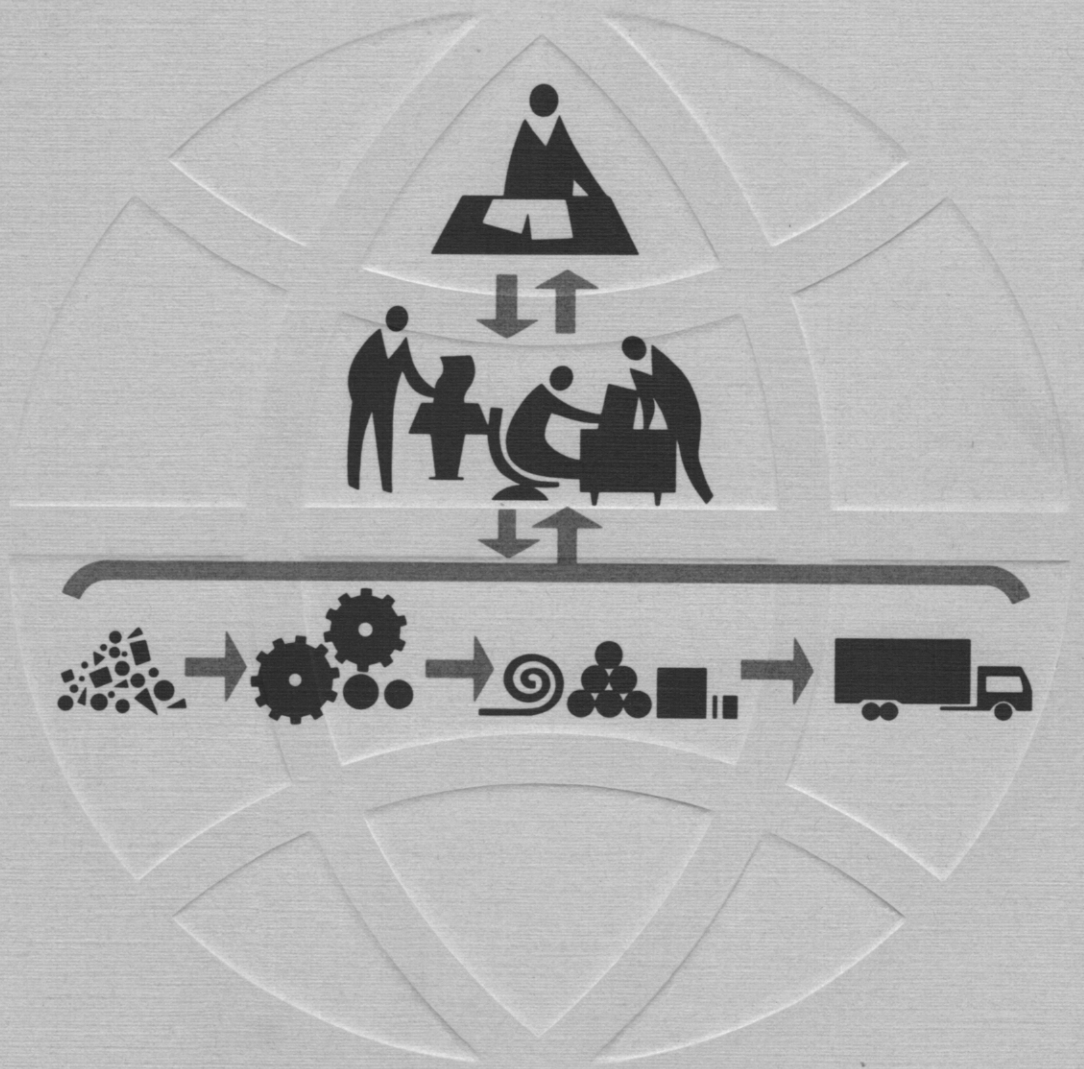


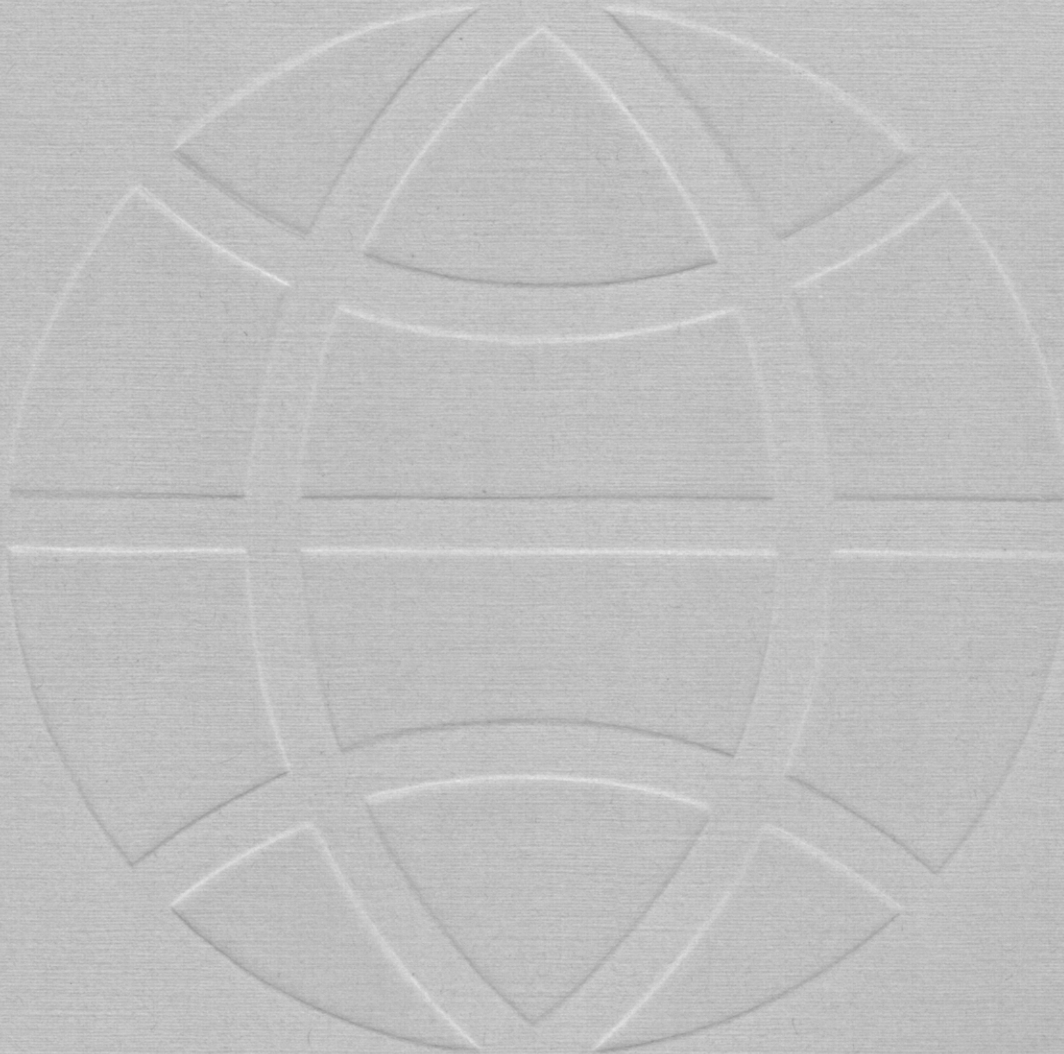
INDUSTRIAL
NUCLEONICS
CORPORATION
ANNUAL
REPORT 1972



AUTOMATION FOR MANAGEMENT

Financial Highlights

Year Ended December 31	1972	1971	Increase
Total Operating Revenues	\$44,214,286	\$37,591,086	18%
Net Income Before Taxes	\$ 5,235,671	\$ 5,110,429	3%
Net Income	\$ 3,135,671	\$ 2,680,429	17%
Net Working Capital	\$26,954,453	\$21,258,233	27%
Primary Net Income Per Share	\$.94	\$.81	16%



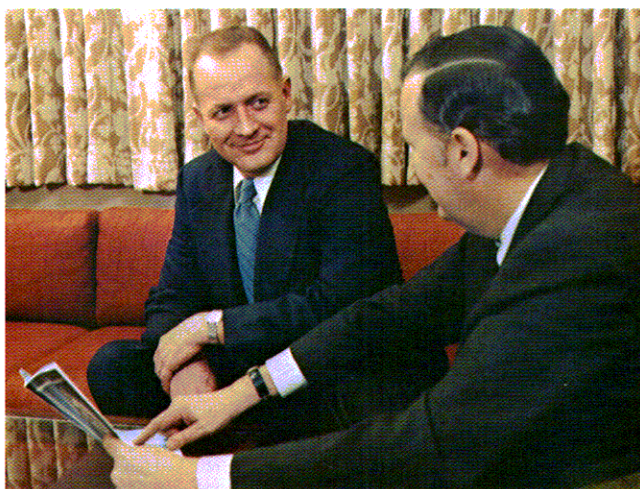
® AccuRay is the primary registered trademark and service mark of Industrial Nucleonics Corporation covering broadly its products, systems, and services.

