VOYAGE2007

Event Frames Give Your Real-Time Data Context: A Preview of What's to Come

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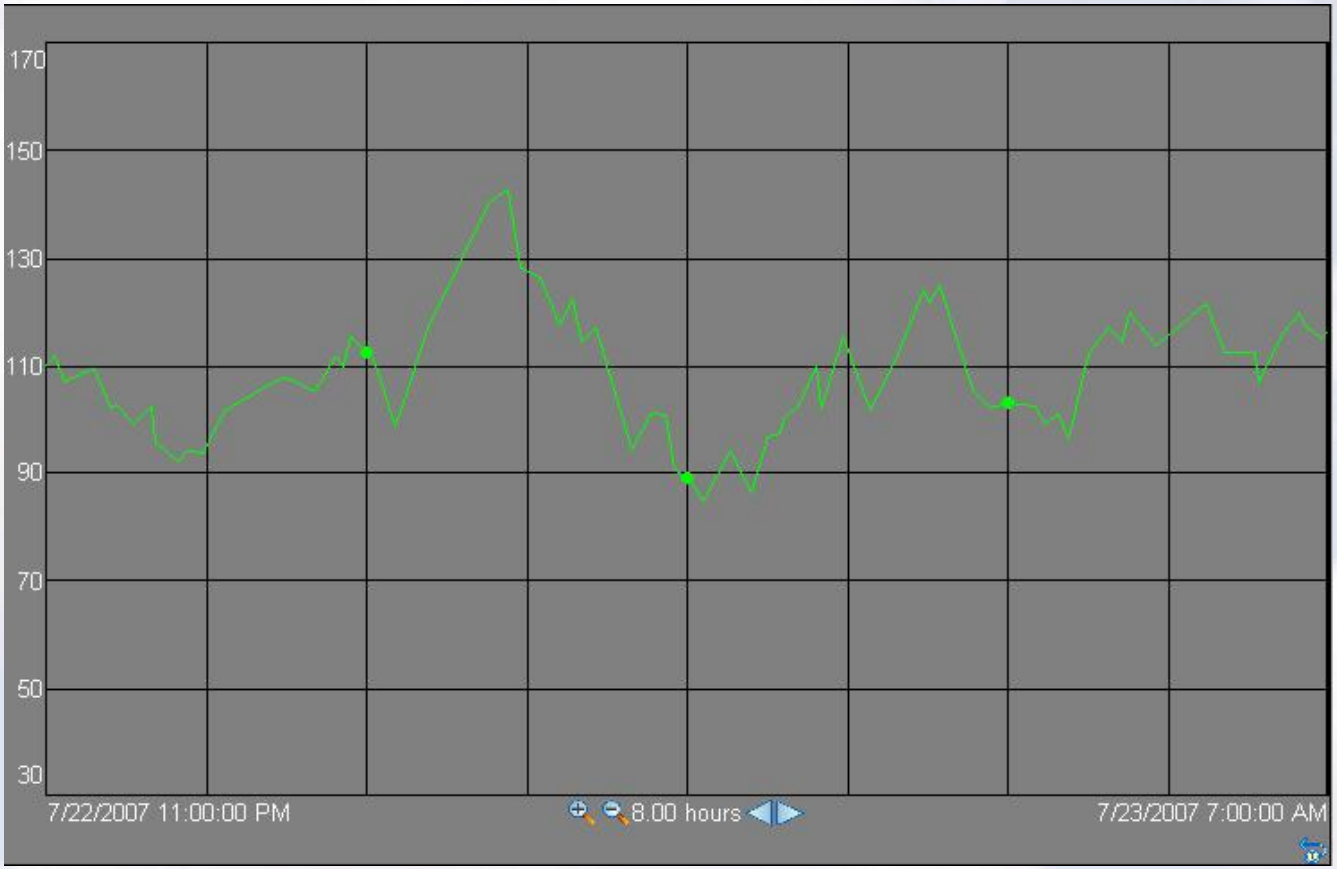
VALUE NOW, VALUE OVER TIME

