

**PERSONAL PARTICULARS**

Name Christopher David DUNCAN  
 Date of Birth 8th June 1965  
 Nationality Australian Citizen  
 British Citizen  
 Marital Status Married  
 Contact [Chris\\_Duncan@consultant.com](mailto:Chris_Duncan@consultant.com)  
[www.chrisdduncan.com/resume.htm](http://www.chrisdduncan.com/resume.htm)

**EDUCATION**

1983 - 1987	B.Sc. Hons. Computing & Informatics	Plymouth Polytechnic
1981 - 1983	O.N.D. Engineering Technology	Torquay Technical College
1976 - 1981	6 G.C.E. 'O' Levels	Knowles Hill Comprehensive

**TECHNICAL SUMMARY**

<b>Equipment</b>	IBM MAINFRAME	IBM PC	ROCC	BBC MICRO
<b>Operating Systems</b>	MVS / XA	WINDOWS / MS-DOS	UNIX	ROCC OS
<b>Languages</b>	NATURAL 4,3,2,1 COBOL TELON	LIGHTSTORM DL/1 BBC BASIC	NATURAL ND CONSTRUCT	VISUAL BASIC SQL
<b>Database</b>	ADABAS C, D	DB2	IMS	ACCESS
<b>Software AG</b>	PREDICT DEBUG	ENTIRE-CONNECTION PROCESS	NATURAL ENGINEER PAC	ENTIRE X ESPERANT
<b>Windows</b>	EXCEL	WORD	POWERPOINT	PROJECT VISIO
<b>Other</b>	JCL PEEK	TSO / ISPF / SDSF PLATINUM	ABEND AID LOTUS NOTES	FILE AID

**EMPLOYMENT SUMMARY**

I have over 20 years experience in IT covering a broad range of skills and roles, having worked in many business areas (Finance, Insurance, Banking, Policing, Engineering, Utilities, Software) in the Private and Public sectors.

**Technical Skills**

My main skills are in mainframe Natural Adabas but I have worked with Natural in many different forms.

- Natural Adabas in an MVS environment.
- Natural DB2 using embedded SQL.
- Natural for Windows producing GUI, event driven applications.
- Natural for Unix

I also have skills in :-

- Visual Basic and Access.
- Strong skills in Word and Excel.
- A beginner's knowledge of Java.

**Roles**

I have worked in a variety of roles :-

- Consultancy
- Project / Team Leader
- Business Analysis
- Systems Analysis
- Analyst Programmer
- Conducting Natural courses
- Installation / Upgrading of Software AG products
- Presentations to customers and internal staff
- Development Maintenance and Support

**COURSES ATTENDED****Software AG**

- NATURAL 1 programming - 5 days
- NATURAL 2 programming - 5 days
- CONSTRUCT - Introduction - 3 days
- CONSTRUCT - Application Modeling - 3 days

**Mainframe audio visual courses**

- MVS OS concepts
- JCL Basic Coding
- IMS Concepts / DL/1 / MFS

**UNIX**

- UNIX - Fundamentals - 5 days
- UNIX - Exploring the File System
- UNIX - Working with Files
- UNIX - Shell Programming

**JAVA**

- Introduction to JAVA
  - 10 week evening course
  - Hands on and Theoretical

## EMPLOYMENT DETAILS

<b>Jun 2007 - Oct 2009</b>	<b>May 2009 Present</b>	<b>IBM Global Services Sydney</b>
2 years 11 months		Business Analyst / Senior Analyst Programmer
	NATURAL 3.1.5 & 6.3.8 ENTIRE X XML	ADABAS JCL PROJECT
	DEBUG EXCEL VISIO	PREDICT WORD UNIX
		TSO WINDOWS SCRIPTING

Jemena is a GAS network company that has out sourced their IT work to IBM Globals Services. IBM was responsible for maintaining the GASS system during the de-merger of AGL and Jemena, and porting the system to Unix.

