



QAD Enterprise Applications
Enterprise Edition

Training Guide

QAD Warehousing Fundamentals

About This Course
Introduction to Warehousing
Receiving
Replenishment
Picking
Shipping
Inspection
Labor Management
Cycle Count
Printing

This document contains proprietary information that is protected by copyright and other intellectual property laws. No part of this document may be reproduced, translated, or modified without the prior written consent of QAD Inc. The information contained in this document is subject to change without notice.

QAD Inc. provides this material as is and makes no warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. QAD Inc. shall not be liable for errors contained herein or for incidental or consequential damages (including lost profits) in connection with the furnishing, performance, or use of this material whether based on warranty, contract, or other legal theory.

This document contains trademarks owned by QAD Inc. and other companies.

Copyright © 2019 by QAD Inc.

Warehousing_TG_v2016EE.pdf/crl/mdf

QAD Inc.

100 Innovation Place
Santa Barbara, California 93108
Phone (805) 566-6000
<http://www.qad.com>

Contents

QAD Warehousing Fundamentals	
Change Summary	1
About This Course	3
Accessing Warehousing Courses	4
Using the RF for Exercises	4
Chapter 1 Introduction to Warehousing	5
Overview	6
Objectives	7
QAD Versions	8
QAD- Where?	9
QAD Warehousing- 100 Sites	10
Functional Fit	11
QAD + QAD Warehousing	12
QAD Warehousing Manages Tasks	13
Task Prioritization	14
Task Directed	15
Task Concepts	16
QAD Warehousing Optimizes Space	17
QAD Warehousing - Labor Productivity	18
QAD Setup	19
QAD Warehousing Main Concepts	20
Set Up a Site and Warehouse	21
Set Up Your Environment	22
Exercise - Set up Inventory Detail Inquiry	23
Set Up Areas	24
Exercise - What Areas are Set Up in the Warehouse?	25
An Area Can Have Multiple Zones	26
Zone Example	27
Exercise - Which Zones are Set Up in the Warehouse?	28
WLGs Defined by Work Practices and Printers	29

Exercise - Which Work Locations are Set Up?	30
Warehouse Locations - Different from QAD Locations	31
Location Examples	32
Locations are Site Specific	33
Locations Belong to a Zone and WLG	34
Exercise - Location Capacity	35
Main Concepts - Process Flow Setup	36
Internal Routing (Product Flows)	37
Example - Map the Internal Routings?	38
Example - Map the Internal Routings -Answer	39
Transaction Types	40
Setting Up Warehouse Specific Tasks	41
Exercise - Which Tasks are Setup for Warehouse 01?	42
Which Routings Do You Use and When?	43
What are the Transaction Types Associated to the IRs?	44
What are the Transaction Types with the IR - Answer	45
Define Selection and Drop Rules	46
Example - Which Algorithms are Assigned to Flows?	47
Example - Which Algorithms are Assigned - Answer	48
What are the General Receiving Put-Away Rules	49
Dependencies that Help Set Up the Warehouse	50
Enable QAD Warehousing	51
Many Control Features are Managed in a Warehouse	52
Control Scan Options	53
Traditional Warehouse Tasks	54
Control Scan Parameters	55
Defaults Can Be Altered	56
Exercise Aid	57
Exercise - Set Up Warehouses	58
Setting Up Areas	60
Exercise - Set Up Areas	61
Setting Up Zones	62
Exercise - Set Up Zones	63
Set Up Work Sections	65
Exercise - Define Work Sections	66
Set Up Locations	67
Location - Caution	68
Set Up Locations - Warehouse Location Maintenance	69
Manage Location Capacities	70
Manage Location Capacities (Continued)	71
Location - Alert	72
Setting Up Many Same Type Locations	73
Setting Up Many of the Same Type of Location (Continued)	74

Setting Up Many of the Same Type of Location (Continued)	75
Locations Setup - Implementation Alert	76
Exercise - Set Up Locations	78
QMI Units of Measure	80
Know Your Units of Measure	81
Items Currently Assigned to a Site	82
Other Item Characteristics	83
User Setup	84
Implementation Consideration - Define User Parameters	85
Assign the User to a Work Location Group	86
Assign Tasks to Users	87
Exercise - What Task Types are Available to QMI?	88
Traditional Warehouse Tasks	89
Bonus Question	90
Bonus Question	91
Exercise - Enable Users	92
Implementation Consideration	93
Verbosity Reporting is a Troubleshooting Tool	94
Set Verbosity level to Zero to Go Live	95
Simulation - What is Available	96
Example: Simulate Put-Away	97
Example: Simulate Receipt	98
Example: Review Simulation Results	99
Example: Review Verbosity Report	100
Example: What About the Extra Pallet?	101
Implementation Hint	102
Bonus Coverage: LPN Creations	103
Bonus Coverage: LPN Creations (continued)	104
Exercise - Set Up a License Plate Number	105
QAD Warehousing - Key Learning Points	106
Questions	107
Answers	108
Notes	109
Chapter 2 Receiving	111
Overview	112
QAD Warehousing Receiving Objectives	113
Functional Fit - What Warehousing Does Not Do	114
Functional Fit Continued	115
Receipt Types	116
QAD Warehousing Main Concepts	117
Exercise - Receive - Navigate	118
Exercise - Receive - Navigate (Continued)	119

Exercise - Receive - Navigate (Continued)	120
Exercise - Receive - Navigate (Continued)	121
Exercise - Receive - Navigate (Continued)	122
Exercise - Receive - Navigate (Continued)	123
Implementation Consideration	124
Item Configuration	125
Item Master Considerations	126
Item Configuration- Step 1	127
Item Configuration- Step 2	128
Item Configuration- Step 3	129
Exercise - Item Setup	130
Exercise - Item Setup (Continued)	131
Exercise - Item Setup (Continued)	132
Implementation Consideration	133
Create New UM Groups	134
UM Groups Help During Implementation	135
Assign New UM Group to Item	136
Run UM Conversion Generation	137
Exercise- Add a New UM Group	138
Exercise- Add a New UM Group (Continued)	139
Exercise - Add More Items and Create UM Groups	140
Define Inventory Flow Paths	142
Define Receiving and Storage Areas and Zones	143
Define Routes	144
Auto, Manual, or Timed Processing	145
Exercise - Set up an Internal Routing	146
Exercise - Which Routings Do You Use and When	147
Exercise - Which Routings Do You Use and When (Continued)	148
Exercise - Which Routings Do You Use and When (Continued)	149
Exercise - Set up an Internal Routing Assignment	150
Algorithms (Rules)	151
Algorithms - Define Rules	152
Algorithms- Rule Categories are Available for Put-Away	153
Algorithms- Rule Categories are Available for Put-Away (Continued)	154
Implementation Consideration - Use Auto-Directed Put Away	155
Example - Receive Two Pallets to Locations with Existing Inventory	156
Example - Receive Two Pallets (Continued)	157
Example - Allow Mixed Item Storage	160
Put-Away Rules	161
Exercise - Define Put-Away Rules	162
Exercise - Receive Items	163
Bonus Coverage: Three-Step Sequence	164
Bonus Coverage: Location Stage In/Stage Out	166

Bonus Coverage - Stage In/Stage Out 167
 Implementation Consideration - Not all Locations are Created Equal 168
 Locations Have Many Attributes 169
 Popularity Code 170
 Location Popularity 171
 Example - Assign Location Popularity 172
 Example - Assign Location Popularity 173
 Example - Change the Receipt Put-Away Rules 174
 Example - Storage by Popularity 175
 Example- Receipt One 176
 Example - Receipt Two 177
 Example - Receipt Three 178
 Location Popularity Ranking and Put Away Selection 179
 Bonus: Cross-Docking 180
 Cross-Docking - Cross-Dock Setup 181
 Cross-Docking: Cross-Dock Setup (continued) 182
 Cross-Docking: Cross-Dock Setup (Continued) 183
 Exercise - Cross-Docking 184
 Key Learning Points 187
 Questions 188
 Answers 189
 Notes 190

Chapter 3 Replenishment.191

Overview 192
 Objectives 193
 Functional Fit: What We Don't Do So Well 194
 Optimize Space and Material Handling 195
 Reserve Storage and Forward Pick is a Best Practice 196
 Replenishment is Used for Restocking Automated Equipment 197
 Auto-Replenish Flags Set in Two Places 198
 Overpick Replenishment 199
 Dependencies that Help with Replenishment Setup 200
 Which Locations Get Replenished 201
 Which Locations Get Replenished - IR Maintenance 202
 Which Locations Get Replenished - IR Assignment Maintenance . . . 203
 Which Locations Get Replenished - Warehouse Location Maintenance 204
 Where Does Replenishment Inventory Originate? 205
 How is Replenishment Inventory Managed? 206
 Which Items and Capacities Get Replenished? 207
 Replenish Random Locations in a Zone 208
 Example 209
 Manual Replenishment 210

Replenishment Request Triggers a Product Move	211
Replenishment Via the RF	212
Replenishment Complete	213
Implementation Consideration	214
Example - Reducing Replenishment Product Touches	215
Example - Consider Filling Forward Pick Locations	216
Key Learning Points	217
Exercises - Set Up and Execute Replenishment	218
Exercise - Confirm Forward Pick Location Setup	219
Exercise - Set Up Replenishment Routing	220
Exercise - Assign a Transaction to the Replenishment Routing	221
Exercise - Define Zones for Replenishment Inventory	222
Exercise - Define Replenishment Picking Rules	223
Exercise - Set Up Replenishment Parameters for Forward Pick Locations	224
Exercise - Generate Replenishment Tasks	225
Bonus Coverage: Line Slide Replenishment	227
Line Slide Replenishment (Continued)	228
Line Slide Replenishment (Continued)	229
Questions	230
Answers	231
Notes	232

Chapter 4 Picking233

Overview	234
Objectives	235
Functional Fit: Picking	236
QAD Inventory Control Versus QAD Warehousing	237
Discrete, Bulk, and Batch	238
Can You Split Unit Loads?	239
Can You Overpick?	240
Picking Levels Define Pick Zones	241
Discrete Picking	242
Discrete Picking - One Order at a Time	243
Set Up Storage and Picking Area	244
Set Up Different Zones by Material Handling Type	245
Set Up Locations in Each Zone	246
Define Which Zones are Available for Picking	247
Assign Picking Levels to Zones	248
Define Product Flow Path for Picks	249
Assign Flow Paths to Picking Transactions	250
Define Product Movement Rules to Use for Transaction	251
Example - Set Up and Execute a Discrete Pick	252
Example - Discrete Picking	253

Example - Discrete Picking, Zones	254
Example - Discrete Picking, Release Order	255
Example - Discrete Picking, Review Pick Activity	256
Bonus Coverage	257
Bonus Coverage - Pick Strategies	258
Example - Discrete Picking, User Picking Pallet	259
Example - Discrete Picking, Test=Success	260
Discrete Picking Learning Points	261
Example - Reduce Wasted Time Driving and Dropping	262
Example - Reduce Travel	263
Example - Test=Success	264
Batch Picking	265
Batch Picking Defined	266
Batch Picking Process	267
Example - Batch Picking Setup and Execution	268
Example 1- Assign Users to a WLG	269
Example 2- Specify Users as a Location	270
Example 3 - Set Batch Picking Control Parameters	271
Example 4 - Set Up and Release Multiple Sales Orders	284
Example 5 - Select Order Using RF	285
Example 5A - Select Order Using RF	287
Benefits of Batch Picking	288
Batch Pick Function Keys	289
Bulk Picking	290
Bulk Picking Defined	291
Bulk Picking Control	292
Bulk Pick Setup	293
Bulk Pick Order Selection Inquiry	294
Wave Planning	295
Bulk and Wave - What is the Difference?	296
Bonus Coverage - Engine Processing and 3-Step Routing	297
Example - Engine Processing	298
Engine Processing - Three-Step Routing Setup	299
Modify the Pick Routing	300
Enable User A to Process a Transfer Task	301
Release and Pick an Order	302
Validate an Order in Packaging	303
Activate Engine Processing	304
Process the Move from Packaging to Shipping	305
Key Learning Points	306
Exercises - Picking Setup and Execution	307
Exercise - Set Up Warehouse, Area, and Zone	308
Exercise - Set Up Pick Routing	309

Exercise - Assign Pick Routing	310
Exercise - Set Up Pick Rules	311
Exercise - Set Up Drop Pick Rules	312
Exercise - Set Up Discrete Pick Items	313
Questions	314
Answers	315
Notes	316

Chapter 5 Shipping.....317

Overview	318
Objectives	319
Functional Fit: What We Don't Do So Well	320
Concepts	321
Shipping Configuration	322
Define Shipping and Zone Area	323
Locations Can Have Many Attributes	324
Typical Flow Direct to Shipping	325
When to Use Pick Routing	326
Look for a General Spot in Shipping	327
Any User Performs Manual Moves	328
Truck Shipping	329
Ship Truck	330
Set Up Ship Truck	331
QAD Warehousing Shipping - RF Ship Truck	332
Example - Ship Truck	335
Example - Ship Truck (RF 3.5)	336
Optional - Container Move	337
Container Move	338
Container Move Configuration	339
Set Up at Least One Truck Location	340
Define a Product Flow to Move to Truck Locations	341
Link a Transaction Path to the Product Flow Type	342
Look for a General Stage/Truck Location	343
Example - Container Move	344
Example - Container Move (RF 3.4)	345
Optional - Trucks as Temporary Storage	346
Truck Area, Zone, and Location Configuration	347
Set Up a Truck Area	348
Set Up a Truck Zone	349
Set Up at Truck Locations	350
Define Product Flow	351
Link a Transaction Type to the Product Flow Path	352
Look for a General Truck Location	353

Example - Move Container/Load to a Truck	354
Example - Use Trucks as Locations (RF 3.4)	355
Control Truck Load Building Sequence	357
Optional - Containerization	358
Containerization	359
QAD Warehousing Shipping - Containerization	360
Viewer Discretion Advised	361
Containerization Setup	362
QAD Warehousing Shipping - Containerization (RF 3.3)	363
View Containerization Progress Via RF 3.3	364
Remove Boxes from a Container Via RF 3.3	365
Remove Boxes Between Containers Via RF 3.3	366
Monitor the Order Status Via RF 3.3	367
Example - Pre-Shipper/Shipper Inquiry	368
Example - Pre-Shipper/Shipper Inquiry	369
Example - RF 3.3 Container Build	371
Bonus Coverage: Assign Carriers to Shipping Lanes	377
Parcel Manifest	378
Parcel Manifest Setup and Execute	379
Set Up Print Paperwork Controls	380
Assign a Form Printer to Shipping	381
Optionally Set Up a TMS Messaging Interface	382
Print Pre-Shipper/Shipper	383
Key Learning Points	384
Exercises - Shipping Setup and Execution	385
Warehouse, Area, and Zone Setup	386
Exercise - Ship Location Setup	387
Exercise - Review Pick Routing and Drop Rules	388
Exercise - Ship the Order	389
Exercise - Move Load to an Alternate Shipping Location/Lane	390
Exercise- Move Load to an Alternate Shipping Location/Lane (cont'd)	391
Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)	392
Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)	393
Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)	395
Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)	396
Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)	397
Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)	398
Questions	399
Answers	400
Notes	401
Chapter 6 Inspection	403
Objectives	404

What We Do Not Do Well	405
Inspection Product Flow	406
Inspection Flags Set in Multiple Places	407
Dependencies	408
Define Inventory Status - Optional	409
Activate Inspection Control	410
Set Up Inspection and QA Hold Area, Zone, and Location	411
Define Inventory Status Code Changes	412
New Product Flows = New Routings	413
Determine Product Flow through Inspection	414
Confirm Check Inspection to Trigger QA Rules	415
A Receipt Triggers Various Product Moves	416
New Rules Required for New Routings	417
Define Item-Warehouse Level Inspection Parameters	418
Example - Receive Item with Inspection Requirement	419
Example - Confirm Inspection Results	420
Example - Add Inspection Comments/Change Quantity	422
Example - Add Inspection Comments/Change Quantity (Cont'd)	423
Example - Success	424
Bonus Coverage: Example - Inspect Partial Pallet	425
Bonus Coverage - Example Inspect Partial Pallet (Continued)	426
Bonus Coverage: Example - Inspect Partial Pallet (Continued)	427
Bonus Coverage - Example - Success	428
Bonus Coverage: Define Inspection Parameters by Supplier	429
Bonus Coverage: Inspection Fail Processing	430
Bonus Coverage: Move Product to QA Hold	431
Key Learning Points	433
Exercises - Inspection Setup and Execution	434
Exercise - Set up an Area, Zone, and Location	435
Exercise - Set Up Inspection Product Flows and Rules	436
Exercise - Create Routings	437
Exercise - Assign Routing	439
Exercise - Use Put-Away Rules	440
Exercise - Define Inspection Parameters	442
Exercise - Activate Inspection	443
Exercise - Receive and Inspect an Item	444
Exercise - Receive and Inspect a Split Load	445
Questions	447
Answers	448
Notes	449

Chapter 7 Labor Management451

Overview	452
----------------	-----

- Objectives 453
- Functional Fit: Labor Management 454
 - What is Labor Management (continued) 455
 - What is Labor Management? (Continued) 456
- Implementation Planning 457
- Labor Management Control 458
 - Implementation Planning - User Parameters 459
- User Setup: Define Work Sections 460
- Assign the User to a Work Location Group 461
- Traditional Warehouse Tasks 462
- Assign Task Types to Users 463
- Example - Set Up a New User QMI 464
 - Exercise: Assign User QMI to All Location Groups 465
 - Exercise: Assign User QMI to All Work Location Groups 466
- Example - Change Task Priority and Assignment 467
 - Example - Change Task Priorities 468
- Example - Change Task Assignments 469
- Question 470
- Steps: Setting Up Labor Tracking 471
- Assign Tasks to Routing 472
- Define Tasks Best Suited for the User 473
- Executing Labor Tracking 474
 - Executing Labor Tracking (continued) 475
 - Executing Labor Tracking (continued) 476
 - Executing Labor Tracking (continued) 477
 - Executing Labor Tracking (continued) 478
- Labor Reporting 479
- Key Learning Points 480
- Questions 481
- Answers 482
- Notes 483

Chapter 8 Cycle Count485

- Overview 486
- Objectives 487
- Functional Fit: What We Don't Do 488
- Types of Cycle Count 489
 - Cycle Count Configuration 490
 - Setting Up Cycle Counting 491
 - Item Level CC Parameters 492
 - Warehouse Level Parameters 493
 - Zone Level Parameters 494
 - Work Location Group Parameters 495

Cycle Count Task Assignment	496
Cycle Count Processing	497
Cycle Count Execution	498
Cycle Count Simulation or Creation	499
Cycle Count Tasks	500
Cycle Count Execution - Done on RF	501
Non-RF Cycle Count Activity	502
Avoid Mixing	503
Bonus Coverage - Opportunity Counts	504
Bonus Coverage - Opportunity Count Configuration	505
Bonus Coverage - Opportunity Counts	506
Bonus Coverage - Opportunity Count, Set OPC Threshold	507
Bonus Coverage - Confirm Opportunity Counts by Zone	508
Bonus Coverage - Opportunity Counts, Define OPC Frequency	509
Bonus Coverage - Opportunity Counts, Assign Cycle Count Tasks ..	510
Bonus Coverage - Example	511
Bonus Coverage - Example Test = Success	512
Bonus Coverage - Physical Inventory Process	513
Implementation Consideration- Using Location Audit	514
Current Inventory Positions	515
Use RF Location Audit to Change Inventory Positions	516
Use RF Location Audit to Change Inventory Positions (Continued) ..	517
Key Learning Points	518
Questions	519
Answers	520
Notes	521

Chapter 9 Printing.....523

Overview	524
QAD Warehouse Printing	525
Print Setup	526
Warehouse Control Print Options	527
Warehouse Maintenance Print Frames	528
Print Templates	529
Internal Routing Maintenance Print Options	530
Work Location Group Maintenance Print Frames	531
User Work Location Group Maintenance	532
Multi-Level Item Maintenance	533
Print Request Maintenance	534
Objectives	535
Example - Warehouse Setup	536
Exercise - IR Setup	537
Questions	538

Answers	539
Notes	540
Product Information Resources	541

QAD Warehousing Fundamentals Change Summary

The following table summarizes significant differences between this document and the last published version.

Date/Version	Description	Reference
June 2019/v2016 EE-Rev1	Removed slide/page referencing Cycle Count White Paper	--
March 2016/v2016 EE	Rebranded for QAD 2016 EE, added links to Preface and book	---
March 2015/v2015EE	Rebranded for QAD 2015 EE	---
March 2014/v2014EE	Rebranded for QAD 2014 EE	---
September 2013/v2013.1 EE	Rebranded for QAD 2013.1 EE	---
March 2013/v2013 EE	Rebranded for QAD 2013 EE	---
September 2012/2012.1 EE	New exercises and slides revised for Receipt chapter.	page 111
	New and revised slides for Replenish chapter,	page 191
	New and revised slides for Picking chapter.	page 233
	New and revised slides for Shipping chapter.	page 317
	New and revised slides for Labor chapter.	page 451
	New and revised slides for Introduction chapter.	page 451
		page 5

About This Course

Accessing Warehousing Courses

For QAD employees, attending an internal class, exercises are built around existing data within the QMI training environment database which is built through Surgient software tools.

When using this training guide within a QAD-sponsored training class, your QAD Warehousing instructor provides information on the QMI environment and a student ID to access the environment.

If using this guide as a self-study course along with courses, you can contact the QAD IT department to request information on QAD Warehousing courses available in the QAD Learning Center. If you are a QAD employee, you can access the QAD Learning Center at any time and find QAD Warehousing courses.

For more information, see *QAD Warehousing User Guide*.

Using the RF for Exercises

Many of the exercises in this training guide use the RF to select or confirm tasks and perform other steps. Your instructor can show you how to simulate QAD Warehousing software through a Unix session. Commands are provided to run the software just as if you were on the RF device.

Chapter 1

Introduction to Warehousing

Overview



QAD Warehousing is the warehouse management system product for QAD core.

Did You Know

QAD Warehousing has two solutions, QAD Warehousing for EE and QAD Warehousing for SE (formally called Advanced Inventory Management (AIM)).

The suggested setup sequence is provided in this section,

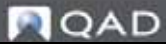
- Understand warehouse concepts
- Set up a basic warehouse
- Configure the system to support general warehouse processes

Objectives

QAD Warehousing Introduction

Objectives

- Versions
- Customers
- Functional Fit
- Overview



QAD Versions



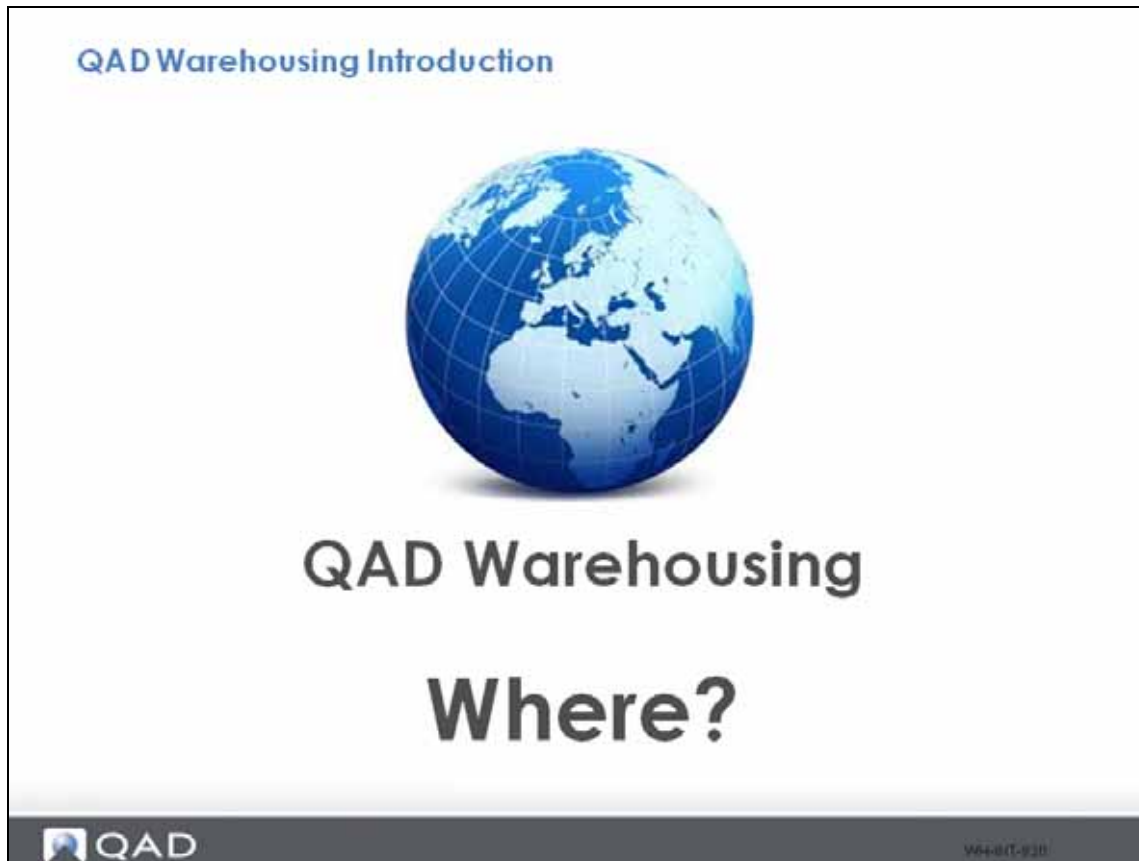
The slide is titled "QAD Warehousing Introduction" and "Versions". It is divided into two columns. The left column is headed "AIM" and lists three bullet points: "SE", "80 Menu", and "No development". The right column is headed "QAD Warehousing" and lists three bullet points: "EE", "4 Menu", and "All development". At the bottom left is the QAD logo, and at the bottom right is the text "WH-INT-010".

AIM	QAD Warehousing
• SE	• EE
• 80 Menu	• 4 Menu
• No development	• All development


QAD Warehousing (formally AIM) for SE uses menu numbers that start with 80.

QAD Warehousing for EE is imbedded within QAD EE applications as menu number 4 within the manufacturing area.

QAD- Where?



QAD Warehousing Introduction

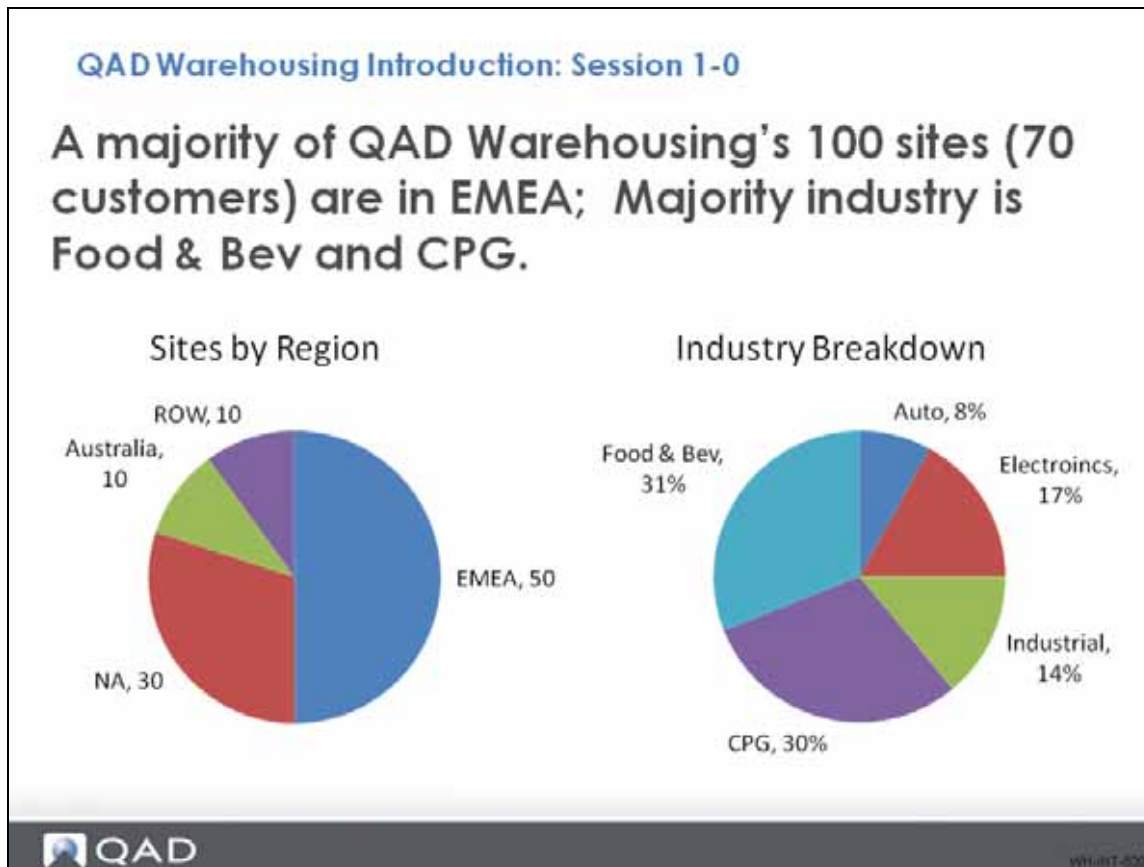


QAD Warehousing
Where?

QAD W4-81T-920

Where is QAD Warehousing in use throughout industry? Which countries use it the most. Continue on to the next slide to see the answers.

QAD Warehousing- 100 Sites



The biggest users of QAD Warehousing are in the Europe, Middle East, and Africa (EMEA) segment. The majority of use is for warehousing in the food, beverage, and consumer packaged goods (CPG) industries.

Food and beverage manufacturers deal with many different suppliers, distributors and channels in taking their product to market. The QAD Warehousing solution accelerates communication at all levels of the value chain and provides tools to manage demand, promotions and packing and co-packing.

Functional Fit

QAD Warehousing Introduction

Functional Fit: General

Functionality	Fit	Notes
Mapping of acceptable equipment by zone		Combination of WLG and User setup
Integrated slotting		This is a growing request
Supports UI and RF on PDA		Emerging trend
Integrated delivery confirmation		No DSD capabilities
Visibility maintenance management		
Integrated RFID		No plans

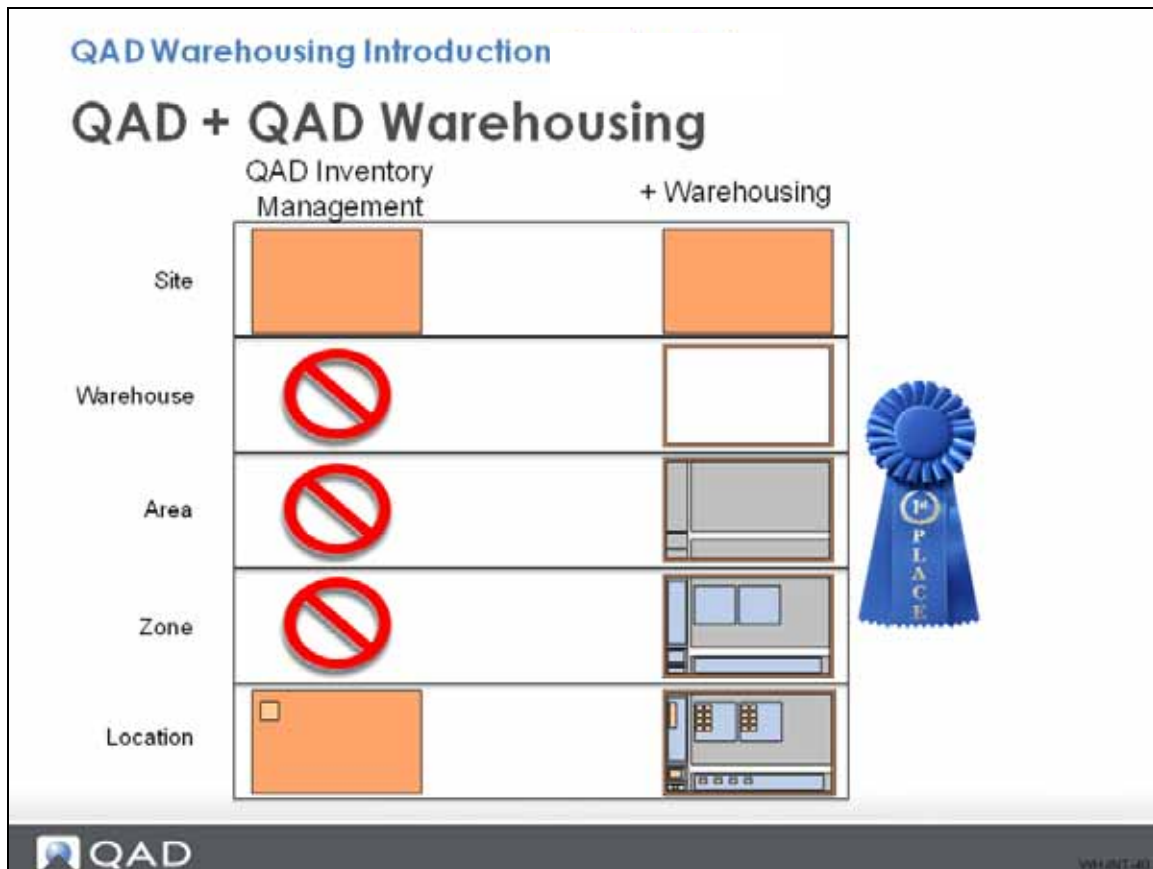
Legend

- Partial
- None

QAD WH-INT-1052

The graphic above depicts the functionality that the warehousing industry desires for optimum performance. You can see where QAD Warehousing fits when providing the desired functionality.

QAD + QAD Warehousing



Did You Know

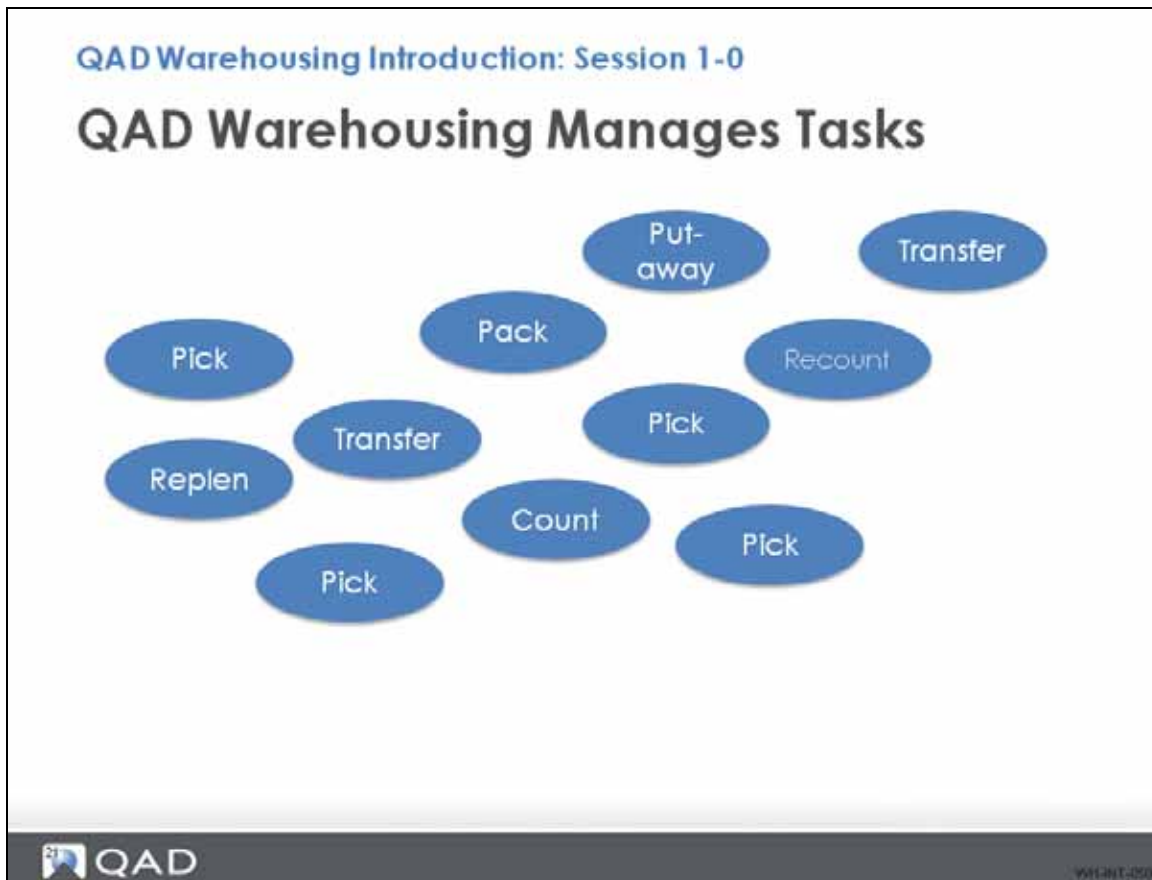
The warehouse is the highest level of specific data in QAD Warehousing.

For locations, QAD Warehousing provides a Warehouse Location Maintenance menu, replacing standard QAD EE Location Maintenance. You can, therefore, set up all your location details within QAD Warehousing. QAD Location Maintenance options are not recognized by QAD Warehousing and are not available for warehouse functions.

Part of the flexibility QAD Warehousing lets you set up as many warehouses as you need within a site, as many areas as you need within a warehouse, as many zones as you need within each area, and just one or as many WLGs as you need for your different working sections.

No rules govern the type of areas you have to set up in a warehouse. Most users define areas such as receipt, inspection, storage, picking, packing, and dispatch; however, none of these are mandatory—you choose the areas you want; then, you choose the routes through these areas that you want your inventory to take.

QAD Warehousing Manages Tasks



QAD Warehousing is an inventory management system that optimizes operational tasks in the warehouse on a real-time, ongoing basis. At any given time, a typical warehouse can have hundreds of pending tasks, ranging from a load transfer from receiving into storage to a line item pick.

Did You Know

Tasks can be assigned to specific users. Also, generic tasks can be assigned on a first come, first served basis. Hard Tasks are for a specific user and cannot be changed. Soft can be switched to another user.

Task Prioritization

• QAD Warehousing Introduction

Tasks Prioritization

Pick
Put-away
Replen
Pick
Transfer
Pick
Pack
Count
Re-count

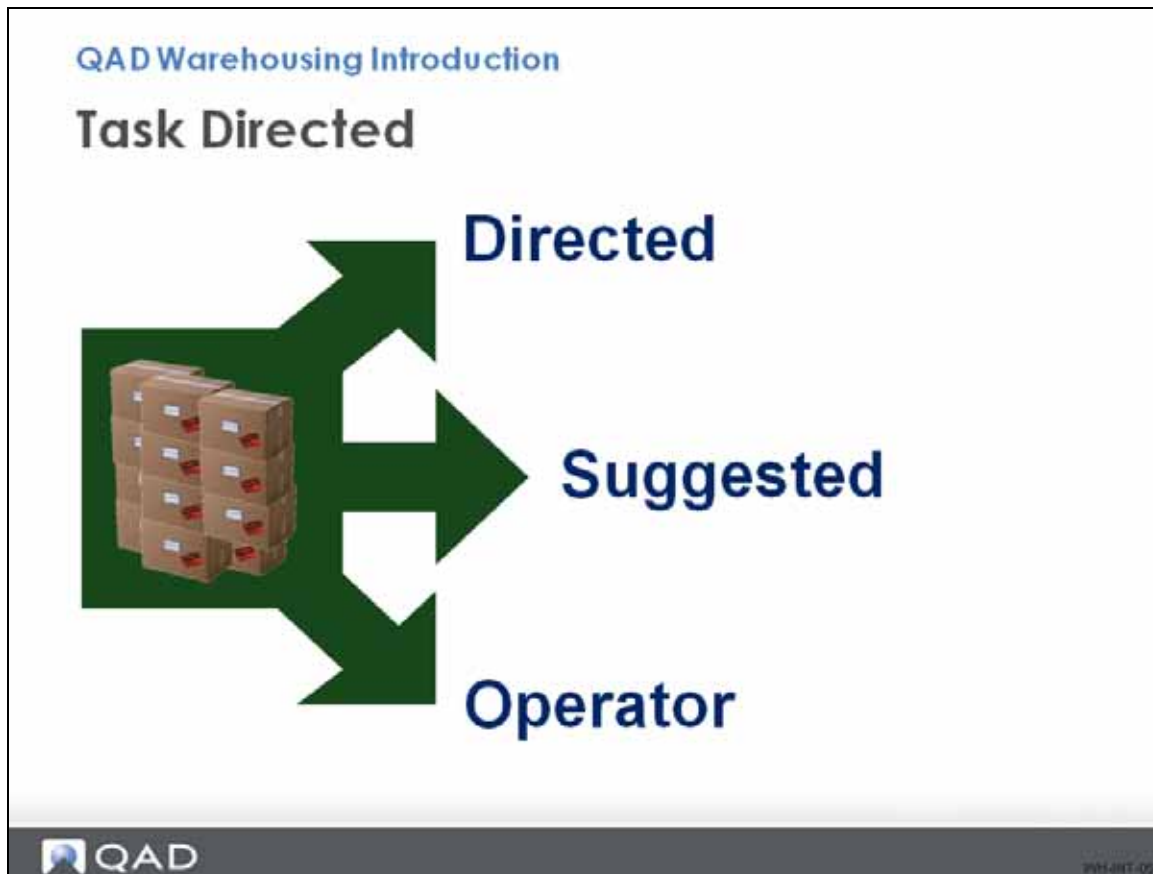
QAD Y01-INT-053

When a task (transaction) is generated, QAD Warehousing looks at multiple variables to determine when the task is executed. For example, the system can determine the best user to assign the task based on proximity or tasks can be assigned based on task age, or how long the task has been in the queue.

Did You Know

Low priority tasks can automatically increase based on age. If the task has been in the queue too long, it eventually becomes a top priority.

Task Directed



The objective of task directed activities is to minimize operator decision making. In best practices organization, everything should be task directed.

With all the open tasks considered, QAD Warehousing makes a decision on which tasks are completed first and by whom.

Did You Know

Operators have the ability to over ride origination or put-away information including location, LPN, item, and so on.

When an operator is allowed to override the system, issues can result if other open tasks are also impacted. Setting the Allow Task Switching field helps avoid this potential problem. For more information on Task Switching, see: [QAD Warehousing User Guide](#).

Task Concepts



QAD Warehousing Introduction

Task Concepts

- Triggers
 - Auto, Manual and Timed
- Confirmations
 - Single versus Two Phase



QAD

Two concepts are key to understanding how QAD Warehousing processes requests: triggers and confirmations.

Triggers determine when a task is released for processing. When in AUTO mode, the system processes engine workfiles automatically without user intervention. This is the most common use. When in MANUAL mode, you must start one of the engine processor programs in the Engine menu to process an engine workfile request. TIMED mode is similar to AUTO, but TIMED mode processes the engine workfiles after a pre-defined delay.

Transactions are confirmed in either single or two-phase moves. In single-phase, inventory movements are created and confirmed in a single step—the single phase.

In two-phase, inventory movements are created in one step—the first phase—and confirmed in a second step, the second phase. Between the two phases, the stock is marked as being booked out of the first location and expected in the second location; however, the anticipated inventory levels are only confirmed when the stock is confirmed as arriving at the destination.

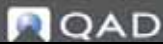
As a general rule, a two-phase operation is a much safer way of ensuring precision in inventory management. Single-phase operations should only be used in special circumstances.

QAD Warehousing Optimizes Space

QAD Warehousing Introduction

QAD Warehousing Optimizes Space

- Load Tracking
- Directed Activities
- Merging Rules
- Reserve Storage and Forward Pick
- Varied Location Sizes
- Slotting




QAD Warehousing provides several functions that help you optimize space within the warehouse.


QAD Warehousing - Labor Productivity

QAD Warehousing Introduction

QAD Warehousing Labor Productivity

- Task Time Tracking
- Actual vs. Expected
- Task Assignment
- Labor Reporting



 QAD WH-INT-000

QAD Warehousing provides highly flexible and adaptable warehousing functions that let you integrate a full range of warehouse management features into a business.

In QAD Warehousing, a warehouse is the highest level of specific data. The other elements of warehousing are all subsidiary to the warehouses. They represent ways of:

- Arranging storage locations within each warehouse
- Defining the routes through the warehouses that you want your inventory to take
- Handling the inventory management transactions that are involved in managing your warehousing activities on a day-to-day basis

QAD Setup

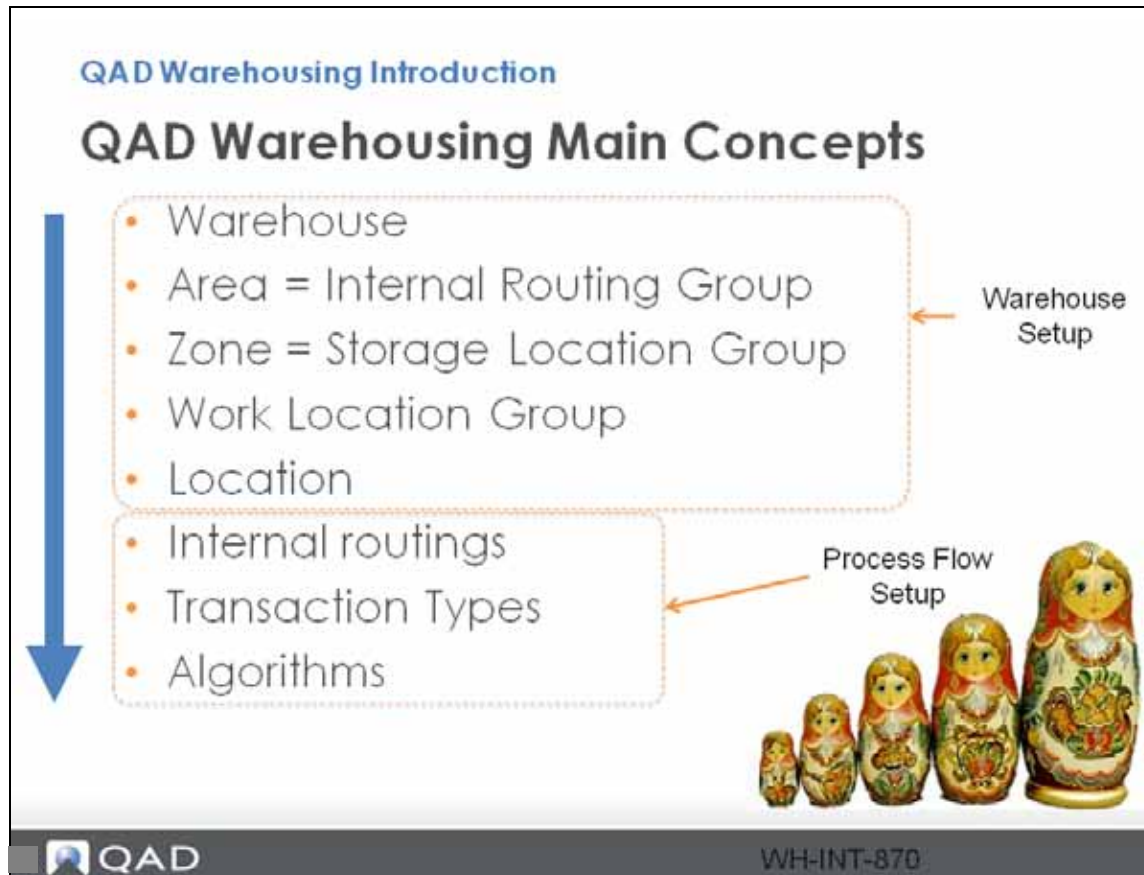


**QAD Warehousing
Setup**

 **QAD**

WH141T-001

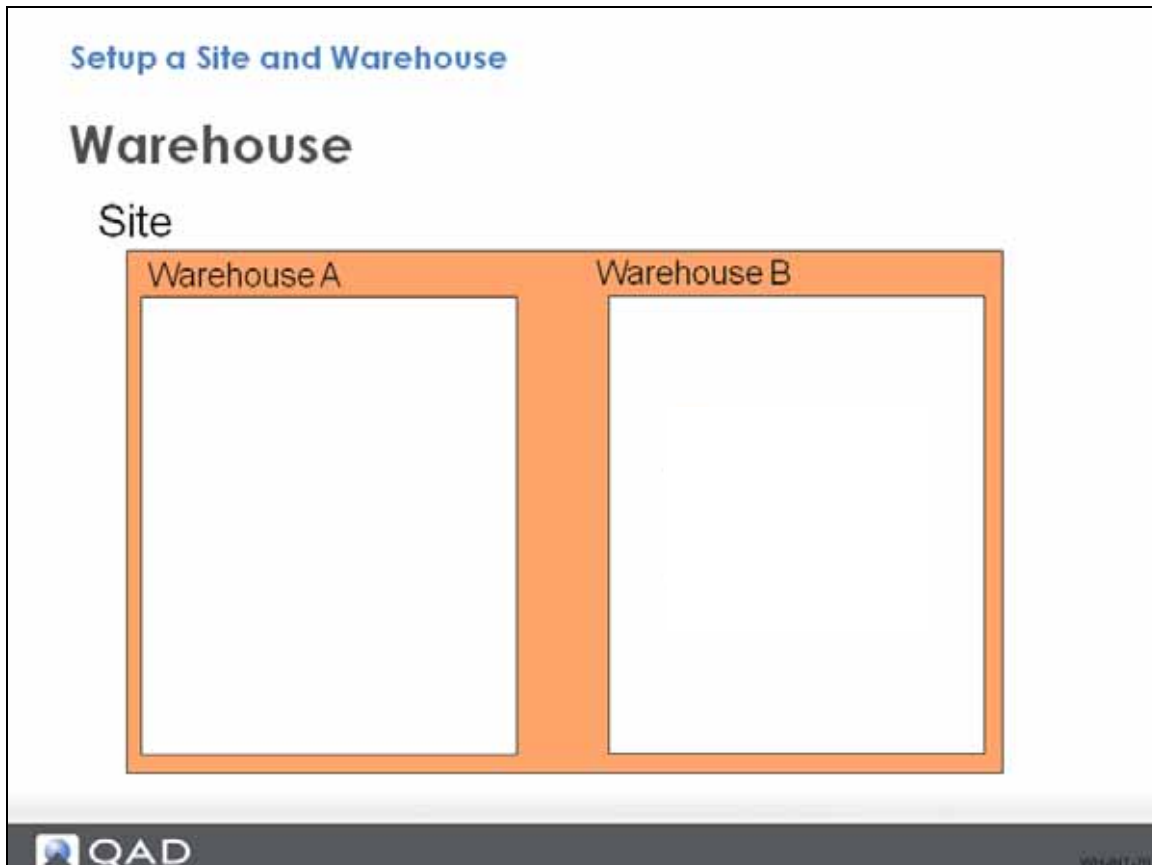
QAD Warehousing Main Concepts



QAD Warehousing main concepts can be broken into the setup of two major areas:

- Warehouse setup: Includes setup of areas, zones, work location groups, and locations.
- Process flow setup: Includes setup of internal routings (pathways), transaction types, and algorithms (rules).

Set Up a Site and Warehouse



A warehouse consists of a group of storage locations and processing functions. These can constitute a single building; a part of a larger building; or, for storage of material such as construction materials, the storage locations can be in the open air. A single warehouse can actually consist of a number of separate buildings.

Because QAD core is not concerned with all the workings within the warehouse, each warehouse is defined as a standard location. This approach lets you keep all the internal warehouse operations separate from other system activities. When you want to send inventory to a warehouse, as far as QAD core is concerned, you are simply putting it in a location; however, when that location is identified as a warehouse, all the QAD Warehousing functions are available.

From a QAD core perspective, you receive inventory into a location associated with a site. However, because this is a warehouse, the inventory does not actually stay in that location. The location is used as a gateway into the actual storage locations within the warehouse.

Eventually, the inventory is put away in one or more storage locations within the warehouse. Each of these locations is defined in the same way as other locations, so the inventory is again recognized by the system as residing in a known location in a known site.

Set Up Your Environment

Exercise

Setup Your Training Environment

- training.success6.qad.com
 - StudentID = _____
 - PW = qadtrain
 - Organization = classroom training
- Using Warehouse Maintenance Find the following for Site = 10-301, Warehouse = 01
 - [Warehouse] description = _____
 - Reference Sequence ID: = _____
 - Packaging Sequence ID: = _____

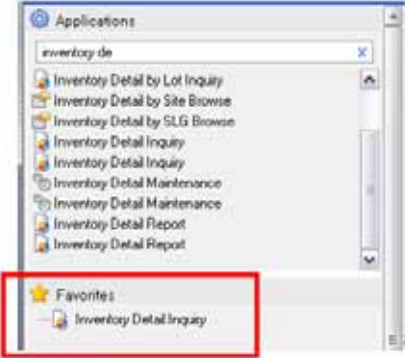


Refer to the Preface of this training guide for information on setting up the training environment. Once you follow the instructions in the Preface and successfully log in to the training environment, start Warehouse Maintenance (4.1.1) and supply the information for the graphic above.

Exercise - Set up Inventory Detail Inquiry

Exercise

Setup Inventory Details Inquiry



What is the beginning inventory positions in these locations?

Location	EA020	PL005	PL010
Item			
UM			
Qty			
LPN			

QAD YHL-INT-220

You use Inventory Detail Inquiry frequently to check inventory levels in the warehouse during training exercises.

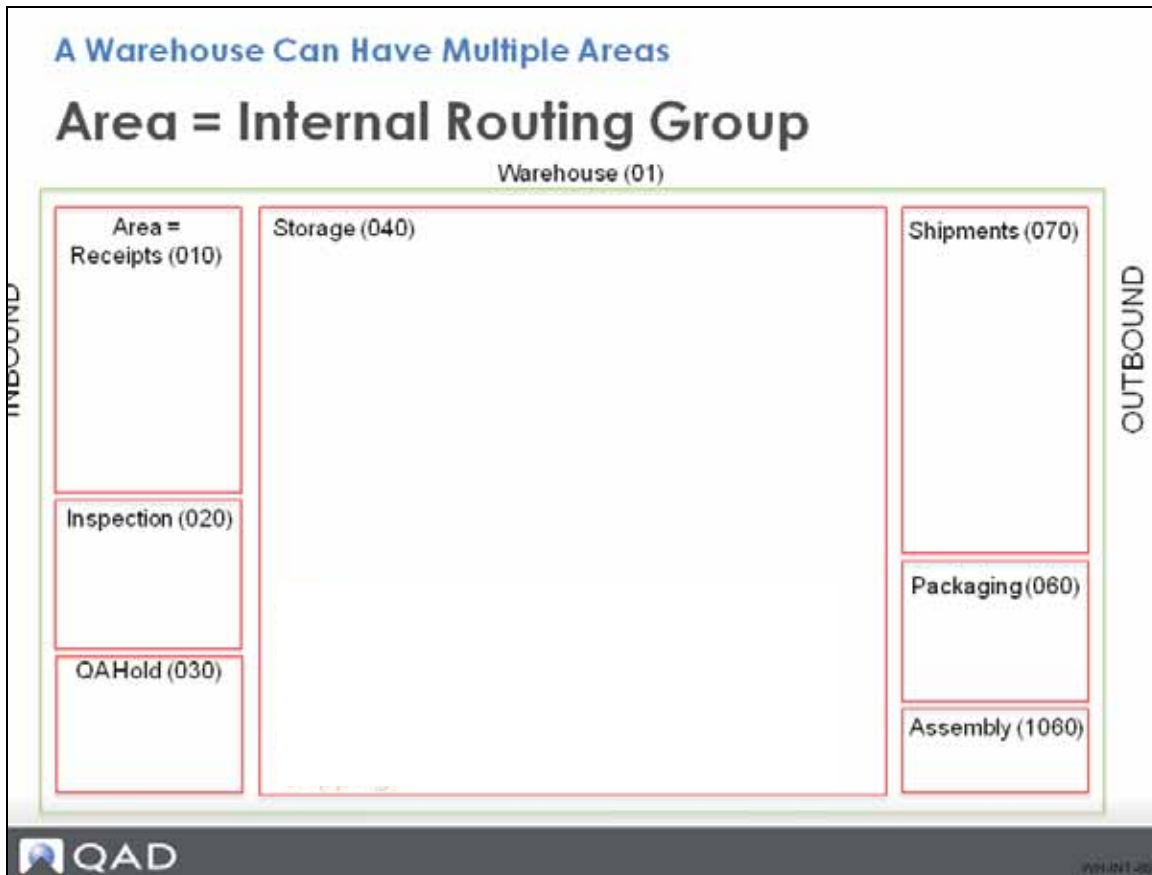
You can practice setting up Inventory Details Inquiry and enter the data in the table above.

Note This is not relevant for configuring QAD Warehousing but helps present the inventory flow picture as you test and use the system.

When testing or doing QAD Warehousing exercises, it is helpful to view inventory positions using either a browse, inquiry, or report.

- 1 In the QMI environment, add Inventory Detail Inquiry or Inventory by Site Browse to Favorites.
- 2 Fill in the beginning inventory matrix.

Set Up Areas



Did You Know

Only one area is required for QAD Warehousing to operate; however, most operations have areas for Receiving, Inspection, Storage, Packing, and Shipping areas.

QAD Warehousing manages the movement of inventory within and between warehouses by defining routes that move inventory from one part of the warehouse to another. These routes are called internal routings, and defining them involves specifying a sequence of steps that determine product flow and any specific controls to be applied at each step.

Within the warehouse, the first segregation is an Internal Routing Group (IRG) or area. An area represents a specific grouping or type of functional process (that is, receiving, inspection, storage, shipping, and so on).


The types of areas you setup also determine the types of rules you can use for product storage and retrieval.

Exercise - What Areas are Set Up in the Warehouse?

Exercise

What Areas are setup in the warehouse?

IRG	Description	Functional Status

 QAD

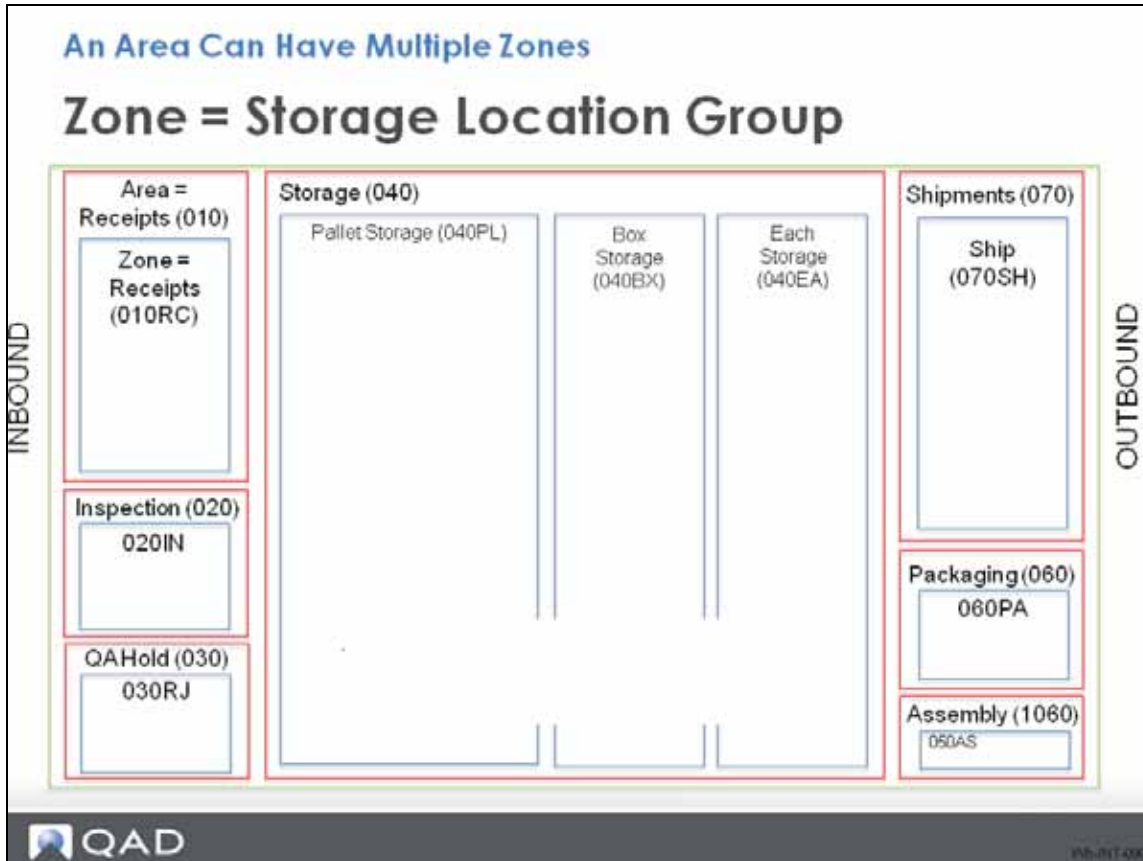
Before configuring Areas, understand the warehouse layout and process flows and document the information. This helps with setup.

During implementation, you should define and document the warehouse areas as defined in the business process workshop.

Remember that an area is an IRG, so you use IRG Maintenance to configure IRGs.

It is helpful to have a large print out of the facility drawing to use as a reference. Consider laminating the drawing to let easy writing and erasing on the drawing.

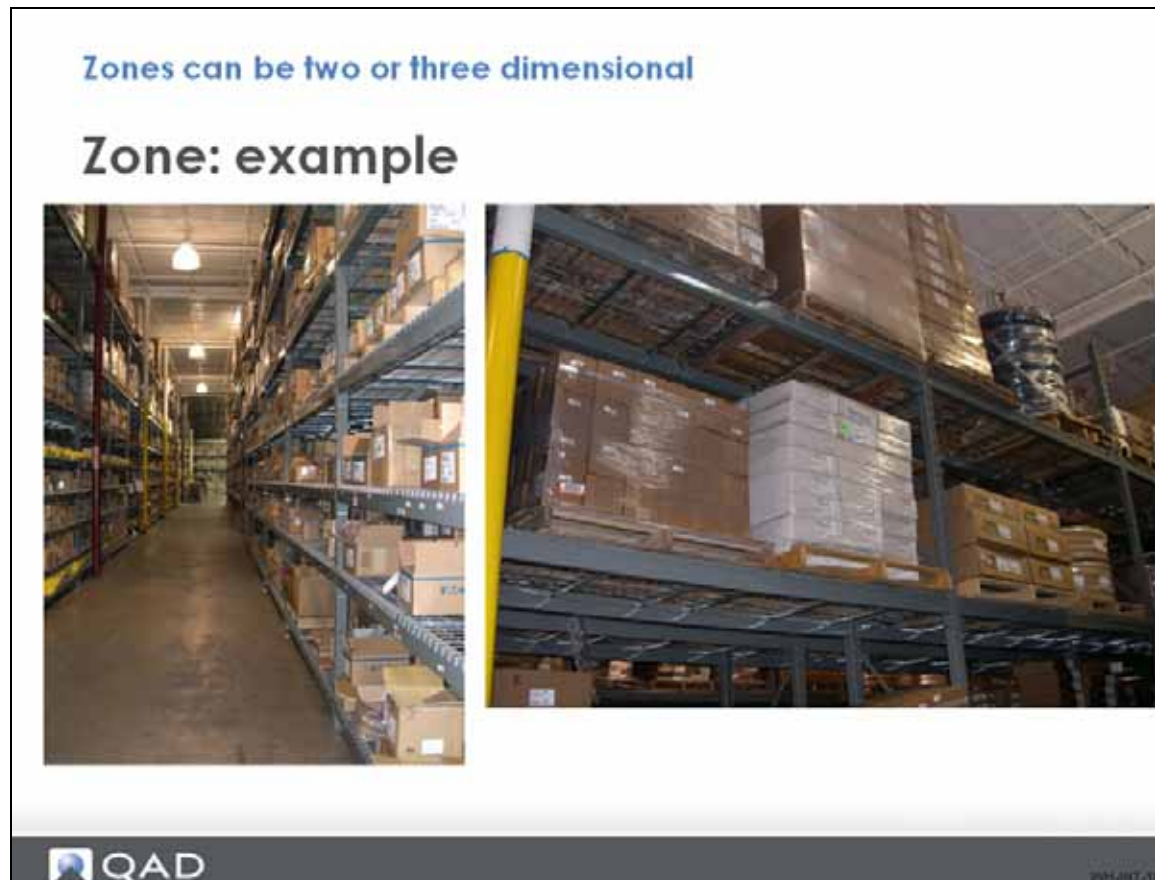
An Area Can Have Multiple Zones



Did You Know

An area can have multiple zones, but a zone can be associated to only one area.

Zone Example



An example of a two-dimensional zone is the QMI layout with the forward pick zones on the right side of storage and pallet (reserve) storage zone on the left. A three-dimensional zone has picking locations on the lower level racks with pallet reserve storage overhead.

In the graphic above, the picture on the left is an example of a two-dimensional zone similar to the QMI layout. All locations in the entire rack are in the same zone.


On the right, a three-dimensional zone might have bulk/pallet storage zone locations on the top sections, and box or each locations on the bottom, floor-accessible sections.

Exercise - Which Zones are Set Up in the Warehouse?

Exercise

Which Zones are setup in the warehouse?

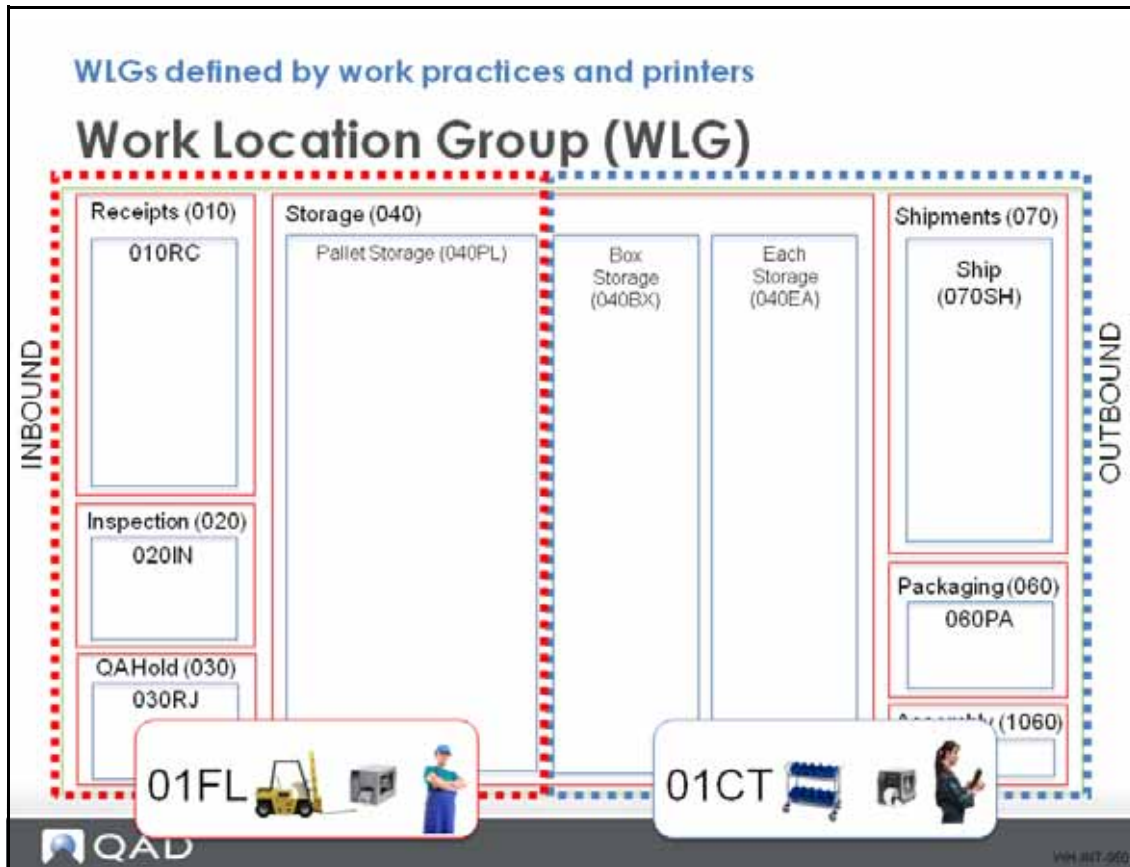
SLG	Description	IRG



Determine which zones are setup in the warehouse using QMI data. Name the SLGs, the description, and the associated IRGs.

Note You can take a shortcut and use SLG Inquiry to find the data above.

WLGs Defined by Work Practices and Printers



Did You Know

The parameters for a WLG are procedural while a zone is physical.

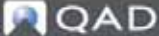
Exercise - Which Work Locations are Set Up?

Exercise

Which Work Locations are setup?

WLG	Description

What is the operational difference in the two work location groups?

 V014NT-506

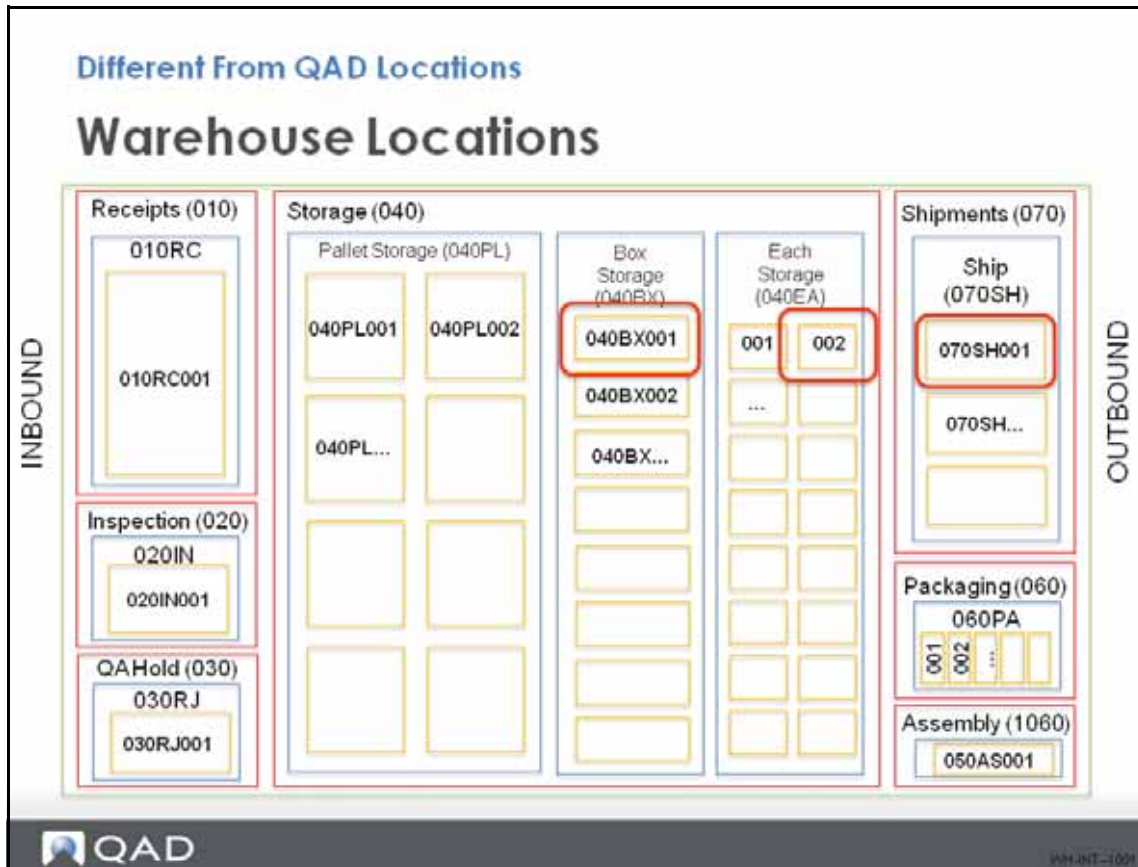
Use Work Location Group Maintenance to determine which work locations are set up in the warehouse.

For example, the following are work locations groups in QMI data:

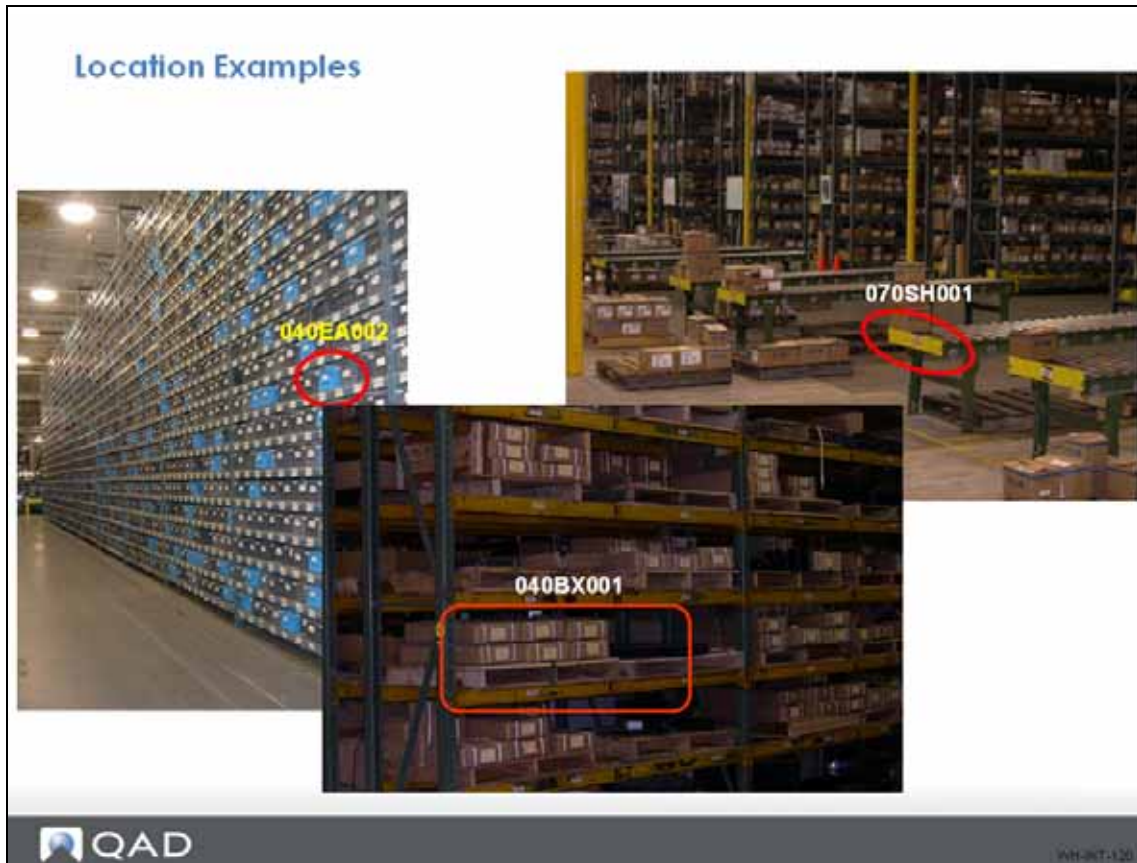
- 01CT Carts
- 01FL Forklift

Carts WLG is used for case and each picks while Forklift WLG is used for moving full pallets from receiving to reserve storage and for replenishments.

Warehouse Locations - Different from QAD Locations



Location Examples



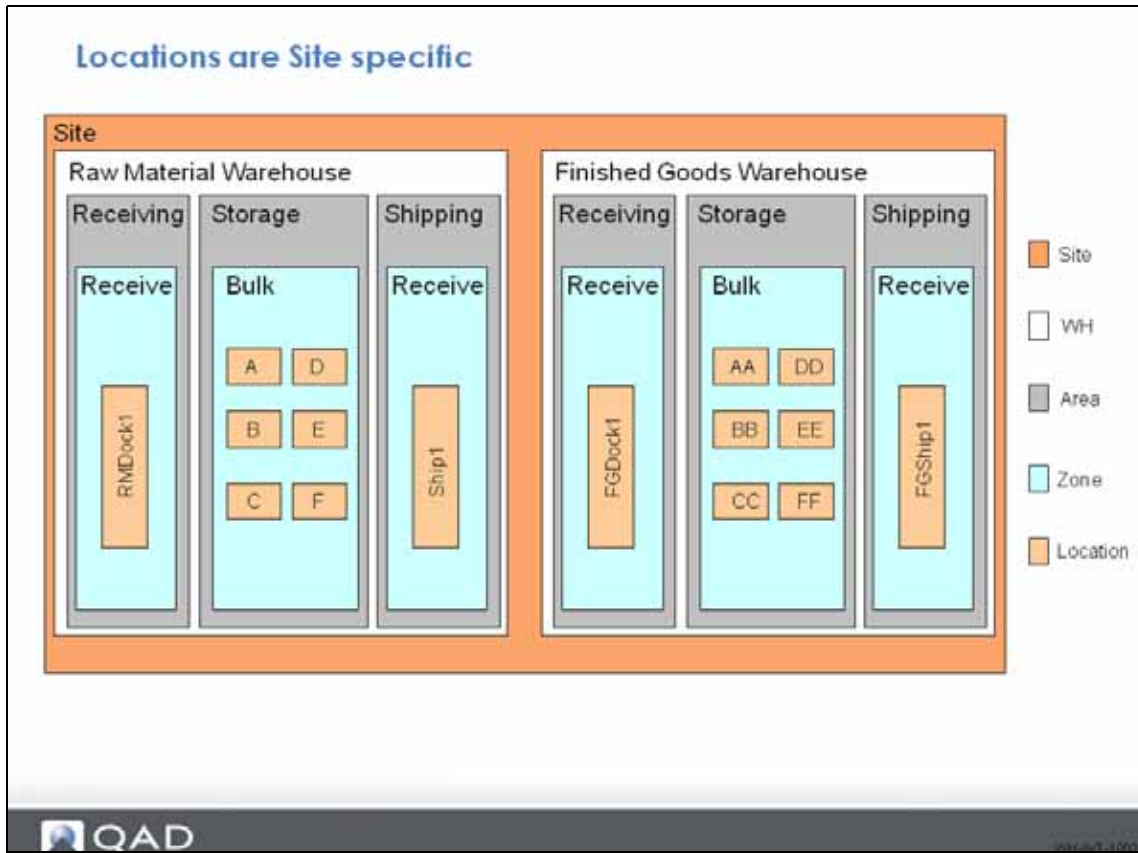
The rule here is that there should be a location wherever product is staged or stored.

The picture on the left above can be each storage/pick locations for small items similar to QMI location 040EA002. The middle picture is similar to a case storage/pick location (QMI 040BX001), and the picture on the right represents a shipping staging lane (QMI 070SH001).

Did You Know

An Area can have multiple zones but a zone can be associated to only one area.

Locations are Site Specific

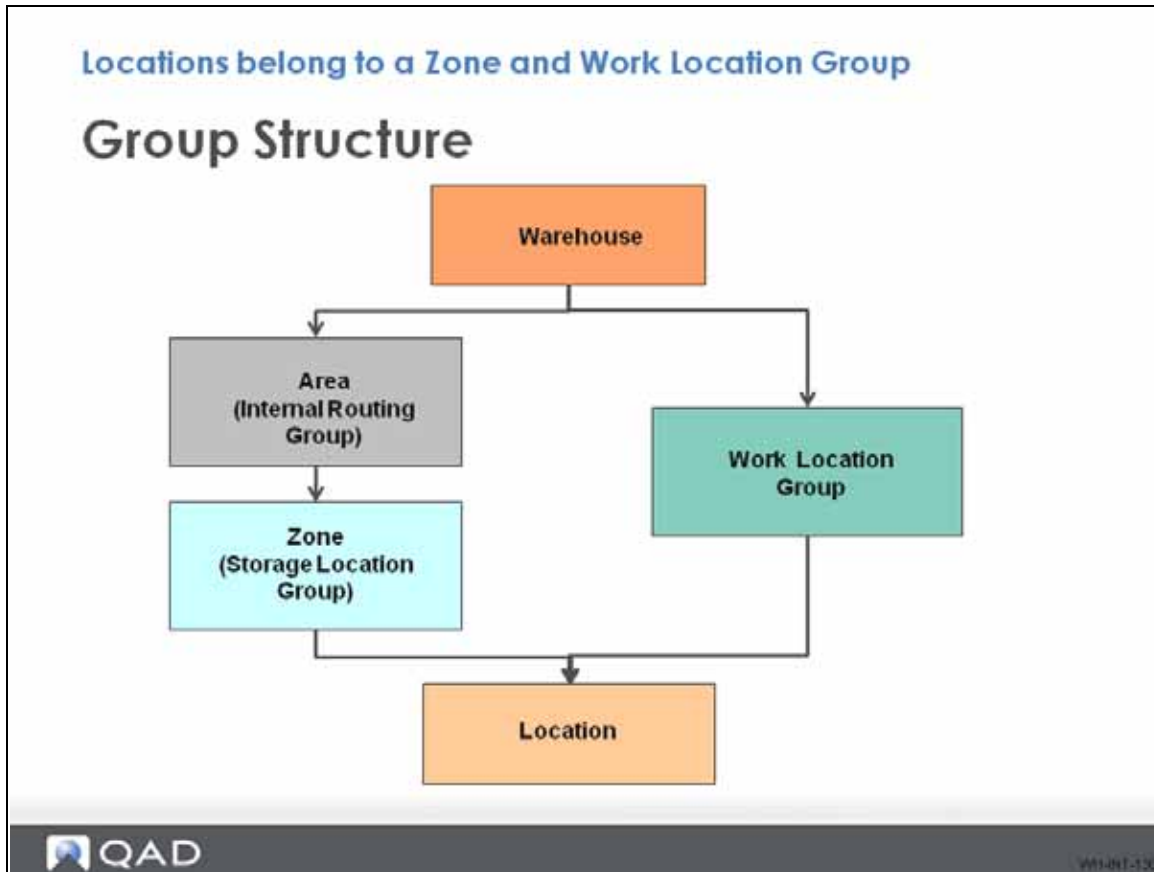


Did You Know

Locations are site specific. Two locations in two different warehouses but at a the same site cannot have the same name.

Areas and zones, however, can have the same name in different warehouses.

Locations Belong to a Zone and WLG



Did You Know

Locations are assigned to both a zone (storage location group) and a Work Location Group (WLG).

This helps define how the locations are used for storage and picking, and how the locations are groups by work section/process.


Exercise - Location Capacity

Exercise

Location Capacity

Using Warehouse Location Browse and/or Warehouse Location Maintenance how full is location 040EA020? _____

What is the capacity of location 040EA020?

 win-int-021

Follow the instructions in the slide above to determine:

- How full is location 040EA020?
- What is the capacity of that same location?

Using Warehouse Location Browse, the line for location 040EA020 shows 16.0 in the Percent Full column.

Using Warehouse Location Maintenance for Site 10-301, Location 040EA020, the location dimensional data shows Percent Full as 16.

The Warehouse Location Maintenance capacity as shown in the Percent Full field does not truly show the capacity. You need to scroll through and find the item frame in the program, then look at height, width, and so on and check the dimensions of the item. You can also run the Location Full% Report.

Clicking through to the final frame, the item number shows UM is EA and Quantity is 500. Because there is no item number listed, this is a generic capacity for all items.

