

## Help

```
#include "timehes1d.h"
#include "chk.h"
#include "error_msg.h"
#include "model.h"
#include "premia_obj.h"

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 = 5.;
        pt->R.Viter = ALLOW;
        model->nvar++;

        pt->Sigma0.Vname = "Current Variance";
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    pt->Sigma0.Vtype = DOUBLE;
    pt->Sigma0.Val.V_DOUBLE = 0.04;
    pt->Sigma0.Viter = ALLOW;
    model->nvar++;

    pt->MeanReversion.Vname = "Mean Reversion";
    pt->MeanReversion.Vtype = DOUBLE;
    pt->MeanReversion.Val.V_DOUBLE = 3.;
    pt->MeanReversion.Viter = ALLOW;
    model->nvar++;

    pt->TimeDepParameters.Vname = "Piecewise Constant Parameters";
    pt->TimeDepParameters.Vtype = FILENAME;
    pt->TimeDepParameters.Val.V_FILENAME = NULL;
    pt->TimeDepParameters.Viter = FORBID;
    pt->TimeDepParameters.Vsetable = SETABLE;
    model->nvar++;

    if ((pt->TimeDepParameters.Val.V_FILENAME = malloc(sizeof(char) * MAX_PATH))
        return MEMORY_ALLOCATION_FAILURE;
    sprintf(pt->TimeDepParameters.Val.V_FILENAME, "%s%sHeston_TimeDepParameter

    pt->TimeStep.Vname = "Interval of constance";
    pt->TimeStep.Vtype = PDOUBLE;
    pt->TimeStep.Val.V_PDOUBLE = 0.25;
    pt->TimeStep.Viter = FORBID;
    pt->TimeStep.Vsetable = SETABLE;
    model->nvar++;
}

return OK;
}

TYPEMOD TimeHeston1dim;
MAKEMOD(TimeHeston1dim);

```