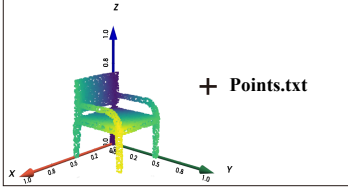


810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
841  
842  
843  
844  
845  
846  
847  
848  
849  
850  
851  
852  
853  
854  
855  
856  
857  
858  
859  
860  
861  
862  
863

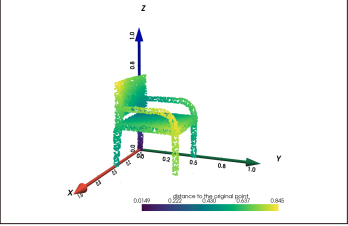
### Investigation on encoding 3D cues

#### 1. 3D Axis + Points.txt



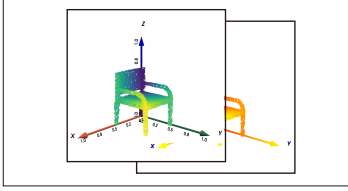
**User:** Can you tell me the 3D position of the chair armrests?  
**GPT-4o:** Assuming the armrest is the part of the chair above the seat and extending horizontally, the following points are candidates for being part of the armrest:  
**(0.506, 0.489, 0.258)**  
**(0.474, 0.496, 0.331)**  
 These points are near the mid-height range and likely belong to the horizontal structure of the chair.

#### 3. Color encodes depth



**User:** Can you tell me the position of the chair armrests?  
**GPT-4o:**  
 From the image, it seems that the armrest is a section on the right side of the chair, towards the top (based on the Z-axis), extending along the X-axis and slightly along the Y-axis.  
 1.X-coordinate: Since the armrest is on the right, the value should be closer to **0.5 to 0.8**.  
 2.Y-coordinate: The armrest seems to extend along the Y-axis, so this could be in the range of **0.3 to 0.6**.  
 3.Z-coordinate: Since the armrest is higher up, the value for the Z-axis should be approximately between **0.6 to 0.8**.

#### 2. 3D Axis in RGBD



**User:** Can you tell me the 3D position of the chair armrests?  
**GPT-4o:** To extract the 3D coordinates of the chair armrest, I'll need to:  
 1.Extract the depth information from the image.  
 2.Use the depth data to calculate the 3D coordinates for the specific location of the armrest.  
 The result is **(768, 768, 4)**

#### 4. Point cloud in text format

Points.txt

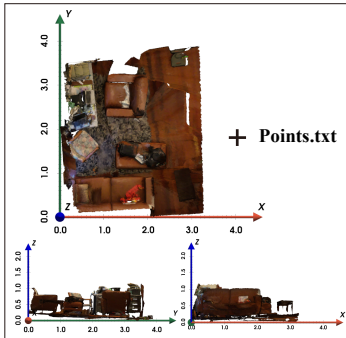
**User:** Can you tell me the position of the chair armrests?  
**GPT-4o:** The file you've uploaded appears to be a dataset containing floating-point numbers, likely representing some form of data points or measurements.

Figure A1: Investigation on encoding 3D clues in visual prompts.

864  
865  
866  
867  
868  
869  
870  
871  
872  
873  
874  
875  
876  
877  
878  
879  
880  
881  
882  
883  
884  
885  
886  
887  
888  
889  
890  
891  
892  
893  
894  
895  
896  
897  
898  
899  
900  
901  
902  
903  
904  
905  
906  
907  
908  
909  
910  
911  
912  
913  
914  
915  
916  
917

