MAX Data Collection Monitor

User's Manual

www.maxtoolkit.com Revised: February 28, 2017 Version 2016

Publication Date

February 28, 2017

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Installation

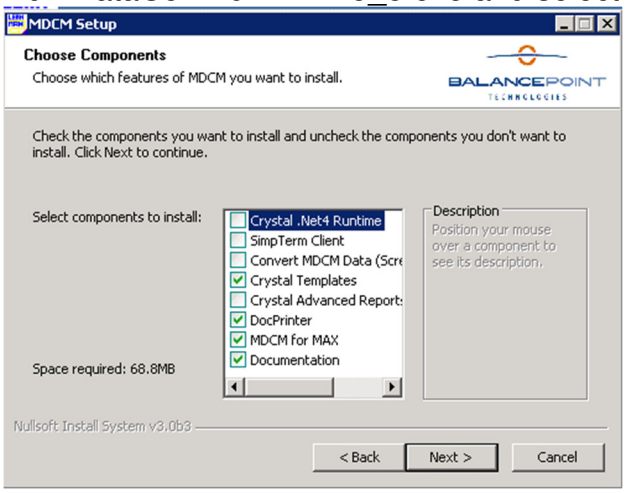
The MAX Data Collection Monitor requires Windows XP (sp3) or newer which is connected to a network using TCP/IP protocols.

Required:

1) The SQL server name has to be the same name used to create the license hash.
2) We need to have 2 DLL's copied from MAX client folder into the application folder. The application tries to copy them if missing or old but sometimes is prevented and they will need to be manually copied:
    a. C:\exact\rmclient\efw\ERMRemCl.dll
    b. C:\exact\rmclient\efw\ EXACTRMEnc.dll
3) Make sure the MAX client runs on same PC. If MAX has an issue the application will also.
4) Sometimes 2 MAX DLL's need to be registered:
    a. C:\exact\rmclient\efw\EXACTRMDEV.DLL
    b. C:\exact\rmclient\efw\MAXUPDATEXML.DLL
5) The user referenced in the Data Settings needs read access to the EXACTMAX database but does not need any further rights to individual company databases.
6) The application folder needs to have security rights for writing and deleting files for the user, including sub folders.
7) DotNet Framework version 4(Full) or newer

Installer:

Run DataCollv2014MAX5_5.exe and select desired components:



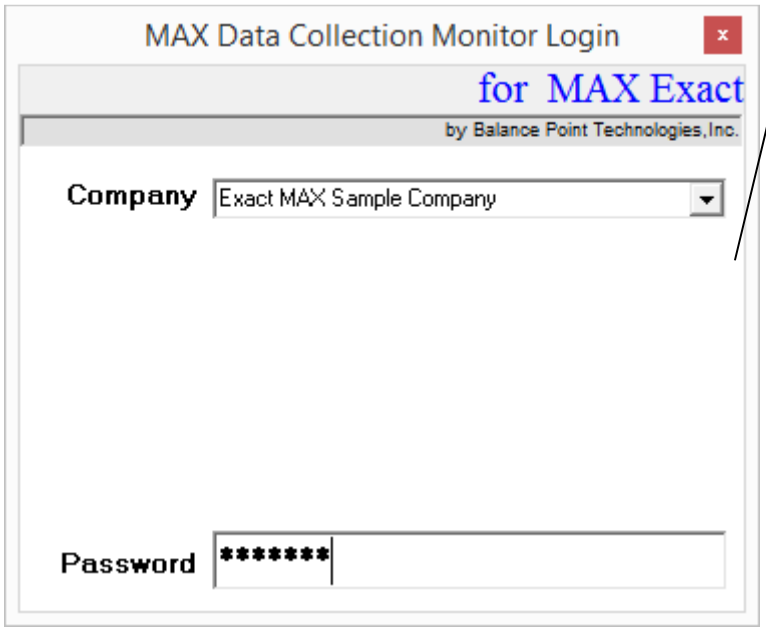
Based on the items checked the following folders will be installed:

Simpterm_Client	C:\Program Files (x86)\BalancePoint\MDCM\SimpTerm
Convert MDCM Data	Desktop Icon
Crystal Templates	C:\Program Files (x86)\BalancePoint\MDCM\Triggers
Crystal Advanced	C:\Program Files (x86)\BalancePoint\MDCM\AdvancedCrystals
DocPrinter	C:\Program Files (x86)\BalancePoint\MDCM\DocPrinter
MDCM	C:\Program Files (x86)\BalancePoint\MDCM
Documentation	C:\Program Files (x86)\BalancePoint\MDCM\Tools\Documentation

If this is a new installation run NewMDCMScreens.EXE to load your configuration. Select the same directory that you used to install the application.

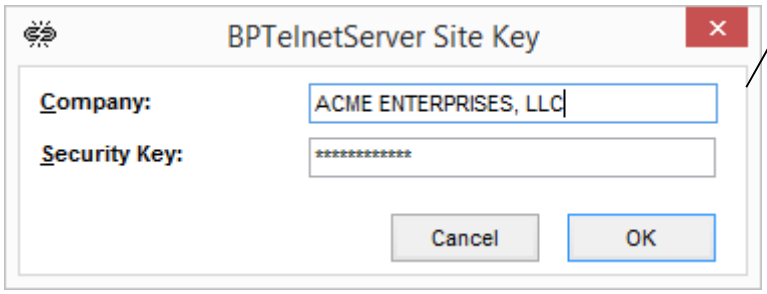
Execution:
Start the MAX Data Collection Monitor by executing MDCM.EXE. An Icon will be placed in the Programs Folder. The password can be entered on the command line. This will allow MDCM to auto-start. The format for the command line is: *MDCM PASSWORD*. Substitute your password.

Password:



1. Chose the Company form the drop down list.
2. The default password is **"CYCLONE"** and can be changed using the Administrator's Tools.

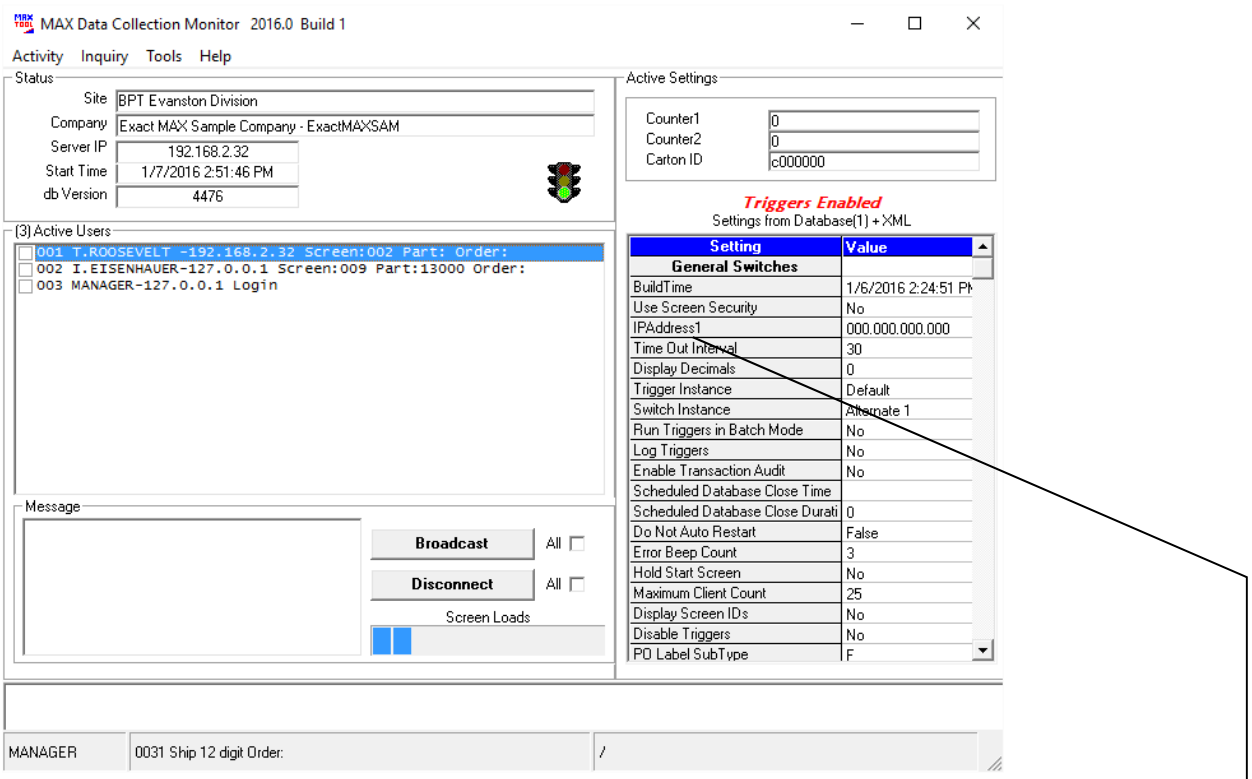
Site Key:



If the Site key has not been entered, this input form will appear. Please enter the Company name and Security Key that you have been provided.

Monitor:

When the MDCM program is running the Monitor will display a green light icon as seen below. While the light is green MDCM is listening for and processing requests from its clients. The Monitor will display the host IP address, which will be used by the clients to make a connection. The MDCM program does all the processing and the clients are Virtual Terminals without a need to connect to the database directly.



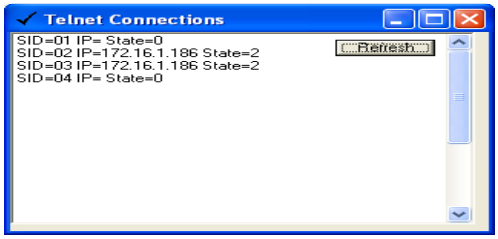
The monitor will display a list of active users in the box to the left and will show the current parameters settings to the right. The parameter settings are display only. They are maintained using the MDCM Tools.

Toolbar menu:

1. *Activity:*
   a) **Close MAX** – closes MAX data connection and closes all MAX functions.
   b) **Open MAX** – re-opens the MAX data connection and MAX functions.
   c) **Enable MAX Error Message Display** – primarily used to trouble shoot why a MAX transaction may not be responding. Changing this setting requires a refresh to take effect. When in affect any error messages coming from MAX will be displayed as a pop up message that requires a response. Normally this setting is off.
   d) **Start Logins** – if Logins have been stopped this will allow them.
   e) **Stop Logins** - this setting will prevent any new logins, but will honor any that are currently active.

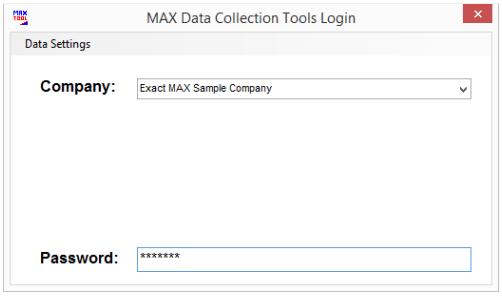
2. *Inquiry:*

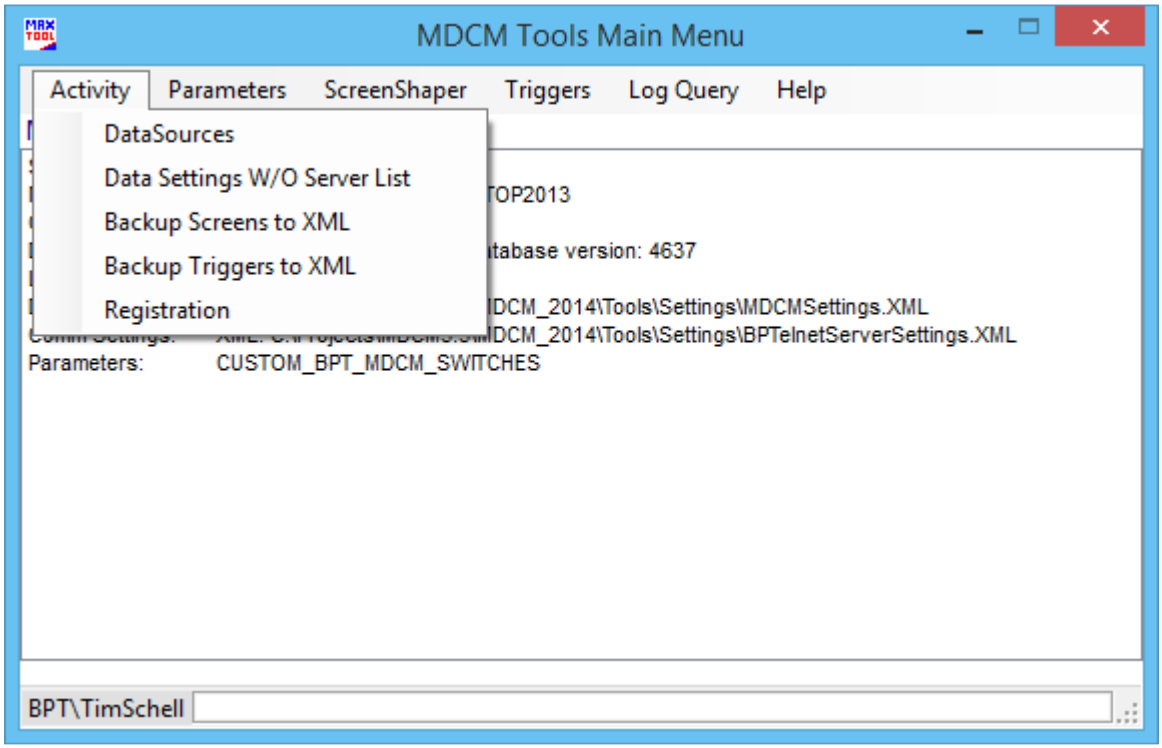
Connections – this function show details of current and recent connections.



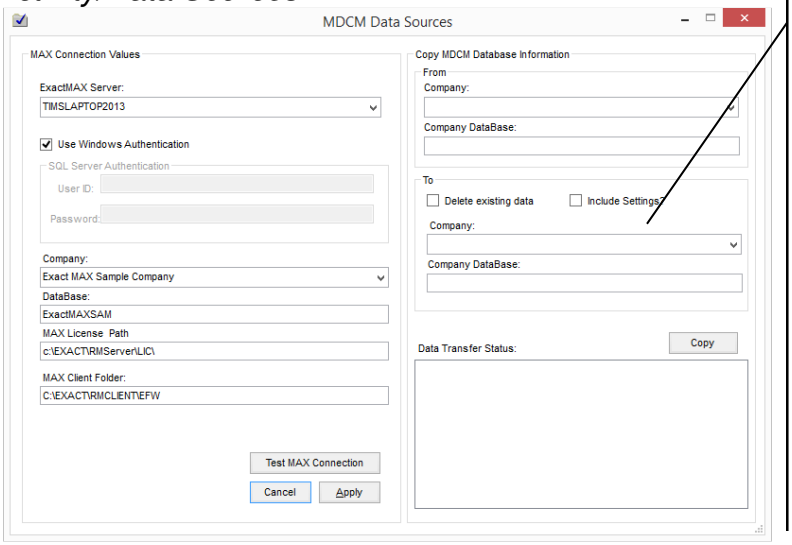
Tools:

The MDCMTools application is used to maintain screens, parameters, triggers and data paths used by the MAX Data Collection Monitor.





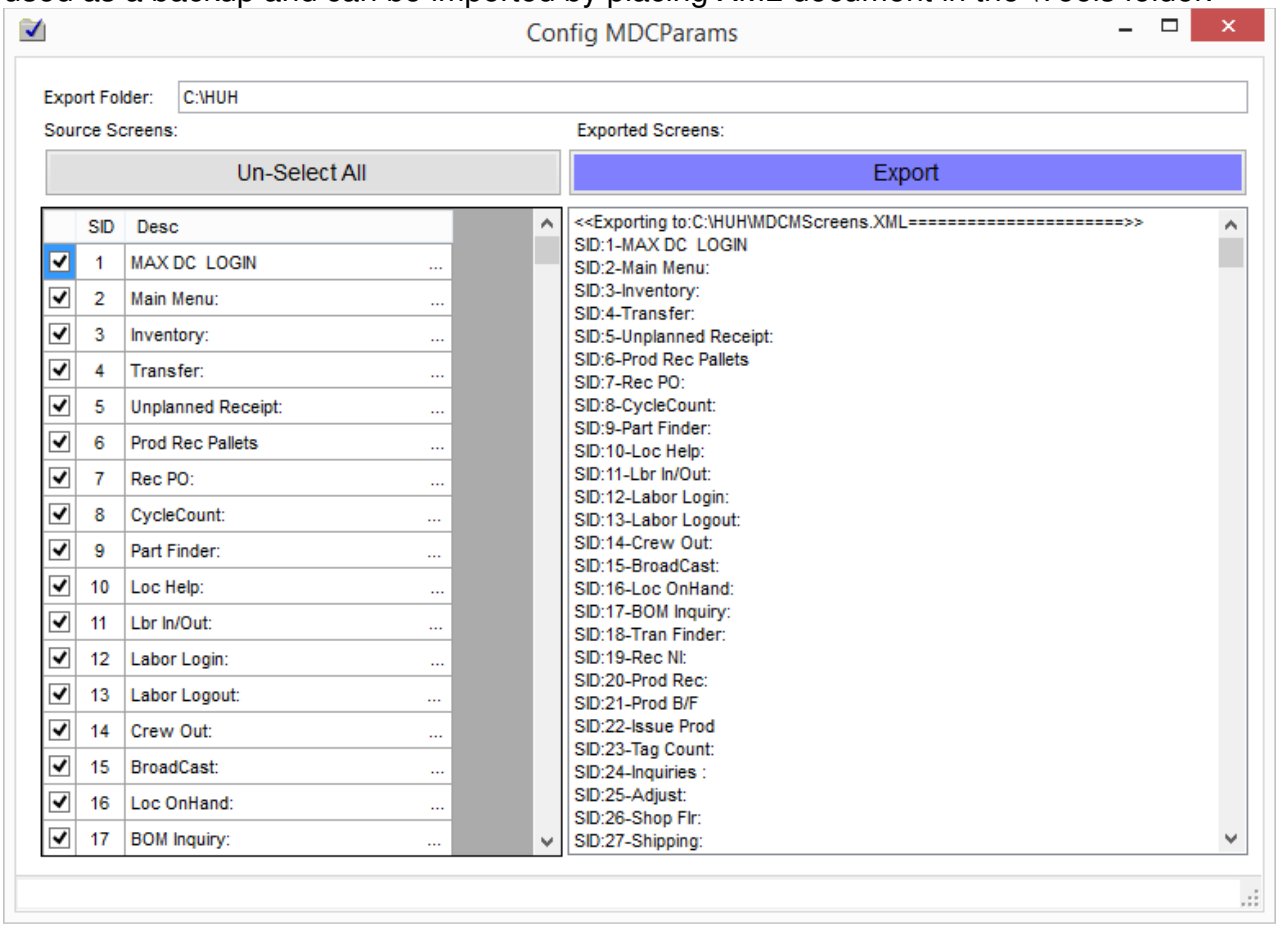
Activity/Data Sources:



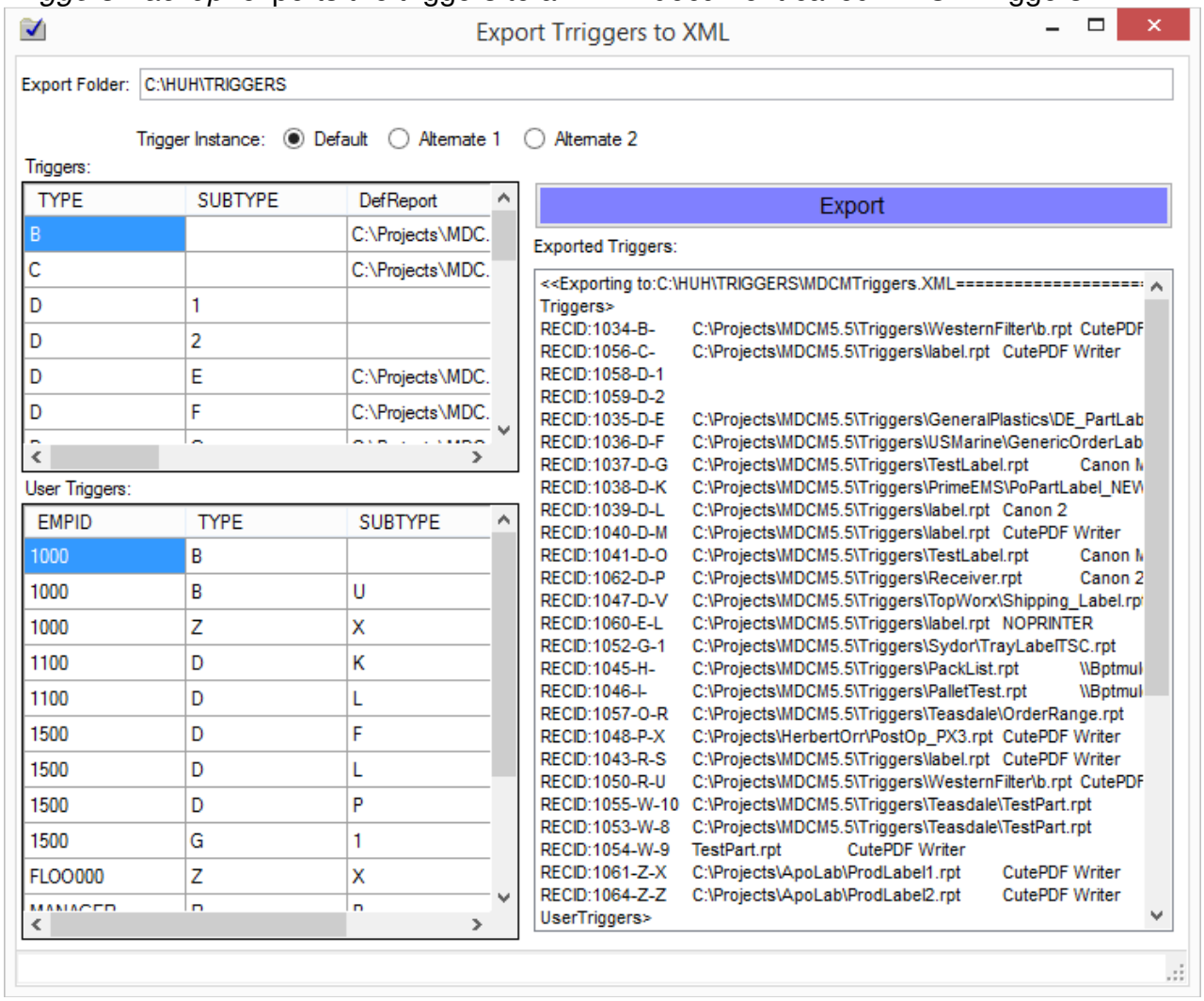
1. MAX Server with ExactMAX Database
   a. Windows Security
      Or
   b. Server User
   c. Server Password
2. Company
3. Database (display only)
4. MAX License Path

Copy MDCM Data to Another Company: the screens and triggers along with several work tables used by MDCM reside in the MAX company database. These tables can be copied from one database to another by selecting the source and destination companies.

Screens BackUp: exports the screens to XML document (MDCMScreens.XML) which can used as a backup and can be imported by placing XML document in the \Tools folder.



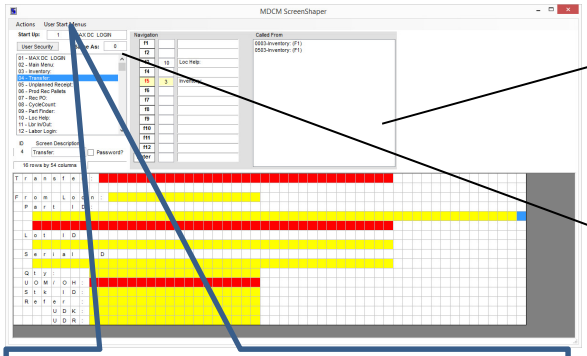
Triggers Backup: exports the triggers to an XML document called MDCMTriggers.XML



Parameters:

ScreenShaper:

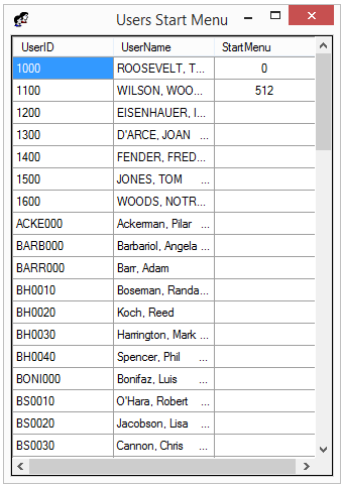
The monitor compiles the active forms when it starts. Each form has a corresponding ID, which defines its properties. Use this utility to designate a start-up screen whether the screen requires a password, and to maintain navigational flow by assigning a screen to a function key. This utility makes it easy to initially set-up a menu structure and to make changes as needs evolve. "Enter" is used by the startup routine to determine which screen will be loaded once.



Screen navigation is defined in the CUSTOM_BPT_MDCM_SCREENS table in the MAX database.

Enter the screen ID next to the corresponding Function Key identifier. The selected screen description will display to the right of the ID. To delete an entry use zero as the screen ID.

Same As – enter a valid screen number here, which a new screen will use as a processing model. For example save screen #4 as #506 and enter 4 in the "Same As" to create a new Transfer screen, which can have different size, labeling, navigation and security.
Note: save new screens in the 500 – 599 range to avoid conflicts with production screens.



Start menu screens can be assigned by User. This screen will be the first screen after the user has successfully logged in.

ScreenShaper: use this utility to format the screens. Each screen contains a fixed number of input fields, which are displayed in a fixed sequence. Users can change labels and field attributes. Re-arranging of fields is allowable as long as the sequence on the screen does not change (left to right, top to bottom.)

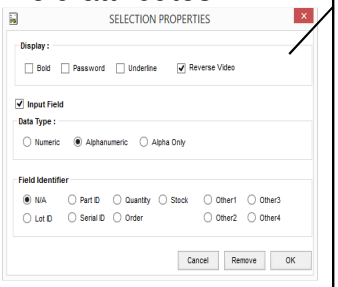
Fields can be hidden by first removing and then adding back with a length of 1 and no display attributes turned on.

Password checked means that the user has to enter the system password before being able to use the screen.

Adding and Modifying Fields:

1. Adding: highlight the cells with the cursor and hit Control “E” to add.
2. Modifying: double click on the existing field to display the field properties dialogue.
3. Field lengths can be changed by first removing the field and then highlighting cells to the required length and adding the field back.

Field attributes**:**



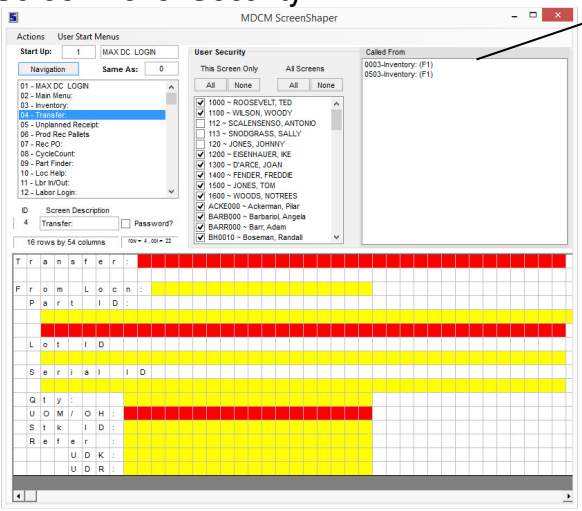
Field Attributes: fields are maintained by double clicking on the highlighted field. Some fields may be labels only and others are for entering data.

Fields that are display only as well as entry fields must be designated as Input so that their values can be set or recognized. Do not remove this attribute from existing fields.

The Data Type attribute can be used to filter input characters.

Field identifiers can be used to specify a prefix to look for scanning this field. Prefixes can be entered on the Hardware Parameters tab. This can be used for AIAG compliant labels with prefixes in the bar codes.

Screen Level Security:



User Security: this function allows you to designate which users have access to each screen. A user is given access to the current screen by clicking on the check box to the left of the EmpID.

Global Setting – by Screen
Rights can be granted or removed for all users to the current screen.

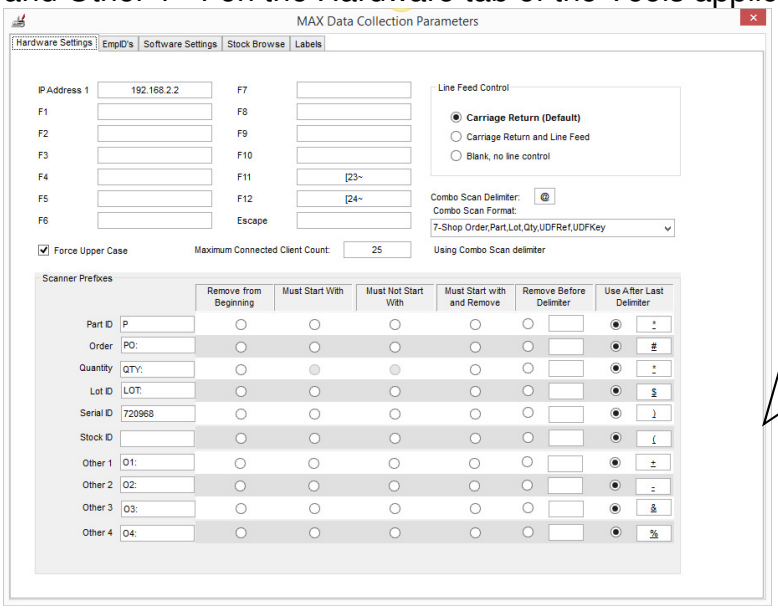
Global Setting – all Screens
Rights can be granted or revoked for all screens to all users.

Note: this feature requires the “User Screen Security” option to be selected with a check on the Parameters - Software Settings tab.

Changing Screens: generally input fields need to be present in the original sequence. Screens can be resized and fields moved or modified as long as the original sequence top to bottom left to right is maintained. To move or resize a field, first remove it by placing the cursor on a cell belonging to the field and double clicking to display the attributes form. Click on the “Remove” button. Then highlight the cells for the new location and length and click Control E to set the field attributes.

