

# Data Collection for MAX

Roy Dumlao



# Roy Dumlao

- ▶ Senior Systems Consultant
- ▶ 5 Years with Balance Point 29 Years with MAX contract manufacturer
- ▶ Specialties: Reporting
- ▶ Email: [rdumlao@bpttechnologies.com](mailto:rdumlao@bpttechnologies.com)
- ▶ Phone: (408) 766-7555

# Agenda

- ▶ Discussion of Max Data Collection (1 hour discussion)
- ▶ Questions and answers
- ▶ Hands on in the demo room

# Overview

- ▶ What is Max Data collection?
- ▶ How can MDCM increase daily efficiency
- ▶ Equipment and software needed to create barcodes
- ▶ Sample screen shots and labels and forms
- ▶ Implementation process
- ▶ BPT Core for MAX 2018

# What is Max Data Collection?

- ▶ MDCM is group of Max modules that allows mobile devices (scanners/tablets/phones) to perform Max transactions via a bar code and print out labels and forms after processing the transaction.
- ▶ To the extent possible it uses MAX Update to perform transactions.
- ▶ Does not use a Max user license to perform transactions

# What is Max Data collection?

- ▶ MDCM is a platform on which you can build your own processes
  - Perform multiple tasks with a single scan
  - Modify the sequence of tasks
  - Collect information beyond standard MAX fields

# What is Max Data collection?

- ▶ 4 modules make up Max Data Collection
  - Shipping ( Picking and staging orders, packing lists, BOL)
  - Shop Floor ( issue and receipt components, finish goods, track location)
  - Labor ( track labor hours by employee, order, work center, overtime)
  - Inventory ( issue, receive, transfer, cycle count)

# How can MDCM increase efficiency?

- ▶ Reduce human entry errors. A barcode scan is fast and reliable, and takes infinitely less time than entering data by hand.
- ▶ The process is real time. No waiting for batch data entry
- ▶ Well designed transaction forms makes employee training short and simple



# Equipment and software needed to create barcodes, scan, print

- ▶ Wireless network covering the warehouse or manufacturing plant
- ▶ Windows workstation/server that runs MDCM monitor and Tools application.

# Equipment and software needed to create barcodes, scan, print

- ▶ The application running on the scanner is a Telnet application.
- ▶ Users with scanners log into the wireless network and connect to the MDCM Monitor.
- ▶ Users transmit data from the scanners. The monitor application performs the Max transactions and triggers print out labels and forms.

# Max Data Collection

- ▶ Scanners or Wedge Devices
  - Windows CE
  - Andriod
  - Apple IOS
  
  - Symbol
  - Inter Mech
- ▶ Telnet application
  - Stay Link Telnet
  - Wave Telnet
  - Mocha Soft Telnet
  - Simpterm

Scanners

Telnet to connect to Monitor

# Equipment

- ▶ Label printers
- ▶ Form printers

ZEBRA ZP505 Thermal Printer



(Image 1 of 1)

Printers

# Data Collection Forms

**\*\*\* PICK LIST \*\*\***

**BALANCEPOINT TECHNOLOGIES**

Part Identifier: 11000  
 Revision: x  
 Level: Description: Computer  
 Shop Order: 50000036  
 Due Quantity: 100  
 Due Date: 8/31/15

Component Part	Description	UOM	Due Quantity	Stk IDs	Pick Qty
12100	System Unit	EA	100.00		_____
13000	Keyboard	EA	100.00	MSI	182 _____
13100	Monitor, 17" Standard Res	EA	100.00	RMI	462 _____
13990	Box, Cardboard Shipping	EA	100.00	RMI	384 _____

Picklist for Work Order

**\*\*\* ROUTING \*\*\***

**BALANCEPOINT TECHNOLOGIES**


Part Identifier: 11000  
 Revision: x  
 Level: Description: Computer  
 Shop Order: 50000036  
 Due Quantity: 100  
 Due Date: 8/31/2015 12:00:00AM

