



## RFID Implementation

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Switching over to RFID tag technology adds considerations not needed by barcodes. Here are a few pointers, based on the experiences of others, that should be taken into account.

1. Look at your current processes, especially the human activities and physical processes of handling goods. Having done that, formulate your new physical processes in as detailed a way as you can. This documented design of the new system must be updated constantly as your expectations change and develop over time. In cases of preparing shipments for goods-out, care must be taken that nearby tagged packages and loose RFID tags not yet affixed to their destined cases are not placed within reading range where they may be mistakenly considered as candidates for logging their transit. All this must be taken into account. The speed of moving packages on which the RFID tags are affixed is an important factor and one which will need experimentation to finalize. It will affect, among other things, forklift truck speeds and conveyer belt speeds.
2. Familiarize yourself with available RFID reading and tag printing devices and any accompanying software technologies you will need. Note that software integration often involves interfacing between systems using EDI (electronic data interchange) protocols.
3. Be aware that RFID solutions require consideration as to the physical deployment of readers, their numbers, quality and features to ensure consistent and reliable reading of the RFID tags. Stands may need to be specially constructed to hold antennas and readers, where the physical properties of the room, docking area or loading bay do not have an appropriate place for the fixture. Radio interference from other devices can cause problems too.
4. Build an execution plan, including responsible parties, integration tasks, all external supplier activity and internal organizational and requisition requirements.
5. Set small and frequent stages for advancement of the RFID project. Break tasks down as much as possible into sub-tasks, even if they have limited value in themselves. This will allow greater flexibility and instill confidence. Typical stages might be equipment testing, mock goods handling, simulation of a process sub-section, building up to more complex interactions and finally the complete integrated process.

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6. Choose integrators wisely, based on their proven experience with RFID projects. Barcode expertise alone will not be sufficient, due to the special needs of RFID reading and the different human and mechanical processes.
7. Equipment connectivity and logic considerations. Find out the available forms of inter-equipment communications including wireless, cable, protocols, XML, EDI and other considerations, and also, built-in logic such as avoiding duplicate RFID tag readings etc.
8. Look ahead as much as you can. Most suppliers will tell you their solutions are scalable, although at the same time, new developments may bring previously unavailable solutions to be considered in the future. RFID standards are evolving. Ask the significance of such changes on the solutions you have put in place.
9. Plan for setbacks. The needs of equipment, software and physical processes and the conditions of one project may be very different from another. Weather conditions, available space, speed of goods handling can all affect the technologies you have chosen. Sometimes, changes will even have to be made midstream. Give yourself the time required to handle such events.

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