

# **QAD Certification Program Study Guide**



70-2779H  
August 2010

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## Introduction

### Welcome to the QAD Certification Program

The QAD Certification Program provides QAD employees, partners, and customers with a means of certifying the breadth and depth of their product knowledge. QAD customers are encouraged to work with QAD certified professionals to obtain maximum value from their QAD software.

The QAD Certification Program encompasses multiple Product Knowledge Specialization Exams that test your knowledge of core disciplines within QAD Enterprise Applications. To achieve certification for a discipline, you must achieve a passing score on the related Product Knowledge Specialization Exam. Participants can be certified in multiple disciplines by passing multiple Product Knowledge Specialization Exams.

Details about the QAD certification program can be found in the QAD Certification Program Guide, available on our website at [www.qad.com/education](http://www.qad.com/education).

### About This Study Guide

The QAD Certification Program Study Guide is designed to assist you in preparing for the Product Knowledge Specialization Exams.

The path to certification requires significant preparation. Candidates may attempt certification at any time, but participation in a formal preparation process is highly recommended. Candidates are encouraged to read related product documentation, complete recommended coursework and work directly with QAD Enterprise Applications before attempting any certification exam.

The Study Guide will direct you to resources that can help you prepare for the exam. Chapters in the Study Guide are organized by exam with additional chapters for topics that apply to more than one exam. For each exam, the Study Guide provides a brief description, details about length and format of the exam, recommended reading, recommended training courses and a list of concepts, terms, and other information you should know and understand before attempting an exam.

## Available Certifications

QAD certification offerings are targeted to specific areas of expertise and grouped into two basic categories: functional and technical.

Functional exams certify understanding of application features and functions and the ability to apply that knowledge to solutions for specific business requirements.

Technical exams certify an understanding of the underlying application architecture and the ability to install, administer and customize QAD Applications.

Current certification offerings are listed below.

### Functional Certifications

- QAD Certified Professional - Standard Financials
- QAD Certified Professional - Enterprise Financials
- QAD Certified Professional - Manufacturing
- QAD Certified Professional - Customer Management
- QAD Certified Professional - Supply Chain – EE
- QAD Certified Professional - Services and Support Management (SSM)
- QAD Certified Professional - Enterprise Asset Management (EAM)

### Technical Certifications

- QAD Certified Professional – Technical Implementation - EE
- QAD Certified Professional – Customization – EE

## About the Exams

Most exams are delivered in two parts. Part 1 is a practical exam with scenario-based questions that require hands-on work with the software. Part 2 contains true/false and multiple choice questions that can be answered without use of the application.

Time allowed for completion varies by exam, but most exams are 4 hours in length (for all parts). Participants who are not fluent in English and have an approved Request for Extra Time will be granted additional time to complete the exams.

Although 4 hours sounds like ample time to complete the test, experience has shown that participants need to use this time wisely:

- In the hands-on section, you may be tempted to answer the questions without using the computer. Do not. You may not get the right answer to this question or to a later question! Use the system to determine all of your answers.
- Make sure you read all instructions carefully before responding. In the hands-on section, make sure that you have entered all of the data, since subsequent questions may depend on it.

- If you cannot answer a true/false or multiple choice question quickly, move on to the next question. Come back to it later as time permits.
- You can use the computer to find the answers to questions, but you will not have time to look up the answer to every question. Save this method for the end of the test, after you have completed all other questions.
- When using the system to try to find answers, group related questions together. This may help you answer more than one question using the fewest steps and the least amount of time.

### Sample Question

The example below was presented in an earlier version of an exam on Distribution. Note that it includes information about the relevant scenario (Information), instructions for Hands-on operations (Do This) and a question related to the activity just performed.

#### Information:

Quality Products Company purchases the 44-1000 sensor unit for several of its sites. After reviewing the cost of this product for the previous year, the cost accounting department determined that the new standard material cost for the item should be as follows:

Item	Site	Cost
44-1000	10000	110.00
	12000	110.00
	15000	110.00
	20000	110.00
	30000	110.00
	40000	125.00

#### Do this:

Record the new cost for this item, but do not use functions in the Cost Management module.

#### Question:

1. What maintenance function did you use to do this?
  - a. 1.4.1 Item Master Maintenance, GL Cost Data
  - b. 1.4.9 Item Cost Maintenance, GL Cost Data
  - c. 1.4.18 Item-Site Cost Maintenance, GL Cost Data
  - d. 1.4.22 Current Cost Set Move to GL Set

*Note: The correct answer is C. Was that your answer?*

## **Preparation for the Exams**

The best way to learn QAD Enterprise Applications functionality is to attend QAD's training classes, complete QAD online training courses, review product documentation and spend time practicing with the software.

### **Instructor-led Training Courses**

A current course catalog and the schedule of classroom training can be found on the QAD Education website at <http://www.qad.com/education>.

### **Online Training Courses**

Online courses feature QAD product experts delivering focused training on specific areas of QAD product functionality. A new self-study feature provides access to virtual labs where you can work directly with QAD Enterprise Applications software.

Online courses may be accessed at the QAD Learning Portal at:  
<http://learningportal.qad.com>.

*Access to online training courses requires a QAD web account. (For information go to QAD Web Accounts at <http://support.qad.com/resources/accounts.html>.)*

### **QAD Product Documentation**

Use your QAD web account to access QAD Enterprise Applications product documentation, which includes user guides, glossary, release bulletins, and technical references.

Product documentation may be accessed at: <http://support.qad.com>. This material can also be ordered online using the Materials Order Form at <http://support.qad.com/downloads/mof>.

### **Additional Information**

Generic MRP II concepts and their application can be learned from publications and seminars offered through professional organizations and local colleges.

APICS certification is highly recommended. For additional information visit the Association for Operations Management website at [www.apics.org](http://www.apics.org).

## Study Hints

All topics covered in the test are documented; be sure to access the online training presentations and product documentation referenced in this study guide.

- The QAD Enterprise Applications documentation describes the basic functionality of the software and the interrelationships among its parts. This material can provide a reasonable introduction to the system.
- If you are already familiar with the basic functioning of the system, your best way of studying is to work with the software. Go through the activities in QAD Enterprise Applications training materials and be sure that you can do the activities accurately.
- Try to familiarize yourself with control settings and the contents of key reports and maintenance screens. If changing the settings of key fields would change calculations, determine what those fields and settings are.
- Many questions ask you to determine how QAD Enterprise Applications can be used to solve business problems. Therefore it is useful when studying to think of real-world situations that would require the functionality you are studying.



## System Foundations

There are certain tasks that must be performed in order to implement the basic functions of QAD Enterprise Applications. These include basic system management and implementation issues, including data setup.

The topics that follow will be addressed in every functional PKS exam and should be mastered before any functional exam is attempted.

### User Interface and General Capabilities

You should have a good understanding of the QAD Enterprise Applications user interface and a basic understanding of what PROGRESS is. Since each implementation begins with manager functions and control files, you should understand these in detail, particularly how they can be used to make the system easier to operate and to ensure adequate system security and control.

#### You should know and understand the following:

- How QAD Enterprise Applications functions can be selected (menus, user menus, function keys)
- In general, how QAD Enterprise Applications modules are interrelated and what data they share
- How control settings are used and what each control file field does
- Which QAD Enterprise Applications functions can be disabled if they are not in use
- What security methods are available
- How to define and manage printers and batch queues
- Which QAD Enterprise Applications Help functions are available and how these can be supplemented
- What options exist for personalizing the User Interface
- How to create and modify a Browse (Enterprise Edition only)
- The role and function of the Domain/Account Control

- When and how to use Q-Linq Data Load functions
- How generalized codes can be used for field validation
- What master and transaction comments are and how they can be used
- When to use batch queues and how to manage them
- How to use Audit Trails

### **Recommended Users Guides**

- User Interfaces
- Manager Functions
- Security and Controls

### **System Implementation**

This section concentrates on the decisions you need to make at the beginning of any implementation and on the basic data elements that must be established.

#### **You should know and understand the following:**

- Which fundamental issues need to be addressed when planning a QAD Enterprise Applications implementation
- Which factors determine whether to implement single or multiple databases
- How functions operate when connected to multiple databases
- What options there are for accessing and connecting to multiple databases
- In a multiple entity database, what entity should be the primary entity
- In what situations you would define an entity, site, or location
- How domains, entities and databases are related
- What implementation and operating issues pertain to sites and locations
- What inventory status codes are and how they are used
- How the system stores inventory information in aggregate and in detail
- When inventory balances can be negative and how that is handled
- How the shop calendar and holidays are defined
- Which numbering and coding schemes make the most of QAD Enterprise Applications functionality
- How the general ledger calendar is defined
- How the general ledger calendar relates, or does not relate, to other calendars (the shop calendar, for example)
- The relationship between format positions, accounts, sub-accounts, cost centers and projects

## Standard Financials

### Introduction

The Standard Edition Finance exam encompasses each of the financial modules of QAD Enterprise Applications Standard Edition and their integration with other system modules. This includes product definition and costing, general accounting, financial reporting and consolidated reporting. Multi-site, multi-entity, and multi-currency implementation issues are also included, along with product cost development and inventory valuation.

The objective of this test is to ensure that you have a broad understanding of QAD Enterprise Applications financial management functions and how they should be implemented and used.

### Exam Format

The Standard Financials exam is delivered in two parts and requires hands-on interaction with QAD Enterprise Applications. Part 1 incorporates hands-on exercises, and Part 2 is multiple choice questions only. Both parts are delivered in a single 4-hour testing session. You must pass both parts in a single testing session to achieve certification.

### Estimated Preparation Time Required

- 17 days (including training, documentation review and practice)

### Recommended Training Courses

- Financial Management (5 days)
- General Ledger Fundamentals (1 day)
- General Ledger Report Writer (1 day)

## Recommended User Guides

- Financials A
- Financials B

## Sample Questions

- After entering a purchase order of item 12-4012 answer the following...  
Which of the following GL transactions were created as a result of receiving a partial shipment of 45 units of item 12-4012?

	Entity	Account	Sub	CC	Debit	Credit	Description
a.	1000	1500 2200		0600 0600	63.00	63.00	Inventory PO Receipts (AP Holding)
b.	1000	1500 2200		0600 0600	665.00	665.00	Inventory PO Receipts (AP Holding)
c.	1000  1000	1500 2200  5000 2200		0600 0600  0600 0600	63.00  27.00	63.00  27.00	Inventory PO Receipts (AP Holding)  Purchase Price Variance (PPV) PO Receipts (AP Holding)
d.	1000  1000	1500 2200  5000 2200		0600 0600  0600 0600	665.00  285.00	665.00  285.00	Inventory PO Receipts (AP Holding)  Purchase Price Variance (PPV) PO Receipts (AP Holding)

- If a supplier has ERS processing set to Yes, a company using ERS processing can still use standard accounts payable vouchering. True or False?
- The Terms of Trade (ToT) code defaults from the:
  - Logistics supplier
  - Item supplier
  - Logistics charge code

## Product Modules Covered

This test includes all of the financial modules, functions, and activities that pertain to general accounting as well as financial planning, reporting, and control. The test also covers other modules needed to implement the system.