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To Our Stockholders and Employees:

The fiscal year ended December 31, 1972, marked the tenth consecutive year of increased revenues and earnings for Industrial Nucleonics. During the year we continued to implement our basic plan of "Automation for Management" as a diversified, systems-oriented, automation company. Significant accomplishments during the period included:

- Completion of eight new system introductions within the paper, rubber, plastics, steel, aluminum, and tobacco industries.
- Introduction of the new AccuRay 3000 production and materials management program for manufacturing companies oriented to discrete parts, fabrication, or assembly production.
- Acquisition of Brun Sensor Systems, Inc., located in Columbus, Ohio, which has become Infra Systems, Inc., a wholly-owned subsidiary of Industrial Nucleonics.
- Receipt of first production contracts for the AccuRay KET* Inspection Service.
- Expansion of marketing and service operations in Japan and Australia.
- Announcement of a \$6 million building program which will double the size of our present Ackerman Road facilities in Columbus.

Financial Summary

Total revenues from sales, rentals, and services increased to \$44.2 million in 1972 as compared with \$37.6 million for the previous year. Profits before taxes on this business were \$5.2 million with resulting profits after taxes of \$3.1 million as compared with \$2.7 million in 1971. Primary earnings per share in 1972 reached 94 cents — an increase of 16% over the 81 cents reported in 1971. All figures rep-

resent the consolidated performance of Industrial Nucleonics and its subsidiaries.

The Industrial Nucleonics Plan

We are following a program for growth designed to build during the next decade a much larger and diversified automation company on a worldwide basis. We expect to make a significant contribution to industry by offering a step-by-step automation strategy which provides process, plant, and corporate monitoring and control of a business. As we broaden our capability, we plan to undertake much larger system contracts which can provide an increased contribution to the profitability of the user. Our 1972 Annual Report illustrates how this strategy is being implemented on an industry-by-industry basis.

Immediate plans at Industrial Nucleonics are based upon improving the profit derived from each industry business by expanding geographical markets, offering attractive financing programs, and providing the required continuing services on a profitable basis. Profits will continue to be largely reinvested in our business in order to supply the industries we serve and to support expanded research and development. The acquisition method of adding new products and services will be used when appropriate.

New System Introductions

During 1972 we completed the introduction of eight new systems within the paper, rubber, plastics, metals, and tobacco industries. Marketing efforts in all industries have been concentrated on demonstrating the increased benefits from each of these new AccuRay systems and expanding our potential for repeat customer orders. As a result, we experienced an increase of new orders in 1972 for equipment and related services of approximately 40% over the prior year.

We announced in the paper industry a further expansion into other parts of paper manufacturing to supplement our historical emphasis on paper machine control. This expansion included the AccuRay 4200 Digester Control system in the pulp mill and the AccuRay 2700 Production Information and Order Control system in the finished goods area. This gives us the capability to be responsive in

*Registered service mark of Industrial Nucleonics Corporation

whichever area an individual customer may wish to concentrate effort. Whenever the customer has a particular bottleneck in productivity, we are in a position to offer a system solution throughout the entire paper manufacturing process. For example, we received in 1972 an order for a mill-wide program in which our 4200 Digester Control, 800 Paper Machine Control, and 2700 Production Information systems will be installed simultaneously during 1973.

Diversification

Our primary business purpose is the application of AccuRay automation and management information systems to basic manufacturing processes for the purposes of increasing productivity, reducing costs, and improving product quality. While the majority of our effort will continue to be concentrated in the raw materials processing industries, we plan in the future to expand into related industrial markets where specialized automation systems can provide more precise control over business activities.

We introduced in 1972 the AccuRay 3000 program for companies involved in either manufacturing or distribution. The program utilizes a computer-based system to provide on-line production and materials management information at the factory level. A 3000 system will meet short term planning and control requirements in the factory as well as longer range planning needs through a larger, general purpose business computer. The system offers operating savings to the user in the areas of inventory investment, customer service, and plant operating efficiency. The program is designed for manufacturing companies oriented to discrete parts, fabrication, or assembly production as well as process-oriented manufacturing. We will be installing the first AccuRay 3000 system during 1973 in the chain manufacturing plant of a large industrial company.

In the nondestructive testing field we completed the construction of a new facility in Columbus for the AccuRay KET Inspection Service. This technology uses krypton exposure to find microdefects in metal parts with a much higher sensitivity than previously available. This process also offers the potential of extending the useful life of very costly parts through its capability to measure metal fatigue. We are presently working with major engine manufacturers in expanding the application of this nondestructive inspection service to jet engine turbine blades and other critical engine parts.

First Corporate Acquisition

On January 15, 1973, we completed the acquisition of Brun Sensor Systems, Inc. which has become Infra Systems, Inc., a wholly-owned subsidiary of Industrial Nucleonics. The primary reason for this acquisition was to provide products and technologies complementary to our present activities. Major development efforts at Infra Systems, Inc. have been directed toward measurement systems utilizing infrared technology.

Many plastic materials have their own unique patterns of energy absorption. By selecting the appropriate infrared energy, the weight or thickness of a specific material can be measured continuously by systems which are insensitive to the immediate environment. Typical of such systems is the Infra-system BF-100 for blown film extrusion processes. The BF-100 system is designed to measure and control film thickness for an individual film extruder. Blown film is a growing segment of the plastics industry in the manufacture of thin films for plastic bags and other packaging uses. Infra Systems, Inc. will continue to be operated from its present Columbus location just two miles south of Industrial Nucleonics' home office facilities.

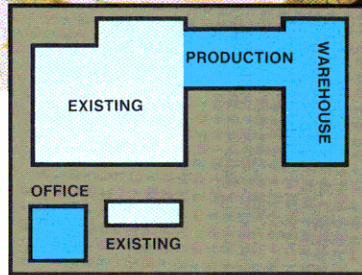
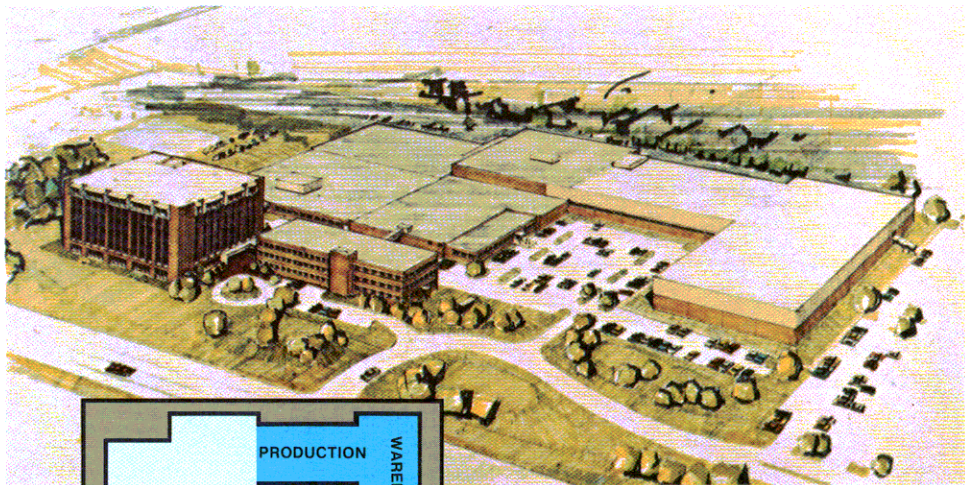
Worldwide Operations

During the past five-year period, operations outside North America have increased from four percent of total revenues to approximately thirty percent in 1972. These operations are organized along regional lines as seven wholly-owned subsidiary companies and are staffed primarily by nationals of the countries in which they are located. Our total management, marketing, and service force outside the United States now numbers 207 personnel in more than 30 different countries.

During 1972 major programs were initiated to establish marketing and service organizations in Australia and Japan. We are presently organizing a joint venture company in Japan in partnership with a major Japanese trading company. We estimate that the potential for current AccuRay applications in Japan adds approximately 30% to our present potential in North America.

Leasing

Approximately 50% of our equipment shipments during 1972 were provided to customers on a leasing basis. A contributing factor to this higher level of purchase agreements has been the establishment and use of separate third-party leasing



Major facilities expansion in 1973 will provide optimum processing of increasing order and manufacturing levels.

companies by many of our larger customers. A second factor has been that current Income Tax Regulations do not allow many industries to claim full investment tax credit on lease agreements.