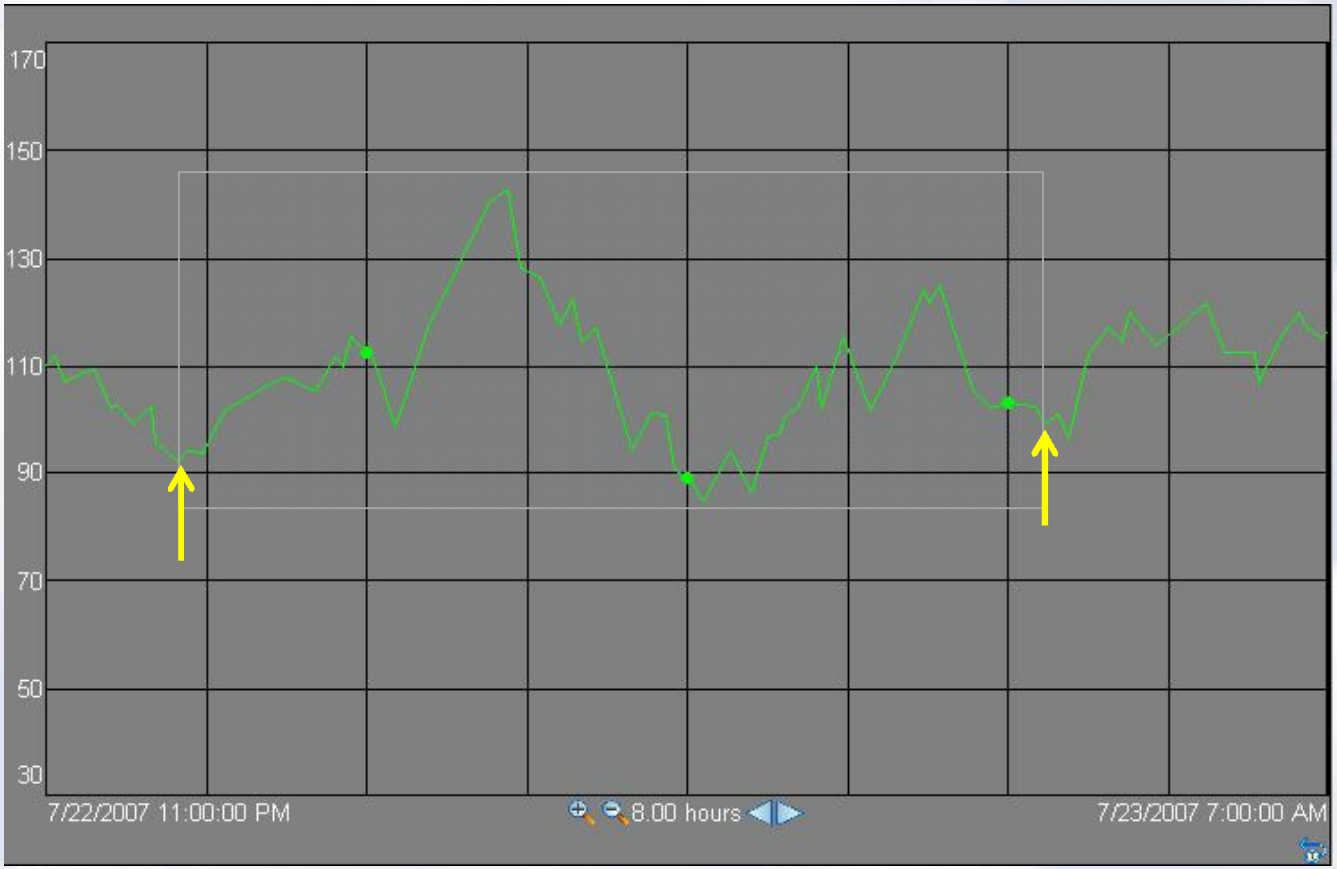
Event Frame Topics

- What is an Event Frame
- Why now
- Use Cases
- Use Case Sponsorship
- Where are we now
- Batch Feature Backward Compatibility
- Event Frame Focus Group

Continuous Data



Batch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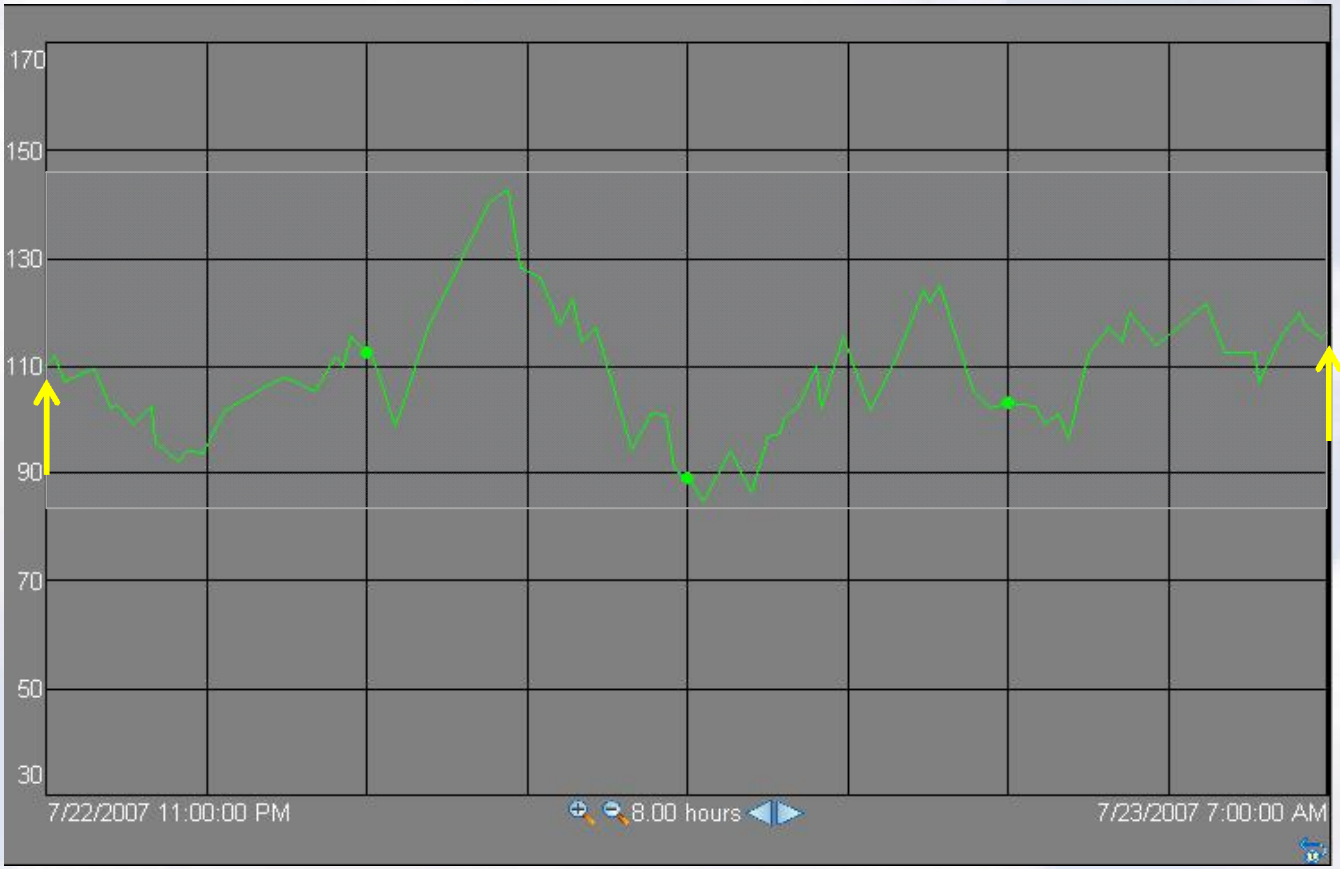
8.00 hours
7/23/2007 7:00:00 AM

