WIRELESS BARCODE SCANNER

ABOUT THE SCANNER

The scanner is a Datalogic PowerScan PM8300 Wireless Scanner. The following is a high level summary about the scanner and its integration into Producer.

It has a wireless range of 100ft from its base station giving it a 200ft diameter range. The scanners can be configured to work many different ways. The way it's programmed to work with Producer seems to provide very good battery life in my testing. I'd expect it will go a week or more in production between charges. It has a swappable battery pack. And recharging stations can be purchased to recharge the whole scanner, or just a battery pack.

The scanner can be reconfigured the same way our corded scanners are reconfigured, by scanning barcodes. In addition, it can be configured by software when it's docked in the base station cradle. Producer will automatically configure, misconfigured scanners if needed using this technique. But individual settings that are not vital to its integration with producer can be changed by scanning barcodes from the manual. The manual can be found here: \\lvfs01\PS\Producer\DataLogic\PowerScan 8300 Documentation.pdf

Some note worth settings to explore within the manual that are configurable are:

- Find Me feature
- Green dot on scan
- Damaged barcode puzzler
- Beep intensity

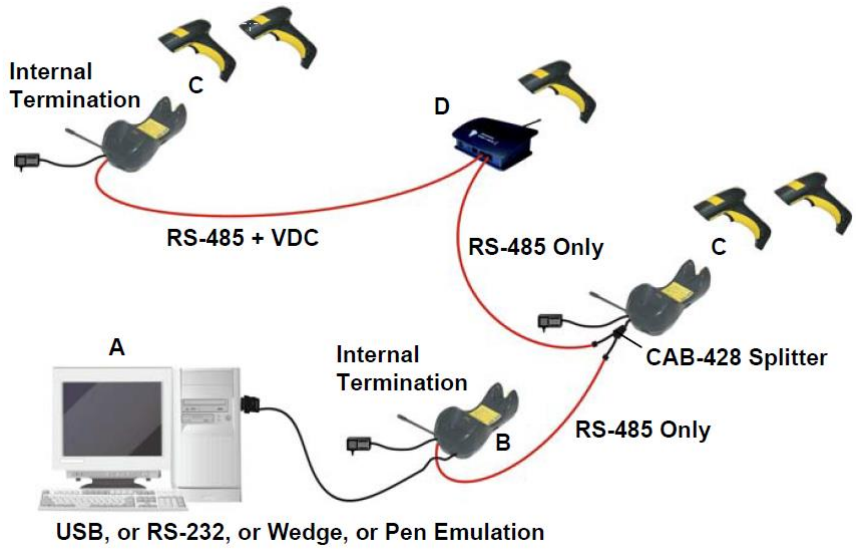
The scanners do not run any custom software within themselves. Instead they function as a terminal sending barcodes and key presses to Producer, and from producer, they receive text to display on its screen. Because of this, when there are updates to how the wireless scanners operate, all that is needed is to update producer on the machine that the wireless network is connected to and all scanners on the network will automatically be functioning with the latest code. How the communication between the scanner and producer works is that the scanner initiates a request, by either scanning a barcode, pressing an F-key or the yellow up arrow key, or by entering a number and pressing the enter key. The request is sent to producer and the scanner listens for a response for up to 10 seconds. After that the scanner turns off its radio and displays an error message if no response is received. This technique greatly extends battery life. Producer can then respond within 10 seconds with text to display on the screen, and it can also send beeps and flash red or green lights on the scanner. After a response is received, the radio turns off until a new request is made. Because of this technique, everything is driven from the barcode scanner. For example, Producer cannot reach out to a barcode scanner and update its screen unless the barcode scanner first initiates a request. In this way, it helps to think of the scanner as working much like a web browser in which the browser waits for a user to click on a link before downloading the next web page.

The logic as to where you are in a workflow or menu is stored, not within the scanner, but within producer. This allows the user to swap batteries on the scanner, or have the scanner wake up after being shut down from being idle too long, and it will pick up exactly where it left off. If producer is restarted, then producer will save the position all the barcode scanners where in and restore them to that position when producer is restarted. The scanners cannot function without communicating through producer.

