

Applied Data Sciences / Services

Applied Data Sciences can help you get your idea or product to market by providing the services you need to accomplish your project. Our staff of registered professional engineers and software designers are ready to assist you.

Our services are controlled by our *STANDARDS & PROCEDURES DOCUMENT* (P/N: 0900027). This document contains information describing various standards and procedures which are used in the course of a project's life cycle. These specifications are used to provide helpful insights and definable controls so that all concerned individuals understand who, what, when, where and how a project will be regulated to a successful completion. These standards and procedures apply to two unique areas, which have different goals. These two areas are described in greater detail below and identified as:

- a) **Project General Standards and Procedures** and
- b) **Quality Assurance Requirement Specifications and Procedures.**

The **Project General Standards and Procedures** describe how a project is to be undertaken and identifies all areas of the project which must be considered and addressed. It applies to all products and services furnished under subcontract, Purchase Order or Applied Data Sciences internal development for which it is appropriate. The extent of compliance with these specifications shall be determined by appropriate contract documents.

The **Quality Assurance Requirement Specifications and Procedures** regulate the quality of the work being performed. These requirements do not apply to all areas of the project, nor do they define what tasks will be undertaken. They only identify what level of quality is required to meet all contractual obligations.

Projects have all areas identified as to responsibilities. That is, for any phase, the responsibility may be placed upon Applied Data Sciences, the customer, or a third party (e.g., civil or electrical contractor). This is normally done by the use of Check Lists. The various check lists are used throughout the project - from conception to completion.

To assure end item quality, appropriate inspections are made, controls instituted, and data acquired for each phase of the product life cycle. This extends from product conception to acceptance, and raw materials to customer services. Therefore, adequate quality controls are enforced to ensure overall quality of the end product. This requires that all work performed under subcontract or Purchase Order be subject to surveillance, inspection and test by the buyer at all reasonable times during the period of performance. Applied Data Sciences maintains responsibility for establishing and maintaining the quality level with assistance being provided by the buyer when necessary.

The purpose of the specifications are to prescribe the general requirements for the establishment and maintenance of standards and procedures, and a quality assurance system by Applied Data Sciences in order to assure that materials and services meet the standards of quality established by the subcontract, Purchase Order, or Applied Data Sciences' internal project requirements.

The quality assurance system is based upon consideration of the type of commodity, complexity of design, interchangeability and reliability requirements, and manufacturing techniques. This system shall assure that adequate control of quality is maintained throughout the entire process of procurement, design, documentation, manufacturing, and development and testing, including packaging, storage, and shipping.

A project's General Standards and Procedures, and Quality Assurance Procedures and Specifications document is divided into logical sections which may not require correlation with other sections of this document. Therefore, any section and its content may be used to satisfy the requirements imposed by subcontract, Purchase Order or Applied Data Sciences without dependency upon any other section.

The typical product development cycle is as shown in the flow diagram. Please select one of the flow diagram blocks for additional information.

Product Specifications:

Information is one of the most vital resources in the successful completion of any new project. Applied Data Sciences is available to help you create and write the functional specifications describing the design, manufacturing, programming, and operating requirements of the product. These specifications are extremely valuable in identifying deficiencies in the design, manufacture or operation prior to product construction.

The typical product specification includes information related to some of these areas. This is not an exhaustive list nor is it intended to identify all steps in a product development cycle.

- Purpose and Application
 - Supporting Documents
 - Published Standards & Procedures
- Schedule
- Installation and Configuration
 - Hardware & Cabling
 - Software
- Software Design Requirements
 - User Interface
 - Operating Modes
 - Operator Setup & Configuration
 - Management Functions
- Hardware Design Requirements
 - Signal Characteristics
 - Cabling & Connector Requirements
 - Power Requirements
 - Performance Measures
 - PCB Design Requirements
 - Materials, Process & Parts
 - Environmental

- Safety
- Labeling & Identification
- Manufacturing
 - Assembly
 - Inspection
- Test Procedures
 - Preliminary
 - Hardware
 - Software
 - Final Functional
- Revisions
- Documentation Control
- Warranty

Drawing Requirements:

The drawing system and the kinds of drawings, which may be prepared, are determined by the project specifications. Drawings are prepared to convey information for engineering, manufacturing, inspection, assembly and maintenance purposes. In addition to these detailed drawings, other drawings may be prepared as required for information, installation, or illustration purposes. This includes such drawings as Specification Control and Source Control.

