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NGA and DigitalGlobe open source toolkit
to harness the power of collaborative mapping

*Open source project provides a scalable processing engine
and interactive editing interface.*

SPRINGFIELD, Virginia — The National Geospatial-Intelligence Agency and DigitalGlobe have partnered to release an open source software toolkit designed to harness the power of crowdsourced mapping for Geospatial Big Data Analytics. The open source project Hootenanny provides a scalable processing engine and interactive editing interface to enable rapid conflation of map features generated from satellite imagery, UAVs, and mobile devices.

In less than a decade crowdsourced mapping communities like OpenStreetMap™ have attracted over 2.5 million volunteers who have digitized more than 130 million buildings and 1.3 million miles of roads. Countless other organizations and individuals are using satellite imagery and other methods to capture the geometry and metadata of roads, buildings, and points of interest. To create high quality maps and enable analytic functions like routing, suitability analysis, or predictive modeling it is important to unify multiple sources to create the best available database.

"The commercialization of GEOINT is leading to exponential growth of publicly available geospatial information," said Chris Rasmussen, NGA's public software development lead. "Hootenanny as an open source project will enable new levels of data sharing across the community that will increase our nation's ability to quickly respond to emerging threats. This is a pro-active move that steers into the collaborative mapping environment to derive more value from unclassified sources."

Hootenanny leverages the open architecture of OpenStreetMap™ to facilitate integration of diverse geospatial datasets into a common key value data structure. An open library of conflation algorithms applies various techniques to unify the geometry and metadata of topographic features. Conflicts can be visualized and resolved through an interactive application built on the iD Editor, an open source map editing tool developed by Mapbox. Conflated datasets can be exported in a variety of GIS formats including ESRI Shapefile, File Geodatabase, Web Feature Service, and native OpenStreetMap™ formats. Hootenanny also enables Geospatial Extract Transform Load (ETL) capabilities supporting various schemas such as Topographic Data Store (TDS), and Multi-National Geospatial Co-Production Program (MGCP).

Hootenanny is available at: https://github.com/ngageoint/hootenanny. The software use, modification, and distribution rights are stipulated within the General Public License (GPL). DigitalGlobe and NGA will be hosting a Hootennany MeetUp at the Washington D.C. Convention Center on Wednesday, June 24 from 2 p.m. to 3:30 p.m. in Room 143A.

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About NGA
NGA delivers world-class geospatial intelligence that provides a decisive advantage to policymakers, warfighters, intelligence professionals and first responders. NGA is a unique combination of intelligence agency and combat support agency. It is the world leader in timely, relevant, accurate and actionable geospatial intelligence. NGA enables the U.S. intelligence community and the Department of Defense to fulfill the president's national security priorities to protect the nation.

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