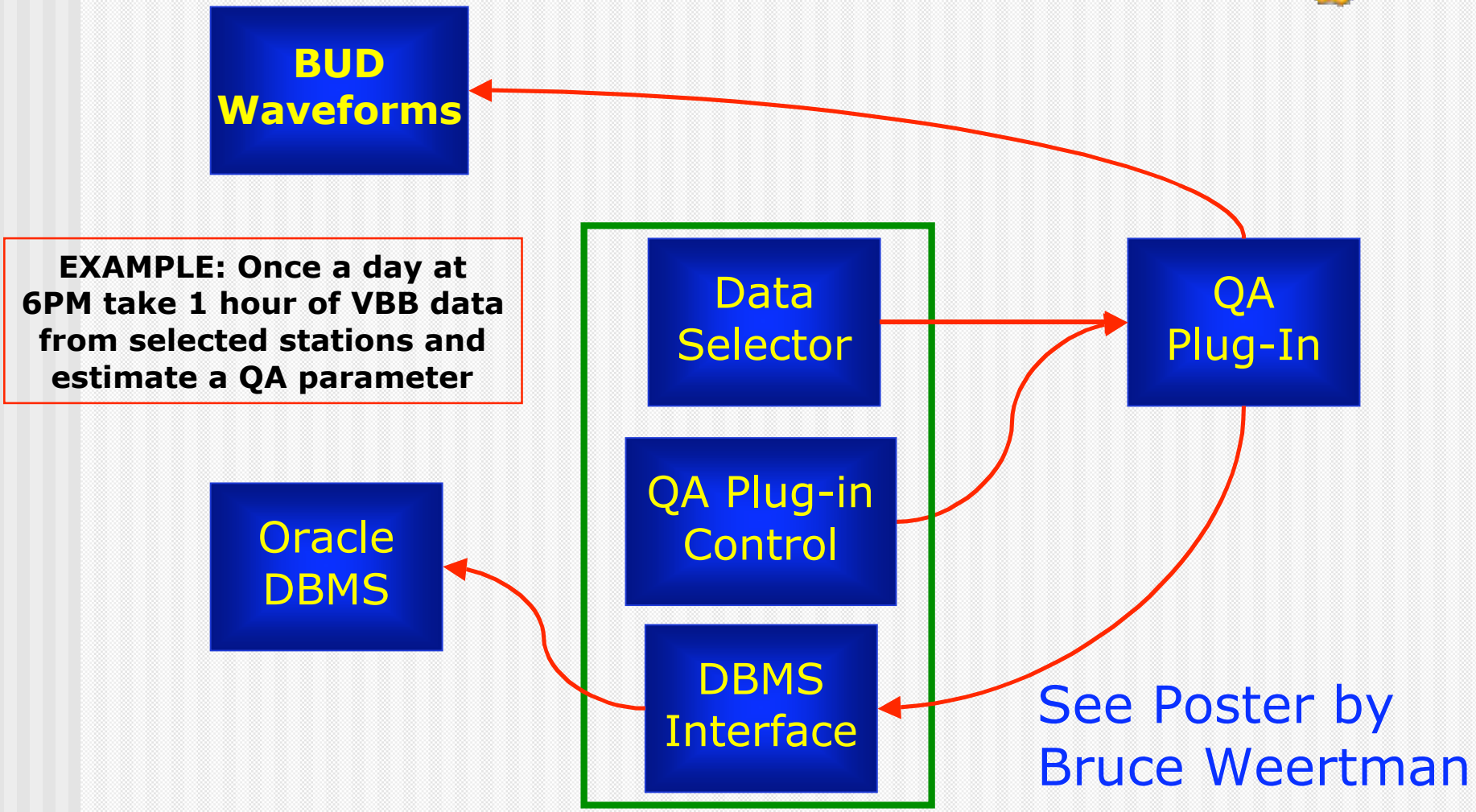
Quality Assurance Framework

- QUality Assurance Control Kit (QUACK)
  - Flexible Framework
    - Scheduling
    - Loading QA Plugins
    - Referencing Waveform Data
    - Parameter Management in a DBMS
  - QA Applications can be added as needed
  - Currently tied to BUD

Real Time Quality Control

- IRIS QA Framework -



Querying the Results - Step 1-2

Step 1 Select a chart: RMS and Average

Step 2 Select a network:

Network	Channels	Sampled Channels	Starting Date	Ending Date
AK	66	63	2003.090	2003.181
AR	11	11	2003.113	2003.181
AU	6	0		
AZ	72	0		
CI	394	0		
EQ	51	0		
ER	23	0		
GE	725	0		
GT	28	0		
H2	27	0		
IC	153	0		
IE	38	0		
II	440	290	2003.170	2003.181
IM	71	0		
IU	1311	75	2003.098	2003.181
KN	60	0		
KZ	41	0		

Querying the Results - Step 3-4

Step 3 **Select stations and channels:** < Back | Continue >

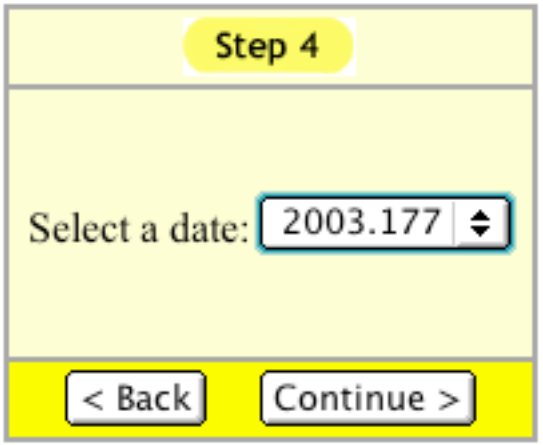
Network:	II
Chart:	RMS and Average

Available Channels (Select All | Clear All)

☐ BH1	☐ BH2	☑ BHE	☑ BHN	☑ BHZ	☐ BL1	☐ BL2	☐ BLE	☐ BLN	☐ BLZ	
☐ LH1	☐ LH2	☐ LHE	☐ LHN	☐ LHZ	☐ LNE	☐ LNN	☐ LNZ	☐ UGZ	☐ VAE	
☐ VAN	☐ VGZ	☐ VH1	☐ VH2	☐ VHE	☐ VHN	☐ VHZ	☐ VSA	☐ VSB	☐ VSC	
☐ WDI	☐ WDO									

Available Stations (Select All | Clear All)

Station	Channels
☐ ARU.00	BHE BHN BHZ LHE LHN LHZ LNE LNN LNZ VHE VHN VHZ WDO
☐ BFO.00	BHE BHN BHZ LHE LHN LHZ UGZ VAE VAN VGZ VHE VHN VHZ VSA VSB VSC WDI WDO
☐ BRVK.00	BHE BHN BHZ LHE LHN LHZ LNE LNN LNZ VHE VHN VHZ WDO
☐ CMLA.00	BHE BHZ LHE LHZ VHE VHZ
☑ COCO.00	BH1 BH2 BHZ LH1 LH2 LHZ VH1 VH2 VHZ
☑ COCO.20	BHE BHN BHZ
☐ EFI.00	BH1 BH2 BHZ LH1 LH2 LHZ VH1 VH2 VHZ
☐ ERM.00	VHE VHN VHZ