Leasing agreements during the period were primarily full-payout leases for terms of five to ten years. Under these arrangements the customer agrees to pay the full selling price of the equipment plus a financing charge over a committed period of time. We have ongoing agreements with First National City Bank and Manufacturers Hanover Trust of New York for the financing of these long term leased systems. Operating leases or short term leases of one to three years represented less than 3% of total equipment shipments in 1972.

Major Facilities Expansion

Construction began in January 1973 on a new building program which will virtually double our facilities at the Ackerman Road site in Columbus. The program involves an addition of 225,000 square feet of space, including a six-story office tower, production facility, and warehouse. Completion of the entire program is planned by November 1973 at an approximate cost of \$6 million. This expansion will provide for a consolidation of more Columbus-based activities at the Ackerman Road location and will allow for future expansion. Financing has been arranged through a real estate mortgage agreement with Metropolitan Life Insurance Company. We believe that the program will allow various depart-

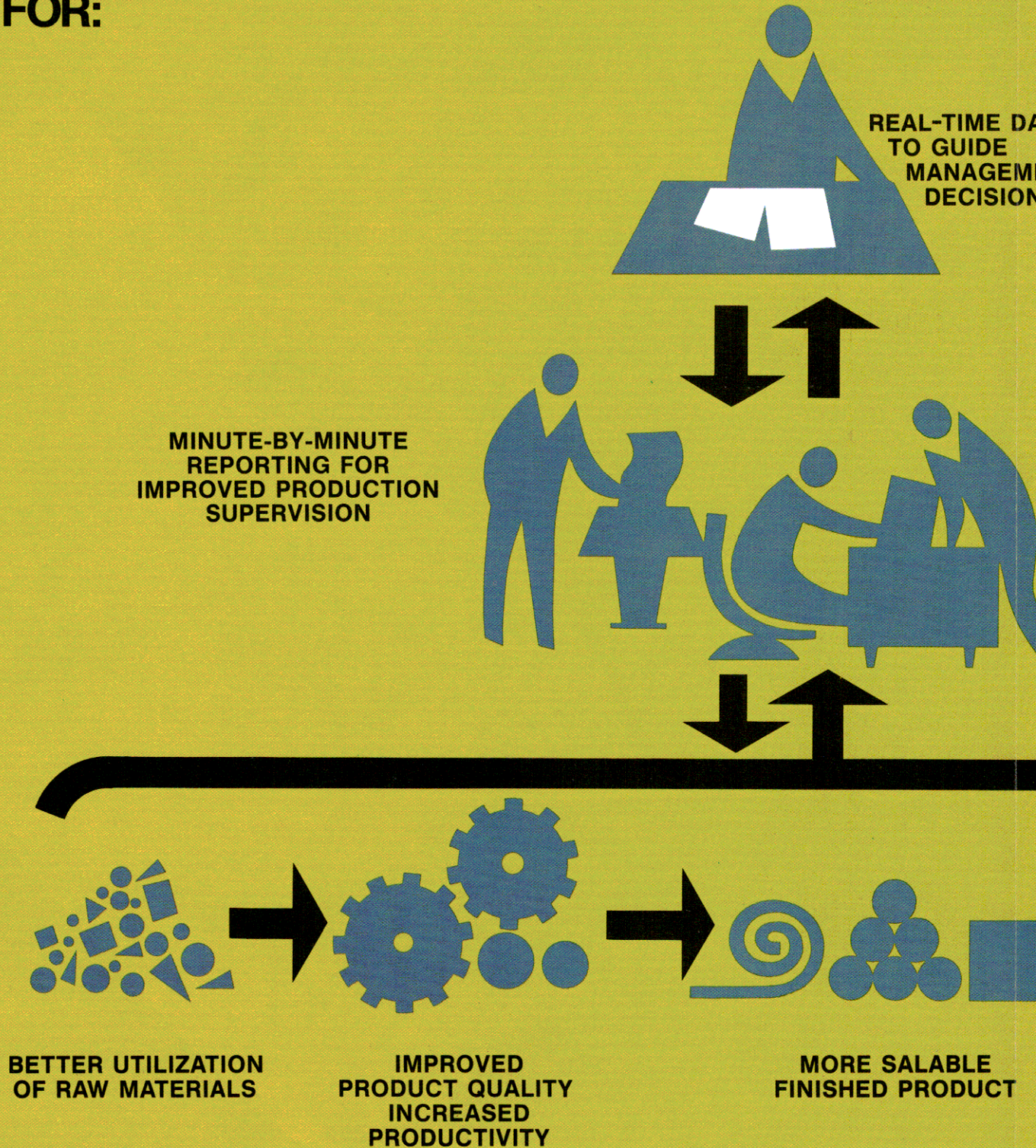
ments to work more efficiently together and will assist in further improving internal productivity.

Growing Personnel Resources

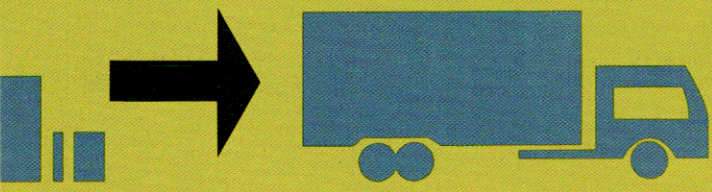
We are dedicated in 1973 to expanding our worldwide leadership position in the process automation and management information systems field. Our basic resource in accomplishing this goal is the outstanding quality of our people. In the past five years, total employment at Industrial Nucleonics has doubled. As of December 31, 1972, we had 1,580 full-time permanent personnel with an average age of 33 years. This staff includes 13 Ph.D.'s, 156 people at the Master's level, 348 with Bachelor's degrees, and 180 with Associate degrees. Infra Systems, Inc. adds to total employment 66 personnel including 3 Ph.D.'s, 5 Master's, 12 Bachelor's, and 10 Associate degrees. Our personnel have been selected to provide a practical working knowledge of industry needs combined with new expertise in the areas of electronic design, computers, software development, instrumentation, and system design. We look to this talented group of employees as an outstanding capability upon which to base our future growth.

David L. Nelson
President

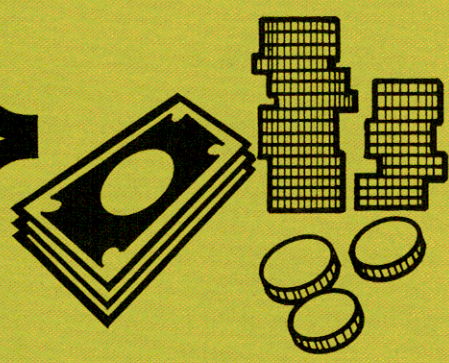
ACCURAY AUTOMATION AND MANAGEMENT INFORMATION SYSTEMS FOR:



DATA
MENT
ONS



**TIGHTER INVENTORY
AND SHIPPING CONTROL**



**INCREASED
PROFITABILITY**

Automation For Management

Technology will continue to promote the expansion of automation during the next decade. The fundamental challenge for industry is to control automatically and continuously all manufacturing operations from the raw materials input to the finished product. This includes such unit operations as processing, inspection, assembling, testing, and packaging. It means the integration of all equipment and operations of a business for continuous planning, coordination, and control.

The primary objectives of automation are to increase productivity, reduce costs, and improve product quality. "Automation for Management" as used by Industrial Nucleonics means the application throughout a business of individual automation systems which become elements of a total management information and control system.

