ObjectAutomation's OA2alarms

Real-Time Event Detection, Notification & Management

OA2alarms is a distributed alarm detection and alarm/event management system. Intelligent alarming provides the process alarm services to configure, detect, and manage alarm conditions and system events anywhere in the enterprise.

With OA2alarms, you can:

- **Simultaneously configure** different detection criteria on a single attribute.
- **Construct** specialty objects to detect and manage complex alarm conditions.
- **Accommodate** changes in process dynamics by automatically switching sets of alarm limit thresholds.
- **Manage** alarm storms and filter out secondary alarm sources to focus on key alarms.
- **Distribute** a selected subset of the total alarm situation to specific people and/or devices.
- **Share** flexible alarm summary information with OA2view and OAworkbench.
- **Set up** and maintain alarm event logging to files and line printers.
- **Create** custom client applications that receive alarm & simple event updates in real-time.

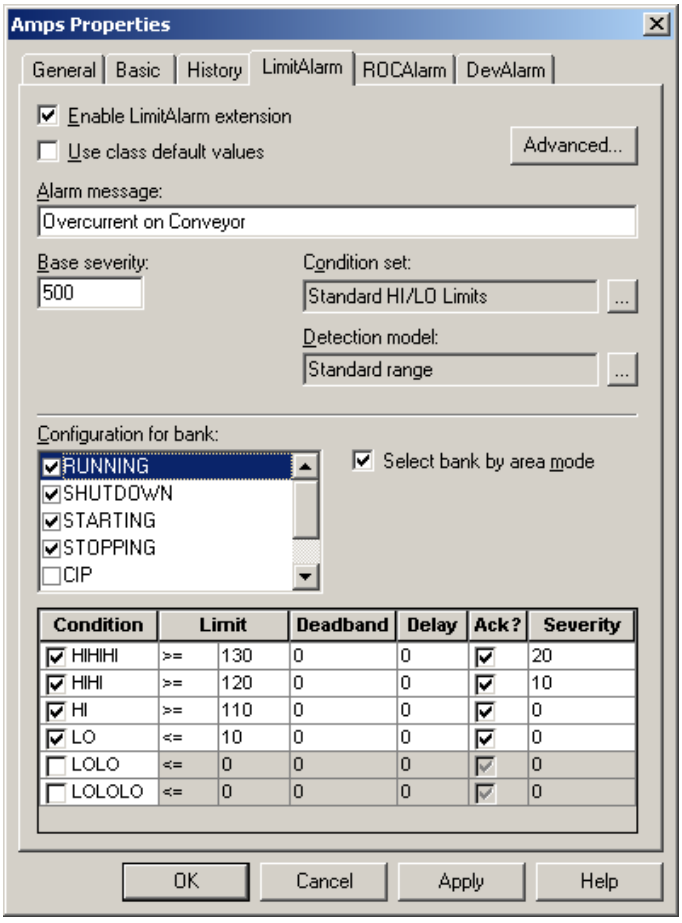
Using an attribute-centric model, OA2alarms allows multiple and simultaneous alarm detection on any, or all, of the attributes in your OAenterprise system. The three forms of detection that are common to the industry - Limit, Rate-of-Change (ROC), and Deviation alarm detection techniques - are extended to provide a comprehensive detection model for all meaningful data types.

FUNCTIONS & FEATURES

Hierarchical Alarming

In OA2alarms, post-detection management centers on the concept of hierarchical alarm areas. These alarm areas are OAenterprise framework objects, which means any number can be created, they can be distributed across multiple nodes, and they can be sub-classed to add process and operational intelligence.

In addition, these alarm areas have a set of attributes that control and define their behavior. Alarm areas interact with one another to update distributed clients, such as the Alarm Summary List ActiveX control and Alarm and Event Logger objects. Both of these client software components, which are bundled with the product, provide common alarm annunciation, and alarm and event logging in OA2alarms.



ObjectAutomation
Irvine, CA
www.oa.com

ObjectAutomation's OA2alarms

Real-Time Event Detection, Notification & Management

	Attribute	Time	Condition	Current Value	Comments>>
	Conveyor1.Amps	6/5/2003 11:41:01 AM	HIHIHI	135.00	
	Conveyor2.Amps	6/5/2003 11:42:33 AM	HIHIHI	135.00	PM Requested - WO#200306-013
	Conveyor6.Amps	6/5/2003 11:44:35 AM	NORMAL	90.00	

There are common alarm conditions and techniques of detection throughout the industrial community. However, many are specific to a particular vertical market, a site, or even an application. OA2alarms provides you with built-in, yet extensible, alarm detection and alarm handling and gives you the means to construct complex condition criteria.

Multiple Alarm Detection Techniques

- **Limit Alarm**
  This technique is sometimes referred to as a level or value alarm. It allows detection of value limit violations and focuses on the value of a particular attribute relative to a configured set of limits. You define a number of ranges, where each range has an associated severity, condition name, acknowledgment requirement, and other parameters.

- **Rate-Of-Change (ROC) Alarm**
  This technique detects rate-of-change violations. It follows a range model similar to that of Limit Alarm, but the value used is a change per unit of time.

- **Deviation Alarm**
  This technique detects deviation-from-target violations. For example, an attribute may be alarmed if it has not attained a target value to some tolerance, within a particular number of minutes.

You can manually or programmatically increase or decrease an alarm's overall severity through write access to the base severity parameters of an attribute's Limit, ROC, and Deviation Alarm extensions. This allows you to raise the severity of alarms that have remained unacknowledged for long periods of time.

Alarm Areas

The layout of most manufacturing facilities consists of areas and sub-areas where a particular task or function is performed. Usually, these areas are grouped into a hierarchy, the root of which is the entire plant floor. Area (or sub-area) groupings are defined geographically, functionally or a combination of both. Each area or sub-area on the manufacturing floor is assigned a specific set of tools and equipment used for the particular task at hand. Personnel working in an area (or subarea) are most often responsible for the equipment and tools in that area.

The alarm area in OA2alarms is similar to this concept. An alarm area is basically a logical grouping of tools, equipment, or processes in a manufacturing facility, such that any alarms generated by those tools or pieces of equipment are managed and sequenced by the alarm manager assigned to that area.

Web-Enabled Integration and Connectivity

In addition to ODBC and OLE Automation, OAenterprise provides web access to all OA2alarms data and configuration parameters through an integrated XML/SOAP server.