Rx

Day or Shift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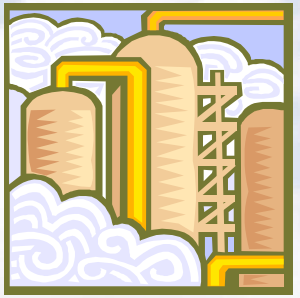
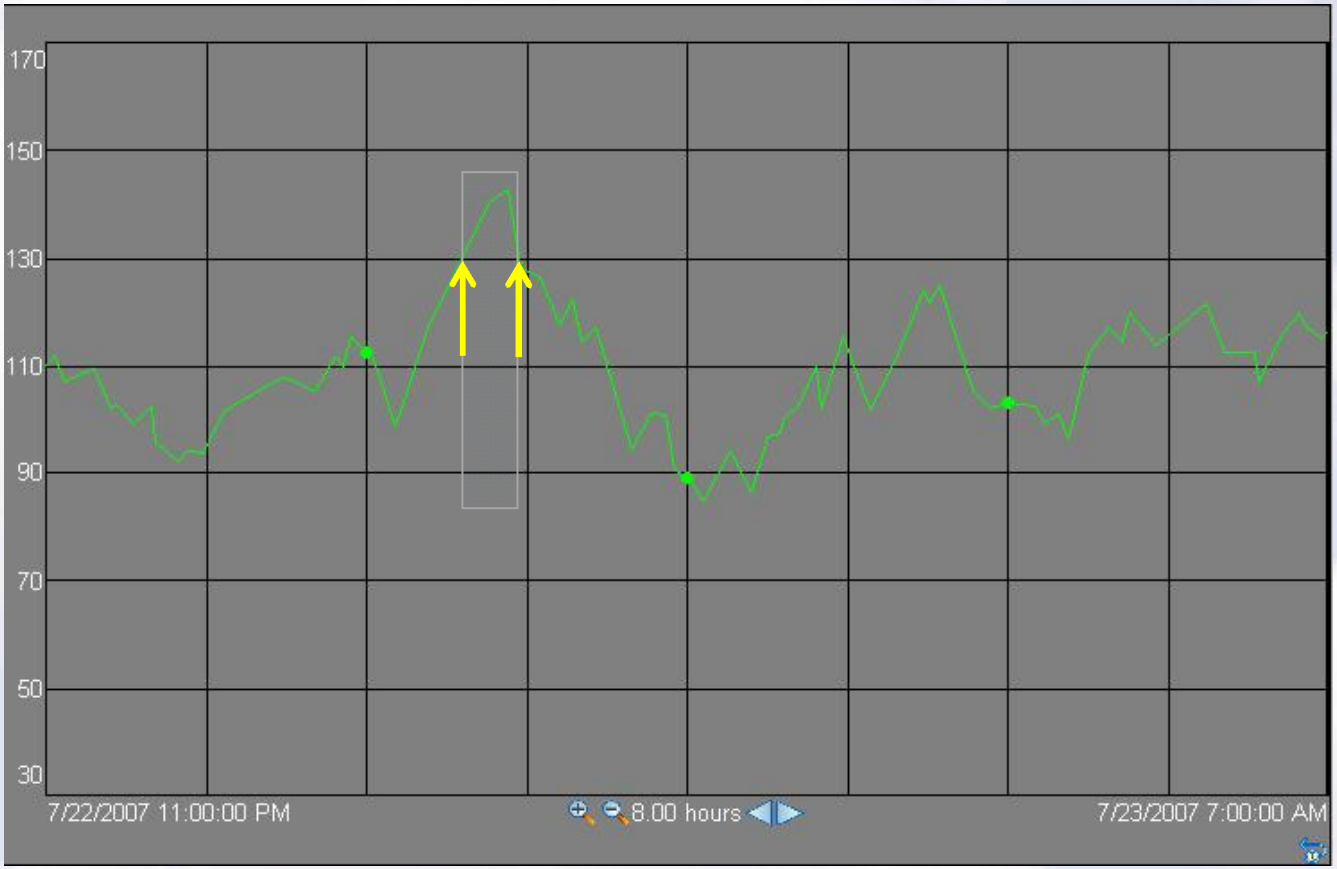