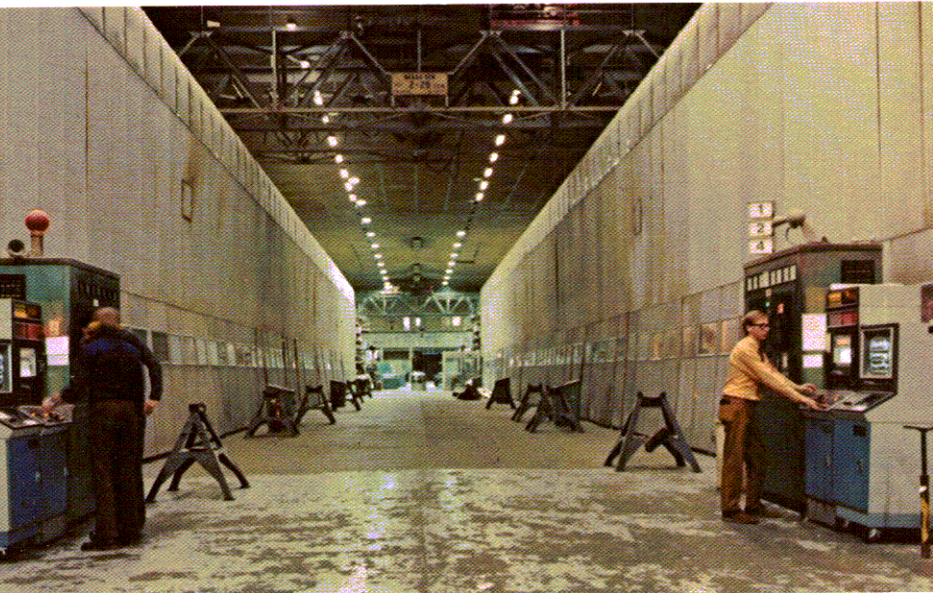
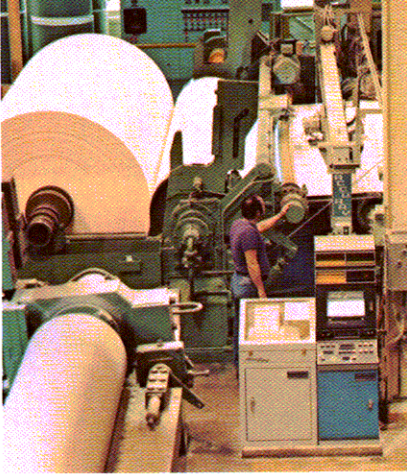
From nearly 23 years' association with manufacturing industries, Industrial Nucleonics has gained the practical knowledge of manufacturing processes and their economics — plus the experience in measurement technology, systems design, implementation, and service — to provide these automation systems for total management information and control of an entire business. This approach to "Automation for Management" offers the advantages of single-supplier economics in the areas of service, volume production, and research and development, as well as operating efficiencies from a common data base and consistent operating philosophy.

As the entire world increasingly becomes one marketplace, manufacturing businesses have experienced growing pressures to increase the pro-

ductivity of their operations. Yet, the amount of automation actually found in industry today is nowhere near that which is technically feasible and economically attractive. One reason for this fact is the diverse combination of skills required to implement such projects. Industrial Nucleonics has successfully developed the following corporate skills which are required to effectively implement these advanced automation systems:

- Professional, industry-oriented marketing teams to appraise the needs of a customer business and to recommend high return-on-investment solutions through the application of systems analysis techniques.
- Engineering design capabilities to develop integrated system packages that include product analysis measurements, scanning platforms, computers, electronics, and industrial operator interface terminals.
- Computer software capabilities to provide efficient, modular programs for advanced process control, system executive logic, and broad information systems packages.
- A high quality manufacturing and system test organization to provide maximum system reliability.
- An international service support organization to ensure optimum customer results.

Industrial Nucleonics has a uniquely solid base in each of the above professional areas and is in a position to make a substantial contribution to this larger "Automation for Management" field.



Increased production, improved moisture and basis weight profiles, and reduced costs effected by initial AccuRay 800 installations resulted in repeat orders for AccuRay systems in these U.S., Canadian, and European paper mills.

Mill-Wide Management Systems

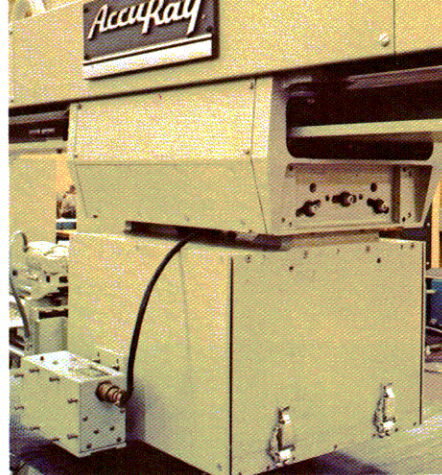
Industrial Nucleonics has acquired substantial knowledge of both the papermaking process and papermaking economics from working closely with the paper industry for the past two decades. Complementary experience in measurement technology, systems design, implementation, and service now place Industrial Nucleonics in an excellent position to provide systems for complete paper mill management.

Two new systems were introduced to accomplish this objective during 1972 — the AccuRay 4200 Digester Control system and the AccuRay 2700 Production Information and Order Control system. The AccuRay 4200 computer system for pulp mill control is designed to increase the yield of salable or usable pulp from a given amount of wood chips and chemicals.

The AccuRay 2700 is a modular computer-based system for production reporting and order control which offers the customer an automated order handling system from the time the order is received at the mill to the time the final paper is shipped to the ultimate user. The system again uses modular hardware and software and a wide variety of associated data devices. The initial module is for automated roll weighing and labeling operations.

The AccuRay 4200 and the AccuRay 2700 represent Industrial Nucleonics' initial steps into mill-wide process management and control. During 1973 expansion into mill-wide process management systems will continue by developing additional modules for both the 4200 and 2700 systems, plus continued research and development for other applications in the paper process.

Outstanding performance of the AccuRay 800 system for traditional fabric tires has promoted additional installations of this advanced computer control system.



AccuRay 720 x-ray reflection system for steel belted tires represents an industry first as well as considerable new market potential for Industrial Nucleonics.

The Rubber Industry

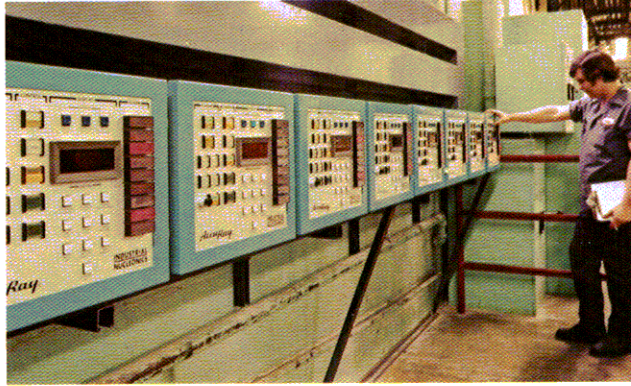
The rubber industry in the United States spent approximately \$850 million on new plants and capital equipment during 1972, a 10% increase over the prior year. These expenditures included expansion of existing processes as well as construction of new facilities. The development of new processes for the manufacture of steel belted radial tires was a major factor in these capital expenditures.

In response to the production requirements of steel belted radial tires, Industrial Nucleonics introduced in 1972 the AccuRay 720 x-ray reflection system which offers direct measurement and control of the steel belt material. An industry first, this new system was the result of the Company's long association with and knowledge of the industry, plus recent technological breakthroughs from continuing research and development. Customers have

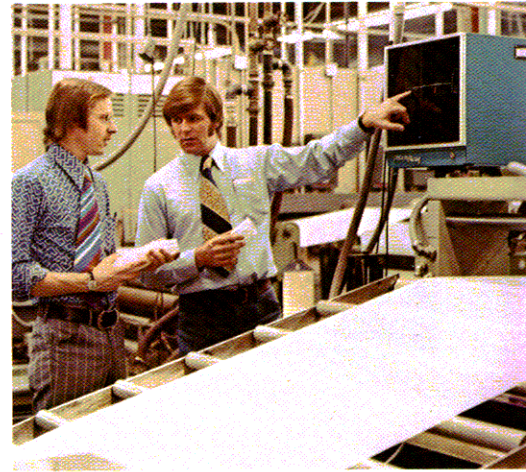
responded enthusiastically to the new AccuRay 720 system with initial orders shipped in early 1973.

The outstanding performance of the AccuRay 800 system introduced in 1971 for nylon, rayon, or polyester-fabric tire calenders led to additional installations and repeat orders of this advanced computer control system in 1972. Besides the expected quality, throughput, and material efficiencies experienced by users, additional customer benefits have emerged, primarily in the area of management efficiency. With the new production data now available to manufacturing managers — information which has never before been available on a real-time basis — managers now have the means to control their operations for the greatest economic and quality advantages.

As the industry adds new tire making capabilities, increased potential exists for advanced measurement and control systems. Industrial Nucleonics has made the investment in technology to respond appropriately to the growing automation needs of tire manufacturers.



Multiline AccuRay 800 for plastics allows customer personnel to monitor eight extruder lines through a central computer system.



