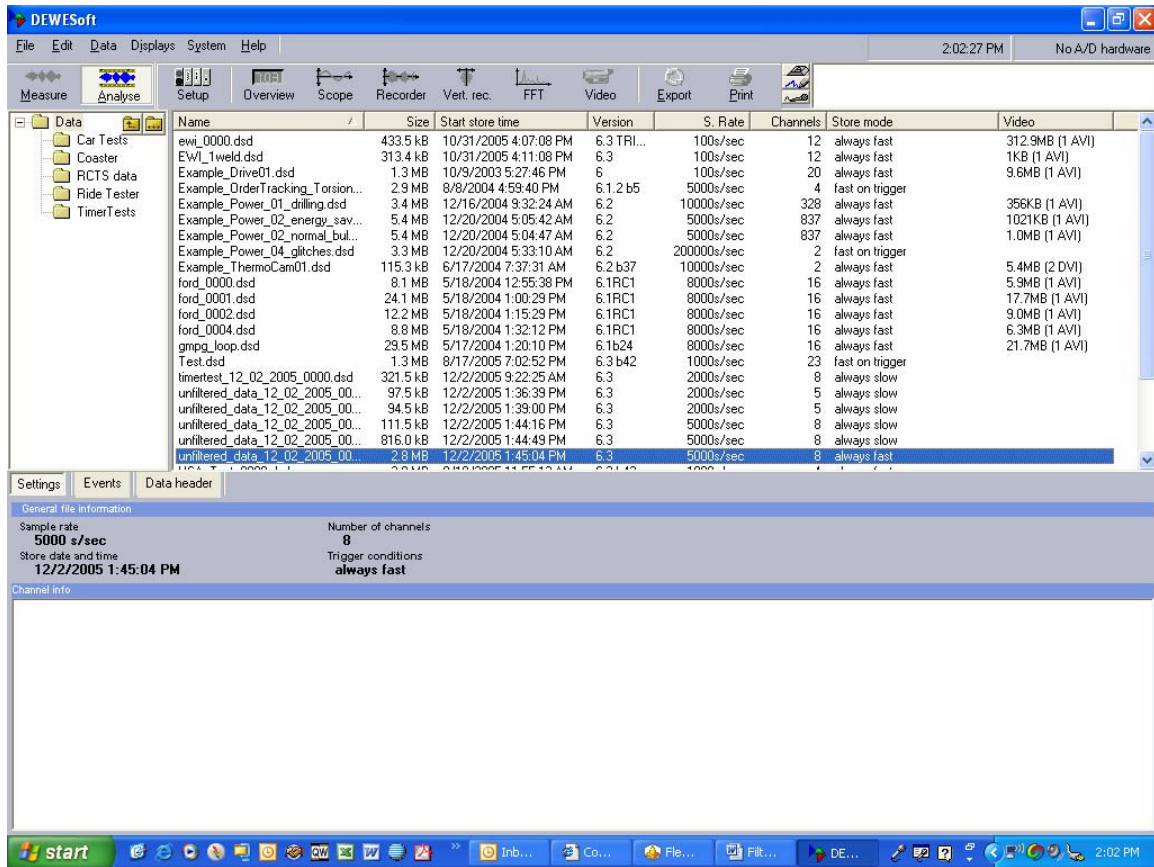


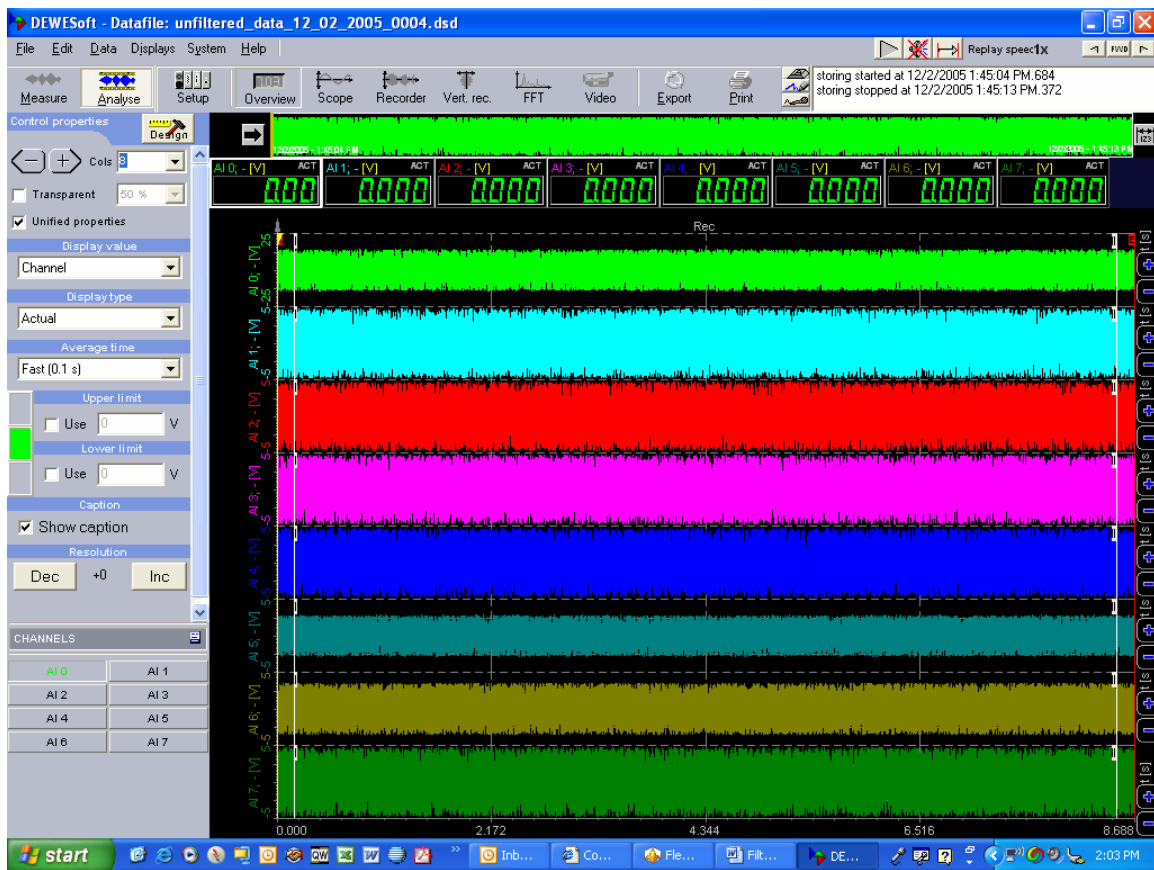
# Filtering Data in Flexpro – A Quick Primer