Note: Screens in the 500 – 599 range can be added as internal menus for breaking groups of screens by function. This same range of screens can be used for creating clones of existing screens by designating their function using the “same as” ID.

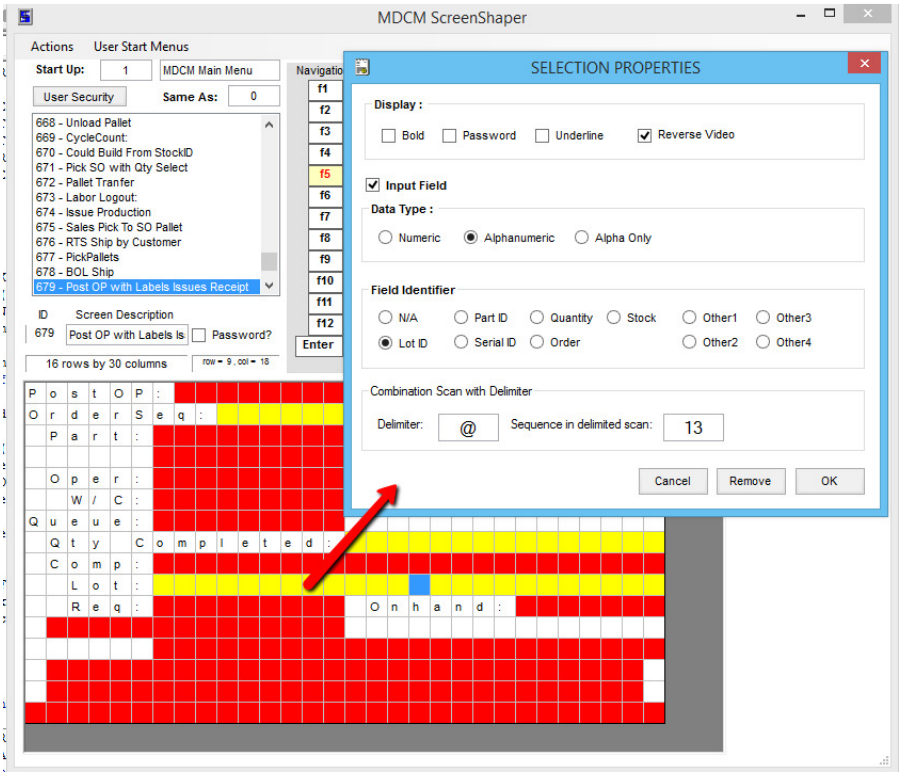
Bar Code Prefixes: can be entered for Part ID, Purchase Order, Quantity, Lot ID, Serial and Other 1 -4 on the Hardware tab of the Tools application.



The bar code rules can be used to code bar codes to minimize scanning bar codes for parts, orders, lots etc. which may be similar.

The rules allow the bar codes to contain characters which get removed or must be present.

ScreenShaper: on each screen which requires the prefix processing, designate the specific fields and the prefix to look for, by double clicking and entering the appropriate Field Identifier.



If the expected input is made up of several delimited fields the combination scan entries can be used to identify the delimiter and the sequence of the required field.

A combination of prefix and mixed content bar codes can be processed on any screen using the Prefix rules established on the MDCM Hardware tab in combination with individual screen settings.

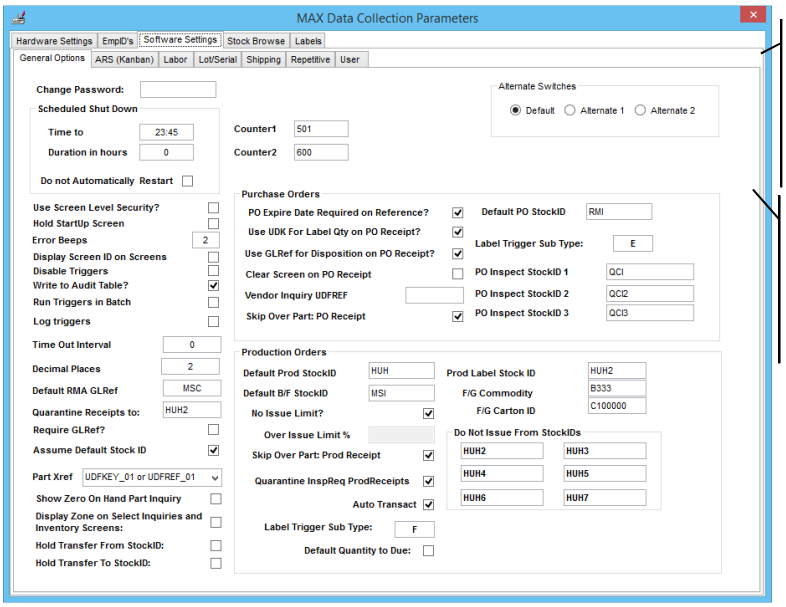
Adding scanner prefix rules alone doesn't have any affect. To activate the particular rule for Part, Order, Lot etc. the rule has to be assigned to a field using ScreenShaper. To invoke the Part rule, select "Part ID" from the "Field Identifier" options for the field (double click on the field, to display the options).

If both a Prefix and a mixed content bar code is used the prefix will be removed based on the rules after it has been parsed from the scanned bar code using the designated delimiter and position in the array of input elements.

Combo Scan Format and Delimiter:
The idea behind these predefined formats is to provide a simple indicator that can be used to input a mix of data elements with one scan. Not all fields and screens have logic to parse the scanned input using these rules but in most cases can be added if needed.

Software Settings:

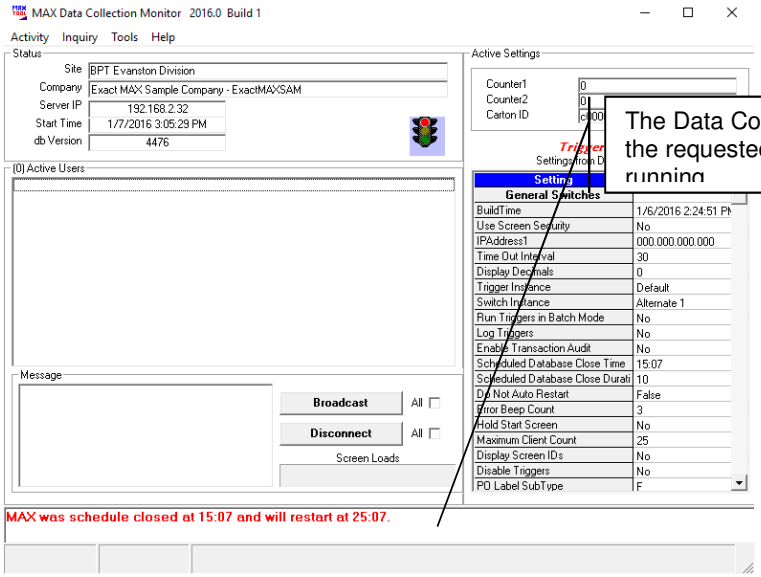
Company specific settings are maintained by clicking on the Parameters tab of MDCM Tools:



The Software Settings Tab is used to enter user-defined parameters, which will be used for custom functions and settings, which affect how MDCM will run.

To allow multiple instances of MDCM with different switch values the alternate switch settings are saved in an XML document which is saved within the installation folder.

1) Change Password: enter a new password and re-enter when prompted to change the master password. The default password is 'CYCLONE".
2) Counter1 and Counter2 - are used for custom functions to set unique ID's (e.g. Receipts)
3) Scheduled Shutdown – used to specify a time for an automatic shutdown and re-start:
    a. Time to Close – specify when to start to shutdown ("HH:MM", 24 hour clock)
    b. Duration in Hours – specify how many hours in decimals (e.g. 3 ¼ = 3.25)
    c. Auto Restart: if running MDCM as a service check this option and use the service mechanism to restart



The Data Collection Monitor will remain idle for the requested time period each day that it is running

4) User Screen Security - toggle this switch on to activate user screen security. This will allow setting rights by EmpID to each screen. See the ScreenShaper utility for setting the individual rights.
5) Hold Start Up Screen - if checked the monitor will not disconnect a client when the startup screen sits idle for five minutes.
6) Error Beeps – set the number of beeps to sound when an error occurs.
7) Display Screen IDs on Screen – displays the Screen ID with the name in upper right hand corner of screens.
8) Disable Triggers - prevent Trigger processing
9) Write to Audit - this option will cause an audit of transactions to be written to CUSTOM_BPT_MDCM_TGATEDET.
10) Run Triggers in Batch - set this switch on if you want to run Trigger processing on another machine in order to separate label/document processing from data collection for better performance. ***This option will require installing the lblMDCM application, which is available as a download from the support site.***
11) Time Out Interval: enter the number of minutes that an operator can remain idle before being logged out. *An entry of zero here will disable the Time Out interval.*
12) Decimal places - enter the number of decimal places to display (0,1,2) on Inquiries. The default is 0.
13) Default RMA GL Ref – used with RMA adjustment.
14) Quarantine Receipts To: if you want receipts to this stock ID to be put into quarantine, enter a valid stock ID, otherwise leave blank.
15) Require GL Ref entry for Unplanned Issues, Receipts, Indirect Labor.
16) Assume default stock ID for inventory transactions
17) Part Xref - this setting will determine if PRTNUM_01 or UDFKEY_01 will be used to look up and/or verify a Part.
18) Show Zero On Hand Part Inquiry - check to display zero on hand parts
19) Display zone on Inquiries – if checked both the Part and Stock On Hand will display the current Location from the Part Stock record. The standard Transfer, Production Receipt and PO Receipt screens will also accept the Location as an input field.

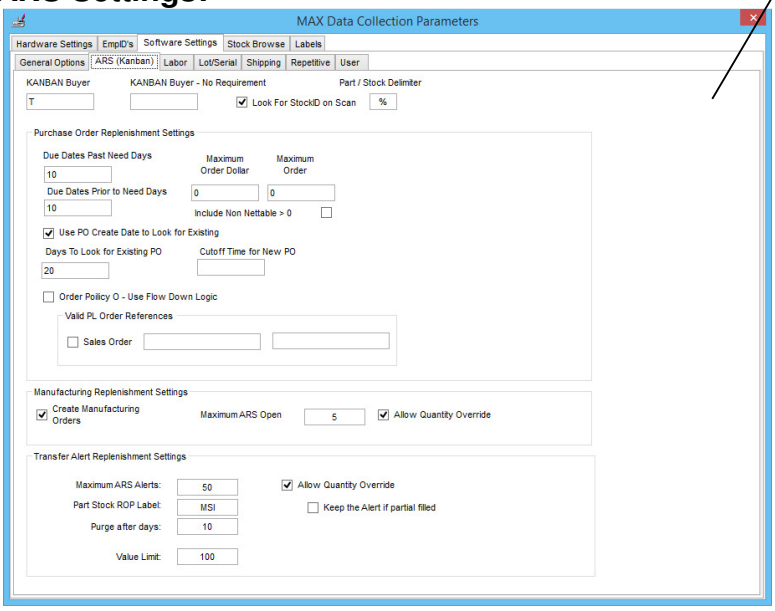
Purchase Orders:

1. PO Exp Date - use the reference on the PO receipt screen to update a Lot Expiration date
2. Default PO StockID - will default stockID for PO Receipts unless Inspection Required is turned on.
3. PO Receipt UDKEY or Labels – check on to use the default field UDFKEY as a label count request field, triggering D + F labels.
4. Use GLRef field as disposition
5. Clear Screen on PO Receipt - if checked the screen will clear after processing a receipt. If unchecked, the PO will be retained for the next scan.
6. Vendor Inquiry UDFREF - 3rd Party Vendor Inquiry Authorized
7. Skip Part: PO Receipt - will cause cursor to skip over part field on Standard PO Receipt.
8. PO Inspect Stock ID 1 - This setting will default Purchase Order Receipts to the entered stock ID if an inspection is required. 2 and 3 are used for custom functions
9. Label Trigger Sub Type – default is “F”

Production Orders

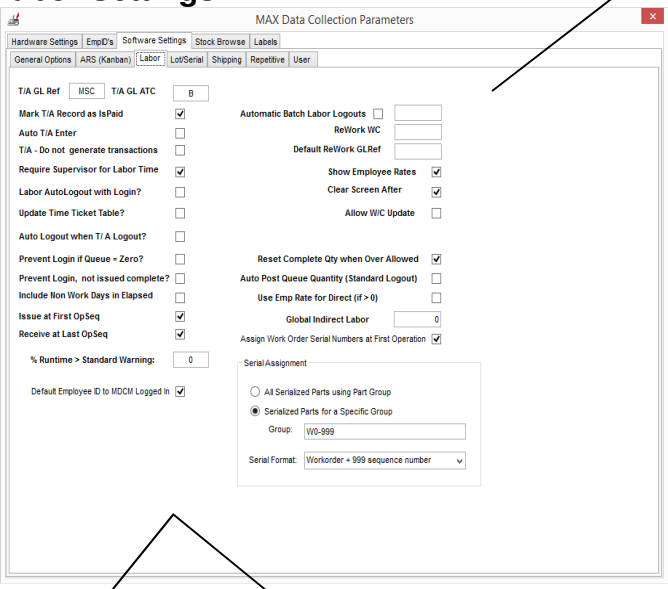
1) Default Prod Stock ID - use this entry to enter a default receive to stock ID for production receipts. If this entry is blank the order's deliver-to stock ID will be defaulted (default comes from part)
2) Default B/F Stock ID - is used as a default Issued-From Stock ID for Back Flush
3) Skip Part: Prod Receipt – will cause cursor to skip over part on Standard Production Receipts Screens (with and without back flush.)
4) No Issue Limit or select a percentage for allowable Issue over requirements
5) Quarantine Inspection required lot controlled receipts
6) Prod Label Stock ID - If you want production labels to print only when received into this location enter a valid stock ID otherwise leave blank.
7) F/G Commodity Code – beginning characters of the commodity code, which designates a purchased item as Finished Goods. Used by the Purchase Order with labels function to print labels for these items when they are received.
8) F/G Carton ID - this parameter is used to show the next Carton ID used for the labels printed during PO Receipts with labels.
9) Option to process transactions without requiring F1
10) Do not Issue from stock ID's. Use % as a wildcard for starts with.
11) Label Trigger Sub Type – default is "E"

ARS Settings:



1. **Buyer Code**: set the partial or significant portion of the Buyer code to designate a valid Kanban ARS part.
2. **Buyer Code No Requirements Check:** no net check
3. **Due Days Past Need**: use to match for an existing PO not due past the days entered.
4. **Due Days Prior Need**: match to existing PO not due prior to days entered.
5. **Use PO Create Date for Existing PO** – add a line to an existing PO based on order create date.
    a. **Days** – how many days back to look
    b. **Time -** a daily cutoff, after which a new PO is created.
6. Scan can include a Stock location after the part separated by the delimiter.
7. Create Mfg Orders
8. Maximum Mfg Orders Open
9. Allow Mfg Quantity Override
10. Maximum Transfer Alerts
11. Allow Alert Qty Override
12. Label for Part Stock ROP (e.g. bin size)

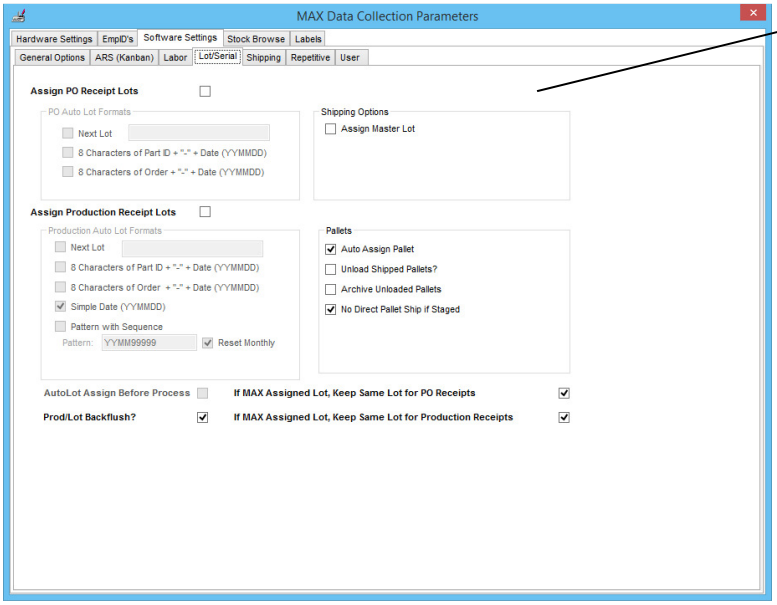
Labor Settings:



If the complete quantity is changed and processed within the standard labor logout screens a D + Q trigger is generated which can be printed and/or emailed as a notification.

1) T/A GL Ref and ATC (Account Type Code) used by the Time and Attendance function to assign account.
2) T&A records: ISPAID_43 value (Y or N)
3) Auto T & A Enter – if checked the T&A Screen will Login/Logout automatically when the employee ID is entered without hitting F1.
4) Require Supervisor password for labor time change? When this is checked the cursor will skip over the time fields unless the supervisor password has been entered.
5) Do not generate T & A transaction (Indirect type 'D')
6) Labor Auto Logout with Login?– if this option is checked Logging in to an operation or indirect activity will log the individual out of all current activity otherwise if their Employee Master Privilege in set to "M" for multiple they will remain logged in to prior activities.
7) Update Time Tickets – if you are using Labor Tracking and you want to save data in the MAX Time Ticket tables then check this toggle switch on.
8) Auto Logout when T/A Logout? – will log out all open activity for an employee, when using the T & A Logout function.
9) Prevent Logins when the Queue Quantity = zero.
10) Prevent Logins if not issued complete
11) Include Non Work days in elapsed calculation. Default is off.
12) Issue material at first operation
13) Receive at last operation
14) Trigger a warning (D + o) if over standard run time by specified percentage.
15) Batch Labor Logout – everyone logged in will be logged out at the specified time
16) Rework work center – used to generate rework operation
17) Default rework GL Reference
18) Show Employee Rates –hide rates on EmpID tab.
19) Clear Screen After Login - clears the order, and sequence after login.
20) Allow W/C Update - allow the Work Center to be changed during Login.
21) Allow all Work Centers. If selected Work Centers, there must be "**" as first two characters of UDFREF_13 (SFC WORK CENTER Table)
22) Reset Complete Qty- resets complete quantity when over allowed quantity with warning.
23) Auto Post Queue Quantity – will assume full quantity to be posted
24) Use Employee Rate for Direct - the employee rate from the employee master will be used for direct labor rather than the work center rate if the employee rate is greater than 0.
25) Global Rate for Indirect Labor – used if Employee Rate is 0.
26) Assign serial numbers at first operation. Option to create the serial master records if the part is serialized, uses part group and does not have serial numbers auto-assigned.
    a. All part groups?
    b. Specific part group
    c. Format:
        i. Use Part Group template
        ii. Use other format

Lot and Serial Control:



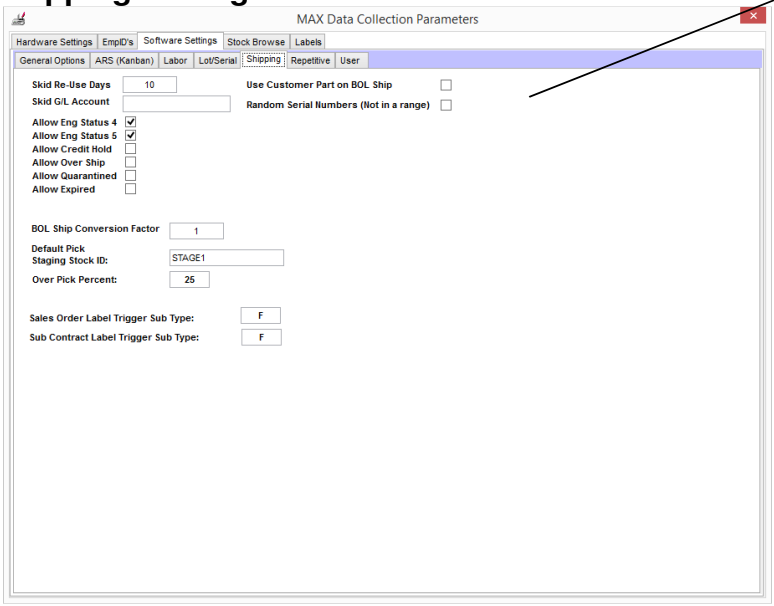
1) PO Auto Lot - optional auto-lot generation for Purchase Receipts
2) Prod Auto Lot - optional auto-lot generation for Production Receipts
3) AutoLot Assign Before Process - will assign the next lot when the order number is entered, rather than when processed.

The optional fixed PO or Production Lot formats can also be selected.

4) Shipping: Assign Master Lot to Lot Shipments (Requires Setup Next Lot):
    a. Part Master Ext: MasterLot
    b. Customer_Part_Data: UDFREF_103

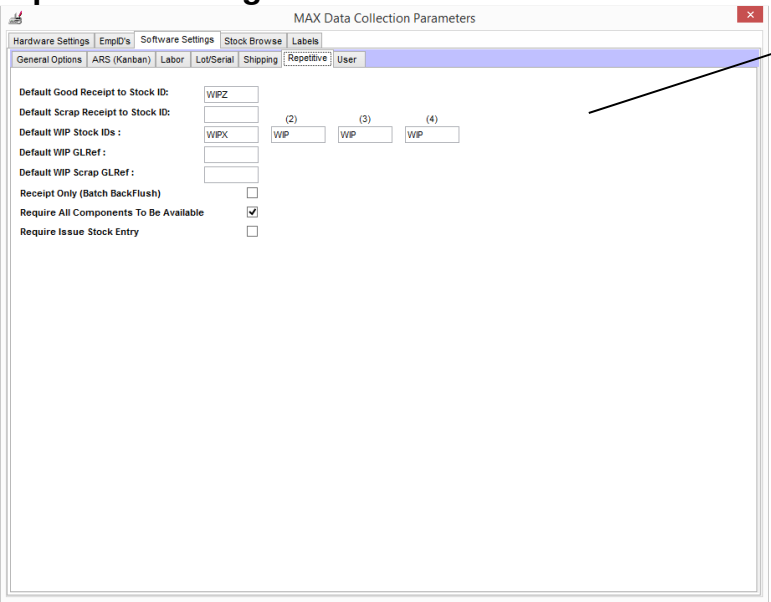
5) Prod/Lot Back Flush - click this option to perform a component back flush using the Produce Lots screen (#93)

Shipping Settings:



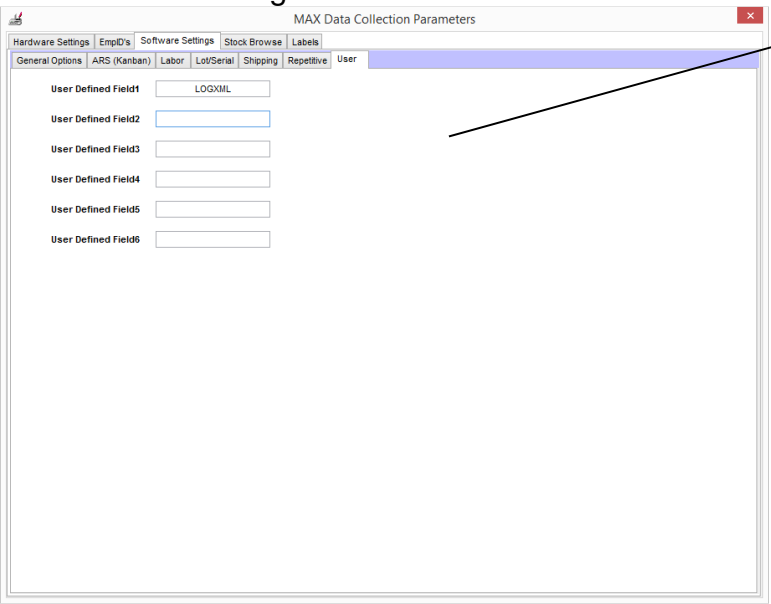
1) Skid Re-Use Days: if you are using Order Picking this parameter is used to establish a time interval in days between uses of a sequential Pallet ID.
2) Skid G/L Account - an entry in this parameter will cause an automatic entry in the GL Account table for a new Pallet + Account Type Code when picking an sales order. If left blank the table will not be updated.
3) Allow shipment of parts with an Engineering status of 4.
4) Allow shipment of parts with an engineering status of 5.
5) Allow shipment quantity > ordered quantity.
6) Allow shipment of quarantined lots.
7) Allow shipment of expired lots.
8) Allow shipment of Credit Held Customers.
9) BOL Ship Conversion Factor - quantity scanned will be divided by this factor (screen #143)
10) Use customer part (screen #143)
11) Label Trigger Sub Type – Default is “F”

Repetitive Settings:



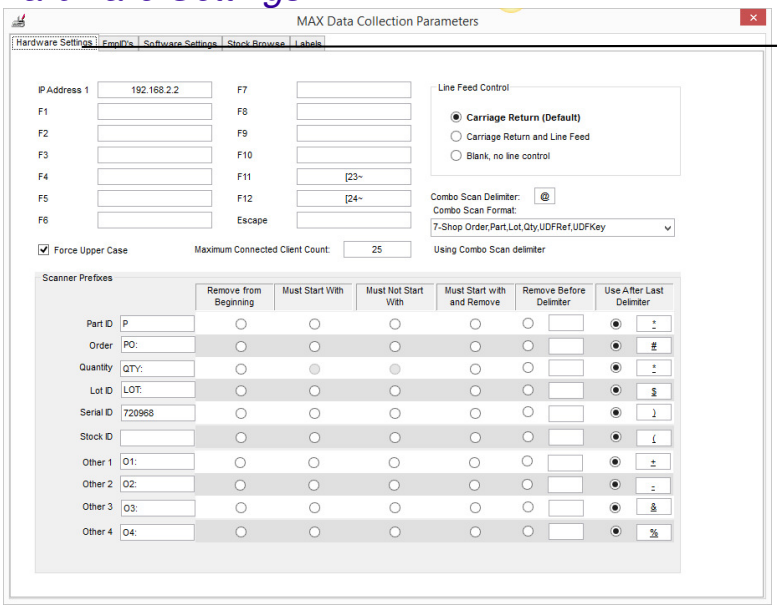
1) Default Repetitive Good Receive To Stock ID.
2) Default Repetitive Scrap Receive To Stock ID.
3) Default Transfer To Stock ID (WIP).
4) GLRef for Receipts and Issues
5) GLRef for Repetitive Scrap
6) Receipt Only (batch Back Flush) – for large BOM this switch is used to defer the issuing of components to a batch job that can be run in the background for quicker operator response.
7) Require All Components – no shortages
8) Require the Issue From stock ID to be entered

User Defined Settings:



These settings are used for unusual typically one-of-a-kind switches.

Hardware Settings:



The Hardware Settings Tab is used to enter a particular client IP address, which is used only by custom functions at this time and the escape sequences of the function codes from 1 through 12. You only enter these function codes if your devices will use codes that differ from the defaults that follow.

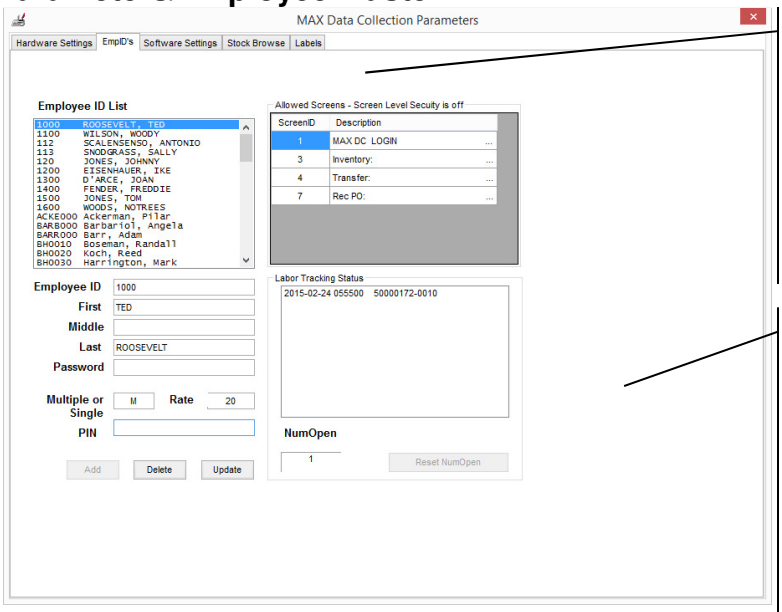
Combo Scan Codes: define bar codes which contain multiple elements such as order, part and lot. Depending on the screen you may be able to scan a combo bar code to use multiple values.

Scanner prefixes are used to identify prefixes scanned from some labels.

The following properties define the default function key codes that are used by the client device:

F1 = "OP"	F7 = "[18~"
F2 = "OQ"	F8 = "[19~"
F3 = "OR"	F9 = "[20~"
F4 = "OS"	F10 = "[21~"
F5 = "OM"	F11 = "[22~"
F6 = "[17~"	F12 = "[23~"

Parameters/Employee Master:

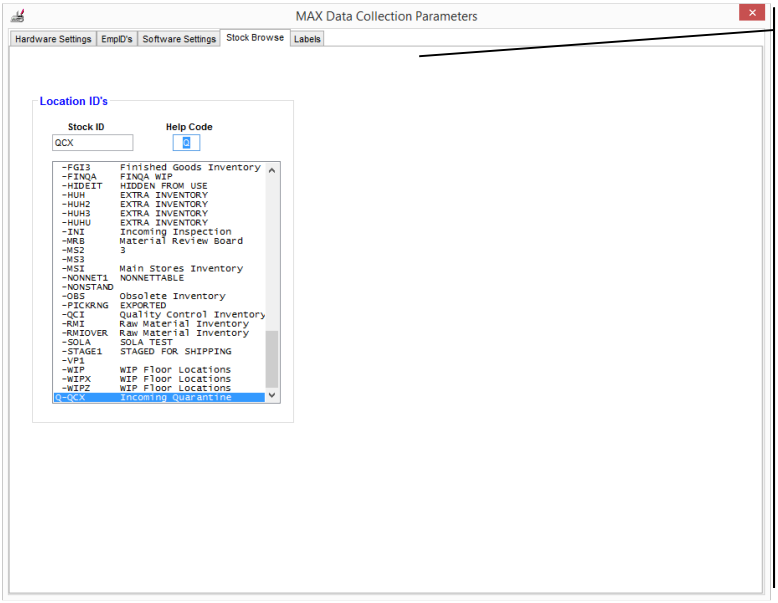


The EmpID Tab is used to maintain Employee ID's if you don't have the MAX Labor Tracking module. Passwords can be entered if you are using an optional Login screen that requires a password.

