PI Alarms and PIAlarmView

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Agenda

- PI Alarm Subsystem Overview
  - PI Alarms
  - PI Alarm Groups
- PIAlarmView
  - View and Acknowledgement
  - History

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PI Alarm Subsystem

Generate and manage alarms for PI points.

- Supplement, not replace.
- Inputs from multiple locations or systems
- *Management* types of alarms
- Various types of alarms
- Alarm Hierarchy
- History

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PI Alarm Subsystem Features

- Alarm Priorities
- Acknowledgement status
- Alarm Deadband
- Alarm Delay

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Configuring Alarm Tags

- Source Tag
- Tests
  - Five alarm state tests available
  - Test Function Examples:
    - GT(10), IsUnAck(‘tagname’), EQ (12) + 14m
- Actions
  - Condition
  - Priority

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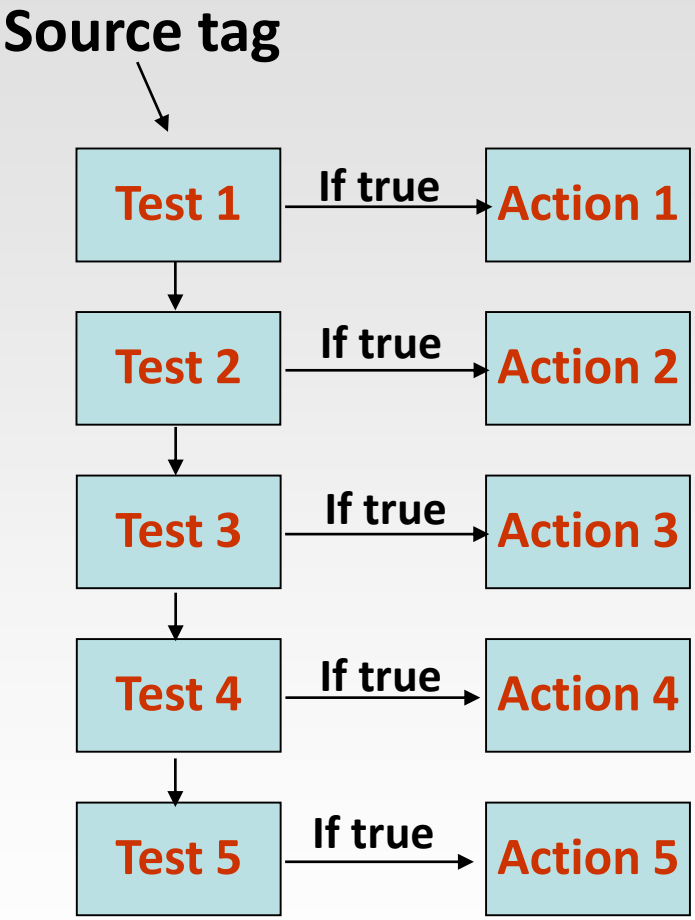
Alarm tag - Tests



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How to Create an Alarm Tag

- Configuration parameters define the alarm
- PI-SMT Tag Configurator can be used to configure a tag.

	Tag	AutoAck	Deadband	DigitalSet	PointSource	PointType
x	Ex1.al	yes	2	pialarm33	@	digital

Action1	Action2	SourceTag	Test1	Test2	ExDesc
high 1	low 1	sinusoid	gt (70)	lt (30)	u1alarms

The conditions used in the actionx attributes MUST match the conditions of the digital set.

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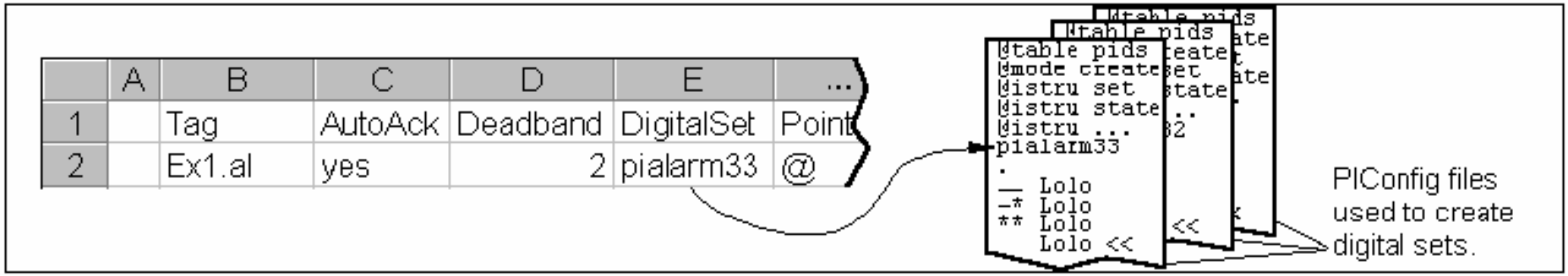
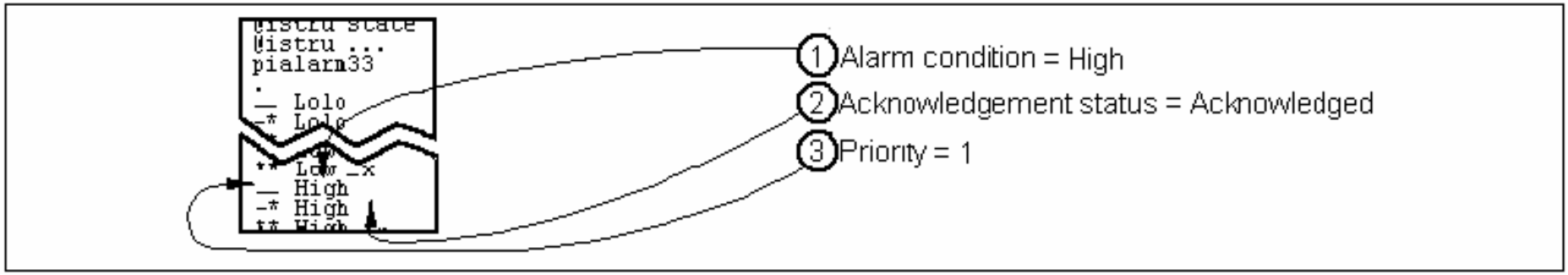
Digital state assignment



