Training Guide

QAD Enterprise Asset Management

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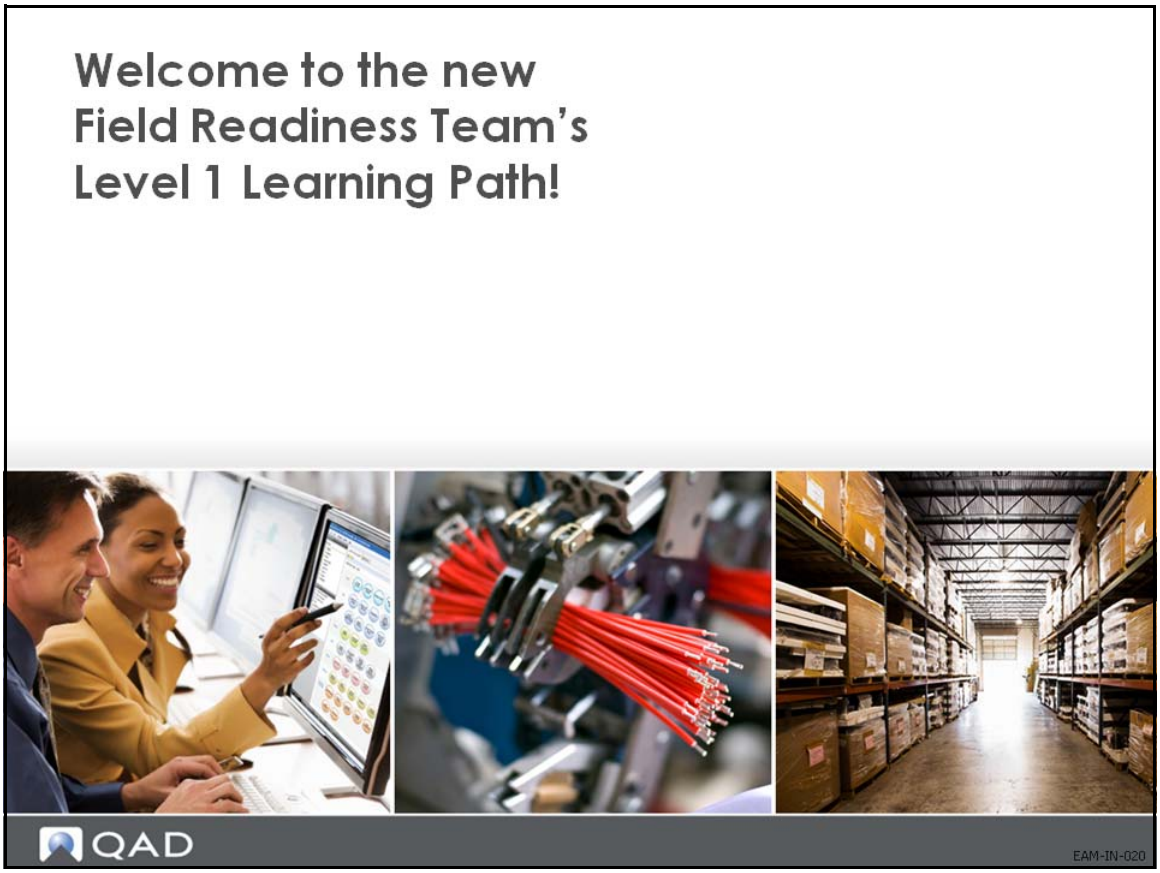
Chapter 1

Introduction to Enterprise Asset Management Training

Educational Approach



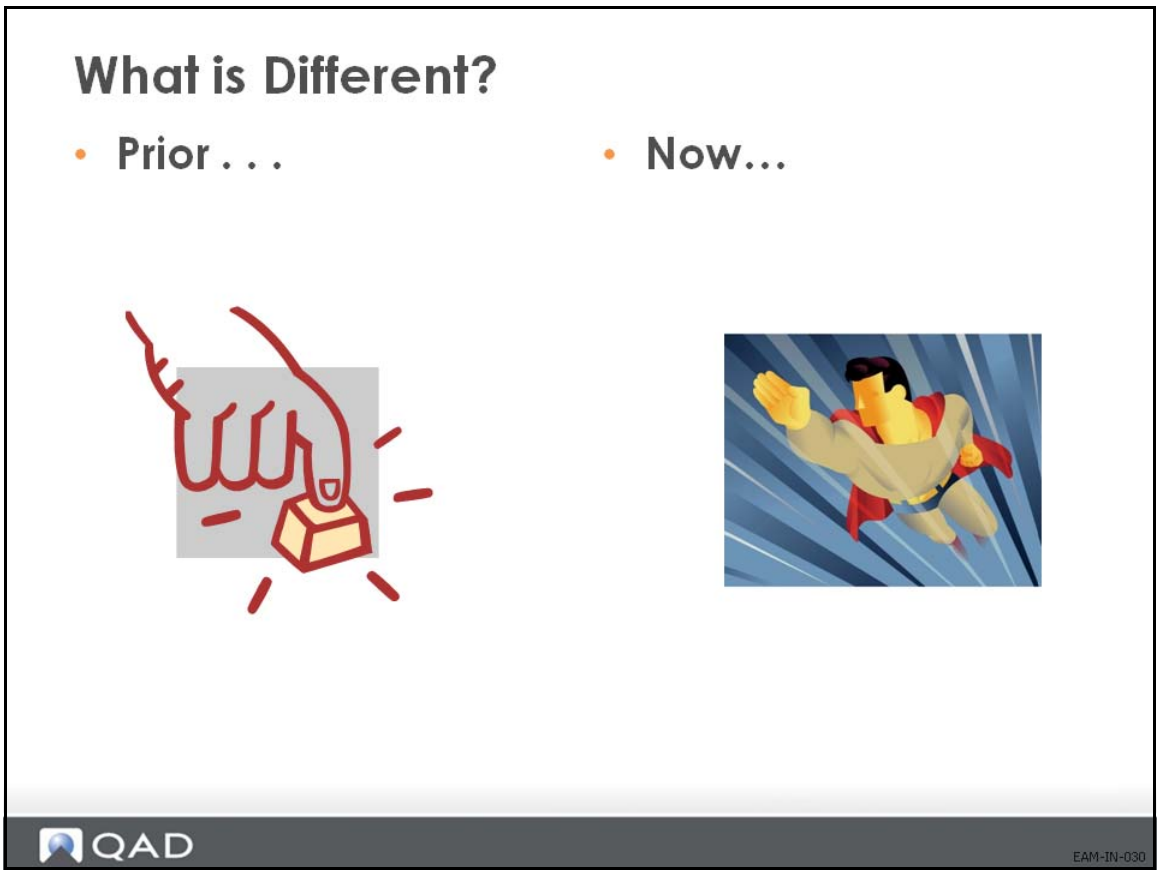
Welcome



Congratulations on your embarking upon your EAM Level 1 Certification. This class is the first step on the journey. During our time together in this session, we will discuss why certification is important, what is involved with obtaining your EAM Level 1 Certification, and what certification means for you. Then, we will review the learning path that will take you to EAM Level 1 Certification.

Field Readiness is a team created within QAD to provide Subject Matter Experts (SME's) to assist with mentoring and developing specialized resources around various products in our QAD suite of solutions. This team is responsible for providing guidance and advice to resources as they begin to sell, service or support these products.

Differences

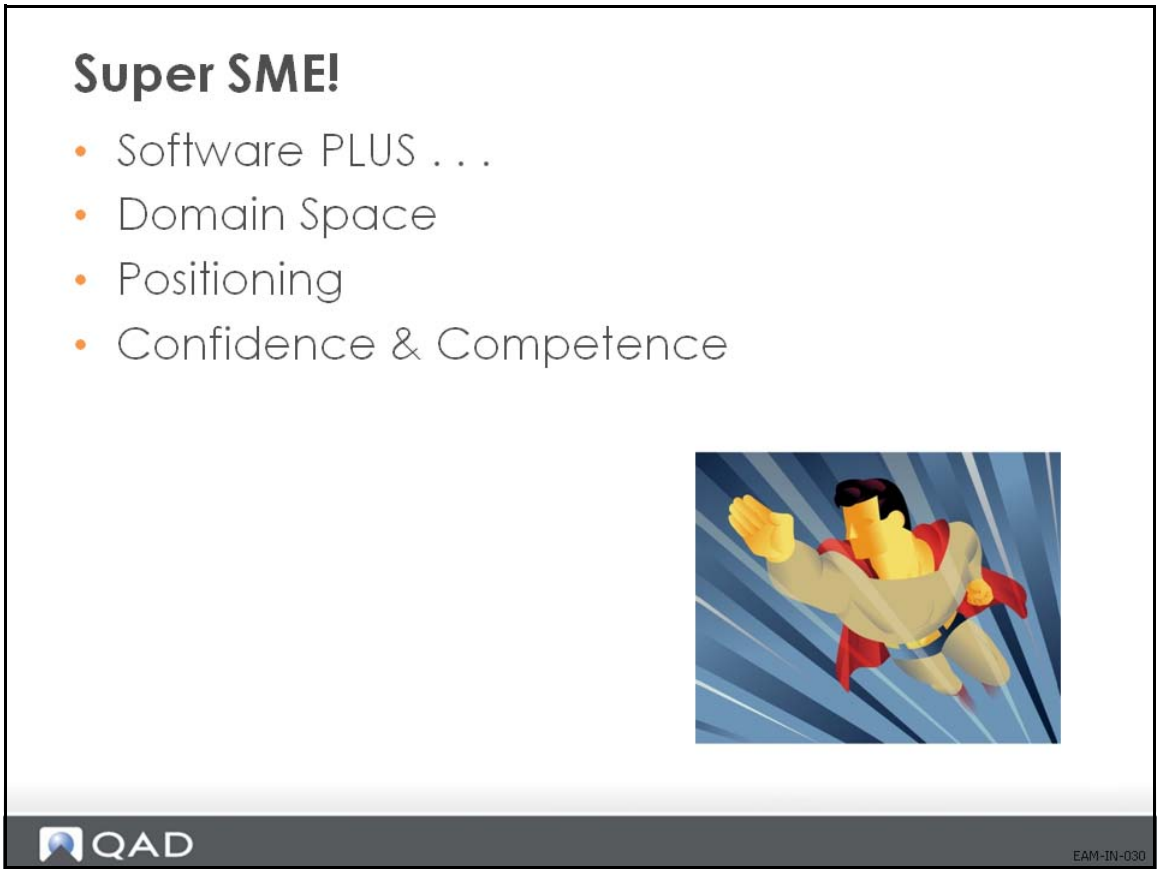


In the past, much of our training has focused heavily on software usage. While providing efficient transactional experience, that approach did not necessarily develop “solution design” expertise that would allow the student to become a true trusted advisor around business improvement.

With the focus in our QAD organization on developing well-rounded prescriptive resources, the Field Readiness team has developed this new Education Approach which is being piloted with some of our non-core product modules, such as EAM, WMS, DM, and BI3.

Our goal is to develop Subject Matter Experts, SME’s, to lead the charge towards a sustainable customer-focused, solutions-oriented, best-practice approach to positioning, implementing, and supporting our product suite.

Super Subject Matter Expert

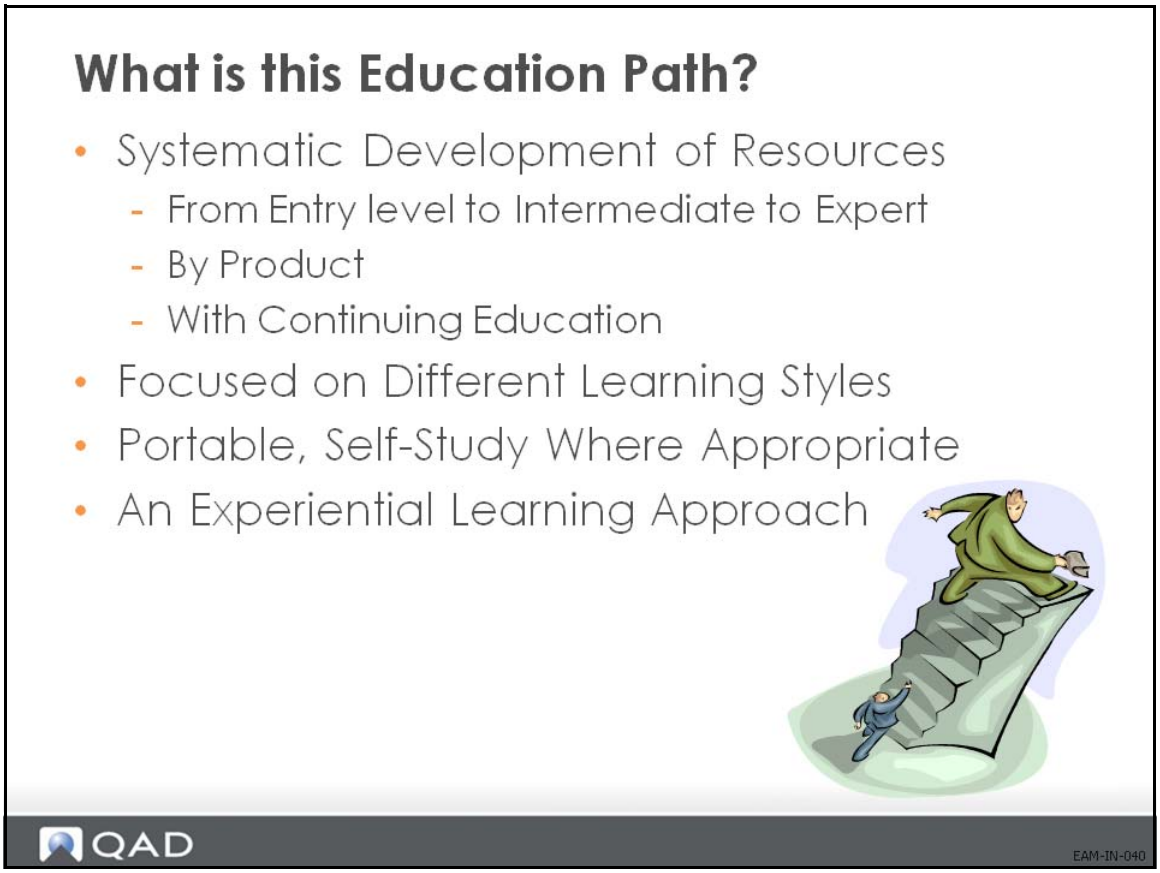


To develop “Super-SME’s” we have to address more than just how to push buttons on a keyboard. In addition to knowing the software, a SME must truly understand:

- Domain Space – Each product in our suite addresses a particular “Domain Space” for our customers. Domain Space represents the combination of business requirements, best practices, and industry standards / trends that influence a company’s financial and business success. For example, the EAM business space is very different from the business space of the core ERP product – it has different users, different functions, and different areas of focus within business. Understanding that domain space is critical to proper understanding of a an actual software solution. Ask yourself, “WHY would someone want to use x?” and if you can answer that question you are well on your way to understanding the Domain Space.
- Positioning – Positioning is the skill and confidence to translate business requirements into a solution that will meet those needs. Positioning does require knowledge of the software, but it also requires the soft-skills and business knowledge to effectively present a solution proposal. If one does not understand the software and the domain space it occupies, one can certainly not effectively position a solution.
- Confidence & Competence – These are tied closely together. We are not likely to feel confident in positioning a solution if we do not feel a certain level of competence in speaking of that solution and understanding where that solution fits in a business.

Becoming a Super-SME requires a combination of all these skills, and the Level 1 education program is designed to lay the necessary foundations to get you there.

Education Path



The entire education path (Intro, Level 1 and Level 2) is designed to be able to systematically train and equip resources from the very first “entry level” experience all the way through to SME status.

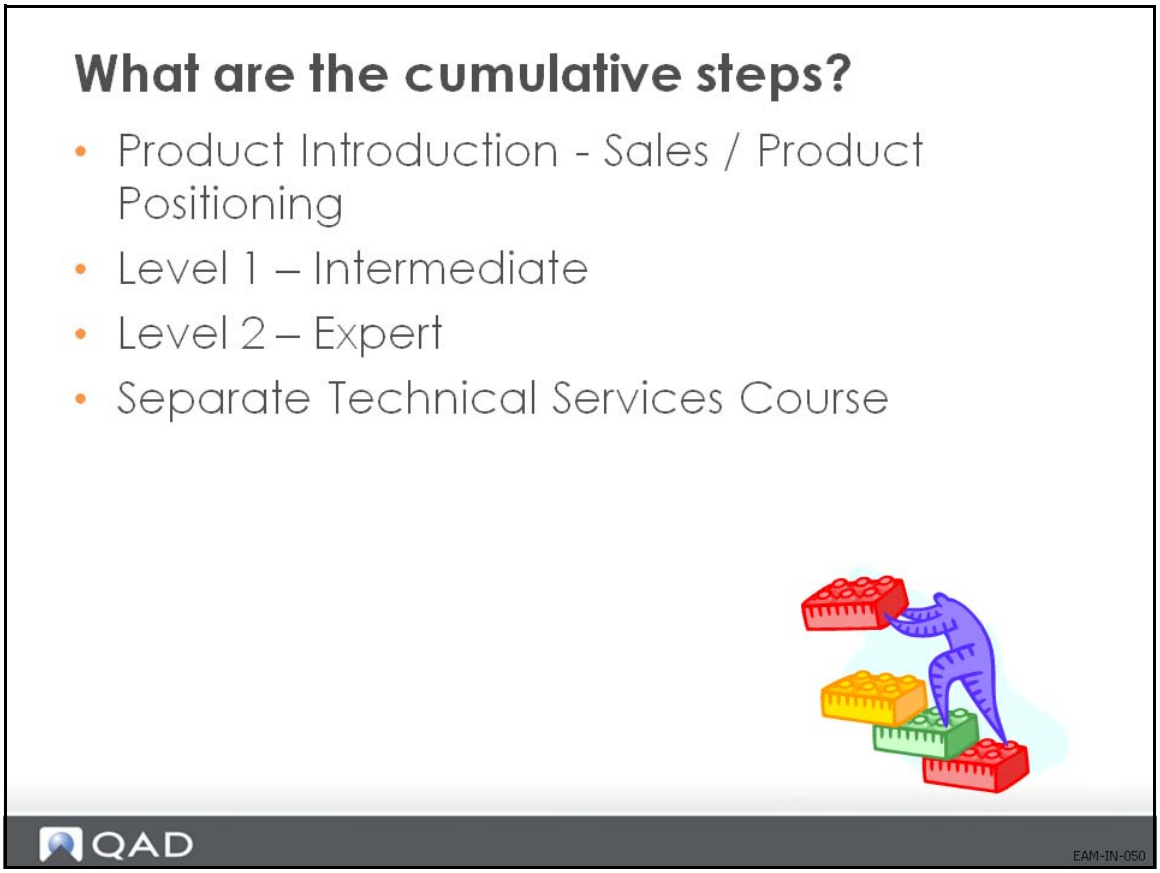
We do this by carefully focusing on the ways in which different people learn, and as a result, you will find a variety of training techniques and learning opportunities on your path to certification.

While formal classroom education offer many benefits, we must also be cognizant of cost, both in terms of direct expense costs and in the indirect cost of your very valuable time. To allow for the fact that most of us cannot afford to physically spend weeks in a classroom environment, we have broken out the foundational elements for each level into self-study on-line classes. This approach allows students to take pre-requisite classes at their own pace and in accordance to which schedule works best for them.

Upon completion of the on-line classes, you will be eligible to enroll in the one week EAM Level 1 training class. This classroom time will provide the student with an “experiential” learning environment. During the week together for this class, students will receive in-depth hands-on experience which they will then use to analyze a case study, design an EAM business process and configuration, and then demonstrate back to the instructor. It is during the classroom time that you will find all the various elements of your study time come together in an applied solution.

Once you have completed your Level 1 Certification, you will be eligible to move on to the Level 2 path. On that path, we will combine many of the techniques of Level 1 training with more role-specific training for pre-sales, support, and services. In general think of this learning path as “Education” as opposed to just “Training”.

Cumulative Steps



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

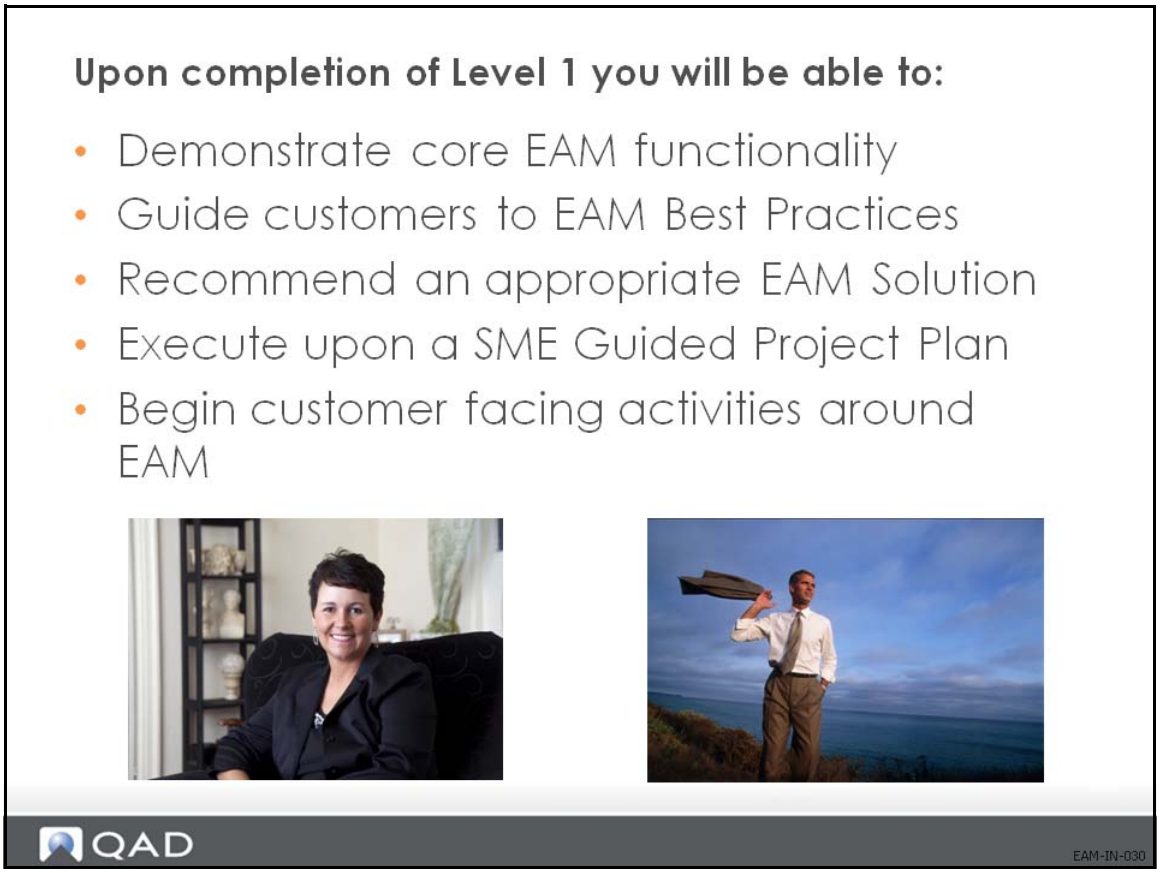
Separate Technical Services Course

Audience



The Level 1 Certification path is intended to be appropriate for anyone who touches EAM, whether you are pre-sales, services, support, or a partner. Though in Level 2, we will get further into role-specific expertise, in Level 1 we will all gain a common foundation, language set, and business awareness. By getting this common foundation, we have found that we each work more efficiently with one another and also develop a solid network of EAM contacts upon which we can continue to build our career.

Level 1 Goals

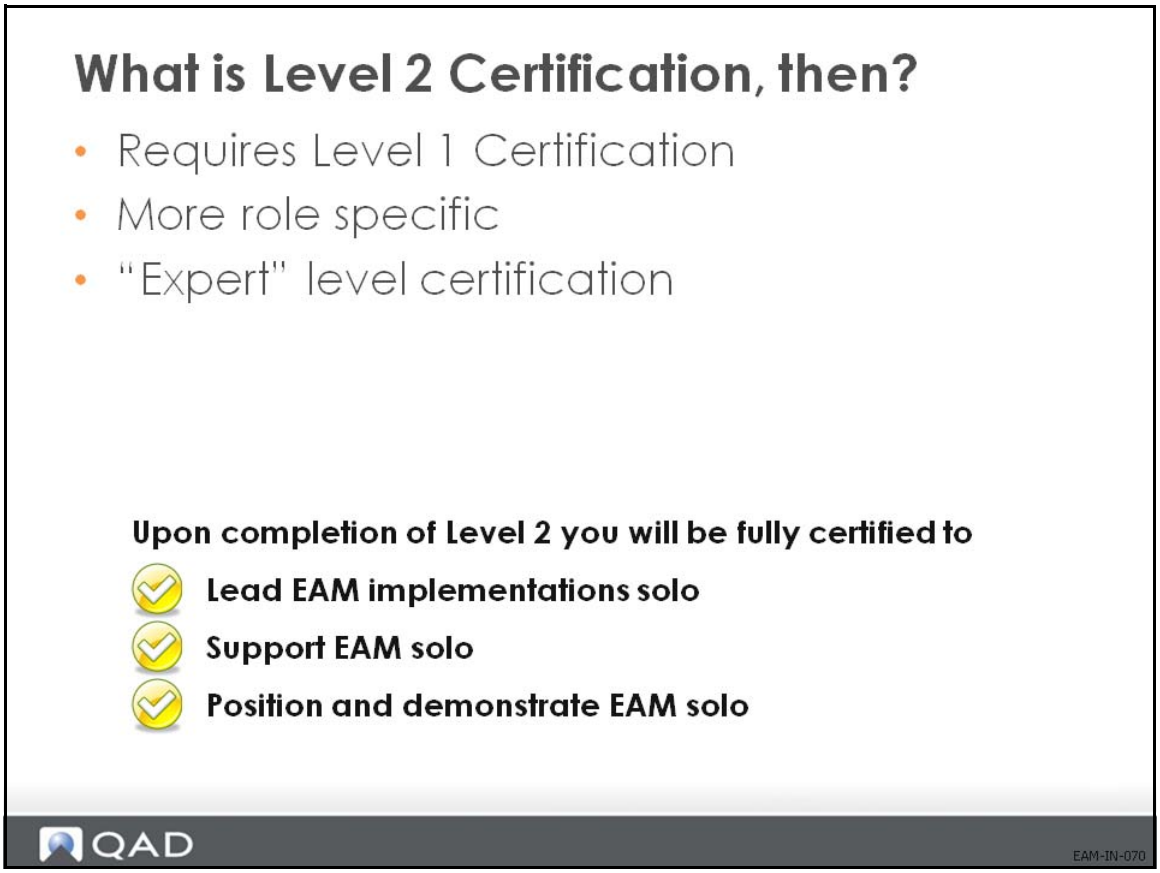


Upon completion of Level 1 Certification you will be able to do the following:

- Demonstrate core EAM functionality – while you will not yet be a SME knowing all the subtle nuances of the product, you will be able to utilize EAM and demonstrate its high level functionality in all four EAM Modules:
  - Maintenance
  - Inventory
  - Purchasing
  - Project Controls
- Guide customers to EAM Best Practices – this program will help you to understand what are best practices around EAM and why they are best practices. This will enable you to speak confidently in making recommendations for business improvements.
- Recommend an appropriate EAM Solution – perhaps worse than never recommending one of our products is recommending a product to address an issue it was never designed to address. Following your certification, you should be able to identify appropriate opportunities for solutions via EAM.
- Execute upon a SME Guided Project Plan – following Level 1 certification you should not just start working with EAM all by yourself. You should be able, though, to take direction and guidance from a SME and then execute upon that mentoring.

- Begin customer facing activities around EAM – whether you are in support, pre-sales, services, or some other area of expertise, following your Level 1 Certification you will be equipped to begin working face-to-face with EAM customers and properly represent the solution. You should begin using your education immediately! In general:
  - - 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

Level 2 Certification



Level 2 Certification will build upon everything you learn in Level 1, as a result, no one can begin the Level 2 certification path until they have earned their Level 1 certification.

It is during Level 2 that we begin to develop the Super-SME in you, and we will begin to focus more on the different skills required to work with EAM in different roles, such as support, pre-sales and services.

This “Expert” level certification is expertise in both software and also being a true solution provider. Upon completion of Level 2 you will be fully certified to (depending upon your role):

- Lead EAM Implementations solo
- Support EAM solo
- Position and demonstrate EAM solo.

Benefits to QAD



Obviously for a company such as QAD to take on the expense and time to develop such an education program as this, there must be significant benefits.

Particularly with QAD bolt-on products, we have seen that leads increase in proportion to the field's confidence and competence in positioning those solutions. With this approach, more resources in the field should possess the skill set to recognize an opportunity for EAM and turn that into a lead.

With more leads generated, naturally we would expect the win-rate on those leads to increase as the field improves their ability to develop true business solutions around our products.

With increased win-rates, obviously revenue will increase, not just in licenses but also in services revenue and annual maintenance income.

However, revenue alone is not the only mark of success for this education approach. Revenue can either be "good revenue" or "bad revenue" depending upon customer satisfaction. So, it behooves us to not only win more opportunities but also to ensure that the application of our solutions results in our customers (1) feeling confident in their investment, (2) recognizing actual business benefits for having implemented our solution, and (3) being eager to engage us in the future to assist them with business improvements because they know us as trusted advisors.

Aside from Revenue and Customer Satisfaction, this education approach addresses a critical internal need: the ability to develop appropriate SME skill sets quickly and in a repeatable, consistent fashion in order to support customers as sales increase over time in various regions. Unlike the core product, many of our bolt-on modules are just now beginning to expand into the global market. Some regions may not yet be at a place in their business environment to benefit from some of our packages, but we have to be ready to ramp up quickly as soon as they are ready!

And finally, as awareness of and expertise with our bolt-on products increase, our modules begin to fit nicely into the overall Customer Engagement processes, which leads us right back to the first point on this slide: Generate More Leads! Following your Level 1 Certification, you will have access to product-specific Qscan training to ensure your confidence in administering this vital assessment.

Benefits to You



Upon completion of your Level 1 Certification, you will be able to:

- Effectively analyze customer business processes because you will understand where EAM fits within a business and how EAM can resolve common challenges

- Associate requirements with EAM solutions by learning how to translate the challenges a customer expresses they face into elements of the EAM product that will assist with that particular issue
- Position EAM modules correctly because you will have learned what EAM does and does not do and you will have utilized your learning to design a “Case Study” application of the EAM product to meet a customer’s requirements
- Explain best practices confidently and competently because you will have learned not just common best practices but WHY they are best practices and HOW they can benefit a company
- Provide solutions for customer satisfaction because you will possess skills and knowledge far beyond how to press buttons

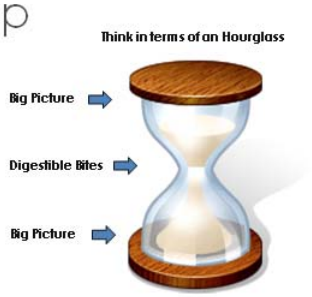
Begin becoming a trusted advisor by demonstrating that you truly do know and understand the EAM Domain Space

By embarking upon an education path designed to equip you with the proper skills around EAM, you are starting upon a journey with personal benefit to you!

Level 1 Content

What types of content are in Level 1?

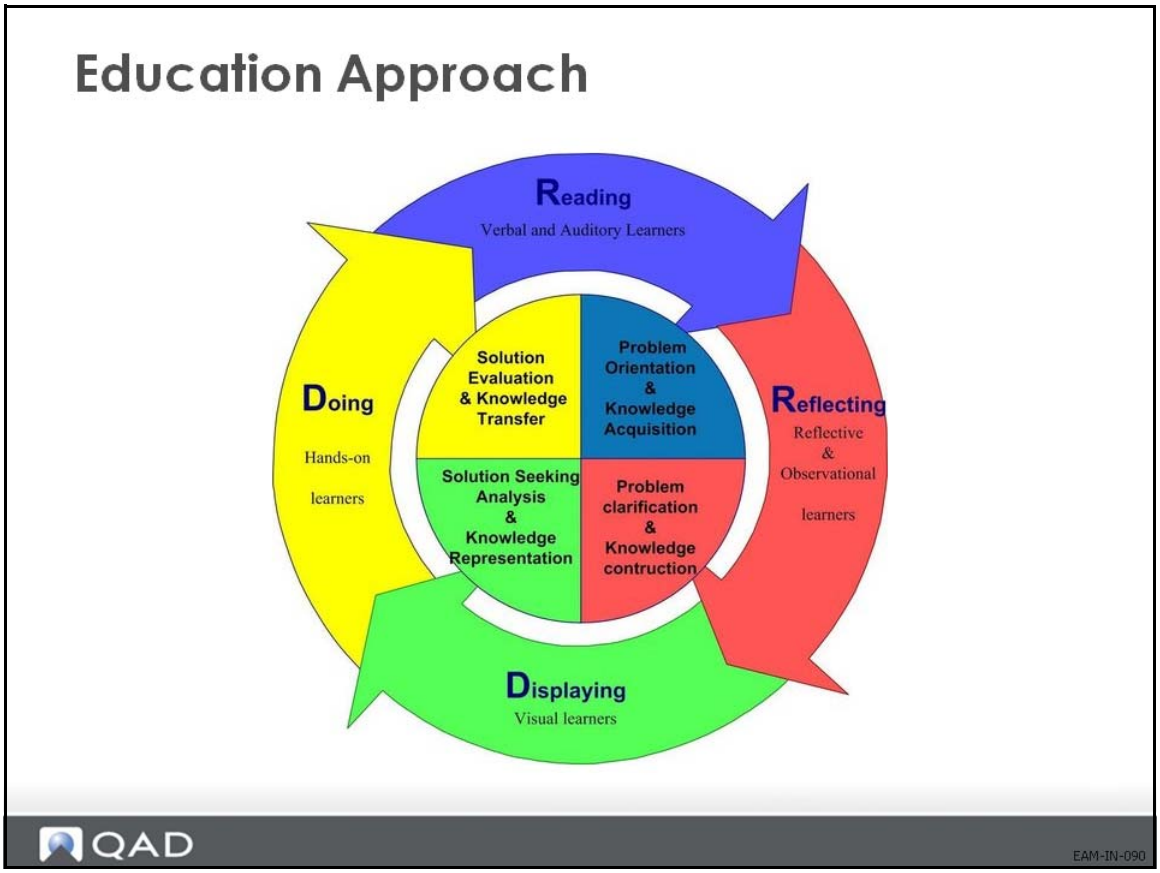
- Reading Assignments
- On-Line Pre-Requisite Classes
  - EAM
  - Core Product
- Activities Handbook
- Learning Validation at each step
- Classroom
  - Hands-On
  - Case Study / Problem Solving
  - Certification Exam



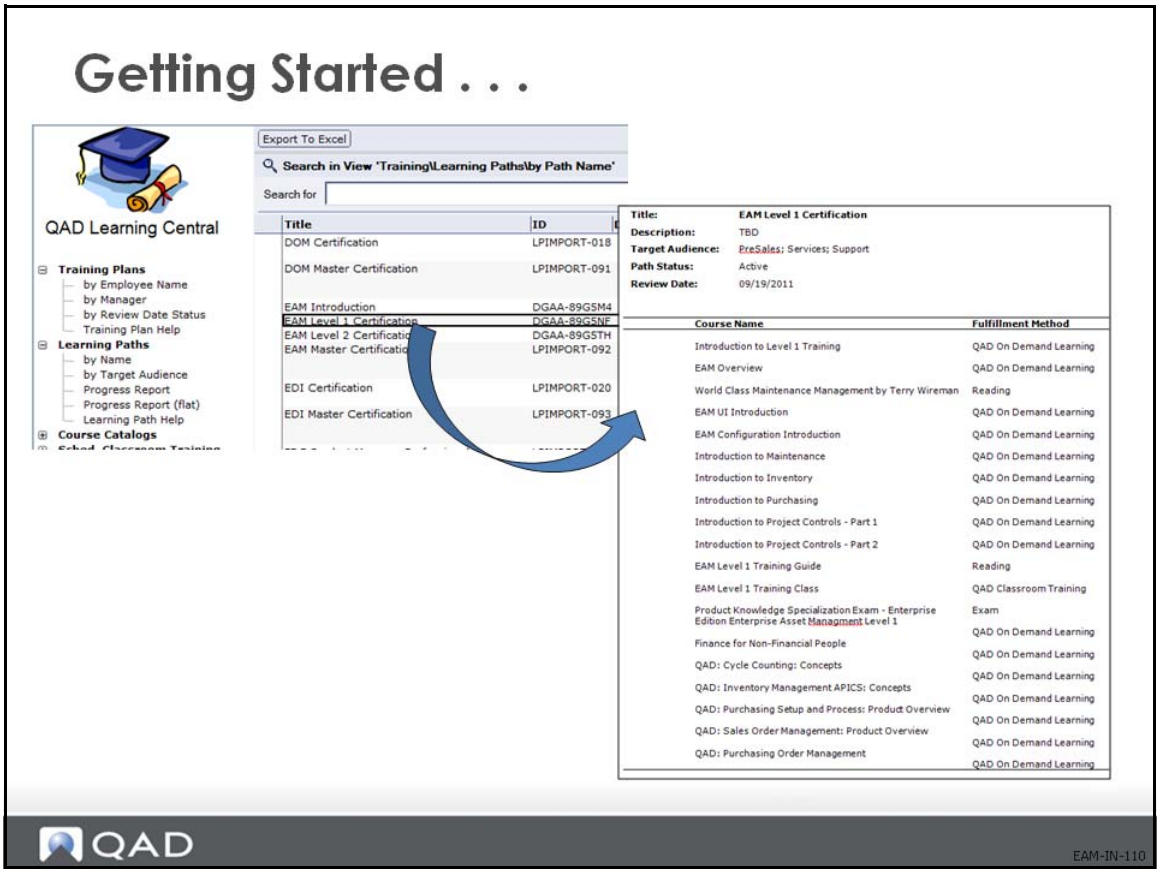
QAD

EAM-IN-100

Educational Approach



Getting Started



Your first step to embarking upon your EAM Level 1 Certification is to have the training path assigned to you in Learning Central. Your supervisor can help you with this.

Once you have the learning path assigned, you may begin working your way through all the pre-requisites leading up to the Level 1 Classroom event.

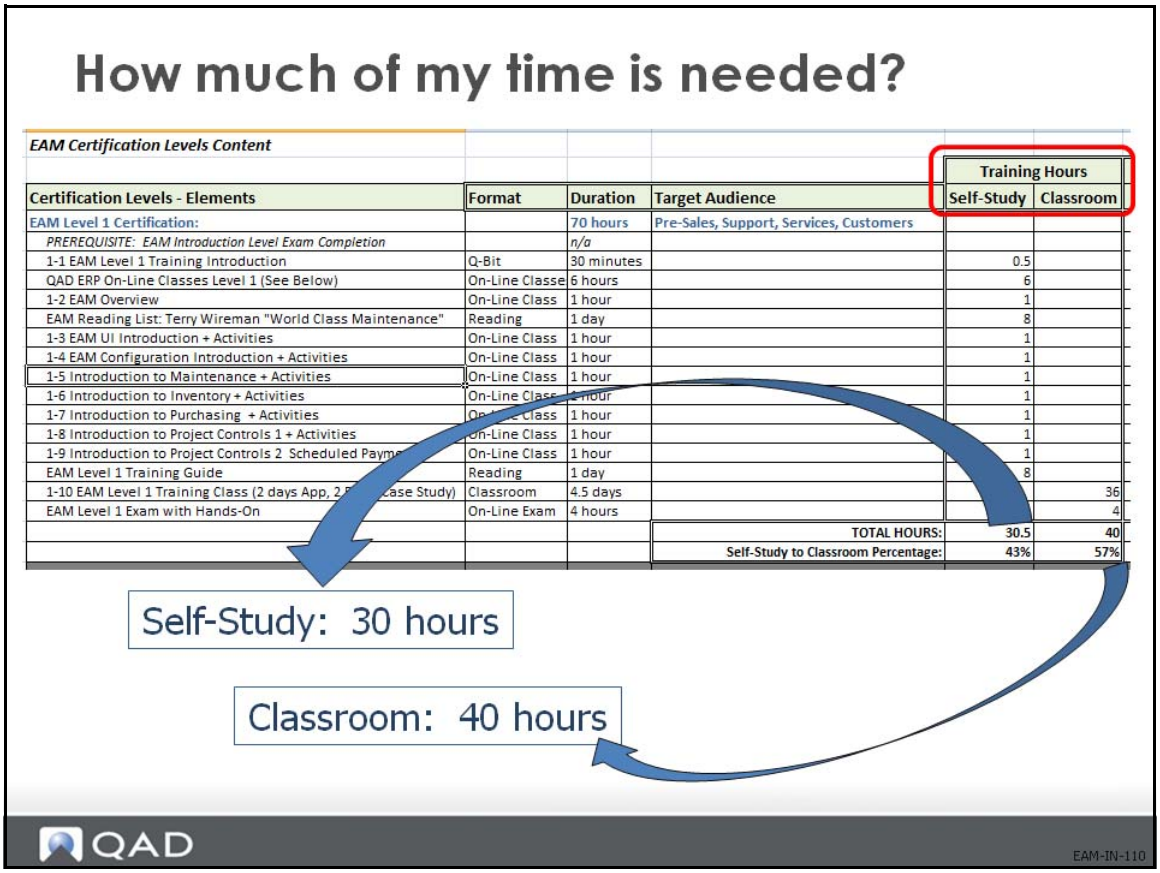
You will notice that the learning path contains a task to reading the book “World Class Maintenance Management” by Terry Wireman. QAD has several copies in the organization, and if you would like to borrow a copy, just contact the Field Readiness Team. If you elect to purchase a copy, we highly recommend that you purchase a used copy as the new ones are very expensive.

Also, on this learning path you will see links to classes pertaining to the QAD ERP system. These classes represent touchpoints from EAM back to the ERP system. They are included in this learning path because it is very important to understand how EAM works with the core product.

The path contains a task for reading the “EAM Level 1 Training Guide”. That document contains the actual presentations utilized during each on-line class and presents additional information from the Notes section. This will be your text book through-out the Level 1 process.

And, finally, you will find in your learning path a link to the “EAM Level 1 Activities Handbook”. You should download this document and keep your own copy because this workbook will be your companion throughout all of your on-line classes and then also in the classroom training. Some individuals prefer to have a hardcopy, while others prefer to maintain their work electronically. The decision is yours.

Time Commitment



Your success in achieving your EAM Level 1 Certification depends upon your willingness to prepare and your self-motivation to work through activities associated with each on-line class.

Some students may require more time in Self-Study to practice exercises or just to review lessons. LEARN AT YOUR OWN PACE! So be sure to leave ample time to complete the Self-Study in advance of the classroom time.

Review

Review

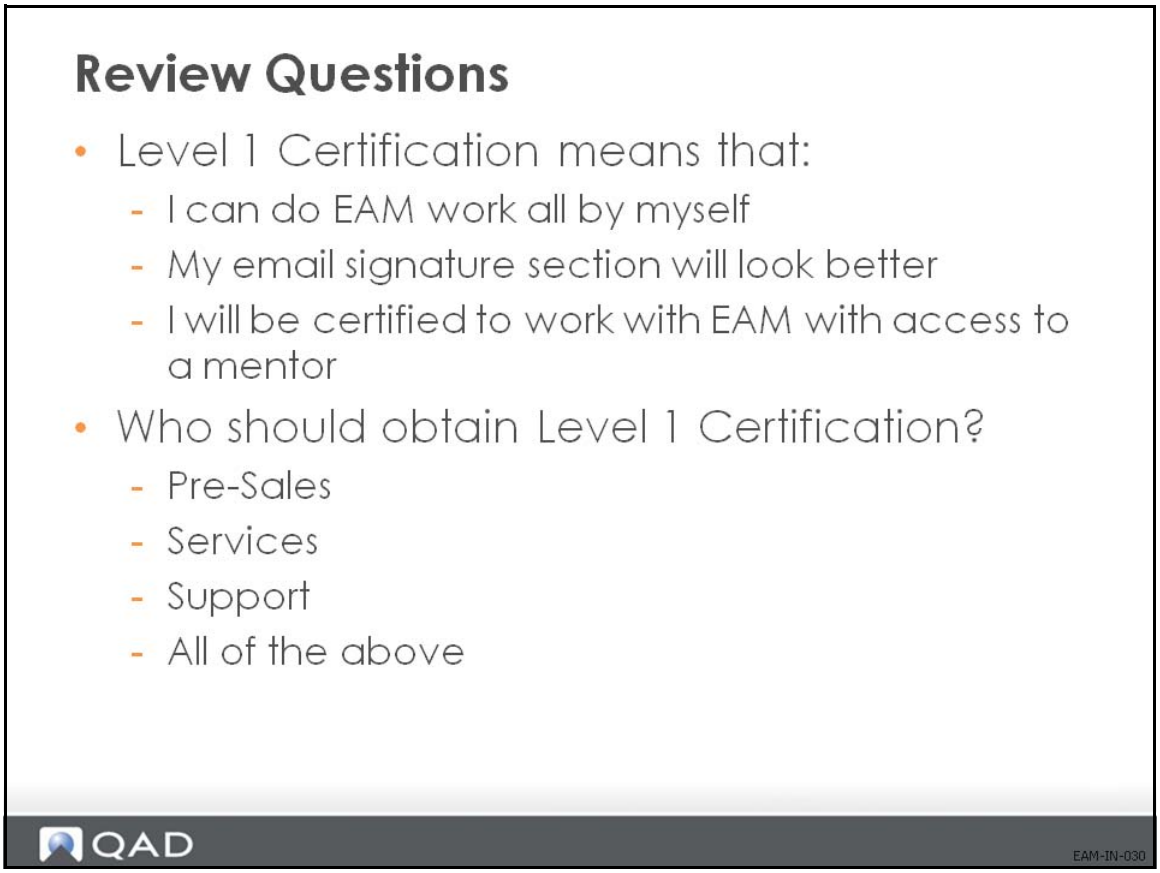
- What is Different in this Education Approach
- Level 1 and 2 Definitions
- Objectives
- Benefits to you and to QAD
- Course Content
- Getting Started



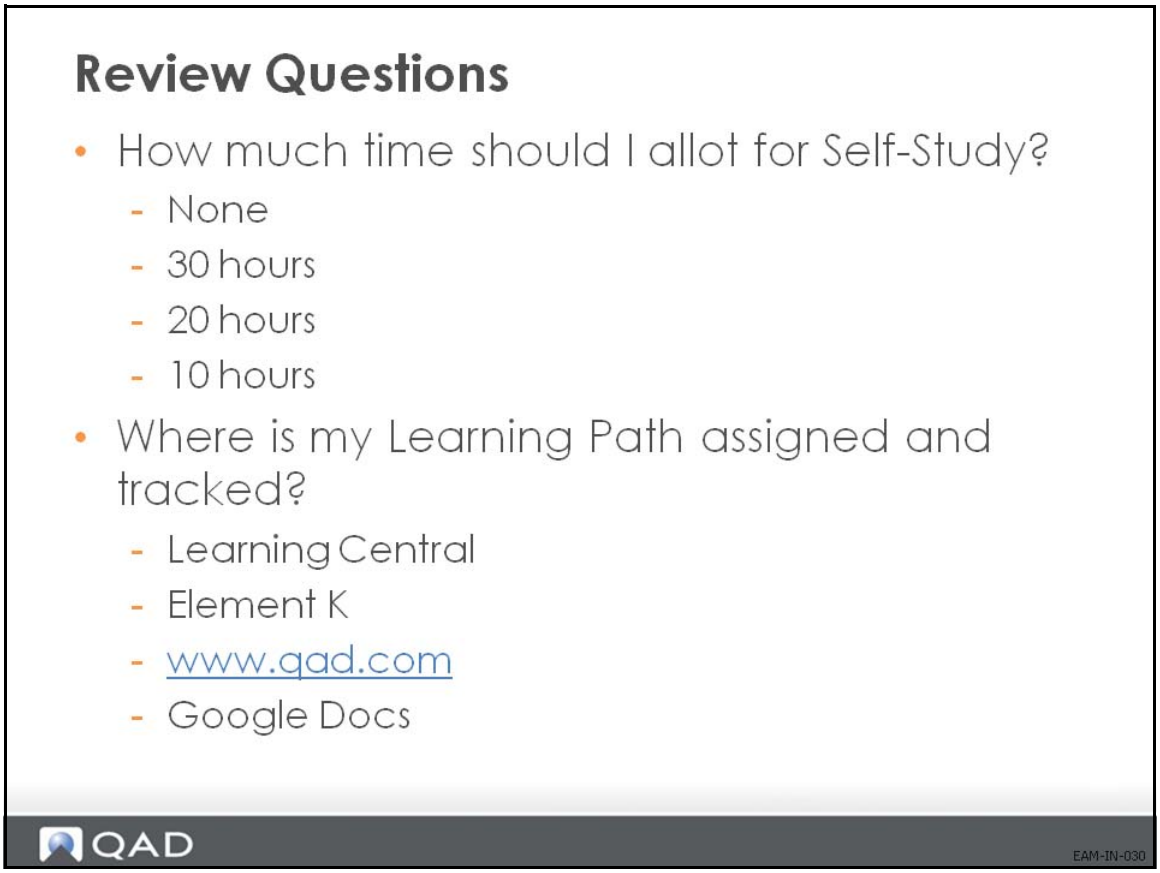
QAD

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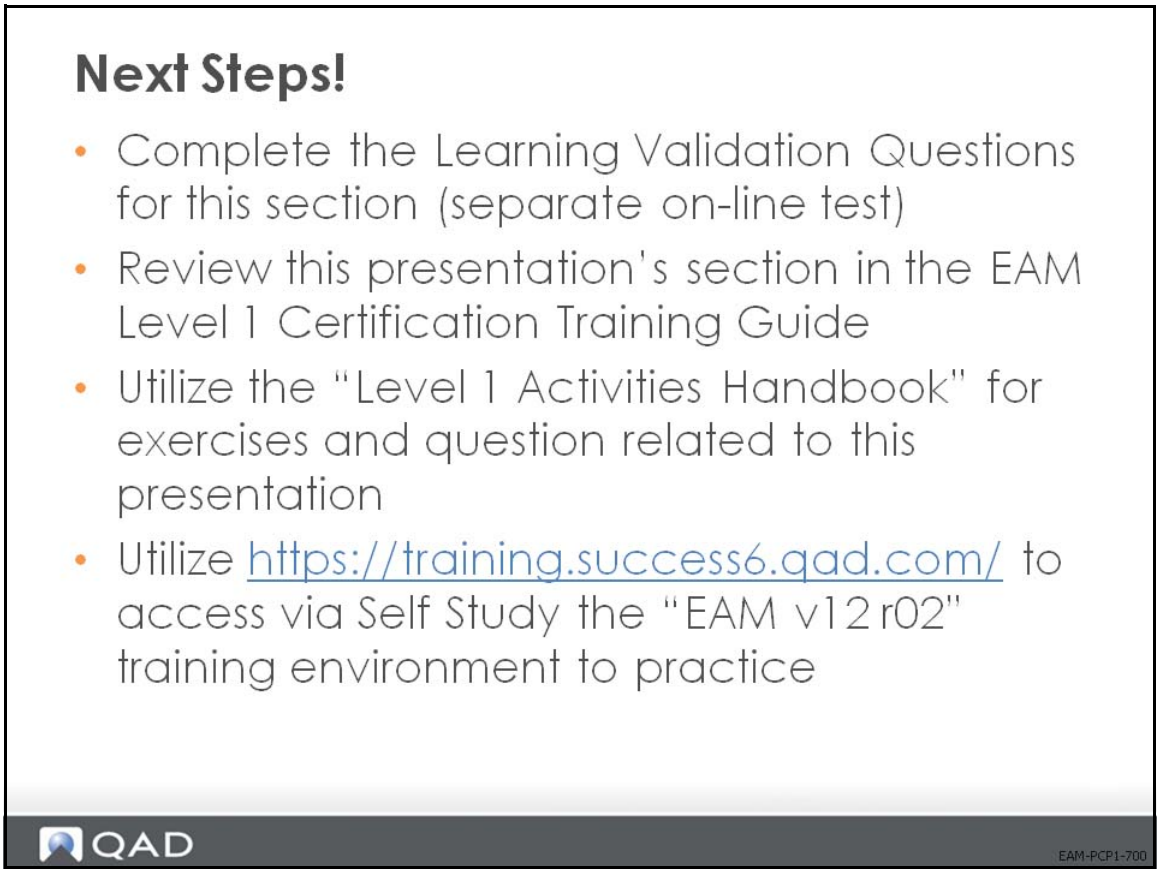
Review Questions



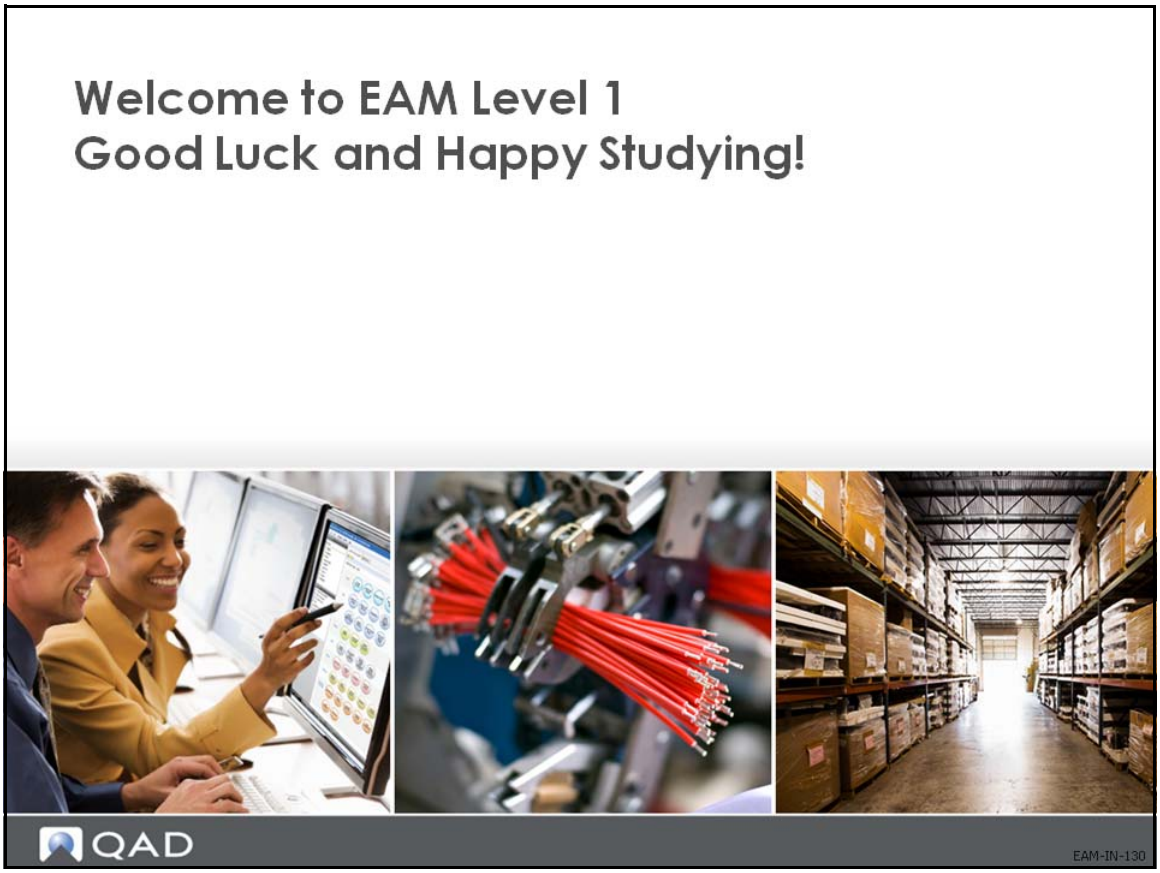
Review Questions 2



Next Steps


Next Steps!
Complete the Learning Validation Questions for this section (separate on-line test)
Review this presentation's section in the EAM Level 1 Certification Training Guide
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
EAM-PCP1-700

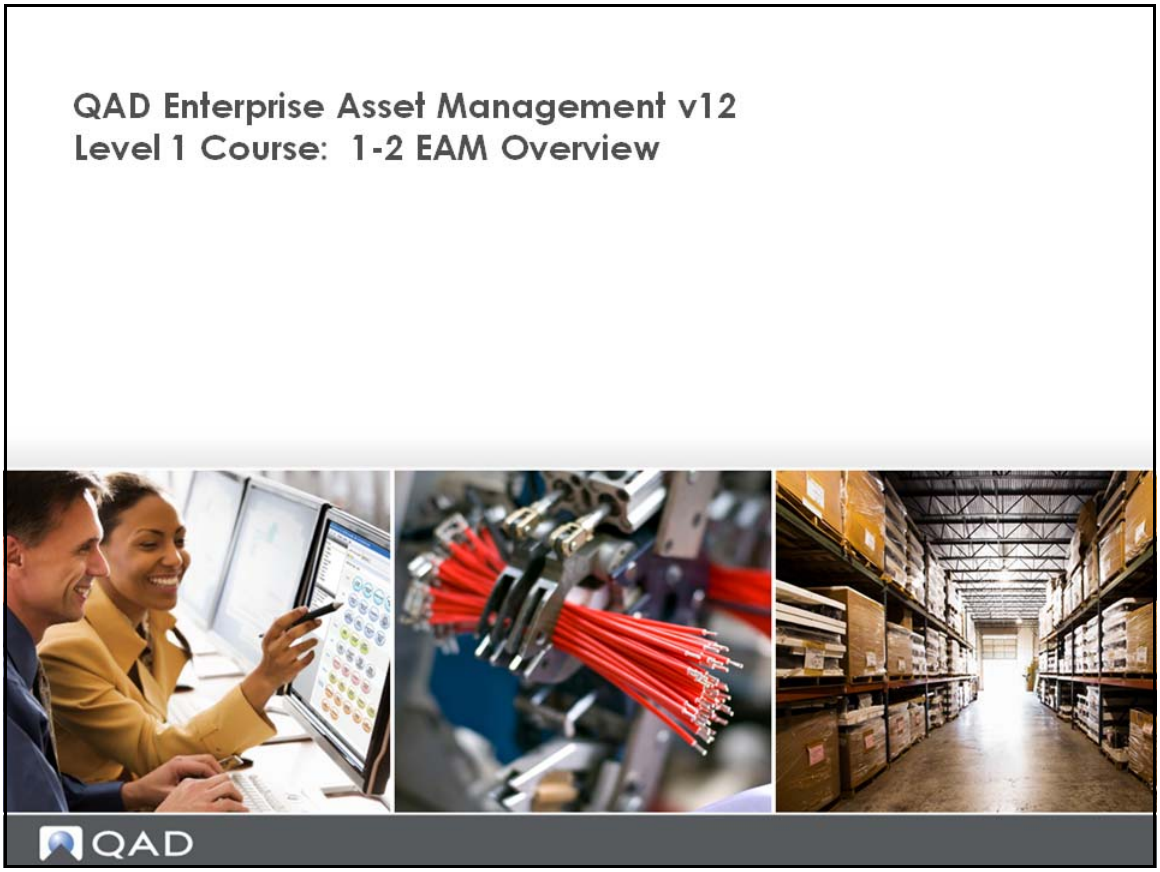
Good Luck


Welcome to EAM Level 1
Good Luck and Happy Studying!
QAD
EAM-IN-130

Chapter 2

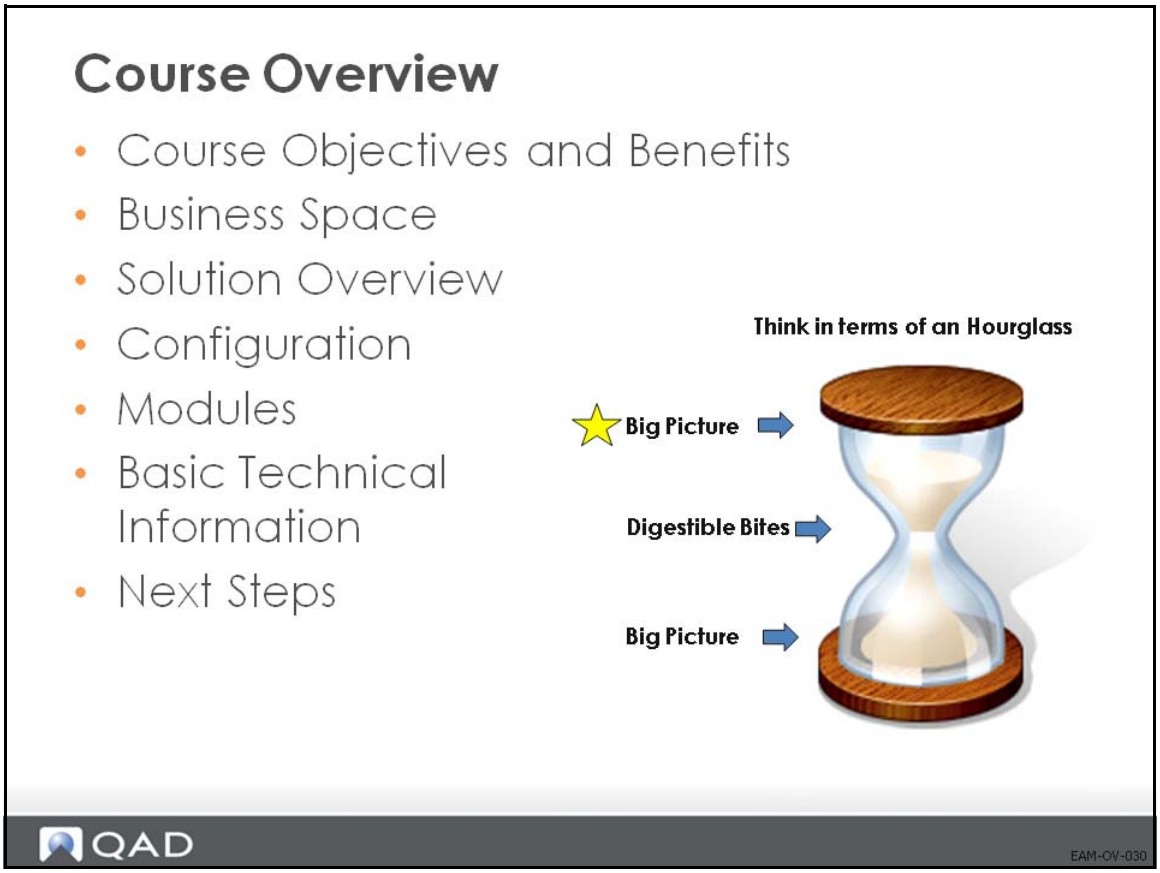
Overview of Enterprise Asset Management

EAM Overview



Welcome to the EAM Level 1 system overview class “1-2 EAM Overview”! This class is designed to give you a very broad picture of the entire EAM solution, and as a result, this class is the most lengthy of all your pre-requisite on-line classes. But, don’t give up! The information conveyed in our time together today will be built upon in future classes. Absorb all you can and do not be embarrassed to go back and review this content afterwards

Course Overview

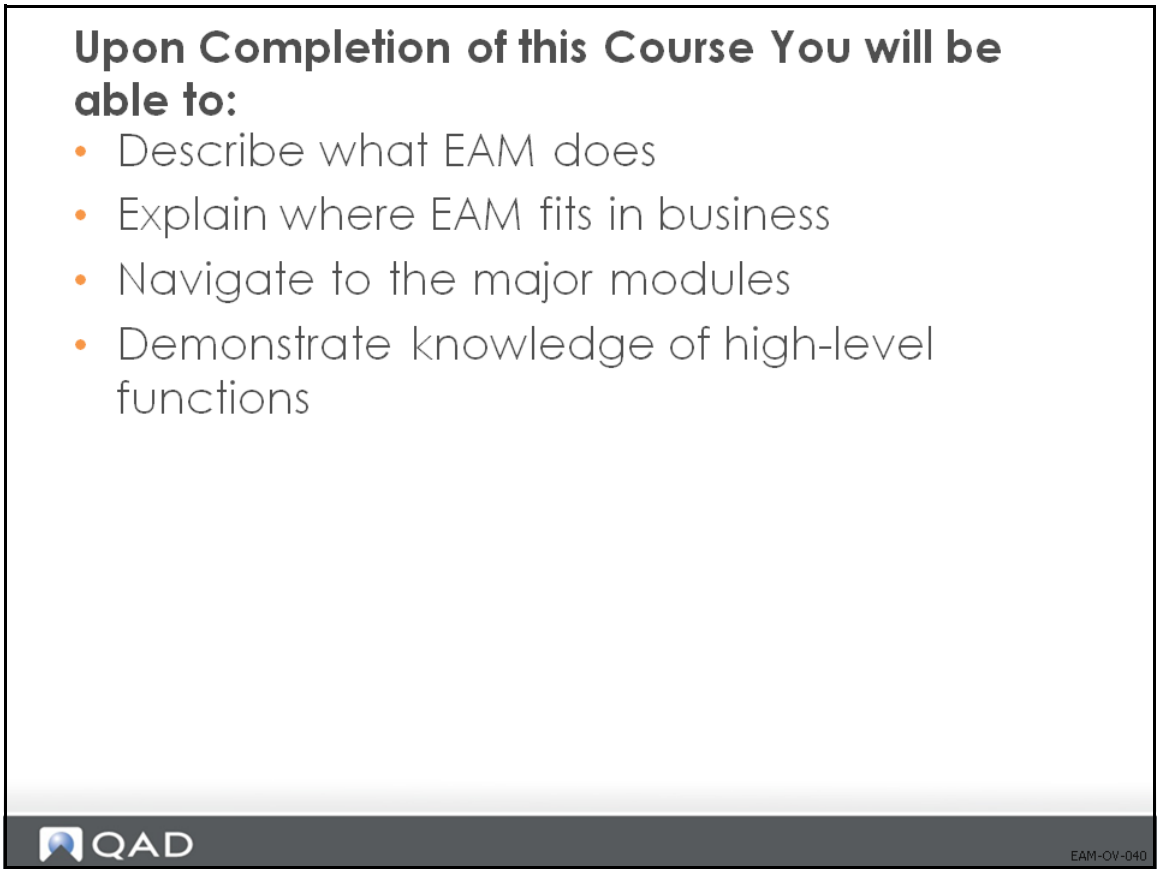


In the EAM Level 1 Certification Path with this class, we are still at the “Big Picture” level. This class is designed to provide you with a fairly intensive overview of EAM: domain space, UI, configuration, all the modules, and basic technical information.

While this class covers a vast amount of territory, remember that in the succeeding classes we will build upon what you learn here. We recommend that after attending the self-study on-line class that you return to this section of the EAM Level 1 Training Guide and review the notes at least one other time prior to attended subsequent classes.

There is a lot of information here, but we are building a foundation on which you will continue to build.

Course Goals

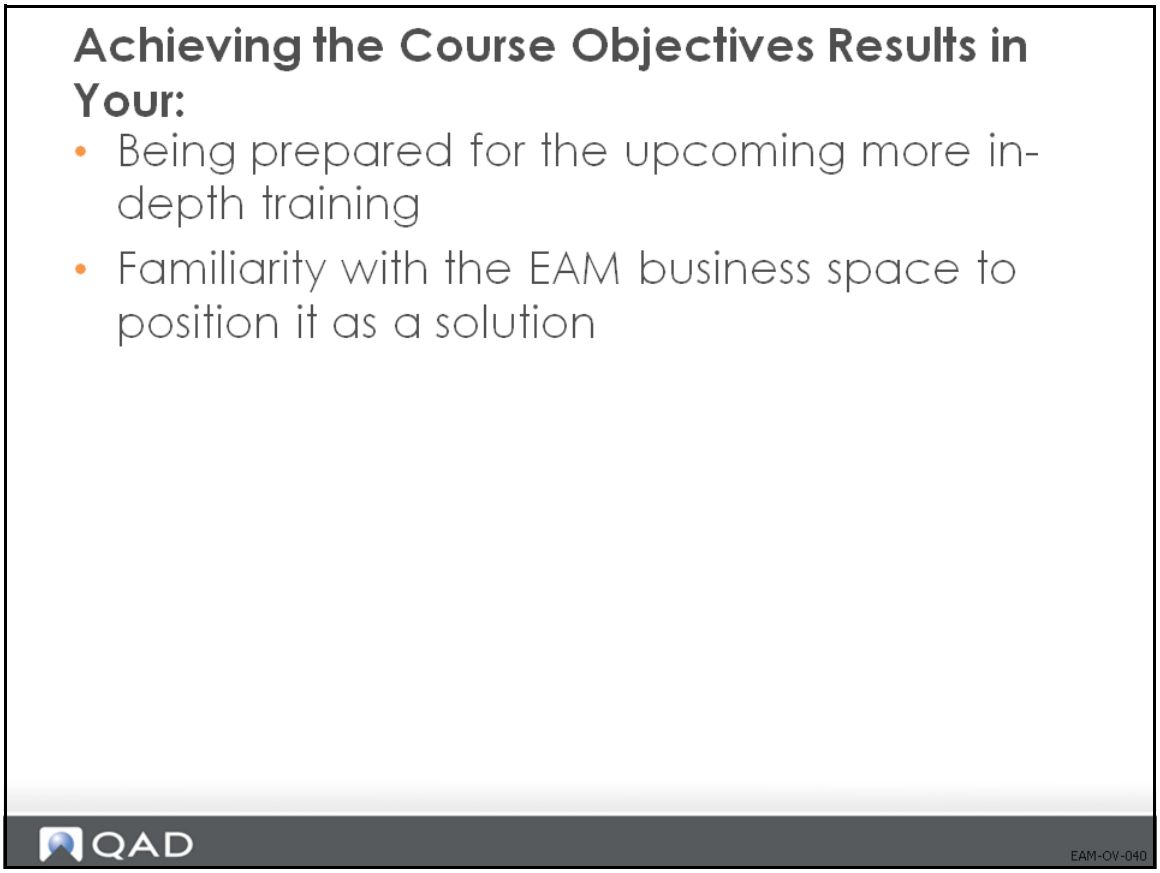


The objectives for this course are very high level, but they are critical for you to achieve in order to progress along the certification path.

Your objectives upon completion of this class and its associated activities in the Activities Handbook will be to be able to:

- Accurately and effectively describe EAM functionality and capabilities
- Confidently explain the EAM domain space and where it fits within a business
- Perform basic navigation and UI steps in EAM such as adding to Favorites or using the Process Maps
- Show to someone else the high-level functions available in EAM

Course Results

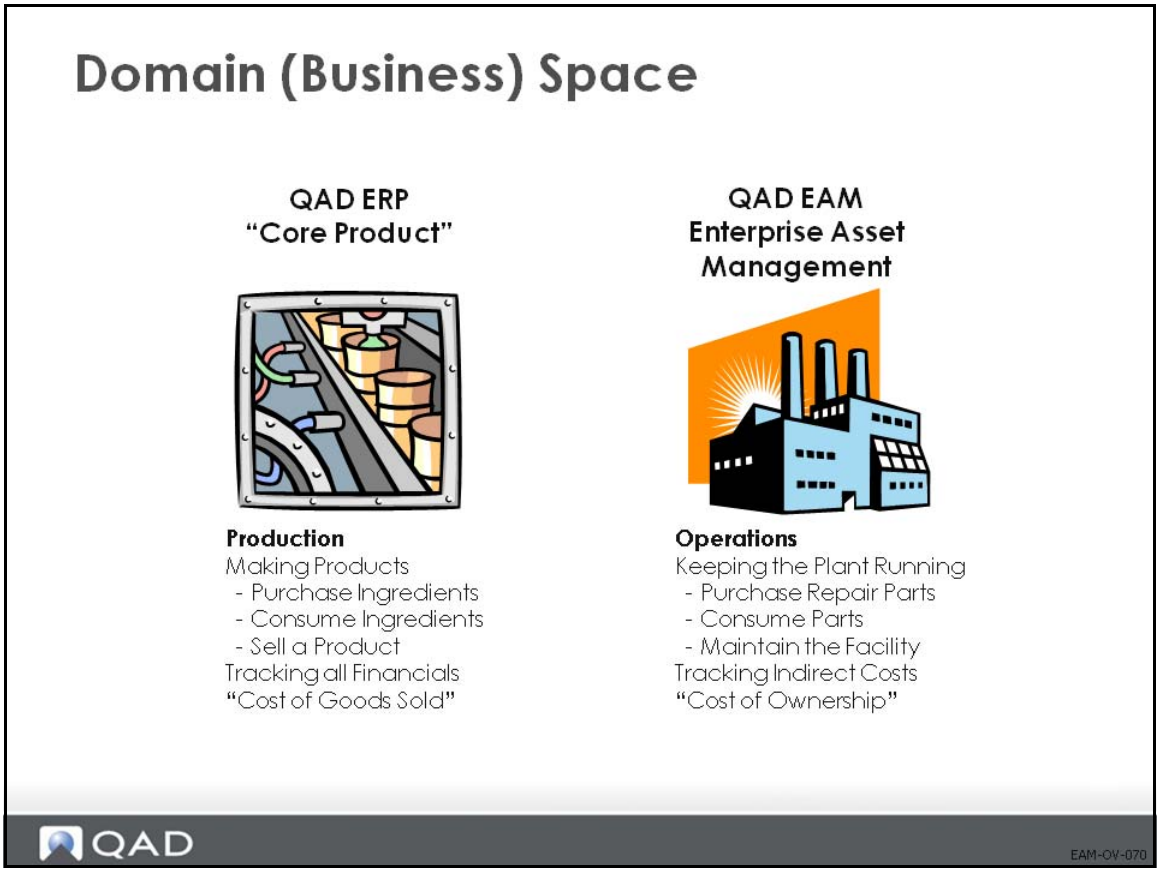


Why should achieving the objectives of this class be important to you in your job? Well, as mentioned earlier, this class is designed to provide a wide foundation on which we will begin to build your EAM expertise in subsequent classes. If you achieve the objectives of this class then you will benefit by:

Being prepared for the next classes which are much more detailed. Being prepared will help you to keep up with the content as it accelerates and prevent you from becoming lost or frustrated

Already feeling more confident and competent with discussing EAM as a solution

QAD EAM Business Space

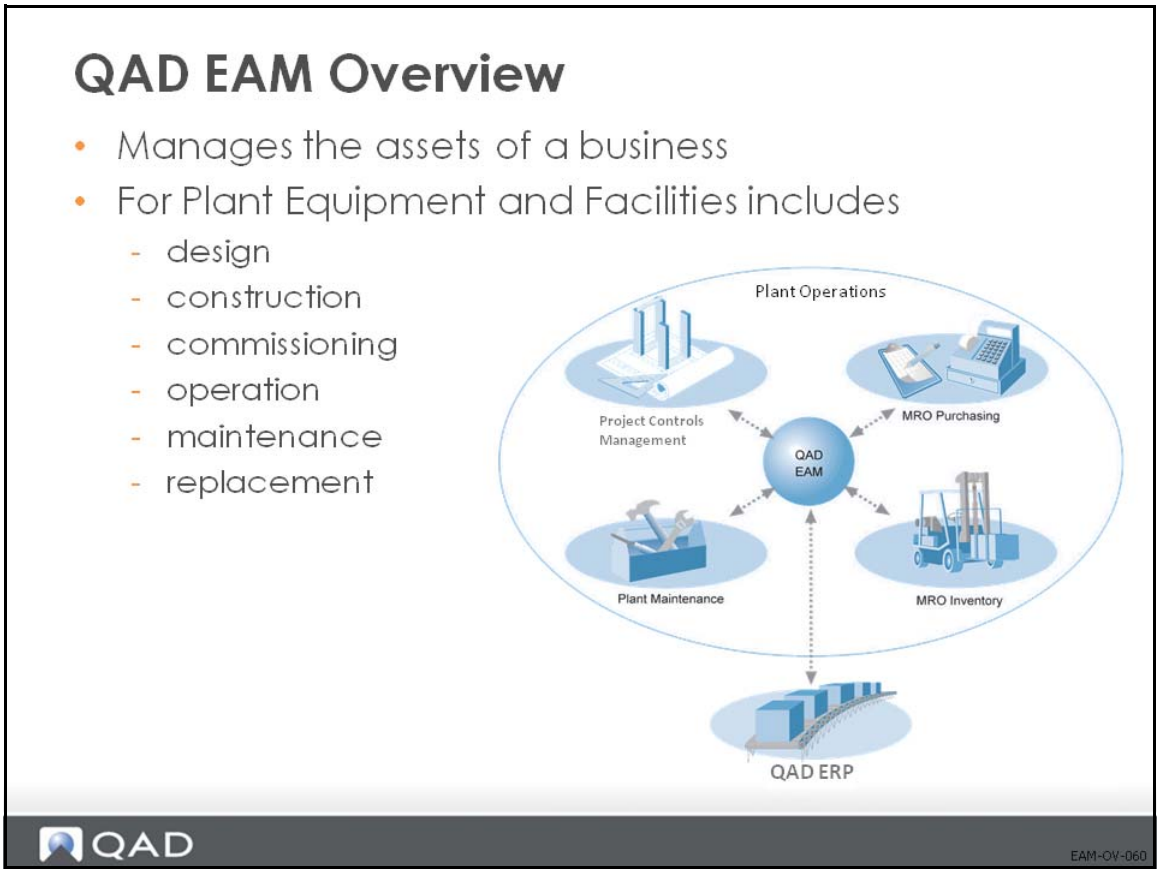


Understanding that domain space and being able to "talk the talk" of the people who live and work in that business space is key to being able to provide an effective solution.

Our core product (often referred to as the "ERP" system for clarity in this training) is very focused on Financials and the critical pieces of manufacturing that enable our customers to deliver quality products on-time and profitably. Its primary focus is the "Cost of Goods Sold" (COGS), because a company cannot truly know if they made or lost money on selling a product unless they know what it cost for them to make that product. This is often referred to as "margin".

EAM, however, focuses on "Operations" as opposed to "Manufacturing". EAM's business space is around keeping the plant running effectively and efficiently so that margins (or profits) for manufacturing can improve. To do this, EAM focuses on measuring the "Cost of Ownership" for a plant. This is what it costs a company to maintain their facility and operate it at optimal capacity. The costs that go into this measurement are very different from the costs that go into "COGS". We will explore the differences in the classes to come.

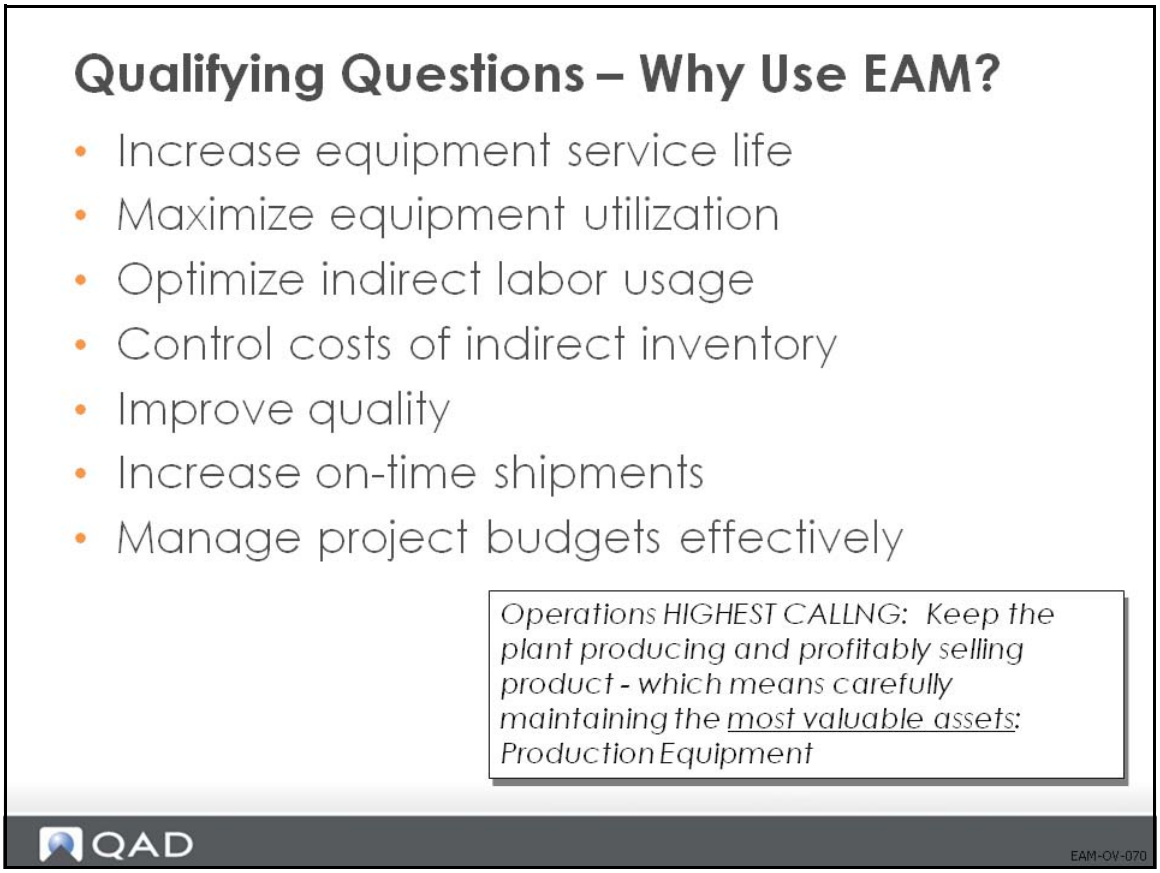
QAD EAM Overview



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.

Notice how each of these modules are associated with addressing business drivers such as those listed on the previous slide. As you begin to link business drivers with EAM functionality you will find yourself better understanding the overall domain space of EAM.

Why Use EAM?



Now that we have an idea of EAM's business space and what it does, we should begin thinking in terms of what business challenges might a company face that could be addressed by EAM.

Some common business drivers are listed on this page, but as we progress through Level 1 education you will find that there are many more.

These business drivers are all related to Operations highest calling, which is to maintain the plant in such a way that it can keep manufacturing quality products, delivering them on time, and making money on the whole process. While there are many assets within a plant, the most valuable, and therefore highest priority assets are those assets that comprise the actual production lines.

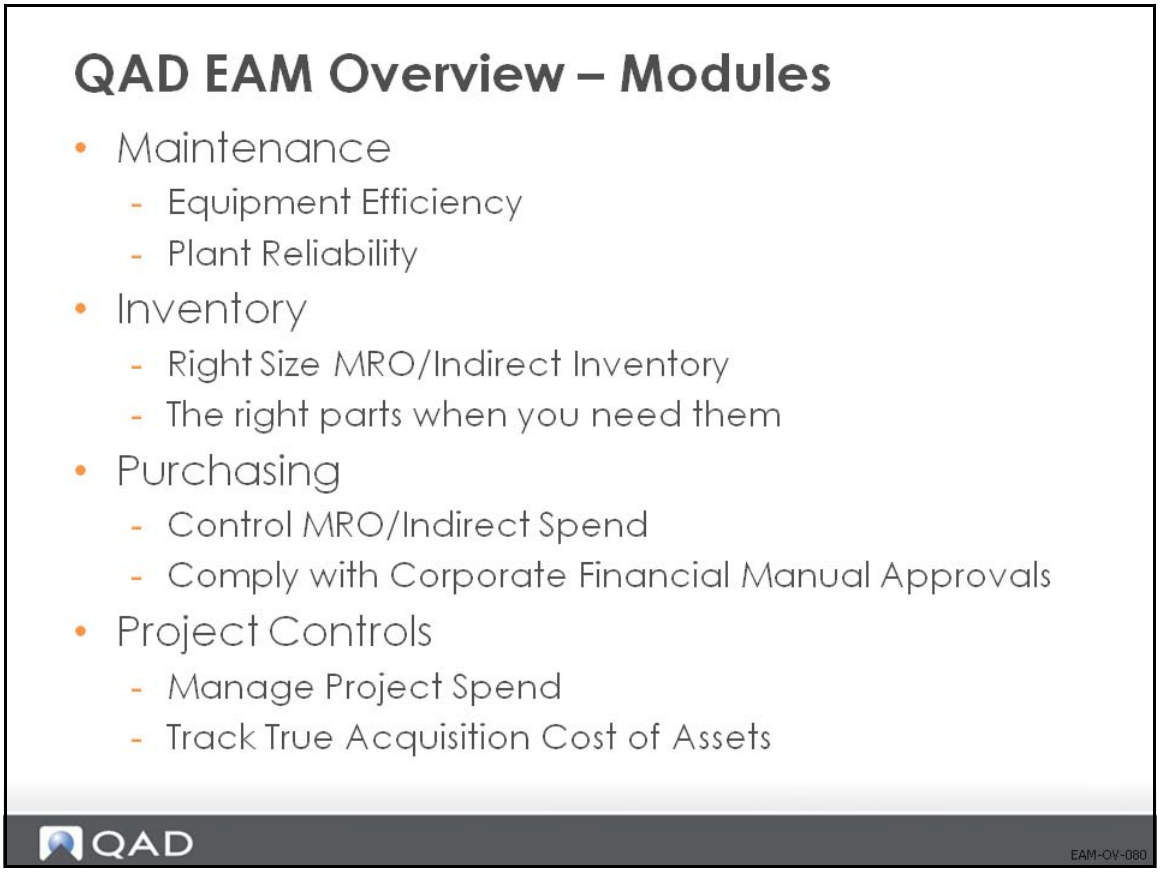
So, how can EAM assist Operations in their mission to support Manufacturing?

- 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. More effectively managing that time leads to higher productivity and a better maintained plant.

All manufacturing companies are driven by one highest call: Produce and Sell. Included in that is the drive to ensure their products meet or exceed quality requirements and the drive to deliver those products on time. To achieve this, EAM supports operations in maintaining and continuously improving the reliability of all assets, particularly the most valuable ones: Production Equipment.

And finally, a key component of operations is the whole process of managing project budgets. Types of projects can range from building a new warehouse, to adding a new production line, to building a specialized product for a particular customer. But in all cases, exceeding budget means losing money.

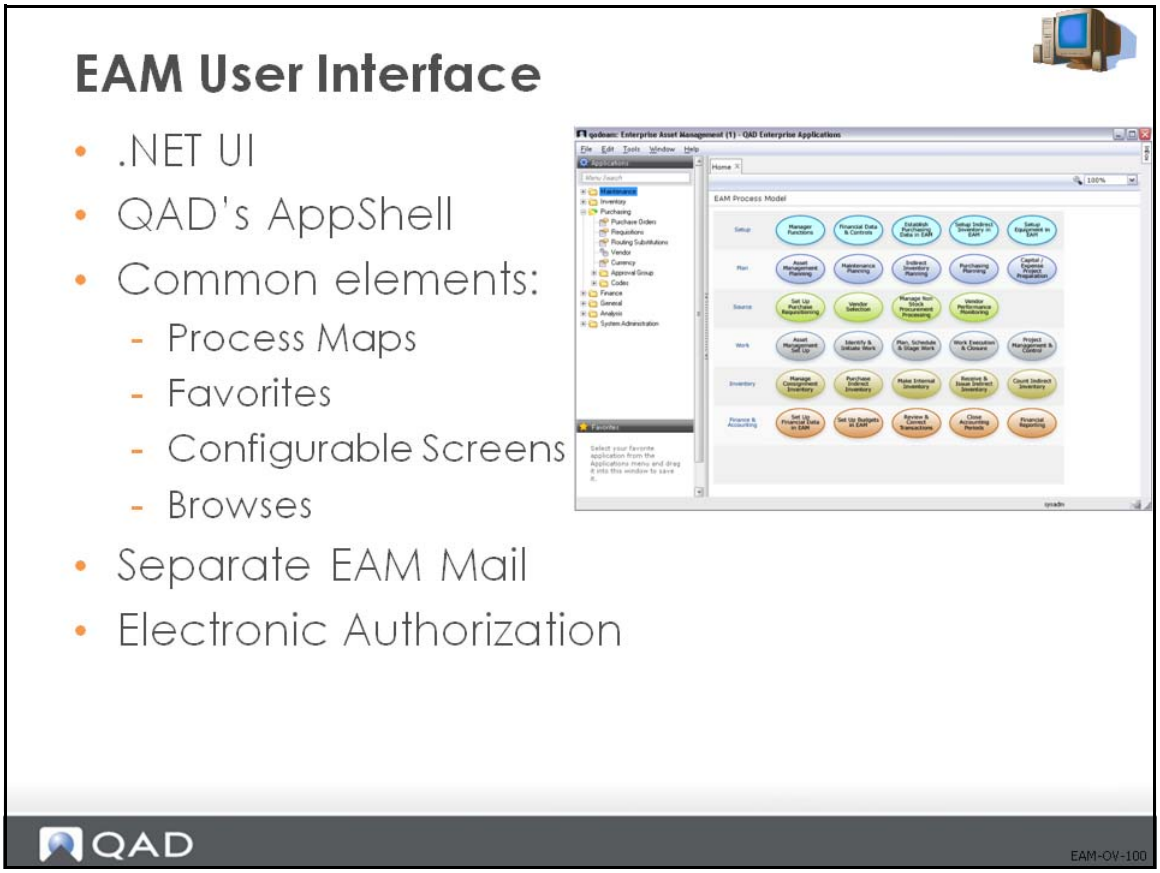
QAD EAM Modules



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.

Notice how each of these modules are associated with addressing business drivers such as those listed on the previous slide. As you begin to link business drivers with EAM functionality you will find yourself better understanding the overall domain space of EAM.

EAM User Interface



A “User Interface” or “UI” is that portion of a software solution with which an actual user interacts or utilizes the software. You may have also heard the “UI” referred to as the “front-end” of software, but regardless of what you call it, the UI is the user’s portal to the power and functionality of the system.

With version 12, EAM was uplifted from the older GUI (Graphical User Interface) to the new.NET interface. The above screen shot should look very familiar to you if you have worked with the ERP system’s .NET interface.

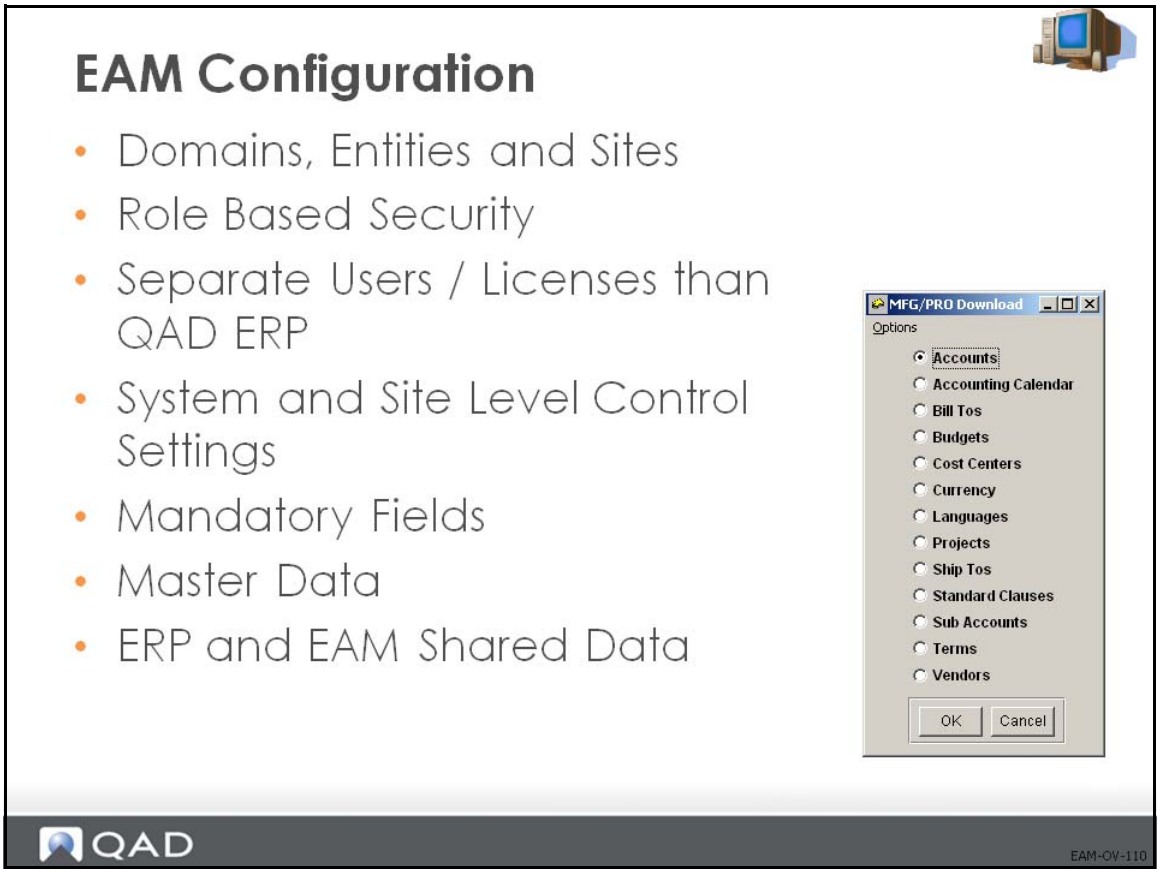
EAM v12 uses QAD’s AppShell for the same look and feel as QAD 2009 and beyond, such as with the Favorites and the Process Maps.

EAM also contains its own internal email system, referred to as EAM Mail. This system provides alerts and notifications and can be setup to send mail outside of EAM to a user’s corporate email.

Associated with the EAM Mail, EAM provides robust electronic authorization. The EAM Mail system drives approvals and tracks progress.

Other important User Interface details will be covered in the “1-3 EAM User Interface” on-line class.

EAM Configuration



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, which will be further expounded upon in the Level 1 “1-4 Introduction to EAM Configuration” class. Level 2 training will provide even more detailed study of EAM Configuration, as well as guidance for using these controls for business solution design.

Key elements of EAM configuration include:

- 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 the “System of Record” for all shared data, such as Accounts, Subaccounts, Cost Centers, Accounting Calendar, etc. The screen shot on this slide shows all the types of data for which EAM is dependent upon the ERP system. Take some time to look through these elements.

Electronic Authorization



One of the most appealing attributes of the EAM software package is its robust offerings around Electronic Authorizations. Electronic Authorization in EAM is driven by the EAM Mail system, and EAM provides important audit traceability around approvals.

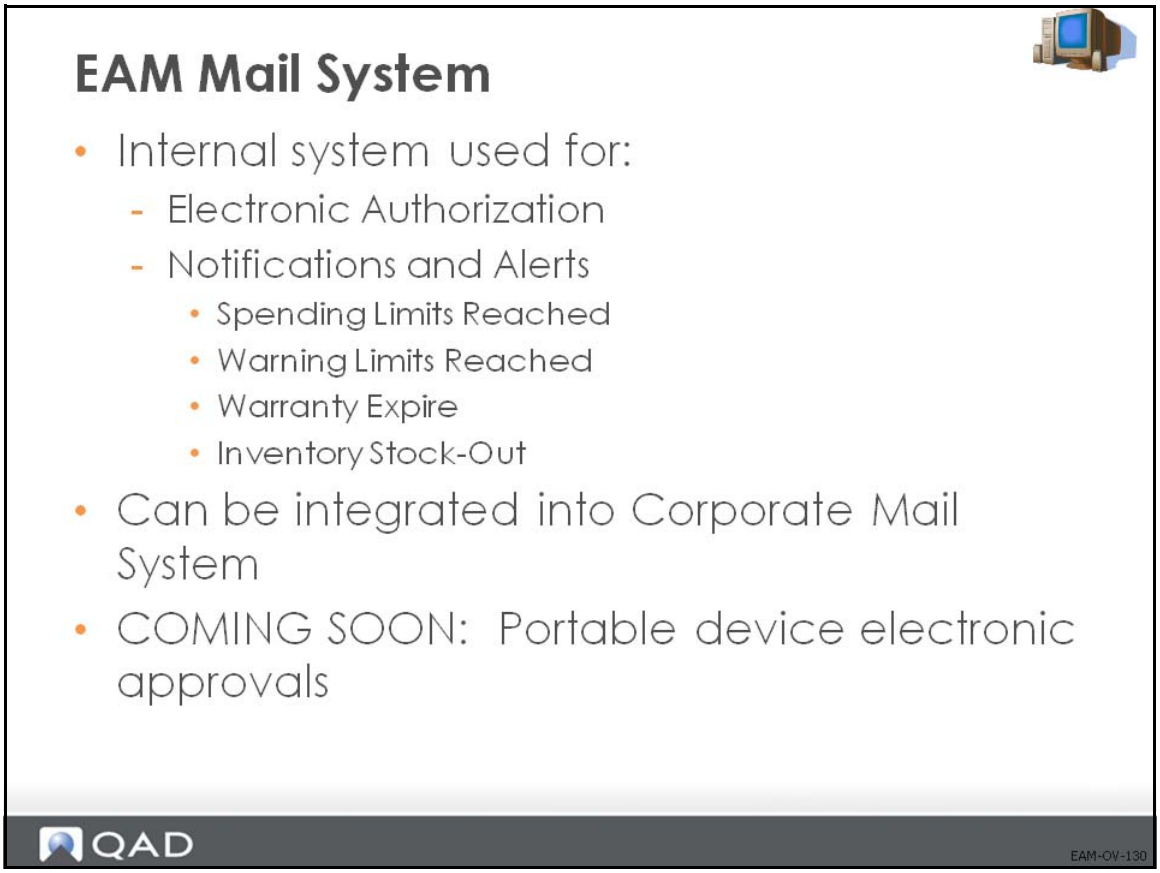
While most companies will not implement all possible options for electronic authorization, it is important to note that EAM allows for the following types of approvals:

- Work Order Authorization
- Service Request Authorization
- Purchase Request Authorization
- Purchase Order Authorization
- Project Authorization
- Stores Requisition Authorization

Configuration for electronic authorization is perhaps the most complicated part of EAM configuration, and for that reason, we will spend a good deal of time in both the EAM Configuration class and the EAM Purchasing class exploring setup. Sufficient for you to know at this time is for each of these electronic approval options is a separate configuration and set of Approval Groups.

Also, with version 12, EAM has introduced the concept of “Horizontal and Vertical” approval options. In the past versions, our approvals were straight-line vertical approvals, but now we can provide options for horizontal approvers, too. Keep your eye on this functionality as it continues to evolve.

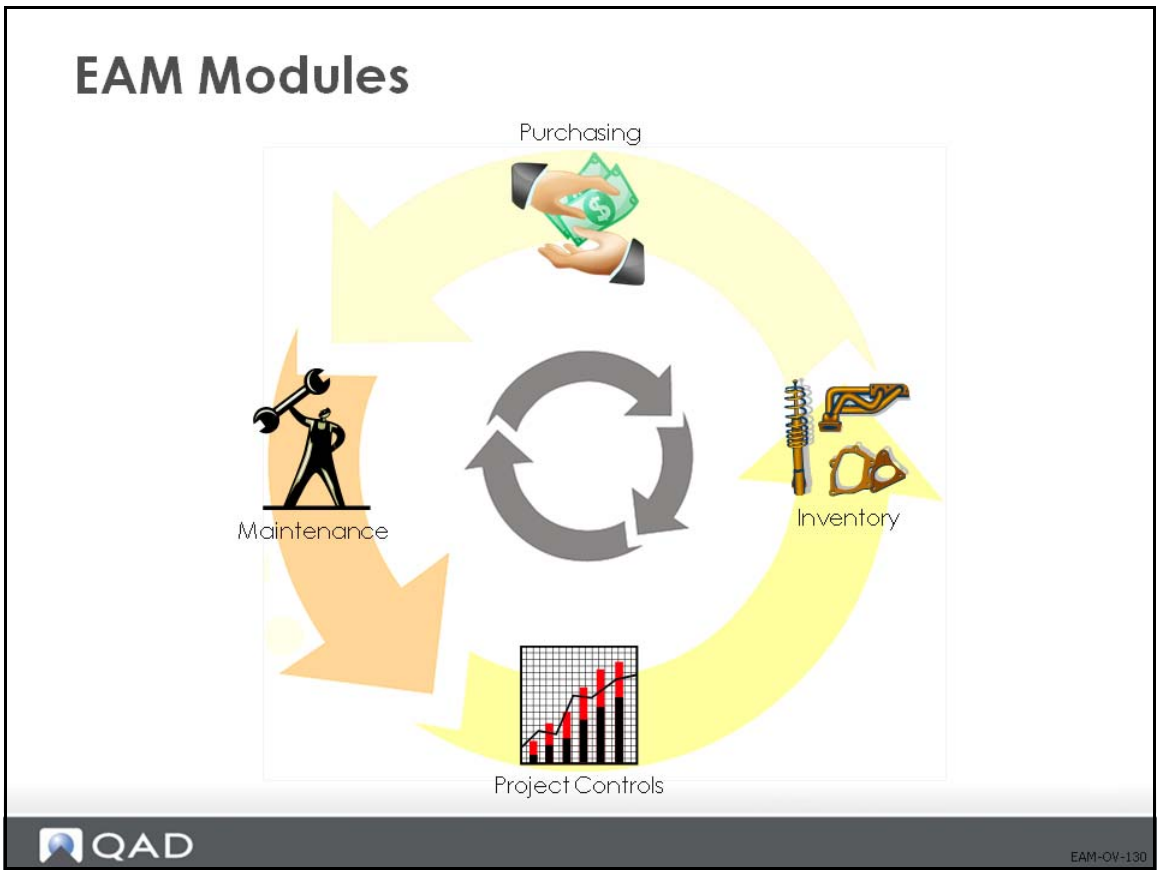
Mail System



The EAM mail system in an internal electronic mail system specific to EAM for the driving of electronic authorizations and important notifications and alerts. While these same emails can be sent also to a user's corporate mail address, remember that action can only be taken on those emails from with the EAM system at this time. For that reason, most EAM power users do not have EAM mail sent also to the corporate mail, but this is a very convenient feature for casual users who may also be on an approval chain, for example.

R&D plans include future functionality to allow action to be taken on emails external to EAM, including from portable devices such as BlackBerry or Android devises.

EAM Modules



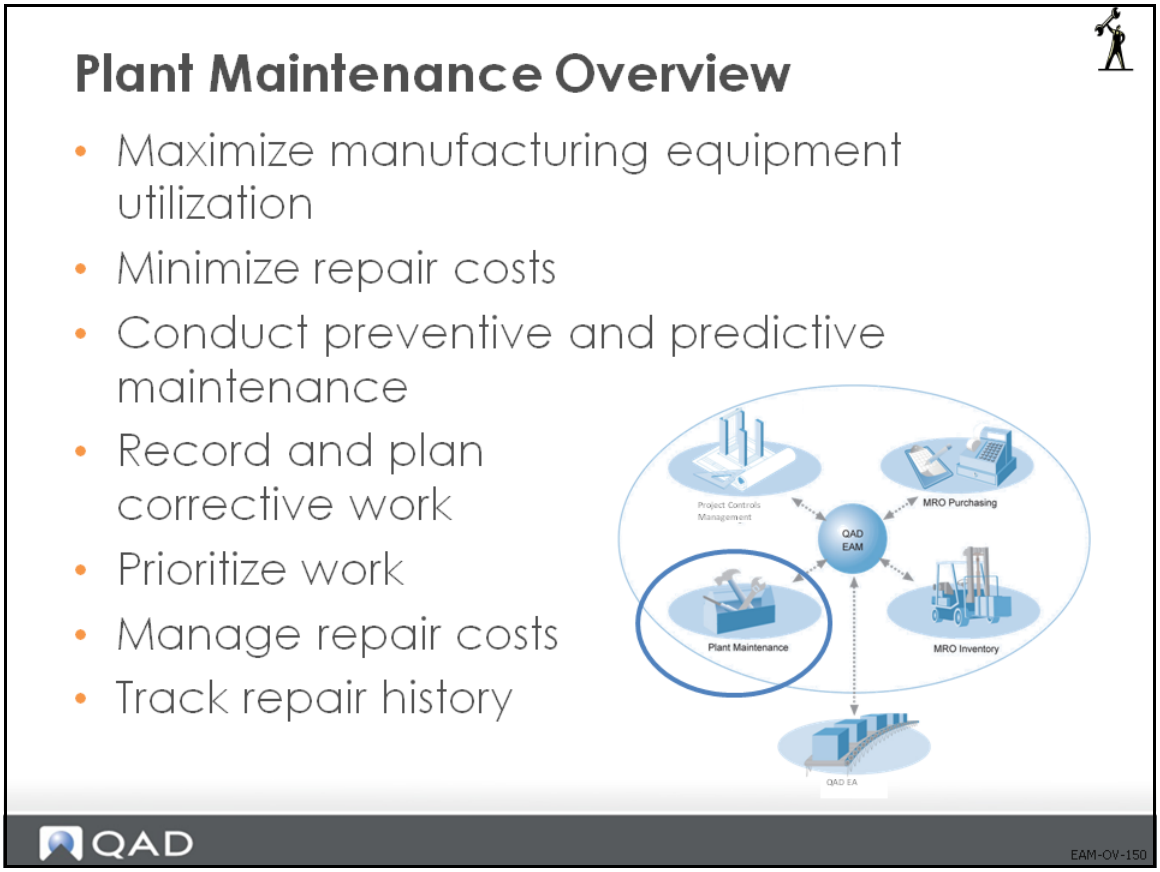
Configuration and System features are the foundation on which all EAM functionality rests. But, for the EAM user, those elements are secondary to their lives. You will find that users want to know what EAM will “do” for them. So, throughout your EAM certification, our focus will be on these four major modules of the product:

- Purchasing
- Inventory
- Maintenance
- Project Controls

These modules are the “portals” with which users interact to accomplish their daily tasks. Notice how in this slide each of these modules form a piece of a complete circle. While certain elements of EAM can be implemented without implementing others, EAM is at its best when all four modules are working together to form a true Enterprise Asset Management solution.

In the sections to follow, we will explore each of these modules and explain the business space of each.

Plant Maintenance Overview



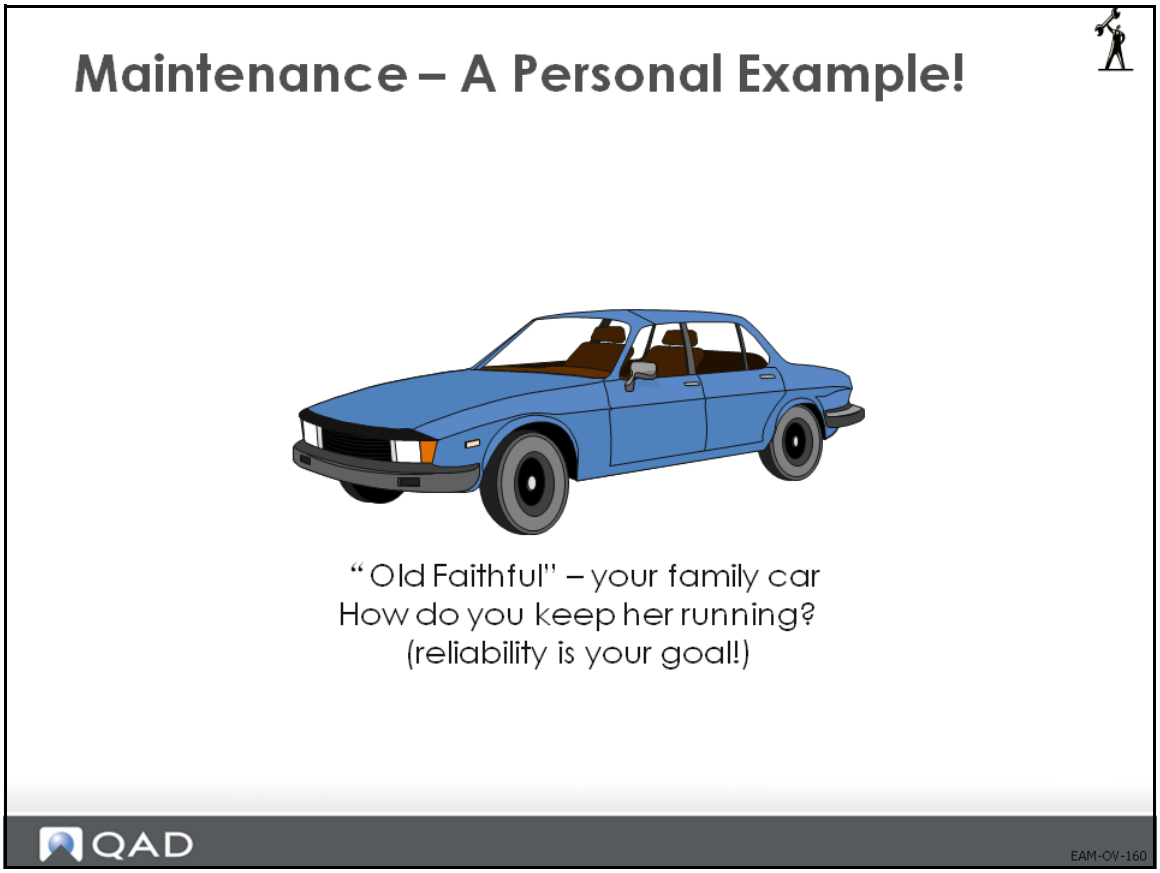
Use Maintenance to drive the work order process for maintenance and repair operations. This includes all Preventive/Predictive maintenance (PM/PdM), plus planned and unplanned work to keep equipment operating at capacity.

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 ownership” which includes costs for 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

Maintenance: A Personal Example



For many students attending this EAM Level 1 Certification training, you may have never been in a manufacturing plant. Or if you have been, you may have never dealt with the Operations side of the business.

For that reason, let's take an example that is completely outside of manufacturing to help you to understand what "Maintenance" means.

An excellent personal example of maintenance concepts is your family vehicle. How do you insure that "Old Faithful" is ready and operable when you need her?

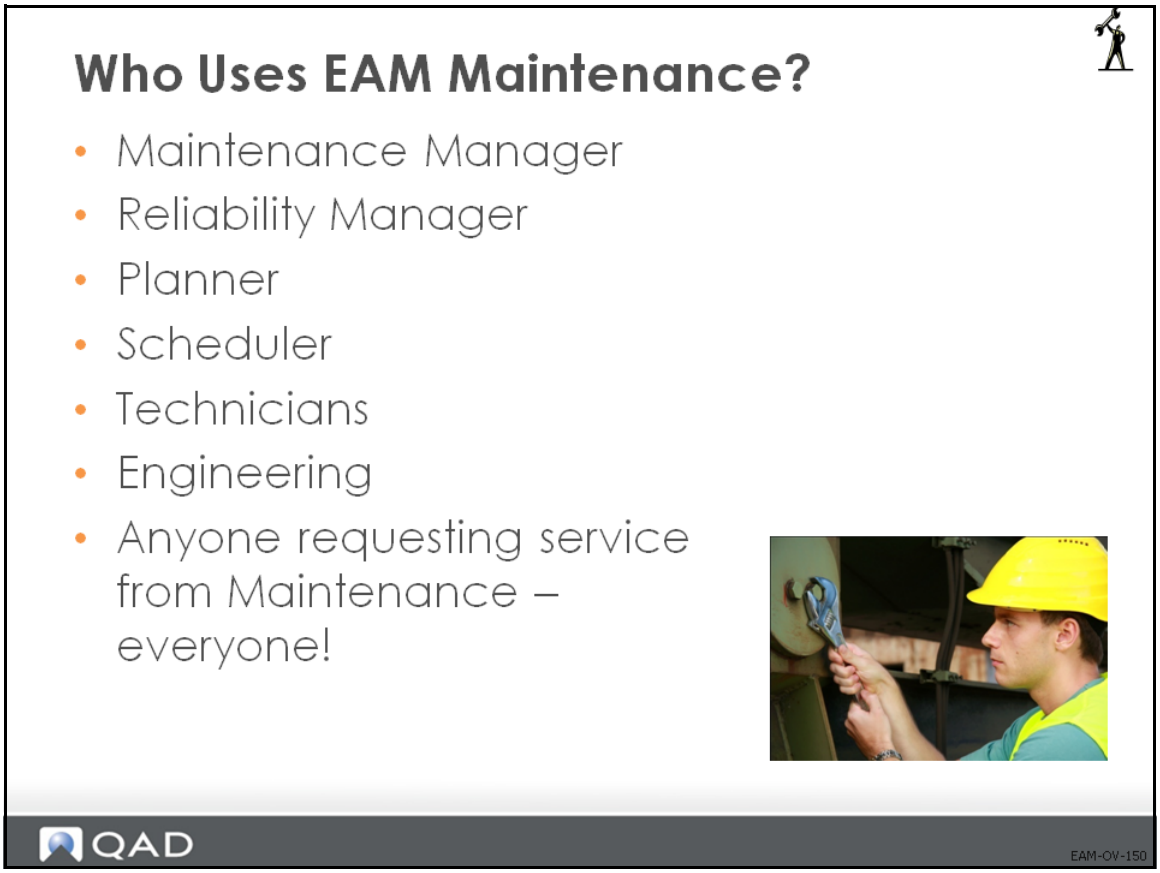
You may wish to utilize your EAM Level 1 Activities book to record some of your thoughts regarding maintaining your vehicle, and chances are very good that those same concepts will apply to how a plant maintains their equipment.

We will revisit this example in future classes. Use the following tips to drive your thinking.

1. Preventive Maintenance
   - a. Change the oil every 3 months or 3000 miles (Calendar / DUOM PM)
   - b. Car Wash (following heavy snow, salt EVENT)
   - c. Fill air in Tires (based on pressure gauge reading compared with min/max requirements from OEM)

2. Corrective Maintenance
   a. Flat Tire?
   b. Battery dead?
   c. Won’t start?
3. Maintenance Scheduling
   a. When will the car be available for an oil change? (Scheduled outage)
   b. What if car breaks down? (Unscheduled outage)
4. Inventory
   a. Spare Tire (Stock item)
   b. Windshield Wiper Blades (Non-Stock, but need to know part #)
   c. Air Filters (Non-stock, but need to know part #)
   d. CD burned with music designed to put the kids to sleep (internally fabricated part!)
   e. Insurance (virtual part)
5. Purchasing
   a. “Stock” Parts
   b. “Non-Stock” Parts
   c. Fuzzy Dice to hang from rear-view mirror (definitely a spot buy!)
   d. Car Wash – service
6. When you need repairs or work – do you call your mechanic for an appointment and describe the problem? (Service Request)
7. What is your cost of ownership? Just your monthly payments and insurance?

EAM Maintenance Users

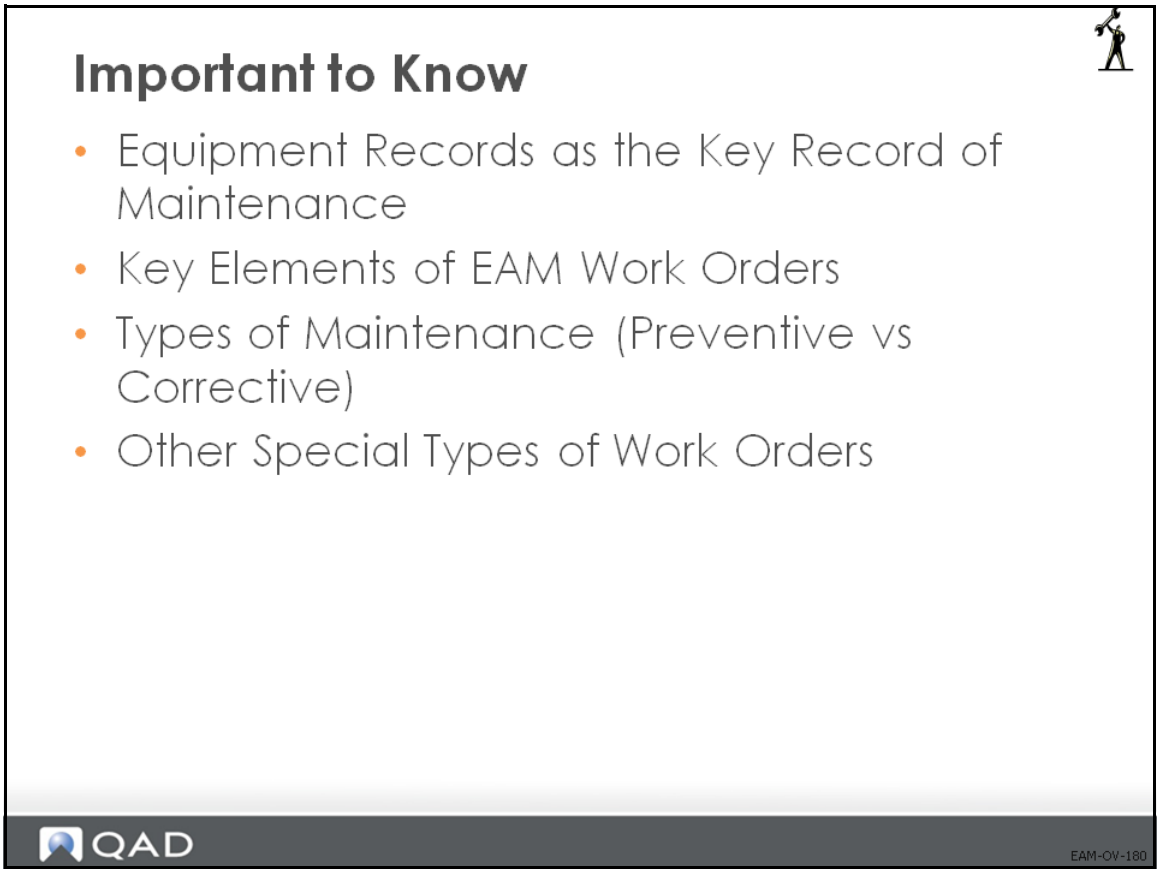


Who would use EAM Maintenance within a plant? The simple answer is anyone who requests service from Maintenance, but the power users of the EAM Maintenance module usually include:

- Maintenance Manager
- Reliability Manager
- Planner (Planner = yes)
- Scheduler
- Technicians (Assigned = yes)

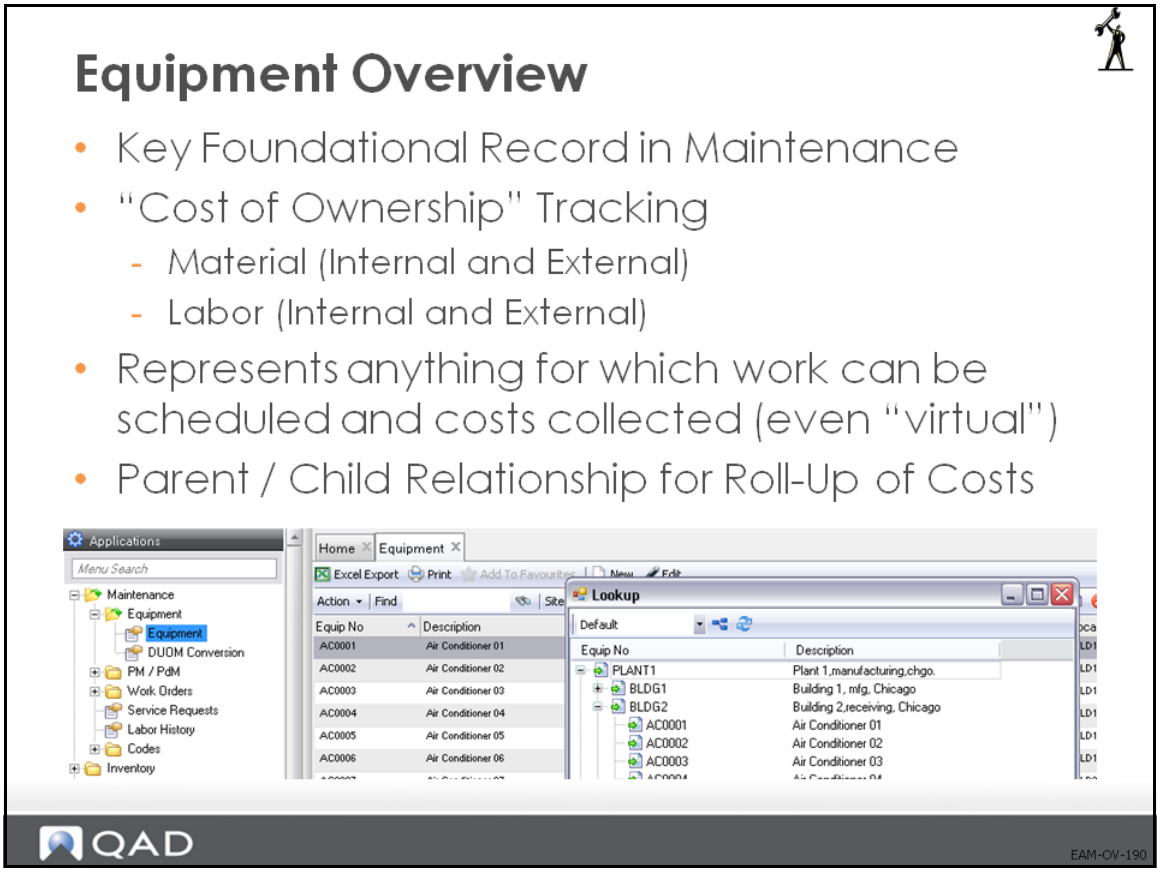
Understanding the key users in this module is important to ensuring that we craft a solution that meets all of their business requirements.

Important To Know



In the following slides we will cover some important Maintenance concepts on which we will build in future classes. The next few slides discuss the very important “Equipment Record”, as well as important information regarding EAM Work Orders, types of maintenance, and special cases now handled by EAM.

Equipment Overview



The Equipment Record is the key foundational record of the Maintenance module. It represents that “bucket” in which a company wishes to track cost of ownership, and it is the driving record for Work Orders and Preventive Maintenance functions.

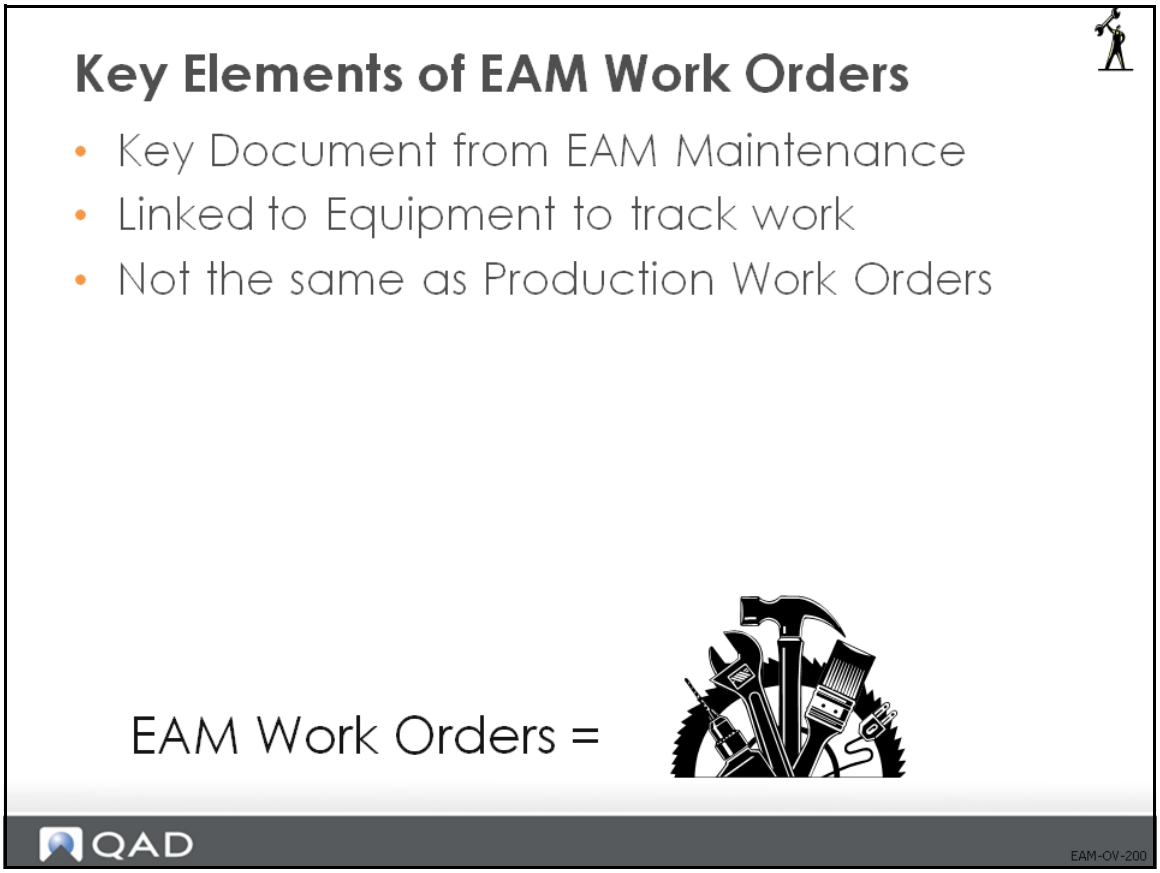
An Equipment record can represent anything for which work can be scheduled and costs accumulated. As mentioned earlier, fixed asset accounting depends upon “asset” records for capitalization and depreciation, but it is very common for a company to further expand upon that set of “asset” records in their equipment list. For example, a company may have capitalized an asset representing an entire production line for accounting purposes. But, for the maintenance group, breaking that one asset down into its component machines is critical to properly maintaining that line. As a result, you will often see many more equipment records than a company has asset records.

Equipment records can also be “virtual”, meaning that you could setup a record to represent the entire building, and then associate child records to the building to represent different areas, and then finally associate grandchild equipment records to represent each piece of equipment in each area. By setting up this “parent/child” relationship, you are then able to roll-up costs for in depth analysis of cost of ownership.

Once setup, the Equipment record can be used to store and track information such as the following: cost analysis, failure analysis, bill of materials (BOM), driving units of measurement (DUOM), serialized components, tracking, and service requests. The Equipment record also allows you to track regularly scheduled work and breakdowns while collecting repair and maintenance cost information for each piece of equipment.

In the Introduction to EAM Maintenance class we will explore the Equipment record in much greater detail.

Elements of EAM Work Orders

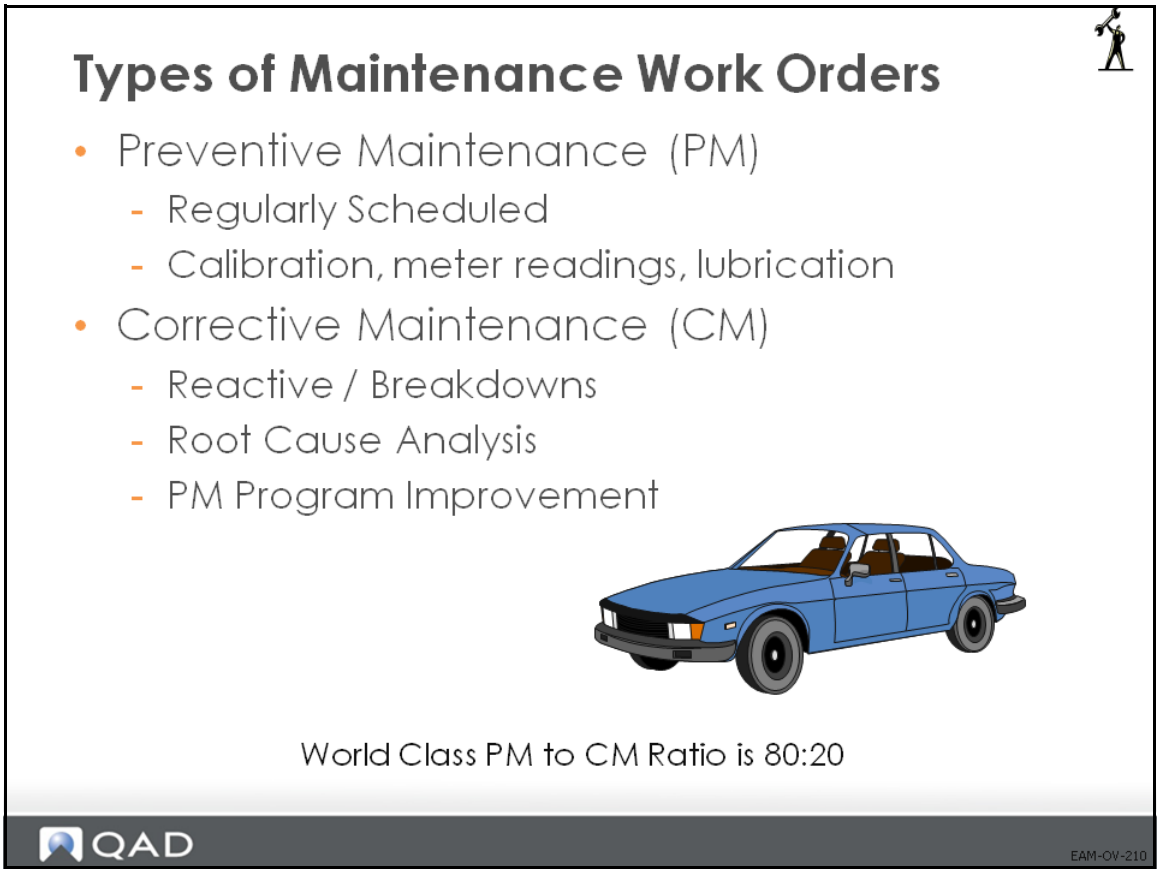


While the Equipment number is the key foundational record in the Maintenance module, the Work Order is the key document utilized to track every individual work event on equipment. In the course of its life, a single equipment record could have hundreds or thousands of Work Orders associate to it.

The Work Order captures all the costs with performing an individual job, such as labor, internal parts, purchased materials, and even subcontractor costs. In the Introduction to EAM Maintenance class we will dig deeply into all the robust functionality around the EAM Work Order.

Important to know, though, is that an EAM work order is NOT the same as work order in the ERP system. An ERP work order drives production while an EAM work order is built to drive operations and maintenance. In EAM a work order drives “wrench time” and repair / preventive maintenance event traceability.

Types of Maintenance Work Orders

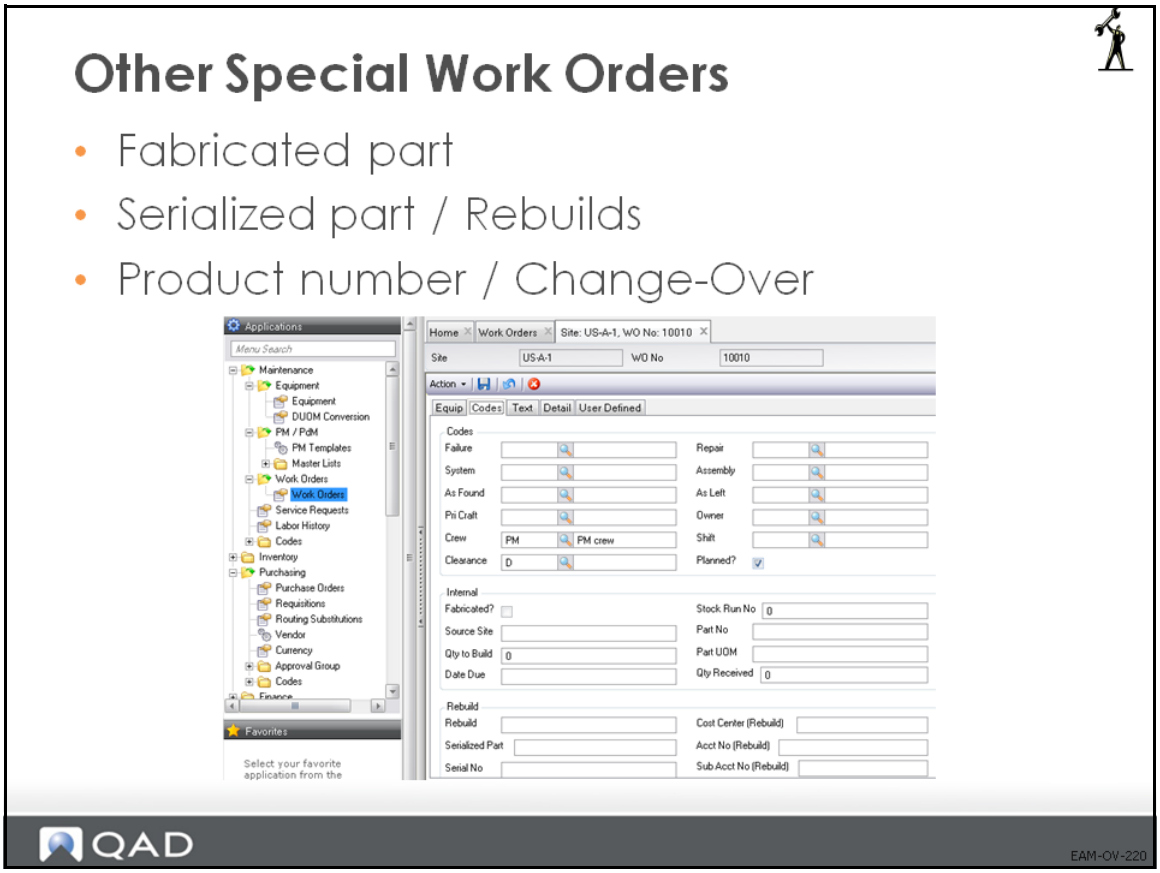


While all types of work can be tracked in EAM, the two primary types of Work Orders are:

- 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”?

As you continue along your EAM certification path, you will read the book “World Class Maintenance Management” by Terry Wireman. A common standard, as found in that powerful book is that the World Class PM to CM Ratio is 80:20.

Other Special Work Orders



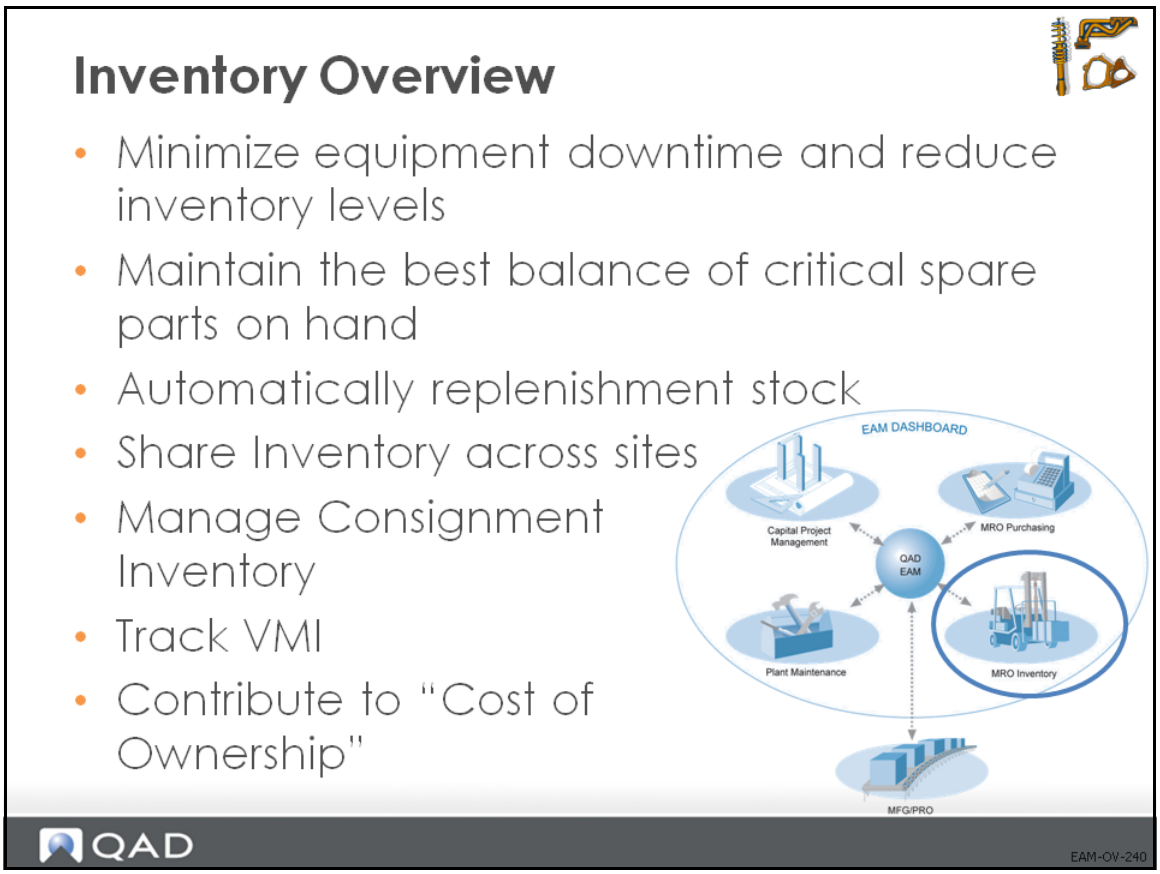
While the majority of EAM Work Orders fall into the category of Corrective or Preventive, EAM does also allow for some other special types of work as follows:

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.