If you have captured data in Dewesoft which you would like to filter off-line, the easiest way is to use Flexpro. This short tutorial assumes that you have Dewesoft 6.2 or higher installed in your Dewetron system, as well as Flexpro 6.0 or higher.

First, run Dewesoft and click ANALYZE to select the data file to be filtered. Double-click the filename to load it:

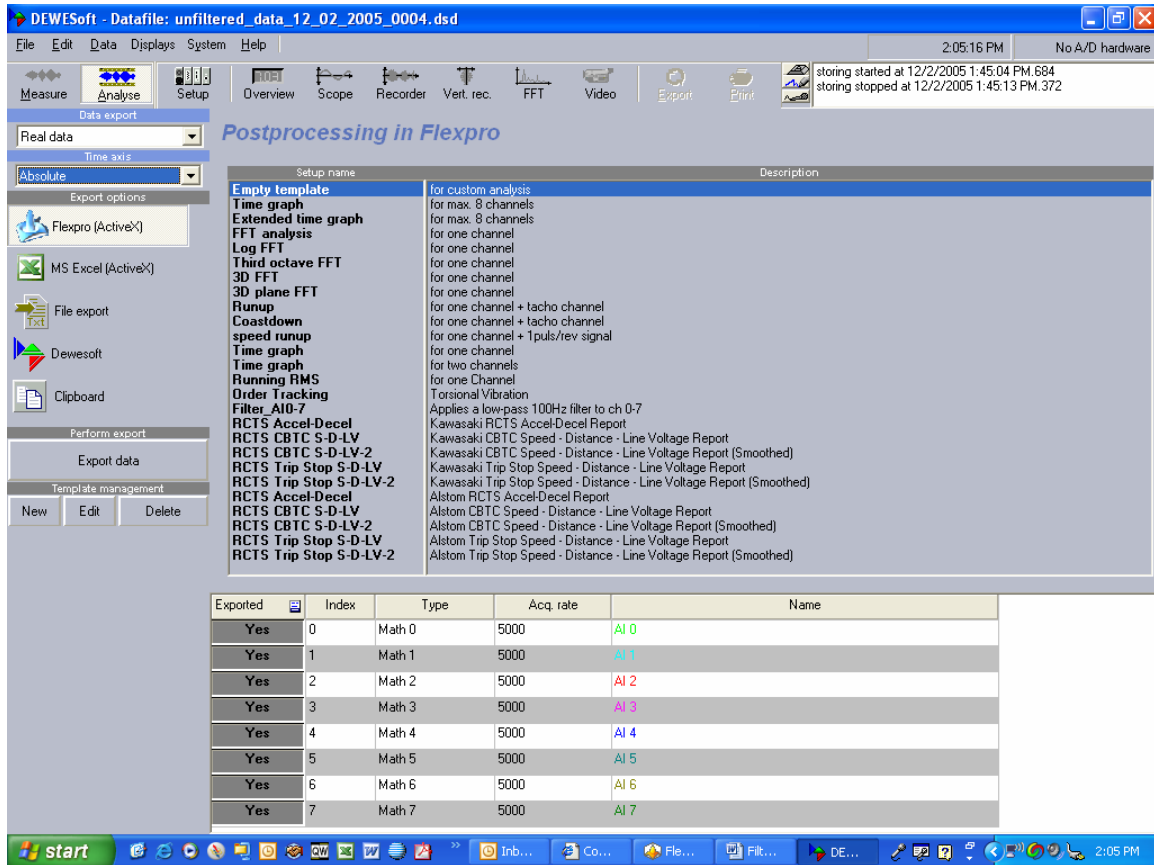


Now the file will appear in one of the display screens:



You may use the full range of tools within the software to zoom in/out, make print-outs, and more. But if you are ready to export the data to Flexpro format, please zoom in to select the area that you want to export. If you don't zoom in, all of the data will be exported. See the Dewesoft manual for details about how to zoom and unzoom.

