COMTRADE Utility for OSIsoft™ PI

Creating One True View

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What Is a Transient Disturbance?

The Questions To Be Answered
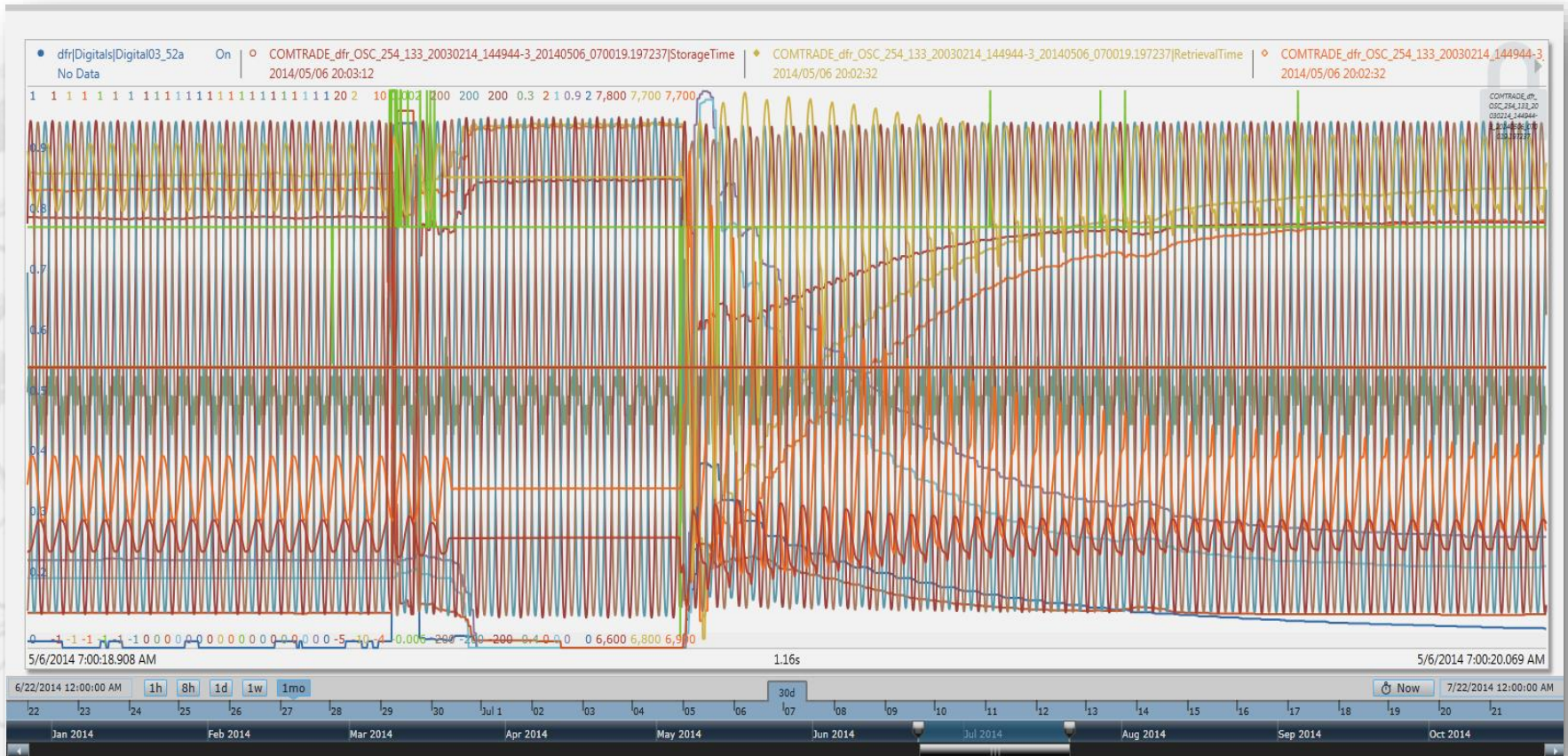
- Protection Oriented:

  » What happened?

  » Where did it happen?

  » Did protection operate as designed?

