

DLM-Semesterprojekt 2019

Vorlesung DLM



Rahmenbedingungen

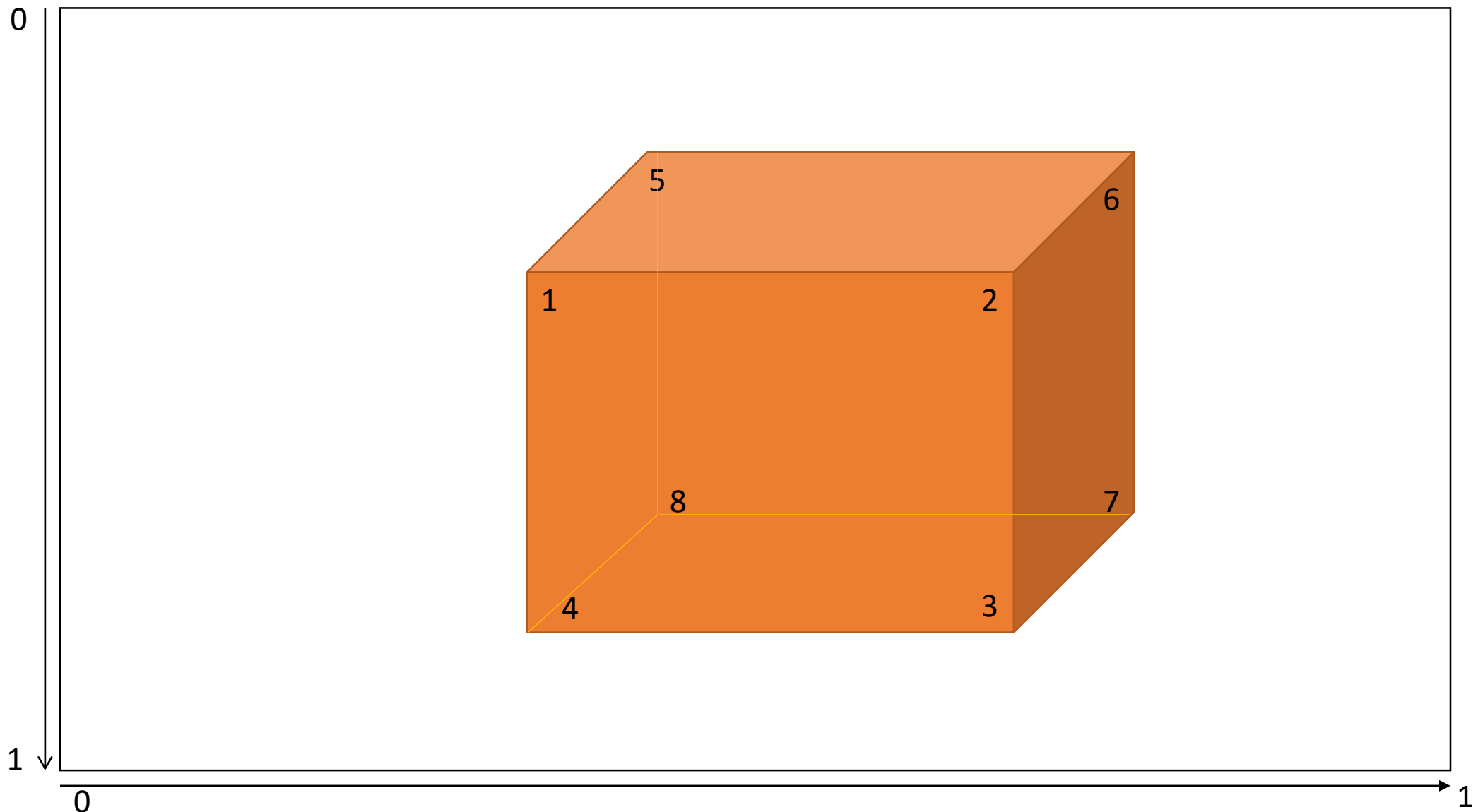
- 2.12.2019: Projektlabor
- 9.12.2019: Projektlabor
- 16.12.2019: Projektlabor
- 13.01.2020: Projektlabor
- 4.02.2020: Abgabe des Berichts
- 4.02.2020: Klausur: 10:45 – 12:45 Uhr (L112)

