

Team Tag-it Program Launches Worldwide

Texas Instruments this month formally launched its Team Tag-it Program, a partnership of industry leading companies dedicated to development and market adoption of RFID smart labels. Participants in this program include hardware and software suppliers, label converters and systems integration service providers.

Over the past year, many of you have brought to market new Tag-it based RFID smart label solutions. Together we're building a strong infrastructure for the rapid adoption of this new automatic data capture technology and look forward to our continued collaboration in 2000.

With that in mind, we envision a number of Team Tag-it activities to be implemented as the program takes shape, including:

1. A web-page dedicated to Team Tag-it Members on the Texas Instruments TIRIS website (<http://www.tiris.com>)

2. External brochures & fliers: can include lists of current

Team Tag-it members, product offerings or booth #s at trade-shows

3. Team Tag-it News (bi-monthly newsletter), joint articles in target publications

4. Exchange logos for channel publications & promotions

5. Cooperative advertising, joint-booths & joint-press releases for tradeshow

6. Others: special events/programs at tradeshow, training seminars, conferences (joint-presentations, for example)

We also encourage Team Tag-it members to use the program for networking, product announcements, sharing market outlook and views and any relevant communication for strengthening the smart label infrastructure.

Highlights:

- ◆ Suppliers of Tag-it Products (p.1)
- ◆ Team Tag-it Members (p.2-6)
- ◆ 13.56MHz Benefits (p.6)
- ◆ Upcoming Events (p.7)

Table 1: Suppliers of Tag-it Compatible Products
(as displayed at Scan Tech 99)

Labels	Avery Dennison Moore Brady Sihl
Printers	Avery Dennison Brady Genicom Meto TEC Zebra Technologies
Readers	Baltech i2r idSystems Feig Securakey
Scanners	i2r id Systems Opticon Psion
Systems	Accu-Sort Moba Savi Technologies Snyder Electronics

Team Tag-it Members

To date, the following companies worldwide have joined the Team Tag-it program.

3M: headquartered in St. Paul, MN, the company offers the 3M™ Digital Identification (DID) System—a new system from 3M Library Systems that will optimize resources in libraries, both material resources and human resources. The system is based on Texas Instruments' Tag-it™ RFID technology and 3M™ Tattle-Tape™ Security products to identify, track and secure materials in libraries, allowing library staff to spend more time with customers and less time with the collection. The 3M DID system is comprised of: the 3M™ Digital ID Tag, 3M™ Conversion Station, 3M™ SelfCheck™ System with Digital Identification, 3M™ Staff Workstation with Digital Identification, and the 3M™ Digital Library Assistant.

The 3M DID system is a "matched component system". Each component within the system has been developed by 3M to meet the specific requirements of libraries all over the world and to work in concert with every other 3M product in the system.

Alpha SW: based out of Richmond, VA, the company offers a Tag-it Demonstration Program – a Windows software program that demonstrates Tag-it transponders to end-users. Database may be prepared to link attributes of a product to the Tag-it transponder and when scanned, the detailed information is presented. This software is ideal for asset tracking demonstrations, and requires no additional coding. Alpha SW also offers a material tracking software system, Protrack—a Windows based asset tracking system incorporating transponders, bar codes, and keypads as the data collection medium.

Avery Dennison: headquartered in Pasadena, CA., the company offers custom and stock product labels and tags that are integrated with the Texas Instruments Tag-it RFID circuits. The custom products can be any size and can include press graphics with up to 7 colors. Minimum order sizes are quantities of 100,000 for custom designs and 5000 for stock products. Avery Dennison also offers a full line of bar code imprinters and label applicator systems. The company has plans to release a commercial desk top imprinting system compatible with Tag it RFID technology and capable of reading and writing data to the RFID label, as well as

imprinting human readable variable data onto the label.

AWID: based out of Monsey, NY, the company offers the USR-1000 Series products featuring multi-protocol RFID engines for portable data terminals. AWID also offers the USR-2000 Series features countertop multi-protocol smart label readers with RS-232 output to interface to P.O.S. terminals.

Baltech: based out of Germany, the company offers ID-engine® reader products that provide access to the full functionality of Tag-it and other smart labels. ID-engine® is a very small and powerful reader module (47 x 35 x 10 mm) that offers multi-protocol anti-collision feature where different tag-types can be processed simultaneously in the same operating area. Baltech also offers the ID-engine® Explorer that contains three ID-engine® readers with different antenna sizes (read/write distance from 10 - 20 cm), ID-engine® Explorer Software for WIN95/98/NT, DLL for software integration, documentation, Power supply unit and connection cable, Tag-it and other Smart Labels.

Brady: headquartered in Milwaukee, WI, the company offers automatic data collection solutions for industries to identify equipment, assets, process components, and even animals. Product offerings include RFID inlays incorporated into Brady label materials B-423 polyester, B-424 paper, B-425 polyolefin and on other custom materials upon request. Brady smart labels include superior built-in chip protection and a wide choice of materials that combine to create durable RFID smart labels of high quality. In addition, Brady offers an external programming module (EPM) for programming of the chip that fits on almost all industrial thermal transfer printers as retrofit. Codesoft or Labelview software drives the EPM module to enable the printing and programming of Tag-it inlays in the RFID smart label.

