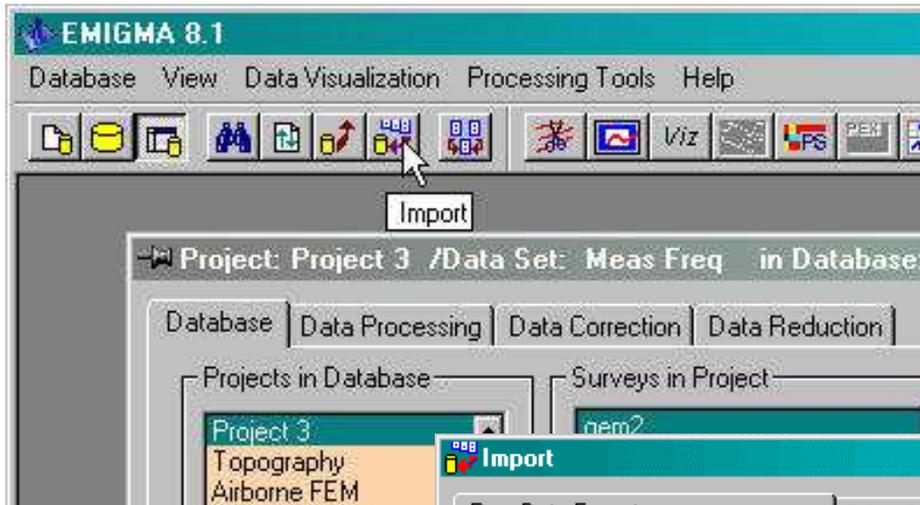
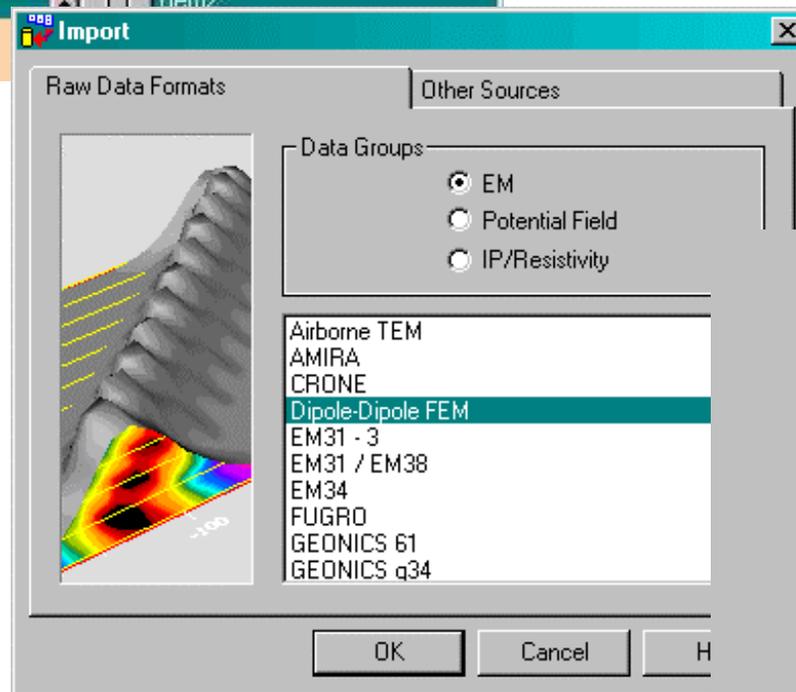


