



Training Guide
**QAD Enterprise Asset
Management**

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EAM v12
October 2010

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Chapter 1

Introduction to Enterprise Asset Management Training

Why EAM Certification is Important



Why EAM Certification is Important

▲ Business Benefits

- Increased Lead Generation
- Increased Revenue (Pre-Sales, Sales and Services)
- Improved Customer Satisfaction with Implementations
- Ability to Scale as Markets Expand
- Integration with New Sales Processes
 - QScan
 - Visions

▲ Your Benefits

- Better Understanding of Customer Business
- Improved Confidence and Competence in Domain and Product Knowledge
- More Effective Module Positioning

What is EAM Level 1 Certification?



What is EAM Level 1 Certification?

- ▲ Systematic Development of Resources from Entry Level to Intermediate to Expert
 - By Product
 - With Appropriate Roles & Responsibility Definitions at Each of Three Levels
 - With Continuous Improvement Plan after Certification



What is EAM Level 1 Certification? (cont.)

▲ Cumulative Courses

- Product Introduction - Sales / Product Positioning
- Level 1 Certification – Intermediate
 - Basic Product and Domain Space Training
 - Prepares Pre-Sales, Services, and Support to begin working with the Product in customer-facing capacity (with access to Mentors)
- Level 2 Certification – Expert
 - Advanced Product and Domain Training
 - Role Specific (i.e. Services includes Implementation Methodology)
 - Results in an expert resource capable of solo engagement

▲ Separate Technical Services Course

What does Level 1 Certification Mean?



What does Level 1 Certification Mean?

- ▲ Upon Completion of your EAM Level 1 Certification you will
 - Understand the EAM business space
 - Be able to utilize all modules of EAM
 - Be able to interface with customers regarding EAM
 - Have access to EAM Subject Matter Experts (SME's) to mentor you as you gain experience with EAM
 - Support Resources will be able to address T1 and T2 issues with some assistance from a SME
 - Services Resources will be able to be primary resources on EAM Implementations working alongside a Mentor
 - Pre-Sales Resources will be able to provide customer-specific EAM demonstrations with support from a Mentor

What is Level 2 Certification, then?



What is Level 2 Certification, then?

- ▲ Level 2 Certification is:
 - More role specific (Support, Pre-Sales, and Services)
 - “Expert” level certification in both software and being a solution architect
- ▲ Upon completion of Level 2 you will
 - Be fully certified to lead EAM Implementations solo
 - Be fully certified to Support EAM solo
 - Be fully certified to position and demonstrate EAM solo

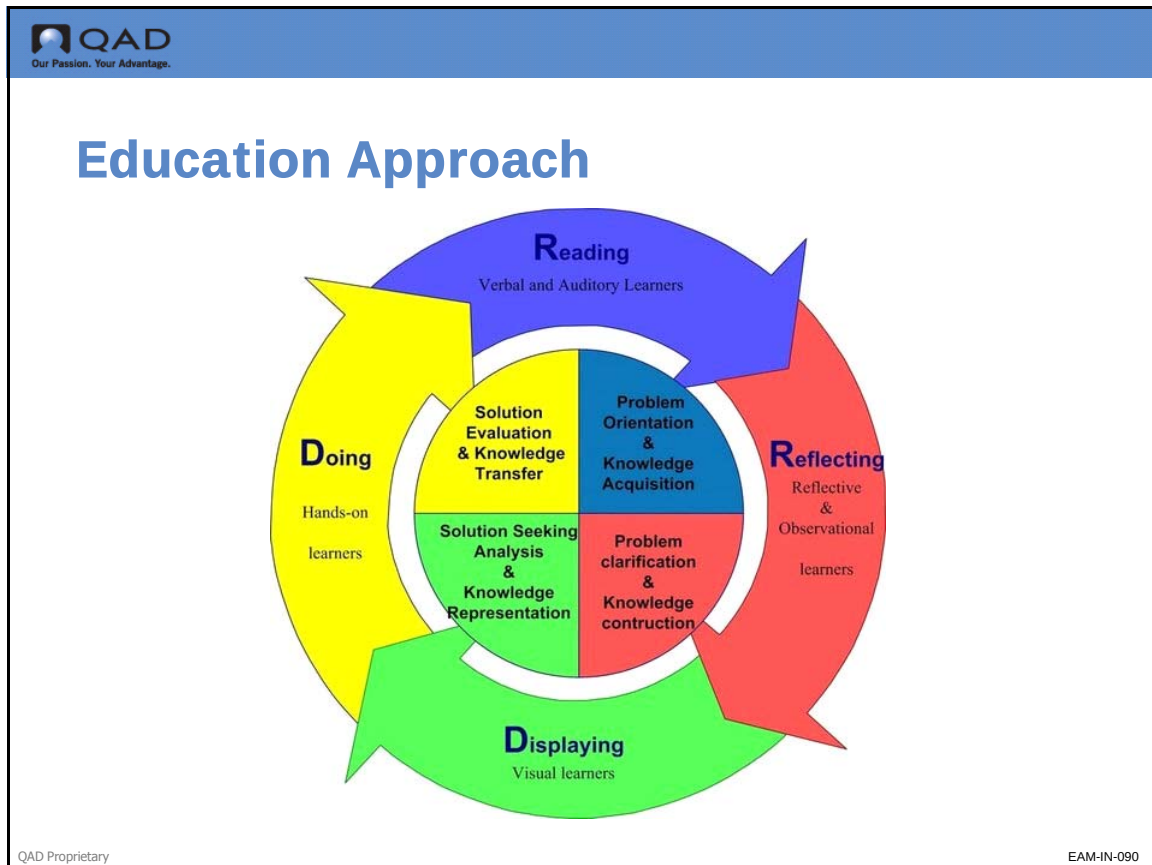
EAM Level 1 Certification Approach



EAM Level 1 Certification Approach

- ▲ Designed for
 - Pre-Sales
 - Services
 - Support
- ▲ Focused on Different Learning Styles
- ▲ Portable, Self-Study Where Appropriate
- ▲ Provides Experiential Learning
 - Education vs Training
 - Role Specific
 - On-Going Career Development

Education Approach



Course Content



Course Content

- ▲ Preparatory Reading and/or QBits
- ▲ Pre-Training Tests
- ▲ Domain Fundamentals
- ▲ Application Fundamentals
- ▲ Progressive Case Studies / Exercises
- ▲ Planning / Goals for Post-Training Follow-Up
- ▲ Blackbelt-Style Certification for Level

EAM Level 1 Learning Path



EAM Level 1 Learning Path

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:							
PREREQUISITE: EAM Introduction Level Exam Completion		66 hours	Pre-Sales, Support, Services, Customers				
1-1 EAM Level 1 Training Introduction	Q-Bit	n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List: Terry Wireman "World Class Maintenance"	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2 Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40	6	
			Self-Study to Classroom Percentage:	40%	60%		

Note: Level 1 Content assumes you have completed the Intro Level Course!

EAM Level 1 Certification Tracking



EAM Level 1 Certification Tracking

- ▲ Learning Central for progress tracking
- ▲ Your supervisor will assign you the EAM Level 1 Certification Training Path
- ▲ Contains Reading tasks which will require SME Center Sign-Off

Chapter 2

Overview of Enterprise Asset Management

EAM Level 1 Learning Path

 EAM Level 1 Learning Path							
EAM Certification Levels Content							
Certification Levels - Elements	Format	Duration	Target Audience	EAM Training Hours		ERP Train	Role Based
				Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:							
PREREQUISITE: EAM Introduction Level Exam Completion		66 hours	Pre-Sales, Support, Services, Customers				
1-1 EAM Level 1 Training Introduction	Q-Bit	n/a					
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	15 minutes		0.25			
1-2 EAM Overview	On-Line Class	6 hours					6
EAM Reading List: Terry Wireman "World Class Maintenance"	On-Line Class	1 hour		1			
1-3 EAM UI Introduction	Reading	1 day		8			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2 Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40	6	
			Self-Study to Classroom Percentage:	40%	60%		

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Class "1-1 EAM Level 1 Training Introduction"
3. Approximately 6 hours of Required QAD ERP On-Line Classes

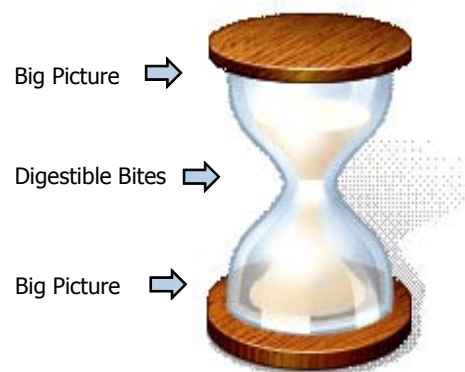
Course Overview



Course Overview

- ▲ Course Objectives and Benefits
- ▲ Business Space
- ▲ System Overview
- ▲ Configuration
- ▲ Modules
- ▲ Integration Points
- ▲ Technical and Support
- ▲ Next Steps in Learning Path

Think in terms of an Hourglass



Course Objectives and Benefits



Course Objectives and Benefits

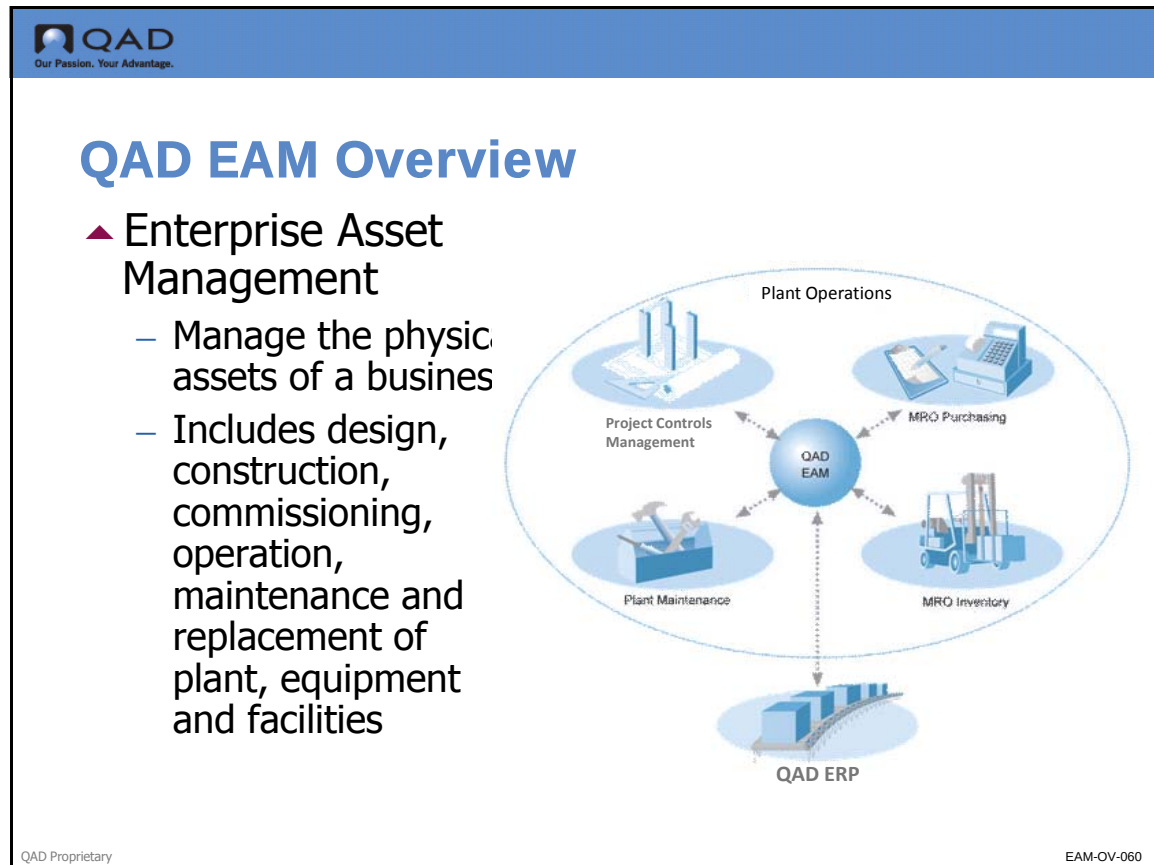
▲ Objectives:

- Understand what QAD EAM does
- Understand where EAM fits in Business
- Obtain High-Level Understanding of EAM Major Modules and Functionality

▲ Benefits:

- An understanding of EAM to prepare you for more in-depth training.
- A familiarity with the EAM business space in order to position more effectively the product as a solution.
- An understanding of the high-level functions of EAM
- Preparation to take the next steps in the EAM Level 1 Learning Path towards Certification.

QAD EAM Overview



The EAM Solutions Guide at www.qad.com is a great source for information about EAM benefits to a manufacturer.

The QAD EAM suite of applications maximizes manufacturing equipment use and minimizes repair costs. Lifecycle management includes design, construction, commissioning, operation, maintenance and replacement of plant, equipment, and facilities. QAD EAM provides supply chain management solutions for project controls, plant maintenance, and maintenance, repair, and operation (MRO) including inventory and purchasing.

QAD EAM is fully integrated with the Manufacturing and Financial modules in the QAD ERP application. In current release, the integration points are handled by either Qxtend, API's, or the Batch Job Scheduler (BJS).

Business Space



Our Passion. Your Advantage.

Business Space

- ▲ What you should already know from pre-requisite classes:
 - EAM: Enterprise Asset Management
 - Qualifying Questions (“Why Use EAM?”)
 - Increase service life
 - Maximize equipment utilization
 - Control labor costs in your plant or factory floor
 - Control inventory costs
 - Operations HIGHEST CALLING: Keep the plant producing and selling product!
 - Which means carefully maintaining the most valuable assets: Production Equipment
- ▲ Primary Measure in EAM – Cost of Ownership

QAD ProprietaryEAM-OV-070

Improved preventive maintenance programs, coupled with an increase in planned corrective maintenance work, increases the life expectancy of equipment.

Equipment downtime directly contributes to lost production, missed shipment dates and increased cost. Through comprehensive preventive maintenance programs, as well as increased positive control of corrective maintenance, operations will improve, resulting in less equipment downtime.

The largest component of fixed maintenance cost is salaries. Maintenance personnel spend on average over 35% of their time on non-productive tasks.

All manufacturing companies are driven by one highest call: Produce and Sell. To achieve this, EAM supports operations in maintaining and continuously improving the reliability of all assets, particularly the most valuable ones: Production Equipment.

QAD EAM Overview – Modules



Our Passion. Your Advantage.

QAD EAM Overview – Modules

- ▲ Maintenance
 - Equipment Efficiency
 - Plant Reliability
- ▲ Inventory
 - Right Size MRO/Indirect Inventory
 - The right parts when you need them
- ▲ Purchasing
 - Control MRO/Indirect Spend
 - Comply with Corporate Financial Manual Approvals
- ▲ Project Controls
 - Manage Project Spend
 - Track True Acquisition Cost of Assets

QAD Proprietary EAM-OV-080

As we continue through this class, it is important to always keep in mind that EAM has four major modules, or areas of operation, as well as keeping in mind how each area contributes to a facility's overall reliability, lean initiatives, and cost controls. Understanding the value proposition for each area and how they work together will assist you in designing the proper solution for any business need around EAM.

User Interface

QAD
Our Passion. Your Advantage.

User Interface

- ▲ EAM v12 is .NET UI
- ▲ Uses QAD's AppShell for same look and feel as QAD 2009 .NET
- ▲ Common elements:
 - Process Maps
 - Favorites
 - Configurable Screens
 - Browsers
- ▲ User Interface covered in more detail further in the "1-3 EAM User Interface" on-line class

QAD Proprietary
EAM-OV-100

The QAD .NET UI offers both online help (available Summer 2010) and a dedicated user guide, available from QAD support online.

Note EAM v12 uses QAD's AppShell for the same look and feel as QAD 2009 and beyond, such as with the Favorites and the Process Maps.

EAM Configuration

QAD
Our Passion. Your Advantage.

EAM Configuration

- ▲ Key Elements:
 - Domains, Entities and Sites
 - Role Based Security
 - Separate Users / Licenses than QAD ERP
 - System and Site Level Control Settings
 - Mandatory Fields
 - Master Data
 - ERP and EAM Shared Data
 - Electronic Authorizations
 - EAM Mail
 - ERP and EAM Integration Points
- ▲ ERP is “System of Record” for shared data
- ▲ EAM Configuration covered in more detail in the “1-4 EAM Configuration” on-line class

QAD Proprietary
EAM-OV-110

EAM is a highly configurable product with many system control points and setup options. Understanding the ways in which EAM can be configured is important to designing, implementing, and supporting a viable solution based upon business requirements.

This section provides a high-level introduction to basic EAM Configuration. Level 2 training will provide a much more detailed study of EAM Configuration, as well as guidance for using these controls for business solution design.

Electronic Authorizations



Electronic Authorizations

- ▲ EAM allows for on-line, electronic record routing and approvals
- ▲ Types of Approvals Available:
 - Work Order Authorization
 - Service Request Authorization
 - Purchase Request Authorization
 - Purchase Order Authorization
 - Project Authorization
 - Stores Requisition Authorization
- ▲ Approvals are driven by EAM Mail
- ▲ Separate Approval Groups for each type of Approvals
- ▲ NEW: Horizontal and Vertical Approvals

EAM Mail System



EAM Mail System

- ▲ EAM Mail is internal system used to:
 - Electronic Authorization
 - Notifications and Alerts
 - Spending Limits Reached
 - Warning Limits Reached
 - Warranty Expire
 - Inventory Stock-Out
- ▲ May be integrated into Corporate Mail System
- ▲ COMING SOON: Portable device electronic approvals

Plant Maintenance Overview



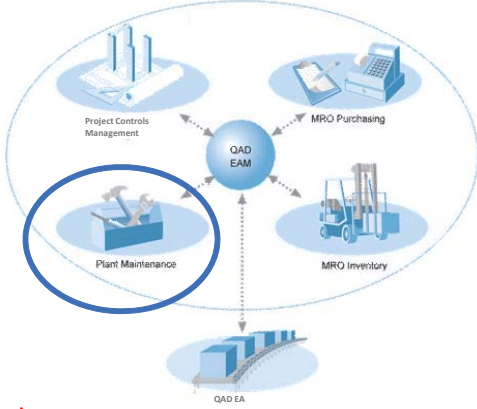
Plant Maintenance Overview

▲ Maximize manufacturing equipment utilization and minimize repair costs.

- Schedule and track preventive and predictive maintenance to optimize equipment utilization.
- Record and plan corrective work
- Prioritize repair work
- Manage repair costs
- Track repair history

Maintenance Module Roles:

- Maintenance Manager
- Reliability Manager
- Planner (Planner = yes)
- Scheduler
- Technicians (Assigned = yes)
- Anyone requesting service from Maintenance – everyone!



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EAM-OV-150

Use Maintenance to drive the work order process for maintenance and repair operations. This application includes all Preventive/Predictive maintenance (PM/PdM), plus planned and unplanned work to keep equipment operating at capacity.

Every business has supporting facilities and equipment (assets), whether they are making cars, building planes, creating software, or providing education. If these assets are not well maintained and managed, the efficiency of the business suffers. Use EAM to establish equipment records and hierarchies, to create work orders from service requests and preventative maintenance. With it, track the total cost of labor, materials (internal and external), and subcontractor services.

Maintenance Operations:

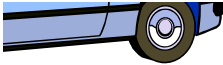
- Keeps production equipment running
- Keeps production equipment running efficiently
- Ensures that equipment produces quality product

The basic building block of the maintenance operation is the EQUIPMENT RECORD. More information available in UG and TG.

Maintenance – A Personal Example!



Maintenance – A Personal Example!



“Old Faithful” – your family car
How do you keep her running?
(reliability is your goal!)

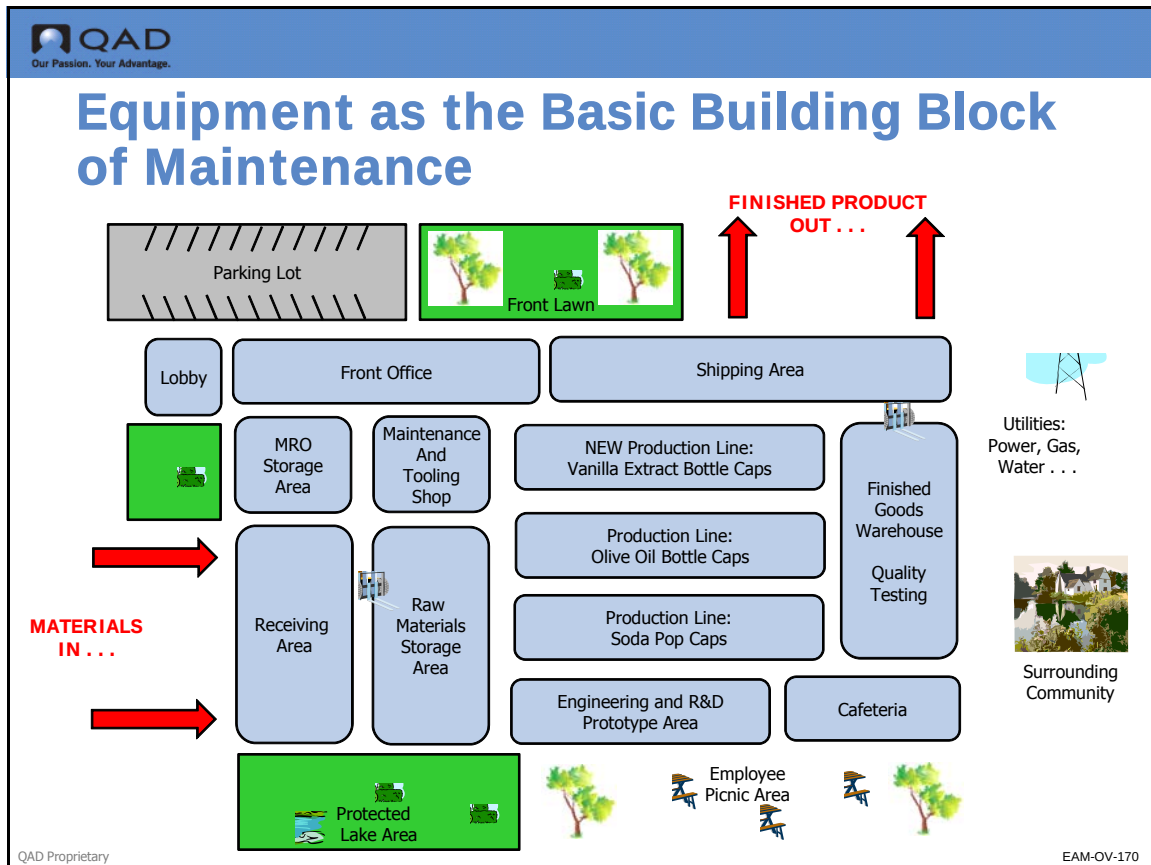
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EAM-OV-160

How do you insure that Old Faithful is ready when you need her?

- Preventive Maintenance
 - Change the oil every 3 months or 3000 miles (Calendar / DUOM PM)
 - Car Wash (following heavy snow, salt EVENT)
 - Fill air in Tires (based on pressure gauge reading compared with min/max requirements from OEM)
- Corrective Maintenance
 - Flat Tire?
 - Battery dead?
 - Won't start?
- Maintenance Scheduling
 - When will the car be available for an oil change? (Scheduled outage)
 - What if car breaks down? (Unscheduled outage)
- Inventory
 - Spare Tire (Stock item)
 - Windshield Wiper Blades (Non-Stock, but need to know part #)
 - Air Filters (Non-stock, but need to know part #)

- CD burned with music designed to put the kids to sleep (internally fabricated part!)
- Insurance (virtual part)
- Purchasing
 - Stock Parts
 - Non-Stock Parts
 - Fuzzy Dice to hang from rear-view mirror (definitely a spot buy!)
 - Car Wash – service
- When you need repairs or work – do you call your mechanic for an appointment and describe the problem? (Service Request)
- What is your cost of ownership? Just your monthly payments and insurance?

Equipment as the Basic Building Block of Maintenance



Important Things to Know



Important Things to Know

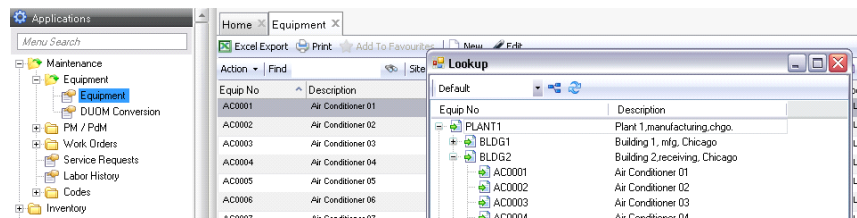
- ▲ Equipment Records as the Key Record of Maintenance
- ▲ Key Elements of EAM Work Orders
- ▲ Types of Maintenance (Preventive vs Corrective)
- ▲ Other Special Types of Work Orders

Equipment Overview



Equipment Overview

- ▲ Equipment ID Key Foundational Record in Maintenance
- ▲ “Cost of Ownership” Tracking
 - Material (Internal and External)
 - Labor (Internal and External)
- ▲ Represents anything for which work can be scheduled and costs collected (even “virtual”)
- ▲ Parent / Child Relationship for Roll-Up of Costs



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EAM-OV-190

Use Equipment to store and track the following information: cost analysis, failure analysis, bill of materials (BOM), driving units of measurement (DUOM), serialized components, tracking, and service requests. Track regularly scheduled work and breakdowns while collecting repair and maintenance cost information for each piece of equipment.

More information available in UG and TG.

Key Elements of EAM Work Orders



Key Elements of EAM Work Orders

- ▲ Work Orders = Key Document from EAM Maintenance
- ▲ Work Orders – linked to Equipment to track work
- ▲ Differs from Production Work Orders
 - EAM Work Orders are not in ERP
 - ERP Work Orders are not in EAM

EAM Work Orders =



Types of Work Orders – PM vs CM



Types of Work Orders – PM vs CM

- ▲ Preventive Maintenance (PM)
 - Regularly scheduled maintenance
 - Calibration, meter readings, lubrication
 - What would be Preventive Maintenance for “Old Faithful” ?
- ▲ Corrective Maintenance (CM)
 - Breakdowns
 - Important to track because
 - Can help refine PM program
 - Can identify root causes such as improper use, quality issues with repair parts, etc.
 - What would be Corrective Maintenance for “Old Faithful”?
- ▲ World Class PM to CM Ratio is 80:20

Other Special Work Orders

- ▲ Fabricated part
- ▲ Serialized part / Rebuilds
- ▲ Product number / Change-Over

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Other Special Work Orders

- ▲ Fabricated part
- ▲ Serialized part / Rebuilds
- ▲ Product number / Change-Over

Applications

Menu Search

- Maintenance
 - Equipment
 - Equipment DUOM Conversion
 - PM / PdM
 - PM Templates
 - Master Lists
 - Work Orders
 - Service Requests
 - Labor History
- Codes
- Inventory
- Purchasing
 - Purchase Orders
 - Requisitions
 - Routing Substitutions
 - Vendor
 - Currency
 - Approval Group
 - Codes
- Finance

Home x Work Orders x Site: US-A-1, WO No: 10010 x

Site: US-A-1 WO No: 10010

Action: [Icons]

Equip: Codes: Text: Detail: User Defined:

Codes

Failure		Repair	
System		Assembly	
As Found		As Left	
Pri Craft		Owner	
Crew	PM	Shift	
Clearance	D	Planned?	☒

Internal

Fabricated?	☐	Stock Run No	0
Source Site		Part No	
Qty to Build	0	Part UOM	
Date Due		Qty Received	0

Rebuild

Rebuild		Cost Center (Rebuild)	
Serialized Part		Acct No (Rebuild)	
Serial No		Sub Acct No (Rebuild)	

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EAM-OV-220

A Fabricated is a part that is not purchased from a supplier but rather is made internally, for example in the plant's machine shop, and put into inventory for use as spare parts. A Fabricated Work Order is generated whenever that inventory needs to be replenished.

Inventory



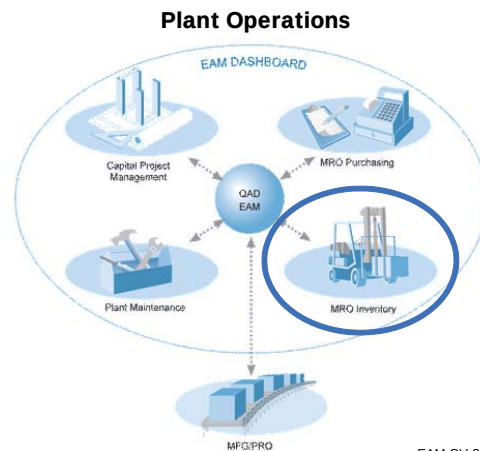
Inventory

▲ **Goal:** Minimize equipment downtime and reduce inventory levels by maintaining the best balance of critical spare parts on hand.

- Automatic stock replenishment
- Track and transfer parts across plants
- Lower inventory investment by leveraging consignment inventory capabilities
- Verify equipment true Cost of Ownership

Inventory Roles:

- Maintenance Manager
- Tool Crib / Stores Attendant
- Buyers / Purchasing
- Technicians
- Employees
- Vendors



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EAM-OV-240

Technicians need replacement parts to maintain facilities and equipment. Store parts in MRO (Maintenance, Repair and Operations) inventory. Use Inventory to manage MRO materials from an enterprise or site level, including stock, reorder, vendor, and financial details. Inventory supports stores requisitions, physical inventories including cycle counting, automated stock replenishment, stock-out tracking, and rebuild or repair activities. EAM connects the cost of inventory to work orders, equipment (uhr) and other documents, and to the ERP financial system.

Inventory – A Personal Example!

Inventory – A Personal Example!



Your kitchen
What do you stock?
When do you replenish?
How do you insure you will have what you
need when you need it?

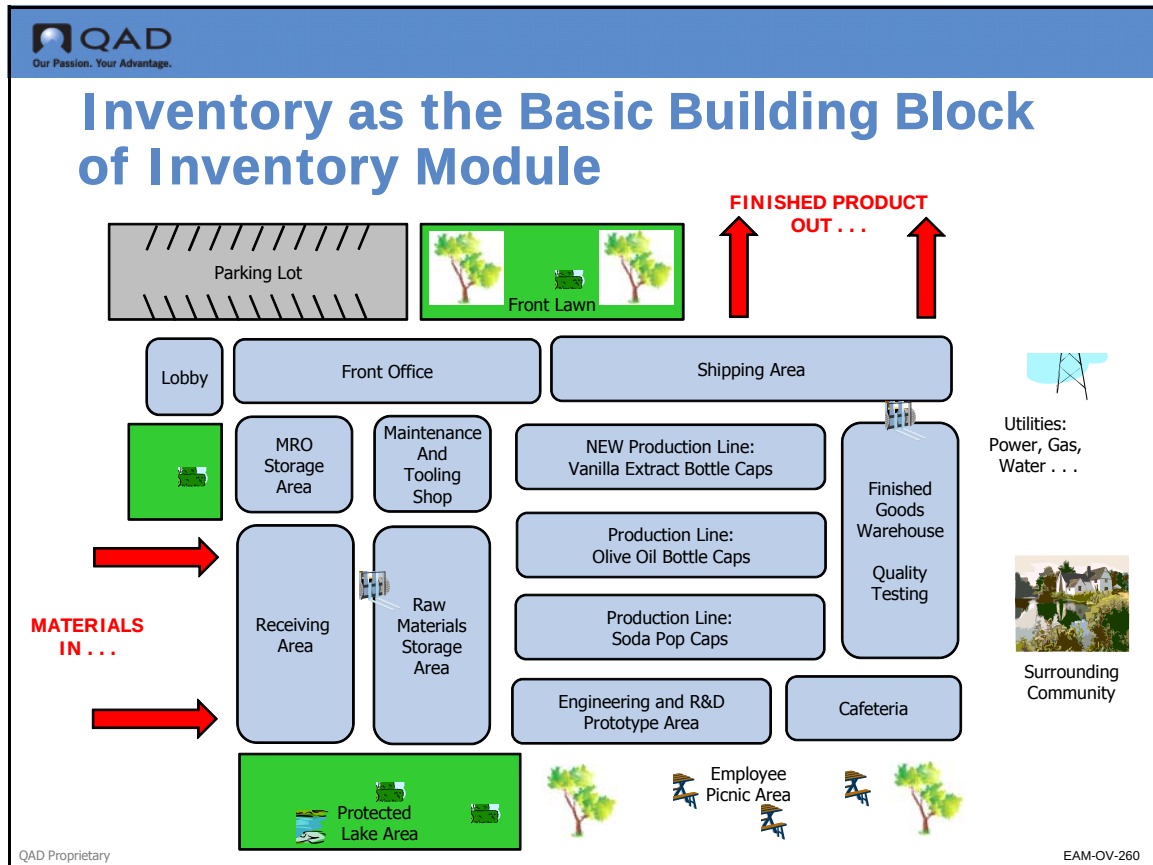
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EAM-OV-250

How do you stock your kitchen and ensure you have what you need when you need it?

- What might you stock?
 - Milk – what about shelf life?
 - Canned foods
- What combines to make a meal? Is this a parts list?
- Critical Spares? (Definitely Toilet Paper)
- Which of your items are single vendor/manufacturer, meaning you will only buy and use one specific kind with no substitutions allowed, regardless of price?
- Which of your items could come from different vendors/manufacturers as long as they meet certain criteria?
- How do you budget?
- What might be a Spot Buy?
- What could be an example of an internally fabricated item and what would you need to make it? What would be the total cost of that item?
- How do you know when it is time to replenish? Do you wait until you need something and don't have it, or are you proactive? Does budget ever determine when you replenish?

Inventory as the Basic Building Block of Inventory Module



Important Things to Know



Important Things to Know

- ▲ Part Number as Foundational Record of Inventory
- ▲ Inventory Transactions
- ▲ Physical Inventory

Key Elements of EAM Part Numbers



Key Elements of EAM Part Numbers

- ▲ Part Number = Key Foundational Record of Inventory
- ▲ EAM's part number
 - NOT in ERP system
 - Company's internal catalog ID
 - Used for stock parts, non-stock parts, and service
 - Location controls for stock parts
 - Multiple methods for identifying parts
- ▲ Terminology:
 - "MRO Inventory" – Maintenance, Repair and Operations
 - "Indirect Inventory"
 - "Non-Production Inventory"

Inventory Transactions



Inventory Transactions

- ▲ These are the transactions you can perform from Inventory:
 - Issue
 - Return to inventory
 - Relocate
 - Receive from relocation
 - Receive from work order
 - Return to work order
 - Adjust
 - Transfer ownership
 - Modify consignment
 - Modify cost

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EAM-OV-290

EAM Inventory Transactions include:

- Issue – Utilized to remove parts from EAM Inventory and expense them to their final expense resting place such as an Equipment Record.
- Return to Inventory – If a technician pulls parts from inventory for work on a machine and does not utilize all the parts, use this function to return those parts to inventory. EAM will require the user to select which Issue transaction is to be reversed.
- Relocate – Used to move parts from one location to another. Can also be used to move parts across sites.
- Receive from Relocation – If a company is using In Transit, a move of inventory between two sites requires this additional step which brings the part into the site's inventory from the interim in-transit location.
- Receive from Work Order – Used for fabricated parts. For example, if the Machine Shop has a Work Order to build 5 new punches to restock the crib, when those parts are ready to be put into inventory, this transaction would be used to receive the parts in from the Work Order at the cost applied to the Work Order (labor, parts, purchases, for example.)
- Return to Work Order – Also for Fabricated Parts. If a fabricated part is found to have a defect after having been received into inventory from the Work Order, use the Return to Work Order transaction to remove the part from inventory and push it back to the Work Order for repair. EAM will require the user to select the particular Receive from Work Order transaction to reverse.

- Adjust – used for spot corrections to inventory counts. In ERP, this transaction generates a cycle-count transaction.
- Transfer Ownership – Applies to consignment inventory only. Consignment inventory parts can have some that are owned by the company and some still belonging to the Supplier (for example, Not yet paid for). This transaction allows these parts to be moved between supplier and company ownership.
- Modify Consignment – Also used for Consignment parts only. Utilize this transaction to modify consignment costs in the stack to correct costing issues.
- Modify Cost – If Inventory Value for a part (non-consignment) is incorrect, utilize this transaction to correct Inventory value of part.

Physical Inventory



Physical Inventory

- ▲ Physical Inventory is a formal inventory counting function, usually associated with an audit process
- ▲ May be created for all inventory or for specific sections of inventory based upon various criteria (Ex: Last Physical Count Date)
- ▲ Freezes all transactions for parts included until the Physical Inventory is closed
- ▲ Provides a printed Count Sheet

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EAM-OV-300

Physical Inventory in EAM is similar in theory to the Physical Inventory in ERP with the following exceptions:

- EAM does not generate labels for Physical Inventory counts.
- EAM does not automatically force Re-Counts based on any tolerances.

Note The transactions generated from this function to ERP are type Phys-Inv.

Also, it is important to note that the term Physical Inventory implies to some companies what would be known as a four-wall count, or a complete wall-to-wall count that requires the plant to be shut-down. With EAM, Physical Inventories can indeed be four-wall counts, but more commonly companies use Physical Inventory to count specific shelves or parts at a time without freezing the entire inventory.

Purchasing Overview

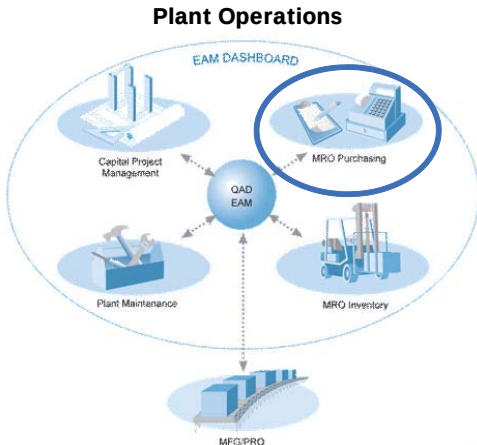


Purchasing Overview

- ▲ **Goal:** Source critical spare parts from approved suppliers as quickly as possible at the lowest possible cost.
 - Accelerate approval cycles via electronic requisition approval
 - Monitor spending against budget
 - Leverage buying power through shared services
 - Evaluate vendors based on delivery performance

Purchasing Roles:

- Requestors
- Buyers
- Approvers
- Receivers
- Accounts Payable
- Vendors



The diagram illustrates the 'Plant Operations' ecosystem. At the center is a blue circle labeled 'QAD EAM'. Surrounding it are five other components, each in a light blue oval: 'Capital Project Management' (top left), 'MRO Purchasing' (top right), 'Plant Maintenance' (bottom left), 'MRO Inventory' (bottom right), and 'MFG/PRO' (bottom center). Arrows indicate bidirectional data flow between 'QAD EAM' and each of these components. A dashed arrow also points from 'MFG/PRO' up to 'QAD EAM'. The entire set of components is enclosed in a larger oval labeled 'EAM DASHBOARD' at the top.

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Create and maintain requisitions, standard clauses, and approval groups, revise vendors, and add routing substitutions. Businesses do not carry every possible replacement part in inventory. EAM provides purchasing functionality to support all indirect supplies. Purchasing includes both services and materials. Additionally, the software includes requisition functionality for creation, approval and conversion of a purchase request into a purchase order (PO). The PO process runs through EAM e-mail. Inventory connects the cost of purchasing to (uhr) work orders and other documents, and to the ERP financial system.

Purchasing – A Personal Example!



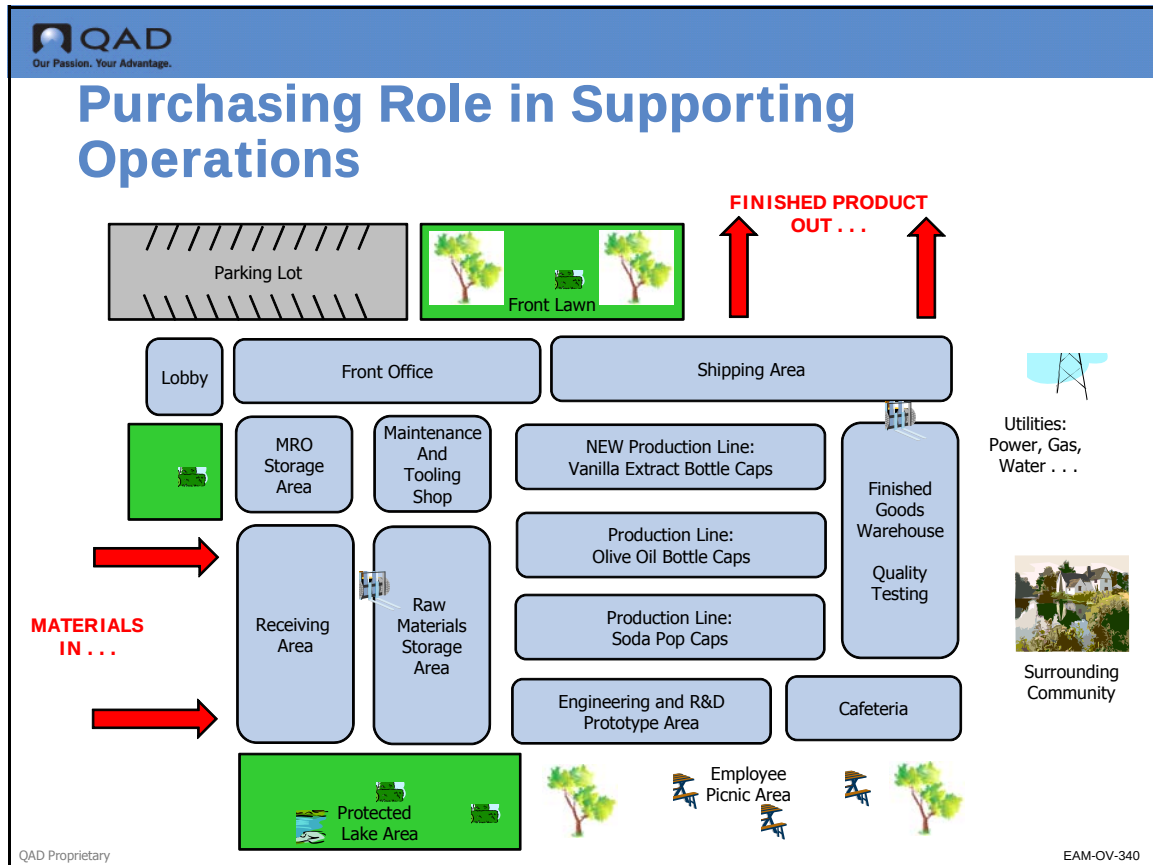
Purchasing – A Personal Example!

Wow!
Look at these Awesome
purple Sequined
knee-high boots
at "Teens-R-Us"!
Can I buy them?
PLEASE?
I Really need them!



Teenager on-line

Purchasing Role in Supporting Operations



Important Things to Know



Important Things to Know

- ▲ Purchasing Key Concepts
 - Requisitions
 - Purchase Orders
- ▲ Stock Replenishment

Purchasing Key Concepts



Purchasing Key Concepts

- ▲ Process starts with a Requisition
 - Standard Clauses
 - File Attachments
- ▲ Vendors (Suppliers) come from ERP System
- ▲ Request for Quote
- ▲ EAM Purchase Orders = Memo PO's in ERP
- ▲ EAM Purchasing Supports
 - Parts Purchases
 - Non-Stock Purchases
 - Consignment Purchases
 - Vendor Managed Inventory Purchases
 - Services Purchases
 - Automated Stock Replenishment



Purchasing Key Concepts (cont.)

- ▲ All EAM Purchases are Expensed on Receipt
- ▲ Receipt sends Receiver to ERP (Accounts Payable Process)
- ▲ EAM Provides Robust Electronic Approval Options
 - Requisition Level – Budgetary
 - Purchase Order Level – “Second” Signature
- ▲ NEW to v12: Horizontal / Vertical Approval

Stock Replenishment



Stock Replenishment

- ▲ Stock Replenishment similar in concept to MRP in the ERP System.
- ▲ Manual and Automated options.
- ▲ Utilizes on-hand quantity, reorder point and management max values.
- ▲ May be manipulated prior to order.
- ▲ Create the request after adding parts to a stock run.
 - Vendor Sourced: Generates purchase one requisition per Vendor
 - Internal Fabricated: Generates work order

Project Accounting



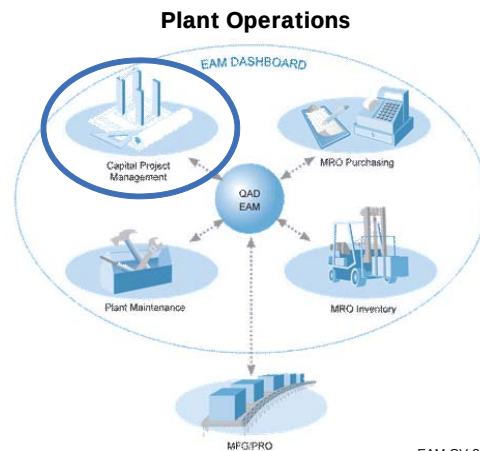
Project Accounting (Capital, Customer-Funded, ETO and Expense)

▲ **Goal:** Manage project accounting to consistently deliver on time and on budget, and help move new equipment into production or to customer as soon as possible.

- Monitor and control spending
 - Against budget
 - By project, job or sub-job
 - Reallocate budgets from one project to another

Project Accounting Roles:

- Finance
- Engineering
- Maintenance
- Inventory
- Purchasing
- Quality
- Fixed Asset Accounting
- Even sometimes - Manufacturing



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EAM-OV-390

Use Project Accounting to:

- Manage capital projects to consistently deliver on time and on budget.
- Move new equipment into production as soon as possible.
- Monitor and control spending against the budget or reallocate budgets from one project to another.

Projects is in the Finance module. During a facility's lifespan, Engineering and Maintenance groups manage facility and equipment through improvements, additions, transfers to another facility, and shut down. All of these requirements define a project. Use projects to plan activities and costs, followed by collection of actual costs, from the various actions taken to create equipment.

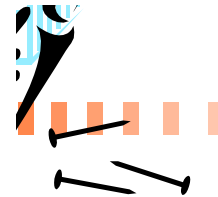
Project Accounting – Personal Example



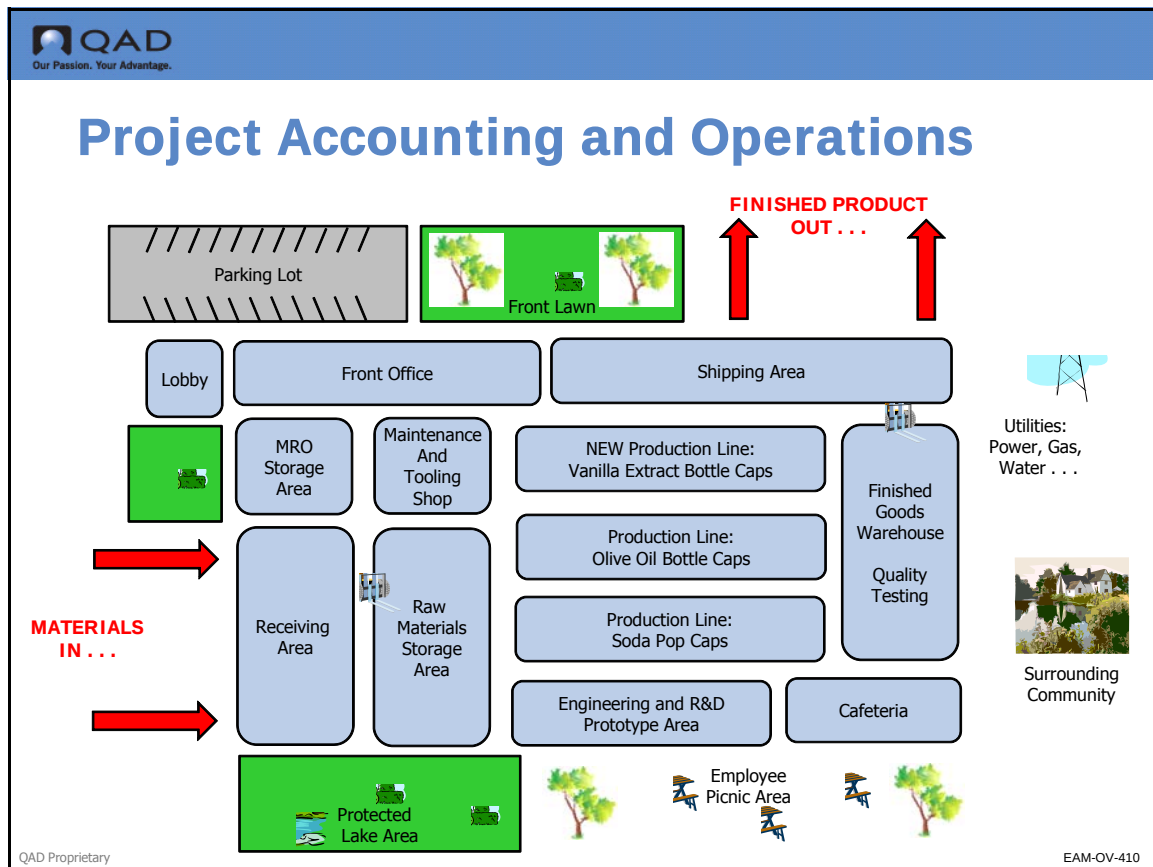
Project Accounting – Personal Example

You have bought
new property and
are now ready to
begin
constructing a
new home for
your family.

How would you
proceed?



Project Accounting and Operations



Important to Know



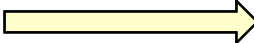
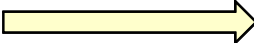
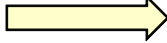
Important to Know

- ▲ Types of Projects
- ▲ Key Elements of Project Accounting
- ▲ Project Reporting
- ▲ Project / Jobs Setup and Controls
- ▲ Additional Project Tools

Key Concepts – Four Types of Projects


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Key Concepts – Four Types of Projects

- ▲ **Capital**  **Key Characteristic: Results in New Asset(s)**
 - Profit enhancements
 - Increase capacity
 - Replacement
- ▲ **Expense**  **Key Characteristic: No Assets created**
 - Annual rebuilds
 - Marketing / Legal / etc.
- ▲ **Customer Funded**  **Key Characteristics:**
 - Tooling
 - Prototype
 - Very common in Automotive Verticals
 - Customer owns Asset
 - Customer pays you to build new production line to produce a part for them.
 - Customer will reimburse you for the cost to build the new production equipment.
 - When project is complete, the production line stays at your facility, BUT you do not own the production equipment – the customer does.
- ▲ **ETO (Engineer to Order)**  **Key Characteristics:**
 - Build equipment to customer specifications
 - Scheduled reimbursement payments from customer
 - At completion of project, ship equipment to customer

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EAM-OV-430

Chapter 3

Introduction to EAM UI

EAM Level 1 Learning Path


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EAM Level 1 Learning Path

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction							
EAM Introduction - Position, Qualification, and Competition	Qbit	1 hour	Sales, Pre-Sales, Support, Services	0.75			
EAM Introduction - Exam	On-Line Exam	45 minutes		0.25			
TOTAL HOURS:				1	0		
Self-Study to Classroom Percentage:				100%	0%	None	None
EAM Level 1 Certification:							
PREREQUISITE: EAM Introduction Level Exam Completion							
1-1 EAM Level 1 Training Introduction	Q-Bit	66 hours	Pre-Sales, Support, Services, Customers				
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	n/a		0.25			
1-2 EAM Overview	On-Line Class	15 minutes				6	
1-2 EAM Overview	On-Line Class	6 hours		1			
EAM Reading List: Terry Wireman "World Class Maintenance"	Reading	1 hour		8			
1-3 EAM UI Introduction	On-Line Class	1 day		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2 Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
TOTAL HOURS:				26.75	40	6	
Self-Study to Classroom Percentage:				40%	60%		

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Class 1-1 and 1-2
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. One Reading Assignment from the Reading List

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Course Overview



Course Overview

- ▲ Access the system (QAD Demo Center)
- ▲ Recognize and use standard interface elements

Think in terms of an Hourglass

Big Picture ☐

★ Digestible Bites

Big Picture ☐



QAD Proprietary

Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives:

- Understand the EAM User Interface Elements

▲ Benefits:

- The ability to navigate the EAM System more effectively.
- Preparation to take the next steps in the EAM Level 1 Learning Path towards Certification.

QAD Proprietary

Log In



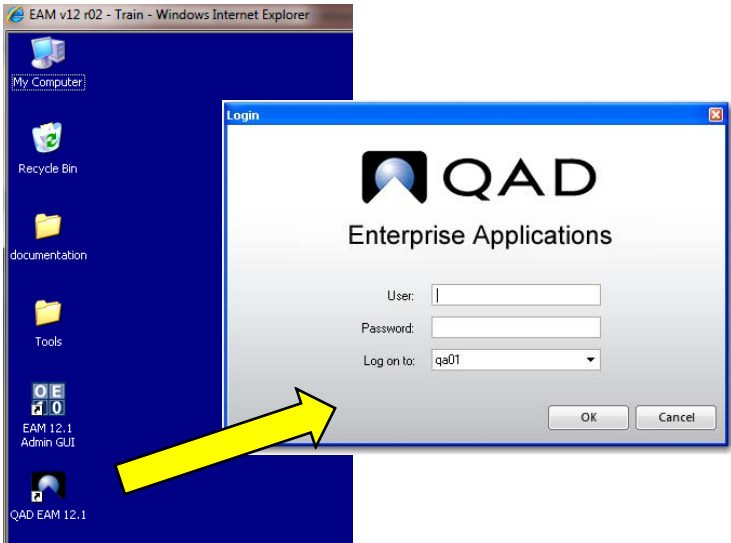
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Log In

“UI” = User Interface

Two Interfaces:

- GUI – System Administration
- .NET UI - Application



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Standard .NET UI Features

Standard .NET UI Features

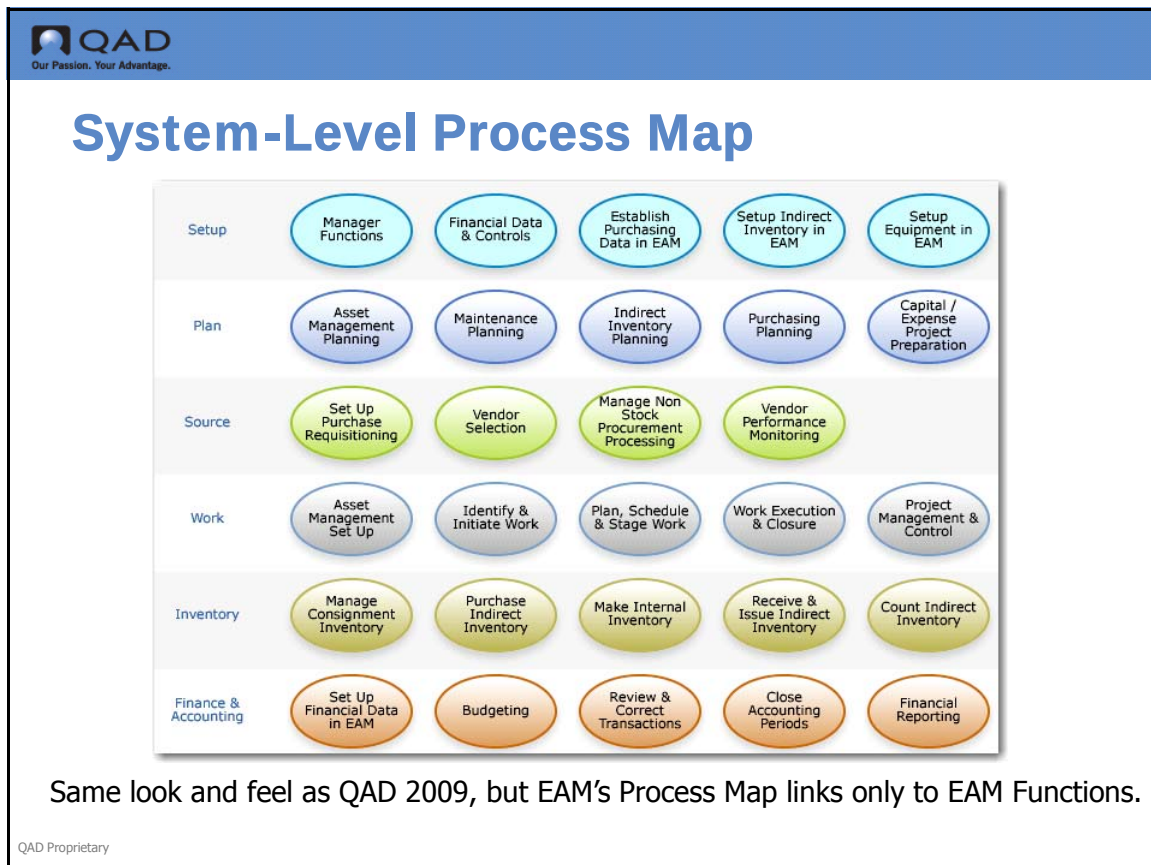
- ▲ Expandable menus
- ▲ Inbox
- ▲ Menu search
- ▲ Favorites
- ▲ Browsers
- ▲ Tab pages
- ▲ Lookups
- ▲ Filters
- ▲ Print

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The QAD .NET UI offers both online help and a dedicated user guide, available from QAD support online.

Note that EAM v12 uses QAD's AppShell for the same look and feel as QAD 2009 and beyond, such as with the Favorites and the Process Maps.

System-Level Process Map



The EAM Process Maps are currently high-level, driving down to basic best practice flows with direct links to EAM screens. EAM Process Maps are linked **ONLY** to EAM functions (i.e. they do not link to QAD ERP functions).

Process maps are interactive flow charts. They link to programs, browses, and other process maps using advanced features of .NET technology. The purpose of Process maps is to diagram QAD EAM best practices in hierarchical order. Swim lanes, the gray stripes on the background, visually separate functional areas, such as conceptual (Setup) or departmental (Purchasing).

QAD EAM Interface

The screenshot displays the QAD EAM interface with the following components and annotations:

- Title Bar:** Displays the application name "QAD Enterprise Asset Management (2) - QAD Enterprise Applications".
- Menu:** Includes File, Edit, Tools, Window, and Help.
- Vertical Menu:** A tree view on the left containing modules such as Maintenance, Equipment, DUOM Conversion, PM / PAM, Work Orders, Service Requests, Labor History, Codes, Inventory, Purchasing, Finance, General, Analysis, and System Administration. A red box highlights this menu, with an arrow pointing to the text "Modules – can now have more than one open at a time!".
- Toolbar:** Contains icons for Home, Equipment, Find, Add To Favorites, New, Edit, Export, and Print.
- Right-Click Menu:** A context menu that appears when right-clicking on the main data table.
- Application area:** The central pane displaying a table of equipment data with columns for Equip No., Description, Site, Asset Serial No., and Cost.
- EAM Inbox:** A pane on the right showing a list of system messages and work orders, including "Failed Stock Replenishment" and "Work Order 32215 at SANF Status Change".
- Status Bar:** Located at the bottom, it displays the "Currently Active User" (circled in red) and the date "6/3/2009".

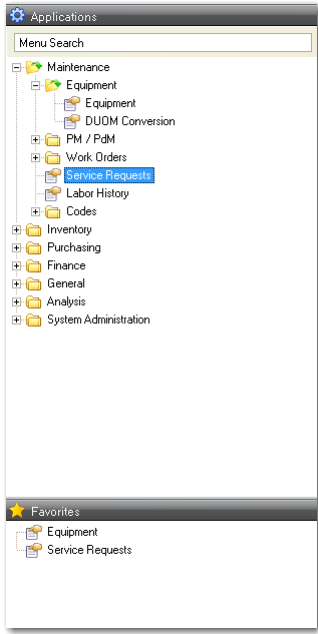
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All EAM screens share some characteristics such as menus and common Windows .NET structure. EAM uses the same AppShell as QAD 2009 to provide the same look and feel. All browse and tab displays are not the same. Different modules may look and act differently, depending on your needs.

Favorites



Favorites



As with QAD ERP,
Add to Favorites by
either:

1. Drag & Drop, OR
2. Right-Click

Also, use
Right-Click to
Remove from
Favorites

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The Favorites pane is a custom menu you create using menu options or drag-and-drop techniques. You can add, remove, and organize your Favorites list with its right-click menu.

You can even create your own folder within favorites to organize your common or related tasks.

Browse

Browse

"Find" looks for a value within the column selected for sort
Use wildcards (*) for locating value within the column

"Excel Export" button

"Group" button replaces many of the GUI Reports

"Action" options (may vary based on browse)

Existing Records for the current Module – Can Edit, Copy, or Delete as Security Access Allows

Column Headers are POWERFUL!

"Right Click" Menu on Column Headers:
Allows "Add/Remove Columns" for the Browse

"Drag and Drop" Column Headers to change view of Browse

Use Column Headers to determine order and sort, too.

Double-Click a Record to view further details in a new screen

Equip No	Description	Asset Serial No	Cost Center	Dept	Loc
B123X	Out building 1, mfg. bldg		5000	PROD	EL10
B400	Building 4, mfg. chgo		5000	PROD	EL10
BAKER OVEN 12	BAKER OVEN # 12 IN PRODUCT UNIT 2A				EL10
BOILER #4	Boiler Building #4			EL20	
BOILER101	Boiler 101 Bldg 10		0200	EL20	
BOILER4	Boiler Building #4	2424242434		EL20	
C123	Building 1, mfg. chgo			EL10	
CR0013	Crane, gantry, 5ton, 10ft spa		5010	EL20	
e1-100	Equipment 100		0300		
e1-101	equipment 101				
H03	Hoist, chain 3, mfg. chgo	12345	5010	EL20	
MM179	Multiturning ctr, CNC, 1052, Cinc		5010	PROD	EL10
P001M1	Motor for Press 001, 80t, w/a bolster 26x36		5000	A1	
PRESS001	Press, 80t, w/a bolster 26x36		5000	A1	
VE001	Pit, Sump, 3'x10' deep, Bldg2		5020	PROD	EL20
WC100	Work center3, mfg.		0300	PROD	EL20
WC2	Work center 2, mfg.		0300	PROD	EL20
WC3	Work center3, mfg.		0300	PROD	EL20
WC4-1	new equipment			EL10	
WS15	Work station15, rivet		5010	PROD	EL20

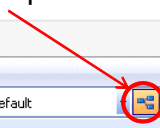
A browse lists the records that meet specified site criteria in the current module. EAM browses look and function like Excel spreadsheets. Column headers provide flexible, dynamic display options through ordering, hiding, showing, sorting, and grouping records. You can add a browse to your favorites directory.

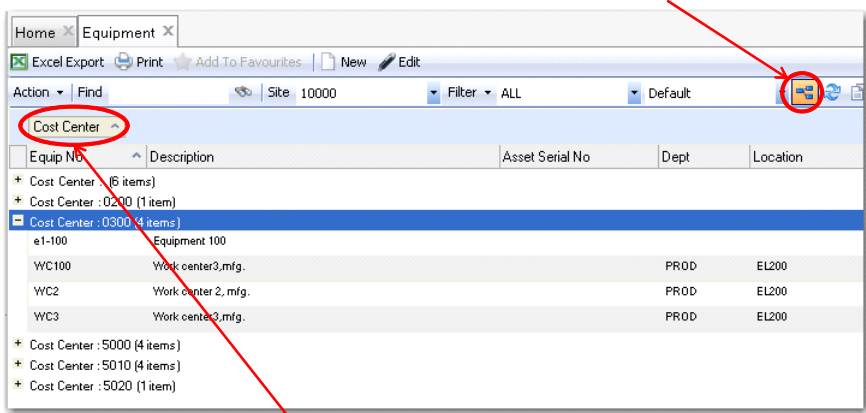
Group a Browse


Our Passion. Your Advantage.

Group a Browse

Select "Group" Button





Select Column header and drag to Group Line to Group Data

QAD Proprietary

When reviewing data inside a browse, it can be helpful to group the records based on settings in the record. Simply turn on the 'Group By' option and then drag and drop the column header for the field that you wish to group by.

You can group by a single column or multiple. Simply move the column headers around to be in the order desired.

Custom Filters

Custom Filters

Ability to group fields for more complex data sets

Allows filtering by specific fields

Basic vs "Advanced" filter features include brackets to allow for more complex filter sets

"And/Or" statements to include or exclude parameters

QAD Proprietary

In v12, the filter capability are much more powerful than previous EAM versions. In some cases, use of these filters can allow a browse screen to become a report.

Use a filter to specify the information display on a specific browse. Each module has a number of fields that can establish the criteria for filtering a browse list. Advanced filtering allows for use of And and Or functions in order to have complex filters.

Filters are saved within the browse and are available to be selected in other areas such as reports.

QAD EAM Tab View

QAD EAM Tab View

Tabbed view

User Defined Fields

“Sub-Details” OR Submenu

Configurable Mandatory Fields

Most of the recordkeeping occurs in the tab view. Your system administrator may remove or add fields, so what we see in training or the start of an implementation is not necessarily what you see on your production desktop. Also, required fields (Mandatory Fields) are configurable by site, so we may have more, less, or different ones in this environment.

