Getting Started With Microwave Office

This tutorial is to walk you through the basic steps of getting started with Microwave Office. It will highlight basic steps and then you click buttons to have those steps done for you. The intent is to show you the basic steps without getting into details of how to accomplish each step. The specific steps are covered in the Getting Started Guides. Please select **Help > Getting Started** from the Help menu to find this guide when in the software or click the button below.

Make sure to select **Help > Enable Guided Help** from the AWRDE Menus before clicking buttons below.

Open Getting Started Guide

Starting Over

Use the button below to start the demo or to start over at any time.

Start or S

Please go through each step sequentially.

Getting Started

Step 1 - Create Schematic

The first step to any design is to create a schematic or another type of simulation document (data file, netlist or EM structure). In this example, we will create a simple schematic to start our design.

Create Sc

Step 2 - Add Elements

The next step will be to add elements to your schematics. This example will add a simple transmission line. For linear simulation we also need ports.

Add Elem

Step 3 - View Layout

Now lets take a look at the schematic layout.

View Lay

Step 4 - Simulate

If you simulate at this point, nothing happens. You can try with clicking the button below to simulate. This is because you have not asked for any output. Find the 'Status Window' and notice there is nothing listed meaning no simulation occurred.

Simulate

Step 5 - Add Graph and Measurement

Lets fix this problem by adding a graph and a measurement to the graph. We will add a Smith chart with an S(1,1) measurement.

Add Grap

Step 6 - Simulate

Now that we have a graph, we are ready to simulate again.

Simulate

Step 7 - Add Substrate Information

Oops, there is no substrate defined for the microstrip line. Look at the status window to see the errors produced by the simulator. To fix this, lets add the substrate block for this microstrip line.

Add Subs

Step 8 - Simulate

Now everything is ready to go, try simulating again. Notice there is now data on the graph.

Simulate

Step 9 - Change Line Length

Lets change the length of the line. In the environment, we could have changed the L parameter of the MLIN element or edited the length in the layout. Changing one view automatically updates the other.

Change L

Step 10 - Simulate

Notice the graph trace is dimmer than before, indicating the schematic has changed and needs to be resimulated.

Simulate

Step 11 - Change Frequency

Now we need to change our frequency range. The default is 1 and 2 GHz, lets use 1 to 20 in steps of 1.

Change F

Step 12 - Simulate

After frequencies are changed, simulate yet again.

Simulate

Step 13 - Tune

Just for fun, lets now tune the width of the line, watch the layout, schematic results and W parameter in the schematic update. You would normally do this from the Tune dialog. For this example the tuning is being automated for you to see what it will look like.

Tune