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Frequently Asked Questions for the No-More-Errors (NME) Batch Picking System

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FAQ FOR THE NO-MORE-ERRORS (NME) BATCH-PICKING SYSTEM

WHAT IS NME?

Q: Why do you call it by that funny name “No-More-Errors”?

A: Because that is the main difference between our picking system and competing picking systems. There are many picking systems on the market that are capable of allowing you to make picks; few of them however, can make batch picks and there is not one that we know of that doesn't require the picker's undivided attention to accuracy throughout every step of the operation.

Q: Why is NME better?

A: Because you can pick up to 16 orders in a single trip. Although order density is high, the walking per order is low. (You may walk 1,000 feet, but each order only requires you to walk 1/16 of that 1,000 feet - compared to walking 1,000 feet for one order.)

Q: With all the picking systems already on the market, why add another one?

A: The original idea for the NME picking system occurred to developer Art Avery when he was designing lighted picking systems in Germany 20 years ago. At the time however, the technology necessary to allow for system implementation at an affordable price was simply not available. Since then, Art has annually reviewed the new picking products entering the market, figuring that someone would eventually come up with the idea and implement a system. That eventuality never came.

As he visited more and more clients who had a need for this product, the fact that it did not exist became intolerable to him. Taking an active stance, he formed a partnership with a highly experienced, warehouse management programmer and systems designer, to implement this product and to bring it to market with a truly affordable price tag.

Q: What kinds of picking speeds are possible with the NME system?

A: Rates of 300 lines per hour are possible in a picking environment that has been properly set up, provided excessive travel times are not required. In a highly optimized setup where picking involves mostly single or two-piece picks, perfectly accurate rates of up to 600 lines per hour should be possible.

Q: How is the NME picking system's price established?

A: We are making every attempt to keep the price as low as possible while still having sufficient marketing funds to bring it to a widespread audience. Our goal is that the system's payback will occur in three months or less, and that this will be true even for small companies. Hopefully, we will succeed both in keeping the prices low and in allowing widespread use within the marketplace. Any product that can cut the number of order pickers and checkers in at least half should be a desirable addition to our country's distribution economy. We presume that once the system is available, many competitors will appear. This is fine with us.

Q: Why do I no longer need checkers?

A: Checkers double-check an order that has been picked by a picker. There are many reasons a picker may make an incorrect pick. For example, sometimes he loses attention and incorrectly picks items or he simply misreads items on the documents. Until now, the only real defense against picker error has been the checker. Unfortunately, if pickers do a good job, then checkers rarely find any errors. When a checker repetitively checks over and over again without finding errors, he may soon forget what he's doing. As a result, if an error had actually occurred, you would probably not find it. While checkers may be better than nothing, they are, in fact, little more than nothing in terms of error effectiveness.

With the NME system, every part of the picking transaction is verified, from scanning a slot number, to scanning a product ID code, to keying in the number of pieces that are picked, to scanning the carton or the cart location where the pieces are placed. If at any time during the picking process the picker "goes to sleep," the system ceases to operate until he gets back in gear. If the picker is capable of performing the picking operation repetitively using the NME system, even if he is not paying attention, then he has picked the correct orders whether he knows it or not. In short, it is impossible to pick incorrectly.

STANDARD FEATURES

Q: How long does it take a picker to learn to use the system?

A: Most pickers can learn to start the program, log in, build pick lists and pick in under 30 minutes. Those who are comfortable with using computers can learn in even less time. We have seen new pickers become productive in less than 5 minutes.

Q: How long does it take a supervisor to learn to use the system?

A: A supervisor who is comfortable using Windows applications can learn to use the system effectively in under an hour. Some of the more complex setups and options may take a little longer. After the initial configuration, the system needs little attention.

Q: Are there restrictions on what various users can do?

A: Each user is assigned a User ID and Password and is designated as a picker, supervisor or administrator. pickers and supervisors are restricted to certain functions. Administrators can perform any function. Therefore, pickers in particular can be prevented from accessing information and administration that they have no reason to access.