### You should study the following:

- Accounts Payable
- Accounts Receivable
- Addresses/Taxes
- Commission
- Currency dependent rounding
- General Ledger
- GL Transactions (Physical Inventory, Purchasing, Sales Orders, Invoices, Inventory Control)
- Manager Functions
- Multiple Currency
- Product Costing (Product Structures, Formulas, Routings, Work Centers, Process, Items, Sites)
- Product Line/Account (product lines)
- Salespersons (commission)

You should understand how to implement and use each of these modules in companies that are made up of single or multiple entities; operate with one or more currencies, in one or more countries, on one or more databases. This test will cover all aspects of QAD Enterprise Applications financial management including budgeting, product costing, and financial control functions.

Modules have been subdivided into three major topics for you to study:

- Financial System Implementation
- General Accounting
- General Ledger

The sections that follow present each of these topic areas in detail.

## Financial System Implementation

This area of the test focuses on setting up financial management functionality in the system.

### **You should know and understand the following:**

- How currency exchange rates are maintained and where they are used
- What the different types of accounts are and how each is used (asset, liability, income, expense, statistical, and memo accounts)
- What accounts may be maintained in terms of a non-base currency and how they are valued
- How rounding methods are maintained and where they are used
- How and when to run the Currency Dependent Rounding Conversion
- In general, where information can be reported in base and non-base currencies
- What realized and unrealized gain/loss represent, how they are calculated and the timing and difference between unrealized and realized gain/loss
- When spot rates can be entered; the effect of flagging a rate as “fixed”
- What bank codes must be defined and how they are used
- How and where each of the values in Domain/Account Control are used
- How credit terms are set up and used
- The various address types and how they are stored and used
- Alternative address coding schemes and which methods work best
- How customer information is maintained (in particular, credit information, salesperson, and currency)
- Which customer’s credit is checked—the sold-to, bill-to, or ship-to—and which addresses are used in Accounts Receivable
- How supplier information is maintained (in particular, credit information, prepayment balance, and remit-to)
- How salesperson commissions are entered and what reporting options exist
- How tax rates and tax exemptions are set up, calculated, and reported in all modules
- Which numbering and coding schemes make the most of QAD Enterprise Applications functionality
- What variances are calculated, when they are calculated and what they represent

## Product Definition and Costing

This topic addresses on how products are defined for use in the manufacturing modules, and includes product structures, formulas, routings, and processes. The operational details are covered in the Manufacturing test, but since they also determine the standard cost of a product, you should understand what each of the cost components is and how costs are calculated. This test focuses on your understanding of cost calculations and the use of the Cost Management module.

### You should know and understand the following:

- Why product lines are defined and where product line GL accounts are used
- How item prices and costs are set up
- What costs can be maintained without using the Cost Management module
- How costs are maintained for different kinds of items (purchased, manufactured, routable, phantom, or configured)
- What “this level” and “lower level” costs are
- What item information can and cannot be set up by site
- What item GL cost is and how it is used
- When and how to do cost roll-ups
- How product structures and formulas are set up and which fields affect product cost
- How BOM codes can be used to set up product structures or formulas used only for costing purposes
- How departments, work centers, routings, and processes are set up, and which fields affect product cost and cost accounting
- How the relationship between items, structures, and routings is defined, and which is used for costing
- How the system stores inventory information: in aggregate and in detail
- When inventory balances can be negative and how that is handled
- How inventory is valued; what happens to inventory value when GL cost changes; what types of inventory are revalued; what the GL transaction is
- In Cost Management, what types of cost sets can be maintained
- How standard, average, current, and simulation costs differ and how they are used
- In what way item costs, sites, and cost sets are related; what defaults apply
- What steps are involved in cost simulation
- What cost elements and cost categories represent; how they are created and used
- Why cost planning is useful; how cost plans appear on MRP and MPS summaries; and what must be done to activate planned changes

## General Accounting

Here we concentrate on the functions that support day-to-day accounting activities. When studying these, think about how they can be used in both single and multi-company, multi-currency situations.

### Accounts Receivable (AR)

This area of the test covers managing customer credit, invoicing sales and posting invoices, processing credits and returns, calculating finance charges, and recording customer payments. You should understand the relationship between AR and Sales Order/Invoicing functions.

#### You should know and understand the following:

- What the Invoice Post does
- How the shipping/invoicing process affects the number of invoices that are posted to AR
- The recommended method for handling returns
- The recommended method for handling corrections to quantity, price, and commissions
- How and when debit/credit memos are recorded
- What “contested” amounts are and what options you have to exclude them from reports
- How due and discount dates are calculated
- How to apply unapplied payments, debit memos and credit memos
- Where expected pay date is used and where it can be updated
- When taxes are calculated automatically and when they need to be entered manually
- How exchange tolerance is used
- How to check credit; what dunning letters are
- How finance charges are calculated
- What procedures should be followed for processing and applying payments; how prepayments or overpayments are handled
- How bad checks and bad debt write-off should be recorded
- In what situations drafts can be used
- What steps are involved in recording and approving a draft; how each step affects the customer balance and what GL entries are created
- What reports (audit trails) are available and in what situations each should be used
- What general ledger transactions are created by invoicing and accounts receivable; how they differ for multi-entity transactions
- What procedures should be followed at period-end

## Accounts Payable (AP)

This area covers all accounts payable functions, including the relationship between Accounts Payable and Purchasing.

### You should know and understand the following:

- The role of unconfirmed vouchers
- The recommended voucher registration procedure; what GL entries are generated and when they are created
- The process of three-way matching
- How Evaluated Receipts Settlement (ERS) works, when it should be used and how it affects three-way matching
- What AP rate and usage variances represent and when they are calculated
- When multiple vouchers are processed for one receiver and at what point variances are calculated
- How vouchers are entered for purchase receipts and miscellaneous payables
- When a voucher is automatically placed on hold and for what amount; the effect of entering a hold
- Why the voucher date should be consistent
- How due and discount dates are calculated
- Where expected pay date is used
- What taxes are calculated and when
- How prepayments are recorded and applied; how they appear on the supplier and on the purchase order
- How exchange tolerance is used
- The recommended procedural controls for selecting vouchers for payment and printing checks
- What hash totals are and where they appear
- What payment options exist (look up Check Forms and Payment Specification)
- The situations in which the Payment in Process account applies and how it is used
- The effect of a void check
- Why bank reconciliation is required
- General ledger transactions created by each of the accounts payable functions; how they differ for multi-entity payables
- How fluctuations in exchange rates are accounted for (gain/loss, price variance)
- What reports (audit trails) are available and in what situations each should be used
- What procedures should be followed at period-end

## General Ledger

This topic covers general ledger functions and their integration with other modules. It also includes the procedural aspects of period-end and year-end processing, along with budgeting, financial reporting, and consolidations.

### General Ledger Transactions

Here, we look at how to use QAD Enterprise Applications functions to record accounting activity and make adjustments and corrections in a single and multiple entity, multiple currency environment.

#### You should know and understand the following:

- The general flow of transaction activity and how it is controlled
- How to enter a general ledger transaction; when amounts should be entered as negative
- When balanced entities are needed and what the implications are
- In what situations reversing transactions should be used and what they do (know some examples)
- How effective dates are used to record future activity
- How recurring transactions are set up using Transaction Copy
- At what point GL transactions are posted
- What capabilities exist to review posted and unposted activity
- How changes to transactions generated in other modules can be prevented
- Recommended period-end and year-end procedures
- At what point revaluation of non-base currency accounts takes place and what the result is; why there is an extra revaluation function just for imported transactions
- How and when retained earnings are calculated and posted
- When retroactive transactions are used
- What Transaction Consolidation does and when it should be used

### Activity from Other QAD Enterprise Applications Modules

You can get General Ledger journal transactions from other QAD Enterprise Applications modules. You should understand where these transactions are created and when, and what accounts they use. When calculations are involved (as with variances), you should understand the calculation. You should also know how to investigate the sources of these transactions in order to follow up on errors or make corrections and adjustments.

**You should know and understand what GL transactions are created by the following:**

- Sales order shipments and returns
- Posting invoices
- Purchase receipts and returns
- Purchase price and exchange variance
- Unplanned inventory transactions
- Cycle count and physical inventory updates
- Changes to standard and average costs

**You should also know and understand the following:**

- What account numbers and amounts are used in each of the above transactions
- What can cause unbalanced transactions and how they should be handled
- How transaction reference number and type are assigned and what they signify
- How to research GL transactions based on the transaction reference, type, and description information
- How posted transactions can be researched
- What financial control points exist in other modules (for example, exchange tolerances)
- What period-end and year-end procedures should be used in each of the modules
- What perpetual and periodic inventory methods are and how to implement each
- How to prevent or delete GL transactions

## **Financial Reporting**

For this section, you should be familiar with the reports that are available in QAD Enterprise Applications and how they are used. In addition, you should understand how custom reports may be developed in the General Ledger module and how budgets are entered and calculated for use during reporting.

**You should know and understand the following:**

- What the various methods for entering budgets are
- At what level of detail budgets can be maintained
- When and why the Budget Calculation function is required
- Why memo accounts might be useful for storing base amounts for budgets
- How projects and cost centers may be used for detailed activity reporting
- Where project codes are used and how they can be validated

- What standard financial reports and report options are available; how these may dictate what coding schemes to use for entities and accounts
- When each of the report selections, such as “Level” and “Summarize Cost Centers,” would be used
- How and when year-to-date profit and loss is calculated
- What steps are involved in developing a custom report in General Ledger; what the capabilities and limitations are

### **Consolidated Reporting**

You should be aware that QAD Enterprise Applications supports the consolidation of financial activity for multiple entities using the QAD Enterprise Applications General Ledger module. Within a database, each entity must use the same chart of accounts and base currency.

#### **You should know and understand the following:**

- What the consolidation process entails and how it is controlled
- How to set up account cross-references for transaction import/export
- How to handle accounts held in non-base currency at another entity and what options there are
- What capabilities exist to import transactions from an entity operating in another currency
- At what point account number and currency translation take place
- What rates may be used for currency translation and how these are entered
- What the Transaction Export and Import functions create
- What balancing entry is created when importing journal entries from entities held in another currency and what options there are regarding where it is posted
- When and why the Imported Transaction Revaluation is required

### **Additional Topics for Review**

Part 2 of the PKS exam tests your understanding of additional financial concepts.

#### **You should know and understand the following:**

- Intercompany Accounting
- Linked-Site Costing
- Logistics Accounting
- Purchase and Work Order Accounting by Site

## Enterprise Financials

### Introduction

The Enterprise Edition Finance exam encompasses each of the financial modules of QAD Enterprise Applications Enterprise Edition and their integration with other system modules. This includes product definition and costing, general accounting, financial reporting and consolidated reporting. Multi-site, multi-entity, and multi-currency implementation issues are also included, along with product cost development and inventory valuation.

The objective of this test is to ensure that you have a broad understanding of QAD Enterprise Financials functions and how they should be implemented and used.

### Exam Format

The Enterprise Financials exam is delivered in two parts and requires hands-on interaction with QAD Enterprise Applications. Part 1 incorporates hands-on exercises, and Part 2 is multiple choice questions only. Both parts are delivered in a single 4-hour testing session. You must pass both parts in a single testing session to achieve certification.