### Porting Project – From Mainframe to UNIX

The GASS system was ported from the Mainframe to a Unix (AIX) environment. My role was to automate the migration of all necessary datasets and convert the data to a format compatible with Unix. I remediated a number of utility tools to work under Unix and created several scripts.

### GASS Make Whole Data Conversion

I was responsible for the following:-

- Documenting and administrating the data conversion process, consisting of about 100 jobs and 200 programs
- Coordinating the work among a number of team members on the verification process
- Adding technical efficiency improvements to reduce the overall run time from a few days to just several hours

### EDI Interface

The EDI interface handles the translation and processing of XML transactions between the Gas Market Company's system GRMBS (following aseXML standards) to GASS+ functions. I was responsible for documenting this process.

### Miscellaneous

- I was responsible for upgrading to Natural 6.3.8 and Adabas 6.1.8
- I improved the Change Management process to easily provide auditing artefacts and in the separation of duties.
- I produced a detailed Software Configuration Plan on the migration of all relevant software items.
- I wrote the business requirements documentation for the Network Diary processing and later became the Subject Matter Expert in this area.

<b>Jan 2005 - Jun 2007</b>	<b>NSW POLICE Sydney</b>
2 years 6 months	
Project Leader / Business Analyst / Senior Analyst Programmer	
NATURAL 3.1.5 ENTIRE CONNECTION ENTIRE X	ADABAS JCL PROJECT
DEBUG EXCEL	PREDICT WORD
	TSO WINDOWS

I worked on 3 separate projects (simultaneously for a large period of time) all of which were legislative driven and on the Integrated Licensing System (ILS). I liaised with both internal and external stakeholders to resolve any conflicts.

### Firearms

Legislative changes now allow firearms users to safely store firearms at numerous locations. Several enhancements were introduced, including improvements to the location enquiry screen where firearm details are more prominent and available. All these enhancements were very well received by front line police officers.

### CAPI Licensing - Commercial Agents (CA) and Private Inquiry Agents (PI)

CAPI licences were previously issued through the NSW courts. New legislation requires that the application process is recorded through Security Industry Registry. CAPI licences are now produced as a plastic card at local RTA offices.

### Security Licensing

Among a number of changes, was the recording of applicant training details from Registered Training Organisations (RTOs). This required a web system to be built with an Entire X interface to the ILS mainframe system.

### Others

I later created two additional Business Requirement documents for Recovered Assets and Multimedia Services, producing business flow diagrams to map the processes and rules for all parties and systems involved.

### Summary

- I worked in many roles on these projects, from Project Leader, Business Analyst to Senior Analyst Programmer.
- I wrote the Business Requirements, Functional Specifications, User Manuals and Test Plan documentation.
- I coordinated the projects consisting of over 500 Natural objects and the resources of 5 Analyst Programmers.

<b>Mar 2003 - Aug 2004</b>	<b>GENERATION SYSTEMS LTD</b> <b>East Grinstead, England</b>
1 year 6 months	Senior Analyst Programmer
	NATURAL 6.1.1 (windows) ADABAS NATURAL ENGINEER DEBUG TSO JCL WORD EXCEL VISIO WINDOWS PAC

Generations System Ltd. is a software company specialising in tools for use with Natural Adabas. As a result they have a very strong partnership with Software AG.

Their flagship product is Natural Engineer (based on their Y2K tool GenArt) a general analysis and conversion tool.

Natural Engineer is available under both Windows and Mainframe platforms, so work was required on both platforms.

### **Reporting Mode to Structured Mode conversion**

One of the features of Natural Engineer is the conversion of Reporting Mode objects to Structured Mode. My primary tasks was to build, enhance, maintain and support this function. This is achieved by:-

- First parsing a Natural application to build a detailed repository (in the form of an Adabas file).
- Reading the repository to build a series of tables (held in memory outside of Natural)
- Scanning the original code then reading the tables and repository, to build the Structure Mode objects

### **SPOD conversion**

Natural Engineer could be used with Entire Network to allow a PC front end interfacing to Mainframe databases and source code. Unfortunately Entire Network is both expensive and slow. Software AG developed 'Single Point of Development' (SPOD) to overcome this.