Records

Records

Primary Record information is usually located on first Tab Page displayed

The Notes Sub-Menu is like a sticky-note on a record. It does not print on documents, but is available to view for any EAM user with Security Access

Home Site: 10000, Equip No: CR0019

Site: 10000 Equip No: CR0019

Action

Codes Asset Detail Serialized User Defined

General

Description: Crane, gantry, 5ton, 10ft spa

Category: blank

Type: EQ-M Equipment Master

Parent? ☒ Parent No: B400

Upd Children? ☐ Status: A Active Equipment

Location: EL200 Equipment location 200

BOM Type:

Failure Type: FT-3 Failure Type 3

Notify: ENGR Engineering Dept

Planner: FBANKS FRANK BANKS

Responsible:

Owner:

WO Owner:

Priority:

Catalog: C1D DIESEL ENGINE

Manual:

Equipment

Detail

Notes

Service Requests

Work Orders

PM Templates

Failure Analysis

Cost Analysis

Serial History

BOM

Readings

Equipment Alternate

Procedure Lists

Production Hours

Equipment Products

QAD Proprietary Additional important Record information may be located in other Tab Pages and Sub-Menus

In EAM, initial information may be found on the first displayed tab page upon opening of the record; however, much more information is contained in the other Tab Pages as well as within the various Sub-Menus associated with the record.

The Labels on the Tab pages and the Sub-Menus will vary depending upon the type of Record being viewed. Many of the foundational records in EAM have these tabbed pages and sub-menus. The sub-menus allow for access to related information, such as, work order or service request information associated to the selected equipment record.

Records – User Defined Fields

The screenshot displays the QAD EAM UI interface. At the top, the QAD logo and tagline 'Our Passion. Your Advantage.' are visible. Below this, the title 'Records – User Defined Fields' is prominently displayed. The main window shows a record for 'Site: 10000, Equip No: CR0019'. The 'User Defined' tab is selected, showing a grid of fields for 'Eq Char' (1-22) and 'Eq Dec' (1-8). The 'Eq Dec' fields are pre-filled with the value '0.0000'. A right-hand sidebar lists various equipment-related functions such as 'Detail', 'Notes', 'Service Reques...', 'Work Orders', 'PM Templates', 'Failure Analysis', 'Cost Analysis', 'Serial History', 'BOM', 'Readings', 'Equipment Alter...', 'Procedure Lists', 'Production Hou...', and 'Equipment Pro...'. The bottom left corner of the window indicates 'QAD Proprietary'.

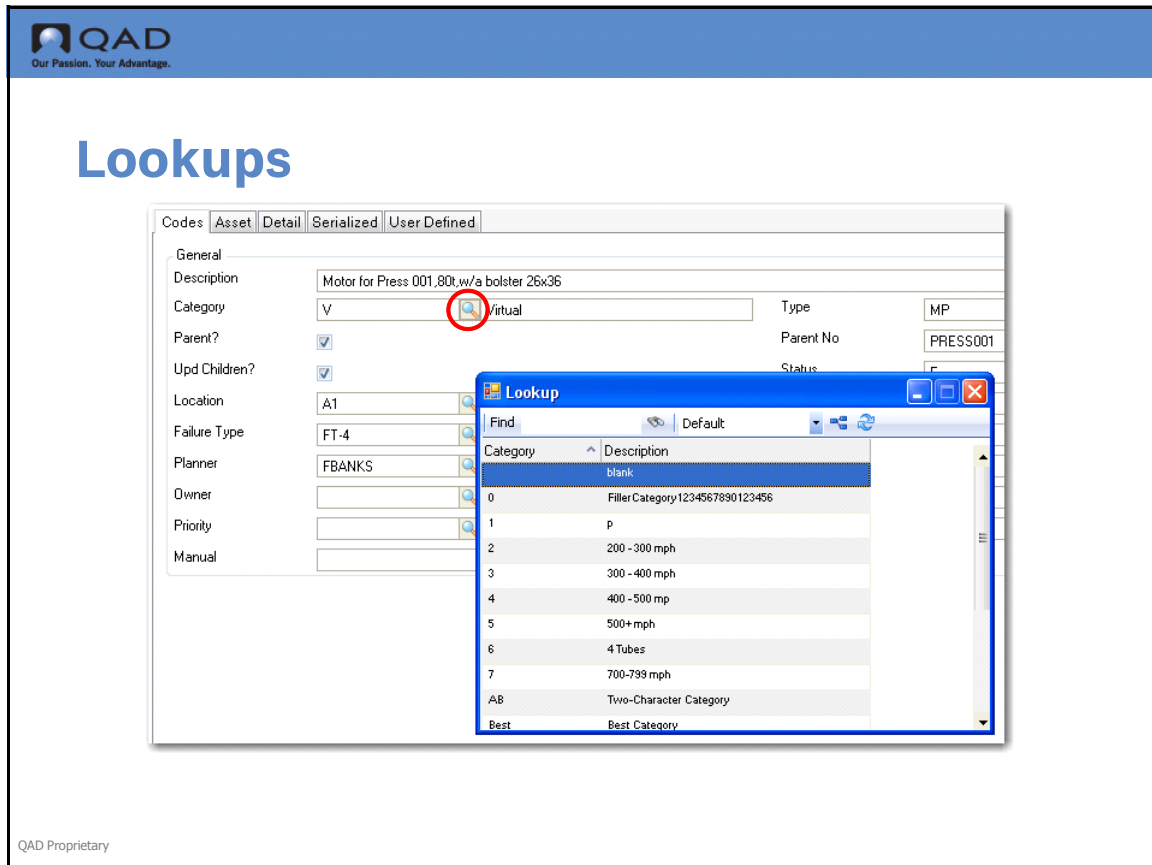
User Defined Fields are Spare Fields found on all foundational records in EAM.

- User Defined Fields include the following types:
- Character with Lookup Tables
- Character Free Form Entry
- Decimal Fields
- Integer Fields
- Date Field
- Logical Field (yes / no)

User Defined Fields may be re-labeled, some record types, such as the Character with Lookup can link to validation tables.

These fields may also be made mandatory and hidden / shown just as with other standard fields on a record. If no user defined fields are being used in a module, all fields may be removed but removal of the tab will restrict the ability to re-add the tab later.

Lookups

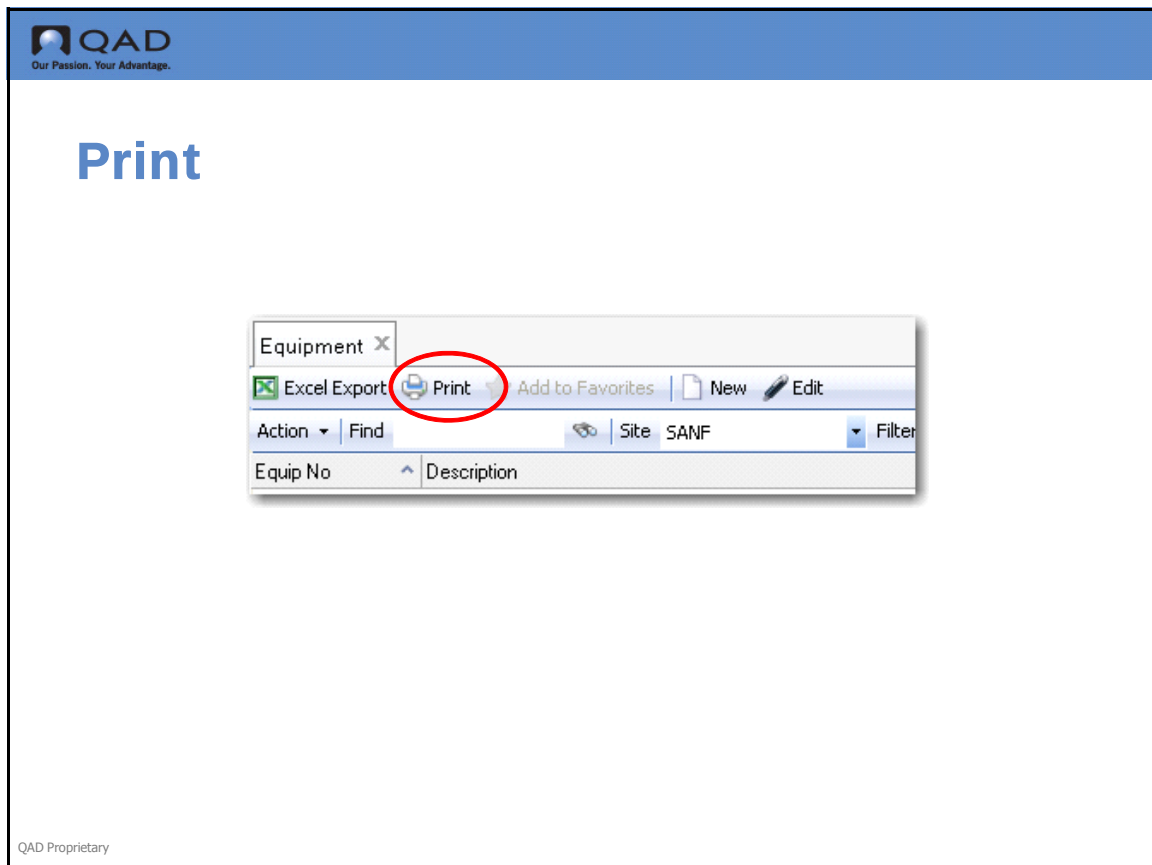


Many fields display a small magnifying glass icon. This indicates that a validated table is associated with the field. Click the icon or use the Alt+L keyboard shortcut to display the lookup. The lookup lists available valid values; select one from the list by double-clicking.

Date fields have an associated calendar. Click on the pull-down icon next to the field or use the Alt+L keyboard shortcut to display a calendar for selecting an appropriate date.

When a lookup is activated, the view is the default view from the browse. Columns can be added as needed to find the required record to select

Print



EAM allows for printing and exporting of the records in a filtered browse – including any columns added. If you want to print a single record, then create a filter for it and print from that view.

Note This is NOT the same as printing a document, such as work order or purchase order. This functionality can be used for replacing many of the list type reports which business often require.

Review



Review

- ▲ In this section, we learned to:
 - Login
 - Recognize .NET UI features
 - Use a process map
 - Work with menus and browses
 - Filter a browse
 - Lookup Records
 - Create or edit a record
 - Print and export

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Practice!



Practice!

- ▲ Review this presentation: "1-3 Introduction to EAM UI"
- ▲ Utilize the "Level 1 Activities Handbook" for exercises and question related to this presentation
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the "EAM v12 r02" training environment to practice

QAD Proprietary

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content

Certification Levels - Elements	Format	Duration	Target Audience	EAM Training Hours		ERP Train Hours	Role Based Experience
				Self-Study	Classroom		
EAM Introduction		1 hour	All - Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
TOTAL HOURS:				1	0		
Self-Study to Classroom Percentage:				100%	0%	None	None
EAM Level 1 Certification:							
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-9 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
TOTAL HOURS:				20.25	40	6	
Self-Study to Classroom Percentage:				34%	66%	n/a	None

Upon Successful Completion of the "1-3 Introduction to EAM UI" Exam, your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Class "1-4 Introduction to EAM Configuration"
2. More detailed on-line EAM Application Classes
3. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

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Questions?



Questions?

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at:
 - Nancy Majure nnm@qad.com
 - Sara Suhr uhr@qad.com
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

Chapter 4

Introduction to EAM Configuration

EAM Level 1 Learning Path

 QAD Our Passion. Your Advantage.							
EAM Level 1 Learning Path							
EAM Certification Levels Content							
Certification Levels - Elements	Format	Duration	Target Audience	EAM Training Hours		ERP Train	Role Based
				Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	All - Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:							
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>		66 hours	Pre-Sales, Support, Services				
		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM I/II Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
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EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	20.25	40	6	
			Self-Study to Classroom Percentage:	34%	66%	n/a	None

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Classes 1-1, 1-2, and 1-3
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. One Reading Assignment from the Reading List

Course Overview



Course Overview

- ▲ Domains, Entities and Sites
- ▲ Basic Security
- ▲ Employee and User Setup
- ▲ Basic System and Site Control Settings
- ▲ Sequences
- ▲ Other Controls (Groups, Accounting Calendar)
- ▲ ERP and EAM Shared Data
- ▲ Mandatory Fields
- ▲ Basic Master Data
- ▲ EAM Mail
- ▲ Basic Technical Information
- ▲ EAM Authorizations
- ▲ ERP and EAM Integration Points

Think in terms of an Hourglass

Big Picture □

★ Digestible Bit

Big Picture □



Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives:

- Understand the Configurable aspects of EAM
- Understand how control settings can affect EAM functionality
- Obtain High-Level Understanding of EAM Configuration

▲ Benefits:

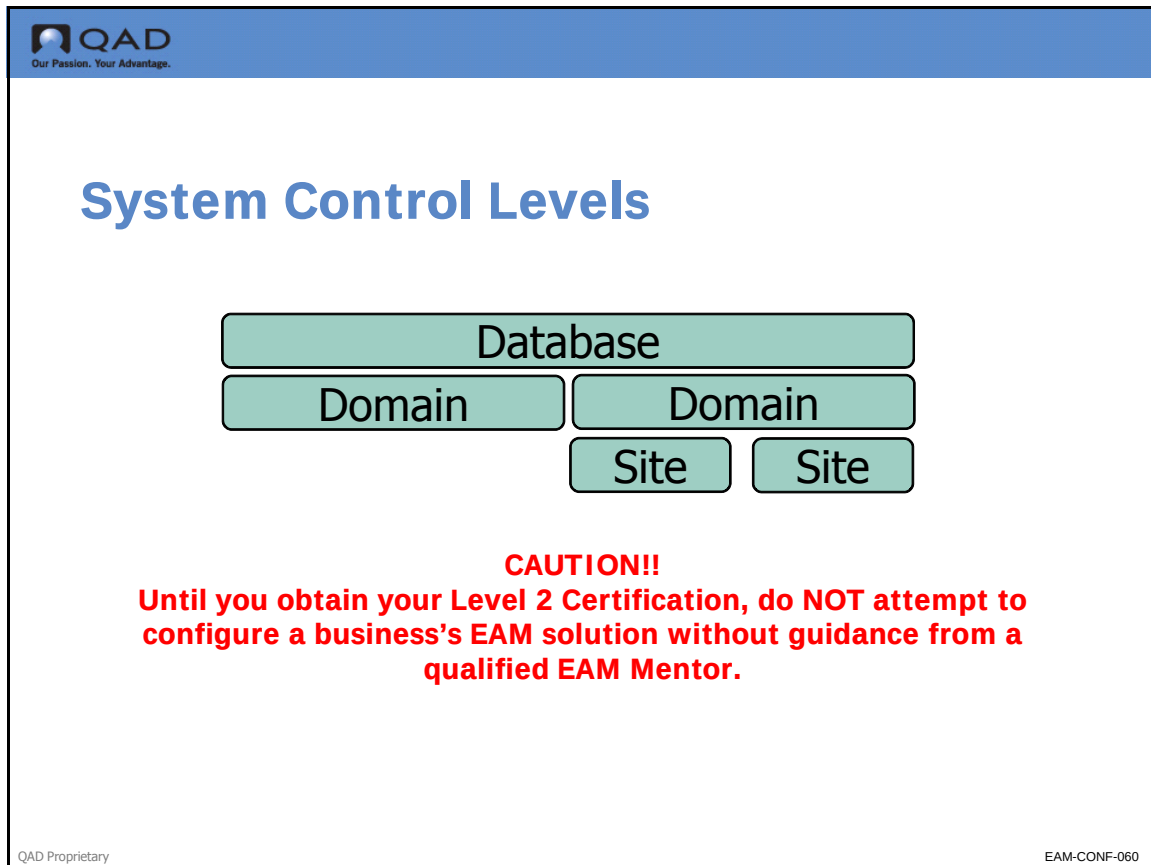
- After taking this course, you will have a introductory level of understanding with regards to EAM Configuration.
- You will be able to configure a simple EAM implementation with the guidance of a mentor.
- You will have an introductory understanding of the ways in which EAM can be configured to accommodate business requirements.
- Upon successful completion of this course and its learning validation test you will be prepared to take the next steps in the EAM Level 1 Learning Path towards Certification.

QAD Proprietary

EAM-CONF-040

The September 2010 EAM v12 release includes a new .NET interface, process maps, plant maintenance functionality, inventory and purchasing. With each new release new functionality is available. Currently integration is available to QAD Enterprise Edition. In the near future, integration with Standard Edition will become available.

System Control Levels



When configuring EAM, it is important to understand that different settings are available at different levels throughout EAM.

Database level settings control high-level configurations that impact every domain, entity and site in the that Database.

Domain Level setting control functionality for all the sites (entities) within that Domain.

And finally, Site Level settings effect functions only within a specific site (entity).

Throughout this course, at the top of each slide, this diagram will be used to help you understand at which level each configuration is set.

Database Level Settings

Database Level Settings

- ▲ System-wide Settings
- ▲ Examples:
 - Batch Job Scheduler options – GUI
 - Password restrictions – System Registry
 - SMTP setting for external Email connection – GUI

QAD Proprietary EAM-CONF-070

Certain aspects of EAM are applicable to the entire database, regardless of Domain or Entity / Site.

Domains, Entities, and Sites



QAD

Our Passion. Your Advantage.

Database

Domain

Site

Domains, Entities and Sites

- ▲ Hierarchy: Domain -> Entities -> Sites
- ▲ Domain:
 - Must match ERP, including Language setting
 - Must be unique within a database and across connected databases
 - A Domain may have many Sites, but the following must be the same for all:
 - Base Currency
 - Mail Server Data
 - Password Restrictions
 - Daybook Code
 - Domain Level settings for Maintenance, Inventory and Purchasing
 - Setup: General -> Business Units -> Domain

QAD Proprietary

EAM-CONF-080

EAM configuration must match the QAD ERP setup to allow vital information and transactions to flow properly. The most basic consideration in this setup is the overall hierarchy of information. Below the actual database level, the primary hierarchy consists of:

Domain

Entity

Site appears as a more contained silo in EAM than in ERP. The ERP focuses more on the Entity level, and EAM allows further division below that.

Not only must the Domain ? Entity ? Site setup and combinations match, but also certain settings associated with the levels must match the ERP configuration. This is one of the reasons why in a new enterprise bundled product implementation that it is critical for the EAM group to be involved with final ERP decisions regarding chart of accounts and basic ERP configuration and to be kept apprised of any changes on the ERP side for the duration of use.

These include: Base Currency, Mail Server Data, Password Restrictions and Daybook Code. There are domain level maintenance settings such as Work order and PM scheduling, authorization settings and reopen capabilities. There are domain level inventory settings such as inventory costing method, ABC settings and other optional settings. There are domain level settings for the Purchasing area such as buyer and receipt limits. The domain's base currency is recorded here. These will be covered in detail in the following pages.

Domain Settings



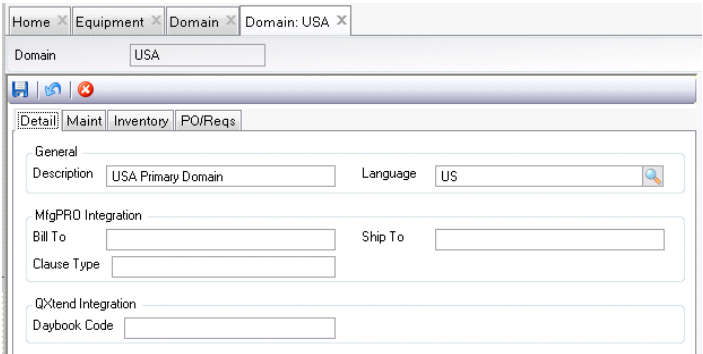
Database

Domain

Site

Domain Settings

- ▲ Domain code is seen in the header section
- ▲ Proceed next through each of the tabs
 - Detail
 - Maint (Maintenance)
 - Inventory
 - PO/Reqs



QAD Proprietary
EAM-CONF-090

Under General | Business Units | Domains you can see the domains and their settings. The domain description is found on the Detail tab. When integrating with core QAD product, this should match the ERP system's domain information. Also, on the detail tab is the language setting, Bill To, Ship To and Clause Type codes required for integration. This information tells EAM where to look for the data that will be downloaded into EAM. Typically, the fields are 'company' for Bill To and Ship To and '*' for the Clause Type fields. For QAD Enterprise Edition Integrations a Daybook code is required, enter the code here that matches a daybook that has been defined in Core QAD.

Domain Settings – Detail Tab



Database
Domain
Site

Domain Settings – Detail Tab

Home Equipment Domain Domain: USA

Domain USA

Detail Maint Inventory PO/Reqs

General

Description USA Primary Domain
Language US

MfgPRO Integration

Bill To
Ship To

Clause Type

QXtend Integration

Daybook Code

▲ Note that the following are set at the Domain Level:

- Language (default, may be changed on User)
- Default Bill-To, Ship-To, and standard Clause Type
- Daybook Code

QAD Proprietary
EAM-CONF-100

Under General | Business Units | Domains you can see the domains and their settings. The domain description is found on the Detail tab. When integrating with core QAD product, this should match the ERP system's domain information. Also, on the detail tab is the language setting, Bill To, Ship To and Clause Type codes required for integration. This information tells EAM where to look for the data that will be downloaded into EAM. Typically, the fields are 'company' for Bill To and Ship To and '*' for the Clause Type fields. For QAD Enterprise Edition Integrations a Daybook code is required, enter the code here that matches a daybook that has been defined in Core QAD.

Domain Settings – Maint Tab

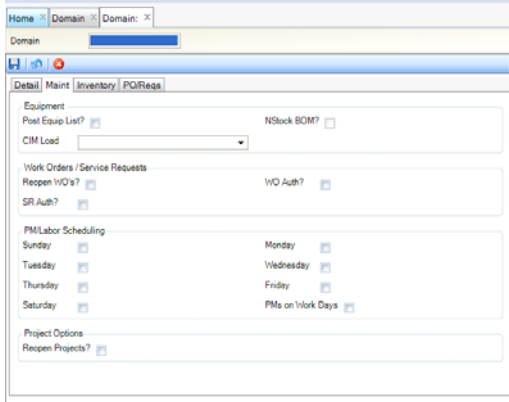


Database

Domain

Site

Domain Settings – Maint Tab



▲ Domain Level Settings for Maintenance control:

- Behavior of Automated BOM Build
- Work Order / Service Request Authorization
- Labor Scheduling
- Ability to Reopen closed Projects

QAD Proprietary
EAM-CONF-110

Domain level settings for the maintenance functions are found on the Maint tab. The Equipment section handles building the Equipment Bill of Materials (BOM) and where the data comes from. The CIM Load settings of Reading or Usage are used when utilizing a batch load routine to upload Equipment Driving Unit of Measure (DUOM) readings. Use the setting that defines how the source data is captured.

In the Maintenance module, control of whether to require Work Order and/or Service Request authorization is controlled at the Domain level. You can also determine which days of the week that maintenance can be automatically scheduled for when work orders get created.

Domain Settings – Inventory

The screenshot displays the QAD Domain Settings – Inventory configuration interface. The top navigation bar includes the QAD logo and the text 'Our Passion. Your Advantage.' On the right, there are tabs for 'Database', 'Domain' (selected), and 'Site'. The main title 'Domain Settings – Inventory' is prominently displayed. Below the title, there are tabs for 'Home', 'Domain', and 'Domain: X'. The 'Domain' tab is active, showing a search bar and a toolbar with icons for saving, undo, and redo. The 'Inventory' tab is selected, revealing the following settings:

- Ordering:**
 - Inv Cost Mthd: [Dropdown menu]
 - Cons Reserves?: ☐
 - Cons Res/Short?: ☐
 - Cons Res Orders?: ☐
- ABC:**
 - A Percent: [Input field with 0]
 - B Percent: [Input field with 0]
 - C Percent: [Input field with 0]
 - A Days: [Input field with 0]
 - B Days: [Input field with 0]
 - C Days: [Input field with 0]
- Options:**
 - Reserve Inv: ☐
 - Diff Acct Period?: ☐
 - Part Description Protected: ☐
 - Transit: ☐
 - Reopen Stores?: ☐

Below the screenshot, four key configuration areas are highlighted with red triangle icons:

- ▲ Inventory Costing Method
- ▲ Stock Replenishment Controls
- ▲ Accounting behaviors
- ▲ Part Description protection

The bottom of the screen shows 'QAD Proprietary' on the left and 'EAM-CONF-120' on the right.

Inventory settings such as costing method are configured on the Inventory Tab. A company can decide whether or not they want to integrate their maintenance planning with their inventory controls and purchasing controls through the use of Inventory reserves. These settings allow a company to put inventory on reserve and whether any reserved inventory should be considered when reordering stock. The ABC fields available for use in inventory cycle counting.

Domain Settings - Purchasing

The screenshot displays the 'Domain Settings - Purchasing' window in the QAD application. The window has a blue header with the QAD logo and the tagline 'Our Passion. Your Advantage.' On the right side of the header, there are three tabs: 'Database', 'Domain' (which is selected and highlighted in yellow), and 'Site'. Below the header, there is a navigation bar with tabs for 'Home', 'Domain', and 'Domain:'. The main content area is titled 'Domain Settings - Purchasing' and contains a form with various purchasing options and buyer limits.

Options

- Any Buyer? ☐
- Base Currency
- Upd Receiver? ☐
- Receipt Limit %
- Receipt Limit Amount
- Acct No
- Create PO When?
- Reopen PO/Reqs? ☐
- NStock UOM
- Receipt Limit ☐
- Sub Acct No

Buyer Limits

- Enforce Buyer Limits? ☐
- Increase Amount 0
- Increase % 0
- Decrease Amount 0
- Decrease % 0

QAD Proprietary EAM-CONF-130

- ▲ Base currency
- ▲ Buyer / Receiving Limits
- ▲ Ability to reopen closed PO/Req
- ▲ When to send PO to ERP

Purchasing settings are defined on the PO/Reqs tab. Purchasing Limits (for Buyers and Receivers) are generally defined at the corporate level within the companies Spending Limits of Authority or other such Financial Controls Manual. For this reason, they are set at the Domain level in EAM and enforced consistently across all Entities / Sites. The base currency of the domain is set here and selection of Create PO When? is required for any new domain – regardless of whether company is using Purchasing.

Site Level Settings



QAD

Our Passion. Your Advantage.

Database

Domain

Site

Site Level Settings

- ▲ Maintenance, Inventory and Purchasing functions/requirements can be defined at a site level.
 - Purchasing approval methods
 - Bill To Ship To defaults
 - Work order requirements
 - Inventory controls
- ▲ Each site can have a set of default cost centers, accounts, and sub accounts for financial reporting.
- ▲ See Module classes for details.

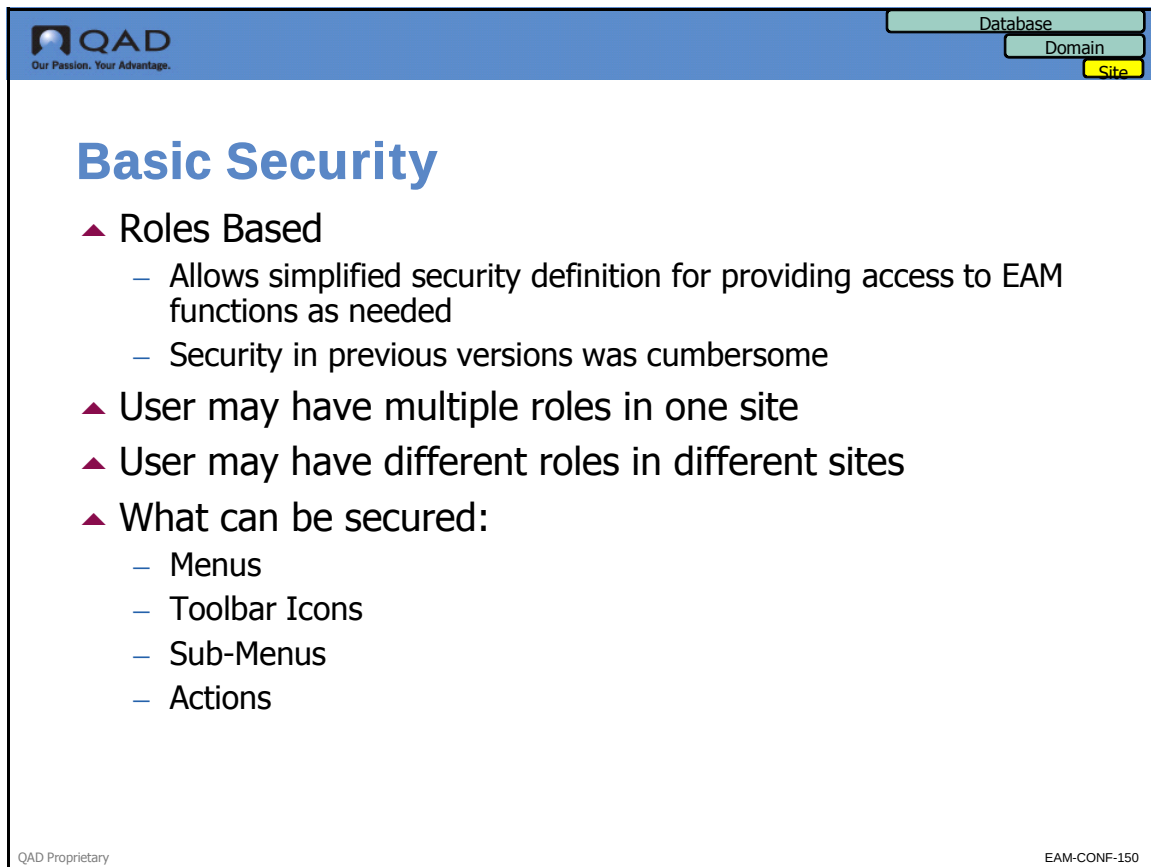
QAD Proprietary

EAM-CONF-140

Below the Domain level settings, EAM also provides a large number of configurable settings at the Site level to help each site manage their reliability program according to their own localized requirements. The EAM User Guide provides much more detail on each of these settings, but some of the more important settings controlled at the Site Level are:

- **Purchasing Approval Methods:** Because most Corporations define high-level financial controls for purchasing but leave the more detailed control to each facility, the Purchasing Approval Methods may be further defined at the site level. In Level 2 Training we will discuss this in much greater detail, but suffice it to say that EAM will allow a plant to have tighter controls than the corporate level controls should if desired.
- Each site within a domain will typically have a different shipping address, and may even receive invoices directly for approval, rather than having them sent to a centralized location.
- EAM provides a variety of Inventory controls that primarily drive site level reporting. For example, at one facility, the management may not wish to include Physical Inventory adjustments as part of their inventory usage, but at another facility inventory loss may be of such concern that they do wish to include those adjustments in reports of inventory usage.
- As with Purchasing, most corporations define high level controls for the approval of Capital and Expense Projects, but at the Site level, those controls may be further broken down at the discretion of site level management.
- EAM allows each site to maintain a sub-set of the overall chart of accounts as needed to further control and report financials. Default accounting information can be defined for each transaction type and exceptions handled

Basic Security

A screenshot of a presentation slide titled "Basic Security". The slide has a blue header bar with the QAD logo and tagline "Our Passion. Your Advantage." on the left. On the right side of the header, there are three stacked rectangular boxes labeled "Database", "Domain", and "Site". The main content area is white and contains the title "Basic Security" in blue, followed by a bulleted list of features. The bottom of the slide has a thin purple border with "QAD Proprietary" on the left and "EAM-CONF-150" on the right.

Basic Security

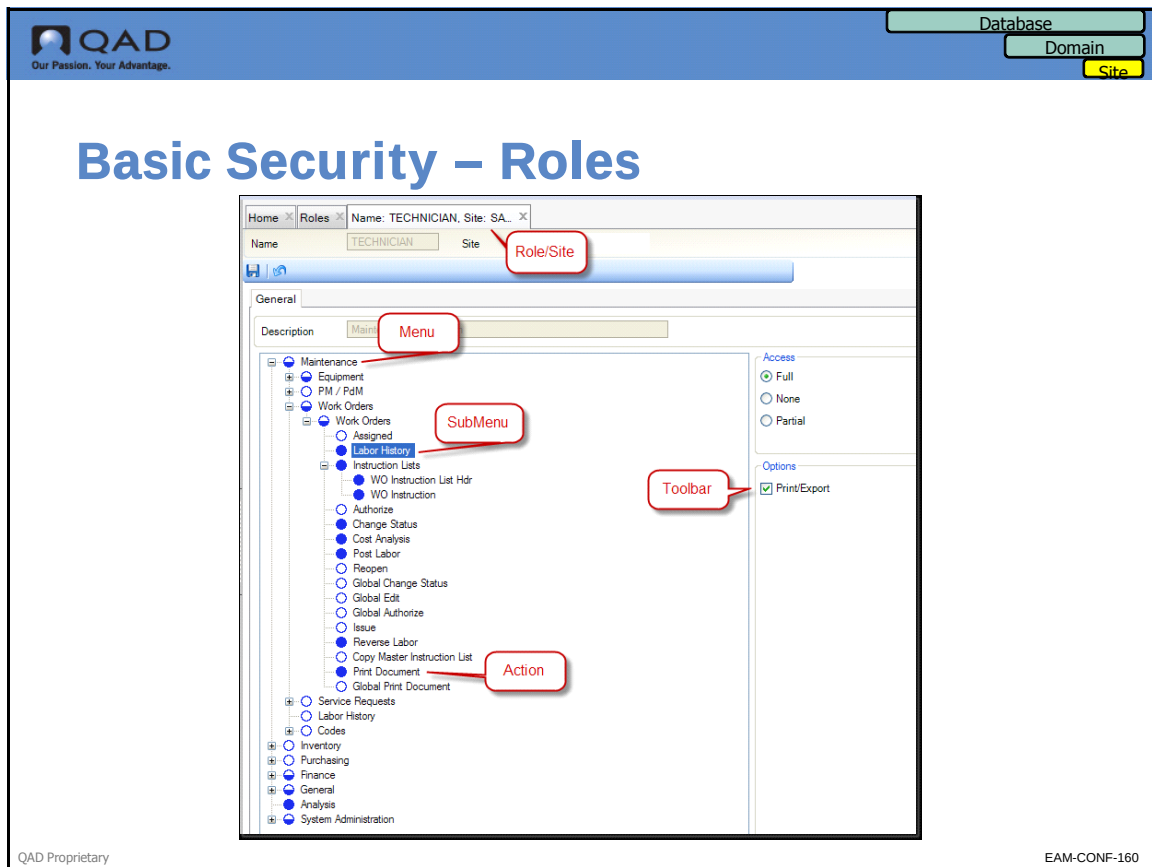
- ▲ Roles Based
 - Allows simplified security definition for providing access to EAM functions as needed
 - Security in previous versions was cumbersome
- ▲ User may have multiple roles in one site
- ▲ User may have different roles in different sites
- ▲ What can be secured:
 - Menus
 - Toolbar Icons
 - Sub-Menus
 - Actions

QAD Proprietary EAM-CONF-150

In previous versions of EAM, users may have had to be assigned multiple login IDs in order to fulfill different roles. But, in v12 .NET, the security is now Role based, meaning that a single user can be assigned multiple roles as needed to do their job without the need for multiple logins.

Security is also site specific, so a user may have access to certain EAM functions in one site and not have that same access in others.

Basic Security – Roles



Defining Security Roles in EAM now is much more visual. Controls are available at the overall Access level (Full, None, or Partial) for more quickly defining access at the high-level. Menus, Sub-Menus, Actions and Toolbar functions can be secured by role with an easy visual for evaluating the definition.

Employee and User Setup



Our Passion. Your Advantage.

Database
Domain
Site

Employee and User Setup

- ▲ “Employee” Record
 - Base record controlling collection of labor costs
 - Defines who can be a “Buyer” at each site
 - Not all Employees will have a User ID
- ▲ “User” Record
 - Required to Login to EAM
 - Defines User’s Security Access by Site
 - All Users must have an Employee record
- ▲ Steps to Create a User ID:
 - Add Employee
 - Add User and Link to Employee Record
 - Assign Site(s)
 - Assign Security Access to User ID

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EAM-CONF-170

User Setup

User Setup

▲ "User" Record

- Required to Login to EAM
- Defines User's Security Access by Site
- All Users must have an Employee record
- Provides controls around Spending Limits, Approval Groups, and which Accounts and/or Cost Centers the user may utilize in purchasing

The screenshot displays the QAD User Setup interface for a user named 'SPitsoz'. The interface is divided into several sections. At the top, there is a navigation bar with tabs for 'Home', 'Roles', 'Users', and 'User ID: SPitsoz'. Below this, the 'User ID: SPitsoz' record is shown. The record is divided into two main sections: 'Detail' and 'Mail Opt'. The 'Detail' section contains fields for 'Emp No' (SPitsoz), 'Language' (US), 'Orig No' (AGay), 'Del Msg?' (checked), 'Override Delete?' (unchecked), 'Other Labor?' (checked), 'Spending Limits' (PO Limit, Req Limit, Req Cap Limit, Req Over Limit, Proj Limit), 'Horizontal Approver' (Horizontal Approver?), 'Internet Mail' (Receive Email?, Email: zsp@qad.com), and 'Printing' (Print Title Page?). The 'Mail Opt' section contains fields for 'User Site', 'Account Group', 'Cost Center Group', and 'Approval Group'. Red circles highlight the 'User ID: SPitsoz' tab and the 'User Site' field.

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EAM-CONF-180

Mandatory Fields



Database
Domain
Site

Mandatory Fields

- ▲ EAM allows fields to be marked as Mandatory in certain screens
- ▲ If a field is set as being Mandatory, user cannot save record without filling in that field
- ▲ Some “conditional” mandatory fields examples:
 - On Work Order Close, additional information must be recorded
 - Setting Job(Project) mandatory on any screen will make Job mandatory ONLY if a Project number has been previously supplied
- ▲ Generally Visibly Differentiated on the Screen

* Equip No
Notify
Service Type

* Asterisk indicates mandatory field

QAD Proprietary

EAM-CONF-190

(uhr) – work order close is not ‘*’ and ?? PO Order

Screen Editor

QAD
Our Passion. Your Advantage.

Database

Domain

Site

Screen Editor

- ▲ EAM Screens are Configurable
- ▲ The Screen Editor allows system administrator to:
 - Hide / Show Fields
 - Rearrange fields and tab order on a screen
- ▲ Accessible under System Administrator in .net UI
 - Select desired screen to modify
 - Screen changes are database wide

QAD Proprietary
EAM-CONF-210

The Screen Editor is a powerful new tool in EAM v12. For Level 1 training, it is sufficient to know that field visibility can be modified using the Screen Editor; however it is NOT recommended that companies utilize modified screens until they have sufficiently vetted their business processes and are convinced of which fields will be needed. Too often, users are not aware of the other available fields which are hidden and begin to consider the software incomplete and inadequate.

Keep in mind that modified screens also present a challenge to Support, and for that reason, access to this screen is usually tightly secured to only the system administrator and designee at a company.

Sequences



Our Passion. Your Advantage.

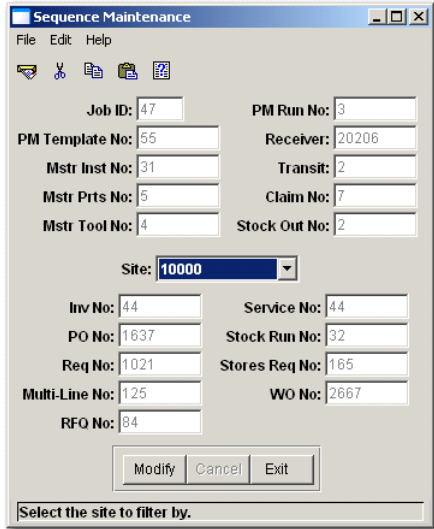
Database

Domain

Site

Sequences

- ▲ The sequence fields are broken into two major groups: those that are shared by all sites and the ones that are site specific.
- ▲ The fields listed at the top of the screen are shared by all sites.
- ▲ The fields listed below the drop-down "Site" field are site specific.
- ▲ NOTE: PO Number sequence may be used in conjunction with a site-specific prefix when sent to ERP to avoid "stepping" on other sequences.



QAD Proprietary
EAM-CONF-220

The Sequences defined in this screen drive the numbering of certain sequential records in EAM. As a sequential record is created, EAM automatically increments the number on this screen to allow visibility into what the next sequential number will be.

Some records must be unique across all sites and thus are defined on the database level. In general these are records that may be shared across sites or that must always be unique upon being passed to ERP (such as the Receiver number).

Other Sequences are used on site specific records. These records are combined in the EAM db with a Site number to make them unique. Also of note is that the PO Number, which is passed to ERP as a record identifier, can be combined with a site specific Prefix in order to ensure that within the ERP system the EAM PO number does not step on the same number from another source.

In implementation, the sequences defined on this page require thorough consideration. Level 2 training will explore more detail on the decision making process for defining sequences.

Important After first loading master data like instruction lists and PM templates, be sure to update the sequence numbers. Also, if a user selects New for any of these types of records, but then does not save the record, the sequence number is not reused.

ERP and EAM Shared Data



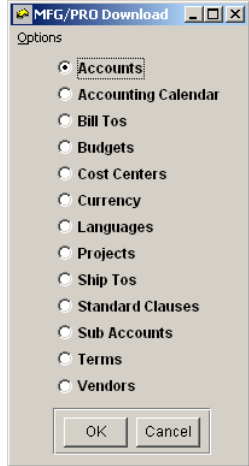
Database

Domain

Site

ERP and EAM Shared Data

- ▲ ERP is the "System of Record"
 - Accounts, Accounting Calendar, Bill To, Budgets, Cost Centers, Currency, Languages, Projects, Ship To, Standard Clauses, Sub Accounts, Terms, Vendors
- ▲ Synchronized to EAM from ERP
- ▲ Once initially downloaded, routines can pick up changes to these records in the future
- ▲ New records must first be downloaded manually
- ▲ Allows for a "subset" of ERP Chart of Accounts in EAM



QAD Proprietary

EAM-CONF-230

Aside from the GL Calendar, ERP and EAM share the following data for which the ERP system is the System of Record:

- Cost Centers / Accounts / Sub-Accounts
- Bill To / Ship To Records
- Budgets
- Currency (with Currency Conversion factors)
- Languages
- Project Numbers
- Standard Clauses
- Terms
- Vendors (Suppliers)

Note that new records must first be downloaded manually to EAM, but thereafter, EAM's background processes will process updates to the existing records.

Financial Controls

DatabaseDomainSite

Financial Controls

- ▲ Cost Center and Account Groups (Site Specific)
 - Defines which Cost Centers or Accounts as User is allowed to perform transactions against (e.g. In creating a request for Purchase)
 - Not to be confused with Routing / Authorization Approval
- ▲ Accounting Calendar (Domain Specific)
 - Synchronized with the ERP Accounting Calendar
 - Used for Financial Reporting Periods
 - System Control settings can prevent EAM user from posting transactions in a previous period
 - Closed Periods do not allow any additional transactions and do not allow a reopen option

QAD ProprietaryEAM-CONF-240

EAM provides a level of Financial control beyond that in ERP by allowing restriction of which Cost Centers and / or Accounts a user is allowed to perform transactions against, such as in purchasing. Cost Center restrictions are the most common. Account restrictions can often become quite cumbersome to maintain.

CC and Account Groups are NOT the same as CC and Account Approval Groups. The CC and Account Groups only control which Cost Centers and / or Accounts a user may utilize for requisitions.

The GL Calendar in ERP is critical to defining and controlling financial periods, and for this reason, EAM's GL Calendar should be synchronized with ERP's. Note that closing a period in ERP does not automatically close a period in EAM. EAM closure is a separate and manual activity. NOTE: Periods in EAM CAN NOT be reopened.

Basic Master Data



Our Passion. Your Advantage.

Database
Domain
Site

Basic Master Data

- ▲ Master Codes are maintained in associated modules
 - Example: Equipment codes found in the maintenance module under Codes > Equipment
- ▲ Different Levels: Database, Domain, Site
- ▲ Chart of Accounts from ERP
 - Account
 - Subaccount
 - Cost Center
 - COMING SOON: SAF Codes
- ▲ UOM Conversions
- ▲ Currency Conversions
 - Pulled from ERP
 - Allows ERP to drive updates to conversion factors

QAD Proprietary EAM-CONF-250

Master Data is primarily the means by which a company intends to organize and report upon data. Aside from the synchronized codes previously discussed, EAM provides a great many Master Codes tables to assist with slicing and dicing one's data. Level 2 Training will go into much more depth regarding best practices and use of these Master Codes in implementation to support business reporting requirements. For Level 1 Training, it is sufficient to know that Master Codes are located in the Utilities Menu.

Configuration Tools



Database

Domain

Site

Configuration Tools

- ▶ **EAM Configuration Project Plan**
 - Step by Step Configuration Plan
 - Available from Mentor
- ▶ **EAM Configuration Tracker**
 - Deliverable to Customer
 - Hand-off to Others
- ▶ **EAM Standard Product Implementation Plan**

Task Name	Flag	Value
1 QAD EAM Set up		
2 Establish Sites in QAD EAM		
11 Download MFG/PRO Accounting Data		
23 MFG/PRO Option Maintenance		
34 Establish Purchasing Data in EAM		
59 System Control Maintenance		
65 System Registry Maintenance		
81 System Control Maintenance		
90 Set Mandatory Fields		
91 Set User Defined Mail Maintenance		
92 Set Security Maintenance Group		
96 Set Up Employees and Users		
111 Configure Utilities Module		
239 Set Sequence Maintenance		
242 Add Required User Defined Fields		
245 Use Batch Update Routines		
262 Set Additional Report Data		
267 Implement Batch Job Scheduling		

Task Name	Flag	Value
Reopen Projects		
Inv. Cost Method		
Off Acct Periods		
Any Buyer		
Reopen PO Regs		
Update Receiver		
Base Currency		
Buyer Limit		
Receipt Limit		
Receipt Limit		
Misc		
Company Name		
SMTP Server		
System Mail ID		
Wait Hours		
MFG/PRO Interface		
Restrict Paid		
Exp. Days		
Min. Length		

EAM Site Implementation

- Advance Activities
 - Site Discovery/Introduction
 - Customer EAM Team Site Tour
- Data Development
 - Involve Site Team in Data Development Process
- Develop Chart of Accounts
 - Review with EAM Site Teams proposed Data Standards Presentation - Data Building/Conversion of Employee and User files
- Develop Employee Data for EAM
 - Data - Static Data
 - Equipment
 - Inventory
 - Pfts
- Core Team Training
 - EAM Training
 - All Users
 - Maintenance Supervisors / Technicians
 - Maintenance Technicians
 - Tool Crib
- Conference Room Pilot & Sign off
 - Operational Readiness Review & Sign off
- Notify QAD EAM Support of Go-Live Date
 - Conduct Physical Inventory
 - Verify EAM Site Setup from EAM SysAdmin Process Flow
 - Verify EAM Site Setup from QAD SS Admin Process Flow
- Data Cut Over
 - Receive OK to GO-LIVE
 - GO-LIVE
 - Post Go-Live Support of Site
- Post Go-Live Followup: Software and Process Review
 - Post Go-Live - Perform Post Software & Process Review
 - Track Key Performance Indicators
 - Schedule On-Going Monthly and Quarterly SRI Audits

Master Data is primarily the means by which a company intends to organize and report upon data. Aside from the synchronized codes previously discussed, EAM provides a great many Master Codes tables to assist with slicing and dicing one's data. Level 2 Training will go into much more depth regarding best practices and use of these Master Codes in implementation to support business reporting requirements. For Level 1 Training, it is sufficient to know that Master Codes are located in the Utilities Menu.

Course Level Review



Course Level Review

- ▲ Basic Database Settings
- ▲ Basic Domain Level Settings
- ▲ Basic Site Level Settings
- ▲ Basic Security
- ▲ Basic Master Data
- ▲ General System Configuration
 - Employees and Users
 - Sequences
 - Screen Editor
 - Master Data
 - EAM Mail

Practice!



Practice!

- ▲ Review this presentation: “1-4 Introduction to EAM Configuration”
- ▲ Utilize the “Level 1 Activities Handbook” for exercises and question related to this presentation
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	All - Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:		66 hours	Pre-Sales, Support, Services				
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-9 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	20.25	40	6	
			Self-Study to Classroom Percentage:	34%	66%	n/a	None

Upon Successful Completion of the "1-4 Introduction to EAM Configuration Exam", your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Class "1-5 Introduction to EAM Maintenance"
2. More detailed on-line EAM Application Classes
3. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

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EAM-CONF-300

Questions?



Questions?

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at:
 - Nancy Majure nnm@qad.com
 - Sara Suhr uhr@qad.com
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

Introduction to EAM Maintenance

EAM Level 1 Learning Path



EAM Level 1 Learning Path

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction							
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes	Sales, Pre-Sales, Support, Services	0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
TOTAL HOURS:				1	0		
Self-Study to Classroom Percentage:				100%	0%	None	None
EAM Level 1 Certifications							
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>							
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM I II Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Sched Pay and Reporting	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
TOTAL HOURS:				26.75	40	6	
Self-Study to Classroom Percentage:				40%	60%		

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Classes through 1-4
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. One Reading Assignment from the Reading List

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EAM-MAINT-020

Course Overview



Course Overview

- ▲ Maintenance Business Space
- ▲ Key Concepts
- ▲ Setup
- ▲ Maintenance Process
 - Request
 - Prepare
 - Work
 - Record
 - Review

Think in terms of an Hourglass

Big Picture I



Digestible Bite

Big Picture II



Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives:

- Understand the Inventory Module Domain Space
- Obtain High-Level Understanding of the Inventory Module Functionality

▲ Benefits:

- After taking this course, you will have a introductory level of understanding with regards to EAM Inventory.
- You will be able to utilize the Activities Handbook to perform basic Inventory functions.
- You will have an introductory understanding of the ways in which EAM can be benefit an organization's business goals.
- Upon successful completion of this course and its learning validation test you will be prepared to take the next steps in the EAM Level 1 Learning Path towards Certification.

Plant Maintenance Overview



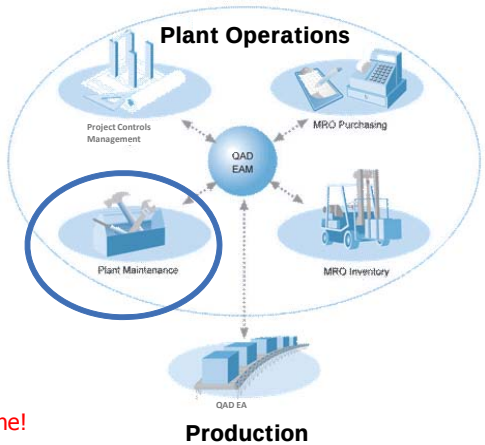
Plant Maintenance Overview

▲ Maximize manufacturing equipment utilization and minimize repair costs.

- Schedule and track preventive and predictive maintenance to optimize equipment utilization.
 - Schedule maintenance based on production data from QAD ERP system
- Prioritize repair work
- Manage repair costs
- Track repair history

Maintenance Module Roles:

- Maintenance Manager
- Reliability Manager
- Planner (Planner = yes)
- Scheduler
- Technicians (Assigned = yes)
- Anyone requesting service from Maintenance – everyone!



Plant Operations

Production

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EAM-MAINT-060

Within an organization the Maintenance department is responsible for making sure the equipment is running. The hope is that the equipment is running when it needs to and isn't broken down. The department must schedule its work around when production is using the machines. Companies who invest in computerized systems are looking for ways to make their equipment and the maintenance department more efficient.

Within a computerized system, use the Maintenance section to drive the work order process for maintenance and repair operations. This application includes all Preventive/Predictive maintenance (PM/PdM), plus planned and unplanned work to keep equipment operating at capacity.

Every business has supporting facilities and equipment (assets), whether they are making cars, building planes, creating software, or providing education. If these assets are not well maintained and managed, the efficiency of the business suffers. Use EAM to establish equipment records and hierarchies, to create work orders from service requests and preventive maintenance. With it, track the total cost of labor, materials (internal and external), and subcontractor services.

The basic building block of the maintenance operation is the equipment record.

Reference materials such as *World Class Maintenance Management* by Terry Wireman provide a solid foundation for understanding the Maintenance business space.

Maintenance Role in EAM

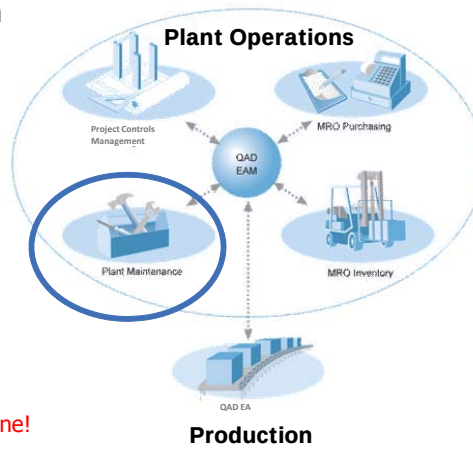


Plant Maintenance Overview

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 - Track repair history

Maintenance Module Roles:

- Maintenance Manager
- Reliability Manager
- Planner (Planner = yes)
- Scheduler
- Technicians (Assigned = yes)
- Anyone requesting service from Maintenance – everyone!



Maintenance Key Concepts 1



Maintenance Key Concepts – What you should already know

- ▲ Equipment Records are the Key Foundational record of Maintenance
- ▲ Types of Work Orders:
 - Corrective Maintenance
 - Preventive Maintenance
- ▲ Special Work Orders:
 - Fabricated Parts
 - Change Overs / Product Change
 - Serial Rebuilds

Maintenance Key Concepts 2



Maintenance Key Concepts – What you should already know

- ▲ EAM Work Orders ≠ ERP Work Orders
- ▲ Highest Calling of Plant Maintenance: Maintain the most valuable assets (Production Equipment) to ensure the plant keeps producing and selling.
- ▲ EAM Tracks “Cost of Ownership”

Maintenance Best Practices Goals 1



Maintenance Best Practices Goals

- ▲ World Class PM:CM Ratio is 80:20
- ▲ Increase Plant Reliability by:
 - Reducing unscheduled downtime
 - Improving quality
 - Increasing Equipment Availability (or Uptime)
- ▲ Utilize “Cost of Ownership” to make repair / replace decisions

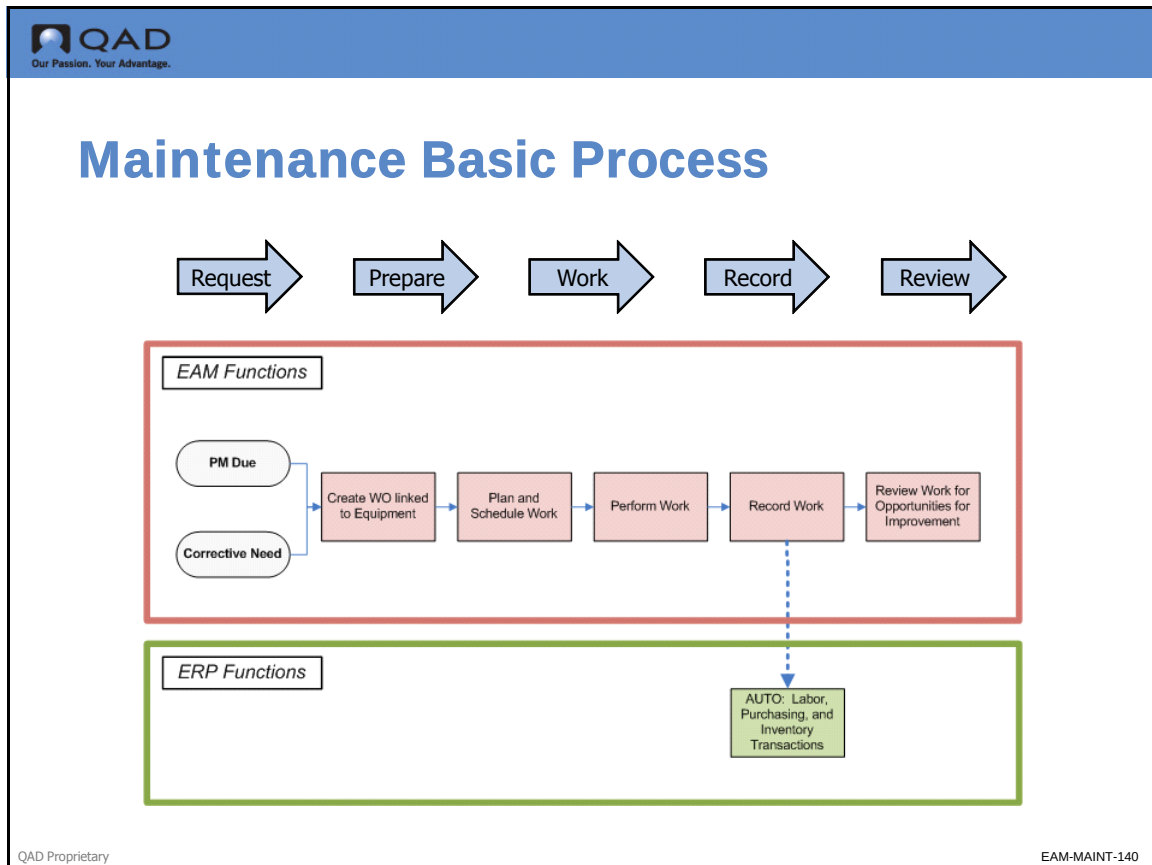
Maintenance Best Practices Goals 2



Maintenance Best Practices Goals

- ▲ Prioritize Work to support Reliability
- ▲ Schedule Work to minimize impact to Production
- ▲ Effectively utilize resources
- ▲ Reduce Schedule Breaks
- ▲ Increase “wrench time” and Decrease “travel time”
- ▲ Increase proactive Planning and Scheduling

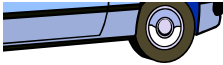
Maintenance Basic Process



Maintenance - A Personal Example



Maintenance – A Personal Example!



“Old Faithful” – your family car
How do you keep her running?
(reliability is your goal!)

QAD Proprietary EAM-MAINT-150

When you think of maintenance in a personal example you are reminded of the same philosophy that companies are using for maintenance of their production equipment.

How do you insure that Old Faithful is ready when you need her?

You perform Preventive Maintenance by:

- Changing the oil every 3 months or 3000 miles Calendar / DUOM PM
- Washing the car following heavy snow, salt – EVENT based
- Filling the air in the tires based on pressure gauge reading compared with min/max requirements from OEM

You perform corrective maintenance as needed

- When you have a flat tire
- When the battery goes dead
- When it won't start

How do you schedule the maintenance?

- When will the car be available for an oil change? (Scheduled outage)
- What if car breaks down? (Unscheduled outage)

Do you have the inventory to take care of your car?

- Some items are in stock like your spare tire

- Some items aren't held in stock but you want to have the part number handy in case you do need it – like wiper blades, oil and air filters
- Some items you might make to keep in your car like a CD burned with music designed to put the kids to sleep – this is what a plant would call an internally fabricated part
- Of course you must keep track of your insurance card which is really a virtual part

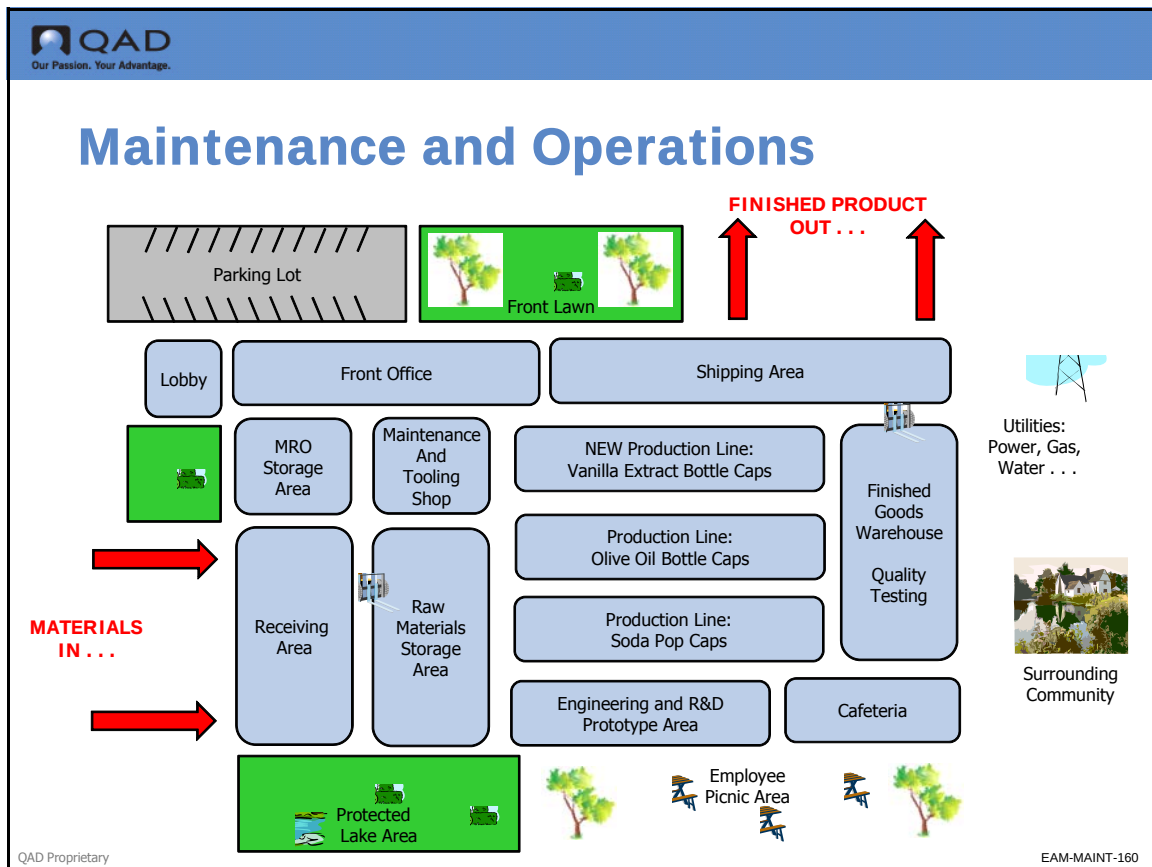
When buying the items or things you need, it is important to know the details of what might come up

- Stock Parts
- Non-Stock Parts
- Fuzzy Dice to hang from rear-view mirror (definitely a spot buy!)
- Car Wash – service

When you need repairs or work – do you call your mechanic for an appointment and describe the problem? (Service Request)

Isn't it also important to know your cost of ownership? Just your monthly payments and insurance? How do you decide when to replace old faithful with a newer model?

Maintenance and Operations



Within the production area you may have several types of equipment like the producing machine, conveyors feeding it and the packaging equipment. Over a period of time, the rollers on the conveyor need to be replaced. You have to purchase the rollers. You'll want to track how often and how many you use so that you can make sure you have them when you need them.

Maintenance Setup - Key Settings 1



Setup

Request

Consume

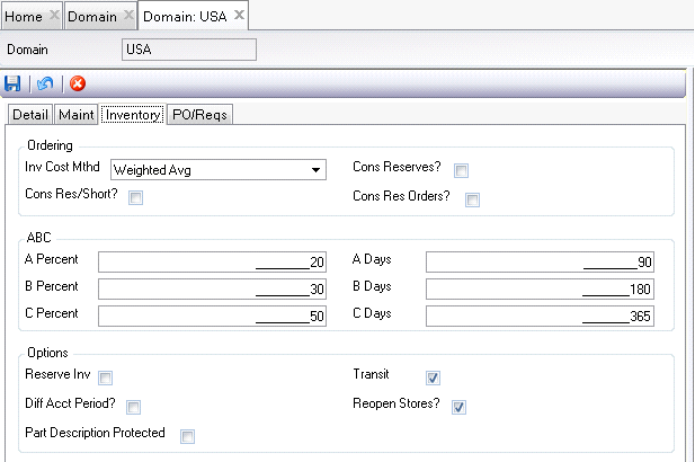
Replenish

Manage

Inventory Setup – Key Settings

▲ Domain Settings

- Inventory Costing Method
- Reserves and Replenishment
- ABC Settings
- Reserve Inventory?
- In Transit?
- Diff Acct Period?
- Reopen Stores?
- Part Description Protected?



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See Introduction to EAM Configuration Class

EAM-INV-180

Maintenance Setup - Key Settings 2

QAD
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Setup Request Consume Replenish Manage

Inventory Setup – Key Settings, cont.

- ▲ Site Settings
 - Accounting Defaults
 - Inventory Issue
 - Consignment
 - Adjustments
 - Transit
 - Variances
 - Rounding
 - Inter-Company

The screenshots show the 'System Site Maintenance' window for 'Site US-A-1' and 'Site US-A-1 for Domain USA'. The first screenshot shows the 'Inventory' tab with fields for 'Inventory Issue Defaults' and 'Consignment Inventory Defaults'. The second screenshot shows the 'More Inv' tab with fields for 'Inventory Adjustment Defaults', 'Transit Accounts', and 'Variance (Std Cost)'. The third screenshot shows the 'Misc' tab with fields for 'Sole Source Options', 'Rounding Defaults', 'Project Req Auth Options', and 'Inter-Company Defaults'.

QAD Proprietary See Introduction to EAM Configuration Class EAM-INV-190

Equipment Overview 1



Equipment Overview

- ▲ Represents anything for which work can be scheduled and costs collected (even “virtual”)
- ▲ MUST be unique across database

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See Appendix A for Creating Equipment Records

EAM-MAINT-200

Use Equipment to store and track the following information: cost analysis, failure analysis, bill of materials (BOM), driving units of measurement (DUOM), serialized components, tracking, and service requests. Track regularly scheduled work and breakdowns while collecting repair and maintenance cost information for each piece of equipment.

Equipment Overview 2



Equipment Overview

▲ Equipment ID in Maintenance

- Create equipment from a completed capital project
- Schedule routine preventive maintenance using the Equipment ID
- Schedule work orders against an Equipment ID to track repair history and cost
- “Cost of Ownership” Tracking
 - Internal Material: Issue parts from inventory against a work order, which is tied to equipment, or directly to the equipment ID
 - External Material: Log purchased non-stock items or contract labor against the work order or equipment ID
 - Subcontractor Costs: Track costs with purchases against work order or equipment ID
 - Internal Labor

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See Appendix A for Creating Equipment Records

EAM-MAINT-210

Use Equipment to store and track the following information: cost analysis, failure analysis, bill of materials (BOM), driving units of measurement (DUOM), serialized components, tracking, and service requests. Track regularly scheduled work and breakdowns while collecting repair and maintenance cost information for each piece of equipment.