4. PI uses DigitalSet to determine which alarm set to use. Alarm sets are created in the digital state table.



5. PI matches the three conditions to the corresponding digital state in the digital set pialarm33.
The alarm tag will take the value "__ High".

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How to Create an Alarm Group

- Configuration parameters define the alarm Group
- PI-SMT Tag Configurator can be used to configure a tag.

tag	ExDesc	PointSource	PointType	Compressing	ExcMax
u1alarms	U1Alarms GroupID	G	Int32	0	0

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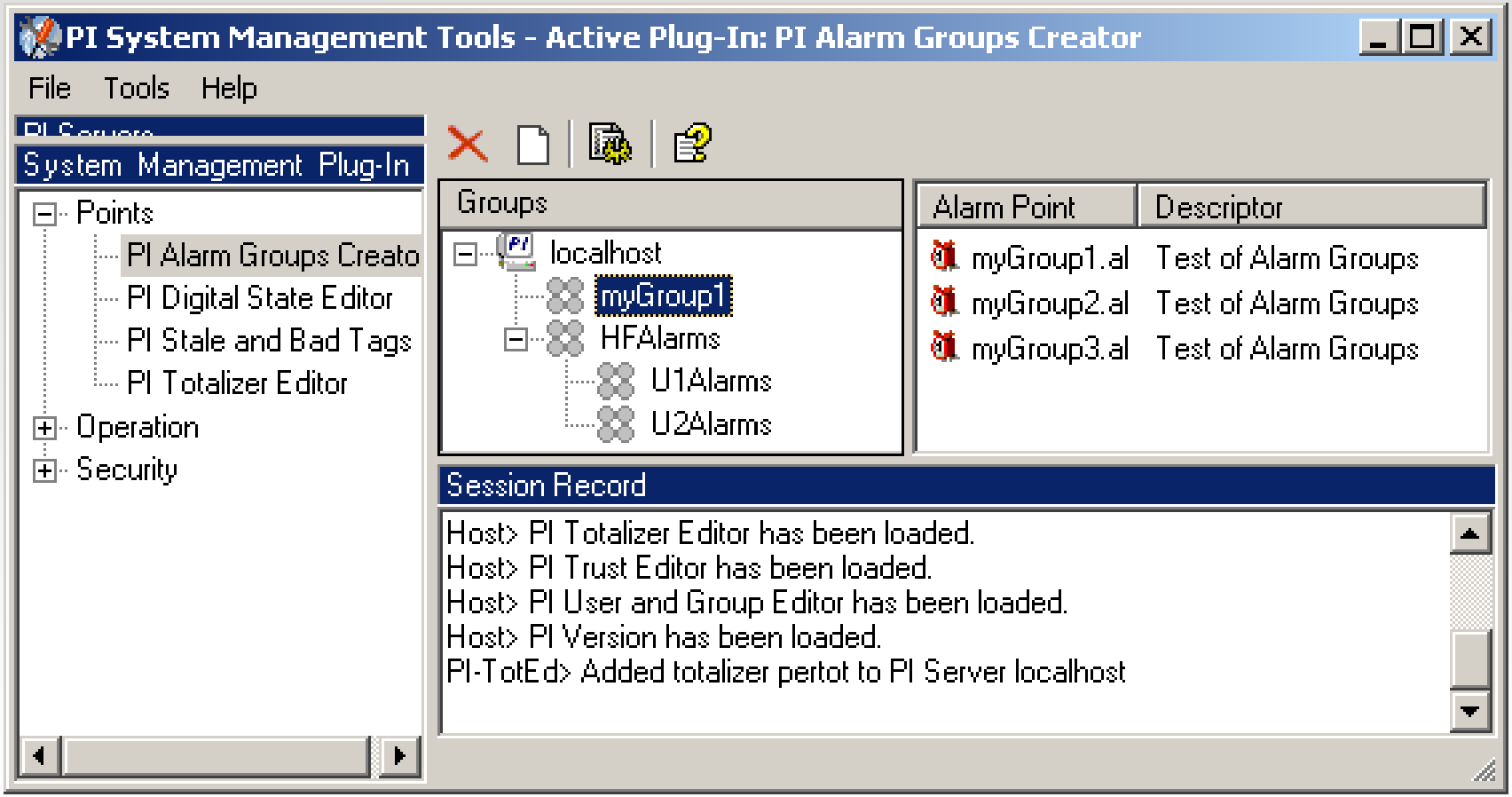
SMT – Alarm Group Creator



