



VISICOM PRODUCT DESCRIPTION

Lima port zone (Peru) – 7.5 sq.km area

3D 1m resolution model with generic Vegetation

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I. GENERAL INFORMATION

Coverage

This geographic product covers 7.5 sq. km of Lima port area (Peru).

The geographic coordinates of the bounding rectangle (reference ellipsoid WGS 84) are the following:

W 77,16320424°	W 77,12807796°
S 12,03044850°	S 12,03044850°



W 77,16320424°	W 77,12807796°
S 12,06540540°	S 12,06540540°

Data format

The delivered data converted into the **"Mentum Planet"** format.

"Mentum Planet" package content

The delivered package includes:

- Digital Terrain Model (data contains in the **Heights** folder);
- Land Use Map (Clutter Model) (data contains in the **Clutter** folder);
- Obstacles Heights Matrix Model (data contains in **Clutter Height** folder);
- Polygonal Vector Data – buildings, cranes, containers, ships, tent warehouses + vegetation (as generalized polygons) with heights (data contains in the **Polygon** folder);
- Linear Vector Data (data contains in the **Custom data** folder);
- Orthoimage (data contains in the **Orthophoto** folder)

Language: English

Resolution (cell size of matrix): 1m

CARTOGRAPHIC REFERENCE

Data are given in geographic coordinates on ellipsoid WGS 84 with the following references:

Ellipsoid

- Name: WGS 84
- Big axis: 6378137.0 meters
- Eccentricity: 0.081819191

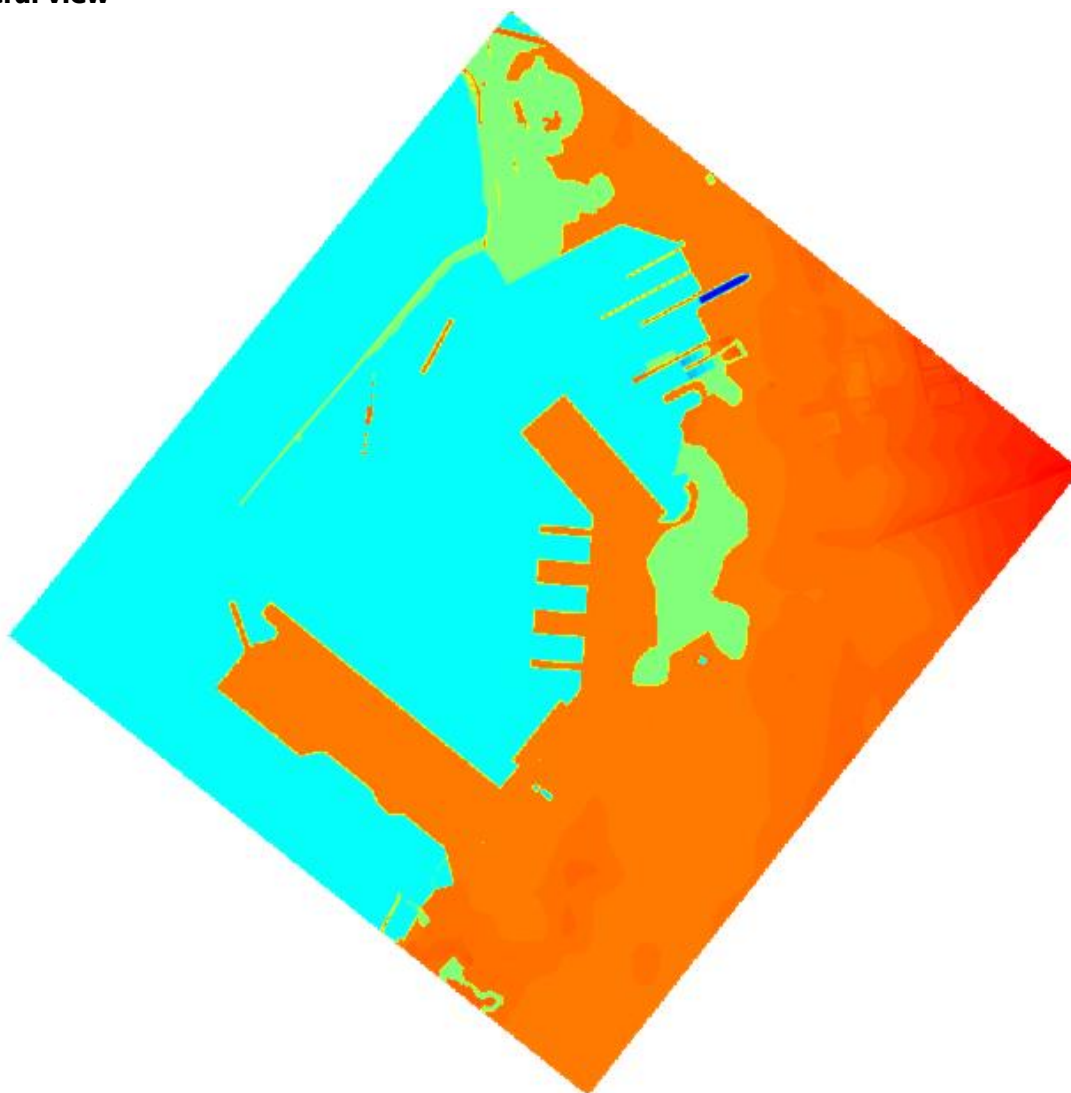
Projection

- Type : UTM 18S
- Azimuth angle : 0.0 degrees
- Longitude 0 : -75.0 degrees
- Latitude 0 : 0.0 degrees
- X axis 0 : 500000.0 meters
- Y axis 0 : 0.0 meters
- Scale factor: 0.9996



II. DTM (DIGITAL TERRAIN MODEL)

General view



Meanings of pixel values

Each image pixel stores the value of terrain elevation.

The value of elevation above sea level:

Height = 0 meters	-	0
Unknown values	-	- 9999
Z values unit	-	meters

Parameters of accuracy	Value
Resolution (cell size)	1 m
Absolute Planimetric accuracy (x, y)	3m CE95
Absolute Altimetric accuracy (z)	3m LE95

Sources:
Stereo pairs of WorldView 02 satellite images with 0,5m resolution of 09.10.2024 vintage



III. LAND USE MAP (CLUTTER MODEL)

Partial view



Notes: The containers, cranes, large ships, tent warehouses are given as they appear in the satellite images used for the production

Parameters of accuracy	Value
Resolution (cell size)	1 m
Absolute Planimetric accuracy (x, y)	3m CE95
Minimal Mapping Unit	16 sq.m

Sources:
WorldView 02 satellite images of 0,5m resolution with 09.10.2024 vintage



Meanings of pixel values

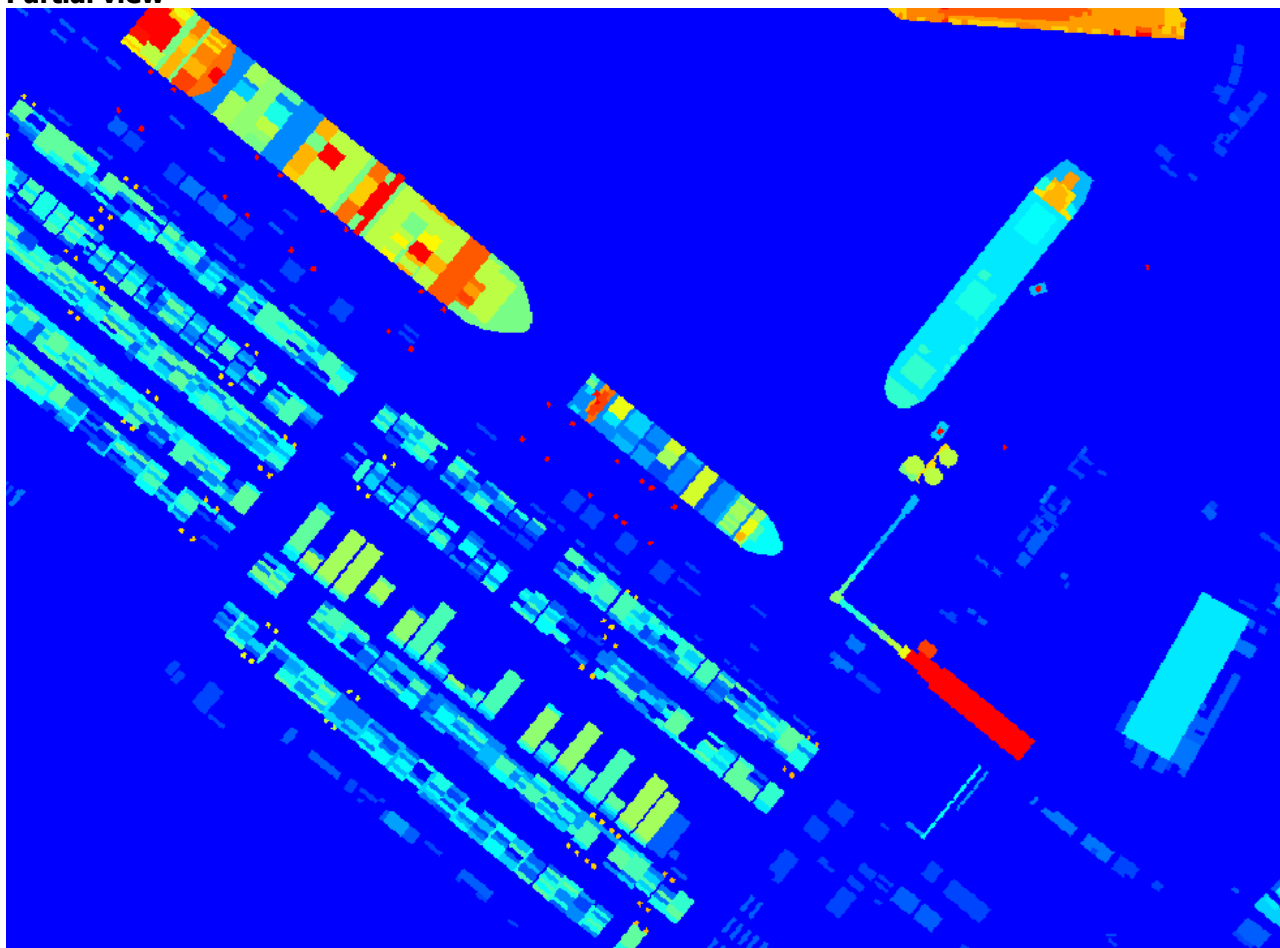
The value which is stored with each pixel of image corresponds to the code that represents land type (clutter class). The table of correspondences between codes and clutter class names (18 clutter classes in accordance with Ericsson standard specification) is presented below.