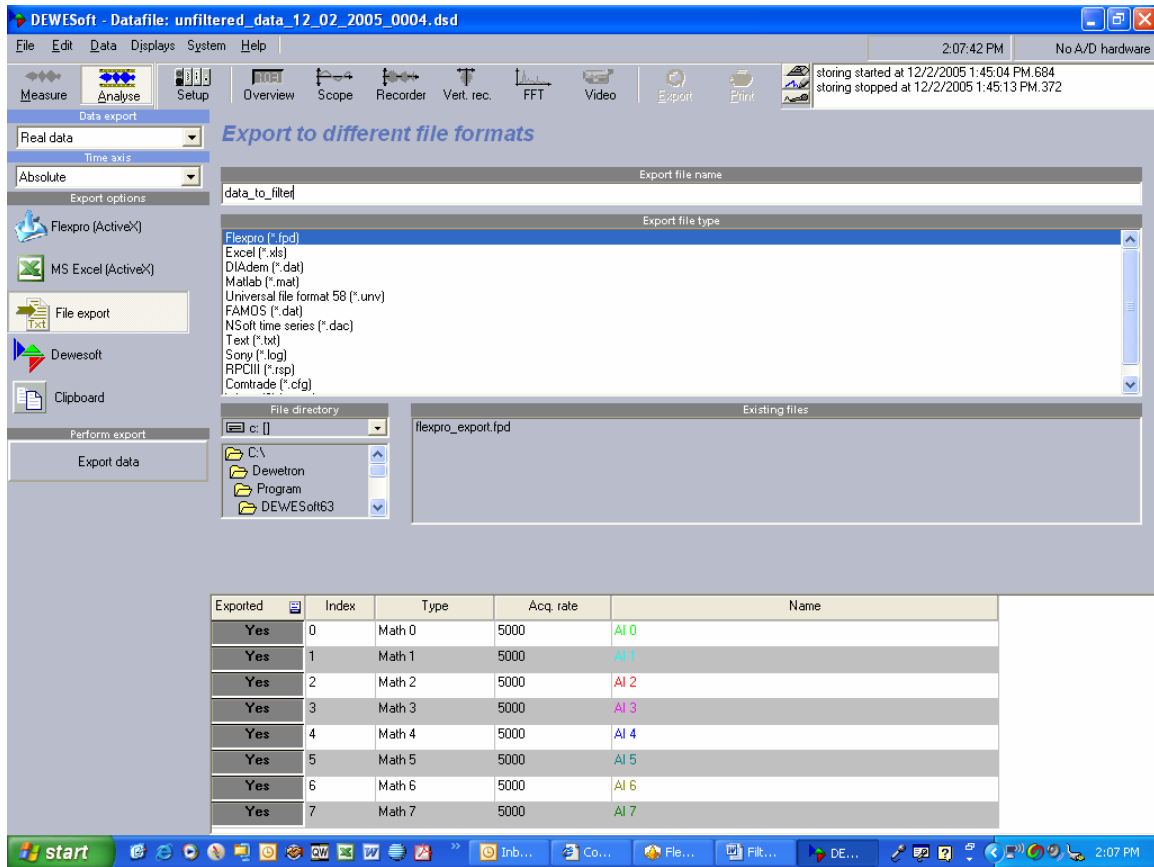
To begin the export process, click the EXPORT button in the top toolbar, and the EXPORT screen will appear:



We suggest normally selecting the Data Export to be REAL DATA (see the selectors near the top-left corner), and the Time axis to Absolute. Otherwise it will export to a relative time axis, at your option.

If you intend to make a Flexpro template to automate this process for future exporting, see the section in the Dewesoft manual for how to do this. But the point of this short tutorial is to show you in general how to filter data using Flexpro, so we will do a file export to Flexpro for the purposes of this guide.

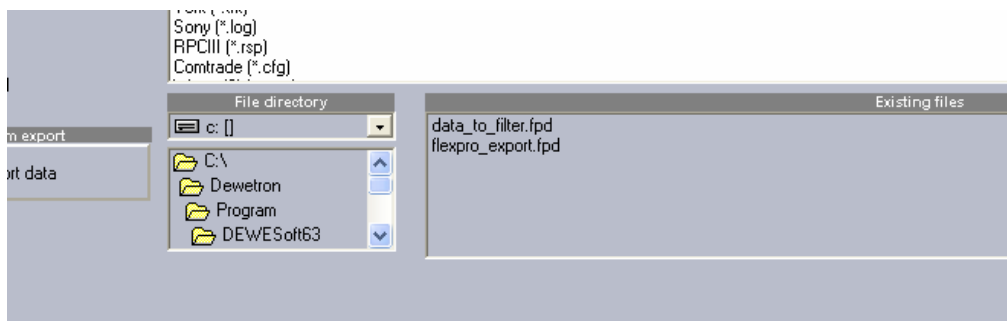
Click the File Export button, then select FLEXPRO from the list that will appear:



Enter the base part of the filename as shown above (we entered data\_to\_filter, but you can choose your own name). Make sure that Flexpro (.fpd) is selected from the list.

Starting in Dewesoft 6.3 you can turn off individual channels at the bottom of the screen, so that they will not be exported. This is not available in prior versions.

Click the [Export data] button on the left toolbar, about half-way down the screen. When you do this, Dewesoft will export the data into Flexpro format. You will see the new filename in the "Existing files" section in the center of the screen:



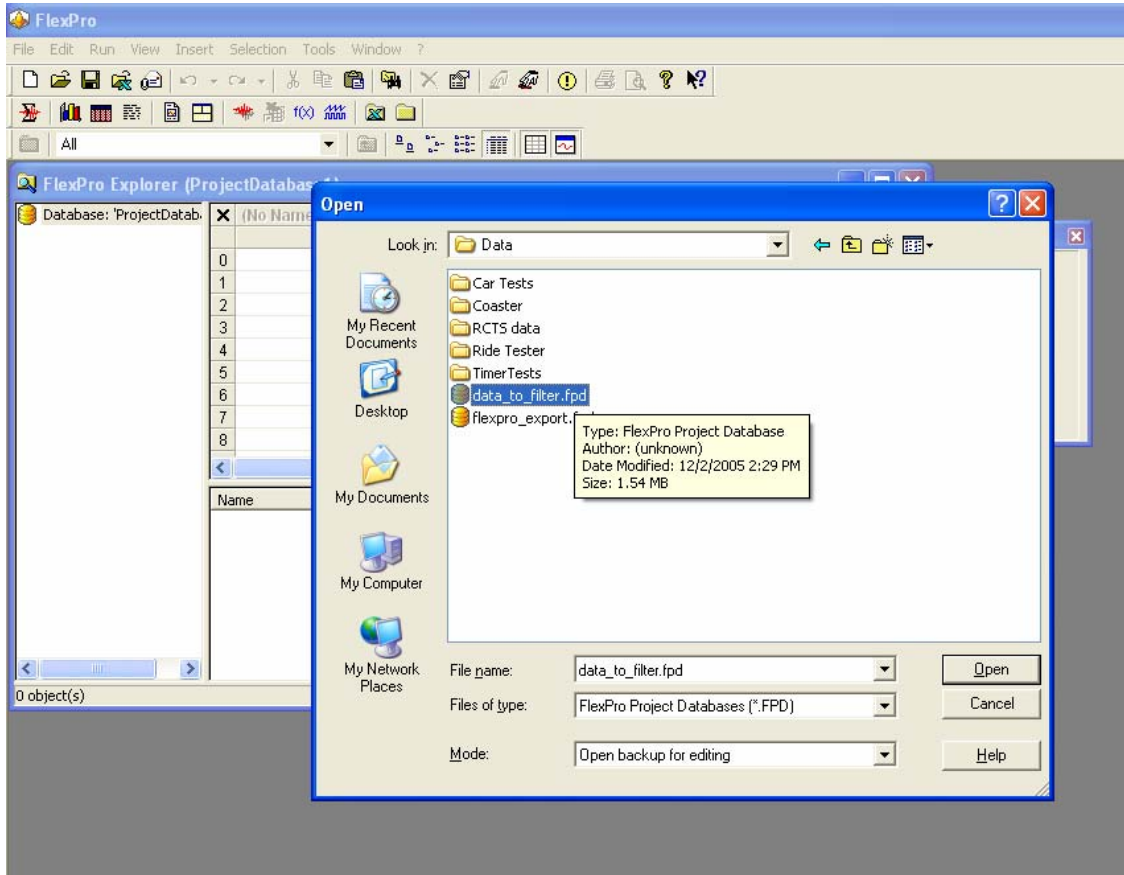
(Note the file above called data\_to\_filter.fpd.)

When the process is complete, close Dewesoft and then run Flexpro.

When Flexpro has loaded, go to the file menu and select Open Database...

Navigate to where you saved the data file (by default this will be your Dewesoft data directory, unless you redirected it). In a Dewesoft 6.3 system it is usually:

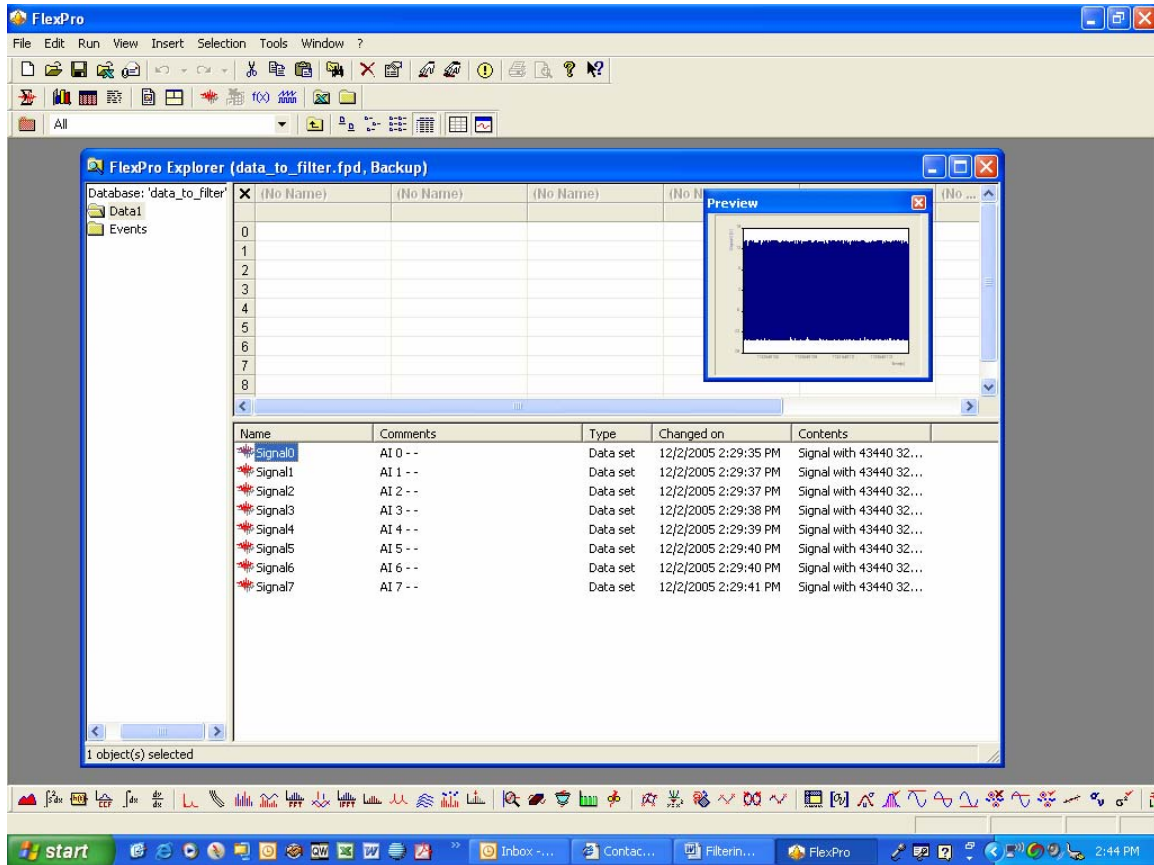
C:\Dewetron\Program\Dewesoft63\Data



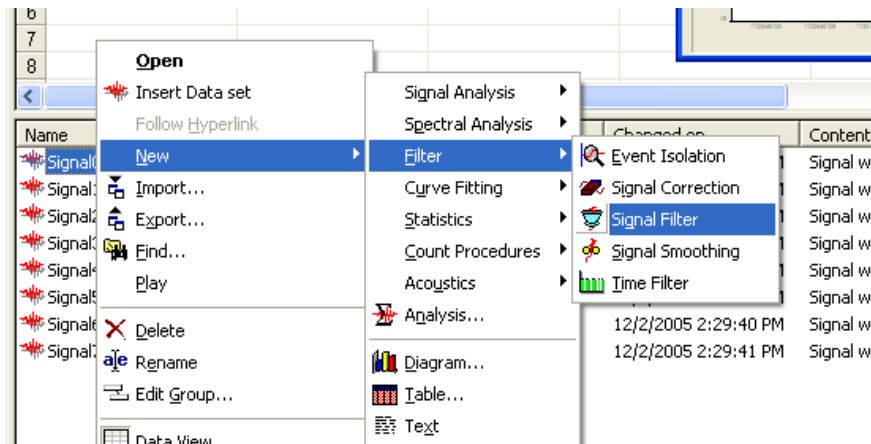
Above, we have located the file, and will click Open to load it.

When the file opens, click the Data1 directory to see the signals that were transferred over from Dewesoft. They are numbered Signal0 through Signalx, where x is the last number. The channel name from Dewesoft is listed under Comments, as is the units of measure, if you had defined this.

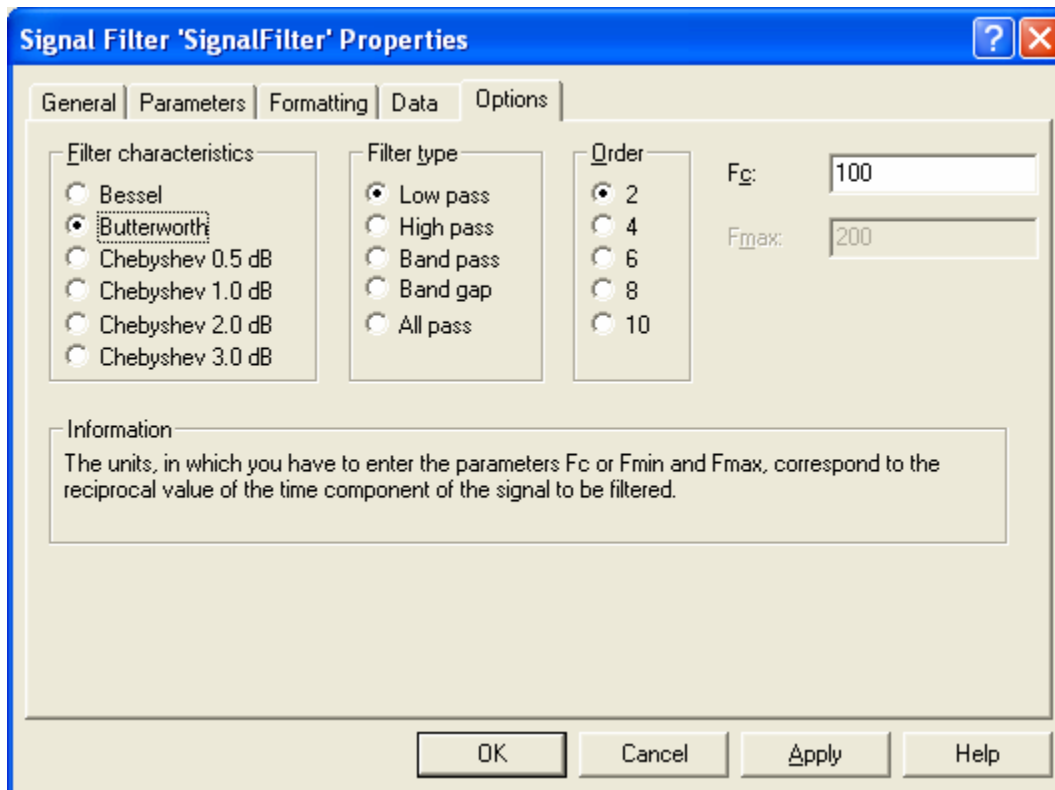
Click on any Signal to see it in the preview window, which floats above the other windows:



To filter this channel, right-click the channel and then select New > Filter > Signal Filter :