I was part of a large project to make Natural Engineer SPOD compliant. This involved:-

- Developing efficient techniques to transfer data between platforms.
- Modification of dialogs to conform to the new GUI standards.

### **PAC interface**

I wrote the interface between Natural Engineer and PAC using a number of supplied APIs.

<b>May 2002 - Feb 2003</b>	<b>JP MORGAN CHASE</b> <b>Bournemouth, England</b>
10 months	Business Analyst / Analyst Programmer
	NATURAL 3.1.5 ADABAS PEEK PREDICT DEBUG TSO JCL WORD EXCEL PROJECT WINDOWS NT

I was a member of the Finance AD team, which is responsible for the corporate General Ledger System (GLS) and its interfacing and regulatory reporting systems.

### **VAT Reporting**

I worked as the principal Analyst Programmer on a project to restructure and implement the VAT reporting suite for all major UK Legal Entities, following the Chase / JPMorgan merger. This was a high profile project as it meant following requirements set by Customs and Excise to create a consistent and dynamic VAT recovery methodology. Any mistreatment or over recovery of VAT can lead to significant financial penalties. I was involved in all stages of the project from the initial feasibility meetings through to post implementation reviews. This involved :-

#### Design

I produced the following :-

- Feasibility report
- Project Definition Requirements report
- Program Specifications

#### Build

- Supervision of off-site Analyst / Programmers
- Creation of new and amended Natural code
- Amendments to the JCL suite
- Code reviews

#### Implementation

- Testing and quality assurance
- Coordinating with the implementation team
- Presentation on the enhancements to the callout and frontline support teams.
- Post implementation reviews

### **Other Tasks**

Although the VAT Reporting project was my primary responsibility, other tasks included:-

- Impact analysis on upgrading code to Natural 3.1.5.
- Work on a new starters guide.

<b>May 1999 - May 2002</b>	<b>NSW POLICE Sydney</b>	<b>- through SOFTWARE AG</b>				
3 years	Analyst Programmer					
	NATURAL 2.3.2 ENTIRE CONNECTION	ADABAS JCL	DEBUG EXCEL	PREDICT WORD	TSO WINDOWS 95	

I worked on a number of different systems while with ITS Support. This was very challenging, as the systems are very large and highly complex. By the sheer nature of Police systems (dealing with criminal data) integrity and security were paramount. The main systems I worked on were:-

COPS	Warrants	Property Management
Electronic Billing	Safe Driver	ILS

### Fringe Benefit Tax Download

New legislation required that the details of Fringe Benefits Tax (FBT) be calculated for each individual service member occupying or has occupied a service residence within the FBT year. This involved consulting with the Finance, Property Management and Payroll teams to ascertain what data was required. This was then downloaded using Entire Connection into a spreadsheet, where a macro was run to format the information.

### Pawn Broker System

Pawn brokers and second hand dealers are required by law to provide details of all their transactions. This includes pawning, purchasing, and identification details. I provided support for the whole process, from receiving the data through to numerous property reports. This involved:-

- Disk upload to the mainframe using Natural Connection, and data validation.
- Updating the database, involving property and person matching (a highly sensitive issue).
- Property reports – matching pawned property against property reported stolen.

### Occupation Changes

While there were numerous codes for standard occupations there was a need to allow a free text description. While this was basic change, it affected all areas of the COPS system, over 50 objects and a few database changes.

### Improvements to the Development and Support Environments

I made a number of enhancements to the 'Error Logging' process, ensuring extra information was logged. I also introduced a new 'Browsing' function which meant useful information could be quickly and easily pulled together.