Event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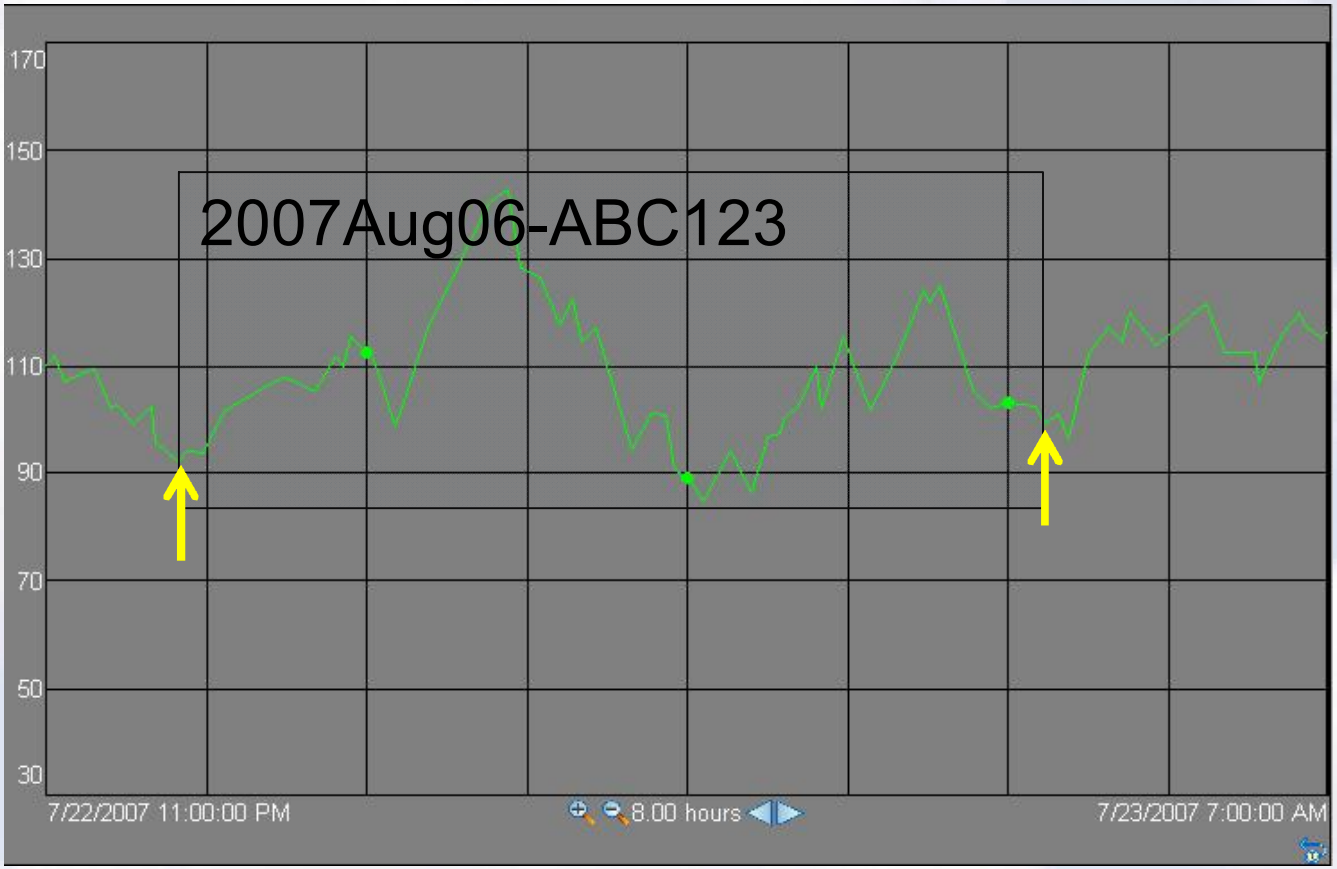
7/23/2007 7:00:00 AM

What is an Event Frame?



- Start time
- End time
- Name
- Associated data
  - Equipment
  - Tags
  - Comments
  - Event Frames

Tell us about yourselves

- How many out there are using PI Batch software now?
- How many are using it for a traditional batch application?
- How many are using it for a non-traditional batch application?

