

## CURRICULUM VITAE - BRIAN GREGORY

Name: Brian David GREGORY.

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Date of Birth: 13th January 1961 .

Age: 43 Years.

Marital Status: Single

Nationality: British by birth.

## Education and Qualifications

University of Reading October 1979 - June 1983

Main Subject: Computer Science.

Subsidiary Subjects: Mathematics (3 Terms),  
Physics (2 Terms),  
Statistics (5 Terms).

Final Year Project: Implementation of Forth under Unix on a PDP11 computer.

Degree course: BSc (Hons) in Computer Science.

Final Result: Degree Class: Third.

Maiden Erlegh School, Reading September 1972 - June 1979

GCE 'O' Levels: June 1976 Mathematics (A).

June 1977 Additional Mathematics (B),  
Biology (B),  
Chemistry (A),  
Technical Drawing (A),  
Physics (A).

November 1978 English Language (C).

GCE 'A' Levels: June 1979 Chemistry (D),  
Mathematics (C),  
Physics (A).

## Employment

May 1989 – Present:

Textile Electronic Controls Limited.  
19 Claremont Avenue  
Walton-on-Thames  
Surrey  
KT12 4NS

Work undertaken: I am working on a freelance basis doing computer programming in 6803 assembler, Intel x86 assembler and 'C' plus electronics design and repair work for industrial control systems.

November 1984 - May 1989:

Bermount Industrial Controls Limited.  
Lansbury Estate,  
Knaphill,  
Woking,  
Surrey.

Position: Computer Programmer.

Work undertaken: Developing control and communications software in 'C' and Modula 2. Designing and building prototype interface circuits. Testing and repairing microprocessor based control systems.

Final salary: £10,000 p.a.

Reason for leaving: My employer became insolvent.

November 1983 - October 1984:

Micro Control Systems Limited.  
Lansbury Estate,  
Knaphill,  
Woking,  
Surrey.

(Place of employment was at Reading University November 1983 - May 1984)

Position: Computer programmer.

Work undertaken: Developing software in B.B.C. BASIC, 6502 assembler, and 6803 assembler for microprocessor based monitoring and control systems.

Final salary: £5000 p.a.

July 1983 - October 1983:

The Microprocessor Unit.  
University of Reading.  
Whiteknights Park,  
Reading,  
Berks.

Work undertaken: Converting a BASIC interpreter written in 6800 assembler in to 6809 assembler, testing and debugging it, and adding features designed especially for control applications.

Earnings: £700 for the contract.

## Experience

### Computer Systems:

IBM PC Compatible running MS Windows	1989 – Present
Z80 computers running CP/M 80	1983 – 1989
BBC Computer	1983 – 1987
HP64000 Development System	1983
PDP11/44 with UNIX operating system	1982 – 1983

### Programming Languages:

'C' / C++	1983 – Present
6809 and 6800 series assembler	1982 – 2000
Intel x86 assembler	1989 – 2000
Modula-2	1987 – 1990
6502 assembler	1983 – 1987
6805 assembler	1983 (Hobby only)
Microchip PIC 16C55 assembler	1998 – 1999
Unix PDP11 assembler	1982 – 1983
Forth	1982 – 1983
Z80 and 8080 assemblers	1981 – 1988
Pascal	1981 – 1983

### Electronic Design:

6809 and 6800 series systems	1982 – Present
Intel 80C188EB	1998 – 2000
Microchip PIC systems	1998 – Present
Single chip microprocessor systems	1983 – 1990 (Hobby only)
Digital Interfaces	1983 – Present
Analogue interfaces	1983 – Present
Z80 systems	1981 – 1989

## Main projects at work

### TPC4000 Advanced Dye Machine Controller (1998 – 2001):

A temperature probe and level sensors in dye bath monitor the temperature and liquid level. A Intel 80C188EB microprocessor based controller with a keypad and an dot matrix LCD display controls a heater, cooling device and many fill, drain and mixing valves and motors. The controller stores a library of “programs” written in our own interpreted Dye Machine Control language which when run fill, drain and mix the bath and make the temperature follow a complex profile as is required to dye yarn. The controller has an RS485 serial interface which can be used to start and stop and remotely monitor progress.

I was responsible for all the electronics design and half of the programming in ‘C’ and with a little Intel x86 assembler. This included writing my own interrupt driven multi-tasking system.

### TPC1000 and TPC3000 Dye Machine Controllers (1990 – 2000):

A temperature probe and level sensors in dye bath monitor the temperature and liquid level. A microprocessor based controller with a small keypad and an LED display controls a heater, cooling device and fill and drain valves. The controller stores a library of “profiles” which when run fill and drain the bath and make the temperature follow a complex profile as is required to dye yarn. The controller has an RS485 serial interface which can be used to start and stop and remotely monitor progress.

I was responsible for all the electronics design and programming (in 6803 assembler).

### Dye Bath Controller (1984 – 1989):

A supervisor computer was connected to several STE Bus based local dye bath controllers via a serial link. Each controller could be remotely set up to follow a complex program as necessary for dyeing a particular yarn. The supervisor computer provides a library of programs and recipes, and stores job records.

I wrote the program for the supervisory computer used in the prototype and first production version of the system. I ordered and progressed delivery of electronic components and assisted in testing both in the office and on site; making program changes and improvements as required. I designed and built test boxes and prototype interface boards for the system, and prepared a communications program for the remote control of a demonstration system for use at industrial exhibitions.

### Wire rope tension recorder (1983):

A load cell connected to a battery powered microprocessor data logger monitors the tension in a wire rope while it is in service. The data logger is fitted with a serial interface which is used to transfer the accumulated data into a computer which calculates whether the rope is nearing the end of its life. This can be used to reduce wastage and/or increase safety and is particularly useful for applications where safety is important such as large cranes.

I was responsible for designing and constructing the prototype data logger hardware and for writing its software (in 6803 assembler).

## Leisure Activities

### Personal Computers:

I own several IBM compatible personal computers which I enjoy both using for a variety of purposes including programming. I have a large collection of software including "freeware" and "shareware" programs which have provided me with many useful programs and programming examples in several languages.

### Hobby electronics:

I have designed and built many analogue and digital electronic projects including two using single chip microprocessors for which I also wrote the software.

### Short wave radio:

I enjoy listening to short wave radio, amateur, broadcasting and utility which has increased my knowledge of geography and life in other countries.

### Relaxation:

My main interests are listening to music, reading, and walking.

## References

1. Mr Roger Y. Hitch.  
19 Claremont Avenue  
Walton-on-Thames  
Surrey  
KT12 4NS

Roger was technical manager at Bermount Industrial Controls and he is now Managing Director of Textile Electronic Controls.

2. Dr Roger J. Loader.  
Dept. of Computer Science,  
University of Reading.  
Whiteknights Park,  
Reading,  
Berks.  
RG6 2AH.  
Phone (work) (0118) 987 5123

Roger was my tutor at Reading University.