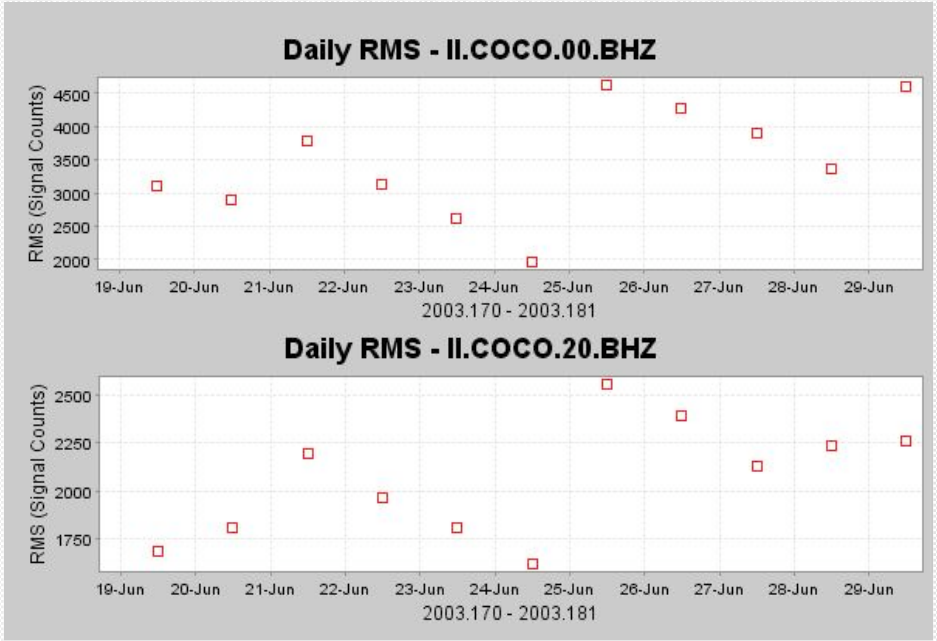


Querying the Results - Step 5

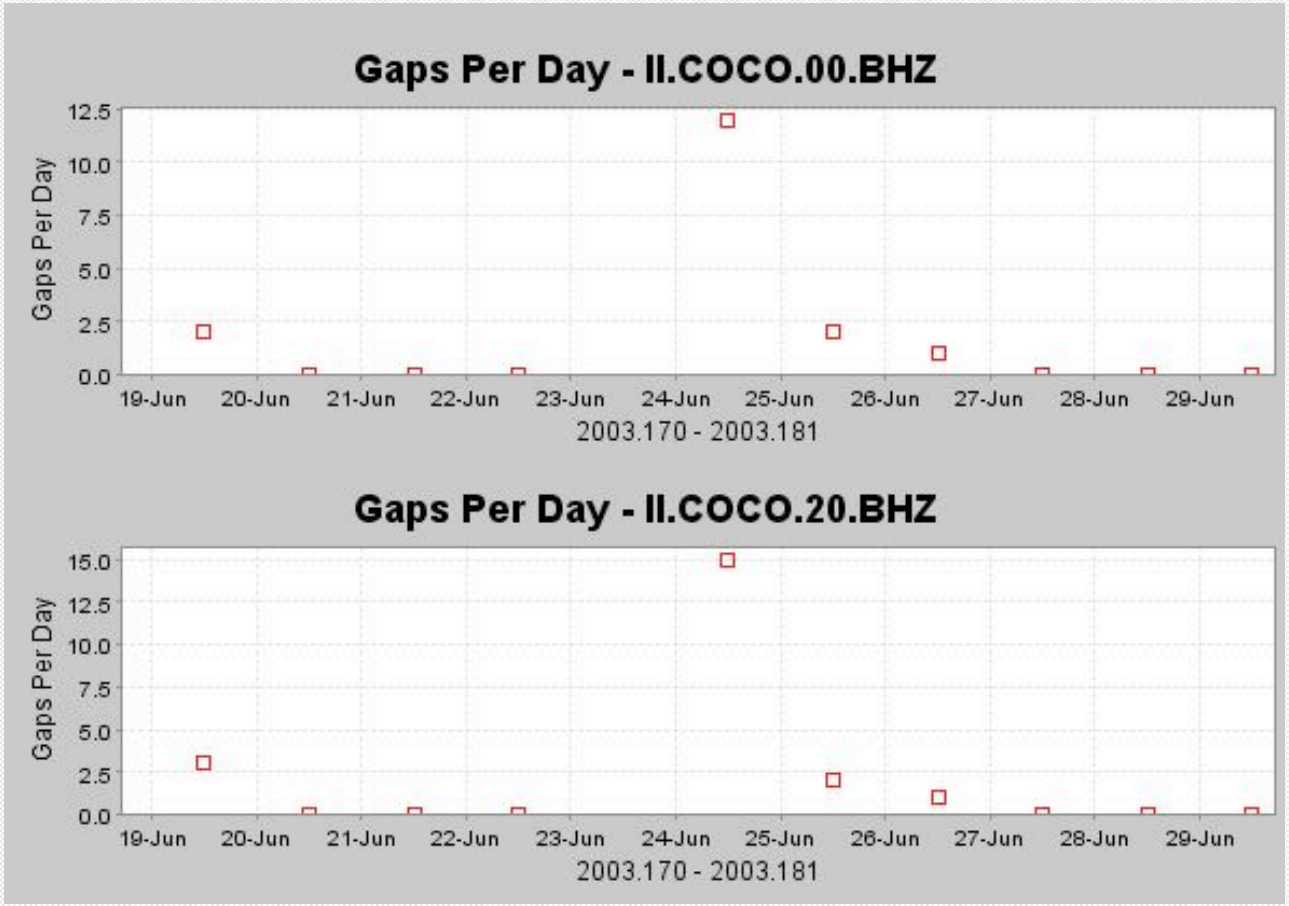
Daily Signal Values

Date: 2003.177 Choose another...

