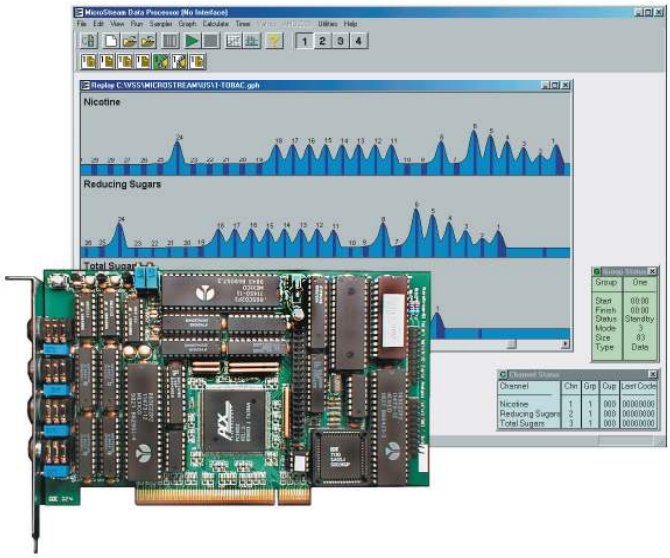
MicroStream Data Processor

Data Acquisition and Analysis for Continuous Flow and Flow Injection

Introduction

The latest MicroStream data system is the result of over fifteen years experience in interfacing technology and represents the company's dedication to be market leaders in the field of automatic data capture and analysis. Our aim has been to design a product that is accurate, reliable and simple to use, yet is powerful enough to provide all the functionality required by a modern analytical laboratory.

Our latest software is written for Microsoft Windows 98, Windows 2000 or Windows XP. This means that data can be shared with other popular Windows programs and anyone who is familiar with Windows will find it very easy to use.



Real Time Analysis

Primary data acquisition, graphics, peak detection, calibration and calculation all take place in the background, so results are produced immediately upon a peak being detected. Such multi-tasking is achieved with the use of a dedicated microprocessor based analogue interface card which fits neatly into a standard expansion slot inside the computer.

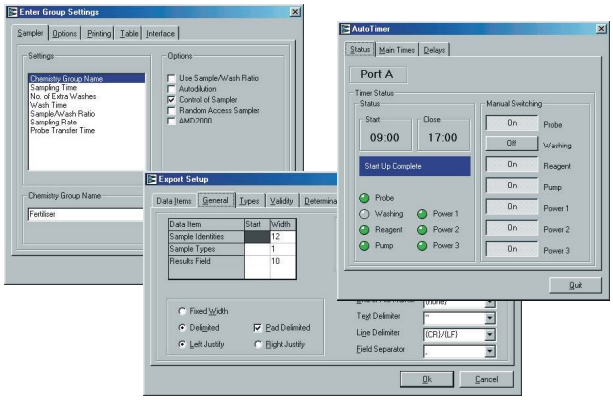
Special Features

MicroStream is very easy to set up because peaks are captured to have similar dimensions (height and width), independent of the channel or analysis speed.

A dynamic time-windowing technique for peak detection is employed - coloured time windows are reassuringly displayed synchronising with peaks on the screen. Raw analogue data may not be changed. For security the raw analogue data are stored separately from the derived peak height data, which may be edited.

Template Files

MicroStream uses template files, known as 'form' files, to simplify loading analysis methods, peak-picking parameters, sampler table arrangements etc., and to speed up the process of preparing work or data files. Template files are easy to generate and maintain.



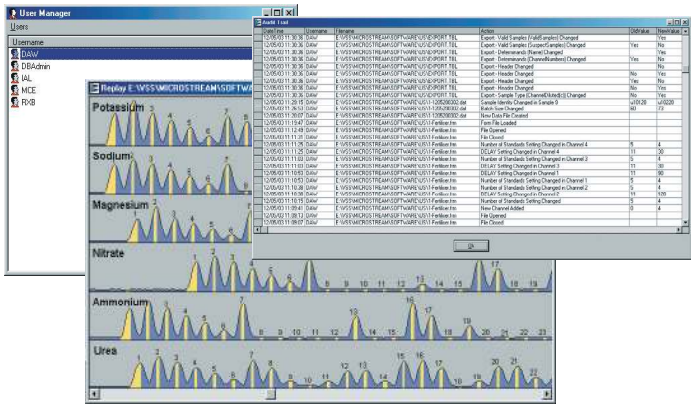
Import and Export Files

Modern laboratory information management systems (LIMS) will generate electronic work sheets and accept data from instuments. The file import / export functions incorporated into the software can be used to define the format of these files simplifying the task of linking up MicroStream to LIMS.

CFR Audit Trail

In order to satisfy the FDA rule relating to the use of electronic records and electronic signatures (21 CFR Part 11), MicroStream incorporates an audit trail, which records every action taken by an operator, thus providing a completely traceable record of an analysis and who performed it. Each user has their own Username and Password.

The database contains the time and date of the entry, the Username, details of any file affected, the action, the old value, the new value and a field reserved for comments. MicroStream does not include any digital signatures.



Software Support

Burkard offer comprehensive software support, which includes method development and interfacing requirements. Structured 1 to 2 day training programmes are available with practical 'hands on' experience using a continuous flow analyser.

