

Using Kermit 95 v2.0 (K95) to receive data from the Optical Multichannel Analyzer (OMA)

by : Jacob Grimes

! Kermit 95 is available from columbia university and can be down loaded from <http://www.e-academy.com>. Note there are free trial and purchase versions

1) using an RS232C cable with null modem capacity, connect the OMA's serial port on the CPU card to the COM port on a PC.

2) Make sure K95 is installed properly.

3) Run a copy of K95. At the command prompt type the following commands (where 'K-95>' is the prompt and 'xxx' is a variable in the command. everything after a '/' is a comment)

```
K-95> SET PORT COMxxx /* set the port to use, dependant on connection
```

```
K-95> SHOW COMMUNICATIONS /* to see that the port has been set
/* properly, and check the Baud rate
```

```
K-95> SET SPEED xxx /* NOTE: the OMA has a variable Baud rate
/* make sure the two rates agree, 9600 is a good setting
```

```
K-95> SET CARRIER-WATCH off
```

4) On the OMA [RETURN] back to the start-up screen and press [SYSTEM SETTINGS]. Make sure that [I/O function] is set to 'printer' and [PORT SELECT] is set to 'CPU Serial'. Baud rate is also set on this page. [RETURN] to the main menu

5) In K95 run the command below. A blue screen will appear, this is where the data will be captured.

```
K-95> CONNECT
```

6) In the Main Menu choose [PRINTER ROUTINES]. On the Printer Routines page select [NEW SOURCE] to set the source .DAT file for output. Then press [SOURCE PRINT] to send the data.

7) The data should appear in the blue screen on the receiving computer. You can toggle between the Terminal(blue) and the Console(black) screens by pressing the double arrow button in the upper left corner of the GUI window. You can copy the data to the clipboard by using the menu option [Edit / Mark mode / Copy to clipboard], from whence it can be retrieved by using a paste command into whatever windows program desired.

THUS ENDETH THE LESSON.....

Manual to Conversion program

by Jacob Grimes

NOTE: Conversion.exe and the accompanying source code in Conversion.cpp are mainly intended for use with data gathered from the Optical Multichannel Analyzer and stored a .txt file.

'Conversion.cpp' is freely distributable under the GNU Public License. The included .exe file may not be however as it was compiled under MS Visual C++.

This manual is intended as an addendum to the OMA to K95 manual.

Description: Converts multiple columns of data into one column, ignoring number markers, and calculating the wavelength that corresponds to each data point.

- 1). Place a copy of conversion in the same directory as the files you wish to convert.
- 2). Open a window to your favorite command prompt and change directories to the one where your files are located.
- 3). Type 'conversion' at the command prompt.
- 4). Answer the questions as prompted (as truthfully as possible).
 - a). Where do you want to read from?
 - b). Where do you want to write to?
 - c). What line do you want to start at?
 - d). Starting Wavelength?
 - e). Spacing? (if you know it, if not don't worry).
 - ***Below are added to accommodate spacing impaired
 - E1). Final wavelength?
 - E2). Number of data points?
- 5). NOTE: it is a good idea to know the answers to the questions above ahead of time.
- 6). Data will be written to the current directory in the file specified (4b).
- 7). Convert another file/or not.

The Data is now in a suitable format for use in MS Excel.