Why now – Internal Drivers

- Extend Batch Features into AF 2.0
  - Batch infrastructure integrated with the AF Database
  - Great opportunity to evolve our existing feature set
- Product features require event frame storage
  - PI Notifications
  - RtReports Report Properties

Why now – External Drivers

- Large Federated PI Systems
- External Systems are generating Event Frames
- Context driven visualization
- Customer and partner feedback

Batch Customer Advantages

- Extensible schema
  - S88 supported
  - Other schemas relax restrictions of Batch Database
    - Multiple active UnitBatches on a Unit
- Increase database performance
- Tighter integration with all products

All Customer Advantages

- Model more types of processes and meet data storage demands
- Customer defined vocabulary
- Segregate Event Frame types
- Historize Event Frames from external systems
- Client side Event Frames
  - Create locally
  - Commit Event Frame or the rule to server

EF Business Use Cases

- Downtime\Incident\Accident\Excursion
- Discrete Manufacturing
- Transfer Records
- Semi-continuous processes
- Equipment Startup and Shutdowns
- Preconfigured Time Ranges
- Batch

Excursion Example

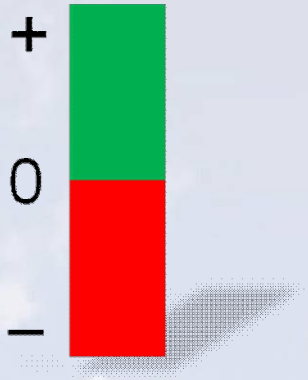
1. Create an Element Template representing an emissions stack

