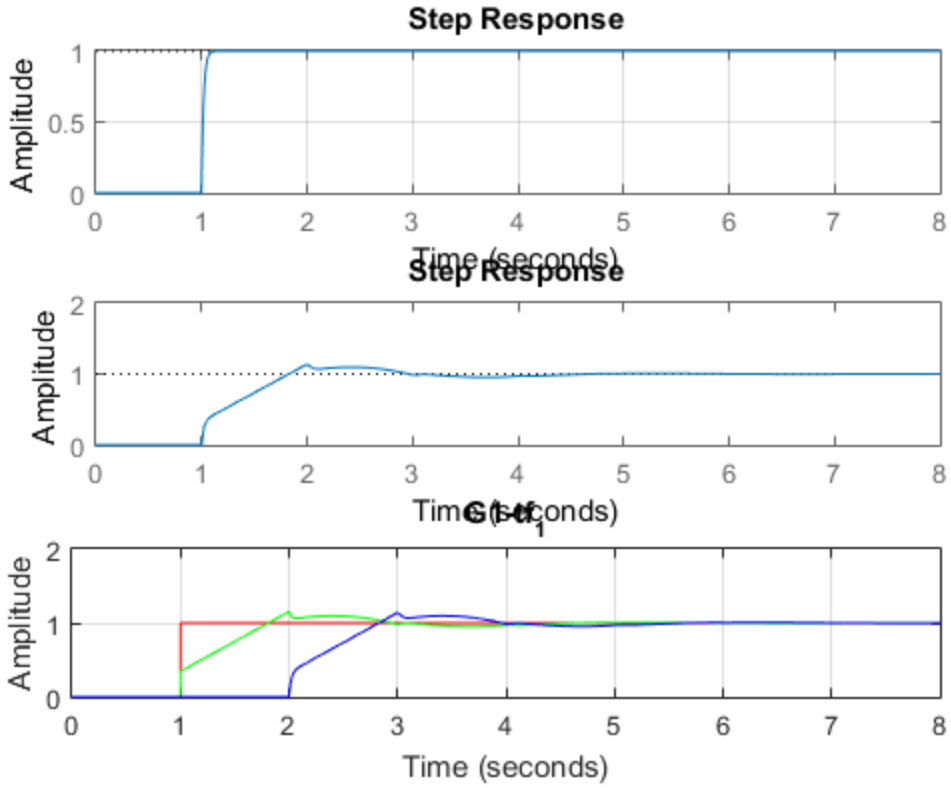
```
simulation_time = 8;
sim_step = 0.0001;
for i = 1:1
    try
        model = 'closed_loop_model.slx';
        G = G1(i);
        fig = figure();
        subplot(3,1,1);
        step(G,8);
        grid on;


        [ctr,info]=pidtune(G,'pid');
        cmd_sys=feedback(ctr*G,1)
        subplot(3,1,2);
        step(cmd_sys,8);
        [t,x]=sim(model);
        subplot(3,1,3);
        plot(sp, 'r');
        hold on;
        plot(control, 'g');
        hold on;
        plot(pv, 'b');
        grid on;
        ylabel('Amplitude');
        xlabel('Time (seconds)');
%         model = 'closed_loop_model.slx';
%         hold on;
%         sim(model);
%         plot(sp.Data, 'r','LineWidth',2);
%         hold on;
%         plot(control.Data, 'g','LineWidth',2);
%         hold on;
%         plot(pv.Data, 'b','LineWidth',2);
%         grid on;
%         hold on;
         title(strcat('G1-tf_',int2str(i)));
%         file = strcat('G1-tf-', int2str(i));
%         print(fig,file,'-dpng');
%         close(fig)
    catch ME
        'G1'
        i
    end
end

%wykorzysta# pole(ss)


cmd_sys =

  a =
           x1      x2
```

```
 x1  -67.36  -40.38
 x2       1       0

b =
     u1
 x1   8
 x2   0

c =
        x1     x2
 y1   2.17  5.047

d =
     u1
 y1   0

(values computed with all internal delays set to zero)

Internal delays (seconds): 1

Continuous-time state-space model.

Warning: The specified buffer for 'closed_loop_model/LTI System/Input
Delay/Transport Delay' was too small. During simulation, the buffer
 size was
temporarily increased to 10240. In order to generate code, you need to
 update
the buffer size parameter
```



Published with MATLAB® R2015a