CIS660 AUTHORING TOOL PROGRESS REPORT

To be sent to SHL via email by midnight on Friday of each week

WEEK OF:_____3_____

Name of Authoring Tool _____Interlocker_____

- Current date: _____03/19/2017_____
- Name: _____Jiongjian Chen_____

Task Activities since the Last Report

- Tell me what Design Doc work plan tasks you worked on over the past week

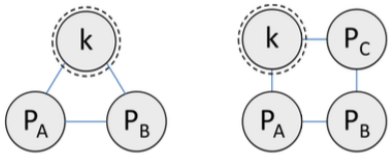
  4. Construct LIG-graph

     4.1. Implement conditions for a cycle of parts to be local interlocking (considering 3- and 4-part cycles)

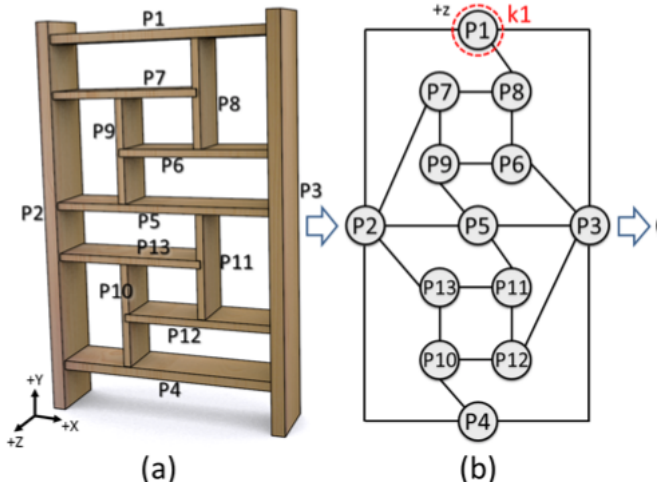
     4.2. Implement rules for expanding an existing LIG

- Tell me specifically what the work consisted of and what was accomplished

  1. Implemented 3-part cycle and 4-part cycle conditions for local interlocking, in which Every non-key part should be immobilized and Every subset of two adjacent parts should be immobilized.



  2. Solve for the construction of first LIG, which is G1, with a given user-specified primary key (k1) and an intended removal direction, which can be illustrated with this picture:



- List the number of hours you worked on each of these tasks this week

Implement conditions for a cycle of parts to be local interlocking – 3 hours

Implement rules for expanding an existing LIG – 4 hours

The construction of first LIG – 3 hours

- List the total number of hours you have spent working on your authoring tool since the start of the project

  30 hours

Activities Planned for Next Week

Next week's tasks are as follows according to the work plan(a little adjustment):

4. ConstructLIG-graph–3weeks

   4.3. Implement three conditions for constructing LIGs with dependency in assembly order.

   4.3.2. Construct Gj that shares parts with only one previously-constructed LIG, but not others

   4.3.3. Construct Gj that shares parts with multiple previously-constructed LIGs.

Work Plan Tasks Completed to Date

1. Build Framework – 1week

   1.1. Model interlocking furniture parts in 3d Max or Maya

   1.2. Implement user GUI interface dialog (MEL)

   1.3. Implement command plugin framework (C++)

      1.3.1. Write code stubs

2. Construct Parts-graph – 2week

   2.1. Generate initial parts-graph with given furniture model

   2.2. Merge degree-1 nodes in the graph with their adjacent parts

   2.3. Analyze and identify groups of overlapping cycles in the parts-graph

4. Construct LIG-graph

   4.1. Implement conditions for a cycle of parts to be local interlocking (considering 3- and 4-part cycles)

   4.2. Implement rules for expanding an existing LIG