

[Help](#)

```
#include "stein1d.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 = "V0";
    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 of Vt";
    pt->LongRunVariance.Vtype=DOUBLE;
    pt->LongRunVariance.Val.V_DOUBLE=0.01;
    pt->LongRunVariance.Viter=ALLOW;
    model->nvar++;

    pt->Sigma.Vname = "Volatility of Vt";
    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++;

}

return OK;
}

TYPEMOD Stein1dim;

MAKEMOD(Stein1dim);

```

## References