Main Concepts - Process Flow Setup

QAD Warehousing Introduction

QAD Warehousing Main Concepts

- Warehouse
- Area = Internal Routing Group
- Zone = Storage Location Group
- Work Location Group
- Location

Warehouse Setup

- Internal routings
- Transaction Types
- Algorithms

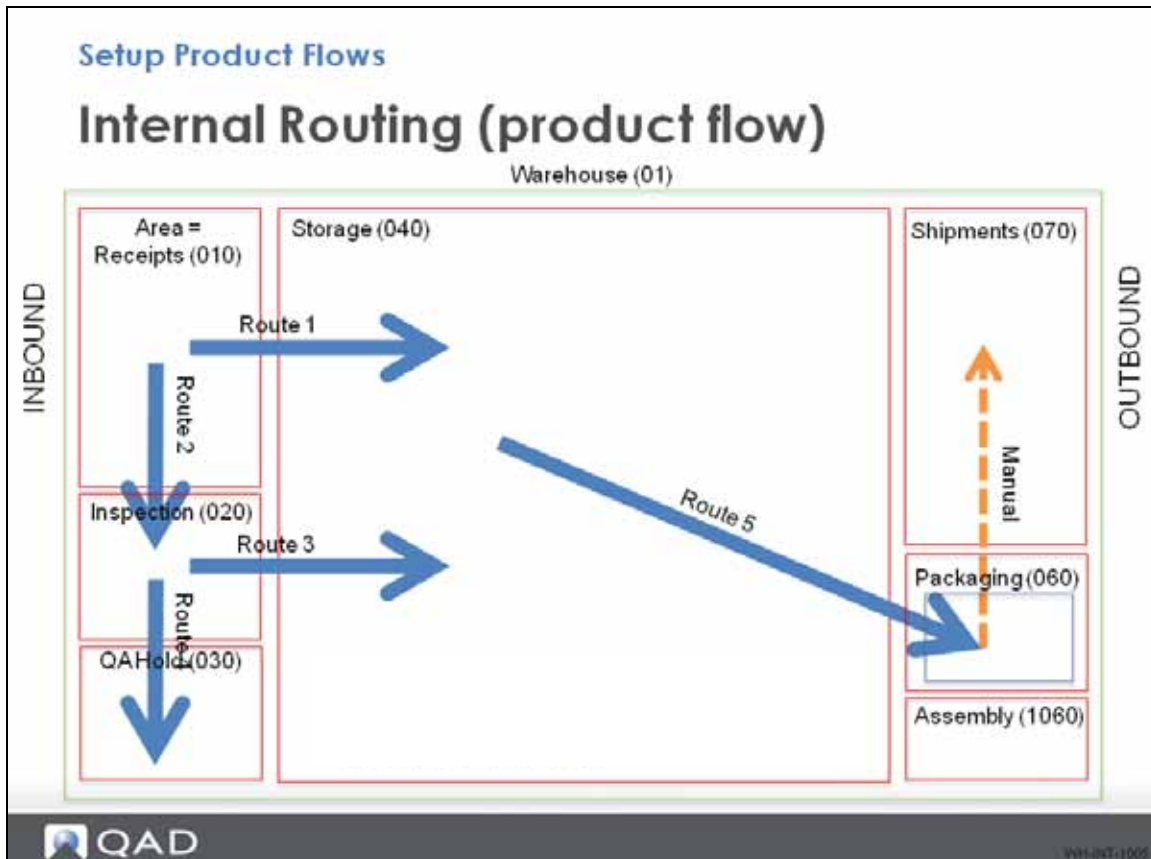
Process Flow Setup

QAD

WM_BUT_1001

The topics that follow discuss setup for the process flow portion of the main concepts.

Internal Routing (Product Flows)

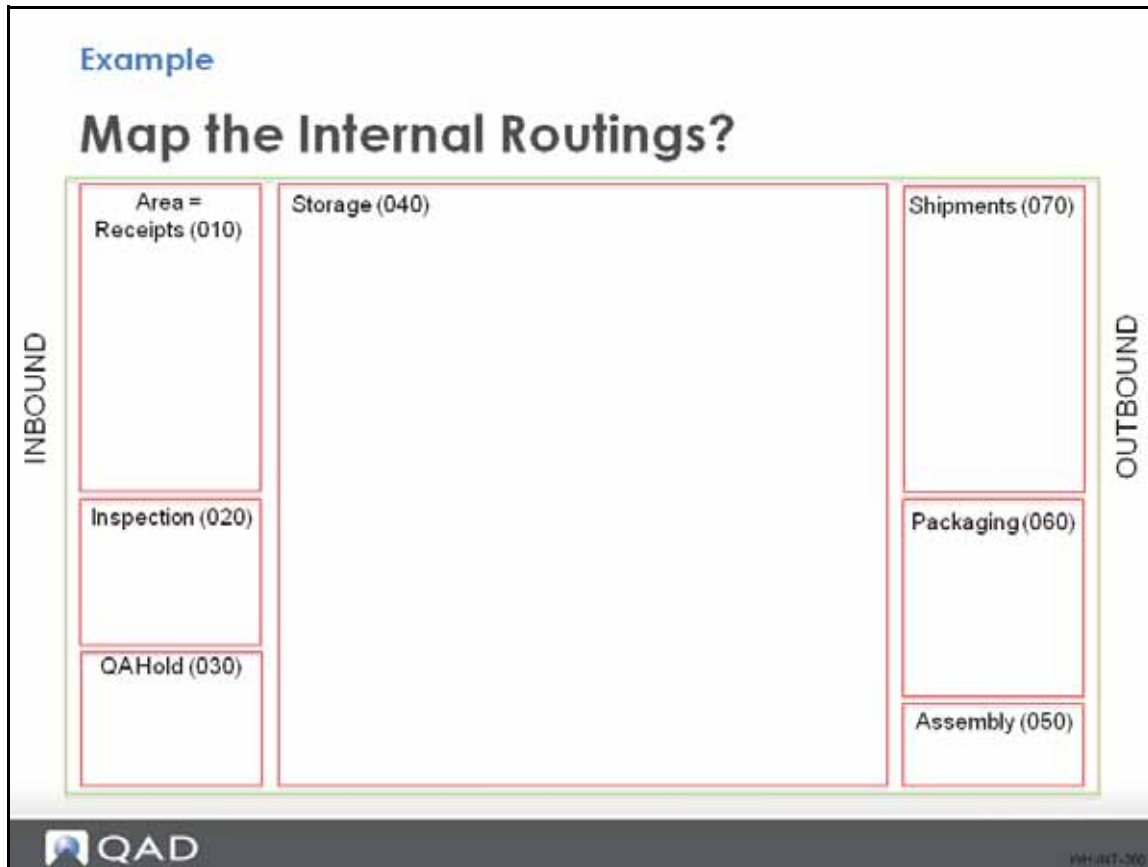


An Internal Routing is the path or flow material follows when being transferred from one area to another. Typically, routing has two steps, starting in one area and ending in another; however, there are exceptions where a routing stays within the same area or moves between multiple areas (with multiple stops). You review these special circumstances later.

When there is not a routing, the system does not direct product, but you can still manually move materials to another area. For example, when reviewing the above flows in comparison to the QMI warehouse, product movement from Packaging to Shipments is a manual move and does not require a defined route.

Getting product in (Receiving) and out (Shipping) is not Routing dependent and is done using QAD core functions.

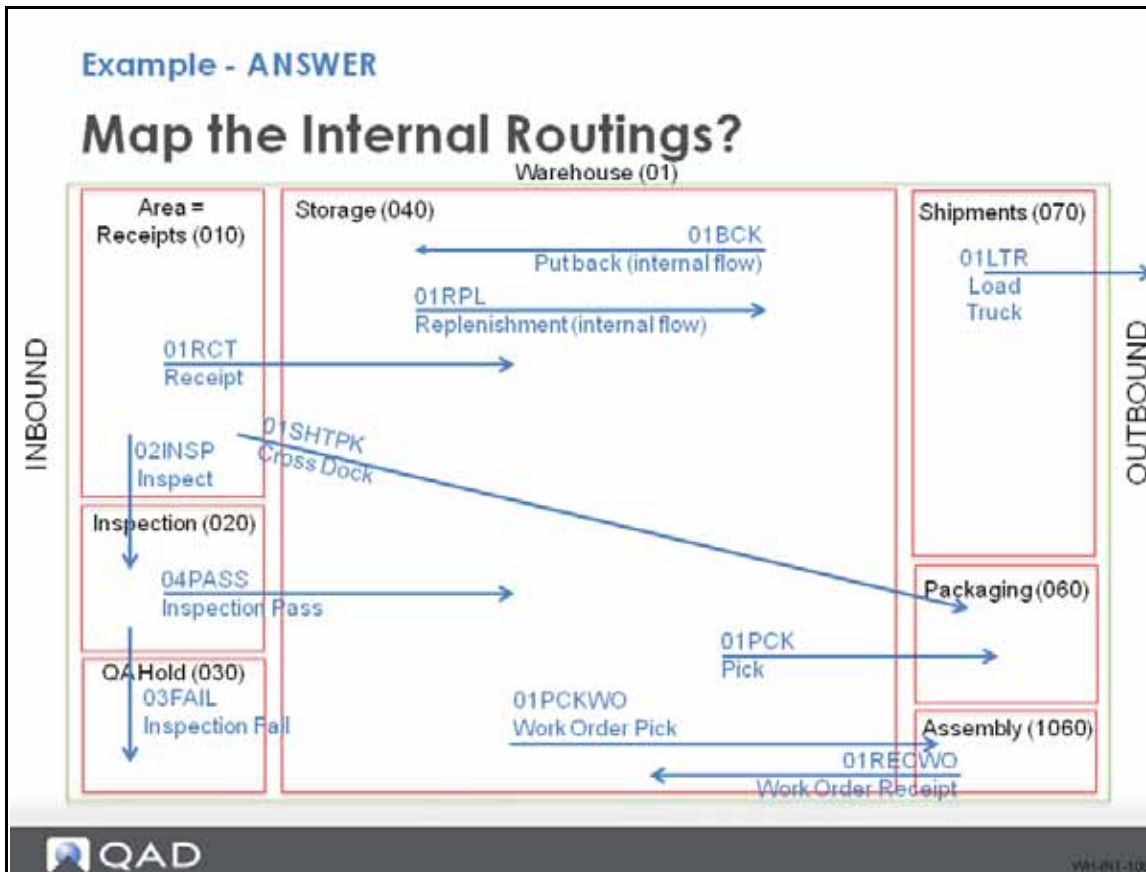
Example - Map the Internal Routings?



Before you configure QAD Warehousing, it is helpful to define the product flows. You do this by mapping the internal routings.

Use the QMI layout above to map internal routings for areas between the inbound and outbound flow of goods.

Example - Map the Internal Routings -Answer



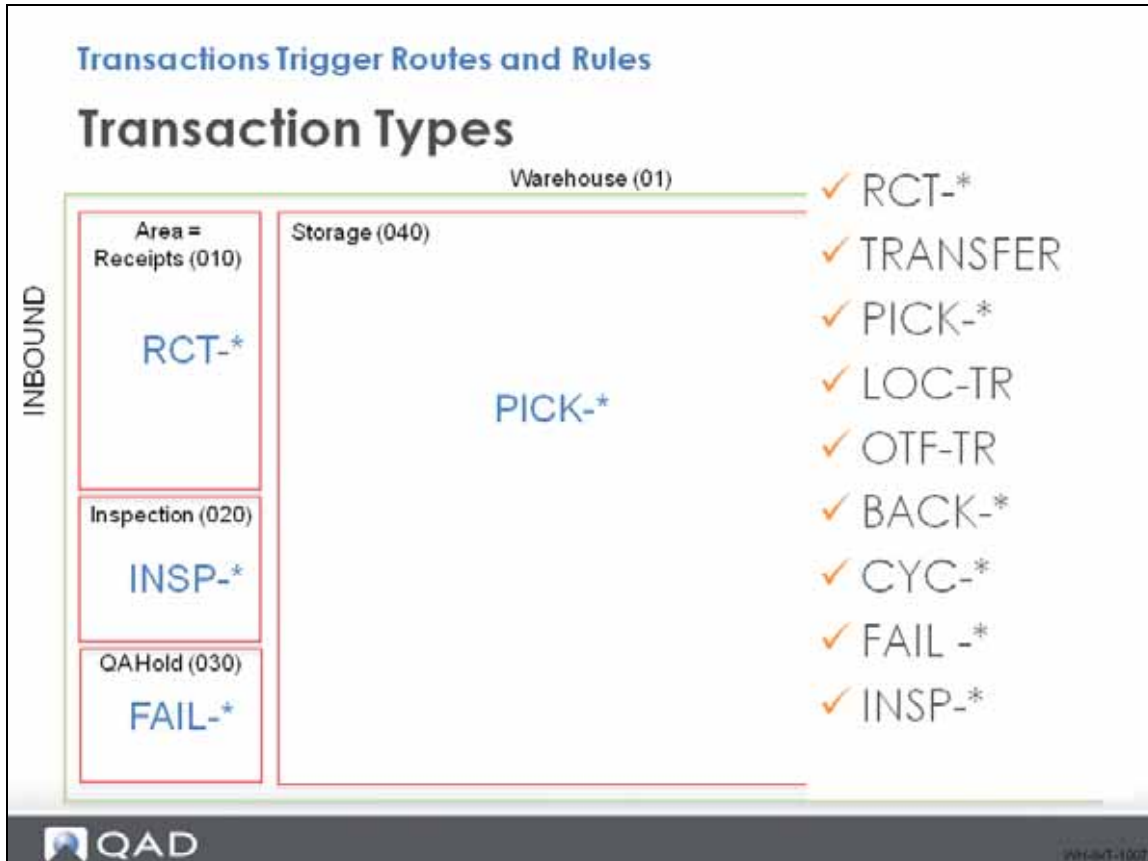
The lines in blue depict the internal routings mapped to the various areas.

Any product that moves from one area to another within a warehouse has to have the flow defined.

In QMI there are seven defined product flows:

Routing	Path	Purpose
01RCT	From Receiving to Storage	General receipts
01BCK	Forward Pick zone to Reserve Storage zone	Return replenishments
01RPL	Reserve Storage to Forward Pick	Replenishment
01PCK	Storage to Packaging	General pick
01PCKWO	Storage to Assembly	Work Order pick
01RECWO	Assembly to Storage	Assembly receipt
01LTR	Shipping to out of the system	Shipping

Transaction Types



Did You Know

QAD Warehousing uses the standard QAD core transaction types.

Setting Up Warehouse Specific Tasks

Setting Up Warehouse Specific Tasks

Task Maintenance

Warehouse (01)

INBOUND

- Area = Receipts (010)
 - Receipt
 - Put-away
- Inspection (020)
 - Transfer
- QA Hold (030)

Storage (040)

- Replenish
- Pick
- Cycle Count

OUTBOUND

- Packaging (060)
- Assembly (1060)

QAD

Use Task Maintenance (4.11.1.1) to create and update the tasks performed in a warehouse.

Exercise - Which Tasks are Setup for Warehouse 01?

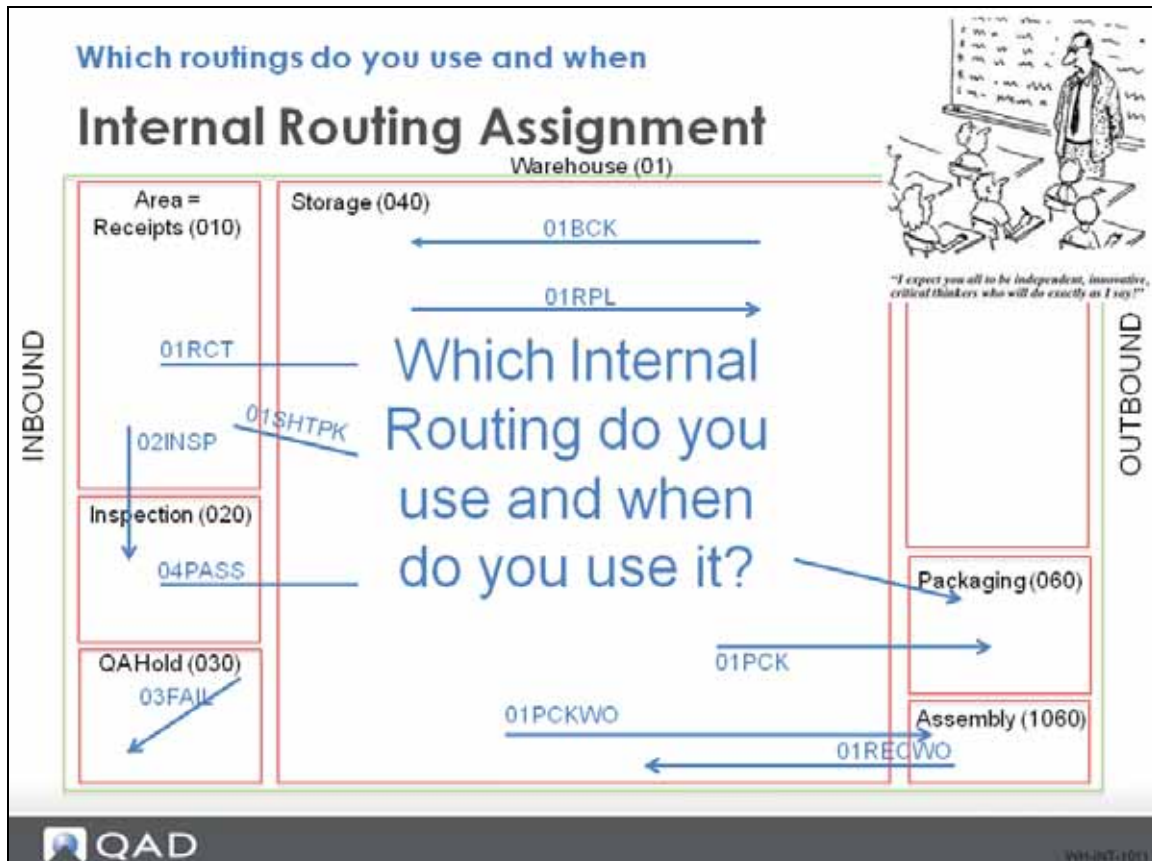
Exercise

What Tasks are Setup for Warehouse 01?

Task	Description

Use Task Browse

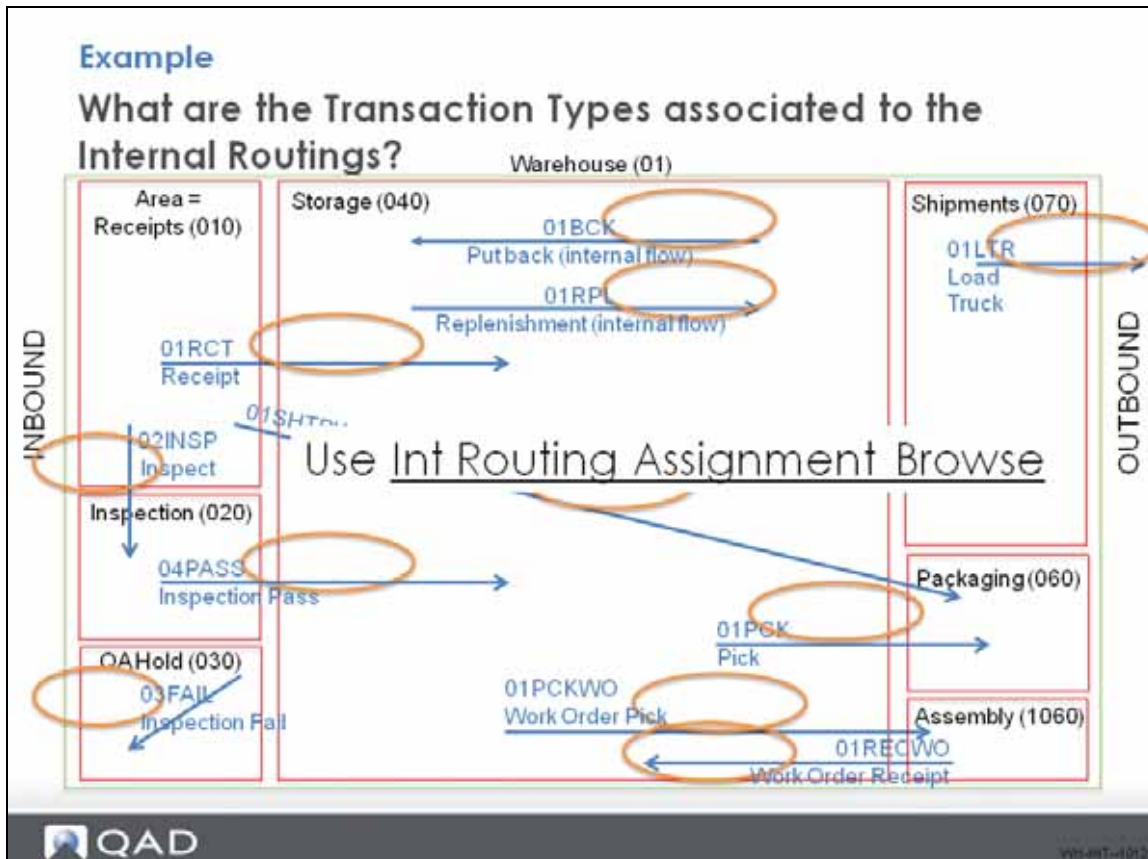
Which Routings Do You Use and When?



Internal routings (IRs) are pathways through your warehouse that you want your inventory to take; however, it is the IR assignment that tells the system when to use the internal routing.

Once the routings are defined the next step is to determine when the specific flows are triggered.

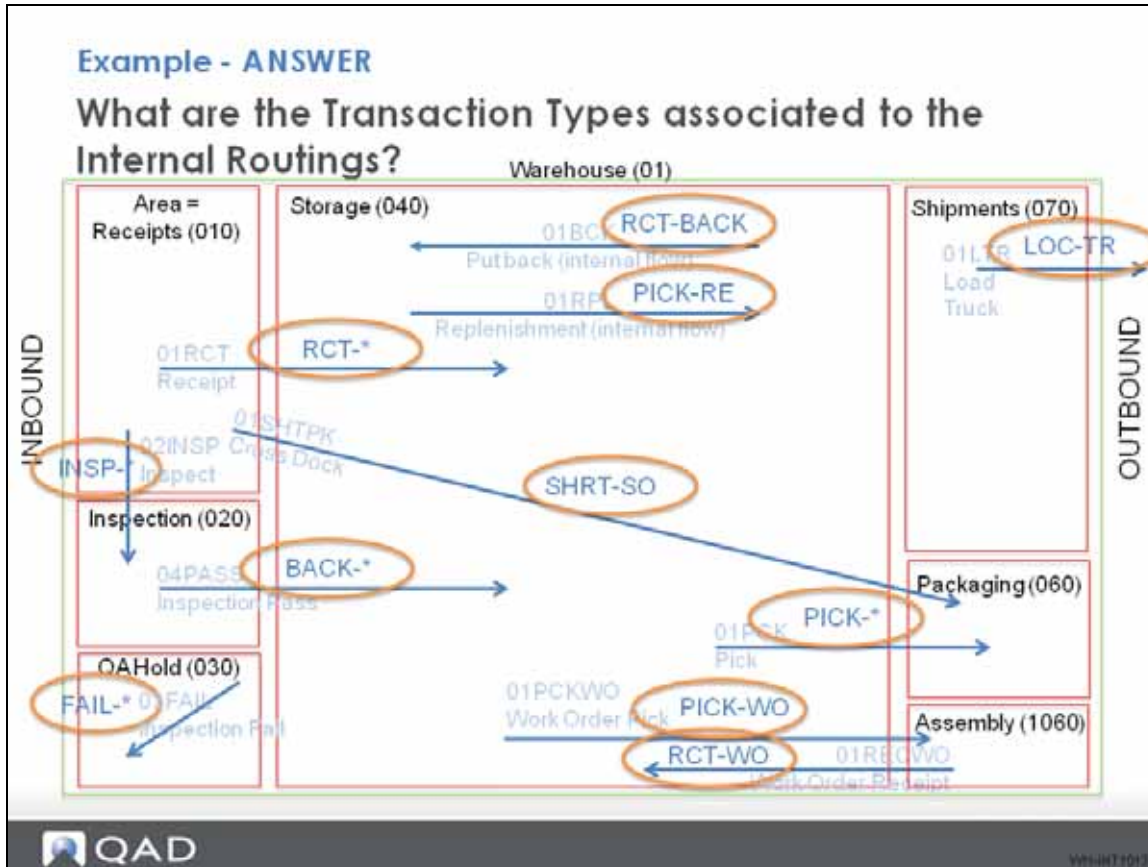
What are the Transaction Types Associated to the IRs?



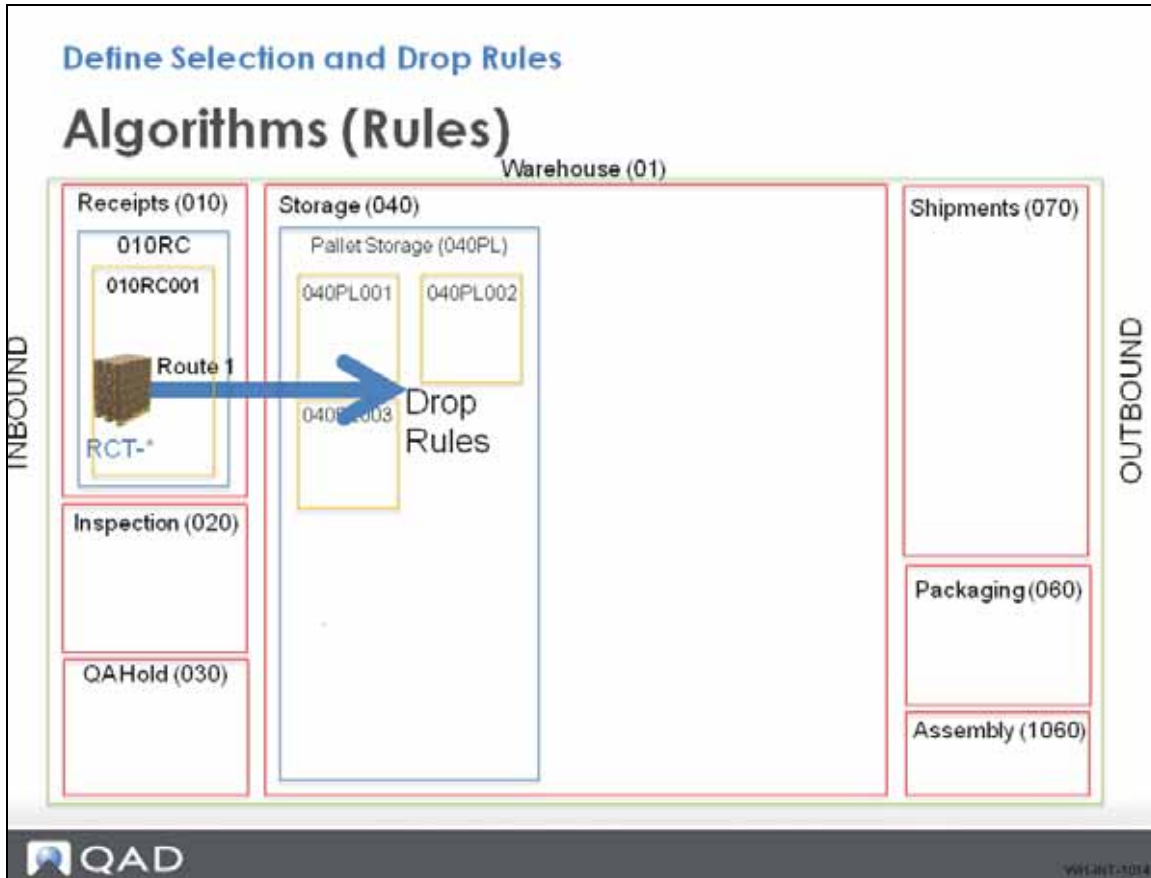
Each time a transaction occurs, the system looks at the internal routing.

Use Internal Routing Assignment Browse to determine the transaction types associated with the internal routings in QMI?

What are the Transaction Types with the IR - Answer



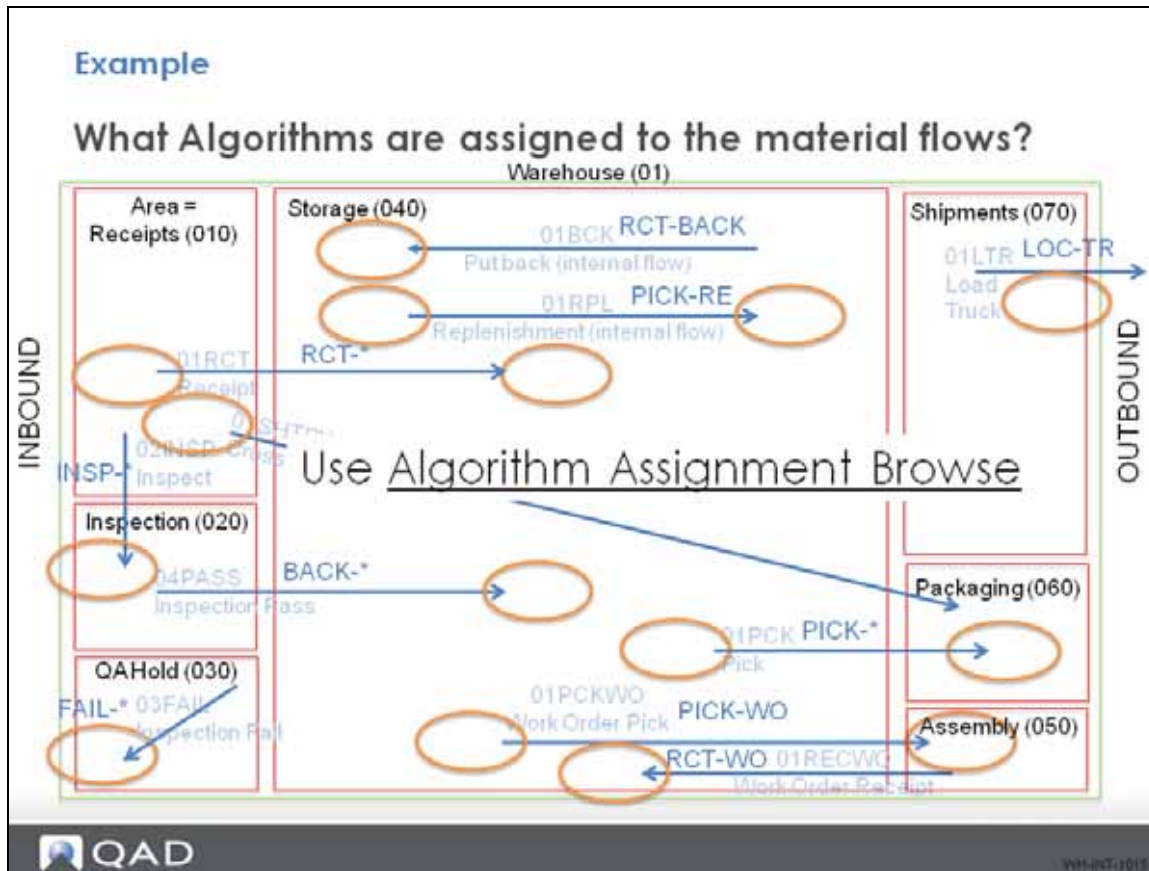
Define Selection and Drop Rules



Did You Know

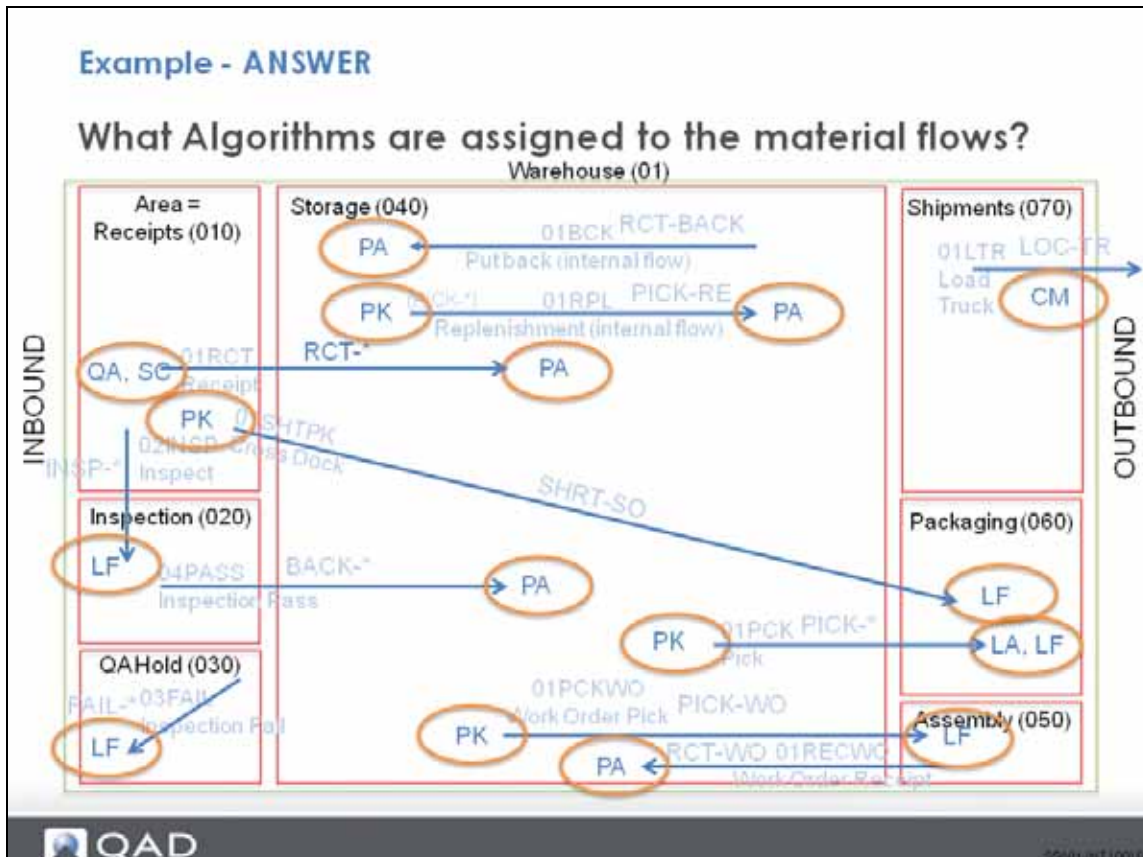
Use algorithms to link a specified sequence of rules to each transaction type or combination of transaction type, site, warehouse, item, and address.

Example - Which Algorithms are Assigned to Flows?



In the graphic above, use Algorithm Assignment Maintenance to determine which algorithms are assigned to the material flows in QMI.

Example - Which Algorithms are Assigned - Answer



The algorithms are circled in red in the graphic above.

In QMI, when product is moved into the storage area using a RCT-* transaction, the product is stored using (PA) put-away rules.

What are the General Receiving Put-Away Rules

Exercise

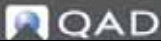
What are the general receiving Put-away rules?

Assigned Algorithms

Seq	Algo	Description

Use Algorithm Assignment Maintenance

- Algorithm Type = PA
- Transaction Type = RCT-*
- Site = 10-301
- Warehouse = 01

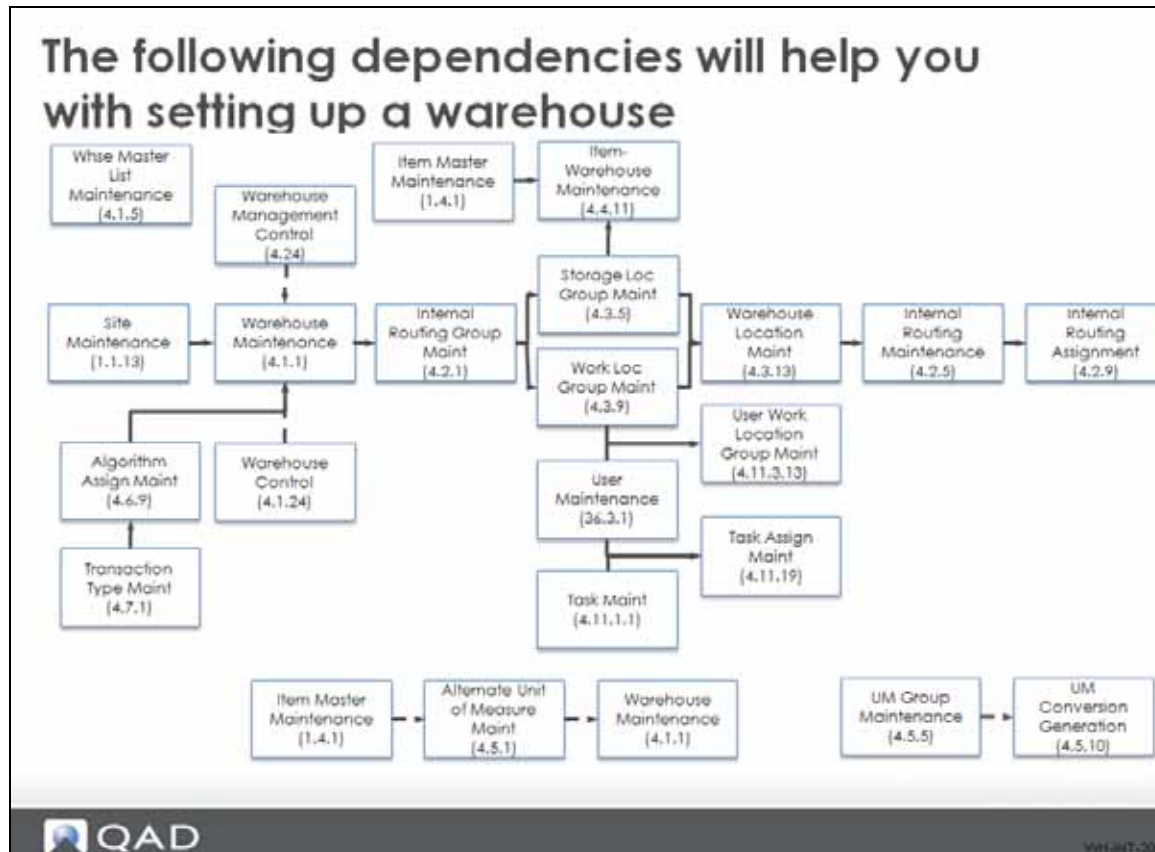


VM00T-10.17

Did You Know

Use Algorithm Assignment Maintenance to link a specified sequence of rules to each transaction type or combination of transaction type, site, warehouse, item, and address. QAD Warehousing has configurable putaway rules that help you determine which location is best for product put-away.

Dependencies that Help Set Up the Warehouse



Use the graphic above to determine the dependencies among QAD Warehousing programs. For example, maintenance programs that are below in the diagram above are dependent upon setup and configuration to be completed are in the upper portion of the diagram.

Enable QAD Warehousing

Enable QAD Warehousing

Warehouse Management Control

Active:

Template Delimiter: ..

Inventory History:

Reference Uniqueness Level:

Verbosity Level:

Cycle Count Reason:

Create Date: 8/20/2010 QMI User

Modified Date: 3/10/2011 Demo User

Activate
Warehousing
Functionality

←

You must set the Active field to Yes in Warehouse Management Control to use QAD Warehousing.

Although QAD Warehousing is offered as a standard product offering (bundled), it is sold as a separate license and need to be activated using Warehouse Management Control.

There is one frame and six fields in Warehouse Control used for configuration.

Many Control Features are Managed in a Warehouse

Many control features are managed in Warehouse Maintenance

Warehouse Maintenance

Site: 10301
Warehouse: 01

General Data

Description: Warehouse 1 Flavor: A

Address: Inventory Acct Sync:

Active: Allow Mixed Status Codes:

Reference Sequence ID: 00000001 Logistics UM Tolerance: 0.00%

Packaging Sequence ID: 00000002 Log w/Base UM Only: Cmt:

QAD Location Data

Description: Warehouse 1

Inventory Status: Y'Y'N

Permanent:

Type:

Single Item:

Single Lot/Reference:

Capacity: 0.0 UM:

QAD WH-INT-220

Warehouse Maintenance lets you set many control features. When you define a warehouse, you specify the parameters that control the way the inventory management functions work.

Some data you set in the program defaults to other QAD Warehousing programs. Some of the data in Warehouse Maintenance defaults from Warehouse Control.

There are 15 frames and roughly 165 fields in Warehouse Maintenance used for configuration. A few are required but most are optional. For now, you setup the required fields and discuss the more popular fields for a typical warehouse. Other fields are discussed through the remaining training sections as needed.

Control Scan Options

Control scan options

Warehouse Maintenance

Site: 10-301
Warehouse: 01


Transaction Create Defaults

Confirmed at Source: <input checked="" type="checkbox"/>	Task: TRANSFER
System Code: RF	Priority: 10
Two Phase: <input checked="" type="checkbox"/>	Increment: 1
Keep From Status: <input checked="" type="checkbox"/>	

Transaction Confirmation Defaults

From Location Option: <input type="text" value="0"/>	To Location Option: <input type="text" value="0"/>
From Item Option: <input type="text" value="0"/>	To Item Option: <input type="text" value="0"/>
From Lot/Serial Option: <input type="text" value="0"/>	To Lot/Serial Option: <input type="text" value="0"/>
From Reference Option: <input type="text" value="0"/>	To Reference Option: <input type="text" value="0"/>
Allow Quantity Increase: <input type="checkbox"/>	Alternative UM Option: <input type="text" value="0"/>
Allow Quantity Decrease: <input checked="" type="checkbox"/>	Allow Task Switching: <input type="checkbox"/>
Quantity Change Option: <input type="text" value="0"/>	

You can assign the default task used in the warehouse.


WH-INT-240

Did You Know

You can configure the frequency and need for scanning at the Warehouse Maintenance level. Too much scanning and productivity is reduced, too few scans and accuracy is reduced.

The general rule is to accept the menu defaults.

Traditional Warehouse Tasks

Traditional Warehouse Tasks

Task Maintenance

Task: **TRANSFER**

Description: Inventory Transfers

Procedure Code: TF

Confirmation Mode: Auto

Comments:

Time: 0.0

Tasks: 0

Create User ID: mfg 1/1/2001

Modified By: mfg 1/1/2001

Task
Count
Pack
Pick
Put-Away
Recount
Replen
Transfer

QAD

Use Task Maintenance to set up traditional warehouse tasks for staff. The blue box depicts typical tasks.

There are three frames and five fields in Task Maintenance used for configuration.

Control Scan Parameters

Control Scan Parameters

Warehouse Maintenance

Site: 10-301

Warehouse: 01

Transaction Create Defaults

Confirmed at Source: <input checked="" type="checkbox"/>	Task: TRANSFER
System Code: RF	Priority: 10
Two Phase: <input checked="" type="checkbox"/>	Increment: 1
Keep From Status: <input checked="" type="checkbox"/>	

Transaction Confirmation Defaults

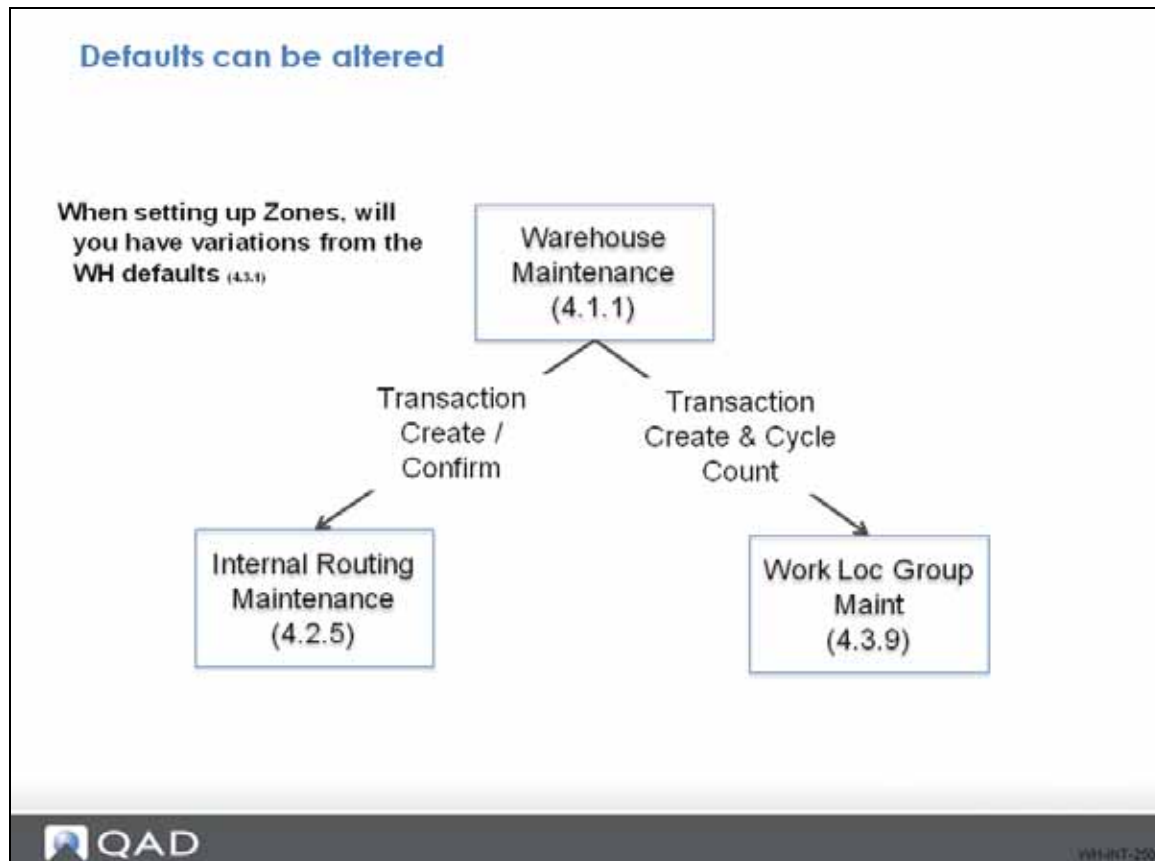
From Location Option: 0	To Location Option: 0
From Item Option: 0	To Item Option: 0
From Lot/Serial Option: 0	To Lot/Serial Option: 0
From Reference Option: 0	To Reference Option: 0
Allow Quantity Increase: <input type="checkbox"/>	Alternative UM Option: 0
Allow Quantity Decrease: <input checked="" type="checkbox"/>	Allow Task Switching: <input type="checkbox"/>
Quantity Change Option: 0	

© 2011 QAD, Inc.

Do You Know

You can define when users can change scan parameters and the warning users receive when a change is made.

Defaults Can Be Altered



Internal Routing Maintenance and Work Location Group Maintenance defaults are set at the Warehouse Maintenance level but can be changed at lower level screens.

For configuration purposes, keep in mind defaults set at the Warehouse Maintenance menu can be changed in subsequent menus. This provides another layer of flexibility.

Exercise Aid

Exercise Aid

Create a layout/drawing of your Exercise warehouse to record names, flows, etc.

WH-INT-2020

Exercise - Set Up Warehouses

Exercise
Set Up a Warehouse

The screenshot displays the QAD Warehouse Maintenance configuration screen. At the top, the Site is set to 10-301 and the Warehouse is 01. The General Data section includes fields for Description (Warehouse 1), Address, Active (checked), Reference Sequence ID (00000001), and Packaging Sequence ID (00000002). On the right, there are dropdowns for Flavor (A), Inventory Acct Sync, and Allow Mixed Status Codes (checked). The Logistics UM Tolerance is set to 0.00%, and there are checkboxes for Log w/Base UM Only and Cnt. The QAD Location Data section shows Description (Warehouse 1), Inventory Status (Y-Y-N), and checkboxes for Permanent, Single Item, and Single Lot/Reference. The Capacity is 0.0 UM.

Did You Know

You can configure the frequency and need for scanning at the warehouse maintenance level. Too much scanning reduces productivity, too few scans reduces accuracy.

Exercise

Warehouse Maintenance controls many warehouse parameters and provides configuration defaults for many subsequent screens.

Use the following to help set up the warehouse:

- 1 Ensure QAD Warehousing is active using Warehouse Management Control.
- 2 In Warehouse Maintenance, define Warehouse parameters, then note the parameters you enter here:

Field	Data to Enter
Site	10-301
Warehouse	
Description (optional)	
Reference Sequence ID	00000001
Packaging Sequence ID	00000002

Field	Data to Enter
Start Picking Level	10
End Picking Level	20

Note The End Picking Level is different from Warehouse 01. In the new warehouse, there are only two picking zones versus the three in Warehouse 01.

Setting Up Areas

Setting up Areas

Internal Routing Group Maint

Site: 10-301
 Warehouse: 01
 Internal Routing Group: 010
 Description: Receipts

Functional:

SLG Default Values

Allow Issues:
 Allow Receipts:
 Allow Outgoing Returns:
 Allow Incoming Returns:

QAD WH-INT-260

This is one of the easiest screens to configure. The main decision is whether or not the area is functional. Accepting the SLG default values provides more flexibility in the zone. Disabling defaults is more restrictive.

Did You Know

- Functional internal routing group: Use the LF algorithm
- Non-functional internal routing group: Use the PA and PK algorithm
- Zones can be configured to restrict product receipts and issues

Non-functional IRGs are only storage locations. Areas, such as receiving areas, are considered functional because warehouse staff perform a specific function in the area. Functional areas have a specific algorithm associated with them. Non-functional areas are concerned with storage capacity. There is, however, a put-away algorithm associated with storage areas because there is a concern for capacity when storing.

As a general rule, all pick areas are non-functional; all other areas are functional.

There are four frames and six fields in Internal Routing Group Maintenance used for configuration.

Exercise - Set Up Areas



There is no inspection requirement. All product flows in through a general receiving area and is put away to storage. Product is picked from storage locations and moved to shipping for shipment prep and load consolidation.

Use the following to help set up areas:

- 1 In Internal Routing Group Maintenance, use the following matrix to help you set up data:

Site	Warehouse	IRG	Description	Functional
10-301			Receiving	Y
10-301			Storage	N
10-301			Shipping	Y

Setting Up Zones

Setting up Zones

Storage Location Group Maint

Site: 10-301
Warehouse: 01
Storage Location Group: 010RC
Description: Receipts

No picking from the receiving zone!

Internal Routing Group: 010

Allow Issues:
Allow Receipts:
Allow Incoming Returns:
Allow Outgoing Returns:

Opportunity Counts:
Opportunity Count Frequency:
Check Digits:
Cycle Count Status Option:

Exclude from Picking:
Picking Level:
Flow Pick:

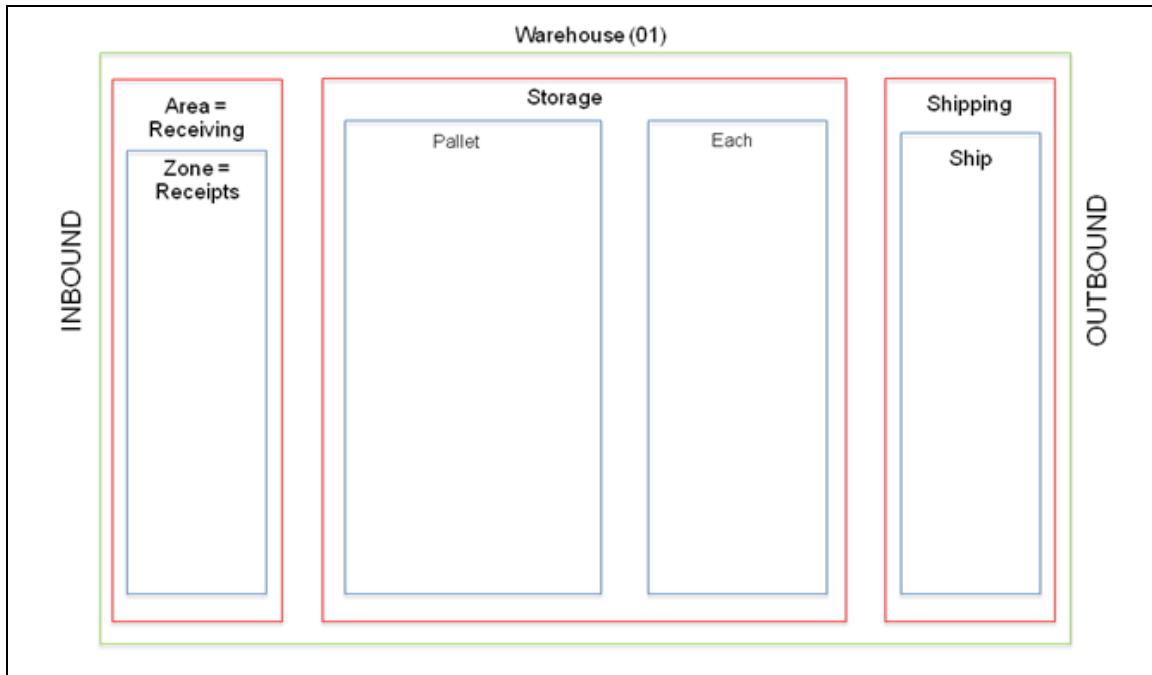
Picking Multiple UM:
Detail Overflow Group:
Capacity Check when OTF:
Optimized Storage:
Allow Mixed Status Codes:
Acquisition UM:
Recount UM:

QAD V01.011.1024

Did You Know

You can block SLGs (zones) from picking, based on their picking level in warehouse setup.

Exercise - Set Up Zones



Zones require more detailed configuration. Specific Zone configurations are discussed in more detail in later sessions.

Use the following to help set up zones within the warehouse:

- 1 Use Storage Location Group Maintenance to set up zones.
- 2 Set up zone parameters as follows, noting data you supply here:

Site	Warehouse	SLG	Description (optional)	IRG
10-301			Receiving	
10-301			Pallet Storage	
10-301			Each Storage	
10-301			Shipping	

- 3 Continue on, adding data to more Storage Location Group Maintenance fields for the data you set up in step 2.

Substep	Receipts	I Returns	0 Returns	Exclude from Picking (A)	Picking Level	Picking Multiple UM (B)	UM(B)	Acquisition UM
a	Y	Y	Y	Y	--	--	--	--
b	Y	Y	Y	--	10	PL	PL	--
c	Y	Y	Y	--	20	--	--	EA
d	Y	Y	Y	Y	--	--	--	--

For the table above:

- (A) Zones in functional areas are excluded from picking.
- (B) Picking Multiple UM and UM should be blank in non-storage zones.
- Clicking Next on the last frame with a blank UM displays an error message. Click Back to save changes

Set Up Work Sections

Setup work sections

Work Location Group Maintenance

Site: 10-301
Warehouse: 01
Work Location Group: 01FL

Description: Forklift

Confirmed at Source:

Priority: 10

Increment: 1

Task: TRANSFER

System Code: RF

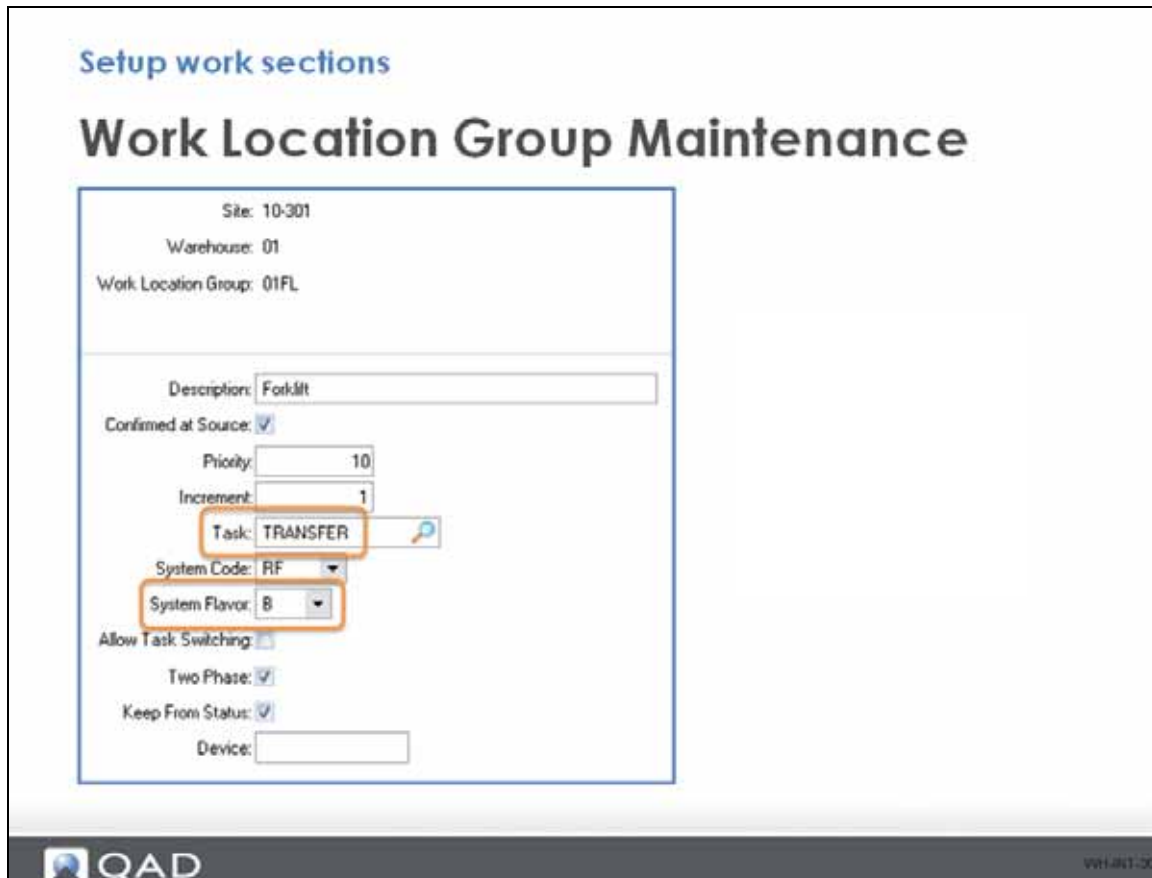
System Flavor: B

Allow Task Switching:

Two Phase:

Keep From Status:

Device:



Did You Know

A work location group is procedural, while a zone is physical.

Exercise - Define Work Sections

Exercise

Define Work Sections

Site	WH	WLG	Description (optional)	Flavor	Users(A)
10-301			Fork truck movement		
10-301			Cart picking		
10-301					
10-301					

Operators work in two sections: pallet/load movements and each item picking. Use the following to help assign users to work location groups.

- 1 Use Work Location Group Maintenance to set work sections.
- 2 Set up parameters, then note the parameters you enter here:

Site	Warehouse	WLG	Description (Optional)	Flavor	Users (A)
10-301			Fork truck movement	A	
10-301			Cart picking	A	
10-301					
10-301					
10-301					

Note In the table above, (A) is a user field that is not on the maintenance screen but is presented here for reference to help set up the next exercise.


Set Up Locations


Setup locations

WMS Uses QAD Core Location Structure

	Core	WMS
Site	R	R
Location	R	R
Description	O	O
Inventory Status	R	R
Project	O	---
Date Created	R	---
Permanent	O	O
Type	O	O
Single Item	O	O
Single Lot/Reference	O	O
Capacity	O	O
UM	O	O
Reserved Locations	O	---
Transfer Ownership	O	O
Physical Address	O	---

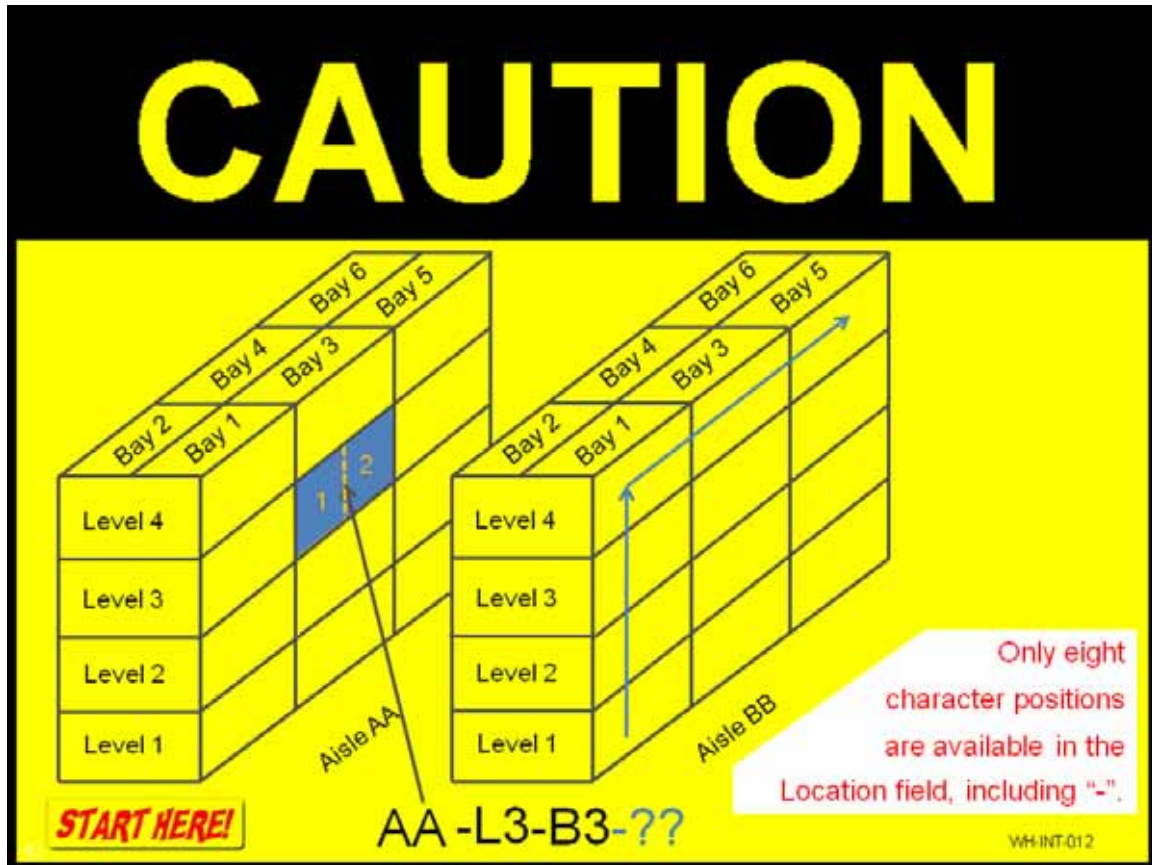
Location Dimensional Data: Height	O
Location Dimensional Data: Length	O
Location Dimensional Data: Width	O
Dimensional Unit of Measure: Percent Full	O
Percent Full	O
Warehouse	R
Storage Location Group	R
Work Location Group	R
Check Digit	O
Pick Type	O
Popularity	O
Preferred UM	O
Storage Type	O
Opportunity Count Frequency	O
Warehouse Location Type	O
Last Opportunity Count	O
Travel Sequence	O
Stage (In)	O
Dedicated	O
Stage (Out)	O
Item Number	O
UM	R
Quantity	R
Height	O
Length	O
Width	O

Additional Warehousing Fields 

 WH-INT-011

QAD Warehousing starts with the same base Location Maintenance database found in QAD Core but adds several more fields to let management run a more effective warehouse. A few of the fields are required (R) but most are optional (O).

Location - Caution



With only eight positions available in the Location field, you are limited on how you can define warehouse location addresses. For example, many warehouses define locations by:

- Aisle = AA
- Level = L3
- Bay = B3

However, in a selective rack space, there is enough room for two pallets in a typical bay. In this situation, the preference would be to add a fourth data element representing the bay position, 1 or 2. With only eight character positions, you are not able to add more characters to the XX-YY-ZZ format. You need to be creative when defining detailed locations.

Did You Know

- There are only eight characters allowed in the Location field to name the location.
- Location address impacts the picking sequence because the system defaults the picking algorithm on the location.

Set Up Locations - Warehouse Location Maintenance

Setup locations

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1
Location: 040PL001

Location Groupings

Warehouse: 01
Storage Location Group: 040PL
Work Location Group: 01FL

Warehouse Location Data

Check Digit:
Popularity:
Storage Type:
Warehouse Location Type:
Travel Sequence:
Dedicated:

Picking Type:
Preferred UM:
Opportunity Count Frequency: 0
Last Opportunity Count:
Stage (In):
Stage (Out):

QAD

Locations can be categorized by popularity to support slotting strategies.

You can check the popularity and if items are not being picked, they may be moved to another location, based on product popularity. This lets you improve your warehouse flow.

There are five frames and 49 fields used to configure warehouse locations. Most of these are discussed in more detail in later sections.

Did You Know

QAD Warehousing uses Warehouse Location Maintenance in place of QAD EE standard Location Maintenance to establish and define characteristics for the way product is stored and picked.

Manage Location Capacities

Manage location capacities

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1
Location: 040PL001

Item Number	UM	Quantity	Height	Length	Width
	PL	4.0000	1	2	2

Item Number	UM	Quantity	Height	Length	Width
<input type="text"/>	<input type="text" value="PL"/>	4.0000	1	2	2


- Reserve pallet locations PL001 – PL004 have capacity 4 pallets
- When full, put-away will look for the next available location
- This info used to calculate Percent Full on the previous frame
- Location Dimensional Data is for reference only

Location Dimensional Data

Height:	1.00
Length:	2.00
Width:	2.00

Dimensional Unit of Measure: M

Percent Full:	75.00
---------------	-------

 V94.01-1030

Manage Location Capacities (Continued)

Manage location capacities


Warehouse Location Maintenance

Site: 10-301 Distribution Site 1
Location: 040PL001

Item Number	UM	Quantity	Height	Length	Width
	PL	4,0000	1	2	2

Item Number	UM	Quantity	Height	Length	Width
	PL	4,0000	1	2	2

- A UM and Quantity combination is required for each location. Locations without a UM/Quantity combination will not be selected for put-away.



QAD WH-MNT-1031

During setup, you need to define some capacity parameters for each location. When specific capacity metrics are not known, you can enter a generic number to at least have the location considered during put-away; however, when the quantity is larger than the actual capacity, the system repeatedly directs the item to a full location. Alternatively, when the quantity is less than the actual capacity, the location remains under utilized.

You can also use this field strategically; for example, when you do want to put the location on hold, delete the UM/Quantity combination even when inventory is in the location.

Also note that the system still considers locations with existing inventory but no UM/Quantity capacity for pick and replenishment inventory movements.

Hold Maintenance should also restrict inventory movements to or from a location but currently, Hold Maintenance on a location only restricts inventory from being picked not from being put-away.

Location - Alert

Implementation Alert

Setting up locations can be very time consuming during WMS implementation. To help save time during location setup use **Mass Location Maintenance**.

WH-INT-013

To set up many locations with a similar format, use Mass Location Maintenance. Depending on your location address format, you may need to do this multiple times to create locations by aisle, zone, or area by changing the location pre-fix and number scheme.

Did You Know

When you consider many warehouses can have thousands of locations, location setup can be very time consuming. To help save time during implementation, use Mass Location Maintenance.

Setting Up Many Same Type Locations

Setting up many of the same type of location

Sequence Definition Maintenance

Sequence Definition: 00000003 Description: Mass Pallet Location

Sequence Detail

Seq	T	Format	Min	Max	Inc	Description
1	F	PLT			1	Pallet Location
2	I	-999	1	999	1	Int Pallet Location

PLT 001 to PLT 999

Sequence: Minimum Value:

Type: F Fixed Maximum Value:

Format: PLT DB Sequence: Increment: 1

Description: Pallet Location

Use Sequence Definition Maintenance when required to setup many locations of the same type. Sequence Definition Maintenance lets you define how controlled sequences of numbers are structured.

The program lets you specify the format and range of the location identifiers when you use Mass Location Maintenance to create a number of storage locations. You can specify the type of sequence such as integer, character, fixed, date, and so on as well as the format.

The first sequence is Type F (fixed) and is the prefix of the label. The second sequence is the variable integer. In this case, the integer is three digits starting at 1 and ending at 999 with an increment of 1. You can have more than 2 sequences but remember the location field capacity is 8 characters.

There are five frames and six fields in Sequence Definition Maintenance used for configuration.

Setting Up Many of the Same Type of Location (Continued)

Setting up many of the same type of location

Mass Location Maintenance

Site: 1

Template Location: 2

Create/Delete Location: 3

Location Sequence Definition: 4

QAD Location Data 5

Description:

Inventory Status:

Permanent:

Item Location Type:

Single Item:

Single Lot/Reference:

Capacity: UM:

You can make changes to these, and the following, fields that default from the Template Location.

WH-INT-010

In Mass Location Maintenance, you:

- 1 Enter the site for the new locations.
- 2 Enter the Template Location. This is location already set up in QAD Warehousing and should have similar characteristics.
- 3 The Create/Delete Location field determines whether you can create or delete a location. To create locations, you need a template location defined; however, a template location is not required to delete locations.
- 4 Select the sequence definition you use to create the locations.
- 5 Adjust the fields in the remaining frames to customize the new locations.
The description you enter here defaults to all new locations created. It is a good idea to keep this generic rather than assign a number.
- 6 Click through all frames (mandatory) before selecting Back to trigger the mass location creation process.

Setting Up Many of the Same Type of Location (Continued)

Setting up many of the same type of location

Mass Location Maintenance - Execution

1

Do you wish to continue

Site: 10-301
 Template Location: 040PL001
 Create/Delete Location: C
 Location Sequence Definition: 00000003

Location Data


From Loc: PLT0001 To Loc: PLT0999 **2** Locations created: 999

Search (1)

Location starts at PLT Search Clear All

Viewing 1 - 100 of 1002 **3** Records per page: 100

Site	Warehouse	Location	Location Type	Storage Location Group	Work Location Group	Percent Full	Length	Height	Width	Check Digit	Dedicated
10-301	01	PLT 001	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 002	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 003	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 004	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 005	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 006	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 007	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 008	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 009	040PL		01FL	0.00	0.00	0.00	0.00		No
10-301	01	PLT 010	040PL		01FL	0.00	0.00	0.00	0.00		No


WH-05-1 (20)

Locations Setup - Implementation Alert

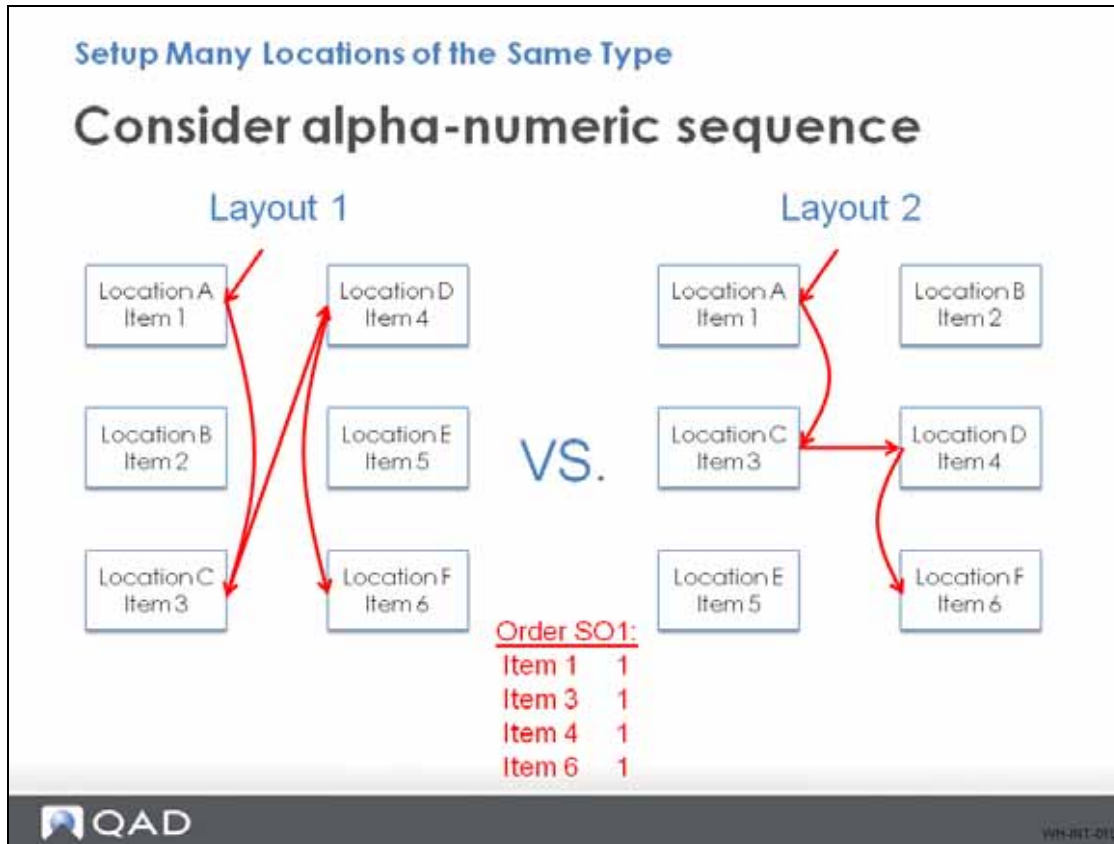
Implementation Alert

The standard pick path routing is driven by location address alphanumeric sequence. Consider this when laying out and labeling the warehouse.

WH-INT-018

The warehouse layout and location label sequence have an impact on the system directed pick path.

Set Up Many Locations of the Same Type (Continued)



If you perform a batch pick for the single order SO1, the pick flow path follows the location alpha-numeric sequence.

Note in Layout 1, there is a significant travel time from Location C to Location D. To help reduce this travel time, you can re-label or re-layout the warehouse to Layout 2. This is also possible by assigning a travel sequence number to each location. Reference the discussion on Batch Picking for more information on travel sequence.

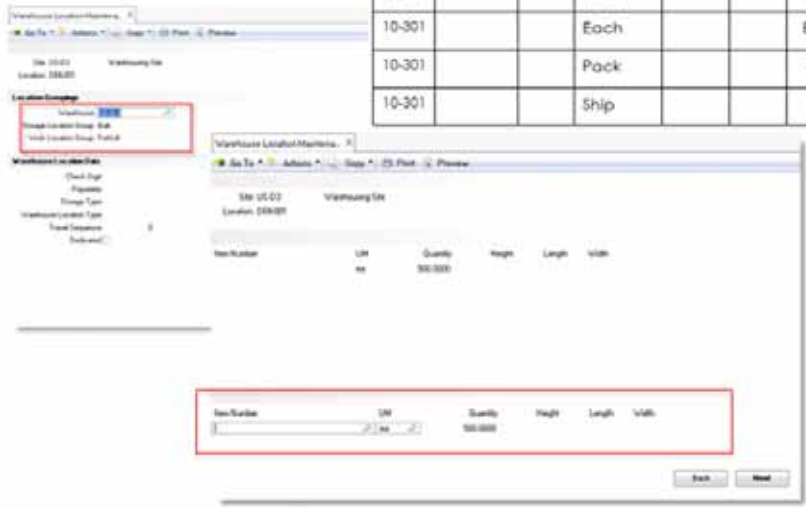
The goal within the warehouse is to achieve a shorter travel distance or shorter pick path.

Exercise - Set Up Locations

Exercise

Set Up Locations

Site	Location	WH	Desc	SLG	WLG	UM ^(A)	Qty ^(A)	H ^(A)	L ^(A)	W ^(A)
10-301			Receive			--	--	--	--	--
10-301			Pallet			PL	--	2	2	1
10-301			Each			EA	100	--	--	--
10-301			Pack			--	--	--	--	--
10-301			Ship			--	--	--	--	--



The screenshot shows the 'Warehouse Location Maintenance' window. The 'Location Group' dropdown is set to '10-301'. The 'Warehouse Location' dropdown is set to '10-301'. The 'Description' field is set to 'Receive'. The 'UM' field is set to '--'. The 'Qty' field is set to '--'. The 'H' field is set to '--'. The 'L' field is set to '--'. The 'W' field is set to '--'. The 'Back' and 'Next' buttons are visible at the bottom right of the form.

Use Warehouse Location Maintenance to set up locations for a warehouse.

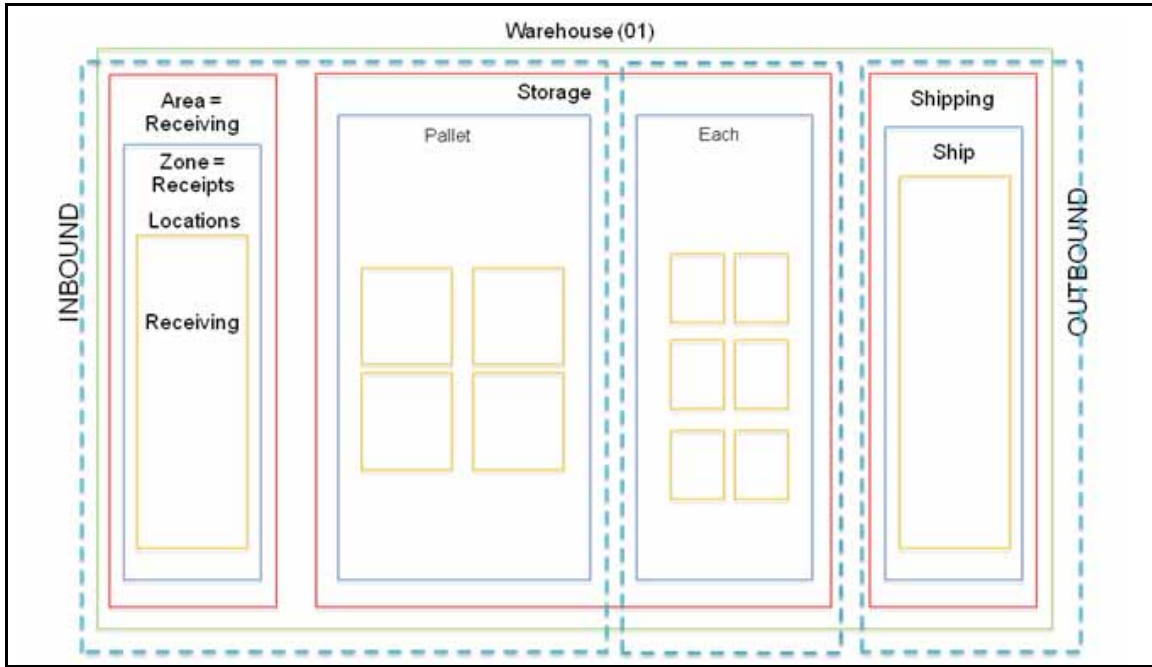
Use the following to help set up locations.

- 1 Use Warehouse Location Maintenance to set up locations.
- 2 Set up parameters, then note the parameters you enter here:

Site	Location	Description (optional)	SLG	WLG	UM (A)	Qty (A)	H (A)	L (A)	W (A)
10-301		Receive			--	--	--	--	--
10-301		Pallet			PL	--	2	2	1
10-301		Each			EA	100	--	--	--
10-301		Ship			--	--	--	--	--

Note (A) These fields are in the final frame in the program, as shown in the graphic above.

Fig. 1.1
Warehouse Locations Map

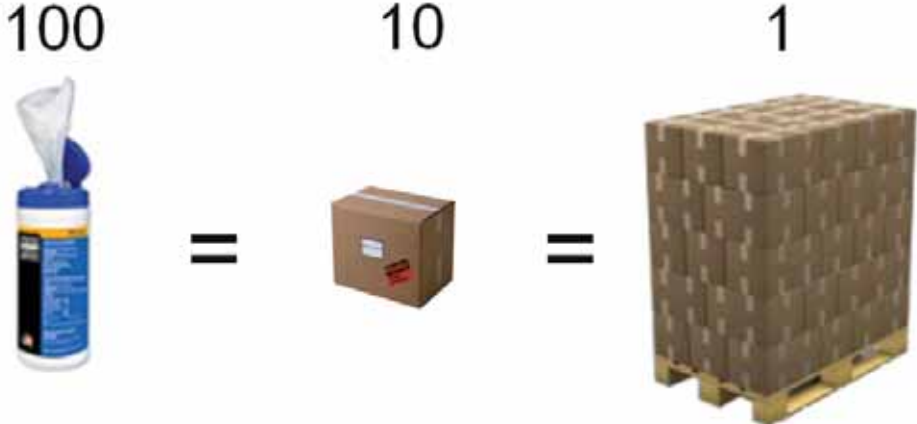


QMI Units of Measure

QMI Units of Measure

Alternate Unit of Measure Maintenance

100 10 1



The diagram illustrates the relationship between different units of measure. On the left, the number '100' is positioned above a single blue and white bottle. In the center, the number '10' is above a single brown cardboard box. On the right, the number '1' is above a full pallet stacked with many brown cardboard boxes. Two equals signs (=) are placed between the bottle and the box, and between the box and the pallet, indicating that 100 bottles are equivalent to 10 boxes, and 10 boxes are equivalent to 1 pallet.

QAD

WHINT-450

Did You Know

Use Alternate Unit of Measure to establish conversion factors for item measurement. This can be done at the item or item family group level.

For example, you can define how many EA fit into a box, how many boxes fit into a pallet.

Know Your Units of Measure

Know your Units of Measure

Alternate Unit of Measure Maintenance

Alternate Unit of Measure Maint X
 Go To Actions Copy Print Preview

Unit of Measure: EA
Description: Eaches


Properties

Sizing Type: Sizing by Base UM
 Print ID:
 ID Quantity:
 Allow Split:
 Item Number:
 Ship Type:
 Round Inspected Qty:

Conversion Rules

New Unit of Measure:

Change Action:


V01.061.0001

Did You Know

QAD Warehousing allows companies to store palletized and non-palletized product together through the use of Alternate Units of Measure Maintenance.

There are five frames and 11 fields in Alternate Unit of Measure Maintenance used for configuration.

Items Currently Assigned to a Site

Items currently assigned to the Site

Item Browse (Site = 10-301)

03120: Scented Disinfectant Pump		x 10		x 10	
03120-A: Disinfectant Kit		x 10		x 10	
03121: Scented Disinfectant 0.5l bottle		x 10		x 10	
03210: Disinfectant Wipes		x 10		x 10	
90091: Standard Shipping Box <small>(Not assigned to 10-301)</small>				X 1000	


V01-INT-400

Use Item Browse to determine which items are assigned to a site.

Item Browse Uses the same item master as QAD core.

There is a more detailed review of item setup in the Receiving training session.

Other Item Characteristics

Other item considerations

Item Characteristics

- Shelf Life
- Family Groups
- Inspection
- Logistics Unit of Measure
- Customer or Supplier Restrictions



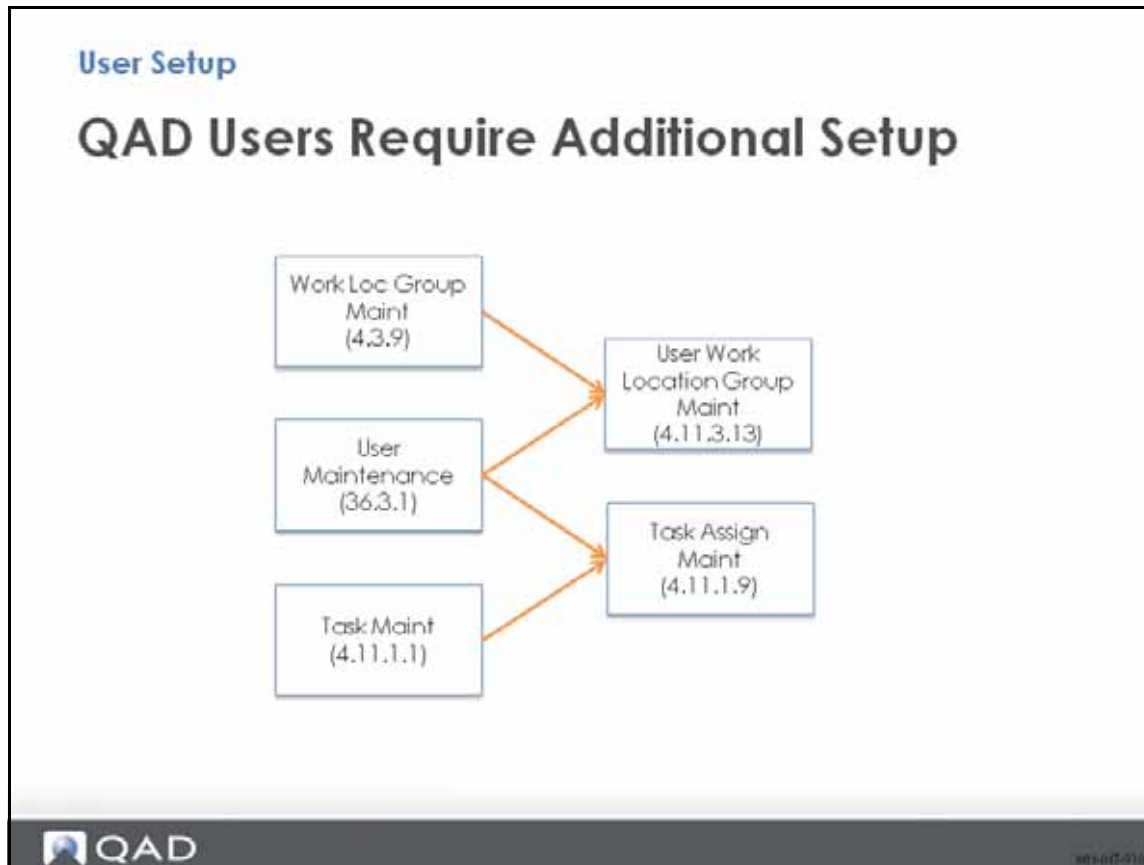
QAD

© 2014 QAD

Did You Know

You can pick by expiry date and mix expiry dates during storage within a specific number of days.

User Setup



The programs listed in the graphic above show you the steps you need to take to set up users.

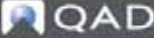
Setting up users in the warehouse requires user to first be set up in QAD core.

Implementation Consideration - Define User Parameters

Implementation Consideration

Define User Parameters

Data	Key	User 1	User2	User3	...
Name	36.3.1	CartPick	ForkTruck	Super	
User ID	36.3.1	UserA	UserB	UserCRB	
Password	36.3.1	qad	qad	qad	
Language	36.3.1				
CountryCode	36.3.1				
User Type	36.3.1				
Access Loc	36.3.1				
Enabled Reason	36.3.1				
Products	36.3.1				
Domain Code	36.3.4	(A)			
Entity	36.3.4	(B)			
Role	36.3.6.6	(C)			
Work Location Group	4.11.3.13	01CT	01FL	01FL/01CT	
Task Assignment	4.11.1.9				
RF User?					