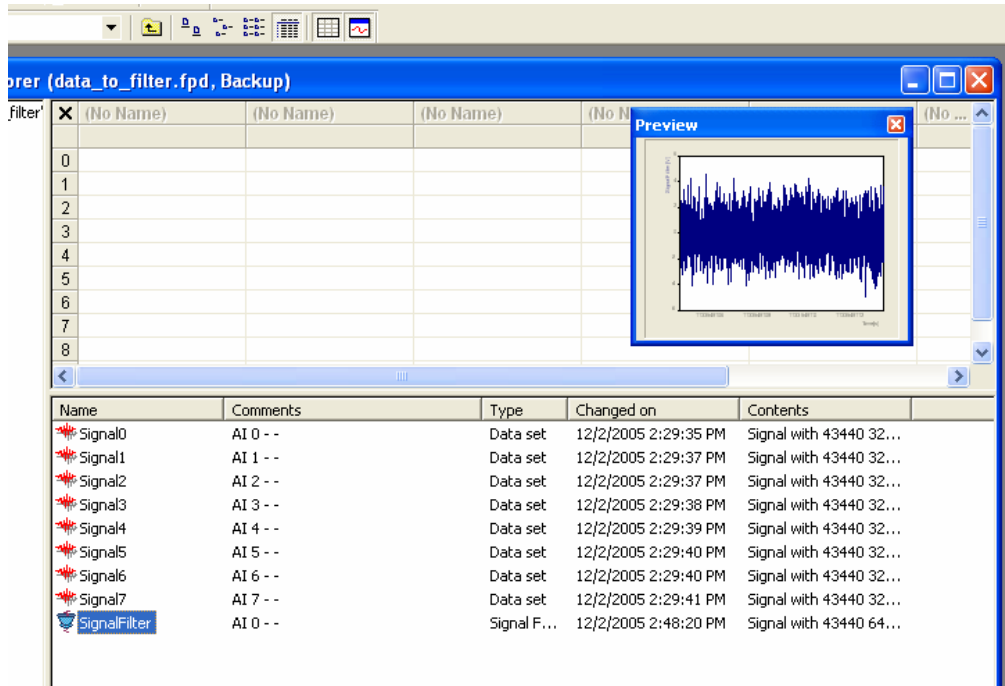


When you do this, the filter dialog will appear :

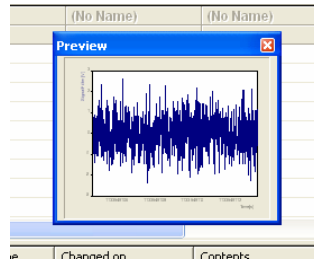


Above are the default settings – please change the settings according to your requirements. Now click OK to apply these changes.

Look back in the list of channels (scroll if necessary), and see that you have a new channel called SignalFilter:

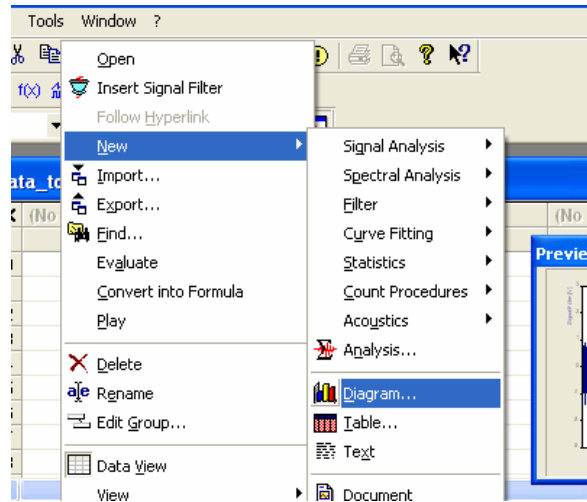


You can repeat this for the other channels that you need to filter. Notice that the preview window shows a greatly filtered signal. You can double-click the SignalFilter object again and change the filter parameters! What if we change from 2 pole to 8 pole?

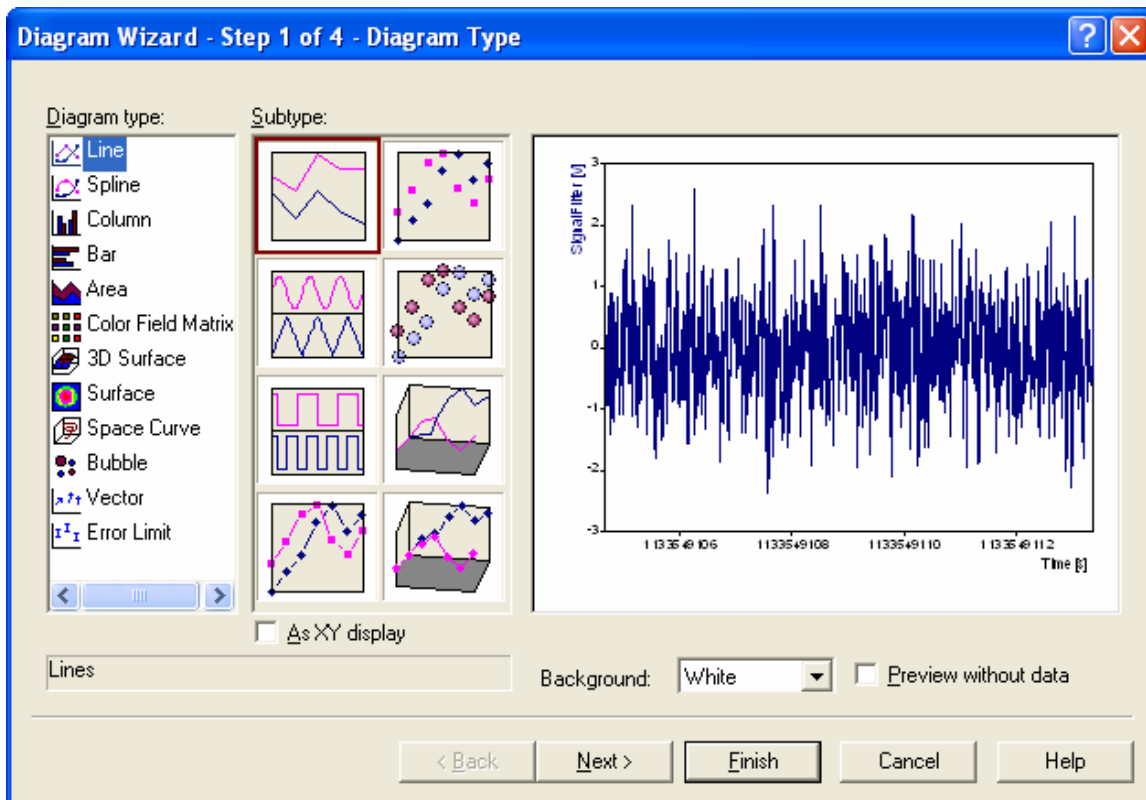


Notice how the amplitude is reduced.

