

Exploring Temporal Surgical-VQA Using Scene Graphs

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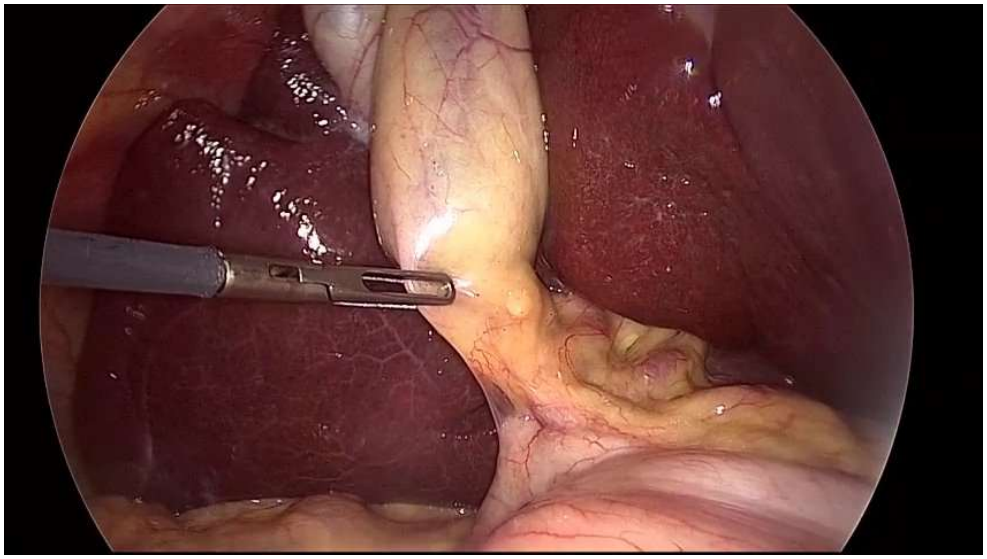
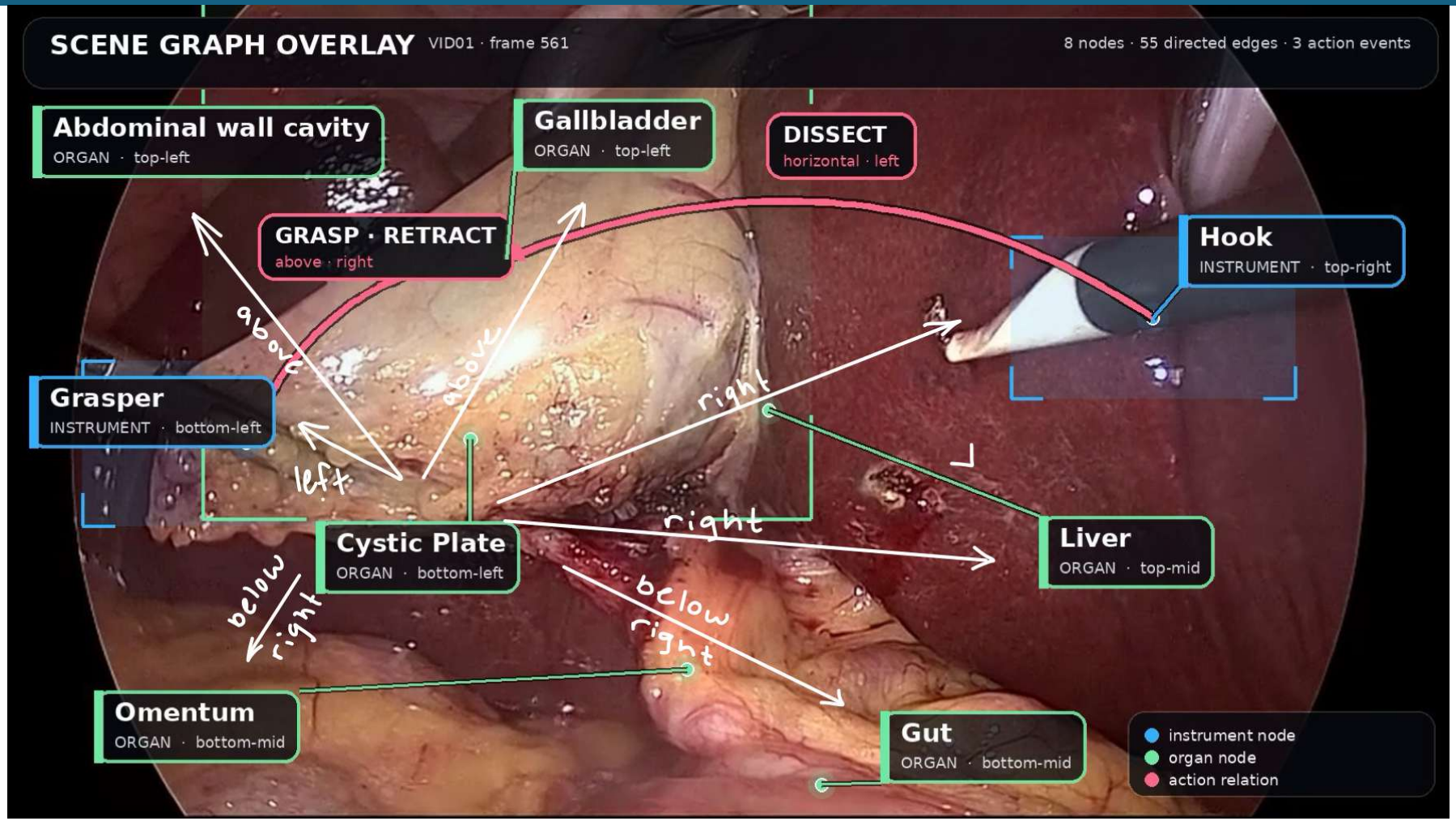
Surgical VQA

