

Portland General Electric

Ray Payne

Outline

- Comtrade Files
- SISCO's Comtrade Utility
- Examples of Sub-Cycle Information
- 2005 Pilot Project

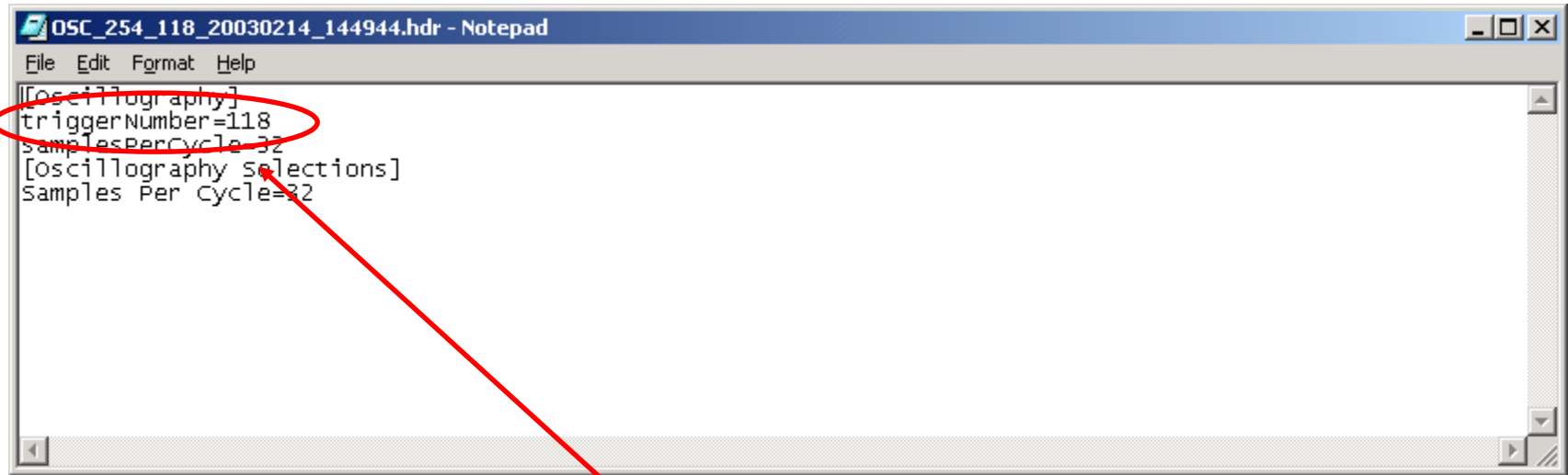
Outline

- **Comtrade Files**
- SISCO's Comtrade Utility
- Examples of Sub-Cycle Information
- 2005 Pilot Project

Comtrade

- IEEE C37.111-1191
- Common Format for Transient Data Exchange for Power Systems
- File Format
 - Header File (.hdr)
 - Configuration File (.cfg)
 - Data File (.dat)

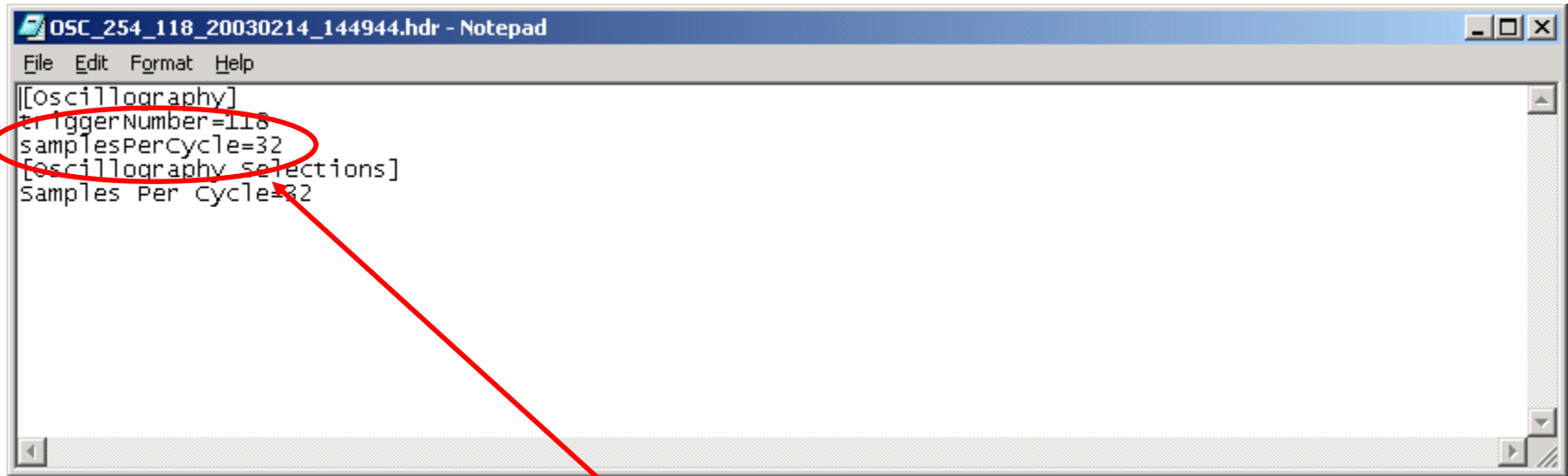
Header File



```
OSC_254_118_20030214_144944.hdr - Notepad
File Edit Format Help
[Oscillography]
triggerNumber=118
SamplesPerCycle=32
[Oscillography Selections]
Samples Per Cycle=32
```

Trigger Number

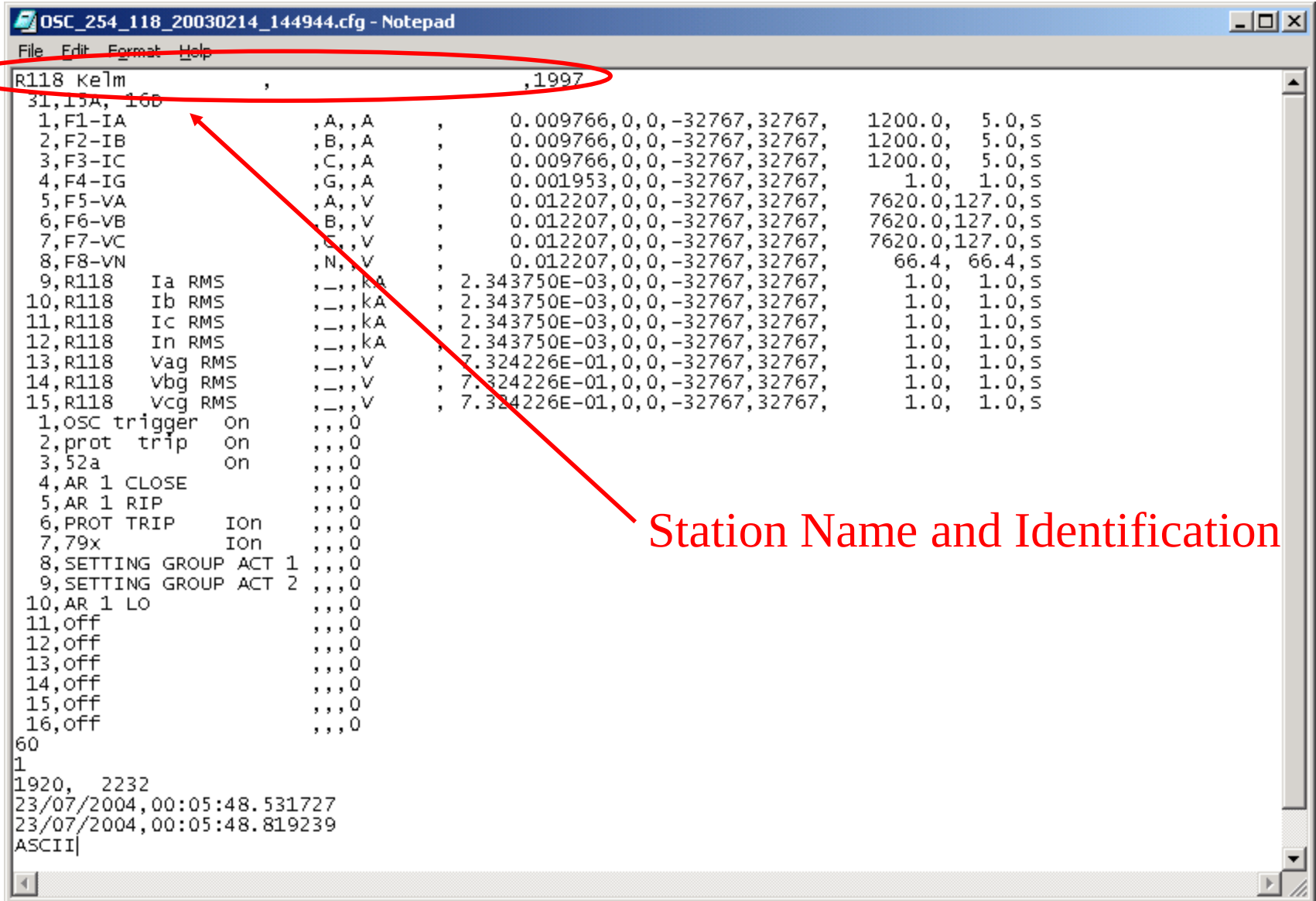
Header File



```
OSC_254_118_20030214_144944.hdr - Notepad
File Edit Format Help
[[Oscillography]
triggerNumber=118
samplesPerCycle=32
[Oscillography Selections]
Samples Per Cycle=32
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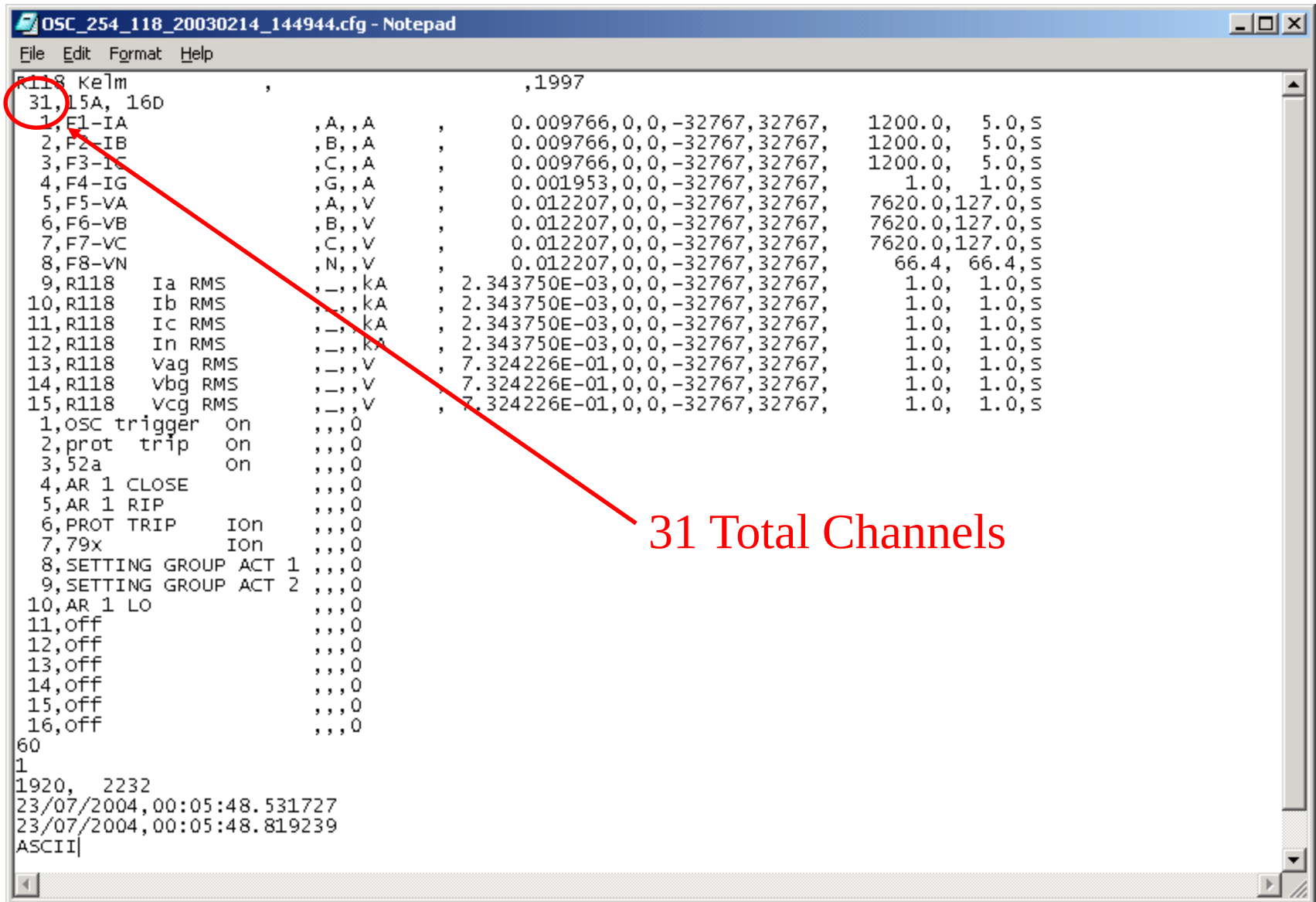
Samples Per Cycle

Configuration File



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OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kelm , ,1997
31,15A, 16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,KA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,KA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,KA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,KA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

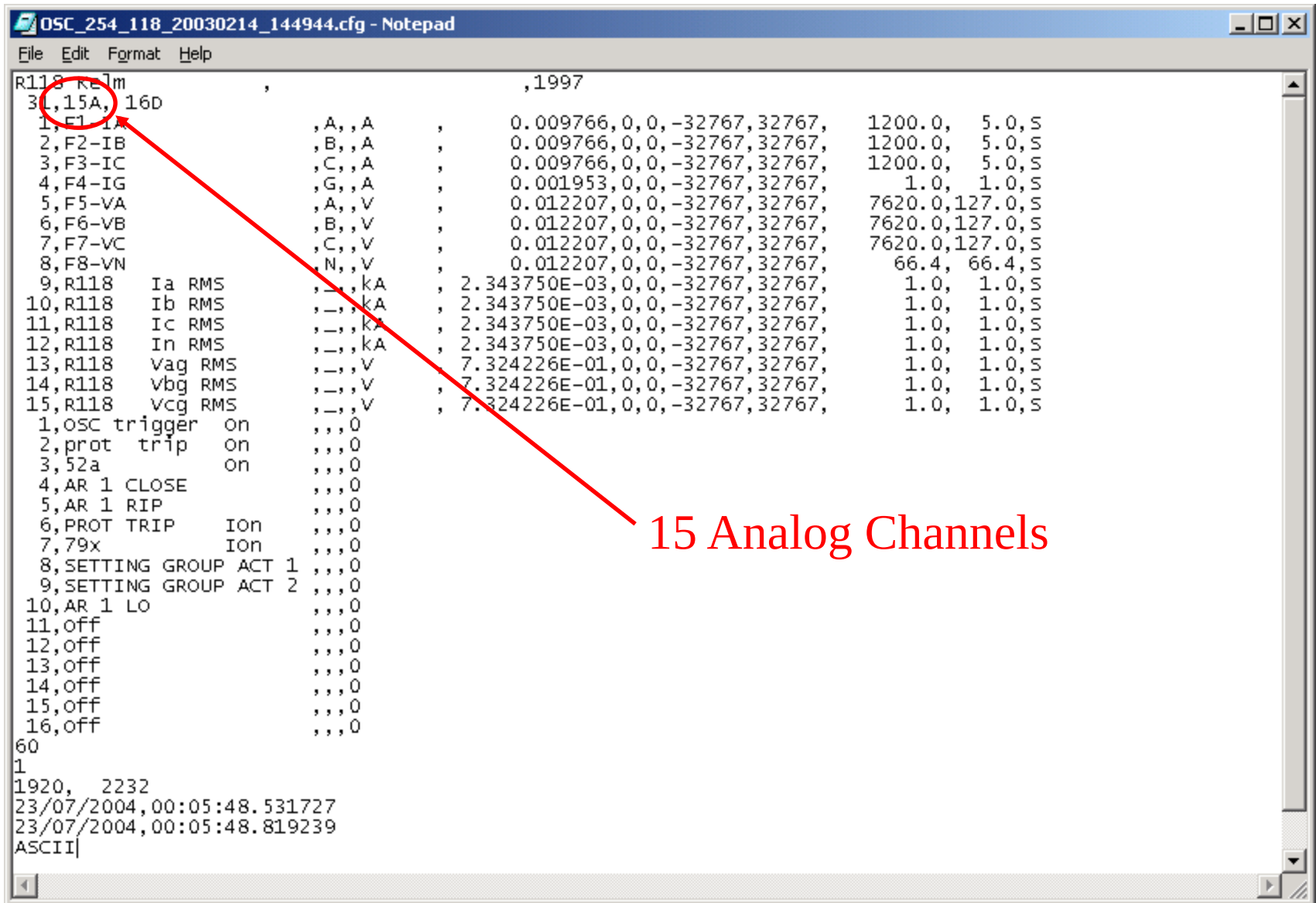
Configuration File



```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kelm , ,1997
31,15A, 16D
1,E1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

