How to export radiation patterns from AN-SOF to the Radio Mobile software

AN-SOF allows us to export radiation patterns to a ***.ant** file which can then be imported into the Radio Mobile (RM) propagation software. The antenna pattern files recognized by RM are described here,

http://www.g3tvu.co.uk/Antenna_Plots.htm

The versions **1 (azimuth)** and **3 (azimuth and elevation)** that are described in the link above are implemented in AN-SOF.

Exporting an Azimuth Pattern

1. After computing the far-field of an antenna model, go to the AN-SOF main menu > Results > Plot Far-Field Pattern > **Polar Plot 1 Slice** or click on the Polar Plot 1 Slice icon on the main toolbar.

2. Choose a **horizontal slice (Fixed Theta)** in the displayed window. The most commonly used horizontal pattern is theta = 90 degrees, which corresponds to the xy-plane.
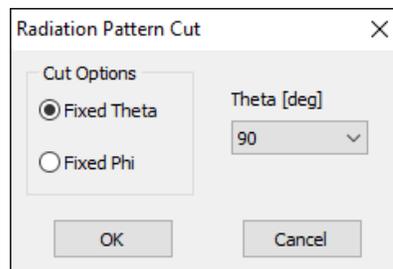

3. The radiation pattern will be shown in **AN-Polar**. In the AN-Polar window, go to File > **Export**.
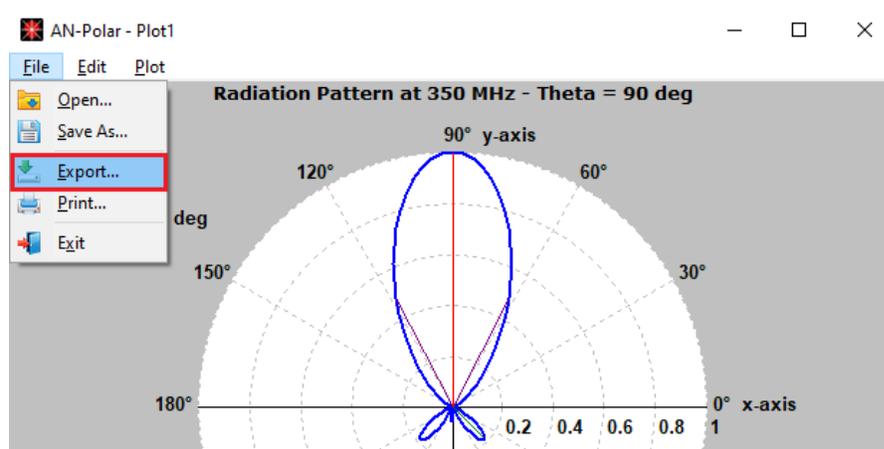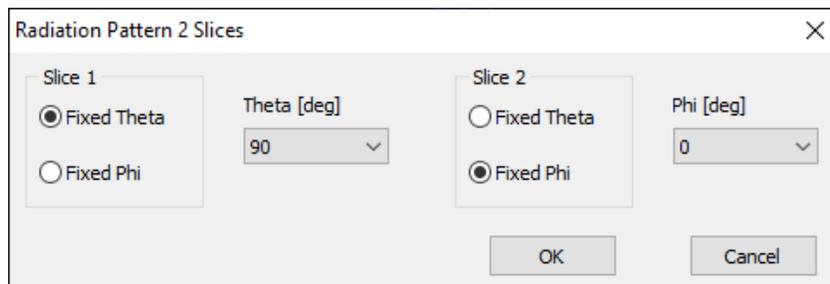
4. The Export File window will be displayed where a folder can be chosen to save the exported file. Write a file name and select **ANT Files (*.ant)** in the "Save as type" field.
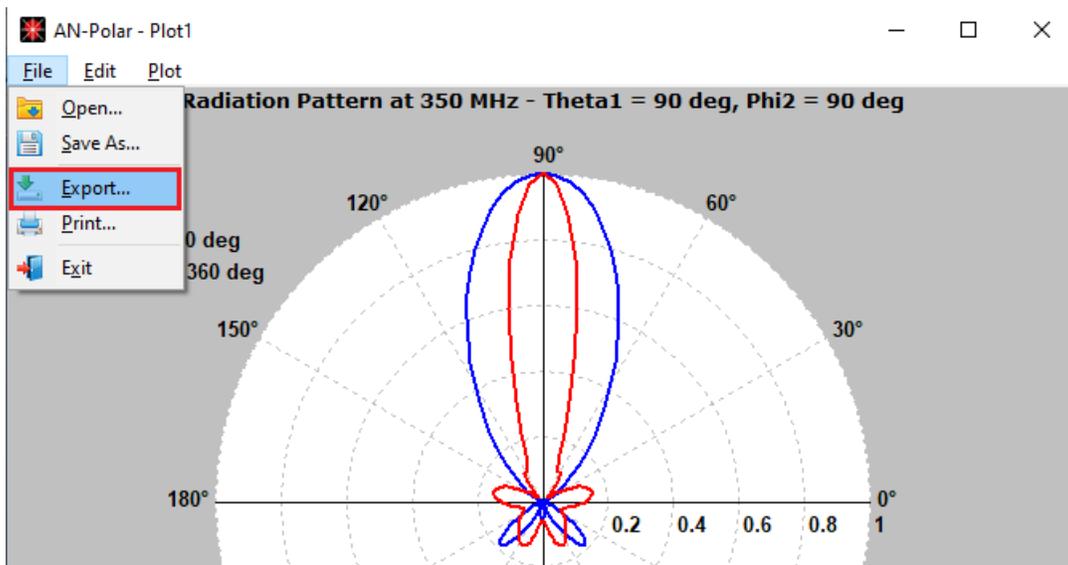
Exporting Azimuth and Elevation Patterns

