



# Loggers Use Tags to Track Trucks, Timber

**Papermakers and sawmills deploy RFID systems in forests to facilitate the loading, weighing and unloading of logging trucks.**

By Claire Swedberg

Nov. 28, 2005—[Balance Bourbeau](#), a Canadian provider of truck scales and weighing systems in Ville St. Laurent, Quebec, is providing a forestry tracking and management system that uses RFID and GPS technology. Four logging and sawmill operators in the Quebec area are now using the company's Virtual AT (Virtual Authorization for Transportation) system.

[Identec Solutions](#) is providing RFID interrogators (readers) and tags for the Virtual AT solution, which facilitates the loading and weighing of logging trucks by reducing the need for drivers to step out of their trucks or fill out paperwork. Instead, an RFID tag installed on the truck cab's dashboard automatically transmits data the logging company can use to track the truck and its load—and to calculate how many hours the driver worked.



*Guy Bourbeau,  
president of  
Balance  
Bourbeau*

While a crane called a loader lays logs onto a truck in the forest, a computer and RFID reader on the loader writes data onto the vehicle's 915 MHz active tag. This data includes the driver's name and license number, the loading location (determined by a GPS device onboard the loader), and the species of tree that was cut. The driver then proceeds to the forestry company's scale, at a sawmill that can be as much as 160 miles from the forest where the timber was felled.

When the truck drives onto the scale, an RFID interrogator with a read range of up to 300 feet retrieves the truck's data and writes its weight and time of day to the RFID tag. The truck driver does not need to come to a full stop. The driver then takes his truck to a site where a loader removes the logs. Once empty, the truck goes through another scale, where its tare (unloaded) weight is written to the tag. Data on the tag can then be erased except for details about the truck itself, and the truck can return to the forest for another load.

Guy Bourbeau, president of Balance Bourbeau, says he has been working on this RFID solution for about six years. This, he says, represents the world's first RFID solution in use by the forestry industry. By using RFID, the forestry industry can reportedly reduce human error from about 68 percent accuracy before RFID and GPS tracking to 99 percent once the new technology is in place. Errors that previously occurred were often a matter of truck drivers providing the wrong information. By making it unnecessary for drivers to leave their trucks, the entire process becomes much safer, Bourbeau says, since there is always some risk involved when drivers approach machinery such as a loader. So far, he says, four of its customers—logging and sawmill operators [Domtar](#), [Abitibi-Consolidated](#), [Bowater](#) and [Tembec](#)—are using the Virtual AT system and have been happy with the results.

According to Guy Bourbeau, the forestry industry has been searching for ways to lower its operational costs while improving the visibility of trucks, routes and sites. This, in part, is due to government demands of visibility, to ensure that companies are paying the appropriate royalties for trees felled in specific forests. (The Canadian government charges different royalties for different property logged.) With this system, Bourbeau says, the government can use RFID readers as "virtual inspectors" on logging and public roads, keeping track of where trucks pass and collect timber. At sawmills and other sites, RFID systems also improve visibility as they track which logs enter and from where, as well as the time a truck leaves the mill for another shipment.

Rising fuel costs have also made an automation solution that much more desirable, says Barry Allen, CEO of Identec Solutions Canada, based in Kelowna, British Columbia. With an RFID system in place, the need for trucks to stand with engines idling while drivers walk to the log loader or scale shack for paperwork is reportedly reduced. "The fuel savings alone will pay for the system," Allen says.

Within the next six months, Balance Bourbeau intends to expand its RFID capabilities to log bundle and wood chips management. RFID tags, for example, could be affixed to shipments such as log bundles being carried in water, to track their movement in waterways. Wood chips will be tracked similarly to logs, with weight, time and location recorded on a driver's RFID tag.

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