A numbering system is used to define drawings as to their application or purpose. The numbers may identify a category, group or suffix field for certain types of products, assemblies, subassemblies, and documents.

All drawings are classified in various categories; Material or Component, Detailed part, Subassembly, Assembly, System or Product. Each of these major categories may break down further into different kinds of drawings. For example, the detailed part category may consist of a number of different kinds of drawings such as purchased parts, sheet metal and machined parts.

The arrangement of drawings into categories forms the basic organizational structure and should be determined by logical assembly and disassembly procedures. The arrangement of a set of drawings will follow a basic organizational structure. An important feature of a set of drawings is the reference information provided to guide the user through the organizational structure of the set. Referenced on each drawing should be related drawings of the next higher order and the next lower order of assembly. The advantage of this feature is that a user is guided from any individual drawing to related drawings without the necessity of consulting other documents.

Various national and international standards should be used to minimize confusion. The name and web address for some organizations publishing these standards are listed under our Home Page tab *Other Sites*.

Quality Control:

Quality Control requirement procedures are maintained to ensure quality of design, manufacturing and support. The control procedures shall ensure uniformity among various products. The quality control procedures may be submitted for approval or disapproval to a buyer to determine applicability to a proposed project of which these procedures may become an integral part. Revisions, additions, and deletions must be maintained in an up-to-date status to assure that the QC system will be accurately described.

The quality of items produced or procured must be established by analysis of all trouble, failure and quality data resulting from inspection, testing and usage of such items. Specifications, drawings, or other media provided by the customer shall be the controlling factor in the acceptance of material, parts, and workmanship submitted for inspection.

The Quality Control Program should give management a basis for improving the quality of produced or procured items.

A Quality Control program shall be comprised, as a minimum, of the listed items.

- Inspection Records
- Corrective Action
- Drawing and Change Control
- Measurement Equipment Control
- In-Process Control
- Completed Item Inspection
- Indication of Inspection Status
- Customer Furnished Material
- Nonconforming Material
- Purchased Material & Material Control
- Statistical Quality Assurance
- Placement and Training of Personnel
- Work Instructions
- Generic Sampling Procedure
- Forms

Product Design:

The design of a product is comprised of many different disciplines. These disciplines are required to ensure that the product meets all company derived specifications and government regulations. There are four primary areas presented in this process which are required in the development of an electronic product.

- Mechanical Design
- Software & Firmware Design
- Electronic (Logic) Design
- PCB Design

A detailed description of each discipline is presented to help you understand and appreciate the steps that a design team must go through to develop a new product. This also assist the customer in knowing the capabilities or resources that Applied Data Sciences provides.

Mechanical Design:

Mechanical design services are available for the development of a new product or the redesign of an existing product. Whether it is a simple sheet metal or PCB board mount to a complete system assembly, Applied Data Sciences can provide the design details that are required for successful product development.

We can begin with a simple pencil sketch as an input. From that information we can develop a complete set of mechanical drawings for the design, manufacture, assembly, installation, and documentation. The drawings may take the form of standard 2D, isometric, 3D, exploded, etc.

We can provide the mechanical design results in many different forms or formats. The output can also be provided in a hardcopy to electronic media. The electronic media can be provided in most of the current industry standard file formats.

Software & Firmware Design:

Often solutions rely on hardware specific firmware or software. Applied Data Sciences provides software routines with the specific hardware which will allow a programmer to write applications without having to understand the electronic design. ADS also provides complete firmware and/or software solutions under a variety of operating systems like: DOS, Windows NT, UNIX, LINUX, or VX Workstation, just to name a few. ADS develops many programs for real-time applications.

ADS provides complete software solutions - from the user interface to controlling external devices to finished output data. ADS also provides solutions using existing off-the-shelf software.

As in any process, procedures are essential for success. The procedures described in this section are intended to help for the conception, specification, development, testing, and support of new software/firmware products. These sample procedures are organized to assure the type of products necessary to fulfill the exacting requirements of today's hi-technology industry.

- Reference Documents
 - ANSI/IEEE Std 729-1983, IEEE Standard Glossary of Software Engineering Terminology.
 - ANSI/IEEE Std 730-1984, IEEE Standard for Software Quality Assurance Plans.
 - ANSI/IEEE Std 828-1983, IEEE Standard for Software Configuration Management Plans.
 - ANSI/IEEE Std 829-1983, IEEE Standard for Software Test Documentation.
 - ANSI/IEEE Std 830-1984, IEEE Guide to Software Requirements Specification.

