

Chapter II-9 — Importing and Exporting Data

If you choose Data→Load Waves→Load Igor Binary instead of choosing Data→Load Waves→Load Waves, Igor displays the Open File dialog in which you can select the Igor binary wave file to load directly. This is a shortcut that skips the Load Waves dialog. When you take this shortcut, you lose the opportunity to set the “Copy to home” checkbox. Thus, during the load operation, Igor presents a dialog from which you can choose to copy or share the wave.

The LoadData Operation

The LoadData operation provides a way for Igor programmers to automatically load data from packed Igor experiment files or from a file-system folder containing unpacked Igor binary wave files. It can load not only waves but also numeric and string variables and a hierarchy of data folders that contains waves and variables.

The Data Browser’s Browse Expt button provides interactive access to the LoadData operation and permits you to drag a hierarchy of data from one Igor experiment into the current experiment in memory. To achieve the same functionality in an Igor procedure, you need to use the LoadData operation directly. See the **LoadData** operation (see page V-500).

LoadData, accessed from the command line or via the Data Browser, has the ability to overwrite existing waves, variables and data folders. Igor automatically updates any graphs and tables displaying the overwritten waves. This provides a very powerful and easy way to view sets of identically structured data, as would be produced by successive runs of an experiment. You start by loading the first set and create graphs and tables to display it. Then, you load successive sets of identically named waves. They overwrite the preceding set and all graphs and tables are automatically updated.

Sharing Versus Copying Igor Binary Wave Files

There are two reasons for loading a binary file that was created as part of another Igor experiment: you may want your current experiment to *share* data with the other experiment or, you may want to *copy* data to the current experiment from the other experiment.

There is a potentially serious problem that occurs if two experiments share a file. The file can not be in two places at one time. Thus, it will be stored *with* the experiment that created it but *separate from* the other. The problem is that, if you move or rename files or folders, the second experiment will be unable to find the binary file.

Here is an example of how this problem can bite you.

Imagine that you create an experiment at work and save it as an unpacked experiment file on your hard disk. Let’s call this “experiment A”. The waves for experiment A are stored in individual Igor binary wave files in the experiment folder.

Now you create a new experiment. Let’s call this “experiment B”. You use the Load Igor Binary routine to load a wave from experiment A into experiment B. You elect to share the wave. You save experiment B on your hard disk. Experiment B now contains a *reference* to a file in experiment A’s home folder.

Now you decide to use experiment B on another computer so you copy it to the other computer. When you try to open experiment B, Igor can’t find the file it needs to load the shared wave. This file is back on the hard disk of the original computer.

A similar problem occurs if, instead of moving experiment B to another computer, you change the name or location of experiment A’s folder. Experiment B will still be looking for the shared file under its old name or in its old location and Igor will not be able to load the file when you open experiment B.

Because of this problem, we recommend that you *avoid file sharing* as much as possible. If it is necessary to share a binary file, you will need to be very careful to avoid the situation described above.

The Data Browser always copies when transferring data from disk into memory.

For more information on the problem of sharing files, see **References to Files and Folders** on page II-24.