Seq#	Description	Work Center	Completion Quantity	Operator Initials
0010	Assemble Per Print	EASSY	_____	_____
			this is a seq 10 note 1 THIS IS NOTE 24 seq 30 note	
0020	24 Hour Burn-In	BURN	_____	_____
			THIS IS NOTE 24 seq 30 note	
0030	Final Inspection	FINQA	_____	_____
			THIS IS NOTE 3 This is note 4 This is the extra note	
0040	Pack and Ship	PACK	_____	_____
			seq 30 note	

Shop Order Router

# Max Data Collection

DUPLICATE PURCHASE ORDER



**BILL TO:**  
BILLING ADDRESS


**SHIP TO:**

**TO:**  
Hamilton Avnet  
Luis Arguello  
1447 Commerce Blvd.  
Suite 1074  
Compton, CA 92774  
USA





PO #	REV
70000009	000
DATE	2/19/2018
PAGE #	1
Vendor ID	
V200	

CONFIRMS	TERMS	SHIP VIA	CLT	PPD	FOB	TAXABLE	INSPECTION
	2% 10 Net 30	UPS Ground		X	Destination	NO	

BUYER	VENDOR CONTACT	REQUISITION NR	SHIP INSTRUCTIONS	REMARKS
	Fax# 810-367-2001			

LN	DL	QUANTITY	UOM/REV	PART NUMBER/ PART DESCRIPTION	UNIT PRICE	EXT PRICE	DUEDATE
01	01	0.00	EA	010-009039-00 A Microprocessor	250.000	0.000	RECEIVED
 Discount: 0.000 Recommended Cost: 250.000 Intel 586-P3 XZY-277							

Purchase Order

 Part Number 11000 <h1 style="margin: 0;">11000</h1>	<b>Stock Code</b> 
<b>Description</b> <h2 style="margin: 0;">Computer MAX</h2>	
<b>Quantity Per Box</b>  0	<b>Code Date</b> <h1 style="margin: 0;">818</h1>
<b>Unit of Measure</b>  EACH	

Pallet Label

# MDCM Labels

A03



**735-0261-00**

2171,ALPHA

BRAID,1/4,CPI1 81-709961-



**850-0220-00**

44-1-24-0,SOUTHCO,LATCH  
COMP,SELF ADJ,ZINC PLATE



**790-1283-00**

44-30-101-10,SOUTHCO,LATC  
LATCH



**790-1148-00**

ABMM-A,PANDUIT,MOUNT TIE  
ADHESIVE 3/4", NYLON



**852-0010-00**

BSO-632-12,PEM,STANDOFF  
6-32 THREAD,STL



**850-0215-00**

C3-303,SOUTHCO,LATCH  
GRABBER LATCH,SNAP-IN

BPT PRODUCTS INC.

789 Modern Ice Drive San Jose Ca. 95112  
Phone (408) 372-3485 Fax (408) 332-5843

TAG ID:

SALES ORDER NUMBER: 20000005

PURCHASE ORDER:

**DELIVER TO**

Medtronic Corporation  
1800 Concord Way

Boston  
MA, 06774  
USA

**CARRIER:**

Federal Express



USER: STEVE

20000005

Material Receiving Label

Shipping Label

# Max Data Collection Application

MAX Data Collection Monitor 2018.4 Build 22

Activity Inquiry Tools Help

Status

Site: BPT West Coast  
Company: Exact MAX Sample Company - ExactMAXSAM  
Server IP: 192.168.1.4  
Start Time: 2/16/2018 1:49:02 PM  
db Version: 4668

Active Settings

Counter1: 0  
Counter2: 0  
Carton ID: c000000

**Triggers Enabled**

Settings from Database + XML

Setting	Value
<b>General Switches</b>	
BuildTime	2/2/2018 7:03:40 AM
Use Screen Security	No
IPAddress1	000.000.000.000
Time Out Interval	30
Display Decimals	0
Trigger Instance	Default
Switch Instance	Default
Run Triggers in Batch Mode	No
Log Triggers	No
Enable Transaction Audit	No
Scheduled Database Close Time	
Scheduled Database Close Durati	0
Do Not Auto Restart	En-les

