

Summer 2002

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AXiS

News

VME is Still Motoring

Motoring enthusiasts approved the choice of the Heritage Motor Centre at Gaydon as the venue for the AXiS Open meeting on 22nd May. Perhaps it was very appropriate to be talking about the future of a classic operating system surrounded by classic cars. And the programme was timed to allow delegates to indulge their interest in the splendid cars on show.

Another two attendees would have taken us to 100. This level of interest in the meeting was most heartening both to the AXiS organisers as well as to the Fujitsu managers present. The day was headlined as "Forward with Fujitsu", being a chance for customers to hear what Fujitsu intends for VME following the recent changes which led to the demise of the ICL name.

Positive messages from Fujitsu Services

There were some very positive messages throughout the day but the most significant came from the opening presentation by Neil Stevenson, who is Director of High Performance Systems at Fujitsu. Whilst there is sadness at the passing of the ICL name the recent move is perceived as a positive step. Fujitsu is now rated No.3 on the worldwide IT scene.

Fujitsu's global push in IT services is based on commodity orientation, application service provision and software access on demand. The IT Services market today embraces the traditional service segments:

optimisation - application orientation :
integrated solutions
management - platform orientation :
selective or full outsourcing

and new services segments:

creation - business orientation :
shared business processes
access - commodity orientation :
rapid response, low cost

In the 2001 financial year some 36% of the Fujitsu revenue came from software and services and 27% from information processing.

Richard Christou, CEO, Fujitsu Services said in January this year, "Our belief is that modern IT infrastructures facilitate business transformation. We are expert in managing the most complex IT infrastructures, delivering cost and efficiency benefits and providing the platforms upon which new processing and systems can support future business needs."



Gartner in July last year showed ICL as a fairly close second to EDS in UK Infrastructure Services. Fujitsu Services are aiming to close the gap this year.

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Dates for the Diary 2002

6th/7th November Autumn Conference, Bletchley Park

Watch the Events page on the AXiS web site: <http://www.axis.org.uk>

Get the latest news
about AXiS from our
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<http://www.axis.org.uk>

Editorial

We are at the second issue of the Newsletter for 2002 and already significant changes have occurred.

The most significant for AXiS users could prove to be our relationship with Fujitsu Services following the integration of ICL within Fujitsu. Judging from the messages given by senior Fujitsu Services representatives at the splendid Open Day at the Heritage Motor Centre in May there are really encouraging signs for VME users that not only long term support but further development of the Operating System is planned. And users are being invited to say what further developments they would like to see in the product. Time to pull out and review those dusty files full of enhancement requests perhaps? Our thanks to Steve Clarke, the Fujitsu Services representative on the Executive Committee, who co-ordinated the company's presentations at the meeting.

As forecast the previous issue of the Newsletter proved to be the last paper version. This issue, after input from members, is published mainly in electronic format. A paper copy will be retained for our Archives. Those members who have asked for a PDF or Word version of the document will be sent the appropriate file as an email attachment. For everyone else I will send an email message to notify you when a copy in both popular formats is available for reading online or downloading as you prefer. This will save AXiS some significant printing and postage costs.

Don Folland

Continued from Front Page

Neil Stevenson reviewed the VME story so far. The Datacentre Programme based on the *Teamserver Millennium* running on Intel reflected a belief that Windows eventually 'will get there'. The Intel based DY in 1998 delivered 7.5 mips. In 2000 the DL offered 25 mips. The NOVA Release 1 in 2001 increased this tenfold to 250 mips. The plan now is to provide 550 mips with NOVA Release 3 towards the end of 2002.

The future with VME

Customers have been saying that there is no benefit in migrating for the sake of it. It can be expensive, fraught, and introduce business risk. They want VME supported into the next decade, with a reduction in the cost of ownership. They are asking for VME to be integrated with the rest of the IT world

We are committed to support VME until at least 2010

Chairman's Column

The main topic covered in this newsletter is the Spring Meeting. Can I thank all of those who came along for making this meeting a resounding success. We had over 100 in attendance which makes it the best attended AXiS event for some time. I know too that there were many who were disappointed because they could not attend having prior engagements.

The message presented by Fujitsu Services was very positive and encouraging. Can I also thank Neil Stevenson for his support. Computing were in attendance and reported on the event.