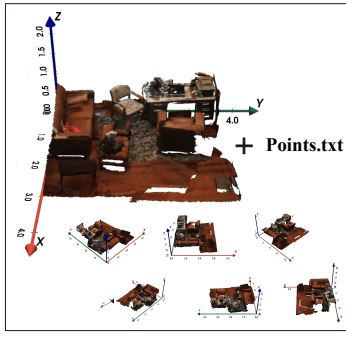
### Investigation on multi-view images

#### 1. 3D Axis+Tri-view+Points.txt



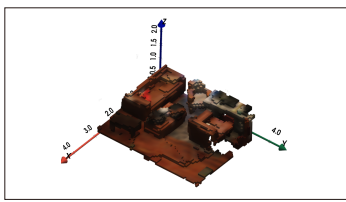
**User:** Can you tell me the 3D position of the white chair from the images?  
**GPT-4o:** Final Estimated 3D Position of the White Chair:  
 $X \approx 0.5$  meters  
 $Y \approx 3$  meters  
 $Z \approx 0.8$  to 1 meter

#### 4. 3D Axis+Multi-view+Points.txt



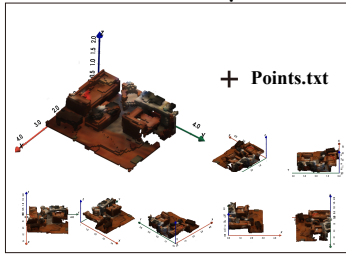
**User:** Can you tell me the 3D position of the white chair from the images?  
**GPT-4o:** Based on the data from the text file, one of the likely 3D positions for the white chair could be found from the following coordinates:  
 $X: 1.884, Y: 3.538, Z: 1.803$

#### 2. Voxel



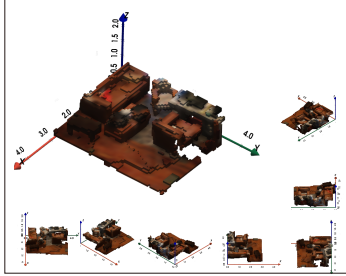
**User:** Can you tell me the 3D position of the white chair from the images?  
**GPT-4o:** The image you uploaded appears to represent a 3D voxel map or a block-style rendering. You asked for the position of a white chair in the 3D space shown, but without additional details on how this 3D structure is defined or segmented, it's hard to extract precise coordinates directly from the image alone.

#### 5. Voxel+multi-view+points.txt



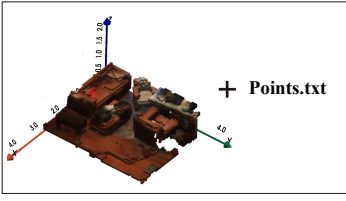
**User:** Can you tell me the 3D position of the white chair from the images?  
**GPT-4o:** In the 3D views, we can use the X, Y, and Z axes to describe the chair's position. It appears to be in the lower left region in most of the views. From the images:  
 In the top-down view (image 2), the white chair is roughly around the coordinates  
 $X: 0.5 - 1.0, Y: 2.0 - 2.5$ . The Z-axis height seems to be around 0.5 in several views (images 1 and 6).

#### 3. Voxel + multi-view images



**User:** Can you tell me the 3D position of the white chair from the images?  
**GPT-4o:** To determine the 3D position of the white chair from these images, I would need a method to compute it based on the image data, such as image processing techniques for identifying the chair in each image and using the position from different angles to triangulate the 3D position.

#### 6. Voxel + Points.txt



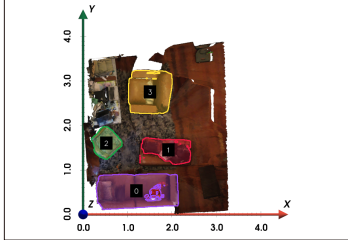
**User:** Can you tell me the 3D position of the white chair from the images?  
**GPT-4o:** Based on the data in the file, the white chair seems to be positioned around the following 3D coordinates:  
 $x=0.471$   
 $y=0.491$   
 $z=0.311$

Figure A2: Investigation on multi-view images.