A list of currently open work orders or indirect activities will display. If the "NumOpen" field in the Employee Master does not match the actual number of open orders retrieved the "Reset NumOpen" button will be enabled. Clicking on this button will reset the "Numopen" field for the selected employee.

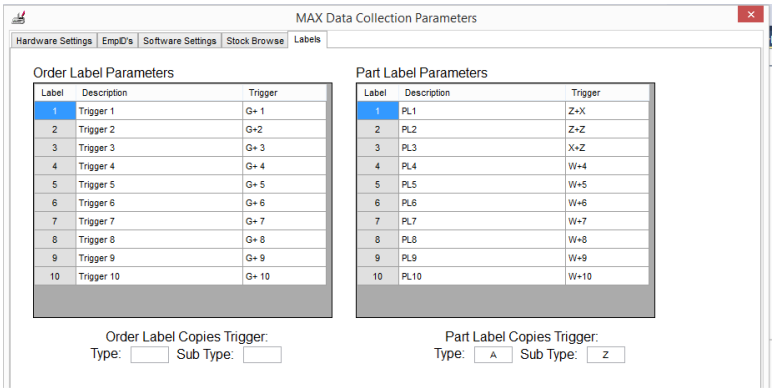
Note: this only applies to Labor Tracking.

Parameters/Stock Browse:

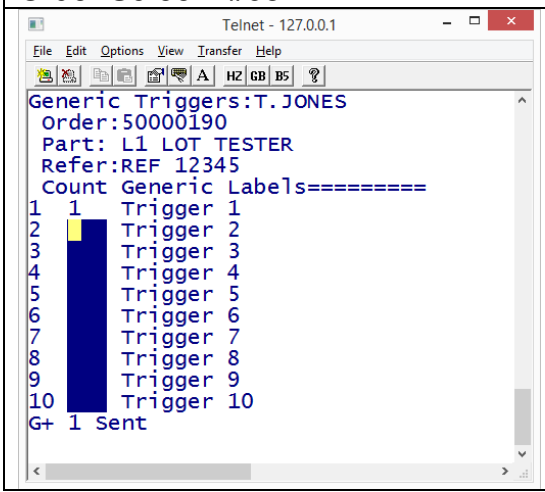
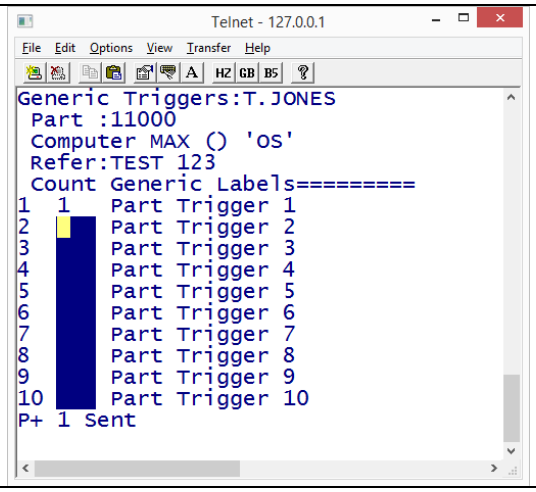


Location ID's: This maintenance screen is used to enable the Stock ID-Browse function. The browse function allows a user to hit a function key to see a list of selected Stock ID's with one character codes assigned to them. Entering the code selects the stock ID. The code is entered in the Stock ID table (UDKKEY), The Monitor will make a list of these codes when it starts up to be used for the Location Help screen. Enter only the Stock ID's that you want to appear in the browse screen and assign unique codes to them.

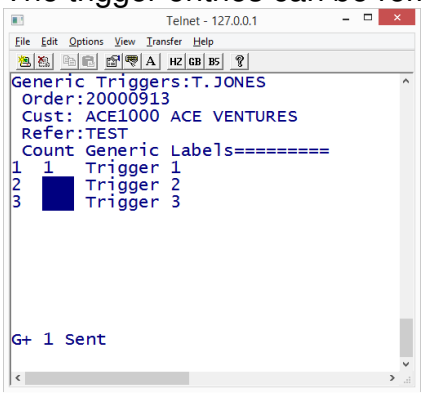
Generic Labels



This form can be used to define up to ten label or documents which can be triggered by order (purchase, sales or work) or by part. The descriptions and trigger codes can be modified as needed. Use "+" to separate type and sub type to define trigger code. The copies entries can be used with screens #695 for parts and #696 for orders to print copies to a label sheet.

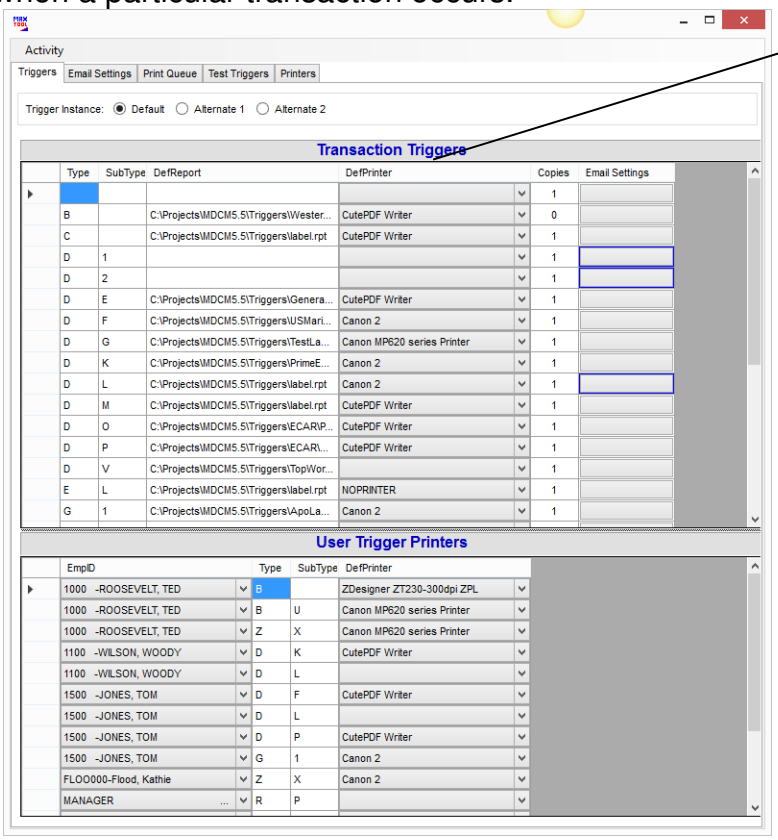
Order Screen: #681	Part Screen: #682
	

The trigger entries can be removed from the screen as needed:



Triggers:

The purpose of these tables is to identify what labels or documents get printed or emailed when a particular transaction occurs.

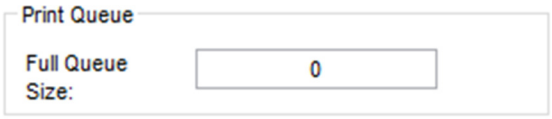


The Type and SubType columns uniquely identify the MAX transaction following the conventions established by the MAXUpdate interface with the addition of some special purpose codes. *Any defined transaction can have multiple entries in the trigger table and will be processed in sequence when the first character of the field matches the define transaction*. (This will require the SUB Type field in the Trigger tables to be more than one character.)

The Triggers table at the top of the form identifies a Crystal report file to be run and which printer will be used as default. The Users table at the bottom of the form identifies by User ID a user specific printer to use by Transaction. Click on the DefReport column to bring up a file browser to identify the Crystal report file that will be run and on DefPrinterName column to bring up a list of available printers.

Printers will be verified when this form is started. Clicking on Activity/Verify printers will also verify that the defined printers exist.

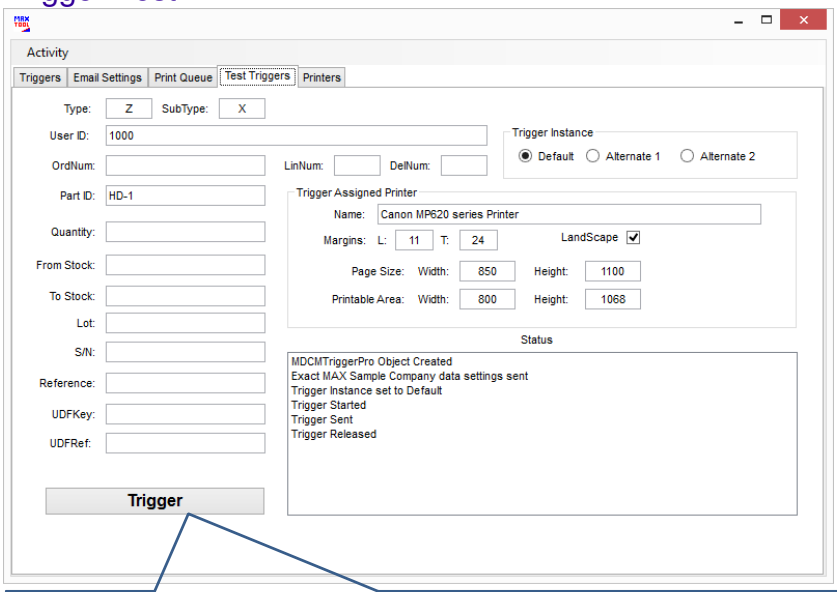
Trigger instance can be used with more than one MDCM running and you want different trigger sets for Each instance of MDCM.



Since print activity can vary from site to site it is possible to overwhelm the Print Queue's. This parameter can be used to indicate a Queue threshold, causing print jobs to be held until the Queue is below this size. The default value is 0, which will disable any Queue monitoring.

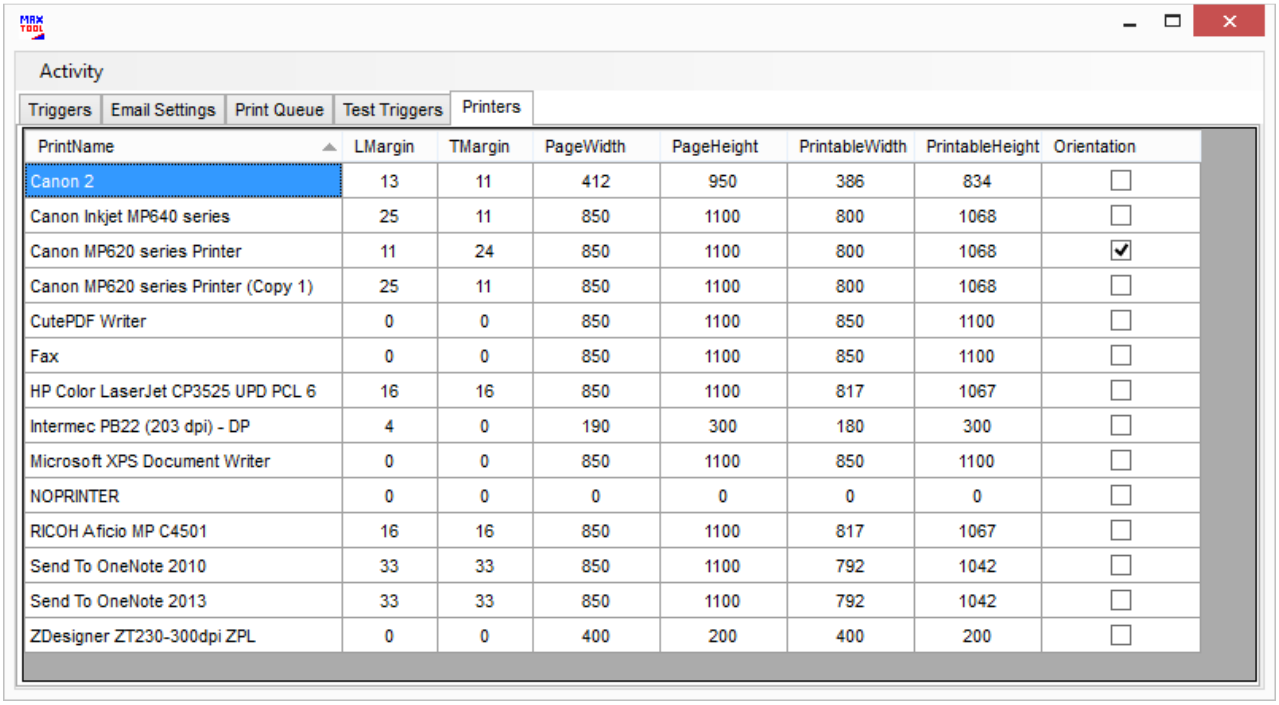
Each typical pending single label will require a Queue size of 240.

Trigger Test:



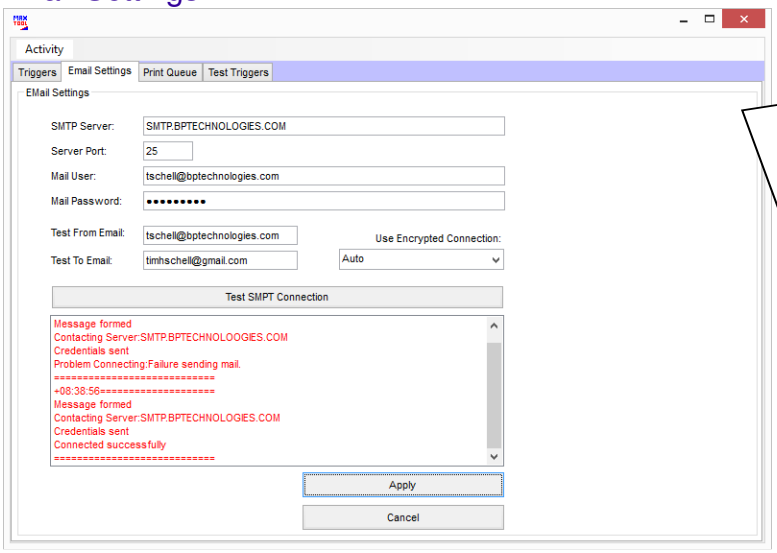
Enter field values to simulate a transaction or document request and hit the Trigger button.

Installed Printers:



PrintName	LMargin	TMargin	PageWidth	PageHeight	PrintableWidth	PrintableHeight	Orientation
Canon 2	13	11	412	950	386	834	☐
Canon Inkjet MP640 series	25	11	850	1100	800	1068	☐
Canon MP620 series Printer	11	24	850	1100	800	1068	☑
Canon MP620 series Printer (Copy 1)	25	11	850	1100	800	1068	☐
CutePDF Writer	0	0	850	1100	850	1100	☐
Fax	0	0	850	1100	850	1100	☐
HP Color LaserJet CP3525 UPD PCL 6	16	16	850	1100	817	1067	☐
Intermec PB22 (203 dpi) - DP	4	0	190	300	180	300	☐
Microsoft XPS Document Writer	0	0	850	1100	850	1100	☐
NOPRINTER	0	0	0	0	0	0	☐
RICOH Aficio MP C4501	16	16	850	1100	817	1067	☐
Send To OneNote 2010	33	33	850	1100	792	1042	☐
Send To OneNote 2013	33	33	850	1100	792	1042	☐
ZDesigner ZT230-300dpi ZPL	0	0	400	200	400	200	☐

Email Settings:

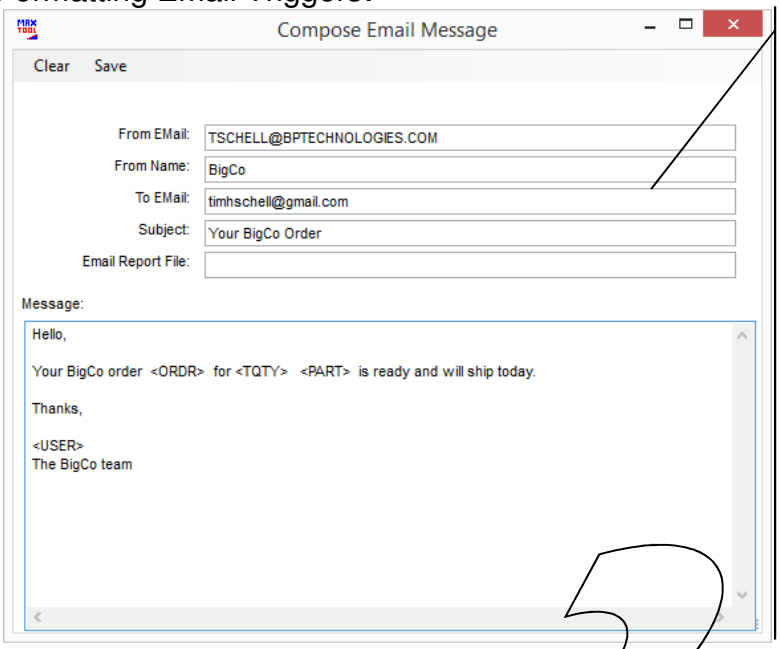


1) Enter the SMTP Server
2) And User / Password (If needed)

To test the SMTP entries enter valid Test From and To Email addresses and click “Test SMTP Connection”

If successful an email will be sent:

Formatting Email Triggers:



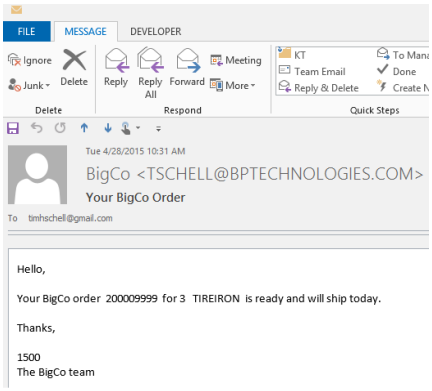
Each transaction trigger can be used to send an email.
Enter the From email address and name, To email address, subject and message.

An optional Crystal Report can be included as an attachment.

(Sales Order shipments and Print Sales Paper Work will use the customer Email address1 if it exists.)

Format the Subject and body with tags identified by enclosing with <……>. The tag names are the same that are used by Crystal Reports (see a list under Trigger Crystal Reports).

Email:



Transaction Type and Sub-Types Codes:

Type	Sub type	Description
A		Adjustment
B		Repetitive Completion
C		Cycle Count
F		Stock Transfer
I	U	Issue from Stock
I	S	Issue to Production
L	I	Labor Login Indirect
L	L	Labor Login Direct
L	O	Labor Logout
P	P	Partial Post OP Completion
P	C	Complete Post Op Completion
R	U	Receipt (Unplanned)
R	P	PO Receipt
R	S	Production Receipt
R	O	Sub Contract PO Receipt – BOM and Routing Type Orders
S	C	Shipment Credit Memo
S	L	Scanned Items
S	O	Shipment Sales Order
T		Time Ticket entry
W		Rework
Y		Scrap
D	?	Warning: More than 3 attempts to Login
D	A	Labor Post Operation
D	a	Alert: Work Order Started;#262
D	B	FIFO Sheet
D	C	Credit Memo Receiver
D	D	BOL Document
D	E	Carton Labels - variable quantity for Production Receipts
D	F	Carton Labels – variable quantity for PO Receipts or Shipments
D	G	Carton Labels with Unique ID's, non-matching FG Commodity
D	H	Inventory On Hand
D	I	Next Operation is Outside (Move Ticket)
D	J	Shop Paperwork
D	K	Variable count labels
D	L	Variable count labels
D	l	Labels , #190
D	M	Master Pack Label
D	O	Packing List
D	o	Labor hours Over standard by specified percentage
D	P	PO Receiver
D	PO	Receiver, #136
D	PU	Receiver, #137
D	Q	Labor Auto Set Quantity to Allowable Notification
D	R	Issue to Production Reconciliation
D	r	Issue Lot to Production Reconciliation
D	S	Skid List
D	s	Alert: Work Order Started with component shortage;#256
D	T	Transaction List by User and Date – (F1 - #18)
D	U	UPC Single Label
D	V	Scan Verify
D	W	Custom Label (#127)
D	X	Production Receipt (#304)
D	Y	Variable count labels

Type	Sub type	Description
D	Z	Variable count labels
D	1	Back flush shortage (custom)
D	2	Back flush shortage (custom)
D	3	Ship Labels
D	4	Ship Labels
K	1	KANBAN PO Created
K	0	KANBAN Error
K	2	KANBAN Mfg Order Created
K	3	KANBAN Transfer Alert Created

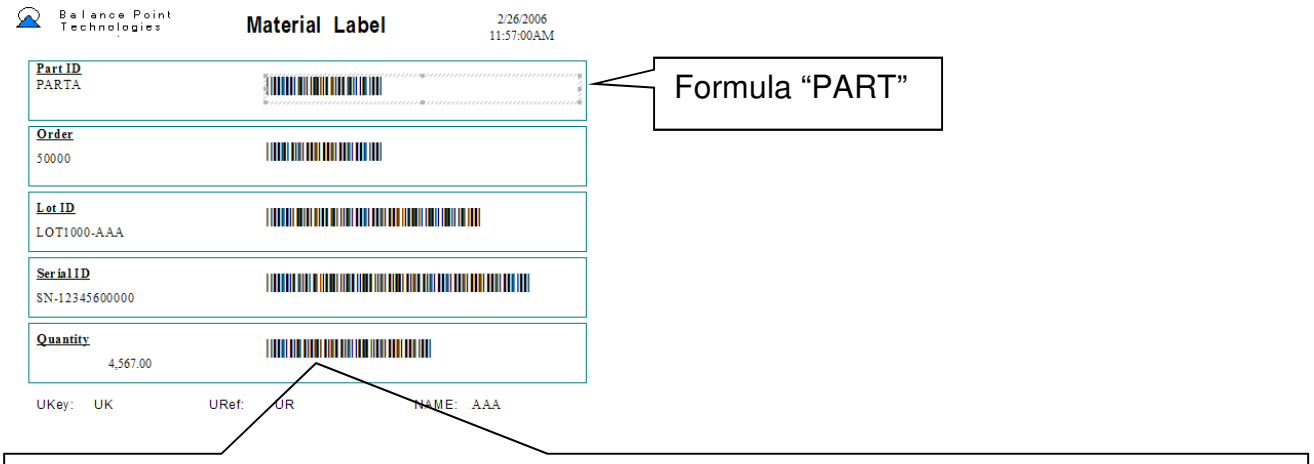
Triggering Crystal Reports:

A sample Crystal Reported, “Label.Rpt “, is included when MDCM is installed as a sample. It is a template for using formulas with Crystal triggers. This report only uses formulas which have their values set at the time the transaction occurs. It uses no data tables.

The following formulas are set by MDCMTriggers when calling the Crystal report engine:

"PART" "TQTY" "LOTN" "SERN" "ORDR" “LINI” “DELV” "REFER"	“ISTK” "RSTK "USER" USERNAME” "NAME" "ADDR1" "ADDR2" "CITY" "STATE" "ZIP"	"CNTRY" "CONFRM" "BOMUOM" "COST" "CSTCNV" "PRICE" “DESC” “OSEQ	“DEFC” “UDFR” “UDFK” “GREF” “LQTY” “TTOD” (Time) “CARTON” “PalletID”

Sample from Label.Rpt:

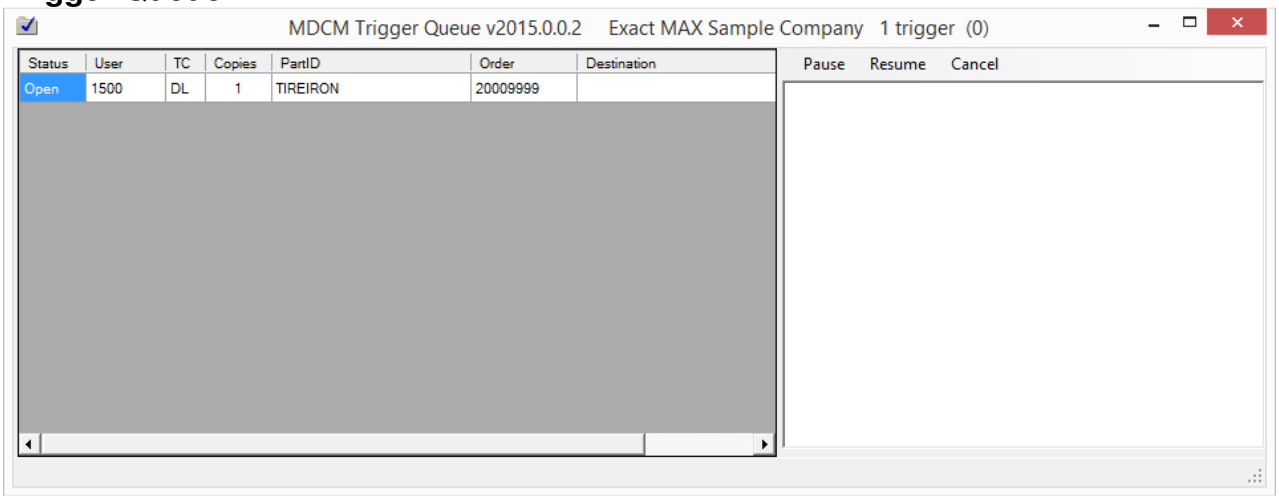


Defining a formula to print a Code 3of9 barcode:

```
IF {@Part} = "" THEN "" ELSE
"*" + trim({@Part}) + "*"
```

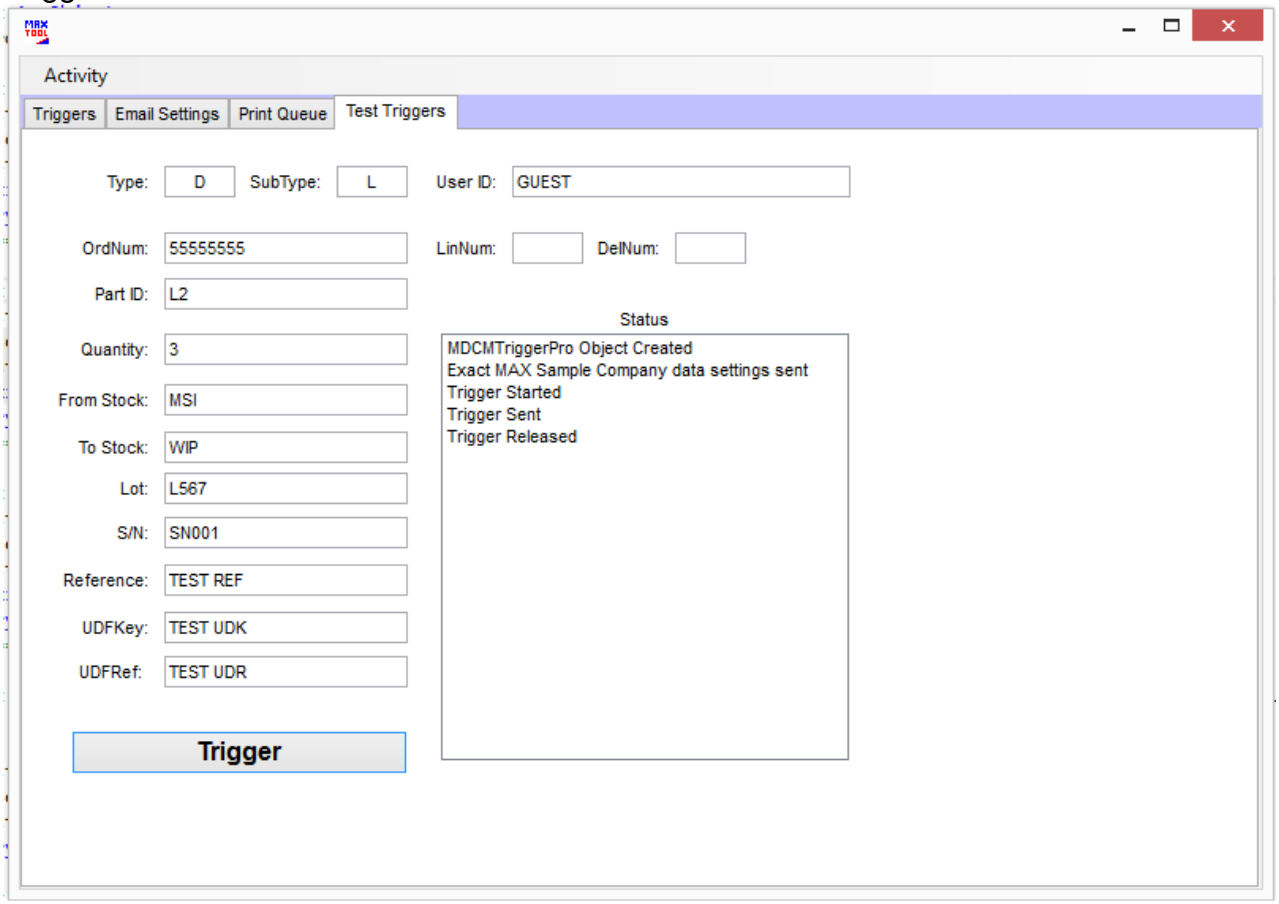
The 3 of 9 bar code requires a start and end character of an asterisk. Typically, this requirement can be turned off but using the asterisks helps insure that the entire bar code is read.