I developed a whole suite of general-purpose utilities. The main ones were:-

- A quality-check program, which scans a Natural object, performing over 50 checks.
- A general browse DDM program generator
- A cursor sensitive utility which provided details on a number of program entities (statements, objects etc)

I performed a number of live demonstrations to the IT development and support staff.

<b>Feb 1999 - April 1999</b>	<b>STEELMARK Sydney</b>	<b>- through SOFTWARE AG</b>			
3 months	Consultant				
	NATURAL 2.2.8 DELTA SAVE NATURAL SECURITY	ADABAS ONLINE SERVICES NATURAL VSAM	PREDICT NATURAL CONNECTION WINDOWS 95	EXCEL	

### Year 2000 remediation

This involved running N2000 workbench, SPL's year 2000 remediation tool. I then went on to produce new windowing routines and database conversion programs, as well as code maintenance.

### Software Upgrade

In addition to maintaining the Natural code, numerous Software AG products had to be upgraded to ensure SteelMark's systems were year 2000 compliant. This meant upgrading their environment as following: -

Natural	2.2.8	Natural Security	2.2.8	Predict	3.4.2
Natural VSAM	2.2.7	Natural Connection	2.2.8	Adabas Online Services	6.2.2

The upgrade process involved liaising with the System Programmer and Database Administrator at SteelMark and SPL (Software AG) experts based in Canberra.

In summary the tasks involved were:-

- Applying the appropriate parameter settings (for example NATPARM).
- Submitting jobs to load, assemble and link drivers.
- Install system files (for example system programs, error numbers, example files etc).
- Implementing any corrections, in the form of ZAPS, INPLs and Error load files.

<b>Aug 1998 - Feb 1999</b>	<b>ALLTEL INTERNATIONAL - through SOFTWARE AG Sydney</b>				
7 months	Project Leader				
	NATURAL 2.3.2 WINDOWS 95	NATURAL 2.2.8	NATURAL NT 3.1	EXCEL	WORD

As Alltel were converting all their Natural systems for year 2000 compliance, it was decided to upgrade from Natural 2.2.8 to the fully compliant version, Natural 2.3.2. I was responsible for detecting all the issues related to upgrading code to Natural 2.3.2.

My first task was to produce a 'Natural 2.3.2 Options paper'. This discussed the following areas :-

- The various states that Natural systems could be in, before and after Y2K compliance
- The possible implementation options and how they applied to systems/projects under Alltel
- Provided recommendations on which option to use for which system/project

I wrote many testing programs to run in Natural 2.2.8 and 2.3.2 to investigate the full nature of any syntactical and behavioural changes.

Together with my own findings, Software AG documentation and issues specific to Alltel, I produced the 'Natural 2.3 issues' document. This outlined :-

- All the code issues associated with upgrading from Natural 2.2.8 to Natural 2.3.2.
- Described how these issues would be detected.
- Provided a recommended solution.

I developed software to detect the new Natural 2.3.2 behavioural issues. This was used in conjunction with SPL's N2000 tool together with CATALL reports in Natural 2.2.8 and Natural 2.3.2, to highlight all the potential issues. This system produced several Microsoft Excel reports to show the Natural 2.3.2 impact at a management level, down to detailed reports for the programmer.

I produced a user manual describing the whole process.

I supervised a small team to run this process and produce the necessary reports. The team was required to analyse every potential issues, determine if it was an actual issue and provide a recommended solution so that the system owner could easily make the necessary changes.

My final task was to produce a paper showing the new and enhanced features of Natural 2.3.2. along with appropriate examples of their use.

<b>Jan 1998 - July 1998</b>	<b>TIMELESS SOFTWARE LTD Hong Kong</b>				
7 months	Senior Consultant				
	VISUAL BASIC 5	ACCESS	EXCEL	WORD	WINDOWS 95

As I have a thorough background in Natural together with the numerous utility / tools I have written, I became involved in the company's Year 2000 research. I produced several documents detailing all the date-related issues with Natural.