- ❑ Definitions and acronyms used are defined by ANSI/IEEE Std 729-1983 and ANSI/IEEE Std 730-1984.
- ❑ The Software/Firmware Quality Assurance Procedures conform to the procedures format specified in ANSI/IEEE Std 730-1984, Section 3 and ANSI/IEEE Std 983-1986 Section 3.
- ❑ The Software/Firmware Procedures Plan is comprised of 13 topics. If any one of the 13 topics is not required it will contain the statement "This section is not applicable to this plan".
 - ❑ Purpose - defines the specific objective and extent of the specific Software/Firmware procedures. This includes the name of the Software/Firmware product and its intended use.
 - ❑ Reference Documents - lists all documents referenced throughout the Software/Firmware procedures.
 - ❑ Management - describes the company's organizational structure that controls the specific software/firmware product, the activities associated with the product, and the company departments, or individuals responsible for the product.
 - ❑ Documentation - contains all documentation governing the development, testing, use, and maintenance of the software/firmware product.
 - ❑ Standards, Practices & Convention - identify all standards, practices and conventions used. This topic also specifies what departments or individuals are responsible for enforcement, evaluation and maintenance of the standards, practices and conventions.
 - ❑ Reviews & Audits - defines the audit and review stages during the conception, formalizing, development, and testing of a software/firmware product.
 - ❑ Software Configuration Management - describes the methods used for identifying software & firmware products, change control and implementation, and change implementation status recording and reporting. This information shall apply to the entire life cycle of a critical product.
 - ❑ Problem Reporting & Corrective Action - describes the procedures required for reporting, tracking and resolving software/firmware problems.
 - ❑ Tools, Techniques & Methodologies - list or reference all tools, techniques and methodologies which are available or are needed to support the respective procedures.
 - ❑ Code Control - defines the methods and procedures for maintaining and controlling versions of controlled software and firmware. These controls shall protect and ensure the validity of completed code.
 - ❑ Media Control - defines the methods for protecting the physical media that computer programs are stored on. This covers disks, tapes, diskettes, listings or any other form the data may reside.
 - ❑ Supplier Control - defines the provisions to ensure that vendor provided software meets established technical requirements. The vendor must have a Plan which covers the appropriate software or firmware.
 - ❑ Records Collection, Maintenance & Retention - identifies all documentation which is to be retained; methods to be used to assemble, safeguard and maintain all documentation; and define the retention period for all items.

Electronic (Logic) Design:

Applied Data Sciences has designed many products since 1981. Our product solutions include designs using traditional TTL, CMOS and ECL logic; Altera, Vantis and Xilinx programmable logic devices; high-speed sequencers; fiber optics and 1 to 32 bit processors.

ADS has designed products for embedded systems application, different work stations and many different bus architectures such as:

- ❑ VME,
- ❑ MVXI,
- ❑ MultibusII,
- ❑ PCI,
- ❑ cPCI,
- ❑ ISA,
- ❑ EISA,
- ❑ PMC,
- ❑ Proprietary

Our designs are found in high speed printing, flight simulators, nuclear power plant simulators, environmental testing, geophysical exploration, energy management systems, communication, security, etc.

We have different Schematic Capture programs available to insure compatibility with the customer's in-house design support requirements. Because we have our own in-house software staff, we can reformat standard generated net lists from the schematic capture output to meet most any requirement that the customer has.

If the customer decides that they want to perform the board layout, the schematic output can be made available to feed directly into their PCB layout program. Otherwise, ADS will layout the product so that it can continue smoothly in the manufacturing process.

PCB Design:

Applied Data Sciences can design single layer to multi layer boards with special design requirements on a standard or quick turnaround. We can use almost anything as an input for PCB layout.

- ❑ Electronic or hardcopy Net List
- ❑ Electronic or hardcopy schematic
- ❑ Paper drawing
- ❑ Incomplete sketches requiring additional design

Applied Data Sciences performs the PCB layout using a number of industry standard software design programs. Based upon the customer's requirements, these design programs may provide seamless integration with other design programs. The design requirements may be specified by the customer, or by published industry standards. There are many requirements that need to

specified to ensure the desired design results. The following information is provided as a guide to what may be contained in the specifications or finished design files.