Q: What if the picker makes a mistake, for example, scanning the wrong slot or item?

A: The scanner emits a distinctive tone if the picker scans the wrong slot, item or container and gives an easily understood error message. Typically if an order calls for multiples of an item, the picker will scan the item repeatedly without looking at the display. Distinctive tones not only alert the picker to an error, but also tell him when the correct number of items have been picked.

Q: Sometimes the bar code on an item does not match the bar code in the order. Does this make the system unusable?

A: No. The NME system can be set up to accept alternate bar codes for each item.

Q: Some lines on an order have a very high quantity and I do not want the picker to have to scan that many items. Is there something that can be done to handle that?

A: Yes. The system has a configurable “threshold” value. If the quantity for an item is above that value, the picker will be prompted to enter a quantity. That value can be set as high or low as management desires. Of course, if the user enters a quantity, each item is not scanned for verification.

BATCH PICKING

Q: How many orders can we pick at one time in a single batch?

A: As many as you have room for on the shelves of your cart. A practical limitation is 30 to 40 orders. However, if you wish to pick several small items and place them into small plastic totes or small boxes, we could theoretically address a matrix of 10 shelves, each containing 10 orders, or 100 orders in total.

Q: Why would I want to batch pick several orders at a time?

A: Because, during batch picking, your picker makes only one trip through the warehouse as he goes from slot to slot sequentially, without any wasted travel time. At the conclusion of this picking process, the batch picker has several orders completed, separated, and possibly even in their shipping containers on his wheeled cart.

Q: What happens if the same item goes into several batched orders?

A: In order to ensure high accuracy, the picker will be prompted for the item and quantity for each order. It is straightforward and easy to learn and consistent with all NME picking. If there are items that go on ALL orders, they should probably not be put on the order at all and the pickers should be instructed to ALWAYS place these items in each container. If it is not possible to remove such items from the orders, a custom import program could be designed to do it.

Q: Should you pick into totes or shipping cartons?

A: If you are able to estimate the size of the shipping carton from the number of pieces or by adding up the cube of each item in the order, we strongly suggest picking directly into cartons. Doing so removes one step from the packing process (i.e., you don't have to dump product from a tote out on a table and then repack it into a box).

Q: What about breakable items? Don't they require special handling?

A: Breakable items most certainly require special handling. Items such as bottles may require that bubble-wrap or other packing material be wrapped around them. There are two ways in which you might handle this issue. First, you might pick these items into totes, and then allow the packers to perform their packing operation as they are accustomed to doing. Second, you might wish to place packing material near the bottles, and have the pickers wrap them as they are picked, placing them directly into their shipping cartons.

CUSTOMIZING, OPTIONAL FEATURES

Q: In what ways can I customize NME to my unique needs?

A: There are several options that already exist, and can be added to the basic system at little cost. Other options are still under development. The existing options are:

Replenishment. When installed, there is a “Rep” button on the picker’s screen that he can tap to notify the database that the item in that slot is low and needs to be replenished. In this fashion, the possibility of an empty slot should disappear.

Serial Number. For some items, it may be necessary to capture the serial number being picked and shipped. With this option, the picker will scan or enter the serial number rather than item number or quantity. The system will indicate the number of serial numbers that have been entered.

Lot I.D. Sometimes a lot I.D. is required. If this is the case, the picker will be prompted on the scanner screen to scan or enter the lot number for each pick.

Substitute Items. When the company wants the picker to have the ability to substitute for an item that may be back ordered, this option displays a “Sub” button. When this button is tapped, the screen will display the slot number where the substitute item is located. When the “Info” button is tapped, the screen will display the substituted item’s description and item number.

Zone Picking. This option configures each scanner for the zone it is being used in. There is a “Change Zone” button and “Maintain Zone” screen to allow for this preset zone configuration to be changed to another. However, if one order requires picks from more than one zone, multiple scanners will be needed.

Capture of User Productivity Information. This option allows management to determine the productivity levels of individual pickers to assist in employee evaluation and to set standards.