  » Are changes in the design required?
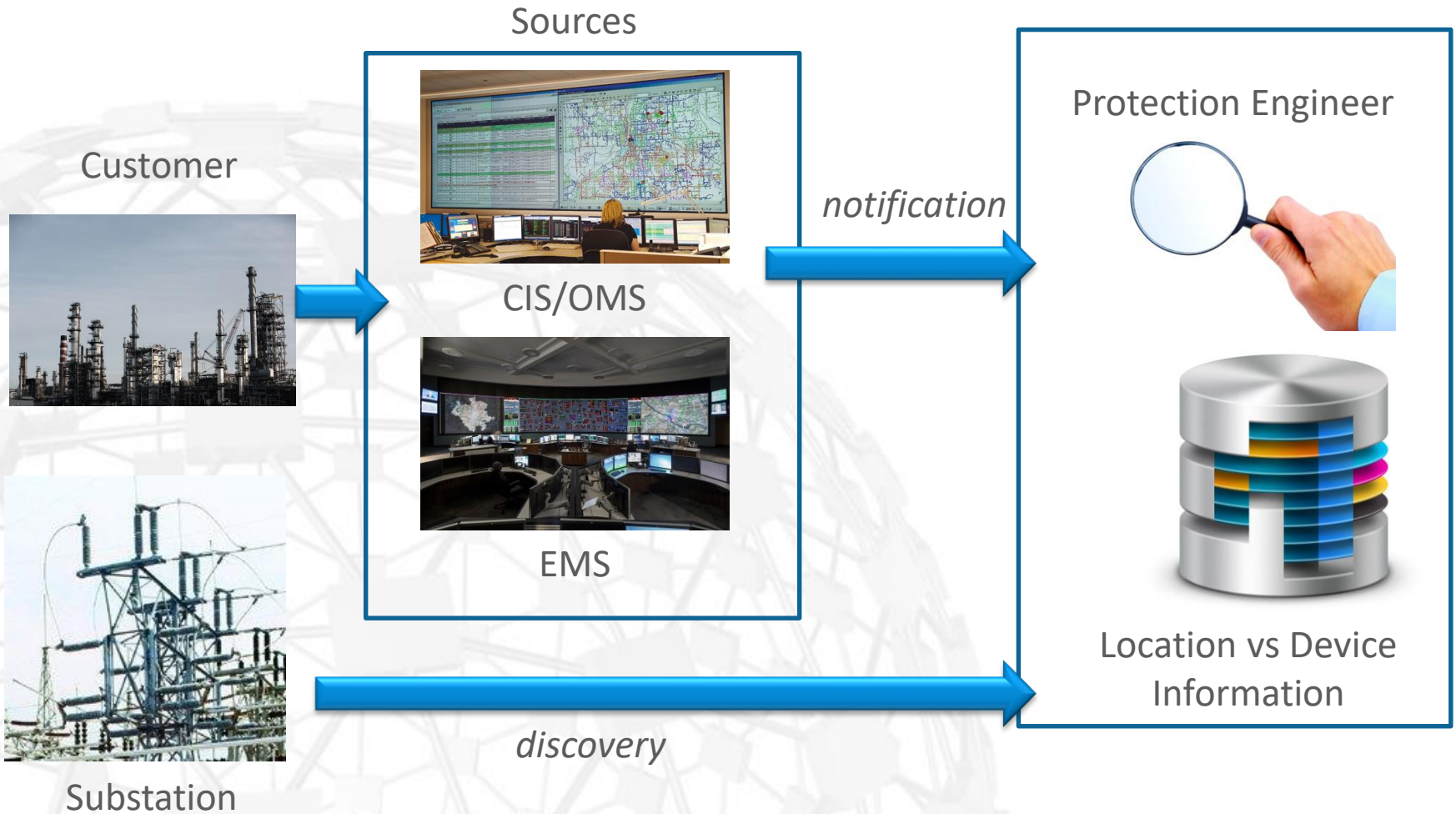
- Business Oriented:

  » What happened?

  » Where did it happen?

  » Did protection operate as designed?

  » Are changes in the design required?

  » What equipment and customers were impacted?

  » Is this a recurring problem?
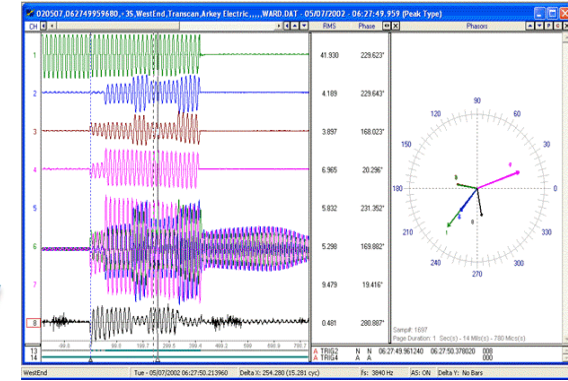
Protection Uses COMTRADE (What Happened?)

