

Data Acquisition in Microsoft Excel—How to Import Recorded Data

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In our experience, Microsoft Excel is the most popular application for waveform analysis. Our customers ask about porting waveform data to Excel more so than all other applications combined. In response, DATAQ Instruments' developed WINDAQ/XL to allow users of WINDAQ software (both recording and playback software) to easily port waveform data to Excel. For a detailed description of how WINDAQ/XL ports data in real time to Microsoft Excel (i.e., while WINDAQ recording software is running) take a look at "Getting Started with WINDAQ/XL."

The ability to move data into Excel for further analysis after the data is recorded can be just as important. Many customers want to use WINDAQ playback (also known as WINDAQ Waveform Browser or WWB) software to locate a range of data that is of interest and then import the numerical values that represent that waveform into Excel for further review and analysis. The majority of applications (including WINDAQ Waveform Browser) provide the ability to create an intermediate file subsequently opened by Excel. This approach works, but can be time consuming and clumsy. WINDAQ/XL offers a better solution. With it, any range of waveform data viewed from WINDAQ Waveform Browser can be instantly ported to Excel without the use of an intermediate file. It's extremely easy and super fast.

This application note demonstrates how WINDAQ/XL is used with WINDAQ Waveform Browser to import selected data into Microsoft Excel. A few examples are included to illustrate just how useful these features are. In addition, a brief procedure will guide you through the menus and options that you will encounter along the way.

Applications

If you've ever imported large data files to Microsoft Excel, you know what a task it can be to locate a specific section of data. WINDAQ/XL offers a solution with built-in features allowing you to isolate and import a specified segment or number of data points directly from WINDAQ Waveform Browser into Microsoft Excel.

An industrial technician may acquire RPM and torque data and want to port it to Excel to calculate and plot horsepower. A medical researcher may acquire blood flow and pressure data and want to port it to Excel to calculate hemodynamic resistance.

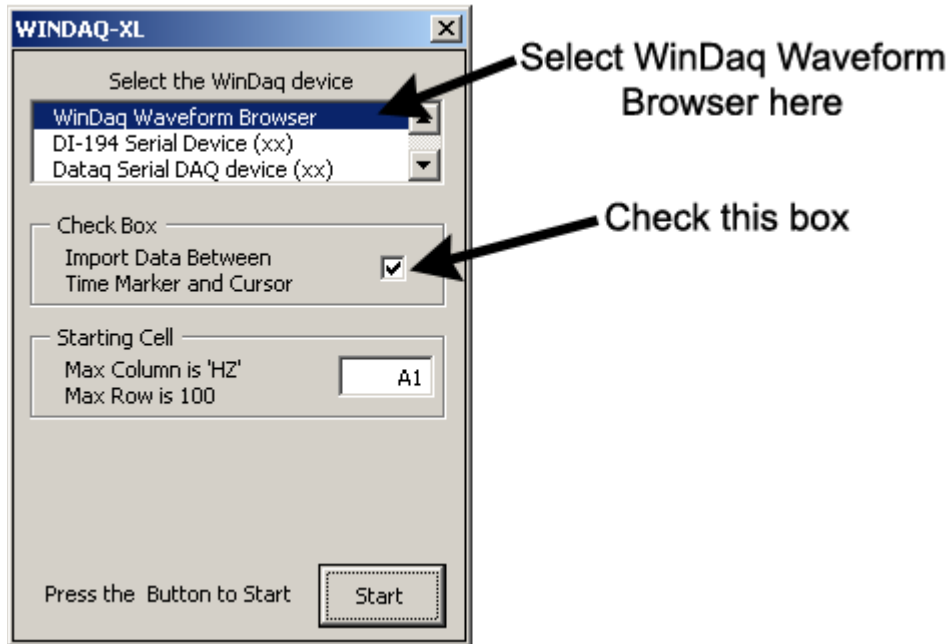
Procedure

To import data between the time marker and cursor:

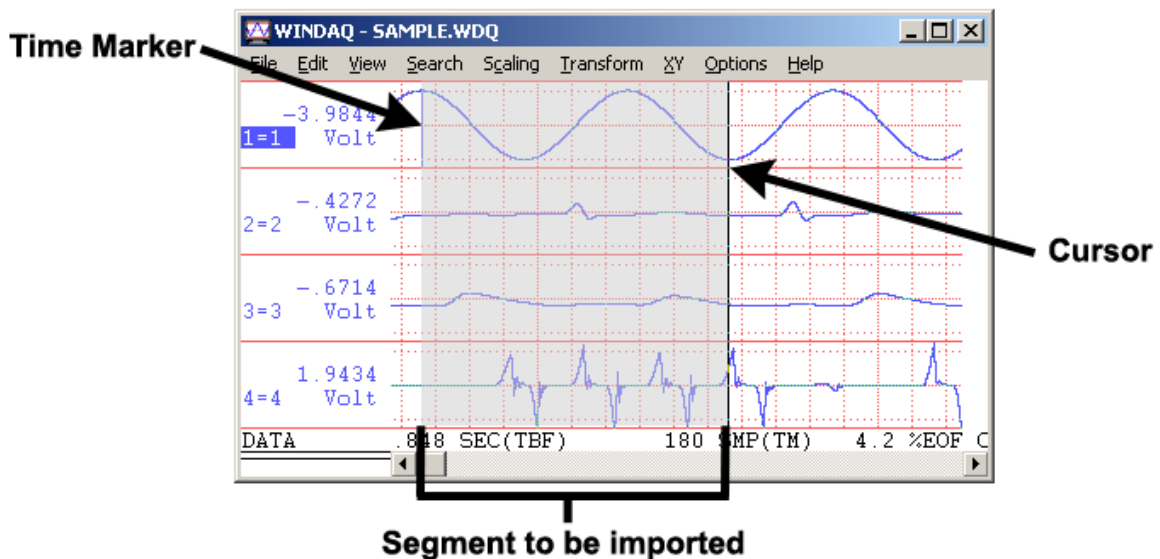
1. From the WINDAQ/XL tool bar click the **Start WINDAQ/XL button**.



