bfw_mp_control

This is the example vignette for function: bfw_mp_control from the **PrjLabEquiBFW Package**.

Map of Control Parameters

```
[bl_display_status, bl_display_verbose_status, bl_verbose] = deal(true, true, true);
mp_func_supply = bfw_mp_control(bl_display_status, bl_display_verbose_status, bl_verbose);
```

```
pos = 7 ; key = fmin_controls_a
                    Display: 'off'
                MaxFunEvals: 2500
                    MaxIter: 2000
                     TolFun: 1.0000e-05
                       TolX: 1.0000e-05
                FunValCheck: []
                  OutputFcn: []
                   PlotFcns: []
            ActiveConstrTol: []
                  Algorithm: []
    AlwaysHonorConstraints: []
           DerivativeCheck: []
               Diagnostics: []
             DiffMaxChange: []
             DiffMinChange: []
            FinDiffRelStep: []
               FinDiffType: []
          GoalsExactAchieve: []
                 GradConstr: []
                    GradObj: []
                    HessFcn: []
                    Hessian: []
                   HessMult: []
                HessPattern: []
                 HessUpdate: []
          InitBarrierParam: []
       InitTrustRegionRadius: []
                   Jacobian: []
                  JacobMult: []
               JacobPattern: []
                 LargeScale: []
                   MaxNodes: []
                MaxPCGIter: []
              MaxProjCGIter: []
                 MaxSQPIter: []
                    MaxTime: []
              MeritFunction: []
                  MinAbsMax: []
        NoStopIfFlatInfeas: []
            ObjectiveLimit: []
      PhaseOneTotalScaling: []
             Preconditioner: []
          PrecondBandWidth: []
            RelLineSrchBnd: []
    RelLineSrchBndDuration: []
              ScaleProblem: []
       SubproblemAlgorithm: []
                    TolCon: []
                 TolConSQP: []
                TolGradCon: []
                    TolPCG: []
                  TolProjCG: []
```

```
              TolProjCGAbs: []
                  TypicalX: []
               UseParallel: []

pos = 8 ; key = fmin_controls_b
                   Display: 'off'
               MaxFunEvals: []
                   MaxIter: []
                    TolFun: []
                      TolX: []
               FunValCheck: []
                 OutputFcn: []
                  PlotFcns: []
           ActiveConstrTol: []
                 Algorithm: []
    AlwaysHonorConstraints: []
           DerivativeCheck: []
               Diagnostics: []
             DiffMaxChange: []
             DiffMinChange: []
            FinDiffRelStep: []
               FinDiffType: []
         GoalsExactAchieve: []
                GradConstr: []
                   GradObj: []
                   HessFcn: []
                   Hessian: []
                  HessMult: []
               HessPattern: []
                HessUpdate: []
          InitBarrierParam: []
     InitTrustRegionRadius: []
                  Jacobian: []
                 JacobMult: []
              JacobPattern: []
                LargeScale: []
                  MaxNodes: []
                MaxPCGIter: []
             MaxProjCGIter: []
                MaxSQPIter: []
                   MaxTime: []
             MeritFunction: []
                 MinAbsMax: []
        NoStopIfFlatInfeas: []
            ObjectiveLimit: []
      PhaseOneTotalScaling: []
           Preconditioner: []
         PrecondBandWidth: []
           RelLineSrchBnd: []
    RelLineSrchBndDuration: []
              ScaleProblem: []
       SubproblemAlgorithm: []
                   TolCon: []
                TolConSQP: []
               TolGradCon: []
                   TolPCG: []
                TolProjCG: []
              TolProjCGAbs: []
                  TypicalX: []
               UseParallel: []

pos = 9 ; key = fmin_controls_c
                   Display: 'iter'
               MaxFunEvals: 750
```

```
                MaxIter: 500
                 TolFun: 1.0000e-05
                   TolX: 1.0000e-05
             FunValCheck: []
               OutputFcn: []
                PlotFcns: []
          ActiveConstrTol: []
                Algorithm: []
    AlwaysHonorConstraints: []
           DerivativeCheck: []
               Diagnostics: []
             DiffMaxChange: []
             DiffMinChange: []
           FinDiffRelStep: []
              FinDiffType: []
         GoalsExactAchieve: []
                GradConstr: []
                   GradObj: []
                   HessFcn: []
                   Hessian: []
                  HessMult: []
               HessPattern: []
                HessUpdate: []
        InitBarrierParam: []
     InitTrustRegionRadius: []
                  Jacobian: []
                 JacobMult: []
              JacobPattern: []
                LargeScale: []
                  MaxNodes: []
                MaxPCGIter: []
             MaxProjCGIter: []
                MaxSQPIter: []
                   MaxTime: []
             MeritFunction: []
                 MinAbsMax: []
       NoStopIfFlatInfeas: []
           ObjectiveLimit: []
      PhaseOneTotalScaling: []
            Preconditioner: []
          PrecondBandWidth: []
            RelLineSrchBnd: []
    RelLineSrchBndDuration: []
              ScaleProblem: []
       SubproblemAlgorithm: []
                   TolCon: []
                TolConSQP: []
               TolGradCon: []
                   TolPCG: []
                TolProjCG: []
              TolProjCGAbs: []
                  TypicalX: []
               UseParallel: []

pos = 10 ; key = fmin_controls_d
                   Display: 'iter'
               MaxFunEvals: 5000
                   MaxIter: 15
                    TolFun: 1.0000e-06
                      TolX: 1.0000e-06
               FunValCheck: []
                 OutputFcn: []
                  PlotFcns: {@optimplotfval  @optimplotx  @optimplotstepsize  @optimplotfunccount}
            ActiveConstrTol: []
```

```
                Algorithm: []
    AlwaysHonorConstraints: []
           DerivativeCheck: []
               Diagnostics: []
             DiffMaxChange: []
             DiffMinChange: []
           FinDiffRelStep: []
              FinDiffType: []
         GoalsExactAchieve: []
                GradConstr: []
                   GradObj: []
                   HessFcn: []
                   Hessian: []
                  HessMult: []
               HessPattern: []
                HessUpdate: []
         InitBarrierParam: []
      InitTrustRegionRadius: []
                  Jacobian: []
                 JacobMult: []
              JacobPattern: []
                LargeScale: []
                  MaxNodes: []
                MaxPCGIter: []
              MaxProjCGIter: []
                 MaxSQPIter: []
                    MaxTime: []
              MeritFunction: []
                  MinAbsMax: []
        NoStopIfFlatInfeas: []
            ObjectiveLimit: []
      PhaseOneTotalScaling: []
            Preconditioner: []
          PrecondBandWidth: []
            RelLineSrchBnd: []
    RelLineSrchBndDuration: []
              ScaleProblem: []
       SubproblemAlgorithm: []
                   TolCon: []
                 TolConSQP: []
                TolGradCon: []
                    TolPCG: []
                  TolProjCG: []
               TolProjCGAbs: []
                   TypicalX: []
                UseParallel: []

----------------------------------------
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
CONTAINER NAME: mp_controls Scalars
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

	i	idx	value
bl_bfw_solveequi_kwfw_display	1	2	1
bl_bfw_solveequi_kwfw_display_verbose	2	3	1
bl_bfw_solveequi_w2q2w_display	3	4	1
bl_bfw_solveequi_w2q2w_display_verbose	4	5	1
bl_timer	5	6	1

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

	i	idx	string
PES	"1"	"1"	"_i"
srdp_equi_method	"2"	"11"	"SRDP"
srdp_method	"3"	"12"	"NESTFAST"