

ETAP FAQ # 26

Governor Limit Checking in Transient Stability Studies

Description: Governor limits are exceeded during initial condition calculations

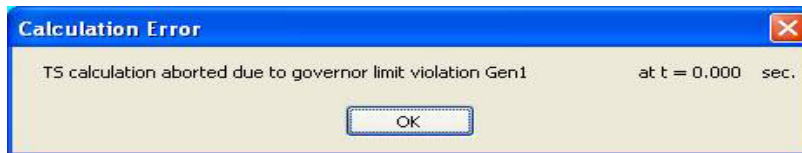
Category: Governor Parameters

Type: Transient Stability Module

Keywords: Governor Limit, Limit Violation, Pmin, Pmax, Initial Condition, Limit Checking, Transient Stability

The process of calculating the initial conditions for a transient stability study consist of the following steps:

1. Run a normal load flow calculation to determine the steady-state conditions of the network. This result should match the load flow result if motors are not dynamically modeled.
2. ETAP then calculates the initial conditions of dynamically modeled generators, exciters, governors, stabilizers, synchronous motors, induction motors, SVCs, HV-DC links, lumped loads, Wind-Turbines, MG Sets, etc.
3. During this process, all limits in excitation and governor systems are checked against the calculated initial conditions. If any limit is exceeded, ETAP will flag the user of the problem.
4. For governors, ETAP provides the following message if a governor limit is violated and the calculation stops.



For most cases, this Error Message is related to the MW generation value (calculated at time t=0) and the “Pmin” and “Pmax” settings of the governor.

