Help

```
#include "
href../../mod/qtsm2d/qtsm2d_h_src.pdfqtsm2d.h"
#include "
href../../common/chk_h_src.pdfchk.h"
#include "
href../../common/error_msg_h_src.pdferror_msg.h"
#include "
href../../mod/hes1d/hes1d_pad/model_h_src.pdfmodel.h"
#include "pnl/pnl_vector.h"
#include "pnl/pnl_matrix.h"

extern char *path_sep;

static int MOD(Init)(Model *model)
{
  TYPEMOD *pt = (TYPEMOD *)(model->TypeModel);
  double tmp1[3], tmp2[4];
  double tmp[2];

  if (model->init == 0)
    {
      model->init = 1;
      model->nvar = 0;

      pt->T.Vname = "Current Date";
      pt->T.Vtype = DATE;
      pt->T.Val.V_DATE = 0.0;
      pt->T.Viter = ALLOW;
      model->nvar++;

      pt->x.Vname = "Initial x";
      pt->x.Vtype = PNLVECT;

      tmp[0] = 0.735;
      tmp[1] = -0.525;
      pt->x.Val.V_PNLVECT = pnl_vect_create_from_ptr(2, tmp);
      pt->x.Viter = FORBID;
      model->nvar++;
```

```
pt->d0.Vname = "d0";
pt->d0.Vtype = PDOUBLE;
pt->d0.Val.V_PDOUBLE = 0.0088;
pt->d0.Viter = ALLOW;
model->nvar++;

pt->d.Vname = "Initial d";
pt->d.Vtype = PNLVECT;
tmp[0] = 0.0066;
tmp[1] = -0.022;
pt->d.Val.V_PNLVECT = pnl_vect_create_from_ptr(2, tmp);
pt->d.Viter = FORBID;
model->nvar++;


pt->theta.Vname = "Theta";
pt->theta.Vtype = PNLVECT;
tmp[0] = 0.;
tmp[1] = 0.;
pt->theta.Val.V_PNLVECT = pnl_vect_create_from_ptr(2, tmp);
pt->theta.Viter = FORBID;
model->nvar++;

pt->GammaV.Vname = "Gamma11 Gamma12 Gamma22";
pt->GammaV.Vtype = PNLVECT;
tmp1[0] = 0.0176;
tmp1[1] = -0.0132;
tmp1[2] = 0.1100;
pt->GammaV.Val.V_PNLVECT = pnl_vect_create_from_ptr(3, tmp1);
pt->GammaV.Viter = FORBID;
model->nvar++;

pt->SigmaV.Vname = "Sigma11 Sigma12 Sigma22";
pt->SigmaV.Vtype = PNLVECT;
tmp1[0] = 1.;
tmp1[1] = 0.;
tmp1[2] = 1.;
pt->SigmaV.Val.V_PNLVECT = pnl_vect_create_from_ptr(3, tmp1);
pt->SigmaV.Viter = FORBID;
model->nvar++;
```

```
      pt->KappaV.Vname = "Kappa11 Kappa12 Kappa21 Kappa22";
      pt->KappaV.Vtype = PNLVECT;
      tmp2[0] = 0.264;
      tmp2[1] = 0.;
      tmp2[2] = 0.1;
      tmp2[3] = 0.66;
      pt->KappaV.Val.V_PNLVECT = pnl_vect_create_from_ptr(4, tmp2);
      pt->KappaV.Viter = FORBID;
      model->nvar++;

    }
  return OK;

}
TYPEMOD QTSM2d;
MAKEMOD(QTSM2d);
```