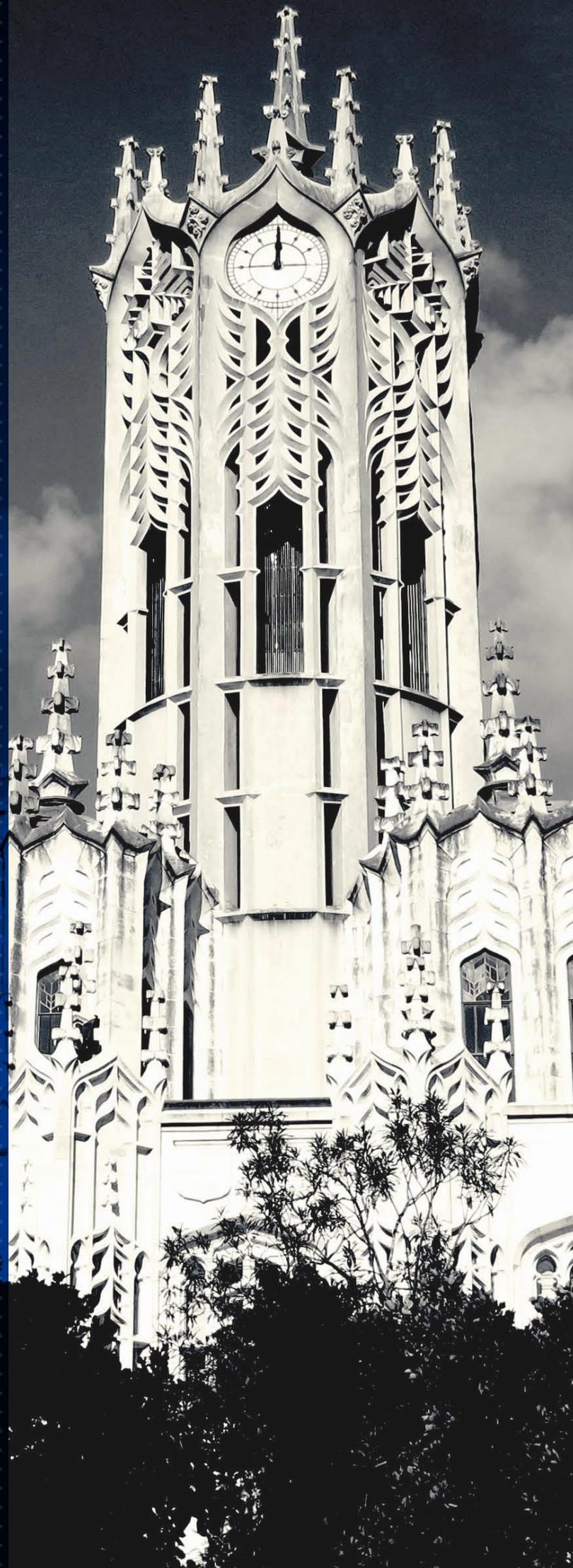


CASE STUDY



THE UNIVERSITY
OF AUCKLAND

Phoenix PLM





THE UNIVERSITY OF AUCKLAND

New Zealand's largest University, Auckland University has named NX as its preferred product platform for manufacturing

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BRIEF

University of Auckland is setting the standard for the future of manufacturing in New Zealand with its Technical Services workshop installing Siemens NX 8 software supplied by PhoenixPLM.

Capable of both design and manufacturing, NX software will enable Auckland University to manufacture accurately from design and take student engineering from concept to design and beyond quicker than ever before.



THE SITUATION

COMMITTING TO THE BEST FOR OUR STUDENTS AND COUNTRY

It became apparent that the University was in need of a software overhaul in their Technical Services Workshop having had issues with seamless manufacturing of cohort designs.

Having actual machining tools supplied by New Zealand company Global Machine Tools (GMT), and they being wholly exultant with NX and its capabilities to maintain the integrity of design to manufacture; the University's Technical Services Manager Steve Warrington and Machine Programmer Trevor Waldmeyer took the opportunity to be introduced to PhoenixPLM, supplier of NX technology in Australia and New Zealand.

It was at the introduction, and henceforth the demonstration of NX8 that it became clear NX was a contender for product selection for the University.

→ THE DECISION

KNOWLEDGE IS POWER

The University was interested in exploring the NX Advantage further and understanding the core capabilities of the products.

As an integrated product design; engineering and manufacturing solution, in only a short time, NX showcased its ability to be the software of choice with; advanced solutions for conceptual design, 3D modeling and documentation, multi-discipline simulation for structural, motion, thermal, flow and multi-physics applications, complete part manufacturing solutions for tooling, machining and quality inspection.

With the successful demonstration of the product it was then just a situation of provider and support which was for consideration...

