

EO-related JSON formats

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Name	Purpose	Curator	Document number	Links	Notes
TopoJSON	Vector data	Mike Bostock		https://github.com/topojson/topojson	Based on GeoJSON
JSON-LD	Linked data	W3C		https://json-ld.org/	Linked data spec, not specifically for EO
hdf5-json	Coverage data	HDF Group		https://github.com/HDFGroup/hdf5-json http://hdf5-json.readthedocs.io/en/latest/	A specification, library, and utilities for describing HDF5 content in JSON
GeoJSON	Vector data	IETF	RFC7946	https://tools.ietf.org/html/rfc7946	Vector data, WGS84 only, types mirror OGC Simple Features
CovJSON	Coverage data	W3C/OGC	OGC 16-145	http://w3c.github.io/sdw/coverage-json/ Oregon State University Senior Capstone project which aims to provide a CoverageJSON Response Handler for OPeNDAP http://eecs.oregonstate.edu/capstone/submission/?page=preview&pid=365	Coverage data, any CRS, type mirrors OGC Coverage Implementation Specification See Note 1 below.
CF-JSON	Coverage data	David Johnson, Met Ocean, New Zealand		http://cf-json.org/specification	Can express data in any CF compliant NetCDF file See Note 1 below
NCO JSON	Coverage data	Charlie Zender		NCO spec section on JSON output via --json or --json flags http://nco.sourceforge.net/nco.html#json http://www.unidata.ucar.edu/mailling_lists/archives/netcdfgroup/2016/msg00295.html Sourceforge discussion https://sourceforge.net/p/nco/discussion/9829/thread/8c4d7e72/ Github spec https://github.com/pedro-vicente/json-netcdf	See Note 1 below
OGC OWS Context GeoJSON Encoding Standard	Service context	OGC	14-055r2	https://portal.opengeospatial.org/files/?artifact_id=68826	OWS Context allows a set of configured information resources to be passed between applications, primarily as a collection of services.
OGC OpenSearch Extension for Earth Observation	Search results	OGC	13-026r9	Can't find this document, earlier versions don't have GeoJSON. r8: https://portal.opengeospatial.org/files/?artifact_id=71370&version=1	WGISS effort (?) to have GeoJSON be a valid result format.
OGC EO Dataset Metadata GeoJSON(-LD) Encoding	Metadata	OGC	17-003r0	https://portal.opengeospatial.org/files/?artifact_id=73344 (OGC Portal access required, but document may be freely copied)	Can be applied to encode metadata based on the Earth Observation Metadata Profile of Observations and Measurements (O&M) OGC 10-157r4, or as an encoding of the Unified Metadata Model for Granules (UMM-G) conceptual model
STAR JSON	Coverage data	Pedro Vicente		http://www.space-research.org/blog/star_json.html https://github.com/pedro-vicente/json-hdf5	STAR JSON is a JSON schema that is used to share commonly used scientific data formats, such as HDF5 and netCDF

Notes

1. Discussion on CovJSON, CF-JSON and NCO-JSON: <https://github.com/covjson/specification/issues/86>