



Dynamic Configuration Software (DCS)

Special Alarm Management

The Special Alarm Module (SAM) provides a mechanism to eliminate many types of unnecessary alarms during normal run, process upsets, start-ups and shutdowns. Further, each alarm can be managed on a Full-Cycle basis to re-enable when they are clear of any alarm condition or when reminding (re-alarmed) is desired.

Features

Alarm Disable options are as follows:

- Immediate disable regardless of the current alarm condition.
- Timed disable after continuous alarm condition.
- Never disable.

Alarm Enable options are as follows:

- Intelligent enable after timed, continuous no-alarm condition.
- Timed reminder enable for disabled alarms.
- Never enable.
- Two-touch Full-Cycle management: touch any point in a standard alarm display or appropriately configured custom display.
- Touch a dedicated console button to automatically send the point to an available SAM block.

Alarm activity is managed by changing the alarm enable state parameter. SAM provides a mechanism for individual alarm points to be collected into blocks. These blocks contain the configuration which allows alarms to be disabled and/or enabled based on their alarm condition, current alarm disable/enable state and timer limits.

Blocks provide common default values for new point entries as well as multiple security levels. Configurable security includes key level access, valid timer limits, unit validation of points and inclusive or exclusive list validation of points. This gives the engineer ultimate flexibility over who can manage what alarms and how. This is a vast improvement over the unrestricted all-or-nothing security level access on most control systems today. Operator interface schematic displays provide SAM details, execution status and easy-to-use access to adding or deleting tags and setting timer limits.

Digital control systems provide an alarm annunciation interface that retains all active alarms for display and review by the operator. Usually alarm points provide valuable precursor alarm information to help the operator contain minor disturbances and prevent them from growing in severity. However, many alarm points are only important at a specific point in time and cease to have significance after the operator has acknowledged their presence. In some circumstances the operator may need to be reminded of a potentially forgotten alarm state. set of normal operation conditions. This introduces management problems because of a static configuration.

With the intelligence of the Selector and the flexibility of the Information Module, these situations can be better managed.

Situations

- **Equipment Status:** Status alarms (in/out of service, bypass, etc.) for process equipment contribute to the alarm interface clutter. The operator is forced to search through these status alarms to determine which standing alarms are significant.
- **Nuisance Alarms:** Intermittently recurring alarms caused by “chattering contacts” or “bouncing levels” are always annoying and, worse, distracting to the operator. Recurring alarms de-sensitize the operator to the annunciation interface. After repeated alarms from the same point, the operator tends to silence the horn without reviewing the interface.

NO	NAME	END	TIMER	DIS	EN	END	END
1	99DC01	DIS	0.000	1.000	0.000	100.0	0
2	99DC03	DIS	0.000	1.000	0.000	0.000	0
3			0.000	0.000	0.000	0.000	0
4			0.000	0.000	0.000	0.000	0
5			0.000	0.000	0.000	0.000	0
6			0.000	0.000	0.000	0.000	0
7			0.000	0.000	0.000	0.000	0
8			0.000	0.000	0.000	0.000	0
9			0.000	0.000	0.000	0.000	0
10			0.000	0.000	0.000	0.000	0
11			0.000	0.000	0.000	0.000	0
12			0.000	0.000	0.000	0.000	0
13			0.000	0.000	0.000	0.000	0
14			0.000	0.000	0.000	0.000	0
15			0.000	0.000	0.000	0.000	0
16			0.000	0.000	0.000	0.000	0
17			0.000	0.000	0.000	0.000	0
18			0.000	0.000	0.000	0.000	0
19			0.000	0.000	0.000	0.000	0
20	99DC02	DIS	0.000	999.0	4.000	2.000	0