

# Getting Started with PRAXIS

1. First install the soundcard drivers and software if they are not already installed.
2. Connect AudPod to soundcard according to Figure 1. If you do not have an AudPod, PRAXIS will run in the “Free” or “Demo” mode.
3. Connect AudPod to USB port on computer per Figure 1. Your computer will report “New hardware found” and search for drivers. The drivers should automatically install for Windows ME, 2000 and XP.
4. Insert the PRAXIS CD into your CDROM. The install program should start automatically, but if it doesn't, use the Explorer to browse the CDROM and double-click on the file “PraxisInstall.exe”. Newer versions of PRAXIS can be installed directly over older versions without uninstalling previous version.

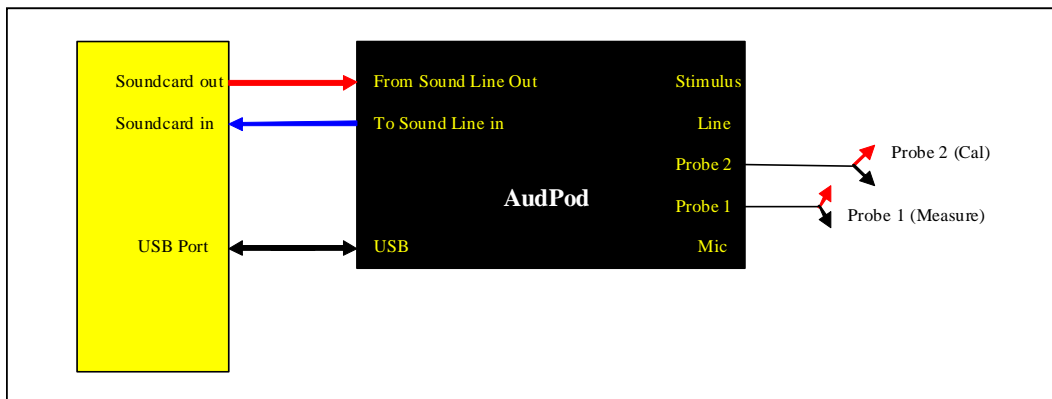


Figure 1: AudPod and soundcard connections.

5. **Match the Soundcard Devices with their Mixers.** Start the Praxis program from the Windows Programs menu. When PRAXIS is started the first time, or if new sound devices are found, the “Device-Mixer Matching” form will appear (Figure 2). You can also make this form appear using the “Config” menu of the “Liberty Praxis (Main Form). In most cases, PRAXIS will have identified these correctly, but you must verify that the proper mixer is associated with your soundcard and that each OUTPUT device matches its proper INPUT device. Highlight the right column for any pair you wish to change and then click the Edit box to select the new value for the right column. Click OK when all are correctly matched.

