Radiant MLHub
EARTH IMAGERY FOR IMPACT

Dataset Documentation

Name:
ramp Building Footprint Training Dataset - Paris, France

Publication Date:
Aug 25, 2022

Version:
1.0

Citation:
DevGlobal, (2022). ramp Building Footprint Training Dataset - Paris, France, Version 1.0, [Date Accessed]. Radiant MLHub. https://doi.org/10.34911/rdnt.t86thc

Description:
This chipped training dataset is over Paris and includes 30cm high-resolution imagery (.tif format) and corresponding building footprint vector labels (.geojson format) in 256 x 256 or smaller pixel tile/label pairs. This dataset is a ramp Tier 1 dataset, meaning it has been thoroughly reviewed and improved. This dataset was used in developing the ramp baseline model and contains 1,027 tiles and 3,468 buildings. The original dataset was sourced from the SpaceNet 2 Dataset before the imagery was tiled down from 650 x 650 pixel chips and labels were revised to be consistent with the ramp datasets notion of rooftop as the building footprint.

Keywords:
Urban, Dense

Methodology:
This dataset is part of a collection of building footprint training datasets produced as part of the Replicable AI for Microplanning (ramp) project. Each dataset covers a specific region or city and they cover a diverse range of geographies.

This dataset is generated using an existing labeled dataset from SpaceNet 2 challenge. The two main revisions to the original dataset are: 1) tiling the dataset with chips at 256 x 256 pixels and 2) revising all building footprint labels manually to match the quality and definition of a building footprint in the ramp collection. In particular, the definition of building footprint in the SpaceNet 2 dataset is different from the ramp project, so changes were made to the labels to make them consistent with other ramp datasets.

Radiant MLHub
EARTH IMAGERY FOR IMPACT

Building footprint in ramp datasets is defined as a polygon that captures the entirety of a structure's rooftop, as opposed to capturing the base of the building and the building facade. The minimum structure size for collection is roughly $5m^2$. Polygons are drawn to delineate the actual structure and in case their footprint has been obscured by a tree or shadow, the edges are inferred. Structures that are connected to one another but represent individual buildings/entities have been annotated as separate but touching polygons. In some of the AOIs, such as the ones in Dhaka, Bangladesh the partially constructed buildings, oftentimes with no roof, have been labeled as buildings.

Contact:

DevGlobal
info@dev.global