31 Total Channels

Configuration File

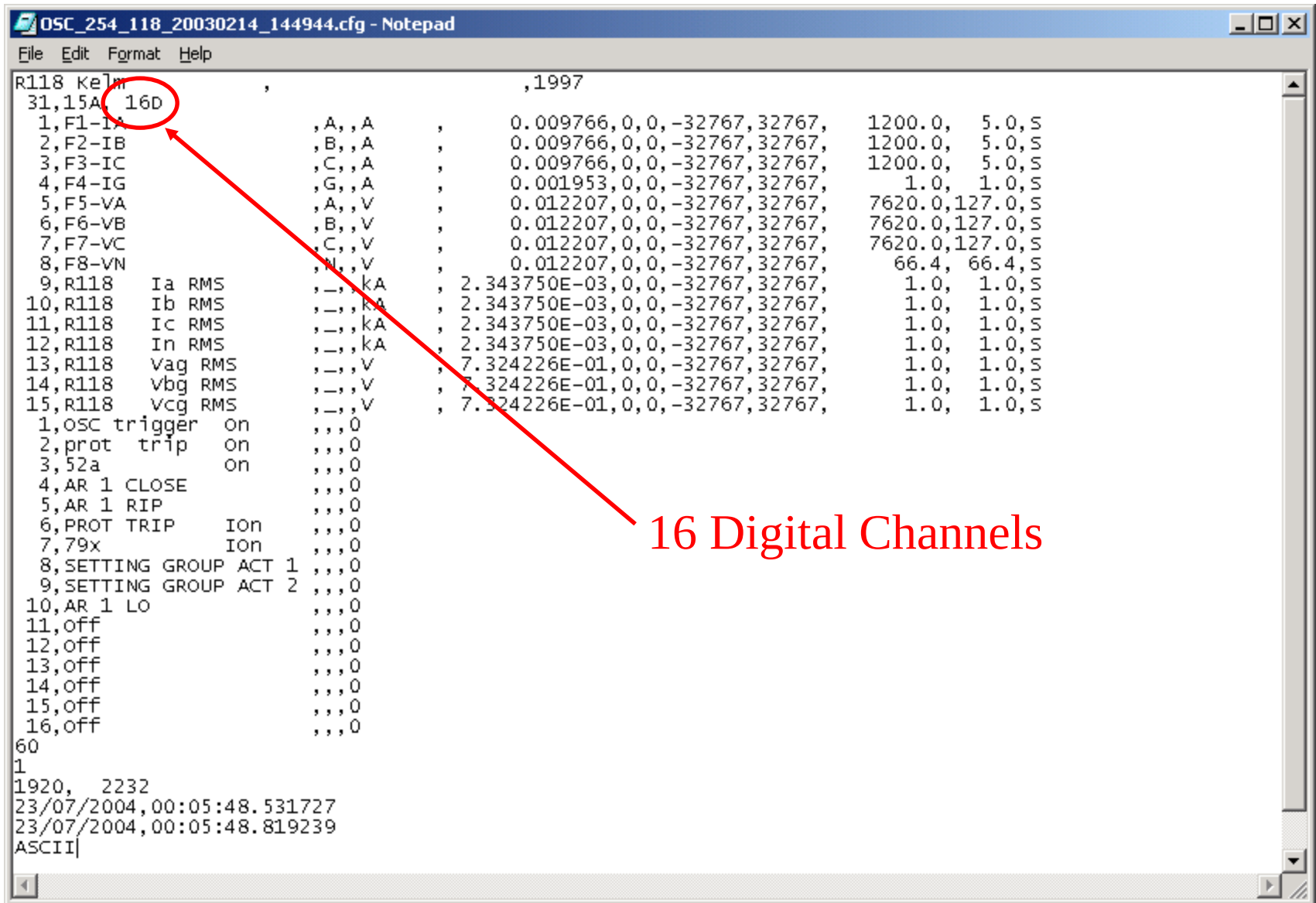


OSC_254_118_20030214_144944.cfg - Notepad

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File Edit Format Help
R118 R118m , ,1997
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1,F1-1A , ,A , , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB , ,B , ,A , , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC , ,C , ,A , , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG , ,G , ,A , , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA , ,A , ,V , , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB , ,B , ,V , , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC , ,C , ,V , , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN , ,N , ,V , , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS , , , ,V , , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS , , , ,V , , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS , , , ,V , , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On , , , ,0
2,prot trip On , , , ,0
3,52a On , , , ,0
4,AR 1 CLOSE , , , ,0
5,AR 1 RIP , , , ,0
6,PROT TRIP IOn , , , ,0
7,79x IOn , , , ,0
8,SETTING GROUP ACT 1 , , , ,0
9,SETTING GROUP ACT 2 , , , ,0
10,AR 1 LO , , , ,0
11,off , , , ,0
12,off , , , ,0
13,off , , , ,0
14,off , , , ,0
15,off , , , ,0
16,off , , , ,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

15 Analog Channels

Configuration File



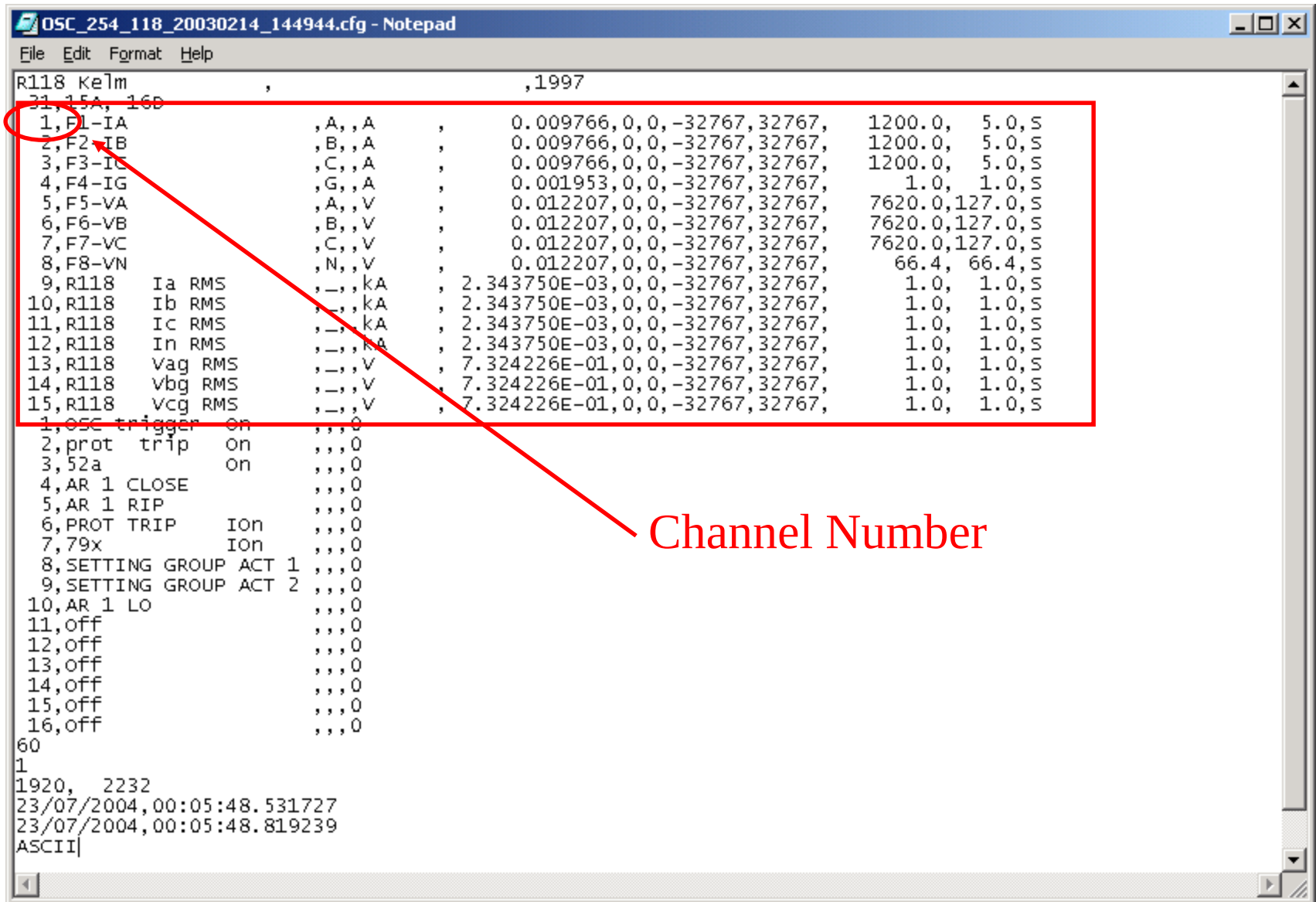
```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 Kel'm , ,1997
31,15A, 16D
 1,F1-1A , ,A , , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
 2,F2-1B , ,B , ,A , , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
 3,F3-1C , ,C , ,A , , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
 4,F4-1G , ,G , ,A , , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
 5,F5-1A , ,A , ,V , , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
 6,F6-1B , ,B , ,V , , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
 7,F7-1C , ,C , ,V , , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
 8,F8-1V , ,N , ,V , , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
 9,R118 Ia RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS , , , ,kA , , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS , , , ,V , , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS , , , ,V , , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS , , , ,V , , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
 1,OSC trigger On , , , ,0
 2,prot trip On , , , ,0
 3,52a On , , , ,0
 4,AR 1 CLOSE , , , ,0
 5,AR 1 RIP , , , ,0
 6,PROT TRIP IOn , , , ,0
 7,79x IOn , , , ,0
 8,SETTING GROUP ACT 1 , , , ,0
 9,SETTING GROUP ACT 2 , , , ,0
10,AR 1 LO , , , ,0
11,off , , , ,0
12,off , , , ,0
13,off , , , ,0
14,off , , , ,0
15,off , , , ,0
16,off , , , ,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

Configuration File

```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kel'm , ,1997
31,15A, 16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

Information For Each Analog Channel

Configuration File



OSC_254_118_20030214_144944.cfg - Notepad

File Edit Format Help

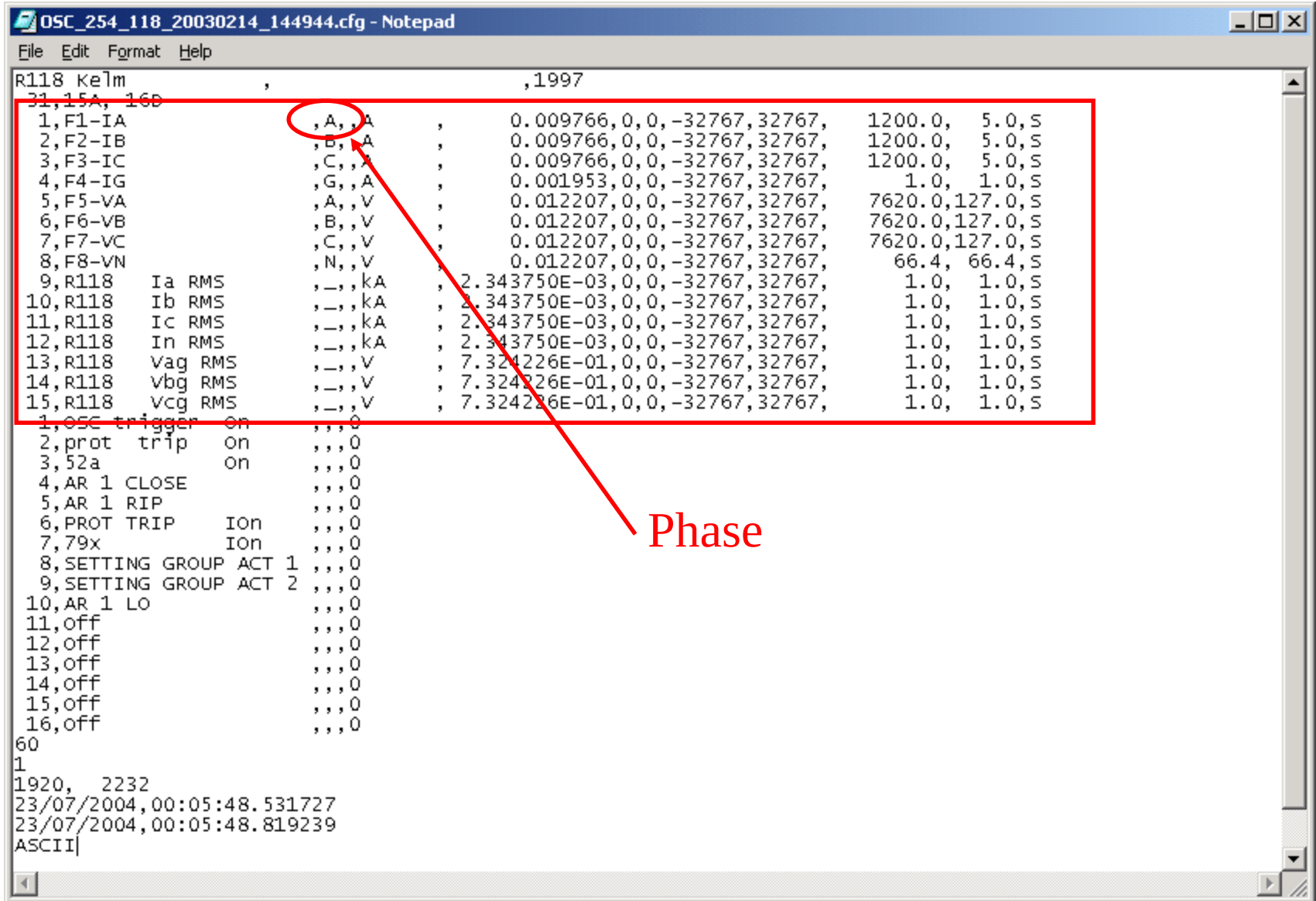
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R118 kel'm , ,1997
31,15A, 16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,-,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,-,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,-,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,-,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,-,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,-,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,-,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP Ion ,,,0
7,79x Ion ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

Channel Number

Configuration File

```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kelm , ,1997
31,15A,16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP Ion ,,,0
7,79x Ion ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

Configuration File



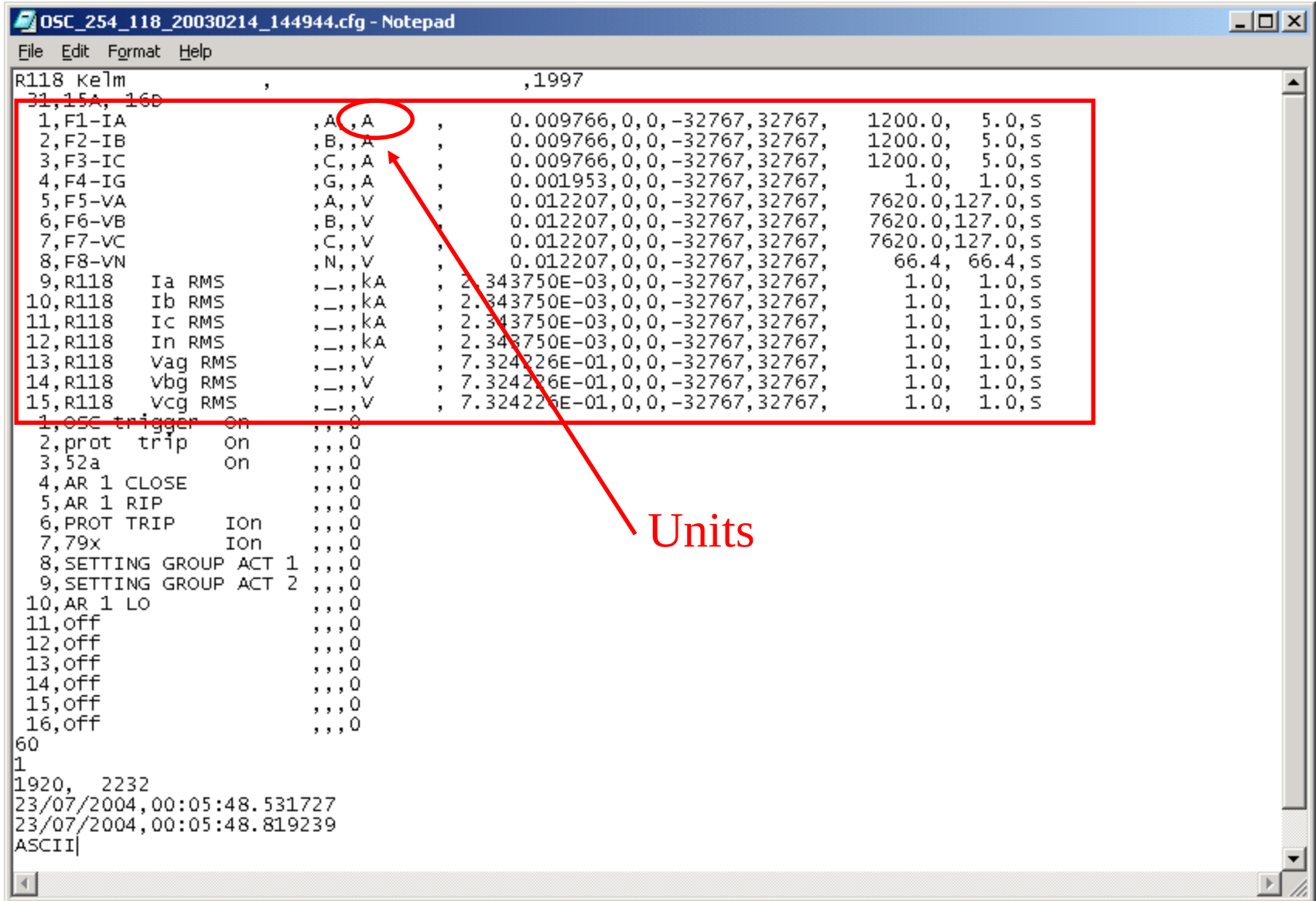
OSC_254_118_20030214_144944.cfg - Notepad

File Edit Format Help

```
R118 kelm , ,1997
31,15A, 16D
1,F1-IA ,A,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS , ,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS , ,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS , ,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS , ,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS , ,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS , ,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS , ,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On , ,0
2,prot trip On , ,0
3,52a On , ,0
4,AR 1 CLOSE , ,0
5,AR 1 RIP , ,0
6,PROT TRIP IOn , ,0
7,79x IOn , ,0
8,SETTING GROUP ACT 1 , ,0
9,SETTING GROUP ACT 2 , ,0
10,AR 1 LO , ,0
11,off , ,0
12,off , ,0
13,off , ,0
14,off , ,0
15,off , ,0
16,off , ,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