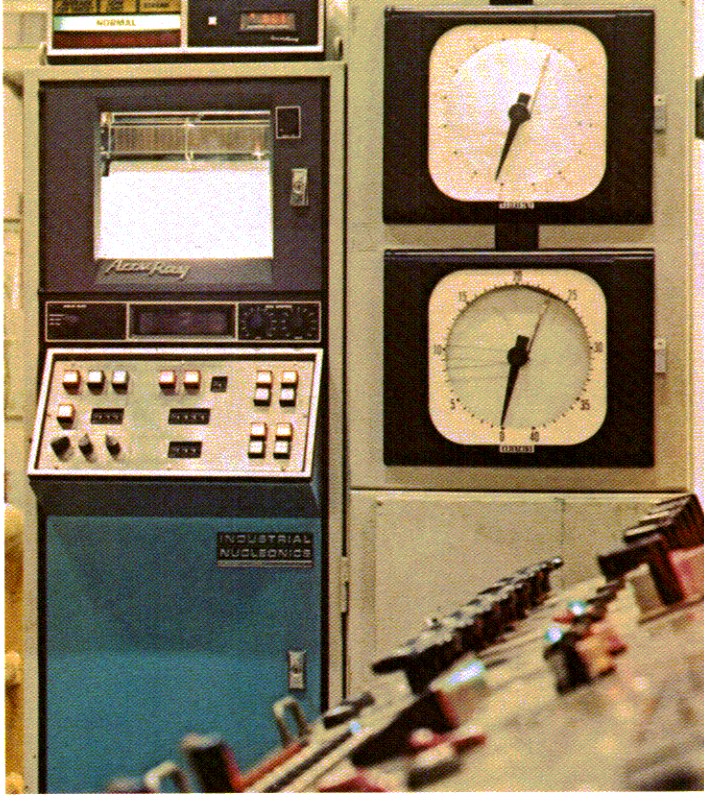
Systems engineer utilizes data readout and advanced control of AccuRay 800 system to help customer improve process efficiency and economics.

The Plastics Industry

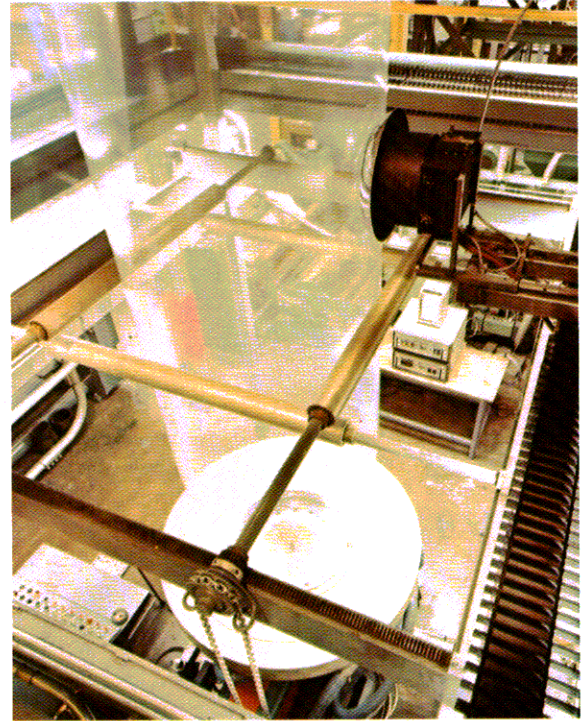
The expanding plastics industry offers many applications for AccuRay systems on processes such as extrusion, coating, treating, and calendaring. New system introductions in the plastics industry during 1972 were the result of both internal product de-

velopment and the acquisition of Infra Systems, Inc., the new wholly-owned subsidiary of Industrial Nucleonics.

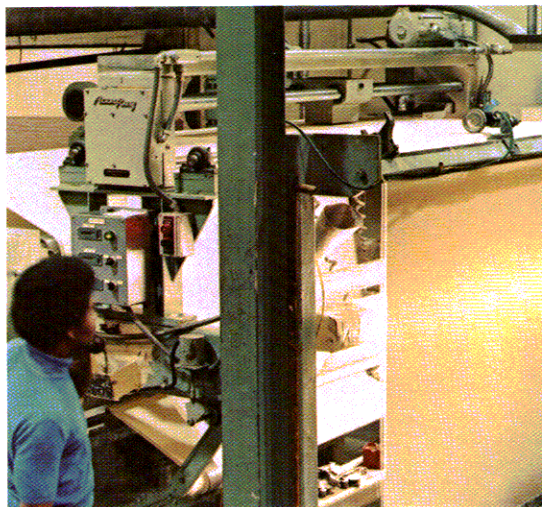
The new AccuRay 800 system for sheet and film extruders offers advanced controls for plastic processing on a plant-wide basis. This multiline concept allows the customer to monitor and control up to eight separate extruders through a centralized computer system. The AccuRay 600 digital control system introduced in 1970 continues to provide an attractive alternative for single line applications and



Multiple applications of the AccuRay 600 system control the processing of coated fabrics such as automobile upholstery and wall coverings.



The recently acquired Infracast BF-100 for blown film applications opens new markets for Industrial Nucleonics in the growing plastics packaging industry.

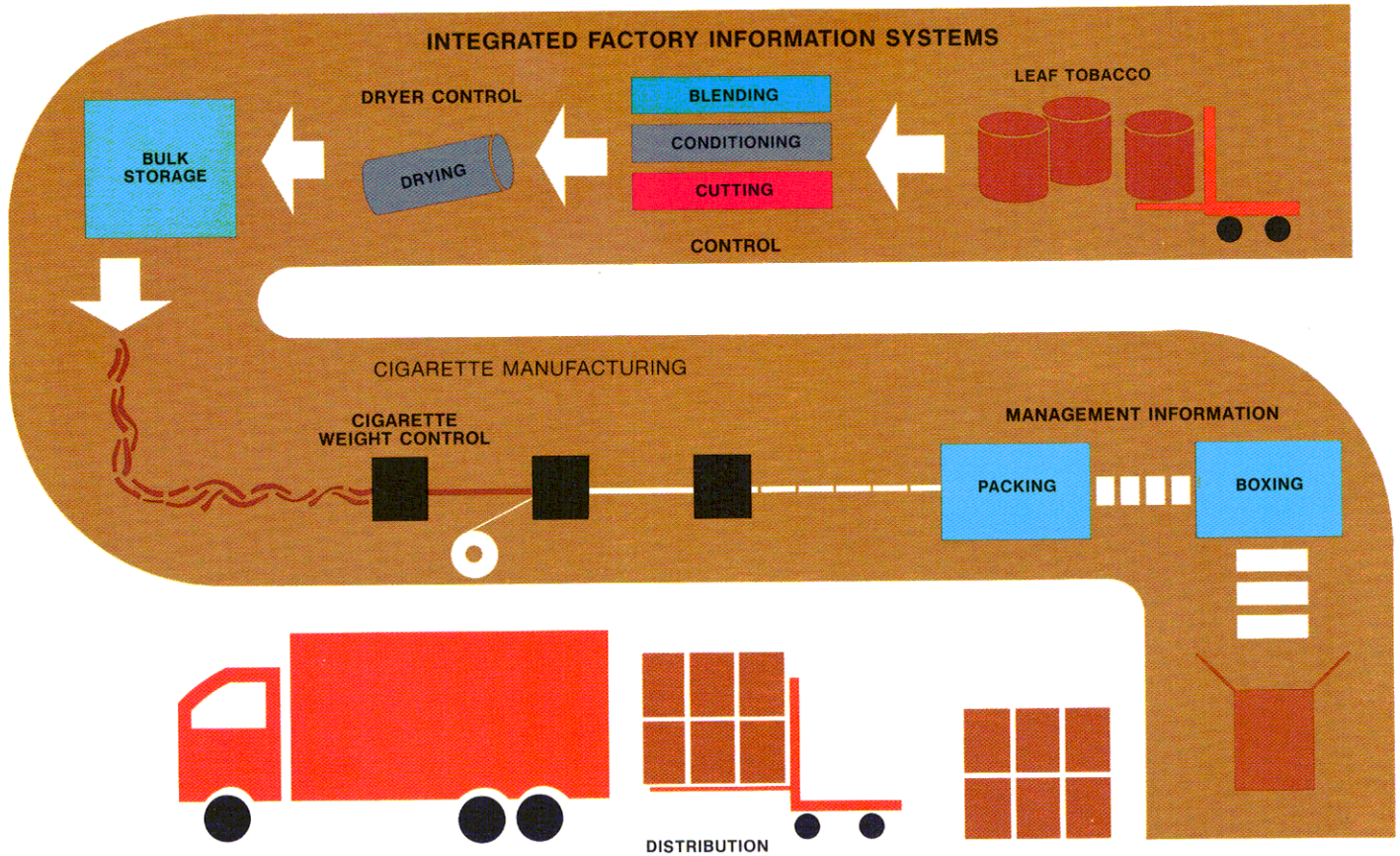
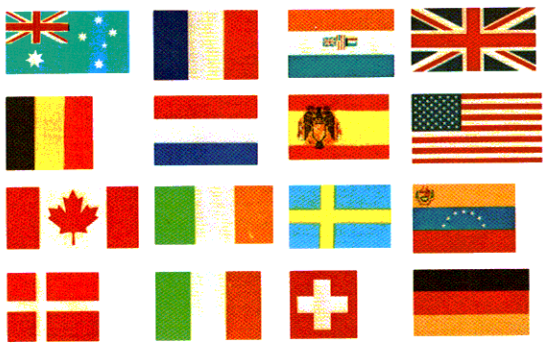


a high return on investment to the user.