Equipment Overview 3



Our Passion. Your Advantage.

Equipment Overview

- ▲ Labor Accounting Defaults
- ▲ Parent / Child Relationship
 - Roll-Up Costs
 - Many Children to one Parent

See Appendix A for Creating Equipment Records

QAD Proprietary EAM-MAINT-220

Use Equipment to store and track the following information: cost analysis, failure analysis, bill of materials (BOM), driving units of measurement (DUOM), serialized components, tracking, and service requests. Track regularly scheduled work and breakdowns while collecting repair and maintenance cost information for each piece of equipment.

Plant Maintenance Overview



Our Passion. Your Advantage.

PM Overview

- ▲ EAM's Plant Maintenance keeps plants up and running through effective Preventive Maintenance (PM) programs.
 - Preventive Maintenance establishes an automated schedule so you know when service is due for equipment.
 - Production Driven Maintenance: Schedule maintenance based on actual production data from QAD ERP.
 - Predictive Maintenance uses data from past failures to customize a maintenance plan.

QAD ProprietaryEAM-MAINT-230

As organizations mature their maintenance departments, they quickly realize that a little preventive maintenance can go a long way. Just as if you failed to change the oil in your car, you'll cause more problems and cost yourself more money than if you spend a little periodically on preventive maintenance. Using a computerized system allows the company to automate the scheduling of these events. A manufacturer may provide recommendations regarding the frequency. They may be based on a strictly calendar timing – like changing the batteries in your smoke alarms every six months. Or they may be based on equipment usage – like changing the oil every 3,000 miles. Over time the system, using history, the system will start to predict when a failure may occur. More mature maintenance organizations will also use advanced technologies like vibration analysis or temperature and trigger work when things fall outside of a predetermined tolerance level.

Plant Maintenance Setup and Options 1



PM Maintenance Setup and Options

▲ PM Goal

- Performs specific maintenance, calibration, inspection, lubrication and component replacement activities at specific intervals to avoid unplanned breakdowns.
- Excessive Breakdowns = Improper PM!!

▲ Scheduling Options

- PM Frequency
 - Calendar
 - Weekly, monthly, quarterly, annually
 - Driving Unit of Measure (DUOM)
 - Run time hours, # of products produced, # of hits, etc.
 - QAD ERP System Production Driven Maintenance
 - Both (Calendar or DUOM)
 - Events
 - Summer shutdown, opportunity-based maintenance
 - Used for “on-demand” PM’s.

See Appendix C for Creating PM templates

QAD Proprietary

EAM-MAINT-240

There are four different ways to schedule PMs:

- Calendar (for instance, every 6 months)
- DUOM or Driving Unit of Measure (for instance, change the car’s oil every 3,000 miles)
- Both Calendar and DUOM (for instance, change the car’s oil every 3,000 miles or every 3 months, whichever comes first)
- Event (for instance, a holiday or shutdown, such as the end of a production run)

Plant Maintenance Setup and Options 2



PM Maintenance Setup and Options

▲ Master Lists

- Create standard lists to use with multiple PM templates. In many environments, you perform the same tasks for multiple pieces of similar equipment.
- Attach Master Instructions List
 - A standard list of procedures to be performed, including quantity, craft, skill, estimated time and cost per line item. Each step can have a narrative description of work to perform or a document attached to the Master Instruction List.
 - Can be classified as **instruction or safety** – determines print order on the work order
- Attach Master Parts List
 - A standard list of parts required to complete the PM work order; contains the part number, description, quantity and current cost.
 - Can be converted to a Pick List (Stores Requisition) to allow staging / kitting and issuing of parts

Plant Maintenance Templates Issue Methods

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PM Templates Issue Methods

Home PM Templates PM Template No: 1477

PM Template No: 1477

Equipment Issue Method Codes Detail User Defined

Issue Method
Issue Method: DUOM

Calendar
Issue Cycle: Day No of Cycles: 1
Next Issue: Status: Active
Lead Days: Sliding Sch?:
Last Day of Month:

Driving UDM
DUOM: hours Monitor DUOM:

Meter
DUOM Cycle: 10,000,0000 Next DUOM Issue: 20,000,0000
Current Reading: 4000 Est Due Date:

Monitor
Max High: Actual High:
Max High Time Interval: Max High Time Unit:
Max Low: Actual Low:
Max Low Time Interval: Max Low Time Unit:

Event
Event: Event Next Issue:

Scheduling
PM Due: 7/31/2009 Next Failure:
Shift Work Day?:

Calendar Based

"Both"

DUOM Based

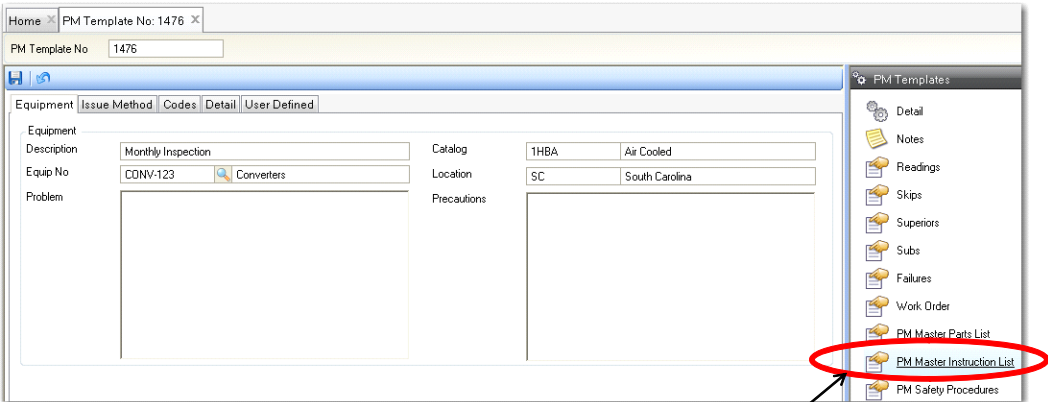
Event Based

QAD Proprietary EAM-MAINT-260

Link an Instruction List for this Plant Maintenance



Link an Instruction List for this PM



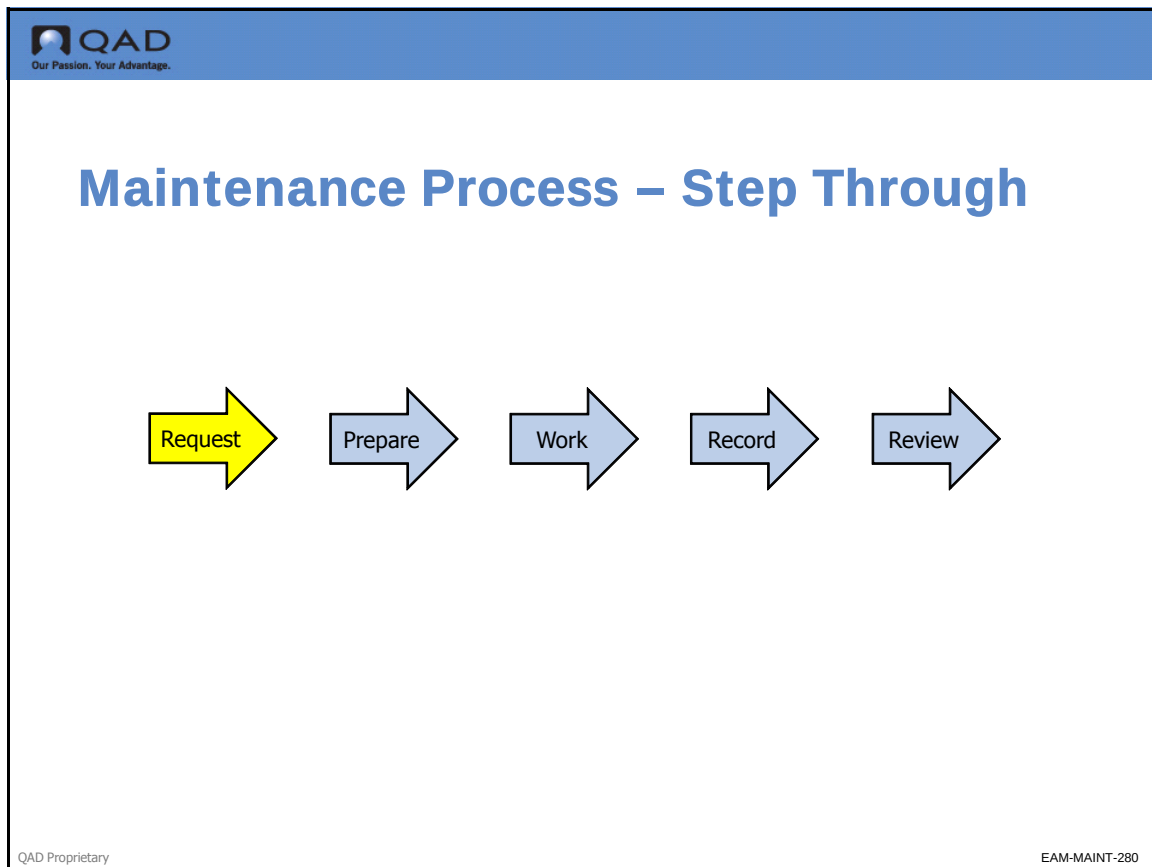
Provides Estimated Labor Time and Cost!

See Appendix B for Creating PM templates

QAD Proprietary EAM-MAINT-270

Any linked PM instructions are included in the work order to be used by the PM technicians so they know what need to be done.

Maintenance Process Step Through: Request



How Is Work Requested



How is Work Requested

- ▲ Three ways to create a Work Order:
 - PM Due
 - Service Request Entered
 - Work Order Directly Created
- ▲ NOT Best Practice unless Emergency:
 - Call Technician on Radio
 - Phone Call
 - Email
 - Stop Technician in Hallway

QAD Proprietary EAM-MAINT-290

Request Work: PM Due









Request Work: PM Due

- ▲ Search for due PMs on a regular basis.
- ▲ Manually or automatically search for and create PM work orders.
 - Option 1: Manually schedule PM work orders
 - Search for PMs via PM filter that are due within specified timeframe
 - Globally issue/create PMs
 - Schedule and assign the PM work orders (to Assigned = yes)
 - Purchase parts, subcontractor services, equipment rental, etc.
 - Reserve parts automatically from inventory (if reservation option is enabled)
 - Option 2: Automatically schedule PM with Batch Job Scheduler (BJS)*
 - Set up PM scheduler job in BJS
 - PMs work orders created through BJS are e-mailed to planner
 - Schedule and assign the PM work orders
 - Parts are automatically reserved from inventory (if reservation option is enabled)

See Appendix B for Creating / Issuing PM's

QAD Proprietary
EAM-MAINT-300

There are two ways to issue PMs to work orders. Companies will decide how to issue based on their own processes and requirements.

Request Work: Service Requests



Request Work: Service Requests

- ▲ Method by which personnel can formally request service from Maintenance
- ▲ Like a “Helpdesk” Ticket
- ▲ Provides traceability throughout lifetime of request
- ▲ Provides email notification of status changes
- ▲ Allows Maintenance ability to:
 - Approve / Deny prior to converting to Work Order
 - Group like requests onto one Work Order

See Appendix D for Creating Service Requests

QAD Proprietary EAM-MAINT-310

Service requests are typically used to report a problem with a piece of equipment that may not need a work order immediately. For instance, an operator on the production floor reports that equipment appears to be leaking oil. An office staff member reports a burned-out light bulb.

It is often viewed as a simplified way of getting basic data into the work order from non-maintenance staff in order to expedite the planning required in the maintenance department.

A Maintenance Planner or Supervisor reviews the service requests and creates a work order, or closes the service request without action.

Request Work: Create Work Order



Request Work: Create Work Order

- ▲ Three Ways to Create Work Orders:
 - From PM Templates (Type = PM)
 - Manually issue PM WO
 - Automatic via Batch Job Scheduler (BJS)
 - From a Service Request (Type = CM)
 - Add request for work
 - EAM sends e-mail to convert request into work order
 - Directly Add a Corrective Maintenance WO (Type = CM)
 - Created directly in the work order module
- ▲ Unique Feature of Work Orders: Can have different fields mandatory on SAVE and on CLOSE

QAD Proprietary EAM-MAINT-320

Work Order Important Concepts

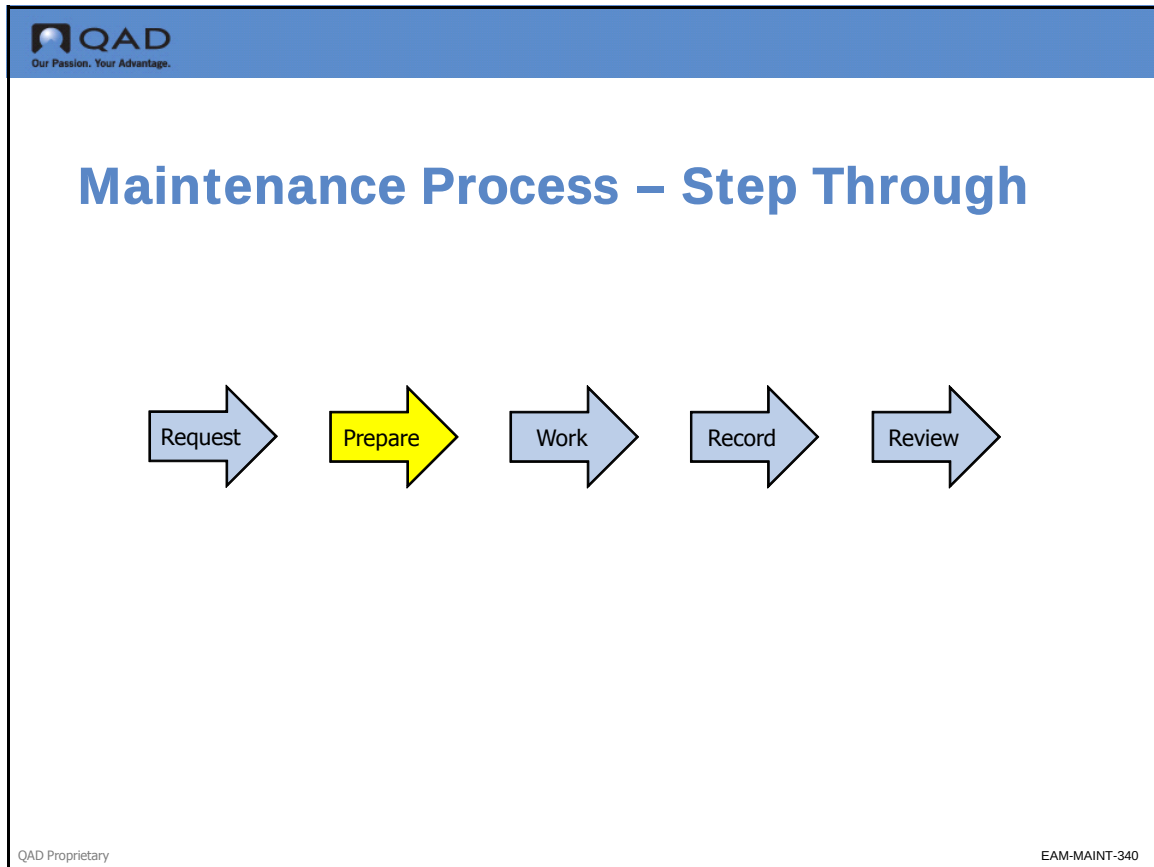


Work Order - Important Concepts

- ▲ Preventive Maintenance vs. Corrective Maintenance
 - System Generated flag, cannot change
 - PM generated from PM Templates only
 - CM from Service Requests or directly created in WO module
 - Important measure PM-CM Ratio (80:20)
- ▲ Planned vs. Unplanned (“verb” not “adjective”)
 - Planned? Field provided on Work Order
 - Manually changed
 - Important measure of which WO’s required purchasing, labor planning, internal inventory, etc.
- ▲ Scheduled vs. Unscheduled =
 - No system specific field, use a code
 - Important measure in more advanced Maintenance organizations to indicate “breaks” in maintenance schedule

QAD Proprietary EAM-MAINT-330

Maintenance Process Step Through: Prepare



Work Orders Overview



Work Orders Overview

- ▲ The work order is the focal point to collect information about routine equipment maintenance and repairs
 - Coordinate and manage reactive, planned corrective, and preventive maintenance work, projects, and shutdowns.
 - A work order is an outline of maintenance work to do.
 - All planned or repair activities are recorded by generating individual corrective maintenance (CM) work orders.
 - PM work orders are issued from PM templates when they are due by date or equipment usage.
 - Charge all maintenance cost such as labor, materials and outside contract service to a work order.
 - Record data such as primary reason for failure, root cause analysis and work performed.

QAD Proprietary EAM-MAINT-350

The goal of maintenance planning is to improve labor productivity. Match the work to be done with the resources required to do the work. During the planning process, consider:

- Maintenance backlog - the number, size, and priorities of current work orders (including corrective and preventive work orders).
- Resource requirements - time estimates, crafts, skills, shifts
- Materials
- Contractors
- Downtime - coordinate with production schedule

Prepare: Plan and Schedule

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Request → **Prepare** → Work → Record → Review

Prepare: Plan and Schedule

Regardless of source of request, all linked to what?

PM Service Request Direct Create

Plan: Purchase External Materials

Plan: Purchase Sub-Contractor Services

Plan: Internal Parts (Stores Request)

Plan: Internal Labor

SCHEDULE: Once all Planning is Complete.
Question: Would you ever not "Plan"? When?
Would you ever not "Schedule"? When?

QAD Proprietary EAM-MAINT-360

Scheduling



Request → Prepare → Work → Record → Review

Scheduling

- ▲ Work Order Backlog
 - Good to have a backlog!
 - Prioritization
 - Labor requirements
- ▲ Interface to MS Projects
 - Available in v11
 - Still being converted in v12
 - Export of Work Orders
 - Schedule
 - Import New Schedule

QAD ProprietaryEAM-MAINT-370

In some organizations, the Planner and Scheduler may be the same person. However, in more advanced organizations with larger Maintenance teams, the two roles may be split.

Keep in mind, that adding the Planning and Scheduling step in the Maintenance process is a best practice that companies in the process of uplifting their maintenance programs to World Class standards must incorporate. Terry Wireman suggests that the Planning stage is one of the largest potentials for cost savings in the maintenance arena (World Class Maintenance Management).

Assign and Schedule the Work Order

Assign and Schedule the Work Order

The screenshot shows the QAD Work Order form with several annotations:

- Request** (blue arrow)
- Prepare** (yellow arrow)
- Work** (grey arrow)
- Record** (grey arrow)
- Review** (grey arrow)

Assign and Schedule the Work Order

Planner field look-up contains employees where Planner = Yes

Receives Emails on certain status changes

Can assign individual or multiple individuals. List contains employees where Assigned = Yes

Assigned

Planner

Assigned

Detail

Notes

Equipment

Assigned

Labor History

Instruction Lists

Stores Req Lists

Requisitions

Cost Analysis

Home **Work Orders** **Site: 10000, W/O No: 108**

Site **10000** **W/O No** **108**

Action **Equip** **Co** **ss** **Text** **Detail** **User Defined**

General

Equip No **PRESS001** **Press:80t.w/a bolster 26x36** **Request** **4329**

Assigned **Planner** **FBANKS** **FRANK BANKS**

Notify **ENGR** **Engineering Dept** **Alert**

Product No

Problem

Problem **Check on stamp return.** **Service No: 1002** **Originator: 2**

Dates

Received **8/25/2009** *** Start**

Closed

Status

Priority **Status** **0**

Delay **Class**

QAD Proprietary **EAM-MAINT-380**

When scheduling the work order, you can assign the technicians used and set a start date. Note that the Work Order reflects the primary Assigned individual, but multiple resources can be assigned using the Assigned sub-detail function.

Remember that if someone is missing from a lookup such as Assigned, Planner, or Responsible, it is because the flag on their EMPLOYEE ID is not properly set.

Prepare: Work Order Setup 1



Request → **Prepare** → Work → Record → Review

Prepare: Work Order Setup

- ▲ Important Data
 - Assigned (list contains Assigned = yes employees)
 - Assign a single technician to a work order
 - Assign multiple technicians to a work order with the Assigned option from the submenu.
 - Class
 - Categorizes work orders, such as environmental, safety, calibration, shutdown, and lean.
 - Planned and Unplanned
 - PM work orders default to Planned and CM work orders default to Unplanned; however, you can schedule CM work orders during a normal shutdown period. Identify these as Planned work orders.

QAD ProprietaryEAM-MAINT-390

The Class code is actually a configurable code in EAM. It is usually utilized to categorize Work Orders for reporting purposes. The EAM Rapid Implementation toolset provides some recommended codes to include in the Class field to facility important measures.

As organizations strive to improve their maintenance programs, the ability to properly manage Planned vs Unplanned work becomes critical. Industry estimates suggest that working in a planned mode as opposed to an unplanned mode could have a cost ratio as high as 1:5, meaning that, for example, performing a \$100 planned job could save as much as \$400 over performing the same job in an unplanned mode (Terry Wireman, World Class Maintenance Management).

Prepare: Work Order Setup 2



Request

Prepare

Work

Record

Review

Prepare: Work Order Setup

▲ Important Data (cont'd)

- Work Order status change
 - Automatically e-mails the *notify* user or group when status changes.
- Estimates (labor, material and contractor cost)
 - Feeds specific reports in EAM to provide planned against actual an
- Estimates (hours labor and hours down)
 - Use it to compare estimated hours with actual hours.

QAD Proprietary

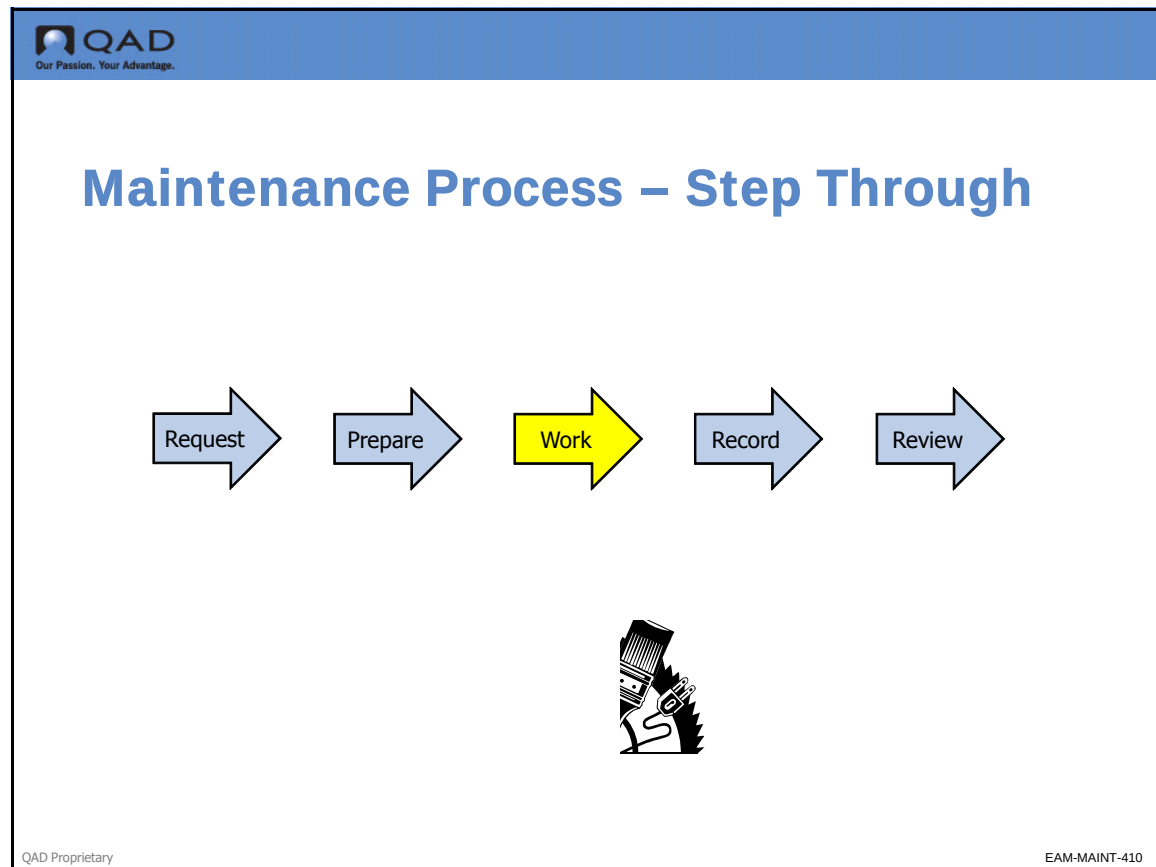
EAM-MAINT-400

On a Work Order there are two different ways to include estimates:

- Directly on the work order, the user may enter estimates (less accurate).
- Utilize Master Instruction Lists and Master Parts Lists / Stores Requests estimate planned labor and costs (most accurate).



Maintenance Process Step Through: Work



Prepare: Plan and Schedule

QAD
Our Passion. Your Advantage.

Request → **Prepare** → Work → Record → Review

Prepare: Plan and Schedule

Regardless of source of request, all linked to what?

PM Service Request Direct Create

Plan: Purchase External Materials

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Plan: Internal Labor

SCHEDULE: Once all Planning is Complete.
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QAD Proprietary EAM-MAINT-360

Scheduling



Request → Prepare → Work → Record → Review

Scheduling

- ▲ Work Order Backlog
 - Good to have a backlog!
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 - Available in v11
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QAD ProprietaryEAM-MAINT-370

In some organizations, the Planner and Scheduler may be the same person. However, in more advanced organizations with larger Maintenance teams, the two roles may be split.

Keep in mind, that adding the Planning and Scheduling step in the Maintenance process is a best practice that companies in the process of uplifting their maintenance programs to World Class standards must incorporate. Terry Wireman suggests that the Planning stage is one of the largest potentials for cost savings in the maintenance arena (World Class Maintenance Management).

Assign and Schedule the Work Order

The screenshot shows the QAD EAM Maintenance Work Order form. At the top, a navigation bar includes the QAD logo and a process flow: Request → Prepare (highlighted) → Work → Record → Review. The main title is "Assign and Schedule the Work Order".

The form is for Site 10000, Work Order No. 108. It has tabs for Equip, Costs, Text, Detail, and User Defined. The "Equip" tab is active, showing fields for General, Assigned, Notify, and Product No. The "Assigned" field is highlighted in yellow. A callout box points to the "Planner" field, stating: "Planner field look-up contains employees where Planner = Yes". Another callout box points to the "Assigned" field, stating: "Can assign individual or multiple individuals. List contains employees where Assigned = Yes". A third callout box points to the "Assigned" field, stating: "Receives Emails on certain status changes".

The form also includes fields for Requester (4329), FBANKS, FRANK BANKS, Alert, Problem (Check on stamp return. Service No. 1002. Originator: 2), Dates (Received: 8/25/2009, * Start: [highlighted]), Status (Priority, Delay, Status: 0, Class), and a sidebar with links to Detail, Notes, Equipment, Assigned, Labor History, Instruction Lists, Stores Req Lists, Requisitions, and Cost Analysis.

QAD Proprietary EAM-MAINT-380

When scheduling the work order, you can assign the technicians used and set a start date. Note that the Work Order reflects the primary Assigned individual, but multiple resources can be assigned using the Assigned sub-detail function.

Remember that if someone is missing from a lookup such as Assigned, Planner, or Responsible, it is because the flag on their EMPLOYEE ID is not properly set.

Prepare: Work Order Setup 1



Request → **Prepare** → Work → Record → Review

Prepare: Work Order Setup

▲ Important Data

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 - Assign a single technician to a work order
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 - PM work orders default to Planned and CM work orders default to Unplanned; however, you can schedule CM work orders during a normal shutdown period. Identify these as Planned work orders.

QAD Proprietary EAM-MAINT-390

The Class code is actually a configurable code in EAM. It is usually utilized to categorize Work Orders for reporting purposes. The EAM Rapid Implementation toolset provides some recommended codes to include in the Class field to facility important measures.

Prepare: Work Order Setup 2



Request → **Prepare** → Work → Record → Review

Prepare: Work Order Setup

▲ Important Data (cont'd)

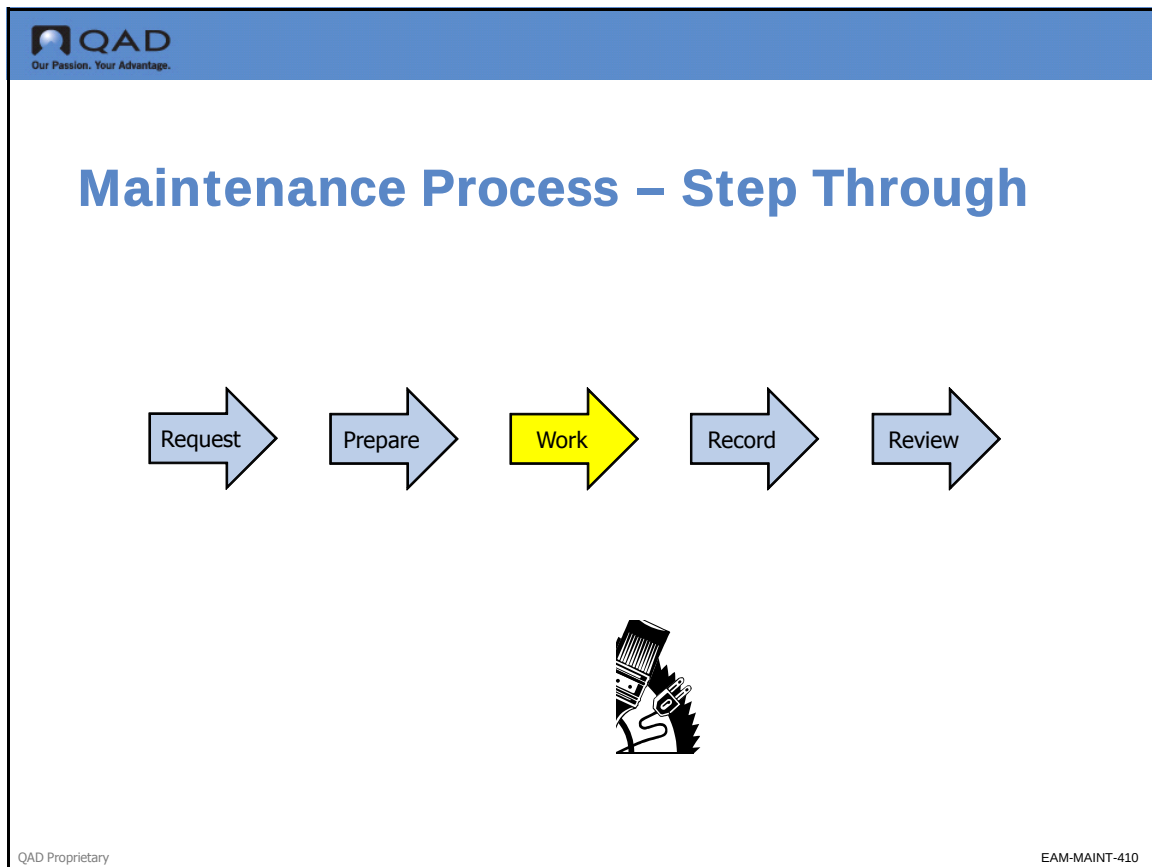
- Work Order status change
 - Automatically e-mails the *notify* user or group when status changes.
- Estimates (labor, material and contractor cost)
 - Feeds specific reports in EAM to provide planned against actual an
- Estimates (hours labor and hours down)
 - Use it to compare estimated hours with actual hours.

QAD Proprietary EAM-MAINT-400

On a Work Order there are two different ways to include estimates:

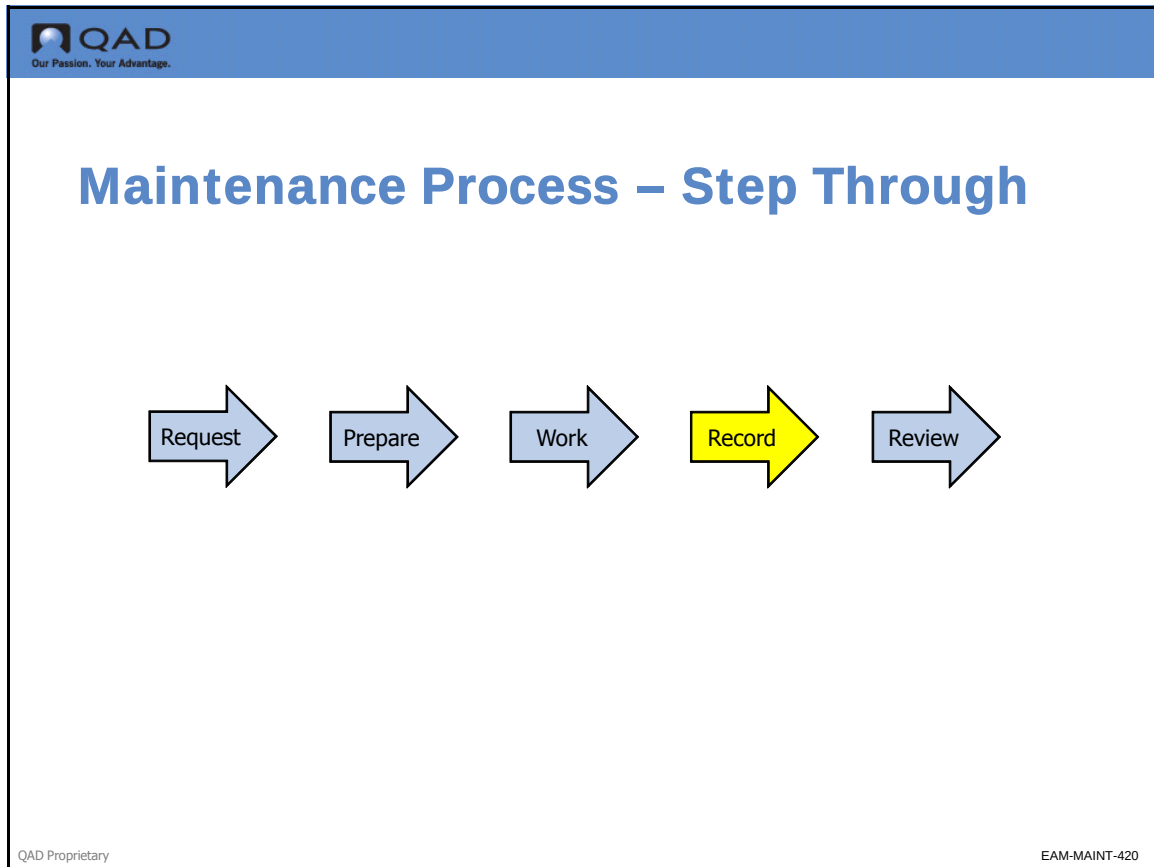
- Directly on the work order, the user may enter estimates (less accurate).
- Utilize Master Instruction Lists and Master Parts Lists / Stores Requests estimate planned labor and costs (most accurate).

Maintenance Process Step Through: Work



This step is the wrench time that we discuss frequently in the maintenance arena. Industry polls indicate that as little as 25% of a technicians day is actually spent on wrench time. Note how planning and proper scheduling could be very instrumental in reducing travel time and increasing wrench time – which results in more effective utilization of skilled resources.

Maintenance Process Step Through: Report



Record Work



Our Passion. Your Advantage.



Record Work

- ▲ Critical Step!
- ▲ Accumulates “Cost of Ownership” to Equipment
 - Internal Labor Costs
 - Internal Parts
 - Purchased Materials
 - Subcontractor Costs
- ▲ Provides Vital Analysis Tool for Continuous Improvement
 - Mean-time between types of Failures
 - Should PM be adjusted?
 - Could we have quality issues with a repair part?
 - Should we re-train Operators?
 - Is it time to replace this equipment?
 - Are our work instructions steps correct and complete?
 - Could we better plan parts needed?
 - Is our BOM correct?

QAD ProprietaryEAM-MAINT-430

Record Work: Important Data 1



Record Work: Important Data

- ▲ As left
 - Sends e-mail to a maintenance planner when another problem is discovered and must be rescheduled on a different work order.
- ▲ Work performed
 - Notes specific work performed on work order.
- ▲ Downtime
 - Maintenance vs Production Downtime
- ▲ Failure and Repair Codes
 - Drives Mean-Time between Failures (MTBF) Reporting
- ▲ Work Order status change
 - Automatically e-mails the *notify* user or group when status changes.
 - The technician signals that the work is (F)inished and ready for supervisor review prior to closing the work order.

QAD ProprietaryEAM-MAINT-440

Record Work: Important Data 2



Request
Prepare
Work
Record
Review

Record Work: Important Data

- ▲ Parts Issued
- ▲ Purchase Material Receipts / Cost
- ▲ Subcontractor Costs
- ▲ Labor Posted

Home | Work Orders | Site: US-A-1, WO No: 10015

Site: US-A-1 | WO No: 10015

Action | Equip | Codes | Text | Detail | User Defined

General	Requestor	AHOWARD ADAM HOWARD
Equip No: RWEELD-01 Resistance Welder-01	Planner	JHARRIS JERRY HARRIS
Assigned	Alert	
Notify	MFGM	Maintenance Mail Gto

Problem

Problem: "SAFETY FIRST"
Follow all Company safety procedures.

Dates

Received: 4/16/2010 | * Start: 8/29/2008

Closed: | Target Date: 9/29/2009

Status: Priority: 3 | High | Status: | Class: PM | Planned Preventative

All linked to what?

Record:
Internal Parts Used

Record:
Internal Labor

QAD Proprietary
EAM-MAINT-450

Post Labor Against Work Order 1

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Request → Prepare → Work → **Record** → Review

Post Labor Against Work Order

The screenshot displays the QAD EAM software interface for a Work Order. The top navigation bar shows the process flow: Request → Prepare → Work → **Record** → Review. The main title is 'Post Labor Against Work Order'. The interface includes a search bar with 'Site: SANF' and 'WO No: 31983'. A dropdown menu for 'Action' is open, showing options: Authorize, Change Status, **Post Labor**, Reopen, Global Change Status, Global Authorize, Issue, Print Document, Reverse Labor, and Copy Master Instruction List. The 'Post Labor' option is highlighted. The right sidebar shows a 'Work Order' section with a 'Detail' button and a list of options: Notes, Equipment, **Labor History** (highlighted with a red circle and a red 'X' over it), Stores Req Lists, Requisitions, and Cost Analysis. The main content area shows fields for 'Screw Injection Mold Press', 'Requestor: sysadm', 'Planner: 1237', 'Alert: Rosinski, Joseph', 'Dates Received: 7/1/2008', '* Start: 7/1/2008', 'Status: 3', 'Priority: Planned', 'Status: 0', 'Delay: 123456', and 'Class: Turnaround'.

QAD Proprietary EAM-MAINT-460

Labor can be charged to a work order through the Post Labor Action.

Note Companies who use job cards for their employees may find it more efficient to enter labor through the employee browse list. If an employee is posts only their own labor, then they can be set up so that their employee number defaults in to the screen.

Issue Parts from Stores



Request

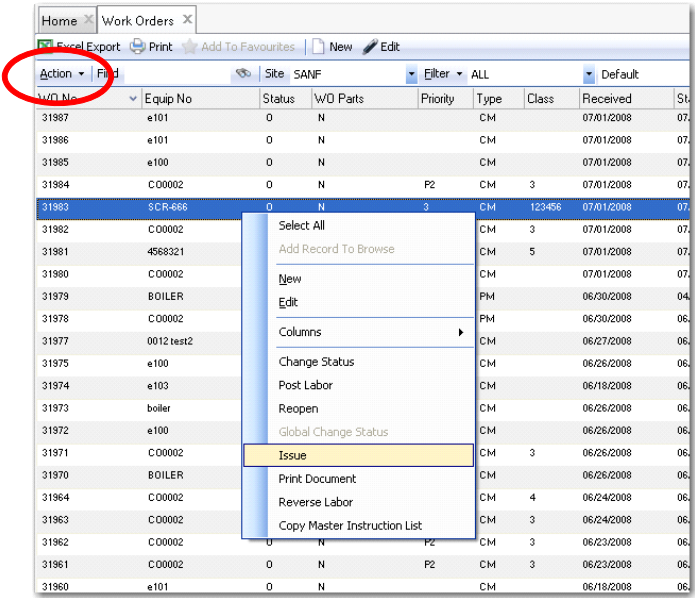
Prepare

Work

Record

Review

Issue Parts From Stores



The screenshot shows the QAD Work Orders interface. A table lists work orders with columns: W/O No., Equip No., Status, W/O Parts, Priority, Type, Class, Received, and St. The 'Action' column is circled in red. A context menu is open over the table, showing options: Select All, Add Record To Browse, New, Edit, Columns, Change Status, Post Labor, Reopen, Global Change Status, **Issue** (highlighted), Print Document, Reverse Labor, and Copy Master Instruction List.

QAD Proprietary
EAM-MAINT-470

Parts that are used on a work order should be issued to that work order so that the cost can be captured and repair history captured.

Organizations often take one of two approaches to issuing parts:

- Tool Crib Attendant performs transaction as parts are removed from crib (best practice)
- Technicians report consumption of parts AFTER completion of work as part of the record process (not best practice, because takes away the real-time accuracy of inventory and could result in missed transactions)

Finishing Process

The screenshot displays the 'Finishing Process' window in the QAD EAM Maintenance system. At the top, a workflow bar indicates the sequence: Request → Prepare → Work → **Record** → Review. The main window title is 'Finishing Process'. Below the title, there are tabs for 'Equip', 'Codes', 'Text', 'Detail', and 'User Defined'. The 'Codes' tab is selected, showing a form with various fields for capturing maintenance details. These fields are organized into two columns. The left column includes 'Failure', 'System', 'As Found', 'Pri Craft', 'Crew', and 'Clearance'. The right column includes 'Repair', 'Assembly', 'As Left', 'Owner', 'Shift', and 'Planned?'. Below these columns are 'Internal' fields: 'Fabricated?' (checkbox), 'Qty to Build', 'Qty Received', 'Date Due', 'Stock Run No', 'Source Site', 'Part No', and 'Part UOM'. The 'Record' step in the workflow bar is highlighted in yellow, indicating the current stage of the process.

After the work has been completed the appropriate details should be captured in the work order. This information is critical to the overall goal of increasing machine uptime, improving maintenance efficiency, and ensuring product quality. Free form text fields can be used to capture narrative information. Historical information is used to improve future planning.

Some companies choose to skip the finish process, but care must be taken because once closed, a work order can not have details added to it unless it is reopened by a supervisor with security access to reopen a closed work order (and if system control settings allow closed work orders to be reopened).

Change WO Status to Finished (F)

Note that Status "F"inished is not system required, but is very often built into customer processes to allow for an audit step before closing.

WO No	Equip No	Status	Priority	Type	Class	Problem	Received
32021	e100	0	3	CM	2		07/02/2008
32016	0012 test2					test	07/01/2008
32015	BMW					It is making her	07/01/2008
32014	E103						
32013	E104						
32012	E103						
32011	E103						
32010	E104						
32009	E103						
32008	E103						
32007	E103						
32006	E103						
32005	E103						
32004	E104						
32003	E103						
32002	E103	PL	P2	PM			
32001	E104	PL	P2	PM			
32000	BOILER3	PL		PM			

Status	Description	CM Default?
0	Blank Status Code	☐
123456789012345678901234567890		☐
AB	Two Character Description	☐
C	Closed	☐
D	Delayed	☐
F	Finished	☒
N2	New status 2	☐
NE	New WO status	☐
O	Open	☒
PL	Planned	☐

To change the status on a work order, simply return to the browse and select the Change Status option from the Action or right-click menu.

Though the Finished status is not one of the pre-packaged statuses in EAM, it is quickly becoming the norm for organizations working to improve their maintenance programs. The Finished step allows for the opportunity to audit the data entry and utilize that time to improve upon data collection and identify opportunities to improve other important aspects of the maintenance program, such as PM improvements, Work Instruction improvements, etc.

Record Work: Important Data



Request → Prepare → Work → **Record** → Review

Record Work: Important Data

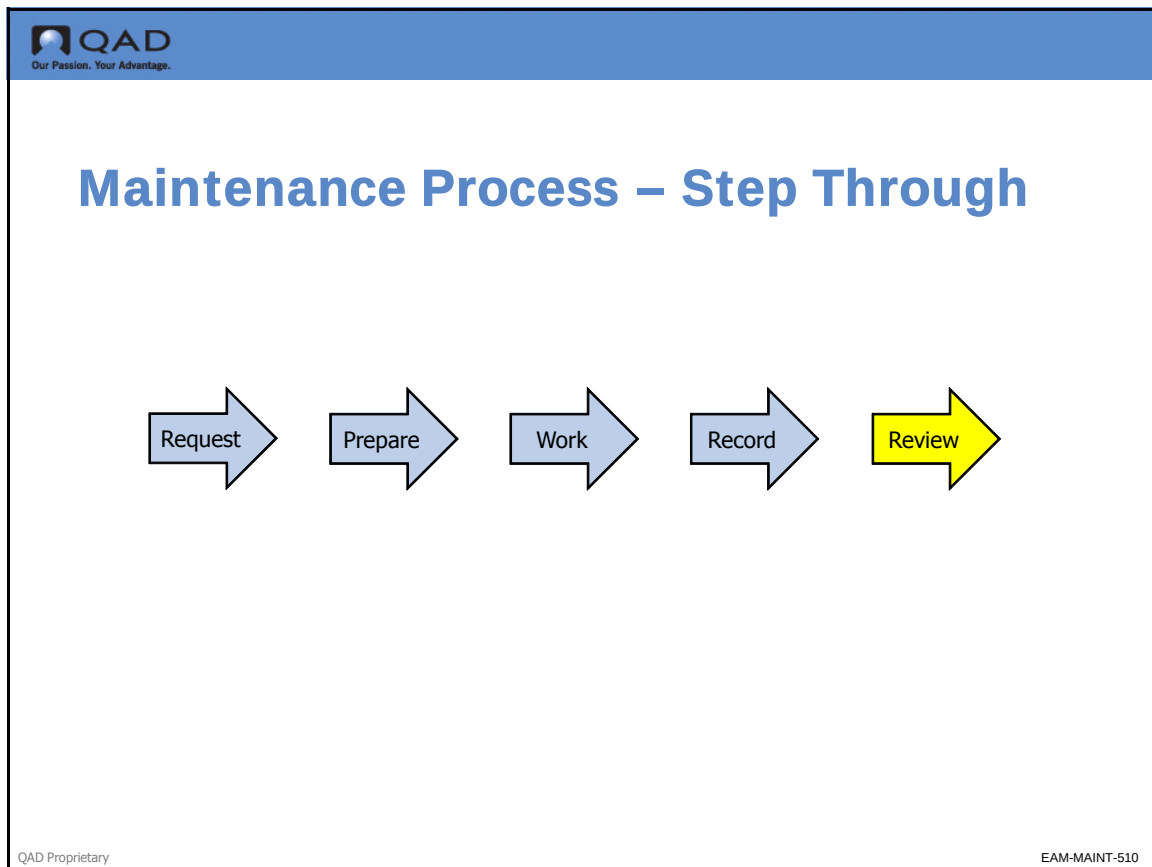
- ▲ Financial Transactions can feed to QAD ERP system*
 - Purchase receipts (material and contract labor)
 - Material issues from QAD EAM inventory
 - Labor transactions
 - Other (Manual GLs, such as interest expense)

** You decide which transactions to feed.*

QAD Proprietary EAM-MAINT-500

Remember that what transactions are actually sent to ERP financials is configurable. Most common settings allow all transactions to flow to QAD, with the exception of Labor. This is because many companies do not want those transactions competing with labor transactions coming from a time and attendance system or a payroll system.

Maintenance Process – Step Through



Review Work Performed / Results



Review Work Performed / Results

- ▲ Work Orders Status of "F"inished
- ▲ Root Cause Analysis
- ▲ PM Improvement Opportunities
- ▲ Downtime Reduction Opportunitites
- ▲ Cost
- ▲ MTBF (Mean Time Between Failure)
 - Note PM Failures (Set on PM Template) help exclude PM work from this
- ▲ Work Performed Details
- ▲ Instruction List Improvements
- ▲ Parts List Improvements
- ▲ Change to Status "C"losed

QAD Proprietary EAM-MAINT-520

A properly managed and continuously improving maintenance organization must measure and review in order to increase productivity and reliability. A maintenance program is not complete without utilizing the data collected to help make important business decisions.

Cost Analysis



Request
Prepare
Work
Record
Review

Cost Analysis

Site		W/O No	
10000		101	

Totals	Labor	Material	Contract	Manual	Total
Estimated	0.00	0.00	0.00		0.00
Planned	18.75	14,578.30	0.00		14,597.05
Actual	369.00	25.50	0.00	0	394.50
Variance	1868.00%	-100%	N/A		-97.00%

Labor
Material
Contract
Manual

Excel Export
Print
Add To Favourites
New

Find
Default

Site	Part No	Date	Qty	UOM Cost	Total Cost
10000	05-01-0444	08/19/2009	2	12.75	25.5

Cost Analysis available on both **Equipment** and **Work Order Level**

How is this helpful in the Review Process?

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EAM-MAINT-530

The Cost Analysis screens on both the Equipment level and the individual Work Order level provide a comparison of estimates vs actuals, as well as a detailed view of the transactions that make up that cost. This information can be used to refine estimating practices, identify opportunities to refine inventory stock levels, identify ways in which wrench time can be increase, etc.

Close

QAD

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Request

Prepare

Work

Record

Review

Close

Work Orders

Excel Export Print Add to Favorites New Edit

Action Find Site SANF Filter ALL Def

WO No	Equip No	Status	Priority	Type	Class	Problem	Received
32021	e100	0	3	CM	2		07/02/2008
32016	0012 test2					test	07/01/2008
32015	BMW					It is smoking	
32014	E103						
32013	E104						
32012	E103						
32011	E103						
32010	E104						
32009	E103						
32008	E103						
32007	E103						
32006	E103						
32005	E103						
32004	E104						
32003	E103						
32002	E103	PL	P2	PM			07/01/2008
32001	E104	PL	P2	PM			07/01/2008
32000	BOILER3	PL		PM			07/01/2008

Select All

Add Record To Browse

New

Edit

Columns

Authorize

Change Status

Post Labor

Reopen

Global Change Status

Global Authorize

Issue

Lookup

Find Default

Status	Description	CM Default?
A8	Two Character Description	☐
C	Closed	☒
D	Delayed	☐
F	Finished	☐
N2	New status 2	☐
NE	New WO status	☐
O	Open	☒
PL	Planned	☐
R	test	☐
S	Scheduled	☐

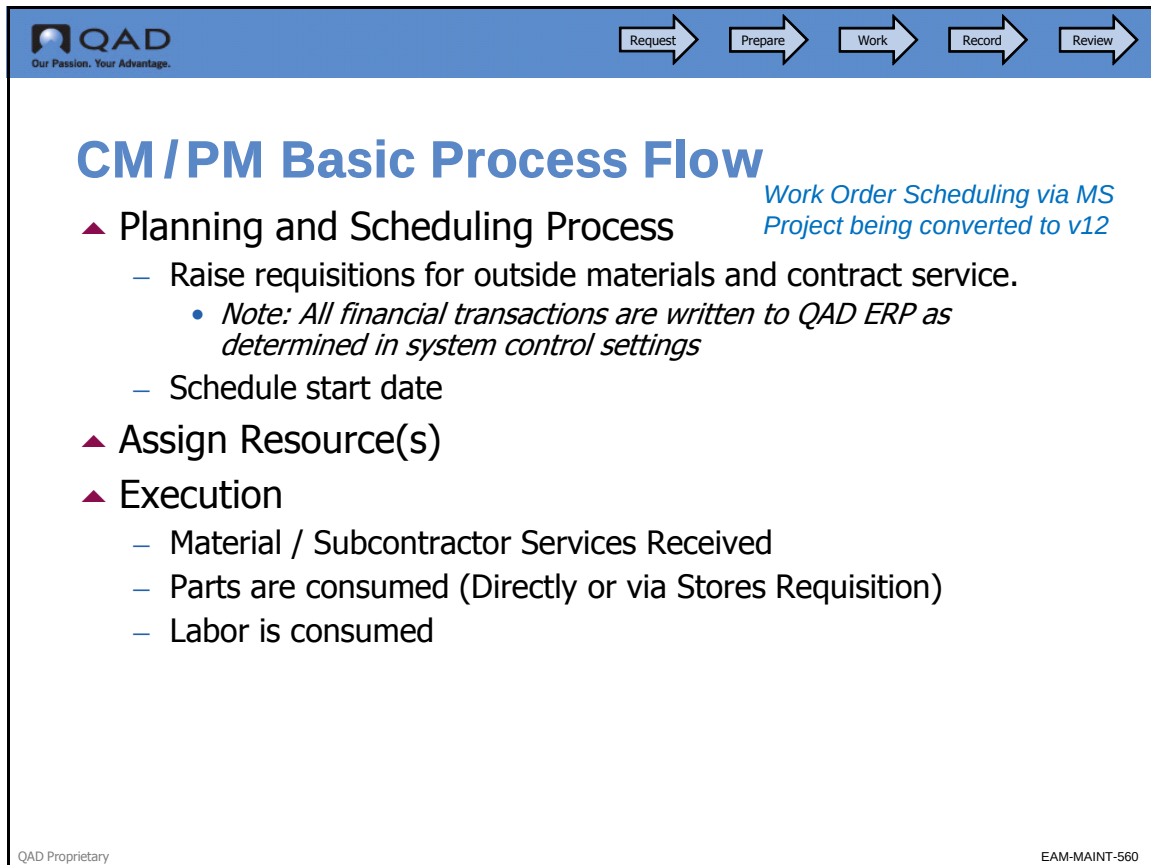
Remember! WO's can have different fields mandatory on CLOSE than on SAVE.

Note that "Reopen" is securable and is not usually open to most users. For this reason, Close is a very structured process.

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CM/PM Basic Process Flow



The basic process flow of maintenance is similar to that of production. Start with the planning and staging process, assign resources such as technicians and parts, perform the repairs, use the materials and final product – working machinery is available for producing.



CM/PM Basic Process Flow

Work Order Scheduling via MS Project being converted to v12

▲ Closing Process

- Work Performed is captured
- Failure and Repair codes are captured
- Downtime captured
- Actual Costs captured
- The work order is finished and closed.
- Equipment and Work Order Cost Analysis is available.

QAD Proprietary EAM-MAINT-570

The basic process flow of maintenance is similar to that of production. Start with the planning and staging process, assign resources such as technicians and parts, perform the repairs, use the materials and final product – working machinery is available for producing.

Review





Review

- ▲ Equipment Records
 - Key foundational record of EAM Maintenance
 - Parent/child relationships
 - Analytical information here
- ▲ Master Instruction Lists (MIL's)
 - Work instructions or safety guidelines
 - Provides estimated Labor Time and Costs
- ▲ PM templates
 - Calendar, DUOM, Both or Event Based
- ▲ Work Orders
 - From Service Request, PM or Directly Created
- ▲ Perform actions on work orders
 - Planning, Scheduling, Work Performed, Costs
- ▲ Identify Opportunities for Improvement
- ▲ Work Order Status Change email notifications to Originator

QAD Proprietary EAM-MAINT-580

Practice!



Practice!

- ▲ Review this presentation: "1-5 Introduction to EAM Maintenance"
- ▲ Utilize the "Level 1 Activities Handbook" for exercises and question related to this presentation
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the "EAM v12 r02" training environment to practice

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:		66 hours	Pre-Sales, Support, Services, Customers				
PREREQUISITE: EAM Introduction Level Exam Completion		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List: Terry Wireman "World Class Maintenance"	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40		6
			Self-Study to Classroom Percentage:	40%	60%		

Upon Successful Completion of the "1-5 Introduction to EAM Maintenance" Exam, your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Class "1-6 Introduction to EAM Inventory"
2. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

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Questions



Questions

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at:
 - Nancy Majure nnm@qad.com
 - Sara Suhr uhr@qad.com
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

Learning Validation



Learning Validation

▲ (see separate xls)

Appendix A: Create Equipment



Our Passion. Your Advantage.

Appendix A: Create Equipment

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EAM-MAINT-640

Adding New Equipment


Our Passion. Your Advantage.

Adding New Equipment

Equipment
Excel Export
Print
Add to Favorite
New
Edit

Action Find Site SANr Filter ALL Default

Equip No	Description	Asset Serial No	Cost Center	Dept
0-0-0	Maria s Rotable Test Equip	HAVE-IT-YOUR-WAY		
0-0-0 Copy Test	Maria s Rotable Test Equip			
0-0-0-0	testing enghrs allocation		0100	4070
0-0-0-Copy	Maria s Rotable Test Equipment	ZZZZZZZZZZZZZZZZZZX		123456
001	TestEquip01234567890123	12345	4100	Paint
0012 test	Equipment 0012 test-b	546	1050	4080
0012 test 3	More testing		001	3060
0012 test1				
0012 test2	testing	7-19-0776		
0012 test3	testing	kuytf	55	
0012 test4			1050	4060
0012 testa		19812525		
0012 testa copy				
0012test 3 Copy	More testing		001	3060
002	Test		0100	3080
003	TestEquip012345678901234567890	1212121212	00000	000000
004	New Equipemnt			3000

Select All
Add Record To Browse
New
Edit
Columns
Initialize Limits
Lock
Parent Child Lookup
Refresh
Global Refresh

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EAM-MAINT-650

Navigate to Maintenance|Equipment|Equipment.

Click New or right-click and select the New option.

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Adding New Equipment

Home x Equipment x Site: 10000, Equip No: x

Site: 10000

Action

Codes | Asset | Detail | Serialized | User Defined

General

Description

Category

Location

Type

Parent No

Status

BOM Type

Responsible

W/O Owner

Catalog

Manual

Equipment

- Detail
- Notes
- Service Requests
- Work Orders
- PM Templates
- Serial History
- Readings
- Equipment Alternate
- Procedure Lists
- Production Hours
- Equipment Products

QAD Proprietary EAM-MAINT-660

Navigate to Maintenance|Equipment|Equipment.

Click New.

Enter details in the fields called out on the slide.

Note fields such as Manual which are reference, free-form fields. In this case, used to reference drawing numbers or OEM maintenance manuals.

Save the record.

Equipment Setup



Equipment Setup

▲ Important Equipment fields

- Notify
 - Generates automatic e-mail and sends it to the *notify* (group or user ID) on a record
- Owner
 - Restricts who can modify a record
- User-defined fields
 - Modifies labels and includes user-defined fields in filters for browse lists and reports
- Required fields
 - Specifies fields that users must populate to save a record

Equipment Setup

- ▲ Important Equipment fields
 - Parent/child relationships
 - Links equipment for look-ups and cost reports
 - A Parent can have many Children
 - A Child can only have one Parent
 - Unlimited Levels (see lookup)
 - Asset # - NOT linked to Fixed Asset System



Equipment Setup

▲ Important Equipment functions

- Cost Analysis
 - Summarizes cost spent against equipment
- BOM
 - Lists bill of material of parts used on equipment. EAM can automatically add BOM when issuing parts to equipment
- Failure Type
 - Groups failure codes. This limits the lookup on failure codes to just those relating to the type of equipment.
- Priority
 - Work orders default to the equipment's priority code.
- Failure Analysis
 - Shows different equipment failures, the **Mean Time Between Failure (MTBF)**, and its impact on the equipment
 - Soon to be converted to BI3 Report

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Attachments and revision control will be available soon in v12.

Equipment Setup

▲ Important Equipment functions

- Auto Filter
 - Runs the primary filter in a module automatically when the user opens the module
- Accounting Information
 - Charges default cost center and account numbers when issuing parts, labor, or purchases
- Spending limits
 - Sends e-mails to the equipment's notify user or group when equipment reaches spending limits
- Driving Unit of Measure (DUOM)
 - Sets up and tracks equipment usage data, which you can enter manually, by automatic file upload, or direct connection to the QAD ERP system's production data

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EAM-MAINT-700

Fields located on the Equipment Record Detail tab page.

DUOM: Driving Unit of Measure = Production Driven Maintenance

Update the DUOM for subordinate (child) equipment based on the parent equipment DUOM update. DUOM conversions drive how those production records translate into usage measures to automatically drive preventative maintenance.

Exercise 3: Add New Equipment



Exercise 3: Add New Equipment

- ▲ Add new piece of equipment with the following data:
 - Number: <Your Initials> 001
 - Parent: PL0001 (Production Line 1, mfg)
 - Location: PL1 (Production Line 1)
 - Notify: yourself (use your logon ID)
 - Make yourself a planner in the GUI employee file.
 - Planner: yourself (use your employee ID)
 - Status: Make a selection from the lookup
 - Type: In Service
 - CC: 5010/Labor: 6500/Material: 1500/Contract: 7400

Appendix B: Create Master Instruction Lists (MIL's)



Our Passion. Your Advantage.

Appendix B: Create Master Instruction Lists (MIL's)

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EAM-MAINT-720

PM Maintenance Setup and Options



PM Maintenance Setup and Options

▲ Master Lists

- Create standard lists to use with multiple PM templates. In many environments, you perform the same PM for multiple pieces of similar equipment.
- Attach Master Instructions List
 - A standard list of procedures to be performed, including quantity, craft, skill, estimated time and cost per line item. Each line can have a narrative description of work to perform or a document attached to the Master Instruction List.
- Attach Master Parts List
 - A standard list of parts required to complete the PM work order; contains the part number, description, quantity and current cost.
 - Not the same as a Bill of Material (BOM)
 - Can be converted to a Pick List (Stores Requisition) to allow staging / kitting and issuing of parts

Creating a Master Instruction List

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Creating a Master Instruction List

qa01: Enterprise Asset Management (2) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

- Maintenance
 - Equipment
 - PM / PdM
 - PM Templates
 - Master Lists
 - Parts Lists
 - Work Orders
 - Service Requests
 - Labor History
- Codes
- Inventory
- Purchasing
- Finance
- General
- Analysis
- System Administration

Home x Instruction Lists x

Excel Export Print Add To Favourites **New** Edit

Find Filter Instruction Lists Default

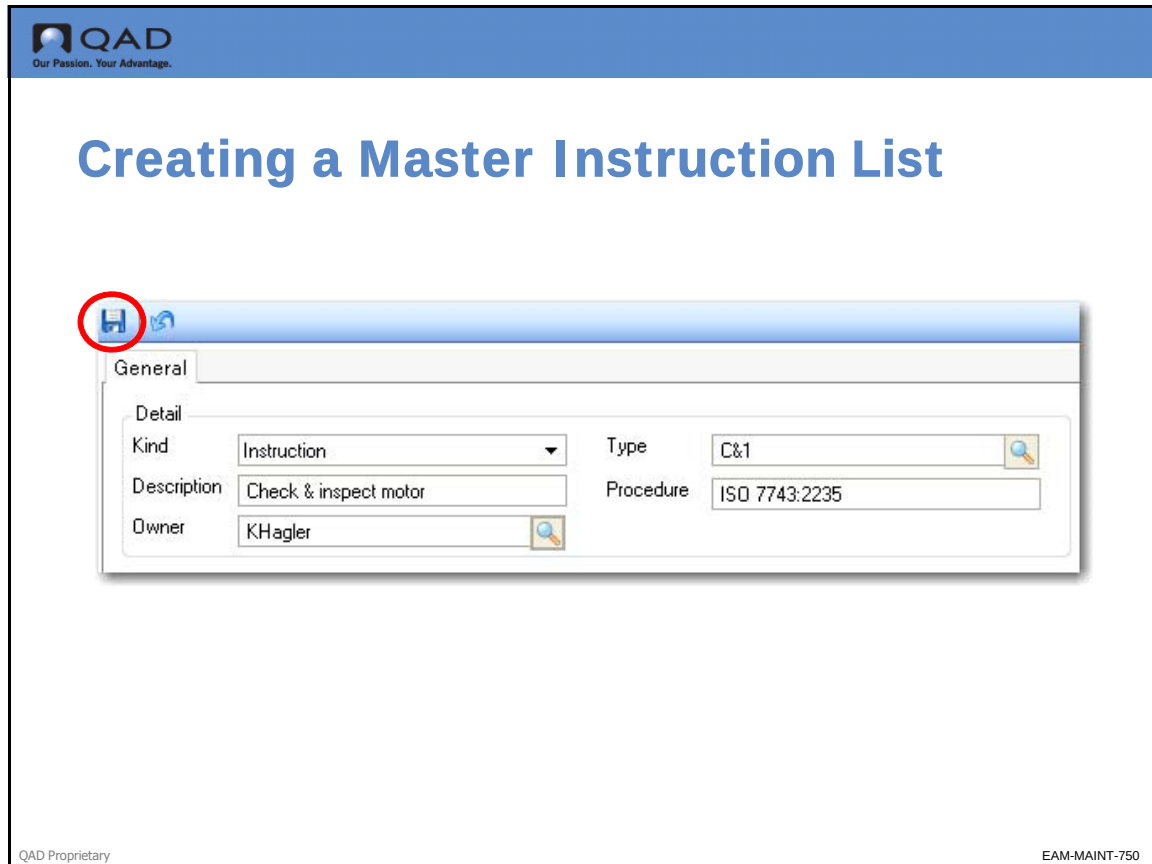
Mstr Inst No	Kind	Description	Type	Description	Procedure	Owner
19	Instruction		20000	Electrical Motor Rebuild		
20	Instruction		LUI\$	Lubrication Instructions		
21	Instruction		20000	Electrical Motor Rebuild		
22	Instruction		20000	Electrical Motor Rebuild		
23	Instruction		20000	Electrical Motor Rebuild		
24	Instruction		20000	Electrical Motor Rebuild		
25	Instruction		3000	Engine Overhaul		
26	Instruction		LUI\$	Lubrication Instructions		
27	Instruction		LUI\$	Lubrication Instructions		
28	Instruction		LUI\$	Lubrication Instructions		
29	Instruction		LUI\$	Lubrication Instructions		
37	Instruction					
65	Instruction		RB010	Actuator Valve Rebuild		
68	Instruction		20000	Electrical Motor Rebuild		
69	Instruction		RB010	Actuator Valve Rebuild		

Select All
Add To Browse
New
Edit
Columns

Action Find Default

Step	Qty	Craft	Skill	Std Hrs	Cost	Description
1	1	GK		4	60	MOW BACK LAWN
2	1	GK		0.5	7.5	EDGE ALONG DRIVEWAY AND CURB
3	1	GK		7	105	

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Creating a Master Instruction List

General

Detail

Kind: Instruction

Type: C&1

Description: Check & inspect motor

Procedure: ISO 7743:2235

Owner: KHagler

QAD Proprietary EAM-MAINT-750

Indicate Instruction as Kind to provide the correct lookup.