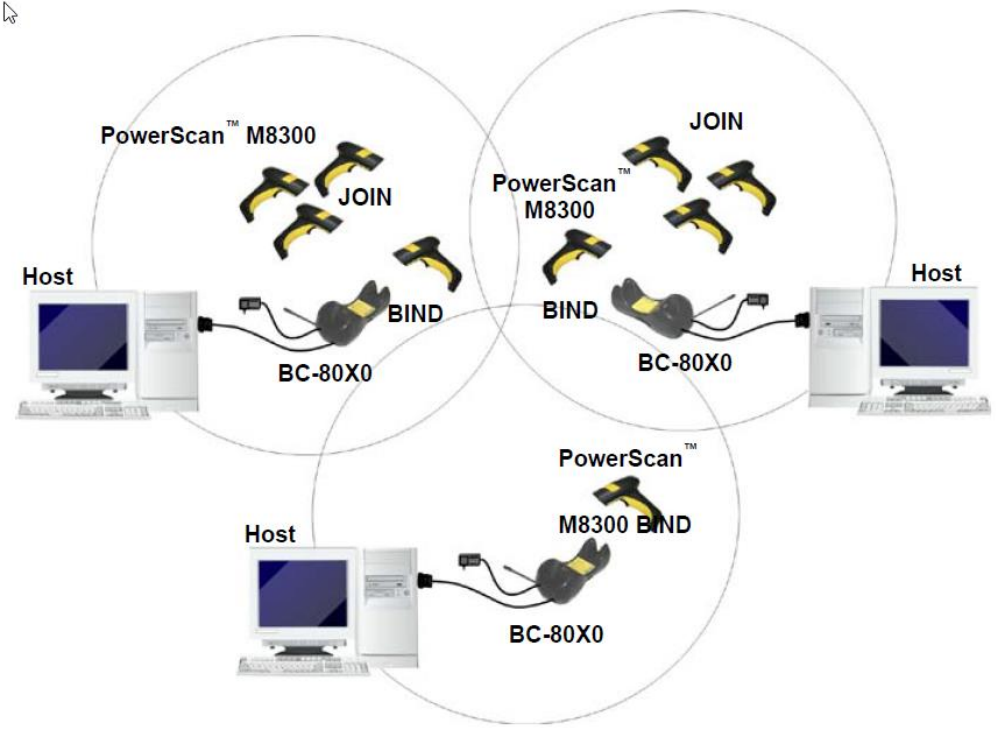
Multiple wireless scanner networks can be set up in the same environment. But a scanner must be paired to only one network at a time. An entire network is then connected to a single computer running producer. That producer then handles the requests for all scanners on the network. Producer is design to handle many scanners simultaneously, each with their own logged in user and workflow.

ABOUT THE WIRELESS SCANNER NETWORK

The scanner network can be setup and laid out many different ways. The intended layout for Production is one or more of the "BC-8060 Master Layout" configuration as described in the "PowerScan 8300 Documentation.pdf" page 22. (Section 3.2.2)



Another configuration that would work just fine is the "Multiple Sand-Alone layout" page 19. (Section 3.1.1)



Multiple Stand-alone Systems in the Same Area

It's anticipated to eventually arrive to either a single network for the whole facility, or a few area networks for each segmented area (for example having one network that serves receiving and another network that serves designs.) Either way, the networks can be reconfigured on the floor without tech help as all processes to join scanners to networks, configuring of scanners, and configuring of producers to serve a scanner network can all be done by production and are outlined in the document.

PURCHASING SCANNERS

There are a lot a different skus to purchase from datalogic. The link below shows them all.

http://www.datalogic.com/eng/products/automatic-data-capture/industrial-handhelds/powerscan-pm8300-pd-186.html *(click on the "Models & Accessories" tab)*

But there are only a few that are designed to work with Producer. The following are the skus that are of interest to us:

SCANNERS:

PM8300-DK910RB *(recommended)* the wireless scanner ~$650
PM8300-DK910 same wireless scanner, but without the removable battery
PM8300-DKAR910RB same scanner, but with auto-range. Meaning it can scan from many feet away. May be useful if you find something like scanning receiving boxes from a distance, without having to bend down, a requirement.

BASE STATIONS:

BC8060-910 *(recommended)* the cradle base station + recharging station. Handles up to 8 concurrent scanners. At least one of these are needed for each scanner network to connect the network to a computer host. 100ft radius coverage. ~$250
946101000 (recommended) a network extender. Up to 16 may be connected together within each scanner network. Handles up to 32 concurrent scanners. 100ft radius coverage. ~$300

ACCESSORIES:

RBP-PM80 Replacement battery ~$35
MC-P080 4-slot removable battery recharging station ~$150
CHR-PM80 whole scanner recharging station ~$150
PCD-P080 Belt Holster ~$30

Example: to have 5 scanners in their own network cover an area of 200ft x 400ft, the following might be purchased.

- 5 scanners (PM8300-DK910RB)
- 1 cradle (BC8060-910)
- 1 network extender (946101000)
- 1 4-port battery recharging station (MC-P080)

DOCUMENTATION AND DRIVERS

The primary location for Datalogic documentation and drivers for Louisville is below. This is the location to use to install cradle drivers on a Producer machine on the factory floor.

\\lvfs01\PS\Producer\DataLogic

There is also an alternate location for HQ which follows our normal archiving of software and driver practices here:

\\twfs01\software\DataLogic

“PowerScan 8300 Documentation.pdf” is the manual that describes the scanner and its many configuration of use. It is the main documentation I used to develop integration into producer. It contains all configuration barcode for the scanner too.

“USB-COM-x32.msi” & “USB-COM-x64.msi” are the USB drivers for the cradle base station (BC8060-910). When connecting a scanner network to producer, this driver will need to be install on producer to operate correctly.

