



TEKTRONIX®



in Guernsey



Tektronix Technical Centre Oregon, U.S.A.

THE success of a Company depends on the success of its products. That much goes without saying ; no company will survive whose products fail. Success depends also on creating the kind of human organisation that best helps develop and improve those products.

In the following pages we review the growth of Tektronix since its incorporation in January, 1946, in Oregon, U.S.A., with particular reference to its development in Guernsey. We consider not only the growth of the company in terms of buildings and machinery and the number of people employed but also the growth of its reputation and the development of its most valued asset; the men and women who are 'Tektronix'.

THE OSCILLOSCOPE



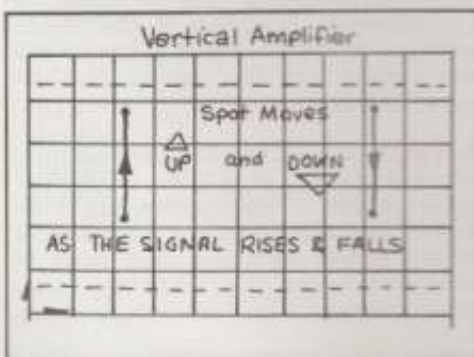
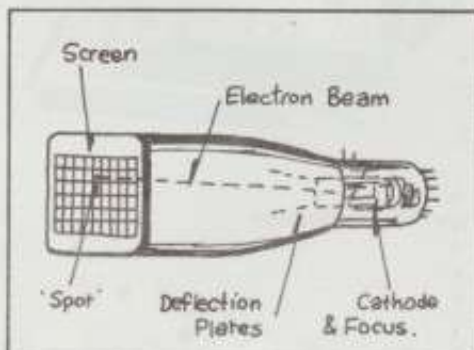
Tektronix is the principal manufacturer of laboratory cathode-ray oscilloscopes. First, let us spend a few moments examining some basic facts concerning our product.

The oscilloscope is a complex, integrated system, with thousands of electronic and mechanical components. However, its principles are easy to learn.

The oscilloscope draws a graph of some 'event' so someone can measure the amount of that event and how long it lasts.

It is made up of three major parts :

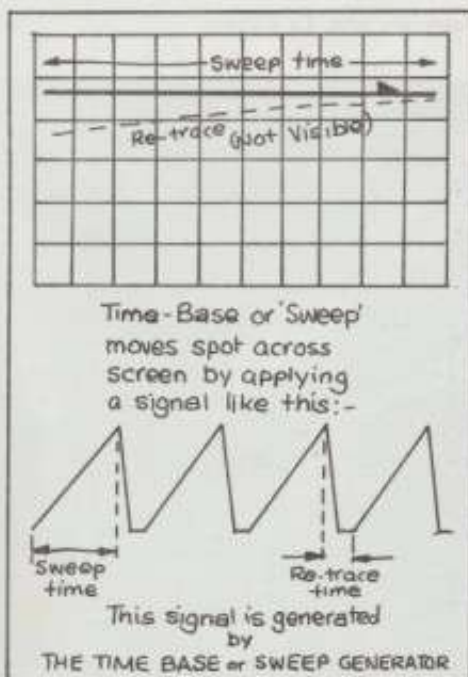
The cathode-ray tube (like a T.V. picture tube), on whose fluorescent face the graph appears. An electron beam from the CRT cathode makes a spot on the screen glow. This spot of light — which can be moved up and down or from side to side — draws the graph on the tube face, much as a pencil does on paper.



The time-base generator, whose electrical signal moves the spot across the screen at a uniform speed, left to right repeatedly. The screen is ruled off like a sheet of graph paper. You can make the spot 'sweep' at almost any rate — one second per ruled division, a hundred/millionth of a second (or less) per division. At slow speeds you can see the spot move. At very fast speeds its 'trace' appears as a solid line.

The vertical amplifier, which, when connected to a changing voltage, moves the spot up and down. You can make each vertical ruled division represent many volts, or a small fraction of one volt. The number of divisions the spot moves tells you the voltage of the signal — and thus the amplitude of whatever that voltage represents: heat, light, sound, gravity, pressure, acceleration, chemical reaction.

In summary: the oscilloscope graphs the changes in some event with relation to time — depicting the amplitude of the event and how long that event lasts.



Oscilloscopes are used wherever an electrical waveform needs to be observed and measured. This means they are needed in research and development, production and service activities of space programmes, also by computer manufacturers, component manufacturers, medical users (clinical as well as research), educational institutions, nuclear research and development and by the commercial aircraft industry. The list is almost endless.