Trigger Queue:



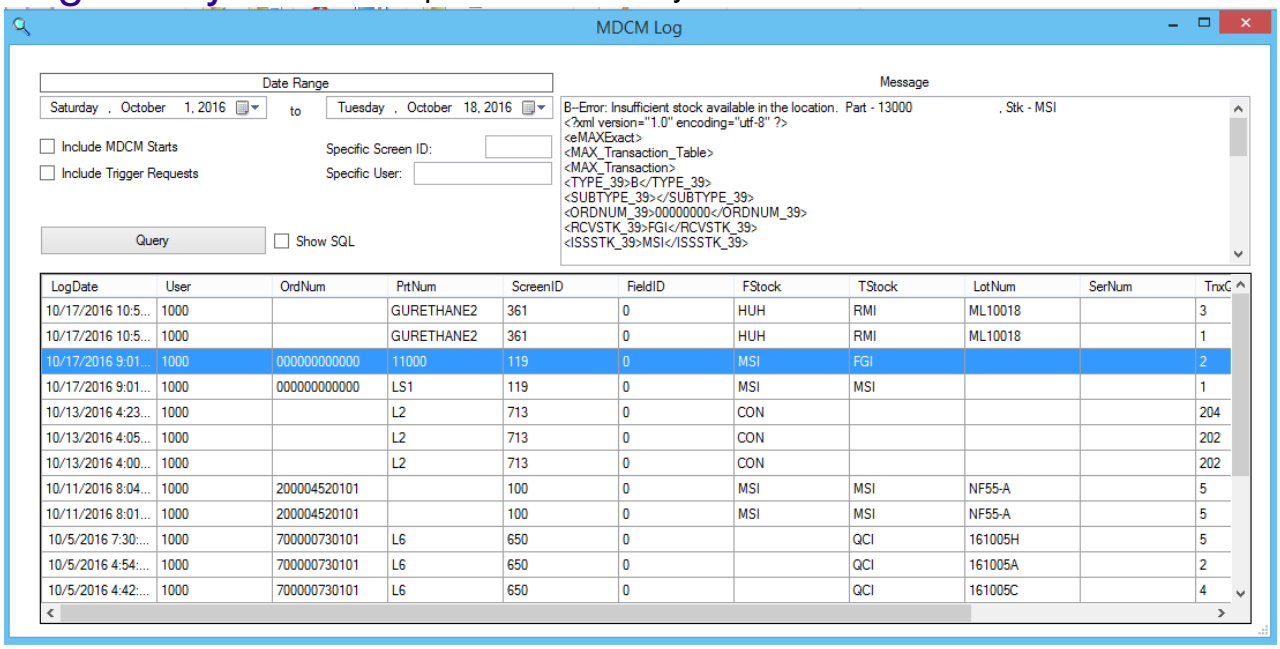
This form is displayed by the trigger application and will show the current triggers.

Trigger Test:

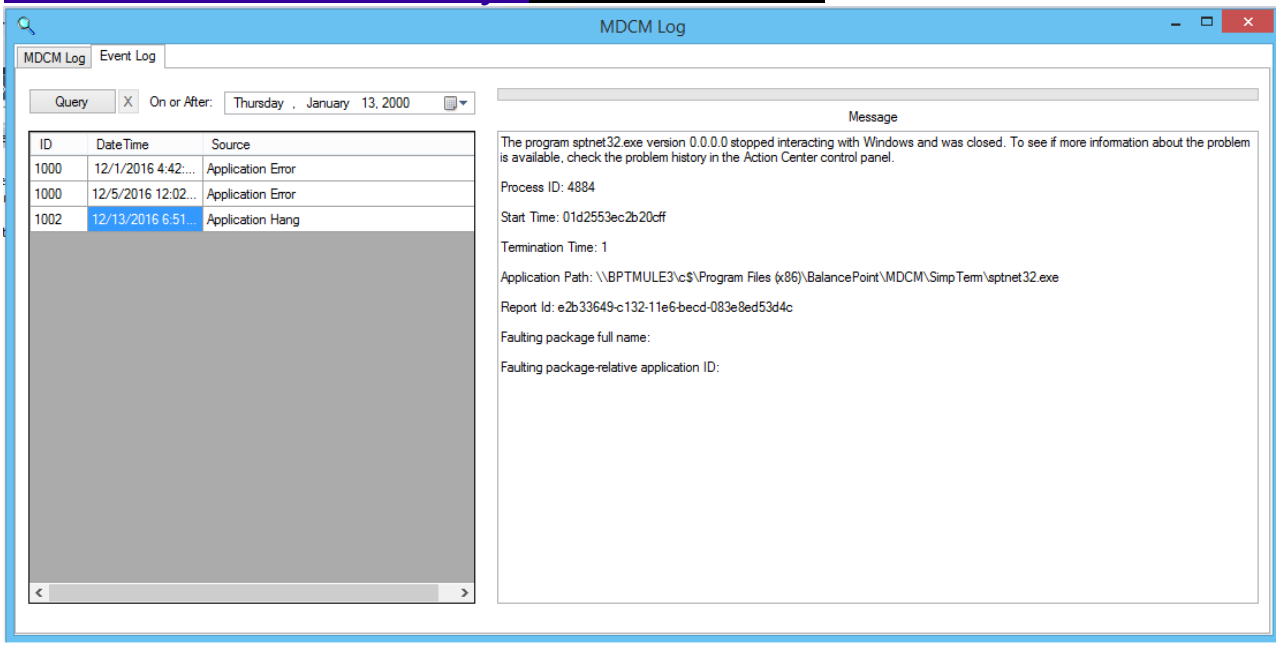


This form can be used to test triggers by manually entering the parameters and triggering them.

Log Query: review exceptions recorded by MDCM



Windows Events Query: references to MDCM



Starting the Client(s)

Procedures for starting the client will vary with the device being used. Generally data collection devices will be programmed to boot into VT\ANSI terminal mode, with Telnet connecting automatically. If you are using a telnet client that runs on a PC you will need to specify the IP address of the monitor. ***The monitor will display the IP address that you should use***. Once the connection has been made you will be prompted to Login using the Employee ID as a User. When the Employee ID has been validated you will be presented with the main menu. There are four categories of functions that are available depending on the current configuration:

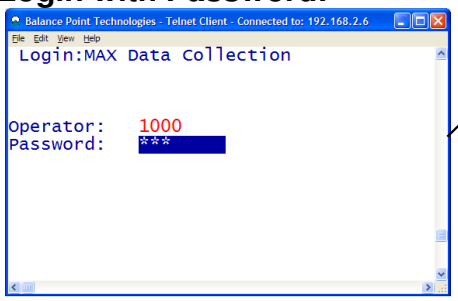
Inventory
Inquiries
Labor Reporting
Production Reporting
Shipping

The following are, default Navigation keys:

F1 - Process
F2 - Clear Screen and return to the top
F3 - Stock Browse (most inventory screens)
F5 - Go Back
Delete - will erase the current field (depends on client device support)

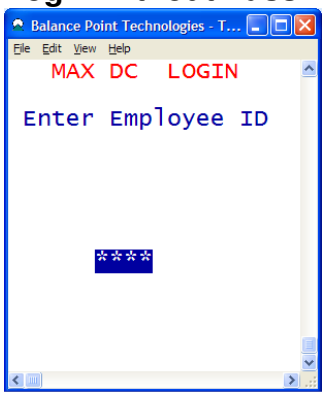
Escape - will function like F5.

Login with Password:

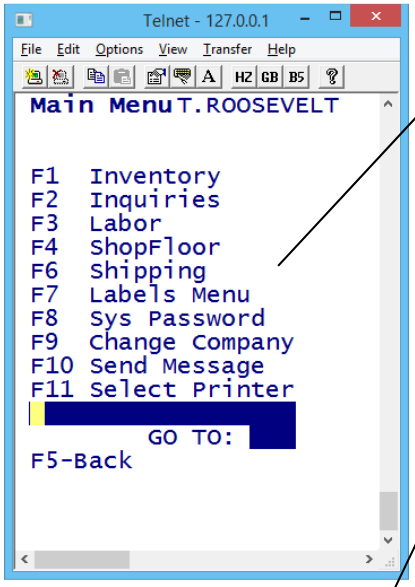


ENTER to proceed to next screen after entering employee ID. The User ID is validated against the MAX Employee Master. The MDCParams utility is used to maintain Employees ID's and optionally passwords.

Login without Password:



Main Menu:

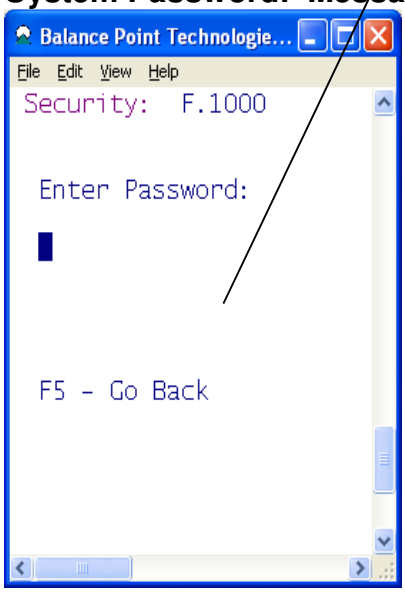


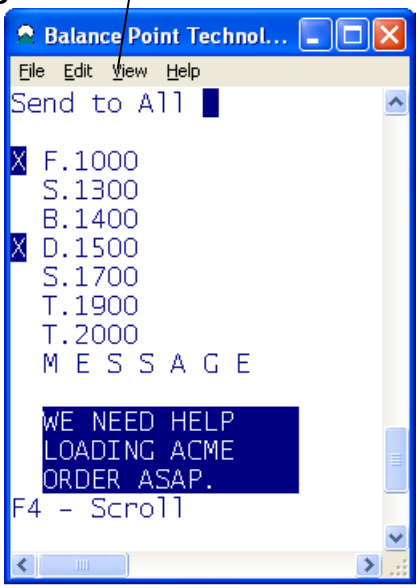
1. Use the assigned function key to enter the desired sub-menu.
2. Scan a bar code to test readability. The contents of the bar code will be echoed back by the program followed by “OK”.
3. An optional “Go To Screen” can be used to bypass menus.

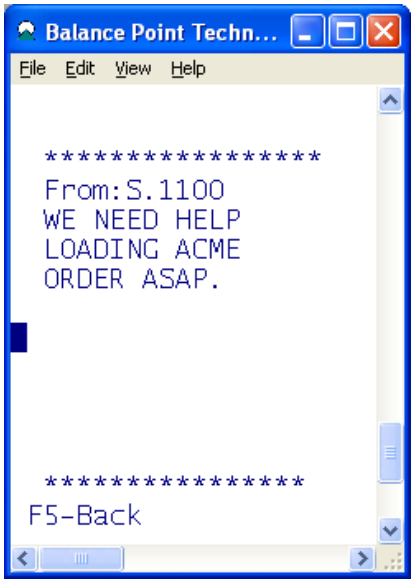
This screen is presented whenever an operator tries to go to a password - protected screen for the first time

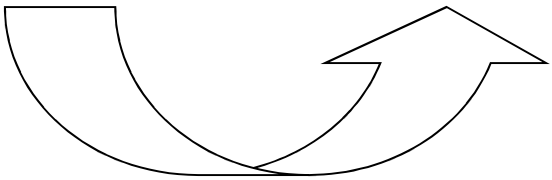
This screen is used to communicate with other users who are currently logged in. A broadcast message can be sent by checking “Send to All” or to individuals.

System Password: Message Screen:



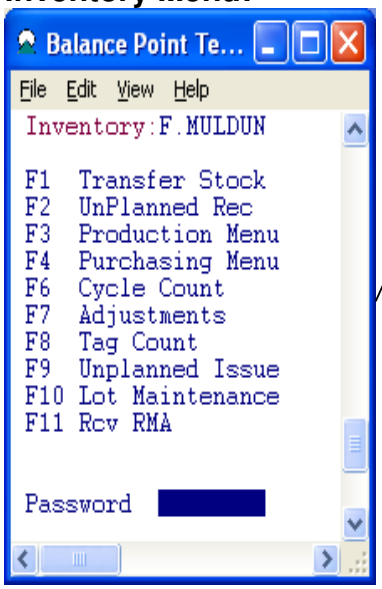






Inventory Transactions

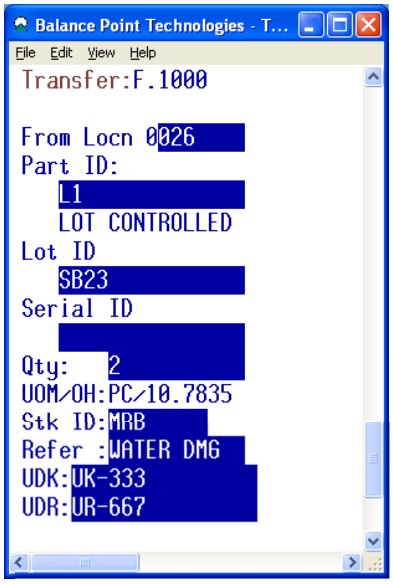
Inventory Menu:

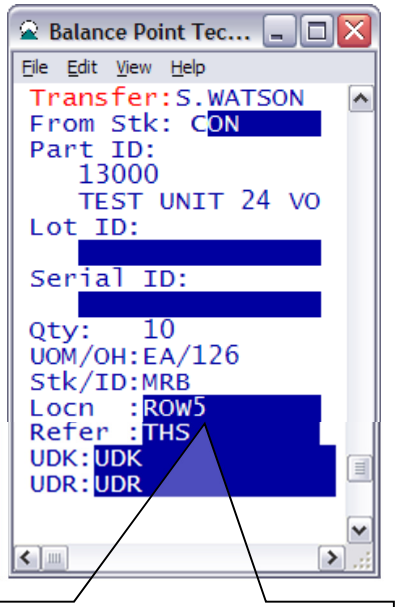


Use the assigned function key to display the screen for a particular inventory transaction.

In order to use the Adjustment, Cycle Count and Purchase Order Receipts functions a password must be entered on this screen. This password is maintained from the Monitor program.

Transfer Stock:

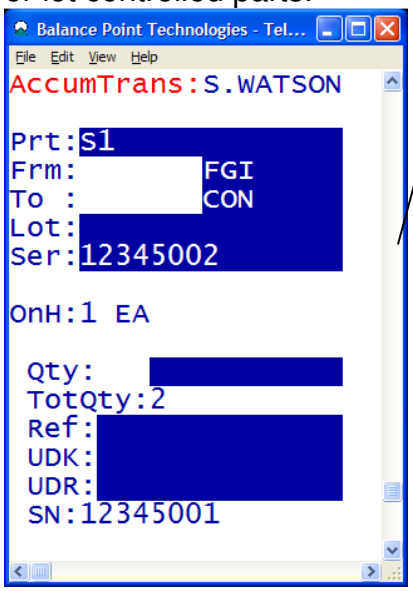




1. Enter the “from” location or select from the location help screen. **F3** to view location help screen..
2. Enter the part number. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity. If the quantity is greater than 1 and the part is under serial control a range of serial numbers will be used starting with the one entered.
5. Enter the “to” location or select from the location help screen. **F3** to view location help screen..
6. **F1** To process the

If the Display Location switch is on, the Location (zone) can be inserted after the transfer-to stock ID. Either screen format will work.

Transfer Accumulated (Batches): used especially for transferring a batch of serialized or lot controlled parts.



1) Enter the part number.
2) Enter the "from" location or select from the location help screen. **F3** to view location help screen.
3) Enter To Location.
4) Enter Lot and/or Serial ID as required.

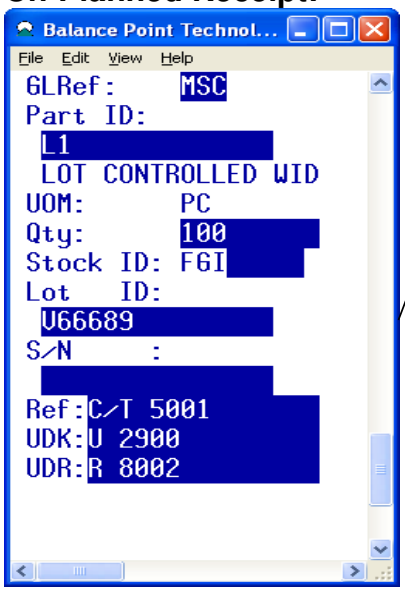
- ❖ For Lot Controlled parts enter the Lot and then the quantity to transfer. The cursor will return to the Lot field for the next Lot to be accumulated.

- ❖ For serialized parts the quantity will assume 1 and the serial numbers can be scanned and accumulated.

When finished enter blank to skip to the Reference, UD Key and UD Ref fields.

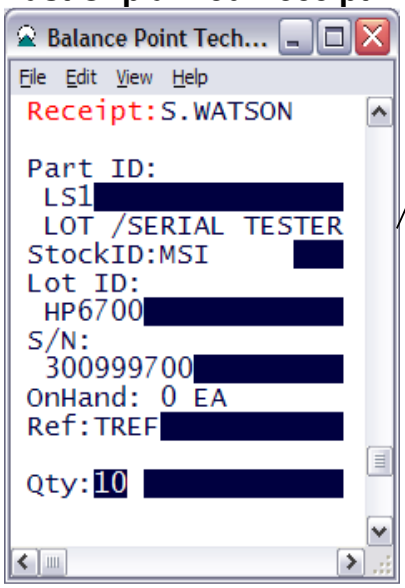
5) **F1** To process the transaction.

Un-Planned Receipt:



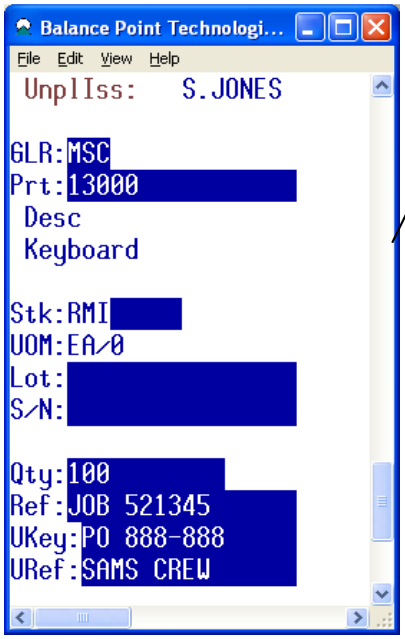
1. Enter the GLRef (Required)
2. Enter the part number.
3. Enter the quantity.
4. Enter the "to" location or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
5. Enter Lot and/or Serial ID as required. If the quantity is greater than 1 and the part is under serial control a range of serial numbers will be used starting with the one entered.
6. **F1** To process the transaction.

Fast Unplanned Receipt:



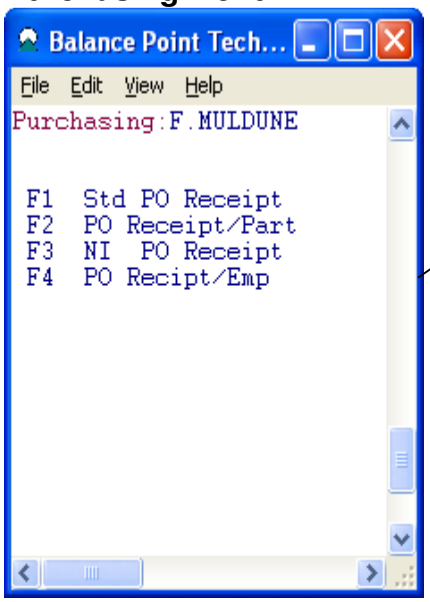
1. Enter the part number.
2. Enter the quantity.
3. Enter the "to" location or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
4. Enter Lot and/or Serial ID as required. If the quantity is greater than 1 and the part is under serial control a range of serial numbers will be used starting with the one entered.
5. Reference is optional.
6. Enter quantity – transaction will process.

Un-Planned Issue:



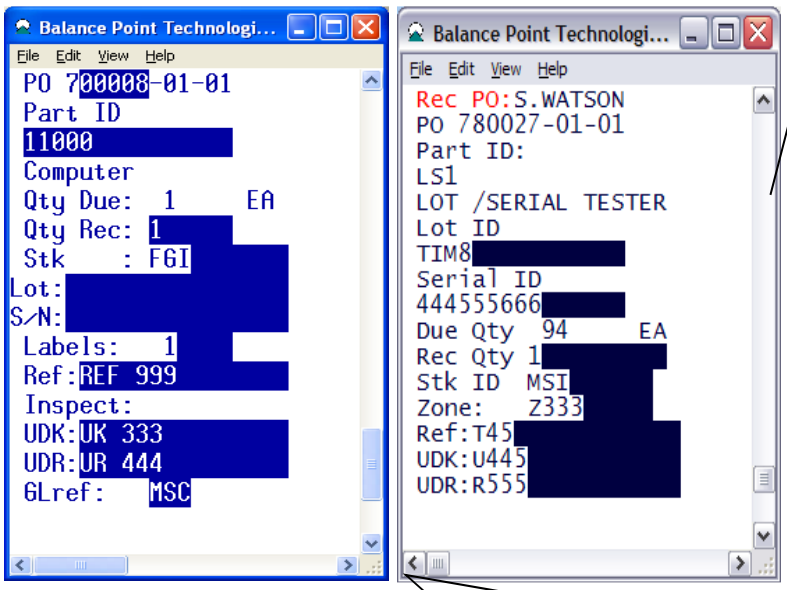
1. Enter the GLRef (Required)
2. Enter the part number.
3. Enter the quantity.
4. Enter the "to" location or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
5. Enter Lot and/or Serial ID as required. If the quantity is greater than 1 and the part is under serial control a range of serial numbers will be used starting with the one entered.
6. Reference is optional.
7. **F1** To process the transaction.

Purchasing Menu:



Use the assigned function key to display the screen for a particular inventory transaction.

Receive Purchase Order:



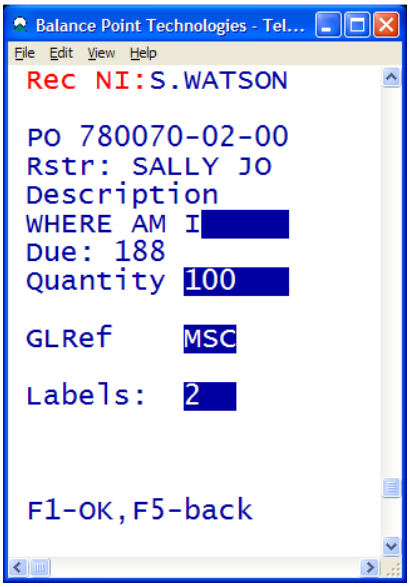
If the Display Location switch is on, the Location (zone) can be inserted after the Stock ID. Either screen format will work.

1. Enter the Purchase Order, Line and Delivery. Dashes may be embedded or not.
2. The part ID will be display for confirmation. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity.
5. Enter the "to" location or select from the location help screen. **F3** to view location help screen. .
6. **F1** To process.

The Reference input filed is optional on this screen and can be removed if necessary. It can be added back, if needed, using the ScreenShaper tool as long as it is placed in the last position on the screen.

Note: a Receiver document and material label will print to their assigned printers.

Receive NI Purchase Order:

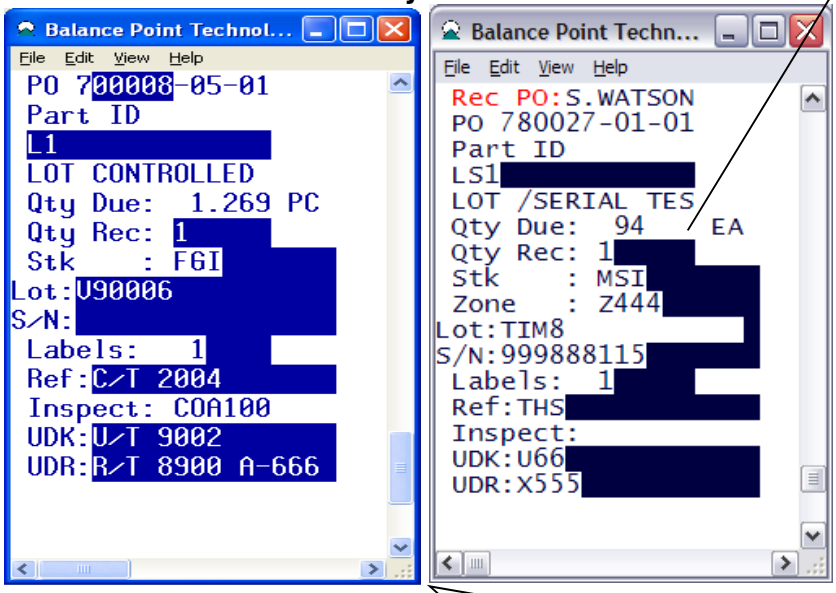


Enter the order number with the line number. The description will display.

1) Enter the quantity.
2) Enter the GLRef (Required. Defaults from order)

Note: A Receiver Document will print to the assigned printer.

Receive Purchase Order by Part:



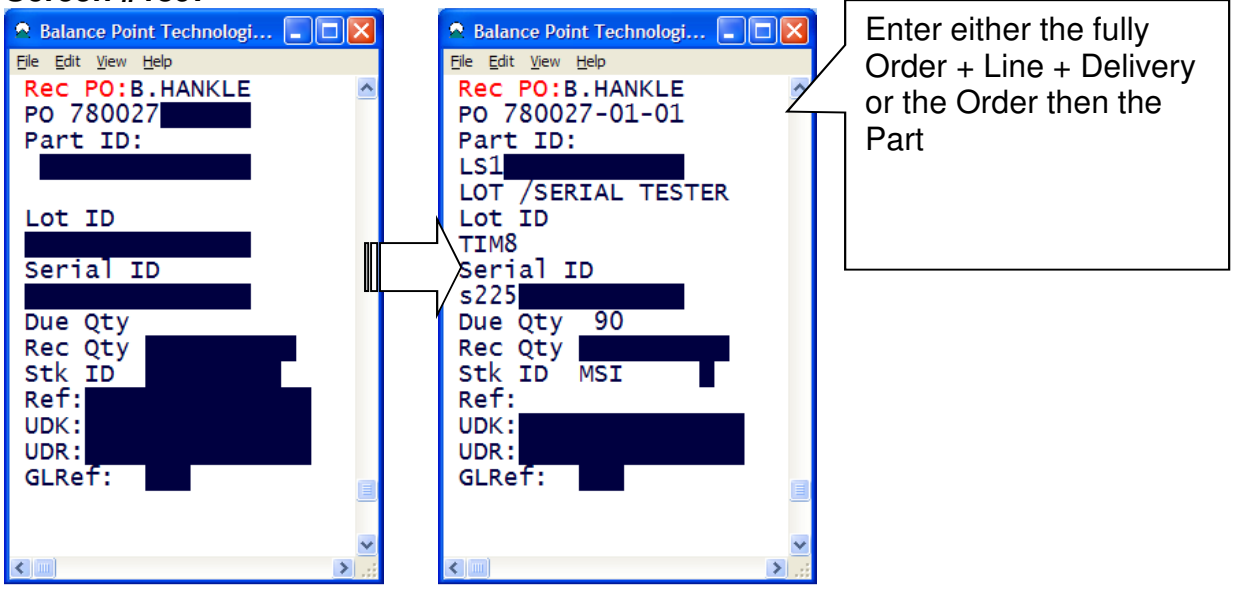
If the Display Location switch is on, the Location (zone) can be inserted after the Stock ID. Either screen format will work.

1. Enter the Purchase Order.
2. Enter the Part ID. If the Part belongs on the PO the first open Line and delivery will be displayed. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity.
5. Enter the "to" location or select from the location help screen. **F3** to view location help screen.
6. Enter quantity of labels desired.
7. Enter a Reference if needed.
8. **F1** To process the transaction

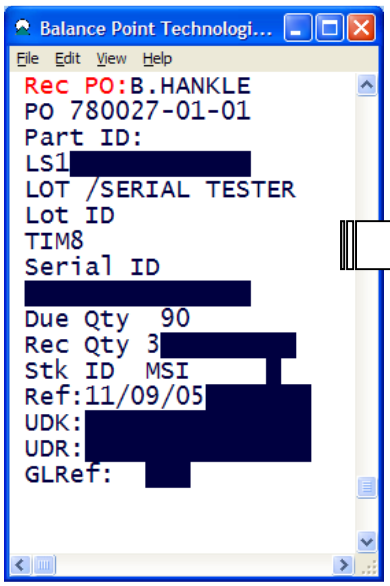
Note: a Receiver document and material label will print to their assigned printers.

Purpose: flexible input screen, will accept either fully qualified order+ line + delivery or order then part ID. Serialized receipts are accumulated.

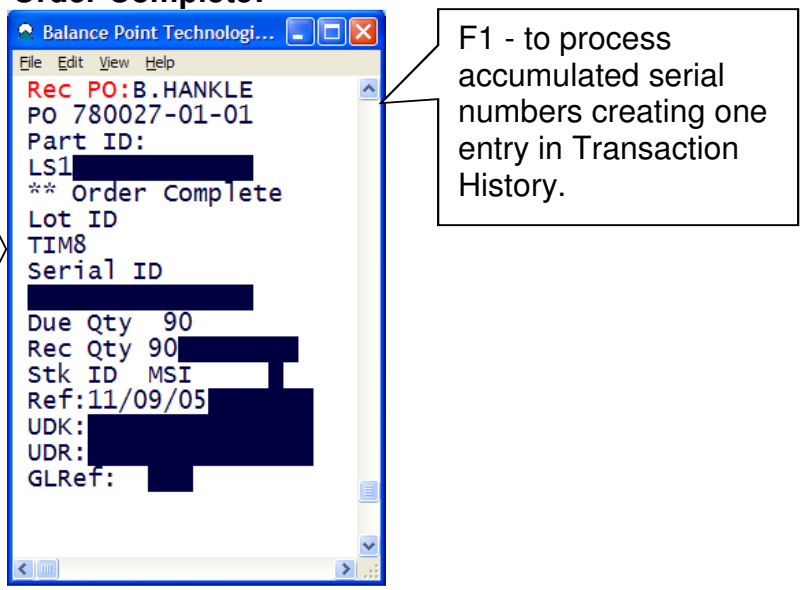
Screen #189:



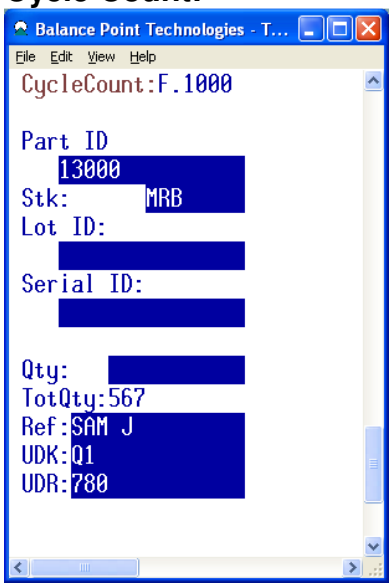
Scan Serialized Parts:



Order Complete:

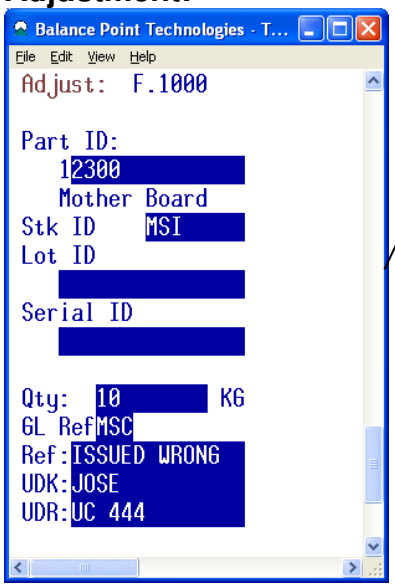


Cycle Count:



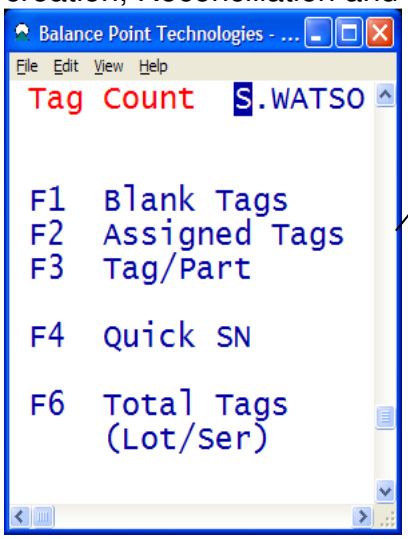
1. Enter the part number.
2. Enter the Stock ID or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity. The quantities and if applicable the Lot and Serial Numbers will accumulate until you are ready to process the transaction.
5. **F1** To process the transaction.