Click the magnifying glass to open the Type lookup.

Select a Type from the list.

Briefly describe the purpose of these instructions under Description.

Cross-reference any official procedures such as ISO.

Select the Owner using the lookup.

Save the record.

(uhr) Creating a Master Instruction List with a Kind of 'Safety' designates those instructions to print first when printing work order documents.

Creating a Master Instruction List Step

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Creating a Master Instruction List Step

Step	Qty	Craft	Skill	Std Hrs	Cost	Description
1	1	New1	INT	2	51	EDGE ALONG DRIVEWAY AND CURB
2	1	New2	NOV	0.5	12.25	WAKE UP LOOSE GRASS
3	1	GK	INT	4	60	MOW LAWN
4	1	GK	NOE	0.25	3.75	PUT LOOSE GRASS IN BAGS
5	1	GK	NOV	0.5	7.5	SPRAY WEEDS WITH WEED KILLER
6	1	GK	INT	2	30	SPREAD SEEDS
7	1	GK	INT	2	30	SPREAD FERTILIZER
8	1	GK	INT	2	30	SPREAD LIME
9	1	gk		1	15	
10	1	ELEC1	3	46.5		Enter in the step here

Note:
 Entering the step details on the Master Instruction List is what allows reporting of "Planned" Labor (Time and Cost)

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EAM-MAINT-760

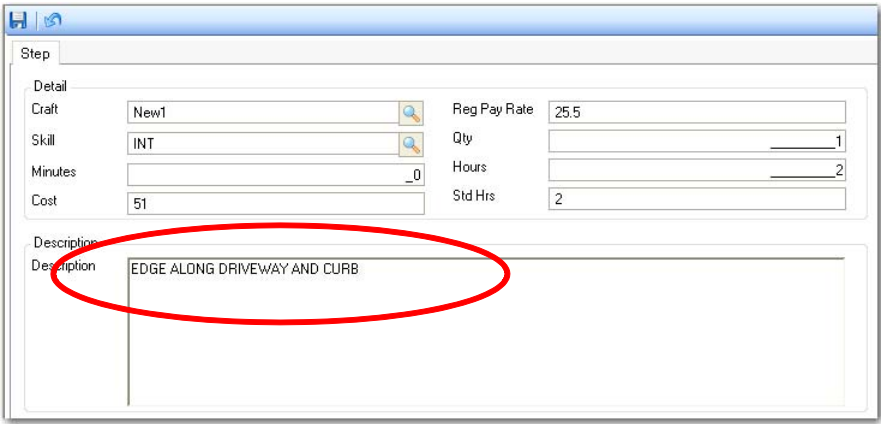
Navigate to Maintenance|PM/PdM|Master Lists|Instruction Lists.

Click New or select new from the right-click menu options. The system assigns an MIL number to the new record.

Creating a Master Instruction Step

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Creating a Master Instruction Step



Detail	
Craft	New1
Skill	INT
Minutes	0
Cost	51
Reg Pay Rate	25.5
Qty	1
Hours	2
Std Hrs	2

Description
Description: EDGE ALONG DRIVEWAY AND CURB

QAD Proprietary EAM-MAINT-770

Add steps to the list in the lower browse.

Click New on the lower browse toolbar or select the options from the right-click menu.

Exercise 4: Create a Master Instruction List



Exercise 4: Create a Master Instruction List

1. Input details:

- Kind: Instruction
- Description: Weekly Grounds <Your Name>
- Owner: Sharter
- Steps
 1. Mow grass
 2. Bag clippings
 3. Trim bushes
 4. Edge
 5. Blow curbs and drives

2. Save.

3. Find in browse.

Appendix C: Create and Issue PM's



Appendix C: Create and Issue PM's

PM Process Flow



PM Process Flow

▲ Issue/Create PM Work Orders

- The Maintenance Planner searches for due PMs on a regular basis, typically once a week. The planner can manually or automatically search for and create PM work orders.
 - Option 1: Manually schedule PM work orders
 - Search for PMs via PM filter that are due within specified timeframe
 - Globally issue/create PMs
 - Schedule and assign the PM work orders (to Assigned = yes)
 - Purchase parts, subcontractor services, equipment rental, etc.
 - Reserve parts automatically from inventory (if reservation option is enabled)
 - Option 2: Automatically schedule PM with Batch Job Scheduler (BJS)*
 - Set up PM scheduler job in BJS
 - PMs work orders created through BJS are e-mailed to planner
 - Schedule and assign the PM work orders
 - Parts are automatically reserved from inventory (if reservation option is enabled)

PM Maintenance Setup and Options



PM Maintenance Setup and Options

▲ Other functions

- Work Order (WO) Owner
 - User or group of users who can modify the work order
- Active
 - Clear this check box to stop work orders from a PM
- Lock List
 - Prevents technicians from modifying the work order instruction or parts list for regulatory or safety-based PMs
- Estimated Labor Hours
 - Displays estimated labor on standard work order
- Failures
 - Displays failures the PM was designed to prevent

Creating a Calendar-Based PM Template



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Creating a Calendar-Based PM Template

qa01: Enterprise Asset Management (2) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

Maintenance

Equipment

PM / PdM

PM Templates

Master Lists

Work Orders

Service Requests

Labor History

Codes

Inventory

Purchasing

Finance

General

Analysis

System Administration

Home PM Templates

Excel Export Print Add To Favourites New Edit

Action Find Site 10000 Filter ALL

PM Template N	Description	Equip No	Next Failure
1200	pm # 1200 for 00	WC4-1	
1412	checking the PM # increment	BOILER4	
1414		WC4-1	
1415	boiler4 PM		
1429	Test for PM Due from BJS		
1430	M1 C&I Boilers		
1442	M1 C&I BOILER		
1443	M1 C&I BOILER		
1455	5W C & I Mill Machine PM		
1456	M1 C & I		
1457	M3 Fluid Replacement		
1460	M Press stop time check		
1461	3000 HR C&I Boilers	BOILER4	
1462	5000 C&I	WC3	

Select All

Add Record To Browse

New

Edit

Columns

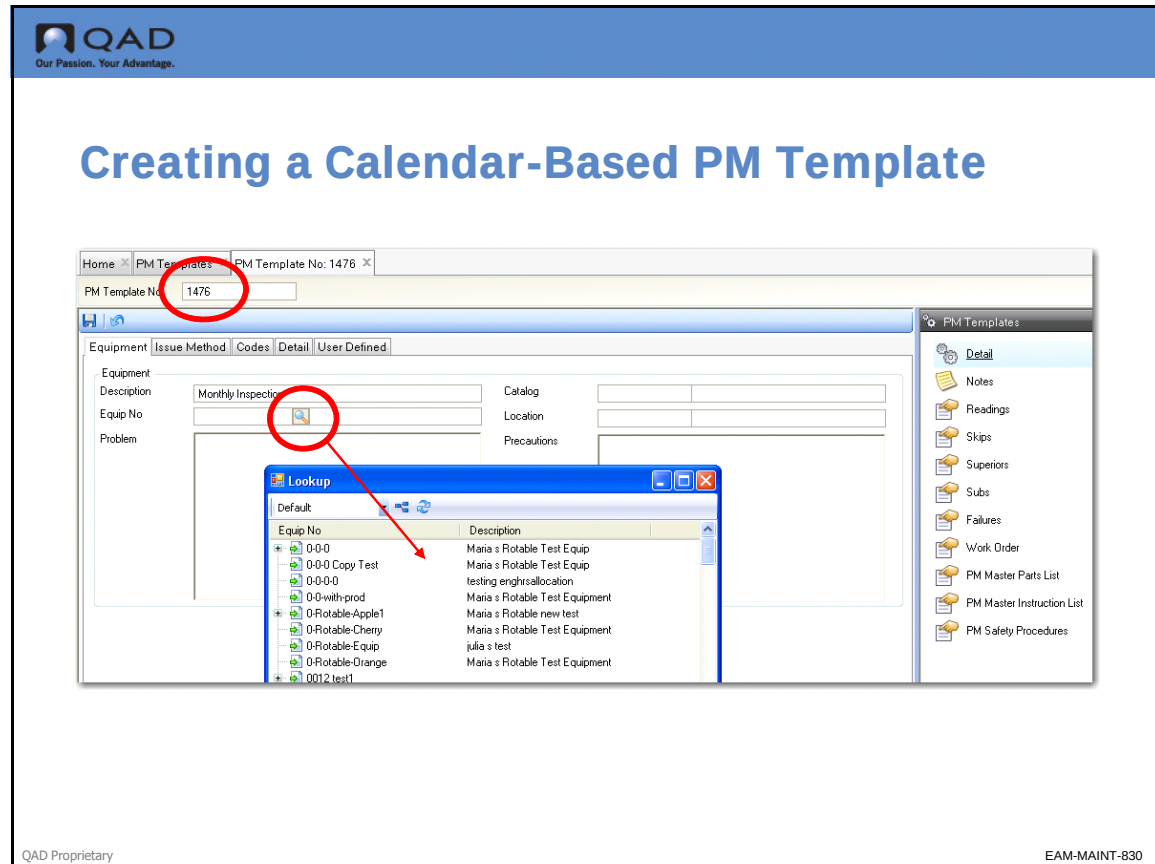
Copy to Equipment

Issue

Global Issue

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Calendar-based PM's are the most simple PM's and usually the least accurate.

System assigns PM Template #

Use the lookup to select equipment

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Creating a Calendar-Based PM Template

Equipment Issue Method Codes Detail User Defined

Sliding Sch? ☒ January 2010

Driving UOM Month

DUOM 1 (#/cycles)

Meter

DUOM Cycle 0

Current Reading 0

Monitor

Max High

Max High Time Interval

Max Low

Max Low Time Interval

Event

Event

Event Next Issue

No of 1

Status Active

Lead 5

Last Day of Month ☒

Monitor DUOM ☒

Next DUOM Issue 0

Est Due Date

QAD Proprietary EAM-MAINT-840

Select:

Calendar

Month

1 (#/cycles)

Next issue date

5 (# lead days)

Enter any other relevant information and Save.

Link an Instruction List for this PM

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Link an Instruction List for this PM

Home PM Template No: 1476

PM Template No 1476

Equipment Issue Method Codes Detail User Defined

Equipment Description Monthly Inspection Catalog 1HBA Air Cooled

Equip No CDNV-123 Converters Location SC South Carolina

Problem

Precautions

PM Templates

- Detail
- Notes
- Readings
- Skips
- Superiors
- Subs
- Failures
- Work Order
- PM Master Parts List
- PM Master Instruction List**
- PM Safety Procedures

QAD Proprietary EAM-MAINT-850

People who access this work order use the instructions and any safety or other included notes to perform the work order.

Exercise 5: Create a Calendar PM



Exercise 5: Create a Calendar PM

1. Create a calendar-based PM with equipment <Your initials>001.
2. Details:
 - Description: <Your initials> Calendar PM
 - Weekly
 - Due tomorrow
 - 1 lead day
3. Associate your Master Instruction List.
4. Save and Close.

Creating a DUOM PM Template

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Creating a DUOM PM Template

Home | PM Templates | PM Template No: 1477

PM Template No: 1477

Equipment | Issue Method | Codes | Detail | User Defined

Issue Method
Issue Method

Calendar
Issue Cycle: Day | No of Cycles: 1
Next Issue: | Status: Active
Lead Days: | Sliding Sch?: ☐
Last Day of Month: ☐

Driving UOM
DUOM: hours | Monitor DUOM: ☐

Meter
DUOM Cycle: | Next DUOM Issue: |
Current Reading: 4200 | Est Due Date: |

Monitor
Max High: | Actual High: |
Max High Time Interval: | Max High Time Unit: |
Max Low: | Actual Low: |
Max Low Time Interval: | Max Low Time Unit: |

Event
Event: | Event Next Issue: |
Event: | Event Next Issue: |

Scheduling
PM Due: 7/31/2009 | Next Failure: |
Shift Work Day? ☒

QAD Proprietary EAM-MAINT-870

Select DUOM method

Select or enter the DUOM linked to the equipment

Enter number of cycles and at what count the PM should come due.

Save the PM Template.

Filtering by PM Due



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Filtering by PM Due

Filter Criteria

Fields

Next Issue

No of Cycles

Notify

Notify Name

Owner

Owner Name

Planned?

Planner

Planner Name

PM Due

PM Template No

Precautions

Pri Craft

Priority

Priority Description

Problem

Project Description

Project No

Shift

Shift Description

Today

Filter Criteria

Field	Value
PM Due	is Today

Up

Down

Delete

Advanced

Clear

OK

Cancel

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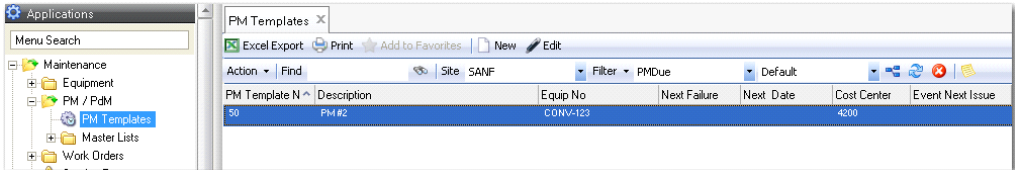
EAM-MAINT-880

Usually performed by Planner or Maintenance Supervisor.

Filtered Browse of Due PMs


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Filtered Browse of Due PMs



The screenshot shows the 'PM Templates' application window. On the left is a tree view with 'Maintenance' expanded, showing 'Equipment', 'PM / PdM', 'PM Templates' (selected), 'Master Lists', and 'Work Orders'. The main window has a menu bar with 'Excel Export', 'Print', 'Add to Favorites', 'New', and 'Edit'. Below the menu bar is a toolbar with 'Action', 'Find', 'Site' (set to 'SANF'), 'Filter' (set to 'PMDue'), and 'Default'. The main area displays a table of PM templates.

PM Template N ^	Description	Equip No	Next Failure	Next Date	Cost Center	Event Next Issue
50	PM #2	CONV-123			4200	

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Issuing Globally



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Issuing Globally

PM Templates

Excel Export

Print

Add to Favorites

New

Edit

Action

Find

Site

SANF

Filter

TrainingTest

Default

PM Template N	Description	Equip No	Next Failure	Next Date	Cost Center	Event Nes
45	PM #5	CONV-123			4200	
316	Sirsh's PM	001		09/13/1999	4100	
452	Portugue	ILER			5200	
930		2			0150	
953		0				
954		0				
955		0				
1020		5			0150	
1067					0150	
1239	test				1000	

Select All

Add Record To Browse

New

Edit

Columns

Copy to Equipment

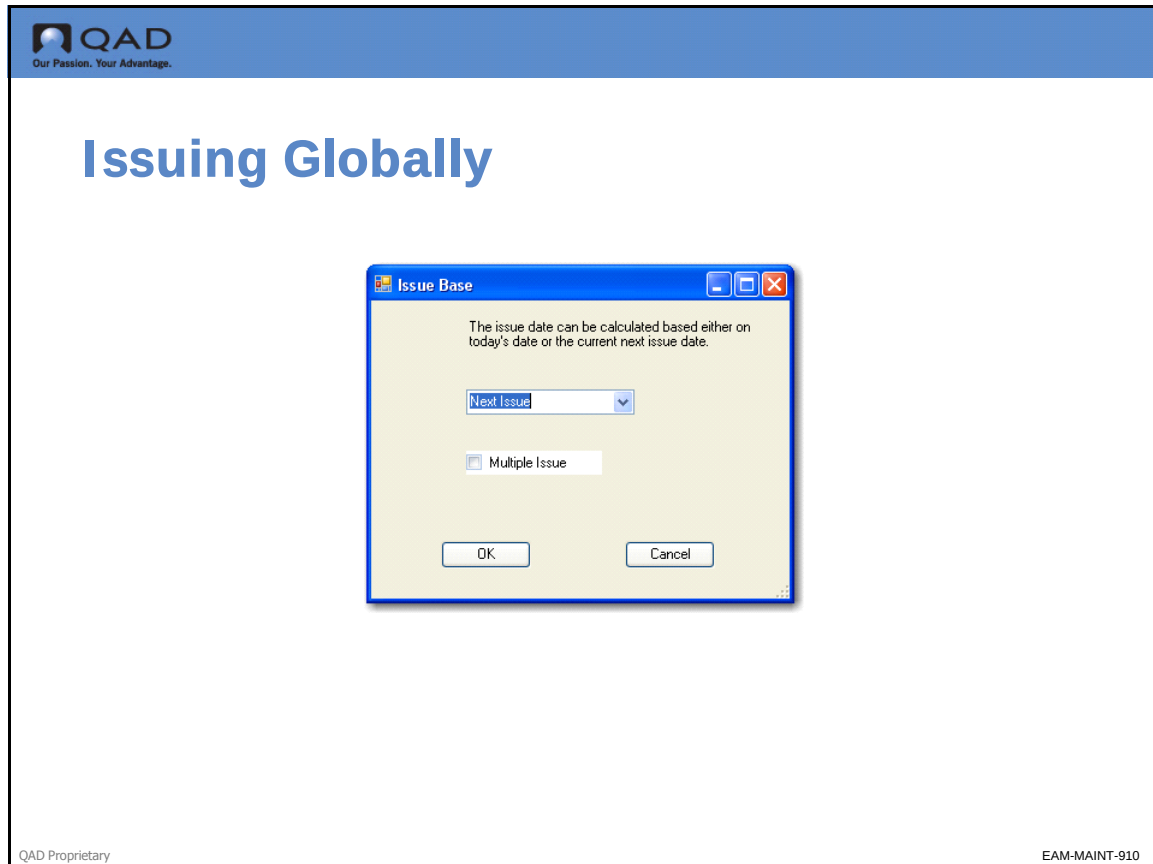
Issue

Global Issue

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EAM-MAINT-900

- Select multiple PM Templates to issue.
- Select Global Issue from the Action or right-click menu.



Select either Today or Next Issue to determine how to recalculate the next PM's due date.

If there are multiple calendar issues that have been missed, selecting multiple issue allows for each of the missed scheduled work orders to be created. Leaving this unchecked will create only 1 PM work order.

New PM Work Orders



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New PM Work Orders

Home PM Templates Work Orders

Excel Export Print Add To Favourites New Edit

Action Find Site US-A-1 Filter ALL Default

WO No	Equip No	Status	WO Parts	Priority	Type	Class	Received	Start	Location	Catalog
44	CONV-01	PL	N		PM		05/21/2010	04/12/2010	GCAR ASM	

▲

▲

▲

Template # for future analysis.

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EAM-MAINT-920

Appendix D: Create Service Request



Appendix D: Create Service Request

Service Request Setup



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Service Request Setup

- ▲ Common Service Request fields and functions
 - Originator
 - EAM e-mails when service request is assigned to a work order
 - Originator (Orig) Notify
 - Set up in originator User Maintenance
 - Notifies a person associated with the originator that a service request is created
 - Notify
 - EAM e-mails when service request is assigned to a work order
 - Type
 - Lookup code for the category of requested service
 - Authorization (if enabled)
 - Create a work order from the service request after the service request is approved

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EAM-MAINT-940

Use service requests to report a problem with a piece of equipment that may not need a work order immediately. For instance, an operator on the production floor reports that equipment appears to be leaking oil. An office staff member reports a burned-out light bulb.

A Maintenance Planner or Supervisor reviews the service requests and creates a work order, or closes the service request without action.

More information in UG and TG.

Service Requests



Our Passion. Your Advantage.

Service Requests

- ▲ Method by which personnel can formally request service from Maintenance
- ▲ Provides traceability throughout lifetime of request
- ▲ Provides email notification of status changes
- ▲ Allows Maintenance ability to:
 - Approve / Deny prior to converting to Work Order
 - Group like requests onto one Work Order

QAD Proprietary

EAM-MAINT-950

Use service requests to report a problem with a piece of equipment that may not need a work order immediately. For instance, an operator on the production floor reports that equipment appears to be leaking oil. An office staff member reports a burned-out light bulb.

A Maintenance Planner or Supervisor reviews the service requests and creates a work order, or closes the service request without action.

More information in UG and TG.

Service Request Sample



Service Request Sample

- ▲ Initiate Service Request
 1. Production supervisor creates service request
 2. Maintenance planner receives e-mail notification
 3. Maintenance planner turns service request into work order and schedules technician

Creating a Service Request

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Creating a Service Request

The screenshot displays the QAD Enterprise Asset Management (2) - QAD Enterprise Applications interface. The left sidebar shows a navigation tree with categories like Maintenance, Equipment, PM / PdM, Work Orders, Service Requests (highlighted), Labor History, Codes, Inventory, Purchasing, Finance, General, Analysis, and System Administration. The main window shows the 'Service Requests' tab with a table of data. A right-click context menu is open over the table, showing options like 'Select All', 'Add Record To Browse', 'New' (highlighted), 'Edit', 'Columns', 'Change Status', 'Create Work Order', 'Remove Work Order', and 'Global Create Work Orders'. The 'New' button in the top toolbar is also circled.

Two ways to create Service Request: 1. From Service Request Menu, or 2. Directly from Equipment

QAD Proprietary EAM-MAINT-970

Click New via button or right-click menu.

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Creating a Service Request

Home | Service Requests | Service No: 935, Site: SANF

Service No: 935 Site: SANF

Action: [Save] [Cancel] [Refresh] [Print]

General User Defined

Origin
Originator: sysadm System Administrator
Orig Date: 7/2/2008
Orig Notify: 333 Janie's 333 group

Detail
Equip No: 6789543 Training Equipment
Priority: []
Class: []
Problem: We need to learn how to submit a service request, and follow the procedure through its logical process.

Status
Status: 0
Assigned: []
Authorization
Auth?: ☒ Auth By: janie

W/O No: 32040
Start: 7/22/2008

Service Request
Detail
Notes
Work Orders
Equipment

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Special Notes:

Equipment field is often made mandatory

Priority is specified by requestor but can be changed on the work order

Status will always align with WO status

Authorization function may or may not be enabled. If enabled, these fields will be system generated.

Enter pertinent data and save.

Automatic E-Mail Notification



Automatic E-Mail Notification

- ▲ E-mails the notify person on the service request.
- ▲ The originator notify defaults from the originator's user profile, and is typically his supervisor.

Automatic E-Mail Notification

The screenshot displays the QAD Enterprise Applications interface. The main window is titled "qa01: Enterprise Asset Management (2) - QAD Enterprise Applications". The left sidebar shows a navigation tree with categories like Maintenance, Equipment, PM / PdM, Master Lists, Work Orders, Service Requests, Labor History, Codes, Inventory, Purchasing, Finance, General, Analysis, and System Administration. The "PM Templates" category is selected. The main pane shows a table of PM Templates with columns for Action, Find, Site, 10000, Filter, and ALL. The table lists various PM templates with their descriptions and equipment numbers. The right pane shows an "InBox (4)" with four email notifications. The first notification is from "SYSTEM" regarding "Work Order 101 at 10000 Status Change" received "Yesterday". The second notification is from "SYSTEM" regarding "Work Order 92 at 10000 Status Change" received "Monday 8/12/2009". The third notification is from "SYSTEM" regarding "Authorization Request for Requisition 74 Site 10.. EAM 104 PROD" received "6/4/2009". The fourth notification is from "SYSTEM" regarding "Work Order 104 at 10000 Status Change" received "6/4/2009". The bottom right corner shows the user "jrosinfo" and a red circle around the "InBox" icon.

PM Template N°	Description	Equip No	Next Fall
1209	pm # 1200 for 00	WC4-1	
1412	checking the PM # increment	BOILER4	
1414		WC4-1	
1415	boiler4 PM	boiler4	
1429	Test for PM Due from BJS	BOILER4	
1430	M1 C&I Boilers	BOILER4	
1442	M1 C&I BOILER	BOILER4	
1443	M1 C&I BOILER	BOILER101	
1455	SW C & I Mill Machine PM	MM179	
1456	M1 C & I	WS15	
1457	M3 Fluid Replacement	WS15	
1460	M Press stop time check	WC3	
1461	2000 HR C&I Boilers	BOILER4	
1462	5000 C&I	WC3	

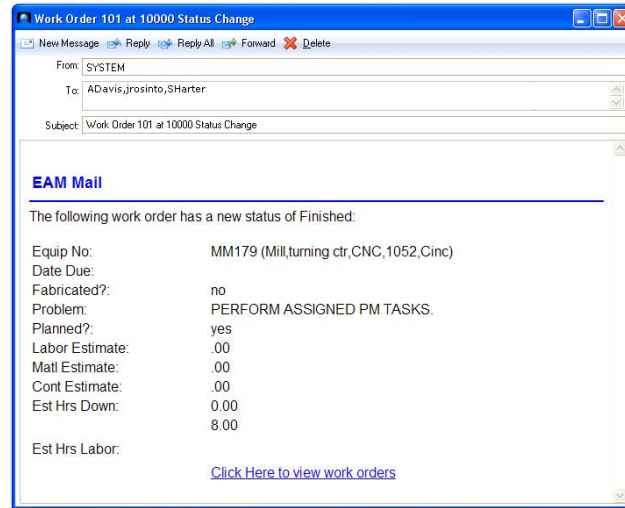
InBox (4)

- SYSTEM
Work Order 101 at 10000 Status Change
Yesterday
- SYSTEM
Work Order 92 at 10000 Status Change
Monday 8/12/2009
- SYSTEM
Authorization Request for Requisition 74 Site 10..
EAM 104 PROD
6/4/2009
- SYSTEM
Work Order 104 at 10000 Status Change
6/4/2009
- SYSTEM
Work Order 102 at 10000 Status Change
6/2/2009
- SYSTEM
Work Order 101 at 10000 Status Change
6/2/2009
- SYSTEM
Work Order 57 at 10000 Status Change
5/28/2009
- SYSTEM
Requisition 54 at site 10000 has been authorized
Rosinkoski, Joseph
5/13/2009

jrosinfo



Automatic E-Mail Notification



Chapter 6

Introduction to EAM Inventory

EAM Level 1 Learning Path

 EAM Level 1 Learning Path							
EAM Certification Levels Content							
Certification Levels - Elements	Format	Duration	Target Audience	EAM Training Hours		ERP Train	Role Based
				Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certifications		66 hours	Pre-Sales, Support, Services, Customers				
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>		<i>n/a</i>					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM I/II Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Sched Pay and Reporting	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40	6	
			Self-Study to Classroom Percentage:	40%	60%		

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Classes through 1-5
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. One Reading Assignment from the Reading List

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EAM-INV-020

Course Overview



Course Overview

- ▲ Inventory Business Space
- ▲ Key Concepts
- ▲ Inventory Processes
 - Define inventory
 - Set up inventory
 - Add a part and a part location
 - Modify a part price
 - Perform an inventory transaction
 - Adjust
 - Issue
 - Return
 - Relocate
 - Physical Inventory

Think in terms of an Hourglass

Big Picture □

★ Digestible Bites

Big Picture □



Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives:

- Understand the Inventory Module Domain Space
- Obtain High-Level Understanding of the Inventory Module Functionality

▲ Benefits:

- After taking this course, you will have a introductory level of understanding with regards to EAM Inventory.
- You will be able to utilize the Activities Handbook to perform basic Inventory functions.
- You will have an introductory understanding of the ways in which EAM can be benefit an organization's business goals.
- Upon successful completion of this course and its learning validation test you will be prepared to take the next steps in the EAM Level 1 Learning Path towards Certification.

Inventory



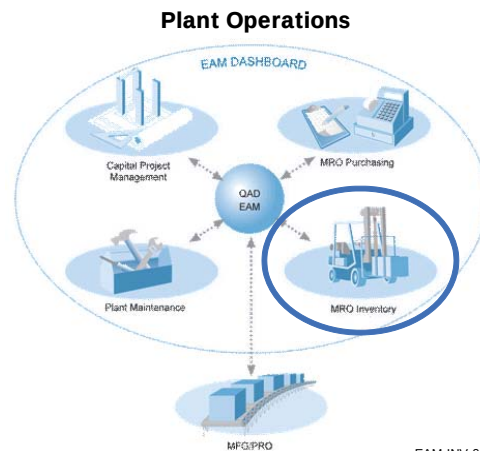
Inventory

▲ **Goal:** Minimize equipment downtime and reduce inventory levels by maintaining the best balance of critical spare parts on hand.

- Automatic stock replenishment
- Track and transfer parts across plants
- Lower inventory investment by leveraging consignment inventory capabilities
- Verify equipment true Cost of Ownership

Inventory Roles:

- Maintenance Manager
- Tool Crib / Stores Attendant
- Buyers / Purchasing
- Technicians
- Employees
- Vendors



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EAM-INV-060

Technicians need replacement parts to maintain facilities and equipment. These parts are stored in MRO (Maintenance, Repair and Operations) inventory. Use Inventory to manage MRO materials from an enterprise or site level, including stock, reorder, vendor, and financial details. Inventory supports stores requisitions, physical inventories including cycle counting, automated stock replenishment, stock-out tracking, and rebuild or repair activities. EAM connects the cost of inventory to work orders, equipment and other documents, and to the ERP financial system.

Inventory Role in EAM



Inventory Role in EAM

- ▲ EAM Inventory addresses all indirect inventory management needs within a facility to allow the organization to effectively and efficiently ensure they have what they need when they need it at the correct price and quality.
 - Integrated to QAD ERP Financials
 - Inventory Records (Part Records) are the backbone of the EAM Inventory Module
 - Contributes to “Cost of Ownership” tracking
 - Touches all other modules: Maintenance, Purchasing, and Projects
- ▲ Inventory advantages
 - Inventory “Right-Sizing”
 - Automated Stock Replenishment
 - Inventory Costing
 - Usage Analysis

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EAM-INV-070

Inventory Key Concepts – What You Should Already Know



Inventory Key Concepts – What You Should Already Know

- ▲ Inventory Records (Parts) are the basic building block of EAM Inventory
- ▲ EAM Inventory Part Numbers $\neq$ QAD Part Number
- ▲ EAM's part number
 - NOT in ERP system
 - Company's internal catalog ID
 - Used for stock parts, non-stock parts, and service
 - May be free-issue, vendor managed, or consignment, too
 - Location controls for stock parts
 - Multiple methods for identifying and locating parts
- ▲ Terminology:
 - "MRO Inventory" – Maintenance, Repair and Operations
 - "Indirect Inventory"
 - "Non-Production Inventory"

Inventory Key Concepts – New



Inventory Key Concepts – New

- ▲ Specialized Types of Inventory Parts
 - Free Issue
 - Controlled Issue
 - Critical Parts
 - Fabricated Parts
 - Virtual Parts
 - Consumables
 - “Boneyard” Parts
 - Advanced Concepts (Covered in greater detail in Level 2 Certification)
 - Sole Source
 - Tools and Equipment
 - Vendor Managed Inventory (VMI)
 - Rotable Parts
 - Consignment Inventory
- ▲ Centralized vs. Decentralized Stores
- ▲ A-B-C Classifications
- ▲ Staffed Stores vs. Open Stores
- ▲ Outsourcing Trends

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EAM-INV-100

Inventory Best Practices Goals



Inventory Best Practices Goals

- ▲ Increase Plant Reliability by:
 - Ensuring critical parts are properly stocked (Stores Service Level)
 - Having visibility into seasonal trends
 - Using Inventory Records to build parts lists, BOM's, and Stores Reqs for planning
 - Providing "where used" information on parts and substitute options
- ▲ Provide accurate inventory costing to contribute to accurate "Cost of Ownership"
- ▲ Control Inventory Access

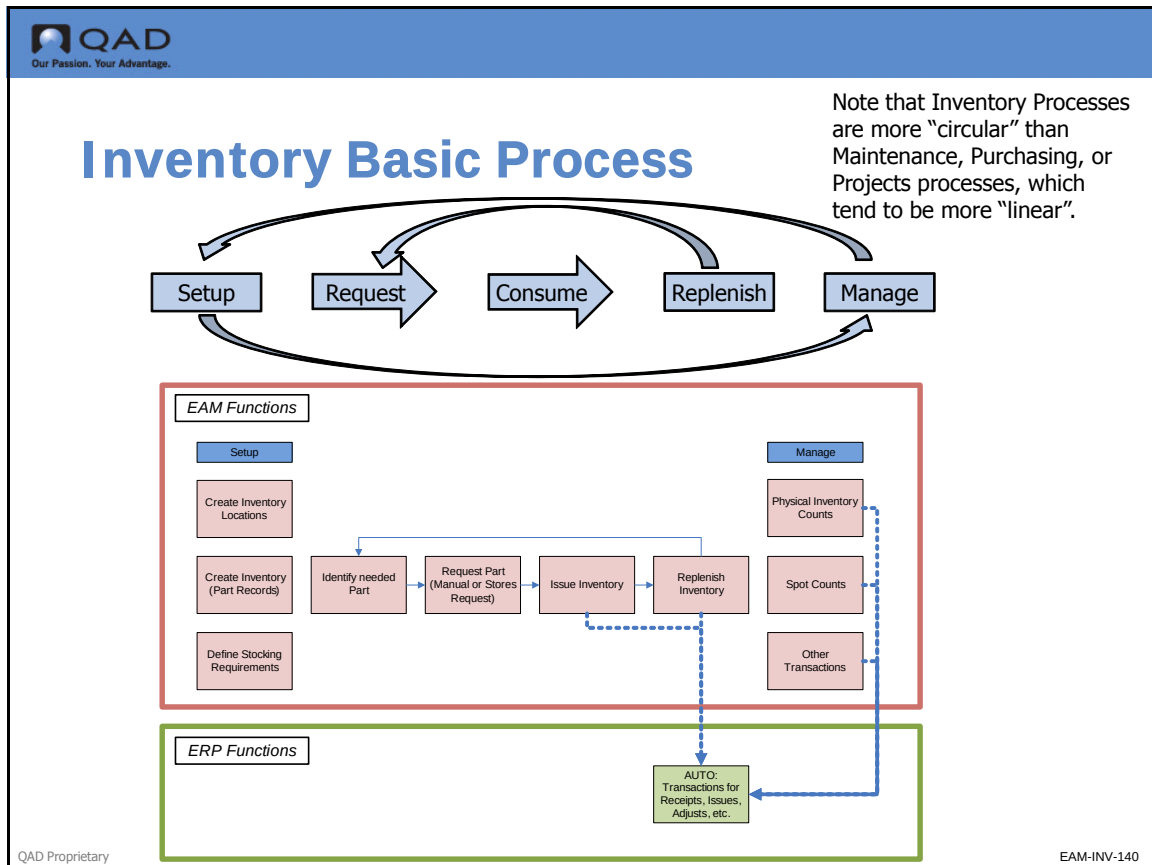
Inventory Best Practices Goals



Inventory Best Practices Goals

- ▲ Right Size Inventory
- ▲ Maintenance Owns and Drives Inventory Decisions
- ▲ Reduce Travel Time by Proactive “Kitting”
- ▲ Reserve Inventory to provide visibility to Demand in Replenishment
- ▲ Empower Resources to Research Parts
- ▲ Automatic Receipt Notification to Requestor

Inventory Basic Process



Inventory – A Personal Example!



Inventory – A Personal Example!



Your kitchen
What do you stock?
When do you replenish?
How do you insure you will have what you
need when you need it?

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EAM-INV-150

To help relate inventory to your own needs, think about your kitchen cupboards.

So, how do you stock your kitchen and ensure you have what you need when you need it?

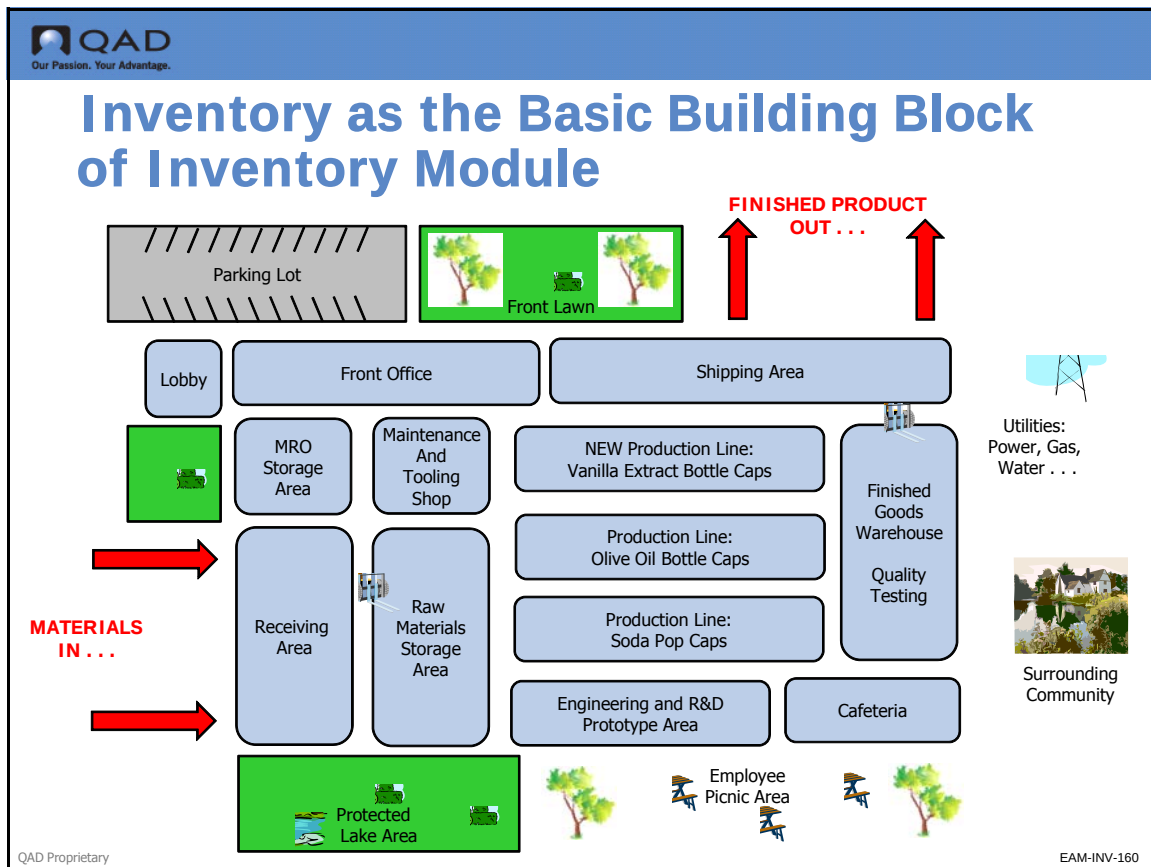
You have things that you use daily like milk, which also have a limited shelf life. Maybe you have recipes that you like to make often, the ingredients list is like a parts list.

What about those items you can't do without – like toilet paper – this is a critical item.

There are probably some items that you buy only a specific brand regardless of price while other items it doesn't matter who sells it as long as it meets certain criteria.

EAM can handle each of these criteria as well as help you keep track of how much of an item you have so that you know when to add it to your grocery list.

Inventory as the Basic Building Block of Inventory Module



Thinking back to our production area that we are supporting. We have a conveyor that needs rollers in order to function properly. Maybe you also need grease when replacing the rollers. When the inventory is issued, you can capture which equipment was issued to in order to track the costs. You may also want to know when you've used a part. It is important to know when inventory is being used and where so that proper inventory levels can be set.

Inventory Setup – Key Settings

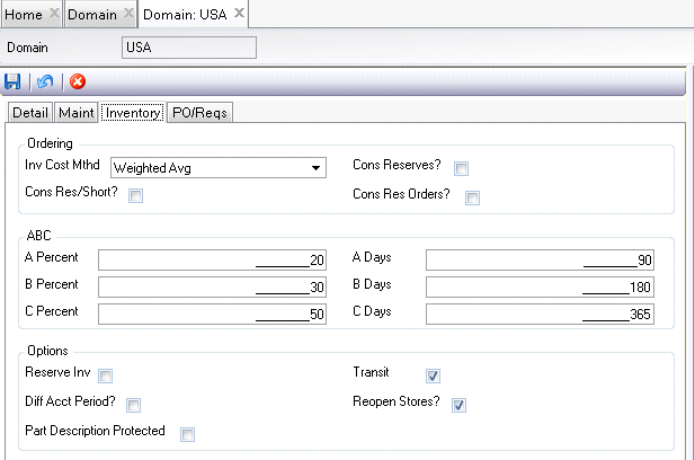

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Setup
Request
Consume
Replenish
Manage

Inventory Setup – Key Settings

▲ Domain Settings

- Inventory Costing Method
- Reserves and Replenishment
- ABC Settings
- Reserve Inventory?
- In Transit?
- Diff Acct Period?
- Reopen Stores?
- Part Description Protected?



See Introduction to EAM Configuration Class

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EAM-INV-180

Inventory Setup – Key Settings, cont.

Inventory Setup – Key Settings, cont.

- ▲ Site Settings
 - Accounting Defaults
 - Inventory Issue
 - Consignment
 - Adjustments
 - Transit
 - Variances
 - Rounding
 - Inter-Company

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See Introduction to EAM Configuration Class

EAM-INV-190

Inventory Setup – Key Settings, cont.

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Setup Request Consume Replenish Manage

Inventory Setup – Key Settings, cont.

- Site Settings, cont.
 - Inventory Usage Settings
 - Auto Close Stores?
 - Stores Auth?
 - Prompt for Pick Ticket
 - Stock Repl Create
 - Sole Source Options

System Site Maintenance

Site US-A-1
Site US-A-1 for Domain USA

POs Inventory **More Inv** Maint GL/Tax Labor Misc More Misc

Inventory Adjustment Defaults

Dept: Cost Center: Acct No: Sub Acct No:

Transit Accounts

Dept: Cost Center: Acct No: Sub Acct No:

Variance (Std Cost)

Dept: Cost Center: Acct No: Sub Acct No:

Include As Inv Usage

☐ Adjust Down ☐ Issue ☐ Return ☐ Adjust Up ☐ Relocation

Options

Auto Close Stores?: ☐ yes ☐ no
Stores Auth?: ☐ None ☐ Projects ☐ All
Appr Mthd: ☐ Acct No ☐ Cost Center ☐ User
Prompt for Pick Ticket?: ☐ yes ☐ no
Stock Repl Create: ☐ Reqs ☐ Multi-Line Reqs

System Site Maintenance

Site US-A-1
Site US-A-1 for Domain USA

POs Inventory More Inv **More Inv** Maint GL/Tax Labor Misc More Misc

Sole Source Options

Requestor: Notify: Automatically: ☐ Create Req ☐ Auth Req ☐ Create PO ☐ Auth PO ☐ Order PO

Rounding Defaults

Dept: Cost Center: Acct No: Sub Acct No:

Project Req Auth Options

Req Proj Limit? ☐ yes ☐ no

Info: Company Defaults

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EAM-INV-200

See Introduction to EAM Configuration Class

Inventory Setup



SetupRequestConsumeReplenishManage

Inventory Setup

- ▲ Important functions in Inventory:
 - Notify
 - E-mails automatically when part falls below either reorder point or safety stock level
 - Add to BOM
 - Automatically updates equipment BOM on issue
 - Not usually associated with "Consumables"
 - Auto-Issue
 - Select when part is either non-stock or service
 - Cost
 - Based on costing method: weighted average, FIFO and LIFO costing methods
 - Utilized to apply cost on issue
 - PO Text
 - Description that will be printed as the line item detail on the purchase order

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Inventory Setup



Setup

Request

Consume

Replenish

Manage

Inventory Setup

- ▲ Important functions in Inventory:
 - Stock Details
 - Min
 - Max
 - Reorder Point
 - Inventory Master (Not yet in v12)
 - Updates a part's description, approved vendor, pricing, etc. and all sites that use this part.

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Add Part Location

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Setup Request Consume Replenish Manage

Add Part Locations

q01: Enterprise Asset Management (4) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

Maintenance

- Inventory
 - Physical Inventory
 - Stock Replenishment
 - Stores Requisition Lists
 - Stores Requisition Approval Groups
 - Rebuild Locations
 - UOM Conversion
- Codes
 - Commodities
 - MSDS
 - Part
 - Catalogs
 - Classes
 - Locations
 - Parts Status

Home Sites Mail Group Locations

Excel Export Print Add To Favourites New Undo

Find Site 10000 Filter ALL

Part Location	Description
01-A1	Aisle 1 Shelf A1
A1	Shelf A1
EA1-S1	Elec Storage, Aisle 1, Shelf 1
ES-A1S1	Elec Storage, Aisle 1, Shelf 1
OHA1-R2	Oil House, Aisle 1, Row 2
p100	Part location 100
p200	Part location 200
TBD	To be determined
test	test location

Select All
Add Record To Browse
New
Edit
Columns

Note that Part Locations are setup separately from the Part itself. Part Location is a code. And a single Part may be associated to many locations.

See Appendix A – Add Locations and Inventory Parts

QAD Proprietary EAM-INV-230

Navigate to Inventory|Codes|Part|Locations.

Click New or right-click and select the New option.

Add a New Part Number

Add a New Part Number

Site: SANF Part No: 000-Training

Source: Vendor or Internal
If "Internal" – "Area" specifies where Part should be taken when in need of repair

General Stock Detail Codes Cost PO Text User Def

Order Detail

Description: Conveyor belt Buyer: A123 Anna Hagler

Status: A Available Lead Days: 0

Critical? Serialized? Sole Source? Consignment?

Source: Vendor Area:

Pri Vendor: Manufacturer: Manuf Part No:

Initial Location: Storage

Remember to Link part to Initial Location

Vendor and Manufacturer Information added in separate step under Vendor Parts Maintenance sub-module. This section on the Part is read-only display.

- Directly Add a new Part number
- Copy a Part number from another site

QAD Proprietary See Appendix A – Add Locations and Inventory Parts EAM-INV-240

Parts are added through the inventory browse screen. Relevant data is recorded on the record. A part must have at least one location associated to it when entered. Stock levels can be set as well as capturing which vendors to purchase from. Vendor information is entered through a sub-menu but many parts can be associated. The primary information is viewable from the General Tab.

Add a New Part Number – Other Fields

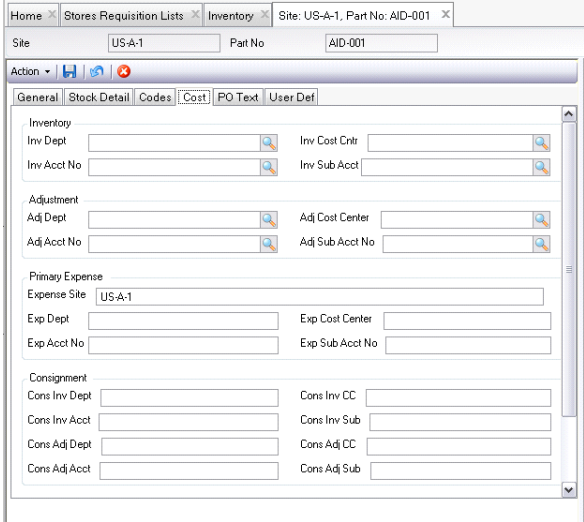


Setup
Request
Consume
Replenish
Manage

Add a New Part Number – Other Fields

▲ Other Important Fields to Note:

- Add to BOM?
- Active?
- Sole Source?
- Auto-Issue?
- PO Text
- Default Accounting
 - Similar to Site
 - Overrides Site



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See Appendix A – Add Locations and Inventory Parts

EAM-INV-250

Add to BOM? Determines if this part should be automatically added to an Equipment's BOM when issued to it.

Active? = No prevents parts from being included on Physical Inventory Counts and on Stock Replenishment

Add a New Part Number – Other Fields



Setup

Request

Consume

Replenish

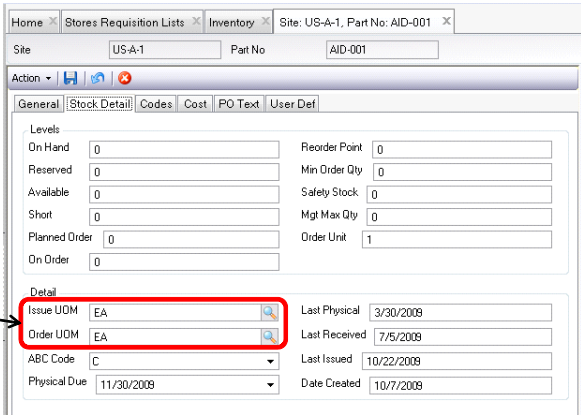
Manage

Add a New Part Number – Other Fields

▲ Stock Levels:

- Min, Max, Reorder Point (Stock Replenishment)
- Issue UOM
- Order UOM
- ABC Codes
- Physical Due

Note that if Issue and Order UOM's differ, MUST have a UOM Conversion! See EAM Config Class, paying attention to how UOM Conversions can be Part specific.



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See Appendix A – Add Locations and Inventory Parts

EAM-INV-260

Copy Parts Across Sites



Setup

Request

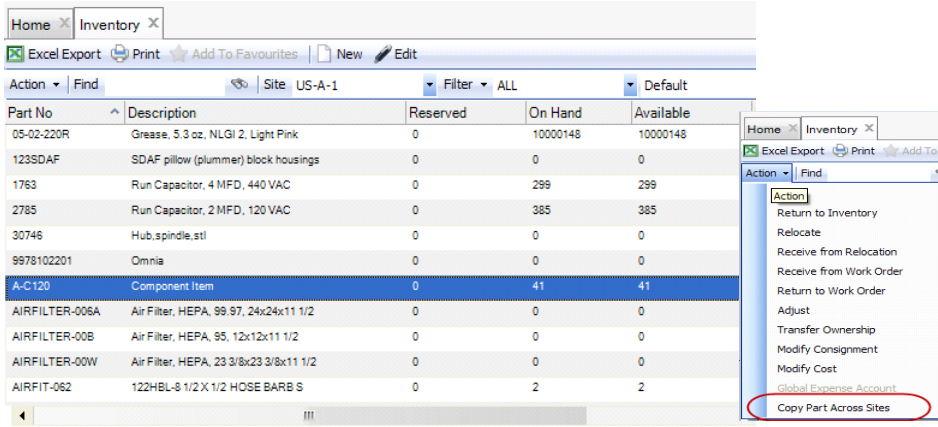
Consume

Replenish

Manage

Copy Parts Across Sites

The second way to create a Part Number . . .



The screenshot shows the QAD Inventory interface. A table lists various parts with columns for Part No, Description, Reserved, On Hand, and Available. The part 'A-C120' is highlighted. An 'Action' menu is open on the right, showing options like 'Return to Inventory', 'Relocate', 'Receive from Relocation', etc. The option 'Copy Part Across Sites' is circled in red at the bottom of the menu.

- ▲ Once a part is entered in one site, it can be copied to other sites within the domain
- ▲ The Part "Description" cannot be changed after copy if the Domain setting protects the part description

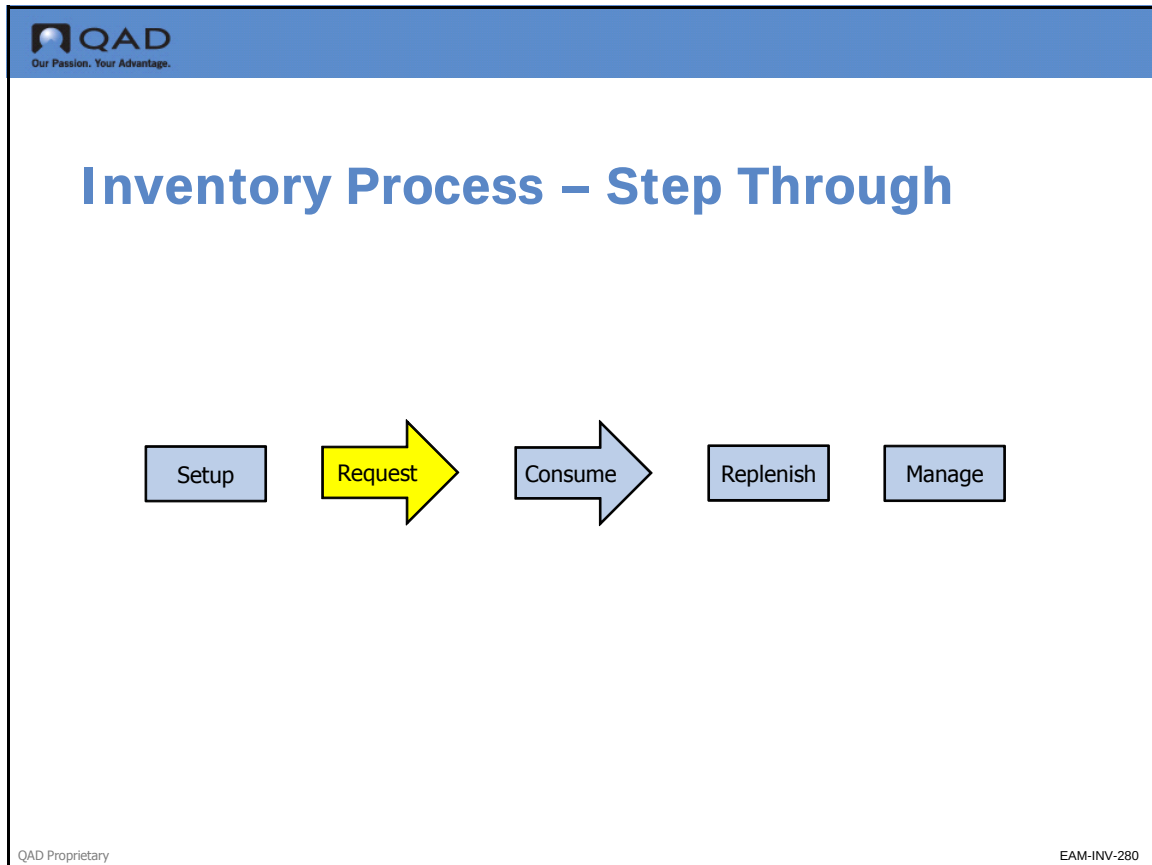
QAD Proprietary

See Appendix A – Add Locations and Inventory Parts

EAM-INV-270

If another site has the same part, then you can simply copy the part from the other site. A company can restrict whether a site can change a description when copying. Having common part numbers is an important way of having global inventory and access to multiple sites and their inventory details.

Inventory Process – Step Through



Requesting Inventory



SetupRequestConsumeReplenishManage

Requesting Inventory

- ▲ Identify what part is needed
 - Filters
 - “Find” Tool
 - Sorting and Grouping on the Browse
 - Key Information
 - Description
 - Manufacturer
 - Manufacturer Part Number
 - Equipment BOM’s
 - Parts Lists
 - Work Order History

QAD Proprietary EAM-INV-290

Requesting Inventory



SetupRequestConsumeReplenishManage

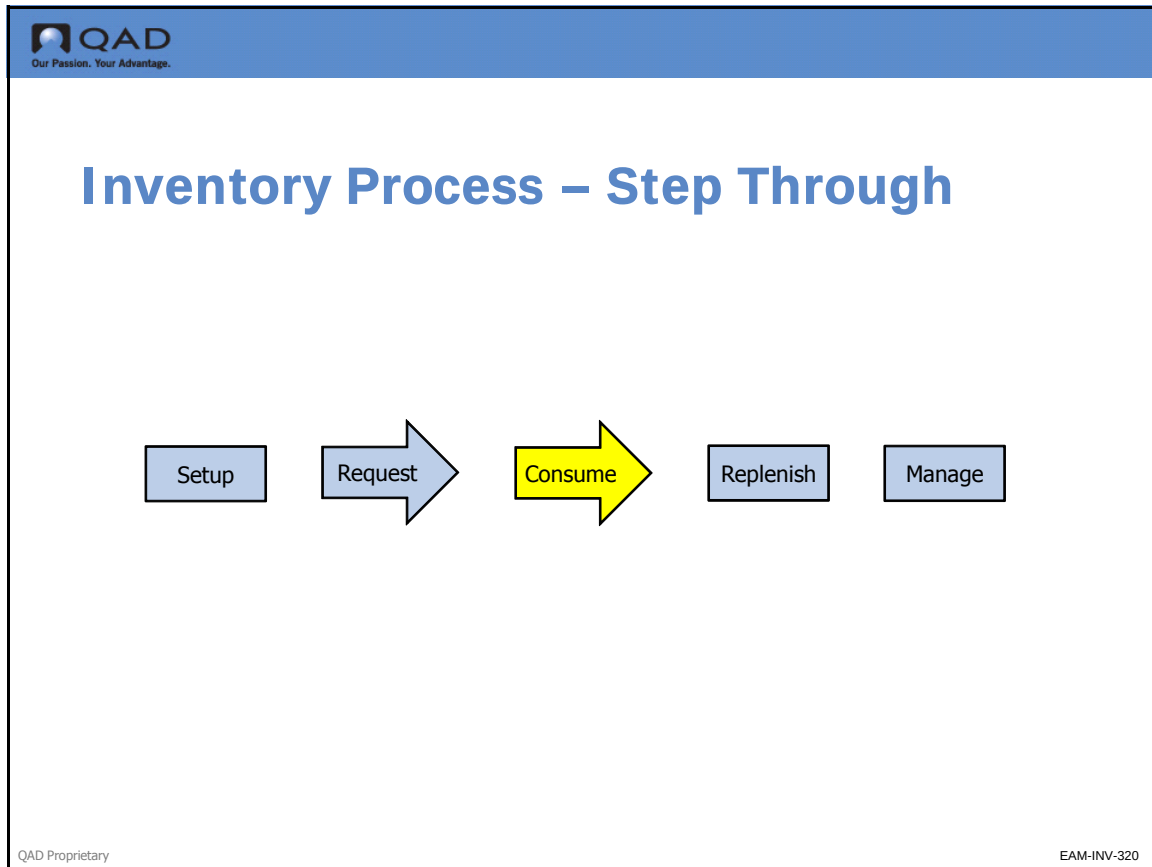
Requesting Inventory

- Requesting Part from Stores
 - Manual “walk-up”
 - Stores Request
 - “Pick List”
 - Can associate to Work Orders for Planning
 - Can use to “Reserve” Inventory
 - Can use for “Kitting”
 - Optional Authorization
 - Stores requisitions approval may be limited to projects

In the interest of reducing “travel time”, which method is more of a best practice?
Which method is more likely to be used in an Emergency?
What happens with the Manual walk-up request if the Crib is not manned?

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Inventory Process – Step Through



Consuming Inventory



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Setup

Request

Consume

Replenish

Manage

Consuming Inventory

- ▲ Issue to Stores Request
- ▲ Issue to Work Order or Equipment

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EAM-INV-330

Issue to Stores Request

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Setup Request **Consume** Replenish Manage

Issue to Stores Request

Note links to WO and Equip. What is the advantage of that?

Stores Req No	Description	Status	WO No	Equip No	Project No	Cost Center	Requestor	Required Date
2		0	10017	CV0001		WC01	DTAYLOR	
1			10016	RI0256		WC03	sysadm	

Action	Find	Planned Qty	UOM	Planned Cost	Issued	Reserved	Short	Status	Date Due
Unreserve									
Reserve									
Issue									
Global Issue									
Returns									
Create Requisition									
Global Unreserve									
Global Reserve									
Global Create Requisition									

QAD Proprietary EAM-INV-340

Issue to Work Order

QAD
Our Passion. Your Advantage.

Setup Request **Consume** Replenish Manage

Issue to Work Order

Save

Note: Can issue to Dept in EAM, but does not go to ERP

Issue to:

1. Work Order
2. Stores Req
3. Equip No
4. Project No

Automatically defaults accounting

Issue Inventory

Detail

To Site: US-A-1

Requestor: []

W/O No: []

Stores Req No: []

Reserved: 0

Equip No: []

Rebuild: []

Serialized Part: []

Serial No: []

Project No: []

Job No: []

System: []

Assembly: []

Expense Site: US-A-1

Dept: []

Cost Center: Mfg

Acct No: 7200

Sub Acct No: Mech

From:

Source Site: US-A-1

Part No: A-C120

Location: CONTRACTOR

On Hand: 41

Qty: 0.0000

UOM: EA

UOM Cost: 80

OH Group: []

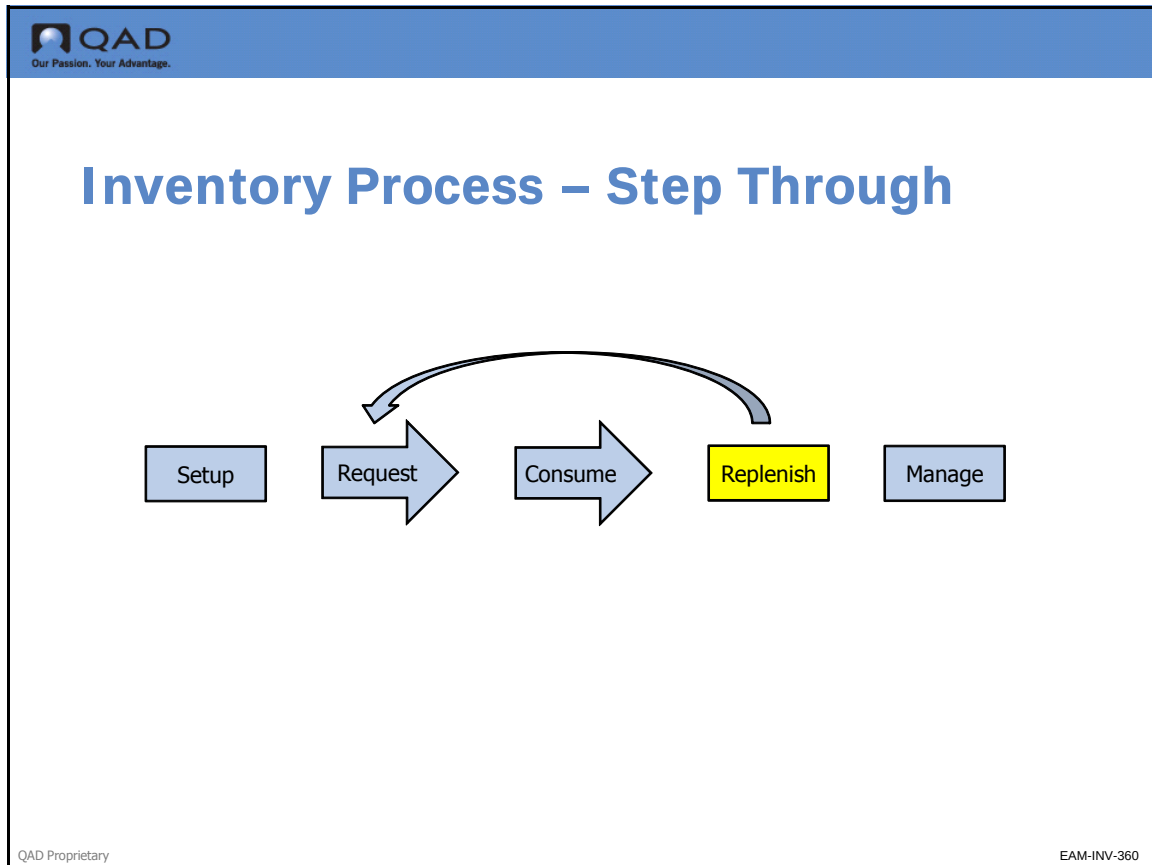
Date: 5/25/2010

Comment: []

QAD Proprietary EAM-INV-350

To Issue to Work Order, enter WO No, Location, Qty, and Click on Save. NOTE: When selecting this function from the Work order screen, certain data will be pre-populated here.

