1. Introduction

Due to space limitations in the main paper, we provide further statistics and visualizations in this supplementary material. Section 2 shows in-depth replacement statistics for the cleaned Amazon domain of our Refurbished Office-31 dataset. Section 3 provides further information about our Adaptiope dataset, the collection process of its synthetic domain and example images for 15 synthetic models in Figure 4 to 6. Furthermore, we show examples of label noise in the Amazon domain of Office-31 [3] in Figure 7. Finally, additional confusion matrices are shown in Figure 8.

2. Refurbished Statistics

We also provide further datasets statistics for our Refurbished Office-31 dataset. Table 1 depicts the image replacement rate per class for the cleaned Amazon domain. The rules according to which we replaced images were illustrated in the main paper. Additionally, the Dupes column shows how many duplicated images the original dataset contained. The desktop computer class was the most problematic in terms of ambiguous labels, as many images partially included objects from other classes such as monitor, mouse, speaker or keyboard.

3. Adaptiope

3.1. Dataset Statistics

The 123 classes of Adaptiope are: acoustic guitar, axe, backpack, baseball bat, bicycle, bicycle helmet, binoculars, bookcase, bottle, boxing gloves, brachiosaurus, calculator, car jack, cellphone, chainsaw, coat hanger, comb, compass, computer, computer mouse, cordless fixed phone, corkscrew, crown, dart, desk lamp, diving fins, drum set, electric guitar, electric shaver, fan, fighter jet, file cabinet, fire extinguisher, flat iron, game controller, glasses, golf club, grill, hair dryer, hand cuffs, handgun, hand mixer, hard-wired fixed phone, hat, helicopter, hot glue gun, hourglass, hoverboard, ice cube tray, ice skates, in-ear headphones, keyboard, knife, ladder, laptop, lawn mower, letter tray, magic lamp, microwave, mixing console, monitor, motorbike helmet, mug, nail clipper, network switch, notepad, office chair, over-ear headphones, pen, phonograph, pikachu, pipe wrench, pogo stick, power drill, power strip, printer, projector, puncher, purse, quadcopter, razor, rc car, rifle, ring binder, roller skates, rubber boat, ruler, scissors, scooter, screwdriver, sewing machine, shower head, skateboard, skeleton, sleeping bag, smartphone, smoking pipe, snow shovel, spatula, speakers, stand mixer, stapler, stethoscope, stroller, sword, syringe, tank, tape dispenser, telescope, tent, toilet brush, toothbrush, trash can, tyrannosaurus, umbrella, usb stick, vacuum cleaner, vr goggles, wallet, watering can, webcam, wheelchair and wristwatch.

As mentioned in the main paper, these classes are a superset of Office-31 [3] and can therefore be used as an extra
domain or for research on cross-dataset UDA. Our Adaptiope dataset is perfectly balanced and contains 100 unique images per class and domain. We thus refrain from showing the common dataset histogram.

### 3.2. Synthetic Domain

For the synthetic domain of Adaptiope, we collected 615 models and raytraced them from 20 different viewpoints for a total of 12,300 images. For this, all models were manually positioned on a bowl-shaped shadow catcher surface (see Figure 2) and illuminated by a single light source. The bowl shape was chosen in order to prevent hard edges in the background while still allowing for shadows to be cast on a surface. After this manual setup, the rendering process was automatically completed by a Python script using the Blender API [1]. Camera viewpoints were generated by randomly sampling a 3D point from the upper half of the fibonacci sphere (see Figure 2) as origin for the camera which was then oriented towards the object’s center of volume. As mentioned in the main paper, extreme viewpoints were manually filtered afterwards. Example viewpoints for the classes watering can, office chair and stroller are depicted in Figure 4 to 6.

### 3.3. Example Images

Finally, we show additional images for 52 out of the 123 classes of our Adaptiope dataset in Figure 1 and 3.

### References


Figure 3: Additional examples for 44 out of the 123 classes of our Adaptiope dataset. From left to right: product, real life and synthetic images. Please note that the images were resized to a 1:1 aspect ratio for displaying purposes, our dataset contains the normally sized images. Best viewed in the digital version.
Figure 4: All 100 synthetic images for the watering can class. Images are grouped into the 5 model groups with 20 different viewpoints each. Best viewed in the digital version.
Figure 5: All 100 synthetic images for the office chair class. Images are grouped into the 5 model groups with 20 different viewpoints each. Best viewed in the digital version.
Figure 6: All 100 synthetic images for the stroller class. Images are grouped into the 5 model groups with 20 different viewpoints each. Best viewed in the digital version.
Figure 7: Example images for the desktop computer and puncher classes demonstrating label noise in the Amazon domain of the Office-31 [3] dataset. Most images are only vaguely related to the category due to the nature of the data collection process via web scraping, e.g. mainboards instead of full computers or punch cards instead of punchers. Overall, 69.4% of the puncher images and 86.6% of the desktop computer images had to be replaced for our Refurbished Office-31 dataset.

Figure 8: Confusion matrices for the W→A and W→A_ref tasks using CAN [2]. The refurbished Amazon domain exhibits a much more distinct diagonal due to the rectification of annotation errors. Best viewed in the digital version.