Our thoughts now turn to the Autumn event. I have just confirmed a booking at Bletchley Park for November 6th and 7th – please make a note in your diary. The first day will consist of a number of workshop sessions with the main meeting on the second day. This certainly is an interesting venue for us in IT. We will be arranging a tour at which you will be able to see some of the equipment developed for code breaking during the Second World War. This includes a rebuild of Colossus – the world's first programmable computer.

We will keep you informed of the content of the programme as it develops. If you have any particular topics you would like to see covered or something you would like to tell us about please let one of the committee know.

Harold Clouff

and that Fujitsu Services should provide skills, tools and products for new operational environments.

The main message from Fujitsu Services is : "We are committed to support VME until at least 2010"

This is valued as a £50 million commitment for support and for a new development Roadmap. This development plan envisages a miniNOVA at the end of 2002 which will be aimed at smaller customers who have a requirement for a system of less than 10 mips. This will be based on a Fujitsu-Siemens platform. The plan recognises that very little has been done for the smaller user in recent years.

In 2004 we can expect to see a SuperNOVA which will remove platform dependence by VME running as an application in Windows and on Intel chips of the customers' choice. This sounds like a major challenge and shows great faith in the future reliability of

Windows. Fujitsu are confident that it can be done successfully.

This future focus will make it difficult for the company to maintain support of many past systems but they are promising to give at least 12 months notice of cessation of product support.

The development Roadmap shows version 5 of OpenVME scheduled for 2003 with a possible version 6 post 2004. There is an opportunity for customers to tell Fujitsu Services what new facilities or features they would like to see in future versions. Perhaps AXiS could have a co-ordinating role here?

Later this year we should see version 6 of HostTalk

We were introduced to *InfraPower*, a commercial and technical framework to support customer needs into the future and minimise risk. Fujitsu's strategy in this respect is to develop their current capability so that they can provide a complete range of services and product enabling customers to exploit their VME investments and evolve to alternative infrastructures when the business requires it with minimum business interruption.

Three brief customer references were provided. Inland Revenue is exploiting VME systems with a

web front-end for the Self-Assessment service. Fujitsu Services have assisted the Department with their internal messaging service. At Cheltenham & Gloucester a large document management system has been introduced using Meridio and SQLserver. At Scottish and Southern Energy plc an Internet Bill Presentment system provides internet access to billing information for corporate customers.

The presentation included a short video clip in which Richard Christou explained the breadth of Fujitsu Services within the Fujitsu family and significantly he affirmed the commitment to VME support past 2010 as well as the commitment to run VME as an

SuperNOVA is considered to be probably the most exciting development in the mainframe industry for two decades.

application on Windows. He spoke about the plans to introduce the miniNOVA and NOVA/3. Finally he stressed the commitment to support VME

customers. If we judge from Fujitsu's enthusiastic support for this AXiS one day event then VME under Fujitsu Services is off to a good start.

Open Meeting Report

Developments for Trimetra, OpenVME and HostTalk

George Allt is the General Manager, VME Business Solutions. His presentation reviewed three Roadmaps to cover future development plans crucial for VME users.

Change is a fact of business life and in times of change OpenVME is presented by Fujitsu Services as a firm foundation for corporate IT infrastructure, enabling the business to focus on new applications and services whilst linking back to that firm foundation. Trimetra offers a really low risk strategy.

Looking firstly at the Trimetra Roadmap, George outlined the plans for developments at both ends of the scale, the miniNOVA for entry level users and the SuperNOVA for larger business requirement. The latter is intended to be bigger and better - not lead to a black hole. TrimetraNOVA can provide business confidence through reduced operational costs and a secure forward path, and also by supporting fully integrated solutions.

The secure forward path is achieved through the integration of OpenVME and Windows using industry

standard 'mainframe technology'. This brings flexibility to reconfigure and upgrade in support of changing business requirements. .

NOVA/3 is a technology upgrade from the initial NOVA release which will deliver 550 mips in a single image (or 1100 mips in a NOVA frame) with more I/O functionality including the introduction of low cost high speed tape devices and improved SAN technologies built in.

The miniNOVA will have a power rating around 5 mips. The actual rate has yet to be agreed. It is to be marketed as a low cost entry level system with mainframe qualities. It is seen as replacement technology for obsolete DM1/DX systems. At the heart is a Fujitsu-Siemens Primergy server. The system will offer standard hardware RAID system, OpenVME4, DLT8000 tape system, hardware CAFS system and a single point of management.