Some facilities may track certain items as "Serialized" parts. For example, a company may have 3 of a particular horsepower motor that maybe used on the same piece of equipment. Each motor is uniquely identified by its serial number. If the motor fails, EAM tracks which serial number motor replaces it, and EAM can also track that the failed motor has been sent out for repair, when it is returned to inventory, and at what cost.

Finally, some companies have frequent changes in their production lines to produce different finished goods. This "change-over" time has become an important measure to production. By tracking work, steps required, parts used, etc. involved in changing the configuration of a production line from one finished good to another, EAM provides the ability to monitor what each change-over costs and provides the opportunity to continuously improve and stream-line those activities.

Inventory Overview



Studies suggest that as much as 50% of a plant's entire maintenance budget is consumed by Indirect Inventory, specifically in repair parts to support operations. As a result, inventory control has risen to the top of priorities for many companies, especially as they seek to reduce costs while still maintaining operations at the optimal level.

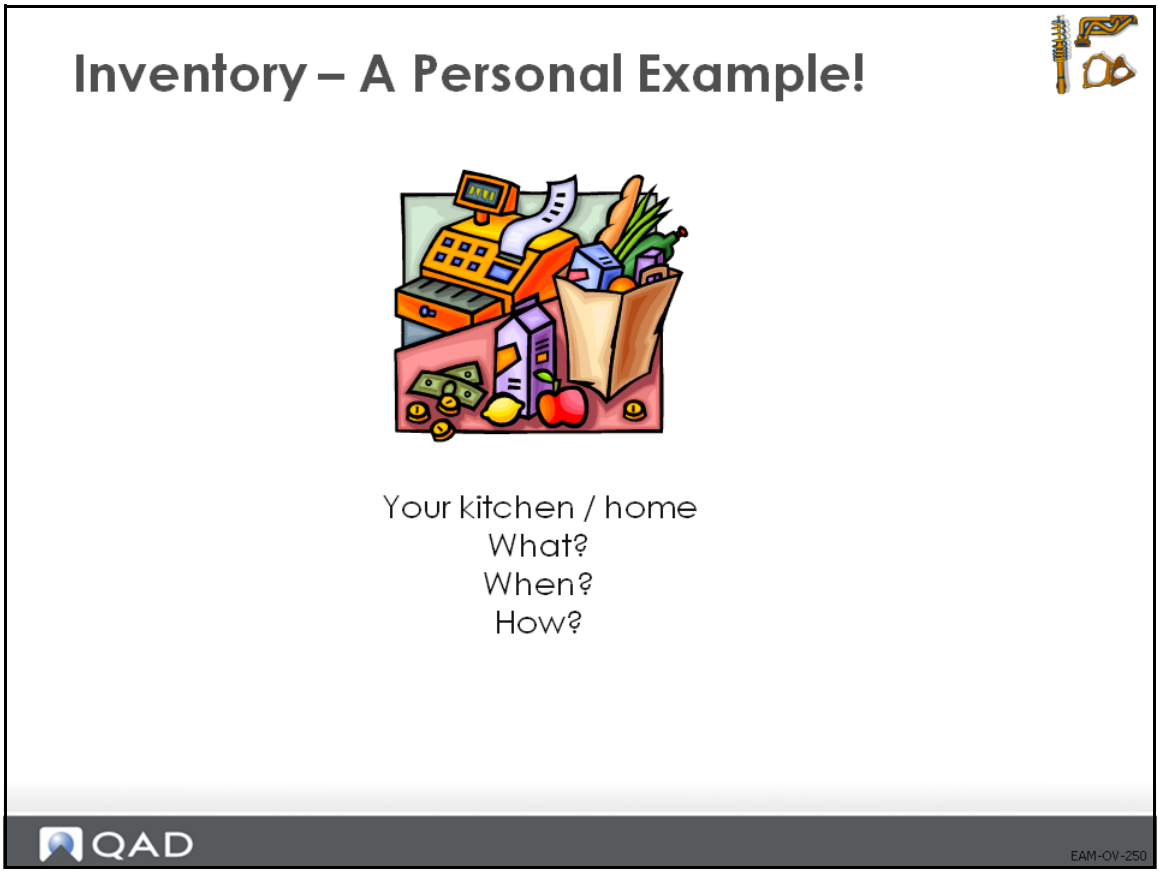
Maintaining inventory properly requires a constant balancing act between having what you need when you need it but not overstocking items unnecessarily. Many parts will even have seasonal usage which will require regular attention to stock minimum and reorder quantities.

Inventory also touches many areas within a plant depending upon the company's policies around managing indirect inventory. Some facilities will include supply-type items such as paper towels or copy paper. Others may include safety items such as gloves, safety glasses, and ear plugs. In addition to servicing such supply needs, Technicians will require replacement parts in order to properly maintain facilities and equipment.

EAM users can leverage the Inventory module functionality to manage a wide range of materials from an enterprise or site level, including stock, reorder, vendor, and financial details. To provide this service, 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. And, naturally, Purchasing plays a major role in acquiring inventory.

So, though Inventory is a very common concept, in EAM you see that this module impacts many areas of a business and is a vital part of a plant's reliability.

Inventory: A Personal Example



As discussed in the Maintenance section, many students in this learning path may have never been in a plant, or if they have, may have not dealt with the area of operations around indirect inventory. To better understand the thought processes associated with managing non-production inventory, consider the personal example on this slide, and utilize the questions below to help you think about the different nuances to be considered in deciding what to purchase and what to keep on hand.

How do you stock your kitchen / home in order to ensure you have what you need when you need it?

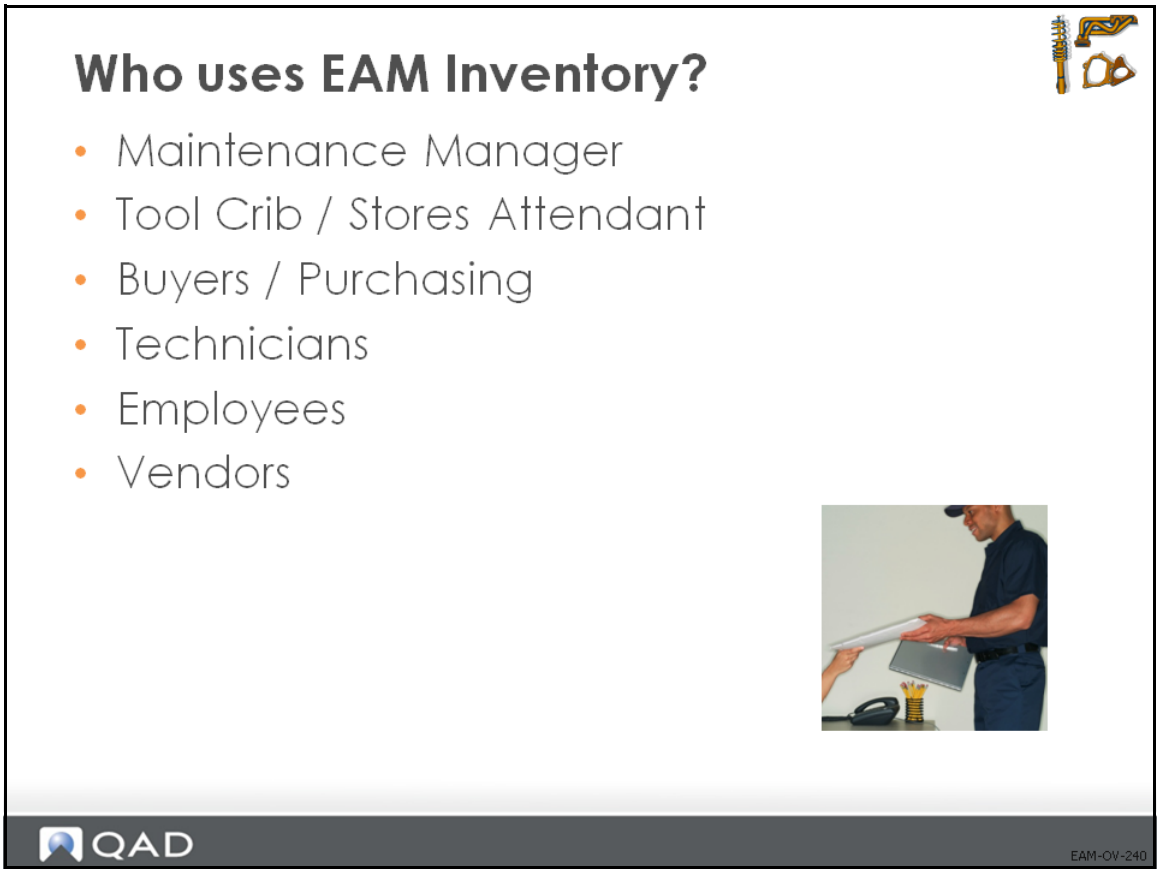
1. What might you stock?
   a. Milk – what about shelf life?
   b. Canned foods
   c. What combines to make a meal? Is this a parts list?
2. Critical Spares? (Definitely Toilet Paper)
3. Which of your items are single vendor/manufacturer, meaning you will only buy and use ONE specific kind with no substitutions allowed, regardless of price?
4. Which of your items could come from different vendors/manufacturers as long as they meet certain criteria?
5. How do you budget?

6 What might be a “Spot Buy”?

7 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?

8 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?

EAM Inventory Users

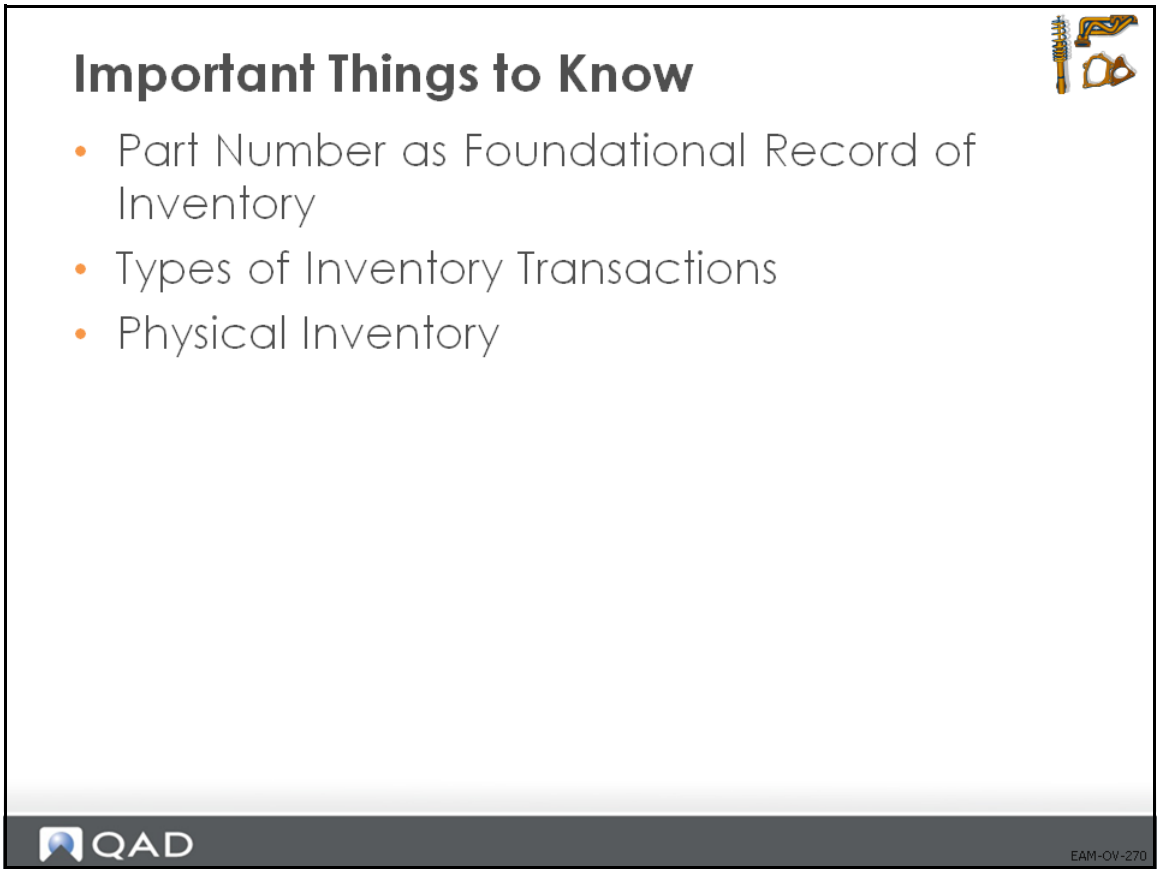


As with Maintenance, the Inventory module has common roles depending upon the information and functionality it provides. Depending upon what a company decides to include in their indirect inventory (supplies, safety, etc.), many more people may find themselves working with and relying upon EAM's Inventory module to help them perform their jobs effectively.

Think about these roles and consider how each may have a different perspective regarding what to stock. Can you see that often opinions may differ? The EAM Inventory module is designed to help make effective business decisions to insure that each area is supported as needed.

In the Introduction to EAM Inventory class, we will explore in detail how the Inventory module is used to support operations of all types.

Important Things to Know



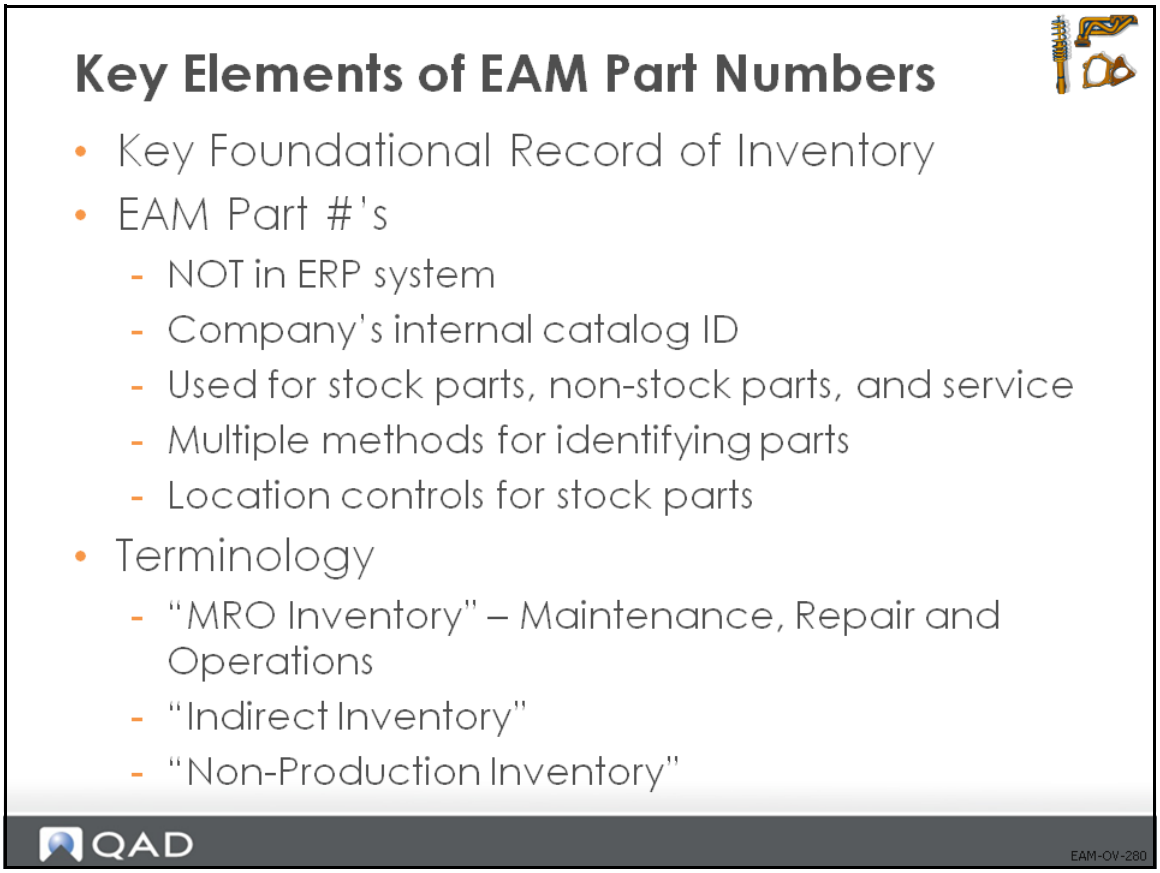
Just as the Equipment number is the key foundational record of Maintenance, the EAM Part number is the key foundation record of the Inventory module.

In the following pages we will review how Inventory records can be created to represent anything from tangible parts that you store on a shelf to parts you do not stock but purchase occasionally to subcontractor services such as snow-removal.

Also, as in the ERP system, many different transactions can be performed with inventory, and we will briefly discuss that.

And finally in this section we will review how Physical Inventory functions in EAM and how it differs from the Physical Inventory you may be accustomed to using in the ERP system.

Elements of EAM Part Numbers



As the foundational record for the Inventory module, the Part record can be utilized to represent a variety of items, ranging from actual parts on the shelf to place holders to represent subcontractor services.

It is important to note that the Part records in EAM do not exist in the ERP system. As a matter of fact, purchases to replace inventory in EAM appear in the ERP system as simple memo purchases. The management of these parts, therefore, must always take place in EAM.

The most common type of Part record represents some repair part or supply item that is physically stored on a shelf and consumed as it is used. This is what we call a “stock” part.

Part records can also be created for items that you may not wish to stock on the shelf but which you may purchase frequently. Creating a Part record for these types of items allows for future analysis of usage and pricing, with the potential that usage could drive the decision to start stocking these parts to take advantage of bulk-buying price savings.

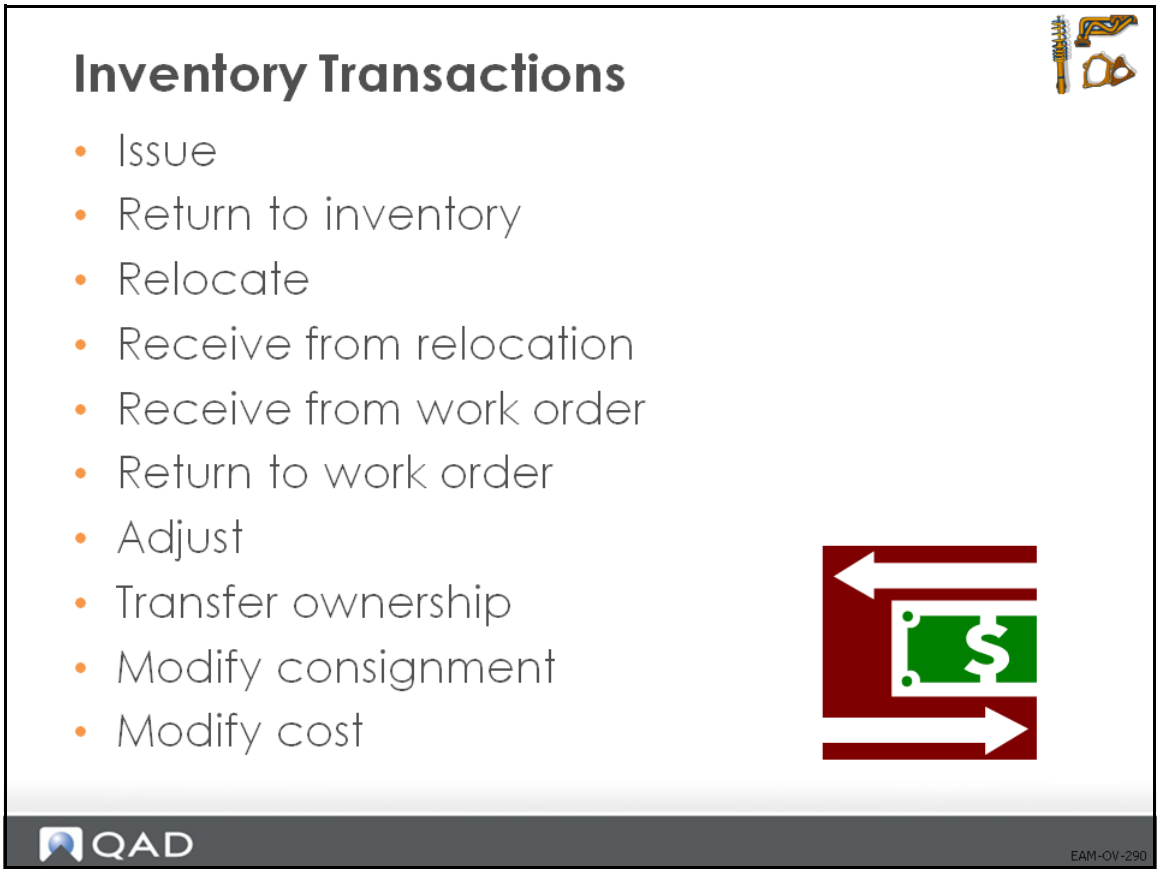
Also common is to create Part records to represent recurring subcontractor services. Many plants outsource certain activities such as fire extinguisher inspection, lawn care, or fork lift maintenance. Having a Part number to represent these services provides important analysis data for continuous improvement and potential cost savings.

Regardless of what the Part represents, being able to locate the appropriate Part record is critical. For that reason, EAM provides a variety of ways in which to identify a part. Properly set up, the EAM Part record provides enough information that a technician should be able to locate a repair part just from the greasy broken part in their hand!

Once the correct Part record has been located in EAM, then the record can guide the user to exact rack, row, and bin in which to find that part on the shelf, thus saving significant time previously spent walking around the store room looking for parts.

As we progress through your EAM certification, you will hear us refer to inventory in EAM using a variety of terms. “MRO Inventory,” “Indirect Inventory,” and “Non-Production Inventory” are common terms for the types of items managed in the EAM solution.

Inventory Transactions



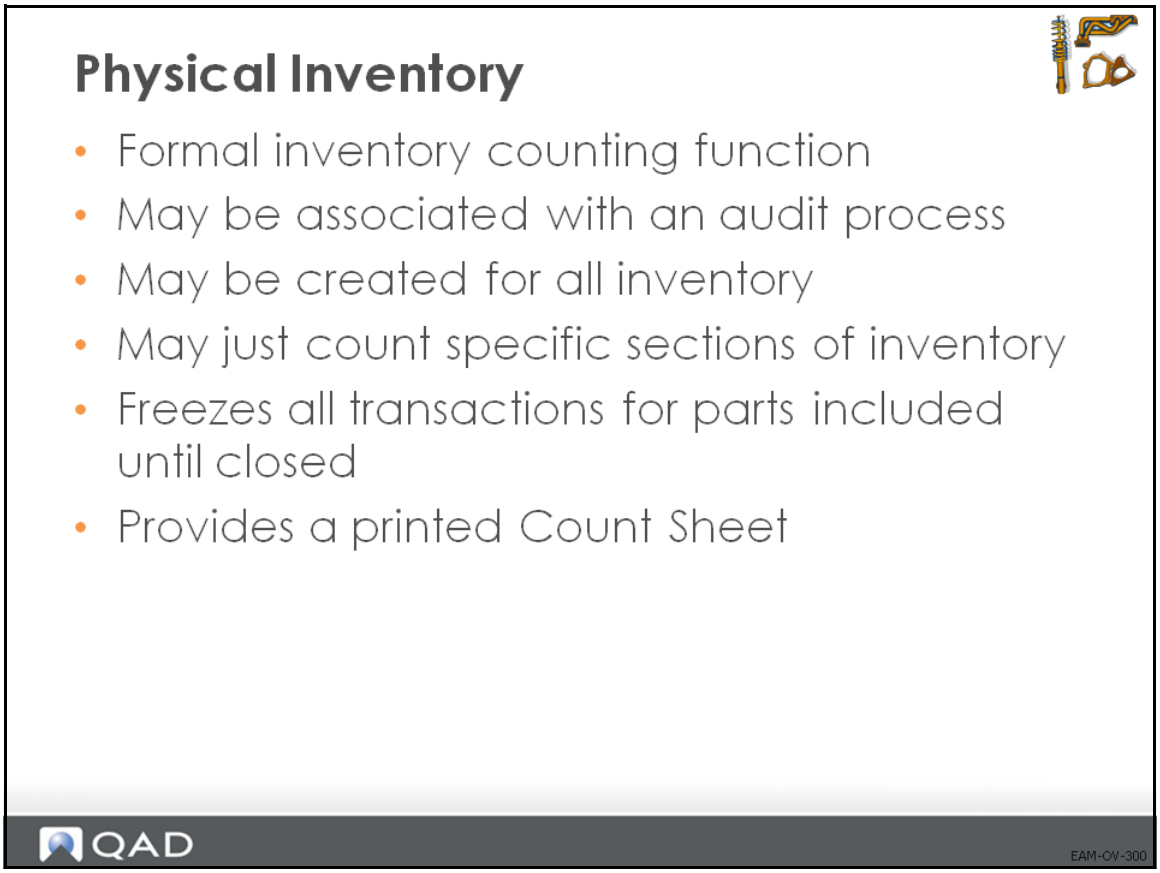
As in the ERP system, Inventory can be associated with a wide variety of transactions. Many of the EAM Inventory transactions are very similar to those you may already know in the ERP system, but some of them are unique to EAM. We will explore these transactions in detail in the Introduction to EAM Inventory class.

For the purposes of this class, though, you should familiarize yourself with the types of transactions available. 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, etc.)

- 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 (i.e. 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



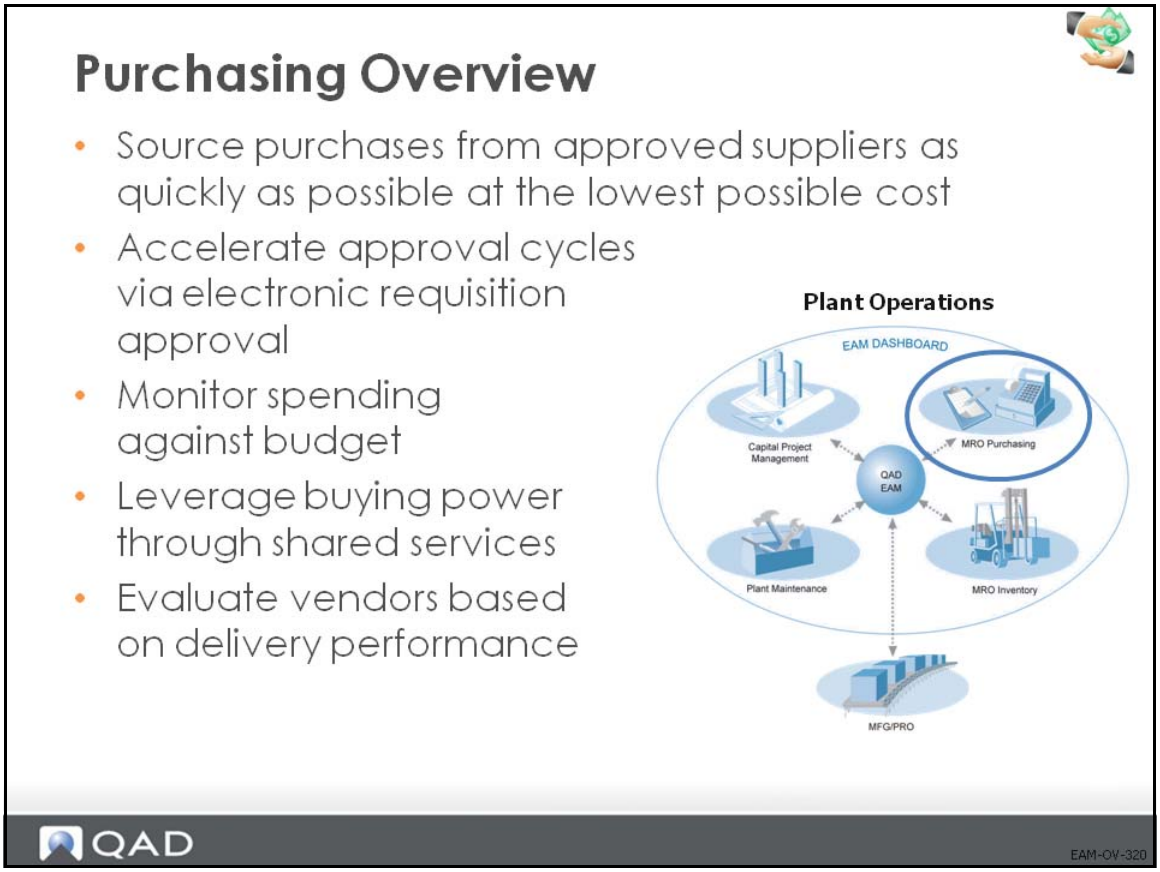
Physical Inventory in EAM is similar in theory to the Physical Inventory in ERP with the following exceptions:

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

Note that the transactions generated from this function to ERP are type “Phys-Inv”.

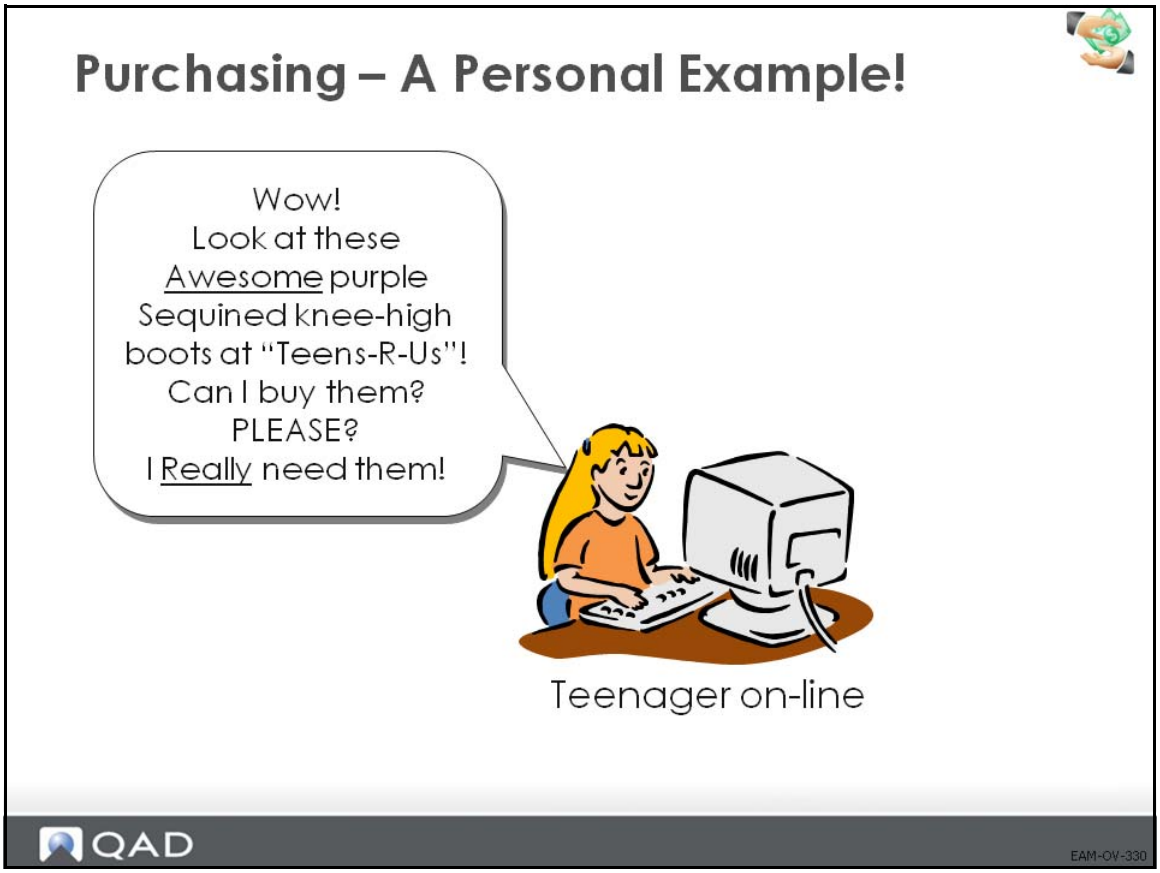
Also, important to note is that the term “Physical Inventory” implies to some companies what would be known as a “four-wall” count, or a complete wall-to wall count that requires the plant to be shut-down. With EAM, Physical Inventories can indeed be four-wall counts, but more commonly companies use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

Purchasing Overview



The audience for EAM Purchasing can be a very broad range of roles. In general, you may consider that those who use Maintenance, Inventory, and Project Controls are probably also invested in the functionality around Purchasing. Add to that list now the users from the Purchasing department (Buyers, Purchasing Supervisors), Approvers, Accounting, and Accounts Payable and you see that you could conceivably have the largest population of EAM users concentrated in this one module.

Purchasing: A Personal Example



As we have done with Maintenance and Inventory, an example regarding Purchasing that is personal and outside of the plant walls should provide you with an idea of the thought processes involved in Purchasing.

Review this slide and then ask yourself what you could possibly do in this situation. Use the questions below to help you consider a variety of options.

1. Teen asks permission. (i.e. Purchase Request)
2. You check cost and your budget and agree. (i.e. Requisition Approval)
   - a. Do you shop around for a better price?
   - b. Are these boots only available from that one place?
   - c. Is there an alternative to these particular boots? (probably not with a teenager)
3. You set up an account at “teens-r-us.com”. (i.e. Purchasing Creates Vendor)
4. Place the order. (for example, Buyer converts approved Purchase Request to a Purchase Order)
   - a. But, now the boots are needed for school dance next week – do you expedite? What is the cost?
   - b. Maybe the boots are out of stock and are backordered. Do you keep the order open? What might influence your decision?

5 Boots arrive. (i.e. Receiving receives purchase order into EAM)

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

7 You pay the credit card bill! (i.e. Accounts Payable)

8 What is the actual cost of the boots?

   a Purchase Price

   b Tax?

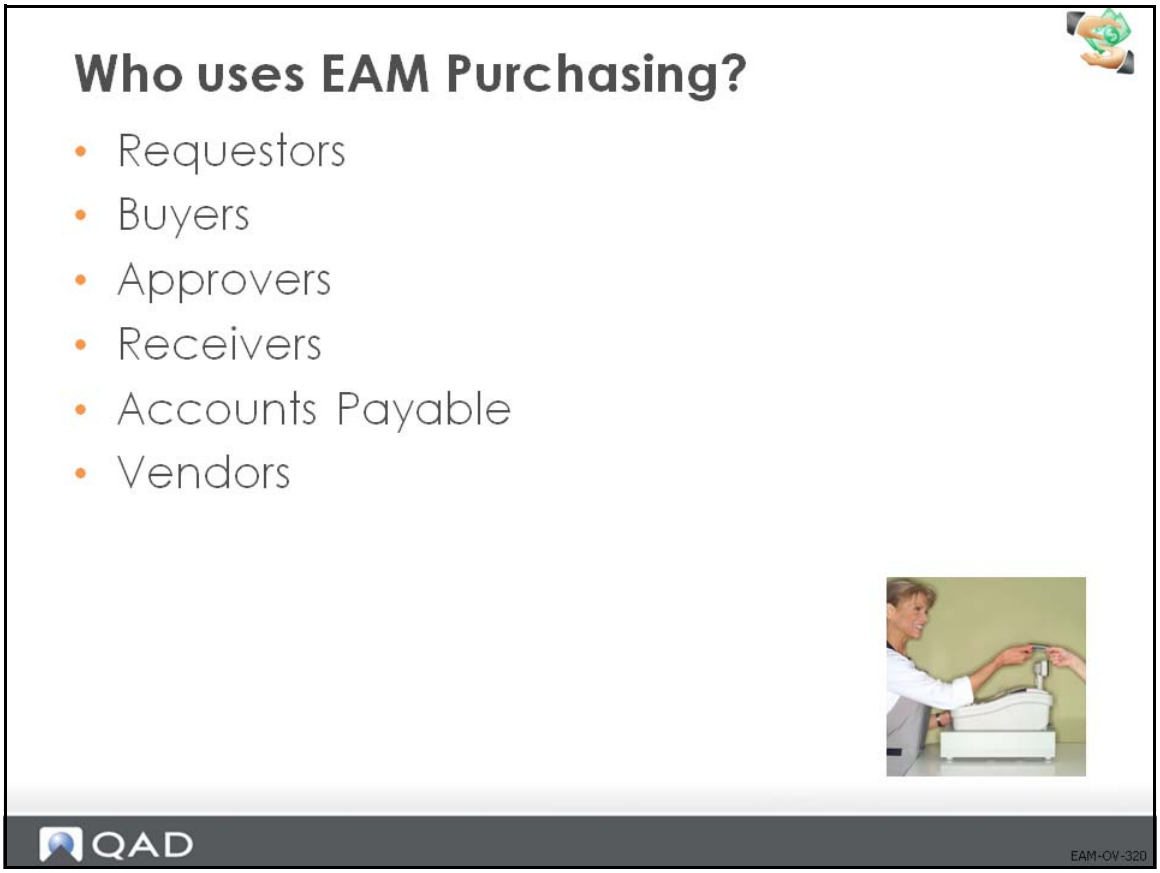
   c Shipping?

   d Credit card fees?

   e Your own very precious time?

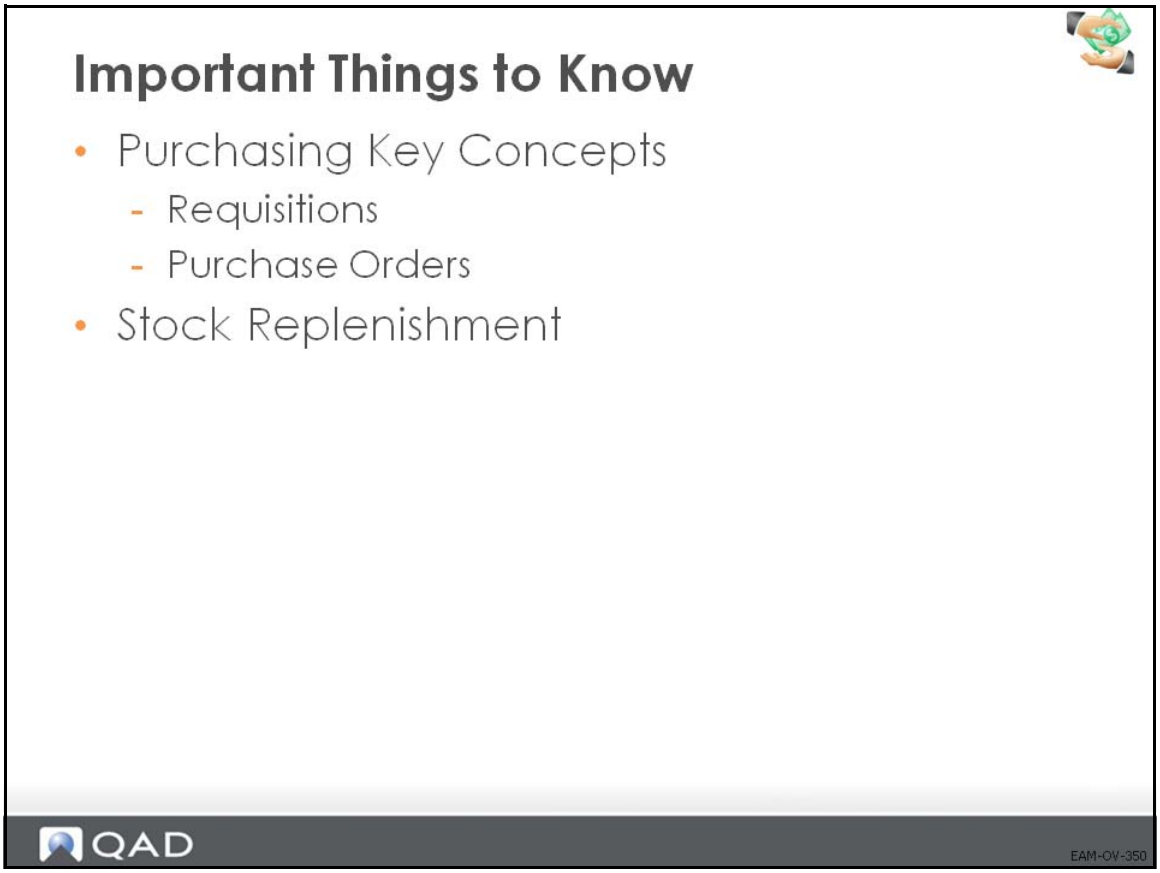
9 What is your “Return on Investment”? (Hopefully at the very least a teenager who is happy for a couple of minutes

EAM Purchasing Users



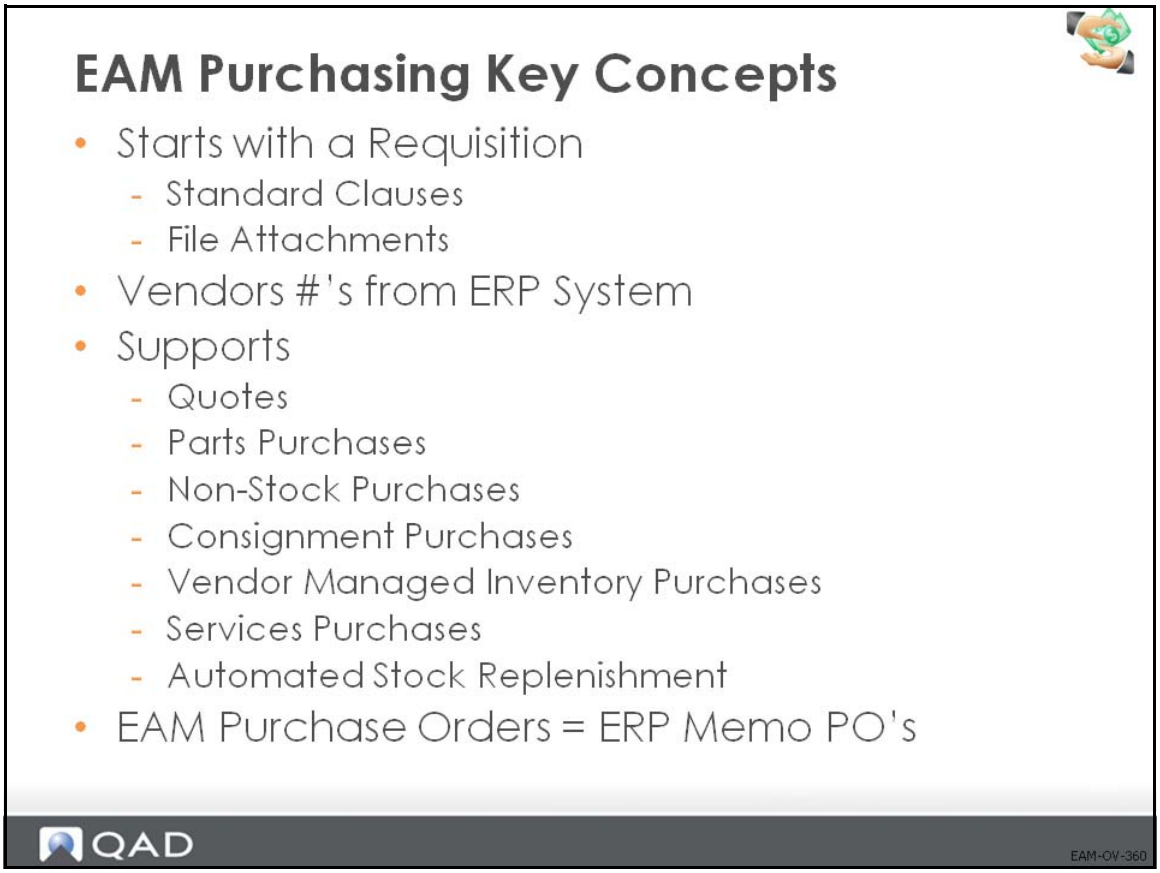
The audience for EAM Purchasing can be a very broad range of roles. In general, you may consider that those who use Maintenance, Inventory, and Project Controls are probably also invested in the functionality around Purchasing. Add to that list now the users from the Purchasing department (Buyers, Purchasing Supervisors), Approvers, Accounting, and Accounts Payable and you see that you could conceivably have the largest population of EAM users concentrated in this one module.

Important Things to Know



In the slides to follow we will provide an high-level overview of the key concepts in Purchasing and also discuss the EAM Stock Replenishment functionality. Each of these elements will be discussed in greater detail in the Introduction to EAM Purchasing class.

EAM Purchasing Key Concepts



Where does a purchasing process start? It always starts when someone, somewhere, identifies the need to purchase something. In EAM, that need to purchase something results in a Requisition (Purchase Request).

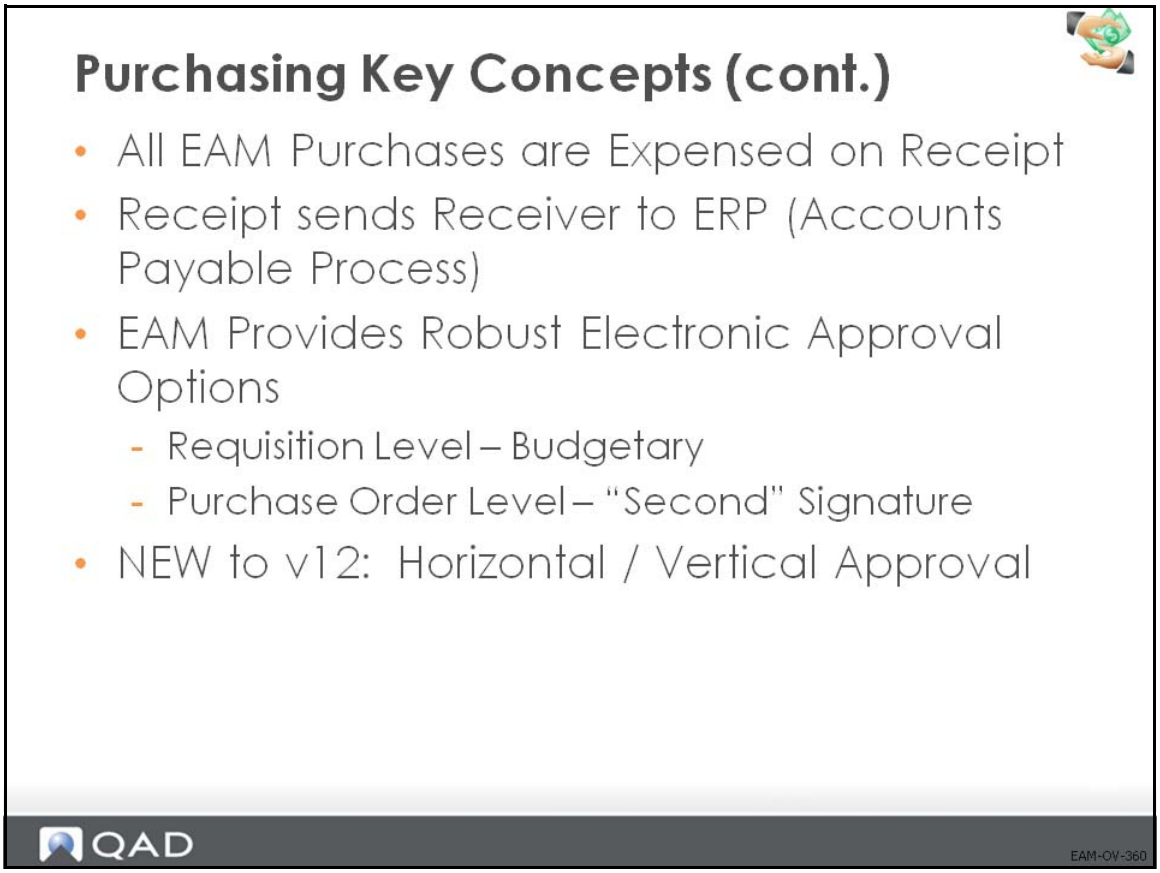
As with the ERP system, Requisitions may be associated with Standard Clauses. EAM also allows requestors to attached documents, such as a drawing for example, to their request which can be sent along to the vendor upon order.

Speaking of Vendors, if the ERP is the Accounts Payable system (which it is!), then it makes sense that the Vendor records in EAM must match exactly those found in ERP. For this reason, EAM looks to the ERP system to be the system of record for Vendor records and these records must be kept synchronized with the ERP list.

To familiarize yourself with a high-level view of EAM Purchasing functionality, review the items on this slide which are support by EAM.

As mentioned earlier, regardless of whether you are purchasing items to put on a shelf in EAM, those Part numbers do not exist in the ERP system. It stands to reason then that even if you are purchasing “inventory” in EAM, as far as the ERP system is concerned, EAM Purchase Orders are always considered to be “memo” purchases order in ERP.

EAM Purchasing Key Concepts 2

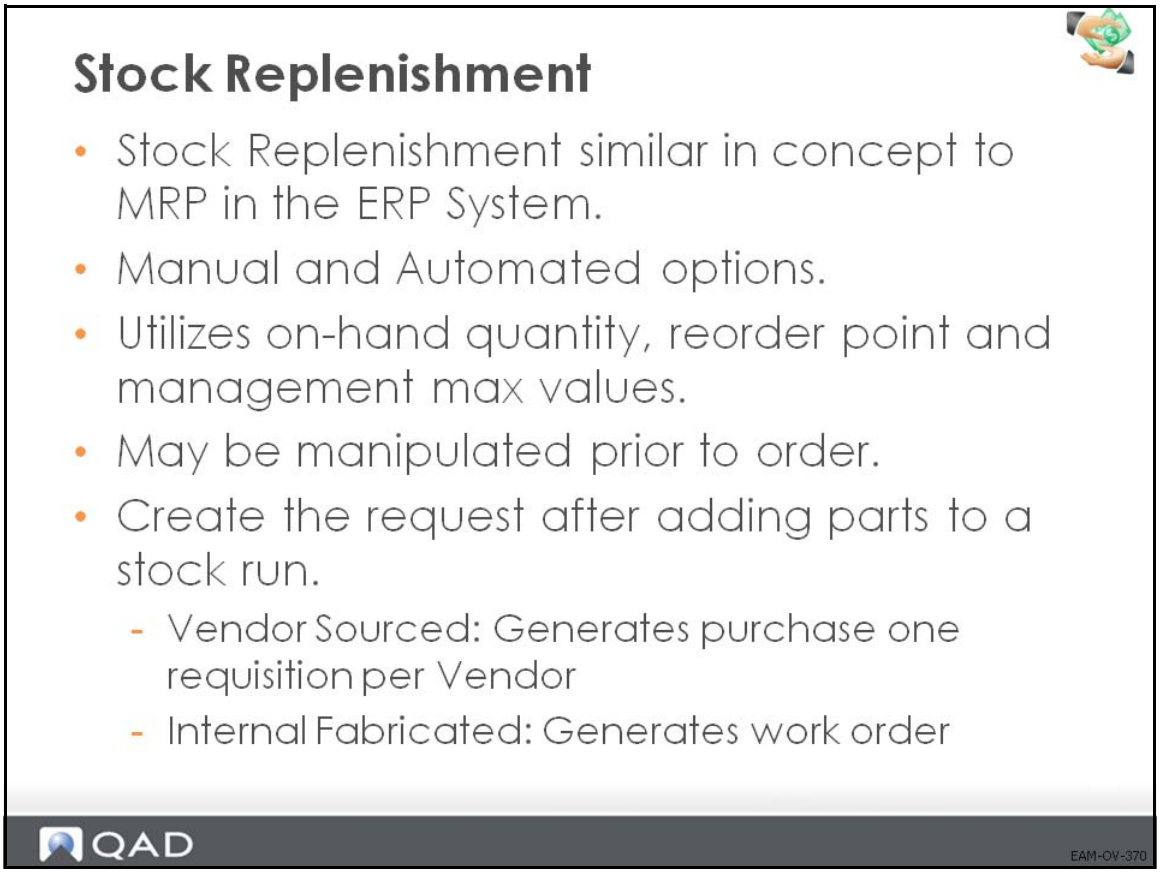


To continue with Purchasing Key Concepts, if EAM PO's are always memo type PO's in ERP, then it also stands to reason that when a PO is received in EAM it is automatically expensed at that time because ERP does not regard the purchase as an inventory purchase.

Being expensed on receipt, though, is not the same as saying EAM does not track items as inventory. When a PO for an EAM inventory item is received in EAM, the system will put that cost into an "intermediate" expense holding bucket for accounting. Financially, this means the purchase is expensed. But, EAM does not stop there, because where the true value of such a system lies is in being able to move that cost to its "final expense resting place" once it has been consumed. We will cover these financial concepts much more in both the Introduction to EAM Inventory and Introduction to EAM Purchasing classes.

And, finally, as mentioned earlier, EAM provides very robust functionality to support electronic approvals, and no where else in EAM is the complexity greater than in Requisition and PO Approvals. In general, companies use Requisition approval to represent budgetary approval to spend the money to purchase what has been requested. Becoming more and more common now is to also include a second level of approval at the PO level. Purchase Order approval is commonly used where financial requirements limit the value of a PO that a buyer can commit without having a "second" signature on the order.

Stock Replenishment



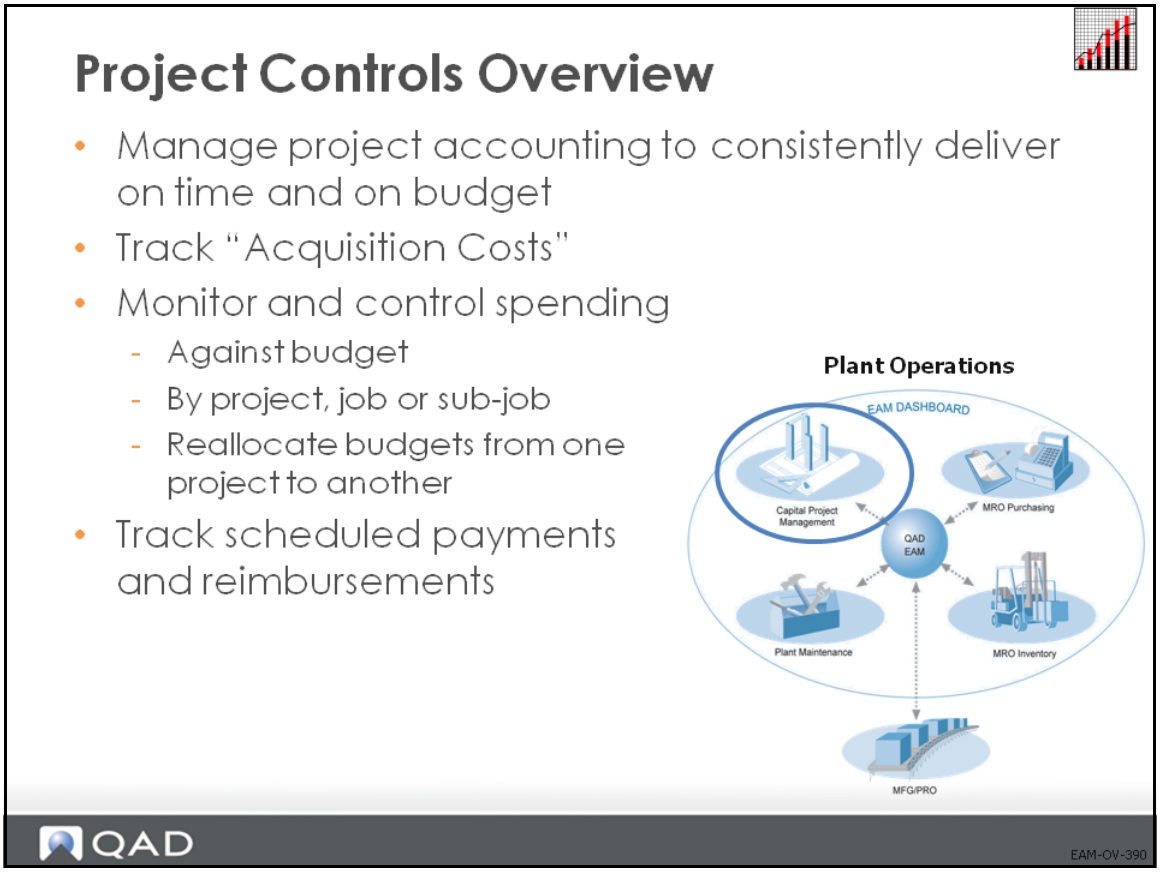
We would be remiss in this overview if we did not include in the Purchasing overview some comments regarding the EAM Stock Replenishment functionality.

The EAM Stock Replenishment is similar in concept to ERP's "MRP" functionality in that it is a routine that automatically identifies what should be purchased to bring inventory quantities to their defined required level. Just keep in mind that where "MRP" replenishes inventory to support Production, EAM Stock Replenishment reorders inventory to support Operations.

Key points regarding EAM Stock Replenishment include:

- Companies may run Stock Replenishment manually or, if they have highly accurate inventory with a well disciplined work force, they could also choose to automate the entire process. Variations on these themes are available in that companies can identify certain parts to automatically reorder while still manually managing the other parts. These automatic reorder parts are called "Sole Source" parts in EAM.
- As with MRP, the EAM Stock Replenishment is dependent upon how a company defines each part's reorder point and min/max values.
- With Stock Replenishment, companies can have the option to run a report of what is suggested for reorder and then manually manipulate the items / quantities prior to actually committing the order
- Once a Stock Replenishment is converted to Requisition, EAM will automatically create a purchase event (for purchased items) or an EAM Work Order (for internally fabricated parts).

Project Controls Overview



Project Control, also known as Project Accounting, is one of the most visible modules in EAM all the way up to Corporate leadership. It is also one of the currently best-selling feature of EAM.

Why is that? Well, companies use projects to manage budgets on all types of major expenditures, and the ability to deliver on these projects on-time and on-budget is critical to the profitability of a business. Going over budget or missing deadlines means, in the simplest terms, losing money.

For this reason, businesses strive to improve their controls, reporting, and traceability on their projects. EAM Project Controls has been designed to be that tool a company can use to accomplish these goals.

The Project Controls module is located under the Finance menu in EAM. During a facility's lifespan, Engineering and Maintenance groups manage facility and equipment through design, construction, start-up, improvements, additions, transfers to another facility, shut down, and retirement. All of these requirements define a project.

Project Controls users will use EAM to plan activities and costs, collect actual costs, track scheduled payments / reimbursements, and to create equipment to put into service. During this process, EAM is collecting "acquisition cost", as opposed to the "cost of ownership" we have been discussing thus far.

High level goals achieved through use of Project Controls include the abilities 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.

Project Controls: Personal Example



To put Project Controls into a real-life perspective, consider the personal example on this slide and take some time to write down your thoughts regarding how you would go about managing and controlling a project such as building a new home. Use these points below to help you with your ideas:

So, you are building a new home – what steps would you take?

Suggestions:

1. Plan your design and estimate cost (i.e. Project Planning / Estimating)
2. Apply for a Construction Loan (i.e. Project Approval)
3. Breakdown the Project into Tasks (i.e. Create Jobs / Sub-Jobs and assign budget and limits)
4. Find Contractors / Sub-Contractors (i.e. Purchase Contractor Services)
5. Purchase Materials (i.e. Purchase External Material)
6. Utilize Materials from your existing home such as Light Fixtures (i.e. Internal Materials)
7. Pay your bills (i.e. AP Process)
8. Would you start building the house without having a plan for what it will look like, what it will cost, when it will be complete?

9 How do you know when a phase or step is complete? Would you want to approve work prior to paying final bill?

10 What might change your budget? How do you control that?

11 What choices might you make if you realize you are going over budget?

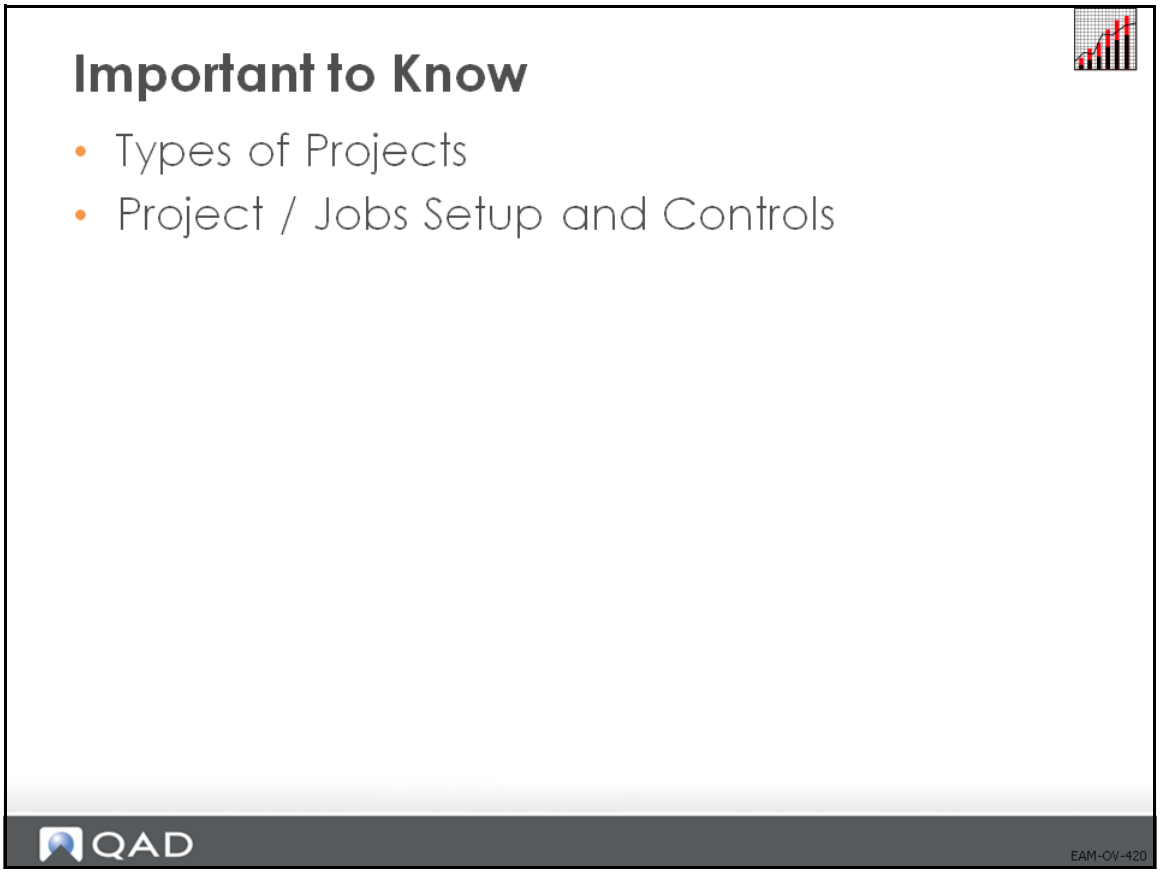
12 What might you do if you are coming in under budget? Add more features? Choose to complete the project early and save costs?

Project Controls Users



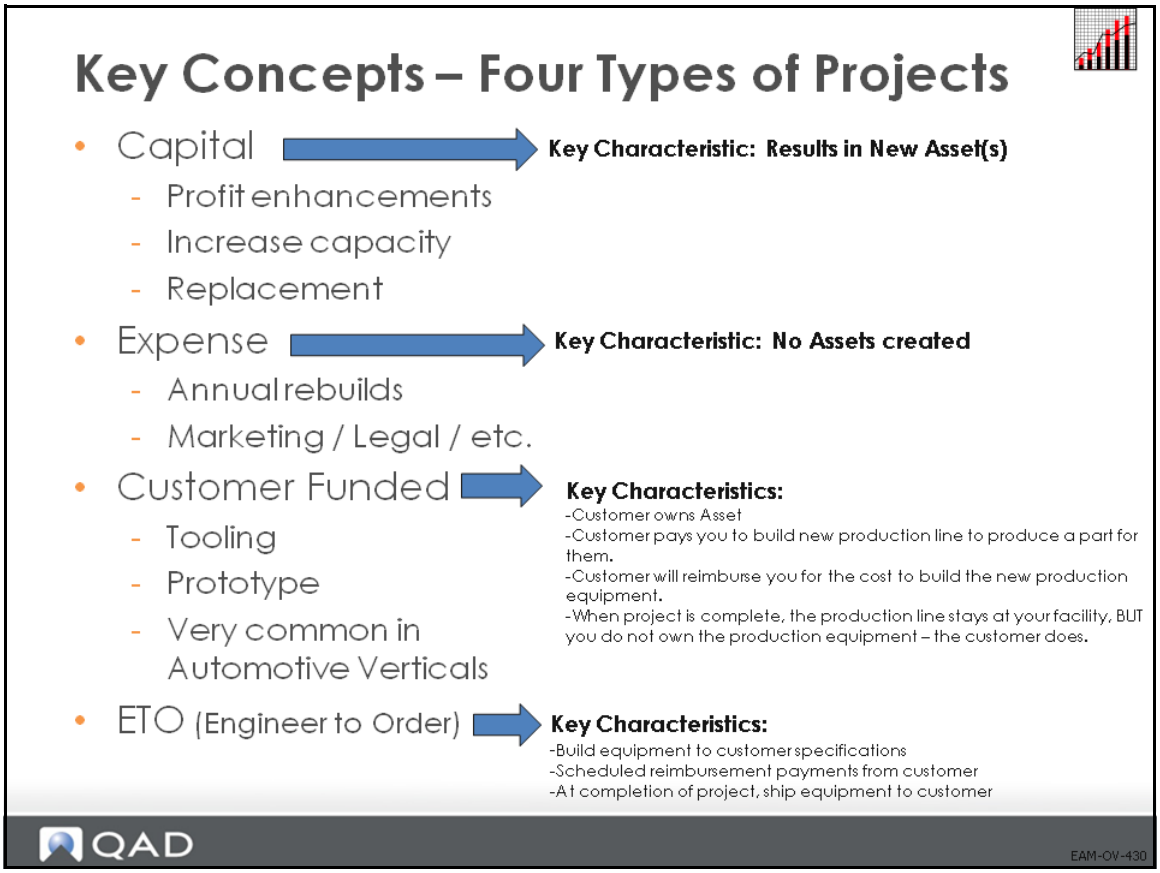
As with Purchasing, the Project Controls modules is utilized by many of the same roles we have seen in previous modules PLUS some new roles such as Project Engineering, Quality, Fixed Asset Accounting, or even Manufacturing leadership itself. As you are identifying requirements around Project Controls, keep in mind that all of these roles will have an opinion regarding the functionality they need in Project Controls to do their job more effectively.

Important To Know



Because the Project Controls module in EAM is certainly the most complex in functionality, you may have already noticed that there are two classes in your learning path to cover it all. In the next slides, we will provide some very important, though high-level information regarding Project accounting. If you master the information on these next slides you will find yourself much better prepared to take on the Introduction to Projects Parts 1 & 2. Understanding the Types of projects that can be managed and the overall structure of the project and its budget will assist you to begin working more effectively with the transactions and reports covered in the classes to come.

Four Types of Projects



This slide contains extremely valuable information, and we highly recommend that you take the time to study this information thoroughly and commit it to memory!

The four primary types of projects for which EAM is used to control are:

1 Capital Projects

Capital projects usually result in a new asset or group of assets that must go into the company books. The capital used in these projects comes money that is held aside for investment purposes, such as increase holdings or assets. In privately held companies, capital projects typically require Board of Directors approval. Even in privately held companies, though, capital requests typically go through stringent reporting and approval processes such as a return on investment analysis (ROI).

2 Expense Projects

Expense projects usually involve previously anticipated operational costs, or “costs of doing business”. An expense project does not result in a new asset. Expense projects might include refinishing a parking lot or painting a building. For instance, a plant has a summer shutdown. During that summer shutdown, the maintenance staff does a complete facility overhaul. An expense project tracks what must be done, who is doing what, what work orders have been assigned, and in the long run, accumulates the overall costs of doing this overhaul. The next year,

maintenance can streamline the preparation process by copying the expense project from last year, creating a new one, and creating all the work orders, all the purchase requests, and all the records associated with the original project.

3 Customer Funded Projects

Customer Funded Projects are projects in which a Customer reimburses you to build a new production line in order to produce parts for them in the future. Customer Funded Projects are most common in the Automotive industry, but can be found in other verticals as well. One key attribute of this type of project is that while it may be spending capital monies, that cost will be reimbursed and you will NOT own a new asset at the end of the project. Instead the Customer owns the equipment though it may reside physically inside your own facility.

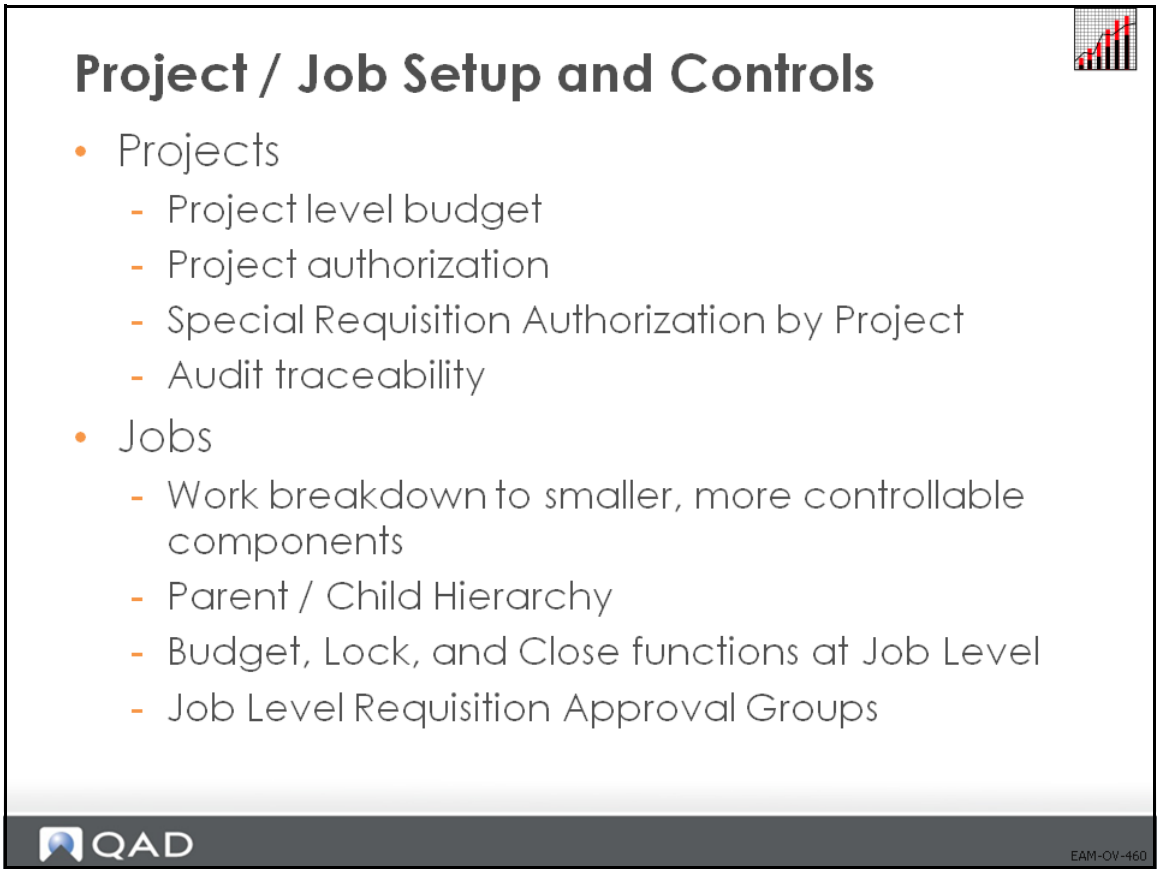
4 ETO (Engineer to Order) Projects

ETO projects are very similar to production, and in fact, result in a product that will be sold to AND shipped to a customer. What makes an ETO project unique from production, though, is that these parts being sold often are produced to very customer specific requirements and frequently include down-payments and subsequent scheduled payments for reimbursement. ETO differs from Customer Funded in that at the end of the project, the equipment built will be sent to the customer’s location for installation.

The advantages of Project Accounting are:

- Traceability. Group together all the work orders that result in overall cost calculation for this event.
- Reusability. Copy the project and recreate vital records associated with it. Save time and manpower for the same operation the next time.

Project/Job Setup and Controls



If you have ever worked with a product like Microsoft Project, you may be familiar with the concept of a work breakdown structure which breaks a large project into sub-tasks which can also sub-tasks which can also have sub-tasks and so on. This structure allows for reporting progress at the lowest task level which will then roll-up the structure to provide reporting on higher levels.

The same concept applies to the way in which EAM Projects can be setup, except that in EAM we refer to tasks and sub-tasks as Jobs. Budgets can be controlled at both the Project and Job level, special Requisition Approval Routing can be defined at the Project and Job Level, and each level has similar controls around Locking and Closing.

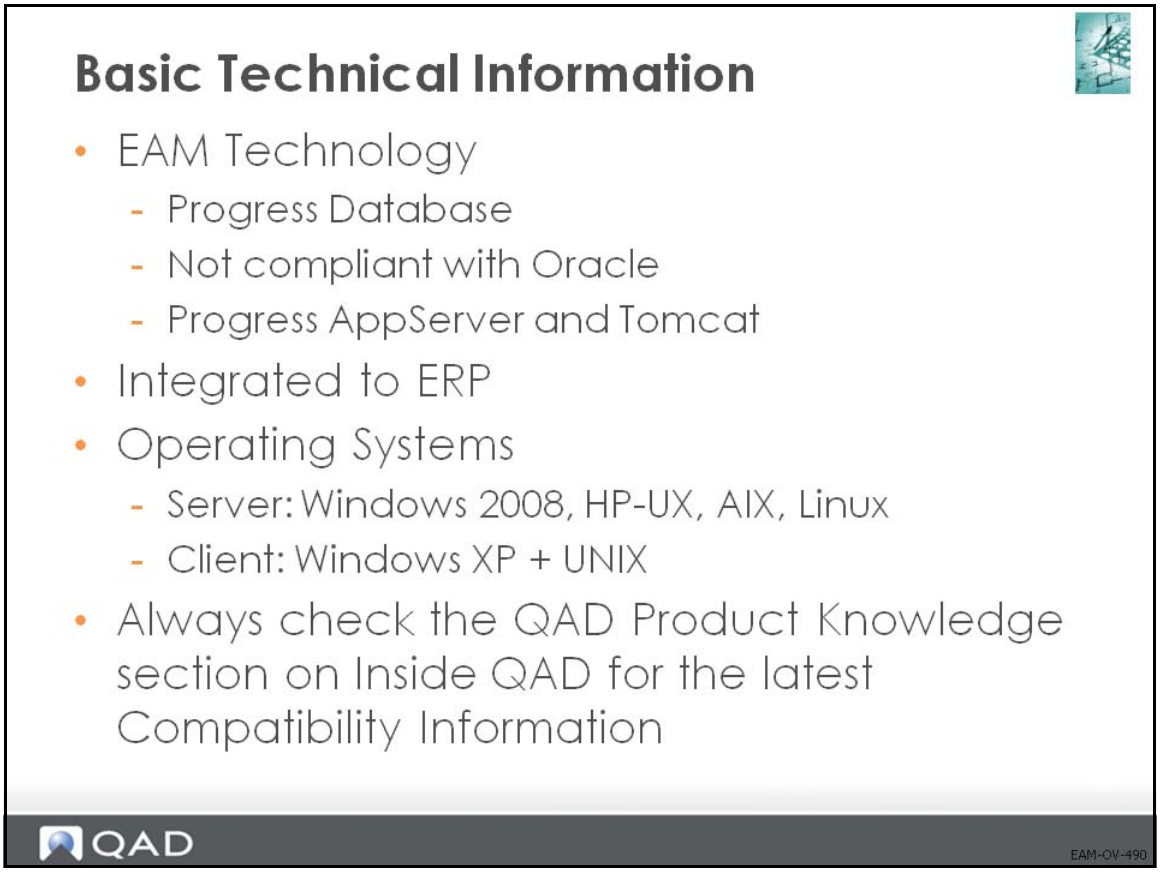
The Project level in EAM provides more robust analysis data, but in most cases the user can drill down into that data to the very job or record (such as Work Order or Purchase Order) of interest.

Project Costs Collected



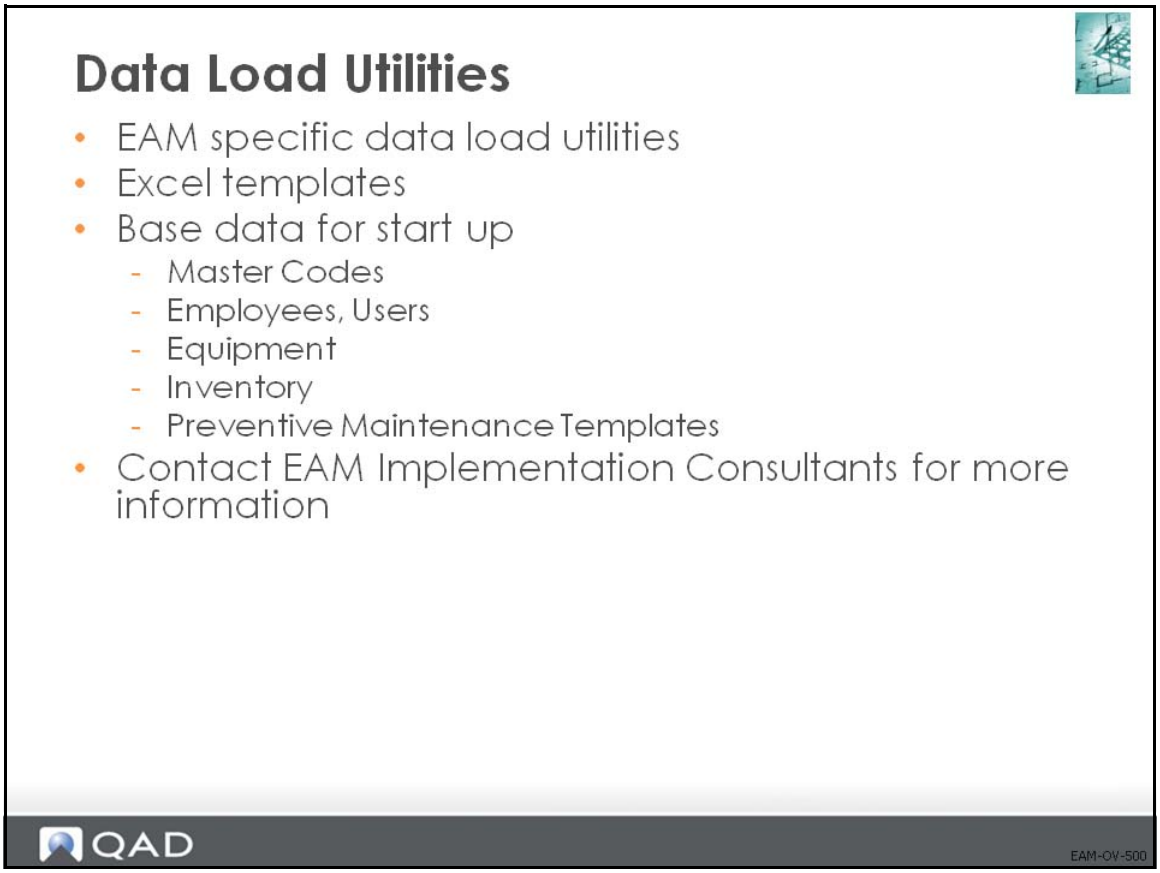
Similar to a Work Order, EAM collects Purchasing (materials and services), Labor, Inventory, and Manual GL's costs against the project / job. But, the Project is like a "super" Work Order in the reporting, controls, and levels of traceability it provides over those of a regular Work Order.

Basic Technical Information



This slide contains basic EAM technical information that was valid at the time of publication. Review this slide, but then always check the Product Knowledge section on Inside QAD for the latest compatibility information as the EAM product is a constantly evolving software package.

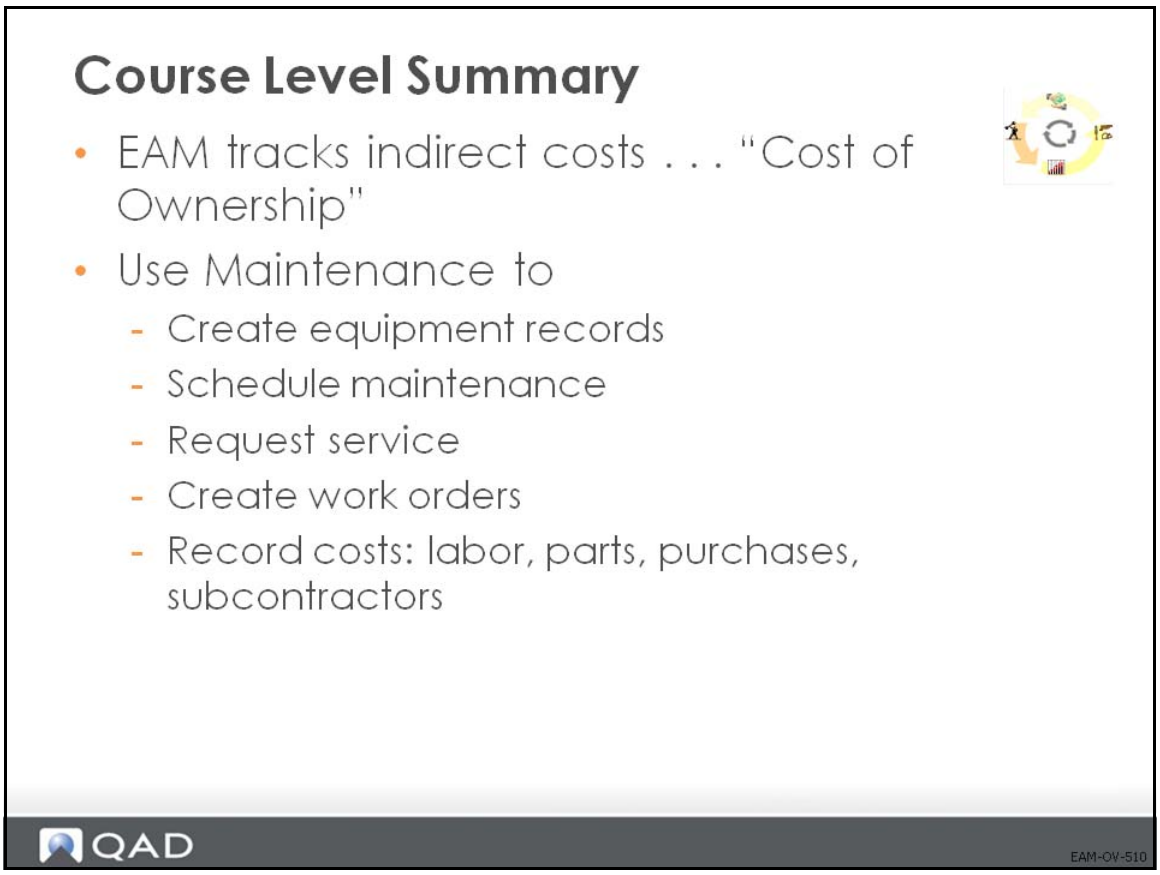
Data Load Utilities



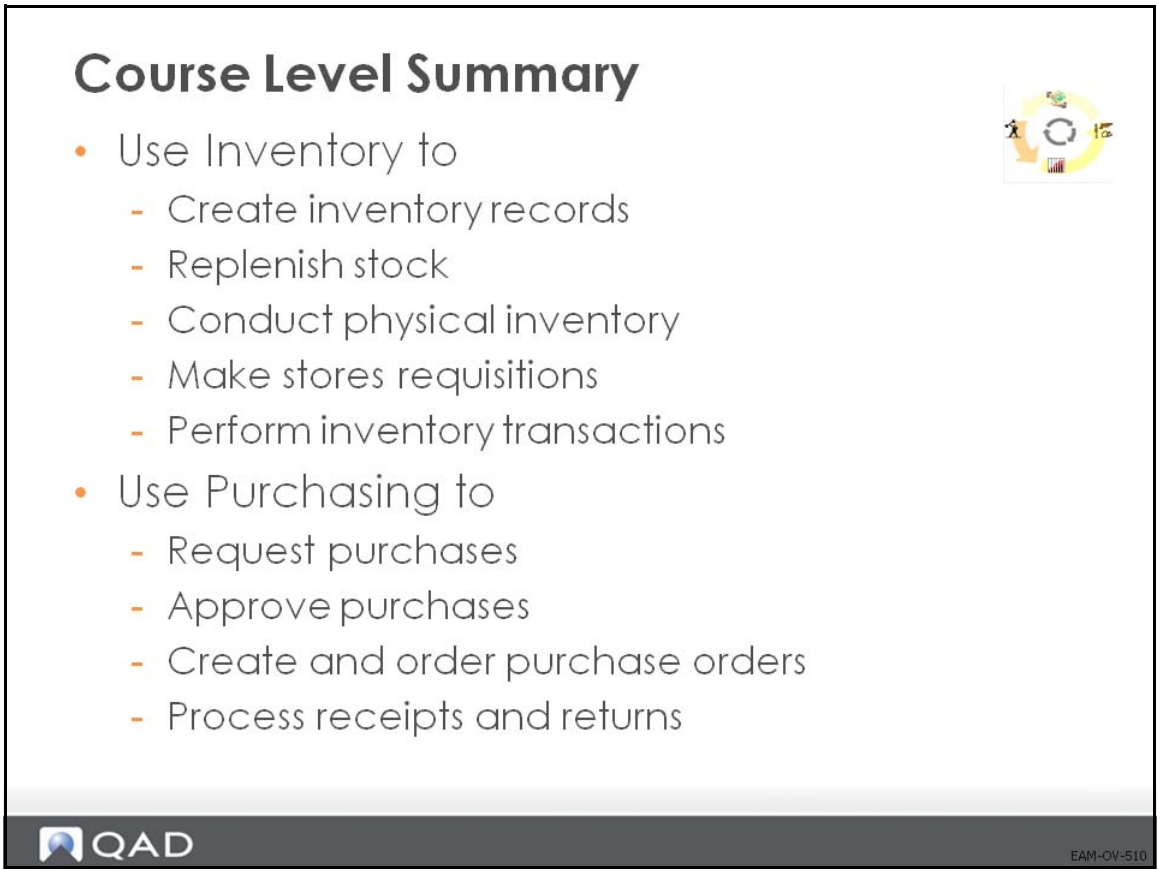
Though your Level 1 training will not include training with regards to use of the EAM Data Load Utilities, it is important for you to be aware that these utilities exist as a tool for data loading, particularly during EAM implementation.

These utilities are not Qxtend docs nor are they what you may have traditionally known as “CIM” loads, but they have been developed over time to ensure data integrity. We never recommend that any customer attempt to load data to EAM using their own tools without assistance from EAM Services. The relationships between data in EAM can be quite complex, so we strongly prefer that our own Data Load Utilities be utilized to ensure migration success

Course Level Summary



Course Level Summary 2



Course Level Summary 3

Course Level Summary, cont

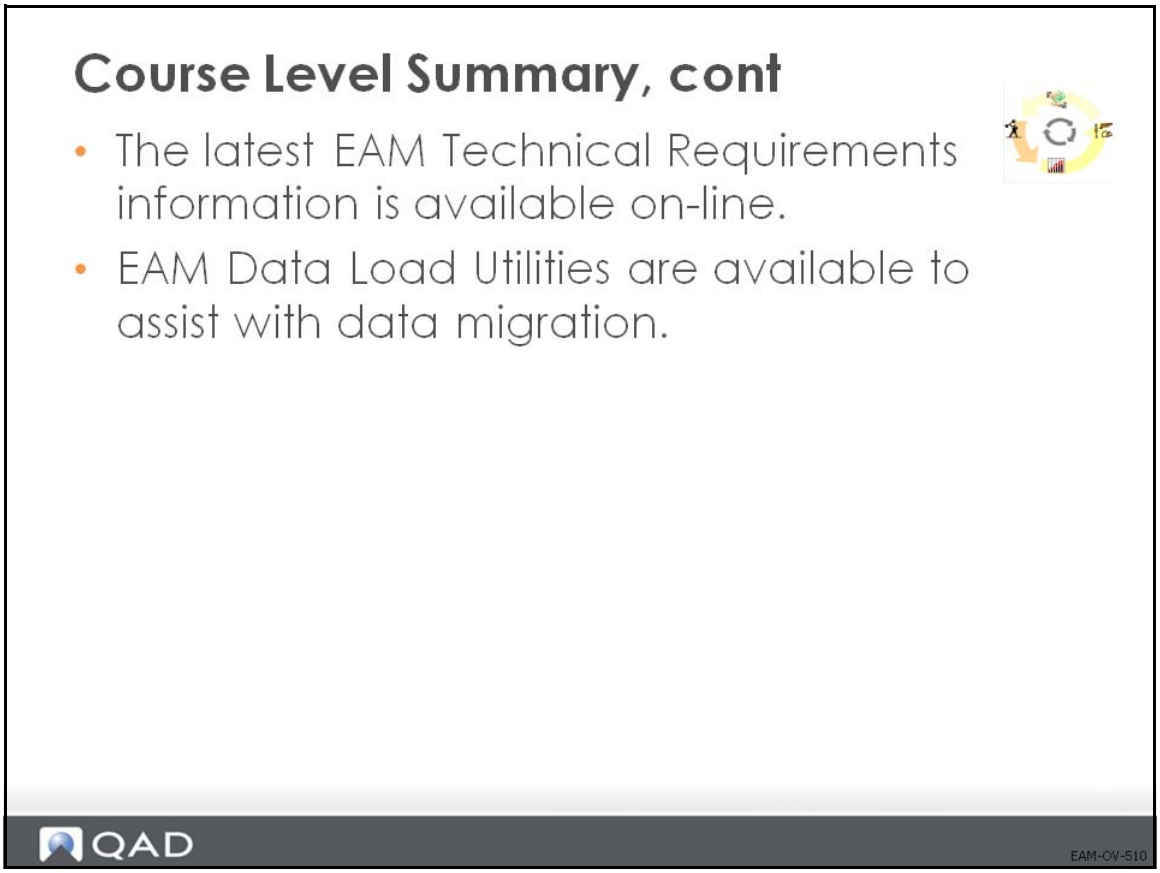


- Use Project Controls to
  - Set up projects and jobs
  - Control budgets
  - Track "Acquisition Cost"
  - Manage capital, ETO, expense, and customer funded projects
- EAM is integrated with the QAD ERP system for
  - Financials
  - Accounts Payable
  - Accounts Receivable

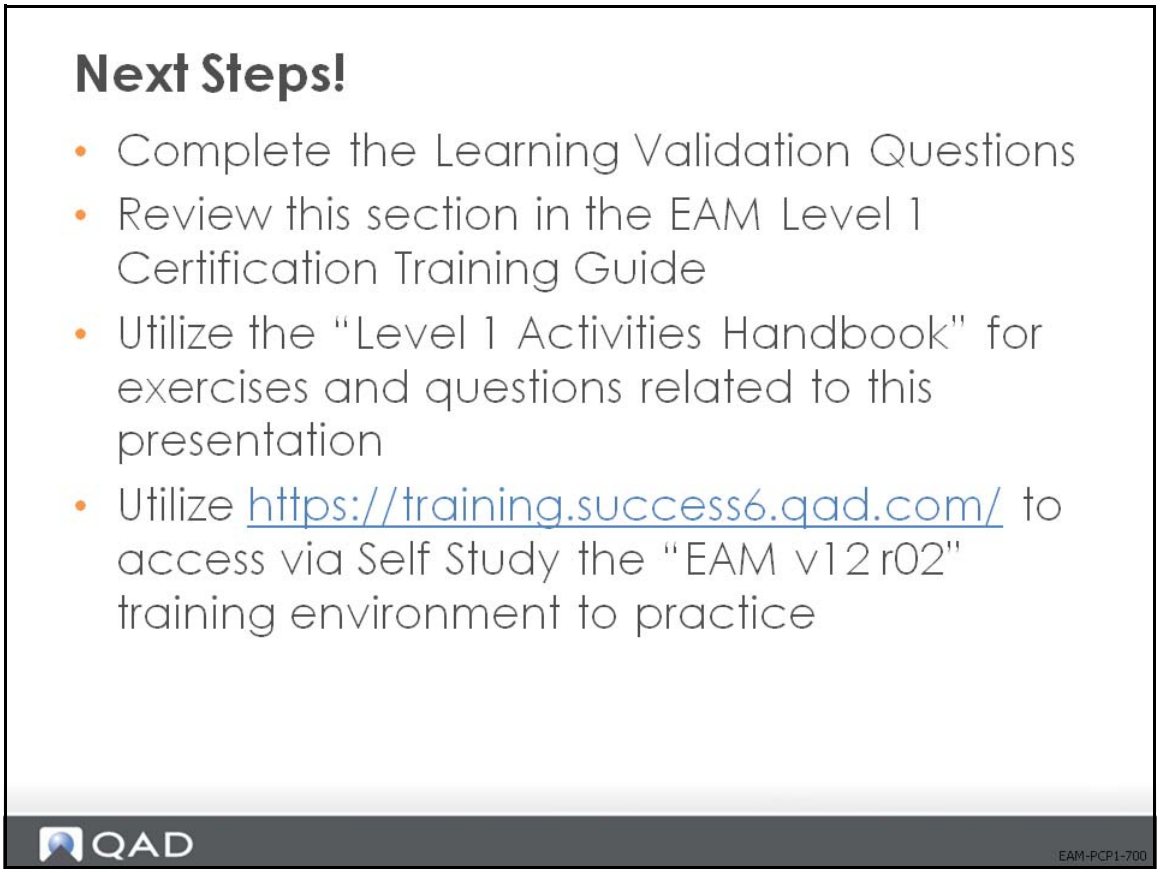
QAD

EAM-OV-510

Course Level Summary 4



Next Steps



For this class in particular, because so much information was covered in such a broad stroke, we highly recommend that you review the notes in the EAM Level 1 Certification Training guide for this class prior to taking the “Learning Validation” test available on-line.

Remember, passing the “Learning Validation” test for this class is required for your entry into the Classroom event at the end of the Level 1 Certification Path.

Also, your Level 1 Activities Handbook provides some exercises and thought provoking questions to help reinforce what you have learned today.

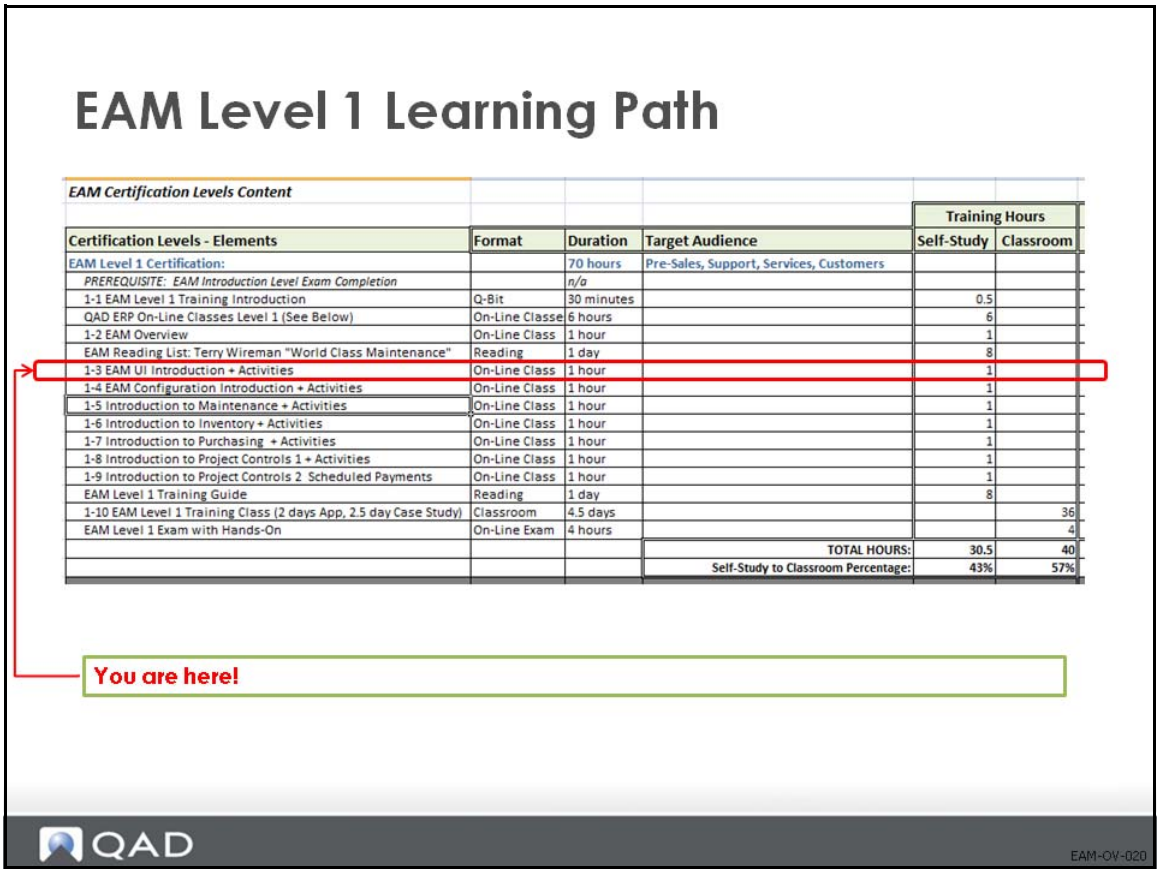
Chapter 3

Introduction to EAM UI

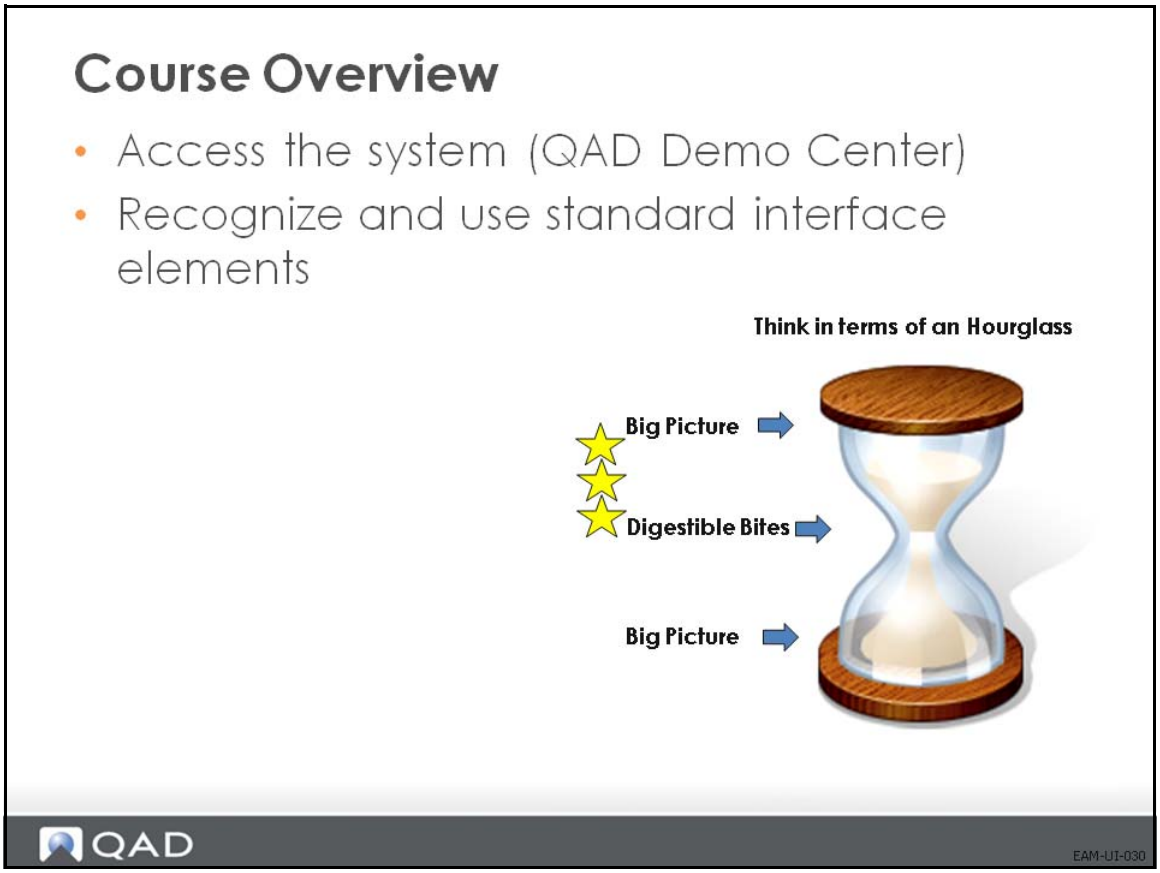
EAM User Interface Introduction



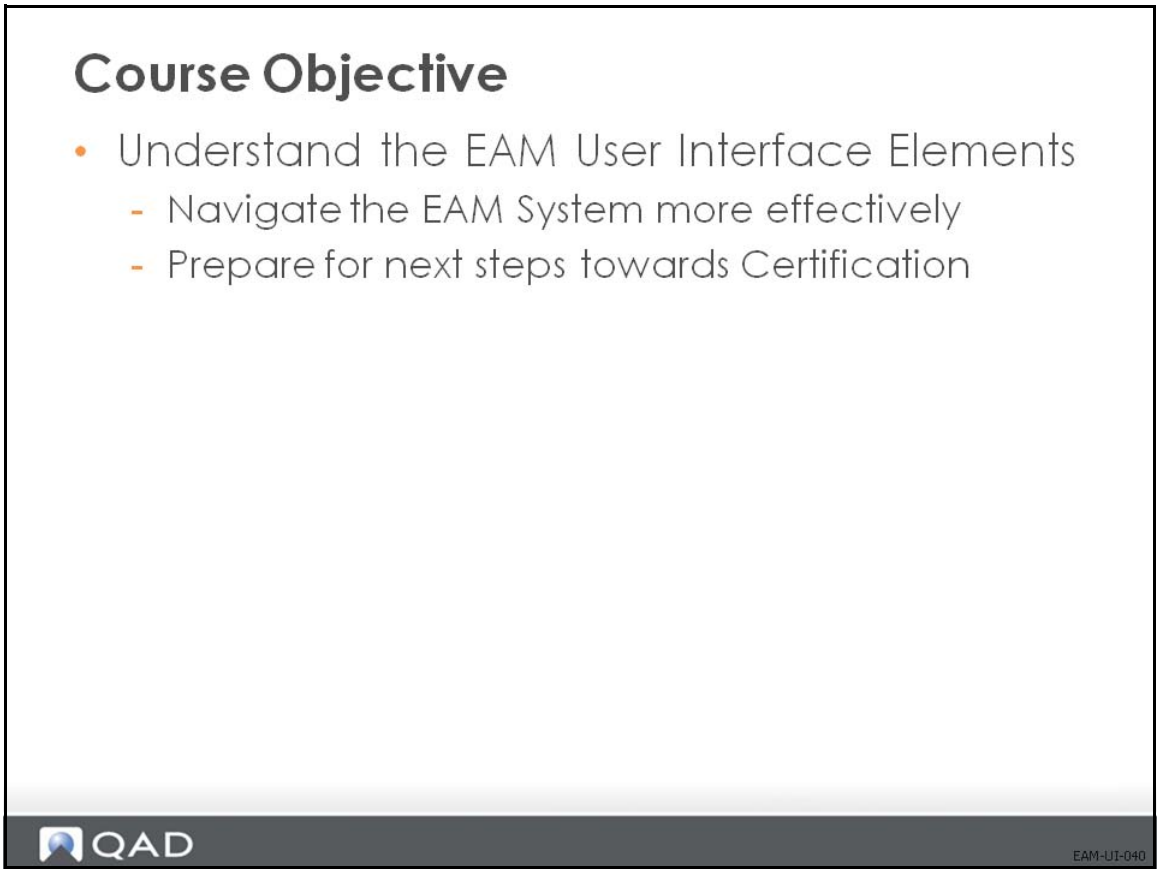
EAM Level 1 Learning Path



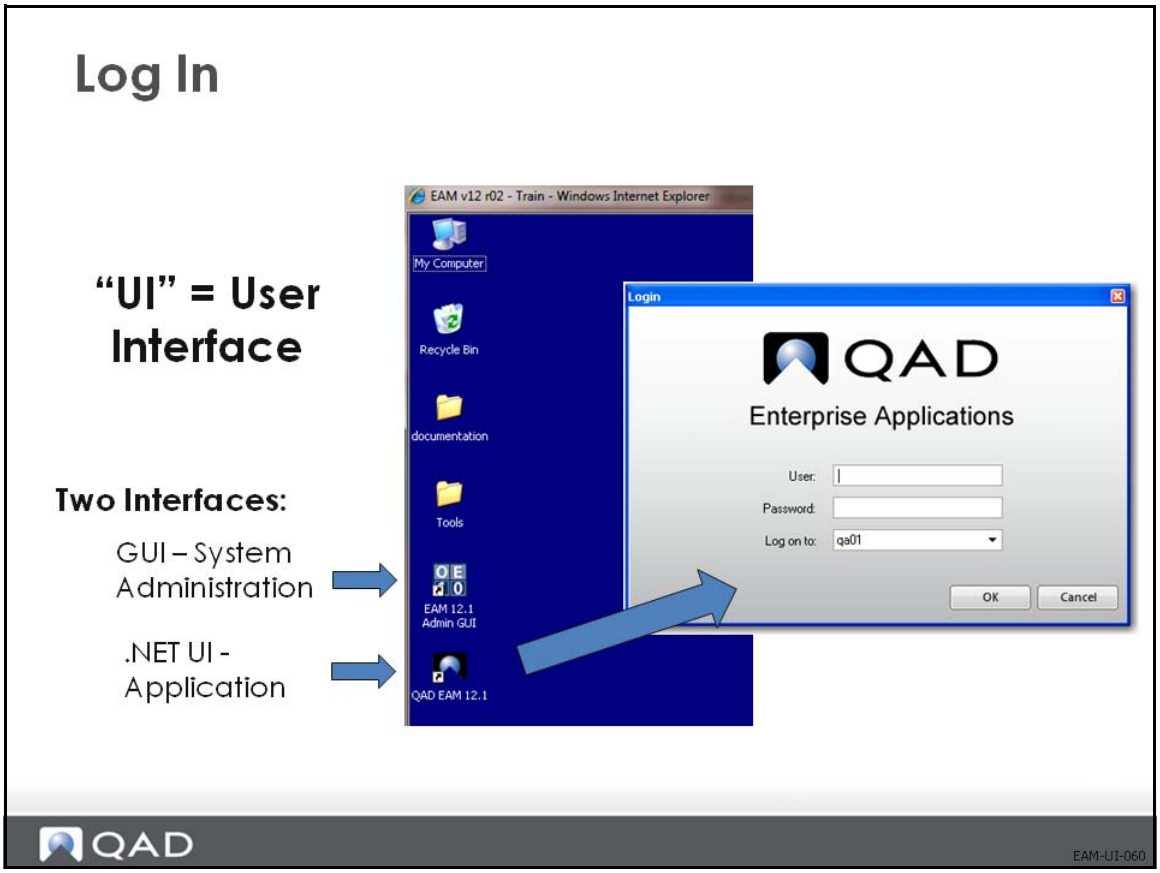
Course Overview



Course Objective



Log In



Login credentials determine access privileges. In the EAM .NET version, security can combine multiple roles. During implementation, customers make decisions such as how long the password is valid, whether there are special characters, or whether even to enforce password usage (being converted from GUI to v12 as part of the system administration conversion).

Several conditions determine your level of security:

The user ID determines permissions. For instance, a system administrator accesses more QAD EAM system features than an inventory clerk does.

The currently active site has security settings associated with it.

Security settings may differ within each site if you are allowed access to multiple sites.

Note User ID and Password are case-sensitive.

Standard .NET UI Features

Standard .NET UI Features

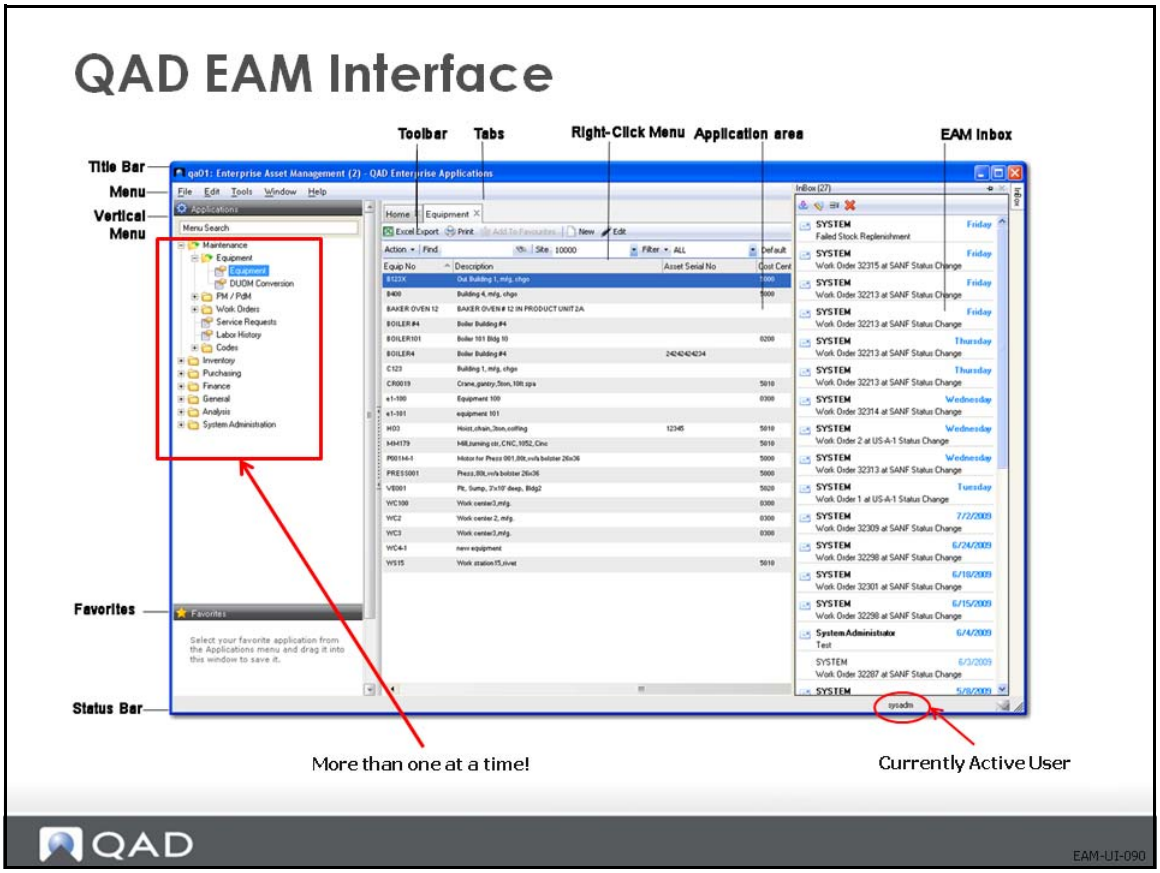
- Expandable menus
- Process Maps
- Inbox
- Menu search
- Favorites
- Browses
- Filters
- Tab pages
- Lookups
- Printing & Exporting



QAD

EAM-UI-070

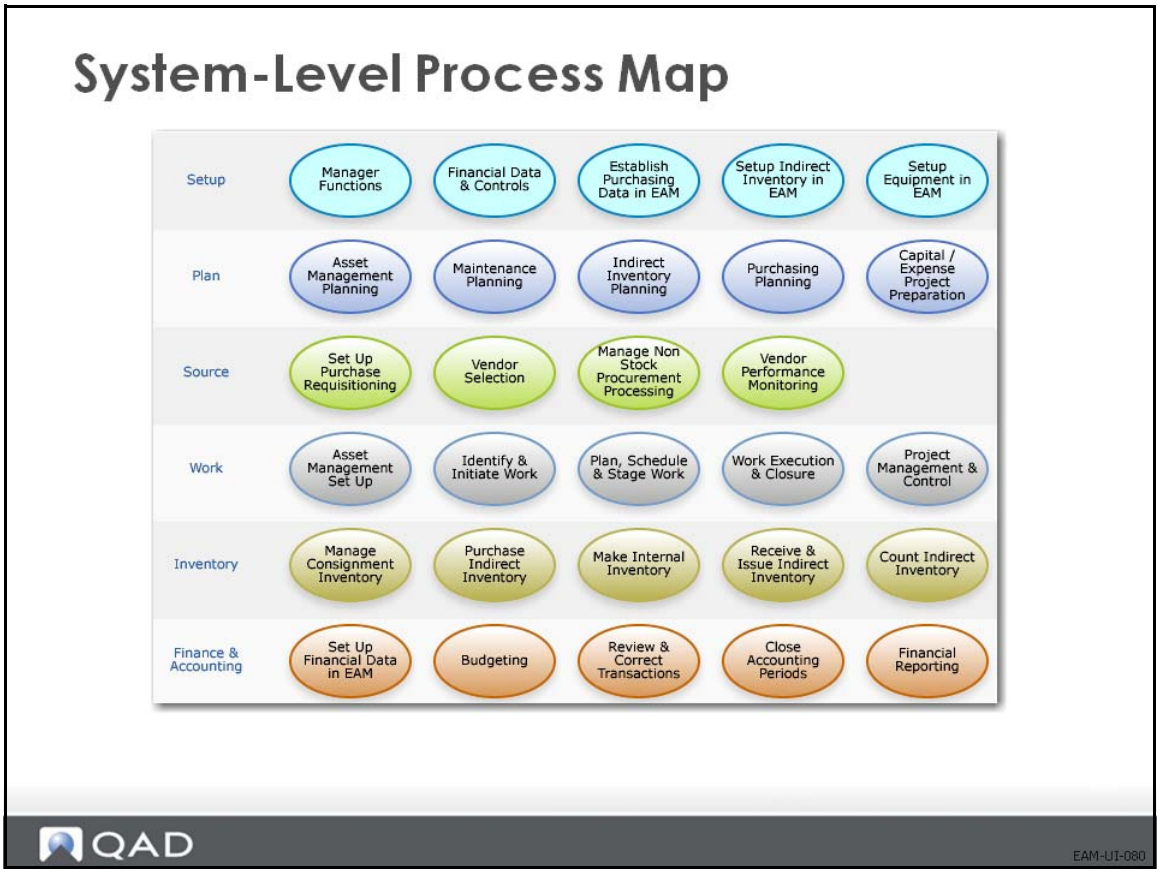
QAD EAM Interface



All EAM screens share some characteristics such as menus and common Windows .NET structure. EAM uses the same AppShell as QAD 2009 and greater 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.

Use the menu search line to type in the menu item you are looking for. See the currently active user on the Status Bar line. Also, the .NET version allows users to have multiple tab pages open at one time, rather than having to close an area before moving to a new topic.

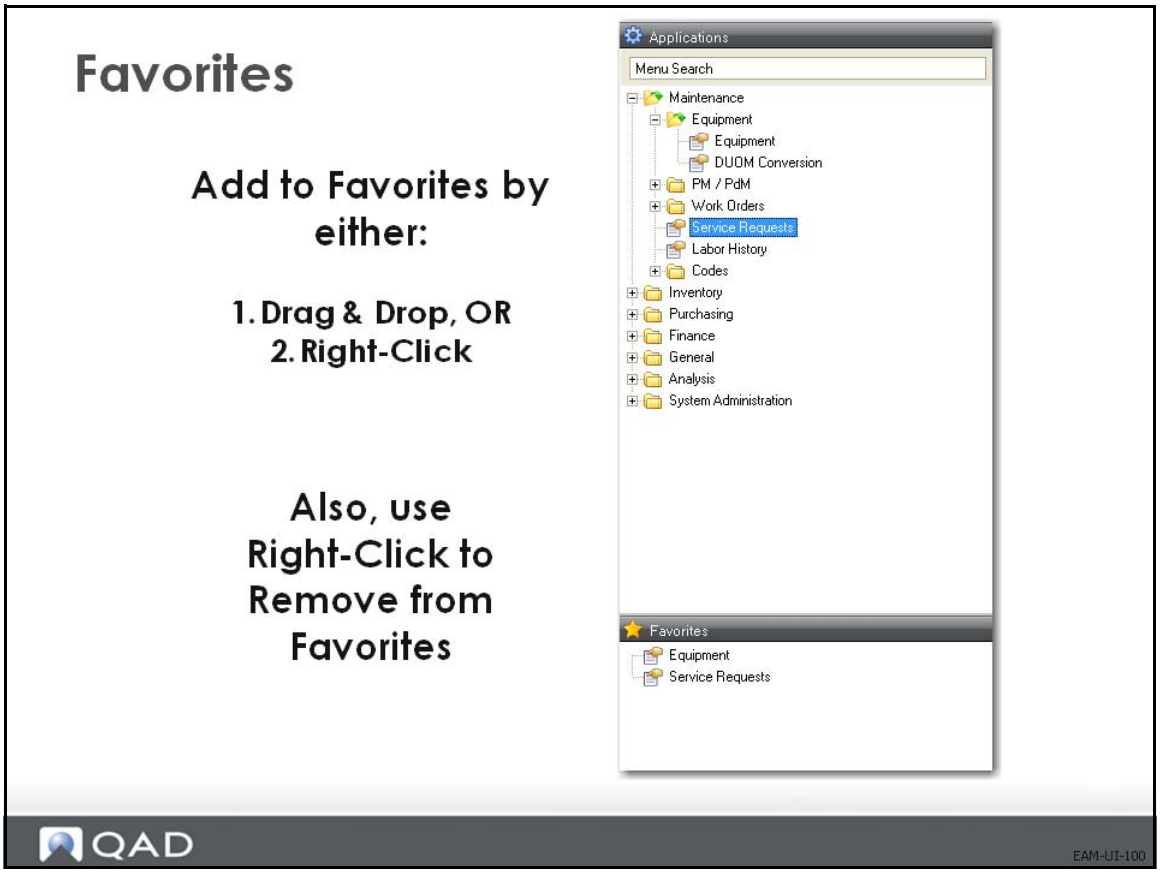
System-Level Process Map



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).

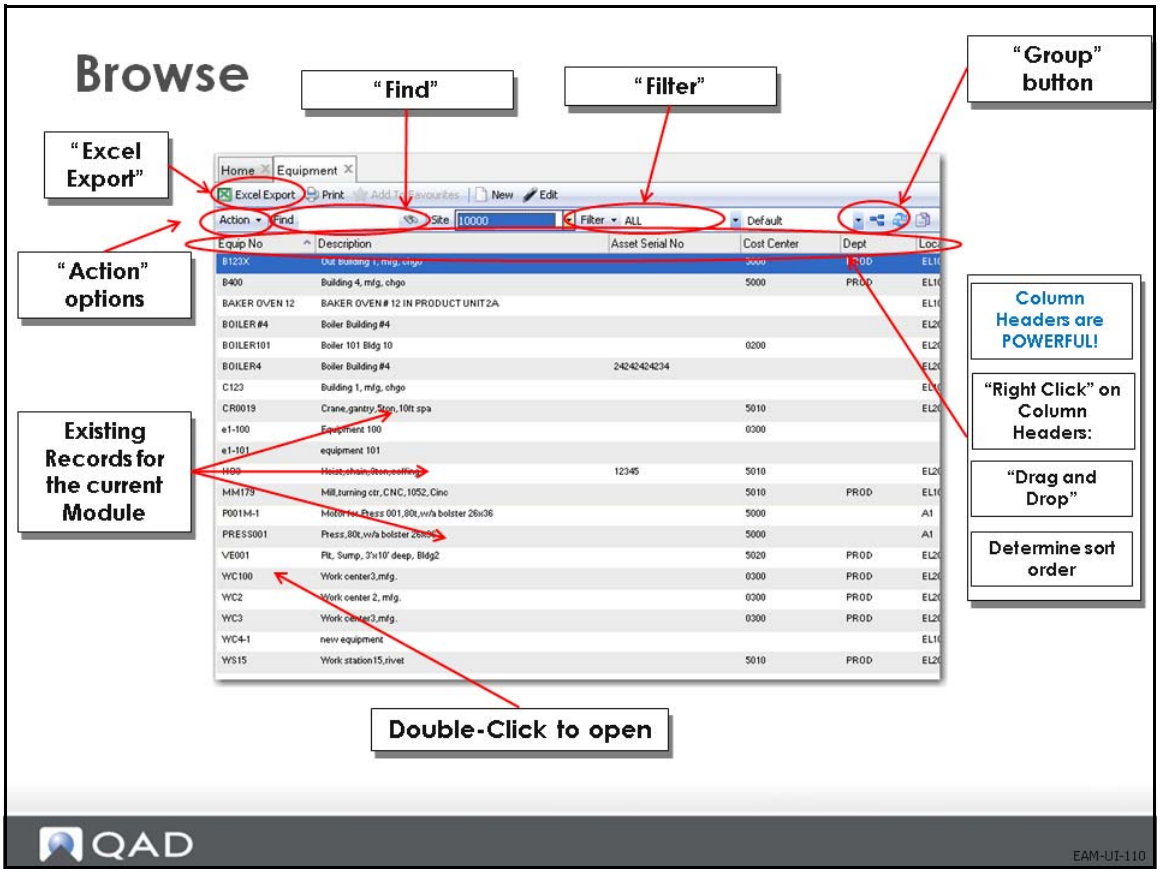
Favorites



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. Favorites can be set to Auto-Start, which is a great feature for limited users who perhaps use only the Service Request module.

Browse

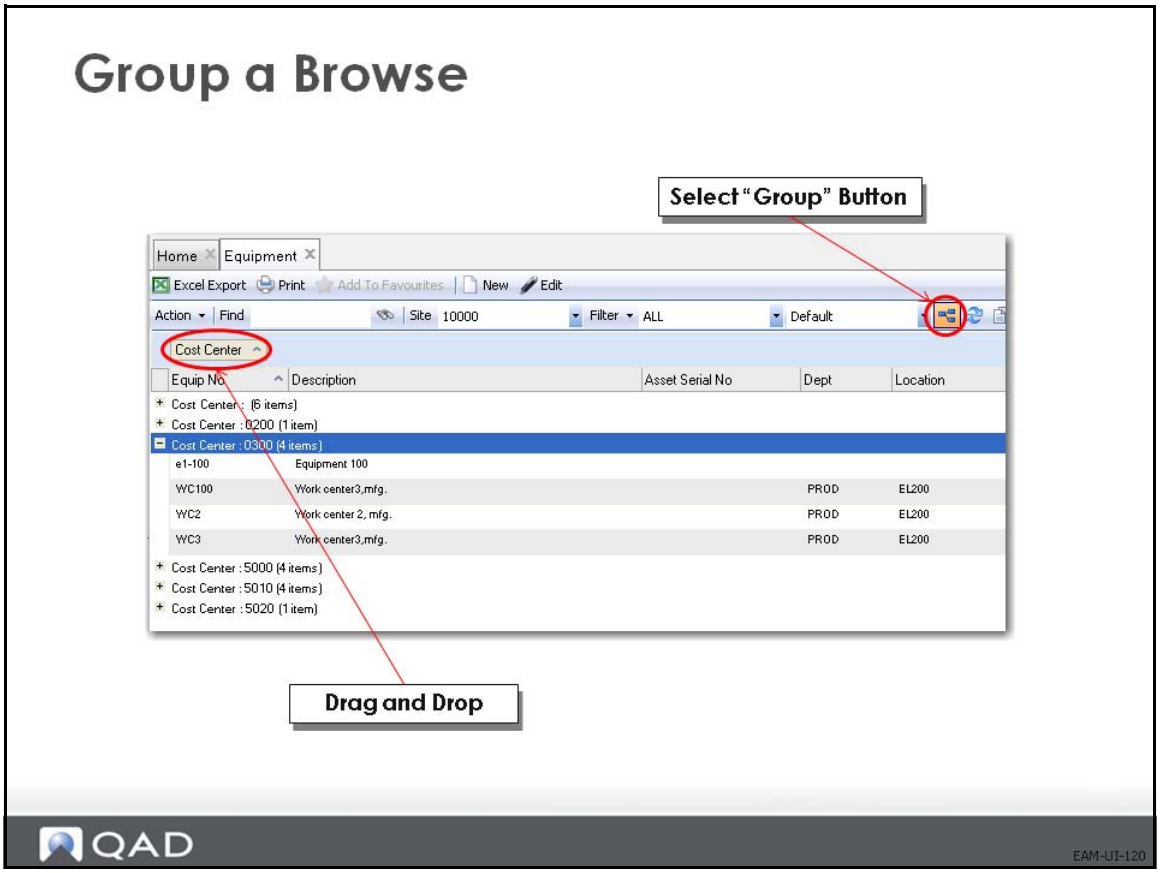


A browse lists the records that meet specified site criteria in the current module. EAM browses look and function like Excel spreadsheets. Column headers provide flexible, dynamic display options through ordering, hiding, showing, sorting, and grouping records. You can add a browse to your favorites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

Browses settings (such as columns and sort settings) can be saved and an individual can set up their own browses and define their own individual default browse settings. Default browse settings are utilized on lookup fields relating back to that data. For example, a part number lookup will appear with the same order as the Inventory browse screen.

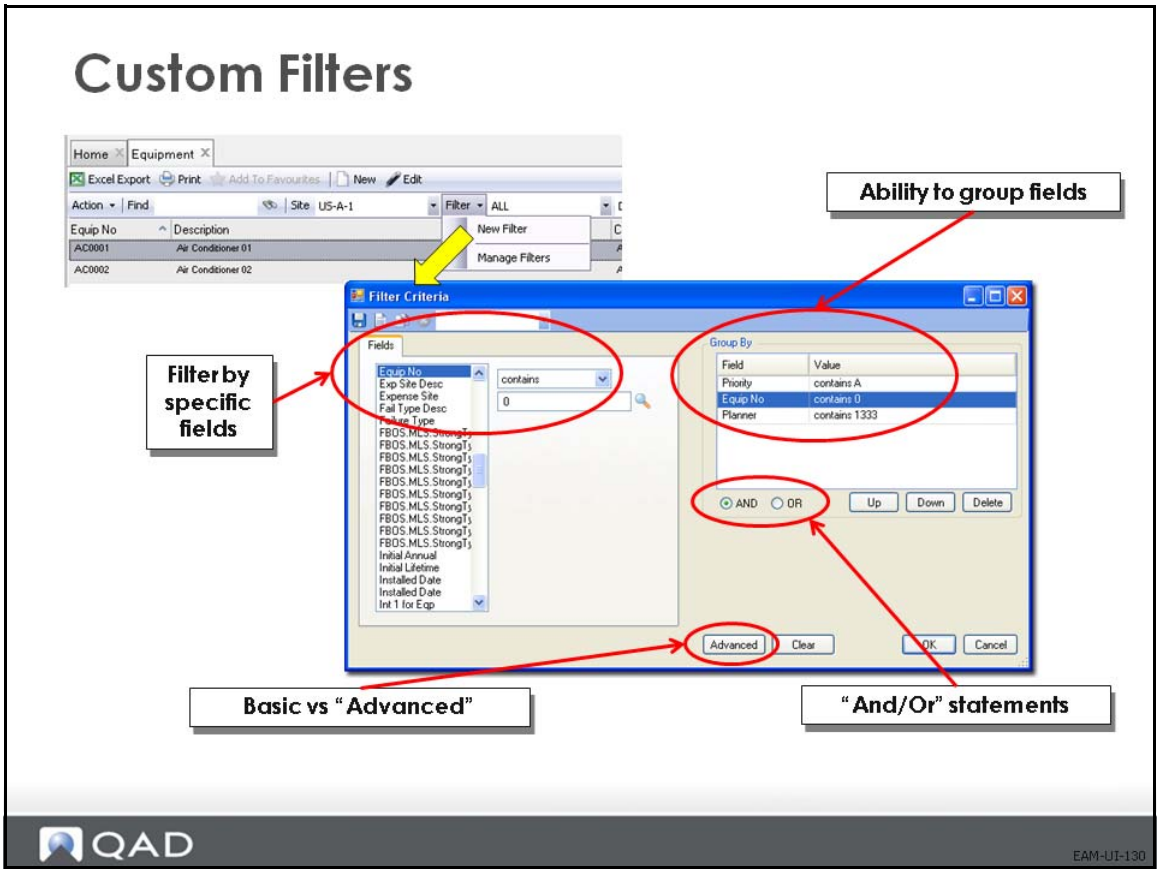
The "Find" feature works with the currently selected column ONLY – notice the carrot '^' on the Equipment field in this screen. Use of '*' for wild-carding is available to get CONTAINS type results. It is a common problem for users to think that FIND is not working when they have simply forgotten to check which field they are sorting on.

Group a Browse



When reviewing data inside a browse, it can be helpful to group the records based on information 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.

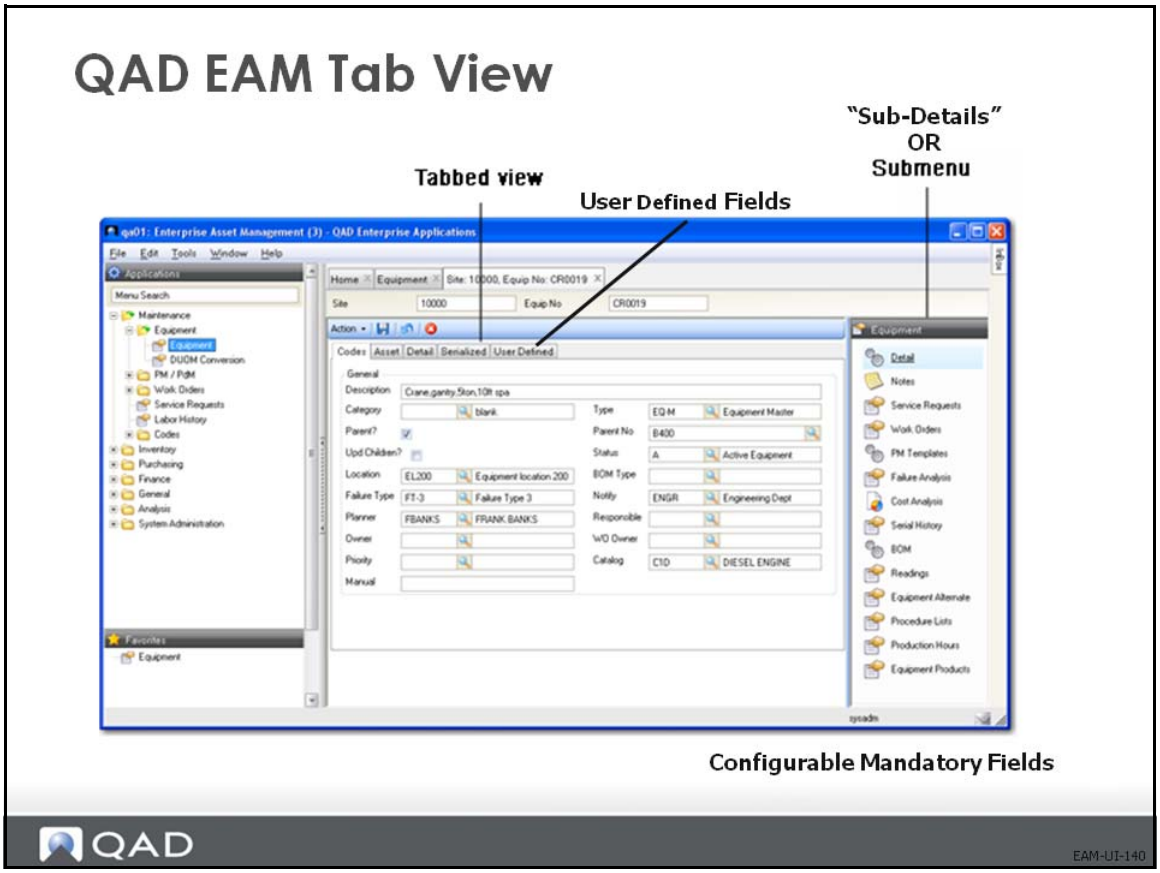
Custom Filters



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 as well as using parentheses '('and ')'.

Filters are automatically saved within the browse and are available to be selected in other areas such as reports.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. It is our recommendation that fields are not removed until all users have reviewed and confirmed that those fields are not in use. We need to make sure that they know all of the available fields so we don't have problems where someone isn't happy with the software because they think EAM doesn't have the fields they need.

QAD EAM Tab View

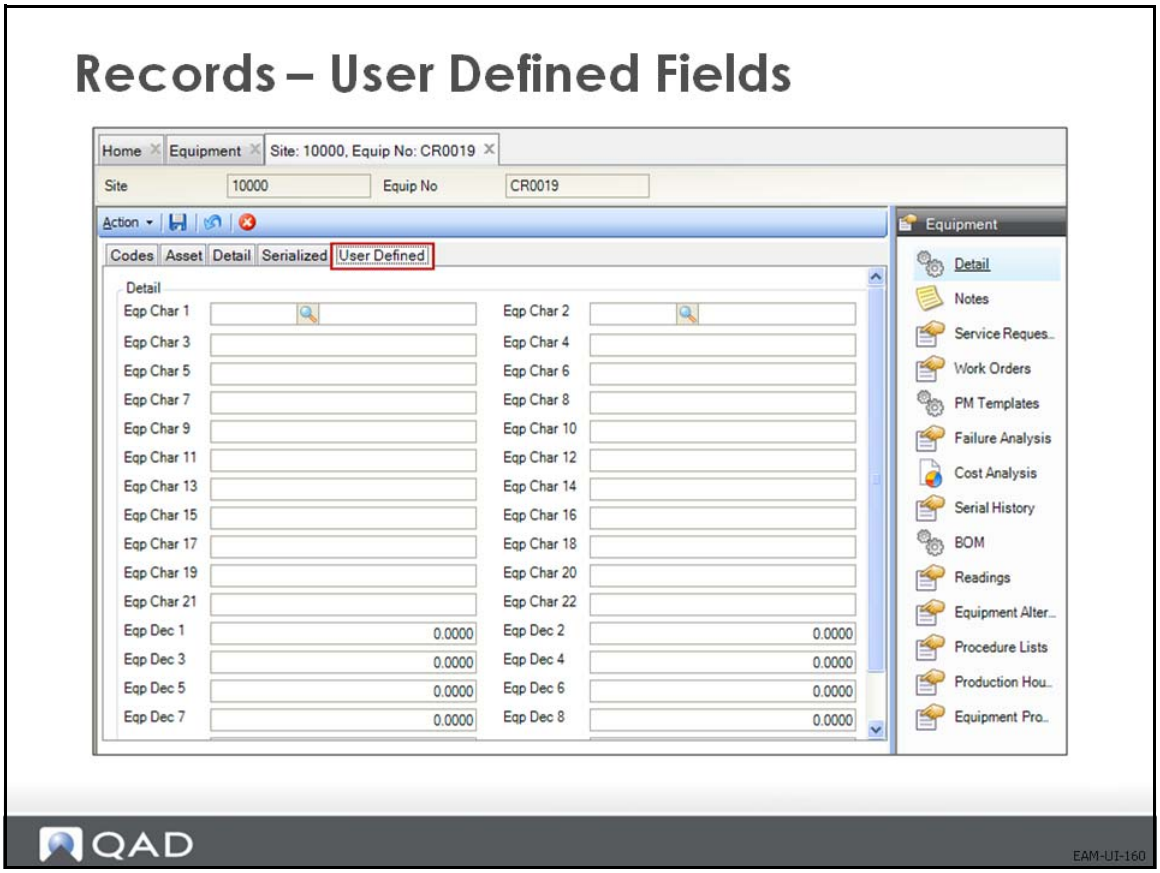


In EAM, initial information may be found on the first displayed tab page upon opening of the record; however, much more information is contained in the other Tab Pages as well as within the various Sub-Menus associated with the record.