 WH1-INT-201

Use the table below when considering user parameters:

(A) USA	USA-01	(B) 10C)RPCONS		
	US-A	10USACO		
	US-B			
	US-C	(C) USERA	Superuser	10USA
	US-D			11CAN
10USA	10USACO			12MEX
11CAN	11CANCO			20FRA
12MEX				21NL
20FRA				22UK
21NL				30CHN
22UK	22UKCO			31AUS
30CHN				
31AUS	31AUSCO			

Assign the User to a Work Location Group

Manages workers and work sections

Assign Users to Work Location Groups

The screenshot displays two browser windows side-by-side. The left window, titled 'Work Location Group Maintenance', shows configuration for Site: 10-301, Warehouse: 01, and Work Location Group: 01FL. It includes fields for Description (Forklift), Confirmed at Source (checked), Priority (10), Increment (1), Task (TRANSFER), System Code (RIF), System Flavor (B), Allow Task Switching (unchecked), Two Phase (checked), Keep From Status (checked), and Device. The right window, titled 'User Work Location Group Maintenance', shows the same Site and Warehouse information, but with Work Location Group: 01FL and User ID: UserB. It features a user profile for 'UserB' with a photo of a worker and a forklift icon. Below the profile are fields for System Flavor (B), Device, and printer configurations: External Device Printer, Form Printer, ID Printer, Task Printer, and Inspection Printer, each with a 'Use External' checkbox (all checked). A callout box at the bottom right of the right window contains the text: 'Create work sections then assign users to the sections.'

QAD W4INT012

User Work Location Group Maintenance to assign users to a WLG.

There are two frames and 15 fields in User Work Location Group Maintenance used for configuration.

Assign Tasks to Users

Assign Task Types to Users

Task Assignment Maintenance

User ID: UserB RF User B

Queue 1

1	TRANSFER	Auto			
2	PICK	Auto			

QAD VWJNT-014

Did You Know

Task priority queues can be setup to help ensure important tasks are completed first.

There are five frames and 6 fields in Task Assignment Maintenance used for configuration.

Exercise - What Task Types are Available to QMI?

Exercise

What task types are available to QMI?

Use Task Assignment Maintenance

Traditional Warehouse Tasks

Traditional Warehouse Tasks

Task Maintenance

Task: TRANSFER

Description: Inventory Transfers

Procedure Code: TF

Confirmation Mode: Auto

Comments:

Time: 0.0

Tasks: 0

Create User ID: mfg 1/1/2001

Modified By: mfg 1/1/2001

Task

- Count
- Pack
- Pick
- Put-Away
- Recount
- Replen
- Transfer

Use Task Maintenance to set up traditional warehouse tasks for staff. The blue box depicts typical tasks.

There are three frames and five fields in Task Maintenance used for configuration.

Bonus Question

Bonus Question

Will user QMI receive any tasks? _____

Why?

Hint: See [User Work Location Group Browse](#)




WH-01-1022

Bonus Question

Bonus Question - Answer

Will user QMI receive any tasks? NO

Why? QMI is not assigned to a Work Location Group.

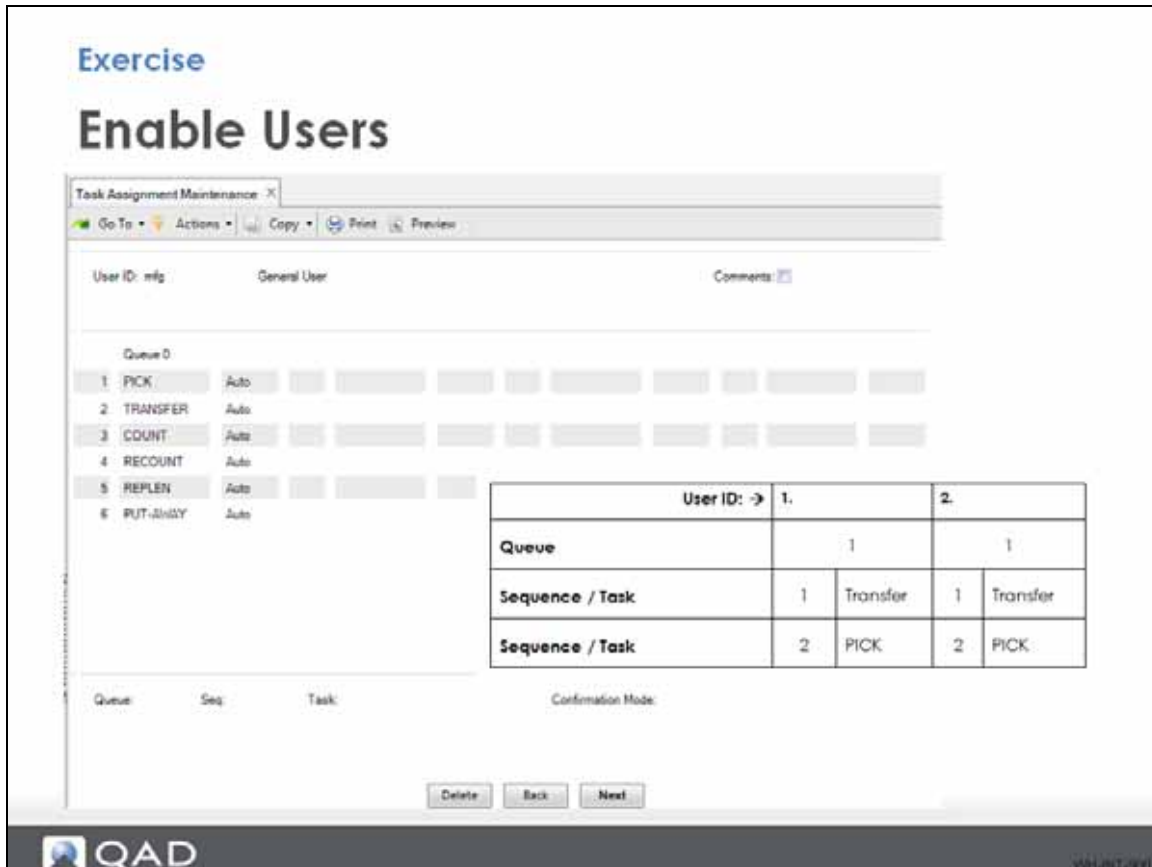


Make QMI a super user able to receive any task for any process by assigning them to all Work Location Groups.

QAD WH-WT-1026

Make QMI a super user able to receive any task for any process by assigning them to all Work Location Groups.

Exercise - Enable Users



To ensure users receive RF tasks, they must first be enabled to perform the tasks. Use Task Assignment Maintenance to enable UserA and UserB to receive pick and transfer tasks.

Set the following fields

	User ID =User A		User ID =User B	
Queue	1		1	
Sequence/Task	1	Transfer	1	Transfer
Sequence/Task	2	Pick	2	Pick

Note For the QMI warehouse example, the sequence order of Pick of Transfer is not relevant.

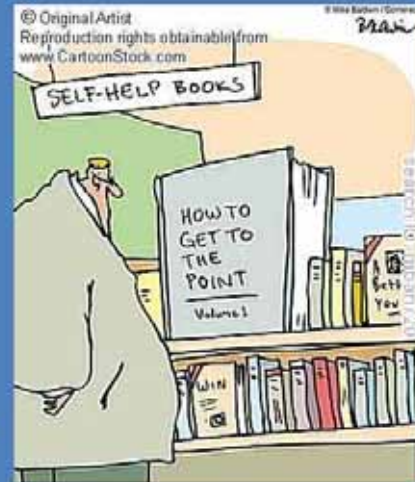
Implementation Consideration

Implementation Consideration

Use Simulation and Verbosity reporting to test configuration and trouble shoot solutions.

ver·bos·i·ty [ver-bos-i-tee] Noun
the state or quality of being verbose;
superfluity of words; wordiness.

ver·bose [ver-bohs] Adjective
characterized by the use of many or too many words;
wordy; a verbose report.



WH-INT-1027

Verbosity Reporting is a Troubleshooting Tool

Verbosity Reporting is a trouble shooting tool

Warehouse Management Control

Active:

Template Delimiter: .


Inventory History:

Reference Uniqueness Level:

Verbosity Level: 999

Cycle Count Reason: COUNT

© Original Artist
Reproduction rights obtainable from
www.CartoonStock.com



The cartoon shows a man in a suit sitting in a green armchair, talking to another man in a suit who is sitting at a desk with a computer monitor. The man at the desk is looking at the man in the chair. The background shows a window with a view of a city skyline.

"I'm looking for a troubleshooter. No offense, but do you even own a gun?"


392h

QAD

WH-INT-1020

Set Verbosity level to Zero to Go Live

Set Verbosity Level to 0 for Go Live

Go
Live =  Verbose

QAD VM-INT-1029

Simulation - What is Available**Simulation****What is Available**

Simulation	Process	Algorithm
Put Away / Loc Find	Put Away	PA / LF
Picking	Picking	PK
Lane Assignment	Ship Staging	LA
Container Move	Shipping	CM

Example: Simulate Put-Away

Example: Simulate put-away when all locations are full

10 pallet locations each with capacity 1

1. 8 locations are full.
2. Simulate receipt of an item with 3 pallets
3. Review simulation results
4. Review Verbosity Report

Warehouse: 01		Warehouse 1	
Item	Status	Qty	
Location	Lot	Ref	UM On Hand
D40PL001	03120	Y-Y-N EA	100
D40PL002	03120	PL000082 PL	100
D40PL003	03120	Y-Y-N EA	100
D40PL004	03120	PL000083 PL	100
D40PL005	03121	Y-Y-N EA	100
D40PL006	03121	PL000084 PL	100
D40PL007	03121	Y-Y-N EA	100
D40PL008	03121	PL000085 PL	100
		Y-Y-N EA	100
		PL000086 PL	100
		Y-Y-N EA	100
		PL000087 PL	100
		Y-Y-N EA	100
		PL000088 PL	100
		Y-Y-N EA	100
		PL000089 PL	100









1

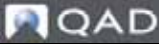
Example: Simulate Receipt

Example: Simulate receipt of an item with 3 pallets

Put-away / Location Find Simulation

2

Transaction Type:	RCT-PO	
Site:	10-301	
Warehouse:	01	
Internal Routing Group:	040	
Item Number:	03210	
Lot/Serial:		
Reference:		
Quantity On Hand:	300.0	(Base UM)
Alternate UM:		

90  QAD WH-INT-1043

Example: Review Simulation Results

Example: Review simulation results

Put-away / Loc Find Simulation Report

Transaction Type: RCT-PO
 Site: 10-301
 Warehouse: 01
 Internal Routing Group: 040
 Item Number: 03210
 Lot/Serial:
 Reference:
 Quantity On Hand: 300.0 (Base UM)
 Alternate UM: Output: PAGE

Site	Warehous	SLG	Location	Quantity	UM	Remarks	Algo
10-301	01	040PL	040PL009	100.0	EA		1
			040PL010	100.0	EA	No more inventory av	1

3

QAD V9+R11-1044

Example: Review Verbosity Report

Example: Review Verbosity Report

Verbosity Report

Create Date	Create Time	User ID	Session	Type ID	Site	SLG	Location	Comments
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	040PL010	REMAINING_SPACE = 1
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	040PL010	CONSIDERED_QUANTITY = 100
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	040PL010	PERFORMING_EXTRA_VALIDATION.
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	040PL010	EXISTING_INVENTORY_VALIDATION.
10/12/11	09:00:55	gmi	020020Cn	SI 1	20 10-301	040PL 01	040PL010	LOCATION_CONSIDERED.
10/12/11	09:00:55	gmi	020020Cn	PA 1	30 10-301	040PL 01	UserB	Considering Location.
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	UserB	PERFORMING_RCT-TR_VALIDATION.
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	UserB	RETRIEVING_CAPACITY.
10/12/11	09:00:55	gmi	020020Cn	PA 1	40 10-301	040PL 01	UserB	REMAINING_SPACE = 0
10/12/11	09:00:55	gmi	020020Cn	SI 1	40 10-301	040PL 01	040PL009	LOCATION_SELECTED.
10/12/11	09:00:55	gmi	020020Cn	SI 1	40 10-301	040PL 01	040PL010	LOCATION_SELECTED.
10/12/11	09:00:55	gmi	020020Cn	PA	10 10-301	01		'Location Find' Control complete.

4

Example: What About the Extra Pallet?

Example: What about the extra pallet

2 available locations but we need 3

Item Number: 03210
 Description: Disinfectant Wipes
 Quantity: 300.0
 Unit of Measure: EA
 Conversion: 1.0000

Lot/Serial Control: UM: EA
 Site: 10-301
 Warehouse: Location:
 Warehouse: 01 Warehouse 1

Location	Item Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
010RC001	03210	Y-Y-N EA	100			100
010RC001	03210	PLO00090 PL		100		
010RC001	03210	Y-Y-N EA	100			100
010RC001	03210	PLO00091 PL		100		
010RC001	03210	Y-Y-N EA	100			
010RC001	03210	PLO00092 PL		100		
040P001	03120	Y-Y-N EA	100			
040P001	03120	PLO00082 PL		100		
040P002	03120	Y-Y-N EA	100			
040P002	03120	PLO00083 PL		100		
040P003	03120	Y-Y-N EA	100			
040P003	03120	PLO00084 PL		100		
040P004	03120	Y-Y-N EA	100			
040P004	03120	PLO00085 PL		100		
040P005	03121	Y-Y-N EA	100			
040P005	03121	PLO00086 PL		100		
040P006	03121	Y-Y-N EA	100			
040P006	03121	PLO00087 PL		100		
040P007	03121	Y-Y-N EA	100			
040P007	03121	PLO00088 PL		100		
040P008	03121	Y-Y-N EA	100			
040P008	03121	PLO00089 PL		100		
040P009	03210	Y-Y-N EA				100
040P009	03210	PLO00090 PL				
040P010	03210	Y-Y-N EA				100
040P010	03210	PLO00091 PL				

Error

ERROR: No destination location could be found. Please re-enter.

OK

QAD V94-INT-1000

Implementation Hint

Implementation Hint: Consider setting up a trouble location

A Location with Infinite Capacity

Site: 10-301 Distribution Site 1

Location: **TROUBLE**

QAD Location Data

Description: Trouble product location

Inventory Status: Y-Y-N

Permanent:

Item Location Type: **HOLD**

Location Groupings:

Warehouse: 01

Storage Location Group: 040PL

Work Location Group: 01FL


Item Number

UM	Quantity	Height	Length	Width
PL	99450.0000	51	50	39

Now, with full locations, receipts will be routed to the **TROUBLE** location for further resolution.

Location	Status	Qty UM	Qty On Hand	Qty Alloc	Expect In	Expect Out	Displa Disp No
010RC001	Y-Y-N	EA	100			100	
010RC001	Y-Y-N	EA	100			100	
TROUBLE	Y-Y-N	EA			100		
TROUBLE	Y-Y-N	EA			100		

Site: 10-301 Item Number: 03130
 Warehouse: Location: Lot/Serial: Reference:
 Warehouse: 01 Warehouse 1

QAD  WA-97-1047

Bonus Coverage: LPN Creations

Bonus Coverage: LPN Creation

LPNs can be assigned at the point of receipt

Warehouse Maintenance

Site: 10-301
Warehouse: 01

LPNs can be assigned at the point of receipt

General Data

Description: Warehouse 1 Flavor: A
Address: Inventory Acct Sync:
Active: Allow Mixed Status Codes:
Reference Sequence ID: Logistics UM Tolerance: 0.00%
Packaging Sequence ID: 00000000

Error
ERROR: Invalid warehouse reference NR ID. Cannot generate pallets. Please re-enter.
ERROR: Invalid warehouse reference NR ID. Cannot generate pallets. Please re-enter.

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		LPN001	100.0

QAD WH-INT-1050

Because all loads are tracked using a License Plate Number (LPN), you must set up the license plate number within QAD Warehousing.

Within QAD Warehousing, license plate numbers are called *references*. You can set up the reference sequence IDs in Warehouse Maintenance in the General Data frame.

Bonus Coverage: LPN Creations (continued)

Bonus Coverage

Configure the LPN number alpha numeric format

Sequence Definition Maintenance

Sequence Definition: 00000001 Description: Reference Generation Seq

Seq	T	Format	Min	Max	Inc	Description
1	F	LPN			1	LPN prefix for ID tags
2	S	AlmRef01			1	Database sequence 01

Sequence: 1 Minimum Value: Maximum Value: Increment: 1

Type: F Fixed

Format: LPN DB Sequence: Increment: 1

Description: LPN prefix for ID tags

Receipt Detail - Quantity: 200 EA

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		LPN00076	100.0
10-301	010RC001		LPN00077	100.0

Exercise - Set Up a License Plate Number



Because all loads are tracked using a License Plate Number (LPN), you must set up the license plate number within QAD Warehousing.

Note Within QAD Warehousing, license plate numbers are called references.

Use the following information to help you setup a license plate number.

- 1 Setup/modify the LPN using Sequence Definition Maintenance.

Note You can reuse the existing sequence definitions.

- 2 Change the prefix to LPN.

Note The current LPN sequence definition has the prefix PL.

- 3 Set up or change the following in Sequence Definition Maintenance:

Field	Data to Enter
Sequence Definition	00000001
Sequence	1
Type	F
Format	LPN (or make your own)
Description (optional)	LPN prefix for loads

QAD Warehousing - Key Learning Points

QAD Warehousing Introduction: Session 1-0

Key Learning Points

- Map the warehouse layout
- Define work method sections
- Define product flow paths
- Define produce movement rules
- Define RF scanning frequency (optional)
- Define units of measure and other relevant item characteristics



Questions

- 1 QAD Warehousing is a _____ management system that _____ processes in the warehouse on a real-time, ongoing basis.
- 2 Name the five space segregations in QAD Warehousing, in order of their hierarchy.
- 3 True or False. When setting up warehouse locations, QAD Warehousing uses a unique warehouse location maintenance program.
- 4 QAD Warehousing algorithms are best described as what?
- 5 True or False. You use Algorithm Assignment Maintenance to link a specified sequence of algorithms to a defined combination of transaction type, site or warehouse, item number, or customer/supplier address.
- 6 QAD Warehousing manages the movement of inventory within and between warehouses by defining pathways that move inventory from one part of the warehouse to another. These pathways are called what?

Answers

- 1 task, optimizes.
- 2 Site, warehouse, area, zone, location.
- 3 True. Use Warehouse Location Maintenance to set up locations for a warehouse.
- 4 Rules.
- 5 True.
- 6 Internal routings

Notes

Chapter 2

Receiving

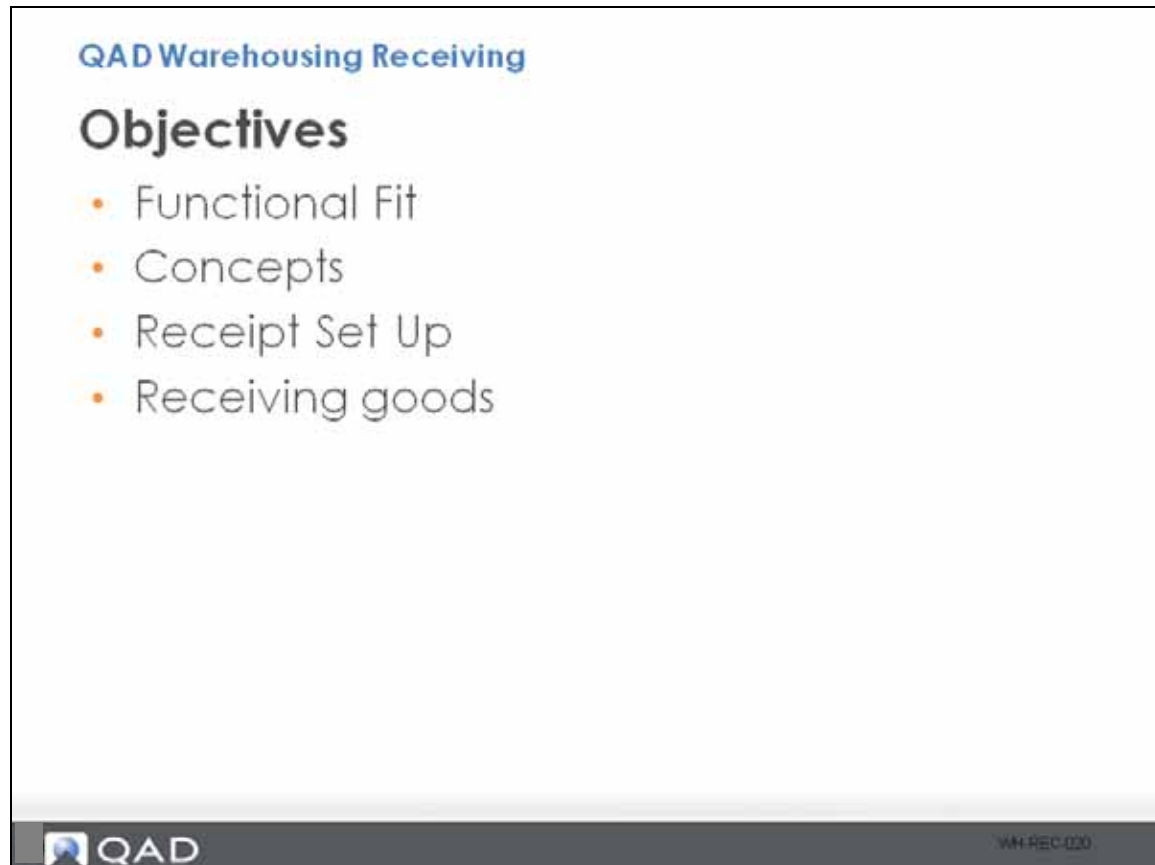
Overview

QAD Warehousing Receiving



 QAD

QAD Warehousing Receiving Objectives




The slide features a white background with a dark blue header area at the top. The text 'QAD Warehousing Receiving' is in a smaller blue font, followed by 'Objectives' in a larger, bold black font. Below this is a bulleted list of four items. At the bottom, there is a dark grey footer bar containing the QAD logo on the left and the text 'WH-REC-020' on the right.

QAD Warehousing Receiving

Objectives

- Functional Fit
- Concepts
- Receipt Set Up
- Receiving goods

 **QAD** WH-REC-020

In this section, you learn receiving.

- Functional fit
- Concepts
- Receipt set up
- Receiving goods

Receiving goods into a warehouse uses nearly every warehousing concept from establishing a site and warehouse to creating various locations and storage areas. It also involves creating areas, linking the areas with pathways, invoking algorithms, and creating and confirming tasks associated with the receipt.

The receiving section of this training guide discusses item setup in more detail.



Functional Fit - What Warehousing Does Not Do


What we don't do

Functional Fit: Pre-Receiving

Functionality	Fit	Notes
Yard & Appointments <ul style="list-style-type: none"> - Scheduling - Dock assignment - Gate check in - Directed movements - Trailer tracking - Alerts 	○	Not supported but typically not a deal breaker. Could potentially track yard locations using standard WMS locations.
Dock labor planning	○	

Legend

-  Partial
-  None








 QAD WH-REC-028



Pre-receiving activities are helpful for high volume operations and facilities with large yards. Most QAD customers do not fit this criteria; hence, you have not developed many pre-receiving features.


Functional Fit Continued

What we don't do

Functional Fit: Receiving

Functionality	Fit	Notes
Attach pictures for exceptions		
Multiple operators on a single receipt		
TI x HI notes		
SN, Expiry & Catch Weight		Do not support catch weights
Pre-print receiving labels		
Ability to store product by owner		Does not support most 3PL capabilities
Display special receiving instructions on RF		

Legend
 Partial
 None

 QAD 999-999-999


Some companies actually take photos of trailer and other pre-receipt holding areas to know the contents so that they know what is coming into the warehouse.

Some companies need to know pre-receiving quantities and contents to prepare and improve labor management during the receipt and processing of the goods.

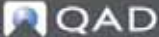
Receipt Types

RF Receiving

Available in WMS not in AIM



- Supports all receipt types
- Reduces receiving processing time
- Will improve receiving accuracy

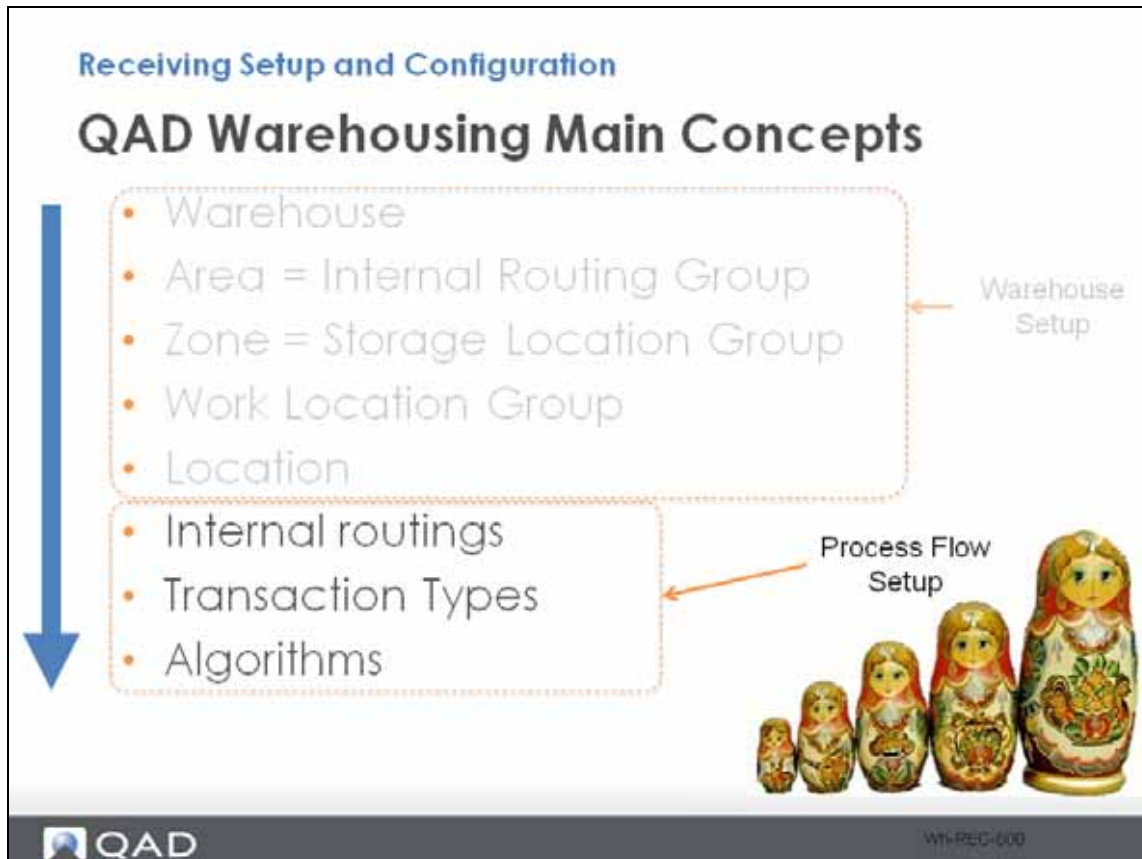
 WH-REC-041

The RF device supports all receipt types, including:

- Distribution order receipts
- sales order returns
- PO receipts
- ASN receipts
- Unplanned receipts
- MO returns
- RMA receipts

These functions are available through QAD Warehousing Enterprise Edition (EE) RF software, though, and not through the Standard Edition QAD Warehousing versions, previously called Advanced Inventory Management (AIM).

QAD Warehousing Main Concepts



Main concepts for QAD Warehousing are based on the organization of the warehouse into segregated areas. In addition, for process flow within the warehouse, main concepts focus on internal routings, transaction types and algorithms.

Exercise - Receive - Navigate

Receive 200ea item 03210 in WH 01

Receipts - Unplanned (3.9)

Item Number: 03210 Lot/Serial Control UM: EA

Description: 1000 wpa 1

Disinfectant

Quantity: 200.0 2

Unit of Measure: EA Site: 10-301

Location: 010RC001

Comm Receipt Detail - Quantity 200 EA					
Site	Location	Lot/Serial	Reference	Quantity	
10-301	010RC001		PL000249	100.0	
10-301	010RC001		PL000249	100.0	

Line: 0

Sales/Job:

Address:

Remark:

Effective Date: 8/3/2012

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		PL000249	100.0

4

5

Back Next

QAD WH-REC-601

Receiving uses standard QAD core functionality and screens.

The following topics present screen navigation hints when you are not familiar with processing a receipt.

- 1 .Enter the item and quantity.
- 2 Confirm that the site (10-301) and location (your receiving location) are correct.
- 3 Click Next.
Two frames display the receipt load information.
- 4 Click Back to navigate to the first frame.

Exercise - Receive - Navigate (Continued)

Receive 200ea item 03210 in WH 01


Click <Back> again to navigate back to the main receiving frame

Item Number: 03210		Lot/Serial Control:		UM: EA
Description: 1000 wipes Disinfectant				
Quantity:	200.0	Site: 10-301		
Unit of Measure: EA		Location: 010RC001		

Receipt Detail - Quantity: 200 EA				
Site	Location	Lot/Serial	Reference	Quantity
10-301	<input type="text" value="010RC001"/>		PL000248	100.0
10-301	010RC001		PL000248	100.0

Line: 0
Sales/Job:
Address:
Remark:
Effective Date: 8/3/2012

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		PL000248	100.0


WH-REC-607

Click Back again to navigate back to the main receiving frame.

Exercise - Receive - Navigate (Continued)

Receive 200ea item 03210 in WH 01

Item Number: 03210	Lot/Serial Control:	UM: EA
Description: 1000 wipes Disinfectant		
Quantity: 200.0	Site: 10-301	
Unit of Measure: EA	Location: 010PC001	
Conversion: 1.0000	Lot/Serial:	
	Reference:	
Unit Cost: 2.00	Multi Entry: <input checked="" type="checkbox"/>	Total Qty: 200.0
Order:		Total Cost: 400.00
Line: 0		
Sales/Job:		
Address:		
Remarks:		
Effective Date: 6/3/2012		
Debit Account:		
Credit Account: 6610	Mech: ADM	Purchases-Project

4 Is all information correct

Yes No

Back
Next

WI-REC-604

- 1 Respond to the prompt to display item and lot/serial detail with No.
Note The prompt does not display when receiving only one pallet.
- 2 Leave the Shipper field blank.
- 3 Click Next.
- 4 Respond to the prompt that verifies that all information correct with Yes.
The receipt is complete

Exercise - Receive - Navigate (Continued)

Receive an item not setup in the warehouse

Receipts - Unplanned (3.9)

Item Number: 03110	Lot/Serial Control: L	UM: EA
Description: Pump, Medical Disinfectant		
Quantity: 100.0	Site: 10-300	
Unit of Measure: EA	Location: 010	
Conversion: 1.0000	Lot/Serial:	
	Reference:	
Unit Cost: 2.00	Multi Entry: <input checked="" type="checkbox"/>	Total Qty:
Order:		Total Cost:
Line: 0		
Sales/Job:		
Address:		
Remarks:		
Effective Date: 8/3/2012		
Debit Account:		
Credit Account: 6610	Mech	ADM
		Purchases-Project

QAD WH-REC-605

Next, you receive an item that is not assigned to and setup in the warehouse.

In the example above, you receive 100 of item 03110 using Receipts-Unplanned (3.9). The first thing to notice is that you need to change the Site and Location fields to match QMI data, so, enter:

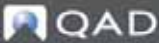
- Site 10-301
- Location 010RC001.

Exercise - Receive - Navigate (Continued)

Receive an item not setup in the warehouse

Receipts - Unplanned (3.9)

Item Number: 03110	Lot/Serial Control: L	UM: EA
Description: Pump, Medical		
Disinfectant		
Quantity: 100.0		
Unit of Measure: EA	Site: 10-300	
Conversion: 1.0000	Location: 010	
	Lot/Serial: 123	
Unit Cost:	Reference:	
Order:	Multi Entry:	
	Total Qty:	
	Total Cost:	

 YH-REC-608

Next, you receive an item that is not assigned to and setup in the warehouse. In the example, you receive 100 of item 03110 using Receipts-Unplanned.

This item is setup for lot/serial, so you need to enter a lot/serial number. Also, notice that you need to change the site and location to the QMI data, so enter:

- Site 10-30
- Location 010RC00.

Exercise - Receive - Navigate (Continued)

Inventory is received, but nothing happens

Receipts - Unplanned (3.9)

Item Number: 03110 Lot/Serial Control: L UM: EA

Description: Pump, Medical
Disinfectant

Quantity: 100.0 Site: 10-301

Unit of Measure: EA Location: 010RC001

Conversion: 1.0000 Lot/Serial: 123

Reference:

Multi Entry:

Total Qty: 100.0

Total Cost: 0.00

1

Error

ERROR: No destination location could be found. Please re-enter.

OK

Item is received but not putaway or assigned an LPN

2

Inventory Detail Inquiry

Site: 10-301 Item Number: 03110 Displ

Warehouse: 01 Lot/Serial: Disp N

Location:

Location	Status	Qty	Qty	Expect	Expect
Lot/Serial	Ref	UM	On Hand	In	Out
010RC001	Y-Y-N	EA	100		X
123					

WH-REC-607

Using navigation techniques introduced in the previous exercise, click Next, Next, Next, (three times) and Yes.

You receive the error, No destination location could be found.

Review Inventory Detail Inquiry. The program displays that the system received the item into the receiving location, but the item is NOT routed for put-away.

Implementation Consideration

Implementation Consideration

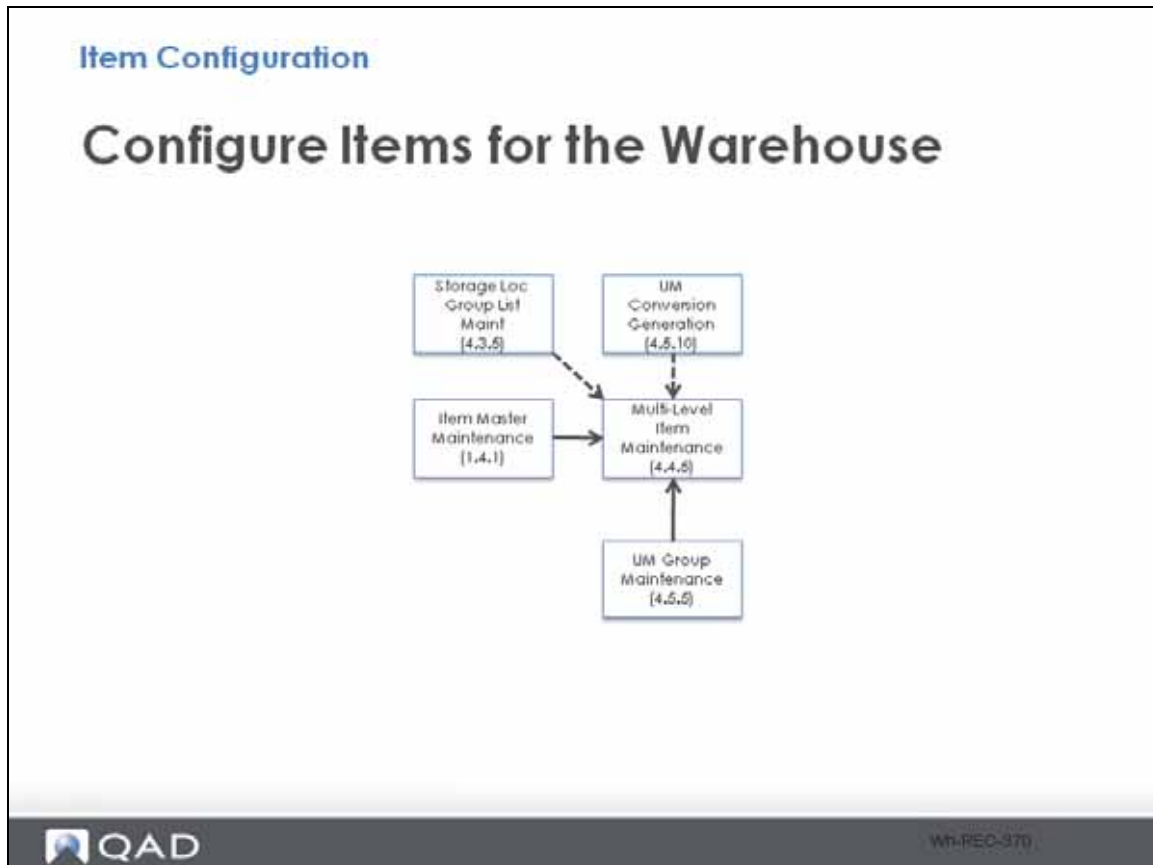
All items need to be setup in Multi-Level Item Maintenance.

If not, the item will be received into the location you assign at Purchase Order Receipt but the warehouse receiving and put-away rules will not trigger and an LPN will not be assigned.

WH-REC-325

Referring back to the warehouse introduction portion of this training guide, all items need to first be set up in the warehouse the item can be received.

Item Configuration



Did You Know

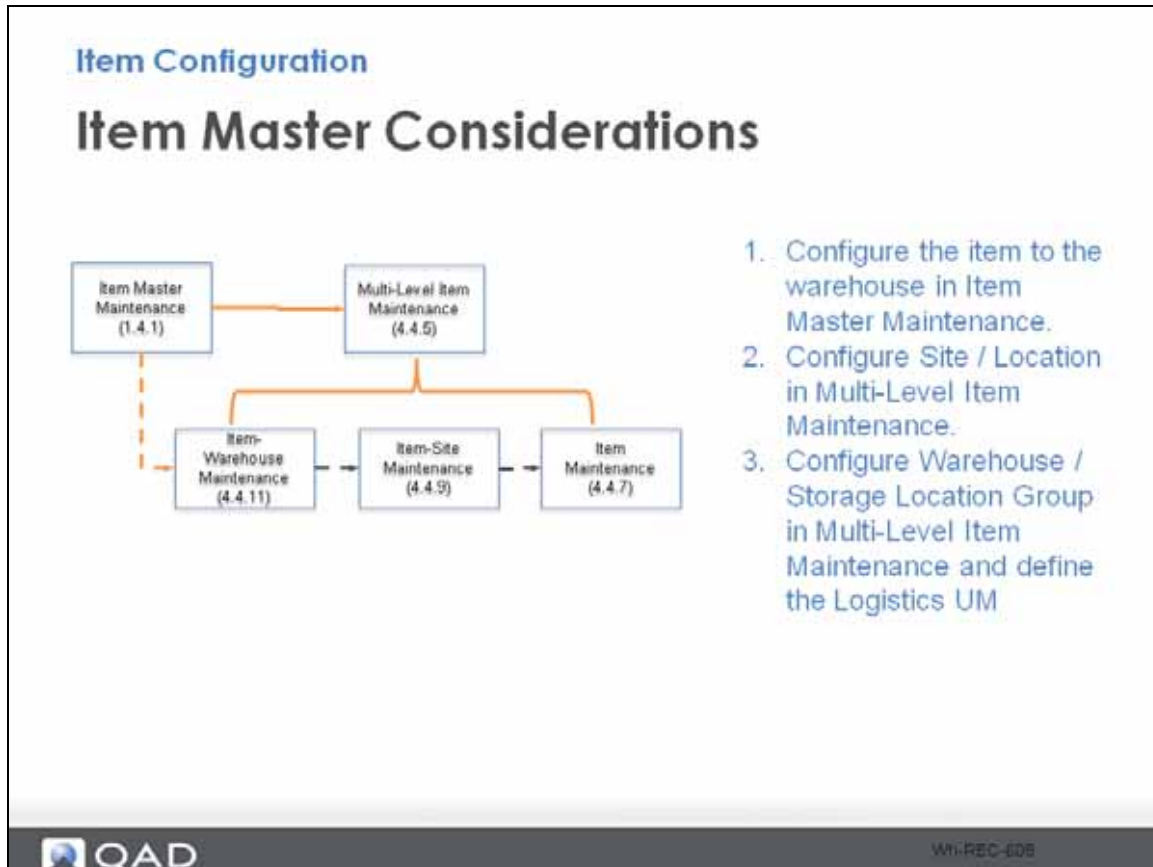
Items must first exist in QAD Core. QAD Warehousing has more specific item characteristics managed at the warehouse level.

You set up the storage location group in Storage Location Group Maintenance.

Once the item is setup in QAD core using Item Master Maintenance, there are several menus you can use to link the item to the site/warehouse. For ease, use Multi-Level Item Maintenance to populate all the required and optional data for the item to use in the warehouse.

In the graphic above, you set up the storage location group, then the item is setup in the warehouse using Item Warehouse Maintenance, Item-Site Maintenance or Item Maintenance, depending on your needs. Alternatively, use Multi-Level Item Maintenance which aggregates all three other menus.

Item Master Considerations



In the graphic above, you:

- Configure the item to the warehouse in Item Master Maintenance.
- Configure site and location in Multi-Level Item Maintenance.
- Configure the warehouse and storage location group in Multi-Level Item Maintenance and define the Logistics UM.

Did You Know

Items must first exist in QAD Core. QAD Warehousing has more specific item characteristics managed at the warehouse level.

Item Configuration- Step 1

Item Configuration – Step 1

Item Master Maintenance

Item Number: 03130
Unit of Measure: EA

Item Data

Prod Line: 22	Item Type: SUP
Added: 3/17/2006	Status: ACT
Design Group: PRODMGMT	Group: CPG
Promo Group:	

Item Inventory Data

ABC Class: B

Lot/Serial Control:

Site: 10-301

Location: 01

Location Type:

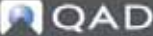
Auto Lot Numbers:

Lot Group:

Article Number:

This sets up the warehouse as the item location and all subsequent warehouse activities can be triggered.

Blanking the Lot/Serial Control field eliminates the need to capture the info on receipt.

 WH-REC-371

This sets up the warehouse as the item location and all subsequent warehouse activities can be triggered.

Blanking the Lot/Serial Control field eliminates the need to capture the info on receipt.

Item Configuration- Step 2

Item Configuration – Step 2

Multi-Level Item Maintenance – Site frame


Item Number: 03130	Unscented Disinfectant
UM: EA	Pump
Site: 10-301	Distribution Site 1

Site Data and Default Warehouse Data

Location: 010RC001	Single
Warehouse Item Type: <input type="text"/>	Iss
Replenishment Type: <input type="text"/>	
Popularity: <input type="text"/>	OPC
Default Kanban Quantity: <input type="text" value="0.0"/>	Kanban F

Next, the Site / Location is configured in Multi-Level Item Maintenance. The Location field in the Site frame is the receiving location in the warehouse.

When configured correctly, this site and location default when the item is received, eliminating the potential for a receipt into the wrong location.


WT-REC-372

Next, you configure the site/location in Multi-Level Item Maintenance. The Location field in the Site frame is the receiving location in the warehouse.

When configured correctly, this site and location default when the item is received, eliminating the potential for a receipt into the wrong location.

Item Configuration- Step 3

Item Configuration – Step 3

Multi-Level Item Maintenance – Warehouse frame

Item Number: 03130
 UM: EA
 Site: 10-301
 Warehouse: 01

Unscented Disinfectant
 Pump
 Distribution Site 1
 Warehouse 1

Warehouse Data

Locations

Storage Location Group: 040PL

SLG List:

Warehouse Item Type:

Replenishment Type:

Popularity:

Logistics UM Tolerance: 0.00%

Auto Replenish:

Single PA Trans:

Issue Method:

Print ID:

ID Quantity: 0

DPC Threshold: 0.0

Logistics UM: PL

Pallet Max Height: 0

Auto Replenishment %: 0.00%

Print Unplanned Issue Tag:

The Storage Location Group is the zone where product is stored.
 The Logistics UM is the moveable unit load.


QAD WH-REC-373

The Storage Location Group is the zone where product is stored. The Logistics UM is the moveable unit load.

Exercise - Item Setup

QMI Exercise – Item Setup

Add item 03110 to the warehouse

03110: Medical Grade Disinfectant Pump		<ul style="list-style-type: none">• Lot/SN = <blank>• Site = 10-301• Location = 010RC001	<ul style="list-style-type: none">• Warehouse = 01• SLG = 040PL• Logistics UM = PL
03130: Unscented Disinfectant Pump			
03122: Scented Disinfectant 1l Refill			
03240: Lubricant 4 liter tub			

 WH-REC-400

In this example, you add the new items to a site, warehouse, and location. You also set the SLG and the UM for the item.

To correct the problem you first need to adjust the Item Maintenance Menu and add the item to the warehouse.

Exercise - Item Setup (Continued)

QMI Exercise – Item Setup

Setup the item at the Site and Warehouse

Multi-Level Item Maintenance

Item Number: 03110 Medical Disinfectant
 UM: EA Pump
 Site: 10-301 Distribution Site 1

Site Data and Default Warehouse Data


Location: 010RC001 Single PA Trans:
 Warehouse Item Type: Issue Method:
 Replenishment Type: Print ID: ID Qty:
 Popularity: OPC Threshold: 0.0

Default Kanban Quantity:

Item Number: 03110 Medical Disinfectant
 UM: EA Pump
 Site: 10-301 Distribution Site 1
 Warehouse: 01 Warehouse 1

Warehouse Data

Location:
 Storage Location Group: 040PL Single PA Trans:
 SLG List: Issue Method:
 Warehouse Item Type: Print ID:
 Replenishment Type: ID Quantity: 0
 Popularity: OPC Threshold: 0.0
 Logistics UM: PL

 QAD WH-REC-326

Did You Know

QAD Warehousing uses standard item data programs from QAD applications but requires additional info per Multi-Level Item Maintenance to provide micro level management.

Exercise - Item Setup (Continued)

QMI Exercise – Item Setup

Receiving Triggers

Receipts - Unplanned (3.9)

Item Number: 03110 Lot/Serial Control UM: EA

Description: Pump, Medical

Disinfectant

Quantity: 100.0

Unit of Measure: EA

Conversions: 1.0000

Receipt Detail - Quantity: 100 EA

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		PL000250	100.0

When the item is setup in the warehouse, an LPN is assigned and put-away rules trigger

Inventory Detail Inquiry

Site: 10-301 Item Number: 03110 Display
Warehouse: 01 Lot/Serial: Reference: Disp Mor
Location:

Location	Status	Qty	Qty	Expect	Expect
Lot/Serial	Ref	UM	On Hand	In	Out
010RC001	Y-Y-N	EA	100		100
010RC001	PL000250	PL			
010RC001	Y-Y-N	EA	100		
040FL002	Y-Y-N	EA			100
	PL000250	PL			

QAD

22 QAD

WH-REC-327

- 1 When you configure the item and set it up in the warehouse, the system automatically assigns the correct site and location, and a lot/serial number is not required.
- 2 When the receipt is processed, the system assigns an LPN.
- 3 Viewing Inventory Detail Inquiry, you can see that put-away rules are triggered creating a move task into storage.

Implementation Consideration

Implementation Consideration

Not all items are created equal.













You can setup multiple item quantity configurations using Unit of Measure Groups.

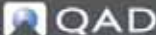
WH-REC-609

Create New UM Groups

UM Groups

Create New Unit of Measure Groups

03110: Medical Grade Disinfectant Pump		x 100		x 10	
03130: Unscented Disinfectant Pump		x 50		x 10	
03122: Scented Disinfectant 1l Refill		x 6		x 10	
03240: Lubricant 4 liter tub		x 4		x 10	


WH-REC-430

In a perfect warehouse, all items would have the same each-box-pallet unit of measure conversion; however, most warehouses have item family groups with different unit of measure conversions. If this occurs, use UM Groups to manage the unit of measure conversions by item family.

In this example, use Multi-Level Item Maintenance to add these four items to the site/warehouse.

UM Groups Help During Implementation

UM Groups

UM Groups will help during implementation

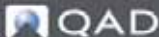
- UM Group = EA1
- UM = EA
- 100 each per box
- 10 boxes per pallet

UM Group Maintenance

Unit of Measure Group: EA1 UM: EA
 Description: Another UM

UM Group Detail

Alt UM	Description	Conversion
BOX	Boxes	100.0000
PLT	Pallets	1000.0000

 WH-REC-440

In UM Group Maintenance, use the UM Group Detail frame to define a UM group that specifies all the conversion factors from the selected base UM to a range of other alternate UMs.

Assign New UM Group to Item

UM Groups

Assign the new UM Group to the Item

Multi-Level Item Maintenance

Item Number: 03110	Medical Disinfectant
UM: EA	Pump

Item Data

Unit of Measure Group: EA1	Shelf Life Offset: 0
Barcode 1: <input type="text"/>	Critical Days: 0

In UM Group Maintenance, you attach the UM group to the relevant items.

Once the new UM Groups are defined they need to be assigned to the items in the family/group. If not done, the default UM conversion applies to the item.

Run UM Conversion Generation

UM Groups

Run UM Conversion Generation

Item Number: To:

UM Group: To:

Warehouse Item Type: To:

Check Base UM:

Delete Old UM Definitions First:

Create UM Conversions:

- Leaving all fields blank will run conversions for all UM Groups
- Be sure to check all 3 boxes at bottom

↓

UM Conversion Generation

10USA

Item Number	UM Group	Item UM	Check Result	UM Alt	UM Conversion	Conversion Result
03110	EA1	EA		EA BX	100.0000	OK
				EA PL	1000.0000	OK

QAD WH-REC-460

Leaving all fields blank runs conversions for all UM Groups.













Be sure to check all three boxes at the bottom.

Finally, to apply the new UM Groups to the assigned items, you must run UM Conversion Generation with Create UM Conversions checked.

Exercise- Add a New UM Group

QMI Exercise – Add a new UM Group

Create new Unit of Measure Groups

03110: Medical Grade Disinfectant Pump		x 100		x 10	
03130: Unscented Disinfectant Pump		x 50		x 10	
03122: Scented Disinfectant 1l Refill		x 6		x 10	
03240: Lubricant 4 liter tub		x 4		x 10	

 WH-REC-611

Exercise- Add a New UM Group (Continued)

QMI Exercise – Add a new UM Group

Receive 1000 each...what is different?

Order: WMSP05 Supplier: 1051002 Status: Packing Slip:

Ln	Item Number	UM	Qty Open	UM	Receipt Qty	UM	Project	Due Date	T
1	03110	EA	700.0	EA	0.0	EA		8/29/2011	
2	03 Receipt Detail - Site: 10-301 Quantity: 1000 EA								

Location	Lot/Serial	Ref	Supplier Lot	Quantity
010RC001			PL004440	1,000.0

With the new Unit of Measure Group, a receipt of 1,000 each creates 1 pallet versus 10.

Inventory Detail Inquiry

QAD

Site: 10-301 Item Number: 03110 Display

Warehouse: Lot/Serial: Disp Non-

Location: Reference: Du

Warehouse: 01 Warehouse 1

Location	Status	Qty	Qty	Expect	Expect	De
Lot/Serial	Ref	UM	On Hand	In	Out	Al
010RC001	Y-Y-N	EA	1000			1000
040PL003	Y-Y-N	EA		1000		
		PL				




QAD WHREC-012


Exercise - Add More Items and Create UM Groups

Exercise

Add More Items and Create UM Groups

03240:
Lubricant 4 liter tub


x 4

x 10



WHRES-101

Management identified a new item 03240 to add to the warehouse inventory

- 1 Set up a new unit of measure group for the above conversions, using UM Group Maintenance.

Field	Data to Enter
Unit of Measure Group	
UM	EA
Alt UM	BX
Conversion	
(How many eaches fit in a box.)	
Alt UM	PL
Conversion	
(How many eaches fit on a pallet).	

- 2 Assign the new item to the warehouse.
 - a See Item Master Maintenance exercise above.
 - b See Multi-Level Item Maintenance exercise above.

Assign the new UM Group to the new item using Multi-level Item Maintenance. For efficiency, you can also use Item Maintenance to make this change.

Field	Data to Enter
Item Number	03240
Unit of Measure Group	

3 Run UM Conversion Generation to apply the new UM Group:

Field	Data to Enter
UM Group	

Confirm three boxes in lower frame are checked.

The UM Conversion Generation report displays the UM changes made. If the report is blank, the UM Conversion did not occur.

4 Use Receipts-Unplanned to receive: 120 EA, item 03240

What loads are created and which locations are selected for item put-away? (View Inventory Detail Inquiry.)

When done properly, three pallets with 40 each are created and put-away to the next empty pallet location

5 Use Location Full% Report to check the warehouse 02 space utilization. Relative Full% = 28.13, Absolute Full% = 50.00.

Question: What loads are created and which locations are selected for item put-away? (View Inventory Detail Inquiry.)

When done properly, the system creates three pallets with 40 each.

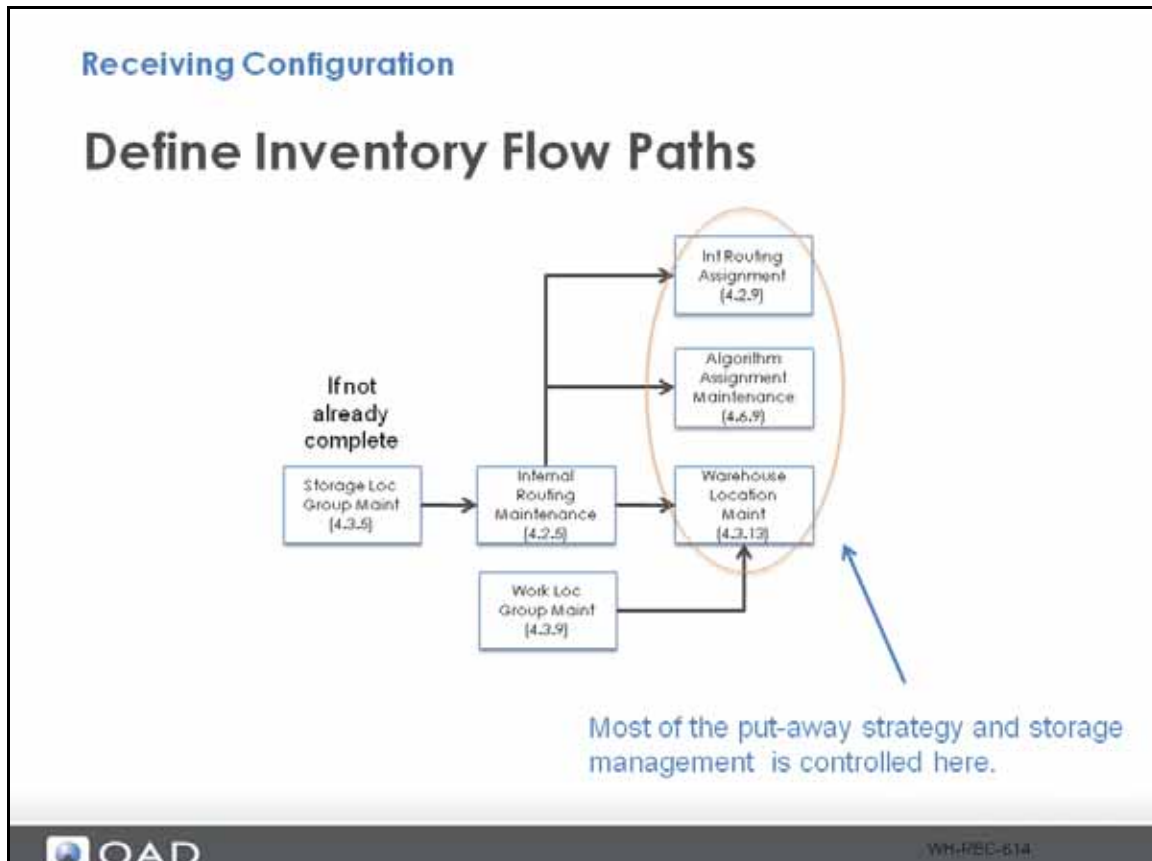
6 Use Movement Confirmation Workbench to complete all moves.

Question: What is the warehouse space utilization? (Use Location Full% Report.)

Relative full = 18.75%

Absolute full = 33.33%

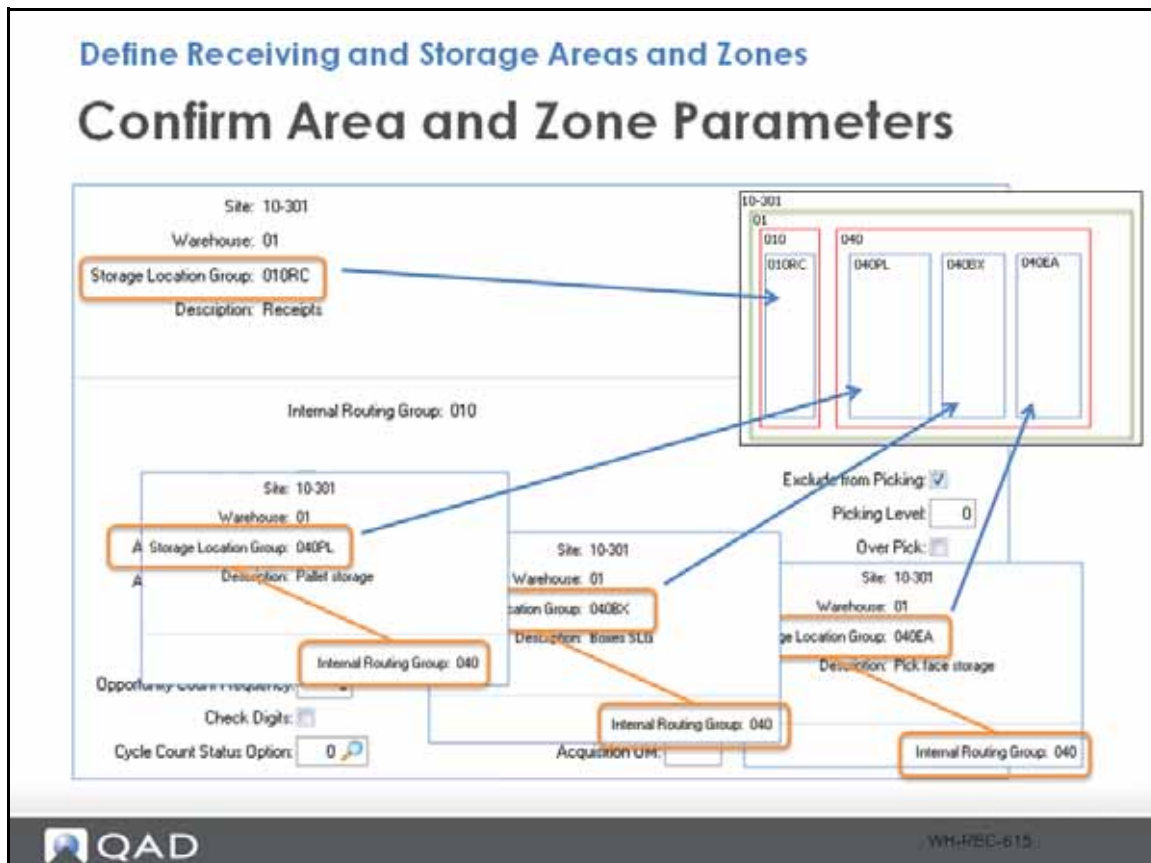
Define Inventory Flow Paths



Did You Know

Internal routings (IRs) control the flow of inventory between AREAS.

Define Receiving and Storage Areas and Zones



Within a warehouse, each area can be broken down into zones-groups of locations that have a common storage function-such as a primary picking zone, or a bulk storage zone for a particular type of pallet.

The receiving and put-away process works with storage zones to optimize space utilization and handling. In QMI, there are three storage zones in the storage area, Pallet (040PL), Box(040BX) and Each (040EA).

Define Routes

Define routes

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01RCT

Description: Receipts

Sequence: 10 Internal Routing Group: 010

Site: 10-301 Warehouse: 01 Internal Routing: 01RCT

Description: Receipts

Sequence: 20 Internal Routing Group: 040

The standard flow for received product is from the Receiving Area (010) to the Storage Area (040)

The diagram illustrates the internal routing process. On the left, a box labeled '01' contains 'Receive (010)' with sub-items '010RC' and '010RC001'. An arrow labeled '01RCT' points to the right. Below the arrow, it says 'Sequence 10 START' and 'Sequence 20 END'. On the right, a box labeled '04' contains 'Storage (040)' with sub-items '040PL' and a grid of eight '040PL' items (001-008).

WH-REC-016

Did You Know

Use internal routings to create specific pathways linking Areas (IRG) within the warehouse?

Auto, Manual, or Timed Processing

Auto, Manual or Timed Processing

Internal Routing Maintenance

Miscellaneous Options:

Mode: **Manual** 1

New Unit of Measure:

Clear Shortages:

Create Shipper:

Check Inspection:

WILL RETURN 3

2

```

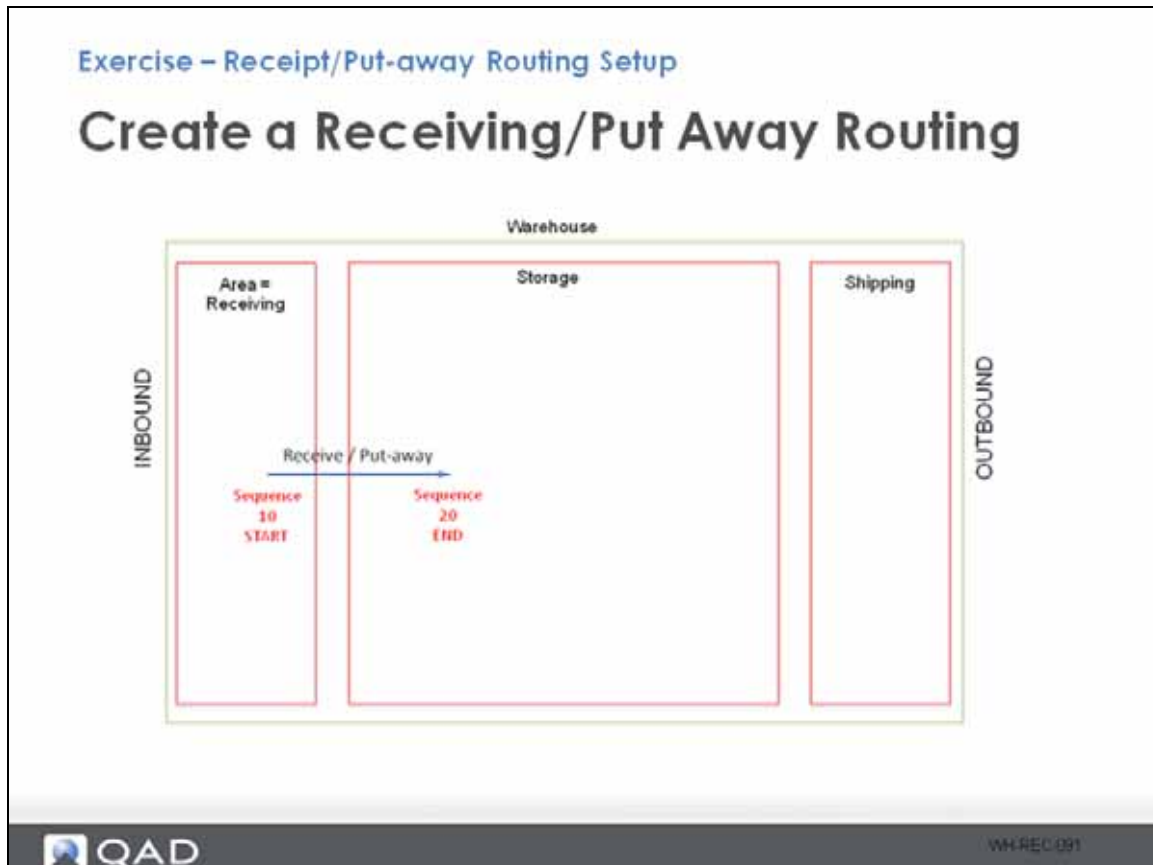
Engine Activation
Loc: 010RC001
Chk:
un
03210
Ref: PL000247
Cancel: No
Eng process compl
  
```

QAD WH-REQ-617

Did You Know

There are three types of engine processing that can be applied to Internal Routings, Auto, Manual and Timed.

Exercise - Set up an Internal Routing



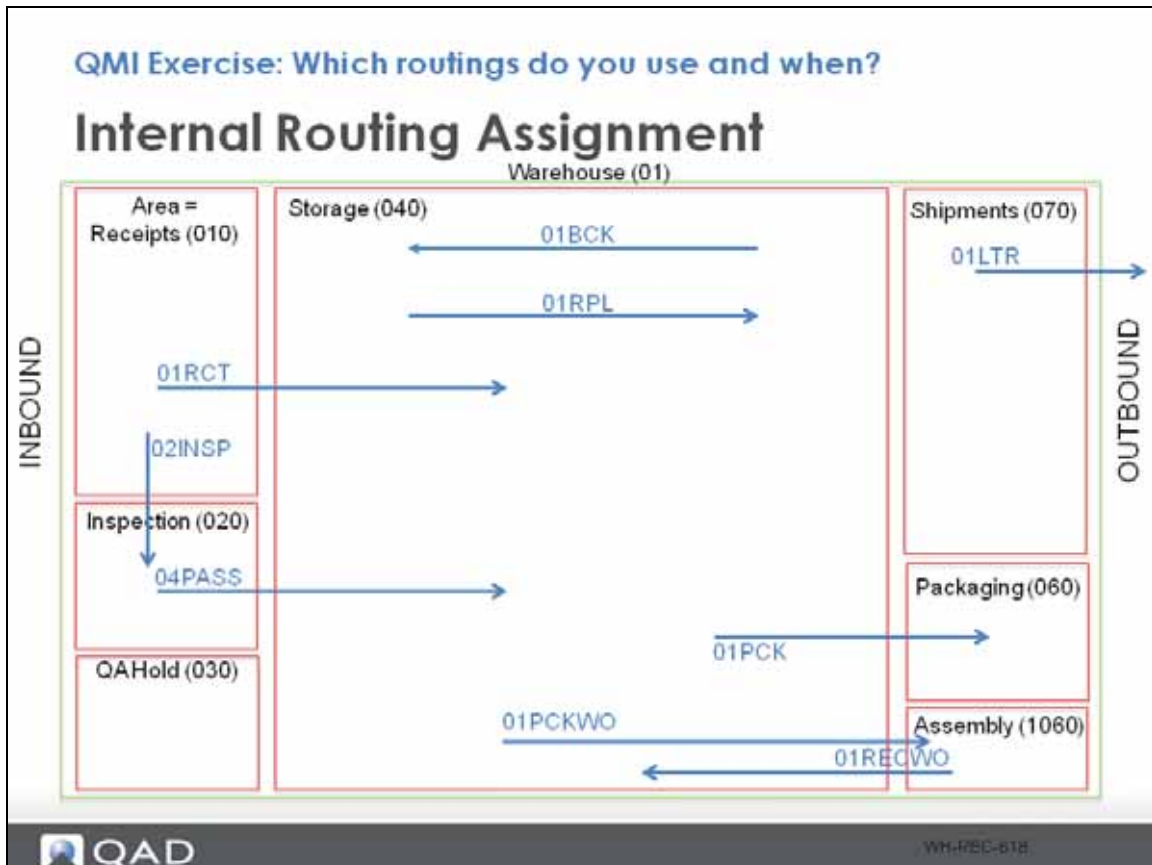
All product is received and moved direct to storage.

Use Internal Routing Maintenance to create a receiving/put-away routing using the following table to enter data for fields.

Field		
Site	10-301	
Warehouse		
Internal Routing	Put-away	
Description		
Sequence	Start =10	End =20
IRG		

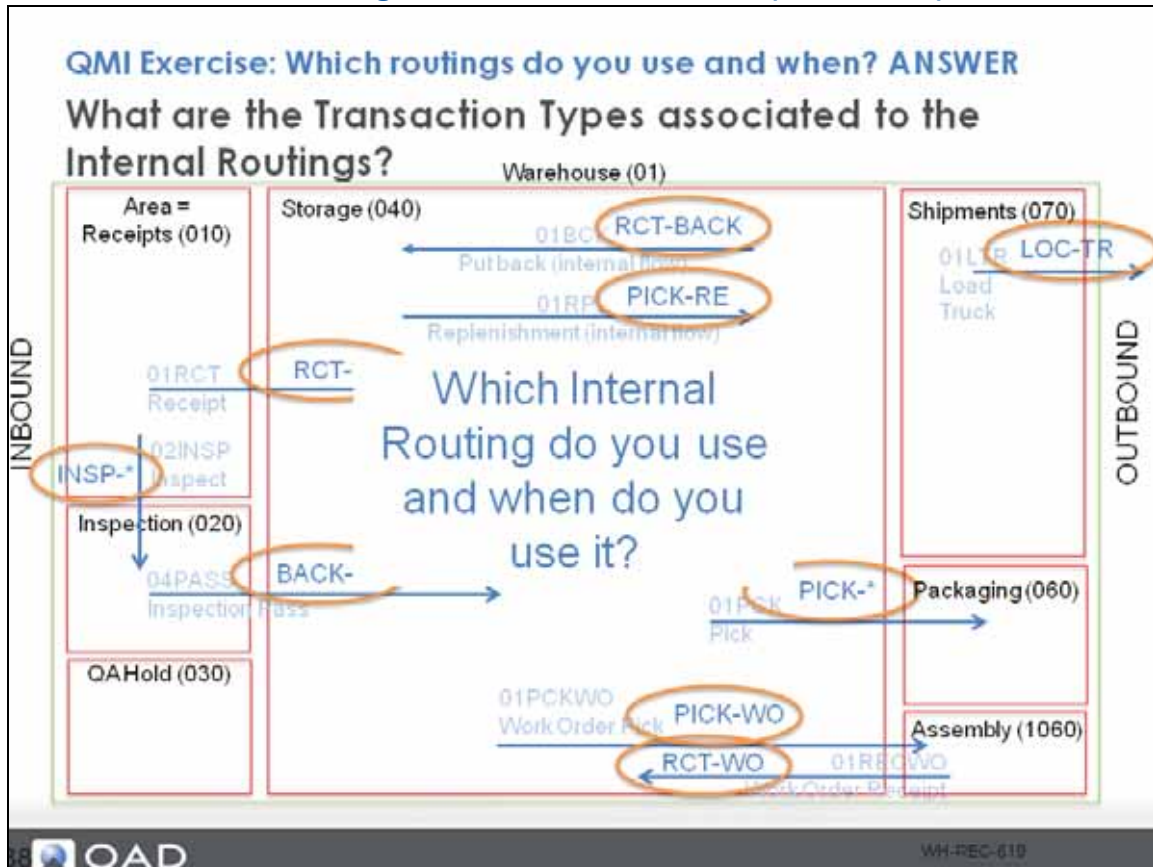
Note The default engine processing is set to Auto in the Internal Routing Maintenance Miscellaneous Options frame. Auto engine processing enables a real-time automated warehouse by automatically generating work tasks when triggers occur. When set to Auto, the system automatically creates put-away tasks and releases them when an item is received. When set to Manual, put-away tasks require manual intervention to be released.

Exercise - Which Routings Do You Use and When



Use Internal Routing Assignment to assign an internal routing to a transaction type.

Exercise - Which Routings Do You Use and When (Continued)



All product goes to the same receiving location then direct to storage for put-away. Assign the Receiving/Put-away routing to a generic receipt transaction type using Int Routing Assignment Maint.

Exercise - Which Routings Do You Use and When (Continued)

Which routings do you use and when

Internal Routing Assignment

Transaction Type: RCT-*

Site: 10-301

Warehouse: 01

Item Number:

Warehouse Item Type:

Address:

Custom:

Internal Routing: 01RCT

Custom Program:

1. When this transaction type is created...
2. And is associated to these...
3. This material flow is initiated.

QAD

WH-REC-620

When this transaction type is created, and associated with the site, warehouse, item, item type, and address, the material flow is initiated.

Exercise - Set up an Internal Routing Assignment

Exercise – Assign a Transaction to the Routing

Receiving/Put-Away Routing Assignment

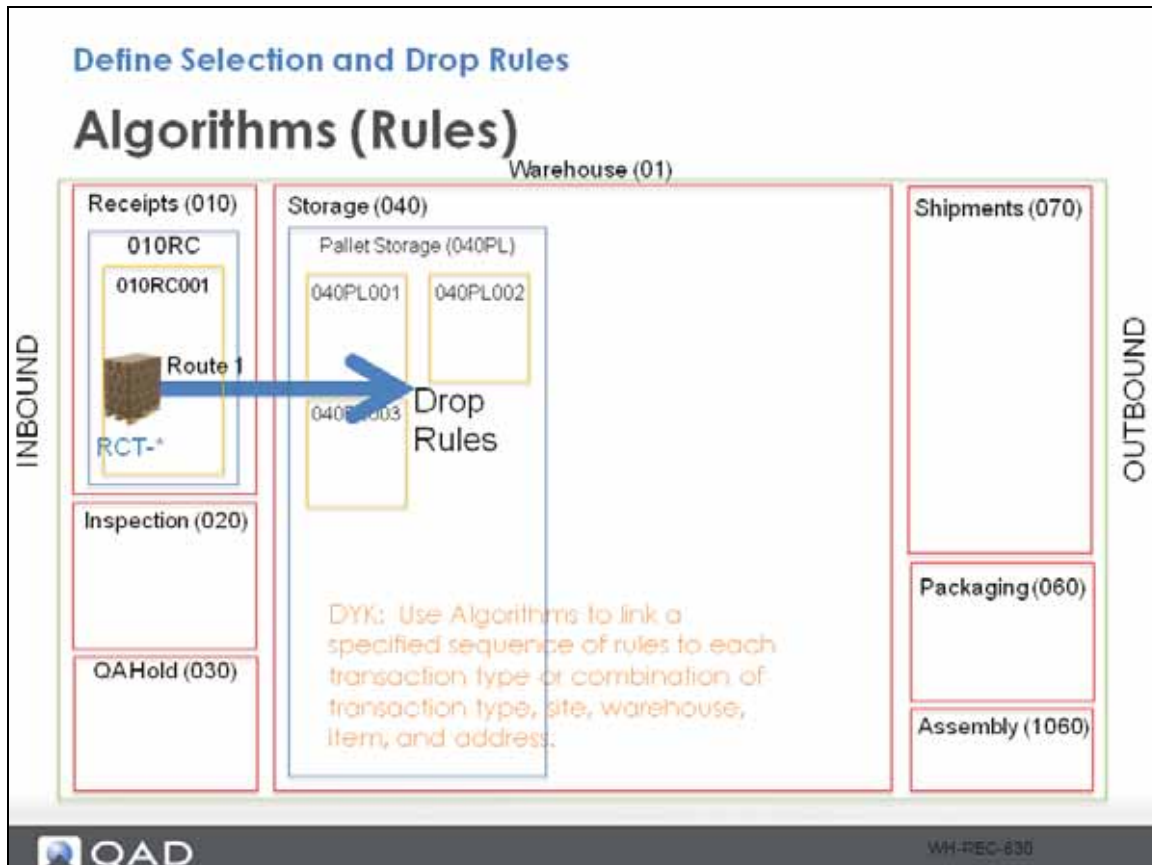
Transaction Type	rct-*
Site	10-301
Warehouse	
Internal Routing	

All product goes to the same receiving location then direct to storage for put-away. Assign the Receiving/Put-away routing to a generic receipt transaction type using Int Routing Assignment Maint.

Field

Transaction Type	rct-*
Site	10-301
Warehouse	
Internal Routing	

Algorithms (Rules)



Algorithms help companies manage inventory control and space utilization by addressing specific operating scenarios. For example, Algorithms determine which inventory to select for a move or pick, and which location will be used to drop (in this example, put-away) a unit load.

Did You Know


Use algorithms to link a specified sequence of rules to each transaction type or combination of transaction type, site, warehouse, item, and address.

Algorithms - Define Rules

Define rules

Algorithm Assignment

• CM	Container Move	(14) Staging and Dock locations
• LA	Lane Algorithms	(5) Shipping Lanes
• LF	Location Find	(13) Put-away in Functional Areas
• PA	Put-Away	(89) Put-away in Non-functional Areas
• PK	Picking	(68) For picking stock
• SC	Shortage Clearance	(11) Back orders and cross docking
• QA	Inspection	(10) Inspection processing

 WH-FEC-632

Did You Know

Algorithms are rules/routines used when moving, putting away or picking product.

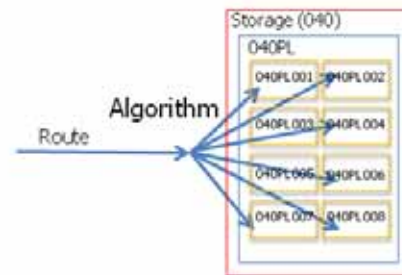
An Algorithm is a processing program that takes into account particular conditions before attempting to complete an inventory move.

Algorithms- Rule Categories are Available for Put-Away

What Rule Categories are Available for Put-Away

Algorithm Assignment Maintenance

- Storage Locations
- Multi-Item Pallet Splits
- Replenished Locations
- Reverse Replenished Locations
- Popularity Codes
- Dedicated Locations
- Forecast
- Last Transaction



Algorithms- Rule Categories are Available for Put-Away (Continued)

Which rules to use and when

Algorithm Assignment Maintenance

Algorithm Type: PA Transaction Type: RCT

Site: 10-301 Warehouse: 01

Item Number: Warehouse Item Type:

Address: Custom:

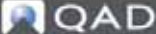
Assigned Algorithms

Seq	Algo	Description
10	3	S.L. - Merge with item
20	2	Empty Storage Locations

Sequence: Algorithm: 3

Description: S.L. - Merge with item

Sequence here is different than sequence for Internal Routing.

 WH-RBC-634

The sequence in the slide above is different than the sequence for an internal routing.

Implementation Consideration - Use Auto-Directed Put Away

Implementation Consideration

Use auto directed put-away to improve labor productivity, location utilization and dock-to-stock cycle times.


WH-REC-160

Directed put-away means QAD Warehousing determines the appropriate storage location for an item/quantity combination and directs the operator to the defined location. This approach improves labor productivity, overall location utilization, and reduces dock to stock cycle times to minimize congestion on the receiving dock.

Example - Receive Two Pallets to Locations with Existing Inventory

Example

Receive two pallets to locations with existing inventory



Inventory Detail Inquiry

Site: 10-301 Item Number: Displa
Warehouse: Lot/Serial: Disp No
Location: Reference:

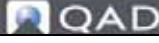
Warehouse: 01 Warehouse 1

Location	Item Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
040EA020	90091	Y-Y-N PL000032	EA	80		
040PL001	03210	Y-Y-N PL000240	EA PL	100		
040PL001	03210	Y-Y-N PL000241	EA PL	100		
040PL001	03210	Y-Y-N PL000242	EA PL	100		
040PL005	03120	Y-Y-N PL000092	EA PL	100		
040PL005	03120	Y-Y-N PL000093	EA PL	100		
040PL005	03120	Y-Y-N PL000094	EA PL	100		
040PL006	03121	Y-Y-N PL000095	EA PL	100		
040PL006	03121	Y-Y-N PL000096	EA PL	100		
040PL006	03121	Y-Y-N PL000097	EA PL	100		

Location 040PL001 has 3 pallets.

3 Pallets – location capacity is 4

Receiving two more pallets should put one in 040PL001 to fill the location and another in the next available location.


WH-RBC-170

In this example, location 040PL001 has three pallets. You need to receive two more pallets, putting one in 040PL001 to fill the location and another in the next available location.

Example - Receive Two Pallets (Continued)


Example

Receive Two pallets to locations with existing inventory

Purchase Order Receipts or Receipts - Unplanned

Receipt Detail - Quantity: 200 EA					
Site	Location	Lot/Serial	Reference		Quantity
10-301	010RC001		PL000243		100.0
10-301	010RC001		PL000244		100.0


Test the put-away of two pallets into partially full storage locations.

 QAD WH-REC-270

Test the put-away of two pallets into partially full storage locations.

Example - Receive Two Pallets (Continued)

Example: **TEST = SUCCESS**



Inventory Detail Inquiry

Site: 10-301 Item Number:
 Warehouse: Lot/Serial:
 Location: Reference:
 Warehouse: 01 Warehouse 1

Item Location	Lot	Status Ref	Qty UM	On Hand
010RC001	03210	Y-Y-N EA	100	
010RC001	03210	PL000243 PL	100	100
040EA020	90091	Y-Y-N EA	80	
040PL001	03210	PL000032 PL	100	
040PL001	03210	Y-Y-N EA	100	
040PL001	03210	PL000240 PL	100	
040PL001	03210	Y-Y-N EA	100	
040PL001	03210	PL000241 PL	100	
040PL001	03210	Y-Y-N EA	100	
040PL001	03210	PL000242 PL	100	
040PL001	03210	Y-Y-N EA	100	100
040PL001	03210	PL000243 PL	100	
040PL002	03210	Y-Y-N EA	100	100
040PL002	03210	PL000244 PL	100	

W11-RDC-280

With directed (and auto) put-away once the product is received, two put-away tasks (moves) are created; One to location 040PL001 and another to the next available location.

Use Inventory Detail Inquiry to check the test results.

Note The put-away algorithm being used (1) allows for mixed items in a location.

What would you change to restrict mixing items in a location?

Implementation Consideration - Put Away

Implementation Consideration

Use Put-away rules to optimize location utilization.

WH-REC-290

You should understand your customers reserve storage strategy before setting up put-away algorithms.

Example - Allow Mixed Item Storage

Example

Allow mixed item storage

Algorithm Assignment Maintenance

Before

Algorithm Type: PA For RCT-*

Site: 10-301

Item Number:

Address:

Assigned Algorithms

Seq	Algo	Description
10	3	S.L. - Merge with item
20	2	Empty Storage Locations

After

Algorithm Type: PA For RCT-*

Site: 10-301


Item Number:

Address:

Assigned Algorithms

Seq	Algo	Description
30	1	Storage Locations

Changing the Put-away rule for a general receipt (RCT-*) will first attempt to fill all locations regardless of existing item match.


WH-REC-000


Changing the put-away rule for a general receipt (RCT-*) causes the system to first attempt to fill all locations, regardless of existing item match.

Put-Away Rules

Put-Away Rules

Product Put-Away

- Product put-away strategies attempt to optimize storage capacity and system performance
- Optimization is configured at both the Warehouse and Zone levels

 WH-REC-021

Did You Know

Product put-away strategies attempt to optimize storage capacity and system performance.

Warehouse and zone level optimization are advanced concepts used to improve the overall facility storage location utilization. Warehouse / zone optimization is typically not implemented for go live.

For more information, see [QAD Warehousing User Guide](#).

Exercise - Define Put-Away Rules

Exercise – Define Put-Away Rules

Using Algorithms to Define Rules

Algorithm Type: PA
Site: 10-301
Item Number:
Address:

Transaction Type: RCT-
Warehouse: 01
Warehouse Item Type:
Custom:

Warehouse

Assigned Algorithms		
Seq	Algo	Description
10	3	S.L. - Merge with Item
20	2	Empty Storage Locations
30	1	Storage Locations

The diagram illustrates a warehouse layout with three main sections: 'Area = Receiving' on the left, 'Storage' in the center, and 'Shipping' on the right. The 'Storage' area contains a 'Pallet' with several yellow boxes representing storage locations. An arrow labeled 'Where to?' originates from the 'INBOUND' area and points towards the 'Storage' area, indicating the flow of goods and the selection of storage locations.

WH-REC-111

What happens when the load/item arrives in the next area? How are storage locations selected?

Use Algorithm Assignment Maintenance to define put-away rules. For QMI, the only operational consideration is items cannot be mixed in storage.

Field

Algorithm Type	PA	
Transaction Type	rct-*	
Site	10-301	
Warehouse		
Sequence	10	20
Algorithm	3	2

What does this algorithm sequence accomplish?

Exercise - Receive Items

The screenshot shows the 'Receipts - Unplanned' form in QAD. The form is titled 'Exercise Receive Items'. The main data fields are:

- Item Number: 03210
- Description: Desinfectant Wipes
- Quantity: 200.00000000
- Unit of Measure: EA
- Conversion: 1.0000
- Site: 10-301
- Location: D1
- Lot/Serial: (empty)
- Reference: (empty)
- Multi Entry: (checkbox)
- Total Qty: (empty)
- Total Cost: (empty)

At the bottom of the form, there are fields for Unit Cost, Order, Line, Sales/Job, Address, Remarks, Effective Date, and Debit Account. The QAD logo is in the bottom left corner, and 'WH REC-000' is in the bottom right corner.

- 1 Use Receipts-Unplanned to receive: 200 EA, item 03210
 - What loads are created? (view Inventory Detail Inquiry to find out).
 - What is the LPN (reference) prefix? _____
 - (It should match what you setup in session 1)
 - Are put-away tasks automatically generated? _____.