Phase

Configuration File



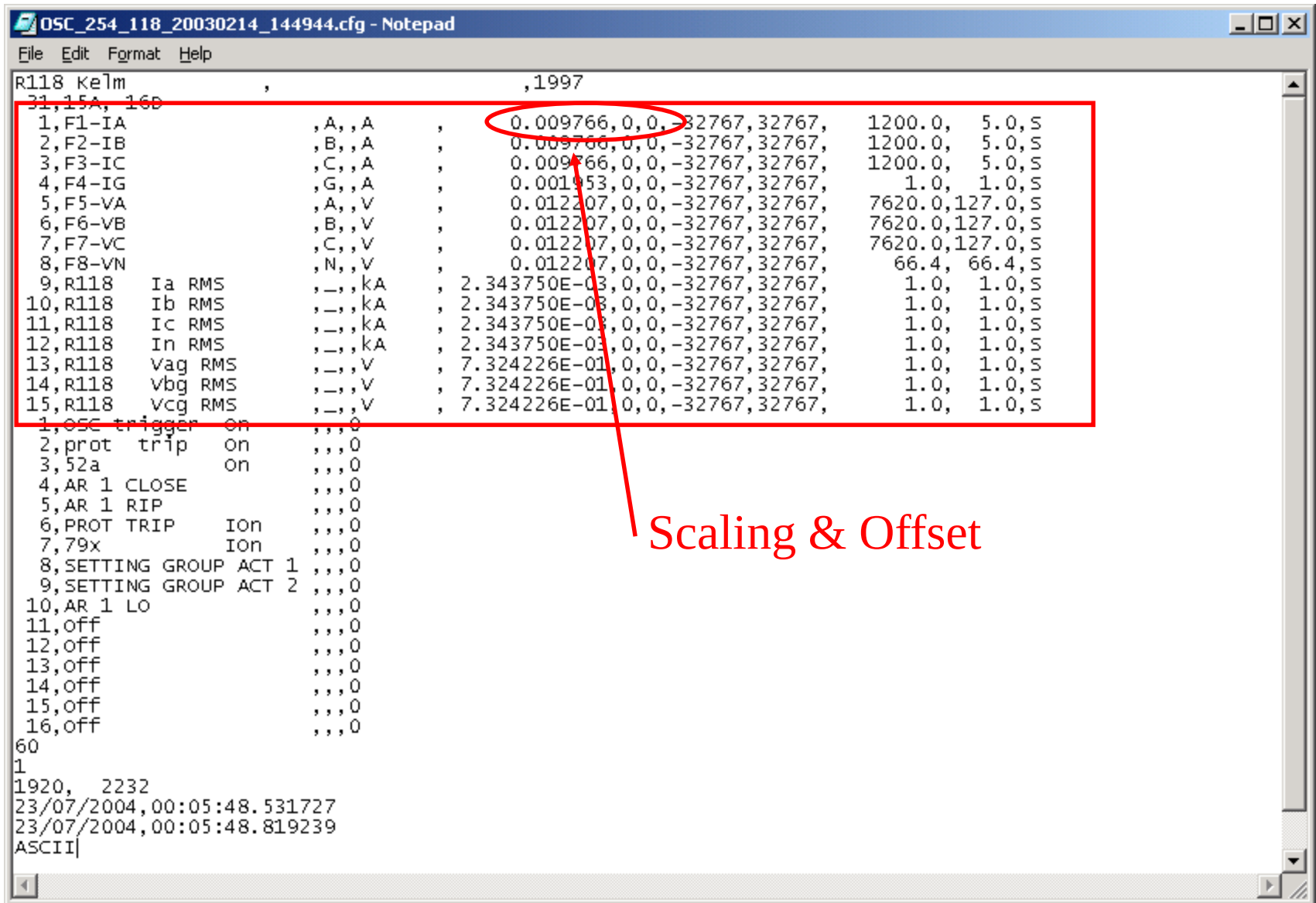
OSC_254_118_20030214_144944.cfg - Notepad

File Edit Format Help

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3,F3-IC ,C,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
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5,AR 1 RIP , ,0
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Units

Configuration File



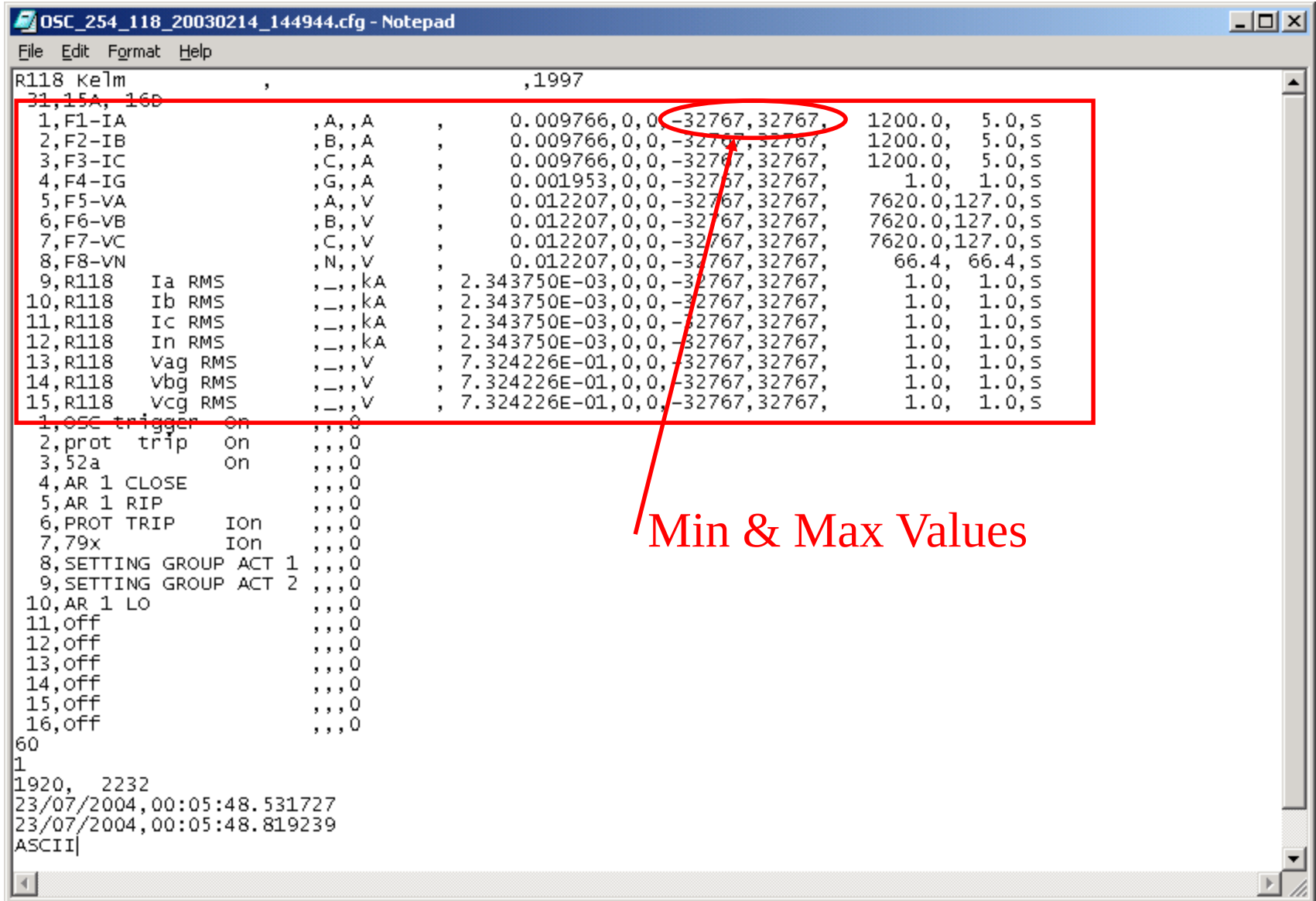
OSC_254_118_20030214_144944.cfg - Notepad

File Edit Format Help

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5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
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9,SETTING GROUP ACT 2 ,,,0
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Scaling & Offset

Configuration File



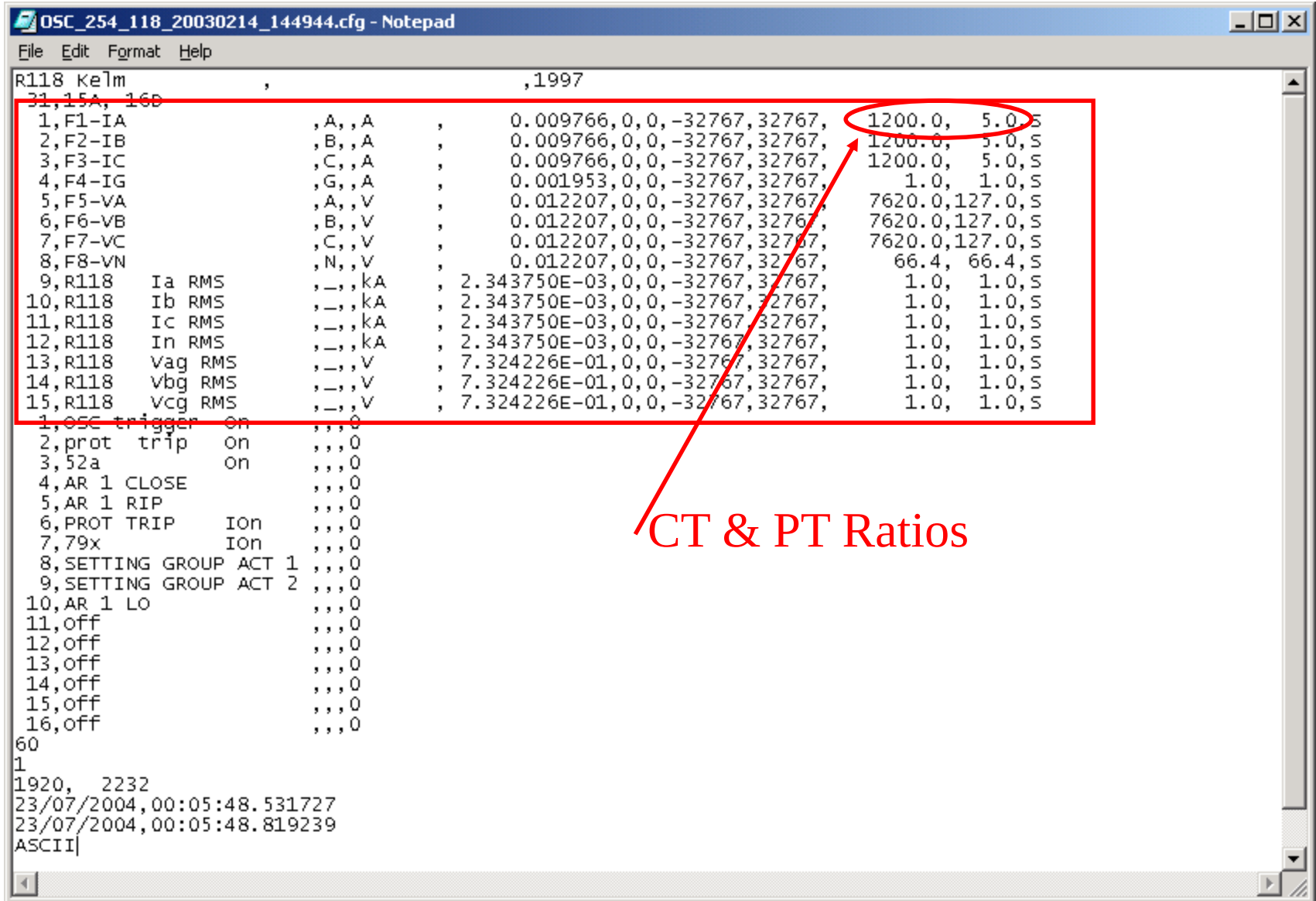
OSC_254_118_20030214_144944.cfg - Notepad

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2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
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Min & Max Values

Configuration File



OSC_254_118_20030214_144944.cfg - Notepad

File Edit Format Help

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3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
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6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
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8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
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23/07/2004,00:05:48.819239
ASCII|
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CT & PT Ratios

Configuration File

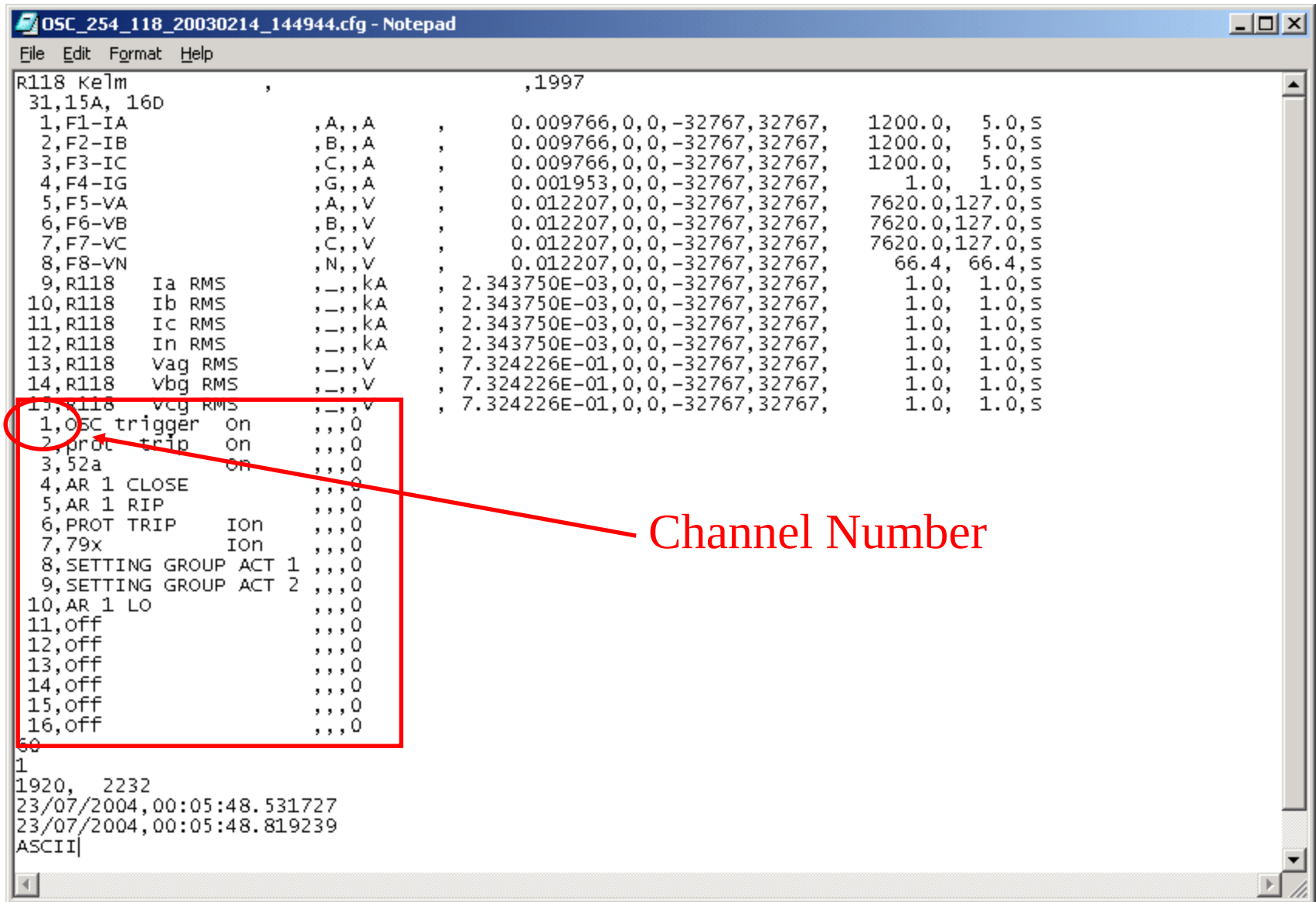
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OSC_254_118_20030214_144944.cfg - Notepad
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 3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
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12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
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2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
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9,SETTING GROUP ACT 2 ,,,0
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ASCII|

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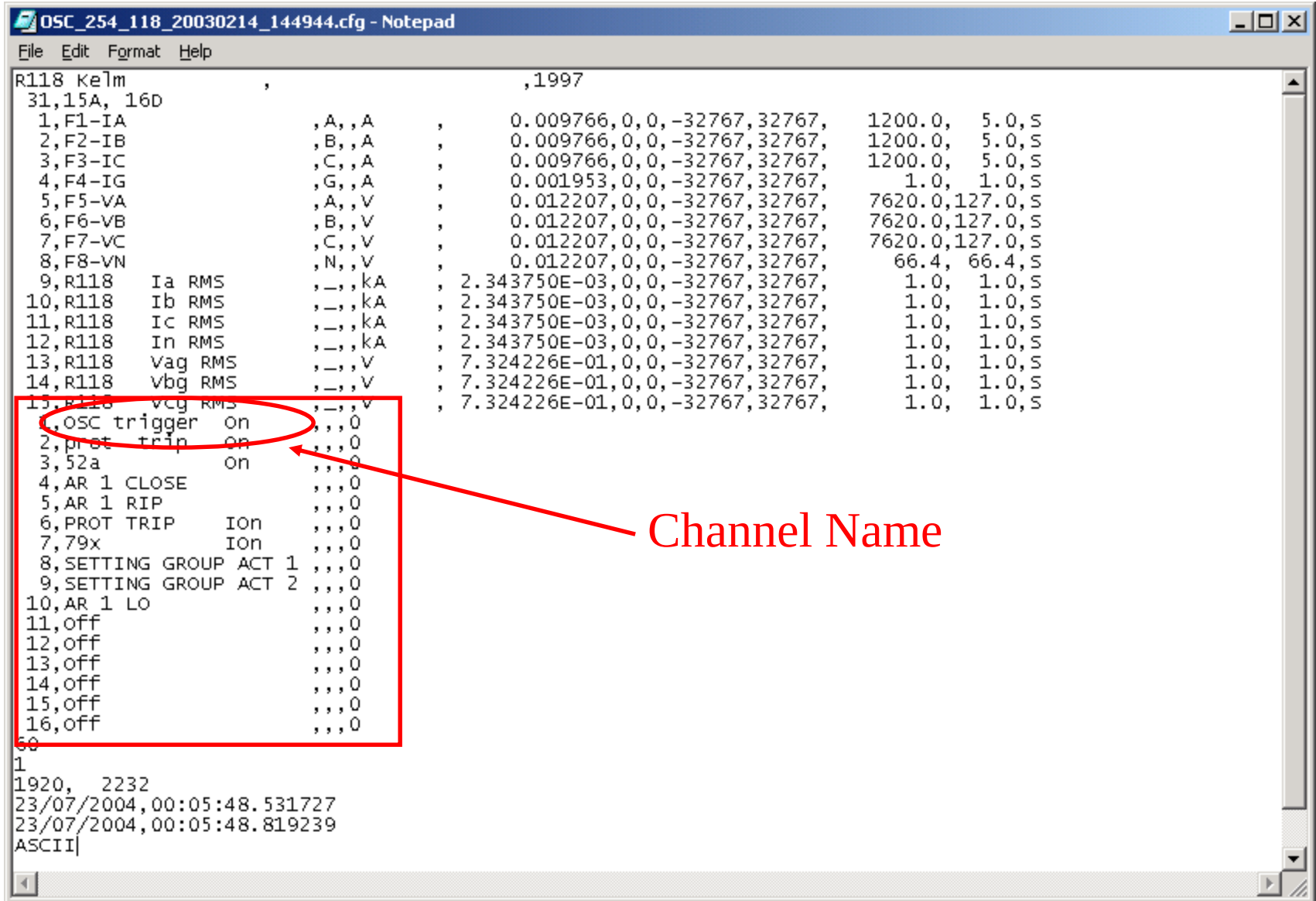
Information For Each Digital Channel