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PI AlarmView

- Client Tool
- Shows Current Alarms and Alarm History

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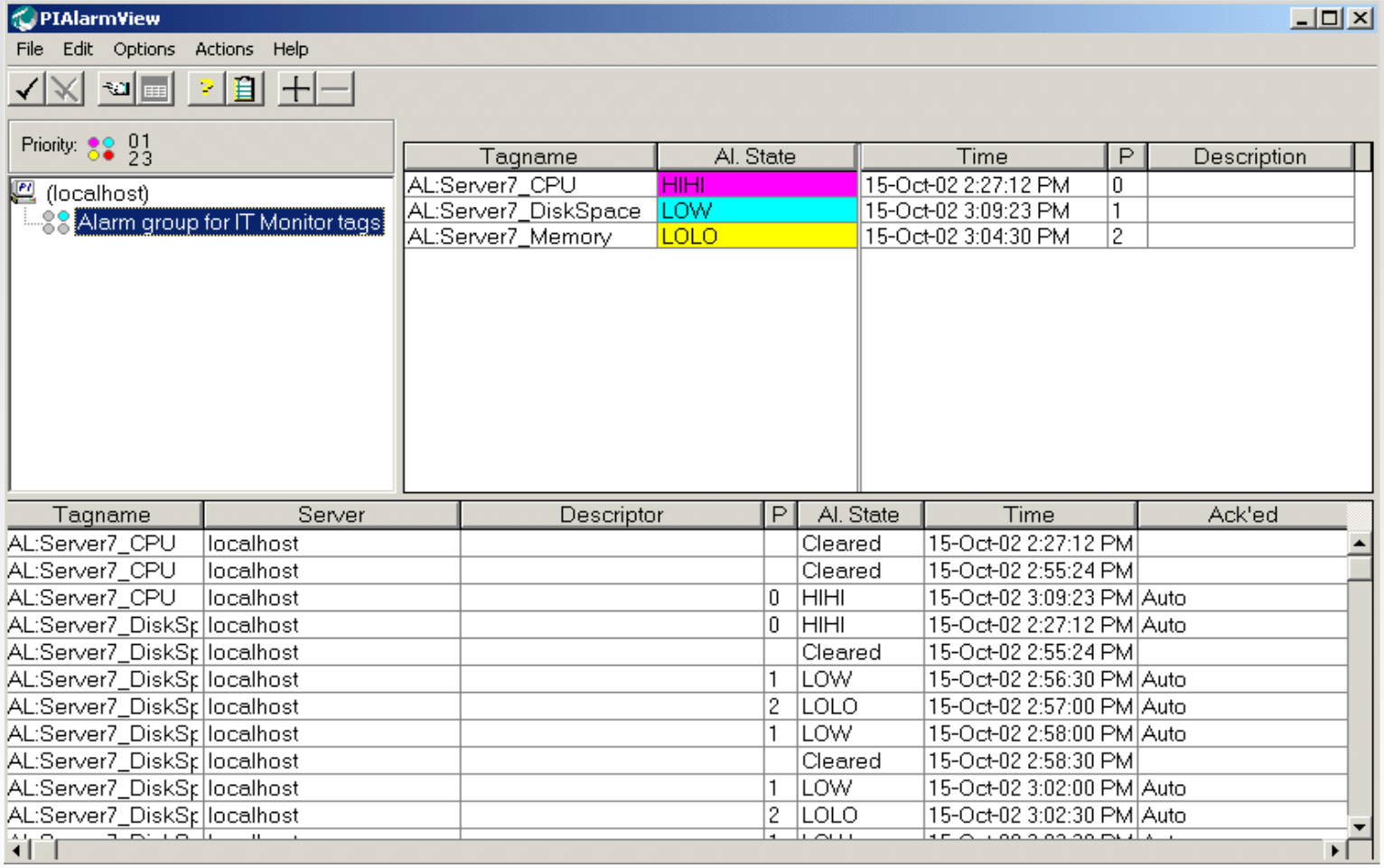
PI Alarm View client



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The PI-Alarm View window

Color coding for priority levels:

Priority	Color	Notes
1	Cyan	Lowest priority
2	Yellow	
3	Red	Highest priority
0	Purple	Auto acknowledge alarms

