The reason that this doesn't work is that Refresh doesn't call Paint immediately. Paint will only get called once and only after your code has finished.

One solution:

```
void Step()
{
  bool quit = false;
  Refresh();
  ProcessEvents(&quit); // Force Refresh event to be executed
  // If quit is true here then exit the app
}
```

Thie would draw each step as it is generated. I would advise against having the cell update code in Paint though.

And to fix the the TimerCallback problem of the step taking longer than the callback, if you change the timing from a negative to a positive number then you have to re-issue the callback every time it executes. This means you could complete the calculation of the next generation before you set the callback:

```
void OnTimer()
{
  UpdateCells();
  Refresh();
  SetTimerCallback(40, THISBACK(OnTimer));
}
```

James