I was formally moved to the Development and Research team. My duties were varied. One of my earlier tasks was to perform general research into the Year 2000 problem. This included reviewing Y2K publications and existing products.

I worked with a small team to design and create the only Year 2000 tool developed in Hong Kong. The tool was a multilingual, scanning and conversion tool. This involved the following tasks :-

- Detailed interviews with language specialists to find all the date related issues.
- Database design.
- Overall system design.
- Generalised parsing techniques to find all variables, subroutines and external objects.
- Conversion rules, ranging from simple replacement to parameterised code insertion.
- Programming in Visual Basic 5. I wrote the parsing and conversion modules.

By using generalised techniques, with rules built into the database, meant the tool was very flexible and new languages could easily be applied.

I was also responsible for the presentation of the tool. I created a CD-ROM using Lotus Screen Cam to be reviewed by potential customers. In addition to the CD, I would perform 'live' demonstrations of the tool to prospective clients and outline the company's Year 2000 methodology.

<b>Feb 1997 - Nov 1997</b>	<b>SOFTWARE AG Hong Kong</b>			
10 months	Business Analyst / Analyst Programmer			
	NATURAL ND EXCEL	NATURAL LIGHTSTORM WORD	ADABAS D WINDOWS NT	ACCESS

I joined Software AG's Product Services Group, to create a Reinsurance Application package. This system was in a client / server environment running on a Windows NT platform, using Natural ND and Adabas D.

I worked on all areas of the system but focused mainly on the following modules :-

- Table Maintenance
- Technical Accounting
- Treaty System
- Claims
- Security
- Reporting

My worked involved the :-

- Analysis of user requirements.
- Creating time quotes.
- Database design and creation.
- Program specifications.
- Coding and user training.

I become responsible for the development standards and quality assurance. This led to a comprehensive document to be used for future development projects, not only in Hong Kong.

This also involved creating common code for :-

- System security
- Validation and formatting
- Active help routines
- Executing Natural Reporter templates online (to print or preview WYSIWYG reports)

In addition I conducted a three day 'hands on' training course for the customer's data processing department. The course was a great success with the customer evaluation reports scoring the highest marks obtainable.

<b>Apr 1996 - Sept 1996</b>	<b>SOFTWARE AG Hong Kong</b>			
6 months	Analyst / Programmer			
	NATURAL LIGHTSTORM EXCEL	ADABAS D WORD	ACCESS WINDOWS 95	UNIX

My first assignment at Software AG was with the Customer Support Group. My role was to assist customers with their enquiries. This involved logging their problems, asking relevant questions to get a full picture of the problem / request, searching previous log records to find similar cases and ,where necessary, consulting with Software AG's technical experts in Darmstadt, Germany.

My duties included reviewing and evaluating Natural Lightstorm, Software AG's new Natural Adabas development package for the PC platform. This is a system that can create GUI event driven applications.

I also assisted in the preparation and tuition of Software AG's Mainframe Natural Coding Course.

I worked on an analysis and debugging task using Natural on a UNIX platform, at a client site.

Later I moved to the Product Services Group, where I worked on what was reportedly the largest data analysis project in Hong Kong. The project was to produce a logical and physical corporate data model for the Housing Authority.

I wrote several programs to parse the data layouts of a variety of different database systems and to create a mirror image of their existing tables into one common data pool (Microsoft's Access). I helped in the data analysis by merging and normalising the different tables into one corporate model.

<b>Apr 1995 - Jan 1996</b>	<b>CHASE MANHATTAN BANK LTD Hong Kong</b>			
10 months	Analyst Programmer			
	NATURAL 2 TSO	ADABAS JCL	NATURAL CONNECTION WINDOWS	PREDICT VISIO

At Chase, I worked on the MID system, a substantial Management Information Database used in Hong Kong, Singapore, Australia, Japan, Thailand and China. The system existed in a variety of different versions for the different countries. I worked on a vast project to produce a new MID version, which would follow Chase's global standards. This enabled MID to link with other systems throughout Chase worldwide.

