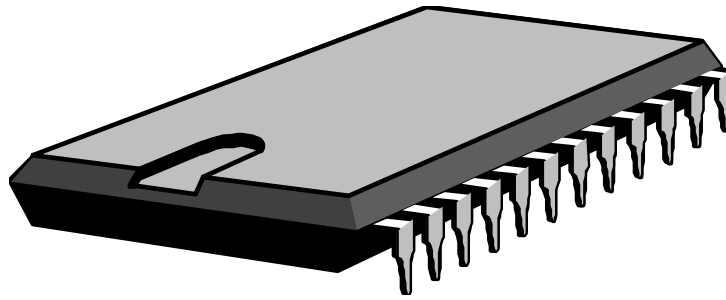


HOLMAN ENGINEERING



HOLMAN ENGINEERING PTY LTD

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Software, Electronics and Mechanical Consulting Engineers

Holman Engineering was established in 1985 by Mark Holman, an innovative electronics engineer with degrees in both Electrical Engineering and Computer Science and many years of experience in innovative electronics and software development. The focus of the company was originally electronics, microprocessors, software and control equipment. The organisation has grown steadily, earning a well deserved reputation for being able to take a project from conception to final delivery. Holman Engineering's experience has resulted in the development of a number of high technology products and software applications which are sold to a world market.

In 1992 John Holman joined the company. John brings with him considerable experience in mechanical systems design, computer simulation, project management and business management. John's previous position as National Engineering Manager at Atlas Copco Compressors Australia, enabled him to gain valuable experience in pneumatic design and both project and business management.

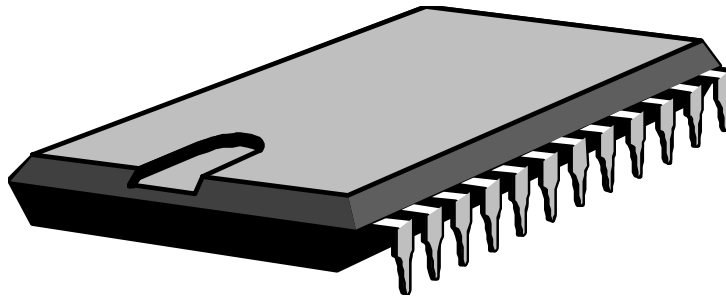
Since John joined the company, Holman Engineering has further broadened its skill base by employing several more engineers and technicians. In its offices, Holman Engineering employs the latest technology, with several of the fastest and most advanced PC's available, combined with the latest compilers, cross compilers, libraries and productivity enhancing software. This latest technology is complemented with advanced hardware design facilities to allow fast, cost effective development of both software and hardware.

THE MAIN AREAS OF SPECIALITY FOR HOLMAN ENGINEERING ARE:

- Designing and manufacturing electronic equipment
- Systems Integration
- Robotic Integration
- Pneumatic design
- Project Management
- Designing, specifying and developing software

EXCELLENCE IN ENGINEERING

HOLMAN ENGINEERING



QUALITY

With any project, it is of the utmost importance to have a quality system in place which provides customers with the product they want in the time they require it.

Holman Engineering has been producing quality products for their customers since its commencement in 1985. In early 1993, Holman Engineering undertook to do a large software development project for the Queensland Electricity Commission (Total project value \$465,000). The project had such a tight delivery schedule (a 9 week project window), that Holman Engineering was the only company that could meet the delivery schedule required by the Queensland Electricity Commission. The Queensland Electricity Commission required the project to be undertaken under the guidelines set out in both AS3901 and AS3563

It was this job for the Queensland Electricity Commission, that laid the foundations for the quality system that Holman Engineering now has in place. Holman Engineering used the infrastructure that was required by the project for the Queensland Electricity Commission, to work towards getting official accreditation for both AS3901 (Quality Systems for Design/Development, Production, Installation and Servicing) and AS 3563.1 (Software Quality Management).

Holman Engineering has applied for official accreditation to AS3901 and AS3563 with Quality Assurance Services (A subsidiary of Standards Australia) and official accreditation is imminent.

