

Method	Loads	Action	Purpose
LoadData Operation	Packed and unpacked files	Copies data from one experiment to another.  See <b>LoadData</b> on page V-500 for details.	To automatically load data using an Igor Procedure.

## The Igor Binary Wave File

The Igor binary wave file format is Igor's native format for storing waves. This format stores one wave per file very efficiently. The file includes the numeric contents of the wave (or text contents if it is a text wave) as well as all of the auxiliary information such as the dimension scaling, dimension and data units and the wave note. In an Igor packed experiment file, any number of Igor Binary wave files can be packed into a single file.

The file name extension for an Igor binary wave file is ".ibw". Old versions of Igor used ".bwav" and this is still accepted. The Macintosh file type code is IGBW and the creator code is IGR0 (last character is zero).

The name of the wave is stored *inside* the Igor binary wave file. It does not come from the name of the file. For example, wave0 might be stored in a file called "wave0.ibw". You could change the name of the file to anything you want. This does not change the name of the wave stored in the file.

The Igor binary wave file format was designed to save waves that are part of an Igor experiment. In the case of an unpacked experiment, the Igor binary wave files for the waves are stored in the experiment folder and can be loaded using the LoadWave operation. In the case of a packed experiment, data in Igor Binary format is packed into the experiment file and can be loaded using the **LoadData** operation.

.ibw files do not support waves with more than 2 billion elements. you can use the **SaveData** operation or the Data Browser Save Copy button to save very large waves in a packed experiment file (.pxp) instead.

Some Igor users have written custom programs that write Igor binary wave files which they load into an experiment. Igor Technical Note #003, "Igor Binary Format", provides the details that a programmer needs to do this. See also Igor Pro Technical Note PTN003.

## The Load Waves Dialog for Igor Binary

The basic process of loading data from an Igor binary wave file is as follows:

1. Choose Data→Load Waves→Load Waves to display the Load Waves dialog.
2. Choose Igor Binary from the File Type pop-up menu.
3. Click the File button to select the file containing the data.
4. Check the "Copy to home" checkbox.
5. Click Do It.

When you click Do It, Igor's LoadWave operation runs. It executes the Load Igor Binary routine which loads the file. If the wave that you are loading has the same name as an existing wave or other Igor object, Igor presents a dialog in which you can resolve the conflict.

Notice the "Copy to home" checkbox in the Load Waves dialog. It is very important.

If it is checked, Igor will disassociate the wave from its source file after loading it into the current experiment. When you next save the experiment, Igor will store a new copy of the wave with the current experiment. The experiment will not reference the original source file. We call this "copying" the wave to the current experiment.

If "Copy to home" is unchecked, Igor will keep the connection between the wave and the file from which it was loaded. When you save the experiment, it will contain a *reference* to the source file. We call this "sharing" the wave between experiments.

We strongly recommend that you copy waves rather than share them. See **Sharing Versus Copying Igor Binary Wave Files** on page II-156 for details.