(1) Active User

001 T.ROOSEVELT-127.0.0.1 Screen:091 Part: Order:20000016

Message

Broadcast All

MDCM Tools Main Menu

Activity Parameters ScreenShaper Triggers Log Query Help

**MAX Settings:**

Site Name: BPT West Coast  
MAX Server: 127.0.0.1  
Company: Exact MAX Sample Company  
Database: ExactMAXSAM Version: Database version: 4668  
License Path: c:\EXACTRM\Server\LIC\  
Data Settings: XML: C:\Program Files (x86)\BalancePoint\MDCMTools\Settings\MDCMSettings.XML  
Comm Settings: XML: C:\Program Files (x86)\BalancePoint\MDCMTools\Settings\BPTelnetServerSettings.XML  
Parameters: CUSTOM\_BPT\_MDCM\_SWITCHES

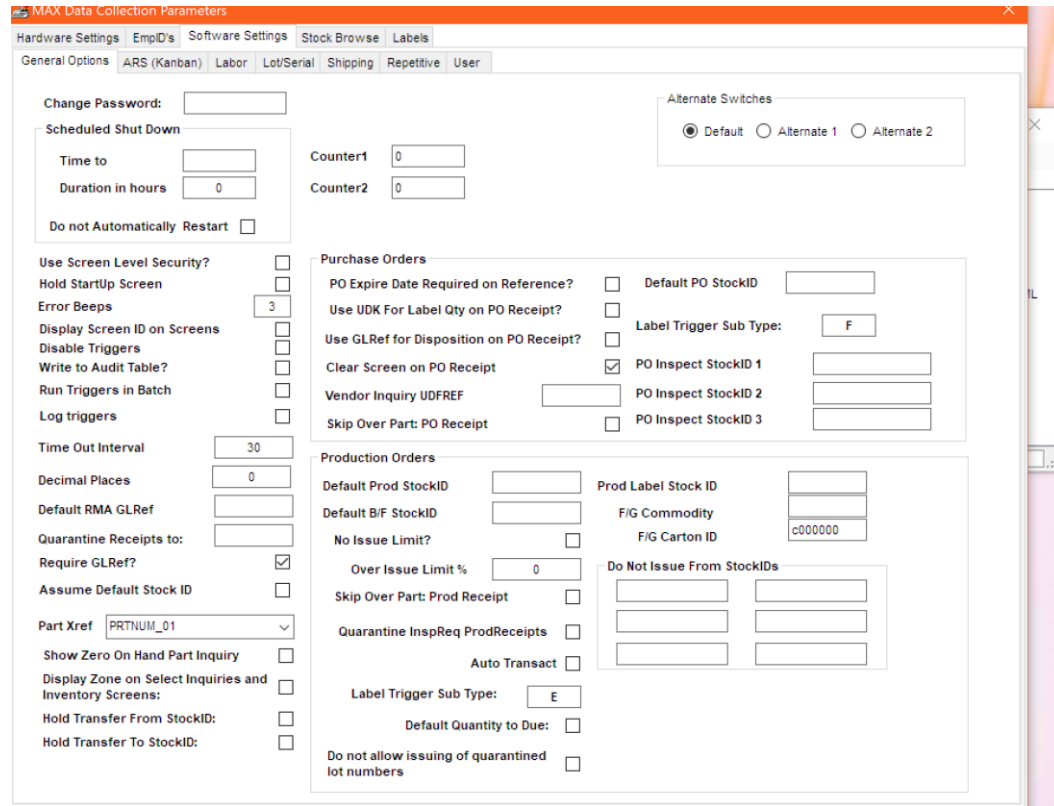
ROYD-LAPTOP\Roydu

Monitor

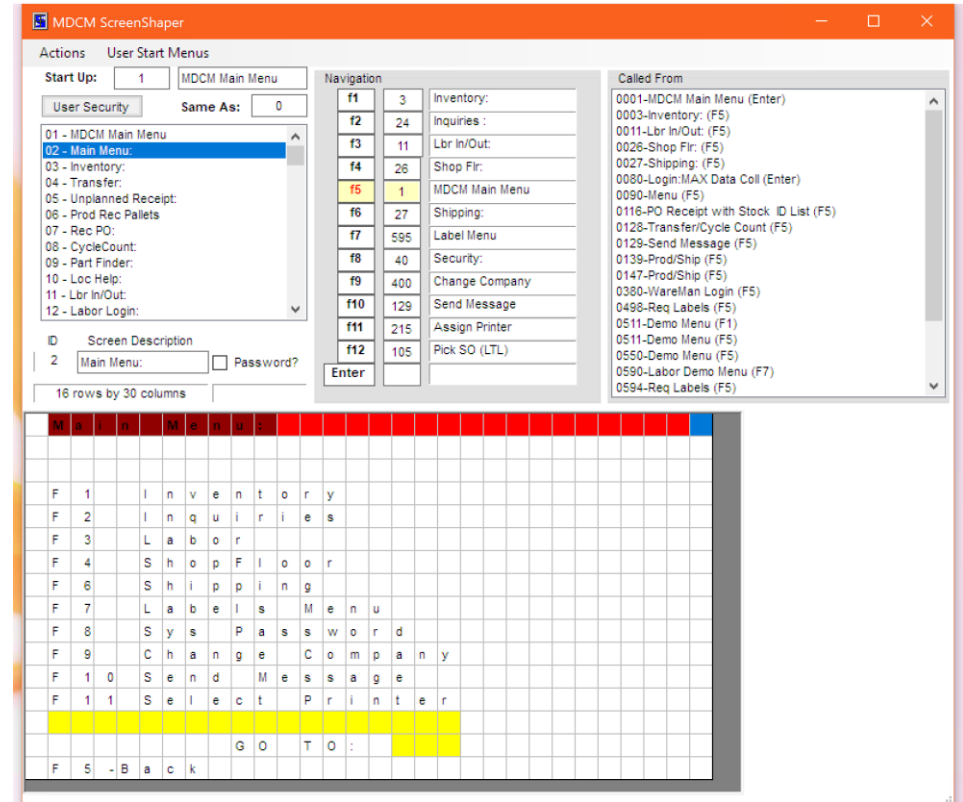
Tools



# Max Data Collection



Settings



Screen Shaper