“aladdin_setup_1.6.2.0.0_120214.0913_jre.exe” this is a tool to help configure a scanner using software. I did find this tool helpful during development, but have integrated configuring scanners directly into producer. So for normal use, this tool is not needed.

SETUP

Like producer itself, all management of scanners is intended to be performed by Production. The following outlines the basic things to know to setup or reconfigure any wireless scanner system.

SETUP A WIRELESS NETWORK

1 scanner, 1 base station cradle and 1 computer running producer is required to setup a wireless network. A single cradle (BC8060-910) can handle up to 8 scanners operating at the same time in a 100 ft radius. To extend the range of the network additional Stargate network extenders (946101000) can be daisy chained to the network. Scanners joined to the network will seamlessly roam between wireless stations. Alternatively, additional cradles could be used to extend the network as well, however, the advantage of using the Stargate is that they support 32 simultaneous scanners instead of only 8 from the cradle.

Please consult the "PowerScan 8300 Documentation.pdf" for setting up extended networks. As I haven't tested this myself.

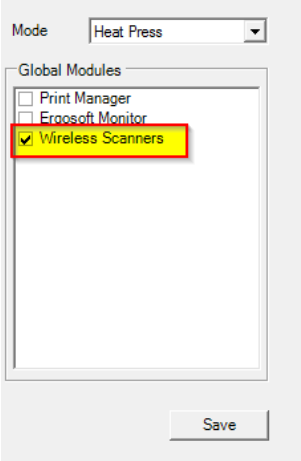
Once the physical network is setup, you will need to install the USB drivers on the producer that will be connected to the network before plugging in the USB. (\\lvfs01\PS\Producer\DataLogic\USB-COM-x64.msi)

SETUP PRODUCER ON THE NETWORK

To setup producer to respond to requests from the network do the following:

Insure the drivers are installed and the cradle is plugged into the computer
Install Producer (\\lvfs01\PS\Producer\setup.exe)
Login to producer with an admin account and check "Allow Admin Privileges"

On the configuration tab check the "Wireless Scanners" global module. Save, and restart Producer



You should now see a Wireless Scanner tab in Producer. If this is a new cradle you will need to allow Producer to reconfigure the cradle by going to the Wireless Scanner tab and clicking “Turn on Scanner Network”.

You should hear a series of beeps from the cradle as Producer checks its configuration. If anything is out of place, Producer will offer to reconfigure the cradle for you.

JOIN A SCANNER TO THE NETWORK

A scanner can only be on one network at a time. Joining a scanner to a new network will automatically prevent it from working on its old network.

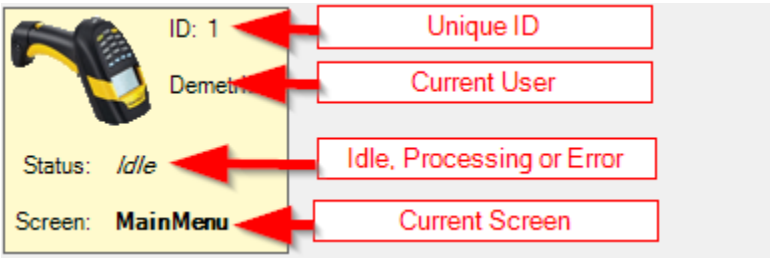
Login to producer with an admin account and check “Allow Admin Privileges”
Go to the “Wireless Scanners” tab
Place the Scanner in the Cradle
Click “Add or Reconfigure a Scanner”

You will hear a series of beeps from the scanner as its configuration is read. Adding a scanner to a network will also reconfigure the scanner to work on the network.

MANAGING SCANNERS IN PRODUCER

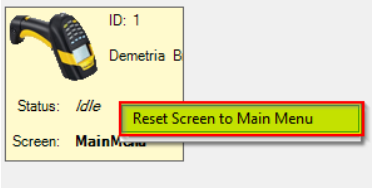
SCANNER TILE

Each scanner that has been added to the network has a tile that displays its current state



Producer keeps track of the workflow, state and user logged in on each barcode scanner and displays it on the tile. The tile is useful in troubleshoot a behavior of a workflow or request. A long running request will show a green tile, indicating that a process is still running on producer to fulfil a scanners request. Tiles in error status will turn red. Any error messages will be displayed in the log below. This is useful for troubleshooting for a developer. If a scanner is in a state that keeps getting errors, the tile can be used to reset all the scanner memory and restart at the main menu. To do this,

Right click the tile and select “Reset Screen to Main Menu” from the context menu.

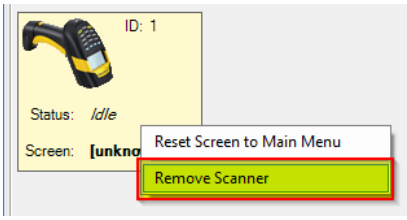


REMOVING SCANNERS

If a scanner has been moved to a new network, you will want to remove it from its old network.

Login to Producer with admin privileges

Right click the scanner block you want to remove and select “Remove” from the context menu.