Inventory Process – Step Through



Stock Replenishment



SetupRequestConsumeReplenishManage

Stock Replenishment

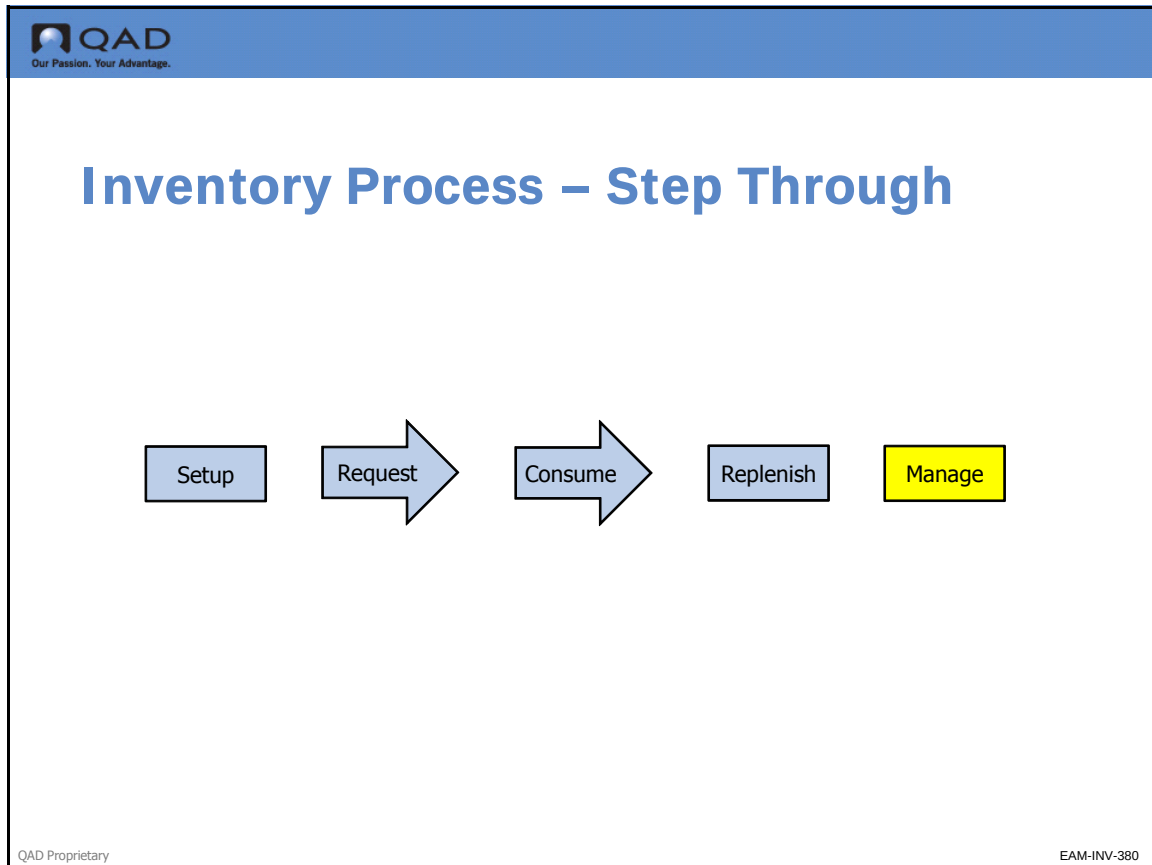
- ▲ Based on Stock Details provided on each part:
 - Reorder Point
 - Management Max
- ▲ Stock Replenishment uses Qty On Hand to recommend purchase amount to achieve “Management Max”
- ▲ Other Considerations
 - Reserved Inventory
 - Inventory On-Order
- ▲ Run manually or via BJS (Batch Job Scheduler)
- ▲ Sole Source Parts can be automatically purchased
- ▲ Vendor sourced parts create Purchase Requests
- ▲ Fabricated Parts create Work Orders

QAD Proprietary

Covered in 1-7 Introduction to EAM Purchasing

EAM-INV-370

Inventory Process – Step Through



Physical Inventory



Our Passion. Your Advantage.

SetupRequestConsumeReplenishManage

Physical Inventory

- ▲ Physical Inventory is a formal inventory counting function, usually associated with an audit process
- ▲ May be created for all inventory or for specific sections of inventory based upon various criteria such as
 - Last Physical Count Date
 - Active Flag
 - Consignment Flag
 - Internal vs Vendor Sourced
- ▲ Freezes all transactions for parts included until the Physical Inventory is closed
- ▲ Provides a printed Count Sheet
- ▲ Closing Physical:
 - Generates GL's to ERP
 - Unfreezes the parts

See Appendix D – Physical Inventory

QAD Proprietary EAM-INV-390

Inventory Transactions



Setup

Request

Consume

Replenish

Manage

Inventory Transactions

▲ These are the transactions you can perform from Inventory:

- Issue
- Return to inventory
- Relocate
- Receive from relocation
- Receive from work order
- Return to work order
- Adjust
- Transfer ownership
- Modify consignment
- Modify cost

See Appendix B – Inventory Transactions

QAD Proprietary
EAM-INV-400

The Issue action is used to record that a part was used for a specific work order or equipment

Return to Inventory is used when parts which were issued are no longer needed

Adjust is used to change the inventory level for this part when it is found to be different than what is shown in the system but where it was used is unknown. This changes the Quantity on Hand immediately and generates a GL Transaction to ERP.

Relocate is used to change the location of where a part is stored or to transfer parts to another site.

Receive from relocation is used when a part is transferred across sites with the In Transit option turned on.

Receive from work order is for internally fabricated parts that have been moved to the storeroom.

Transfer ownership allows the owner of record on consigned inventory to be changed.

The Modify Consignment option is used to modify a part's consignment information.

The Modify Cost option is used to change the part's cost, generating general ledger entries based on the changes. Use this option only with approval from your Finance department.

Review



Review

- ▲ Add your inventory parts and modify parts.
- ▲ Copy parts across sites.
- ▲ Use actions from the action or right-click menus to adjust, issue, return, receive (from a work order or site transfer), relocate, transfer ownership, and modify consignment and cost.
- ▲ Create and record a physical inventory count.
- ▲ EAM creates GLs to send to QAD ERP when it receives inter-site transfers, work orders for fabricated parts; performs inventory issues, returns, adjustments, and price adjustments; uses consignment stock and receives POs.

QAD Proprietary

EAM-INV-410

Practice!



Practice!

- ▲ Review this presentation: “1-6 Introduction to EAM Inventory”
- ▲ Utilize the “Level 1 Activities Handbook” for exercises and question related to this presentation
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:		66 hours	Pre-Sales, Support, Services, Customers				
PREREQUISITE: EAM Introduction Level Exam Completion		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List: Terry Wireman "World Class Maintenance"	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40		6
			Self-Study to Classroom Percentage:	40%	60%		

Upon Successful Completion of the "1-6 Introduction to Inventory" Exam, your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Class "1-7 Introduction to Purchasing"
2. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

Have Questions?



Have Questions?

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at:
 - Nancy Majure nnm@qad.com
 - Sara Suhr uhr@qad.com
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

Learning Validation



Learning Validation

▲ (see separate xls)

Appendix A: Add Locations and Inventory Part Records



Appendix A: Add Locations and Inventory Part Records

Add Part Locations

QAD
Our Passion. Your Advantage.

Add Part Locations

qa01: Enterprise Asset Management (4) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

Maintenance

Inventory

Physical Inventory

Stock Replenishment

Stores Requisition Lists

Stores Requisition Approval Groups

Rebuild Locations

UQM Conversion

Codes

Commodities

MSDS

Part

Catalogs

Classes

Locations

Parts Status

Home Sites Mail Group Locations

Excel Export Print Add To Favourites New Undo

Find Site 10000 Filter ALL

Part Location	Description
01-A1	Aisle 1 Shelf A1
A1	Shelf A1
EA1-S1	Elec Storage, Aisle 1, Shelf 1
ES-A1S1	Elec Storage, Aisle 1, Shelf 1
OHA1-R2	Oil House, Aisle 1, Row 2
p100	Part location 100
p200	Part location 200
TBD	To be determined
test	test location

Select All
Add Record To Browse
New
Edit
Columns

Note that Part Locations are setup separately from the Part itself. Part Location is a code. And a single Part may be associated to many locations.

QAD Proprietary EAM-INV-480

Navigate to Inventory|Codes|Part|Locations.

Click New or right-click and select the New option.

Two Ways to Add a New Part Number



Our Passion. Your Advantage.

Two Ways to Add a New Part Number

- ▲ Directly Add a new Part number
- ▲ Copy a Part number from another site

QAD Proprietary

EAM-INV-490

Enter a unique part number.

Enter data on the tabs.

Add a New Part Number

QAD
Our Passion. Your Advantage.

Add a New Part Number

Home * Inventory * Site: SANF, Part No: 000-Training

Site: SANF Part No: 000-Training

Action: [Save] [Cancel] [Refresh] [Print]

General Stock Detail Codes Cost PO Text User Def

Order Detail

Description: Conveyor belt Buyer: A123 Anna Hagler

Status: A Available Lead Days: 0

Critical? ☐ Sole Source? ☐

Serialized? ☐ Consignment? ☐

Source: Vendor Area

Pri Vendor Vendor Part No

Manufacturer Manufacturer Part No

Initial Location: Storage

Remember to Link part to Initial Location

Source: Vendor or Internal
If "Internal" – "Area" specifies where Part should be taken when in need of repair

Inventory

- Detail
- Notes
- Requisition
- Vendor Parts
- Serial Numbers
- Reserve Analysis
- FIFO/LIFO Stack
- Consignment Stack
- Alternates
- Common Names
- Manufacturers
- Accounts
- BOMs
- Analysis

QAD Proprietary EAM-INV-500

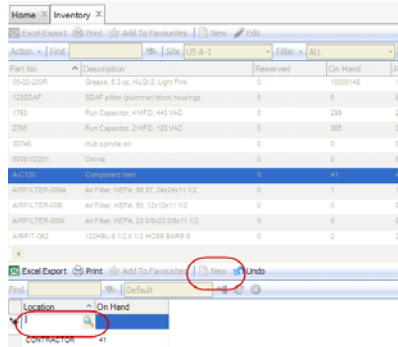
Enter a unique part number.

Enter data on the tabs.

Adding Additional Locations


Our Passion. Your Advantage.

Adding Additional Locations



The screenshot shows the QAD Inventory application interface. At the top, there's a blue header with the QAD logo and tagline. Below it, a navigation bar contains buttons like 'Excel Export', 'Print', 'Add To Favourites', 'New', and 'Edit'. The main area displays a table of inventory items with columns for Part No., Description, Reserved, and On Hand. Below the table, there's a 'Location' dropdown menu. A red circle highlights the 'New' button in the top toolbar, and another red circle highlights the 'Location' dropdown in the bottom section.

- ▲ Some parts are held in more than one locations
- ▲ When this is the case, simply add any additional locations from the parts browse by selecting new in the lower section

QAD Proprietary EAM-INV-510

(uhr)

Add a New Part Number (Contd.)

QAD
Our Passion. Your Advantage.

Add a New Part Number (Contd.)

Home x Inventory x Site: SANF, Part No: x

Site: SANF Part No: 000-Training

Action [Save] [Refresh] [Close]

General | Stock Detail | Codes | Cost | PO Text | User Def

Order Detail

Description: Conveyor belt

Status: A Available

Critical? ☐

Serialized? ☐

Source: Vendor

Buyer: A123 Anna Hagler

Lead Days: 0

Sole Source? ☐

Consignment? ☐

Area:

Pri Vendor:

Manufacturer:

Initial Location: Storage

Vendor Part No:

Manuf Part No:

Vendor Information added in separate step under Vendor Parts Maintenance sub-module. This section is read-only display.

QAD Proprietary EAM-INV-520

Enter appropriate date (General tab).

Add a New Part Number (Contd.)

QAD
Our Passion. Your Advantage.

Add a New Part Number (Contd.)

Home x Inventory x Site: SANF, Part No: x

Site: SANF Part No: 000-Training

Action [Save] [Print] [Refresh] [Close]

General | Stock Detail | Codes | Cost | PO Text | User Def

Levels

On Hand	0	Reorder Point	5
Reserved	0	Min Order Qty	2
Available	0	Safety Stock	0
Short	0	Mgt Max Qty	10
Planned Order	0	Order Unit	0
On Order	0		

Detail

Issue UOM	EA	Last Physical	
Order UOM	EA	Last Received	
ABC Code	C	Last Issued	
Physical Due	(none)	Date Created	7/15/2009

Remember! On-Hand and Reorder Point Drive Stock Replenishment

Defines the increments by which this part may be ordered

If Issue and Order Unit of Measures differ, must have a UOM Conversion – either a **general** one (ex: dozen to each) or **part specific** (ex: for Part 123, 1 Case = 24 Each)

QAD Proprietary EAM-INV-530

Enter appropriate data (Stock Detail tab).

Add a New Part Number (Cont'd)

QAD
Our Passion. Your Advantage.

Add a New Part Number (Cont'd)

Home x Inventory x Site: SANF, Part No: x

Site: SANF Part No: 000-Training

Action [Save] [Refresh] [Delete]

General | Stock Detail | Codes | Cost | PO Text | User Def

Codes

Type	B	Type B	Class	Belts	for belts
Commodity	12-61-1-1-		Notify	abrooks	Alexis Brooks
Catalog	001-Trn	Conveyor Belt	Sub Catalog		
Planner	fws	Fran Shannon	MSDS No		
Size	large	Large	Weight	0	
Weight UOM	EA				

Settings

Active? ☒ Function: If not checked, removes from certain lookup lists. (Ex: Would not be selectable for Physical Inventory)

Warrantied? ☐

Add to BOM? ☒ Usually only selected for Repair Parts and not for Consumables. Functions only if system controls configured to auto-build BOM's.

Auto Issue? ☐

Tax

Taxable? ☒

Tax Code: ATL2 Atlanta, Dekalb

Tax Usage: 10% 10 %

Tax Class: MaintRep Maintenance and Repair

QAD Proprietary EAM-INV-540

Enter appropriate data (Codes tab).

Add a New Part Number (Cont'd)

QAD
Our Passion. Your Advantage.

Add a New Part Number (Cont'd)

Home | Inventory | Site: SANF, Part No: X

Site:
Part No:

Action - H

General | Stock Detail | Codes | Cost | PO Text | User Def

Inventory

Inv Dept:

Inv Acct No:

Inv Cost Ctr:

Inv Sub Acct:

Adjustment

Adj Dept:

Adj Acct No:

Adj Cost Center:

Adj Sub Acct No:

Primary Expense
Expense Site:

Exp Dept:

Exp Acct No:

Exp Cost Center:

Exp Sub Acct No:

Consignment

Cons Inv Dept:

Cons Inv Acct:

Cons Adj Dept:

Cons Adj Acct:

Cons Inv CC:

Cons Inv Sub:

Cons Adj CC:

Cons Adj Sub:

Cost

Cost:

Fixed:

Total Cost:

OH Group:

Rate (%):

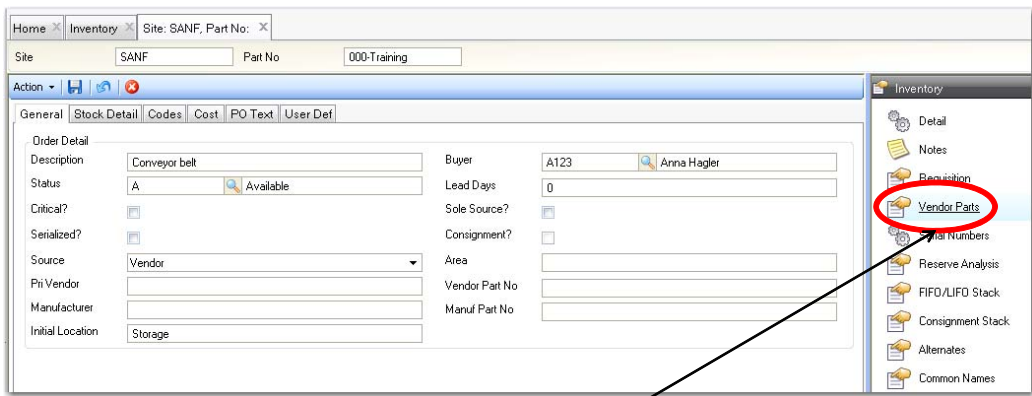
Est Freight:

- Default Accounting is usually defined only at the System Site Control level and not directly on the part.
- Some parts may require exceptions.
- If Accounting entered on the part level, it will override System Site Defaults

Enter appropriate date (Cost tab).

Add a New Part Number (Cont'd)

Add a New Part Number (Cont'd)



Note that Vendor Parts is also where one adds Manufacturer information.

QAD Proprietary EAM-INV-560

Associate a Vendor

Add Vendor Part Data

Vendor

Vendor Part Numbers

Vendor Part Number Price Lists

Note that a single part can have Multiple Vendors

Note that a single Vendor can have Multiple Vendor Part No's (example: different brands of "C" cell batteries)

Note that a single Vendor Part can have Multiple Price lists

QAD Proprietary EAM-INV-570

Select a vendor from the lookup.

(uhr) Enter the vendor's part number

Indicate an expiration date with the calendar.

Copy Parts Across Sites



Copy Parts Across Sites

The second way to create a Part Number . . .

The screenshot shows the QAD Inventory application interface. At the top, there are tabs for 'Home' and 'Inventory'. Below the tabs is a navigation bar with 'Excel Export', 'Print', 'Add To Favourites', 'New', and 'Edit'. A search bar contains 'Site: US-A-1' and 'Filter: ALL'. The main area displays a table of inventory items with columns: Part No, Description, Reserved, On Hand, and Available. The item 'A-C120' is highlighted in blue. To the right of the table, an 'Action' menu is open, listing various options. The option 'Copy Part Across Sites' is circled in red at the bottom of the menu.

Part No	Description	Reserved	On Hand	Available
05-02-220R	Grease, 5.3 oz, NLGI 2, Light Pink	0	10000148	10000148
123SDAF	SDAF pillow (plumber) block housings	0	0	0
1763	Run Capacitor, 4 MFD, 440 VAC	0	299	299
2785	Run Capacitor, 2 MFD, 120 VAC	0	385	385
30746	Hub.spindle.stl	0	0	0
9978102201	Omnia	0	0	0
A-C120	Component Item	0	41	41
AIRFILTER-006A	Air Filter, HEPA, 99.97, 24x24x11 1/2	0	0	0
AIRFILTER-008	Air Filter, HEPA, 95, 12x12x11 1/2	0	0	0
AIRFILTER-00W	Air Filter, HEPA, 23 3/8x23 3/8x11 1/2	0	0	0
AIRFIT-062	122HBL-S 1/2 X 1/2 HOSE BARB S	0	2	2

Action menu options:

- Return to Inventory
- Relocate
- Receive from Relocation
- Receive from Work Order
- Return to Work Order
- Adjust
- Transfer Ownership
- Modify Consignment
- Modify Cost
- Global Expense Account
- Copy Part Across Sites**

- Once a part is entered in one site, it can be copied to other sites within the domain

Copy Parts Across Sites



Copy Parts Across Sites

- ▲ Select the Site and appropriate part locations and select Add
- ▲ This can be repeated in order to copy the part to multiple sites without exiting screen
- ▲ Ability to modify Description driven by "Part Description Protected?" in Domain → Inventory setup

QAD Proprietary

EAM-INV-590

Appendix B: Issue Parts



Appendix B: Issue Parts

Exercise: Add A New Part



Exercise: Add A New Part

1. Create a new part with a price schedule where Part # = <Your Initials> 001
2. Enter details:
 - Reorder Point= 9
 - Min Order = 1
 - Order Unit = 1
 - Issue/Order UOM = EA
 - Auto-Issue = No
 - Source = Vendor
 - Adjustment Cost Center=0300
 - Adjustment Account=5045
3. Associate Part to Initial Location

Issue



Our Passion. Your Advantage.

Issue

Home

Posted GL Transactions

Inventory

Excel Export

Print

Add To Favourites

New

Edit

Action

Find

Site US-A-1

Filter ALL

Default

Part No	Description	Reserved	On Hand	Available
05-02-220R	Grease, 5.3 oz, NLGI 2, Light Pink	0	10000148	10000148
1763	Run Capacitor, 4 MFD, 440 VAC	0	299	299
2785	Run Capacitor, 2 MFD, 120 VAC	0	475	475
30746	Hub.spindle.stl	0	0	0
9978102201	Omnia	0	0	0
A-C120	Component Item	0	41	41
AIRFILTER-006A	Air Filter, HEPA, 39.97, 24x24x11 1/2	0	0	0
AIRFILTER-008	Air Filter, HEPA, 95, 12x12x11 1/2	0	0	0
AIRFILTER-00W	Air Filter, HEPA, 23 3/8x23 3/8x11 1/2	0	0	0

Select All

Add Record To Browse

New

Edit

Columns

Issue

Return to Inventory

Relocate

Receive from Relocation

Receive from Work Order

Return to Work Order

Adjust

Transfer Ownership

Modify Consignment

Modify Cost

Global Expense Account

Copy Part Across Sites

QAD Proprietary

EAM-INV-620

Click Save to issue to WO.

Issue to Work Order

QAD
Our Passion. Your Advantage.

Issue to Work Order

Issue Inventory

Save

Note: Can issue to Dept in EAM, but does not go to ERP

Issue to:

1. Work Order
2. Stores Req
3. Equip No
4. Project No

Automatically defaults accounting

Detail

To Site: US-A-1

Requestor:

W/O No: 0

Stores Req No: 0

Reserved: 0

Equip No:

Rebuild:

Serialized Part:

Serial No:

Project No:

Job No:

System:

Assembly:

Expense Site: US-A-1

Dept:

Cost Center: Mfg

Acct No: 7200

Sub Acct No: Mech

From:

Source Site: US-A-1

Part No: A-C120

Location: CONTRACTOR

On Hand: 41

Qty: 0.0000

UOM: EA

UOM Cost: 80

OH Group:

Date: 5/25/2010

Comment:

QAD Proprietary

EAM-INV-630

To Issue to Work Order, enter WO No, Location, Qty, and Click on Save. NOTE: When selecting this function from the Work order screen, certain data will be pre-populated here.

GL Transaction from EAM to QAD ERP



Our Passion. Your Advantage.

GL Transaction from EAM to QAD ERP

Home

Posted GL Transactions

Excel Export

Print

Add To Favourites

New

Edit

Action

Find

Site: US-A-1

Filter: ALL

Default

Reference	GL Date	Description	Cost Center	Acct No	Sub Acct No	GL Amount
MI100525028129	05/25/2010	ISS-INV-A-C120		1090		-80
MI100525028129	05/25/2010	ISS-INV-A-C120	Mfg	7200	Mech	80

Processes

Journal Entry Browse for View

Journal Entry - View

Go To

Actions

Tools

Attach

Print

Preview

Attachments

Year: 2010 05

Posting Date: 05/25/2010

Daybook Code: EAM 000000001

Layer Type: OFFICIAL

Save As Template: ☐

Description: ISS-INV-A-C120

Template Code:

Replacement: ☐

Original Posting Reference:

Sequence Number: 000000000

Reversal: ☐

GL Account	Sub-Account C	Cost Ce	Description	Trans Curr	TC Debit	TC Credit
7200	Mech	Mfg	ISS-INV-A-C120	USD	80.00	0.00
1090	Grerv		ISS-INV-A-C120	USD	0.00	80.00

QAD Proprietary

EAM-INV-640

EAM-Posted GL Maintenance & QAD ERP application Unposted Transaction Inquiry

Exercise: Issue Parts



Exercise: Issue Parts

1. Issue 1 part to a work order.
2. Review the GLs in EAM and QAD ERP.

Expected results:

- Credit – Inventory
 - Asset Cost Center=0300
 - Asset Account=1500
- Debit – WO/Equipment Expense
 - Cost Center=5010
 - Material Account=1510

Appendix C: Inventory Transactions



Appendix C: Inventory Transactions

Inventory Transactions



Inventory Transactions

- ▲ These are the transactions you can perform from Inventory:
 - Issue
 - Return to inventory
 - Relocate
 - Receive from relocation
 - Receive from work order
 - Return to work order
 - Adjust
 - Transfer ownership
 - Modify consignment
 - Modify cost

Adjust

QAD

Our Passion. Your Advantage.

Adjust

HomeInventory

Excel ExportPrintAdd To FavouritesNewEdit

ActionFindSiteUS-A-1Filter

Part No	Description	Reserved
05-02-220R	Grease, 5.3 oz, NLGI 2, Ught Pink	0
1763	Run Capacitor, 4 MFD, 440 VAC	0
2785	Run Capacitor, 2 MFD, 120 VAC	0
30746	Hub.spindle.stl	0
9978102201	Omnia	

A-C120Component Item

AIRFILTER-006AAir Filter, HEPA, 99.97, 24x24x11 1/2

AIRFILTER-008Air Filter, HEPA, 35, 12x12x11 1/2

AIRFILTER-00VVAir Filter, HEPA, 23 3/8x23 3/8x11 1/2

AIRFIT-062122HBL-8 1/2 X 1/2 HOSE BARB S

AIRVALVE-003K71DA00-KC0-KL1 1/4 LEVER VAL

Excel ExportPrintAdd To FavouritesNewEdit

FindDefault

LocationOn Hand

CONTRACTOR43

Select All

Add Record To Browse

New

Edit

Columns

Issue

Return to Inventory

Relocate

Receive from Relocation

Receive from Work Order

Return to Work Order

Adjust

Transfer Ownership

Modify Consignment

Modify Cost

Global Expense Account

Used to Adjust On-Hand Quantity for a Part as a result of a spot check.

Note difference between Adjust and the more formal Physical Inventory Count.

QAD Proprietary

EAM-INV-680

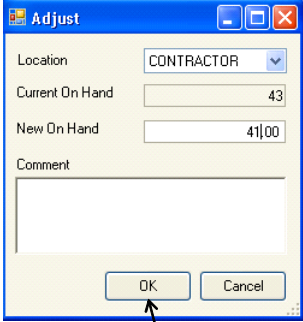
Adjust

Use this option to adjust the inventory level for this part.

Adjust



Adjust



On select of "OK":

1. Immediately updates inventory On-Hand Qty
2. Generates GL to ERP

QAD Proprietary

EAM-INV-690

Select the Location to Adjust.

Enter new quantity.

Click OK.

Adjust

QAD
Our Passion. Your Advantage.

Adjust

Home x Inventory x

Excel Export Print Add To Favourites New Edit

Action Find Site US-A-1 Filter ALL Default

Part No	Description	Reserved	On Hand	Available	Last Issued
05-02-220R	Grease, 5.3 oz, NLGI 2, Light Pink	0	10000148	10000148	04/23/2010
1763	Run Capacitor, 4 MFD, 440 VAC	0	299	299	04/23/2010
2785	Run Capacitor, 2 MFD, 120 VAC	0	475	475	04/12/2010
30746	Hub,spindle,sti	0	0	0	
9978102201	Omnia	0	0	0	
A-C120	Component Item	0	41	41	02/24/2010
AIRFILTER-006A	Air Filter, HEPA, 99.97, 24x24x11 1/2	0	0	0	04/05/2010
AIRFILTER-008	Air Filter, HEPA, 95, 12x12x11 1/2	0	0	0	
AIRFILTER-00W	Air Filter, HEPA, 23 3/8x23 3/8x11 1/2	0	0	0	03/15/2010
AIRFIT-062	122HBL-8 1/2 X 1/2 HOSE BARB S	0	2	2	02/24/2010
AIRVALVE-003	K71DA00-KC0-KL1 1/4 LEVER VAL	0	9	9	05/23/2010

QAD Proprietary EAM-INV-700

Enter (review?) the new qty

GL Transaction from EAM to QAD ERP



GL Transaction from EAM to QAD ERP

▲ EAM-Posted GL Maintenance and QAD ERP Unposted Transaction Inquiry

Home

Posted GL Transactions

Excel Export

Print

Add To Favourites

New

Edit

Action

Find

Site

US-A-1

Filter

ALL

Default

Reference	GL Date	Description	Cost Center	Acct No	Sub Acct No	GL Amount
MI1100525028126	05/25/2010	ADJ-QTY-D-A-C120		1100		160
MI100525028126	05/25/2010	ADJ-QTY-D-A-C120		1090		-160

Unposted Transaction Inquiry							03/05/07
User Menu Edit Queue Options Help							
GL Reference	Batch	Cur	Unb Only				Output terminal
MI070305000101		USD	No				
GL Reference	Batch	Eff Date	Entered	User ID	Total		Corr
MI070305000101		05/01/03	03/05/07	sysadm	0.00		No
Line	Account	Project	Enty	Description	Amount	Cur	
1	5045-0300		1000	ADJ-QTY-D-02-	24.15	USD	
2	1500-0300		1000	ADJ-QTY-D-02-	-24.15	USD	

Exercise: Adjust



Exercise: Adjust

1. Adjust the on-hand quantity to 5 for the part you just added.
2. Review the GLs in EAM and QAD ERP.

Expected results:

- Debit – Inventory
 - Asset Cost Center=0300
 - Asset Account=1500
- Credit – Adjustment
 - Adjustment Cost Center=0300
 - Adjustment Account=5045

Return to Inventory

QAD
Our Passion. Your Advantage.

Return to Inventory

The screenshot shows the QAD software interface with the 'Inventory' tab selected. A context menu is open over a table of inventory items, with the 'Return to Inventory' option highlighted. The table has columns for Part No, Description, and Reserved. The right side of the interface shows a summary table with columns for Last Issued and Short.

Part No	Description	Reserved
05-02-220R	Grease, 5.3 oz, NLGI 2, Light Pink	0
1763	Run Capacitor, 4 MFD, 440 VAC	0
2785	Run Capacitor, 2 MFD, 120 VAC	0
30746	Hub, spindle, stl	0
9878102201	Omnia	0
A-C120	Component Item	0
AIRFILTER-006A	Air Filter, HEPA, 99.97, 24x24x11 1/2	0
AIRFILTER-008	Air Filter, HEPA, 95, 12x12x11 1/2	0
AIRFILTER-00W	Air Filter, HEPA, 23 3/8x23 3/8x11 1/2	0

Last Issued	Short
04/23/2010	0
04/23/2010	0
04/12/2010	0
	0
	0
02/24/2010	0
04/05/2010	0
	0
03/15/2010	0

Return to Inventory:
 Used to put part back into inventory after Issue
 Reverses previous Issue transaction

QAD Proprietary
EAM-INV-730

Return to Inventory

Use this option to put an unused part back into inventory.

Return to Inventory

QAD
Our Passion. Your Advantage.

Return to Inventory

Lookup

Date	Qty	To Site	W/D No	Net Qty
05/25/2010	1	US-A-1	45	1
05/25/2010	1	US-A-1	0	1
02/24/2010	2	US-A-1	10	2
02/24/2010	2	US-A-1	10	2
02/24/2010	2	US-A-1	10	2

Select Issue Transaction to reverse . . .

Return to Inventory

Location: CONTRACTOR

Qty to Return: 2.00

Date Returned: 05/25/2010

OK Cancel

Specify Location, Qty, and Effective Date.
NOTE: Cannot return more than was originally issued.

QAD Proprietary EAM-INV-740

Select the transaction to reverse.

Indicate the location, quantity to return, and the date.

Click OK.

GL Transaction from EAM to QAD ERP

QAD
Our Passion. Your Advantage.

GL Transaction from EAM to QAD ERP

Home Posted GL Transactions

Excel Export Print Add To Favourites New Edit

Action Find Site US-A-1 Filter ALL Default

Reference	GL Date	Description	Cost Center	Acct No	Sub Acct No	GL Amount
MI100525028133	05/25/2010	RET-INV-A-C120	MFG	7200	Mech	-160
MI100525028133	05/25/2010	RET-INV-A-C120		1090		160

Unposted Transaction Inquiry 02/28/07

User Menu Edit Queue Options Help

GL Reference	Batch	Cur	Unb Only	Output
MI070228000090		USD	No	terminal

GL Reference	Batch	Eff Date	Entered	User ID	Total	Corr
MI070228000090		05/01/03	02/28/07	sysadm	0.00	No

Line	Account	Project	Enty	Description	Amount	Cur
1	1500		1000	RET-INV-05-02	4.87	USD
2	1560-0010		1000	RET-INV-05-02	-4.87	USD

QAD Proprietary EAM-INV-750

EAM-Posted GL Maintenance & QAD ERP Unposted Transaction Inquiry

Exercise: Return



Exercise: Return

1. Return the part just issued to a work order back to inventory.
2. Review the GLs in EAM and QAD ERP.

Expected results:

- Debit – Inventory
 - Asset Cost Center=0300
 - Asset Account=1500
- Credit – WO/Equipment Expense
 - Cost Center=5010
 - Material Account=1510

Receive from Work Order

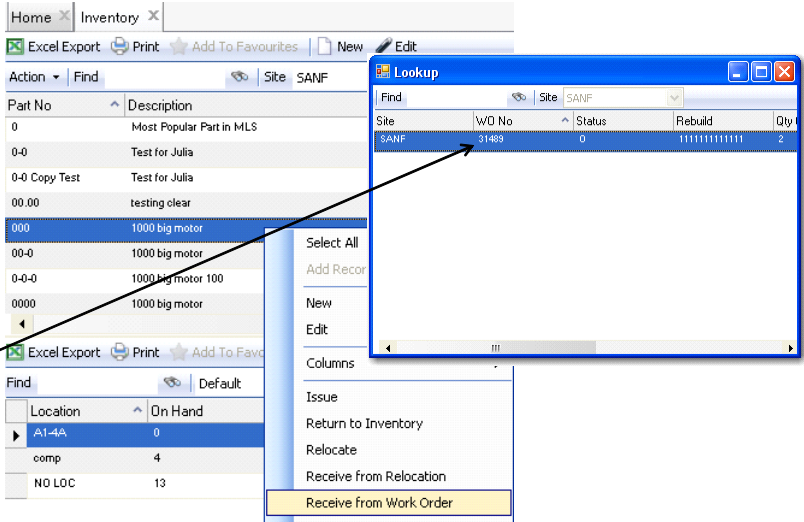
 QAD
Our Passion. Your Advantage.

Receive from Work Order

Purpose:
Internally fabricated Parts inventory is replenished by a Fabricated Work Order.

This function allows the newly fabricated parts to be added to inventory and sets cost of part to the cost of the WO.

Note that a WO is required, and the lookup list is automatically sorted to open WO's for the selected fabricated part.



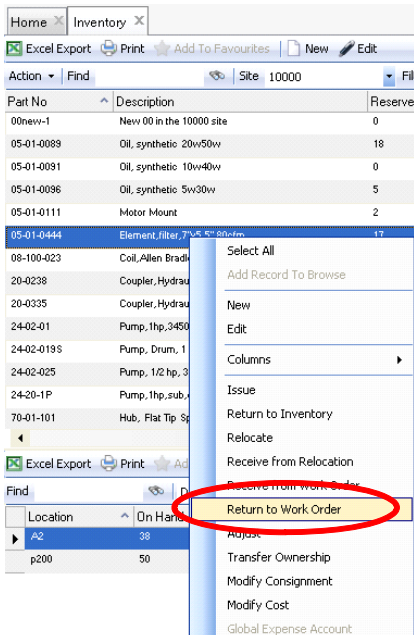
QAD Proprietary
EAM-INV-770

Receive From Work Order is for internally fabricated parts.

Use the lookup to select the work order. The lookup is filtered to only those open work orders for this particular internal part.

Return to Work Order

Purpose:
Reverses previous
"Receive from Work
Order" transaction.
Returns fabricated part
to Rebuild area for
repair.



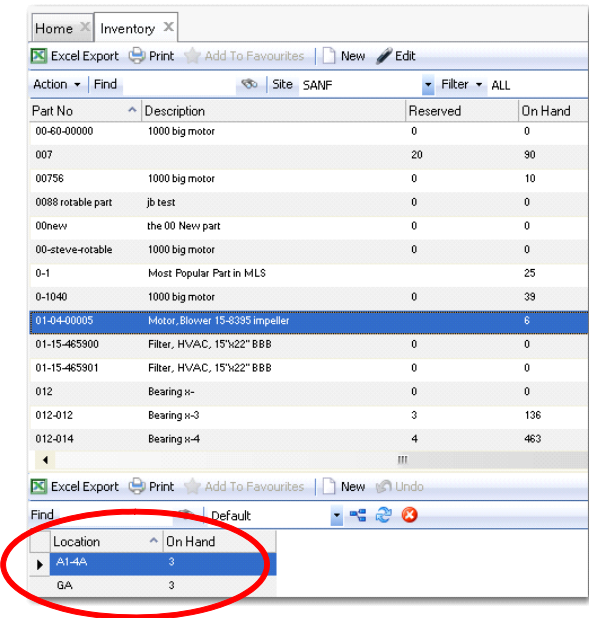
The screenshot shows the QAD Inventory application interface. At the top, there's a header with the QAD logo and the tagline 'Our Passion. Your Advantage.' Below this, a navigation bar includes 'Home' and 'Inventory' tabs. A toolbar contains icons for 'Excel Export', 'Print', 'Add To Favourites', 'New', and 'Edit'. A search bar is labeled 'Find' and shows 'Site: 10000'. Below the search bar is a table with columns 'Part No', 'Description', and 'Reserve'. The table lists several parts, including '00new-1', '05-01-0089', '05-01-0091', '05-01-0096', and '05-01-0111'. A context menu is open over the table, showing options like 'Select All', 'Add Record To Browse', 'New', 'Edit', 'Columns', 'Issue', 'Return to Inventory', 'Relocate', 'Receive from Relocation', 'Return to Work Order' (highlighted with a red circle), 'Adjust', 'Transfer Ownership', 'Modify Consignment', 'Modify Cost', and 'Global Expense Account'.

QAD Proprietary EAM-INV-780

Return to Work Order

Use this option to return a fabricated part to a work order added to rebuild that part.

Relocate



The screenshot shows the QAD Inventory Relocate interface. The main table lists various parts, including '01-04-00005 Motor, Blower 15-6335 Impeller'. Below the table, the 'Find' section is highlighted with a red circle, showing the 'Location' dropdown set to 'A1-4A' and the 'On Hand' quantity of 3. The 'GA' location is also visible with an 'On Hand' quantity of 3.

Can move a part: 1. Between a site's locations (Note: must be associated to part first!), or 2. To another site

Relocating Across Sites:

- EAM functionality depends upon "Transit?" flag
- Push/Pull vs. Pull

QAD Proprietary EAM-INV-790

Relocate

Use this option to send a part to another site, or to move a part between one store room locations

Relocate

Relocate

Can change "From" Site to Pull part into your own site

Cross Site Relocations:
 If "Transit?" flag = no, then the transaction is complete.
 If "Transit?" flag = yes, there is one more step . . . Receive from Relocation

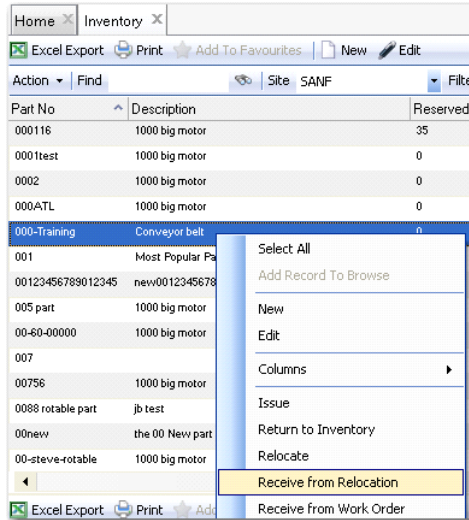
QAD Proprietary EAM-INV-800

Note: GL's are not created on a relocation from one bin location to another (within a site), but across sites there are intercompany transactions to move the cost.

Indicate the quantity to relocate & indicate the new location.

Receive from Relocation

Purpose:
 If "Transit?" is set to yes, cross-site inventory transfers involve a "Push" to an In-Transit account.
 The "Receive from Relocation" is the second step to "Pull" that inventory from the In-Transit Account into the Site Inventory.



The screenshot shows the QAD Inventory Management application. The 'Inventory' tab is active, displaying a table with columns: Part No, Description, and Reserved. The table lists several parts, including '1000 big motor' and 'Conveyor belt'. A context menu is open over the 'Conveyor belt' row, showing options like 'Select All', 'Add Record To Browse', 'New', 'Edit', 'Columns', 'Issue', 'Return to Inventory', 'Relocate', and 'Receive from Relocation'. The 'Receive from Relocation' option is highlighted.

QAD Proprietary
EAM-INV-810

Receive from Relocation

Use this option to receive a part from another site. This applies only if In-Transit? is set to yes in the system control settings.

Exercise: Relocate



Exercise: Relocate

A new bin location has been assigned. After re-organizing the storeroom, a quantity of 1 exists in the new bin location.

1. Assign a new bin location to your part.
2. Relocate a quantity of one to the new bin location.

Transfer Ownership

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Transfer Ownership

Part No	Description	Reserved
0002	1000 big motor	0
000ATL	1000 big motor	0
000-Training Conveyor belt		
001	Most Popular Part in MLS	
00123456789012345	new001234567890123456789012345	
005 part	1000 big motor	
00-60-00000	1000 big motor	
007		
00756	1000 big motor	
0088 rotatable part	jb test	
00new	the 00 New part	
00-steve-rotatable	1000 big motor	
0-1	Most Popular Part in MLS	
0-1040	1000 big motor	

Transfer Ownership

From

Vendor
Universal Industries

On Hand (Vendor)
1097

To

On Hand (Company)
6

Qty to Transfer
0.00

Select All
Add Record
New
Edit
Columns
Issue
Return to Inventory
Relocate
Receive from Relocation
Receive from Work Order
Return to Work Order
Adjust
Transfer Ownership

Purpose:

- Used with Consignment Inventory Only
- Consignment Inventory may be a mixture of Vendor owned and Company owned inventory.
- The Transfer Ownership function allows changing ownership of specific quantities of consignment inventory.

QAD Proprietary
EAM-INV-830

Transfer Ownership

Use this option to indicate another owner for the consigned part.

Modify Consignment



The screenshot shows the QAD EAM Inventory application interface. The main window displays a list of inventory items with columns for Part No and Description. The 'Modify Consignment' dialog box is open, showing options for 'Consignment?' and 'Vendor Owned?', a 'Vendor No' field, and 'OK' and 'Cancel' buttons.

Modify Consignment

☐ Consignment?

☐ Vendor Owned?

Vendor No

OK Cancel

Purpose: Modify Consignment Inventory Information

QAD Proprietary EAM-INV-840

Modify Consignment

Use this option to modify a part's consignment information.

Modify Cost

Modify Cost

Home x Inventory x

Excel Export Print Add To Favourites New Edit

Action Find Site SANF Filter ALL

Part No	Description	Reser
000ATL	1000 big motor	0
000-Training	Conveyor belt	
001	Most Popular Part in MLS	
00123456789012345	new001234567890123456789012345	
005 part	1000 big motor	
00-60-00000	1000 big motor	
007		
00756	1000 big motor	
0088 rotatable part	jb test	
00new	the 00 New part	
00-steve-rotatable	1000 big motor	
0-1	Most Popular Part in MLS	
0-1040	1000 big motor	
01-04-00005	Motor, Blower 15-8395 impeller	

Excel Export Print Add To Favourites

Find Location On Hand

Select All
Add Record T
New
Edit
Columns
Issue
Return to Inventory
Relocate
Receive from Relocation
Receive from Work Order
Return to Work Order
Adjust
Transfer Ownership
Modify Consignment
Modify Cost

Modify Cost

New Standard Cost 650.00000

OK Cancel

Purpose:

- Used to change the per-part cost for an item
- Cost is based upon Inventory Costing Method (FIFO, LIFO, Standard)
- Creates GL Transactions

QAD Proprietary EAM-INV-850

Modify Cost

Use this option to change the part's cost, generating general ledger entries based on the changes.

Use this option only with approval from your Finance department.

Appendix D: Physical Inventory



Appendix D: Physical Inventory

Physical Inventory



Physical Inventory

- ▲ Physical Inventory is a formal inventory counting function, usually associated with an audit process
- ▲ May be created for all inventory or for specific sections of inventory based upon various criteria (Ex: Last Physical Count Date)
- ▲ Freezes all transactions for parts included until the Physical Inventory is closed
- ▲ Provides a printed Count Sheet

QAD Proprietary

EAM-INV-870

(uhr) – details here were duplicated on previous slide

Create a Physical

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Create a Physical

Inv No	Control No	Type	Consignment?	Vendor No	Created Date	Status	Closed Date	Closed By
431	Training PI		☐		06/08/2009	S		
430	4 PO test		☐		04/23/2009	X		
429	Control		☐		04/14/2009	S		
428	copy of 425		☐		04/13/2009	X		
427	copy of 423		☐		03/31/2009	S		
426	copy of 425		☐		03/31/2009	C	04/13/2009	janie
425	looking 4 AIP		☐		03/06/2009	X		
424			☐		03/02/2009	S		
423	FControl		☐		02/20/2009	C	02/23/2009	jrosinto
422	nCtrl	sch	☒	cory	02/20/2009	S		

QAD Proprietary
EAM-INV-880

Use the physical inventory module to:

Pick a group of parts based on user-defined criteria to count and print count sheets.

Verify the quantity in inventory and enter count results.

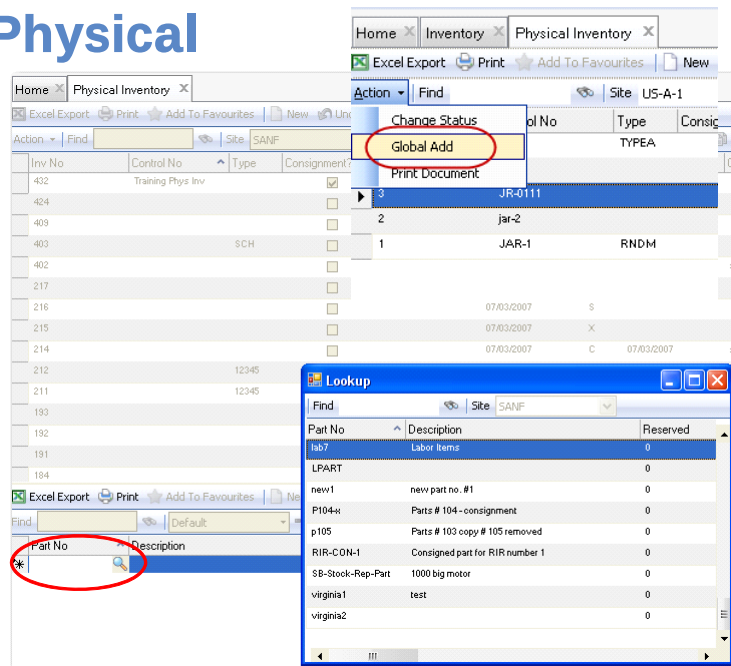
Make adjustments to the on-hand inventory quantity automatically after closing count.

EAM includes only active parts in physical inventory lists and the physical inventory add lookup.

Create a Physical

Create a Physical

Use Global Add from the Action menu or add item individually



QAD Proprietary

EAM-INV-890

Add items to count to the physical

Print a Physical Inventory Count Sheet



Our Passion. Your Advantage.

Print a Physical Inventory Count Sheet

HomePhysical Inventory

Excel ExportPrintAdd To FavouritesNewUndo

Site: SANFFilter: Status=SDefault

Action	Find	No	Type	Consignment?	Vendor No	Created Date	Status	Closed Date	Closed By
Change Status		st 1006		☒		01/28/2008	\$		
Global Add		t 1005		☐		01/28/2008	\$		
Print Document		267	sdrsdisd	☐		01/28/2008	\$		
		263	Pat's Test 1000	☐		01/28/2008	\$		
		262	dfsdrdf	☐		01/28/2008	\$		
		257	asdrasd	☐		12/06/2007	\$		
		255	another new one for t	sch	☐	11/20/2007	\$		
		252	another new one for t	sch	☒	11/15/2007	\$		
		236	665465	☒		08/08/2007	\$		
		226	c#1 here	12345	☐	08/03/2007	\$		
		225	654645	12345	☐	08/03/2007	\$		

QAD Proprietary

EAM-INV-900

- Navigate to Inventory|Physical Inventory.
- Highlight the run number.
- Select Print Document from Actions.
- Print the document.

Enter Count

QAD
Our Passion. Your Advantage.

Enter Count

Home | Inventory | Physical Inventory |

Excel Export | Print | Add To Favourites | New | Undo

Action | Find | Site: US-A-1 | Filter: ALL | Default

Inv No	Control No	Type	Consignment?	Vendor No	Created Date	Status	Closed Date	Closed By
5	Test	TYPEA	☐		04/27/2010	C	05/23/2010	sysadm
4	uhr		☐		04/13/2010	C	05/18/2010	aant
3	JR-0111		☐		08/11/2009	S		
2	jar-2		☐		07/29/2009	S		
1	JAR-1	RNDM	☐		07/11/2009	C	07/11/2009	aant

Excel Export | Print | Add To Favourites | New | Undo

Find | Default

Part No	Description	Location	On Hand	Count	Current Qty
BEARING 006	SPK 8003 RSJEM BEARING	TBD	19	26	19
CABLE-010	BALL OFF 39 TEST CABLE	TBD	130	100	130

QAD Proprietary EAM-INV-910

Enter count for each part in the lower browse.

Close a Physical

QAD
Our Passion. Your Advantage.

Close a Physical

The screenshot displays the QAD Physical Inventory application interface. The main window shows a list of physical inventory items with columns: Inv No, Control No, Type, Consignment?, Vendor No, Created Date, Status, and Closed Date. A context menu is open over the list, with the 'Change Status' option highlighted. A 'Lookup' dialog box is also open, showing a table with Status and Description columns. The table contains two rows: 'C' (Closed) and 'X' (Canceled-1).

Inv No	Control No	Type	Consignment?	Vendor No	Created Date	Status	Closed Date
436	Training PI		☐				
435	rew		☐				
434			☒	cory			
433			☐				
432			☒	28915			
430			☐				
429			☐				
428			☐				
427			☐				
426			☐				
425	looking 4 AIP		☐				
424			☐				
423	F Control		☐		02/20/2009	C	02/23/2009
422	n Ctrl	sch	☒	cory	02/20/2009	S	
420	JR10-01	RNDM	☐		02/10/2009	X	

Part No	Description	On Hand	Location	Count	Current Qty
c102	consignment item # 102	0	comp	18	18
c103	consignment item # 103	3	BREAK	13	13

QAD Proprietary EAM-INV-920

Close the Physical by selecting the change status option from the action menu.

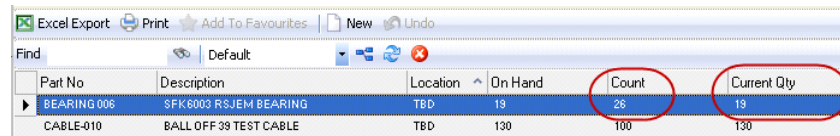
Note No Inventory Transactions can be made to a part that is associated to an active physical.

Closing a Physical

Closing a Physical

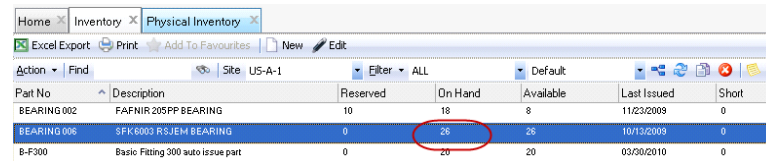
- ▲ Upon closing, EAM automatically creates any necessary adjustments to the part in inventory.

Before



Part No	Description	Location	On Hand	Count	Current Qty
BEARING 006	SFK6003 RSJEM BEARING	TBD	19	26	19
CABLE-010	BALL OFF 39 TEST CABLE	TBD	130	100	130

After



Part No	Description	Reserved	On Hand	Available	Last Issued	Short
BEARING 002	FAFNIR 205PP BEARING	10	18	8	11/23/2009	0
BEARING 006	SFK6003 RSJEM BEARING	0	26	26	10/13/2009	0
B-F300	Basic Fitting 300 auto issue part	0	20	20	03/06/2010	0

Physical Adjustment: GLs Created When Closed



Physical Adjustment: GLs Created When Closed

▲ EAM-Posted GL Maintenance and QAD ERP Unposted Transaction Inquiry

Home X Posted GL Transactions X						
Excel Export Print Add To Favourites New Edit						
Action	Find	Site	US-A-1	Filter	ALL	Default
Reference	GL Date	Description	Cost Center	Acct No	Sub Acct No	GL Amount
MI100525028136	05/25/2010	PHY-QTY-I-BEARIN		1500		84.21
MI100525028136	05/25/2010	PHY-QTY-I-BEARIN		5300		-84.21

Unposted Transaction Inquiry 03/01/07						
User Menu Edit Queue Options Help						
GL Reference	Batch	Cur	Unb Only	Output		
MI070301000097		USD	No	terminal		
GL Reference	Batch	Eff Date	Entered	User ID	Total	Corr
MI070301000097		05/01/03	03/01/07	sysadm	0.00	No
Line	Account	Project	Enty Description	Amount	Cur	
1	5045-0300		1000 PHY-QTY-B-06-	11.25	USD	
2	1500-0300		1000 PHY-QTY-B-06-	-11.25	USD	

Exercise: Create a Physical



Exercise: Create a Physical

1. Select the part you added during the Add New Inventory exercise.
2. Use it to create and save your physical.
3. Exit and attempt to issue your part from the Inventory module.
4. Return to your physical.
5. Enter a new count, then close the Physical.
6. Return to Inventory and view your parts on hand quantity. Did the quantity change?
7. Review the GLs in EAM.

Appendix E: Stock Replenishment



Appendix E: Stock Replenishment

Stock Replenishment



Stock Replenishment

- ▲ Use the Stock Replenishment module to replenish stock automatically.
 - Ways to Replenish Stock
 - Manually create a stock run with a specific filter criteria such as part type, vendor, critical, and consignment.
 - Automatically Create - Use Batch Job Scheduler (batch/autostck.p) which is still being converted in v12.
- ▲ EAM compares a part's current on-hand quantity to the reorder point and management max values.
- ▲ If a part's current on-hand quantity is at or below the reorder point, it lists as a part to reorder, with a reorder quantity suggestion.
- ▲ Create the request after adding parts to a stock run.
 - Vendor Sourced: Generates purchase one requisition per Vendor
 - Internal Fabricated: Generates work order

Create a Stock Replenishment

The screenshot shows the QAD Enterprise Asset Management (2) - QAD Enterprise Applications interface. The top frame displays a 'Stock Replenishment' window with a table of items. The bottom frame shows a detailed view of the items.

Top Frame: Stock Replenishment

Stock Run No	Description	Type	Status	Originator
19	202 AIR	C	wait	
18	Vendor parts			
16	Vendor 1			
15	MORE SERIALIZED PARTS			
14	Serialized Parts			
13	Make parts			
12	Make Parts Apr 21			
11	Parts for Building			
10	Parts			
9	Emergency Parts Build			
8	Make Parts 16 Apr	C	prointo	

Bottom Frame: Detailed View

Part No	Description	To Order	Mgt Max Qty
AIRFIT-066	HSCP 3/8ID NIPPLE	30	30
AIRFIT-067	COUPLER FOR QUICK DISC	15	0
AIRFIT-069	W68MI-502-2 FITTING	75	75

Use Stock Replenishment to identify parts below reorder point or safety stock level. Create requisitions or work orders to replenish depleted inventory.

Create a stock replenishment header or stock run in the top frame.

Globally add parts or attach individual parts to a stock run.

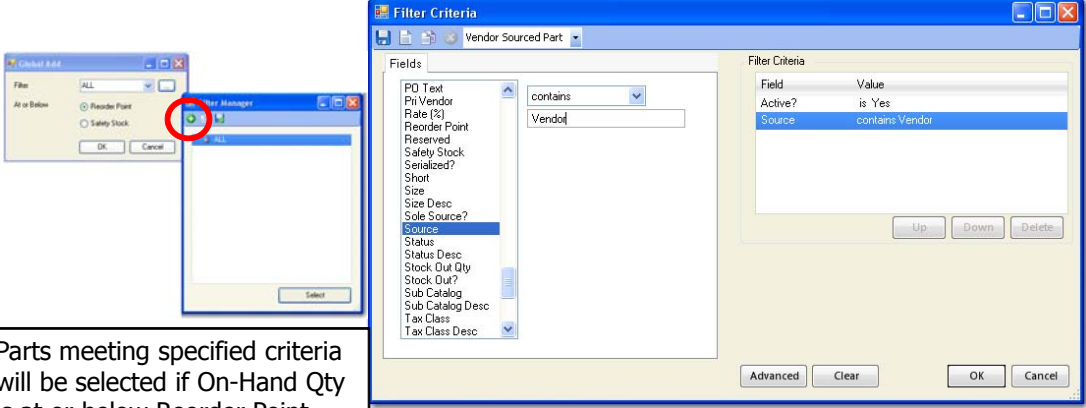
Print the list of items below reorder point or safety stock level for review in the bottom frame.

The stock run number is copied to the requisition or work order, noting its origin.

Add Parts to a Stock Replenishment

Add Parts to a Stock Replenishment

- ▲ Use the Global Add action and create the selected filter to find all active, vendor-sourced parts to reorder.



Parts meeting specified criteria will be selected if On-Hand Qty is at or below Reorder Point

QAD Proprietary

EAM-INV-990

Click Global Add in the Stock Replenishment Action menu.

Click the ellipsis (...) button.

Click the Add button (green plus).

Build a vendor-sourced parts filter.

Select the Active field.

Select the Source field, equals vendor.

Click OK.

Add other parts by clicking New in the lower browse.

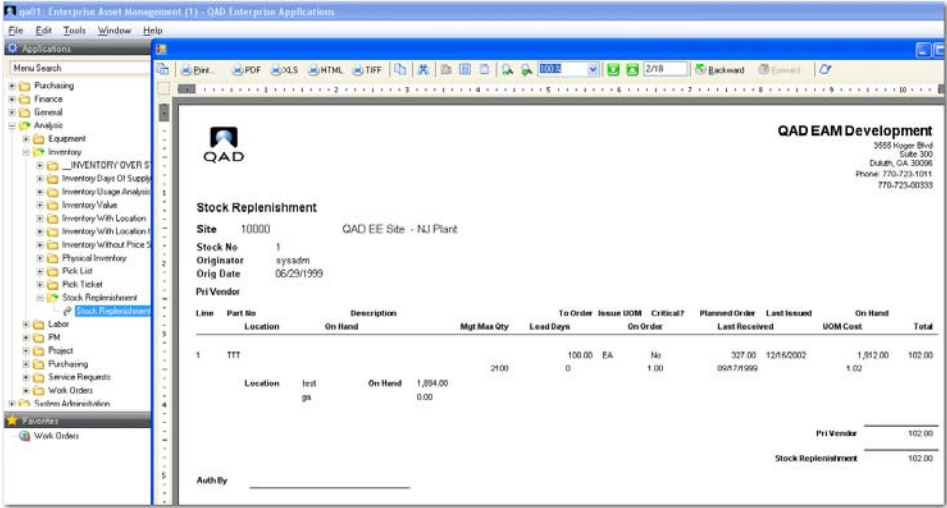
You only need to create the filter once. Save it for re-use.

Review Parts on a Stock Replenishment



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Review Parts on a Stock Replenishment



The screenshot shows the 'Stock Replenishment' window in QAD EAM Development. The window title is 'QAD EAM Development (1) - QAD Enterprise Applications'. The left sidebar contains a 'Menu Search' tree with categories like Purchasing, Finance, General, Analysis, Equipment, Inventory, Labor, PM, Project, Purchasing, Service Requests, Work Orders, and System Administrations. The 'Inventory' category is expanded, showing sub-items like '_INVENTORY OVER \$', 'Inventory Days Of Supply', 'Inventory Usage Analysis', 'Inventory Value', 'Inventory With Location', 'Inventory Without Location', 'Physical Inventory', 'Pick List', 'Pick Ticket', and 'Stock Replenishment'. The 'Stock Replenishment' item is selected. The main area displays the 'Stock Replenishment' form. At the top right, it says 'QAD EAM Development' with contact information: '3555 Roger Blvd, Suite 300, Duluth, GA 30096, Phone: 770-723-1011, 770-723-0033'. The form fields include: 'Site: 10000 QAD EE Site - NJ Plant', 'Stock No: 1', 'Originator: sysadm', 'Orig Date: 06/29/1999', and 'Pri Vendor'. Below these is a table with columns: 'Line', 'Part No', 'Location', 'On Hand', 'Description', 'Mgt Max Qty', 'Lead Days', 'To Order', 'Issue UOM', 'Critical?', 'Planned Order', 'Last Issued', 'On Hand', 'UOM Cost', and 'Total'. The table has one data row for 'Line 1' with 'Part No TTT' and 'Location test gn'. The 'On Hand' value is '1,894.00' and the 'Total' is '102.00'. At the bottom right, there are summary fields: 'Pri Vendor: 102.00' and 'Stock Replenishment: 102.00'. The 'Auth By' field is empty.

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EAM-INV-1000

Edit, review, and approve parts to order.

Use the Create Requests action to add requisitions.

Create Stock Replenishment Requests

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Create Stock Replenishment Requests

Home | Stock Replenishment | Excel Export | Print | Add To Favourites | New | Undo

Site: 10000 | Filter: ALL | Default

Create Requests

Part No	Description	To Order	Mgt Max Qty	On Hand	Plan
05-01-0088	Oil, synthetic 20w/50w	125	130	5	0
05-01-0111	Motor Mount	6	18	45	0
05-01-0444	Element, filter, 7"x5.5", 80cfm	10	15	88	153

Will create:

- One Purchase Request per Vendor for Vendor Sourced Parts
- Work Orders for Internally Fabricated Parts

Note:
After parts are selected can adjust order qty before creating actual orders.

QAD Proprietary EAM-INV-1010

Edit, review, and approve parts to order.

Use the Create Requests action to add requisitions.

Globally Create Purchase Orders from Stock Replenishment



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Globally Create Purchase Orders from Stock Replenishment

Home Stock Replenishment Requisitions

Excel Export Print Add To Favourites New Edit

Action Find Site 10000 Filter ALL Default

Authorize
Change Status
Modify Currency
Reopen
Create Purchase Order
Global Create Purchase Order

Date Due	Vendor Name	Stock Run No	Total Cost	Consig
05/11/2009	Borg Warner	12	3896.34	
05/08/2009	Universal Industries	12	399.8	

es New Edit

Default

Line	Part No	Description	Status	Qty Ordered	Qty Received	UOM	Date Required	Date Due
1	GEZ-210	Bearing, SKF, GEZ210, RS	P	6	0	EA		05/11/2009
2	05-01-0111	Motor Mount	P	100	0	EA		05/31/2009

QAD Proprietary

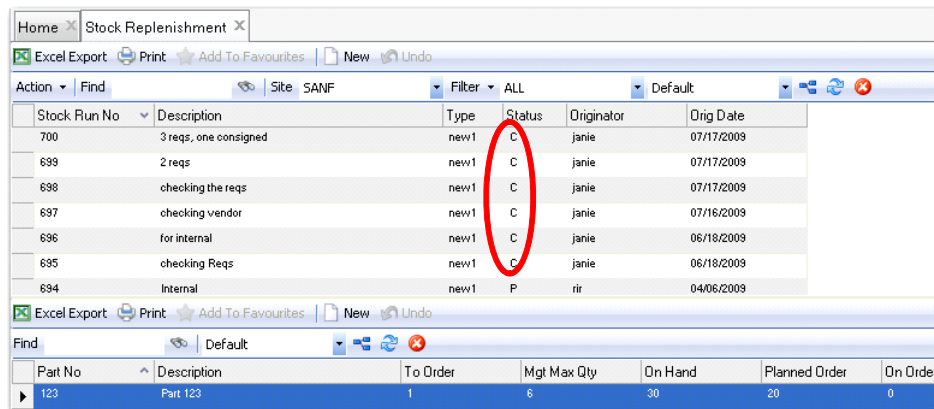
EAM-INV-1020

Create POs from the stock replenishment.

Close a Stock Replenishment

Close a Stock Replenishment

- Once the Requisitions or Work Orders are created, the Stock Replenishment automatically closes.



Stock Run No	Description	Type	Status	Originator	Orig Date
700	3 reqs, one consigned	new1	C	janie	07/17/2009
699	2 reqs	new1	C	janie	07/17/2009
698	checking the reqs	new1	C	janie	07/17/2009
697	checking vendor	new1	C	janie	07/16/2009
696	for internal	new1	C	janie	06/18/2009
695	checking Reqs	new1	C	janie	06/18/2009
694	Internal	new1	P	rir	04/06/2009

Part No	Description	To Order	Mgt Max Qty	On Hand	Planned Order	On Order
123	Part 123	1	6	30	20	0

Chapter 7

Introduction to EAM Purchasing

EAM Level 1 Learning Path



EAM Level 1 Learning Path

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:		66 hours	Pre-Sales, Support, Services, Customers				
PREREQUISITE: EAM Introduction Level Exam Completion		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List: Terry Wireman "World Class Maintenance"	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40	6	
			Self-Study to Classroom Percentage:	40%	60%		

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Classes 1-1 through 1-6
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. Approximately 8 hours of Required Reading from the EAM Reading List

Course Overview



Course Overview

- ▲ Course Objectives and Benefits
- ▲ Business Space
- ▲ Key Concepts
- ▲ Examples
- ▲ Purchasing Setup Review
- ▲ Purchasing Process
- ▲ Returns Process
- ▲ Stock Replenishment Process
- ▲ Course Review
- ▲ Next Steps

Think in terms of an Hourglass

Big Picture □

★ Digestible Bites

Big Picture □



Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives:

- Understand how QAD EAM Purchasing fits in Business
- Understand EAM Purchasing Key Concepts
- Obtain process and functional experience with EAM Purchasing

▲ Benefits:

- After taking this course, you will have hands-on experience with EAM Purchasing.
- You will be familiar with the EAM purchasing business space in order to position more effectively the product as a solution.
- You will be able to work through foundation EAM Purchasing Processes on your own.
- Upon successful completion of this course and its learning validation test you will be prepared to take the next steps in the EAM Level 1 Learning Path towards Certification.

Purchasing Overview



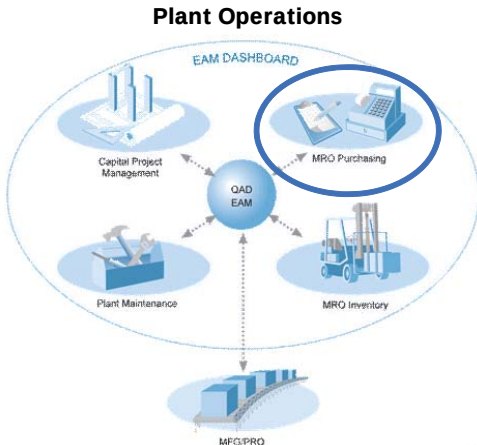
Purchasing Overview

▲ **Goal:** Source critical spare parts from approved suppliers as quickly as possible at the lowest possible cost.

