GeoPackage Initiatives

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A platform designed and operated to increase collaboration and innovation, in order to solve challenging warfighter problems.
SOEWERX

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CHARTER

I. Create a forum for accelerating delivery of innovative capabilities to USSOCOM

II. Facilitate capability refinement thru exploration, experimentation and assessment of promising technology
GeoPackage Rapid Prototyping

Upcoming Activities:
• Related Tables Extension Interoperability Experiment
• “Geospatial to the Edge” Plugfest
• Testbed 14
• Prize Challenge & Warfighter Workshop
Solidify the Standard

• Mature automated test suite for GeoPackage 1.2 (& beyond) + extensions
• Create comprehensive reference set of GeoPackage files exercising various features of GeoPackage and proposed extensions
• Compile info & links to software and tools around GeoPackage & extensions
• “On-the-fly” validation of GeoPackage files
• Full-featured reference implementations
Improve Usability

• Full GeoPackage (+extension) functionality for open source software
• Explore compression of map data within a GeoPackage
• Standalone utility to selectively split GeoPackage files into multiple smaller files — by layer, area, zoom level/s, or other criteria
• Libraries for sync of GeoPackage to/from map server via WMS/WMTS/WFS
• Method for handling temporally limited data (e.g. hydro-meteorological, seismic, transit, wildfire)
Build Community

• Document GeoPackage and applications for those within & outside the GIS specialty
• Make GeoPackage format more accessible to developers of mobile apps
  (via online docs, YouTube videos, conference talks, workshops, prize challenges)
• Provide resources to developers creating open-source solutions using GeoPackage
• Host virtual and in-person discussions around GeoPackage & applications
• Engage communities outside traditional geospatial users / developers
Explore Potential

- Novel applications of disconnected geospatial applications using GeoPackage
- Data Science using multiple types of geospatial (+temporal) data
- Related Tables Extension storing data beyond audiovisual media
  - Data from external sources – OSINT, SIGINT, ...
  - Map symbology in SVG format to be applied as vector layer styling
  - Data collected by variety of sensors
  - Data provenance & versioning
  - Administrative & other non-spatial relationships among map features
- 3D mapping / surveying using autonomous systems
- Automated mapping of data collected by mobile device sensors
- PubSub style data sharing among connected device GeoPackages