

DADiSP / UFF

Universal File Format Module



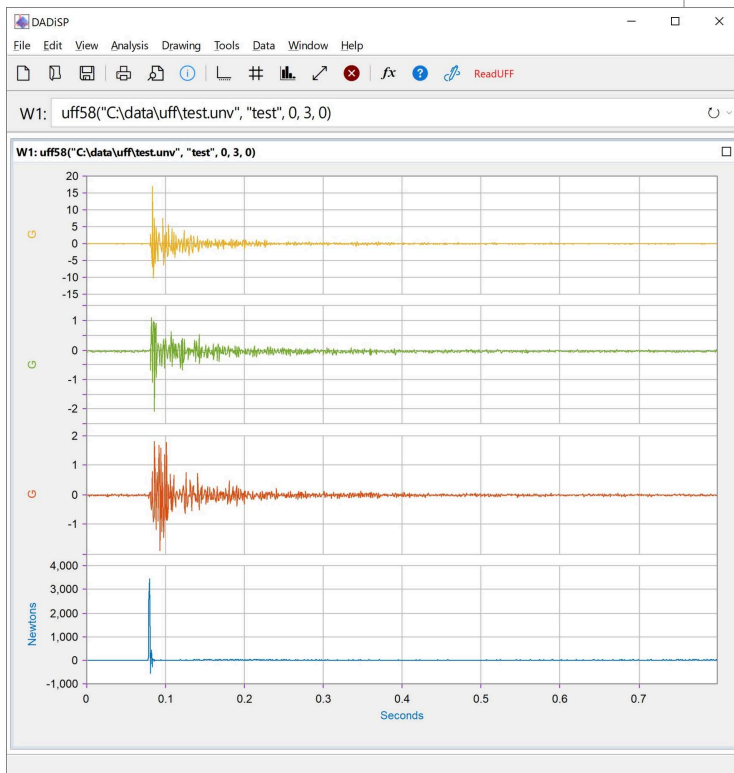
DADiSP/UFF is a dialog based module to import and save data in the Universal File Format. UFF files of any size and number of channels are supported.

DADiSP/UFF imports all channels saved in a ASCII UFF Type 58 or Binary Type 58b file and automatically applies the necessary channel specific sample rates and engineering units.

DADiSP/UFF also supports exporting one or more series to a UFF Type 58 or 58b file.

KEY FEATURES

- Simple User Interface
- Fast and Direct UFF Import
- Reads UFF Files of any Size
- Both ASCII Type 58 and Binary Type 58b Formats Supported
- Optional Automatic Display of Imported Channels
- Exports Multiple Series to UFF Type 58 or 58b Files



New Features

DADiSP/UFF adds support for exporting one or more data series to an ASCII Type 58 or binary Type 58b UFF file. New series can be appended to existing UFF files. Regularly sampled (interval) series and XY series can be saved. Both real and complex data values are supported in single or double precision UFF format.

In addition, UFF import has been optimized for both ASCII and binary formats. Speed improvements of up to 10x are achieved for large UFF files.

Universal File Format

The Universal File Format (UFF) was originally developed by the Structural Dynamics Research Corporation (SDRC) in the late 1960s and early 1970s to facilitate data transfer between computer aided design (CAD) and computer aided test (CAT) in order to facilitate computer aided engineering (CAE).

A UFF file consists of multiple formats where each format is specified as 80 character (FORTRAN card image) ASCII records of space delimited fields that occur in a specific order according to each UFF format.

Multiple sets of data can be stored within a single UFF file. The start of each set of data is indicated by a "-1", right justified, in columns 1-6. The next line indicates the Universal Dataset Number/Type. Each type has a different format of header information and data provided. The end of each set of data is indicated by a "-1", right justified in columns 1-6.

UFF Type 58

The most commonly used format is UFF Type 58 or "Function at Nodal DOF". UFF Type 58 is specifically designed for dynamic test data and is fully supported by DADiSP/UFF. DADiSP/UFF also supports the binary UFF Type 58b format that allows data to be stored in a more efficient binary form.