For screen navigation hints, refer to “Exercise - Receive - Navigate” on page 118 in this chapter.

- 2 Use Movement Confirmation Workbench to complete all moves. Alternatively you can perform all move tasks in the RF if you are logged into Putty as UserB.
- 3 Use Receipts-Unplanned to receive: 200 EA, item 03120 and 03121
 - What loads are created and which locations are selected for item put-away? (view Inventory Detail Inquiry)

If the put-away rules are configured correctly, each item with 200 each or two pallets are in a different location pallet storage location.
- 4 Use Movement Confirmation Workbench to complete all moves.
 - Use Location Full% Report to check the warehouse 02 space utilization. Relative Full% = 18.75, Absolute Full% = 37.50.

Bonus Coverage: Three-Step Sequence

Bonus Coverage: Three-Step Sequence

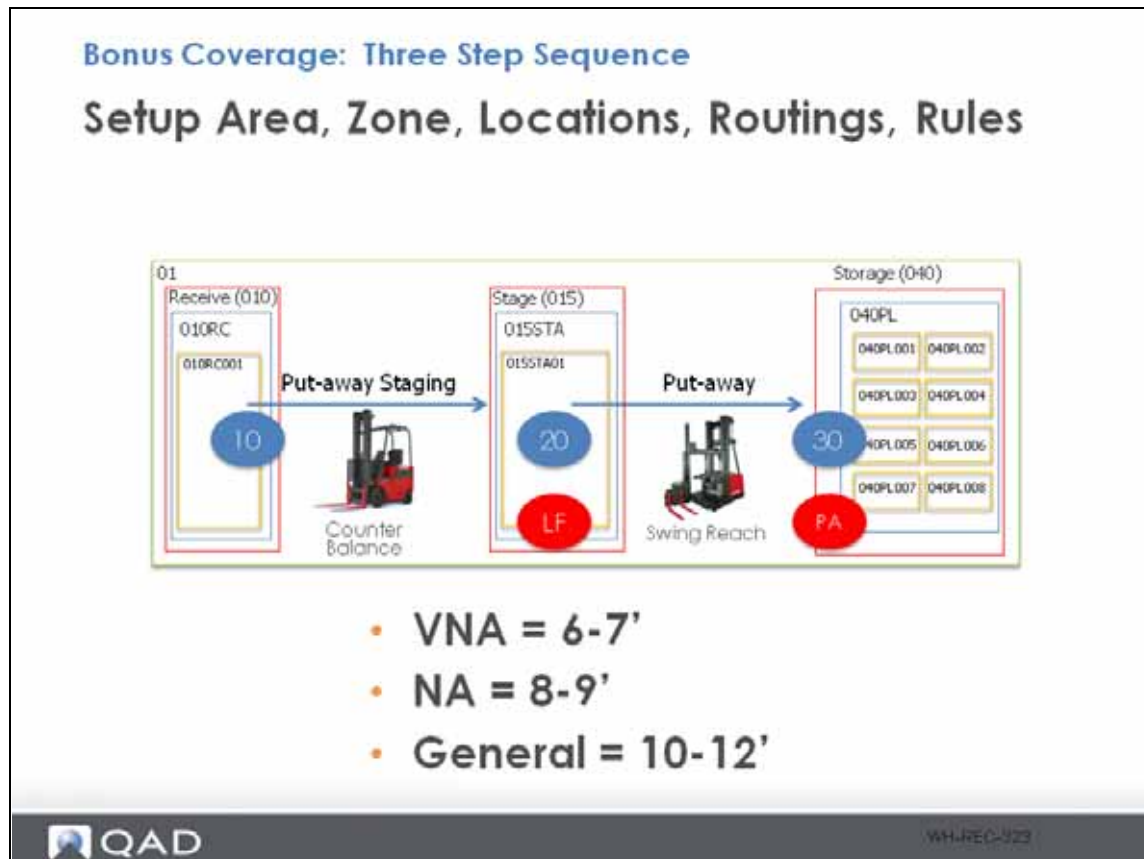
A three-step routing represents two transactions and can help when moving product to a staging location.

```
graph TD; 10[10 Receiving] --> 20[20 Staging]; 20 --> 30[30 Storage];
```

QAD WH REC 322

So far, the examples have shown a two-step sequence moving from one area to the next. In QAD Warehousing it is possible to have a three-step sequence where product is moved to an interim position/location en route to the final destination.

Bonus Coverage: Three Step Sequence Continued



Did You Know

Some warehouses are setup with different types of equipment for different areas.

For a three-step sequence, you can setup a staging area, zone and location between receiving and storage. This might occur when different equipment is used for receiving and product put-away; for example, when storing in a very narrow-aisle area.

In the above graphic, the narrow aisle (NA) has less space to pass than the general area, so only specific types of equipment can pass. The Very Narrow Aisle (VNA) requires specialized equipment. So, for example, a three-step routing is needed because the same equipment cannot be used to put-away in every area.

Given the specialized equipment and more complex design, this is a process for advanced operations.

Bonus Coverage: Location Stage In/Stage Out

Bonus Coverage: Location Stage In / Stage Out

Warehouse Location Maintenance


Site: 10-301 Distribution Site 1
 Location: 040PL001

Location Groupings:

Warehouse: 01
 Storage Location Group: 040PL
 Work Location Group: 01FL

Warehouse Location Data

Check Digit: <input type="text"/>	Picking Type: <input type="text"/>
Popularity: <input type="text"/>	Preferred UM: <input type="text"/>
Storage Type: <input type="text"/>	Opportunity Count Frequency: 0
Warehouse Location Type: <input type="text"/>	Last Opportunity Count:
Travel Sequence: <input type="text" value="0"/>	Stage (In): Put Stag
Dedicated: <input type="checkbox"/>	Stage (Out): <input type="text"/>


WHREC-924

You can also experiment with Stage In and Stage Out in Warehouse Location Maintenance. This is another way to handle put-away in a location.

The Stage In and Stage Out fields in Warehouse Location Maintenance identify whether a location is staged. If both fields are blank, the location is not staged.

When the fields are filled in, this creates a phantom location or temporary location, used for staging product into or out of the designated location, in this example, 040PL001.

Bonus Coverage - Stage In/Stage Out

Bonus Coverage: Location Stage In / Stage Out

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1
Location: 040PL001


Location Groupings

Warehouse: 01
Storage Location Group: 040PL
Work Location Group: 01FL

Warehouse Location Data

Check Digit:
Popularity:
Storage Type:
Warehouse Location Type:
Travel Sequence:
Dedicated:

Picking Type:
Preferred UM:
Opportunity Count Frequency: 0
Last Opportunity Count:
Stage [Out]:

 WH-REC-324

You can also experiment with Stage In and Stage Out in Warehouse Location Maintenance. This is another way to handle put-away in a location.

The Stage In and Stage Out fields in Warehouse Location Maintenance identify whether a location is staged. If both fields are blank, the location is not staged.

When the fields are filled in, this creates a phantom location or temporary location, used for staging product into or out of the designated location, in this example, 040PL001.

Implementation Consideration - Not all Locations are Created Equal

Implementation Consideration

Not all locations are created equal.

When receiving and storing goods, QAD Warehousing helps manage locations and facilitate product slotting.

Easily accessible locations and locations closest to the point of use should have priority.

WH-REC-480

Locations Have Many Attributes

Locations can have many attributes

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1

Location: 040PL001

Location Groupings

Warehouse: 01
Storage Location Group: 040PL
Work Location Group: 01FL

Warehouse Location Data

Check Digit:

Popularity:

Storage Type:


Warehouse Location Type:

Travel Sequence:

Picking Type:

Preferred UM:

Stage (In):

 WH-RDC-120

Did You Know

AAA indicates a popular location that is easily accessed, while a code of ZZZ indicates an unpopular location perhaps difficult to access.

Without a Popularity ranking, locations are selected in descending alpha-numeric sequence.


Popularity Code

Supports slotting strategies

Popularity Code

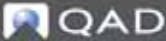
Put fast moving stock in the low value popularity code locations, and slow moving stock in the higher ones.

AAAA > BBBB > CCCC > etc.



Slow Movers
(ZZZZZZ)

Fast Movers
(AAAAAA)

 QAD

WH-REC-138

Did You Know

Popularity codes can be assigned at the item, location or site levels.


Location Popularity

Location Popularity

Keep Popular Product Close

Location5 CCC	Location6 CCC
Location3 BBB	Location4 BBB
Location1 AAA	Location2 AAA

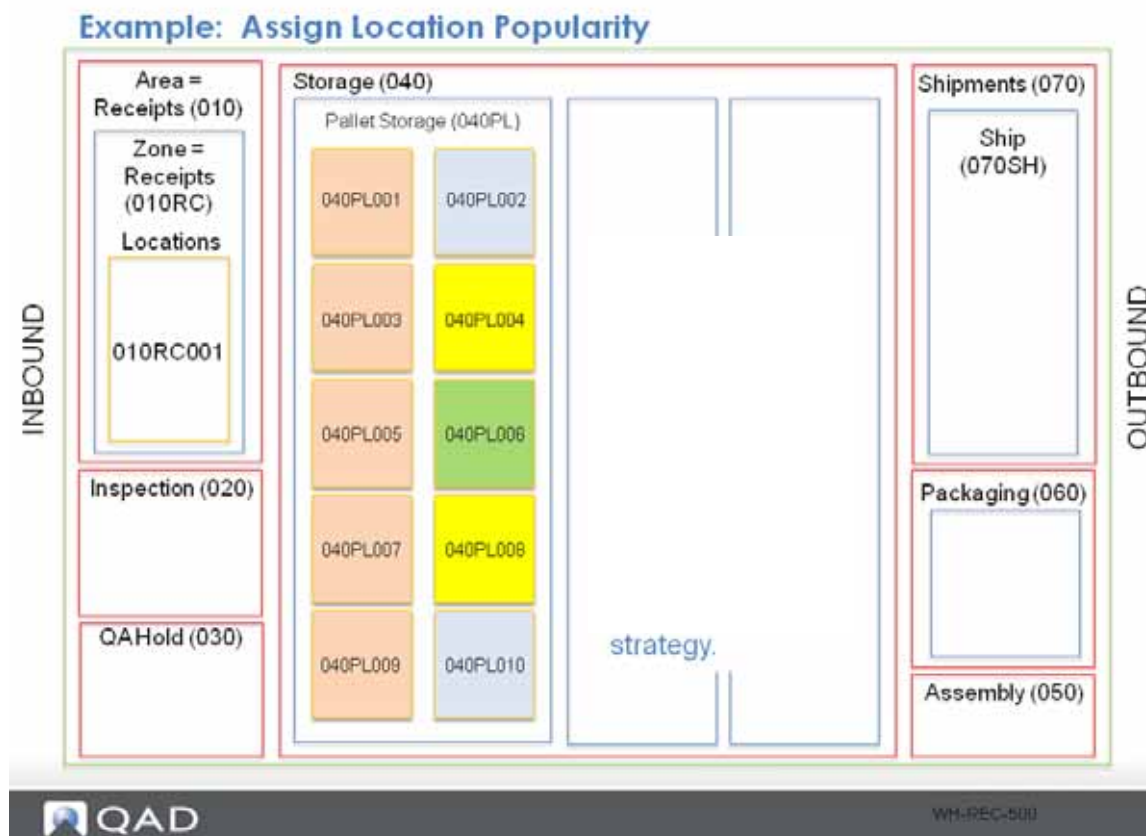
Shipping & Receiving

 QAD WH-REC-410

Did You Know

Locations can be categorized by popularity to support slotting strategies.

Example - Assign Location Popularity



In this example, the strategy is to keep product in 006 followed by 004 and 008, then 002 and 010. Finally, this is followed by 001, 003, 005, 007, and 009.

You can set up QAD Warehousing to support this strategy.

Example - Assign Location Popularity

Example: Assign Location Popularity

Assign popularity codes to each location

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1

Location: 040PL006

Location Groupings

Warehouse: 01

Storage Location Group: 040PL

Work Location Group: 01FL

Warehouse Location Data

Check Dist:

Popularity: AAA

Storage Type:

Warehouse Location Type:

Travel Sequence:

Dedicated:

Location	Popularity
040PL004	BBB
040PL008	BBB
040PL002	CCC
040PL010	CCC
All Others	DDD

Opport:

Estm opportunity count:

Stage (In):

Stage (Out):

3 QAD WH-REC-510

First, define the location popularity code.

Remember A is more popular than B which is more popular than C.

Example - Change the Receipt Put-Away Rules

Example: Change the Receipt Put-Away Rules

Change the receipt put-away rules

Algorithm Assignment Maintenance

Algorithm Type: PA
Site: 10-301

Transaction Type: RCT-*
Warehouse: 01

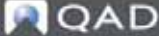
Item Number:
Address:

Warehouse Item Type:
Custom:

Assigned Algorithms

Seq	Algo	Description
10	61	Storage Locations by Popularity Code
20	1	Storage Locations

The standard put-away rules for receiving is store by Popularity Code.

 QAD WH-REC-020

With a popularity code assigned to each location you next need to define put-away rule to search locations based on popularity. Do this by assigning algorithm 61, Storage Location by Popularity, to a general receipt (RCT-*).

Example - Storage by Popularity

Example: Storage by Popularity

Receipts should fill popular locations

Receipt	Item	Qty	Expected Result
1	03120	100	1 LPN to 040PL006
2	03120	200	2 LPNS, 1 to 004, 1 to 008
3	03120	200	2 LPNS, 1 to 002, 1 to 010

Location capacity = 100 EA = 1 Pallet

QAD W11-REC-530

In the example above, you have three separate receipts of the same item; however, the quantity differs for the first receipt, and the receipts are based on locations that have set popularity codes. The topics that follow show details for Receipt One, Receipt Two and Receipt Three.

Example- Receipt One

Example

Receipt One: 03120, 100 each

040PL002

040PL004

040PL006

040PL008

040PL010

Receipt Detail - Quantity: 100 EA

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		PL004442	100.0

Inventory Detail Inquiry

Site: 10-301 Item Number: 03120 Display

Warehouse: Lot/Serial: Disp Nor

Location: Reference:

Warehouse: 01 Warehouse 1

Location	Status	Qty	Qty	Expect	Expect
Lot/Serial	Ref	UM	On Hand	In	Out
010RC001	Y-Y-N	EA	100		100
040PL006	Y-Y-N	EA		100	

Location capacity = 100 EA = 1 Pallet

First, receive 100 EA of item 03120. Using the popularity put-away algorithm the load should be directed to the most popular (and available) location, 040PL006

In this example, the location capacity is 100 EA which equals one pallet.

Example - Receipt Two

Example

Receipt Two: 03120, 200 each

Receipt Detail - Quantity: 200 EA

Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		PL004444	100.0
10-301	010RC001		PL004445	100.0

Inventory Detail Inquiry

Site: 10-301 Item Number: 03120 Display W
 Warehouse: Lot/Serial: Disp Non-w
 Location: Reference: Out
 Warehouse: 01 Warehouse 1

Location	Status	Qty	Qty	Expect	Expect	Det
Lot/Serial	Ref	UM	On Hand	Alloc	In	Out
010RC001	Y-Y-N	EA	100			100
	PL004444	PL				100
040PL004	Y-Y-N	EA			100	
	PL004444	PL	100			
040PL006	Y-Y-N	EA				
	PL004444	PL				
040PL008	Y-Y-N	EA			100	
	PL004445	PL				

Location capacity = 100 EA = 1 Pallet

Next receive 200 EA of item 03120

Again, with the popularity put-away rules being used, the next most popular locations should be selected, 040PL004 and 040PL008.

Example - Receipt Three

Example

Receipt Three: 03120, 200 each

040PL002

040PL004

040PL006

040PL008

040PL010

Receipt Detail - Quantity: 200 EA				
Site	Location	Lot/Serial	Reference	Quantity
10-301	010RC001		PL004448	100.0
10-301	010RC001		PL004449	100.0

Inventory Detail Inquiry						
Site: 10-301		Item Number: 03120		Warehouse: 01		Warehouse 1
Warehouse:		Lot/Serial:		Reference:		Display
Location:		Warehouse:		Warehouse 1		Disp No
Location	Status	Qty	Qty	Expect	Expect	
Lot/Serial	Ref	UM	On Hand	In	Out	
010RC001	Y-Y-N	EA	100		100	
	PL004448	PL				
010RC001	Y-Y-N	EA	100		100	
	PL004449	PL				
040PL002	Y-Y-N	EA		100		
	PL004448	PL				
040PL004	Y-Y-N	EA	100			
	PL004444	PL				
040PL006	Y-Y-N	EA	100			
	PL004442	PL				
040PL008	Y-Y-N	EA	100			
	PL004445	PL				
040PL010	Y-Y-N	EA		100		
	PL004449	PL				

Location capacity = 100 EA = 1 Pallet

Finally receive 200 again of item 03120.

Following the same rationale, the loads should be directed to location 040PL002 and 040PL010.

Location Popularity Ranking and Put Away Selection

Location Popularity Ranking and Put-away Selection

Location	002	004	006	008	010
Popularity	1	A	12	0	8
Assignment	2	4	3	1	5
Popularity	AA	A1	A	A1A	1A
Assignment	5	3	2	4	1
Popularity	88	AA	A	B	AAA
Assignment	5	2	1	4	3
Popularity	1051	100	0	151	1001
Assignment	4	2	1	5	3
Popularity	0001	01	1	001	0
Assignment	2	4	5	3	1
Popularity	0000	00	0	000	00000
Assignment	4	2	1	3	5
Popularity	2	100	0	1001	00000001
Assignment	5	3	1	4	2
Popularity	1000	10	1	101	10001
Assignment	3	2	1	5	4
Popularity	1000	100	0	500	10000
Assignment	3	2	1	5	4
Popularity	100	10	0	15	2
Assignment	3	2	1	4	5
Popularity	100	10	0	15	01
Assignment	4	3	1	5	2
Popularity	100	01	1	001	0
Assignment	5	3	4	2	1
Popularity	40	20	10	30	50
Assignment	4	2	1	3	5

Popularity Rules:

1. Numeric is higher than alpha
2. 0 is the highest priority number
3. You can use alpha/numeric combinations
4. A is higher than AA which is higher than AAA...
5. 1001 is less than 151 - popularity rank goes position by position

Popularity Rules

- 1 Numeric is higher than alpha.
- 2 Zero (0) is the highest priority number.
- 3 You can use alpha/numeric combinations.
- 4 A is higher than AA which is higher than AAA.
- 5 1001 is less than 151 - popularity rank goes position by position.

Bonus: Cross-Docking

Bonus Coverage

Cross Docking Support

Occasionally there could be an open (outbound) order for an item being received. In this situation it might be more efficient to move the received item direct to shipping (cross docked) to satisfy the order requirements.

In QAD Warehousing this applies to back ordered items only.



WH-REC-700

Cross-Docking - Cross-Dock Setup

Bonus Coverage – Cross Dock Setup

Cross Docking Support

The screenshot displays the QAD software interface for setting up cross-docking. It features several panels and a table, with numbered callouts (1-7) indicating key configuration steps:

- 1**: Internal Routing Group: 040
- 2**: Internal Routing: 01RCT
- 3**: Transaction Type: SHRT-SO
- 4**: Algorithm Type: SC
- 5**: Algorithm Type: PK
- 6**: Algorithm Type: LF
- 7**: Transaction Type: PICK-SO

Site	Warehouse	Route	Seq	IRIG
10-301	01	01SHTPK	10	010
10-301	01	01SHTPK	20	060

QAD WH REC 710

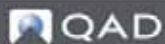
- 1 Modify Sequence 20 of the receiving internal routing to check for a shortage (clear shortages).
- 2 Create an internal routing from receiving to packaging.
- 3 Assign the SHRT-SO transaction type to the new internal routing.
- 4 Assign SC algorithm type 2 to the RCT-* transaction type.
- 5 Assign PK algorithm type 1 to SHRT-* transaction type.
- 6 Assign LF algorithm type 3, 1 to transaction type SHRT-SO.
- 7 Modify the PICK-SO transaction type.

Cross-Docking: Cross-Dock Setup (continued)

Bonus Coverage – Cross Dock Setup

Cross Docking Support

1. Release a sales order for an item with zero inventory on hand
 - Assume 03210 = 0 on hand
2. Receive the back ordered item
 - 03210 = 200 ea
3. Process the Cross Dock movement and put-away as required



WH-REC-720


To setup a cross dock:

- 1 Setup a sales order for an item with not enough inventory in stock.
- 2 Release the sales order.
- 3 Pick the sales order.
- 4 Receive more of the back ordered item.
- 5 Partial will go to shipping for merge with the open order.
- 6 The remaining will be routed to put-away.

Cross-Docking: Cross-Dock Setup (Continued)

Bonus Coverage – Cross Dock Setup


Cross Docking Support



Inventory Detail Inquiry

Site: 10-301 Item Number: 03210 Display Whse Lc
 Warehouse: 01 Lot/Serial: Disp Non-Whse Lc
 Location: Reference: Output: I

Location Lot/Serial	Status Ref	Qty UM On Hand	Qty Alloc	Expect In	Expect Out	Detail Alloc
010RC001	Y-Y-N PL000244	EA PL	100			100
010RC001	Y-Y-N PL000245	EA PL	100			100
040PL001	Y-Y-N PL000245	EA PL		100		
060PA001	Y-Y-N PL000244	EA PL		100		


 WH.REC.730

Exercise - Cross-Docking

Exercise

Cross-Docking

- Cross-Dock Setup
- Cross-Dock Execution


WH-REC-880

Cross Dock Setup

- 1 Modify the existing receiving routing using Internal Routing Maintenance
 - a Site = 10-301
 - b Warehouse = _____
 - c Internal Routing = _____
 - d Seq = 20
 - e Next 2x (check Clear Shortages box).

- 2 Create a new routing using Internal Routing Maintenance

Field	Start	End
Site		10-301
Warehouse		
Internal Routing		
Description		X-Dock
Sequence	10	20

Field	Start	End
IRG	(receiving)	(shipping)

3 Assign a transaction type to the new routing using Int Routing Assignment Maint

Transaction Type	SHRT-SO
Site	10-301
Warehouse	
Internal Routing	

4 Assign shortage clearance rules for receiving using Algorithm Assignment Maintenance

Algorithm Type		SC
Transaction Type		rct-*
Site		10-301
Warehouse		
Sequence	10	---
Algorithm	2	---

5 Assign pick rules for the shortage transaction using Algorithm Assignment Maintenance

Algorithm Type		PK
Transaction Type		SHRT-*
Site		10-301
Warehouse		
Sequence	10	---
Algorithm	1	---

6 Assign a location find rule for shortage clearance using Algorithm Assignment Maintenance

Algorithm Type		LF
Transaction Type		SHRT-SO
Site		10-301
Warehouse		
Sequence	10	20
Algorithm	3	1

7 Change shortage pick rules using Transaction Type Maintenance

- Transaction Type = PICK-SO
- Shortage Definition = 3
- Shortage Quantity Definition = 2
- Shortage Action = 2
- Shortage Window = 2

Cross Dock Execution

- 1 Setup a sales order for an item with not enough inventory in stock.
Example Release an order for inventory with zero on hand.
- 2 Release the sales order.
- 3 Receive the back ordered item.
- 4 Partial will go to shipping for merge with the open order.
- 5 The remaining will be routed to put-away (if more than the sales order quantity is received).

Key Learning Points

QAD Warehousing Receiving

Key Learning Points

- Items need to be setup in the warehouse
- Try to find common categories for item
Unit of Measure
- Put-away rules drive storage best practices
- Supports fully automated, partial or manual operations
- Location Popularity category can help manage slotting



WH-REC-500

Questions

- 1 Most of the put-away strategy and storage management is controlled by which two maintenance programs?
- 2 Which program do you use to specify the attributes of a warehouse location?
- 3 What does the QAD Warehousing put-away strategy attempt to accomplish?
- 4 True or False. To trigger warehouse receiving process, all items need to be set up in QAD Warehousing?
- 5 Popularity codes are used in QAD Warehousing to support _____ strategies.
- 6 When is verbosity reporting useful and not useful?

Answers

- 1 Algorithm Assignment Maintenance and Warehouse Location Maintenance.
- 2 Warehouse Location Maintenance.
- 3 Product put-away strategies attempt to balance storage capacity optimization with system performance.
- 4 Multi-Level Item Maintenance
- 5 Slotting
- 6 Useful when troubleshooting, not useful when you go live at a customer site.

Notes

Chapter 3

Replenishment

Overview

QAD Warehousing Replenishment

QAD Warehousing

Field Readiness



 Our Passion. Your Advantage.

Objectives

QAD Warehousing Replenishment

Objectives

- Functional Fit
- Understand replenishment concepts
- Setup warehousing for replenishment
- Perform a replenishment exercise



WM-REP-020

Functional Fit: What We Don't Do So Well

What we don't do so well

Functional Fit: Replenishment

Functionality	Fit	Notes
Supports all basic and advanced replenishment strategies.		

Legend
 Partial
 None

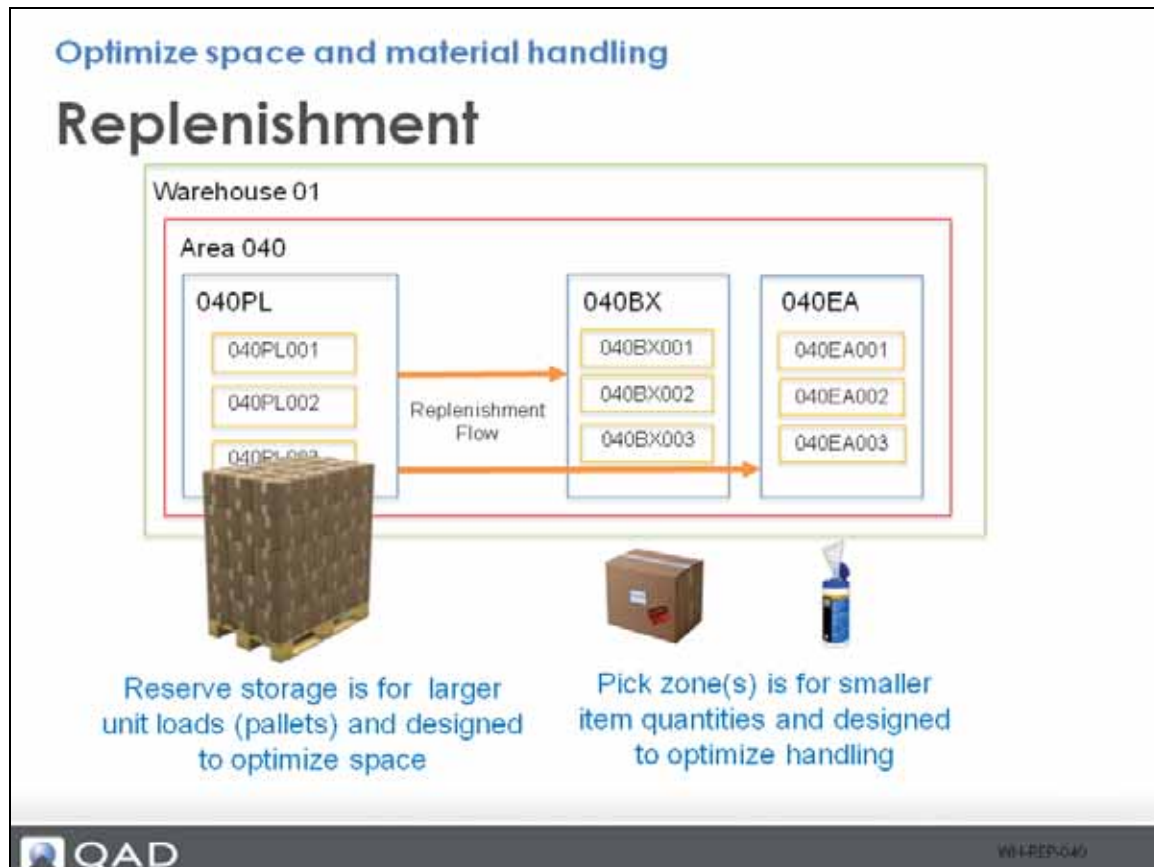
 QAD WH-REP-030

Did You Know

Replenishment is an optional configuration; however, it is very helpful in improving operational efficiencies and works in conjunction with reserve storage and forward-pick locations.

QAD Warehousing lets you define forward-pick zones in the warehouse. These zones typically contain the stock required for picking first and in quantities and locations that are easy to maintain. In order for this zone to be maintained at the optimum stock levels, the system uses a process called replenishment.

Optimize Space and Material Handling



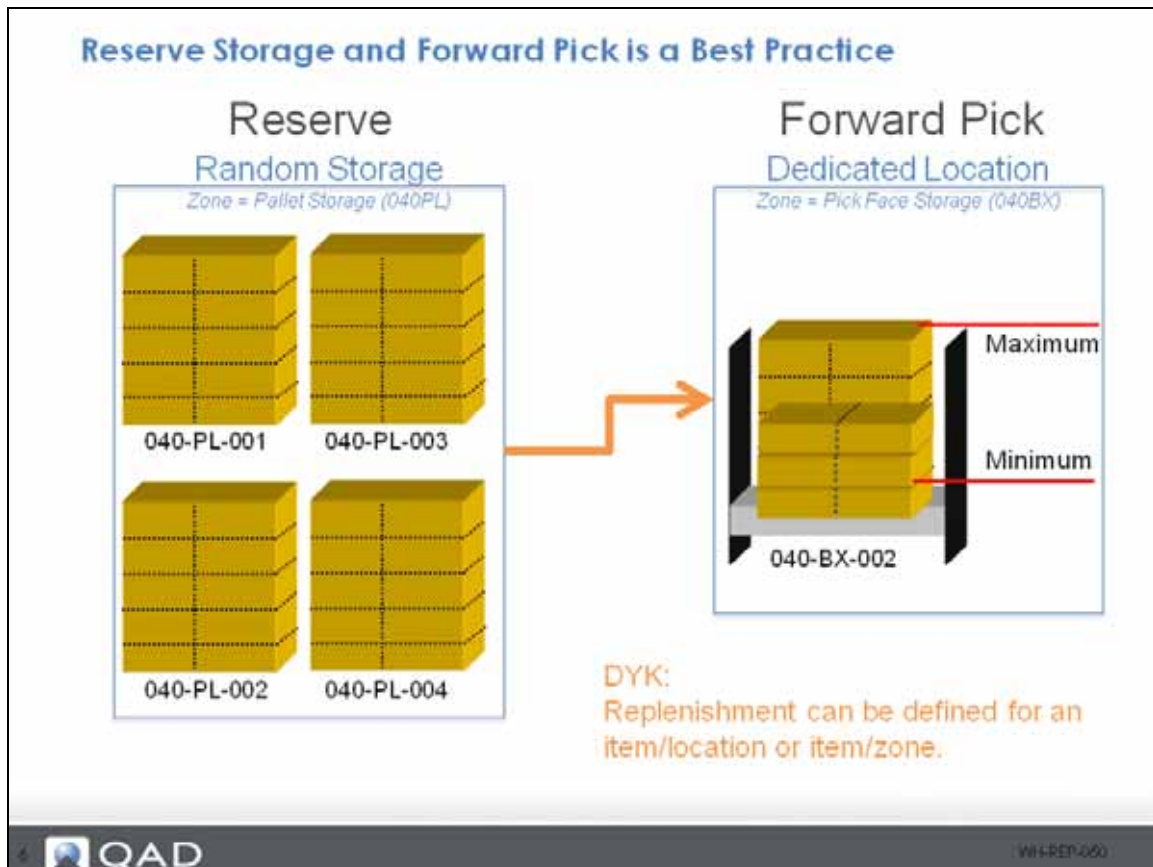
Define the types of items and the quantities that can be stored in the replenishment, or forward-pick locations typically. Picking functions look in these locations first before searching the rest of the warehouse for available inventory.

In QMI data, there is a bulk reserve, a case pick area, and an each pick area, as shown above.

Bulk Reserve storage is for larger unit loads (pallets) and designed to optimize space.

Case and Each picks are for smaller item quantities and designed to optimize handling.

Reserve Storage and Forward Pick is a Best Practice



Did You Know

Replenishment can be defined for an item/location or item/zone.

Replenishment follows similar principles of reorder point and kanban. When the forward pick location reaches the defined minimum (reorder point), the system creates a replenishment pick task for a load from the reserve storage zone (040PL).

Replenishment is Used for Restocking Automated Equipment



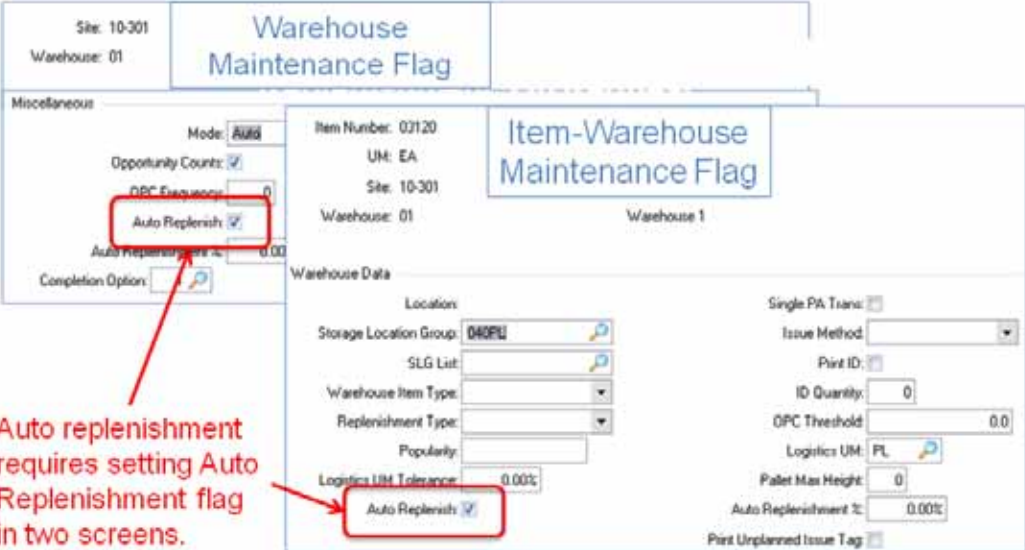
Replenishment is also used for restocking automated equipment. In this example, a carousel is used for picking from slot 1 at the bottom to slot 8 at the top. To improve picking productivity, restocking these locations is typically done after/before the picking process, perhaps during 2nd or 3rd shift.

Several customers use automated storage equipment interfaced to QAD Warehousing. For example, above is a picture of a customer's carousel picking module.

Auto-Replenish Flags Set in Two Places

Auto Replenish flags set in two places

Replenishment



Site: 10-301
Warehouse: 01

Warehouse Maintenance Flag

Miscellaneous

Mode: **Auto**

Opportunity Counts:

DPC Frequency:

Auto Replenish:

Auto Replenish %:

Completion Option:

Item Number: 02120
UM: EA
Site: 10-301
Warehouse: 01

Item-Warehouse Maintenance Flag

Warehouse 1

Warehouse Data

Location:

Storage Location Group: **D40PE**

SLG List:

Warehouse Item Type:

Replenishment Type:

Popularity:

Logistics UM Tolerance:

Auto Replenish:

Single PA Trans:

Issue Method:

Print ID:

ID Quantity:

DPC Threshold:

Logistics UM: **PL**

Palat Max Height:

Auto Replenishment %:

Print Unplanned Issue Tag:

Auto replenishment requires setting Auto Replenishment flag in two screens.

QAD

WH-REP-QAD

Did You Know

Replenishment is either a manual or automatic process.

A manual replenishment request is activated using Replenishment Request.

Automatic Replenishment occurs as soon as the system issues inventory and stock drops below the minimum level. When this happens, a replenishment task is created.

Auto replenishment is set in two places: Warehouse Maintenance and Item-Warehouse Maintenance. You need to set it in both places. If you only set it in one of the two places, replenishment does not work.

Overpick Replenishment

Overpick Replenishment

Overpick Replenishment...

- Allows operators to put-back inventory that does not fit in the pick location
- Helpful when you are not certain how much will fit in a location
- Overpicking is more common in Wave Planning/Replenishment
- Zone or Transaction Type Maintenance



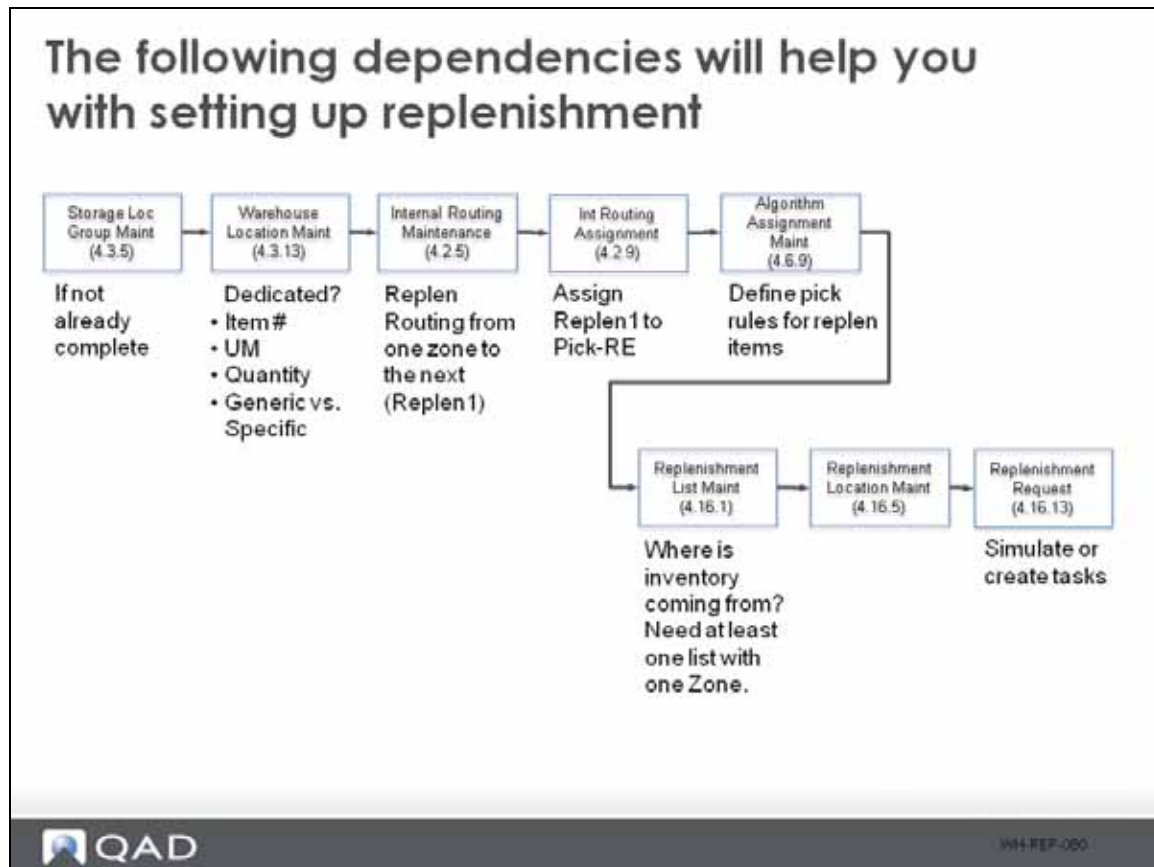
WH-REP-070

Warehouse staff can select a multi- or single-item pallet from the reserve zone and replenish one or multiple locations from the pallet in the picking zone. After staff replenish, they can return the remainder on the pallet to the reserve zone.

You can up a user (or a user cart) as a location. For example, in QMI, User A also is a location. You set this in Warehouse Location Maintenance when you enter the user ID as part of the location's parameters.

Overpicking inventory then stays with the user location, until the user drops off the inventory.

Dependencies that Help with Replenishment Setup

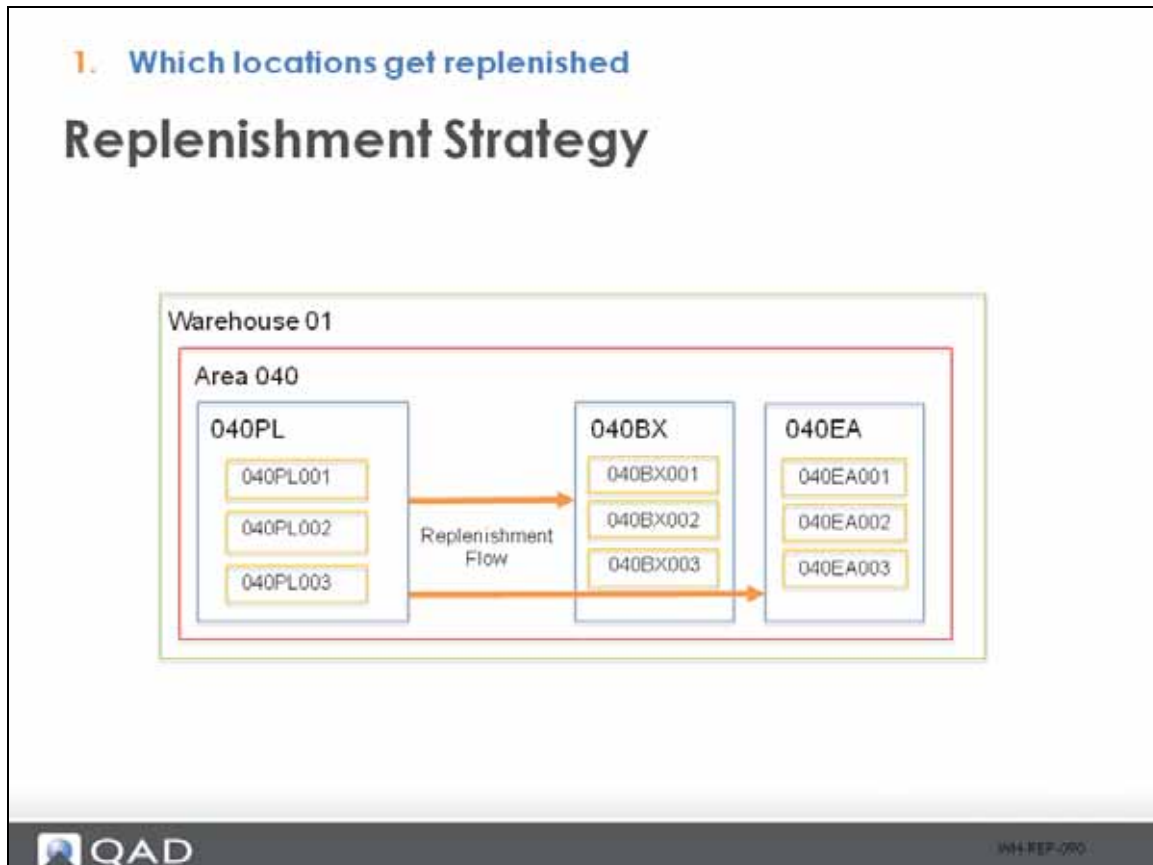


The graphic above shows which programs you use in the setup for replenishment. Under each program, the graphic shows the considerations you need to make when you enter the programs.

The following are questions to consider when defining your replenishment strategy:

- Which locations gets replenished?
- Where does replenishment inventory originate?
- How is replenishment inventory managed? (FIFO, control, capacity)
- Which items and capacities?

Which Locations Get Replenished



First define forward pick and reserve storage locations.

Typically, each zone (040BX and 040EA) is replenished from one reserve storage zone (040PL) to minimize product touches; however, it is possible to setup replenishment of zone 040BX from 040PL and zone 040EA from zone 040BX using Replenishment List Maintenance.

Which Locations Get Replenished - IR Maintenance

1. Which locations get replenished

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01RPL

Description: Replenishment

Sequence: 10 Internal Routing Group: 040

Transaction Create

Confirmed at Source: Task: TRANSFER

System Code: RF Priority: 10

Two Phase: Increment: 1

Keep From Status:

Transaction Confirmation

From Location Option: 0 To Location Option: 0

From Item Option: 0 To Item Option: 0

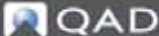
From Lot/Serial Option: 0 To Lot/Serial Option: 0

From Reference Option: 0 To Reference Option: 1

Allow Quantity Increase: Alternative UM Option: 13

Allow Quantity Decrease:

Quantity Change Option: 0

 WH-REP-100

Next, define a replenishment material flow (01RPL) using Internal Routing Maintenance. Replenishment inventory stays in the same area so the internal routing has one sequence.

Which Locations Get Replenished - IR Assignment Maintenance

1. Which locations get replenished

Int Routing Assignment

Transaction Type: PICK-RE
Site: 10-301
Warehouse: 01
Item Number:
Warehouse Item Type:
Address:
Custom:
Internal Routing: 01RPL
Custom Program:

QAD WH-REP-110

Use the defined replenishment internal routing for replenishment tasks (PICK-RE). Once the replenishment material flow is defined, 01RPL, assign the routing to a transaction, PICK-RE.

Which Locations Get Replenished - Warehouse Location Maintenance

1. Which locations get replenished

Warehouse Location Maintenance

Site: 10-301
Location: 040B:001

Distribution Site 1

Box pick locations are sized for 100 boxes regardless of item number

Item Number	UM	Quantity	Height	Length	Width
	BX	100.0000			

QAD WH-REP-120

Then, specify which locations get replenished in Warehouse Location Maintenance. Box pick locations (040BX) are sized for 100 boxes, regardless of the item number.

Where Does Replenishment Inventory Originate?

2. Where does replenishment inventory originate

Replenishment List Maintenance

Site: 10-301 Distribution Site 1
Description: Standard Replenishment

Replenishment List: 01RPL001
Comments:

Replenishment List Details

Seq	Warehouse	Description	SLG	Description
10	01	Warehouse 1	040PL	Pallet storage

QAD

WH-REP-100

Did You Know

A replenishment list defines a list of zones where the system looks for inventory to use for replenishment.

Next, define the zones and sequence the system uses to search for inventory to replenish to the forward pick locations.

The above example links a replenishment list to a location in Replenishment Location Maintenance or Replenishment SLG Maintenance.

The standard replenishment strategy picks inventory from the reserve storage bulk pallet zone (040PL).

In the graphic above, the replenishment list always looks in the pallet storage area.

There are four frames and seven fields in Replenishment List Maintenance used for configuration.

How is Replenishment Inventory Managed?

3. How is replenishment inventory managed

Algorithm Assignment Maintenance

Algorithm Type: PK
Site: 10-301
Item Number:
Address:

Transaction Type: PICK-*
Warehouse: 01
Warehouse Item Type:
Custom:

Assigned Algorithms

Seq	Algo	Description
10	9	Pick by Level by Location

QAD WH-REP-140

Next, use Algorithm Assignment Maintenance to define a specific pick strategy for selecting replenishment (PICK-RE) inventory or use a generic pick strategy (PICK-*).

In this example, the same pick rules are used for replenishment picks as well as order picks, 9: Pick by Level by Location.

Which Items and Capacities Get Replenished?

4. Which items and capacities get replenished

Replenishment Location Maintenance

Site: 10-301

Location: 040BX001

Item Number: 03210

Replenishment Type:

Start Date:

End Date:

Replenishment UM: BX

Replenishment Point: 10.0

Maximum Quantity: 110.0

Replenishment List: 01RPL001

Max = 110 Bx

ROP = 10 Bx

040-BX-001

DYK:
Location and Replenishment Point are required. Maximum Quantity is optional.

QAD

WH-REP-151

When configuring Replenishment Point and Maximum Quantity, consider the location might not be completely empty when the replenishment occurs. For example, if you replenish with a full pallet, you might need to size the location (Maximum Quantity) of a full pallet plus one extra row.

In this example, you are setting up a specific location to be replenished with a specific item. This is also known as a dedicated location. You can also setup multiple forward pick locations for the same item. This is common when you want to have more than one location to pick an item and avoid congestion at a single location. Or, some companies use the same item in multiple work centers, and hence, they stock the item in multiple locations. You can still use kanban replenishment for the item even when you have a dedicated replenishment location.

Did You Know

Replenishment Point and Location are required. Maximum Quantity is optional.

Replenish Random Locations in a Zone

4a. Which items and capacities get replenished

You can replenish random locations in a zone

Replenishment SLG Maintenance

Site: 10-301
Warehouse: 01
Storage Location Group: 040BX
Item Number: 03210

Replenishment Type:
Start Date:

End Date: []

Replenishment UM: EA
Replenishment Point: 0.0
Maximum Quantity: 100.0
Replenishment List: 01RPL001

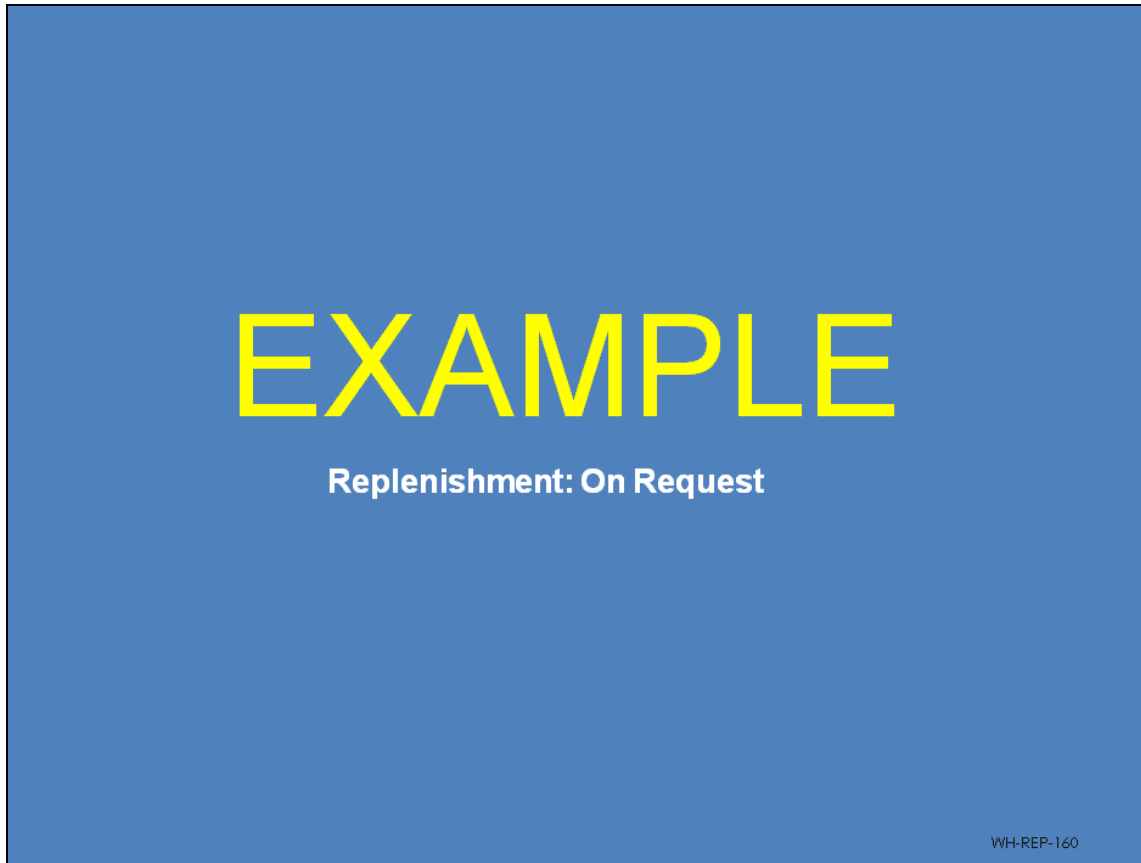
You can setup a Zone replenishment with random vs. dedicated locations.

QAD WH-REP-210

The alternative to a replenishment location is a replenishment zone (SLG). The only difference is in zone replenishment, you are not specifying a location for the item, only that the item must be in any location within the zone. Using zone replenishment will not allow for multiple pick locations within the zone but you could have the same type of location in multiple zones.

If both replenish location and replenish SLG are in use, the replenish Location takes priority; however, best practice is to replenish by location or zone, not both.

Example



Replenishment can either occur automatically or on demand. On demand is used when you prefer replenishment is managed on an off shift.

Manual Replenishment

Manual Replenishment

Replenishment Request

Site: 10-301
Warehouse:
Internal Routing Group:
Storage Location Group:
Location:
Item Number:
Replenishment Type:

To:
To:
To:
To:
To:
To:

Item/Location Replenishment:
Items/Storage Location Group Replenishment:
Create Transactions:

Include Area below Replenishment Point: 100

Effective Date: 8/19/2011
Output:
Batch ID:

QAD WH-REP-170

Did You Know

You can simulate replenishment activities or check the Create Transactions box to initiate replenishment transactions.

To generate replenishment tasks on demand, make sure the Create Transaction box is checked before executing the Replenishment Request menu.

Replenishment Request Triggers a Product Move

Replenishment Request triggers a product move

Pending Replenishment



Inventory Detail Inquiry 08/19/11

Site: 10-301 Item Number: 03120 Display Wlse Loc: No
Warehouse: Lot/Serial: Disp Non-Wlse Loc: No
Location: Reference: Output: PAGE

Warehouse: 01 Warehouse 1

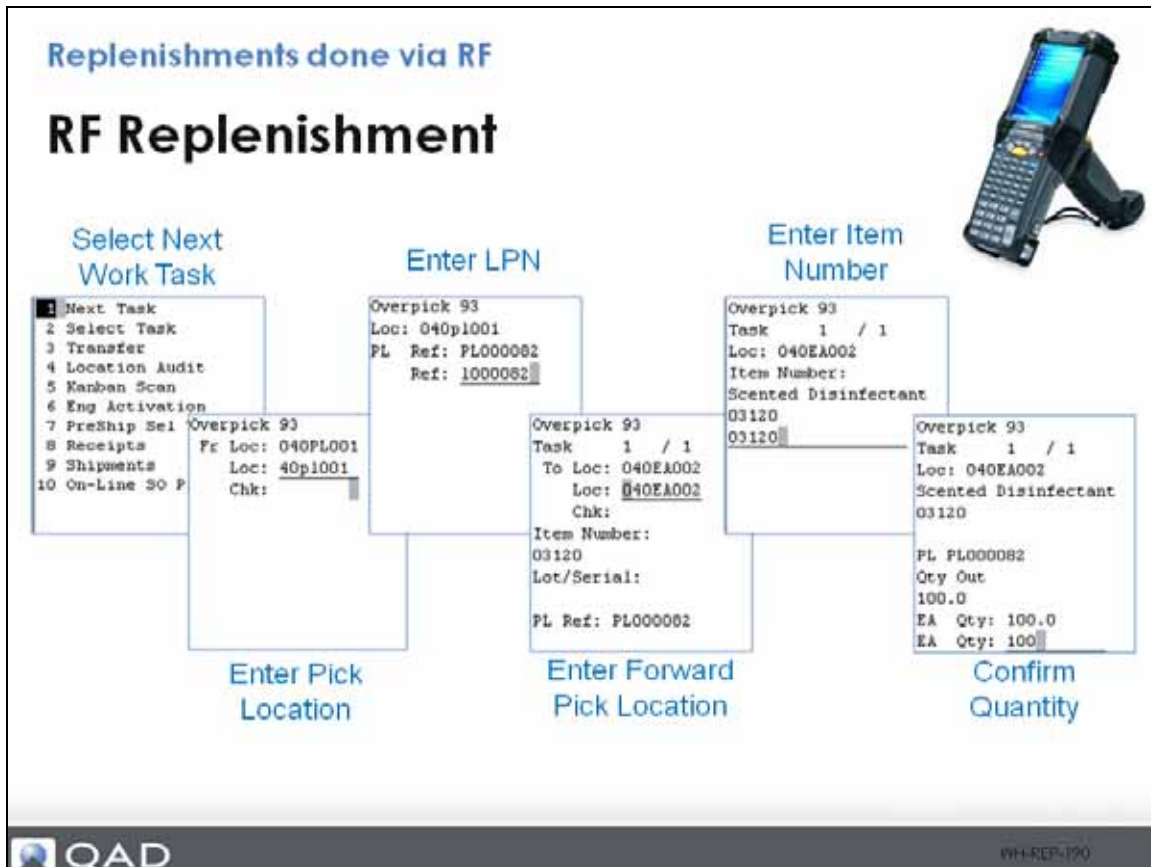
Location	Status	Qty	Qty	Expect	Expect	Detail	Detail
Lot/Serial	Ref	UM	On Hand	In	Out	Alloc	Pick
040BX001	Y-Y-N	EA	100				
	PL000072	PL					
040BX001	Y-Y-N	EA	100				
	PL000075	PL					
040BX001	Y-Y-N	EA	100				
	PL000076	PL					
040EA002	Y-Y-N	EA		100			
	PL000082	PL					
040EA004	Y-Y-N	EA	90				
	PL000080	PL					
040PL001	Y-Y-N	EA	100				
	PL000082	PL					

QAD VH4-REP-180

Once the replenishment tasks are released, check the pending tasks using Inventory Detail Inquiry. In this example, a full pallet is being transferred from 040PL001 to the 040BX002 forward pick location.

As a general rule, items in forward pick locations do not have a reference number (that is, PL000072, 75, 76, 80 and 82). Items in forward pick are typically tracked by the location address. To let this happen, when you set the second sequence in the internal routing To Reference field to 1 (one), the LPN is blanked when the item is moved to a forward-pick location.

Replenishment Via the RF



When replenishment pick tasks are created and released, warehouse staff can use the RF device, using Next Task (RF1.1) to complete the transaction.


Staff can use the overpick replenishment to pick for the replenishment. They can scan the source location, then scan the pallet number, shown as the Ref field in the graphic above.

To replenish a bin, scan the destination location, then scan the items, then enter the quantity that fits into the location, attempting to completely fill the location.

Replenishment Complete

Completed Replenishment

Replenishment Complete




Inventory Detail Inquiry

Site: 10-301 Item Number: 03120 Displ
Warehouse: Lot/Serial: Disp N
Location: Reference:

Warehouse: 01 Warehouse 1

Location	Status	Qty	Qty	Expect	Expect
Lot/Serial	Ref	UM On Hand	Alloc	In	Out
0408X001	Y-Y-N PL000072	EA PL	100		
0408X001	Y-Y-N PL000075	EA PL	100		
0408X001	Y-Y-N PL000076	EA PL	100		
040EA002	Y-Y-N PL000082	EA PL	100		
040EA004	Y-Y-N PL000080	EA PL	90		

 WH-REP-200

Once the replenishment is complete, use Inventory Detail Inquiry to check that replenishment completed. Check the Qty On Hand column for the locations replenished.

Implementation Consideration

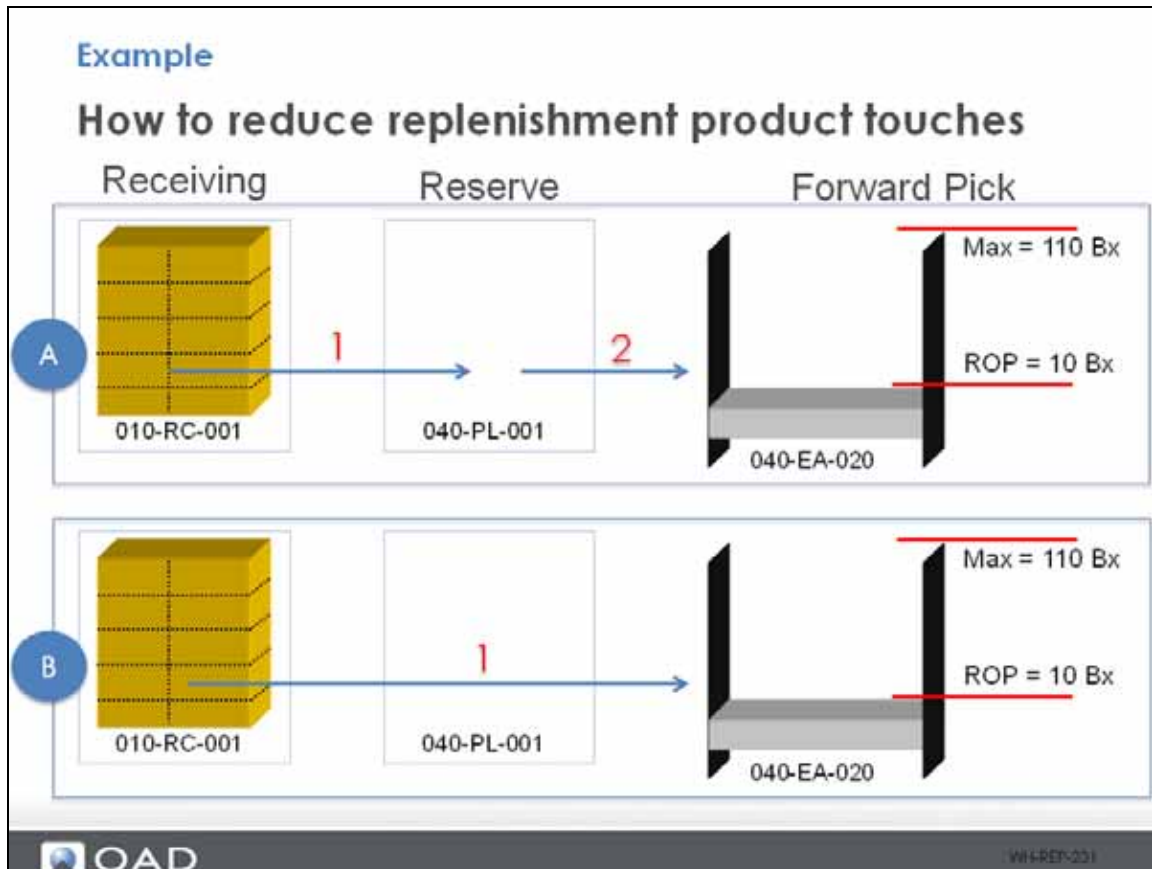
Implementation Consideration

Can you put product away direct to a forward pick location to avoid a replenishment move?

WH-REP-230

Yes, QAD Warehousing can be configured to support this process; however, this creates inventory rotation issues and complications if FIFO is preferred.

Example - Reducing Replenishment Product Touches



If FIFO is not a concern, consider filling forward pick locations during put-away. This can eliminate a material handling move.

To make this happen, setup the following:

- 1 Setup an SLG list (10 = 040EA, 20 = 040PL); then, search first the FP locations then reserve storage.
- 2 Assign the SLG list to the item in Multi-Level Item Maintenance.
- 3 Dedicate an item and associated capacity quantity to each forward pick location using Warehouse Location Maintenance.
If the location does not have a dedicated item, any item is stored there when the zone is considered for a put-away. (All locations in the zone need to be dedicated to an item.)
- 4 Setup the put-away algorithm with 101, 102, 1, 1 (Empty dedicated location merge with part in dedicated, empty storage location, any location).
- 5 Set Zone Optimization to Yes for all forward pick zones using the SLG,

Done properly, this fills the forward pick locations to capacity and moves the remainder to reserve storage. This also works in sequential order with multiple forward pick zones (that is, Box and Each).

Example - Consider Filling Forward Pick Locations

Example
Consider filling forward pick locations during product put-away

Inventory Detail Inquiry

Algorithm Type: PA
 Site: 10-301
 Item Number:
 Address:

Transaction Type: RCT-
 Warehouse: 01
 Warehouse Item Type:
 Custom:

Assigned Algorithms:

Seq	Algo	Description
10	101	Empty Dedicated Storage Locations
15	102	Dedicated Storage Locations - Merge with Item
20	2	Empty Storage Locations
30	1	Storage Locations

Change Put-Away rule to first look for space in forward pick location before looking in reserve storage.

1. Case Pick
 2. Each Pick
 3. Reserve

Inventory Detail Inquiry
 Forward Pick Capacity = 100 EA

Site: 10-301 Item Number:
 Warehouse: Location: Lot/Serial: Reference:
 Warehouse: 01 Warehouse 1

Location	Item	Status	Qty	Expect	Expect
	Lot	Ref	On Hand	In	Out
010RC001	03121	Y-Y-N	EA	90	90
040BX004	03121	PL000250	EA	85	15
040EA020	03121	PL000247	EA	60	40
040PL001	03121	PL000250	EA	35	35

QAD
 V19-RFP-232

Notice in the graphic above, the put-away algorithm is set to fill dedicated locations first. The SLG list is setup to scan in the following order: 040EA, 040BX, 040PL.

Item 03121 is dedicated to each pick location 040EA020 and case pick location 040BX004. Both each and box locations have capacity of EA = 100, so both locations have capacity.

When you receive 90 each of item 03121, QAD Warehousing first looks at location 040BX004 and fills 15. Next, it looks at location 040EA020 and fills 40. The excess is moved to reserve storage.

This effectively keeps the forward pick locations full and reduces replenishment activity.

Key Learning Points

QAD Warehousing Replenishment

Key Learning Points

- QAD Warehousing supports all replenishment best practices
- Have a clearly defined replenishment strategy
- Replenishment is an advanced strategy but can significantly improve performance
- You can replenish specific locations or general Zones or use Kanban Replenishment



WH-REP-270

Exercises - Set Up and Execute Replenishment

Exercise

Set Up and Execute Replenishment

- Confirm Forward Pick Location
- Set up replenishment routing
- Assign transaction to replenishment routing
- Define the zones for replenishment inventory
- Define replenishment picking rules
- Set up parameters for locations
- Generate replenishment tasks



WH+REP-201

The following topics walk you through a replenishment exercise in which you set up and execute replenishment within the warehouse. You should have completed exercises in the Introduction and the Receiving topics before starting this exercise.

Exercise - Confirm Forward Pick Location Setup

Exercise

Confirm Forward Pick Locations

- Use Warehouse Location Maintenance to verify forward pick locations exist
- Or, use Warehouse Location Report to verify locations

The screenshot shows a software window titled "Warehouse Location Report". At the top, there is a menu bar with options: "Go To", "Actions", "Copy", "Print", "Preview", and "Attach". Below the menu bar, there are several input fields. On the left side, there are three fields labeled "Site", "Warehouse", and "Location". On the right side, there are three fields labeled "To:". To the right of these fields, there is a label "Output Batch ID:".

With most items picked in each quantities, setup a reserve storage and forward pick strategy.

- 1 Confirm the Forward Pick locations are setup per a previous exercise; refer to the warehouse location setup exercises in the Introduction.
- 2 Or, you can run a report on warehouse locations and use report criteria to display forward pick locations.

Note The forward pick is the Eaches storage locations; reserve storage is the pallet storage locations.

Exercise - Set Up Replenishment Routing

Exercise

Set Up Replenishment Routing

The screenshot displays the 'Internal Routing Maintenance' window. The main area shows a diagram of a warehouse layout with three vertical zones: 'Area = Receiving', 'Storage', and 'Shipping'. A horizontal line labeled 'Replen' with 'Internal (Area) Flow' below it spans the width of the 'Storage' zone. The left side of the diagram is labeled 'INBOUND' and the right side is labeled 'OUTBOUND'. The background shows the 'Internal Routing Maintenance' form with fields for Site, Warehouse, Internal Routing, Description, Sequence, Internal Routing Group, and various transaction options.

The system replenishes from pallet storage zone (reserve) locations to each storage zone (forward pick) locations. This is an internal (area) flow and requires only one sequence. Create a replenishment routing using the following:

- 1 Use Internal Routing Maintenance to create the replenishment routing. Specify data for the fields as presented in the table; otherwise, enter your own data and jot down your entered data here.

Field	Data Entered
Site	10-301
Warehouse	
Internal Routing	
Description	Replenishment
Sequence	10
IRG	
To Reference Option	1
Alternate UM Option	13

Notes

- Setting the To Reference Option to 1 removes the LPN reference from the load. If forward pick locations, the location address is the identifier. Setting Alternative UM Option to 13 reports the item measurement in the zone unit of measure, in this case, EA.

Exercise - Assign a Transaction to the Replenishment Routing

Exercise
Assign a Transaction to the Replenishment Routing

Int Routing Assignment Maint

Go To Actions Copy Print Preview

Transaction Type:

Site:

Warehouse:

Item Number:

Warehouse Item Type:

Address:

Custom:

Internal Routing:

Custom Program:

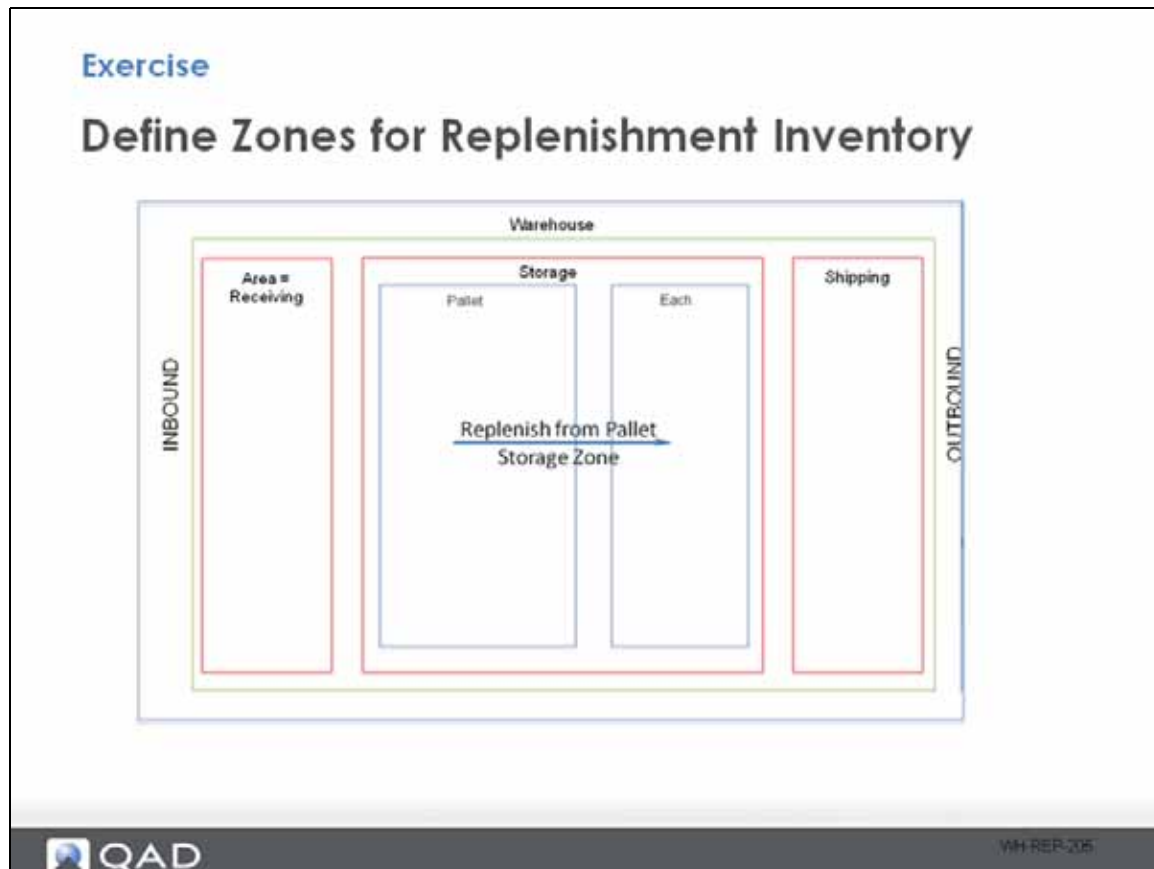
QAD W14-REP-004

When a replenishment pick task is created, it follows the replenishment routing.

- 1 Assign the Replenishment routing to a generic replenishment pick transaction type using Int Routing Assignment Maintenance. Use the table below to enter data for fields. Fill in the details here:

Field	Data Entered
Transaction Type	PICK-RE
Site	10-301
Warehouse	
Internal Routing	

Exercise - Define Zones for Replenishment Inventory



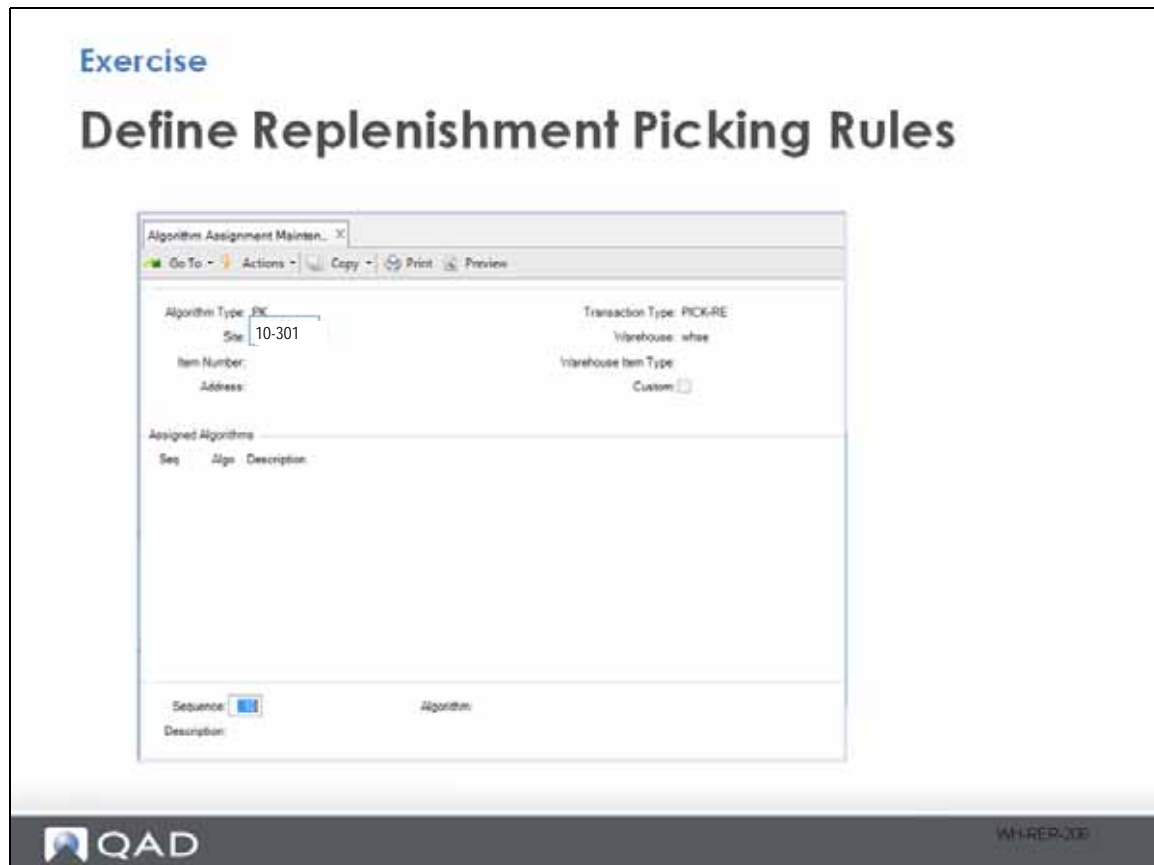
You define which zones the system uses for replenishment inventory using Replenishment List Maintenance.

Establishing a replenishment list allows you to define which zones are used for replenishment inventory in priority sequence.

- 1 Use Replenishment List Maintenance to define the zones and priority for replenishment inventory. For QMI, all inventory is replenished from the Pallet storage zone. Use the following table to find the fields for which you enter data. Fill in the details here:

Field	Data Entered
Site	10-301
Replenishment List	
Description	Replenishment
Seq	10
Warehouse	
Storage Loc Group	

Exercise - Define Replenishment Picking Rules



QMI management has a FIFO inventory preference.

Use Algorithm Assignment Maintenance to define picking rules for replenishment inventory. Use the table below to determine which fields to use and mandatory data to enter. Fill in the details here for other fields.

Field	Data Entered
Algorithm Type	PK
Transaction Type	Pick-RE
Site	10-301
Warehouse	
Sequence	10
Algorithm	11

Exercise - Set Up Replenishment Parameters for Forward Pick Locations

Exercise
Set Up Replenishment Parameters for Forward Pick Locations

Location →	1.	2.	3.	4.	5.	6.
Site	10-301	10-301	10-301	10-301	10-301	10-301
Item Number	03120	03121	03210	03240	03130	03110
Warehouse						
Replenishment UM	EA	EA	EA	EA	EA	EA
Replenishment Pt	10	10	10	4	50	100
Maximum Quantity (optional)	100	100	100	40	500	1000

Percent Full: Capacity:

QAD WINREP-2017

- 1 Define the items and replenishment points by location using Replenishment Location Maintenance. Use the table below to determine which fields to use and mandatory data to enter. Fill in the details here for other fields.

Location →	1	2	3	4	5	6
Site	10-301	10-301	10-301	10-301	10-301	10-301
Item Number	03120	03121	03210	03240	03130	03110
Warehouse						
Replenishment UM	EA	EA	EA	EA	EA	EA
Replenishment Pt	10	10	10	4	50	100
Maximum Quantity (optional)	100	100	100	40	500	1000
Replenishment List						

Exercise - Generate Replenishment Tasks

Exercise

Generate Replenishment Tasks

Replenishment Request
Go To Actions Copy Print Preview Attach

Site:

Warehouse:

Internal Routing Group:

Storage Location Group:

Location:

Item Number:

Replenishment Type:

To:

To:

To:

To:

To:

To:

To:

Item/Location Replenishment:

Item/Storage Location Group Replenishment:

Create Transactions:

Include Area below Replenishment Point:

Location	Item	Quantity	LPN
1.			
2.			
3.			
4.			
5.			

WM REP-200

With the current setup, you generate replenishment tasks manually using Replenishment Request. Enter your site and warehouse, and select Create Transactions to generate available replenishment tasks.

- 1 Review Inventory Detail Inquiry to observe pending replenishment tasks.
- 2 Use Movement Confirmation Workbench to complete open move tasks.

When done correctly, new inventory positions are in the forward pick locations, and inventory is decremented from the reserve pallet storage locations. Fill in the details here:

	Location	Item	Quantity	LPN
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				


When this exercise is correct, new inventory positions are in the forward pick locations and inventory is decremented from the reserve Pallet storage locations.

Also, note several of the inventory positions do not have an LPN. Do you know why?

Bonus Coverage: Line Slide Replenishment

Bonus Coverage: Line Side Replenishment

QAD Warehousing Supports Point of Use Replenishment



Warehouse 01

Area 040

Area 050

QAD

WH-REP-240

Many customers use QAD Warehousing to support replenishment of inventory to a manufacturing operation or to a kitting process within the warehouse. Many times, required component inventories are stored at the production line or work center. Getting the inventory from warehouse storage to the production inventory location is commonly called *line-side replenishment*.

When the customer is using work orders, the component inventory is not system issued until the receipt of the end items and a backflush executes. During this process, it is possible to run out of component stock before QAD Warehousing is aware of the inventory requirement.

For these instances, QAD Warehousing lets you generate an inventory replenishment on-demand (manually) using RF Kanban Scan (1.5). Kanban Scan is also available when specific items are not automatically picked by warehouse operators. Kanban Scan is also helpful when an item is used only occasionally during a process, and you do not want to permanently stock inventory in a specific location.

Line Side Replenishment (Continued)


Bonus Coverage: Line Side Replenishment

QAD Warehousing Supports Point of Use Replenishment

Item Number: 03130	Pump, Unscented
UM: EA	Disinfectant
Site: 10-301	Distribution Site 1

Site Data and Default Warehouse Data

Location: 010RC001	Single PA Trans: <input type="checkbox"/>
Warehouse Item Type:	Issue Method: <input type="text"/>
Replenishment Type: <input type="text"/>	Print ID: <input type="checkbox"/> ID Qty: 0
Popularity: <input type="text"/>	OFC Threshold: 0.0
Default Kanban Quantity: 0.0	Kanban Replenishm: 01RPL001

 WH-REP-250

Each item to be replenished using kanban scan requires an assigned replenishment list. Optionally, you can assign a default kanban quantity that the system automatically populates to the RF screen when a kanban scan is requested for the item. When a default kanban quantity is assigned, you can override the kanban quantity when the request generates

Line Slide Replenishment (Continued)

Bonus Coverage: Line Side Replenishment

QAD Warehousing Supports Point of Use Replenishment

RF 1.5

Item Number: 03130
 Kanban Quantity: 100 EA
 Destination: 1060
 Repl complete

RF 1.1

Transfer 59
 Fr Loc: 040P008
 Loc: 040P008
 Chk:

Transfer 59
 Loc: 040P008
 EA Ref: PLO00101
 03130
 Qty: 100.0
 Qty: 100.0

Transfer 59
 To Loc: 1060
 Loc: 1060
 Chk:
 EA Ref: PLO00101
 Item Number: 03130
 Lot/Serial:

Inventory Detail Inquiry

QAD

Site: 10-101 Item Number: 03130
 Warehouse: 01 Lot/Serial:
 Location: Reference:

Location Lot/Serial	Status Ref	Qty On Hand	Qty Alloc	Expect In	Expect Out
040P008	Y-Y-N EA PLO00102	100			
040P008	Y-Y-N EA PLO00103	100			
1060	Y-Y-N EA PLO00101	100			

QAD WARE-REP-000

Create the replenishment task:

- 1 Using the Kanban Scan menu (RF1.5) enter the item number, quantity and destination location.
- 2 Process the replenishment task.
- 3 Back out of RF1.5 (or process as a different user) and enter the Next Task menu (RF1.1). Confirm the replenishment pick location.
- 4 Confirm the Reference number and quantity.
- 5 Enter the destination (drop) location.
- 6 Review the new inventory positions.

Questions

- 1 True or False. Replenishment is an optional configuration.
- 2 Replenishment can be defined by _____ or _____.
- 3 What is bulk reserve storage typically used for in a warehouse?
- 4 Replenishment is used in conjunction with a _____ storage and _____ pick strategy.
- 5 When the replenishment is generated, where does the system look for the replenishment flow to follow?
- 6 Replenishment is similar to _____ or _____ in manufacturing terms.

Answers

- 1 True. Replenishment is an optional configuration.
- 2 Replenishment can be defined for an location or zone.
- 3 Bulk Reserve storage is for larger unit loads (pallets).
- 4 reserve, forward
- 5 When the replenishment is generated, the system looks for the flow shown in the internal routing, defined in Internal Routing Maintenance.
- 6 kanban, re-order point

Notes

Chapter 4

Picking

Overview

QAD Warehousing Picking

QAD Warehousing

Field Readiness Team



 QAD


Our Passion. Your Advantage.

Objectives

QAD Warehousing Picking

Objectives

- Functional Fit
- Understand Picking Concepts
- Setup Picking
- Pick Orders






 QAD WH-PK-020

There are extended picking features in QAD Warehousing that are not available in QAD EE.


Functional Fit: Picking


What we don't do so well

Functional Fit: Picking

Functionality	Fit	Notes
Pick & Pass across zones		
Voice-directed		Could support SDK
Display special pick instructions on RF		
Unpick option		
Cartonization		

Legend

 Partial

 None

QAD VM-PICK-1231

Pick and pass lets users pick items, for example to a box, then put the box onto a conveyor belt and pass it on to another picker who would add other items to the box.

Voice detection systems let users put a headset on the RF device, then listen to instructions on which location to report and pick. This is also known as hands-free picking.

Unpick options let staff remove items from a pick, for example when orders are cancelled.

Cartonization lets staff know the correct size of carton or box to use for the pick because they know ahead of time if the items to be picked fit into the box or item.

QAD Inventory Control Versus QAD Warehousing

QAD Inventory Control vs. WMS	
QAD Inventory Control	QAD Warehousing
One picking logic	Multiple picking logics per transaction type, item, item type, and/or warehouse
Entire site is considered	Picking by warehouse(s)
Pick only by date, expiry date, location OR lot	Pick by area, then by date, expiry date, and/or location
No splitting pallets/cases	Pick by full pallet, split pallets or boxes, SKU, optionally with overpicking
No RF picking	RF picking: <ul style="list-style-type: none"> • Normal picking • Bulk picking • Batch picking

QAD Warehousing offers more configurable picking options than standard QAD core.

Discrete, Bulk, and Batch

Discrete, Bulk and Batch

Types of Picking

- Discrete = One Order
- Batch= Multiple Orders, Sort on a Pick (aka Cluster)
- Bulk = Multiple Orders, Sort Later (aka Batch)

DYK:
 Discrete is used for single order
 picks, bulk and batch are for
 multiple order picks


WH-PICK050

Did You Know

Discrete is used for single order picks, bulk and batch are for multiple order picks.

Discrete picking is typically one order, system-like picking that does not include mechanisms to shorten picking or travel time.

In bulk picking, the orders that can be collected to form a bulk pick are sales, distribution, and works orders. These bulk picks accumulate the items together, and, using the defined picking rules, issue the instructions to the staff to pick the stock. The total item quantity is picked and sorted to individual orders during a subsequent step.

Batch picking lets warehouse staff pick items in a more efficient way. Batch picking reorders the order-picking sequence and tasks so warehouse staff can pick multiple items from multiple orders at various locations throughout the warehouse with a shortened travel sequence. The items are sorted to the individual orders during the pick process.