As well as working on numerous maintenance tasks, I developed a series of conversion programs. These would upgrade the existing data to be compatible with the new MID specifications.

As I had a strong technical background in Natural / Adabas, I was well suited to act in an advisory role for other teams in the Financial Management System area.

My work included writing a general purpose utility to view or update Adabas data along side its associated DDM. This aided in system development and ensured a fast, accurate means of creating and viewing database data.

<b>Mar 1994 - Mar 1995</b>	<b>I.T.S.D. (Hong Kong Government - Inland Revenue) Hong Kong</b>			
1 year	Analyst Programmer			
	NATURAL 2 NATURAL-PROCESS TSO WINDOWS	ADABAS NATURAL CONNECTION JCL VISIO		CONSTRUCT PREDICT REXX WORD

I was a member of the Applications Support Team. A team which provided technical help for all the application and maintenance teams, ensured programming standards and system integrity was kept intact and produced several productivity tools to aid in developing new systems, debugging and program documentation.

I was responsible for creating a new Library Update System on the IBM mainframe. A system that controlled the flow of over 30 different object types between the development, acceptance and production environments and across development and production LPARs.

The major features of the system are as follows :-

- |                                       |   |
|---------------------------------------|---|
| <u>System Integrity</u>               | <ul style="list-style-type: none"> <li>• An automatic booking system was in place, ensuring that no two programmers could modify the same code.</li> <li>• CATALOG objects would be automatically pulled into a library update.</li> <li>• Correct compilation sequence was ensured.</li> </ul> |
| <u>Automatic Object Documentation</u> | <ul style="list-style-type: none"> <li>• Natural programs were scanned for basic quality checks.</li> <li>• Comparison report between new and existing objects.</li> <li>• Object listings with embedded code.</li> </ul>   |
| <u>Comprehensive Design</u>           | <ul style="list-style-type: none"> <li>• All object types could be handled in the same library update i.e. Natural Objects, Processing Rules, Error Messages, DDM security profiles, Databases, COBOL and Assembler programs, JCL and PDS members.</li> </ul>                                   |

It was a powerful and complex system requiring the creation of over 70 programs on-line and 20 batch, with approximately 200 natural objects in total. The system used a number of Natural products :-

Natural Process      NATRJE      SYSMAN      Natural Connection

My work in developing this system required :-

- Interrogating the SYSDIC and FUSER system files
- Creating 7 DDMs on a UNIX platform
- Creation of a user guide

My work on the team's utility tools allowed the developers to quickly form an accurate picture of an application's function flow so increasing productivity in both development and maintenance.

<b>July 1991 - Dec 1992</b>	<b>PEROT SYSTEMS CORPORATION</b>					
	<b>Reston, Virginia, USA</b>					
1 year 6 months	Analyst Programmer					
	NATURAL 2	TSO	JCL	PREDICT	DB2	

Perot Systems is a computing bureau responsible for producing a vehicle insurance package for one of their customers, 'The Robert Plan', a New York based insurance company.

I worked on a number of different areas on 'The Robert Plan', as follows :-

### Claims Team

Initially, as a member of the claims team, I was assigned to the Subrogation / Arbitration Section. I became solely responsible for the design, development (from overall system structure to program design & coding, JCL, implementation and documentation), maintenance, enhancements and overnight standby for over 30 reports.

### Agency Team

I analysed the requirements for the Claims Client Interface Reporting. This is the creation of several monthly tapes containing statistical data for four different client companies. This led to creating and updating a number of DB2 tables, within the Client Interface system for use by other teams. Later, I became responsible for the Premium Interface. The on-line Management Reporting also used data updated from the Client Interface Reporting. Here, my duties included the creation and maintenance of a number of on-line programs and ensuring the data reconciled with other areas of the system.