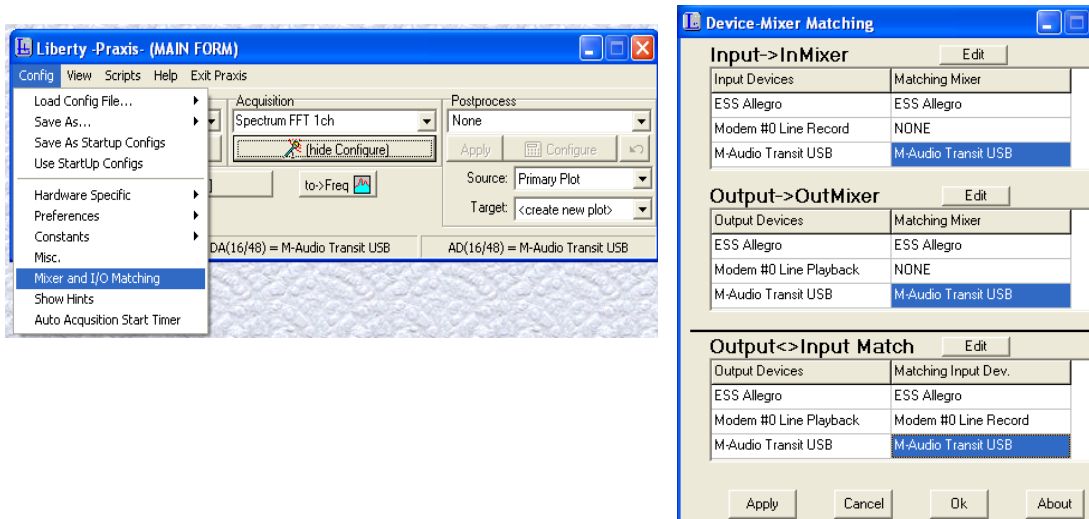
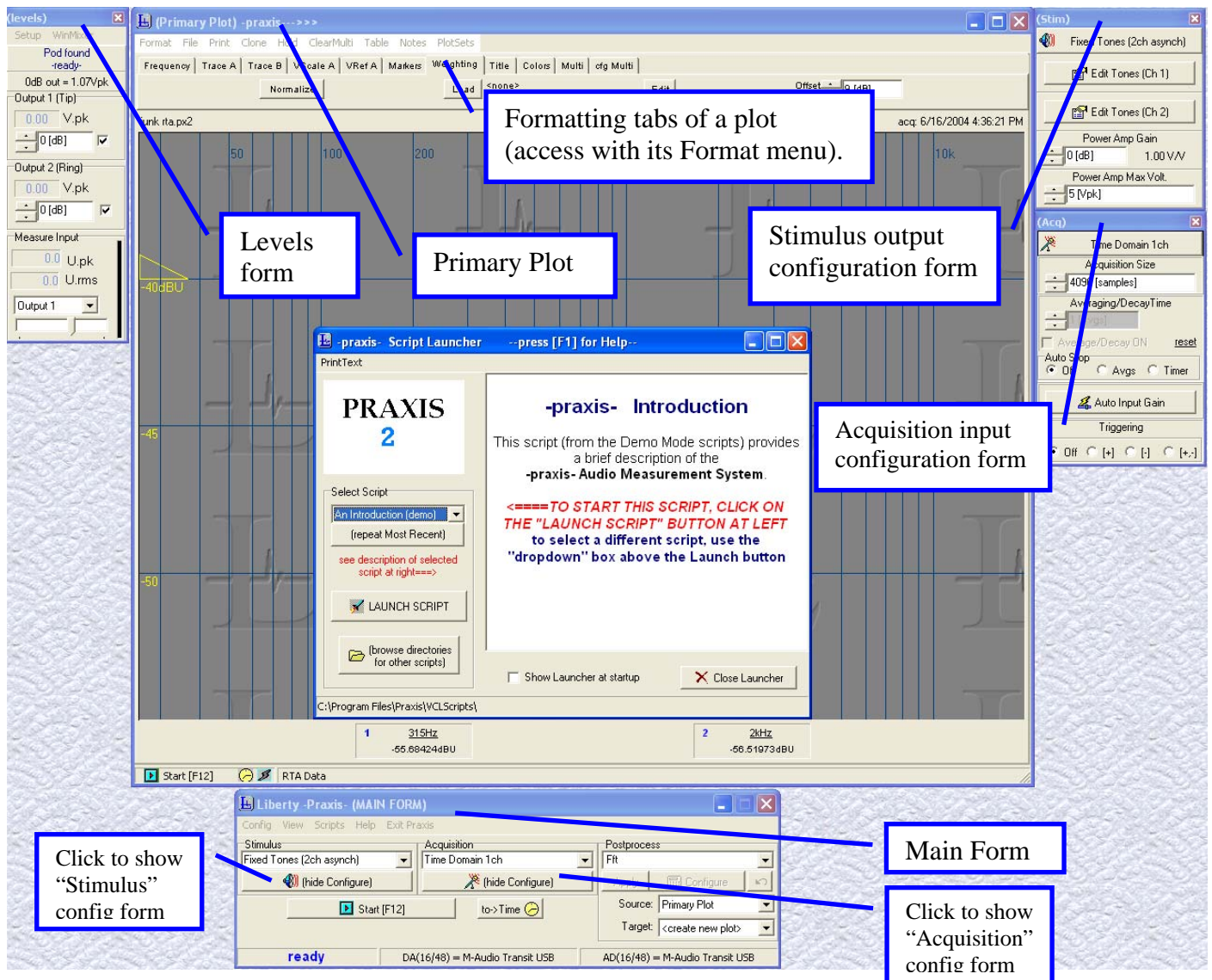