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.

A helpful way of remembering where to find information in a tab page v a sub-menu, is the relationship to the base record. If there is a many-to-one relationship, then the sub-menus is the place to look. An example is Equipment records compared to work orders – a single piece of equipment is likely to have multiple work orders over the course of its life.

Records: User-Defined Fields



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

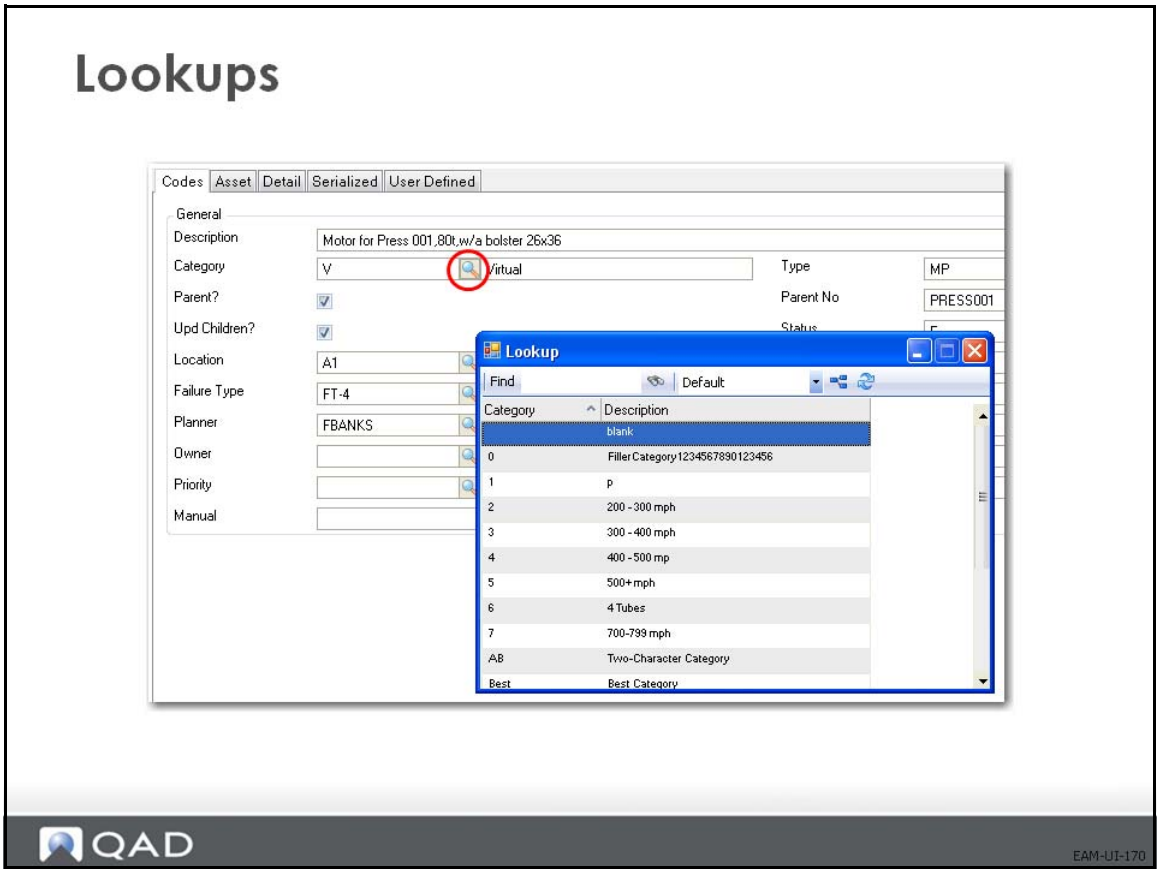
User-Defined Fields include the following types:

- 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 please note that 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.

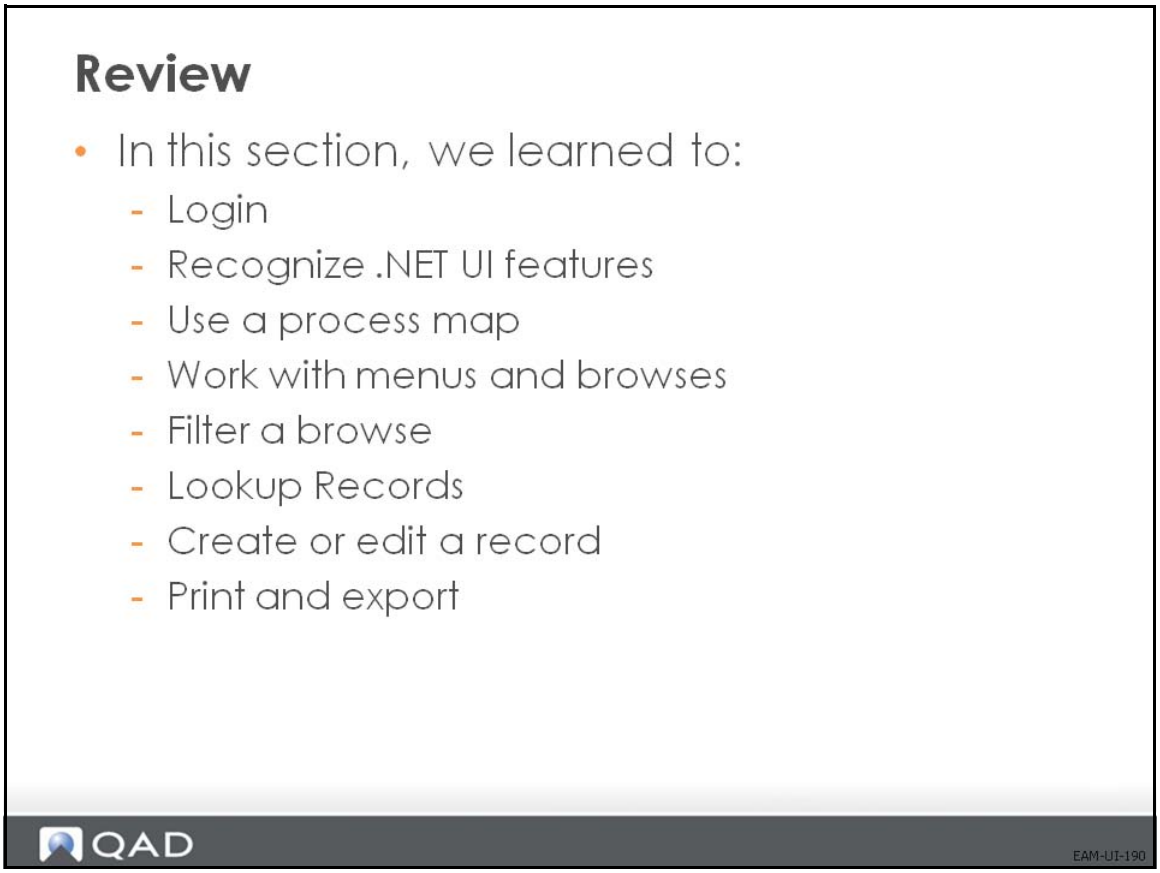
When a lookup is activated, the view is the default view from the browse. Columns can be added as needed to find the required record to select.

Printing and Exporting

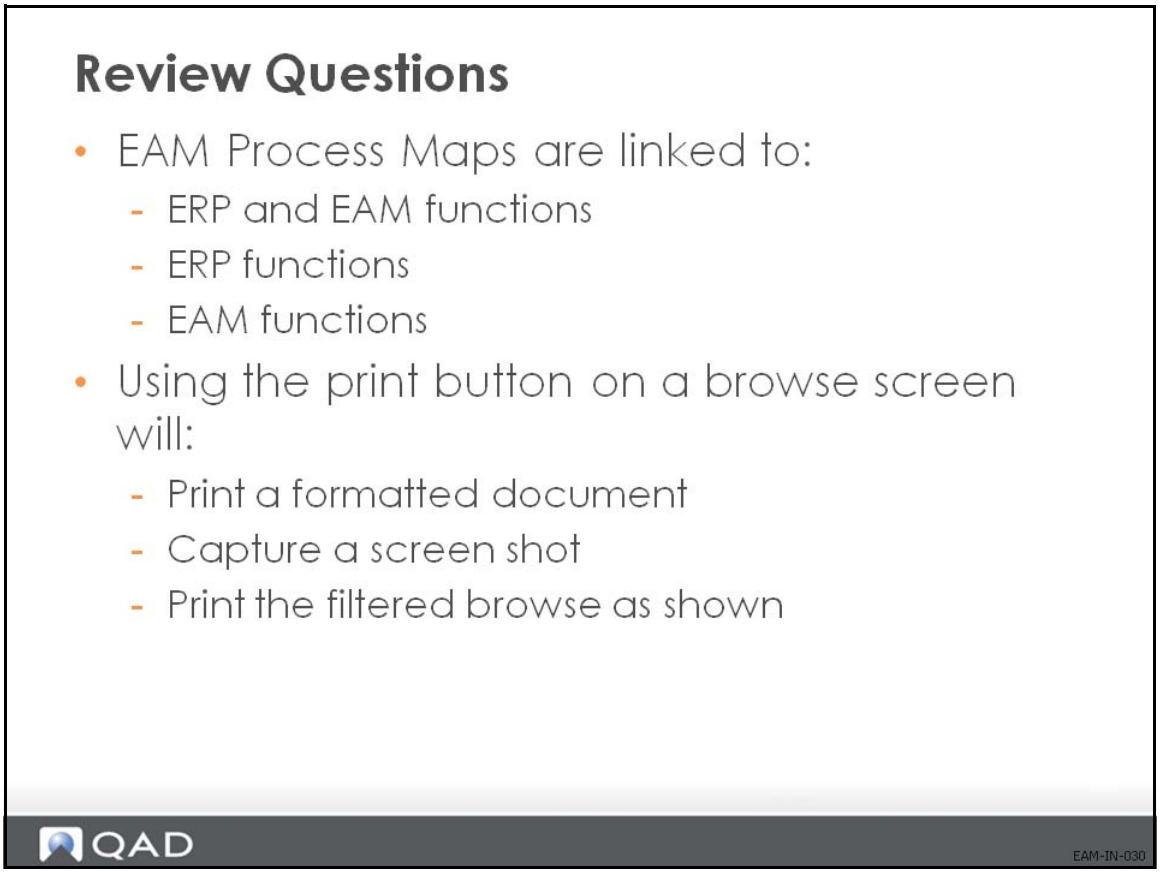


EAM allows for printing and exporting of the records in a filtered browse – including any columns added. If you want to print a single record, then create a filter for it and print from that view. Note: This is NOT the same as printing a document, such as work order or purchase order. This functionality can be used for replacing many of the list type reports which businesses often require.

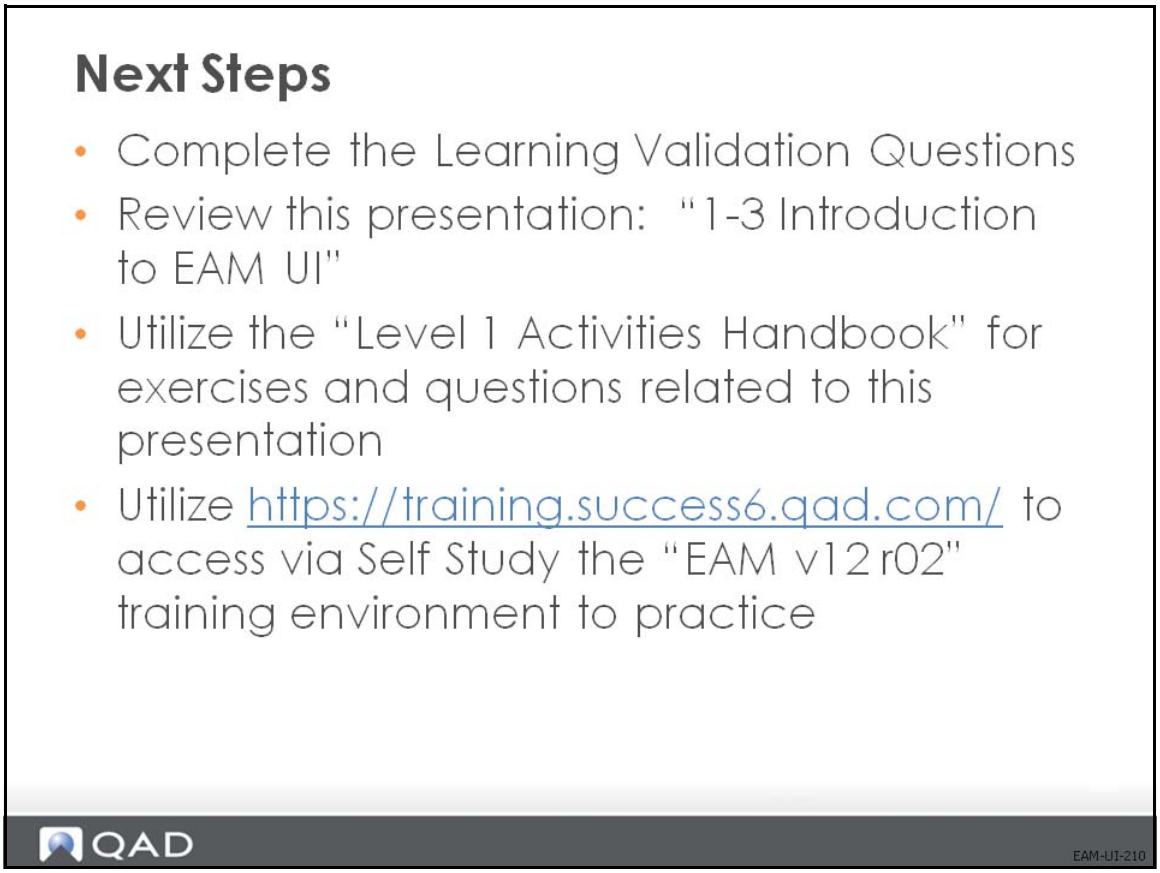
Review


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
QAD
EAM-UI-190

Review Questions



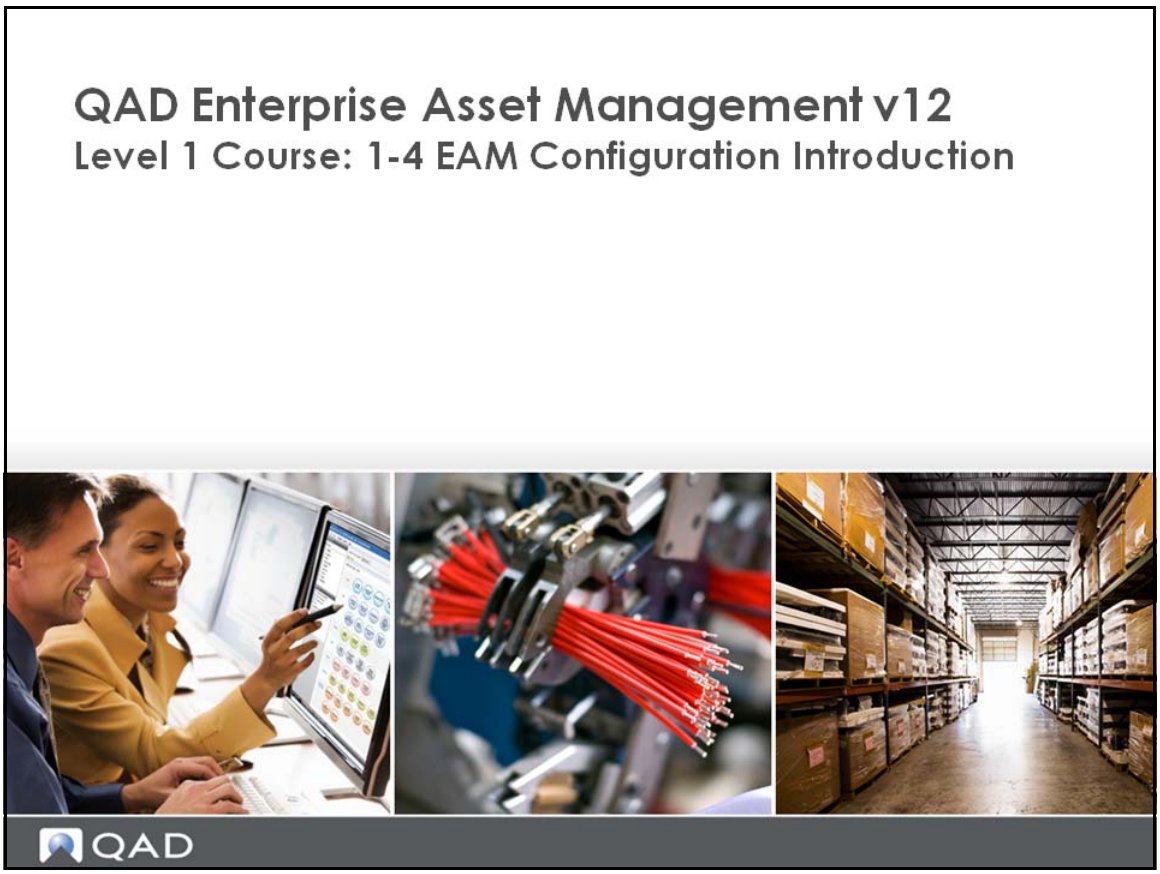
Next Steps


Next Steps
Complete the Learning Validation Questions
Review this presentation: "1-3 Introduction to EAM UI"
Utilize the "Level 1 Activities Handbook" for exercises and questions related to this presentation
Utilize https://training.success6.qad.com/ to access via Self Study the "EAM v12 r02" training environment to practice
QAD
EAM-UI-210

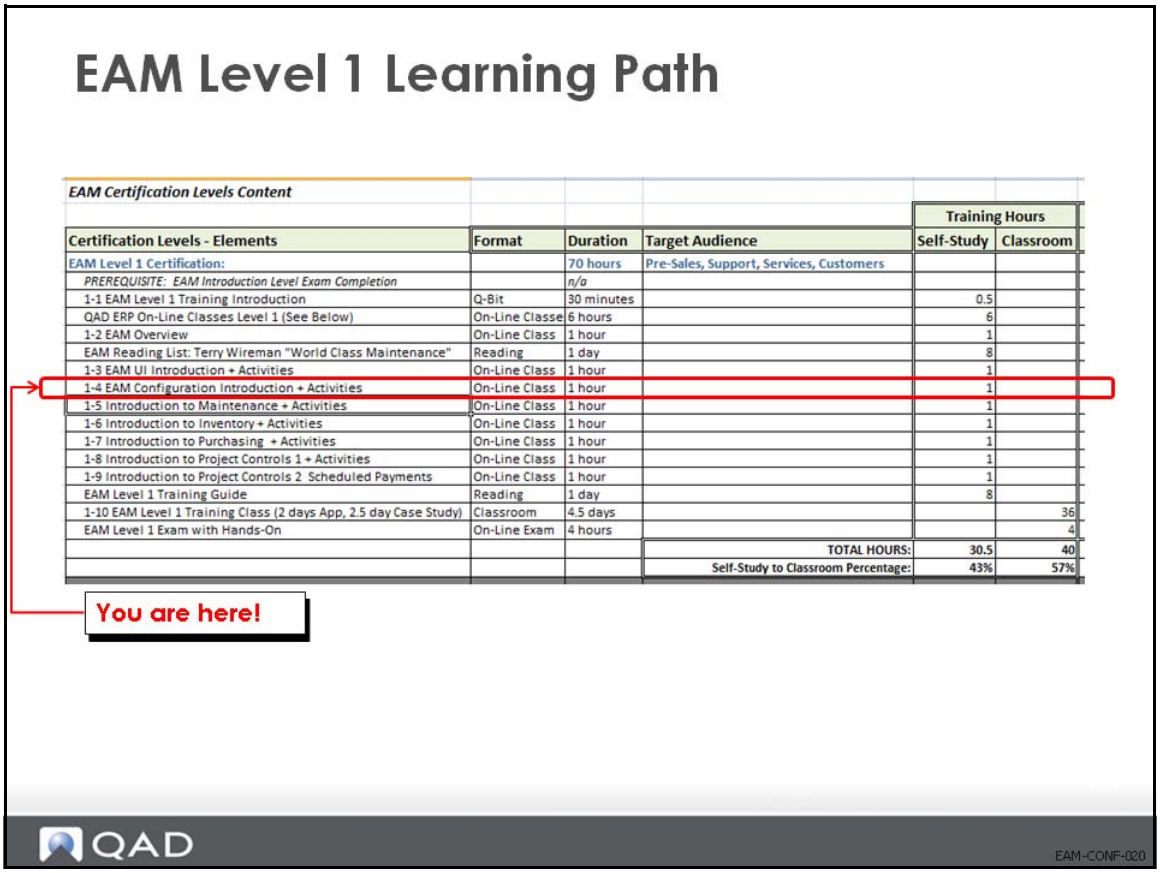
Chapter 4

Introduction to EAM Configuration

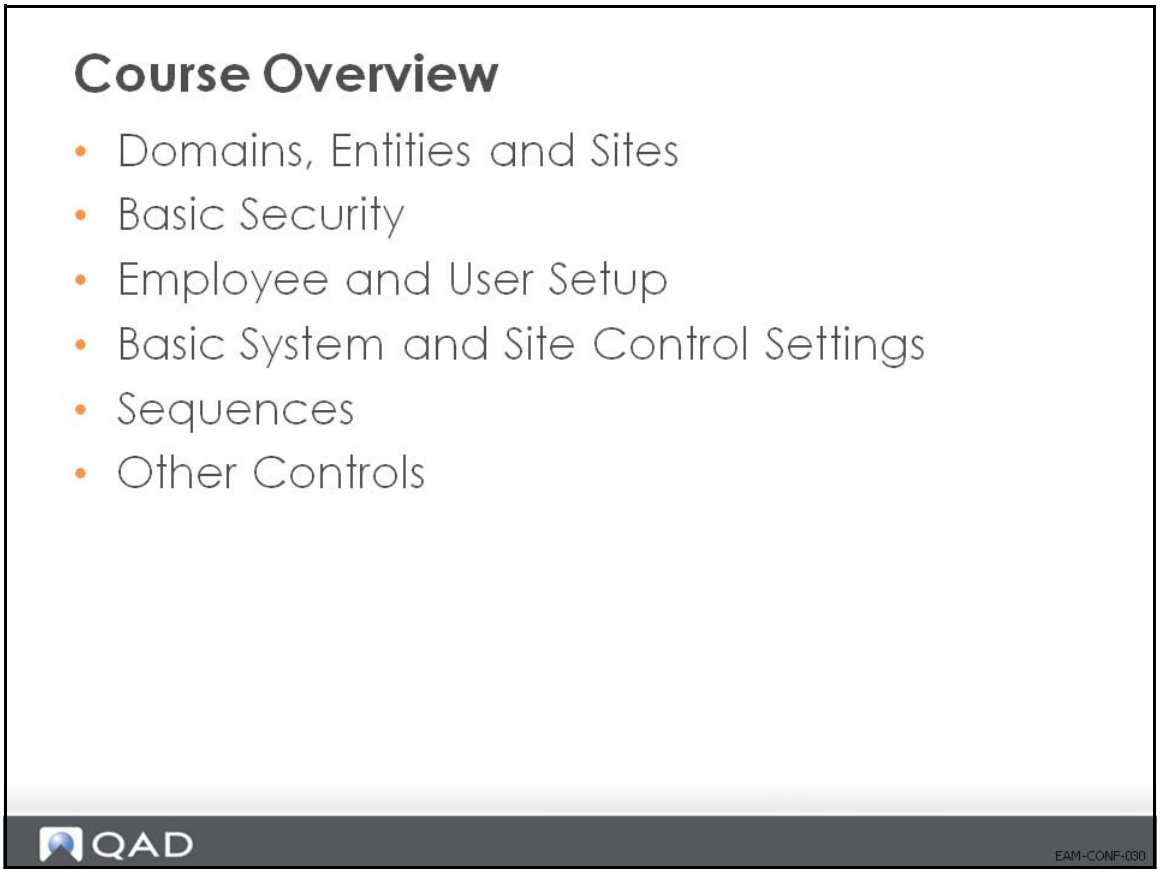
EAM Configuration Introduction



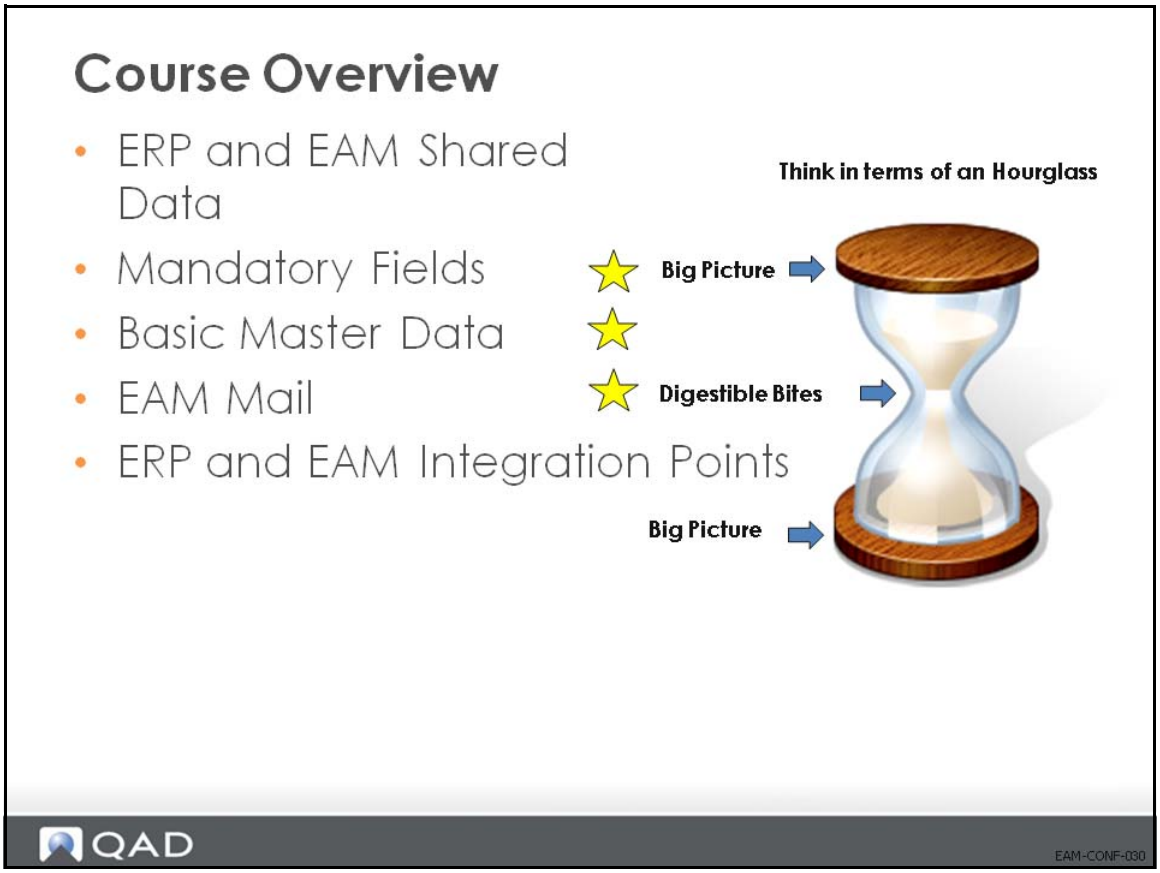
EAM Level 1 Learning Path



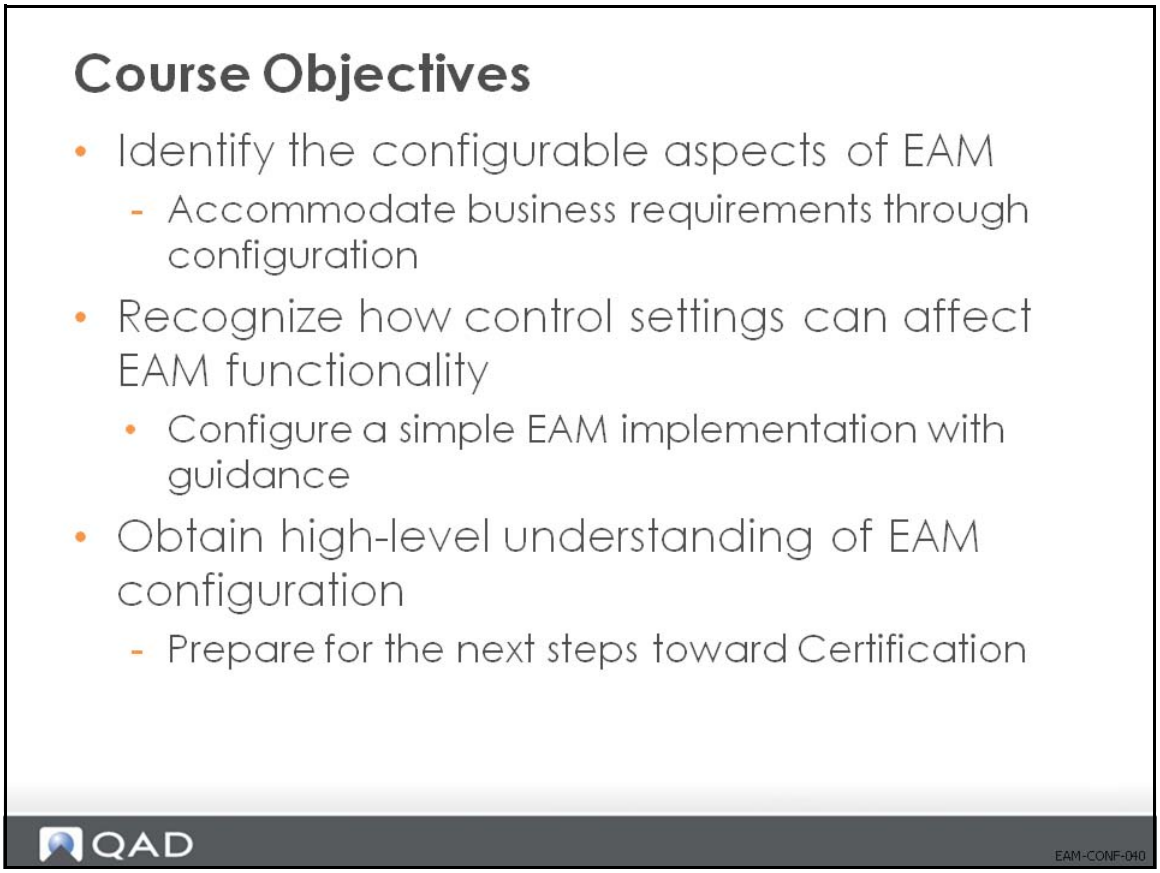
Course Overview



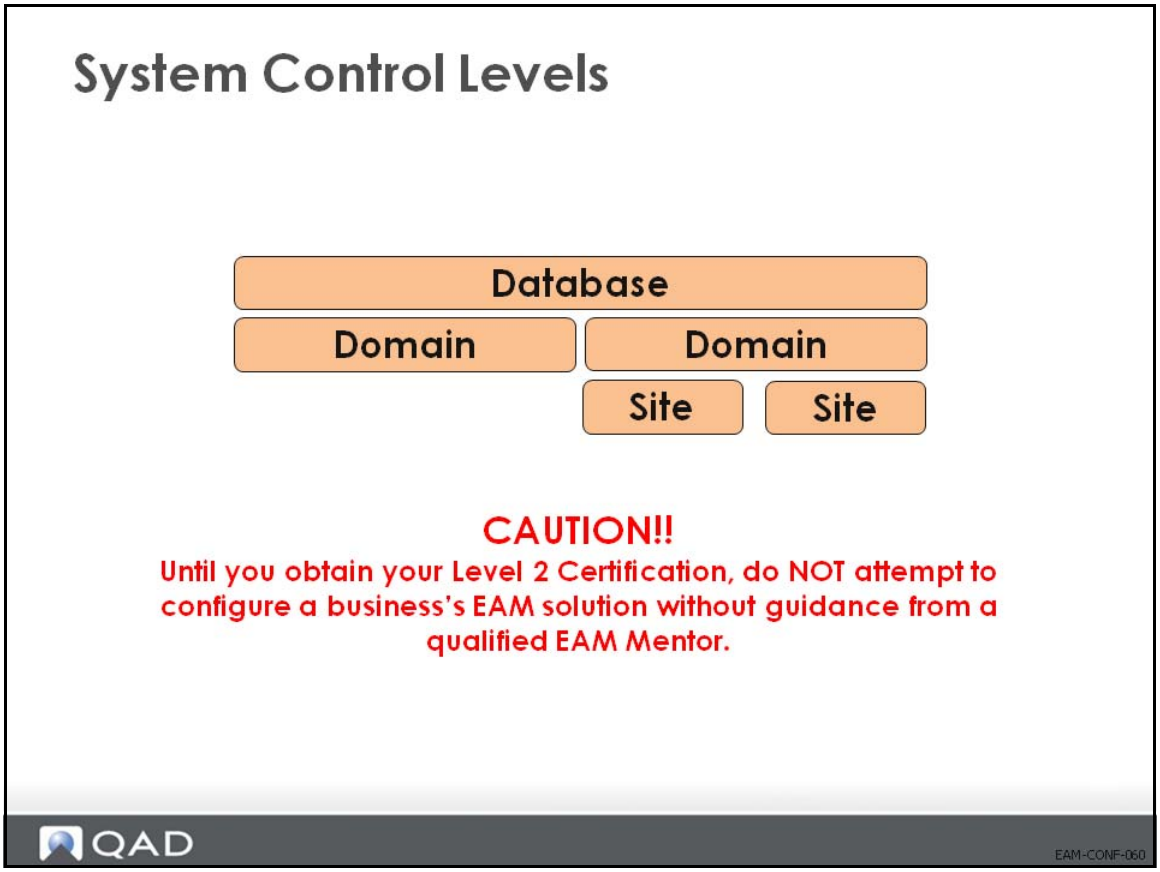
Course Overview 2



Course Objectives



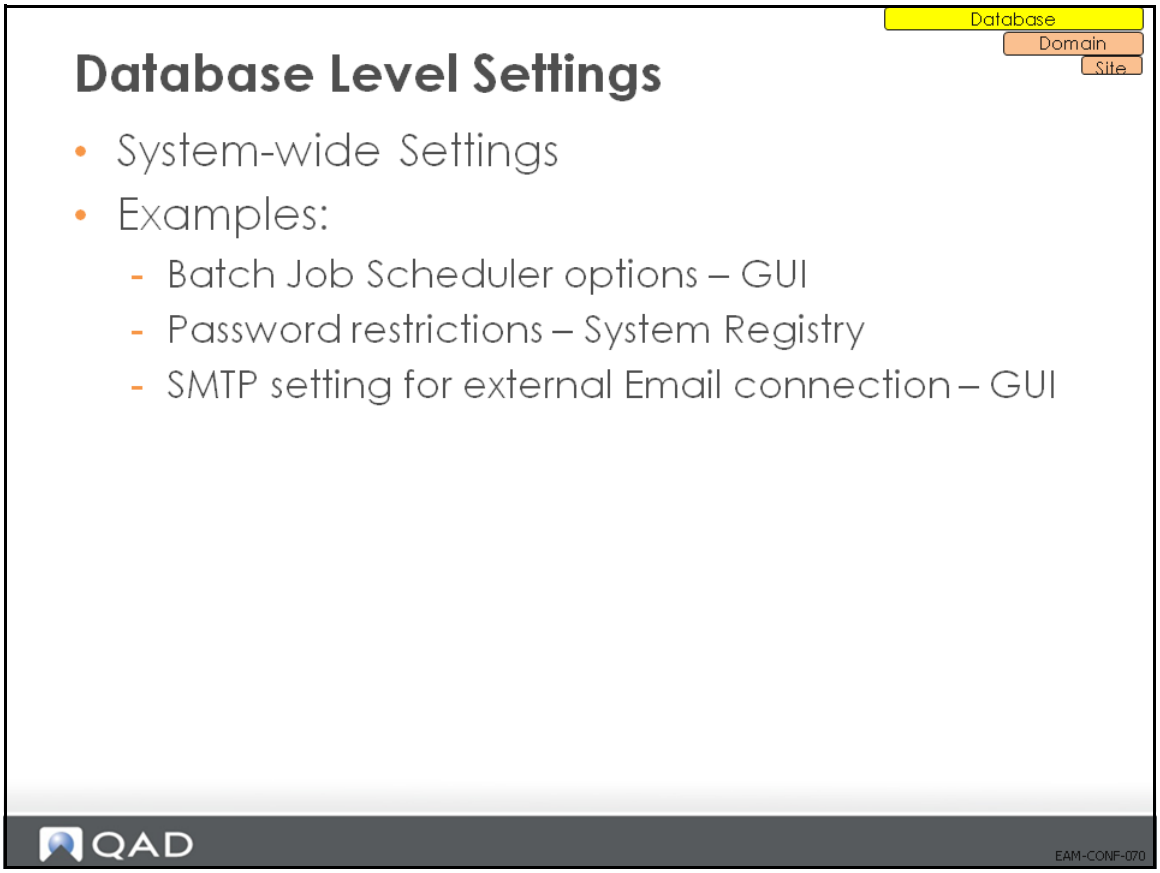
System Controls



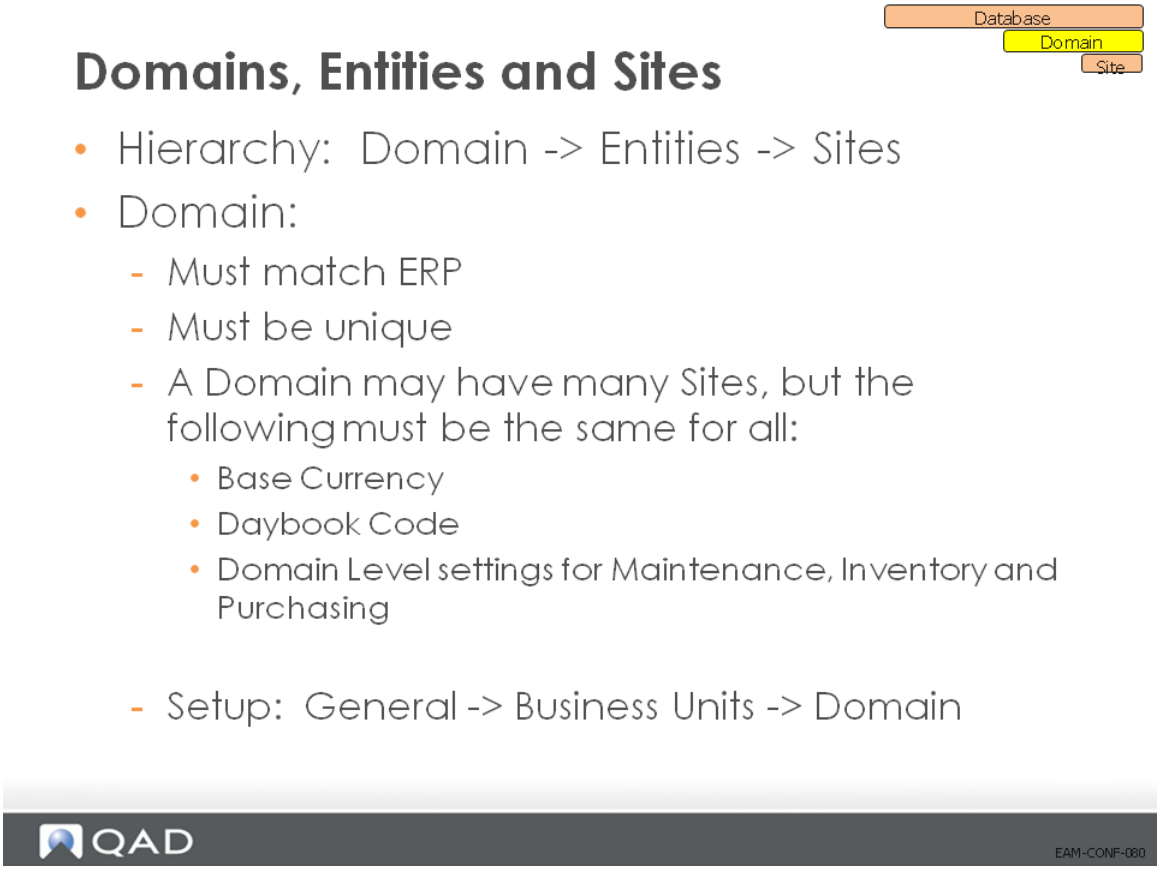
When configuring EAM, it is important to understand that different settings are available at different levels throughout EAM.

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

Database Level Settings



Domains, Entities, and Sites



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:

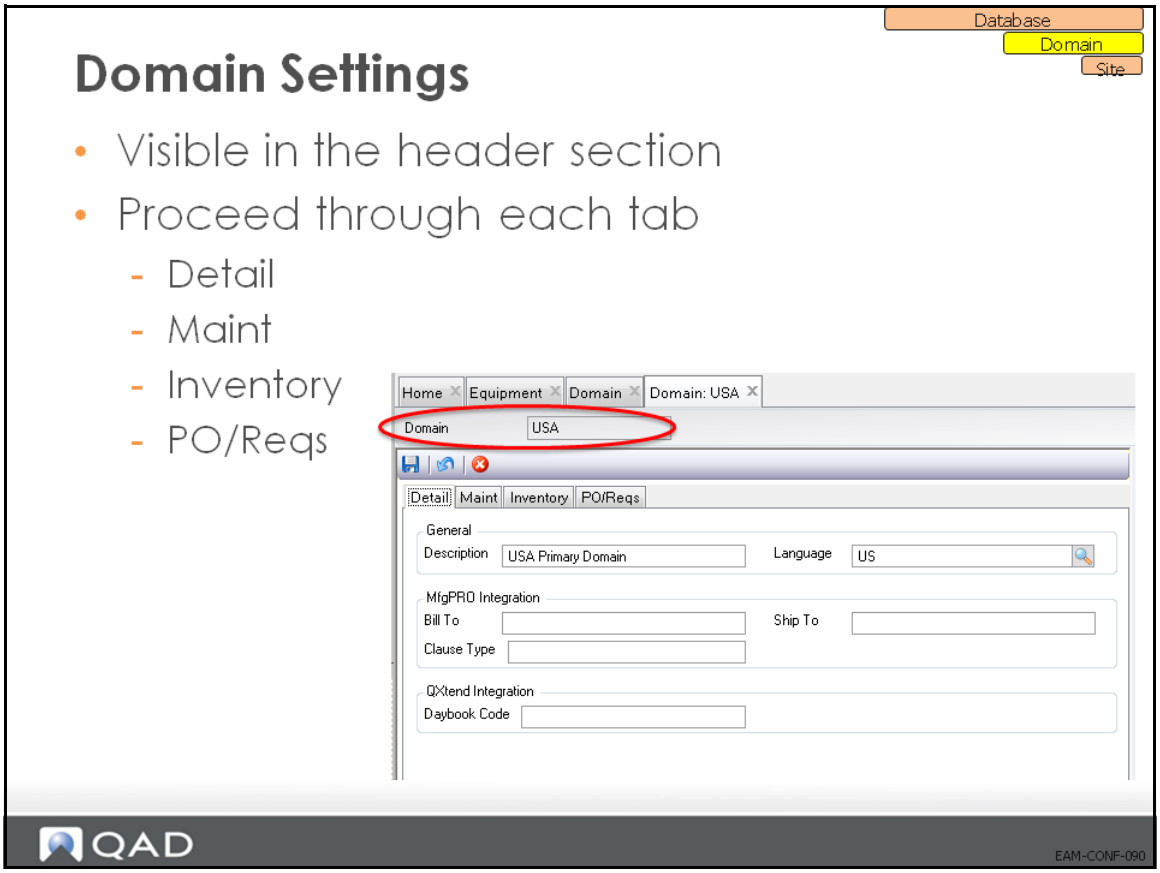
- Domain
- Entity

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.

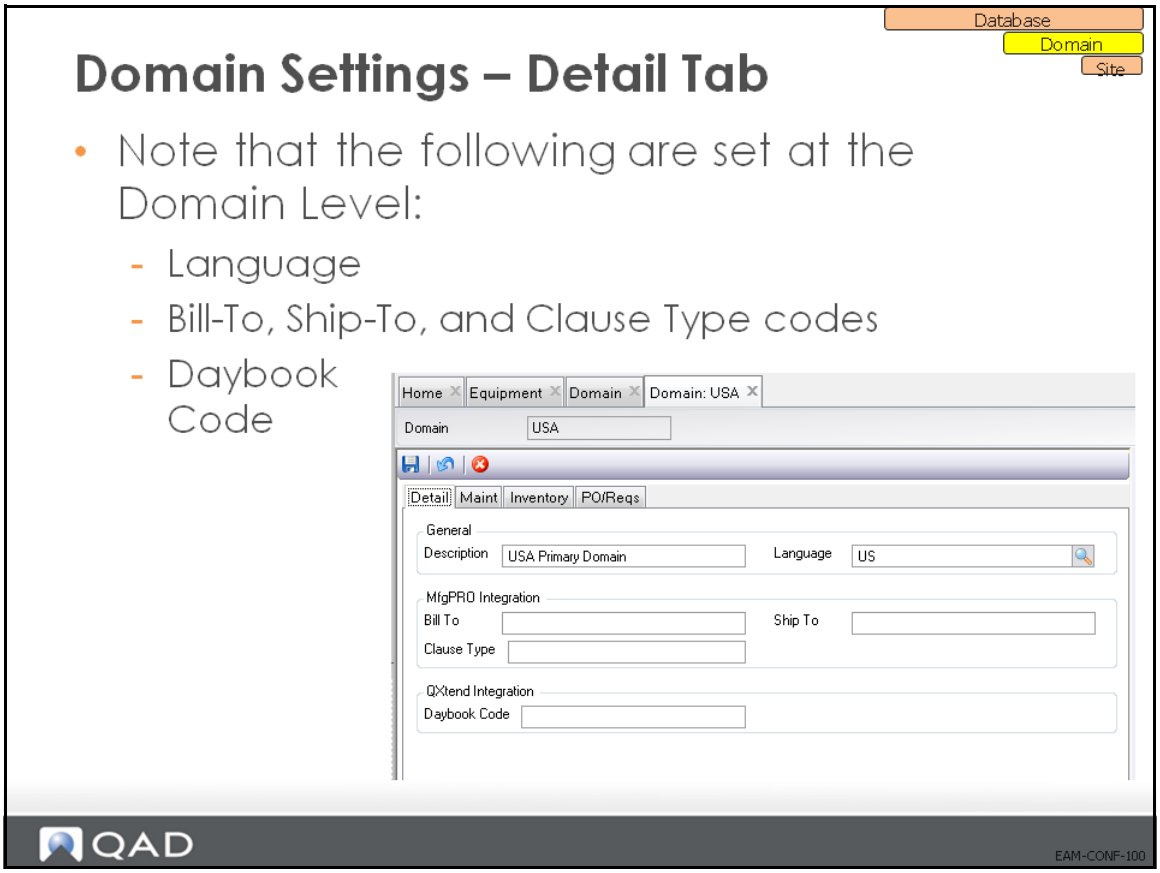
These include: Base Currency, Mail Server Data, Password Restrictions and Daybook Code. There are domain level maintenance settings such as Work order and PM scheduling, authorization settings and reopen capabilities. There are domain level inventory settings such as inventory costing method, ABC settings 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



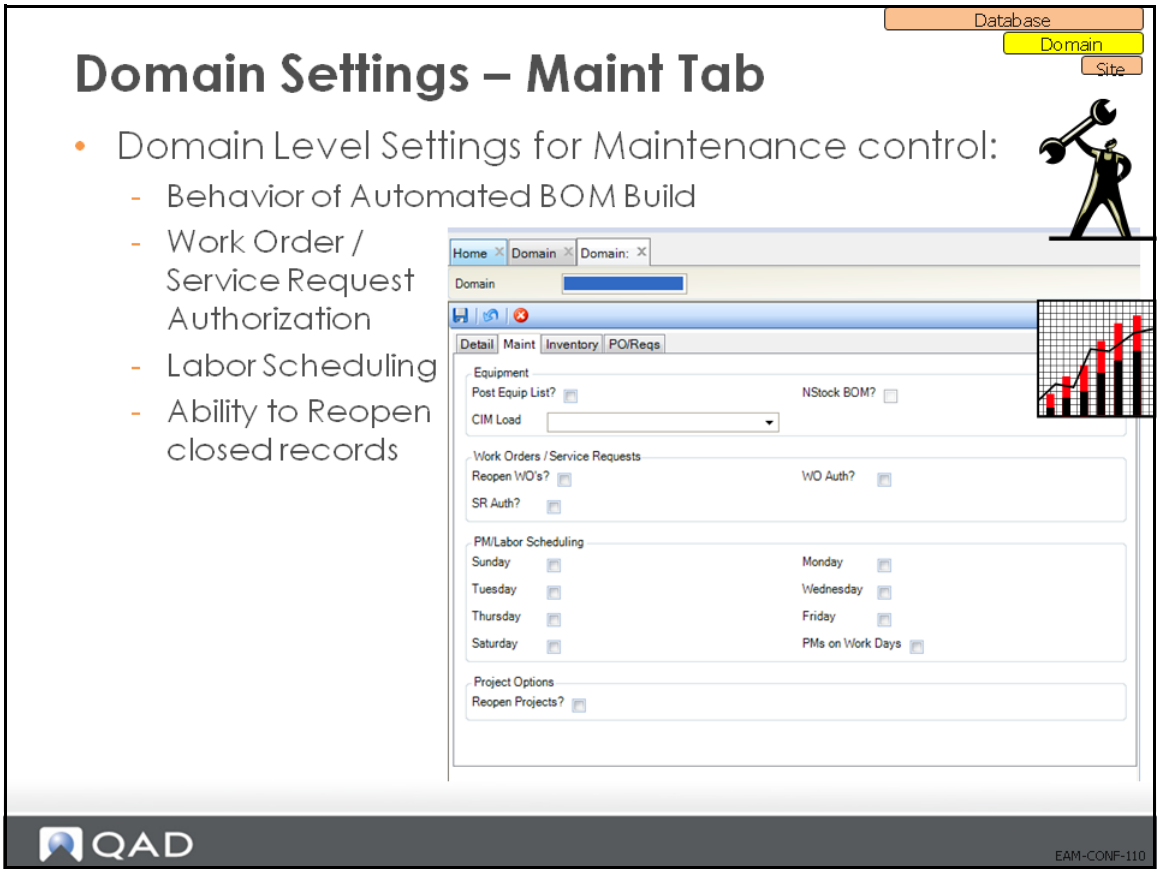
There are domain level maintenance settings such as Work order and PM scheduling, authorization settings and reopen capabilities. There are domain level inventory settings such as inventory costing method, ABC settings and other optional settings. There are domain level settings for the Purchasing area 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: Detail Tab



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.

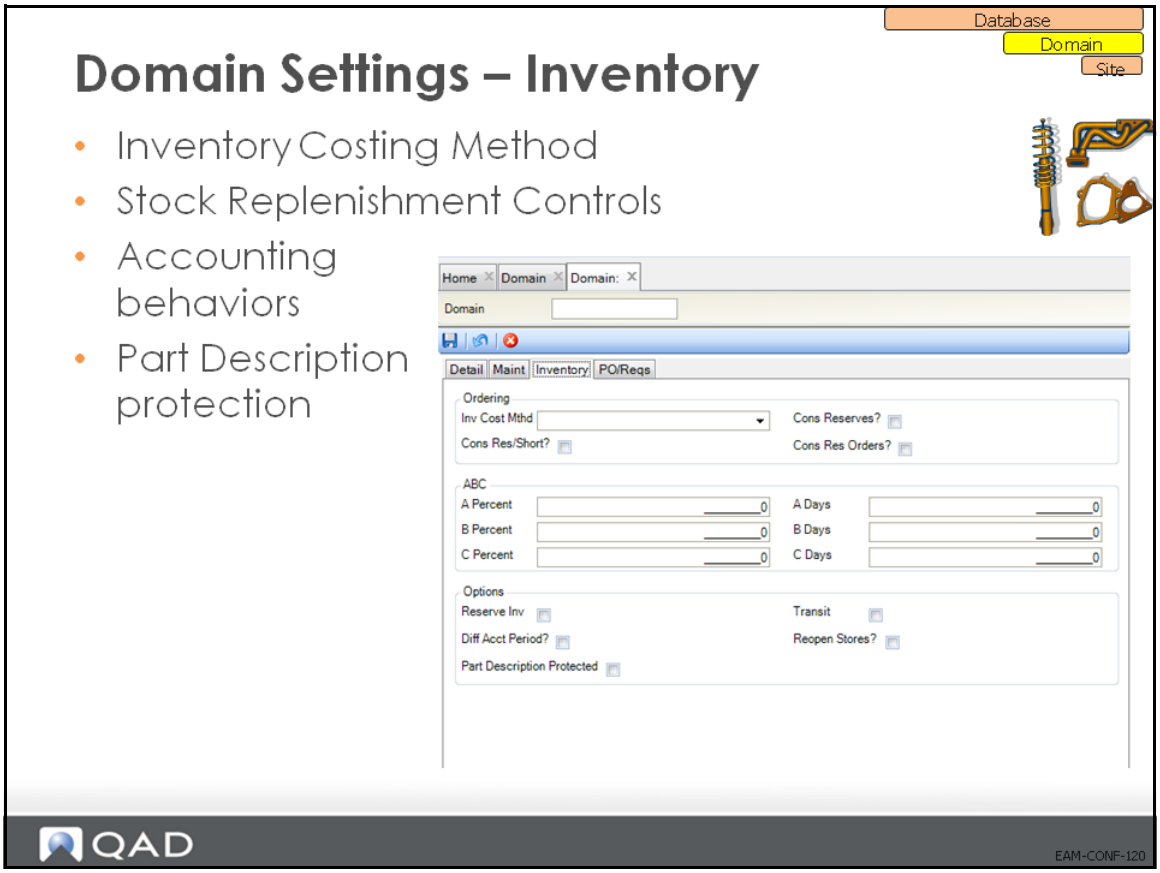
Domain Settings: Main Tab



Domain level settings for the maintenance functions are found on the Main 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.

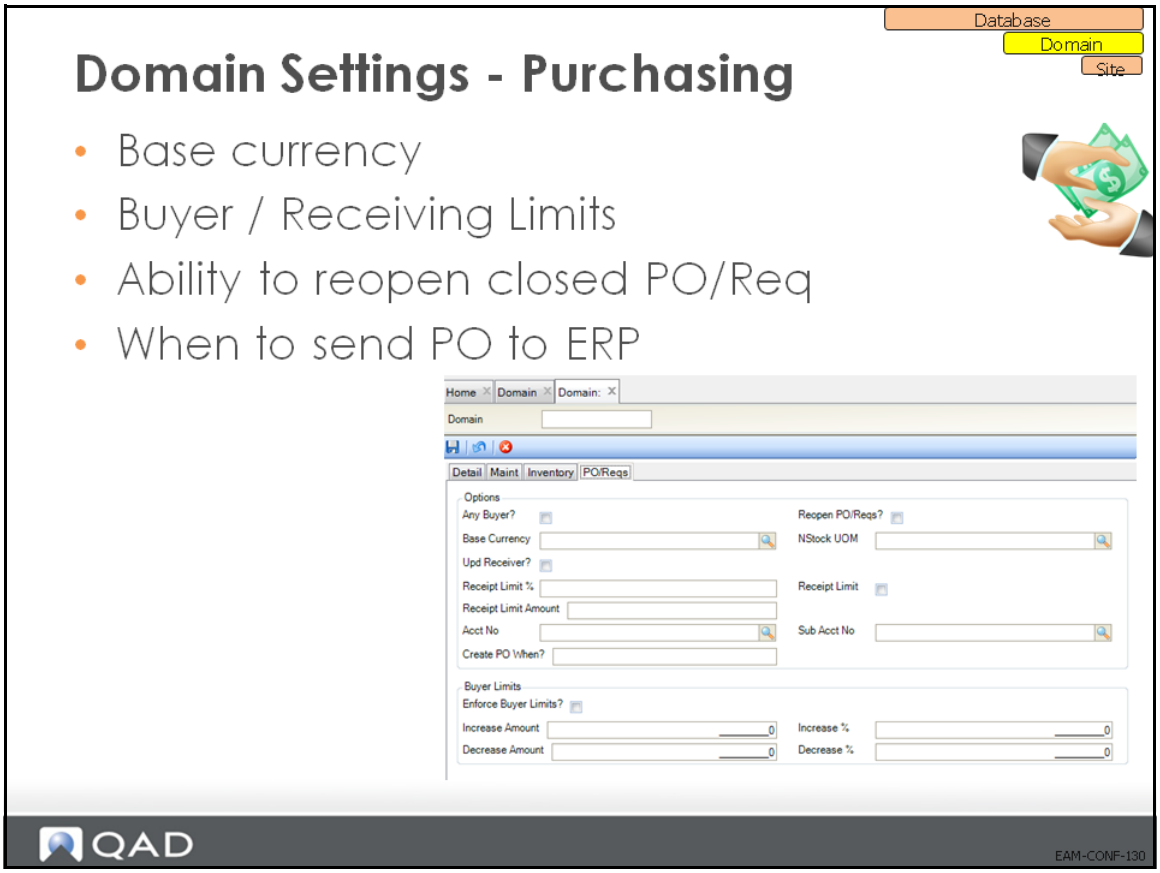
In the Maintenance module, control of whether to require Work Order and/or Service Request authorization is controlled at the Domain level. You can also determine which days of the week that maintenance can be automatically scheduled for when work orders get created.

Domain Settings: Inventory



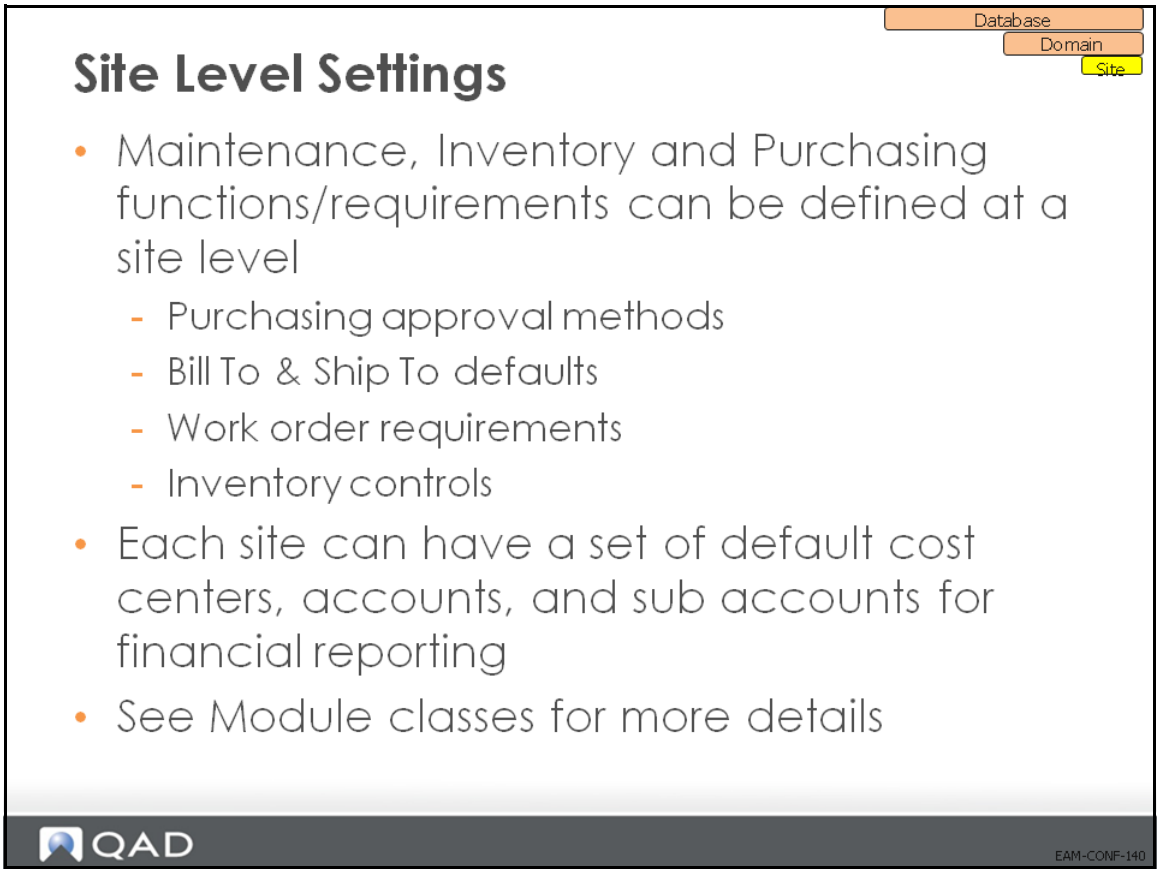
Inventory settings such as costing method are configured on the Inventory Tab. A company can decide whether or not they want to integrate their maintenance planning with their inventory controls and purchasing controls through the use of Inventory reserves. These settings allow a company to put inventory 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



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



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.

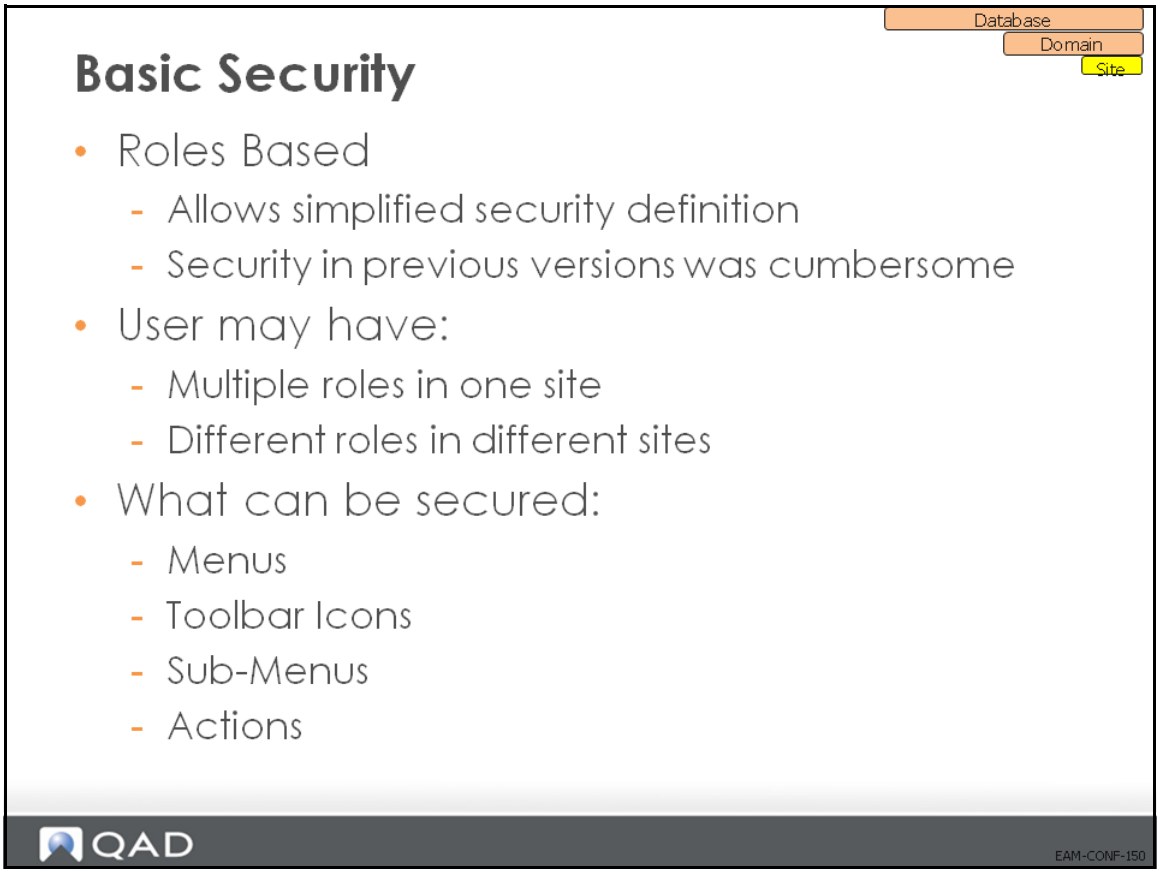
Each site within a domain will typically have a different shipping address, and may even receive invoices directly for approval, rather than having them sent to a centralized location.

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.

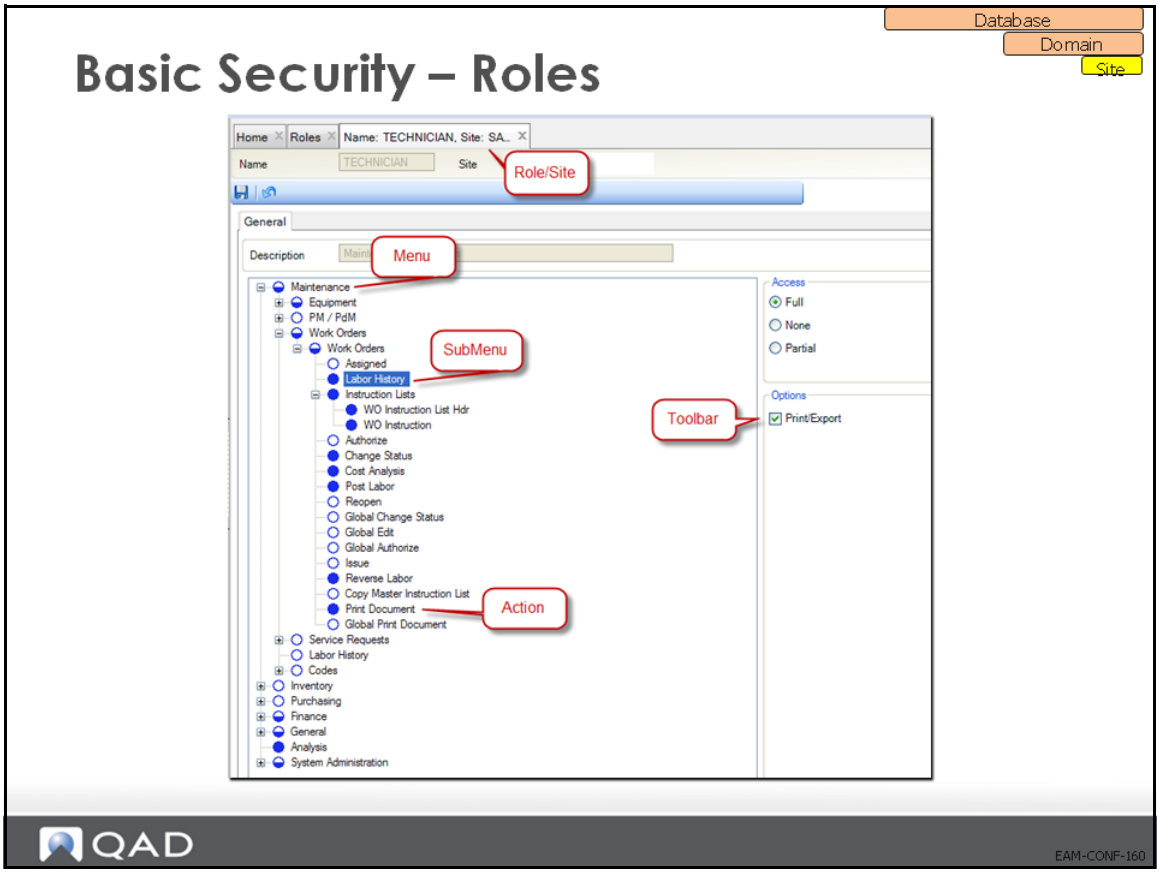
Basic Security



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.

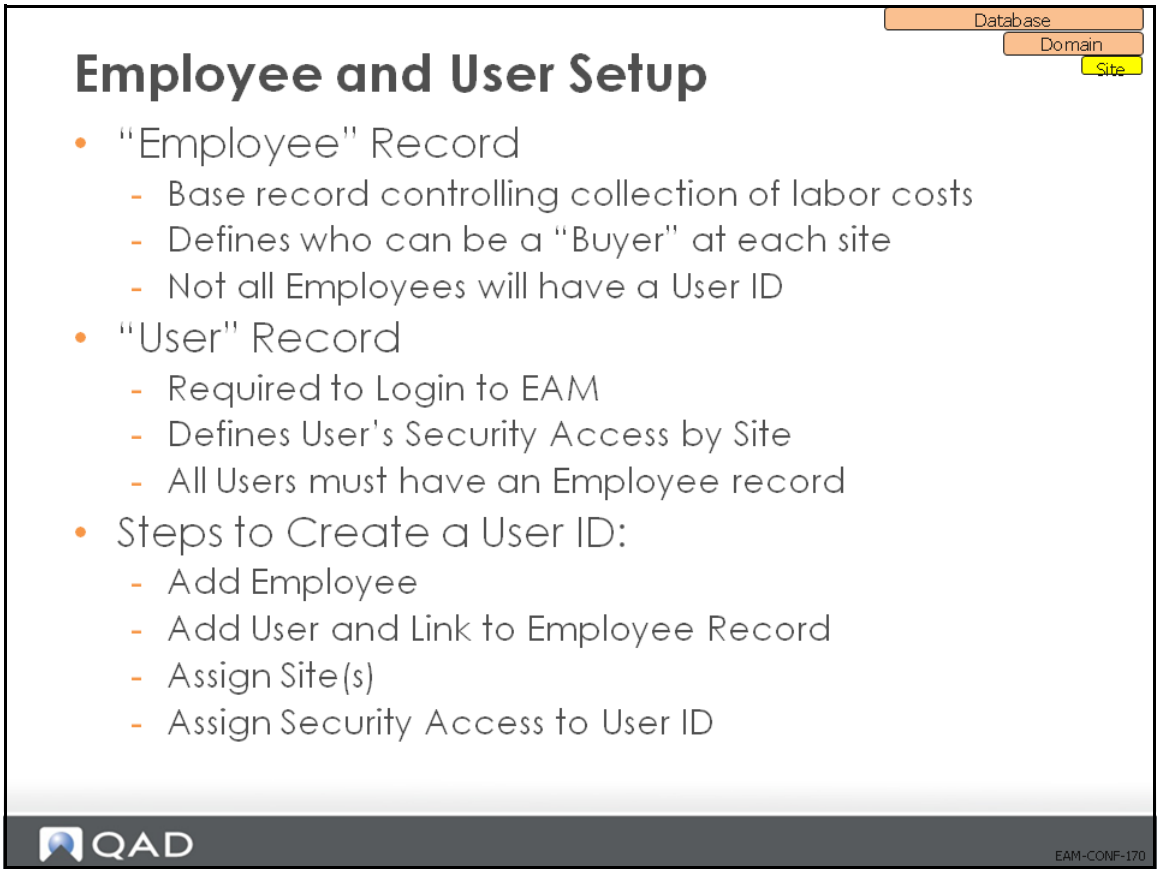
Security is also site specific, so a user may have access to certain EAM functions in one site and not have that same access in others.

Basic Security: Roles

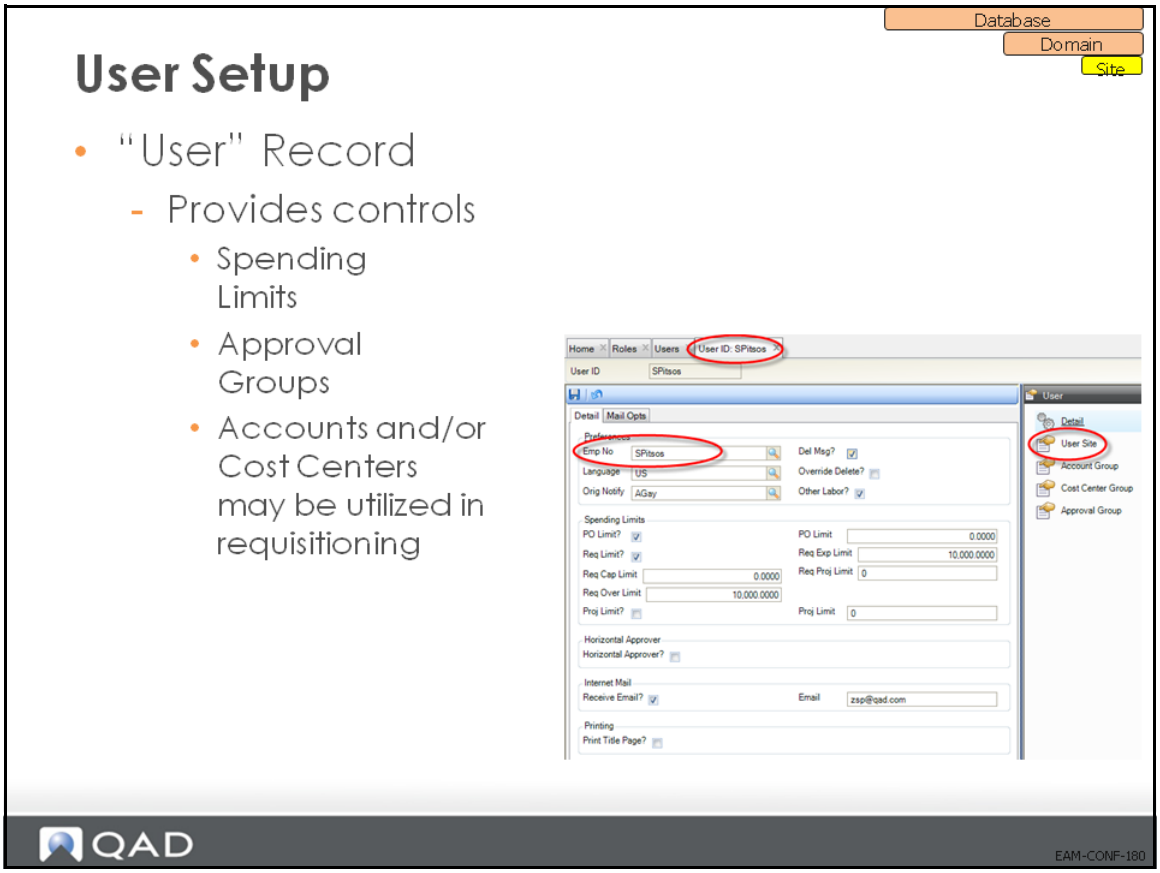


Defining Security Roles in EAM now is much more visual. Controls are available at the overall "Access" level (Full, None, or Partial) for more quickly defining access at the high-level. Menus, Sub-Menus, Actions and Toolbar functions can be secured by role with an easy visual for evaluating the definition.

Employee and User Setup



User Setup



Aside from the obvious, that a User ID is required in order to login to EAM, the User ID provides additional controls important to their use of EAM.

At the User Level, the following additional controls apply:

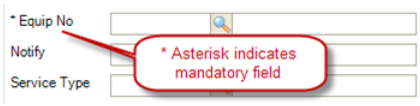
- PO Approval Limit
- Requisition Approval Limits (Capital, Expense, and Project)
- Over Spend Limits (for when Budgets are being utilized)
- Project Approval Limits
- Which Accounts / Cost Centers the user may utilize in purchasing
- User Based Approval Routing, if applicable
- Internet Mail settings
- Print Controls for inclusion of a Title Page on reports
- EAM Mail Notification Options.

Mandatory Fields

Database
Domain
Site

Mandatory Fields

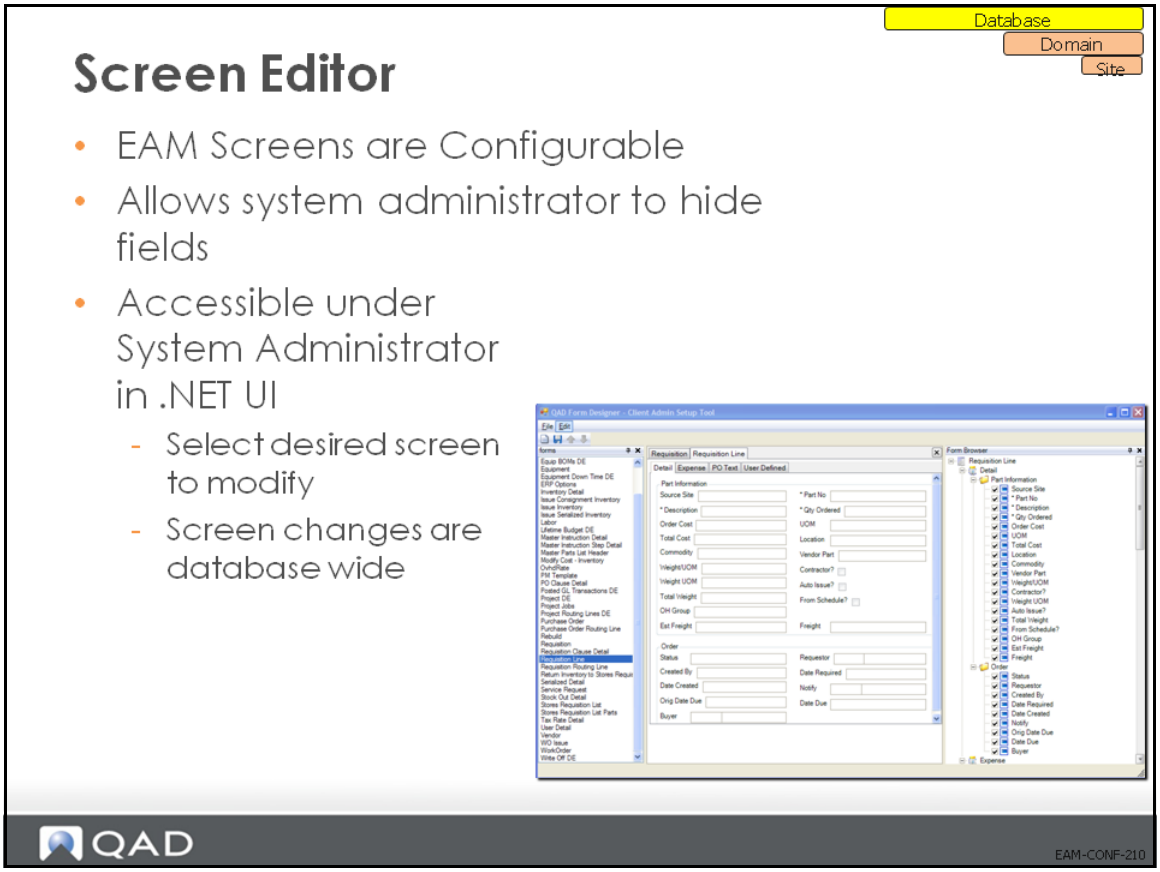
- EAM allows fields to be marked as Mandatory in certain screens
- Cannot save record without filling in that field
- Some "conditional" mandatory fields examples:
  - Work Order > Close
  - Job(Project)
- Generally Visibly Differentiated on the Screen



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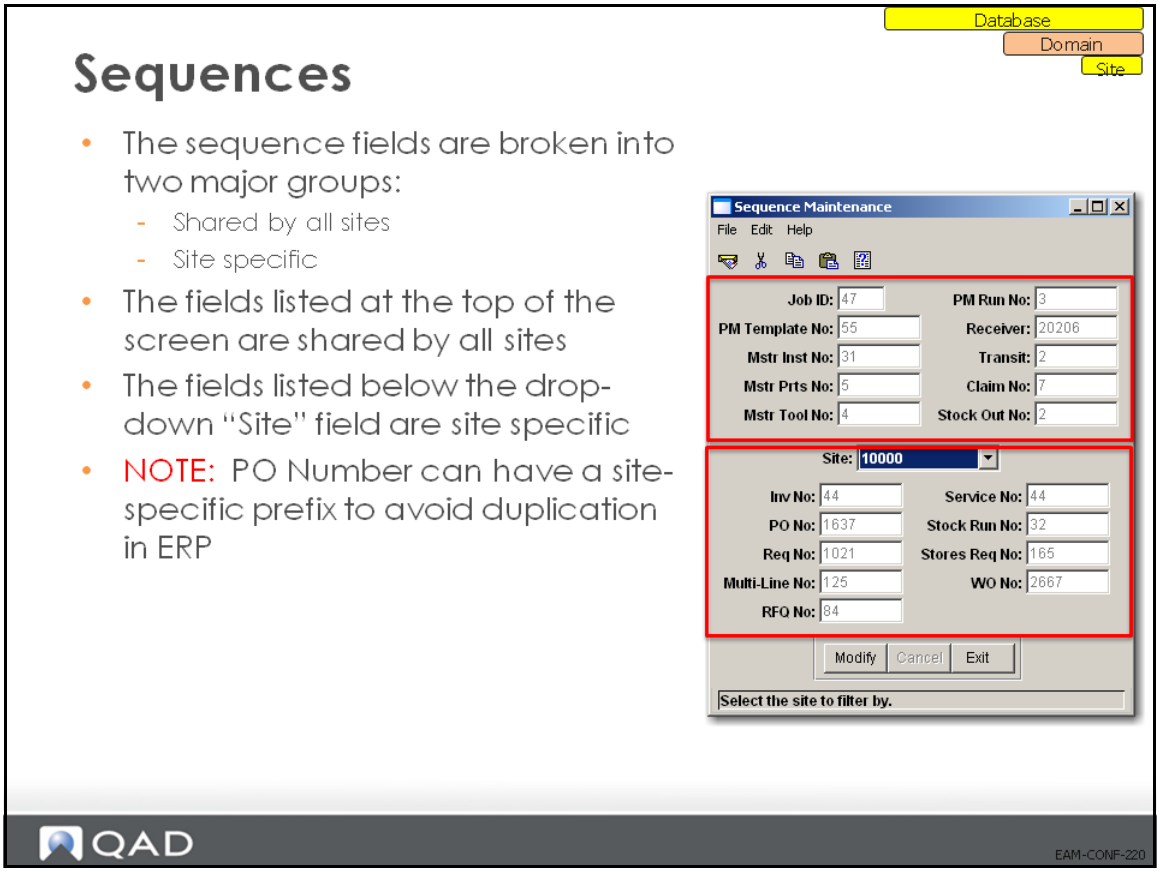
Screen Editor



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



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.

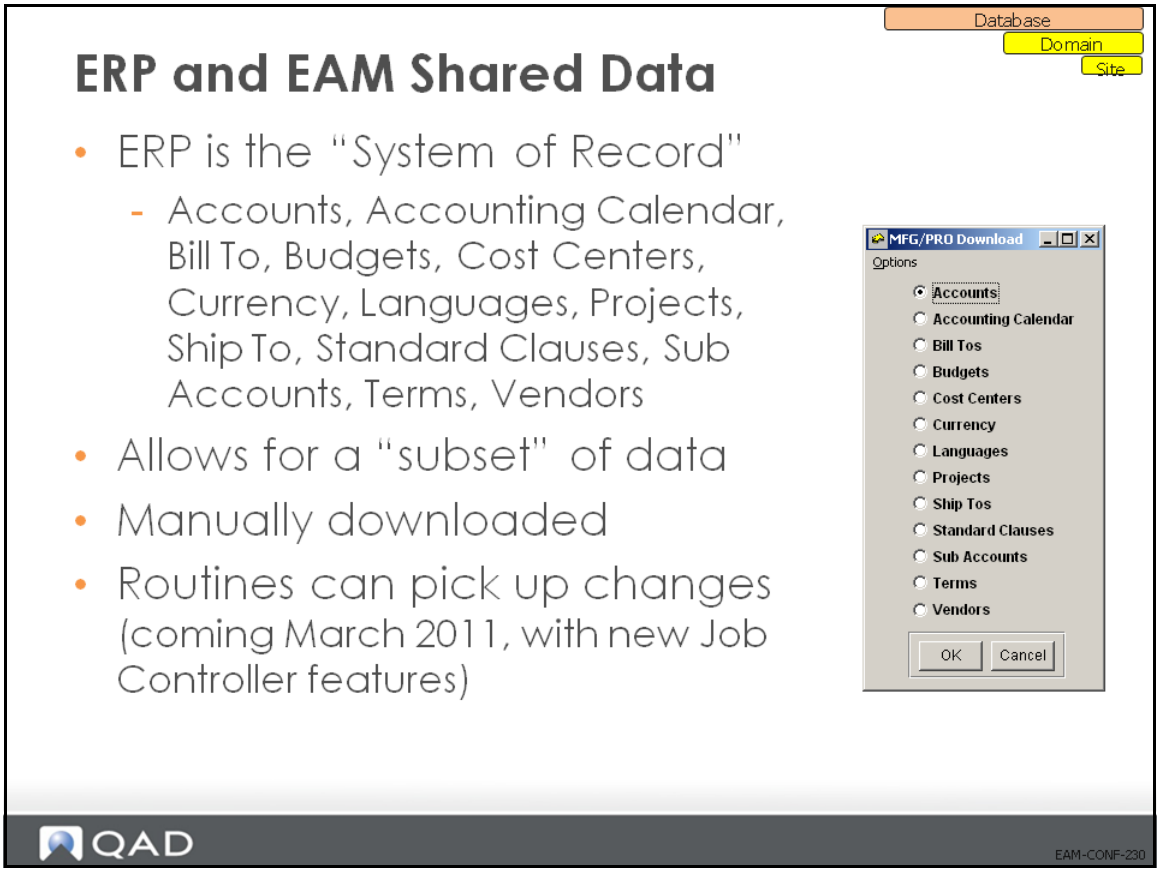
Some records must be unique across all sites and thus are defined on the database level. In general these are records that may be shared across sites or that must always be unique upon being passed to ERP (such as the Receiver number).

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.

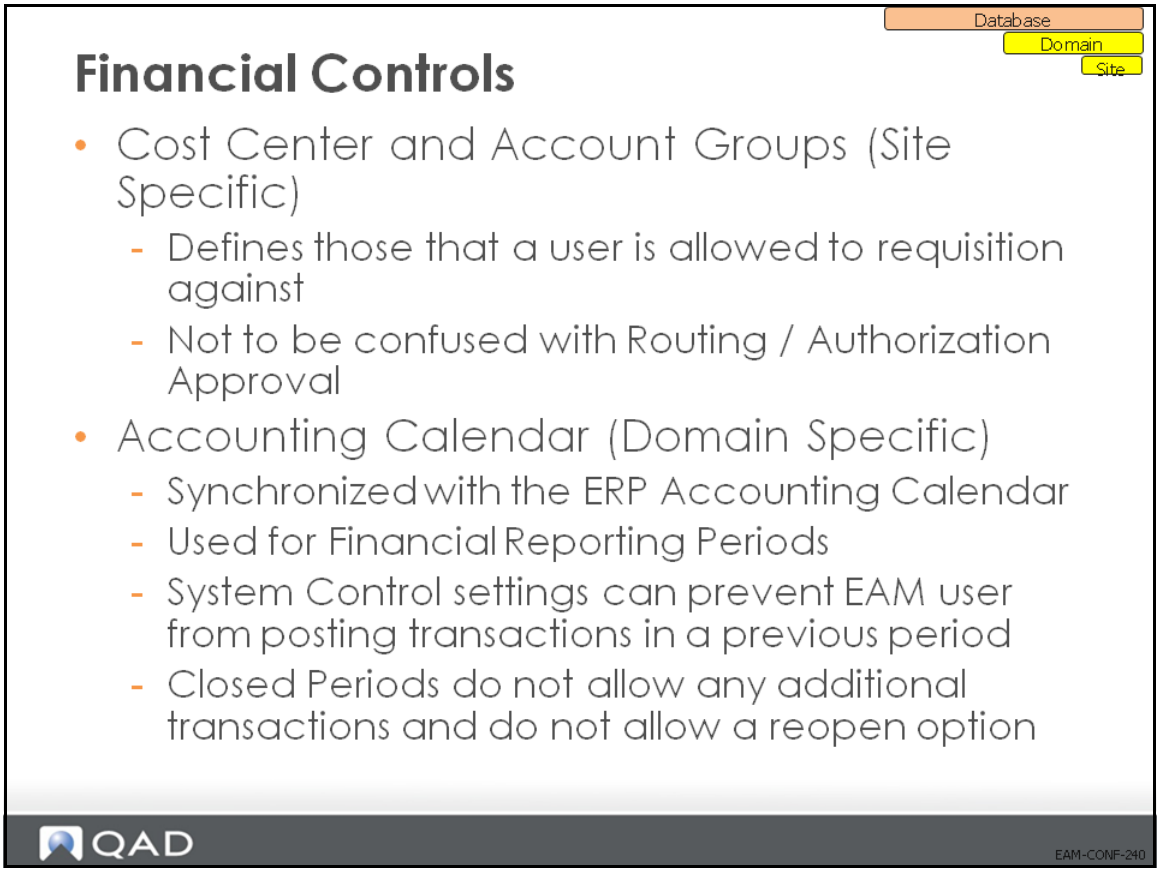
ERP and EAM Shared Data



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).

Financial Controls

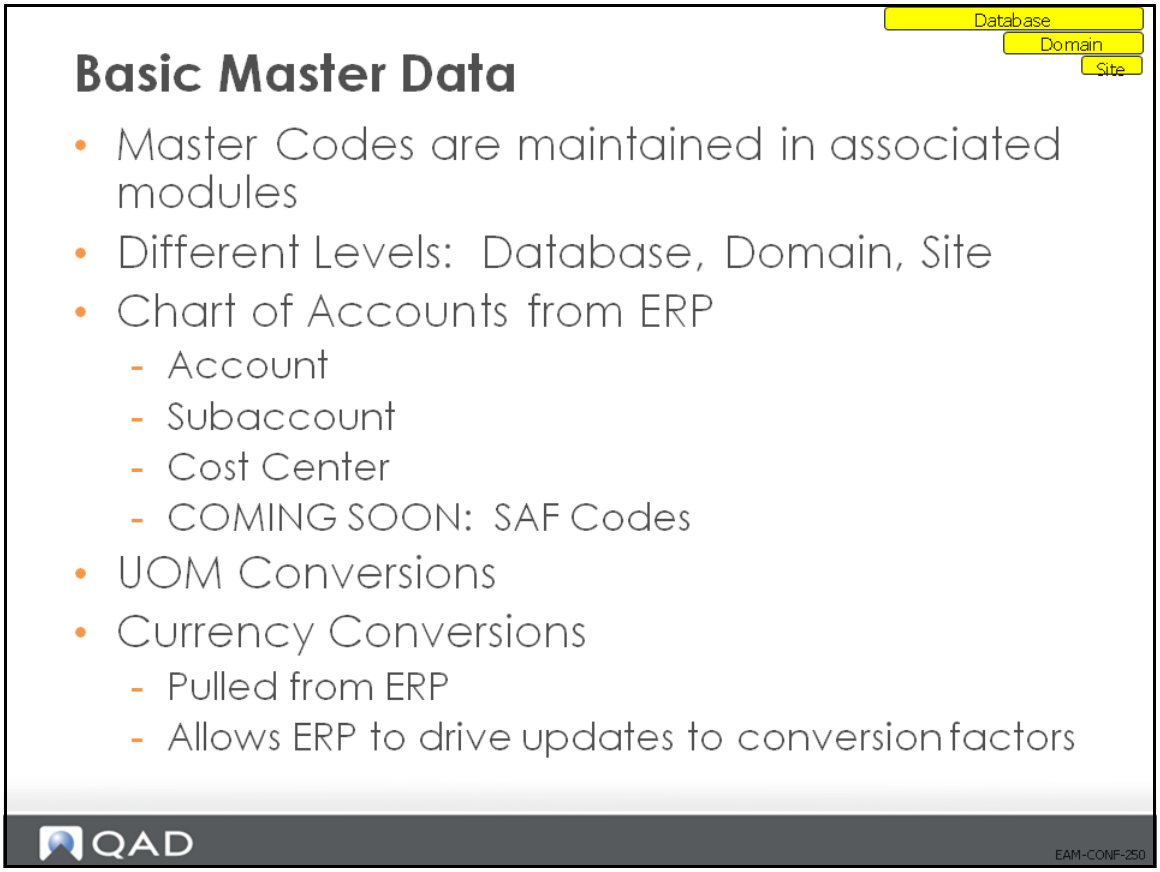


EAM provides a level of Financial control beyond that in ERP by allowing restriction of which Cost Centers and/or Accounts a user is allowed to perform transactions against, such as in purchasing. Cost Center restrictions are the most common. Account restrictions can often become quite cumbersome to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

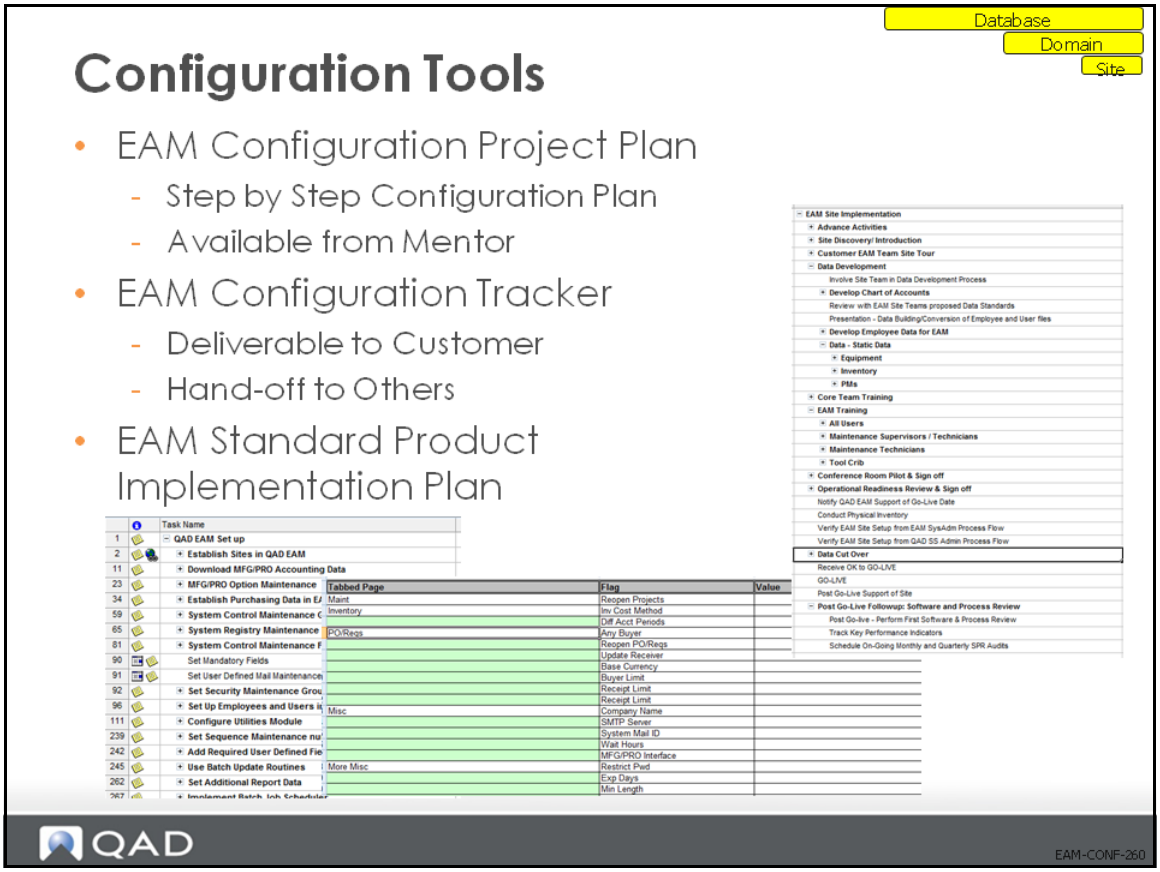
The GL Calendar in ERP is critical to defining and controlling financial periods, and for this reason, EAM's GL Calendar should be synchronized with ERP's. Note that closing a period in ERP does not automatically close a period in EAM. EAM closure is a separate and manual activity. NOTE: Periods in EAM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

Basic Master Data

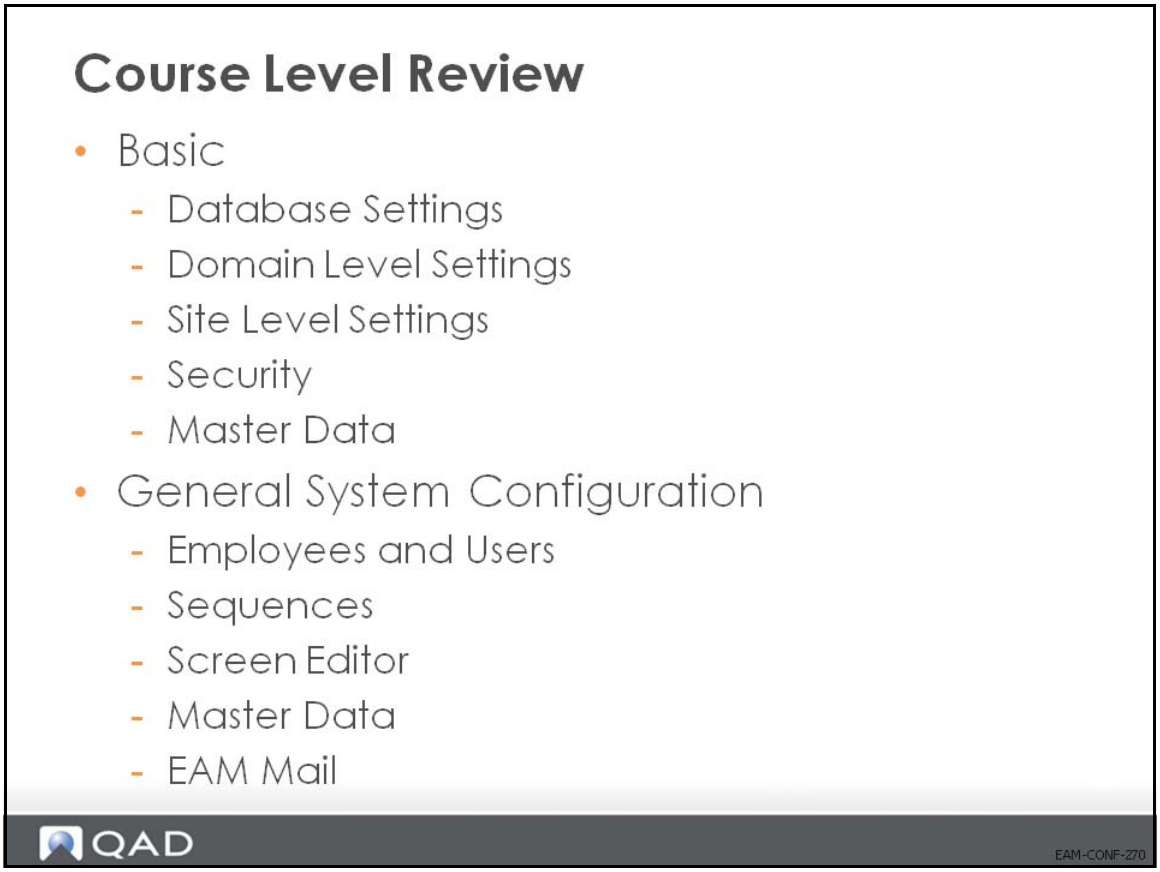


Master Data is primarily the means by which a company intends to organize and report upon data. Aside from the synchronized codes previously discussed, EAM provides a great many “Master Codes” tables to assist with slicing and dicing one’s data. Level 2 Training will go into much more depth regarding 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.

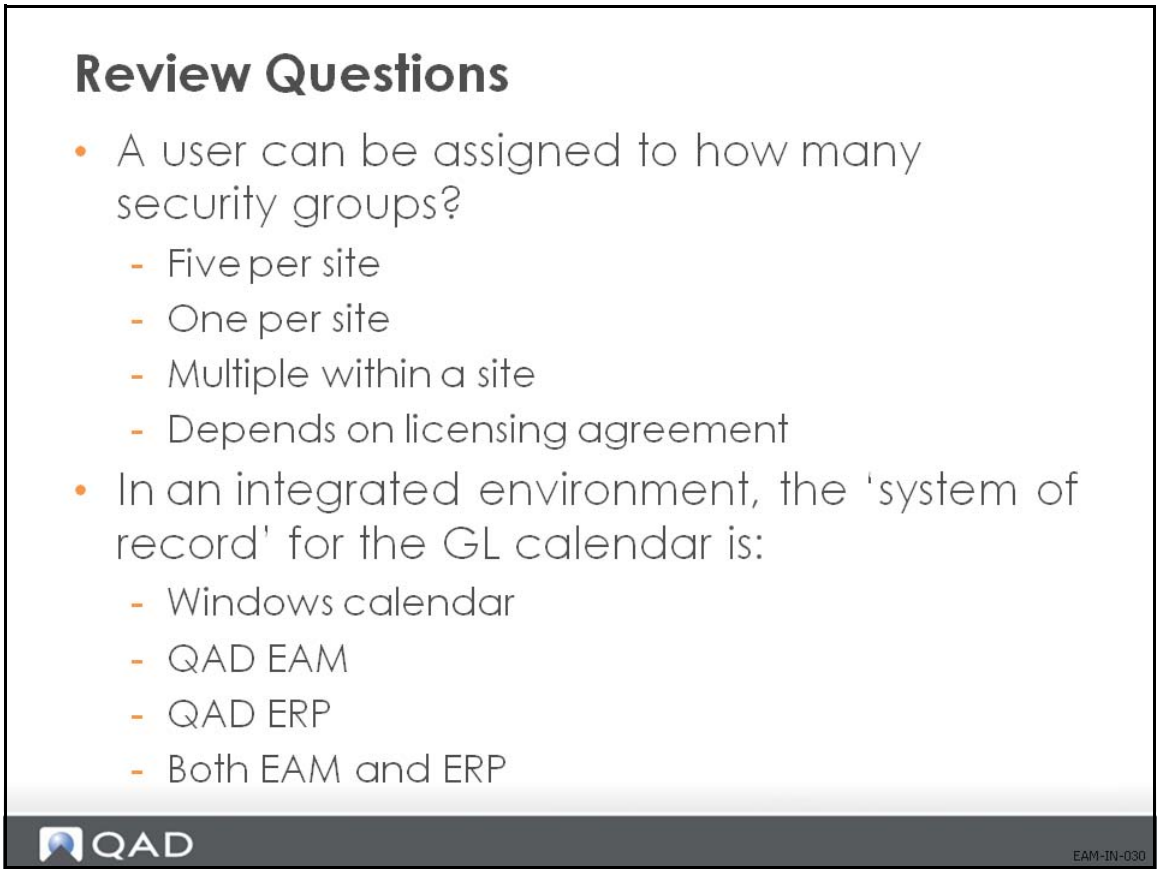
Configuration Tools



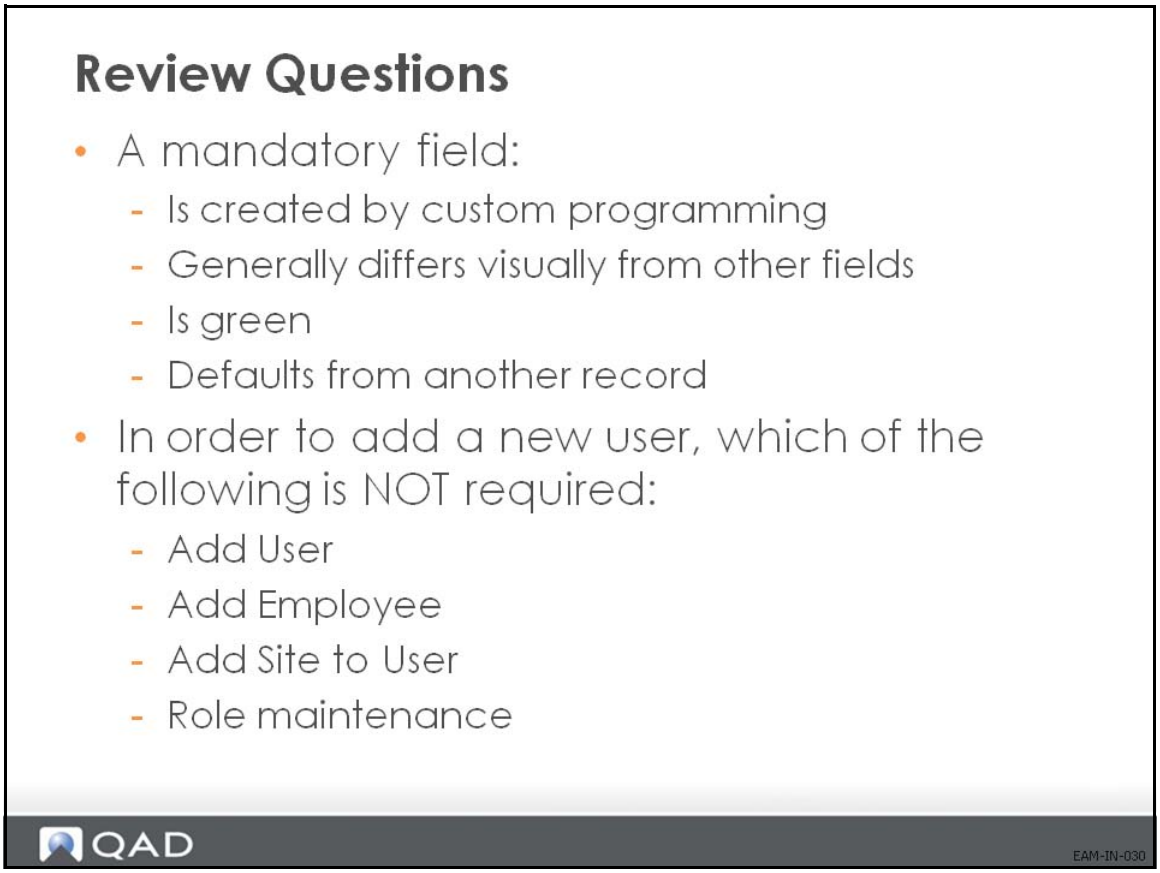
Course Level Review



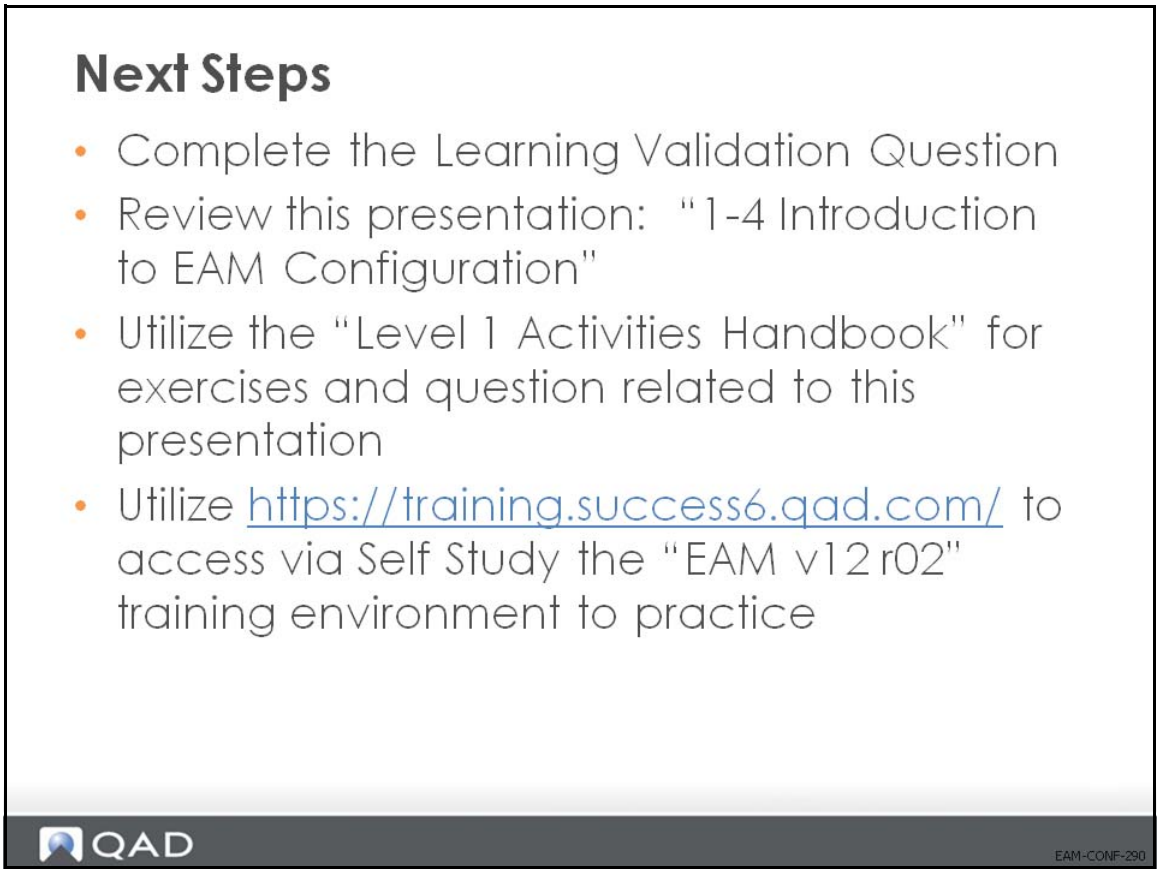
Review Questions



Review Questions 2



Next Steps


Next Steps
Complete the Learning Validation Question
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
QAD
EAM-CONF-290

Chapter 5

Introduction to EAM Maintenance

Intro to EAM Maintenance



EAM Level 1 Learning Path

EAM Level 1 Learning Path

EAM Certification Levels Content

Certification Levels - Elements	Format	Duration	Target Audience	Training Hours Self-Study	Training Hours Classroom
EAM Level 1 Certification:		70 hours	Pre-Sales, Support, Services, Customers		
PREREQUISITE: EAM Introduction Level Exam Completion		*n/a*			
1-1 EAM Level 1 Training Introduction	Q-Bit	30 minutes		0.5	
QAD ERP On-Line Classes Level 1 (See Below)	On-Line Classe	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 + Activities	On-Line Class	1 hour		1	
1-4 EAM Configuration Introduction + Activities	On-Line Class	1 hour		1	
1-5 Introduction to Maintenance + Activities	On-Line Class	1 hour		1	
1-6 Introduction to Inventory + Activities	On-Line Class	1 hour		1	
1-7 Introduction to Purchasing + Activities	On-Line Class	1 hour		1	
1-8 Introduction to Project Controls 1 + Activities	On-Line Class	1 hour		1	
1-9 Introduction to Project Controls 2 Scheduled Payments	On-Line Class	1 hour		1	
EAM Level 1 Training Guide	Reading	1 day		8	
1-10 EAM Level 1 Training Class (2 days App, 2.5 day Case Study)	Classroom	4.5 days			36
EAM Level 1 Exam with Hands-On	On-Line Exam	4 hours			4
			TOTAL HOURS:	30.5	40
			Self-Study to Classroom Percentage:	43%	57%

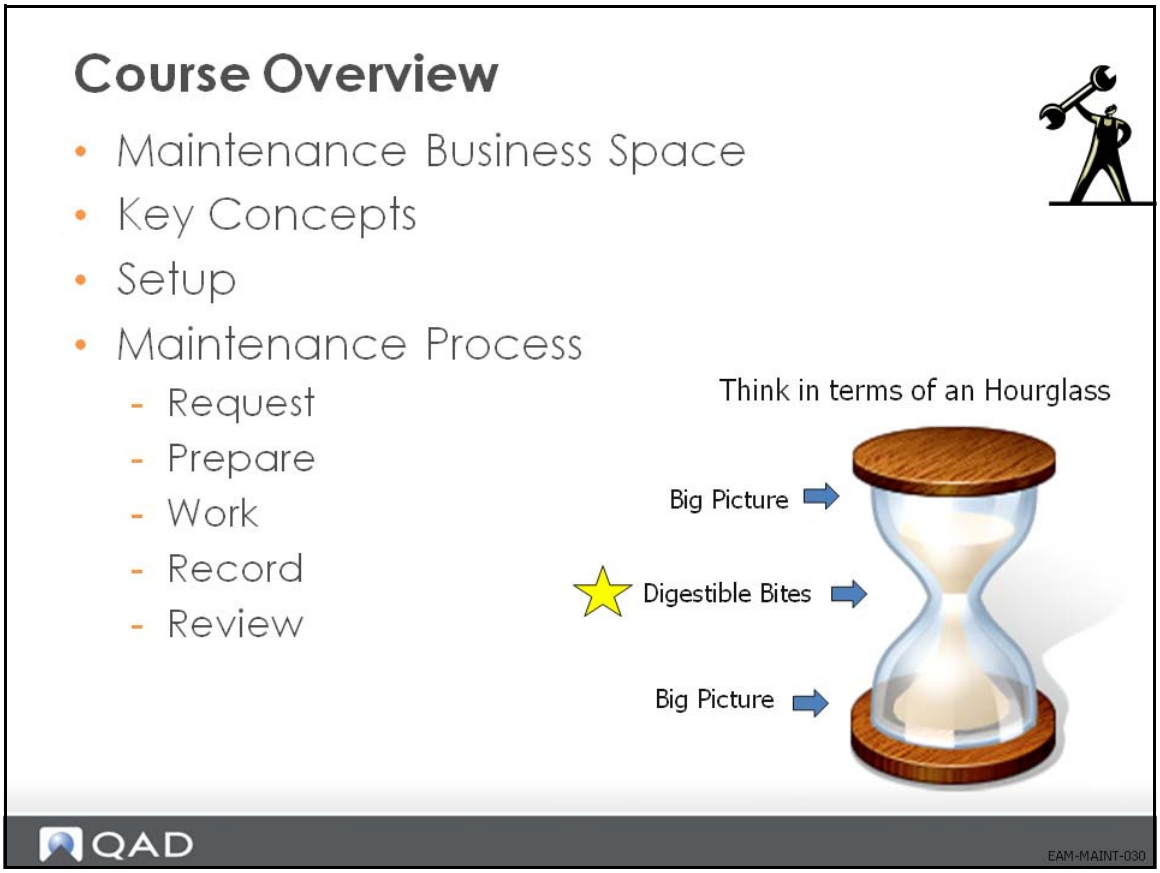
You are here!



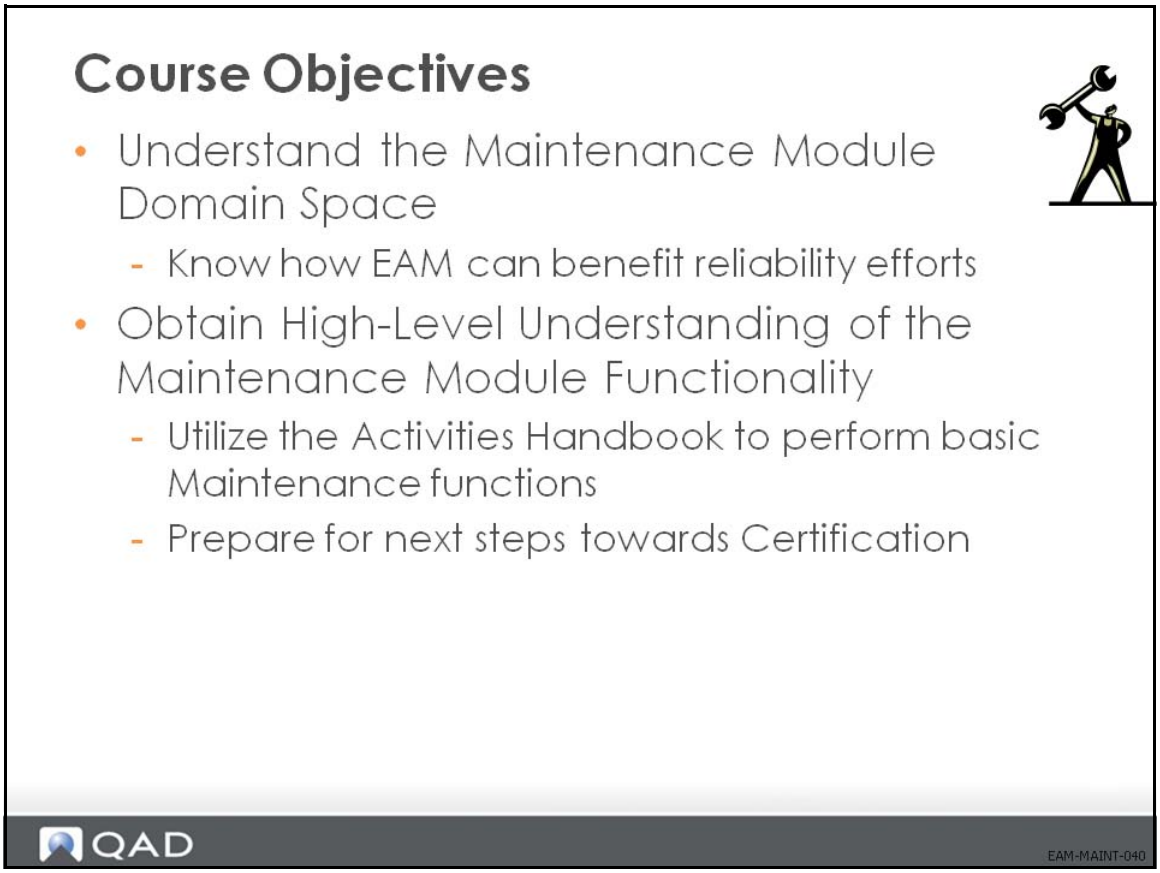
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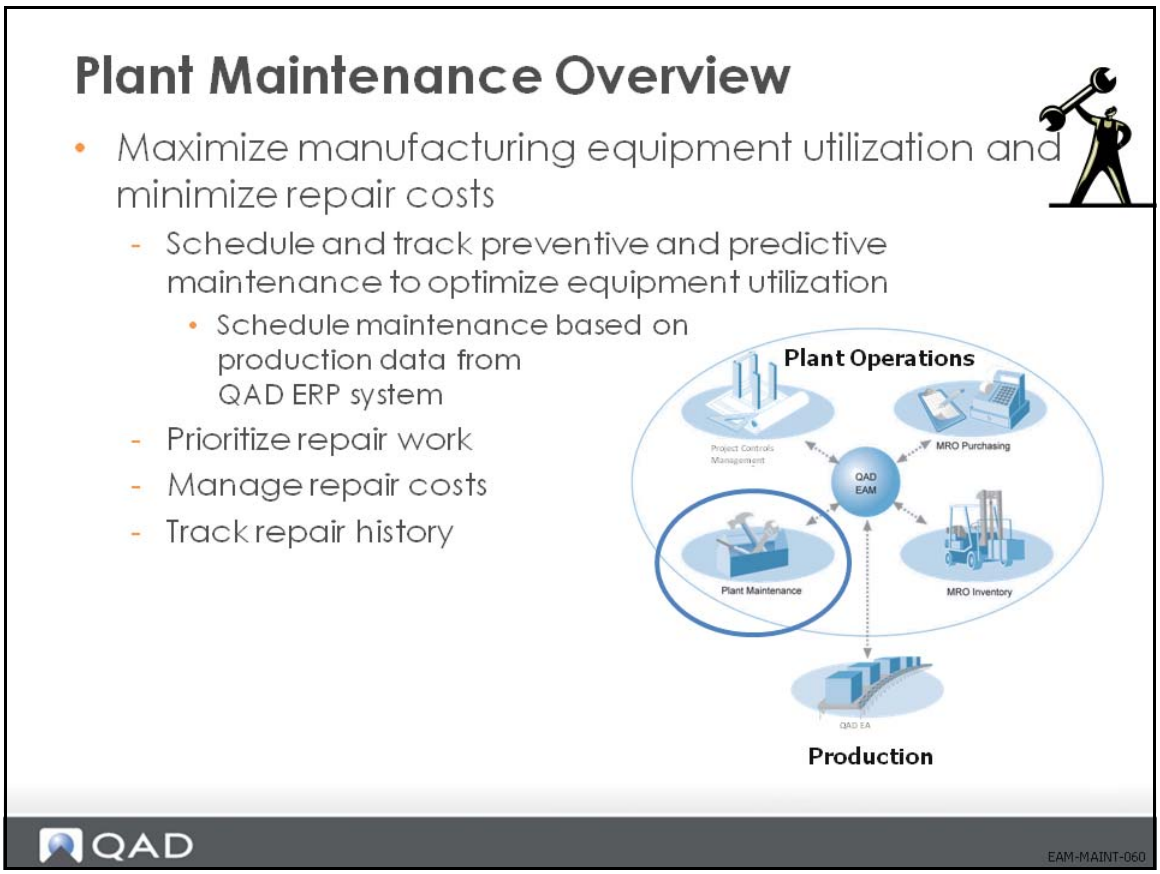
Course Overview



Course Objectives



Plant Maintenance Overview



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.

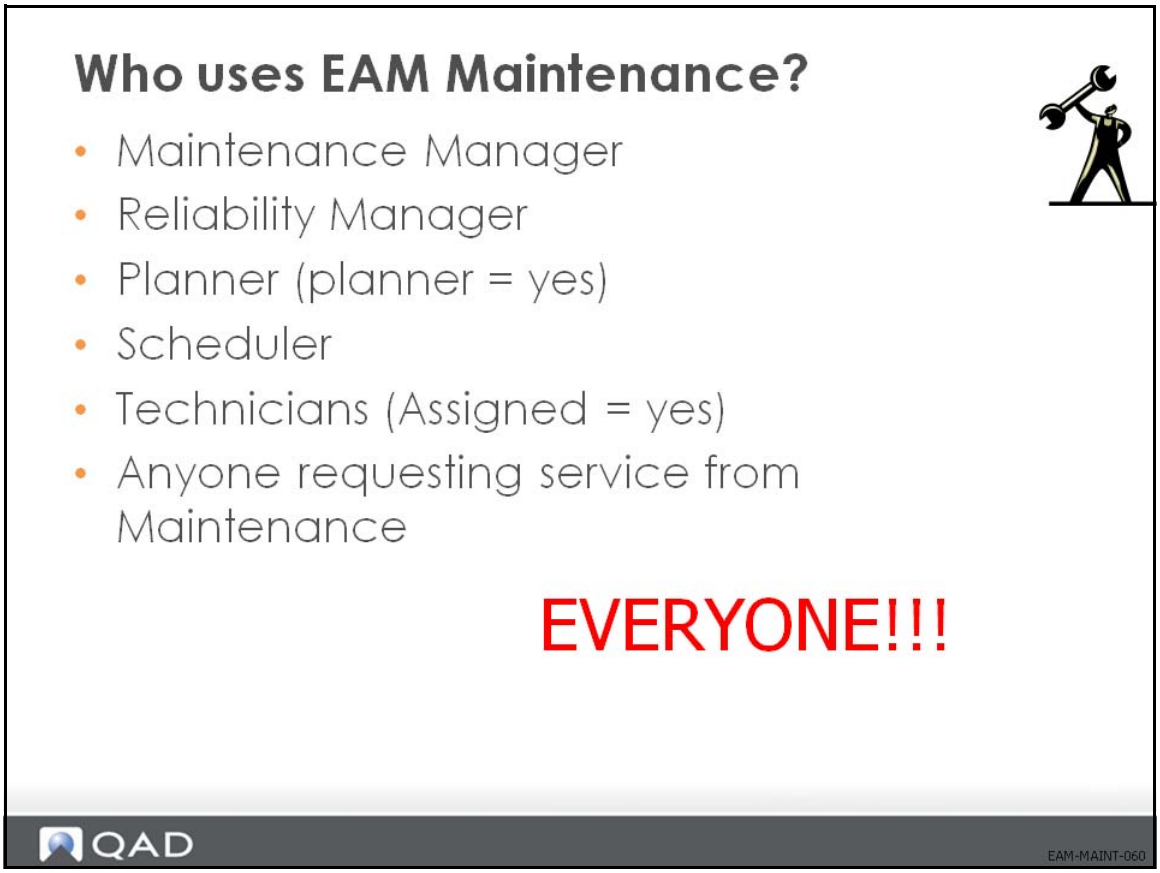
Within a computerized system, use the Maintenance section to drive the work order process for maintenance and repair operations. This application includes all Preventive/Predictive maintenance (PM/PdM), plus planned and unplanned work to keep equipment operating at capacity.

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.

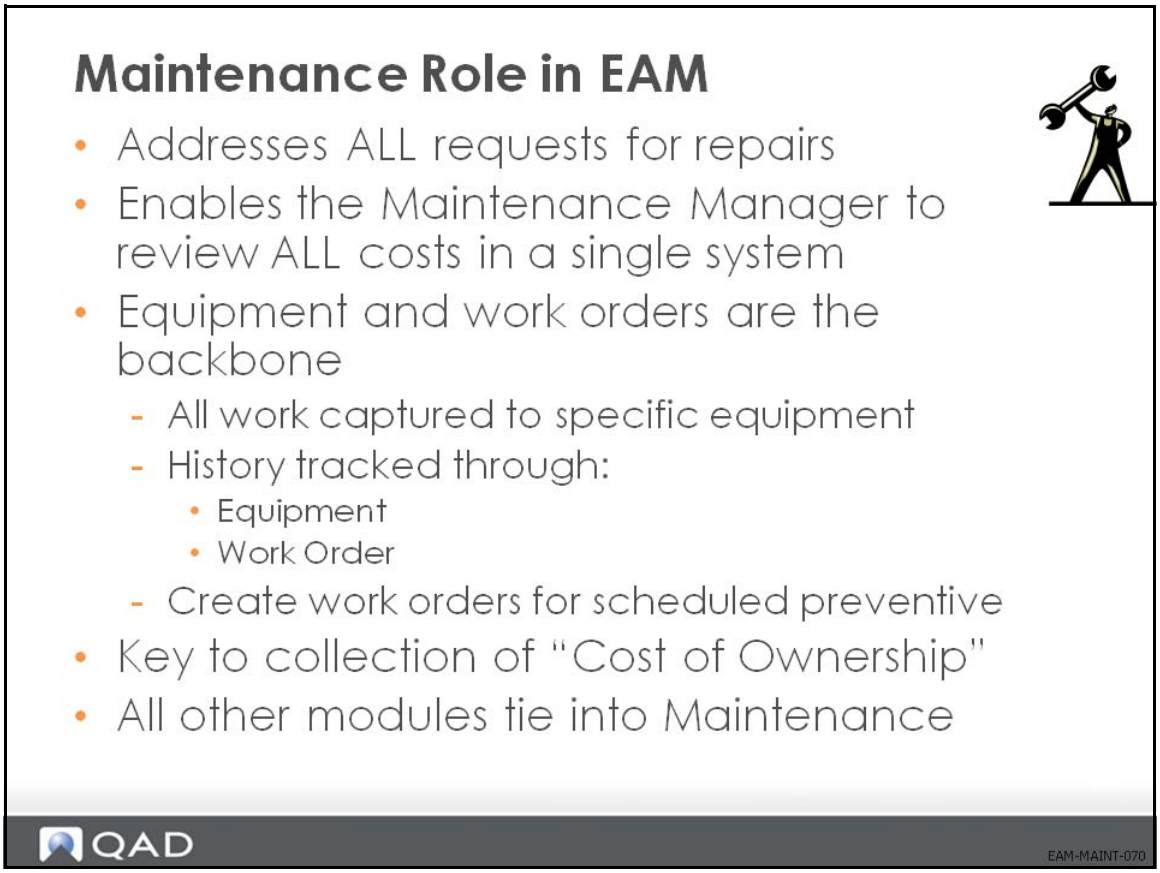
Reference materials such as "World Class Maintenance Management" by Terry Wireman provide a solid foundation for understanding the Maintenance business space.

EAM Maintenance Users

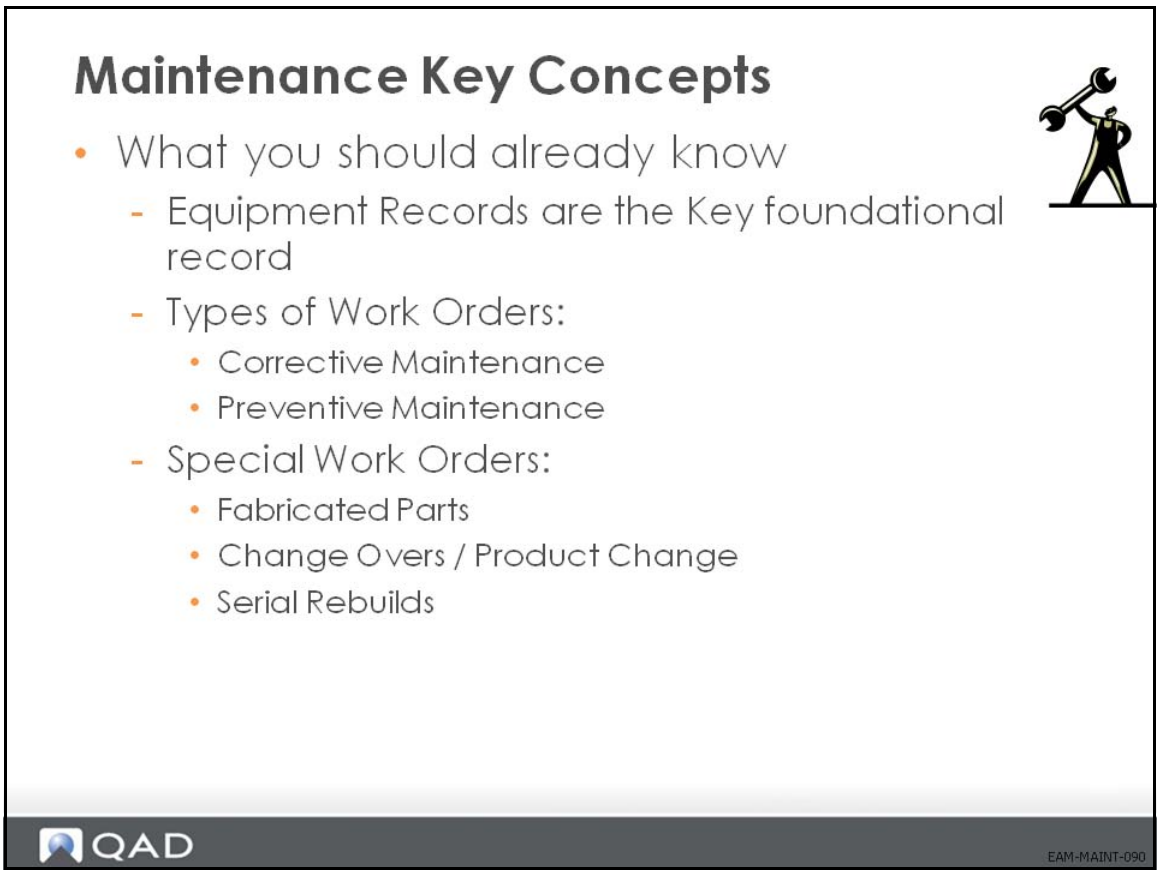


Use of the service request module allows automatic notifications, so anyone and everyone can be using EAM to help Maintenance reach their goals.