Q: Suppose I need a feature you don’t currently have? How much would it cost me to add it?

A: If the feature you need is one that would be useful to other customers, we will probably be willing to add it at a very modest price. If it is a feature that is probably only useful to you, we will prepare an estimate based on the amount of programming and implementation time that will be required to implement it.

“WHAT IF”

Q: What if my system cannot provide the slots or descriptions for the items on an order?

A: The NME picking system can be configured to provide slots and descriptions for items on imported orders even if they do not exist on the host system.

Q: What if my products aren't bar coded?

A: It is always desirable to scan the UPC codes or other bar codes of the actual products you are picking. A close alternative would be to scan the slot numbers. Doing so identifies that you are at the correct place. You would then scan the same slot number multiple times to indicate how many pieces you are going to pick. We agree that a 100% certainty you have picked the correct items does not exist; however, if you have put the correct items in the slot, you will get the correct items out of the slot (the caveat being of course, garbage in, garbage out).

Q: What if there are no slot or item bar codes for an item?

A: This situation could pose a serious problem, but just as with voice picking, a picker could enter some sort of check digit located only at the correct slot. Here, he could key in that same check digit (probably a slot number) to verify the items are at the correct location. This stopgap measure is slow and undesirable, but if a few items for which it is impossible to have a slot-number bar code exist, then this strategy will work.

One example of a group of items where this technique might prove useful is with pieces that have been picked from floor pallets, where it is hard to place a bar code. On the other hand, it certainly should be possible to place some kind of bar code on the boxes that contain the product. Alternatively, as some people have done, having a little metal bracket that fits under the pallet and stands up in the air with a slot number, presented at a 45-degree angle next to the pallet - for the specific purpose of verifying the location - works well.

Q: What if an order is cancelled while it is being picked?

A: An order can be deleted from the pick list at any time, even after picking has started. After deleting an order no more picks for that order will be shown to the picker. Picking can continue. Of course, if some items have already been picked for a deleted order, they would need to be returned to stock.

SPECIAL CONSIDERATIONS

Q: If the customer calls with a change request, can I change an order during picking?

A: One of the keys of the NME system is that a paper copy of the order is available and placed next to the box or tote on the cart. If it becomes necessary to change a line of the order, simply mark the line change needed on the paperwork (an add, delete, or actual change of item). Next, go to the slot, perform that operation without using the terminal, and then continue picking. We would suggest, however, that you might wish to double-check such orders upon completion, since these picks will not have been verified with the NME system.

Q: Can a picker take “shortcuts” to speed up his picking?

A: The only shortcuts that can be taken are those that are allowed by the system setup, as determined by company management. If the company does not have bar codes on all its products, it can elect to allow the pickers to use the slot number scan in place of a product scan. Beyond that, there is nothing in the picking sequence that can be changed. Every step must be executed accurately and in sequence or the picker will not be able to proceed beyond the current pick operation. So, generally speaking, there are no possible shortcuts.

Q: Suppose a picker is in the middle of picking an order and becomes ill or has to go to the restroom. What happens then?

A: Another picker can take the scanner and continue picking. Alternatively, the current status of the pick list can be saved and the pick list can be built on another scanner. The new pick list will only show the picks that remain so the picking can continue.

EQUIPMENT

Q: Why are your RF terminals so small? Don't you need a big battery to do eight hours or more of order picking?

A: The terminals are small, because they are more efficient than earlier models. Also, there is no need for eight hours of battery life. You can change the batteries every two to four hours. Meanwhile, the spare battery can be recharging so it is ready for reuse at the next battery change. Also, our RF terminals are small because we believe that the picker should have a small, lightweight device to carry, as the heavy devices tend to slow him down, cause him stress injuries, and force him to frequently put down the terminal, thereby creating extra motion.

Q: Suppose I want a more rugged and heavier terminal. What are my options and what will they cost?