Figure 2: Mixer and I/O Matching

- Next, a “What’s New” information form may appear, describing new features in a newly installed PRAXIS version. You can read this if you wish, and then close the form to proceed.
- PRAXIS includes a “Script Launcher” (See Figure 3), which provides an easy method to select and run customizable measurement, instruction, system evaluation, or guide programs. The launcher may appear on startup, or it can be started using the Main Form’s “**Scripts, Run a Script**” menu. If it appears, Click “Close Launcher” for now, to get started. Arrange the various forms for best visibility.

**(The examples screen shots, hardware and software settings may vary from your individual settings. These are intended to give you an overall view of the software to get you started.)**

Figure 3: Script Launcher and some of the more important PRAXIS forms



8. **Select the soundcard.** Go to the “Levels form” and select: **Setup, D/A&A/D, Devs=....** “D/A&A/D” refers to “digital-to-analog and analog-to-digital”, that is, the data converters of a soundcard that PRAXIS is to use. Select the soundcard you have designated for measurements (See Figure 4). Built-in sound on laptops or modem sound features are seldom, if ever, adequate for measurement purposes.

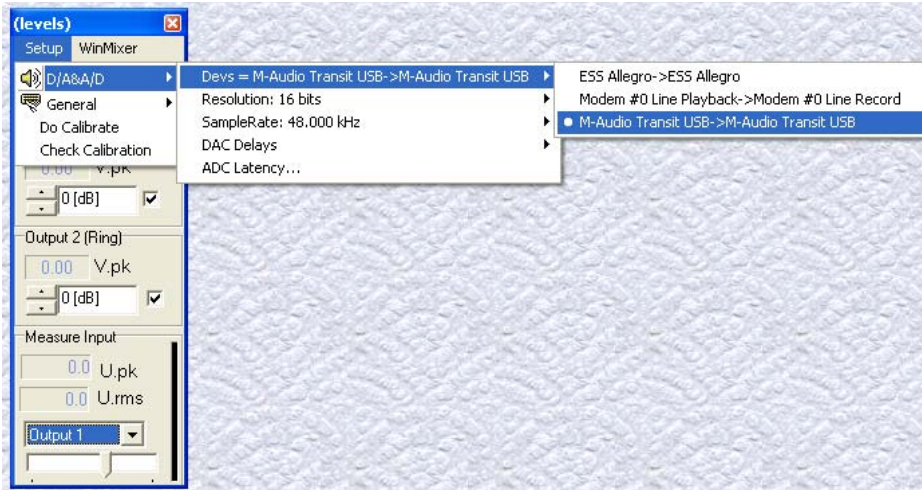


Figure 4: Select the soundcard. **Your soundcard may be different than this example.**

9. **Load your microphone correction (calibration) file.** If you do not have a calibrated microphone skip to step 10. If a calibration file (normal calibration files end in Example.dat) was supplied with your microphone, copy it to the **C:\Program Files\Praxis** directory. Then load the calibration file into Praxis by going to the Main Form, select **Config, Hardware Specific, Mic/Accel 1, Load** and load your file (See Figure 5). You can load a mic file to Mic2 also, if you wish.

**If your microphone doesn't have a calibration file, but you know its characteristics,** you can use Windows Notepad to open and edit the “Example.dat” file and resave it with your microphone's name. See [http://www.libinst.com/example\\_mic\\_data.htm](http://www.libinst.com/example_mic_data.htm) for details.

