

# CLIOwin SOFTWARE RELEASE 6: DATA FILES STRUCTURE

Version 1.2

26-11-2002

This articles covers the data files of CLIOwin software version 6.25.

## MLS files (".MLS" or ".MLSI" extensions)

```
char Reserved[797];          /*797 bytes*/
char TimeW;                  /*1 bytes - time window (0=no, 1=HalfHann, 2=Hann, 3=HalfBH, 4=BH)*/
char Reserved[2];           /*2 bytes*/
unsigned int TimeWb;         /*4 bytes - first sample of selected impulse*/
unsigned int TimeWe;         /*4 bytes - last sample of selected impulse*/
unsigned int Size;           /*4 bytes - MLS size*/
unsigned short int Fcamp;    /*2 bytes - sampling frequency*/
char Reserved;              /*1 bytes*/
char ScaleType;             /*1 bytes - Y scale unit (3=Pascal, 5=Ohm, 0,1,2,4=Volts)*/
char Reserved[140];         /*140 bytes*/
float MLSPRe[MLS size];     /*(MLS size by 4 bytes) - impulse data, real part*/
float MLSPIm[MLS size];     /*(MLS size by 4 bytes) - impulse data, imaginary part*/
float MLSXRe[MLS size];     /*(MLS size by 4 bytes) - frequency response data, real part*/
float MLSXIm[MLS size];     /*(MLS size by 4 bytes) - frequency response data, imaginary part*/
char Reserved[8212];        /*8212 bytes*/
```

Total bytes count = 271312 bytes (with MLS Size = 16384).

## SIN files (".SIN" or ".SINI" extensions)

```
struct complex
{
float re;
float im;
};
```

```
struct sinstep
{
float freq;
complex val;
};
```

```
char Reserved[791];          /*791 bytes*/
char ScaleType;             /*1 bytes - Y scale unit (3=Pascal, 5=Ohm, 0,1,2,4=Volts)*/
char Reserved[12192];       /*12192 bytes*/
sinstep sindata[601];       /*7212 bytes - sweep data, fundamental*/
char Reserved[8212];        /*8212 bytes*/
sinstep sinthddata[4][601]; /*28848 bytes - sweep data, harmonics*/
```

Total bytes count = 57256 bytes.

## FFT files (".FFT" extension)

```
char Reserved[788];      /*788 bytes*/
unsigned int Size;      /*4 bytes - FFT size*/
unsigned short int Fcamp; /*2 bytes - sampling frequency*/
char Reserved[2];      /*2 bytes*/
char FreqAxis;         /*1 bytes - X axis kind (0=Log, 1=1/3 Oct, 2=1/6 Oct, 3=Lin)*/
char Reserved[11];     /*11 bytes*/
char ScaleType;        /*1 bytes - Y scale unit (3=Pascal, 0,1,2,4=Volts)*/
char Reserved[15];     /*15 bytes*/
float MicASens;        /*4 bytes - microphone sensitivity, channel A*/
float MicBSens;        /*4 bytes - microphone sensitivity, channel B*/
char Reserved[196];    /*196 bytes*/
float AFFT[FFT size];  /*(FFT size by 4 bytes) - processed FFT data (squared), channel A*/
float BFFT[FFT size];  /*(FFT size by 4 bytes) - processed FFT data (squared), channel B*/
float ATime[FFT size]; /*(FFT size by 4 bytes) - last acquisition time data, channel A*/
float BTime[FFT size]; /*(FFT size by 4 bytes) - last acquisition time data, channel B*/
char Reserved[16968];  /*16968 bytes*/
```

Total bytes count = 83532 bytes (with FFT Size = 4096).