1. The far-field of an antenna model must be computed previously using the **Full 3D** option in the Far-Field panel of the Configure tabsheet. Don't worry about the Theta and Phi steps (increments), since the radiation pattern will be exported as expected by RM, at 1 degree increments, by applying interpolation.
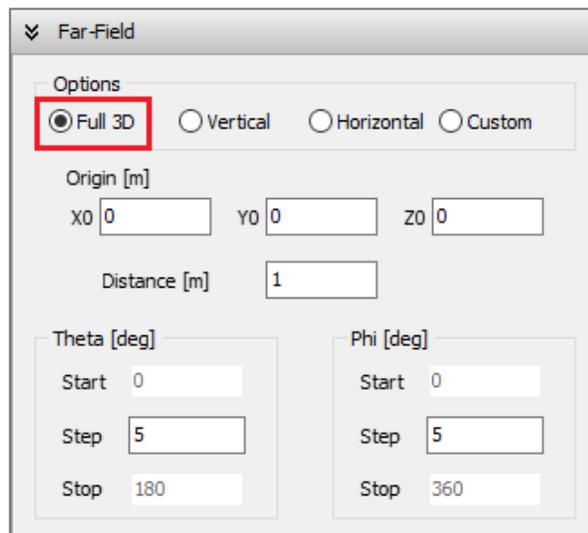
2. After computing the far-field, go to the AN-SOF main menu > Results > Plot Far-Field Pattern > **Polar Plot 2 Slices** or click on the Polar Plot 2 Slices icon on the main toolbar.

3. Choose a **horizontal slice (Fixed Theta) for Slice 1** and a **vertical slice (Fixed Phi) for Slice 2** in the displayed window. The most commonly used horizontal pattern is theta = 90 degrees (xy-plane), while the vertical pattern depends on the main beam orientation. For a main beam pointing towards the x-axis, choose Fixed Phi = 0 as Slice 2. For a main beam pointing towards the y-axis, choose Fixed Phi = 90 degrees as Slice 2.

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4. The radiation patterns for the horizontal and vertical slices will be shown in **AN-Polar**. In the AN-Polar window, go to File > **Export**.

5. The Export File window will be displayed where a folder can be chosen to save the exported file. Write a file name and select **ANT Files (*.ant)** in the "Save as type" field.