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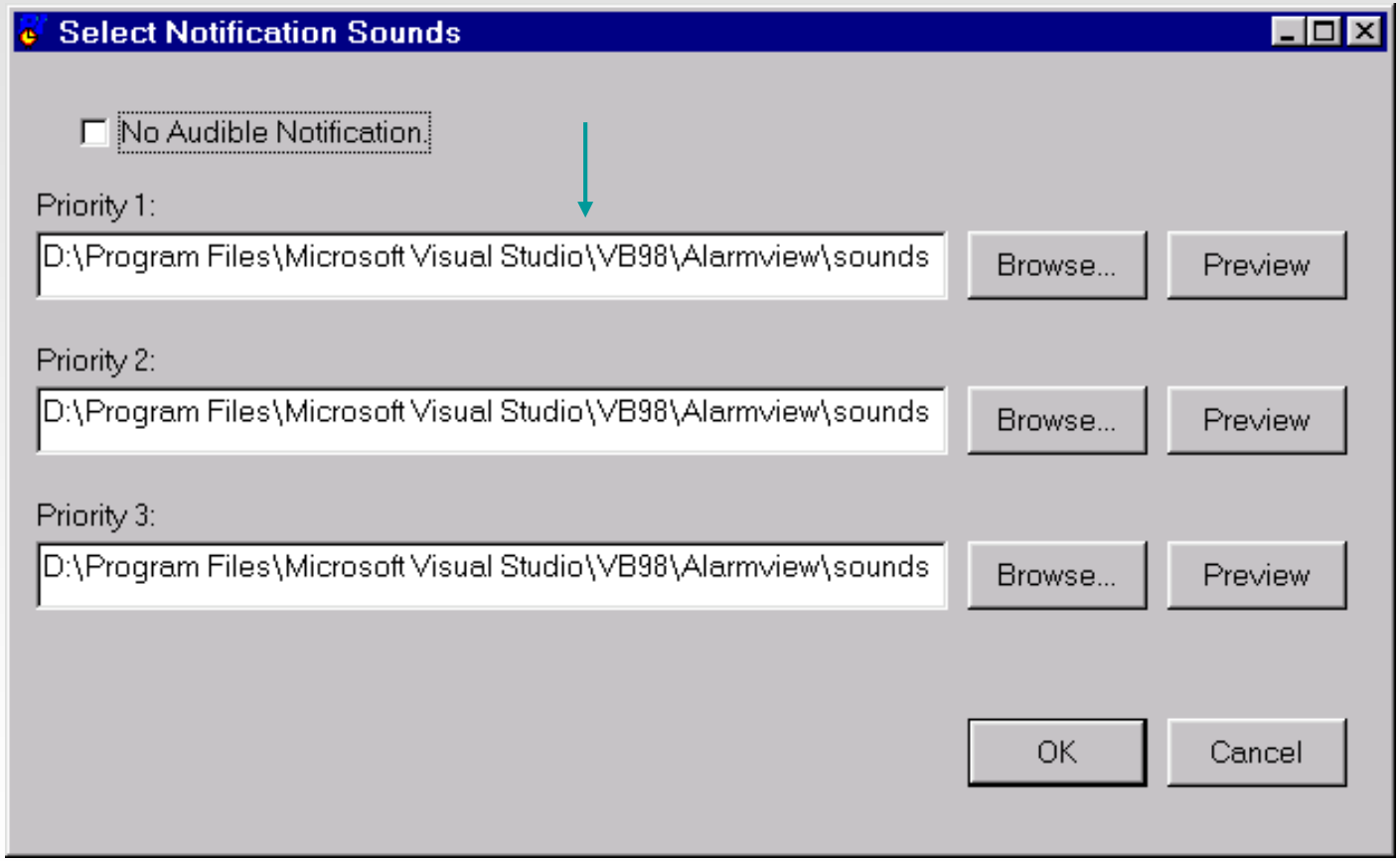
Audible and visible Alarm Notification

Audible notification when a new alarm happens



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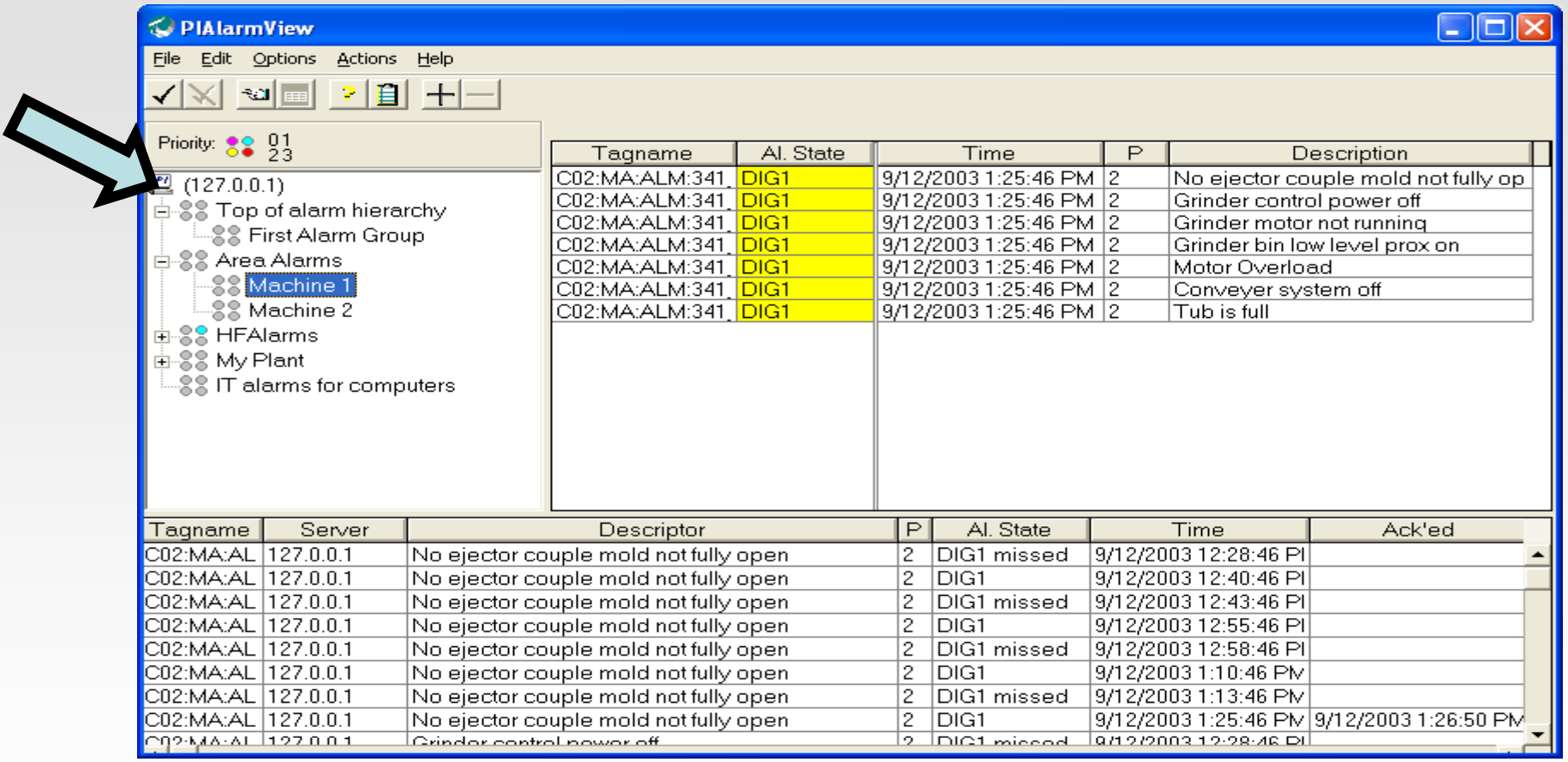
"Alarm Hierarchy" Pane