Event Location Determination

Sources

Customer

CIS/OMS

EMS

notification

Protection Engineer

Location vs Device
Information

discovery

Substation

SISCO
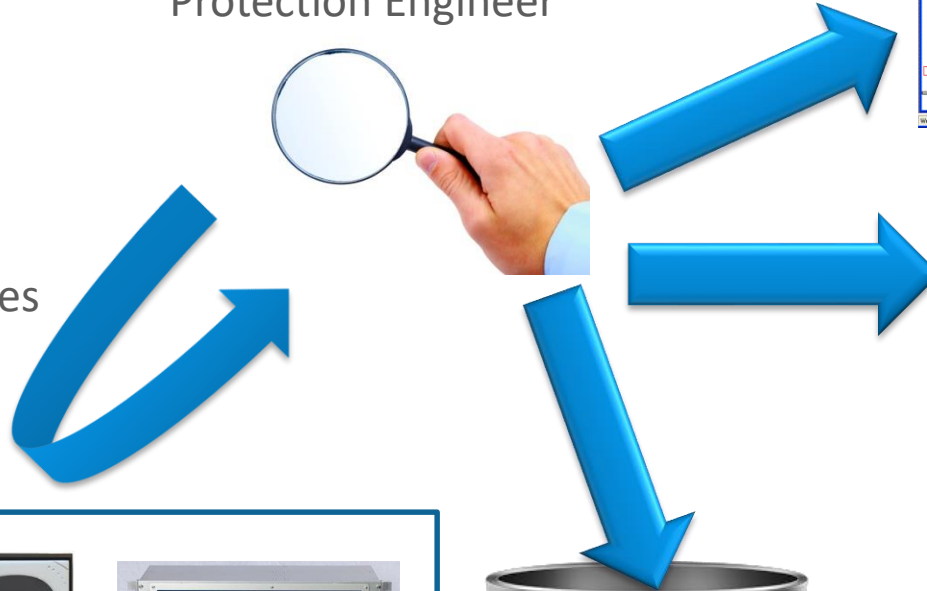SYSTEMS
INTEGRATION
SPECIALISTS

Once The Device Is Known…

(2) – Analyze event

Protection Engineer

(1) – Acquire files

(3) – Correct any problems

(4) – Archive

Sources of disturbance information

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SYSTEMS
INTEGRATION
SPECIALISTS

Current Process Needs Improvement

- Event notifications need automation

- Business questions not answered
  - » Were any high value assets impacted?
  - » How many events could have impacted an asset?
  - » What customers were impacted?
  - » Is this a recurring pattern?