2. Create instances of each stack within the Enterprise Asset hierarchy

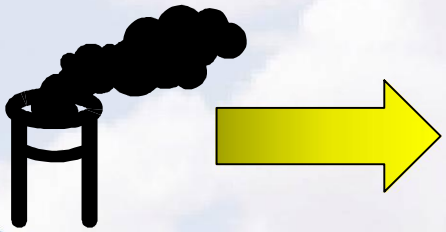
Excursion Example

3. Create an Analysis Rule

   delta = allowed – emitted

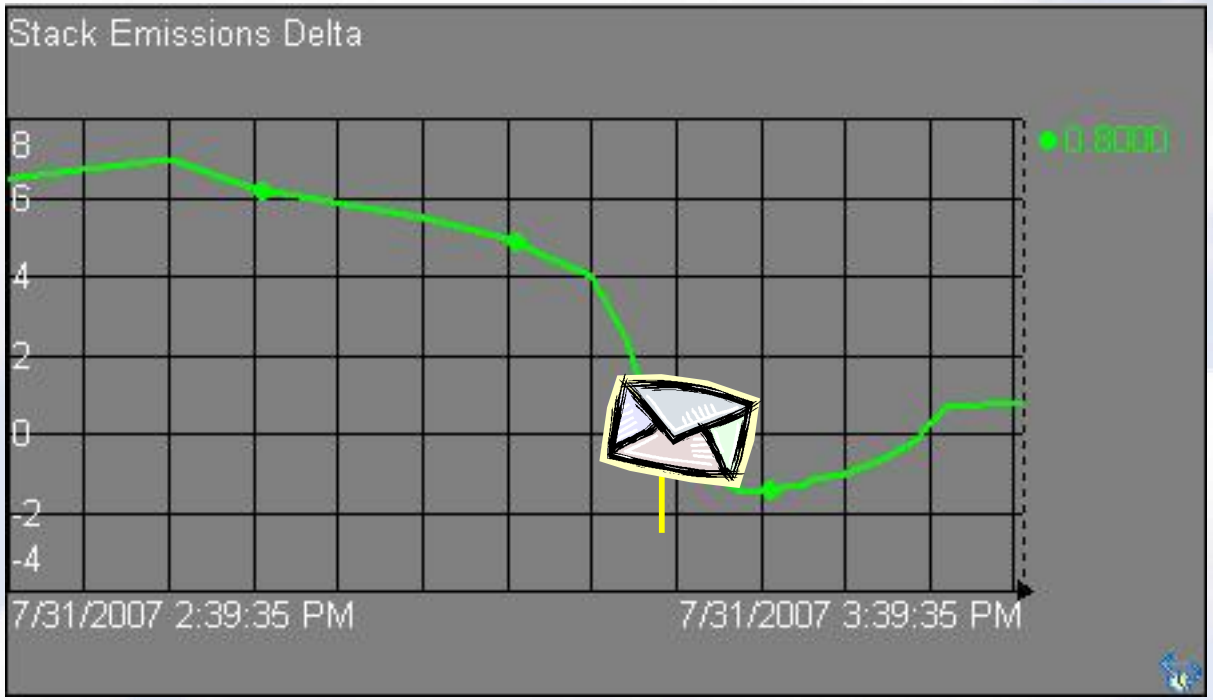


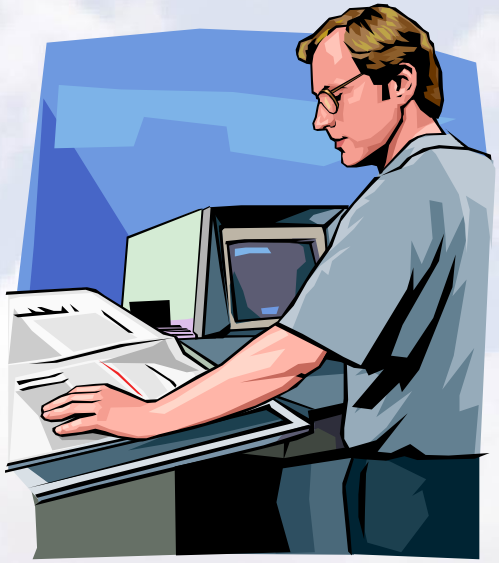
4. Create an Analysis
   - Analysis Rule just created
   - Element Template just created
   - Time rule (natural – runs based on values of data)



Excursion Example

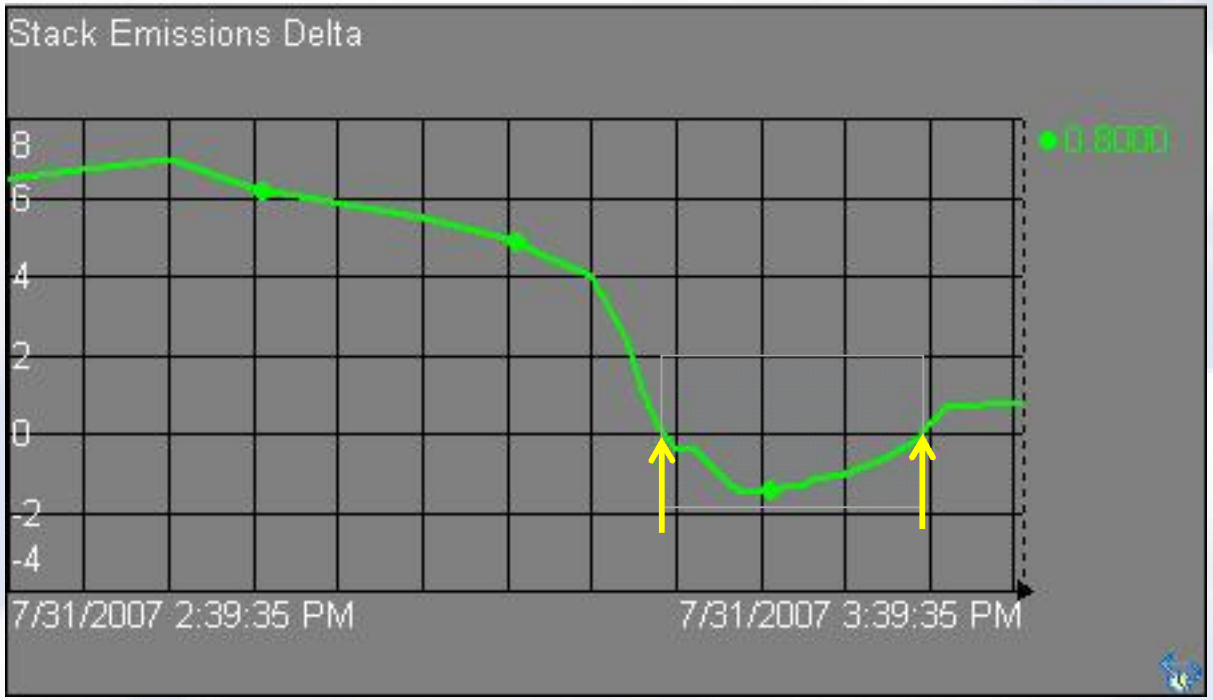
5. Configure a Notification
   when Delta < 0, send a Notification to Supervisor

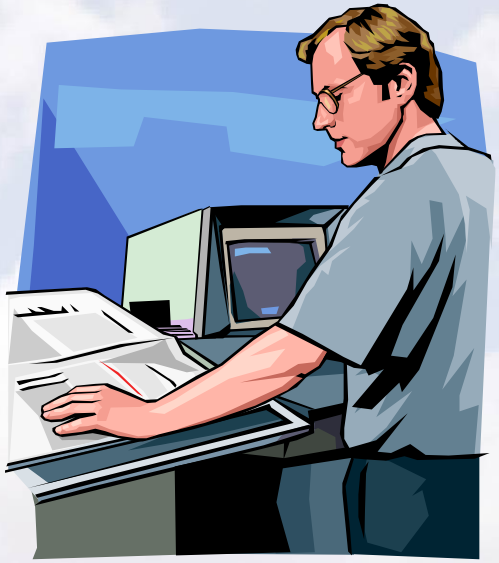




Excursion Example

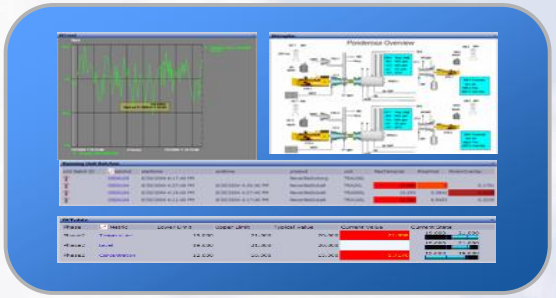
6. Configure an Event Frame





Excursion Example

7. Supervisor receives e-mail notification and clicks link which displays an RtWebPart page with particular stack and time



