

Technology Overview

- **Rapid Application Development**
- **Lower Total Cost of Ownership**
- **Design, Develop, Deploy**
- **Mobility Solutions**

Overview

Automatic data capture has become a mission critical platform in today's industry. Automatic Identification Data Collection (AIDC) technology is no longer a subordinate technology to business applications. Companies require a single application for entering and capturing inventory data. For example, it is not practical for a materials handler to use one application to update the warehouse management system, another to update the enterprise resource planning system, a different one to update shipping systems and still another to update quality control systems. The materials handler should be able to do his job without concern for which back-office applications are being used to receive, provide or validate the transmitted information. A good AIDC application is capable of simultaneously parsing and transforming data while transmitting to multiple systems of record as well as simultaneously transforming, validating and receiving data from multiple data sources.

TransitionWorks

Our TransitionWorks (TWS) software platform is a powerful AIDC and mobility development platform, delivering the data collection applications required by businesses today. TransitionWorks provides the necessary solution for companies to **rapidly design, develop, deploy** and manage AIDC applications using a wealth of technologies from radio frequency identification (RFID), barcodes, biometrics, programmable logic controllers (PLCs), sensors and mobile devices. With hundreds of in-production installations worldwide, TransitionWorks captures and transforms data faster, simpler and more reliably than ever before.

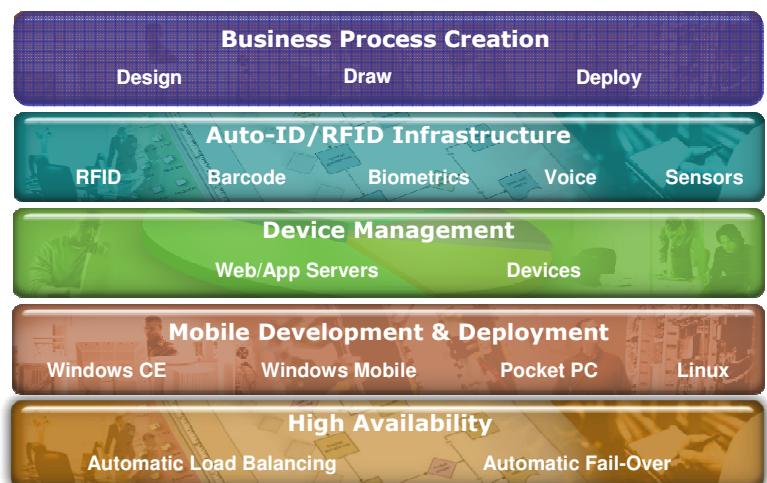
AIDC Elements

Solutions created with TransitionWorks naturally integrate the three primary elements of complex AIDC processes:

Edge devices. Advanced data collection technologies like RFID, barcode, PLCs, sensors and biometrics – multi-device, multi-frequency, multiple data formats and multiple form factors.

Information workers. Internal front and back-office workers collecting data or viewing real-time data analysis, as well as the mobile workforce using Wi-Fi and web browser edge devices.

Systems of record. TWS has numerous integration capabilities to retrieve or update multiple applications, both packaged and custom, via Web services, native application program interfaces (APIs), remote function calls (RFCs), open database connectivity (ODBC) and/or message queues. TransitionWorks' solutions are crafted using intuitive design, draw and deploy methodology that quickly turns raw data from edge devices into useful information for the information worker and system of record. From

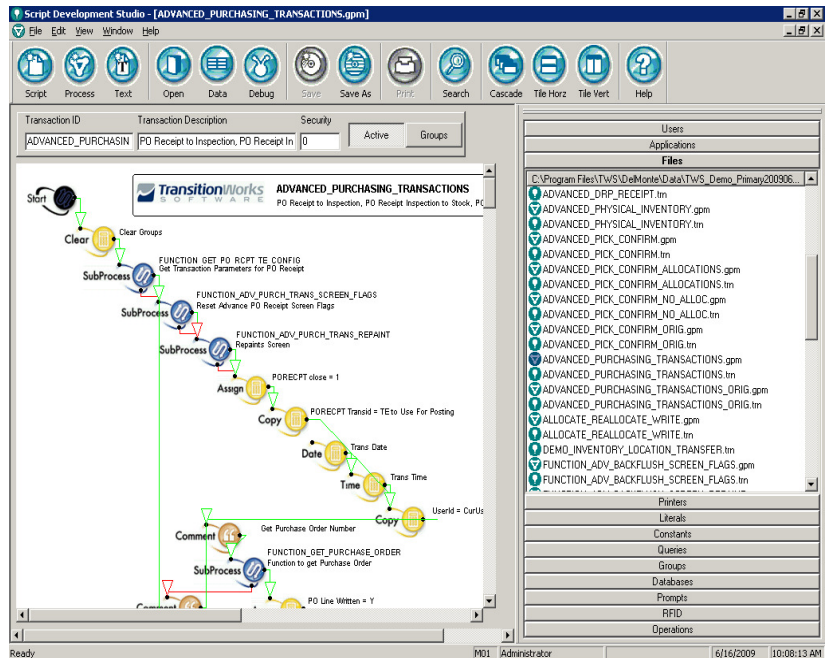


graphical design to graphical presentation, TransitionWorks brings consistency and structure to the development process for AIDC and mobility transactions. TransitionWorks software platform technology products are as follows:

- TWS – DT (Design Time),
- TWS – RT (Run Time),
- TWS – HA (High Availability)
- TWS Mobile

TransitionWorks Design Time – TWS-DT

TWS-DT provides a business analyst/developer with the tools necessary to design, draw, debug and deploy business processes within the enterprise. Everything the developer needs to create business process applications is readily accessible via a series of tool bars and palates. From user and device profiles to nearly 100 preconfigured business operations for dragging and dropping into a business flow, TWS-DT shortens development time from months to days. Additionally, TWS-DT provides a comprehensive debugging capability that supplies the developer with greater visibility and maintainability of the process and data flow as the developer reviews the execution of the application in this component. This eliminates the guess work and hours of frustration during the debugging process.



TWS-DT allows the business analyst/developer to focus on the required business process flow and appropriate validation without being concerned with user interface form factors, device communications or application integration methods

as the platform abstracts the business process from these typical difficulties. At the same time the developer has the flexibility to create and insert separate presentation layers and style sheets for use on different devices without having to alter the business logic of the application. This capability provides the developer with a genuine ergonomic deployment of application to device for the most efficient use in the field.

TransitionWorks Run Time – TWS-RT

TWS-RT provides the infrastructure for the execution of the business rules and processes designed in TWS-DT. It renders the user interface to the different form factors being used by information workers, such as Windows Clients, PDAs and Smart-phones as well as browser-based devices such as bar-code handhelds, VMU's and PCs. In addition, TWS-RT integrates with the different types of edge devices, such as RFID readers, printers, bar-code equipment, PLCs, sensors and many more. It serves as the edge server for the processes built with TWS-DT and supplies the system administration functions for user management, device management and monitoring, and the numerous integration abilities native to the platform. TWS-RT supports a number of integration methods. Service Oriented Architecture (SOA) integrations can be done through Web services with Simple Object Access Protocol (SOAP). TWS-RT supports API and RFC integrations and ODBC connectivity. It also supports message queue integrations through commercial products such as Microsoft Message Queuing (MSMQ), WebSphere® MQ, and iSeries™ Data Queues, as well as other Java Message Service (JMS) queues.

TransitionWorks High Availability – TWS-HA

TWS-HA has all the capabilities of TWS-RT. High Availability is designed to serve as a dedicated software instance for ensuring high availability in a 24x7 operating environment. The software can be configured for automatic load balancing and automatic failover if the need arises to maintain system performance or prevent loss of productivity. TWS-HA supports a multi-tier deployment enabling a highly flexible configuration scheme to fit virtually every environment. The loss

of a single hour of production or supply chain throughput can cost a company millions of dollars. TWS-HA helps keep operations running; therefore, it is **one of the most important software components** that a company can implement.

TransitionWorks Mobile



TransitionWorks Mobile provides the ability to execute business processes developed in TWS Design Time on a device running Windows CE, Pocket PC or Windows Mobile operating systems. This gives developers the freedom to deploy business process applications on a wide variety of devices, ranging from handheld barcode readers to Smart-phones, for operation when a network connection is not available.

TransitionWorks Mobile allows Windows Mobile devices to run in an intranet detached “store and forward” mode allowing data to queue up between the mobile device and the server. Data synchronization occurs when the mobile device comes within Wi-Fi access range and communicates with the server. If the mobile device has internet connectivity to the server and has a web browser, no client software is necessary. Internet connectivity to the server also allows managers and supervisors to monitor and manage assets/inventory while on the go. Customers using TWS Mobile can rest assured their **mobile work force** will have tools to get the job done efficiently and effectively.

Technology Features:

- Point and click business process flow development
- Connection to an unlimited number of data sources
- Device management and monitoring
- HTML user interface design for end users
- RFID Engine with configurable environment for readers, antennas, and tags
- End user input validation
- Flexible PLC / Scale input and output
- Complete traceability by user/device
- Integrated security and user authentication
- Multi-lingual support based on user login

Specifications:

TransitionWorks accepts data captured through:

- 1D Linear or 2D barcodes
- RFID – UHF, HF and LF, UWB, 433 mhz (passive and active)
- Biometrics
- Sensors
- PLCs
- PDAs and PCs

About TransitionWorks Software

TransitionWorks Software is dedicated to helping our customers improve efficiencies and simplify business processes. Since product inception in 1997, our TransitionWorks Software organization has accomplished this goal by iteratively developing, delivering and supporting a set of solutions that help manufacturing/distribution companies simplify and automate key supply chain processes using automated data collection technology such as barcode, RFID and voice. With proven, successful implementations world-wide, TransitionWorks’ premier solutions for Inventory and Asset management is the system of choice for many leading companies in the world.

TransitionWorks Software Solutions:

Inventory Visibility
Sales Visibility

Asset Visibility
Custom Process Solution

Integration Capabilities – BPCS,
SAP, Oracle, JDE, Legacy, etc.

For more information on TransitionWorks Software please visit us at www.transitionworkssoftware.com, email info@transitionworkssoftware.com or give us a call at (336)-885-1375.