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Guide to SonnetLab Examples

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Guide to Examples

The SonnetLab toolbox for Matlab (from here on called SonnetLab**)** ships with a folder containing a few examples of what can be done using SonnetLab. An explanation of what these demonstration scripts do is provided below:

Antenna Array
```
  This example will plot the antenna pattern for a series of patch antenna designs
  with varying amounts of separation between patches.
       Written by: Bashir Souid
```

AntennaDemo A demo of Matlab modifying and simulating a project
```
  This function is a demonstration of an realistic use
  for the ability to run SONNET from MATLAB.

  This example will build a Sonnet Project in the form
  of a patch antenna and remove metal patches from it in
  order to get a very high -3dB bandwidth.
       Written by: Bashir Souid
```

SonnetBanner
```
  SonnetBanner will make a Sonnet Geometry project
  circuit that will spell out a string using metal polygons
       Written by: Bashir Souid
```

BeginnerDemo This is an introductory demo of SonnetLab
```
  This is a very simple demo of how Sonnet projects can be
  built and simulated using Matlab.
       Written by: Bashir Souid
```

BranchlineCoupler This is a project decompiler example
```
  This tutorial provides a hands on demonstration of the SonnetLab project
  decompiler. The Sonnet project decompiler will read an existing Sonnet project from
  the hard drive and generate a list of SonnetLab compatible Matlab commands that can
  be used to create a default Sonnet project file that matches the passed project.
  This example will generate a Matlab script that, when run, will create a Sonnet
  project file on the hard drive matching the passed Sonnet project file.
       Written by: Bashir Souid
```

CircularSpiralBuilder This is an introductory demo of SonnetLab
```
  This function will build a Sonnet project with an
  n turn spiral inductor.
       Written by: Bashir Souid
```

Cross Section Plot
```
  This example will plot JX and JY data for a project at a
  location specified by the user.
       Written by: Bashir Souid
```

Farfield Data Export and Plot This is an introductory demo of Pattern tools
```
  This simple example will open a Sonnet project file with SonnetLab,
  export the farfield pattern data to an output file (the project
```

is automatically simulated if necessary) and will produce a 3D
plot of the pattern data at 2.4 GHz.
Written by: Bashir Souid

Interdigitated Filter This is a project decompiler example
This tutorial provides a hands on demonstration of the SonnetLab project
decompiler. The Sonnet project decompiler will read an existing Sonnet project from
the hard drive and generate a list of SonnetLab compatible Matlab commands that can
be used to create a default Sonnet project file that matches the passed project.
This example will generate a Matlab script that, when run, will create a Sonnet
project file on the hard drive matching the passed Sonnet project file.
Written by: Bashir Souid

JXY Beginner Demo
This example demonstrates various JXY export options. This is
intended to be an introductory tutorial.
Written by: Bashir Souid

LayerDemo A demo of Matlab modifying and simulating a project
This function is a demonstration of an realistic use
for the ability to run SONNET from MATLAB.

This function will read in a Sonnet Project representing
an antenna. This antenna will be made of many
square metals in a grid. This function will modify the
level that individual patches of the antenna reside on.
Written by: Bashir Souid

CircularSpiralBuilder This is an introductory demo of SonnetLab
This function will build a Sonnet project with an
n turn spiral inductor.
Written by: Bashir Souid

Yield Analysis This is an introductory demo of SonnetLab
This script demonstrates how SonnetLab can be used for tolerance analysis.
The proposed approach utilizes a combination of high accuracy em
simulations along with interpolated data from many Monte Carlo method
derived samples over the variable tolerance ranges.
Written by: Bashir Souid

Contact

Your feedback is important to us. If you have any questions or comments about SonnetLab, please contact Sonnet Support by email at support@sonnetsoftware.com.

Please make sure you are using the most up to date version of SonnetLab before submitting a bug report. When submitting a bug report please include the Sonnet project file that generated the error (Sonnet project files have the extension .son) and the output from the command "SonnetMatlabVersion". The more information that that we receive the faster it will be for us to resolve the issue and contact you back.