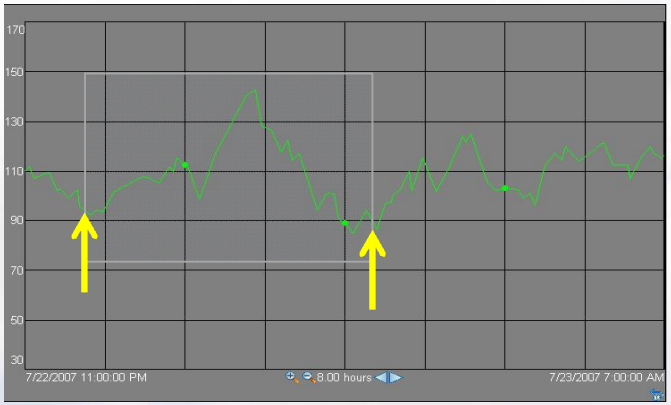
8. Supervisor searches and selects the last 5 times that the stack violated its threshold. All parts show all 5 Event Frames.

Downtime\Incident\Accident\Excursion

- Tight integration with PI Analytics
- Tight integration with all visualization products
- More analytical techniques in visualization products
- Easy to configure and use

Startup Example

1. Start time is hand picked
2. End time is hand picked



3. Choose equipment context
4. Commit to server

Discrete Manufacturing

- Searching by product/serial number
- Flexible object schema
- Flexible naming
- Higher metrics for data storage and search performance
- Tight integration with visualization products

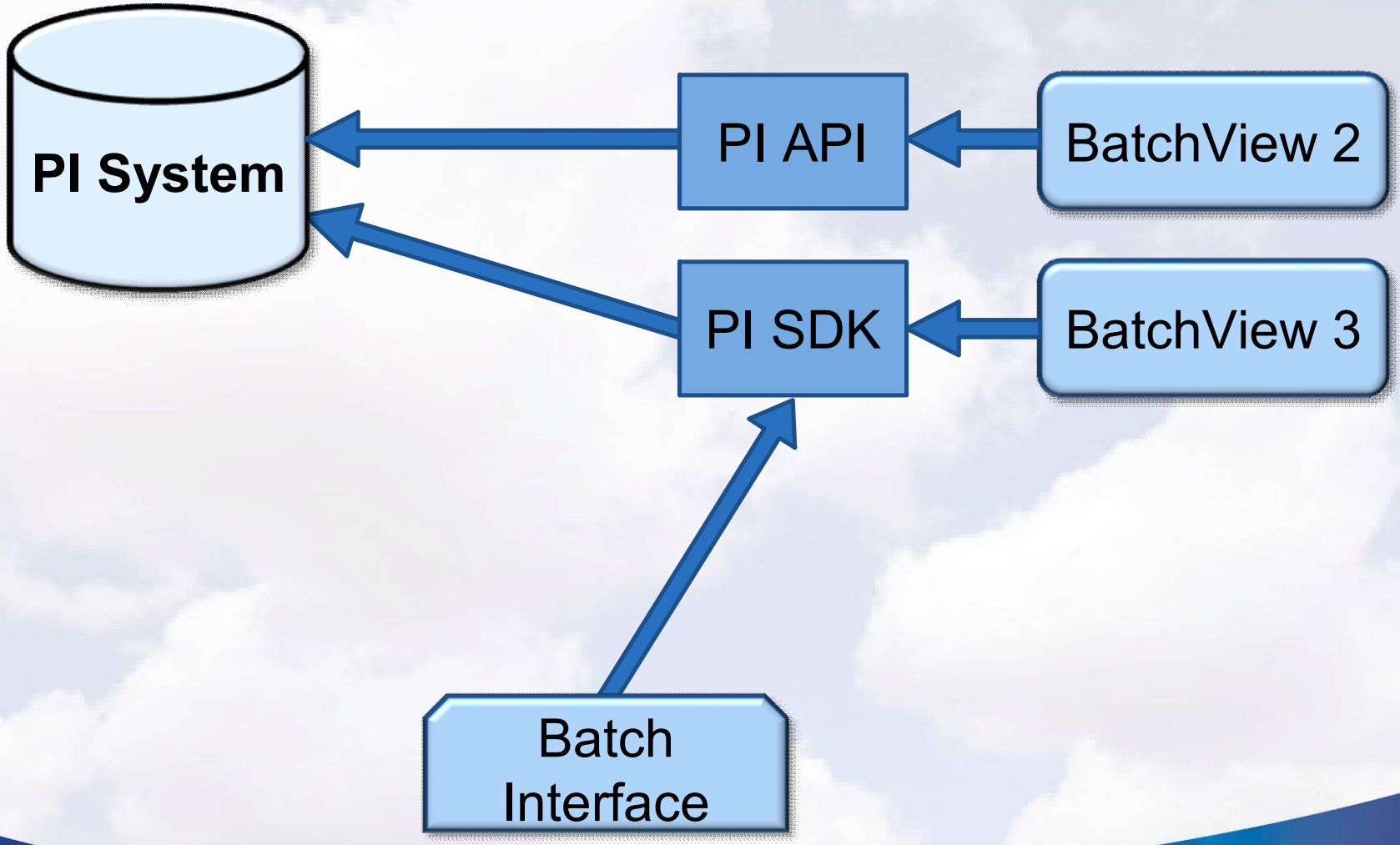
Business Use Case Sponsorship

- Define general requirements for event frames
- Break down the use cases into application-level use cases
- Beta program