# Max Data Collection

The screenshot shows the 'Activity' window in MDCM. It has tabs for 'Triggers', 'Email Settings', 'Print Queue', 'Test Triggers', and 'Printers'. The 'Triggers' tab is active, showing 'Trigger Instance' options: Default (selected), Alternate 1, and Alternate 2. Below are two tables:

Type	SubType	DefReport	DefPrinter	Copies	Email Settings
D	L	C:\Program Files (x86)\BalancePoint\MDCM\Triggers\label.rpt	HPD3FD63 (HP Officejet Pro 8600)	1	
R	P	C:\Program Files (x86)\BalancePoint\MDCM\Triggers\Receiver.rpt	HPD3FD63 (HP Officejet Pro 8600)	1	
D	F	C:\Program Files (x86)\BalancePoint\MDCM\Triggers\PackList.rpt	HPD3FD63 (HP Officejet Pro 8600)	1	

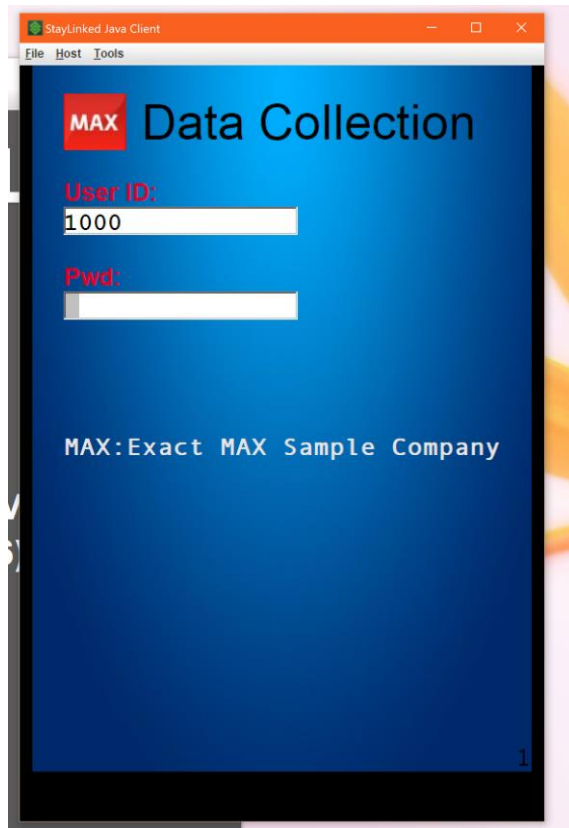
EmpID	Type	SubType	DefPrinter
1000 -ROOSEVELT, TED	D	L	PDFCreator