At the other end of the scale the SuperNOVA is considered to be probably the most exciting development in the mainframe industry for two decades. It is not a hardware product but rather a software development. The target is to achieve a platform independent system which was always the

Q&A Session

goal of the Open Systems movement of the late 80s/early 90s. The aim is to achieve this independence by running VME as an 'application' on Windows. This is seen as a major challenge by many Windows sceptics but Fujitsu Services believe that the improving reliability of Windows coupled with the skill of their own software engineers will deliver a successful product. Those of us brought up on early releases of VME (VME/B even) will reflect on past experiences of hosting operating systems, reserve judgement and watch developments with interest. This latest design provides for OpenVME to run on Windows using standard API. Hopefully there will be no problem when Windows changes.

It is perceived that customer benefits from SuperNOVA will derive from the elimination of server and storage hardware obsolescence issues for the longevity of VME, from the use of generic open systems peripherals and the reduction in total cost of ownership. The open platform enables use of solutions from preferred suppliers. Initially the range of Windows Certified Intel Servers include Fujitsu-Siemens Primergy, Unisys CMP ES7000, IBM 8000R and Compaq Proliant.

Reviewing product support policy, in terms of software the current policy provides at least 5 years support of each version of OpenVME, and in terms of servers 5 years support of the hardware. Fujitsu Services will give one year's formal notice of withdrawal of any product support.

Looking at the OpenVME Roadmap evolving from OpenVME/4 which was released in 2001, the intentions are to provide TCP/IP sockets, DNS and FTP for OpenVME/5 targeted for 2003. Meanwhile thought is being given to what might be the requirements for OpenVME/6 for delivery beyond 2004 which is expected to introduce additional resilience features and improved supportability. What else would customers like? We are all encouraged to talk to Fujitsu Services about our future needs. Perhaps there is a role here for AXiS to assist with the co-ordination of an enhancement request list?

HostTalk enables VME applications as part of the e-environment. It can provide VME information through web pages, portals, office applications, etc. Tools, services and products are available today for interworking with Windows NT4, Windows 2000 and Windows XP. The HostTalk Roadmap shows Dialogue Manager Version 6 planned for release in December 2002. This includes changes to work in a Microsoft.net environment. Further development is dependent upon industry developments and what customers might need.

current policy provides at least 5 years support of each version of OpenVME

A formal Question and Answer session brought the morning's proceedings to a close. With Neil Stevenson and George Allitt now supported by Steve Clarke providing the panel a very productive session took place. Here are some of the issues raised:

1. *What about transition to 64 bit technology?* Fujitsu Services perceive a slow take-up across the industry and therefore propose to stay with 32 bit technology for the present. If the demand materialises they will move with it.

2. *Will there be support for SuperDLT on the miniNOVA?* Fujitsu Services aim to keep the cost down so for the present DLT has been selected. This decision will be reviewed regularly and an update applied if necessary.

3. *Will you continue to support Local Government requirements now that Anite is looking after relevant superstructure products in that sector?* Fujitsu Services will provide the underlying infrastructure. And miniNOVA will fit too.

4. *Will SuperNOVA exceed 600 Mips?* This is difficult to predict at present.

5. *How many VME customers has Fujitsu Services today? And how many on NOVA?* Fujitsu Services supplies to some 500 end user organisations around the world. Of these some 250 are in the top customer categories, that is where the relationship with Fujitsu Services is active and is considered a long term relationship. To date some 20 customers have converted to NOVA but all except 3 of these are outside the UK.

6. *Would the route from SY to SuperNOVA of necessity be via NOVA?* There should be no need to move stepwise through the architectures.

7. *Are there plans to support Linux on NOVA?* Fujitsu Services have no plans as yet but much would depend on demand. Their perception is that Solaris is the only game in town.

8. *In the spirit of helping to reduce the cost of ownership can the cost of VME be reduced?* Fujitsu Services have put so much into the development of VME that this couldn't be contemplated. The suggestion is that it is already too cheap! The audience comment was that this could be too expensive for the potential miniNOVA sites. Fujitsu Services would consider a price reduction if the move is from DX to miniNOVA but essentially they would need to look at the specific circumstances of individual transitions where a suitable deal might be made

9. *Will VME on SuperNOVA support current peripherals?* Fujitsu Services have had to validate VME use of peripherals but in the case of SuperNOVA they will rely on Intel/Windows to support the relevant interface.

10. *How do we move data from old 1985 devices?* Strategies exist for moving data from old to new systems and Fujitsu Services can deliver suitable interim solutions.

11. *What is the Fujitsu Services position on applications software now that Local Government applications support has moved to Anite?* Fujitsu Services are now interested only in infrastructure though Fujitsu Consulting, their sister company, continues to do work in the applications arena.