- Accelerate approval cycles via electronic requisition approval
- Monitor spending against budget
- Leverage buying power through shared services
- Evaluate vendors based on delivery performance

Purchasing Roles:

- Requestors
- Buyers
- Approvers
- Receivers
- Accounts Payable
- Vendors



Plant Operations

The diagram illustrates the integration of EAM and MFG/PRO systems. At the top, the 'EAM DASHBOARD' is shown with four main components: 'Capital Project Management', 'MRO Purchasing', 'Plant Maintenance', and 'MRO Inventory'. These components are all connected to a central 'QAD EAM' hub. Below the dashboard, the 'MFG/PRO' system is shown, which is connected to the 'MRO Inventory' component of the EAM dashboard. The entire system is labeled 'Plant Operations'.

QAD Proprietary EAM-PUR-060

The EAM Purchasing module is designed to provide best practice purchasing functionality for Indirect materials, services, and inventory.

Within the EAM Purchasing module, users can create and maintain requisitions, standard clauses, and approval groups. EAM utilizes ERP Supplier Records to allow users to select approved vendors and ensure purchasing flows through the ERP Accounts Payable functions.

With the EAM electronic approval routing capabilities (for both Requisitions and Purchase Orders) and the ability to add routing substitutions, EAM replaces the need for hard-copy approvals in purchasing and provides vital history during regulatory audits.

With the Purchasing Module, EAM provides vital business information for a company to improve their bottom line. Functions such as budgetary controls and purchasing monitoring allow companies to keep an eye on their cash flow and control the situation before there is a problem. Being able to consolidate purchasing information allows companies to leverage their buying power as they negotiate with their suppliers based upon volume and past supplier performance.

In general, the goal of EAM Purchasing is to ensure that the plant has what it needs, when it needs it, and the very best price in order keep the plant running efficiently to satisfy customer demand.

Purchasing Role in EAM



Purchasing Role in EAM

- ▲ Purchasing addresses all indirect purchasing requirements in a plant, enabling the buyer to report all indirect purchases in a single system.
 - Purchasing is tightly integrated into EAM's inventory, capital project, and maintenance modules.
 - Requisitions are the backbone of the purchasing system. All requests originate as requisitions. Requisitions route for approval, and are attached to purchase orders (POs).
 - EAM automatically creates POs for sole-sourced items.

QAD Proprietary

EAM-PUR-070

The Purchasing Functions do not perform in a vacuum. The transactions and controls in EAM Purchasing have a direct impact on all the other modules in EAM: Maintenance, Inventory, and Project Controls.

In this course, we will discuss how EAM Purchasing can be used to manage all indirect purchasing requirements and how collected data can provide visibility into the overall health of the purchasing organization.

Purchasing Key Concepts – What you should already know



Purchasing Key Concepts – What you should already know . . .

- ▲ EAM PO = ERP Memo Purchase Order
- ▲ All EAM adds, changes and deletes are automatically reflected on corresponding ERP purchase order
- ▲ Financial Transactions Feed to QAD ERP
 - Receipts
 - Returns to vendor
 - All tax related to purchase

Remember!
ERP Chart of Accounts:

- Cost Center
- Account
- SubAccount
- Sometimes Product Line

EAM's "Dept" is not associated
with ERP Chart of Accounts

Purchasing Key Concepts - AP



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Purchasing Key Concepts - AP

- ▲ EAM Purchasing: Processes Purchase Requests through create, approve, order and receive
- ▲ ERP Accounts Payable (AP): Processes Invoices from Suppliers and Pays Invoices
 - Separate group from Purchasing due to Segregation of Duties
 - Three Primary AP Documents:
 - Purchase Order (Source: EAM)
 - Receiver (Source: EAM)
 - Voucher / Invoice (Source Supplier – directly into QAD)

QAD Proprietary

EAM-PUR-100

Understanding EAM's Purchasing Module's place in the overall Supply Chain is key to implementation success.

Aside from ties to Financials, EAM Purchasing is also integral to Accounts Payable functions within ERP. The two groups are usually separated due to Segregation of Duties requirements.

In EAM, Purchasing is a process that may involve any number of requesters, but only a select few in an organization are allowed to order items or services from a suppliers. Those responsible for processing orders are referred to as Buyers. In EAM, an employee may be designated as a Buyer in the employee record. Also, in the system control settings, the flag Any Buyer? determines if Buyers may work on each others orders or only their own. This is usually also driven by a company's business requirements.

The Accounts Payable group is responsible for ensuring that payment is made to suppliers/vendors for goods or services received. Their role functions within the ERP system. The key elements required for payment for goods/services received are the Purchase Order and the Receiver, which come from EAM to the ERP system, and the Invoice itself which comes from the supplier. These three are typically matched prior to actual payment in ERP, which is often referred to as a three-way match for payment.

Purchasing Key Concepts - Approvals


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Purchasing Key Concepts - Approvals

- ▲ **Electronic Routing via EAM Mail**
 - Routing Groups
 - Routing Hierarchy (CC, Acct, User, Project)
 - Req Type Determines Which User Limit to enforce
 - Req Exp
 - Req Cap
 - Req Proj
 - Concept of “Wait Hours” to skip Approvers if not addressed within that time
 - Routing Substitution Capabilities
- ▲ **Horizontal / Vertical Approval**
 - Standard: Vertical
 - Horizontal: When final sign-off required

QAD Proprietary
EAM-PUR-110

EAM provides the ability for electronic, or on-line / paperless approval routings. In EAM Purchasing, the behavior of the electronic approval is driven by several key configurations: (1) the definition of Routing Groups, (2) the configuration of the Routing Hierarchy, and (3) the approval limits defined on the approver’s EAM User ID.

In addition to the basic Electronic Routing configuration, EAM v12 allows for a new concept in routing known as Horizontal approval. In previous versions of EAM, all approval routings were Vertical meaning that there was a list of approvers, in ascending order of approval limits, and once someone in the list with an approval limit higher than the record approved the record the record would be considered approved.

With Horizontal approval, organizations can now specify that once Vertical approval requirements are met, additional approvals can be required. For example, some organizations may require that Finance provide final sign-off on purchases after the budget owners in the vertical approvals have approved.

Another key concept in EAM approvals is the concept of a Quality Approver. In the initial setup of an Approval Group, the system administrator can add a Quality Approver the list. In the Approval Group, the Quality Approver will have the flag Cons Limit? (Consider Limit) set to no, which means that when this approver is approving a request, EAM does not consider this person as a dollar approver. For example, an organization may add an IT person to all requests against IT accounts to ensure that any software purchases meet the companies IT standards. Because of their role in approving the quality of a purchase, a Quality Approver can NEVER be skipped.

There are two ways to include a Quality Approver in a routing. The Quality Approver can be included in the official Routing Group and will always be a part of that group. Also, a requester can add a Quality Approver to a record's routing at the time they route the request for approval. This approach adds the Quality Approver for that particular routings' list and does not add that approver to the overall Routing Group.

The two types of approval that are available in Purchasing are Requisition Approval and Purchase Order Approval. Either, both, or neither may be required based upon system configuration and business requirements.

Requisition Approval routing is the most commonly employed type of approval. This is typically referred to as spending approval and usually involves budget owners providing their approval to spend money from their budget for this purchase request.

Purchase Order Approval is becoming more popular as more companies are limiting the amount of money a Buyer can commit without having to acquire supervisor approval. For example, if a company allows buyers to commit up to \$50k on their own, but purchase orders larger than \$50k require supervisor sign-off, you would recommend enabling Purchase Order Authorization.



Purchasing Key Concepts - Approvals

- ▲ Quality Approvers
 - “Cons Limit?” (Consider Limit) = No
 - Cannot be skipped
 - Can be permanently included in a Routing Group or can be added “on the fly” by the requestor (does NOT permanently change Routing Group)
- ▲ Requisition Approval
- ▲ Purchase Order Approval

QAD Proprietary

EAM-PUR-120

EAM provides the ability for electronic, or on-line / paperless approval routings. In EAM Purchasing, the behavior of the electronic approval is driven by several key configurations: (1) the definition of Routing Groups, (2) the configuration of the Routing Hierarchy, and (3) the approval limits defined on the approver’s EAM User ID.

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Purchasing Key Concepts – Inventory vs Non-Inventory



Purchasing Key Concepts – Inventory vs Non-Inventory

- ▲ Terminology:
 - Stock vs Non-Stock
 - Part # vs Non-Part #
- ▲ EAM Purchasing supports Inventory Part Purchases but does NOT require use of Inventory Part #
 - Part # is Unique type of field: allows lookup OR free-form entry
 - Allows Flexibility in Purchasing

QAD Proprietary
EAM-PUR-130

EAM Purchasing can be utilized to purchase a variety of Indirect items, including Storeroom / MRO Parts, spot-buys for non-stock items, and services from third parties.

Terminology can vary from company to company, but within EAM, the following are important terms to understand:

- Stock vs Non-Stock: Part Numbers can represent inventory items (Stock Items) OR items that you regularly purchase but do not store in inventory (Non-Stock Items). This is controlled by the Auto-Issue? flag on the part # as discussed below.
- Part vs Non-Part #: In addition to allowing the purchase of Part #'s, EAM allows the purchase of items for which no part # exists. These are often referred to as spot-buys.
- The Part No field on a purchase request is a unique type of field. It does have a lookup, but the requestor can also type in any type of identifier they wish.
- The Auto-Issue? flag on a purchase request drives important functionality. Anything you plan to place in inventory must (1) have a part number and location, and (2) must be marked as auto-issue = no, meaning that you intend to manually issue the part to its final expense resting place in the future when it is used.
- Setting a purchase to Auto-Issue? = no, does NOT mean that the item is not expensed on receipt. It simply means that the cost will be maintained in an inventory expense accounting bucket until such time as it is issued to its final expense bucket.


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Purchasing Key Concepts – Inventory vs Non-Inventory

- ▲ Auto-Issue
 - “No” – I will manually issue the part later
 - “Yes” – Please automatically issue the part from inventory to its final expense accounting
 - Defaults to “Yes” for:
 - non-part # purchases
 - Purchases against a WO, Equipment, or Project
 - Part # purchases where part is marked Auto-Issue = Yes
- ▲ Important! All EAM Purchases are “expensed on receipt” in ERP.

QAD Proprietary
EAM-PUR-140

EAM Purchasing can be utilized to purchase a variety of Indirect items, including Storeroom / MRO Parts, spot-buys for non-stock items, and services from third parties.

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Purchasing Best Practices Goals



Purchasing Best Practices Goals

- ▲ Reduce Volume of PO's
- ▲ Source Requests at best price / quality / availability
- ▲ Control MRO Spend to Budget
- ▲ Vendor Performance Monitoring
- ▲ Reduce Vendor List
- ▲ Support Operations
- ▲ Accommodate Corporate Financial Controls
- ▲ Provide Proper Segregation of Duties
- ▲ Reduce need for "Rush" Orders
- ▲ Reduce Approval times

**See Reading List Book:
"World Class Maintenance
Management" by Terry
Wireman for further
discussions of these Best
Practices**

Purchasing Setup – Key Settings



Purchasing Setup – Key Settings

▲ Domain Settings

- Buyer and Receiving Limits
- “Any Buyer?” Flag
- “Reopen Closed PO?” Flag

See “EAM Configuration”
Class for Details

▲ Site Settings

- Accounting Defaults
- Approvals on/off and hierarchies

▲ MFG/PRO Interface Settings

▲ Employee Records

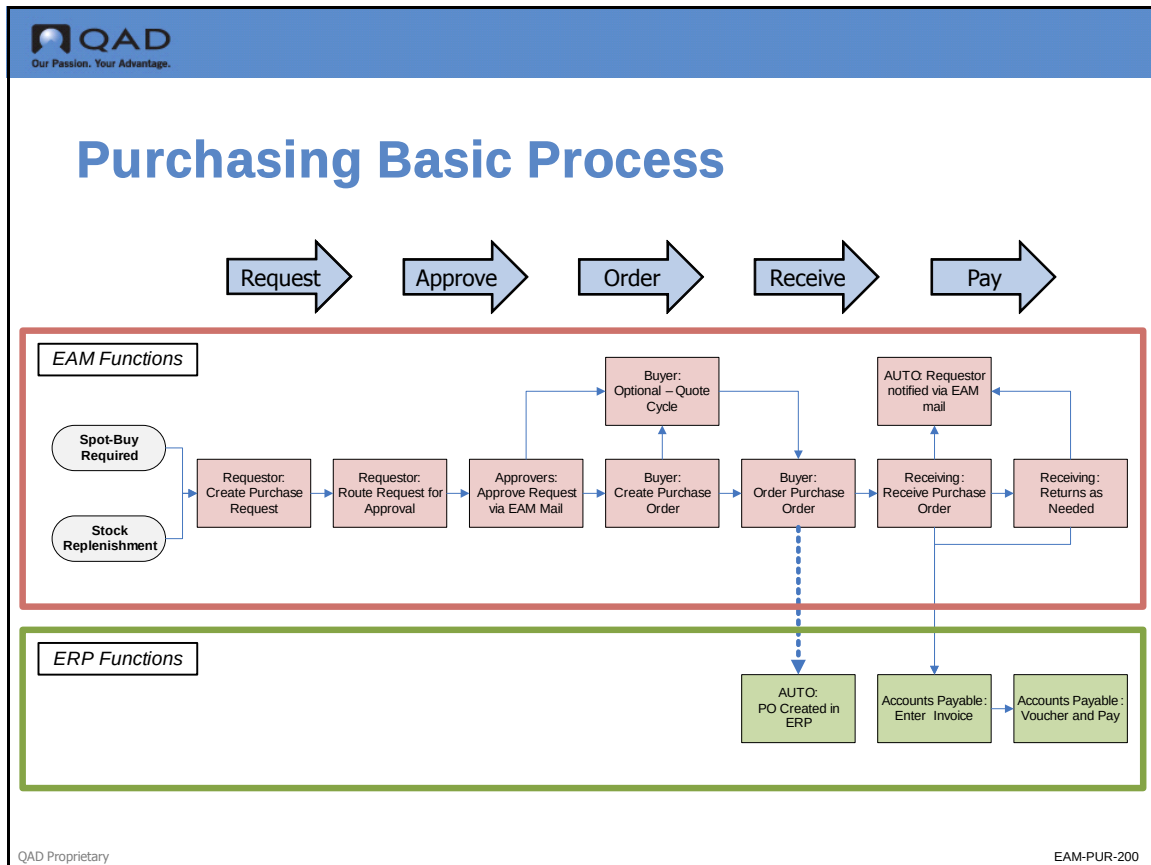
▲ Employee Buyer-Site Setup (Defines who is a Buyer)



Purchasing Setup – Key Settings

- ▲ User ID / Security
 - ▲ Requisition Approval Groups
 - ▲ Purchase Order Approval Groups
 - ▲ Controls around use of Chart of Accounts:
 - Account Groups
 - Cost Center Groups
- See "EAM Configuration"
Class for Details

Purchasing Basic Process

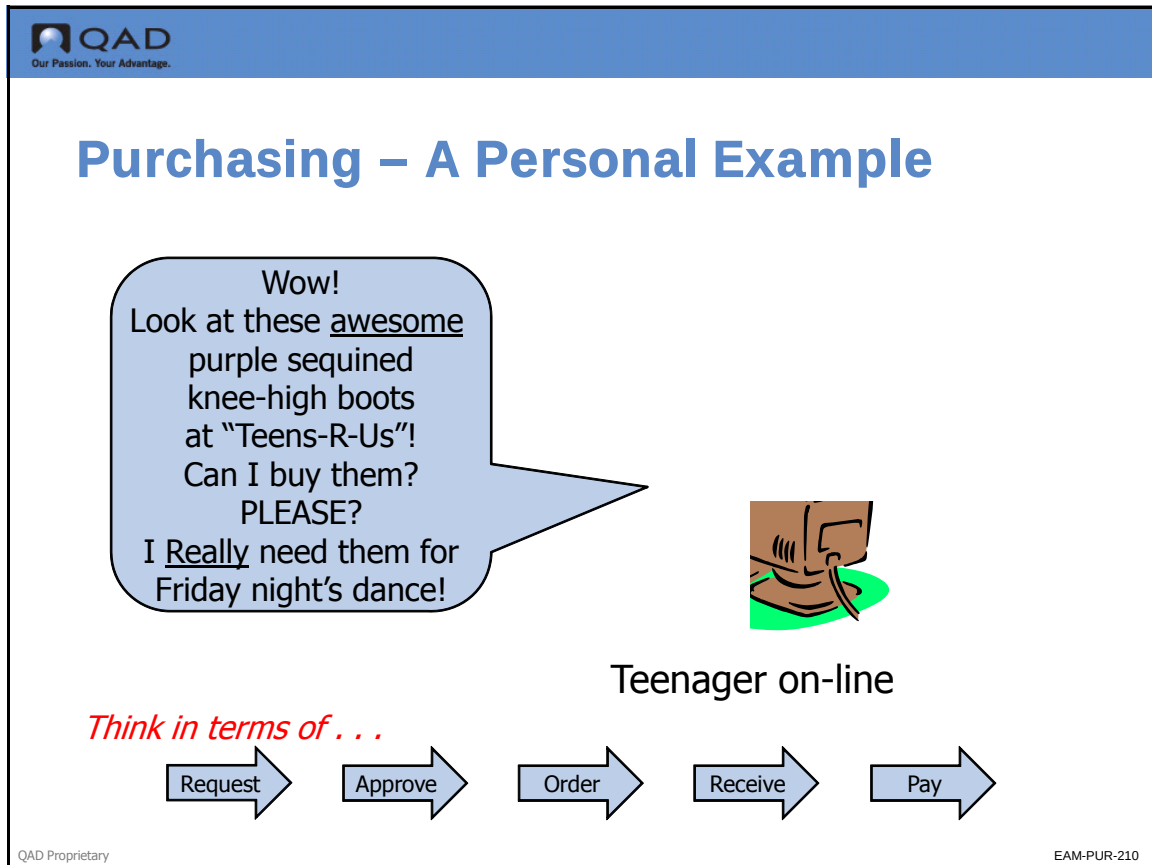


Though most companies will have some variations on this theme of Purchasing Basic Process, in general the high-level elements are the same.

At some point, the need to purchase something (Materials, Services, Parts) will arise. The person in need of the item will ask permission to purchase it (Request). Then, someone who has the appropriate authority either gives permission or denies it (Approval Routing). If permission is granted to proceed, then someone with permission to place orders must ask the Vendor to provide the desired purchase (Order). Eventually, what is purchased will be delivered to the requester (Receive), and then the supplier will be paid for goods delivered (Accounts Payable).

With this basic process in mind, note the important touchpoints from the EAM Functions to ERP functions. Understanding how EAM and ERP work together to complete the Supply Chain process is key to successfully utilizing EAM Purchasing.

Purchasing – A Personal Example



So, how would this work?

Teen asks permission. (Purchase Request)

You check cost and your budget and agree. (Requisition Approval)

Do you shop around for a better price?

Are these boots only available from that one place?

Is there an alternative to these particular boots? (probably not with a teenager)

You set up an account at teens-r-us.com. (Purchasing Creates Vendor)

Place the order. (Buyer converts approved Purchase Request to a Purchase Order)

But... now the boots are needed for school dance next week – do you expedite? What is the cost?

Maybe the boots are out of stock and are backordered. Do you keep the order open? What might influence your decision?

Boots arrive. (Receiving receives purchase order into EAM)

Wrong size – return for replacement or get your money back? (Purchase Return)

You pay the credit card bill! (Accounts Payable)

What is the actual cost of the boots?

Purchase Price

Tax?

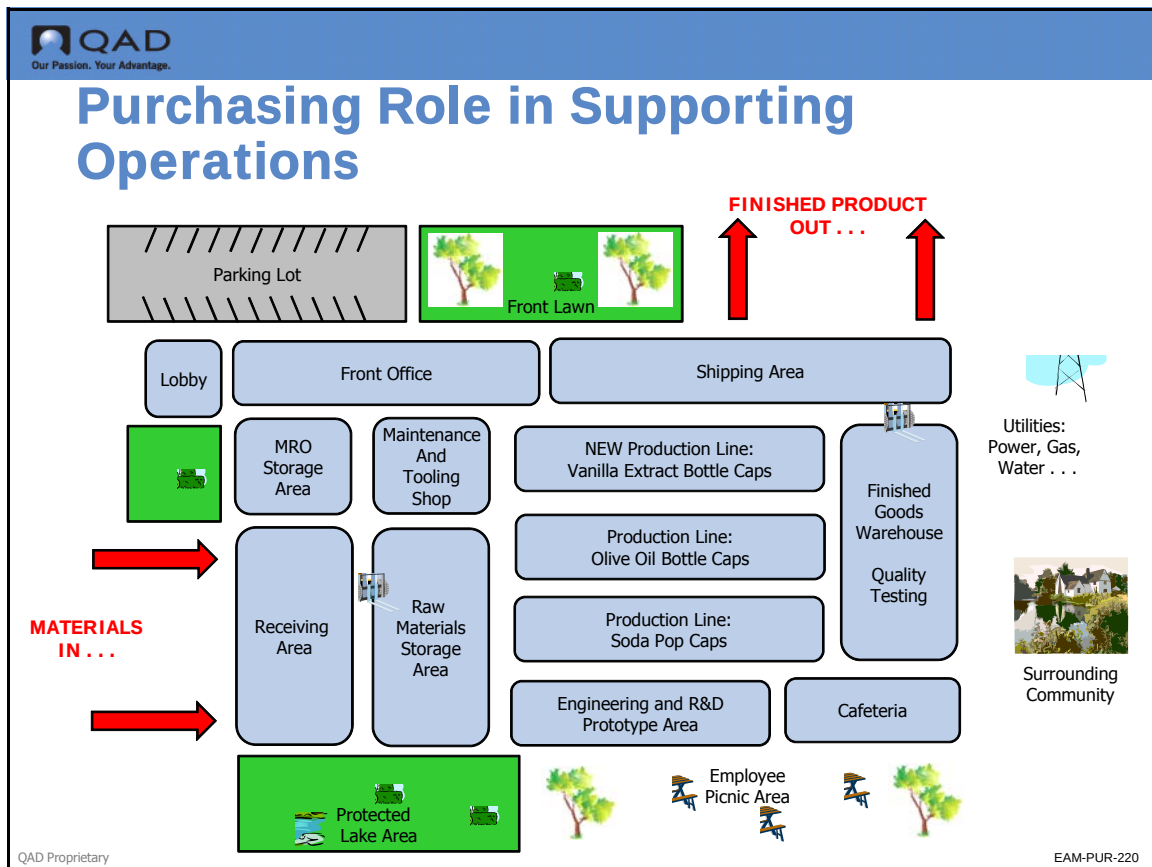
Shipping?

Credit card fees?

Your own very precious time?

What is your Return on Investment? (Hopefully at the very least a teenager who is happy for a couple of minutes!)

Purchasing Role in Supporting Operations



Instructor: White-Board Case Study Discussion

Identify an area of plant to analyze

Discuss what role Purchasing performs to support that area

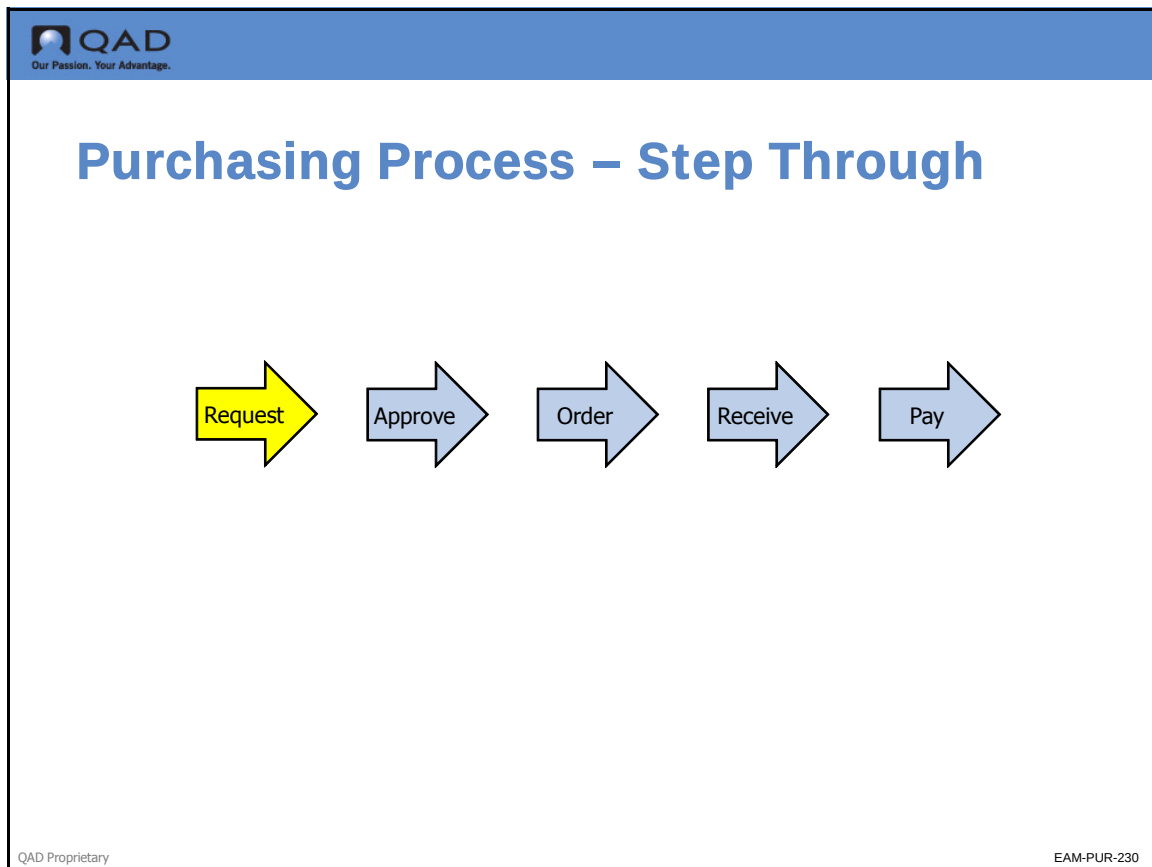
Discuss what items may need to be purchased (stock, non-stock, services)

Discuss how Purchasing relates to Maintenance and Inventory

Discuss Accounts Payable interaction with EAM Purchasing

Discuss what goes to ERP: CC, Acct, and Sub-Account Only (may include Prod Line in some environments, too)

Purchasing Process – Step Through



As we proceed through the following sections, please note that this high-level Purchasing process is referenced at the top of the slide so that you can be aware of which stage in the process is being discussed.

Requisitions



Requisitions

- ▲ Requisitions are the basic building blocks of Purchasing
- ▲ A single Requisition can:
 - Have multiple line items
 - ONLY have a single vendor
- ▲ Anyone in a company can be a Requester as long as they:
 - Have a User ID
 - Have Security Access
- ▲ Only Users specifically setup to be an Approver can approve Reqs
- ▲ A Requisition may be used to purchase:
 - Inventory Parts
 - Non-Stock (or “Spot-buy”) Materials
 - Services
 - Anything that is not a component of a finished good

QAD ProprietaryEAM-PUR-240

Requisition Browse

Request
Approve
Order
Receive
Pay

Requisition Browse

Requisition Browse

Line Items

PAUSE PRESENTATION: Navigate to this screen in your demo center.

QAD Proprietary EAM-PUR-250

To view a list of all Requisitions, navigate to Purchasing ? Requisitions.

Note that the top part of the screen contains a list of all Requisitions, and that the bottom portion of the screen contains a list of all line items on the selected Requisition above.

With this version of EAM, multi-line requisitions are no more. The structure of a Requisition is that the Requisition number (and header) replaces the old Multi-Line Requisition concept, and the old individual Requisition numbers are replaced by Line Numbers.

To modify the header, double click on the Requisition number in the upper panel. To modify a line item, double click on the line item from the bottom panel.

Requisition Create

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Request Approve Order Receive Pay

Requisition Create

qa01: Enterprise Asset Management (2) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

- Maintenance
- Inventory
- Purchasing
 - Purchase Orders
 - Requisitions**
 - Routing Substitutions
 - Vendor
 - Standard Clauses
 - Currency
- Approval Groups
- Codes
- Finance
- General
- Analysis
- System Administration

Home Requisitions

Excel Export Print Add To Favourites New Edit

Action Find Site 10000 Filter ALL

Req No	PO No	Statu	Auth Status	Date Due	Vendor Name
80	200086	C		08/14/2009	Tube City
74	200081	C	Authorized	07/15/2009	Tube City
72	200080	O		07/11/2009	Southern Container Supply
68	200084	O	Authorized	08/17/2009	Tube City
57	200079	O		06/02/2009	NORTLAND ELECTRIC
56	200078	O			ation
54	200076	O	Authorized		TRIC
47	200074	O			
37	1000023	O			
34	200073	O			

Excel Export Print Add To Favourites

Action Find

Line Part No Description

1	AIRFIT-066	HSCP 3/8ID NIPPLE
2	AIRFIT-067	COUPLER FOR QUIC
3	AIRFIT-069	W68ML-5/32-2 FITTING
4	AIRFIT-070	10/32 MPT X 1/8 FEMALE BR SW

QAD Proprietary EAM-PUR-260

To create a new requisition, navigate to Purchasing ? Requisitions.

Click New or right-click and select the New option.

Requisition Header

The screenshot shows the QAD Requisition Header screen. At the top, a navigation bar includes the QAD logo and a workflow: Request (highlighted in yellow) → Approve → Order → Receive → Pay. The main title 'Requisition Header' is displayed in large blue font. Below it, the screen is divided into sections: General, Order, and Authorization. The General section includes fields for Description, Requestor (1333, Janie Dixon), Total Cost (366.75), Contractor?, Stock Run No (698), Date Required, and Total Cost In Vendor Currency (366.75). The Order section includes PO No, Vendor No (BROWNE, BROWN BEARING), Vendor Pti Contact (BOB BROWNE), Consignment?, Exchange Rate (1), Buyer, Date Due, Vendor Phone No (908 974-5101), Currency (USD), Exchange Rate 2 (1), and Notify. The Authorization section includes Auth?, Auth By, Base Currency (USD), Auth Status, and Auth Cost (0). Annotations with red boxes and arrows point to specific fields: 'Requester - Employee ID Any employee can request' points to the Requestor field; 'New to v12: One Vendor per Requisition' points to the Vendor No field; 'Buyer Lookup: Limited to Employee ID's marked as Buyers' points to the Buyer field; 'Currency is determined by Vendor' points to the Currency field. A red box highlights the 'Detail' button in the top left. At the bottom, a red text box says 'PAUSE PRESENTATION: Navigate to this screen in your demo center.' and the QAD logo is in the bottom left corner.

QAD Proprietary

PAUSE PRESENTATION: Navigate to this screen in your demo center.

EAM-PUR-270

The Requisition Header contains many data elements, and along the right hand side of the screen (not pictured) are other functions you can select for this requisition.

Though fields may be added or hidden from this screen, the following are the more critical fields to understand:

Total Cost – rolls up from the line items to be added later

Contractor? Flag

If yes, Cost is expensed to the services bucket instead of the material bucket for equipment, work order, and project purchases.

Allows for separation of Materials and Services on certain reports

If yes, automatically changes Purchase Request to Auto-Issue? = yes (why? Because you can't stock subcontractor services on the shelf!)

Auto Issue? Flag

If yes – Instead of placing parts into inventory on receipt, items will be automatically issued directly to a project, work order, equipment or cost center, as noted on the requisition.

If no – Items will be placed in store room until it is later issued as consumed.

Vendor Number

Note that in v12, there is one Vendor per Requisition, meaning that each line item that will be added must come from the same vendor.

Currency

Defaults from the Vendor.

Buyer

The lookup of potential Buyers is limited to only those Employee ID's who are marked as Buyers.

Request
Approve
Order
Receive
Pay

Requisition Header, Cont.

Home x Requisitions x Site: SANF, Req No: 1643, Lin... x Site: SANF, Req No: 1643 x

Site: SANF Req No: 1643

Action Detail Expense

Contractor Flag:
Yes – separates from Materials on Reports and changes Auto-Issue to "yes"
No – this purchase represents a materials purchase

General
Description: Stock Run No 698 Date Required: (none)
Requestor: 1333 Janie Dixon
Total Cost: 366.75 Total Cost In Vendor Currency: 366.75
Contractor? Auto Issue?

Stock Run No: 698

Order
PO No: 0 Status: P
Vendor No: BROWNE BROWN BEARING Vendor Phone No: 908 974-5101
Vendor Pii Contact: BOB BROWNE Currency: USD
Consignment? Exchange Rate: 1 Exchange Rate 2: 1
Buyer: Notify: May be an individual or Group
Date Due: (none)

Authorization
Auth? Auth Status
Auth By Auth Cost: 0
Base Currency: USD

Authorization section: System filled. If Requisition Authorization is enabled, will track status of request authorization.

Remember! Vendor No's are downloaded from ERP and must be kept in sync to insure flow to ERP!

PAUSE PRESENTATION: Navigate to this screen in your demo center.

QAD Proprietary EAM-PUR-280

Requisition Header – Expense Tab

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Request Approve Order Receive Pay

Requisition Header – Expense Tab

Selecting WO, Equip, or Project No automatically fills in expense accounting

Detail Expense

Charge

WO No

Equip No

Serialized Part

Project No

System

Expense Type Expense

Expense Site SANF

Dept 2729

Acct No 9500

Tax

Taxable?

Tax Class

Stores Req No

Rebuild

Serial No

Job No

Lookup

WO No	Equip No	Status	WO Parts	Priority
32271	e100	O	N	3
32270	e100	O	N	3
32269	E101	O		9
32267	E102	X		9
32266	E101	X		9
32265	E102	C		9
32264	E101	C		9
32263	e100	O		3
32262	e100	C		3
32260	e111	O		p1

Accounting Notes:
Inventory (Auto-Issue = No) Purchases: Defaults to Inventory (Asset) Accounting Structure for Site or Part
Non-Inventory (Auto-Issue = Yes) Purchases: Supply Expense Account. Defines which site and accounting to which cost should be expensed on receipt.

QAD Proprietary EAM-PUR-290

The Expense tab of a Requisition defines the accounting for this purchase.

In general, most companies ask Requesters to utilize a WO, Equipment, or a Project in order to drive accounting.

Expense accounts default from the work order, equipment, project, etc., OR must manually supply accounting if this is an auto-issue purchase that is not utilizing the parts catalog.

Requisition Line Items – Add Parts

Requisition Line Items – Add Parts

Part # can be selected from lookup or can be free-form entry

Remember: If Parts are added and then Header record is changed, it is OPTIONAL to update changes to the line items.

QAD Proprietary EAM-PUR-300

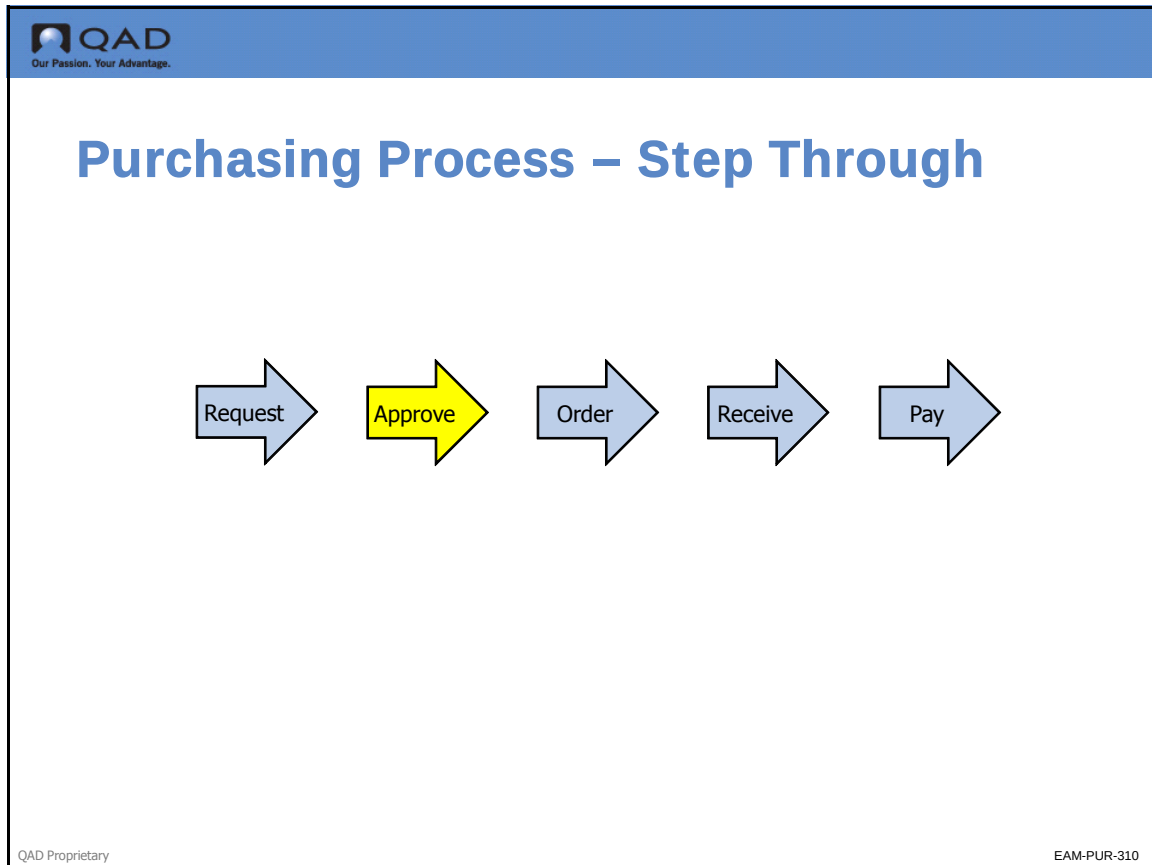
To add an item to the requisition, select New in the lower section.

The requisition line screen will open and details can be entered.

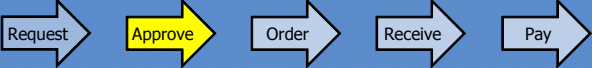
A part number can be selected or can free-form enter some identifier for non-part purchases. If an item is selected from the parts catalog, then default information will be populated based on the item setup.

Also, note that if after adding parts to the requisition, you go back and make changes to the Header, it is optional whether to apply those changes to the line items.

Purchasing Process – Step Through



Electronic Approval Routing



Electronic Approval Routing

- ▲ EAM provides Electronic Approval Routing for Requisitions, Purchase Orders, and Projects
- ▲ Each has their own approval Groups
- ▲ EAM Requisition Routing is very robust due to Hierarchy:
 - By Project
 - By Account Number
 - By Cost Center
 - By User
- ▲ EAM Supports critical Financial Controls by:
 - Enforcing Approval Limits
 - Retaining Objective History of Approvals and Re-Approvals
 - Providing for Routing Substitutions for delegation of authority
 - Providing for Quality Approvers and Horizontal Approvers

QAD ProprietaryEAM-PUR-320

Route For Approval

Route For Approval

Hint - If the "Authorize" menu option not available:

1. Does user have security access?
2. Is Requisition Authorization enabled for site?

Select Authorize

Enter your password.

Requisition Approval

The routing system is set up during EAM implementation. EAM uses approval groups linked to project, user, cost center, or account number. EAM can use a hierarchical approach to accommodate available criteria.

Approvers can designate substitutes during a leave of absence.

Requisition routes to approvers through internal and external e-mail. Routing continues until a manager with enough spending authority approves the requisition.

Approvers can access current spending information against budget during the approval process.

Quality approvers, who do not approve the amount, can be in approval groups.

Requestor receives e-mail notification of approval or rejection.

Start Approval Process

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Request → **Approve** → Order → Receive → Pay

Start Approval Process

Enter Password

User ID: jdepp

Password:

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Wait Hours – If authorization request sits in an Approver's queue longer than the "Wait Hours", the request will skip them and move on to the next. (EXCEPTION - Quality Approvers cannot be skipped!)

Authorization Action

Req No: 74 Vendor: Tube City Total Cost: 1000

☐ High Priority Comment: ☒ Normal

Wait Hours: 1

Training test

Submit routing Add Quality

Note: Requestor can add a Quality Approver ("Cons Limit?" = No) to THIS record's routing only prior to submitting routing, but after submitted, no changes are allowed to routing list or purchase request while in routing.

Message

An authorization request has been sent to jrosinto(Rosintoski Joseph)

OK

QAD Proprietary EAM-PUR-340

Once the Requester selects Action ? Authorize from the Requisition, EAM will take the user through these steps to start the request in routing:

- 1 Enter Password
- 2 Enter Comments.
- 3 Click Submit routing.
- 4 Click OK.

Notification

The screenshot displays the QAD Enterprise Asset Management (EAM) application interface. At the top, a blue header bar contains the QAD logo and a workflow diagram with steps: Request, Approve (highlighted in yellow), Order, Receive, and Pay. Below the header, the main window is titled "qp01: Enterprise Asset Management (1) - QAD Enterprise Applications". The left sidebar shows a menu with categories like Maintenance, Inventory, Purchasing, Finance, General, and Analysis, along with a "Work Orders" section. The main content area is titled "EAM Process Model" and contains a grid of process steps categorized by Setup, Plan, Source, Work, Inventory, and Finance & Accounting. On the right, an "InBox (4)" window lists notifications. The top notification, circled in red, is from the "SYSTEM" and reads: "Authorization Request for Requisition 74 Site 10" with a timestamp of "2:25 PM" and a date of "6/4/2009". Below this, several other notifications are listed, including status changes for Work Order 104, Work Order 102, Work Order 101, and Work Order 57, as well as a requisition authorization for Requisition 54 at site 10000.

Notification Details:

From	Subject	Date/Time
SYSTEM	Authorization Request for Requisition 74 Site 10	2:25 PM 6/4/2009
SYSTEM	EAM 104 PROD	6/4/2009
SYSTEM	Work Order 104 at 10000 Status Change	6/4/2009
SYSTEM	Work Order 102 at 10000 Status Change	6/2/2009
SYSTEM	Work Order 101 at 10000 Status Change	6/2/2009
SYSTEM	Work Order 57 at 10000 Status Change	5/28/2009
SYSTEM	Requisition 54 at site 10000 has been authorized	5/19/2009
Rosinkoski Joseph	Test	5/13/2009

Remember! While in routing cannot change:

1. Requisition details, OR
2. Routing List of Approvers

When the next person in the routing logs into EAM, they will receive notification that a request requires their approval. Also, new to v12 is that if the User is already logged in, a brief pop-up notification will appear to indicate new mail. Keep in mind that EAM Mail can also be sent to a User's corporate email account (see EAM Configuration class for details).

To approve a Requisition:

Click the letter icon in the lower right of the status bar.

View the message about the requisition.

Select the link in the message to go to the Requisition and take action.

To take action on the Requisition, select Action ? Approve

Approve Requisition

Approve Requisition

Remember!

- A Requisition will continue through the routing list until an Approver with a high enough approval limit approves.
- The User's Approval limit is determined by type of Req (Exp, Cap, or Project limit)

QAD Proprietary EAM-PUR-360

Authorize

Use the Authorize Action to authorize the requisition or begin routing for approval of the requisition. If you have a large enough spending limit, authority for the associated accounting structure, and the approval group has no quality person, you can authorize the requisition without going through routing.

Task

Select Authorize from the Action menu.

Click Approve, Disapprove, Hold Up, OK, or Cancel.

If you authorized the requisition, click OK in the confirmation window.

Once the Requisition has been approved by all Quality Approvers and by an Approver with a high enough spending limit, the status of the Requisition will change to Authorized and the Requester will receive notification of its approval.

Notification of Approval to Originator



Request → **Approve** → Order → Receive → Pay

Notification of Approval to Originator

Requisition 74 at site 10000 has been authorized

New Message Reply Reply All Forward Delete

From: SYSTEM

To: JDepp

Subject: Requisition 74 at site 10000 has been authorized

EAM Mail

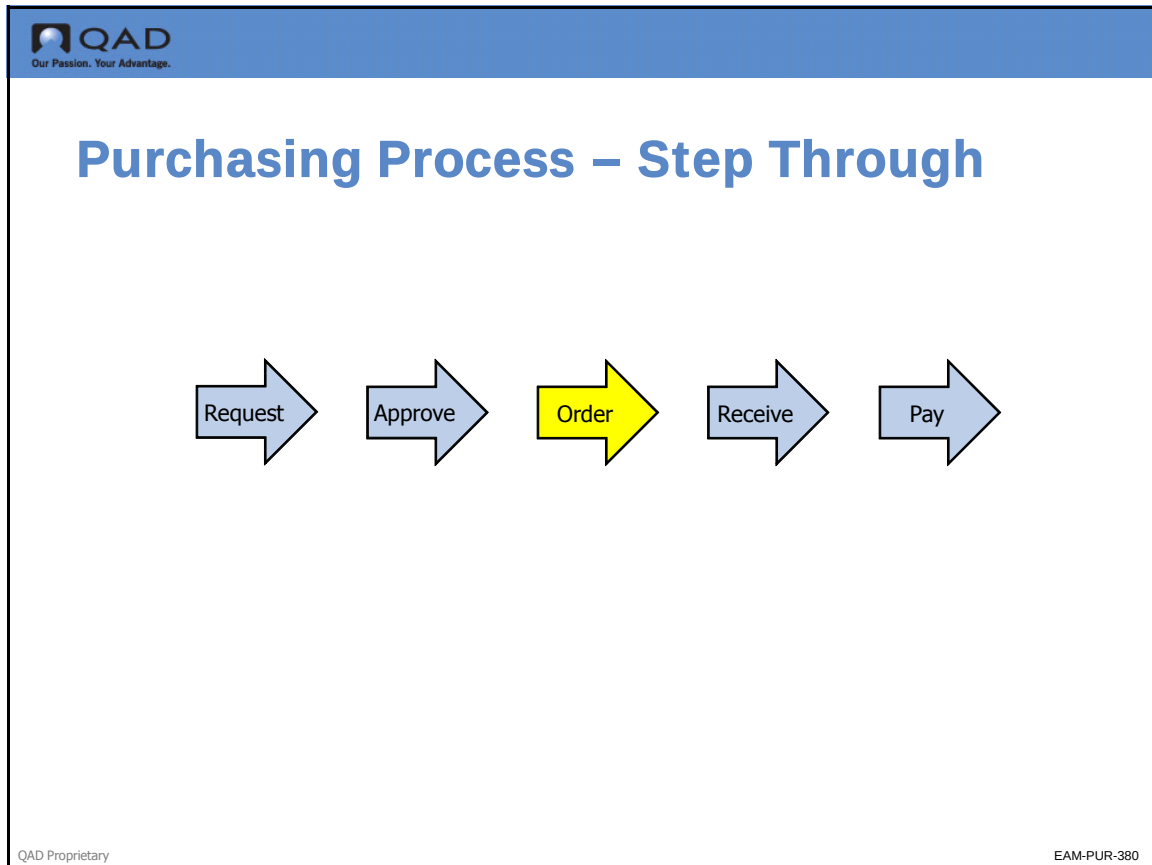
Multi-Line No: 74
Site: 10000 (QAD EE Site - NJ Plant)
Equip No:
Description:
Requestor: bkid
Total Cost: 1,000.00
0
WO No:

[Click here to view requisitions](#)

Note that once a Requisition is approved, only the **Buyer** and the **Approver** can modify it.

QAD Proprietary EAM-PUR-370

Purchasing Process – Step Through



Purchase Orders



Request

Approve

Order

Receive

Pay

Purchase Orders

- ▲ Purchase Orders in EAM are also sent to ERP for Accounts Payable Purposes
- ▲ PO's can be created in two ways:
 - Individually from a Requisition
 - Globally create multiple purchase orders simultaneously, combining requisitions to each vendor on the same purchase order
- ▲ Types of Purchases
 - Blanket Purchase Orders (NOT YET AVAILABLE)
 - Pre-negotiated orders with suppliers for a specified period of time. Buyers can create releases against valid Blanket purchase orders. Blanket purchase orders can restrict the items that can be purchased on the blanket or be left open.
 - Consignment Order
 - Stored in EAM's purchase order table, but are flagged as a consignment order. Consignment orders are not sent to QAD ERP application.
 - Standard Purchase Order

QAD Proprietary
EAM-PUR-390



Request

Approve

Order

Receive

Pay

Purchase Orders, cont.

- ▲ **Special Functions**
 - Standard Clauses
 - Downloaded from QAD ERP to specify special terms or requirements.
 - Vendor Revisions (NOT YET AVAILABLE)
 - When printing a purchase order, users can list the revision number and any changes the vendor should be aware of since the purchase was first submitted.
 - File Attachments
- ▲ **PO Approval Differs from Req Approval**
- ▲ **Employees setup as “Buyers” have PO functions that others with the same security settings do not have:**
 - Modify Authorized Requisition
 - Close or Cancel Purchase Order

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EAM-PUR-400

Standard Clauses

The QAD ERP application uses standard comments, similar to EAM’s standard clauses. When a purchase order is copied to the QAD ERP application, EAM standard clauses are copied to the standard comments section.

During implementation, you can copy standard comments from the QAD ERP applications into EAM. Standard comments in the QAD ERP application are grouped by type. The system administrator must identify the types. Use Standard Clauses to attach standard terms and conditions or special instructions to a purchase order. Standard Clauses can also be attached to a Vendor Record. Each time a vendor is linked to a purchase order, all of the vendor’s Standard Clauses are copied to the purchase order. Additional Standard Clauses can be added as needed and attached to a purchase order.

Vendor Revision – not yet available in v12

Create Purchase Order (Global)

Create Purchase Order (Global)

Filter Requisitions to Desired Records to Order . . .

Approver	Action	Date Due	Vendor Name
ibrown	Approve	05/23/2010	Tube City
ibrown	Override	04/30/2010	Carbon Frames
ibrown	Approve	04/29/2010	Corazon
alpha	Approve	04/23/2010	Tube City of OHIO
			Carbon Frames
98	0	P	Authorized
98	0	P	Authorized
80	0	P	Authorized
76	0	P	Authorized
30	0	P	Authorized

The most common method by which Buyers create Purchase Order is by using the Global Create Purchase Order function. As with previous versions, the Buyer can filter the list of Requisitions for which an order needs to be created, or, new to v12, the Buyer can select different Requisitions from the browse using the SHIFT key.

Only when multiple Requisitions have been selected will the Global Create Purchase Order menu option be available.

EAM will create one PO for EACH Vendor represented in the selected list of Requisitions. If more than one requisition for the same vendor is selected, EAM will combine those onto one PO.

Create Purchase Order (Manual)

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Request Approve **Order** Receive Pay

Create Purchase Order (Manual)

Home X Requisitions X

Excel Export Print Add To Favourites New Edit

Action Find Site US-A-1 Filter ALL Default

Reg No	PO No	Status	Auth Status	Approver	Action	Date Due	Vendor Name	Total Cost	Consignment	Ordered By Name	Description
152	0	P						0			Training Reqs
151	68	C						1152		Adam Ant	
150	0	P	Routing	Jrosinto				780			Stock Run No 21
149	0	P						135.2			Stock Run No 15
148	0	P						1280			Stock Run No 15
147	0	P						24.7			Stock Run No 18
146	0	P						1804			Materials for AB736
145	0	P						0			Stock Run No 19
144	0	P						450			Re do 1971
143	0	P	Authorized					57			Test Re Route JIRA
142	67	O	Authorized					57		Adam Ant	Test Re Route

Excel Export Print Add To Favourites New Edit

Action Find Default

Line	Part No	Description	Status	Qty Ordered	Qty Received	UOM	Date Required	Date Due	Auto Issue?	Source Site
1	9978102201	Omnia	P	10	0	EA		06/10/2010		US-A-1

QAD Proprietary EAM-PUR-420

If a single requisition needs to be turned into a purchase order, simply highlight the requisition header and select Create Purchase Order from the Action menu.

Purchase Order – Order

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Request → Approve → **Order** → Receive → Pay

Purchase Order – Order

q01: Enterprise Asset Management (2) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

- Maintenance
- Inventory
- Purchasing
 - Purchase Orders**
 - Requisitions
 - Routing Substitutions
 - Vendor
 - Standard Clauses
 - Currency
 - Approval Groups
 - Codes
- Finance
- General
- Analysis
- System Administration

Home Purchase Orders X

Excel Export Print Add To Favourites New Edit

Action Find Site 10000 Filter ALL

- Return To Vendor
- Lock
- Reopen
- Modify Currency
- PO Order**
- Receive
- Change PO Status

PO Number	Status	Auth Status	Vendor Name
200083	P	P	Hydrowco Gas Processors Inc.
200082	P	P	Hydrowco Gas Processors Inc.
200081	P	O	Hydrowco Gas Processors Inc.
200080	P	O	Universal Industries
200079	P	O	Tube City
200078	P	O	Tube City
200077	P	P	Southern Container Supply
			NORTHLAND ELECTRIC
			Plastic Supply Corporation
			Bohn Warner

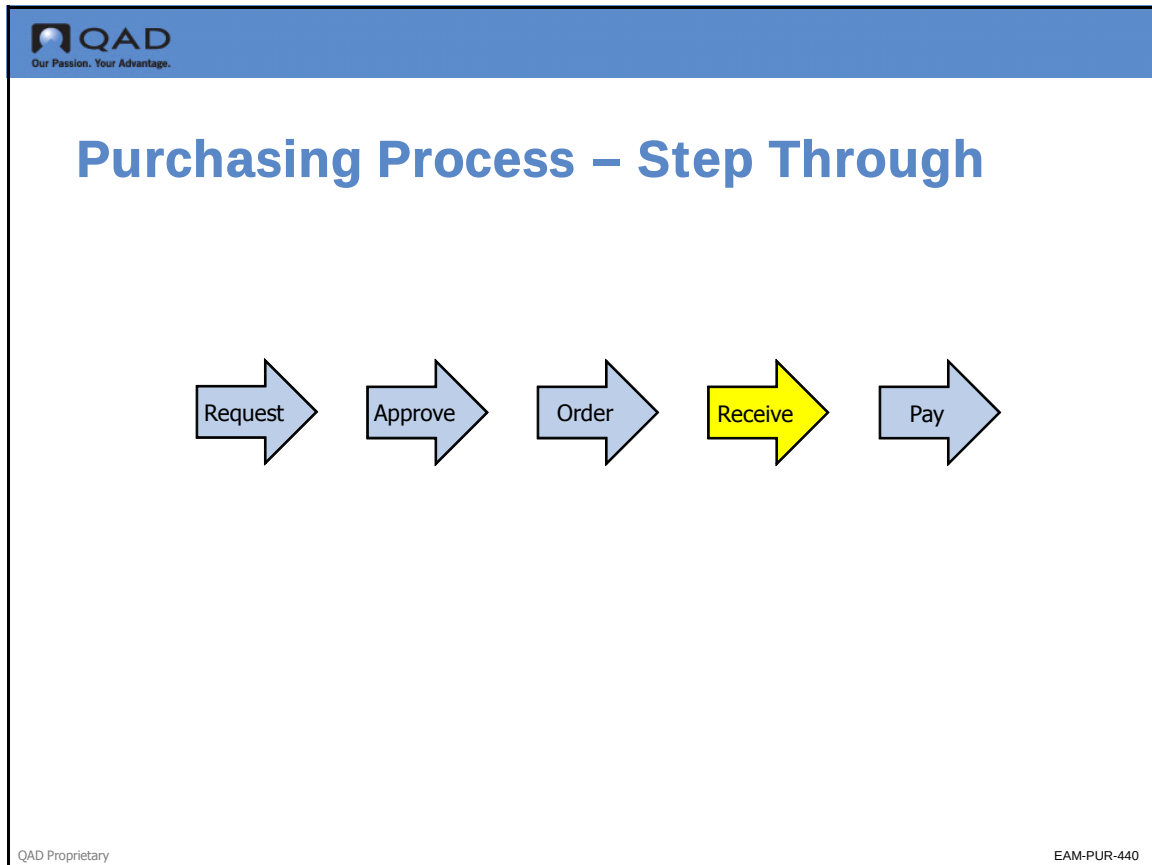
Placing a PO on "Order" signifies that the order is ready to send to supplier (fax, call, email, etc.)

QAD Proprietary EAM-PUR-430

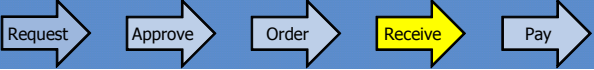
Select Order

Click on PO Order from Action Menu

Purchasing Process – Step Through



Receiving



Receiving

- ▲ PO Receipt function is:
 - Available from Purchase Order screen
 - Usually limited by security to a few individuals in order to comply with Segregation of Duties regulations (i.e. Buyers should not be allowed to Receive)
- ▲ EAM Receipts cause several actions:
 - Notification to Requestor
 - Receiver record sent to ERP for Accounts Payable
 - GL's created
 - EAM Inventory quantity updated (if Auto-Issue = No)

QAD Proprietary EAM-PUR-450

Receive Against a PO

The screenshot shows the QAD Enterprise Asset Management interface. At the top, a navigation bar contains buttons for Request, Approve, Order, Receive (highlighted in yellow), and Pay. Below this, the main window is titled 'Receive Against a PO'. It features a tabbed interface with 'Home' and 'Purchase Orders' tabs. The 'Purchase Orders' tab is active, showing a list of purchase orders. A context menu is open over the list, with the 'Receive' option highlighted. A 'Receive POs' dialog box is also open, showing a table with columns for Rec?, Req No, Line No, Part No, Description, Order Qty, Open Qty, Rec Qty, Cancel Qty, and UoM. The dialog includes fields for Packing Slip No, Receive Date, Ship Date, and Receiver, and buttons for RECEIVE and CANCEL.

QAD Proprietary

EAM-PUR-460

Select the Proper Purchase Order

Click on Receive in the Action menu.

Enter the qty to receive then select Receive

Generate Receiver Document



Request

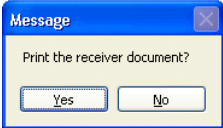
Approve

Order

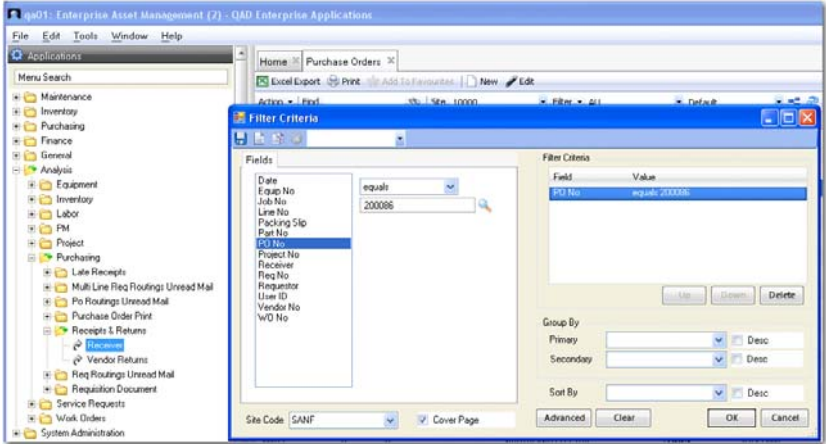
Receive

Pay

Generate Receiver Document



The system will ask you to print the receiver document or you may do a reprint under the Analysis section



QAD Proprietary
EAM-PUR-470

Type in a Packing Slip

Select Yes/No

Print Receiver Document



Request

Approve

Order

Receive

Pay

Print Receiver Document



QAD EAM Development SE
 Pond Lake Development
 3500 Parkway Lane
 Suite 200
 DULUTH, GA 30092
 770 903-1234 ext 123
 Fax 770 903-1233

Receiver

Vendor	A2001 Carbon Frames E Main Street 1508
Site	Wellington, UT UT84542 US-A-1

Receiver	6124	Packing Slip	
Date Received	05/25/2010	FOB	Wellington, UT
PO No	UA 63	Shipped Via	
		Date Shipped	05/25/2010
Received By			
Auth By			

Req No	Line No	Part No	Description	Location	Receive Cost	Ext Cost	OH Group	Tax	Qty Ordered	UOM
	Auto Issue?	Equip No	WO No Project No Job No	Requestor		Qty Canceled	Qty Received	UOM	Total Received	UOM
128	1	2785	Run Capacitor, 2 MFD, 120 VAC	TBD	8.54	85.40			10.00	EA
	Yes		0	System Administrator		0.00	10.00	EA	10.00	EA
Number of Records									1	
									Total Qty Received	10.00
									Total Amount Received	85.40

QAD Proprietary
EAM-PUR-480

Note the Receiver number is an QAD ERP application receiver number

Receipt GLs Created When Received



Request

Approve

Order

Receive

Pay

Receipt GLs Created When Received

▲ EAM Posted GL Transactions and QAD ERP Journal Entry View

Home
Posted GL Transactions

Excel Export
Print
Add To Favourites
New
Edit

Action
Find
Site: US-A-1
Filter: ALL
Default

Reference	GL Date	Description	Cost Center	Acct No	Sub Acct No	GL Amount
MI100525028139	05/25/2010	ISS-INV-2785		1500		-85.4
MI100525028139	05/25/2010	ISS-INV-2785	Mfg	7200	Mech	85.4
MI100525028138	05/25/2010	RECV-PO-63-REQ-1		2000		-85.4
MI100525028138	05/25/2010	RECV-PO-63-REQ-1		1500		85.4

Processes
Journal Entry Browse for View
Journal Entry - View

Go To
Actions
Tools
Attach
Print
Preview

Year: 2010 05
Daybook Code: EAM
Description: ISS-INV-2785
Original Posting Reference:

Posting Date: 05/25/2010
Layer Type: OFFICIAL
Template Code:
Sequence Number: 000000000

Save As Template
Replacement
Reversal

GL Account	Sub-Account C	Cost Ce	Description	Trans Curr	TC Debit	TC Credit
7200	Mech	Mfg	ISS-INV-2785			
1500	Gserv		ISS-INV-2785			

Processes
Journal Entry Browse for View
Journal Entry - View

Go To
Actions
Tools
Attach
Print
Preview

Year: 2010 05
Daybook Code: EAM
Description: RECV-PO-63-REQ-128
Original Posting Reference:

Posting Date: 05/25/2010
Layer Type: OFFICIAL
Template Code:
Sequence Number: 000000000

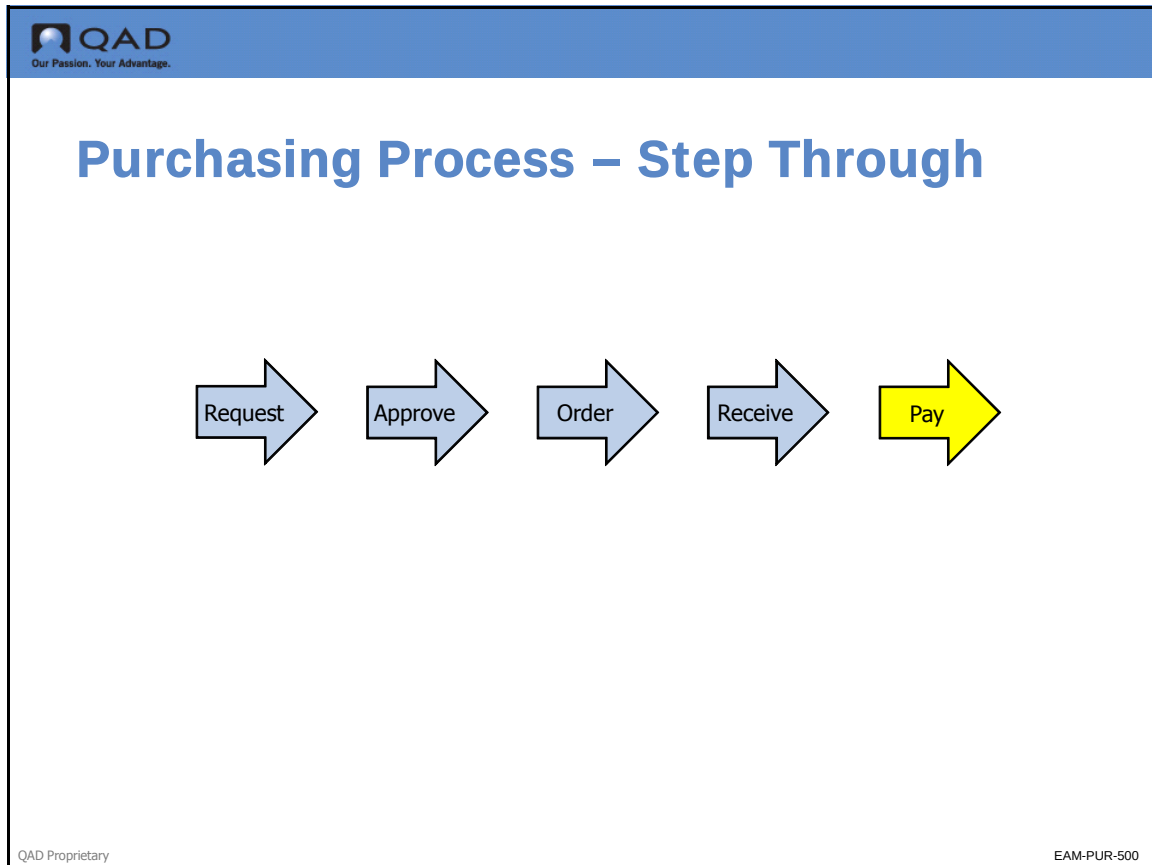
Save As Template
Replacement
Reversal

GL Account	Sub-Account C	Cost Ce	Description	Trans Curr	TC Debit	TC Credit
1500	Gserv		RECV-PO-63-REQ-128	USD	85.40	0.00
2000	Gserv		RECV-PO-63-REQ-128	USD	0.00	85.40

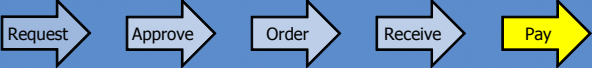
QAD Proprietary
EAM-PUR-490



Purchasing Process – Step Through



Pay



Pay

- ▲ All Accounts Payable Activities take place in ERP
- ▲ When the Supplier sends an Invoice, they will match it to:
 - Purchase Order
 - Receiver
- ▲ After match has been satisfied, Accounts Payable generates payment to Supplier

QAD Proprietary EAM-PUR-510

Return to Vendor

QAD
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Return to Vendor

Home Requisitions Purchase Orders

Excel Export Print Add To Favourites New Edit

Action Find Site: US-A-1 Filter: ALL Default

PO No	Type	Status	Auth Status	Vendor Name	Buyer	Ordered Date	Ordered By	Auth?
69	P	C		Carbon Frames		06/10/2010	sysadm	☐
68	P	C		Carbon Frames		06/09/2010	aant	☐
67	P	O		Corazon		05/24/2010	aant	☐
66	P	O		Carbon Frames		05/18/2010	aant	☐
65	P	P		Corazon				☐
64	P	P		Tube City				☐
63	P	C		Carbon Frames		05/05/2010	sysadm	☐
62	P	P		Corazon				☐
61	P	C		Carbon Frames		04/23/2010	AANT	☐
60	P	P		Subcontractors				☐
59	P	C		Subcontractors		04/12/2010	ahoward	☐
58	P	O		Tube City		04/06/2010	AHOWARD	☐

Find Default

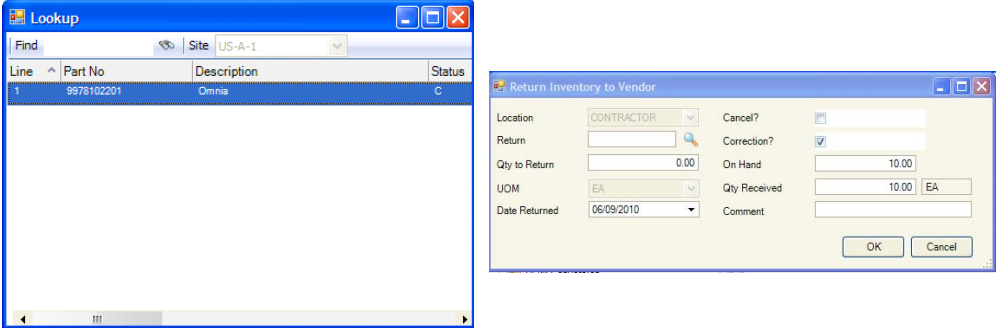
Req No	Line	Part No	Description	Status	Order Date	Unit	Qty Ordered	Qty Received	WO No	Project No	Job No
152	1	9978102201	Omnia	C	06/10/2010	EA	10	10	0		

Select All Add Record To Browse New Edit Columns **Return To Vendor** Lock Reopen Modify Currency PO Order Receive Change PO Status Print Document

▲ If a part needs to be returned to the vendor for whatever reason, select the purchase order then select Return to Vendor

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Return to Vendor – Cont'd



The screenshot displays two overlapping windows from the QAD software. The 'Lookup' window on the left has a search bar with 'Find' and 'Site' set to 'US-A-1'. Below it is a table with columns 'Line', 'Part No', 'Description', and 'Status'. One row is visible with 'Line' 1, 'Part No' 9978102201, 'Description' Omnia, and 'Status' C. The 'Return Inventory to Vendor' window on the right contains fields for 'Location' (CONTRACTOR), 'Return' (empty), 'Qty to Return' (0.00), 'UOM' (EA), 'Date Returned' (06/09/2010), 'Cancel?' (checkbox), 'Correction?' (checked checkbox), 'On Hand' (10.00), 'Qty Received' (10.00), and a 'Comment' field. 'OK' and 'Cancel' buttons are at the bottom.