- ❑ Documentation consisting of Drilling Instructions, Drilling Diagram, Multilayer Stack up Drawing, Dimension Drawing, Component Marking Drawing, Panel Drawing if applicable, and any special machining instructions.
- ❑ Controlled impedance
- ❑ Standards which may be part of the specifications, or support information for the designer and the customer.
 - ❑ IPC-A-600 Acceptability Standard for Printed Circuits
 - ❑ IPC-ML-950 Performance Specification for Multilayer Printed Wiring Boards
 - ❑ IPC-SD-320 Performance Specification for Rigid Single and Double-Sided Printed Boards
 - ❑ IPC-SM-840 Qualification and Performance of permanent Polymer Coating (Soldermask) for Printed Boards
 - ❑ IPC-TM-650 Test Methods Manual
 - ❑ IPC-CF-150 Copper Foil for Printed Wiring Applications
 - ❑ IPC-R-700 Repair Procedures
 - ❑ IPC-D-949 Design Standard for Rigid Multilayer Printed Boards
 - ❑ MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes
 - ❑ MIL-P-13949 Plastic Sheet, Laminated, Metal Clad
 - ❑ MIL-G-45204 Gold Plating (Electrodeposited)
 - ❑ MIL-C-14550 Copper Plating (Electrodeposited)
 - ❑ MIL-P-55110 Printed Wiring Boards
 - ❑ IPC-S-804 Solderability Test Methods for Printed Wiring Boards
 - ❑ MIL-P-81728 Plating Tin-Lead (Electrodeposited)
 - ❑ MIL-STD-275 Printed Wiring for Electronic Equipment
 - ❑ QQ-S-571 Solder; Tin Alloy; Lead Tin Alloy; and Lead Alloy
 - ❑ U. L. 478 Standard for Electronic Equipment
 - ❑ U. L. 94 Testing flammability of Plastic Materials for Parts in Devices and Appliances
 - ❑ U. L. 796 Printed - Wiring Boards
 - ❑ QCD-017-00 Approved Solder masks for Printed Circuit Boards

NOTE: The above military specifications are referenced for their technical content, test methods and general information only, and should in no way imply a military environment is required.

- ❑ Test coupons, if required, will be added by the vendor to the appropriate area on the panel. Coupons are supplied for all multilayer boards unless an alternate method is requested or otherwise specified.
- ❑ PCB material for double-sided or multilayer, will be copper clad laminated plastic sheet in accordance with MIL-P-13949. The bonding interlayer material will be pre-impregnated glass cloth in accordance with MIL-P-13949, unless otherwise specified.

- ❑ Soldermask specifications should include if the process is screened wet mask, dry film or wet photoimageable. The soldermask color to be as specified in QCD-017-00 unless specified otherwise by documentation supplied.
- ❑ All copper plating to be smooth ductile copper, having a minimum purity of 99.5 percent copper per MIL-C-14550.

Solder Plating used will be in accordance with MIL-P-81728, and a composition ratio 63/37 tin to lead.

- ❑ Edge connector finger tabs, when specified, will be gold plated with a minimum of 30 micro-inches. Gold will be in accordance with MIL-G-45204, type II, grade C, class 4 and applied over a low stress electro-nickel-plated base that has been plated to a minimum of 100 micro-inches. gold shall be 99 percent gold minimum.
- ❑ Measurements of gold thickness may be made using a beta-backscatter or similar instrument.
- ❑ Solder on Gold circuitry is unacceptable.
- ❑ Minimum solder thickness for surface mount boards to be 100 microinches, with the maximum not to exceed 500 microinches.
- ❑ Plated-through-holes shall be electrodeposited copper. The copper wall of the plated-through-hole shall have a minimum average thickness of .001 inch. Holes to be free of all soldermask, silkscreen legend, oxidation or any foreign substance which could interfere with the solderability of the plated-through-hole.
- ❑ PCB to be silkscreened as specified with non-conductive markings as specified in the documentation package. All letters, numbers and symbols in the finished board must be legible and free from foreign matter. Registration must be consistent from board to board. Inks used must be impervious to wave soldering, and normal chemical cleaning. The color is white unless otherwise specified.
- ❑ All PCBs to be manufactured in a U.L. approved process, using materials with a classification rating of 94V-0 unless specifically waived.