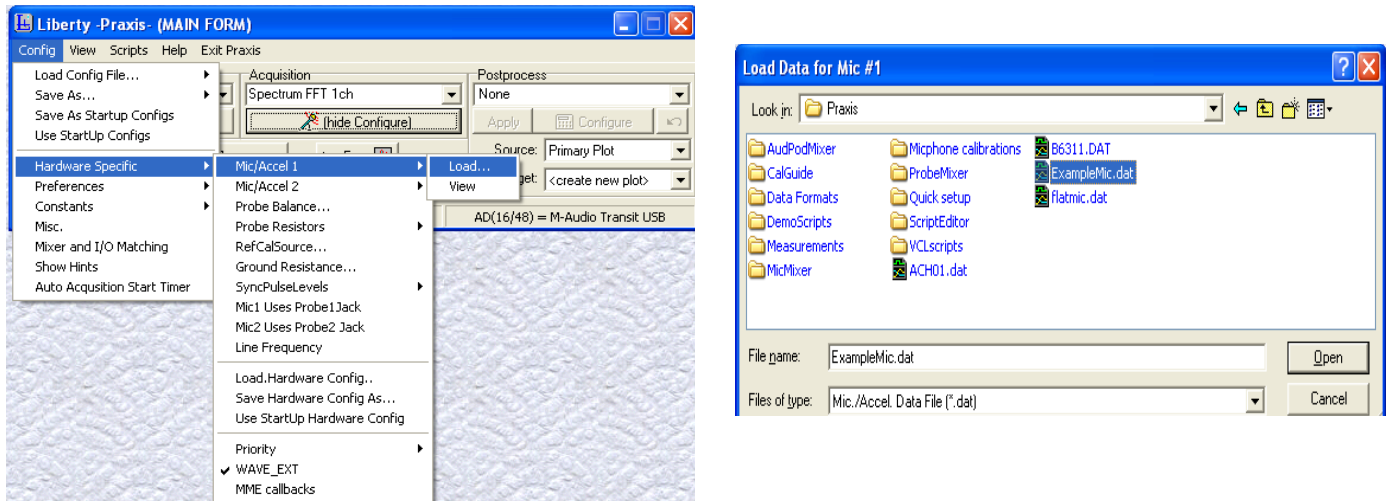


Figure 5: Load microphone calibration file.  
**The files in your folder may vary from this example.**

## 10. Calibrate Praxis.

If you **do not** have an AudPod, click the large “**Information and Demo Scripts**” button on the (Main Form) to bring up the Script Launcher. Run the “Probe Cal”, “Ground Resistance” and “RTA Cal” scripts as required. Be sure to go through the script “Using Plots and NVCS” to get a quick tutorial of how to work with the PRAXIS plots.

If you **do** have the AudPod, again find the “(Levels)” form, click “**Setup**” menu and select “**Do Calibration**” (Figure 6). **Then follow the instructions for calibration closely, particularly when asked to enable input or output sources or to preset or set mixer slider levels.** You can find more information at <http://www.libinst.com/SoundCardCal%20Main.htm>

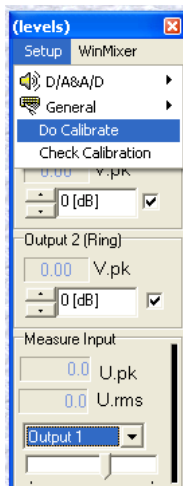


Figure 6: Do calibration.

11. To preserve these changes and settings for each time PRAXIS starts, use the Main Form menus “**Config, Save As StartupConfigs**” (See Figure 8).
12. **You are ready to start measuring.** The fastest way to become familiar with Praxis is to step through the **Measurement Guides**. Load the Measurements Guides by going to the Main Form, select the “**Help**” menu and then “**Measurement Guides**” (Figure 7). These will walk you through some of the most common measurements you may need.