- ▲ A lookup box appears so you can select which part from the PO needs to be returned
- ▲ Select the appropriate part
- ▲ The Return Inventory to Vendor screen appears, enter the quantity to return and any comments

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Stock Replenishment



Stock Replenishment

- ▲ Use the Stock Replenishment module to replenish stock automatically.
 - Ways to Replenish Stock
 - Manually create a stock run with a specific filter criteria such as part type, vendor, critical, and consignment.
 - Automatically Create - Use Batch Job Scheduler (batch/autostck.p) which is still being converted in v12.
- ▲ EAM compares a part's current on-hand quantity to the reorder point and management max values.
- ▲ If a part's current on-hand quantity is at or below the reorder point, it lists as a part to reorder, with a reorder quantity suggestion.
- ▲ Create the request after adding parts to a stock run.
 - Vendor Sourced: Generates purchase one requisition per Vendor
 - Internal Fabricated: Generates work order

Create a Stock Replenishment

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Create a Stock Replenishment

qa01: Enterprise Asset Management (2) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

Maintenance

Inventory

Physical Inventory

Stock Replenishment

Stores Requisition Lists

Stores Requisition Approval Groups

Rebuild Locations

UOM Conversion

Codes

Purchasing

Finance

General

Analysis

System Administration

Home x Stock Replenishment x

Excel Export Print Add To Favourites New Undo

Action Find Site 10000 Filter ALL

Stock Run No	Description	Type	Status	Originator
19	a202 AIR	C	wait	
18	Vendor parts			
16	Vendor 1			
15	MORE SERIALIZED PARTS			
14	Serialized Parts			
13	Make parts			
12	Make Parts Apr 21			
11	Parts for Building			
10	Parts			
9	Emergency Parts Build			
8	Make Parts 16 Apr	C	prointo	

Excel Export Print Add To Favourites New Undo

Find Default

Part No	Description	To Order	Mgt Max Qty
AIRFIT-066	HSCP 3/8ID NIPPLE	30	30
AIRFIT-067	COUPLER FOR QUICK DISC	15	0
AIRFIT-069	W68MI-502-2 FITTING	75	75

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EAM-PUR-570

Use Stock Replenishment to identify parts below reorder point or safety stock level. Create requisitions or work orders to replenish depleted inventory.

Create a stock replenishment header or stock run in the top frame.

Globally add parts or attach individual parts to a stock run.

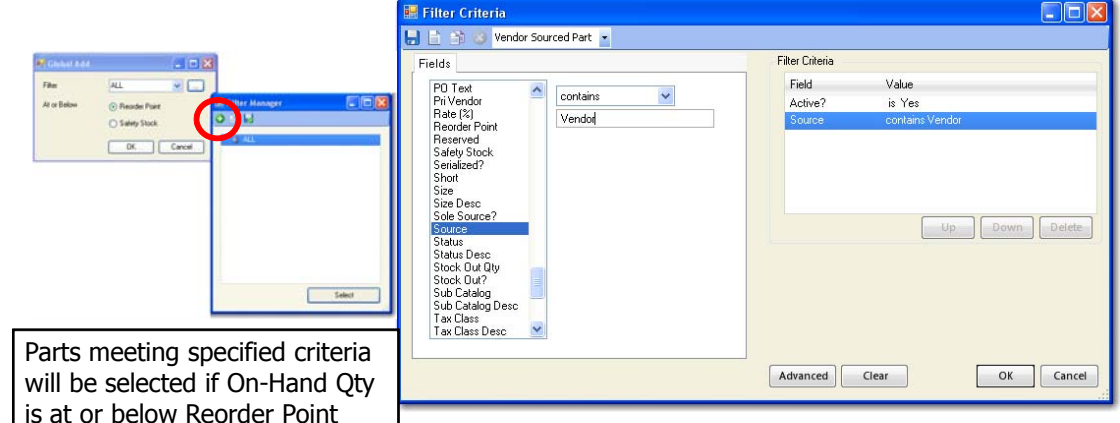
Print the list of items below reorder point or safety stock level for review in the bottom frame.

The stock run number is copied to the requisition or work order, noting its origin.

Add Parts to a Stock Replenishment

Add Parts to a Stock Replenishment

- ▲ Use the Global Add action and create the selected filter to find all active, vendor-sourced parts to reorder.



Parts meeting specified criteria will be selected if On-Hand Qty is at or below Reorder Point

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EAM-PUR-580

Click Global Add in the Stock Replenishment Action menu.

Click the ellipsis (...) button.

Click the Add button (green plus).

Build a vendor-sourced parts filter.

Select the Active field.

Select the Source field, equals vendor.

Click OK.

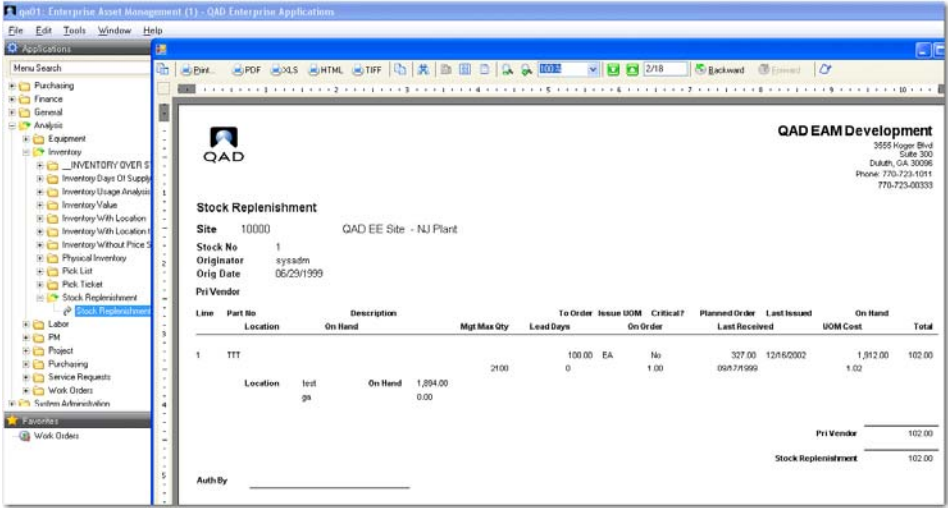
Add other parts by clicking New in the lower browse.

You only need to create the filter once. Save it for re-use.

Review Parts on a Stock Replenishment


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Review Parts on a Stock Replenishment



The screenshot shows the QAD EAM Development application window. The title bar reads 'QAD1: Enterprise Asset Management (1) - QAD Enterprise Applications'. The menu bar includes File, Edit, Tools, Window, and Help. A toolbar with various icons is visible below the menu. On the left, a 'Menu Search' pane lists various applications like Purchasing, Finance, General, Analysis, Equipment, Inventory, Labor, PM, Project, Purchasing, Service Requests, Work Orders, and System Administrations. The 'Stock Replenishment' application is selected. The main window displays the 'Stock Replenishment' form for Site 10000 (QAD EE Site - NJ Plant), Stock No 1, Originator sysadm, and Orig Date 06/29/1999. A table lists inventory items with columns for Line, Part No, Location, On Hand, Mfgt Max Qty, Lead Days, Issue UOM, Critical?, Planned Order, Last Issued, On Hand, UOM Cost, and Total. Item 1 (TTT) is shown with an On Hand quantity of 1,894.00 and a Total of 102.00. The 'Auth By' field is empty. The bottom right corner shows 'Pri Vendor' and 'Stock Replenishment' with a value of 102.00.

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Edit, review, and approve parts to order.

Use the Create Requests action to add requisitions.

Create Stock Replenishment Requests

Note:
After parts are selected can adjust order qty before creating actual orders.

Will create:
- One Purchase Request per Vendor for Vendor Sourced Parts
- Work Orders for Internally Fabricated Parts

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EAM-PUR-600

Edit, review, and approve parts to order.

Use the Create Requests action to add requisitions.

Task

Click Create Requests in the Stock Replenishment Action menu.

Globally Create Purchase Orders from Stock Replenishment

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Globally Create Purchase Orders from Stock Replenishment

The screenshot shows the 'Stock Replenishment' window in QAD. It includes a menu bar with 'Home', 'Stock Replenishment', and 'Requisitions'. Below the menu is a toolbar with 'Excel Export', 'Print', 'Add To Favourites', 'New', and 'Edit'. The main area displays a table of requisitions with columns: Date Due, Vendor Name, Stock Run No, Total Cost, and Consign. Two requisitions are listed: one for Borg Warner dated 05/11/2009 and another for Universal Industries dated 05/08/2009. A context menu is open over the first requisition, showing options like 'Authorize', 'Change Status', 'Modify Currency', 'Reopen', 'Create Purchase Order', and 'Global Create Purchase Order'. Below the requisition list is a detailed table for the selected line item.

Line	Part No	Description	Status	Qty Ordered	Qty Received	UOM	Date Required	Date Due
1	GEZ-210	Bearing, SKF, GEZ210, RS	P	6	0	EA	05/11/2009	05/11/2009
2	05-01-0111	Motor Mount	P	100	0	EA	05/31/2009	05/31/2009

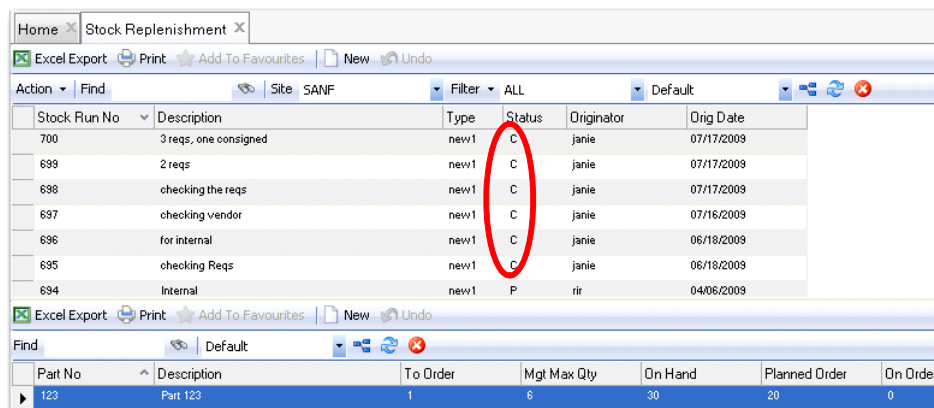
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EAM-PUR-610

Create POs from the stock replenishment.

Close a Stock Replenishment

Close a Stock Replenishment

- ▲ Once the Requisitions or Work Orders are created, the Stock Replenishment automatically closes.



Stock Run No	Description	Type	Status	Originator	Orig Date
700	3 reqs, one consigned	new1	C	janie	07/17/2009
699	2 reqs	new1	C	janie	07/17/2009
698	checking the reqs	new1	C	janie	07/17/2009
697	checking vendor	new1	C	janie	07/16/2009
696	for internal	new1	C	janie	06/18/2009
695	checking Reqs	new1	C	janie	06/18/2009
694	Internal	new1	P	rir	04/06/2009

Part No	Description	To Order	Mgt Max Qty	On Hand	Planned Order	On Order
123	Part 123	1	6	30	20	0

Review



Review

- ▲ Use Purchasing to set up and create requisitions, purchase orders, and replenish stock.
- ▲ Globally create purchase orders to save time.
- ▲ EAM uses an automated approval process integrated into the mail system.
 - Requisition Approval Routing
 - Purchase Order Approval Routing
- ▲ EAM sends GLs and Receiver to QAD ERP when parts are received.
- ▲ All Accounts Payable activities take place in the ERP System.

Practice!



Practice!

- ▲ Review this presentation: “1-7 Introduction to EAM Purchasing”
- ▲ Utilize the “Level 1 Activities Handbook” for exercises and question related to this presentation
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content							
Certification Levels - Elements	Format	Duration	Target Audience	EAM Training Hours		ERP Train Hours	Role Based Experience
				Self-Study	Classroom		
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:							
PREREQUISITE: EAM Introduction Level Exam Completion		66 hours	Pre-Sales, Support, Services, Customers				
		n/a					
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List: Terry Wireman "World Class Maintenance"	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Scheduled Payments	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40	6	
			Self-Study to Classroom Percentage:	40%	60%		

Upon Successful Completion of the "1-7 Introduction to Purchasing" Exam, your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Class "1-8 Introduction to Project Controls" and "1-9 Introduction to Project Controls Part 2"
2. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

Questions?



Questions?

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at:
 - Nancy Majure nnm@qad.com
 - Sara Suhr uhr@qad.com
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the "EAM v12 r02" training environment to practice

Learning Validation



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Learning Validation

▲ (see separate xls)

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FIND THE QUOTES. TAKE THEM OUT.

Chapter 8

Introduction to EAM Project Controls Part 1

EAM Level 1 Learning Path



EAM Level 1 Learning Path

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction							
EAM Introduction - Position, Qualification, and Competition	Qbit	1 hour	Sales, Pre-Sales, Support, Services	0.75			
EAM Introduction - Exam	On-Line Exam	45 minutes		0.25			
TOTAL HOURS:				1	0		
Self-Study to Classroom Percentage:				100%	0%	None	None
EAM Level 1 Certification:							
<i>PREREQUISITE: EAM Introduction Level/Exam Completion</i>							
1-1EAM Level 1 Training Introduction	Q-Bit	66 hours	Pre-Sales, Support, Services, Customers				
QAD ERP On-Line Classes Level 1(See Below)	On-Line Class	n/a		0.25			
1-2 EAM Overview	On-Line Class	15 minutes				6	
EAM Reading List	On-Line Class	6 hours		1			
1-3 EAM UI Introduction	Reading	1 hour		8			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Sched Pay and Reporting	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
TOTAL HOURS:				26.75	40	6	
Self-Study to Classroom Percentage:				40%	60%		

→ You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Classes 1-1 through 1-7
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. Approximately 8 hours of Required Reading from the EAM Reading List

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Course Overview



Course Overview

- ▲ Course Objectives and Benefits
- ▲ Business Space
- ▲ Key Concepts
- ▲ Examples
- ▲ Project Controls Setup Review
- ▲ Project Controls Process
- ▲ Course Review
- ▲ Next Steps

Think in terms of an Hourglass

Big Picture □

★ Digestible Bites

Big Picture □



Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives:

- Understand how QAD EAM Project Controls fits in Business
- Understand EAM Project Controls Key Concepts
- Obtain introductory level process and functional experience with EAM Project Controls

▲ Benefits:

- An introductory hands-on experience with EAM Project Controls.
- A familiarity with the EAM Project Controls business space in order to position more effectively the product as a solution.
- You will be able to work through foundation EAM Project Controls Processes on your own.
- Preparation to take the next steps in the EAM Level 1 Learning Path towards Certification.

Project Controls



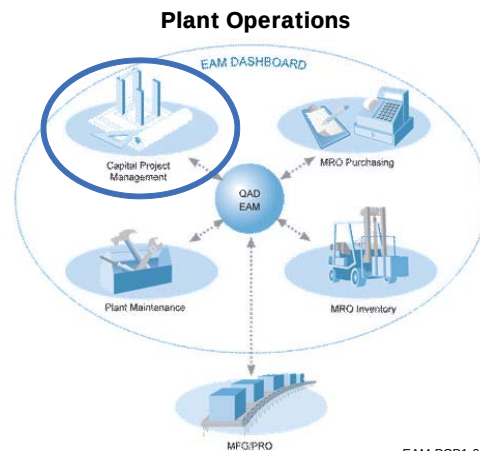
Project Controls (Capital, Customer-Funded, ETO and Expense)

▲ **Goal:** Manage project accounting to consistently deliver on time and on budget, and help move new equipment into production or to customer as soon as possible.

- Monitor and control spending
 - Against budget
 - By project, job or sub-job
 - Reallocate budgets from one project to another

Project Accounting Roles:

- Finance
- Engineering
- Maintenance
- Inventory
- Purchasing
- Quality
- Fixed Asset Accounting
- Even sometimes - Manufacturing



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Use Project Accounting to:

- Manage capital projects to consistently deliver on time and on budget.
- Move new equipment into production as soon as possible.
- Monitor and control spending against the budget or reallocate budgets from one project to another.

Projects is in the Finance module. During a facility's lifespan, Engineering and Maintenance groups manage facility and equipment through improvements, additions, transfers to another facility, and shut down. All of these requirements define a project. Use projects to plan activities and costs, followed by collection of actual costs, from the various actions taken to create equipment.

More information in UG and TG.

Project Controls Role in EAM



Project Controls Role in EAM

- ▲ Project Controls in EAM brings together every other module and set of transactions into one controllable and traceable Project Budget.
 - Internal time spent working on project activities and Cost of that time
 - External subcontractor time and costs
 - Internal parts costs
 - All purchasing activities
 - Manual GL transactions
- ▲ Project Controls also incorporate additional functionality tied closely to ERP A/P and A/R.
 - Customer reimbursements from A/R*
 - Scheduled supplier payments in A/P*

*Covered in more detail in separate on-line class.

Project Controls Key Concepts – What you should already know



Project Controls Key Concepts – What you should already know

▲ Four types of Projects:

- Capital
- Expense
- Customer Funded
- ETO (Engineer to Order)

Remember!

ERP Chart of Accounts:

- Cost Center
- Account
- SubAccount
- Sometimes Product Line
- NOW . . . Project Number

EAM's "Dept" is not associated with ERP Chart of Accounts

- ▲ EAM Project Number must match ERP Project Number
- ▲ But . . . EAM Job Number does not exist in ERP
- ▲ Key advantage of EAM Project Controls – Real Time Visibility and Budget Controls
- ▲ Can create "Equipment" or "Assets" from Project to obtain true "Acquisition Cost"

Project Controls Key Concepts – A/P and A/R


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Project Controls Key Concepts – A/P and A/R

- ▲ Accounts Payable
 - EAM Project Controls (Purchasing): Processes Purchase Requests through create, approve, order and receive
 - ERP Accounts Payable (AP): Processes Invoices from Suppliers and Pays Invoices
- ▲ Accounts Receivable
 - ERP Accounts Receivable (AR): Create Sales Order, Receive “Shipment” from EAM, Produce Invoice, Receive Payment
 - EAM Project Controls: Releases “Shipment” to signify that an Invoice to Customer should be generated from ERP

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Understanding EAM’s Purchasing Module’s place in the overall Supply Chain is key to implementation success.

Aside from ties to Financials, EAM Purchasing is also integral to Accounts Payable functions within ERP. The two groups are usually separated due to Segregation of Duties requirements.

In EAM, Purchasing is a process that may involve any number of requesters, but only a select few in an organization are allowed to order items or services from a suppliers. Those responsible for processing orders are referred to as Buyers. In EAM, an employee may be designated as a Buyer in the employee record. Also, in the system control settings, the flag Any Buyer? determines if Buyers may work on each others orders or only their own. This is usually also driven by a company’s business requirements.

The Accounts Payable group is responsible for ensuring that payment is made to suppliers/vendors for goods or services received. Their role functions within the ERP system. The key elements required for payment are the Purchase Order and the Receiver, which come from EAM to the ERP system, and the Invoice itself which comes from the supplier. These three are typically matched prior to actual payment, which also happens in ERP.

Project Controls Key Concepts - Approvals



Project Controls Key Concepts - Approvals

- ▲ Electronic Routing via EAM Mail
 - Project Approval Groups
 - Project-Specific Requisition Approval Groups
 - Job-Specific Requisition Approval Groups
- ▲ Incorporates all the key concepts of Purchasing Approvals:
 - Capital, Expense and Project Specific Requisition Approval Limits
 - Quality Approvers
 - Money Approvers
 - Horizontal Approvers

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EAM provides the ability for electronic, or on-line / paperless approval routings. In EAM Purchasing, the behavior of the electronic approval is driven by several key configurations:

- The definition of Routing Groups,
- The configuration of the Routing Hierarchy, and
- The approval limits defined on the approver's EAM User ID.

In addition to the basic Electronic Routing configuration, EAM v12 allows for a new concept in routing known as Horizontal approval. In previous versions of EAM, all approval routings were Vertical meaning that there was a list of approvers, in ascending order of approval limits, and once someone in the list with an approval limit higher than the record approved the record the record would be considered approved.

With Horizontal approval, organizations can now specify that once Vertical approval requirements are met, additional approvals can be required. For example, some organizations may require (uhr) that Finance provide final sign-off on purchases after the budget owners in the vertical approvals have approved.

Another key concept in EAM approvals is the concept of a Quality Approver. In the initial setup of an Approval Group, the system administrator can add a Quality Approver to the list. In the Approval Group, the Quality Approver will have the flag Cons Limit? Consider Limit set to no, which means that when this approver is approving a request, EAM does not consider this person as a

dollar approver. For example, an organization may add an IT person to all requests against IT accounts to ensure that any software purchases meet the companies IT standards. Because of their role in approving the quality of a purchase, a Quality Approver can NEVER be skipped.

There are two ways to include a Quality Approver in a routing. The Quality Approver can be included in the official Routing Group and will always be a part of that group. Also, a requester can add a Quality Approver to a record's routing at the time they route the request for approval. This approach adds the Quality Approver for that particular routings' list and does not add that approver to the overall Routing Group.

The two types of approval that are available in Purchasing are Requisition Approval and Purchase Order Approval. Either, both, or neither may be required based upon system configuration and business requirements (uhr).

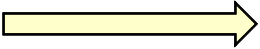
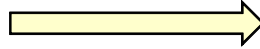
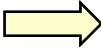
Requisition Approval routing is the most commonly employed type of approval. This is typically referred to as spending approval and usually involves budget owners providing their approval to spend money from their budget for this purchase request.

Purchase Order Approval is becoming more popular as more companies are limiting the amount of money a Buyer can commit without having to acquire supervisor approval. For example, if a company allows buyers to commit up to \$50k on their own, but purchase orders larger than \$50k require supervisor sign-off, you would recommend enabling Purchase Order Authorization.

Purchasing Key Concepts – Project Types



Purchasing Key Concepts – Project Types

▲ Capital – Profit enhancements – Increase capacity – Replacement		Key Characteristic: Results in New Asset(s)
▲ Expense – Annual rebuilds – Marketing / Legal / etc.		Key Characteristic: No Assets created
▲ Customer Funded – Tooling – Prototype – Very common in Automotive Verticals		Key Characteristics: -Customer owns Asset -Customer pays you to build new production line to produce a part for them. -Customer will reimburse you for the cost to build the new production equipment. -When project is complete, the production line stays at your facility, BUT you do not own the production equipment – the customer does.
▲ ETO (Engineer to Order)		Key Characteristics: -Build equipment to customer specifications -Scheduled reimbursement payments from customer -At completion of project, ship equipment to customer

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EAM Purchasing can be utilized to purchase a variety of Indirect items, including Storeroom / MRO Parts, spot-buys for non-stock items, and services from third parties.

Terminology can vary from company to company, but within EAM, the following are important terms to understand:

- **Stock vs Non-Stock:** Part Numbers can represent inventory items (Stock Items) OR items that you regularly purchase but do not store in inventory (Non-Stock Items). This is controlled by the Auto-Issue? flag on the part # as discussed below.
- **Part vs Non-Part #:** In addition to allowing the purchase of Part #'s, EAM allows the purchase of items for which no part # exists. These are often referred to as spot-buys.

The Part No field on a purchase request is a unique type of field. It does have a lookup, but the requestor can also type in any type of identifier they wish.

The Auto-Issue? flag on a purchase request drives important functionality. Anything you plan to place in inventory must (1) have a part number and location, and (2) must be marked as auto-issue = no, meaning that you intend to manually issue the part to its final expense resting place in the future when it is used.

Setting a purchase to Auto-Issue? = no, does NOT mean that the item is not expensed on receipt. It simply means that the cost will be maintained in an inventory expense accounting bucket until such time as it is issued to its final expense bucket.

Project Controls Best Practices Goals



Project Controls Best Practices Goals

- ▲ All of the Best Practices of Maintenance, Inventory, and Purchasing plus
- ▲ Control Project Spend to Budget
- ▲ Job level Budget Controls
- ▲ Accommodate Corporate Financial Controls
- ▲ Provide Proper Segregation of Duties
- ▲ Reduce Approval times
- ▲ Provide single source of Project Performance tracking, including Customer Reimbursements

Project Controls Setup – Key Settings



Project Controls Setup – Key Settings

- ▲ Domain Settings
 - “Reopen Project?” Flag
 - GL Options for Project Number
- ▲ Site Settings
 - Accounting Defaults
 - Approvals on/off and hierarchies
- ▲ MFG/PRO Interface Settings
- ▲ Registry Settings
 - Business Segment Format
 - Job Format

See “EAM Configuration”
Class for Details



Project Controls Setup – Key Settings

▲ User ID

- Project Approval Limits
- Project Req Limits
- Security

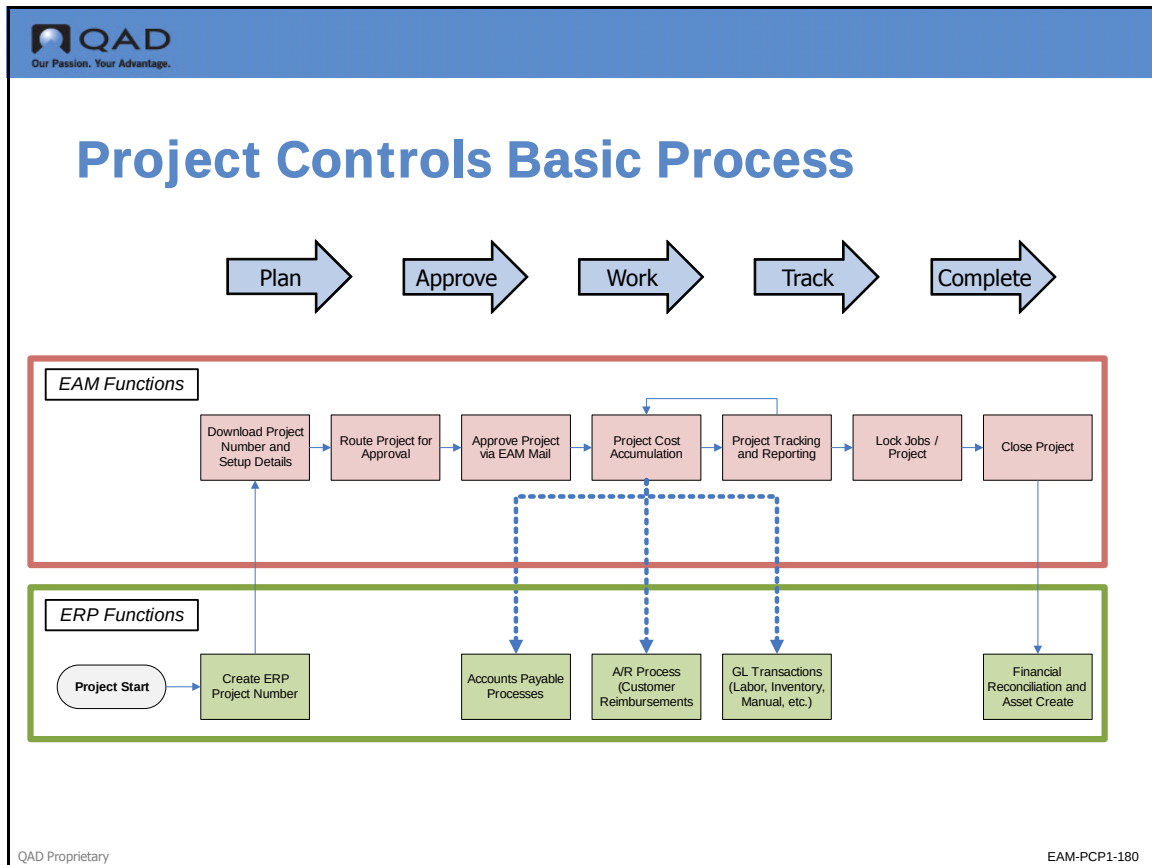
See "EAM Configuration"
Class for Details

▲ Project Approval Groups

▲ Project Requisition Approval Groups

▲ Record Level Control – OWNER Groups

Project Controls Basic Process



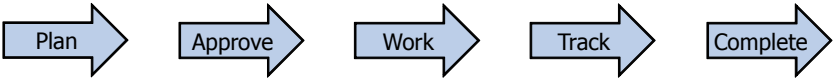
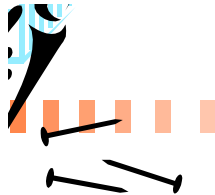
Project Controls – Personal Example



Project Controls – Personal Example

You have bought new property and are now ready to begin constructing a new home for your family.

How would you proceed?



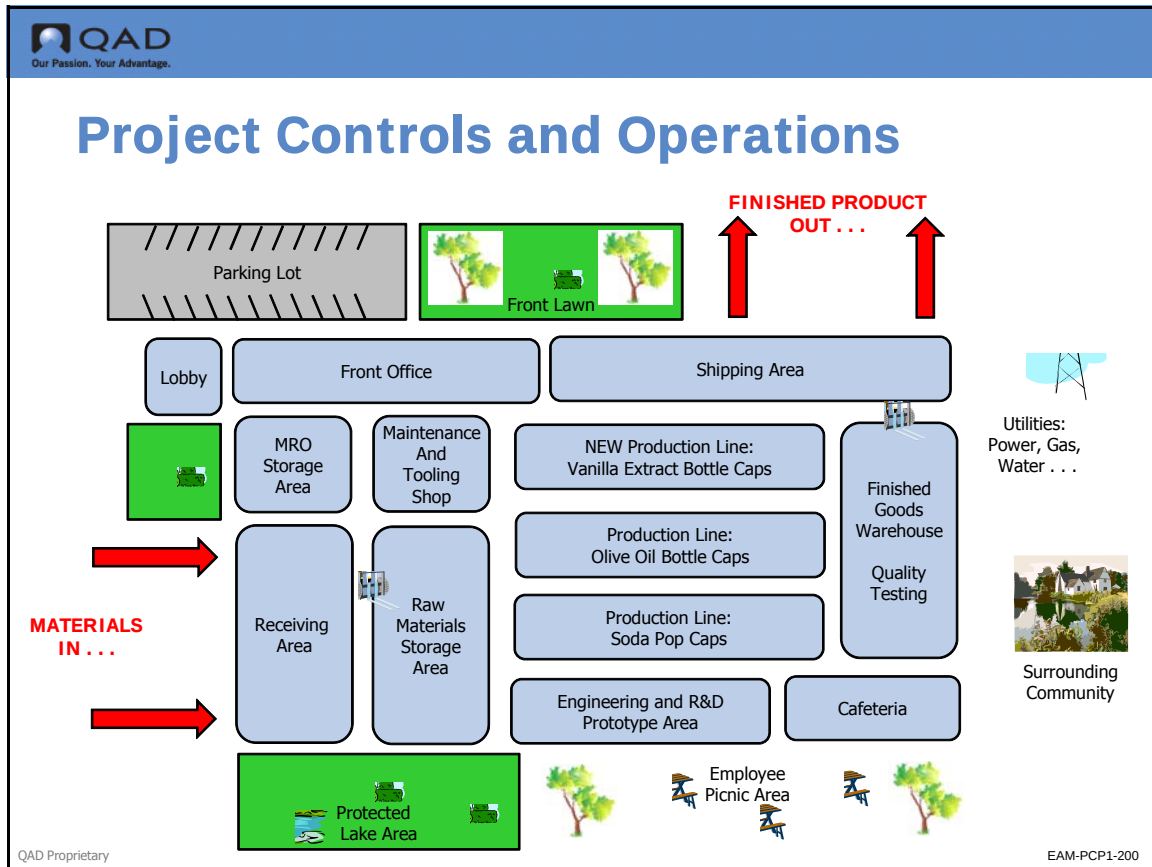
QAD Proprietary EAM-PCP1-190

So, you are building a new home – what steps would you take?

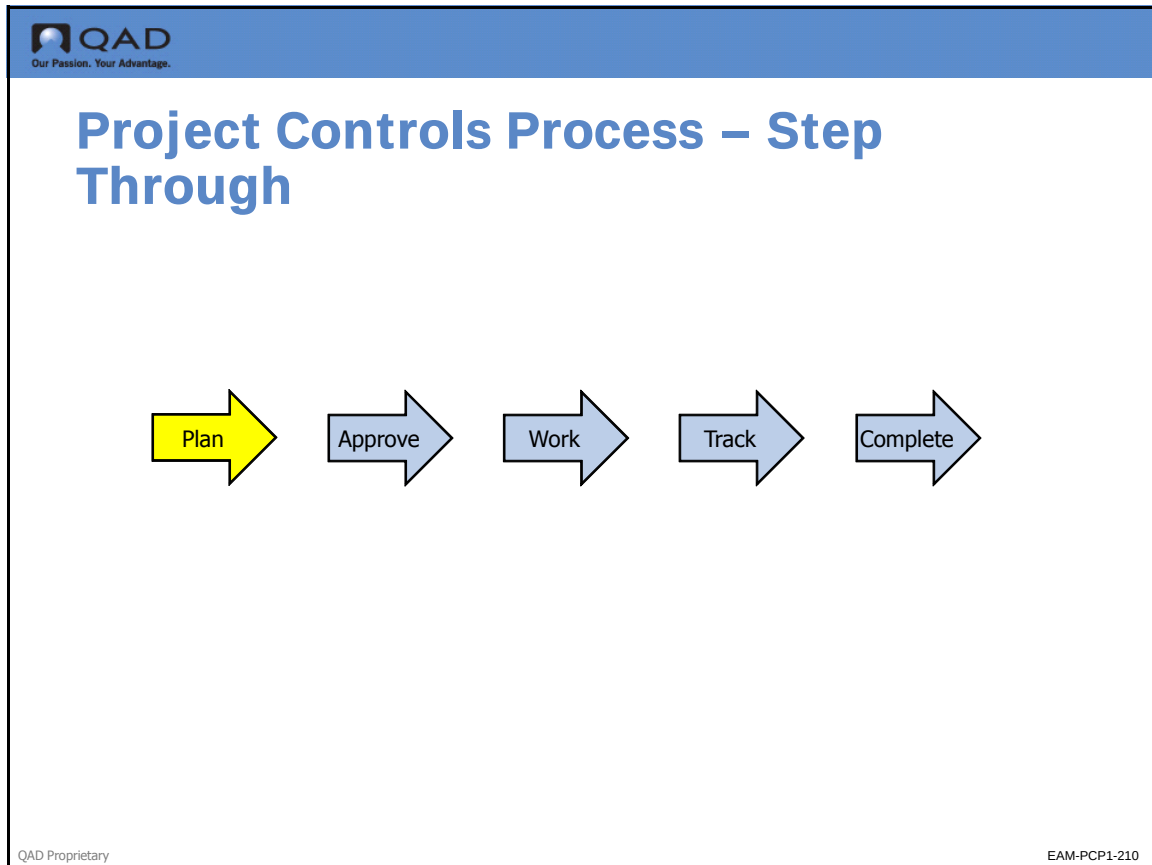
Suggestions:

- Plan your design and estimate cost (Project Planning / Estimating)
- Apply for a Construction Loan (Project Approval)
- Breakdown the Project into Tasks (Create Jobs / Sub-Jobs and assign budget and limits)
- Find Contractors / Sub-Contractors (Purchase Contractor Services)
- Purchase Materials (Purchase External Material)
- Utilize Materials from your existing home such as Light Fixtures (Internal Materials)
- Pay your bills (AP Process)
- What might change your budget? How do you control that?

Project Controls and Operations



Project Controls Process – Step Through



Project Sample



Project Sample

- ▲ Setup a new project
 - Create Project Number in QAD ERP.
 - Download project number from QAD ERP.
 - Set up various project information (description, type, account number).
 - Add budget information.
 - Setup Jobs (ex: design, installation, and prototype).
 - Create Sub-Jobs
 - Add Approval Groups
 - Set Spending Limit
- ▲ Attachments
 - Quotes
 - Drawings

QAD Proprietary EAM-PCP1-220

QAD
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Plan → Approve → Work → Track → Complete

Project Sample

Applications

Menu Search

- Maintenance
- Inventory
- Purchasing
- Finance
 - Projects
- Accounting
- Tax
- Overhead
- Groups
- Codes
- Intercompany Accounts

General

Analysis

System Administration

★ Favorites

- Work Orders

Home Projects

Excel Export Print Add To Favourites New Edit

Action Find Site 10000 Filter ALL

Project No	Description	Status	Locked?
1	Description for 1 at 1000	0	
10000	Project w a route	N1	
1040W-0	New Product Line		
250	Training Project 20,000		
Delta	new project		
Newproj	newproject		
Q123W	New Tool Crib		

Excel Export Print Add To Favourites

Action Find Defs

Job No	Description
001	Charges against project without

Context Menu:

- Select All
- Add Record To Browse
- New
- Edit
- Columns
- Post Labor
- Copy Project
- Change Status
- Lock/Unlock
- Refresh
- Reopen
- Authorize
- Reallocate
- Modify Budget
- Reverse Labor

QAD Proprietary

EAM-PCP1-230

Set Up a New Project

Set Up a New Project

Project No. must Equal ERP!!

Note the Variety of Tab Pages on a Project

As with Purchasing - Authorization may be enabled at Site Level

Project-Specific Approvals

Owner Field Key Record Level Control and may be Individual or Group. If left blank, anyone with security access can modify the record.

Note the Variety of Sub-Modules on a Project

QAD Proprietary EAM-PCP1-240

The various aspects of a Project Record include:

- Tab Pages
- Record Controls
- Authorization
- Sub-Modules
- On General Tab Page:
 - Enter Description, Start date & Est Comp Date.
 - Expense Type drives what approval limit to use for the assigned Req approval group.
 - Project Approval Group=Approves Projects overall estimated cost.
 - Requisition Approval Group=Approves all Req's charged against this project after the overall project as been approved.

QAD
Our Passion. Your Advantage.

Plan → Approve → Work → Track → Complete

Set Up a New Project, cont.

Refresh! Refresh! Refresh!
The most common mistake is not understanding that this Cost tab page does not reflect most current spend until "Refresh" is selected.

Spending Limit – THE most important field for a project:
-Amount used for approval
-Increasing amount routes for re-approval (like a change-order)

Expense Accounting:
-Primary
Displays here
-Can be setup under Sub-Module or added to the Jobs

Home Projects Site: US-A-1, Project No: X

Site: US-A-1 Project No:

Action

General Cost Customer Funding Program Lifetime Budget User Def

Detail	Orig Budget	0	Net Budget	0
	Orig Estimate	0.0000	Spending Limit	0.0000
	Auth Spending	0	Warning Limit	0.0000
	Spending Est	0.0000	Planned Purch	0
	Auth Purch	0	Committed	0
	Bal to Commit	0	% Utilized	0
	Received	0	Labor Cost	0
	Int Mtrl Cost	0	Ext Mtrl Cost	0
	Cont Cost	0	Tax Cost	0
	Manual Cost	0	Total Spent	0
	Est to Complete	0	Planned Internal	0
	Vouchered	0	% Spending Est	0
	Planned Labor Hrs	0.0000	Over Spend Est	0
	Actual Labor Hrs	0	AP Variance	0

Primary Expense

Expense Site		Dept	
Cost Center		Acct No	
Sub Acct No			

Last Refreshed
Date/Time

QAD Proprietary EAM-PCP1-250

Enter a Description, Start date & Est Comp Date.

Expense Type drives what approval limit to use for the assigned Req approval group.

Project Approval Group=Approves Projects overall estimated cost.

Requisition Approval Group=Approves all Req's charged against this project after the overall project as been approved.

Set Up a Job

PlanApproveWorkTrackComplete

Set Up a Job

Project

Jobs

HomeRequisitionsProjects

Excel ExportPrintAdd To FavouritesNewEdit

ActionFindSite 10000Filter ALLDefault

Project No	Description	Status	Locked?	Auth Status	Type	Start Date	Act Comp Date	Total Sp
1	Description for 1 at 1000	0	☐					1.02
1040W-0	New Product Line	0	☐		FINC	06/01/2009		341.88
Delta	new project	0	☐			06/30/2003		0
Q123VY	New Tool Crib	0	☐			06/01/2009		0
Newproj	newproject	0	☐			08/31/2002		95.01
10000	Project w a route	NI	☐	Authorized	T-1	07/02/2009		0
250	Training Project 20,000	INITIA	☒		FINC	11/08/2009		0

Excel ExportPrintAdd To FavouritesNewEdit

ActionFindDefault

Job No	Description	Status	Locked?

Note:

-Jobs are not mandatory, but are highly recommended

-“Job(Project)” Mandatory Field Consideration in other Modules

QAD Proprietary

EAM-PCP1-260

Jobs are assigned to projects.

QAD
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Plan → Approve → Work → Track → Complete

Set Up a Job

Note the Job No. format:
 -15 characters
 -"dashes" count
 -Format defined in EAM System Registry

Job Level Req Approval

QAD Proprietary

EAM-PCP1-270

Click New in the lower browse to add a new job to the highlighted project in the upper browse.

QAD
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Plan → Approve → Work → Track → Complete

Set Up a Job, cont.

What rolls up to Parent and Project?

1. Spending Estimate
2. Actual Costs

Home Projects Project No: CF-101, Site: US-A-1

Project No: CF-101 Site: US-A-1

Job No: J-A-CF101

Action Details **Amounts**

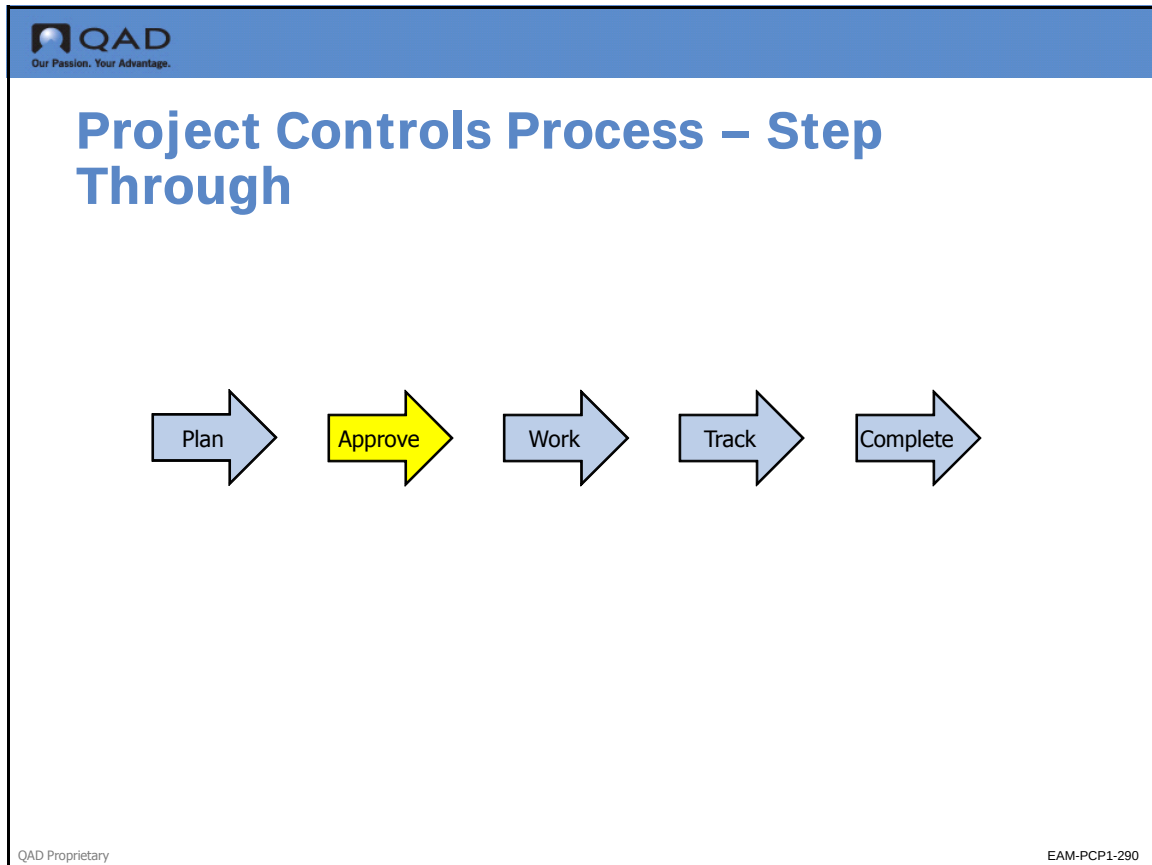
Amounts	
Orig Estimate	15,000.0000
Warning Limit	13,500.0000
Planned Purch	0
Committed	0
Labor Cost	0
Ext Mtrl Cost	0
Tax Cost	0
Total Spent	0
Vouchered	0
Spending Limit	15,000.0000
Spending Est	15,000.0000
Auth Purch	0
Received	0
Int Mtrl Cost	0
Cont Cost	0
Manual Cost	0
Est to Complete	15000

Jobs

- Detail
- Cost Analysis
- Requisitions
- Work Orders
- Equipment
- Stores Req Lists

QAD Proprietary EAM-PCP1-280

Project Controls Process – Step Through



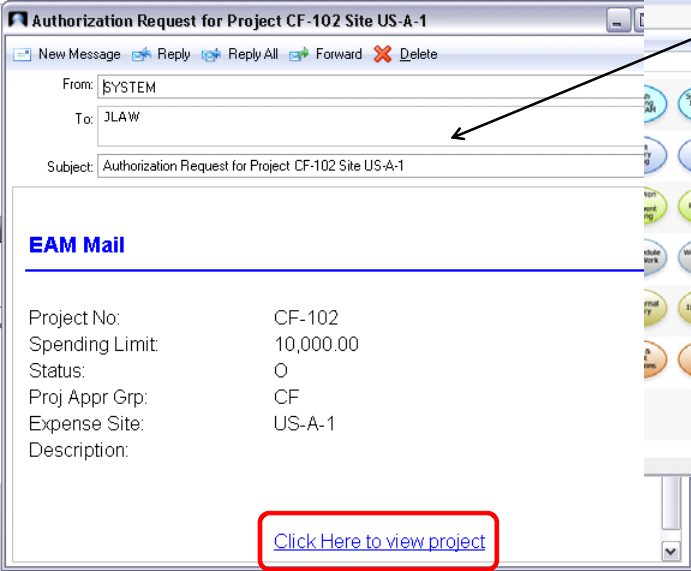
Project Approval Routing

The screenshot displays the QAD Enterprise Asset Management (4) - QAD Enterprise Application interface. The interface includes a menu bar (File, Edit, Tools, Window, Help) and a left sidebar with a tree view of applications. The main window shows the 'Enter Password' dialog box, the 'Authorization Action' dialog box, and the 'Message' dialog box. A red box labeled '1' highlights the 'Authorize' button in the 'Action' menu. A red box labeled '2' highlights the 'Enter Password' dialog box. A red box labeled '3' highlights the 'Authorization Action' dialog box. A red box labeled '4' highlights the 'Message' dialog box. A red box labeled '5' highlights the 'Project Appr Grp' field in the 'Auth' section, which is set to 'CF'.


Our Passion. Your Advantage.

Plan
Approve
Work
Track
Complete

Project Approval Routing, cont.





Approver receives notification.

QAD Proprietary
EAM-PCP1-310

Plan → Approve → Work → Track → Complete

Project Approval Routing, cont.

QAD Enterprise Asset Management (3) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

Maintenance

Inventory

Purchasing

Finance

Projects

Accounting

Tax

Overhead

Groups

Favorites

Select your favorite application from the

Home Projects

Site US

Action

Post Labor

Copy Project

Change Status

Lock/Unlock

Refresh

Reopen

1 Authorize

Reallocate

Modify Budget

2 Enter Password

User ID jlaw

Password

3 Authorization Action

Proj No: CF-102 Description: Build Die 101 for TCA Spending Limit: 10000

Approve

Disapprove

Hold Up

No Comment

OK CANCEL

4 Message

Project has been authorized. A message has been sent to the originator jknight(JIMMY KNIGHT)

OK

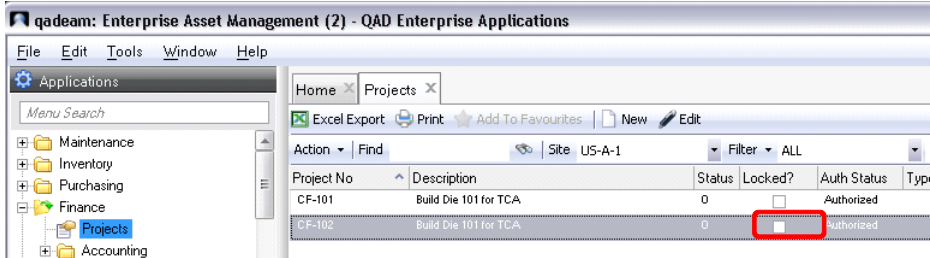
Project Authorized by Final Approver.

QAD Proprietary EAM-PCP1-320



Plan → **Approve** → Work → Track → Complete

Project Approval Routing



qadeam: Enterprise Asset Management (2) - QAD Enterprise Applications

File Edit Tools Window Help

Applications

Menu Search

Maintenance
Inventory
Purchasing
Finance
Projects
Accounting

Home Projects

Excel Export Print Add To Favourites New Edit

Action Find Site US-A-1 Filter ALL

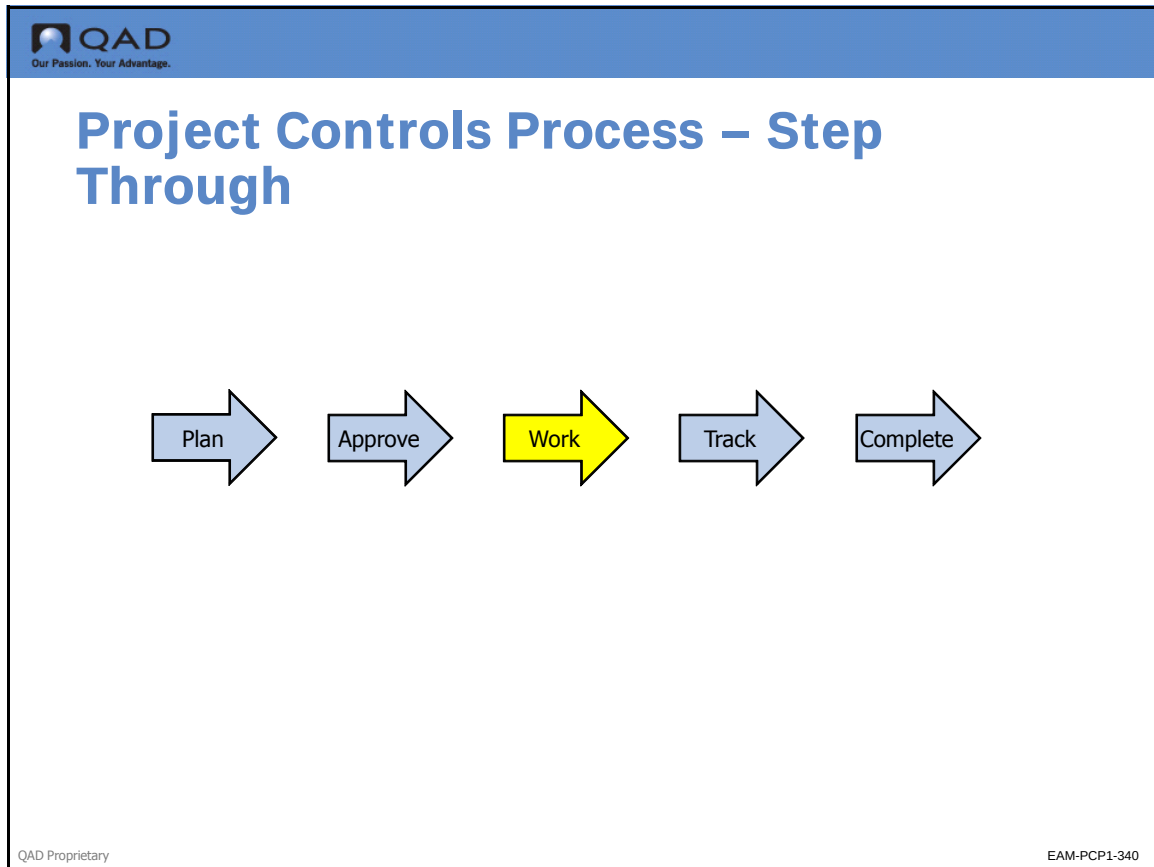
Project No	Description	Status	Locked?	Auth Status	Type
CF-101	Build Die 101 for TCA	0	☐	Authorized	
CF-102	Build Die 101 for TCA	0	☒	Authorized	

▲ Once a project is approved can begin:

- Project Work (Cost Accumulation)
- Project Tracking and Reporting

QAD Proprietary EAM-PCP1-330

Project Controls Process – Step Through



Project Work



Project Work

- ▲ In the “Work” Phase a Project is very similar to Work Order
 - Labor Costs
 - Part Costs
 - Subcontractor Costs
 - Purchase Costs
 - Manual GLs
- ▲ But . . . a Project provides greater control and traceability
 - Project and Job Level Controls
 - Spending Controls
 - Warning Limits
 - Project and Job Specific Purchase Requisition Approvals
- ▲ And . . . a Project provides additional functionality
 - Customer Reimbursements*
 - Supplier Scheduled Payments*

****Covered in EAM Introduction to Project Controls 2***

QAD ProprietaryEAM-PCP1-350

Project Work – Labor Costs

QAD
Our Passion. Your Advantage.

Plan → Approve → **Work** → Track → Complete

Project Work – Labor Costs

Labor

Detail

Employee

Site: US-A-1 Date: 9/27/2010

Emp No: JKNIGHT Time (HH:MM): 04:30

Pay Add Code: Pay Mult Code: RP

OH Group: Total Cost: 114.08

Comment:

Expense

To Site: US-A-1 Expense Site: US-A-1

WO No: 0 Dept:

Equip No: Cost Center: Mfg

Rebuild: Acct No: 5120

Serialized Part: Sub Acct No:

Serial No: System:

Project No: CF-102 Assembly:

Job No: J-B-CF-101

Labor can be accumulated by:

1. Direct Post to Project/Job Using Action Button
2. Standard Work Order Labor Posting

See EAM Introduction to Maintenance for details.

QAD Proprietary EAM-PCP1-360

QAD
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Plan → Approve → **Work** → Track → Complete

Project Work – Labor Costs

Refresh! Refresh! Refresh!

Home | Site: US-A-1, Project No: CF-1... | Project No: CF-102

Action

General | Cost | Customer Funding | Program | Lifetime Budget | User Def

Detail

Orig Estimate	0.0000	Spending Limit	10,000.0000
Auth Spending	10000	Warning Limit	0.0000
Spending Est	0	Planned Purch	2000
Auth Purch	1000	Committed	1675
Bal to Commit	6349.26	% Utilized	36.51
Received	325	Labor Cost	650.74
Int Mtrl Cost	0	Ext Mtrl Cost	325
Cont Cost	0	Tax Cost	0
Manual Cost	0	Total Spent	975.74
Est to Complete	0	Planned Internal	-650.74
Vouchered	0	% Spending Est	0
Over Spend Est	0		

Primary Expense

Expense Site: US-A-1 Dept:

Cost Center: WCO3 Work Center 3 Acct No: 7200 Repair & Maintenance

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SOs
- Scheduled Payments POs
- Invoices
- Write Offs

QAD Proprietary EAM-PCP1-370

Project Work – Part Costs

QAD
Our Passion. Your Advantage.

Plan → Approve → **Work** → Track → Complete

Project Work – Part Costs

The screenshot shows the 'Issue Inventory' window with the following fields:

To		Requestor	
To Site	US-A-1	Requestor	JKNIGHT
WO No	0	Stores Req No	0
Reserved	0	Equip No	
Rebuild		Serialized Part	
Serial No		Project No	CF-102
Job No	J-B-CF-101	System	
Assembly		Expense Site	US-A-1
Dept		Cost Center	W/C03
Acct No	7200	Sub Acct No	
From		Part No	
Source Site	US-A-1	On Hand	
Location	1-A-1-3-D	UOM	
Qty	1.0000	UOM Cost	
OH Group			

Internal Material Costs can be accumulated at Project / Job Level by:

1. Issue Part Directly from Inventory to Project / Job
2. Issue Part to WO linked to Project / Job

See EAM Introduction to Inventory for details.

QAD Proprietary EAM-PCP1-380


Our Passion. Your Advantage.

Plan
Approve
Work
Track
Complete

Project Work – Part Costs

Home
Site: US-A-1, Project No: CF-1...

Site
Project No: CF-102

Action
Refresh! Refresh! Refresh!

General
Cost
Customer Funding
Program
Lifetime Budget
User Def

Detail

Orig Estimate	0.0000	Spending Limit	10,000.0000
Auth Spending	10000	Warning Limit	0.0000
Spending Est	0	Planned Purch	2000
Auth Purch	1000	Committed	1675
Bal to Commit	6349.26	% Utilized	36.51
Received	325	Labor Cost	650.74
Int Mtrl Cost	0	Ext Mtrl Cost	325
Cont Cost	0	Tax Cost	0
Manual Cost	0	Total Spent	975.74
Est to Complete	0	Planned Internal	-650.74
Vouchered	0	% Spending Est	0
Over Spend Est	0		

Primary Expense

Expense Site	US-A-1	Dept	
Cost Center	WC03	Acct No	7200
	Work Center 3		Repair & Maintenance

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SDs
- Scheduled Payments POs
- Invoices
- Write Offs

QAD Proprietary
EAM-PCP1-390

Project Work – Purchasing Costs

QAD
Our Passion. Your Advantage.

Plan → Approve → **Work** → Track → Complete

Project Work – Purchasing Costs

Home × Inventory × Projects × Requisitions × Site: US-A-1, Req No: 8 ×

Site: US-A-1 Req No: 8

Action ▾

Detail Expense

General

Description: Project - Rcv Cont Date Requi

Requestor: JKNIGHT JI

Total Cost: 1000

Contractor? ☒

Stock Run No

Home × Inventory × Projects × Requisitions × Site: US-A-1, Req No: 8 ×

Site: US-A-1 Req No: 8

Action ▾

Detail Expense

Charge

W/O No: _____ 0 Stores Req No: _____

Equip No: _____ Rebuild: _____

Serialized Part: _____ Serial No: _____

Project No: CF-102 Job No: J-C-CF-101

Purchasing is linked to Project and Job. Note the importance of the "Contractor?" flag.
See EAM Introduction to Purchasing for Details

QAD Proprietary EAM-PCP1-400

Project Work – Purchasing Costs – Planned, Auth, Committed

Project Work – Purchasing Costs – Planned, Auth, Committed

Site: US-A-1, Project No: CF-102

Refresh! Refresh! Refresh!

Action

General	Cost	Customer Funding	Program	Lifetime Budget	User Def
Detail					
Orig Estimate	0.0000			Spending Limit	10,000.0000
Auth Spending	10000			Warning Limit	0.0000
Spending Est	0			Planned Purch	2000
Auth Purch	1000			Committed	1675
Bal to Commit	6349.26			% Utilized	36.51
Received	325			Labor Cost	650.74
Int Mtrl Cost	0			Ext Mtrl Cost	325
Cont Cost	0			Tax Cost	0
Manual Cost	0			Total Spent	975.74
Est to Complete	0			Planned Internal	-650.74
Vouchered	0			% Spending Est	0
Over Spend Est	0				
Primary Expense					
Expense Site	US-A-1				
Cost Center	WC03				

Requisitions

Track In-Process Purchases at Project and Job Level, based on Requisitions:

- "Planned Purch" = Requisition Created but not yet Approved
- "Auth Purch" = Approved Requisition not yet Ordered
- "Committed" = Approved Requisition that has been Ordered

See EAM Introduction to Purchasing for Details

QAD Proprietary EAM-PCP1-410

Project Work – Purchasing Costs – Received, Ext Mtrl & Cont, Tax

QAD
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Plan → Approve → **Work** → Track → Complete

Project Work – Purchasing Costs – Received, Ext Mtrl & Cont, Tax

Home | Site: US-A-1, Project No: CF-1... | Project No: CF-102

Refresh! Refresh! Refresh!

Action

General | Cost | Customer Funding | Program | Lifetime Budget | User Def

Detail	Orig Estimate	0.0000	Spending Limit	10,000.0000
	Auth Spending	10000	Warning Limit	0.0000
	Spending Est	0	Planned Purch	2000
	Auth Purch	1000	Committed	1675
	Bal to Commit	6349.26	% Utilized	36.51
	Received	325	Labor Cost	650.74
	Int Mtrl Cost	0	Ext Mtrl Cost	325
	Cont Cost	0	Tax Cost	0
	Manual Cost	0	Total Spent	975.74
	Est to Complete	0	Planned Internal	-650.74
	Vouchered	0	% Spending Est	0
	Over Spend Est	0		

Primary Expense
Expense Site: US-A-1
Cost Center: WC03

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions**
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments S/D

Received Purchase Amounts are Divided on Project / Job by:

1. Contractor Costs – designated by "Contractor?" = yes on PO Line
2. External Material Costs – all receipts not marked "Contractor?" = yes
3. Tax Cost – Separated out from Cont/Materials for Capitalization Cost Calculations later

See EAM Introduction to Purchasing for details.

QAD Proprietary

EAM-PCP1-420

Project Work – Purchasing Costs – Vouchered and Paid

QAD
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Plan → Approve → **Work** → Track → Complete

Project Work – Purchasing Costs – Vouchered and Paid

Home x Inventory x Projects x Site: US-A-1, Project No: CF-102

Site: US-A-1 Project No: CF-102

Refresh! Refresh! Refresh!