A: The terminals we use are part of a family of terminals that range in price from as little as \$1,000 to many thousands of dollars. Within reason, the customer can choose from a range of terminals that we will implement into his system at no additional price. In other words, the customer has the choice of what he wants to do, based upon his exact needs and his environment.

Q: Does the scanner require use of a Stylus?

A: The basic and frequent operations do not require the use of a Stylus. Even quantities can be entered on the scanner using a finger.

Q: What about Hardware Service?

A: Every quotation includes a service contract from the scanner manufacturer. A call to an 800 number will provide hardware repair.

Q: Do you recommend any special type or size of pick cart?

A: The appropriate pick cart really depends upon the application. If you were picking jewelry and you wanted to pick four orders at a time, you might need only a small pick cart whose top was divided into four quadrants. If you were picking large orders, however, you might want to have a large-sized wheeled pick cart, perhaps with four 2' x 4' shelves to allow for picking of four large orders.

For very large orders, you might prefer to pick directly onto a pallet, with only one order in a batch, using NME for its 100% verification and accuracy features. In any case, if you do use pick carts, we recommend obtaining the highest quality wheels possible, ideally those with two of the four wheels locking in the forward position to make steering easier. A minimum wheel size should be considered to be 5"; however, 8" would be even better. If you contact Art Avery, he can recommend a cart that meets these specifications.

Q: Does NME work well with carton flow rack?

A: It is fine to use NME to pick out of a carton flow rack. Do not, however, use a conveyor. Remove all conveyors from the operation first to allow the pickers unfettered access. You must also decide about the pick path. If you have two rows of carton flow rack facing each other and if the rows are not too far apart, you may want to ultimately pick across the aisles.

If, on the other hand, the rows are far apart, you may want to pick down one side and back up the other (i.e., employ a “U” pick pattern). Determining the best way to pick with a carton flow rack is a warehouse design subject that you may want to refer to Avery & Associates for optimal layout of your operation.

Q: What is a “fishbone” layout and why do you recommend it so highly?

A: A “fishbone” layout consists of rows of shelving or rack that radiate out from a center aisle, rather like the bones on a fish. The goal is to place the highest moving items on the end near the aisle and the slowest moving items farther away from the main pick aisle. Once you’ve placed the items in this fashion, you then pass down the main pick aisle, only going into the “fishbone” aisles when you actually have to make a pick. By employing this strategy, you can pass many, many slots with relatively little walking involved.

This benefit makes a fishbone layout a highly efficient picking mechanism, especially if you are picking eight or sixteen orders in a single trip. One large drug company easily achieves pick rates of 400 lines per hour by using this method in its pick layout of 28,000 skews. If a prospect is seriously interested in the fishbone layout, a video demonstrating the efficiency of this picking method is available.

TECHNICAL CONCERNS

Q: I have a large pick area in my warehouse. Will I need an expensive RF system to cover the entire area?

A: In a typical warehouse management system, the RF radio transmission equipment alone may cost \$50,000 to \$100,000. The problem with a warehouse management system is that you have to keep in constant touch with the host computer, as you walk throughout the facility. Conversely, the NME system only requires contact with the host system when you are loading order information and when you are updating after completing the picking, typically at the order desk, and does not require contact throughout the warehouse.

In any case, newer versions of RF equipment have now become high-volume consumer items (WIFI) and a single transmitter may cost as little as \$50. As a result, multiple transmitters can now be scattered throughout a warehouse at a comparatively small cost.

Q: What if the RF network fails?

A: The RF network is required to build pick lists and update after picking. For that reason a spare access point should be provided. Most importantly, no work or data will be lost. Properly set-up wireless networks are quite reliable.

Q: What does it cost for software support and for the latest updates and “bug” fixes?

A: While users can feel free to purchase the system without anything beyond the 90 days of free support included in the original price, we suggest customers purchase an annual support option that will entitle them to fixes of any problems they may uncover during their use of the system. The annual support add-on also includes access to fixes and upgrades others may have requested or additional features we may have decided to add to the system since the purchase was made.