The screenshot shows the 'MDCM Log' window with the 'Event Log' tab selected. It includes a 'Date Range' filter set to 'Monday, February 19, 2018' to 'Monday, February 19, 2018'. There are checkboxes for 'Include MDCM Starts', 'Include Trigger Requests', and 'Show SQL'. A 'Query' button is visible. Below the configuration is a table with the following columns: LogDate, User, OrdNum, Ptnum, ScreenID, FieldID, Trigger, FStock, TStock, LotNum, SerNum.

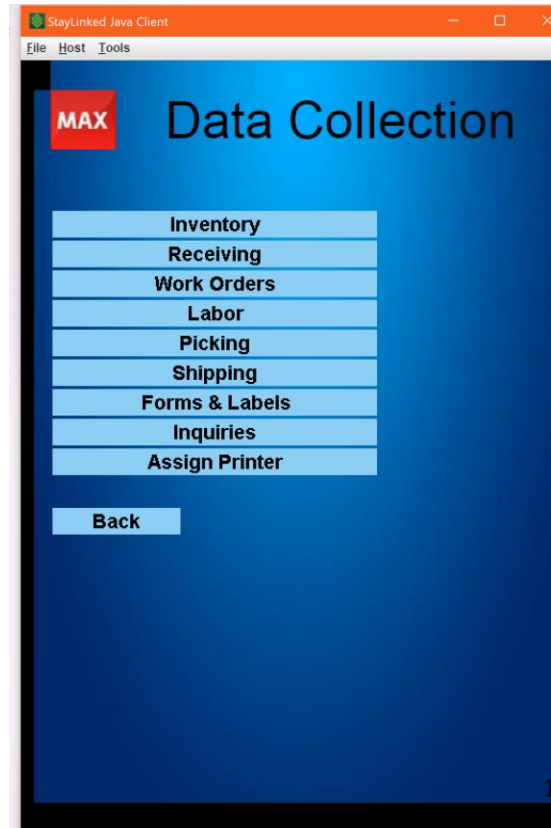
Triggers and Reports

Logging Feature

# Max Data Collection



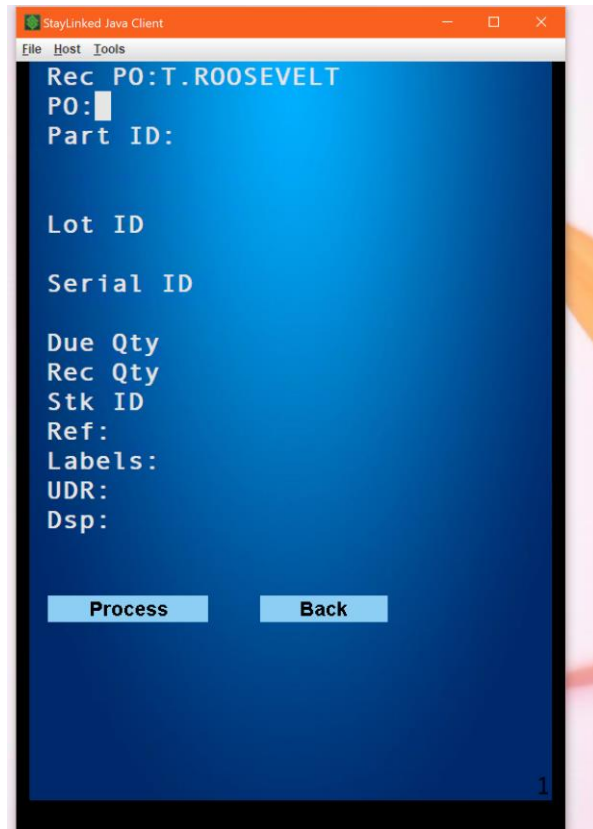
Main Login Screen



Main Menu

Touch base tap  
spot entry

# Max Data Collection



StayLinked Java Client

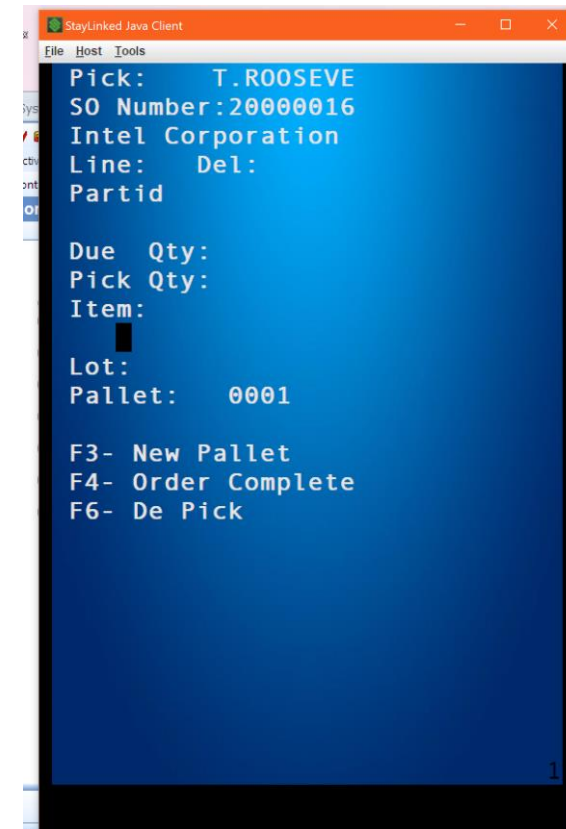
File Host Tools

Rec PO:T.ROOSEVELT  
PO:   
Part ID:  
  
Lot ID  
  
Serial ID  
  
Due Qty  
Rec Qty  
Stk ID  
Ref:  
Labels:  
UDR:  
Dsp:

Process Back

1

PO Receive Screen



StayLinked Java Client

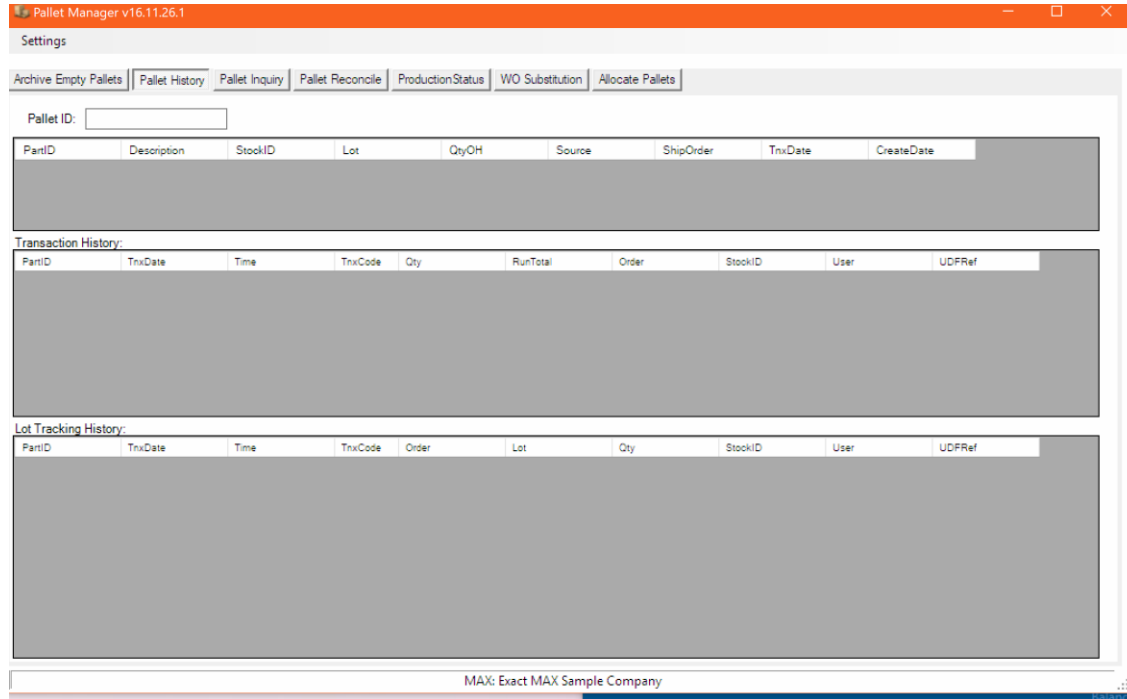
File Host Tools

Pick: T.ROOSEVE  
SO Number:20000016  
Intel Corporation  
Line: Del:  
Partid  
  
Due Qty:  
Pick Qty:  
Item:  
  
Lot:  
Pallet: 0001  
  
F3- New Pallet  
F4- Order Complete  
F6- De Pick

1

Pallet Pick

# Shipping Pallets for Shipping



Pallet Manager

# Implementation Process

- ▶ Discovery and requirements definition
- ▶ Site Tour
- ▶ Fulfillment of system requirements
- ▶ Selection of hardware
- ▶ Selection of processes to meet business needs

# Implementation Process

- ▶ Installation and Configuration
- ▶ Development of custom interface
- ▶ End user training
- ▶ Testing
- ▶ Go live

# BPT CORE

Asen Ivanov





# Quick Intro to BPT CORE

- ▶ Next generation of MDCM
- ▶ Designed for MAX 2018
- ▶ Reliable and flexible service

# Quick Intro to BPT CORE

- ▶ Support for HTML screens
- ▶ Web based portal
- ▶ Improved exception handling and recording

# Summary

- ▶ MDCM
- ▶ Reduce data entry time
- ▶ Increase accuracy of data entry
- ▶ Simplify user training
- ▶ Realtime data entry
- ▶ Reduce inventory costs
- ▶ Define your own processes
- ▶ BPT Core available for MAX 2018

Max Data Collection

# More Opportunities!

- ▶ February 19<sup>th</sup> – March 31<sup>st</sup>, 2018