### Estimated Preparation Time Required

- 24 days (including training, documentation review and practice)

### Recommended Training Courses

- Financials Fundamentals – Enterprise Edition (5 days)
- Advanced Financials – Enterprise Edition (4 days)
- Enterprise Financials Functional Implementation (5 days)

## Recommended User Guides

- Financials A (Part 1 and Part 2)
- Financials B

## Sample Questions

- Do this: Receive from supplier S09000 a supplier credit note for 2500 USD and allocate this on GL account 1670. Net this credit note against the outstanding invoice for this supplier.

What was the purchase price difference posted on the PO Price variance account as a result of the matching transaction?

- 2500 USD unfavorable
  - 2500 USD favorable
  - 0 USD
  - 2900 USD unfavorable
- 
- What is the maximum number of levels you can create in a budget?
    - 7
    - 10
    - 8
    - 5
- 
- All system SAF concepts apply to:
    - Financial transactions only
    - Financial and operational transactions
    - All operational transactions
    - All transactions (Financial, Operational, External)

## Product Modules Covered

This test includes all of the Financials modules, functions, and activities that pertain to general accounting, as well as financial planning, reporting, and control. The test also covers other modules needed to implement the system.

### You should study the following:

- Accounts Payable
- Accounts Receivable

- Addresses and taxes
- Rounding methods
- Entities, domains, profiles, and shared sets
- Customer, supplier, salesperson, and end-user setup and data
- General Ledger setup (chart of account elements, daybooks, GL mask, GL periods, and tax periods)
- General Ledger transactions (journal entries, reversing transactions, recurring entries, mirror accounting, mass layer transfer, and open item adjustment)
- Operational GL transactions (physical inventory, purchasing, sales orders, invoices, inventory control)
- Budgets
- Consolidation
- Banking entries
- Multiple currencies and exchange rates
- Product costing (product structures, formulae, routings, work centers, process, items, and sites)
- Salespersons (commission)

You should understand how to implement and use each of these modules in systems that are composed of a single or multiple domains, operate with one or more currencies, in one or more countries, and on one or more databases. This test will cover all aspects of QAD Enterprise Financials.

## Test Topics

Modules have been subdivided into eight major topics for you to study:

- Financial System Implementation
- Financials UI and Navigation
- General Accounting
- General Ledger
- Banking and Cash Management
- Reports and Views
- Activity from Other Enterprise Edition Modules
- Additional Topics

The sections that follow present each of these topic areas in detail.

## Financials System Implementation

This area of the test focuses on setting up Enterprise Financials functionality in the system.

### **You should know and understand the following:**

- How currency exchange rates are maintained and where they are used.
- What the different types of accounts are and how each is used (control accounts, standard GL accounts, system accounts, and banking and cash accounts).
- How to apply currency restrictions to accounts.
- How rounding methods are maintained and where they are used.
- How to set up domains, entities, profiles, and shared sets.
- Users, roles, role permissions, and role membership.
- Where to activate budgeting, user settings, GL mask options, additional GL numbering, suspended and delayed taxes, and mirror accounting.
- How to create business relations.
- Customer, supplier, end-user, and salesperson setup and data.
- What realized and unrealized gain/loss represent, how they are calculated and the difference between unrealized and realized gain/loss.
- How and where each of the values in Domain/Account Control is used.
- How credit terms and credit limits are set up and used.
- How to create and use invoice status codes.
- The various address types and how they are stored and used.
- How tax rates and tax exemptions are set up, calculated, and reported in all modules.
- What data is stored at domain-level, system level, and entity level.

- What variances are calculated, when they are calculated and what they represent.

See User Guide: Financials A, and Financials Fundamentals Training Guide for information on domains, GL mask settings, entities, profiles, shared sets, activating mirror accounting, activating suspended and delayed tax, currencies, rounding methods, customer, supplier, end-user, and salesperson setup, business relations, address types, credit terms and limits, invoice status codes, and GL accounts.

See User Guide: Financials B for information on Global Tax Management.

See User Guide: QAD System Administration for information on activating budgeting, and system and user settings.

See User Guide: Security and Controls for information on users, roles, role permissions, and role membership.

## **Product Definition and Costing**

This topic addresses how products are defined for use in the manufacturing modules, and includes product structures, formulae, routings, and processes. The operational details are covered in the Manufacturing test, but since they also determine the standard cost of a product, you should understand what each of the cost components is and how costs are calculated. This test focuses on your understanding of cost calculations and the use of the Cost Management module.

### **You should know and understand the following:**

- Why product lines are defined and where product line GL accounts are used.
- How item prices and costs are set up.
- What costs can be maintained without using the Cost Management module.
- How costs are maintained for different kinds of items (purchased, manufactured, routable, phantom, or configured).
- What “this level” and “lower level” costs are.
- What item information can and cannot be set up by site.
- What item GL cost is and how it is used.
- When and how to perform cost roll-ups.
- How product structures and formulae are set up and which fields affect product cost.
- How BOM codes can be used to set up product structures or formulae used only for costing purposes.
- How departments, work centers, routings, and processes are set up, and which fields affect product cost and cost accounting.
- How the relationship between items, structures, and routings is defined, and which is used for costing.
- How the system stores inventory information in aggregate and in detail.

- When inventory balances can be negative and how that is handled.
- How inventory is valued; what happens to inventory value when GL cost changes; what types of inventory are revalued; what the GL transaction is.
- In Cost Management, what types of cost sets can be maintained.
- How standard, average, current, and simulation costs differ and how they are used.
- In what way item costs, sites, and cost sets are related; what defaults apply.
- What steps are involved in cost simulation.
- What cost elements and cost categories represent; how they are created and used.

See User Guide: Financials B for information on costing.

## **Financials UI and Navigation**

This area covers features of the UI, such as workflows, browses, grids, and stored searches, and how to navigate through the UI.

### **You should know and understand the following:**

- How to sort within grids.
- How to use drop-down filters.
- Grouping search results in a browse.
- Adding or removing columns in a browse.
- Browsing and saving draft records.
- How to set up and use a workflow.
- Attaching documents.
- Stored searches.
- Using the Translation option for fields.
- Summarizing search results.
- Exporting results to XML.

See User Guide: Financials A and Financials Fundamentals Training Guide for more information on navigation.

## **General Accounting**

General accounting includes the functions that support day-to-day accounting activities.

### **Accounts Receivable (AR)**

This area of the test covers managing customer credit, sales orders, posting invoices, creating invoices directly in AR, processing credits and returns, calculating finance

charges, and recording customer payments. You should understand the relationship between AR and the sales order/invoicing functions.

**You should know and understand the following:**

- Sales-related invoices.
- Creating miscellaneous invoices directly in AR.
- Processing payments using payment instruments.
- Adjusting the open balance of a customer invoice or credit note.
- Tracking and reporting customer AR activity.
- Sending statements and reminder letters for overdue payments.
- Calculating finance charges.
- Reporting on all customer invoice-related transactions and statuses.
- The function of Invoice Post and Print.
- How the shipping/invoicing process affects the number of invoices that are posted to AR.
- The recommended method for handling returns.
- How due and discount dates are calculated.
- When taxes are calculated automatically and when they need to be entered manually.
- How to check credit.
- What procedures should be followed for processing and applying payments; how prepayments are handled.
- How bad checks should be recorded.
- How to calculate suspended tax on customer invoices.

See User Guide: Sales for information on sales-related activity. See User Guide: Financials A and Financials Fundamentals Training Guide for information on customer invoices and payments.

**Accounts Payable (AP)**

This area includes all accounts payable functions, including the relationship between accounts payable and purchasing.

**You should know and understand the following:**

- Creating and maintaining supplier invoices and credit notes.
- Preparing invoices for allocation and allocating them.
- Preparing invoices for matching.
- Identifying purchase orders and matching with supplier invoices.
- Approving an invoice for payment and releasing it for inclusion in the payment cycle.

- Adjusting the open balance of a supplier invoice or credit note.
- Generating payments to suppliers in various forms.
- Reporting on all supplier-related transactions and statuses.
- Viewing the supplier balance and open item details.
- Reversing incorrect invoices and their postings.
- Using the Scan daemon to create invoices.
- Setting defaults in Supplier Invoice Control (28.24).
- Calculating delayed tax on supplier invoices.
- Reversing and replacing supplier invoices.
- GL Correction Control (25.13.24) settings.
- What AP rate and usage variances represent and when they are calculated.
- How due and discount dates are calculated.
- What taxes are calculated and when.
- How prepayments are recorded and applied.
- The situations in which the Payment in Process account applies and how it is used.
- The effect of a void check.
- General ledger transactions created by each of the accounts payable functions.
- How fluctuations in exchange rates are accounted for (gain/loss, price variance).
- What reports are available and in what situations each should be used.

See User Guide: Purchasing for information on purchase-related activity. See User Guide: Financials A and Financials Fundamentals Training Guide for information on supplier invoices and payments.

## **General Ledger**

This topic covers general ledger setup and GL transactions.

### **General Ledger Setup**

This area covers the QAD Enterprise Financials activities used to set up charts of accounts, account verification, layers, daybooks, GL calendar, and tax calendar.

#### **You should know and understand the following:**

- Planning and creating the different types of accounts required for the chart of account.
- How to create system accounts, and the use of each system account type.
- Defining and using units of measure on GL accounts.
- What accounts use automatic and manual posting.

- Adding analysis to accounts.
- How to define account revaluation and consolidation settings.
- Configuring the GL mask for a domain.
- Setting up GL Correction Control.
- How to create layers, daybooks, and daybook sets.
- Dividing the fiscal year into smaller subsets using the GL calendar year and GL periods.
- Defining the tax calendar.
- Closing modules to transactions.

See User Guide: Financials A and Financials Fundamentals Training Guide for information on GL setup.

## General Ledger Transactions

This area covers the QAD Enterprise Financials functions used to record accounting activity and make adjustments and corrections.

### You should know and understand the following:

- The general flow of transaction activity and how it is controlled.
- How to enter a journal entry transaction; when amounts should be entered as negative.
- In what situations to use reversing transactions.
- How to use Open Item Adjustment to reconcile unpaid or incorrectly paid invoices and credit notes.
- Using posting templates.
- Creating recurring entries for transactions that are repeated regularly
- When to use mirror accounting and how to set it up.
- The GL effects of mirror accounting.
- At what point operational GL transactions are posted.
- How and when to use Mass Layer Transfer.
- How to process intercompany and cross-company transactions, and the differences between them.
- What capabilities exist to review posted and unposted operational activity.
- How changes to transactions generated in other modules can be prevented.
- Recommended period-end and year-end procedures.
- Revaluation of non-base currency accounts.
- How and when retained earnings are calculated and posted.

See User Guide: Financials A and Financials Fundamentals Training Guide for information on GL transactions.

## **Banking and Cash Management**

This area covers how to use QAD Enterprise Financials Banking functions.

### **You should know and understand the following:**

- Defining bank details and linking bank data to customers and suppliers.
- How to process transaction data contained in electronic bank files.
- Compiling a bank statement using banking entries.
- Allocating the incoming and outgoing payments on the statement lines to open items, GL accounts, selections, and payments,
- Entering bank charges.
- Recording a manual check.
- Handling exchange rate conversions during allocation,
- Maintaining daily cash movements.
- Analyzing actual and projected cash flow over a set period.

See User Guide: Financials A and Financials Fundamentals Training Guide for information on banking and cash management.

