**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 both hard classification and unmixing analyses. The test data is a subset extracted from the Berlin-Urban-Gradient dataset, freely available under http://doi.org/10.5880/enmap.2016.008. For more information refer to Okujeni et al. (2016a). 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) |
| 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 (\*.cvs) extensions |
| landcover\_berlin\_polygon.shp | Vector | Detailed land cover information at the polygon level (see classification scheme below) |
| landcover\_berlin\_point.shp | Vector | Detailed land cover information at the point level (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 dataset 2009 - An EnMAP Preparatory Flight Campaign In: EnMAP Flight Campaigns Technical Report: GFZ Data Services

Okujeni, A., van der Linden, S., & Hostert, P. (2016b). Berlin-Urban-Gradient dataset 2009 - An EnMAP Preparatory Flight Campaign (Datasets). In: GFZ Data Services