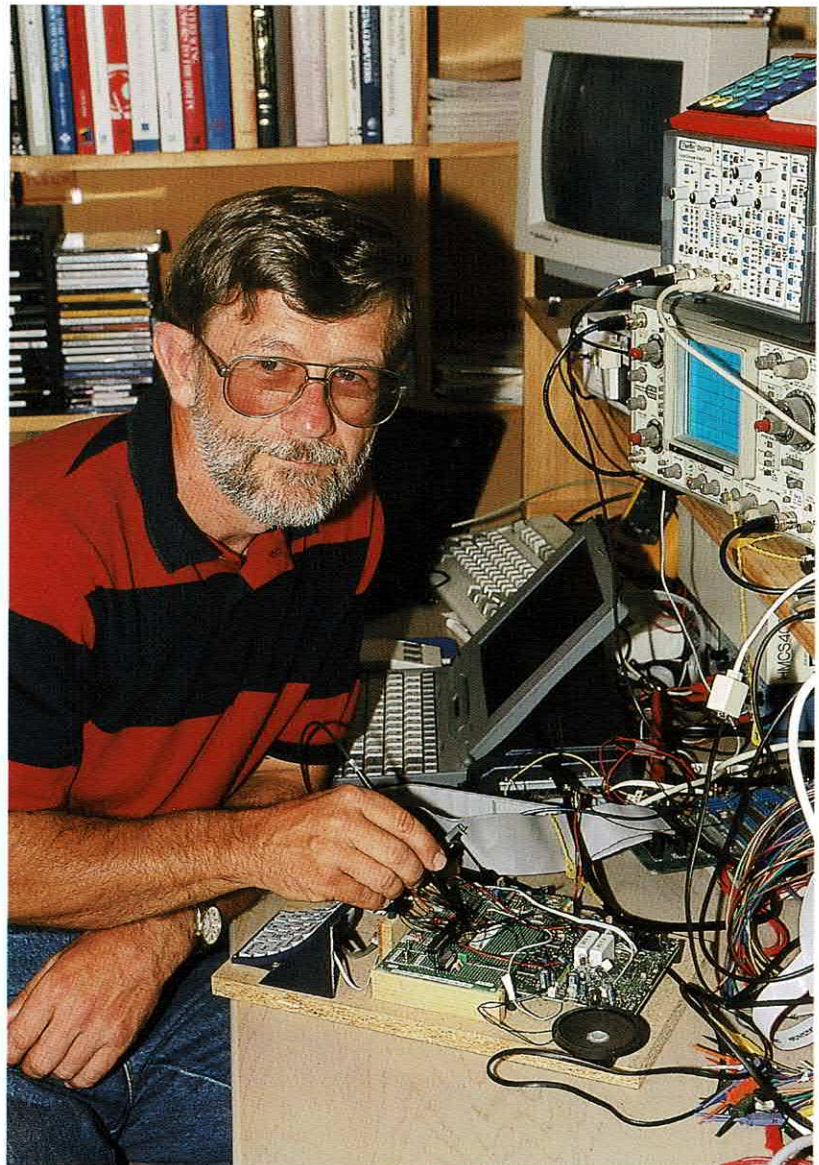# Far away
- yet close at hand

One of Bang & Olufsen Telecom's programmers works 17,700 kilometres from Struer!

* Arne Rohde's telephone seldom rings and that's not because it doesn't work.

* His closest "colleague" sleeps while he works.

* He meets his colleagues only once a year.

* Attending a meeting in Struer means a journey of around 17,700 kilometres.

* It wasn't until Rohde left Bang & Olufsen that he began to work on Bang & Olufsen telephones.

* One of his most important vehicles looks remarkably like a Moon buggy.

* Confused? You won't be once you've read the story of Arne Rohde.

Rohde's telephone does work perfectly - and even if it were to go on strike, he would have no problem getting it going again. Rohde is a programmer and has programmed all the ones and zeros in the programs which control the microprocessors in a variety of Bang & Olufsen telephones.