As a general rule, smaller warehouses use discrete order picking while higher volume (based on number of order picked) warehouses take advantage of batch picking. Bulk picking is used to a lesser degree.

Can You Split Unit Loads?

Can you split unit loads?

Picking Properties



Split = No

Split = yes

 QAD WH-PIK-050

Did You Know

Splitting containers allows you to pick a less than full pallet, case, or box quantity.

QAD Warehousing lets you decide whether warehouse staff can split a unit --a container, box, or pallet --when picking inventory from a location. This is useful and may help you complete orders more efficiently. For example, you might want sales orders to be picked in whole packaging quantities from Bulk Storage, but then require whole packages be split in a Repackaging area.

Can You Overpick?

Can you over pick?

Picking Properties

Over pick= yes

Over pick= No

Customer Order: 130 EA

1PL = 100 EA

QAD

WI-PK-020

Did You Know

Over picking allows you to pick more inventory than what is specified on the pick task.

Over picking works in conjunction with split picking for better control. For example, when the quantity required for the pick does not match the unit of measure in which the item is stocked in the location, you can combine over picking and container splitting to pick the right amount.

Over pick is used mostly with replenishment.

Picking Levels Define Pick Zones

Picking Levels define pick zones

Picking Properties

Warehouse Start Picking Level: 10 End Picking Level: 30

Picking Level: 10 Picking Level: 20 Picking Level: 30

Picking Level: 40 Picking Level: 50

QAD Wh Pk:000

Did You Know

Picking levels are used to determine the zone priority for selecting inventory.

QAD Warehousing lets you assign a picking level to each zone. You can set default start and end picking levels in Warehouse Maintenance or by using Warehouse Transaction Type Maintenance. These start and end settings determine the picking levels to be used for the pick. The system then looks for inventory in the storage location groups that correspond to the specified range of picking levels. In addition to specifying a start and end picking level, you can specify whether all picking must be taken from only one picking level.

Picking levels define which storage location groups the system should use for picking inventory.

Discrete Picking



Discrete picking is typically one order, system-like picking that does not include mechanisms to shorten picking or travel time.

Discrete Picking - One Order at a Time

Discrete picking = 1 order at a time

Discrete Picking Setup

1. Set up Areas, Zones and Locations
2. Define Zone Picking Levels
3. Assign picking levels to Zones
4. Set up Internal Routings
5. Assign picking Transaction Types
6. Assign Algorithms to the picking transaction types



WH-PK-100

Follow these steps to enable discrete picking:

- 1 Use Work Location Group Maintenance to set up WLGs or zones and use Warehouse Location Maintenance to set up locations.
- 2 Use Warehouse Maintenance to set up picking levels.
- 3 Use Storage Location Group Maintenance to set up picking levels for zones
- 4 Use Internal Routing Maintenance to set up routings for picking functions.
- 5 Use Internal Routing Assignment to assign picking transaction types.
- 6 Use Algorithm Assignment Maintenance to assign algorithms to the transaction types.

Set Up Storage and Picking Area

1. Setup a storage and picking Area...

Internal Routing Group Maintenance

Site: 10-301
Warehouse: 01
Internal Routing Group: 040
Description: Storage
Functional:

SLG Default Values:

- Allow Issues:
- Allow Receipts:
- Allow Outgoing Returns:
- Allow Incoming Returns:

01
Receive (010)
010RC
010RC001
Storage (040)

QAD WHPK-110

Use Internal Routing Group Maintenance to set up a non-functional storage area. This area has multiple zones for picking.

Set Up Different Zones by Material Handling Type

Set up different zones by material handling type...

Storage Location Group Maintenance

Internal Routing Group	Storage Location Group	Description	Exclude from Picking	Picking Level	Over Pick
010	010RC	Receipts			
040	040PL	Pallet storage			
040	040BX	Boxes SLU	<input checked="" type="checkbox"/>	0	
040	040EA	Pick face storage			<input checked="" type="checkbox"/>

QAD WH-PIK-120

Use Storage Location Group Maintenance to set up picking levels and other picking parameters.

In this example, there are three zones:

- One for reserve (bulk) storage, 040PL
- One for box storage and picking, 040BX
- One for each storage and piking, 040EA.

Note the picking level of the zones:

010RC = 0

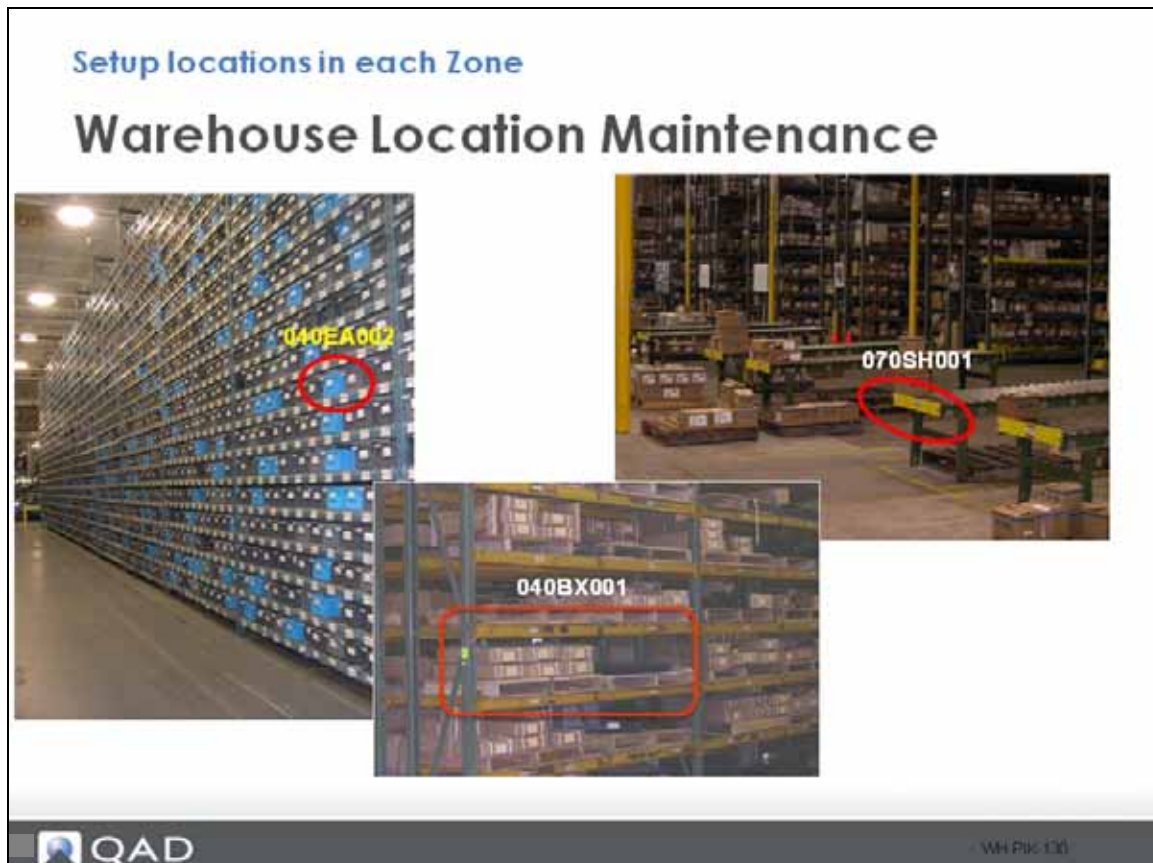
040PL = 10

040BX = 20

040EA = 30

Pick level relevance is discussed later in this section.

Set Up Locations in Each Zone



Locations should also be setup in each zone using Warehouse Location Maintenance.

Define Which Zones are Available for Picking

2. Define which Zones are available for picking

Warehouse Maintenance

Site: 10-301
Warehouse: 01

Picking

Start Picking Level: 10 End Picking Level: 30

Single-Level Picking: Flav C Hard/Soft: Hard

Max Trans Assign: 0 Multi-Bin Pick Flavor C Sort: 0

Def ID Print Flav C: Allow Switch Lot Ref:

Repick Type: Expire Date (Days): 0

QAD WH PICTAD

The fields in the picking frame in Warehouse Maintenance default to the picking frame fields in Storage Location Group Maintenance. So, you can define the Zone picking parameters in Warehouse Location Maintenance that the system uses for picking inventory.

Going back to the Warehouse Maintenance menu, set up the start and end picking levels to define the range of zones the systems use to satisfy pick tasks.

These picking levels associate back to the picking level parameters setup in storage location group maintenance (Step 1).

In this example, picking starts in 040PL move to 040BX and end in 040EA if needed.

Assign Picking Levels to Zones

3. Assign Picking Levels to Zones – Links back to Warehouse Maintenance

Storage Location Group Maintenance

The screenshot displays the 'Storage Location Group Maintenance' screen for Site 10-301, Warehouse 01. It shows three storage location groups (040PL, 040BX, 040EA) under an Internal Routing Group of 040. Each group has a picking level assigned (10, 20, 30 respectively) and a pick multi UM. The picking levels are highlighted with red boxes and arrows pointing to the 'Exclude from picking' checkbox. The pick multi UMs are also highlighted with red boxes.

Storage Location Group: 040PL
Description: Pallet storage
UM: PL
Split:
Over Pick:
Pick Multi UM: PL

Internal Routing Group: 040
Allow Issues:
Allow Receipts:
Allow Incoming Returns:
Allow Outgoing Returns:
Exclude from picking:
Picking Level: 10
Over Pick:
Multi Trans:
Picking Multiple UM: PL
Detail Overflow Group:

Storage Location Group: 040BX
Description: Boxes 200
UM: Bx
Split:
Over Pick:
Pick Multi UM: Bx

Storage Location Group: 040EA
Description: Pickface storage
UM:
Split:
Over Pick:
Pick Multi UM:

QAD WH Pick (19)

Each zone has a picking level defined. Any zone with a picking level that is not between the start and end levels you specify here is not considered by the picking algorithms in this warehouse.

When setting up zones for picking, you can also setup the associated pick unit of measure (Pick Multi UM).

In this example, pallets are picked from 040PL, boxes from 040BX and each (<blank> Pick Multi UM) from 040EA.

Define Product Flow Path for Picks

4. Define product flow path for picks

Internal Routing Maintenance - Pick

Site: 10-301 Warehouse: 01 Internal Routing: 01PCK

Description: Picking
 Sequence: 10 Internal Routing Group: 040

Transaction Create
 Confirmed at Source:
 System Code: RF
 Two Phase:
 Keep From Status:
 Task: PICK
 Priority: 10
 Increment: 1

Transaction Confirmation
 From Location Option: 0
 From Item Option: 0
 From Lot/Serial Option: 0
 From Reference Option: 0
 Allow Quantity Increase:
 Allow Quantity Decrease:
 Quantity Change Option: 0

Site: 10-301 Warehouse: 01 Internal Routing: 01PCK

Description: Picking
 Sequence: 20 Internal Routing Group: 060

Transaction Create
 Confirmed at Source:
 System Code: RF
 Two Phase:
 Keep From Status:
 Task: PICK
 Priority: 10
 Increment: 1

QAD WH Pick 160

As with all other product flows, an internal routing (01PCK) is set up, linking storage area 040 to the packaging area 060 using Internal Routing Maintenance.

In QMI, all picks are routed to Packaging.

Assign Flow Paths to Picking Transactions

5. Assign flow paths to picking transactions

Internal Routing Assignment Maintenance

The screenshot shows a form for 'Internal Routing Assignment Maintenance'. The form fields are: Transaction Type: PICK-*, Site: 10-301, Warehouse: 01, Item Number:, Warehouse Item Type:, Address:, Custom: , Internal Routing: 01PCK, and Custom Program:. Red arrows point from the form fields to a list of three steps: 1. When this transaction type is created..., 2. And is associated to theses..., and 3. This material flow is initiated.

1. When this transaction type is created...
2. And is associated to theses...
3. This material flow is initiated.

QAD WH Pick 170

The pick routing (01PCK) is then assigned to the PICK-* transaction at the site and warehouse. The routing can also be based on combinations of item number, warehouse item type and address (in this example, the customer address).

Define Product Movement Rules to Use for Transaction

6. Define the product movement rules to use for the Transaction

Algorithm Assignment Maintenance

Algorithm Type: PK
 Site: 10-301
 Item Number:
 Address:

Transaction Type: PICK-*

Warehouse: 01
 Warehouse Item Type:
 Custom:

Assigned Algorithms

Seq	Algo	Description
10	9	Pick by Level by Location

QAD V11PK100

Finally, use Algorithm Assignment Maintenance to define the picking rules for the PICK-* transaction.

In this example, when any pick task is created, the system picks by level, then location. This means the zones are prioritized by the Picking Level field (10, 20, 30) then within each zone, locations are searched in descending alpha-numeric sequence.

Example - Set Up and Execute a Discrete Pick

Example

Setup and execute a discrete pick

- Create an order and run pick-list or pre-shipper
- Use RF to pick orders
- Review what happens as items are picked
- Review inventory positions post pick


Example - Discrete Picking

Example: Discrete Picking

Create a sales order for 126 each, 03120

Sales Order Maintenance

Header						
Order:	WMS-501	Sold To:	10C1005	Ln For:	Single	Org:
Sales Order Line						
Ln	Item Number	Qty Ordered	UOM	List Price	Discount	Net Price
1	03120	126.0	EA	3.25	0.0	3.25



QAD WHPIC-300

In this exercise, you use Sales Order Maintenance to create a sales order for 126 each for item 03120.

This lets you test picking unit of measure quantities by zone:

- 1 pallet (100 each) from 040PL
- 2 boxes (20 each) from 040BX
- 6 eaches from 040EA

Example - Discrete Picking, Zones

Example: Discrete Picking

There is enough inventory in all Zones

QAD

Site: 10-301 Item Number:
Warehouse: Lot/Serial:
Location: Reference:
Warehouse: 01 Warehouse 1

Display
Disp Non
0

Item Location	Lot	Status Ref	Qty UM	On Hand	In	Expect	Expect
						Out	
040BX001	03120	Y-Y-N PL000074	EA	80			
040EA001	03120	Y-Y-N PL000075	EA	40			
040PL001	03120	Y-Y-N PL000072	EA	100			
040PL001	03120	Y-Y-N PL000073	EA	100			

Notice there is enough inventory in all three pick zones.

Box
Each
Pallet

QAD WHP9

Use Inventory Detail Inquiry to verify enough inventory exists in all zones.

Before releasing the order for picking, validate there is enough inventory of each unit of measure quantity in the associated zones:

Zone	Minimum Inventory
040PL	100 each
040BX	20 each
040EA	6 each

Example - Discrete Picking, Release Order

Example - Discrete Picking, Release Order

Release the sales order to the warehouse

Pick-List/Pre-shipper - Automatic

Due Date: _____ To: _____
 Sales Order: **WMS-501** To: _____
 Ship-To: _____
 Language ID: _____
 Site: _____
 Address List Type: _____
 Item Number: _____
 Reference: _____

Ship To: 10C1005 PICKLIST/PRE-SHIPPER
 Rockland Industrial Company
 566 Rockland Boulevard Pre-Shipper: PS0906110001
Page: _____
 Rockland, NJ 21216 Print Date: 09/06/11
 USA - TAX PURPOSE

Sales Order: WMS-501 Order Date: 09/06/11 Ship To PO: _____

Ln	Item Number	Site	Lot/Serial	Qty	Due
		T Location	Ref	Open UM	Shipped
1	03120	10-301			
	Scented Disinfectant Pump				
				126.0	CA 09/07/11
			040BX001	20.0	()
			040EA001	6.0	()
			040PL001	100.0	()

QAD WH-PICK-220

Use Picklist/Pre-Shipper - Automatic to release the sales order and generate pick tasks. The picklist shows the locations from which items should be picked.

Example - Discrete Picking, Review Pick Activity

Example - Discrete Picking, Review Pending Pick

Review the pending pick activity

Location	Item Lot	Status Ref	Qty UM	Expect On Hand	Expect In	Detail Out	Detail Alloc	Detail Pick
040BX001	03120	Y-Y-N P000074	EA	80		20		20
040EA001	03120	Y-Y-N P000075	EA	40		6		6
040PL001	03120	Y-Y-N P000072	EA	100		100		100
040PL001	03120	Y-Y-N P000073	EA	100				
060PA001	03120	Y-Y-N P000072	EA		100			
060PA001	03120	Y-Y-N P000074	EA		20			
060PA001	03120	Y-Y-N P000075	EA		6			

When the order is released pick tasks are created. Use Inventory Detail Inquiry to validate the test results:

Pick Quantity	Location
20	040BX001
6	040EA001h
100	040PL001

Bonus Coverage

Bonus Coverage – Pick Strategies

The diagram illustrates a warehouse layout with the following sections:

- Area = Receipts (010)**
- Storage (040)**
 - Pallet Storage (040PL)**: Contains eight pallets (040PL001 to 040PL008). Two pallets are circled in red: 040PL001 (17-Jul-11) and 040PL004 (12-Dec-10). A red question mark is next to the circle.
 - Box Storage (040BX)**
 - Each Storage (040EA)**
- Shipments (070)**
 - Ship (070SH)**

Labels on the left: **INBOUND**, **Insp**, **QA**. Labels on the right: **OUTBOUND**, **(060)**, **(050)**.

1. With the current pick rule, 9 – Pick by Level by Location, which pallet will be picked first?

2. If you change the pick rule to 3 – Pick by Date, which pallet will be picked first?

QAD WI-PW-280

The pick rule used determines which inventory is selected for picking.

- 1 With the current pick rule, 9 - Pick by Level by Location, which pallet is picked first?
- 2 If you change the pick rule to 3 - Pick by Date, which pallet is picked first?

Bonus Coverage - Pick Strategies

Bonus Coverage – Pick Strategies (ANSWER)

Area = Receipts (010)

Storage (040)

Pallet Storage (040PL)

040PL001 040PL002

17-Jul-11

040PL003 040PL004

14-May-11 12-Dec-10

040PL005 040PL008

Box Storage (040BX)

Each Storage (040EA)

Shipments (070)

Ship (070SH)

INBOUND

OUTBOUND

1. With the current pick rule, 9 – Pick by Level by Location, which pallet will be picked first?

2. If you change the pick rule to 3 – Pick by Date, which pallet will be picked first?

QAD

WH-Pick-350

Note that:

- 1 Pick by Level by Location first looks at the assigned zone pick level in ascending order, 10, 20, 30, then the Location in ascending alpha-numeric sequence. If the zone pick level is within the pick range per Warehouse Maintenance, (Start Pick Level = 10, End Pick Level = 30), QAD Warehousing first looks in PL (level 10) for available inventory. It then selects inventory based on alphanumeric sequence 1, 2, 3, 4, and so on.
- 2 Changing the pick rule to 3, Pick by Date, the system selects the oldest date inventory first assuming the zone is in the pick zone range.

Example - Discrete Picking, User Picking Pallet

Example - Discrete Picking
UserB will pick one pallet from 040PL001

Area = Storage (040)
 Pallet Storage 040EA
 040PL001

Simulated RF

```
Picking 63
SO WMS-S01
Fr Loc: 040PL001
Loc: 40PL001
Chk:

Picking 63
SO WMS-S01
Loc: 040PL001
PL Ref: PL000072
Ref: L000072

Picking 63
Loc: 040PL001
SO WMS-S01
PL Ref: p1000072
03120

Qty: 100.0
Qty: 100.0

Picking 63
To Loc: 060PA001
Loc: 060PA001
Chk:
PL Ref: PL000072
Item Number:
03120
Lot/Serial:
```

Area = Packaging (060)
 Packing 060PA
 060PA001

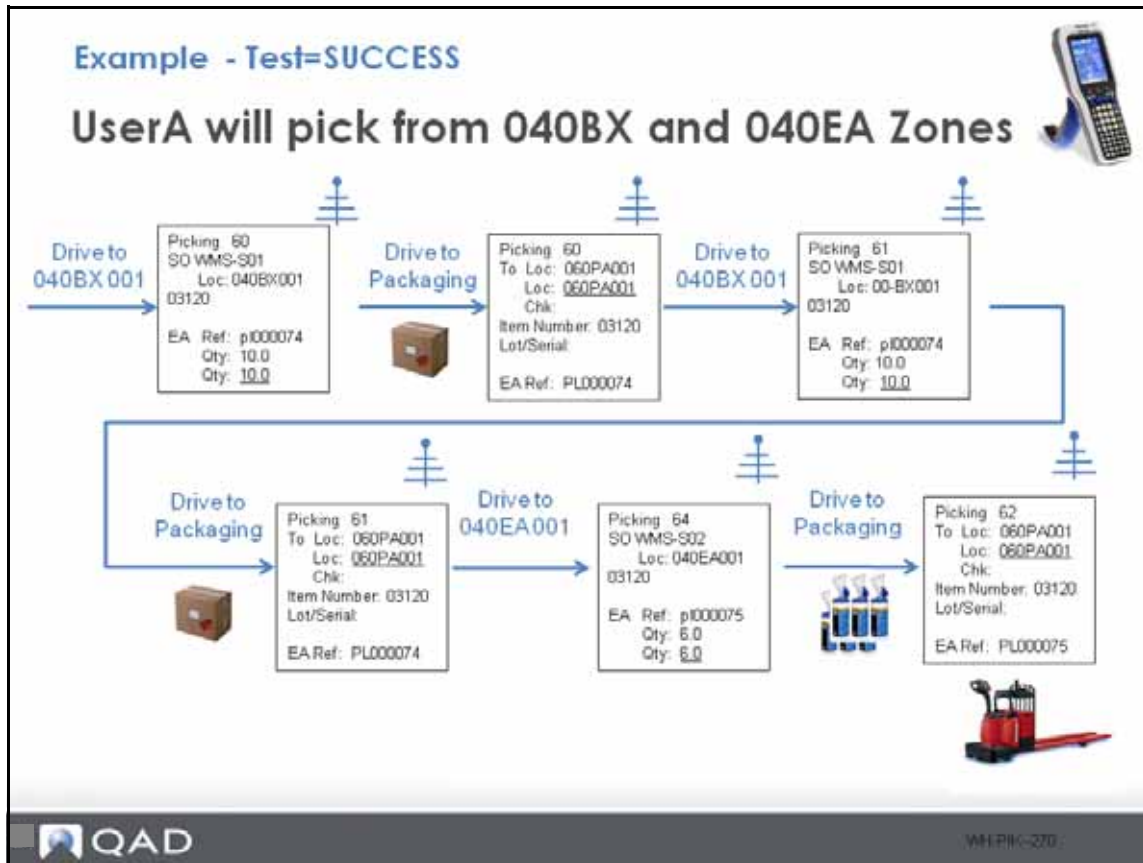
QAD WMS PICK001

To process the example order, log into RF (Putty) with both UserA and UserB.

UserB gets the first pick task for 100 each from location 040PL001. The load is picked via RF and dropped to a packaging location, 060PA001.

When dropping the load in packaging, assign an LPN. This can be the same LPN that was picked or a different number. This helps track the consolidated order and subsequent movement or shipping.

Example - Discrete Picking, Test=Success



The RF screen flow show data for the picking exercise. You can zoom in on the screen above to see the actual data in the RF fields.

The other tasks, pick 20 each from 040BX and 6 from 040EA are processed by UserA using RF.

When the items are dropped they are either associated to the same LPN as the pallet pick of a new LPN is assigned. The system keeps the LPNs linked for shipping.

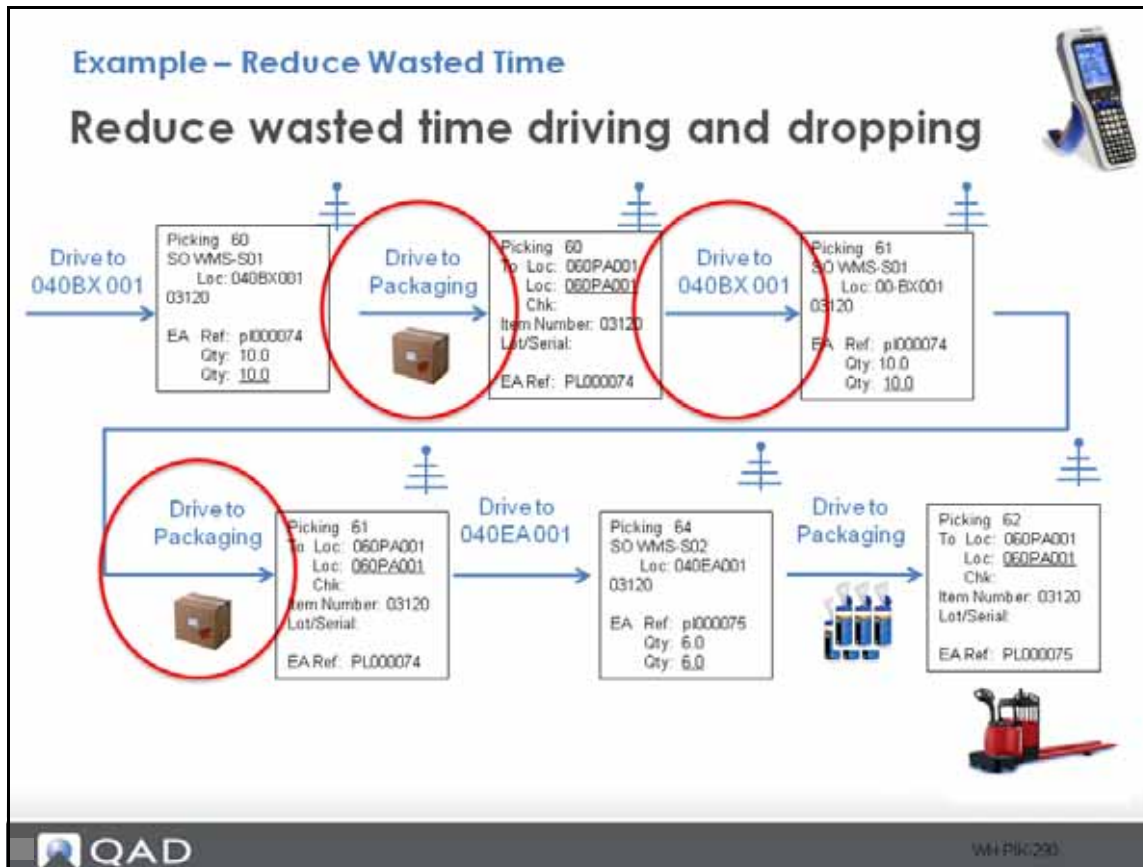
Discrete Picking Learning Points

Discrete Picking

Two Key Learning Points

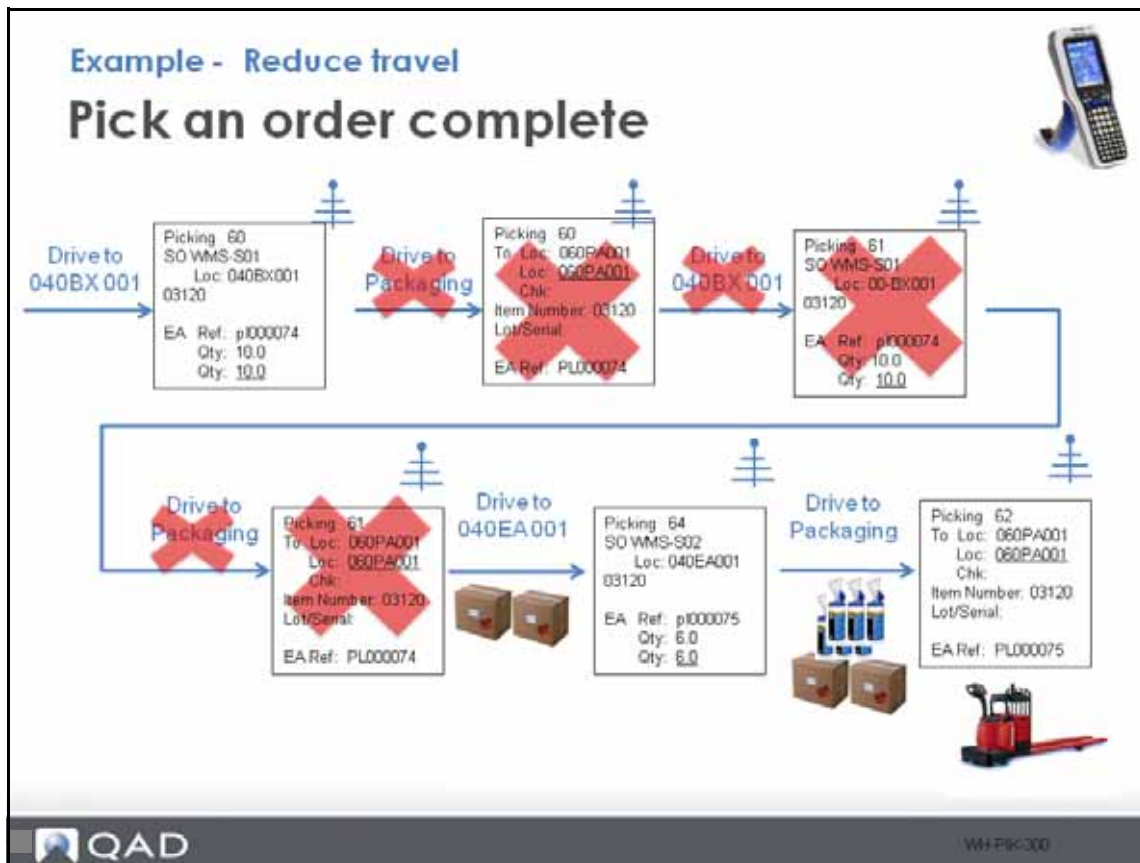
1. QAD Warehousing optimizes picking by the most efficient handling unit of measure
2. The previous box and each pick process can be improved...how?

Example - Reduce Wasted Time Driving and Dropping



In this discrete pick example, there is still significant time wasted driving back and forth between picking and packaging.

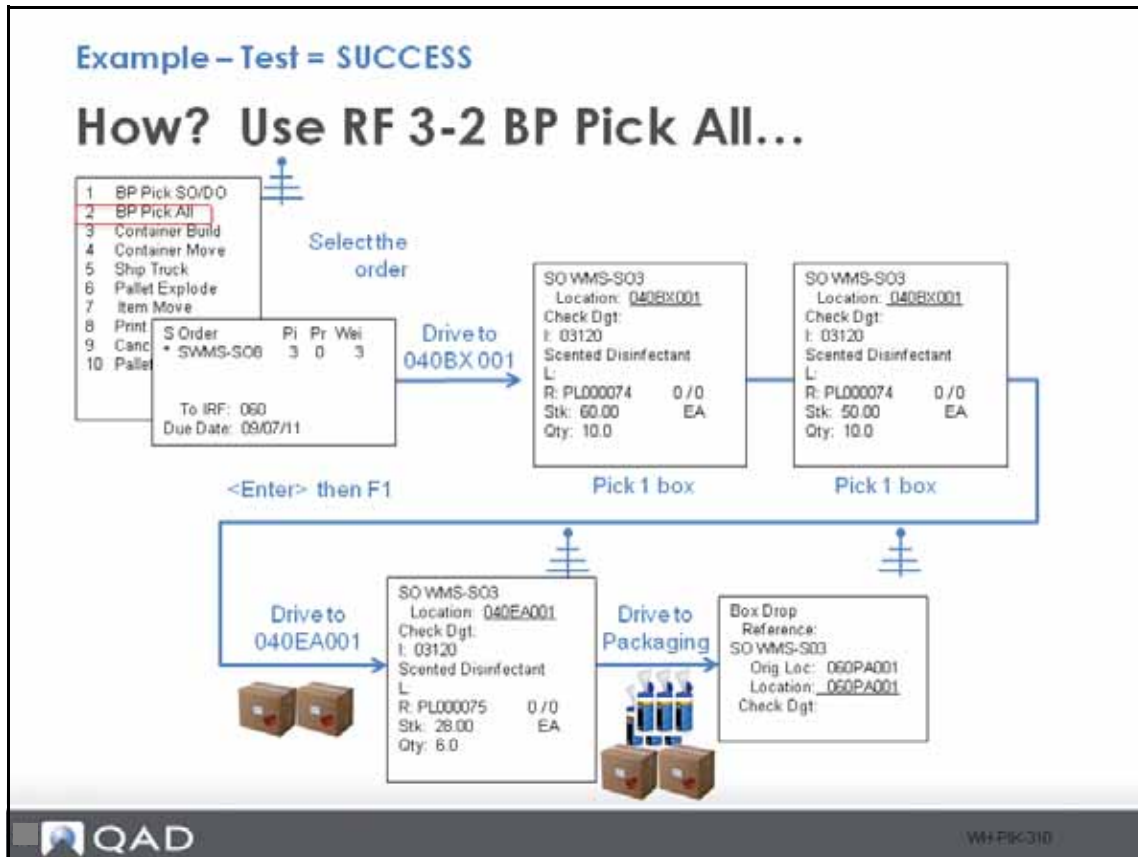
Example - Reduce Travel



These trips can potentially be reduced to one using the RF Batch Pick feature, but for only one order.

This assumes two boxes and six eaches can be handled by one operator and the operator has access (with equipment) to the inventory.

Example - Test=Success



Batch picking drives warehouse staff to pick items in a more efficient way. The time it takes to travel through the warehouse completing tasks at various locations, or the travel sequence, constitutes the largest amount of time involved when picking items from a warehouse. Batch picking functionality reorders the order-picking sequence and tasks so that warehouse staff can pick multiple items from multiple orders at various locations throughout the warehouse with a shortened travel sequence.

The new process does not require a system configuration change, only a change to the RF function used for picking. UserA would log into RF 3.2 (BP Pick All) and select the one order.

Batch Picking

QAD Warehousing Picking

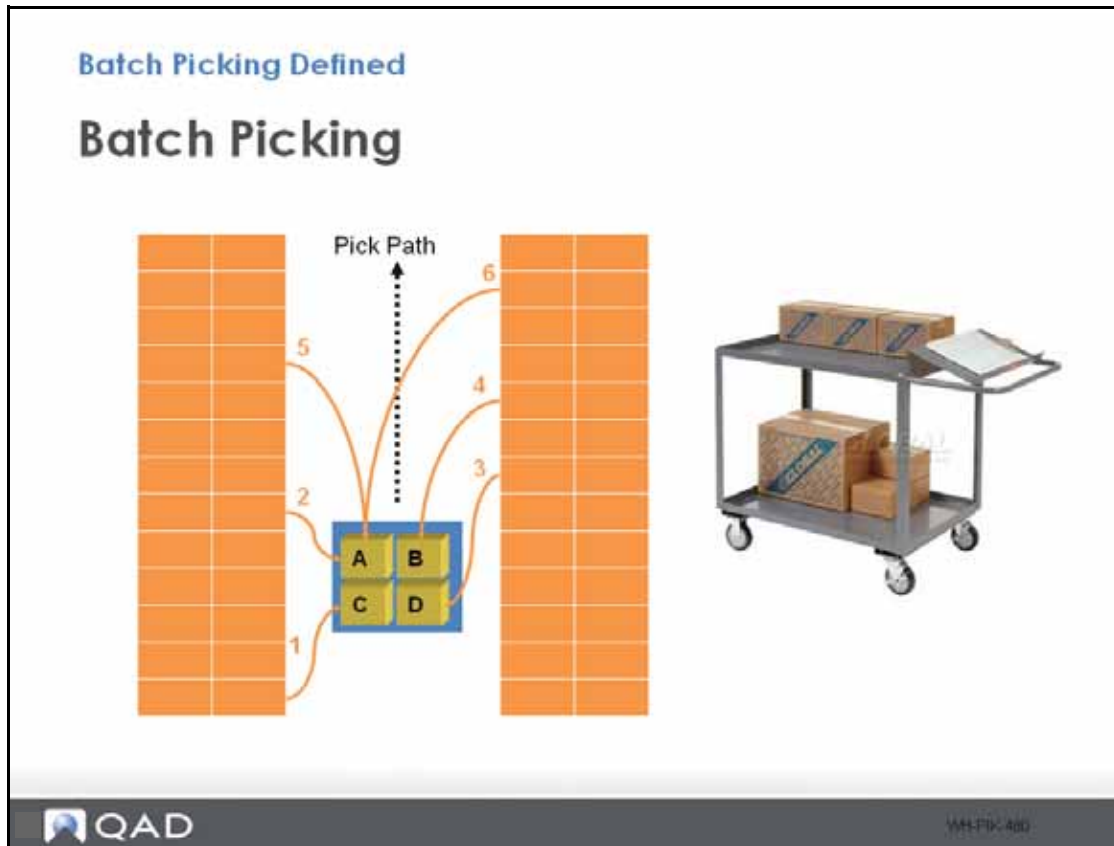


The image contains three photographs illustrating warehouse picking activities. The top-left photo shows a worker in a white shirt and dark pants standing between three tall pallets stacked with white boxes. The top-right photo shows a worker in a blue uniform and cap reaching for a box on a high blue metal shelf in a warehouse aisle. The bottom-left photo shows a worker in a blue uniform standing in a warehouse aisle, holding a large cardboard box. The background of the entire slide is a light gray gradient.

Batch Picking

 QAD WM P06.470

Batch Picking Defined



Discrete picking relies on pick-lists generated through QAD EE, but batch picking uses more sophisticated algorithms in QAD Warehousing.

Batch pick allows an operator to pick multiple orders at the same time to minimize operator travel time. Cartonization helps here but is not required or offered by QAD Warehousing.

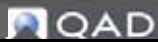
Batch Picking is best for companies working with small/medium size items and small volumes but many order lines.

Batch Picking Process

Using Batch Picking

Batch Picking Process

- Ensure the orders have an existing pre-shipper.
- Select orders in the RF
- Pick the items
- Confirm picking tasks in the RF



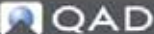
WH-PK-00

Example - Batch Picking Setup and Execution

Example – Batch Picking Setup and Execution

Batch Picking Setup & Execution

1. Assign users to a work location group
2. Specify users as locations (optional)
3. Set batch-picking control parameters
4. Setup and release multiple orders
5. Pick orders using RF

 WH FR-502

Did You Know

Batch Picking is best for:

- Small items with small volumes
- Multiple order lines
- Multi-bin items for single order

Batch Picking Control consists of several frames that control much more than picking.





Next, you review some of the main configuration fields and walk through a batch pick process.


Example 1- Assign Users to a WLG

Example 1. Assign users to a work location group

User Work Location Group Maintenance

Site: 10-301
 Warehouse: 01
 Work Location Group: 01CT
 User ID: UserA

System Flavor:	A		
Device:	<input type="text"/>		
External Device Printer:	<input type="text"/>		
Form Printer:	<input type="text"/>		Use External <input checked="" type="checkbox"/>
ID Printer:	<input type="text"/>		Use External <input checked="" type="checkbox"/>
Task Printer:	<input type="text"/>		Use External <input checked="" type="checkbox"/>
Inspection Printer:	<input type="text"/>		Use External <input checked="" type="checkbox"/>


WI-PICK510

Did You Know

Use User Work Location Group Maintenance to assign users to a workgroup location and set printing options.

You must set a system flavor code for users in workgroup to specify the code to define the style and format of screens for displaying warehouse information.

A User (UserA) is assigned to the cart pick work location group 01CT. This ensures a user receives the pick task when logging into RF.

Example 2- Specify Users as a Location

Example: Step 2. Specify users as a location

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1

Location: UserA

Location Groupings

Warehouse: 01

Storage Location Group: 040EA

Work Location Group: 01CT

Site: 10-301 Distribution Site 1

Location: UserB

Location Groupings

Warehouse: 01

Storage Location Group: 040PL

Work Location Group: 01FL

Assigning users as a location allows more granular product tracking.

DYK:
Locations can be assigned to a User to track inventory during long pick cycles.

OAD WLPK-530

Assigning users as a location allows more granular product tracking.

Did You Know

Locations can be assigned to a User to track inventory during long pick cycles

Example 3 - Set Batch Picking Control Parameters

Example 3 - Set Batch Picking Control parameters

Batch Picking Control

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

S Order	Pk	Pr	Wgt
*SS05749	1	22	18
SS05745	2	1	28
SS05746	2	1	15
D610	1	0	10

To IRG: Dispatch
Due Date: 10/30/09

Include Sales Orders: **Include Distribution Orders:**
 Include Work Orders:
 SO/DO Batch Selection: Order
 Allow Merge Orders:
 Close Option: 0
 Auto Selection:
 Maximum Selection: 99
 Maximum Picked Cases: 99
 Container/Reference: Reference
 Container Sequence ID:
 Container Items:
 Container Unit of Measure: BX

Scan Location:
 Scan Item Number:
 Scan Lot/Serial:
 Scan Reference:
 Scan Quantity:
 Single Packing Location:
 Default Packing Location:
 Label Print Option: 0
 Post-Print Option: 0
 Label Print Program:
 Weight UM: KG
 Logical Format: 1/0

QAD WH-PK-300

Did You Know

Batch Picking can include:

- Sales orders
- Distribution orders
- Work orders

Batch Pick Control lets you define many Batch Pick parameters, such as types of orders to batch, maximum number of orders and/or cases to batch, and RF scanning requirements.

There are eight frames and 54 fields in Batch Picking Control used for configuration.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control (cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders:
 Include Distribution Orders:
 Include Work Orders:
 SO/DD Batch Selection: **OR**

Allow Merge Orders:
 Close Option: 0
 Auto Selection:
 Maximum Selection: 99
 Maximum Picked Cases: 99
 Container/Reference: Reference
 Container Sequence ID:
 Container Item:
 Container Unit of Measure: BX

Scan Location:
 Scan Item Number:
 Scan Lot/Serial:
 Scan Reference:
 Scan Quantity:
 Single Packing Location:
 Default Packing Location:
 Label Print Option: 0
 Post-Print Option: 0
 Label Print Program:
 Weight UM: KG
 Logical Format: 1/0

OR

Order	Pk	Pr	Wgt
805748	1	77	14
805747	2	55	21
805749	1	22	18
805745	2	1	28
805746	2	1	15

To IRG: Dispatch
Due Date: 10/30/09

OR

Customer	Pk	Pr	Wgt
009	1	77	14
001a	2	55	21
4001	1	22	18
00010000	4	1	43

To IRG: Dispatch
Due Date: 10/30/09

OR

Pre-Ship	Pk	Pr	Wgt
PATM00	1	77	14
PATM04	2	55	21
PATM06	1	22	18
PATM03	4	1	43

To IRG: Dispatch
Due Date: 10/30/09

QAD WH-PK-301

The SO Batch Selection field determines if orders, customers or pre-shipper reference numbers display on the RF screen during BP All selection on the RF device.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control(cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

28628 3/ 4
SO: 805746
Can not merge Orders
CT001 is for
Order 805745
R: 0/10
Stk: 492.00 EA
Qty: 3.00 EA
Container: CT001

Include Sales Orders:
Include Distribution Orders:
Include Work Orders:
SO/DO Batch Selection: Order
Allow Merge Orders:
Close Option: 0
Auto Selection:
Maximum Selection: 99
Maximum Picked Cases: 99
Container/Reference: Reference
Container Sequence ID: |
Container Item: |
Container Unit of Measure: BX

Scan Location: |
Scan Item Number: |
Scan Lot/Serial: |
Scan Reference:
Scan Quantity:
Single Packing Location:
Default Packing Location: |
Label Print Option: 0
Post-Print Option: 0
Label Print Program: |
Weight UM: KG
Logical Format: 1/0

QAD VMI-PK-302

The Allow Merge Order field determines if the user can combine items from different orders into the pick container.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example: 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control (cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders:
 Include Distribution Orders:
 Include Work Orders:
 SO/DO Batch Selection:
 Allow Merge Orders:
 Close Option:
 Auto Selection:
Maximum Selection:
 Maximum Picked Cases:
 Container/Reference:
 Container Sequence ID:
 Container Item:
 Container Unit of Measure:

Scan Location:
 Scan Item Number:
 Scan Lot/Serial:
 Scan Reference:
 Scan Quantity:
 Single Packing Location:
 Default Packing Location:
 Label Print Option:
 Post-Print Option:
 Label Print Program:
 Weight UM:
 Logical Format:

S	Order	Pk	Pr	Wgt
	SO5748	1	77	14
	SO5747	2	55	21
	SO5749	1	22	18

The Maximum Selection field determines the number of orders, customers or pre-shippers to *display* on the RF screen during BP Pick All processing.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control(cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders:
Include Distribution Orders:
Include Work Orders:
SO/DO Batch Selection: Order
Allow Merge Orders:
Close Option: 0
Auto Selection:
Maximum Selection: 99
Maximum Picked Cases: 99
Containers/Reference: Reference
Container Sequence ID:
Container Item:
Container Unit of Measure: BX

Scan Location: To IRG: Dispatch
Scan Item Number: Due Date: 10/30/09
Scan Lot/Serial:
Scan Reference:
Scan Quantity:
Single Packing Location:
Default Packing Location:
Label Print Option: 0
Post-Print Option: 0
Label Print Program:
Weight UM: KG
Logical Format: 1/0

S	Order	Pk	Pr	Wgt
	SO5748	1	77	14
	SO5747	2	55	21
	SO5749	1	22	18
	SO5745	2	1	28
	SO5746	2	1	15

QAD

The Maximum Picked Cases field determines how many orders the user can pick at the same time during BP All processing.

This is typically determined by how many pick cartons fit on a pick cart considering volume, weight, quality, and operator-handling constraints.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control (cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders: <input checked="" type="checkbox"/>	Required
Include Distribution Orders: <input checked="" type="checkbox"/>	Scan Location: <input checked="" type="checkbox"/> <input type="checkbox"/>
Include Work Orders: <input checked="" type="checkbox"/>	Scan Item Number: <input checked="" type="checkbox"/> <input type="checkbox"/>
SO/DO Batch Selection: Order	Scan Lot/Serial: <input checked="" type="checkbox"/> <input type="checkbox"/>
Allow Merge Orders: <input type="checkbox"/>	Scan Reference: <input checked="" type="checkbox"/> <input type="checkbox"/>
Close Option: 0	Scan Quantity: <input checked="" type="checkbox"/> <input type="checkbox"/>
Auto Selection: <input type="checkbox"/>	Single Packing Location: <input type="checkbox"/>
Maximum Selection: 99	Default Packing L
Maximum Picked Cases: 99	Label Print
Container/Reference: Reference	Print Print
Container Sequence ID:	Label Print P
Container Item:	Weight UM: KG
Container Unit of Measure: BX	Logical Format: 1/0

Defines container level information

QAD WH-PICK-395

The container-related fields define container level information, including:

- Container levels to create for each tote/box/pallet staff used during the batch-picking process.
- The starting sequence ID for box/tote/container numbers when printing labels before picking.
- The item number of the container.
- The unit of measure for the container.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example: 3. Set Batch Picking Control parameters

Batch Picking Control(cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Field	Value	Required
Include Sales Orders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Include Distribution Orders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Include Work Orders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO/DO Batch Selection:	Order	<input type="checkbox"/>
Allow Merge Orders:	<input type="checkbox"/>	<input type="checkbox"/>
Close Options:	0	<input type="checkbox"/>
Auto		<input type="checkbox"/>
Maximum		<input type="checkbox"/>
Maximum Pic		<input type="checkbox"/>
Container/		<input type="checkbox"/>
Container Se		<input type="checkbox"/>
Con		<input type="checkbox"/>
Container Unit of Measure:		<input type="checkbox"/>
Scan Location:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Item Number:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Lot/Serial:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Reference:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Quantity:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Single Packing Location:	<input type="checkbox"/>	<input type="checkbox"/>
Default Packing Location:		<input type="checkbox"/>
Label Print Option:	0	<input type="checkbox"/>
Post-Print Option:	0	<input type="checkbox"/>
Label Print Program:		<input type="checkbox"/>
Weight UM:	KG	<input type="checkbox"/>
Logical Format:	1/0	<input type="checkbox"/>

Enable/disable RF fields and determine scanning requirements

QAD WH-Pick-208

he scan-related fields enable/disable RF fields and determine scanning options, including whether to scan the:

- Location from which items are picked
- Item being picked
- Lot/serial number for the picking location
- Source reference (pallet ID) when picking
- Quantity picked

Note The Required field dictates if the scan is required or optional.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control (cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Parameter	Value	Required
Include Sales Orders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Include Distribution Orders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Include Work Orders:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO/DO Batch Selection:	Order	<input type="checkbox"/>
Allow Merge Orders:	<input type="checkbox"/>	<input type="checkbox"/>
Close Option:	0	<input type="checkbox"/>
Auto:		<input type="checkbox"/>
Maximum:		<input type="checkbox"/>
Maximum Pick:		<input type="checkbox"/>
Container:		<input type="checkbox"/>
Container Seq:		<input type="checkbox"/>
Container Item:		<input type="checkbox"/>
Container Unit of Measure:	BX	<input type="checkbox"/>
Scan Location:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Item Number:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Lot/Serial:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Reference:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scan Quantity:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Single Picking Location:	<input type="checkbox"/>	<input type="checkbox"/>
Default Picking Location:		<input type="checkbox"/>
Label Print Option:	0	<input type="checkbox"/>
Post-Print Option:	0	<input type="checkbox"/>
Label Print Program:		<input type="checkbox"/>
Weight UM:	KG	<input type="checkbox"/>
Logical Format:	1/0	<input type="checkbox"/>

Define packing location parameters

QAD WH-PICK-387

The Single Picking Location and Default Picking Location field determine:

- If you use a single location as the packing location
- The default packing location

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control (cont)

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders: <input checked="" type="checkbox"/>	Required
Include Distribution Orders: <input checked="" type="checkbox"/>	Scan Location: <input checked="" type="checkbox"/> <input type="checkbox"/>
Include Work Orders: <input checked="" type="checkbox"/>	Scan Item Number: <input checked="" type="checkbox"/> <input type="checkbox"/>
SD/DO Batch Selection: Order	Scan Lot/Serial: <input checked="" type="checkbox"/> <input type="checkbox"/>
Allow Merge Orders: <input type="checkbox"/>	Scan Reference: <input checked="" type="checkbox"/> <input type="checkbox"/>
Close Option: 0	Scan Quantity: <input checked="" type="checkbox"/> <input type="checkbox"/>
Auto	Single Packing Location: <input type="checkbox"/>
Maximum	Default Packing Location: <input type="text"/>
Maximum Pic	Label Print Option: 0
Container/	Post-Print Option: 0
Container Sequence ID:	Label Print Program:
Container Item:	Weight UM: KG
Container Unit of Measure: BX	Logical Format: 1/0

Define printing parameters

QAD WHP6-308

The print parameter fields specify:

- When labels should be printed after order selection is complete but before picking begins.
- When labels should be printed after picking is complete.
- The print program to use when printing labels.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking Control (cont)

Site: 10-001 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders: <input checked="" type="checkbox"/>	Required
Include Distribution Orders: <input checked="" type="checkbox"/>	Scan Location: <input checked="" type="checkbox"/> <input type="checkbox"/>
Include Work Orders: <input checked="" type="checkbox"/>	Scan Item Number: <input checked="" type="checkbox"/> <input type="checkbox"/>
SD/DD Batch Selection: Order	Scan Lot/Serial: <input checked="" type="checkbox"/> <input type="checkbox"/>
Allow Merge Orders: <input type="checkbox"/>	Scan Reference: <input checked="" type="checkbox"/> <input type="checkbox"/>
Close Option: 0	Scan Quantity: <input checked="" type="checkbox"/> <input type="checkbox"/>
Auto	Single Packing Location: <input type="checkbox"/>
Maximum	Default Packing Location: <input type="text"/>
Maximum Pic	Label Print Option: 0
Container/	Post-Print Option: 0
Container Sequence ID: <input type="text"/>	Label Print Program: <input type="text"/>
Container Items: <input type="text"/>	Weight UM: KG
Container Unit of Measure: BK	Logical Format: 1/0

Additional RF screen formatting and user interface

OAD WH-PK-383

Additional RF screen formatting and user-interface fields let you:

- Specify the default weight
- Specify the user confirmation input: 1/0, Yes/No, Y/N, and so on.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking RF Screen Overview

Four potential orders the user can select for BP All

S	Order	Pi	Pr	Wei
*Sso11		3	0	0
*Sso14		1	0	0
*Sso12		2	0	0
*Sso13		4	0	1

To IRG: 060
Due Date: 10/17/11

Annotations:

- Selected (*)
- Number of picks (tasks) for the order line
- Order priority
- Total Order Weight
- Destination Area
- Orders due date
- Indicates order type: DO, SO, WO

QAD WHPK-281

The graphic above depicts the layout and data presented in the RF batch-picking screen.

Example 3 - Set Batch Picking Control Parameters (Continued)

Example: 3. Set Batch Picking Control parameters

Batch Picking RF Screen Overview (cont)

Task ID: 104

Tasks completed / Total Tasks: 77 / 10

Order: 50 so13

Location: 040EA005

Check Dgt: I: 03120

Item description: Scented Disinfectant

Lot to be picked: L:

Reference to be picked: R: 0/0

Stk: 97.00

Qty: 3.0

EA

Item UM


Note: The pick container ID is on a subsequent screen

QAD WHPK-52

As you process batch picks, entering data and pressing return, more batch picking fields display on the RF, as shown in the graphic above.

Example 3 - Batch Picking Control Parameters (Cont'd)

Example 3 - Set Batch Picking Control Parameters (Cont'd)

Batch Picking RF Screen Overview (cont) 

Box Drop
Reference:

Orig Loc:
Location:
Check Dgt:

Drop All?: 0

Box Drop
Reference:
so so11
Orig Loc: 060PA001
Location: 060PA001
Check Dgt:


Box Drop
Reference:
so so15
Completed: 3
Undone: 0
Errors: 0

↑

If all completed pick tasks have the same destination location, can drop off all boxes at once. Enter 1 to confirm, or 0 to reject.

↑

If one completed pick task is for a different destination location, must drop off the boxes one by one, scanning the box number and the destination location.

 WIPK303

The orders for which staff pick can be very large. Occasionally, staff need to drop off boxes at consolidation areas or shipping lanes before they complete batch picking for an order.

- When all completed pick tasks have the same destination location, warehouse staff can optionally drop off all items they finished picking. This lets them avoid scanning each box and the destination location for confirmation.
- If one completed pick task is for a different destination location, staff can still drop off completed boxes, but they must drop off the boxes one by one, scanning the box number, then the location in which they drop off boxes, such as the shipping lane.

Example 4 - Set Up and Release Multiple Sales Orders

Example 4 - Setup and Release Multiple Sales Orders

Sales Order Maintenance & Picklist Auto

Sales Order	Sold-To	Status	Line	Item Number	Unit of Measure	Quantity Ordered
WMS1	10C1000		1	03120	EA	1.0
WMS1	10C1000		2	03121	EA	1.0
WMS1	10C1000		3	03122	EA	1.0
wms2	10C1000		1	03120	EA	2.0
wms2	10C1000		2	03121	EA	2.0
wms2	10C1000		3	03122	EA	2.0
wms3	10C1000		1	03120	EA	3.0
wms3	10C1000		2	03121	EA	3.0
wms3	10C1000		3	03122	EA	3.0

QAD

Site: 10-301 Item Number: Display Warehouse Loc: NO
 Warehouse: Lot/Serial: Disp. Non-Warehouse Loc: NO
 Location: Reference: Output: PAGE

Warehouse: 01 Warehouse 1

Location	Item	Lot	Status	Ref	Qty	Expect	Expect	Detail	Detail
					UM	On Hand	In	Out	Alloc
	040EA002	03120	Y-Y-N	EA	100			8	8
	040EA004	03121	Y-Y-N	EA	100			4	4
	040EA006	03122	Y-Y-N	EA	100			4	4
	040EA008	03120	Y-Y-N	EA	100			6	6
	060PA001	03120	Y-Y-N	EA				6	6
	060PA001	03121	Y-Y-N	EA				6	6
	060PA001	03122	Y-Y-N	EA				6	6

Batched orders can have different Sold-To customers.

QAD WH1PW-300

Batch orders can have multiple sales orders, which you can see in the Sales Order Maintenance picklist.

Once batch pick is configured, set up and release multiple orders.

In this example, three orders for customer 01C1000 are released. When the orders are released view the pending inventory moves using Inventory Detail Inquiry.

Example 5 - Select Order Using RF

Example 5 - Select Order using RF
Use RF 3-2 BP Pick All...

1 1 Work
 2 Printing
 3 Picking/Container
 4 Inspection
 5 Inquiries
 6 Read

2 1 BP Pick SO/DO
 2 BP Pick All
 3 Container Build
 4 Container Move
 5 Ship Truck
 6 Pallet Explosion
 7 Iter S Order P1 Pr Mei
 8 Pri *Sms1 3 0 0
 9 Canc *Sms2 3 0 1
 10 Pal *Sms3 3 0 1

To IRG: 060

4 w/ Batch Pick

Order	Qty	Item	Task
WMS1	1	03120	1
WMS1	1	03121	2
WMS1	1	03122	3
WMS2	2	03120	4
WMS2	2	03121	5
WMS2	2	03122	6
WMS3	3	03120	7
WMS3	3	03121	8
WMS3	3	03122	9

Batching reorders pick tasks to minimize trips back and forth to packaging.

Drop 3 orders at packaging

QAD WMS-Pick-400

- 1 Select option 3, Picking/Container,
- 2 Select option 2, BP Pick All,
- 3 Select all the orders for picking

The operator is directed to pick all orders, order by order, before proceeding to the packaging area to drop the picked orders.

Operationally, how can this flow be improved?

Example 3A- Assign Travel Sequence to Location

Example 3A - Assign travel sequence to locations

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1
 Location: 040EA001

Location Groupings: _____
 Warehouse: 01
 Storage Location Group: 04
 Work Location Group: 01

Without a Travel Sequence reference lines are selected by order, by alpha-numeric sequence.

Warehouse Location Data

Check Digit:
 Popularity:
 Storage Type:
 Warehouse Location Type:
Travel Sequence:
 Dedicated:

Each Storage (040EA)

001 110	002 120
003 130	004 140
005 150	006 160
007 170	008 180
...	...

This step is a modification step to the Example 3 steps.

You can assign the travel sequence to a location in Warehouse Location Maintenance by specifying the location in the Travel Sequence field.

Example 5A - Select Order Using RF

Example: 5A. Select order using RF
Use RF 3-2 BP Pick All...

The screenshot shows a menu on the left with options 1-6. Option 3 is selected, leading to a sub-menu where option 2 is selected. Below the menu is a table with columns: Item, Order, Pi, Pr, Wei. The table contains three rows of data. Below the table is the text 'To IRG: 060'. To the right, two tables compare picking tasks 'w/o Travel Sequence' and 'w/ Travel Sequence'. The 'w/o Travel Sequence' table lists tasks by order, quantity, item, and task number. The 'w/ Travel Sequence' table lists tasks by order, quantity, item, and task number, with arrows indicating the sequence of tasks. The 'w/ Travel Sequence' table shows tasks grouped by item and location, minimizing trips.

Order	Qty	Item	Task
WMS1	1	03120	1
WMS1	1	03121	2
WMS1	1	03122	3
WMS2	2	03120	4
WMS2	2	03121	5
WMS2	2	03122	6
WMS3	3	03120	7
WMS3	3	03121	8
WMS3	3	03122	9

Order	Qty	Item	Task
WMS1	1	03120	1
WMS2	2	03120	2 (4)
WMS3	3	03120	3 (7)
WMS1	1	03121	4 (2)
WMS2	2	03121	5 (5)
WMS3	3	03121	8 (6)
WMS1	1	03122	3 (7)
WMS2	2	03122	6 (8)
WMS3	3	03122	9 (9)

Batching reorders pick tasks to minimize trips back and forth to packaging.

QAD WMS-PICK-001

With a travel sequence assigned to each location, create and release 3 orders (see step 4).

- 1 Select option 3, Picking/Container.
- 2 Select option 2, BP Pick All.
- 3 Select all the orders for picking.

The picks are now sorted by item/ location rather than order.

Benefits of Batch Picking


The Benefits of Batch Picking

Batch Picking ROI - Travel

	# trips from EA pick to PA	# trips from Location to Location	Distance Loc to Loc	Distance EA to PA	Total Travel (ft)	% Imp
Discrete	17	0	20	500	8500	
Batch 1	1	8	20	500	660	92%
Batch 2	1	2	20	500	540	94%

Assume:

1. Average travel from EA zone to PA zone is 500 feet.
2. Average travel from location to location is 20 feet.


WH-PIC-404

The return on investment (ROI) for batch picking is the shortened travel time, as you can see when comparing discrete picking data, above, to batch picking data.

The primary benefit to batch pick is a significant reduction in travel distance and time the ROI can then be calculated based on processing more orders with the same amount of labor, a reduction in overtime, or both.

Batch Pick Function Keys

Example 5- Select Order using RF (Cont'd)

Batch Pick Function Keys

- <F1>: Display order comments for sales and distribution orders. Press F1 on any field in the picking screen to view the order line comments.
- <F3>: Display the order picking status. Displays pick information per order, including item number, quantity already picked, and quantity remaining to pick.
- <F5>: Skip a task and move it to the end of the task queue. This is useful if a warehouse aisle become blocked.
- <F6:> If all tasks are for the same destination, the system displays the Drop All prompt, letting you drop all or some boxes completed during picking.
- <F7>: Move contents from one box to another during picking. This helps staff balance the content of different boxes based on the volume of the different items. The system prompts to enter a new container ID.



WH-PIC-031

You can use several function keys on the RF device during bulk picking, as shown in the graphic above.

Bulk Picking

QAD Warehousing Picking



The image contains three photographs illustrating bulk picking in a warehouse. The top-left photo shows a worker kneeling next to a pallet of stacked boxes, possibly scanning or organizing them. The bottom-left photo shows a worker standing in an aisle between tall stacks of boxes, holding a large cardboard box. The right-side photo is a larger image showing a worker in a blue uniform and cap using a forklift to move a pallet of boxes from a high shelf in a warehouse aisle.

Bulk Picking

 QAD WM-PK-410

Bulk Picking Defined

Bulk Picking Defined

Bulk Picking

- Similar to Batch but requires a secondary pick
- Less frequently used
- Set up Bulk Picking controls

 WH-PSK-420

Efficiency is improved by grouping the orders, since the detail allocations are examined and, if necessary, the allocations rationalized. There is no direct link between orders in a bulk pick, other than the fact that they have items in common and can thus be grouped together.

Bulk pick is similar to batch pick in that multiple orders are picked concurrently, the difference is bulk pick orders require sorting or a secondary pick at a subsequent stop. This typically results in more space requirements.

Bulk Picking Control

Setup Bulk Picking Parameters

Bulk Picking Control

Create Bulk Picking Orders: <input checked="" type="checkbox"/>	Pre-Shippers: <input type="checkbox"/>
Bulk Pick History: <input type="checkbox"/>	Print Pre-Shipper List: <input type="checkbox"/>
Automatically Reselect BP: <input type="checkbox"/>	Bulk Pick Sheets: <input checked="" type="checkbox"/>
Bulk Pick Sequence ID: <input type="text"/>	Release Work Orders: <input checked="" type="checkbox"/>
Load Sequence ID: <input type="text"/>	Ship Weight UM: <input type="text"/>
Pre-Shipper Sequence ID: <input type="text"/>	Net Weight UM: <input type="text"/>
Select All: <input checked="" type="checkbox"/>	Volume Unit of Measure: <input type="text"/>
Auto Approve: <input type="checkbox"/>	Quantity UM: <input type="text"/>
Select By: <input type="text"/> Order	Auto Allocate Sales Orders: <input type="checkbox"/>
Select By Priority: <input checked="" type="checkbox"/>	Allocate Components: <input type="checkbox"/>
Min Status for WD Selection: <input type="text"/>	Override Partial OK: <input type="checkbox"/>

QAD WI-PIW-230

Did You Know

Bulk pick orders can be automatically approved.

There is one frame and 22 fields in Bulk Picking Control used for configuration.

Bulk Pick Setup

Bulk Pick Setup

Bulk Pick Process

- Select order lines for bulk picking
- Approve selected order lines
- Print bulk-pick orders
- Create pre-shippers
- Confirm transactions

Bulk Pick Order Selection Inquiry

Bulk Pick Setup

Bulk Pick Order Selection Inquiry

Site: 10-301
Warehouse: 01

Include Sales Orders:
 Include Work Order Issues:
 Include Distribution Orders:

Target Ship Weight: 0.00
 Target Net Weight: 0.00
 Target Volume: 0.00
 Target Quantity: 0.00

Select All:
 Select By Priority:
 Select By: Order

Auto Approve:

Load ID:
 Route:
 Item Number:
 Whse Item Type:
 Order:
 Due Date:

To:
 To:
 To:
 To:
 To:
 To:
 To: Output:
 Batch ID:

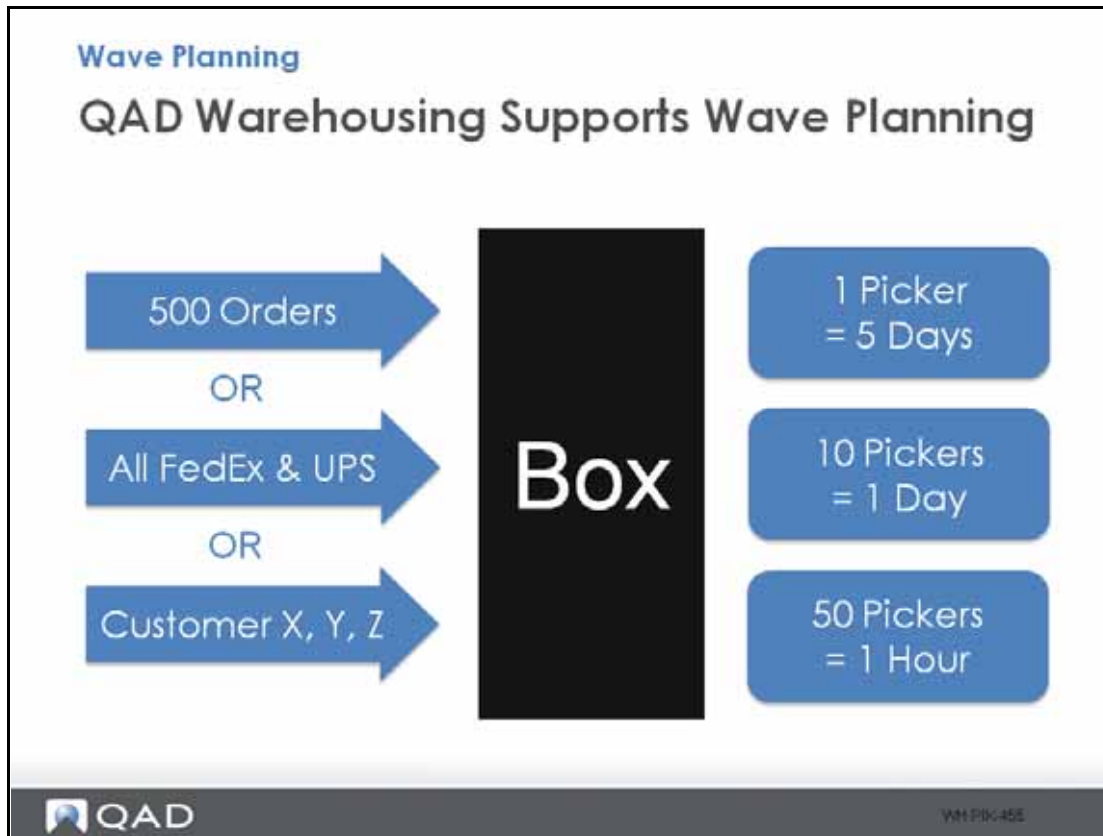
QAD WMS PIS-450

Did You Know

Bulk pick selection criteria includes:

- Load ID
All order lines with the same load ID are combined, if possible, in the same warehouse transaction. The load ID is automatically generated when you select the order line for inclusion in a bulk pick. Multiple bulk pick details can still result from a single load ID.
- Route
This is internal routing, typically forward pick to storage. Load ID and route can be on the SO, so that they can be picked together.
- Item Number
- Due Date

Wave Planning




Wave planning involves the same principles as lean distribution; that is, the objective is to plan activities in a warehouse and eliminate inefficiencies. Wave planning lets you create and release a wave --a collection of orders. Wave planning is covered in Advanced topics training guides for QAD Warehousing.

Bulk and Wave - What is the Difference?

Bulk and Wave...what is the difference?

Bulk vs. Wave

	Bulk	Wave
Purpose	Group orders for more efficient picking and travel time	Group orders to balance work load across the warehouse and synchronize replenishment with picking
Pick Process	Bulk	Batch and/or Discrete
Replenishment	Manual	Synchronized
Order Types	Sales, Work, Distribution	Sales, Distribution
Can move work tasks	No	Yes
Workload	Controlled by bulk pick size	Balanced and optimized across time and physical schedules
Selection by	Load ID, Route, Item, Item Type, Order, Ship To, Due Date	Carrier Route, Ship To, Due Date, Profile
Ship Lane Capacity	No considered. All manual	Yes, automatically

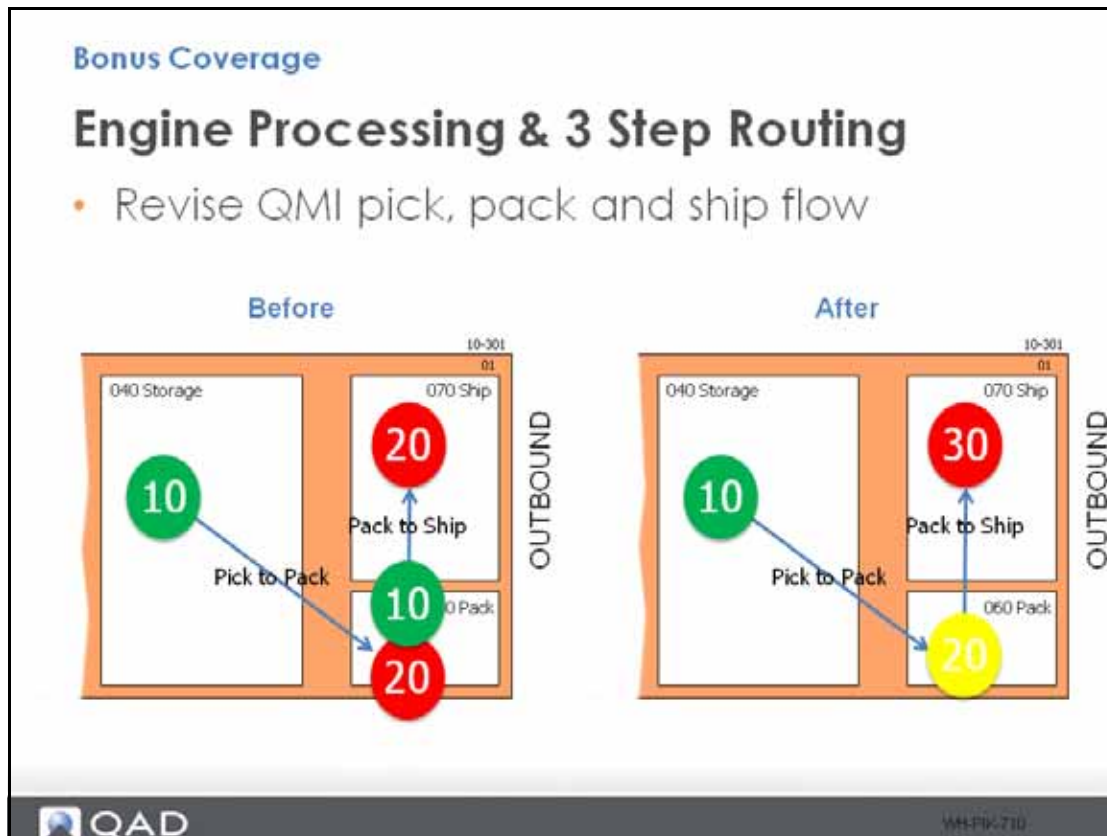
 WH-PIC-200

The graphic above depicts the major differences in bulk picking and wave picking, based on the picking functionality and various aspects of warehouse picking.

Bulk picking is more of a process, that is, a method of picking for wave more of a strategy.

In bulk picking, you can pick for orders that are grouped by routes, so that all orders for a particular delivery area can be picked together. These bulk picks accumulate the items together.

Bonus Coverage - Engine Processing and 3-Step Routing



Up to now, the design has been pick, pack and ship as two different flows; however, it is possible to set up a three-step routing by setting the Mode field in the Miscellaneous Options frame of the Internal Routing Maintenance menu to Manual to *delay* the trigger of product movement from packing to shipping.

In the after picture above, engine processing was used to delay the shipping.

Example - Engine Processing

Example - Engine Processing

Delayed Pack to Ship Flow

- Product is picked to a packaging area
- Items are packed and consolidated
- Once packed items are moved to the shipping area for final processing

Sequence 10 **AUTO** Sequence 20 **MANUAL** Sequence 30

Storage Area Packaging Area Shipping Area

QAD WH-PIK-720

Because the last sequence is manual the move from packaging to shipping does not trigger until a user intervenes to release the task

This proves helpful when there is a long process required in packaging or frequent delays occur.

If the second arrow in the graphic above were Auto, the move from 20 to 30 would automatically trigger when 10 to 20 was complete even if the item/ load was not ready to be moved.

The following topic covers the process of setting up and processing engine processing and a 3 step delay.

Engine Processing - Three-Step Routing Setup

QAD Warehousing Engine Processing

Engine Processing & 3 Step Routing Setup

1. Modify the pick routing
2. Assign the Transfer task to a user
3. Release and pick an order
4. Validate and order is in packaging
5. Activate Engine Processing
6. Process the load from packaging to shipping

WH-P90-730

Start with the QMI Warehouse, then:

- 1 Add Sequence 30; 070, to internal routing 01PCK using Internal Routing Maintenance, setting these fields:
 - f Task = TRANSFER
 - g Mode = Manual
- 2 Assign the Transfer task to UserA using Task Assignment Maintenance or change Work Location Group to 01FL for location 060PL001 using Warehouse Location Maintenance.
- 3 Release and pick an order.
The item is in a packaging location using Inventory Detail Inquiry.
- 4 Activate Engine Processing using RF 1.6:
 - a Select the packaging location
 - b Select the item LPN
- 5 Move the load from packaging to shipping:
 - a Select Next Task using RF 1.1.
 - b Select location.
 - c Select LPN.
 - d Confirm drop location and LPN move using Inventory Detail Inquiry.

Modify the Pick Routing

1. Modify the Pick routing

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01PCK

Description: Picking

Sequence: 30 Internal Routing Group: 070

Transaction Create

Confirmed at Source:

System Code: RF

Two Phase:

Keep From Status:

Task: TRANSFER

Priority: 10

Increment: 1

Miscellaneous Options

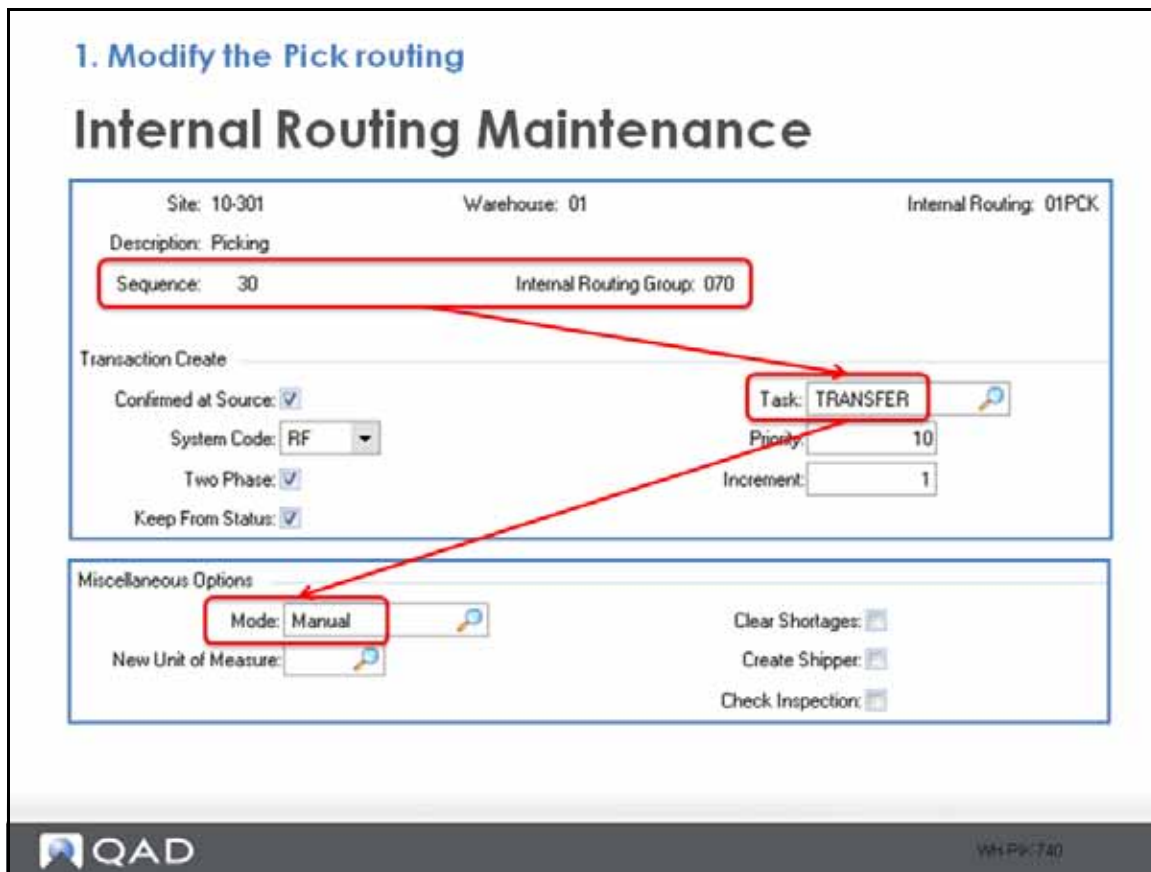
Mode: Manual

New Unit of Measure:

Clear Shortages:

Create Shipper:

Check Inspection:



The screenshot shows the 'Internal Routing Maintenance' form in QAD. At the top, it displays 'Site: 10-301', 'Warehouse: 01', and 'Internal Routing: 01PCK'. Below this, the 'Description' is 'Picking'. A red box highlights the 'Sequence: 30' and 'Internal Routing Group: 070' fields. Under the 'Transaction Create' section, several checkboxes are checked: 'Confirmed at Source', 'Two Phase', and 'Keep From Status'. The 'System Code' is set to 'RF'. In the 'Task' field, 'TRANSFER' is selected, with a red box around it. The 'Priority' is 10 and the 'Increment' is 1. The 'Miscellaneous Options' section shows 'Mode: Manual' selected, also with a red box. Other options like 'Clear Shortages', 'Create Shipper', and 'Check Inspection' are unchecked. The QAD logo is in the bottom left, and 'WSP:740' is in the bottom right.

Adding another sequence to the Pick internal routing triggers a transfer task when the load is dropped at the packaging area; however, with Mode set to Manual, the trigger requires that the user manually release the task.

Start with the QMI Warehouse, then:

- 1 Add Sequence 30; 070, to routing 01PCK using Internal Routing Maintenance, setting:
 - a Task = TRANSFER
 - b Mode = Manual

Enable User A to Process a Transfer Task


2. Enable UserA to process a Transfer Task

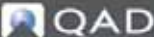
Task Assignment Maintenance

User ID: UserA RF User A

Queue 1

1	PICK	Auto						
2	TRANSFER	Auto						

Queue: 1 Seq: 2 Task: TRANSFER  Confirmation Mode: Auto

 WHPK791

The locations in the packaging area are assigned to WLG 01CT, currently assigned to UserA. To ensure UserA receives the transfer task when the task is triggered, UserA must be setup to process a transfer task. Use User Task Assignment Maintenance to add the transfer task to the work Queue.

Alternatively, you can change the locations in the packaging area to WLG 01FL using Warehouse Location Maintenance.

You can assign UserB to Work Location Group 01CT using User Work Location Group Maintenance.

Doing one of the alternatives enables UserB to receive the load transfer task from the packaging to shipping areas.

Release and Pick an Order

3. Release and pick an order

1

Order: S0101 Order Date: 10/30/11 Ship To PO:

Ln	Item Number	Site	Lot/Serial	Qty	Due
		T Location	Ref	Open UM	Shipped
1	03120	10-301			
	Scented Disinfectant Pump			3.0 EA	10/31/11
		040EA001	PL000110	3.0	()

2

Task	Tran Nbr	Site	Warehous	Estimated	From Location	To Location	Item Number	Qty	Exp	Actual	Status
PICK	85	10-301	01	00:00:00	040EA001	060PA001	03120	1.0		0.0	OPEN
Total				00:00:00							

3

Picking 85
SO S0101
Loc: 040EA001
03120
EA Ref: PL000110
Qty: 3.0
Qty: 1.0

4

Picking 85
To Loc: 060PA001
Loc: 060PA001
Chk:
Item Number:
03120
Lot/Serial:
EA Ref: PL000110

QAD WH-PIK-750

To demonstrate the product flow and delayed task creation, first release and pick an order:

- 1 Release an order using Picklist/Pre-Shipper – Automatic.
- 2 View the pending task using Task Load Report. Note, only one task is created for a pick; nothing yet for the subsequent transfer.
- 3 Process the pick.
- 4 Drop at the packaging area.

Note The finger scanner, shown in the graphic above, replaces hand-held scanners.

Validate an Order in Packaging

4. Validate an order in packaging

Inventory Detail Inquiry

Site: 10-301	Item Number:	Display Whse Loc: No
Warehouse:	Lot/Serial:	Disp Non-Whse Loc: No
Location: 060PA001	Reference:	Output: PAGE
Warehouse: 01	Warehouse 1	

Item	Status	Qty	Expect	Expect	Detail	Detail
Lot	Ref	UM On Hand	In	Out	Alloc	Pick
03120	Y-Y-N PL000110	EA	3			3

QAD WH-PKG-260

With the pick task complete, view the load in the Packaging Area using Inventory Detail Inquiry. Product has been moved to the packaging location, as shown in the display above.

Activate Engine Processing

5. Activate Engine Processing

Engine Activation RF 1.6

1 Engine Activation
Loc: 060PA001
Chk:
so 50101
03120
Ref: PL000110
Cancel: No

2 Engine Activation
Loc: 060PA001
Chk:
so 50101
03120
Ref: PL000110
Cancel: No
Eng process compl

3

Location	Status	Qty	Qty	Expect	Expect	Detail	Detail
Lot/Serial	Ref	UM	On Hand	Alloc	In	Out	Alloc
060PA001	Y-Y-N	EA	3			3	3
070SH001	Y-Y-N	EA			3		

4

Task	Tran Nbr	Site	Warehous	Estimated	From	To	Location	Location	Item Number	Qty	Exp	Actual	Status
TRANSFER	86	10-301	01	00:00:00	060PA001	070SH001	03120			3.0	0.0	OPEN	
Total				00:00:00									

QAD WH-PIK-770

Once packaging activities are complete the load is ready for movement to the shipping area:

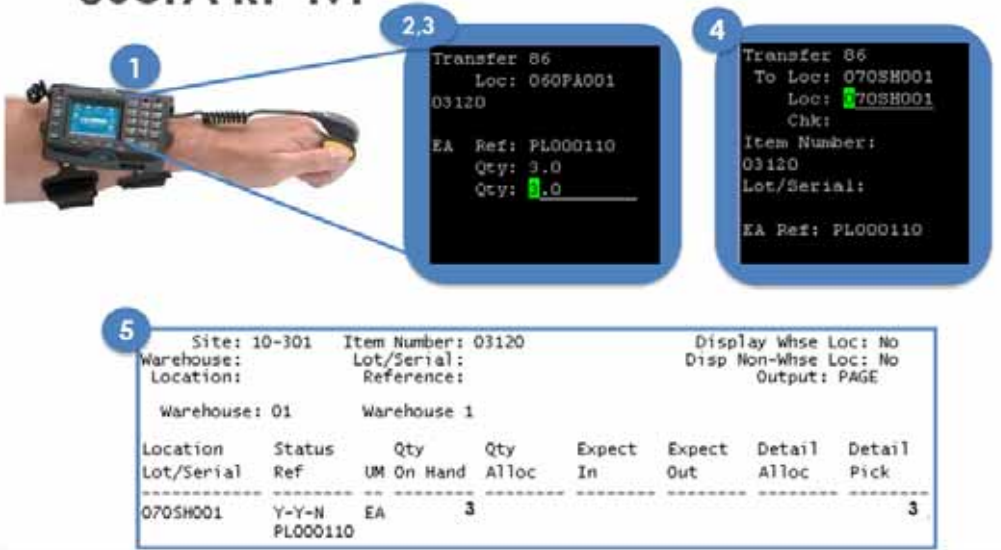
- 1** Activate Engine Processing using RF 1.6. T
This releases the tasks for packaging. This method ensures that inventory is not released before it is ready to be packaged.
 - a** Select the packaging location.
 - b** Select the item LPN.
- 2** Once the engine processing is complete, view the pending load move using Inventory Detail Inquiry.
- 3** View the new task using Task Load Report. This is the send task of the 01PCK internal routing.