The AccuRay 800 for coaters and treaters introduced in 1971 also monitors and controls multiple processing lines. The first shipment of an AccuRay 800 system was multiplexed over four industrial treaters producing high pressure industrial laminates. A subsequent installation of an 800 system during 1972 controls two treaters producing decorative laminates.

The Infracast BF-100 for blown film applications opens a new area of potential for Industrial

Nucleonics in the growing plastics packaging industry. The blown film process produces thin films for plastic clothing bags, garbage bags, and various other packaging materials. The advantage of the BF-100 is that a very accurate measurement of the film thickness can be made from outside the bubble before the film is cooled, collapsed, and rolled on spools for final processing into bags. This measurement makes possible more effective control of the film extruder resulting in increased production of salable film at a lower cost.



The Tobacco Industry

Major impetus in 1972 for the tobacco industry was continued implementation of the AccuRay 1000 system for entire factory management. These systems are now operating in cigarette factories in the United States, Canada, and Europe. Expansion of system functions throughout the factory — from tobacco preparation to cigarette fabrication to packing operations—has proceeded as planned. A

comprehensive family of new features has been introduced for the basic on-machine AccuRay C-700 control system to help the industry achieve a higher degree of automation, especially with the availability of new high-speed cigarette machines.

The AccuRay 1000 system provides multiple levels of control and information reports at all critical process stages. AccuRay C-700 control systems on each machine carefully regulate the weight of cigarettes and automatically reject those which do not meet desired quality standards. Key process data from each C-700 system is monitored and acted upon by the central 1000 system.

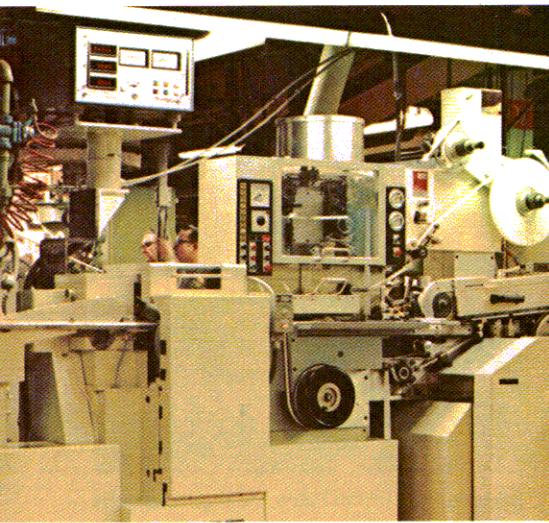
Special diagnostic programs, along with instan-



Dryer control function of AccuRay 1000 system provides significant quality and economic benefits for the customer.



AccuRay 1000 central computer room in this United Kingdom cigarette plant is source of comprehensive production and quality data for management.



AccuRay C-700 system carefully controls production on high-speed cigarette making machine.



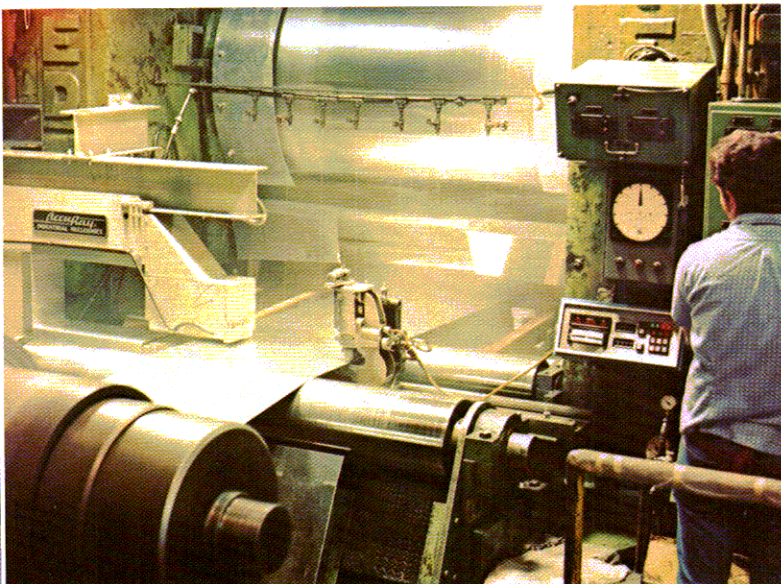
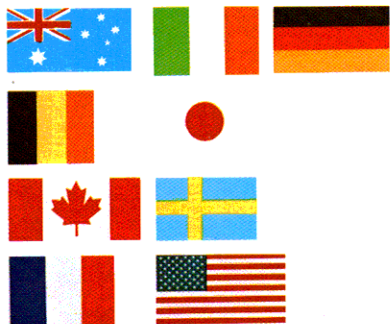
In the packing department of this Canadian manufacturer, new AccuRay system monitors quantity of each brand packaged for shipment.

taneous video or hard copy information display in the production department, enable process tuning for optimum utilization of tobacco, machine, and manpower resources. Production and quality data from all stages is blended into comprehensive summary reports. With these reports, management is then able to make decisions based upon complete information affecting operating procedures, maintenance programs, quality control, machine and manpower scheduling. The result is better control over waste, quality, efficiency, and profitability.

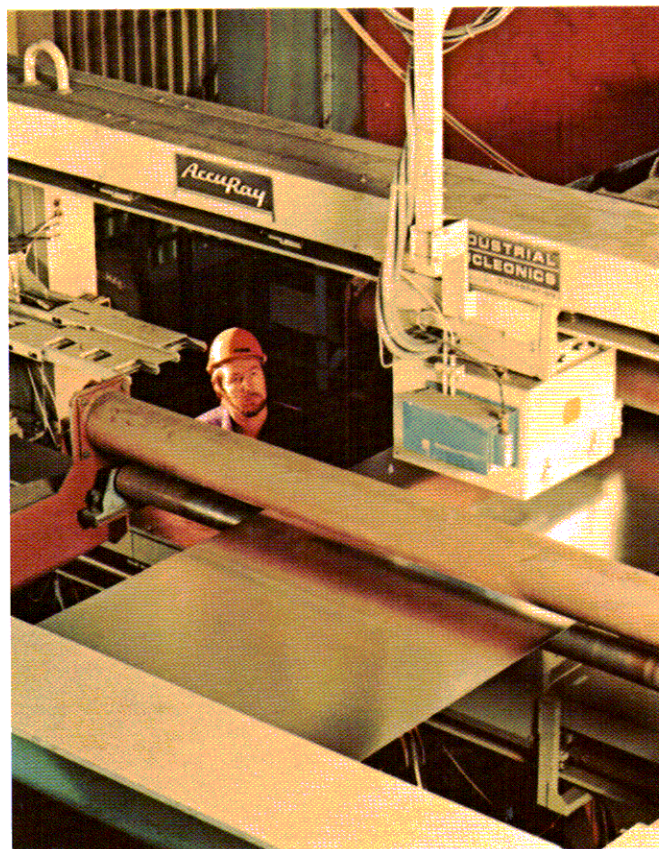
Moisture control in tobacco preparation has long been a challenge to the industry. The AccuRay 1000 system provides the necessary sophistication

for successful control strategies plus the means for analyzing tobacco conditions as they relate to finished cigarette quality and production efficiency. This capability provides significant quality and economic benefits to the customer.

Expanding the highly flexible 1000 system functions to all phases of cigarette manufacturing makes it a very attractive investment for tobacco customers. The central system cost is spread over more process stages while the entire operation conforms to a standardized control and reporting system. This expansion of tobacco systems throughout the world likewise provides attractive new potential for Industrial Nucleonics.



AccuRay 510 measurement system provides to the metals industry greater accuracy of rolled strip thickness than ever before available.



First European installation of AccuRay 800 galvanize system uses x-ray fluorescence measurement principle and steam knife control mechanism to maximize results.