- No single view of how the system is operating

The SISCO COMTRADE Utility for OSIsoft PI™ provides the solution

The Solution: COMTRADE Utility for OSIsoft PI™
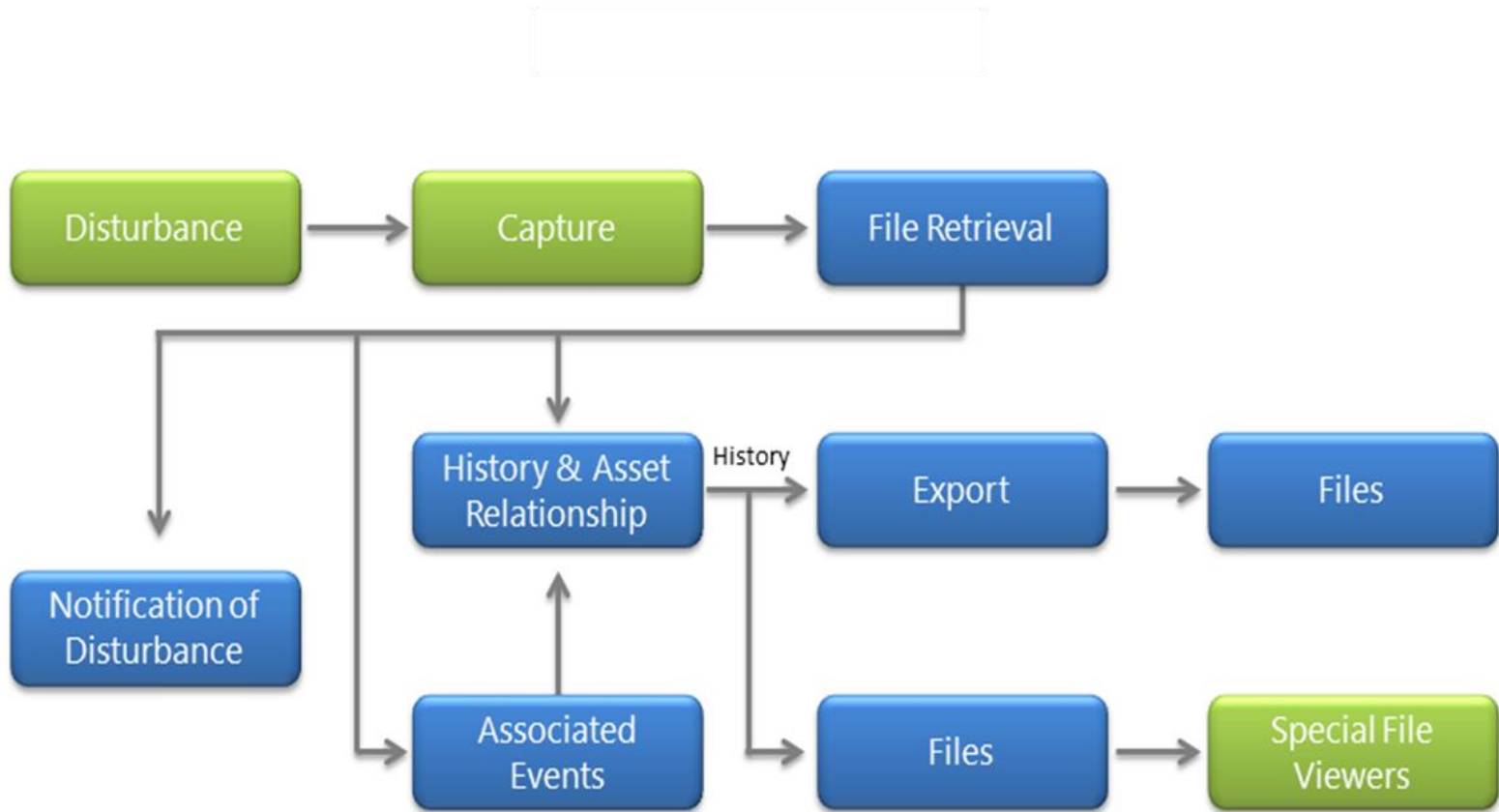
COMTRADE Utility: File Retrieval

- Retrieval Methods

  » FTP

  » IEC 61850

  » Local File Access

- File Formats

  » COMTRADE

  » COMTRADE (zipped)

  » PQDIF (power quality)
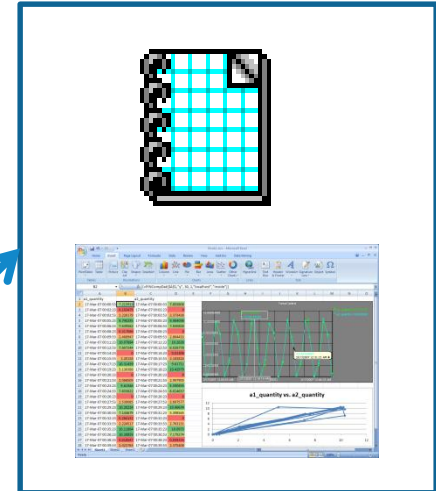
Notification of Disturbance

