

Almost all pharmacies now have the front end of a pharmacy automation system, which is software usually referred to as the Pharmacy Management System. In some cases this software is an integral part of a larger pharmacy automation system which involves the use of some form of robotics. This is where the script information is entered into the system, usually manually, and via a keyboard. Given the risks involved and the complexity of drug names, very few people would be willing to risk letting speech recognition software handle this job.

Most management systems print a label package which drives the rest of the pharmacy system. The label package is either printed at, or delivered to, a pharmacy workstation where the script will be filled. A high percentage of pharmacies scripts are filled by counting pills from a supply bottle into a customers vial. Most large robotic systems seek to save labor time in this area. Some systems require that the drugs be manually poured from their supply bottles into dedicated cassettes. If each cassette has its own counting mechanism the possibility of cross contamination is eliminated. If, on the other hand, a robotic arm moves the supply cassette to a common counting mechanism, the specter of cross contamination must be dealt with. Where each cassette does its own counting the drug pick up is done by a human with the customers vial in hand.

Most of these robotic systems have some form of human verification to assure that the proper drug has been delivered and, frequently, that the count is correct. There is, in the end, a fair amount of labor still involved.

Let's consider a new type of system where several pharmacy workstations share a common database of drug data.

Each workstation has a scale with a bar code scanner that is used to count pills based upon average piece weights. Average piece weight information is stored in the central database and shared by the workstations. Counting pills by weight is extremely fast and accurate when accurate average piece weight data is available. The system's ability to allow the users to easily update average piece weights for each drug on a periodic basis is the key to its speed and accuracy.

The system uses a downloaded national drug database for general information and generates an added local database of average piece weights for the pharmacy formulary. The icing on the cake is that the user does not have to manually count pills for samples when updating average piece weights. The system has a clever way of using the existing average piece weight to help in establishing an updated piece weight this is independent of the existing weight. More

information on this new system is available at [www.torbalscales.com](http://www.torbalscales.com) . This system is completely free of cross contamination, as the pills go directly from the supply bottle into the users vial. The system also provides drug verification, where the drug label pack is verified against the supply bottle NDC code. The initial investment is relatively small and usually recovered within the few weeks