THE TEKTRONIX WORLD

TEKTRONIX began manufacturing operations in Oregon, U.S.A. in a modest sized store in January, 1946. From these small beginnings the growth of the company has been such that it now occupies a 300 acre industrial park in Beaverton, a few miles outside Portland, Oregon. Worldwide the company employs more than 8,000 people of whom well over 500 work in Guernsey. In addition to the manufacturing complex in Beaverton, Tektronix has established further manufacturing facilities in Guernsey, Heerenveen (Netherlands), the United Kingdom and have entered into a joint manufacturing venture with Sony Corporation, Japan.



Type 475 Oscilloscope

These additional manufacturing locations outside of the United States were set up in order that Tektronix could produce oscilloscopes within specified market areas. In this way locally manufactured instruments could compete on more or less equal terms with those of other oscilloscope manufacturers in that territory. The manufacturing plant here in Guernsey produces instruments for the European Free Trade Area (E.F.T.A.) of which the United Kingdom represents the major customer. Heerenveen supplies the European Common Market (E.C.M.) countries and Sony/Tektronix sells to Japan. If Tektronix were not in Guernsey, customers in the United Kingdom would have to pay additional import duties on the completed instruments coming into the country, thus increasing the cost to the final user.

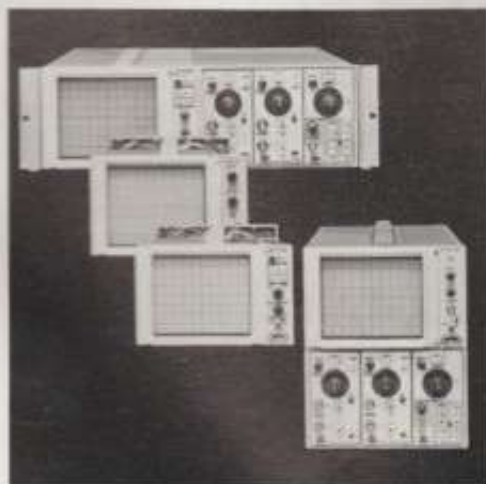
The manufacturing plant in the United Kingdom resulted from the purchase by Tektronix in 1966 of a U.K. oscilloscope manufacturer, Telequipment Ltd. Telequipment had built up an extremely wide and reputable name as a manufacturer of basic oscilloscopes and plug-in units and their range of instruments, now marketed under the Tektronix name, complements rather than competes with Tektronix products.

Assembly area, La Villiaze.



TEKTRONIX OFFICES ●
AND DISTRIBUTORS ●

FINLAND
NORWAY
SWEDEN
DENMARK
HOLLAND
GERMANY
BELGIUM
U.K.
C.I. (Guernsey)
AUSTRIA
FRANCE
SWITZERLAND
YUGOSLAVIA
SPAIN
PORTUGAL
ITALY
GREECE
TURKEY
LEBANON
ISRAEL
IRAN
TUNISIA
MOROCCO
EAST AFRICA
ANGOLA
MOZAMBIQUE
SOUTH AFRICA
ZAMBIA



But it was not only in the manufacturing field that Tektronix was reaching out around the world. Marketing companies have been established in many major countries and Tektronix now sells directly to the customer in Australia, Belgium, Canada, Denmark, France, Japan, Netherlands, Sweden, Switzerland and the United Kingdom. Tektronix is truly international.

In addition to these subsidiaries, Tektronix has appointed distributors and marketing representatives in a further 39 countries around the world; from Argentina to Zambia, Mexico to Mozambique. The word 'Tektronix' has come to be a synonym for quality and reliability—a reputation for which Tektronix employees are not only proud but which we are determined will remain.



Scopes vary in a number of ways. One Tektronix scope lets you photograph a phenomenon occurring in the time it takes light to travel two feet. Some are lightweight and portable (some even held in the hand during use); some make a variety of general purpose measurements; others are special purpose, like our T.V. Waveform monitors. Tektronix is the world's leading producer of graphic terminals—thanks largely to our storage CRT, which can hold the display on its screen after it has been put there only once.

Related Tektronix products include hard-copy units, which quickly make paper duplicates of the CRT screen contents; and display monitors, which picture computer output in a variety of ways but do not offer two-way communication.

In the giant machine-tooling industry, a large and increasing number of mechanised processes are electronically controlled. Punched tapes, usually computer generated, are translated by machine-control units, into directions for making the required part, governing tool movement, speed, feed rates, and tool changes. Tektronix produce six machine-control units. In addition, Tektronix builds a variety of products that make oscilloscopes easier to operate or more useful—probes, which directly contact the signal being measured; and cameras to record CRT displays.



MANUFACTURING IN GUERNSEY



Automatic Component insertion

THE question of why Tektronix selected Guernsey as a suitable site to set up a manufacturing plant is one which is often asked. Having recognised that in order to compete successfully in overseas markets it would be necessary to establish manufacturing facilities within the 'tariff walls', the decision of where to locate the first of these was a basic and vital one.

