

```
myfunc1.m  myfunc2.m  +
1  function [sys, x0, str, ts] = myfunc2(t,x,u,flag)
2  switch flag
3      case 0
4          [sys,x0,str,ts]=mdlInitializeSizes;
5      case 1
6          sys=mdlDerivatives(x,u,t);
7      case 3
8          sys=mdlOutputs(x,u,t);
9      case {2, 4, 9}
10         sys=[];
11     otherwise
12         error(['Unhandled flag = ', num2str(flag)]);
13 end
14 end
15
16 function [sys, x0, str, ts] = mdlInitializeSizes
17     sizes=simsizes;
18
19     sizes.NumContStates=1;
20     sizes.NumOutputs = 1;
21     sizes.NumInputs = 0;
22
23     sizes.NumDiscStates=0;
24     sizes.DirFeedthrough=0;
25     sizes.NumSampleTimes=1;
26     sys=simsizes(sizes);
27     str=[];
28     ts=[0 0];
29     x0= 0;
30 end
31
32 function sys=mdlDerivatives(x,u,t)
33     sys= 1+(x^2);
34
35 end
36 function sys=mdlOutputs(x,u,t)
37     sys=x;
38
39 end
40
41
42
43
44
45
```