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 = 37 ; 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 = 38 ; 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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xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
CONTAINER NAME: mp_controls Scalars
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

	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_ds	8	8	1
bl_print_ds_aggregation	9	9	1
bl_print_ds_aggregation_verbose	10	10	0
bl_print_ds_verbose	11	11	0
bl_print_evuvw19_jaeemk	12	12	1
bl_print_evuvw19_jaeemk_verbose	13	13	0
bl_print_evuvw19_jmky	14	14	1
bl_print_evuvw19_jmky_allchecks	15	15	1
bl_print_evuvw19_jmky_allchecks_verbose	16	16	0
bl_print_evuvw19_jmky_mass	17	17	1
bl_print_evuvw19_jmky_mass_verbose	18	18	0
bl_print_evuvw19_jmky_verbose	19	19	0
bl_print_evuvw20_jaeemk	20	20	1
bl_print_evuvw20_jaeemk_verbose	21	21	0
bl_print_find_tax_rate	22	22	1
bl_print_find_tax_rate_verbose	23	23	0
bl_print_precompute	24	24	1
bl_print_precompute_verbose	25	25	0
bl_print_v_planner	26	26	1
bl_print_v_planner_verbose	27	27	0
bl_print_vfi	28	28	1
bl_print_vfi_verbose	29	29	0
bl_print_vu_vw	30	30	1
bl_print_vu_vw_verbose	31	31	0
bl_timer	32	32	1
err	33	33	1
fl_max_trchk_perc_increase	34	34	1.5
nonlcon	35	36	NaN
tol	36	39	0.005

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xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
CONTAINER NAME: mp_controls String
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

	i	idx	string
mp_params_name	"1"	"35"	"default_base"