

Engine Control

@OTHER_CTRL_VAR

Specify the "other" control variable target.

Keyword:

@OTHER_CTRL_VAR

Usage:

This specification selects the reference value for the "other" control variable. This may be the setpoint for the throttle loop, depending on the engine control mode. It is meaningful only if the throttle controller is in closed loop mode and the engine control mode is 6. The end_target and the ramp_rate are optional. If the end target specified is different from start target and the ramp rate is not specified, then the ramp rate is computed from the start and end targets and the mode timeout value.

Data Fields:

start_target	the reference value at the start of the mode
end_target	optional reference value at the end of the mode
ramp_rate	optional rate at which to ramp from the start to end target values

Example Specification:

```
@OTHER_CTRL_VAR
    #start_target      end_target  ramp_rate
    500[deg_f]        600[deg_f]
```

Ramp the "other" control variable from 500 to 600 degrees over the mode interval. This example would be appropriate for something like a control of turbine inlet temperature by the throttle, with the dyno controlling engine speed.

Notes:

The data fields may be constants, variable labels, or expressions. Constants must have units. The units must be those of the control variable that has been specified in the ctrl_specs.NNN file. The units of ramp_rate are entered in the same units. The denominator is assumed to be seconds. For example, 10[deg_f] would specify a ramp rate of 10 deg_f/sec.

If the ramp rate is specified such that the end target is reached before the mode terminates, then the ramping stops when the end target is reached.

If the ramp rate is specified such that the end target is not achieved when the mode terminates, the ramping may continue unless the next mode modifies the speed target.

Other Examples:

```
@OTHER_CTRL_VAR
    #start_target      end_target      ramp_rate
    30[in_hg]
```

Set the target pressure to 30 inches of mercury. This might be appropriate if the throttle is being used to control boost pressure.

```
@OTHER_CTRL_VAR
    #start_target      end_target      ramp_rate
    boost_tar          10[psi]        1[psi]
```

Ramp from the value of the "boost_tar" variable to 10 psi pressure at a rate of 1 psi/sec.