Q: What are the risks of corrupting my existing systems?

A: Very Low. We do not update information on your system, only import order information FROM your system.

Q: What about security?

A: Wireless networks can be set up with very high security using the WEP technology found in newer Access Points and scanners. Most network administrators know how to set this up and we can assist.

Q: How do we interface to your computer?

A: In order to build a pick list, the NME system needs to know the details of the orders. Depending on your system, this information may be either exported **by** your system or it may be possible for NME to reach in and import **from** your system. We can assist you in determining the best method to use.

In some cases, we may have already worked with a customer with the same system and will have a solution in place. We also have a standard import program in place if your system can export to a text or CSV file in a format we have defined. If neither of these is possible, a custom designed interface may be required.

We also ask that you include a bar-coded order number on your printed order or invoice. This request usually doesn't require any extra effort on your part because the same bar-coded order number is used by your shipping system (UPS or FedEx) to identify an order when you are ready to ship it.

COMPETING PICKING SYSTEMS

Q: How does No-More-Errors (NME) compare to voice picking?

A: Voice picking works best in an environment where preferably, a large number of cases are being picked, where the cases have no bar codes on them, or where conditions are very poor, such as in a freezer or in a poorly lit room. On one hand, the voice transaction is good in that it does not require a terminal to be in the picker's hands. However, it is bad in the sense that it is limited in its feedback capabilities of ensuring that the correct pick has been made. For example, with voice picking, you do not have the capability of scanning a bar code for 100% accuracy. (You could however, feed back a voice message with the last three digits of the slot number, or with the product ID code that may be at the slot).

Q: How does NME compare to a “pick-to-light” picking system?

A: A “pick-to-light” picking system has terminals at every picking slot. Each of these terminals costs at least \$100. Thus, if the warehouse has 1,000 slots, it needs 1,000 times \$100 in equipment cost (or \$100,000) to operate the pick-to-light picking system. There are, of course, companies that have extremely high volumes where this lofty price tag might be justified, but most are nowhere near that point. Therefore, price-wise, a pick-to-light system is unavailable to these lower volume customers.

Q: What about using a flow rack and picking with documents on a “pass-along” pick line? Doesn't everyone do it that way?

A: Years ago, the flow rack manufacturers had a good idea. People were predominantly picking high-moving items out of pallet racks, a tendency that required a lot of walking between items. The flow rack represented a significant reduction in labor and required little or no technology or changes in the order-processing systems, which were mostly based on mainframe order printing.

The problem with pass-along picking, however, is that one picker may push many orders through his workstation without performing any picks. Meanwhile, another picker may have many picks and take a long time to process one order. With this variation in picking requirements, balancing orders on the line becomes virtually impossible. As such, a flow-rack system is one whose time has passed.

Q: What is “scramble” picking?

A: “Scramble” picking is a variation on batch picking. With this picking method, a picker goes out and picks all the products for multiple orders in one single trip through the warehouse. He does not, however, sort by order as he picks the products. Rather, he brings the pieces back to a table, spreads them out, and re-picks the order from the pieces on the table. As he performs this picking, he is scrambling the items around in an attempt to locate the ones he needs for each order, thus the name. Scramble picking requires twice the work of our batch pick method, with no additional value.

Q: What about “put-to-light” picking?

A: “Put-to-light” picking is an interesting variation on scramble picking. With this picking method, the picker goes out and picks several orders of product into one large box and brings it back to a put-to-light system (which is essentially 16 cartons in a flow rack that sit in front of the picker). As the picker scans each item out of the big box, a light goes on in the flow rack above the carton where the item is to be placed.

The system keeps track of which pieces have been picked and which pieces have been “put” into the appropriate cartons. When the picker places the item into the carton, he hits a button that is located next to the light, thereby indicating that the pick has been completed. The only possible advantage of put-to-light picking would occur in situations where you have orders that are physically too large to be picked by NME. The bottom line is that put-to-light picking is a viable alternative on occasion, but it’s also very costly (just as pick-to-light is).