Managing the alarm priorities



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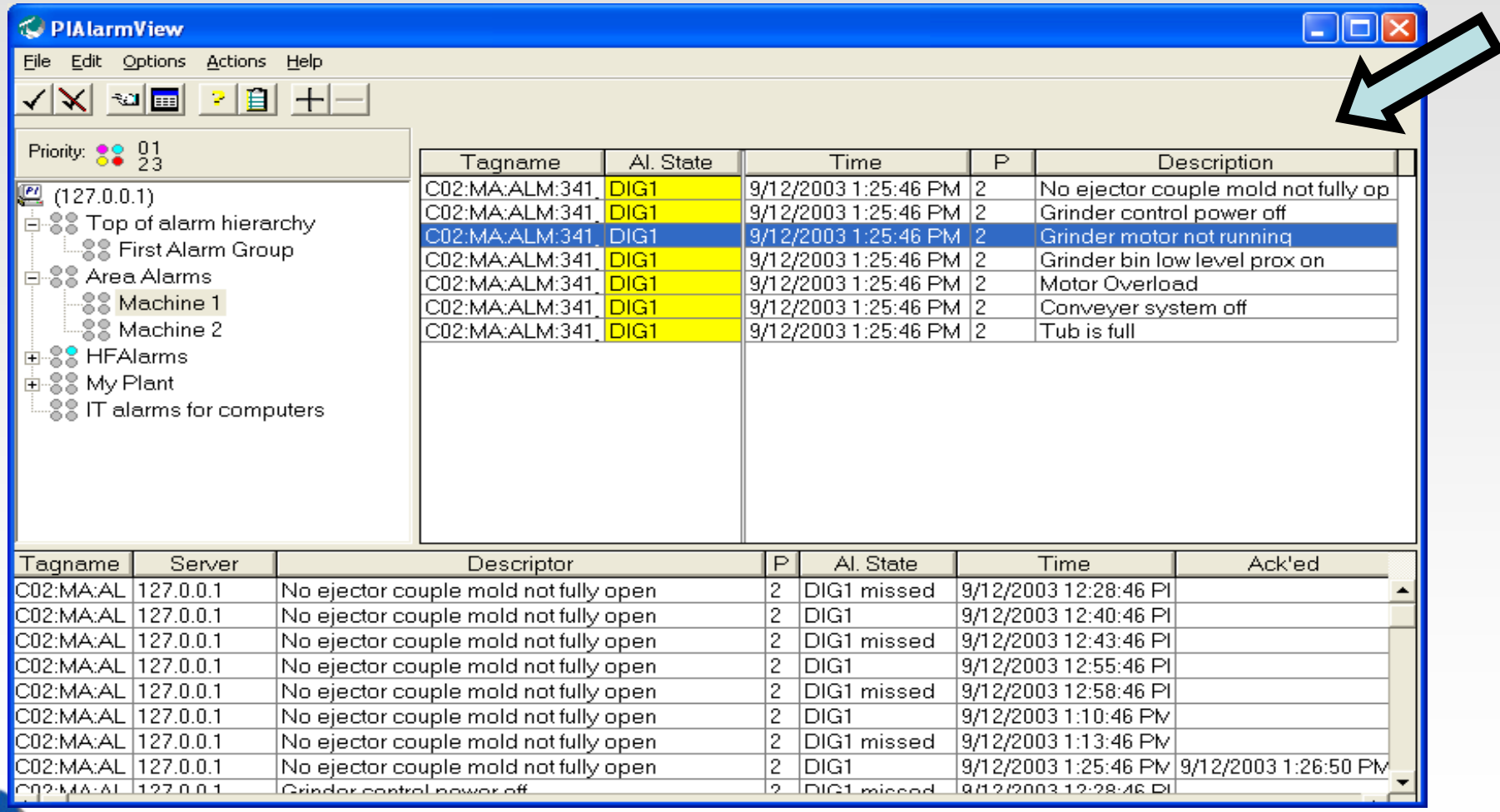
"Current Alarms" Pane

