

"where PI geeks meet"



# 2009

# V CAMPUS

# LIVE!

Palace Hotel, San Francisco, CA ▪ Dec. 1-2, 2009

OSIsoft®

2009

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# Programming with Event Frames

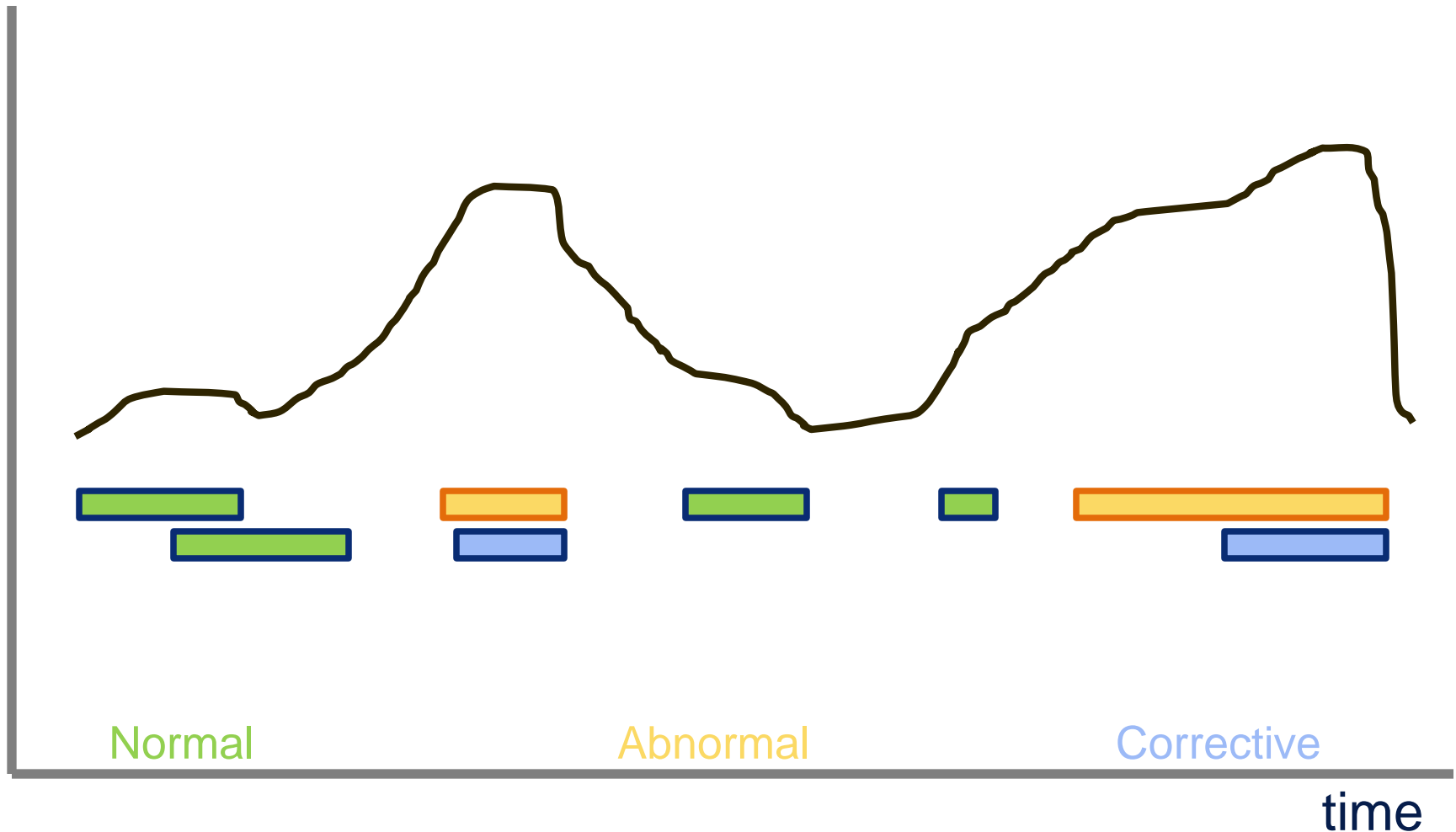
Chris Coen, Product Manager, OSIsoft

Chris Nelson, Software Development Lead, OSIsoft

# Event Frames...

- ...Vision
- ...Architecture
- ...Demo
- ...Availability

# Event Frames add time context



# Event Frame Definition

- Our terms

- A time series data type defined by two times and optionally accompanied by supporting data

- Your terms

Any event in your process:

- downtime event
- incident event
- material transfer event
- equipment maintenance event
- batch processing step
- specific investigation
- six-sigma project
- electrical power outage
- safety incident

Any time range or repeatable set of time ranges:

- shifts
- day
- week
- month
- year to date
- etc.

# Event Frames and Batch

Event Frames  $\neq$  Batch

Event Frames  $>$  Batch

Batch  $\in$  Event Frames

# Use Scenarios

- Repeatable Time Periods
- Downtime/Incident/Accident
- Discrete Manufacturing
- Equipment Startup and Shutdown
- Paper/Roll Manufacturing
- Semi-continuous Manufacturing
- Material Tracking
- Batch Processing
- OSIsoft Internal Applications