Configuration File



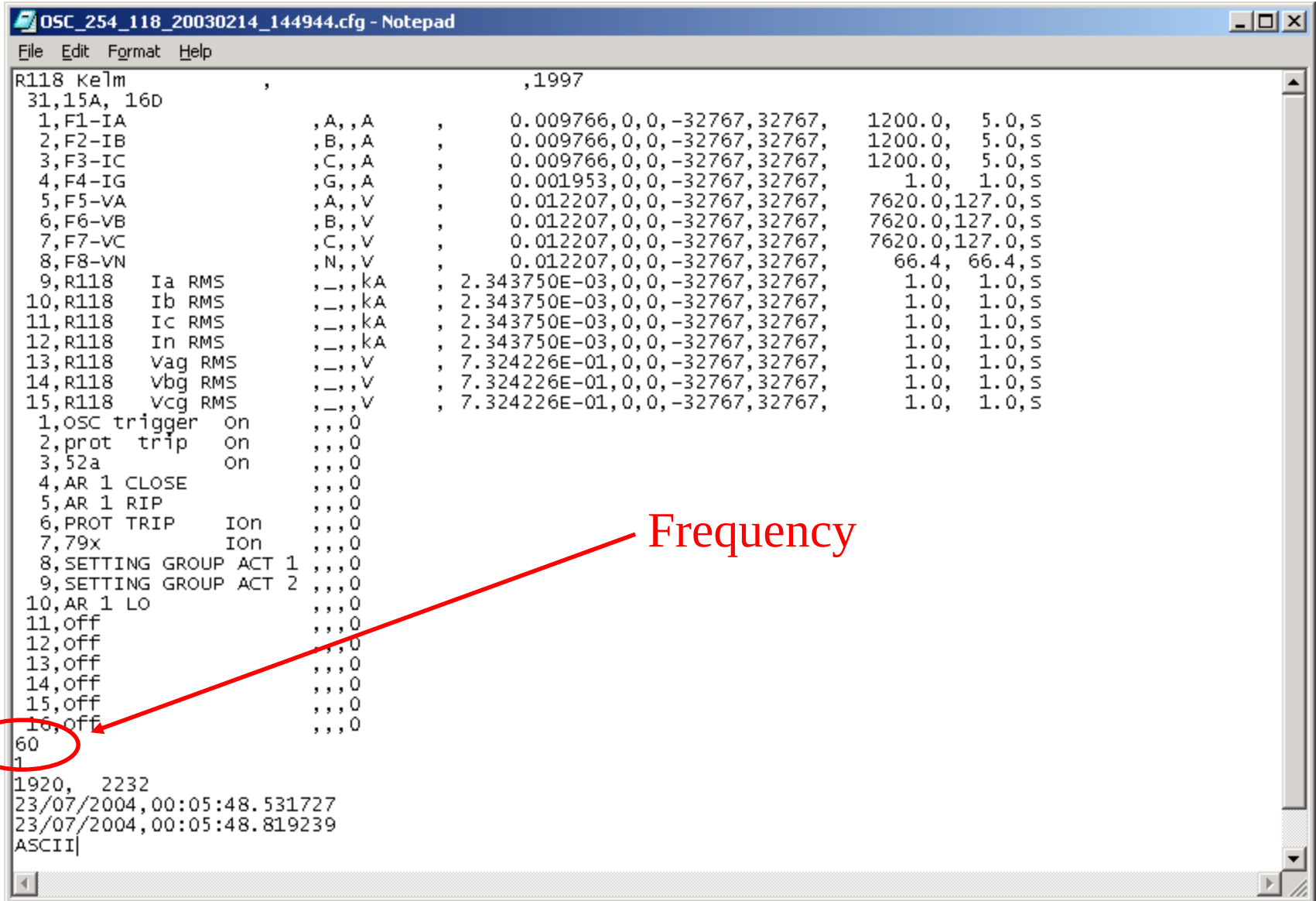
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OSC_254_118_20030214_144944.cfg - Notepad
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5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
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5,AR 1 RIP ,,,0
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7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
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12,off ,,,0
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ASCII|
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Configuration File



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OSC_254_118_20030214_144944.cfg - Notepad
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3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
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5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
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Configuration File



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3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
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5,AR 1 RIP ,,,0
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9,SETTING GROUP ACT 2 ,,,0
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23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
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Configuration File

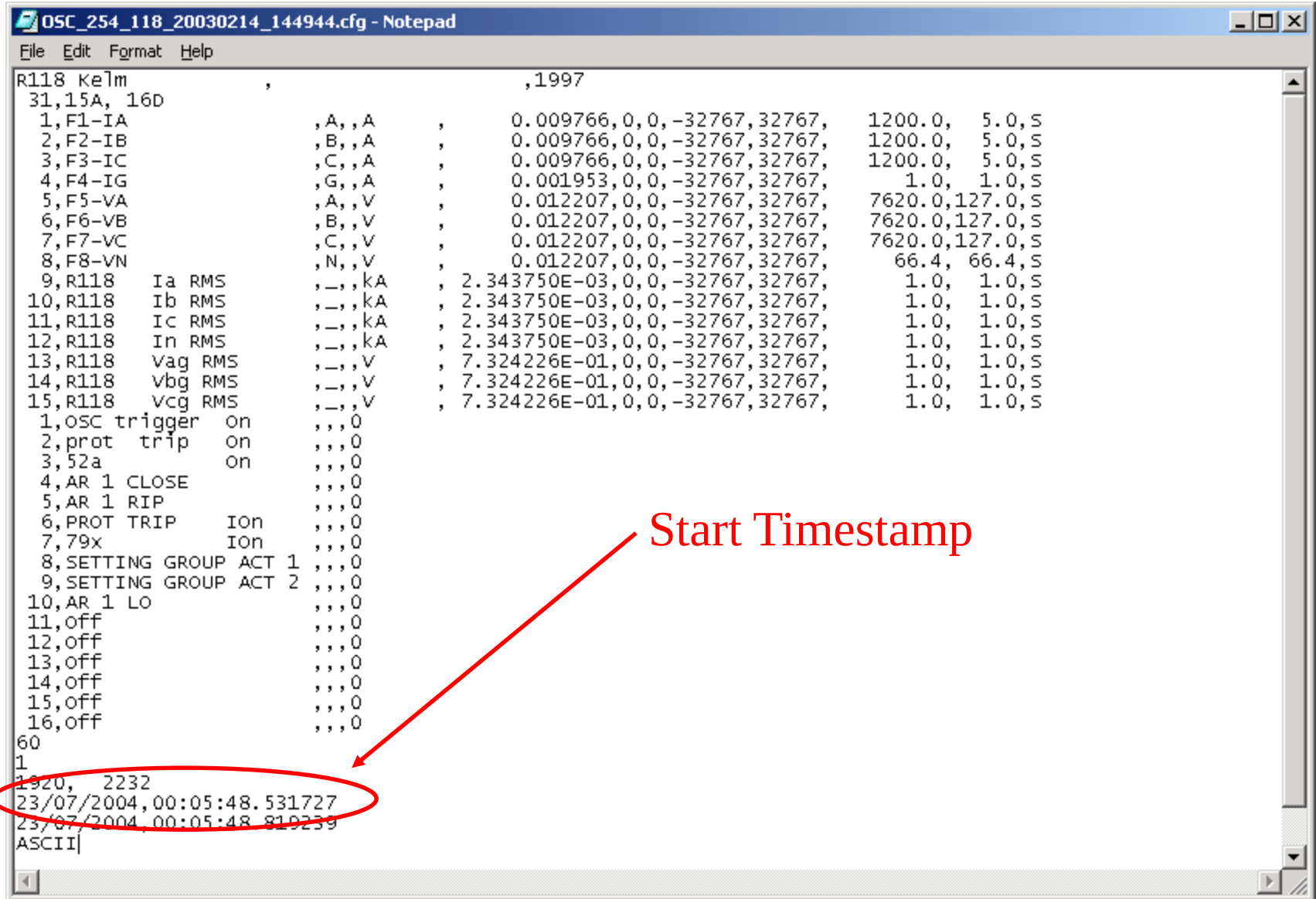
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3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
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8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
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5,AR 1 RIP ,,,0
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ASCII|
```

Sample Rate
1920 samples/sec
 $32 \text{ samples} \times 60 \text{ cycles/sec}$

Configuration File

```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kel'm , ,1997
31,15A, 16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII|
```

Configuration File



```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kel'm , ,1997
31,15A, 16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004, 00:05:48.531727
23/07/2004, 00:05:48.819239
ASCII|
```

Configuration File