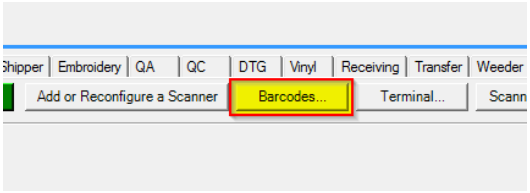


Note: this option only shows up if you are logged in with admin privileges.

PRODUCER BARCODES

Some scanner workflows allow remotely connecting to another producer. A report can be printed with Producer Barcodes. These barcodes can then be attached to a convenient place for scanning. (Probably on the monitor) To do this,

Login to Producer with admin privileges
Click the “Barcodes…” button

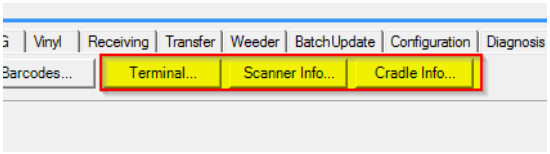


Note: the list only show’s producers that are currently running.

Note: this option only shows up if you are logged in with admin privileges.

TERMINAL, SCANNER & CRADLE INFO

These buttons appear when logged into producer with admin privileges, and are useful for troubleshooting.



One can see if a scanner is communicating on a network or not by viewing the terminal window. This window shows all communication over the wireless scanner network. The Scanner and Cradle info collect and display a human readable list of setting on the scanner or cradle. This is useful if a scanner or cradle do not seem to be functioning as expected. The data can be send to a developer for further investigation.

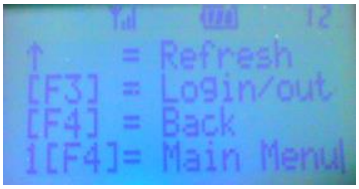
USING THE SCANNER

NAVIGATION

The following are the key assignments for the scanner:

In addition, key assignments can be found on the scanner itself by going to Sys/Help menu.

This can be done by pressing [F3][F3][1][F4][1][Enter][7][Enter]



The Navigation is design to work similar to a web browser and is centered on a refresh and back button. Pressing the refresh or back button is always a safe action. It will never trigger an event or action, but only ever refresh the screen you are on, or move backwards in history to the previous screen you were on. Whenever, the batteries are replaced, the device is first powered up, or hasn't been use in a while and you are unsure of what screen you may be on, pressing the refresh button will redraw the current screen, reassuring you of where you are in a workflow. It will never interrupt a current workflow in progress and so is a safe action. *(Example: if a workflow goes something like this, scan design, scan replacement reason, and you were to refresh the screen in the middle, that won't interrupt anything and is safe to do.)*

The scanner also remembers the history of menus and screens you have entered, pressing the back button will navigate to the previous screen. All workflow history is also retained through the back button. *(Example: if you were to scan a design, then the workflow expects you to scan a replacement reason, but instead you navigate to a new screen, when you press the back button you will return to the previous workflow where you left off, and the workflow will still be expecting you to scan a replacement reason.)*

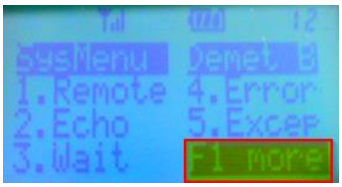
Pressing 1[F4] is a special command that drops you to the main menu and clears out any back history you had on the scanner. You can jump to the main menu using this command from any screen at any time.

MENUS

The scanner uses a menu system to navigate to various screens. Its main menu is the root menu for all other screens. Menus, and most screen, follow a consistant layout. They show in the upper left, the screen or menu name, in the upper right, the currently logged in user. The remaining 3 rows of text are used by the current

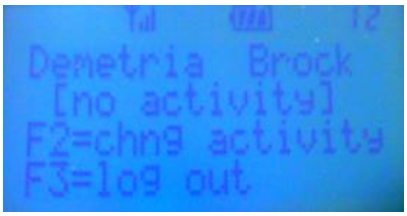
screen. In the case of a menu, they are the menu items to choose from.

Menus can be 1 or 2 columns wide and have the number to enter to select the item within the menu. To select an item enter the number and press the enter key. If a menu is longer that what can fit on the screen, the "[F1] more" notice will appear to let you know, you can press [F1] to cycle through your available options. The option does not have to appear on the screen in order to select it. if you already know the number of your option you can enter it any time on the menu.



LOGIN & SECURITY

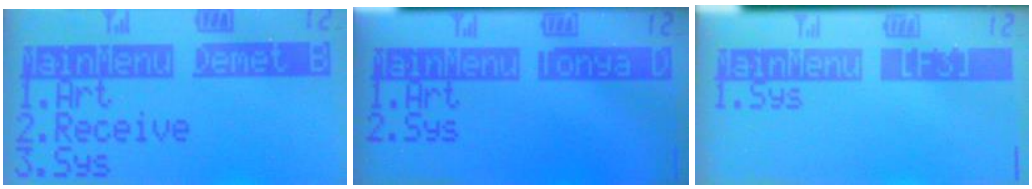
A user can log-in to a scanner at any time by scanning their badge. Doing so will automatically log-out the previously logged in user. A user may also elect to actively log-out of a scanner too. This is done by pressing the [F3] 2 times. The first time brings them to the login screen. The second time to log-out. There is no password required when logging into scanners.