Feig: headquartered in Weilburg Germany, the company offers 13.56 MHz reader family for smart labels. Available products today include proximity and long-range readers. The ID ISCM01 proximity reader module is designed for integration in printers and hand-helds with external antenna in different sizes. The ID ISCLR100 offers long-range read/write distances of up to 1.2 meters and is available with one, two, or

more antennas. All readers are capable of reading multi-protocol tags simultaneously.

id Systems Ltd: based out of Manchester UK, the company offers a wide range of hardware and software products for Tag-it smart labels including:

- OEM boards and modules suitable for integration within printers and hand held computers
- hand held readers—Flexiscan
- interfaces for popular hand held computers such as the Psion Workabout
- fixed position, mid range and long range systems suitable for access control and conveyor applications

All hardware interfaces are supported by a comprehensive software development tools. A wide range of evaluation and developer's packs is also available.

Metrologic: headquartered in Blackwood NJ, the company incorporates reading solutions for Tag-it radio frequency identification labels into HoloTunnel systems.

Microlise Engineering Ltd: based out of Nottingham England, the company provides a complete range of Tag-it enabled products—labels incorporating Tag-it inlays,

thermal transfer / direct thermal printers, radio and batch data terminals mobile computing devices, rugged scanners, long range readers, gate readers and desktop readers. These products together with their systems integration services offer complete turnkey RFID solutions.

MOBA Mobile Automation GmbH

based in Dresden, Germany, the company develops and produces contactless radio frequency identification systems based on Texas Instruments Tag-it Technology. Experienced developers design and create customized antennas, readers and other RFID components for specific applications. The product range includes RFID Scan Solutions, e.g. tunnel-, gate-, flat bed antennas and readers, mainly for long range applications in harsh environments. MOBA also sells hand held readers for shorter read/write ranges. MOBA RFID systems contain standardized interfaces for integration in several systems. Main applications are in parcel service and logistics.



Moore: headquartered in Bannockburn IL, Moore combines the strength of its Moore North America and Peak Technologies divisions to provide RFID systems solutions and custom designed RFID media. Moore Corp. provides total systems solutions, including RFID hardware, software and systems design, installation and maintenance services, and offers customers guaranteed Tag-it RFID solutions.

Opticon Sensors

Europe bv: based out of the Netherlands, Opticon offers its PHL2700 programmable handheld terminals. This terminal allows barcode and RFID or barcode and IC card reader options. Opticon is currently integrating Tag-it compatibility in this product line.

Psion Inc: based out of Concord MA, the company today provides Handheld computers that can be used for RFID applications using 3rd party add-ons.

Savi Technology, Inc: based out of Sunnyvale CA, the company provides software and integration services to support Tag-it transponders as part of a complete supply-chain asset visibility systems. The Savi Asset Manager is a standard software environment used to manage data acquisition and

makes Tag-it data accessible to SQL databases. It provides links to local, enterprise-wide, and networked information management systems. Savi is turning advanced technology into competitive advantage for packaged goods providers, e-commerce companies, and traditional brick-and-mortar firms.

Schreiner Etiketten: is a leading label manufacturer based out of Munich Germany, specialized on the development and production of labels based on specific customer requirements mainly for the technical industry. Its RFID-products include blank and individually printed labels (50x50, 70x50), Zebra RFID label printers including installation & support, RFID hand-held readers, and third party RFID stationary readers. The company also offers project specification and support services in cooperation with different industry partners.

Seal Eletrônica Ltda:

is a Brazilian company specialized in the provision, implementation and support of ID systems and automatic data capture. Seal develops solutions for the logistic chain provisioning goods and services directed to retail application, industry and health segments. Seal is a representative of world technology leaders in its markets including **Symbol**

Technologies, Zebra Technologies and AccuSort.

SecuraKey: headquartered in Chatsworth CA, the company offers the e*Tag™ series of products that use 13.56 MHz technology with Read/Write capabilities. e*Tag™ readers range in size from 3.20"x 4.50" switch plate sized to full size portals with read ranges of from 6 inches to three feet, and can read multiple tags in their field. Models currently available include the ET-L long-range reader, the ET-S switch plate mounted reader, and the ET-P, portal reader. Custom readers can be designed for specific needs. SecuraKey also offers packaging solutions for ISO cards, tags, and labels.

Siemens Moby: located in Fuerth, Germany, the company is a well-known manufacturer and supplier of a wide range of RFID systems. Siemens MOBY system consists of tags, Read /Write devices, interfaces and controllers that can be integrated into PLCs, PCs, and compatible controllers. Siemens acts as a system integrator for smart label systems like Tag-it. For applications in distribution and logistics, Siemens offers Moby-D, a family of RFID readers from proximity to long range.