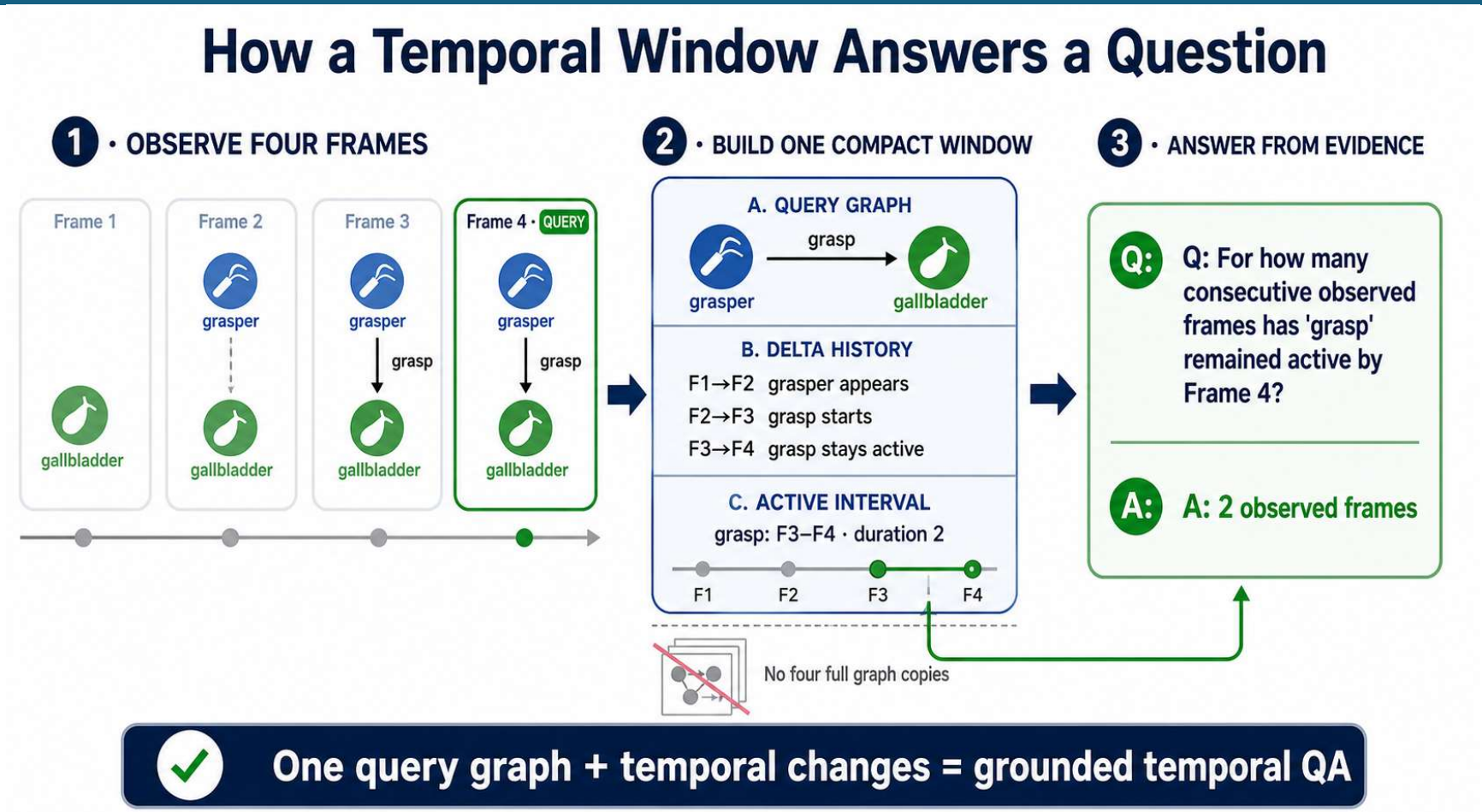


Which tool is operating on gallbladder	Grasper
What anatomy is at the top-left of the frame	Abdominal wall cavity
Which target is being grasped in the scene?	Gallbladder

Visualized Scene Graph



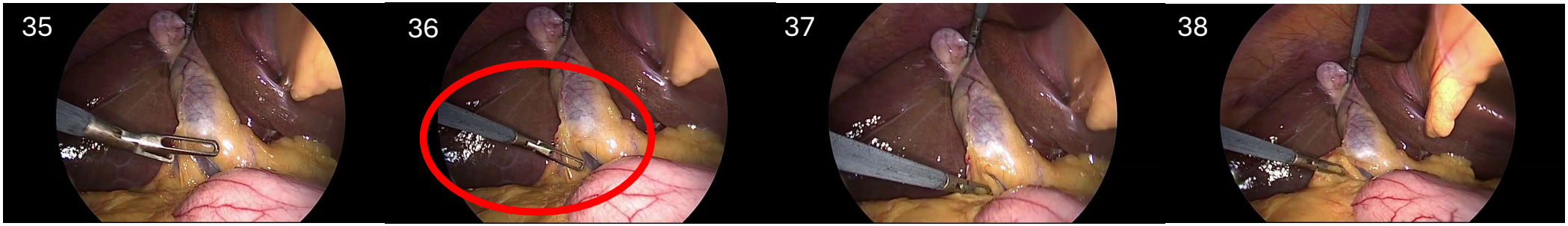
Temporal storage



Results

- Non-temporal question accuracy: 73.6%
- Temporal question accuracy: 99.7%

Query frame:



Query at frame 38: At which observed frame did the current consecutive run of the annotated action 'retract' from grasper to omentum begin?

Answer: Frame 36

Thank you!