Adjustment:



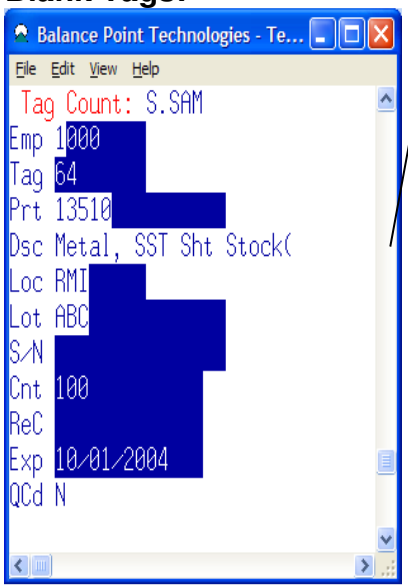
1. Enter the part number.
2. Enter the Stock ID or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity. The quantities and if applicable the Lot and Serial Numbers will accumulate until you are ready to process the transaction.
5. Enter the GLRef.(Required)
6. Enter a Reference (optional)
7. **F1** To process the transaction

Physical Inventory: these functions will update the MAX Physical Inventory tables. Tag creation, Reconciliation and updates to inventory will be done from within MAX



The Tag Count Menu allows you to select either blank or pre-set tags depending on how the tags were generated in MAX.

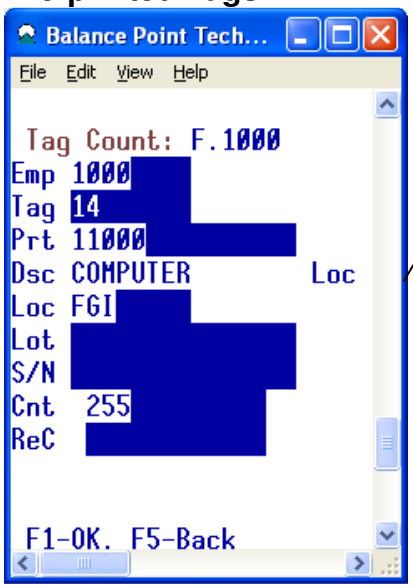
Blank Tags:



1. Enter the part number.
2. Enter the Stock ID or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the count. Or recount if the count has already been counted.
5. The Tag number will display.
6. **F1** To update the Tag count.

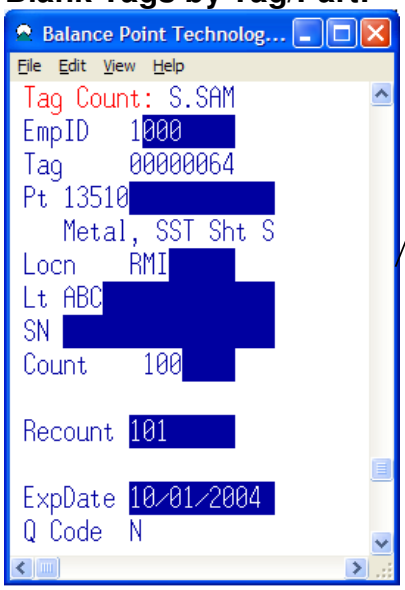
Use this screen to assign the tag number based on the unique part/location (and Lot/Serial if required). The operator does not refer to the tag number.

Pre-printed Tags:



1. Enter the Tag ID and the assigned Part, Stock ID, Lot and or Serial will display.
2. Enter count.
3. **F1** to process

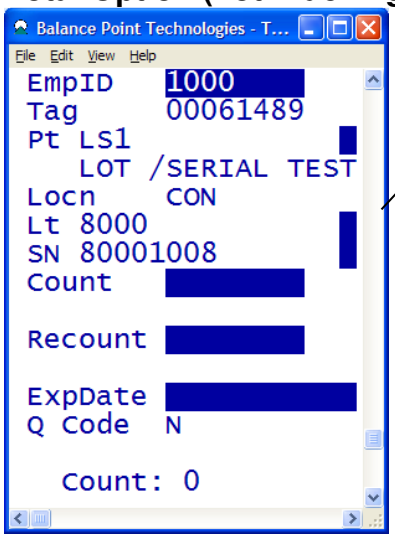
Blank Tags by Tag/Part:



1. Enter the Tag ID and the assigned Part, Stock ID, Lot and or Serial will display if already assigned, otherwise the cursor will stop at the Part field:
   a. Enter Part ID
   b. Enter Stock ID
   c. Enter Lot if required
   d. Enter Serial if required
2. Enter count
3. **F1** to process.

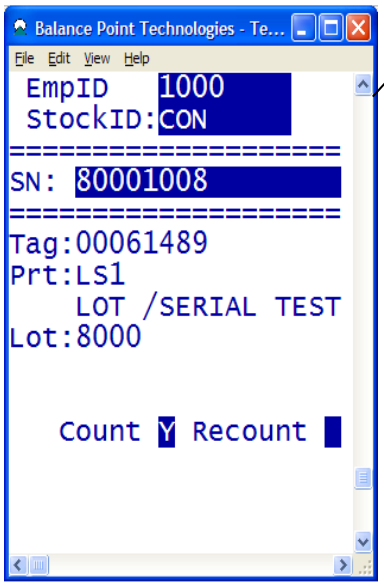
Use this screen to assign the tag number based on the unique part/location (and Lot/Serial if required). The operator refers to the tag number specifically.

Total Option (Lot Tracking Switch):



1) Enter the Tag ID and the assigned Part, Stock ID, Lot and or Serial will display: Enter Lot if required
2) Enter Serial if required
3) Enter count
4) Repeat until all items have been counted then **F1** to process.

Quick Serial PIM:

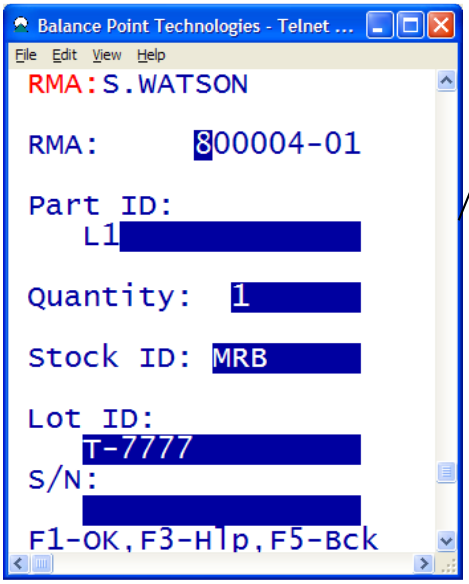


1) Enter EmpID and Stock ID.
2) Scan Serial ID

The matching Tag information will display is present. Otherwise fill in the Part ID and Lot (if required) to use a blank tag.

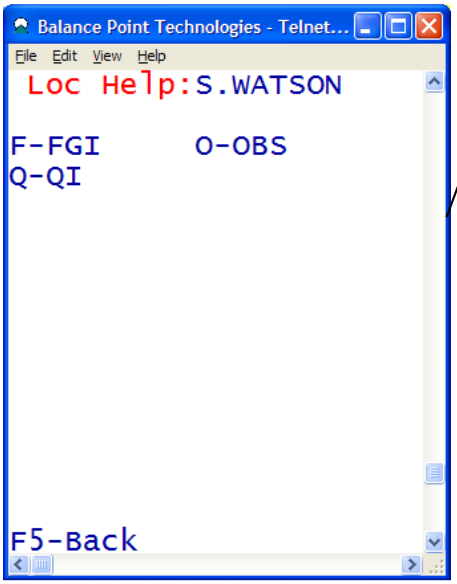
3) Enter count by entering a “Y” for 1 or any other character for zero. Blank will clear and back up to previous field.

Return Material Authorization:



1. Enter the RMA,.
2. The part ID will be display for confirmation. Enter Lot and/or Serial ID as required.
3. Enter the quantity..
4. Enter the "to" location or select from the location help screen. **F3** to view location help screen. . Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field
5. Enter the Lot and/or Serial number as required. These will be matched to the RMA.
6. **F1** To process the transaction

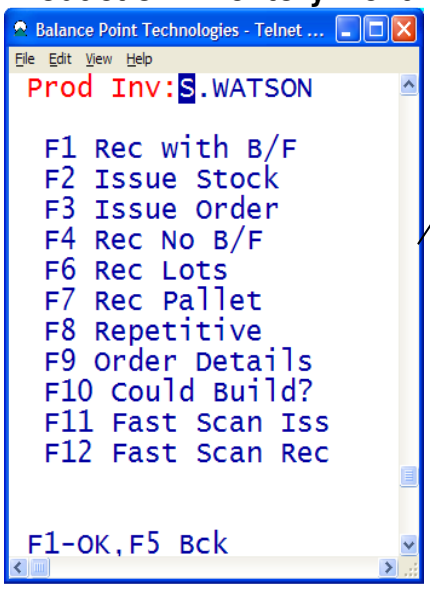
Stock Browser:



This screen is generally invoked using **F3** . It displays a condensed browse view of Stock Locations, which have been entered in Monitor maintenance.

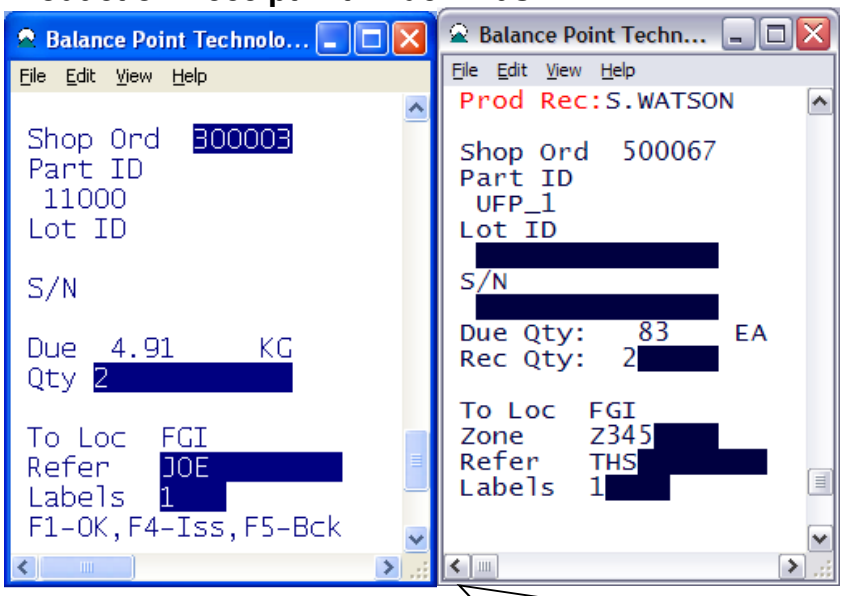
Enter the one-character code for the desired location. Processing will return to the originating screen.

Production Inventory Menu:



Use the assigned function key to display the screen for a particular inventory transaction.

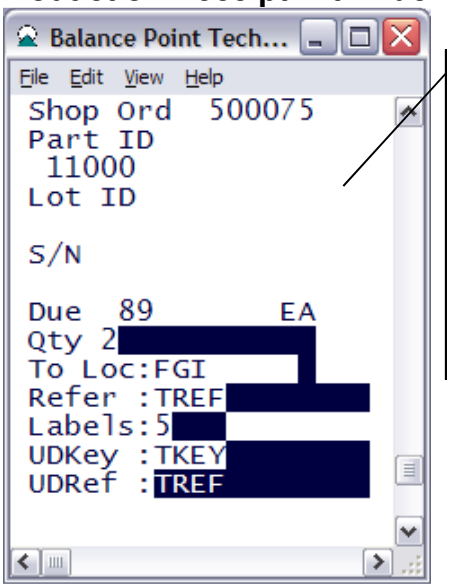
Production Receipt with Back Flush:



If the Display Location switch is on, the Location (zone) can be inserted after the Stock ID. Either screen format will work.

1. Enter the Shop Order
2. The Part ID will be displayed. Enter to confirm. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity.
5. Enter the "to" location or select from the location help screen. **F3** to view location help screen. .
6. Enter a reference. (Optional)
7. Enter a quantity of labels (optional, will use Trigger: D + S
8. **F1** To process the transaction If the back flushed components require a Lot and/or serial ID the order issue screen will be displayed with the appropriate component information. All non Lot/Serial controlled components will be issued automatically.

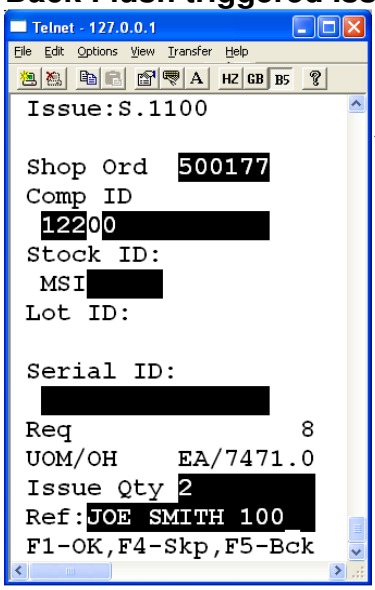
Production Receipt with Back Flush and Issue Stock ID:



This screen is a Production Receipt and Back Flush, with the ability to designate an Issue-From Stock ID for all of the components.

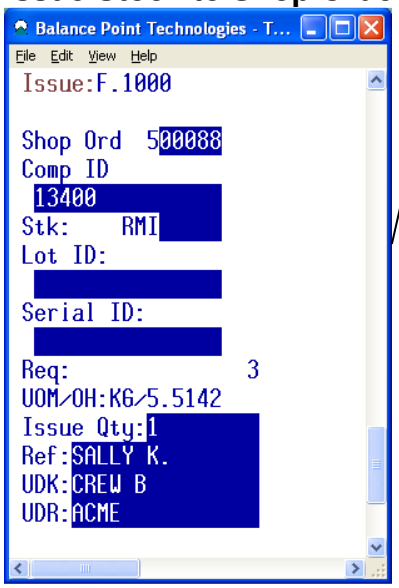
The Issue-From Stock ID can be set as a default in the parameters. If it is blank the default stock ID's from the individual components issued will be used.

Back Flush triggered Issue to Order:



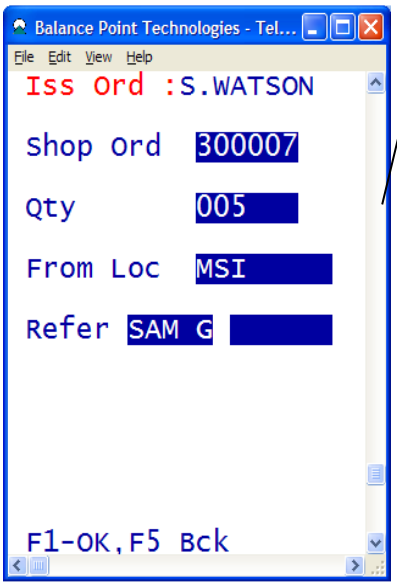
1. the order will be displayed.
2. the component part number will be displayed. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the "from" location or select from the location help screen. **F3** to view location help screen. Default will display..
5. Required quantity will display.
6. Enter the quantity.
7. **F4** to skip to the next component.
8. **F1** To process the transaction. When all components have been issued the Production Receipt screen will be returned.

Issue Stock to Shop Order:



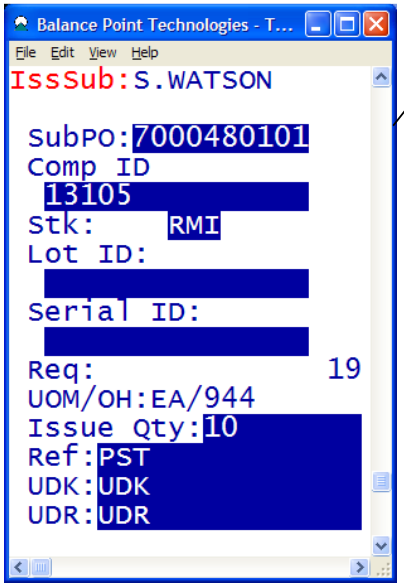
1. Enter the Shop Order
2. Enter the component part number. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the "from" location or select from the location help screen. **F3** to view location help screen. .
5. Required quantity will display.
6. Enter the quantity. A single beep will occur to indicate a quantity greater than required.
7. **F4** to skip to the next component.
8. **F1** to process the transaction.

Issue Order:



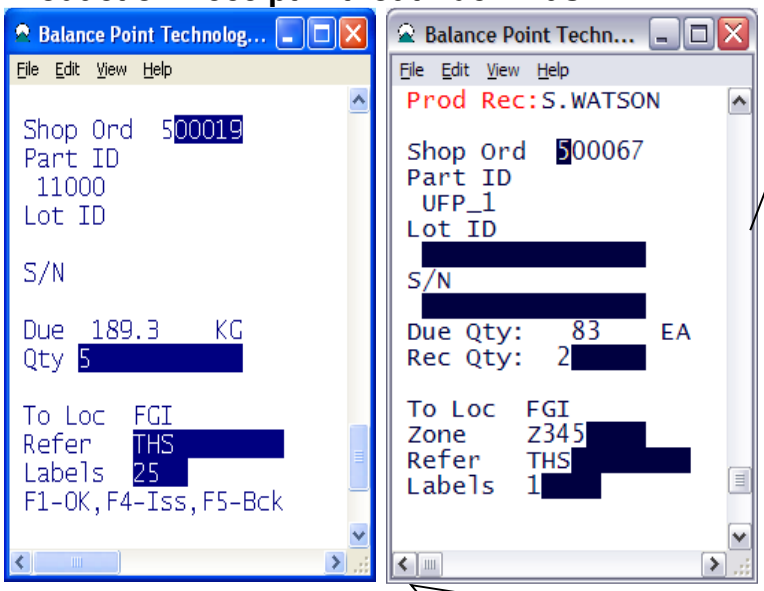
1. Enter the Shop Order
2. Enter the quantity. The due quantity will default
3. Enter the "from" location or select from the location help screen. **F3** to view location help screen. Enter a location here if you are using a WIP location to issue all components from, otherwise leave blank to use each components default location.
4. **F1** To process the transaction.

Issue to Subcontract PO:



1. Enter the 10 digit PO + Line + Delivery
2. Enter the component part number. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the “from” location or select from the location help screen. **F3** to view location help screen. .
5. Required quantity will display.
6. Enter the quantity. A single beep will occur to indicate a quantity greater than required.
7. **F1** To process the transaction. The cursor will move to the component field, keeping the PO.

Production Receipt without Back Flush:

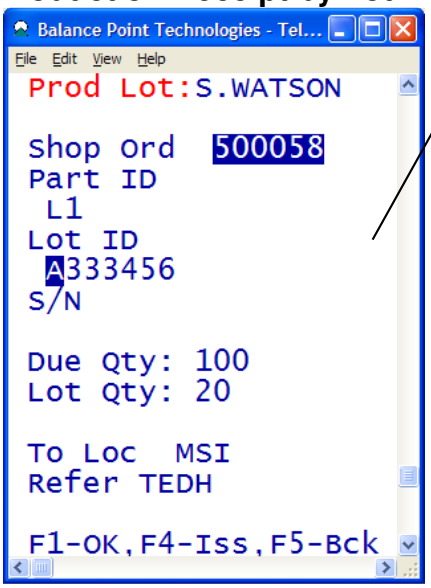


If the Display Location switch is on, the Location (zone) can be inserted after the Stock ID. Either screen format will work.

1. Enter the Shop Order
2. Enter the part number. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity.
5. Enter the "to" location or select from the location help screen. **F3** to view location help screen. .
6. Enter a reference. (Optional)
7. Enter a quantity of labels (optional,
   will use Trigger: D + S
8. **F1** To process the transaction.

Note: when the receive-to stock ID equals the "Print Label Stock ID" set from the monitor a bar coded label will print to the assigned printer. Production Receipt of Lots: This screen is designed to receive Lots, which have the same quantity (for example cartons of items). Once the order has been identified and the part verified the operator, will only need to enter the Lot ID being produced.

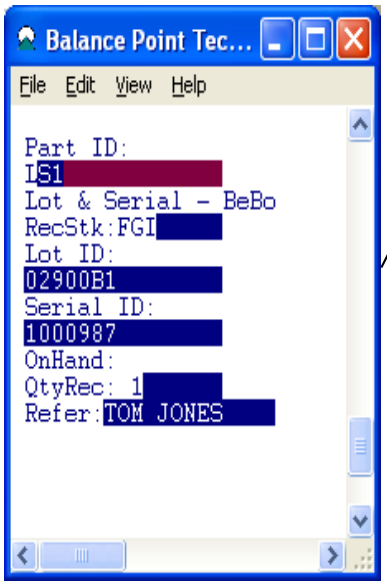
Production Receipt by Lot:



1. Enter the Shop Order
2. The Part ID will be displayed. Enter to confirm. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot , the lot quantity will be automatically entered from the part master multiple quantity field.
4. The “to” location will be entered from the Stock ID of the Work Order.

The transaction will process automatically, once the Lot has been entered. If the transaction processed successfully the Lot will be blanked, otherwise three beeps will be sounded. If the back-flushed components require a Lot and/or serial ID the order issue screen will be displayed with the appropriate component information. All non-Lot/Serial controlled components will be issued automatically.

Repetitive Production: Report production without work orders. Components will be issued from their default stock ID’s based on the quantity per indicated in the bill of material.

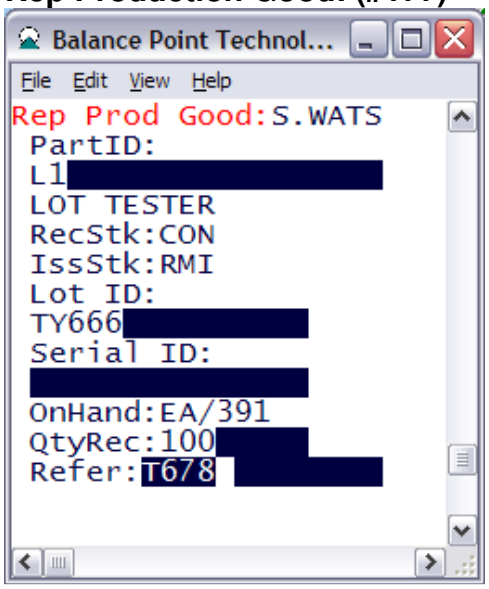


1. The Part ID will be displayed.
2. Enter the Receipt to Stock ID.
3. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
4. Enter the quantity produced.
5. Enter a reference.
6. Hit F1 to process.

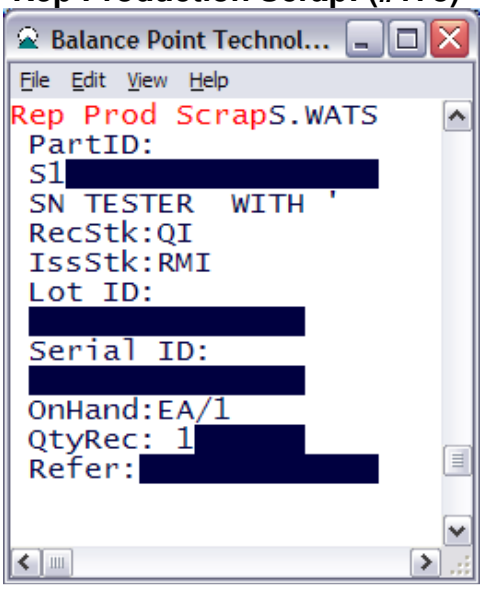
.

Repetitive Transaction Using Default Stock IDs: Receive To and Issue From Stock IDs will default from Repetitive Entries Good, Scrap and WIP.

Rep Production Good: (#177)

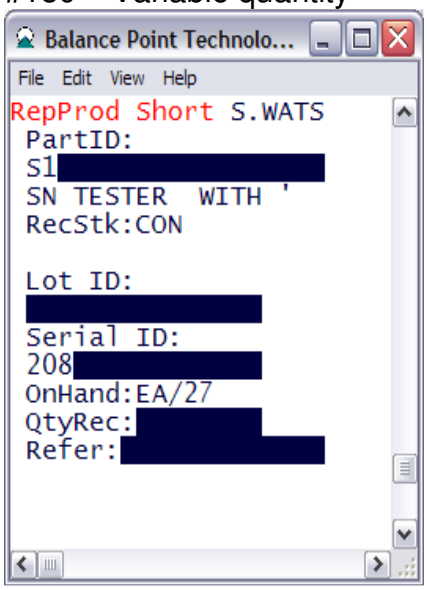


Rep Production Scrap: (#178)

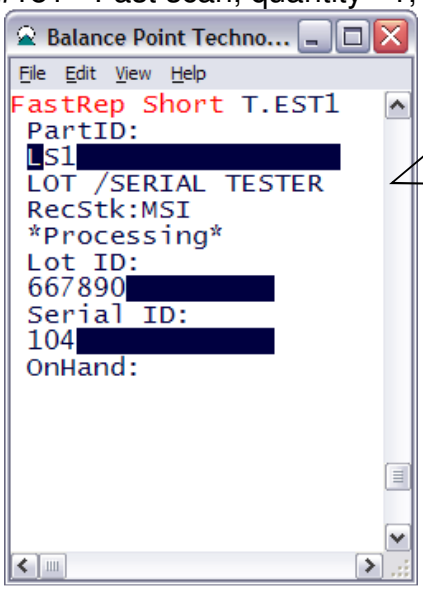


Rep Production Partial Issues: (#180, #181) - issues partial quantities when not enough is available and writes a message to transaction history for shortages.

#180 – Variable quantity



#181 - Fast scan, quantity =1, autoprocess



#183 – same function, with receipt made to Repetitive Scrap Stock ID.

The Fast scan option is intended for one scan production reporting for serialized parts (using MAX auto assign option) or parts not under lot or serial control. It will work with Lot controlled parts but requires the Lot to be scanned.

REFDES_15 will equal REPR or REPI and if there was a shortage will include <999 to indicate the quantity short. If no inventory is found, a zero- Issue transaction will be written.

UDFREF_15 will equal the Parent part and a shortage indicated by “DUE:999”

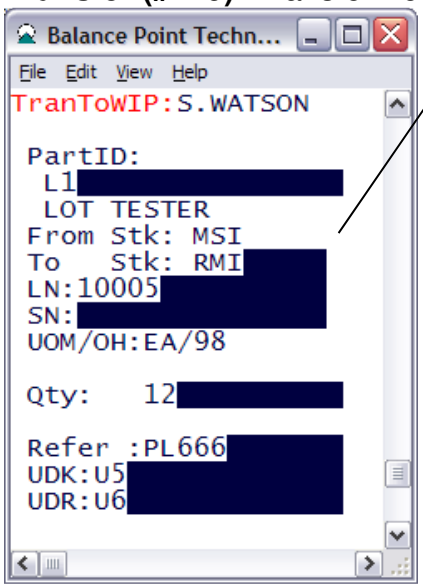
2/2/2006
4:52:58PM

Repetitive Production Audit List

2/2/2006

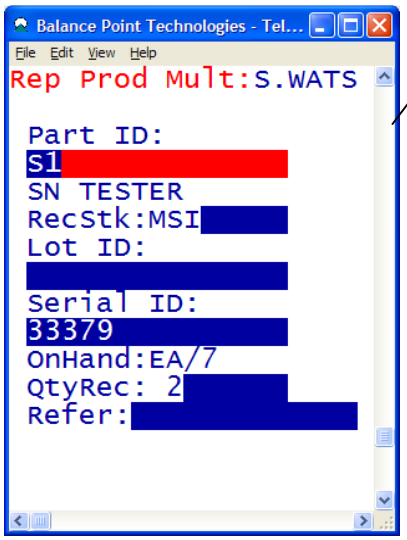
PRTNUM_15	USRNAM_15	TNXCDE_15	TNXQTY_15	TNXTIM_15	REFDES_15	UDFREF_15	
S1	1000	R	1.00	163712	REPR		
12100	1000	I	0.00	163713	REPI<1	S1	Due:1
13000	1000	I	1.00	163713	REPI	S1	
S1	1000	R	1.00	163729	REPR		
12100	1000	I	0.00	163729	REPI<1	S1	Due:1
13000	1000	I	1.00	163729	REPI	S1	

Transfer (#179): Transfer To Stock ID will default from Repetitive WIP entry**.**



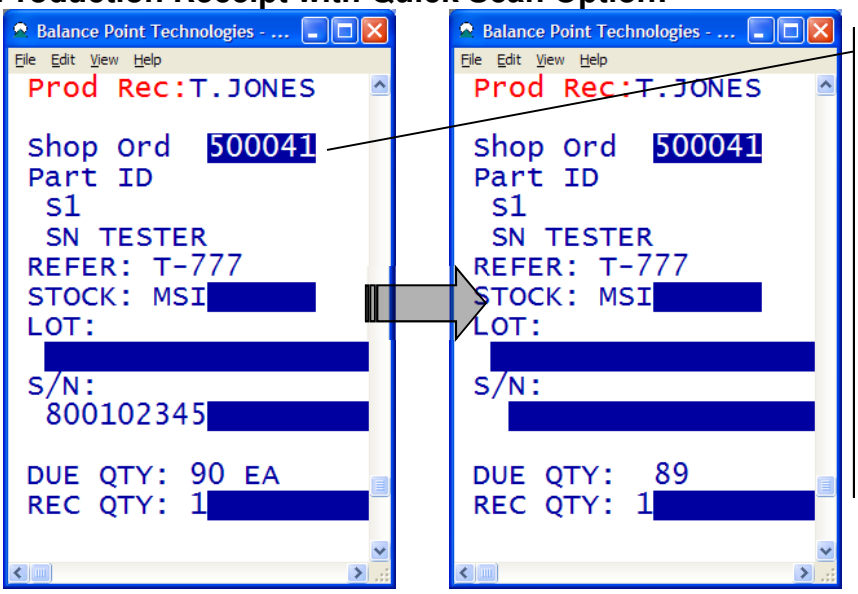
Transfer Stock IDS automatically entered.

