

# SAP Introduces Software for Product Tracking

The German company's new Product Tracking and Authentication application and Object Event Repository are designed to let companies more easily monitor and authenticate serialized products, such as RFID-tagged drugs.

By Beth Bacheldor

March 20, 2007—[SAP](#) expanded its portfolio of RFID-ready software with two new products intended to help drugmakers and other companies track and trace goods as they move within their organizations and among trading partners.

SAP's Object Event Repository database software is designed to aggregate RFID, sensor and other identifying data, such as the [U.S. Department of Defense's](#) Unique Identification (UID) numbering scheme to track high-value and time-sensitive items. That data can come from a variety of software applications, such as a warehouse management system, spread across an organization.

In addition, SAP announced its Product Tracking and Authentication (PTA) business application, which leverages the data housed in the SAP Object Event Repository so companies can more easily track and authenticate the serialized products they manufacture and distribute, such as RFID-tagged drugs. The PTA can also help companies keep track of goods as they traverse the supply chain. Both the Object Event Repository and the PTA are expected to ship sometime in May or June, says Krish Mantripragada, SAP's global head of RFID and auto-ID solutions.

According to Mantripragada, the SAP Object Event Repository is based on [EPCglobal's](#) Electronic Product Code Information Services (EPCIS) candidate standard. EPCIS-based software serves as the communication mechanism between applications and data repositories so companies can effectively exchange and query data from within their own RFID processes, and with partners. SAP's Object Event Repository, however, can be used for more than just EPC-related data, he says.

"We like to view it as something more generic and more global than what the EPCIS specification describes," Mantripragada explains. "What we care about is the data. We care about the unique ID numbers—whether they are EPC, UID or something else—and we care about the events associated with that data."

The Object Event Repository software is designed to help companies in a number of industries aggregate their RFID and other similar data. The PTA, on the other hand, is a good fit for pharmaceutical companies working to track individual items and their associated serial numbers within their supply chains, Mantripragada says, in an effort to improve product safety and fight drug counterfeiting. The PTA, he notes, is also suitable for other types of companies that often have to account for and track usage of specific items and parts, such as those in the automotive, aerospace and defense industries.

The repository culls information from SAP's Auto-ID Infrastructure, middleware that collects, analyzes and manages real-time information, such as data from RFID tags on tagged items, environmental sensors and real-time locating systems (RTLS). SAP's Auto-ID Infrastructure middleware is typically installed at

warehouses, distribution centers or other local sites, with the Object Event Repository designed to aggregate all the data from that middleware to provide companies with enterprise-wide data views.

The repository includes an events-management engine able to correlate events at the object or individual item level. For example, the engine can make associations between the time a specific case of prescription drugs arrives at a distribution dock (logged via an RFID scan of the case's tag) with each unique ID number on the RFID tags affixed to the bottles of those prescription drugs in the case (documented when the case was packed).

The repository also has a service layer that provides for central management of the creation and allocation of serial numbers. This enables companies to ensure that serial numbers are never duplicated. "This is very important, Mantripragada says, "because the whole purpose of assigning a unique serial number to each bottle of drug is to ensure that it is authentic. Every number has to be accounted for, and you do not want to have duplicate numbers." He adds, "If you outsource manufacturing, you still want to create and control the unique ID numbers. Any unaccounted-for number could open up the door for counterfeiting. That is one of the key capabilities of the Object Event Repository."

The PTA software, which has its own desktop user interface, provides a window into all the data housed in the SAP Object Event Repository and also offers additional functionality. The PTA enables users to check serial numbers, confirm that each is accounted for and has no duplicates, and cross-check those numbers with shipment and delivery information and other data. "If a product ends up at a location where it isn't supposed to be," Mantripragada says, "than you can start investigating and tracking whether there were any diversions."

**RELATED\_ARTICLES** The PTA also has an application programming interface allowing the information to be fed into a Web-based application, accessible via the Internet—even one residing at the site of a company's supplier. Thus, businesses can collaborate with their trading partners on serialized data and associated information.

SAP's new products are designed to help pharmaceutical companies more easily create electronic pedigrees (e-pedigrees), secure files that store data about each move a product makes through the supply chain. Created in conjunction with RFID or similar technologies, the files can help reduce the counterfeiting of drugs and other products. The data housed in the SAP object events repository, for example, can be used to populate e-pedigree software systems from [SupplyScape](#) and other companies.

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