Help

```
#include "hullwhite2d.h"
#include "chk.h"
#include "model.h"
#include "error_msg.h"

extern PremiaEnum flat;

double MOD(GetYield)(TYPEMOD *pt)
{
  VAR *Par;
  Par = lookup_premia_enum_par (&(pt->flat_flag), 0);
  return Par[0].Val.V_PDOUBLE;
}

static int MOD(Init)(Model *model)
{
  VAR *Par;
  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=0.0;
      pt->T.Viter=ALLOW;
      model->nvar++;

      pt->flat_flag.Vname = "Initial Yield Curve";
      pt->flat_flag.Vtype=ENUM;
      pt->flat_flag.Val.V_ENUM.value=0;
      pt->flat_flag.Val.V_ENUM.members=&PremiaEnumFlat;
      pt->flat_flag.Viter=ALLOW;
      model->nvar++;
      Par = lookup_premia_enum_par (&(pt->flat_flag), 0);
      Par[0].Vname = "Initial r";
      Par[0].Vtype=PDOUBLE;
      Par[0].Val.V_PDOUBLE=0.03;
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      Par[0].Viter=ALLOW;

      pt->InitialYieldsu.Vname = "Initial u";
      pt->InitialYieldsu.Vtype=PDOUBLE;
      pt->InitialYieldsu.Val.V_PDOUBLE=0.0;
      pt->InitialYieldsu.Viter=ALLOW;
      model->nvar++;

      pt->aR.Vname = "Mean Reversion of r";
      pt->aR.Vtype=PDOUBLE;
      pt->aR.Val.V_PDOUBLE=1.;
      pt->aR.Viter=ALLOW;
      model->nvar++;

      pt->SigmaR.Vname = "Volatility of r";
      pt->SigmaR.Vtype=PDOUBLE;
      pt->SigmaR.Val.V_PDOUBLE=0.01;
      pt->SigmaR.Viter=ALLOW;
      model->nvar++;

      pt->bu.Vname = "Mean Reversion of u";
      pt->bu.Vtype=PDOUBLE;
      pt->bu.Val.V_PDOUBLE=0.1;
      pt->bu.Viter=ALLOW;
      model->nvar++;

      pt->Sigmau.Vname = "Volatility of u";
      pt->Sigmau.Vtype=PDOUBLE;
      pt->Sigmau.Val.V_PDOUBLE=0.0145;
      pt->Sigmau.Viter=ALLOW;
      model->nvar++;

      pt->Rho.Vname = "Rho";
      pt->Rho.Vtype=DOUBLE;
      pt->Rho.Val.V_DOUBLE=0.6;
      pt->Rho.Viter=ALLOW;
      model->nvar++;
    }
  return OK;
}
TYPEMOD HullWhite2d;
```

```
MAKEMOD(HullWhite2d);
```

References