Technical Bulletin

Subject/Key Words:	Prevent Scheduling Errors; TMP. File Deletion and Cold computer reboot; ; timer "wrap around" PM Update			
Classification:	■ Informational	❑ Mandatory	❑ Safety Alert	■ PM Impact
	❑ Warranty Impact	❑ Purchase Parts	❑ No Charge For Parts expires ___ / ___/___. Reference this TB# when ordering NC parts.	

Issue: Computer Preventive Maintenance is required to prevent scheduler error symptoms resulting in throughput and production losses. Robot "early by" and "late by" and "Critically Overprocessed" errors, alarms and events are caused by software timer "wraparound".

The following datalog entry is an example of a scheduling error caused by scheduler timer "wrap around".

9/15/10, 0:04:58, Robot, Tank 5, Late for pickup by 2147483153 csec.

Scheduling errors can occur if temporary (.tmp) files generated by the software's Auto Recovery feature are not routinely deleted **and** the computer has not been completely powered down to allow the scheduler timer to properly reset.
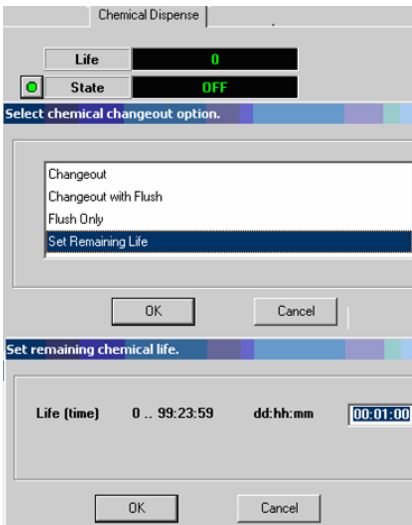
Solution (Semi-Annual Computer PM):

Perform a .tmp file deletion and cold shutdown of the wet station computer every six months. More frequent file deletion and cold shutdowns may be required if nuisance scheduler errors persist. Setting the robot scheduler parameter "transfer tolerance alarm" to the maximum of 10 seconds may decrease alarm frequency. Perform the PM as follows:

1. Clear product from the tank
2. Set the wet station to Standby
3. Configure the tanks so they do not drain on computer power down. See Note on Page 2. (Some systems are set up so drain valves remain closed. Other systems have the drain valves will open. On these systems turn off the CDA or N2 to the pneumatic valves so the drain valves will not open.)
4. Make note of the remaining bath lives of all tanks. (This data must be manually reentered after the computer is restarted.)
5. Exit the Akrion software.
6. Enter the C:\AkrionSystems\Data directory.
7. Delete all .tmp files such as Timer1.tmp, Timer2.tmp, Recover1.tmp and Recover2.tmp, etc
.

Name	Size	Type ▼	Date Modified
Timer2.tmp	1 KB	TMP File	9/22/2010 2:33 PM
Timer1.tmp	1 KB	TMP File	9/22/2010 2:33 PM
Recover2.tmp	2,964 KB	TMP File	9/22/2010 2:33 PM
Recover1.tmp	2,964 KB	TMP File	9/22/2010 2:33 PM
EQEVENTS.TMP	30 KB	TMP File	8/9/2010 2:18 PM
EQCONSTANTS.TMP	188 KB	TMP File	8/26/2010 9:22 AM
EQALARMS.TMP	79 KB	TMP File	8/9/2010 2:18 PM

8. Power down the wet station computer.
9. Power up the wet station computer. (this resets the scheduler timer)
10. Restart the Akrion Software.
11. On the Chemical Dispense screen for each tank, manually set the remaining chemical life by selecting State, Set Remaining Life, and OK, then enter remaining life, then select OK.

Note: If performing computer PM along with other tool PM or service that requires all new baths, you can allow the tanks to drain, bypass steps 3 and 4 and select an option other than "Set Remaining Life" in Step 11.