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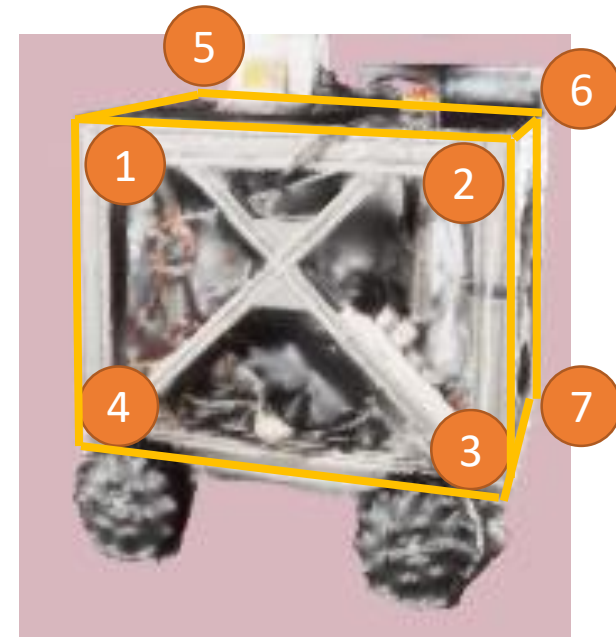
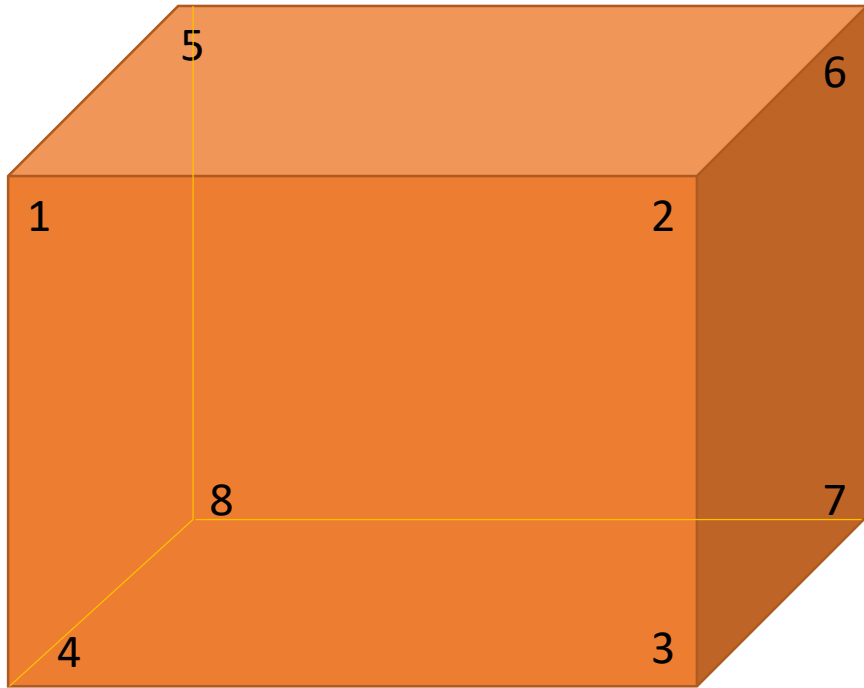
- Bestimmen der 3D-Boundingbox eines Roboters
- Literatur
 - Tremblay, Jonathan, et al. "Deep object pose estimation for semantic robotic grasping of household objects." *arXiv preprint arXiv:1809.10790* (2018).
 - Tekin, Bugra, Sudipta N. Sinha, and Pascal Fua. "Real-time seamless single shot 6d object pose prediction." *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. 2018.



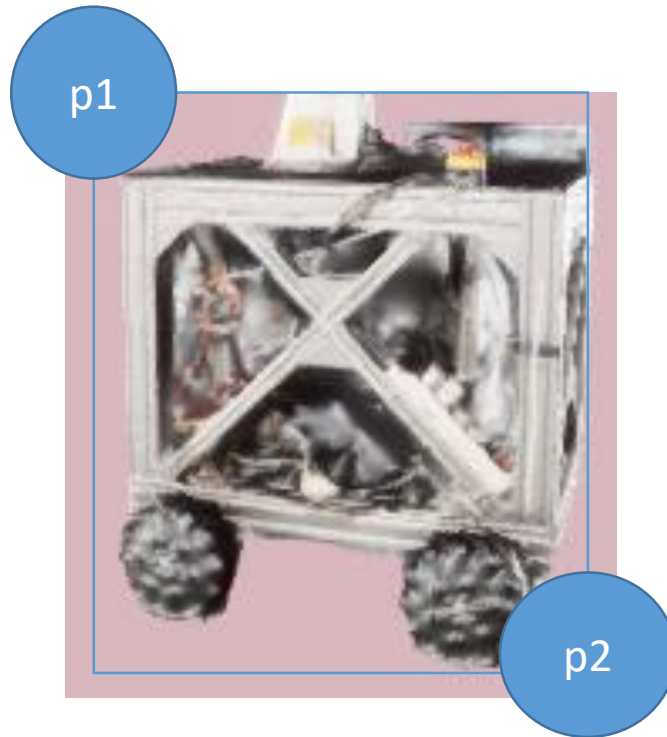
Corner IDs of the Cuboid



Corner IDs of the Cuboid (3D)



Corner IDs of the Cuboid (2D)



Source and Target DataFormat

Bilddaten: png-Bilddatenformat

Target: Json-Text-Format

Zusammenhang zwischen Bilddaten und Target:
image00001.png, image00001.json

```
{  
  "class": "ESMRoboter",  
  "centerPoint": [px py],  
  "projected3dBoundingBox": [ x1 y1 x2 y2 x3 y3 x4 y4 x5 y5 x6 y6 x7 y7 x8 y8 ],  
  "3dBoundingBox": [ x1 y1 z1 x2 y2 z3 x3 y3 z3 x4 y4 z4 x5 y5 z5 x6 y6 z6 x7 y7 z7 x8 y8 z8],  
  "2dBoundingBox": [ py1 px1 py2 px2 ]  
}
```

Verzeichnisse

- D: data/dlmWS19/project/synthetic
- D: data/dlmWS19/project/scan
- D: data/dlmWS19/project/real

Vorgaben für den Bericht

- 3-5 Seiten
- Zweispaltig
- Gliederung (LaTeX Vorlage)
 - Abstrakt
 - Einführung
 - State of the art
 - Methoden
 - Ergebnisse
- Quellenangabe