[F3] to enter login screen. [F3] again to log out

Production user's access to screens on scanner are restricted by permissions. The permissions are the same roles that are used throughout Producer and the website. Additional roles have been added to the Production User management screen to support this. (http://www.prepsportswear.com/Printer/AddEditUser.aspx) These include "Print Operator", Design Replacement", "Ink Weeder" and others. These roles restrict access to screens on the scanner. It is anticipated that additional roles and more refined roles will be added over time as new screens for the scanner and new modules for Producer are developed. If a user in on a screen that they have permissions and either performs a log out, or another user logs in which doesn't have permissions to that screen, then the scanner will sound an error beep and drop to the main menu.

Menus are security sensitive as well and will only show items that the current user has permissions to access.



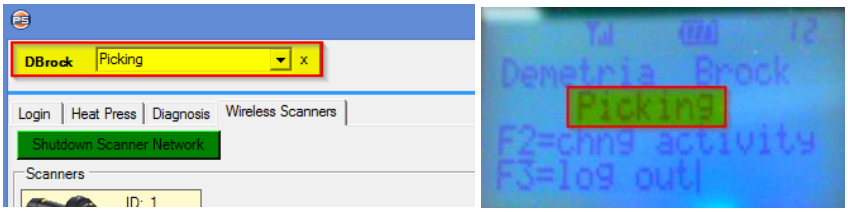
From the Man Menu, User 1 has access to Art & Receiving, User 2 to only Art, and if no one is logged in, only access to the System menu.

This is important to pay attention to, as when permissions change, the menu numbering to navigate those menus may change as well.

ACTIVITIES

The scanners are integrated with Activity tracking within Producer. From the scanner you can set your current activity at any time. There is also a feature called Evidence Base Activity Changing, which will automatically change your activity to match how you are using the scanner.

Once logged in, to change the activity, go to the login screen [F3]. And Press [F2] to change activity selecting one from the activity menu. Producer will then display the user and their current activity in the upper activity bar.



If there are 5 people on scanners connected to the same network with a set activity, then you will see those 5 users' activities in Producers activity bar. Changing or closing the activity from Producer also changes it on the scanner. In this way, they are linked.

EVIDENCE BASED ACTIVITY CHANGING

An activity may also be change automatically by the scanner when you perform an action that qualifies the change. This is called Evidence Based Activity Changing. There are 2 situations where this happens. First, is when I scan a barcode, or perform an action on a screen that is intended for a particular activity, then my activity will be automatically changed. *(Example: if my current activity is weeding, but I login to a scanner and go to the Print Operators screen to replace a design, and I begin the workflow by scanning a design to replace. Then at that moment, my activity will be automatically change to "Vinyl – Printing").*

Note: You're activity will never be change from simply navigating menus or entering a screen. It requires the initiation of a workflow within the screen to trigger the change.

The second situation is where a new user logs in, or the same user re-logs in while on a screen intended for a particular activity. *(Example: if my current activity is weeding, but I'm given a scanner that is already on the Print Operators screen to replace a design, and I scan by badge to login, then at that moment, my activity will be automatically changed to "Vinyl – Printing").*

Note: this also happens even if you are the one already logged into the scanner.

The situation this covers is for the sharing of scanners, or the ease of setting current activities. Let's say, for example, two people were sharing a scanner at ink weeding while they weed the same sheet. Let also say the scanner was on a ink weeding replacement screen which is associated to the "Weeding – Ink" activity. Finally, let say that both users just came from receiving and therefore had different activities. User 1 finds an error and grabs the scanner, scanning their badge, design, then issue type and lays the scanner down. User 1's activity would automatically be changed to "Weeding – Ink". Next User 2 find an error, grabs the same shared scanner and scans their badge, design, then issue type and lays the scanner down. User 2's activity would auto automatically be change to "Weeding – Ink". A situation for ease of activity setting would be that someone entering weeding may ask someone with a scanner, whom they know is already on a weeding screen, to quickly scan their badge, so that their activity may be changed automatically to weeding. The user would scan the person's badge, then scan back on their own badge and continue working. The person's activity is now changed.

Note: if the user doesn't have permissions for the current screen when scanning their badge, their activity will not be changed.

REMOTE CONTROL

The scanners have the ability to both function as a wireless scanner for any Producer on the floor, and, depending on the workflow, push information to a remote producer anywhere on the floor.