Arne Rohde came to Struer from New Zealand at the age of 23. He worked in Denmark for Bang & Olufsen between 1969 and 1985, at which point he turned his life upside down and returned to New
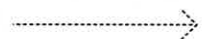

Arne Rohde has developed the programmes which control the microprocessors in the BeoCom 1000, 1600, 2400 and 2500 and the BeoTalk 400 and 1100. At the moment he is programming a BeoCom 2500 FSK for the Norwegian and American markets

Zealand, where he grew up after his Danish parents emigrated to the other side of the world when he was four. After 16 years in Denmark he would have been happy to settle down, but after a trip to New Zealand his Danish

wife Ilse wanted to move there for good.

So Rohde left his job and began a new existence far away from the slanting fir trees which act as a windbreak in the flat, exposed countryside of western Denmark.

Far away
- yet close at hand

Although Rohde may go weeks without leaving his 44 hectare farm, he doesn't consider himself a hermit or a recluse
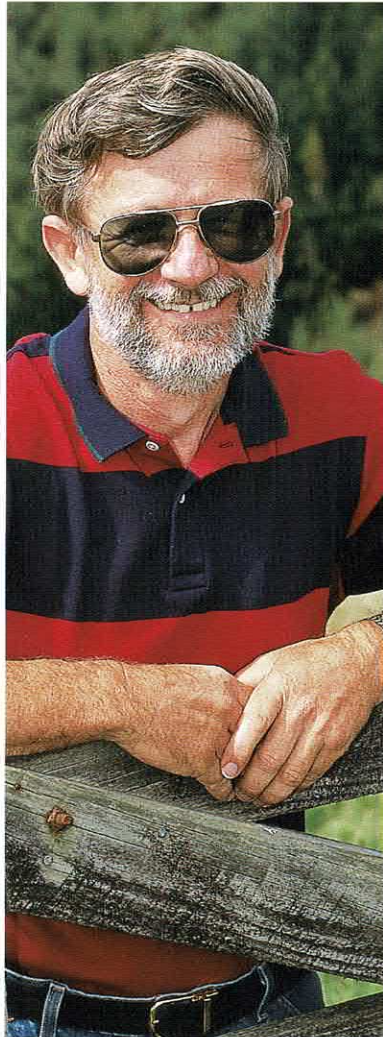
He swapped them for eucalyptus trees and the strange pine trees which cling on to the steep hills which are now part of his world. It is a world which spans 44 hectares and he is not keen to leave it. In fact he can often go up to three weeks without leaving the house, his wife, and a hen, a pig and a cat which are all part of his life on his New Zealand farm.

People here live further apart than in Denmark - in fact every single New Zealander has an average of 10 times as much space as a Dane. The country is over six times as large and has approximately 1.5 million fewer inhabitants. The only things occasionally heard and seen from the house - which Rohde himself designed and had built - are some friendly cows and sheep belonging to a neighbour.

Don't grow on trees
Good programmers don't grow on trees - whether fir or eucalyptus - so in 1985 when Bang & Olufsen wanted a microprocessor programmed for the first telephone, the BeoCom 1000, Arne Rohde was the man they called. Although he was sitting 17,700 kilometres away, as Bang & Olufsen saw it, there was nobody closer who could do the job better.

Since then Arne Rohde has helped to develop software for a number of Bang & Olufsen's more recent telephones - the BeoCom 1600, 2400, 2000 and 2500 and the BeoTalk 400 and 1100.

Asleep during working hours
"In many ways distance can be an advantage," says Rohde.

His programming is a very independent job and when he worked at Struer he always tried to find a corner at the farthest end of the factory where he could work without being disturbed by meetings, telephone calls and colleagues. Today none of that is a problem. When Arne Rohde's working day begins at eight in the morning, his contact in Struer - software coordinator Knud Tangsgaard - is sitting at home with his family and can happily go to bed secure in the knowledge that error correction and testing are in the best possible hands.

In fact he will often have sent an e-mail to Arne about the things to be tested or investigated. So while Denmark sleeps Rohde can concentrate on testing and programming in peace and quiet.