## **Reports and Views**

This area covers how to use QAD Enterprise Financials reporting functions, and views.

### **You should know and understand the following:**

- The various Financials reports and views, and the function of each.
- When to print a Trial Balance.
- Creating and using report variants.
- Scheduling reports.

See User Guide: Financials A and Financials Fundamentals Training Guide for information on Financials reports and views.

## **Activity from Other QAD Enterprise Edition Modules**

You can get General Ledger journal transactions from other QAD Enterprise Applications modules. You should understand where these transactions are created and when, and what accounts they use. When calculations are involved (as with variances), you should understand the calculation.

**You should know and understand what GL transactions are created by the following:**

- Sales order shipments and returns.
- Operational transactions and posted invoices.
- Purchase receipts and returns.
- Purchase price and exchange variance.
- Unplanned inventory transactions.
- Cycle count and physical inventory updates.
- Changes to standard and average costs.

**Additional Topics for Review**

Part 2 of the PKS exam tests your understanding of additional financial concepts.

**You should know and understand the following:**

- Intercompany Accounting
- General and Linked-Site Costing
- Logistics Accounting
- Purchase and Work Order Accounting by Site
- The purpose of SAFs, how to define and use them, the types of system SAFs available, and SAF defaulting.
- Daemons
- Evaluation Receipts Settlement (ERS)
- Budgets
- Consolidation
- Structured Reports

Defining and using operational and financial allocations. Excel Integration

See User Guide: Financials A and Advanced Financials Training Guide for information on Excel integration, ERS, SAFs, and allocations.

See User Guide: Master Data, User Guide: Financials A and Advanced Financials Training Guide for information on Logistics Accounting.

See User Guide: Financials B for information on costing.

## Daemons

This area covers how to set up and use the various system daemons.

### You should know and understand the following:

- Which daemons are available in QAD Enterprise Applications.
- The purpose of each daemon.
- How the XML and Scan daemons interact with and benefit other EE Financials functions.

See User Guide: System Administration and Advanced Financials Training Guide for information on daemons.

## Budgets

This area covers how to use QAD Enterprise Financials Budget functions to record revenue and expense for a given time period.

### You should know and understand the following:

- Use the Budget Create activity to define budgets for a single entity or for a group of entities
- Defining the budget hierarchy and level of detail.
- How to create a structure of budget topics and the restrictions that apply.
- Defining a budget structure for use in structured reports.
- Using the Excel Hotlink to maintain budget data in Microsoft Excel and then synchronize it with the system.
- The role of the Budget daemon.
- How to use the Budget Detail and Budget Overview reports to follow the progression of spending and earnings.

See User Guide: Financials A and Advanced Financials Training Guide for information on budgets.

## Consolidation

This area covers how to use QAD Enterprise Financials Consolidation functions to combine financial records from a number of entities within an organization into one consolidated set of financial statements.

### You should know and understand the following:

- The types of transaction you can consolidate.
- How to set up consolidation, including creating cross-references.
- How to process intercompany transactions when consolidating.

- The conditions that must exist before you can create a consolidation record.
- Creating a consolidation cycle, and consolidation record.
- How currency translation is performed at consolidation.

See User Guide: Financials A and Advanced Financials Training Guide for information on consolidation

## **UI Customization and UDFs**

This area covers how to use the QAD Enterprise Financials Design Mode and User-Defined Field functions to tailor the user interface of component-based functions.

### **You should know and understand the following:**

- How to customize user interfaces using the Design Mode feature.
- How to create a User Defined Field (UDF), and add it to a screen.
- The types of UDF, and the number of UDFs of each type you can create.

See User Guide: Financials A and Advanced Financials Training Guide for information on UI customization and UDFs.

## **Structured Reports**

This area covers how to use the QAD Financials Budget function to define structured reports.

### **You should know and understand the following:**

- What reports use user-defined structures.
- How to create report structures, and the restrictions that apply to report structures.
- How to print the hierarchical design of a structured report.
- The purpose of system accounts in report structures.

See User Guide: Financials A and Advanced Financials Training Guide for information on structured reports.



## Manufacturing

### Introduction

The Manufacturing exam covers MRP II implementation and basic data setup, production scheduling and control (including inventory control), sales, production and resource planning, along with material/capacity/distribution requirements planning. Multiple site concepts and lot/serial traceability are also included.

The objective of this test is to ensure that you have a broad understanding of QAD Enterprise Applications manufacturing functions and how they should be implemented and used. Since manufacturing and planning functions form the core of QAD Enterprise Applications, all consultants should be fully versed in their functionality and use.

### Exam Format

The Manufacturing exam is delivered in two parts and requires hands-on interaction with QAD Enterprise Applications. Part 1 incorporates hands-on exercises, and Part 2 is multiple choice questions only. Both parts are delivered in a single 4-hour testing session. You must pass both parts in a single testing session to achieve certification.

### Estimated Preparation Time Required

- 22 days (including training, documentation review and practice)

### Recommended Training Courses

- Quick Start (5 days for Standard Edition, 4 days for Enterprise Edition)
- Inventory Control (included in 4-day Manufacturing Planning course)
- Forecasting Simulation (included in 4-day Manufacturing Planning course)
- Master Scheduling and RCCP (included in 4-day Manufacturing Planning course)
- MRP/CRP Fundamentals (included in 4-day Manufacturing Planning course)

- Product Structures (included in 5-day Manufacturing Execution course)
- Work Centers Routings and WO Subcontracting (included in 5-day Manufacturing Execution course)
- Work Orders (included in 5-day Manufacturing Execution course)
- Advanced Repetitive (included in 5-day Manufacturing Execution course)
- Shop Floor Control (included in 5-day Manufacturing Execution course)
- Product Costing and Cost Management (1 day)
- Lean Manufacturing: Concepts (1 day)
- WIP Lot Trace (1 day)
- Product Change Control (1 day)

### **Recommended User Guides**

- Manufacturing (all sections are relevant)
- Master Data (Product Change Control, Compliance)
- PRO/PLUS (WIP Lot Trace)
- Supply Chain(Enterprise Operations Planning)
- Kanban (Lean Manufacturing, Pull Replenishment Techniques)
- Financials (Costing)

### **Sample Questions**

- Information: The marketing department expects the demand for 44-150 to be much higher than initially expected. The manufacturing planning and production control departments decided that item 44-150 can be made in a standard production quantity of 100 instead of 10.

Do this:

- Change the standard production quantity for 44-150 to 100.
- Recalculate the Current costs for item 44-150 at site 12000.

Question: The total current labor cost for item 44-150 at site 12000 is:

- 10.00
- 11.025
- 11.25
- 13.50

- The planning horizon for Material Requirements Planning (MRP) should be set to the longest purchasing or manufacturing lead time among the items to be planned. True or False?
- You would create a supermarket
  - Before operations that include unpredictable elements and long changeover times
  - After a divergence point—a place where the process output begins to supply multiple downstream processes
  - Between operations where the batch size has to change because the every-part-every interval (EPEI) is too large
  - At a point where the remaining time to completion is less than the customer lead time

## Product Modules Covered

This test covers the content of each of the manufacturing and planning modules, together with all of the modules needed to implement the system and define products.

### You should study the following:

- Capacity Requirements Plan
- Compliance
- Co-Products/By-Products
- Distribution Requirements Planning
- Enterprise operations Planning
- Flow Scheduling
- Forecast/Master Plan
- Formula/Process
- Inventory Control
- Items/Sites
- Kanban/Lean Manufacturing
- Manager Functions
- Material Requirements Plan
- Product Costing (Product Structures, Formulas, CO/By-Products, Routings, Work Centers, Process, Items, Sites)
- Product change Control
- Product Line Plan
- Product Structures
- Purchasing (Subcontract)

- Quality Management
- Repetitive/Advanced Repetitive
- Resource Plan
- Routings/Work Centers
- Shop Floor Control
- Work Orders

The test covers implementation issues, how functions in each of these modules can and should be used, and how they are integrated. It requires an understanding of how manufacturing functions are used with and affect other modules such as Purchasing, Sales, and General Ledger.

## **Test Topics**

The manufacturing modules have been subdivided into three major topics for you to study. These are:

- Product Definition and Costing
- Production Scheduling and Control
- Distribution, Manufacturing, and Capacity Planning

In the following sections, each of these topics is briefly described, followed by a list of what you should know and understand.

## **Product Definition and Costing**

This topic addresses how products are defined for use in the manufacturing modules. It includes product lines and items, as well as the definition of manufacturing departments, work centers, formulas, product structures, process operations, and routings. Since all of these determine the standard cost and lead time of a product, you should understand how both are calculated and what each of the cost and lead-time components represents. You should understand how all of these can be applied in discrete, process, and mixed-mode environments.

### **You should know and understand the following:**

- What item status codes are and how they are used
- What inventory status codes are and how they are used
- What values should be entered in each of the individual data fields in Item Master Maintenance, which fields are required and which are optional, and how each field is used
- What values should be entered in each of the individual data fields in Product Structure Maintenance, which fields are required and which are optional, and how each field is used

- How to determine the item unit of measure, where it is used, and where an alternate unit of measure can be used
- What BOM codes are and when they are used
- What functionality is provided by product structures and formulas, and the differences between product structures and formulas
- How BOM codes, formulas, and product structures are used in costing, planning, scheduling, and engineering control functions
- The difference between scrap and yield, and how each is used
- What batch quantity is and how it is used; the difference between batch and item order quantity
- How standard operations can be used and what happens when a standard operation changes
- What functionality is provided by routings and processes, and the differences between routings and processes
- How lead time and manufacturing costs are calculated from routings and processes
- What routing or process is used by planning, scheduling, and labor reporting
- How the relationship between items, structures, and routings is defined
- How substitute items are set up and used
- How common routings and structures are set up and used
- What “this level” and “lower level” costs are
- What item GL cost is and how it is used
- When and how to do cost roll-ups
- How costs are maintained for different kinds of items (for example, purchased, manufactured, routable, phantom, configured, c-products, by-products)
- What cost sets can be maintained without using the Cost Management module
- What data can be managed using Product Change Control
- How design groups, routing slips, severity lists, severity levels and PCO/PCR types are used to define and manage product change approvals;
- How PCRs and PCOs are created, routed, approved, released, distributed, incorporated and implemented
- How PCO effective dates are used
- How item revision levels are managed using Product Change Control

## **Production Scheduling and Control**

This topic covers manufacturing and inventory control functions used to execute manufacturing plans and the effect that these functions have on planning, the general ledger, and other parts of the system.

## **Inventory Control**

Here we look at the day-to-day activities of inventory control that support manufacturing operations. Particularly important are issues related to implementation, operating procedures, and integration with other modules. When reviewing each of these topics, be sure to relate them to both work orders and repetitive manufacturing functions.

### **You should know and understand the following:**

- How item shelf life and expiration date are related
- How inventory details (lot/serial, reference, grade, assay %, and expire date) are maintained and used
- Where and how alternate units of measure are used
- What general and detail allocations are; how they are related, and how they are different
- How inventory allocations are controlled and monitored for both manufacturing orders and sales orders
- What processes can be used to move inventory from and to work center locations or manufacturing orders
- What methods are used for floor stock and bulk issue materials
- What options exist for handling component scrap
- What backflushing is and what its risks and benefits are
- What general ledger transactions are created by inventory activities and when they are created

## **Manufacturing**

Manufacturing modules are used to schedule and monitor production in discrete, repetitive, process, and mixed-mode environments. Work Order, Shop Floor Control, and Repetitive functions are covered, as is the entire production cycle: scheduling production; printing picklists; issuing components; recording labor; processing completions, receipts, scrap, rework, and rejects; and monitoring utilization, efficiency, and work in process.

