Automated Data Collection (ADC)

Automated data collection is the process of electronically capturing and archiving data at the source, transmitting that data to a business application system for processing and retention, and providing and appropriate response based on a set of business rules.

The Medium

A barcode is a machine-readable representation of information in a visual format on a surface. Originally barcodes stored data in the widths and spacings of printed parallel lines, but today they also come in patterns of dots, concentric circles, and hidden in images. Barcodes can be read by optical scanners called barcode readers or scanned from an image by special software.

Biometrics is the science and technology of authentication (i.e. establishing the identity of an individual) by measuring the subject person's physiological or behavioral features. The term is derived from the Greek words "bios" for life and "metron" for measure.

Radio Frequency IDentification (RFID) is a method of storing and remotely retrieving data using devices called RFID tags or transponders. An RFID tag is a small object, such as an adhesive sticker, that can be attached to or incorporated into a product, animal, or person. RFID tags contain antennas to enable them to receive and respond to radio-frequency queries from an RFID transceiver. Passive tags require no internal power source.
Advanced Flexibility

Because every business operation is unique (even among those in the same industry), we have engineered all of the DataROUTE system modules to allow for complete customization. Unlike “out-of-the-box” systems, DataROUTE puts you in the driver’s seat ultimately allowing you to determine your data’s destination and its applications.

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<td>Facilitate an environment for optimum decision making</td>
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DataROUTE operates as a stand alone system or can be tied into an existing ERP/MRP platform or other third party products using a wide variety of integration techniques.
**Modular Solutions**

**Work In Progress (WIP)**  
**The Shop Floor System (SFS) module**  
Designed to be the “brains” behind any manufacturing automation system or manual work station. This system supplies total component tracking with accurate production reporting along with product labeling and the elimination of over/under production. SFS will also track scrap material and downtime.

**Ship Right the First Time**  
**The DataROUTE Shipping System (SS)**  
This module is an intelligent expediter that will accomplish consistency and accuracy in your company’s shipping department. This management software allows for complete visibility in: truck schedules, order location and directed picking. The system can be integrated with EDI or an existing ERP/MRP.

**Intelligent Reception**  
**The Receiving System (RS) module**  
RS is Another turn key solution in the comprehensive DataROUTE family of modules. It delivers received material information exactly where it should be, in the hands of those that need it. With complete visibility of incoming product, vital decisions can be made based on accurately acquired real time information.

**SFS will bring order to your manufacturing process, enabling you to send pertinent data to your ERP/MRP, Accounting or other third-party software applications.**

**Your customers are priority number one. The DataROUTE (SS) will aid your company in maintaining this priority, their products will arrive as ordered and on time as promised.**

**Incoming materials management is key in tracking your company’s useable resources, with the RS module, you’ll know the moment they come off the truck.**
The DataROUTE Time & Attendance module will ensure that your company only pays for what it’s getting. We can help you calculate the savings per year over manual systems.

Know exactly what you have and how many with our ITS module. With the right interface, product type and quantities can be updated in real time, whether on the network or the web.

WMS Enables:
Directed put away, cycle counting/physical inventory, staging and kitting/cubing. Also provides for tracking of: Product Movement, stock levels and expiry.

Track Labor/Scheduling
DataROUTE Time and Attendance (TA)
Capture employee arrival, breaks, lunch and departure as well as calculate overtime and sick & vacation days. In addition to all this is the added utility that allows for shift planning and assignments. Our solution eliminates errors due to manual entry and can export information to third party payroll systems.

Real-Time Accountability
The DataROUTE Inventory Tracking System (ITS) module
Designed to improve accuracy of inventory visibility. Data regarding stock items affects several facets of business, whether it is production scheduling, shipping, receiving or warehousing. The DataROUTE ITS solution will empower you with the knowledge necessary to efficiently manage operations.

Better House Keeping
The Warehouse Management System (WMS) This is the final solution for a “disorderly house.” This module has been designed considering the many needs of commercial warehousing. The WMS will reduce losses due to expiration of material, and will take the guesswork out of organization and availability of material because of the 100% product visibility.
“Our Engineers do a good deal of integration.”

**INTEGRATION METHODS**

- ASCII File Transfer (Delimited or Fixed Widths)
- XML
- Direct to Database (SQL)
- Native Format (Quickbooks, Peachtree, Glovia, MFGPRC)
- “Screen Scraping”

**Bringing the parts together and making them work**

In order for a machine to work properly, every one of its parts must be in agreement. We believe the same principle applies to your business’ software. Our DataROUTE Integrator will enable your various software programs to communicate information automatically. Imagine entering data only one time and then having access to it in a multitude of applications and formats.
“Greenville Technology, Inc. (GTI) has been associated with this company (Advanced Research, Ltd.) for several years. The primary product that we use is a customized Shop Floor Data Collection and Shipping System. This system works with Intermec hardware and is a vital part of GTI’s day to day operations. This system not only gathers production data for internal processing, but allows us to meet the demands of our customers, regarding communication of shipping activity. Advanced Research, Ltd. has always preformed in a very professional manner and put the needs of GTI first. I am very satisfied with the service and support that GTI has received. I would certainly consider this company for future projects and highly recommend to provide similar service to other companies.”

-Kathy Galentine  Vice President of Information Systems, Greenville Technologies Inc.

“I just had an opportunity to go through this entire tool. This is terrific! It gets us to the point, that when implemented we will have a tool to understand our business, plan production, and improve customer service.”

-Leo Glynn  President, Eskimo Pie Frozen Distribution

“I have yet to find a question that goes unanswered or a problem unsolved, whether it is program- ming or systems related.”

-George Thiel  Vice President of Information Systems, Bostwick Braun

“Several months ago Radley contracted your organization to provide development support for our data collection infrastructure. We were seeking a firm that could assist us in not only developing our transaction processing backbone, but also could consult for us on using the best practices for modeling and programming architecture. Advanced Research provided all that and more. The development team here at Radley’s Data Collection division was extremely pleased with the consulting and development support provided by Advanced Research. Your approach and ideas help cut significant hours from our development and testing processes. We have successfully implemented the architecture at several customer locations and have received excellent reviews. We continue to add functionality to our product that meets the specific business process needs of our prospects and clients. We will not hesitate to call on Advanced Research to augment our development efforts in the future. Thank you again for your support.”

-David Barks  Vice President, Radley Corporation
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Specialists In Computing Technologies

About Advanced Research, Ltd.
Advanced Research, Ltd. was founded in 1999. We have been providing technical solutions for the manufacturing sector ever since then, and we are committed to the further development of solutions as new technologies emerge. Our goal is to design and implement products and systems that will maximize our clients operational efficiency and return on investment.