Visualize details about alarm tags



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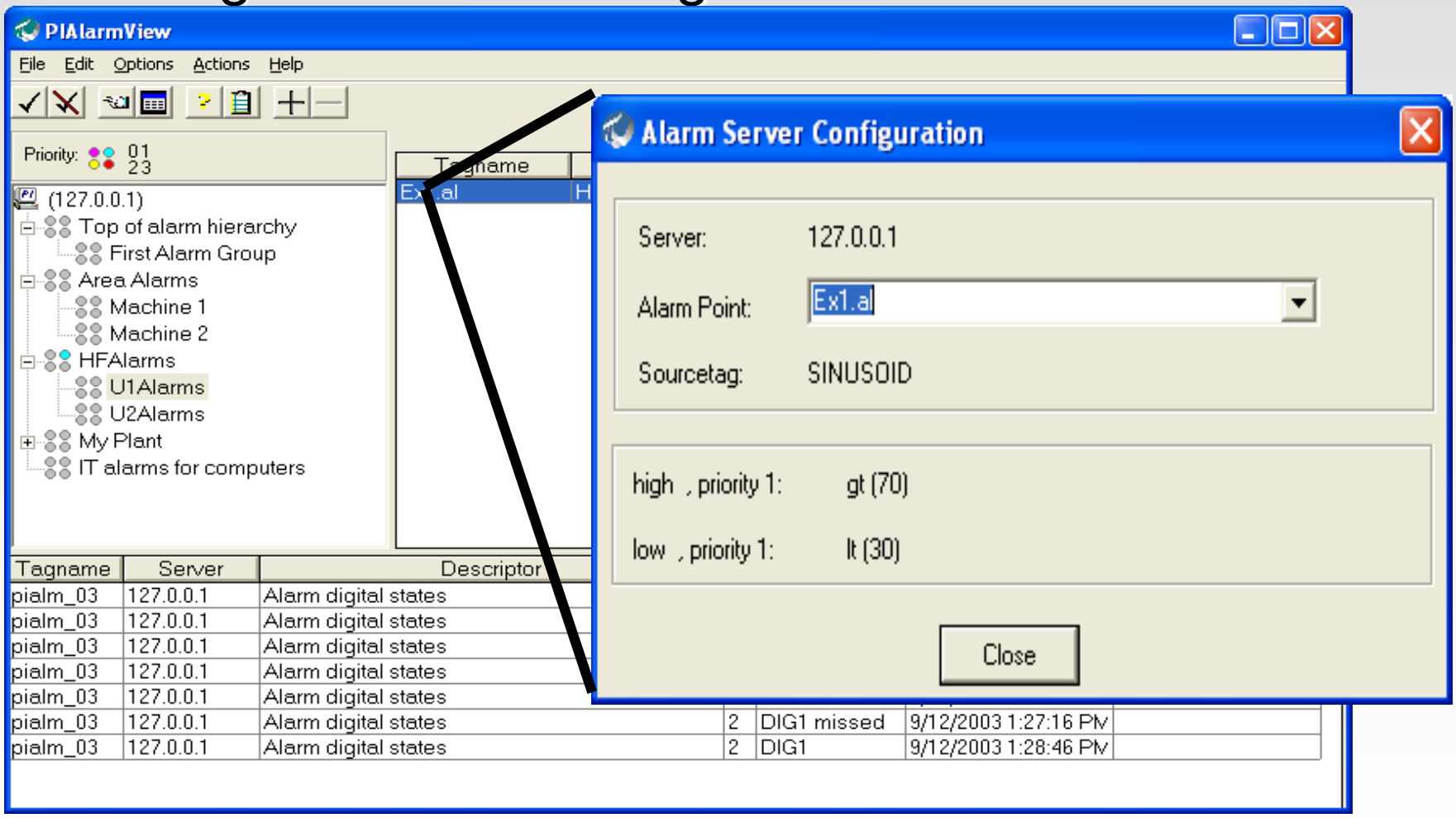
"Current Alarms" Pane (cont)