### **You should know and understand the following:**

- How production is scheduled and controlled using work orders versus repetitive schedules, and in what types of manufacturing environments each is appropriate
- What planned orders, master scheduled orders, work orders, repetitive scheduled orders, cumulative orders and final assembly orders are and how they are related
- What needs to be set up prior to using repetitive functions
- What the steps of the advanced repetitive life cycle are, why each is used, and how they affect MRP

- What the differences are between forward and backward scheduling and loading, and when each is used
- What each of the fields on a work order is used for
- How work order release and due dates are scheduled, and when they should be manually adjusted
- How type and status codes relate to the work order life cycle, and their effect on work order bills and routings
- In what ways routable items are managed differently from other items
- How work orders can be used to track custom production, rework, or repairs
- How final assembly work orders are created and processed; what components are referenced; what options are available for receiving and shipping final assemblies
- How components are allocated and the affect of Allocate Single Lot and Critical Items on allocations
- How repetitive picklists are set up and how they differ from work order picklists
- How substitute items and alternate bills and routings are processed, and how phantom items work (in both the Work Order and Repetitive modules)
- How manufacturing operations are monitored; what operation status indicates and how it is set
- How subcontracting is managed, and the interface to Purchasing in both work orders and advanced repetitive
- What options there are for reporting labor in both work orders and advanced repetitive
- What nonproductive labor is and its consequence on efficiency and utilization
- When and how a work order is split and what happens
- How and when variances are calculated when using standard or average costing
- What rate and usage variances are and how they are calculated for material, labor, and burden
- When and how mix variance is calculated
- How the system accounts for scrap at an operation and at work order receipt
- When orders should be closed for accounting purposes and what this does
- How utilization, efficiency, and productivity are calculated and used
- What general ledger transactions are created by manufacturing activities
- How work order close and receipt dates are used
- What work order control information is set up by site
- How master specifications and item specifications are used to manage quality procedures
- How quality orders are created

- What happens when quality order results are entered
- How quality specifications can be used in routings for process inspections

## **Lean Manufacturing**

Manufacturers are increasingly using lean thinking to remove waste from value streams, and this is supported in QAD Enterprise Applications by the Kanban and Flow Scheduling modules.

### **You should know and understand the following:**

- When and why kanbans are used to manage production
- How to define kanban loops using kanban processes and supermarkets
- What statuses are used for kanban cards, and what each status means
- How kanban transactions are used, and the effects of each transaction
- How accumulators are used
- Sizing calculations for kanbans, and how EPEI, average demand and takt time are used
- What flow schedules are and how they are used
- How schedule periods, flow rates and takt time are used to schedule production
- The relationship between flow schedules, work orders and repetitive schedules

## **Compliance**

QAD Enterprise Applications' Compliance functionality enables businesses to comply more easily with government regulations and international agreements. The Compliance module consists of site security, batch control, lot control, work order control, and controlled substance fields. Each feature can be used in conjunction with or independent of the other features.

### **You should know and understand the following:**

- What is meant by site security and how it is maintained
- How the control file is used and what each control file field does
- How inventory attributes are used and assigned
- How and why batch control is maintained in QAD Enterprise Applications and what the significance of batch control is
- How and why lot control is used in QAD Enterprise Applications and what the significance of lot control is
- How automatic lot numbering is maintained
- What is meant by single lot per receipt and how it is enforced
- How supplier lot numbers are used in QAD Enterprise Applications

- How expired inventory transactions are handled
- How component issues can be controlled
- How controlled substances are tracked
- What type of controls can be placed on work orders
- How to activate or deactivate WIP lot/serial tracking for all or specific BOMs, routing codes, parent items, component items and routing operations
- How to trace WIP lot/serials through subcontract operations
- How to combine and split WIP lots; how WIP lots can be rejected, reworked and returned
- What additional data collection frames are used for WIP lot/serial tracking in inventory control, purchasing, work orders, shop floor control, repetitive and advanced repetitive
- What information can be reported to track WIP lot/serial usage

## **Distribution, Manufacturing, and Capacity Planning**

This topic covers the modules and activities necessary for manufacturing resource planning (MRP II). The disciplines involved range from high-level sales and production planning to detailed material and capacity planning. You should know how each of the planning modules works and how it is implemented. You should understand MRP II concepts such as time-phased planning, resource management, and master production scheduling, and how they are supported in QAD Enterprise Applications. For each of the following sections, you should be thoroughly familiar with all of the reports and inquiries, be able to look at each of them and determine what action needs to be taken and why.

## **Sales, Production, and Resource Planning**

Sales and production planning is the starting point of the planning process; and is supported in QAD Enterprise Applications by the Forecasting, Enterprise Operations Planning, Product Line Planning and Resource Planning modules. Forecasting allows projecting future sales based on historical patterns. Enterprise Operations Planning spreads production requirements across multiple plants optimizing both total enterprise inventory and capacity. Product Line Planning states projected monthly sales and production by product group. These modules support the annual business plan and provide input to the detailed master production schedule. Resource Planning functions are used to verify the plan against the availability of critical resources.

### **You should know and understand the following:**

- How to set up an operations plan at family and end item levels
- How the source matrix is set up and used

- What methods can be used to establish target inventory levels at family and end item levels
- What operations data can be loaded and what it is used for
- How operations plans are linked to resource planning, production planning and MRP
- How to create and use simulation plans
- What the elements of a product line plan are and how they are used
- How to forecast sales using forecasting simulation
- How product line plans can be used to project inventory levels, inventory turns, and backlog
- What information is used for product line resource planning
- How resources are defined and how changes are recorded
- How resource capacity and load are calculated

### **Master Production Scheduling and Rough-Cut Capacity Planning**

Unlike sales and production planning, this topic deals with demand and supply planned at the item level. You should understand each of the sources of demand for an item (forecast, sales orders, spares, and interplant requirements) and how these demands are used to generate a master production schedule (MPS). Once developed, the plan can be checked against the availability of critical resources using rough-cut capacity planning.

#### **You should know and understand the following:**

- What types of items should be forecast; how forecasts are maintained and how net forecast is calculated
- What the process of forecast consumption is and how this can compensate for forecast errors
- The primary functions of a master schedule
- What types of items should be master scheduled, and what the difference is between a master schedule item and an MRP item
- What the advantages and disadvantages of the manual, automatic, and computer-assisted master scheduling techniques are; how items are set up when using each technique
- What methods can be used for entering and managing master schedule orders, and how repetitive schedules may be used for this
- When and how multi-level master scheduling is used and how this differs from single-level master scheduling
- Why multi-level master scheduling is not recommended for more than two levels
- How option and planning bills are identified and used and how they affect MRP
- How production forecast is calculated and how it is handled by MRP

- What information is used by item resource planning

### **Material Requirements Planning (MRP)**

MRP is a technique used to develop time-phased material plans based on the inventory, supply, demand, and product structures at a site. You should understand how the MRP process works, how to implement it, how to use it, and how it depends on and relates to activities in other modules.

#### **You should know and understand the following:**

- The four basic questions answered by MRP
- The meaning of time-phased MRP
- How independent and dependent demand are defined and how they are different
- The inputs, outputs, and sources of demand and supply for MRP
- What calculation steps MRP uses; what gross requirements are and how MRP calculates them
- How MRP projects inventory balances, re-schedules receipts, creates planned orders, and generates action messages
- What the similarities, differences, and applications are for net change, regenerative, and selective MRP
- How material plans are processed for inventory, supply and demand at multiple sites
- The relationships between MRP, DRP, CRP, and MPS
- How MRP uses order policies, order modifiers, and product structures
- How scrap and yield are used by MRP
- How and when time fences are used and how long they should be
- How long the planning horizon should be
- What action messages are generated by MRP and how they are used
- What pegging is and what information is available to support it
- What effect approving a planned order has

### **Capacity Requirements Planning (CRP)**

CRP is a medium-range planning technique that schedules operations for planned orders, work orders, and repetitive schedules and determines capacity load (planned hours per person or machine). Load can be compared to available capacity to detect potential problems or delays.

#### **You should know and understand the following:**

- How and when Recalculate Capacity Plan is used; what work order status to include

- How operations are scheduled for planned orders, work orders, and repetitive schedules; what routing is used
- What the effect of overlap and machines per operation is; how calendars are used
- How capacity and load are calculated and how they can be adjusted
- What cumulative load represents

### **Distribution Requirements Planning (DRP)**

The primary use of DRP is to manage demand, supply, and transportation of materials from one site to another. Since the calculations and procedures are similar to MRP you should already be familiar with them; but you also need to know how they differ. You should understand the situations in which DRP can be used, and how it can provide solutions to material and distribution problems.

#### **You should know and understand the following:**

- The inputs, outputs, sources of demand, and sources of supply for DRP
- How source networks are defined and used by DRP
- What steps DRP calculations go through, how they are similar to MRP and how they are different
- What methods can be used for managing intersite demand and supply
- How intersite requests, intersite demands, requisitions, and distribution orders interrelate
- The implementation and operating considerations of using DRP on multiple databases, and the options available for communicating requests

# Customer Management

## Introduction

The Customer Management exam covers sales quotes, sales order management and all other aspects for customer management.

The objective of this test is to ensure that you have a broad understanding of QAD Enterprise Applications customer management functions and how they should be implemented and used.

## Exam Format

The Customer Management exam is delivered in two parts and requires hands-on interaction with QAD Enterprise Applications. Part 1 incorporates hands-on exercises, and Part 2 is multiple choice questions only. Both parts are delivered in a single 4-hour testing session. You must pass both parts in a single testing session to achieve certification.

## Estimated Preparation Time Required

- 14 days (including training, documentation review and practice)

## Recommended Training Courses

- Sales Orders (part of 4-day Sales Order Management course)
- Allocations and Shipping (part of 4-day Sales Order Management course)
- Configured Products (part of 4-day Sales Order Management course)
- Best Pricing (part of 4-day Sales Order Management course)

## Recommended User Guides

- Sales

## Sample Questions

- What general ledger transactions are created for the CN-USE inventory transaction when the usage of these consigned inventory items is recorded in the system?
  - Dr 2455-Mech, Credit 1655-Mech
  - Dr 1655-Mech, Credit 2455-Mech
  - Dr 5000-Mech, Credit 1655-Mech
  - Dr 1655-Mech, Credit 5000-Mech
- Which of the following consume forecasts?
  - Sales Order Shipments
  - Customer Schedules
  - Inventory Transfers
  - Work Order Receipt
- At what point in the sales cycle, is a General Ledger Transaction created that posts a debit amount to the appropriate Cost of Goods Sold account?
  - Sales Order Confirmation
  - Detail Allocation of sales order inventory
  - Sales Order Shipment
  - Invoice Post

## Product Modules Covered

This test includes all of the Customer Management modules.

