Lab 2

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February 13, 2012

1 Specification

Plot out a street using user supplied information.

2 Analysis/Design

- Obtain user input for number of houses to plot
- obtain user input for both first and last house
- Plot the first and last house, interpolate the remaining houses and plot them
- obtain user input regarding House number, and which house to append number to

3 Implementation

"lab2.cpp" 3≡

⟨ *include files* 4 ⟩

```
using namespace std;

class House
{
   public:
      House();

      void plot(Point h);

   private:
};

class Street
{
   public:
      Street();

      void plot(Point h1, Point h2, int housenum);
   private:
};


House::House() {}

void House::plot(Point h)
{
   double x = h.get_x();
   double y = h.get_y();

   // Below are plot points for the house

   Point house_ul(x-.7, y+.3) ;
   Point house_ur(x+.7, y+.3) ;
   Point house_ll(x-.7, y-.3) ;
   Point house_lr(x+.7, y-.3) ;

   Point roof_l(x-.2, y+.6) ;
   Point roof_r(x+.2, y+.6) ;

   Point window(x+.35, y+.1) ;
   Point window_l(x + .2, y + .1) ;
   Point window_r(x + .5, y + .1) ;
   Point window_t(x + .35, y + .25) ;

   Point door_handle(x-0.2, y - .125) ;

   Point door_ul(x-.5, y+.125) ;
   Point door_ur(x-.1, y+.125) ;
   Point door_ll(x-.5, y-.3) ;

   // Below are the lines for the house

   Line house_top(house_ul, house_ur) ;
   Line house_left(house_ul, house_ll) ;
   Line house_right(house_ur, house_lr) ;
```

⟨ *include files* 4 ⟩ ≡

```
#include "ccc_win.h"
```

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Fragment referenced in 3.