Gem2 Import



Begin Import



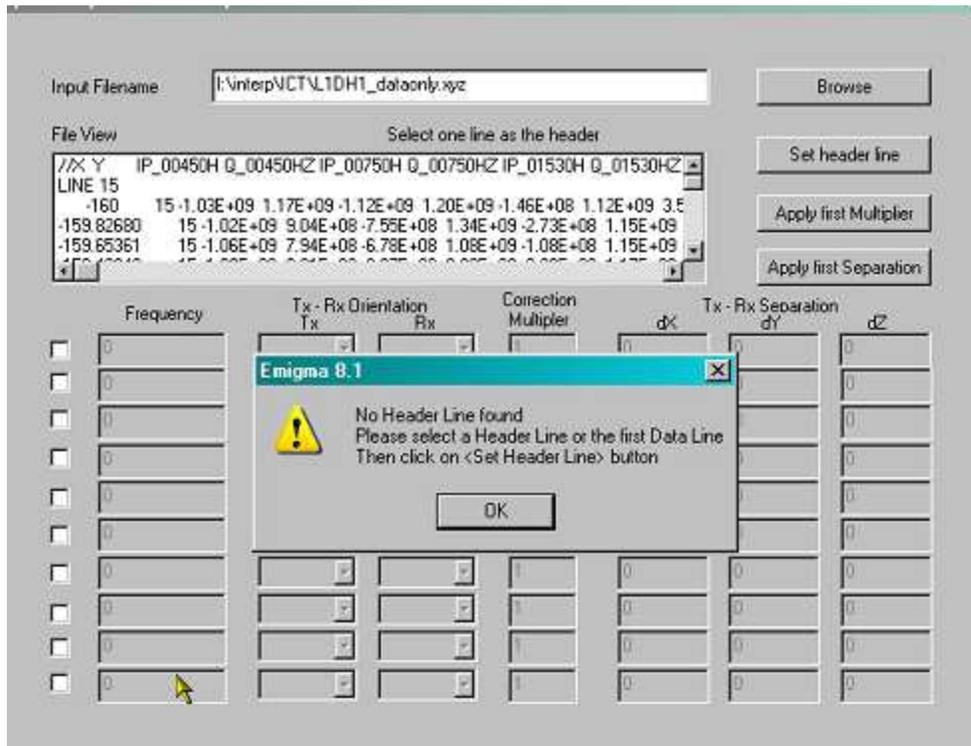
Select Generic
Dipole-dipole

following systems and go to the next step.

- Em34
- Em31/Em38
- EM31-3
- Max-Min
- Fugro
- AeroQuest
- Unknown

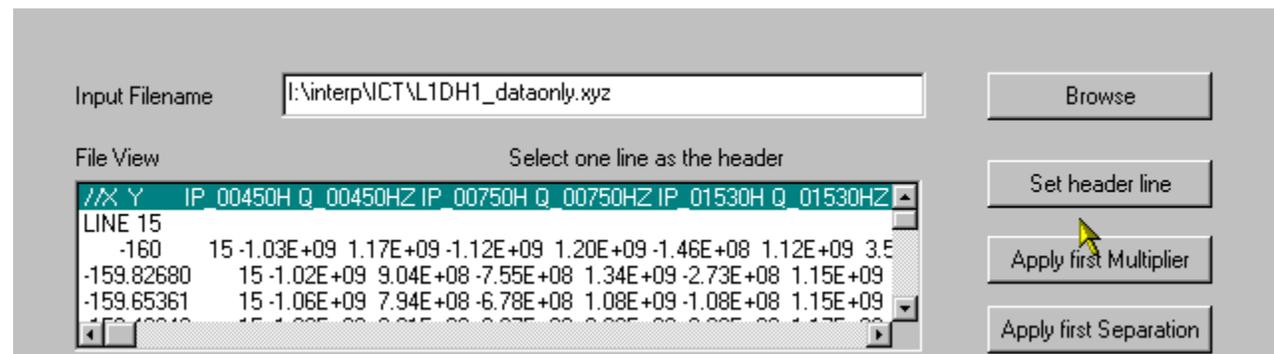
GEM2 System Name

Defining a header - 1



The header is not recognized, so select a suitable line to represent the columns

Now go to the set header section



Defining a header - 2

Now give labels that the software recognizes using these tools

Total number of columns: Number of columns without name:

-->Change header line -->

#	Column	Name
1	X	
2	Y	
3	IP_00450H	
4	Q_00450HZ	
5	IP_00750H	
6	Q_00750HZ	
7	IP_01530H	
8	Q_01530HZ	
9	IP_03510H	
10	Q_03510HZ	
11	IP_06450H	
12	Q_06450HZ	
13	IP_07530H	
14	Q_07530HZ	
15	IP_14310H	
16	Q_14310HZ	
17	IP_23010H	
18	Q_23010HZ	
19	IP_35010H	
20	Q_35010HZ	

1. Select column # in the List Box

2. Set column name by selecting the Column Mode and Frequency Mode for prefix setting and adding the frequency value into Value window. Then click on Apply to insert Column Label.