- ▶ Software price only.



Software Promotion

March 8 1:00	30 Tools in 50 Minutes
March 15 3:00	Data Collection
April 10 11:00	Announcing Shop Pulse VPoint—A New Graphical Production Monitoring and Scheduling Tool
April 19 1:00	The Fastest and Easiest Way to Import and Maintain your MAX Data
	GP Features and Functions - You Already Own but Didn' t Know About
	Shop Pulse
	GP Essential Applications Everyone Should Own Plus A Few To Meet Unique Requirements
	Process Automation for Materials and Manufacturing
	Connecting MAX to the World - Automating Sales Order Processing Functions

Educational Webinars

# Sponsoring Complimentary Solutions

Find literature in the **mpower** Meet Up



# Question and Answers

# BPT CORE

Asen Ivanov



# Quick intro to BPT CORE

- ▶ Next generation of MDCM
- ▶ Designed for MAX 2018
- ▶ Reliable and flexible service
- ▶ Support for HTML screens
- ▶ Web based portal
- ▶ Improved exception handling and recording



Prototype of Monitor Feedback

BPT Core Server <sup>18.2.18</sup>

ONLINE since 02/19/2018 17:25:12

[Monitor Details](#) [Screens](#) [Inquiry](#) [Maintenance](#)

IP	<a href="#">192.168.2.25</a>	MAX Company	<a href="#">MAX 2018 Sample Company</a>
Name	<a href="#">DDESK</a>	SQL Server	<a href="#">DDESK</a>
Port	<a href="#">23</a>	SQL Database	<a href="#">MAX2018Sample</a>