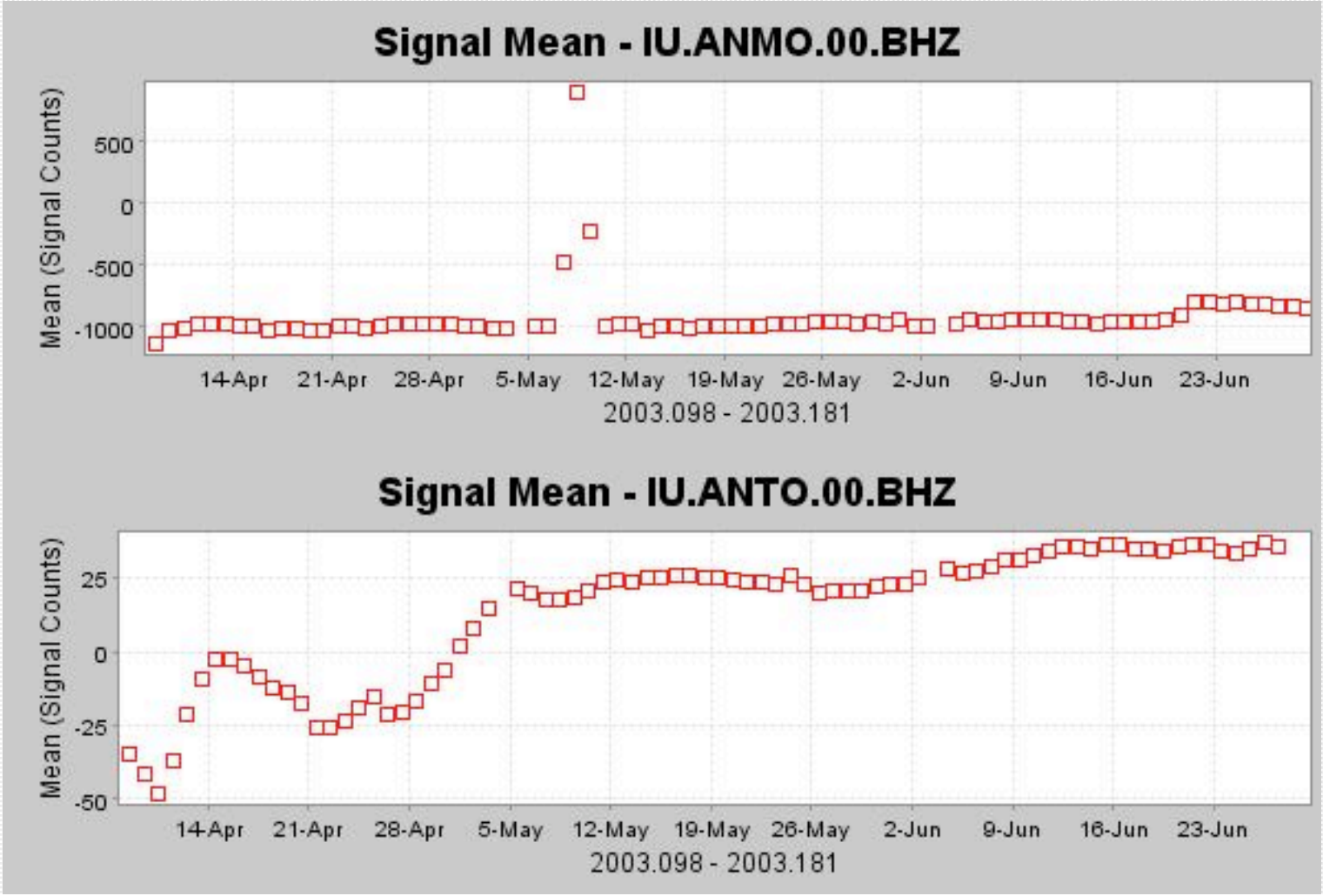
Network	Station	Location	Channel	Number of Samples	Daily Signal Avg	Daily Signal RMS
II	COCO	00	BHZ	1716230.0	-380201.0	4281.8
II	COCO	20	BHE	3432210.0	1283.53	4716.83
II	COCO	20	BHN	3432210.0	-343.95	4522.15
II	COCO	20	BHZ	3432210.0	-404.658	2390.32