Column Mode: Own Label

Frequency Mode: Inphase Quadrature

Co-axial Horizontal Co-planar Vertical Co-planar

Apply Clear Label

Column Label: Prefix Value Separations

Note: If Column unknown or not needed leave "Name" blank

Cancel Insert Header Line Into File and Continue...

Defining a header - 3

Total number of columns: Number of columns without name:

-->Change header line -->

#	Column	Name
1	X	GRID_X
2	Y	
3	IP_00450H	
4	Q_00450HZ	
5	IP_00750H	
6	Q_00750HZ	
7	IP_01530H	
8	Q_01530HZ	
9	IP_03510H	
10	Q_03510HZ	
11	IP_06450H	
12	Q_06450HZ	
13	IP_07530H	
14	Q_07530HZ	
15	IP_14310H	
16	Q_14310HZ	
17	IP_23010H	
18	Q_23010HZ	
19	IP_35010H	
20	Q_35010HZ	

1. Select column # in the List Box

2. Set column name by selecting the Column Mode and Frequency Mode for prefix setting and adding the frequency value into Value window. Then click on Apply to insert Column Label.

Column Mode: Grid Y Own Label

Frequency Mode: Inphase Quadrature

Co-axial Horizontal Co-planar Vertical Co-planar

Column Label: Prefix: Value: Separations:

Note: If Column unknown or not needed leave "Name" blank

Associate the column with an item from the list

Then apply

Defining a header - 4

-->Change header line -->

#	Column	Name
1	X	GRID_X
2	Y	GRID_Y
3	IP_00450H	CPI450
4	Q_00450HZ	
5	IP_00750H	
6	Q_00750HZ	
7	IP_01530H	
8	Q_01530HZ	
9	IP_03510H	
10	Q_03510HZ	
11	IP_06450H	
12	Q_06450HZ	
13	IP_07530H	
14	Q_07530HZ	
15	IP_14310H	
16	Q_14310HZ	
17	IP_23010H	
18	Q_23010HZ	
19	IP_35010H	
20	Q_35010HZ	

1. Select column # in the List Box

Column

2. Set column name by selecting the Column Mode and Frequency Mode for prefix setting and adding the frequency value into Value window. Then click on Apply to insert Column Label.

Column Mode

Frequency Data

Own Label

Frequency Mode

Inphase

Quadrature

Co-axial

Horizontal Co-planar

Vertical Co-planar

Apply

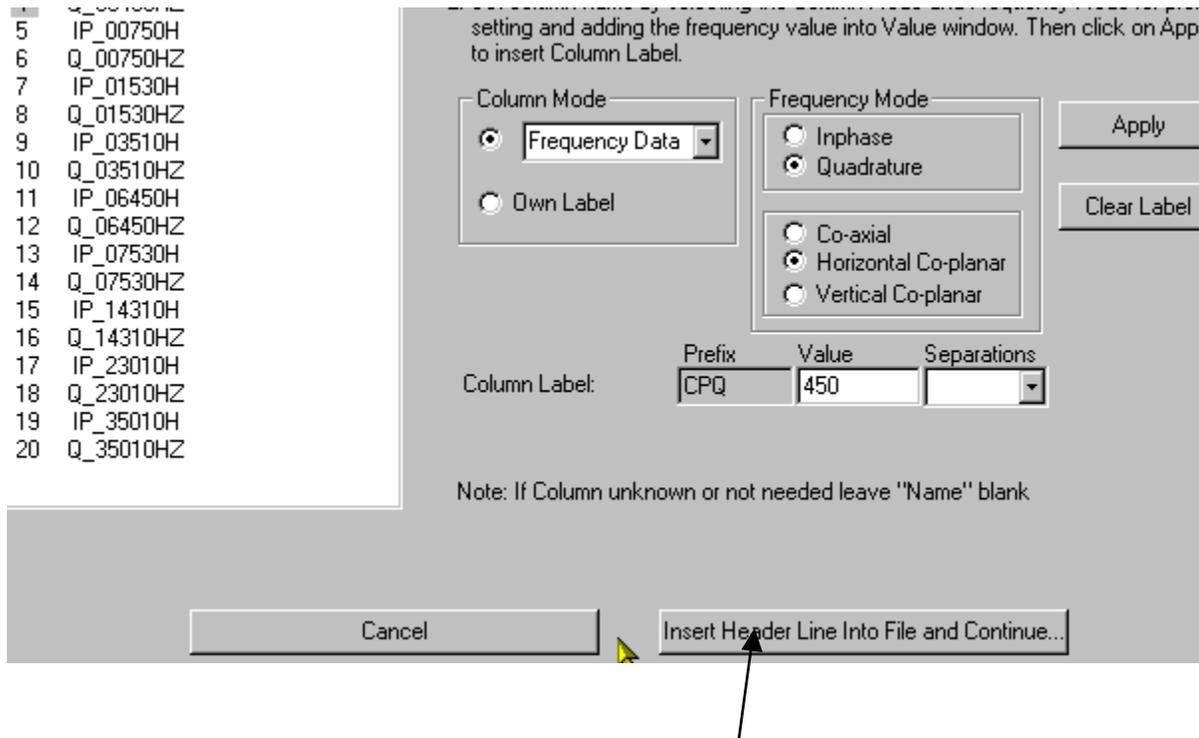
Clear Label

Column Label: Prefix Value Separations

Column 4 is Frequency data, Quadrature, Horizontal Coplanar and 450Hz

Do the same for all columns that you wish to import.

Defining a header - 5



When all is labelled then *Insert Header Line into File and Continue*

This places a recognizable header line into the file and saves a new file. You may in future cut and paste the header line into any data file so long as the columns are in the same order.

Specifying system geometry

Input Filename: I:\interp\NCT\L1DH1_dataonly_head.xyz

File View: Select one line as the header

```
// GRID X GRID Y CPI450 CPQ450 CPI750 CPQ750 CPI1530 CPQ1530  
//X Y IP_00450H Q_00450HZ IP_00750H Q_00750HZ IP_01530H Q_01530HZ  
LINE 15  
-160 15 -1.03E+09 1.17E+09 -1.12E+09 1.20E+09 -1.46E+08 1.12E+09 3.5  
-159.82680 15 -1.02E+09 9.04E+08 -7.55E+08 1.34E+09 -2.73E+08 1.15E+09
```

	Frequency	Tx - Rx Orientation		Correction Multiplier	dX	Tx - Rx Separation	
		Tx	Rx			dY	dZ
<input checked="" type="checkbox"/>	450	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	750	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	1530	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	3510	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	6450	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	7530	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	14310	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	23010	Z	Z	1	1.7	0	0
<input checked="" type="checkbox"/>	35010	Z	Z	1	1.7	0	0
<input type="checkbox"/>	0			1	0	0	0

If the dipoles are vertical then use Z otherwise Y (you will have to read the manuals to understand why). You must also set the separation.

Again the manual explains geophysical coordinate systems.

Please refer to refer to 'FDEM_manual.pdf' for no Z-Z or horizontal coplanar configurations such as vertical coplanar inline or broadside.

Confirm settings

File Header View: Select the suitable line to define data format

```
// GRID X GRID_Y CPI450 CPQ450 CPI750 CPQ750 CPI1530 CPQ1530 CP
//X Y IP_00450H Q_00450HZ IP_00750H Q_00750HZ IP_01530H Q_01530HZ IP
LINE 15
-160 15 -1.03E+09 1.17E+09 -1.12E+09 1.20E+09 -1.46E+08 1.12E+09 3.561
-159.82680 15 -1.02E+09 9.04E+08 -7.55E+08 1.34E+09 -2.73E+08 1.15E+09 3.
```

Profile Identification string (case insensitive) is used to indicate the start of a new profile

LINE

Line Label

Location (column#, name)