918  
919  
920  
921  
922  
923  
924  
925  
926  
927  
928  
929  
930  
931  
932  
933  
934  
935  
936  
937  
938  
939  
940  
941  
942  
943  
944  
945  
946  
947  
948  
949  
950  
951  
952  
953  
954  
955  
956  
957  
958  
959  
960  
961  
962  
963  
964  
965  
966  
967  
968  
969  
970  
971

**Investigation on 2D mark (I)**

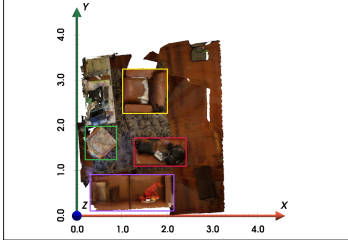
**1. Mark+polygon+mask**



**User:** Can you tell me the position of the white flower chair (2) from the image?

**GPT-4o:** From the image, the white flower chair marked with "2" is located at approximately the following position on the X, Y, Z axes:  
**X-axis: Around 1.0**  
**Y-axis: Around 2.0**  
**Z-axis: 0 (since it's resting on the ground plane)**

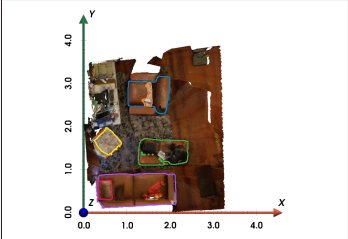
**4. 3D Axis+bbx**



**User:** Can you tell me the position of the white flower chair (2) from the image?

**GPT-4o:** Based on the image you provided, the white flower chair is marked within a green bounding box. The approximate position of the white flower chair:  
**X-axis: Between 0.8 to 1.4 units.**  
**Y-axis: Between 1.8 to 2.3 units.**  
**Z-axis: Relatively close to the ground, at about 0 units.**

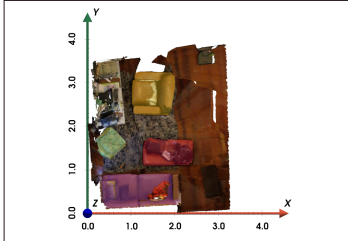
**2. 3D Axis +polygon**



**User:** Can you tell me the position of the white flower chair (2) from the image?

**GPT-4o:** The position of the white flower chair (labeled as 2) is located near the lower left side of the image. The chair seems to be within the range of:  
**X-coordinate: around 1.0**  
**Y-coordinate: around 1.5**  
**Z-coordinate: 0.0 (ground level)**

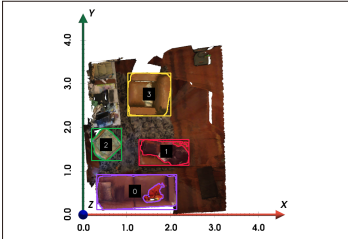
**5. 3D Axis +mask**



**User:** Can you tell me the position of the white flower chair (2) from the image?

**GPT-4o:** From the provided image, the white flower chair (2) appears to be located near the bottom left corner of the room. The approximate position of the white flower chair to be around the following coordinates:  
**X ≈ 0.7 units**  
**Y ≈ 0.9 units**  
**Z ≈ 0.0 units**

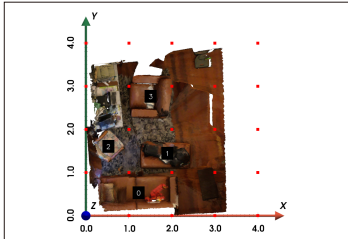
**3. Mark + bbx+polygon**



**User:** Can you tell me the position of the white flower chair (2) from the image?

**GPT-4o:** From the image, the white flower chair (labeled with "2" in a green box) appears to be positioned around the following coordinates:  
**X-coordinate: Between 1.0 and 2.0**  
**Y-coordinate: Between 1.0 and 2.0**  
**Z-coordinate: Close to 0.0, as the Z-axis seems to represent the ground plane.**  
 Thus, the approximate position of the white flower chair is at  
**(X: 1.5, Y: 1.5, Z: 0.0).**

**6. Mark+scaffold points**



**User:** Can you tell me the position of the white flower chair (2) from the image?

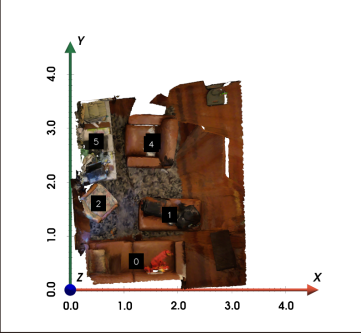
**GPT-4o:** Based on the image you provided, the white flower chair seems to be located near the bottom left corner of the room. Estimating its position from the coordinates grid on the floor, it appears to be at approximately (X, Y) coordinates of around (1.0, 1.0) to (1.5, 1.5)

Figure A3: Investigation on 2D marker format (I).