12. *Many businesses have Windows 98 applications but cannot move to Windows XP. How confident is Fujitsu Services about running VME on Windows?* Fujitsu Services continues to work closely with Microsoft, recognising the potential problems of API changes. Problems are expected but they have Certified Engineers who can work on such problems. They think the problems will reduce particularly because Microsoft are learning from past experiences

13. *On the issue of support for old hardware, what happens if we cannot move forward?* If Fujitsu Services cease support they will find a way ahead for you.

Integrating and Exploiting Existing VME Systems

The first two sessions after lunch were linked. This opening session given by Eric Felton, Lead Consultant from Fujitsu Services, focused on the business application of *HostTalk* to be followed by speakers from the Defence Logistics Organisation to show *HostTalk* in practical application.

The basis for promoting use of the *HostTalk* portfolio of products is founded upon the principle that it is faster and more cost effective to integrate existing systems into a new application architecture rather than replace with new applications. Of course there is an over-riding proviso that the existing systems continue to fulfil the overall business requirements.

HostTalk is a portfolio of products, tools and services that will provide application integration across a wide range of host environments and has come to the fore in the context of business need to exploit internet technologies to deliver web-based services. The application of *HostTalk* can range from the simplest example of providing a modern user interface onto an existing screen-based application using Dialogue

Manager, to much more complex scenarios to deploy information from large databases or transaction processing systems, using perhaps XML components, Java Application servers, or BizTalk servers.

Eric used a series of illustrations drawn from several customer applications:

The first example came from Companies House. It showed a rich client concept of intuitive user interface with Microsoft Office integration and VME support.

Tanker Services, a major South African operation, use Dialogue Manager to provide general internet access and reducing PC management.

PSE&G, a gas and electricity utility, have deployed an Automated Data Feed system, automating the business process to apply rules to check reports. Handheld terminals deliver raw data to the system. This has eliminated clerical effort and reduced overall error rates.

There were also examples of application for Direct Customer Access - the prime example being described in the following session. The business benefit derives again from eliminating clerical effort and gaining better customer responsiveness.

The keys to success are:

- use developers who know the business as well as the iT
- small, high calibre teams
- start with a small project and then extend
- get training and support

Navy deploys Dialogue Manager

This session was presented by Kevin Crosbie and Tony Postins who are systems analysts developing applications for the Royal Navy's logistics department. The presentation took the form of an overview supported by a practical demonstration of the use of Dialogue Manager and email to assist with the intelligent tracking of customer demands for naval stores.

A demand from Stores' personnel whether ashore or at sea is likely to process through three major systems. It initially reaches CRISP which is the RN inventory system using COBOL, IDMSX and TPMS. Then the RN Warehouse IT System (WITS) uses UNIX based Informix system to select the necessary stored item(s). Finally RIDTLS (RN Invoicing and Delivery System), also using Informix, arranges delivery to the customer.

Dynamic HTML is used to provide context sensitive help to the end-user preparing the initial demand. The

Stores personnel at sea use e-mail via satellite communication systems to send the demand forward with confidence that it has been completed correctly.

Information from the three main and disparate database systems has been integrated to provide a concise view of the Navy's stores assets.

What was the rationale for using Dialogue Manager?

it enabled reuse of existing business logic
limited changes were necessary to existing applications
rapid skills acquisition
rapid development
resource marshalling capacity - it can service more users than the number of physical connections would suggest)

Savings from this development are estimated to be £48,000 a year.



Euro Enlightenment or the Euro Miracle

In a light-hearted and sparkling presentation Alan Frost, Director, Miracle GA Ltd., took a look at the recent introduction of the Euro currency assessing it as if it had been an IT project, considering project definition, specification, timescales, design and production, education and documentation, and post project evaluation.

So how well as the project done so far, considering that this has been a major project with some 300 million end users? Starting from the little remembered fact that 476 AD, at the fall of the Roman Empire, was the last time that Europe had a single currency, Alan reviewed the various facets of the implementation to suggest that it appears to have scored highly as a successful implementation. To add a bit of spice to his session he had delegates searching their conference packs to see if they could be the potential recipients of one of a selection of Euro notes that he gave away in denominations of 10, 20 50 or 100 Euros. This sort of handout in a presentation could endear him to audiences and guarantee a full house in any future session.