As this would be the first overseas facility, it should preferably be in an English speaking area; it should have an adequate communication system, with reliable transportation services; and it must have a stable government.

Guernsey filled these basic criteria and in addition offered an attractive tax climate and a history of good employer/employee relationships, substantially free from industrial unrest. Furthermore, a factory of 20,000 sq. ft. at Victoria Avenue, St. Sampson's was vacant and was available on a rental basis, thus avoiding the necessity for heavy capital investment in buildings and the possible loss of that investment should the project not prove successful.

So it was that the first Guernsey employee was hired in September, 1958, and in the months that followed the four people who had been sent from Beaverton to start up the Guernsey operation began training locally hired employees to build oscilloscopes. Long service employees look back to those days with something approaching nostalgia.

The company was small, the product was strange and virtually unknown but there was a cohesive determination among those early employees which ensured the success of the whole project. Gradually, over a period of months, the finished and semi-finished sub-assemblies received from the United States with which the operation commenced, gave way to individual components and raw material. The first oscilloscopes were assembled and calibrated and duly despatched to waiting customers. Employees were added until in 1962 it was evident that a far greater production area was required.



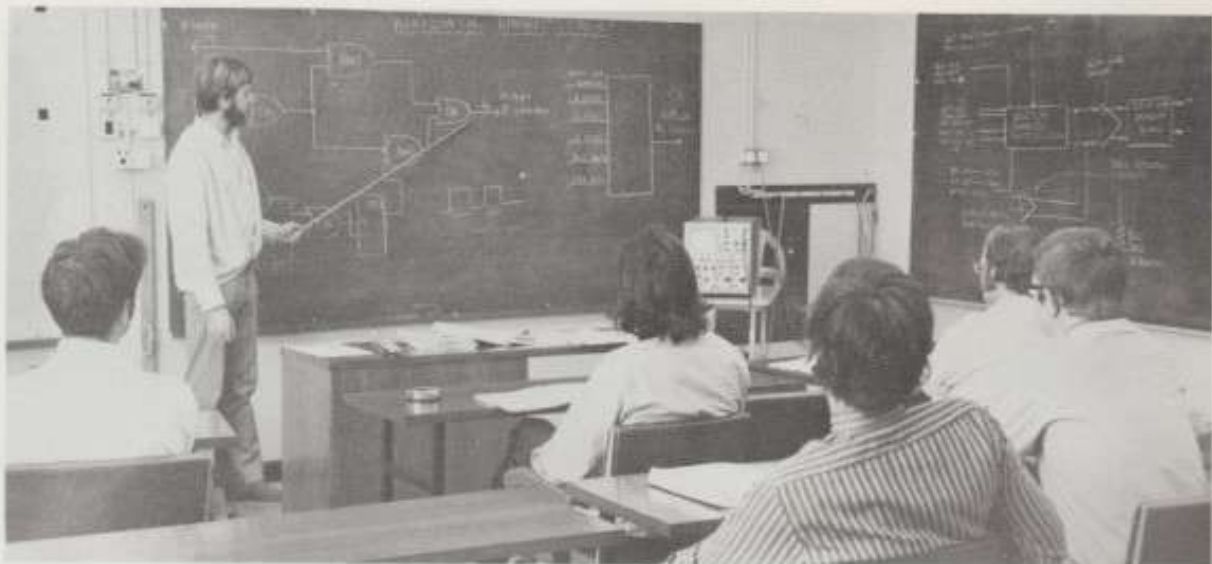
Automatic Component testing



Manufacturing and tool for use in assembly

The first phase of a manufacturing plant at La Villiaze was begun in the latter half of 1962. This provided an additional 40,000 sq. ft. and in September, 1963, the Assembly and Test departments moved to their new location. By then the manufacture of certain component parts had begun and this branch of activity continued at Victoria Avenue. It was also in 1963 that the marketing company, Tektronix Limited was formed and we shall consider the function of this new company a little later when we come to examine the marketing and customer training facilities provided in the island.

The customer demand for instruments manufactured by Tektronix Guernsey Limited continued to grow and two further extensions were added to the original building so that by 1967, approximately 80,000 sq. ft. was available, half of which is air conditioned. Today, the La Villiaze plant houses nearly 400 employees including Instrument Production staff, Materials personnel and the Accounting and Personnel departments. The plant has been built to Tektronix specifications and is open-plan, light and airy. A modern staff canteen provides hot and cold meals together with refreshment and snackbar facilities.



TRAINING

Throughout its history, Tektronix has tried to maintain a climate conducive to personal development. Combined personal and job growth is, today, not an option but a necessity. Individual growth is vital to company growth.

In Guernsey, training is provided in a number of ways. A new employee in the Assembly area will be assigned to an instructor and will be taught the techniques of assembly work. This will include the art of soldering, the correct way to build sub-assemblies and small instruments and the proper use of tools. The emphasis during this preliminary training period is on quality and accuracy of work. Training will, however, be continued throughout employment as the result of new instrument build techniques.