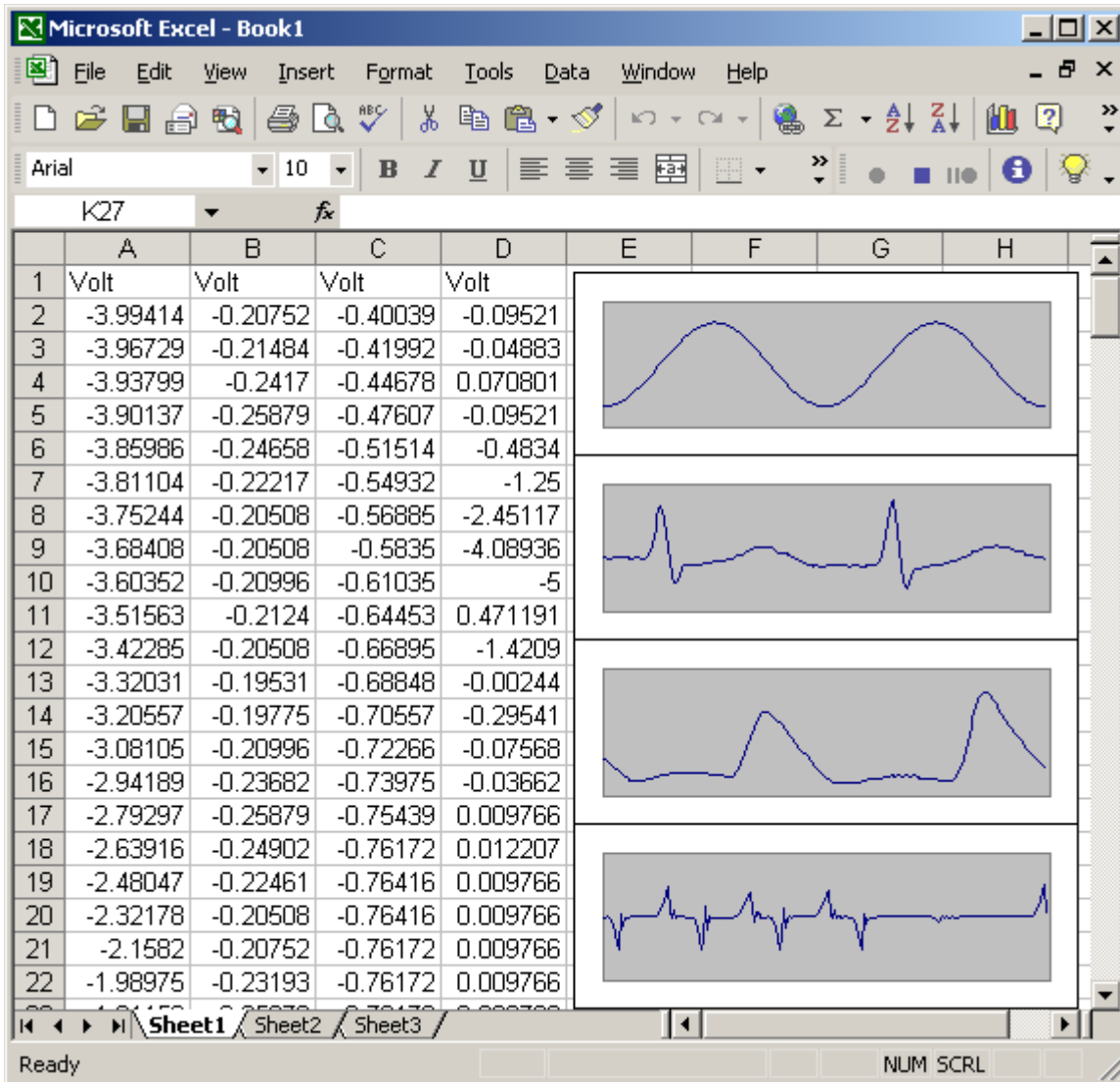
2. Select **WINDAQ Waveform Browser** from the WINDAQ/XL menu.
3. Check the **Import Data Between Time Marker and Cursor** checkbox.



4. Click on **Start**.
5. Choose a recorded WINDAQ file from the **WINDAQ Playback Open** menu.
6. Place a time marker (press F4 to set time marker) in the WINDAQ Waveform Browser file at the beginning of the segment you would like to export.
7. Position the cursor at the end of the desired segment.



This segment of data will now display in Microsoft Excel.



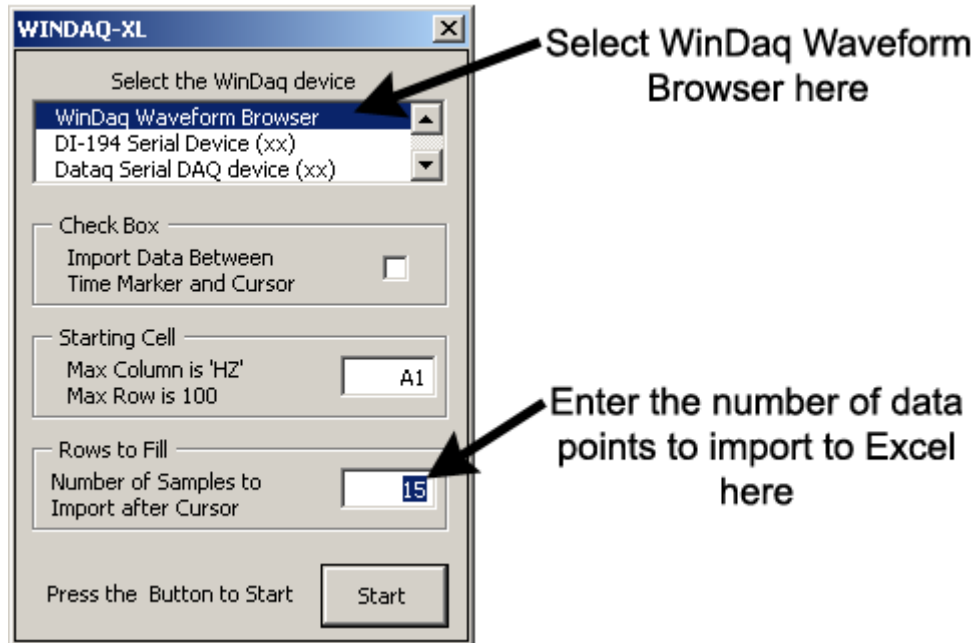
To import a specified number of data points after the cursor:

1. From the WINDAQ/XL tool bar click the **Start WINDAQ/XL** button.



2. Select **WINDAQ Waveform Browser** from the WINDAQ/XL menu.

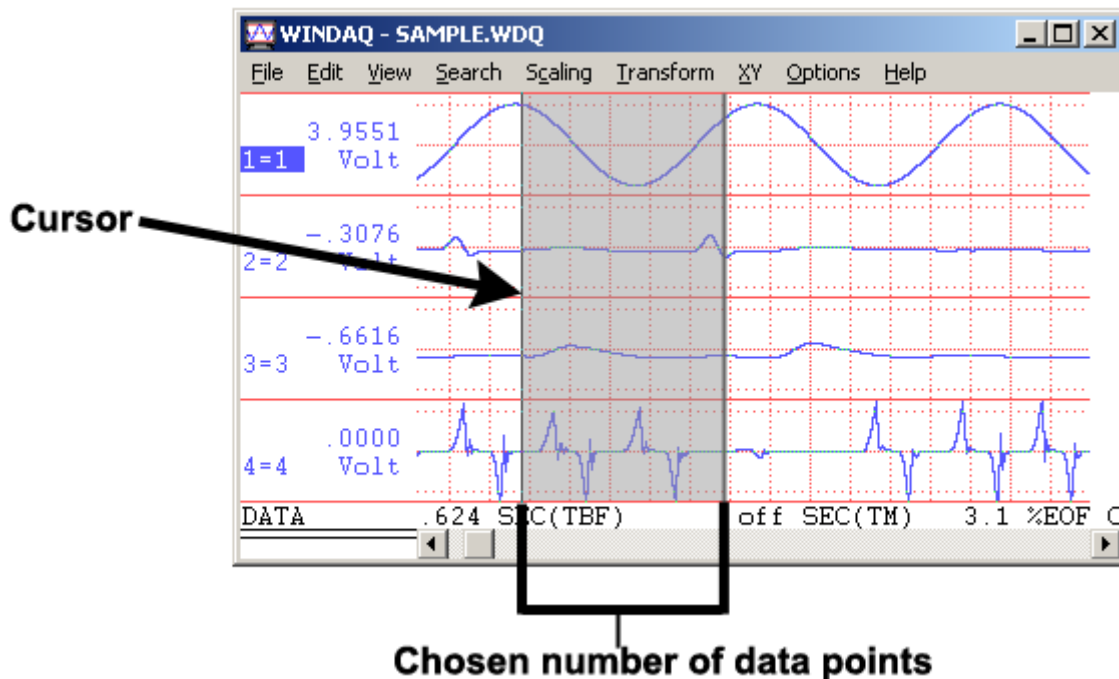
3. In the box labelled **Rows to Fill**, enter the number of data points after the cursor that you would like to import into Excel.



4. Click on **Start**.
5. Choose a recorded WINDAQ file from the **WINDAQ Playback Open** menu.

Notice that as you move the cursor, the data being ported to Excel changes instantaneously. There is a real-time connection between WINDAQ Waveform Browser and Microsoft Excel.

6. Place the cursor immediately in front of the section of data you would like to import.



The number of data points you have chosen will be imported into Excel beginning with the first data point after the cursor.

For more information on WINDAQ/XL see “Getting Started with WINDAQ/XL.”