Process the Move from Packaging to Shipping

6. Process the move from Packaging to Shipping

UserA RF 1.1

UserA RF 1.1



1

2,3

```
Transfer 86
Loc: 060FA001
03120
EA Ref: PLO00110
Qty: 3.0
Qty: 1.0
```

4

```
Transfer 86
To Loc: 070SH001
Loc: 070SH001
Chk:
Item Number:
03120
Lot/Serial:
EA Ref: PLO00110
```

5

Location	Status	Qty	Qty	Expect	Expect	Detail	Detail
Lot/Serial	Ref	UM On Hand	Alloc	In	Out	Alloc	Pick
070SH001	Y-Y-N PLO00110	EA	3				3

QAD

WH Pkg700

Move the load from packaging to shipping:

- 1 Select Next Task using RF 1.1.
- 2 Select location.
- 3 Select LPN.
- 4 Confirm drop location.
- 5 Confirm the move using Inventory Detail Inquiry.

Key Learning Points

QAD Warehousing Picking

Key Learning Points


- QAD Warehousing supports most picking best practices
- QAD Warehousing provides much deeper picking functionality than QAD Core
- Your order profile and operation performance targets will dictate your picking strategies
- Location sequence could impact pick routes

Exercises - Picking Setup and Execution

Exercise – Picking Setup and Execution

Picking Setup and Execution

- Set up warehouse, area and zone
- Set up pick routing
- Assign pick routing
- Set up pick rules
- Set up drop pick rules
- Set up discrete pick items


WH-PK-550

This exercise teaches you to set up a basic discrete pick from the new QMI warehouse.

- 1** Set up or confirm setup of the warehouse, area and zone
 - c** Confirm the pallet and each storage zones are assigned a picking level
 - d** Confirm the warehouse includes the pallet and each storage zone levels in the picking start and end picking level range.
- 2** Set up pick routing.
 - a** Inventory is picked in the Storage area and moved to Shipping.
 - b** Create a pick routing
- 3** Assign pick routing
 - a** Assign the replenishment routing to a generic replenishment pick transaction type
- 4** Set up pick rules
- 5** Set up pick drop rules
- 6** Set up discrete pick items

Exercise - Set Up Warehouse, Area, and Zone

Exercise

Set Up Warehouse, Area, and Zone

1. Confirm the warehouse, areas and zones are setup and configured per a previous exercise.
2. Confirm the pallet and each storage zones are assigned a picking level in Storage Location Group Maintenance.
3. Confirm the Warehouse includes the pallet and each storage zone levels in the picking start and end picking level range in Warehouse Maintenance.

Refer to the Introduction section of this training guide to confirm the warehouse, area, zone and locations are setup.

Next, confirm the pallet and each storage zones are assigned a picking level using Storage Location Group Maintenance.

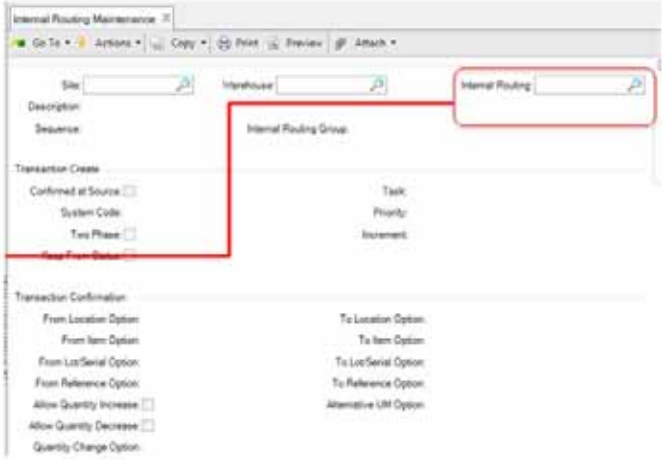
Confirm the warehouse includes the pallet and each storage zone levels when you set the Start Picking Level and End Picking Level fields in Warehouse Maintenance. Refer to the Introduction chapter in this training guide for more information.

Exercise - Set Up Pick Routing

Exercise

Set Up Pick Routing

1. Inventory will be picked in the Storage area and moved to Shipping.
2. Create a pick routing using Internal Routing Maintenance.



QAD WH-PK-570

When you set up a routing, inventory is picked in the Storage area and moved to Shipping.

In Internal Routing Maintenance, define parameters, then note the parameters you enter here:

Field	Data to Enter	
Site	10-301	
Warehouse		
Internal Routing	Picking	
Description		
	Start	End
Sequence	10	20
IRG		
To Reference Option	0	3
	(Lets you change the pin number.)	

Exercise - Assign Pick Routing

Exercise

Assign Pick Routing

The diagram illustrates a warehouse layout with three main sections: **Receiving** (labeled 'Area = Receiving'), **Storage**, and **Shipping**. The **Shipping** section is further divided into **Shipping** and **Packing**. An arrow indicates a pick routing path from 'Sequence 10 Start' in the Storage area to 'Sequence 20 End' in the Shipping area. The left side is labeled 'INBOUND' and the right side 'OUTBOUND'. Below the diagram is a table with the following data:

Transaction Type	PICK-*
Site	10-301
Warehouse	
Internal Routing	

QAD WAREHOUSING

When a pick task is created, it follows the pick routing.

Assign the replenishment routing to a generic replenishment pick transaction type using Int Routing Assignment Maint. Define parameters, then note the parameters you enter here:

Field	Data to Enter
Transaction Type	PICK-*
Site	10-301
Warehouse	
Internal Routing	

Exercise - Set Up Pick Rules

The screenshot shows the 'Algorithm Assignment Maintenance' window. The 'Algorithm Type' is set to 'PK' and the 'Transaction Type' is 'PICK-RE'. The 'Site' is '12000' and the 'Warehouse' is 'whae'. The 'Assigned Algorithms' table is currently empty. The 'Sequence' field is set to '10' and the 'Algorithm' field is set to '9'.

QMI has a FIFO inventory preference.

Use Algorithm Assignment Maintenance to define picking rules for replenishment inventory.

The pick rules for picking are the same as the pick rules for replenishment. No changes are made if the replenishment exercise was performed.

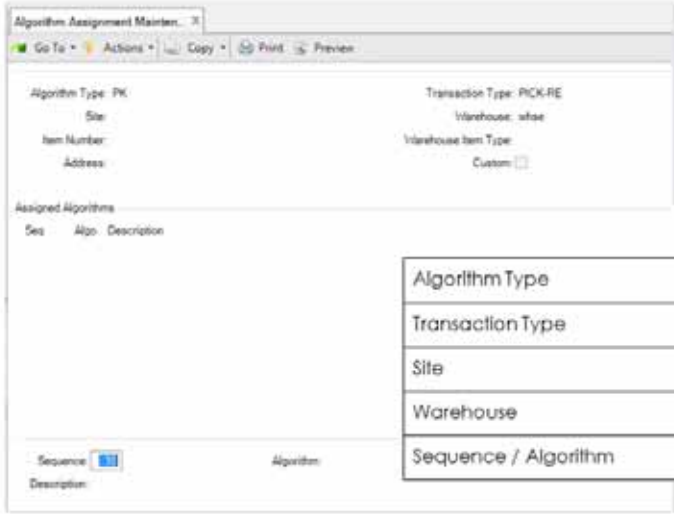
Define parameters, then note the parameters you enter here:

Field	Data to Enter
Algorithm Type	PK
Transaction Type	PICK-*
Site	10-301
Warehouse	
Sequence	10
Algorithm	9

Exercise - Set Up Drop Pick Rules

Exercise

Set up drop pick rules



Algorithm Type	LF	
Transaction Type	PICK-*	
Site	10-301	
Warehouse		
Sequence / Algorithm	10	1

All picks are moved to the shipping area for final processing and shipment.

Use Algorithm Assignment Maintenance to define pick drop rules for inventory in the shipping area. Define parameters, then note the parameters you enter here:

Field	Data to Enter	
Algorithm Type	LF	
Transaction Type	PICK-*	
Site	10-301	
Warehouse		
Sequence/Algorithm	10	1

Exercise - Set Up Discrete Pick Items

Exercise
Set up Discrete Pick Items

Sales Order Maintenance

1. Create a Sales Order for 105 each of item 03120

2. Release the order to the warehouse using Picklist/Pre-Shipper -Automatic

QAD WM-PW-010

- 1 Create a Sales Order for 105 each of item 03120 using the core Sales Order Maintenance program.
- 2 Release the order to the warehouse using the core Picklist/Pre-Shipper Automatic program.

Question

Is the inventory coming from the same location?

If set up correct, 100 each comes from a pallet location and five from an each location. This is a best practice for optimizing material handling efficiencies.

Questions

- 1 Name the three types of picking supported by QAD Warehousing.
- 2 Discrete picking means picking _____ order at a time.
- 3 True or False. QAD Warehousing lets you pick a less than full pallet, case, or box quantity.
- 4 Briefly describe why you set start and end picking levels in QAD Warehousing.
- 5 True or False. You must use the PICK-RE transaction type for picking as it is the only picking transaction type available in QAD Warehousing.
- 6 Batch and bulk picking are helpful because they allow the user to _____.
- 7 True or False. Cartonization is the process of systematically selecting the best size carton to which staff pick an order, and is supported in QAD Warehousing?
- 8 Mix and Match. Which pick type (discrete, bulk, batch) fits the following descriptions:

Attribute	Enter Best Type of Picking
Easy to use	
Requires a secondary pick	
Pick one order at a time	
Easily done with paper pick lists	
Multiple orders picked to a specific order/carton	
Better for higher order volumes with low lines per order	
The least common way to pick multiple orders at the same time	

Answers

- 1 The three types of picking supported by QAD Warehousing are discrete, bulk, and batch picking.
- 2 one.
- 3 True. QAD Warehousing lets you pick a less than full pallet, case, or box quantity.
- 4 The start and end picking settings determine the picking levels to be used for the pick. The system then looks for inventory in the storage location groups that correspond to the specified range of picking levels.
- 5 False. There are several PICK-* transaction types in QAD Warehousing; PICK-RE is just one transaction type.
- 6 pick multiple orders at the same time.
- 7 False. Although cartonization is the process of systematically selecting the best size carton to pick an order to, this is NOT supported in QAD Warehousing?
- 8 Pick types (discrete, bulk, batch) that fit the following descriptions:

Attribute	Enter Best Type of Picking
Easy to use	Discrete
Requires a secondary pick	Bulk
Pick one order at a time	Discrete
Easily done with paper pick lists	Discrete
Multiple orders picked to a specific order/carton	Batch
Better for higher order volumes with low lines per order	Batch
The least common way to pick multiple orders at the same time	Bulk

Notes

Chapter 5

Shipping

Overview

QAD Warehousing Shipping

QAD Warehousing

WMS Field Readiness Greenbelt



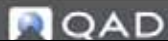
 Our Passion. Your Advantage.

Objectives

QAD Warehousing Shipping

Objectives

- Functional fit
- Understand shipping concepts
- Setup & Execute
 - Truck Ship
 - Container Move (optional)
 - Containerization (optional)









W17P011


Functional Fit: What We Don't Do So Well


What we don't do so well


Functional Fit: Pack & Ship

Functionality	Fit	Notes
Determine optimal container size and contents		
Supports system directed packing		
Display special packing instructions on RF		
Unpick option		
Supports system directed loading and auditing		
Parcel manifesting		Requires TMS

Legend

 Partial

 None

 QAD

144-75-000

Did You Know

Truck Ship features include:

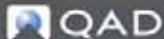
- Indicate truck shipment
- Create a master bill of lading (MBOL)
- View all shippers loaded on the truck for a given truck location

Concepts

QAD Warehousing Shipping

Concepts

1. Process the paperwork and release the truck (Truck Ship)
2. Move the unit load to a truck for shipment (Container Move)
3. Consolidate orders/packages into a movable unit load for shipping (Containerization)



WH-TR-040

Did You Know

You can print shippers and pre-shippers for distribution orders and sales orders.

Shipping Configuration



The graphic above depicts the programs to use when setting up for and using shipping in QAD Warehousing.

Define Shipping and Zone Area

Define Shipping Area and Zone

Internal Routing Group / Storage Location Group

Internal Routing Group Maint

Site: 10-301
Warehouse: 01

Internal Routing Group: 070
Description: Shipments

Functional:

SLG Default Values

Allow Issues:
 Allow Receipts:
 Allow Outgoing Returns:
 Allow Incoming Returns:

Storage Location Group Maint

Site: 10-301
Warehouse: 01

Storage Location Group: 070SH
Description: Shipments

Internal Routing Group: 070

Allow Issues:
 Allow Receipts:
 Allow Incoming Returns:
 Allow Outgoing Returns:

Opportunity Counts:
 Opportunity Count Frequency: 0
 Check Digits:
 Cycle Count Status Option: 0

01
070
070SH

OUTBOUND

Use Internal Routing Group and Storage Location Group to define shipping areas and zones within the warehouse.

Ensure you have enabled the Functional field, which indicates that the system uses location-find algorithms when selecting the zones and areas when moving goods into them for shipping.

First setup a shipping area and zone using Internal Routing Group Maintenance and Storage Location Group Maintenance respectively. The shipping areas are functional.

In the graphic above, the packaging area was removed from the process flow. Note that, this might be different from the setup in the QMI environment.

Locations Can Have Many Attributes

Locations can have many attributes

Warehouse Location Maintenance

The screenshot displays the 'Warehouse Location Maintenance' form. At the top, it shows 'Site: 10-301' and 'Distribution Site 1'. The 'Location: 070SH001' is highlighted with a red box. Below this, the 'Location Groupings' section includes 'Warehouse: 01', 'Storage Location Group: 070SH', and 'Work Location Group: 01CT'. The 'Warehouse Location Data' section contains fields for 'Check Digit', 'Popularity', 'Storage Type' (set to 'STAGE'), 'Warehouse Location Type', 'Travel Sequence' (set to '0'), and a 'Dedicated' checkbox. To the right, a diagram shows a hierarchy of location codes: '01' at the top, '070' below it, '070SH' below that, and three sub-locations '070SH001', '070SH002', and '070SH003' at the bottom. A red box highlights the '070SH001' sub-location, with a blue arrow pointing from the 'Location: 070SH001' field in the form to it. The word 'OUTBOUND' is written vertically to the right of this diagram.

Site: 10-301 Distribution Site 1

Location: 070SH001

Location Groupings:

Warehouse: 01

Storage Location Group: 070SH

Work Location Group: 01CT

Warehouse Location Data

Check Digit:

Popularity:

Storage Type: STAGE

Warehouse Location Type:

Travel Sequence:

Dedicated:

01

070

070SH

070SH001

070SH002

070SH003

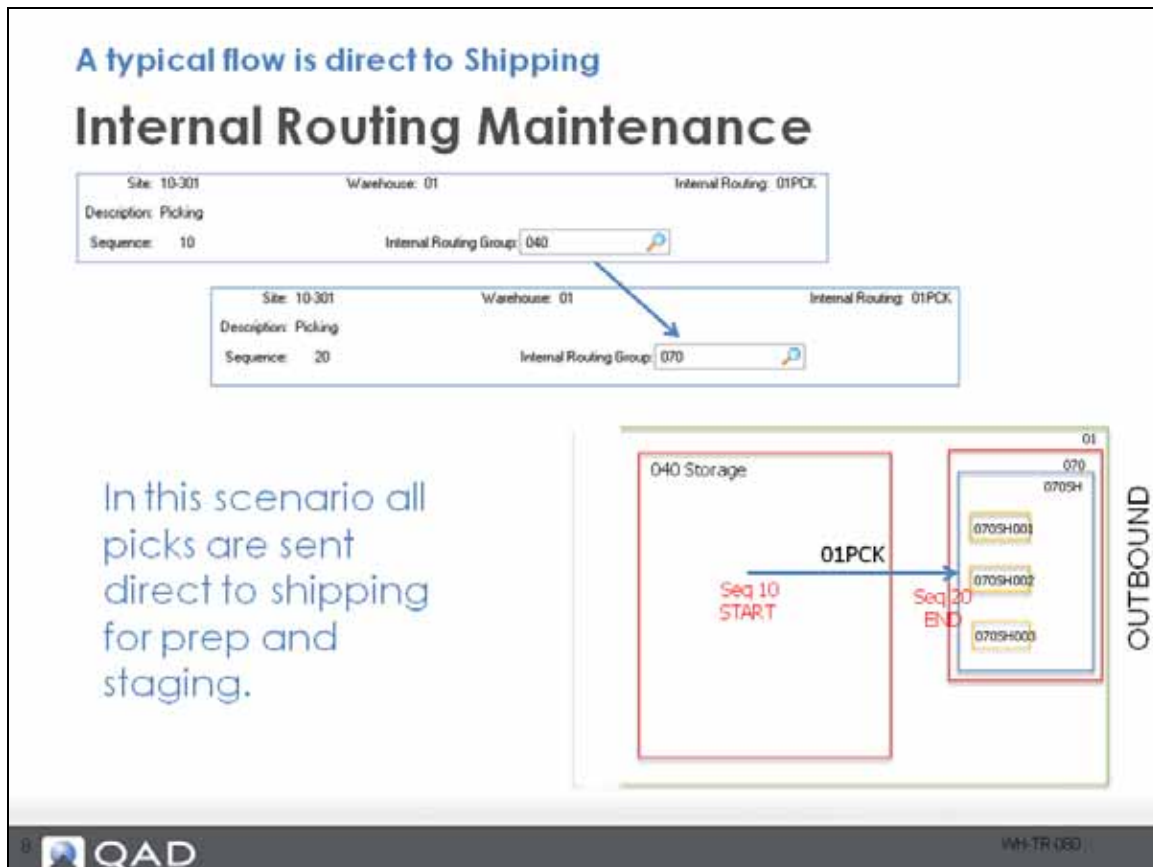
OUTBOUND

7 QAD

WH-TR-070

You create at least one location in the ship zone. Then, you assign Storage Type as truck or stage. The reasons you do this are revealed in later topics under truck ship.

Typical Flow Direct to Shipping



Note When comparing the set up in the graphic above to the QMI warehouse, 01PCK might route to a packaging area for shipment preparation. For simplicity, the routing changed to the shipping area by changing Sequence 20 to 070 for Internal Routing 01PCK.

Using this scenario lets you ship a load without the requirement of moving the container/load to a shipping location/lane. This might occur when loading directly to a truck.

When to Use Pick Routing

When to use the Pick routing

Int Routing Assignment

Transaction Type: PICK-*

Site: 10-301

Warehouse: 01

Item Number:

Warehouse Item Type:

Address:

Custom:

Internal Routing: 01PCK

Custom Program:

1. When this transaction type is created...
2. And is associated to thesees...
3. This material flow is initiated.

QAD

WH-TR-090

The routing is assigned to all pick tasks. This was also covered in the Pick session.

Look for a General Spot in Shipping

Look for a general spot in Shipping

Algorithm Assignment Maintenance

Algorithm Type: LF Transaction Type: PICK-*

Site: 10-301 Warehouse: 01

Item Number: Warehouse Item Type:

Address: Custom:

Assigned Algorithms:

Seq	Algo	Description
10	1	First Location in First Storage Location Group

An Algorithm outlines what to do once you are in the next Area. There are 13 Location Find rules.

The diagram illustrates the flow of a Location Find algorithm. An arrow labeled '01PCK' points to a box representing a storage location group. The box is labeled '01' at the top right and '070' at the top left. Inside the box, three items are listed: '070SH001', '070SH002', and '070SH003'. The box is labeled 'OUTBOUND' on the right side.

QAD WH-TR-100

Shipping is a Functional Area so use a generic Location Find algorithm.


Any User Performs Manual Moves

Any user can perform manual moves

Users and Work Location Groups

Note:

Container Move and Ship transactions are manual and can be performed by any user regardless of Assignment or Work Location Group

 QAD WH-TR-110

Earlier the ship locations were assigned to Work Location Group 01CT implying UserA, who is assigned to 01CT, would process all moves into and out of shipping locations; however, container move and ship transactions are manual and can be performed by any user regardless of assignment or WLG.

Truck Shipping

Truck Ship is the basic process of getting ship ready orders on to a truck and documentation generated

WH-TR-111

Ship Truck

Ship Truck



Set Up Ship Truck

Setup at least one Truck location

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1

Location: 070TR001

Location Groupings

Warehouse: 01

Storage Location Group: 070SH

Work Location Group: 01FL

Warehouse Location Data

Check Digit:

Popularity:

Storage Type: TRUCK

Warehouse Location Type:

Travel Sequence:

Dedicated:

Optionally, change Storage Type of locations 070SH001 – 003 to Stage or Truck.

QAD WH-TR-233

Setting up three new locations (one for each dock door) lets you move ship ready containers or orders to a dock prior to loading onto a truck. Or, the new locations could represent physical trucks and the containers or orders loaded direct to the truck.

Optionally, changing the Storage Type to Stage or Truck of the current shipping locations lets you move containers or orders to other shipping locations.

QAD Warehousing Shipping - RF Ship Truck

QAD Warehousing Shipping – Ship Truck (RF 3.5)

RF Ship Truck: Monitor Order Status

ID	st
091030PS10	N/OK
091030PS11	OK
091030PS13	OK
090030PS19	TASK
091031PS19	OK

Via:
Ship-To: 002

- **OK:** Can be shipped
- **N/OK:** Can be shipped but some items are not in the truck. If shipped, they will be shipped from their current location
- **TASK:** There are open pick tasks against the Pre-shipper and we can't confirm the shipment

QAD W11TR-140

Warehouse staff use the RF Truck Ship (3.5) option to process and confirm truck shipping and to monitor ship status.

The pre-shipper becomes a shipper as soon as staff confirms everything is on the truck.


Did You Know

The user must be assigned to the ship zone work location group before loading begins.

QAD Warehousing Shipping - RF Ship Truck (Continued)

QAD Warehousing Shipping – Ship Truck (RF 3.5)

RF Ship Truck: Confirm Shipment Ready



ID	St	
091030PS10	OK	*
091030PS11	OK	*
091030PS13	OK	*
090030PS19	OK	*
091031PS19	OK	*

Via:
Ship-To: 002

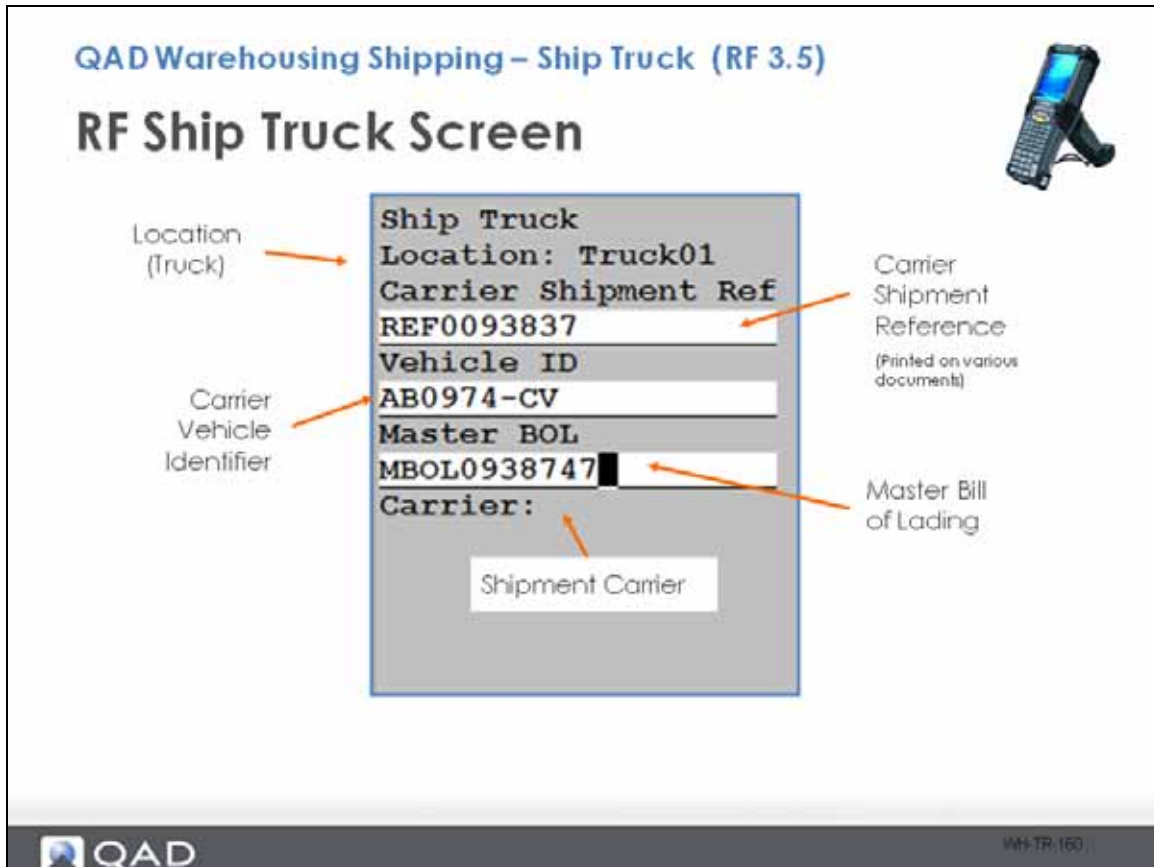
QAD WH-TR-150

With RF Ship Truck you can view all shippers loaded on the truck for a given truck location.

QAD Warehousing Shipping - RF Ship Truck (Continued)


QAD Warehousing Shipping – Ship Truck (RF 3.5)

RF Ship Truck Screen



The image shows a screenshot of the RF Ship Truck screen on a handheld device. The screen displays the following information:

- Ship Truck**
- Location: Truck01** (labeled as Location (Truck))
- Carrier Shipment Ref** REF0093837 (labeled as Carrier Shipment Reference (Printed on various documents))
- Vehicle ID** AB0974-CV (labeled as Carrier Vehicle Identifier)
- Master BOL** MBOL0938747 (labeled as Master Bill of Lading)
- Carrier:** Shipment Carrier



The QAD logo is visible in the bottom left corner, and the text "WH-TR-160" is in the bottom right corner.


RF Ship Truck allows the user to track ship ready status and select specific shippers to include.

Example - Ship Truck

Example - Ship Truck

Ship order SO100

1. Drop a pick at a shipping location
2. Confirm the load is in shipping
3. Log into Ship Truck (3.5)
4. Select the shipping location
5. Select the shipment
6. Approve shipment
7. View "Shipment confirmed" on RF screen
8. Confirm shipment removed from WMS

 WH-TR-170

This example walks you through the shipping of order SO100. The steps shown in the graphic above depict the major steps involved in the Ship Truck process.

Example - Ship Truck (RF 3.5)

Example - Ship Truck (RF 3.5)

Use RF to Process the Shipment

1 Picking 114
To Loc: 070SH001
Loc: 070SH001
Chk:
Item Number:
03121
Lot/Serial:
EA Ref: S0100

2 Site: 10-101 Item Number:
Warehouse: 01 Warehouse 1
Item Status Qty Expect Expect Detail Detail
Lot Ref UR On Hand In Out Alloc Pick
03121 S0100 10 10

3/4 Ship Truck
Location: 70SH001
Carrier Shipment Ref
Vehicle ID
Master BOL
Carrier:

5 Ship Truck
Location: 70SH001
ID St
PS1020110013 OK
Via: FEDX
Ship-To: 10C1000

6 Ship Truck
Location: 70SH001
ID St
PS1020110013 OK
Confirm shipment
0

7 1 Records
1 Confirmed
0 Errors
Master BOL
MBOL0009
Shipment confirmed

8 Site: 10-101 Item Number:
Warehouse: 01 Warehouse 1
Location: 070SH001 Reference:
4917 Inventory Detail Inquiry whi

QAD WHTR-100

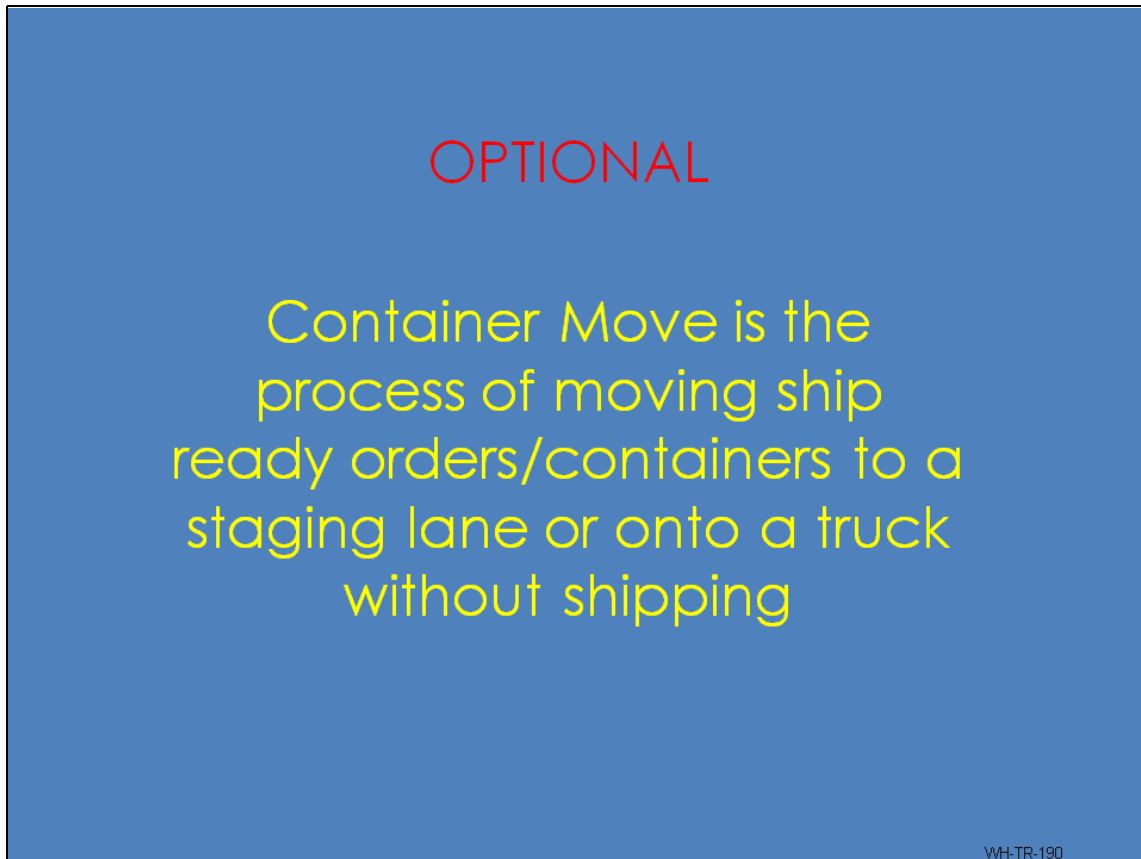
On the RF, an asterisk next to the shipper indicates open tasks exist. Tasks include:

- 1 Drop a pick at a shipping location.
- 2 Confirm the load is in shipping.
- 3 Log into Ship Truck (3.5).
- 4 Select the shipping location.
- 5 Select the shipment.
- 6 Approve the shipment.
- 7 View Shipment Confirmed on RF screen.
- 8 Confirm the shipment removed from QAD Warehousing.

When specifying the carrier when confirming, the RF validates that all shippers being confirmed belong to a service of the carrier.

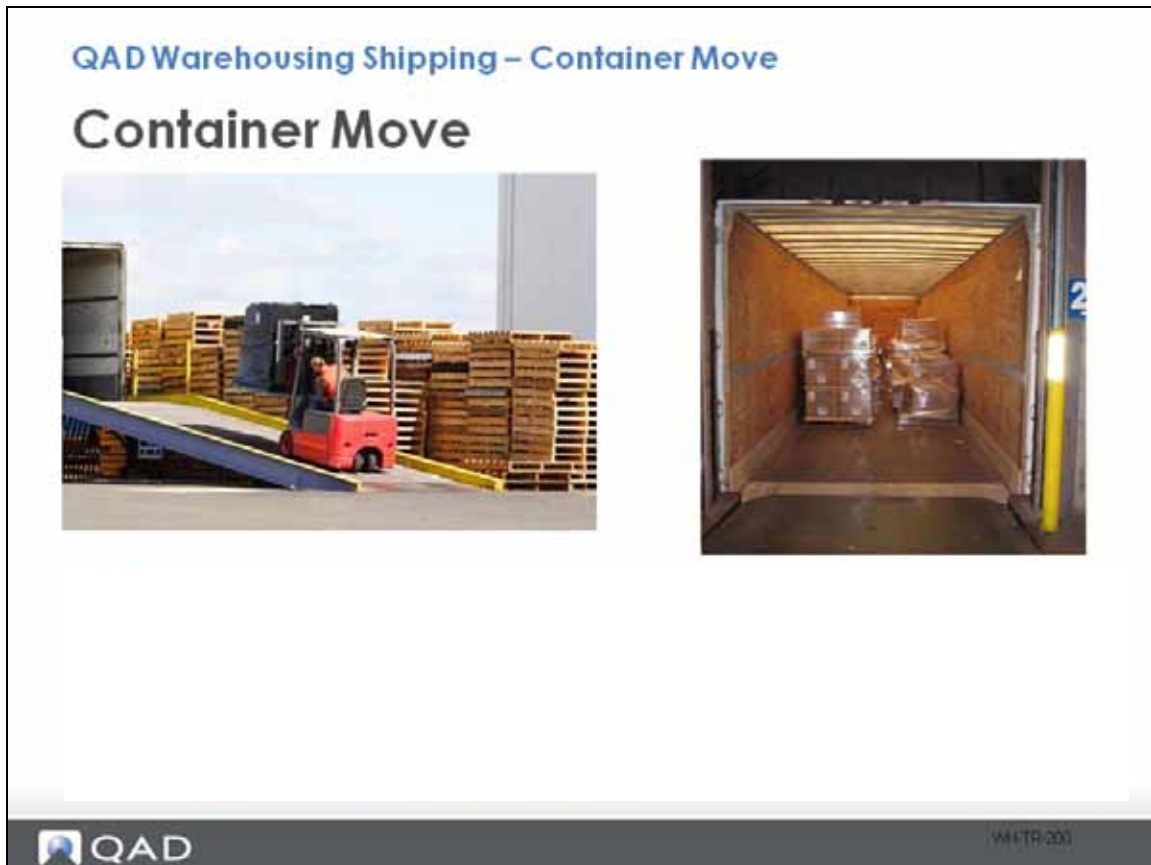
The system may send an process end of day (PEOD) message to the TMS prior to confirming the shipper issue inventory transactions.

Optional - Container Move



QAD Warehousing users are provided optional container move functions when shipping. Refer to User Guide: QAD Warehousing for information on container move functions.

Container Move



Container Move is helpful if you are staging containers or individual orders before shipment or if you plan to use trucks for temporary storage.

Note the following about Container Move:

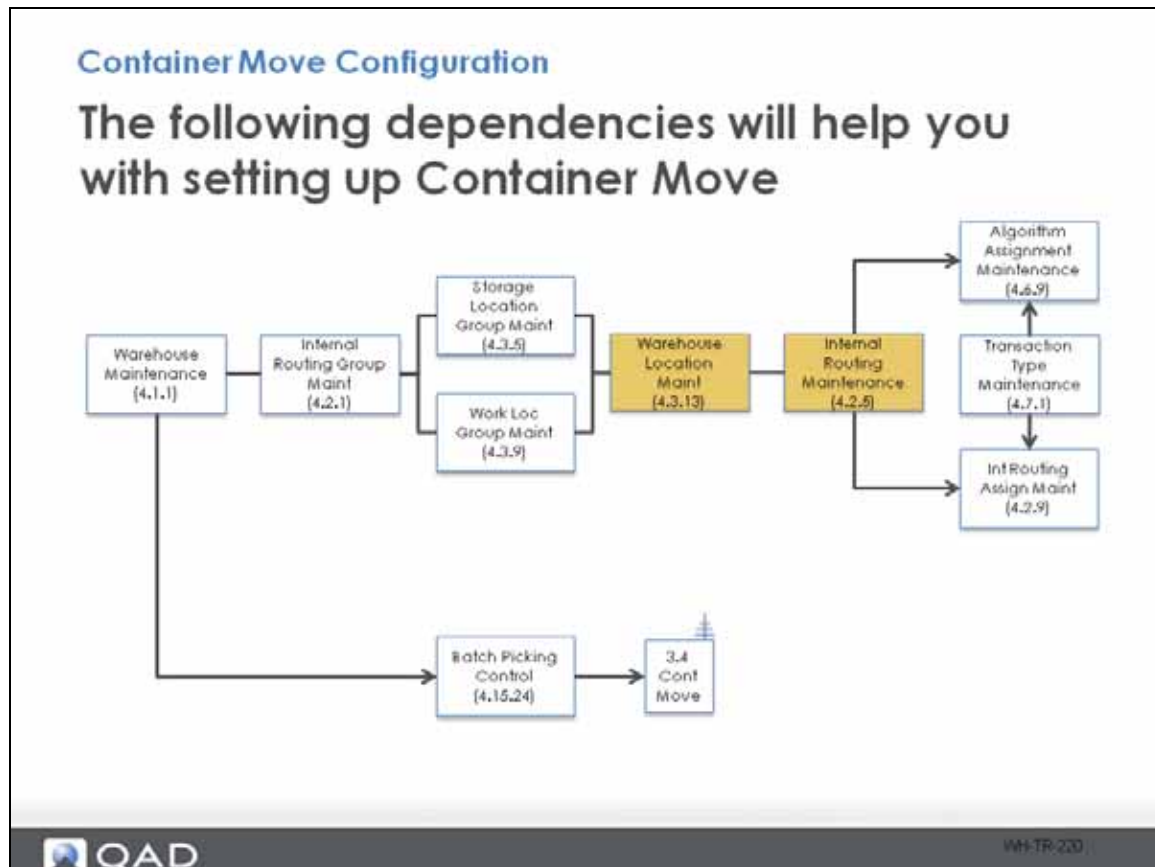
- Container Moves is not available in QAD Core.
- Items are moved to a truck but still require shipping from QAD.
- Can ship the pre-shipper without loading the truck.

Did You Know

With container move functionality you can:

- Move any pallet with detail allocation and containerization to a truck.
- Validate steps when moving containers.
- Report on the position of each pallet in the truck.
- Load pallets in reverse dropping order.

Container Move Configuration



If shipping is already configured, setting up Container Move requires minor changes to Warehouse Location Maintenance and Internal Routing Maintenance.

The highlighted boxes in the graphic above show primary menus to change for this example.

Set Up at Least One Truck Location

Setup at least one Truck location

Warehouse Location Maintenance

Site: 10-301 Distribution Site 1

Location: 070TR001

Location Groupings

Warehouse: 01

Storage Location Group: 070SH

Work Location Group: 01FL

Warehouse Location Data

Check Digit:

Popularity:

Storage Type: **TRUCK**

Warehouse Location Type:

Travel Sequence:

Dedicated:

Optionally, change Storage Type of locations 070SH001 – 003 to Stage or Truck.

WH-TR-230

Setting up three new locations (one for each dock door) lets you move ship ready containers or orders to a dock prior to loading onto a truck. Or the new locations could represent physical trucks and the containers or orders loaded direct to the truck.

Optionally, changing the Storage Type to Stage or Truck of the current shipping locations lets you move containers or orders to other shipping locations.

Define a Product Flow to Move to Truck Locations

Define a product flow for movement to Truck or Stage locations

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01LTR

Description: Load Pallet on Truck
Sequence: 10 Internal Routing Group: 070

Transaction Create

Confirmed at Source: Task: TRANSFER
System Code: RIF Priority: 100
1 Two Phase: Increment: 10
Keep From Status:

Transaction Confirmation

From Location Option: 0 To Location Option: **2** 3
From Item Option: 0 To Item Option: 0
From Lot/Serial Option: 0 To Lot/Serial Option: 0
From Reference Option: 0 To Reference Option: 0
Allow Quantity Increase: Alternative UM Option: 0
Allow Quantity Decrease:
Quantity Change Option: 0

QAD W4TR-240

Use Internal Routing Maintenance to define product the flow to a truck location:

- 1 This is a one-phase movement staying within the shipping area, so do not enable the Two Phase field.
- 2 Setting the To Location Option to 3 lets you change drop locations within the shipping zone.

Link a Transaction Path to the Product Flow Type

Link a Transaction Type to the product flow path

Internal Routing Assignment Maint

Transaction Type: LOC-TR
Site: 10-301
Warehouse: 01
Item Number:
Warehouse Item Type:
Address:
Custom:
Internal Routing: 01LTR
Custom Program:

1. When this transaction type is created...
2. And is associated to theses...
3. This material flow is initiated.

QAD WHTR-250

Use Internal Routing Assignment Maintenance to link a transaction type to the product flow type.

Assign the new Internal Routing to Transaction Type LOC-TR, which is triggered from Container Move on the RF.

Look for a General Stage/Truck Location

Look for a general Stage and/or Truck location

Algorithm Assignment Maintenance

Algorithm Type: CM Transaction Type: LOC-TR
 Site: 10-301 Warehouse: 01
 Item Number: Warehouse Item Type:
 Address: Custom:

Assigned Algorithms

Seq	Algo	Description
10	14	Move to Dock - Find Dedicated Dock
20	12	Move to Dock - Merge with same Shipper/Ship-To
30	11	Move to Dock - Find Empty Location

There are 9 Container Move rules.

01LTR

OUTBOUND

QAD

Finally, assign an algorithm sequence to Transaction Type LOC-TR. Use Algorithm Type CM for selecting a Truck or Stage location in the shipping Area.

The Move to Dock algorithms causes the system to look for a location with Storage Type set to Truck; however, you can override the system and move product to locations 070SH002 or 003 even when they are assigned to a Storage Type set to Stage. Why? You set the To Location Option field in Internal Routing Maintenance to 3.

Example - Container Move

Example - Container Move

Move a Container/Load

1. Identify a load in a shipping location
2. Log into Container Move (RF 3.4)
3. Select the LPN to move
4. Select the drop location
5. Confirm load was moved


QAD WH-TR-270

The steps shown in the graphic above depict the major processing steps when using the optional container move function.

Example - Container Move (RF 3.4)

Example - Container Move (RF 3.4)

Move a Container/Load



Site: 10-301 Item Number: Warehouse: 0705H001 Location: 0705H001 Warehouse: 01 Warehouse 1

Display Whse Loc: No
Disp Non-Whse Loc: No
Output: PAGE

Item	Status	Qty	Expect	Expect	Detail	Detail
Lot	Ref	UM On Hand	In	Out	Alloc	Pick
03210	Y-V-R PL000243 PL	EA 100				100

1

2

3

4

5

Loc Transfer
Ref: PL000243
Loc: 0705H001
Chk:
S: PB1024110008
Destination
Loc: 070TR001
Chk:
Via: FEDX
Lo:

Site: 10-301 Item Number: Warehouse: 0705H001 Location: 0705H001 Warehouse: 01 Warehouse 1

Display Whse Loc: No
Disp Non-Whse Loc: No
Output: PAGE

4.9.13 Inventory Detail Inquiry whic

Site: 10-301 Item Number: Warehouse: 070TR001 Location: 070TR001 Warehouse: 01 Warehouse 1

Display Whse Loc: No
Disp Non-Whse Loc: No
Output: PAGE

Item	Status	Qty	Expect	Expect	Detail	Detail
Lot	Ref	UM On Hand	In	Out	Alloc	Pick
03210	Y-V-R PL000243 PL	EA 100				100

QAD WH-TR 260

Moving a container or load might be helpful to indicate an packing or consolidation of an order is complete and it is ready for shipment. You can do this by setting up locations and assigning a Storage Type as Stage or Truck. These Storage Types are used as selection criteria with a Container Move Algorithm.

When using Container Move (RF option 3.4), the system promotes a drop location but you can select an alternative.

Steps include;

- 1 Identify a load in a shipping location (identify the shipper).
- 2 Log into Container Move (RF 3.4).
- 3 Select the LPN to move.
- 4 Select the drop location.
- 5 Confirm load was moved.

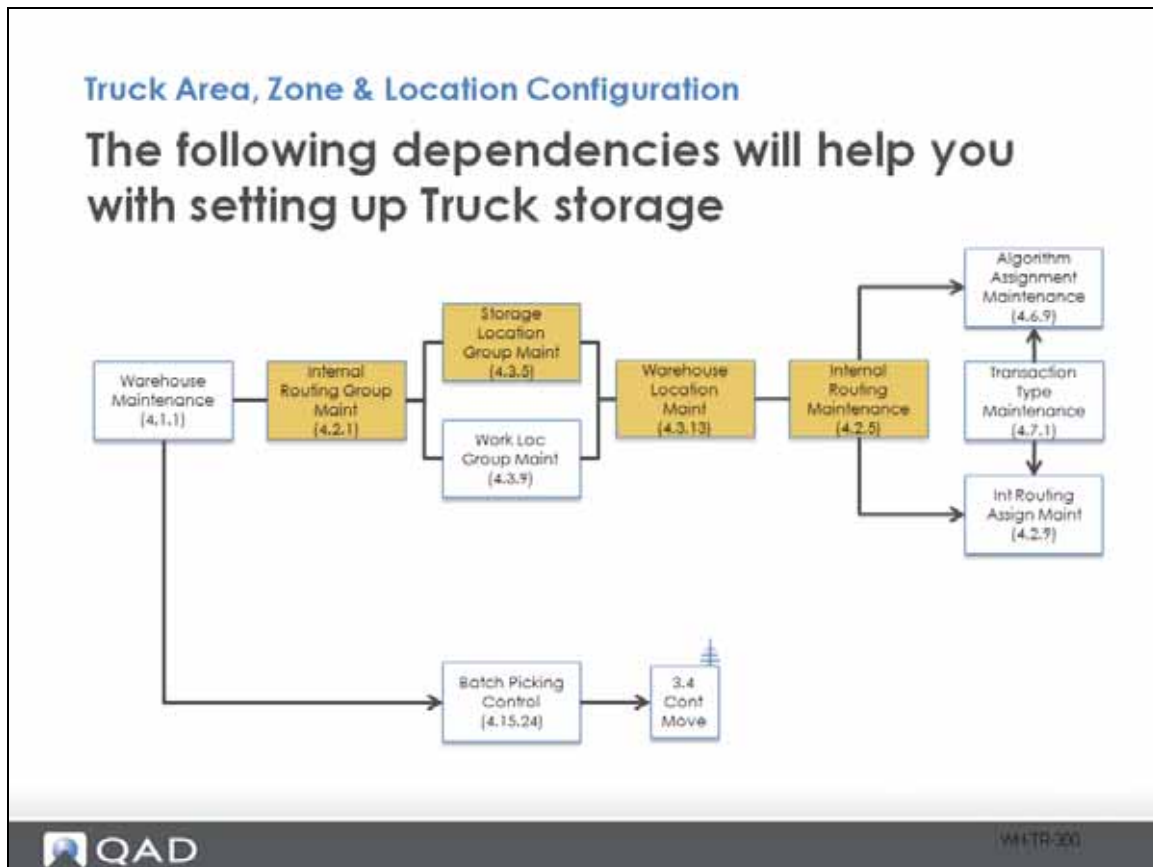
Optional - Trucks as Temporary Storage

OPTIONAL

You can use trucks as
temporary storage locations
before shipping an order

WH-TR-290

Truck Area, Zone, and Location Configuration



If shipping is already configured, setting up Container Move with a separate Truck zone requires changes to:

- Internal Routing Group Maintenance
- Storage Location group Maintenance
- Warehouse Location Maintenance
- Internal Routing Maintenance.

The boxes highlighted in the graphic above indicate programs you manipulate for this container move configuration.

Set Up a Truck Area

Setup a Truck Area

Internal Routing Group Maint

Site: 10-301
Warehouse: 01
Internal Routing Group: 080
Description: Trucks
Functional:

SLG Default Values

Allow Issues:
Allow Receipts:
Allow Outgoing Returns:
Allow Incoming Returns:

DYG:
Specifying an Area, Zone and Location for TRUCK allows you to report on truck capacity and contents using the truck location for storage.

01
080
OUTBOUND

QAD WH-TR-310

In the previous example the Truck locations were in the Shipping Area and Zone. Given the Shipping Area is Functional, we need to create another Trucks Area to be able to report on truck Locations capacity. If detailed truck Location capacity is not relevant, keep the truck locations in the Shipping Area.

Did You Know

Specifying an Area, Zone and Location for Truck lets you report on truck capacity and contents using the truck location for storage.

Set Up a Truck Zone

Setup a Truck Zone

Storage Location Group Maintenance

Site: 10-301
Warehouse: 01

Storage Location Group: 080TR
Description: Trucks

Internal Routing Group: 080


Allow Issues:
 Allow Receipts:
 Allow Incoming Returns:
 Allow Outgoing Returns:

Opportunity Counts:
 Opportunity Count Frequency:
 Check Digits:
 Cycle Count Status Option:

Exclude from Picking:
 Picking Level:
 Picking Multiple UM:
 Detail Overflow Group:
 Capacity Check:
 Optimize:
 Allow Mixed Sta:
 Acquisition UM:

01
080
080TR

OUTBOUND

 QAD

WH-TR-011

Setting a new Trucks are requires and associated Trucks Zone.

Set Up at Truck Locations

The screenshot displays the 'Warehouse Location Maintenance' interface. At the top, it shows 'Site: 10-301' and 'Distribution Site 1'. The 'Location: 080TR001' is highlighted with a red box. Under 'Location Groupings', 'Warehouse: 01' is shown, with 'Storage Location Group: 080TR' and 'Work Location Group: 01FL' also highlighted in red. The 'Warehouse Location Data' section includes fields for 'Check Digit', 'Popularity', 'Storage Type' (set to 'TRUCK' and highlighted in red), 'Warehouse Location Type', 'Travel Sequence' (set to '0'), and a 'Dedicated' checkbox. On the right, there are dropdown menus for 'Picking Type' and 'Preferred I'. Below these is a tree view showing a hierarchy: '01' (highlighted in green) contains '000' (highlighted in blue), which contains '080TR' (highlighted in blue), which contains '080TR001', '080TR002', and '080TR003' (all highlighted in yellow). A vertical label 'OUTBOUND' is positioned to the right of this tree. The QAD logo and 'WH-TR-330' are visible at the bottom of the interface.

Truck Locations can then be assigned to the truck Zone and the fork lift Work Location Group.

Define Product Flow

Define product flow

Internal Routing Maintenance

Site: 10-301	Warehouse: 01	Internal Routing: 01LTR
Description: Load Pallet on Truck	Internal Routing Group: 070	
Sequence: 10		

Site: 10-301	Warehouse: 01	Internal Routing: 01LTR
Description: Load Pallet on Truck	Internal Routing Group: 080	
Sequence: 20		

In this scenario all containers are moved to a truck area.

QAD

W1LTR-340

Use Internal Routing Maintenance to manage product flow from the Shipping Area to the new Trucks Area. You can actually add a Sequence 20 to the existing Internal Routing from the prior example.

Link a Transaction Type to the Product Flow Path

Link a transaction type to the product flow path

Internal Routing Assignment Maint

Transaction Type: LOC-TR

Site: 10-301

Warehouse: 01

Item Number:

Warehouse Item Type:

Address:

Custom:

Internal Routing: 01LTR

Custom Program:

1. When this transaction type is created...
2. And is associated to theses...
3. This material flow is initiated.

QAD WH-TR-350

Assign the new routing to a transaction. This does not need to be changed if it was already setup in the prior example.

Look for a General Truck Location

Look for a general truck Location

Algorithm Assignment Maintenance

Algorithm Type: CM Transaction Type: LOC-TR
 Site: 10-301 Warehouse: 01
 Item Number: Warehouse Item Type:
 Address: Custom:

Assigned Algorithms

Seq	Algo	Description
10	14	Move to Dock - Find Dedicated Dock
20	12	Move to Dock - Merge with same Shipper/Ship-To
30	11	Move to Dock - Find Empty Location

There are 9 Container Move rules.

01LTR CM → [080
080TR
080TR001
080TR002
080TR003] OUTBOUND

Soft END

QAD W1LTR-350

A Container Move series of algorithms is used to select appropriate Truck locations. Use the same Algorithm from the prior example.

Example - Move Container/Load to a Truck

Example

Move Container/Load to a Truck

1. Confirm a load is in shipping
2. Log into Container Move (RF 3.4)
3. Select the load ID
4. Select the load location
5. Select the move to truck location
6. Confirm shipment moved to a truck location
7. Use Location Full % Report to view capacity




WH-TR-37D

In this example, the steps involved to move a container (or a load) to a truck are depicted in the steps above.

Example - Use Trucks as Locations (RF 3.4)

Example - Use trucks as Locations (RF 3.4)

Move a Container/Load to a Truck



Site: 10-301 Item Number: Display Wshs Loc: No
 Warehouse: Lot/Serial: Disp Non-Wshs Loc: No
 Location: 070SH001 Reference: Output: PAGE

Warehouse: 01 Warehouse 1

Item	Status	Qty	Expect	Expect	Detail	Detail
Lot	Ref	UM On Hand	In	Out	Alloc	Pick
03210	Y-Y-N so2	EA	2			2

2

3

4

5

Loc Trans
Ref: so2
Loc: 070SH001
Chk:
S: PS1024110002
Destination
Loc: 080TR001
Chk:
Via: FEDX
Lo:

Via: FEDX
Transfer complete

Via: FEDX
Shipment Ready

6

Site: 10-301 Item Number: Display Wshs Loc: No
 Warehouse: Lot/Serial: Disp Non-Wshs Loc: No
 Location: 080TR001 Reference: Output: PAGE

Warehouse: 01 Warehouse 1

Item	Status	Qty	Expect	Expect	Detail	Detail
Lot	Ref	UM On Hand	In	Out	Alloc	Pick
03210	Y-Y-N so2	EA	2			2

7

Site	Warehous	SLG	Location	Relative Full %	Absolute Full %
10-301	01	080TR	080TR001	0.09	100.00
			080TR002	0.00	0.00
			080TR003	0.00	0.00
				0.09	100.00

QAD W1TR-360

As referenced earlier, setting up a new non-functional truck area allows lets you check the location utilization using the Location Full% Report or the Percent Full column of the Warehouse Location field.

Note Percent Full information is not reported on locations in functional areas.

Steps involved include:

- 1 Confirm a load is in shipping.
- 2 Log into RF Container Move (3.4).
- 3 Select the load ID.
- 4 Select the load location.
- 5 Select the move to truck location.
- 6 Confirm shipment moved to a truck location.
- 7 Use Location Full% Report to view capacity. This only pulls data for locations in non-functional areas.

Note It is also possible to change inventory status of the item when moved to a truck location. For example, the company wants inventory in a truck not available for any purpose. To change inventory status on a move requires setting the inventory status of the truck locations to N-N-N and disabling Keep From Status on the internal routing

Control Truck Load Building Sequence

You can also control truck load building sequence

Batch Picking Control


Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Print Paperwork:

Include Shipper Comments: Print Paperwork Option: 0
Inc Packing Cmmts:
Print Features and Options:
Print Order Details:
Assign Shipper Number:
Display Quantity In SO UM:
Print Lot/Serial Numbers:

Container Move

1 Sequential Shipper Option: 1
Only Shipper Option: 0 2

 WH-TR-330

- 1 In Batch Picking Control, you can use the Sequential Shipper Option to control how pallets are loaded onto a truck. This supports reverse stop loading to help with truck unloading efficiency.
- 2 Use Only Shipper Option to specify the type of message displayed when verifying whether users can load both pre-shippers and shippers or just shippers.

Optional - Containerization



OPTIONAL

Containerization is the process of consolidating packages, pallets and orders prior to shipment and creating a moveable unit load

WH-TR-400

When items/packages arrive at shipping they may need further processing prior to shipment. This might include consolidating all items/packages for the same order or customer and building a larger handling unit load (container). This is frequently done in shipping staging and/or packaging.

Containerization is available for both sales and distribution orders.

Containerization

QAD Warehousing Shipping - Containerization

Order / Package Consolidation



The left photograph shows two workers in a warehouse setting. One worker is wearing a dark blue long-sleeved shirt with a logo on the back, and the other is wearing a white t-shirt. They are standing next to a pallet loaded with several boxes. The right photograph shows a worker in a light blue short-sleeved shirt and light blue pants, wearing a handheld device on his belt, scanning a pallet of boxes in a warehouse aisle.

QAD

WI-TR-410

You can manually create a container and link the container to a pre-shipper in Pre-Shipper/Shipper Workbench or in DO Container Maintenance (EE core programs).

QAD Warehousing provides multi-level containerization through the RF, allowing staff to assemble pallets/packages for shipment until all items for a particular customer ship-to address are complete. The RF containerization option allows users to use RF scanning to consolidate all boxes or pallets built during picking into other containers for shipping.

QAD Warehousing Shipping - Containerization

QAD Warehousing Shipping - Containerization

Shrink Wrap and Stage



QAD WH-TR-411

Once orders/packages are consolidated you can shrink wrap the load and stage for loading to a truck.

Viewer Discretion Advised



The following information and setup has not been configured and tested in the QMI training environment.

Containerization Setup

QAD Warehousing Shipping – Containerization Setup

Batch Picking Control: Containerization

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Undo Available:

Release Orders Option: 2

Create Date: 1/27/2011 QMI User
Modified Date: 10/24/2011 QMI User

Containerization

- 1 Pallet Item: 03120
- 2 Pallet Print Program:
- 3 Pallet Print Option: 0
- 4 Prompt to Remove Constraint:
- 5 Generate Identification:
- 6 Explosion Option: 1

Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Include Sales Orders:
Include Distribution Orders:
Include Work Orders:
SO/DO Batch Selection: Order
Allow Merge Orders:
Close Option: 0
Auto Selection:
Maximum Selection: 99
Maximum Picked Cases: 99
Container/Reference: Reference
7 Container Sequence ID: 00000001
Container Item:
Container Unit of Measure:

QAD V94.111.433


Containerization includes the following steps:

- 1 Enter the default pallet container item.
- 2 Define the program to use when printing labels for pallets. The default program is whprtpal.p.
- 3 Determine if you print pallet labels automatically, not at all, or prompt to print labels.
- 4 Indicate if you want the system to prompt the user to remove a container.
- 5 Define if the system generates a new container ID when using the RF Container Build menu option.
- 6 Explosion Option: Specific whether the system prompts the user to enter the number of boxes or splits the items into boxes when you explode the pallet.
- 7 Also, make sure a Sequence Definition is assigned to the Container Sequence ID on the initial Batch Picking Control frame.

QAD Warehousing Shipping - Containerization (RF 3.3)

QAD Warehousing Shipping – Containerization (RF 3.3)

RF Containerization Screen



Shipper Number →

Ship-To Code →

Scanned Box ID →

Default Pallet ID →

Containerization

S: 091031PS20

To: 0605 1/4

0605

B:CT003 L:Dlane001

C:PL00002 L:Dlane001


C: [] L: []

F2-Pallets F3-Boxes

Number Containerized / Number to Scan →

Pallet Location →

Pallet ID to scan →


WHLTR 430

RF Containerization is used to consolidate boxes or items into a shippable container. This allows for more efficient loading, lower transportation costs, and easier unloading.

View Containerization Progress Via RF 3.3

View containerization progress via RF 3.3

RF Containerization: View Progress

Containerization
S: 091031PS20
To: 0605 1/4
0605
B:CT003 L:Dlane001
C:PL00002 L:Dlane001
C:█ L:
F2-Pallets F3-Boxes

Containerization
S: 091031PS20
To: 0605 1/4
0605
B:CT003 L:Dlane001
C:PL00002 L:Dlane001
C: **PL00002** L: **Dlane001**

Containerization
S: 091031PS20
To: 0605 1/4
0605
B:CT003 L:Dlane001
C:PL00002 L:Dlane001
C: **CT003** L: **Dlane001**
CT006 Dlane001
CT007 Dlane001

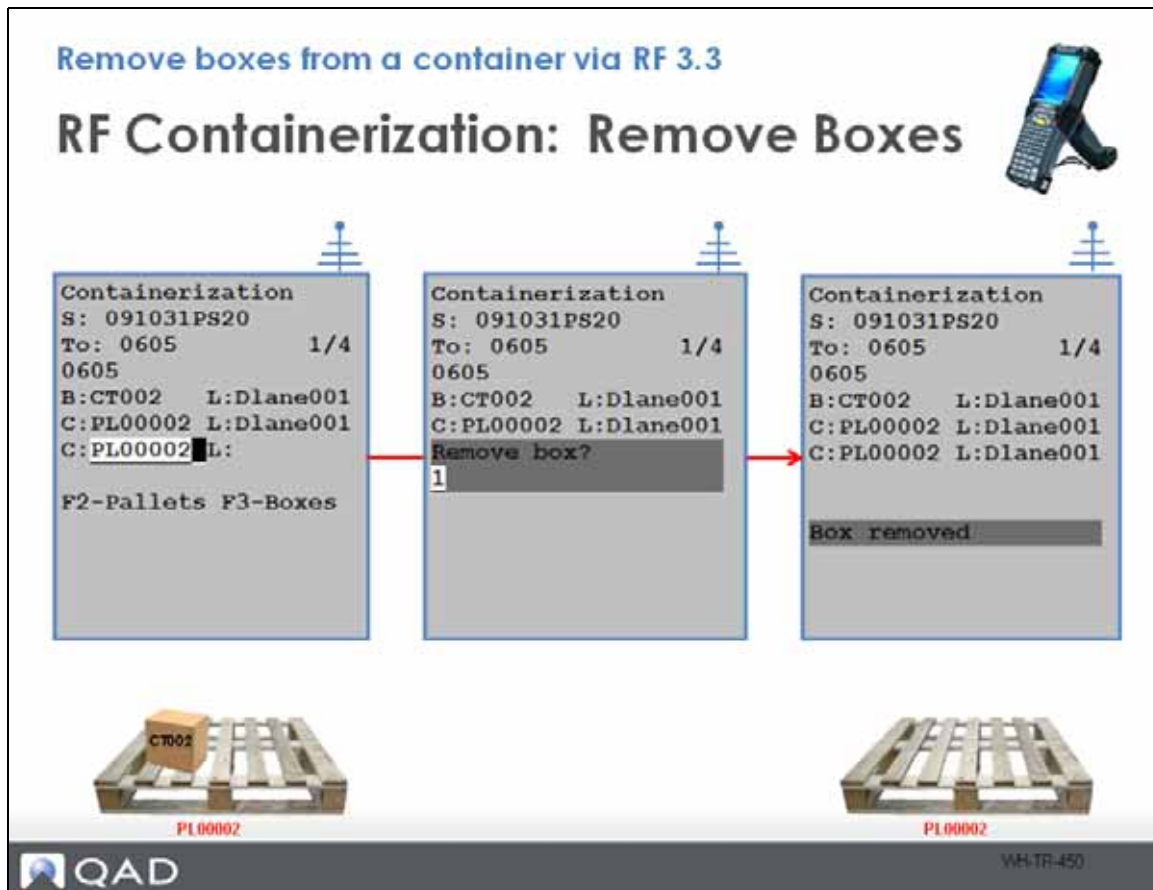
F2

F3

QAD WH-TR 443

Using the RF you can view the number of boxes already containerized and the remaining boxes to be processed to complete the load.

Remove Boxes from a Container Via RF 3.3




RF Containerization lets you manage load consolidation in real time. You can remove boxes from containers or pallets.

Remove Boxes Between Containers Via RF 3.3

Remove boxes between containers via RF 3.3

RF Containerization: Move Boxes



Containerization

S: 091031PS20

To: 0605 3/4

0605

B:CT002 L:Dlane001

C:PL00002 L:Dlane001

C:PL00003 L:

F2-Pallets F3-Boxes

Containerization

S: 091031PS20

To: 0605 3/4

0605

B:CT002 L:Dlane001

C:PL00002 L:Dlane001

C:PL00003 L:Dlane001

Transfer box?

Containerization

S: 091031PS20

To: 0605 3/4


0605

B:CT002 L:Dlane001


C:PL00002 L:Dlane001

C:PL00003 L:Dlane001


Box added




PL00002




PL00003



PL00002



PL00003

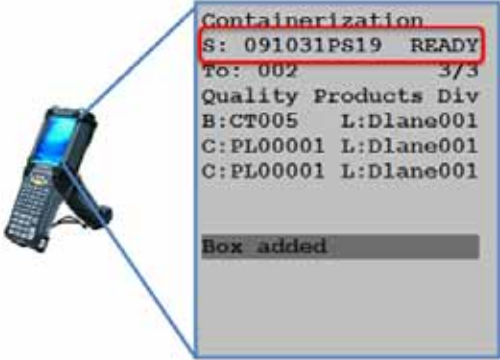

WH-TR 460

Or, you can move boxes from one pallet to another during load building/containerization.

Monitor the Order Status Via RF 3.3

A user can monitor the order status via RF 3.3

RF Containerization: Monitor Order Status



The image shows a handheld RF device connected to a screen displaying containerization data. The data is as follows:

```
Containerization
S: 091031PS19  READY
To: 002          3/3
Quality Products Div
B:CT005  L:Dlane001
C:PL00001 L:Dlane001
C:PL00001 L:Dlane001

Box added
```

The QAD logo is visible in the bottom left corner, and the text "WH-TR-470" is in the bottom right corner.

During RF containerization, you can view order status or shipper data.

Additionally, RF Containerization allows a user to:

- Merge a pallet into another pallet.
- Transfer a scanned box to a pallet that is in another location on the same shipper.
- Print pallet labels if required.

Example - Pre-Shipper/Shipper Inquiry

Example - Pre-Shipper/Shipper Inquiry

Build Containers for Shipment

Order	Customer	Item	Qty	UM
SO11035	002	D-IT005	6	EA
		D-IT006	6	EA
		D-IT007	4	EA
SO11036	0605	D-IT005	3	EA
		D-IT008	6	EA
		D-IT009	5	EA
SO11038	002	D-IT006	15	EA


 WH-TR-430

Use Pre-Shipper/Shipper Inquiry (EE Core program) to view the build containers needed in shipment.


Example - Pre-Shipper/Shipper Inquiry

Example - Pre-Shipper/Shipper Inquiry


RF Containerization: Customer 002



D-IT005 6 EA



D-IT006 6 EA



D-IT007 4 EA
D-IT006 15 EA

Ship-From ID: us-d3
Pre-Shipper/Shipper: Pre-Shipper
Number: 091031PS19

Ship-To/Dock: 002 Quality Products Div 1000 Output: PAGE

Master Bill ID: Status: Inventory Movement Code:

ID	Item Number	PO Number	Order	Line	To
Site	Location	Lot/Serial	Ref	Stat	Ship
	Customer Ref	Model Year			
091031PS19				0	1.0
.CCT001	Box			0	
us-d3	Dlane001				EA
..I	D-IT005		5011035	1	6.0
us-d3	Dlane001				EA
.CCT004	Box			0	
us-d3	Dlane001				EA
..I	D-IT006		5011035	2	6.0
us-d3	Dlane001				EA
.CCT005	Box			0	
us-d3	Dlane001				EA
..I	D-IT007		5011035	3	4.0
us-d3	Dlane001				EA
..I	D-IT006		5011038	1	15.0
us-d3	Dlane001				EA

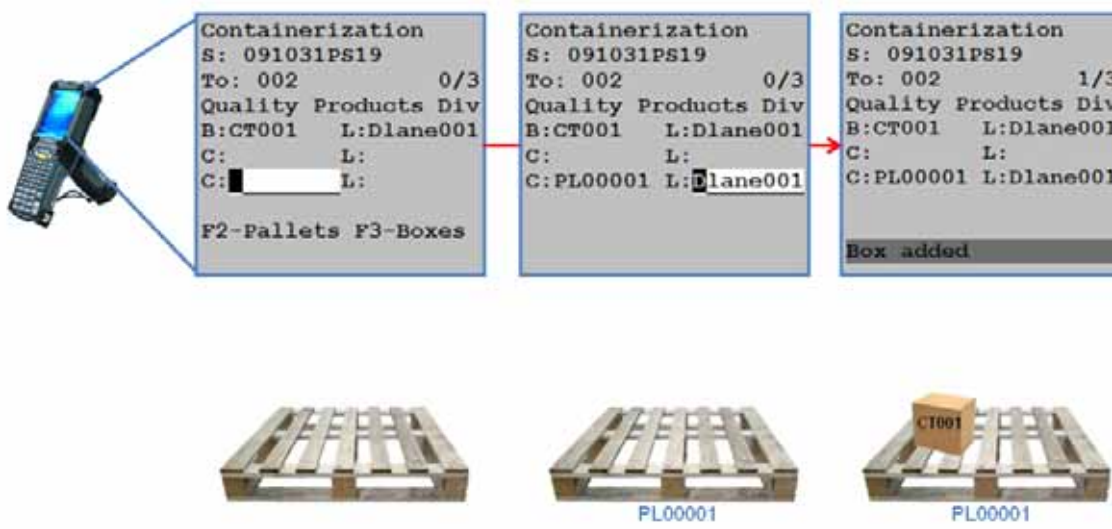
QAD WH-TR 430

Pre-Shipper/Shipper Inquiry shows the details of the first customer, two orders.

Example - RF 3.3 Container Build

Example - RF 3.3 Container Build

Container Build Customer 002



Containerization
S: 091031PS19
To: 002 0/3
Quality Products Div
B:CT001 L:Dlane001
C: L:
C: L:
F2-Pallets F3-Boxes

Containerization
S: 091031PS19
To: 002 0/3
Quality Products Div
B:CT001 L:Dlane001
C: L:
C:PL00001 L:Dlane001

Containerization
S: 091031PS19
To: 002 1/3
Quality Products Div
B:CT001 L:Dlane001
C: L:
C:PL00001 L:Dlane001
Box added

PL00001

PL00001

CT001

PL00001

QAD

WH-TR 510

When Batch Picking Control Container options are configured, use RF 3.3 to build a container from the different boxes/items on the order.

Example - RF 3.3 Container Build (Continued)

Example - RF 3.3 Container Build

Container Build Customer 002

```
Containerization
S: 091031PS19
To: 002          2/3
Quality Products Div
B:CT004   L:Dlane001
C:PL00001 L:Dlane001
C:PL00001 L:Dlane001
Box added
```

```
Containerization
S: 091031PS19  READY
To: 002          3/3
Quality Products Div
B:CT005   L:Dlane001
C:PL00001 L:Dlane001
C:PL00001 L:Dlane001
Box added
```

PL00001

PL00001

QAD

WH-TR-53D

Add as many boxes as needed using the Container Build option.

Example - RF 3.3 Container Build (Continued)

Example - RF 3.3 Container Build

Container Build Customer 002


Ship-From ID: us-d3
Pre-Shipper/Shipper: Pre-Shipper
Number: 091031P519

Output: PAGE

Ship-To/Dock: 002 Quality Products Div 1000 Status:

Master Bill ID: Inventory Movement Code:

ID	Item Number	PO Number	Line	To
Site	Location	Lot/Serial	Order	Ship
	Customer Ref	Model Year	Ref	Stat
091031P519			0	1.0
.CPL0001	Pallet		0	EA
us-d3	Dlane001			
..CCT001	Box		0	EA
us-d3	Dlane001			
...I	D-IT005		5011035	1
us-d3	Dlane001			6.0
				EA
..CCT004	Box		0	EA
us-d3	Dlane001			
...I	D-IT006		5011035	2
us-d3	Dlane001			6.0
				EA
..CCT005	Box		0	EA
us-d3	Dlane001			
...I	D-IT007		5011035	3
us-d3	Dlane001			4.0
				EA
...I	D-IT006		5011038	1
us-d3	Dlane001			15.0
				EA


 QAD WH-TR 530

The new Pre-Shipper/Shipper Inquiry shows the new container contents for the first customer.


Example - RF 3.3 Container Build (Continued)

Example - RF 3.3 Container Build

Container Build Customer 0605



Containerization S: 091031PS20 To: 0605 0/4 0605 B:CT002 L:Dlane001 C: L: C: L: F2-Pallets F3-Boxes	Containerization S: 091031PS20 To: 0605 0/4 0605 B:CT002 L:Dlane001 C: L: C:PL00002 L:Dlane001	Containerization S: 091031PS20 To: 0605 1/4 0605 B:CT002 L:Dlane001 C: L: C:PL00002 L:Dlane001 Box added
---	---	---




QAD WHTB-640

Follow the same process to build a container for the next customer.




Example - RF 3.3 Container Build (Continued)

Example - RF 3.3 Container Build

Container Build Customer 0605



Containerization	Containerization	Containerization
S: 091031PS20	S: 091031PS20	S: 091031PS20 READY
To: 0605 2/4	To: 0605 3/4	To: 0605 4/4
0605	0605	0605
B:CT003 L:Dlane001	B:CT006 L:Dlane001	B:CT007 L:Dlane001
C:PL00002 L:Dlane001	C:PL00002 L:Dlane001	C:PL00002 L:Dlane001
C:PL00002 L:Dlane001	C:PL00002 L:Dlane001	C:PL00002 L:Dlane001
Box added	Box added	Box added

QAD WH-TR 56J


Follow the same process when building containers for customer 0605.

Example - RF 3.3 Container Build (Continued)

Example - RF 3.3 Container Build

Container Build Customer 0605

Ship-From ID: us-d3		Pre-Shipper/Shipper: Pre-Shipper		Output: PAGE	
Number: 091031P520		Ship-To/Dock: 0605		0605	
Master Bill ID:		Inventory Movement Code:		Status:	
ID	Item Number	PD Number	Order	Line	To
Site	Location	Lot/Serial	Ref	Stat	Ship
	Customer Ref	Model Year			
091031P520				0	1.0
..CPLO0002	Pallet			0	EA
us-d3	Dlane001				
..CCT002	Box			0	EA
us-d3	Dlane001				
...I	D-IT005		5011036	1	3.0
us-d3	Dlane001				EA
..CCT003	Box			0	EA
us-d3	Dlane001				
...I	D-IT008		5011036	2	6.0
us-d3	Dlane001				EA
..CCT006	Box			0	EA
us-d3	Dlane001				
...I	D-IT009		5011036	3	3.0
us-d3	Dlane001				EA
..CCT007	Box			0	EA
us-d3	Dlane001				
...I	D-IT009		5011036	3	2.0
us-d3	Dlane001				EA

 W4TR670

Continuing on with customer 0605, view container data in Pre-Shipper/Shipper Inquiry.

Bonus Coverage: Assign Carriers to Shipping Lanes

Bonus Coverage: Assign carriers to shipping lanes

Lane Maintenance

Site: 10-301
 Warehouse: 01
 Lane: 070SH001 Storage Type: TRUCK
 Description: Truck for FEDX

Capacity:

Carrier:

Tasks: 0

Absolute Full %: 0.00

WH-TR-530

Lanes are a special type of ship staging location and typically associated to a dock door. Lanes let the company to assign carriers to docks are used for identifying pick drop locations during wave picking.

Lanes are mainly used with wave planning in QAD Warehousing. You can assign specific carriers to a lane.

There are three frames and 6 fields in Lane Maintenance used for configuration.

Parcel Manifest

Parcel Manifest is the process of using RF devices to generate shipping paperwork

WH-TR-590

QAD Warehousing provides parcel manifest functions.

Parcel Manifest Setup and Execute



The image is a presentation slide with a white background and a black border. At the top left, it says 'QAD Warehousing Shipping' in blue. Below that is the title 'Parcel Manifest Setup & Execute' in bold black. A numbered list follows: 1. Set up print paperwork controls; 2. Assign a form printer; 3. **Optionally** specify a routine to produce a ship shipment message to export to a TMS; 4. Print pre-shipper/shippers. At the bottom left is the QAD logo, and at the bottom right is the code 'WH-TR-600'.

QAD Warehousing Shipping

Parcel Manifest Setup & Execute

1. Set up print paperwork controls
2. Assign a form printer
3. **Optionally** specify a routine to produce a ship shipment message to export to a TMS
4. Print pre-shipper/shippers

QAD WH-TR-600

The graphic above depicts the steps included to prepare the print paperwork.

Did You Know

A manifest is a list of goods carried on a truck, train, or ship.

Set Up Print Paperwork Controls

The screenshot displays the 'Batch Picking Control' interface. At the top, it shows '1. Setup print paperwork controls' and 'Batch Picking Control'. Below this, there are fields for 'Site: 10-301', 'Distribution Site 1', 'Warehouse: 01', and 'Warehouse 1'. The 'Print Paperwork' section contains several checkboxes: 'Include Shipper Comments', 'Inc Packing Cmnts', 'Print Features and Options', 'Print Order Details', 'Assign Shipper Number' (checked), 'Display Quantity In SD UM', and 'Print Lot/Serial Numbers'. A 'Print Paperwork Option' field is set to '0'. The 'Container Move' section includes 'Sequential Shipper Option' and 'Only Shipper Option', both set to '0'. The QAD logo is visible in the bottom left corner, and 'WH-TR-610' is in the bottom right corner.

Use the fields in the Batch Picking Control Print Paperwork frame to set up print paperwork controls.

Assign a Form Printer to Shipping


2. Assign a form printer to shipping


User Work Location Group Maint


Site: 10-301
Warehouse: 01
Work Location Group: 01FL
User ID: UserB


System Flavor: B

Device:


External Device Printer: printer 

Form Printer: printer  Use External:

ID Printer: printer  Use External:

Task Printer: printer  Use External:

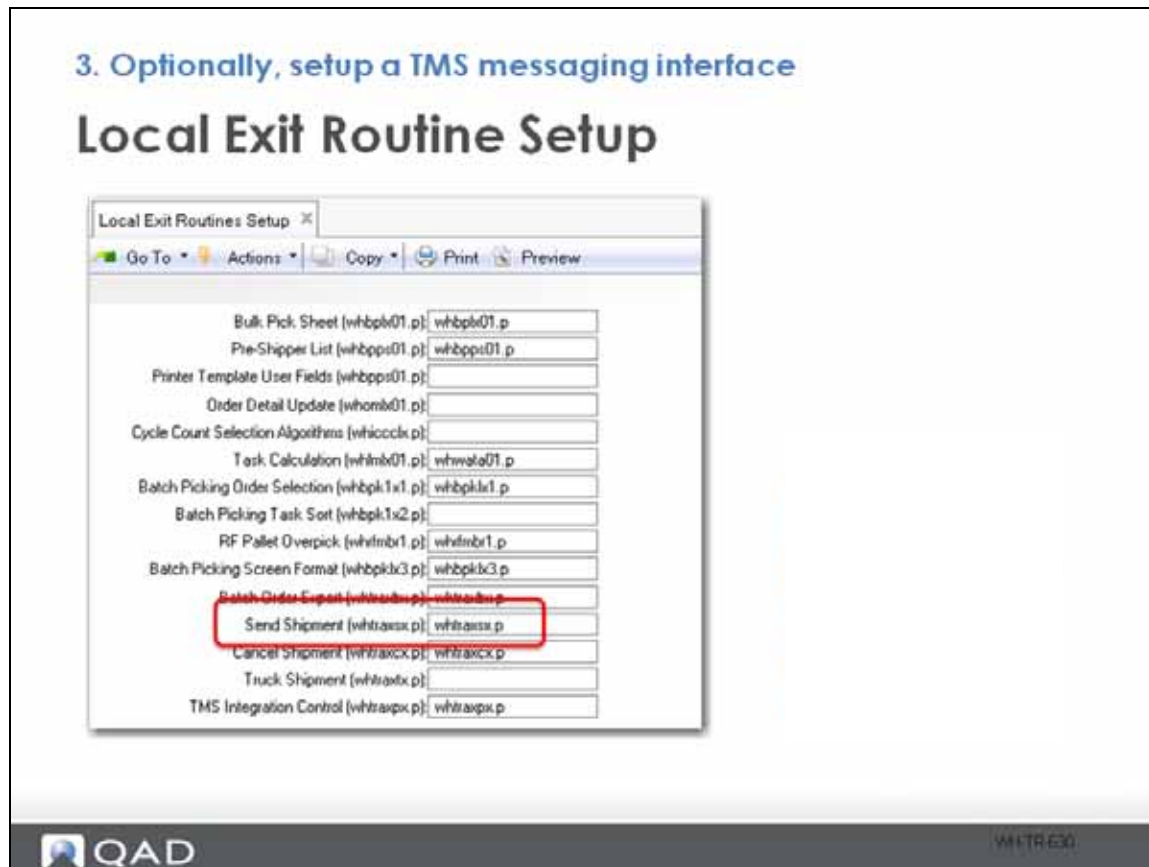
Inspection Printer: Use External:

 WHTR-030

Use User Work Location Group Maintenance to assign a form printer to shipping.

Note The Use External field lets you indicate whether forms should be printed on an external printer.

Optionally Set Up a TMS Messaging Interface



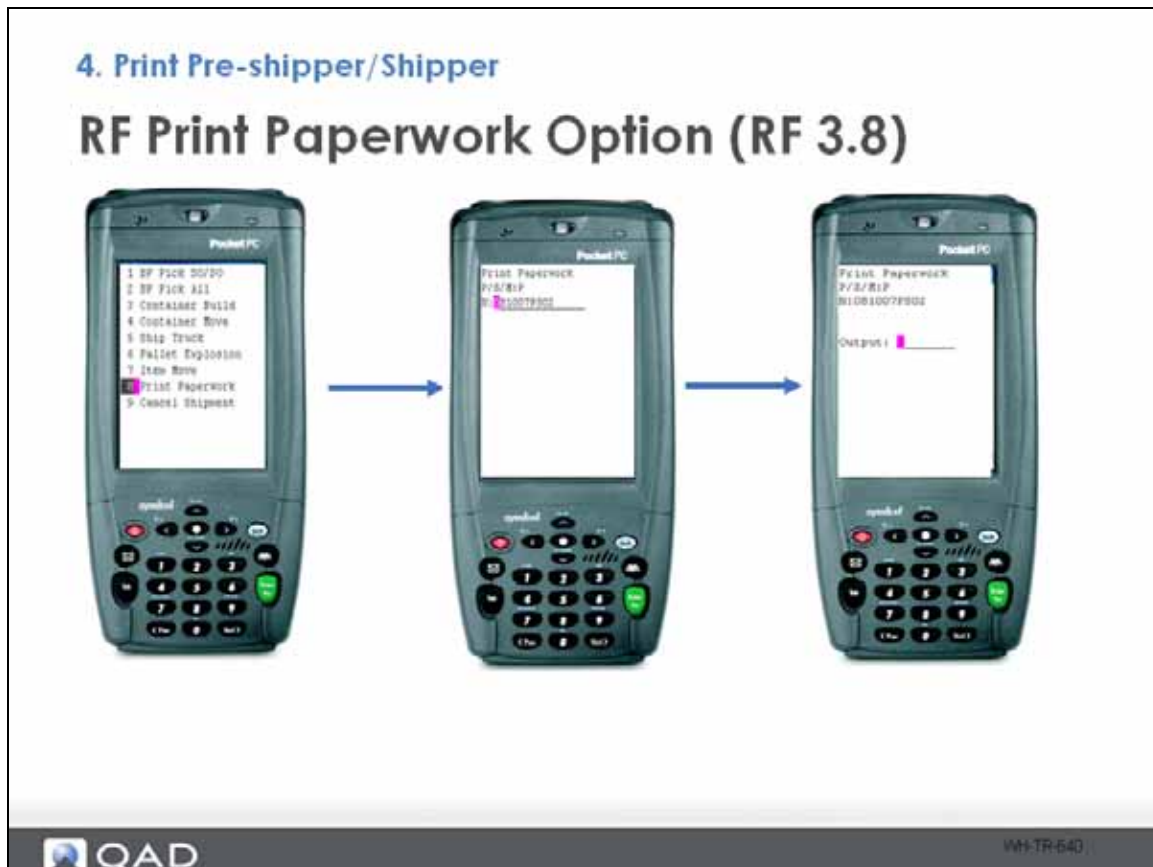
Local Exit Routines are preconfigured or custom programs a company can use to customize processes and/or third party system interfaces without changing core QAD Warehousing code.

For example, Send Shipment is a standard interface used to communicate shipping information to and from a Transportation Management System, TMS.

Did You Know

You can use Ship Truck features with an external Transportation Management System.

Print Pre-Shipper/Shipper



Use the RF Print Paperwork option (3.8) to print the pre-shipper or shipper.

Did You Know

You can print both a shipper and pre-shipper from an RF scanner.

