Model Controls

This is the example vignette for function: **snw_mp_control** from the **PrjOptiSNW Package.** This function sets and gets different control parameters

Test SNW_MP_CONTROLS Defaults

Call the function with defaults.

```
mp_controls = snw_mp_control('default_base', true);
```

```
pos = 21 ; key = options
  fmincon options:

   Options used by current Algorithm ('interior-point'):
   (Other available algorithms: 'active-set', 'sqp', 'sqp-legacy', 'trust-region-reflective')

   Set properties:
                     Display: 'off'

   Default properties:
                   Algorithm: 'interior-point'
              CheckGradients: 0
          ConstraintTolerance: 1.0000e-06
    FiniteDifferenceStepSize: 'sqrt(eps)'
        FiniteDifferenceType: 'forward'
        HessianApproximation: 'bfgs'
                  HessianFcn: []
           HessianMultiplyFcn: []
                 HonorBounds: 1
      MaxFunctionEvaluations: 3000
              MaxIterations: 1000
             ObjectiveLimit: -1.0000e+20
         OptimalityTolerance: 1.0000e-06
                   OutputFcn: []
                     PlotFcn: []
                ScaleProblem: 0
   SpecifyConstraintGradient: 0
    SpecifyObjectiveGradient: 0
             StepTolerance: 1.0000e-10
          SubproblemAlgorithm: 'factorization'
                    TypicalX: 'ones(numberOfVariables,1)'
                 UseParallel: 0

   Show options not used by current Algorithm ('interior-point')

pos = 22 ; key = options2
  fsolve options:

   Options used by current Algorithm ('trust-region-dogleg'):
   (Other available algorithms: 'levenberg-marquardt', 'trust-region')

   Set properties:
                     Display: 'off'

   Default properties:
                   Algorithm: 'trust-region-dogleg'
              CheckGradients: 0
    FiniteDifferenceStepSize: 'sqrt(eps)'
        FiniteDifferenceType: 'forward'
           FunctionTolerance: 1.0000e-06
      MaxFunctionEvaluations: '100*numberOfVariables'
```

```
              MaxIterations: 400
          OptimalityTolerance: 1.0000e-06
                    OutputFcn: []
                      PlotFcn: []
    SpecifyObjectiveGradient: 0
                StepTolerance: 1.0000e-06
                     TypicalX: 'ones(numberOfVariables,1)'
                  UseParallel: 0

   Show options not used by current Algorithm ('trust-region-dogleg')

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CONTAINER NAME: mp_controls Scalars
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

	i	idx	value
A_aux	1	1	NaN
Aeq	2	2	NaN
B_aux	3	3	NaN
Beq	4	4	NaN
bl_compute_drv_stats	5	5	1
bl_ds_store_all	6	6	0
bl_print_a4chk	7	7	1
bl_print_a4chk_verbose	8	8	0
bl_print_ds	9	9	1
bl_print_ds_verbose	10	10	0
bl_print_vfi	11	11	1
bl_print_vfi_verbose	12	12	0
bl_print_vu_vw	13	13	1
bl_print_vu_vw_verbose	14	14	0
bl_timer	15	15	1
bl_vfi_store_all	16	16	0
err	17	17	1
fl_max_trchk_perc_increase	18	18	1.5
nonlcon	19	20	NaN
tol	20	23	0.005

```
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CONTAINER NAME: mp_controls String
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

	i	idx	string
mp_params_name	"1"	"19"	"default_base"