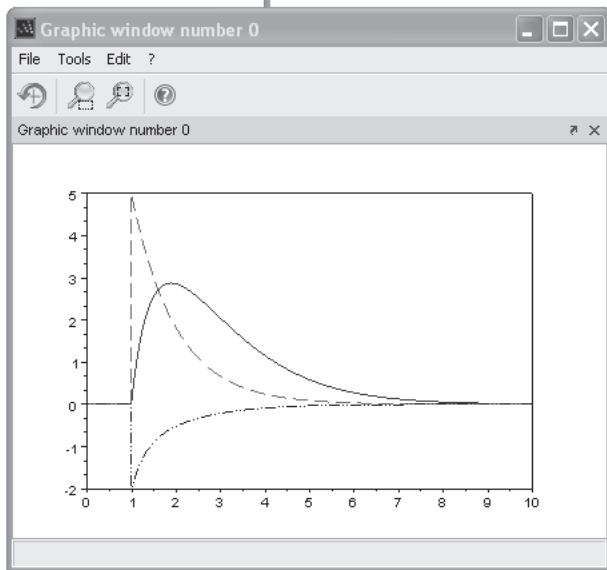


```
Console
File Edit Preferences Control Applications ?
[Icons]
Console
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                scilab-5.1.1
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```

Startup execution:
loading initial environment
-->exec("EPSP.sce")



```
SciPad 7.18.1 - EPSP.sce
File Edit Search Execute Scheme Options Windows Help
1 // Synaptic conductance model to simulate an EPSP
2 clear; clf;
3
4 // Setting some constants and initial values
5 c_m=1; g_L=1; tau_syn=1; E_syn=10; delta_t=0.01;
6 g_syn(1)=0; I_syn(1)=0; v_m(1)=0; t(1)=0;
7
8 // Numerical integration using Euler scheme
9 for i=2:10/delta_t
10     t(i)=t(i-1)+delta_t;
11     if abs(t(i)-1)<0.001; g_syn(i-1)=1; end
12     g_syn(i)= g_syn(i-1) - delta_t/tau_syn * g_syn(i-1);
13     I_syn(i)= g_syn(i) * (v_m(i-1)-E_syn);
14     v_m(i)= v_m(i-1) - delta_t/c_m *g_L* v_m(i-1) ...
15             - delta_t/c_m * I_syn(i);
16 end
17
18 // Plotting results
19 plot(t,v_m); plot(t,g_syn*5,'r--'); plot(t,I_syn/5,'k:')
```