```
OSC_254_118_20030214_144944.cfg - Notepad
File Edit Format Help
R118 kel'm , ,1997
31,15A, 16D
1,F1-IA ,A,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
2,F2-IB ,B,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
3,F3-IC ,C,,A , 0.009766,0,0,-32767,32767, 1200.0, 5.0,S
4,F4-IG ,G,,A , 0.001953,0,0,-32767,32767, 1.0, 1.0,S
5,F5-VA ,A,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
6,F6-VB ,B,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
7,F7-VC ,C,,V , 0.012207,0,0,-32767,32767, 7620.0,127.0,S
8,F8-VN ,N,,V , 0.012207,0,0,-32767,32767, 66.4, 66.4,S
9,R118 Ia RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
10,R118 Ib RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
11,R118 Ic RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
12,R118 In RMS ,,,kA , 2.343750E-03,0,0,-32767,32767, 1.0, 1.0,S
13,R118 Vag RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
14,R118 Vbg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
15,R118 Vcg RMS ,,,V , 7.324226E-01,0,0,-32767,32767, 1.0, 1.0,S
1,OSC trigger On ,,,0
2,prot trip On ,,,0
3,52a On ,,,0
4,AR 1 CLOSE ,,,0
5,AR 1 RIP ,,,0
6,PROT TRIP IOn ,,,0
7,79x IOn ,,,0
8,SETTING GROUP ACT 1 ,,,0
9,SETTING GROUP ACT 2 ,,,0
10,AR 1 LO ,,,0
11,off ,,,0
12,off ,,,0
13,off ,,,0
14,off ,,,0
15,off ,,,0
16,off ,,,0
60
1
1920, 2232
23/07/2004,00:05:48.531727
23/07/2004,00:05:48.819239
ASCII
```

Data File

[illegible]

Data File

[illegible]

Data File

[illegible]

Data File

[illegible]

Outline

- Comtrade Files
- SISCO's Comtrade Utility
- Examples of Sub-Cycle Information
- 2005 Pilot Project

Outline

- Comtrade Files
- **SISCO's Comtrade Utility**
- Examples of Sub-Cycle Information
- 2005 Pilot Project



The Standards Based Integration Company

Systems Integration Specialists Company, Inc.

6605 19½ Mile Road

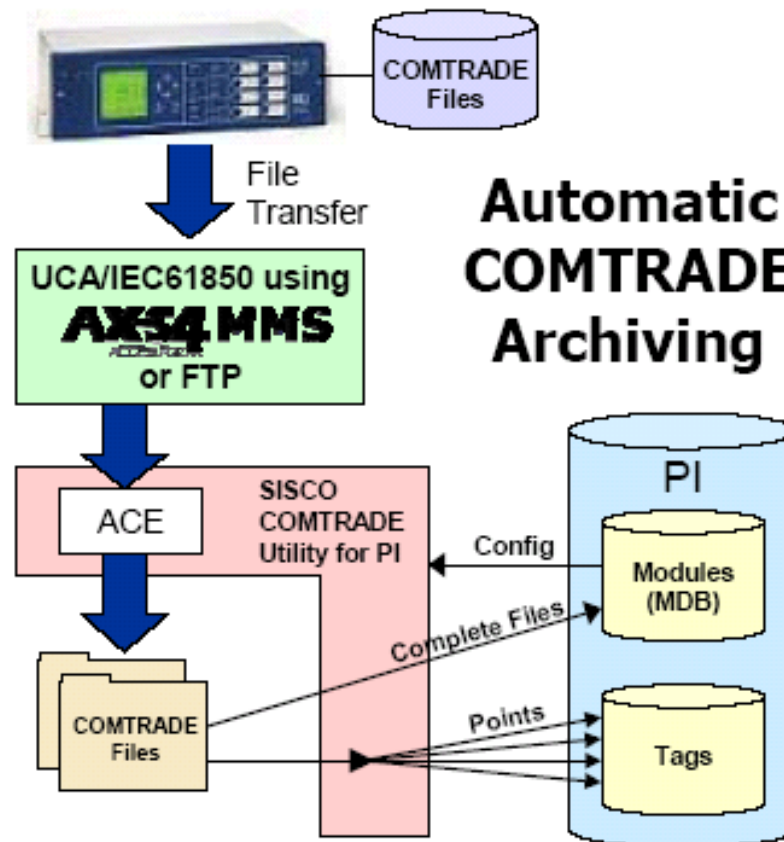
Sterling Heights, MI 48314-1408 USA

Tel: +586-254-0020 Fax: +586-254-0053

E-Mail: info@sisconet.com

URL: <http://www.sisconet.com>

COMTRADE Utility for the OSIsoft™ PI System



SISCO's Comtrade Utility

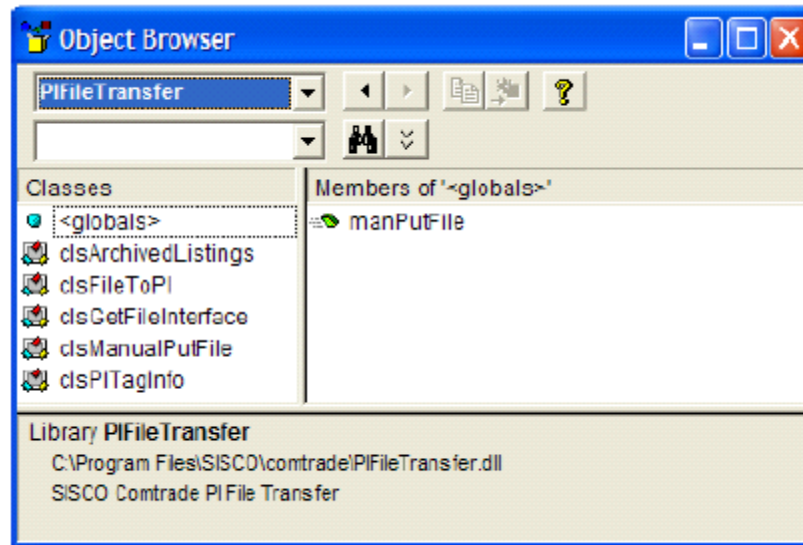
- Comtrade Utility API
- Set of ACTIVEX COM Objects
- Major Interface Functions
 - PIFileTransfer.dll
 - CTPITags.dll
 - MDBSetup.dll

SISCO's Comtrade Utility

- Comtrade Utility API
- Set of ACTIVEX COM Objects
- Major Interface Functions
 - **PIFileTransfer.dll**
 - CTPITags.dll
 - MDBSetup.dll

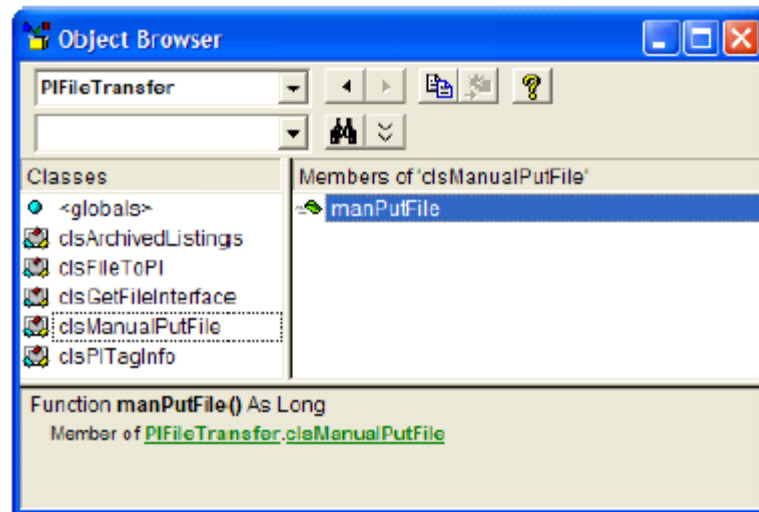
PIFileTransfer.dll

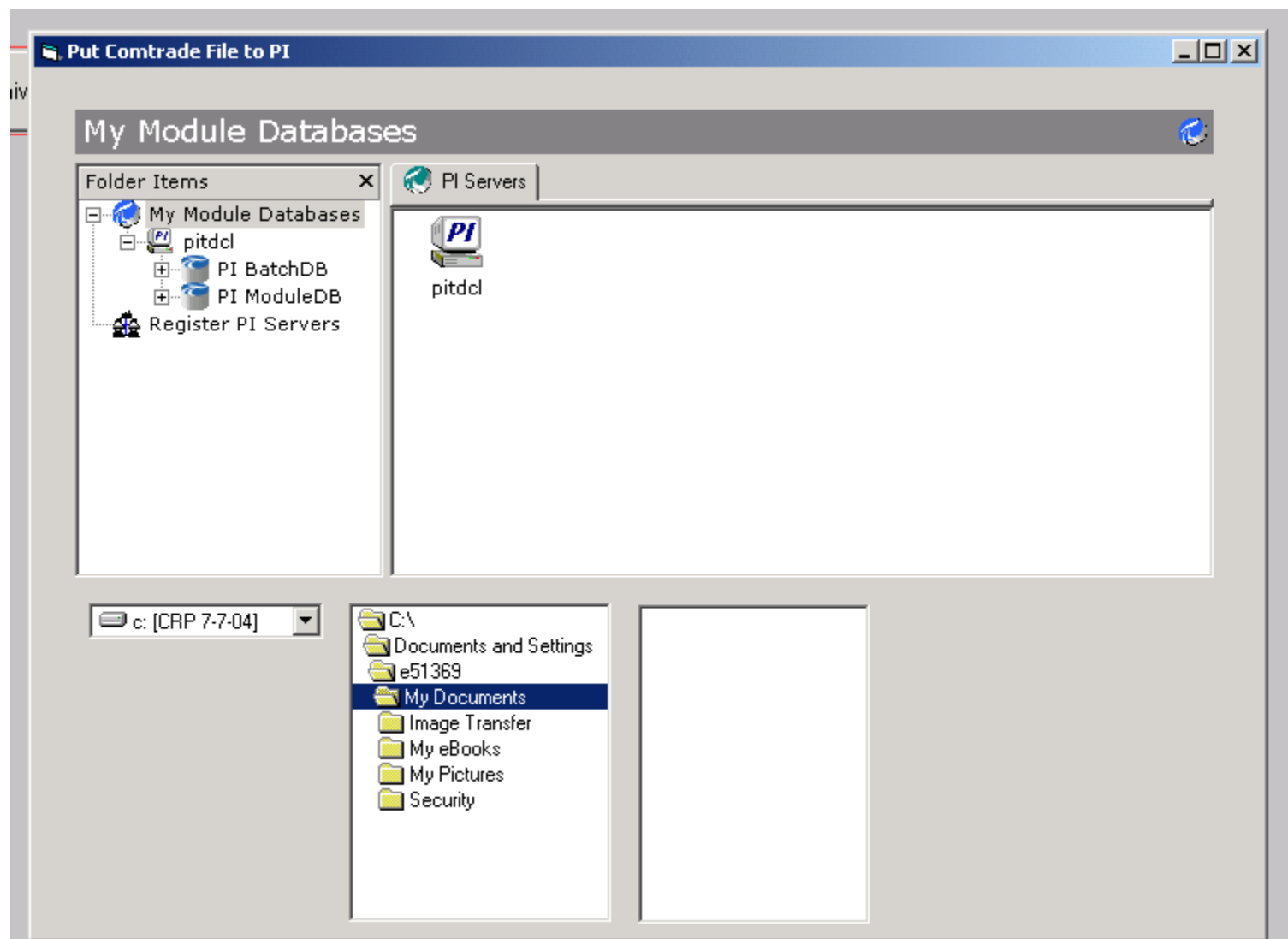
- Stores and Retrieves Comtrade Files to and from Archive



PIFileTransfer.dll

- ManualPutFile Class
- Stores Comtrade Files to Archive





Put Comtrade File to PI

Leland

Folder Items

- PI ModuleDB
 - %OSI
 - Beaverton
 - Leland
 - Leland SEL
 - Master Ba
 - Master1
 - Master2
 - Septembe
 - St Marys W
 - System Lo
 - Test
 - Test Volta

Sub-Modules PI Aliases PI Properties

PIProperty Name	Value	Datatype
SISCOArchivedFiles		String
OSC_254_118_20030214_144944.zip:07-2...		String
OSC_254_119_20030214_144944.zip:07-2...		String
OSC_254_120_20030214_144944.zip:07-2...		String
OSC_254_121_20030214_144944.zip:07-2...		String
OSC_254_122_20030214_144944.zip:07-2...		String
OSC_254_123_20030214_144944.zip:07-2...		String
OSC_254_124_20030214_144944.zip:07-2...		String
OSC_254_125_20030214_144944.zip:07-2...		String
OSC_254_126_20030214_144944.zip:07-2...		String
OSC_254_127_20030214_144944.zip:07-2...		String
OSC_254_128_20030214_144944.zip:07-2...		String

s: [\\WTC1\G1]

- s:\
 - PIADMIN
 - Downloads
 - SISCO
 - Comtrade Files
 - Leland Kelm R118
 - ASCII and BINARY

- OSC_254_118_200302
- OSC_254_119_200302
- OSC_254_120_200302
- OSC_254_121_200302
- OSC_254_122_200302
- OSC_254_123_200302
- OSC_254_124_200302
- OSC_254_125_200302
- OSC_254_126_200302
- OSC_254_127_200302
- OSC_254_128_200302
- OSC_254_129_200302
- OSC_254_130_200302
- OSC_254_131_200302

Archive Comtrade Files

PI Module Database Editor - Microsoft Internet Explorer provided by PGE

