

[Help](#)

```
#include "hes1d_default.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.Vname = "Mean Reversion";
pt->MeanReversion.Vtype = DOUBLE;
pt->MeanReversion.Val.V_DOUBLE = 2.;
pt->MeanReversion.Viter = 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->Rho.Vname = "Rho";
pt->Rho.Vtype = DOUBLE;
pt->Rho.Val.V_DOUBLE = 0.5;
pt->Rho.Viter = ALLOW;
model->nvar++;

pt->Intensity.Vname = "Default Intensity";
pt->Intensity.Vtype = PDOUBLE;
pt->Intensity.Val.V_PDOUBLE = 0.03;
pt->Intensity.Viter = ALLOW;
model->nvar++;

pt->Recovery.Vname = "Recovery Rate";
pt->Recovery.Vtype = PDOUBLE;
pt->Recovery.Val.V_PDOUBLE = 0.4;
pt->Recovery.Viter = ALLOW;
model->nvar++;
```

```
        model->HelpFilenameHint = "HES1D_DEFAULT";  
    }  
  
    return OK;  
}
```

```
TYPEMOD Heston1dim_default;  
  
MAKEMOD(Heston1dim_default);
```