Code	Class Name	Class Description
1.	Open dry	Open dry surfaces (rocks, bare earth, sand dunes etc)
2.	Water	Lakes, sea, rivers
3.	Park with low vegetation	Vegetation and recreation area within urban areas with few or no trees
4.	Park with high vegetation	Vegetation and recreation area within urban areas with trees
5.	Sparse forest	Forest with less density and scattered trees
6.	Dense forest	Forest with high density
7.	Semi-open	Areas with little or scattered vegetation, low bushes and grassland
8.	Open in urban	Open areas within urban area with no buildings and no vegetation i.e. Parking lots and wide streets, boulevards and esplanades
9.	Buildings 0-8m	Houses, churches, big statues and other types of constructions
10.	Buildings 8-20m	
11.	Buildings 20-40m	
12.	Buildings 40-60m	
13.	Buildings 60-100m	
14.	Buildings >100m	
15.	Containers	Containers
16.	Cranes	Cranes
17.	Ships	Ships
18.	Tent Warehouse	Tent warehouses



IV. OBSTACLES HEIGHTS MODEL (MATRIX)

Partial view



Obstacles Heights Model includes – buildings, vegetation, cranes, containers, ships and tent warehouses

Notes: The containers, cranes, large ships, tent warehouses are given as they appear in the satellite images used for the production

Parameters of accuracy	Value
Resolution (cell size)	1 m
Absolute Planimetric accuracy (x, y)	3m CE95
Accuracy of Obstacles Heights (h)	3m LE95
Minimal Mapping Unit for Buildings, ships, cranes, containers, tent warehouses	16 sq.m

Sources:
Stereo pairs of WorldView 02 satellite images with 0,5m resolution of 09.10.2024 vintage



V. VECTOR LAYERS

Partial view



Notes: The containers, cranes, large ships, tent warehouses are given as they appear in the satellite images used for the production

Parameters of accuracy	Value
Absolute Planimetric accuracy (x, y)	3m CE95
Accuracy of Obstacles Heights (h):	3m LE95
Minimal Mapping Unit for Buildings, ships, cranes, containers, tent warehouses	16 sq.m
Vector vegetation	Polygons with average height

Sources:
WorldView 02 satellite images of 0,5m resolution with 09.10.2024 vintage



There are 13 linear classes in 3D Dataset:

Nº	Class Name	Class Description
1	Highways	International motor roads
2	Major roads	Regional motor roads
3	Streets	Town street axial lines
4	Minor roads	Other roads
5	Riverlake	Coastline of rivers and lakes. Rivers with less than 10 m width
6	Coastline	Coastline of ocean, sea
7	Boundaries	Boundaries of settlements
8	Vegetation	Vegetation polygons with heights
9	Buildings	Building footprints with heights
10	Cranes	Crane footprints with heights
11	Ships	Ship footprints with heights
12	Containers	Container footprints with heights
13	Tent warehouses	Tent warehouses with heights

VI. ORTHOIMAGE

General view



Parameter	Value
Orthoimage resolution	0.5 m
Planimetric Accuracy	3m CE95
Sensor type	WorldView 02 (Maxar)
Color level	Multispectral
Vintage	09.10.2024