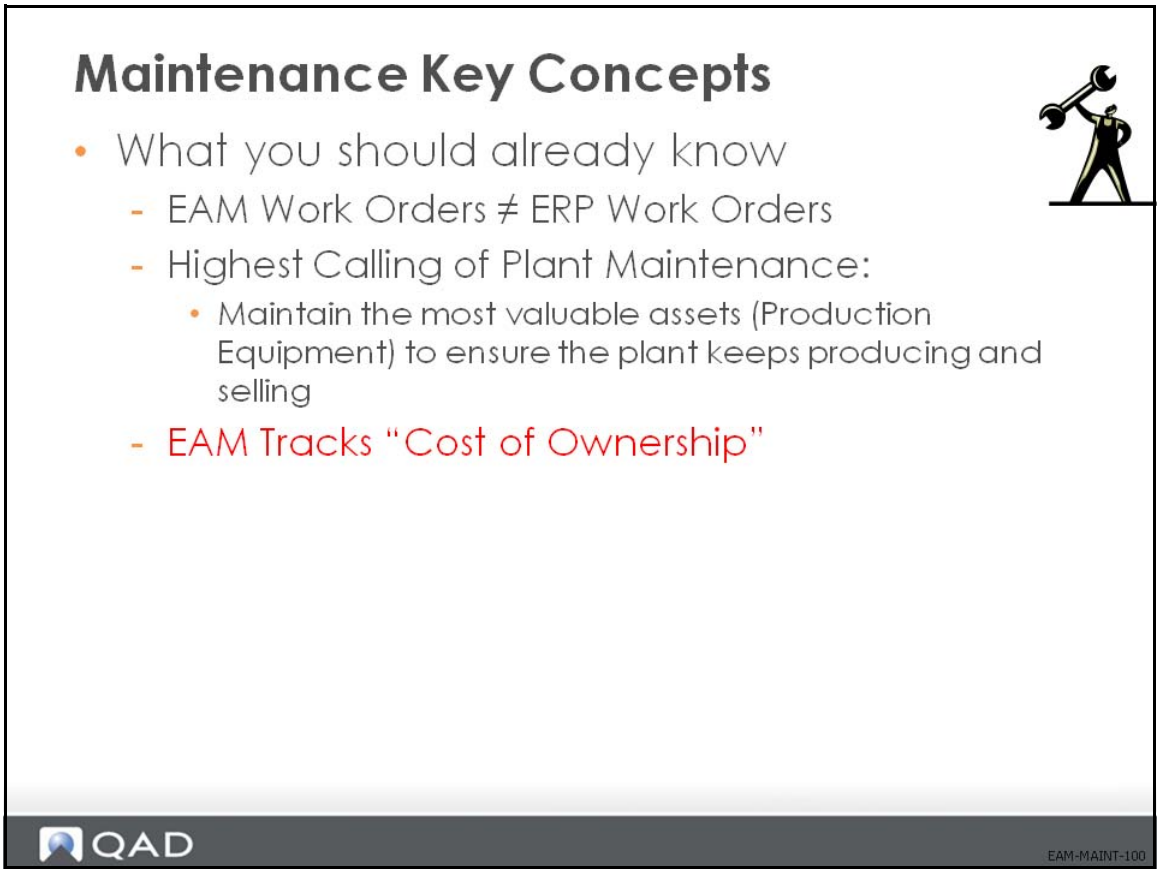
Maintenance Role in EAM



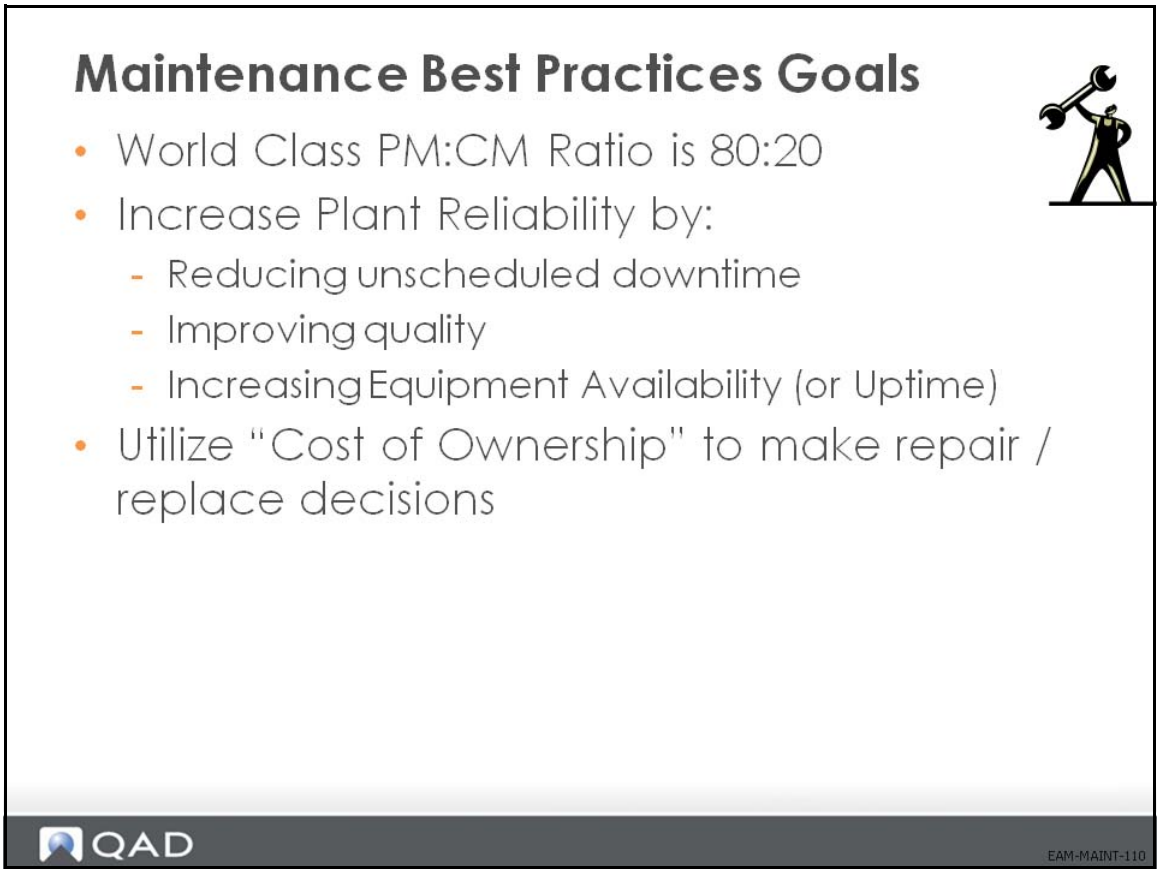
Maintenance Key Concepts



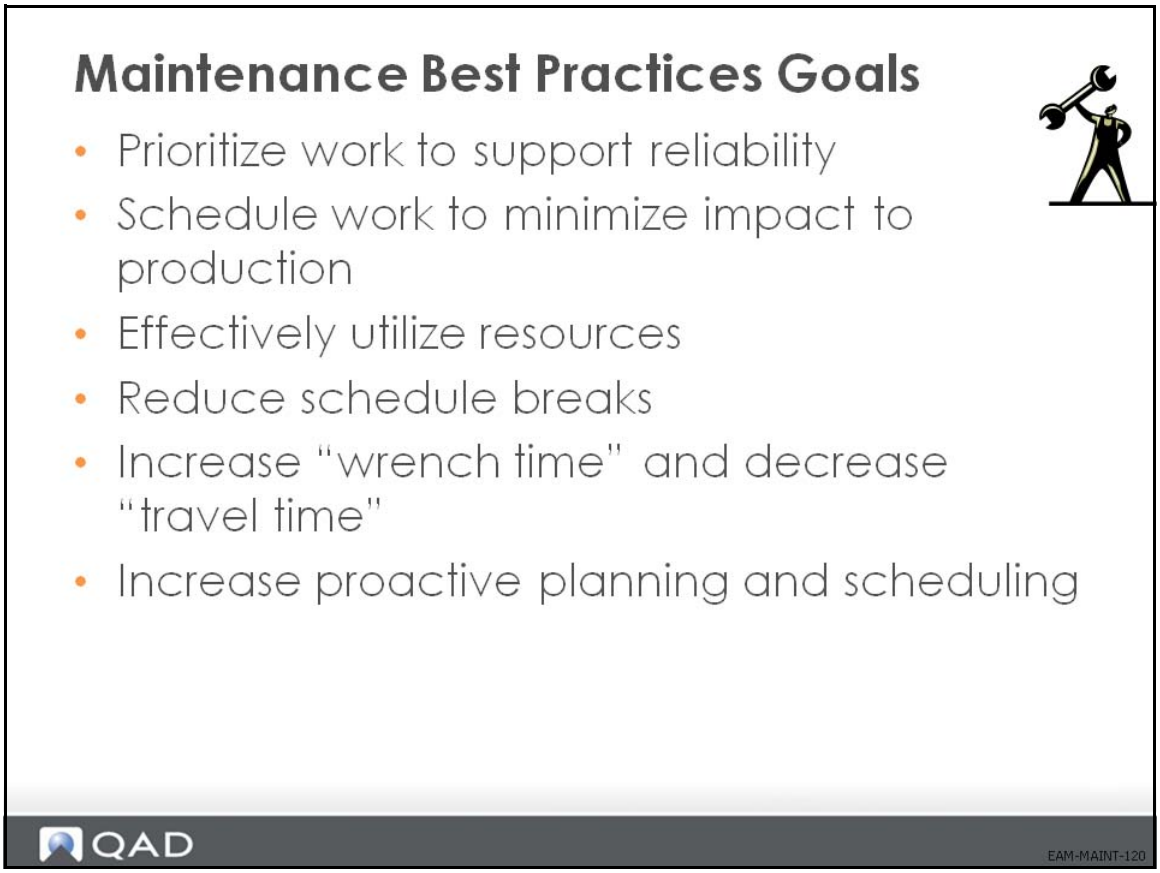
Maintenance Key Concepts 2



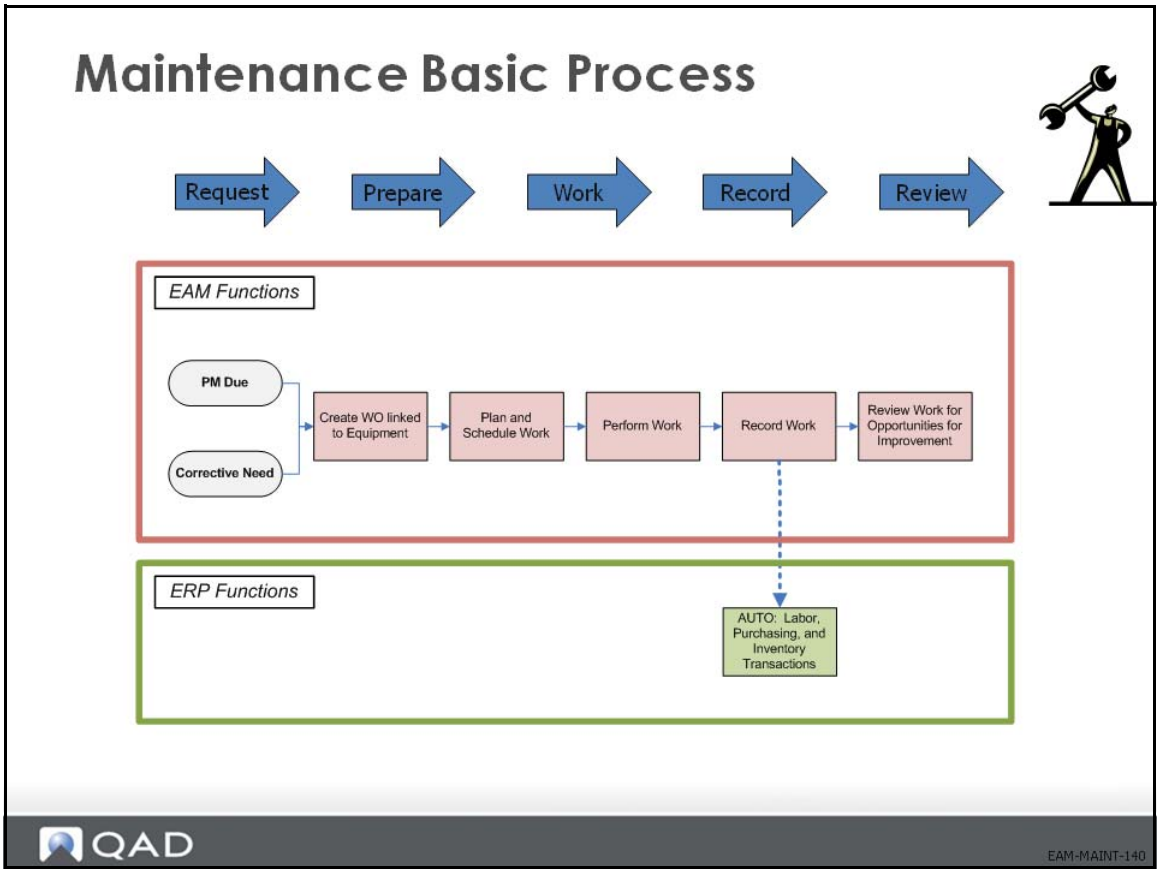
Maintenance Best Practices Goals



Maintenance Best Practices Goals

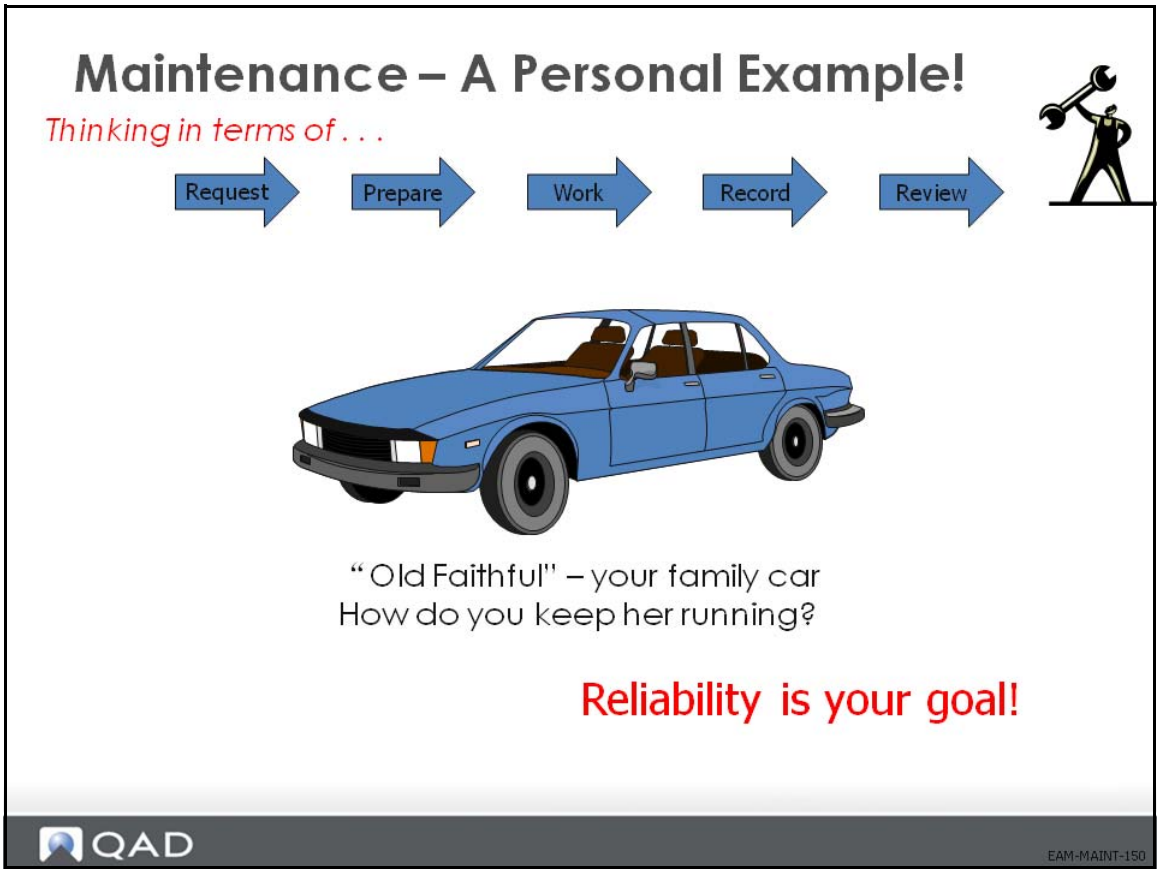


Maintenance Basic Process



We show the steps that maintenance follows. The following slides will show the tracker and which part of the process that we are working through. Review this slide to see what each of the steps entails. Try to relate this in our next slide – that personal example of keeping Old Faithful running.

Heading 2



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

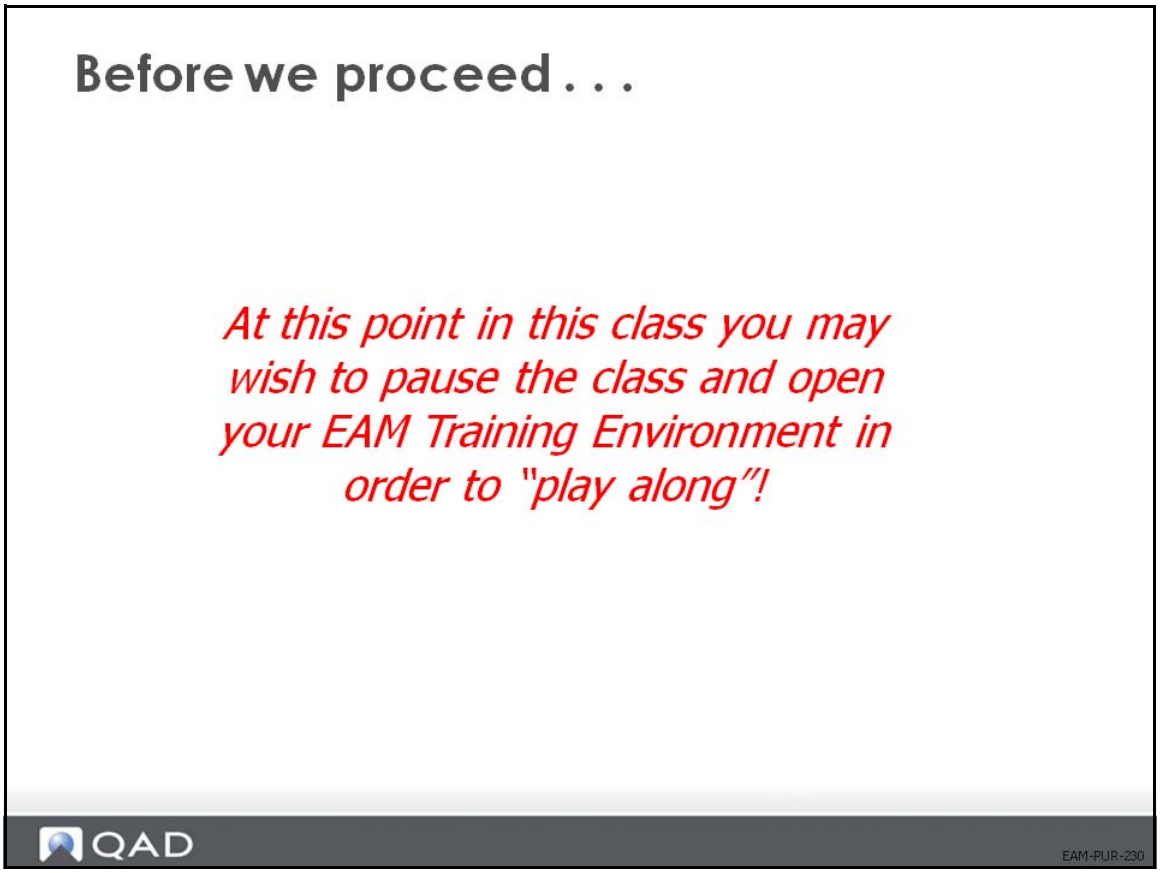
When buying the items or things you need, it is important to know the details of what might come up

- "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)

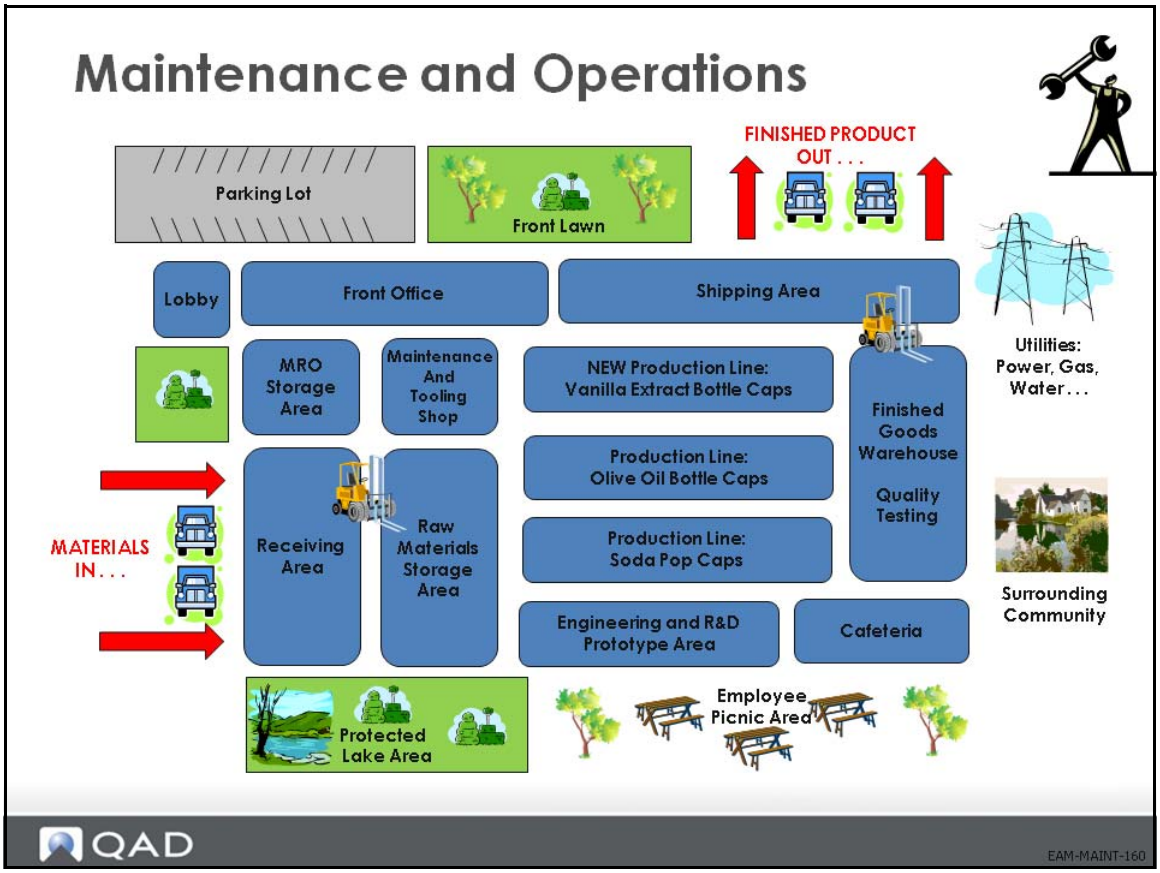
Isn't it also important to know your cost of ownership? Just your monthly payments and insurance? How do you decide when to replace old faithful with a newer model?

Training Environment



https://training.success6.qad.com

Maintenance and Operations

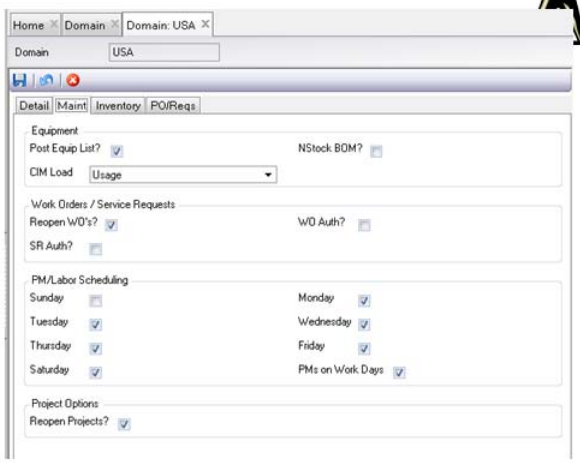


Within the production area you may have several types of equipment like the producing machine, conveyors feeding it and the packaging equipment. Over a period of time, the rollers on the conveyor need to replaced. You have to purchase the rollers. You'll want to track how often and how many you use so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

Maintenance Setup

Maintenance Setup – Key Settings

- Domain Settings
  - Post Equip List?
  - Reopen WO?
  - WO Auth?
  - SR Auth?
  - Labor Scheduling
- Site Settings
  - Warranty Options
  - Equipment Lookup
  - Labor Default Accounting

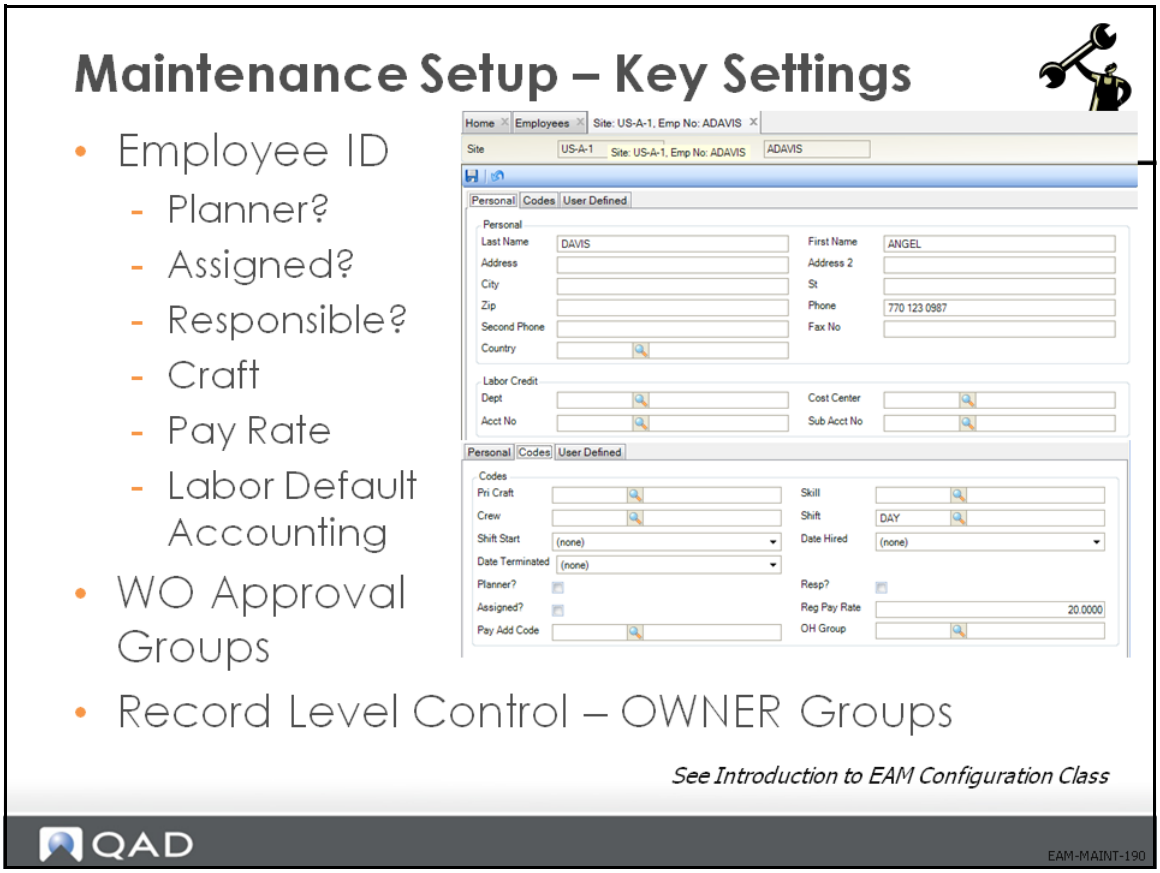


See Introduction to EAM Configuration Class

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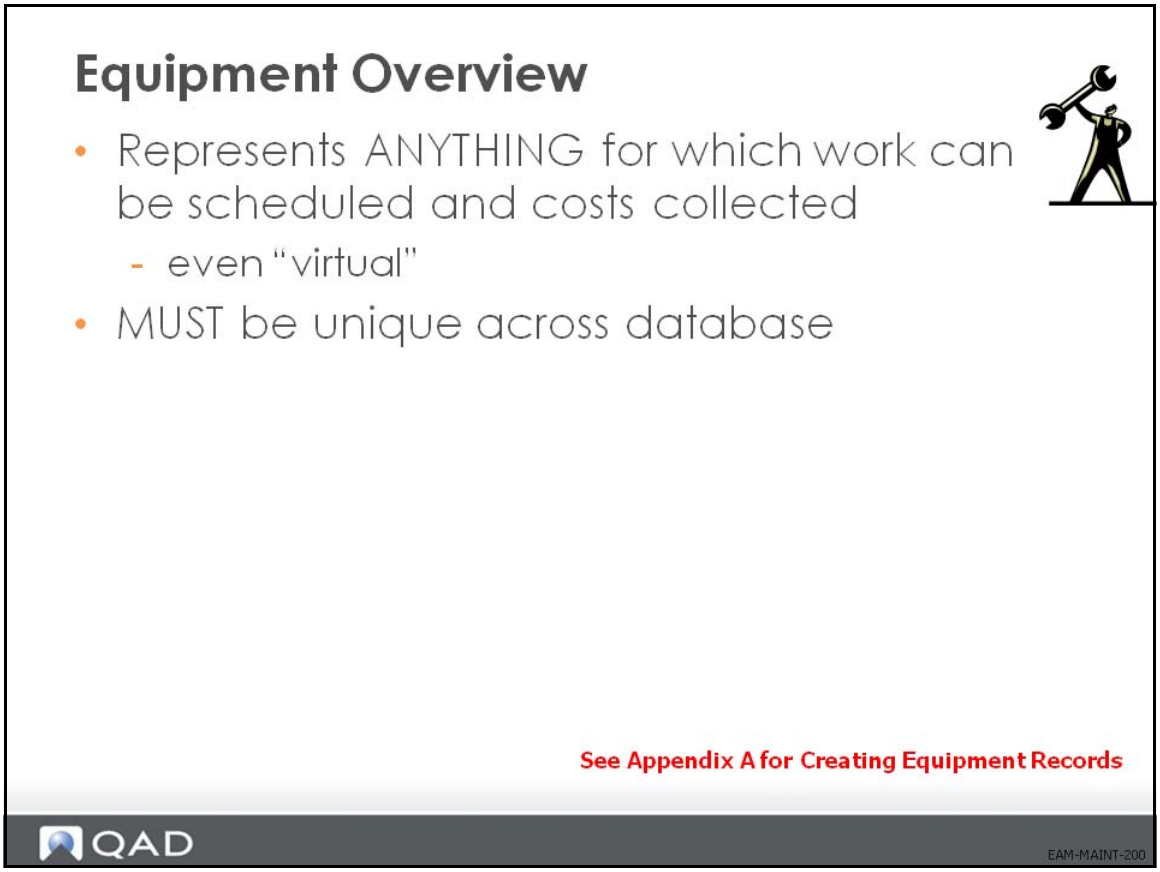
EAM-MAINT-180

Maintenance Setup 2



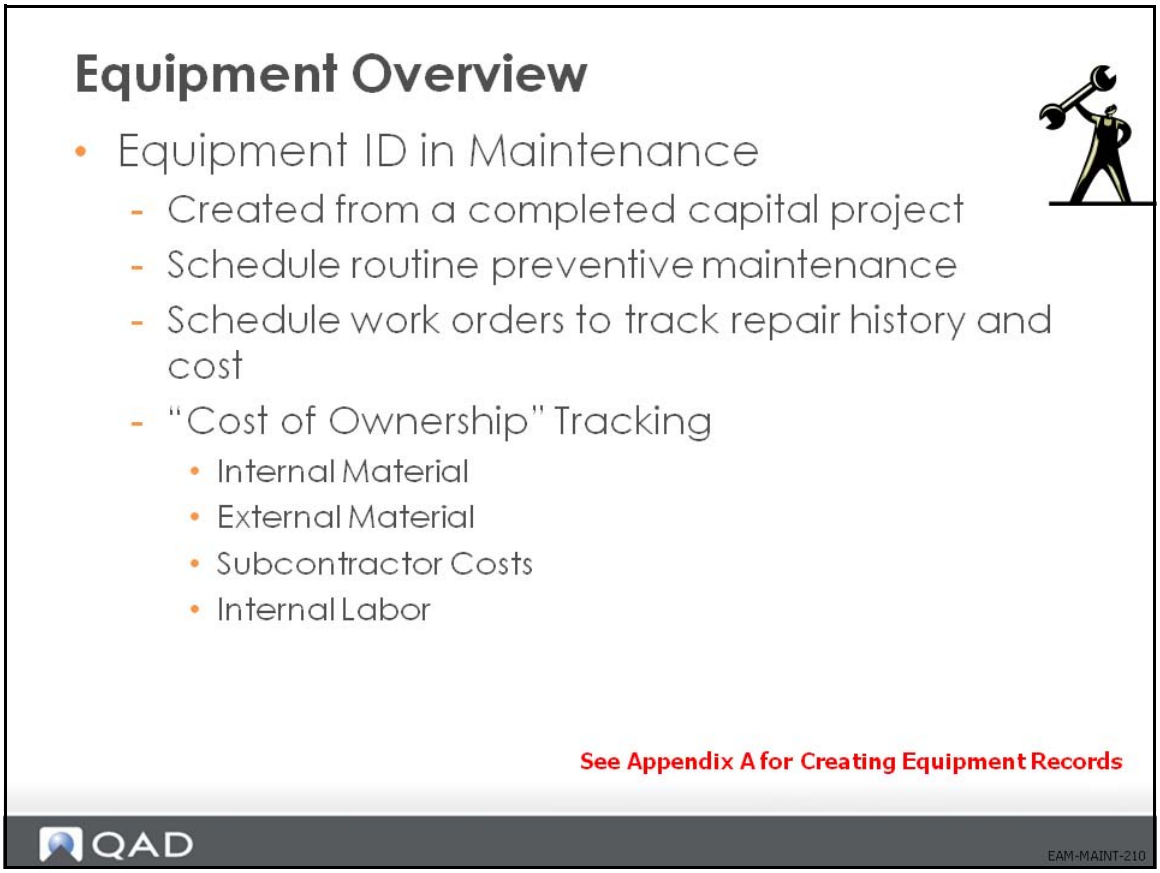
The key settings for EAM include defining if and how a Bill of Materials (BOM) is built when inventory or parts are used. Companies may wish to have Service Request or Work Order authorization turned on so that work can't begin without official approval to do so. Labor scheduling can be defined to assist with the scheduling and PM scheduling can be setup on a different schedule that corrective maintenance scheduling.

Equipment Overview

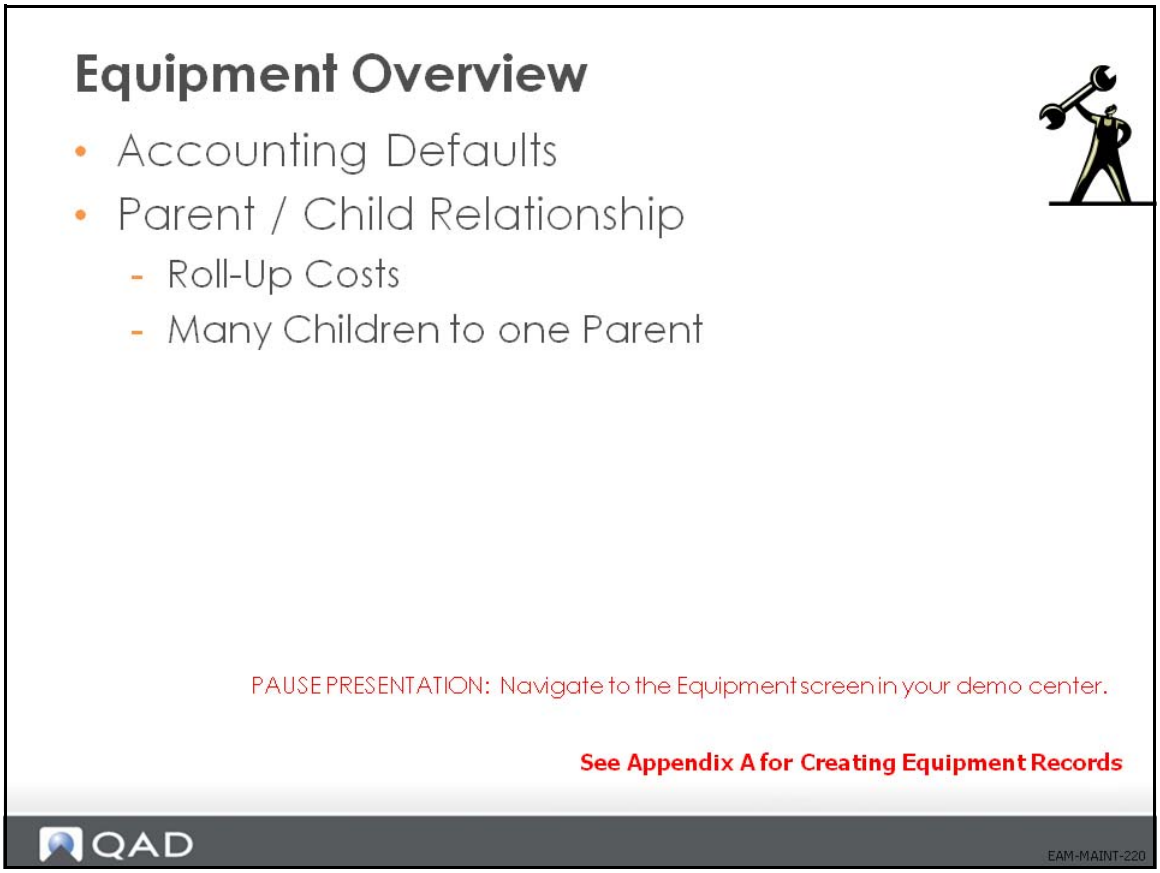


Use Equipment to store and track the following information: cost analysis, failure analysis, bill of materials (BOM), driving units of measurement (DUOM), serialized components, tracking, and service requests. Track regularly scheduled work and breakdowns while collecting repair and maintenance cost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

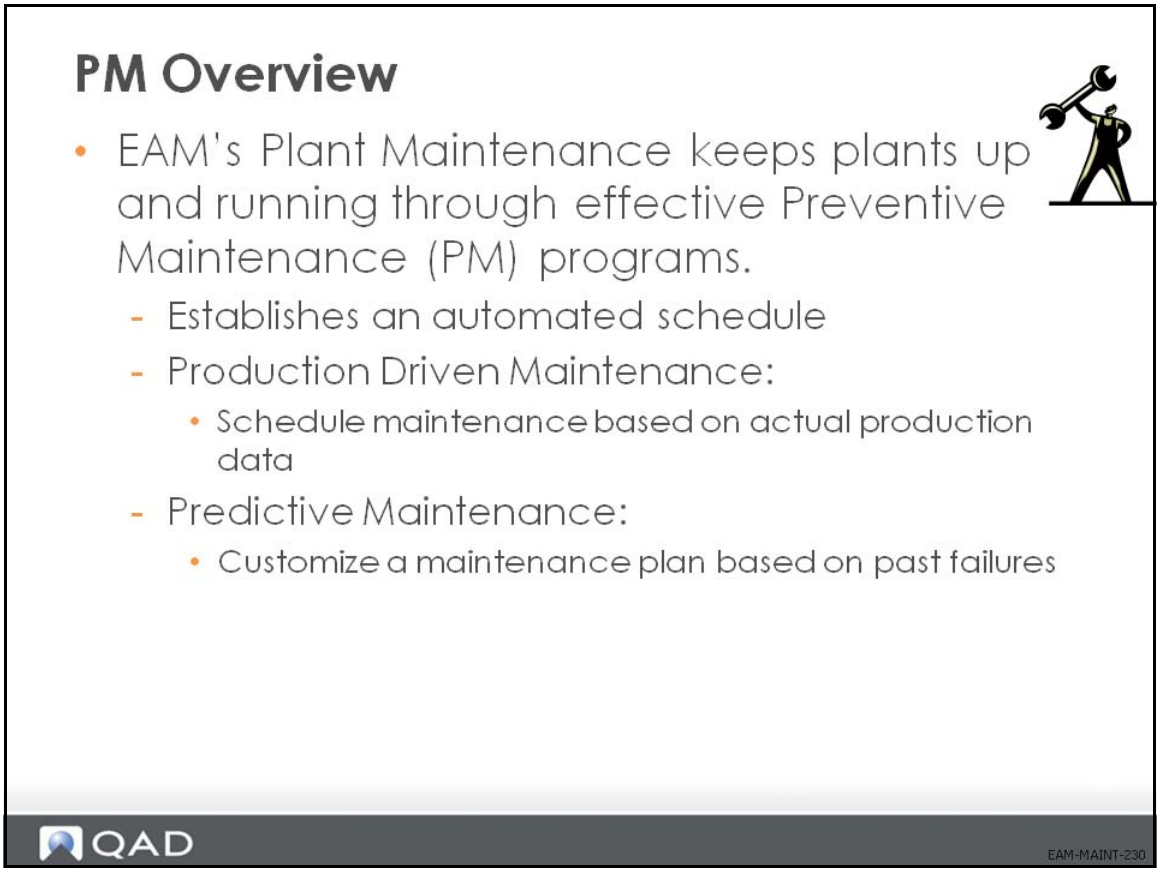
Equipment Overview 2



Equipment Overview 3



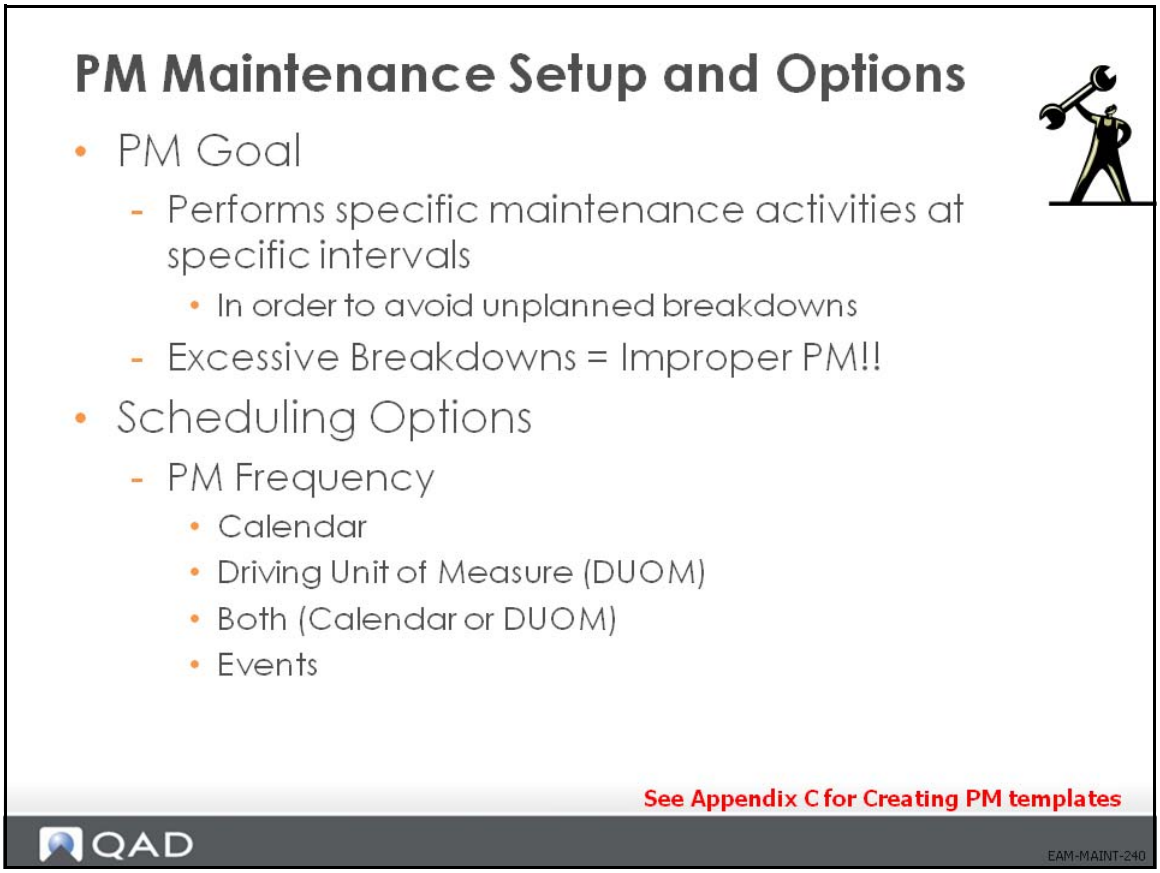
Preventative Maintenance Overview



.There are four different ways to schedule PMs:

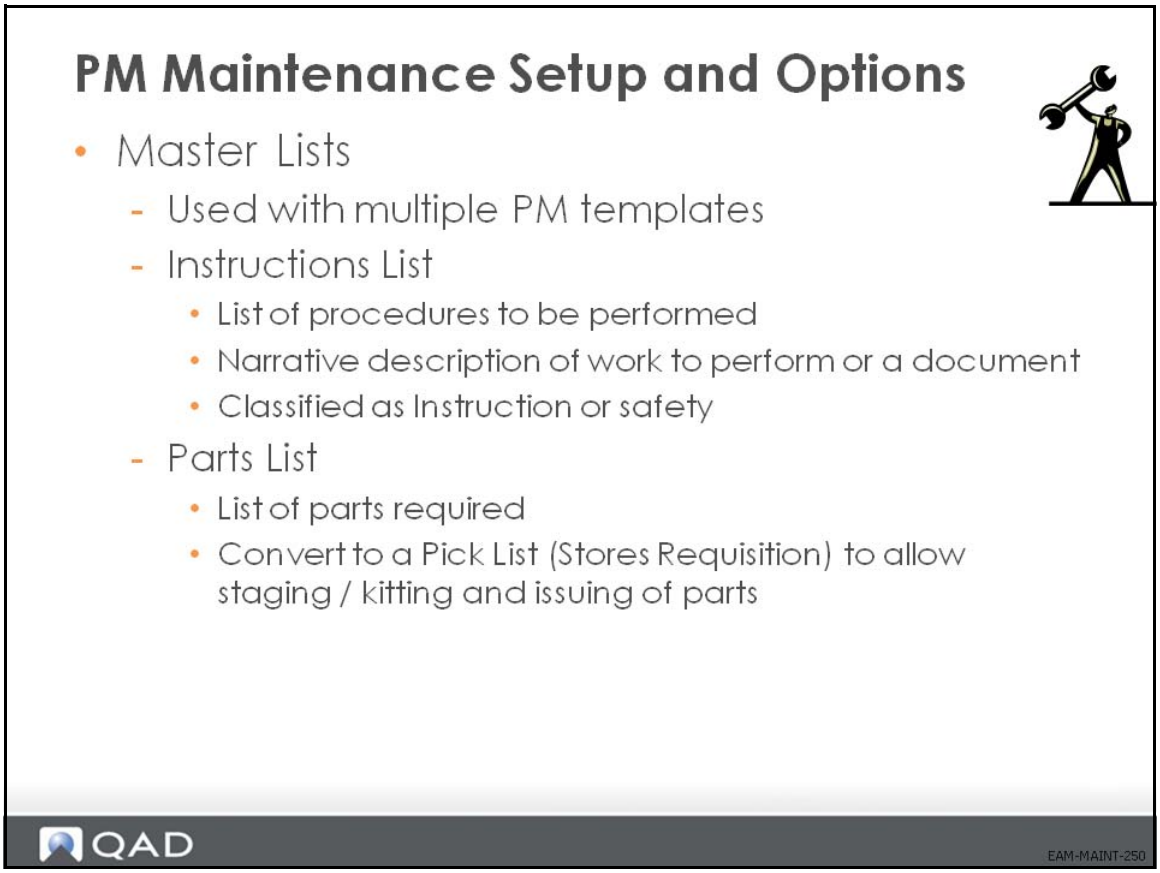
- Calendar (for instance, every 6 months)
- DUOM or Driving Unit of Measure (for instance, change the car's oil every 3,000 miles)
- Both Calendar and DUOM (for instance, change the car's oil every 3,000 miles or every 3 months, whichever comes first)
- Event (for instance, a holiday or shutdown, such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

Preventative Maintenance Setup and Options



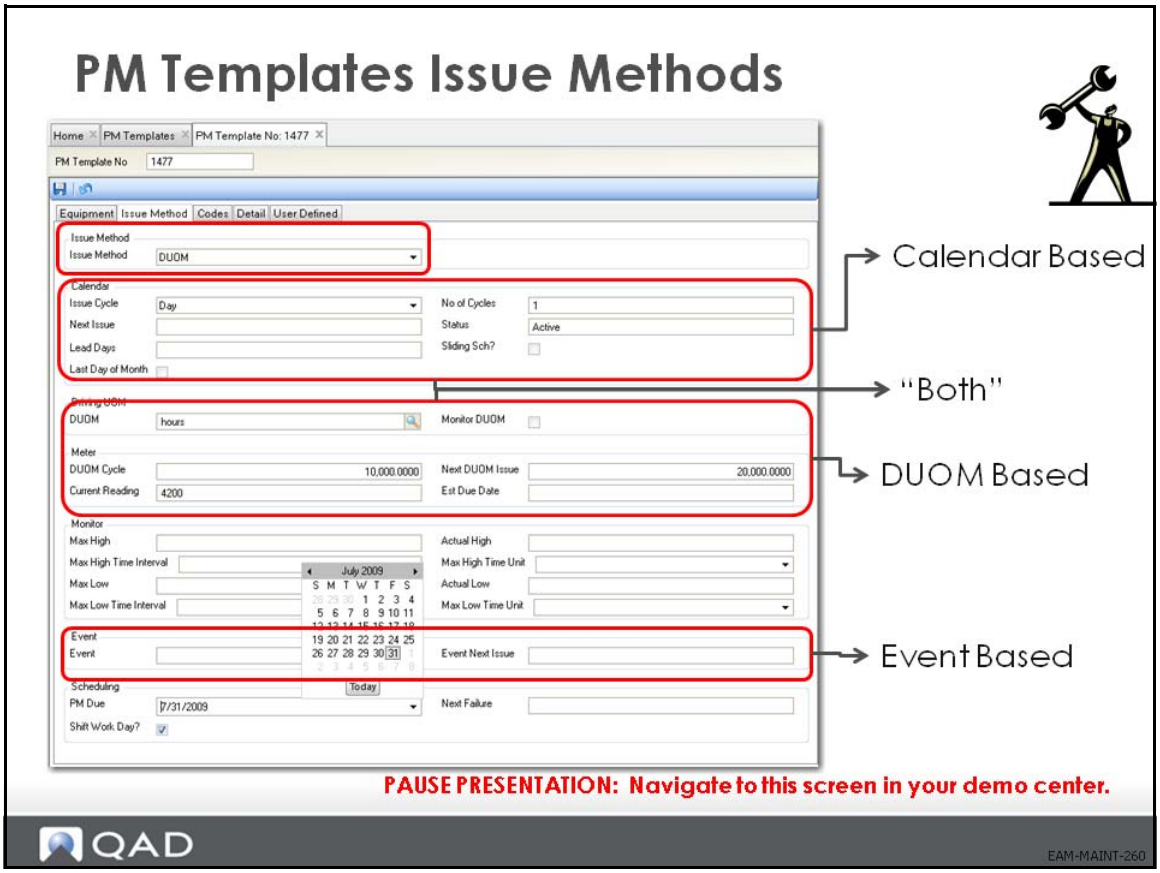
Master Lists are designed to be used by multiple pieces of equipment. Companies often have several pieces of the same equipment in their plants. Use of Master Lists allows them to apply the same criteria and procedures to each piece of equipment, regardless of who is going to be doing the work. Master Parts List allow the company to plan for the parts which will be needed, notifying the tool crib or purchasing that these items need to be purchased and ready.

Preventative Maintenance Setup and Options 2



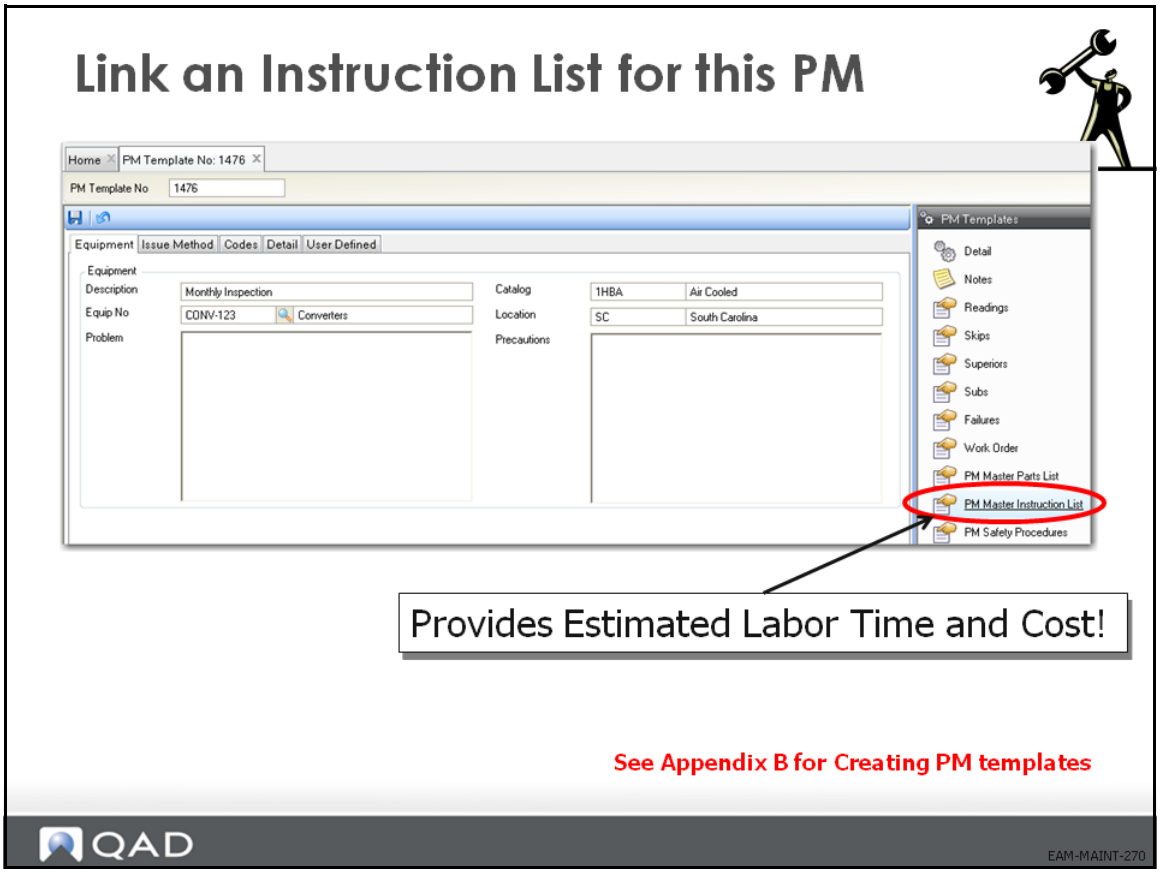
The four options for scheduling PMs have different fields that must be completed. This screen shows the relationship of those fields that must be filled in.

PM Templates Issue Methods

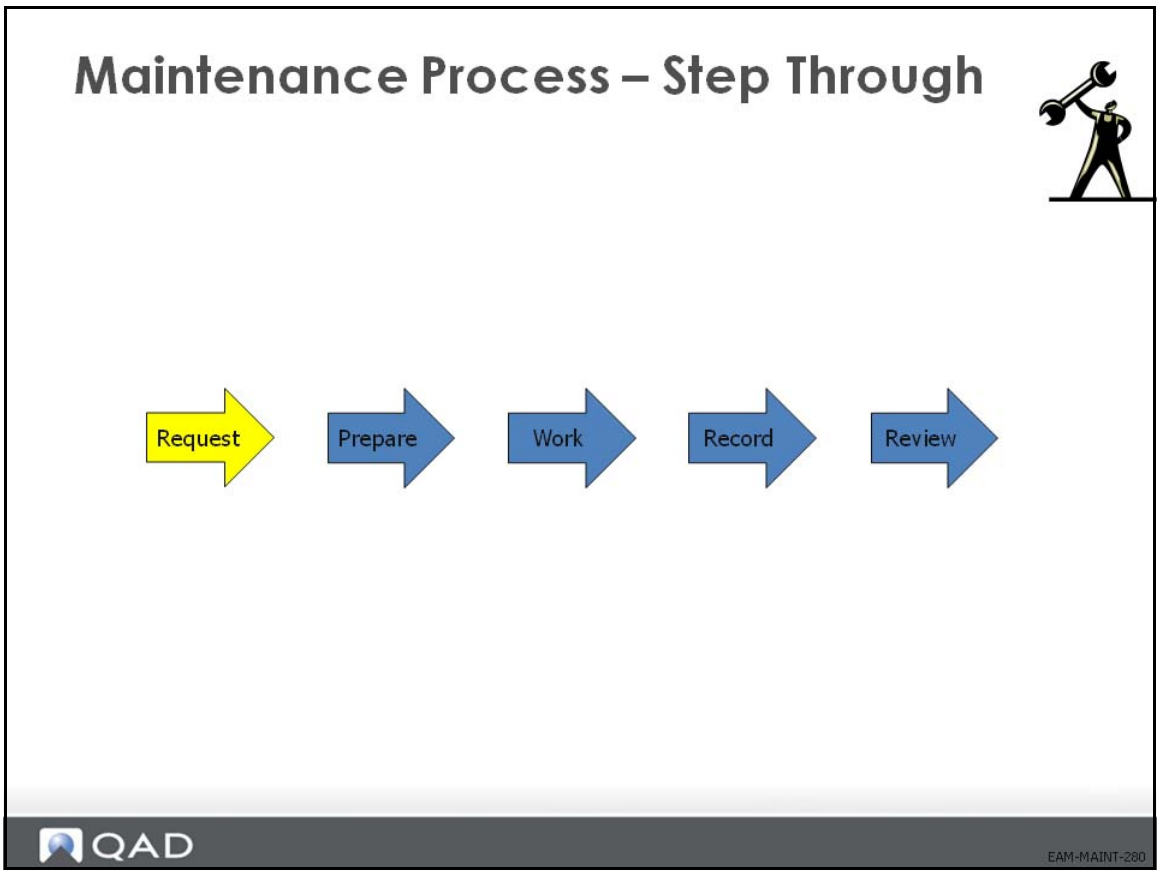


Any linked PM instructions are included in the work order to be used by the PM technicians so they know what need to be done. The instruction lists capture estimated time and costs based on the craft and details entered in the steps. Master Parts lists are linked to PM templates similar to the process for linking Master Instruction Lists.

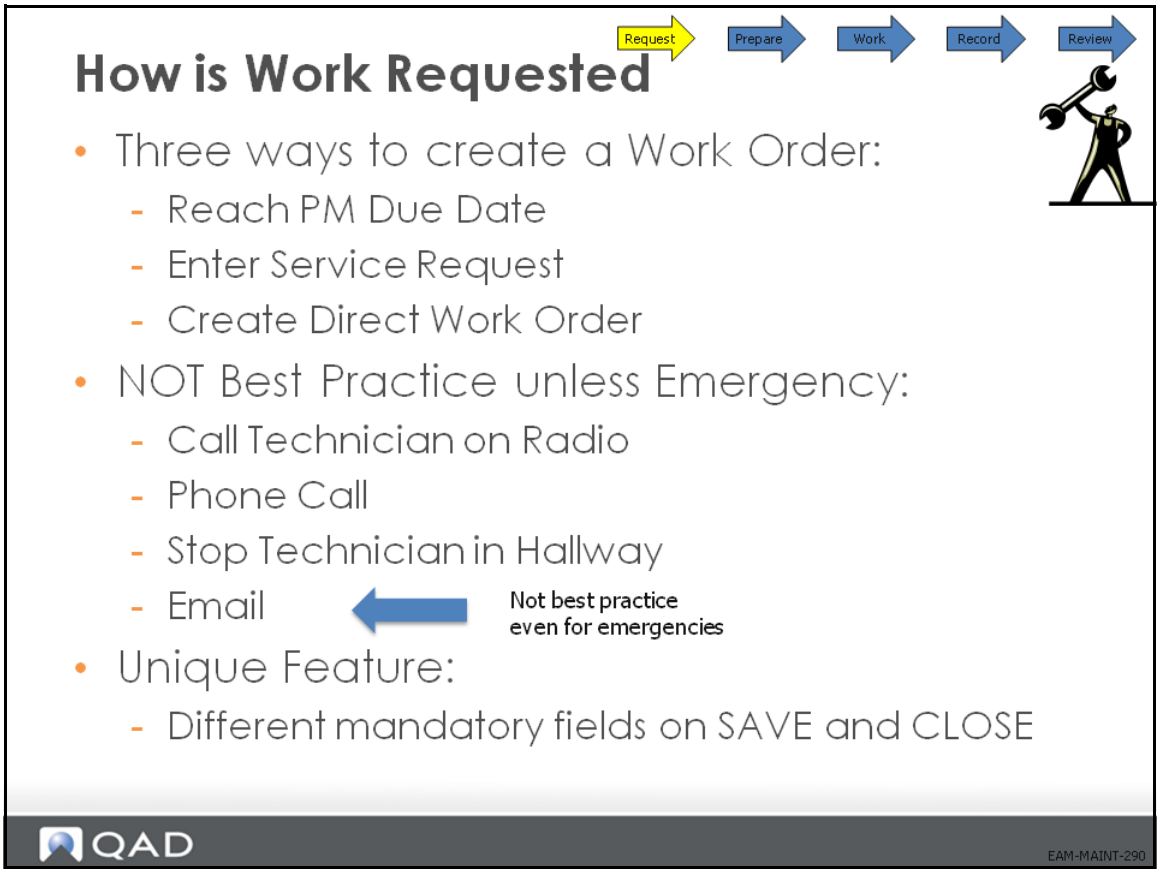
Linking an Instruction List



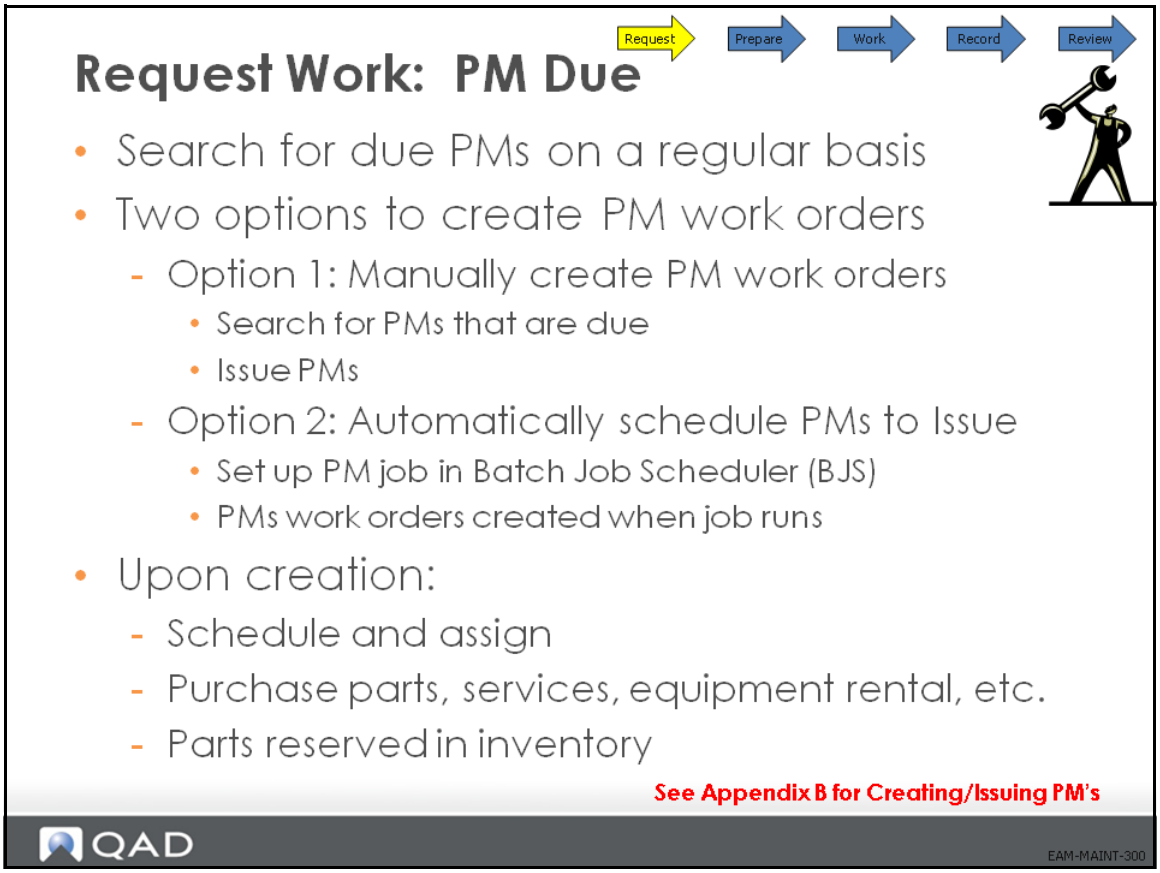
Maintenance Process Step Through: Request



Requesting Work

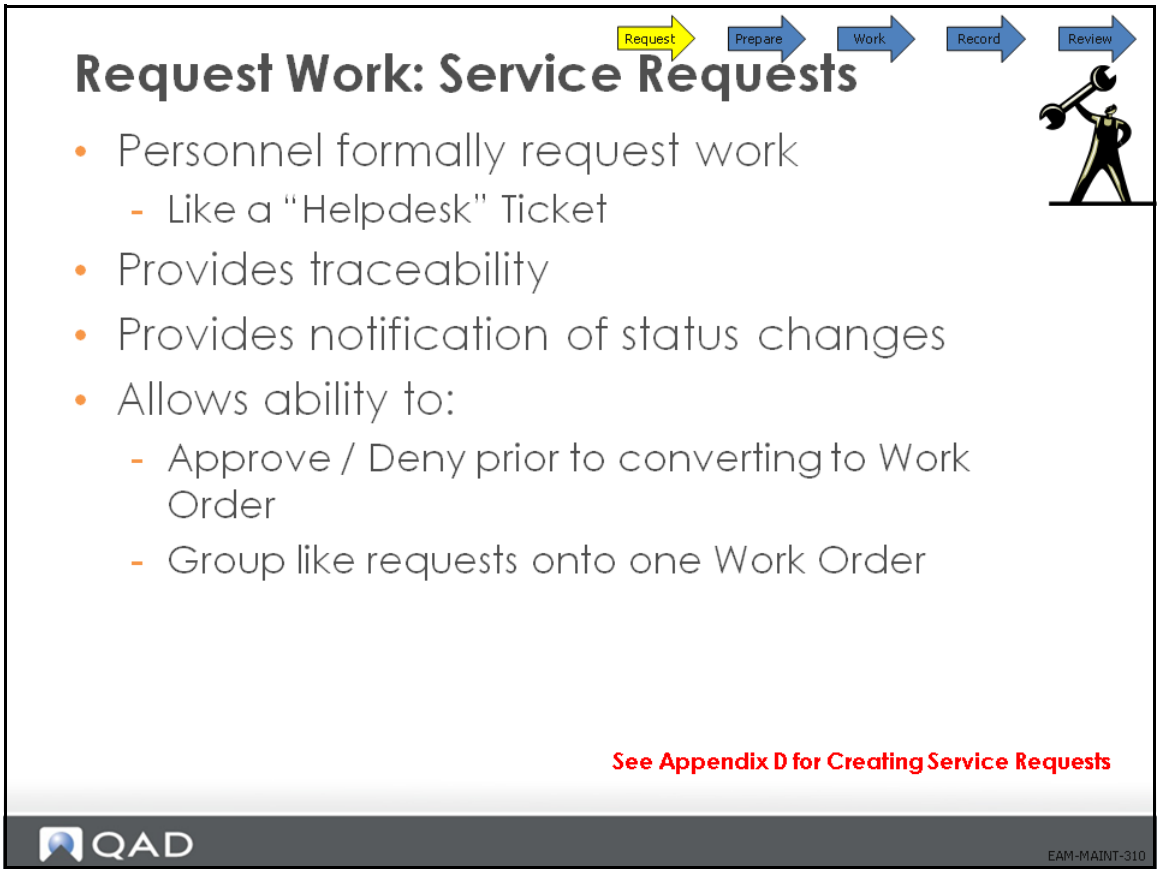


Requesting Work: PM Due



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

Requesting Work: Service Requests

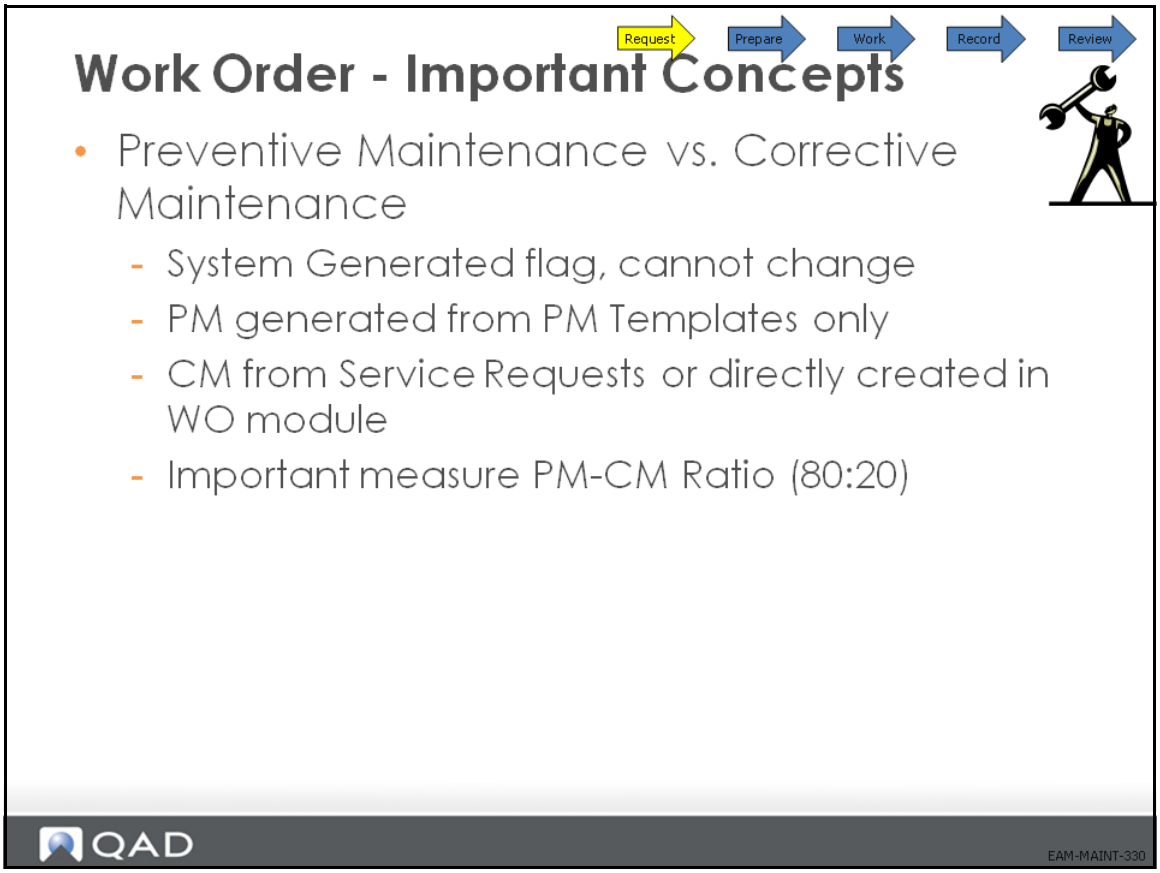


Service requests are typically used to report a problem with a piece of equipment that may not need a work order immediately. For instance, an operator on the production floor reports that equipment appears to be leaking oil. An office staff member reports a burned-out light bulb.

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.

Work Order Important Concepts

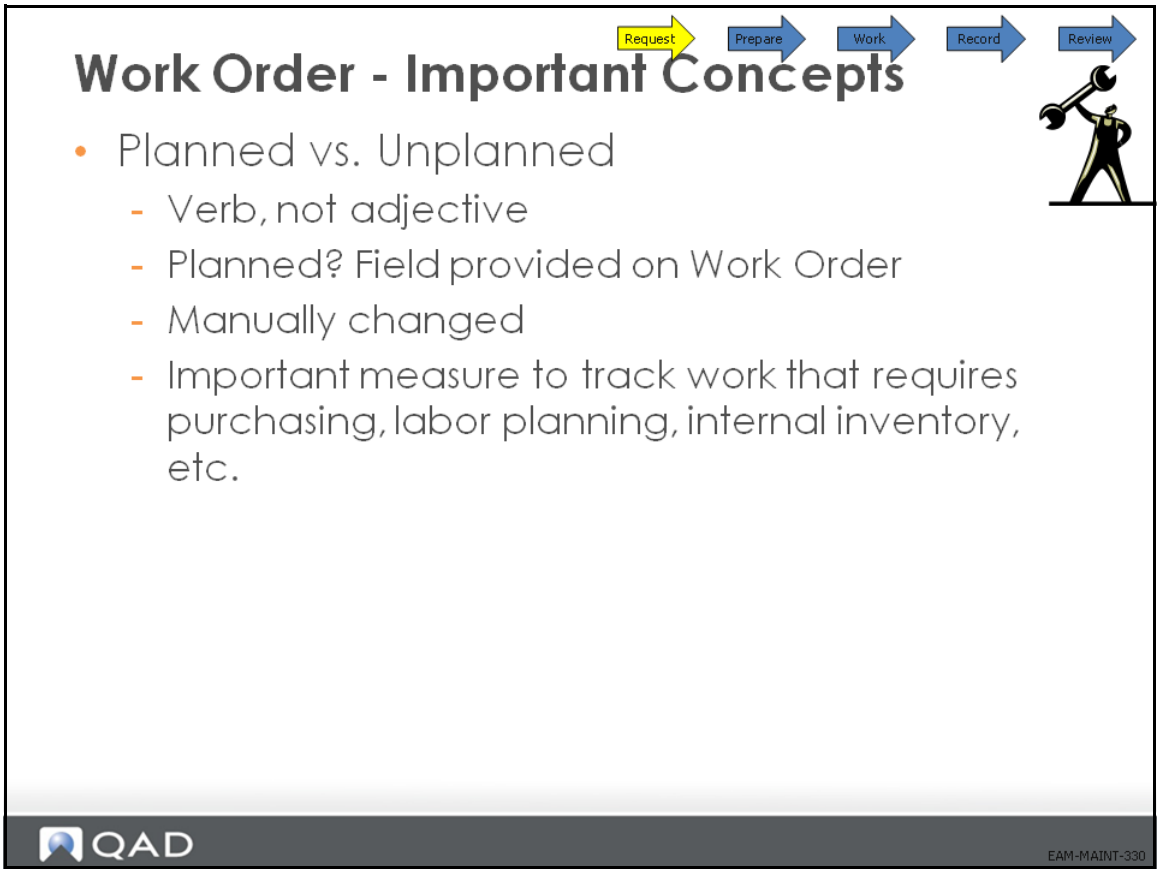


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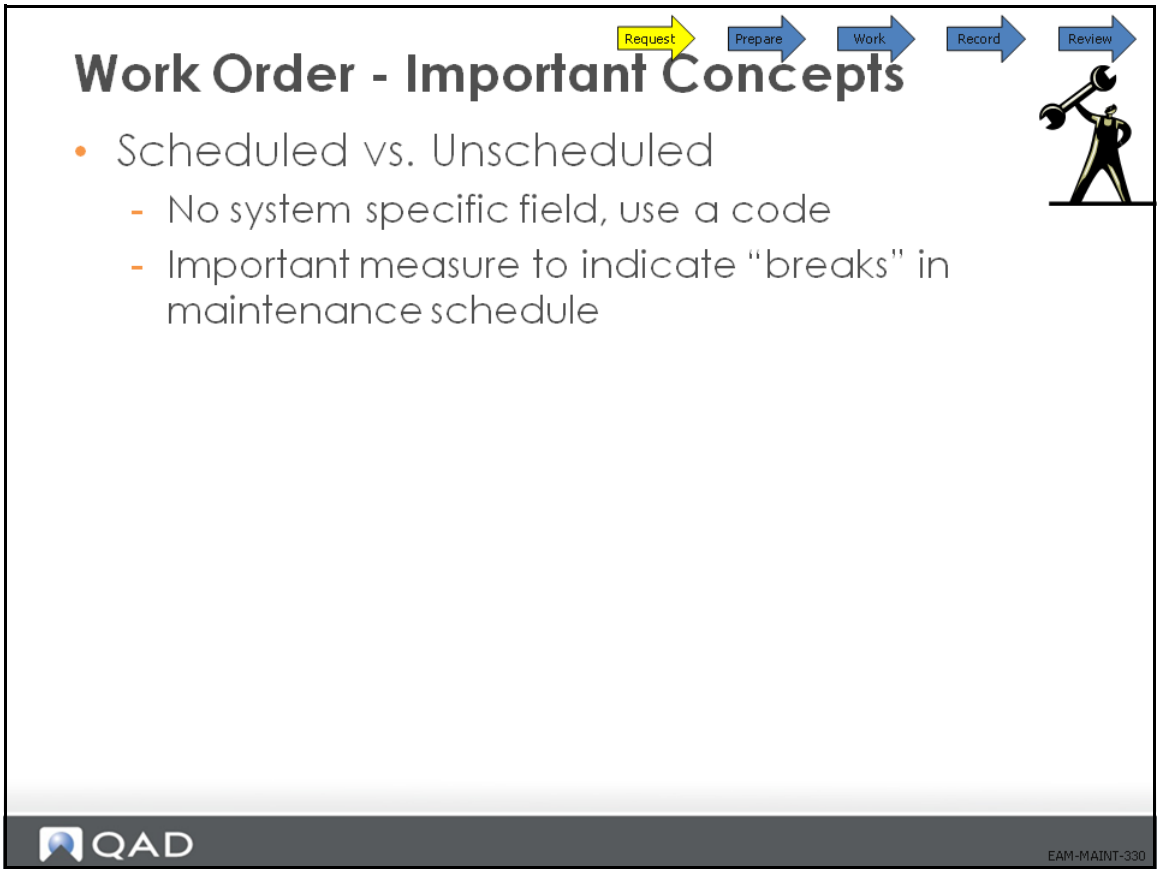
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Work Order Important Concepts 2



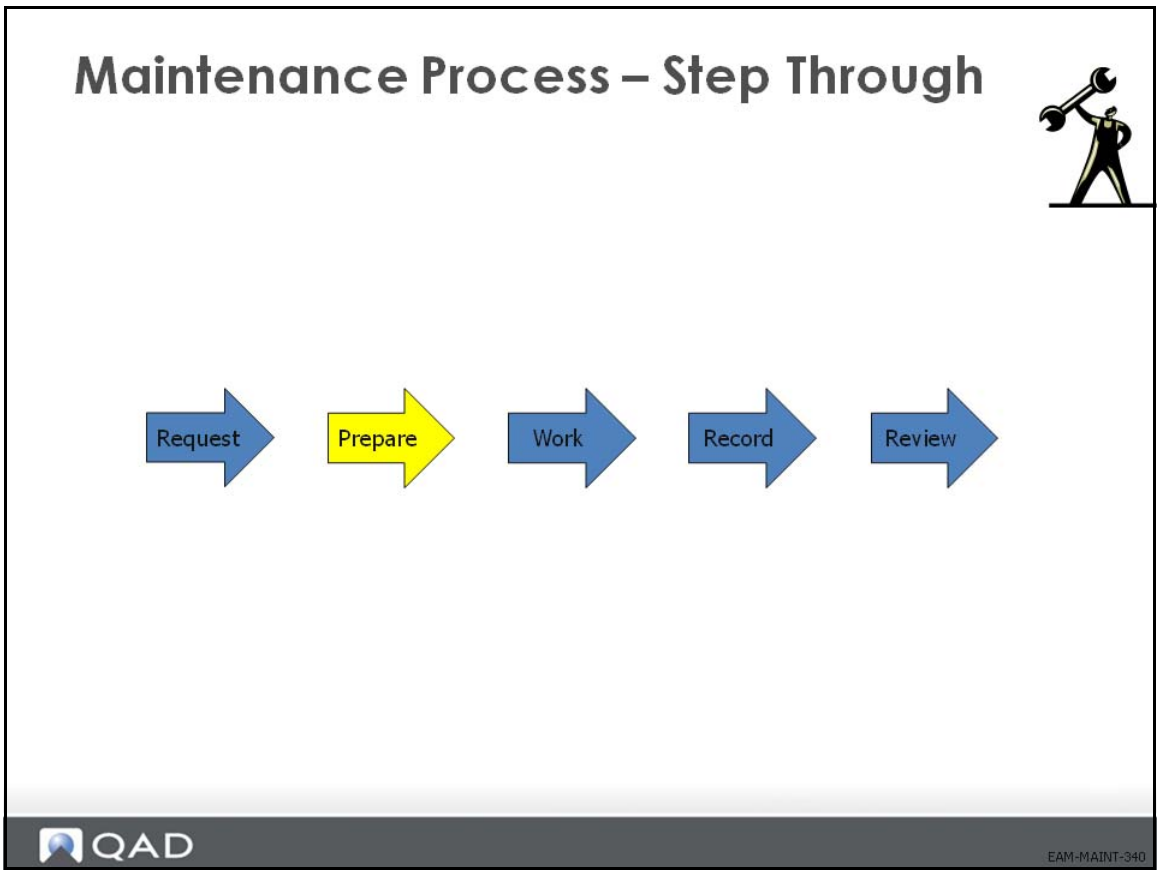
Planned work orders refer to that work which required action of preparation in advance of completing the work. An example of planned work would be a work order where an outside contractor had to be selected and equipment rental take place. An inspection PM would be an example of unplanned work. The technician or operator simply needs to view the equipment and note the state that it is in.

Work Order Important Concepts 3

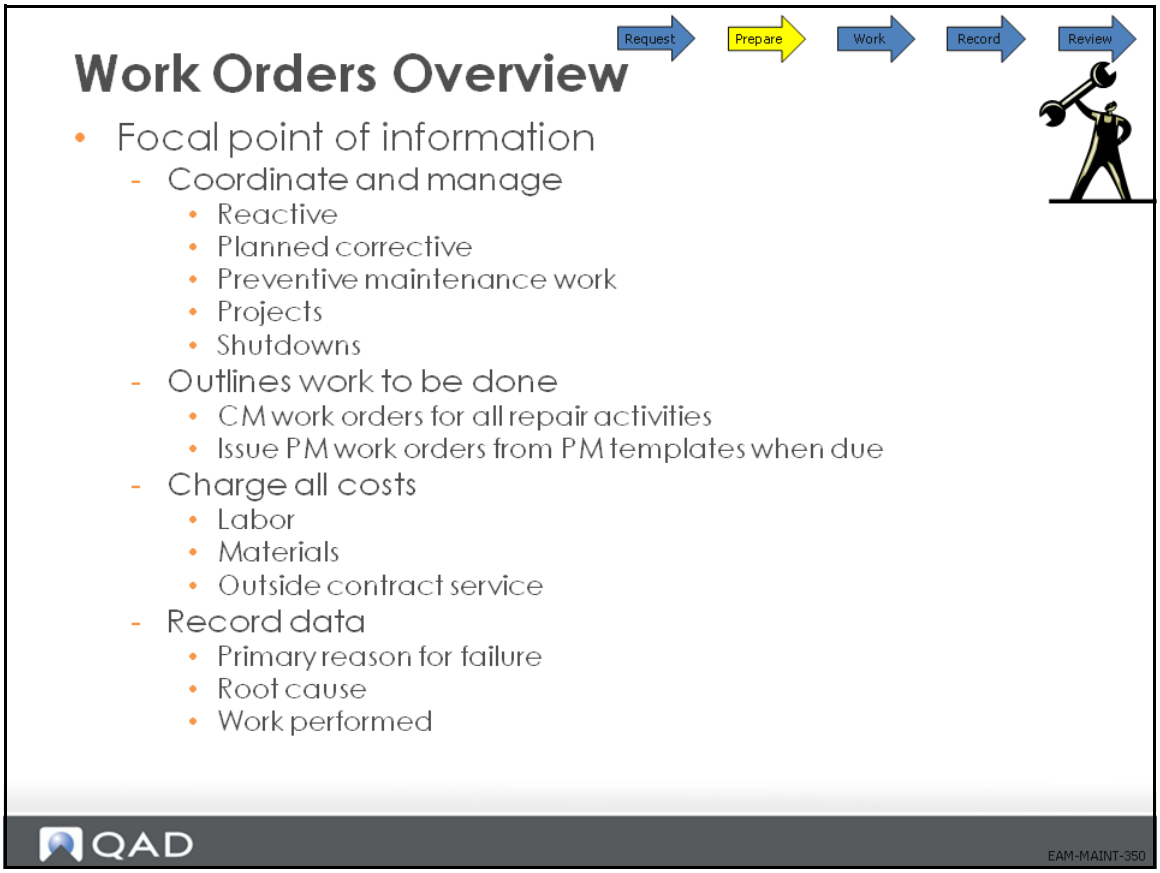


Scheduled work orders refer to that work which is placed onto a schedule – we are going to do work order 123 on Monday the 20th. If an emergency comes up and that work can not be completed ‘on schedule’ that is a schedule break. Schedule breaks do occur, but we want to decrease their impact on equipment reliability and availability.

Maintenance Process Step Through: Prepare



Work Orders Overview



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).

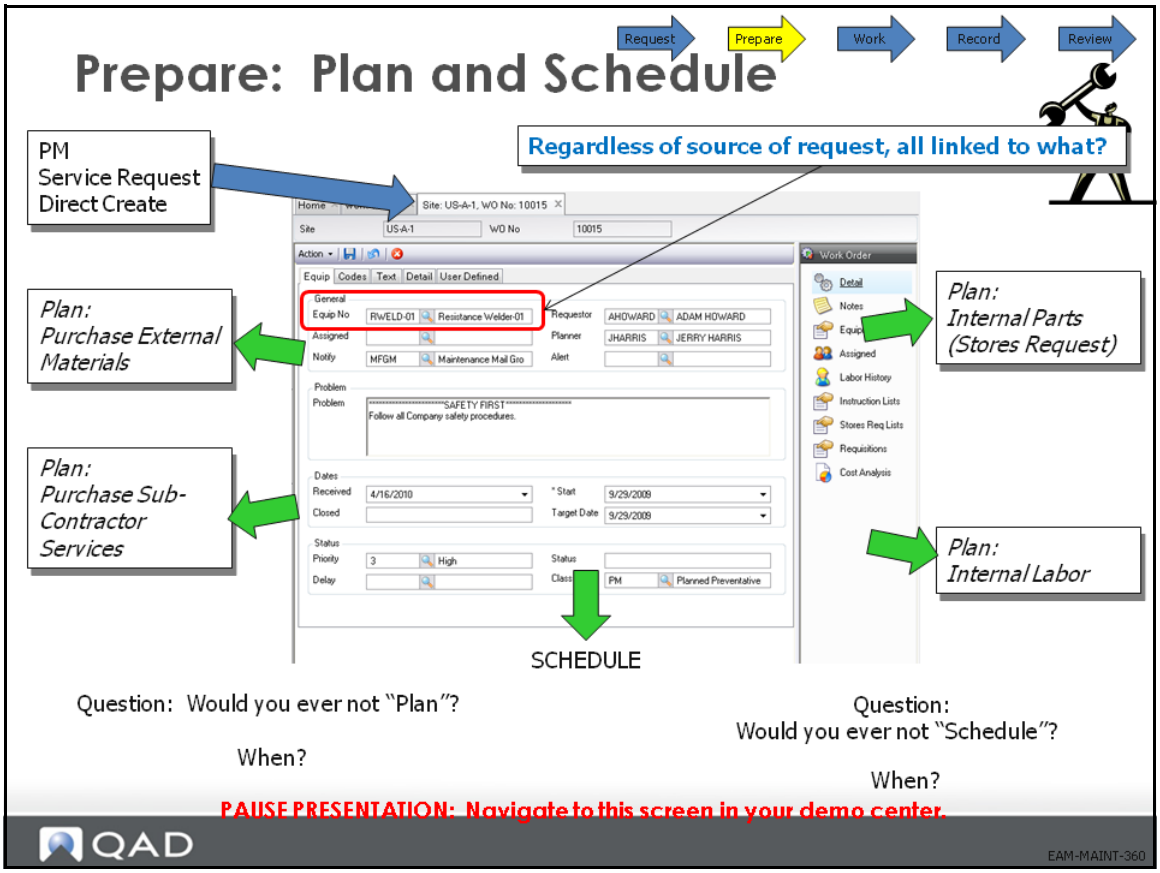
Resource requirements - time estimates, crafts, skills, shifts

Materials

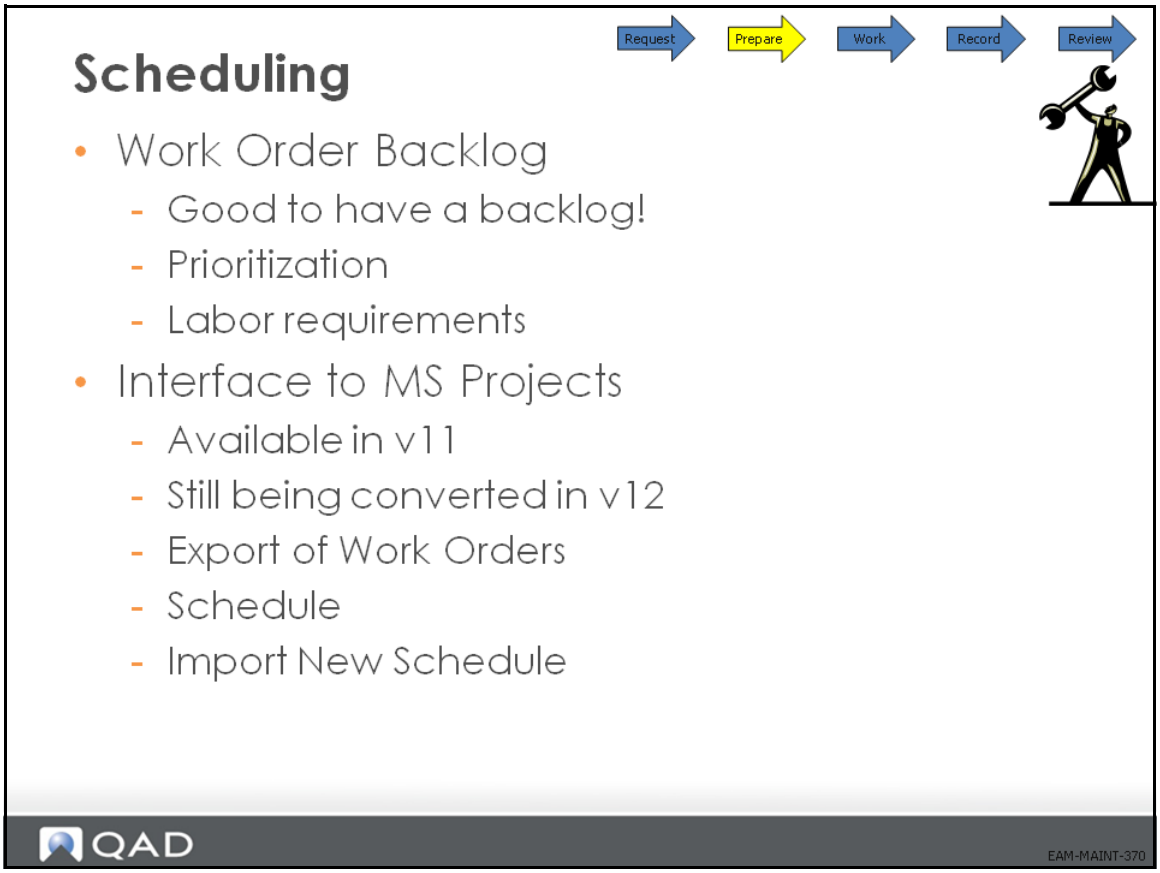
Contractors

Downtime - coordinate with production schedule

Prepare: Plan and Schedule



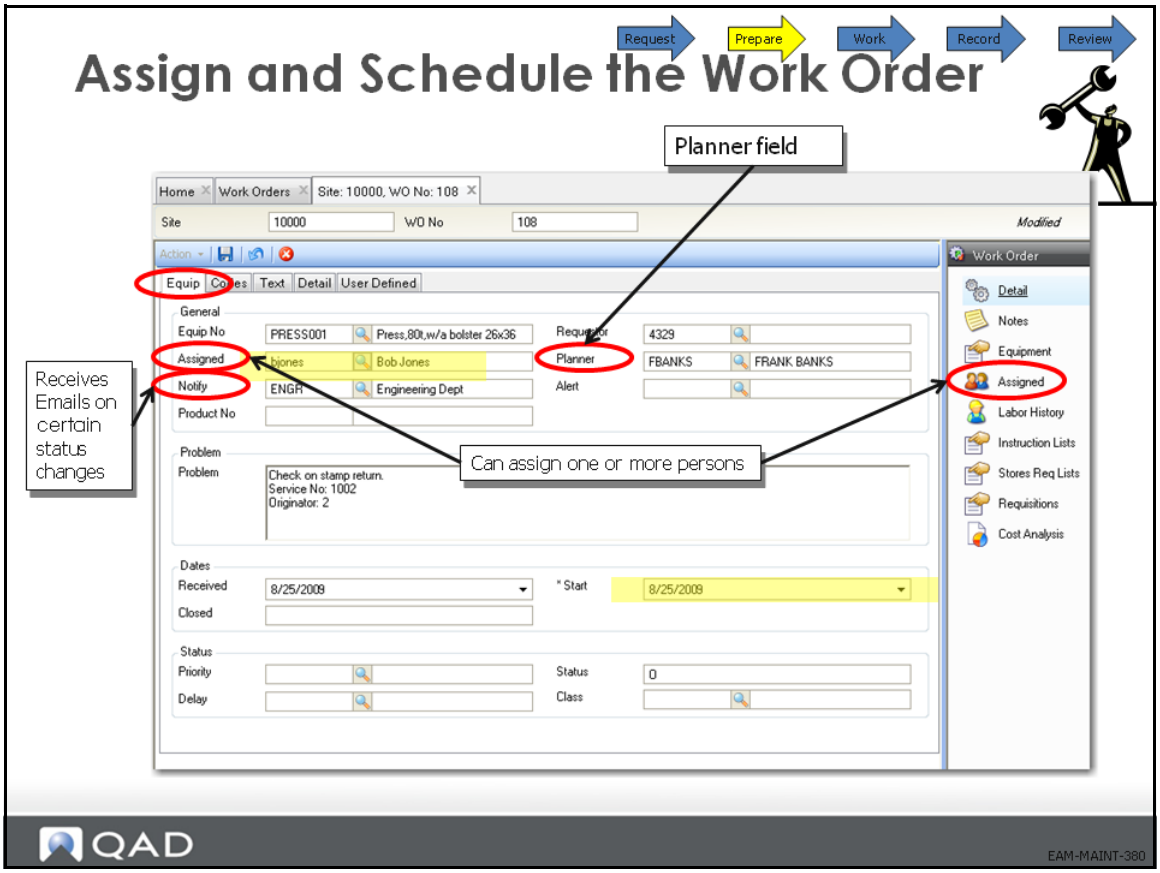
Scheduling



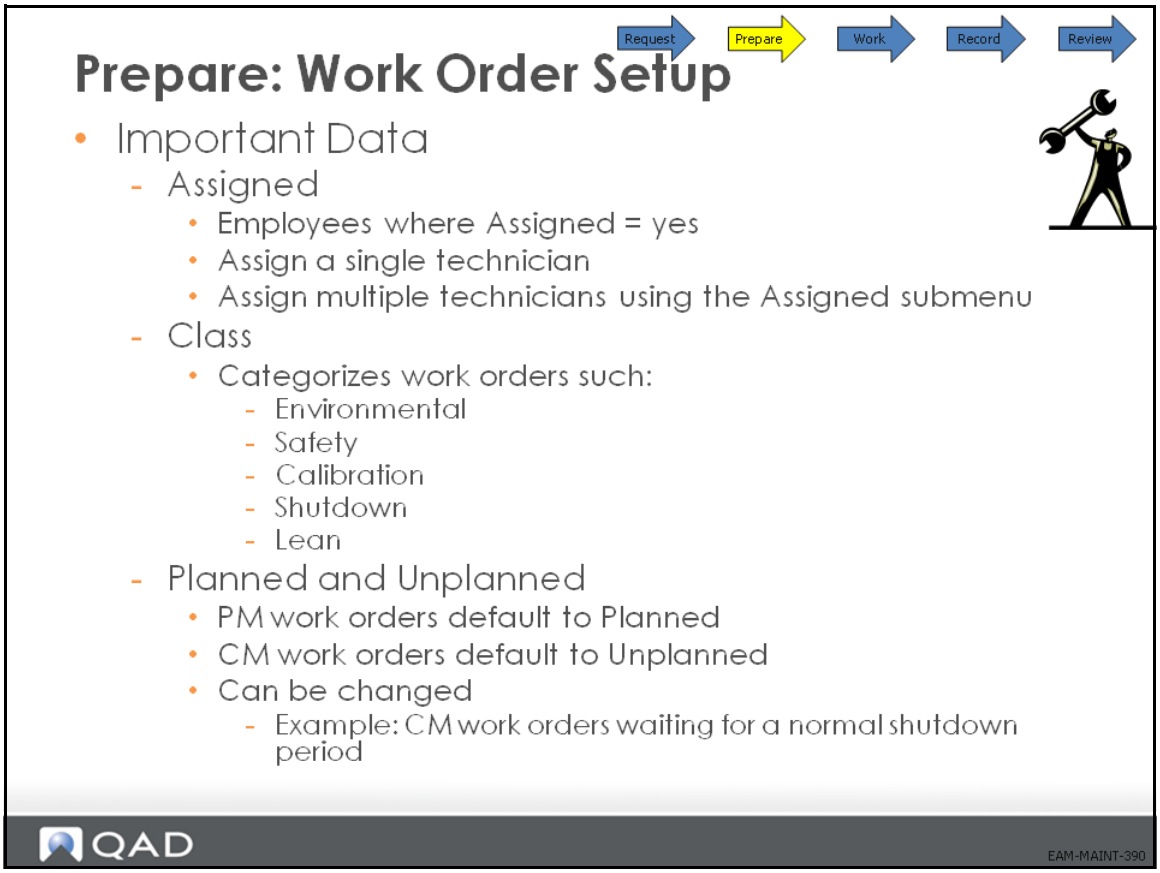
In some organizations, the Planner and Scheduler may be the same person. However, in more advanced organizations with larger Maintenance teams, the two roles may be split.

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 Work Order



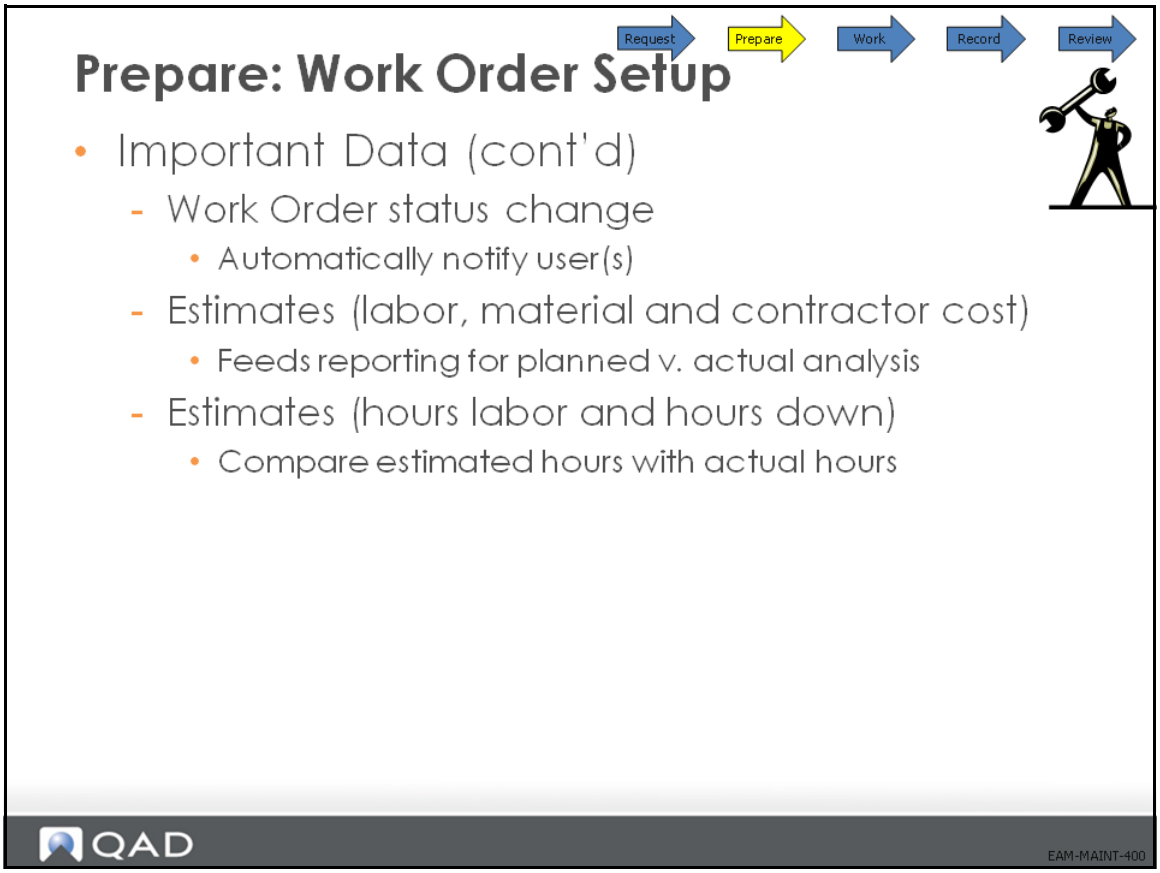
Prepare: Work Order Setup



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).

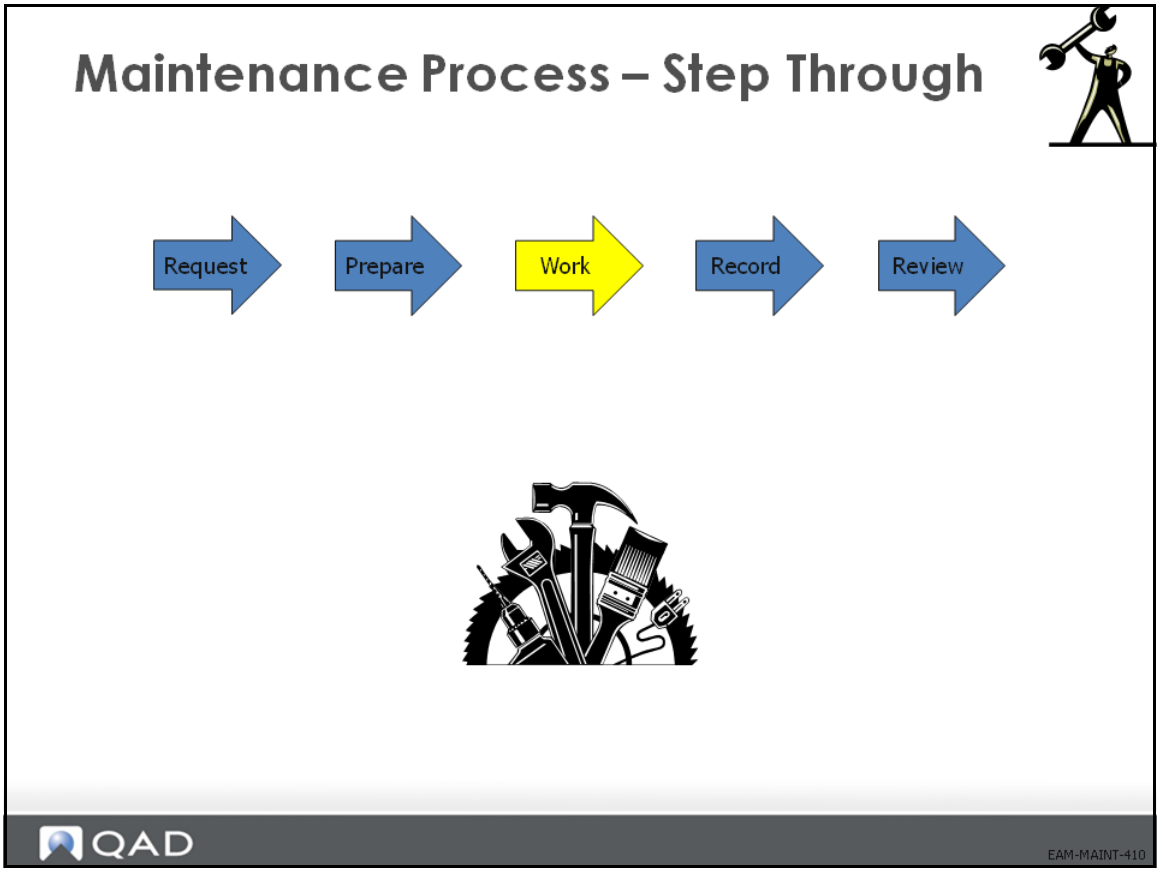
Prepare: Work Order Setup 2



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

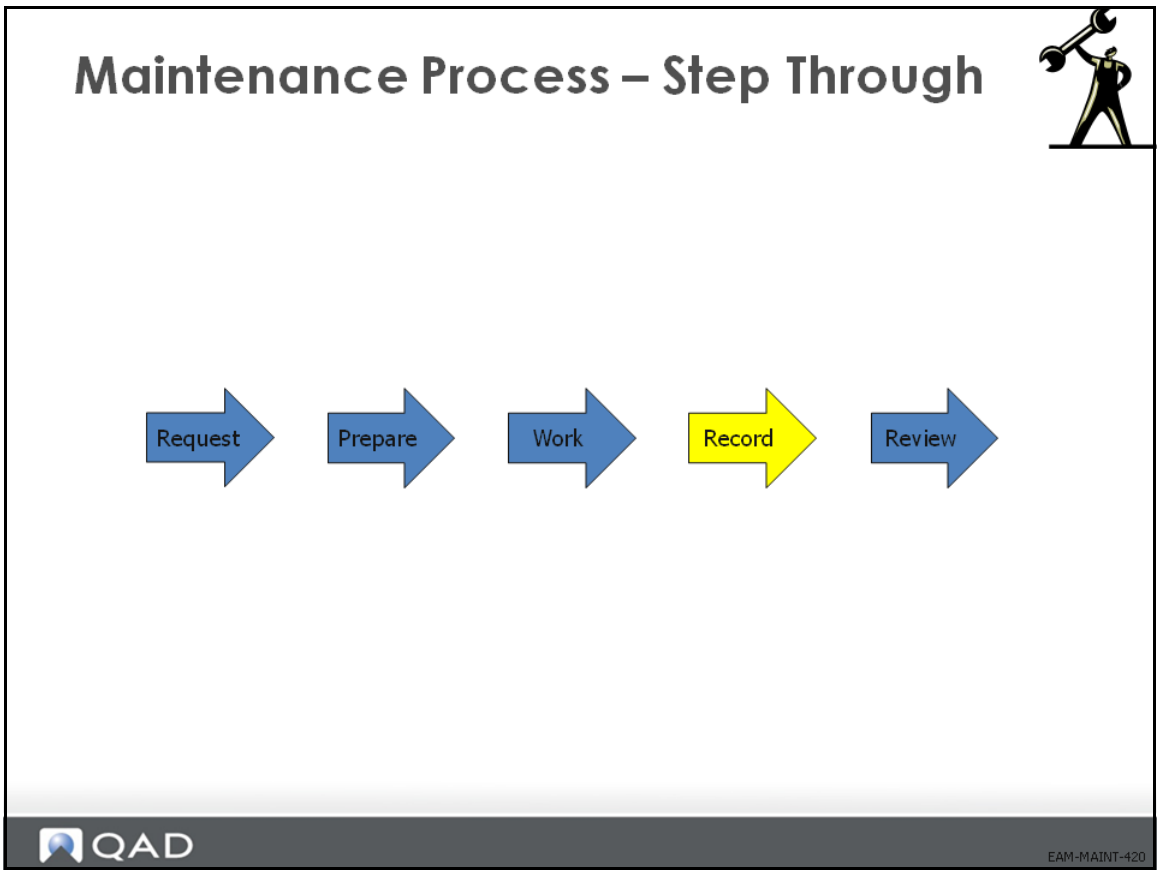
- Directly on the work order, the user may enter estimates (less accurate).
- Utilize Master Instruction Lists and Master Parts Lists / Stores Requests estimate planned labor and costs (most accurate).

Maintenance Process Step Through: Work

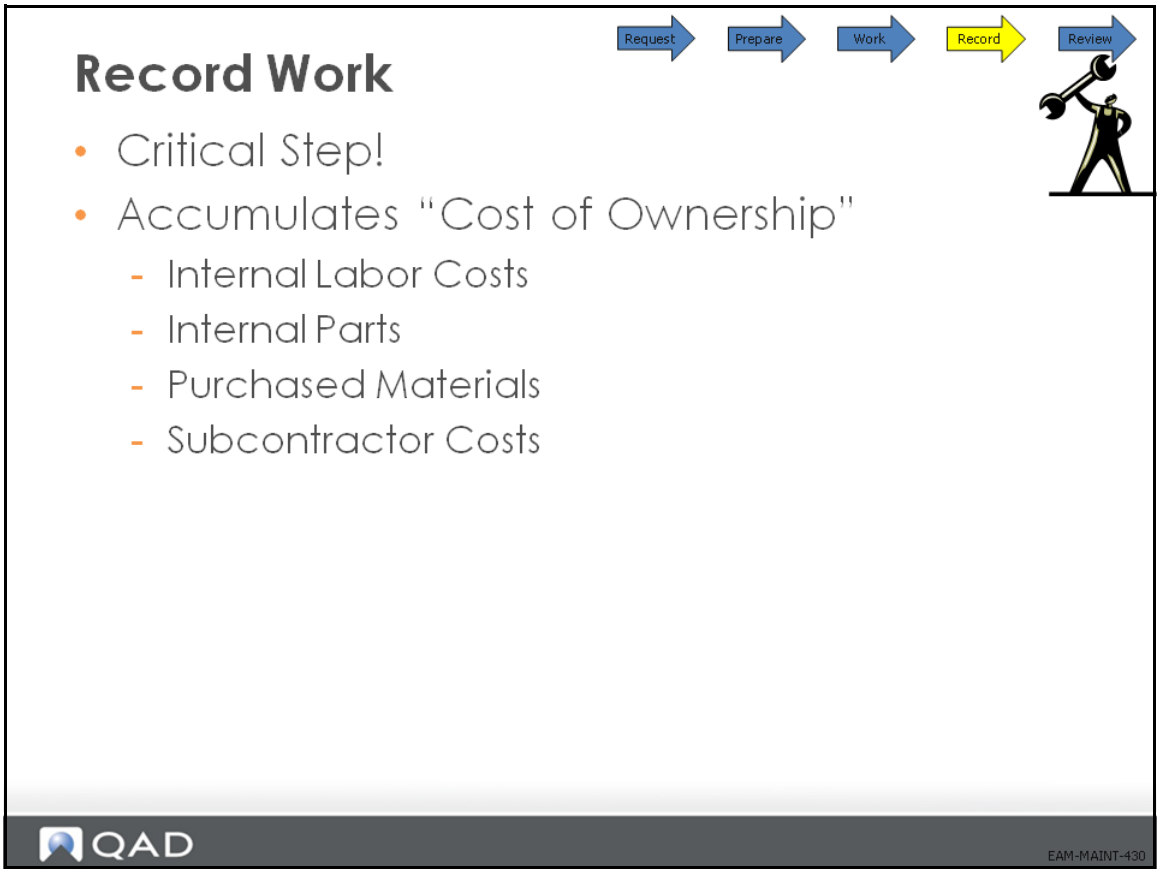


This step is the “wrench time” that we discuss frequently in the maintenance arena. Industry polls indicate that as little as 25% of a technicians day is actually spent on wrench time. Note how planning and proper scheduling could be very instrumental in reducing “travel time” and increasing “wrench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

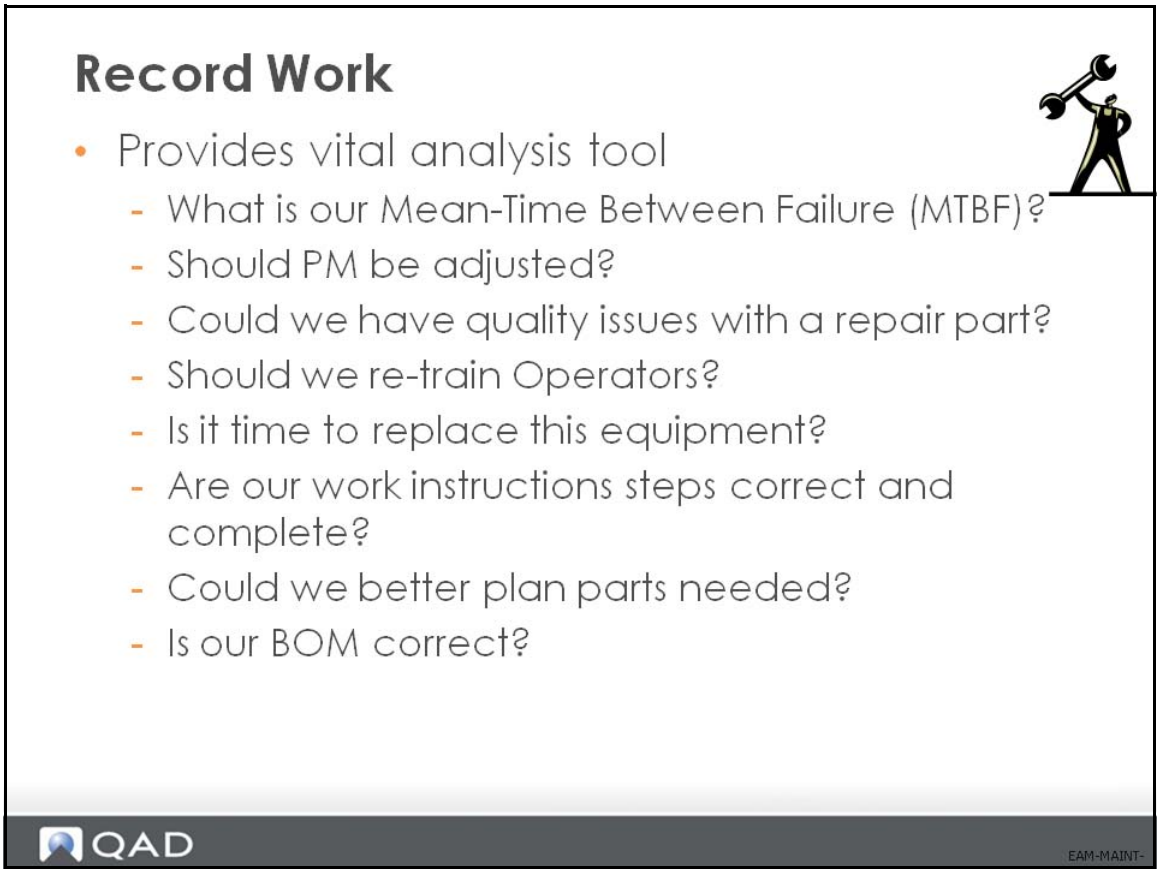
Maintenance Procession Step Through: Record



Record Work

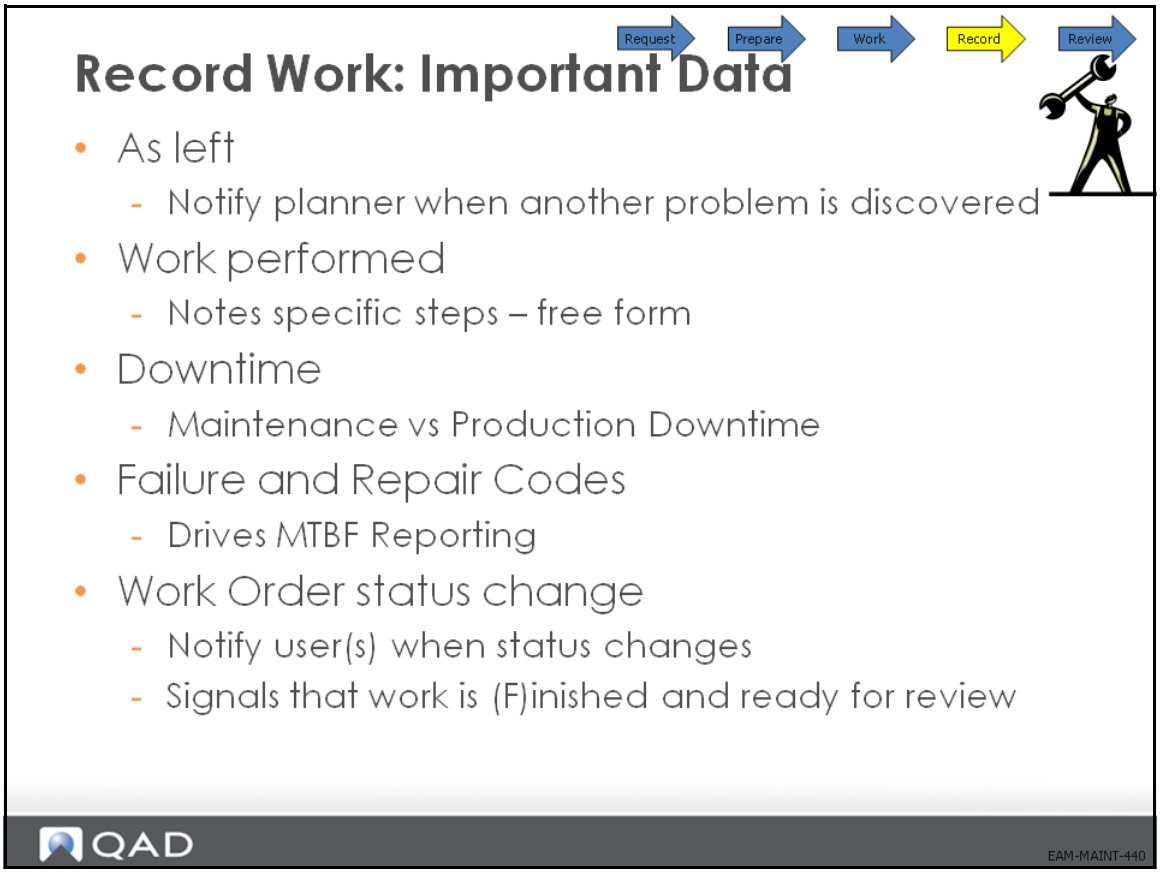

Request
Prepare
Work
Record
Review
Record Work
• Critical Step!
• Accumulates "Cost of Ownership"
- Internal Labor Costs
- Internal Parts
- Purchased Materials
- Subcontractor Costs
QAD
EAM-MAINT-430

Record Work 2

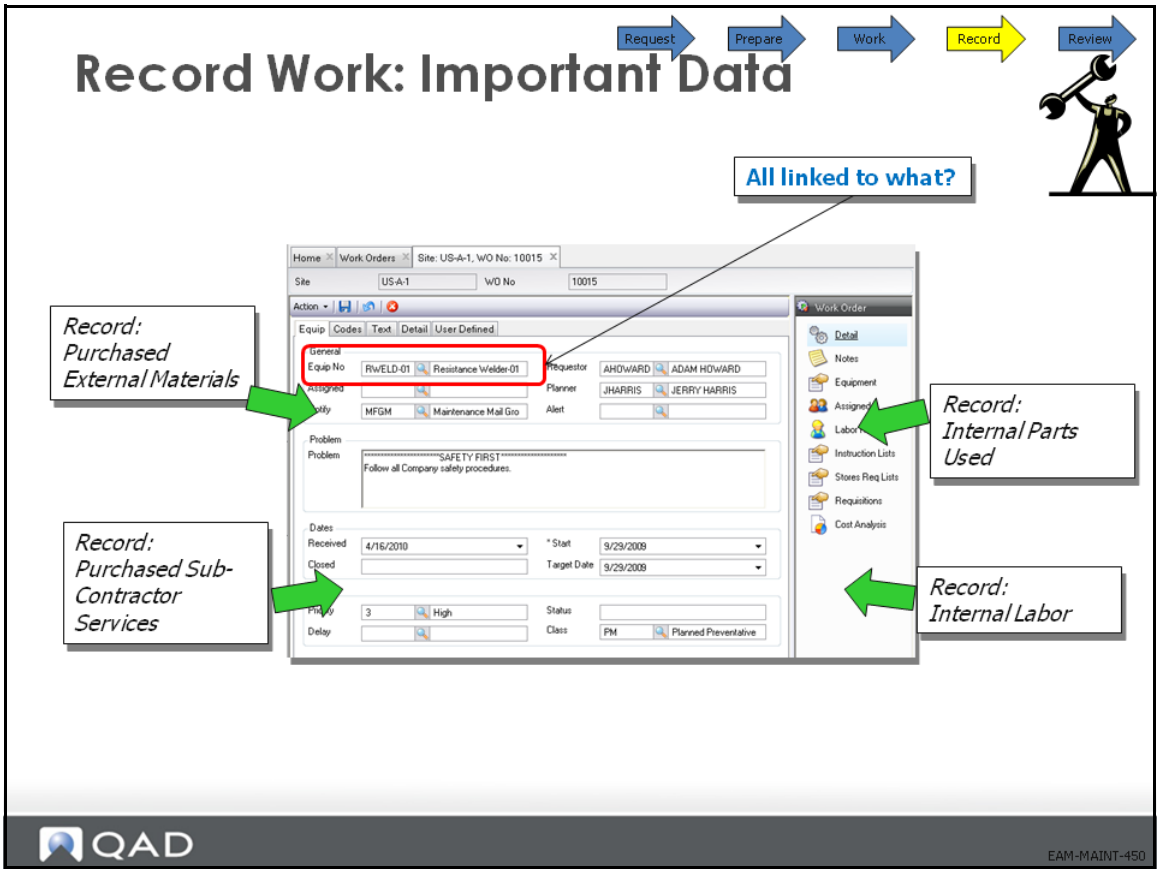


These are all questions that a company should be asking – that EAM can provide when utilized to its potential.

Record Work: Important Data

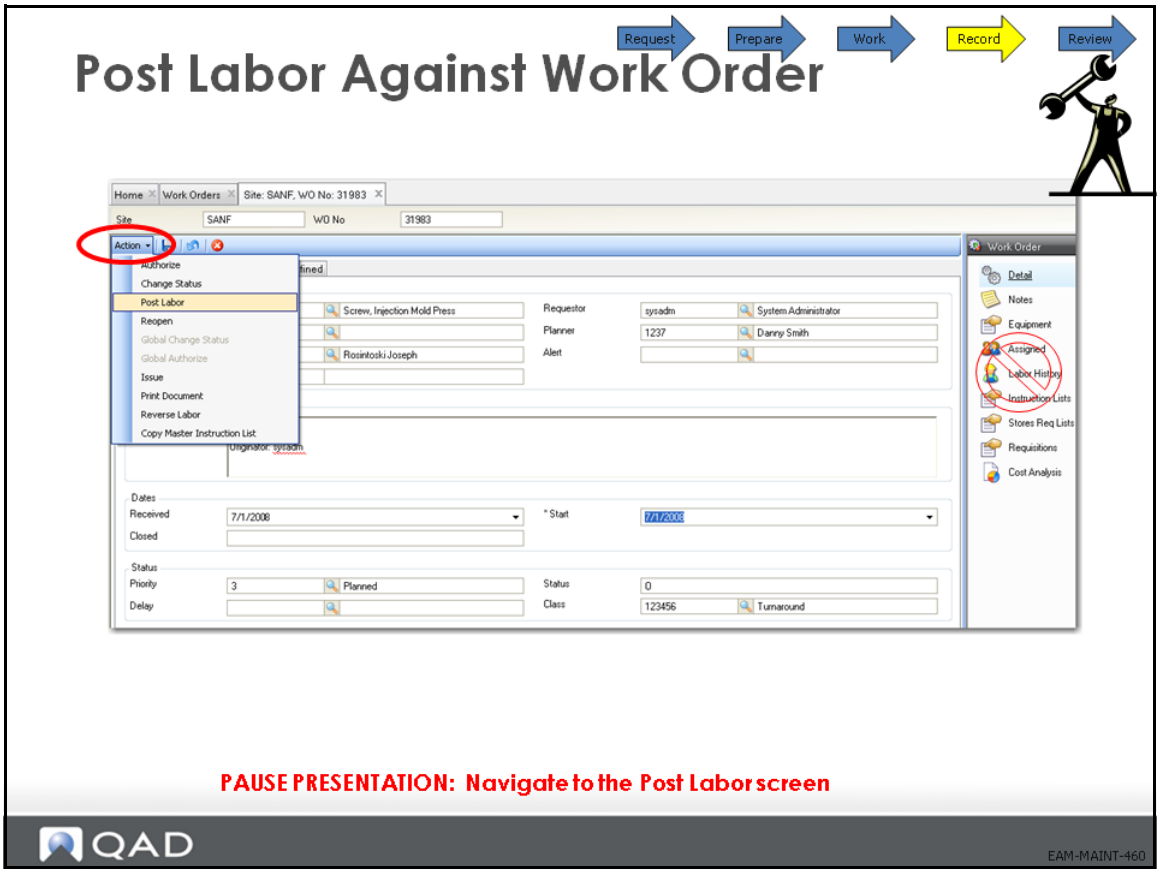


Record Work: Important Data 2



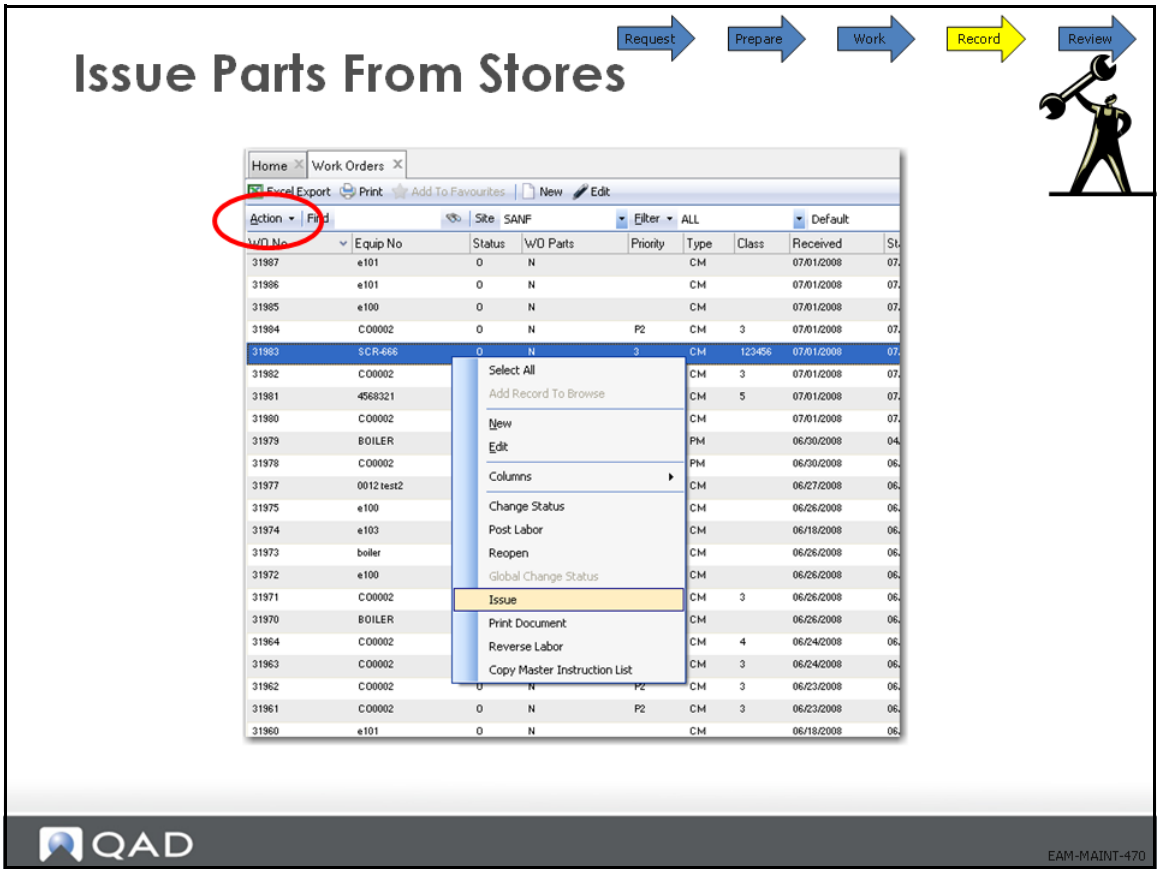
All of the information captured in the ‘Record’ portion of the process is used to answer those questions for the customer. If they don’t record the information they don’t have a true picture of what is happening.

Post Labor Against Work Order



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

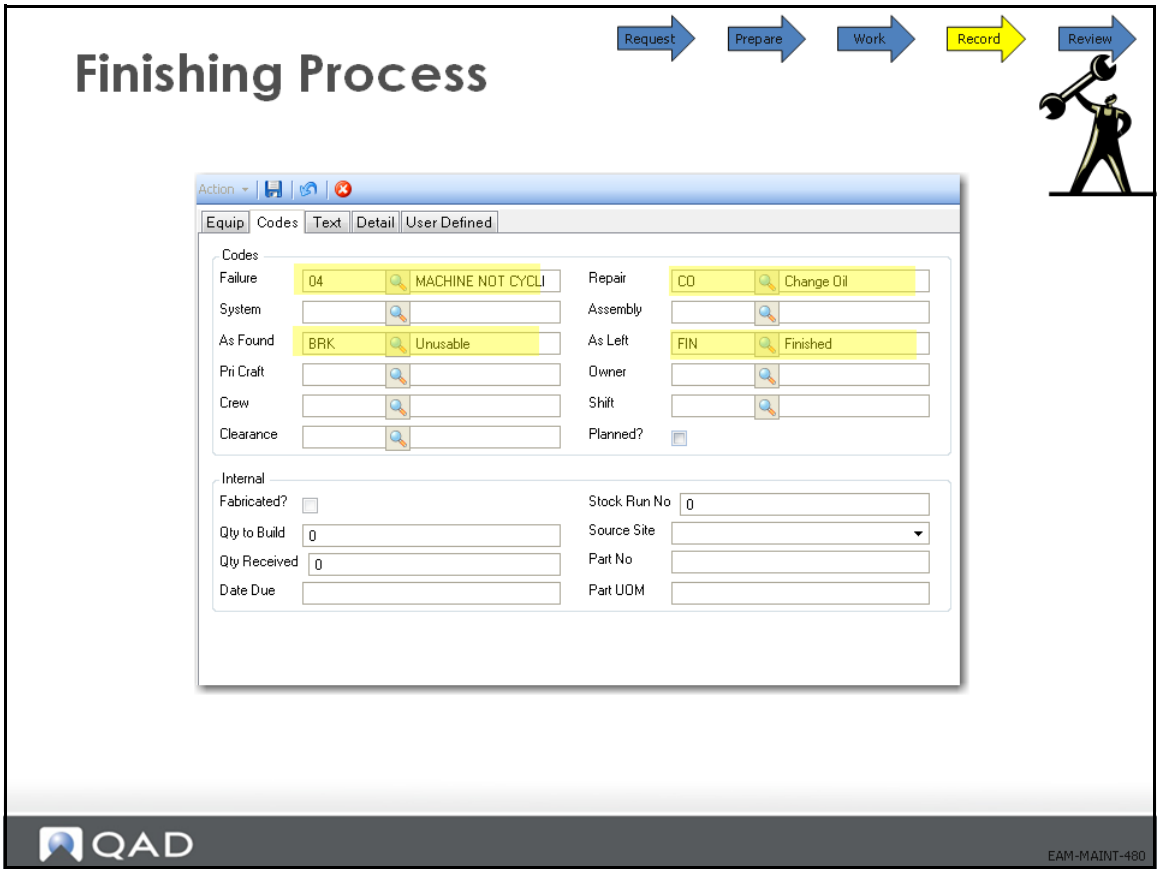


Parts that are used on a work order should be issued to that work order so that the cost and the repair history can be captured.

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)

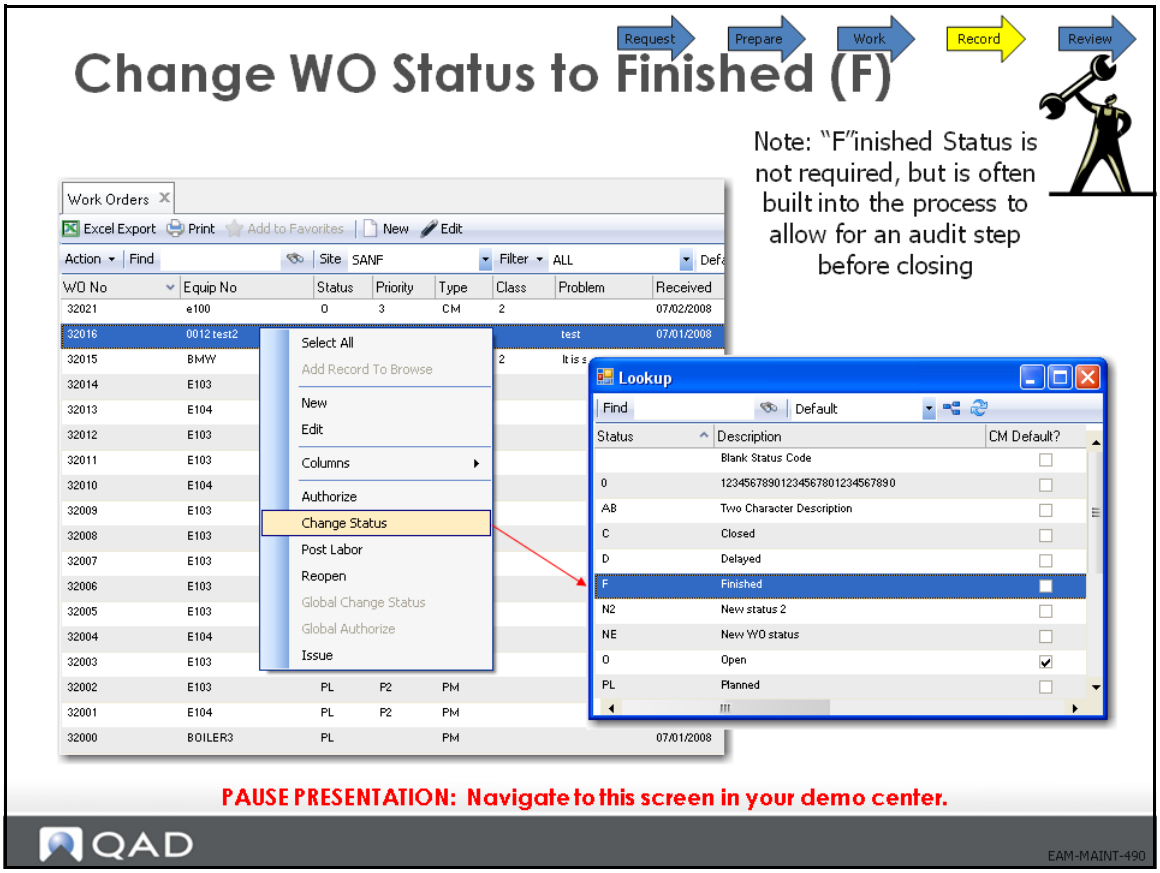
Finishing Process



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).

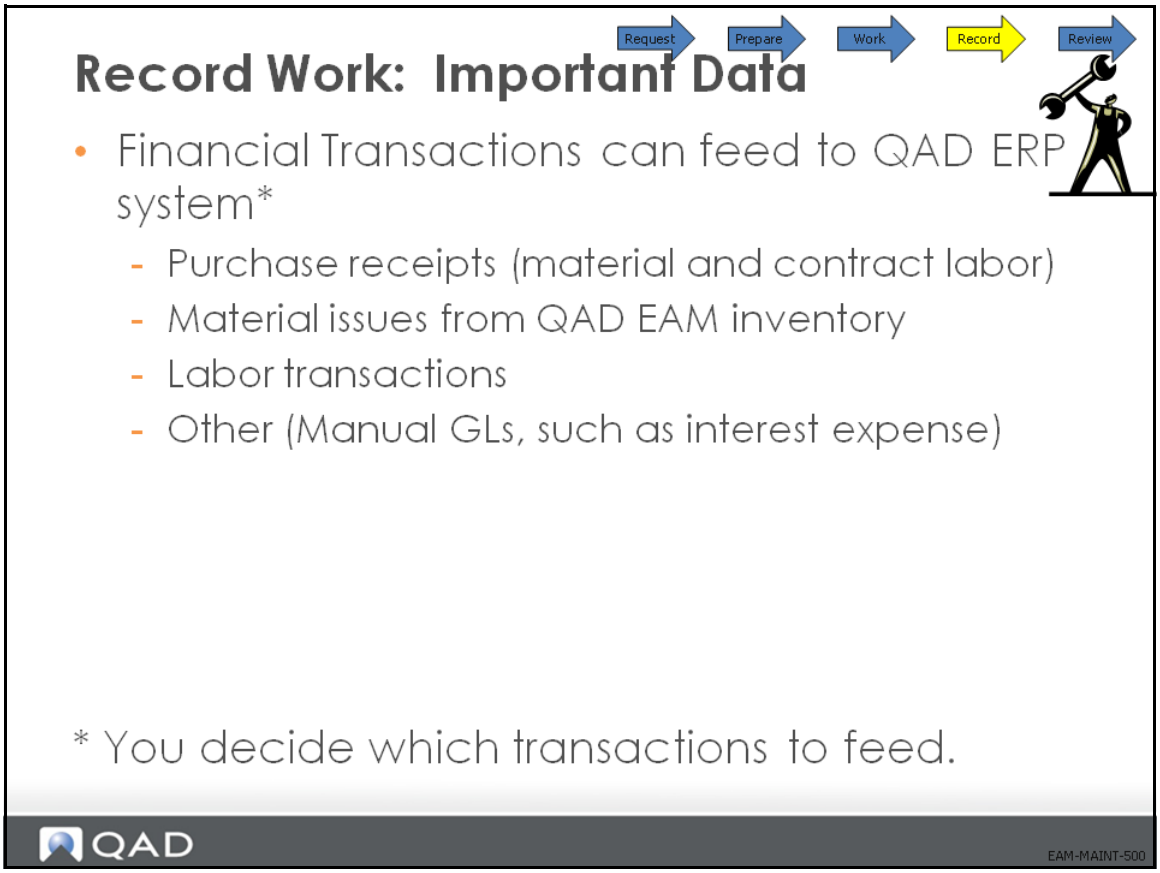
Change Work Order Status



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.