In order to use this feature, Producer barcodes need to be printed out and made available. *(See "Managing Scanners in Producer / Producer Barcodes" earlier in this document for instruction on how to do this)*

A user doesn't need to be logged into a scanner in order to use it as a wireless scanner for Producer. To do this, simply go to the Sys / Remote screen and scan the Producer barcode of the Producer you want to control. The scanner will now function exactly like a corded scanner connected to the computer, only with the freedom of wireless anywhere within its network. The existing corded barcode scanner attached to the computer will continue to function. If fact, any number of wireless scanners may be associated to the same producer. To exit, press the [Back] button and remote control feature will cease. The scanner will always remember the Producer you are bound to when you re-enter the remote screen. At any time, a new producer can be controlled by scanning a different Producer Barcode.

Note: even if you are logged into the scanner, it will have no impact on the producer you are remote controlling.

Another use for the remote control feature is within a workflow. For example, you may have a workflow that may allow showing something on a remote Producer out on the floor. This might be useful for displaying a product image or design, entering a note or other such things. An example of this is the Print Operators / View screen. This screen allows whatever design scanned to then be pushed to any remote Producer for viewing, so it can be verified, fixed, or replaced by the user.

CUSTOM WORKFLOWS

The scanner is design to be more context specific than Producer is. Each screen is designed for a particular task. And each task may have an optimal way to perform that task using the scanner. The optimal way to perform a task using the scanner is a workflow. The scanner framework is designed to be easily extensible by developers with additional custom workflows. It is hoped that Production will drive the future development of custom workflows to suit their needs. With that in mind it's useful to understand what is available at your disposal when devising a new custom workflow. Below is visual overview of organization and an outline of features that have been discuss in this document that may aid in designing future custom workflows.

INFRASTRUCTURE

- Production Floor
    - [Can have many] Wireless Networks
        - [Can have many] Wireless Scanners

SOFTWARE

- Main Menu
    - [Can contain many] [Nested] Sub Menus (menus are a type of screen)
        - Can show items based on permissions (roles)
    - [Can contain many] [Nested] Screens
        - Can inforce access via permissions (roles)
        - Can automatically set an activity
        - Can send information to any remote Producer
        - Can perform actions under the logged in users account
        - Can write anything back to its 4 line screen
        - Can Flash red or green, and Beep, good, attention alert, or error.
        - Can assign [F1] & [F2] keys for any use
        - Can create a multi-step workflow
            - Could remember any settings even after leaving the screen
            - Can inforce a particular order to scan barcodes
            - Can verify with the system before performing an action

CURRENT MENU

Below is the hierarch of the main menu with its associated roles, (required to access the screen) its evidence based activity and a short description of its function.

Menu / Screen	Roles	Activity	Description
Main Menu			
Art			
Replace	Design Replacement	Vinyl	Replace a design as catchup
Print			
Replace	Print Operator	Vinyl - Printing	Replace a design as replacement
View	Print Operator	Vinyl - Printing	Remotely view a design in Producer
Vinyl Weeding	Vinyl Weeder	Weeding - Vinyl	(awaiting feedback for implementation)
Ink Weeding	Ink Weeder	Weeding - Ink	Track start/stop of design and issue
Receiving			
Cages	Receiving		(awaiting feedback for implementation)
Artwork	Receiving		(awaiting feedback for implementation)
Note	Receiving		(awaiting feedback for implementation)
System			
Remote			Wireless Scanner for any Producer
Echo			Testing barcodes and wireless range
Wait			Testing timeouts
Error			Testing errors
Exception			Testing Exception
Roles	Anyone Logged in		View all roles of current User
Help			Display scanner key assignments

CURRENT WORKFLOWS

Below are the key workflow used by some of the scanner's screens

DESIGN REPLACEMENT

Used in screens: Art/Replace, Art/Print/Replace

Workflow Steps:

1. Scan Design
2. Scan Replacement Reason (or enter the number)

WEEDING START/STOP + REPLACEMENT

User in screens: Art/Ink Weeding

Workflow Steps:

WEEDING A DESIGN WITHOUT ERRORS

1. Scan Design (logs start of weeding for that design)
2. Weed the design
3. Scan the next Design (logs stop of weeding for previous design and start of next design)
4. If it's the last design on the sheet, scan the same design again (logs stop of weeding for that design)

WEEDING A DESIGN WITH ERRORS

1. Scan Design (logs start of weeding for that design)
2. Recognize error
3. Scan Replacement Reason (logs stop of weeding for that design)
4. If there is another design, Scan the next Design (Logs start of weeding for the next design)

Note: subsequent scanning of a design after it has already logged the start and stop previously will not update its start and stop. Basically, the first time its set, there is no way to change it. Subsequent scan will, however, allow replacements.

EXAMPLES DEMONSTRATING SCANNER BEHAVIOR

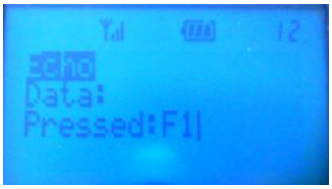
WIRELESS RANGE

Enter the Sys / Echo screen

This can be done by pressing [F3][F3][1][F4][1][Enter][2][Enter]

Then Press [F1]

You should see:



The data you see is a response from producer. You can now start walking further and further away from the wireless network while pressing the F1 key. The moment you fail to get this screen, and you get an "Rx / Tx FAILURE" message instead, you have exited the wireless range. This technique can be used to verify the range of your wireless network.