Viewing the alarm configuration



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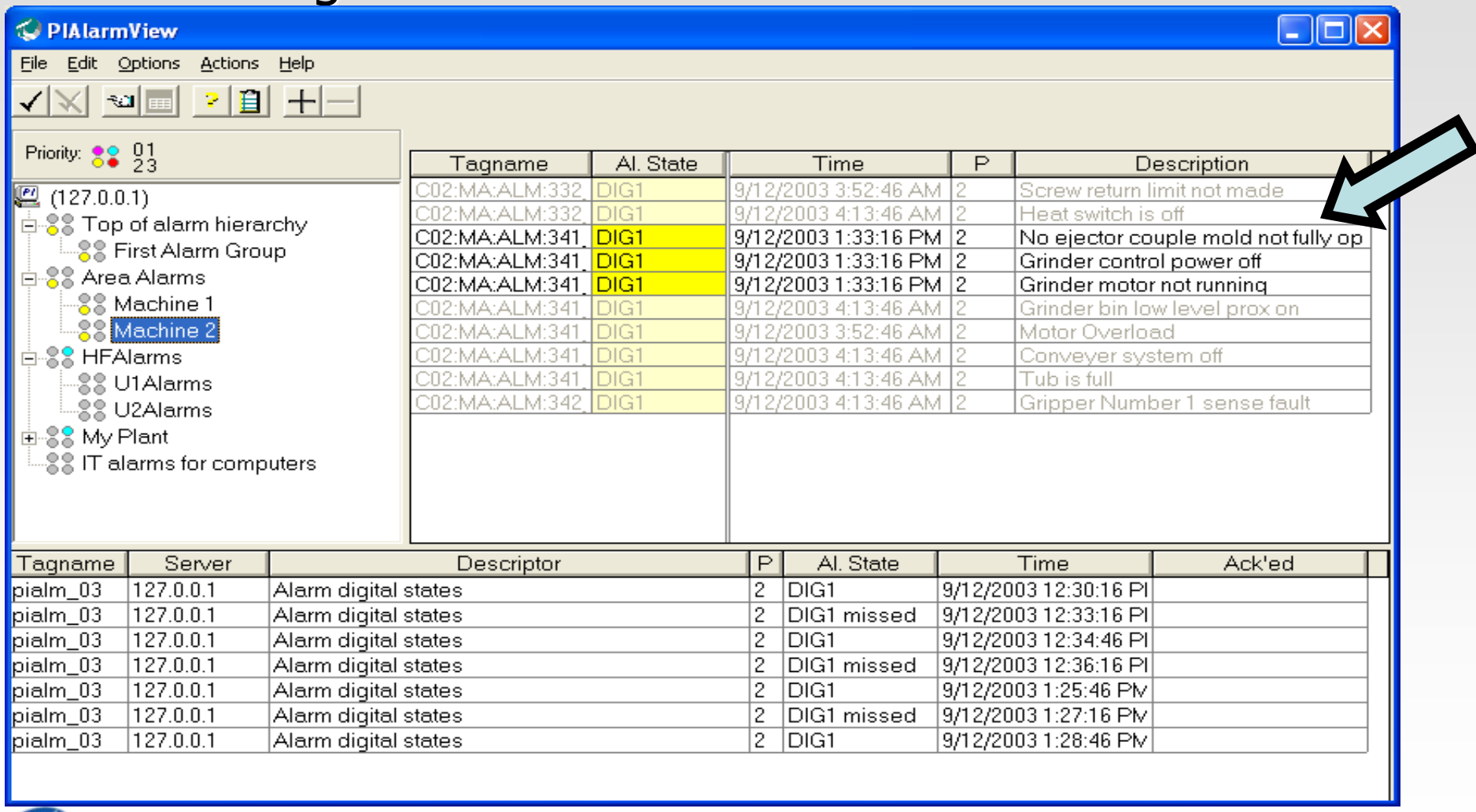
"Current Alarms" Pane (cont)

Monitoring an alarm



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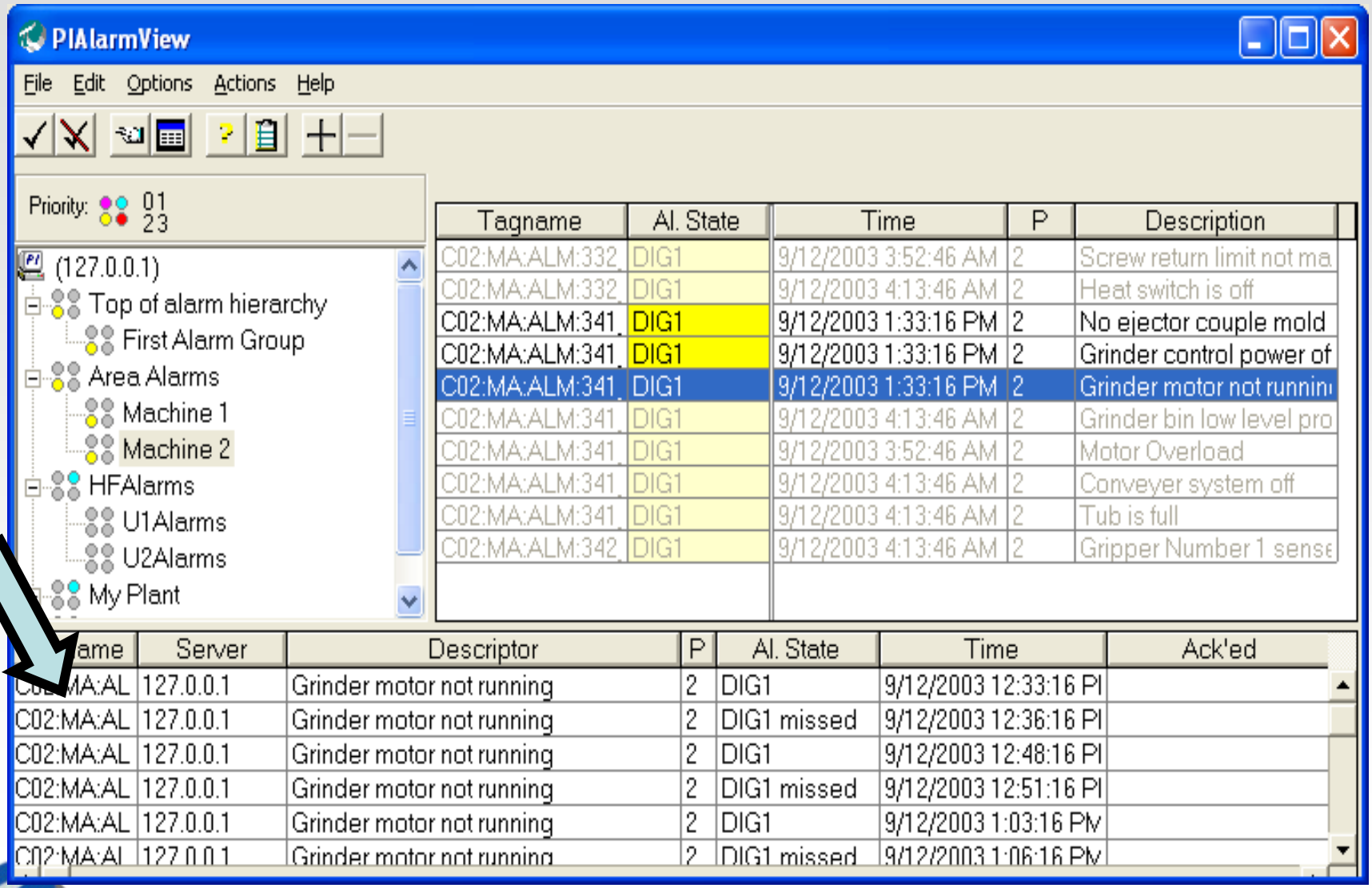
"AlarmHistory" Pane