Accumulated Issues:



This screen accumulates serial ID's that are received and then does the receipts and summarized issues when F1 is hit to minimize the number of issue transactions.

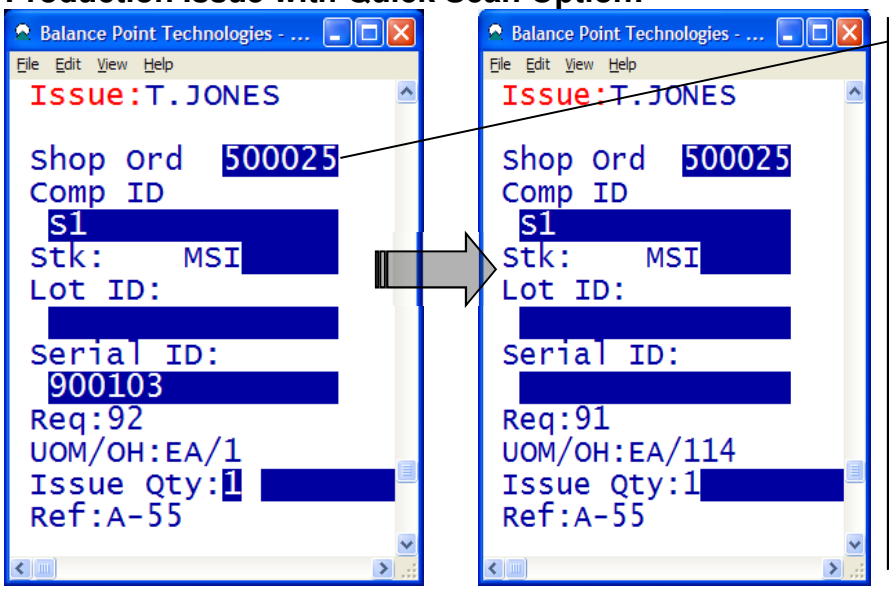
Production Receipt with Quick Scan Option:



This production receipt screen remains logged on to a serial controlled part making it easy to scan multiple random serial ID's.

The Receipt transaction occurs when the quantity is entered.

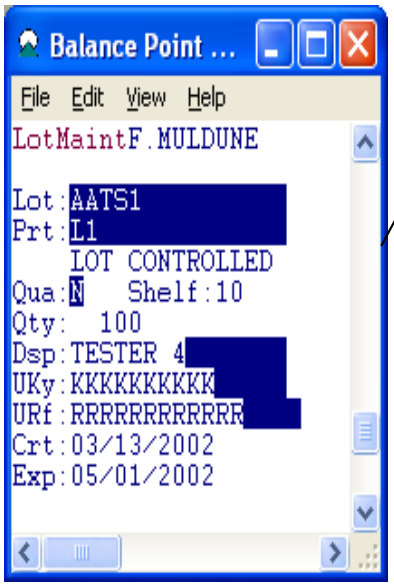
Production Issue with Quick Scan Option:



This production issue screen remains logged on to a lot or serial controlled component making it easy to scan multiple random serial ID's.

The Issue transaction occurs when the quantity is entered.

Lot Maintenance:



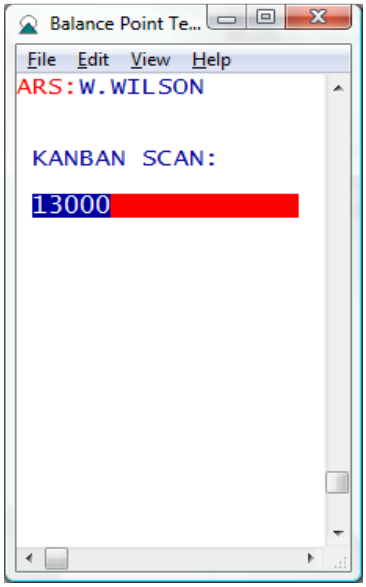
1. Enter Lot and the Part ID.

The Quarantine Code, Disposition, UDF Key, UDF Ref, and Expiration Date can be changed for the selected Lot. The Quarantine Code and Expiration date will be updated on all corresponding Part Lot records.

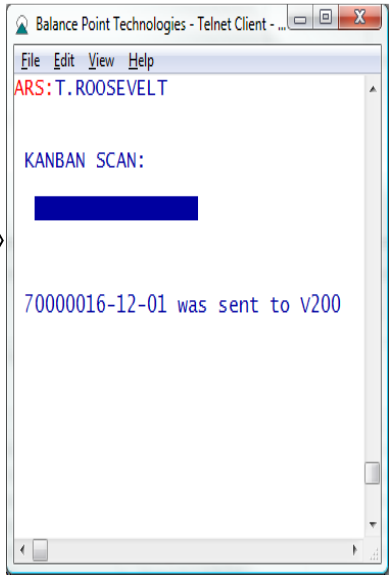
Kanban Processing: Kanban process rules are maintained in the ARS tab of the Tools Administrator Utility. Both the part ID and the deliver to stock ID can be scanned by separating the two fields with the delimiter defined in ARS tab.

Purchased Parts (#142):

Scan Part ID:

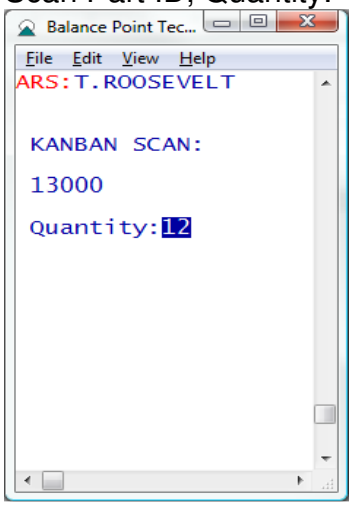


Purchase Order Line / Release Created, Trigger K+1 sent:

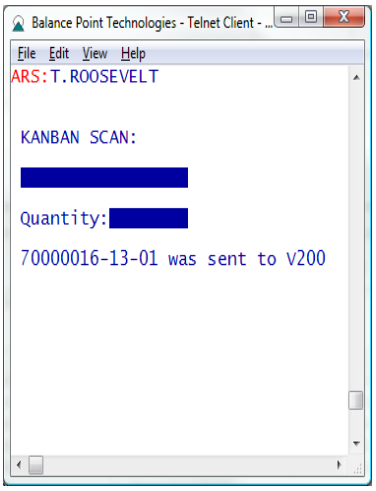


Purchase Parts (#209):

Scan Part ID, Quantity:

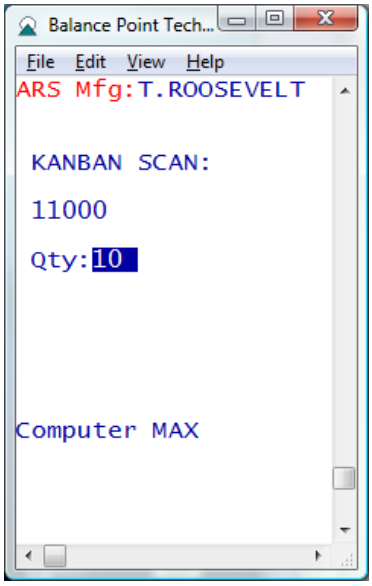


Purchase Order Line / Release Created, Trigger K+1 sent:

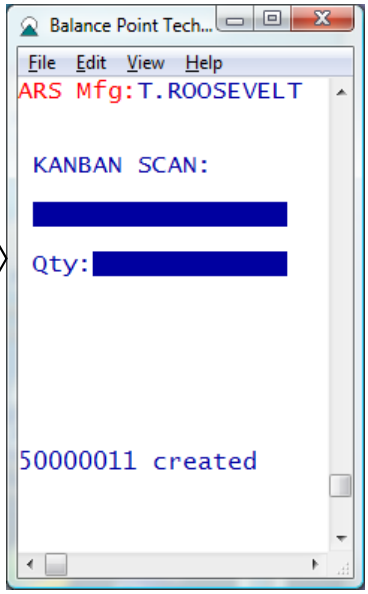


Manufactured Parts (#82):

Scan Part ID, Quantity:

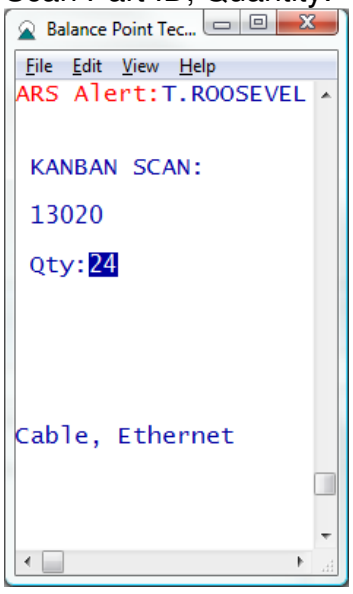


Shop Order Created, Tigger K+2 sent:

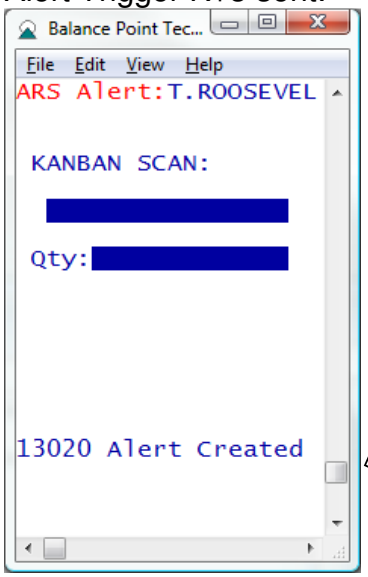


Transfer Alert (material needed on the floor)(#83):

Scan Part ID, Quantity:



Alert Trigger K+3 sent:



2/16/2009 Kanban Transfer Alerts Page 1 of 1

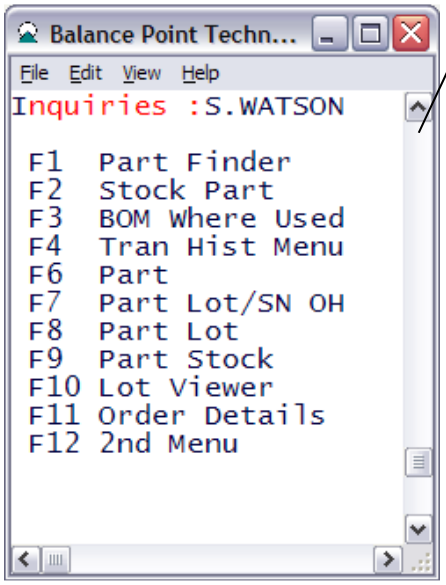
1:51:15PM

02/16/09

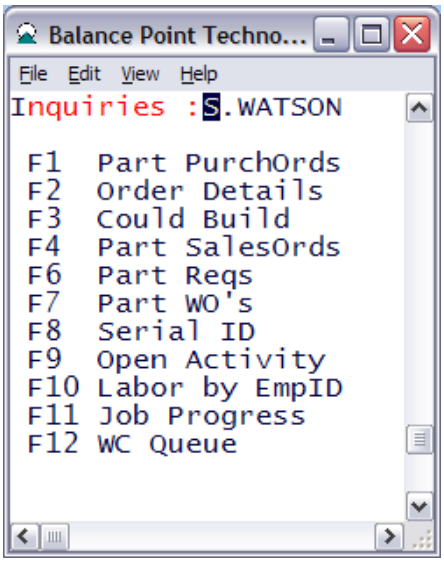
PART	PDESC	Requested	Deliver To	Requestor
13020	Cable, Ethernet	24.00	RMI	1000 T.ROOSEVELT

Inquiries:

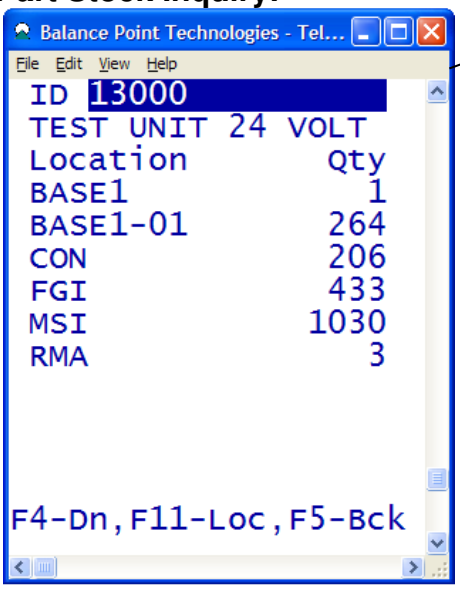
Inquiry Menu:



Use the assigned function key to display the screen for a particular inventory transaction.



Part Stock Inquiry:

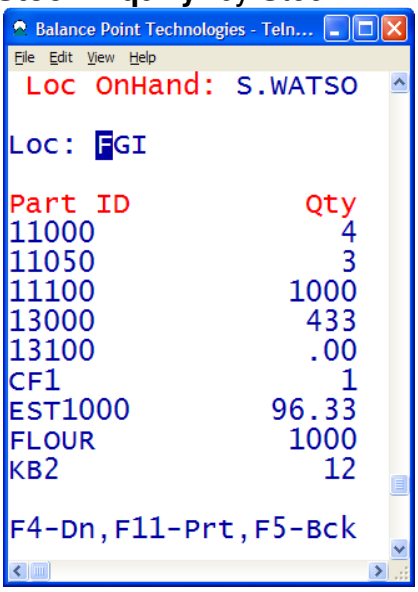


Enter the Part ID

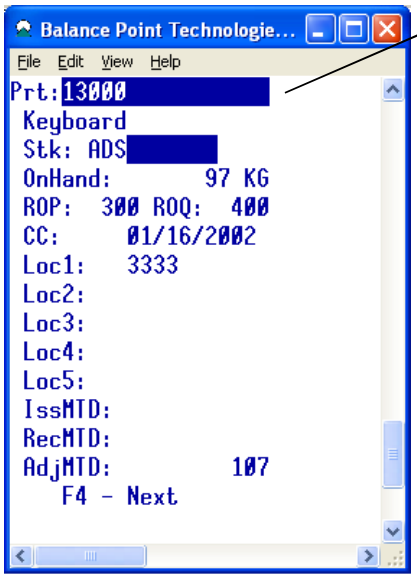
A list of On-hand balances by Stock ID will be displayed.

F4 to scroll down.

Stock Inquiry: by StockID



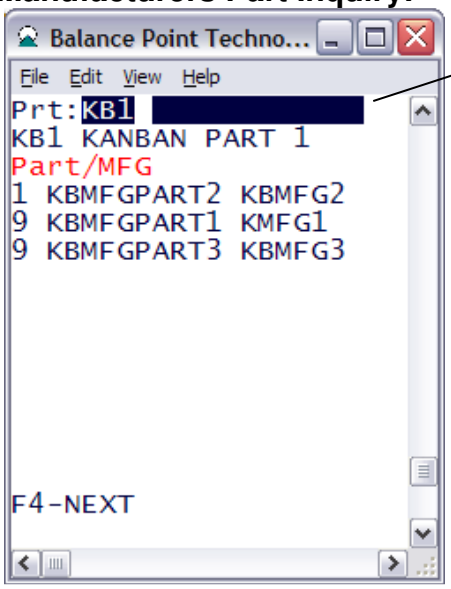
Part Stock Inquiry:



Enter Part ID - the default stock information will be displayed.

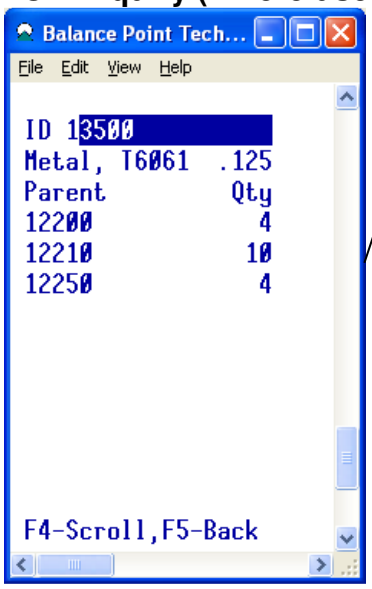
Enter s specific Stock ID to see specific part stock data or **F4** to scroll

Manufacturers Part Inquiry:



Enter MAX Part ID or the Manufacturers Part to see a list of manufacturer's parts sorted by priority.

BOM Inquiry (Where used):



Enter the Component Part ID

A list of immediate parents will be displayed.

F4 to scroll.

The current date will be initially displayed. Hit enter to view the history.

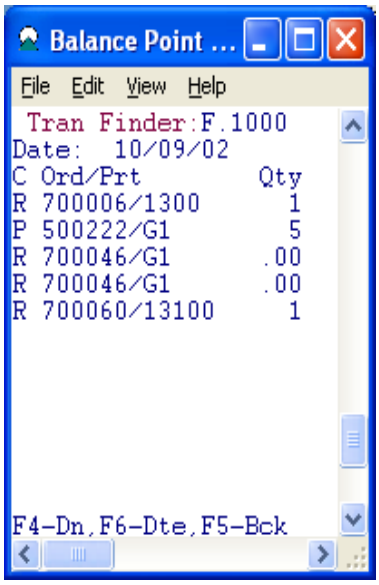
A list of transactions will be displayed in reverse sequence (from last to first) for the currently logged in EmpID .

F4 to scroll.
F6 will decrease the entered date by one day.
F7 will increase the entered date by one day.

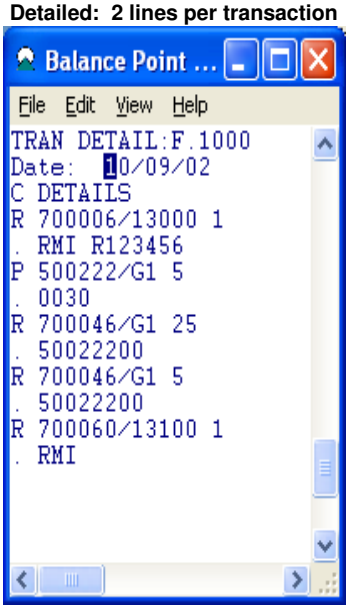
Transaction Inquiries:

Enter a PartID and scroll backwards using **F4**

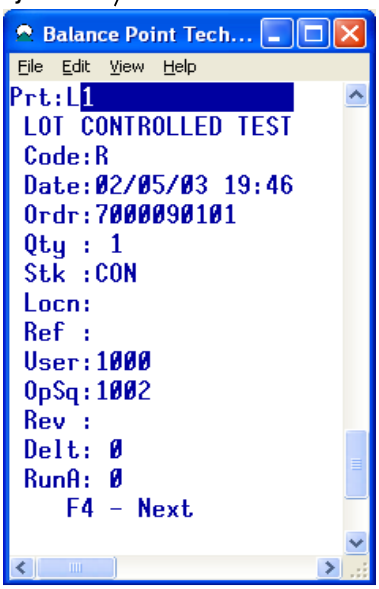
Summary: 1 line per transaction



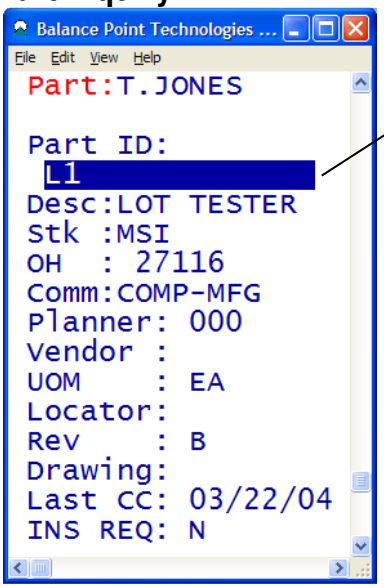
Detailed: 2 lines per transaction



by Part:



Part Inquiry:

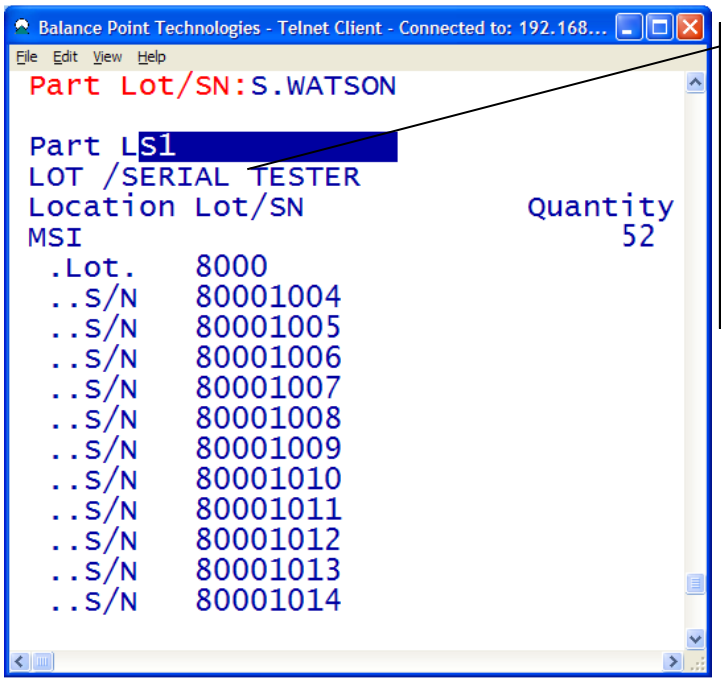


Enter the part ID.

Part data will be displayed.

"INS REQ" is an optional field on the Part Inquiry which can be used to set the INSRQD_01. This field is used by the Purchasing Receipt functions to direct the receipt to an inspection stock ID,

Part Lot/SN:



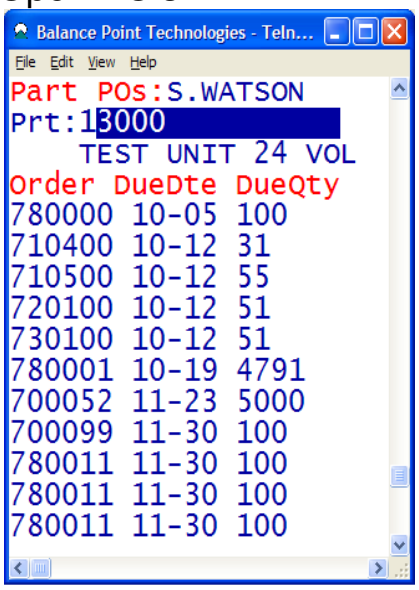
Enter the part ID.
A list of balances by Stock ID, Lot and Serial number will be displayed as applicable to the part.

F4 to page down.

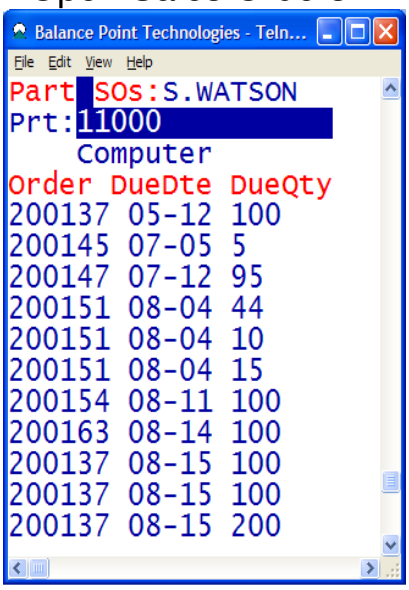
Note: that this screen requires a line width of 40 characters and will only display variable lines of text depending on screen dimensions set by ScreenShaper.

Part Detail Inquiries:

Open PO's:



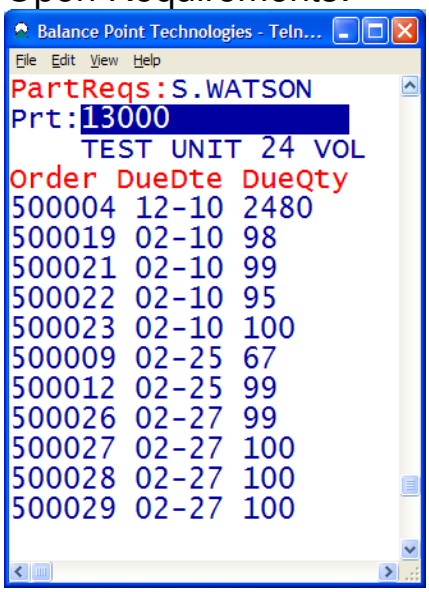
Open Sales Orders:



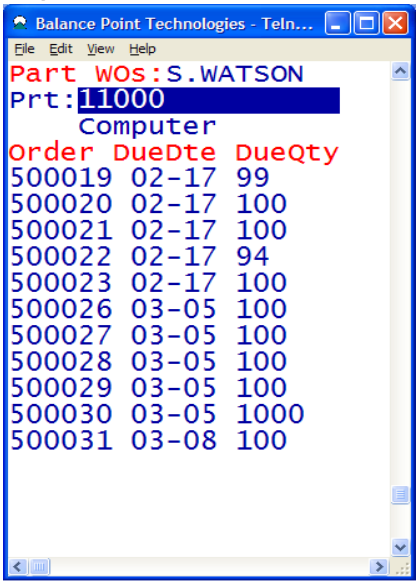
Enter a Part ID to display the requested details in date sequence.

F4 – to page.

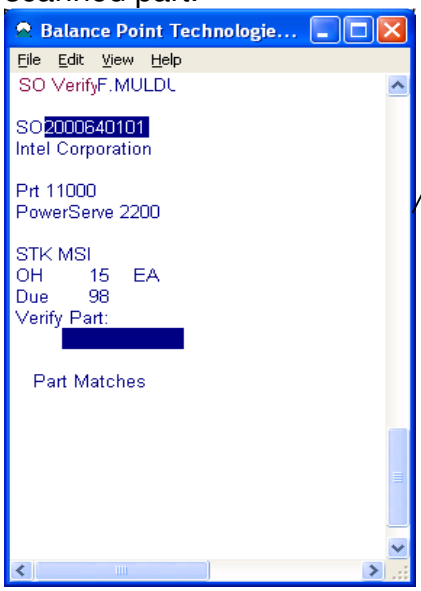
Open Requirements:



Open Production:



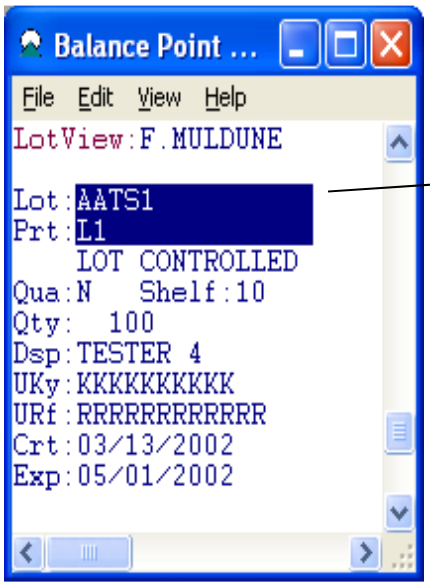
So Verify: this screen is used to display a status for a sales order line and to verify a scanned part.



Enter either Sales Order + Line + delivery, or just the six digit Order. If just the Order is used parts can be verified randomly for the order, otherwise they are verified for the entered Line + Delivery only.

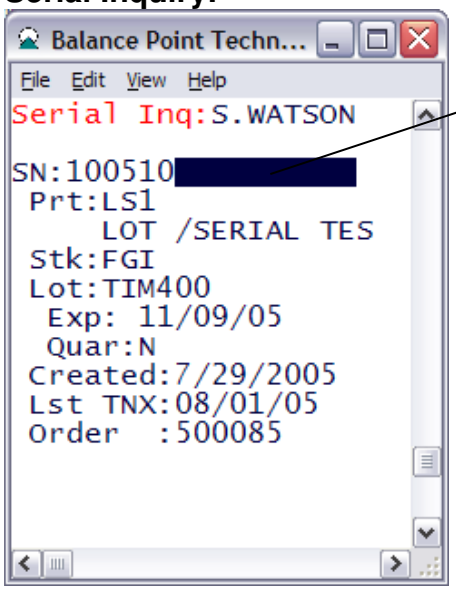
Scan the part to verify. If the part is not valid 3 beeps will be sounded and the message line below the scan will display "***" plus the part scanned.

Lot Viewer: this screen is used to display Lot information.



Enter the Lot ID and the Part ID..

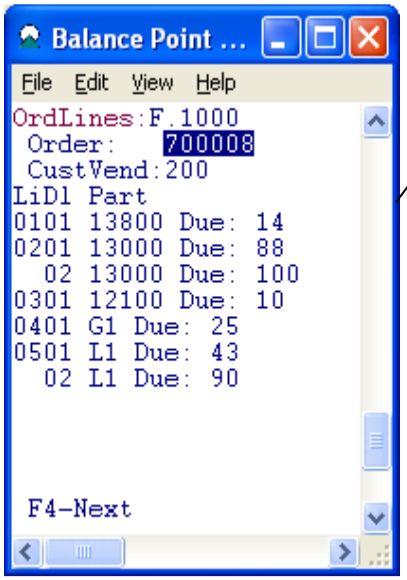
Serial Inquiry:



Enter Serial ID to display information about an existing serial number.