HOLMAN ENGINEERING

THE PRINCIPALS

Mark Holman B.E.(Elec), BSc(Majoring in Computer Science & Physics)

Mark attained his degrees in Electrical Engineering and Computer Science from Sydney University. After his graduation he developed many software applications and hardware products for a wide range of employers. Prior to setting up Holman Engineering in 1985, Mark gained experience in the areas of software development, robotics, and innovative electronic product development.

His twenty years of experience have been in the areas of developing software for both PC based and embedded systems, the design of microprocessor based systems including five years designing industrial robots for factory automation. He has developed many products that are now being sold to a world market, contributing to Australia's export figures.

Since starting Holman Engineering, Mark has developed numerous large and small hardware and software products. Some examples of the PC based software that Mark has developed are:

- PC based car park control and management system (This system is currently the market leader in Australia and is installed in over 100 sites in Australia and overseas)
- PC based paging system (This system is currently the market leader in Australia and is installed in over 100 sites in Australia and overseas)
- PC based power station monitoring system
- PC based data acquisition and control system
- PC based facade testing system
- Digital Voice Annunciator System
- Passenger Information Systems

Some examples of electronic design and embedded system software are:

- Hand-held terminal design and software development
- Magnetic card access control system
- Controller for a water purifier (This system is currently being manufactured in three separate countries and sold on the world market)
- Pocsag format paging system encoder
- Triboelectric dust monitoring system
- CNC Lathe communication controller
- Numerous electronic signs

Mark has had considerable experience in PC based software development and large software project management. He has developed many computer user interfaces which are used by thousands of people every day.

Mark has carried out numerous other hardware and software projects that rely on real time communication, control and a user friendly interface. Mark's ability to take a job from conception to finished product has earned him a well-deserved reputation in the industry.

HOLMAN ENGINEERING

THE PRINCIPALS

John Holman M.E.C., B.E.(Hons), MIEAust, CPEng, MNIA, MBA

John has gained many years of experience since completing his mechanical engineering qualifications. John's ability can be seen by his rapid progress through industry.

After completing his mechanical engineering certificate, John worked for Ifield Engineering. Ifield Engineering was a company that developed the most technologically advanced hydrostatic transmission in the world. This transmission was controlled using a microprocessor based control system which was also developed in house. John's experience gained in hydraulics, computer simulation and microprocessor control, was later used in his part-time lecturing to final year engineering students and numerous seminars that he has given to Industry. While at Ifield Engineering John worked towards his mechanical engineering degree.

After attaining his honours degree in engineering, John took up the position of Design Engineer at Atlas Copco Australia. After only one year, John was promoted to the position of Senior Design Engineer, where he was responsible for all design work carried out by Atlas Copco in Australia. While in the position of Senior Design Engineer at Atlas Copco, John developed two computer simulation programs. One that analysed torsional vibration, and another that analysed compressed air installations, both of these programs are now being used in both Australia and the USA. During his time as Senior Design Engineer, John travelled extensively both within Australia and overseas, giving seminars to industry and training people in the design of compressed air and natural gas compression systems.

Within two years of his appointment to Senior Design Engineer, he was promoted to the position of National Engineering Manager. This position made him responsible for all projects undertaken by the engineering department, further enhancing his personnel and large project management skills. During his time as National Engineering Manager, he sat on the Technical Committee of the Australian Compressed Air Institute, which is generally regarded as containing the top six technical people from Australia in the area of compressed air.

While National Engineering Manager, John commenced a four year, part time Masters in Business Administration (MBA), which he has now completed. Soon after being promoted to National Engineering Manager, John was given the overall responsibility of the largest of the four separate business lines of Atlas Copco. This position gave him responsibility for a twelve million dollar a year business. The commercial and marketing experience gained in this position was invaluable.

In 1992, John Holman joined Holman Engineering, where he has been able to enhance Holman Engineering's expertise by utilising his computer software and business management skills. Holman Engineering has been able to further increase its already strong rate of growth since John's joining.

Since joining Holman Engineering, John has developed many software applications both under DOS and Windows, developed an in house quality system and has project managed several large jobs as well as carried out many system designs.

EXCELLENCE IN ENGINEERING