

TRIDENT COMPUTER RESOURCES, INC.



Corporate Profile

Autodynamics (AUDY) was founded in 1966 to meet the demands for operator training which would become the benchmark of the process industry. In 1970, AUDY created the Model 1501 analog style training simulator. As such, AUDY delivered approximately 225 dynamic analog simulation training systems and over 250 process models into 35 countries through 1982.

AUDY's technology leadership continued with the introduction of digital (computer based) simulator training systems in 1983. Since 1983, AUDY has designed and delivered over 150 digital simulator systems in 45 different countries with over 200 plant models. These models include oil and gas production, refining, petrochemical, pulp and paper, fertilizer, fossil fueled power plants and gas processing.

Throughout AUDY's history, the company remains committed to fostering leading edge technology in dynamic real-time, high fidelity training simulation systems with a realistic man-machine interface. Today, this commitment is evidenced by our leadership in distributed control systems interface technology and the development of advanced training software.

On March 1, 1991, **TRIDENT COMPUTER RESOURCES, INC.** (TRIDENT), a company formed by the Senior Management of Autodynamics, reached an agreement with Gilbert Associates, Inc., parent company of Autodynamics, to acquire Autodynamics, including all assets, technology and software. This agreement gives TRIDENT the exclusive right to provide Autodynamics training simulator products and services. AUTODYNAMICS™ and AUDY™ are registered trademarks of TRIDENT.

Simulator Systems

Simulation training is learning by doing. Studies have proven that simulation training is the most cost effective tool for operator training. It also follows that the most realistic simulator provides the most effective training. The AUTODYNAMICS™ philosophy is to provide the most realistic, cost-effective training system available. Unlike other training tools, simulation training requires no additional performance indicators. Written tests indicate potential performance. On-the-job training implies plant performance, but only simulation training points out trainee limitations and capabilities and proves an individual's overall proficiency skills. An operator training simulator can be utilized to teach process plant operators how to operate safely and efficiently.

AUDY™ simulators permit training and instruction of operators to run the plant safer, more efficiently, and with prolonged equipment life. In addition, other significant benefits are provided such as:

- o Improved operator know-how*
- o Reduced training time*
- o Increased energy efficiency*
- o Improved station performance*
- o Increased operator confidence*
- o Faster, more efficient start-up and achievement of full production.*

Simulator training systems provide several functions. First and foremost, is to provide the medium for conducting carefully supervised training exercises that will help reduce personnel errors, and consequently maximize plant availability and, thus, increase plant productivity and improve product quality.

Second, the simulator systems can be used during plant design and construction by engineering personnel to validate process plant design and to develop and verify process control and process optimization criteria and strategies.

The Autodynamics™ System Simulator has been configured to maximize operator training needs, yet designed with the additional objectives for reliability, to assure maximum utilization, fidelity, to assure effective transfer of process knowledge, rigor for engineering capabilities and the flexibility and modularity, to expand the system to meet future requirements.

AUTODYNAMICS™ - Products and Services

AUDY™ products and services offer the widest choice of

- Operator Training Stations
 - Actual DCS Instrumentation
 - Instrument Specific DCS Emulators
 - Nonspecific DCS controls
 - Field Control Station
- Process Simulation Models
 - AUDY™ Standard
 - AUDY™ Customized
 - Process Unit Specific (custom)
- Training Services
 - Simulator Operation Training
 - Instructor Training
 - Software Training
 - Courseware Training and Development
 - Plant Personnel Training
 - Model Development Training
 - Instructor/Student Manuals
 - Process Flow Diagrams
- Advanced Training Software
 - Process Reports
 - Data and Alarm Log
 - Operator and Instructor Event Logs
 - Trainee Performance Monitor and Evaluation
 - Automatic Training Exercises
 - Interactive Messaging
 - Instrumentation Override
 - Off-Hours Training
 - Operator Certification
- Support Services
 - Installation and Commissioning
 - Consulting Services
 - Maintenance Training
 - Preventive Maintenance
 - Software Updates
 - Extended Maintenance
 - Remote Software Support

Summary

TRIDENT's philosophy is that the value of a simulator as a training tool depends to a significant degree on the reality of the simulator. Our goal is to bring the most faithful depiction of the process to the operator to provide them with the utmost in confidence and competence. AUDY™ has created over 400 high fidelity programs to meet the training objectives of our customers. No other vendor has the expertise or the successful track record that AUDY™ has achieved.

- o **Experience** – AUDY™ has simulated more processes and has the widest variety of models in the industry. This experience improves the quality of our models as well as enables us to identify and emphasize important training objectives.
- o **Realistic Simulation Programs** - The simulation programs provide high fidelity, dynamic representations of processes including start-up and shutdown, process upsets and emergency conditions. Operators can observe conditions that an experienced operator may have rarely seen and will learn how to respond correctly in a risk-free environment.
- o **Expandability** - Hardware and software options are available to expand the size and scope of the simulation training programs as well as the number of independent, simultaneous training sessions which can be supported.
- o **Ease-of-Use** - Instructor functions are menu or graphic driven, making the simulator user friendly. Therefore, the instructor need not have any knowledge of computer operation in order to effectively train personnel. The instructor is prompted for every action from selection of programs and initial conditions, to entering process upsets and taking snapshots.
- o **Reliability and Maintenance** - The simulator is designed with proven electronic components and is extensively tested. This means that there are fewer problems upon installation and that system availability is maximized. Training can begin and proceed uninterrupted promptly upon commissioning.

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