### You should study the following:

- Sales Quotations
- Sales Orders
- Sales Analysis
- Pricing

The customer management modules have been subdivided into major topics for you to study. The sections that follow list what you should know and understand for each major topics area

## Addresses/Taxes

- The various types of addresses and how they are stored and used
- The alternative address coding schemes and which methods work best

- How address codes and sort names are used for both searching and reporting
- How company addresses are used
- How salesperson commissions are entered and what the reporting options are
- How customer information is maintained (understand each field and how it is used)
- How Global Tax Management allows you to record additional tax information on orders, quotes, and invoices and how this information can be viewed and edited
- How customer credit information is maintained and used on sales orders
- Blocking customer transactions
- How trailer codes are set up and used
- How multiple ship-to addresses may be set up for one customer and what information can be maintained for each ship-to address
- How Freight Rates can be set up and how they are used and updated on quotes and orders
- Email notification when a customer created in Financials

## **Products and Pricing**

- Why product lines are defined and how they are used for planning and reporting
- How items are set up; what information can and cannot be set up by site
- How to determine the item unit of measure
- What item status codes are and how they are used
- How prices and costs are maintained for items
- How analysis codes are used and maintained
- What options are available for setting up price lists; the differences between price tables and discount tables and how each is used; each field and how it is used
- How price lists are accessed by quotes and orders, and how they affect default prices, discounts, and net prices
- What is meant by the term “Best Pricing” and how it is determined
- What price break categories are and how they are used
- What volume discount capabilities exist and the limitations of each
- How to set up a cross-reference for customer item numbers or catalog numbers
- How prices can be updated on orders and quotes; how prices can be fixed so no update can occur
- What is a memo item and the effect of memo items on sales-related programs
- How memo items are set up
- What is a replacement, up-sell and cross-sell item and their effect on sales-related programs

- How replacement, up-sell and cross-sell items are set up

## **Inventory Control**

- How each inventory transaction works and when it is used
- What inventory movement codes are and what they can be used for
- How inventory details (lot/serial, reference, grade, assay %, and expire date) are maintained and used
- What general and detail allocations are, how they are related, and how they are different
- How inventory allocations are controlled and monitored for both manufacturing orders and sales orders
- How inventory transaction history is maintained and used
- What general ledger transactions are created by inventory activities and when they are created
- How reserved locations are defined and used

## **Sales Quotations**

- What procedures are followed for managing sales quotes
- How sales quotes relate to sales orders, how they are similar, and how they are different
- In general, what types of data are accessed from the customer sold-to, bill-to, and ship-to addresses
- When and how recurring quotes are used; how they differ from non-recurring quotes
- What you must do in order to create a sales order from a quote; what value each of the sales order fields will be set to (in particular, order quantity, due date, confirmed flag, and action status)
- How expired quotes are handled

## **Sales Orders and Customer Schedules**

- The steps in the sales order life cycle, how and when each is used, and which are optional
- What types of data are accessed from the customer sold-to, bill-to, and ship-to addresses
- How sales orders are maintained for inventory, non-inventory, configured, and family items; how prices, discounts, costs, margins, and taxes are determined on each
- How Pricing What-if inquiry works
- What a sales order bill is and how this relates to the work order bill for a configured product

- How sales orders handle customer items and alternate units of measure
- What options there are for multi-site sales order processing
- The operating differences between single and multiple line entry
- What customer credit information is maintained; which customer's credit is checked—the sold-to, bill-to, or ship-to—and when
- In what ways credit status affects sales order processing
- How available-to-promise can be taken from the Master Schedule Summary and used for order promising and determining due dates
- How available-to-promise quantities are calculated
- How sales orders and customer schedules differ
- The philosophy and application of customer schedules
- How customer schedules are managed, and what the net, discrete, and cumulative quantities represent
- How shipping schedules, planning schedules, and required ship schedules relate to each other and to MRP
- How confirmed and unconfirmed sales orders affect MRP and forecasting
- How forecast consumption works and why it is important
- How control file settings affect sales order processing and forecast consumption

## **Correction Invoices**

- How to enable and setup correction invoice functionality
- When to use correction invoices and the types of corrections that are supported
- How to create correction sales orders
- How to ship, invoice, report and archive correction orders
- The limitations of correction invoices

## **Shipping and Invoicing**

- What the recommended procedural controls are for allocations, shipping, and invoicing
- How general and detail allocations apply to sales order activities
- What methods and controls are available for allocating inventory to sales orders
- How on-hand inventory and available inventory differ
- How packing slips are used; why the Print Only Lines To Pick option can be used to control the shipping process
- How shipments, returns, credits, and corrections are processed; how this is different for customer schedules

- How Pre-shippers and Shippers are used
- How partial shipments and drop shipments are processed
- How containers are used for shipping
- How Bills of Lading and Master Bills of Lading are produced and used
- At what point general ledger transactions are created for cost of goods sold
- How information flows from sales order to pending invoice, from pending invoice to invoice, and from invoice to invoice history
- How and when Pending Invoice Maintenance is used
- How shipments of configured items update work orders and what transactions occur when work orders are used and when they are not used
- How the fields Ready to Invoice and Invoiced are used to control the printing and posting of invoices
- What general ledger transactions result from shipping and invoicing activities, and how they differ across multiple sites, entities and domains
- What sales backlog is and how it is managed
- What procedures should be followed at period-end and what effective dates should be used

## **Sales Analysis and Commissions**

- At what point in the sales order life cycle sales information is available for reporting
- The date it is based on (the shipment, invoice, or invoice post date)
- The options and constraints for summarizing sales information
- What salesperson performance reports are available
- How commissions are calculated, recognized, and reported; how commission splits are processed
- How Historical Sales Analysis data can be used with Forecast Simulation and the effect of using the delete/archive functionality

## **Logistics Accounting (sales side)**

- When to use Logistics Accounting
- How Logistics Accounting is set up and how outbound Logistics Charges relate to the Freight functionality
- How the value of logistics charges is calculated
- How tax is calculated on outbound logistics charges
- How to process sales order and shipments with logistics charges
- The transactions that accrue outbound logistics charges
- What general ledger transactions are created when logistics charges are accrued

## **Legal Documents (sales side)**

- How to define implementation settings in Legal Document Control
- How to set up sequence IDs for generating legal document numbers and associate the sequence IDs with ship-from address codes
- How to associate a legal document form code with document formats
- The transactions that generate and print legal documents

## **Available-to-Promise Enforcement**

- What is ATP
- How to enable ATP enforcement
- The functions that check ATP
- How ATP is calculated during order entry
- Delivery transit time
- How the promise date is calculated

## **Container and Line Charges**

- What are container and line charges
- How to activate and set up container and line charges
- How to enter Container and Line Charges
- How to ship and invoice Container and Line Charges

## **Customer Consigned Inventory**

- What is customer consigned inventory
- Activating and setting up customer consigned inventory
- Ordering and shipping customer consigned inventory
- Consuming and managing customer consigned inventory
- Invoicing customer consigned inventory

## **Shipment Performance**

- How to activate and set up shipment performance
- Creating and modifying shipment performance transaction records
- Reporting shipment performance data



# Supply Chain

## Introduction

The Supply Chain exam covers all supply chain functionality. Since all companies purchase materials and sell products, most of these functions are as applicable for manufacturing companies as they are for distributors.

The objective of this test is to ensure that you have a broad understanding of QAD Enterprise Applications supply chain functions and how they should be implemented and used.

## Exam Format

The Supply Chain exam is delivered in two parts and requires hands-on interaction with QAD Enterprise Applications. Part 1 incorporates hands-on exercises, and Part 2 is multiple choice questions only. Both parts are delivered in a single 4-hour testing session. You must pass both parts in a single testing session to achieve certification.

## Estimated Preparation Time Required

- 15 days (including training, documentation review and practice)

## Recommended Training Courses

- Supplier Schedules (2 days)
- Customer Schedules (2 days)
- Customer Sequence Schedules (1 day)

## Recommended User Guides

- Supply Chain Management
- Purchasing
- Scheduled Order Management

## Sample Questions

- One of the following best describes the process of customer consigned inventory. Please select the correct answer:
  - Reservation of dedicated inventory locations for a specific customer or customers.
  - Supplier placing goods at customer location without receiving payment until goods are used or sold.
  - Automatic generation of purchase orders from sales orders.
  - Customer receiving goods without making payment until goods are used or sold.
- A Trading Partner relationship must be established in the EDI eCommerce module. Which function is used to establish this relationship:
  - Trading Partner Control File Maintenance
  - Customer Relationship Maintenance
  - Supplier Relationship Maintenance
  - Trading Partner Maintenance
- In order to allow EDI eCommerce Document Import (35.1) to import ASNs and update kanban transactions to “shipped”, and to allow the P O Shipper Receipt to process inventory receipts and update kanban transactions to “full”, which one of the following fields must be set:
  - Kanban Supplier = Yes in Supplier Maintenance (2.3.1) for the loop’s supplier.
  - Update Dispatched Cards = Yes in Kanban Dispatch List Processing (17.22.18.1).
  - E-mail Dispatch List = Yes in Kanban Master Maintenance.
  - Release Blanket POs = Yes in Kanban Dispatch List Processing (17.22.18.1).

## Product Modules Covered

This test includes all of the Supply Chain modules.

### You should study the following:

- Purchasing
- Supplier Performance
- Release Management

- Consignment Inventory
- Supply Visualization
- Supply Chain Planning
- Data Synchronization Interface

Modules have been subdivided into four major topics for you to study:

- Planning
- Sourcing
- Delivering
- Communicating

The sections that follow present each of these topic areas in detail.

## **Planning**

### **Distribution Requirements Planning**

- Concept and application of Distribution Requirements Planning (DRP)
- How MRP and DRP are similar and different
- When to choose DRP versus Purchase/Sales Orders

## **Sourcing**

### **Inventory Control**

- How control files affect inventory operations
- How each inventory transaction works and when it is used
- How inventory details (lot/serial, reference, grade, assay %, and expire date) are maintained and used
- Why cycle counting is used and the advantages and disadvantages relative to a physical inventory
- The steps involved in performing a cycle count or physical inventory; how errors are handled and how inventory tolerances are used
- What inventory movement codes are and what they can be used for
- The best way to initialize inventory balances
- What general and detail allocations are, how they are related, and how they are different
- How inventory allocations are controlled and monitored for both manufacturing orders and sales orders

- How inventory transaction history is maintained and used
- What general ledger transactions are created by inventory activities and when they are created
- How inter-site and intra-site transactions are created and their impact on the general ledger
- When and why WIP Lot Trace would be used
- Impact of Regulatory Attributes on Inventory Control
- The concept and application of Obsolete Inventory Analysis

### **Purchasing/Requisitioning/Receiving**

- How supplier information is used on purchase orders; what the default PO cost is
- How supplier items are used on purchase orders. How to set up a cross-reference for supplier item numbers; how they affect default costs on purchase orders
- In what situations blanket orders, purchase orders, or supplier schedules should be used
- The operating differences between single and multiple line entry
- How receipts, returns, and corrections are processed
- How receivers are created and for what purpose
- What general ledger transactions result from purchasing activities, and how they differ across multiple sites, entities and domains
- How PO Container and PO Shipper Maintenance are used in relation to purchase orders and the advantages and disadvantages of using them instead of PO Receipts
- How QAD Enterprise Applications supports PO Fiscal Receipts; how and when they should be used
- How costs and taxes are calculated
- How subcontract, non-inventory purchases, and drop shipments are processed
- The options for multi-site purchasing; how centralized and decentralized purchasing is implemented; how multi-site purchase orders are printed by ship-to site
- How control file settings affect purchasing operations
- How current and average costs are updated by purchasing
- What options are available for purchase approvals and how they are implemented
- In what situations purchase requisitions or global requisitions should be used
- How to set up different approval types when using global requisitions
- Roles in requisition flow (requestor, approver, buyer) and their activities