Sihl: a leading manufacturer of smart labels based out of Düren, Germany, the company offers a variety of label products under the trademark IQ-Paper. Standard Tag-it compatible products include:

- self-adhesive labels sized 96 x 48 mm without paper surface (min. 1000 units/order)
- universal labels sized 105 x 55 mm or 165 x 100 mm, printable surface thermal direct or thermal transfer (min. 1000 units /order)
- Inkjet-Labels sized 105 x 55 mm, 6 units on a DIN A4 sheet (min. 20 sheets/order).
- Customized Baggage Tags, Tickets & environmentally friendly high performance labels. Other types of labels can be custom designed per request.

Snyder Electronics: based out of Altadena, CA, the company to date has designed and manufactured antennas to fit customer needs. In the first quarter of 2000, Snyder Electronics will offer a standard line of products—a wide range of antennas varying in size and number of read orientations. These will include channel, tunnel and portal configurations. A variety of support components such as tuning boxes, splitters, cables and multi-plexers will also be offered. Snyder Electronics is committed to on-going research to continue to increase read

ranges and the overall performance of RFID systems.

Symbol Technologies: headquartered in Holtsville NY, the company is dedicated to creating and delivering integrated automatic data capture and communications products and solutions. Symbol Technologies' core research and development efforts have been focused on combining the functions of world-class bar code scanning, RFID tag reading and writing, and wireless data communications. As a foundation to this activity, Symbol has established technology alliances with leading vendors of benchmark RFID technologies.

Since there are already several classes of 13.56MHz RFID tags used in a wide range of applications, Symbol will first release this class of RFID-enabled products into the market. These will offer multi-protocol RFID tag reading and writing. During the year 2,000, Symbol Technologies will bring integrated products to market, combining bar code and RFID tag reading capabilities into well-known and widely supported Symbol portable computers. The first of these products will be based on the popular PPT 2700, Windows CE ® ruggedized palm-ergonomic pen terminal.

TEC: provides a barcode label printer, B-452-QP-SLP, with

integrated read/write module for 13.56MHz Tag-it smart labels. The B-452-QP-SLP printer is a direct thermal /thermal transfer printer with 300 dpi resolution. This printer supports all bar codes and main 2D codes, and operates on Win95/98 and NT4.0.

Thax: based out of Berlin, Germany, the company has developed a Local Positioning System, Findentity, for finding files, books and other things in offices and identifying them via PC. Software features include indication of storage location on a 3D plan or voice-over, a beam of light marking the storage location in a room and an electronic file shelf. Via the Internet, this system makes it possible for a person in Berlin to determine where the location of a particular file is located in New York. Findentity® will be available as a stand-alone system and for integration into other applications. Thax Software is showing its Findentity® system at the CeBIT fair in Hannover, Feb. 24th – March 1st 2000, hall 19, stand C50/1.

Torres Ind. E Com.
Ltda: developing process for integrating Tag-it inlays for smart labels.



Zebra Technologies:

headquartered in Vernon Hills IL, the company is a worldwide leader in bar code printing. The company will release its first RFID printer/encoder, the R-140™ capable of printing and encoding "smart labels"- printable labels embedded with ultra-thin 13.56 MHz RFID transponders-in a single pass. The R-140 features the same rugged construction and standard features as the 140XiII™, Zebra's best selling Performance Line™ printer, enabling it to perform in a variety of mission-critical applications, including those with 24-hour duty cycles.

Like the 140XiII, the R-140 can print and encode labels up to 5.1 inches (140 mm) wide and up to 30.0 inches (762 mm) long with its one-megabyte of standard RAM. The printer comes pre-loaded with more than 25 one- and two dimensional bar code symbologies including PDF-417, MaxiCode and QR Code.

Deadline to submit articles for the next issue of Team Tag-it News is March 27, 00.

13.56 MHz Benefits

Texas Instruments, Checkpoint, Gemplus, Microchip and Philips are working together to articulate a clear message about the benefits of 13.56MHz RFID systems. The message will be distributed widely through media relations' channels. A brief description of the benefits includes:

- ◆ A relatively mature market with many millions of devices in use. There is an abundance of suppliers /integrators/ OEMs with experience in integrating 13.56MHz RFID systems.
- ◆ Large numbers of players in the 13.56MHz arena represent a growing trend towards interoperability of systems at the end user location.
- ◆ A more favorable worldwide regulatory acceptance for 13.56MHz systems as compared with other frequencies.
- ◆ Creates robust local read fields that result in reliable tag reads.
- ◆ Has the ability to penetrate most materials except metal. Can penetrate water, human /animal

tissue/plastics, wood and soil. Can be embedded into items containing such material.

- ◆ Allows for a lot of versatility of tag design in size and shape to accommodate individual applications.

Upcoming Events

Feb. 28, 2000, ITLA.

Presentation: *Air Travel Innovations in the new millennium: what you need to know to stay ahead of consumer demand.* Susy d'Hont

Mar. 13-14, 2000,

Offenbach, Germany.

Presentation: *Coding & Identification in Logistics.* Stefan Trautner

April 9, 2000, DMIA

Presentation: *Smart Labels are here.* Susy d'Hont

Apr. 3, 2000, APICS NE

Presentation: *RFID— Information solutions for improved logistics management.* Susy d'Hont

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