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print W

Address C:\Program Files\pipc\SMT\MDBEditor\MDBEditor.html Go

Leland

Folder Items

- My Module Databases
 - pitddl
 - PI BatchDB
 - PI ModuleDB
 - %OSI
 - Beaverton
 - Leland**
 - Leland SEL
 - Master Backu
 - Master1
 - Master2
 - September
 - St Marys Wes
 - System Load
 - Test
 - Test Voltage
 - Register PI Servers

Sub-Modules PI Aliases PI Properties

PIProperty Name	Value	Datatype
SISCOArchivedFiles		String
OSC_254_118_20030214_144944.zip:07-23-2004:00:05:	48.531727	String
OSC_254_119_20030214_144944.zip:07-23-2004:00:09:	54.194134	String
OSC_254_120_20030214_144944.zip:07-23-2004:00:09:	55.240024	String
OSC_254_121_20030214_144944.zip:07-23-2004:02:59:	11.669447	String
OSC_254_122_20030214_144944.zip:07-23-2004:02:59:	13.20646	String
OSC_254_123_20030214_144944.zip:07-23-2004:02:59:	45.556552	String
OSC_254_124_20030214_144944.zip:07-23-2004:04:14:	18.724826	String
OSC_254_125_20030214_144944.zip:07-23-2004:04:14:	22.208865	String
OSC_254_126_20030214_144944.zip:07-23-2004:04:14:	52.161375	String
OSC_254_127_20030214_144944.zip:07-23-2004:04:14:	57.165502	String
OSC_254_128_20030214_144944.zip:07-23-2004:00:15:	1.302874	String
OSC_254_129_20030214_144944.zip:07-23-2004:06:24:	52.263005	String
OSC_254_130_20030214_144944.zip:07-23-2004:06:30:	55.203741	String
OSC_254_131_20030214_144944.zip:07-23-2004:08:47:	11.11982	String
OSC_254_132_20030214_144944.zip:07-23-2004:10:59:	44.758102	String
OSC_254_133_20030214_144944.zip:07-23-2004:12:21:	18.907814	String
ComtradeConfiguration		String

Done My Computer

PI Module Database Editor - Microsoft Internet Explorer provided by PGE

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print W

Address C:\Program Files\pipc\SMT\MDBEditor\MDBEditor.html Go

Leland

Folder Items

- My Module Databases
 - pitddl
 - PI BatchDB
 - PI ModuleDB
 - %OSI
 - Beaverton
 - Leland**
 - Leland SEL
 - Master Backu
 - Master1
 - Master2
 - September
 - St Marys Wes
 - System Load
 - Test
 - Test Voltage
 - Register PI Servers

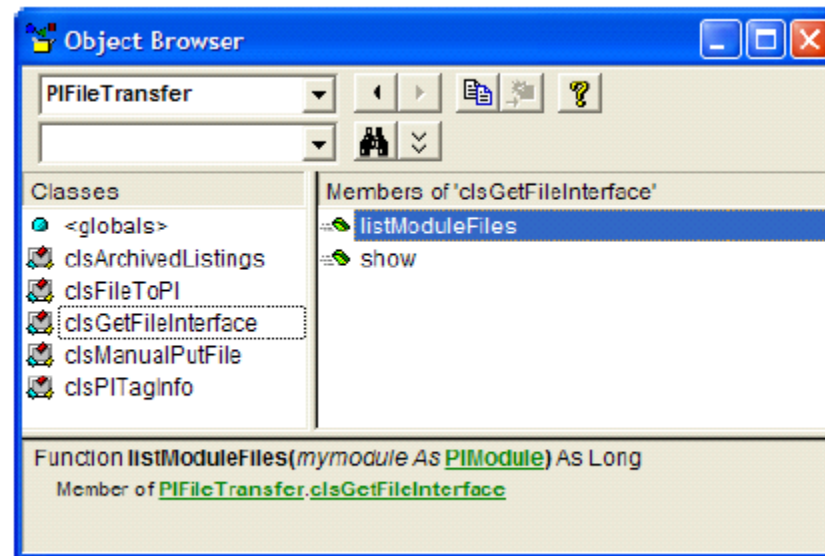
Sub-Modules PI Aliases PI Properties

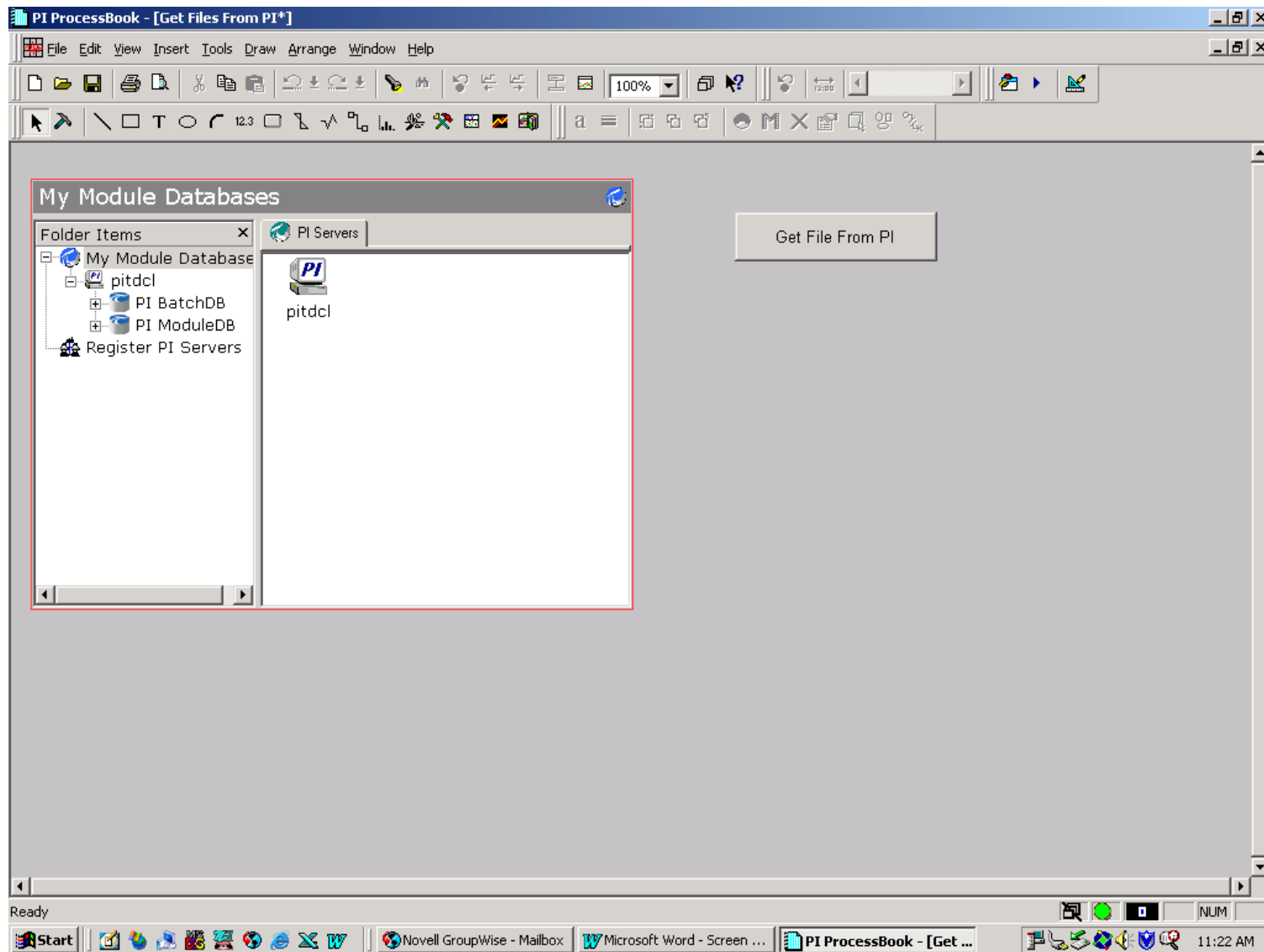
PIProperty Name	Value	Datatype
SISCOArchivedFiles		String
OSC_254_118_20030214_144944.zip:07-23-2004:0...		String
Filename	OSC_254_118_20030214_144944.zip	String
FileCreated	07-23-2004:00:05: 48.531727	String
FileRetrieved	07-23-2004 : 09:59:34	String
FileType	IEEE COMTRADE(ZIPPED)	String
FileArchived	07/23/2004 10:01:34 AM	String
OSC_254_119_20030214_144944.zip:07-23-2004:0...		String
OSC_254_120_20030214_144944.zip:07-23-2004:0...		String
OSC_254_121_20030214_144944.zip:07-23-2004:0...		String
OSC_254_122_20030214_144944.zip:07-23-2004:02:59: 13.20646		String
OSC_254_123_20030214_144944.zip:07-23-2004:0...		String
OSC_254_124_20030214_144944.zip:07-23-2004:0...		String
OSC_254_125_20030214_144944.zip:07-23-2004:0...		String
OSC_254_126_20030214_144944.zip:07-23-2004:0...		String
OSC_254_127_20030214_144944.zip:07-23-2004:0...		String
OSC_254_128_20030214_144944.zip:07-23-2004:0...		String
OSC_254_129_20030214_144944.zip:07-23-2004:0...		String
OSC_254_130_20030214_144944.zip:07-23-2004:0...		String
OSC_254_131_20030214_144944.zip:07-23-2004:0...		String
OSC_254_132_20030214_144944.zip:07-23-2004:1...		String
OSC_254_133_20030214_144944.zip:07-23-2004:1...		String
ComtradeConfiguration		String

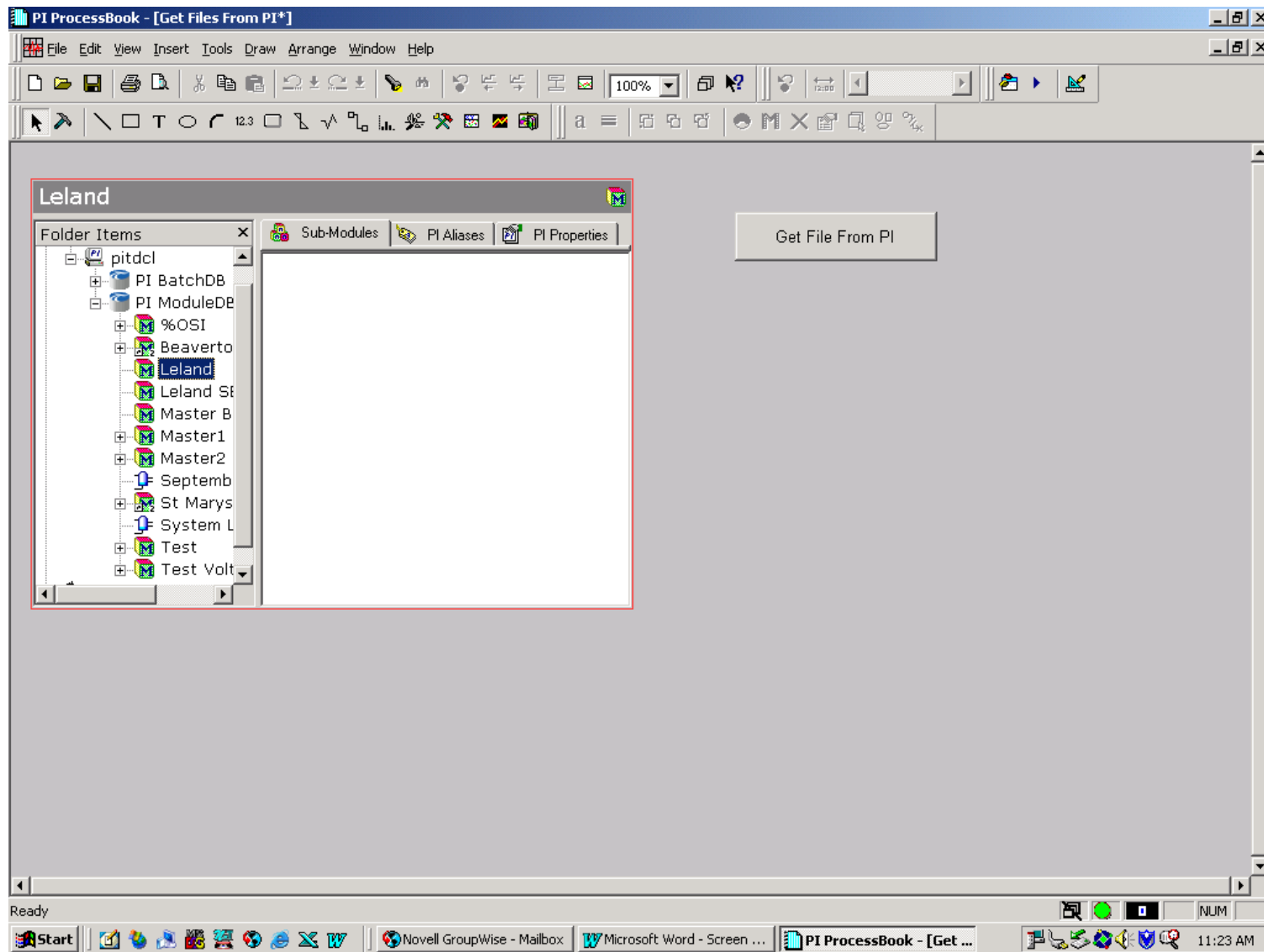
Done My Computer

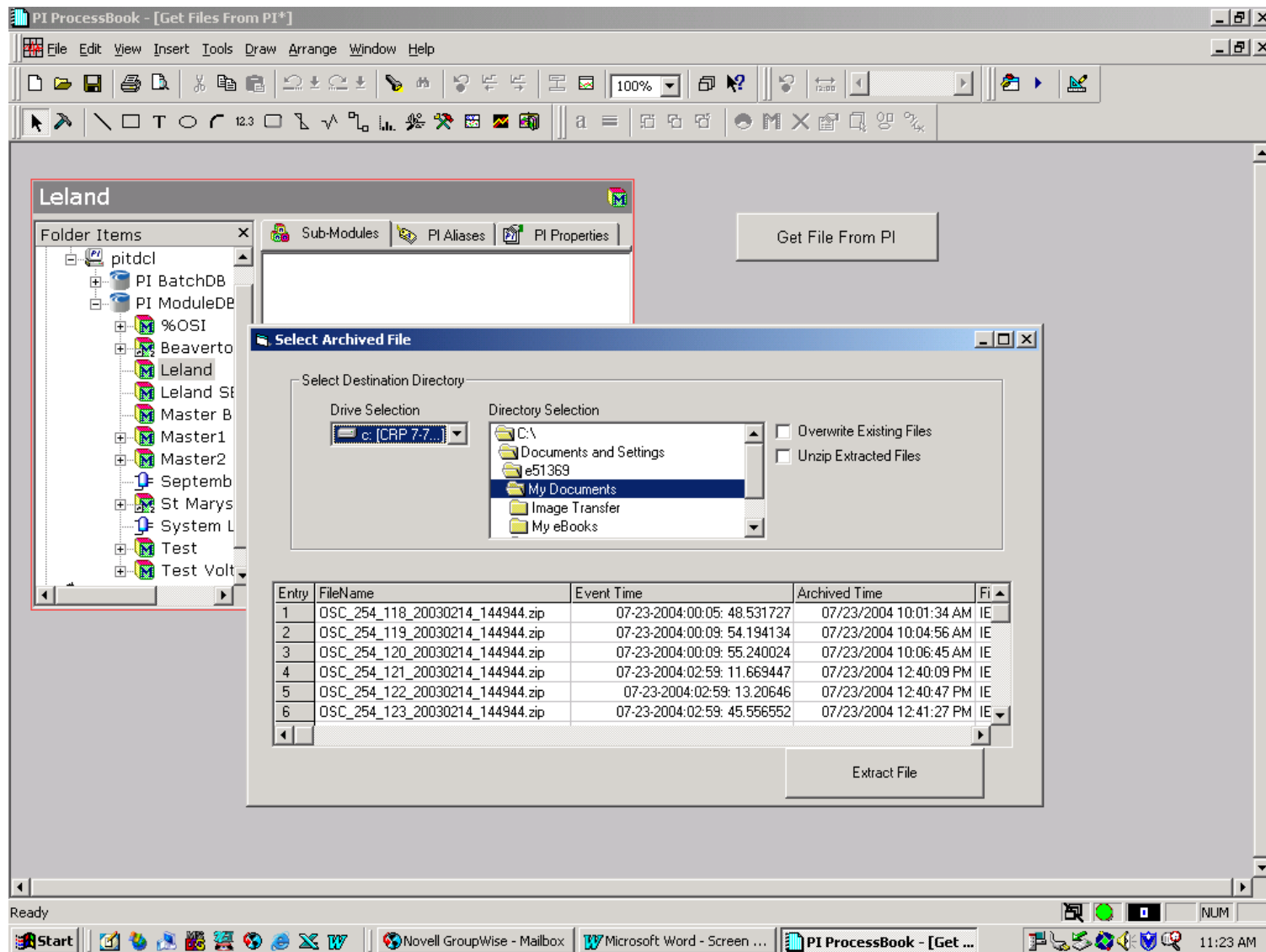
PIFileTransfer.dll

- GetFileInterface Class
- Retrieves Comtrade Files from Archive









My Computer

My Network Places

Recycle Bin

Whoi

NAL

parenting_...

OSC_254_118_20030214_144944.zip

WinZip - OSC_254_118_20030214_144944.zip

File Actions Options Help

New Open Favorites Add Extract View CheckOut Wizard

Name	Modified	Size	Ratio	Packed
OSC_254_118_20030214_144944.cfg	07/23/2004 9:59 AM	1,904	76%	456
OSC_254_118_20030214_144944.dat	06/24/2004 8:32 AM	89,280	55%	40,115

Selected 0 files, 0 bytes