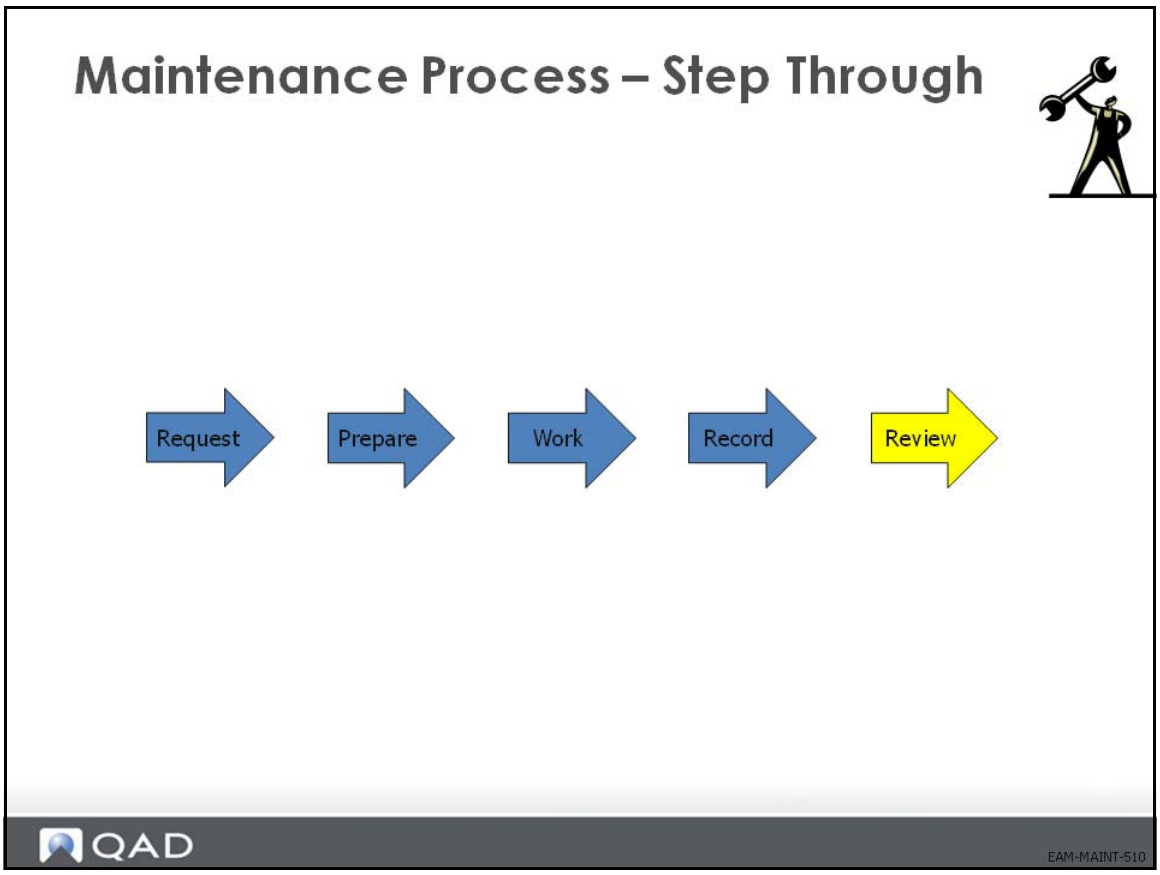
Though the “Finished” status is not one of the pre-packaged statuses in EAM, it is quickly becoming the norm for organizations working to improve their maintenance programs. The “Finished” step allows for the opportunity to audit the data entry and utilize that time to improve upon data collection and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

Record Work: Important Data

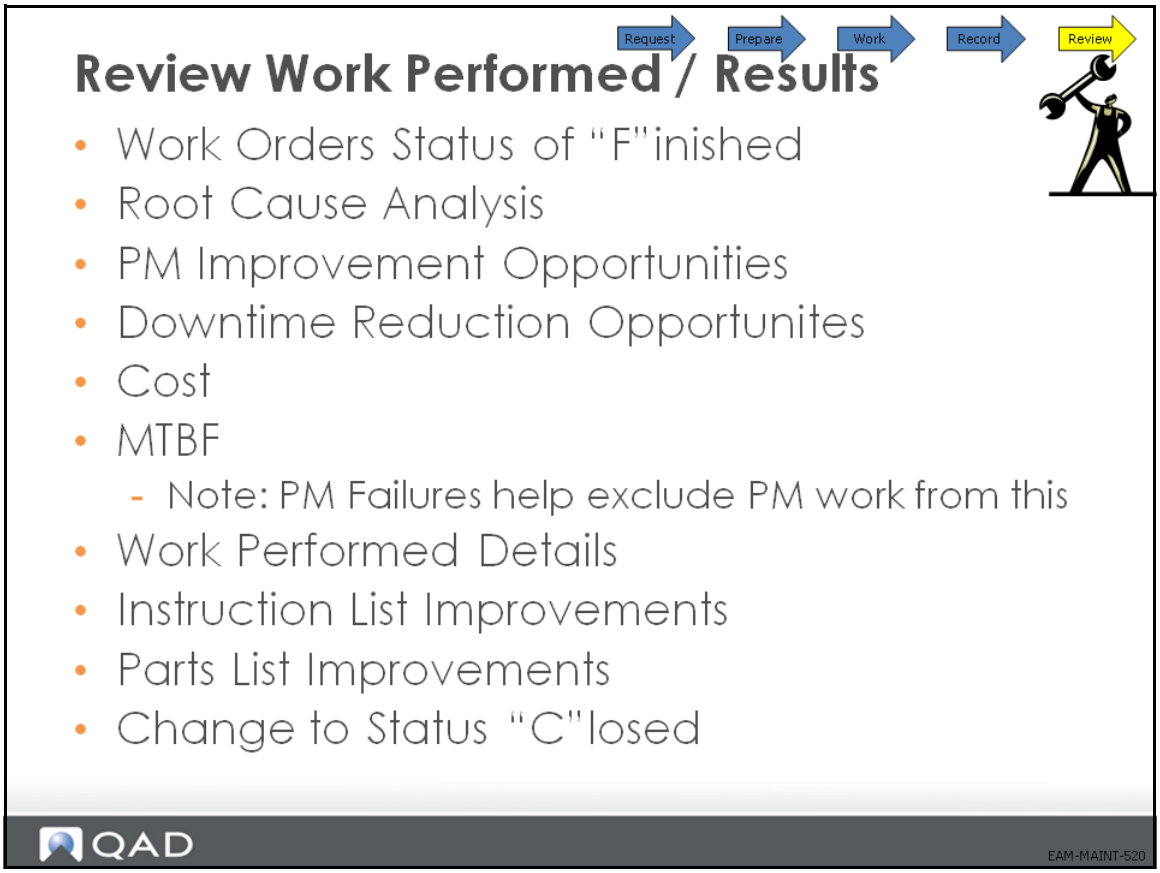


Remember that what transactions are actually sent to ERP financials is configurable. Most common settings allow all transactions to flow to QAD, with the exception of Labor. This is because many companies do not want those transactions competing with labor transactions coming from a time and attendance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

Maintenance Process Step Through: Review

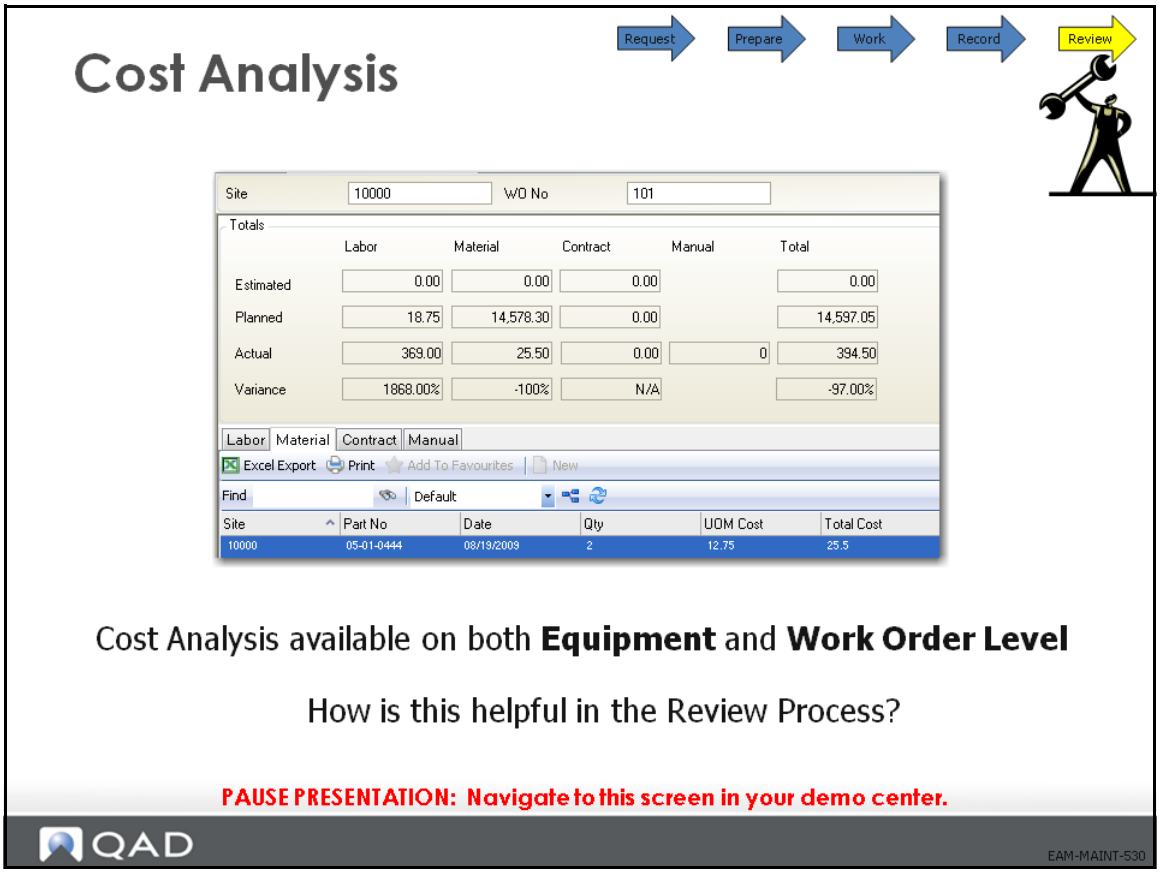


Review Work Performed Results



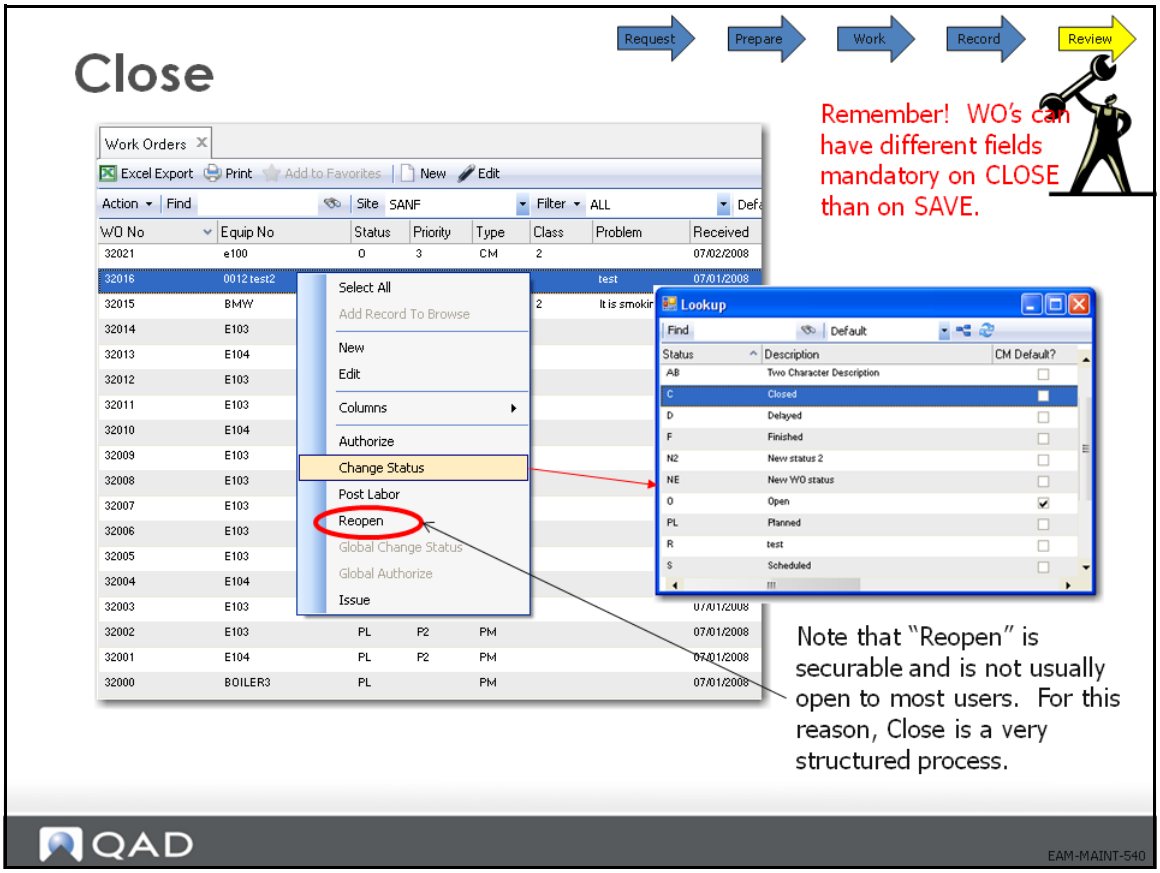
A properly managed and continuously improving maintenance organization must measure and review in order to increase productivity and reliability. A maintenance program is not complete without utilizing the data collected to help make important business decisions.

Cost Analysis

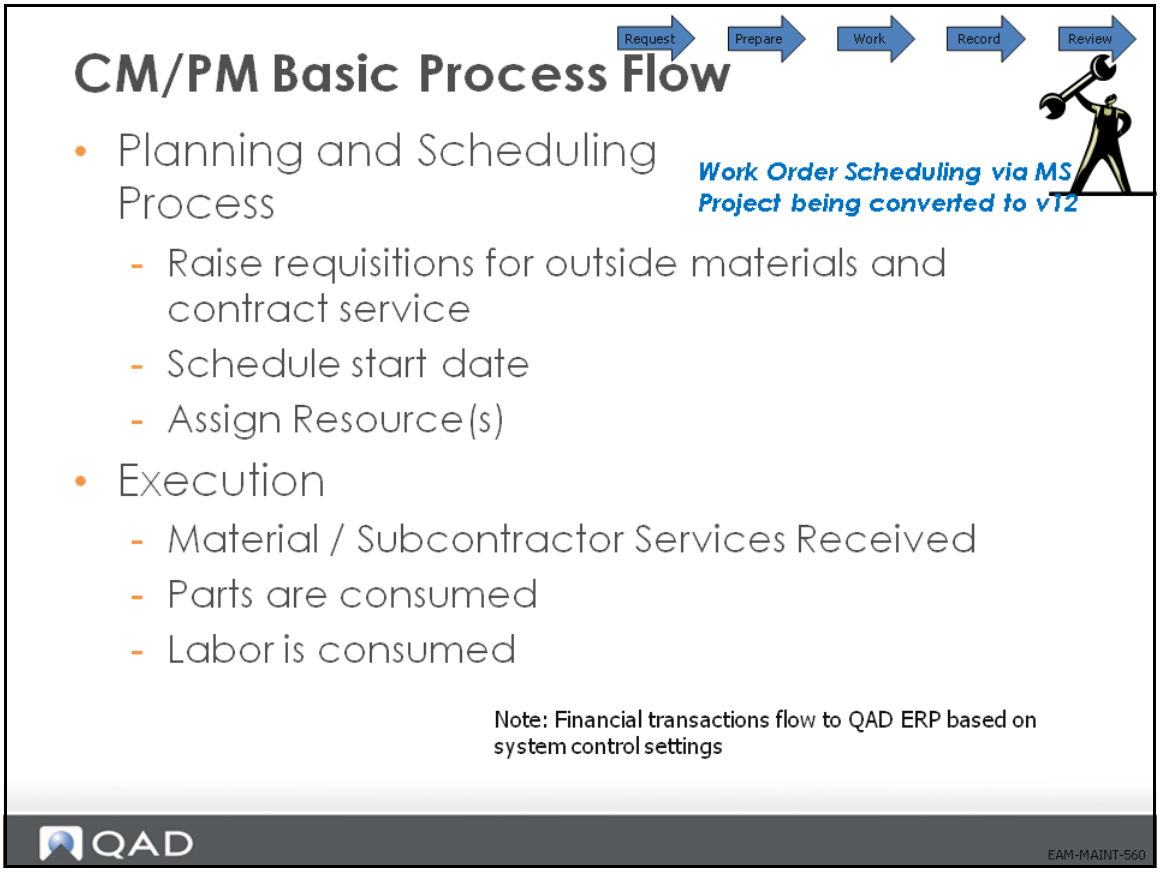


The Cost Analysis screens on both the Equipment level and the individual Work Order level provide a comparison of estimates vs actuals, as well as a detailed view of the transactions that make up that cost. This information can be used to refine estimating practices, identify opportunities to refine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

Close

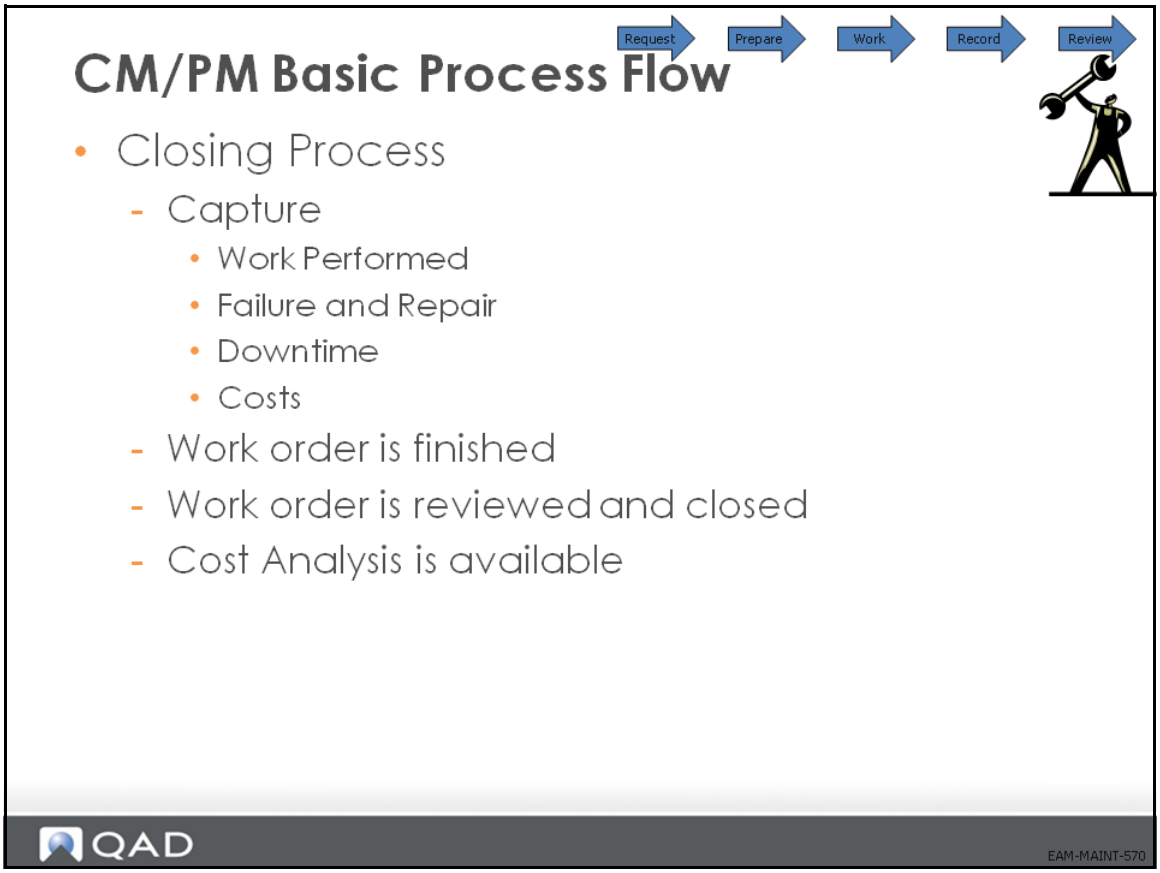

Close
Request
Prepare
Work
Record
Review
Remember! WO's can have different fields mandatory on CLOSE than on SAVE.
Work Orders
Excel Export
Print
Add to Favorites
New
Edit
Action
Find
Site
SANF
Filter
ALL
WO No
Equip No
Status
Priority
Type
Class
Problem
Received
Select All
Add Record To Browse
New
Edit
Columns
Authorize
Change Status
Post Labor
Reopen
Global Change Status
Global Authorize
Issue
Lookup
Find
Default
Status
Description
CM Default?
AB
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
Note that "Reopen" is securable and is not usually open to most users. For this reason, Close is a very structured process.
QAD
EAM-MAINT-540

CM/PM Basic Process Flow

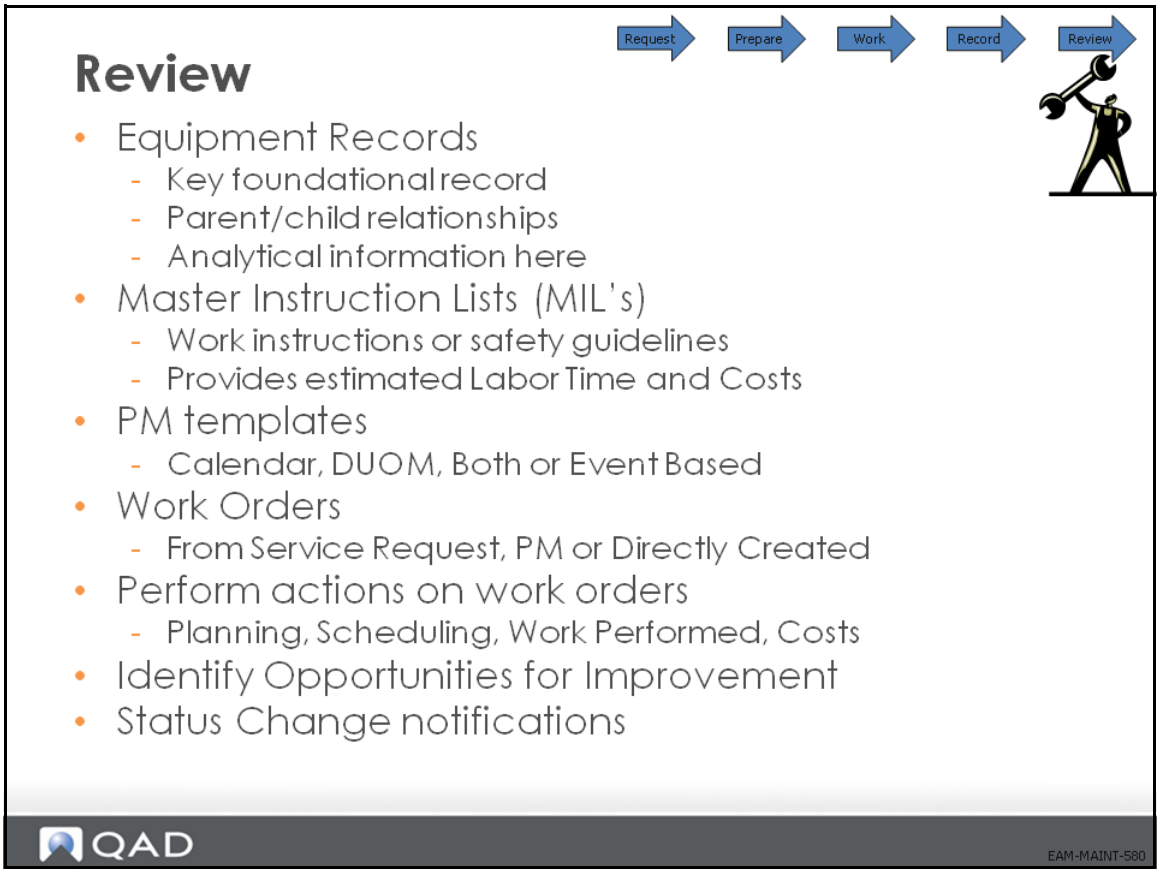


The basic process flow of maintenance is similar to that of production. Start with the planning and staging process, assign resources such as technicians and parts, perform the repairs, use the materials and final product – working machinery is available for producing.

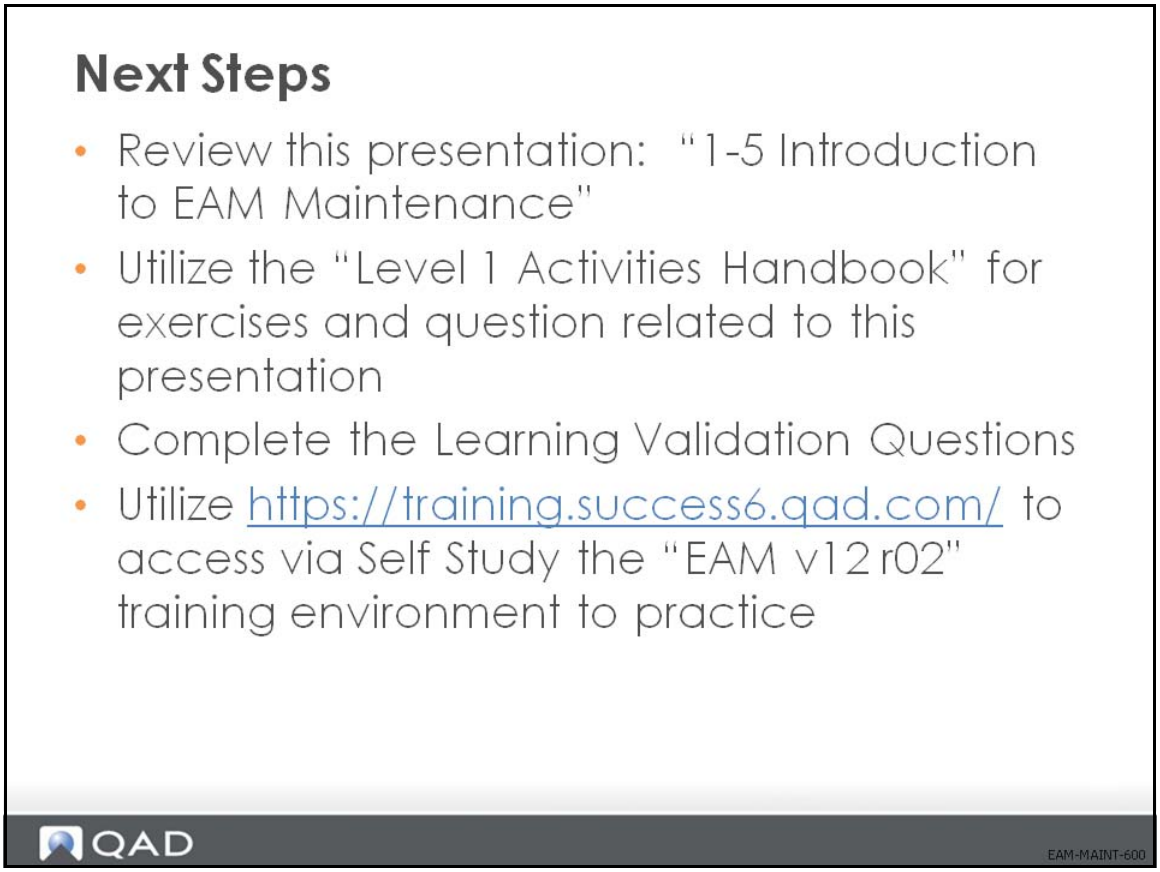
Closing Process



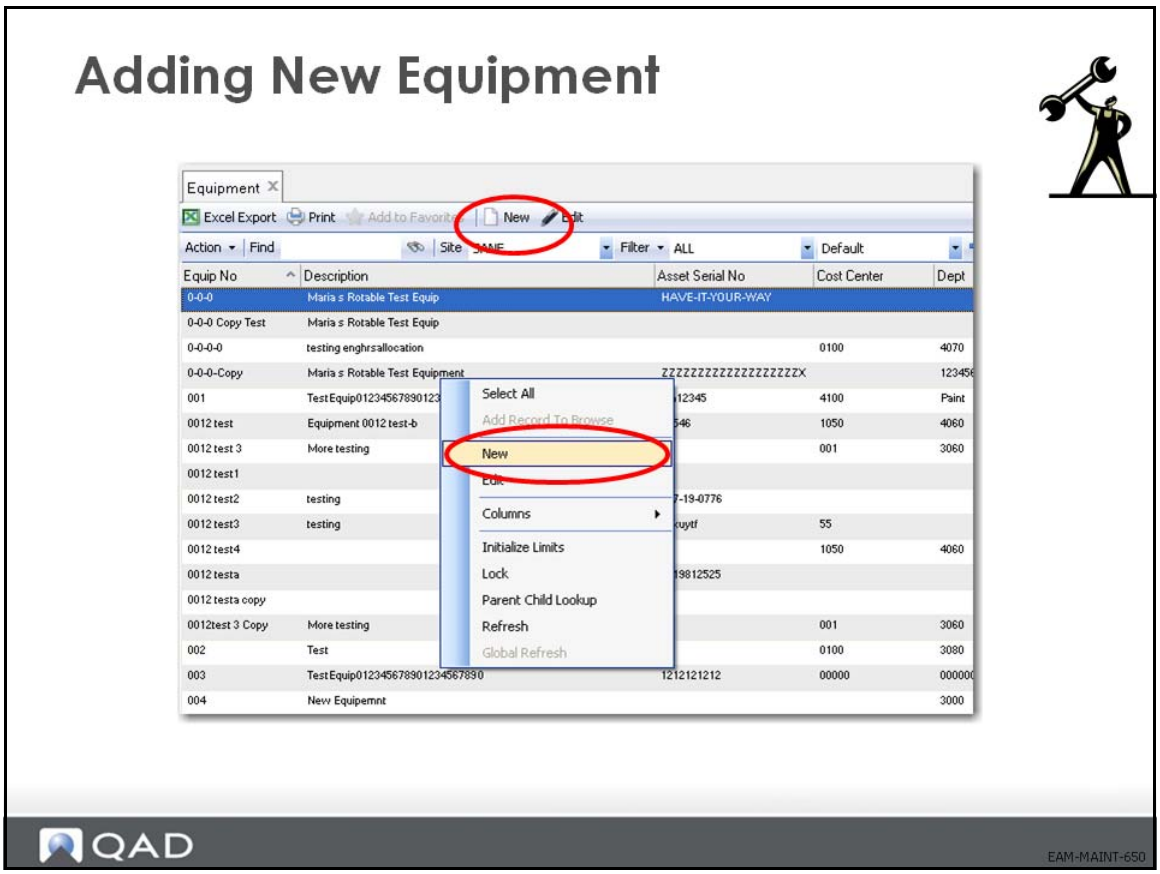
Review


Request
Prepare
Work
Record
Review
Review
Equipment Records
Key foundational record
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
Status Change notifications
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EAM-MAINT-580

Next Steps


Next Steps
Review this presentation: "1-5 Introduction to EAM Maintenance"
Utilize the "Level 1 Activities Handbook" for exercises and question related to this presentation
Complete the Learning Validation Questions
Utilize https://training.success6.qad.com/ to access via Self Study the "EAM v12 r02" training environment to practice
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EAM-MAINT-600

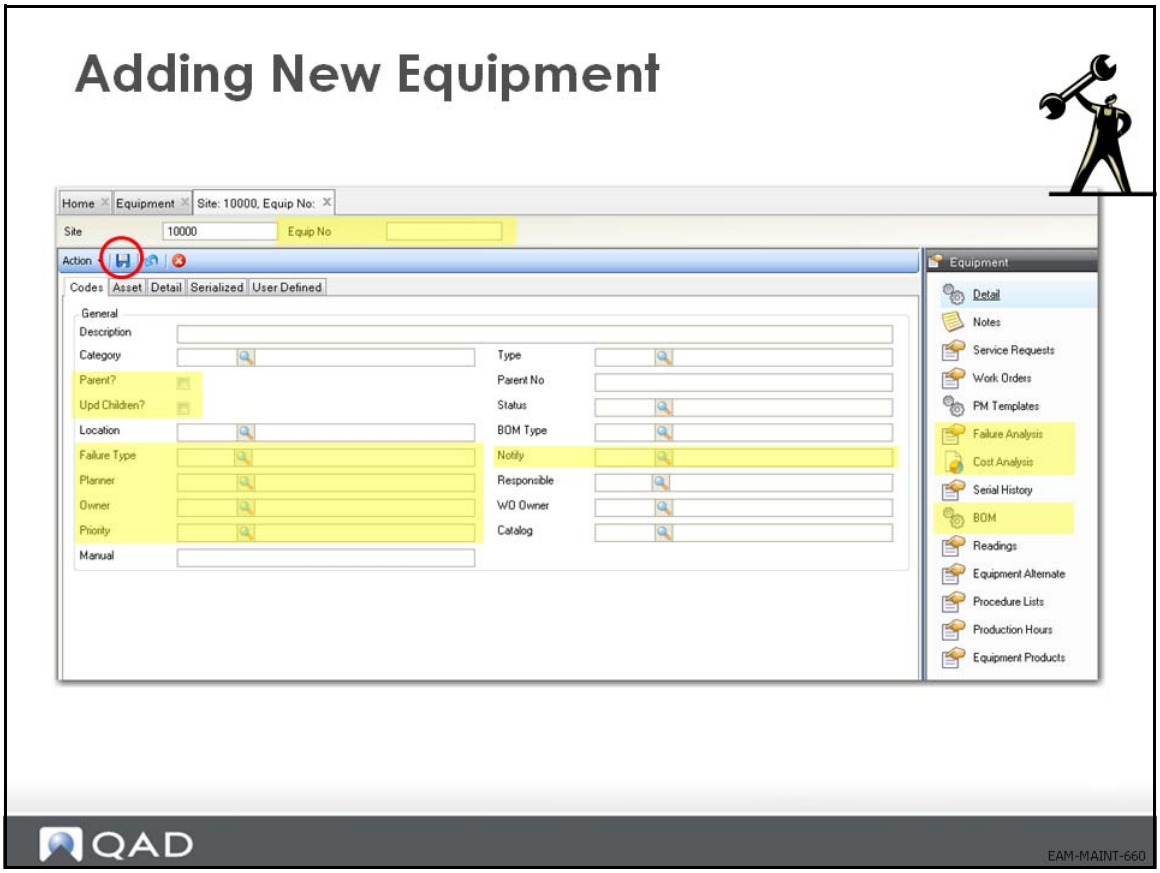
Appendix A: Equipment



Navigate to Maintenance|Equipment|Equipment.

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

Adding New Equipment



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
  - 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

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Equipment Setup 2

Equipment Setup

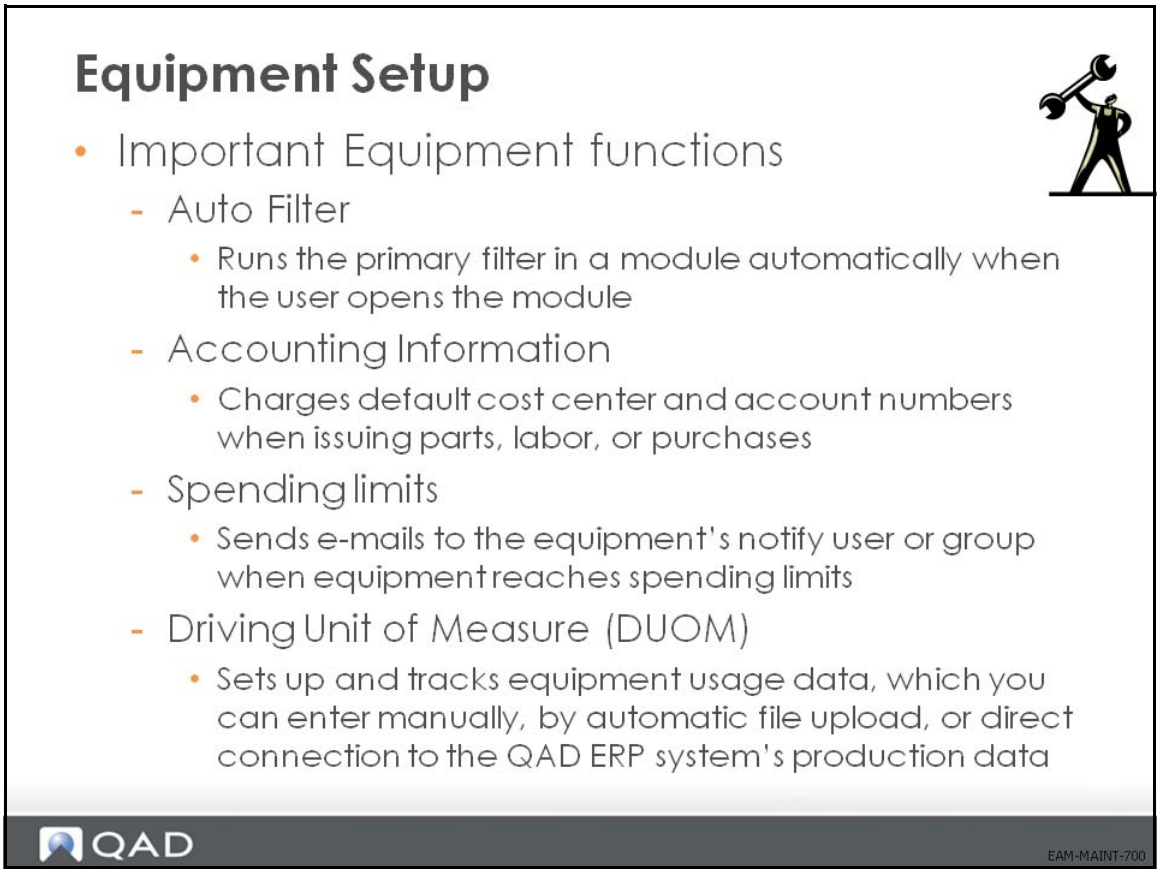


- Important Equipment functions
  - Cost Analysis
    - Summarizes cost spent against equipment
  - BOM
    - Lists bill of material of parts used on equipment
    - EAM can automatically add BOM when issuing parts to equipment
  - Failure Type
    - Groups failure codes, limiting the lookup on work orders of 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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Equipment Setup 3

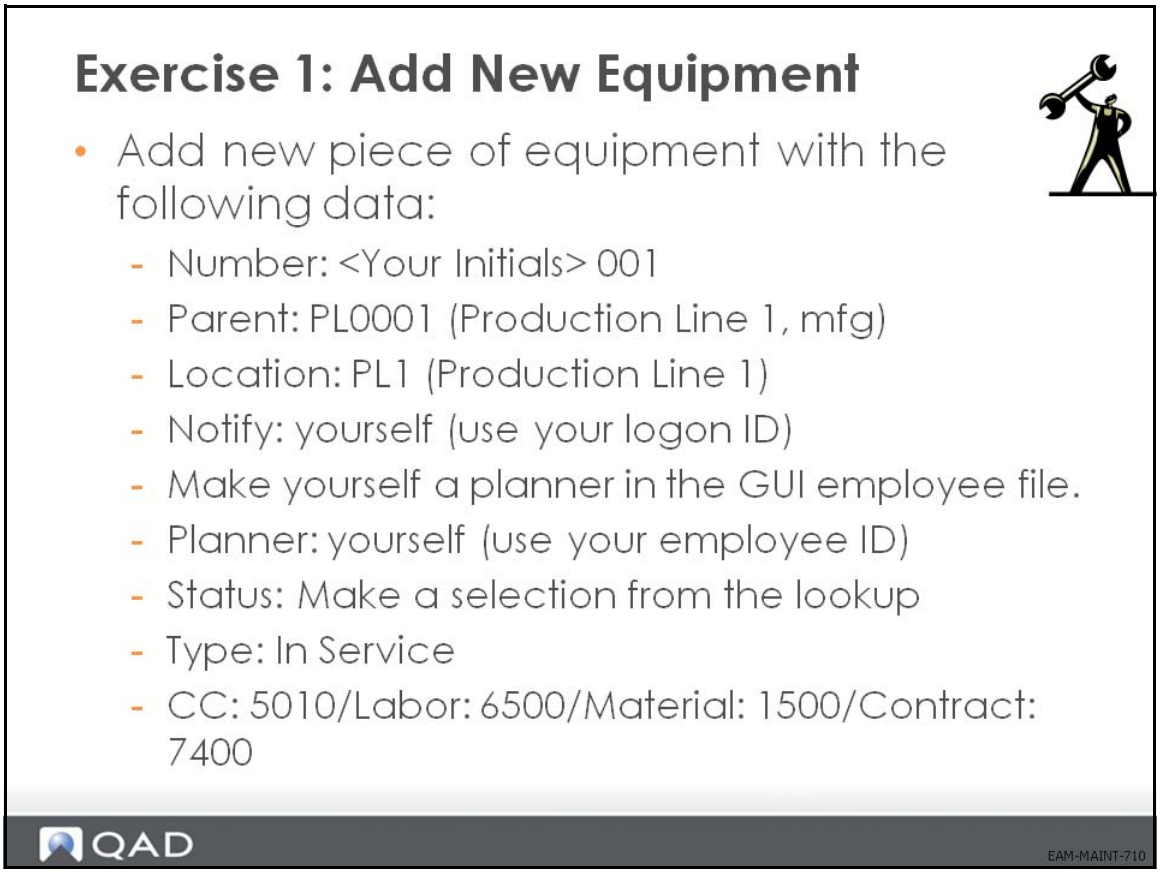


Fields located on the Equipment Record Detail tab page.

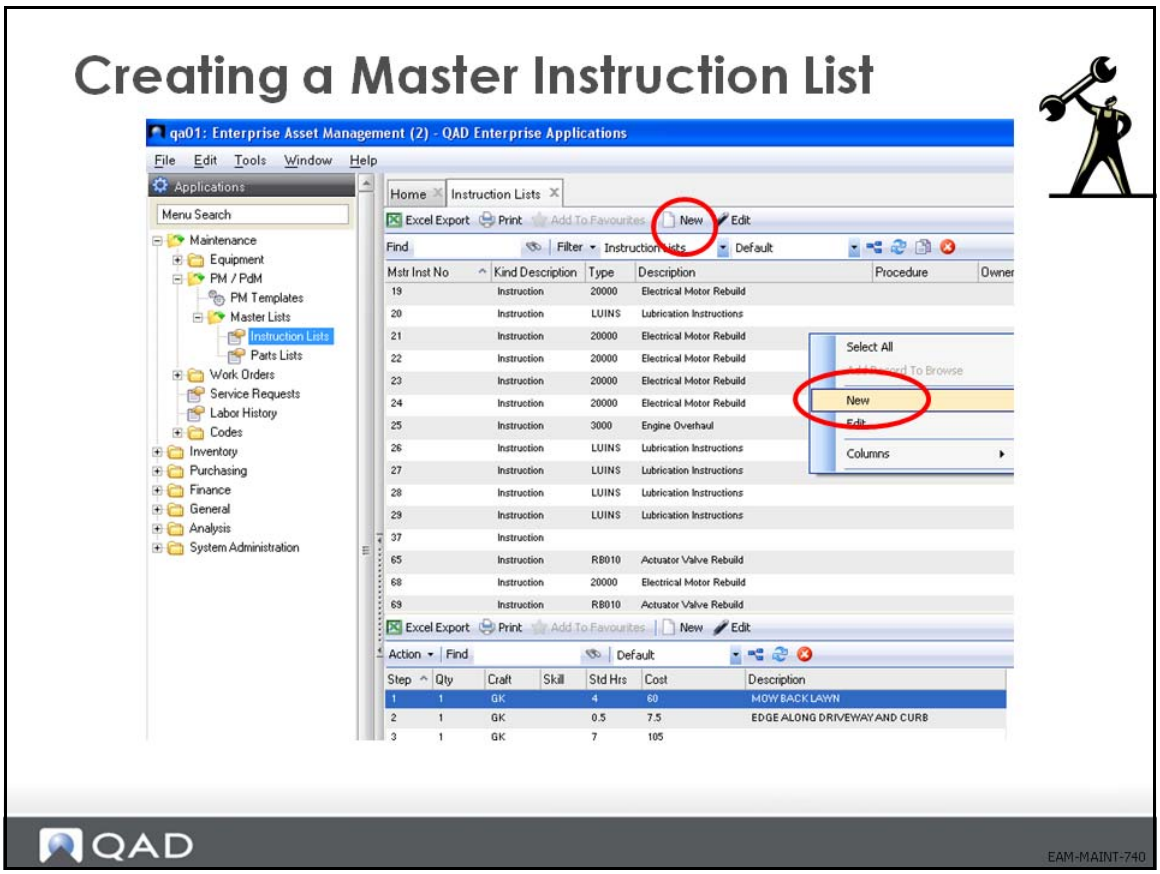
DUOM: Driving Unit of Measure = Production Driven Maintenance

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 1: Add New Equipment

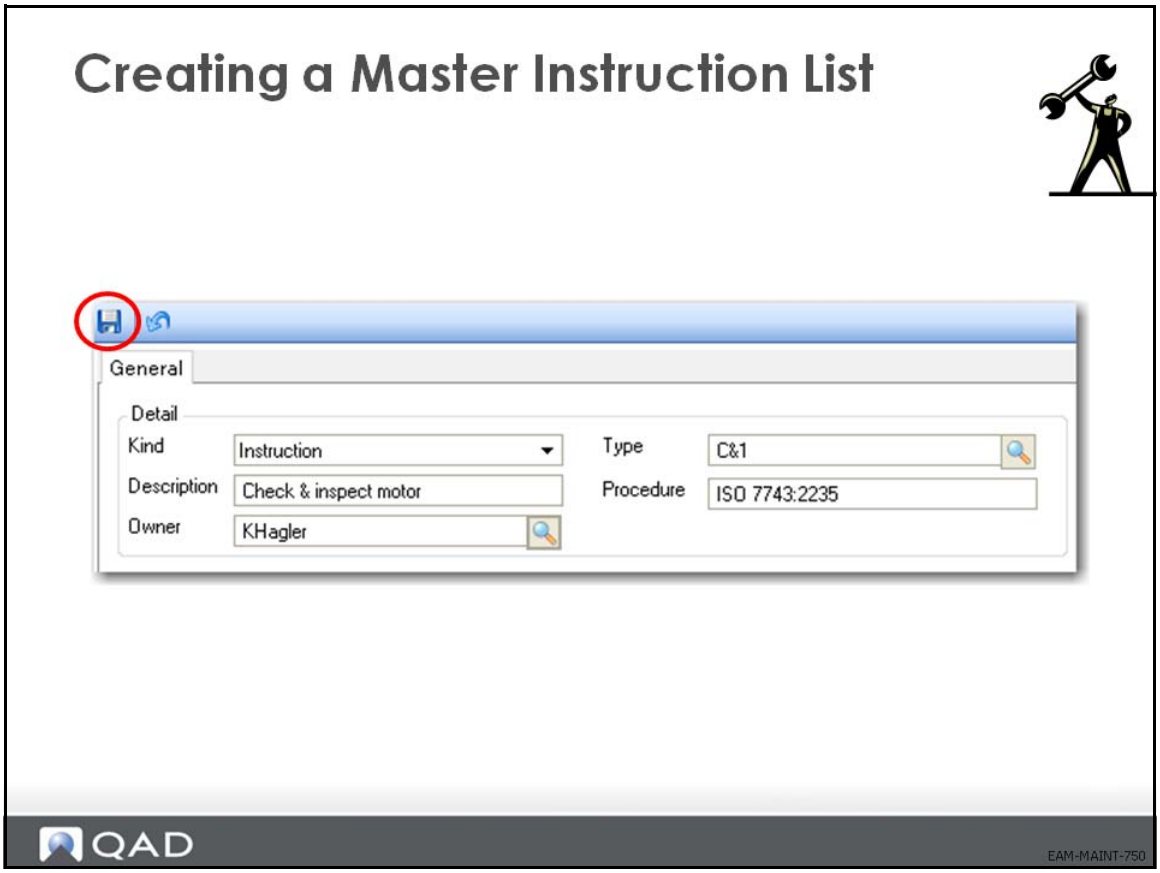


Appendix B: Creating a Master Instruction List



Navigate to Maintenance > PM / PdM > Master Lists > Instruction Lists

Creating a Master Instruction List 2



Indicate Kind = Instruction to locate it in the correct lookup when associating to PM templates (Instruction List v Safety Procedures)

Click the magnifying glass to open the Type lookup.

Select a Type from the list.

Briefly describe the purpose of these instructions under Description.

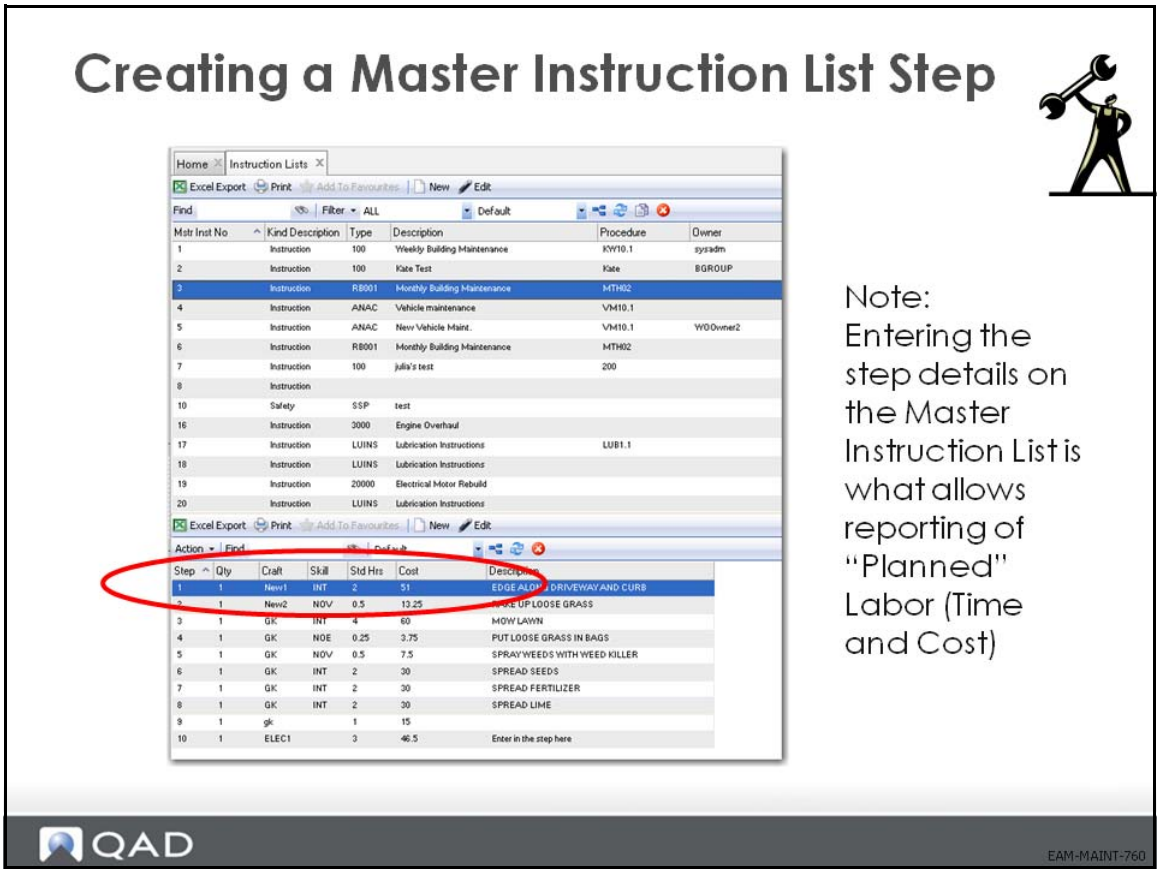
Cross-reference any official procedures such as ISO.

Select the Owner using the lookup.

Save the record.

Creating a Master Instruction List with a Kind of ‘Safety’ designates those instructions to print first when printing work order documents.

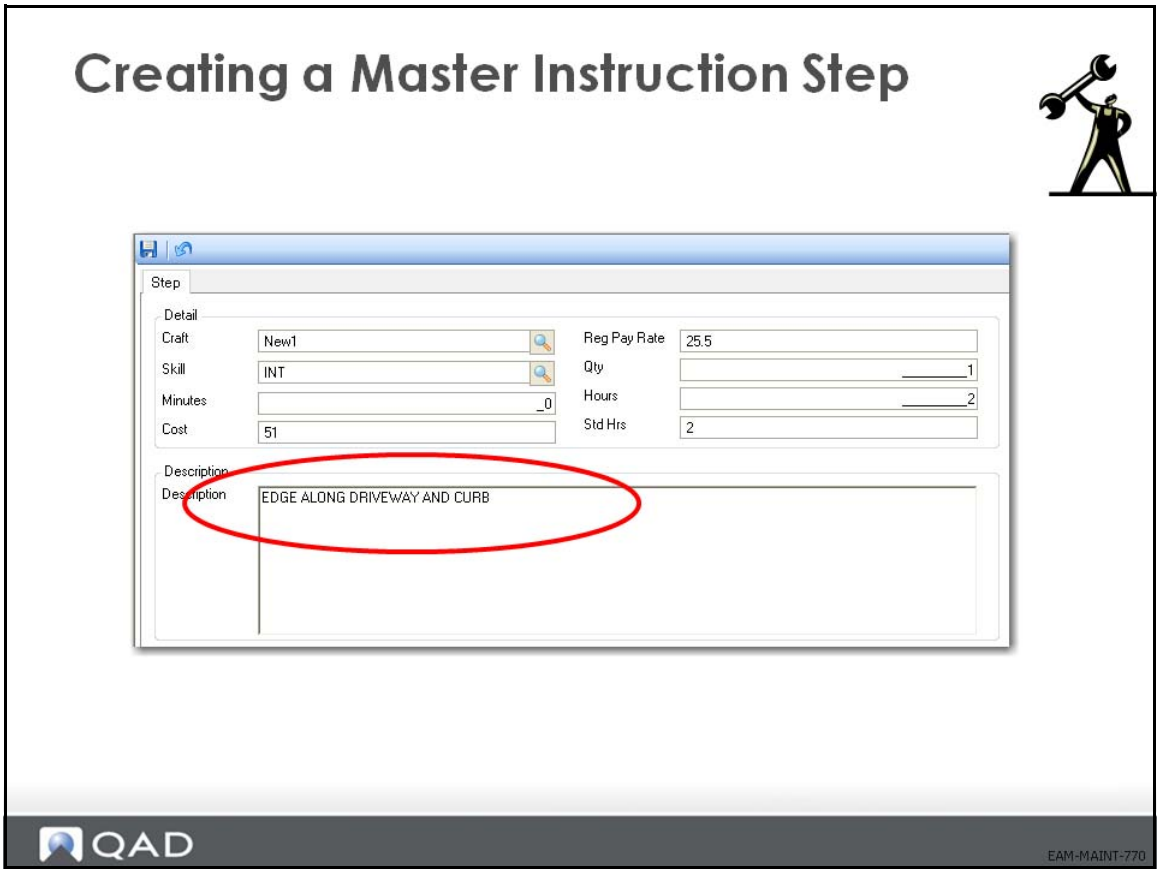
Creating a Master Instruction List 3



After creating the header information return to the Instruction Lists browse screen to begin adding step details.

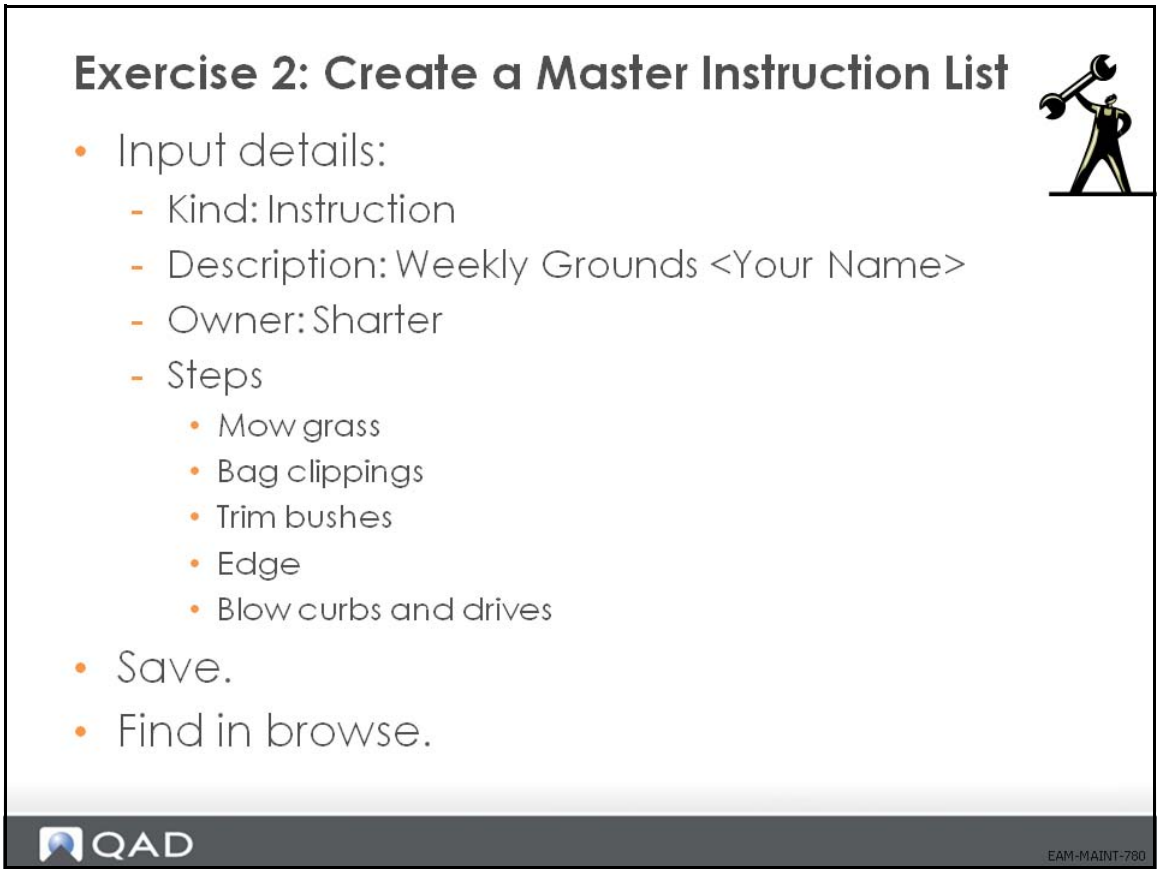
Click New or select new from the right-click menu options in the lower portion of the browse screen. The system assigns a step number to the new record – but use of the Move Up and Move Down actions in the lower browse allow for them to be reordered as needed.

Creating a Master Instruction List 4

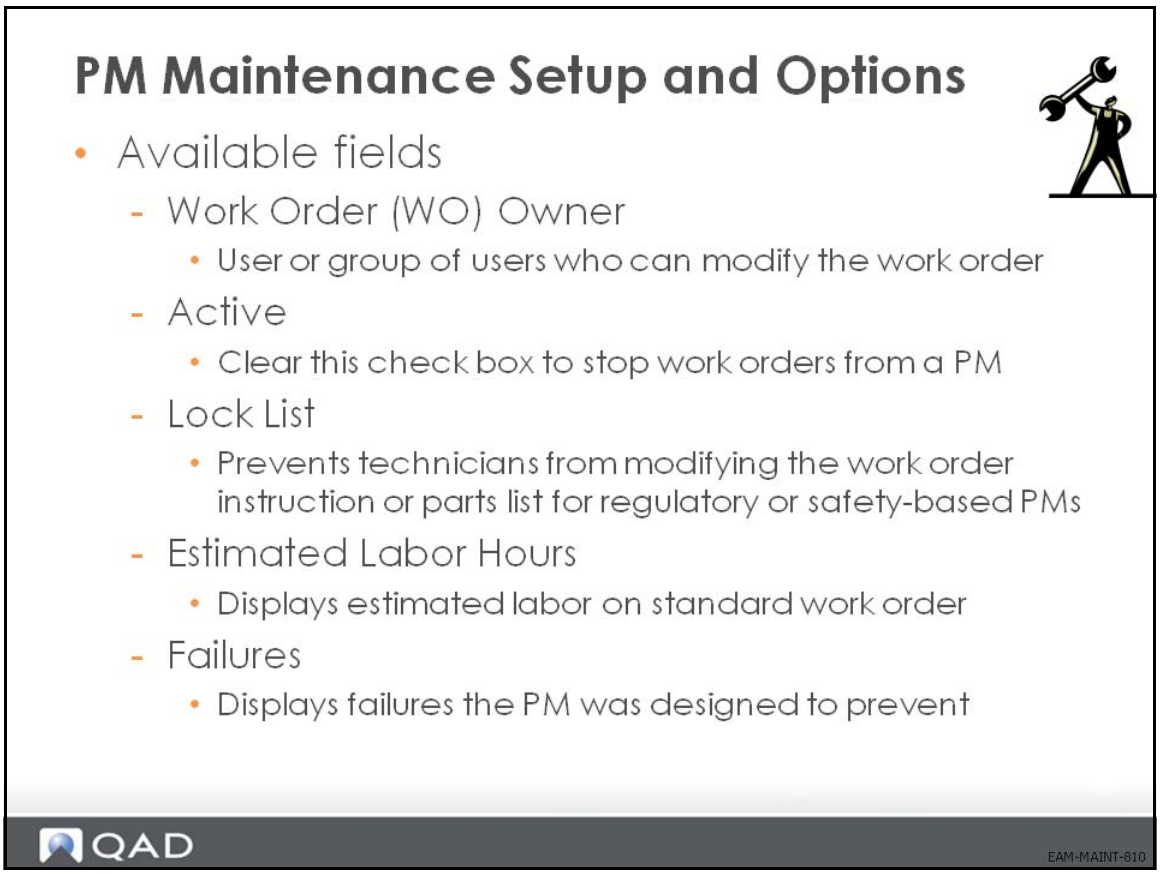


The step detail screen will open up to enter the detail information. Craft and Time (Hours and Minutes) are required in order to develop the estimated costs.

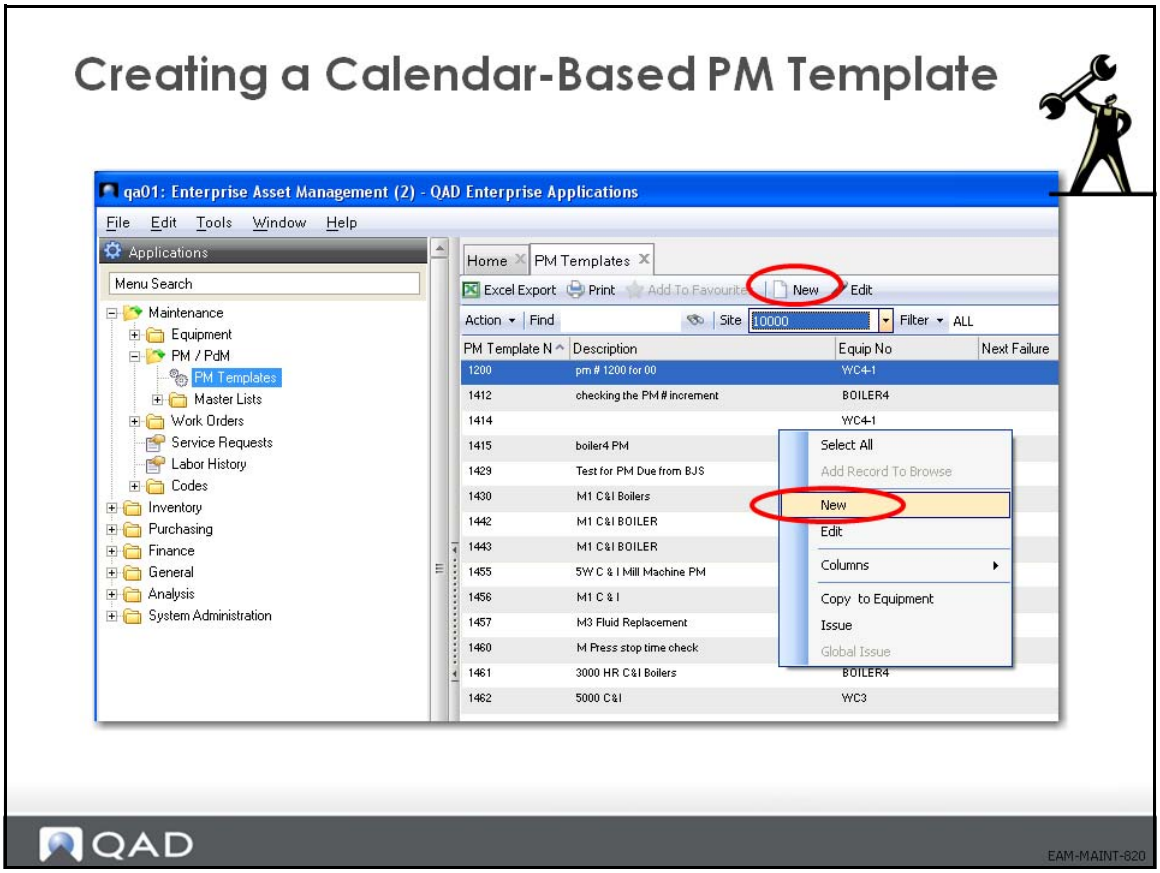
Exercise 2: Create a Master Instruction List



Appendix C: Create and Issue PMs

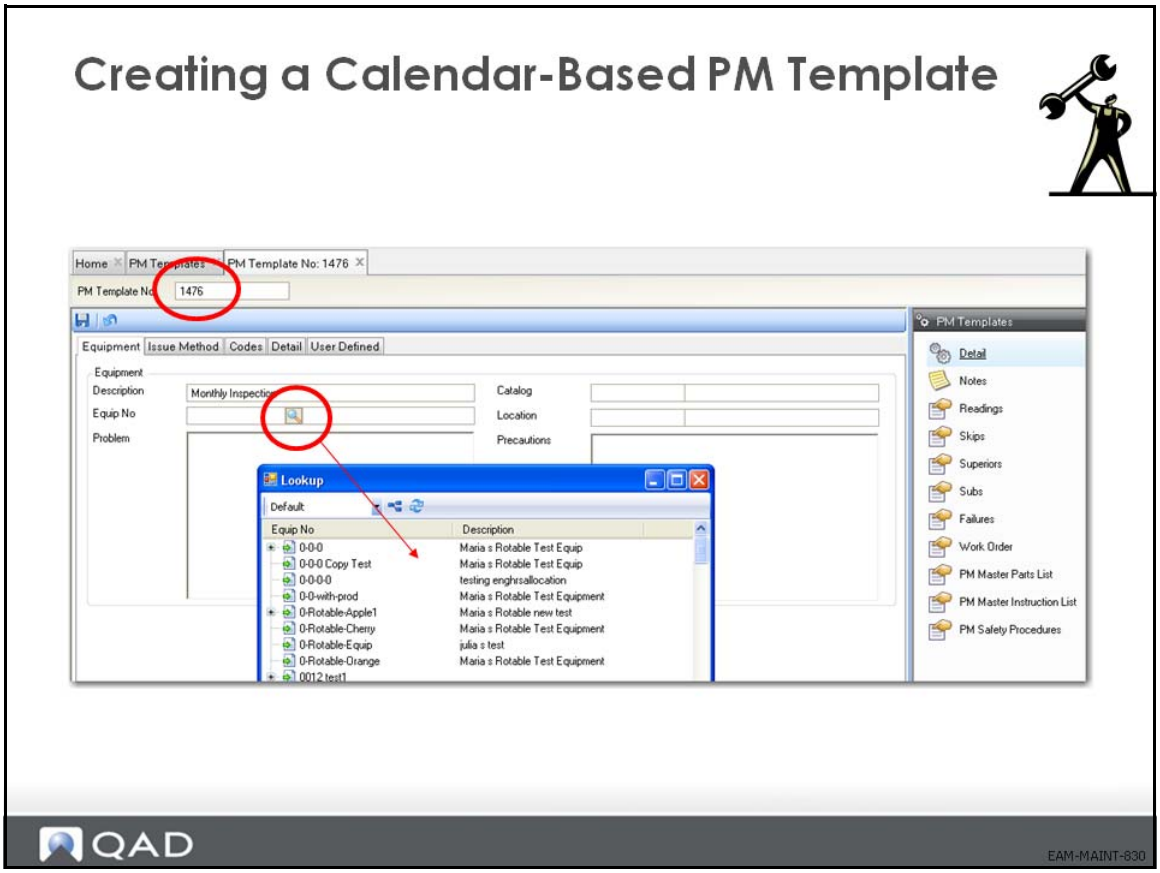


Create and Issue PMs 2



Navigate to Maintenance > PM / PdM > PM Templates

Create and Issue PMs 3

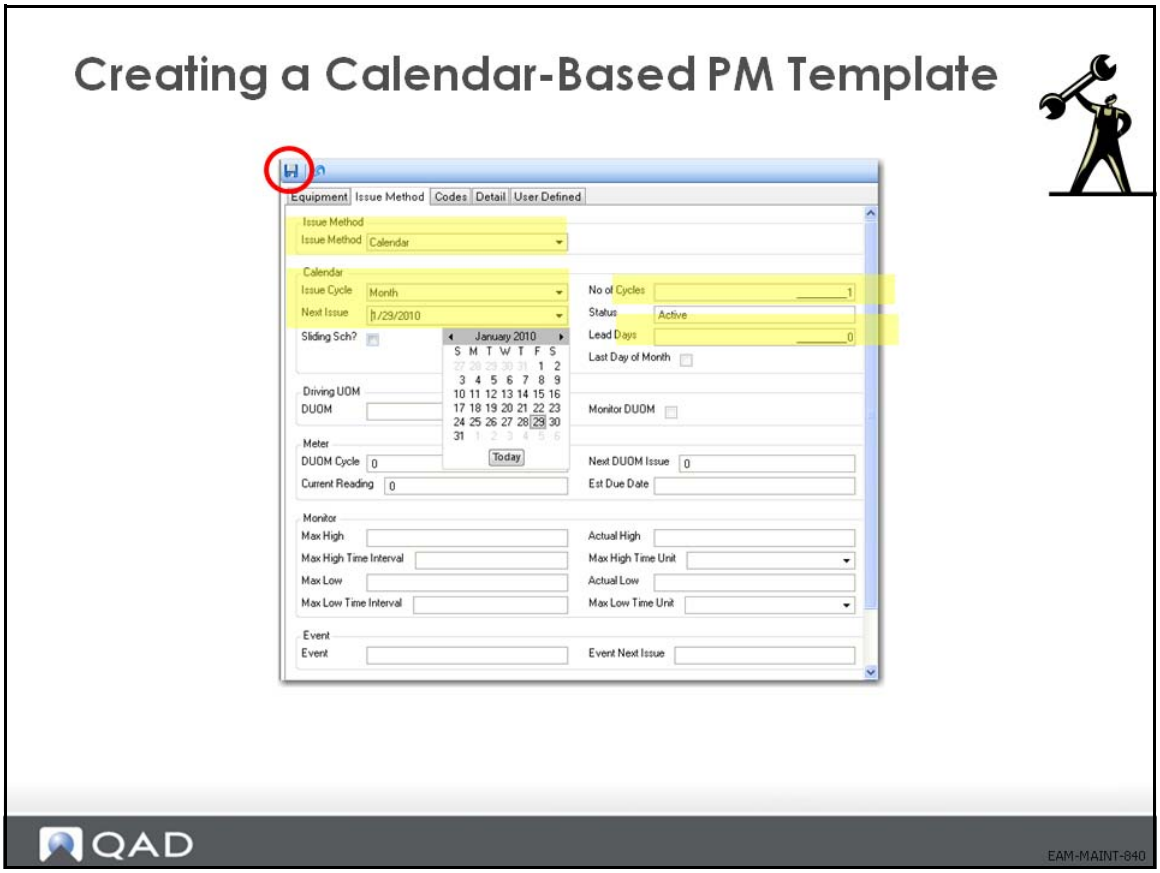


Calendar-based PM’s are the most simple PM’s and usually the least accurate.

System assigns PM Template #

Use the lookup to select equipment.

Create and Issue PMs 4



Select:

Calendar

Month

1 (#/cycles)

Next issue date

5 (# lead days)

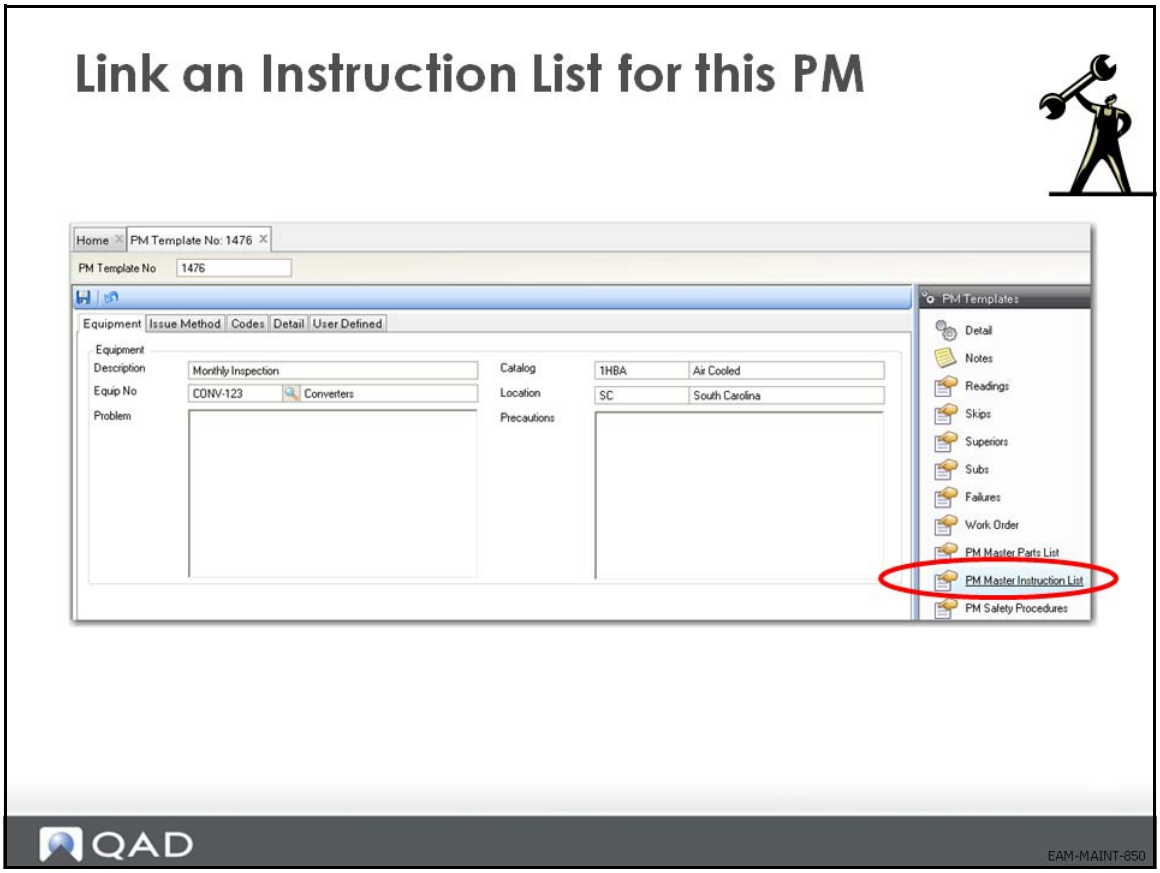
Enter any other relevant information and Save.

When creating other frequencies, use the following as a guide for conversions:

Issue cycle = Month and No of Cycles = 3 defines a quarterly frequency.

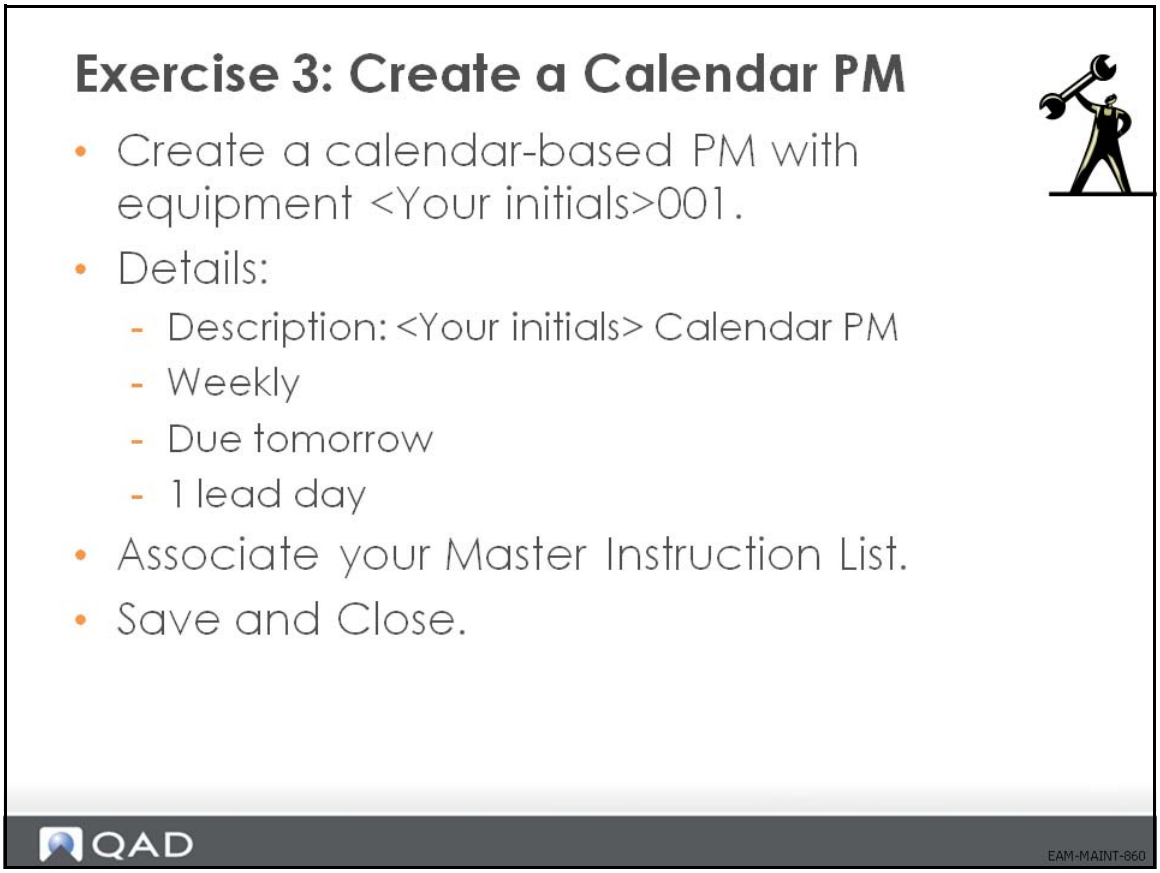
Some companies will do monthly as 28 days or 4 weeks in order to have PMs come due on the same day of the week each time it is due.

Create and Issue PMs 5

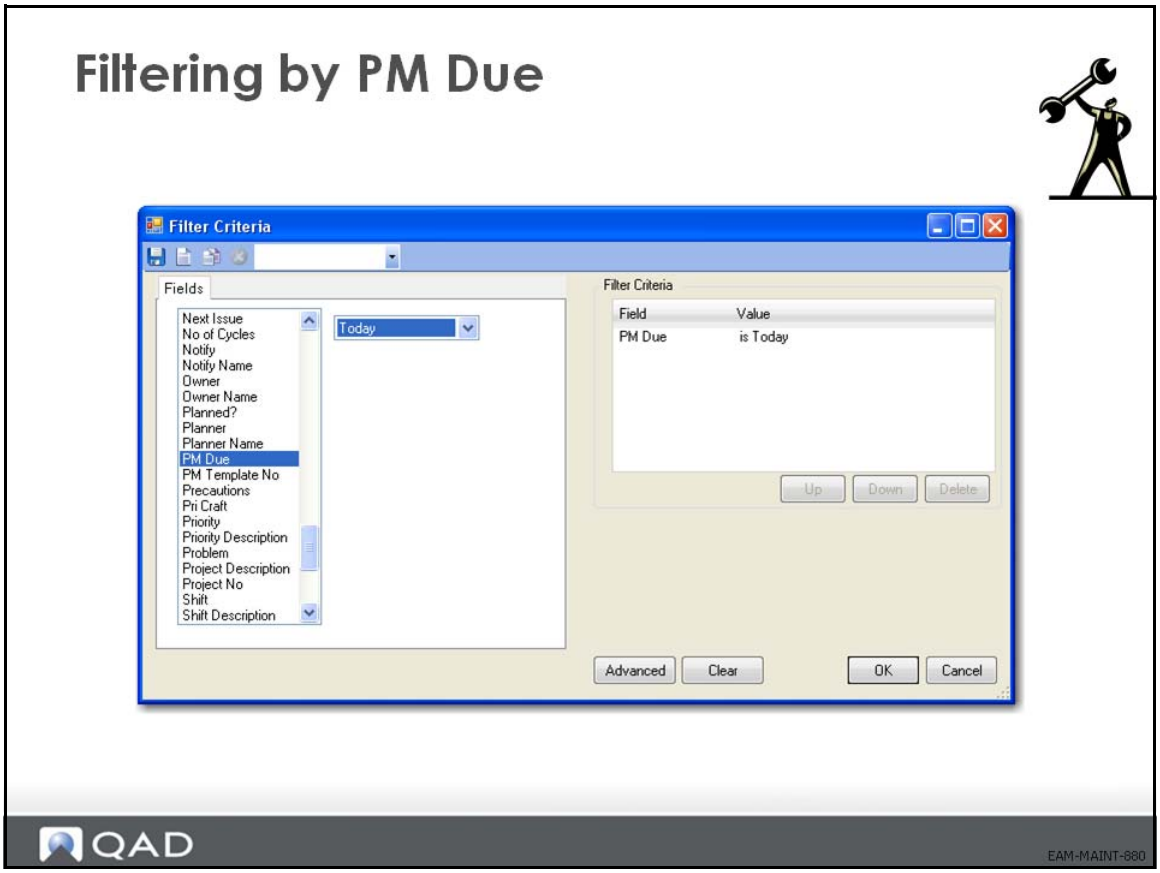


People who access this work order use the instructions and any safety or other included notes to perform the work order.

Exercise 3: Create a Calendar PM

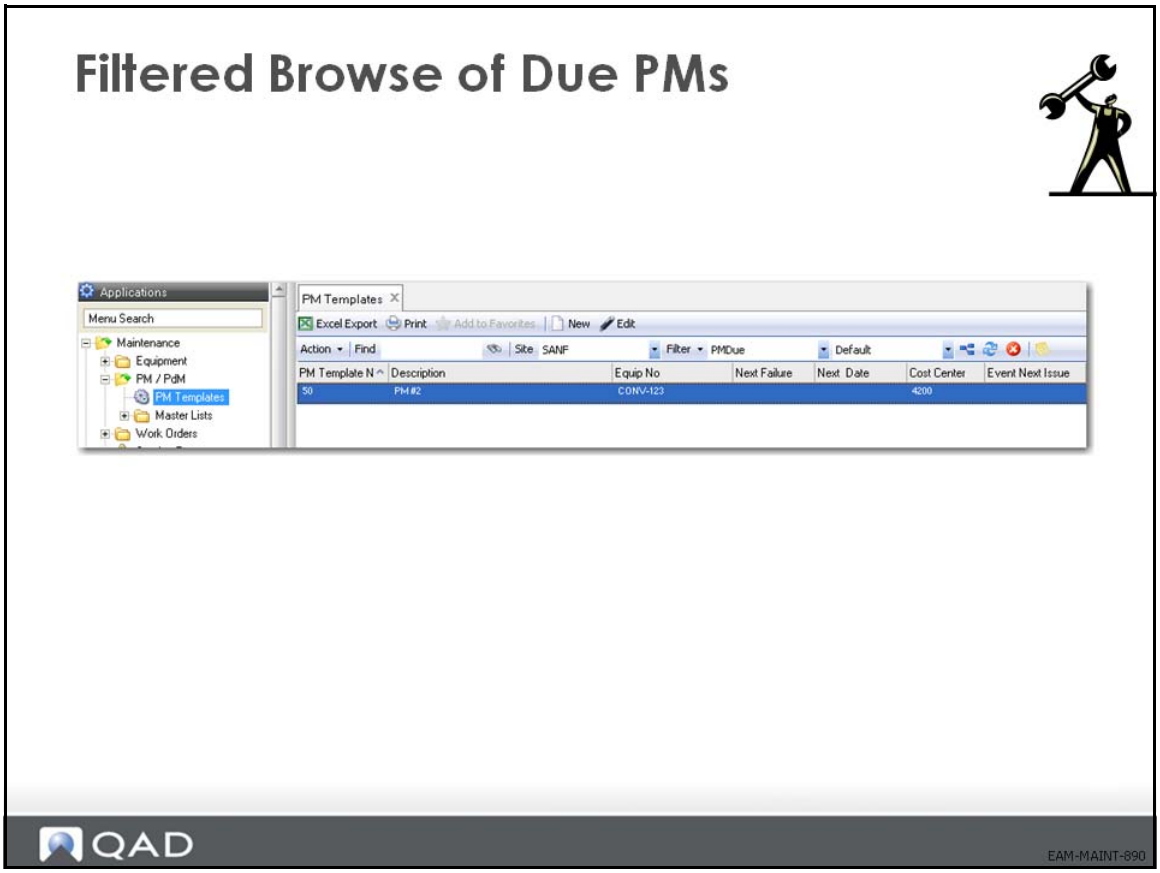


Filtering by PM Due

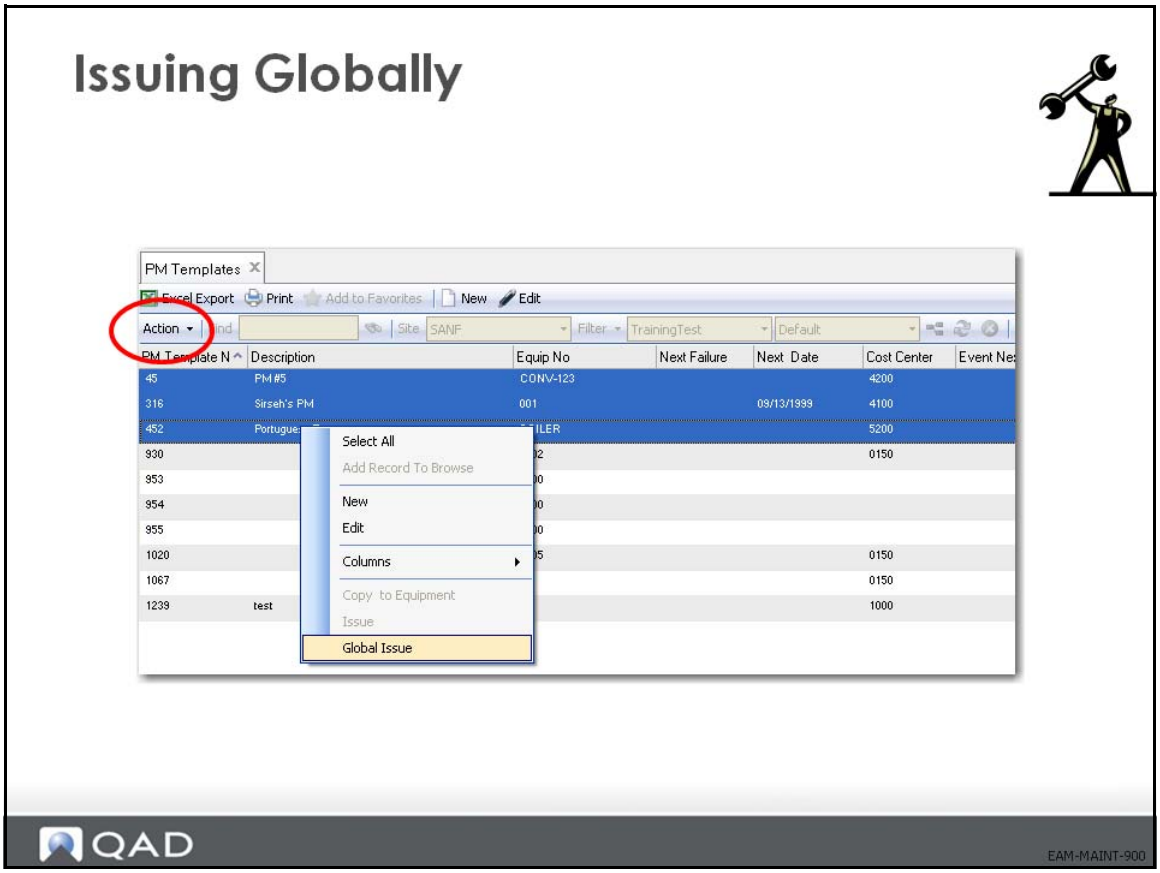


Usually performed by Planner or Maintenance Supervisor.

Filtered Browse of Due PMs



Issuing Globally



Select multiple PM Templates to issue.

Select Global Issue from the Action or right-click menu.

Issuing Globally 2

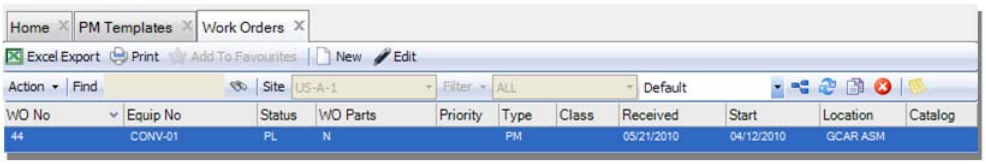


New PM Work Orders

New PM Work Orders



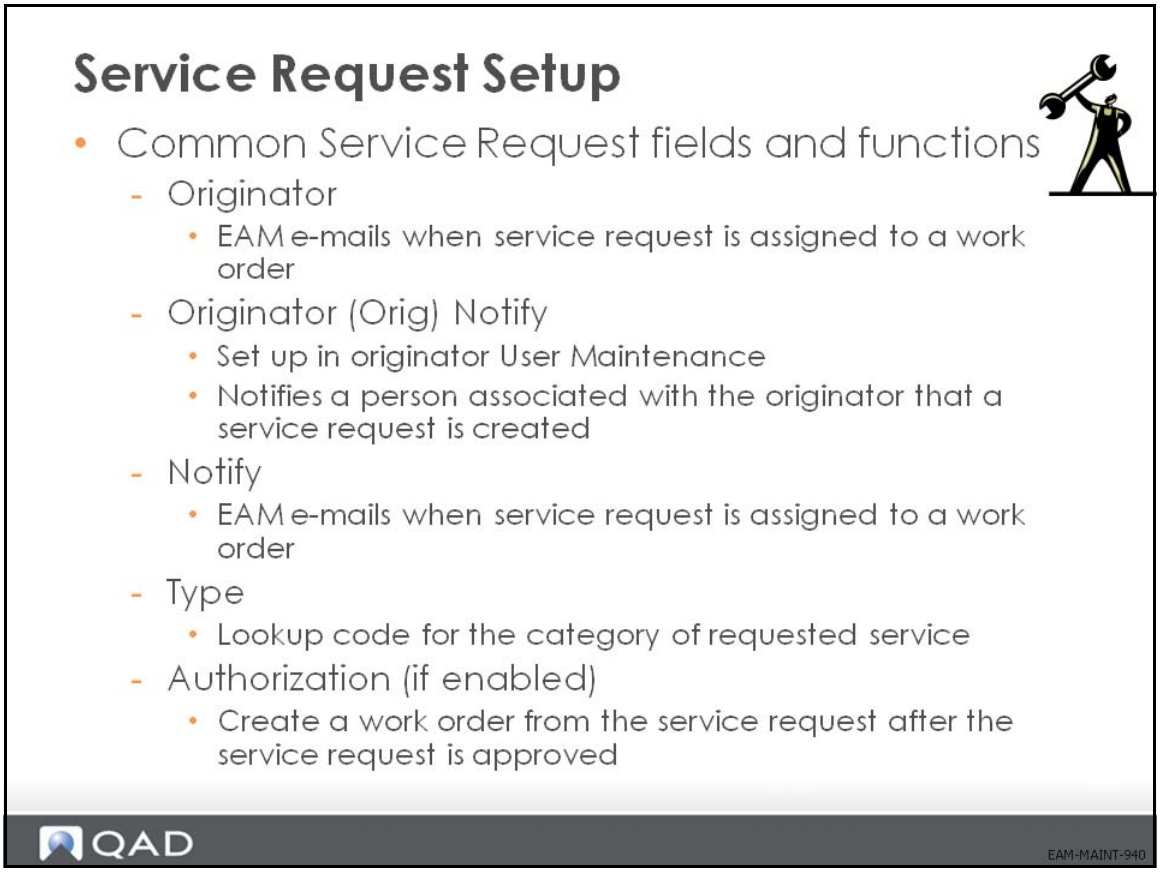
- After processing the Issue Action, the work order browse will open with only the new PM work orders in view
- Remember!!!
  - Best Practice PM to CM Ratio is 80:20
- Note: PM Work Order is linked to the PM Template # for analysis



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Appendix D: Create Service Request



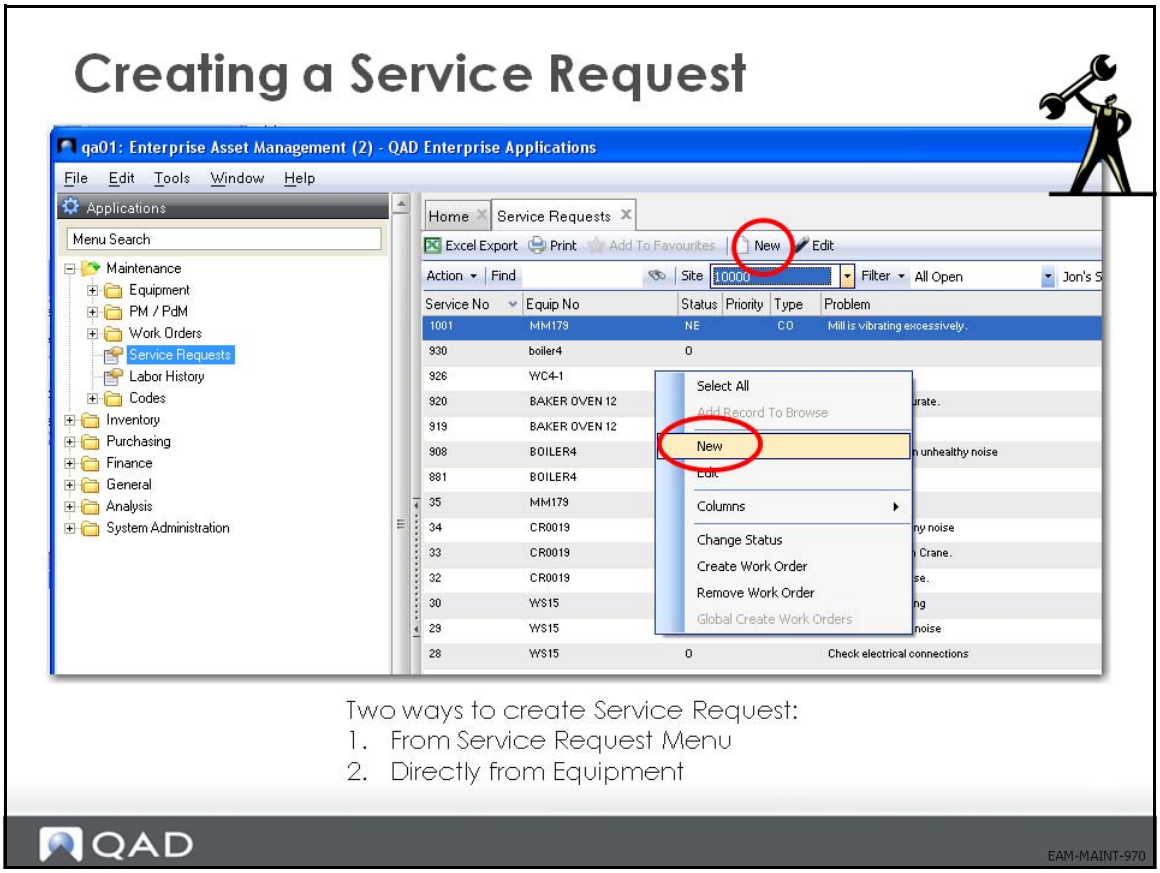
Use service requests to report a problem with a piece of equipment that may not need a work order immediately. For instance, an operator on the production floor reports that equipment appears to be leaking oil. An office staff member reports a burned-out light bulb.

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

Service Request Sample

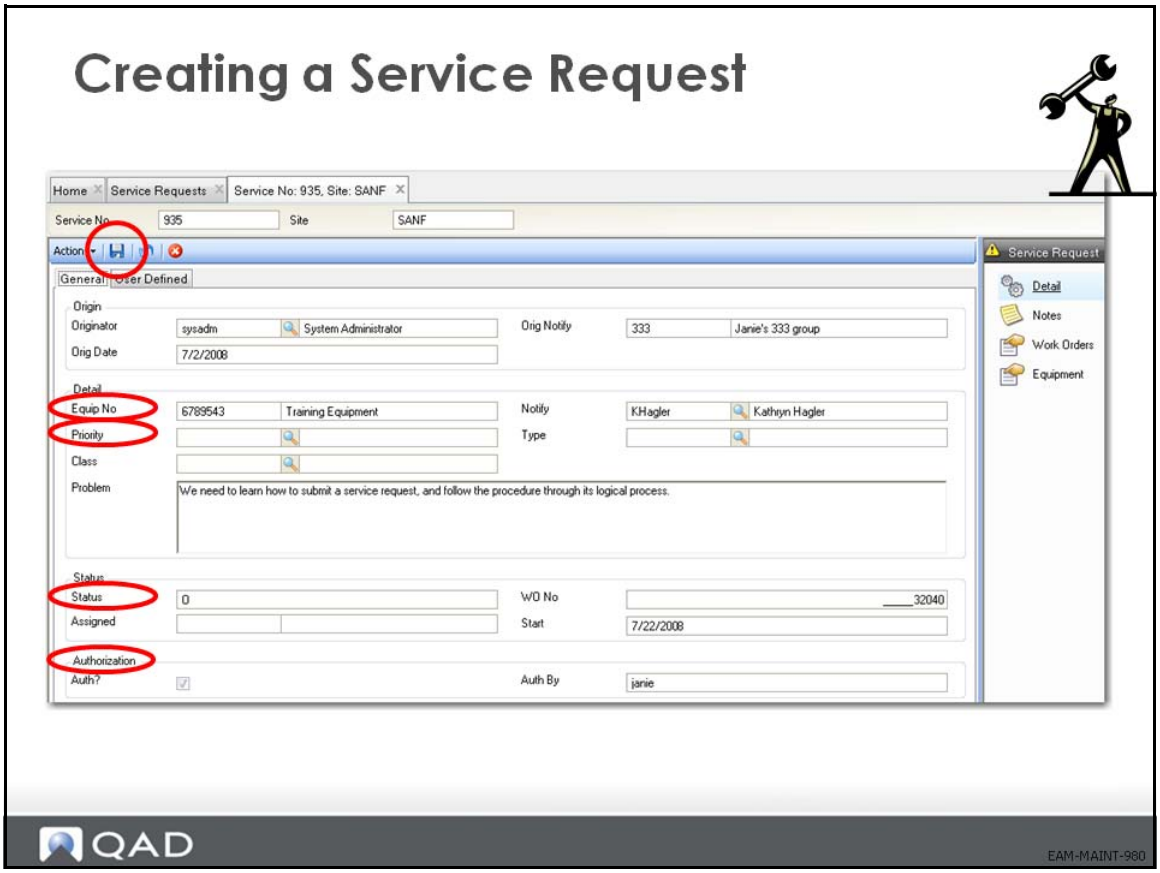


Creating a Service Request

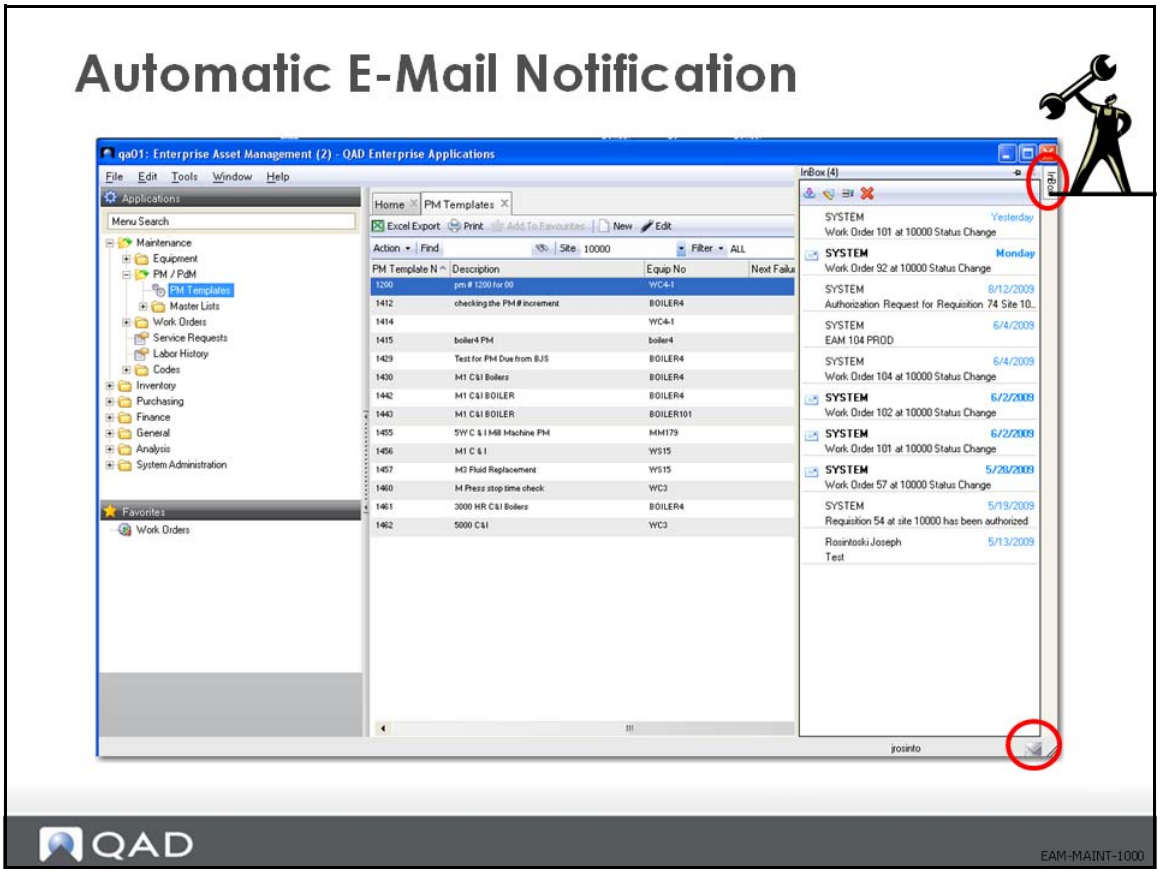


Click New via button or right-click menu.

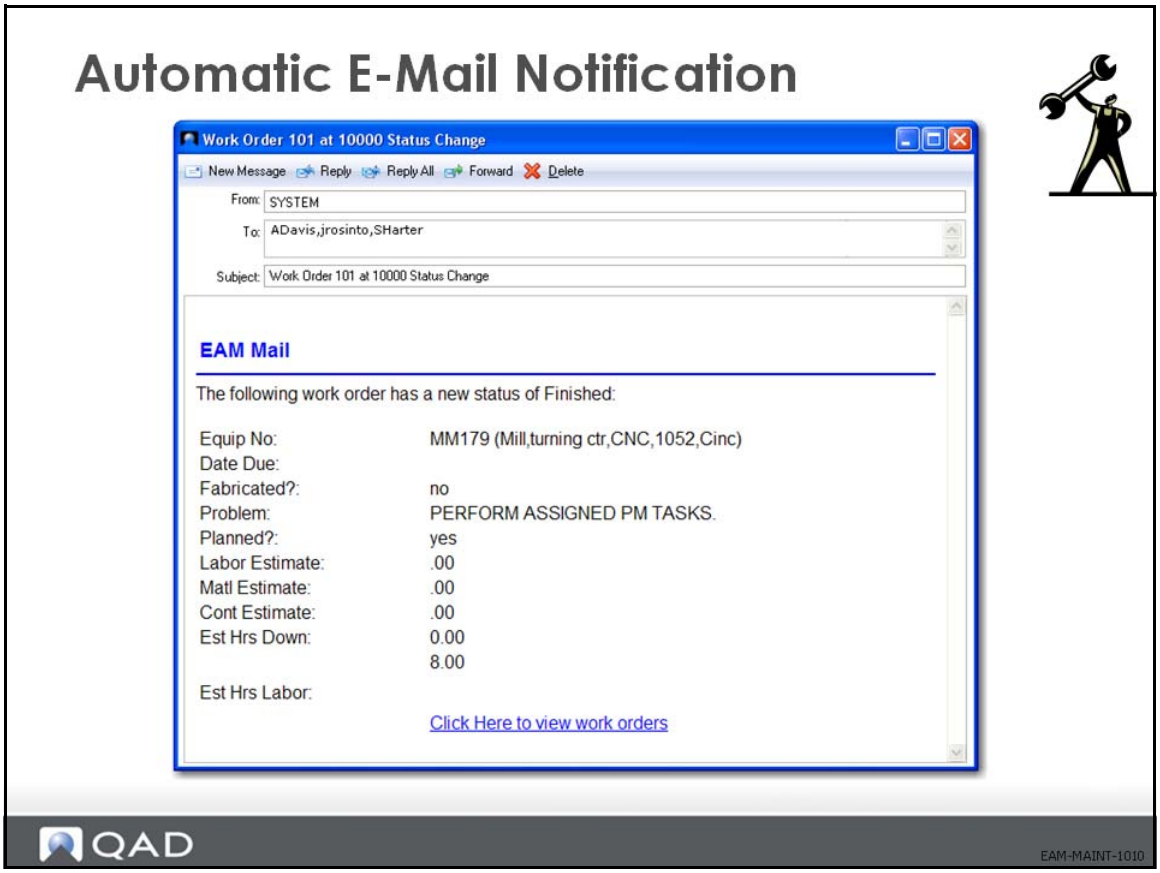
Creating a Service Request 2



Automatic E-Mail Notification



Automatic E-Mail Notification



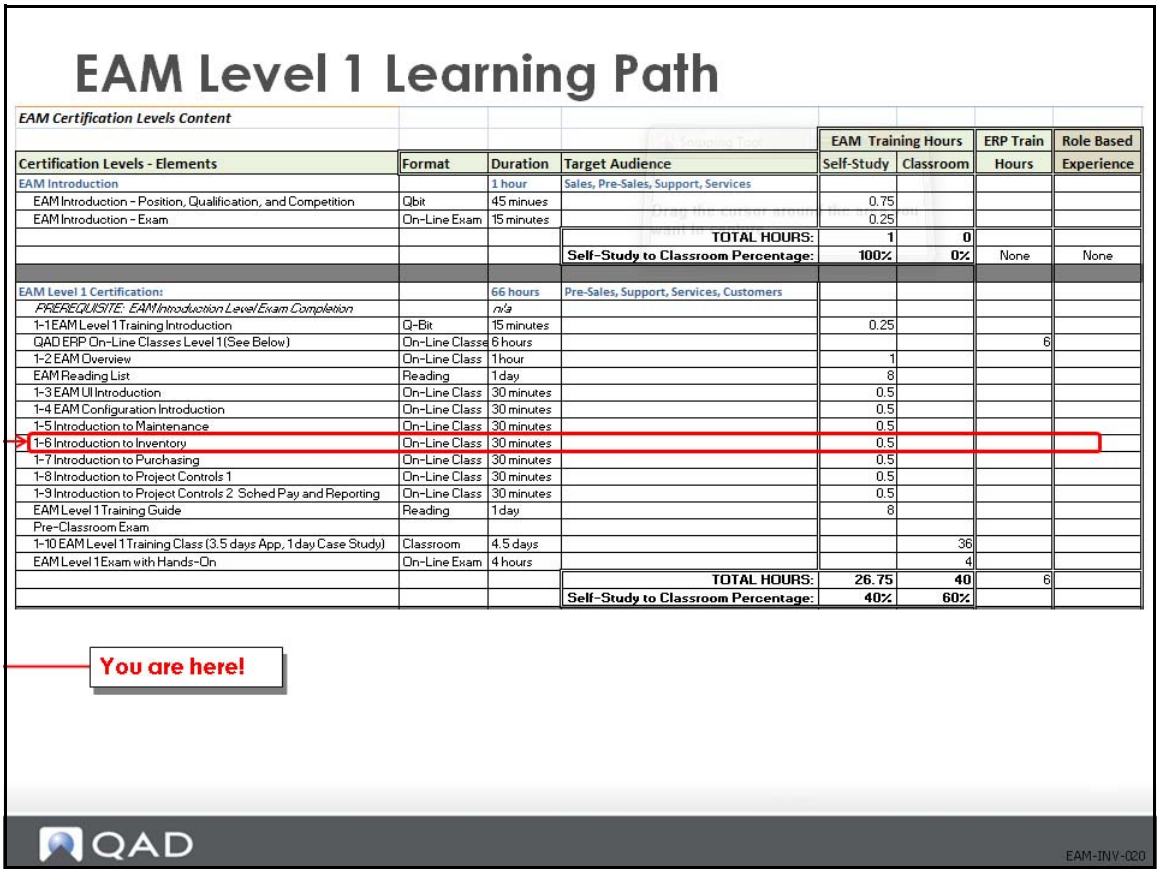
Chapter 6

Introduction to EAM Inventory

EAM Inventory Intro



EAM Level 1 Learning Path



EAM Level 1 Learning Path

EAM Certification Levels Content

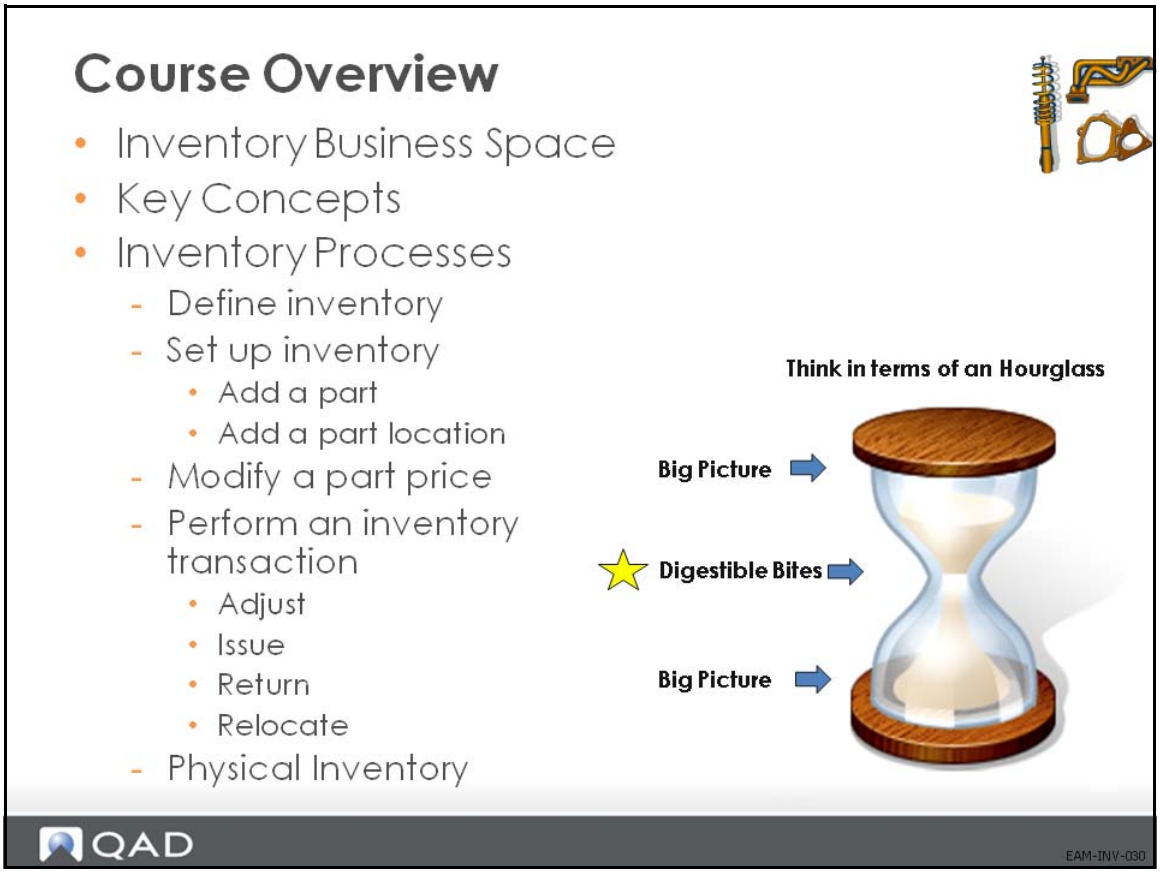
Certification Levels - Elements	Format	Duration	Target Audience	EAM Training Hours Self-Study	EAM Training Hours Classroom	ERP Train Hours	Role Based Experience
EAM Introduction		1 hour	Sales, Pre-Sales, Support, Services				
EAM Introduction – Position, Qualification, and Competition	Qbit	45 minues		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 Classe	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%		

You are here!

