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NASPI – Western Event Data Library
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WECC Event Relevant Data - Events

- Reports are created when an event occurs
- Events are automatically triggered
 - Also manually triggered
- Reports and data are available on WECC-RC website



Search this site... 



97,606.59 MW
Current Load

RELIABILITY COORDINATION



About Us

Real Time

Operations

Model

Reports

RC Training

Library

Reports

Historical Data Request

Event Reports

Reports



WECC Event Relevant Data - Events

- Insertions of the Chief Joseph Brake
- Palo Verde unit trip
- SONGS unit trip
- Diablo Canyon unit trip
- CGS unit trip
- Alberta separation
- PDCI pole Trip
- IPP DC pole Trip
- COI: Path 66 ROC
- TOT2 ROC
- Path 26 ROC
- Oscillation Event
- Mode Meter Event
- Loss of generation 2000 MW
- Loss of generation 500 MW or more
- Loss of load 1000 MW or more
- Greater than +/- 0.15 Hz frequency deviation
- Greater than +/- 0.5 Hz frequency deviation

WECC Event Relevant Data - Charts

- PMU frequency trend charts
- BA ACE trend charts
- Major Path flow (MW) and limit trend chart
- PMU phase angle difference trend charts
- PMU voltage trend charts
- BA generation trend charts
- BA load trend charts
- BA Reserve List

WECC Event Relative Data

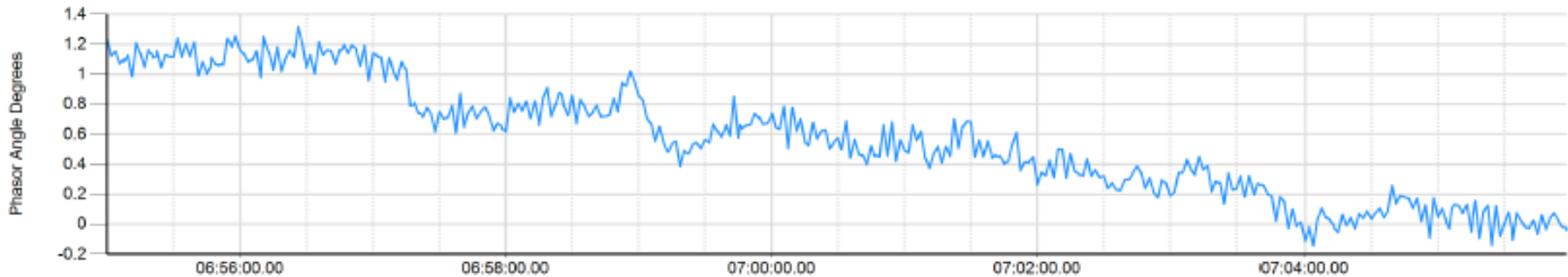
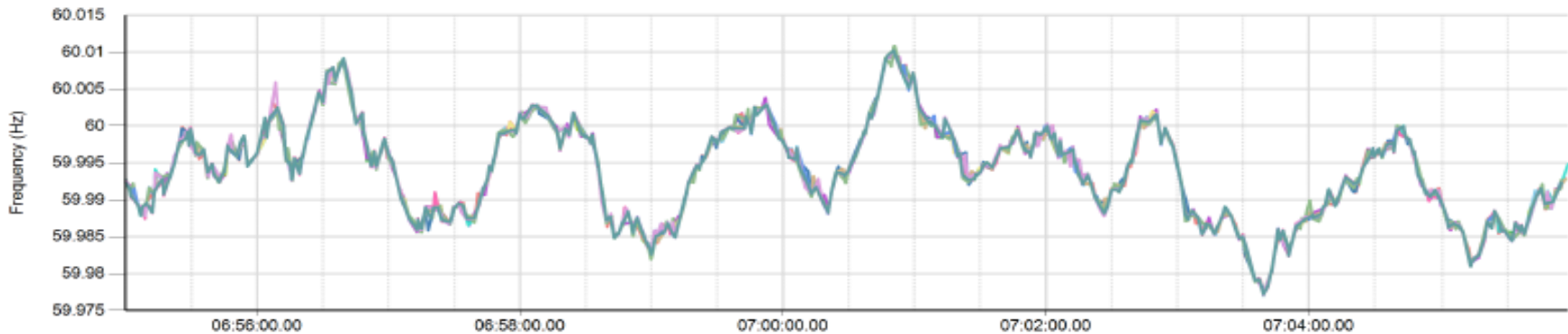
Triggering Event:

Date of Event: 2/11/2013 6:55:00 PM UTC

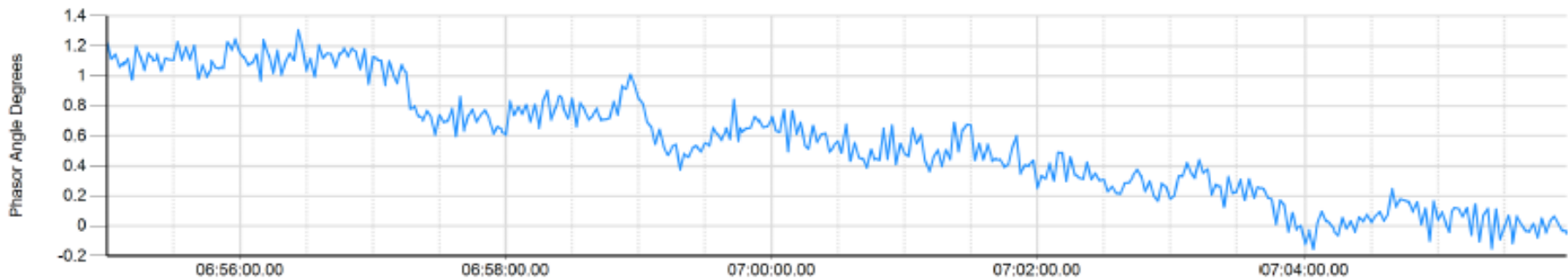
Duration: 10 Minutes

PMU Frequency Trend Charts

Normal



W001CAPTJACK_01.B500NORTH_1VP.A (Phase angle difference is relative to W001ALLSTON_01.B500NORTH_1VP.A)



W001CAPTJACK_01.B500SOUTH_1VP.A (Phase angle difference is relative to W001ALLSTON_01.B500NORTH_1VP.A)

Data Files - COMTRADE

- **Event data is automatically available**
- **Historical event data is available**
- **Specific data can be requested**
 - Timeframe of interest
 - PMU and signals

The screenshot displays the WECC Reliability Coordination web application. The header features the WECC logo and the text "WECC Reliability Coordination". Below the header is a navigation menu with tabs for Home, Model, Reliability, Study, Administration, Historian, and Reporting. The Reporting tab is currently selected. The breadcrumb trail shows "Home > Reporting > Events". The main content area is titled "EventList" and contains a table with columns for "Event", "Report Files", "Data Files", and "Event Date". The table lists two event types: "Alberta separation (1)" and "COI Path 66 ROC (1)". There is also a link to "Add new item".

Vendor Support

- **COMTRADE (Common format for Transient Data Exchange for power systems)**
 - Method of data exchange
 - A number of vendors are supporting COMTRADE export now; openPDC, EPG ePDC, and Alstom PhasorPoint
 - Vendors are working on COMTRADE import
 - WISP developing COMTRADE export

New Specification

- Two new data (.DAT) file data types
 - 32-bit Integer
 - 32-bit single precision floating point
- New File type
 - Single file combines .CFG, .DAT, .HDR, .INF

```
1,W001.BPA.W001BIG_EDDY__01:L500JOHN_DAY_2V1,Pm,Vnom=540,kV,0.04,0,0,-32767,32767,1,1,P
2,W001.BPA.W001BIG_EDDY__01:L500JOHN_DAY_2V1,Pa,Vnom=540,Deg,0.006,0,0,-32767,32767,1,1,P
3,W001.BPA.W001BIG_EDDY__01:L500JOHN_DAY_2I1,Pm,Inom=1200Vref=1,A,0.4,0,0,-32767,32767,1,1,P
4,W001.BPA.W001BIG_EDDY__01:L500JOHN_DAY_2I1,Pa,Inom=1200Vref=2,Deg,0.006,0,0,-32767,32767,1,1,P
5,W001.BPA.W001BIG_EDDY__01:A__JOHN_DAY_1FQ,F,,Hz,0.001,60,0,-32767,32767,1,1,P
6,W001.BPA.W001BIG_EDDY__01:A__JOHN_DAY_1DF,df,,Hz/s,0.01,0,0,-32767,32767,1,1,P
7,W001.BPA.W001CAPTJACK__01:L500MALIN__4V1,Pm,Vnom=528,kV,0.04,0,0,-32767,32767,1,1,P
8,W001.BPA.W001CAPTJACK__01:L500MALIN__4V1,Pa,Vnom=528,Deg,0.006,0,0,-32767,32767,1,1,P
9,W001.BPA.W001CAPTJACK__01:L500MALIN__4I1,Pm,Inom=1200Vref=7,A,0.4,0,0,-32767,32767,1,1,P
```

Synchrophasor Considerations

- Schema for Phasor Data Using the COMTRADE File Standard
 - PSRC H8 Application of COMTRADE for Synchrophasor Data
 - Approved by IEEE PSRC Subcommittee H on May 13, 2010 as a PSRC Report
 - http://www.pes-psrc.org/Reports/Schema_for_Phasor_Data_Using_the_COMTRADE_File_Standard.pdf

Data Exchange Only

- Entity can choose any format to archive synchrophasor data
- Data requests
 - Signal Names
 - Date – Time Start and Duration
- ASCII .DAT file format is the same as CSV but typically 5 times larger than any of the binary formats

Questions?

