Horizontal Bounding Box Labeler Instructions

HBBLabeler.exe is a segmentation labeling tool for MIL X Service Pack 6. This tool was developed for internal purposes and is available as-is to the MIL user community. It should be noted that this tool is temporary and intended for interim use until the official object detection dataset labeling tool, CoPilot v6, is released.

To launch the tool:

1- Ensure that MIL X Service Pack 6 for Window 10 64-bit is installed on your PC.
2- Create a working directory (new folder), download the executable, and copy it to the new working directory.
3- Create two new folders inside this new directory: “source_directory” and “destination_directory”.
4- Copy the images that need to be labeled to the “source_directory”.
5- Launch the Windows Command Prompt and move to the new working directory, using the following command:

```
cd /d path_to_working_directory
```

6- From the Windows Command Prompt, start HBBLabeler.exe, using the following command:

```
HBBLabeler.exe source_directory destination_directory classes_names -lst path_to_lst -ann annotation_tickness -f lst_format
```

Note the following details in this command:

- The source directory is the directory where the images that need to be labeled are stored. **Make sure that this path is an absolute path. Otherwise, the dataset won’t be saved properly.**
- The destination directory is the directory where the labels will be stored. This directory can be empty when you first launch the tool. **Make sure that this path is an absolute path. Otherwise, the dataset won’t be saved properly.**
- The classes names are the list of classes names excluding the background. For example: class_name1,class_name2,class_name3…etc.
- The LST file path is an optional parameter that you can specify to load the LST file generated by a previous labeling session.
- The annotation thickness is an optional parameter that defines the thickness of the bounding boxes in the display. The default value is 1.
- The LST format is also an optional parameter. It indicates if the paths in the LST file are in the absolute path (abs) format or relative path (rlt) format. The default value is absolute. It’s better to not modify this value.

7- Once you launch the application, the following keymap will appear:

```
KEYMAP:
============================
Next image and save labeling :: Right arrow (->) or Space bar
Previous image               :: Left arrow (<-)
Add an Object                :: Mouse right click
Select next defined object   :: Up arrow (^)
Select previous defined obj  :: Down arrow (v)
Delete an Object             :: Delete key
Edit box's top or down       :: E , D (Hold key + move mouse)
Edit box's left or right     :: S , F (Hold key + move mouse)
Increase the class           :: T
Decrease the class           :: R
Delete all the objects       :: C
Change default box WxH       :: Q, sets to the currently selected box.
Save the result              :: A
End with saving              :: Esc
```

Take a few moments to understand the keymap.

8- Press “Enter” and start labeling.

Additional details

- To ensure the labeling process is behaving as you expect, you should frequently validate that your labels are saved properly after you press “A”, space bar or right arrow by inspecting the destination folder. It’s also safer to back up your labels every time you want to relaunch the HBB Labeler tool.
- Note that the MIL format dataset will only be exported once you finish labeling or hit “Esc”.
- To be able to load an LST file properly. **We assume there is no space in the image file paths**.