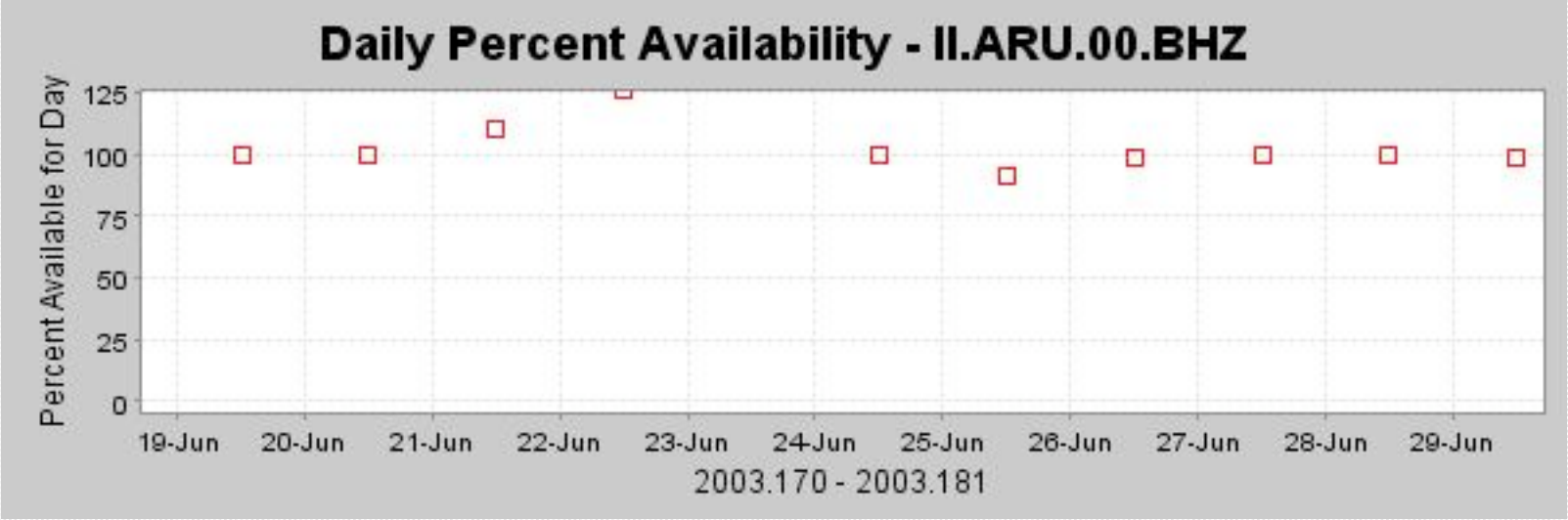
Gaps per Day


Gaps Per Day - II.COCO.00.BHZ
Gaps Per Day
12.5
10.0
7.5
5.0
2.5
0.0
19-Jun
20-Jun
21-Jun
22-Jun
23-Jun
24-Jun
25-Jun
26-Jun
27-Jun
28-Jun
29-Jun
2003.170 - 2003.181
Gaps Per Day - II.COCO.20.BHZ
Gaps Per Day
15.0
12.5
10.0
7.5
5.0
2.5
0.0
19-Jun
20-Jun
21-Jun
22-Jun
23-Jun
24-Jun
25-Jun
26-Jun
27-Jun
28-Jun
29-Jun
2003.170 - 2003.181

Signal Mean


Signal Mean - IU.ANMO.00.BHZ
Mean (Signal Counts)
500
0
-500
-1000
14-Apr
21-Apr
28-Apr
5-May
12-May
19-May
26-May
2-Jun
9-Jun
16-Jun
23-Jun
2003.098 - 2003.181
Signal Mean - IU.ANTO.00.BHZ
Mean (Signal Counts)
25
0
-25
-50
14-Apr
21-Apr
28-Apr
5-May
12-May
19-May
26-May
2-Jun
9-Jun
16-Jun
23-Jun
2003.098 - 2003.181

Percent Available



Other QA Tools in Development

- Prototype Working
  - RMS Value
  - Daily Mean
  - % Available
  - Gaps
- In Development
  - Timing QA
  - Noise Estimate
  - Power Spectral Density Function
    - NEIC
    - Harvard PSD
  - Automated Plot Generation
  - Alarm Functions