

The following supplementary material has been included:

- 2 videos showing the segmentation for the Bypass dataset, one with all the validation instances (full_video.mp4) and another reduced (full_video_sub.mp4). These videos show side to side the original image, the segmentation results with full supervision and the segmentation results with weak supervision.

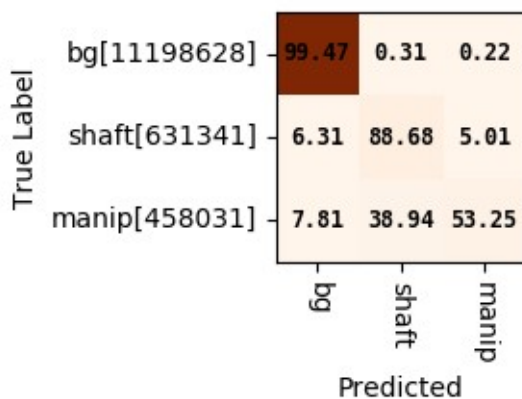
The color code is the following

RGB code	Color	Class
[0, 0, 0]	black	background
[255, 0, 0]	red	automatic grasper
[0, 255, 0]	lime	bowel clamp
[0, 0, 255]	blue	clip applicator
[255, 255, 0]	yellow	drain
[0, 255, 255]	cyan	harmonic scalpel
[255, 0, 255]	magenta	hook
[192, 192, 192]	silver	ligasure
[96, 96, 96]	gray	liver retractor
[128, 0, 0]	maroon	needle holder
[128, 128, 0]	olive	o reilly
[0, 128, 0]	green	scissors
[128, 0, 128]	purple	stapler
[0, 128, 128]	teal	suction irrigation
[255, 255, 255]	white	ignore label

We also include the confusion matrices for all the experiments performed.

For Endovis 15:

Example:



Numbers in y-axis show the number of pixels belonging to each label.

List of confusion matrices:

endovis_15_fullsup_fold0.png
endovis_15_fullsup_fold1.png
endovis_15_fullsup_fold2.png
endovis_15_fullsup_fold3.png
endovis_15_fullsup_fold4.png
endovis_15_weaksup_auto_fold0.png
endovis_15_weaksup_auto_fold1.png
endovis_15_weaksup_auto_fold2.png
endovis_15_weaksup_auto_fold3.png
endovis_15_weaksup_auto_fold4.png
endovis_15_weaksup_human_lines_fold0.png
endovis_15_weaksup_human_lines_fold1.png
endovis_15_weaksup_human_lines_fold2.png
endovis_15_weaksup_human_lines_fold3.png
endovis_15_weaksup_human_lines_fold4.png
endovis_15_weaksup_human_moreLines_fold0.png
endovis_15_weaksup_human_moreLines_fold1.png
endovis_15_weaksup_human_moreLines_fold2.png
endovis_15_weaksup_human_moreLines_fold3.png
endovis_15_weaksup_human_moreLines_fold4.png

For LapSleeve:

lapsleeve_fullsup_fold0.png
lapsleeve_fullsup_fold1.png
lapsleeve_fullsup_fold2.png
lapsleeve_fullsup_fold3.png
lapsleeve_fullsup_fold4.png
lapsleeve_weaksup_fold0.png
lapsleeve_weaksup_fold1.png
lapsleeve_weaksup_fold2.png
lapsleeve_weaksup_fold3.png
lapsleeve_weaksup_fold4.png