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 = 43 ; 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 = 44 ; 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_print_a4chk	6	6	1
bl_print_a4chk_verbose	7	7	0
bl_print_calibrate_2009	8	8	1
bl_print_calibrate_2009_verbose	9	9	0
bl_print_ds	10	10	1
bl_print_ds_aggregation	11	11	1
bl_print_ds_aggregation_verbose	12	12	0
bl_print_ds_verbose	13	13	0
bl_print_evuvw19_jaeemk	14	14	1
bl_print_evuvw19_jaeemk_verbose	15	15	0
bl_print_evuvw19_jmky	16	16	1
bl_print_evuvw19_jmky_allchecks	17	17	1
bl_print_evuvw19_jmky_allchecks_verbose	18	18	0
bl_print_evuvw19_jmky_mass	19	19	1
bl_print_evuvw19_jmky_mass_verbose	20	20	0
bl_print_evuvw19_jmky_verbose	21	21	0
bl_print_evuvw20_jaeemk	22	22	1
bl_print_evuvw20_jaeemk_verbose	23	23	0
bl_print_find_tax_rate	24	24	1
bl_print_find_tax_rate_verbose	25	25	0
bl_print_precompute	26	26	1
bl_print_precompute_verbose	27	27	0
bl_print_v08_jaeemk	28	28	1
bl_print_v08_jaeemk_verbose	29	29	0
bl_print_v08p08_jaeemk	30	30	1
bl_print_v08p08_jaeemk_verbose	31	31	0
bl_print_v_planner	32	32	1
bl_print_v_planner_verbose	33	33	0
bl_print_vfi	34	34	1
bl_print_vfi_verbose	35	35	0
bl_print_vu_vw	36	36	1
bl_print_vu_vw_verbose	37	37	0
bl_timer	38	38	1
err	39	39	1
fl_max_trchk_perc_increase	40	40	1.5
nonlcon	41	42	NaN
tol	42	45	0.005

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

	i	idx	string
mp_params_name	"1"	"41"	"default_base"