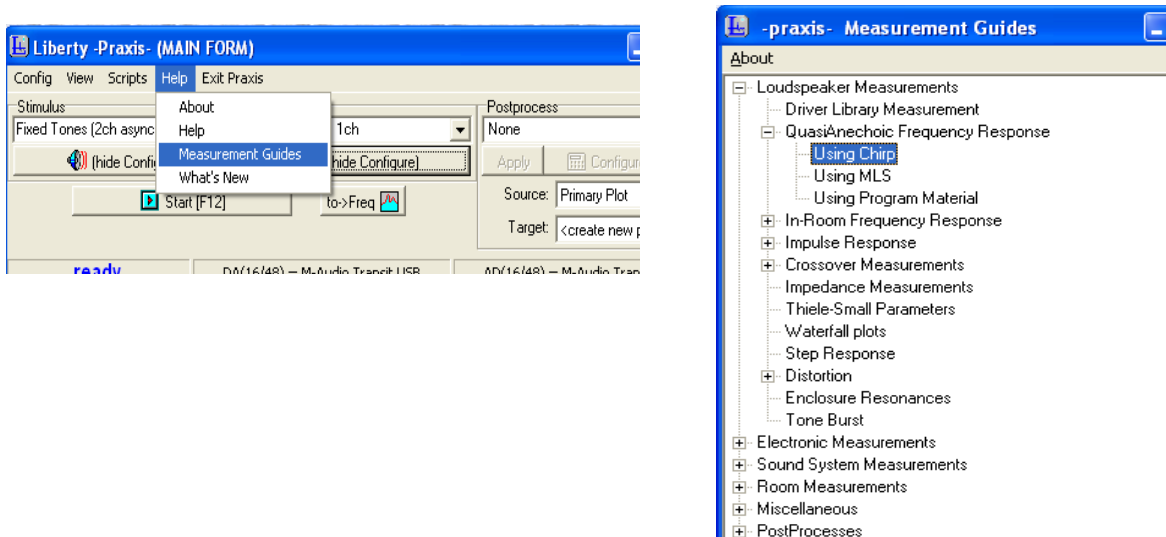


Figure 7: Load “Measurement Guides” to walk through various measurement setup configurations.

Once you have walked through a “Measurement Guide” you can save a “Config” file that can be used to restore all the settings you made the next time you need to run the same test. Use the Main Form menus “**Config, Save As., Software and Hardware**” after completing “Measurement Guide” (See Figure 8).

To investigate a feature or to answer questions, you can search PRAXIS’ extensive Help facility using the “Help, Help” menu of the Main Form.

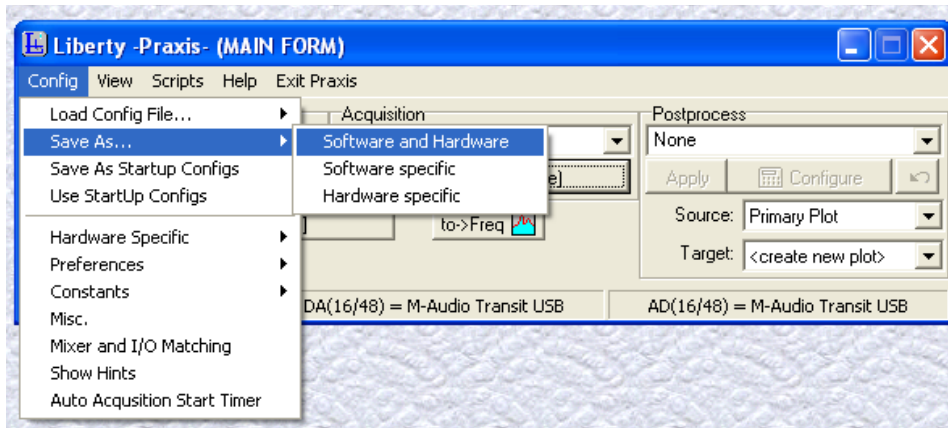


Figure 8: Save “Config” files to load at a later date if the measurement needs to be repeated.

### 13. Important note:

**SPL sensitivity measurements in PRAXIS use basic units (that is, they refer to a 1VRMS reference drive level).** In loudspeaker work, a 2.83Vrms reference level (equivalent to 1Watt at 8 ohms resistive load) is often used. To use that convention, the graphs can be scaled as follow: For a 2.83vrms test level, scale up by

$$20\text{Log}(\text{reference}/1\text{V}) = 20\text{Log}(2.83/1)=9\text{dB}.$$

Click on the “Format” menu on the “Primary Plot” (if not already selected) to show the Format tabs, then select the “Weighting” button and enter the 9dB offset value (See Figure 1) and hit [Enter] after typing value. The applied offset value will be displayed on the graph.