

Reading Ocean Optics SpectraSuite format files with IDL

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Introduction

SpectraSuite is a piece of software used for controlling and logging data from the USB2000 spectrometer. There are options within SpectraSuite to log a data file every time a trigger is received, and this option has been used in many projects at the University of Southampton. This routine is designed to read the files produced in this way when the data type is set to "Tab Delimited".

Usage

To use this routine, call it in the following manner:

```
READ_OO_DATA_FILE, filename, wavelengths=wavelengths,  
dns=dns, datetime=datetime
```

The routine will run silently and only produce output if an error occurs. Once the routine has finished running, the `wavelengths` variable will contain an array of the wavelengths listed in the file; the `dns` variable will contain an array of the corresponding digital numbers for those wavelengths, and the `datetime` variable will contain the time that the spectra was acquired (in Julian datetime format).

NB:

This routine is designed to work with data logged from the latest version of SpectraSuite. OOIBase (an earlier version of SpectraSuite) uses a very similar format, but with a slightly different date format in the header. If an OOIBase file is attempted to be read with this routine, it will produce an error. All that needs changing for it to work is the format specifier in the line of code that reads the date (see comments in the source code for more details).