# Primary Requirements

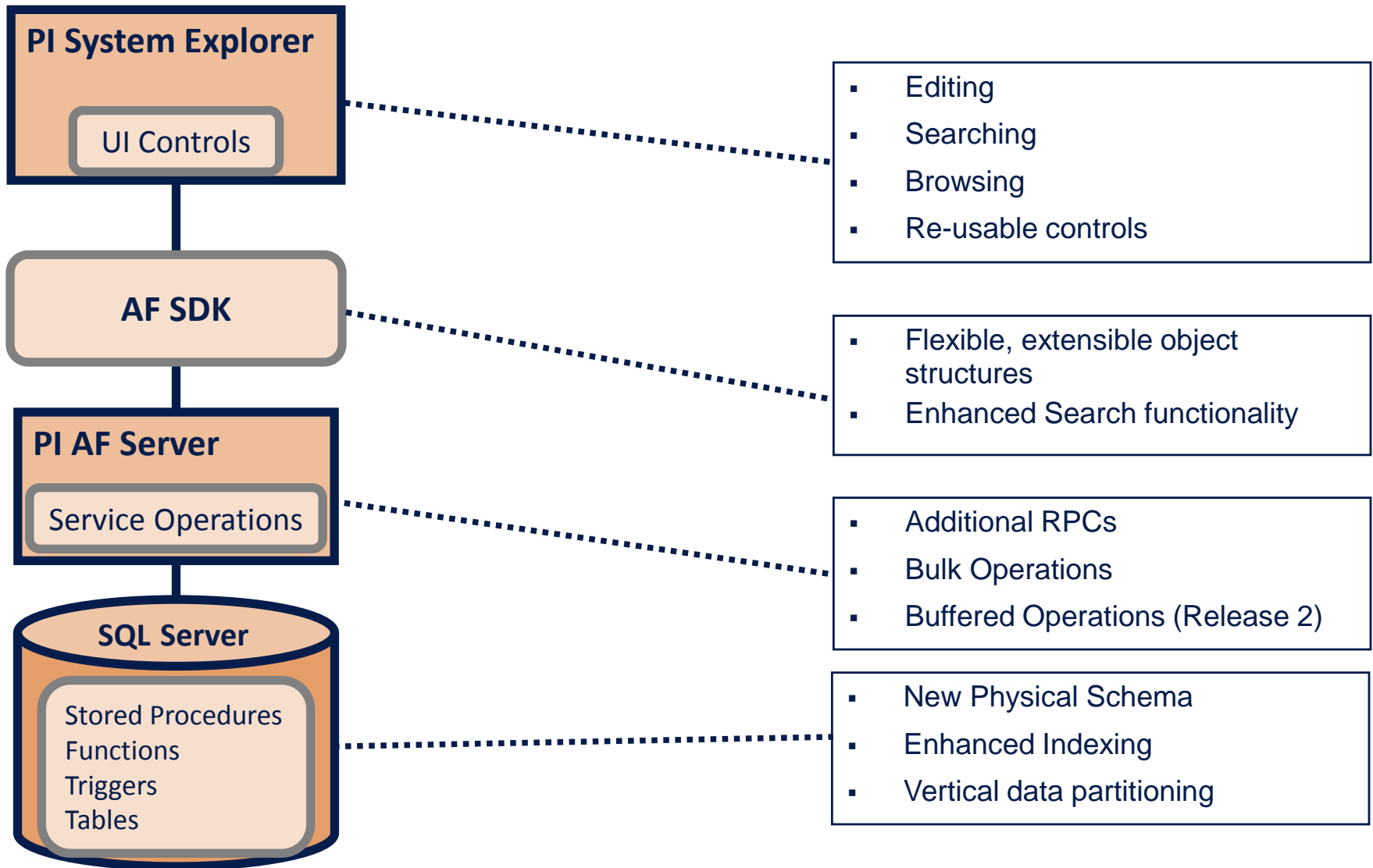
- Provide an extensible data structure that could model many more use cases in addition to S88 and S95 – ensure industry agnostic functionality
- Provide additional indexing other than time
- Increase overall system performance
- Increase support for PI System aspects; scalable, available, reliable, extensible, secure, and interoperable.



# Event Frames enhance AF

- Integrate Event Frame data types into a base object and common infrastructure
  - Batch Database Objects, Transfer Records, AF Transfers, AF Cases, Notification History, etc.
- Leverage AF infrastructure and concepts
  - Use and extend AF Element Templates
  - Model and store supporting data as AF Attributes
  - Event Frames can refer to other AF Objects
  - Relate Event Frames through Reference Types

# Event Frames enhance AF



# Demonstration

# Event Frames CTP

- Community Technology Preview (CTP)
- Event Frames CTP launch - week of Dec. 7
  - Available via OSIssoft vCampus
  - Delivered within AF 2.1 bits
- Feature complete in AF 2.1
  - SDK (within AF SDK)
  - Database
  - Full suite of automated regression tests

# Event Frames CTP

- Please note that:
  - We will not guarantee application compatibility with this version
  - Performance work is currently in progress
  - HA through SQL mirroring or clustering only
- Feedback via the Event Frames discussion group
- Event Frames blog

# What's next?

- At OSIssoft vCampus Live
  - Try the Learning lab (Thursday)
- On the OSIssoft vCampus website
  - Test the CTP
  - Follow the Event Frames blog
  - Participate in the Event Frames discussion group

```
1. point.Snapshot;  
2. Dim srv As PISDK.Server  
3. Fore*%*) (point in server.PIPoints)?!!??  
4. Dim srv A PISDK.Server  
5. if (time_to_market > expected)  
2. Dim srv As PISDK.Server  
3. Fore*%*) (point in server.PIPoints)?!!??  
4. Dim srv A PISDK.Server  
5. if (time_to_market > expected)
```

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# THANK YOU.



```
1. foreach (point in server.PIPoints)  
{  
    point.Snapshot;  
}  
2. Dim srv As PISDK.Server  
3. Fore*%*) (point in server.PIPoints)?!!??  
4. Dim  
point.Snapshot;  
2. Dim srv As PISDK.Server  
3. Fore*%*) (point in server.PIPoints)?!!??  
4. Dim srv A PISDK.Server  
5. if (time_to_market > expected)
```

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