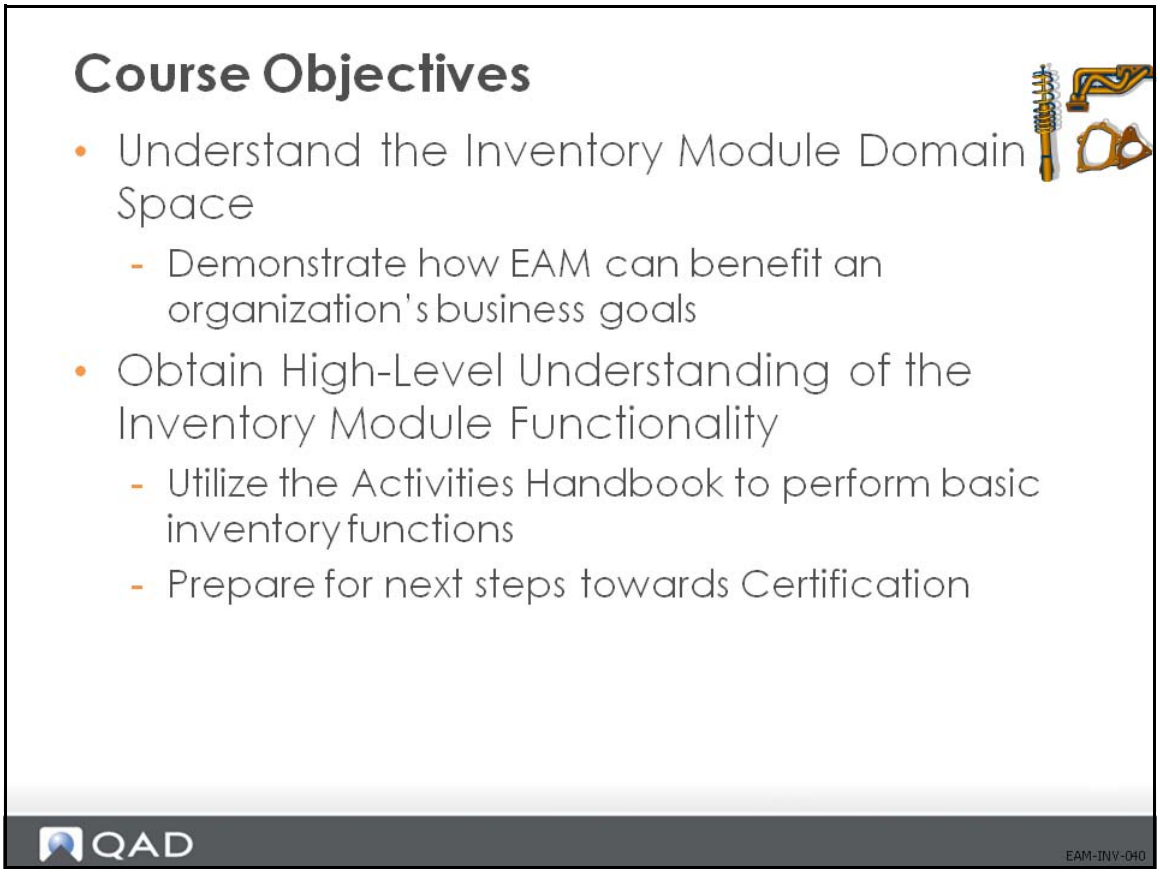
QAD

EAM-INV-020

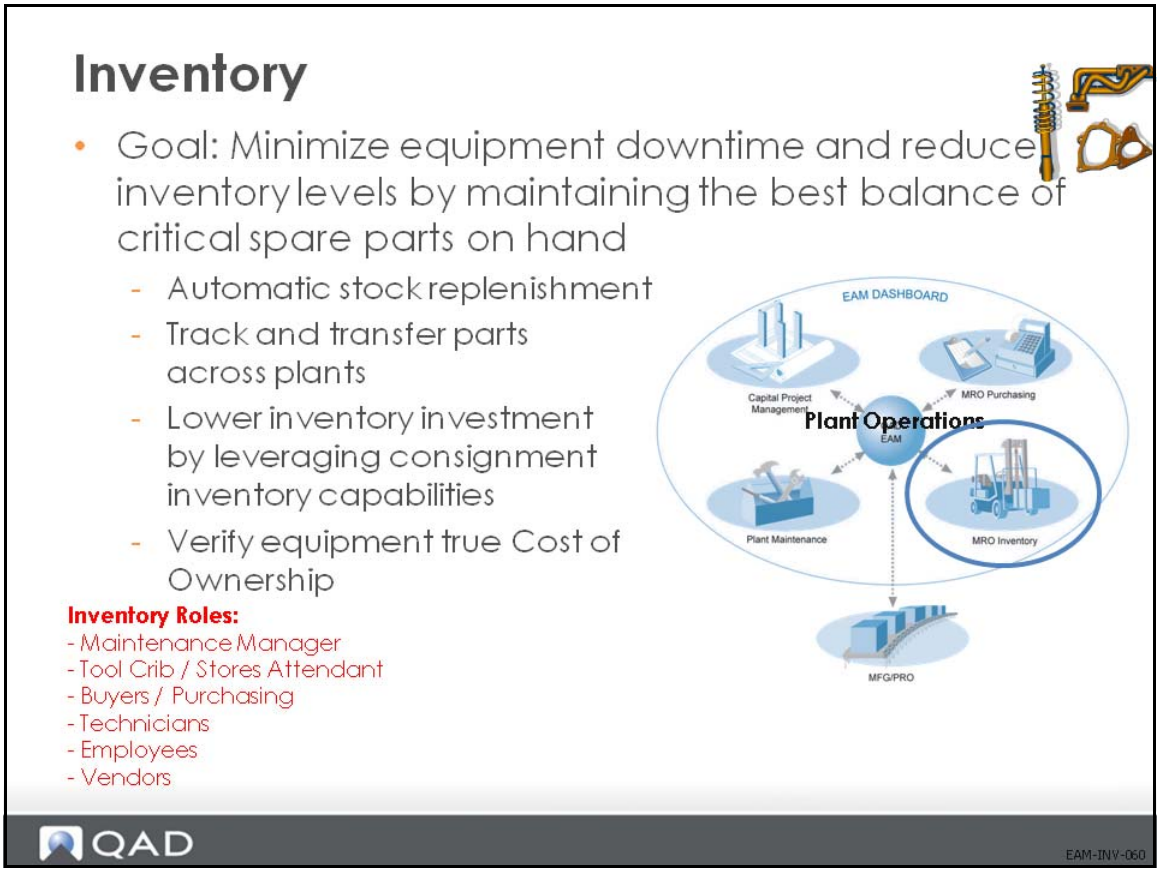
Course Overview



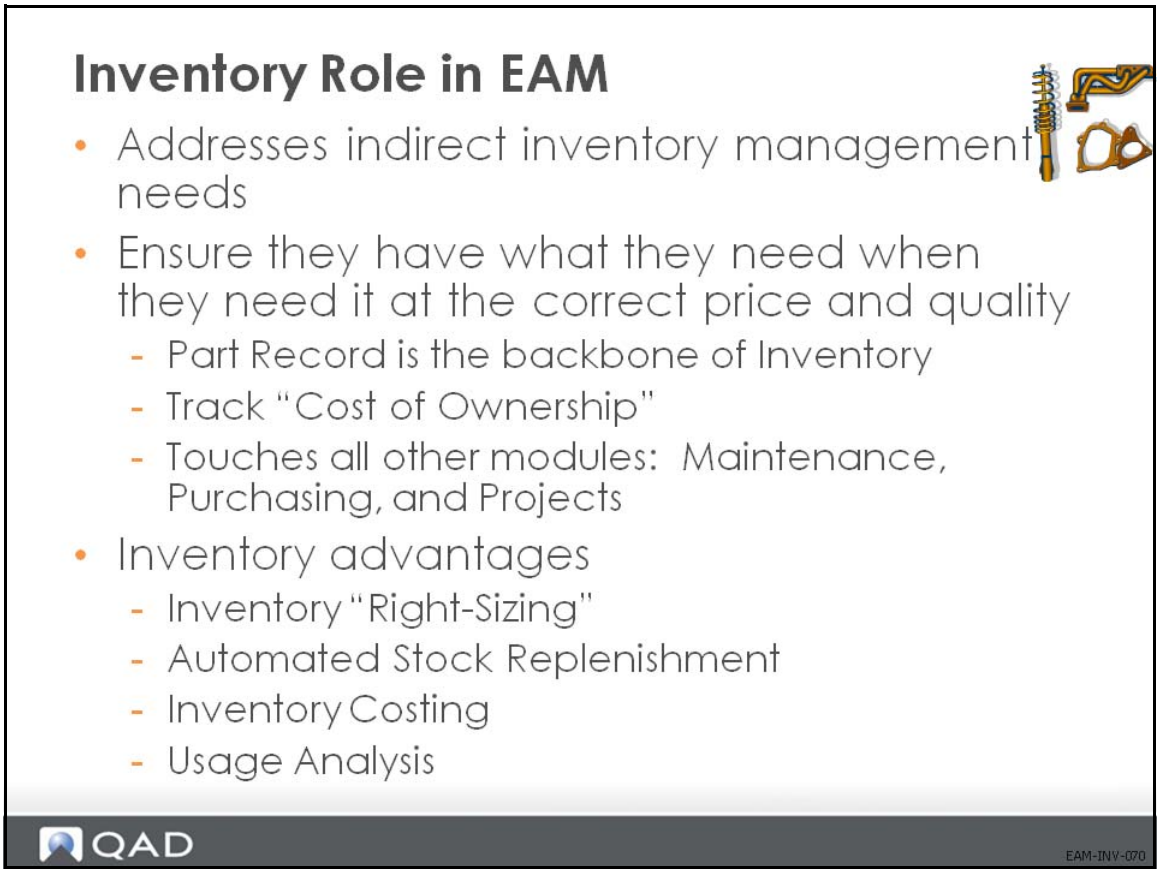
Course Objectives



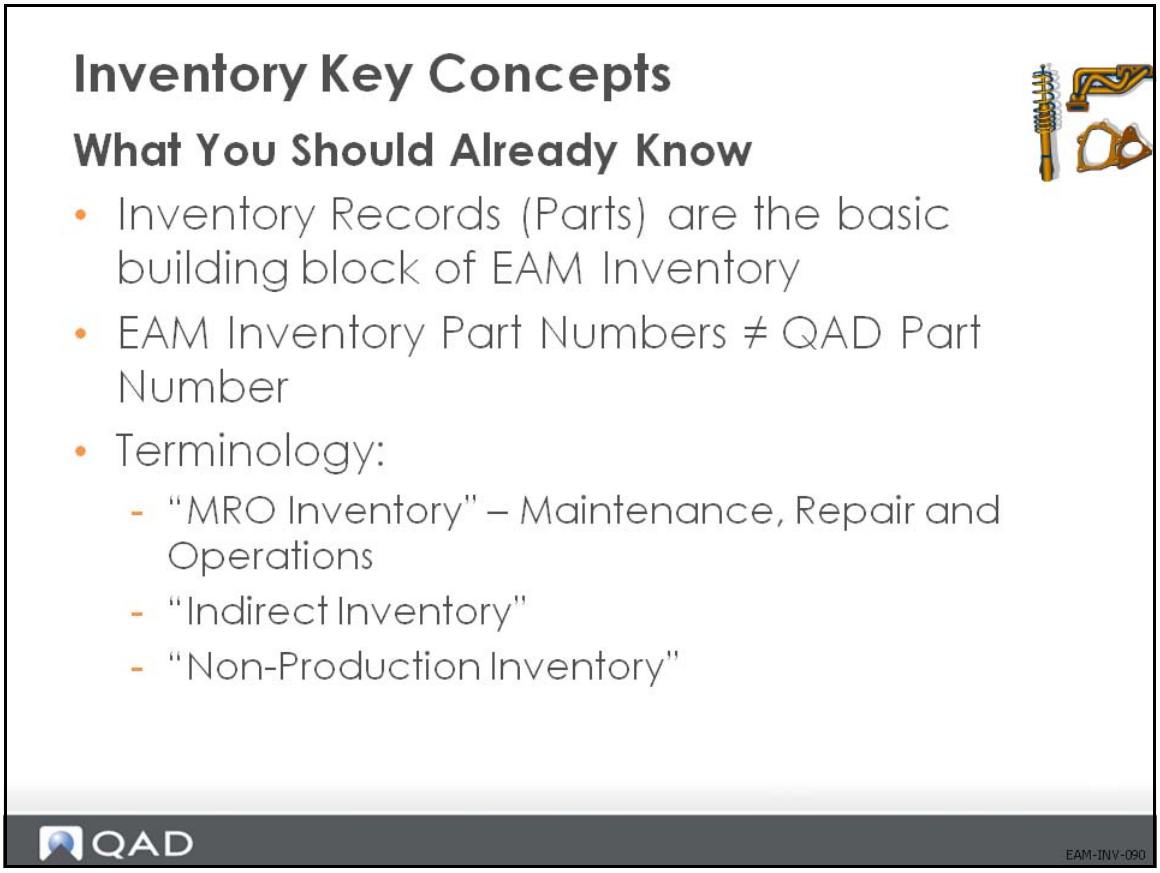
Inventory Business Space



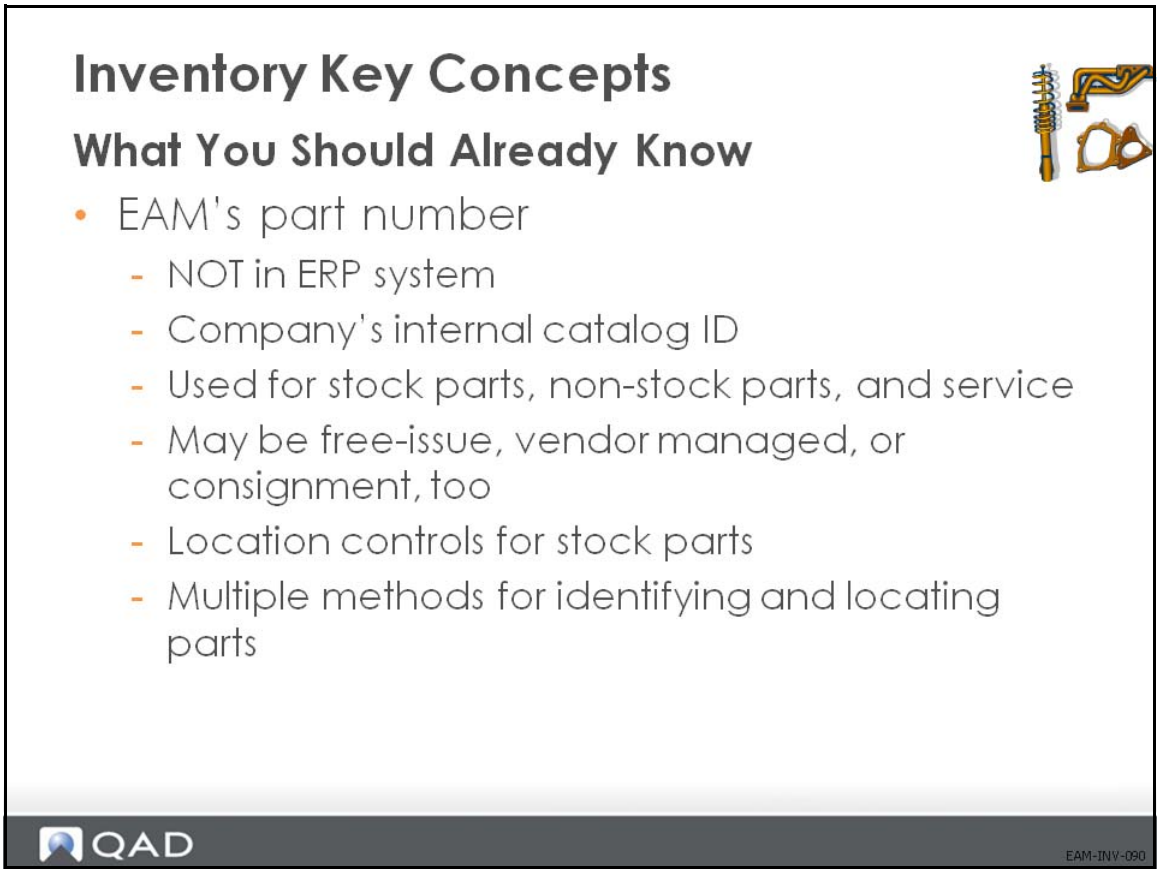
Inventory Role in EAM



Inventory Key Concepts



Inventory Key Concepts 2



Inventory Key Concepts 3



Inventory Key Concepts 4



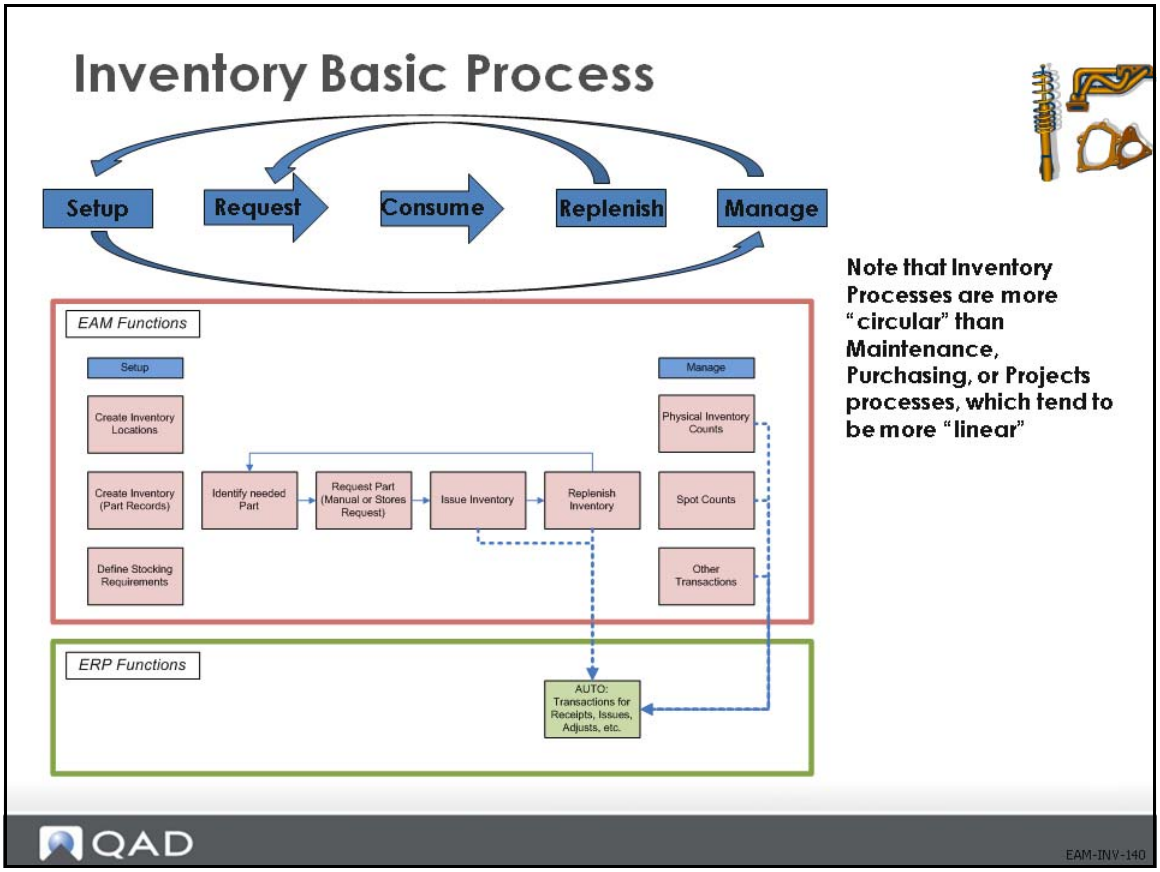
Inventory Best Practices Goals



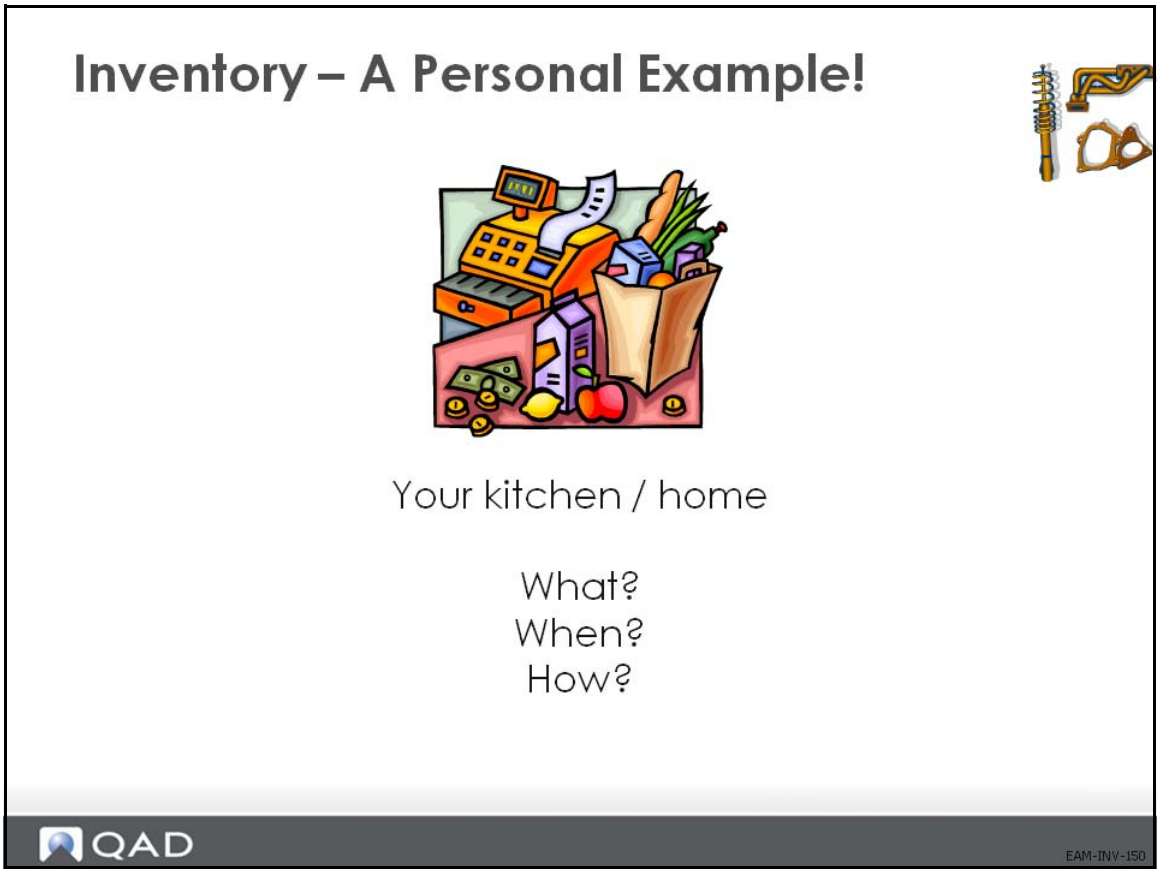
Inventory Best Practices Goals 2



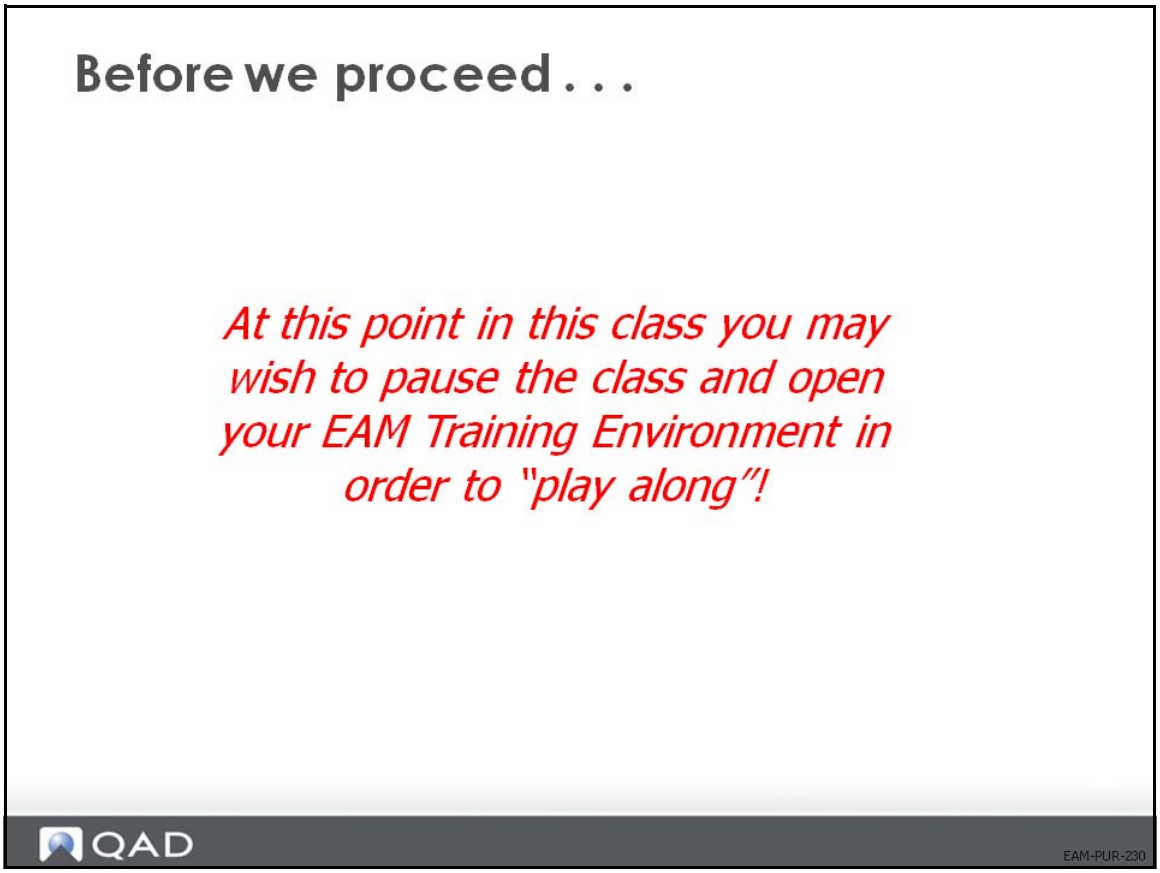
Inventory Basic Process



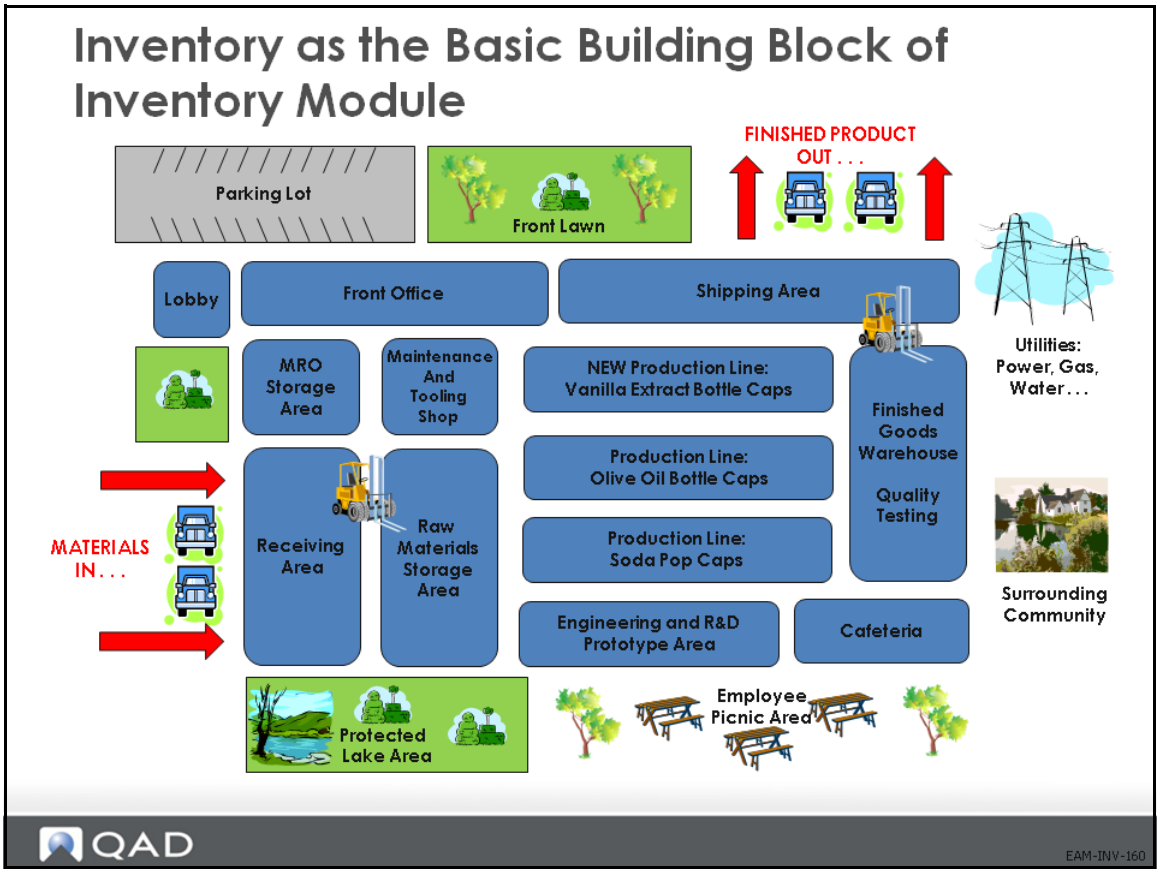
Inventory: A Personal Example



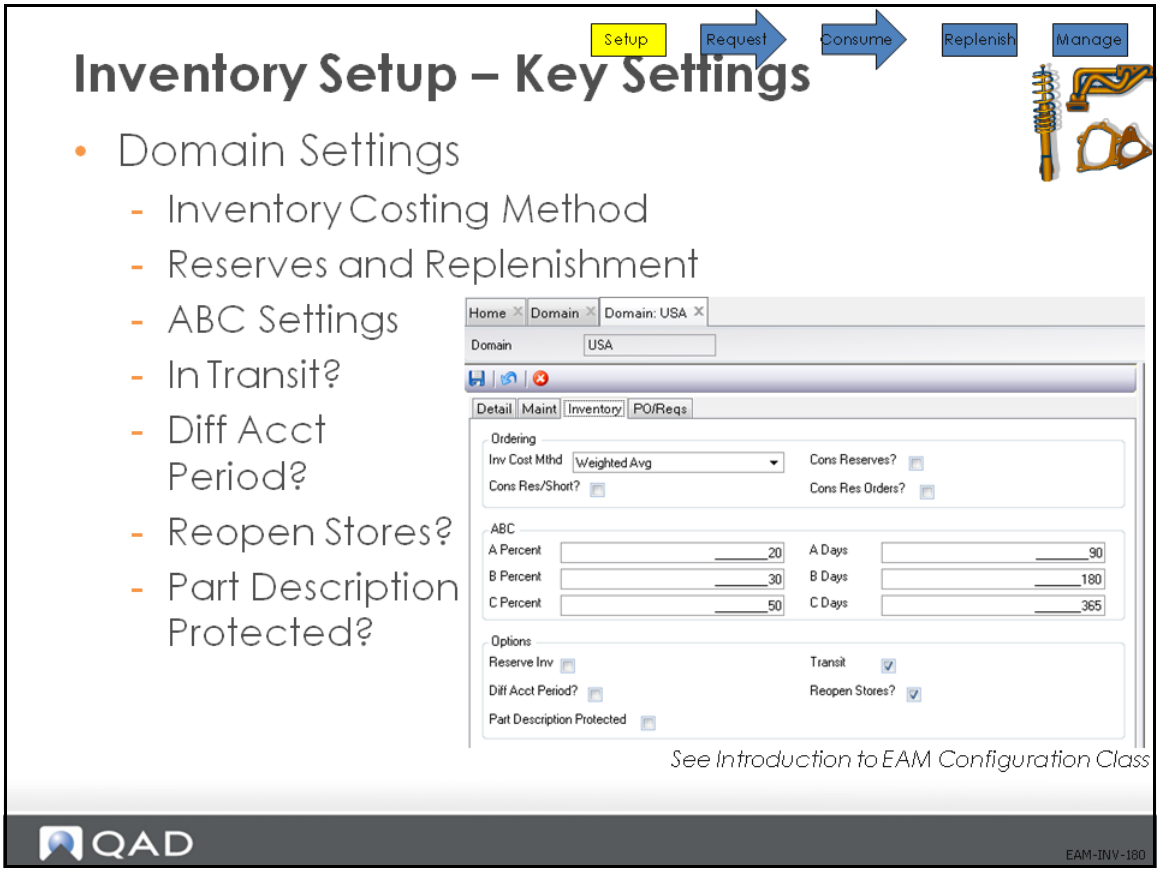
Training Environment



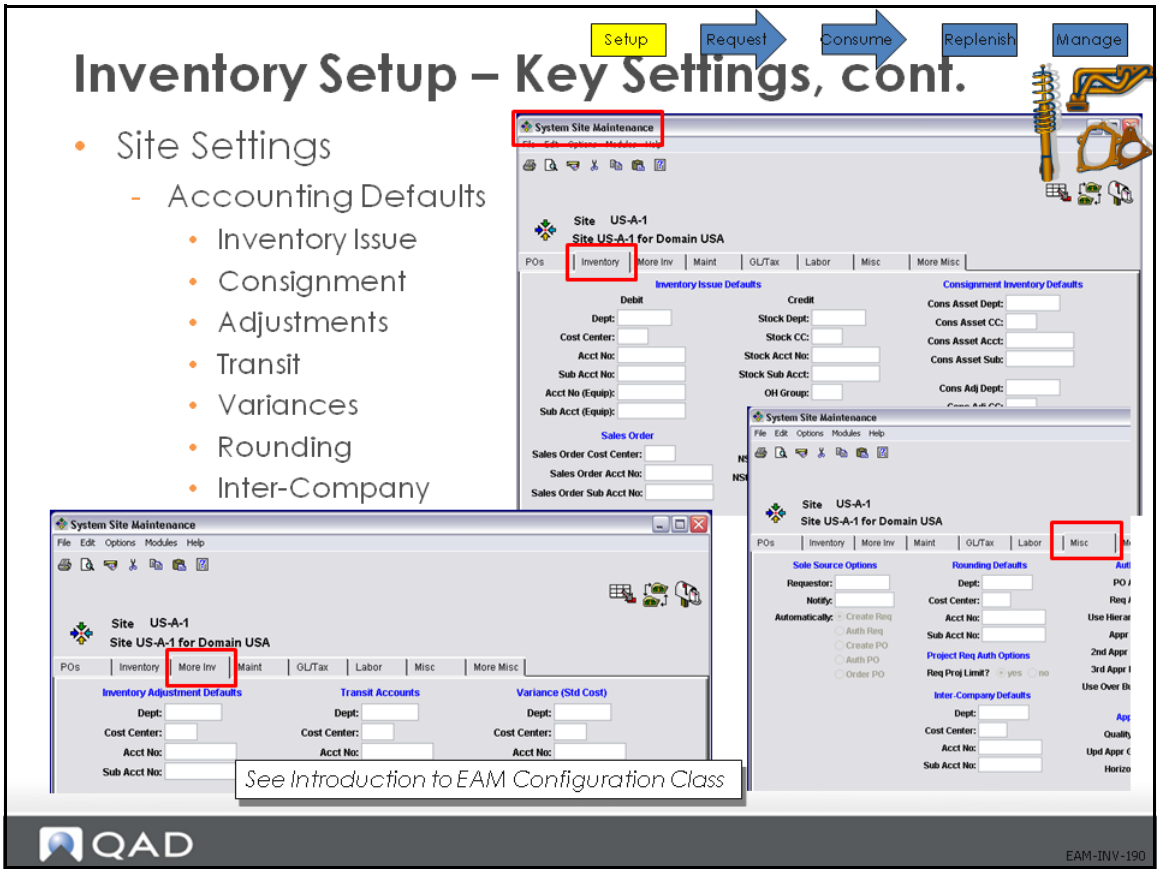
Inventory: Basic Building Block



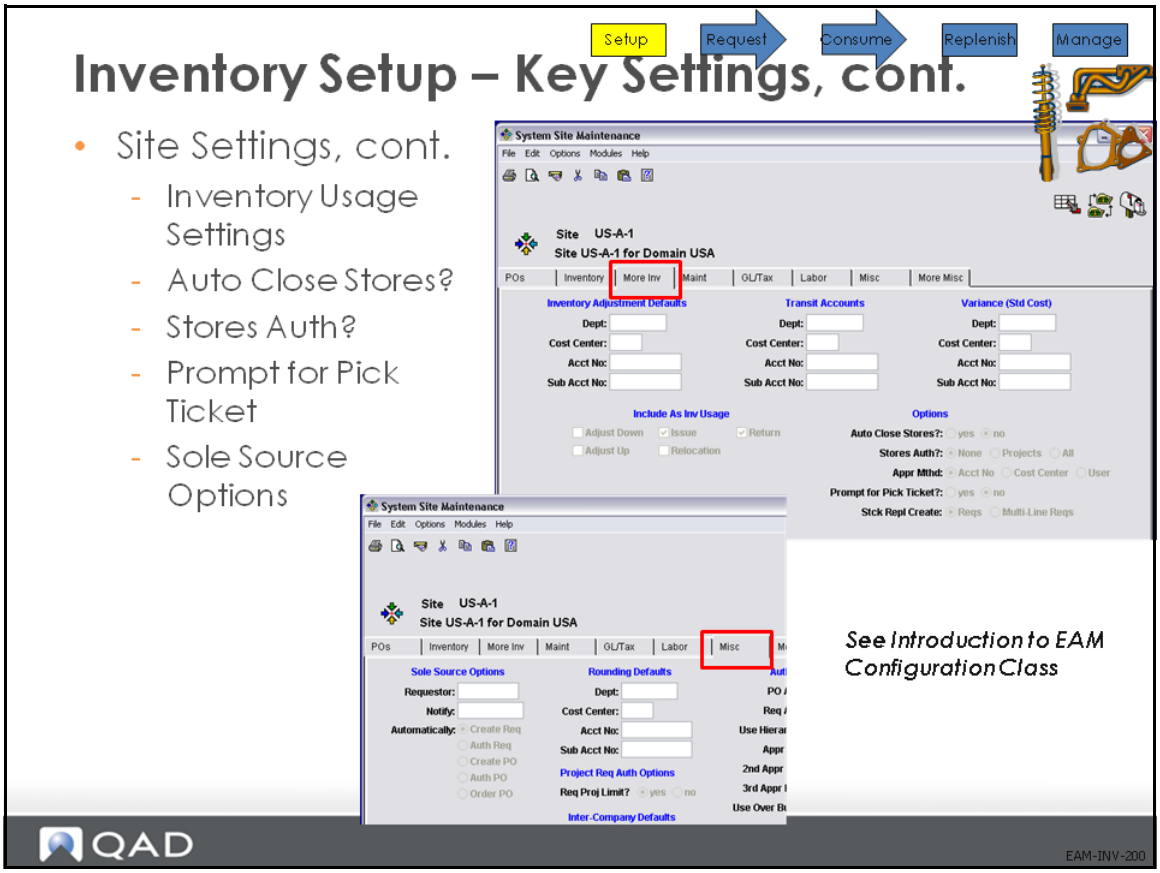
Inventory Setup



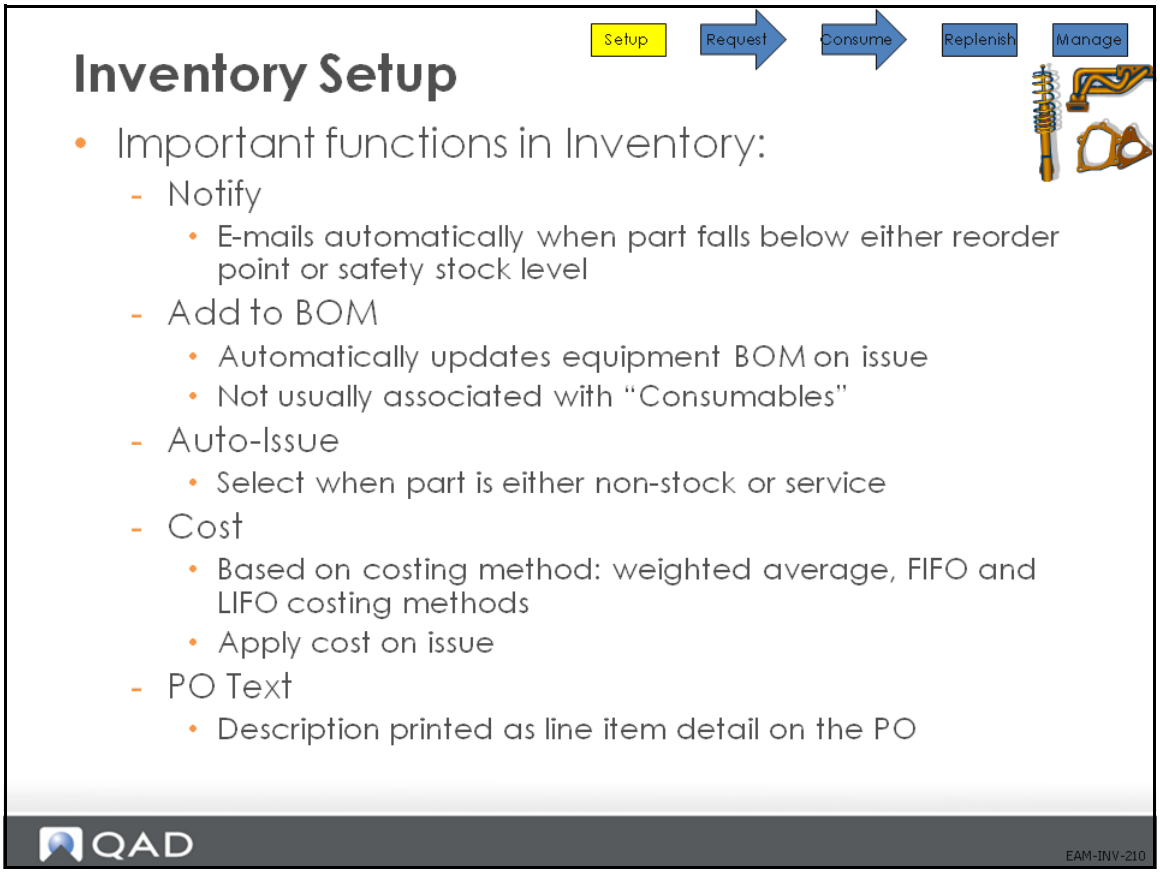
Inventory Setup: Key Settings



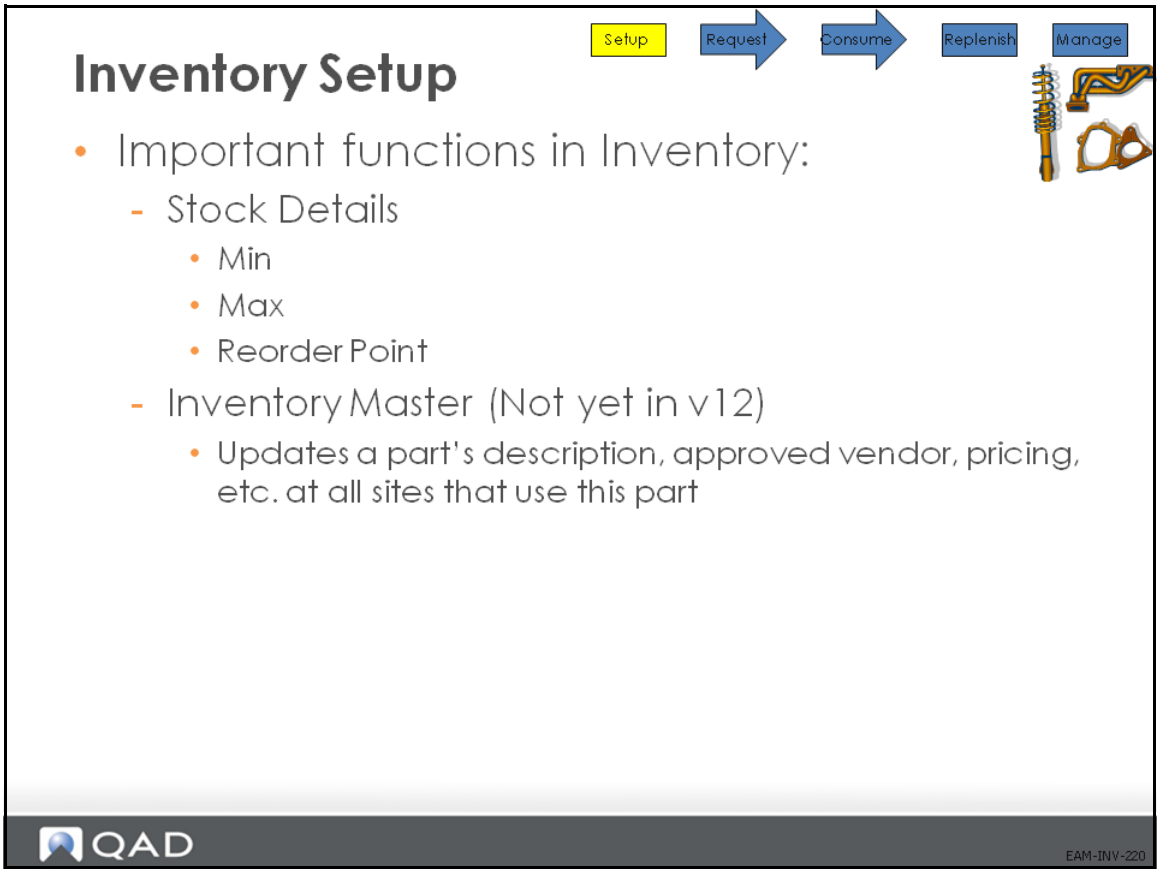
Inventory Setup: Key Settings 2



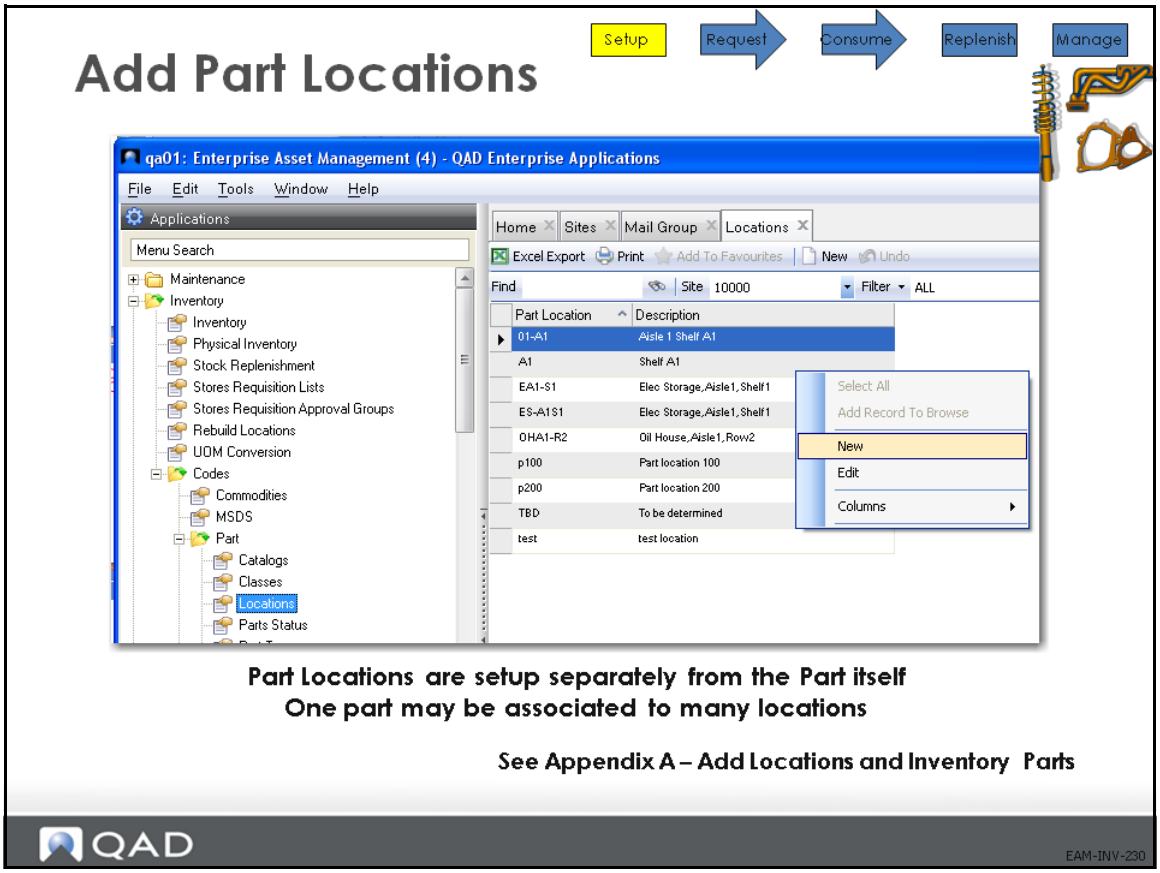
Inventory Setup: Important Functions



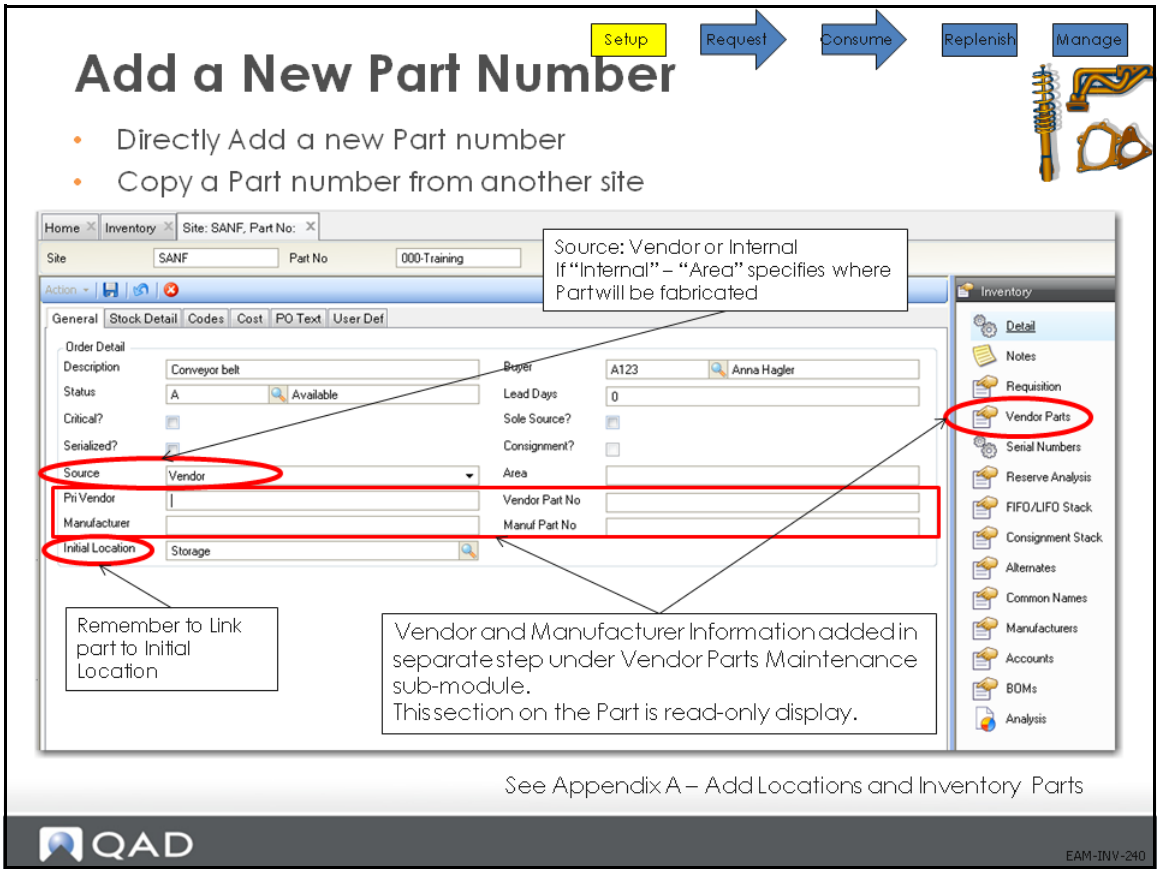
Inventory Setup: Important Functions 2



Add Part Locations



Add a New Part Number



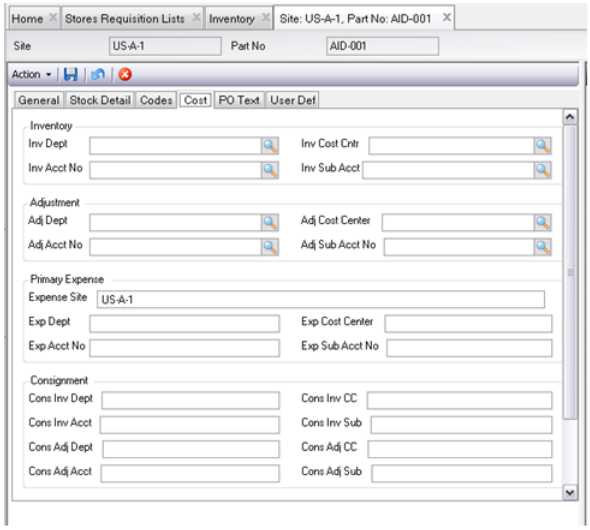
Add a New Part Number: Other Fields

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



See Appendix A – Add Locations and Inventory Parts

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

QAD

EAM-INV-250

Add a New Part Number: Other Fields 2

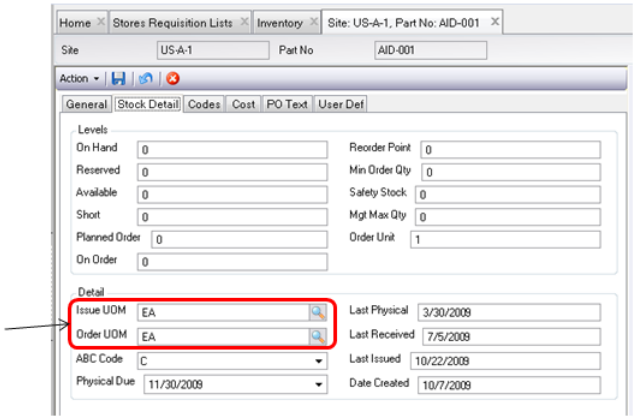
Setup → Request → Consume → Replenish → Manage

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.

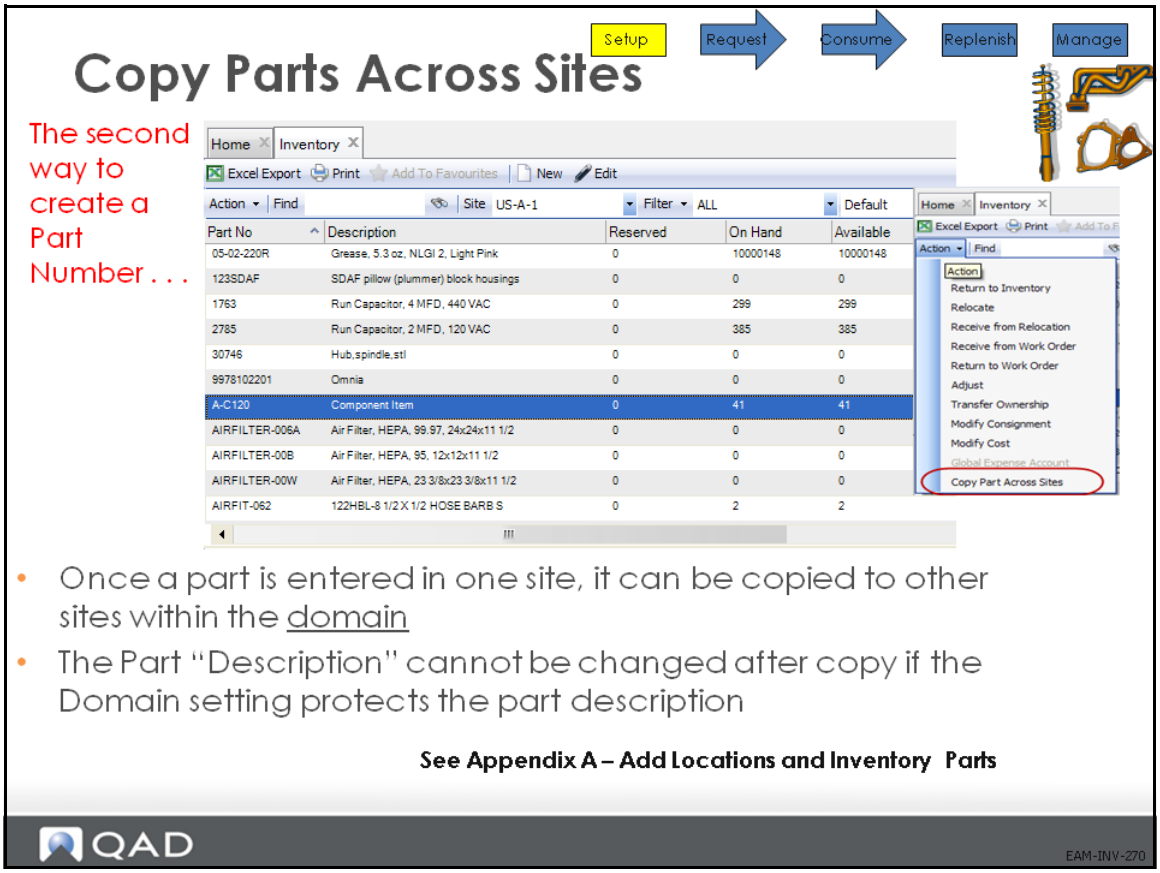


See Appendix A – Add Locations and Inventory Parts

QAD

EAM-INV-260

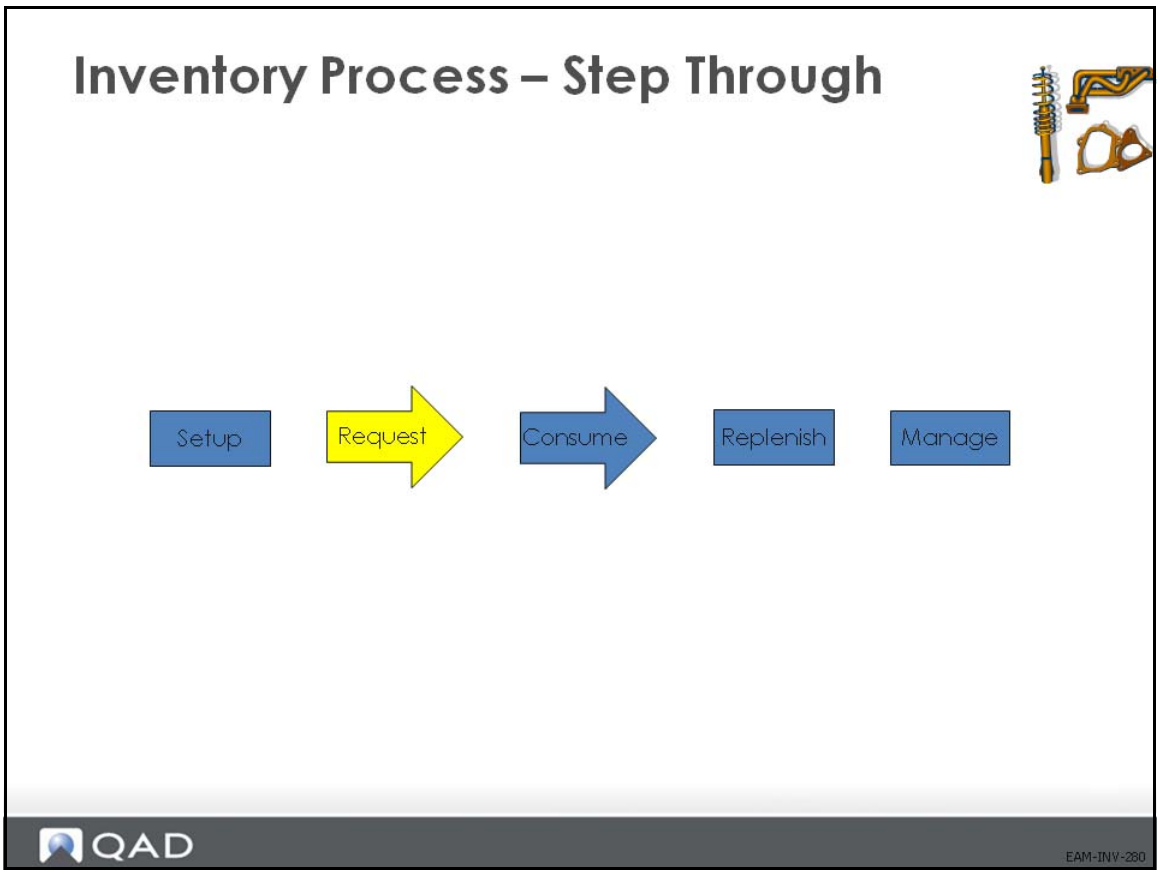
Copy Parts Across Sites



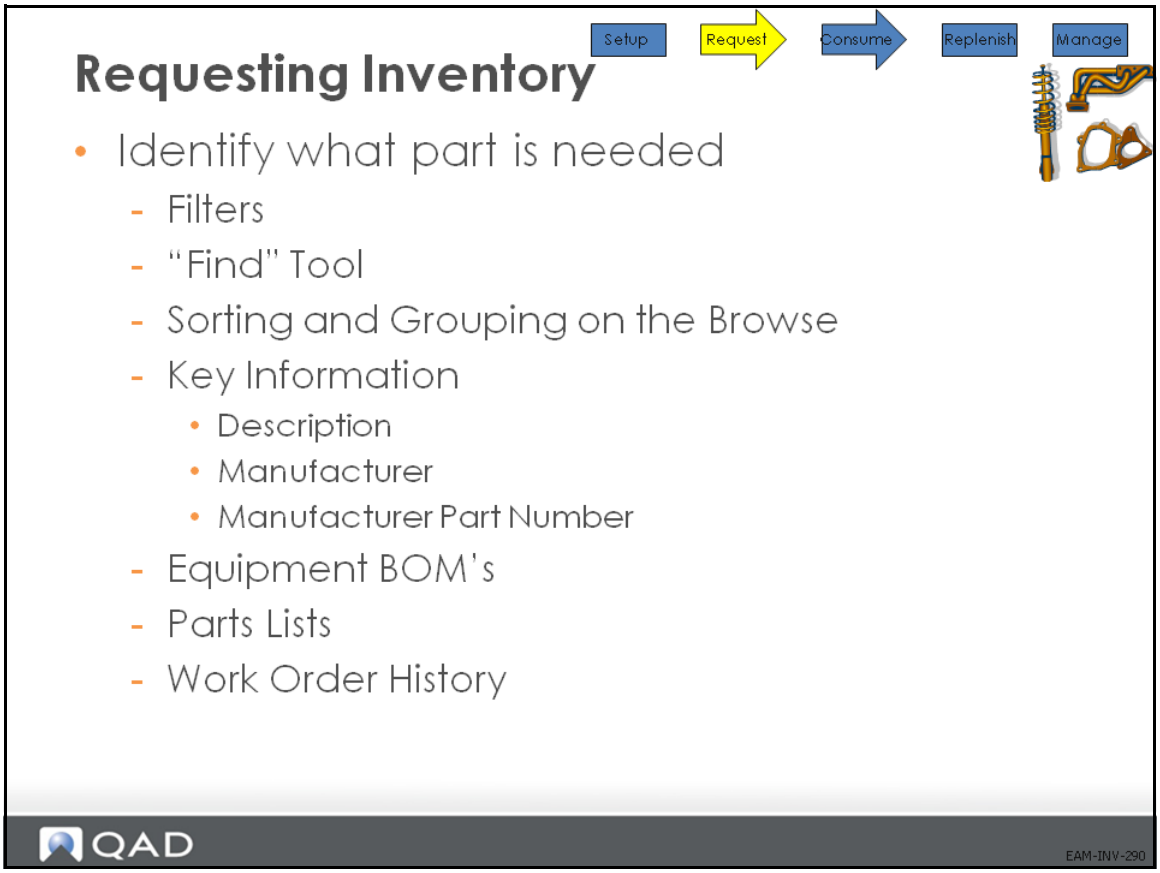
- Once a part is entered in one site, it can be copied to other sites within the domain
- The Part "Description" cannot be changed after copy if the Domain setting protects the part description

See Appendix A – Add Locations and Inventory Parts

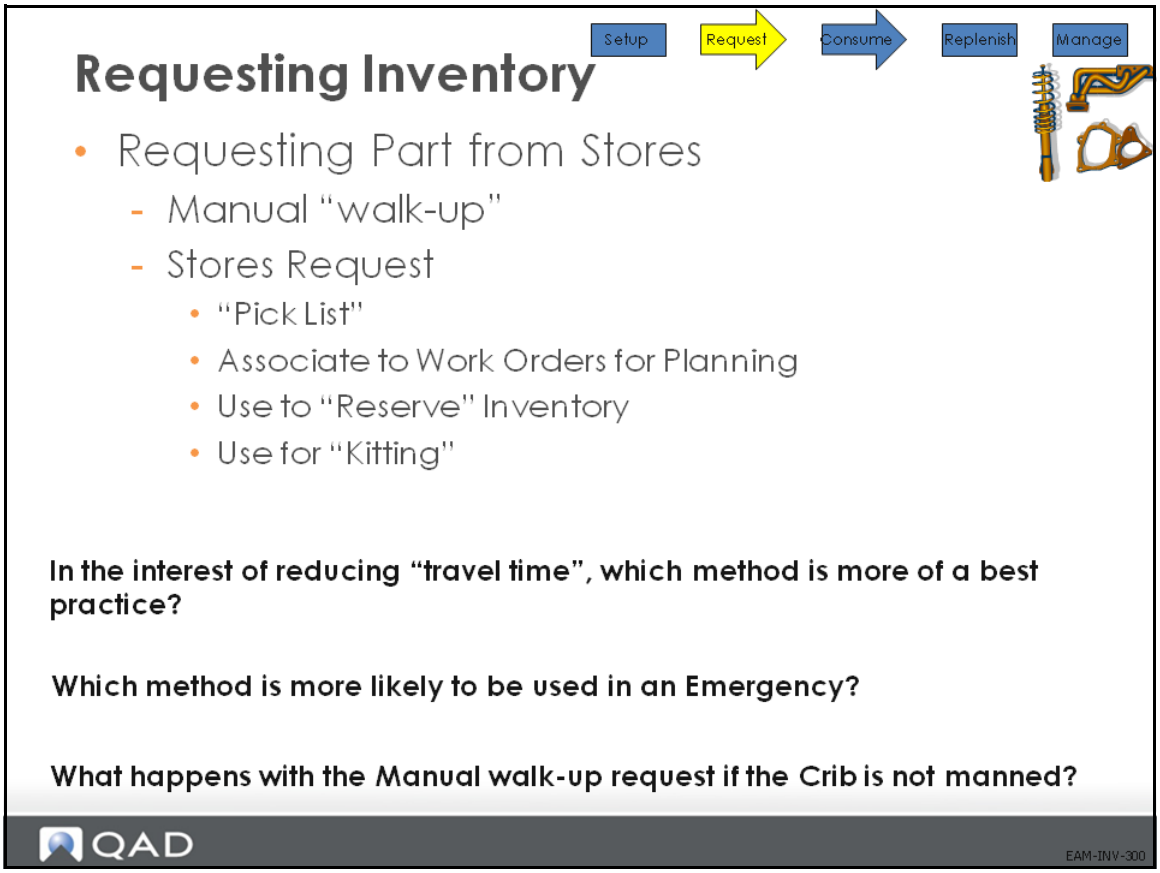
Inventory Process Step Through: Request



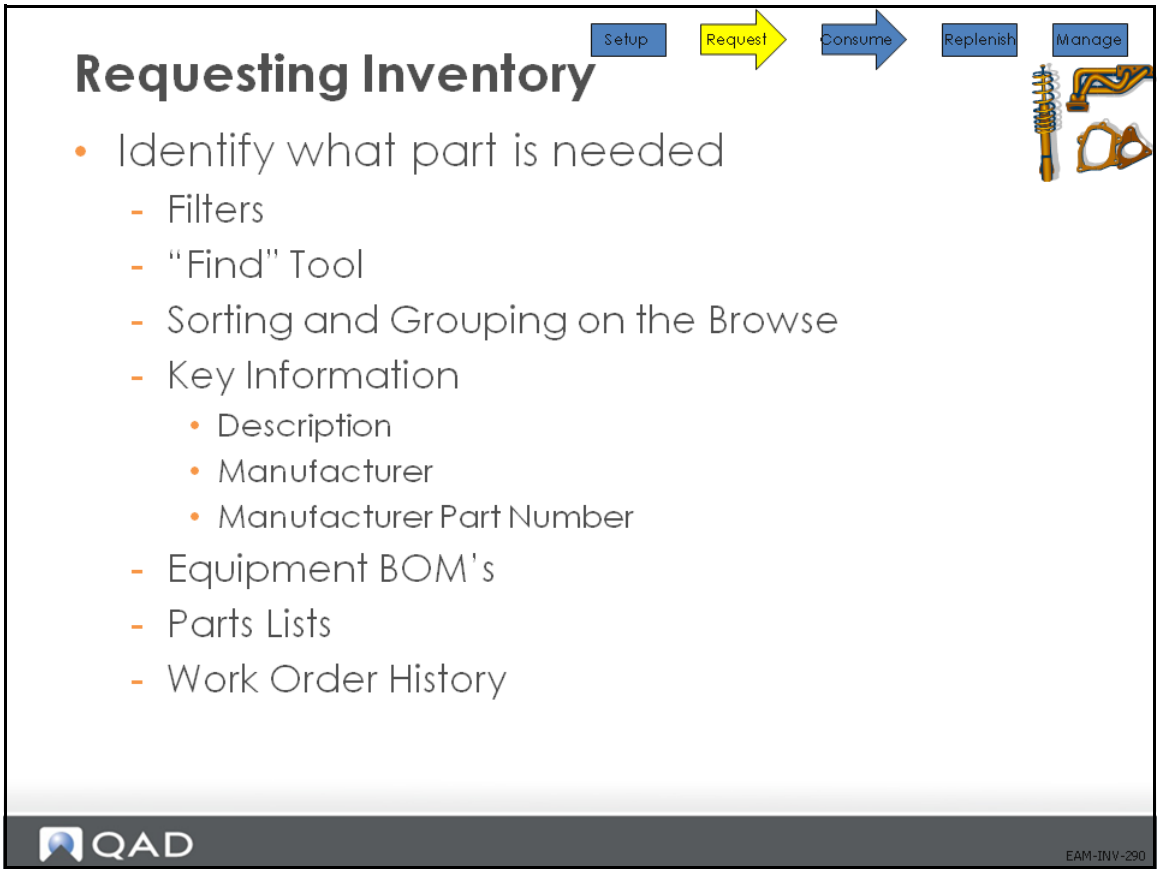
Requesting Inventory



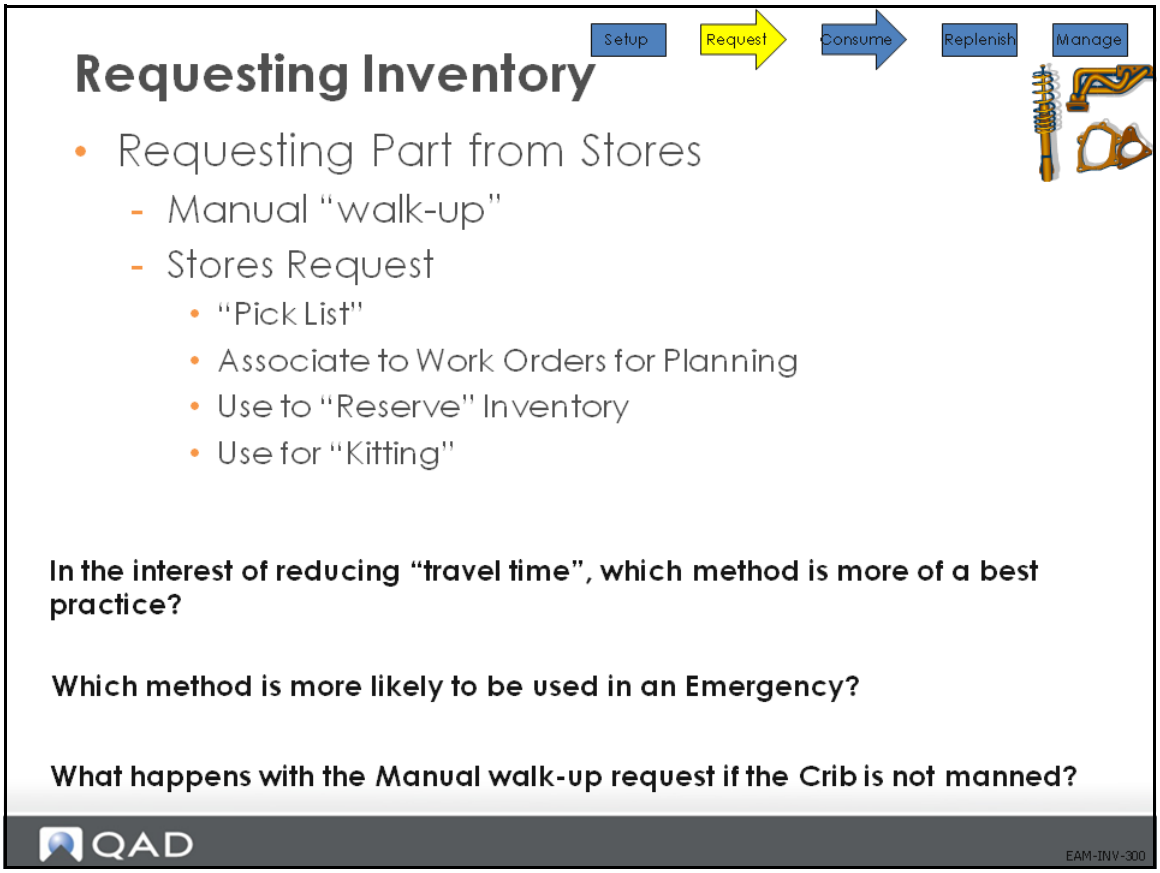
Requesting Inventory 2



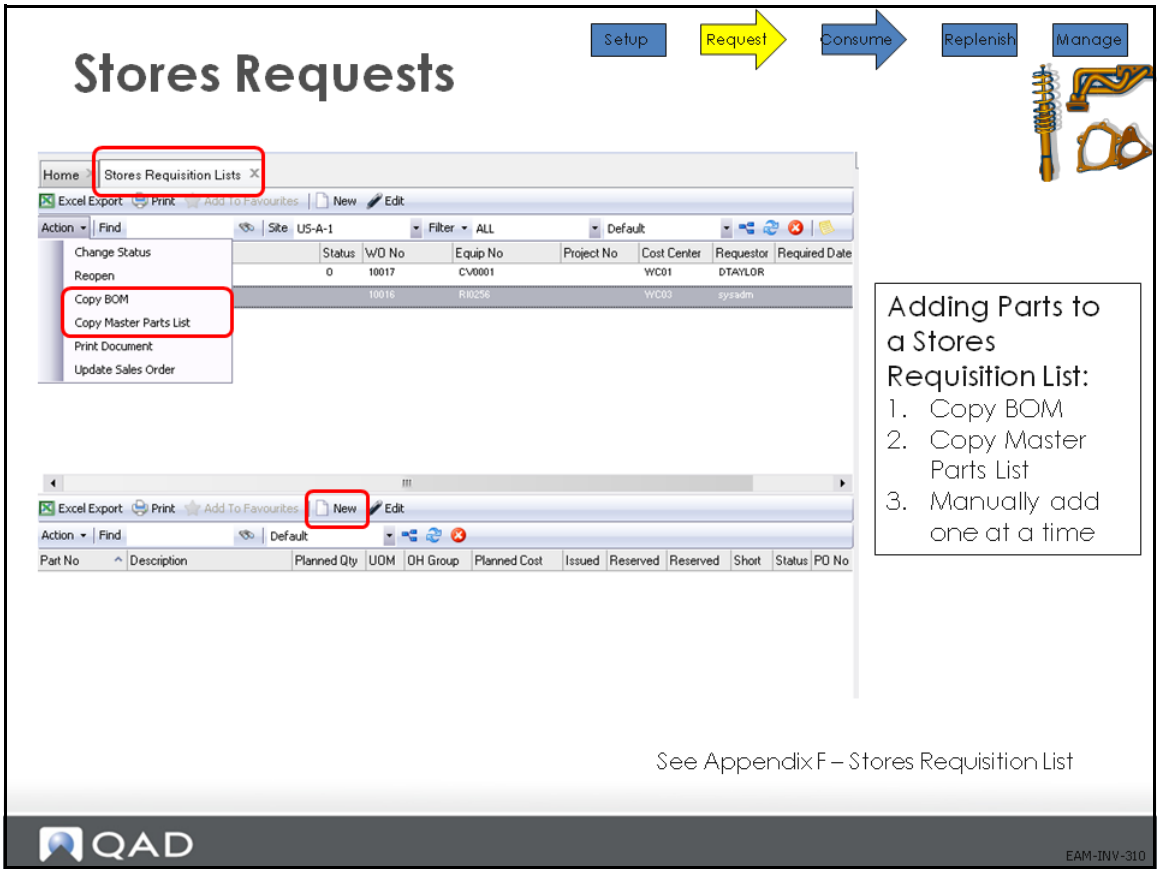
Requesting Inventory 3



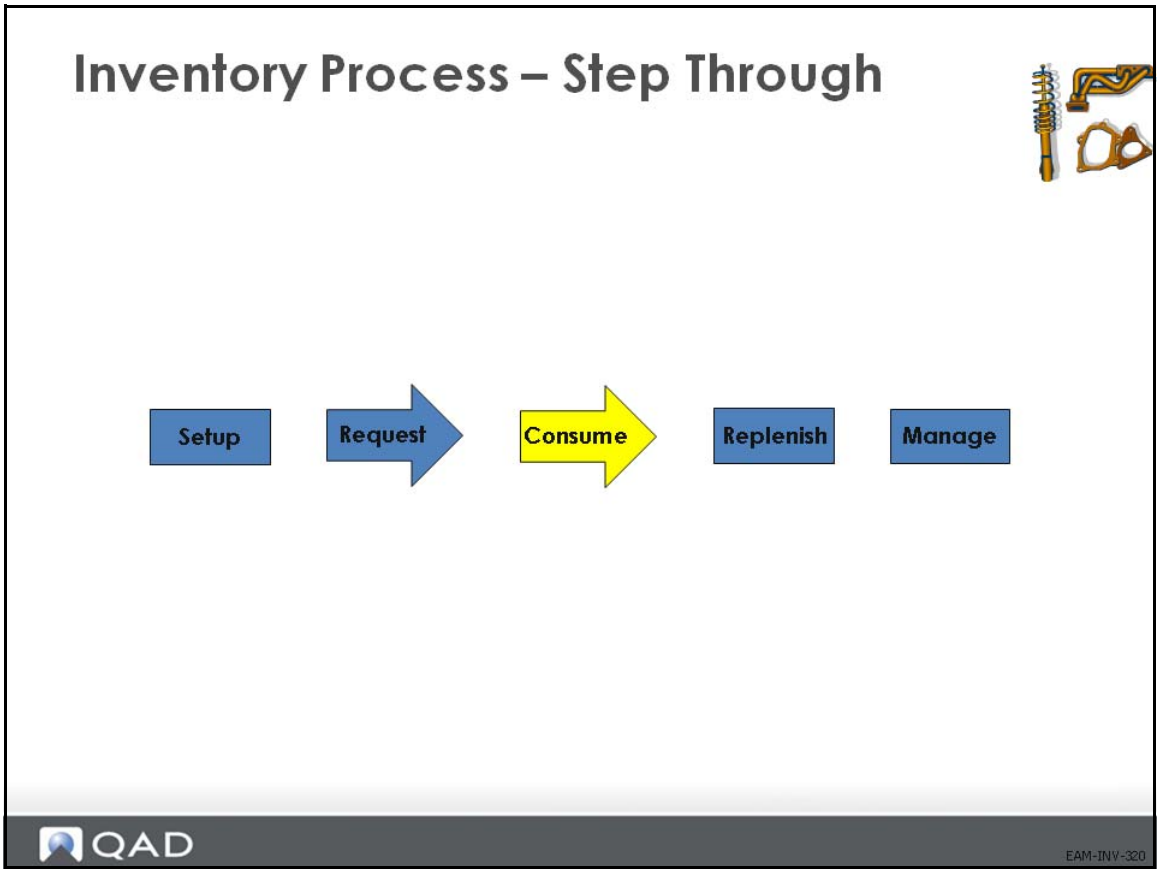
Requesting Inventory 4



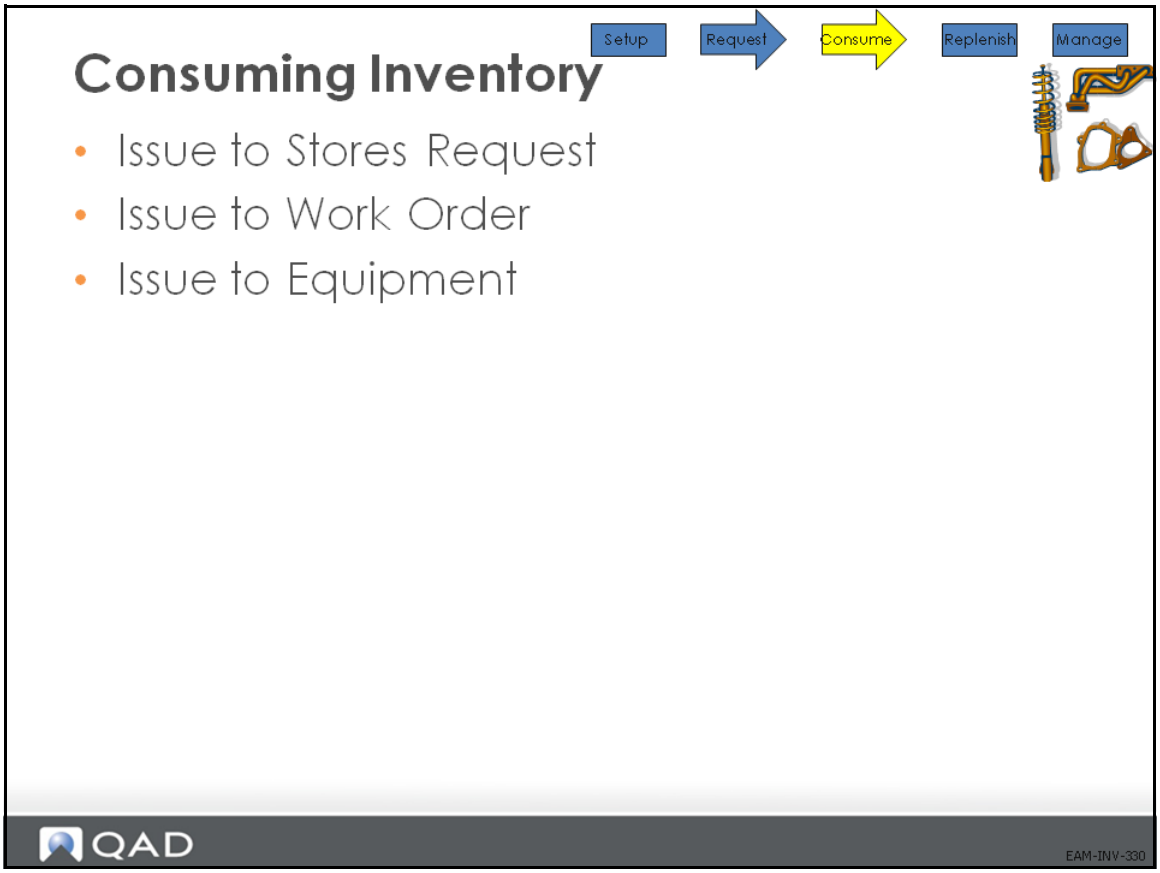
Stores Requests



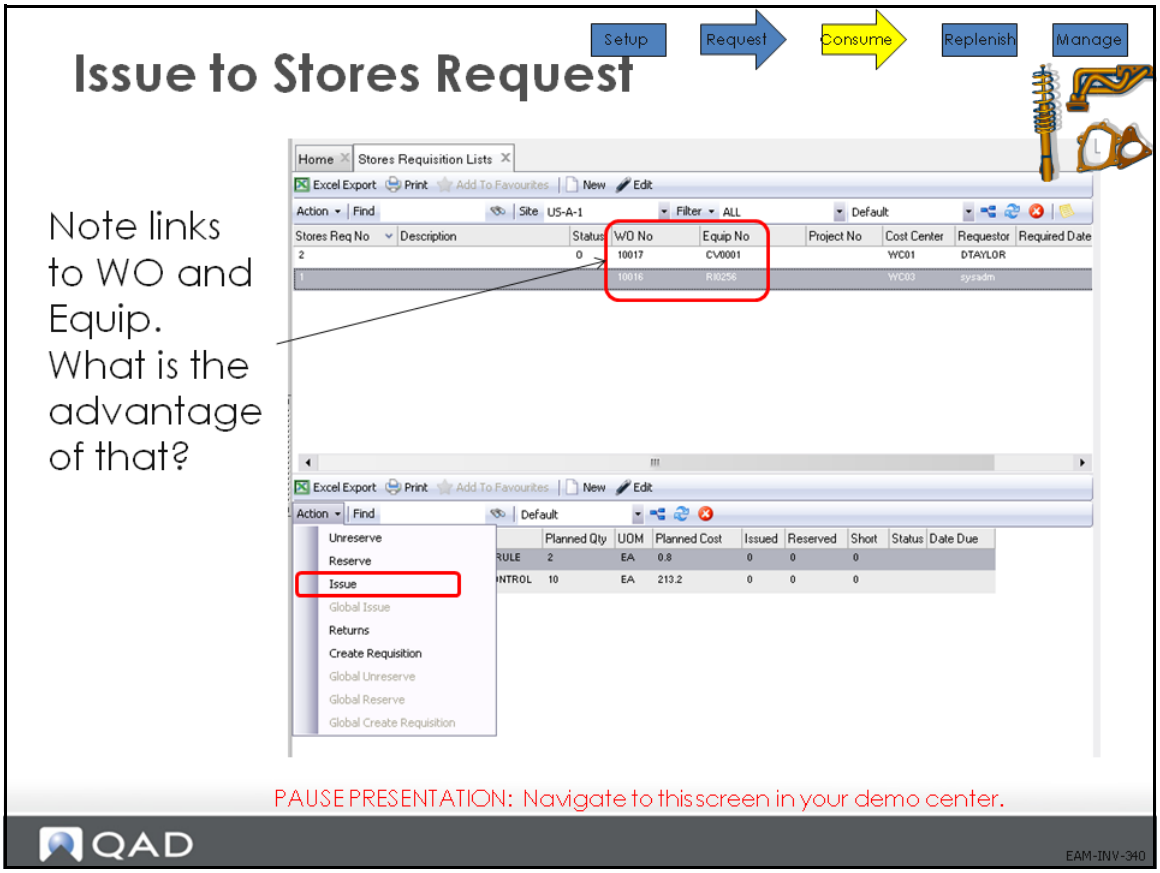
Inventory Process Stepthrough: Consume



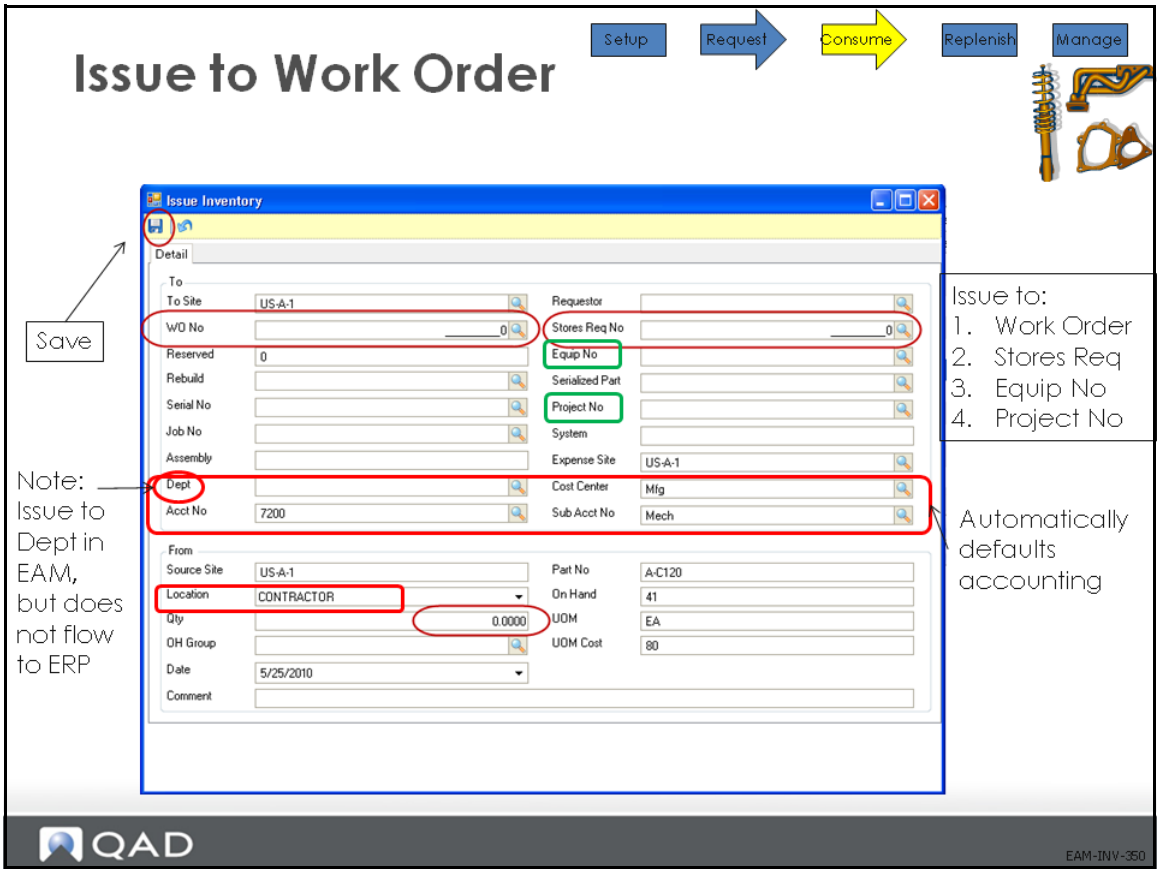
Consuming Inventory



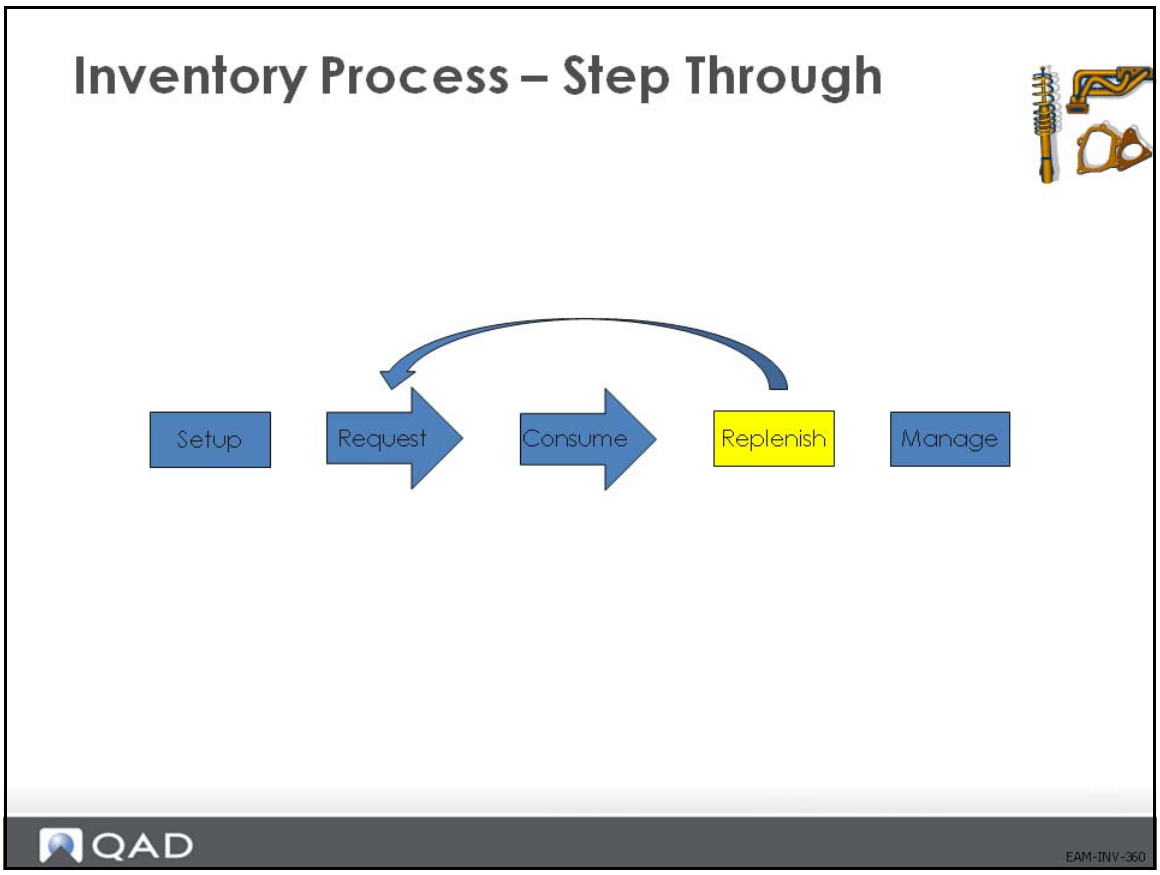
Issue to Stores Request



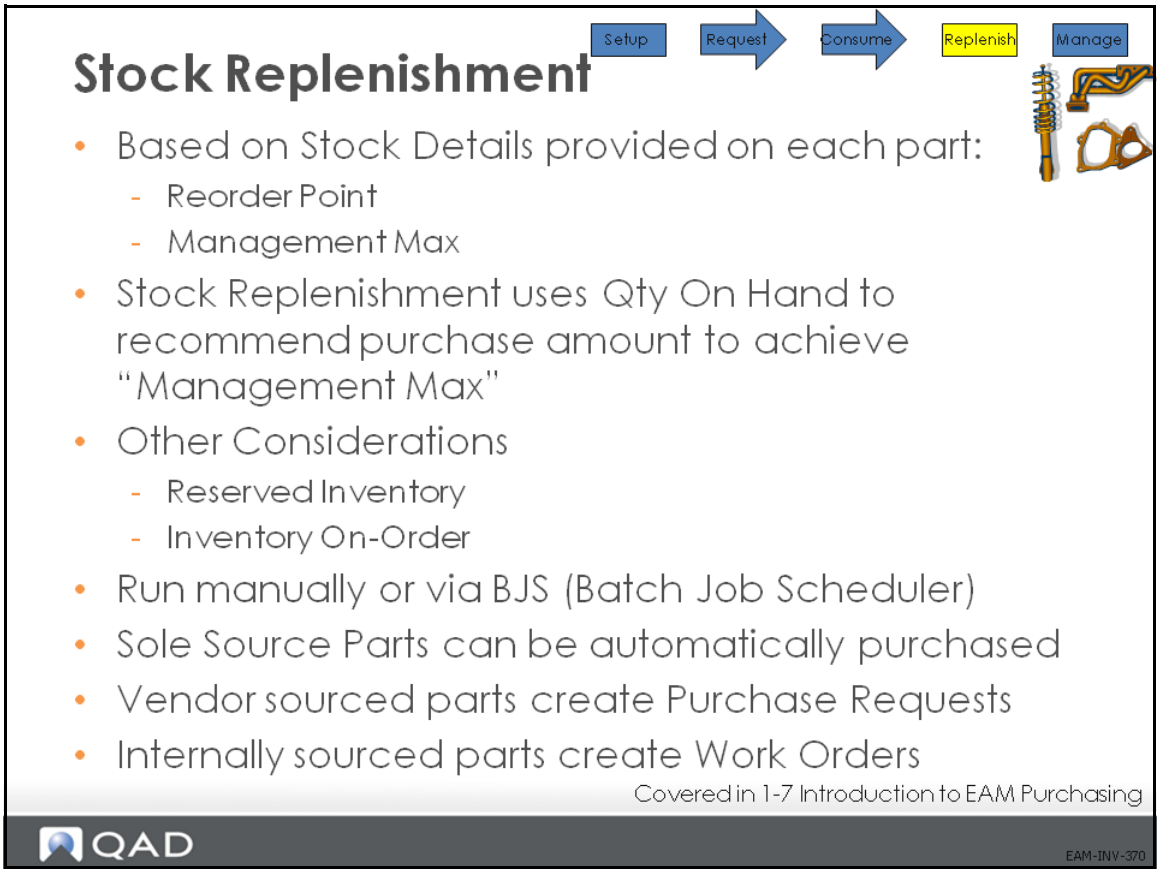
Issue to Work Order



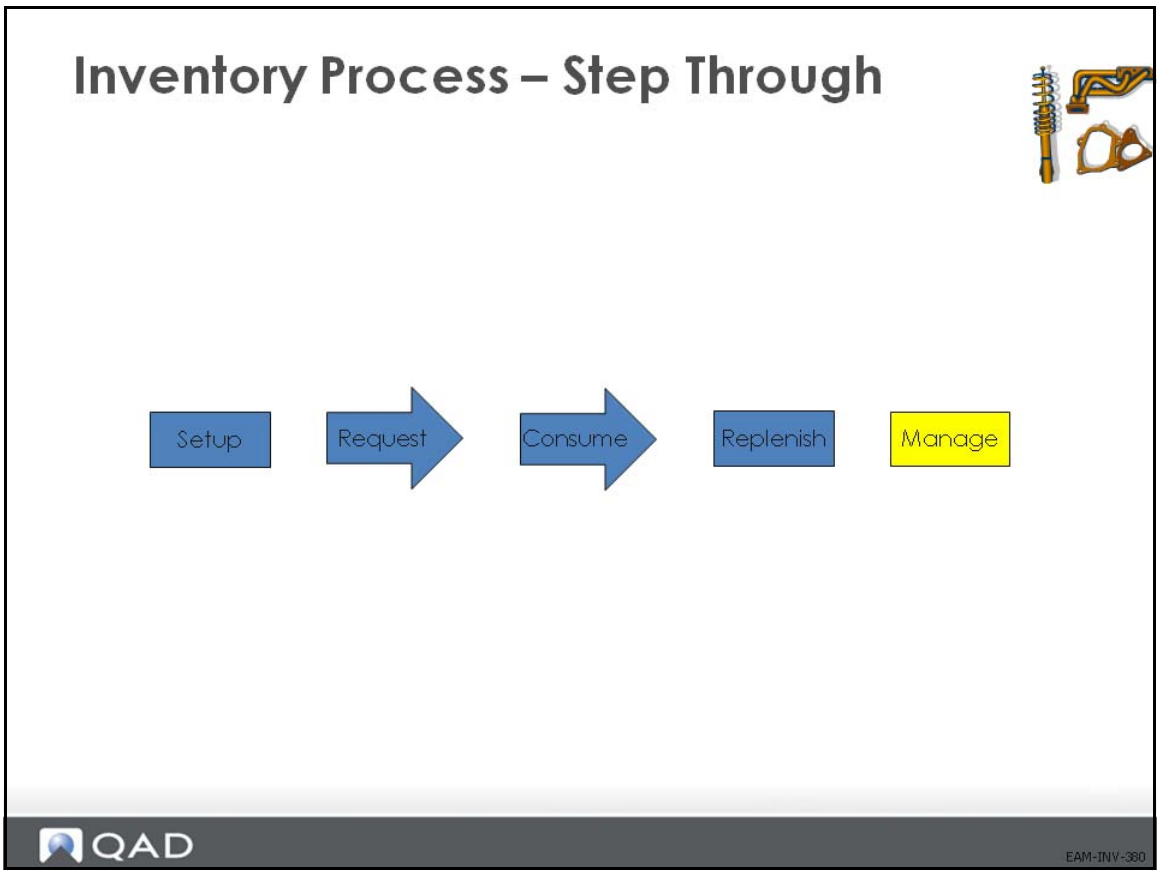
Inventory Process Step Through: Replenish



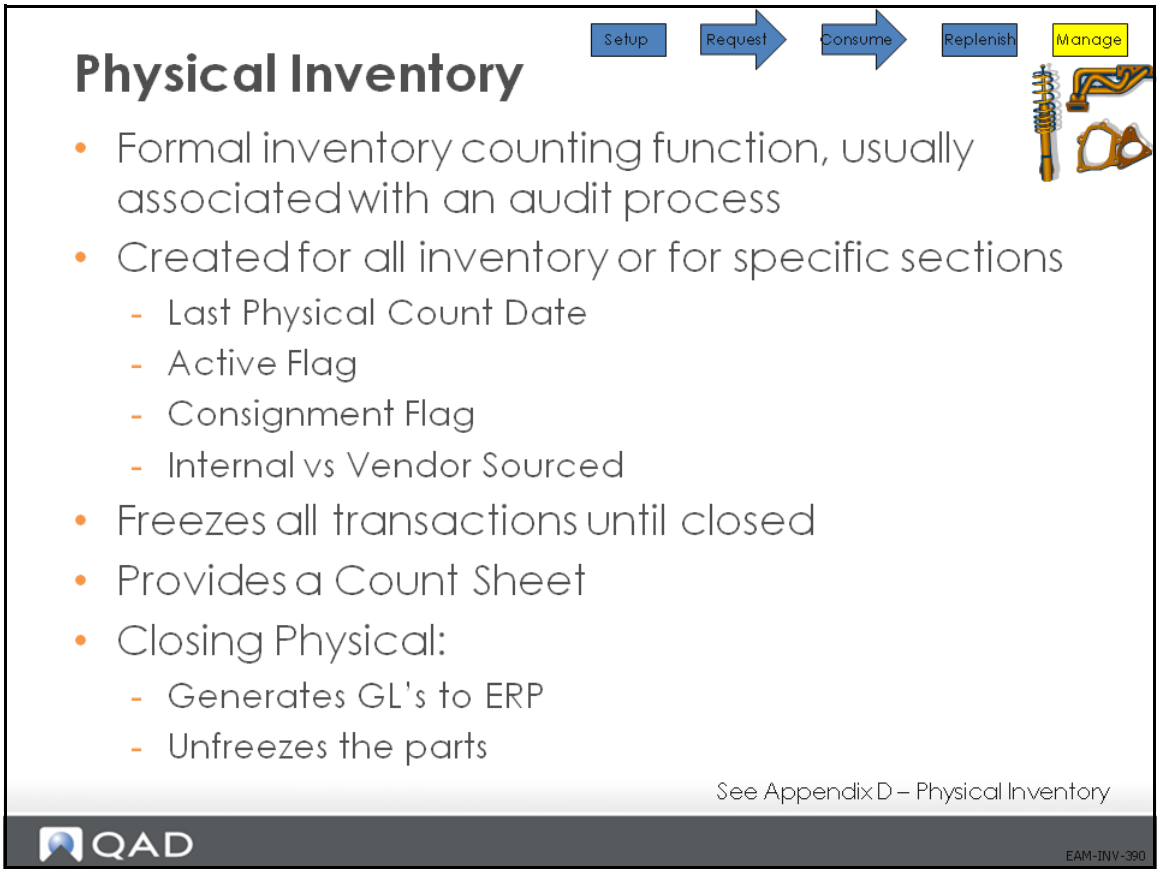
Stock Replenishment



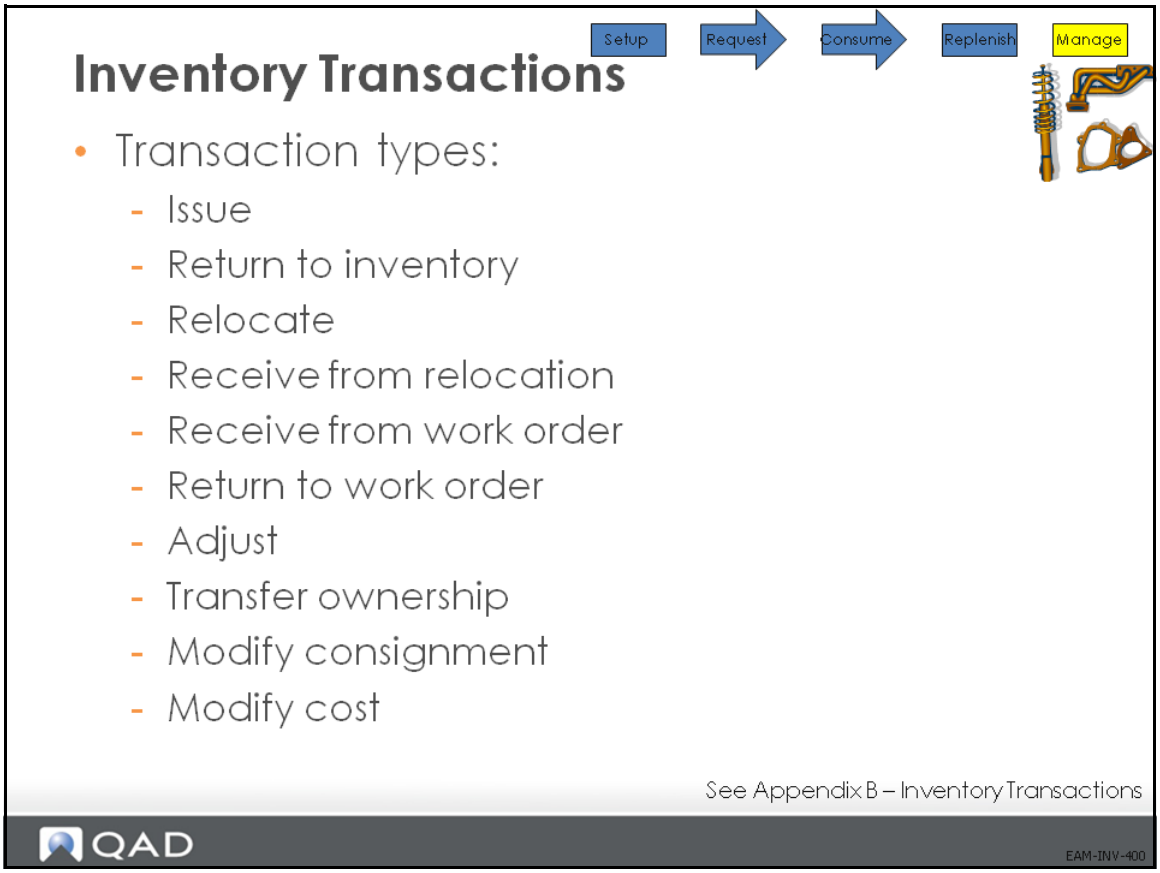
Inventory Process Step Through: Manage



Physical Inventory



Inventory Transactions



Review

Review

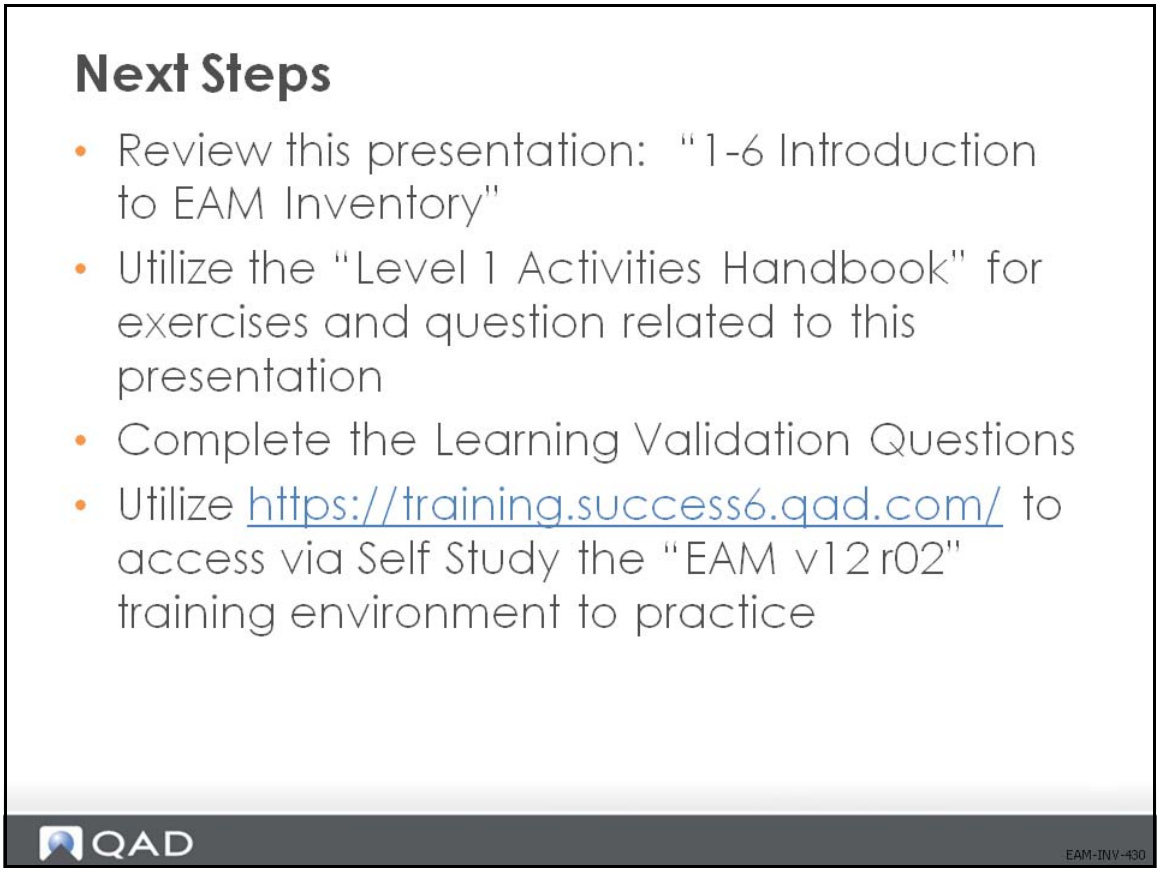


- Create and record a physical inventory count
- EAM creates GLs to send to QAD ERP for:
  - Inter-site transfers
  - Work orders for fabricated parts
  - Inventory issues, returns, adjustments
  - Price adjustments
  - Consignment stock usage
  - PO receipts

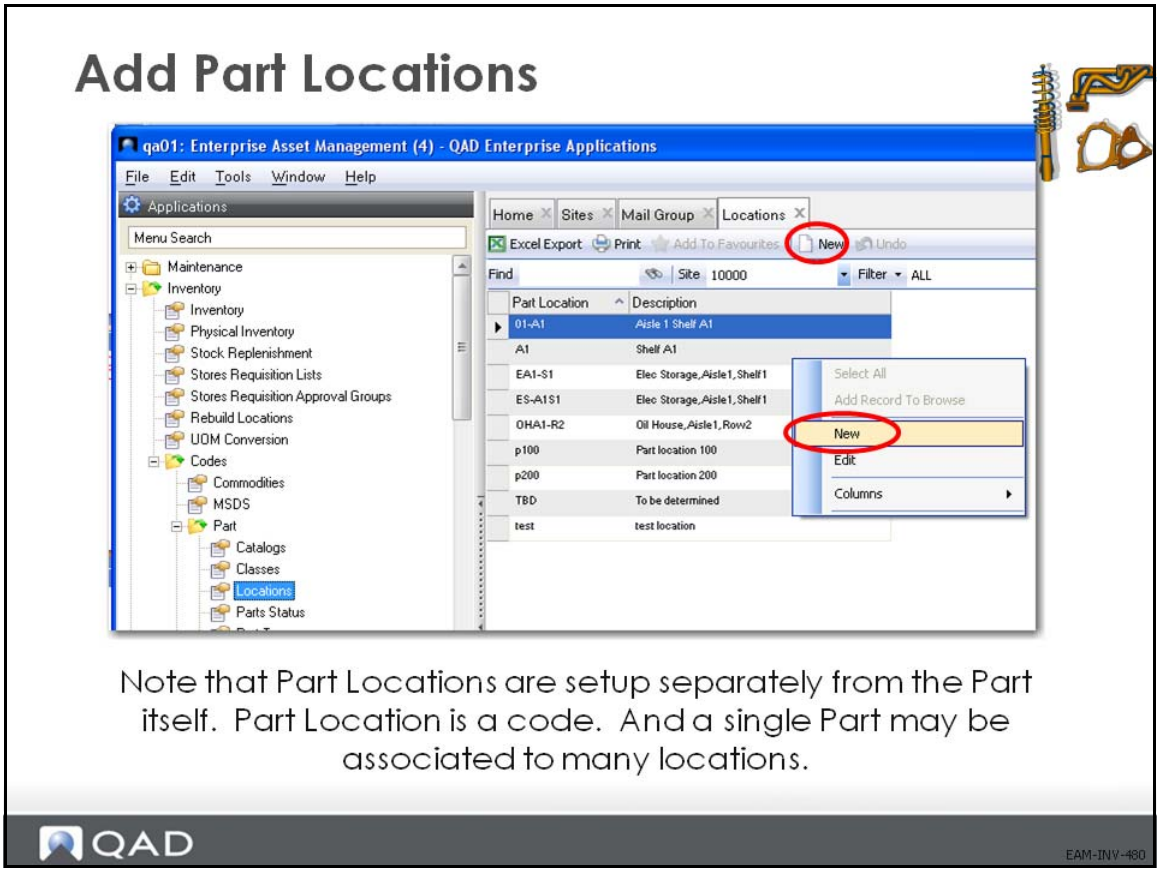
QAD

EAM-INV-410

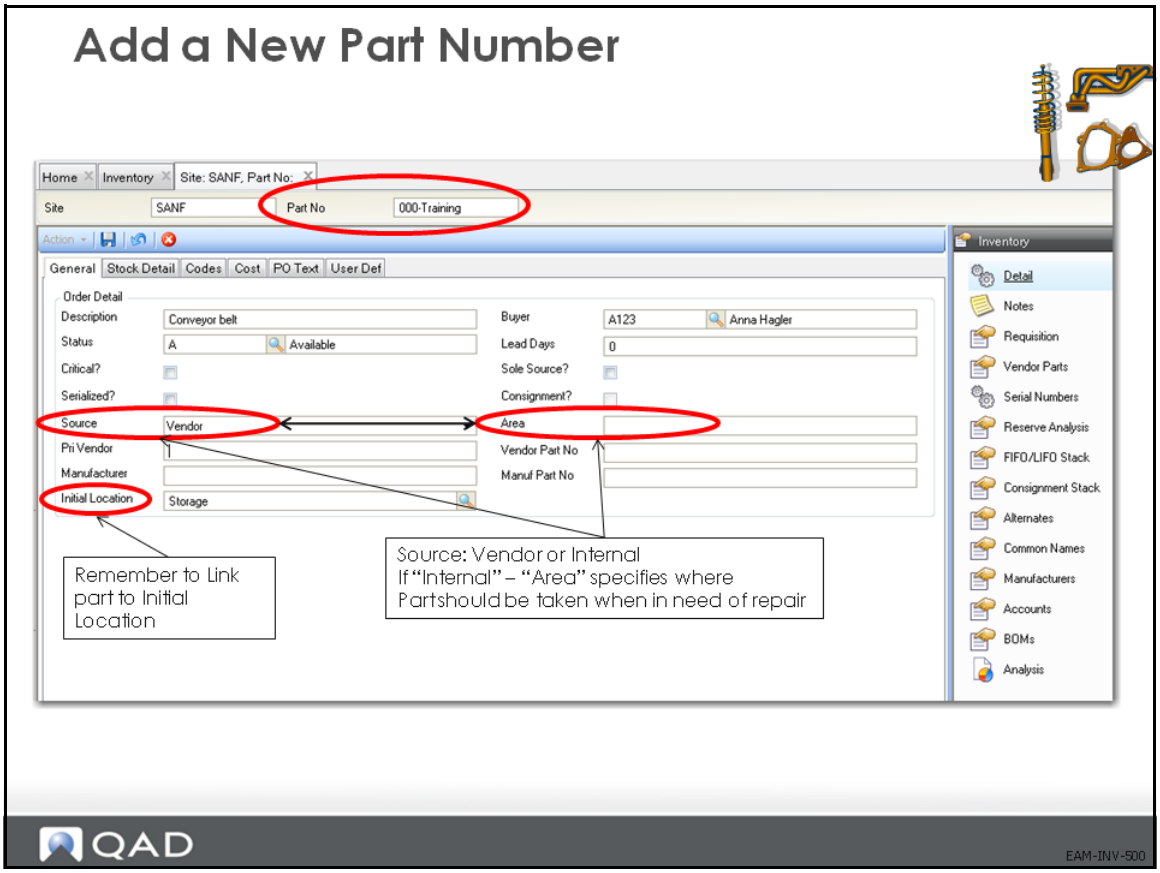
Next Steps


Next Steps
• Review this presentation: "1-6 Introduction to EAM Inventory"
• Utilize the "Level 1 Activities Handbook" for exercises and question related to this presentation
• Complete the Learning Validation Questions
• Utilize https://training.success6.qad.com/ to access via Self Study the "EAM v12 r02" training environment to practice
QAD
EAM-INV-430

Appendix A: Add Locations and Inventory Part Records



Add a New Part Number

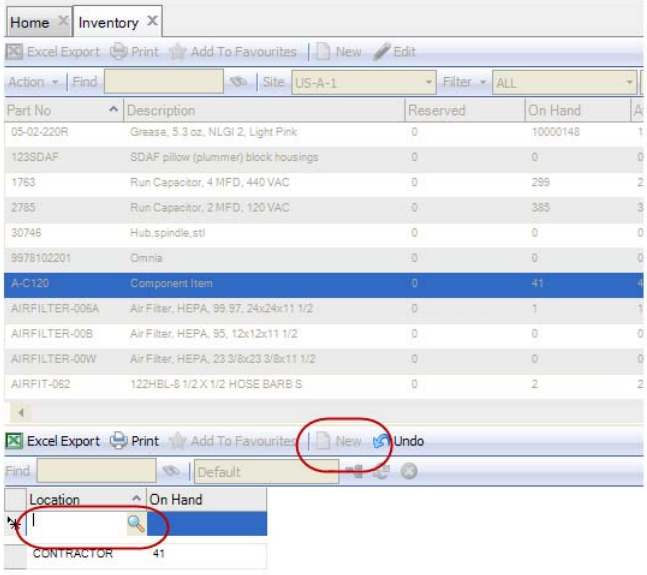


Adding Additional Locations

Adding Additional Locations



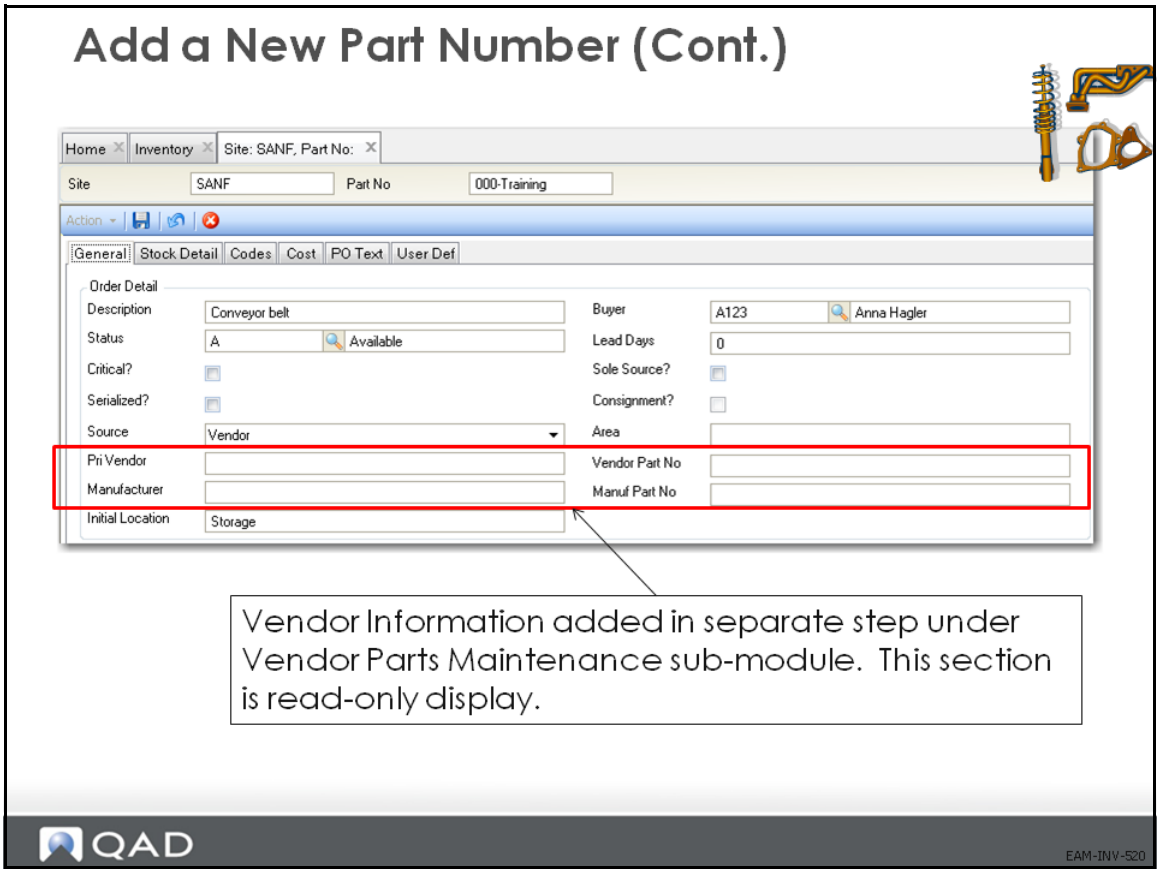
- Some parts are held in more than one locations
- Add any additional locations from the parts browse by selecting new in the lower section



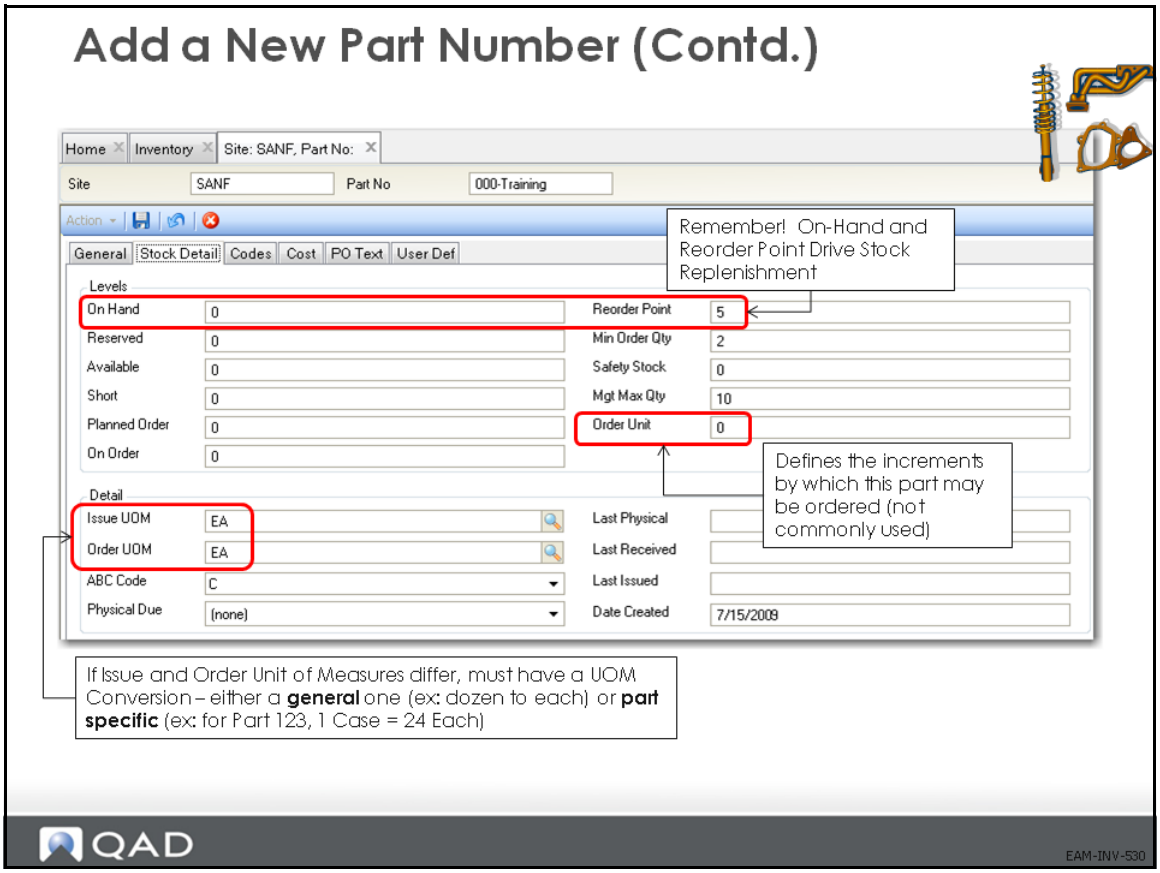
QAD

EAM-INV-510

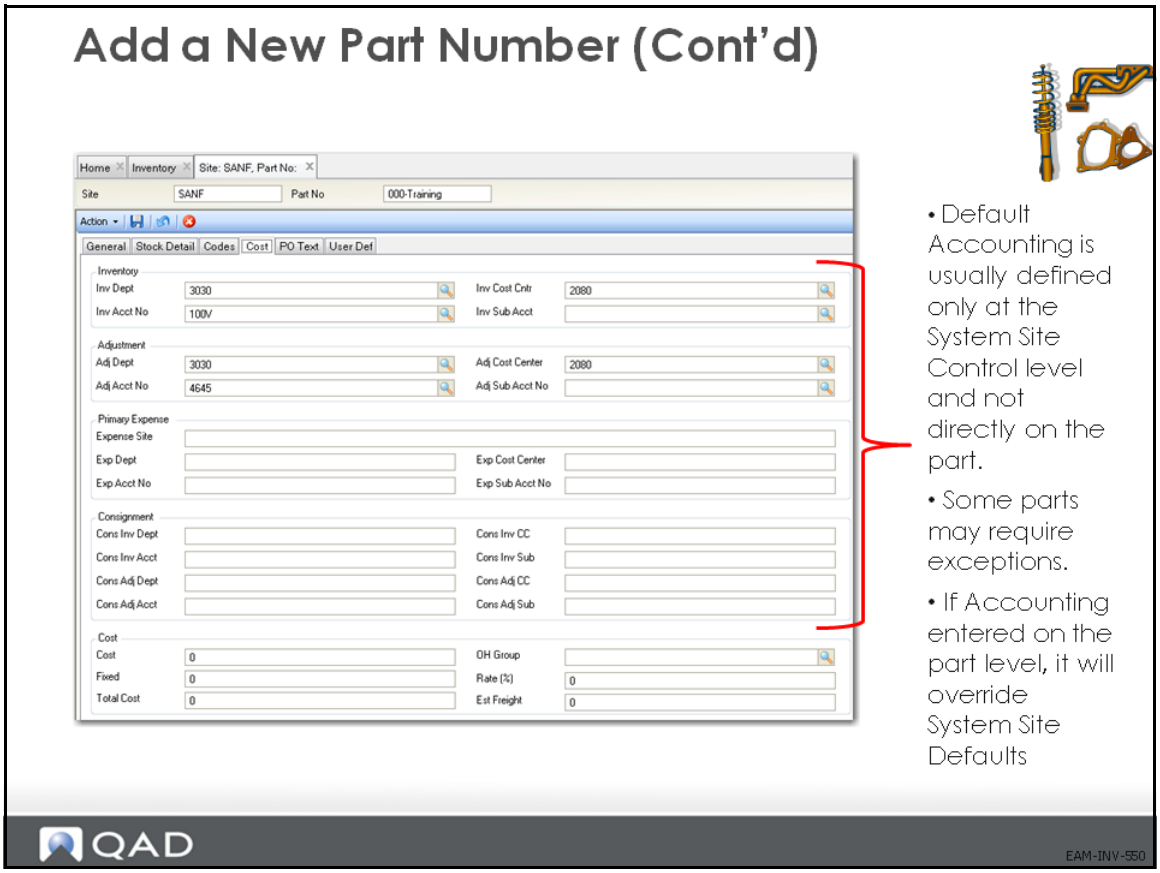
Add a New Part Number 2



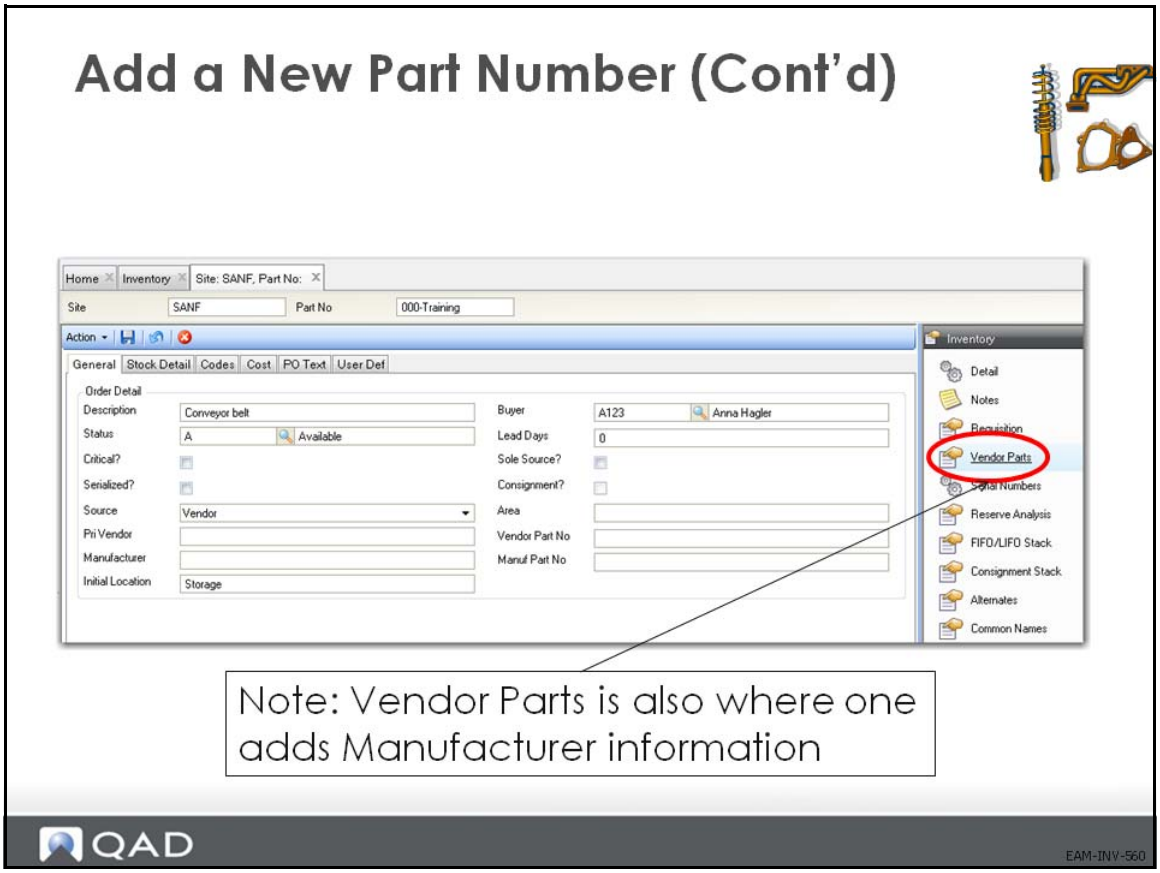
Add a New Part Number 3



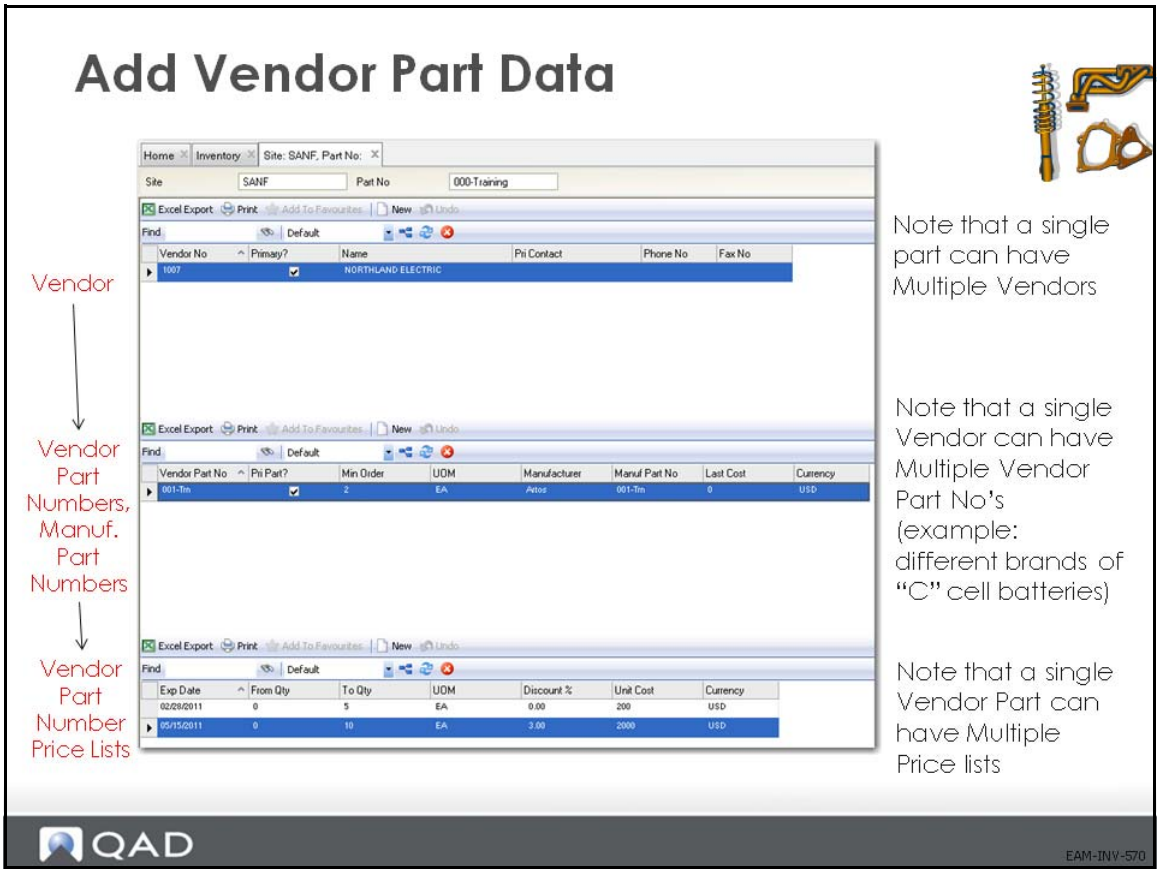
Add a New Part Number 4



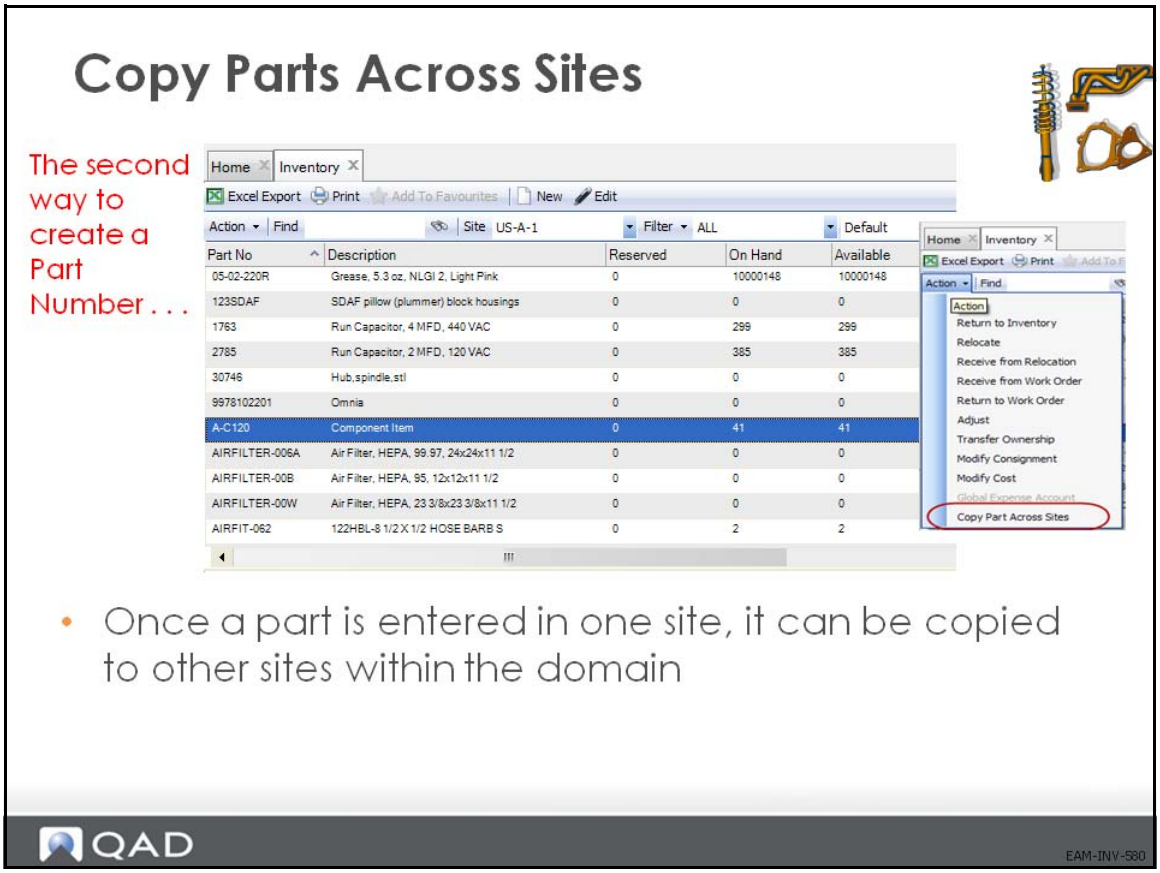
Add a New Part Number 5



Add Vendor Part Data

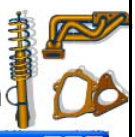


Copy Parts Across Sites

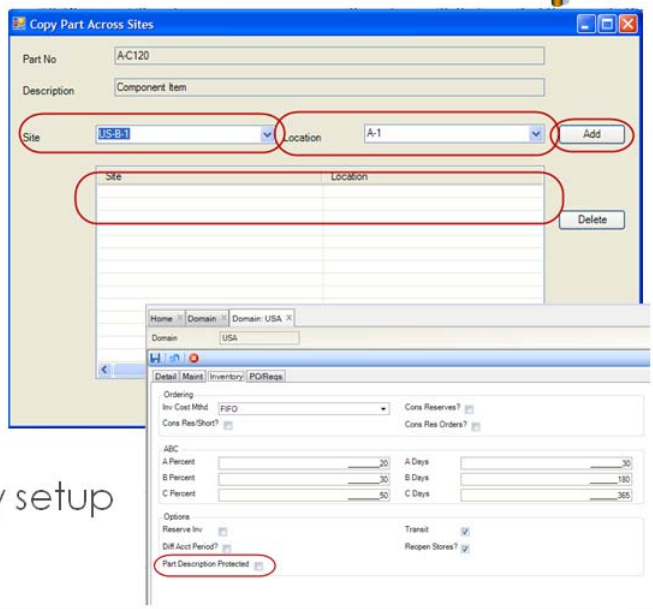


Copy Parts Across Sites

Copy Parts Across Sites



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

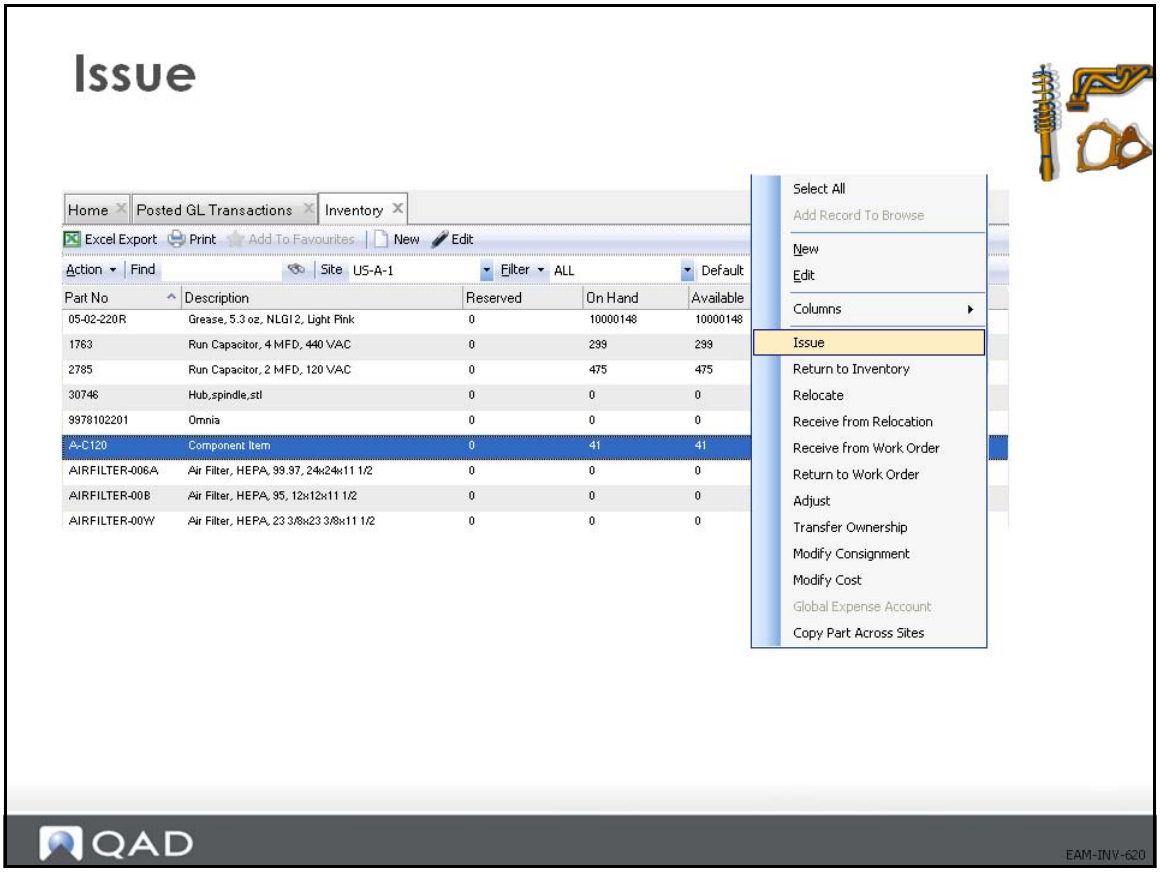


QAD EAM-INV-590

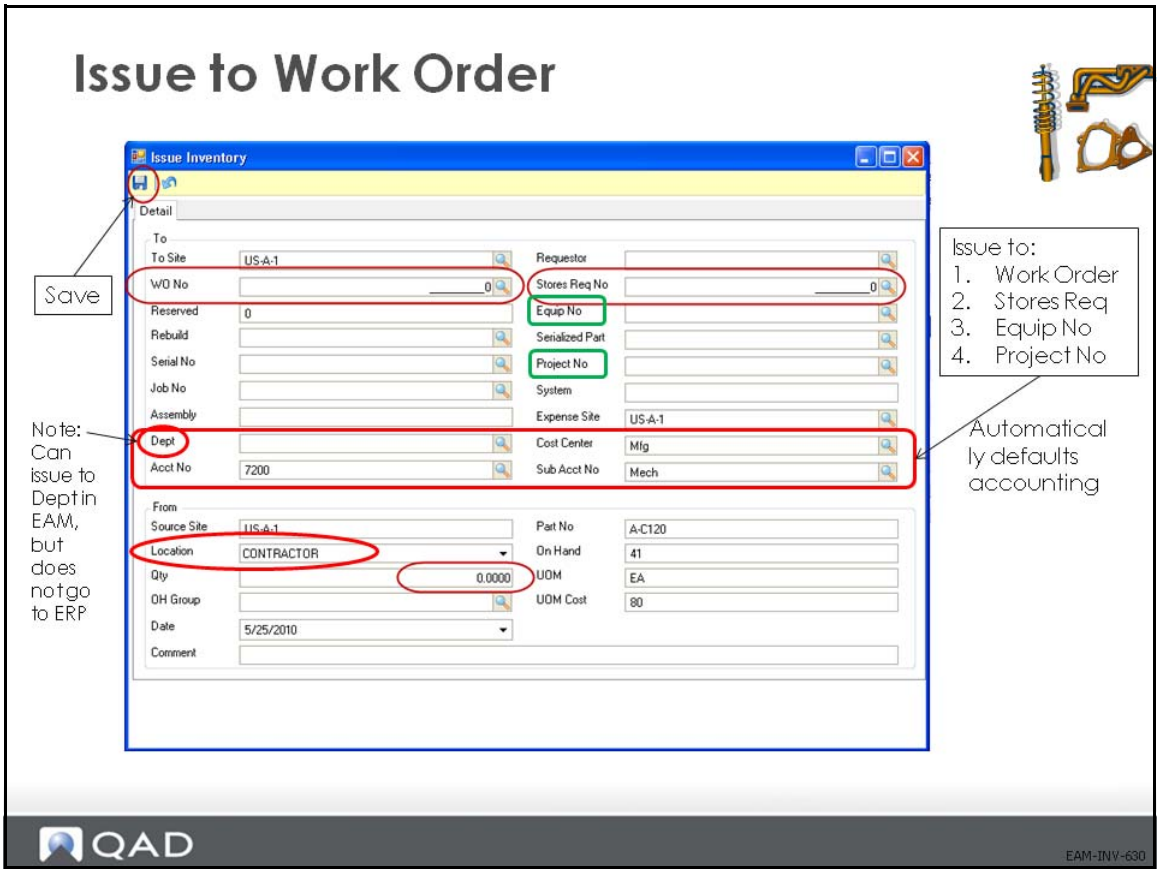
Exercise: Add a New Part



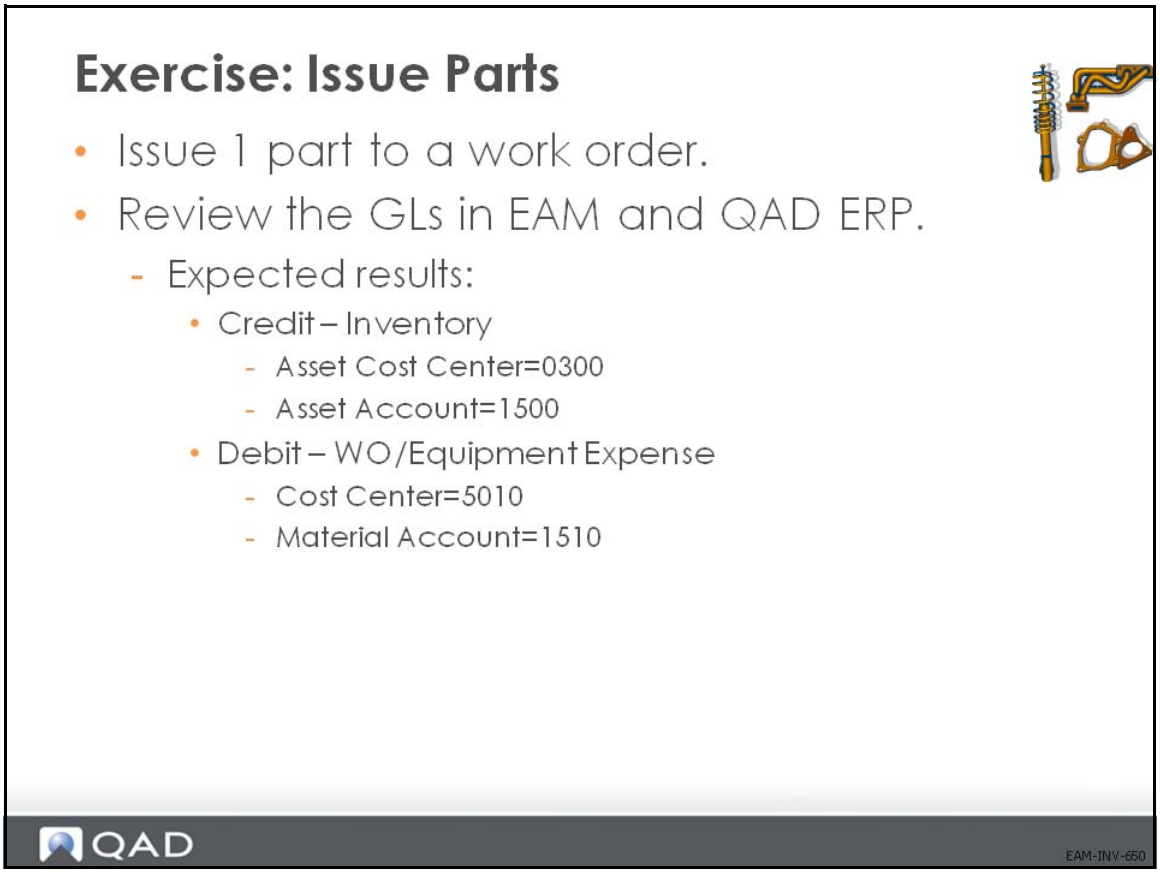
Appendix B: Issue Parts



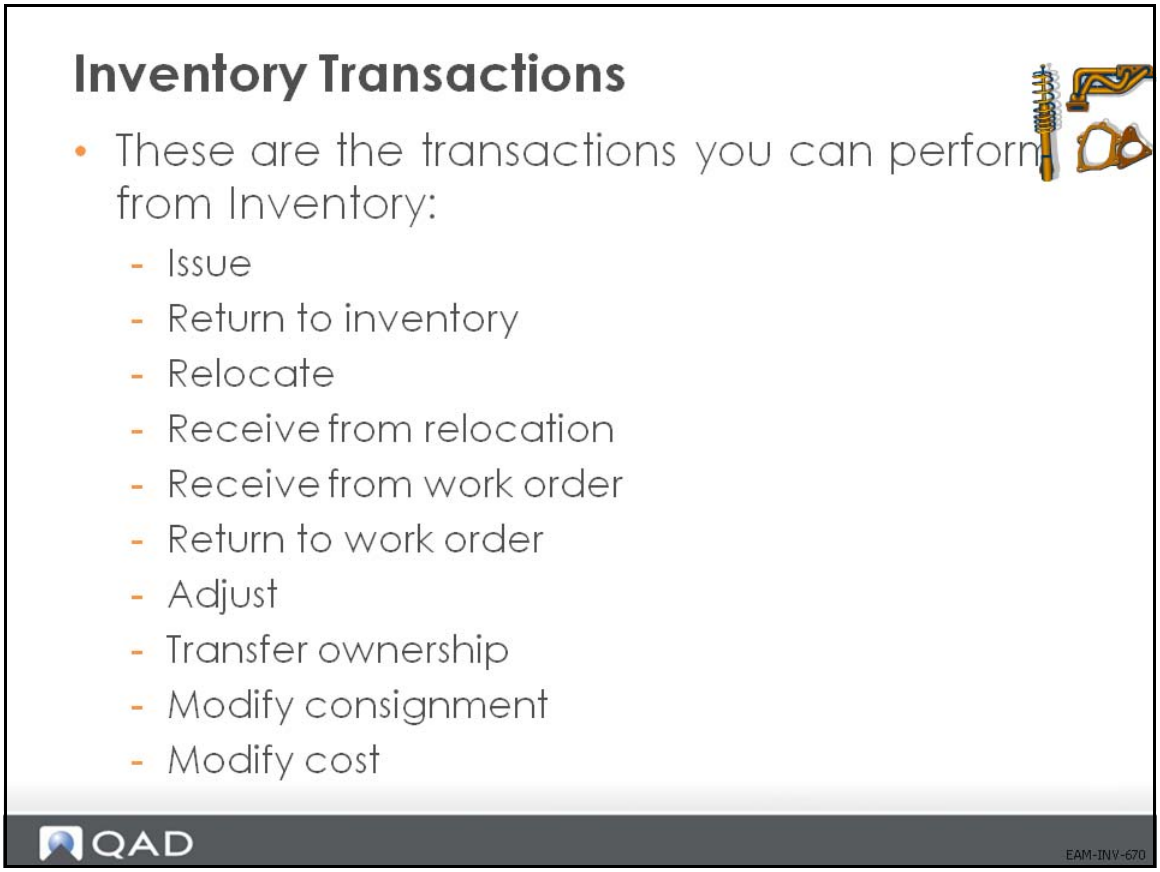
Issue to Work Order



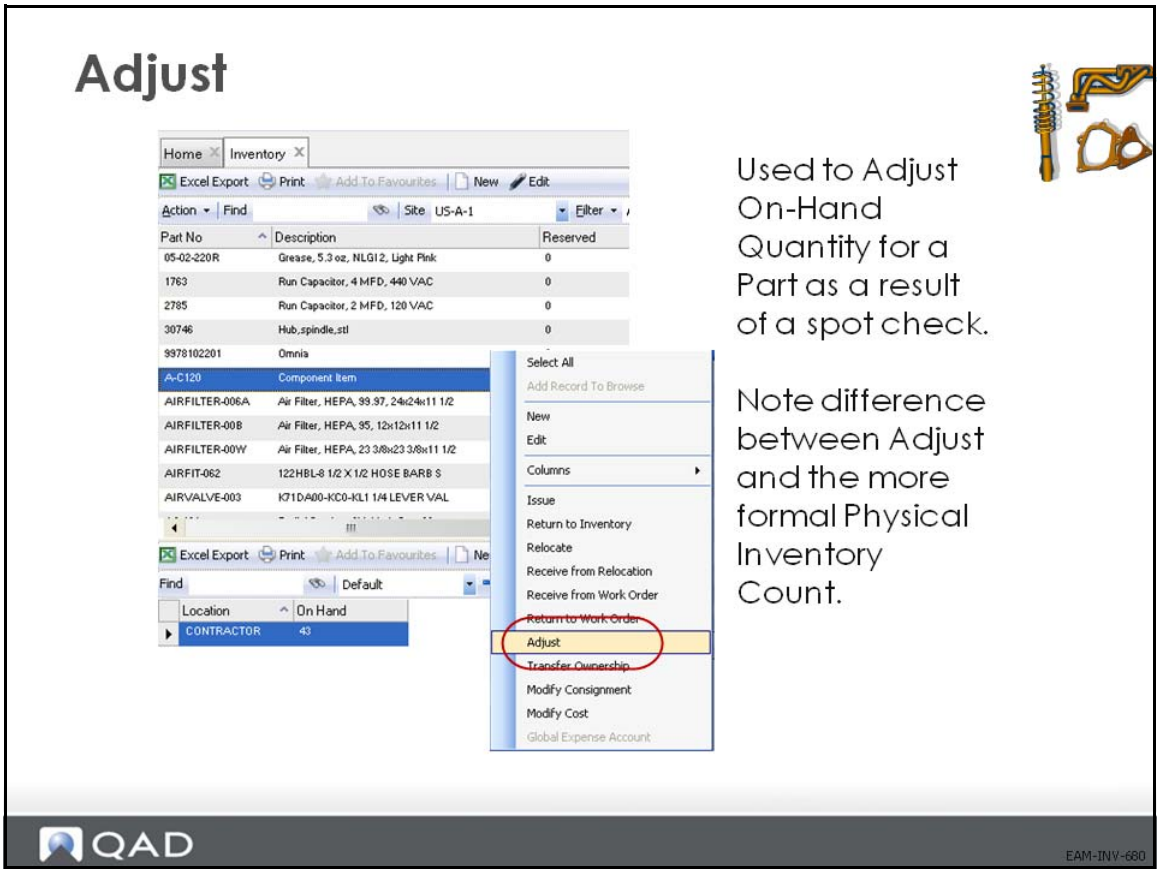
Exercise: Issue Parts



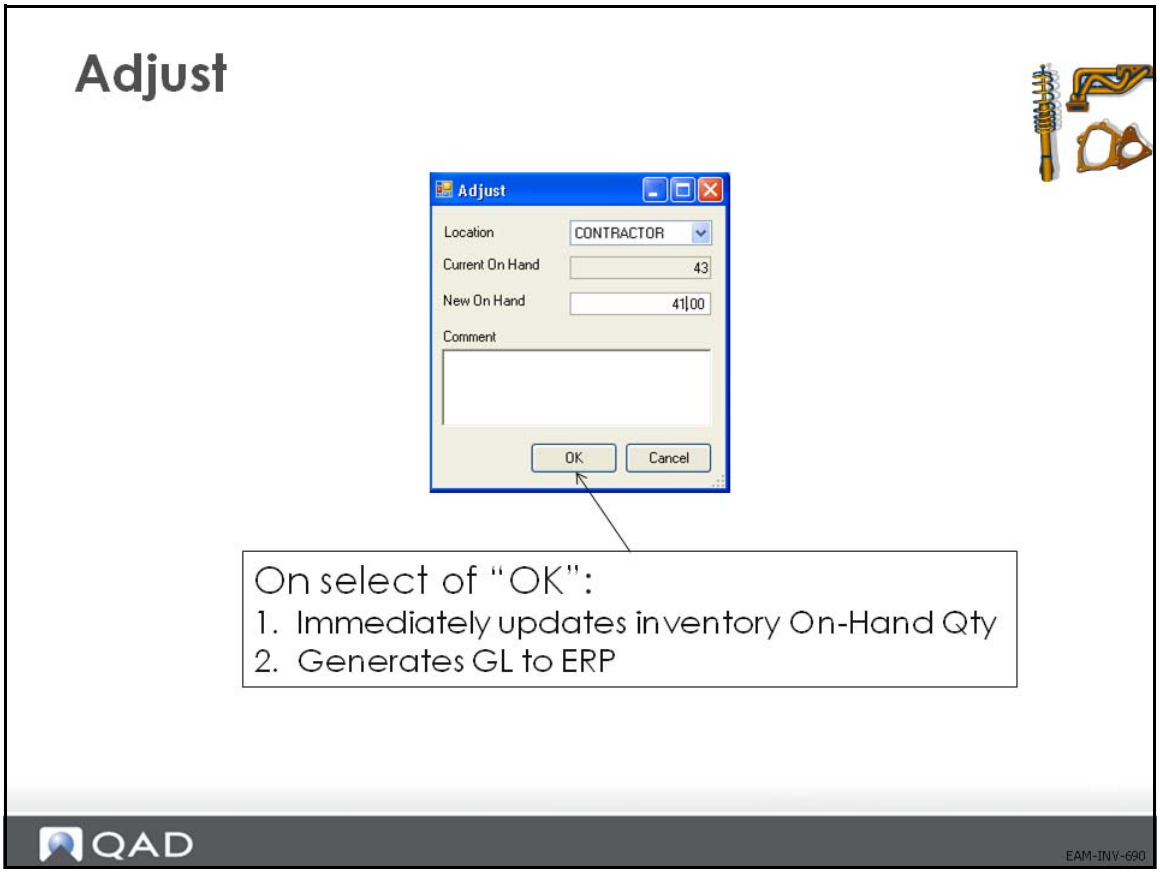
Appendix C: Inventory Transactions



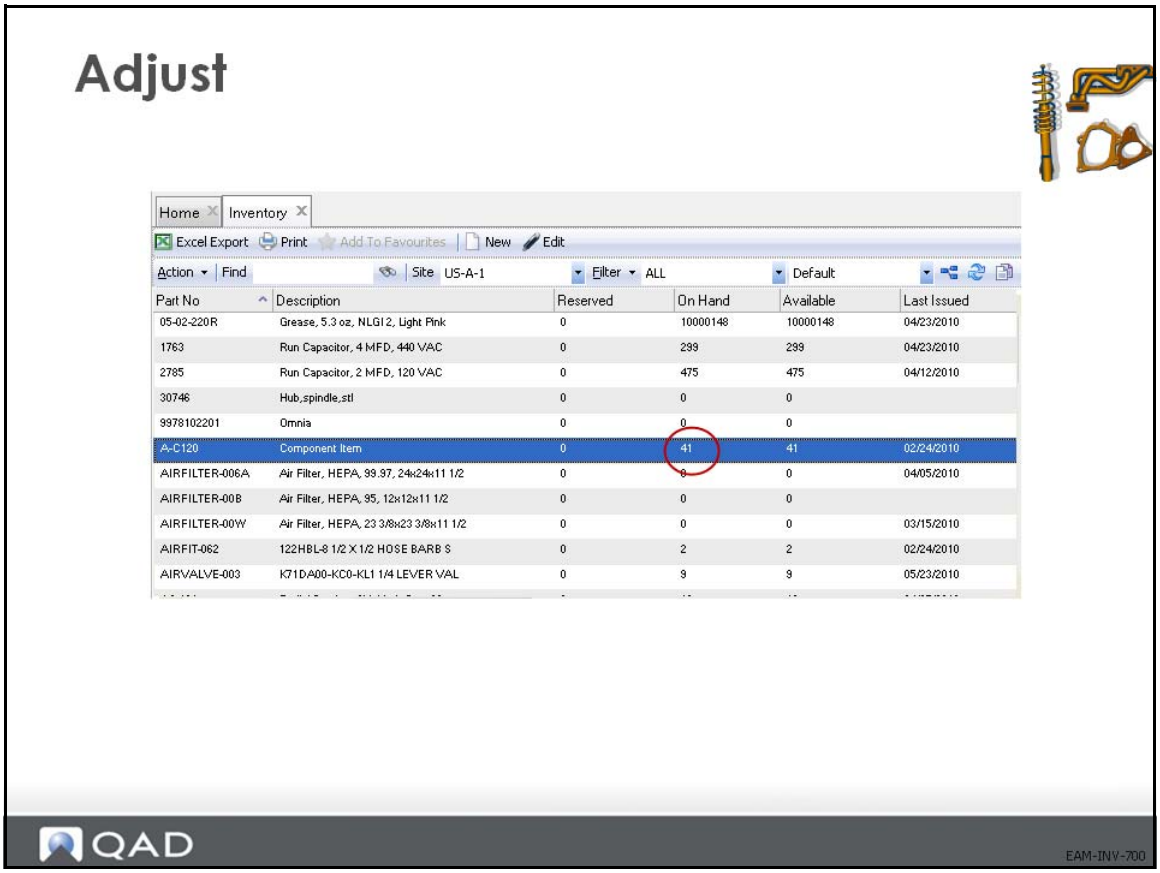
Adjust


Adjust
Home
Inventory
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site
US-A-1
Filter
Part No
Description
Reserved
05-02-220R
Grease, 5.3 oz, NLGI 2, Light Pink
1763
Run Capacitor, 4 MFD, 440 VAC
2785
Run Capacitor, 2 MFD, 120 VAC
30746
Hub,spindle,stl
9978102201
Omnia
A-C120
Component Item
AIRFILTER-006A
Air Filter, HEPA, 99.97, 24x24x11 1/2
AIRFILTER-00B
Air Filter, HEPA, 95, 12x12x11 1/2
AIRFILTER-00W
Air Filter, HEPA, 23 3/8x23 3/8x11 1/2
AIRFIT-062
122HBL-8 1/2 X 1/2 HOSE BARB S
AIRVALVE-003
K71DA00-KC0-KL1 1/4 LEVER VAL
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
Excel Export
Print
Add To Favourites
Find
Default
Location
On Hand
CONTRACTOR
43
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
EAM-INV-680