Visualization

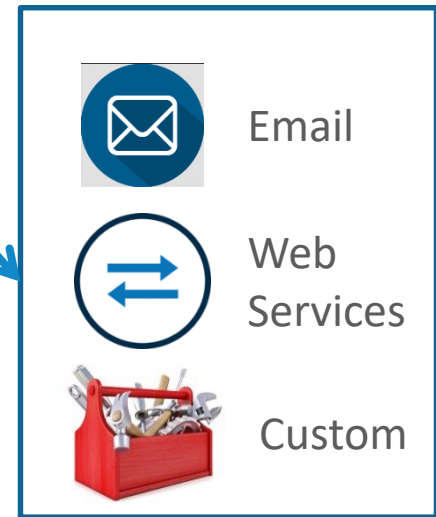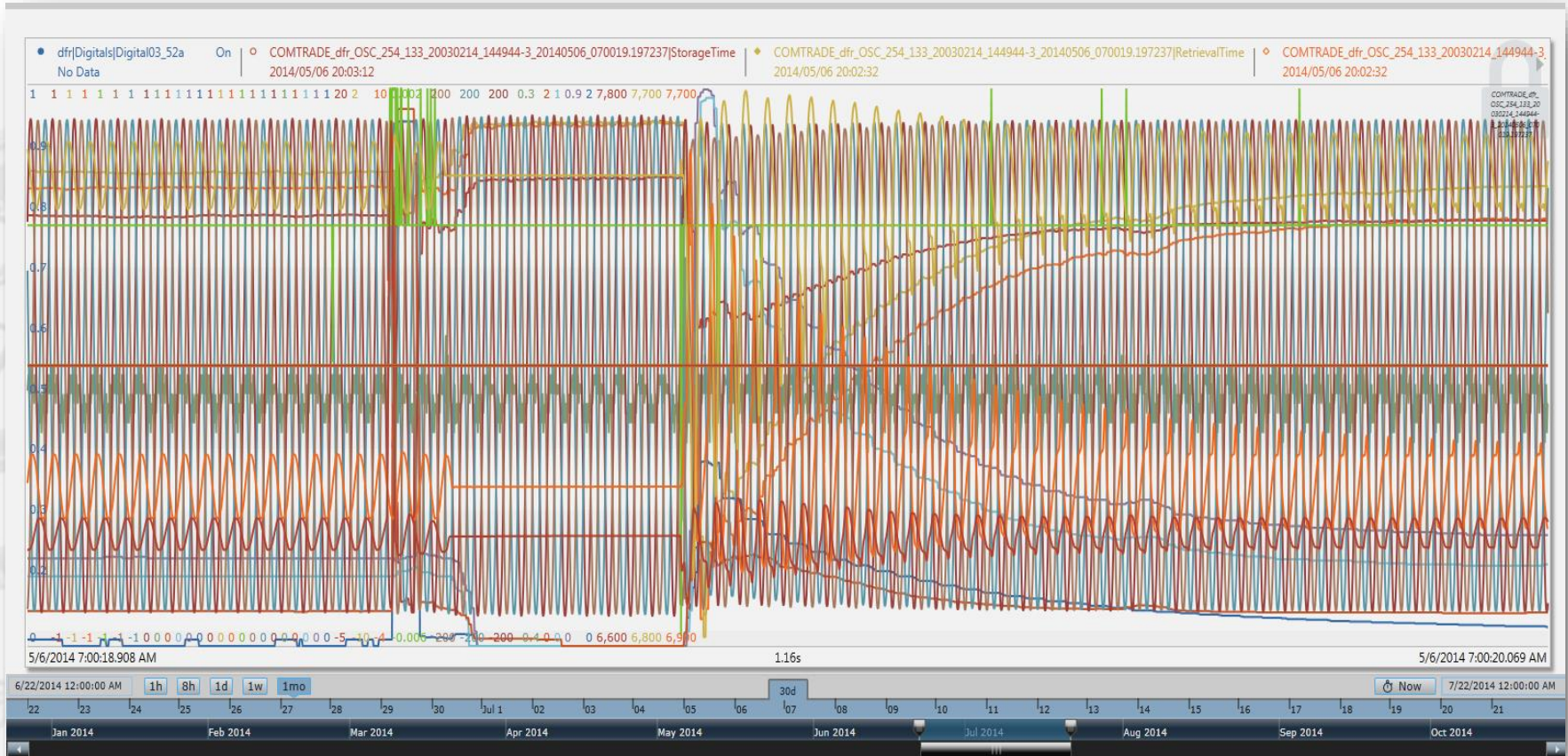COMTRADE Utility