Steve Warrington, Technical Services manager for Auckland University explains; "Over a couple of months we considered our options with several CAD/CAM suppliers. One of the key considerations was the support offered by various software suppliers. Support is crucial to achieving the best out of our machines and software. It became very clear that PhoenixPLM, and in particular their CAM Technical Team was the best option for us."

THE IMPLEMENTATION

AN EDUCATIONAL PATH TO FOLLOW

With 100 seats of NX now purchased under an academic licence, the task then moved to implementing the software at the University and Training the department to be proficient in its use.



A PhoenixPLM Technical Staff member worked onsite for 2-3 days, to get the university up and running with a suitable CAM configuration which had the ability for the university to create their own programmes, and ultimately cut steel; and soon after, Training Courses were delivered to a larger group of university staff.

In the short time from product purchase, to implementation and training, the department had an NX CAD CAM system capable of servicing the universities technical Engineering Department – in fact, servicing the whole of the universities requirements of hands on manufacturing.

Having now had success with the Technical Services Departments implementation of NX, the next stage for the university will be to extend the use of NX within the Technical Services Department and to have all staff totally proficient in all facets of NX software.

Auckland universities Technical Services Manager Steve Warrington said:

“Initially the workshop was using 3 and 4 different software programs; this was causing issues with keeping staff knowledgeable and trained across all platforms as well as compromising the output. The goal was to be able to have one piece of software do what we were having to use the 3 and 4 others do so in the past. NX has essentially mainstreamed our CAM Machining needs. The adoption and implementation of NX combined all features we required. NX was the sensible solution for us.

The adoption process included training for the staff, which was delivered by experienced and accessible people from PhoenixPLM.

In my opinion, you can crash your way around and self-teach yourself software but you are not doing it justice without using it properly – to get the best use out of the machines we engaged PhoenixPLM and we have been very pleased with the results. It has been refreshing to work with people who knew the software really well and were able work the software to do everything we wanted and more – there are serious advantages with this.”

Michael Andrysik, PhoenixPLM Applications Specialist dedicated to the implementation and on-going support of Auckland University explained the products and some of the processes that have been implemented.

“Auckland University are using NX CAM NC Simulation which provides a complete kinematic machine environment for visualizing complex motion.

Collision checking and multi-channel synchronization are simulated at the g-code level for the most accurate results.

NX CAM drives the machine simulation with post-processed output to take account of any program content provided by the postprocessor. Home positions, special tool change motion and other content can be inserted by the postprocessor.”

THE RESULTS

THE FUTURE OF DESIGN IN NEW ZEALAND

The adoption of NX software for Auckland University has given the university a significant competitive advantage. No other University in New Zealand has made such a significant move to ensure students studying Computer Aided Design and Computer Aided Manufacturing are actively viewing the impressive results of NX software. Having students design information capable of being accurately manufactured gives the university the opportunity to create a more in-depth curriculum than ever before.



Machine Programmer Trevor Waldmeyer from the University of Auckland said:

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As a machine shop we have been able to integrate better with the university by running demonstrations in our workshop to manufacturing faculties. We have been receiving great feedback which is going upstream, simulation has been of particular interest, as the demonstration is not only good but it is visually impressive. We have seen within the machine shop more confidence in the code, verification is great, and a reduction of fresh air machining. It is simply put the file in the machine and press the button. I give credit to the PhoenixPLM team who have provided us with a suitable product and seamless implementation done by qualified technical staff. We have seen significant improvement within our Machine Shop since the implementation of NX, there is still room for improvement but that comes when you start pushing the boundaries, and it's starting to happen already, our staff are starting to push the boundaries and we are seeing great things.

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TECHNICAL SERVICES WORKSHOP AT AUCKLAND UNIVERSITY

Technical Services provides full machine shop services to the University community. Our staff are highly skilled engineers with extensive experience in prototyping and development of custom built research and teaching equipment.

www.technical-services.auckland.ac.nz/uoa/



AUCKLAND UNIVERSITY

Founded in 1883, Auckland is now the country's largest university with 38,500 students, nearly 10,000 of who graduate annually. The main campus is in the heart of Auckland city and we have four specialist campuses.

The University of Auckland has the most comprehensive range of courses in the country with teaching and research conducted over eight faculties and two large-scale research institutes. There are unique opportunities for interdisciplinary studies and conjoint degrees.



PHOENXPLM

PhoenixPLM empowers innovation; we through partnering with our customers on projects and/ or complete business operations deliver consummate solutions in software, knowledge, implementation and consulting; ensuring their businesses benefit with the intended results.

We are focused on delivering a cohesive solution to PLM. As a company we refer to our solutions not only being able to manage the Product Lifecycle, but to process the entire Digital Lifecycle of a company.

Computer-aided design (CAD), computer-aided manufacturing (CAM), computer-aided engineering (CAE), product data management (PDM) and digital manufacturing converge through PLM.

PhoenixPLM is a provider of Siemens NX and Teamcenter PLM software solutions and HP Hardware.

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