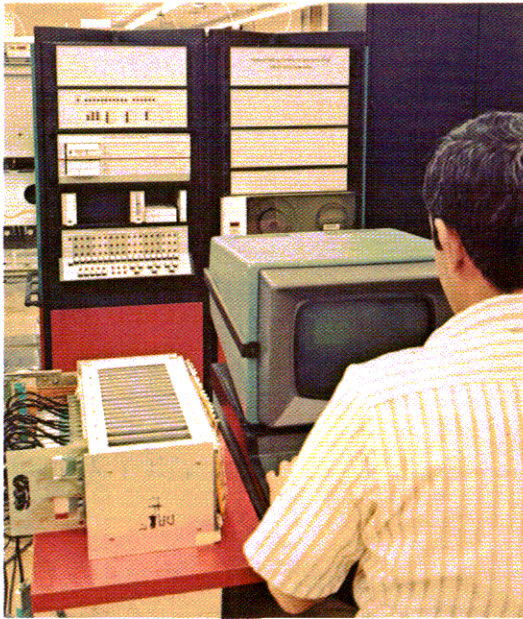
The Metals Industry

New systems introduced for the metals industry include production and materials management control, galvanize coating weight, and thickness measurement systems.

During 1973 a new AccuRay 3000 production and materials management system will be installed in a galvanize mill. This system receives inputs from an AccuRay 800 system presently controlling coating weight on two galvanizing lines. The system is designed to provide immediate access to material status from the arrival of steel coils at the mill through shipment of final galvanized product. Inquiries regarding procurement levels, stock inventory, and product order status can be obtained by supervisory personnel from real-time terminals located at key information points in the mill.

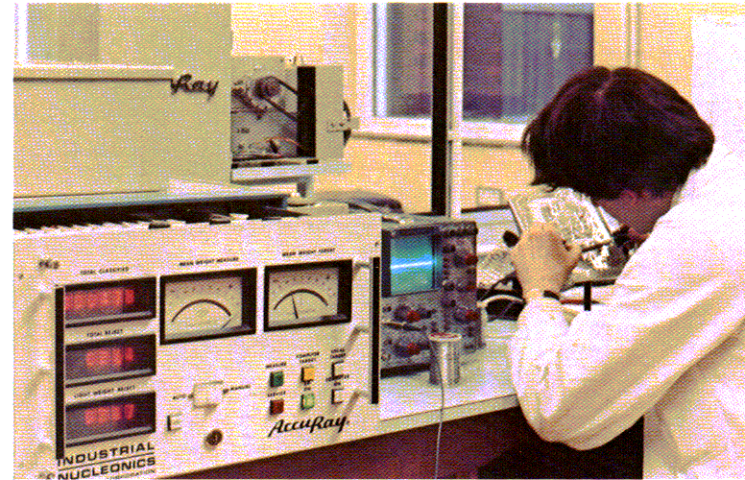
The AccuRay proven 800 and new 720 galvanize coating systems incorporate an x-ray fluorescence measurement principle many times more accurate than provided by previous techniques. Automatic control of the steam knives on the galvanizing process provides both a significant savings of zinc and a more uniform final coating of the molten zinc on steel. This new control mechanism represents a major innovation for the galvanize industry.

The new AccuRay 510 measurement system provides to the metals industry a higher standard of accuracy of rolled strip thickness than has been previously available. The system has been introduced for cold rolling mills and other metals processing lines including applications on multistand tandem mills in the aluminum, brass, and steel industries; reversing and Sendzimir mills; pickling, slitting, and inspection lines; and aluminum hot mills. The system can be set up directly in customer units or by the customer's own product or alloy designations. This makes it a highly flexible system, adaptable to varying international standards.

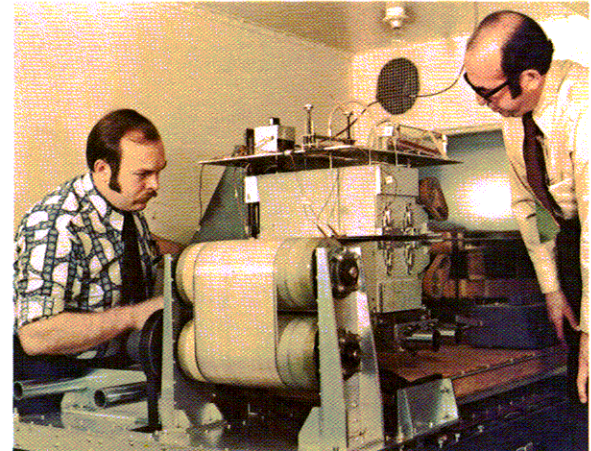


Computer testing of wiring in early production stages maximizes reliability of AccuRay systems and improves manufacturing efficiency.

An international field and support organization of nearly 600 personnel provides quality customer services on an industry basis.



Each customer order and new system design receives the attention of a highly competent, applications-oriented engineering staff.



Laboratory simulation of customer processes and environments provides realistic testing of new products and system improvements.

Systems Development Customer Services

Each industry business at Industrial Nucleonics has the support of centralized new product development and manufacturing activities. In research, development, and engineering, the Company employs approximately 300 people and makes an annual investment of over \$4 million. Proprietary technology is covered by 670 patents in various countries. Manufacturing, testing, and quality con-

rol operations involve approximately 400 employees. An international field and support organization of nearly 600 personnel provides customer services on an industry basis. All systems development and customer services personnel provide the corporate resources necessary to successfully implement the increasingly sophisticated automation and information systems of the future.



New AccuRay 3000 system allows customers in the manufacturing and distribution industries to effect substantial improvements and savings in inventory investment, customer service, and plant operating efficiency.

AccuRay Information Services

AccuRay Information Services is involved in the field of business management systems and services for process-oriented manufacturing, discrete piece manufacturing, and commercial enterprises. Professional personnel provide a unique blend of business applications knowledge and technical computer systems expertise. During 1972 major new programs were introduced to assist customers in increasing control over their business activities. The purpose of these programs is to offer customers sound answers to business management requirements. These services range from the application of specific products or services to the implementation of full-scale facilities management programs under a total responsibility concept.

Manufacturing / Distribution Systems

An expanding staff of applications and technical professionals specializes in the development of manufacturing and distribution information systems. The objective of these programs is to apply the results of automation to both operating and general management levels of each customer organization.

The AccuRay 3000 system introduced in 1972 offers a highly flexible, modular approach to management information for manufacturing companies oriented to discrete parts, fabrication, or assembly production, as well as for distribution industries. In addition, this new system extends Industrial Nucleonics' capability in the process industries to plant-wide and corporate management and control. The 3000 program provides a total complement of products and services to enable customers to establish and utilize production and materials management systems in their own plants. The program includes professional counseling and education, a results-orientation plan, user system design involvement, and customer personnel training, in addition to "turn-key" computer hardware and software modules.



On-line processing services for the growing savings and loan industry are currently being provided by AccuRay Information Services under a total responsibility concept.

The AccuRay 3000 program provides an on-line computer-based system in a manufacturing or distribution environment under the control of management personnel. The program supplements this dedicated, short range planning and control with long range planning applications requiring only periodic usage of a larger, general purpose business computer. This overall approach places each customer in a highly advantageous position to effect substantial improvements and savings in the areas of inventory investment, customer service, and plant operating efficiency. It also gives customers the tools required to both schedule and reschedule a production operation and provides them with complete job order and purchase order visibility.

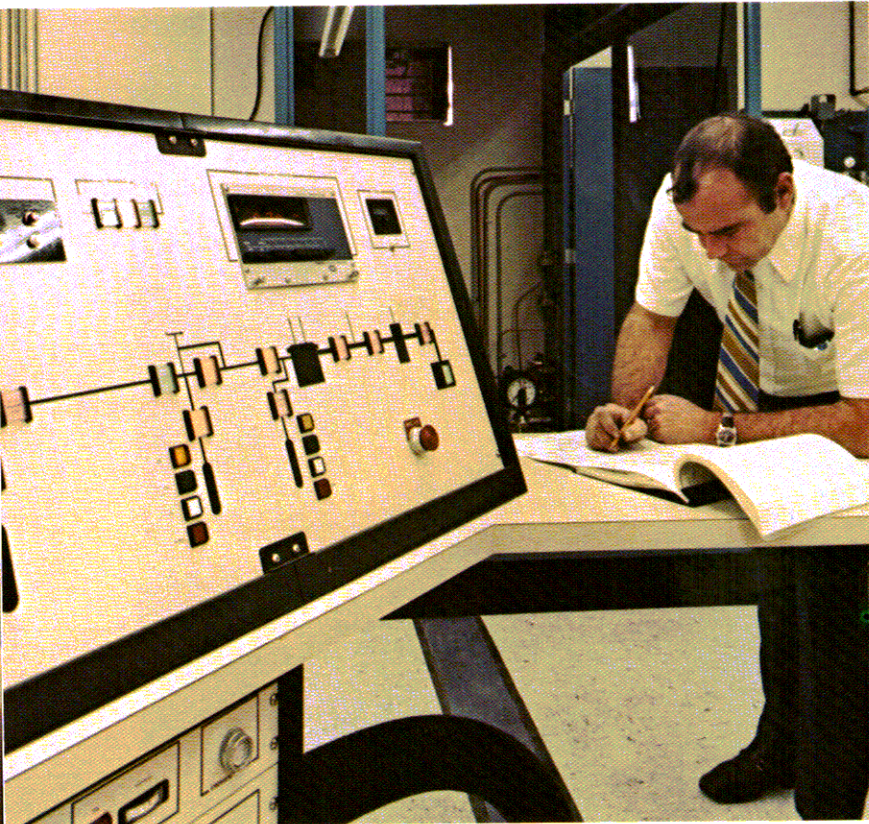
Commercial Systems

AccuRay Information Services continues to develop and expand applications knowledge and operations in the area of accounting and financial management information systems. Again, a staff of specialists with educational backgrounds and experience in accounting, financial, real estate, and teleprocessing applications ensures the successful implementation of each customer program.