Total 2 files, 90KB

Start

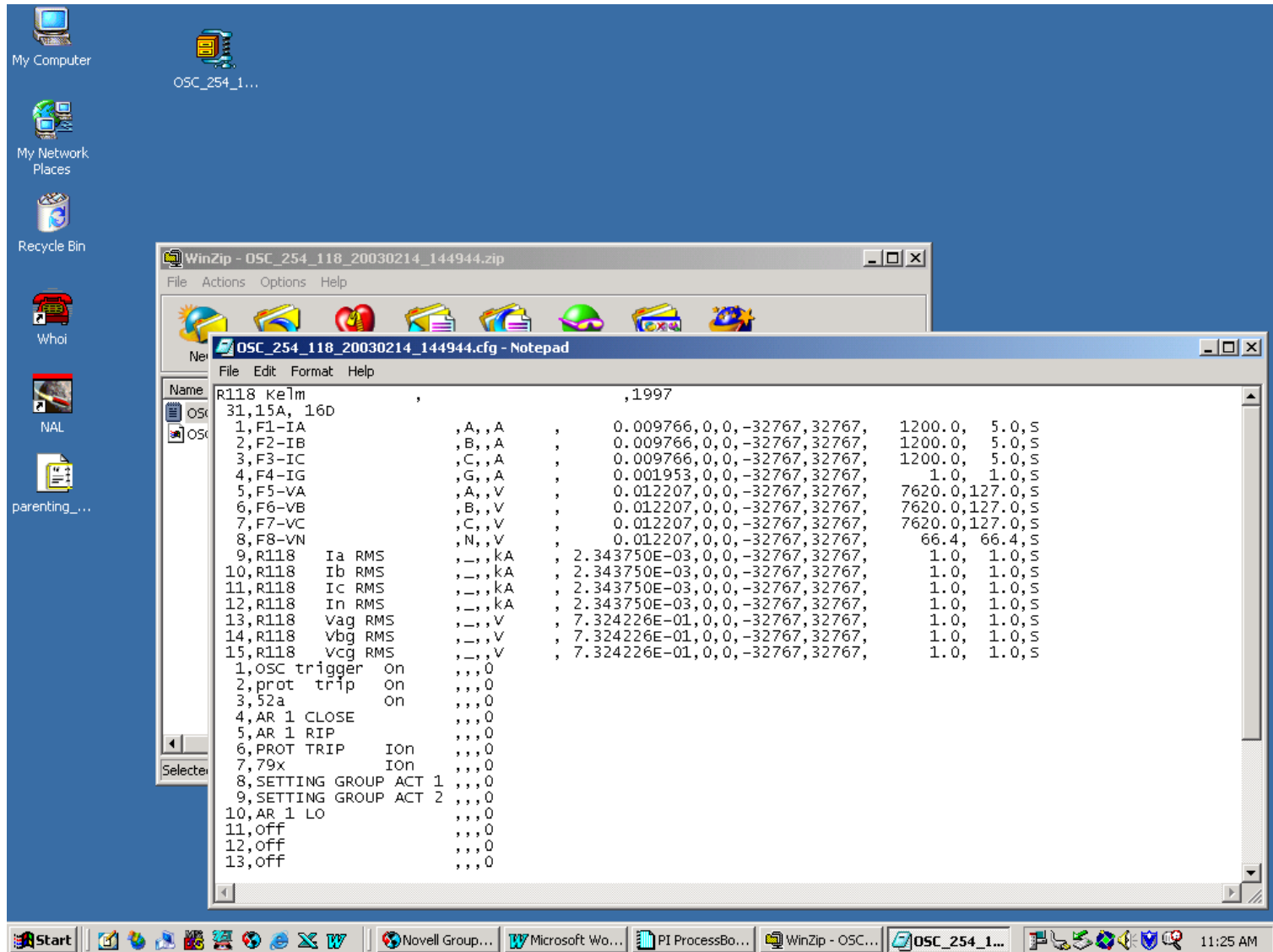
Novell GroupWise ...

Microsoft Word - S...

PI ProcessBook - [...]

WinZip - OSC_254...

11:24 AM



SISCO's Comtrade Utility

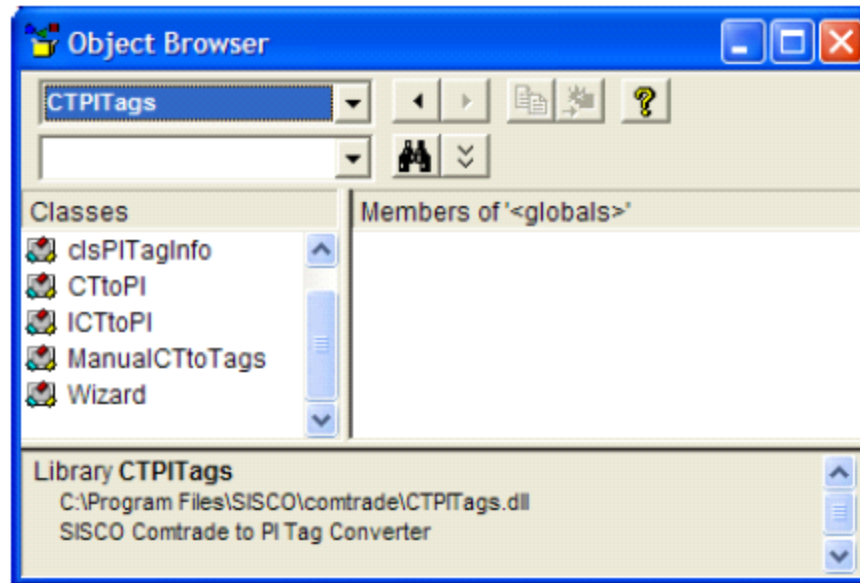
- Comtrade Utility API
- Set of ACTIVEX COM Objects
- Major Interface Functions
 - PIFileTransfer.dll
 - CTPITags.dll
 - MDBSetup.dll

SISCO's Comtrade Utility

- Comtrade Utility API
- Set of ACTIVEX COM Objects
- Major Interface Functions
 - PIFileTransfer.dll
 - **CTPITags.dll**
 - MDBSetup.dll

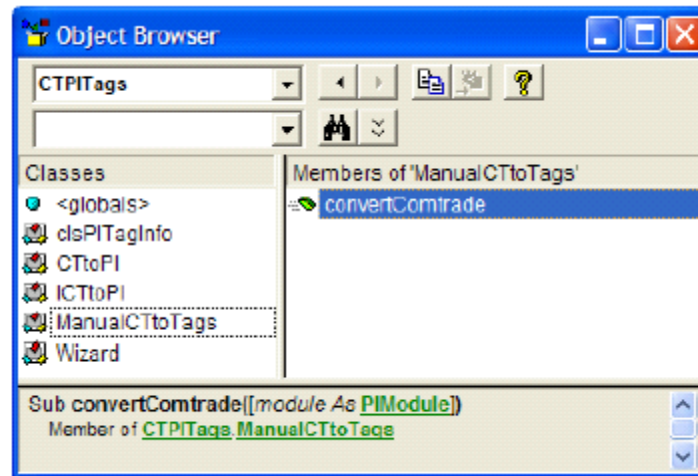
CTPITags.dll

- Converts Comtrade Channels to PI Tags



CTPITags.dll

- ManualCTtoTags Class
- Stores Channel Data to PI Tags



Configure Comtrade to Tags - Step 1 - Select Comtrade File

Select the appropriate Comtrade Data File. The utility will check for the corresponding configuration file before allowing you to proceed.

s: [\\WTC1\G1]

- Folder s:\
- Folder PIADMIN
- Folder Downloads
- Folder SISCO
- Folder Comtrade Files
- Folder Leland Kelm R118**
- Folder ASCII and BINARY

OSC_254_118_20030214_144944.dat
OSC_254_119_20030214_144944.dat
OSC_254_120_20030214_144944.dat
OSC_254_121_20030214_144944.dat
OSC_254_122_20030214_144944.dat
OSC_254_123_20030214_144944.dat
OSC_254_124_20030214_144944.dat
OSC_254_125_20030214_144944.dat
OSC_254_126_20030214_144944.dat
OSC_254_127_20030214_144944.dat
OSC_254_128_20030214_144944.dat
OSC_254_129_20030214_144944.dat
OSC_254_130_20030214_144944.dat
OSC_254_131_20030214_144944.dat
OSC_254_132_20030214_144944.dat
OSC_254_133_20030214_144944.dat

Help

Cancel

< Back

Next >

Finish

Configure Comtrade to Tags - Step 2 - Select PI Module

The PI Module will be used to store the mappings of the Comtrade channel definitions to the tags created within PI.

Leland

Folder Items

- My Module Databases
 - pitdcl
 - PI BatchDB
 - PI ModuleDB
 - %OSI
 - Beaverton
 - Leland**
 - Leland SEL
 - Master Backu
 - Master1
 - Master2
 - September
 - St Marys Wes
 - System Load
 - Test
 - Test Voltage
- Register PI Servers

Sub-Modules

PI Aliases

PI Properties

PIAlias Name	Tag Name	Server
COMTRADE_FILE_T...	Leland_Comtrade_F...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl
comA__sta_R118 K...	Leland_comA__sta_...	pitdcl

Help

Cancel

< Back

Next >

Finish

Configure Comtrade to Tags - Step 3 - Selection of PI Tags

This is an optional step. If you wish to manually choose which COMTRADE items will be imported into PI, you may do so here by choosing Yes or No in the last column. You may also choose to exclude analog or digital points by clicking the buttons below.

Index	Alias	PI Tag
1	comA__sta_R118 Kelm_id_F1-IA_phase_A	Leland_comA__sta_R118 Kelm_id_F1-IA_
2	comA__sta_R118 Kelm_id_F2-IB_phase_B	Leland_comA__sta_R118 Kelm_id_F2-IB_
3	comA__sta_R118 Kelm_id_F3-IC_phase_C	Leland_comA__sta_R118 Kelm_id_F3-IC_
4	comA__sta_R118 Kelm_id_F4-IG_phase_G	Leland_comA__sta_R118 Kelm_id_F4-IG_
5	comA__sta_R118 Kelm_id_F5-VA_phase_A	Leland_comA__sta_R118 Kelm_id_F5-VA_
6	comA__sta_R118 Kelm_id_F6-VB_phase_B	Leland_comA__sta_R118 Kelm_id_F6-VB_
7	comA__sta_R118 Kelm_id_F7-VC_phase_C	Leland_comA__sta_R118 Kelm_id_F7-VC_
8	comA__sta_R118 Kelm_id_F8-VN_phase_N	Leland_comA__sta_R118 Kelm_id_F8-VN_
9	comA__sta_R118 Kelm_id_R118 Ia RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118
10	comA__sta_R118 Kelm_id_R118 Ib RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118
11	comA__sta_R118 Kelm_id_R118 Ic RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118
12	comA__sta_R118 Kelm_id_R118 In RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118
13	comA__sta_R118 Kelm_id_R118 Vag RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118
14	comA__sta_R118 Kelm_id_R118 Vbg RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118
15	comA__sta_R118 Kelm_id_R118 Vcg RMS_phase__	Leland_comA__sta_R118 Kelm_id_R118

◀

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▶

Disable Import for
Analog

Disable Import for
Digitals

