

```

model newdir
//*****
parameter Real A[:, :]=[0, 1; 2, -1];
parameter Integer dim[:]=size(A);

parameter Real my_range=20;
parameter Real x1_0=1;
parameter Real x2_0=1;

parameter String dirname = "new_local_dir";
parameter String mkd = "mkdir ";
parameter String fnam = "my_file.txt";
parameter String fSl = "/";

String dircmdstr;
String wdir;
String ini_patha="S:"+ fSl + "folder"+fSl+"subfolder"+fSl+"subsubfolder"+fSl+"newresults_A";
String ini_pathb="S:"+ fSl + "folder"+fSl+"subfolder"+fSl+"subsubfolder"+fSl+"newresults_B";
String ini_pathc="S:"+ fSl + "folder"+fSl+"subfolder"+fSl+"subsubfolder"+fSl+"newresults_C";

String arow1;
String arow2;
String brow1;
String brow2;

Real my_x[2, 1];
Real eigval[2, 2];
Real eigvec[2, 2];
//*****

initial equation
my_x[1, 1] = x1_0;
my_x[2, 1] = x2_0;
//*****

equation
(eigval,eigvec) = Modelica.Math.Matrices.eigenValues(A);
der(my_x) = A*my_x;
//*****

when terminal() then
  arow1= String(eigvec[1,1])+ " " +String(eigvec[1,2]);
  arow2= String(eigvec[2,1])+ " " +String(eigvec[2,2]);
  brow1= String(eigval[1,1])+" "+String(eigval[1,2]);
  brow2= String(eigval[2,1])+" "+String(eigval[2,2]);
end when;
//*****

algorithm
when terminal() then
  Modelica.Utilities.Files.createDirectory(ini_patha);
  wdir := Modelica.Utilities.System.getWorkDirectory();

  dircmdstr := mkd + dirname;
  system(dircmdstr);

  Modelica.Utilities.Streams.print(wdir,"orig_workdir.txt");
  Modelica.Utilities.System.setWorkDirectory(wdir + fSl + dirname);
  Modelica.Utilities.Streams.print(arow1,fnam);
  Modelica.Utilities.Streams.print(arow2,fnam);
  Modelica.Utilities.Streams.print(brow1,fnam);
  Modelica.Utilities.Streams.print(brow2,fnam);

  Modelica.Utilities.System.setWorkDirectory(ini_patha);
  Modelica.Utilities.Streams.print(arow1,fnam);
  Modelica.Utilities.Streams.print(arow2,fnam);
  Modelica.Utilities.Streams.print(brow1,fnam);
  Modelica.Utilities.Streams.print(brow2,fnam);

end when;
end newdir;

```

This is the name of a directory to be created in the **current** working director.

Because the character / is involved in commenting, I have assigned it a name so I can use it for command paths.

**Note:**  
If you use this code, be sure to change the drive letter to one you have!

The code writes a text file in the locally created folder, then shifts to the remote folder created earlier, to write it again, illustrating the effect of the commands.

```

0.707107      -0.447214
0.707107      0.894427
1             0
-2            0

```

The output gives two real eigenvectors, in columns, normalised to unity length (top) and two eigenvalues 1 and -2.  
  
See the eigenvalue article.