A more formal technical training programme has been implemented for training our own Test technicians. Roughly six school-leavers a year are selected to follow a basic two-year plan during which time they work in each of the main departments of the plant, whilst also spending some time in the classroom. In addition numerous shorter training courses are run by various members of the Test Department.

A calibration engineer carrying out final operational tests.



MARKETING



Tektronix Ltd. keeps in constant touch with locations throughout the world by teleprinter.

IT is, perhaps, not surprising that the existence and function of Tektronix Limited, is less widely known than that of its numerically stronger associate, Tektronix Guernsey Ltd. However, although with a smaller work force, about 90 people, Tektronix Limited has a vital role to play in providing technical and administrative support within an ever-increasing market area. It represents the 'shop window' of Tektronix and it is here, particularly, that communications need to be fast and efficient.

Tektronix Limited was incorporated in Guernsey in 1963 and at that time was responsible for the sale and support of Tektronix products in the market area of Europe and the Middle East. Today, Tektronix Limited acts as the central point for orders and enquiries not only from Western Europe and the Middle East but also the Eastern European countries and the whole continent of Africa. Recognising the increasing importance of this 'European' business, Tektronix have established the European Operations Centre on Guernsey, headed by Frank Doyle, Vice-President, Europe.

Most of the Tektronix Limited staff work from premises at the Albany, St. Peter Port, which houses the Administration, Order Processing and Technical Support departments. Reference was made earlier to the numerous Sales Subsidiaries and Marketing Distributors throughout the world and all enquiries and correspondence from these locations within the Tektronix Limited market area arrive at the Albany premises. It is here that orders are examined, appropriate export documentation prepared, invoices and packing lists produced, and the consignment finally approved for despatch to the customer. Here also work technically qualified staff providing assistance to distributors and customers concerning the use and operation of Tektronix equipment. They liaise closely with the production departments at both Guernsey and Heerenveen, as well as the technical support group in Beaverton, U.S.A.



CUSTOMER TRAINING

Another important facet of this marketing support is the series of training courses on the operation and maintenance of our products which are given to both Tektronix and customer engineers and technicians. The courses are prepared in weekly units and are undertaken by Customer Training staff located at Victoria Avenue. Also at Victoria Avenue is a small group providing an instrument repair service to customers who lack the test equipment or technical ability to effect their own service or repair maintenance.

But of course, there is more to good service than merely effecting a sale. We said earlier that the Tektronix reputation was earned through quality and reliability. So it was. It was also maintained by our declared objective of providing excellent after-sales service by way of prompt repair of equipment returned or by the supply of spare parts. This function is carried out by staff at La Villiaze, where planned inventories of instruments and replacement parts are held.

SHIPPING



Located at La Villiaze are the Customer Service and Shipping departments. Incoming freight from the U.S.A. of both instruments and parts arrive at Guernsey Airport twice a week. Nearly all of the outgoing shipments are also made by air as this not only speeds up delivery to the customer but, by reason of minimal handling requirements, reduces the risk of damage in transit. Many thousands of components and replacement parts are held in stock and shipping methods vary according to the items supplied and the destination point.

But it is not simply a question of determining the appropriate shipping method. Documentation has to be prepared to permit speedy entry into the country of destination. This may include Certificates of Origin, Licences or Shippers Declarations. The Shipping Department also distributes bulk supplies of technical literature and is responsible for the packing and shipping of booths and equipment for Tektronix exhibitions and trade shows.

We hope you enjoyed your visit

Next year, perhaps in the Spring, we plan to hold an Open Day at our Victoria Avenue, St. Sampson's plant and we hope to see you again.

There is a great deal of activity at Victoria Avenue just now, as we are making arrangements to transfer a complete production unit similar to one of those you saw today – from La Villiaze at the beginning of next year. This will supplement the Component Manufacturing activity already carried on there.

As a result we wish to hire about 20 female assembly workers who following training at La Villiaze will help set up this new production unit at Victoria Avenue. It affords a splendid opportunity for women living in the north of the island to work not far from their home in a Tektronix plant.

Don't worry about getting to La Villiaze for the 10 week training period. Provided you can reach Victoria Avenue at the normal starting time of 7.30 a.m. we will arrange transport to La Villiaze and get you back to Victoria Avenue in the afternoon.

If you are interested please contact our Personnel Department who are located at La Villiaze (phone 37701, 37116 or 37122) pointing out that you wish to be considered for assembly employment at Victoria Avenue.

We were very pleased to have the opportunity of showing you our La Villiaze plant today and we hope you will find this booklet of interest.

6th October 1972

TEKTRONIX GUERNSEY LTD.
LA VILLIAZE, ST. SAVIOUR'S.