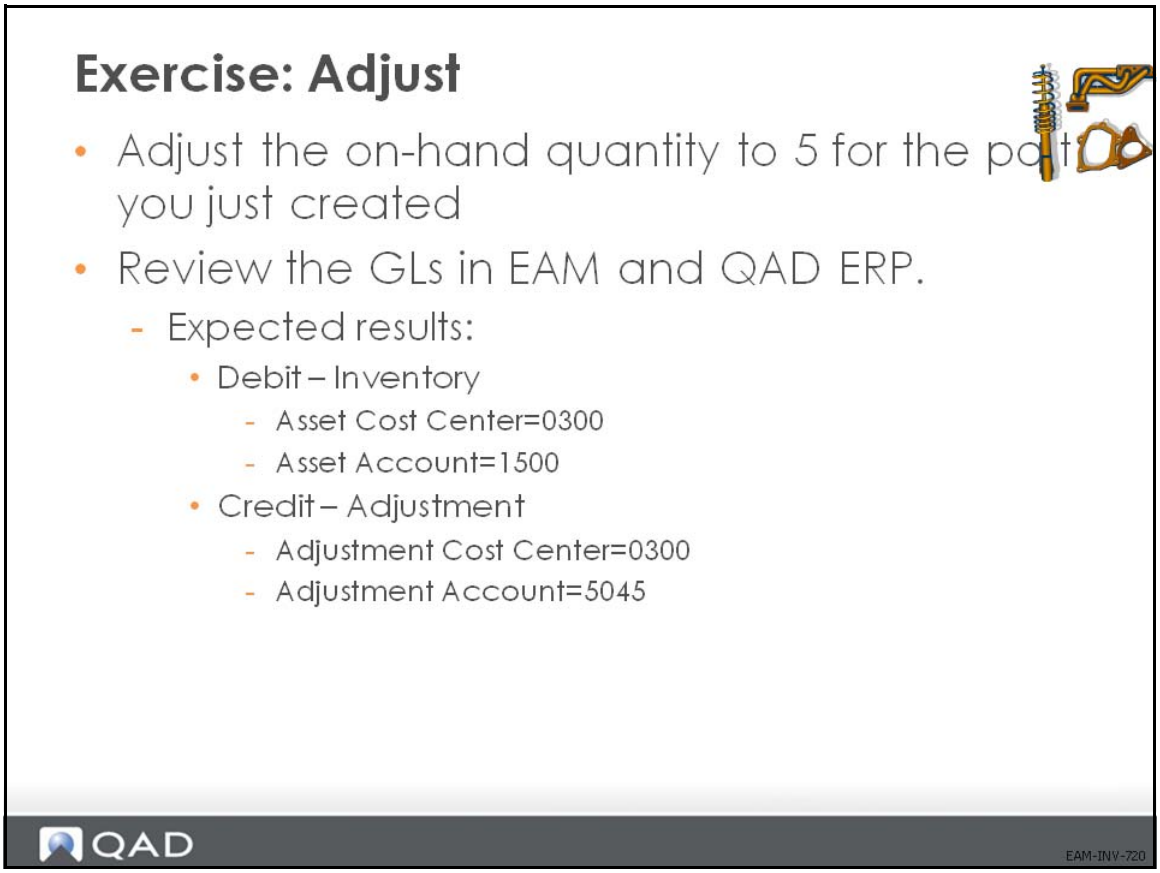
Adjust 2


Adjust
Adjust
Location
CONTRACTOR
Current On Hand
43
New On Hand
41.00
Comment
OK
Cancel
On select of "OK":
1. Immediately updates inventory On-Hand Qty
2. Generates GL to ERP
QAD
EAM-INV-690

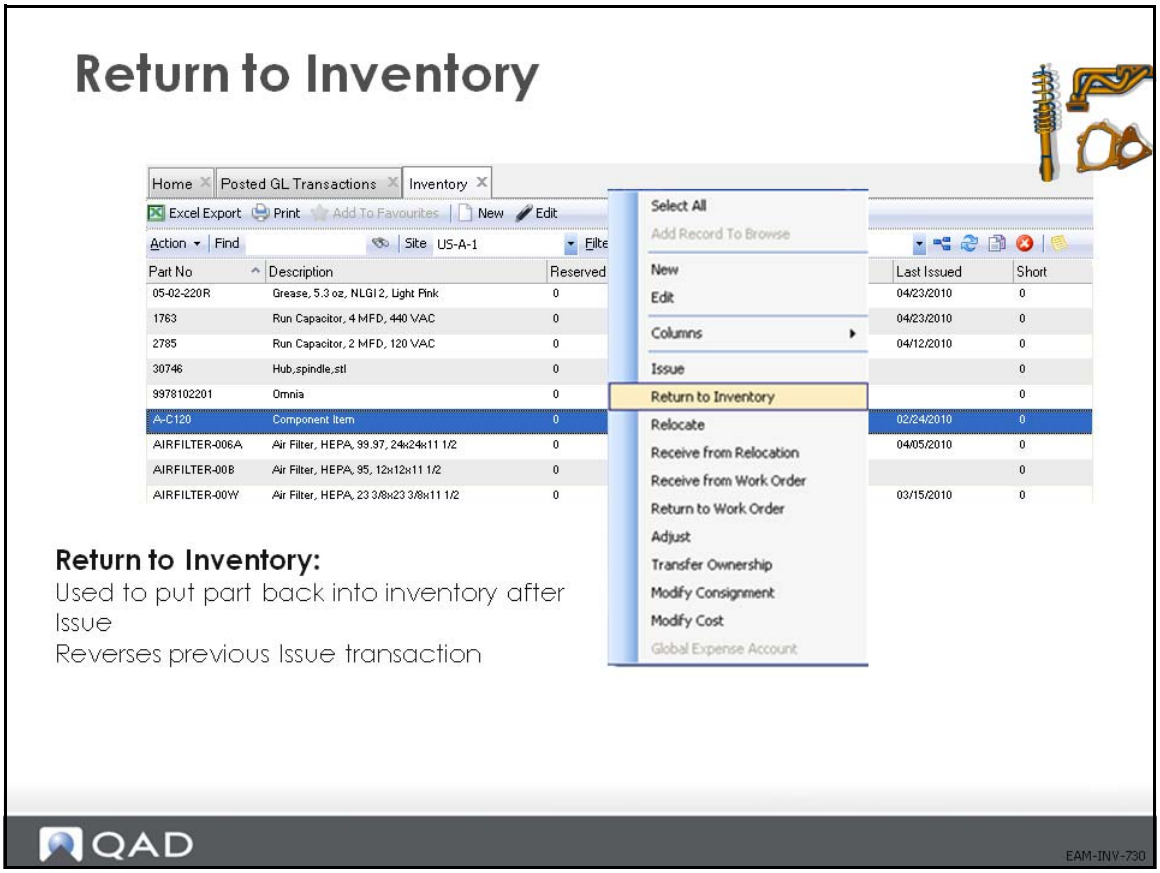
Adjust 3


Adjust
Home
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
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,stl
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-00B
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
EAM-INV-700

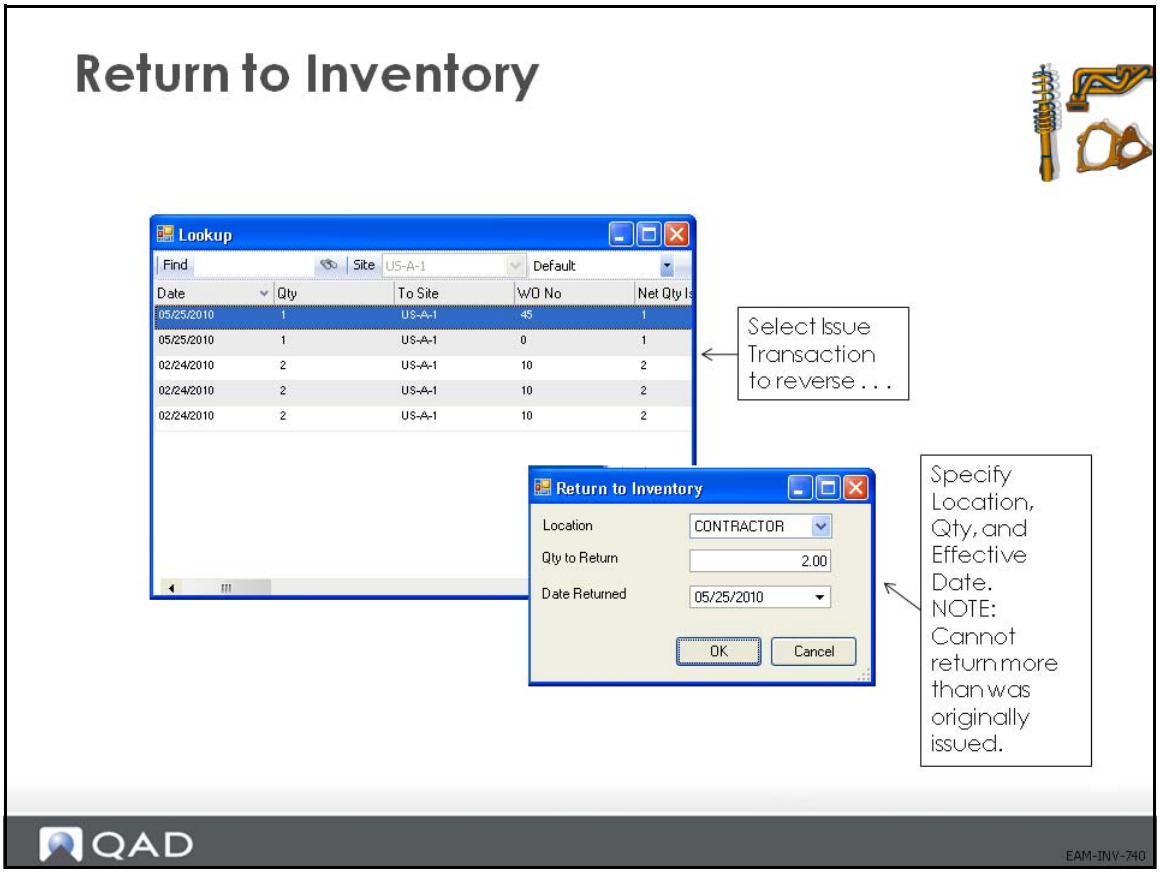
Exercise: Adjust



Return to Inventory



Return to Inventory 2



Exercise: Return

Exercise: Return

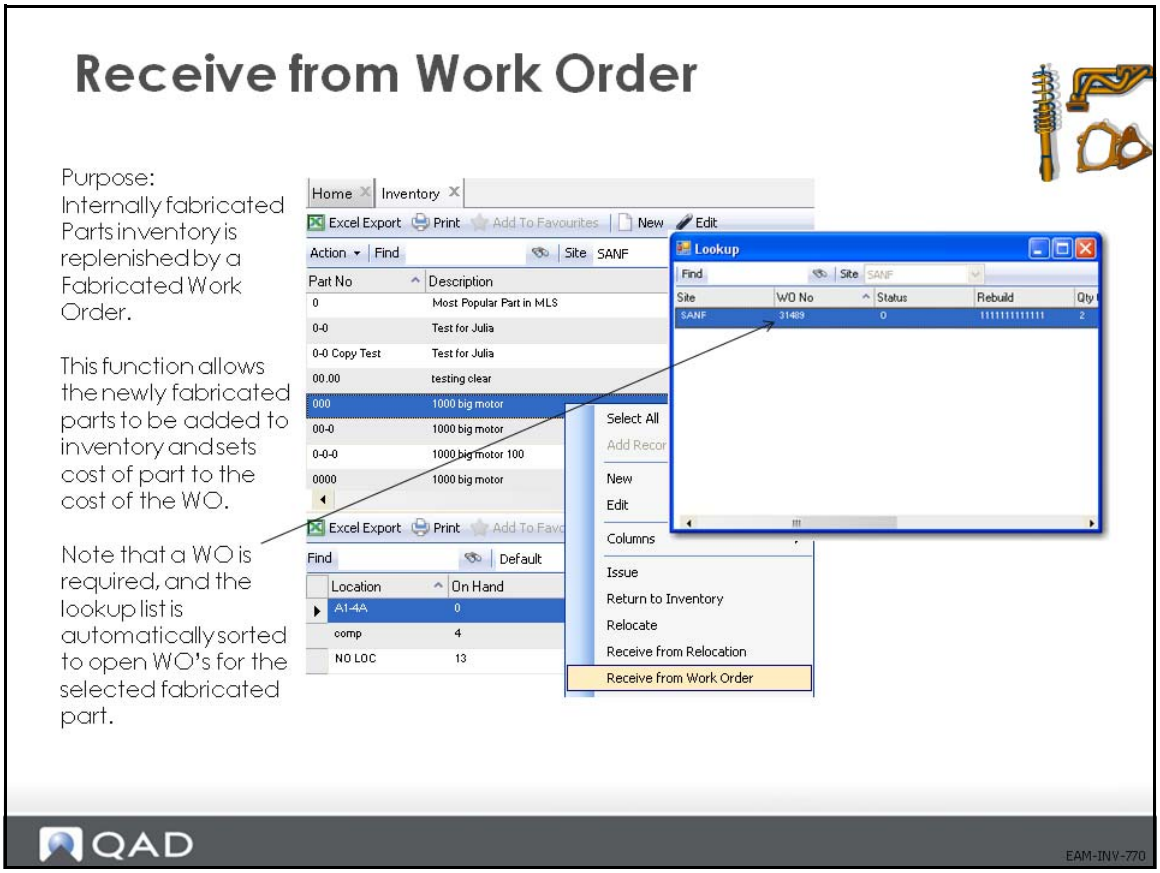


- Return the part just issued to a work order back to inventory.
- Review the GLs in EAM and QAD ERP.
  - Expected results:
    - Debit – Inventory
      - Asset Cost Center=0300
      - Asset Account=1500
    - Credit – WO/Equipment Expense
      - Cost Center=5010
      - Material Account=1510

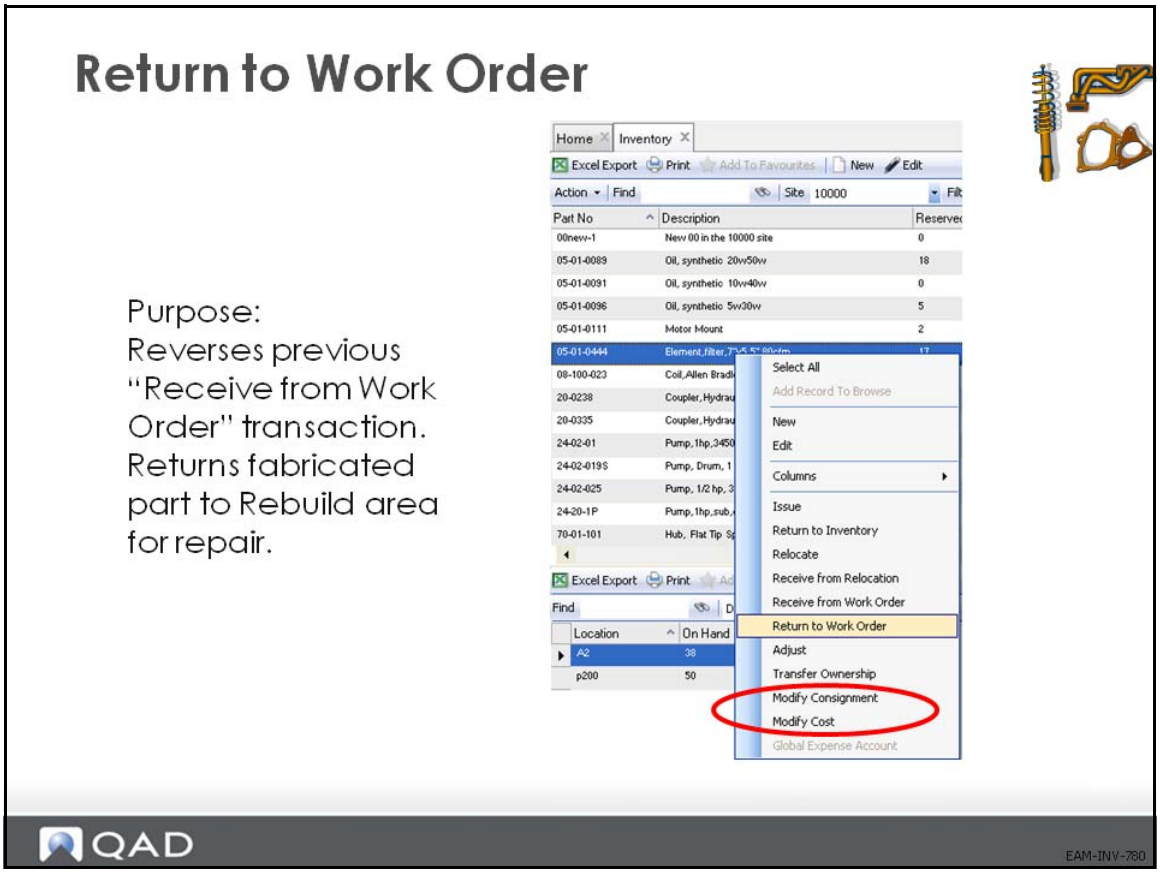
QAD

EAM-INV-760

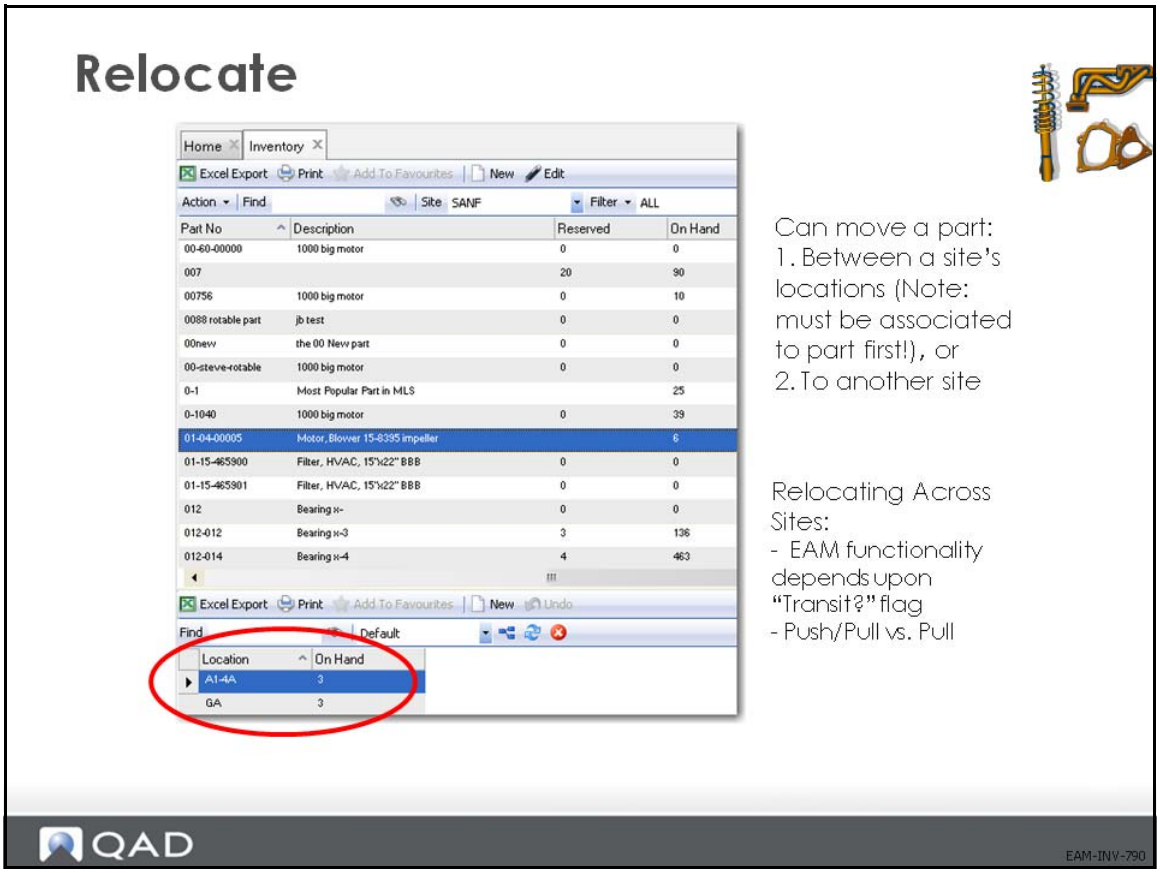
Receive from Work Order



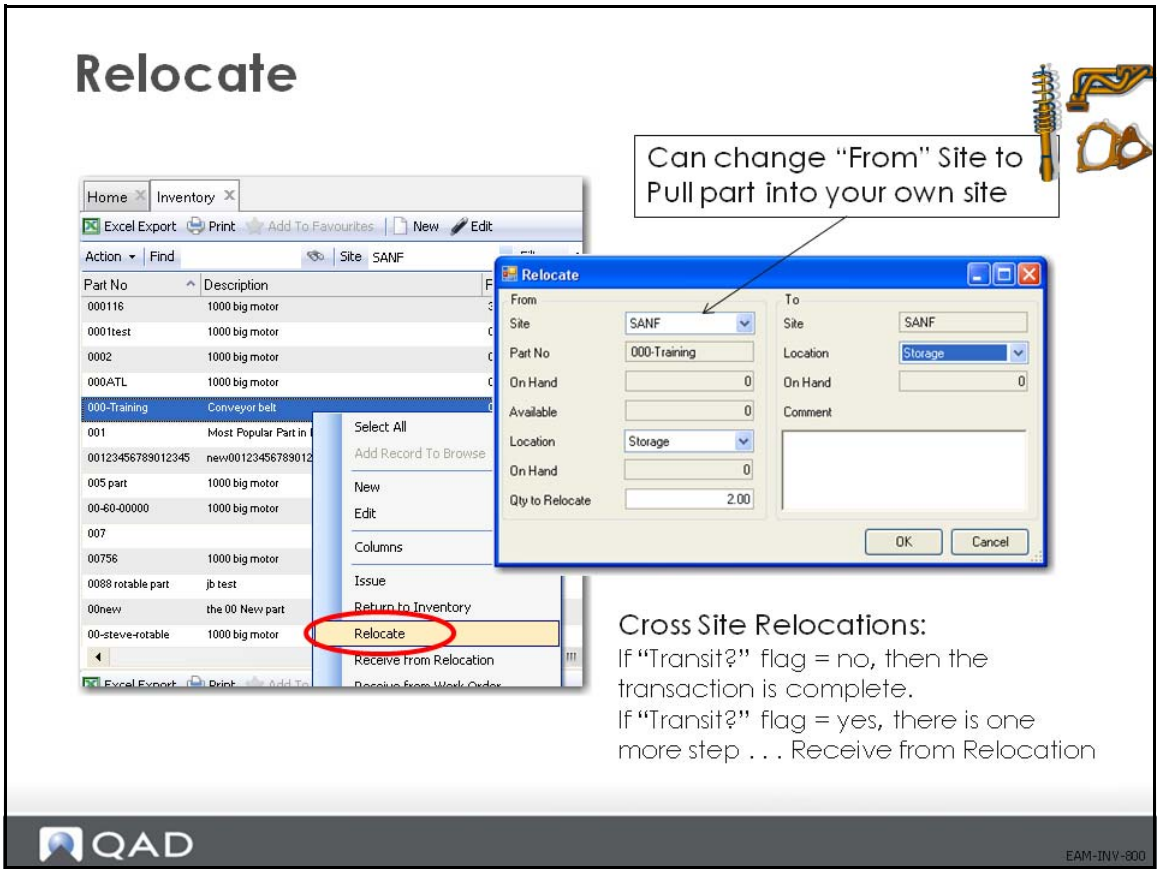
Return to Work Order



Relocate


Relocate
Home
Inventory
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site SANF
Filter ALL
Part No
Description
Reserved
On Hand
00-60-00000 1000 big motor 0 0
007 20 90
00756 1000 big motor 0 10
0088 rotable part jb test 0 0
00new the 00 New part 0 0
00-steve-rotable 1000 big motor 0 0
0-1 Most Popular Part in MLS 25
0-1040 1000 big motor 0 39
01-04-00005 Motor, Blower 15-8395 impeller 6
01-15-465900 Filter, HVAC, 15"x22" BBB 0 0
01-15-465901 Filter, HVAC, 15"x22" BBB 0 0
012 Bearing x- 0 0
012-012 Bearing x-3 3 136
012-014 Bearing x-4 4 463
Excel Export
Print
Add To Favourites
New
Undo
Find
Default
Location
On Hand
A1-4A 3
GA 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
EAM-INV-790

Relocate 2

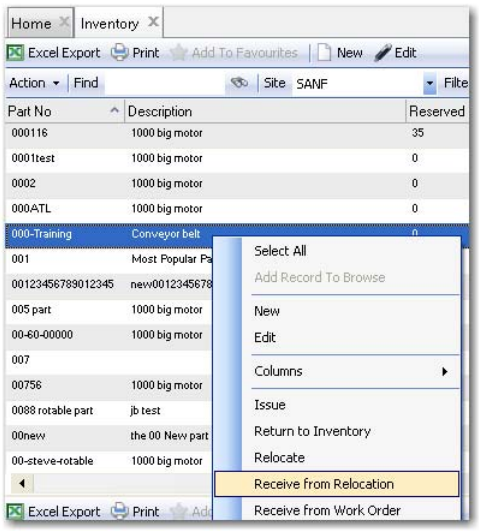

Relocate
Can change "From" Site to Pull part into your own site
Home
Inventory
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site SANF
Part No
Description
000116 1000 big motor
0001test 1000 big motor
0002 1000 big motor
000ATL 1000 big motor
000-Training Conveyor belt
001 Most Popular Part in
00123456789012345 new00123456789012
005 part 1000 big motor
00-60-00000 1000 big motor
007
00756 1000 big motor
0088 rotable part jb test
00new the 00 New part
00-steve-rotable 1000 big motor
Select All
Add Record To Browse
New
Edit
Columns
Issue
Return to Inventory
Relocate
Receive from Relocation
Relocate
From
Site SANF
Part No 000-Training
On Hand 0
Available 0
Location Storage
On Hand 0
Qty to Relocate 2.00
To
Site SANF
Location Storage
On Hand 0
Comment
OK
Cancel
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
EAM-INV-800

Receive from Relocation

Receive from Relocation



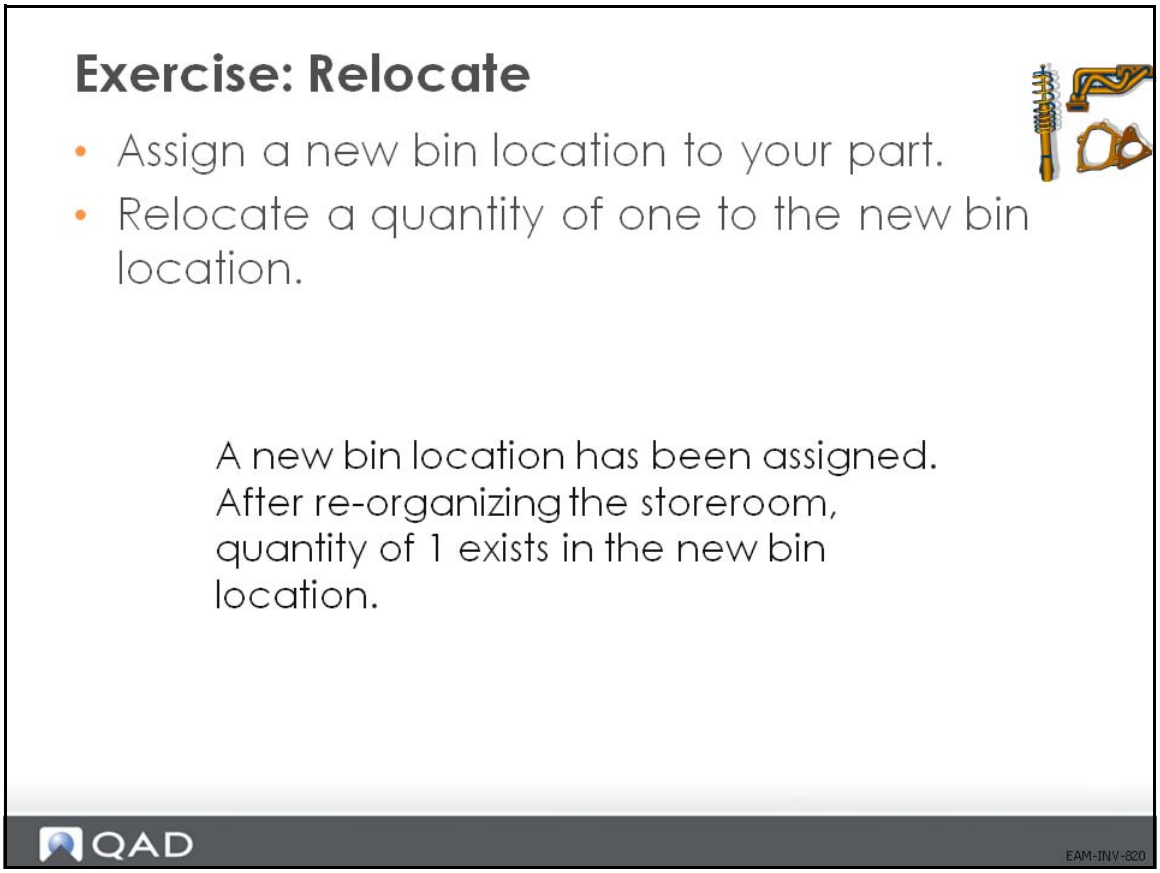
Purpose:
If "Transit?" is set to yes, cross-site inventory transfers involve a "Push" to an In-Transit account. The "Receive from Relocation" is the second step to "Pull" that inventory from the In-Transit Account into the Site Inventory.



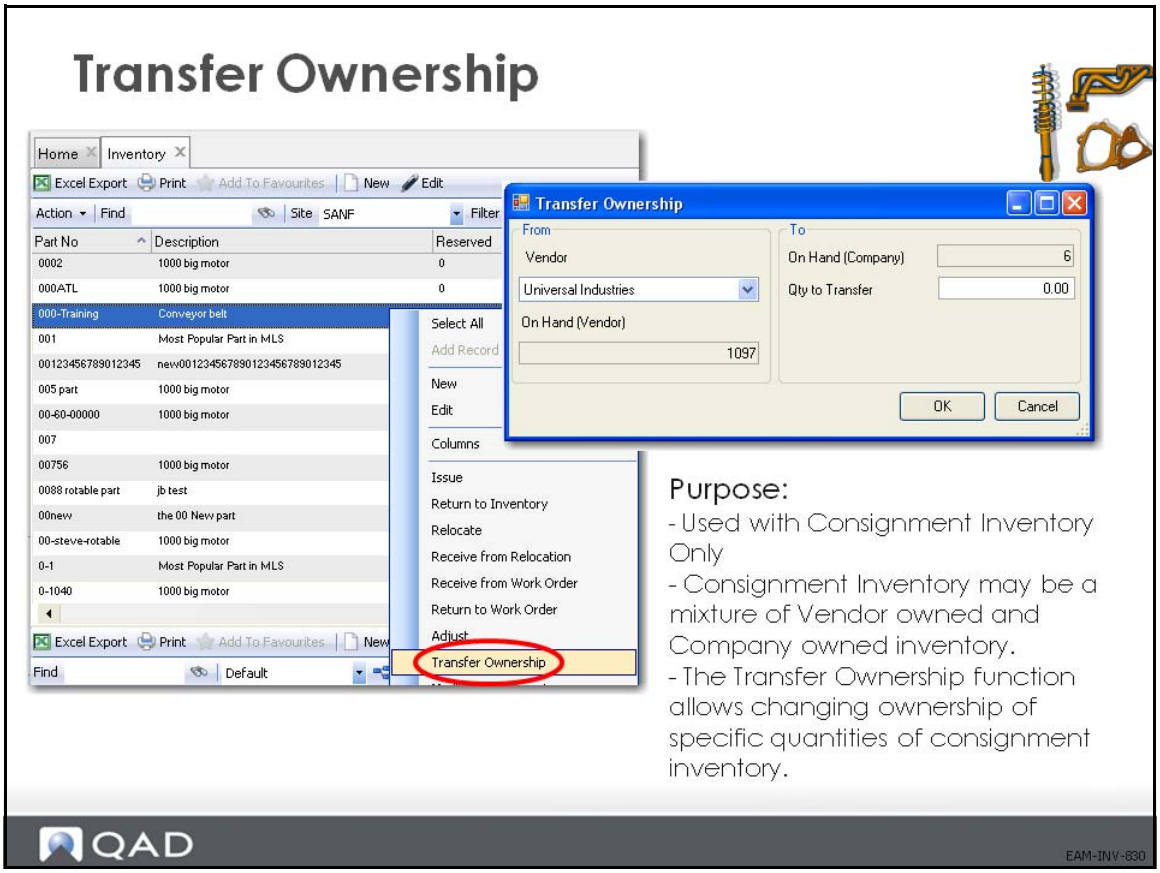
QAD

EAM-INV-810

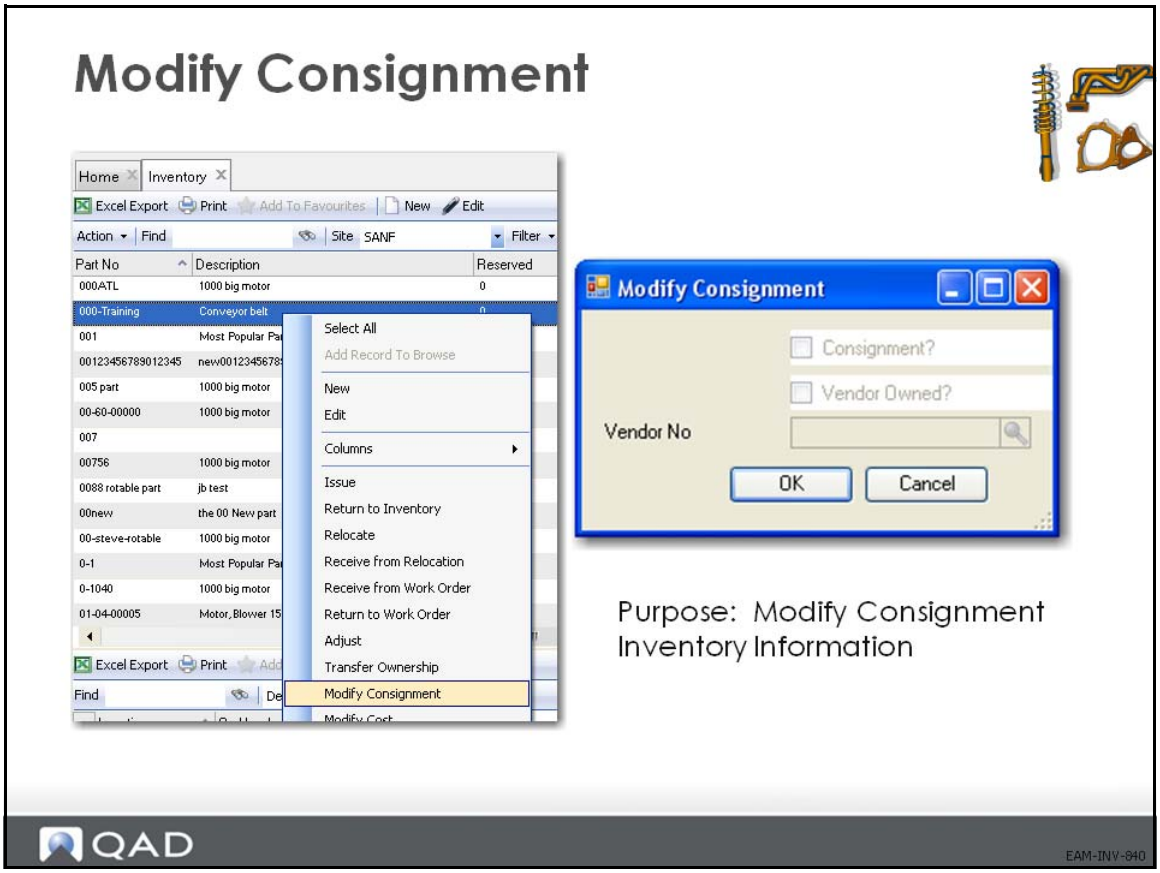
Exercise: Relocate



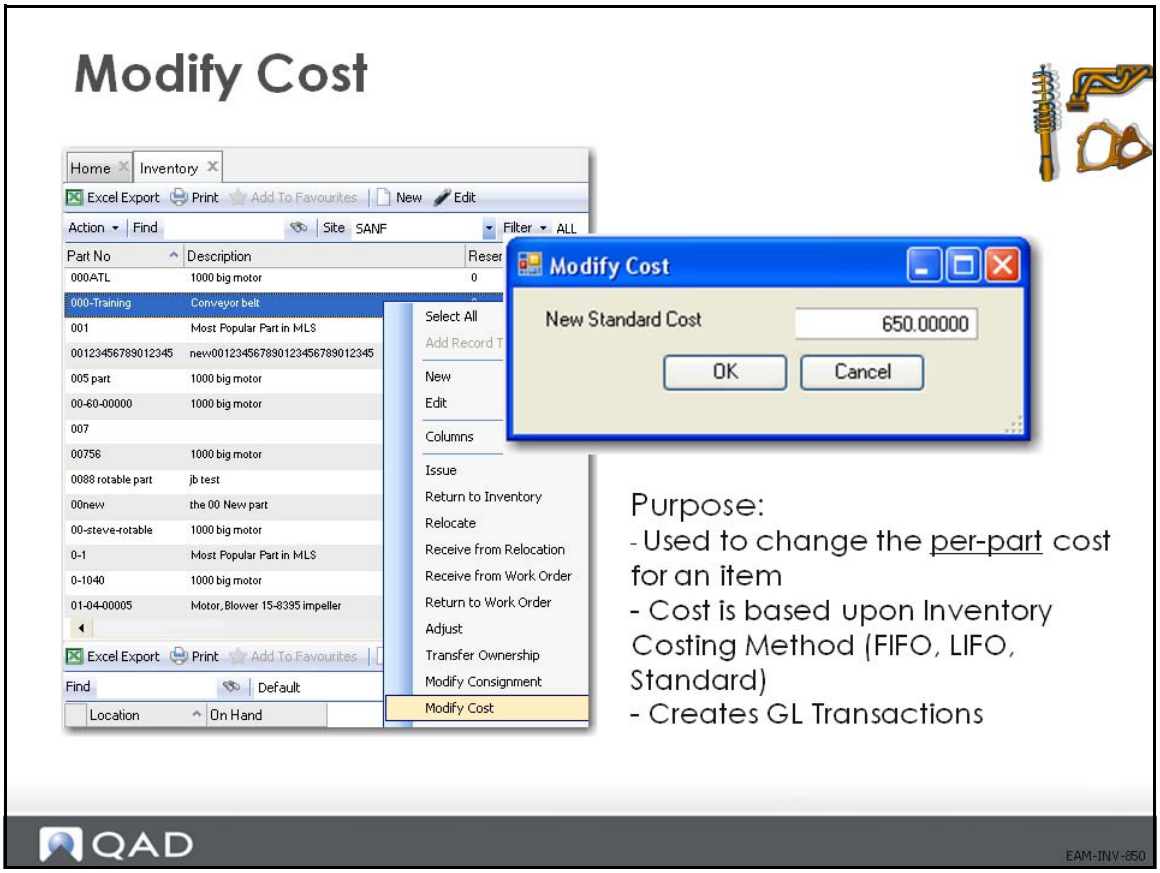
Transfer


Transfer Ownership
Home
Inventory
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site
SANF
Filter
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
new00123456789012345678901234 5
005 part
1000 big motor
00-60-00000
1000 big motor
007
00756
1000 big motor
0088 rotable part
jb test
00new
the 00 New part
00-steve-rotable
1000 big motor
0-1
Most Popular Part in MLS
0-1040
1000 big motor
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
Default
Transfer Ownership
From
Vendor
Universal Industries
On Hand (Vendor)
1097
To
On Hand (Company)
6
Qty to Transfer
0.00
OK
Cancel
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
EAM-INV-830

Modify Consignment



Modify Cost


Modify Cost
Home
Inventory
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 new00123456789012345678901234 5
005 part 1000 big motor
00-60-00000 1000 big motor
007
00756 1000 big motor
0088 rotable part jb test
00new the 00 New part
00-steve-rotable 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
Default
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
EAM-INV-650

Appendix D: Physical Inventory

Physical Inventory

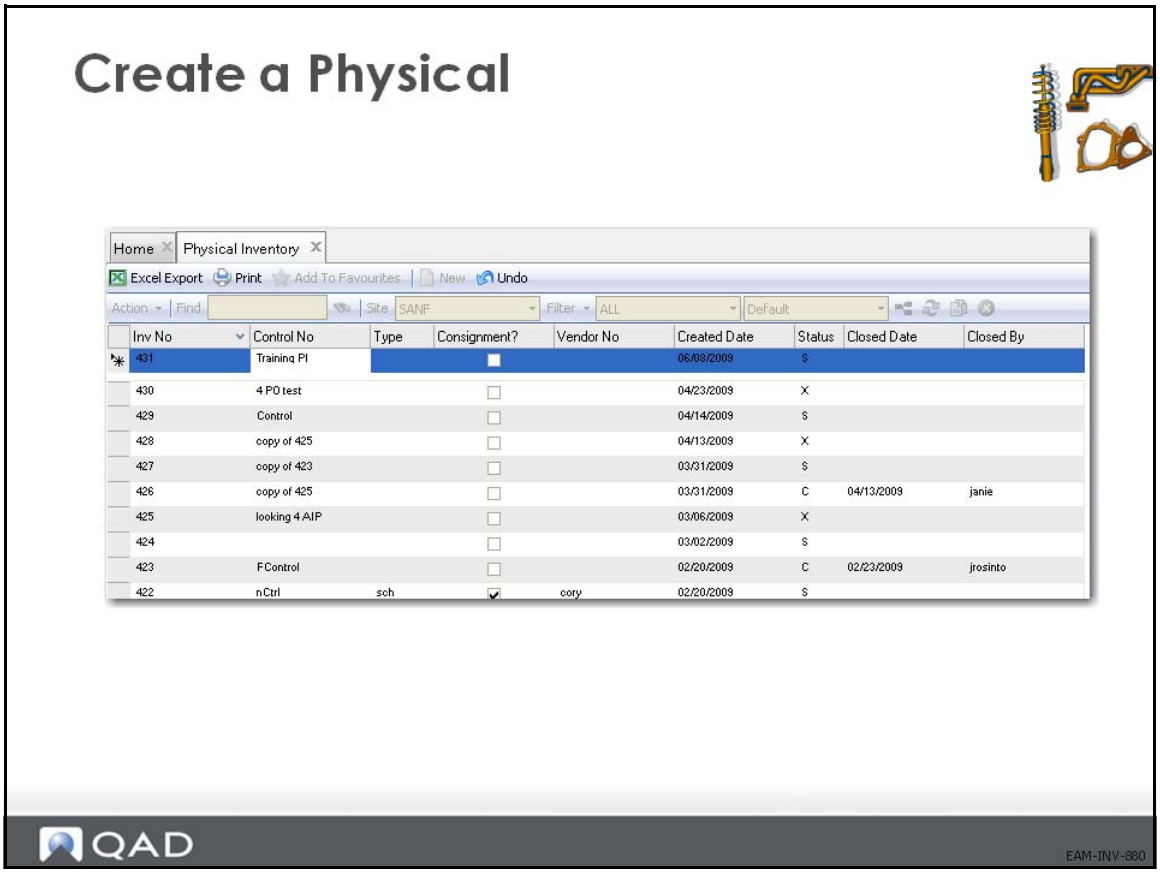


- Physical Inventory is a formal inventory counting function, usually associated with an audit process
- May be created for all inventory or for specific sections of inventory based upon various criteria (Ex: Last Physical Count Date)
- Freezes all transactions for parts included until the Physical Inventory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

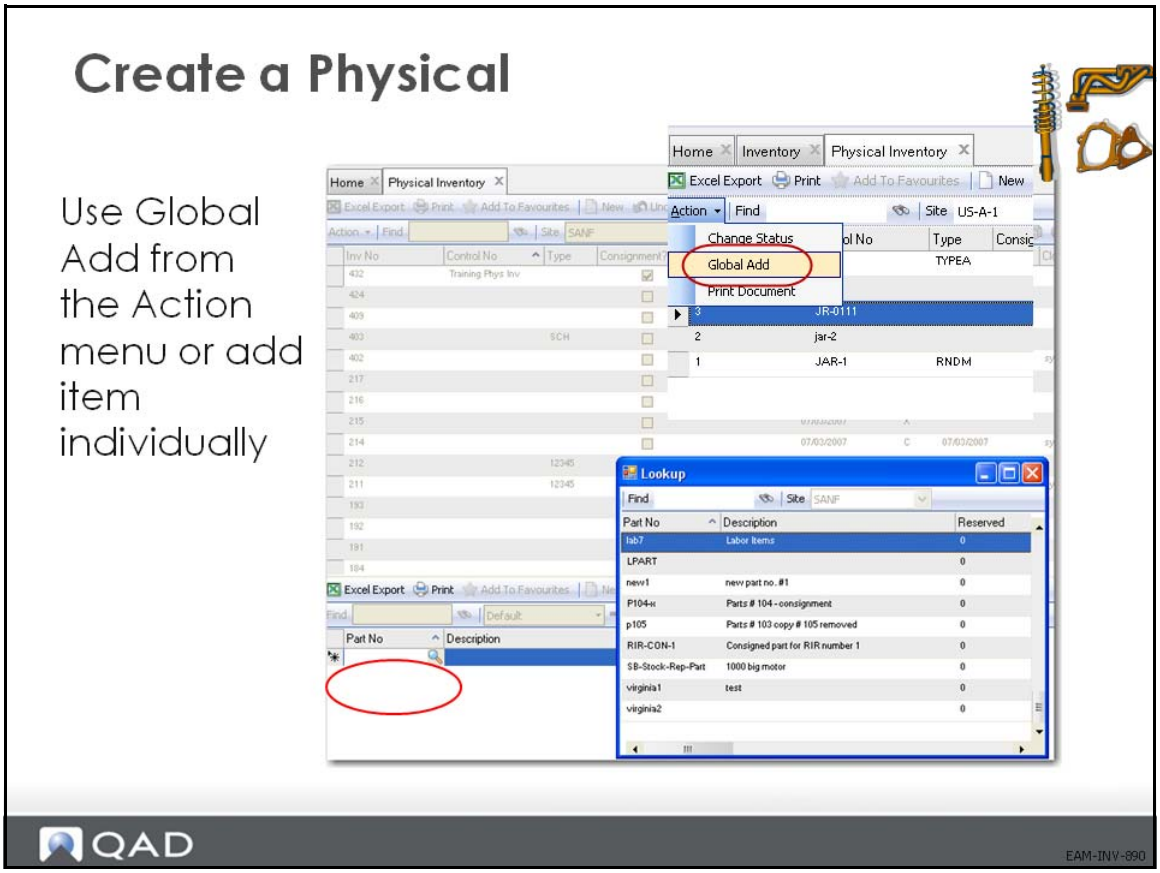
QAD

EAM-INV-870

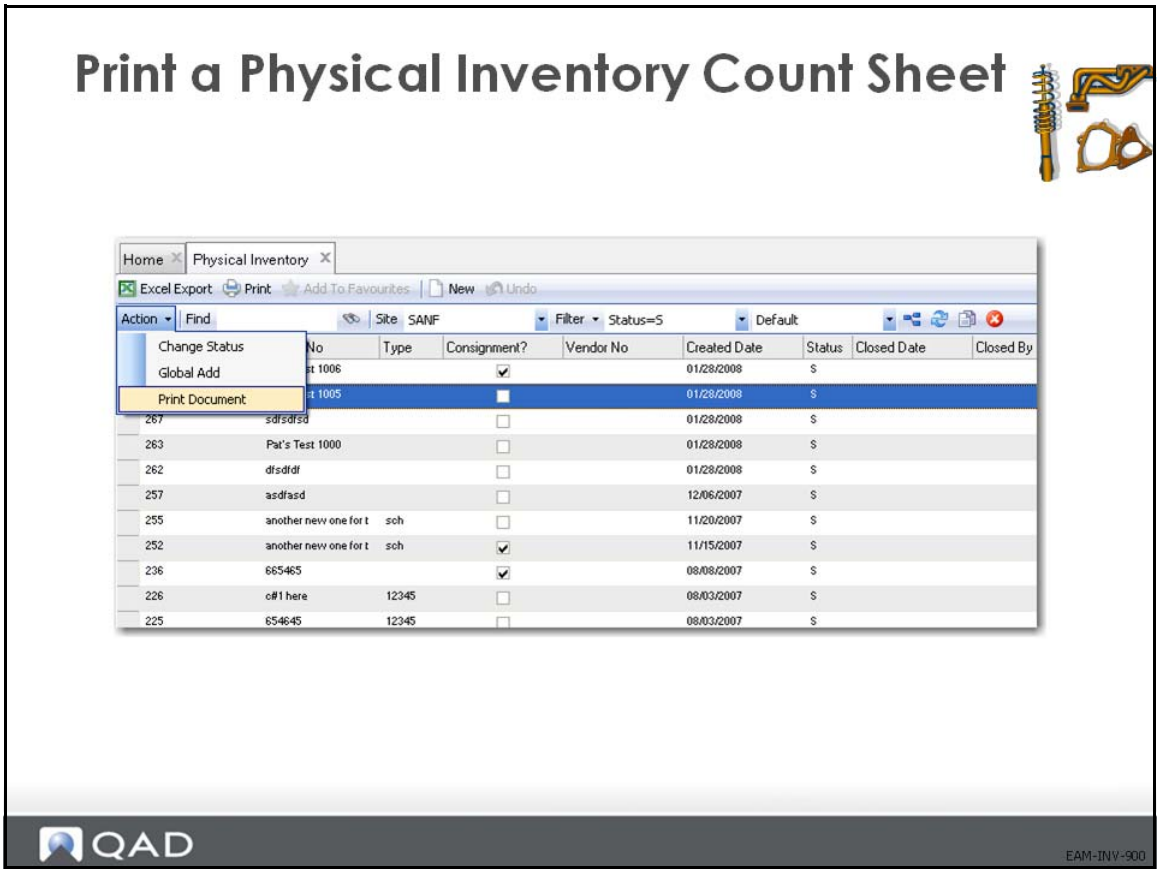
Heading 2


Create a Physical
Home
Physical Inventory
Excel Export
Print
Add To Favourites
New
Undo
Action
Find
Site
SANF
Filter
ALL
Default
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
EAM-INV-680

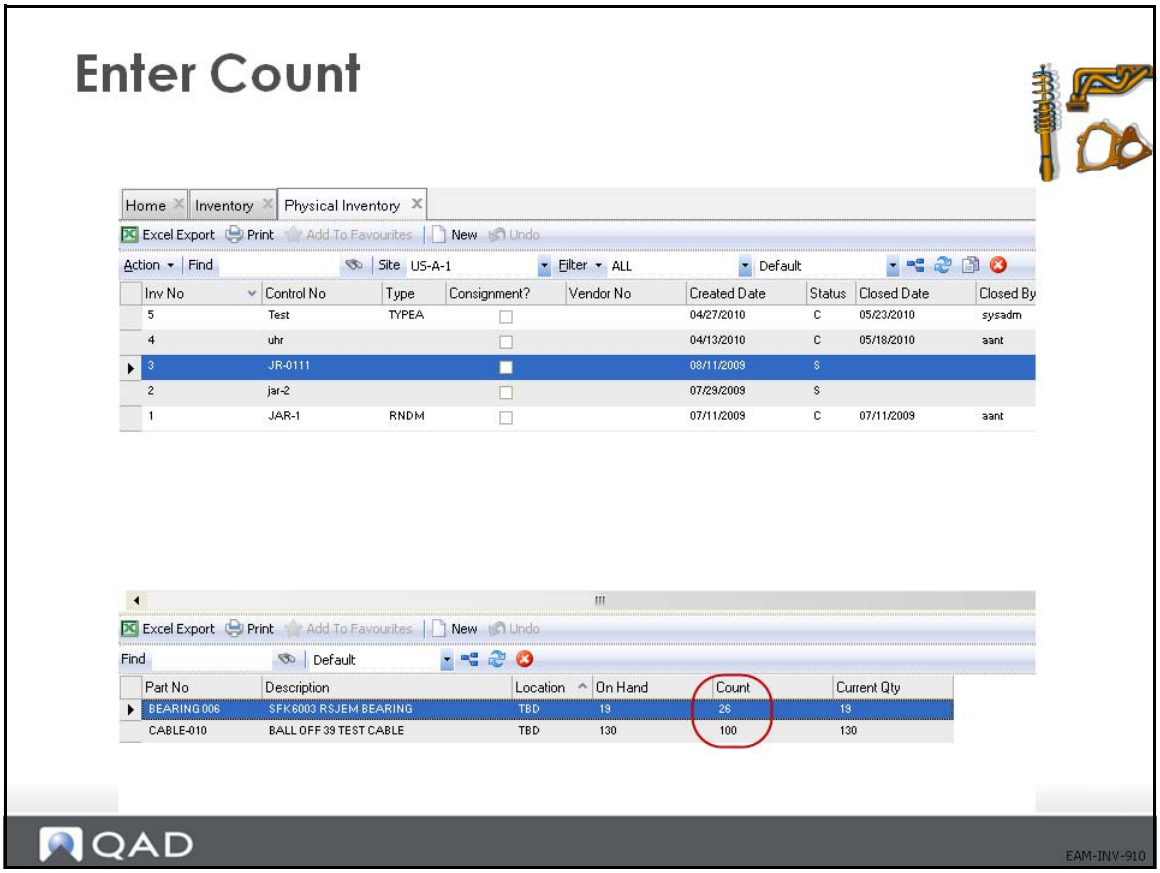
Create a Physical



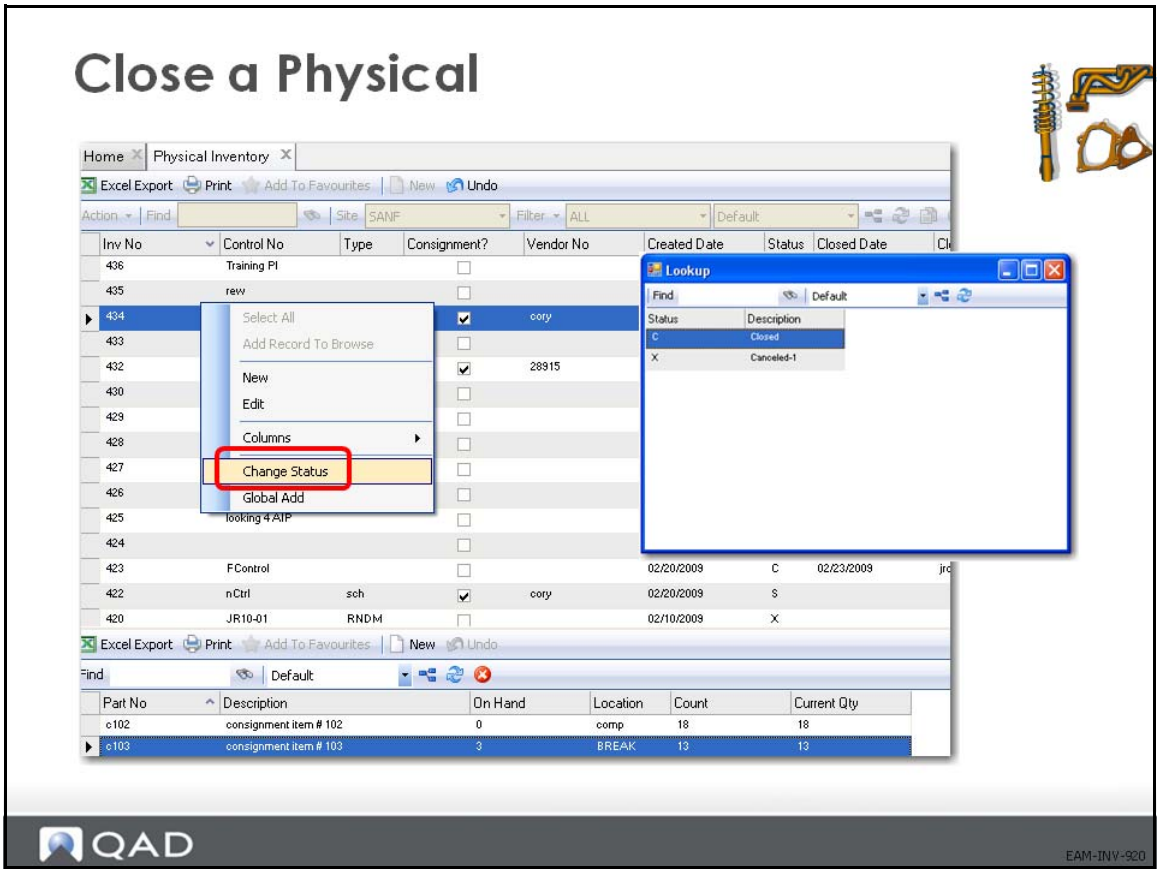
Print a Physical Inventory Count Sheet



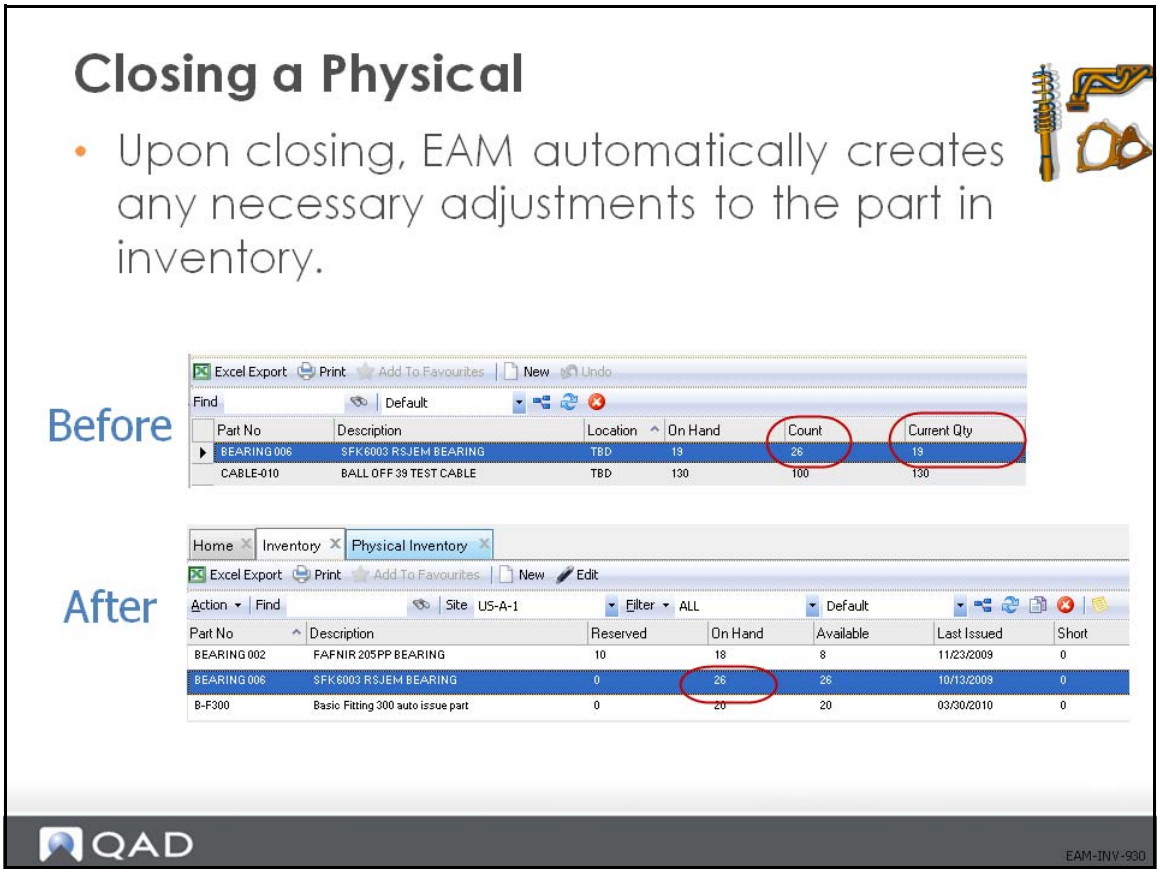
Enter Count


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 SFK6003 RSJEM BEARING TBD 19 26 19
CABLE-010 BALL OFF 39 TEST CABLE TBD 130 100 130
QAD
EAM-INV-910

Close a Physical



Closing a Physical 2



Physical Adjustment

Physical Adjustment



GLs Created When Closed

- 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
MI100525028136	05/25/2010	PHY-QTY-I-BEARIN		1500		84.21
MI100525028136	05/25/2010	PHY-QTY-I-BEARIN		5900		-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

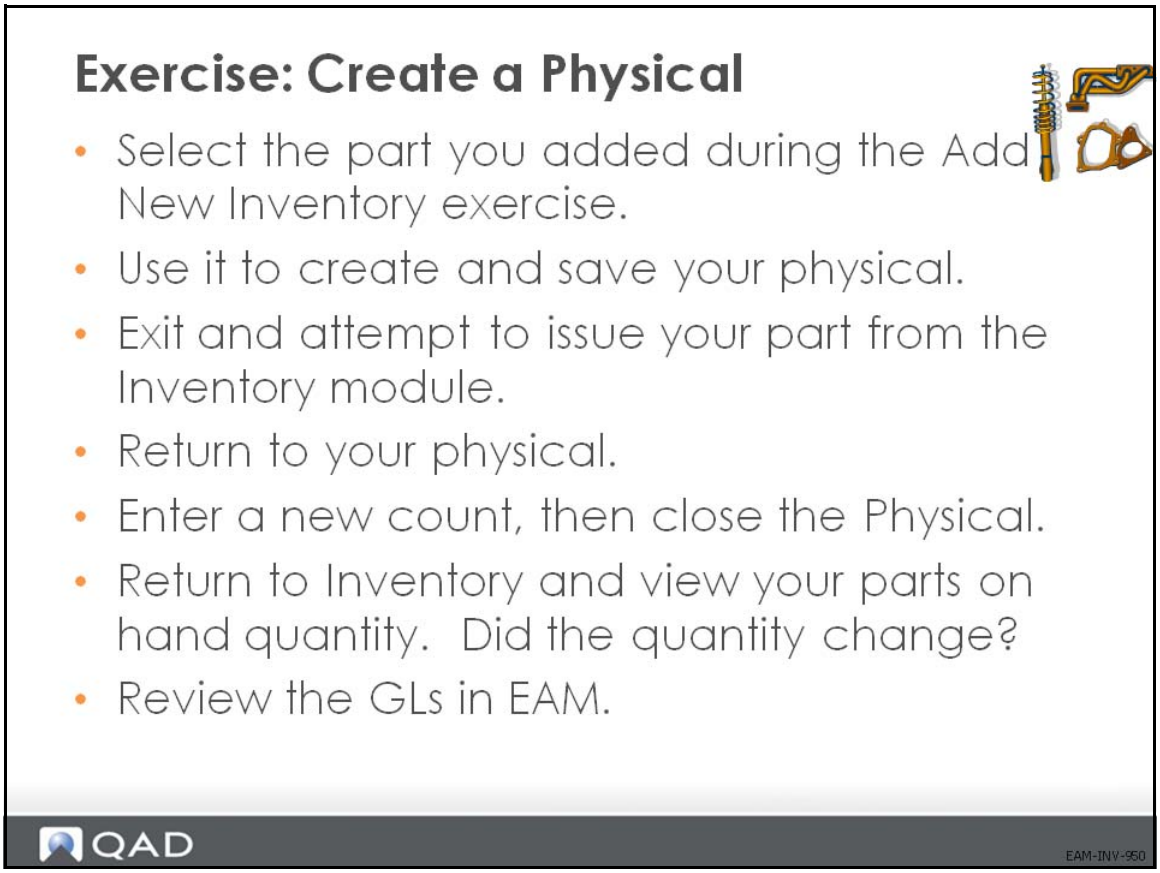
GL Reference	Batch	Eff Date	Entered	User ID	Total	Corr
MI070301000097		05/01/03	03/01/07	sysadm	0.00	No

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

QAD

EAM-INV-940

Exercise: Create a Physical



Appendix E: Stock Replenishment

Stock Replenishment

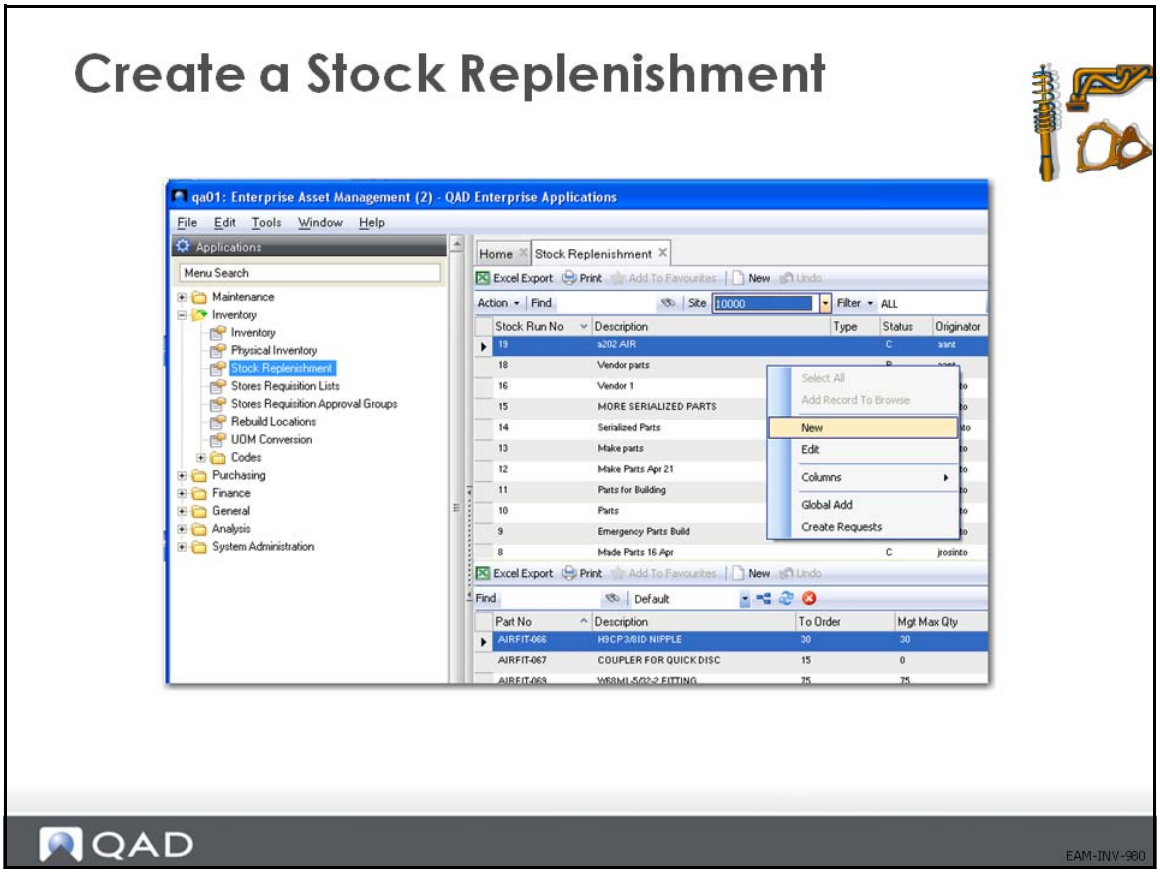


- Use the Stock Replenishment module to replenish stock automatically.
  - Ways to Replenish Stock
    - Manually create a stock run with a specific filter criteria such as part type, vendor, critical, and consignment.
    - Automatically Create - Use Batch Job Scheduler (batch/autostck.p) which is still 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

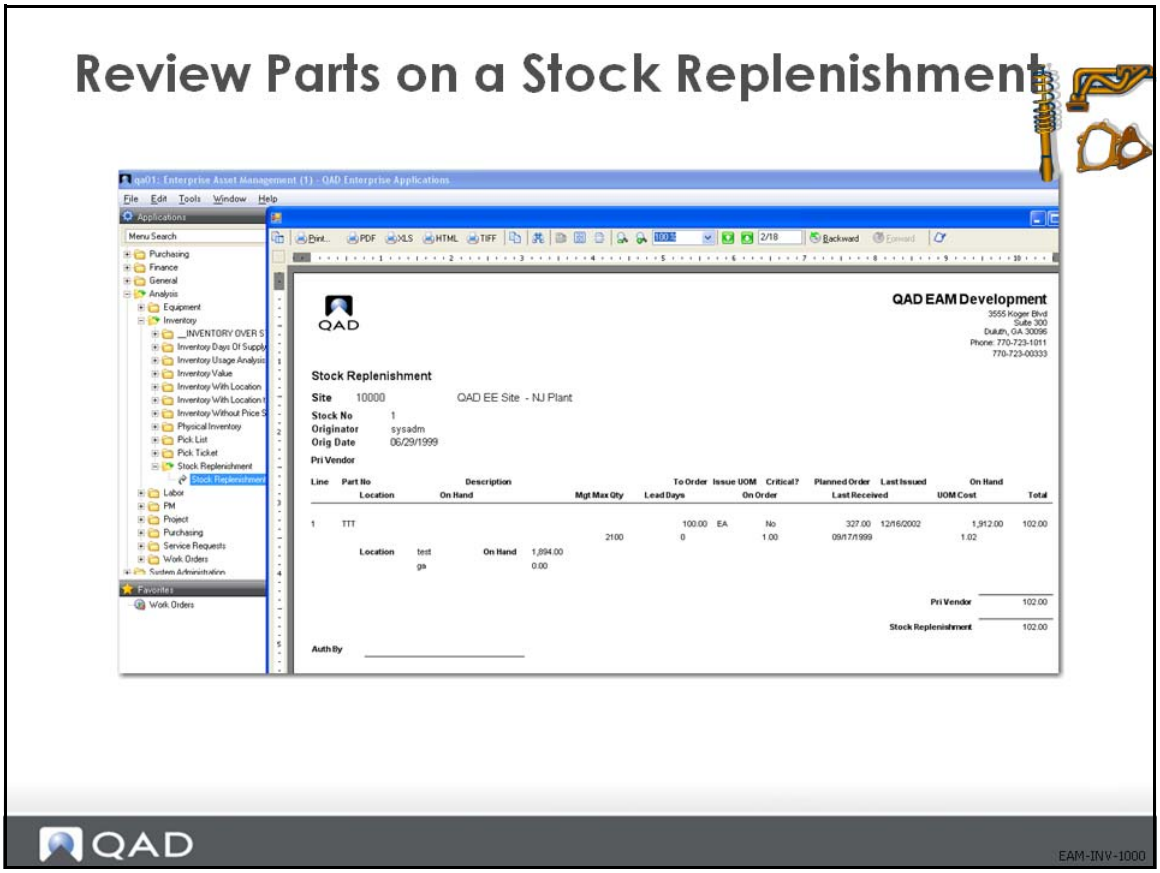
QAD

EAM-INV-970

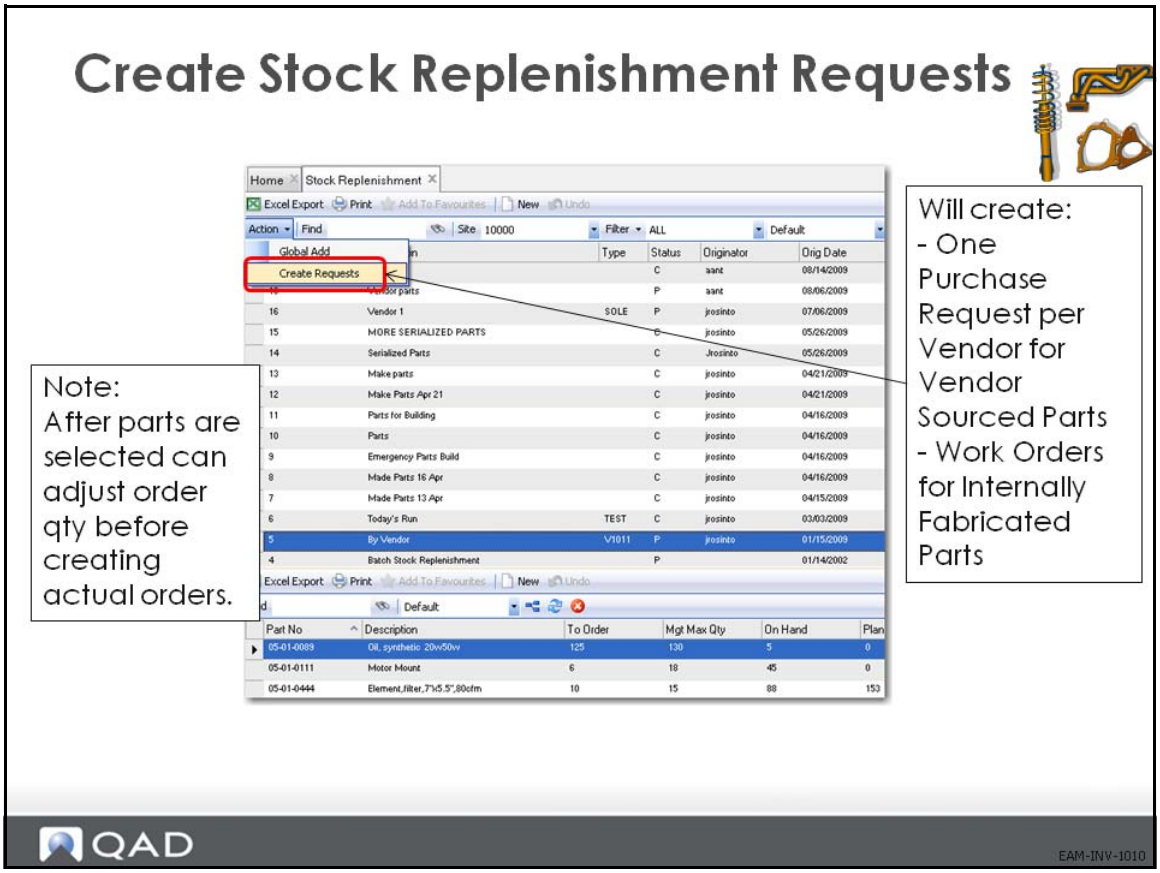
Create a Stock Replenishment



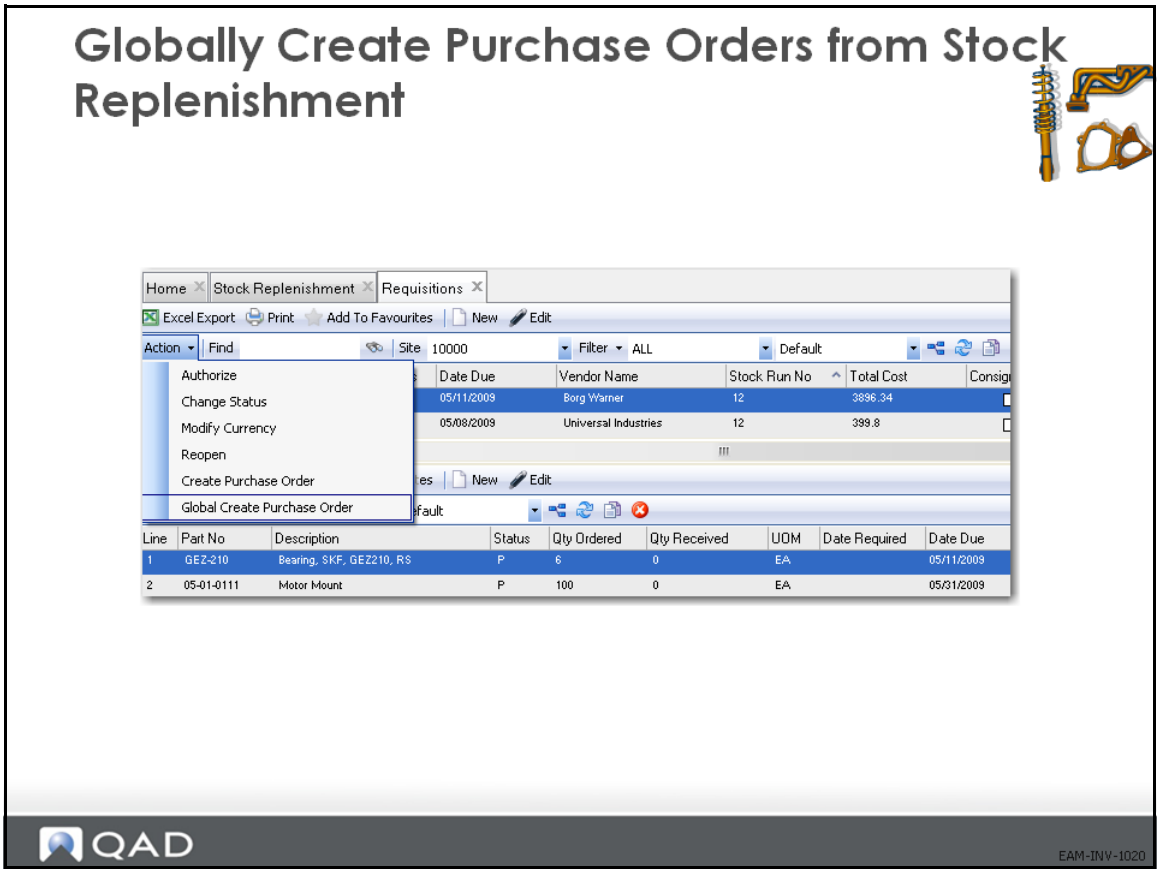
Review Parts on a Stock Replenishment



Create Stock Replenishment Requests



Globally Create Purchase Orders from Stock Replenishment

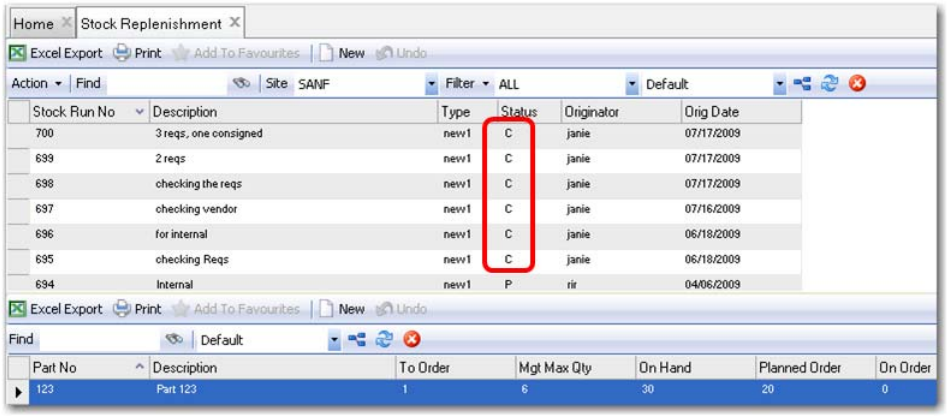


Close a Stock Replenishment

Close a Stock Replenishment



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



QAD

EAM-INV-1030

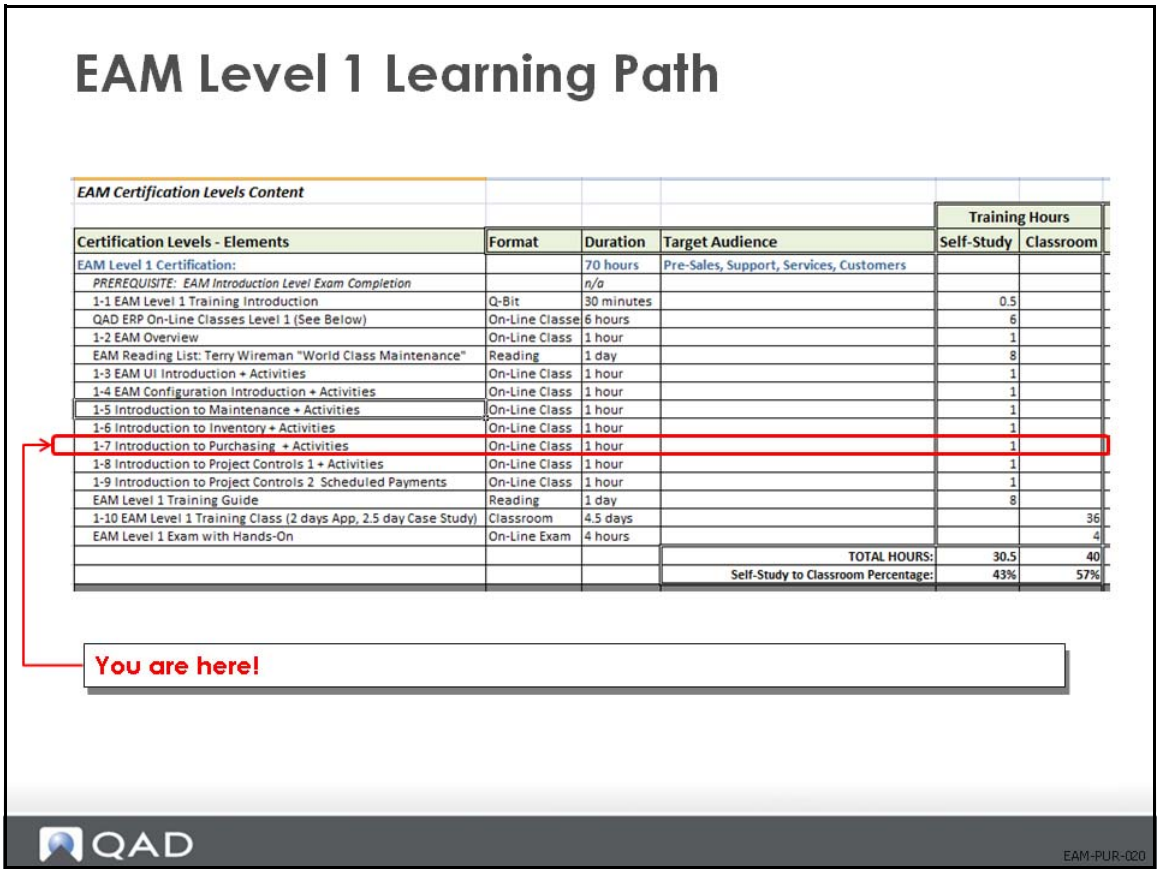
Chapter 7

Introduction to EAM Purchasing

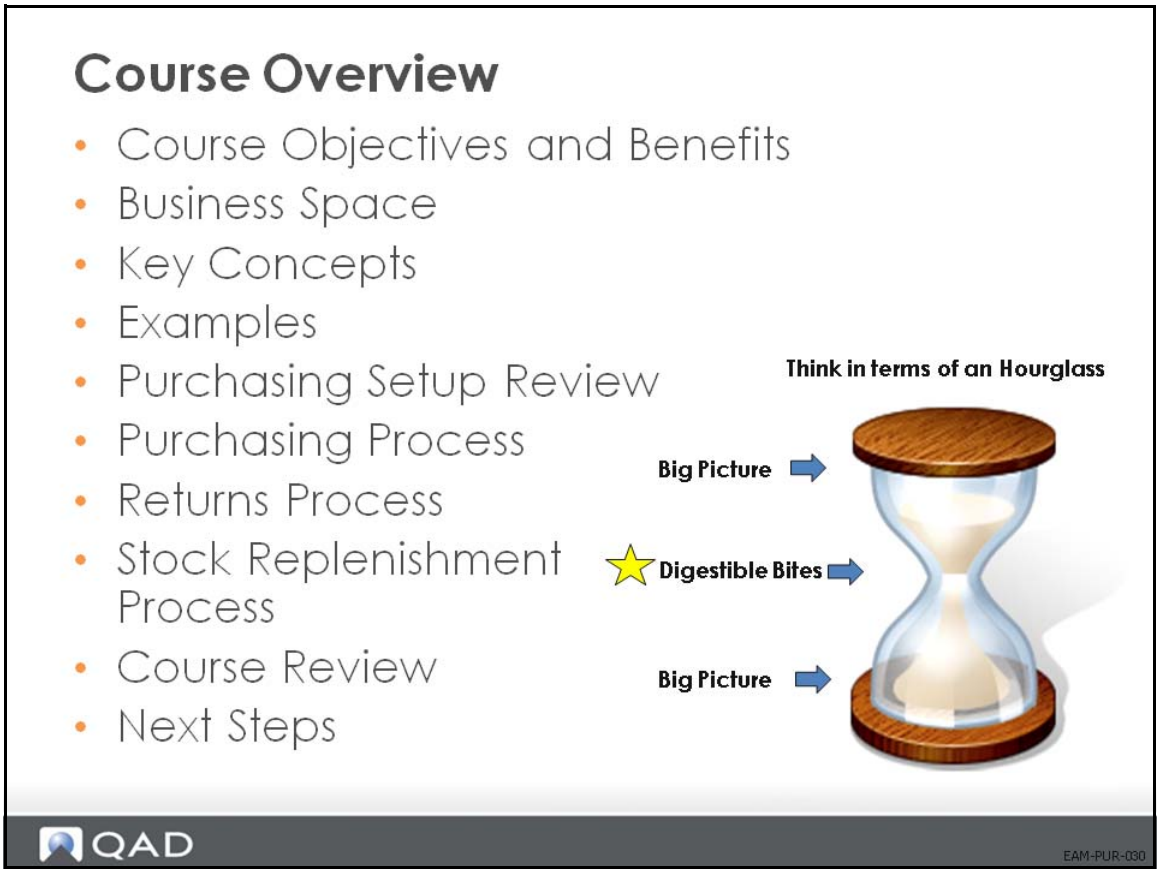
EAM Purchasing Intro



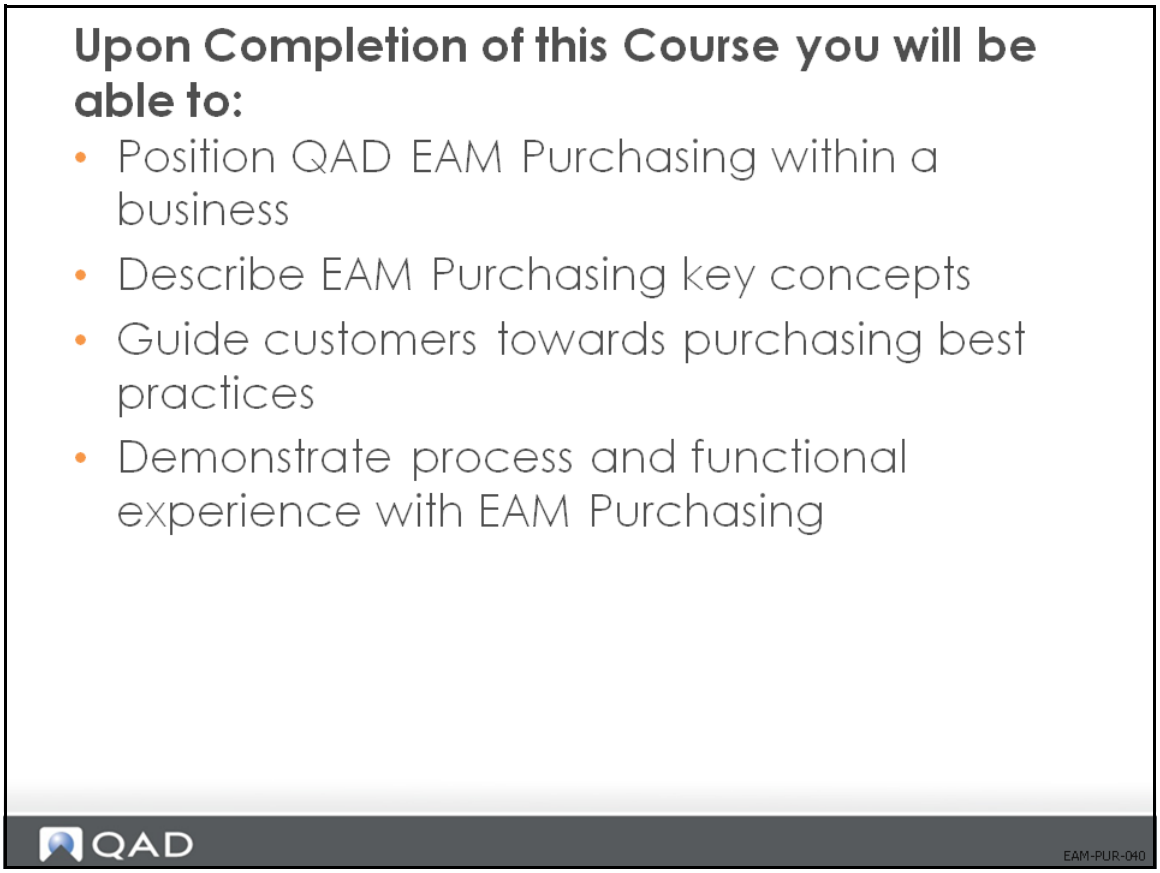
EAM Level 1 Learning Path



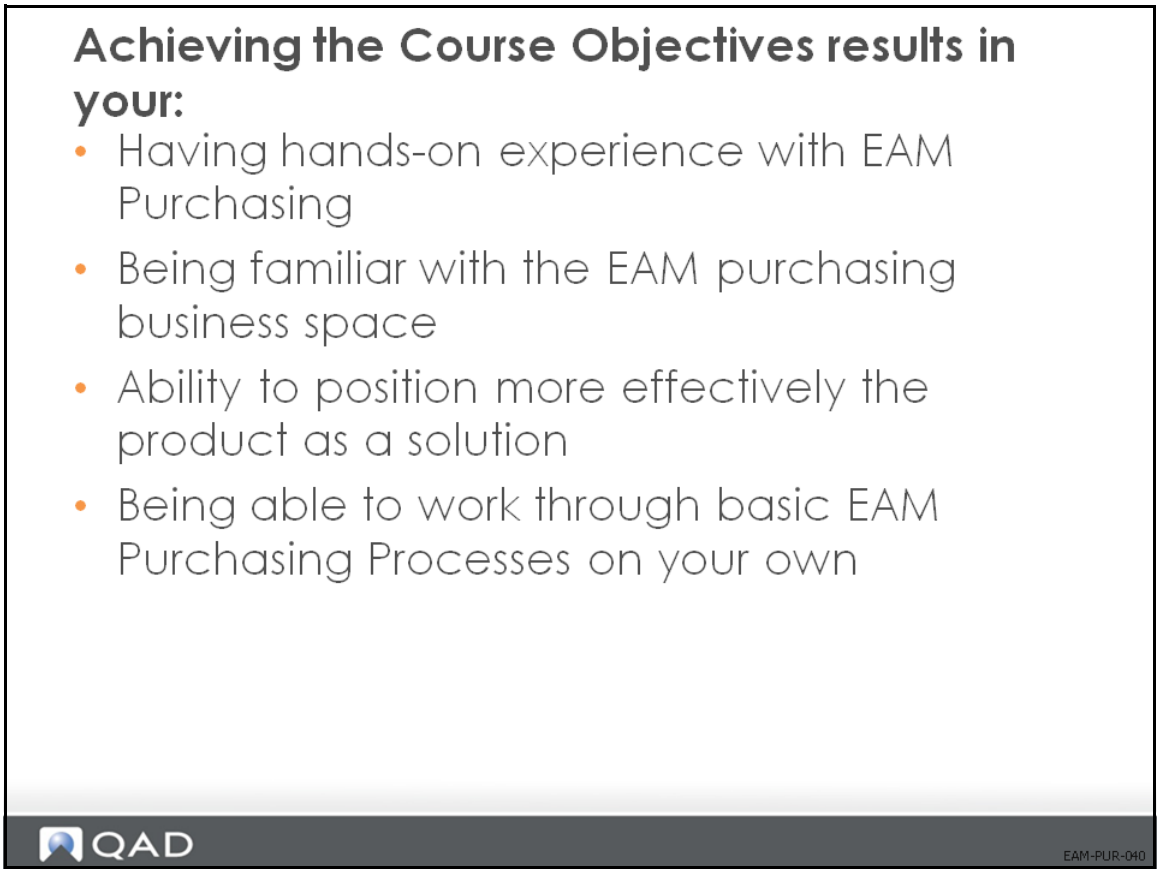
Course Overview



Course Objectives



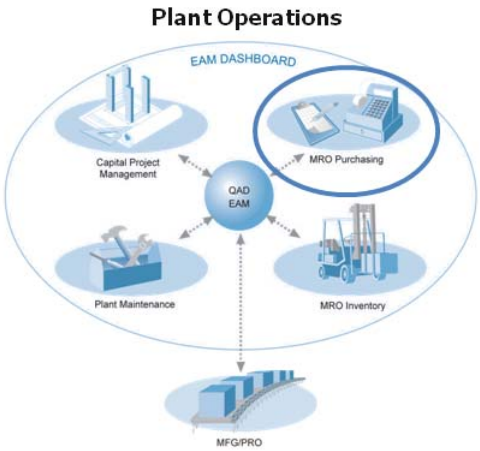
Course Results



Purchasing Overview

Purchasing Overview

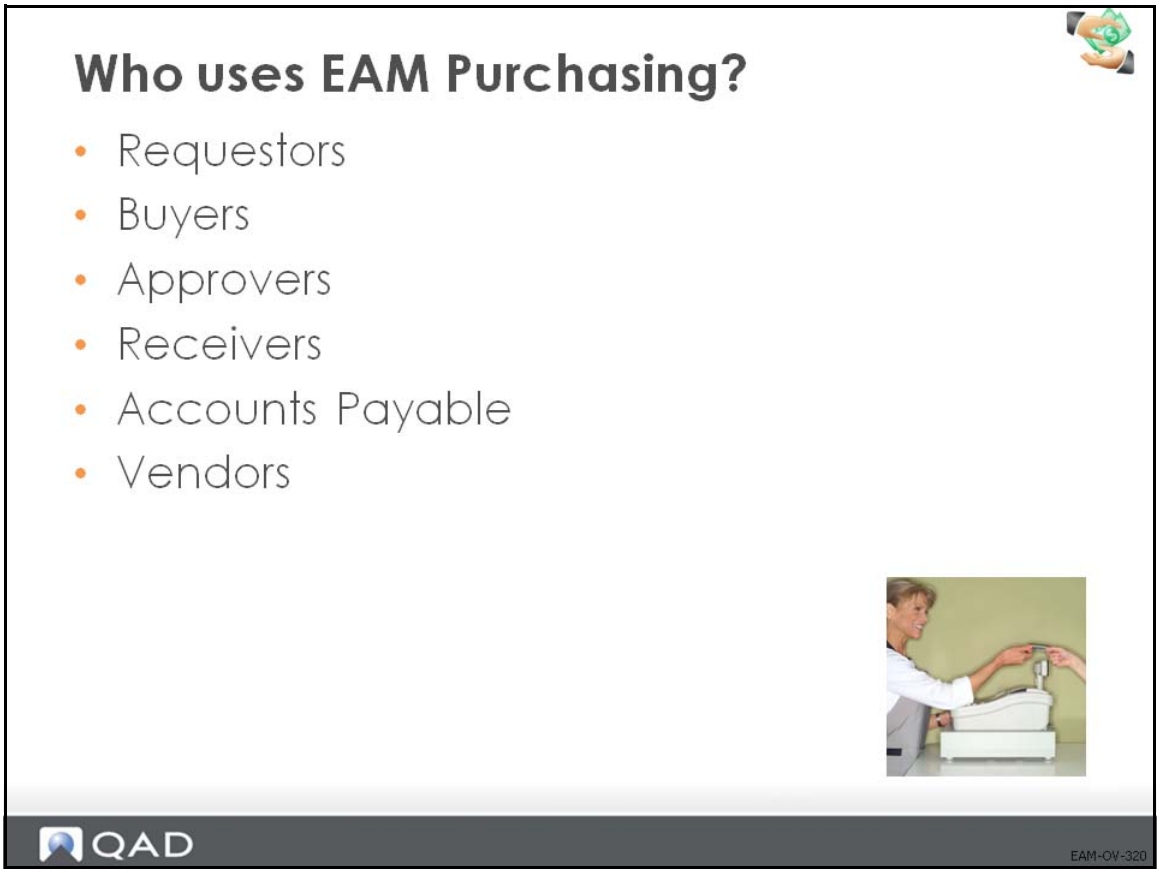
- Source purchases from approved suppliers as quickly as possible at the lowest possible cost
- Accelerate approval cycles via electronic requisition approval
- Monitor spending against budget
- Leverage buying power through shared services
- Evaluate vendors based on delivery performance



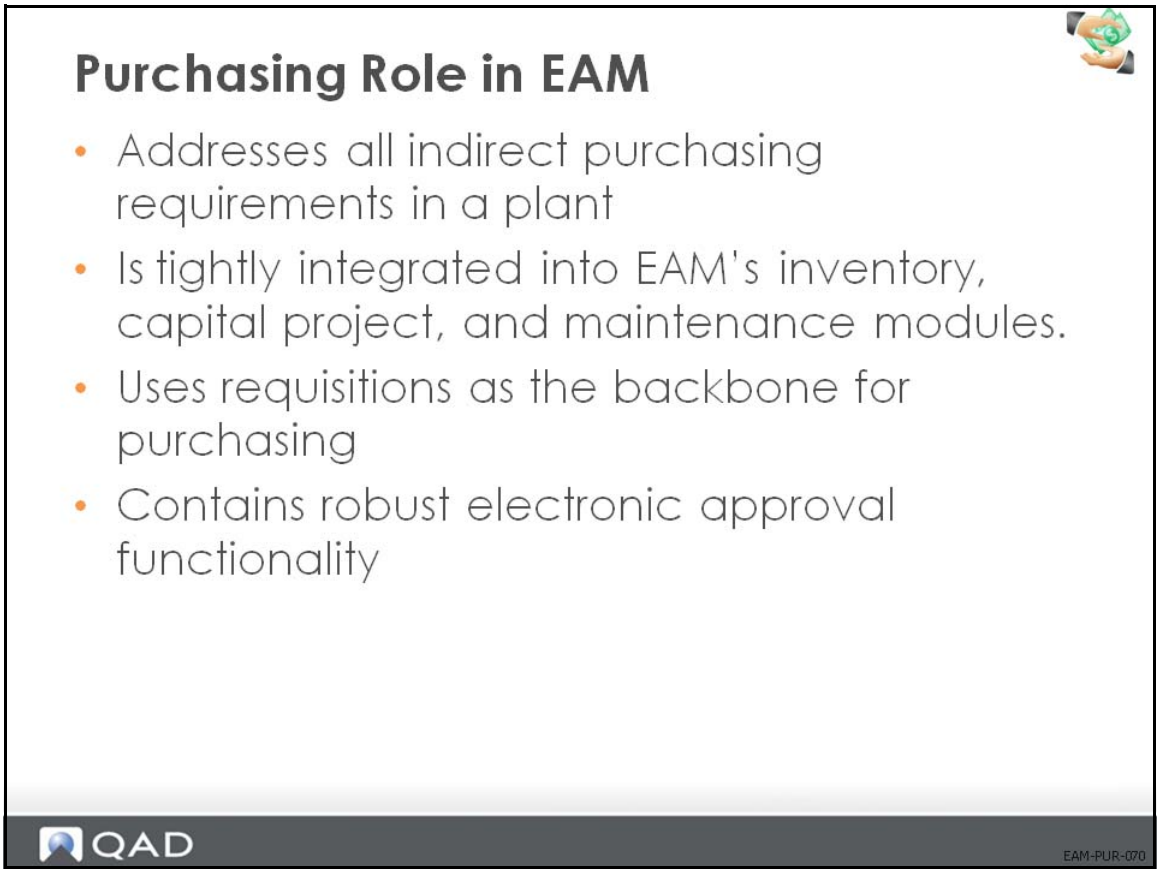
QAD

EAM-OV-320

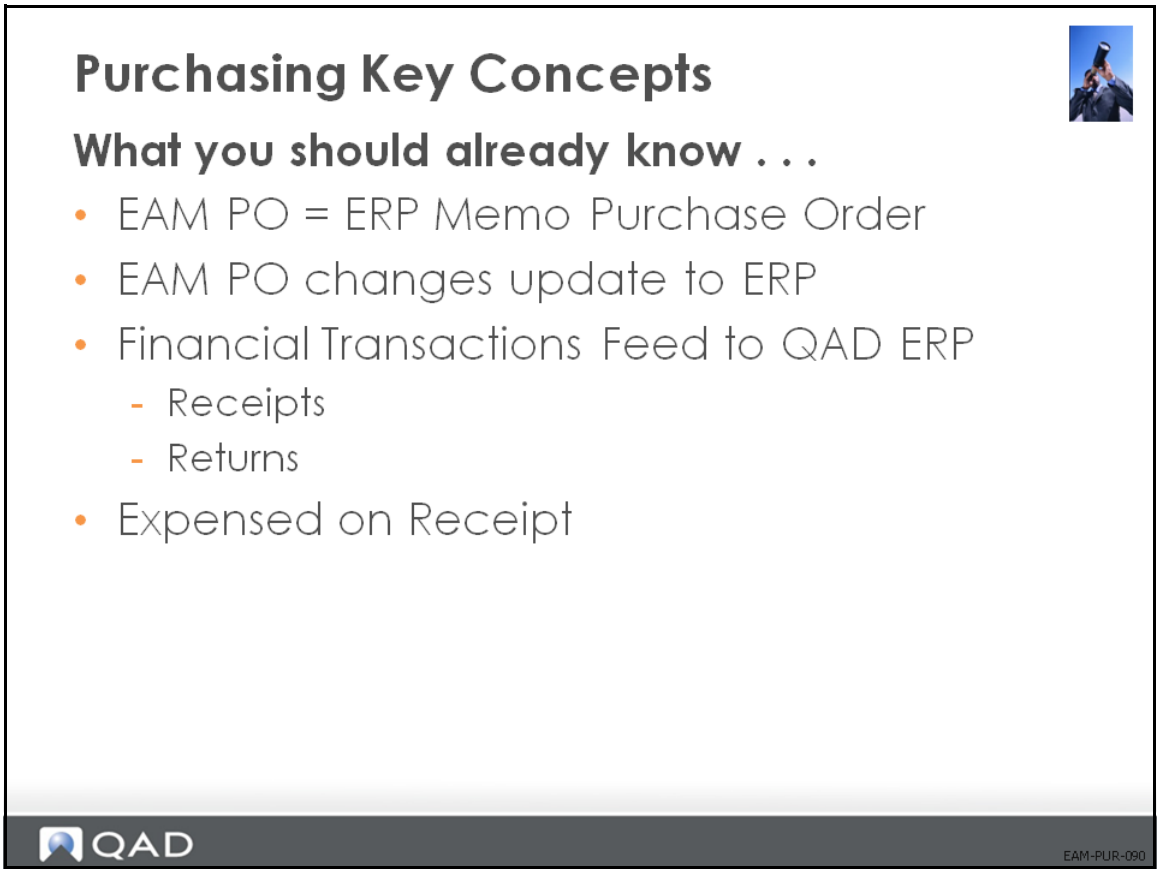
EAM Purchasing Users



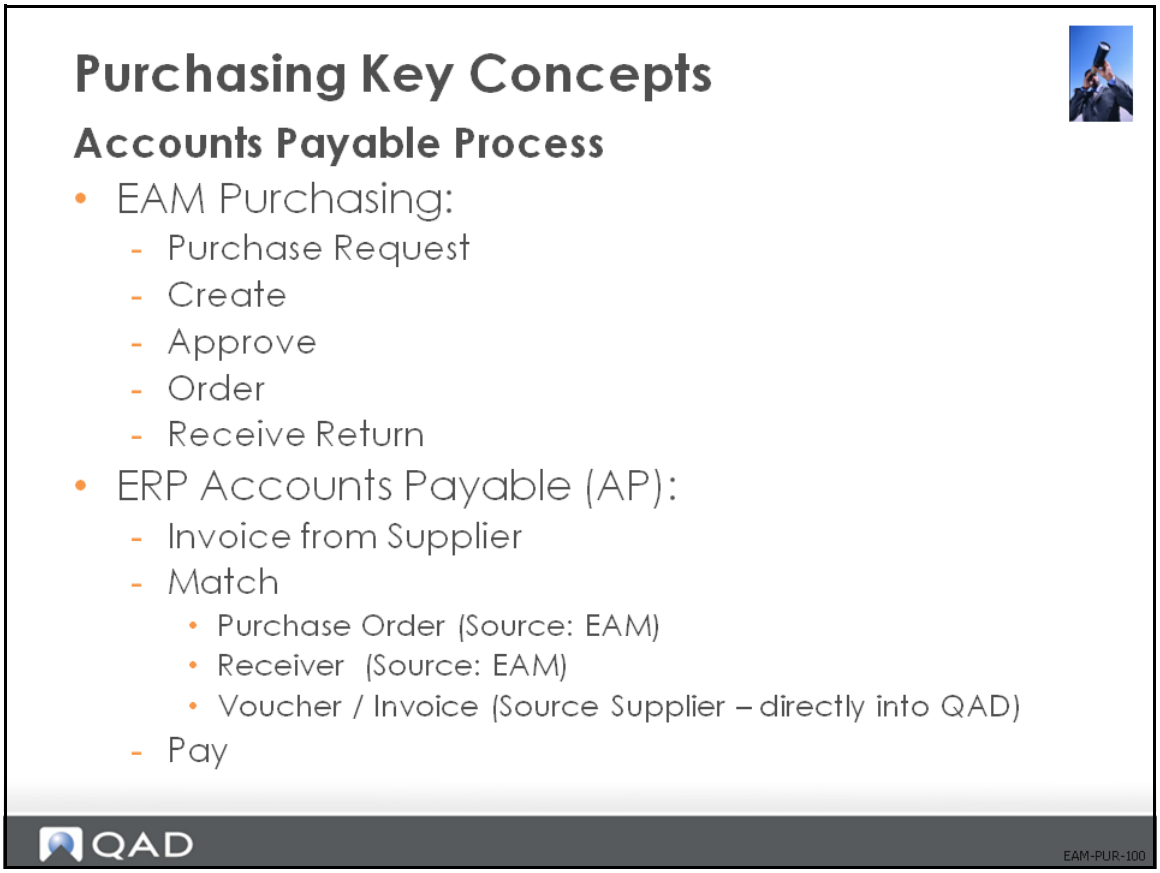
Purchasing Role in EAM



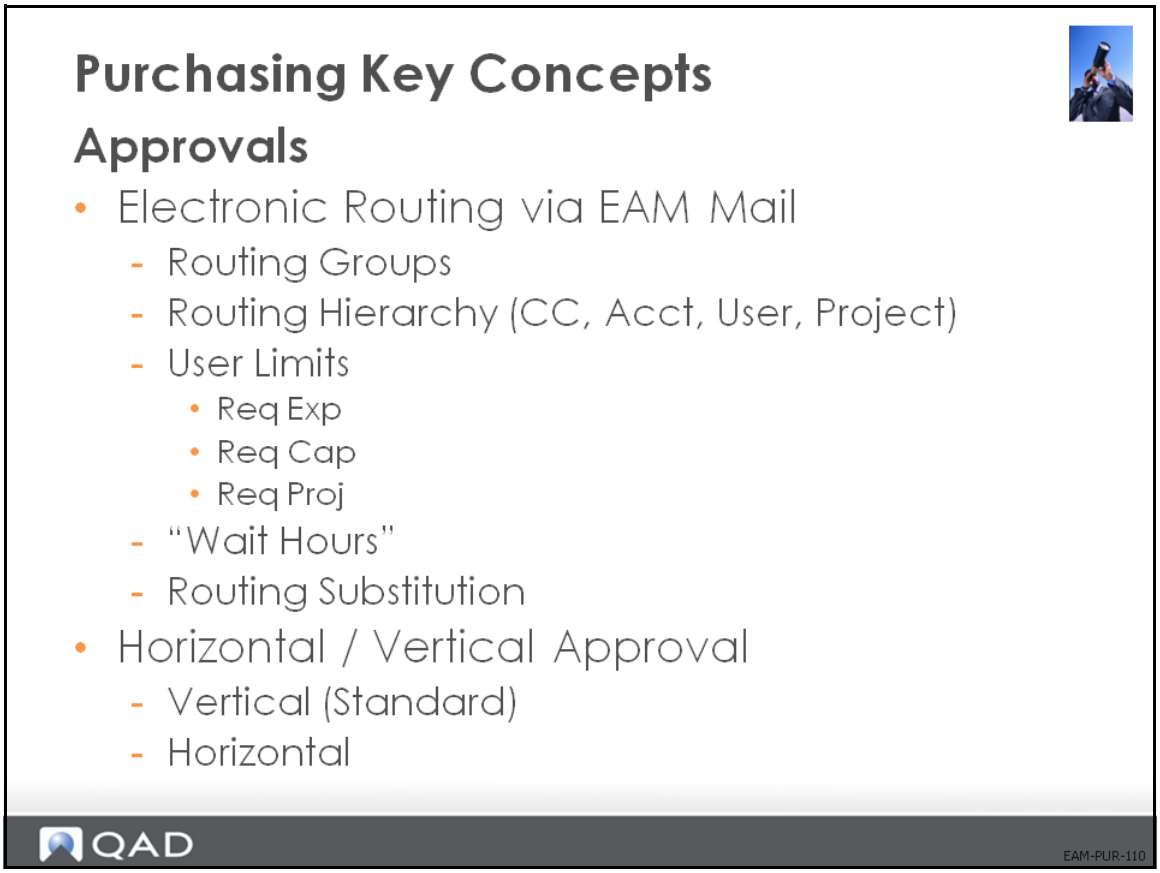
Purchasing: Key Concepts



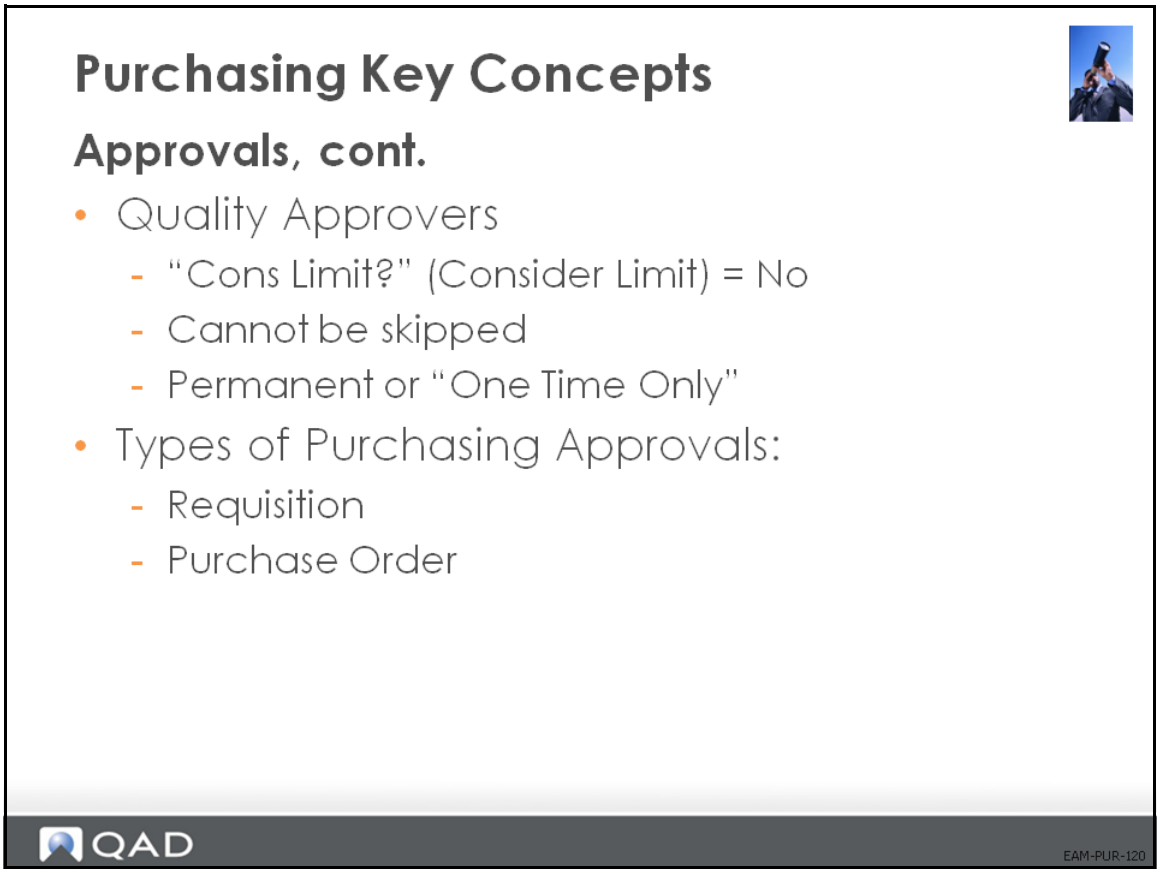
Accounts Payable Process



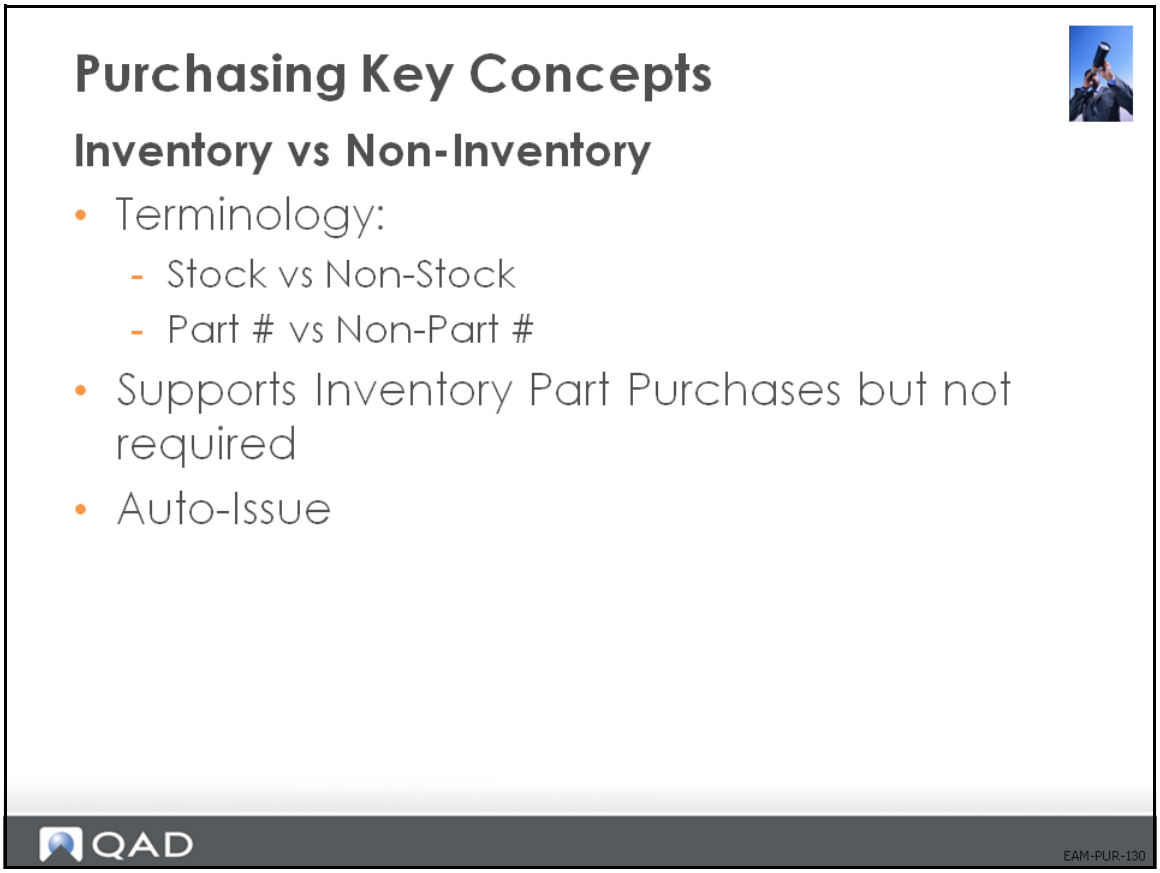
Approvals


Purchasing Key Concepts
Approvals
• Electronic Routing via EAM Mail
- Routing Groups
- Routing Hierarchy (CC, Acct, User, Project)
- User Limits
• Req Exp
• Req Cap
• Req Proj
- "Wait Hours"
- Routing Substitution
• Horizontal / Vertical Approval
- Vertical (Standard)
- Horizontal
QAD
EAM-PUR-110

Approvals 2


Purchasing Key Concepts
Approvals, cont.
• Quality Approvers
- "Cons Limit?" (Consider Limit) = No
- Cannot be skipped
- Permanent or "One Time Only"
• Types of Purchasing Approvals:
- Requisition
- Purchase Order
QAD
EAM-PUR-120

Inventory vs. Non-Inventory



Purchasing Best Practices Goals



Purchasing Setup Review

Purchasing Setup – Key Settings



- Domain Settings
  - Buyer and Receiving Limits
  - "Any Buyer?" Flag
  - "Reopen Closed PO?" Flag
- Site Settings
  - Accounting Defaults
  - Approvals on/off and hierarchies
- MFG/PRO Interface Settings
- Employee Buyer-Site Setup

QAD

EAM-PUR-170

Key Settings

Purchasing Setup – Key Settings

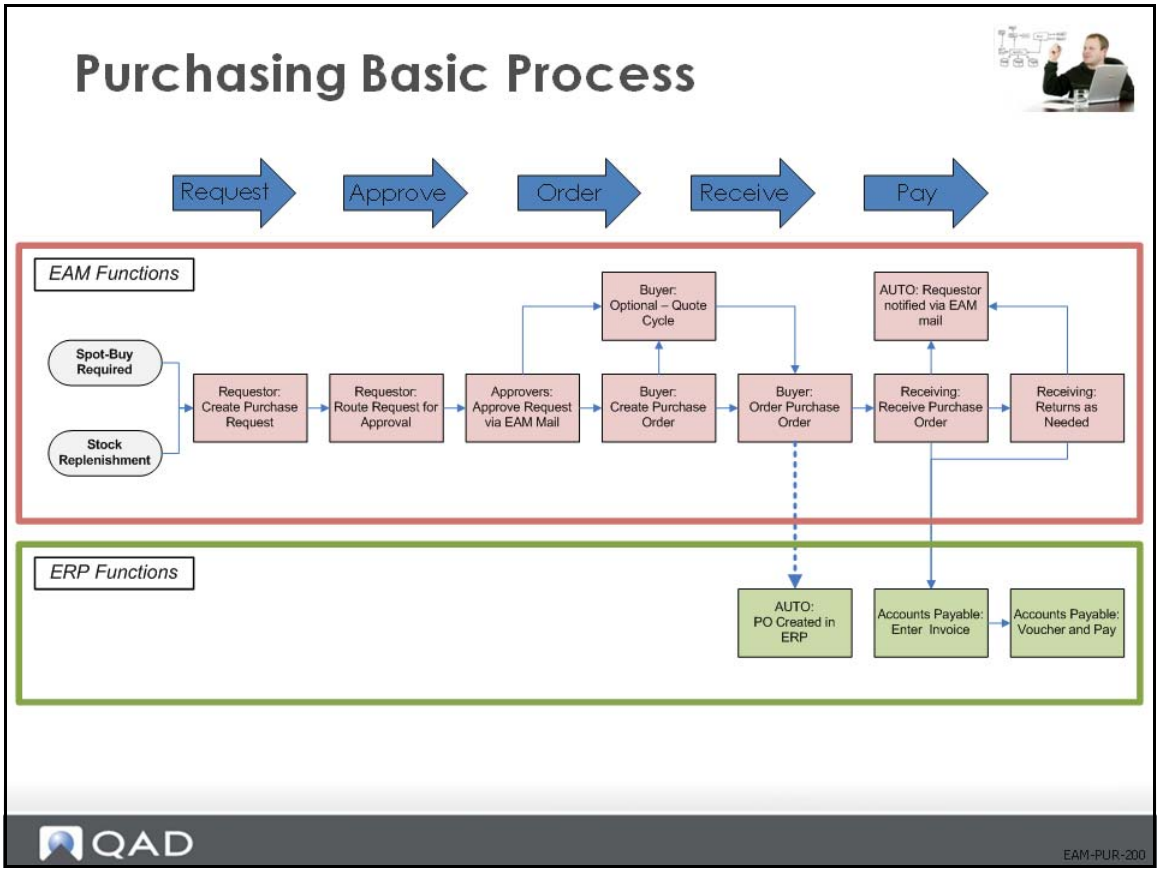


- User ID / Security
- Requisition Approval Groups
- Purchase Order Approval Groups
- Controls around use of Chart of Accounts:
  - Account Groups
  - Cost Center Groups

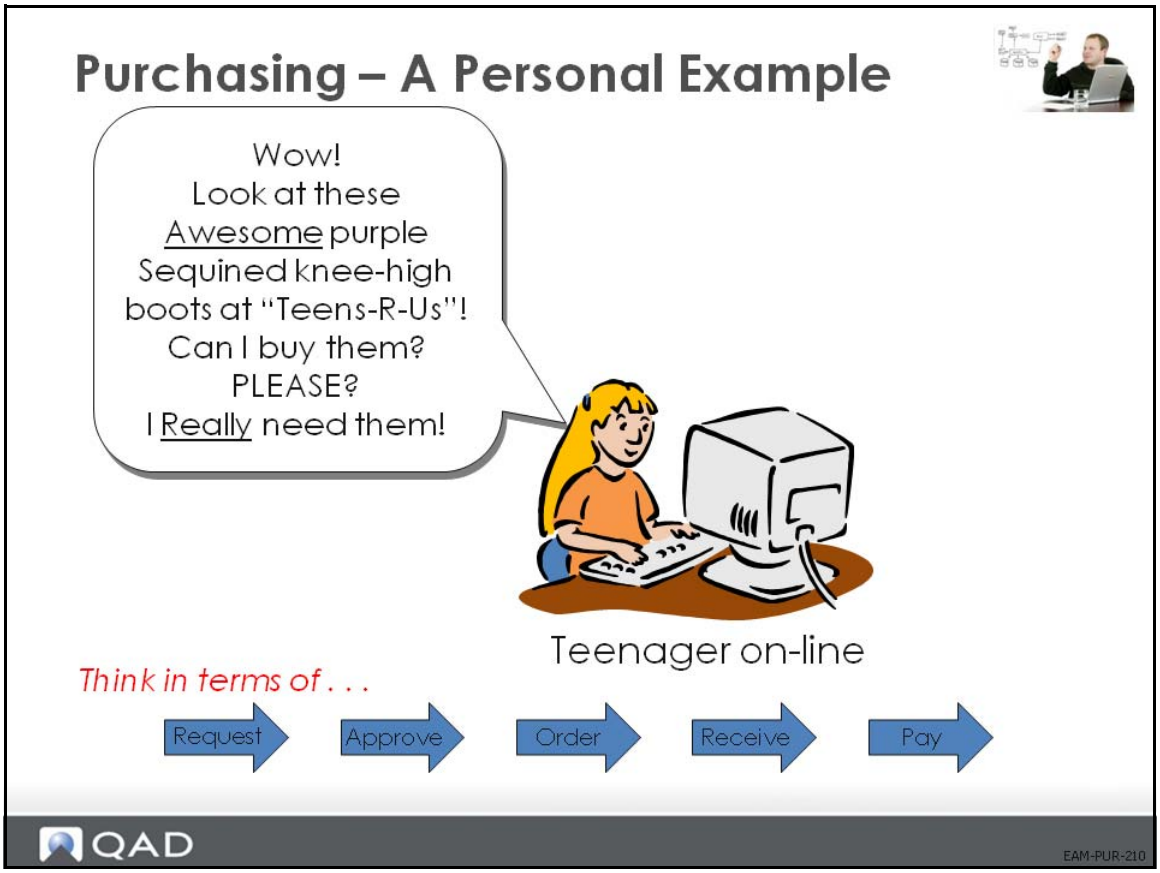
QAD

EAM-PUR-160

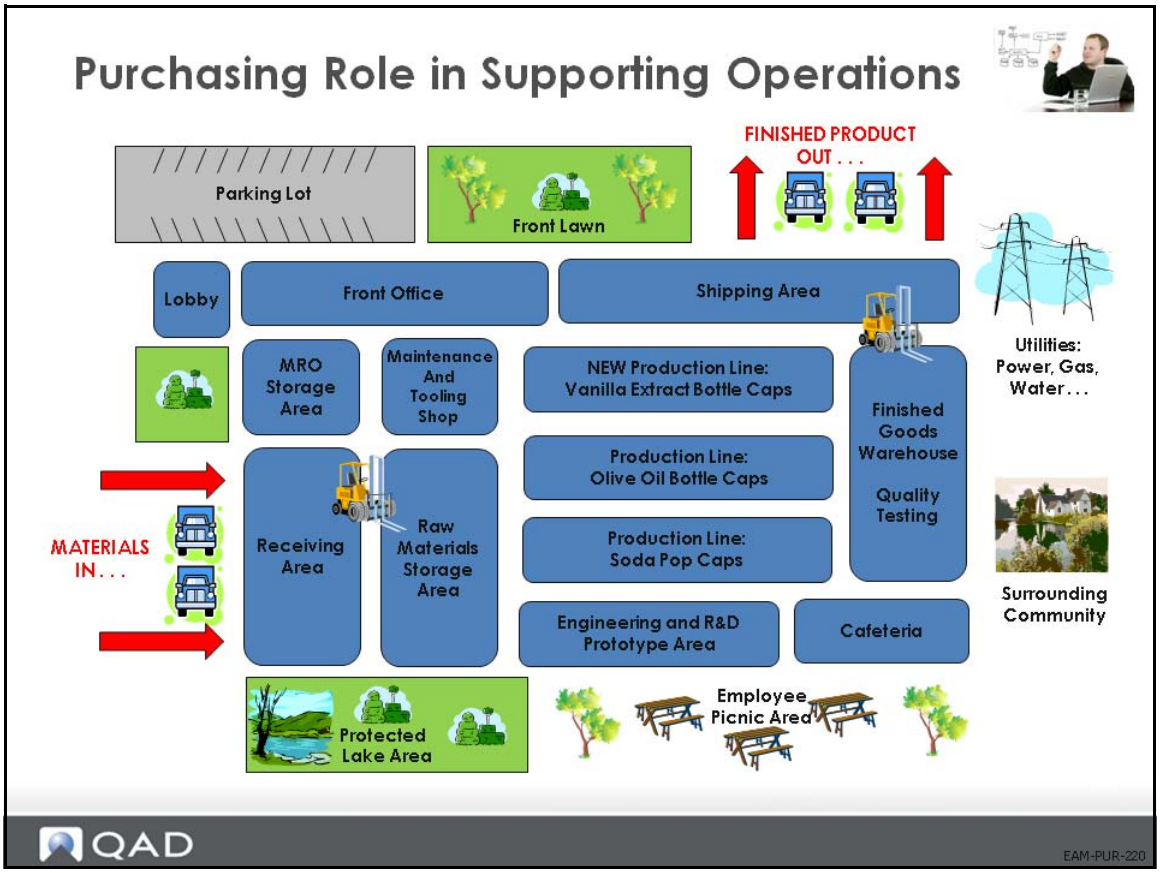
Purchasing Process



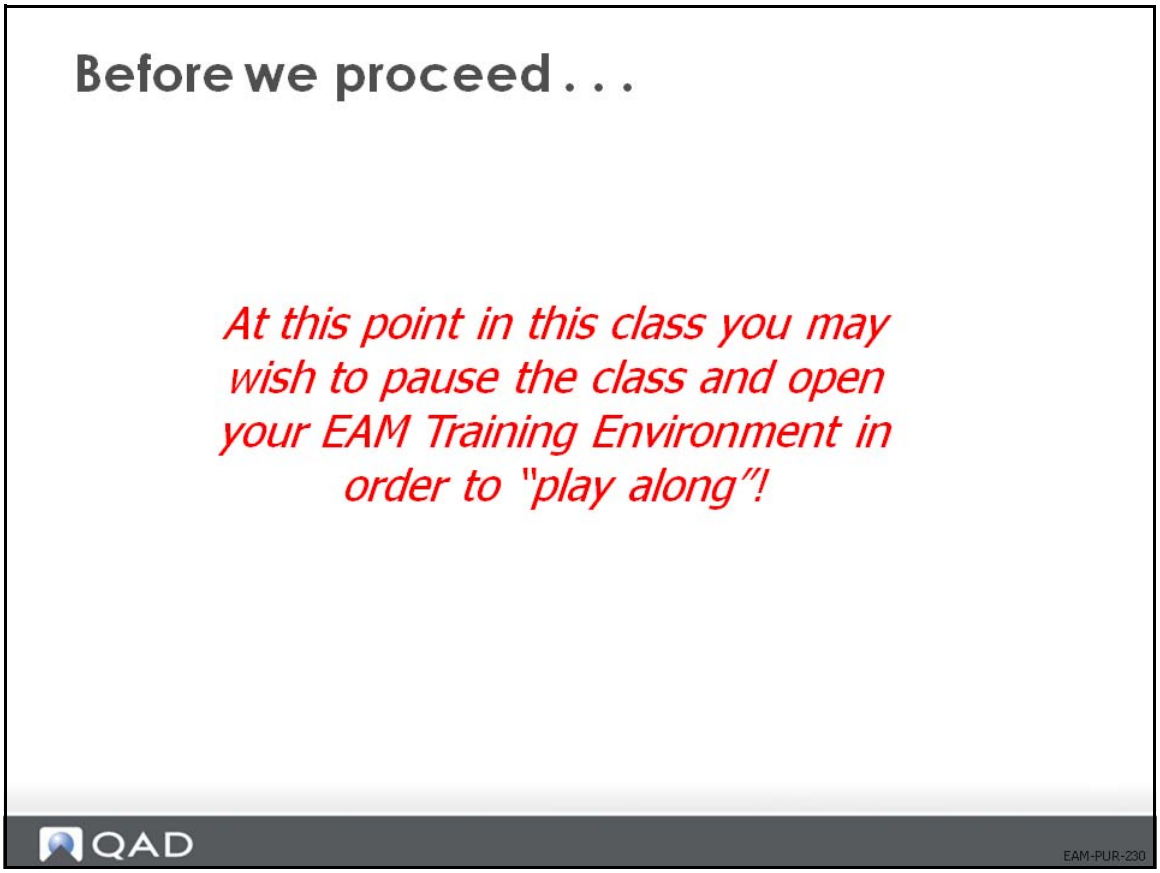
Purchasing: A Personal Example



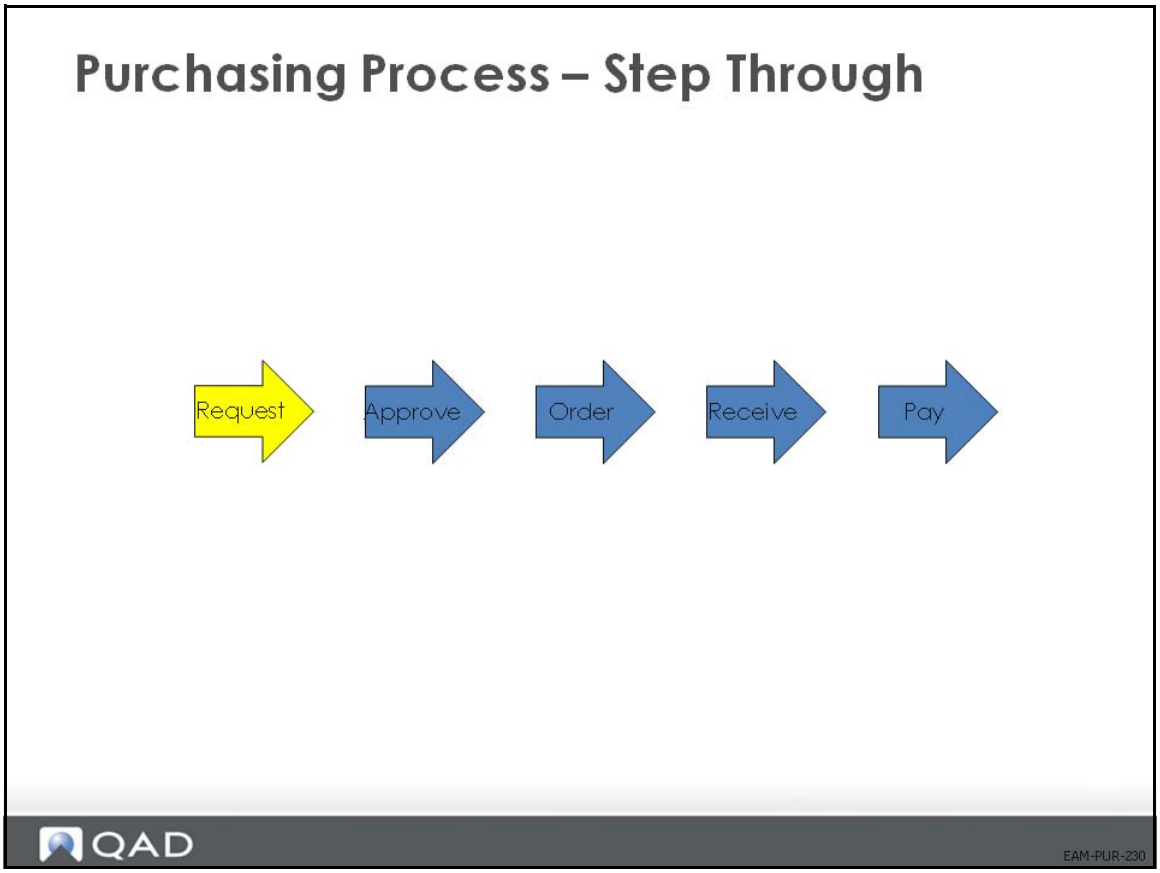
Purchasing Role in Supporting Organizations