Procurement:

Applied Data Sciences can provide all materials and components required for the manufacture of a product. Materials may also be supplied by the customer and then integrated into the manufacturing process. To ensure the highest quality of materials and components, Applied Data Sciences adheres to detailed procurement process.

Procurement of products and services is a vital part of the services provided by Applied Data Sciences. Procedures are defined to ensure that the appropriate criteria for the procurement of products and services are adhered to.

Companies which sell to Applied Data Sciences must meet the requirements as stated in the Product Specifications document. This information is then further documented on a contract or purchase order. The procedures for acceptance of items obtained under Purchase Order or subcontract may require the following steps to be performed.

Source Inspection And Testing

- ❑ When items are at a level of assembly which precludes verification at Applied Data Sciences' facility.
- ❑ When manufacturing processes have such an effect on the quality of the item that the quality cannot be determined satisfactorily by inspection or by tests of the completed product.
- ❑ When required verification tests would be destructive or special test equipment and test environments are required which cannot be reproduced feasibly and economically at Applied Data Sciences' facility.

Receiving Inspection And Testing

- ❑ Verification that the procurement source's shipping documentation and accompanying certifications and reports reflect matching levels of configuration.
- ❑ Assurance that inspection and test equipment used to perform necessary tests of procured items is controlled in accordance with the stated requirements.
- ❑ Assurance that procured non-functional items which are subject to age deterioration indicate the date that the critical life of the item was initiated, and that items with critical life limitations include an indication of total operating time.
- ❑ All items received are to be clearly identified to the Purchase Order.
- ❑ Receiving inspection will have available Purchase Orders, drawings, and specifications necessary to perform incoming inspection.

Identification Of Items And Materials

- ❑ All procured items are clearly marked to indicate acceptance or rejection by Receiving Inspection.

Specification Control Drawings

- ❑ Products purchased by Applied Data Sciences are identifiable to a Specification Control Drawing. This drawing indicates the manufacture(s), QA requirements, and On-site or On-dock inspection requirements. Additional requirements may be imposed on a case by case basis.

Certificate of Conformance

- ❑ The seller includes a certified statement that the items on the purchase order were supplied by the vendor and the parts meet ADS's specification requirements as stated on this conformance or the one provided by ADS. The Certificate of Conformance contains the following information as it applies to the product being certified.
 - ❑ Date.
 - ❑ Vendor Name.
 - ❑ Purchase Order Number.

- ❑ Part Number.
- ❑ Quantity.
- ❑ Signature and Title of recognized authority.

Special Process Certification

- ❑ Each shipment of material on a purchase order must be accompanied by two (2) legible and reproducible copies of a certification containing the signature and title of an authorized representative of the agency performing the tests. The certification includes special process used.

Functional Test Reports

- ❑ Each shipment is accompanied by two (2) legible and reproducible copies of actual test results identifiable with test parameters defined. The reports contain the signature of an authorized representative.

Special Quality Requirements

- ❑ Special Quality or Inspection Requirements for special circumstances not within the above general categories. Such requirements are outlined on the Purchase Order.

Material Conformance

- ❑ Seller agrees that material supplied on a purchase order conforms in every respect to applicable manufacturer's or/military specification. Evidence of conformance to applicable specification are furnished on request.

Functional Test Certification

- ❑ Each shipment is accompanied by two (2) legible and reproducible copies of the seller's certification, identifiable with submitted material for which test reports are on file and available for examination. This certification contains the signature and title of an authorized representative and assures conformance to specification requirements.

First Article

- ❑ First articles are inspected and accepted by ADS Quality Assurance prior to a production shipment. The sample lot of a first article is inspected for compliance to applicable drawings, specifications, and satisfactory workmanship practices.

Printed Circuit Boards, High Reliability

- ❑ The seller provides Certification of Compliance to all applicable specification requirements. When test coupons are required, the seller, unless otherwise specified, retains coupons for the specified period with each lot of boards supplied.

Manufacture:

Applied Data Sciences provides all the steps to take your product from an electronic format to the finished delivered item. This includes providing:

- ❑ Fabrication
- ❑ Assembly and
- ❑ Inspection

For PCB fabrication, we can deliver prototype to production for single-sided, double-sided, and multilayer printed circuit boards. This includes all industry standard materials, thicknesses and finishes, as well as the ability to meet many non-standard board requirements. Even 24 hour multilayer board fabrication with 100% net list testing is available.