☒ View Analog Information

☐ View Digital Information

Help

Cancel

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Finish

Configure Comtrade to Tags - Step 3 - Selection of PI Tags

This is an optional step. If you wish to manually choose which COMTRADE items will be imported into PI, you may do so here by choosing Yes or No in the last column. You may also choose to exclude analog or digital points by clicking the buttons below.

Index	Alias	PI Tag
1	comD__sta_R118 Kelm_id_OSC trigger On	Leland_comD__sta_R118 Kelm_id_OSC trigger On
2	comD__sta_R118 Kelm_id_prot trip On	Leland_comD__sta_R118 Kelm_id_prot trip On
3	comD__sta_R118 Kelm_id_52a On	Leland_comD__sta_R118 Kelm_id_52a On
4	comD__sta_R118 Kelm_id_AR 1 CLOSE	Leland_comD__sta_R118 Kelm_id_AR 1 CLOSE
5	comD__sta_R118 Kelm_id_AR 1 RIP	Leland_comD__sta_R118 Kelm_id_AR 1 RIP
6	comD__sta_R118 Kelm_id_PROT TRIP IOn	Leland_comD__sta_R118 Kelm_id_PROT TRIP IOn
7	comD__sta_R118 Kelm_id_79x IOn	Leland_comD__sta_R118 Kelm_id_79x IOn
8	comD__sta_R118 Kelm_id_SETTING GROUP ACT 1	Leland_comD__sta_R118 Kelm_id_SETTING GROUP ACT 1
9	comD__sta_R118 Kelm_id_SETTING GROUP ACT 2	Leland_comD__sta_R118 Kelm_id_SETTING GROUP ACT 2
10	comD__sta_R118 Kelm_id_AR 1 LO	Leland_comD__sta_R118 Kelm_id_AR 1 LO
11	comD__sta_R118 Kelm_id_Off	Leland_comD__sta_R118 Kelm_id_Off
12	comD__sta_R118 Kelm_id_Off	Leland_comD__sta_R118 Kelm_id_Off
13	comD__sta_R118 Kelm_id_Off	Leland_comD__sta_R118 Kelm_id_Off
14	comD__sta_R118 Kelm_id_Off	Leland_comD__sta_R118 Kelm_id_Off
15	comD__sta_R118 Kelm_id_Off	Leland_comD__sta_R118 Kelm_id_Off
16	comD__sta_R118 Kelm_id_Off	Leland_comD__sta_R118 Kelm_id_Off

◀

▶

Disable Import for
Analog

Disable Import for
Digitals

☐ View Analog Information
☒ View Digital Information

Help

Cancel

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Finish

Configure Comtrade to Tags - Step 4 - Importing Comtrade Data into PI

The COMTRADE data may now be translated into the PI Data Archive.

Import Values

Status: Ready to import.

Help

Cancel

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Finish

SISCO's Comtrade Utility

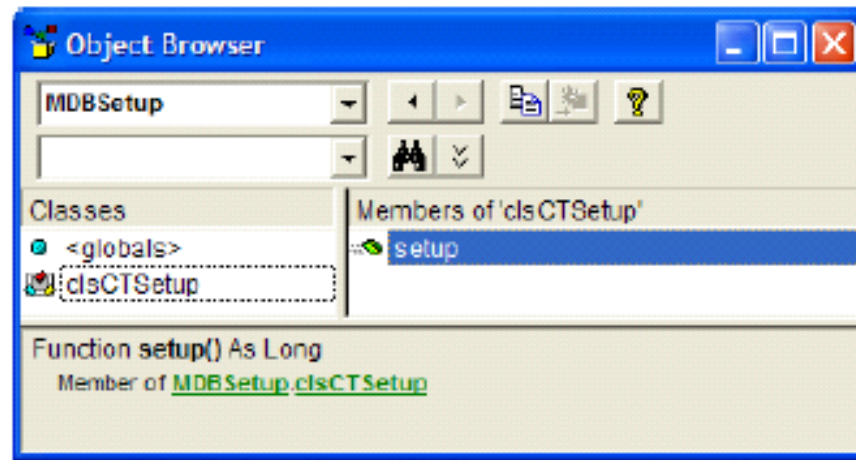
- Comtrade Utility API
- Set of ACTIVEX COM Objects
- Major Interface Functions
 - PIFileTransfer.dll
 - CTPITags.dll
 - MDBSetup.dll

SISCO's Comtrade Utility

- Comtrade Utility API
- Set of ACTIVEX COM Objects
- Major Interface Functions
 - PIFileTransfer.dll
 - CTPITags.dll
 - **MDBSetup.dll**

MDBSetup.dll

- Configures Module Database to Automatically Retrieve Comtrade Data



Auto Retrieval Setup: - Step 2 - Configure CONTRADE File Options

Automatic CONTRADE Retrieval

☐ Enable Remote Retrieval

☐ Create Tags/Aliases if Needed

☐ Delete Remote Files After Acquired

☐ Archive Files Automatically

☐ Delete Local Files After Processing

☐ Parse to Tags Automatically

Time Zone Offset:

Remote Acquisition Attributes

Protocol Selection:

☐ Anonymous Login

Remote Name:

FTP Username:

Remote Directory:

FTP Password:

Local Directory:

File Specification:

Test Settings

Help

Cancel

< Back

Next >

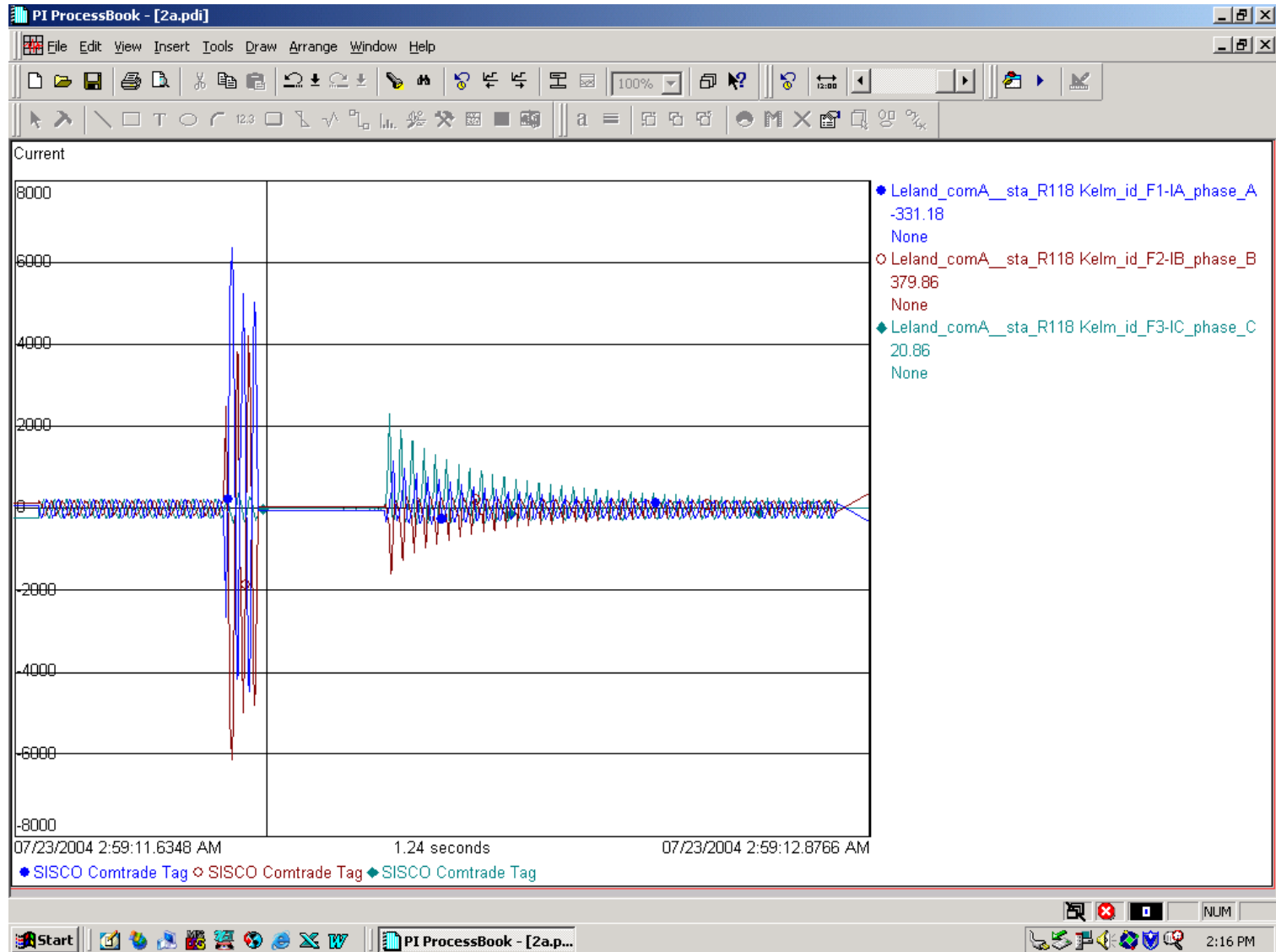
Finish

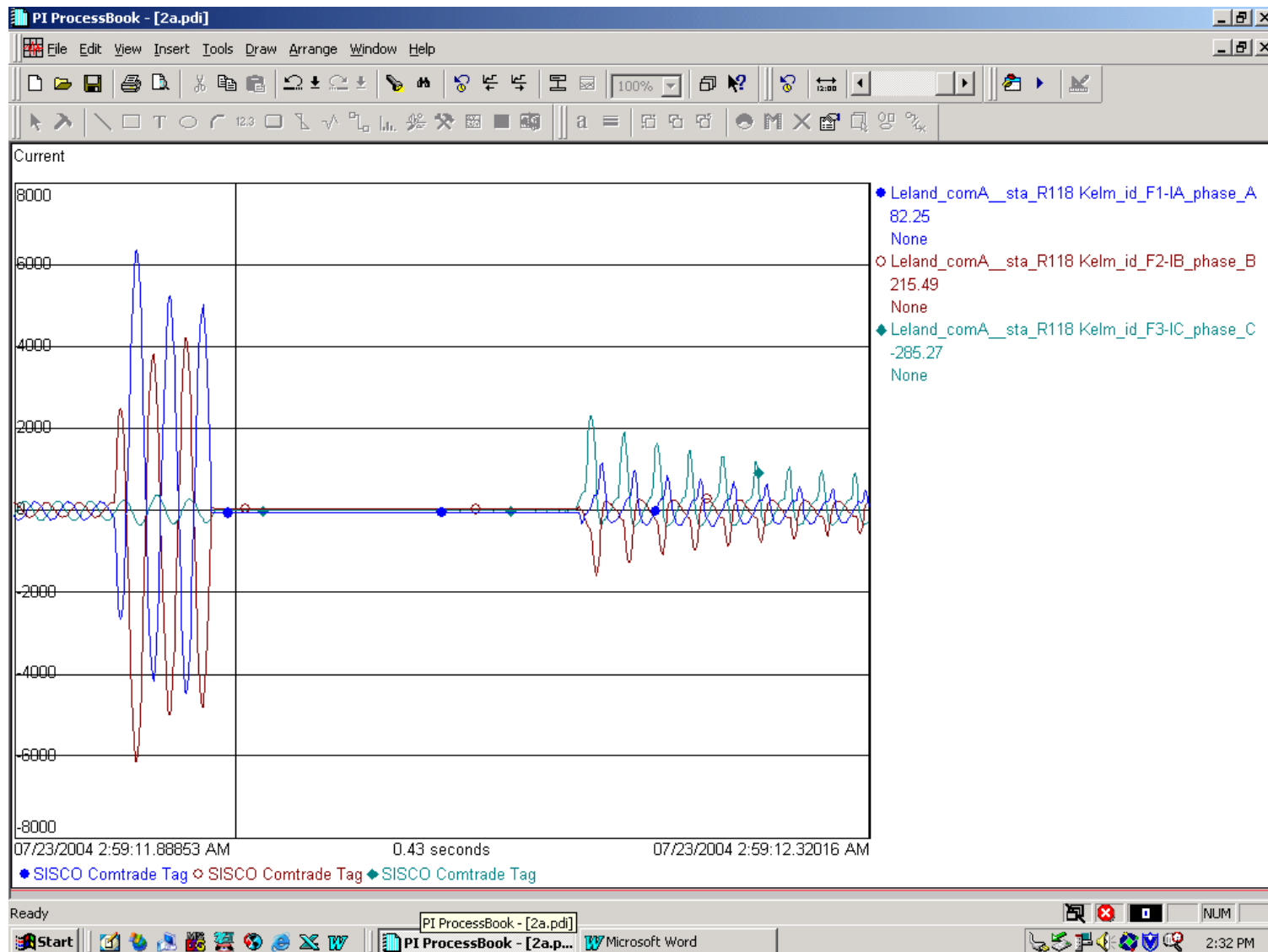
Outline

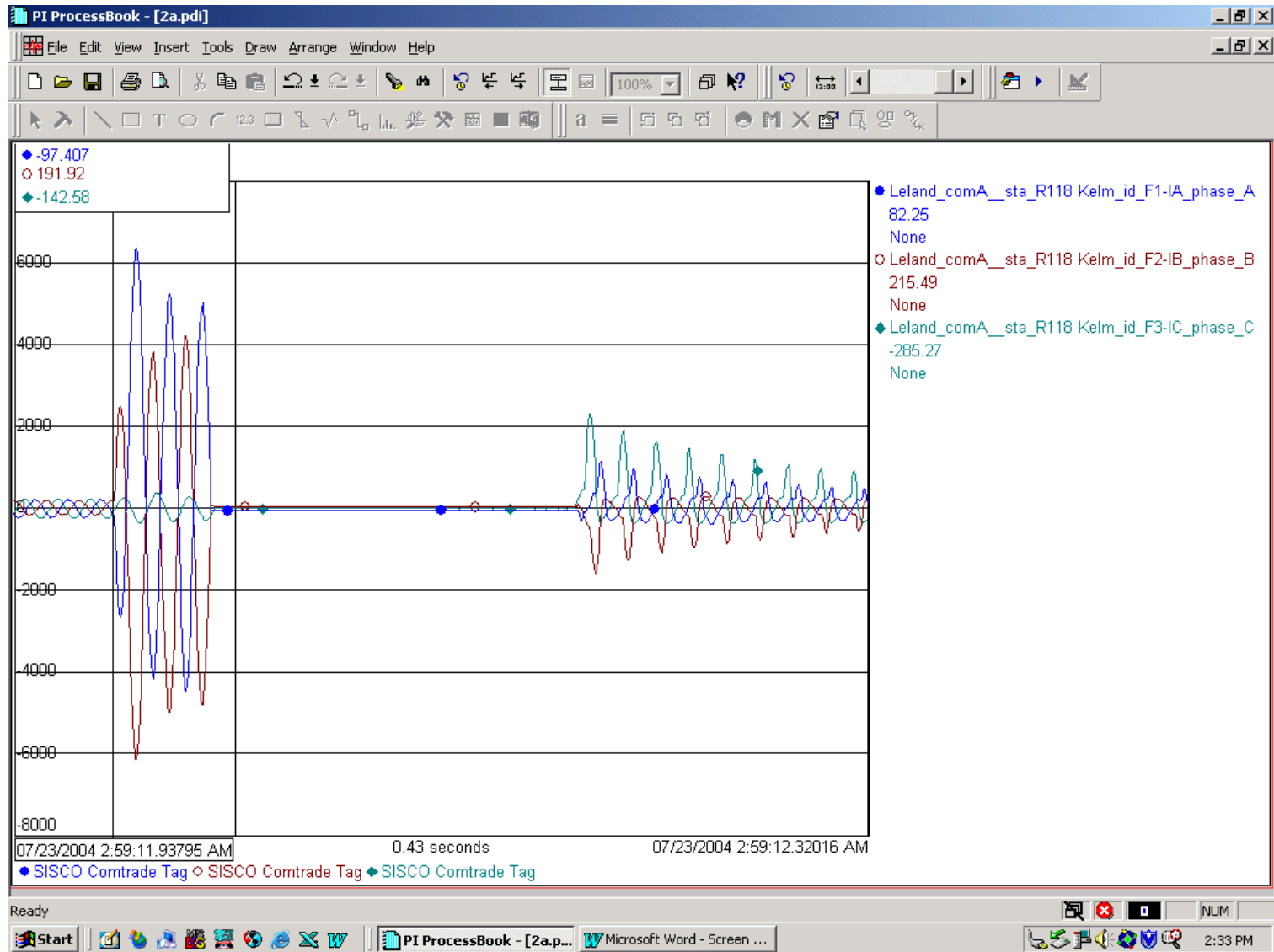
- Comtrade Files
- SISCO's Comtrade Utility
- Examples of Sub-Cycle Information
- 2005 Pilot Project

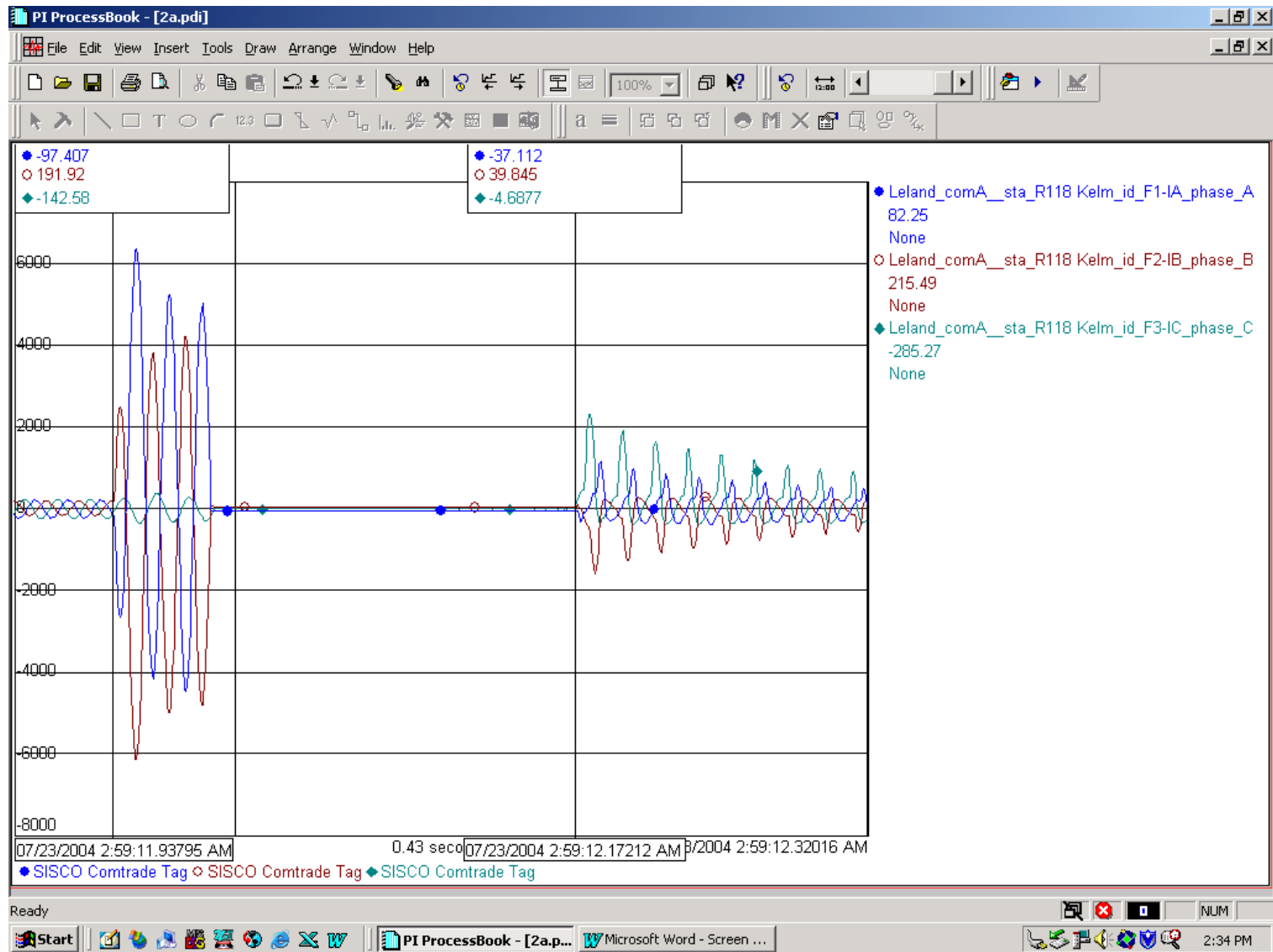
Outline

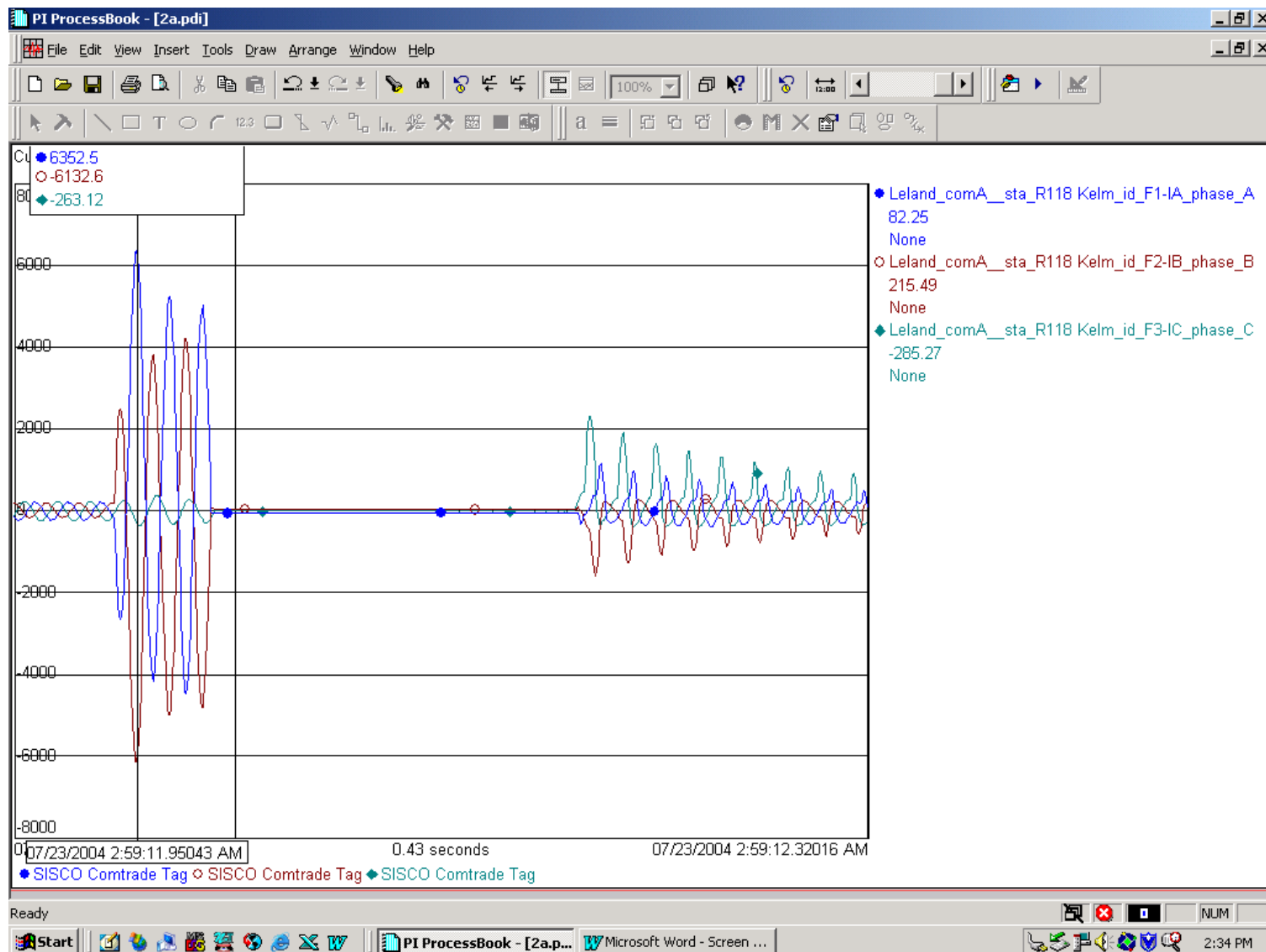
- Comtrade Files
- SISCO's Comtrade Utility
- **Examples of Sub-Cycle Information**
- 2005 Pilot Project

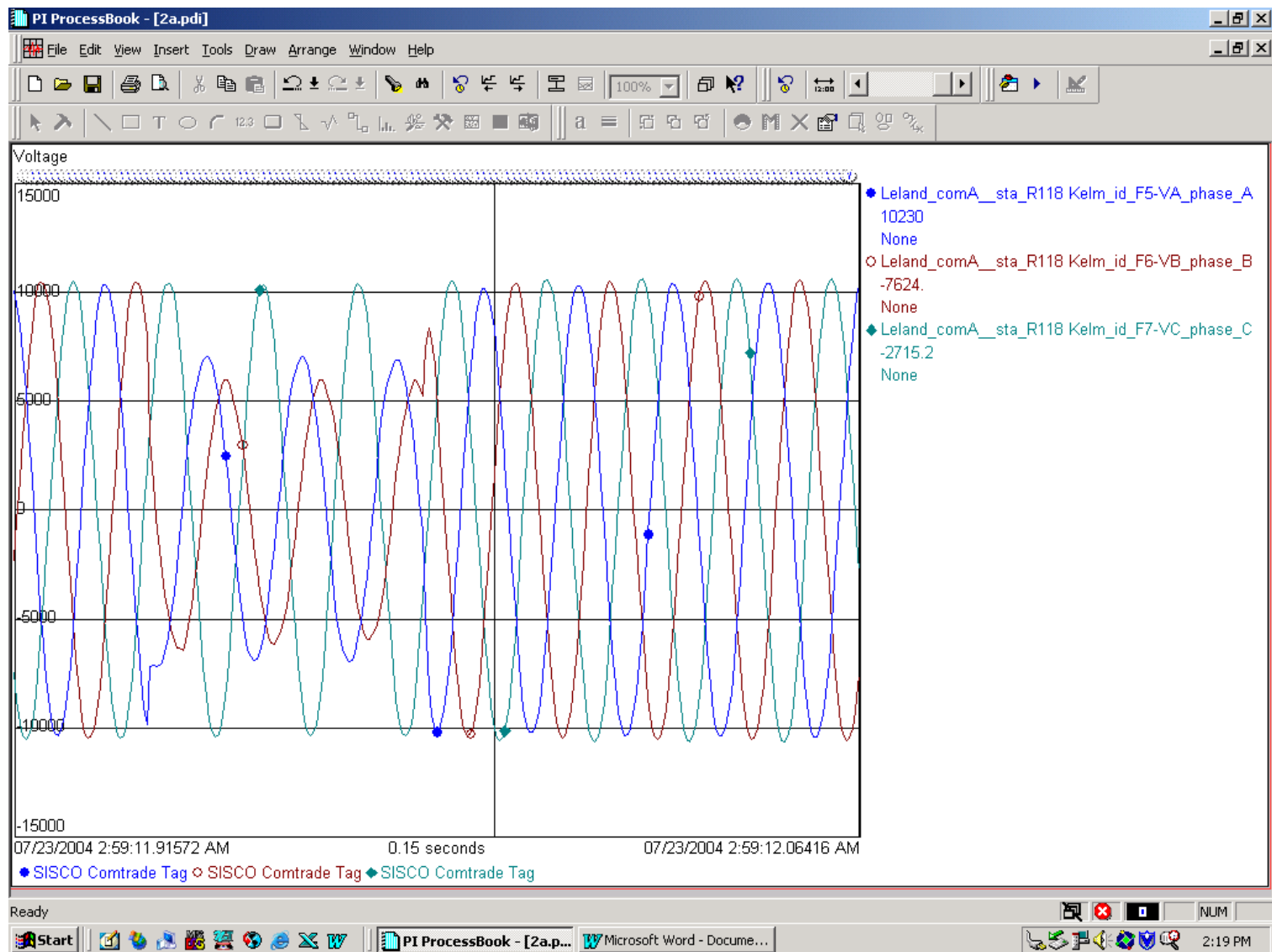


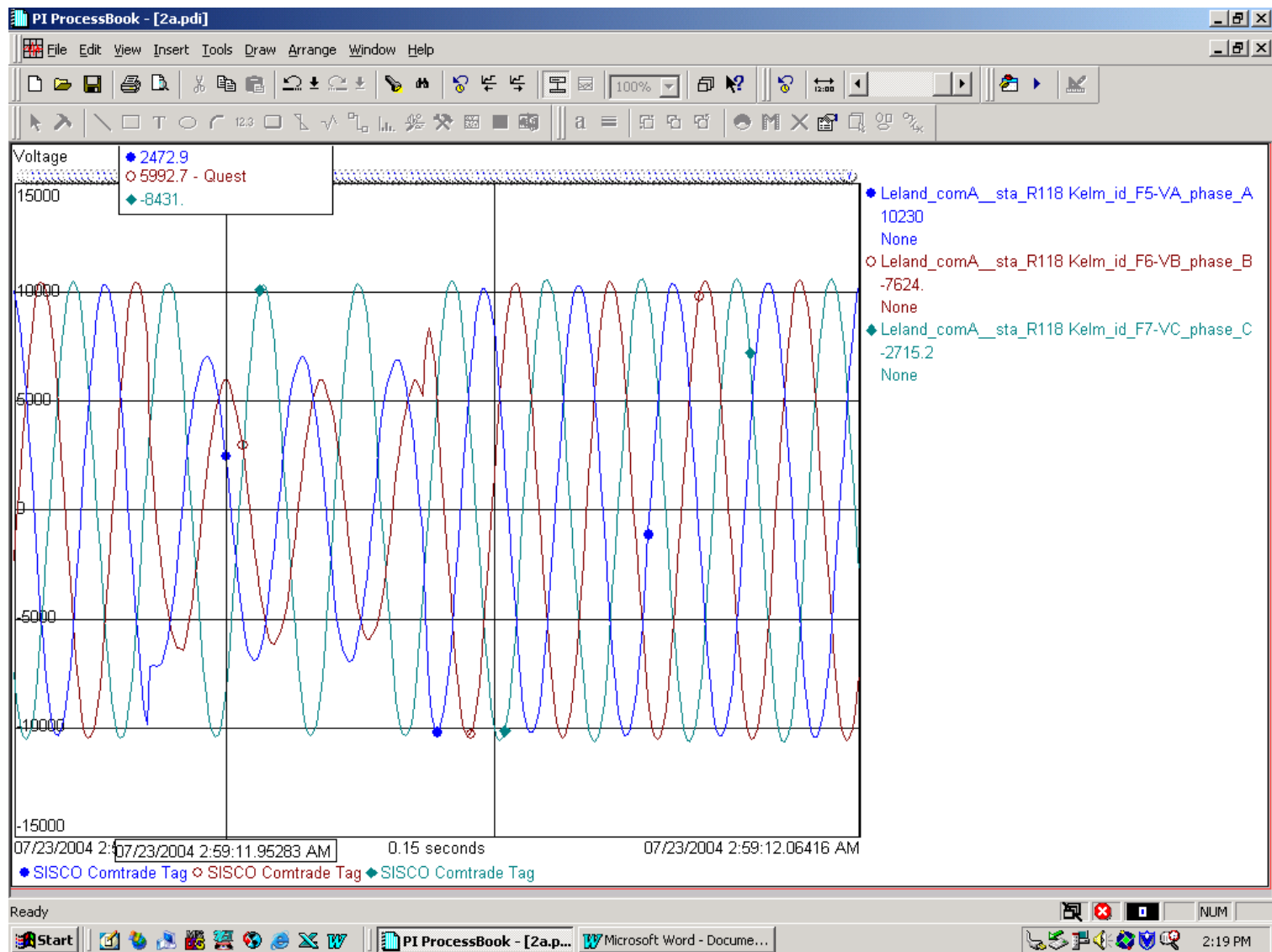


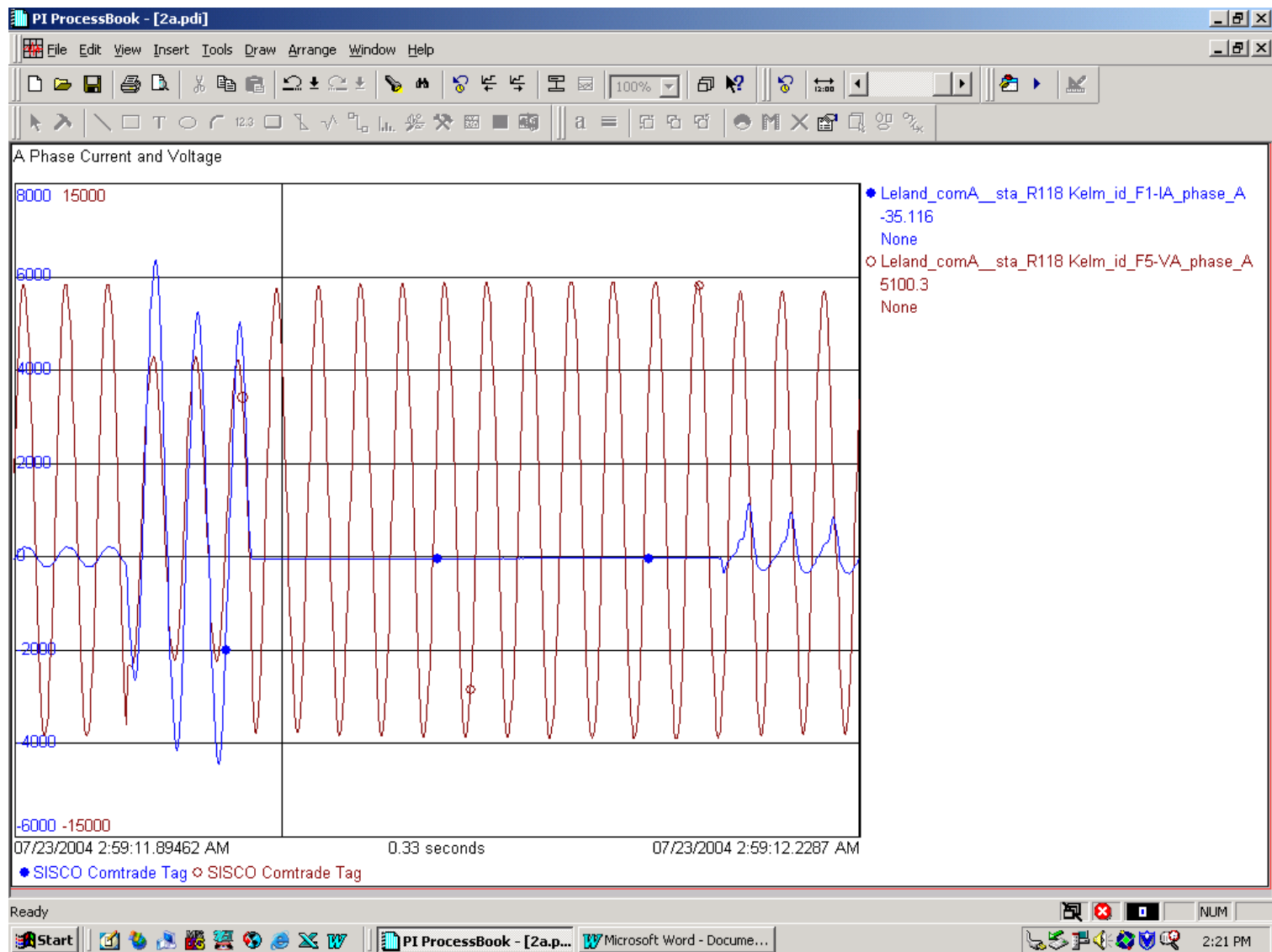


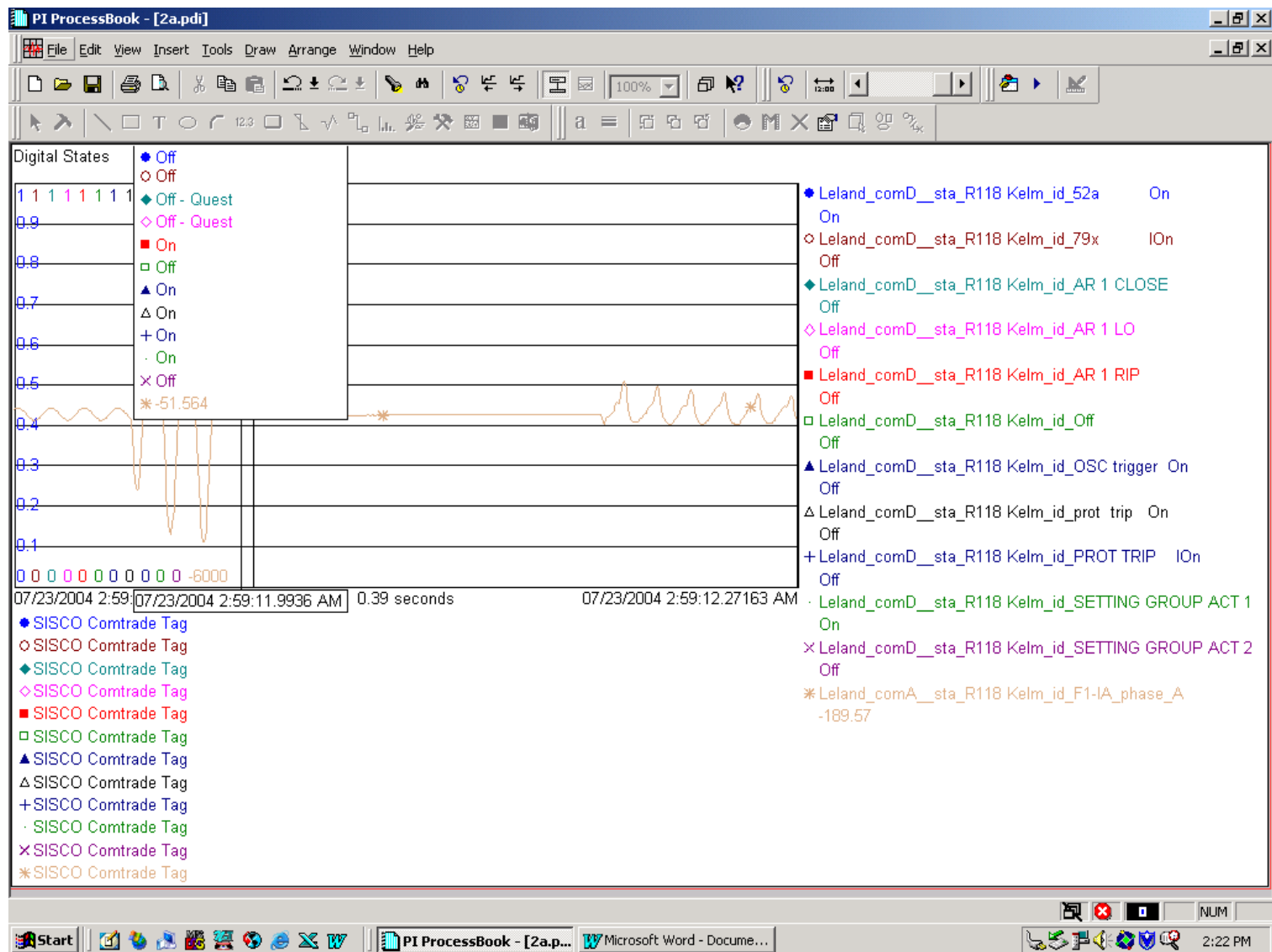


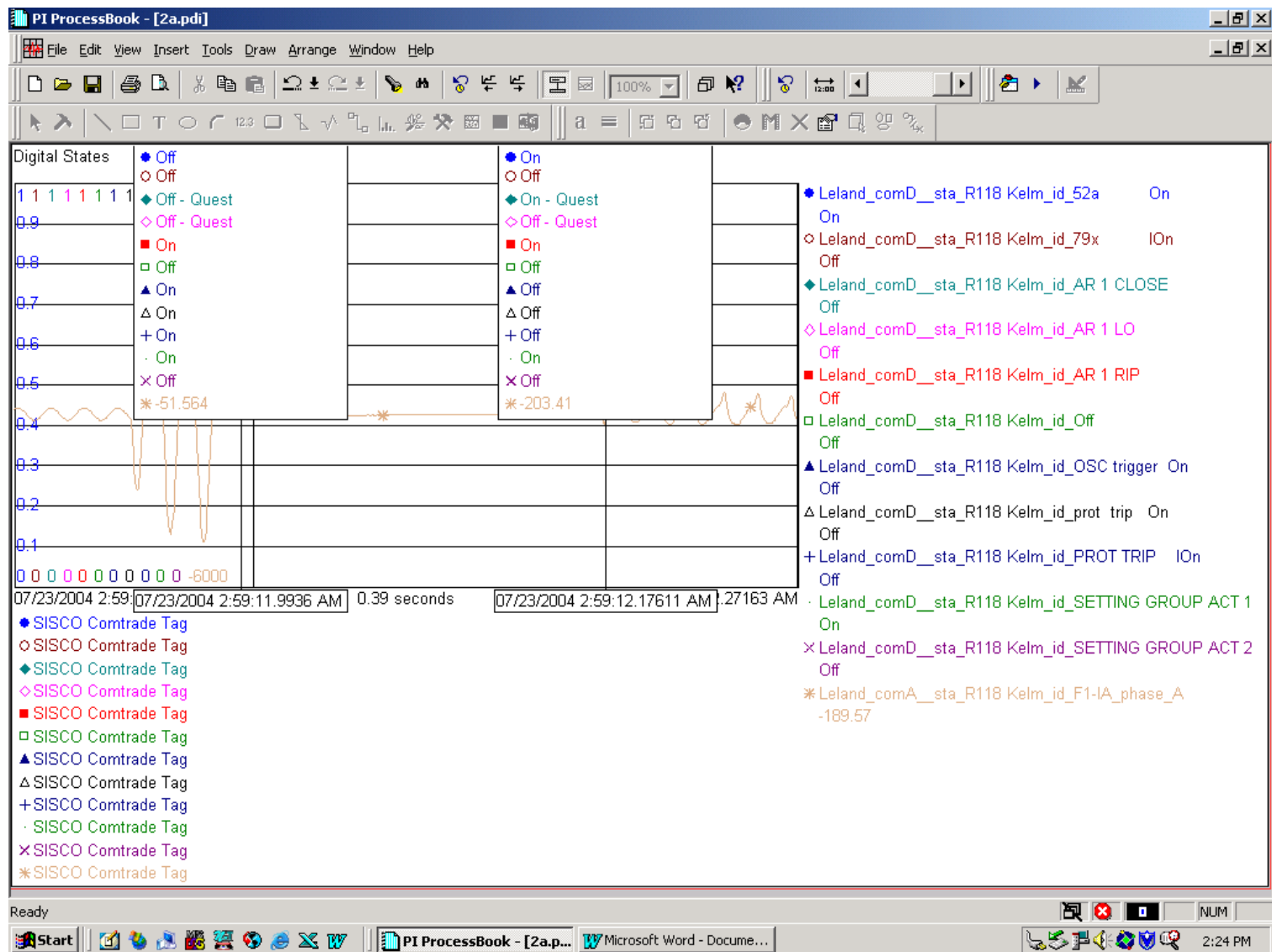












Outline

- Comtrade Files
- SISCO's Comtrade Utility
- Examples of Sub-Cycle Information
- 2005 Pilot Project

Outline

- Comtrade Files
- SISCO's Comtrade Utility
- Examples of Sub-Cycle Information
- **2005 Pilot Project**

Portland General Electric

Ray Payne