



Standard Input Data

Beispiel: fest eingespannter elastischer Balken mit 2 elastischen Freiheitsgraden

2 2 :No. nodes, No. modes:SID generated by FEMBS-V.FE-C including Geo_Stiff= yes at Mar 31 09;
14:51:47 from FEMBS input data=
part

```
new modal
  refmod
    mass = 2.750000000000D-01
    nelastq = 2
    ielastq ( 1) = Eigen Mode 1 : 8.150 Hz
    ielastq ( 2) = Eigen Mode 2 : 51.069 Hz
  end refmod
  frame
    new node = 1
    rframe = body ref
    origin
      order = 1
      nrow = 3
      ncol = 1
      nq = 2
      nqn = 0
      structure = 0
    end origin
    phi
      order = 1
      nrow = 3
      ncol = 2
      nq = 2
      nqn = 0
      structure = 0
    end phi
    psi
      order = 1
      nrow = 3
      ncol = 2
      nq = 2
      nqn = 0
      structure = 0
    end psi
    AP
      order = 0
      nrow = 3
      ncol = 3
      nq = 2
      nqn = 0
      structure = 4
    end AP
  end node
  new node = 2
  rframe = body ref
  origin
    order = 1
    nrow = 3
    ncol = 1
    nq = 2
    nqn = 0
    structure = 3
    m0( 2, 1) = -1.000000000000D+00
    m1( 1, 1, 1) = 3.81378332228D+00
    m1( 1, 2, 1) = 3.81322968010D+00
  end origin
  phi
    order = 0
    nrow = 3
    ncol = 2
    nq = 2
    nqn = 0
    structure = 3
    m0( 1, 1) = 3.81378332228D+00
    m0( 1, 2) = 3.81322968010D+00
  end phi
```



```
psi
  order      = 0
  nrow       = 3
  ncol       = 2
  nq         = 2
  nqn        = 0
  structure  = 3
  m0( 3, 1)  = 5.24972079193D+00
  m0( 3, 2)  = 1.82316641872D+01
end psi
AP
  order      = 1
  nrow       = 3
  ncol       = 3
  nq         = 2
  nqn        = 0
  structure  = 3
  m0( 1, 1)  = 1.00000000000D+00
  m0( 2, 2)  = 1.00000000000D+00
  m0( 3, 3)  = 1.00000000000D+00
  m1( 2, 1, 1) = 5.24972079193D+00
  m1( 2, 2, 1) = 1.82316641872D+01
  m1( 1, 1, 2) = -5.24972079193D+00
  m1( 1, 2, 2) = -1.82316641872D+01
end AP
end node
end frame
mdCM
  order      = 1
  nrow       = 3
  ncol       = 1
  nq         = 2
  nqn        = 0
  structure  = 3
  m0( 2, 1)  = -1.37500000000D-01
  m1( 1, 1, 1) = 4.10596034065D-01
  m1( 1, 2, 1) = -2.27549663301D-01
end mdCM
J
  order      = 1
  nrow       = 6
  ncol       = 1
  nq         = 2
  nqn        = 0
  structure  = 3
  m0( 1, 1)  = 9.16690000000D-02
  m0( 2, 1)  = 4.58333000000D-06
  m0( 3, 1)  = 9.16690000000D-02
  m1( 4, 1, 1) = 2.98315104180D-01
  m1( 4, 2, 1) = -4.75842387323D-02
end J
Ct
  order      = 0
  nrow       = 2
  ncol       = 3
  nq         = 2
  nqn        = 0
  structure  = 3
  m0( 1, 1)  = 4.10596034065D-01
  m0( 2, 1)  = -2.27549663301D-01
end Ct
Cr
  order      = 0
  nrow       = 2
  ncol       = 3
  nq         = 2
  nqn        = 0
  structure  = 3
  m0( 1, 3)  = 2.98297624851D-01
  m0( 2, 3)  = -4.76017192439D-02
end Cr
Me
  order      = 0
  nrow       = 2
  ncol       = 2
  nq         = 2
  nqn        = 0
  structure  = 2
```



```
m0( 1, 1) = 1.00000000000D+00
m0( 2, 2) = 1.00000000000D+00

end Me
Gr
order = 0
nrow = 3
ncol = 6
nq = 2
nqn = 0
structure = 3
m0( 1, 3) = 5.96595249703D-01
m0( 1, 4) = -9.52034384879D-02
m0( 2, 1) = 3.49586561369D-05
m0( 2, 2) = 3.49610233011D-05

end Gr
Ge
order = 0
nrow = 2
ncol = 6
nq = 2
nqn = 0
structure = 3

end Ge
Oe
order = 1
nrow = 2
ncol = 6
nq = 2
nqn = 0
structure = 3
m0( 1, 4) = -2.98315104180D-01
m0( 2, 4) = 4.75842387323D-02
m1( 1, 1, 1) = -7.74569625086D-05
m1( 1, 2, 1) = -1.22977545973D-04
m1( 2, 1, 1) = -1.22977545973D-04
m1( 2, 2, 1) = -5.40018755613D-04
m1( 1, 1, 2) = -1.00000000000D+00
m1( 2, 2, 2) = -1.00000000000D+00
m1( 1, 1, 3) = -9.99975575746D-01
m1( 1, 2, 3) = -2.07524486567D-05
m1( 2, 1, 3) = -2.07524486567D-05
m1( 2, 2, 3) = -9.99508490859D-01

end Oe
ksigma
order = 0
nrow = 2
ncol = 1
nq = 2
nqn = 0
structure = 0

end ksigma
Ke
order = 0
nrow = 2
ncol = 2
nq = 2
nqn = 0
structure = 2
m0( 1, 1) = 2.62221792179D+03
m0( 1, 2) = 1.56874793781D-06
m0( 2, 1) = 1.56904041540D-06
m0( 2, 2) = 1.02961026274D+05

end Ke
De
order = 0
nrow = 2
ncol = 2
nq = 2
nqn = 0
structure = 2
m0( 1, 1) = 2.04830385316D+00
m0( 2, 2) = 1.28350162461D+01

end De
end modal
end part
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