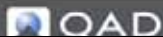
The RF screen prompts the user to print shipping documentation. Printing is done before both container move and truck ship

Key Learning Points

QAD Warehousing Shipping

Key Learning Points

- There are several shipping best practices not supported by QAD Warehousing
- You can use a trailer as a location
- You can move a container to a trailer without shipping the order
- You can use RF control for shipping with QAD Warehousing
- You can use QAD Warehousing to print all shipping paperwork



WH-TR-651

Exercises - Shipping Setup and Execution

Exercise – Shipping Setup and Execution

Shipping Setup and Execution

- Warehouse, area, and zone setup
- Ship location setup
- Review pick routing and drop rules
- Shipping movement routing setup
- Shipping movement routing assignment
- Shipping movement routing rules
- Master bill of lading setup
- Ship the order
- Use trucks for storage and reporting



WH-TR-660

For discrete picking, without wave planning, product is picked to packing area for shipment consolidation and shipment prep. Once shipment prep and/or consolidation is complete, the loads are moved to a staging location in the Shipping area.

In this exercise, you setup and configure QAD Warehousing for shipping and ship an order. Additionally, you set up trucks as locations used for storage.

Warehouse, Area, and Zone Setup

Exercise

Warehouse, Area, and Zone Setup

- Confirm the warehouse, area, and zone are set up per previous training sessions.



WH-TR-070

Confirm the warehouse, areas, and zones are setup and configured per a previous exercise. Refer to the Introduction section of this training guide for programs to use to verify setup of these aspects is complete.

Exercise - Ship Location Setup

Exercise

Ship Location Setup

Warehouse Location Maintenance

Go To Actions Copy Print Preview Attach

Site: 001 Exam Site
Location: bulk

Location Groupings

Warehouse: 001
Storage Location Group: d-stor
Work Location Group: d-work

Warehouse Location Data

Check Digit:
Popularity:
Storage Type: Stage
Warehouse Location Type:
Travel Sequence:
Dedicated:

Picking Type:
Preferred UM:
Opportunity Count Frequency: 0
Last Opportunity Count:
Stage (In):
Stage (Out):

QAD WHTR-620

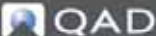
For scheduling and shipping purposes set the ship location Storage Type to Stage, using Warehouse Location Maintenance. Setting the Storage Type to Stage lets you use different algorithms and move product around.

Exercise - Review Pick Routing and Drop Rules

Exercise

Review Pick Routing and Drop Rules

- Check the following:
 - Internal Routing Maintenance
 - Int Routing Assignment Maintenance
 - Algorithm Assignment Maintenance

 WHTREX

Confirm the a pick routing, routing assignment, and drop rules are associated to the shipping area. Refer to the Picking section of this training guide for more information on:

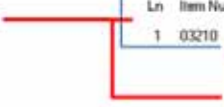


- Internal Routing Maintenance (Picking)
- Internal Routing Assignment Maintenance (PICK-*—>Picking)
- Algorithm Assignment Maintenance (PK—>PICK-*)

The above maintenance menus were set up in the picking section exercises.

Exercise - Ship the Order

Exercise

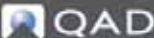
Ship the Order

1. Pick an SO 
2. Process the shipment on the RF 
3. Confirm the order shipped 

Order: 501	Sold-To: 10C1000	LnFo
Sales Order Line		
Ln	Item Number	Qty Ordered UM
1	03210	

Site: 10-101	Item Number:	Display Wsh Loc: No					
Warehouse:	Lot/Serial:	Disp Non-Wsh Loc: No					
Location: 0709H001	Reference:	Output: PAGE					
Warehouse: 01	Warehouse: 1						
Item	Status	Qty	Expect	Expect	Detail	Detail	
Lot	Ref	UM	On Hand	In	Out	Alloc	Pick
03210	Y-Y-N	EA	10				10
	501						

Site: 10-101	Item Number:	Display Wsh Loc: No
Warehouse:	Lot/Serial:	Disp Non-Wsh Loc: No
Location: 0709H001	Reference:	Output: PAGE
4,9,13	Inventory Detail Inquiry	whis

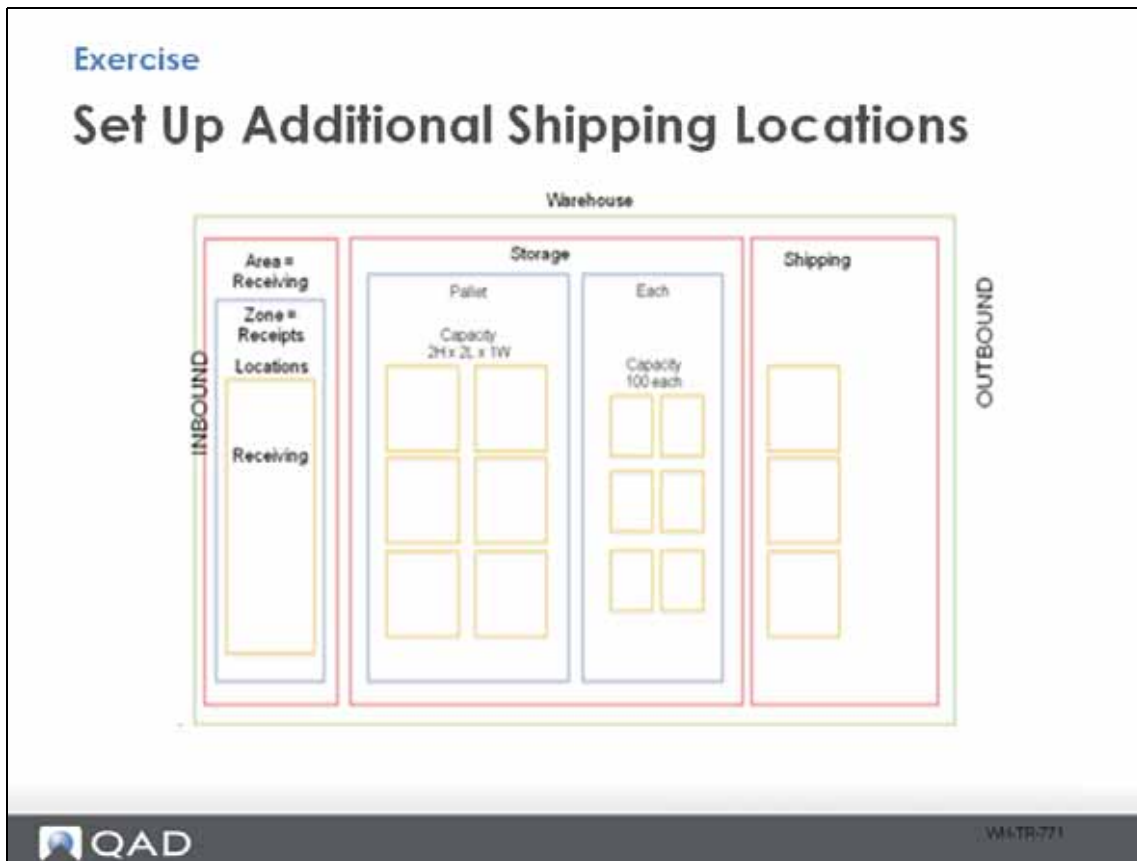
 WI-TR-740

- 1 Use Sales Order Maintenance to pick the order and assure it is in a shipping location.
- 2 Process the shipment using RF Truck Ship (3.5) option.
 - a Select the shipping location.
 - b Confirm the pre-shipper.
 - c Confirm the shipment.

Note Alternatively you can process the shipment using Pre-Shipper/Shipper Confirm in QAD core programs.
- 3 Confirm order shipped from shipping location using Inventory Detail Inquiry.

In shipping it is common to move loads between shipping locations/lanes before final shipment. QAD Warehousing supports this process.

Exercise - Move Load to an Alternate Shipping Location/Lane



In this exercise, you perform several steps to move a load to an alternate shipping location/lane. The remainder of this section covers the steps included in this exercise to set up alternate locations.

- 1 Set up two more shipping locations/lanes using Warehouse Location Maintenance
- 2 Copy the current shipping location format.

Field	Data
Site	10-301
Location	
Description (optional)	
Warehouse	
Storage Location Group	
Work Location Group	
Storage Type	Stage

- 3 Set up a routing to facilitate the product flow for a manual product move.

Exercise- Move Load to an Alternate Shipping Location/Lane (cont'd)

Exercise

Shipping Movement Routing Setup

Site	10-301
Warehouse	
Internal Routing	
Description	Ship Lane Assignment
Sequence	10
IRG	
To Location Option	3

QAD V11TR-700

A manual container move on the RF scanner moves the load to another shipping location within the shipping area.


- Setup a one step routing to move the load to a shipping lane using Internal Routing Maintenance.
- Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter
Site	10-301
Warehouse	
Internal Routing	
Description	Ship Lane Assignment
Sequence	10
IRG	
To Location Option	3

Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)

Exercise

Shipping Movement Routing Assignment



Transaction Type	LOC-TR
Site	10-301
Warehouse	
Internal Routing	

QAD WH-TR-710

When the system generates a location transfer transaction during a manual container move, the transaction follows the shipping movement routing.

- 6 Assign the shipping movement routing to the location transfer transaction type using Internal Routing Assignment Maint.
- 7 Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter
Transaction Type	LOC-TR
Site	10-301
Warehouse	
Internal Routing	

Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)

Exercise

Shipping Movement Routing Rules

Seq	Algo	Description
10	14	
20	12	
30	11	

Each order has a pre-defined carrier. The ship lane assignment rules should assign the order to a specific lane based on carrier.

- 8 Use Algorithm Assignment Maintenance to define picking rules for replenishment inventory.
- 9 Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter	
Algorithm Type	CM	
Transaction Type	LOC-TR	
Site	10-301	
Warehouse		
Sequence/Algorithm	10	14
Sequence/Algorithm	20	12
Sequence/Algorithm	30	11

- 10 Test the load movement in the shipping area
 - a Confirm a load is in shipping.
 - b Log into RF.
 - c Select RF 3.4.
 - d Select an LPN in shipping to move.

394 Training Guide — Warehousing

- e Select the origination destination.
- f Select the new location.
- g Check Inventory Detail Inquiry to see load moved to a new location.

Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)

Exercise

Master Bill of Lading Setup

Batch Picking Control

Go To • Actions • Copy • Print • Preview • Attach •

Site: 10-301
Warehouse: 01 Warehouse 1

Print Paperwork

Include Shipper Comments: Print Paperwork Option: 0
Inc Packing Crmts:
Print Features and Options:
Print Order Details:
Assign Shipper Number:
Display Quantity in SO UM:
Print Lot/Serial Numbers:

Container Move

Sequential Shipper Option: 0
Only Shipper Option: 0

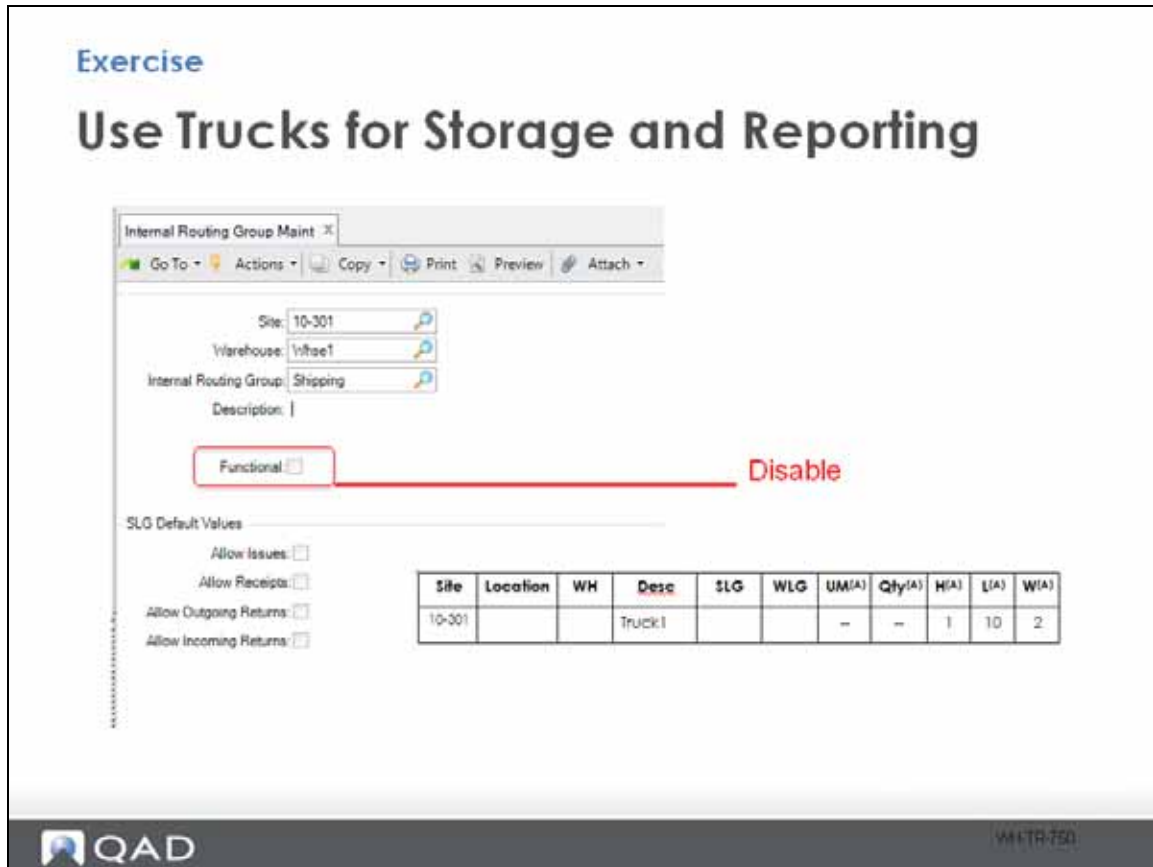
Ship Truck

Master Bill Ship-To-Dock: 002 Confirm on Error:

LOAD WH-TR-730

- 11 Some companies may want to setup trucks as temporary storage locations and report on the truck location capacity. Use Batch Picking Control to set this up.

Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)



12 To report the capacity of locations in the shipping area, disable the Functional field in Internal Routing Group Maintenance.

13 Define parameters, and when not provided, note the parameters you enter here:

Site	Warehouse	IRG	Description (optional)	Functional
10-301			Shipping	N

Notes

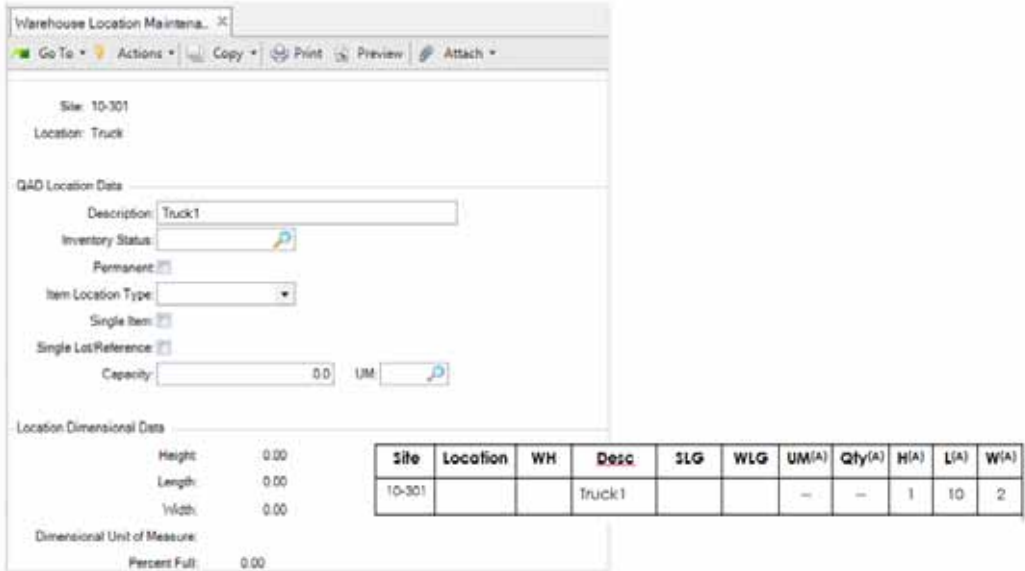
Field is in the final frame.

Set Storage Type to Truck.

Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)

Exercise

Define Capacity for Ship Locations



Warehouse Location Maintena. x

Go To Actions Copy Print Preview Attach

Site: 10-301
Location: Truck

QAD Location Data

Description: Truck1

Inventory Status:

Permanent:

Item Location Type:

Single Item:

Single Lot Reference:

Capacity: 0.0 UM:

Location Dimensional Data

Height: 0.00
Length: 0.00
Width: 0.00

Dimensional Unit of Measure:
Percent Full: 0.00

Site	Location	WH	Desc	SLG	WLG	UM(A)	Qty(A)	H(A)	L(A)	W(A)
10-301			Truck1			-	-	1	10	2

QAD WH-TR-760

14 Add a truck location using Warehouse Location Maintenance, and define location capacity.

15 Define parameters, and when not provided, note the parameters you enter here:

Site	Location	Warehouse	Description	WLG	UM ^(A)	QTY ^(A)	H ^(A)	L ^(A)	W ^(A)
10-301			Truck1				1	10	2

Notes

Field is in the final frame.

Set Storage Type to Truck.

Exercise - Move Load to an Alternate Shipping Location/Lane (cont'd)

Exercise

Move Load to Truck and View Contents

- Move the load to the truck using RF Container Move option (3.4)

- View truck contents using:
 - Location Full % Report
 - Percent Full column in Warehouse Location Maintenance.



WH-TR-770

16 You are ready to move the load to a truck. To do this, use the RF Container Move option (3.4).

17 You can view truck contents using:

- Location Full% Report
- Percent Full column in Warehouse Location Maintenance.

Note When changing the shipping area to non-functional, you are restricted in using lanes and lane assignment algorithms for wave-picking purposes. To avoid this restriction, keep the shipping area a functional area and add a new non-functional truck area.

Questions

- 1 When truck shipping, why do you use Internal Routing Group and Storage Location Group as part of the setup?
- 2 True or False. Shipping is a functional area, so you use a LF algorithm.
- 3 True or False. Only one user in the warehouse can perform the manual truck ship moves.
- 4 What does the RF Ship Truck option provide?
- 5 What does the RF Container Move option provide?
- 6 In QAD Warehousing you can use trucks as _____ locations

Answers

- 1 When setting up shipping, why do you use Internal Routing Group and Storage Location Group Maintenance programs
- 2 True. Shipping is a functional area, so you use a LF algorithm that does not factor in available space.
- 3 False. Since you associate users with the truck work location group in User Work Location Group Maintenance, any user assigned can perform the manual moves.
- 4 RF Ship Truck lets you track ship ready status and select specific shippers to include.
- 5 With container move, you can move any pallet to a truck, validate moving container steps, report the position of pallets in the truck, and load pallets in reverse dropping order.
- 6 storage

Notes

Chapter 6

Inspection

Objectives

QAD Warehousing Inspection

Objectives

- Functional Fit
- Concepts
- Inspection Setup
- Test Inspection



QAD

QAD Warehousing supports quality inspection with sample control, change of inventory status and creation of warehouse transactions.

What We Do Not Do Well

What we don't do...

Functional Fit: Inspection

Functionality	Fit	Notes
Quality Management		
Hold and release by item, lot, location		Improving release by lot

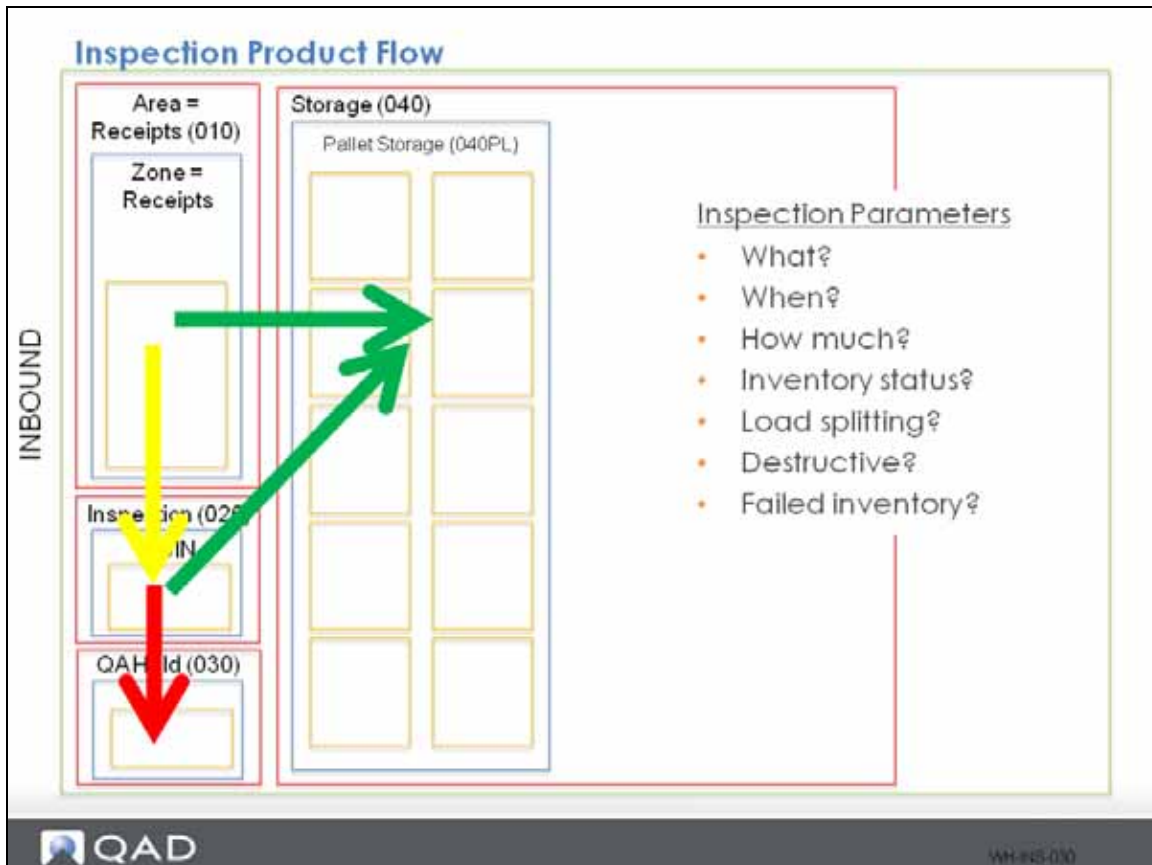
Legend

-  Full
-  Partial
-  None

 QAD WH-FCS-020

QAD Warehousing supports the product flow through the inspection process but requires a quality module interface to manage specific quality parameters.

Inspection Product Flow



When product is received, QAD Warehousing supports the product movement from receiving into inspection and on to disposition or storage. Flexible parameters can be setup to determine when product is inspected.

- What is inspected?
- When is it inspected?
- How much is inspected?
- What is the inventory status during inspection?
- What happens to the load during inspection?
- Is inspection destructive?
- What happens to failed inspections?

Did You Know

- Quality algorithms start at receiving.
- Inspection tags can be printed based on receipt frequency, a previous bad inspection, and a required inspection on the order.

Inspection Flags Set in Multiple Places

Inspection flags are set in multiple places

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01RCT

Description: Receipts
Sequence: 20 Internal Routing Group: 040

Miscellaneous Options

Mode: Auto Clear Shortages:

New Unit of Measure: Create Shipper:

Check Inspection:

Multi-Level Item Maintenance

Item Number: 03120 Scented Disinfectant
UOM: EA Pump
Site: 10-301 Distribution Site 1
Warehouse: 01 Warehouse 1

Inspection Data

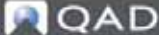
Selective Inspection: Sample Quantity: 100

Supplier Item Maintenance Inspection (Optional)

Supplier: 10S1002
Item Number: 03130

Inspection Data

Selective Inspection:

 QAD WMS-QAD

Once you determine the use of inspection, next, set up the inspection process.

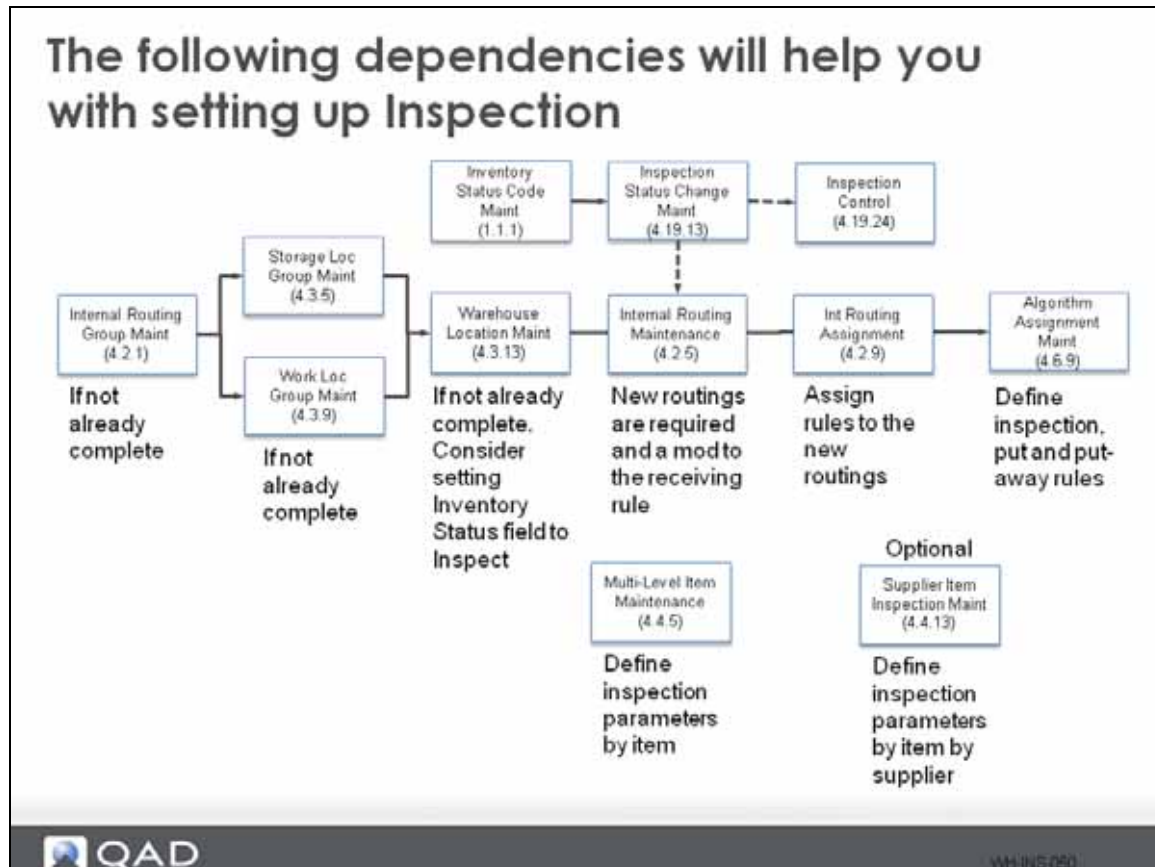
In Internal Routing Maintenance, enable the:

- Check Inspection field, confirming the receipt routing checks the item inspection parameters.
- Selective Inspection field, indicating the item requires inspection in the warehouse based on the defined inspection parameters.

Optionally, setup the Item/Supplier Selective Inspection field to trigger inspection parameters.

You can set the Inspection field in Internal Routing Maintenance, Multi-Level Item Maintenance, and Supplier Item Maintenance Inspection.

Dependencies



The graphic above depicts the QAD Warehousing programs you use to set up for inspection.

Define Inventory Status - Optional

Define Inventory Status - Optional

Inventory Status Code Maint (Optional)

Status Code: Inspect

Available:

Nettable:

Overissue:

QAD WH-INS-050

Optionally, use Inventory Status Code Maintenance to define a Status Code for inspection. This provides more detail to inventory status when in different processing areas.

This optional field lets you define new status codes when inventory moves into the inspection area.

There are four frames and 6 fields in Inventory Status Code Maintenance used for configuration.

Did You Know

Inventory status codes can automatically change when moved to inspection.

Activate Inspection Control

Activate Inspection Control

Inspection Control

Active:

Create Transactions:

Update Quantity:

Create Item/Supplier Record:

Print Inspection Tag Per: Sample ID

Alter:

Good Inspections Decrease Random % by:

Fail Inspections Increase Random % by:

Destructive Inspection Status Code:

Fail Inspection Status Code:

QAD

The Inspection module need to be activated using Inspection Control prior to use.

Destructive Inspection Status Code lets you enter the inventory status code for destructive inspections. When a destructive inspection occurs, inspected goods are useless and cannot be re-used. The system changes the inventory status code to prevent its usage in future warehouse transactions.

Fail Inspection Status Code lets you enter the percentage to increase the random inspection percentage after a number of failed inspections.

There is one frame and 10 fields in Inspection Control used for configuration.

Did You Know

Destructive inspection means the inspected item is no longer usable.

Set Up Inspection and QA Hold Area, Zone, and Location

The screenshot displays the QAD software interface for setting up an inspection and QA hold area, zone, and location. It is divided into three main sections:

- Internal Routing Group Maint:** Shows Site: 10-301, Warehouse: 01, and Internal Routing Group: 020 (Description: Inspection). It also includes Functional and SLG Default Values options.
- Storage Location Group Maint:** Shows Site: 10-301, Warehouse: 01, and Storage Location Group: 020IN (Description: Inspections). It also includes Internal Routing Group: 020.
- Warehouse Location Maintenance:** Shows Site: 10-301, Distribution Site 1, and Location: 020N001. It also includes Warehouse: 01, Storage Location Group: 020IN, and Work Location Group: 01FL.

Red boxes highlight the key configuration fields in each section. A red circle highlights the 'Inspection (020)' and 'QA Hold (030)' zones in the 'Internal Routing Group Maint' section.

Set up an area and zone, using the traditional parameters for a functional area. When setting up locations for inspection and QA hold areas, you create a custom inventory status for each zone, using Inventory Status Code Maintenance. Remember that you must have at least one location within the zone.

Define Inventory Status Code Changes

Define inventory status code changes during and after inspection

Inspection Status Change Maint (Optional)

1. When product is received, inventory status Y-Y-N is assigned (Warehouse Maintenance)
2. If product is moved to inspection, the inventory status is changed to Inspect (N-Y-N)
3. Once passing inspection, inventory status is changed back to Y-Y-N.

The diagram illustrates the process of changing inventory status during inspection. It consists of two frames connected by arrows. The top frame shows 'Inventory Status: Y-Y-N' and 'Release/Inspect Status: Inspect'. The bottom frame shows 'Inventory Status: Inspect' and 'Release/Inspect Status: Y-Y-N'. The text 'Y-Y-N' is written in red above the top frame and below the bottom frame.

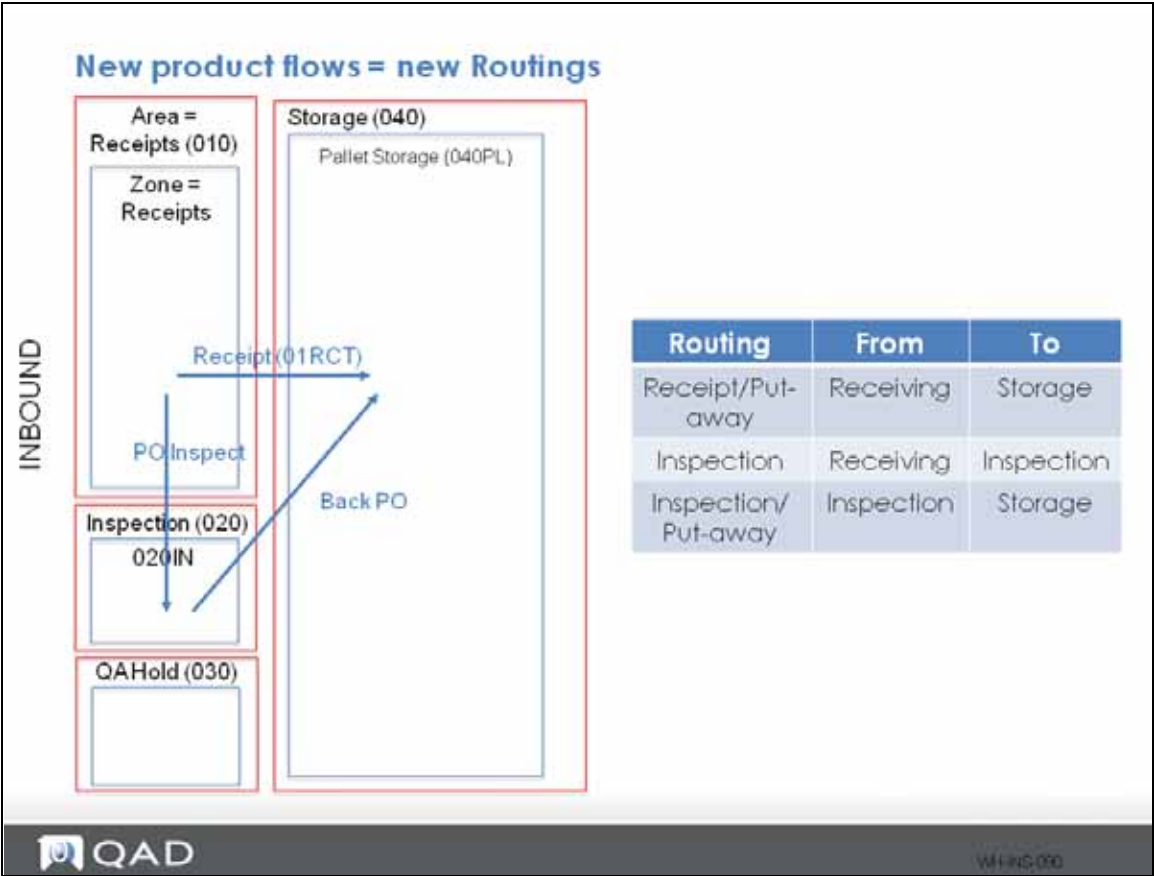
QAD

WI-1000

In some situations, it is helpful to change the inventory status when product is being inspected. Use Inspection Status Change Maintenance to define the inventory status code changes when product enters and leaves the inspection area.

There are two frames and two fields in Inspection Status Change Maintenance used for configuration.

New Product Flows = New Routings

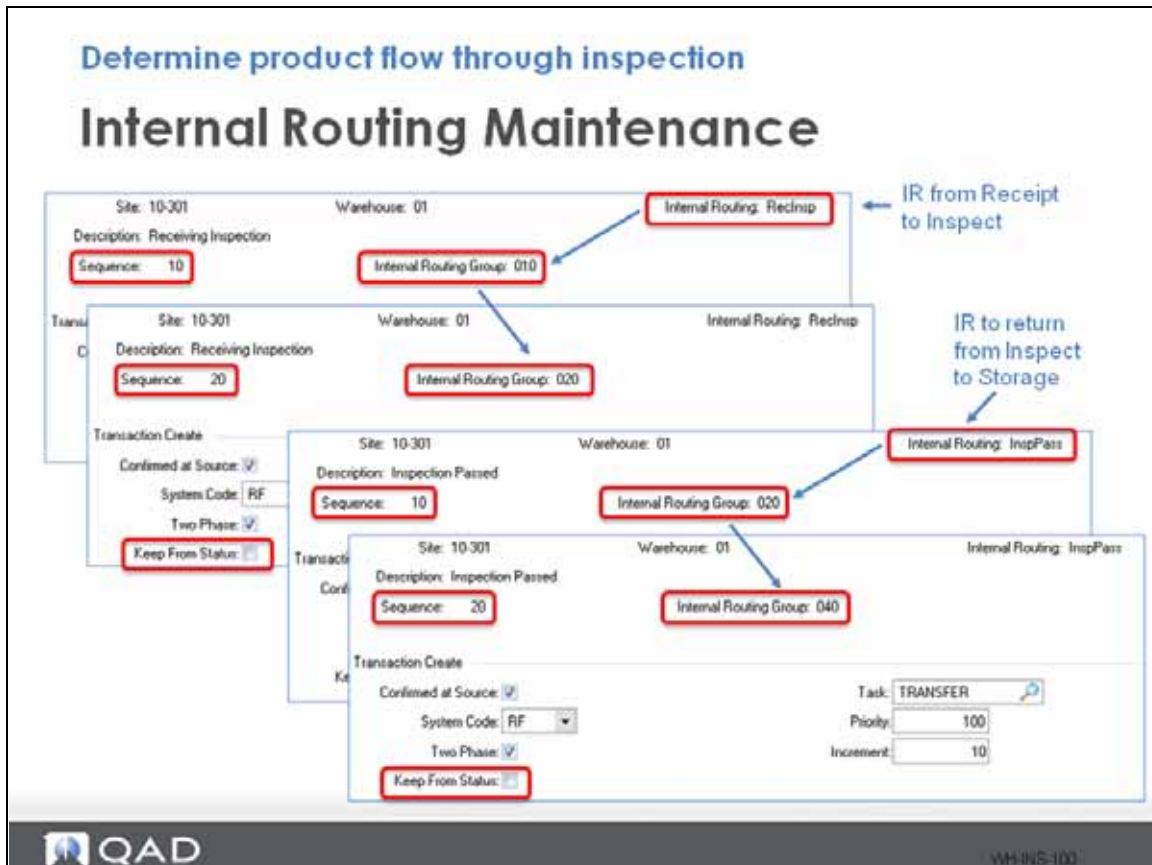


With the addition of an inspection process and area, you need to develop two new potential routings to represent the new product flows:

- One from receiving to inspection (PO Inspect in the graphic above).
- Another from inspection to storage (Back PO in graphic above).

You can also develop a routing from the inspection to QA Hold Area, but for now, you can focus on a pass inspection result.

Determine Product Flow through Inspection



Set up a routing for moving from receiving (010) to inspection (020) and from inspection (020) to storage (040).

To keep inventory status codes correct, uncheck the Keep From Status field in the Sequence 20 of both routings. This allows the inventory status code to change as the product moves into the new area. If checked, inventory keeps the previous status that it had when it is moved into the new area. In this example, you change the inventory status when the product moves into inspection so you uncheck this field.

Confirm Check Inspection to Trigger QA Rules

Confirm Check Inspection to Trigger QA Rules

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01RCT

Description: Receipts Sequence: 20 Internal Routing Group: 040

Picking Repack Type: Allow Switch Lot Ref: Expire Date (Days): 0

Print Options: Print ID: Print Mode (ID): Auto
 Print Created Tasks: Create Print Mode: Auto
 Print Confirmed Tasks: Confirmed Print Mode: Auto
 Print Exceptions: Exception Print Mode: Auto

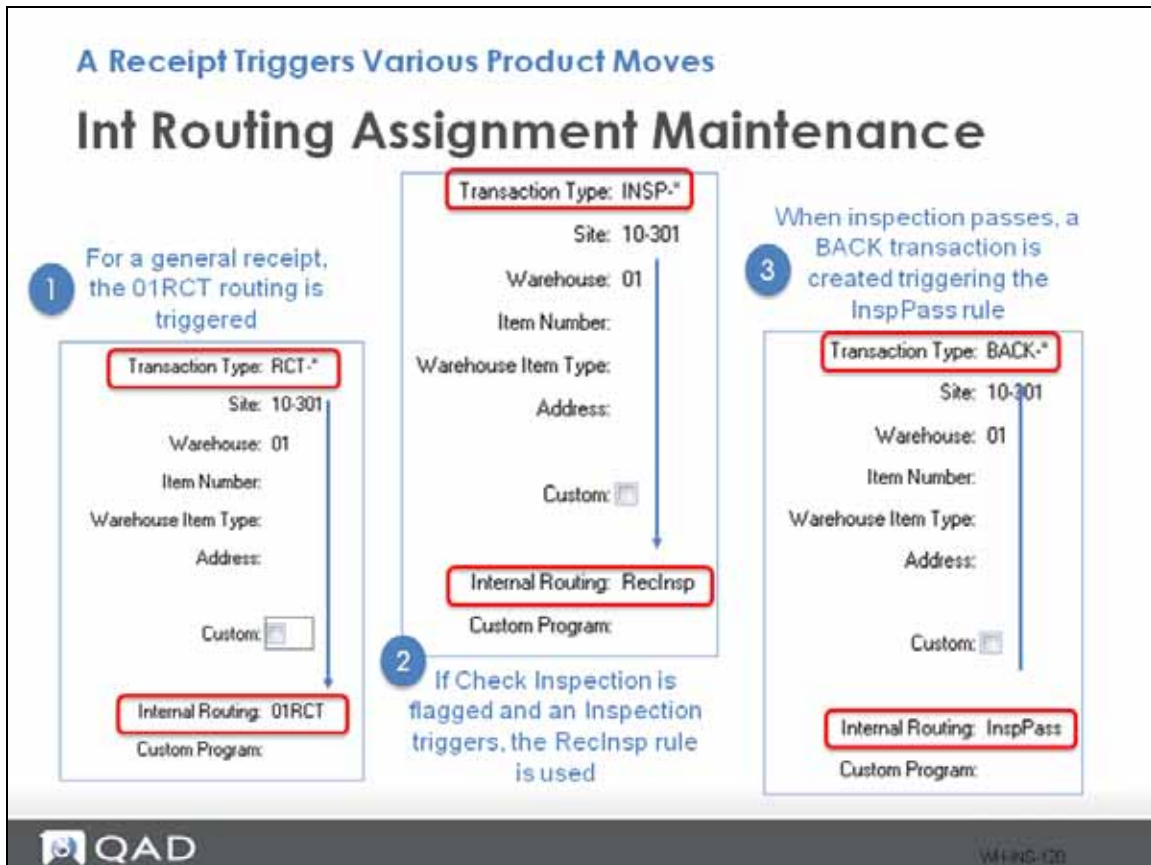
Miscellaneous Options: Mode: Auto Clear Shortages:
 New Unit of Measure: Create Shipper:
 Check Inspection:

QAD WH-INS-110

Going back to the initial receipt to put-away routing developed during receiving or warehouse setup, check the Check Inspection field in the last frame of the Sequence 20 in Internal Routing Maintenance. This triggers the QA rules upon receipt and routes the load, or part of the load, to inspection as needed.

Note Enabling the Check Inspection field in Sequence 10 does *not* trigger the QA rules; however, if you have additional sequences, 10, 20, 30, and so on, the system does look at all additional sequences. Generally, sequence 10, which is the product receipt, or first step, does not get assigned an inspection step, it is the subsequent step after receiving.

A Receipt Triggers Various Product Moves



Note the following regarding inspection triggers:

- When a product is received, the system creates a RCT transaction. This transaction triggers the general receipt routing.
- If the Check Inspection field is enabled in the 01RCT routing, the QA parameters are reviewed. If an inspection is required, the system creates an INSP transaction and triggers the inspection routing, RecInsp.
- When inspection passes, the system creates a BACK transaction, triggering the storage put-away routing, InspPass.

New Rules Required for New Routings

New rules are required for new Routings

Algorithm Assignment Maintenance

The screenshot displays three algorithm configuration windows:

- Algorithm 1 (QA):** Algorithm Type: QA, Site: 10-301. Assigned Algorithms table:

Seq	Algo	Description
10	8	Inspection of all items with Inspection Req...
- Algorithm 2 (LF):** Algorithm Type: LF, Site: 10-301. Assigned Algorithms table:

Seq	Algo	Description
10	1	First Location in First Storage Location Group
- Algorithm 3 (PA):** Algorithm Type: PA, Site: 10-301. Assigned Algorithms table:

Seq	Algo	Description
10	5	S.L. - Merge with Reference
20	3	S.L. - Merge with Item
30	2	Empty Storage Locations

DYK: A Put-Away (PA) algorithm is typically used after an inspection.

With the new routings, new algorithms are required to establish put-away rules.

The objective of a quality algorithm is to decide whether an inspection is required, to create an inspection tag. Inspections can be required, for example:

- Every X days
- If previous inspection was bad
- If inspection required on order (PO and WO)
- Every X receipts

In the scenario shown in the graphic above, QA rule 8 is triggered. An inspection takes place if the item is marked for inspection in Multi-Level Item Maintenance inspection data frame.

If an inspection is triggered based on the QA rules, the INSP transaction uses Location Find rule 1 to put-away product. Remember, LF rules do not consider space capacity.

When the inspection passes, the system creates a BACK transaction and uses the 5, 3, 2 rule sequence to put product away into storage. This rule sequence attempts to merge the sample back with the initial load (if a sample was used for inspection). Then, an attempt is made to consolidate in a location with the same. Finally, any empty location is sought.

Define Item-Warehouse Level Inspection Parameters

Define item-warehouse level inspection parameters

Multi-Level Item Maintenance

Item Number: 03120	Scented Disinfectant
UM: EA	Pump
Site: 10-301	Distribution Site 1
Warehouse: 01	Warehouse 1

Inspection Data

Selective Inspection: <input checked="" type="checkbox"/>	Sample Quantity: 100	Ref: <input type="text"/>
Inspection Frequency: 0	Sample Percent: 0	
Insp Freq (Days): 0	Destructive: <input type="checkbox"/>	
Random Inspection %: 0		

When the QA rule 8 is triggered, an inspection takes place if the item is marked for inspection in the Multi-Level Item Maintenance inspection data frame.

In the graphic above, you setup item 03120 to inspect 100 each whenever the product is received.

Did You Know

You can inspect items for inspection by quantity or percent.

Note When using Multi-Level Item Maintenance, there are three frames where you can enter inspection data. To get the inspection triggers to work in the warehouse, use the final Inspection Data frame to enter the item inspection parameters. Alternatively, you can enter the inspection parameters using Item-Warehouse Maintenance.

Example - Receive Item with Inspection Requirement

Example – Receive item with inspection requirement
Receive 200 each of item 03120

Inventory Detail Inquiry

QAD

Site: 10-301 Item Number:
Warehouse: Lot/Serial:
Location: Reference:

Warehouse: 01 Warehouse 1

2 pallets are received. One is routed to storage and the other to inspection. Note the inventory status change for both.

Location	Item Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
010RC001	03120	Y-Y-N	EA	100		100
010RC001	03120	PL000090	PL			100
020IN001	03120	Y-Y-N	EA	100		
		PL000091	PL			100
040PL001	03120	Inspect	EA			100
		PL000090	PL			
		Inspect	EA			100
		PL000091	PL			

QAD

In this example:

- 1 Ensure all inspection flags, routings, and parameters are set for item 03120 as outlined earlier.
- 2 Receive 200 each of item 03120.
Because the inspection flag is set for 100 each of item 03120, one full pallet (100 each) is routed to inspection. The remaining pallet is moved into a pallet storage location, but the inventory status is changed to Inspect, making it not available (N-N-N).
- 3 Move all pallets using Movement Confirmation Workbench to prepare for the next example step.

Example - Confirm Inspection Results

Example - Confirm inspection results

Sample Inspection Maintenance

Sample ID: 6	Item Number: 03120
Site: 10-301	Employee:
Warehouse: 01	Receiver: 2309523
Location: 020IN001	Data Set: unplan
ID:	Work Order:
Reference ID: PL000090	Line:
Sample Quantity: 100	Algorithm: B
Sample Percent: 0	Destructive: <input type="checkbox"/>
Create Date: 10/11/2011	Create User ID: qmi
Quantity to Inspect: 100.0000	Failed: <input type="checkbox"/>
Remarks:	Reason:
Create Transactions: <input checked="" type="checkbox"/>	
Return Quantity: 100.0000	

QAD WH-INS-160

Use Sample Inspection Maintenance in QAD Warehousing to confirm inspection of one line item at a time. To do this:

- 1 Select the Sample ID.
- 2 Click twice to get to the Create Transactions and Return Quantity fields.
- 3 Ensure the Create Transactions field is checked and the successful inspection quantity is entered.
- 4 Click Next.

Example - Confirm Inspection Results (Continued)

Example - Confirm inspection results

Sample Inspection Workbench

Site: 10-301 To:

Warehouse: To:


Item Number: To:

Address: To:

Receiver: To:

Default Include:

ID	Item Number	Lot/Serial	Ref	Qty to Insp	Fai	Inc
B	03120		PL005090	100.0000	[X]	[I]


WIN5-101

Alternatively, you can use Sample Inspection Workbench to approve multiple inspection samples and trigger a BACK put-away transaction.

Select the line to accept and click anywhere in the line item frame. This enables the Inc field. To change the quantity or add a remark, right click anywhere in the above frame to open a drop down menu.

Example - Add Inspection Comments/Change Quantity

Example – Add inspection comments or change quantity

Sample Inspection Workbench

Site: 10-301 To:
Warehouse: To:
Item Number: To:
Address: 1 To:
Receiver: 1 To:
Default Include:

ID	Item Number	Rel	Qty to Insp	Fai	Inc
6	03120	PL000090	100.0000	<input type="checkbox"/>	<input type="checkbox"/>

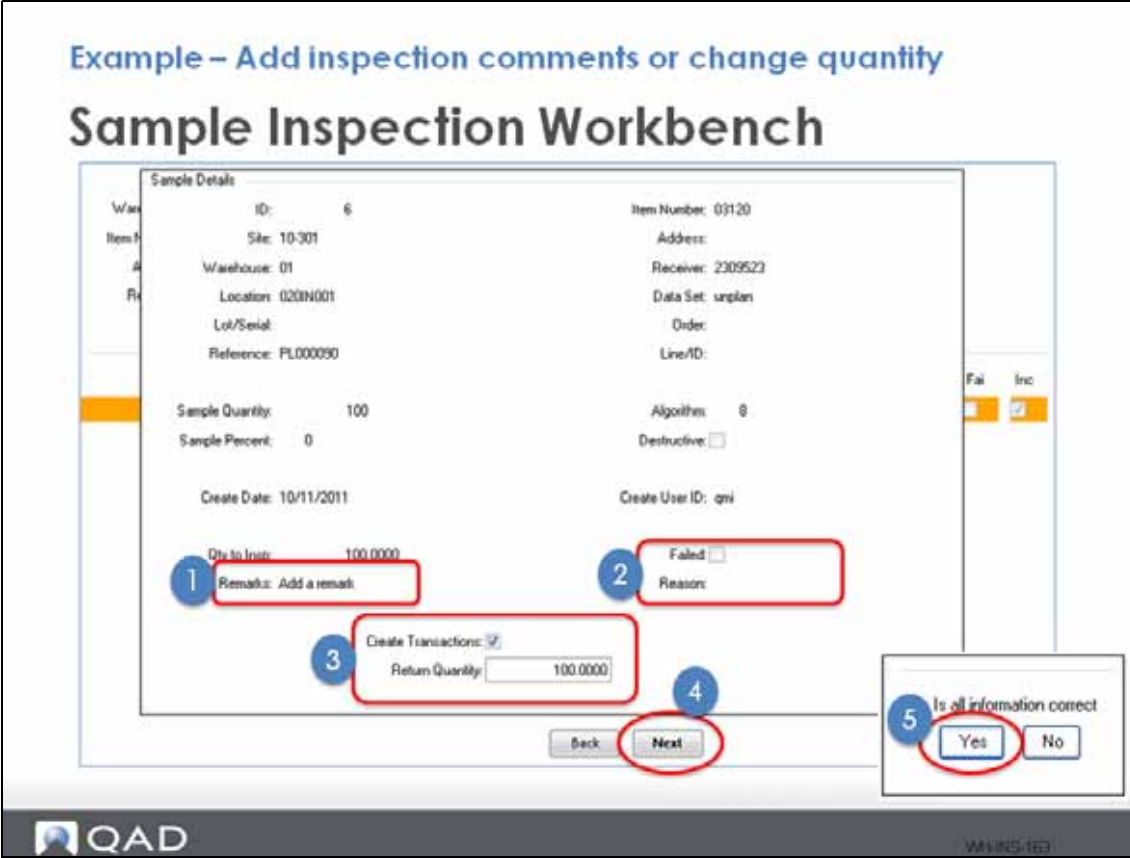
2

QAD WH INS-162

To change the quantity or add a remark:

- 1 Right click anywhere in the frame one.
- 2 Select Modify in the drop down menu.

Example - Add Inspection Comments/Change Quantity (Cont'd)




In the Sample Inspection Maintenance frame, before confirming the inspection you can:

- 1 Add a remark.
- 2 Fail the inspection.
- 3 Change the inspection quantity.
- 4 Clicking Next.
- 5 Select Yes in the next frame confirms the inspection results and creates a BACK movement transaction to storage.

Example - Success

Example – SUCCESS



Inventory Detail Inquiry

Site: 10-301 Item Number: Display
Warehouse: Lot/Serial: Disp Non
Location: Reference: 0

Warehouse: 01 Warehouse 1

Item Location Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
020IN001 03120	Inspect	EA	100		100
040PL001 03120	Y-Y-N	EA		100	
040PL001 03120	Y-Y-N	EA	100		

QAD WH-00-100

Use Inventory Detail Inquiry to check the results.

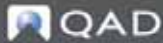
When the inspection results are confirmed, the load is moved from inspection back into storage where is it merged with the same item. The inventory status code is changed to available (Y-Y-N).

Bonus Coverage: Example - Inspect Partial Pallet

Bonus Coverage: Example - Inspect partial pallet

Inspect a Partial Pallet

- Change inspection sample to 25
- Receive 100
- Observe results




WHS 100

Try the inspection again, changing the sample to 25 and receiving 100. Then, observe the results.

Bonus Coverage - Example Inspect Partial Pallet (Continued)

Bonus Coverage: Example - Inspect partial pallet

Receive 100 each of item 03120

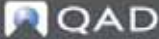


Inventory Detail Inquiry

Site: 10-301 Item Number: Display
 Warehouse: Lot/Serial: Disp Nor
 Location: Reference: C

Warehouse: 01 Warehouse 1

Item Location	Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
010RC001	03120	Y-Y-N PL000093	EA	100		100
020IN001	03120	Inspect PL000092	EA		25	
040PL001	03120	Inspect PL000092	EA		75	
		PL000092	PL			

 W445-300

Because the inspection flag is set for 25 each of item 03120, 25 are routed to inspection. The remaining pallet is moved into a pallet storage location, but the inventory status is changed to Inspect, making it not available (N-N-N).

Move all pallets using Movement Confirmation Workbench to prepare for the next example step.

Bonus Coverage: Example - Inspect Partial Pallet (Continued)


Bonus Coverage: Example - Inspect partial pallet

Sample Inspection Workbench

Site: 10-001 To:
 Warehouse: To:
 Item Number: To:
 Address: To:
 Receiver: To: Default Include:

ID	Item Number	Lot/Serial	Ref	Qty to Insp	Fail	Inc
7	03120		PL000092	25.0000	<input type="checkbox"/>	<input type="checkbox"/>

Is all information correct

 WIN5-170

Confirm the inspection results using Sample Inspection Workbench. Note that only 25 are in the sample, but they maintain the original LPN.

Bonus Coverage - Example - Success

Bonus Coverage: Example - SUCCESS

Inventory Detail Inquiry

QAD

Site: 10-301 Item Number:
Warehouse: Lot/Serial:
Location: Reference:

Warehouse: 01 Warehouse 1

Item Location	Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
020IN001	03120	Inspect	EA	25		25
040PL001	03120	Y-Y-N	EA	75		25
		PL000092	PL			

Site: 10-301 Item Number:
Warehouse: Lot/Serial:
Location: Reference:

Warehouse: 01 Warehouse 1

Item Location	Lot	Status Ref	Qty UM	On Hand	Expect In	Expect Out
040PL001	03120	Y-Y-N	EA	100		
		PL000092	PL			

QAD WFINC-230

When the sample is released from inspection, is it routed back to storage. The first put-away rule (5) attempts to merge the item reference number with the same (original) reference number already in storage. In this instance, the 25 are merged back with reference number PL000092.

Once the item is merged, the new quantity for reference PL000092 is 100.

Bonus Coverage: Define Inspection Parameters by Supplier

Bonus Coverage: Define inspection parameters by supplier

Supplier Item Inspection Maint (optional)

Supplier: 10S1002
Item Number: 03130

DYK: Setting up supplier level inspection criteria is OPTIONAL

Inspection Data

Selective Inspection:

Inspection Frequency:


Inspection Frequency (Days):

Destructive:

Sample Quantity: Ref:

Sample Percent:

Random Inspection %:

 WI-IG-730

Rather than inspect an item every time it is received, you can set up the item to be inspected when it is received from a specific supplier. This might be helpful when setting up a new supplier for an item or if a supplier has temporary issues. You can set this up using Supplier Item Inspection Maintenance.

There are two frames and 10 fields in Supplier Item Inspection Maintenance used for configuration.

Bonus Coverage: Inspection Fail Processing

Bonus Coverage: Inspection fail processing

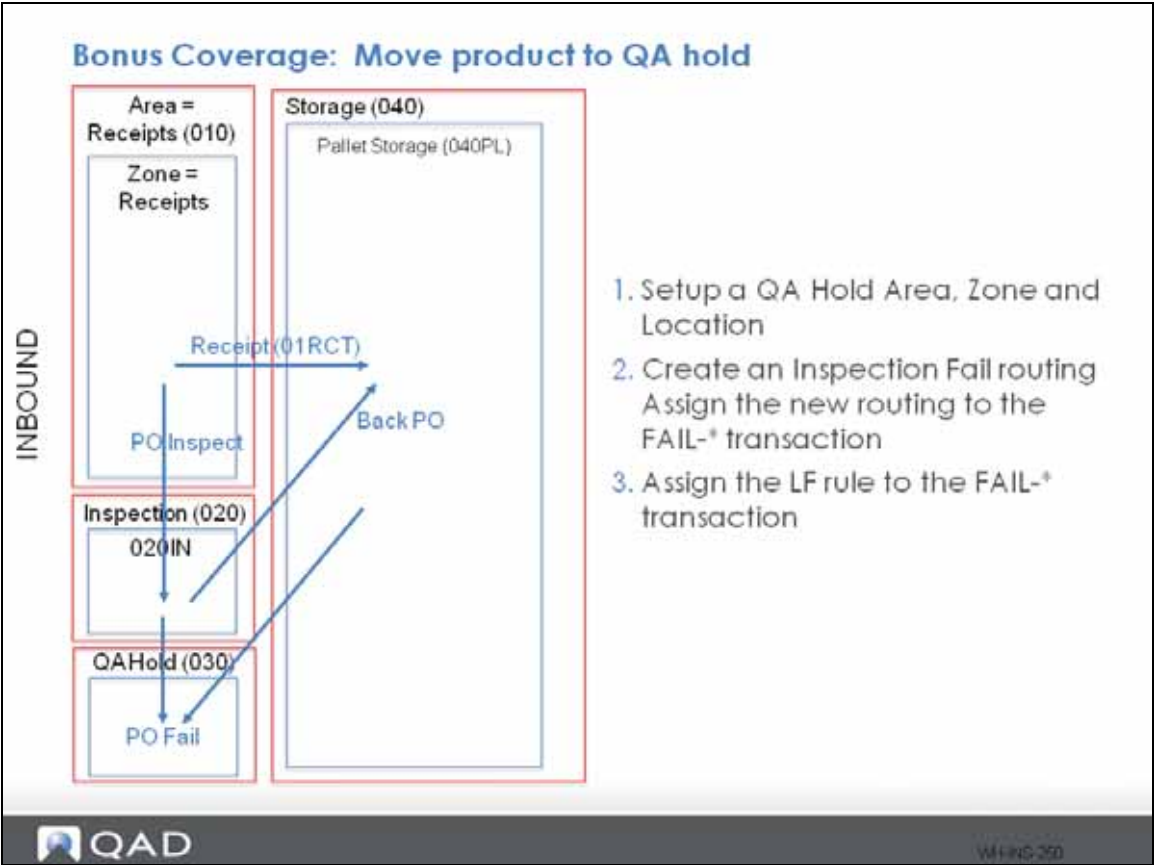
What happens when things don't work out quite the way you planned?



QAD

You can view details of failed inspections, using Failed Inspections Inquiry and Inspection Status Change Maintenance.

Bonus Coverage: Move Product to QA Hold



Setup

- 1 Setup a QA Hold Area, a zone, and a location.
- 2 Create an inspection fail routing; then, assign the new routing to the FAIL-* transaction. This is a one sequence routing with the destination Area
- 3 Assign the LF rule to the FAIL-* transaction.
- 4 Use Sequence 10 = 1.

Process

- 1 Receive an item requiring inspection.
- 2 Complete the moves.
- 3 Fail the open inspection.
- 4 Confirm the items in inspection and storage are moved to QA Hold Area.
- 5 Complete moves.
- 6 Confirm inventory status for all failed items.

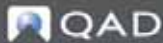
Note This process works when the entire load is inspected. If the load is split between storage and inspection, the inventory status of all items changes to FAIL, and the partial load in storage is moved to the reject area. However, the partial quantity in the inspection area is not moved. You need to further review the internal routing setup and failed quantity confirmation.

Key Learning Points

QAD Warehousing Inspection: Session 7-0

Key Learning Points

- Can handle the timing and movement of inventory into inspection
- Can record and track inspection results and status
- We offer variable inspection parameters
- You can establish inspection parameters by item by supplier



WH-INS-200

Exercises - Inspection Setup and Execution

Exercise

Inspection Setup and Execution

- Set up area, zone, and location
- Set up inspection product flows and rules
 - Create routings
 - Assign routings
 - Use put-away rules
 - Define inspection parameters
 - Activate inspection
- Receive and inspect an item
- Receive and inspect a split load

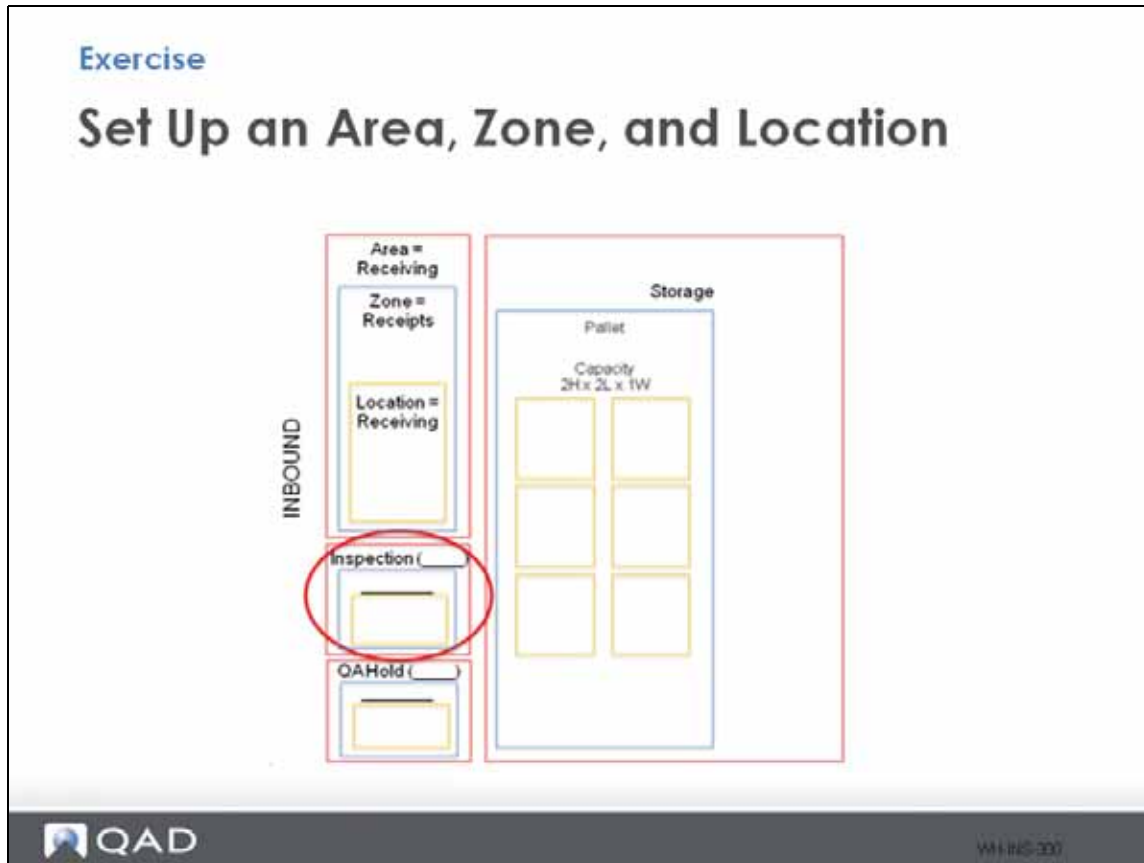


WH-INS-290

QAD Warehousing supports the inspection process.

In this exercise, and using QMI data, you set up one item for inspection and test the process using various inspection parameters.

Exercise - Set up an Area, Zone, and Location



Setup an area, zone and location for inspection, as depicted in the graphic above.

You can use information in the Introduction chapter of this training guide to help you set up.

To set up an area, use Internal Routing Group Maintenance. Set the following, using parameters when dictated in the tables, and entering parameters when you define your own into the tables:

Site	Warehouse	IRG (Area)	Description (optional)	Functional
10-301			Receiving	Y

To set up a zone, use Storage Location Group Maintenance. Set the following, using parameters when dictated in the tables, and entering parameters when you define your own into the tables:

Site	Warehouse	SLG (Zone)	IRG	Exclude from Picking	Picking Level	Picking Multiple UM	UM	Acquisition UM
10-301				Y	0	blank	blank	blank

To set up a location, use Warehouse Location Maintenance. Set the following, using parameters when dictated in the tables, and entering parameters when you define your own into the tables:

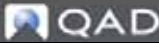
Site	Location	Warehouse	Description (Optional)	SLG	WLG	UM	QTY	H	L	W
10-301			Inspect	Y	0	blank	blank	blank	blank	blank

Exercise - Set Up Inspection Product Flows and Rules

Exercise

Set up Inspection Product Flows and Rules

- Create routings
- Assign routings
- Use put-away rules
- Define inspection parameters
- Activate inspection


WH-025-282


If inspection parameters are set, QA rules trigger and product can be routed from receipt to inspection to storage or both. Also, once product passes inspection, it is moved to storage for put-away. New routings and rules are required along with a change to an existing routing.

Exercise - Create Routings

Exercise

Create Routings

- Create a new routing from receipt to inspection.
- Create a new routing from inspection to storage.
- Enable Check Inspection field.
- Define the inventory status changes when product moves into and out of inspection.


WH 100 201

- 1 Create a new routing from receipt to inspection using Internal Routing Maintenance. Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter	
Site	10-301	
Warehouse		
Internal Routing		
Description (Optional)	Inspection	
	Start	End
Sequence	10	20
IRG		
Keep from Status	N	N

- 2 Create a new routing from inspection to storage using Internal Routing Maintenance. Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter	
Site	10-301	
Warehouse		
Internal Routing		
Description (Optional)	Inspection	
	Start	End

Field	Data to Enter	
Sequence	10	20
IRG		
Keep from Status	N	N

- 3 Using Internal Routing Maintenance to enable the Check Inspection field in the final frame.
- 4 Use Inspection Status Change Maintenance to define the inventory status changes when product moves into and out of inspection.

Exercise - Assign Routing

Exercise

Assign Routings

Int Routing Assignment Maint. x

Go To • Actions • Copy • Print • Preview

Transaction Type:

Site:

Warehouse:

Item Number:

Warehouse Item Type:


Address:

Custom:

Internal Routing:
Custom Program:

Transaction Type	INSP-*
Site	10-301
Warehouse	
Internal Routing	

Transaction Type	BACK-*
Site	10-301
Warehouse	
Internal Routing	


WH-INS-284

Assign the new routings to the associated transaction types using Int Routing Assignment Maintenance. Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter
Transaction Type	INSP-*
Site	10-301
Warehouse	
Internal Routing	

Field	Data to Enter
Transaction Type	BACK-*
Site	10-301
Warehouse	
Internal Routing	

Exercise - Use Put-Away Rules

Exercise

Use Put-Away Rules

The screenshot shows the 'Algorithm Assignment Maintenance' window with the following details:

- Algorithm Type:** PK
- Transaction Type:** PICK-RE
- Site:** 12000
- Warehouse:** whas
- Item Number:**
- Warehouse Item Type:** Custom
- Address:**

Assigned Algorithms:

Seq	Algo	Description

At the bottom, there are fields for 'Sequence' and 'Algorithm' with a 'Description' field below them.

Algorithm Type	LF
Transaction Type	INSP-*
Site	10-301
Warehouse	
Sequence	10
Algorithm	1

Algorithm Type	PA
Transaction Type	BACK-*
Site	10-301
Warehouse	
Sequence	10 20 30
Algorithm	5 3 2

Product in the inspection area is put away into any location regardless of available space. Product put back into storage should first attempt to merge with the same LPN, the same item then find an empty location.

What happens when the load/item arrives in the next area? How are storage locations selected? Storage rules should first attempt to merge same item loads, next look for an empty location.

- 1 Use Algorithm Assignment Maintenance to define the new rules. Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter	
Algorithm Type	LF	
Transaction Type	INSP-*	
Site	10-301	
Warehouse		
	Start	End
Sequence	10	blank
Algorithm	1	blank

Field	Data to Enter		
Algorithm Type	PA		
Transaction Type	BACK-*		
Site	10-301		
Warehouse			
Sequence	10	20	30
Algorithm	5	3	2

Question - What does this algorithm sequence accomplish?

- 2 With the addition of inspection, you now use the QA algorithms. Set up anew QA algorithm to determine the inspection type required upon receipt:

Field	Data to Enter	
Algorithm Type	QA	
Transaction Type	RCT-*	
Site	10-301	
Warehouse		
	Start	End
Sequence	10	blank
Algorithm	1	blank

Exercise - Define Inspection Parameters

Exercise
Define Inspection Parameters

Site	10-301
Warehouse	RCT-*
Item	03120
Selective Inspection	Y
Sample Quantity	100

Each item requires specific inspection parameter. Define these parameters using Item-Warehouse Maintenance or Multi-Level Item Maintenance.

Define parameters, and when not provided, note the parameters you enter here:

Field	Data to Enter
Site	10-301
Warehouse	
Item	03120
Selective Inspection	Y
Sample Quantity	100

Exercise - Activate Inspection

Exercise

Activate Inspection

Active:

Create Transactions:

Update Quantity:

Create Item/Supplier Record:

Print Inspection Tag Per:


Alter:

Good Inspections Decrease Random % by:

Fail Inspections Increase Random % by:

Destructive Inspection Status Code:

Fail Inspection Status Code:


WH45L007

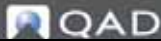
Use Inspection Control to activate warehouse inspections. Enable the Activate field.

Exercise - Receive and Inspect an Item

Exercise

Receive and Inspect an Item

- Use Receipts-Unplanned to receive.
- Use Movement Confirmation Workbench to complete all moves.
- Use Sample Inspection Maintenance or Sample Inspection Workbench to confirm successful inspection.
- Use Movement Confirmation Workbench to complete all moves.



WH-100-200

- 1 Use Receipts-Unplanned to receive: 200 EA, item 03120:
 - What loads are created? View Inventory Detail Inquiry to determine the LPN, item, and quantity. Note the parameters here:

LPN	Item	Quantity
-----	------	----------


- One pallet should be pending movement to inspection; the other to storage.
 - Did the inventory status of both loads change to the status you defined using Inventory Status Change Maintenance?
- 2 Use Movement Confirmation Workbench to complete all moves.
 - 3 Use either Sample Inspection Maintenance or Sample Inspection Workbench to confirm a successful inspection:
 - The load in inspection should have a pending move back into storage.
 - Did the inventory status of both loads change to the status you defined using Inventory Status Change Maintenance?
 - 4 Use Movement Confirmation Workbench to complete all moves.

Exercise - Receive and Inspect a Split Load

Exercise

Receive and Inspect a Split Load

- Change the sample quantity.
- Use Receipts-Unplanned to receive.
- Use Movement Confirmation Workbench to complete all moves.
- Confirm a successful inspection.
- Use Movement Confirmation Workbench to complete all moves.


WHINS 2018

1 Using Item-Warehouse Maintenance change the sample quantity to 25 for item 03120.

2 Use Receipts-Unplanned to receive: 100 EA, item 03120

- What loads are created? View Inventory Detail Inquiry to determine the LPN, item, and quantity. Note the parameters here:

LPN	Item	Quantity
-----	------	----------

- There should be two loads both with the same LPN. One for 25 the other for 75 each with a pending move. Where is each load scheduled for movement? Note the parameters here:

LPN	Item	Quantity	Move To
-----	------	----------	---------

- Did the inventory status of both loads change to the status you defined using Inventory Status Change Maintenance?

3 Use Movement Confirmation Workbench to complete all moves.

4 Confirm a successful inspection using either Sample Inspection Maintenance or Sample Inspection Workbench.

- The load in inspection should have a pending move back into storage. Where is the load scheduled for movement? Note the parameters here:

LPN	Item	Quantity	Move To
-----	------	----------	---------

- Did the inventory status of both loads change to the status you defined using Inventory Status Change Maintenance?

5 Use Movement Confirmation Workbench to complete all moves.

- What is the new inventory position of the load? Note the parameters here:

LPN	Item	Quantity	Move To
-----	------	----------	---------

If done successfully, the load should be moved back to pallet storage and merged with the original LPN. The new load quantity is 100.

Questions

- 1 True or False. You can set inspection flags in multiple places throughout QAD Warehousing.
- 2 You can optionally use which program to define a status code for inspection.
- 3 Use which program to define the inventory status code changes when product enters and leaves the inspection area?
- 4 True or False. You can define inspection parameters by supplier.
- 5 True or False. Once you set up inspection in the various maintenance programs, there is nothing preventing you from starting inspections.
- 6 True or False. The QAD Warehousing inspection module manages specific quality parameters?

Answers

- 1 True. You can set inspection flags in multiple places throughout QAD Warehousing.
- 2 You can optionally use Inventory Status Code Maintenance to define a status code for inspection.
- 3 Use Inspection Status Change Maintenance to define the inventory status code changes when product enters and leaves the inspection area.
- 4 True. You can define inspection parameters by supplier.
- 5 False. You must activate inspection first in Inspection Control.
- 6 False. QAD Warehousing supports the product flow through the inspection process but requires a quality module interface to manage specific quality parameters

Notes

Chapter 7

Labor Management

Overview



The image shows a presentation slide for QAD Warehousing Labor Management. The slide has a white background with the following text: "QAD Warehousing Labor Management" in blue, "QAD Warehousing" in large black font, and "Field Readiness Team" in black. Below the text is a horizontal strip of three images: a man and a woman looking at a computer screen, a close-up of red cables being processed by a machine, and a long aisle in a warehouse with high shelves. At the bottom of the slide is a dark grey banner with the QAD logo on the left and the slogan "Our Passion. Your Advantage." on the right.

QAD Warehousing lets you manage resources by monitoring and assigning warehouse tasks. Resources are users of the system, who work specifically within the warehouse.

Using labor management, the warehouse staff can be assigned the tasks most suited to their individual or collective skill sets or experience.

Objectives

QAD Warehousing Labor Management






Objectives

- Functional Fit
- Setting Up Task Management
- Other Features


Functional Fit: Labor Management


What we don't do so well


Functional Fit: Labor Management

Functionality	Fit	Notes
Engineering standards		Can be populated
Applying actuals against standards		
PF&D Adjustments		
Capture and track indirect labor		
XYZ travel mapping		

[Legend](#)

 Partial

 None

 QAD

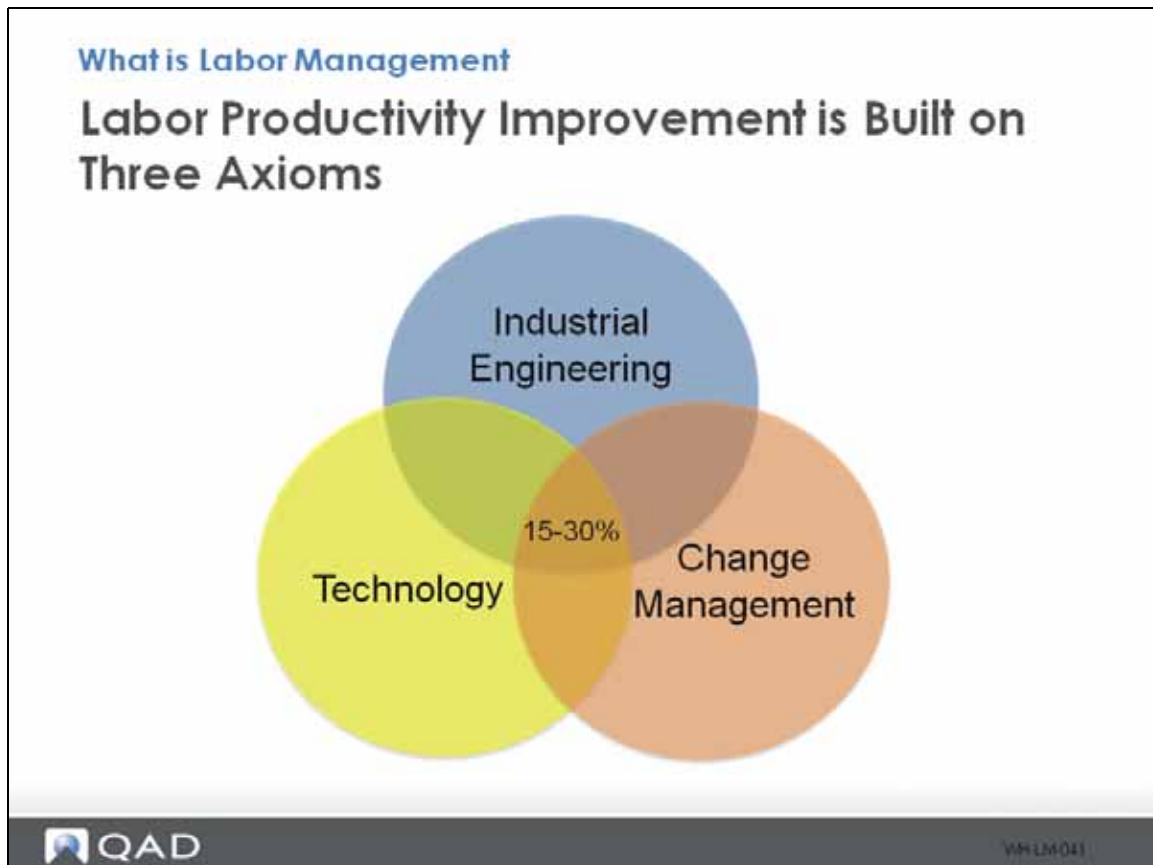
WH-LM-030

As shown in the graphic above, QAD Warehousing provides partial functionality for engineering standards and applying actuals against standards; however, QAD Warehousing lacks some labor management features.

QAD Warehousing supports general labor tracking and reporting capabilities but falls short of having true labor management capabilities.

Note PF &D is personal fatigue and delay.

What is Labor Management (continued)

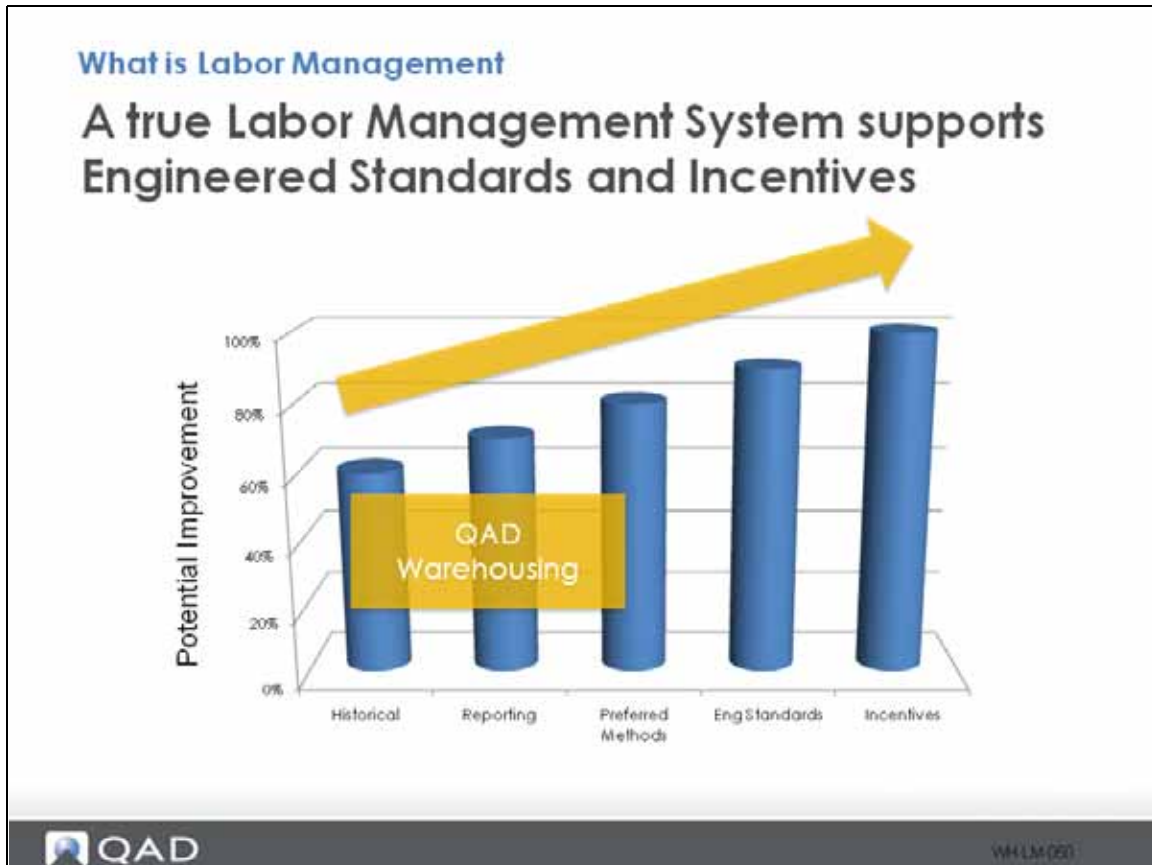


Industrial Engineering: Defines the optimal operating methods and develops appropriate performance standards.

Labor Management System: Enables improved workforce management and compares actual work accomplished with expected standards

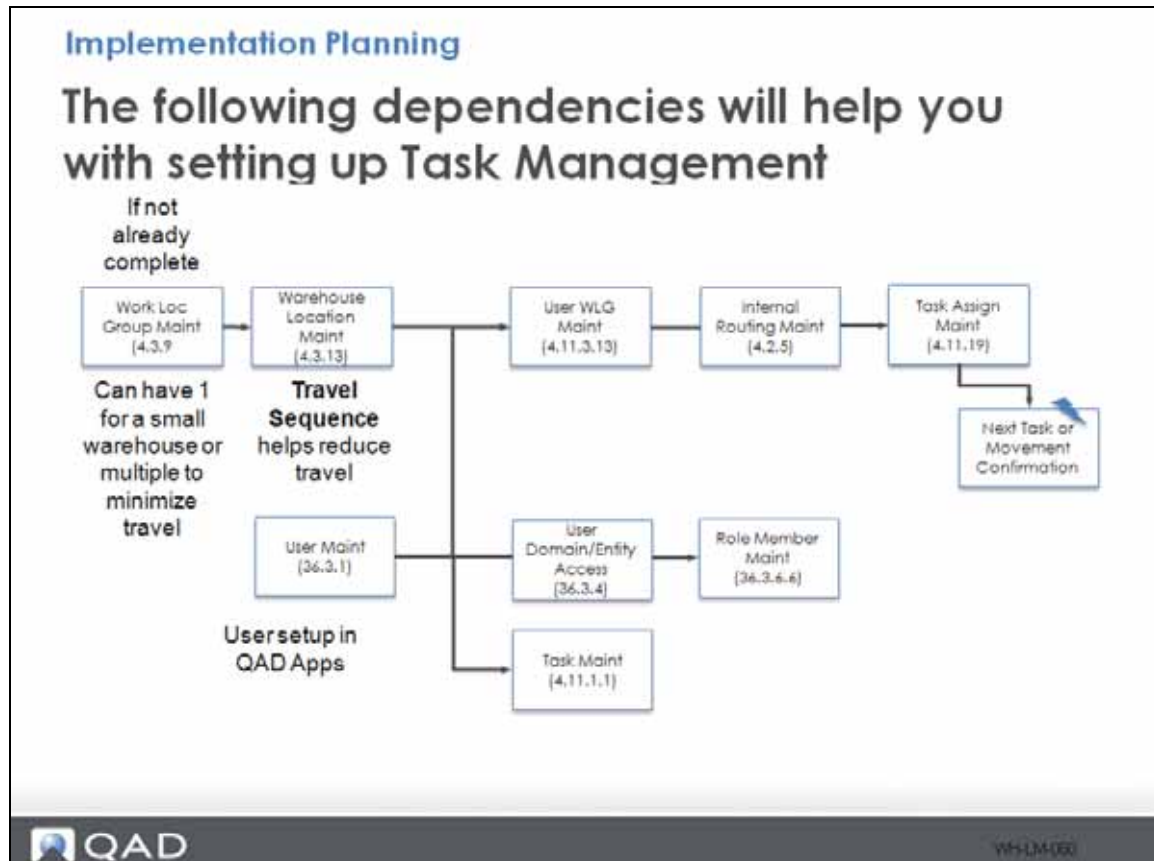
Change Management: Ensures potential gains from productivity improvement initiatives are realized during and after implementation

What is Labor Management? (Continued)



QAD Warehousing provides historical performance reporting and can provide expected work but does not equate to a true Labor Management System; however, the data in QAD Warehousing feed into a third-party LMS solution.

