EnMAP-Box test data

Summary

The EnMAP-Box test data is delivered with the EnMAP-Box as an exemplary ready-to-use imaging spectroscopy dataset for training and algorithm development. The test data covers an area along the urban gradient of Berlin, Germany, and contains a simulated EnMAP image, a spectra library, and detailed land cover reference information for classification, regression, and unmixing analyses. The test data is a subset extracted from the Berlin-Urban-Gradient dataset (Okujeni et al. 2016a), available under http://doi.org/10.5880/enmap.2016.008. Please cite Okujeni et al. (2016b) when using the data for publications.

EnMAP-Box test data products

Filename	Type	Description
enmap_berlin.bsq	Raster	Simulated EnMAP image; Spatial resolution: 30 m; Spectral resolution: 177 bands; Samples: 220; Lines: 400; File type: compressed ENVI Standard (*.bsq)
hires_berlin.bsq	Raster	High resolution true color image; Spatial resolution: 3.6 m; Spectral Resolution: 3 bands, Samples 800; Lines: 3327; File type: compressed ENVI Standard (*.bsq)
library_berlin.sli	Spectral library	Spectral library; 75 urban spectra (see classification scheme below); Spectral resolution: 177 bands; File type: ENVI spectral library with metadata extensions (*.csv & *.json)
landcover_berlin_polygon.shp	Vector	Detailed land cover information at the polygon level with metadata extensions (*.json). See classification scheme below.
landcover_berlin_point.shp	Vector	Detailed land cover information at the point level with metadata extensions (*.json). See classification scheme below.

Classification scheme

The spectral library and the land cover reference information are hierarchically structured according to the following scheme:

level_1_id	level_1	level_2_id	level_2	level_3_id	level_3
1	impervious	1	impervious	1	roof
				2	pavement
2	vegetation	2	low vegetation	3	low vegetation
		3	tree	4	tree
3	soil	4	soil	5	soil
4	water	5	water	6	water

References

Okujeni, A.; van der Linden, S.; Hostert, P. (2016a): Berlin-Urban-Gradient da-taset 2009 - An EnMAP Preparatory Flight Campaign. EnMAP Flight Campaigns Technical Report, GFZ Data Services. DOI: http://doi.org/10.2312/enmap.2016.002

Okujeni, A.; van der Linden, S.; Hostert, P. (2016b): Berlin-Urban-Gradient da-taset 2009 - An EnMAP Preparatory Flight Campaign (Datasets), GFZ Data Services. DOI: http://doi.org/10.5880/enmap.2016.002