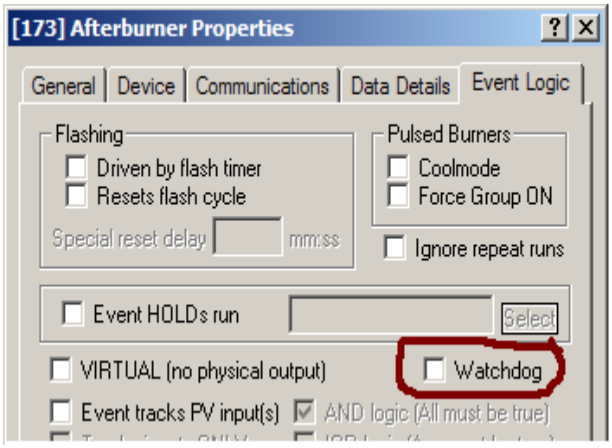
KILTEL SYSTEMS, INC.

Watchdog Timer Function for Event Outputs

The Kiltel program includes a watchdog timer function to automatically default event outputs to OFF in cases where the computer hangs (running programs suspend operation) or loses power. This feature has been added as a safety backup, to prevent "perfect storms" where the computer fails after enabling a critical kiln event such as flashing, producing a situation which could result in loss of product or kiln damage if the event status were to persist longer than anticipated.

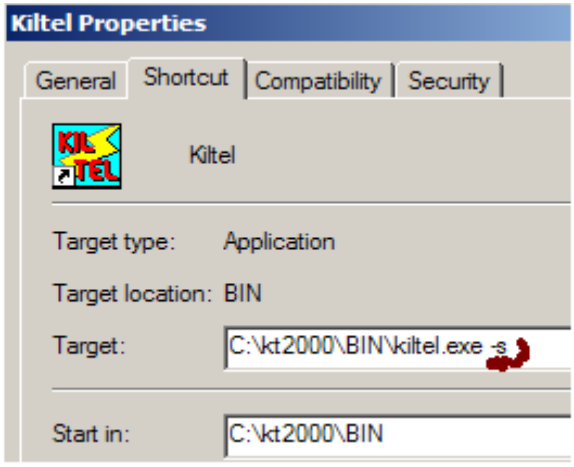
The watchdog timer function applies only to event-output (OAC5, ODC5) modules on Opto-22 or Dutec chassis boards. When this feature is invoked, the chassis board processor is configured to set all event modules on that chassis board to OFF if the normally continuous communications stream from the supervisory computer is absent for more than a set number of seconds.

Events are given the watchdog attribute on the Event Logic tab of the PV setup dialog:



The default value for the watchdog timeout is 30 seconds. As a comparison, in normal operations the computer communications are essentially continuous, with silent periods far less than 0.1 second.

The watchdog timeout can be set from a special (normally hidden) setup tab on the system defaults dialog. This is accessed in two steps: first, the setup dialog is enabled by adding a "-s" commandline argument to the program's Windows invocation. This is found in the properties of the desktop shortcut to the Kiltel program:



After adding the "-s", click on "Apply", and then re-start the program from the shortcut. When the program resumes, access the Setup tab on the System Setup dialog, and set the Watchdog Timeout value; allowable values are between 0 (watchdog function is disabled) and 600 seconds: