

SeaSonde 10
Pattern File formats
Mar 22, 2004

<u>IdealPattern.txt</u>	Ideal antenna pattern
<u>MeasPattern.txt</u>	Calibrated antenna pattern

These files are text based and require a linefeed character (ASCII 10) as an end-of-line indicator. The SeaSonde10 processing software will not be able to correctly read the file if it the end-of-line is some other character(s) like a return or return/linefeed combination.

For previous SeaSonde4 OS9 release, these files where named differently and required a return character (ASCII 13) as an end-of-line character.

<u>SeaSonde10</u>	<u>SeaSonde4 (OS9)</u>
IdealPattern.txt	PattIdeal.sav
MeasPattern.txt	Patt.sav

A five degree **IdealPattern.txt** is included, by the SeaSonde10 install, in the “/Codar/SeaSonde/Configs/DefaultConfigs/RadialConfigsStandard” folder. **IdealPattern.txt** and **MeasPattern.txt** files can be created by the **CrossLoopPatterner** application. In order to create a **MeasPattern.txt** you will need to measure the antennas; see the HW6_Antenna_Pattern_Measure hardware guide.

These files define the antenna pattern. **IdealPattern.txt** is a theoretical ideal pattern. **MeasPattern.txt** is a Radial Site specific measured pattern. Both have the same format but are used slightly different by the SpectraToRadial processing software.

Each file is text based and requires a linefeed character (ASCII 10) as an end-of-line indicator.

The pattern bearings are CCW (counter-clockwise) degrees referenced from the antenna bearing. The antenna bearing is found in Header.txt and is (CW) clockwise degrees from true North. See the File_RadialSetups guide.

The Quality factor is a standard deviation of the measurements that went into the pattern value. The Quality factor is currently not used by the processing software.

Pattern file contents:

Line 1: Parameter 1: *Number of Bearings*

Starting with Line 2:

Bearings Array

Repeat for 1 to *Number of Bearings*

Bearing Degrees CCW relative to antenna bearing (up to 6 values per line)

Loop1to3 Real Component Array

Repeat for 1 to *Number of Bearings*

Measurement (up to 6 values per line)

Loop1to3 Real Component Quality Factor Array

Repeat for 1 to *Number of Bearings*

QualityFactor (up to 6 values per line)

Loop1to3 Imaginary Component Array

Repeat for 1 to *Number of Bearings*

Measurement (up to 6 values per line)

Loop1to3 Imaginary Component Quality Factor Array

Repeat for 1 to *Number of Bearings*

QualityFactor (up to 6 values per line)

Loop2to3 Real Component Array

Repeat for 1 to *Number of Bearings*

Measurement (up to 6 values per line)

Loop2to3 Real Component Quality Factor Array

Repeat for 1 to *Number of Bearings*

QualityFactor (up to 6 values per line)

Loop2to3 Imaginary Component Array

Repeat for 1 to *Number of Bearings*

Measurement (up to 6 values per line)

Loop2to3 Imaginary Component Quality Factor Array

Repeat for 1 to *Number of Bearings*

QualityFactor (up to 6 values per line)

End File