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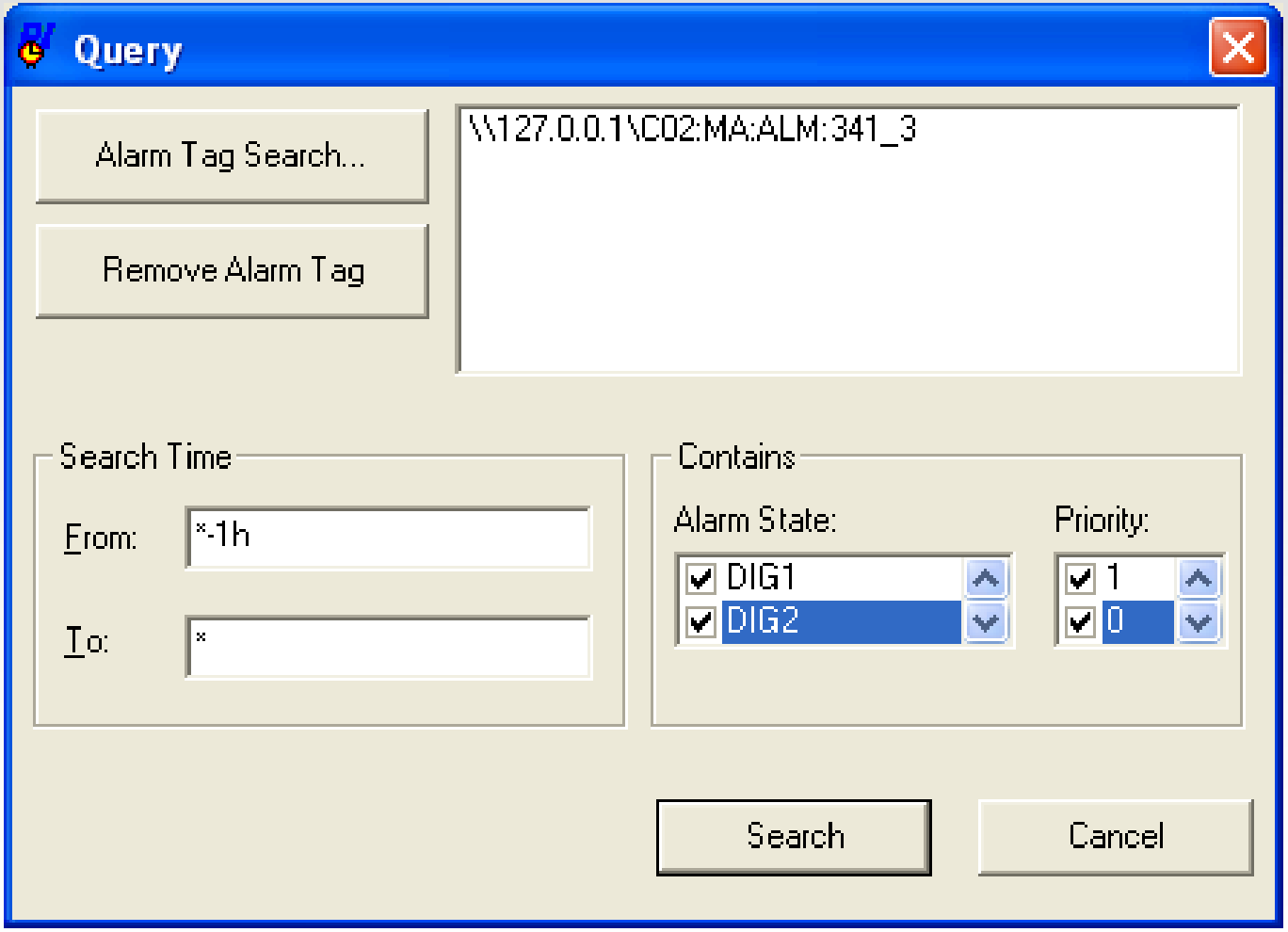
"AlarmHistory" Pane (cont)

Query through the history



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Other Information

- Alarm Documentation on OSIsoft.com
- Contact me at rmelberg@osisoft.com

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