[4](#) Connected Clients

IP	Port	User	S ID	S Name	Connected At	
192.168.2.14	57392	<a href="#">TJames</a>	45	Shop Order Issue	2/20/2018 12:31:59 PM	<a href="#">Disconnect</a>
192.168.2.7	67433	<a href="#">MKeaton</a>	112	Post Operation	2/20/2018 10:31:59 AM	<a href="#">Disconnect</a>
192.168.2.63	67433	<a href="#">KBeckam</a>	7	SO Labels Print	2/20/2018 5:31:59 PM	<a href="#">Disconnect</a>
192.168.2.9	67433	<a href="#">JMalkovich</a>	234	PO Receive	2/20/2018 5:31:59 PM	<a href="#">Disconnect</a>

[128](#) Switches

AllowShipEng4	1
AllowShipEng5	1
AllowWCUpdateAll	1
AssumeDefStockID	1
AutoAssignPallet	0
bAllowAlertQty	1
ClearPOScreen	1
ClientCount	50
ComboScanDelimiter	
ComboScanFormat	
DecPI	0
DefBFStockID	
DefPOStock	
DefProdStock	
ERMDCMAutoLotPre	0
ERMDCMCAutoLot	0

Inventory ▾ Transfer Stock ▾ [Clear Screen](#)

From Stock

Part Number

Lot Number

Serial Number

Qty

UOM

Stock ID

Reference

UDF Key

UDF Ref

Monitor Details Screens Inquiry Maintenance

Labor ▾ Indv Login/Logout ▾

[Clear Screen](#) [Notes \(2\)](#)

Employee ID	<input type="text" value="E000001"/>
Order Number	<input type="text" value="50000023"/>
Part Number	SYS-12100 - System Unit
Sequence	<input type="text" value="0010"/>
Operation	Assemble Chassis
Start Time	<input type="text" value="4:42"/>
Reference	<input type="text"/>
UDF Reference	<input type="text"/>
UDF Key	<input type="text"/>

Employee open activity

Order #	Seq	Operation	TimeIn	QtyCompl	QtyScrap	
50000027	0010	Assemble Chassis	2/21/2018 4:43:52 AM	<input type="text" value="0"/>	<input type="text" value="0"/>	<a href="#">Logout</a>
50000024	0010	DI Wash PC Board	2/21/2018 4:45:19 AM	<input type="text" value="0"/>	<input type="text" value="0"/>	<a href="#">Logout</a>

[LOGIN](#)



Prototype of web inquiry screen

Monitor Details Screens Inquiry Maintenance

Activity Type	<input type="text" value="Transaction"/>	Tnx Type	<input type="text" value="Stock Transfer"/>	Start Date	<input type="text"/>	End Date	<input type="text"/>
User	<input type="text"/>	Order #	<input type="text"/>	Part #	<input type="text"/>		
Rec Stk	<input type="text"/>	Iss Stk	<input type="text"/>	Lot #	<input type="text"/>	Serial #	<input type="text"/>

2 Matching results

Tnx Description	Date Processed	Order #	Line	Del	Part #	Qty	Rec Stk	Iss Stk	Lot	Serial	Tnx Object	User ID	S ID	S Name
PO Receipt	2/20/2018 7:34:55 PM	70005732	03	01	136-MF	12		RPT	01262018	.....			0	
Stock Transfer	2/20/2018 4:34:55 PM				1000-45G	5	FGI	ORF	S6789	.....			0	



# More Opportunities!

- ▶ February 19<sup>th</sup> – March 31<sup>st</sup>, 2018
- ▶ Software price only.



Software Promotion

March 8 1:00	30 Tools in 50 Minutes
March 15 3:00	Data Collection
April 10 11:00	Announcing Shop Pulse VPoint—A New Graphical Production Monitoring and Scheduling Tool
April 19 1:00	The Fastest and Easiest Way to Import and Maintain your MAX Data
	GP Features and Functions - You Already Own but Didn' t Know About
	Shop Pulse
	GP Essential Applications Everyone Should Own Plus A Few To Meet Unique Requirements
	Process Automation for Materials and Manufacturing
	Connecting MAX to the World - Automating Sales Order Processing Functions

Educational Webinars

# Sponsoring Complimentary Solutions

Find literature in the **mpower** Meet Up



# Questions?

---

Asen Ivanov

---

[info@bpttechnologies.com](mailto:info@bpttechnologies.com)