"I'm convinced that I am more efficient when I have to work under pressure," Rohde says.

"It's a great way of working together," confirms Tangsgaard.

He's also convinced that much better use is made of Arne Rohde's time by his being far out of reach of meetings, telephones and other interruptions.

Knud Tangsgaard becomes a link across the oceans and occasionally he can spend around half of his time "holding Arne's hand", as he puts it.

Naturally, this does not mean that Arne Rohde cannot work on his own - it's just that a helping hand is needed to pass on the results of the latest tests between the development department and the programmer at "the farthest end of the factory".

One meeting a year

As the afternoon sun casts its shadow over Auckland, Arne completes his part of the job and returns a file with the day's work. When Knud Tangsgaard has drunk his morning coffee, there it sits flashing on his computer screen. Direct contact is maintained weekly telephone call and by Rohde often visiting Denmark for some intense weeks of work at the end of a project.

But most of the development process takes place at a distance, which just would not be possible without modern communications.

For example, it takes up to two weeks for a parcel to travel from Denmark to New Zealand. At the beginning of a project Arne Rohde is sent a chipboard model of the telephone with the hardware to be included in the final model.

Me and my Moon buggy

The 52-year-old Danish New Zealander sits in the house he designed himself, located on a hill surrounded by 44 hectares of farmland and forest with around 20 different tree varieties. The hilly terrain is tackled in a vehicle that bears a striking resemblance to those driven by American astronauts on the Moon.

In the area around Auckland the daytime temperature seldom falls below 10°C or rises above 30°C,

Rohde in his "bathtub on wheels"
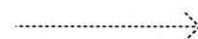- a Canadian vehicle perfect for hilly terrain

and the night temperature only drops below zero on rare occasions.

From the house Rohde has views over Auckland Bay and the extinct volcanoes 35-40 kilometres away.

Arne Rohde designed and built the house in 1989 with the aim of being able to work here. So the office faces north-east, away from the hot midday sun. Some of the land is rented out but he cultivates

around 20 different tree varieties, many of them firs. Besides being hardy, they also prevent the soil from sliding down the hills as many of the slopes are at an incline of 45 degrees.

"I wouldn't have been able to have a farm like this in Denmark. Here I was able to buy a reasonably large farm a comfortable distance from a city like Auckland," says Rohde.

Arne Rohde is approximately 17,700 km away from his workplace in Struer - as the crow flies, but thanks to modern telecommunications equipment the distance is no problem

Some years he spends one or two months in Denmark, so he has decided not to concentrate on livestock. His animals are Wheelie the pig, Penny the hen and Mis the cat.

Most people in the area have cut down on livestock farming because it was clear that El Niño would lead to droughts. This time it lasted three months.

Local people are used to it now and most of them have large water tanks filled with rain water. All the water Arne Rohde uses in his house, for humans and animals alike, is rain water which is collected in a 20,000 litre tank. Even the three month drought did not make vast inroads into Rohde's resources - the tank was still half full when it began to rain again.

Goodbye and Hello

Arne Rohde came to Bang & Olufsen in 1969. At that time the firm was recruiting computer programmers and Rohde's background as a programmer with a degree in mathematics was his passport into the company. Initially he worked on wage and accounting systems and other administrative duties on the large mainframe computers.

It was not until 1977 that programming begin to gain a foothold in Bang & Olufsen products. Rohde became involved in programming the first microprocessors for the BeoCenter 7000.

After emigrating in 1984, he first returned to Denmark in 1985 to conclude the programming of a remote control. At the same time he was asked to help with the software for the new generation of telephones.

Rohde enjoys being able to concentrate on programming.

Although he may go for weeks without leaving his 44-hectare farm, he does not consider himself a hermit or a recluse:
"I've got nothing against mixing with other people, and I enjoy my trips to Denmark," he says. "But for me, programming means I have to have peace and quiet."
Although he lives far off the beaten track, he has no problems keeping up with the latest programming trends as he for example takes part in discussion groups via the Internet.

At the moment he is working on updating the software in some of Bang & Olufsen's telephones - and meanwhile Denmark sleeps.