News Briefs

Focus Group for Web Services

With the help of Teamware the proposed AXiS Focus Group for Web-enabled Services has established its own presence on the Web by using Teamware's Pl@za to operate as a Teamware Special Interest Group, offering a discussion facility, relevant document storage, and an online meeting capability. Whilst set up for the benefit of AXiS members it is more widely available and would provide scope for input from a larger user base.

The SIG is being managed by Ken Chilton from Teamware and Don Folland, our Secretary who is also Webmaster for the AXiS web site.

To reach the new Group it is necessary for you to have registered for access to the Teamware site and then sign up for the Focus Group. To do so point your browser to <http://www.teamware.net> and select "Register as a Member". You can then select "Special Interest Groups" and elect to be a member of the Focus Group for Web Services. The Pl@za system offers three levels of privacy for personal data : Personal, Group and Public. You can therefore control how much personal information is made available for Group and Public viewing.

Golden Circle

Several former members of AXiS, AMSU and its predecessors still remain in touch. It has been suggested that AXiS might recognise this continuing interest by forming an association for such alumni, with the idea of holding the occasional meeting to serve as means of keeping in touch with former colleagues, discussing the evolution of IT issues, perhaps advising from their wealth of experience on current issues. A suggestion for the name of this group is "Golden Circle".

It is hoped that a first meeting can be arranged in conjunction with this year's Autumn Conference. Details will be published with the Conference programme.

A Chance to Influence the Shape Of OpenVME to Come

At the recent AXiS Open Meeting at the Heritage Motor Centre Fujitsu Services invited users to identify what features and facilities they would like to see in

OpenVME 6 which would be released from 2004 onwards.

It is several years since there has been an opportunity for user input to OpenVME development plans. It is suggested that there is merit in a co-ordinated submission from AXiS. This would help to quantify the level of demand of particular requirements. Ian Myatt, AXiS Vice-Chairman, has volunteered to collate and manage the requirements list. So why not get in touch with Ian to discuss your needs? Email: ian.myatt@axis.org.uk

The ABC of VME?

There has been a recent discussion on the Internet News Group, alt.sys.icl (the Usenet group for ICL groupies) concerning the origins of the VME suffixes, ie VME/B and VME/K

Suggestions included:

i) B stands for Batch and K for Communications [spelt with a K].

ii) B for Bracknell and K for Kidsgrove (with the converse, ie K at Bracknell and B at Kidsgrove)

iii) B for Business and K for knowledge with B-E for business for education though those of us who were there at the time know that this was an entry level system designed for new users and familiarly known as 'Easy B'

There was even a jocular suggestion that there might have been 26 versions A to Z and only B and K worked!

Anyone have the definitive answer?

Fujitsu News

New Model for IT Outsourcing for Retailers

Fujitsu Services recently advised that Retailers should take a new look at their approach to IT outsourcing if they are to maximise their return on investment.

Fujitsu's experience reveals that many outsourcing agreements have taken insufficient advantage of new ideas in IT outsourcing and may be using old models that limit the business benefits. Fujitsu believes that IT outsourcing has matured through the first and second generational models. Fujitsu has now embarked on a new, third generation of outsourcing; whereby outsourcing is an ongoing and integrated part of an organisation's business strategy. Benefits to be realised from this new model include improved operational performance; higher service levels; reduction in time to market; increased IT staff retention and risk reduction.

Third generation outsourcing is relevant to organisations that are currently engaged in IT outsourcing or are outsourcing for the first time. To help organisations better plan their investment in IT outsourcing, Fujitsu has developed a five-point plan:

- Ensure cultural alignment. Successful IT outsourcing depends on a shared vision and approach to working together, with like minded people working on common goals.
- Set clear, measurable objectives. Align the IT objectives with the business goals with a common

focus on meaningful business and operational objectives. Avoid the pitfall of micro level objectives and do not expect results overnight.

- Keep sponsors engaged. Have appropriate relationships at all levels of the client and supplier organisation, including the key sponsors from both parties to keep the agreement on track.
- Expect change. Things will not stay the same for long, expect and accommodate business change, operational improvement, and technology enhancement.
- Win win. Acknowledge and welcome the mutual dependency an outsourcing arrangement creates. Ensure that your objectives are aligned and that a win for one party is also a win for the other.