Event Frames

PI Points and
Notification Point

Delivery Channels

✉ Email

⇄ Web Services

🧰 Custom
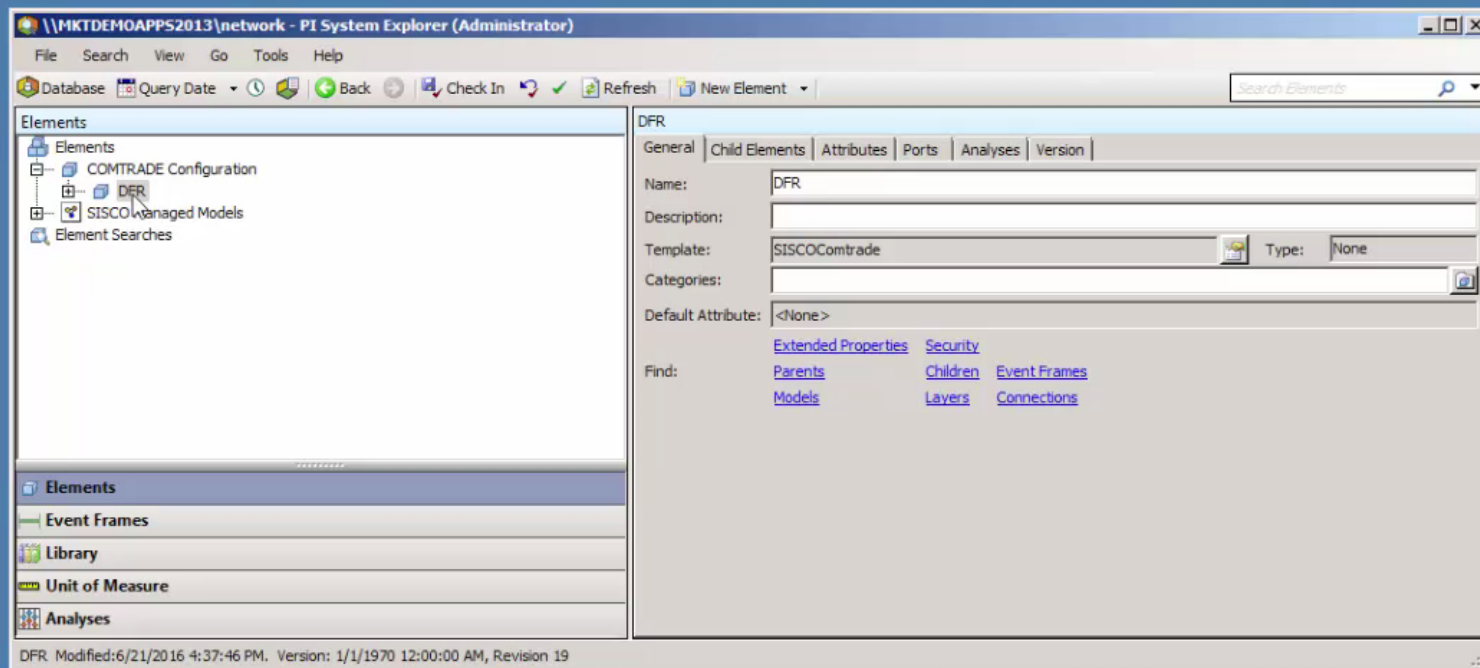
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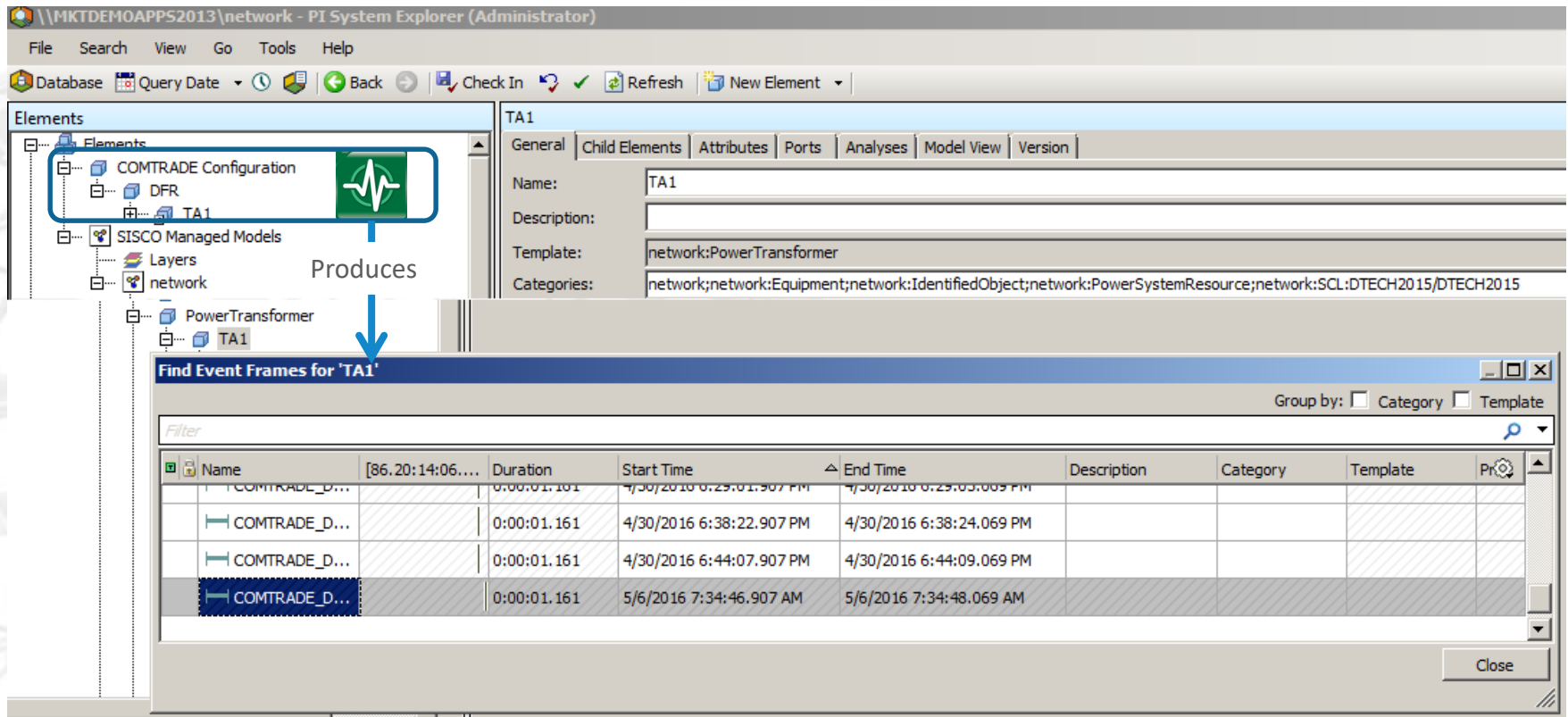
Only SISCO Enables the PI "True View"