Implementation Planning



You set up the following:

- Resources

Define each warehouse staff, the warehouse groups, and optionally the warehouse shifts. Each warehouse staff member is a resource.
- Tasks

Define each variation of warehouse task (transaction).
- Assign Resources to Tasks

Define which tasks can be performed by which users.
- Approve Tasks

Use the RF (Radio Frequency), RDT (Radio Data Terminal), or non-RF movement confirmation to approve the movement of inventory from one location to another (tasks).
- Flavor

Style and format of Radio Frequency screens to be used for displaying information.

Labor Management Control

Activate

Labor Management Control

Active:

Check User Task Assignment:

Check User/Group Calendars:

Check User Travel Sequence:

Include Routing Tasks:

Display Next:

Display Tasks for Next:

QAD WLM(6)

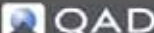
Note Currently, all labor management functionality works whether Labor Management Control is enabled or disabled. This may be a defect or a design flaw. Also, other functionality in Warehousing Labor Management is currently undergoing validation in test.

Implementation Planning - User Parameters

User Setup: Implementation Consideration

Define User Parameters

Data	Key	User 1	User2	User3	...
Name	36.3.1	Cart Pick	Fork Truck	Super	
User ID	36.3.1	UserA	UserB	UserCRB	
Password	36.3.1	qad	qad	qad	
Language	36.3.1				
Country Code	36.3.1				
User Type	36.3.1				
Access Loc	36.3.1				
Enabled Reason	36.3.1				
Products	36.3.1				
Domain Code	36.3.4	(A)			
Entity	36.3.4	(B)			
Role	36.3.6.6	(C)			
Work Location Group	4.11.3.13	01CT	01FL	01FL/01CT	
Task Assignment	4.11.1.9				
RF User?					

 W4LM070

The graphic above shows you the data you need to set up and the program menu number for the that you use to set up the data.

Data Setup

USA	USA-01	(B) 10C)RPCONS		
	US-B			
	US-C	(C) USERA	Superuser	10USA
	US-D			11CAN
10USA	10USACO			12MEX
11CAN	11CANCO			20FRA
12MEX				21NL
20FRA				22UK
21NL				30CHN
22UK	22UKCO			31AUS
30CHN				
31AUS	31AUSCO			

User Setup: Define Work Sections

User Setup: Define work sections

Work Location Group Maintenance

Site: 10-301
Warehouse: 01
Work Location Group: 01FL

Description: Forklift
Confirmed at Source:
Priority: 10
Increment: 1
Task: TRANSFER
System Code: RF
System Flavor: B
Allow Task Switching:
Two Phase:
Keep From Status:
Device:

DYG:
Work Groups help by:

- Assigning users to work sections based on equipment type
- Assigning users to work sections based on capability type
- Defining RF screen parameters for the work section

Work Location Groups (WLG) are defined by types or equipment used and work processes. WLGs can cross over different zones and focus on procedures rather than physical placement of inventory.

WLGs are helpful for defining where operators can work in the warehouse, the format of the RF screens and the printers they use.

Did You Know

Work Groups help by:

- Assigning users to work sections based on equipment type
- Assigning users to work sections based on capability type
- Defining RF screen parameters for the work section

Assign the User to a Work Location Group

Assign the User to the Work Location Group

User Work Location Group Maintenance

User Work Location Group Mai... X

Go To • Actions • Copy • Print • Preview

Site:

Warehouse:

Work Location Group:

User ID:

System Flavor:

Device:

External Device Printer:

Form Printer: Use External


ID Printer: Use External

Task Printer: Use External

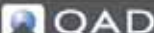
Forklift Handling
01FL

040PL

001	002
003	004
005	006
007	008
009	010

 **UserB**

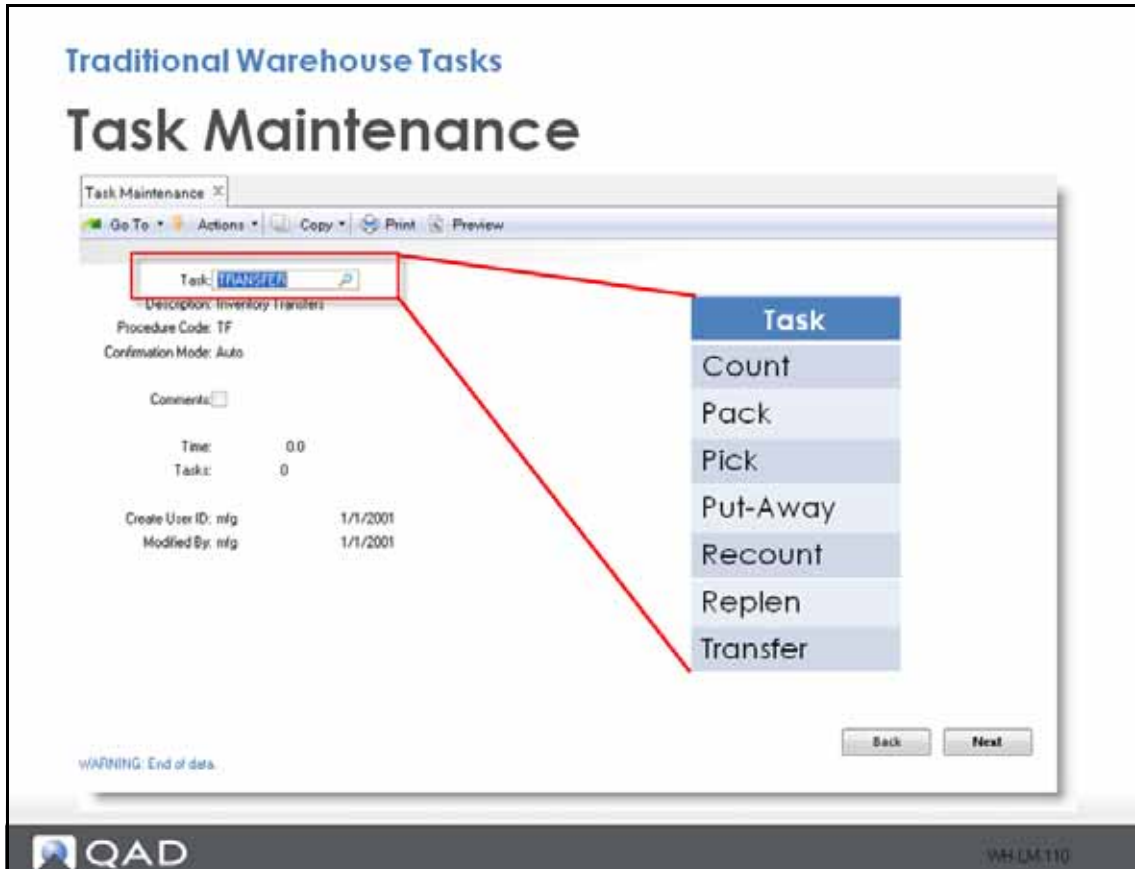
Back Next

 QAD WLLM100

System Flavor defines the style and format of Radio Frequency (RF) screens.

Use User Work Location Group Maintenance to assign a user to a work location group, set up print options specific to that user, and set the system flavor for the user.

Traditional Warehouse Tasks



Use Task Maintenance to create and update the tasks performed in a warehouse.

Assign Task Types to Users

Assign Task Types to Users

Task Assignment Maintenance

User ID: qmi QMI User

Queue 0

1	PICK	Auto		
2	REPLEN	Auto		
3	PACK	Auto		
4	PUT-AWAY	Auto		
5	TRANSFER	Auto		

DYK: Task priority queues can be setup to help ensure important tasks are completed first.

QAD WLM-133

For cross-trained users working in multiple areas, Task Assignment Maintenance helps prioritize when multiple tasks are available. Also, when the task is not in the user's task maintenance queue, the system never assigns the task to the user.

.Did You Know

Task priority queues can be set up to help ensure important tasks are completed first.

Example - Set Up a New User QMI

Example

Setup a New User QMI

Forklift Handling (01FL)

Pick Cart Handling (01CT)

UserB
Receive, Replen,
Pallet Pick

UserA
Picking

Super User
QMI

QAD WM-LM-143

In this example, UserB is assigned to the pallet area due to a forklift-handling requirement and UserA to the Boxes area for handling less boxes.

Exercise: Assign User QMI to All Location Groups

Example

Setup a New User QMI

The diagram illustrates the setup of a new user QMI. It shows two location groups: 'Forklift Handling (01FL)' and 'Pick Cart Handling (01CT)'. User A is assigned to 'Picking' tasks. User B is assigned to 'Receive, Replen, Pallet Pick' tasks. A 'Super User' (QMI) is highlighted in a red circle, indicating they are assigned to all location groups.

QAD W4LM-051

You must set up the user in User Maintenance in QAD EE.

You must assign the user to all WLGs using User Work Location Group Maintenance.

Exercise: Assign User QMI to All Work Location Groups

Exercise: Assign User QMI to all Work Location Groups

Task Assignment Maintenance

Site: 10-301
Warehouse: 01
Work Location Group: 01FL
User ID: QMI

System Flavor: B
Device:
External Device Printer:
Form Printer:
ID Printer:
Task Printer:
Inspection Printer:

Site: 10-301
Warehouse: 01
Work Location Group: 01CT
User ID: QMI

System Flavor: A
Device:
External Device Printer:
Form Printer:
ID Printer:
Task Printer:
Inspection Printer:

1. QMI must first be setup in QAD Core
2. Assign QMI to all Work Location Groups

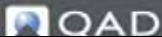
QAD WH-LM-052

Example - Change Task Priority and Assignment

Example – Change Task Priority and Assignment

Change Task Priority and Assignment

1. Create 3-4 put-away transactions via a PO Receipt or Unplanned Receipt of 400 eaches
2. View Pending Tasks Inquiry
3. Change a Task Priority using Transaction Boost Priority
4. View Pending Tasks Inquiry
5. Select a different user using Transaction Priority Workbench



WHL11110

You change task priority and assignment by:

- 1 Creating put-away transactions using core receipt programs.
- 2 Viewing tasks in Task Load Report
- 3 Changing task priority using Transaction Priority Boost
- 4 Re-viewing pending tasks in Task Load Report.
- 5 Selecting a different use using Transaction Priority Workbench.

Example - Change Task Priorities

Example - Change Task Priorities

Pending Tasks Inquiry

System Code: RF Work Location Group:
 Site: 10-301 Task:
 Warehouse: 01 User ID: Output: PA

Tran Nbr	Task	TT	WLG	From Location	To Location	Status	Pri	Curr
69	TRANSFER	RCT-PO	01FL	010RC001	040PL001	OPEN	10	
70	TRANSFER	RCT-PO	01FL	010RC001	040PL001	OPEN	10	
67	TRANSFER	RCT-UNP	01FL	010RC001	040PL003	OPEN	10	
68	TRANSFER	RCT-UNP	01FL	010RC001	040PL003	OPEN	10	

Transaction Number: 67

Site: 10-301 Distribution Site 1
 Warehouse: 01 Warehouse 1

Order Priority: 99999999
 Task Priority: 40

Location Group:
 Task:
 User ID: Output: PAGE

Tran Nbr	Task	TT	WLG	From Location	To Location	Status	Pri	Curr
69	TRANSFER	RCT-PO	01FL	010RC001	040PL001	OPEN	10	
70	TRANSFER	RCT-PO	01FL	010RC001	040PL001	OPEN	10	
67	TRANSFER	RCT-UNP	01FL	010RC001	040PL003	OPEN	40	
68	TRANSFER	RCT-UNP	01FL	010RC001	040PL003	OPEN	10	

Transaction Priority Boost

QAD WLM-170

Use Task Load Report to view pending tasks, then use Transaction Priority Boost.

In the example above, the priority increased from 10 to 40. The next time a user logs in to Next Task and is assigned Transfers, they receive this transfer task, assuming there are no other accessible tasks with a higher priority than 40.

Example - Change Task Assignments

Example - Change Task Assignments
Transaction Priority Workbench

Site	Warehouse	Sort Order	Operators	Auto Refresh
10301	01	Ascending Priority	0	<input type="checkbox"/>

Select a Transaction to Change

Item Number	Ref	User ID	Description	From Loc	To
03210	PL000084	qm	QMI User	010RC001	040PL003
03210	PL000084	UserB	RF User B	010RC001	040PL003
03120	PL000084			010RC001	040PL001
03120	PL000084		TRANSFER	10	100.0

QAD WM-LM-1001

When there are multiple open tasks available for the same User, when you assign a task to a User in this workbench, this task is received next by the user even when the other unassigned tasks have a higher priority.

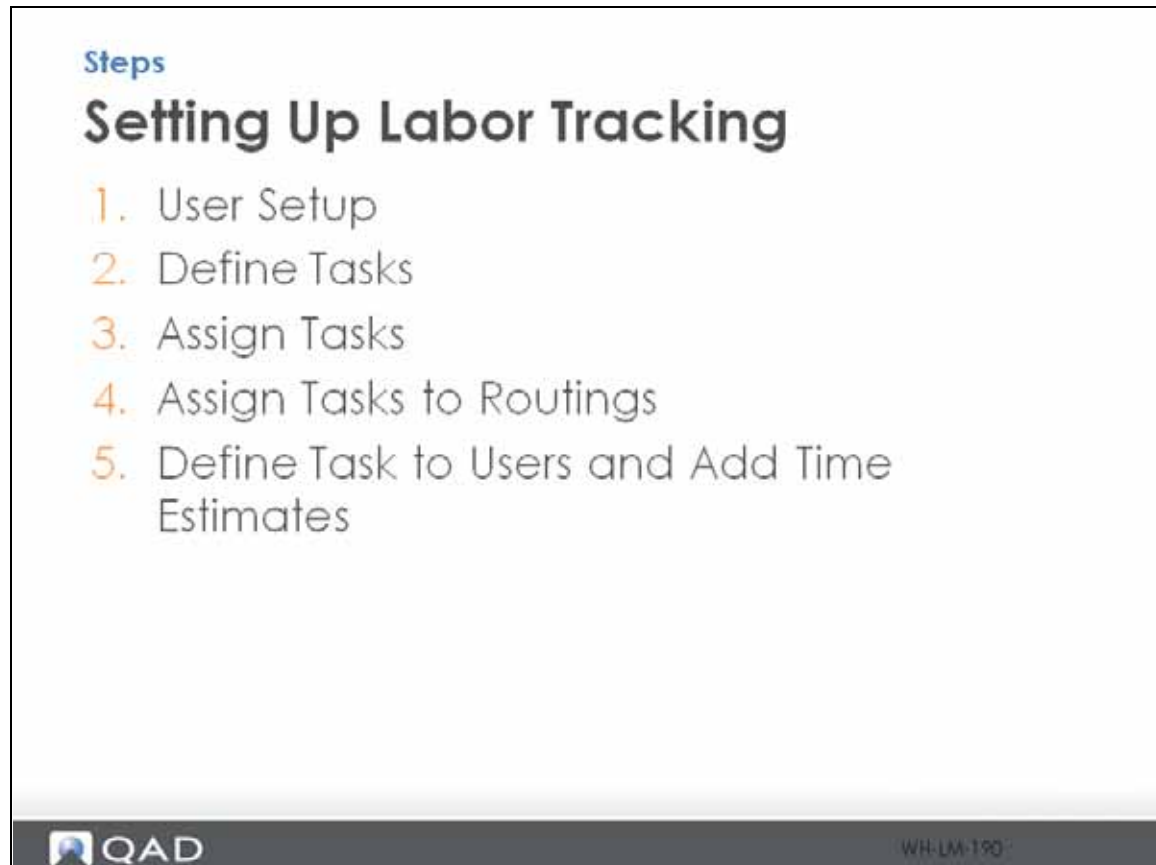
Currently, you can use Labor Management Workbench to assign users to specific tasks; however, the task assignment using Transaction Priority Workbench overrides Labor Management Workbench. Labor Management Workbench does not actually assign tasks. Also, there is no option to change the transaction priority.

Question

How long does it take to perform a task (the standard) and how effectively are operators performing to the standard?

WH-LM-053

Steps: Setting Up Labor Tracking



The screenshot shows a slide titled "Steps: Setting Up Labor Tracking". The slide content is as follows:

Steps

Setting Up Labor Tracking

1. User Setup
2. Define Tasks
3. Assign Tasks
4. Assign Tasks to Routings
5. Define Task to Users and Add Time Estimates

The slide footer contains the QAD logo on the left and the code "WH-LM-190" on the right.

You can use any of the reporting tools, shown above, within QAD Warehousing's Labor Management module to view labor management data.

Assign Tasks to Routing

Tasks Link to Internal Routings

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 Internal Routing: 01RCT

Description: Receipts
 Sequence: 20 Internal Routing Group: 040


Transaction Create

Confirmed at Source:
 System Code: RF
 Two Phase:
 Keep From Status:

Task: PUT AWAY
 Priority: 10
 Increment: 1

Transaction Confirmation

From Location Option: 0	To Location Option: 0
From Item Option: 0	To Item Option: 0
From Lot/Serial Option: 0	To Lot/Serial Option: 0
From Reference Option: 0	To Reference Option: 0
Allow Quantity Increase: <input type="checkbox"/>	Alternative UM Option: 0
Allow Quantity Decrease: <input checked="" type="checkbox"/>	
Quantity Change Option: 0	

 WH-UM-120

To help you manage more micro tasks, add PUT-AWAY to the Task in Sequence 20 of the receiving internal routing. This creates a PUT-AWAY task when product is received and directed for put-away into storage.

Define Tasks Best Suited for the User

5. Define tasks best suited for the user(s)

User Warehouse Data Maintenance

User	Task	Trans Type	IR
QMI	Pick	PICK-SO	01PCK
QMI	Transfer	PICK-RE	01RPL
QMI	Put-away	RCT-PO	01RCT
QMI	Put-away	RCT-UNP	

QAD WH-UM-062

Define the task times expected for each user using User Warehouse Data Maintenance.

- 1 Enter the User ID
Enter 1 for Order Sort and Line Sort; refer to *QAD Warehousing User Guide*. for more information on these fields.
- 2 Define the Task, Transaction Type and Internal Routing this user can perform
- 3 Optionally, assign an estimated time to complete in Actual Time (the standard).
The chart in the lower right represents other task combinations you can assign to the QMI user and other user for a more detailed demonstration of labor tracking.
Note Need to determine if this step is necessary. (i.e. will User Warehouse Date Browse populate if this information is not setup?) As of 8/7/12 it appears as long as one Task configuration is setup for the user, all other tasks the user completes will self populate. Why?

Executing Labor Tracking

Steps

Executing Labor Tracking

1. Receive 2 pallets of item 03210
2. Open Labor Management Workbench
 - Observe Task Details
3. Process the Tasks using RF QMI
4. Open User Warehouse Data Browse
 - Observe the Actual Time for the task
5. Run Productivity by User Report
 - Observe User Productivity




WH-LM-063

Executing Labor Tracking (continued)

Steps

Executing Labor Tracking

1

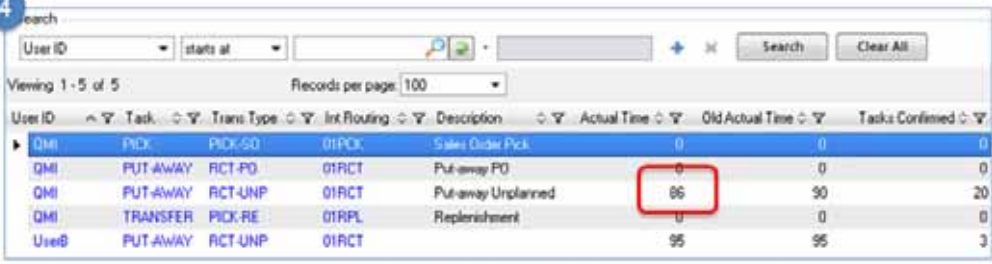


2

Task Nbr	Task	TT	From Location	To Location	Current	Priority	Est Time
80	PUT-AWAY	RCT-UNP	010RC001	040PL004	qmi	10	00:01:19
81	PUT-AWAY	RCT-UNP	010RC001	040PL004		10	00:01:23

Actual Time: 12:16:45 Actual Outstanding Tasks: 2
 Estimated Total Time: 00:01:23 Estimated Tasks per Minute: 1.45
 Estimated Completion Time: 12:18:08 Estimated Outstanding Tasks: 0

4



User ID	Task	Trans Type	Int Routing	Description	Actual Time	Old Actual Time	Tasks Confirmed
QMI	PICK	PICK-SO	01PCK	Sales Order Pick	0	0	0
QMI	PUT-AWAY	RCT-PO	01RCT	Put-away PO	0	0	0
QMI	PUT-AWAY	RCT-UNP	01RCT	Put-away Unplanned	86	90	20
QMI	TRANSFER	PICK-RE	01RPL	Replenishment	0	0	0
UserB	PUT-AWAY	RCT-UNP	01RCT		95	95	3

QAD WH-UM-064

When the task (80) is accepted by RF user QMI:

- 1 Labor Management Workbench shows the task assigned to qmi and the Est Time (1.19) to complete the task. The Est Time column is pulled from the data in Task Time Maintenance for the Task combination and automatically updated if Labor Management Control is active. The display also shows the Estimated Completion Time to process the open tasks.
- 2 When the put-away tasks are complete, a review of User Warehouse Data Browse shows the updated Actual Time to complete the most recent put-away task. This field is updated each time the Task combination is complete when Labor Management Control is active. The Old Actual Time column is updated by running Recalculate User Task Times.

Note When Labor Management Control is active, the Actual column in User Warehouse Data Maintenance updates each time a task is complete else it updates only with Recalculate User Task Times. The Old Actual Time updates when you run Recalculate User Task Times.

Executing Labor Tracking (continued)

Steps

Executing Labor Tracking


Productivity by User Report

User ID	Task	TT	Internal Routing	Picks Per Hour	Expected Picks Per Hour	Productivity
qmi	PUT-AWAY	RCT-UNP	01RCT	53.22	43.37	122.70%
Total:				53.22	43.37	122.70%

5

This field updates each time the Task combination is complete.

This field is updated when Task Time Maintenance is updated.
3600" per hour / 83" per task

 QAD WH-UM-071

This is an example standard productivity report. While the titles of the 5th and 6th columns reference picks, these are measure specific to the Task combination listed on the line, that is, put-away.

Executing Labor Tracking (continued)

Steps

Executing Labor Tracking

Task Time Maintenance

Task: PUT-AWAY
Transaction Type: RCT-UNP
Internal Routing: 01RCT

Description: Put-away Unplanned

Estimated Time: Seconds
Old Estimated Time: 150 Seconds

Task Time Maintenance

Task: PUT-AWAY
Transaction Type: RCT-UNP
Internal Routing: 01RCT

Description: Put-away Unplanned

Estimated Time: Seconds
Old Estimated Time: 83 Seconds

Task Time Update

Task	TT	Internal Routing	Description	Est Time	Old Est Time
PUT-AWAY	RCT-UNP	01RCT	Put-away Unplanned	87	83

QAD WH-UM-072

To change the Est Time column in Labor Management Workbench and Update the Expected Picks Per Hour in Productivity by User Report, change the data in Task Time Maintenance.

You can either manually enter a time in Estimated Time or run Task Time Update. Manually entering a number is used if you developed a specific time based on observations and/or calculations.

Task Time Update brings in the last system recorded time for the task and is an average of the last transactions.

Executing Labor Tracking (continued)

Steps

Executing Labor Tracking

1

QMI
Receipt: 82
UN
Fr Loc: 010RC001
Loc: 010RC001
Chk:

2

Run Nbr	Task	TT	From Location	To Location	Current	Priority	Est Time
82	PUT-AWAY	RCT-UNP	010RC001	040PL004	qmi	10	00:01:26

Actual Time: 13:08:04 Actual Outstanding Tasks: 1
 Estimated Total Time: 00:01:26 Estimated Tasks per Minute: 0.70
 Estimated Completion Time: 13:09:30 Estimated Outstanding Tasks: 0

3

User ID	Task	TT	Internal Routing	Internal	Expected		Productivity
				Picks Per Hour	Picks Per Hour	Productivity	
qmi	PUT-AWAY	RCT-UNP	01RCT	43.93	41.38	106.16%	
Total:				43.93	41.38	106.16%	

QAD WH-UM-074

When you receive another pallet of 03210 and the task (82) is accepted by RF user QMI:

- 1 Labor Management Workbench shows the task assigned to qmi and the NEW Est Time (1.26) to complete the task. Note, the Est Time conversions are slightly off—should be 1:27 = 87”

Also note the Expected Picks Per Hour column is updated to reflect the updated Task Time Maintenance: 87 seconds. (3600 seconds per hour / 87 seconds per task = 41.38 tasks per hour). The system only updates the column when you run Task Time update, while the Picks Per Hour column is updated each time a task is complete.


Running Task Time Update updates the Estimated Time in Task Time Maintenance. Be judicious and have a plan/reason for running this update.

Labor Reporting

QAD Warehousing Labor Management

Labor Reporting

- Next Task
- Pending Tasks
- Task by Completion Date/Time
- Performance by Task/User
- Productivity by User
- Closed Transactions by User
- Task Load
- Workload by WLG
- Tasks by User/Group and Date

 QAD WH-LM-075

It would be convenient to have the ability to restart productivity tracking metrics at a specific time. For example, at the start or each day of shift.

Key Learning Points

QAD Warehousing Labor Management

Key Learning Points

- QAD Warehousing supports basic labor reporting
- Demo testing continues to validate as-is labor management functionality

Questions

- 1 True or False. QAD Warehousing provides some functions of a true labor management system but not all functionality. For example, there are no engineering standards or incentives in QAD Warehousing.
- 2 What is system flavor?
- 3 Name at least two traditional warehouse tasks.
- 4 Which QAD Warehousing program defines the priority of generic tasks a user receives when multiple tasks are available?
- 5 Which QAD Warehousing programs help you view warehouse staff tasks?
- 6 True or False. Users must first exist in QAD core before being setup in QAD Warehousing?

Answers

- 1 True. QAD Warehousing provides some functions of a true labor management system but not all functionality. For example, there are no engineering standards or incentives in QAD Warehousing.
- 2 System flavor defines the style and format of Radio Frequency (RF) screens and printing preferences.
- 3 Traditional warehouse tasks can include count, pick, pack, put-away, recount, replenish, and transfer.
- 4 Task Assignment Maintenance helps prioritization when multiple tasks are available.
- 5 Task Priority Workbench helps you view warehouse staff tasks.
- 6 True. QAD Warehousing depends on users for first be setup in User Maintenance.

Notes

Chapter 8

Cycle Count

Overview

QAD Warehousing Cycle Count: Session 8-0

QAD Warehousing

Green Belt Certification



Our Passion. Your Advantage.

Objectives

QAD Warehousing Cycle Count

Objectives

- Functional Fit
- Understand cycle count concepts
- Cycle count example




WH-CC-020



Functional Fit: What We Don't Do


What we don't do

Functional Fit: Cycle Counting

Functionality	Fit	Notes
Supports all basic and advanced cycle count strategies.		

Legend

-  Partial
-  None

 QAD WH-CC-030


As you can see in this graphic, QAD Warehousing cycle count functions provide all basic and advanced warehousing cycle count strategies.

Types of Cycle Count

Types of cycle counts

Cycle Counting

- Cycle Counting Transactions
 - CountTasks
 - RecountTasks
- Opportunity Counts
 - if Opportunity Count is on at SLG level
 - if quantity drops below threshold level in Item/Warehouse
 - if OPC frequency is over from Last OPC Date (Location)
- Count on Fail Option
- RF Location Audit


WH-CC-040

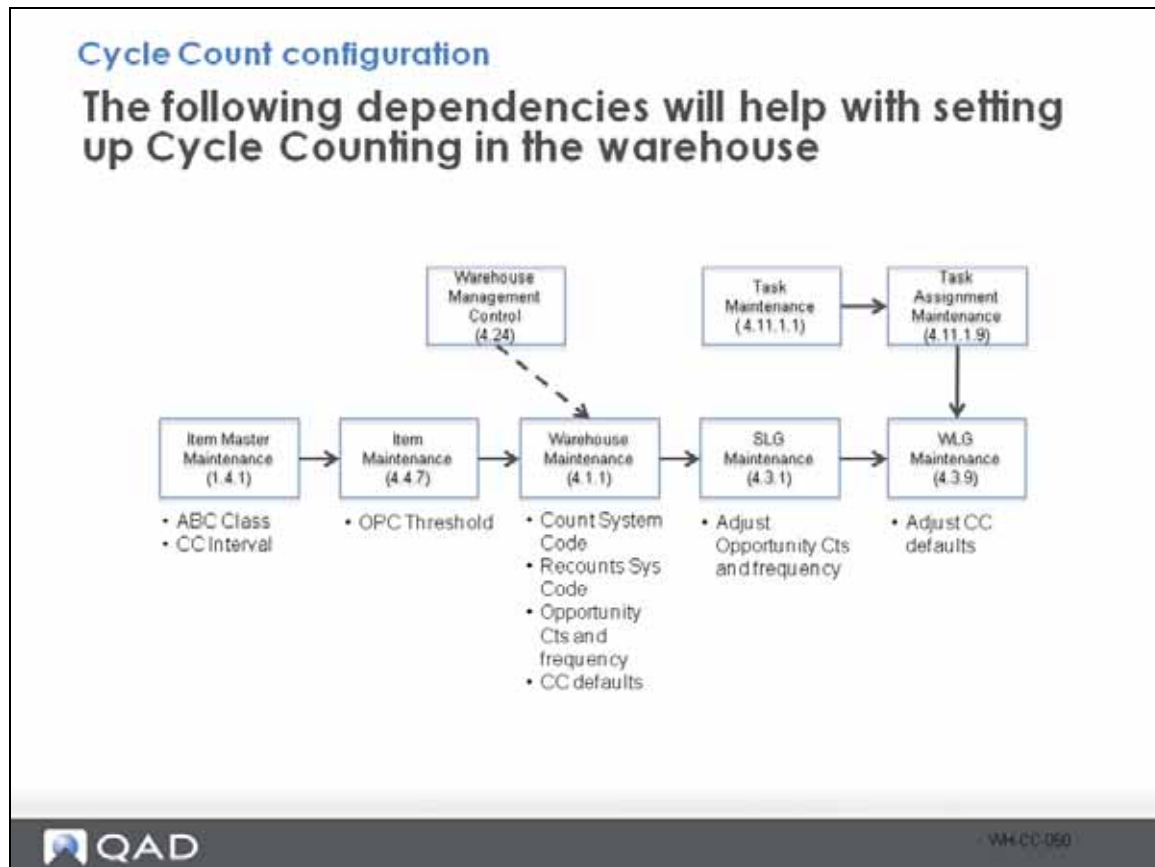
Did You Know

- You can count the contents of a pallet or bin through the RF Location Audit option?
- Cycle counts are planned and scheduled events while opportunity counts are driven by triggers/events.

A cycle count is a count of inventory items to monitor stock levels and maintain inventory accuracy. You initiate cycle counts manually or automatically.

Once you do, the RF displays a cycle count frame, prompting the warehouse employee to count the level of stock remaining in a location.

Cycle Count Configuration



Cycle count setup includes the following:

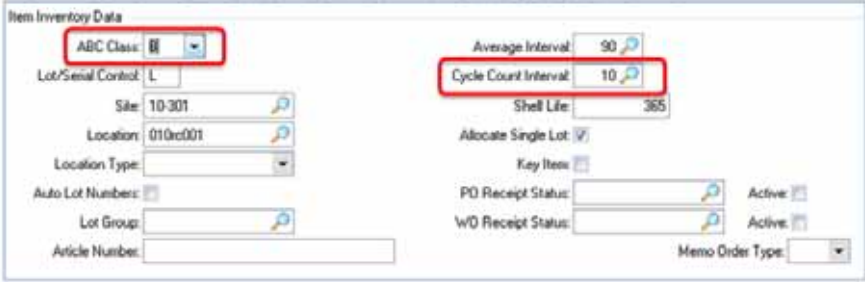
- Generate cycle count transactions/task.
- Classify the value of items to be counted.
- Specify the threshold that triggers an opportunity count during stock movement.
- Specify the RF device for system-created WLG cycle count or recount requests.
- Specify that warehouse staff perform a cycle count and set the frequency in days.
- Specify cycle count tasks at the WLG level.
- Enable users to perform cycle count tasks.

Setting Up Cycle Counting

Setting up cycle counting

Assign ABC Class and count frequency to the item

Item Master Maintenance - Item Inventory Data Frame



The screenshot displays the 'Item Inventory Data' form. Two fields are highlighted with red boxes: 'ABC Class' is set to 'B' and 'Cycle Count Interval' is set to '10'. Other visible fields include 'Average Interval' (90), 'Shell Life' (365), 'Lot/Serial Control' (L), 'Site' (10-301), 'Location' (010rc001), 'Allocate Single Lot' (checked), 'Key Item' (unchecked), 'PO Receipt Status', 'W/O Receipt Status', and 'Memo Order Type'.

WMS cycle counting works in conjunction with QAD Core

QAD VM-CC-060

Did You Know

- ABC Class is used as a selection category for cycle count setup.
- Cycle Count Interval (frequency) is measured in Days only.

Use Cycle Count Maintenance to set up these functions.

Item Level CC Parameters

Item level CC parameters

CC Requires additional setup in WMS

Multi-Level Item Maintenance

Item Number: 03121 Scented Disinfectant
 UM: EA 9 Bottle

Item Data

Unit of Measure Group: Shelf Life Offset:
 Critical Days:

Barcode 1:
 BarCode 2:

Default Site Data

Warehouse Item Type: Single PA Trans:
 Replenishment Type: Issue Method:
 Popularity: Print ID:
 ID Quantity:
 OPC Threshold:

QAD WH-CC-070

Did You Know

Opportunity counts are not triggered by a manual product move.

When a pick or replenishment task is complete and the inventory level drops below the OPC Threshold, an opportunity cycle count is generated.

Warehouse Level Parameters

Warehouse level parameters

CC is also configured at the Warehouse level

Warehouse Maintenance

Cycle Count Defaults

Cycle Count Task:	COUNT	Recount Task:	RECOUNT
Count System Code:	RF	Recount System Code:	RF
Cycle Count Priority:	50	Recount Priority:	50
Count Increment:	1	Recount Increment:	1
Cycle Count on Fail:	<input type="checkbox"/>	Cycle Count Status Option:	0
Use Recount UM of SLG:	<input type="checkbox"/>	Blind Location Audit:	<input type="checkbox"/>

QAD

WH-CC-080

Use Warehouse Maintenance to specify the RF is the device where the system creates a cycle count or recount request in the WLG.

You can specify that cycle counts are done on the RF. You set up priority and by how many days the cycle count increments, or whether the cycle counts occur on fails.

Zone Level Parameters

Zone level parameters
...and the Zone level...

Storage Location Group Maintenance

Site: 10-301
Warehouse: 01
Storage Location Group: 040PL
Description: Pallet storage

Internal Routing Group: 040

Allow Issues:
Allow Receipts:
Allow Incoming Returns:
Allow Outgoing Returns:

Opportunity Counts:
Opportunity Count Frequency:
Check Digits:
Cycle Count Status Option:

Exclude from Picking:
Picking Level:
Over Pick:
Multi-Trans:
Detail Overflow Group:
Capacity Check when DTF:
Optimized Storage:
Allow Mixed Status Codes:
Acquisition UM:
Recount UM:

Picking Multiple UM:

QAD WH-CC-090

Use Storage Location Group Maintenance to:

- Set the Opportunity Counts field so the system requests warehouse staff perform a cycle count.
- Specify the frequency in days since the last count you want to perform a new count.

Did You Know

Opportunity counts are setup by zone and trigger an interleaved cycle count when the item is picked below the threshold set in Item Maintenance.

Work Location Group Parameters


Work Location Group parameters
...and the work sections

Work Location Group Maintenance

Site: 10-301
Warehouse: 01
Work Location Group: 01FL

Cycle Counts:

Cycle Count Task:	COUNT	Recount Task:	RECOUNT
Count System Code:	RF	Recount System Code:	RF
Cycle Count Priority:	50	Recount Priority:	50
Count Increment:	1	Recount Increment:	1
Cycle Count on Fail:	<input type="checkbox"/>		

 WH-CC-100

Use Work Location Group Maintenance to specify whether the system creates a cycle count task at the WLG level.

Cycle Count Task Assignment

Cycle count task assignment

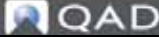
Which users are allowed to do cycle counts?

Task Assignment Maintenance

User ID: UserB RF User B

Queue 1

1	TRANSFER	Auto	<input type="checkbox"/>
2	PICK	Auto	<input type="checkbox"/>
10	COUNT	Auto	<input type="checkbox"/>
20	recount	Auto	<input type="checkbox"/>

 QAD WH-CC-110

Use Task Assignment Maintenance to assign warehouse users to cycle count tasks.

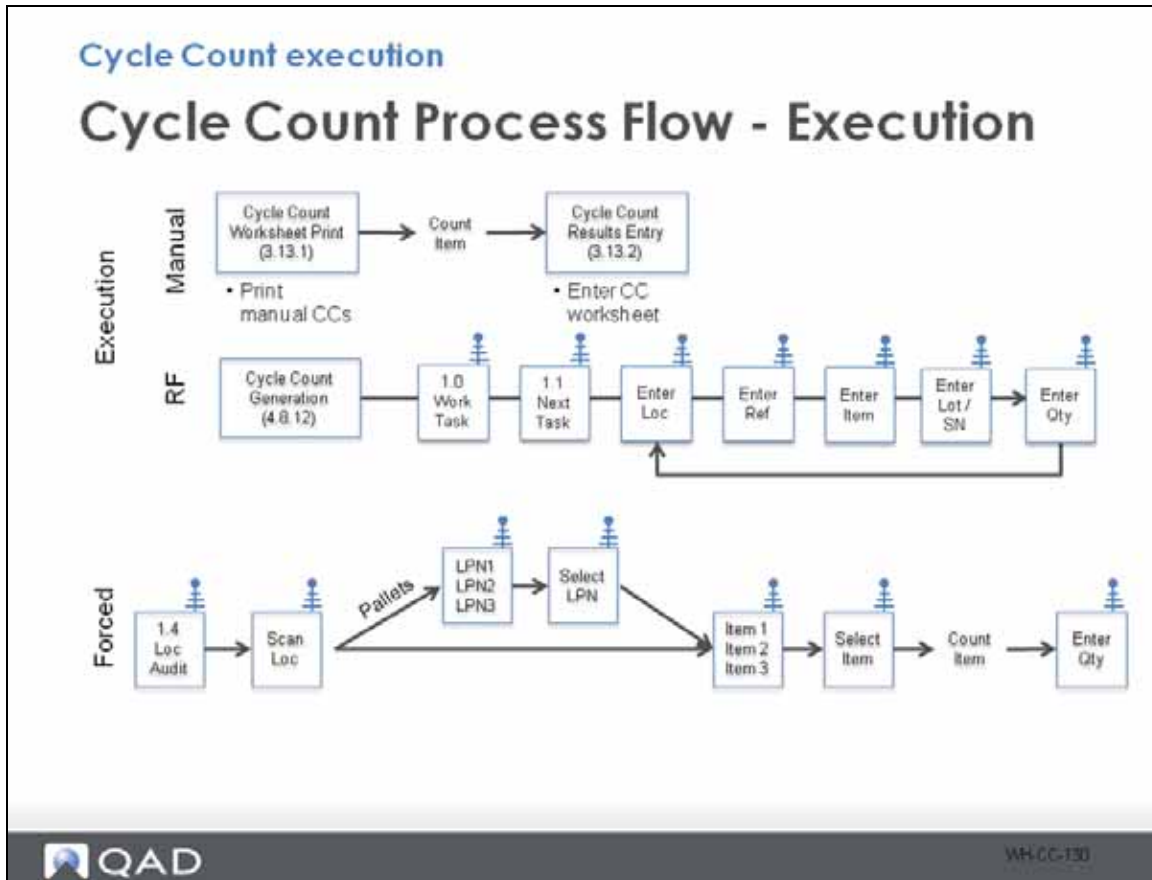
Cycle Count Processing

Cycle Count Processing

- Ensure there is inventory in various locations
- Ensure the cycle count intervals are set to trigger a cycle count task
(see Cycle Count Interval field @ 1.4.1)
- Use the Cycle Count process flow maps to test cycle counting

WH-CC-120

Cycle Count Execution



The graphic above depicts the programs, both within QAD Warehousing and the RF, the system uses when executing cycle counting, either RF cycle count or manual cycle count.

Cycle Count Simulation or Creation

Cycle Count simulation or creation

Cycle Count control options

Cycle Count Generation

Create Transactions: Count Reason: COUNT Blind:

Item Number: _____ To: _____

Product Line: _____ To: _____

Item Type: _____ To: _____

Site: 10-2011 To: _____

Warehouse: _____ To: _____

Store Loc Group: _____ To: _____

Work Location Group: _____ To: _____

Location: _____ To: _____

Last Count: _____ To: _____

ABC Class: _____ To: _____

Number of Items: 99999999 A: 0% B: 0% C: 0% Other: 0%

Empty Locations: 0 Functional Locations:


Sort by Item/Whse: Item Zero Quantity:

Randomize Selection: Negative Quantity:

Past Due Only: Phantom Items:

Existing Counts:

Output:
Batch ID: _____

 WH-CC-140

Did You Know


Use Cycle Count Generation to create cycle count transactions. You can set up rules here for cycle count tasks.

You can specify whether the count is visible to the person counting or not by setting the Blind field.

Cycle Count Tasks

Cycle Count tasks


View cycle count tasks



Cycle Count Generation
10USA

Tran Nbr	Site	Warehous	Location Reference	Item Number Lot/Serial	Message
61	10-301	01	040EA001 PL000032	90091	
61	10-301	01	040PL001 PL000073	03120	
61	10-301	01	040PL001 PL000072	03121	
61	10-301	01	040PL001 PL000074	03210	

End of Report


WHCC-150

Cycle Count Generation displays the cycle count tasks it generates.

Cycle Count Execution - Done on RF

Cycle count execution

Cycle Counts typically done via RF

Adjust 63
Loc: 040PL001
Loc:
Chk:

Adjust 63
Loc: 040PL001
PL Ref: p1000072
Ref:

Adjust 63
Loc: 040PL001
PL Ref: p1000072
Item Number:
03121
03121

Adjust 63
Loc: 040PL001
PL Ref: p1000072
03121
Lot/Serial:

Adjust 63
Loc: 040PL001
PL Ref: p1000072
03121
Qty: 100.0

QAD WH-Cc-100

Use the RF Next Task option to receive the cycle count task and confirm the cycle count transaction. Staff scan the location, reference, item, and quantity.


Did You Know

- The RF displays a cycle count task prompting the warehouse employee to count the level of stock.
- You can also confirm Cycle Count tasks without RF using Movement Confirmation.

Non-RF Cycle Count Activity

Non-RF Cycle Count activity

Manual cycle counts can be performed




Cycle Count Worksheet Print

10USA

08/17/11 10:32:14

Page: 1

Item Lot/Serial	Ref	Site Location	Description	ABC	Last Cnt	Qty on Hand	UM	Qty Counted	Counted By	Date Counted
D3120	PL000073	10-301 040PL001	Scented Disinfectant Pump	B		100.0	EA	() () ()	() () ()	() () ()
D3121	PL000072	10-301 040PL001	Scented Disinfectant 31 Bottle	B		100.0	EA	() () ()	() () ()	() () ()
D3210	PL000074	10-301 040PL001	Disinfectant Wipes	A		100.0	EA	() () ()	() () ()	() () ()
90091	PL000032	10-301 040EAD01	Standard Shipping Box	C		80.0	EA	() () ()	() () ()	() () ()



WH-CC-17D

Did You Know

If cycle counts are created on a Cycle Count Worksheet they are not recreated with Cycle Count Generation.

Avoid Mixing



Avoid mixing RF and manual cycle counts

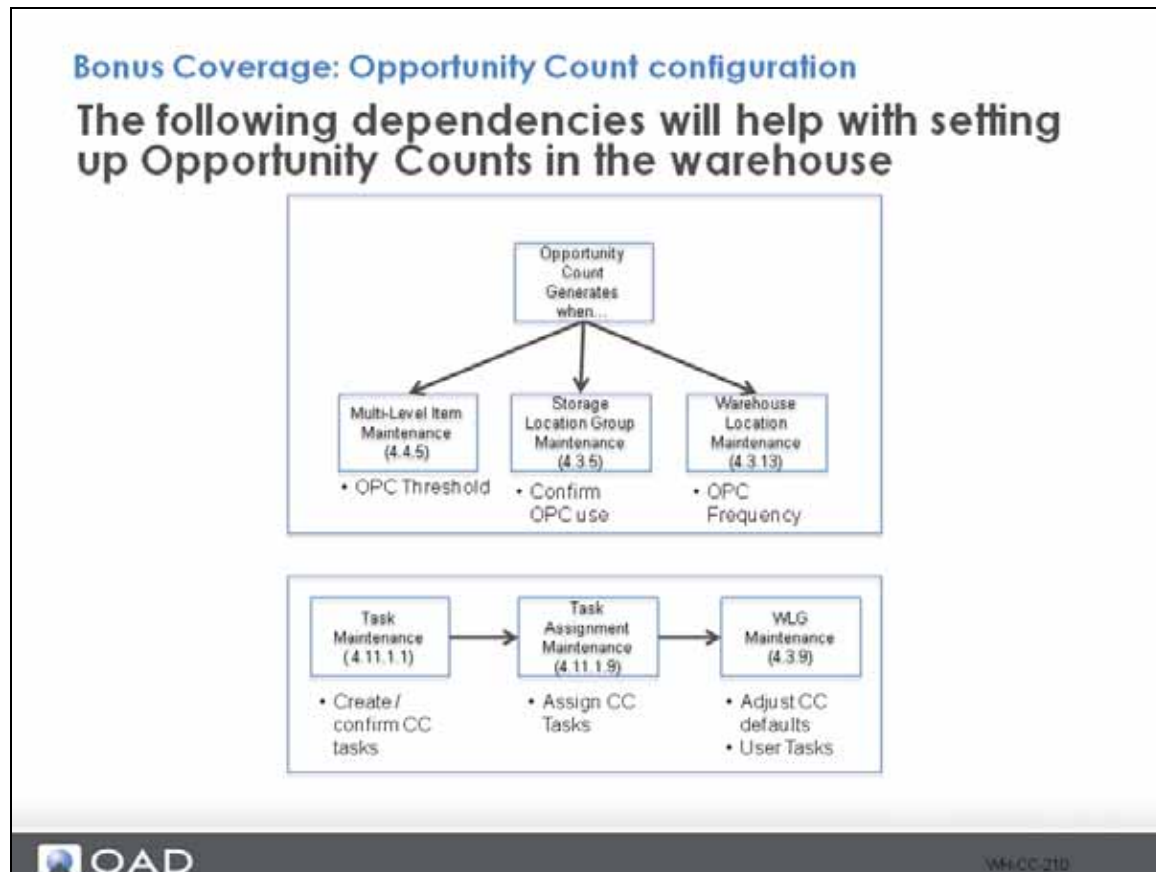
Bonus Coverage - Opportunity Counts

Bonus Coverage: Opportunity Counts

Integrated cycle counts

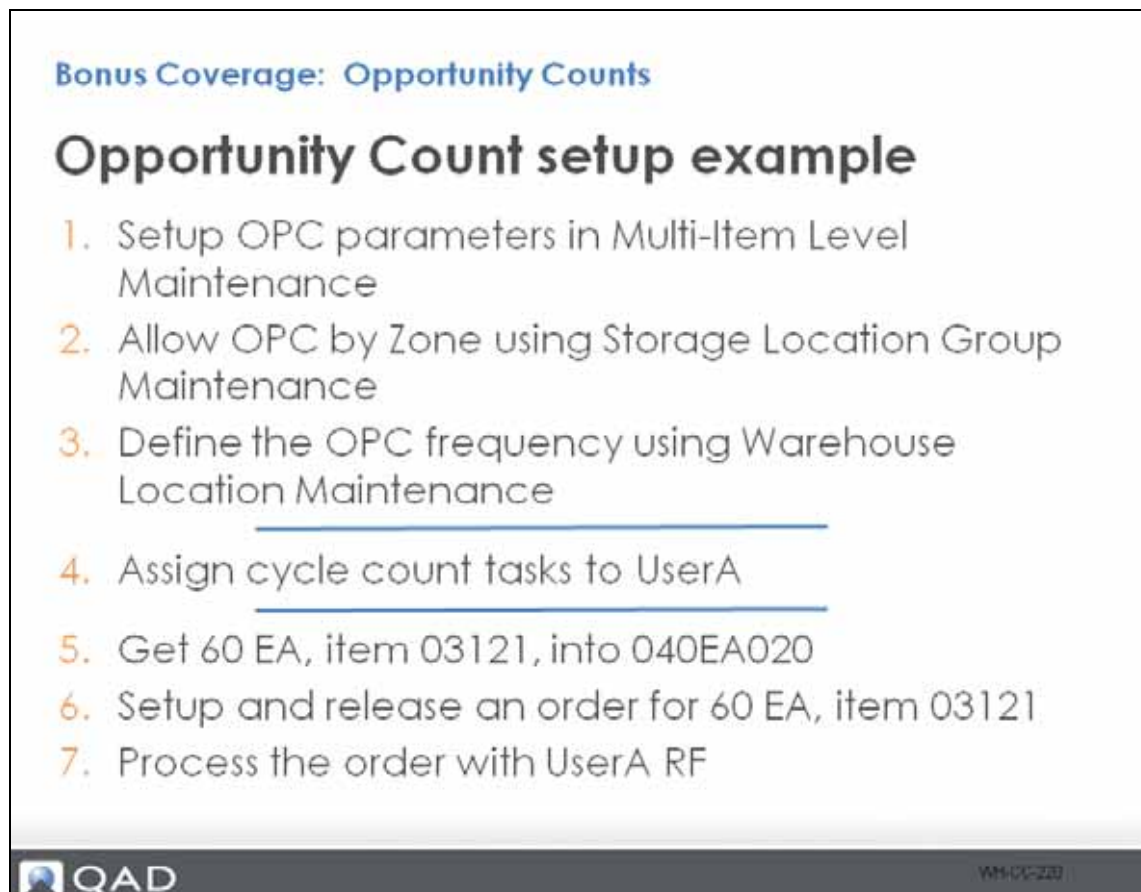
- Opportunity counts
- Occur at pre-defined thresholds
- Reduces number of planned cycle counts
- Saves time
- Must balance with pick labor productivity

Bonus Coverage - Opportunity Count Configuration



The graphic above depicts the QAD Warehousing programs you use when you set up for cycle counts through QAD Warehousing.

Bonus Coverage - Opportunity Counts



Bonus Coverage: Opportunity Counts

Opportunity Count setup example

1. Setup OPC parameters in Multi-Item Level Maintenance
2. Allow OPC by Zone using Storage Location Group Maintenance
3. Define the OPC frequency using Warehouse Location Maintenance
4. Assign cycle count tasks to UserA
5. Get 60 EA, item 03121, into 040EA020
6. Setup and release an order for 60 EA, item 03121
7. Process the order with UserA RF

QAD WM-CC-220

The graphic above depicts the setup steps involved in an opportunity count.

Unlike cycle counts, opportunity counts are triggered automatically by stock movements. Certain conditions—for example when stock is picked or transferred—causes the system to check the opportunity count threshold for that item.

If this is found to be at or below the threshold level set using the Opp Cnt Threshold field, the system initiates a cycle count. This allows cycle counts to be performed on an on-going basis, reducing the need to do a large cycle count all at once.

Also, if the OPC frequency is over the date specified in the Last OPC Date (Location), the system triggers an opportunity count.

Bonus Coverage - Opportunity Count, Set OPC Threshold

Bonus Coverage: Opportunity Counts

1. Setup OPC Threshold to 1.0

Multi-Level Item Maintenance

Item Number: 03121 Scented Disinfectant
 UM: EA SI Bote

Default Site Data

Warehouse Item Type: Single PA Trans:
 Replenishment Type: Issue Method:
 Popularity: Print ID:
 ID Qty: 0 OPC Threshold: 1.0

Site Data and Default Warehouse Data

Location: 01 Single PA Trans:
 Warehouse Item Type: Issue Method:
 Replenishment Type: Print ID: ID Qty: 0
 Popularity: OPC Threshold: 1.0

Warehouse Data

Location: Single PA Trans:
 Storage Location Group: 040PL Issue Method:
 SLG List: Print ID:
 Warehouse Item Type: ID Qty: 0
 Replenishment Type: OPC Threshold: 1.0

QAD WH-CC-230

The OPC Threshold field relates to opportunity counts, which you can specify. When inventory is taken out of the location, the system checks whether the quantity on-hand falls below the threshold level you specify for the item, and also checks the OPC frequency value for the location where the item is stored. If both conditions are met, a cycle count is requested.

You can specify an OPC threshold value for each item, and also for items related to a specific zone.

The graphic above shows three screens for item, site, and zone where you can set up the OPC threshold.

Bonus Coverage - Confirm Opportunity Counts by Zone

Bonus Coverage: Opportunity Counts

2. Confirm Opportunity Counts by Zone

Storage Location Group Maintenance

Site: 10301
Warehouse: 01
Storage Location Group: 040EA
Description: Pick face storage

Internal Routing Group: 040

Allow Issues:
Allow Receipts:
Allow Incoming Returns:
Allow Outgoing Returns:
Opportunity Counts:
Opportunity Count Frequency: 0
Check Digits:
Cycle Count Status Option: 0

Exclude from Picking:
Picking Level: 30
Over Pick:
Multi-Trans:
Detail Overflow Group:
Capacity Check when OTF:
Optimized Storage:
Allow Mixed Status Codes:
Recount UM:

Picking Multiple UM:
Acquisition UM: EA

QAD WH-CC-240

You can specify an OPC threshold value for each item, and also for items related to a specific zone.

Bonus Coverage - Opportunity Counts, Define OPC Frequency

Bonus Coverage: Opportunity Counts

3. Define the OPC frequency by location

Work Location Maintenance

Site: 10-301 Distribution Site 1

Location: 040EA020

Location Groupings

Warehouse: 01

Storage Location Group: 040EA

Work Location Group: 01CT

Warehouse Location Data

Check Digit:

Popularity:

Storage Type:

Warehouse Location Type:

Travel Sequence:

Dedicated

Picking Type:

Preferred UM:

Opportunity Count Frequency:

Last Opportunity Count:

Stage (In):

Stage (Out):

Defines minimum interval between counts. 0 = unlimited counts per day.

QAD WH-CC-250

If the Opportunity Count flag is set to No at the SLG Maintenance screen you cannot change the Opportunity Count Frequency field here.

- Enter 0 to let unlimited numbers of opportunity accounts
- Enter 1 to let one opportunity count per day
- Enter 2 to let one opportunity counts every 2 days, and so on.

Bonus Coverage - Opportunity Counts, Assign Cycle Count Tasks

Bonus Coverage: Opportunity Counts

4. Assign cycle count tasks to UserA

Task Assignment Maintenance

User ID: UserA RF User A

Queue 1

10	PICK	Auto	
20	COUNT	Auto	

QAD WH-CC-262

Use Task Assignment Maintenance to assign warehouse users to cycle count tasks.

Bonus Coverage - Example

Bonus Coverage: Example

- Test OPC by picking a location clean

- Get 60 EA of 03121 into location 040EA020
- Setup and release order for 60 EA, 03121

Site: 10-301	Item Number:	Displa
Warehouse:	Lot/Serial:	Disp No
Location:	Reference:	
Warehouse: 01	Warehouse 1	
Item	Status	Qty
Location Lot	Ref	UM On Hand In

040EA020	03121	Y-Y-N EA 60

Header		
Order: WM5501	Sold To: 10C1000	Ln For:
Sales Order Line		
Ln	Item Number	Qty Ordered UM
1	03121	60.0 EA

Wal-Mart		PICKLIST / PRE-SHIPPER	
702 S.W. 8th Street		Pre-Shipper: P0903110001	
Waterfront		Page:	
Bentonville, AR 72716		Print Date: 09/02/11	
USA - TAX PURPOSE			
Sales Order: WM5501 Order Date: 09/02/11 Ship To PO:			
Ln	Item Number	T Site Lot/Serial	Qty Due

1	03121	10-301	Open UM Shipped
Scented Disinfectant			
31 Bottle			
	040EA020		60.0 EA 09/03/11
	PLO00072		60.0 ()

Use Inventory Detail Inquiry to pick a clean location.

Use Sales Order Maintenance, then Picklist/Pre-Shipper workbench to get the 60 EA into the location, then set up and release the order.

Bonus Coverage - Example Test = Success

Bonus Coverage: Test = SUCCESS

7. Opportunity Count triggers

Item Location Lot	Status Ref	Qty UM	Expect On Hand	Expect In	Expect Out	Detail Alloc	Detail Pick
040EA020 03121	Y-Y-N PL000072	EA 60				60	60
060PA001 03121	Y-Y-N PL000072	EA			60		

Pending pick for 60EA, 03121

Picking 59
SO WHSS01
Fr Loc: 040EA020
Loc: 040EA020
Chk:

Picking 59
SO WHSS01
Loc: 040EA020
Item Number:
03121
03121

Picking 59
SO WHSS01
Loc: 040EA020
EA Ref: PL000072
Qty: 60.0
Qty: 60.0

Picking 59
To Loc: 060PA001
Loc: 060PA001
Chk:
Item Number:
03121
Lot/Serial:
EA Ref: PL000072

OPPORTUNITY
040EA020
03121
PL000072
0.0
Qty: 60.0

Picking 60 from the location with 60 triggers an (opportunity) cycle count

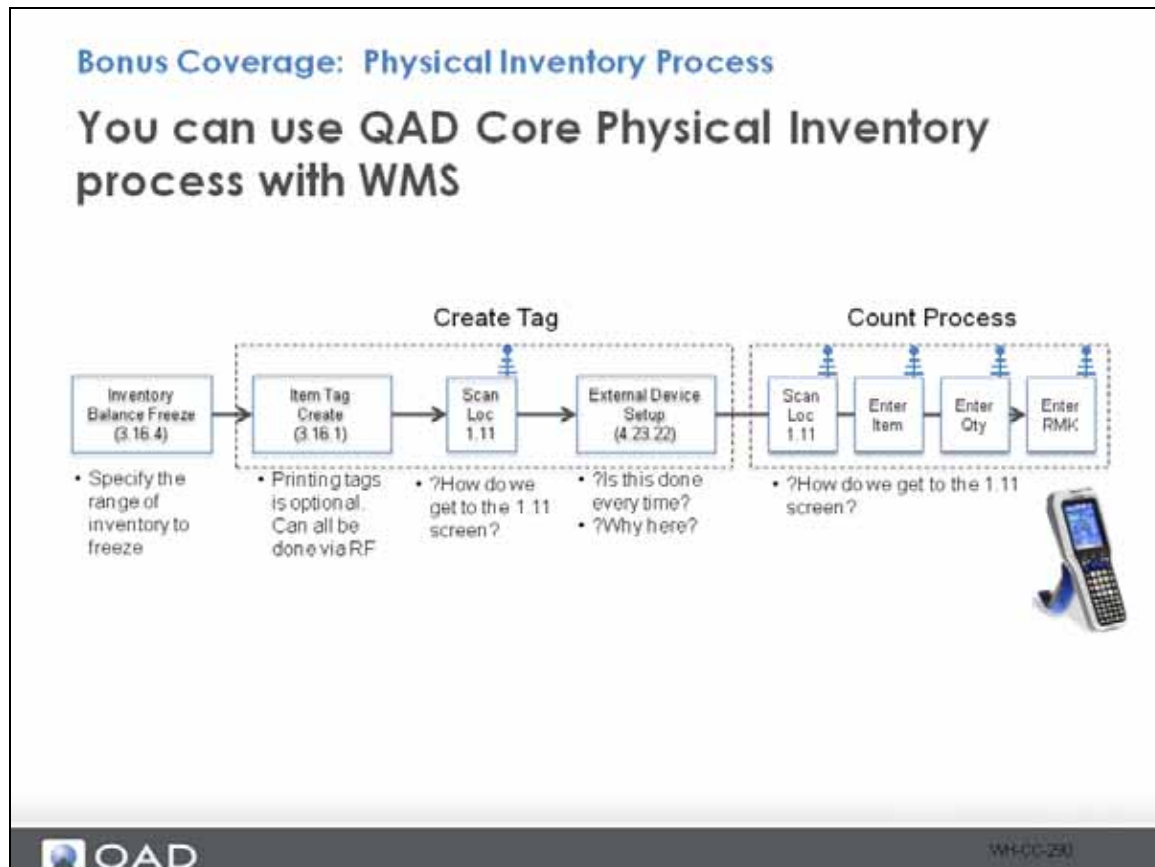
QAD VM-CC-290

Use Warehouse Detail Inquiry to see the pending pick for 60EA of item 03121.

The RF screens involved in an opportunity count are displayed at the bottom of the graphic above.

In the graphic above, when 60 each of item 03121 is picked from 040EA020, the system triggers a cycle (opportunity) count to the user. This lets the user perform the count while the user is already at the location.

Bonus Coverage - Physical Inventory Process



Physical inventory enables you to count and compare actual, on-hand inventory balances with on-hand quantities recorded in the system. This can also be done with cycle counting. Warehouse staff can conduct a physical inventory through the RF device within the warehouse.

Implementation Consideration- Using Location Audit

Implementation Consideration

- Use Location Audit to:
 - Add inventory
 - Perform on demand cycle counts
 - Perform random inventory audits

30

WH-CC-400

Location audit is a forced cycle count that typically occurs when it is expected that something is not right with inventory quantities.

Current Inventory Positions

Current Inventory Positions

Area = Receipts (010)

Receipts (010RC)

010RC001

Inspection (020)

020IN

020IN001

QA Hold (030)


030RJ

030RJ001


Storage (040)

Pallet Storage (040PL)


040PL001




040PL002



040PL003



040PL004



040PL005

040PL006


040PL007

040PL008

040PL009

040PL010

Inventory Detail Inquiry


 QAD

Site: 10-301 Item Number:
 Warehouse: Lot/Serial:
 Location: Reference:

Warehouse: 01 Warehouse 1

Location	Item Lot	Status Ref	Qty UM	On Hand	Expe In
040PL001	03120	Y-Y-N PL000080	EA	100	
040PL001	03120	Y-Y-N PL000081	EA	100	
040PL001	03120	Y-Y-N PL000082	EA	100	
040PL002	03121	Y-Y-N PL000083	EA	100	
040PL002	03121	Y-Y-N PL000084	EA	100	
040PL003	03122	Y-Y-N PL000088	EA	100	
040PL003	03122	Y-Y-N PL000089	EA	100	
040PL003	03122	Y-Y-N PL000090	EA	100	
040PL004	03210	Y-Y-N PL000091	EA	100	

INBOUND



WH-CO-410

Use RF Location Audit to Change Inventory Positions

Use RF Location Audit to validate, add or change inventory positions


Add Inventory Using Location Audit

Task Assignment Maintenance

User ID: UserB RF User B

Queue 1	
1	TRANSFER Auto
2	PICK Auto
3	COUNT Auto
4	RECOUNT Auto

Changing inventory positions might trigger a Recount task. Make sure Recount is assigned to at least one user in the Work Location Group.

 QAD YH-CC-430

Use RF Location Audit to Change Inventory Positions (Continued)

Use RF Location Audit to validate, add or change inventory positions

Location Audit

1 Site: 10-301 Item Number:
Warehouse: Lot/Serial:
Location: 040PL001 Reference:

2 1.4
Adjustment/Count
Loc: 040PL001
Ref: PL01
EA Ref: PL01
I: 03210
Disinfectant Wipes
Lot:
Qty OH: 0.0
Qty Alloc: 0.0
Qty Cnt: 100
Alt UM:

3 Qty OH: 0.0
Qty Alloc: 0.0
Enter alt um

4 RCNT Task Created

5 Item/Lot Selection
F4 - F4

6 1.1
Adjust 89
Loc: 040PL001
EA Ref: PL01
I: 03210
Qty: 100

7 No task available
Pausing 10 seconds

8 AD
Task Load Report
10USA

Task	Tran	Site	Warehouse	From Location	To Location	Item
RECOUNT	89	10-301	01	040PL001	040PL001	03210

Item	Status	Qty	Expect	Expect	Detail	Detail
Lot	Ref	UM On Hand	In	Out	Alloc	Pick
03210	Y-Y-N	EA	100			
	PL01					

QAD
WH-CC-480

Key Learning Points

QAD Warehousing Cycle Count

Key Learning Points

- QAD Warehousing supports cycle counting best practices
- Define user cycle count capabilities
- Use Opportunity Counts to integrate cycle counting into the pick process



WH-CC-300

Questions

- 1 True or False. Cycle counting is one area of QAD Warehousing where all functions are met for a true warehousing cycle count system.
- 2 When do warehouse staff perform count tasks as opposed to recount tasks?
- 3 Which programs let you generate cycle count tasks?
- 4 Opportunity count is a type of cycle count directing a picker to?
- 5 True or False. QAD Warehousing uses the same cycle count program as QAD core?
- 6 Cycle counting in the warehouse uses parameters setup exclusively in QAD Warehousing?

Answers

- 1 True. Cycle counting is one area of QAD Warehousing where all functions are met for a true warehousing cycle count system.
- 2 Warehouse staff perform count tasks when stock quantities are inside the tolerance; they perform recount tasks when stock quantities are outside the tolerance.
- 3 Count locations during the pick process, after the pick and prior to leaving.
- 4 False. QAD Warehousing has different cycle count flags but can use the QAD core cycle count worksheet option.
- 5 False. QAD Warehousing cycle counting starts with ABC and frequency parameters setup in QAD core, Item Master Maintenance

Notes

Chapter 9

Printing

Overview



Warehouse staff are required to print several documents during normal warehouse processing.

You can control the printing of tags, pallet labels, or exception tags from various menus within the system, with a flexible choice of format for the output.

You have the choice of printing at the following times:

- When creating transactions
- When confirming transactions
- When transactions do not complete successfully (exceptions)
- When inventory is received into the warehouse

QAD Warehouse Printing

QAD Warehousing Printing

Flexible Printing Parameters

QAD Warehousing allows you to print:

- When creating transactions
- When confirming transactions
- When transactions do not complete successfully (exceptions)
- When inventory is received

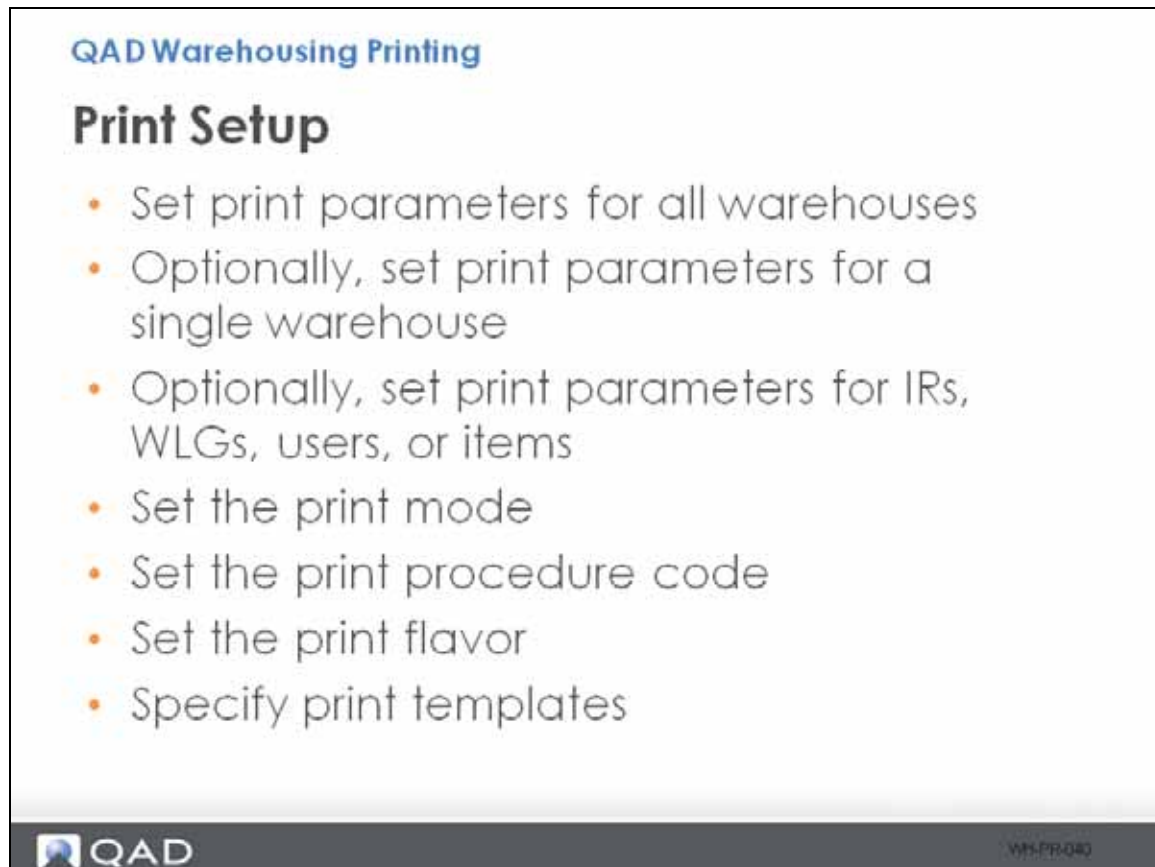


WH-PR-030

You can print:

- Inventory IDs
- New, confirmed, or exceptions to transactions
- QA inspection tags
- Unplanned issue tags
- Picklists/preshippers
- Shipping documents

Print Setup



The image is a slide titled "QAD Warehousing Printing" with a sub-heading "Print Setup". It contains a bulleted list of seven items. The slide has a dark footer with the QAD logo on the left and the text "WH-PR-040" on the right.

QAD Warehousing Printing

Print Setup

- Set print parameters for all warehouses
- Optionally, set print parameters for a single warehouse
- Optionally, set print parameters for IRs, WLGs, users, or items
- Set the print mode
- Set the print procedure code
- Set the print flavor
- Specify print templates

QAD WH-PR-040

The graphic above lists the steps involved when setting up printing within QAD Warehousing.

Warehouse Control Print Options

QAD Warehousing Printing

Warehouse Control – Print Options

Identification Printing

Print ID: Lines of Each: Print Mode (ID):

ID Printer: Width of Each: Use External:

Number Across: 132 Mode (ID):

Task Printing

Print Create: Number Across: Create Print Mode:

Print Confirm: Lines of Each: Confirmed Print Mode:

Print Except: Width of Each: Exception Print Mode:

Task Printer: 132 Mode (Task): Use External:

Inspection Printing

Inspection Printer: Width of Each: Use External:

Number Across: 132 Mode (Ins):

Lines of Each: Print Mode:

Form Printing

Form Printer: 132 Mode (Form): Use External:

External Devices

Device Printer: Lines of Each: 132 Mode (Ext):

Number Across: Width of Each:

Miscellaneous Printing

Print Flavor: Manufacturer Code: Print by W/LG:

QAD WH-PR-050

Use Warehouse Control to set print options for all warehouses. Print options default to Warehouse Maintenance.

The fields in the Printer Defaults frame set default values used when you set up individual warehouse details.

The Print frame is divided into several areas: Identification, task, inspection, form, external, and miscellaneous printing. You can control the printing of transaction details in each of the areas.

Warehouse Maintenance Print Frames

QAD Warehousing Printing

Warehouse Maintenance - Print Frames

Site: 10-301
Warehouse: 01

Identification Printing

Print ID: Lines of Each: Print Mode (ID):

ID Printer: Width of Each: Use External:

Number Across: 132 Mode (ID):

Task Printing

Print Create: Number Across: Create Print Mode:

Print Confirms: Lines of Each: Confirmed Print Mode:

Print Except: Width of Each: Exception Print Mode:

Task Printer: 132 Mode (Task): Use External:

Inspection Printing

Insp Printer: Width of Each: Use External:

Number Across: 132 Mode (Insp):

Lines of Each: Print Mode:

QAD WH-PR-001

Warehouse Maintenance has several frames devoted to setting up print parameters.

Did You Know

Print Flavor determines the format of the printed output, either a default format or a template.

Print Templates

QAD Warehousing Printing

Print Templates – Samples

Simple Template

```

-BANNER-

Transaction Number: -TRNR- (-TYPE-)
Site: -SITE- -SITEDS-
Location: -LOC- -LOCDS-
Item Number: -PART- -PARTDS-
Lot/Serial: -SERIAL-
Reference: -REF-

Quantity: -QTY_CHG- -UM-

```

Simple Template Result


```

Identification

Transaction Number: 123 (RCT-PD)
Site: JONSITE Jon Miller's Site
Location: RCO1 Receipt's Dock 1
Item Number: 100101 Box of Things
Lot/Serial:
Reference:

Quantity: 10 EA

```


WH-PR-070

Templates are flat ASCII files that contain the layout of required printed output. Use Print Template Load to load the template into the database.

A template can contain the following elements:

- All the escape and control sequences required by specific printer types for specific functions such as bar coding, line drawing, font selection, and character position.
- Literal text that should appear as output such as field labels, headings, and banner messages.

Internal Routing Maintenance Print Options

QAD Warehousing Printing

Internal Routing Maintenance – Print Options

Site: 10-301 Warehouse: 01 Internal Routing: 01RCT

Description: Receipts
Sequence: 10 Internal Routing Group: 010

Picking

Repick Type: _____ Allow Switch Lot Ref:

Expire Date (Days): 0

Print Options

Print ID: Print Mode (ID): Auto

Print Created Tasks: Create Print Mode: Auto

Print Confirmed Tasks: Confirmed Print Mode: Auto

Print Exceptions: Exception Print Mode: Auto

Miscellaneous Options

Mode: Auto Clear Shortages:

New Unit of Measure: _____ Create Shipper:

Check Inspections:

QAD WH-PR-020

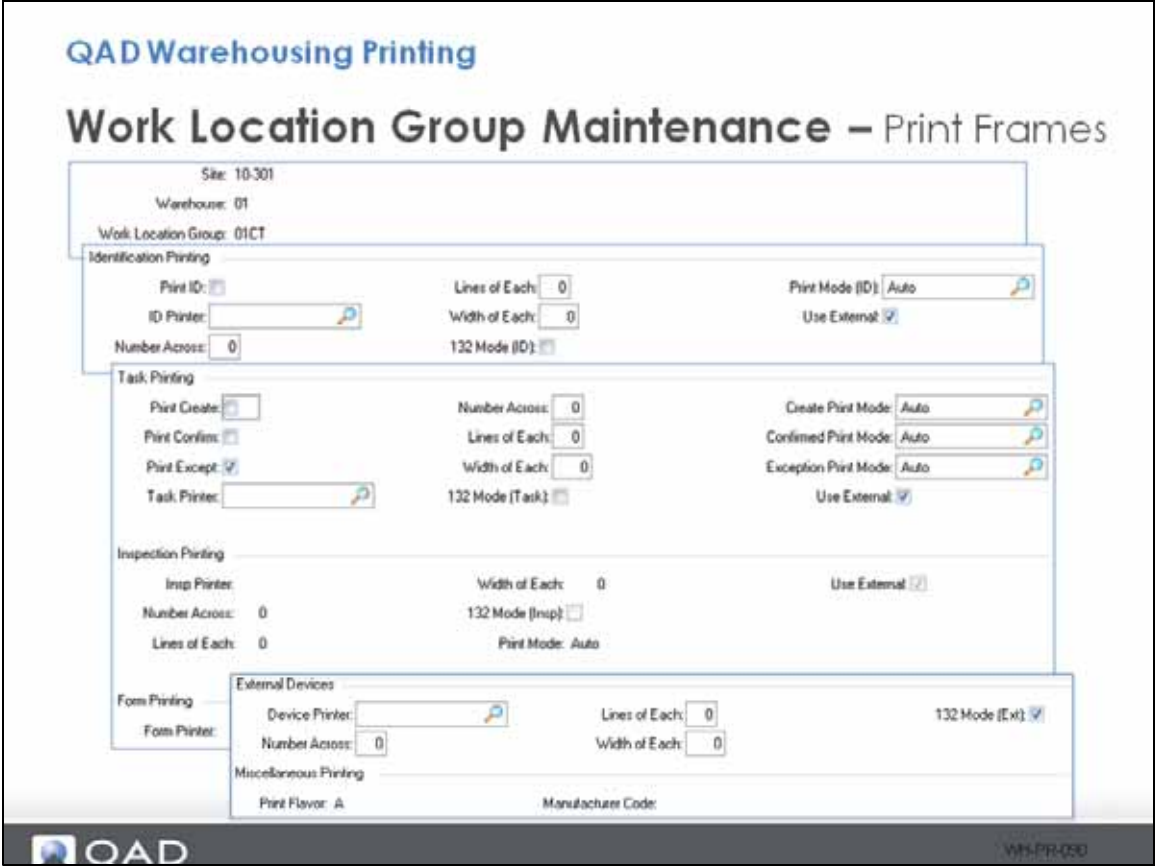
Use Internal Routing Maintenance to set print options for an individual step in an IR and to define the print mode.

The Print Options frame in Internal Routing Maintenance contains fields where you define the printing operations that are performed in relation to inventory transactions for this sequence step in the internal routing.

The types of printing are:

- ID, identification of the inventory
- Created tasks
- Confirmed tasks
- Exceptions, when changes have been made to the original transaction

Work Location Group Maintenance Print Frames



Use Work Location Group Maintenance to specify the printer and set up print options for the WLG and for the RF.

The Printing frames of Work Location Group Maintenance contains fields where you define the printing operations that are performed in this WLG. The initial values default from the Printing frame in Warehouse Maintenance, but you can change the values.

User Work Location Group Maintenance

The screenshot shows the 'User Work Location Group Maintenance' interface in QAD Warehousing Printing. The page title is 'QAD Warehousing Printing' and the main heading is 'User Work Location Group Maintenance'. The interface is divided into two main sections. The top section displays user and location information: Site: 10-301, Warehouse: 01, Work Location Group: 01CT, and User ID: UserA. The bottom section contains printer configuration options. It starts with a 'System Flavor' dropdown menu set to 'A'. Below this are several printer fields: 'Device', 'External Device Printer', 'Form Printer', 'ID Printer', 'Task Printer', and 'Inspection Printer'. Each of the last four fields has a magnifying glass icon to its right. To the right of these fields are four 'Use External' checkboxes, all of which are checked. The QAD logo is in the bottom left corner, and the code 'WH-PR-100' is in the bottom right corner.

Use User Work Location Group Maintenance to set up print options specific to a user. In the Printer fields in the graphic above, you add a specific printer name to these fields so the correct print request is sent to the correct printer.

Multi-Level Item Maintenance

QAD Warehousing Printing

Multi-Level Item Maintenance

Item Number: 03120	Scented Disinfectant
UM: EA	Pump
Site: 10-301	Distribution Site 1
Warehouse: 01	Warehouse 1

Warehouse Data

Location:	Single PA Trans: <input type="checkbox"/>
Storage Location Group: 040PL	Issue Method: <input type="text"/>
SLG List:	Print ID: <input type="checkbox"/>
Warehouse Item Type: <input type="text"/>	ID Quantity: 0
Replenishment Type: <input type="text"/>	OPC Threshold: 0.0
Popularity: <input type="text"/>	Logistics UM: PL
Logistics UM Tolerance: 0.00%	Pallet Max Height: 0
Auto Replenish: <input checked="" type="checkbox"/>	Auto Replenishment %: 0.00%
	Print Unplanned Issue Tag: <input type="checkbox"/>

QAD WH-PR-110

Use Multi-Level Item Maintenance to set up a print ID for an item.

Print Request Maintenance

The screenshot displays the 'Print Request Maintenance' interface within the QAD Warehousing Printing module. The form contains the following fields:

- Engine Type: A dropdown menu.
- Transaction Type: A text field containing 'Print'.
- Site: A text field containing '10-301' with a search icon.
- Warehouse: A text field containing '01' with a search icon.
- New Mode: A text field containing 'Auto' with a search icon.
- Batch ID: A text field.

The QAD logo is located in the bottom left corner, and the version number 'V44-PP-120' is in the bottom right corner.

Use Print Request Maintenance to manually process print requests through QAD Warehousing print functions.

Objectives

QAD Warehousing Printing

Objectives

- Set printing for items received into a single warehouse
- Set printing for a internal routing step for a receipt
- Receive the items and print the receipt confirmation transaction



WH-PR-130

Example - Warehouse Setup

QAD Warehousing Printing

Example – Warehouse Setup

Warehouse Maintenance

Site: 10-301
Warehouse: 01

Identification Printing

Print ID: <input checked="" type="checkbox"/>	Lines of Each: 0	Print Mode (ID): Auto
ID Printer: sfama.so	Width of Each: 0	Use External: <input checked="" type="checkbox"/>
Number Across: 0	132 Mode (ID): <input type="checkbox"/>	

Task Printing

Print Create: <input type="checkbox"/>	Number Across: 15	Create Print Mode: Auto
Print Confirm: <input checked="" type="checkbox"/>	Lines of Each: 15	Confirmed Print Mode: Auto
Print Except: <input checked="" type="checkbox"/>	Width of Each: 0	Exception Print Mode: Auto
Task Printer: sfama.so	132 Mode (Task): <input type="checkbox"/>	Use External: <input checked="" type="checkbox"/>

Use Warehouse Maintenance to set several print frames for a single warehouse that default to other warehousing maintenance programs. Use Warehouse Maintenance to set the print mode, also.

Exercise - IR Setup

QAD Warehousing Printing

Exercise – IR Setup

Internal Routing Maintenance

Site: 10-301 Warehouse: 01 **Internal Routing: 01RCT**

Description: Receipts

Sequence: 10 Internal Routing Group: 010

Picking

Repick Type: Allow Switch Lot Ref:

Expire Date (Days): 0

Print Options

Print ID: <input checked="" type="checkbox"/>	Print Mode (ID): Auto
Print Created Tasks: <input type="checkbox"/>	Create Print Mode: Auto
Print Confirmed Tasks: <input checked="" type="checkbox"/>	Confirmed Print Mode: Auto
Print Exceptions: <input type="checkbox"/>	Exception Print Mode: Auto

In this exercise, you use Internal Routing Maintenance to set print options for an individual step in an IR and to define the print mode.

The Print Options frame in Internal Routing Maintenance contains fields where you define the printing operations that are performed in relation to inventory transactions for this sequence step in the internal routing.

Questions

- 1 What printing can you control with QAD Warehousing print functions?
- 2 True or False. There are print frames in several Warehousing maintenance programs, and most fields default from Warehousing Control or Warehouse Maintenance.
- 3 What are print templates?
- 4 Which program do you use to set up print options specific to a user?
- 5 Which program do you use to manually process print requests through QAD Warehousing print functions?

Answers

- 1 You can control the printing of tags, pallet labels, or exception tags from various menus within the system, with a flexible choice of format for the output.
- 2 True. There are print frames in several Warehousing maintenance programs, and most fields default from Warehousing Control or Warehouse Maintenance.
- 3 Templates are flat ASCII files that contain the layout of required printed output.
- 4 Use User Work Location Group Maintenance to set up print options specific to a user.
- 5 Use Print Request Maintenance to manually process print requests through QAD Warehousing print functions.

Notes

Product Information Resources

QAD offers a number of online resources to help you get more information about using QAD products.

[QAD Forums \(community.qad.com\)](https://community.qad.com)

Ask questions and share information with other members of the user community, including QAD experts.

[QAD Knowledgebase \(knowledgebase.qad.com\)*](https://knowledgebase.qad.com)

Search for answers, tips, or solutions related to any QAD product or topic.

[QAD Document Library \(www.qad.com/documentlibrary\)](https://www.qad.com/documentlibrary)

Get browser-based access to user guides, release notes, training guides, and so on; use powerful search features to find the document you want, then read online, or download and print PDF.

[QAD Learning Center \(learning.qad.com\)*](https://learning.qad.com)

Visit QAD's one-stop destination for all courses and training materials.

*Log-in required