New Initiatives Focus on XML Web Services, Business-Critical Computing and Mobility

Fujitsu Limited and Microsoft have recently announced a major expansion of their global alliance in Windows platform enterprise infrastructure and application solutions focusing on the Microsoft .NET Framework and .NET Enterprise Servers. The companies will extend their collaborative efforts by launching new global-scale joint initiatives focused on XML Web services, business-critical computing and mobility. In

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addition, through the expanded alliance with Microsoft, Fujitsu's principal IT platform, consulting and services units and affiliates - including Fujitsu Technology Solutions Inc., Fujitsu Siemens Computers, Fujitsu Consulting and Fujitsu Services - will be combined into a unified corporate alliance structure. This consolidation will help position the Fujitsu Group as a leading one-stop source of end-to-end .NET enterprise solutions worldwide.

The expanded alliance will feature the following key initiatives:

- * XML Web services infrastructure for Microsoft .NET. Fujitsu will develop a Microsoft .NET version of its Interstage middleware, offering comprehensive .NET-based services and solutions that utilize Microsoft's enterprise software, including the .NET Framework, Visual Studio.NET and .NET Enterprise Servers, worldwide. Fujitsu also will provide a vertical XML Web service offering for the insurance industry, called iFIRST, on .NET.
- * Business-critical computing solutions. By expanding marketing and sales collaboration, as well as product-level technical cooperation, and

design and application efforts, the companies will offer business-critical computing solutions that provide corporate customers with secure and reliable computing environments that comprise Fujitsu's hardware and middleware and Microsoft's .NET enterprise products. Offerings will include Disaster Tolerant Messaging on Exchange for the Fujitsu-Siemens PRIMERGY family of Intel-based servers and Microsoft SQL Server nonstop backup solutions for its ETERNUS GR storage systems.

- * Mobility. Reflecting the increasing importance of seamless integration between mobile technologies and corporate computing environments, the alliance will focus on developing mobile communications solutions and applications that run on Microsoft Exchange and Mobile Information Servers and support Fujitsu's mobility services and products, such as the recently announced Pocket LOOX and its market-leading pen tablet PCs. In addition, Fujitsu intends to offer Mobility for mySAP.com running on SQL Server and various Windows-based mobile devices.

From the Archives

Continuing our look back amongst the archives, 20 years ago, the 2900 User Group held its Spring Conference at Cardiff University when over 300 delegates turned up and created problems for the organisers as numbers well exceeded expectations. Plenary sessions had to be accommodated in two lecture theatres supported by closed-circuit TV. An adroit cameraman and nimble footed overflow theatre chairmen were able to handle question time.

Interesting developments at that time included the beginning of an ICL collaboration with Sinclair Research to develop an extremely low-cost integrated terminal/digital phone workstation using Sinclair's flat tune technology and Sinclair Basic. The idea, dubbed "one per desk", was for this device to be a future peripheral for the DNX2000 digital PABX also announced that year.

ICL reported a successful demonstration of equipment for the proposed online computing service for Inland Revenue's 580 Tax Offices dealing with PAYE. Performance runs were carried out on a single 2966 using a database of some 3,000 Mb with two Communications Test Generators to simulate 679 terminals plus 36 remote printers. Throughput level of 5 message pairs per second was a prime requirement

CAFS-ISP was announced at a price of around £50,000 for attachment to all members of the 2966 family of processors.

And remember DRS Wordskil 8800? Announced early 1982 to provide basic word processing, the DRS Wordskil 8801 was a complete system which with enhancements such as CP/M-86, printer sharing and communications offered a high degree of flexibility.

Also that year came the ICL Personal Computer for operation under CP/M supporting Microfocus COBOL and Microsoft BASIC. The price range from £2200 to £5250.

Tailpiece

Discovered on the Web - some 'proposed' Windows Error Messages:

1. Smash forehead on keyboard to continue.
 2. Enter any 11-digit prime number to continue.
 3. Press any key to continue or any other key to quit.
 4. Close your eyes and press escape three times.
 5. This will end your Windows session. Do you want to play another game?
 6. Windows message: "Error saving file! Format drive now? (Y/Y)"
 7. Bad or missing mouse. Spank the cat? (Y/N)
 8. Runtime Error 6D at 417A:32CF: Incompetent User.
 9. Error reading FAT record: Try the SKINNY one? (Y/N)
 10. WinErr 16547: LPT1 not found. Use backup. (PENCIL & PAPER.SYS)
 11. User Error: Replace user.
 12. Windows VirusScan 1.0 - "Windows found: Remove it? (Y/N)"
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AXiS Autumn Conference

6th and 7th November 2002

**Bletchley Park
Milton Keynes
Buckinghamshire**

Put the date in your diary!!