Disturbance data and SCADA data are integrated in the same PI tags

Event Frame Stores Raw Files

Allows for a central archive, post event retrieval, and post even analysis
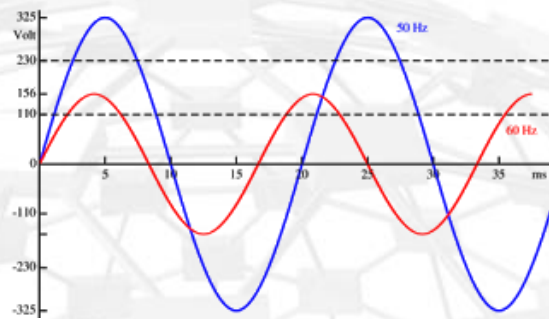
Using 🔍 for Correlation of Events to Assets

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Export

The Use Case:

Synchrophasor
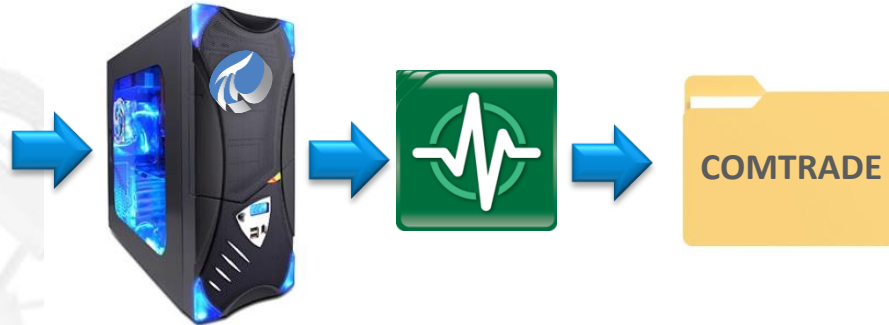
Able to export any PI Tag into COMTRADE format for exchange and playback

COMTRADE Utility Allows:

- One 'true view' of the system to be created

- Efficiency in locating and notification of disturbances

- A centralized repository for disturbance files

- Disturbances to be correlated with assets that could have been affected

Thank You

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