Action

General | Cost | Customer Funding | Program | Lifetime Budget | User Def

Detail

Orig Estimate 0.0000

Auth Spending 10000

Spending Est 0

Auth Purch 1000

Bal to Commit 6349.26

Received 325

Int Mtrl Cost 0

Cont Cost 0

Manual Cost 0

Est to Complete 0

Vouchered 0

Over Spend Est 0

Primary Expense

Expense Site US-A-1

Cost Center WCO3

Dept

Maintenance

Home x Inventory x Projects x Site: US-A-1, Project No: CF-102

Site: US-A-1 Project No: CF-102

Totals

	Labor	Material	Contract	Manual	Total
Budget					10,000.00
Planned	0.00	0.00	0.00		0.00
Expensed	650.74	325.00	0.00	0	975.74

Spending

Warning

Find

Excel Export Print Add To Favourites New

Planned

Site	Description	Date	Qty	UOM Cost	Qty Returned	Qty Canceled	Invoice Cost	Inv No	Qty Paid
US-A-1	Subcontractor	09/27/2010	125	1	0	0	0	0	0

Commit

% Utilize

Labor Cost 650.74

Ext Mtrl Cost 325

Tax Cost 0

Total Spent 975.74

Planned Internal -650.74

% Spending Est 0

Equipment

Stores Req Lists

Cost Analysis

Annual Budget

Scheduled Payments SDs

Scheduled Payments PDs

Invoices

Write Offs

A/P Costs are pulled from ERP:

1. Vouchered Amount (Invoice entered to ERP.)
2. Cost Analysis provides details of Paid Amounts

QAD Proprietary

EAM-PCP1-430

Project Work – Purchasing Costs – Manual GL Costs

QAD
Our Passion. Your Advantage.

Plan → Approve → **Work** → Track → Complete

Project Work – Purchasing Costs – Manual GL Costs

Home | Site: US-A-1, Project No: CF-1... | Project No: CF-102

Refresh! Refresh! Refresh!

Action

General | Cost | Customer Funding | Program | Lifetime Budget | User Def

Detail	Orig Estimate	0.0000	Spending Limit	10,000.0000
	Auth Spending	10000	Warning Limit	0.0000
	Spending Est	0	Planned Purch	2000
	Auth Purch	1000	Committed	1675
	Bal to Commit	6349.26	% Utilized	36.51
	Received	325	Labor Cost	650.74
	Int Mtrl Cost	0	Ext Mtrl Cost	325
	Cont Cost	0	Tax Cost	0
	Manual Cost	0	Total Spent	975.74
	Est to Complete	0	Planned Internal	-650.74
	Vouchered	0	% Spending Est	0
	Over Spend Est	0		

Primary Expense
Expense Site: US-A-1 | Dept: | Cost Center: WCO3

Manual GL's may also be created in EAM, and can be sent to ERP if desired.
-Freight
-Capitalized Interest

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SDs
- Scheduled Payments PDs
- Invoices
- Write Offs

QAD Proprietary EAM-PCP1-440

Project Work – Job Level Costs



Plan

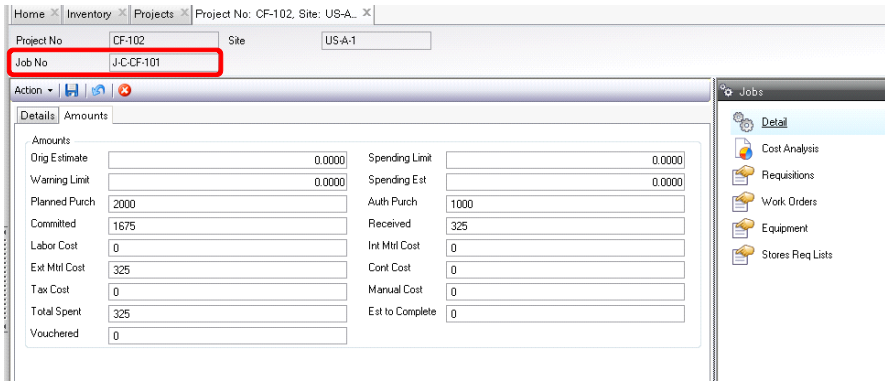
Approve

Work

Track

Complete

Project Work – Job Level Costs



The screenshot shows the QAD Project Work – Job Level Costs interface. At the top, there are tabs for Home, Inventory, and Projects. The Projects tab is active, showing Project No: CF-102 and Site: US-A-1. Below this, the Job No: J-C-CF-101 is highlighted with a red box. The main area displays a table of costs with columns for Details and Amounts. The table includes rows for Orig Estimate, Warming Limit, Planned Purch, Committed, Labor Cost, Ext Mtrl Cost, Tax Cost, Total Spent, Vouchered, Spending Limit, Spending Est, Auth Purch, Received, Int Mtrl Cost, Cont Cost, Manual Cost, and Est to Complete. The right sidebar shows a list of jobs with a 'Detail' button selected.

Note similar Cost tracking at Job Level

QAD Proprietary

EAM-PCP1-450

Project Work – Scheduled Payments and Invoices


Our Passion. Your Advantage.

Plan →
Approve →
Work →
Track →
Complete →

Project Work – Scheduled Payments and Invoices

Home Inventory Projects Site: US-A-1, Project No: CF-102

Site: US-A-1
Project No: CF-102

Action Home Print Refresh Close

General Cost Customer Funding Program Lifetime Budget User Def

Detail

Original Budget: 0

Auth Spending: 10000

Invoice Amt: 0

Write Off Amt: 0

Net Cost To-Date: 975.74

Margin: 0

Spending Limit: 10000

Funded Amt: 0

Reimbursed Amt: 0

Unfunded Amt: 10000

Funded Status: ▼

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SDs
- Scheduled Payments POs
- Invoices
- Write Offs

Throughout the course of the Project's Life A/P and A/R may be scheduled.

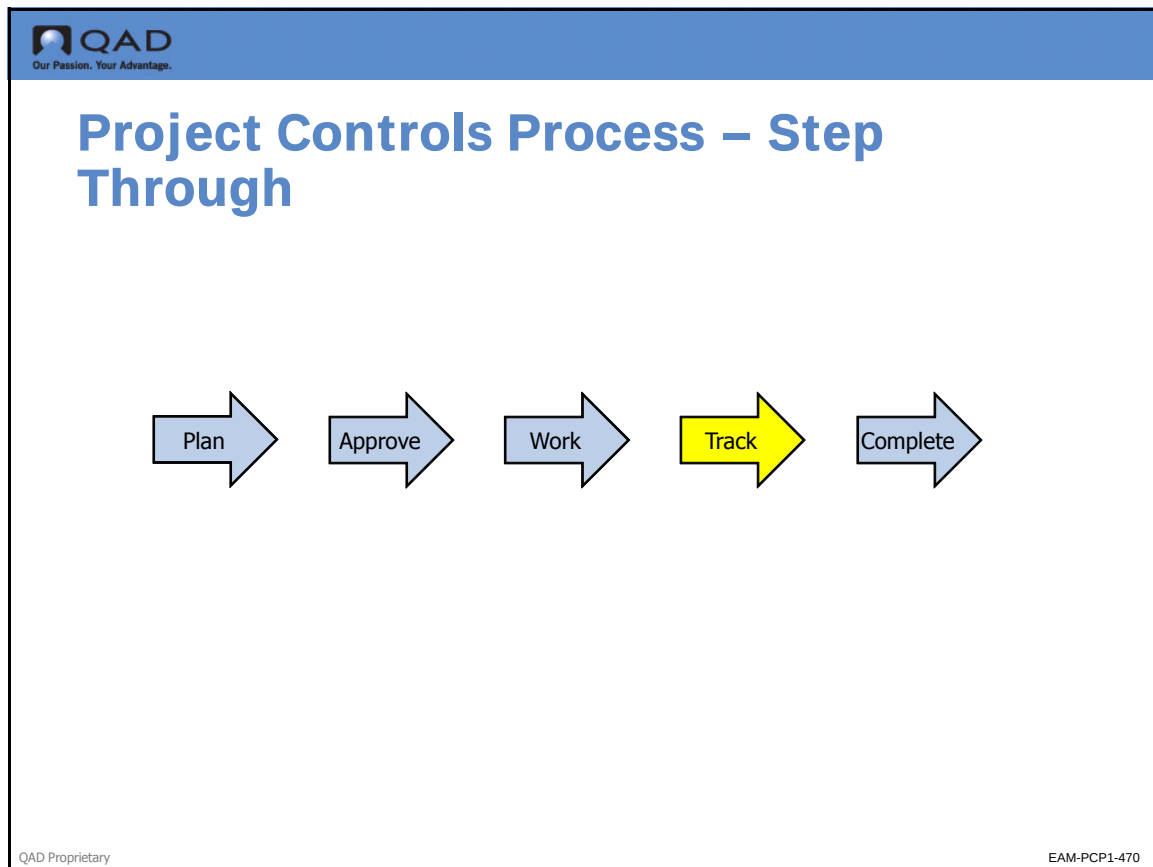
- Setup an Invoice Schedule for Customer Reimbursement
- Setup a Supplier Payment Schedule to graduated payments

See EAM Introduction to Project Controls 2 for more details.

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EAM-PCP1-460



Project Controls Process – Step Through



Project Track – Project Reporting



Project Track – Project Reporting

- ▲ Key Business Requirements around Project Reporting
 - Project Progress
 - Budget to Actual Performance
 - Real-Time Data
- ▲ Typical Approaches
 - Local Project Level Reporting:
 - Custom Browsers / Export to Excel
 - Tabbed Page Views
 - Cost Analysis
 - Standard Reports
 - Consolidated Corporate Reporting:
 - Often combines data from multiple sources
 - Data Warehousing and/or BI Solutions are common

Remember! Most Companies have very specific Project Reporting Requirements.
Your task is to:

1. Understand what data EAM collects
2. Understand what data comes from ERP and other Sources
3. Map Reporting Requirements to EAM, ERP, and other Sources
4. Recommend best approach for reporting on this data

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Project Track – Custom Browsers



Plan

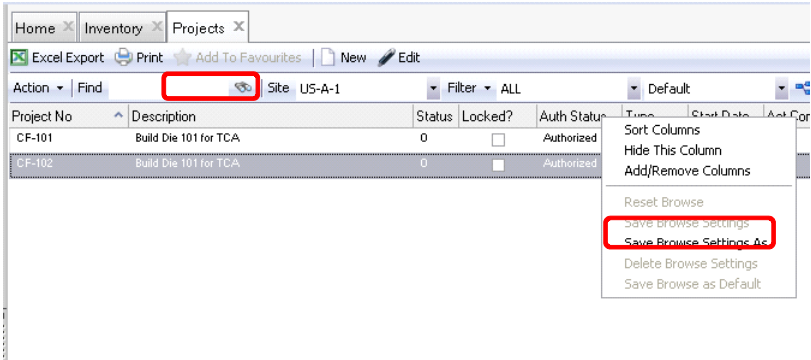
Approve

Work

Track

Complete

Project Track – Custom Browsers



The screenshot shows the QAD Project Track interface. At the top, there's a navigation bar with tabs for Home, Inventory, and Projects. Below the tabs, there's a toolbar with buttons for Excel Export, Print, Add To Favourites, New, and Edit. A search bar is present with the text 'Site US-A-1'. Below the search bar, there's a table with columns: Project No, Description, Status, Locked?, Auth Status, Time, Start Date, and End Date. The table contains two rows: CF-101 and CF-102, both with the description 'Build Die 101 for TCA'. A context menu is open over the table, showing options: Sort Columns, Hide This Column, Add/Remove Columns, Reset Browse, Save Browse Settings, **Save Browse Settings As** (highlighted with a red box), Delete Browse Settings, and Save Browse as Default.

Using the Browse is the most powerful way to report on multiple projects.

Remember characteristics:

- Add / Remove Columns
- Sort
- Group
- Export to Excel

See EAM Introduction to UI for details

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Project Track – Cost Tabbed Page

QAD
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Plan → Approve → Work → **Track** → Complete

Project Track – Cost Tabbed Page

Home × Inventory × Projects × Site: US-A-1, Project No: CF-1... ×

Site: US-A-1 Project No: CF-102

Action ▾

General | **Cost** | Customer Funding | Program | Lifetime Budget | User Def

Detail

Orig Estimate	0.0000	Spending Limit	10,000.0000
Auth Spending	10000	Warning Limit	0.0000
Spending Est	0	Planned Purch	2000
Auth Purch	1000	Committed	1675
Bal to Commit	6349.26	% Utilized	36.51
Received	325	Labor Cost	650.74
Int Mtrl Cost	0	Ext Mtrl Cost	325
Cont Cost	0	Tax Cost	0
Manual Cost	0	Total Spent	975.74
Est to Complete	0	Planned Internal	-650.74
Vouchered	0	% Spending Est	0
Over Spend Est	0		

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Our Passion. Your Advantage.

Plan → Approve → Work → **Track** → Complete

Project Track – Cost Tabbed Page

- ▲ **Original Estimate**
 - A user entered swag value.
- ▲ **Spending Limit**
 - Does not flow up from the jobs spending limit because you may want to have a spending limit for larger jobs and not for smaller jobs.
 - Is a cap for overall spending on the project.
 - EAM stops you if you try and charge over this amount.
 - This value is also the value used for project authorization.
- ▲ **Authorized Spending**
 - The spending limit at the time of authorization. It can differ from the spending limit if the project is in re-routing for project increase.
- ▲ **Warning limit**
 - When the total spent reaches the warning limit, EAM begins to send e-mail to the notify on the project.

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Plan → Approve → Work → **Track** → Complete

Project Track – Cost Tabbed Page, cont.

Home x Inventory x Projects x Site: US-A-1, Project No: CF-1... x

Site: US-A-1 Project No: CF-102

Action ▾ [Icons]

General | **Cost** | Customer Funding | Program | Lifetime Budget | User Def

Detail			
Orig Estimate	0.0000	Spending Limit	10,000.0000
Auth Spending	10000	Warning Limit	0.0000
Spending Est	0	Planned Purch	2000
Auth Purch	1000	Committed	1675
Bal to Commit	6349.26	% Utilized	36.51
Received	325	Labor Cost	650.74
Int Mtrl Cost	0	Ext Mtrl Cost	325
Cont Cost	0	Tax Cost	0
Manual Cost	0	Total Spent	975.74
Est to Complete	0	Planned Internal	-650.74
Vouchered	0	% Spending Est	0
Over Spend Est	0		

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Plan → Approve → Work → **Track** → Complete

Project Track – Cost Tabbed Page, cont.

- ▲ Spending Estimate
 - Comes from the Jobs Spending Estimate. If you have no jobs, then a user can manually enter a value. EAM uses it in reporting.
 - Important Planning / Estimating Tool
- ▲ Total Spent
 - Sum of all cost
- ▲ Estimate to Complete
 - Spending Estimate – total spent

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EAM-PCP1-530

Project Track – Cust Funded Tabbed Page



Plan → Approve → Work → **Track** → Complete

Project Track – Cost Tabbed Page, cont.

- ▲ % Spending Estimate
 - The sites calc spending estimate field (total spent, committed, auth purchase, or planned purch)/spending estimate
- ▲ Over Spend Estimate
 - If no jobs
 - $(\text{Total Spent} - \text{Spending Estimate}) / \text{Spending Estimate}$
 - If job
 - Includes Total spent and estimates fields from completed jobs using the formula above
 - *Note: If less than 0 then that means that less has been spent as estimated*

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Project Track – Cust Funded Tabbed Page


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Plan

Approve

Work

Track

Complete

Project Track – Cust Funded Tabbed Page

Home Inventory Projects Site: US-A-1, Project No: CF-102

Site US-A-1 Project No CF-102

Action Save Print Refresh Close

General Cos Customer Funding Program Lifetime Budget User Def

Detail

Original Budget	Spending Limit
Auth Spending	Funded Amt
Invoice Amt	Reimbursed Amt
Write Off Amt	Unfunded Amt
Net Cost To-Date	Funded Status
Margin	

Detail

Notes

Work Orders

Routing

Expense Accounts

Requisitions

Equipment

Stores Req Lists

Cost Analysis

Annual Budget

Scheduled Payments SOs

Scheduled Payments POs

Invoices

Write Offs

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 QAD


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Plan

Approve

Work

Track

Complete

Project Track – Cust Funded Tabbed Page, cont

Home
 Inventory
 Projects
 Site: US-A-1, Project No: CF-1...

Site: US-A-1
 Project No: CF-102

Action
 [Icons]

General
 Customer Funding
 Program
 Lifetime Budget
 User Def

Detail

Original Budget	0	Spending Limit	10000
Auth Spending	10000	Funded Amt	0
Invoice Amt	0	Reimbursed Amt	0
Write Off Amt	0	Unfunded Amt	10000
Net Cost To-Date	975.74	Funded Status	
Margin	0		

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SOs
- Scheduled Payments POs
- Invoices
- Write Offs

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Plan → Approve → Work → **Track** → Complete

Project Track – Cust Funded Tabbed Page, cont.

Home | Inventory | Projects | Site: US-A-1, Project No: CF-102

Site: US-A-1 Project No: CF-102

Action | [Icons]

General | Cost | **Customer Funding** | Program | Lifetime Budget | User Def

Detail

Original Budget	0	Spending Limit	10000
Auth Spending	10000	Funded Amt	0
Invoice Amt	0	Reimbursed Amt	0
Write Off Amt	0	Unfunded Amt	10000
Net Cost To-Date	975.74	Funded Status	
Margin	0		

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SOs
- Scheduled Payments POs
- Invoices
- Write Offs

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Project Track – Program Tabbed Page

QAD
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Plan → Approve → Work → **Track** → Complete

Project Track – Program Tabbed Page

Home > Inventory > Projects > Site: US-A-1, Project No: CF-1... >

Site: US-A-1 Project No: CF-102

Action ▾

General | Cost | Customer Funding | **Program** | Lifetime Budget | User Def

Detail

Program No		Rev Level	
Reporting ID		Project Title	
Program Type		Asset Life	0
Program Name		Model Year	0
Customer Ref No		End Item Part No	
Description		Cust Business Grp	
DEM		Bill To Customer	
Program Manager		Account Manager	
PG Controller		Program Buyer	
Form Preparer			

- Very Automotive Specific
- Used primarily for filtering and browse reporting

QAD Proprietary EAM-PCP1-580

Project Track – Lifetime Budget Tabbed Page

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Plan

Approve

Work

Track

Complete

Project Track – Lifetime Budget Tabbed Page

Home x
Inventory x
Projects x
Site: US-A-1, Project No: CF-1... x

Site

Project No

Action

General

Cost

Customer Funding

Program

Lifetime Budget

User Def

Original

Orig Budget

Reallocations

+

-

Net

Net Budget

Notes

Work Orders

Routing

Expense Accounts

Requisitions

Equipment

Stores Req Lists

Cost Analysis

Annual Budget

Scheduled Payments S/N

Hint:

Remember User Defined Fields to provide even more fields for "slicing and dicing" project data.

See EAM Introduction to UI for more details

- Calculations based on work in Annual Budget Screen
- Used primarily where costs can be moved from one project to another

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EAM-PCP1-590

Project Track – Cost Analysis

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Plan → Approve → Work → **Track** → Complete

Project Track – Cost Analysis

Home × Inventory × **Projects ×** Site: US-A-1, Project No: CF-1... ×

Site: US-A-1 Project No: CF-102

Totals	Labor	Material	Contract	Manual	Total
Budget					10,000.00
Planned	0.00	0.00	0.00		0.00
Expensed	650.74	325.00	0.00	0	975.74

Labor | **Material** | Contract | Manual

Excel Export Print Add To Favourites New

Find Default

Site	Emp No	Name	Date	Time	Total Cost
US-A-1	JKNIGHT	JIMMY KNIGHT	09/27/2010	0830	215.48
US-A-1	JKNIGHT	JIMMY KNIGHT	09/27/2010	1710	435.26

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Account
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis**
- Annual Report

- Provides transaction level details behind spend

- Also available at Job level

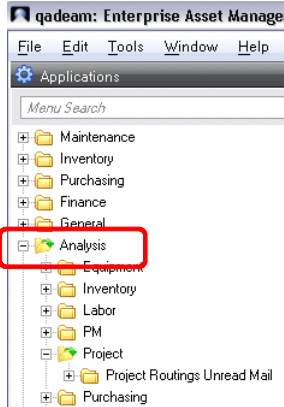
QAD Proprietary EAM-PCP1-600

Project Track – Standard Reports



Plan → Approve → Work → **Track** → Complete

Project Track – Standard Reports



As EAM moves toward “General Availability” Status, Standard operational reports will be added.

These reports can be modified via the EAM Report Developer.

Soon to be delivered: “Project Cost Analysis” Report.

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Project Track – Corporate Consolidation Reporting



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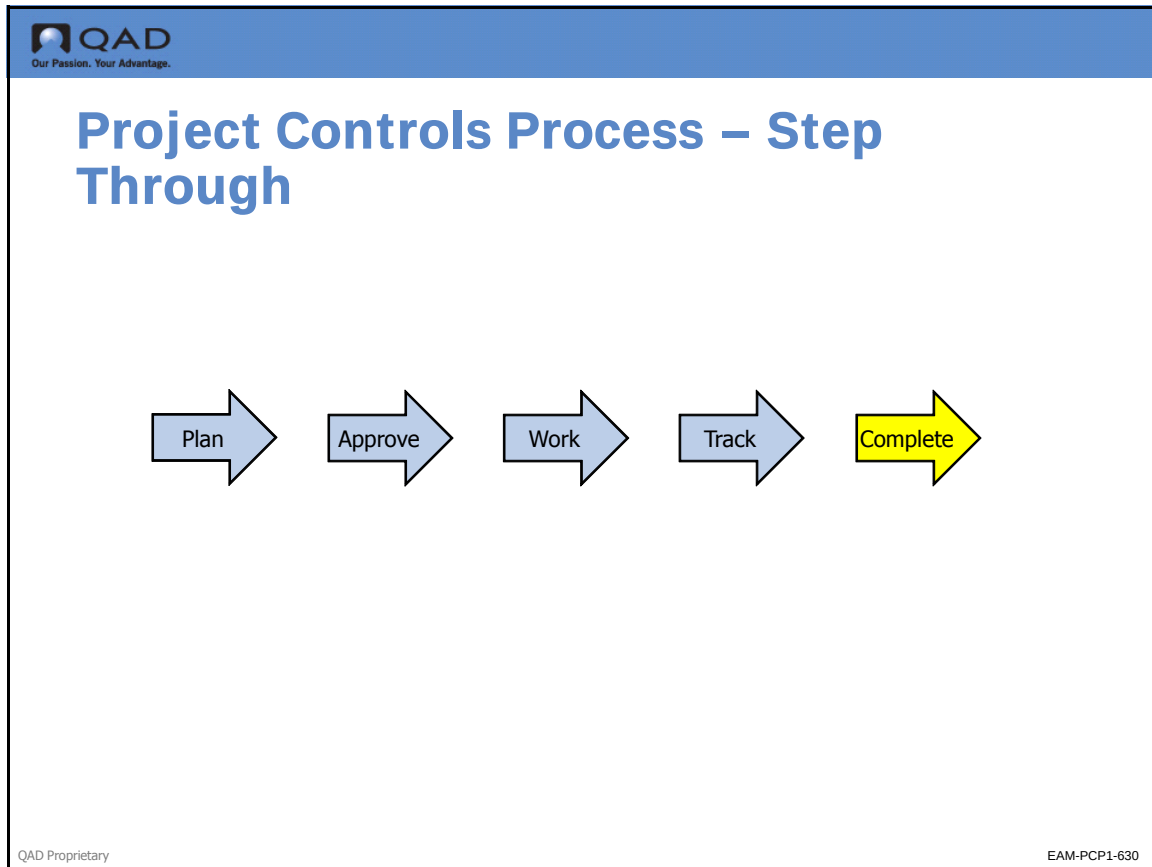


Project Track – Corporate Consolidation Reporting

- ▲ Consolidation of Project Reporting across Sites, Entities, Domains, Databases, and even disparate systems is common.
- ▲ Options to consider:
 - Data Warehousing – Many companies already have a Corporate solution for Data Warehousing
 - BI Solutions
 - QAD BI3
 - Existing Corporate BI solutions
- ▲ A “4GL” type of report is not recommended due to .NET restrictions

QAD Proprietary EAM-PCP1-620

Project Controls Process – Step Through



Project Complete



Project Complete

- ▲ Usually a very formal process involving:
 - Finance (Capitalization, Reconciliation, Final Reporting)
 - Engineering (Hand-off)
 - Operations (Production)
 - Maintenance (BOM, PMs, Inventory)
 - Purchasing (Spare Parts)
- ▲ Lock Job / Process
 - No new costs
 - Allows continued processing of Invoices and Reimbursements
- ▲ Close Process
 - Reconciliation of Costs with Financials
 - Creation of Asset (Capital Projects)

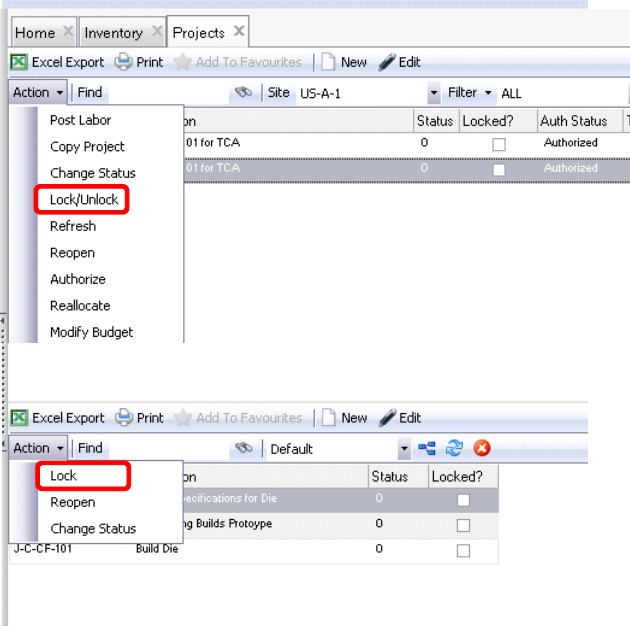
QAD Proprietary EAM-PCP1-640

Project Complete - Lock



Plan
Approve
Work
Track
Complete

Project Complete - Lock



The screenshot shows the QAD Project Manager interface. The top navigation bar includes tabs for Home, Inventory, and Projects. Below the tabs is a toolbar with options like Excel Export, Print, Add To Favourites, New, and Edit. The main area displays a table of projects with columns for Action, Find, Site, US-A-1, Filter, ALL, Status, Locked?, and Auth Status. The 'Lock/Unlock' option is highlighted in the Action menu.

Available at Project and at Job Level

Stops all "new" spend:

- Purchasing
- Labor
- Inventory
- Manual GLs

Allows continued processing of:

- Purchase order Receipts
- PO Payments (A/P)
- Customer Invoicing (A/R)

Usually restricted function:

- Project Manager

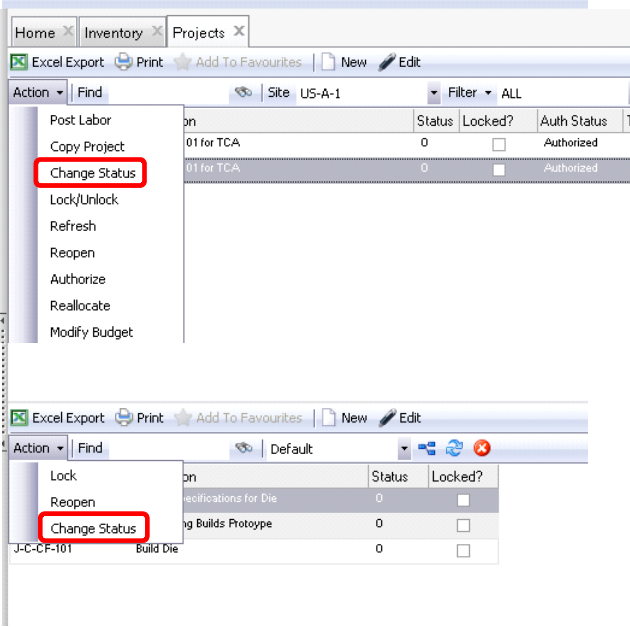
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EAM-PCP1-650

Project Complete - Close



Plan
Approve
Work
Track
Complete

Project Complete - Close



The screenshot shows the QAD Project Controls interface. The 'Action' menu is open, and 'Change Status' is highlighted with a red box. The background table shows project details for '01 for TCA' with a status of '0' and 'Authorized'.

Available at Project and at Job Level

Stops all activity

- Purchasing
- Labor
- Inventory
- Manual GLs
- Receipts
- Payments
- Invoicing

Usually restricted function:

- Finance

“Reopen” is very restricted due to Financial implications (ex: Fixed Assets)

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Review



Review

- ▲ There are four types of projects: capital, expense, customer-funded, and ETO.
- ▲ Set up and modify projects in Finance → Projects.
- ▲ Projects can have multiple layers of Job for more detailed traceability.
- ▲ Purchase receipts, material issues, labor transactions, and other costs such as manual GLs feed to QAD ERP.
- ▲ Track Project Costs in a variety of ways.
- ▲ Lock / Close to Complete Project.

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Practice!



Practice!

- ▲ Review this presentation: "1-8 Introduction to EAM Project Controls Part 1"
- ▲ Utilize the "Level 1 Activities Handbook" for exercises and question related to this presentation
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the "EAM v12 r02" training environment to practice

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
			TOTAL HOURS:	1	0		
			Self-Study to Classroom Percentage:	100%	0%	None	None
EAM Level 1 Certification:							
<i>PREFREQUISITE: EAM Introduction Level Exam Completion</i>		66 hours	Pre-Sales, Support, Services, Customers				
1-TEAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Sched Pay and Reporting	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
			TOTAL HOURS:	26.75	40	6	
			Self-Study to Classroom Percentage:	40%	60%		

Upon Successful Completion of the "1-8 Introduction to Project Controls" Exam, your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Class "1-9 Introduction to Project Controls – Scheduled Payments and Reporting"
2. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

Questions?



Questions?

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at:
 - Nancy Majure nnm@qad.com
 - Sara Suhr uhr@qad.com
- ▲ Utilize <https://training.success6.qad.com/> to access via Self Study the “EAM v12 r02” training environment to practice

Chapter 9

Introduction to EAM Project Controls Part 2

EAM Level 1 Learning Path



EAM Level 1 Learning Path

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction							
EAM Introduction - Position, Qualification, and Competition	Qbit	1 hour	Sales, Pre-Sales, Support, Services	0.75			
EAM Introduction - Exam	On-Line Exam	45 minutes		0.25			
TOTAL HOURS:				1	0		
Self-Study to Classroom Percentage:				100%	0%	None	None
EAM Level 1 Certification:							
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>							
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
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1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Sched Pw and Reporting	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
TOTAL HOURS:				26.75	40	6	
Self-Study to Classroom Percentage:				40%	60%		

You are here!

Which means that before continuing, you should ensure that you have already completed the following pre-requisites:

1. EAM Introduction Level and Exam
2. On-Line Classes 1-1 through 1-8
3. Approximately 6 hours of Required QAD ERP On-Line Classes
4. Approximately 8 hours of Required Reading from the EAM Reading List

HINT: You will find reviewing how Sales Orders and Purchase Orders are processed in the ERP system to be helpful to understanding this class.

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Course Overview



Course Overview

- ▲ Course Objectives and Benefits
- ▲ Business Space
- ▲ Key Concepts
- ▲ Examples
- ▲ Scheduled Payments SO
- ▲ Schedules Payments PO
- ▲ Course Review
- ▲ Next Steps

Course Objectives and Benefits



Course Objectives and Benefits

▲ Objectives

- Understand how the business application for EAM Project Controls Scheduled Payments
- Understand EAM Project Controls Scheduled Payments Key Concepts

▲ Benefits

- An introductory experience with EAM Project Controls Scheduled Payments.
- A familiarity with the EAM Project Controls business space in order to position more effectively the product as a solution.
- You will be prepared to take the next steps in the EAM Level 1 Learning Path towards Certification.

Project Controls - Scheduled Payments


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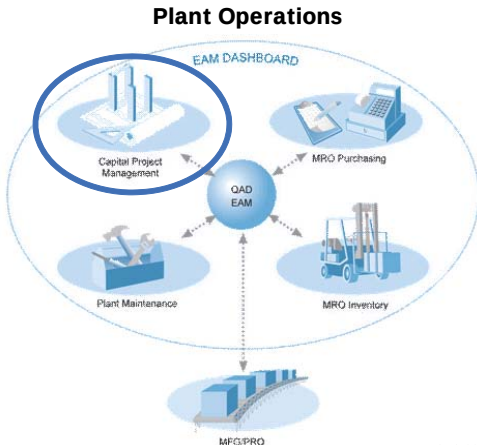
Project Controls - Scheduled Payments

▲ **Goal:** Provide within EAM Project Controls the ability to setup Customer and Supplier Payment Schedules against a Project Budget

- Ensure on-time reimbursements
- Track graduated payments
- Provide cash flow visibility
- Track Project Margin

Scheduled Payments Roles:

- Finance
- Engineering
- Purchasing
- Customers
- Suppliers



The diagram illustrates the 'Plant Operations' EAM Dashboard. At the center is a blue circle labeled 'QAD EAM'. Surrounding it are five functional areas, each with an icon and a label: 'Capital Project Management' (top left, with a building icon), 'MRO Purchasing' (top right, with a calculator and document icon), 'Plant Maintenance' (bottom left, with a wrench icon), 'MRO Inventory' (bottom right, with a forklift icon), and 'MFG/PRO' (bottom center, with a factory icon). Dashed lines connect the central 'QAD EAM' hub to each of these five areas. The entire set of elements is enclosed in a large oval labeled 'EAM DASHBOARD' at the top.

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Use Project Accounting to:

- Manage capital projects to consistently deliver on time and on budget.
- Move new equipment into production as soon as possible.
- Monitor and control spending against the budget or reallocate budgets from one project to another.

Projects is in the Finance module. During a facility's lifespan, Engineering and Maintenance groups manage facility and equipment through improvements, additions, transfers to another facility, and shut down. All of these requirements define a project. Use projects to plan activities and costs, followed by collection of actual costs, from the various actions taken to create equipment.

More information in UG and TG.

Project Controls Scheduled Payments - Key Concepts


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Project Controls Scheduled Payments - Key Concepts

- ▲ Two types of "Scheduled Payments"
 - Customer Reimbursements (common in Customer Funded Projects)
 - Supplier Payments (common in Tooling and ETO Projects, sometimes in Customer Funded, too)
- ▲ Customer Reimbursements
 - Utilize ERP Sales Order (SO)
 - Setup Project Schedule for Reimbursements in EAM
 - Project Manager can signal time to Invoice
 - EAM Screen "Scheduled Payments SO"
- ▲ Supplier Payments
 - Utilize EAM Purchase Order (PO)
 - Setup Schedule for Paying Supplier in EAM
 - Project Manager can signal time to make Payment
 - EAM Screen "Scheduled Payments PO"

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EAM-PCP2-080

During the course of managing today's large projects, companies often require the ability to define and track payment schedules in order to manage cash flow. Sometimes, the customer may be providing reimbursements to defray the cost of a project, or a supplier may agree to a schedule of payments to help them manage the cost of delivering a large asset, such as a custom production tool.

EAM provides functionality to schedule these types of payments from within a Project.

For situations in which a Customer is reimbursing the company, EAM provides the Scheduled Payments SO screen. Prior to defining the reimbursement schedule, though, a Sales Order must be created in the ERP System. That Sales Order provides the link between Project, Invoices, and Reimbursements. From with EAM, the Project Manager can signify when a project has reach a particular milestone at which the Customer has agreed to provide reimbursement. Customer Funded projects rely upon this functionality to track margin and project profitability.

Conversely, during longer term projects, it is common for a Supplier to agree to a graduated payment schedule rather than receiving one final lump sum payment at the end of the project. For example, if a company is using a Subcontractor to install a new product line over 12 months, that Subcontractor would probably wish to receive monthly payments along the way. EAM provides this scheduling and payment capability with the Schedule Payments PO screen. This functionality is based upon an EAM create PO (which is also sent to ERP) to link the Project with Accounts Payable.

In this course, we will explore these two types of scheduled payments at a high level to allow you to understand where this would be used within a business. EAM Level 2 training will go into these functions in much greater detail.

Project Controls Key Concepts – A/P and A/R



Project Controls Key Concepts – A/P and A/R

▲ Accounts Payable

- EAM Project Controls (Purchasing): Processes Purchase Requests through create, approve, order and receive
- ERP Accounts Payable (AP): Processes Payment to Supplier

▲ Accounts Receivable

- ERP Accounts Receivable (AR): Create Sales Order, Receive "Shipment" from EAM, Produce Invoice, Receive Payment
- EAM Project Controls: Releases "Shipment" to signify that an Invoice to Customer should be generated from ERP

Project Controls Scheduled Payments Best Practices Goals



Project Controls Scheduled Payments Best Practices Goals

- ▲ Provide single source of Project Performance tracking, including Customer Reimbursements
- ▲ Ensure on-time Invoicing for Reimbursement based on Project Milestones
- ▲ Track Project Profit Margin
- ▲ Ensure on-time scheduled Payments to Suppliers based upon Project Milestones
- ▲ Provide visibility into all stages of the process

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EAM-PCP2-100

As with all areas of our solutions suite, understanding business best practices supported by them will help to ensure customer success and satisfaction following implementation.

A common issue resolved with EAM Project Controls and more specifically the Scheduled Payments functionality is that historically companies have managed large project (both in scope and cost) utilizing spreadsheets and data collected from a variety of sources. As a result, manually compiling all that information into one report is time consuming, inefficient, and often results in cost overruns and other project issues. Providing a single source of Project Performance tracking is a key best practice.

Because of the historical lack of real-time consolidated data, many companies are often behind in receiving reimbursements which has a direct impact on company cash flow. Being able to monitor and ensure on-time Invoicing and reimbursement receipts is critical.

For customer funded projects, most companies expect to make a profit or at least break-even. Project Profit Margin is the calculation that compares what has been spent on a project versus what has been reimbursed. In many cases, without EAM Project Controls, this figure is often weeks, if not months, old, providing a skewed view of the project's performance. Having real-time, consolidated Project Margin calculations provides the Project Manager with critical data to react before performance becomes a problem.

Also, within today's competitive Supply Chain, a company's relationship with their Suppliers is more integral to success than ever. Suppliers commit to demanding deadlines, often dealing with their own supplier challenges. In order to keep the carefully choreographed dance of supply chain management, companies must ensure their good relationship by paying their Suppliers on-time in accordance with contractual agreements. This is essential to the health of the Supply Chain.

Finally, as discussed, historically Project Manager's data regarding their project's performance has been manually collated from multiple sources and was often weeks or months old. Having real-time visibility to project performance at all stages of a project's life is crucial to the Project Manager's being able to make key business decisions to keep their project on track, on time, and on budget.

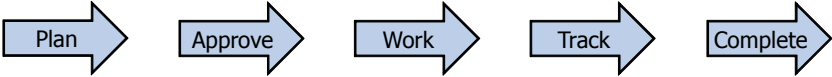
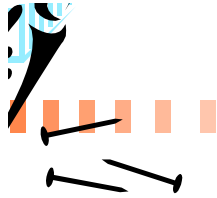
Project Controls – Personal Example



Project Controls – Personal Example

You have bought new property and are now ready to begin constructing a new home for your family.

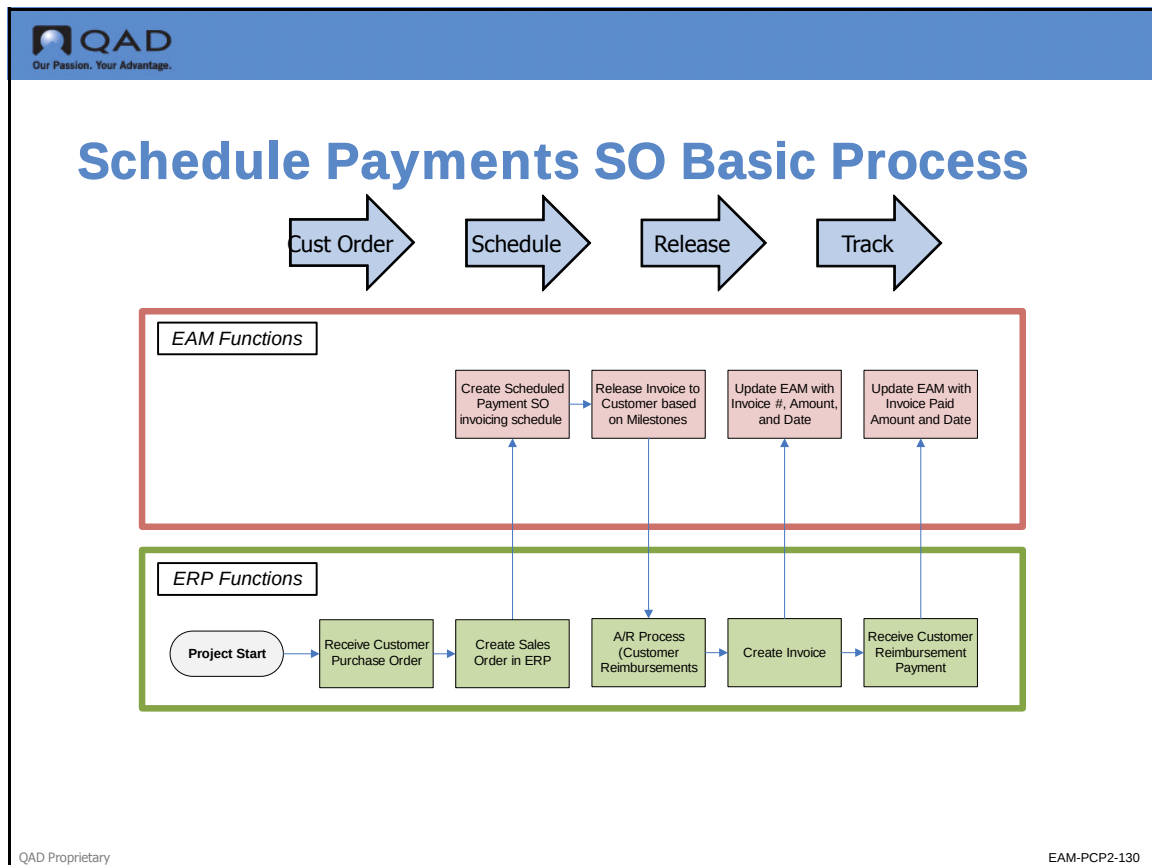
What part of this process could relate to “Customer Reimbursement”?



QAD Proprietary EAM-PCP2-120

Consider Construction Loans where funds are provided to you based upon in which stage of completion you are.

Schedule Payments SO Basic Process



Each company will have their own specific versions of the Scheduled Payments process, but it is important to understand the high-level work flow inherent in any Customer Reimbursement process.

In this area, more so than others in EAM, you must understand the steps that take place outside of EAM (in the QAD ERP System). The ERP Sales Order Process is integral to the overall processing of customer reimbursement in EAM, as is the Accounts Receivable processes.

This class will address only the EAM specific portions of this process. EAM Level 2 training will provide more details regarding the ERP functions. For your own understanding of these functions, you will benefit from exploring QAD ERP on-line classes regarding Sales Order processing and Account Receivable.

Scheduled Payments SO

Scheduled Payments SO

NOTE: Process in EAM picks up with the "Schedule" step of the work flow . . .

Home | Inventory | Projects | Site: US-A-1, Project No: CF-102

Site: US-A-1 Project No: CF-102

Action: [Icons]

General | Cost | Customer Funding | Program | Lifetime Budget | User Def

Detail

Description: Build Die 101 for TCA

Start Date: (none) Est Comp Date: (none)

Rev Comp Date: (none) Act Comp Date:

Expense Type: Capital Status: 0

Funding Type: Company Funded

Codes

Bus Segment: Assigned:

Notify: Owner:

Type:

Tax

Taxable? Tax Code:

Projects

Detail

Notes

Work Orders

Routing

Expense Accounts

Requisitions

Equipment

Stores Req Lists

Cost Analysis

Annual Budget

Scheduled Payments SOs

Scheduled Payments POs

Navigate to "Scheduled Payments SO" from the Project

QAD Proprietary EAM-PCP2-150

The Scheduled Payments SO (Customer Reimbursement) process begins in EAM after the Customer Order has been received and setup in ERP as a Sales Order. The Sales Order is usually created by Customer Service.

Our EAM functions then pick up with step 2 of the high-level process – Schedule

To create the reimbursement schedule, navigate to the desired Project in EAM. Then, select Scheduled Payments SO from the list on the right hand side of the screen.

Scheduled Payments SO - Schedule



Cust Order

Schedule

Release

Track

Scheduled Payments SO - Schedule

Home
Inventory
Projects
Site: US-A-1, Project No: CF-1...

Site: US-A-1
Project No: CF-102

Excel Export
Print
Add To Favourites
New
Undo

Action
Find
Default

SO Pay No	SO No	SO Line No	Job No	SO Line Amount	Percent	Est PPAP Date	Act PPAP Date	Due Date	Est Inv Date	Complete?	Cust PO No
1	SO12345	1	J-B-CF-101	0	20	10/11/2010		10/17/2010		☐	
2	SO12345	1	J-B-CF-101	0	50	11/28/2010		12/04/2010		☐	
3	SO12345	1	J-B-CF-101	0	30	02/14/2011		02/25/2011		☐	

- ▲ SO No and Line selected from ERP
- ▲ Setup Payment Schedule per Contract (Note how flexible!)
 - May have one SO/Line to Multiple Payments
 - May have multiple SO's/Line's to Multiple Payments
 - Can base upon Percentage of value or Amount
 - Can setup milestone dates (PPAP) and "Due Dates" for the Invoice

QAD Proprietary
EAM-PCP2-160

The EAM Scheduled Payments SO Screen is designed to be very flexible, but as a result, it can be quite confusing at first. (For example, if you right click on the browse and select Add / Remove Columns you will see that there are many more fields available than are readily viewable on the screen.)

Scheduled Payments SO - Release

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Cust Order Schedule **Release** Track

Scheduled Payments SO - Release

Home Inventory Projects Site: US-A-1, Project No: CF-102

Site: US-A-1 Project No: CF-102

Excel Export Print Add To Favourites New Undo

Action Find Default

SU Pay No	SD No	SD Line No	Job No	SD Line Amount	Percent	Est PPAP Date	Act PPAP Date	Due Date	Est Inv Date	Complete?	Dist PO No
1	SO12345	1	J-B-CF-101	0	20	10/11/2010		10/17/2010		☐	
2	SO12345	1	J-B-CF-101	0	50	11/28/2010		12/04/2010		☐	
3	SO12345	1	J-B-CF-101	0	30	02/14/2011		02/25/2011		☐	

QAD Proprietary EAM-PCP2-170

- ▲ Mark Line "Complete?" = yes when time to Invoice
 - Note: One of the few browse level updateable check-boxes in EAM.
- ▲ Select Action → SO Ship
- ▲ EAM Releases this quantity against the ERP Sales Order
- ▲ Accounts Receivable Generates Invoice to Customer

Throughout the course of a Project, the Project Manager is responsible for signalling that a particular milestone has been reached and that the customer should now be invoiced for a reimbursement payment.

In the past, the Project Manager would have to manually contact Accounts Receivable and ask for an invoice to be generated. This often led to missed reimbursements and slow cash flow.

Now, in EAM, the Project Manager can start the process himself by releasing a payment line.

To release a payment line simply:

- Click the Complete? box on the payment line.
- Select Action ? SO Ship

This will generated a SO Ship transaction to ERP, which then signals A/R to generate and invoice.

Note This is a memo shipment, not an actual shipment of goods.

Scheduled Payments SO - Track

Scheduled Payments SO - Track

Home > Inventory > Projects > Site: US-A-1, Project No: CF-1...

Site: US-A-1 Project No: CF-102

Excel Export Print Add To Favourites New Undo

SO Pay No	SO No	SO Line No	Job No	SO Line Amount	Percent	Est PPAP Date	Act PPAP Date	Due Date
1	SO12345	1	J-B-CF-101	0	20	10/11/2010		10/17/2010
2	SO12345	1	J-B-CF-101	0	50	11/28/2010		12/04/2010
3	SO12345	1	J-B-CF-101	0	30	02/14/2011		02/25/2011

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accr
- Requisitions
- Equipment
- Stores Req List
- Cost Analysis
- Annual Budget
- Scheduled P
- Scheduled P
- Invoices

Two ways to track Reimbursements:

1. On Project's Detail
2. On Invoice Screen

QAD Proprietary EAM-PCP2-180

Once a payment line is released, the Project Manager can track progress of the reimbursement directly from within EAM. Historically, Project Managers have had to depend upon verbal or email communications from A/R to get data regarding reimbursements, but now, the PM automatically receives updates, consolidated onto his particular project.

EAM provides two levels of views for the Project Manager to track progress:

- On the Project Detail's Customer Funded tabbed page, EAM displays the totals of what has been promised, invoiced, and received.
- On the Invoice Screen, EAM provides individual invoice tracking.

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Cust Order → Schedule → Release → Track

Scheduled Payments SO – Track, cont.

Home x Inventory x Projects x Site: US-A-1, Project No: CF-1 ... x

Site US-A-1 Project No CF-102

Action [Icons]

General Cost **Customer Funding** Program Lifetime Budget User Def

Detail

Original Budget	0	Spending Limit	10000
Auth Spending	10000	Funded Amt	0
Invoice Amt	0	Reimbursed Amt	0
Write Off Amt	0	Unfunded Amt	10000
Net Cost To-Date	975.74	Funded Status	
Margin	0		

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Acco
- Requisitions
- Equipment

▲ From Project Detail “Customer Funding” tabbed page view:

- Invoice Amount (Total for Project)
- Reimbursed Amount (Total for Project)
- Margin (Profit made to-date on Project based on cost and reimbursed amounts)

QAD Proprietary EAM-PCP2-190

To view overall reimbursement process, select the Customer Funding tabbed page on the Project’s detail screen.

The following fields are important measures:

- **Funded Amount:** This is the total amount of SO / SO Line funding represented on the Scheduled Payments SO screen.
- **Invoice Amount:** Represents the total value of all invoices generated to the customer so far on this project.
- **Reimbursed Amount:** Represents the total of all reimbursements received to-date on the project.
- **Write Off Amount:** This value comes from the Write-Offs screen. Many companies wish to track if something has happened during a project that will (a) increase the cost of the project, but (b) the customer will not fund. Examples of write-offs could be sudden fluctuations in currency exchange, large increases in raw material costs, design errors, or just a general consensus with the customer regarding portions of the project they will not fund. This write-off amount is used to determine the Unfunded Amount.
- **Unfunded Amount:** This is the difference between the project’s Spending Limit minus the Funded Amount minus the Write-Off Amount. Many companies target having a 0 amount in this field to ensure all costs are accounted for either in funding or in write-offs.
- **Net Cost To-Date:** Represents the difference between what the project has cost verses what has been reimbursed to-date.
- **Funded Status:** User selectable field, utilized for filtering and reporting.

- Margin: Represents the profit margin of the project.


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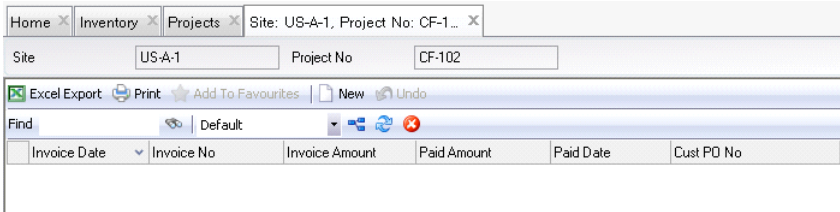
Cust Order

Schedule

Release

Track

Scheduled Payments SO – Track, cont.



▲ From Project “Invoices” screen view:

- Each Individual Invoice that makes up total Invoiced
- Invoice Date for Each
- Invoice Amount for Each
- Paid Amount and Date for Each
- Reference to Customer PO for each

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EAM-PCP2-200

For a more detailed view of Invoice progress, select the Invoices option from the list on the right-hand side of the desired Project’s detail screen.

The Invoices screen provides a list of each Invoice generated to-date for this Project, its Invoice No and Amount, as well as information regarding reimbursement amount and date received.

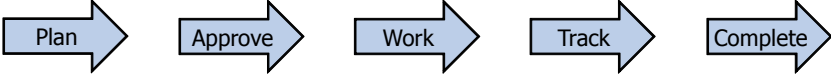
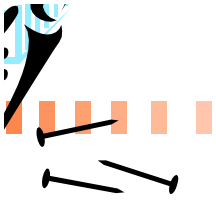
Project Controls – Personal Example


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Project Controls – Personal Example

You have bought new property and are now ready to begin constructing a new home for your family.

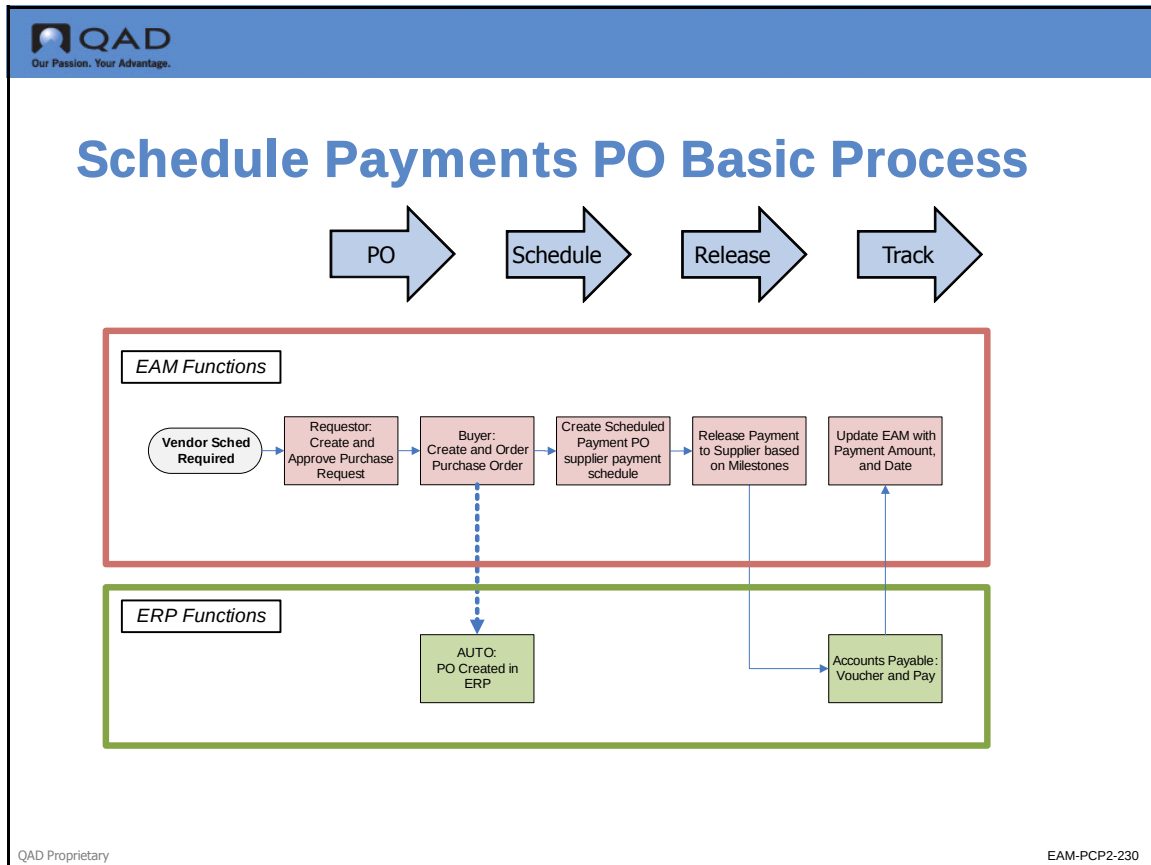
What part of this process could relate to “Supplier Scheduled Payments”?



QAD Proprietary EAM-PCP2-220

Consider milestone based payments to the Contractor overseeing your project. Perhaps there is a portion paid up-front, and then other graduated payments as the house building progresses, with a final payment upon final inspection and acceptance of the completed house.

Schedule Payments PO Basic Process



As with Reimbursements, each company will have their own specific versions of scheduling payments to suppliers. Also, with scheduled supplier payments, it is important to understand the high-level work flow inherent in the whole Accounts Payable Process.

In this area, there are also steps that take place outside of EAM (in the QAD ERP System). The ERP Accounts Payable Process is integral to the overall traceability of monies going out to Suppliers.

This class will address only the EAM specific portions of this process. EAM Level 2 training will provide more details regarding the ERP functions. For your own understanding of these functions, you will benefit from exploring QAD ERP on-line classes regarding Purchase Order processing and Accounts Payable.

Scheduled Payments PO – Order



PO

Schedule

Release

Track

Scheduled Payments PO – Order

- ▲ For Supplier Payments Process, the Order originates in EAM
- ▲ Create a Purchase Order against the Project / Job following standard EAM Purchasing steps (See EAM Introduction to Purchasing)
- ▲ Format of PO can be flexible
 - Some companies elect to setup on PO Line item for each Payment (provides better Cash Flow visibility, but more upfront work)
 - Some companies will only create one line item to represent the total cost of the work

QAD Proprietary EAM-PCP2-250

For scheduled Supplier Payments, the process starts with the creation of an EAM Purchase Order. As with the Sales Order, the EAM Purchase Order can either contain one large line or separate lines representing each milestone payment.

You should have already learned in the Introduction to EAM Purchasing how an EAM Purchase Order is created. The primary difference to note is that with Project related Purchase Orders, the order must reference the desired Project / Job.

Also, as with the reimbursement process, the Scheduled Supplier Payments can reference one or more Purchase Orders as desired.

Scheduled Payments PO

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PO → **Schedule** → Release → Track

Scheduled Payments PO

Home > Inventory > Projects > Site: US-A-1, Project No: CF-102

Site: US-A-1 Project No: CF-102

Action ▾

General Cost Customer Funding Program Lifetime Budget User Def

Detail

Description: Build Die 101 for TCA

Start Date: (none) Est Comp Date: (none)

Rev Comp Date: (none) Act Comp Date:

Expense Type: Capital Status: 0

Funding Type: Company Funded

Codes

Bus Segment: Assigned:

Notify: Owner:

Type:

Tax

Taxable? Tax Code:

Projects

- Detail
- Notes
- Work Orders
- Routing
- Expense Accounts
- Requisitions
- Equipment
- Stores Req Lists
- Cost Analysis
- Annual Budget
- Scheduled Payments SO's
- Scheduled Payments PO's**

QAD Proprietary EAM-PCP2-260

Navigate to "Scheduled Payments PO" from the Project

To create a Supplier Payment Schedule, select the Scheduled Payments PO option on the right hand side of the screen for the desired Project.

Scheduled Payments PO - Schedule



PO

Schedule

Release

Track

Scheduled Payments PO - Schedule

Home Inventory Projects Site: US-A-1, Project No: CF-1...

Site:
Project No:

Excel Export Print Add To Favourites New Undo

Action ▾ Find
Default

Vendor Pay No	Req No	Item	PO No	Job No	Total Cost (B)	Percent	Complete?	Due Date
1	7	0	10002	J-C-CF-101	0	20	☐	10/23/2010
2	7	0	10002	J-C-CF-101	0	50	☐	11/30/2010
3	7	0	10002	J-C-CF-101	0	30	☐	02/27/2011

- ▲ Requisition selected from EAM Lookup – brings in PO and Job #
- ▲ Setup Payment Schedule per Contract
 - May have one PO/Line to Multiple Payments
 - May have multiple PO's/Line's to Multiple Payments
 - Can base upon Percentage of value or Amount
 - Can setup milestone dates (PPAP) and "Due Dates" for the Payment

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EAM-PCP2-270

Creating a schedule of Supplier Payments is similar to the creation of reimbursement payments, except in this case we reference a Purchase Order and its Requisitions.

The Vendor Pay No represents the order in which the payments to the Supplier are expected to be made.

Scheduled Payments PO - Release



PO

Schedule

Release

Track

Scheduled Payments PO - Release

Home Inventory Projects Site: US-A-1, Project No: CF-1...

Site: US-A-1
Project No: CF-102

Excel Export Print Add To Favourites New Undo

Action

Find

Default

Vendor Pay No	Req No	Item	PO No	Job No	Total Cost (B)	Percent	Complete?	Due Date
1	7	0	10002	J-C-CF-101	0	20	☐	10/23/2010
2	7	0	10002	J-C-CF-101	0	50	☐	11/30/2010
3	7	0	10002	J-C-CF-101	0	30	☐	02/27/2011

- ▲ Mark Line "Complete?" = yes when time to pay Supplier
 - Note: One of the few browse level updateable check-boxes in EAM.
- ▲ Select Action → Complete Payment
- ▲ EAM process a PO Receipt for this quantity
- ▲ Accounts Payable Generates Payment to Supplier

QAD Proprietary
EAM-PCP2-280

Releasing a line for payment is also very similar to the reimbursement process, except in this case, rather than generating a SO Ship record to ERP, the release generates a purchase order receipt transaction to ERP.

Scheduled Payments PO - Track

Scheduled Payments PO - Track

Home | Inventory | Projects | Site: US-A-1, Project No: CF-1... | X

Site: US-A-1 | Project No: CF-102

Totals	Labor	Material	Contract	Manual	Total
Budget					10,000.00
Planned	0.00	0.00	0.00		0.00
Expensed	650.74	325.00	0.00	0	975.74

Excel Export | Print | Add To Favourites | New

Find: Default

Site	Description	Date	Qty	Received	Invoice Cost	Qty Paid	UOM Cost	Total Cost
US-A-1	Subcontractor	09/27/2010	200	0	0	0	1	200
US-A-1	Subcontractor	09/27/2010	125	0	0	0	1	125

From Project Cost Analysis Screen view:

- Amount Released to Pay (Received column)
- Invoice Cost
- Qty Paid when payment processed

NOTE: You will have to Add/Remove Columns to see this view

QAD Proprietary EAM-PCP2-290

Tracking payments to Suppliers differs from the tracking found in the reimbursement process.

The Project Manager can view the Vouchered amount from the Project's Cost tabbed page, but for a detailed view of what has actually been paid to the Supplier, utilize the Project's Cost Analysis screen.

EAM is not delivered showing the Invoice information by default on the Cost Analysis screen, so you will have to configure this browse to include Invoice data as desired.

Review



Review

- ▲ Two types of Scheduled Payments:
 - Customer Reimbursements (Scheduled Payments SO)
 - Supplier Scheduled Payments (Scheduled Payments PO)
- ▲ Customer Reimbursements
 - Require ERP Sales Order
 - Can be viewed on “Customer Funding” tabbed page or Invoice screen
 - Works with Accounts Receivable
- ▲ Supplier Scheduled Payments
 - Use Purchase Order created in EAM
 - Can be viewed on “Cost Analysis” screen as paid
 - Works with Accounts Payable
- ▲ Both scheduling options provide flexibility in how SO/PO are set up

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EAM-PCP2-310

Practice!



Practice!

- ▲ [insert instructions for logging into training success / demo center]
- ▲ Use these slides to walk through the EAM demo center version [insert link for copy of this ppt]
- ▲ [insert link for copy of helpful work instructions]
- ▲ [insert link for practice scripts]
- ▲ [insert link for Training Guide for reference]

EAM Level 1 Learning Path – Next



EAM Level 1 Learning Path – Next

EAM Certification Levels Content				EAM Training Hours		ERP Train	Role Based
Certification Levels - Elements	Format	Duration	Target Audience	Self-Study	Classroom	Hours	Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction - Position, Qualification, and Competition	Qbit	45 minutes		0.75			
EAM Introduction - Exam	On-Line Exam	15 minutes		0.25			
TOTAL HOURS:				1	0		
Self-Study to Classroom Percentage:				100%	0%	None	None
EAM Level 1 Certification:							
		66 hours	Pre-Sales, Support, Services, Customers				
<i>PREREQUISITE: EAM Introduction Level Exam Completion</i>							
1-1 EAM Level 1 Training Introduction	Q-Bit	15 minutes		0.25			
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Class	6 hours				6	
1-2 EAM Overview	On-Line Class	1 hour		1			
EAM Reading List	Reading	1 day		8			
1-3 EAM UI Introduction	On-Line Class	30 minutes		0.5			
1-4 EAM Configuration Introduction	On-Line Class	30 minutes		0.5			
1-5 Introduction to Maintenance	On-Line Class	30 minutes		0.5			
1-6 Introduction to Inventory	On-Line Class	30 minutes		0.5			
1-7 Introduction to Purchasing	On-Line Class	30 minutes		0.5			
1-8 Introduction to Project Controls 1	On-Line Class	30 minutes		0.5			
1-9 Introduction to Project Controls 2: Sched Plan and Reporting	On-Line Class	30 minutes		0.5			
EAM Level 1 Training Guide	Reading	1 day		8			
Pre-Classroom Exam							
1-10 EAM Level 1 Training Class (3.5 days App, 1 day Case Study)	Classroom	4.5 days			36		
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4		
TOTAL HOURS:				26.75	40	6	
Self-Study to Classroom Percentage:				40%	60%		

Upon Successful Completion of the "1-9 Introduction to Project Controls Part 2" Exam, your next steps will include the following to lead up to our APICS-style Level Certification Class

1. Reading of the EAM Level 1 Training Guide

Prior to acceptance into the EAM Level 1 Certification Class, you must pass a "Pre-Certification Exam" to validate your learning from these classes and reading selections.

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EAM-PCP2-340

Questions?



Questions?

- ▲ The Product Unit Field Readiness Team is here to support you!
- ▲ Contact us at: [fieldreadiness@qad.com]
- ▲ Also, check on the EAM Forum

Learning Validation



Learning Validation

▲ (see separate xls)