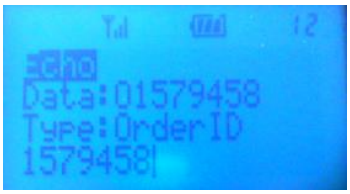
BARCODES, FUNCTION KEYS AND NUMBERS

ENTER THE SYS / ECHO SCREEN

This can be done by pressing [F3][F3][1][F4][1][Enter][2][Enter]

This screen echoes back any data sent. If it's a barcode, it also attempts to recognize the barcode.

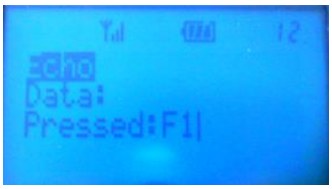
Scan a barcode, for example, an order Barcode. Doing so should display a screen like this:



The system should recognize it as an order ID type barcode. The system will recognize many different barcodes, including designs, sheets, badges, producers, weights, and UPS tacking numbers. If a barcode is not recognized then just the data is shown. The moment any barcode is scanned, it is immediately sent back to the server for processing.

PRESS THE [F1] KEY

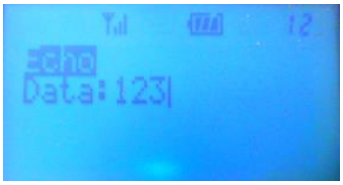
You should receive a screen like this:



Just like scanning a barcode, all the function keys, and the refresh key (yellow up arrow) send a request back to the server immediately after being pressed.

ENTER THE NUMBER 123 AND PRESS THE [ENTER] KEY

You should receive a screen like this:

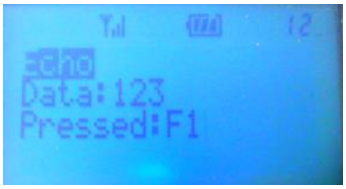


The enter key must be pressed to submit your number to the server. This is a different behavior from the Function keys or scanning a barcode.

Note: There is no backspace key to delete an incorrect number once entered. The way to fix this is instead of pressing the [Enter] key after you incorrect number, press the refresh key (yellow up arrow) instead. This will reload the screen without taking action and allow you to enter the number again.

ENTER THE NUMBER 123 AND PRESS THE [F1] KEY

You should receive a screen like this:



Instead of pressing the [Enter] key to submit your number, a Function key can be used instead. The scanner then recognizes both that the number entered was 123 and that is was submitted using the [F1] key. This technique is use in some workflows where a function key is assigned a action and then number entered represents the data sent to that action. An example of this is the special built-in command to drop to the root menu. This can be done at any time by pressing the 1+[F4] keys.

Note: this technique cannot be used with barcodes. If a number is entered, then a barcode is scanned, the number is discarded and only the barcode is sent as a request.

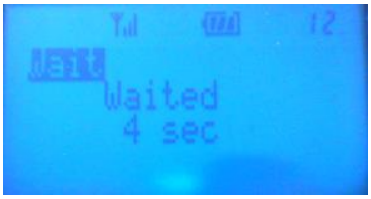
LONG RUNNING PROCESSES

ENTER THE SYS / WAIT SCREEN

This can be done by pressing [F3][F3][1][F4][1][Enter][3][Enter]

PRESS 4[ENTER]

After 4 seconds, you should receive a screen like this:



This screen will simply wait (or process) for the designated period of time before sending a response back to the scanner.

If the scanner doesn't receive a response after 10 seconds, you will receive the error message "Rx / Tx FAILURE" This always means something is wrong. However there may be times when a request takes longer than 10 seconds to finish processing. When this happens Producer sends a "Still Processing" message to the scanner. To avoid getting close to the 10 second window, Producer send the "Still Processing" message any time a process takes longer than 5 seconds.

PRESS 6[ENTER]

After 5 seconds, you should receive a screen like this:

PRESS [REFRESH] (YELLOW UP ARROW) KEY

The process finished in 6 seconds and the resulting screen was cached, waiting for you to press the [Refresh] key in order to receive the results.

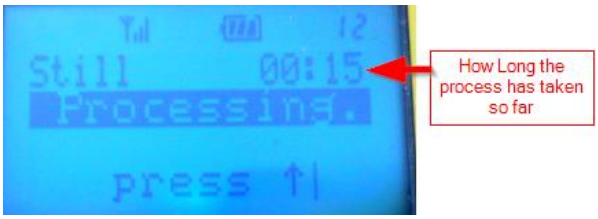
Let try it again. Only this time we want to focus on very long running processes

PRESS 30[ENTER]

After 5 seconds you should receive the "Still Processing" screen as before.

WAIT ABOUT 10 SECONDS AND PRESS [REFRESH] KEY

You should get the following screen:



NOW FOCUS YOUR ATTENTION ON THE SCANNERS TILE IN PRODUCER.