972  
973  
974  
975  
976  
977  
978  
979  
980  
981  
982  
983  
984  
985  
986  
987  
988  
989  
990  
991  
992  
993  
994  
995  
996  
997  
998  
999  
1000  
1001  
1002  
1003  
1004  
1005  
1006  
1007  
1008  
1009  
1010  
1011  
1012  
1013  
1014  
1015  
1016  
1017  
1018  
1019  
1020  
1021  
1022  
1023  
1024  
1025

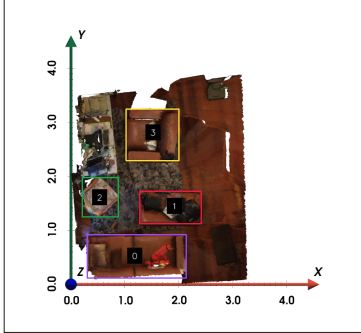
**Investigation on 2D mark (II)**

**7. Mark**



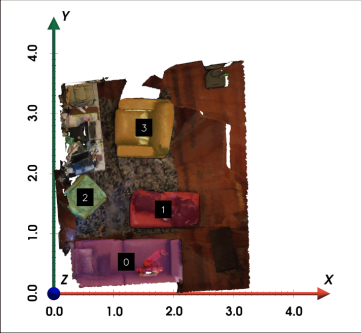
**User:** Can you tell me the position of the white flower chair(2)?  
**GPT-4o:** The position of the white flower chair labeled as "2" in the image is approximately at coordinates (1.0, 2.0, 0.0) in the 3D space.

**9. Mark + boundingbox**



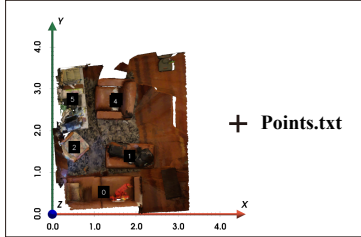
**User:** Can you tell me the position of the white flower chair(2)?  
**GPT-4o:** The white flower chair labeled as "2" in the green box appears to be located at approximately: X≈1.2 Y≈1.6 Z≈0.0

**8. Mark+mask**



**User:** Can you tell me the position of the white flower chair(2)?  
**GPT-4o:** Based on the image you provided, the white flower chair labeled "2" is located approximately at:  
**X-coordinate: 0.5 to 1.5**  
**Y-coordinate: 1.0 to 2.0**  
**Z-coordinate: The height (Z-axis) is at ground level (Z = 0), as it is part of the floor**

**10. Mark+points.txt**



**User:** Can you tell me the position of the white flower chair (2) from the image?  
**GPT-4o:** These points suggest the chair is positioned within this area, close to the coordinates (1.3, 1.2, 0.3). The Z-coordinate indicates the height above the floor, which is relatively low, matching the assumption that this is a seated object. Thus, the position of the white flower chair is approximately (1.3, 1.2, 0.3) in 3D space

Figure A4: Investigation on 2D marker format (II).