On-line processing services for savings and loan associations are currently being provided under the total responsibility concept. A full complement of savings, certificate of deposit, mortgage loan, installment loan, and general accounting application modules are being offered, as well as such unique features as on-line name and address capability. This quality service is supported by the latest computer hardware with the capability of supporting terminals of several manufacturers. The Buckeye/AccuRay* Data Center in Columbus is currently involved in many new applications for the growing savings and loan industry.

Integrated accounting, financial management, and specialized business management systems are also available. A completely integrated, modularized property and construction management system is currently serving the real estate development and property management industries. A management control system, which incorporates all standard accounting application modules in an integrated fashion, is being successfully used by several Central Ohio organizations. It is also being acquired by banks to augment their automated customer service activities.

*AccuRay is a registered service mark of Industrial Nucleonics Corporation.



AccuRay KET Inspection Service offers unique proprietary opportunity to improve the quality and reliability of critical components used in aircraft turbine engines.

New Ventures

To expand the Company's growth beyond the potential of present business activities is the objective of the New Ventures Division. Investigation and application of new technologies is essential to creating new products for new markets. Emphasis is placed on developments which show strong potential for extensive applications in the future. Concentration of activities parallels closely contemporary public concerns such as safety, pollution control, and conservation of energy.

Nondestructive Testing and Inspection

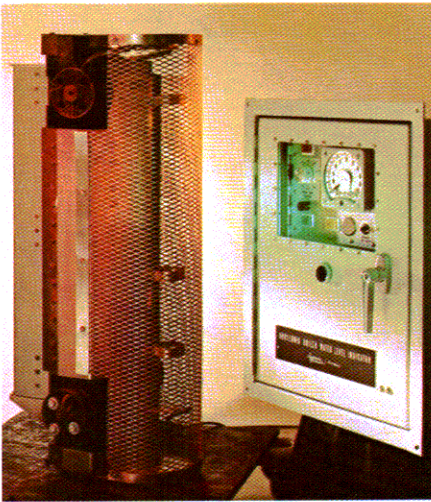
Determination of the structural reliability of discrete metallic parts has both safety and economic implications. The transportation industry, for example, is aided by information about the structural

reliability of engine components so that the best use of all equipment can be made over the longest period of time. Industrial Nucleonics has been working in this general area of safety testing and inspection for over five years.

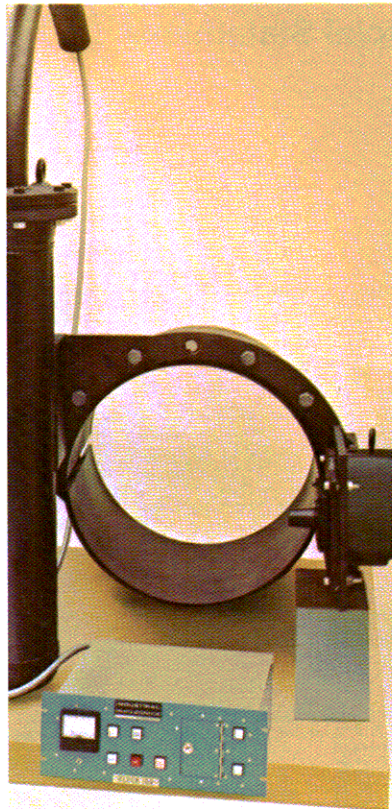
The AccuRay KET process of nondestructive testing offers a means of potentially extending the life of very costly parts by its capability to measure metal fatigue and predict the lifetime of parts. This program has progressed very well with the second production contract for these services received in 1972. A new facility has been completed in Columbus for operation of the KET service which will be able to handle a larger volume of future business.

Environmental Control

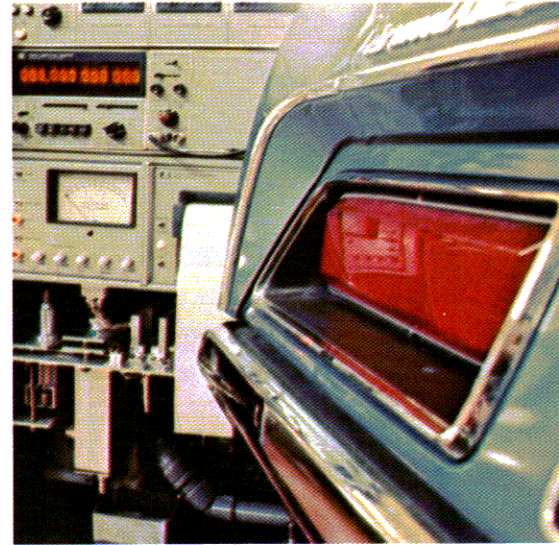
Industrial Nucleonics has for many years recognized the commonalities between controlling complex industrial processes and controlling environmental pollution. Sensitive and accurate measurements are starting points for both kinds of control. During the past decade, Industrial Nucleonics has been applying systems to water reclamation, waste treatment, and industrial effluent



AccuRay system for control of water level in ship boilers reached volume production in 1972.



New subsea detection system enables frequent and effective cleaning of pipelines for efficient transmission of fuels.



This highly sensitive pollution gauge is presently being used by the Environmental Protection Agency to conduct studies for establishment of future environmental standards.

processing, as well as developing high-sensitivity gaseous measuring devices for space programs.

The New Ventures Division continues to make contributions in the field of pollution control. One contract recently completed for the Environmental Protection Agency resulted in the development of a sensitive gauge to measure the mass of particulates in the atmosphere or from exhaust gases. It is presently being used at Research Triangle Park, North Carolina, to conduct studies to establish future environmental standards. This system design has considerable potential for usage in measuring automobile, smoke stack, and other polluting emissions.

Conservation of Energy

The shortage of natural gas, fuel oil, and other forms of energy has increased the need to use existing resources with maximum efficiency. One method of ensuring efficient transmission of fuels from source to point of distribution is to keep the pipelines free from contaminating and clogging elements. Periodic cleaning of pipelines is accomplished by a water or air filled spheroid which

moves through the pipeline. During the year, Industrial Nucleonics' New Ventures Division developed a special detector which traces the cleaning device through the pipeline. This new AccuRay system operates in a subsea environment and is designed to perform without maintenance for long periods of service. Several detecting systems are being used in the Gulf of Mexico.

Hazard Detection and Prevention

Industrial Nucleonics' measurement technology has provided detection and warnings of potentially hazardous conditions. The primary objective of these kinds of programs is for establishing the safety of given work environments. Two examples are a measurement system to detect potentially explosive dust levels in mines and a level sensor for shipboard control of water level in boiler systems. The latter reached volume production in 1972 with fifty AccuRay Boiler Water Level Indicators produced for installation by the United States Navy. It is anticipated that all applicable Navy ships will be equipped with these systems after evaluation and integration of the initial units.

Directors and Officers

Industrial Nucleonics Corporation

The parent company incorporated in Delaware



Edward McC. Blair
Managing Partner of
William Blair & Company



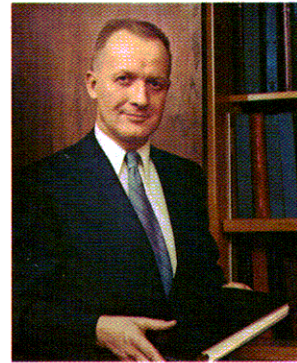
Gordon B. Carson
Executive Vice President
Albion College



H. Roy Chope
Executive Vice President
of Industrial Nucleonics



John Eckler
Partner in law firm of Bricker,
Evatt, Barton & Eckler



David L. Nelson
President of
Industrial Nucleonics



Robert E. Swenson
Vice President and Treasurer
of Industrial Nucleonics



George B. Young
Director of
Chrysler Corporation

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LEASING COMPANY

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AUDITOR

Arthur Andersen & Co. / Columbus, Ohio 43215

TRANSFER AGENT

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REGISTRAR

Harris Trust and Savings Bank / Chicago, Illinois 60690