The AMD2000 Dilutor

The AMD2000 is an automatic in-line dilutor designed for use with continuous flow analysers. Functions to control the dilutor are included in the MicroStream application.

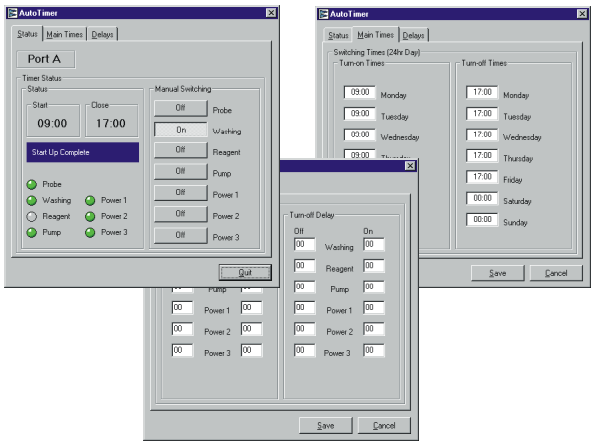
Using a single standard solution, the AMD2000 can automatically calibrate an instrument and process a sequence of over 500 samples. It has the capacity for up to 60 calibrants (including drift control standards) and 15% of unknown samples can be assigned different dilution levels from a library of over 30. Moreover, the run can contain several wash samples (blanks).

The dilutor can be connected to a conventional sampler which can be 'stepped' through the sampling sequence or it can be used with a more sophisticated random access sampler for analysis and re-dilution.

The 4R2V Interface

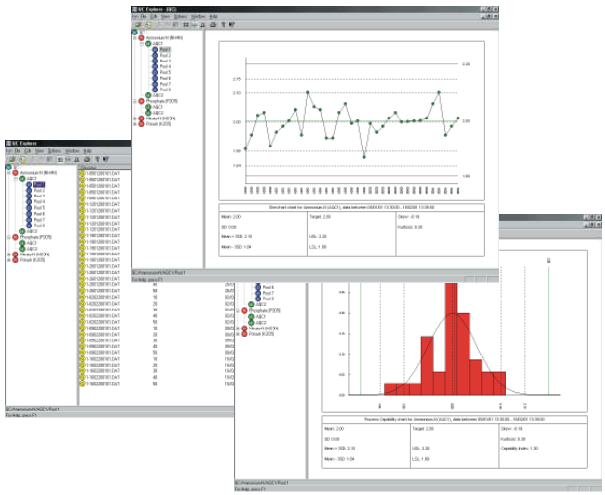
The 4R2V is designed to connect to one of the two digital ports of a MicroStream card and is operated using the Autotimer function, which is part of the MicroStream software package. The interface converts the digital signals from the MicroStream port into outputs that can switch external mains powered equipment on and off.

The autotimer can then power up the various components of an analysis system ready for use in the morning and automatically power the system down at the end of the day. The interface contains four solid state relays for powering mains equipment and two valve outputs. The unit has also a 'pass through' circuit for operating an autosampler. A total of two 4R2V interfaces may be connected to a single MicroStream.



AQC Explorer

The AQC Explorer option is designed to directly import and store AQC data from data files created by the MicroStream processor. Once the data is in the database, different reports can help you visualise analyser performance. AQC data can be displayed in tabular fashion, as a standard run or 'Shewhart' chart and also as a process capability chart.



Specification & Features

- Groups : 4
- Channels : 4, 8, 12 or 16 with independent converters
- Resolution : 16 bit Sigma Delta ADC
- Cups per Channel : 300
- Peak widths of minutes down to 5 seconds
- Full Error and Peak Detection Coding
- Multiple Sample Types
- Baseline Correction
- Carryover Correction
- Sensitivity Drift Correction
- Wide Range of Peak widths
- On / Off peak spike rejection
- Filtering for noisy baseline
- Run-time editing, display and recalculation of data
- Real time print out of data and results
- Real time display of calibration graphs, peak heights
- Sub-Channels
- Sample weights and dilution factors
- AutoSampler Control including Pause / Resume
- Automatic Start-up and Close-down
- External control of valves, pumps etc
- Worksheet generation
- File Import / Export facility
- CFR Audit Trail
- Link to spreadsheets, databases, LIMS
- Automatic Dilutor Option for Samples and Standards
- AQC option available - 'AQC Explorer'

System Requirements

- PC with a Pentium class 233 MHz processor or faster (500 MHz Recommended)
- Windows 95 (ISA Only) / 98 / ME / 2000 / XP
- 64MB System Memory (128MB Recommended)
- 50MB Hard Disk Space plus Space for Data Files
- Video adapter & monitor with SVGA or higher resolution
- Keyboard
- Microsoft Mouse or Compatible Pointing Device
- CD-ROM or DVD-ROM Drive
- 1 Free PCI Slot or 1 Free Full Length ISA Slot
- Additional spare slot at rear of case required for Digital or Analog Expansion

Ordering Information

Product Code	Description
BS00237	Microstream Data Processor
BS02007	Microstream AQC Explorer Software
BS02483	Automatic System Controller, 4R2V
BS02482	AMD2000, Automatic Micro-Diluter

The company reserves the right to make changes to the specification without notice.

BURKARD SCIENTIFIC

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