1026  
1027  
1028  
1029  
1030  
1031  
1032  
1033  
1034  
1035  
1036  
1037  
1038  
1039  
1040  
1041  
1042  
1043  
1044  
1045  
1046  
1047  
1048  
1049  
1050  
1051  
1052  
1053  
1054  
1055  
1056  
1057  
1058  
1059  
1060  
1061  
1062  
1063  
1064  
1065  
1066  
1067  
1068  
1069  
1070  
1071  
1072  
1073  
1074  
1075  
1076  
1077  
1078  
1079

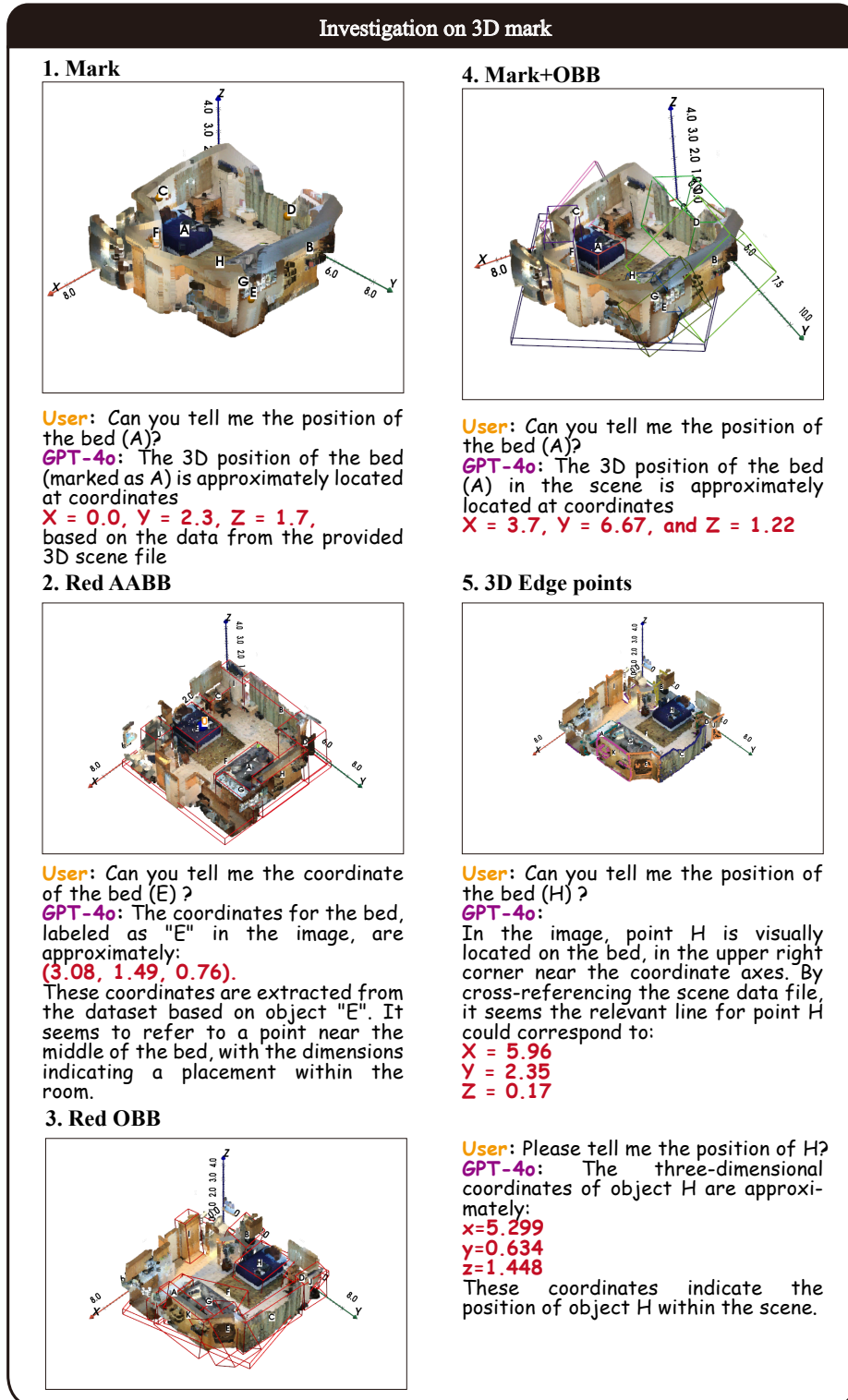


Figure A5: Investigation on 3D marks.