It should look something like this:

This indicates the process is still going. Wait until the tile turns yellow and the status is Idle again.

Notice how the scanner still has the “Still Processing” screen? The process is actually complete but the scan operator must press the [Refresh] key to receive the results.

PRESS THE [REFRESH] KEY

The screen will now show the results of the 30 second wait.

ERRORS AND EXCEPTIONS

ENTER THE SYS / ERROR SCREEN

This can be done by pressing [F3][F3][1][F4][1][Enter][4][Enter]

You should see a screen that looks like this:

This is a simulated error screen. Errors are handled mistakes that may have occurred by entering the wrong data in a workflow. There is an associated “Bad Beep” and a flash of a red LED that always attends receiving an error screen. Pressing the [Refresh] key always refreshes the page and allow to attempt your action again.

PRESS {REFRESH] KEY

In this case, the user is sent back to the menu screen to try again.

Examples of errors are things like, scanning an order barcode when a design barcode was expected. Entering an invalid number or invalid order ID.

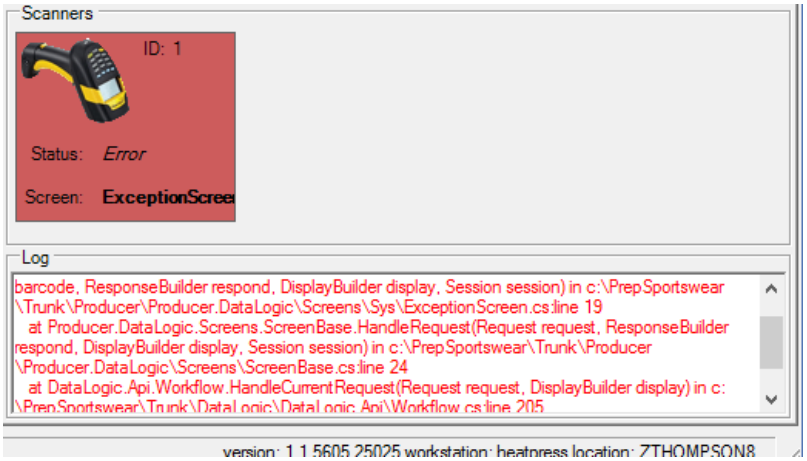
ENTER THE SYS / EXCEPTION SCREEN

This can be done by pressing [5][Enter]

You should see a screen that looks like this:

Exceptions are unexpected errors. They may be bugs in the workflow code or situation that the system doesn't know what to do. Exceptions also so an error screen but ususaly without an associated message.

Observe the scanners tile in producer. It should be red, indicating an unexpected error has occurred. Exceptions also leave an exception trace in the log of producer. This is useful for the developer in diagnosing the issue.



PRESS {REFRESH] KEY

Like handled errors, exceptions go back to the previous page after pressing the [Refresh] key. In the rare situation that the [Refresh] key creates another exception see "I CAN'T GET OUT OF THE ERROR SCREEN" in the troubleshooting section.

TROUBLESHOOTING

I'VE REPLACED THE BATTERY, OR IT'S TURNED ITSELF OFF, BUT NOW THE SCREEN IS BLANK

Press the refresh button (yellow up arrow). This should redraw the last screen you were on.

I CAN'T GET OUT OF THE ERROR SCREEN

First try dropping to the main menu by pressing 1[F4].

If this doesn't work, find the scanners tile in producer, right click and select "Reset Screen to Main Menu"

If there is a red exception in Producers log, email it to Tech.

THE SCANNER ALWAYS SAYS "RX / TX FAILURE"

This is a generic message indicating that either the scanner could not send a message to the wireless network, or the network hasn't sent a message at all, or within 10 seconds.

The following will troubleshoot the failure to find out exactly where the breakdown is.

Insure the cradle is powered on and plugged into the USB slot on the computer.
Insure Producer is running, the "Wireless Scanners" tab is showing and the network is on ("Shutdown Scanner Network" button is green)
Insure the scanner is within wireless range of the cradle
Insure that Producer is receiving the scanners request

The following are the steps to do this:

1. Login with admin privileges.
2. Click "Terminal…" button on the Wireless Scanners tab
3. Enter a number, or scan a barcode. *(Note: it must be a different number or barcode than what was used to generate the error)*
4. Observe a black message (message received) in the terminal

If no message is received, the scanner may not be joined to this network. Follow the steps outlined in "JOIN A SCANNER TO THE NETWORK" section of this document

Insure that Producer is sending a response message

The following are the steps to do this:

1. follow the steps above
2. Observe a blue message (message response) in the terminal

If no blue message is sent, then producer may be still processing the request or an error has occurred.

Observe the scanners tile status to see if it is still processing, or is in error status.

Insure that the Scanner is configured properly

To do this, re-add the scanner to the network by following the steps outlined in “JOIN A SCANNER TO THE NETWORK” section of this document

Insure that the Cradle is configured properly

To do this, stop and start the Scanner Network.