

Automatic cell-and-portal decomposition

Accompanying video

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This page describes the content of the MPEG video accompanying the paper entitled *Automatic cell-and-portal decomposition*. The video is 4 minutes long. Six sequences are shown:

- Sequence 1: walkthrough in the clinic model, showing the initial BSP subdivision.
- Sequence 2: same walkthrough after applying our method to the model.
- Sequence 3: comparative walkthrough. the inset shows the BSP subdivision while the rest of the screen displays the decomposition created with our method.
- Sequence 4: the first part shows a cell and its portals extracted from the Church model, processed with our method. Note its non-convexity, and how details are isolated into the cell. The second part demonstrates that our method finds portals of arbitrary orientation.
- Sequence 5: the simplification algorithm and the metrics in action.
- Sequence 6: walkthrough in the Blockwar model, illustrating the usefulness of our method for portal rendering. Note that some cell are drawn while not visible: this is because of our implementation that does use scene polygons as occluders for portals. Using occlusion queries extensions on current graphic hardware, would provide exact (at pixel precision) portal visibility queries.