

Project 2 for CAP6412
Due 16:30, ?? October 2003

Implement the method presented in the paper: Graphcut Textures: Image and Video Synthesis
Using Graph Cuts

- See <http://www.cc.gatech.edu/cpl/projects/graphcuttextures/> for all input images and sequences.
- Sample output is available on <http://www.cc.gatech.edu/cpl/projects/graphcuttextures/>

Deliverables:

- Implement method in paper in C/C++, Octave, or matlab
- Write a short report describing the method, your implementation, experiments, problems you encountered, and any comments you have.
- Show the applications of this method for image and video synthesis. You should show the error and output of the various iterations of your algorithm. For video textures you should ...
- Your program should work for video texture, interactive image synthesis, rotation and perspective effects correctly displayed, and image texture.

Solution tips:

1. Patch placement costs are computed according to the probability function. Once a patch has been placed then:
2. Construct the weight matrix of overlap region.
3. Cut the graph.
4. Introduce new seam nodes with the appropriately given weights from paper.
5. Repeat

Landmarks

- a) Make sure that the weight matrix is being calculated properly.
- b) Verify that you are cutting the graph properly and that seam nodes are computed correctly.
- c) Then implement the various patch placement routines.