What to Do when Things Go Wrong!

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Commands that Return Values

• analyze command

   The analyze command returns 0 if successful. It returns a negative number if not

   \[ \text{set ok [analyze numIter } < \Delta t> \] \]

• getTime command

   The getTime command returns pseudo time in Domain.

   \[ \text{set currentTime [ getTime]} \]

• nodeDisp command

   The nodeDisp command returns a nodal displacement.

   \[ \text{set disp [ nodeDisp node dof]} \]
Example Usage – Displacement Control

set maxU 15.0; set dU 0.1
constraints transformation
numberer RCM
system BandGeneral
test NormDispIncr 1.0e-6 6 2
algorithm Newton
integrator DispControl 3 1 $dU
analysis Static
set ok 0
set currentDisp 0.0
while {$ok == 0 && $currentDisp < $maxU} {
    set ok [analyze 1]
    if {$ok != 0} {
        test NormDispIncr 1.0e-6 1000 1
        algorithm ModifiedNewton –initial
        set ok [analyze 1]
        test NormDispIncr 1.0e-6 6 2
        algorithm Newton
    }
    set currentDisp [nodeDisp 3 1]
}
set tFinal 15.0;
constraints Transformation
numberer RCM
system BandGeneral
test NormDispIncr 1.0e-6 6 2
algorithm Newton
integrator Newmark 0.5 0.25
analysis Transient
set ok 0
set currentTime 0.0
while {$ok == 0 && $currentTime < $tFinal} {
  set ok [analyze 1 0.01]
  if {$ok != 0} {
    test NormDispIncr 1.0e-6 1000 1
    algorithm ModifiedNewton –initial
    set ok [analyze 1 0.01]
    test NormDispIncr 1.0e-6 6 2
    algorithm Newton
  }
  set currentTime [getTime]
}
Segmentation Faults, etc:

- Email: fmckenna@ce.berkeley.edu
- Bugzilla: http://opensees.berkeley.edu/bugzilla/index.cgi

NOTE: Zip up your files in 1 directory and send them to us