### **Supplier Performance (Quality)**

- How to define categories and events and which purpose they have to collect supplier performance data
- How supplier performance data is collected
- Different performance calculation and rating methods

### **Consignment (Supplier)**

- The concept and application of supplier consignment. What is consignment inventory and what does it mean for inbound receipt goods.
- How to set-up Consignment Purchase Orders
- Review of consignment transactions and inventory in consignment
- Multiple points of usage, multiple tax points and the aging capabilities. How it works
- Different options to set-up GL Accounts for inventory in consignment

### **Release Management (Supplier Schedules)**

- The concept and application of supplier schedules
- How purchase orders and supplier schedules differ
- How supplier schedules are managed and what the net, discrete, and cumulative quantity represents
- How required receipt schedules, shipping schedules, and planning schedules relate to each other and to MRP

### **Distribution Orders (Receiving)**

- The concept and application of Inter-Site Requests and receiving of goods from Inter-Site Distribution Orders
- Follow-up of requests and inventory in transit up to reception of goods. Impact in inventory and transaction history
- When to use Purchase Orders instead of Distribution Orders to fulfill Inter-Site Requests
- What general ledger transactions are created when receiving goods from distribution orders at demand-site

### **Kanban Loops (Supplier)**

- Creating a supplier loop with appropriate data
- Sizing a supplier loop to generate Kanban cards, supermarket limits
- Different types of information included in Kanban Workbench
- Groups of data in the workbench

- Basic data required versus optional for kanban loop
- Different types of accumulators for triggering replenishment
- Relationship of "schedule" accumulator and fixed interval used for sizing
- Relationship of time oriented accumulators to fixed order quantities
- How to run the accumulator
- Relationship between kanban replenishment and EDI Ecommerce
- Dealing with multiple sources - use of the demand percent
- Dealing with multiple sources - using steps or supermarkets to distinguish supply loops
- Relationship between kanban fill transaction and inventory updating
- Inventorying alternatives for kanban items - INV or WIP
- How and where purchase order specific data is used
- How to control inventory updating
- Use of PO Data Receipt prompt
- Various kanban transaction statuses and their use
- Use of inventory system to drive kanban status changes

## **Delivering**

### **Shipping**

- How Fiscal shipping documents are used and created
- Does this fall under Customer Management or should be considered as part of Supply Chain process from a general perspective?

### **Logistics Charges & Accounting**

- How container and line charges can be added to sales orders
- How can container charges be calculated
- Is a separate chapter need? Doesn't this belong to Customer Management?

### **Consignment (Customer)**

- Customer consignment concept and application
- Set up and processing of consigned sales order
- Consumption/Usage of customer consigned inventory
- Customer consignment aging

**Release Management (Customer Schedules)**

- Customer schedule concept and application
- How sales orders and customer schedules differ
- How customer schedules are managed and what the different netting logic options represent
- How sequence, planning and shipping schedules relate to each other and to MRP
- Shipper Validation

**Distribution Orders (Shipping)**

- Intersite Demand confirmation process and different ways to generate Distribution Orders
- Picking and shipping process of Distribution Orders
- How DO Container and DO Shipper Maintenance are used in relation to distribution orders and the advantages and disadvantages of using them instead of normal DO
- When to use Sales Orders instead of Distribution Orders to fulfill Inter-Site Demand
- What general ledger transactions are created when shipping goods using distribution orders at supply site

**Communicating**

- Supply Visualization
- Electronic Data Interchange (EDI)



## **Service and Support Management (SSM)**

### **Introduction**

This section of the study guide is designed to assist you in preparing for the QAD Product Knowledge Specialization Exam on Service and Support Management. The objective of this test is to ensure that you have a broad understanding of QAD Service and Support Management functions, and how they should be implemented and used.

### **Exam Format**

The SSM exam is delivered in two parts and requires hands-on interaction with QAD Enterprise Applications. Part 1 incorporates hands-on exercises, and Part 2 is multiple choice questions only. Both parts are delivered in a single 4-hour testing session. You must pass both parts in a single testing session to achieve certification.

### **Estimated Preparation Time Required**

- 15 days (including training, documentation review and practice)

### **Recommended Training Courses**

- Service and Support Management – Enterprise Edition (5 days)

### **Recommended User Guides**

- Service/Support Management (A and B)

## Sample Questions

- What 2 fields did you have to set in order to create a call with 2 lines and with a unique fault code on each line?
  - Multiple Skills and Fault Codes in Call Maintenance
  - Multi Items and Multiple Skills in Call Management Control
  - Multi Items and Fault Codes in Call Maintenance
  - Fault Codes and Multi Lines in Call Management Control
- The purpose of simulation on the FSS Gantt Chart Scheduling tab is to see which of the following?
  - The engineers that can respond to the selected call in an appropriate amount of time
  - All visits for a call
  - All visits for an engineer
  - Overlapping visits
- A service engineer has recommended that a particular item has its preventative maintenance schedule modified so that scheduled maintenance is performed once every six months, rather than once a year. In what function would this change be performed in?
  - Installed Base Item Maintenance
  - Service Call Item Maintenance
  - Item Master Maintenance
  - None of the above

## Product Modules Covered

This test includes all of the Service & Support product suite modules, functions, and activities that pertain to managing service operations.

You should understand the following modules:

- QAD Service and Support Management (SSM)
- QAD Field Service Scheduler (FSS)
- QAD Mobile Field Service (MFS)

Detailed topics for each product module are listed in the sections that follow.

## **QAD Service and Support Management (SSM)**

This topic covers set up and implementation of QAD Service and Support Management (SSM) functionality as part of QAD Enterprise Applications Enterprise Edition.

### **Call/Repair Service Order Management**

This area covers knowledge of the core maintenance programs used in QAD Service and Support Management (SSM) module - when they are used, how they are used.

#### **You should know and understand the following:**

- Call Quotes - How to use call quotes functionality, expiration dates, pricing, and how does it translate into calls and call activity.
- Call Maintenance - How does the set up relates with call maintenance, interaction with
- ISB, process mapping, Call Queue, Status, Serv Type, Engineer.
- Call Generator - Types of Calls, situations, sources of Calls.
- Call Scheduling - How to schedule calls within SSM without using Field Service Scheduler (FSS), methods, weighted algorithm.
- RMA Maintenance - How to use RMAs, accounting and default Location settings.
- RTS Maintenance - How to use RTS functionality, similarities and differences between
- PO Return and RTS, inventory issue vs. transfer.
- Depot Order Maintenance - High level understanding of Depot Repair business process, how to manage depot orders, including creation, receiving/replacement of items to be repaired.

### **Service/Repair Activity**

This area covers knowledge of how the actual service-related activity is reported and tracked.

#### **You should know and understand the following:**

- Call Activity Recording - How to record activity related with a call.
- Call Invoice Recording - How to create invoice for a call, and set up related with data used for invoicing
- Call Parts Recording - Understanding the process related with parts used for a call and how to record parts.
- Call Labor Recording - Understanding the process related with labor used for a call and how to record labor.

- Parts List - Understanding the process related with creating/modifying parts list for a call.
- Material Orders - Understanding the process related with material requests and transfers as part of service operations.
- RMA Returns - How to process returns related with RMAs and its impact within the system.
- Installed Base - Understanding of Installed Base data and its impact within the system in addition to being able to understand/perform following service activities:
  - Installed Base Item Move
  - Installed Item Maintenance
  - Tracking ISB
  - Preventative Maintenance

### **Warranties/Contracts**

This area covers knowledge of the impact of warranties and contracts throughout the service operations.

#### **You should know and understand the following:**

- How to set up and update warranties, understand the impact of different
- Warranty Types.
- Contracts: How to set up and update contracts; understand the impact and usage of Contract Types, Contract Quotes, Contract Maintenance, Contract Renewal, Contract Billing.

### **Setup**

This area covers knowledge of the setup elements required for Service and Support Management (SSM) module to run effectively.

#### **You should know and understand the following:**

- Service Items
- Service Structures (Repair BOMs, etc.)
- Service Routings
- Service Accounts
- Service Pricing
- Work Codes
- End Users
- Engineers

- Engineer Schedules
- Areas
- Call Status
- Call Queues
- Control Files (Call Management, End User Control, Service Management Control)

## **QAD Field Service Scheduler (FSS)**

This topic covers knowledge related with the high level setup of QAD Field Service Scheduler (FSS) as well as the functions it performs and its interaction with rest of the Service & Support product suite.

### **You should know and understand the following:**

- Impact of user preferences and high level configurability related to QAD Field Service Scheduler (FSS) functionality.
- How the simulation functionality works within QAD Field Service Scheduler (FSS) and how is it used.
- Scheduler (FSS) and how is it used.
- How to schedule calls using QAD Field Service Scheduler (FSS)
- How to create/maintain visits using QAD Field Service Scheduler (FSS)

## **QAD Mobile Field Service (MFS)**

This topic covers knowledge related with data/setup and functionality related to QAD Mobile Field Service (MFS) and its interaction with rest of the Service & Support product suite.

### **You should know and understand the following:**

- How does the synchronization capability within QAD Mobile Field Service (MFS) impact the rest of Service and Support product suite and data/defaults related with synchronization.
- How does the Engineer Activity Recording functionality work, impact of data set up related with this functionality and understanding of relationship with rest of Service and Support product suite.
- How does the Field Service Report functionality work, impact of data set up related with this functionality and understanding of relationship with rest of Service & Support product suite.



## **Enterprise Asset Management (EAM)**

### **Introduction**

This section of the study guide is designed to assist you in preparing for the QAD Product Knowledge Specialization exam on Enterprise Asset Management (EAM). It aims to provide an outline of test topics for EAM including high level general knowledge and detailed knowledge of Maintenance, Inventory, Purchasing, and Project Accounting.

### **Exam Format**

The EAM exam is delivered in one three-hour session. The exam does not currently require hands-on interaction with QAD Enterprise Applications, but the next version of the exam will include that requirement.

### **Estimated Preparation Time Required**

- 15 days (including training, documentation review and practice)

### **Recommended Training Courses**

- Enterprise Asset Management (5 days)

### **Recommended User Guides**

- Enterprise Asset Management User Guide

## Sample Questions

- Which best describes Plant Operations highest responsibility?
  - Is to insure all MRO inventory is readily available to insure maintenance can be performed on equipment.
  - Is responsible for all maintenance related activities such as routine maintenance
  - Is responsible for a manufacturers most critical assets, its production equipment
  - Is responsible for a manufacturer's most critical asset, its highest volume producing equipment.
- Which work orders can have status Planned set as active?
  - PM Type work orders
  - CM Type work orders
  - CM and PM Type Work orders
  - PM and SR Type work orders
- When creating a requisition, if you select an Equipment Number, WO Number, or Project Number, what happens?
  - EAM activates Auto-Issue, and EAM fills in the accounting associated to the record.
  - Nothing
  - EAM selects Auto-Issue and requires the user to enter the accounting information
  - EAM navigates to the maintenance screen for the associated areas and puts the system in modify mode

## Product Modules Covered

This test includes all of the Supply Chain modules.

