

millisecond stamped event and alarm report

13/09/04	16:34:58.288	GM-3 (MH8) cubicle SEPAM fault
13/09/04	16:34:58.303	Mains OFF !!!
13/09/04	16:34:58.368	GM-3 (MH8) circuit breaker switched off
13/09/04	16:34:58.399	Gas Motor 3 switched off
13/09/04	16:34:58.399	Gas Motor 3 general alarm
13/09/04	16:34:58.399	Gas Motor 3 is stopping
13/09/04	16:34:58.431	Load shedding activated !!!
13/09/04	16:34:58.431	TR2 circuit breaker triggered by PLC for switching off
13/09/04	16:34:58.431	TR1-1 circuit breaker triggered by PLC for switching off
13/09/04	16:34:58.431	TR3-1 circuit breaker triggered by PLC for switching off
13/09/04	16:34:58.464	Mains (MH1) circuit breaker switched off
13/09/04	16:34:58.528	Gas Motor 1 temperature warning
13/09/04	16:34:58.559	TR3-1 circuit breaker tripped by PLC
13/09/04	16:34:58.576	TR2 circuit breaker tripped by PLC
13/09/04	16:34:58.999	TR1-1 circuit breaker tripped by PLC

Requirement

In most applications, critical alarms and important events occur simultaneously in a few seconds. Generally, time stamps for alarm handling in SCADA packages are in units of seconds. In such cases, it is not possible to achieve the chronological order and the relationships between alarms and events.

Solution

Our SCADA systems retrieve alarms and events with millisecond stamps from the PLC by a special protocol. Special fast digital input modules are not used for this purpose, but a special triggering logic runs in the PLC. The millisecond sensitivity depends on the digital input module filtering time.

Application Notes

13/09/04	16:34:58.288	GM-3 (MH8) cubicle SEPAM fault	<i>EVENT_174</i>
13/09/04	16:34:58.303	Mains OFF !!!	<i>EVENT_127</i>
13/09/04	16:34:58.368	GM-3 (MH8) circuit breaker switched off	<i>EVENT_230</i>
13/09/04	16:34:58.399	Gas Motor 3 switched off	<i>EVENT_240</i>
13/09/04	16:34:58.399	Gas Motor 3 general alarm	<i>EVENT_241</i>
13/09/04	16:34:58.399	Gas Motor 3 is stopping	<i>EVENT_246</i>
13/09/04	16:34:58.431	Load shedding activated !!!	<i>EVENT_005</i>
13/09/04	16:34:58.431	TR2 circuit breaker triggered by PLC for switching off	<i>EVENT_287</i>
13/09/04	16:34:58.431	TR1-1 circuit breaker triggered by PLC for switching off	<i>EVENT_288</i>
13/09/04	16:34:58.431	TR3-1 circuit breaker triggered by PLC for switching off	<i>EVENT_289</i>
13/09/04	16:34:58.464	Mains (MH1) circuit breaker switched off	<i>EVENT_026</i>
13/09/04	16:34:58.528	Gas Motor 1 temperature warning	<i>EVENT_138</i>
13/09/04	16:34:58.559	TR3-1 circuit breaker tripped by PLC	<i>EVENT_279</i>
13/09/04	16:34:58.576	TR2 circuit breaker tripped by PLC	<i>EVENT_122</i>
13/09/04	16:34:58.999	TR1-1 circuit breaker tripped by PLC	<i>EVENT_273</i>
13/09/04	16:34:59.580	Gas Motor 1 general alarm	<i>EVENT_070</i>
13/09/04	16:34:59.580	Gas Motor 1 is stopping	<i>EVENT_075</i>
13/09/04	16:35:00.608	Mains ON !!!	<i>EVENT_128</i>
13/09/04	16:35:00.816	GM-1 (MH3) circuit breaker switched off	<i>EVENT_029</i>
13/09/04	16:35:00.831	TR1 circuit breaker triggered by PLC for switching off	<i>EVENT_286</i>
13/09/04	16:35:00.831	TR6 circuit breaker triggered by PLC for switching off	<i>EVENT_292</i>
13/09/04	16:35:00.976	TR6 circuit breaker tripped by PLC	<i>EVENT_136</i>
13/09/04	16:35:00.991	TR1 circuit breaker tripped by PLC	<i>EVENT_118</i>
13/09/04	16:35:49.495	Giris (MH1) circuit breaker switched on	<i>EVENT_007</i>
13/09/04	16:35:49.524	Load shedding deactivated	<i>EVENT_004</i>
13/09/04	16:40:13.831	Gas Motor 1 general alarm off	<i>EVENT_071</i>
13/09/04	16:40:39.783	GM-3 (MH8) cubicle SEPAM fault off	<i>EVENT_215</i>
13/09/04	16:40:39.999	Gas Motor 3 general alarm off	<i>EVENT_242</i>
13/09/04	16:40:46.256	Gas Motor 3 started	<i>EVENT_245</i>
13/09/04	16:40:47.976	Gas Motor 2 started	<i>EVENT_080</i>
13/09/04	16:40:49.210	Gaz Motoru 1 started	<i>EVENT_074</i>
13/09/04	16:40:56.405	TR1 circuit breaker switched on by PLC	<i>EVENT_116</i>
13/09/04	16:41:09.559	TR2 circuit breaker switched on by PLC	<i>EVENT_120</i>
13/09/04	16:41:26.705	TR6 circuit breaker switched on by PLC	<i>EVENT_134</i>
13/09/04	16:41:26.899	TR1-1 circuit breaker switched on by PLC	<i>EVENT_271</i>
13/09/04	16:41:27.033	TR3-1 circuit breaker switched on by PLC	<i>EVENT_277</i>
13/09/04	16:45:52.351	Gas Motor 1 running	<i>EVENT_074</i>
13/09/04	16:45:52.351	Gas Motor 3 running	<i>EVENT_245</i>
13/09/04	16:45:52.368	Gas Motor 2 running	<i>EVENT_080</i>
13/09/04	16:47:42.731	Gas Motor 3 begin production	<i>EVENT_239</i>
13/09/04	16:47:43.135	Gas Motor 2 begin production	<i>EVENT_046</i>
13/09/04	16:47:43.629	Gas Motor 1 begin production	<i>EVENT_044</i>
13/09/04	16:48:12.045	GM-3 (MH8) circuit breaker switched on	<i>EVENT_228</i>
13/09/04	16:48:26.084	GM-1 (MH3) circuit breaker switched on	<i>EVENT_010</i>
13/09/04	16:48:40.836	GM-2 (MH4) circuit breaker switched on	<i>EVENT_013</i>