



The Us National Soil Moisture Network

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What if...?

- The National Soil Moisture Network was **a *network of people*** working to advance the availability, quality, and utilization of soil moisture data in the US, and...
- one way we pursued these goals was by developing **a *virtual research facility*** online, including...
- datasets, code libraries, workflows, visualization tools, and data retrieval tools for soil moisture data from multiple sources.

Could we...?

- Create such a community facility with relatively little start-up funding...
- by leveraging/co-locating efforts and resources from existing projects and initiatives...
- something like we did for the Marena, Oklahoma In Situ Testbed?

Could we...?

- Draw inspiration from ongoing efforts like...
 - Github ([link](#)) (218,000 Google Scholar citations)
 - Open Science Framework ([link](#)) (6,650)
 - Simple soil moisture example ([link](#))
 - HydroShare ([link](#)) (672)
 - Some existing apps ([link](#))
- or perhaps...
 - Galaxy Metabiome Portal ([link](#)) (513)
 - National Water Census Data Portal ([link](#)) (4)

Vision for the NSMN community

Sensor testbeds, e.g.

- MOISST
- Cropland testbed?
- Forest testbed?
- Frozen soil testbed?

Shared instruments, e.g.

- Rovers
- Distributed temperature sensing units
- Geophysical tools

National Soil Moisture Network

Virtual research facility, e.g.

- Open Science Framework project
- Github repository
- Hydroshare apps/tools

Soil moisture products, e.g.

- Gridded national product based on in situ data
- Multisensor gridded soil moisture product based on RS and in situ

****And a 5th component: Soil moisture applications**

<http://soilmoisture.okstate.edu>