UTM Lat/Lon

X 1 GRID_X

Y 2 GRID_Y

Z & GPS Z

Z

0 dZ: alt -- bird

1 default

Unit meter feet

GPS Z

0 dZ: instrument --

Fiducial

FII

Frequency	Column#	Frequency	Column#, name	Frequency	
<input checked="" type="checkbox"/> F-1, Inphase	3 CPI450	450	<input checked="" type="checkbox"/> F-6, Inphase	13 CPI7530	7530
<input checked="" type="checkbox"/> F-1, Quadra.	4 CPQ450		<input checked="" type="checkbox"/> F-6, Quadra.	14 CPQ7530	
<input checked="" type="checkbox"/> F-2, Inphase	5 CPI750	750	<input checked="" type="checkbox"/> F-7, Inphase	15 CPI1431C	14310
<input checked="" type="checkbox"/> F-2, Quadra.	6 CPQ750		<input checked="" type="checkbox"/> F-7, Quadra.	16 CPQ1431	
<input checked="" type="checkbox"/> F-3, Inphase	7 CPI1530	1530	<input checked="" type="checkbox"/> F-8, Inphase	17 CPI2301C	23010
<input checked="" type="checkbox"/> F-3, Quadra.	8 CPQ1530		<input checked="" type="checkbox"/> F-8, Quadra.	18 CPQ2301	
<input checked="" type="checkbox"/> F-4, Inphase	9 CPI3510	3510	<input checked="" type="checkbox"/> F-9, Inphase	19 CPI3501C	35010
<input checked="" type="checkbox"/> F-4, Quadra.	10 CPQ3510		<input checked="" type="checkbox"/> F-9, Quadra.	20 CPQ3501	
<input checked="" type="checkbox"/> F-5, Inphase	11 CPI6450	6450	<input type="checkbox"/> F-10, Inphase		
<input checked="" type="checkbox"/> F-5, Quadra.	12 CPQ6450		<input type="checkbox"/> F-10, Quadra.		

Units (Inphase) Percent PPT PPM

Units (Quadrature) Percent PPT PPM mS/m

Check that height above ground is set correctly and also that the columns are recognized correctly. Also, data units in input file.

Import data to database

System Parameters

Survey Type: Moving Tx -- Moving Rx

Coordinate Systems: Horizontal

Separation Reference Point: Center

Normalization Type: Continuous

Normalization Divisor: Inphase

Normalization Convention: Percent

Project Name

Import to the Database

Messages:

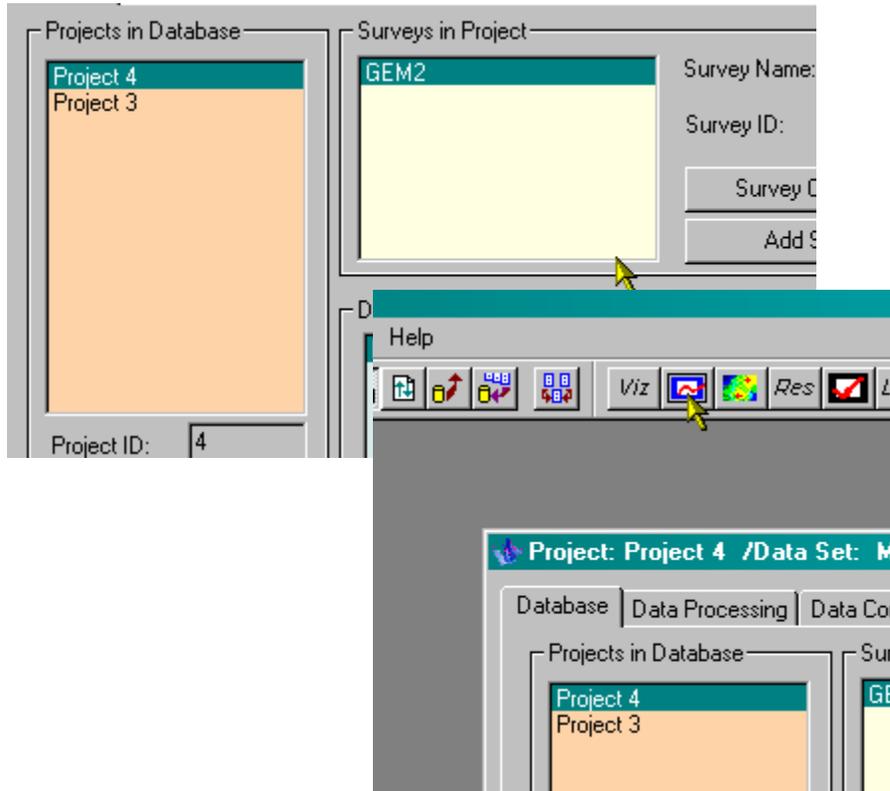
Run Import

Where is the data referenced to? Tx, Rx or Center.

