```
   Help
#include "merhes1d.h"
#include "chk.h"
#include "error_msg.h"
#include "model.h"

extern char* path_sep;



static int MOD(Init)(Model *model)
{
  TYPEMOD* pt=(TYPEMOD*)(model->TypeModel);

  if (model->init == 0 )
    {
      model->init = 1;
      model->nvar=0;
      pt->T.Vname = "Current Date";
      pt->T.Vtype=DATE;
      pt->T.Val.V_DATE=0.;
      pt->T.Viter=ALLOW;
      model->nvar++;

      pt->S0.Vname = "Spot";
      pt->S0.Vtype=PDOUBLE;
      pt->S0.Val.V_PDOUBLE=100.;
      pt->S0.Viter=ALLOW;
      model->nvar++;

      pt->Divid.Vname = "Annual Dividend Rate";
      pt->Divid.Vtype=DOUBLE;
      pt->Divid.Val.V_DOUBLE=0.;
      pt->Divid.Viter=ALLOW;
      model->nvar++;

      pt->R.Vname = "Annual Interest Rate";
      pt->R.Vtype=DOUBLE;
      pt->R.Val.V_DOUBLE=10.;
      pt->R.Viter=ALLOW;
      model->nvar++;
```

```
pt->Sigma0.Vname = "Current Variance";
pt->Sigma0.Vtype=DOUBLE;
pt->Sigma0.Val.V_DOUBLE=0.01;
pt->Sigma0.Viter=ALLOW;
model->nvar++;

pt->MeanReversion.hname = "Mean Reversion";
pt->MeanReversion.htype=DOUBLE;
pt->MeanReversion.hal.V_DOUBLE=2.;
pt->MeanReversion.hiter=ALLOW;
model->nvar++;

pt->LongRunVariance.Vname = "Long-Run Variance";
pt->LongRunVariance.Vtype=DOUBLE;
pt->LongRunVariance.Val.V_DOUBLE=0.01;
pt->LongRunVariance.Viter=ALLOW;
model->nvar++;

pt->Sigma.Vname = "Volatility of Variance";
pt->Sigma.Vtype=DOUBLE;
pt->Sigma.Val.V_DOUBLE=0.2;
pt->Sigma.Viter=ALLOW;
model->nvar++;

pt->Lambda.Vname = "Lambda";
pt->Lambda.Vtype=DOUBLE;
pt->Lambda.Val.V_DOUBLE=0.1;
pt->Lambda.Viter=ALLOW;
model->nvar++;

pt->Mean.Vname = "Mean of Jumps";
pt->Mean.Vtype=DOUBLE;
pt->Mean.Val.V_DOUBLE=0.;
pt->Mean.Viter=ALLOW;
model->nvar++;

pt->Variance.Vname = "Variance of Jumps";
pt->Variance.Vtype=DOUBLE;
pt->Variance.Val.V_DOUBLE=0.16;
pt->Variance.Viter=ALLOW;
```

```
      model->nvar++;

      pt->Rho.Vname = "Rho";
      pt->Rho.Vtype=DOUBLE;
      pt->Rho.Val.V_DOUBLE=0.5;
      pt->Rho.Viter=ALLOW;
      model->nvar++;

    model->HelpFilenameHint = "MERHES1D";

    }

  return OK;
}


TYPEMOD MertonHeston1dim;

MAKEMOD(MertonHeston1dim);
```

References