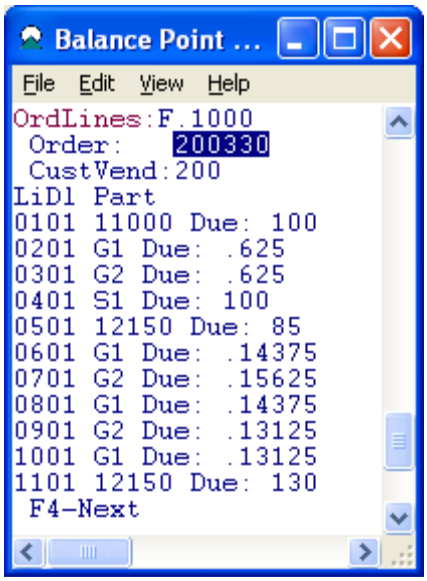
Order Line Viewer: this screen is used to display Lot information.

Purchase Order:

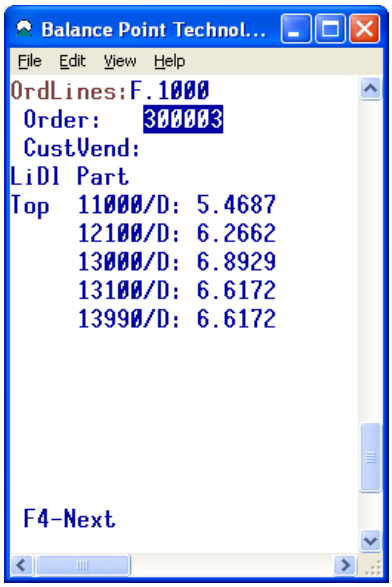


Enter any valid six digit MAX Order to see a list of line items.

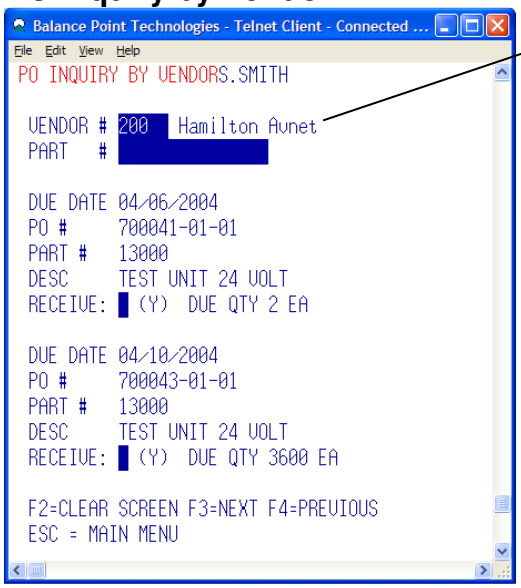
Sales Order:



Work Order:



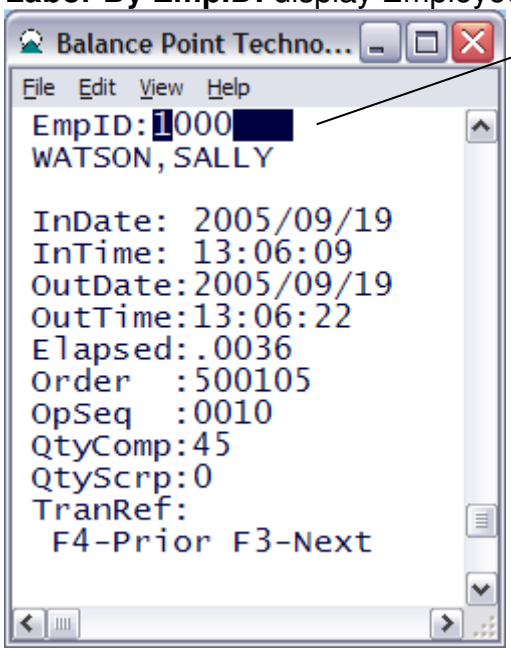
PO Inquiry by Vendor:



Enter a valid Vendor ID and an optional part ID (will restrict view to the entered part).

The display will show two lines at a time. F3 will show the next lines and F4 will show previous if applicable.

Labor By EmpID: display Employee Work Transactions

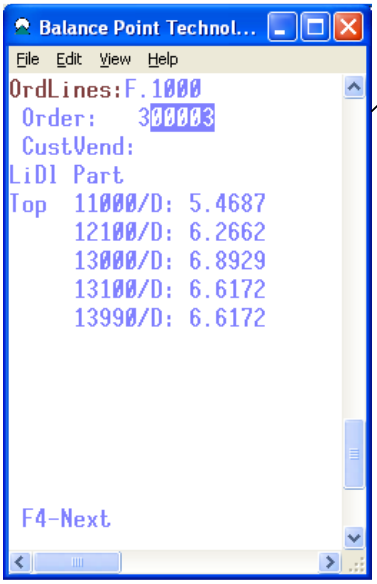


Enter a valid EmpID.

Transactions will be shown in reverse chronological order.

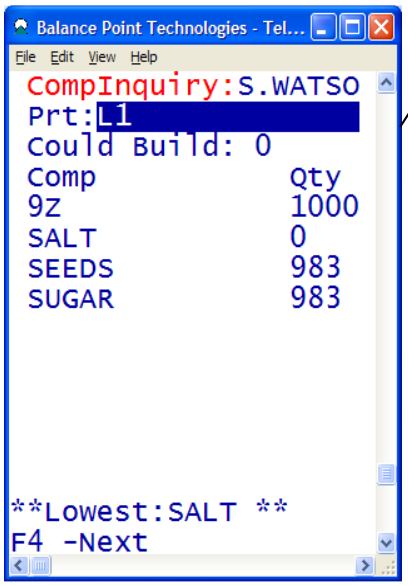
F4 - to see prior
F3 - to see more recent

Order Details:



Enter Work Order number to display a list of open requirements.

Could Build:

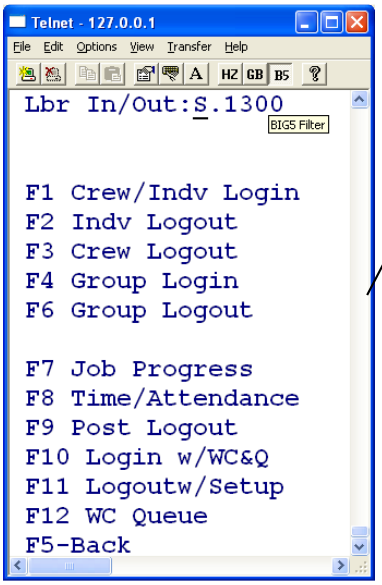


Enter a part to see it's first level components and how many of the entered part could be built.

Currently this inquiry does not explode phantoms or pseudos.

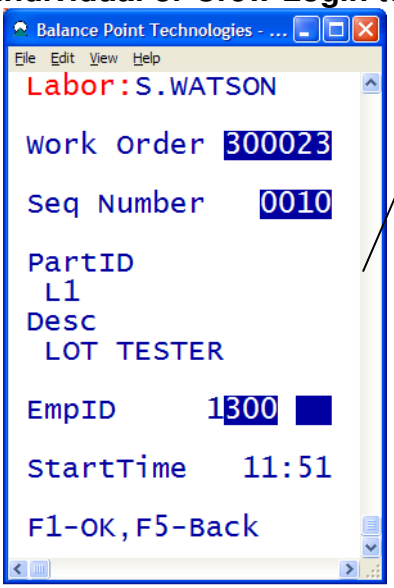
Labor Transactions

Labor Menu:



Use the assigned function key to display the screen for a particular inventory transaction.

Individual or Crew Login to Work Order:

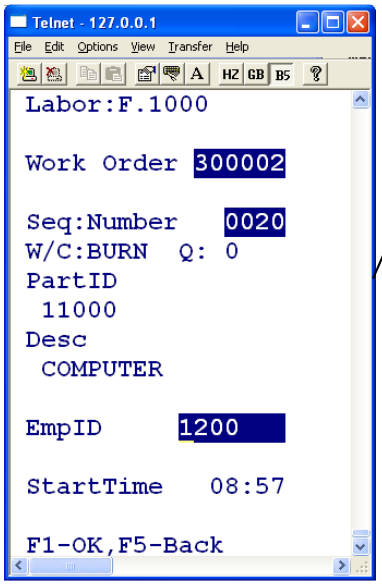


1. Enter the work-order number. If this is an indirect activity enter or scan an indirect code which has the format: “IXGGG “, where ‘X’ is a valid indirect account entry in MAX, and “GGG” is a valid GLRef. Enter the sequence number. If indirect this field is skipped.
2. Enter the employee assigned to this work-order. The screen will return to the Employee field for the next entry for this order.
3. Enter the start time for this work-order. **F3** for the present time. This entry is only activated if the System password has been entered.
4. If all entries are correct press **F1**

The employee will be automatically logged out of any order currently logged into.
If the function has processed successfully the cursor will return to the EmpID field for additional entries to the same order and operation.

If multiple orders is in effect for the entered Employee then this screen requires the Work Order + OpSeq be entered, otherwise if single order login is in effect the currently logged in activity is displayed automatically.

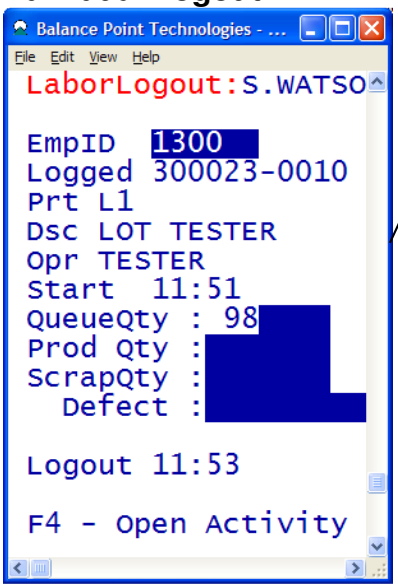
Login with Queue Information: Alternate LOGIN screen, which displays the current Queue information.



1. Enter the work-order number. If this is an indirect activity enter or scan an indirect code which has the format: "IAAAGGG " where 'AAA' is equal to a valid indirect account entry in MAX, and "GGG" is a valid GLRef. Enter the sequence number. If indirect this field is skipped.
2. Enter the employee assigned to this work-order. The screen will return to the Employee field for the next entry for this order.
3. Enter the start time for this work-order. **F3** for the present time. This entry is only activated if the System password has been entered.
4. If all entries are correct press **F1**

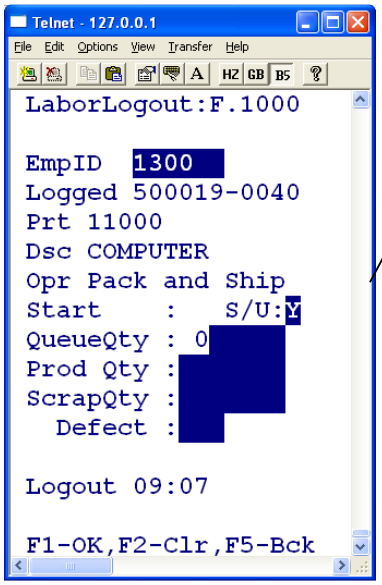
The employee will be automatically logged out of any order currently logged into.
If the function has processed successfully the cursor will return to the EmpID field for additional entries to the same order and operation.

Individual Logout:



1. Enter the employee ID and the currently logged in Order or indirect activity will be displayed.
2. Enter the produced quantity, if any.
3. Enter the scrapped quantity, if any.
4. Enter a defect code if there is scrap.
5. Change time as needed.
6. **F1** to Logout

Logout Setup Time: This is an alternate Logout screen which allows for charging setup time.

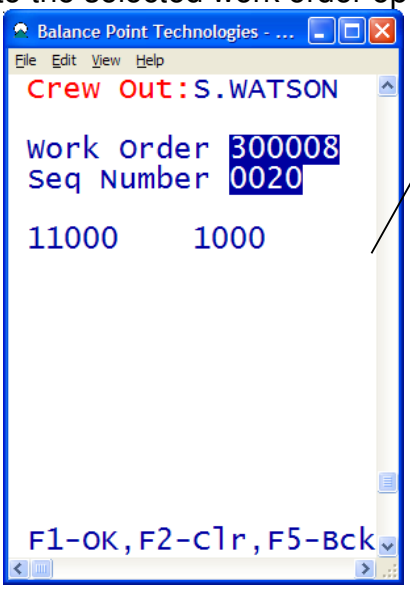


1. Enter the employee ID and the currently logged in Order or indirect activity will be displayed.
2. Enter a "Y" in the 'S/U' field to indicate Setup time only.

If not setup then :

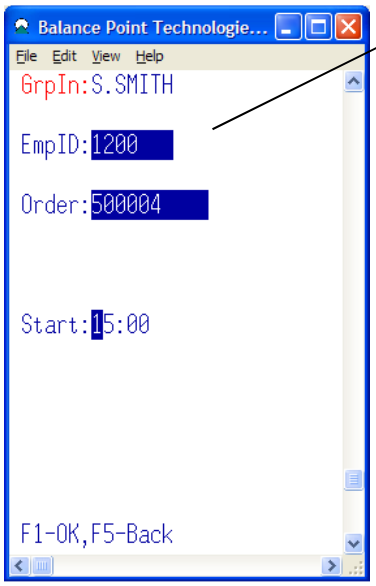
3. Enter the produced quantity, if any.
4. Enter the scrapped quantity, if any.
5. Enter a defect code if there is scrap.
6. Change time as needed.
7. **F1** to Logout

Crew Labor Logout: this screen is used to logout all of the operators currently assigned to the selected work order operation sequence.



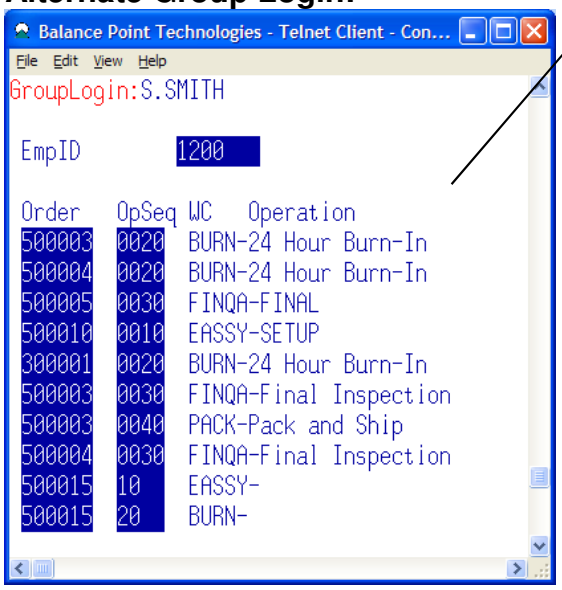
1. Enter the Work Order and the Operation Sequence. A list of currently logged in EmpID's will be displayed.
2. **F1** to Logout everyone.

Group Order Login: this screen allows you to quickly login to multiple orders (up to ten). The employee will be logged in to the first available operation of the order entered.



1. Enter the Employee ID
2. Enter the Work Order
3. Enter the time
1. **F1** To process the transaction

Alternate Group Login:



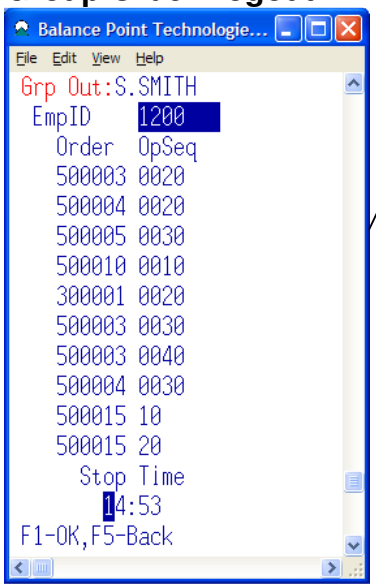
1. Enter the Employee ID
2. Enter the Work Orders and operation sequences.

The operation descriptions will display.

3. **F1** To process the login.

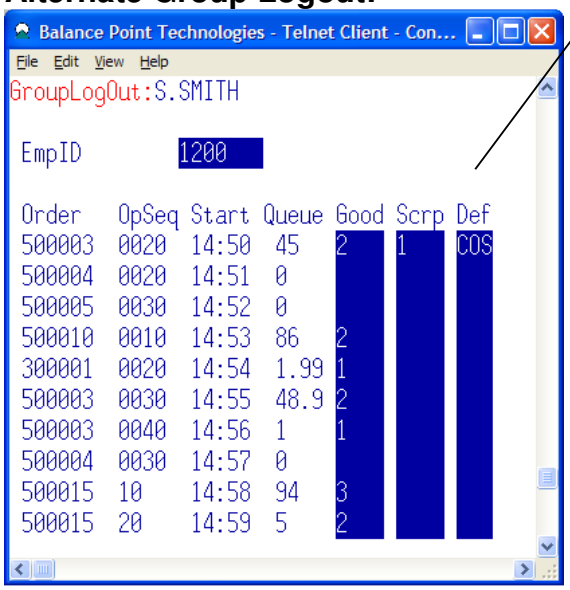
This function will lock the Employee from logging in to any other activity until a corresponding Group Logout has been performed. The time accumulated will be allocated by dividing by the number of simultaneous work orders.

Group Order Logout:



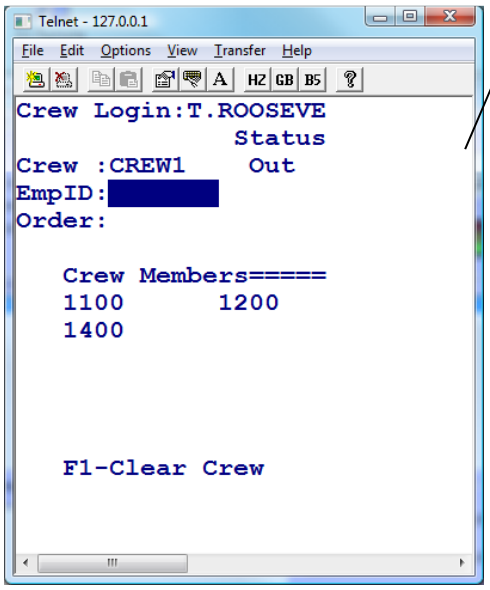
2. Enter the Employee ID. A list of all orders and sequences currently logged into will be displayed.
3. Enter the time
4. **F1** to Logout. All of the steps for each job will be posted complete with hours pro-rated based on the number of work orders that were worked on simultaneously.

Alternate Group Logout:



1. Enter the Employee ID. A list of all orders and sequences currently logged into will be displayed.
2. Enter quantities and Defect Codes where applicable.
3. **F1** to Logout. All of the steps for each job will be posted complete with hours pro-rated based on the number of work orders that were worked on simultaneously.

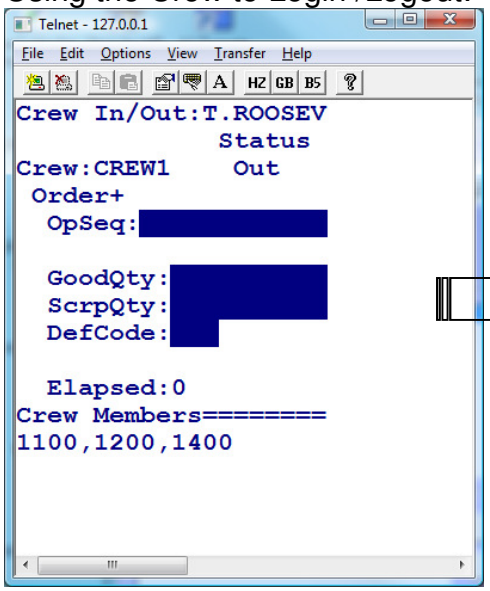
Crew In/Out:



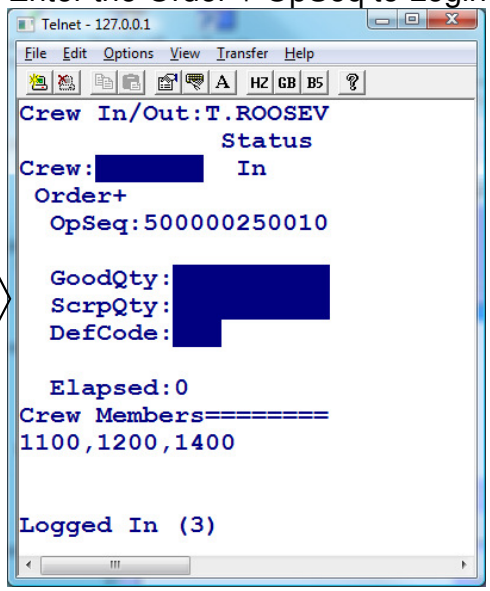
Any employee ID can be used as a "Crew" as long as it is not already in a crew itself.

Add or remove crew members by entering their employee ID's.

Using the Crew to Login /Logout:



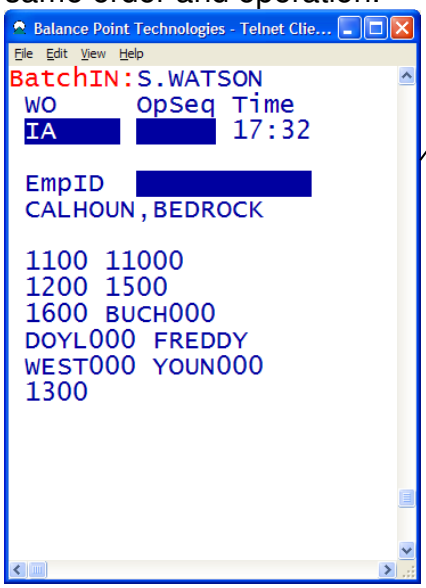
Enter the Order + OpSeq to Login:



To logout enter the Crew and the quantities and hit F1 to logout all crew members. The quantities entered will be divided up among the members.

If a crew is actively logged in when a member is removed or add that member will be logged in or out as applicable.

Batch In:
The purpose of this screen is to accumulate up to 16 employees to be logged in to the same order and operation.



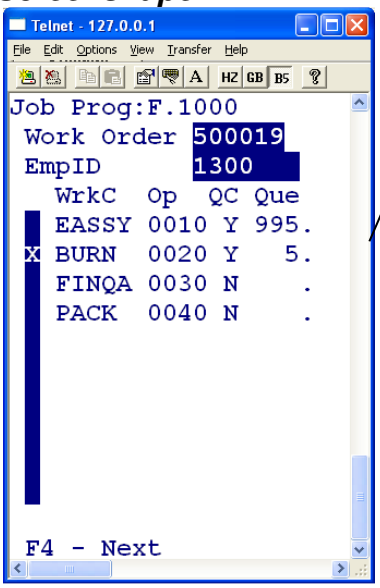
1) Enter the Order and Operation Sequence or Indirect code.
2) Enter or change the time.

These settings will then be used for all the employees that are entered.

F1 will all entries out of current activities (if the Auto Logout function is selected) and into the new.

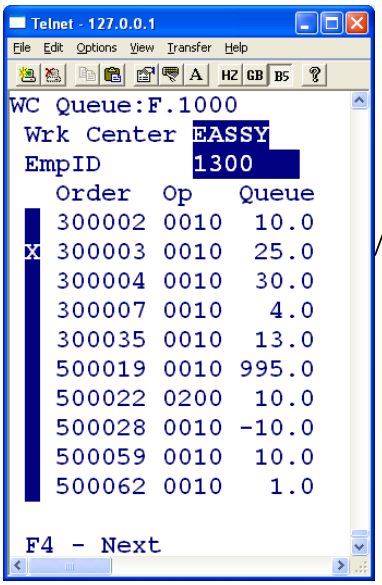
The screen will be blanked, but the employee list can be retrieved on a subsequent login by hitting enter in the employee field with a blank value.

Job Progress: This screen is an inquiry, which shows the open operations by work order. It can be used in conjunction with Labor Login screen #53 to login to the selected operation. ***To activate this enter the screen ID in the F4 navigation line using the Screenshaper.***



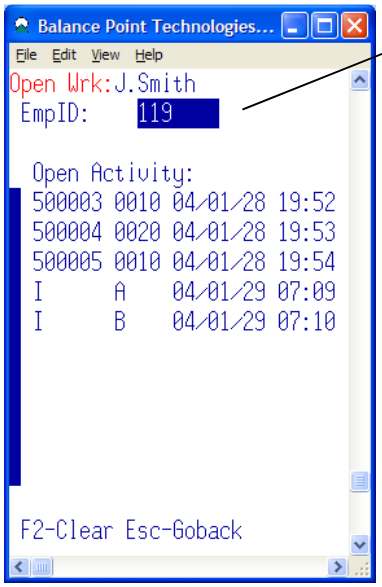
1. Enter the Work Order to display the open operation sequences for the job.
2. Enter the employee ID and put any character next to the operation to be logged into.

Work Center Queue: This screen is an inquiry, which shows the open operations by order. It can be used in conjunction with Labor Login screen #53 to login to the selected operation. ***To activate this enter the screen ID in the F4 navigation line using the Screenshaper.***



1. Enter the Work Center ID to display all the orders and operations, which are scheduled for the work center.
2. Enter the employee ID and put any character next to the operation to be logged into.

Open Activity: This screen is an inquiry, which shows the open orders or indirect activities that by Employee. It can be used in conjunction with Labor Logout screen #13 to logout of the selected operation. ***To activate this enter the screen ID in the F4 navigation line using the Screenshaper.***

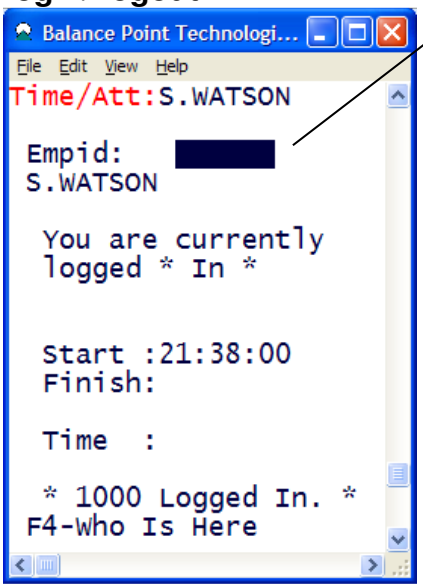


1. Enter the Employee ID to see open activity or leave blank to see all employees.
2. If Employee ID is used: Enter any character next to the operation to be logged out of. This will send to the Log out Screen.

F4 - is used to page down.

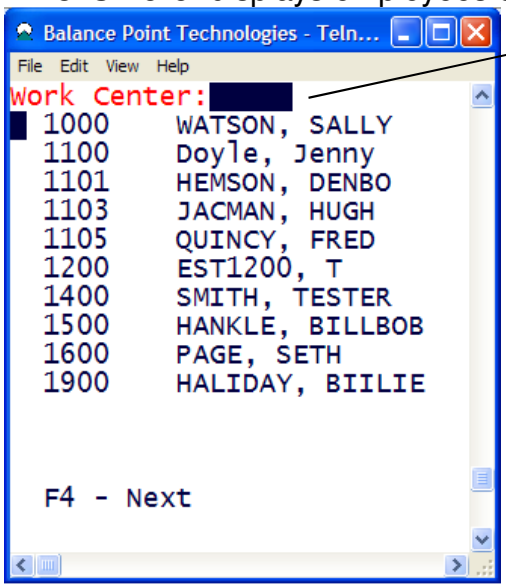
Time and Attendance: this form functions as a simple Time Clock for recording time and attendance by opening an employee work record at login and updating the record with the elapsed time at logout. Only the employee ID is entered and depending on whether the employee is currently logged in or not when F1 is pressed a login or logout will take place.

Login/Logout:



1. Enter the Employee ID. The current status of the employee will be displayed.
2. F1 – to Login/ Logout depending on current status.

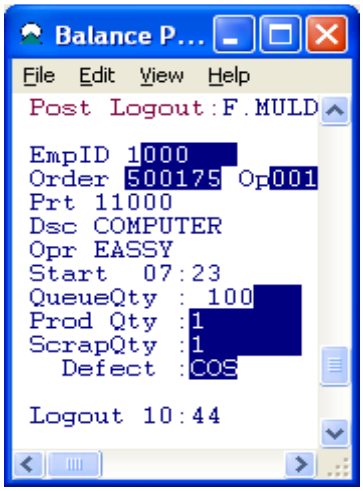
Who Is Here: displays employees currently in Attendance.



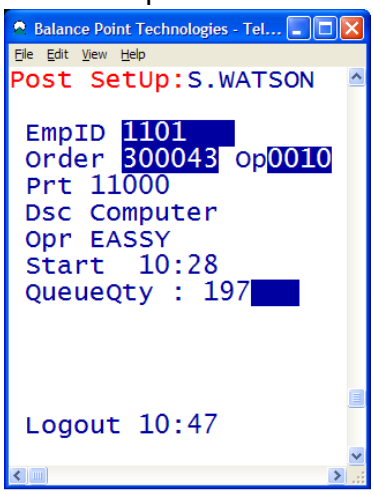
Enter the Work Center to see employees with a matching default Work Center or enter blank to see all employees who have logged to Time & Attendance.
.

Post Order Logout: this screen records production information using only this logout function. Elapsed times are calculated based on the last action that the Employee recorded. This screen works in conjunction with the Time and Attendance screen (#44), which is used to record the beginning and ending of a day, or entering and leaving the premises.

Post Run time:



Post Setup time:



1. The employee enters his/her ID and their start time will display.
2. Enter the Work Order and Operation Sequence. The part and work center information will display.
3. Optional - Enter Production quantity.
4. Optional – Enter Scrap quantity and a scrap code.