Recommend reducing ground data to percent for analyses

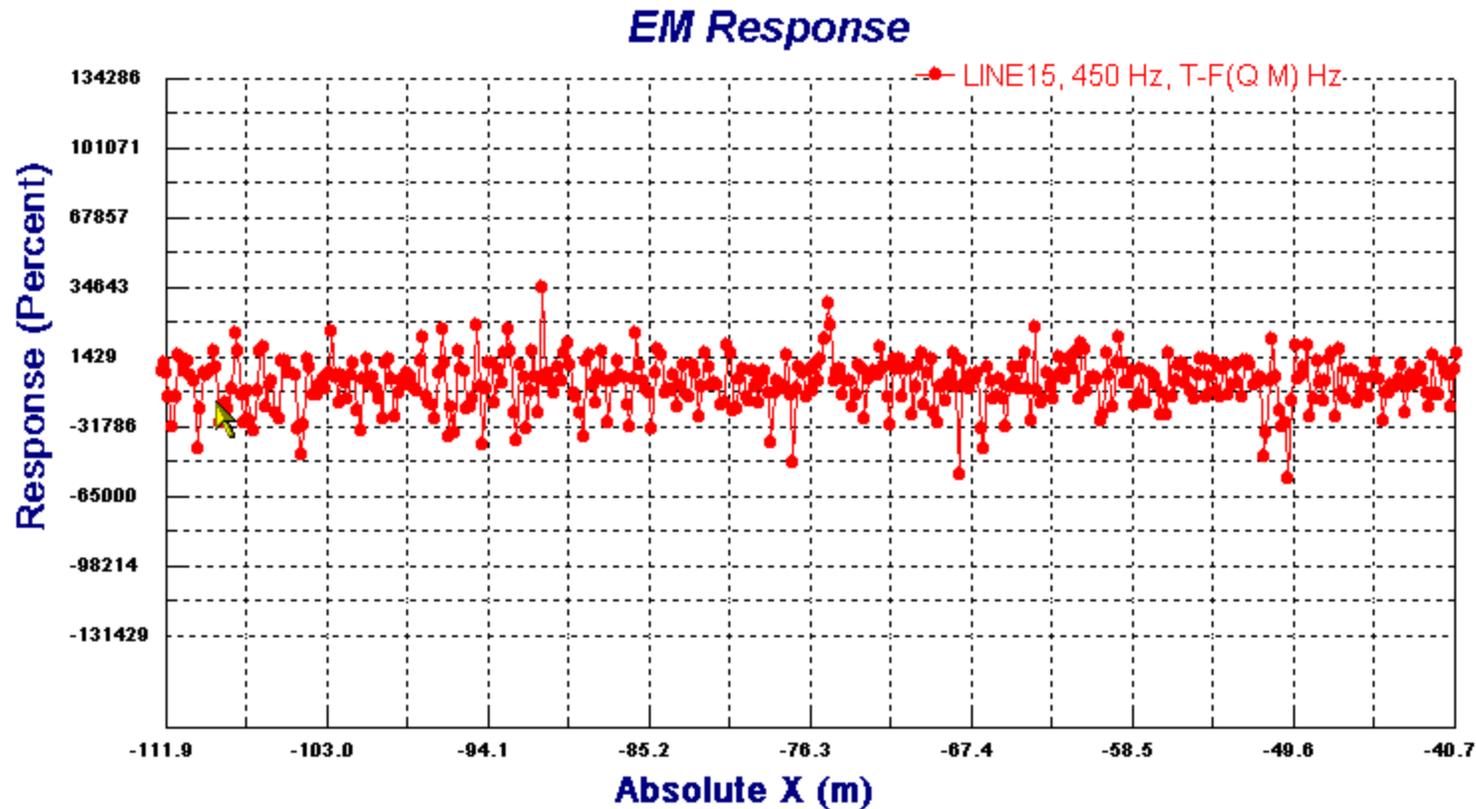
Run import to complete.

Viewing data - 1



For plotting.. but you should read the V8.1 Tutorial in the Tutorials directory

Viewing data - 2



This is the low frequency quadrature in the centre of the profile
Basic physics tells us that generally speaking the maximum quadrature response is +/- 100%. So what is this all about?