech blogs, and YouTube.
- Some materials are on GitHub.

Connection with

- Practitioners ("web map engineers")
  - OpenStreetMap Foundation Japan
  - Global is not always about small scale.
- Mappers
  - e.g. Annual Humanitarian Mapathon (mapathon.la; 2024-04?)
- National mapping agencies
  - ASIG (Albanian national mapping agency): vector tile prototype in a JICA project.
  - JICA knowledge co-creation programs.

How to join UN Smart Maps

https://github.com/unopengis/7/issues

- Commit on GitHub.
  - The best way known to work.
  - Anyone can join.
- Community Sprints

Hidenori

- Director, Research Planning, Geography and Crustal Dynamics Research Center, Geospatial Information Authority of Japan

- Mission: Promote partnership through geospatial information.

- Vision: Create a world where map engineers prosper.

Potential new areas

- Digital Twin

- Metaverse

- Multilingualization with open source LLMs

- Sensor integration