Our assembly services also ranges from prototype to production. The products can be hand assembled for small quantity to semi-automated or automated assembly for volume production. The method(s) used are based not only on the quantity of units but also on unique designs or components used.

All prototype quantity items are individually inspected after assembly. For volume production inspection, the customer specifies the method.

As in any manufacturing process there must be construction and manufacturing controls. Construction and manufacturing control is a system of quality checks and balances implemented, and continuously maintained covering processing, fabrication and manufacturing operations. The system will detect and control significant processing, fabrication, and manufacturing variances. In-process inspection and testing is required to assure product or process conformance to all applicable control documents. These documents include drawings, specifications, procedures, assembly aids, Purchase Orders, contract requirements, associate statements of work, etc.

The following information discusses various aspects of the controls that may be implemented for construction and manufacturing. This material is presented purely for informational purposes and may not apply to your applications.

The Test And Inspection Plan describes the items to be tested and inspected, the parameters to be used, tolerance values for the parameters, measuring and test equipment to be used (which includes the type, range, and accuracy), the sequence in which tests and inspections are to be performed, and sampling methods - if required.

An effective change control system must be maintained to ensure that controlled distribution and revision updating of all engineering drawings, manufacturing procedures, inspection and test procedures, specifications and similar documents is performed. The system provides for the prompt removal of all superseded or obsolete documents from manufacturing, testing and inspection areas.

Equipment and tools used in the manufacturing of products are inspected to insure that they meet the requirements for their respective application.

Written calibration procedures describing intended accuracy and calibration technique are maintained for all in house equipment calibration. Records are maintained for all inspection, measuring and test equipment calibration.

Manufacturing records are maintained as required by this specification for a period of not less than three (3) years unless otherwise specified by the customer. These records provide evidence that the required inspections and tests were performed including part component, and system identification.

Proper protection of all items to prevent damage, loss, deterioration, degradation, and substitution must be implemented.

- ❑ Items subject to deterioration or corrosion due to exposure to air, moisture or other elements during fabrication and storage are preserved by methods necessary to assure maximum life and utility.
- ❑ Items are packaged in a manner and with materials necessary to prevent deterioration, corrosion, or damage. The requirements will consider conditions affecting the item while in storage, transportation to destination, and the specified or expected conditions at the destination. Packaging includes a means for indicating critical environment within the package if required. All necessary or special handling instructions if required are provided on the exterior of the package.
- ❑ Items that are sensitive to handling damage will have special handling provided. Special carts, boxes, containers and transportation devices are used as necessary to prevent handling damage during fabrication, processing and assembly.

Test:

Testing of the product occurs at different intervals during the development process. For example, after the logic design and PCB layout are completed, a nonfunctional test may be performed to ensure that the product meets the original specifications. Again, after fabrication, the static tests are performed. Then finally, after the product is completely assembled, final tests are performed.

Final product testing is based upon the design and application of the product. These tests are normally specified in the Product Specification. They may range from a simple “Go/No Go” test to a comprehensive suite of hardware & software tests. These tests may include such areas as environmental, vibration and Mean Time Between Failure (MTBF).

Also, the degree, duration, and number of such final tests performed must be sufficient to provide a measure of overall quality for each item tested. The testing is performed so that it simulates to the highest degree practical, its end use and functional requirements.

A system for identifying the tested status of an item is maintained. Identification is accomplished by means of stamps, tags, shop travelers or other normal control devices. Traceability to the individual responsible for the testing & inspection operation is indicated.

Applied Data Sciences can design specialized test fixtures for testing unique parameters or features of a product.

One other testing process is available. That is, the product can be integrated into the finished or existing system. Then complete system verification can be performed.

Testing can be provided for both commercial or military requirements.

Documentation:

With any purchased product, the documentation becomes the most important part. Without good documentation the user cannot write a software program, repair the product, or at the most basic level – know how to use the product.

Applied Data Sciences has written Hardware Technical Reference, User, Software Guide and Installation documents. These documents range from extremely technical for the engineer or programmer to casual reading for the novice user.

Because these documents are written according to the customer's specifications, Applied Data Sciences provides the finished documents in the customer specified formats. This varies from type of paper for hardcopy to specific programs for the electronic media.