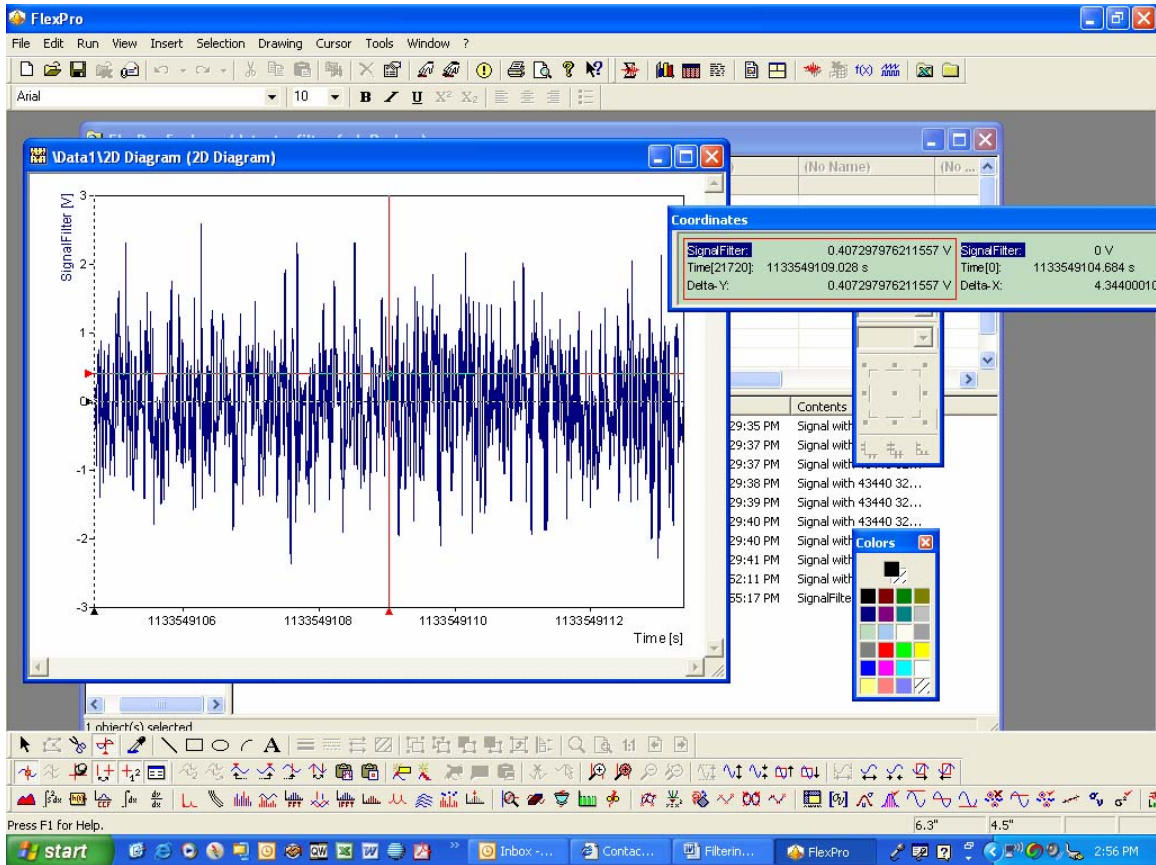
# Making a Diagram – or a Report



When you do, the diagram wizard appears. This is similar to the one built into Excel. Make the settings according to your requirements then click Finish:

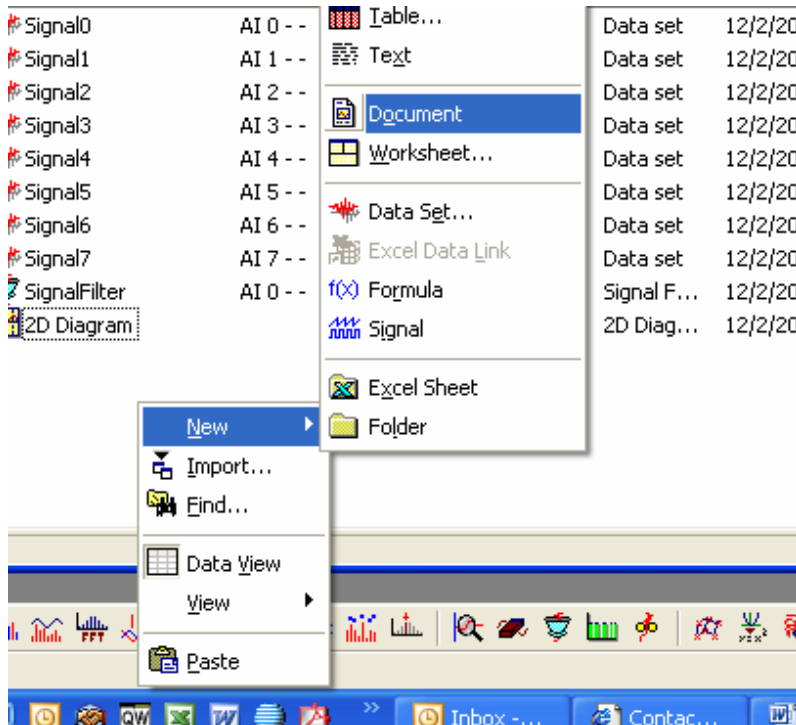


When you have completed the wizard, the new diagram will be available in the database, and it will open automatically:

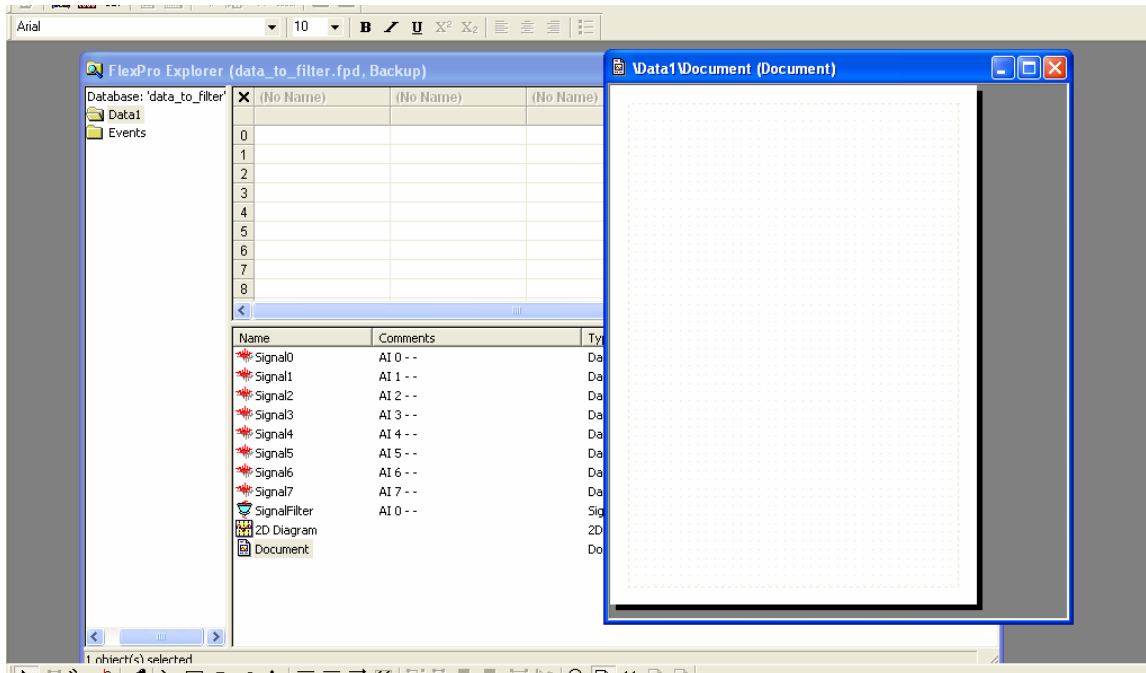


Use the cursors to move around and take measurements. See the Flexpro documentation for more info about zooming and unzooming, and using the cursors.

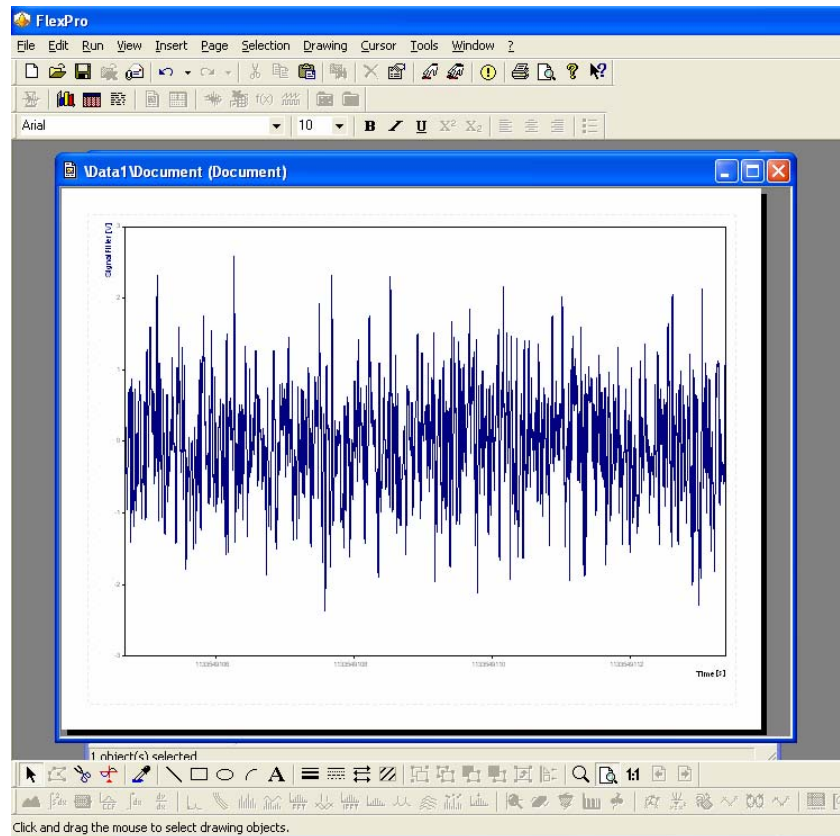
You can make a new (paper) document and then just drop this diagram onto it.  
 Right-click below the list of channels within the database and select New > Document...



A new document is added to the database and opens automatically:



You can drag and drop any of the signals or diagrams from the database onto the document! It's really that easy.



You should also right-click on the document and change the properties so that it is set up for the right size or paper (US letter or A4), as well as the desired orientation, portrait or landscape, as we have done above.

This has been just a short primer. Please look around at all the dozens of other features and capabilities that Flexpro offers in addition to the filtering! Under Filtering, there is also a selection called SMOOTHING, which allows you to set a running average in effect, to smooth out the data. This is another kind of filtering, sometimes useful for removing peaks and transients from recorded data files.