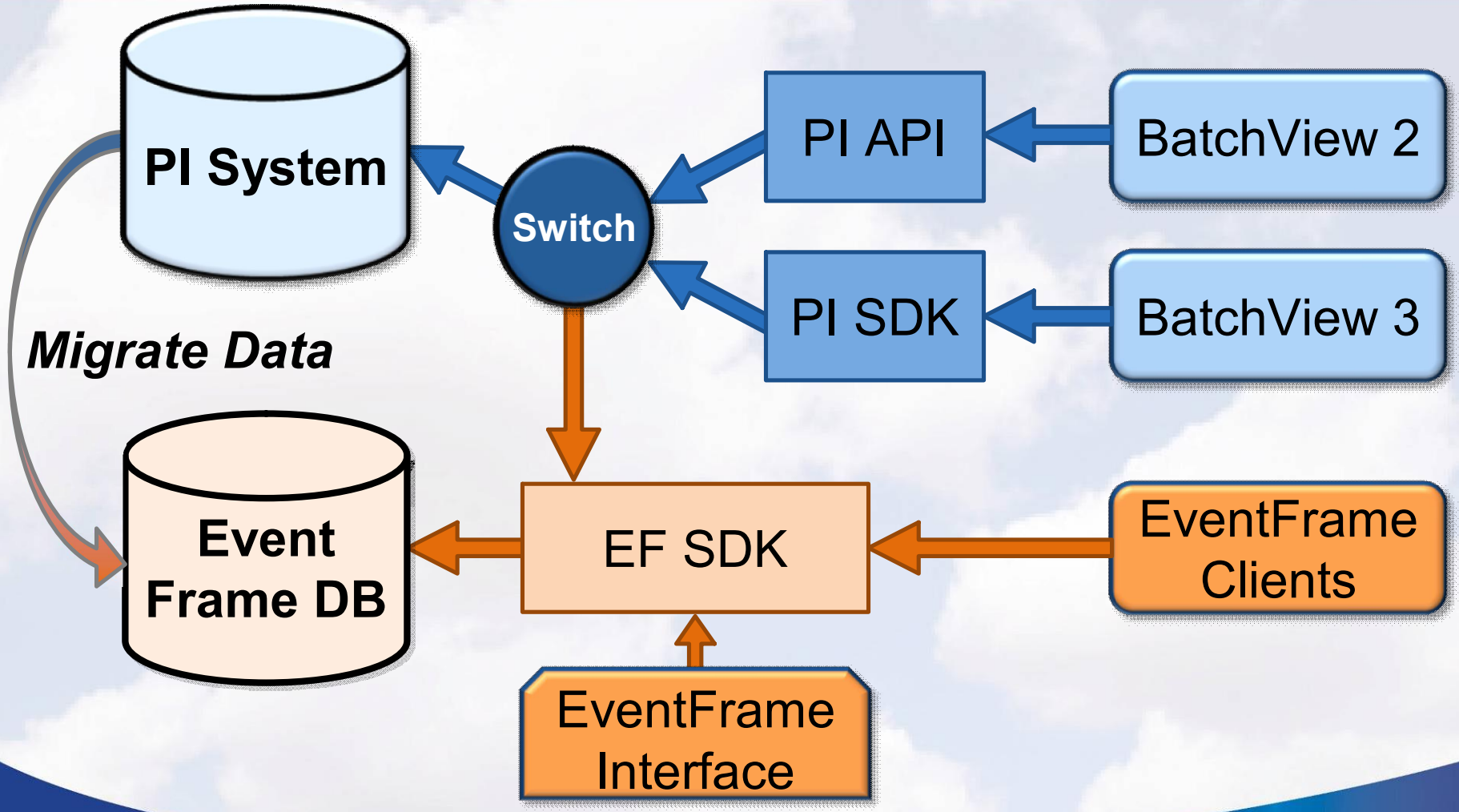
Where are we?

- Collecting and analyzing Use Cases
- Designing Event Frame Objects
  - Integration with Analysis Framework Concepts
    - Templates
    - Attributes
- Prototyping Event Frame Database

Compatibility – Current Situation



Compatibility – Migration Model



Event Frame Focus Group

- Thursday 3-5pm in <Location TBD Marriott 2nd floor>
- Signup at Registration Desk <Location>
- Agenda
  - Batch feature backward compatibility
  - New use cases for event frames and sponsorship opportunity

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Thank You

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