### Miscellaneous

My work included designing and creating the 'common forms module' together with numerous 'specific write' forms programs. This involved consulting with the customer for their form requirements and the Documerge team for the physical creation of the form. While creating the form modules, I created a number of tools to help check form compatibility and view form data. As the data was displayed along side it's associated LDA, the programmer could now quickly match the physical data with the appropriate field name.

To help with testing and maintenance, I created a set of DB2 load and unload programs. This would dump selected table data on a policy by policy basis to be later loaded elsewhere on the system.

<b>Aug 1990 - Nov 1990</b>	<b>CHASE AMP BANK LTD</b>					
	<b>Sydney</b>					
4 months	Analyst Programmer					
	NATURAL 2	ADABAS 5	PREDICT	COBOL	TSO	JCL

Whilst with Chase AMP, I worked on three separate systems

- FRA            Forward Rate Agreement
- IRS            Interest Rate Swaps
- CIF            Customer Information Facility

FRA and IRS provided the users with 'banking tools' to help in establishing and maintaining deals. CIF was a customer database system.

On these systems, I produced a number of programs that provided the user with information on market-to-market Percentages, 90 Day Bond Equivalents and Future Rate Adjustments. On CIF, I added Tax File Number details to a number of maintenance screens.

My work was mainly development in Natural 2. This involved developing and maintaining Report Mode and Structured Mode programs, complex maps, windows, help routines, Adabas 5 files and reports. I also gained exposure to Predict.

<b>Mar 1988 - May 1990</b>	<b>RANK HOVIS Mc DOUGAL COMPUTING Ltd</b>					
	<b>Harlow, England</b>					
2 years 2 months	Analyst Programmer					
	NATURAL 1 & 2	ADABAS	COBOL	TSO	JCL	

The Rank Hovis Mc Dougal Group is a set of companies specialising in the food processing industry. Part of the group is RHM Computing which acts a computing bureau, serving other companies both within and outside the group, including Manor Bakeries Ltd, the largest UK cake producer.

I joined the Manor Bakeries mainframe team, which was responsible for the invoicing, file maintenance, sales ledger, management accounts, stores analysis and product analysis. My role was to produce program specifications and code, from user requirements, to create new or maintain existing programs. My duties included trouble shooting and providing overnight standby.

The Manor Team was involved in a project, which added VAT to its products. This affected all the systems for the Manor Team, both mainframe and distributed. Approximately 50 mainframe programs had to be developed or maintained. This project took over six months to complete.

Another project was the 'TV Region Report'. This was a report that showed sales of certain products for depots within a TV region. This would be run before and after a TV promotion to compare the effectiveness of a commercial. I was solely responsible for this project which involved:-

- Liaising with the user.
- Designing the system.
- Creating the system through the entire project cycle.
- Developing and enhancing programs in Natural for both batch and on-line.

<b>July 1985 - Aug 1986</b>	<b>FORD MOTOR COMPANY</b>						
	<b>Warley, England</b>						
1 year 2 months	Analyst Programmer						
	MVS / XA EDITOR	COBOL JCL	DL/1 TELON	IMS TSO	DB/DC ROSCOE	CICS	

I joined the system development team producing a system called SNOOPIE (System for Non-Production Online Ordering In Europe). This was previously a paper system that was responsible for the ordering of commodities used in the production of a vehicle.

My duties included :-

- Designing a cross reference for data between SNOOPIE and an existing system.
- Designing a functional model for the Browse Supplier Database.
- Creating several commodity maintenance programs using TELON (an Application Generator).
- Creating a 'Failed Access' report for a sign on screen.

My second placement was working on a View-Data system for dealers throughout the UK and Spain. All the programs were written in a high level language called EDITOR. Among other projects, I produced a set of maintenance programs to update dealer information and assisted my supervisor in the implementation of ViewData for Ford of Germany.