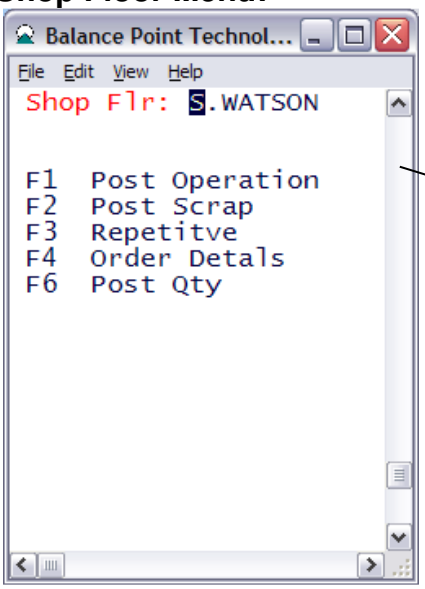
F1 – Process. The elapsed time and quantity updates will be recorded. The "start time" will be updated for the next transaction.

Post Setup captures setup only time.

Note: this function requires the employee to be set to "S" (single orders) and for the AutoLogout option to be set in the Software settings using Tools.

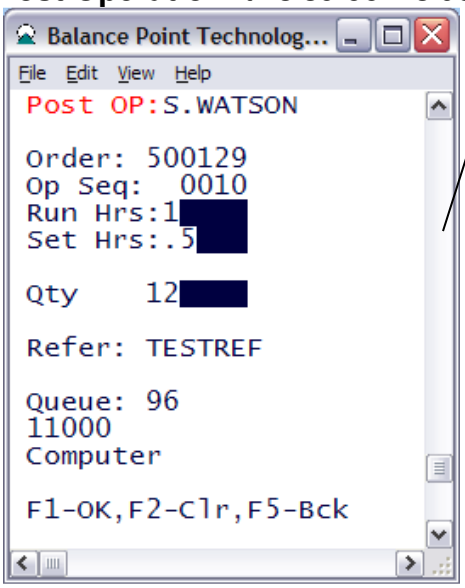
Shop Floor Transactions

Shop Floor Menu:



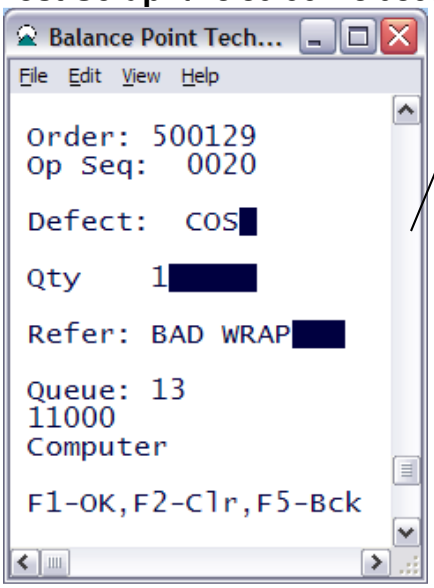
Use the assigned function key to display the screen for a particular inventory transaction.

Post Operation: this screen is used to post production hours and quantities.



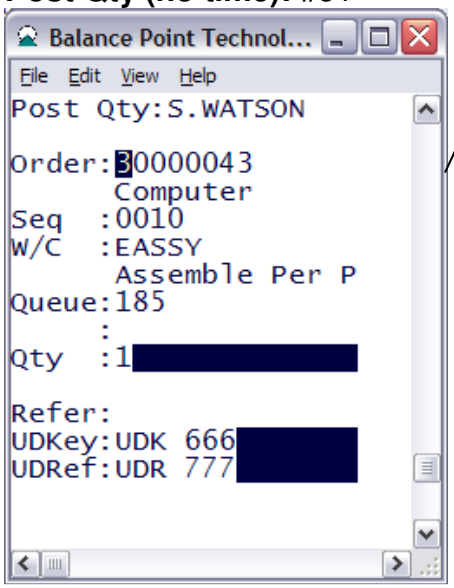
1. Enter the work-order
2. Enter the operation sequence.
3. Enter the run hours.
4. Enter the Setup hours.
5. Enter quantity.
6. Enter Reference (Optional)
7. **F1** To process the transaction

Post Scrap: this screen is used to post scrap quantities by operation sequence.



1. Enter the work-order
2. Enter the operation sequence.
3. Enter the Defect Code (Required)
4. Enter quantity.
5. Enter Reference (Optional)
6. **F1** To process the transaction If the transaction processed successfully the screen will be blanked, otherwise three beeps will be sounded.

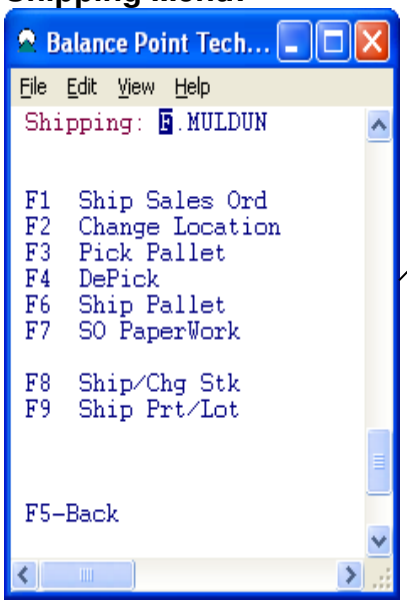
Post Qty (no time): #51



1. Enter the work-order
2. Enter the operation sequence.
3. Enter quantity.
4. Enter Reference (Optional)
5. Enter UDKey and UDRef (Optional)
6. **F1** To process

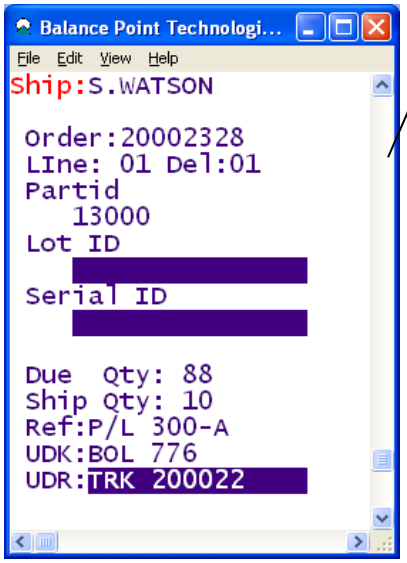
Shipping Transactions

Shipping Menu:



Use the assigned function key to display the screen for a particular inventory transaction.

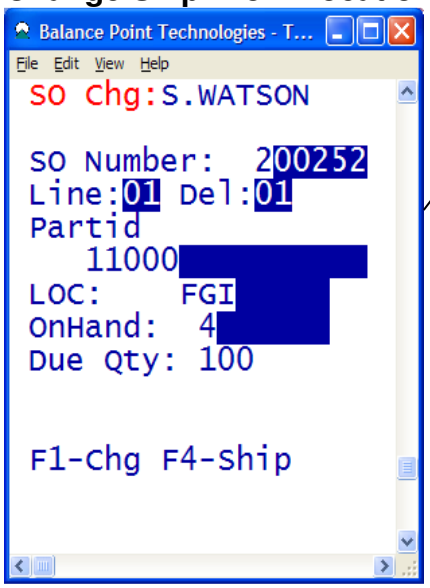
Standard Ship:



1. Enter the Sales Order, Line and Delivery. Order + Line + delivery can be entered together in order field as long as the field has been stretched to twelve digits using ScreenShaper. The part ID will be displayed along with the Due Quantity. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
2. Enter Lot and/or Serial ID as required.
3. Enter the quantity. The shipment with Lot's and Serial numbers will accumulate until you are ready to process.
4. **F1** To process the transaction.

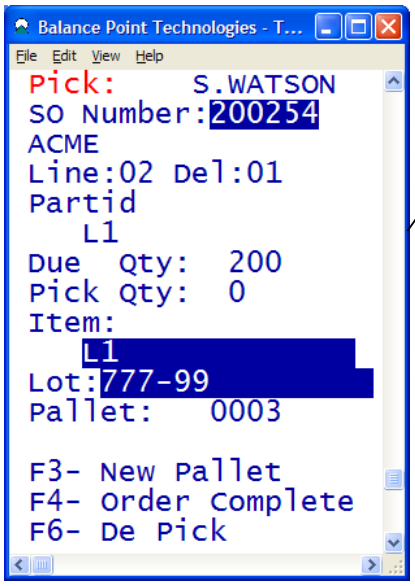
Note: this function can be configured to allow the Ship From stock ID to be changed on the fly. This requires an alternate ship screen, which is included with this module.

Change Ship-From Location:



1. Enter the Sales Order, Line and Delivery. The part ID will be displayed along with the Due Quantity AND CURRENT SHIP-FROM stock ID.
2. Enter the new Stock ID. The current on hand balance will display for that location.
3. **F1** To change the ship-from stock location.

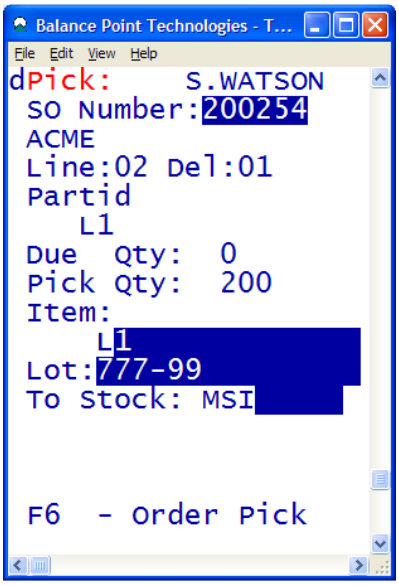
Pick Sales Order Pallet:



1. Enter the Sales Order
2. Enter the Lot ID or Serial ID – to determine which line item on the order is being picked.
3. Assign a pallet or ask for a new pallet.

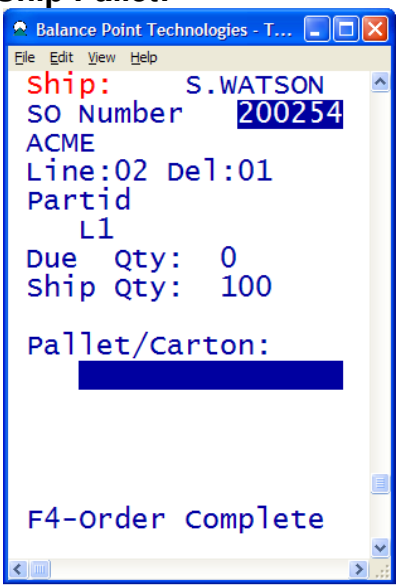
This screen is designed to accept randomly entered Lot ID's. The quantity from the Lot will be transferred to the Pallet location, which is a Stock ID in MAX.

DePick Pallet: This screen is designed to back out any Lot that was picked in error.



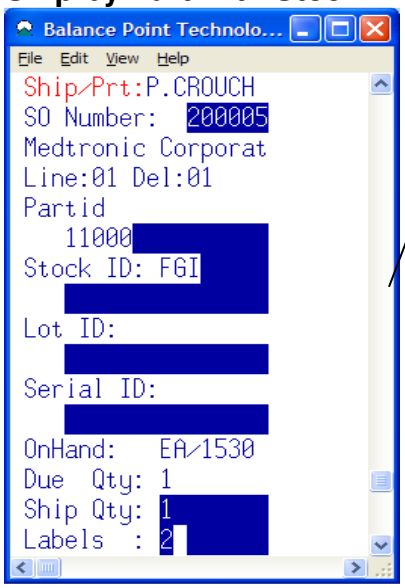
1. Enter the Sales Order
2. Enter the Part , Lot ID or Serial ID to de-pick.
3. **F1** to process.

Ship Pallet:



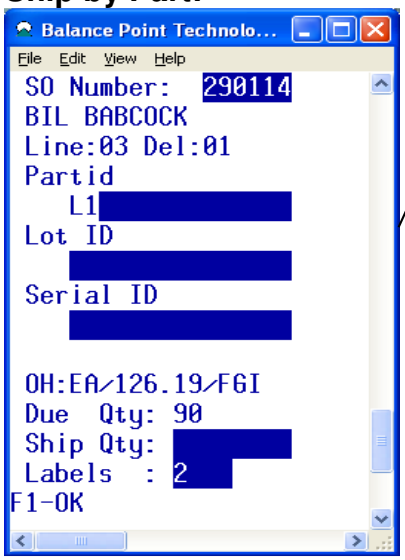
1. Enter the Sales Order
2. Enter the Pallet or Lot ID to ship.

Ship by Part with Stock ID Change:



1. Enter the Sales Order, Line, and Delivery. The part ID will be displayed along with the Stock ID and Due Quantity. The Stock ID can be changed as needed. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
2. Enter Lot and/or Serial ID as required.
3. Enter the quantity. The shipment with Lot's and Serial numbers will accumulate until you are ready to process.
4. Enter quantity of labels to print.
5. **1** To process the transaction.

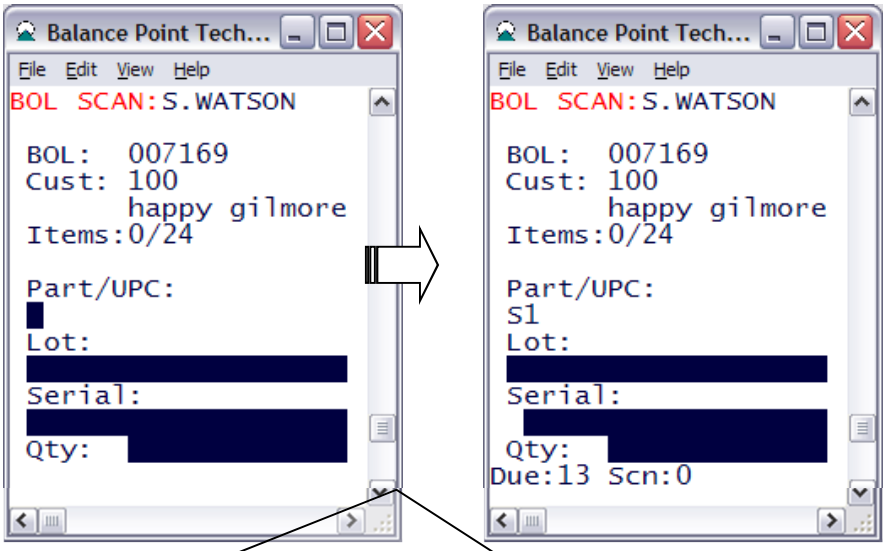
Ship by Part:



1. Enter the Sales Order..
2. Enter the part ID The Stock ID and Due Quantity will be displayed. Depending on whether the part is under Lot and/or Serial control the cursor will stop at the next input field.
3. Enter Lot and/or Serial ID as required.
4. Enter the quantity. The shipment with Lot's and Serial numbers will accumulate until you are ready to process.
5. Enter the quantity of labels.
6. **F1** To process the transaction.

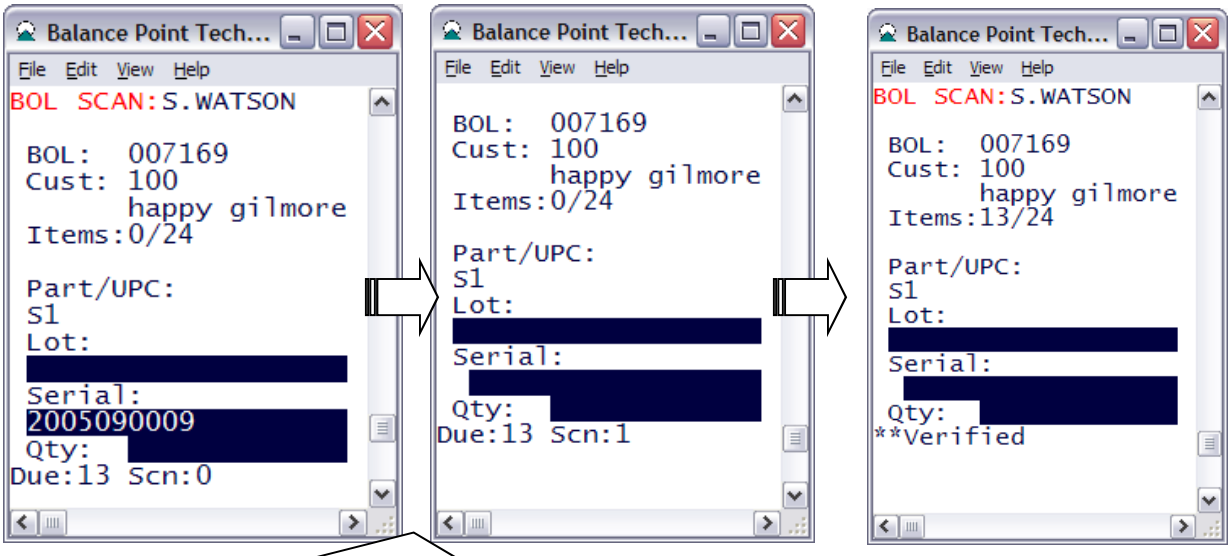
Quantity of labels can be entered by hitting enter on Lot or Serial fields or if the part is neither Lot nor Serial controlled, after entering the quantity. The REFER formula is set to "B00001", "B00002" etc. incremented by 1, so that the labels generated can display "1 0f 2" and "2 of 2".

BOL Scan: Screen #144 this function will provide a quick method for scanning and assigning Serial Numbers and Lots and verifying quantities. Once the due quantity for a line has been satisfied the Scan Verify flag will be set to “Y” in the BOL Shipments table.



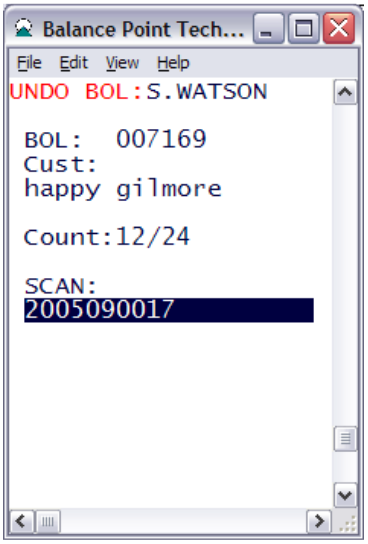
1. Scan BOL to display verify and display the Customer Name and the quantity of Serial numbers which have already been scanned and the total to be scanned.
2. Scan the Serial Number or Lot ID as needed. If not under Lot or Serial control enter a quantity to verify.

Scans can be undone using Screen #146.



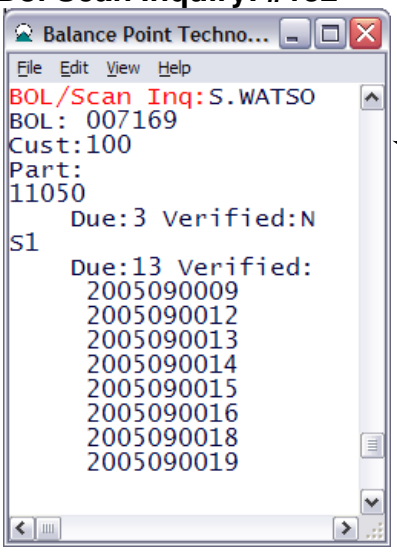
Once the quantity for a part is satisfied a “Verified” message will display.

UnDo Serials: #146



Scan serial number, lot or for a part not under lot/serial control the part to remove from a BOL.

Bol Scan Inquiry: #132

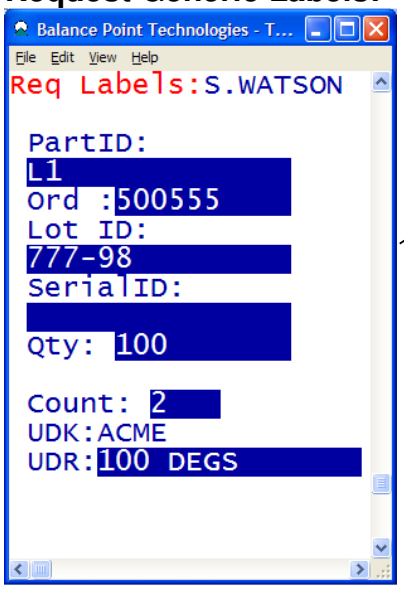


Enter the BOL to display current Scan Verify status with details.

Use F4 to scroll to next page if needed.

Request Labels and Documents:

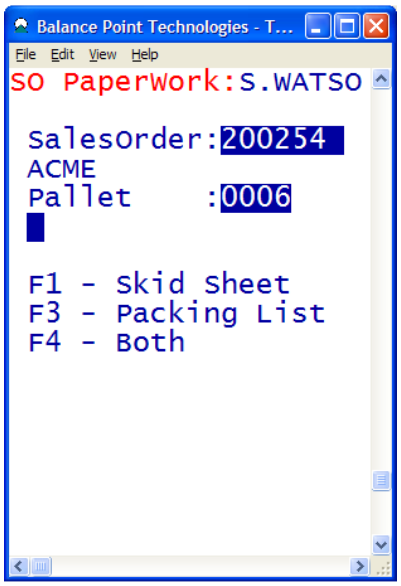
Request Generic Labels:



1. Enter a valid part ID and any other information.
2. F1 to print.

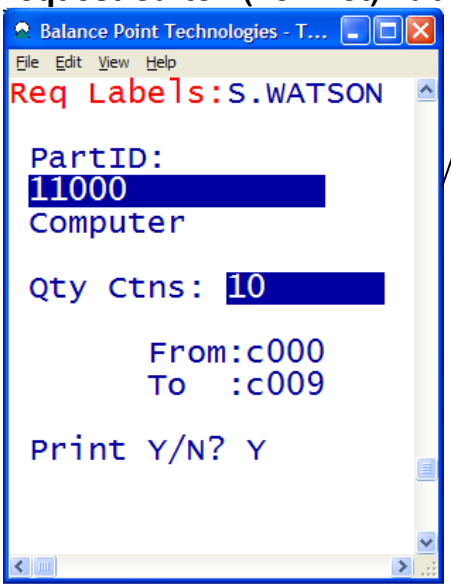
This function uses the “D” + “L” trigger transaction ID.

Request Skid Sheet and/or Packing List: The Skid Sheet uses the “D” + “S” trigger transaction ID and the packing List uses the “D” + “O” ID.



1. Enter a valid 6 digit Sales Order
2. Enter a valid Pallet ID for a Skid Sheet.
3. F1, F3, F4 to print.

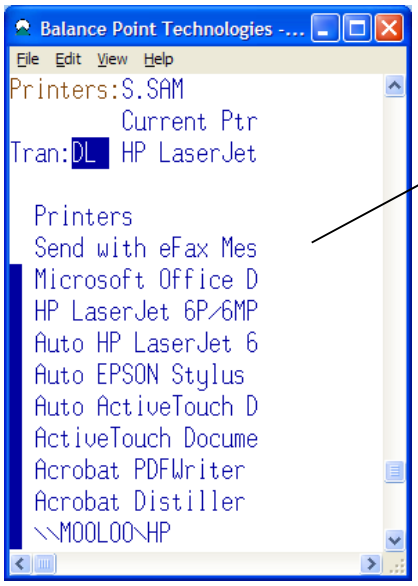
Request Carton (non Lot) Labels: this function will print uniquely identified labels.



1. Enter a valid Part ID.
2. Enter the quantity of labels
3. F1 to print.

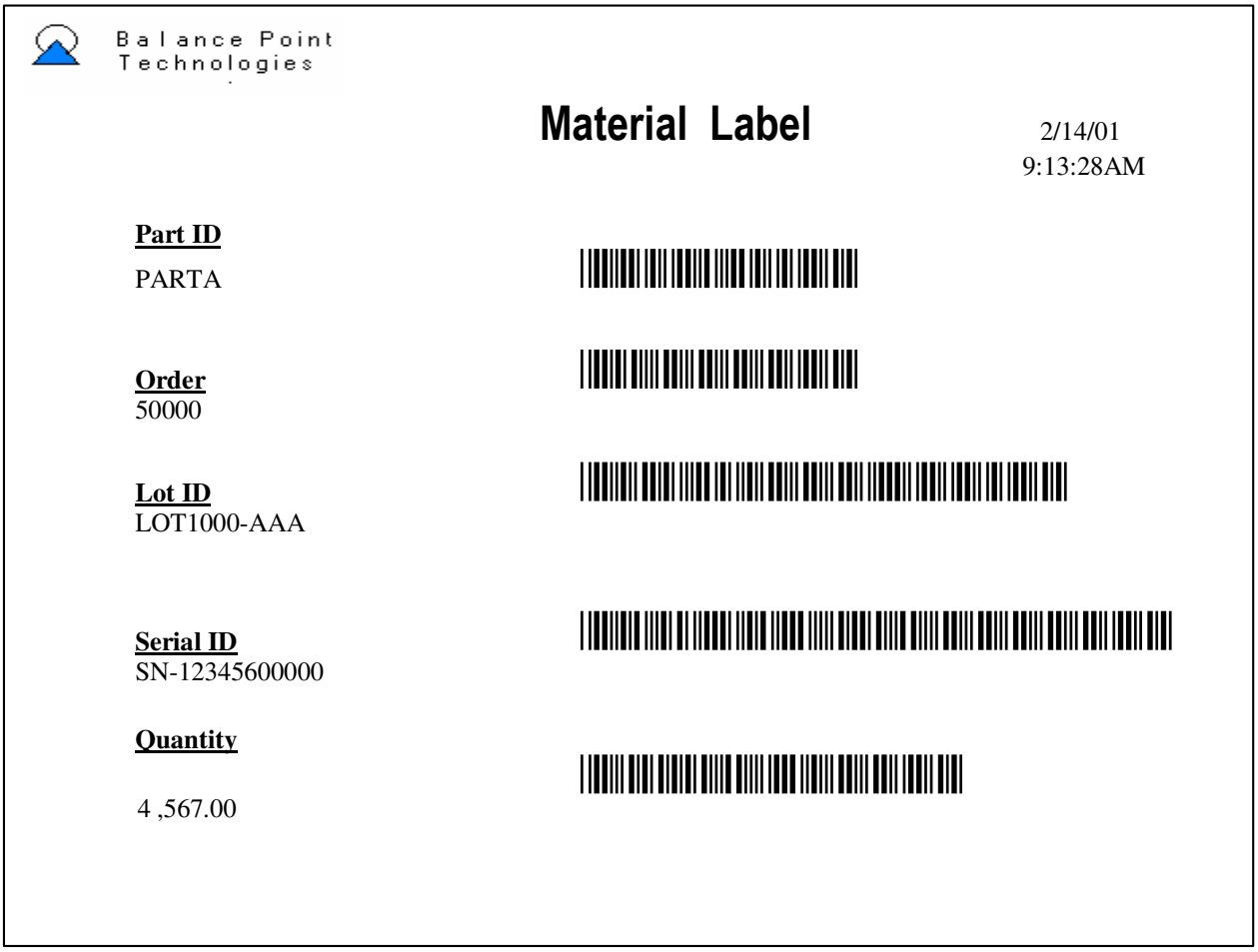
This function uses the “D” + “F” trigger transaction ID.

Printer Selection: allows an operator to select a printer for a specified transaction.



1. Enter a Transaction Identifier:
e.g. RP for PO Receipts (see list of transaction codes page 15)
The current printer will display.
2. Enter any character next to the desired printer.

Prototype Material Label (4 * 6): (bar code font is required)



Appendix

The switch settings reside in a custom table in the MAX database called CUSTOM_BPT_MDCM_SWITCHES:

	RECID	SWITCHNAME	SWITCHVALUE
▶	1	Password	CYCLONE
	2	MAXServerUID	
	3	MAXServerPwd	
	4	MAXLicPath	C:\Exact\RMServer\Lic
	5	MAXCompany...	Exact MAX Sample Company
	6	MAXLogPath	C:\Projects\MDCM5.5\MDCTools_2011\MDCMTools\bin
	7	MAXDB	ExactMAXSAM
	8	MAXClientPath	C:\EXACT\RMCLIENT\EFW
	9	WindowsSecurity	True
	10	ExactMAXSepar...	False
	11	SkidDays	10
	12	RequireGLRef	1
	13	ReqSupTime	1

Local Data and Email settings are contained in an XML document within the \Tools\Settings folder: MDCMSettings.XML

```
MDCM_SETTINGS>
	<MDCM_DATASETTINGS>
		<EXACTMAXSERVER>TIMSLAPTOP2013</EXACTMAXSERVER>
		<MAXCLIENTPATH>c:\exact\rmclient\efw</MAXCLIENTPATH>
		<MAXCOMPANYNAME>Exact MAX Sample Company</MAXCOMPANYNAME>
		<MAXDB>ExactMAXSAM</MAXDB>
		<MAXLICPATH>c:\EXACT\RMServer\LIC\</MAXLICPATH>
		<MAXSERVERPWD>41(4=55=w</MAXSERVERPWD>
		<MAXSERVERUID>dv</MAXSERVERUID>
		<WINDOWSSECURITY>False</WINDOWSSECURITY>
		<PASSWORD>CYCLONE</PASSWORD>
	</MDCM_DATASETTINGS>
	<MDCM_OTHERSETTINGS>
		<SMTPSERVER>smtp.yahoo.com</SMTPSERVER>
		<SERVERPORT>25</SERVERPORT>
		<SMTPUSER>tedcruz@yahoo.com</SMTPUSER>
		<SMTPPASSWORD>mefirst</SMTPPASSWORD>
		<TESTFROMEMAIL>mrubio@gmail.com</TESTFROMEMAIL>
		<TESTTOEMAIL>rpaul@yahoo.com</TESTTOEMAIL>
		<FULLQUEUESIZE>500</FULLQUEUESIZE>
		<SCREENSEXPORTFOLDER>C:\HUH</SCREENSEXPORTFOLDER>
		<TRIGGERSEXPORTFOLDER>C:\Projects\MDCM5.5\MDCTools_2011\MDCMTools\bin\TriggersExport</TRI
	</MDCM_OTHERSETTINGS>
/MDCM_SETTINGS>
```

Local Navigation and Site Key settings are contained in an XML document within the \Tools\Settings folder: BPTelnetServerSettings.XML

```
<BPTTELNETSERVER_SETTINGS>
                <LINETERM></LINETERM>
                <SITENAME>BPT ETOWN</SITENAME>
                <KEYCODE>830-821-9</KEYCODE>
                <F1> </F1>
                <F2> </F2>
                <F3> </F3>
                <F4> </F4>
                <F5> </F5>
                <F6> </F6>
                <F7> </F7>
                <F8> </F8>
                <F9> </F9>
                <F10> </F10>
                <F11>[23~</F11>
                <F12>[24~</F12>
                <ESCAPE> </ESCAPE>
</BPTTELNETSERVER_SETTINGS>
```