FILTERS NEW FEATURES SUMMARY

- Exports Multiple Series to ASCII Type 58 or Binary Type 58b UFF Files
- Saves Interval and XY Series with Real or Complex Values
- Saves Multi-column Real and Complex Series
- Supports Single or Double Precision UFF formats
- Optimized ASCII and Binary Large Data Importing

```
-1
58
CH. 1: Hammer          :N
NONE
27-May-2009 16:10:30
NONE
TIME
1          0      0      0 1X+          1 1 1X+          1 1
2          0      0      1 0.00000E+00 7.81250E-04 0.00000E+00
17         0      0      0 Time          Sec
13         0      0      0 Force          N
0          0      0      0 NONE          NONE
0          0      0      0 NONE          NONE
0.00000E+00 -2.44148E+00 -6.71407E+00 -1.03763E+01 -6.10369E-01 -5.49333E+00
-7.32444E+00 -4.88296E+00 -6.10369E-01 -7.93481E+00 -7.32444E+00 -1.15970E+01
-1.58696E+01 -7.32444E+00 -1.03763E+01 -8.54518E+00 -7.93481E+00 4.27259E+00
1.22074E+00 -1.03763E+01 6.10371E-01 -6.10369E-01 -1.03763E+01 -6.71407E+00
-1.15970E+01 6.10371E-01 -6.71407E+00 -1.09867E+01 -4.88296E+00 -6.71407E+00
-3.66222E+00 -4.88296E+00 -2.13630E+01 6.10371E-01 3.66222E+00 -3.66222E+00
-1.22074E+00 -1.09867E+01 -1.70904E+01 -5.49333E+00 -3.66222E+00 -3.66222E+00
1.22074E+00 -6.10370E+00 -6.71407E+00 -1.70904E+01 -8.54518E+00 -9.15555E+00
-1.77007E+01 1.83111E+00 -8.54518E+00 8.54518E+00 -6.71407E+00 -1.64800E+01
-1.22074E+01 -1.34281E+01 -7.93481E+00 -1.83111E+00 -1.03763E+01 -9.76592E+00
-1.03763E+01 -1.22074E+01 -7.32444E+00 -1.22074E+01 -3.66222E+00 -6.10370E+00
-9.15555E+00 2.44148E+00 -9.15555E+00 -4.27259E+00 -1.46489E+01 1.83111E+00
-1.83111E+00 -3.66222E+00 -6.10370E+00 -1.22074E+00 -9.15555E+00 -8.54518E+00
```

UFF Import

DADiSP/UFF directly imports UFF Type 58 or Type 58b data files and automatically sets sample rate, offset and engineering unit information for each channel. Multiple data runs are saved in separate DADiSP datasets. The imported channels can be loaded into separate Windows or combined into a single Window for display.

UFF Export Series

DADiSP/UFF allows one or more DADiSP series to be saved to ASCII Type 58 or Binary Type 58b formats. New series can be appended to existing UFF files.

UFF Data Formats

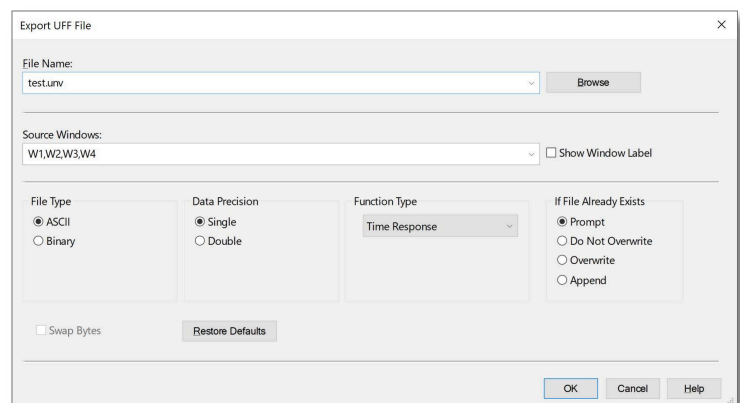
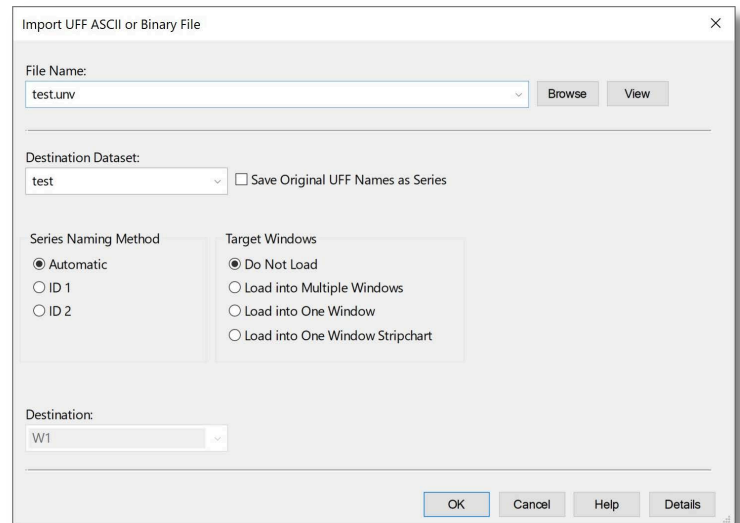
Type 58 or Type 58b regularly sampled and XY data can be imported or exported. Both real or complex data values are supported in single or double precision UFF format.

Simple Menu Interface

DADiSP/UFF runs from the DADiSP worksheet and is accessed by a press of a button. The UFF user interface optionally displays important file information and automatically formats UFF channel names into appropriate DADiSP series names.

Full Analysis System

DADiSP provides a complete analysis, display, and processing environment using UFF data. The integration of DADiSP/UFF into DADiSP makes it easy to automate data import and analysis applications through SPL (Series Processing Language), macros, and command files.



UFF Functions

DADiSP/UFF is a fully dialog based module. However, the following functions can be used on a standalone basis to import or export UFF files.

Function List

- | | |
|-----------|---|
| uffexport | Export one or more series to a UFF file |
| uffimport | Import a UFF file into one or more datasets |