### You should study the following:

- Purchasing
- Supplier Performance
- Warehousing
- Release Management
- Consignment Inventory
- Supply Visualization
- Supply Chain Planning
- Transportation Management (TMS)
- Data Synchronization Interface

- Demand Management
- Transportation Management

Modules have been subdivided into five major topics for you to study:

- General
- Maintenance
- Inventory
- Purchasing
- Project Accounting (formerly Project Controls)

The sections that follow present each of these topic areas in detail.

## **General**

This section concentrates on the general knowledge you need to understand the EAM interface and business purpose.

### **You should know and understand the following:**

- Navigation:
  - Menus
  - Browsers
  - Check boxes (v12) and switches (v11x)
  - User assistance options
- Security:
  - Levels
  - Groups
  - Where to set
- Implementation:
  - Environments (Windows, UNIX, etc)
  - Data loads
  - Sequencing
  - Mail setup
  - Accounting structures
  - Batch Job Scheduler

## **Maintenance**

This section concentrates on the knowledge you need to understand the EAM Maintenance module.

### **You should know and understand the following modules:**

- Equipment
- PM Templates
- Work Orders
- Service Requests
- Labor History
- Codes

## **Inventory**

This section concentrates on the knowledge you need to understand the EAM Inventory module.

### **You should know and understand the following modules:**

- Inventory
- Physical inventory
- Stock replenishment
- Stores requisition lists
- Rebuild locations
- UOM conversion
- Codes

## Purchasing

This section concentrates on the knowledge you need to understand the EAM Purchasing module.

**You should know and understand the following modules:**

- Purchase orders
- Requisitions
- Routing substitutions
- Vendor
- Standard clauses
- Currency
- Approval groups
- Codes

## Project Accounting

This section concentrates on the knowledge you need to understand the Project Accounting module.

**You should know and understand the following:**

- Projects
- Jobs



## Technical Foundations

There are architecture and technology topics common to all technical certification exams. The topics that follow will be addressed in every technical PKS exam and should be mastered before any technical exam is attempted.

### Recommended Training

The following training is available only as online elearning:

- Introduction to Georgia Softworks Telnet Server for QAD Enterprise Edition (30 min.)
- Introduction to Java and Tomcat for QAD Enterprise Edition (30 min.)
- Introduction to QAD Interoperability (EDI eCommerce) – QAD Enterprise Edition (30 min.)
- Introduction to QAD Interoperability (QXtend) – QAD Enterprise Edition (30 min.)
- Introduction to Supported Operating Systems – QAD Enterprise Edition (30 min.)
- Introduction to the QAD .NET UI – QAD Enterprise Edition (30 min.)
- QAD Application Architecture – QAD Enterprise Edition (30 min.)

### Recommended Reading

- AIX - IBM Certification Study Guide  
<http://www.redbooks.ibm.com/abstracts/sg247199.html>
- HP-UX - Routine Management Tasks  
<http://docs.hp.com/en/5992-4616/index.html>
- Solaris - Basic Administration  
<http://docs.sun.com/app/docs/doc/817-1985>
- Linux - The Linux System Administrator's Guide from the Linux Documentation Project  
<http://tldp.org/LDP/sag/html/index.html>

## Sample Questions

- Java memory is managed in:
  - Ages
  - Collectors
  - Generations
  - Objects
- What are the three main layers of QAD product architecture?
  - User interface, services and integration
  - Client, data access and database
  - Presentation, business services and data access
  - Presentation, integration and data access
- What is the difference between proserve and \_mprosrv?
  - Nothing
  - proserve is a Java aware version of \_mprosrv
  - proserve is a Windows version of \_mprosrv
  - proserve is a SQL Broker for \_mprosrv

## Topics Covered

The sections that follow identify the topics you are expected to understand.

### Progress Open Edge

This section concentrates on the knowledge you need to understand the architecture and entry level usage of Progress Open Edge, including basic database administration.

### Platform Support, including a high level knowledge of

- Hardware
- Operating systems
- Databases
- Versions etc.
- Basic installation and configuration

### Progress OpenEdge Suite including

- Webspeed
- Basic Appserver Administration

- High Level understanding of QAD Service Interface and AppServers

### **Entry Level Database administration, including**

- Startup
- Shutdown
- Progress Explorer
- Creating and Copying databases
- Backup and recovery
- Dump and reload
- Storage areas

### **Java and Tomcat**

This section concentrates on the knowledge you need to understand the architecture both Java and Tomcat.

#### **You should know and understand the following:**

- A high level understanding of Java
- A high level understanding of Tomcat
- The relationship between QAD software and Java
- A high level understanding of Tomcat and QAD webapp architecture
- A high level understanding of Tomcat and QAD webapps administration

#### **You should have the following additional requirements:**

- Basic Unix and Windows Administration Skills

### **MS.NET Framework**

This section concentrates on the knowledge you need to understand the architecture and purpose of the Microsoft .Net Framework.

#### **You should know and understand the following:**

- A basic understanding of the architecture of the .Net framework

#### **You should have the following additional requirements:**

- Ability to access the .Net framework through the use of a standard Integrated development environment

## **Georgia Softworks - Telnet Server**

This section concentrates on the knowledge you need to understand the architecture and purpose of the Georgia Softworks - Telnet Server.

### **You should know and understand the following:**

- A basic understanding of the architecture of the Georgia Softworks - Telnet Server

## **Operating Systems**

This section concentrates on the knowledge you need to understand an entry level overview of operating systems.

### **You should know and understand the following:**

- A basic understanding of Operating Systems including simple navigation and file permissions.

## **Architectural Overview**

This section concentrates on the knowledge you need to deploy Progress OE Appserver for use with QAD Applications.

### **You should know and understand the following:**

- A basic understanding of the architecture and how the previously mentioned technologies are used by the following core QAD Products:
  - Appshell
  - QAD Applications Enterprise Edition Installation and Conversion
  - QXtend
  - EDI

# Enterprise Edition Technical Implementation

## Introduction

This section of the study guide is designed to assist you in preparing for the Enterprise Edition Implementation exam. This is one of two technical certification exams.

This exam is intended for technical staff, particularly technical installers, technical consultants, systems administrators and database administrators

## Exam Format

The Implementation exam is delivered in one three-hour session and does not require hands-on interaction with QAD Enterprise Applications.

## Estimated Preparation Time Required

- 13-14 days (including training, documentation review and practice)

## Recommended Training Courses

The technical courses listed below are available as instructor-led training only. It is strongly recommended that you complete these courses before attempting the Enterprise Edition Implementation exam.

- Installation and Administration (5 days)
- Database Conversion (3 days)

## Recommended User Guides

- Installation Guide for Progress Database
- Conversion Guide for Progress Database

## Sample Questions

- How would you repair corrupt database index blocks most efficiently?
  - Restore from backup
  - Dump and reload
  - Proutil dbrpr
  - Index rebuild
- During conversion execution, conversion status information is written to which log file?
  - qdtadmin.log
  - convert.log
  - qdt.log
  - install.log
- Why is it necessary to run the Sales Order Balance Update in the post-conversion stage?
  - To ensure the customer's balance is correct when a credit check is performed.
  - To make sure the order quantities are still accurate.
  - To recalculate any freight charges on the open orders.
  - For audit purposes, to verify the accuracy of the conversion.

## Topics Covered

The Enterprise Edition Implementation exam requires a thorough understanding of the following topics:

- Foundation Architecture and Technologies
- Installation
- Database Conversion
- Administration and Configuration
- Security, Reporting and Daemons
- Validation and Troubleshooting

## Installation and Administration

This section concentrates on the knowledge you need to install and administer QAD Enterprise Applications (Enterprise Edition).

**You should be able to:**

- Understand how to manage and maintain the Progress OpenEdge databases used with QAD Enterprise Edition
- Implement a backup strategy
- Tune databases for performance and stability
- Understand and use the QAD Deployment Tool
- Validate that a QAD Enterprise Edition Installation was successful
- Troubleshoot and perform diagnostics on all technical aspects of the QAD Enterprise Edition Reference Architecture
- Install QAD Software Patches
- Understand the QAD Applications Security Model
- Understand and Configure QAD Enterprise Edition Reporting
- Understand and Configure the QAD Enterprise Edition Daemons

**Database Conversion**

You are expected to have a practical understanding of the conversion process and the activities that occur before, during and after conversion.



## **Enterprise Edition Customization**

### **Introduction**

This section of the study guide is designed to assist you in preparing for the Enterprise Edition Customization exam. This is one of two technical certification exams.

This exam is intended for technical staff, particularly technical installers, technical consultants, systems administrators and database administrators

### **Exam Format**

The Implementation exam is delivered in one three-hour session and does not require hands-on interaction with QAD Enterprise Applications.

### **Estimated Preparation Time Required**

- 16 days (including training, documentation review and practice)

### **Recommended Training Courses**

The technical courses listed below are available as instructor-led training only.

- QXtend Fundamentals Training Course (4 days)
- Customization (5 days)

### **Recommended Reading**

- Data Loading Instructions

## Sample Questions

- Browse Table Joins let you create a join between two database tables. Which of the following statements is correct?
  - Fields in a join can be of differing datatypes.
  - An inner join returns the records selected for the first table only.
  - An outer join returns the records found by an inner join only.
  - An outer join returns the records found by an inner join, and also unknown values from the second table when no related record is found.
- If the QXtend Outbound UI were to return an error stating that it could not find the AppServer, which file would you check to determine the name of the AppServer it is looking for?
  - <QXO Server>/scripts/start-sess.sh
  - <QXO Server>/scripts/start-sess.pf
  - \$DLC/properties/ubroker.properties
  - <QXO Web App>/WEB-INF/conf/environmentmanager.xml
- What do you need to install or configure to activate the non-intrusive customization?
  - No install, only a change in the financials appserver propath, and the creation of a folder named customcode. The application will automatically pick up the custom code.
  - Install of the QAD customization controller, make a change in the financials appserver propath, and create a folder named customcode. The newly installed customization controller will pick up the custom code.
  - Use the system monitor to configure the customization controller. By adding specific 4GL programs (.p) associated for financials menu entries the code in these 4GL programs will automatically be executed.
  - Change the propath in the financials appserver to include a folder that contains a subfolder named customcode. The customization controller needs to be configured by entering the components that are customized in the central server.xml file on the server.

## Topics Covered

### Customization of Component-Based QAD Applications:

This section covers back-end and UI front-end non-intrusive customization of QAD component-based applications and requires an understanding of

- The architecture and its relevance for customization
- Configuring your system for NI customization
- Typical customization cases
- Customization tools
- Customizing reports

### Customization using QAD Applications Features and Functions,

This section of the exam covers the .NET UI application features that can be used by non-developers to customize both component-based and non-component based applications. It includes:

- UI design mode in financials screens
- Configurable screens
- User-defined fields
- Browse features
- Browse maintenance
- Saving browse settings
- Operational metrics
- Process maps
- Menu system maintenance
- Configuration of the UI client

### Impact of QAD Enterprise Applications-EE on Development

#### QXtend

#### Integrated Customization Toolkit (ICT)