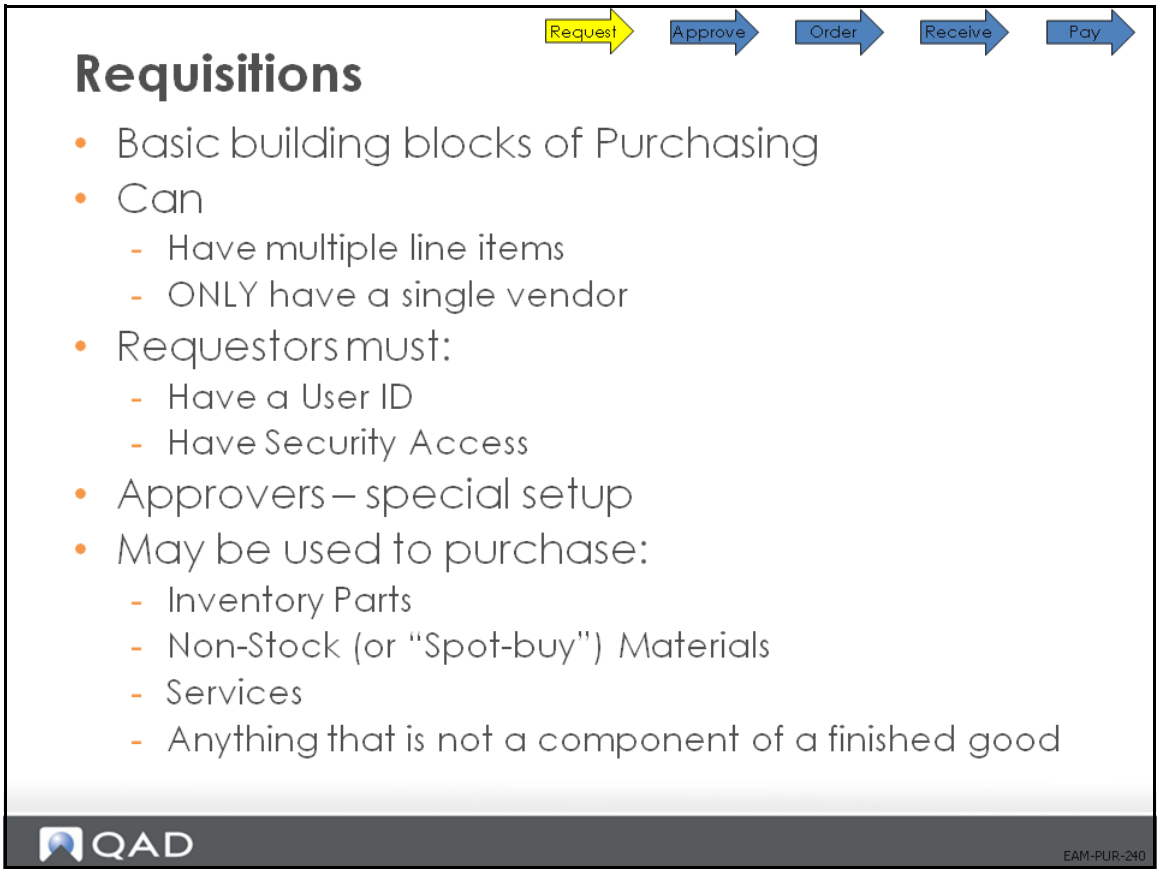
Training Environment



Purchasing Process Step Through: Request



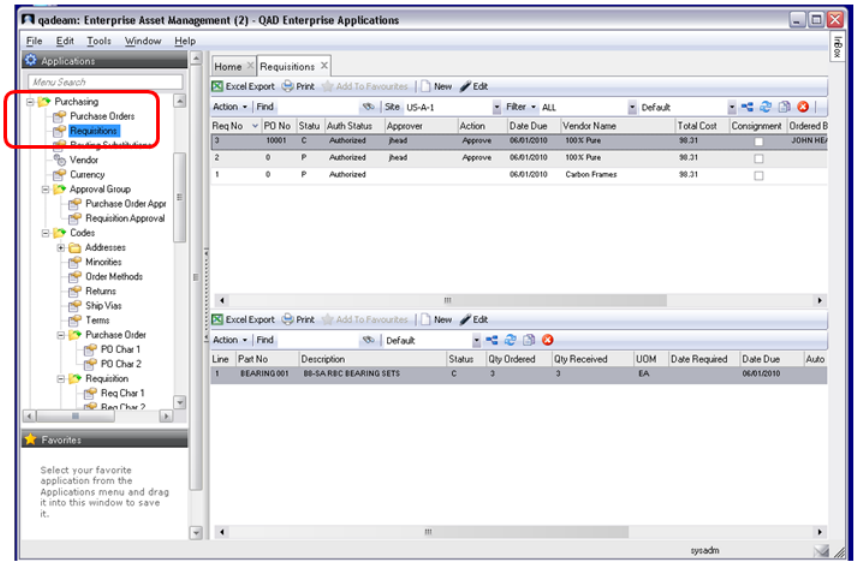
Heading 2


Request
Approve
Order
Receive
Pay
Requisitions
• Basic building blocks of Purchasing
• Can
- Have multiple line items
- ONLY have a single vendor
• Requestors must:
- Have a User ID
- Have Security Access
• Approvers – special setup
• 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
EAM-PUR-240

Requisition Browse

Request Approve Order Receive Pay

Requisition Browse



Requisition Browse

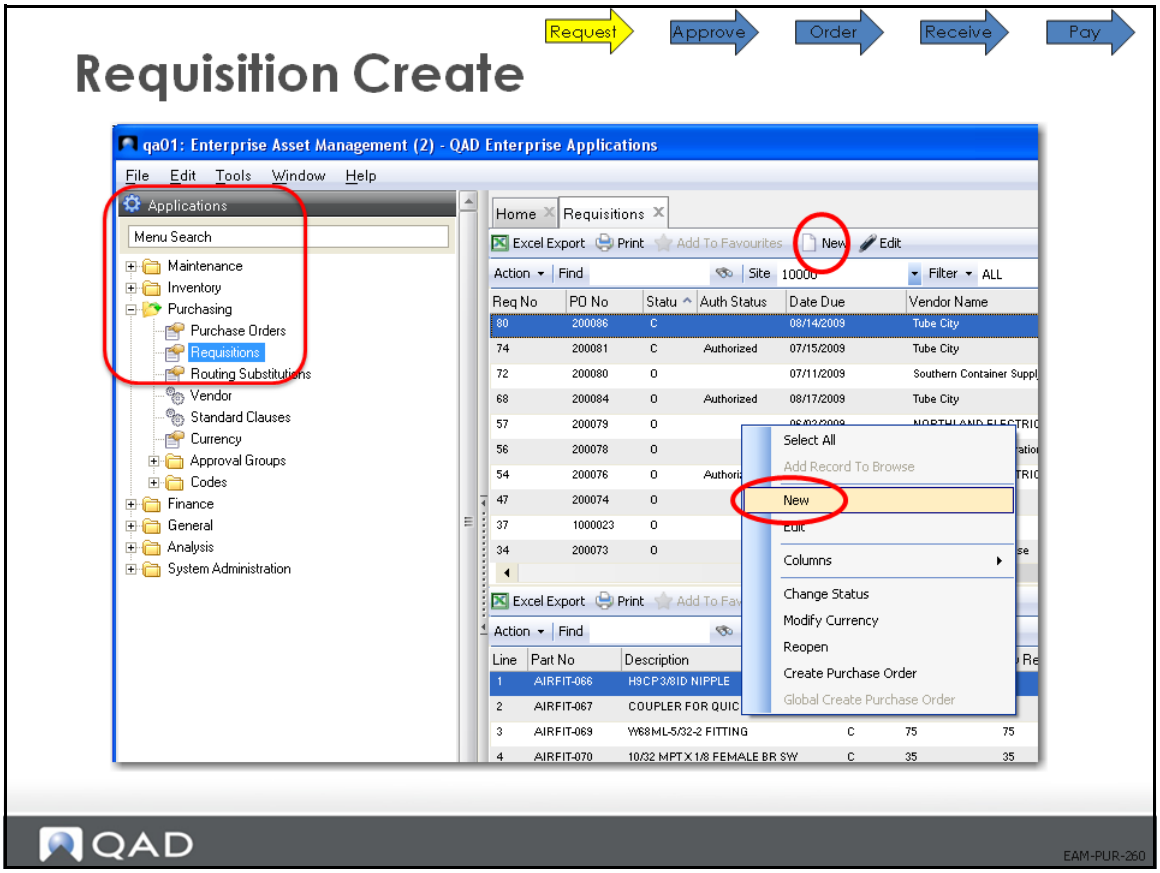
Line Items

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

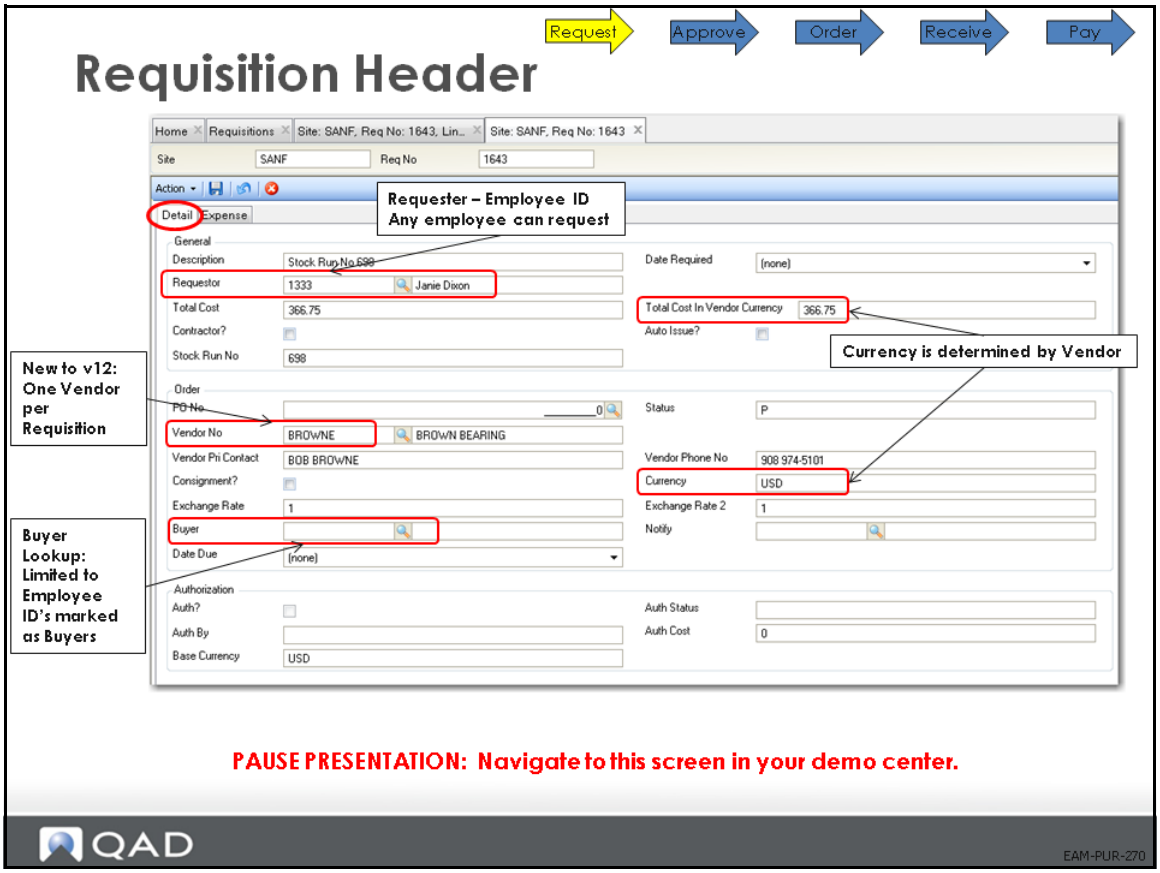
QAD

EAM-PUR-250

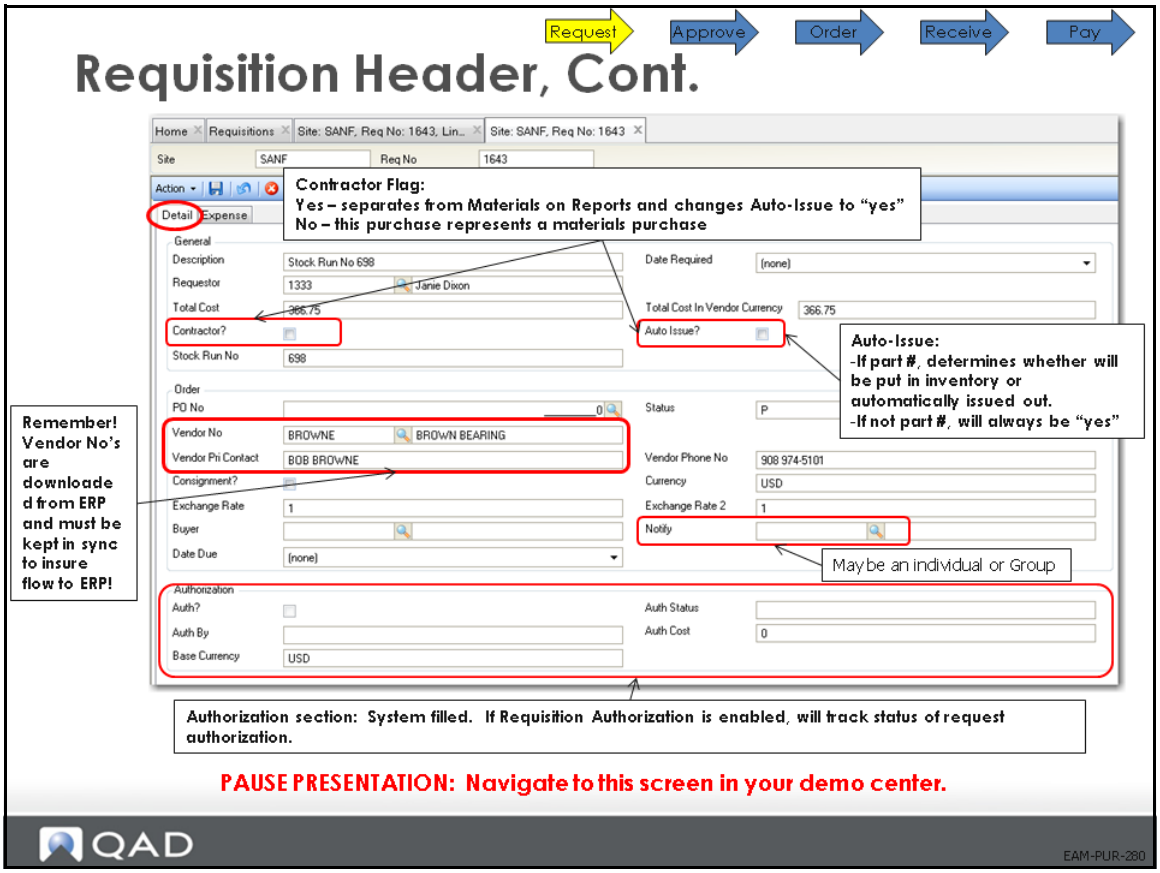
Requisition Create



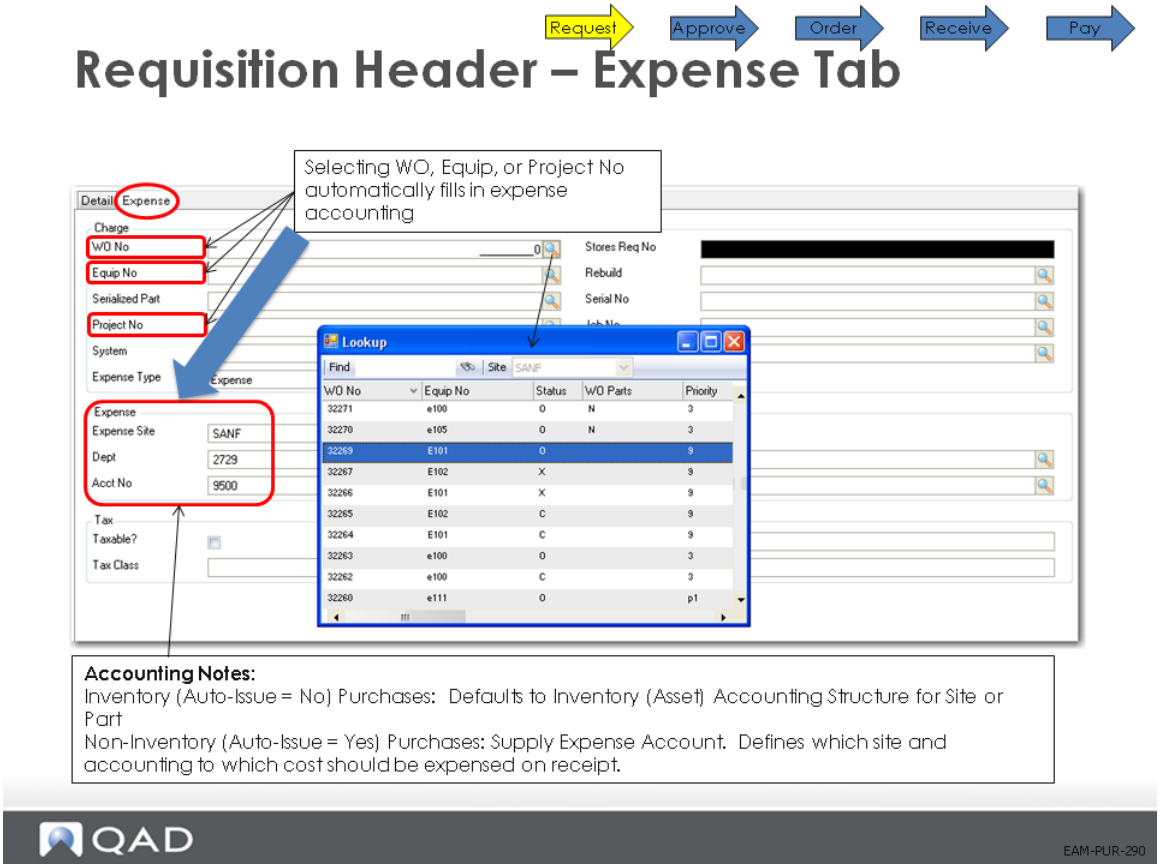
Requisition Header



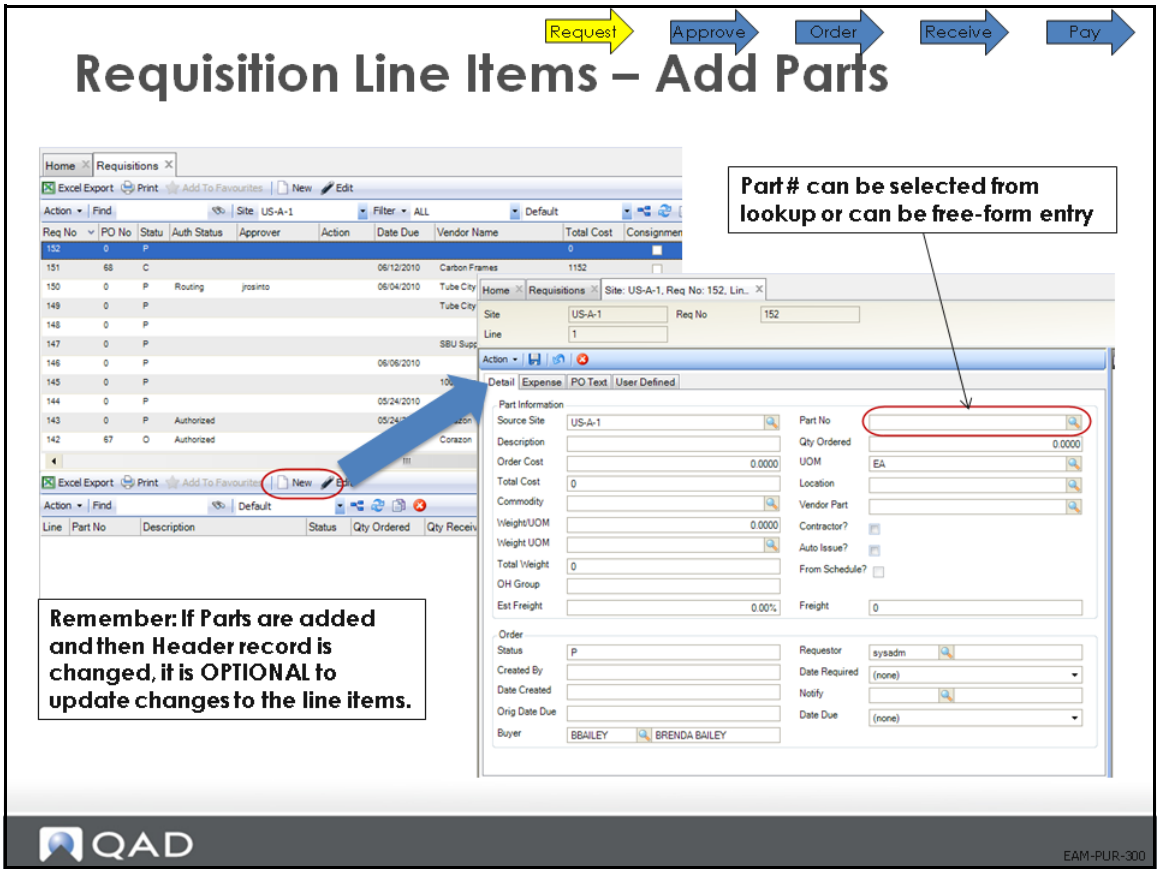
Requisition Header 2



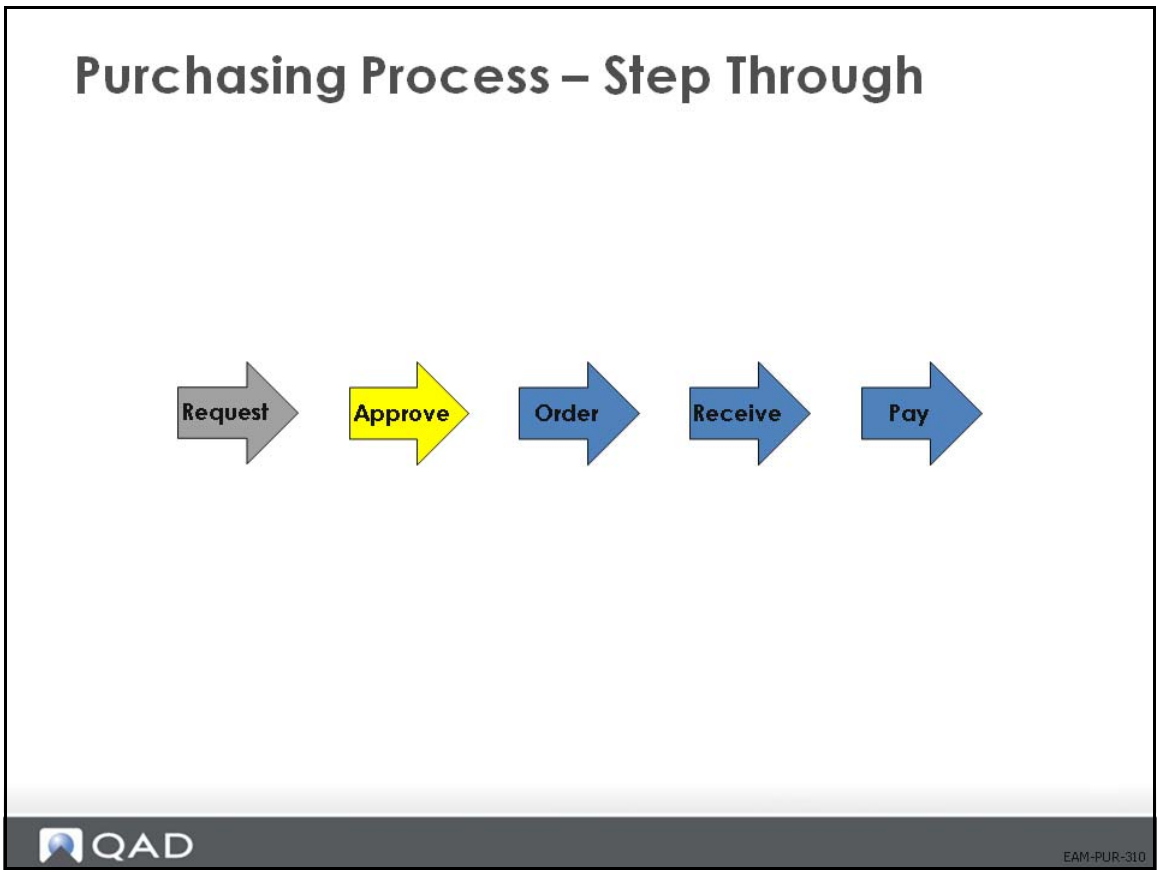
Requisition Header: Expense Tab



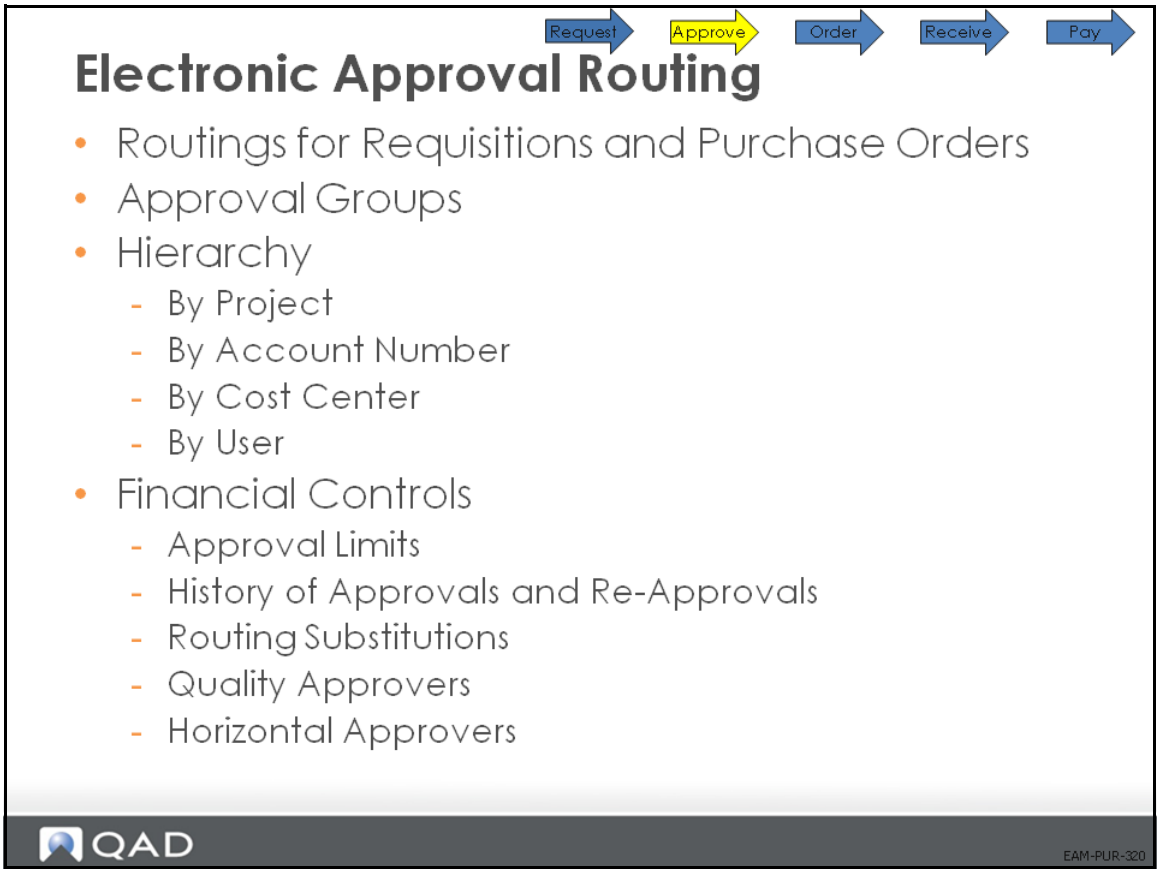
Requisition Line Items: Add Parts



Purchasing Process: Approve



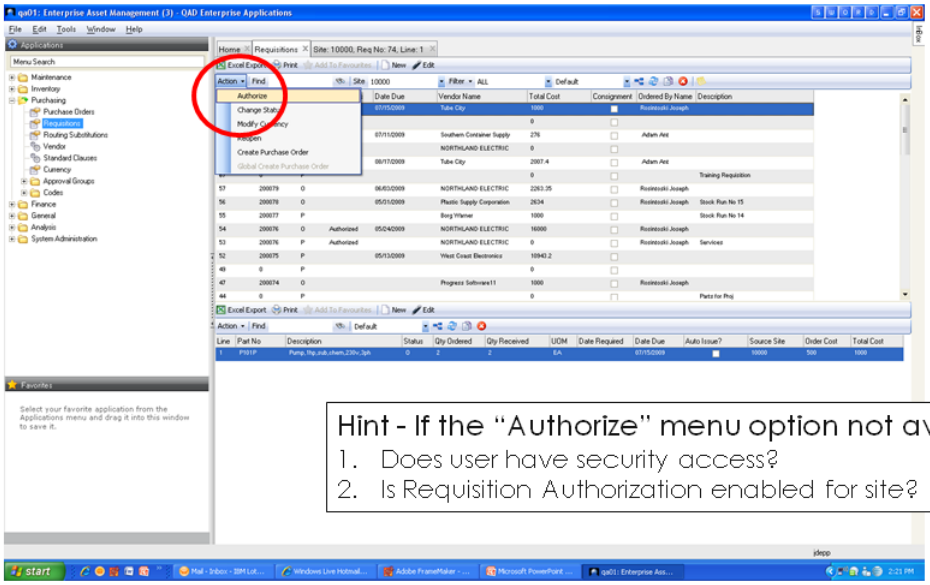
Electronic Approval Rating



Route for Approval

Request Approve Order Receive Pay

Route For Approval

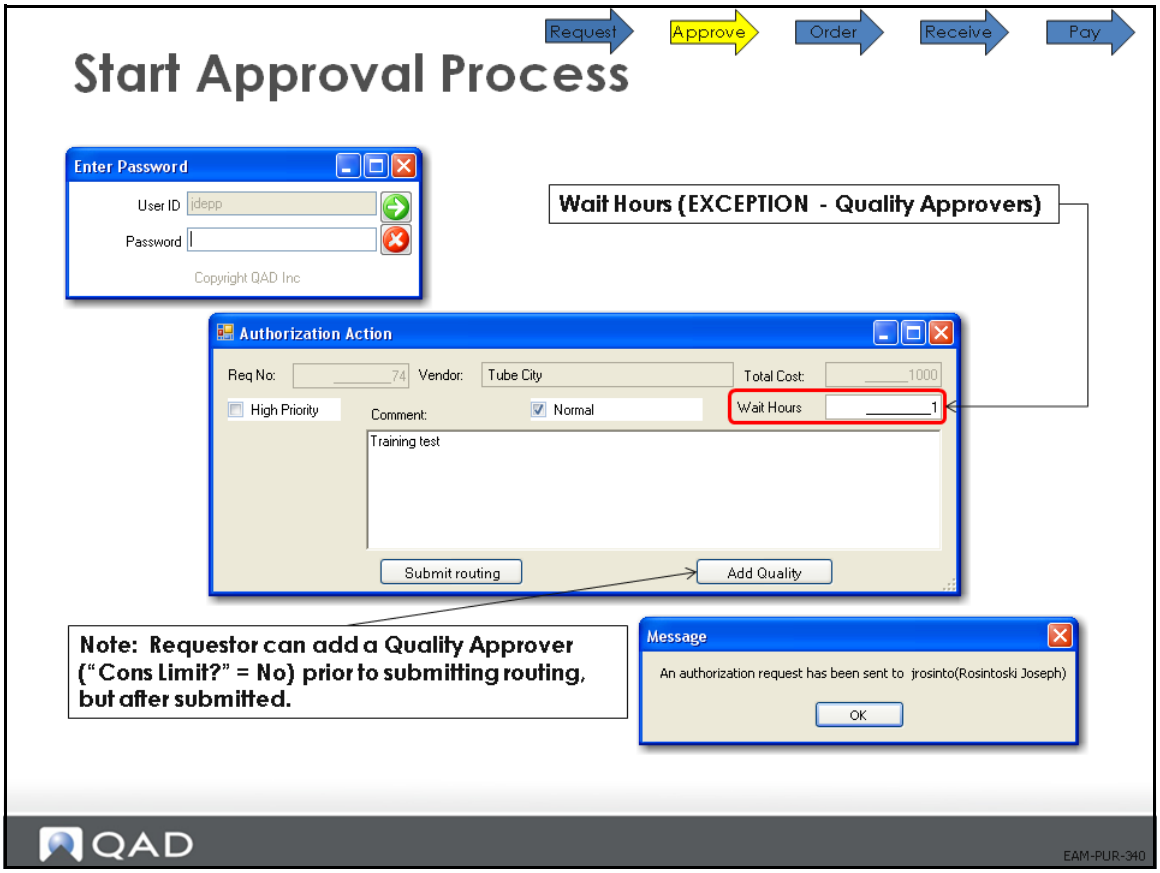


Hint - If the "Authorize" menu option not available:
1. Does user have security access?
2. Is Requisition Authorization enabled for site?

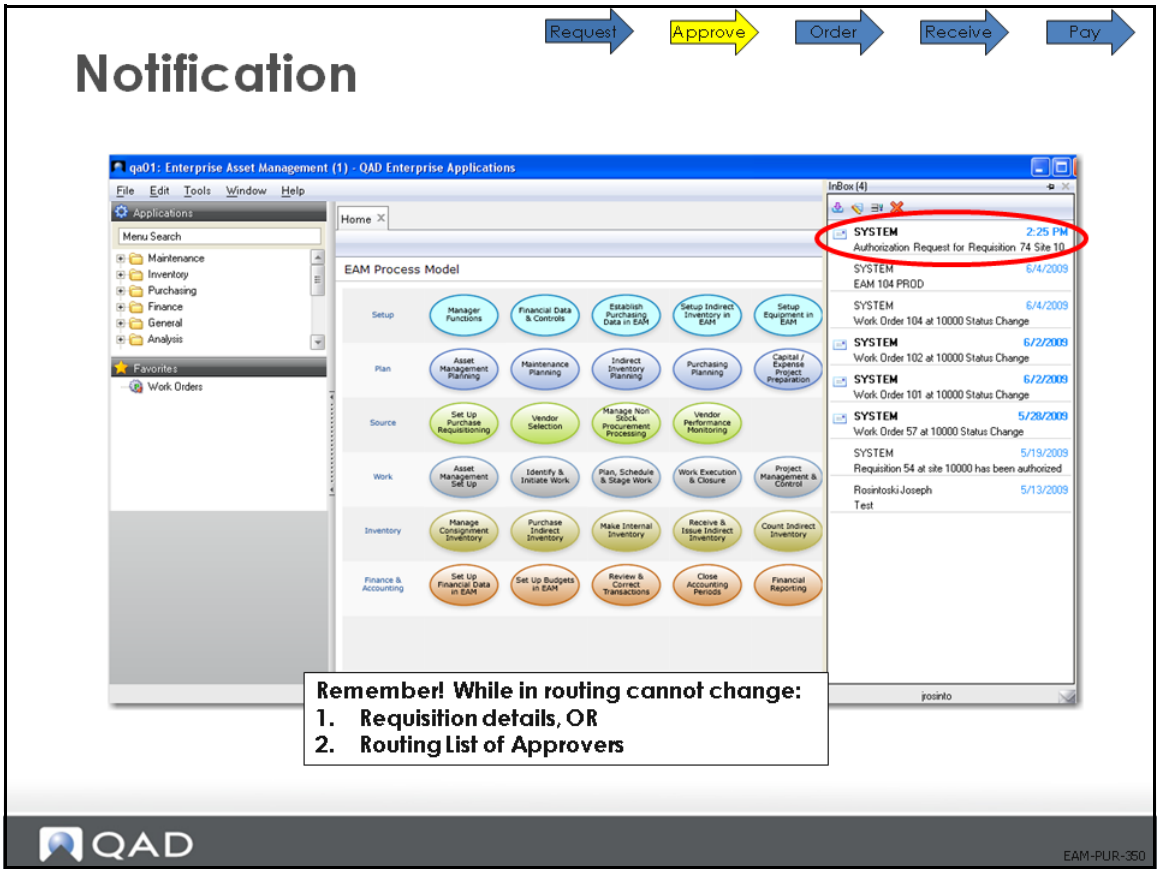
QAD

EAM-PUR-330

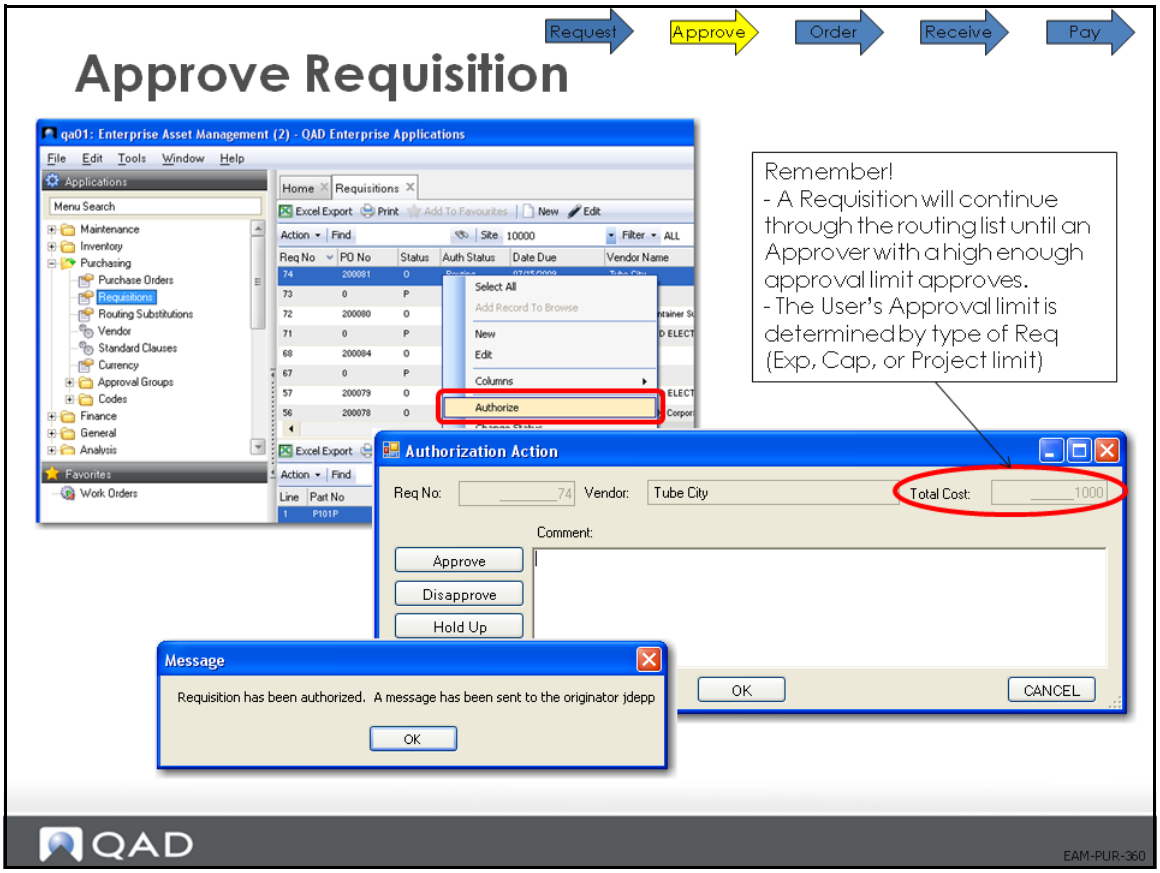
Start Approval Process



Notification



Approve Requisition



Notification of Approval

Request Approve Order Receive Pay

Notification of Approval to Originator

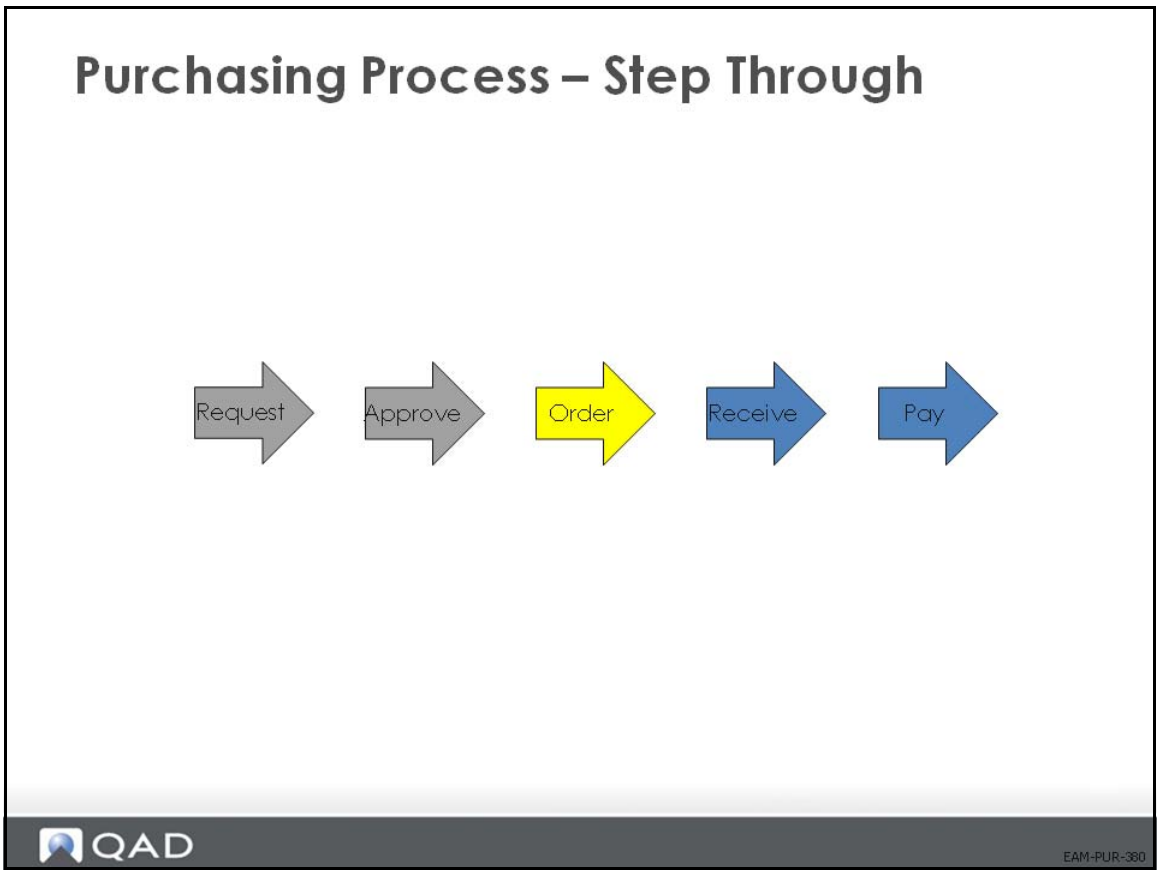


Note that once a Requisition is approved, only the Buyer and the Approver can modify it.

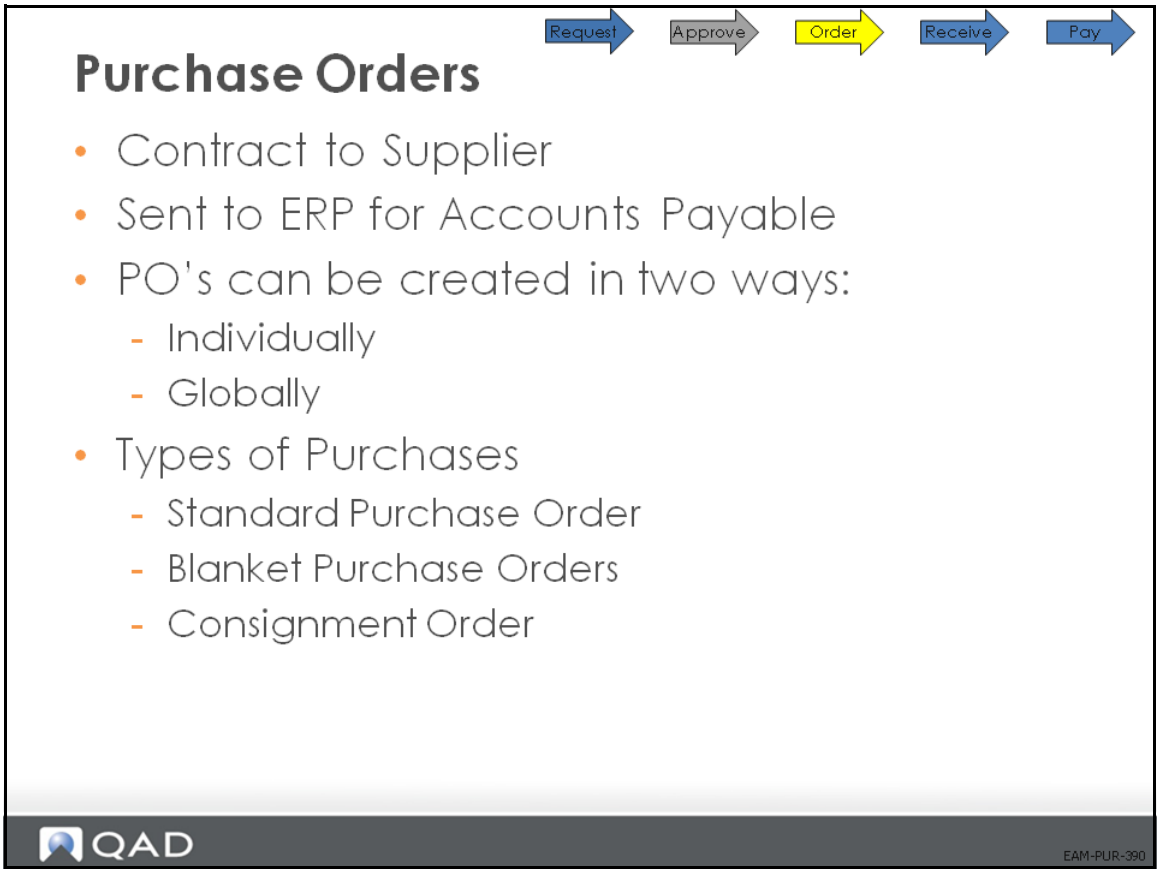
QAD

EAM-PUR-370

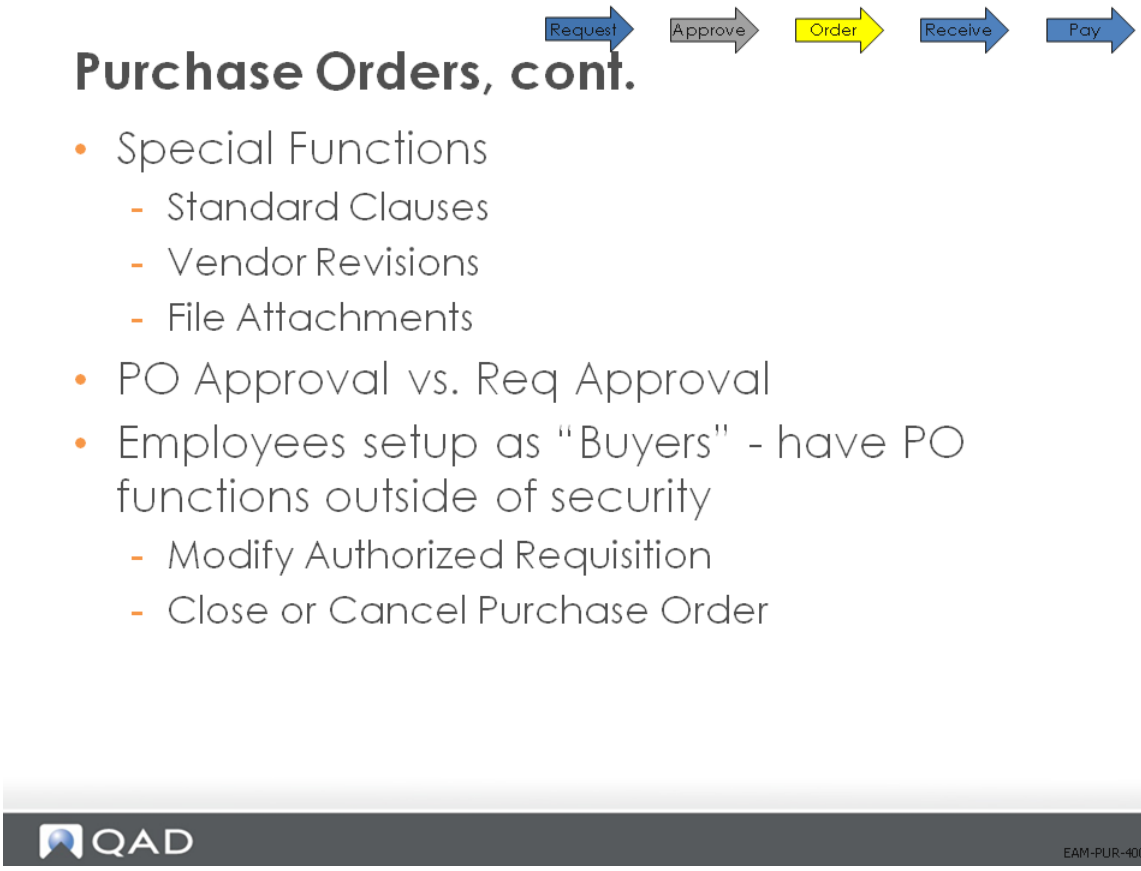
Purchasing Process Step Through: Order



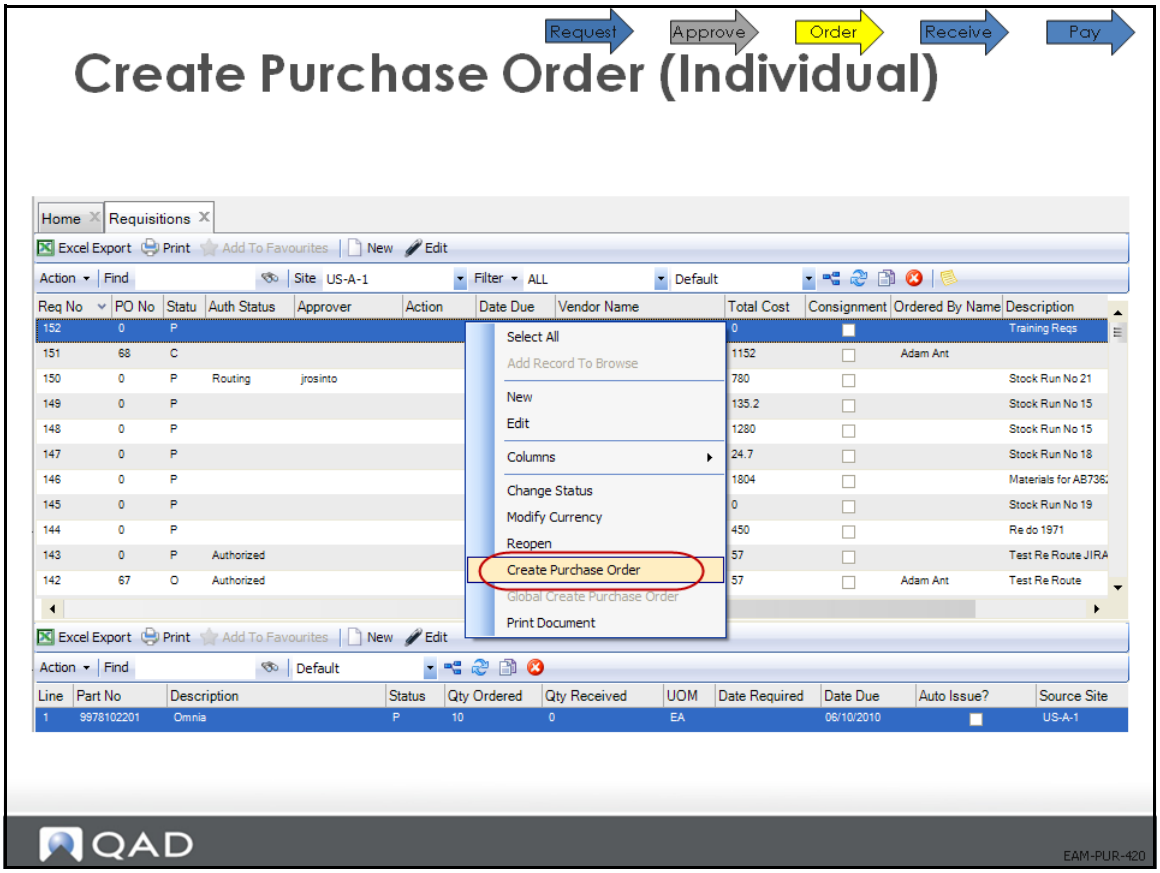
Purchase Orders



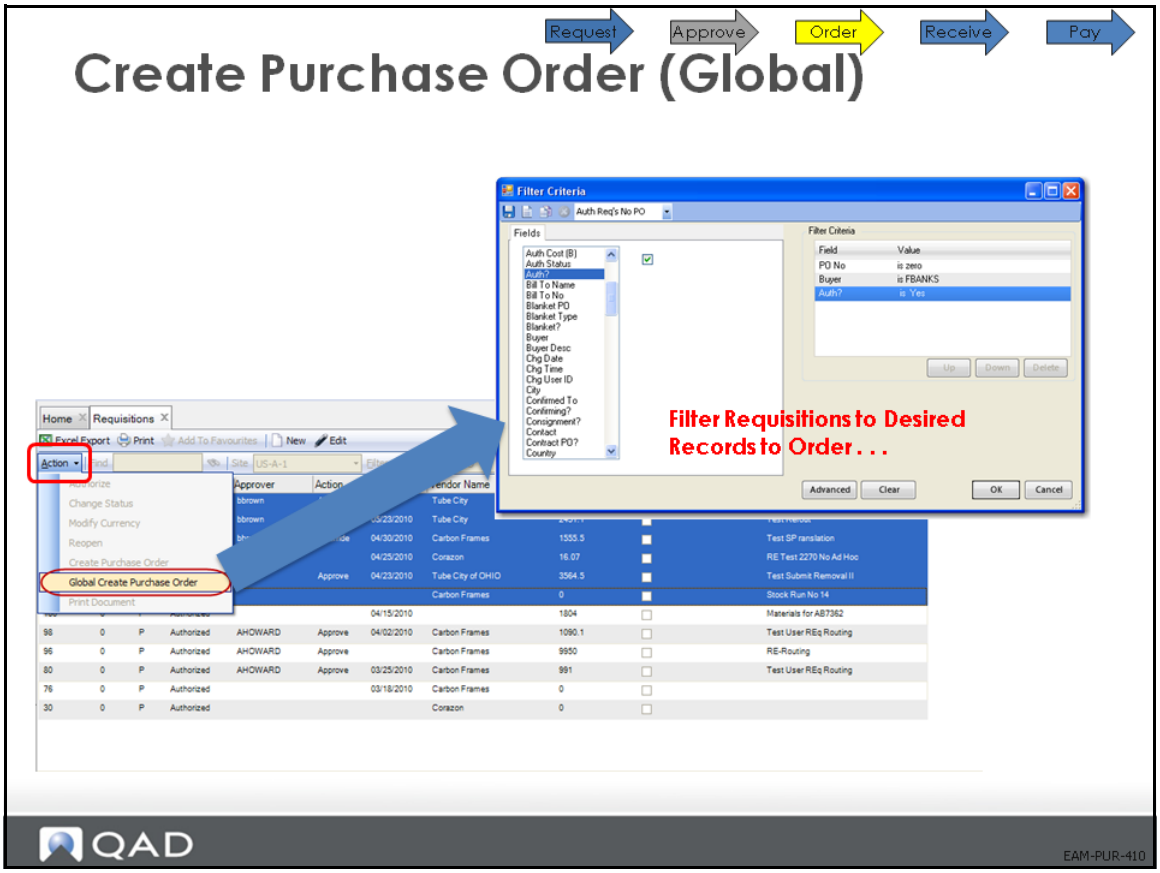
Purchase Orders 2



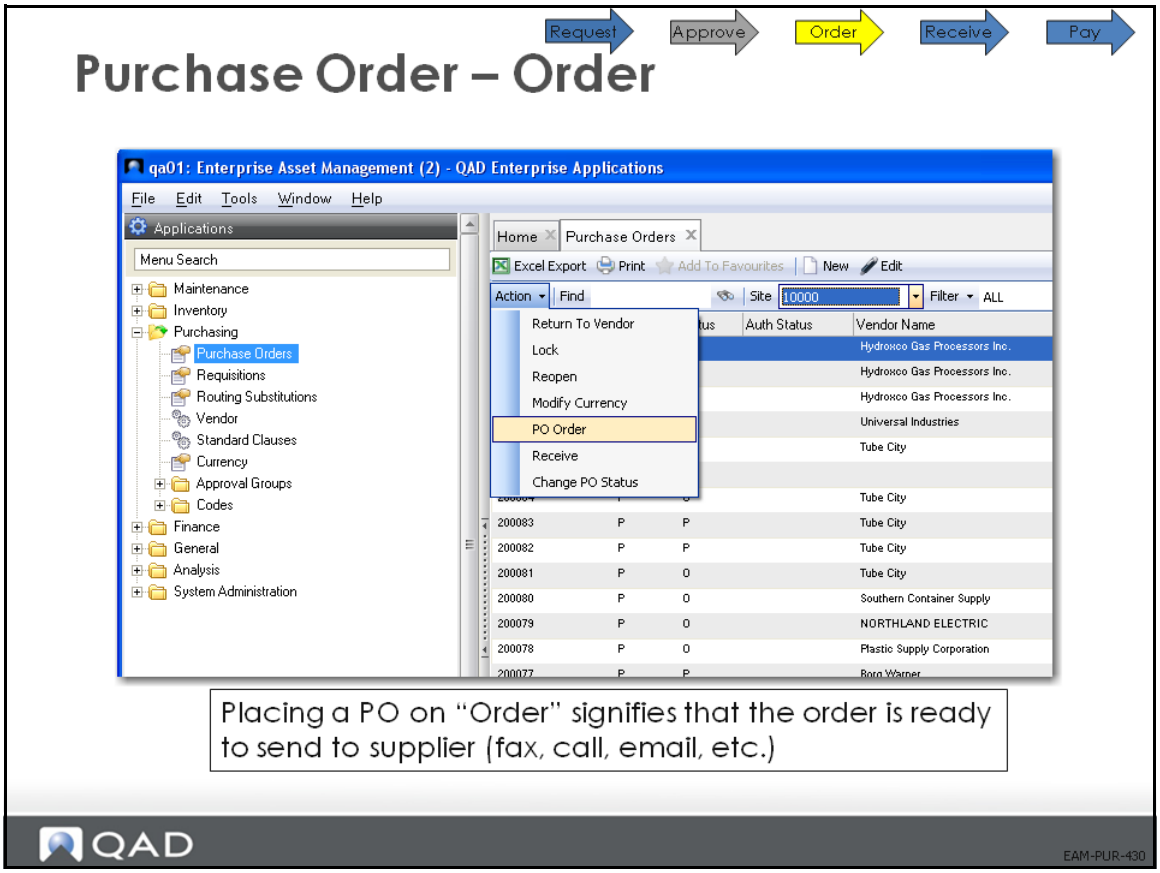
Create Purchase Order: Individual



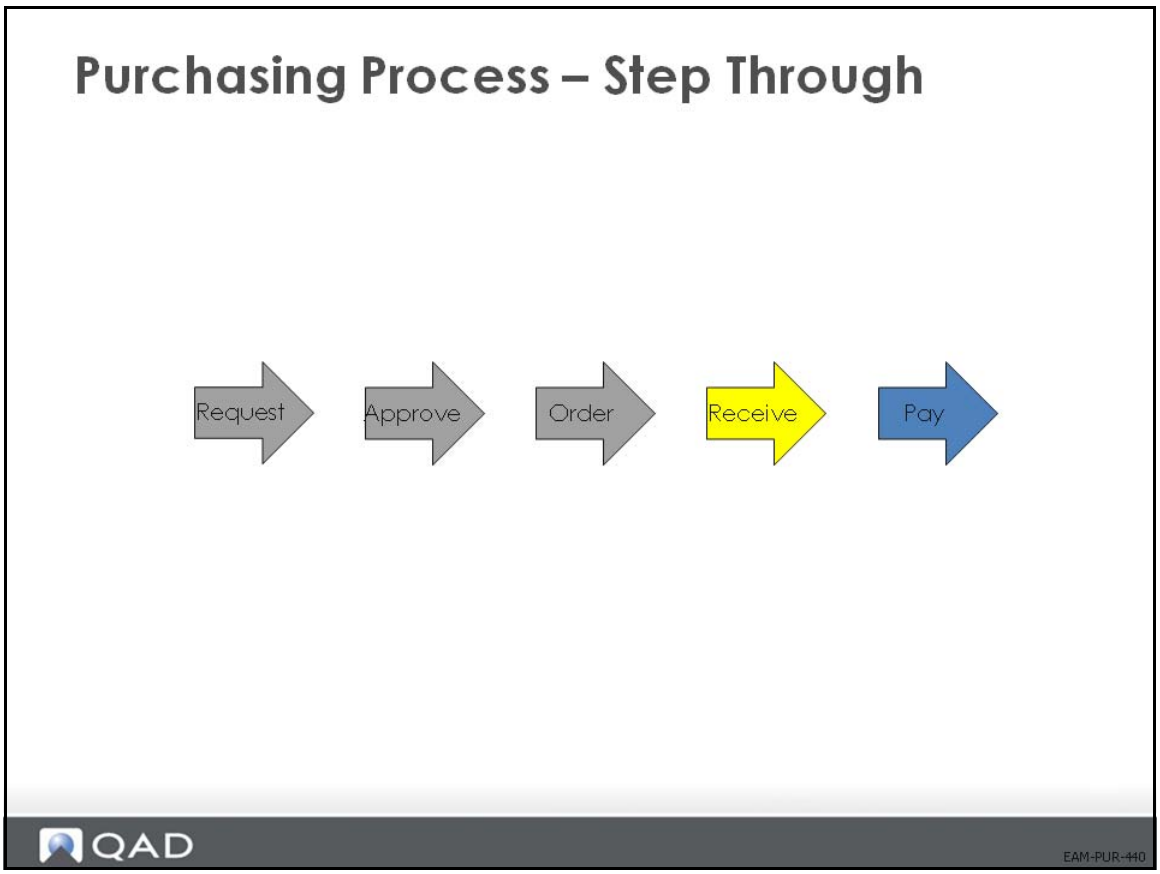
Create Purchase Order: Global



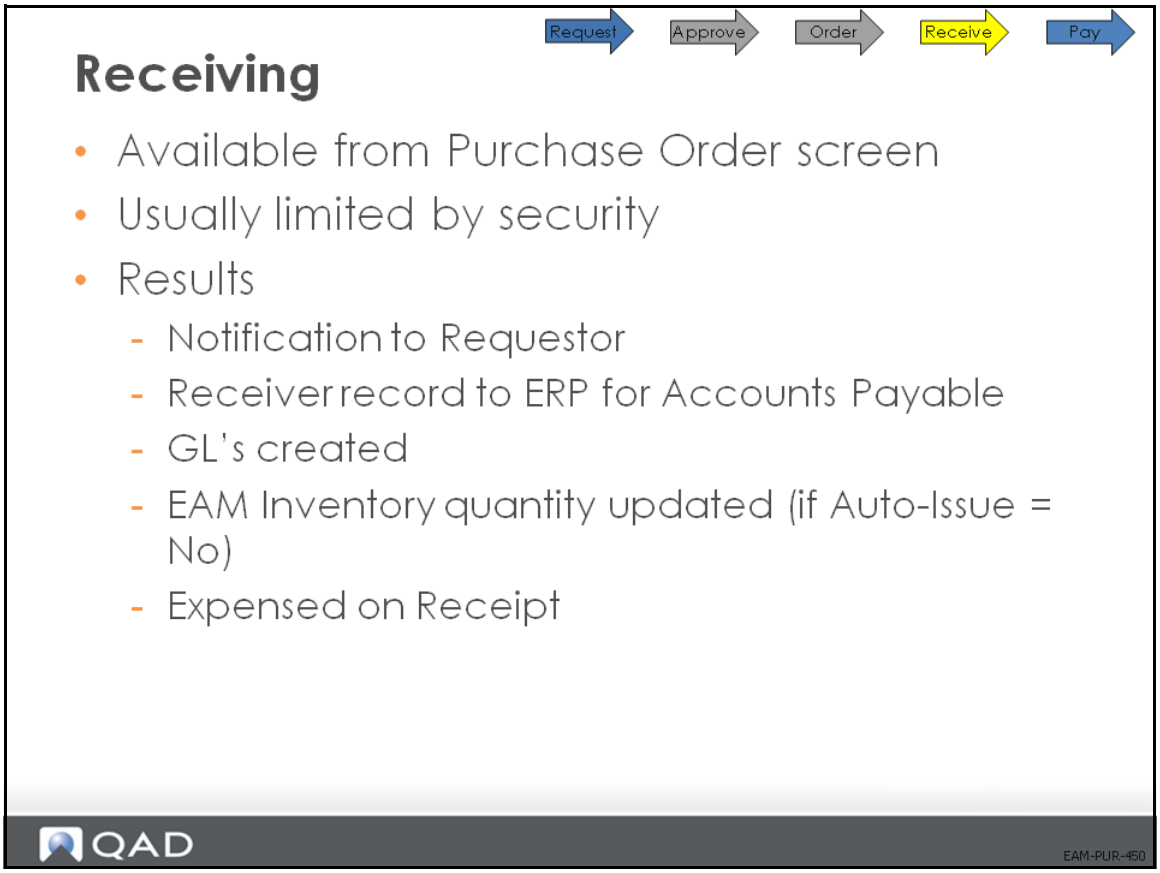
Purchase Order: Order



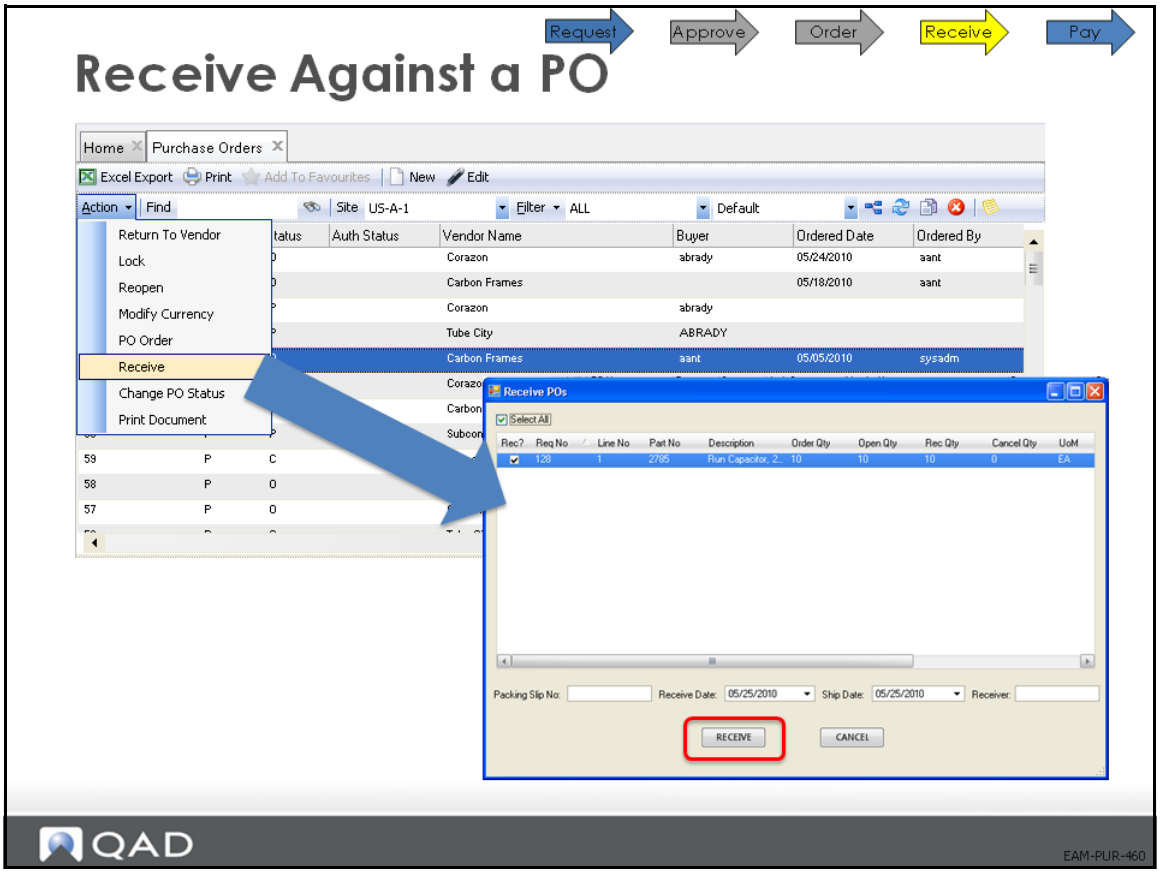
Purchase Process Step Through: Receive



Receiving


Request
Approve
Order
Receive
Pay
Receiving
Available from Purchase Order screen
Usually limited by security
Results
Notification to Requestor
Receiver record to ERP for Accounts Payable
GL's created
EAM Inventory quantity updated (if Auto-Issue = No)
Expensed on Receipt
QAD
EAM-PUR-450

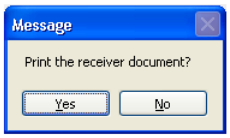
Receive Against a PO



Generate Receiver Document

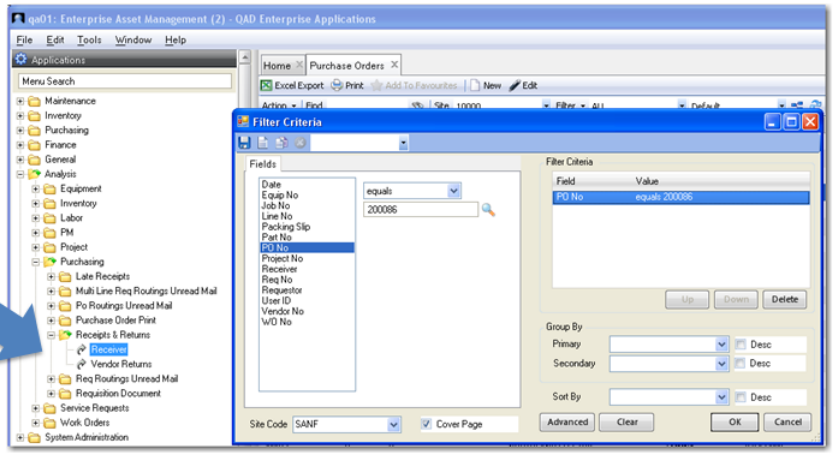
Request Approve Order Receive Pay

Generate Receiver Document



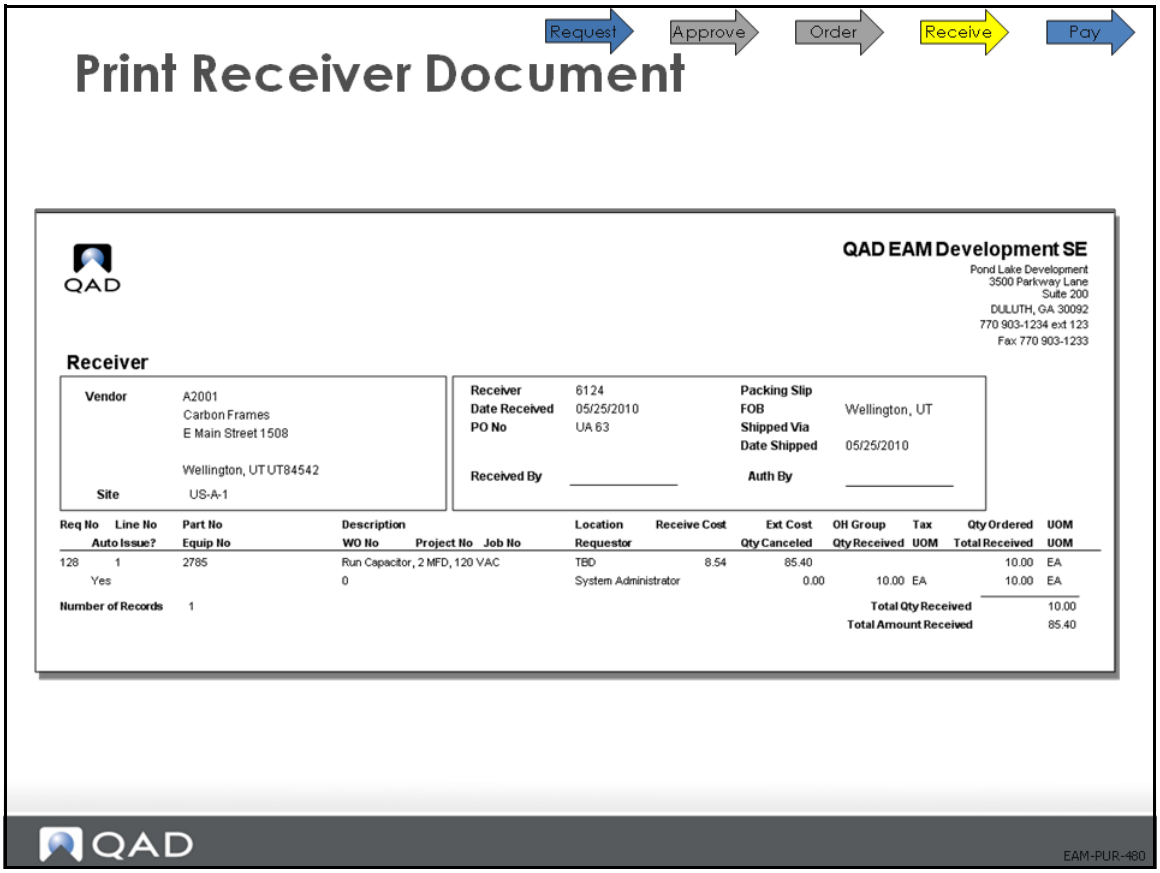
The system will ask you to print the receiver document now or . . .

. . . you may do a reprint under the Analysis section

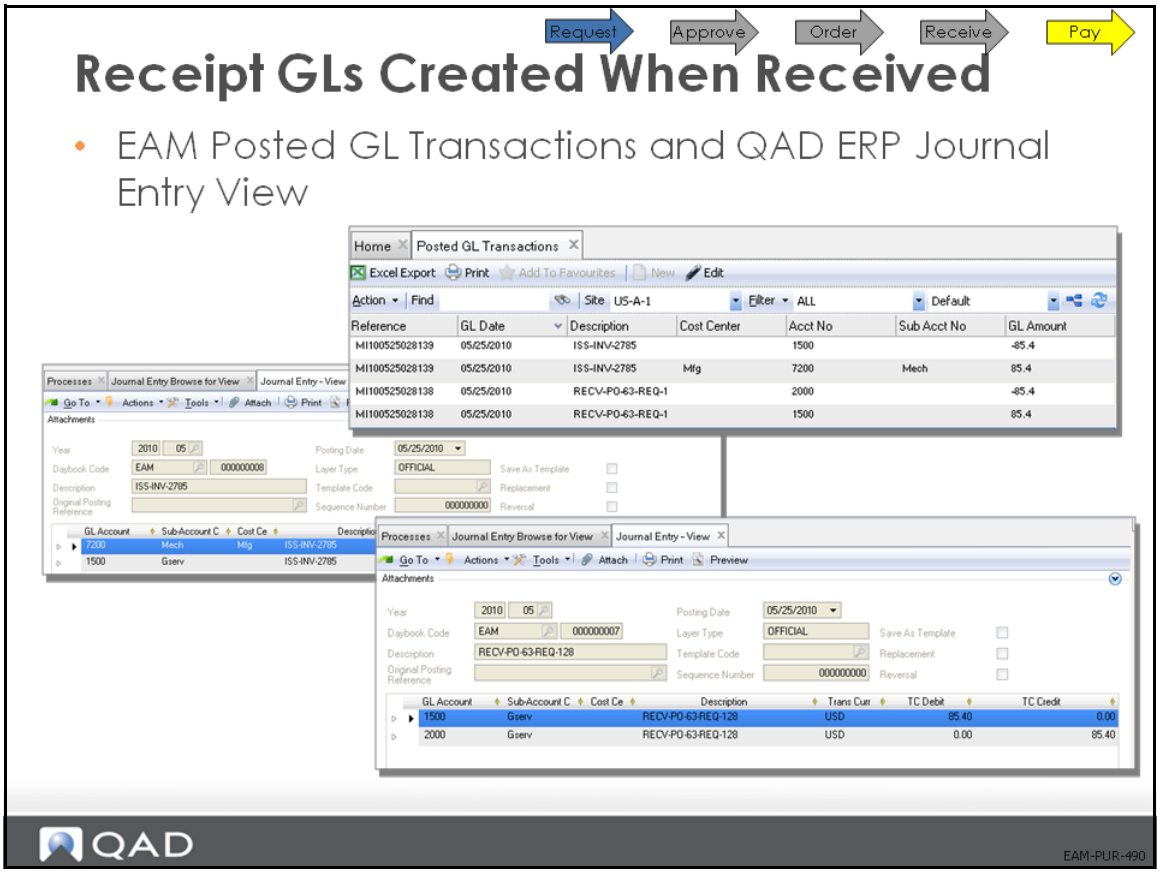


QAD EAM-PUR-470

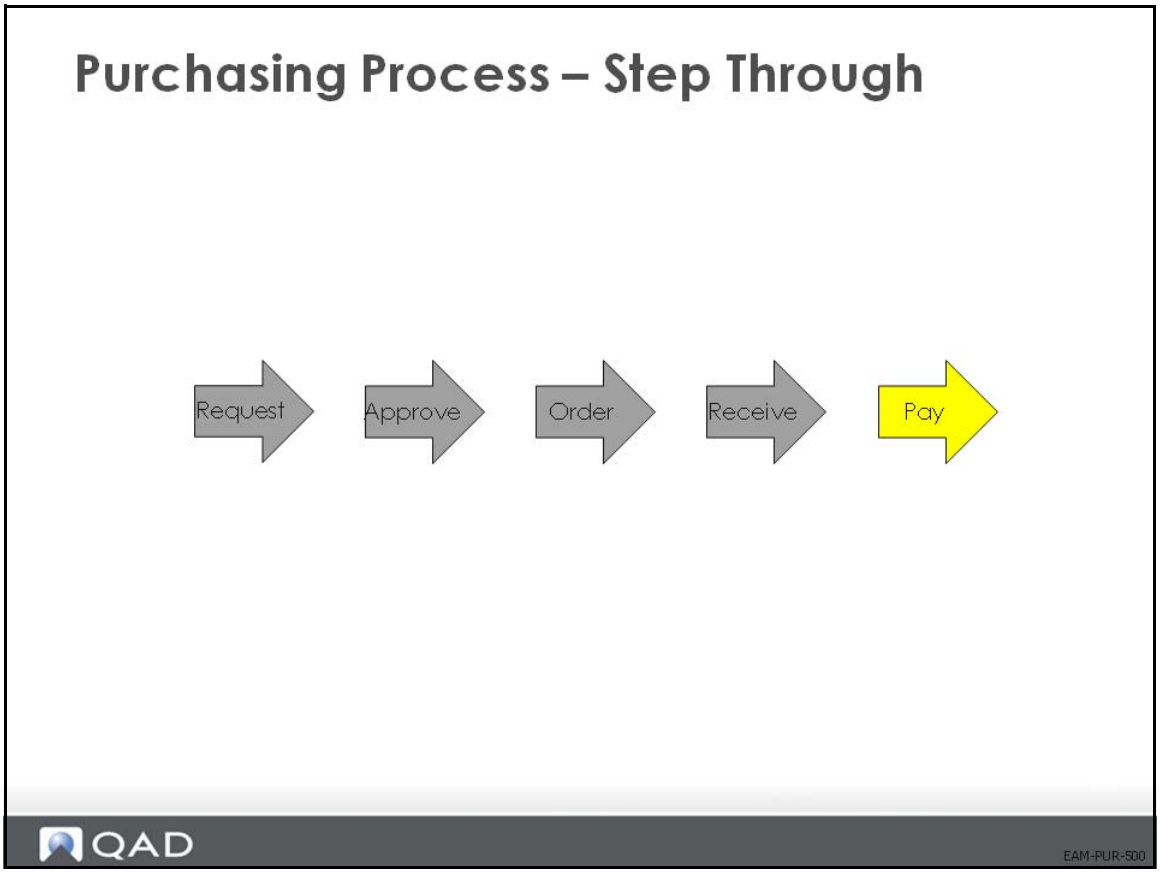
Print Receiver Document



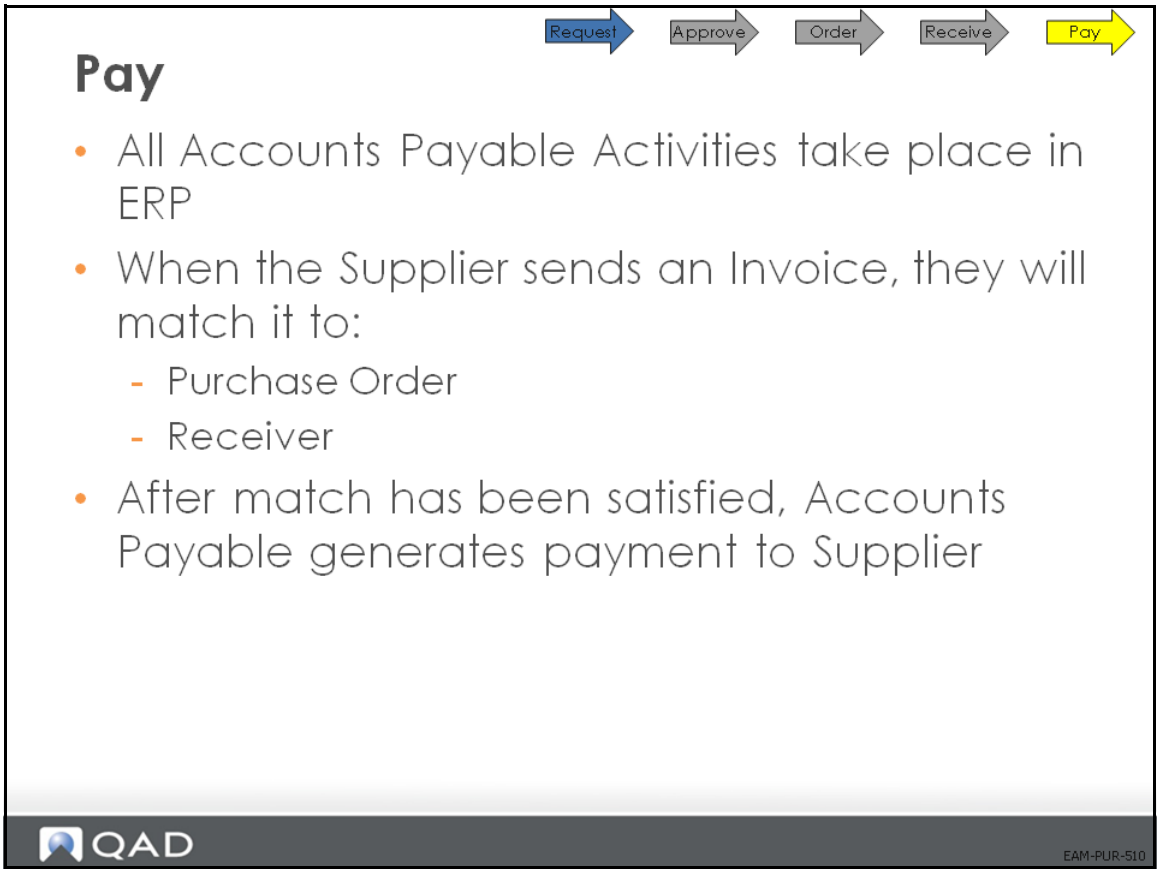
Receipt GLs


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
Attachments
Year
Daybook Code
Description
Original Posting Reference
Posting Date
Layer Type
Template Code
Sequence Number
Save As Template
Replacement
Reversal
2010
05
EAM
00000007
RECV-PO-63-REQ-128
05/25/2010
OFFICIAL
000000000
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
EAM-PUR-490

Purchasing Process Step Through: Pay



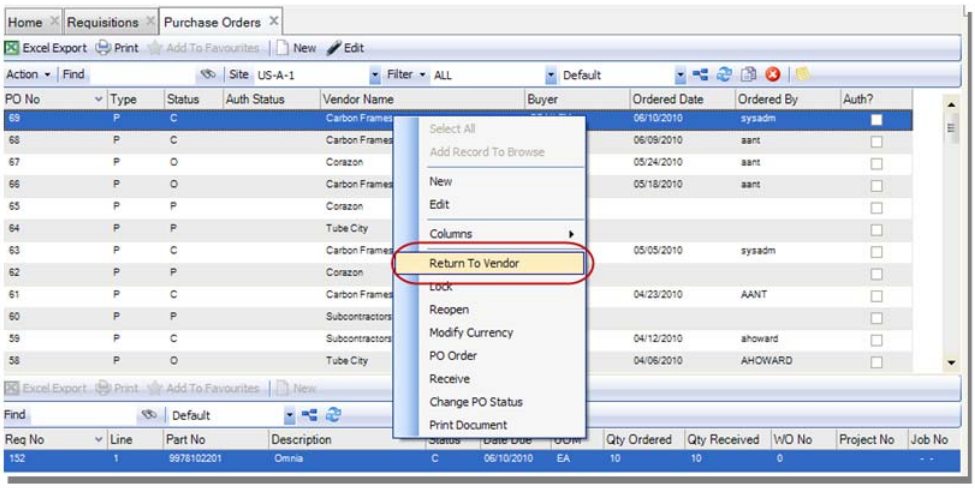
Pay


Request
Approve
Order
Receive
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
EAM-PUR-510

EAM Purchasing Returns

Return to Vendor

- Select the purchase order
- Then select Return to Vendor



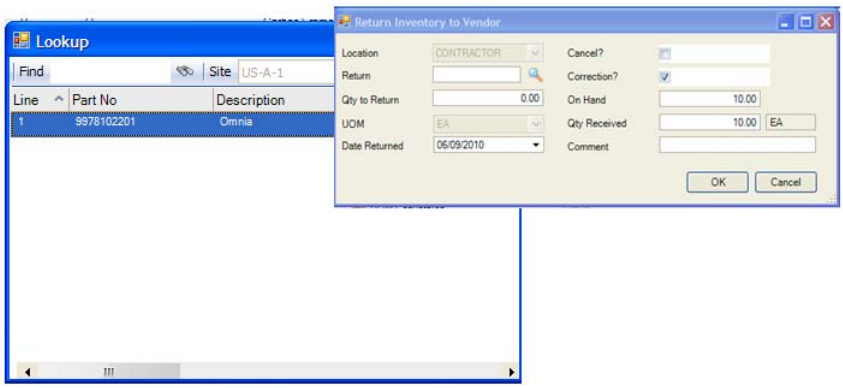
QAD

EAM-PUR-530

Return to Vendor

Return to Vendor – Cont'd

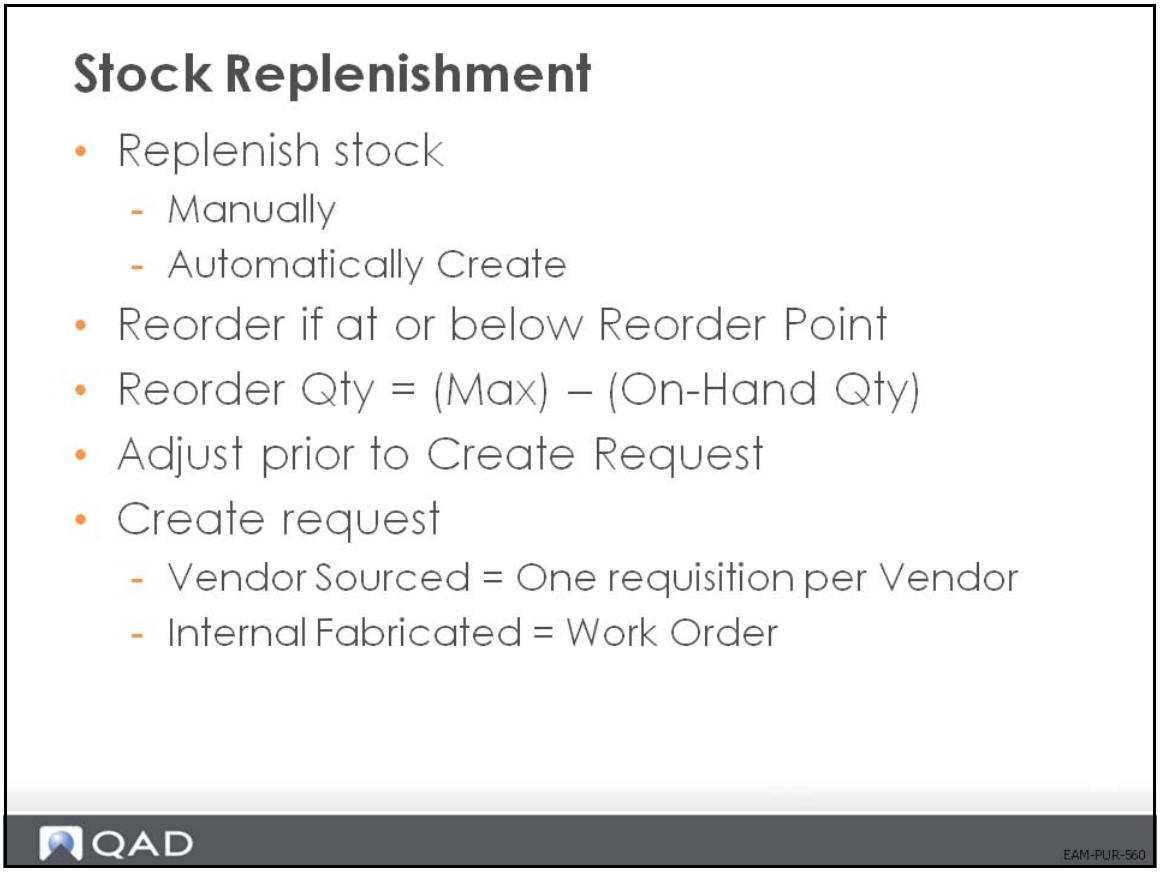
- A lookup box appears so you can select which part from the PO needs to be returned
- Select the appropriate part
- The Return Inventory to Vendor screen appears, enter the quantity to return and any comments



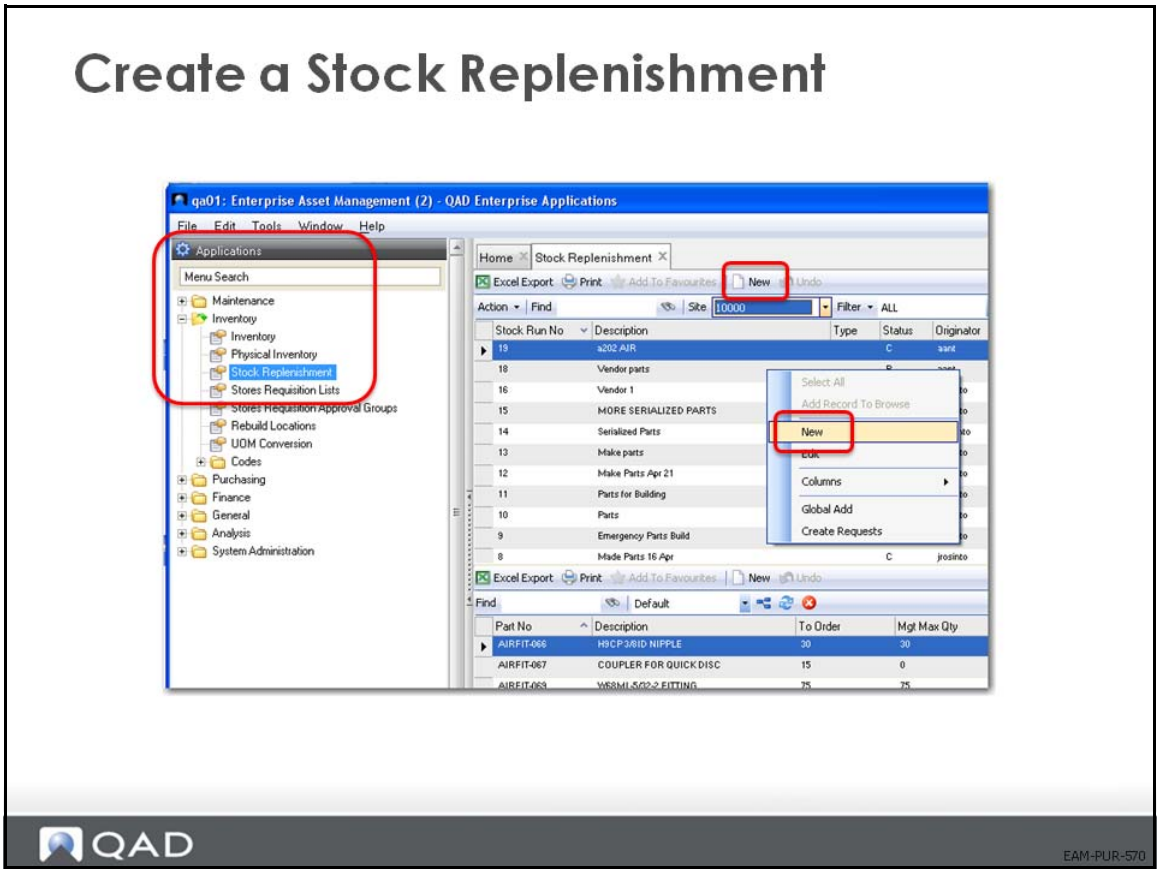
QAD

EAM-PUR-540

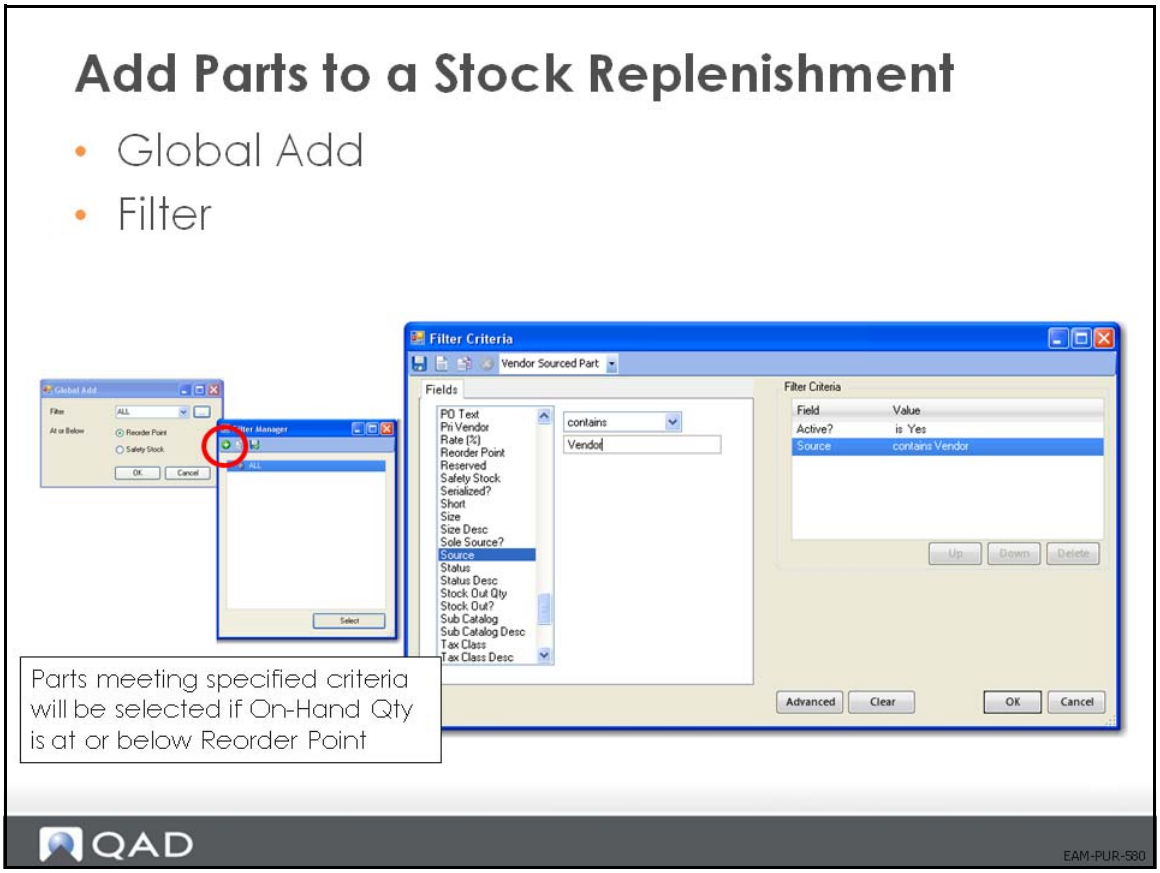
EAM Stock Replenishment



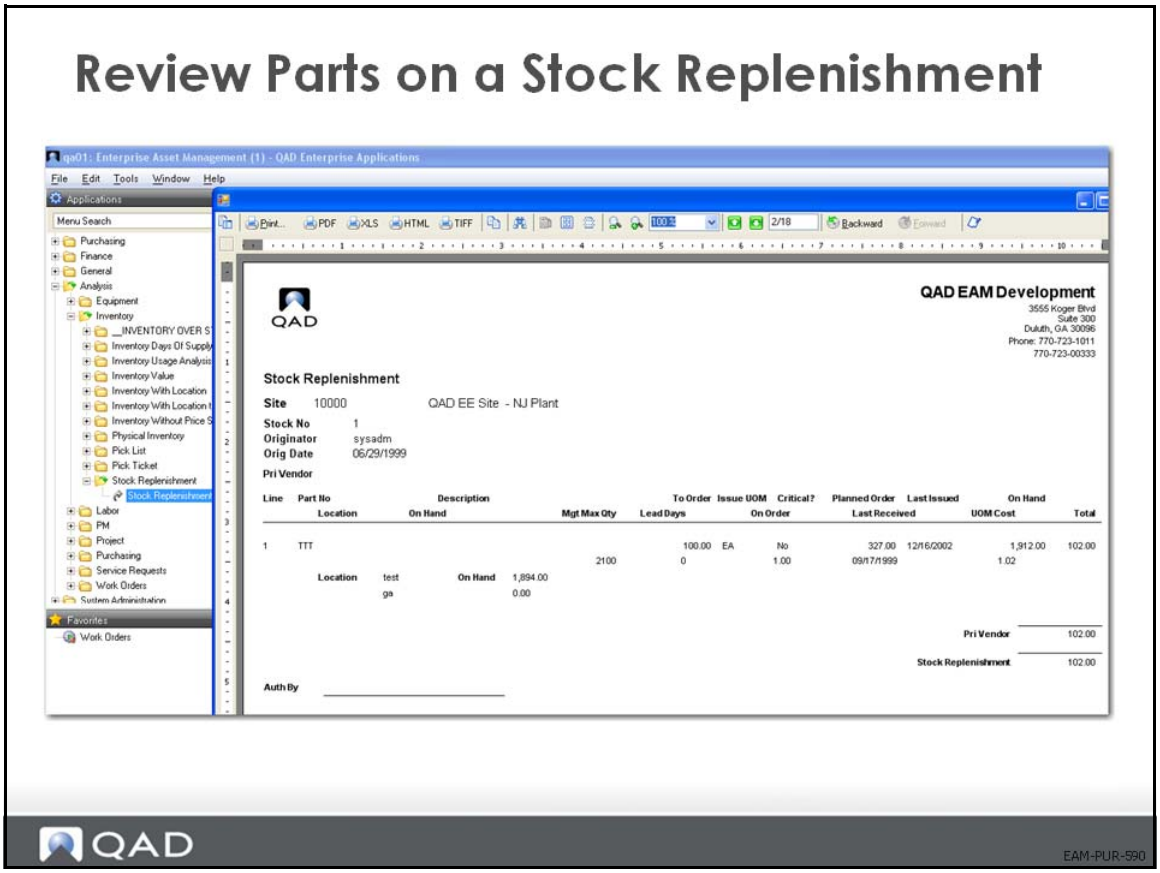
Create a Stock Replenishment



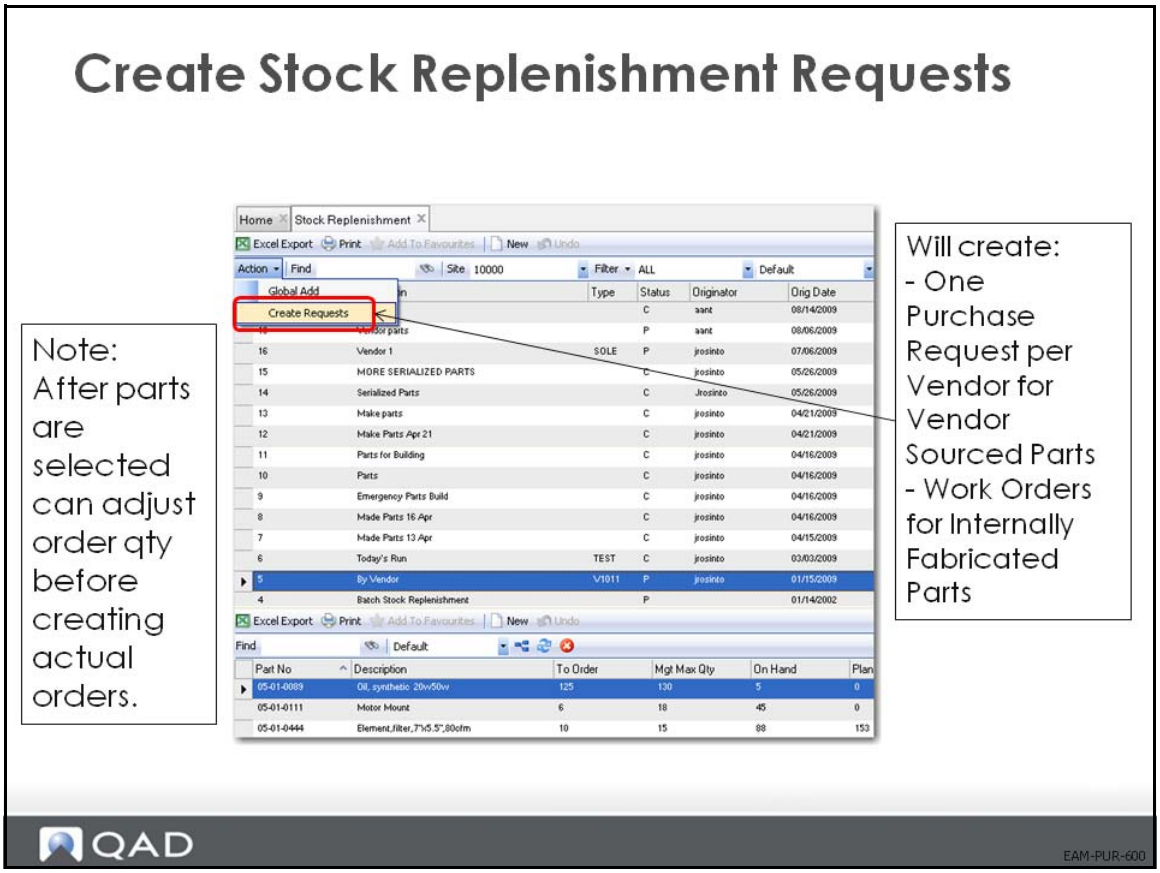
Add Parts to a Stock Replenishment



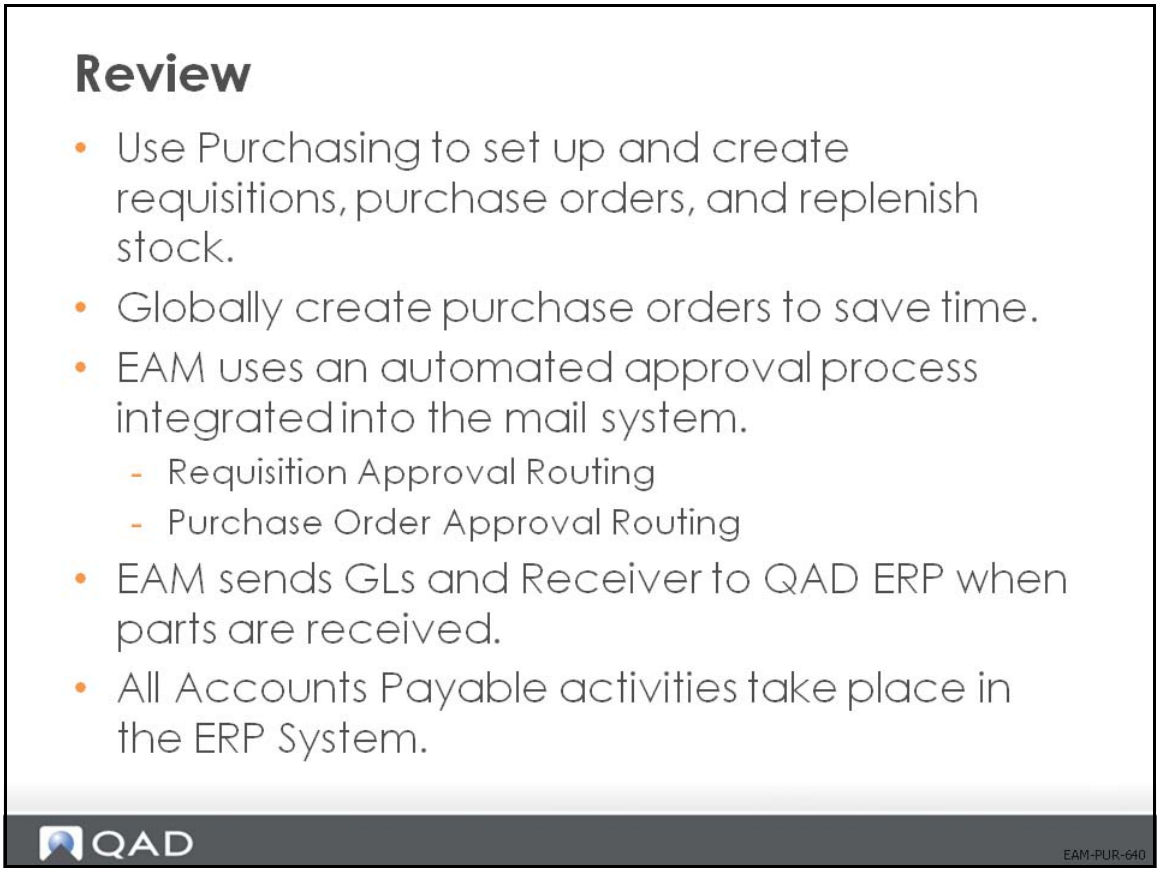
Review Parts on a Stock Replenishment



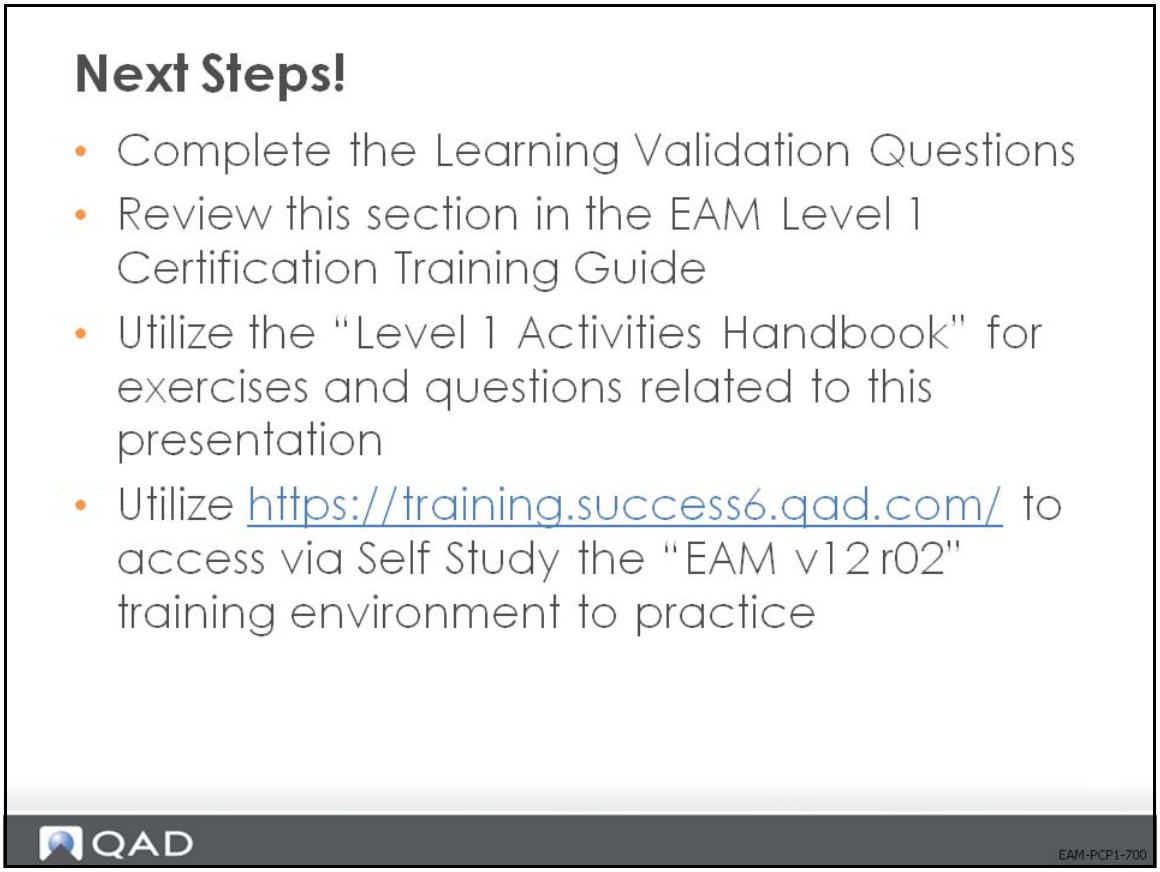
Create Stock Replenishment Requests



Course Review



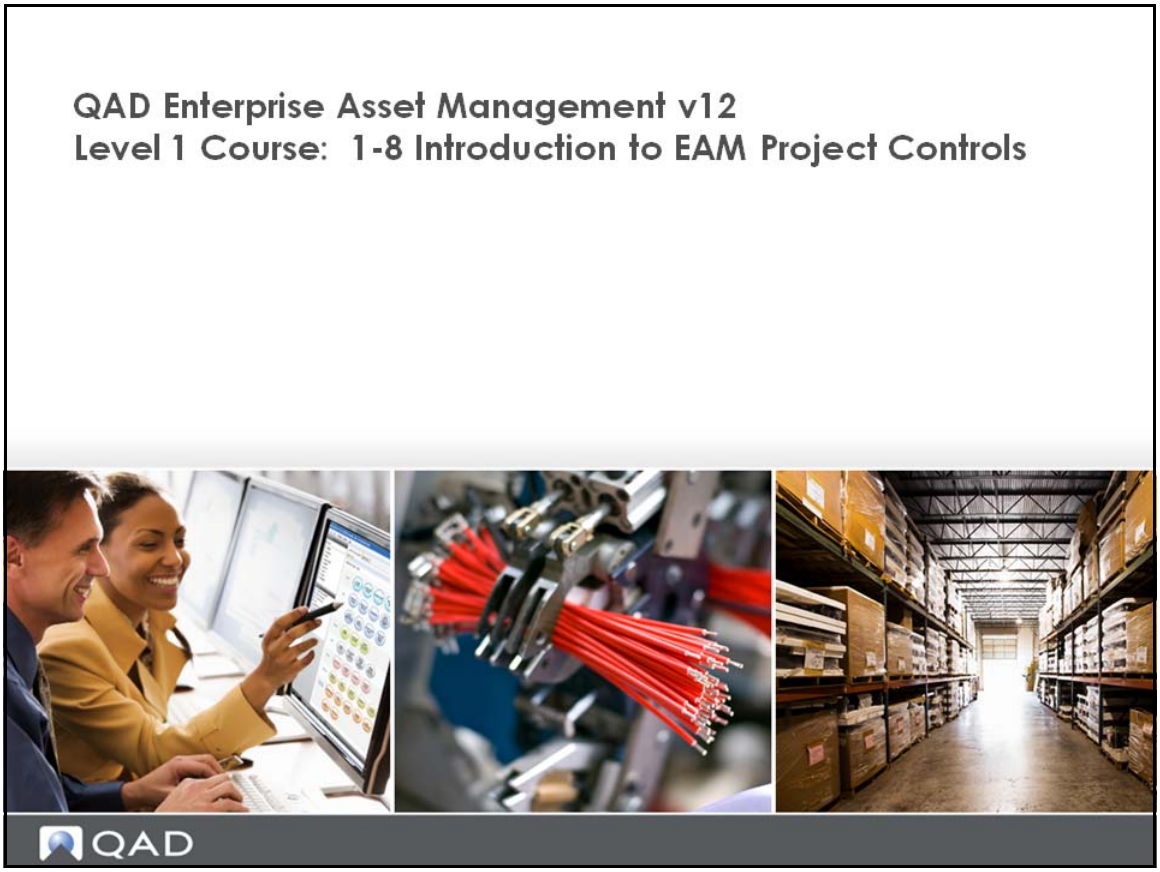
Next Steps


Next Steps!
• Complete the Learning Validation Questions
• Review this section in the EAM Level 1 Certification Training Guide
• Utilize the "Level 1 Activities Handbook" for exercises and questions related to this presentation
• Utilize https://training.success6.qad.com/ to access via Self Study the "EAM v12 r02" training environment to practice
QAD
EAM-PCP1-700

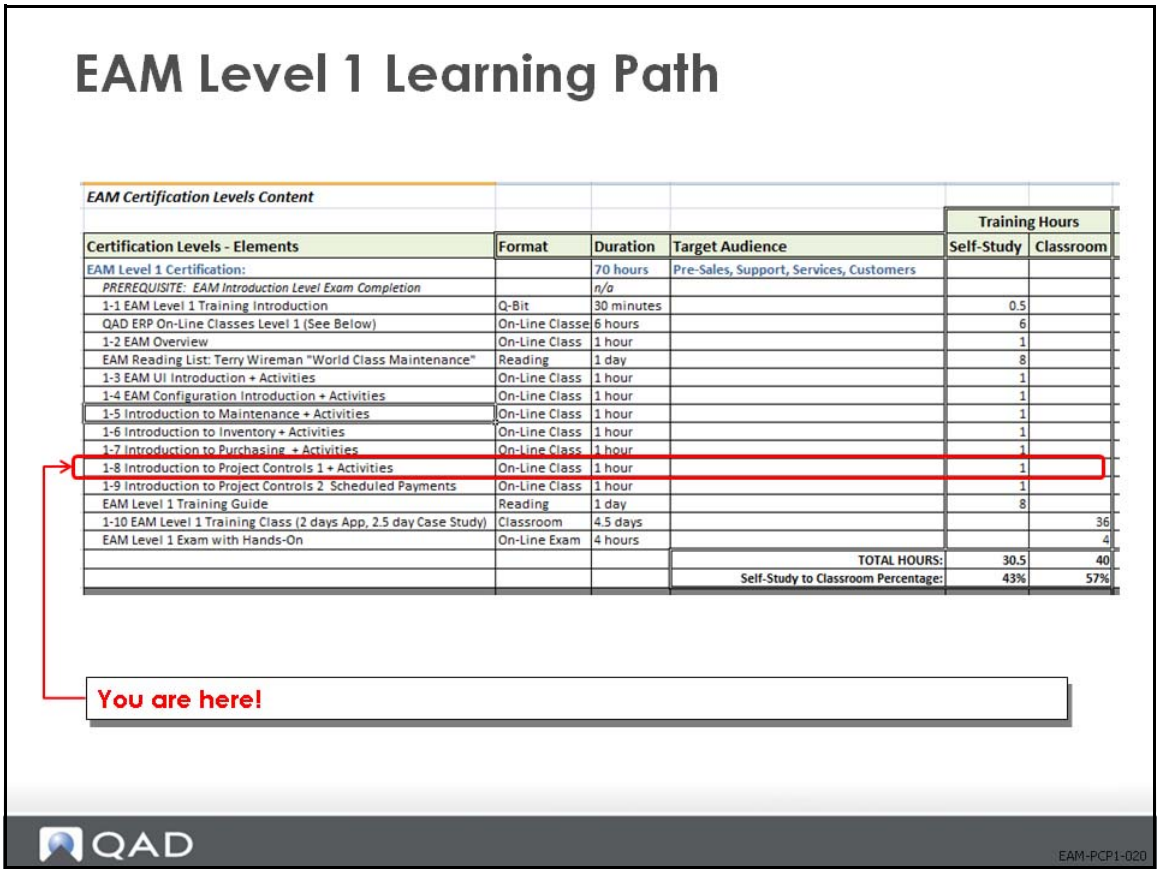
Chapter 8

Introduction to EAM Project Controls Part 1

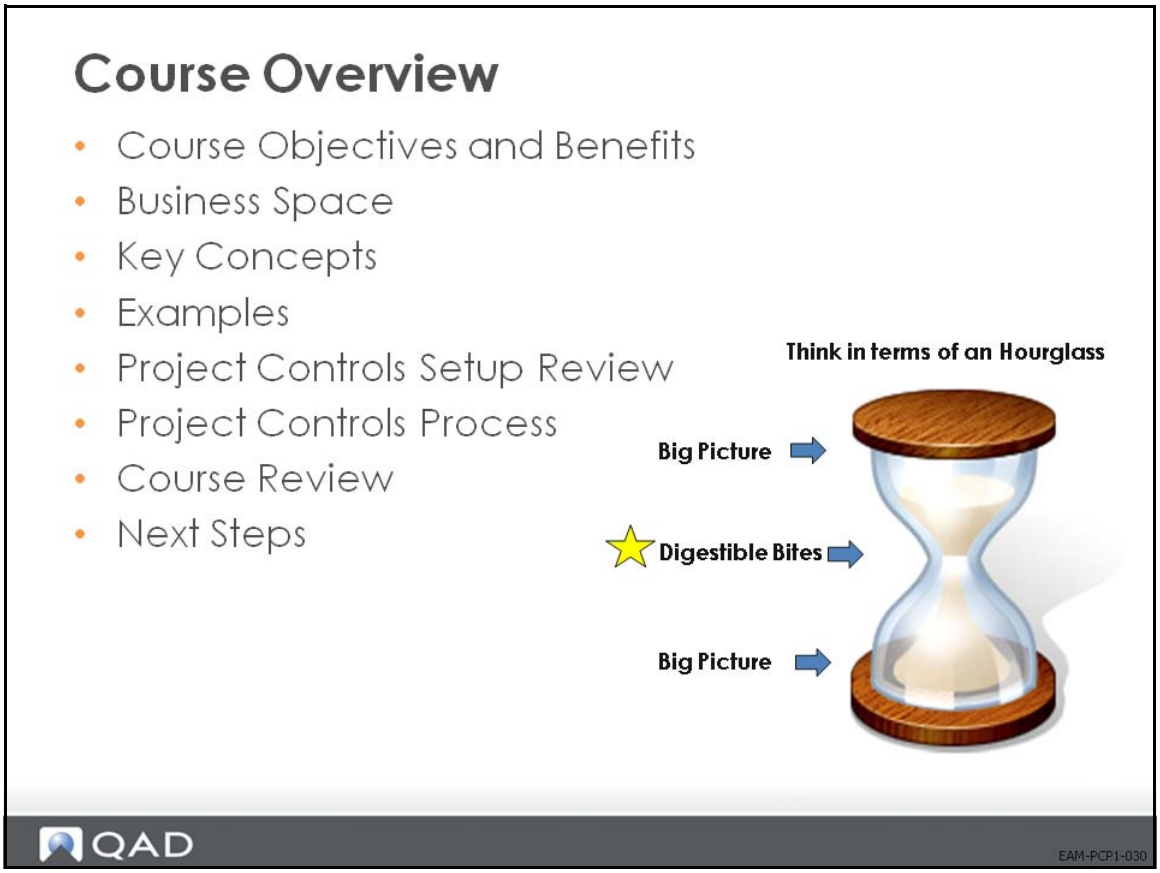
EAM Project Controls Intro



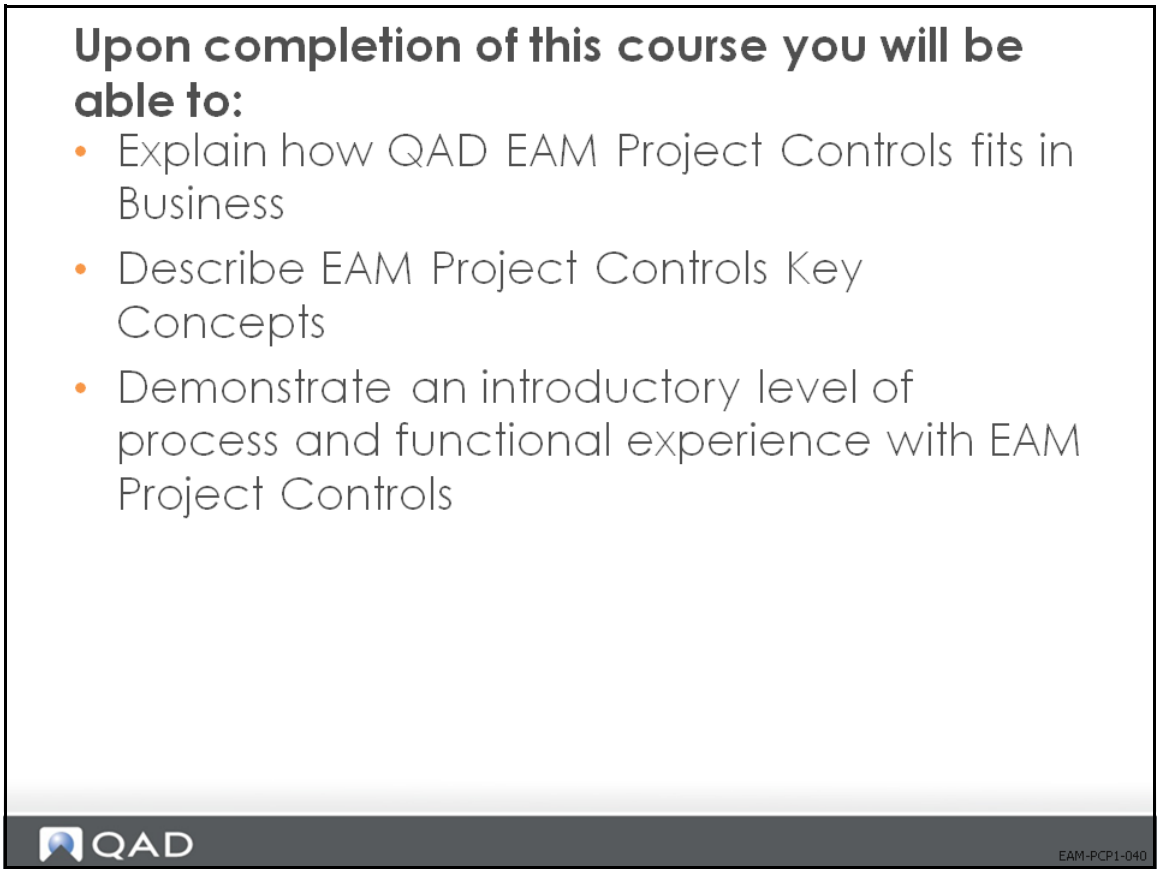
EAM Level 1 Learning Path



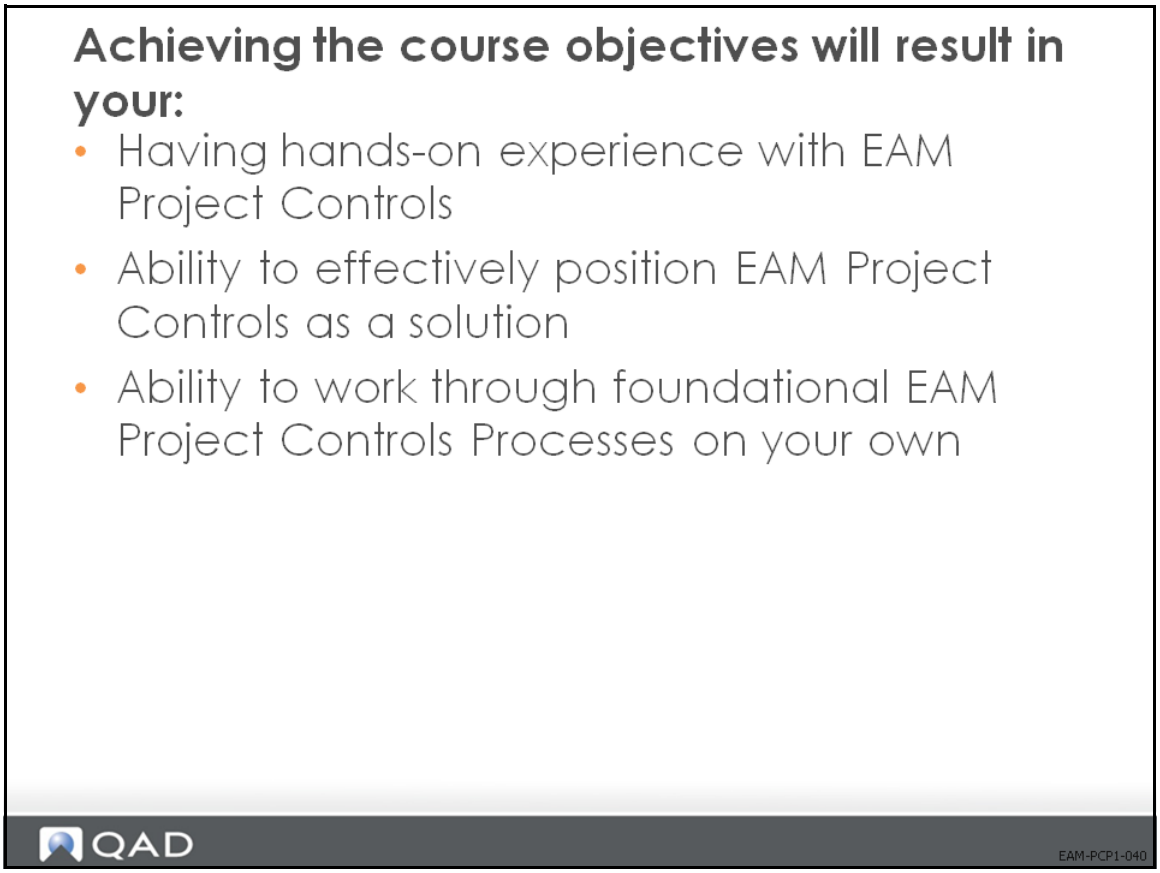
Course Overview



Course Goals



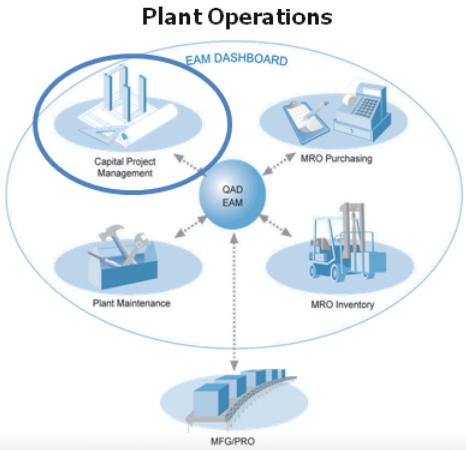
Course Objectives



EAM Project Controls

Project Controls Overview

- Manage project accounting to consistently deliver on time and on budget
- Track "Acquisition Costs"
- Monitor and control spending
  - Against budget
  - By project, job or sub-job
  - Reallocate budgets from one project to another
- Track scheduled payments and reimbursements



QAD

EAM-OV-390

EAM Project Controls Users

Who uses EAM Project Controls?

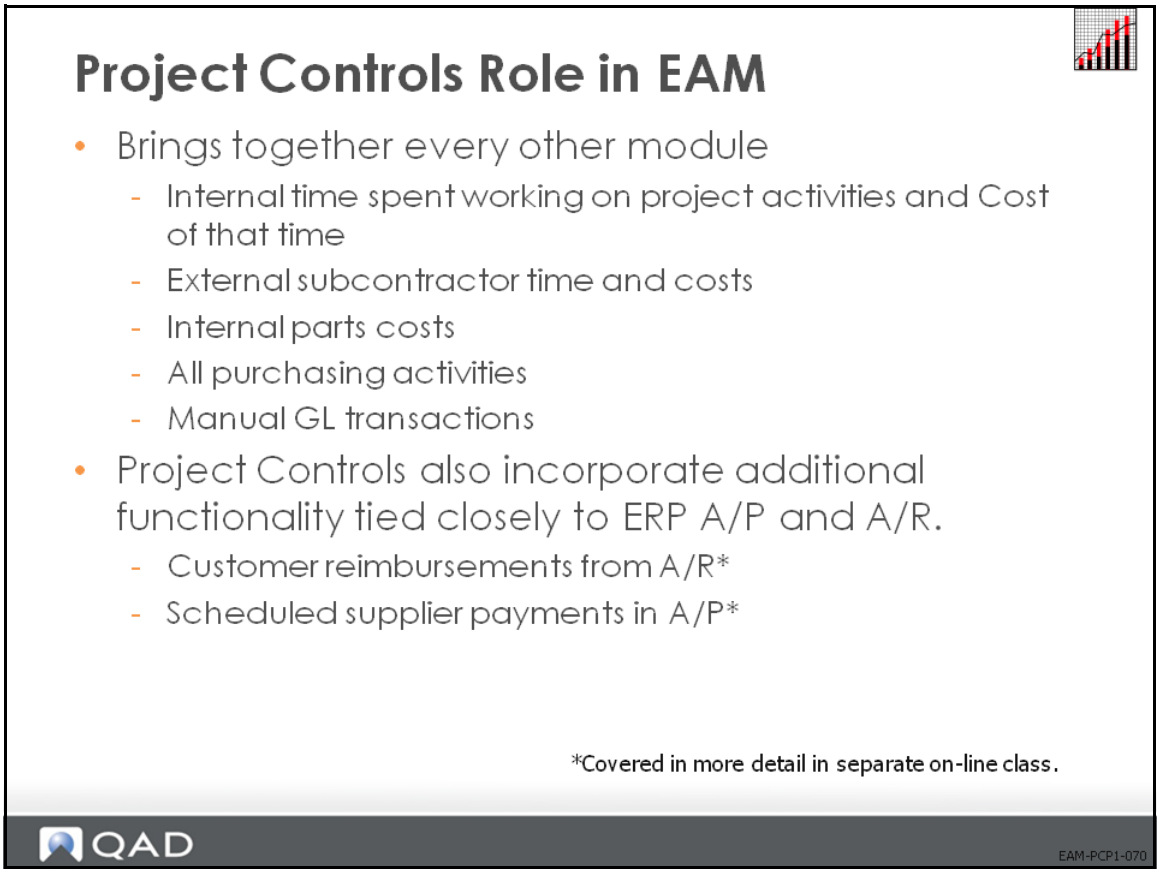
- Finance
- Engineering
- Maintenance
- Inventory
- Purchasing
- Quality
- Fixed Asset Accounting
- Even sometimes – Manufacturing



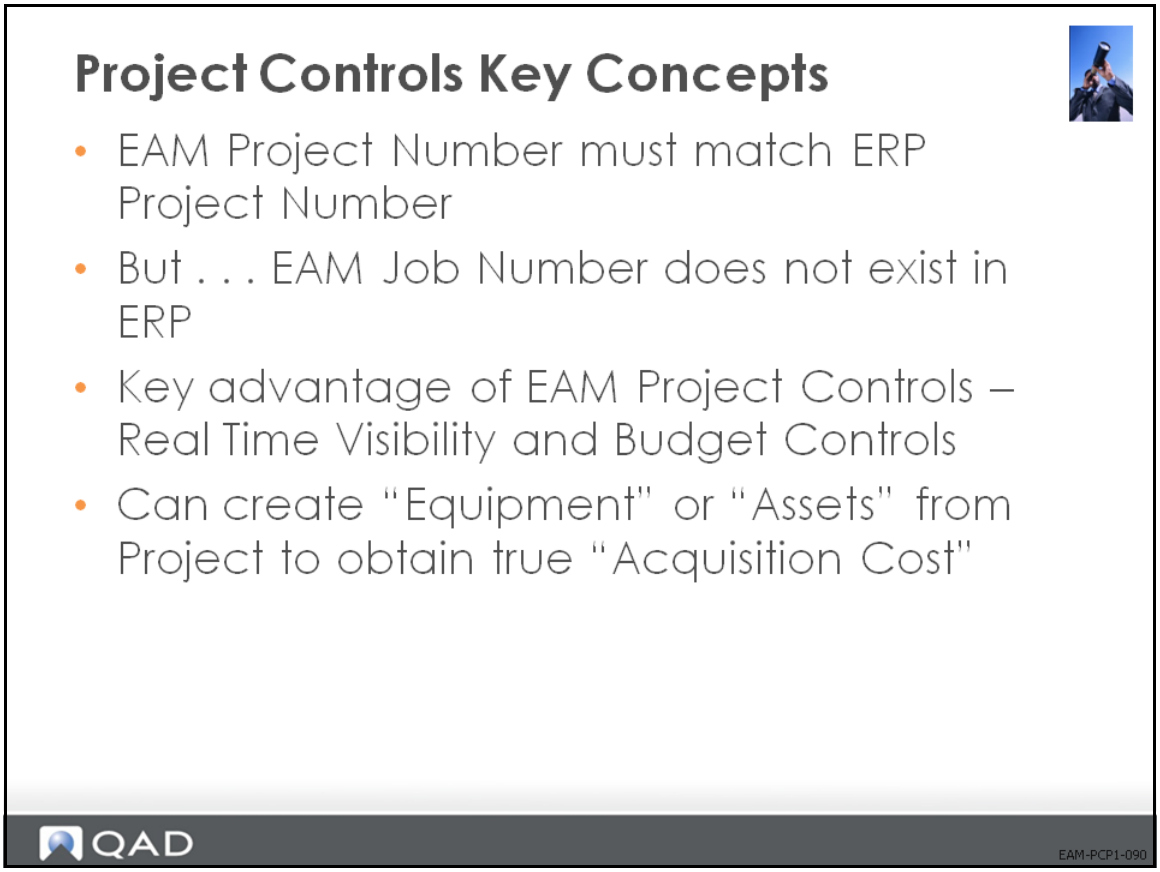
QAD

EAM-OV-320

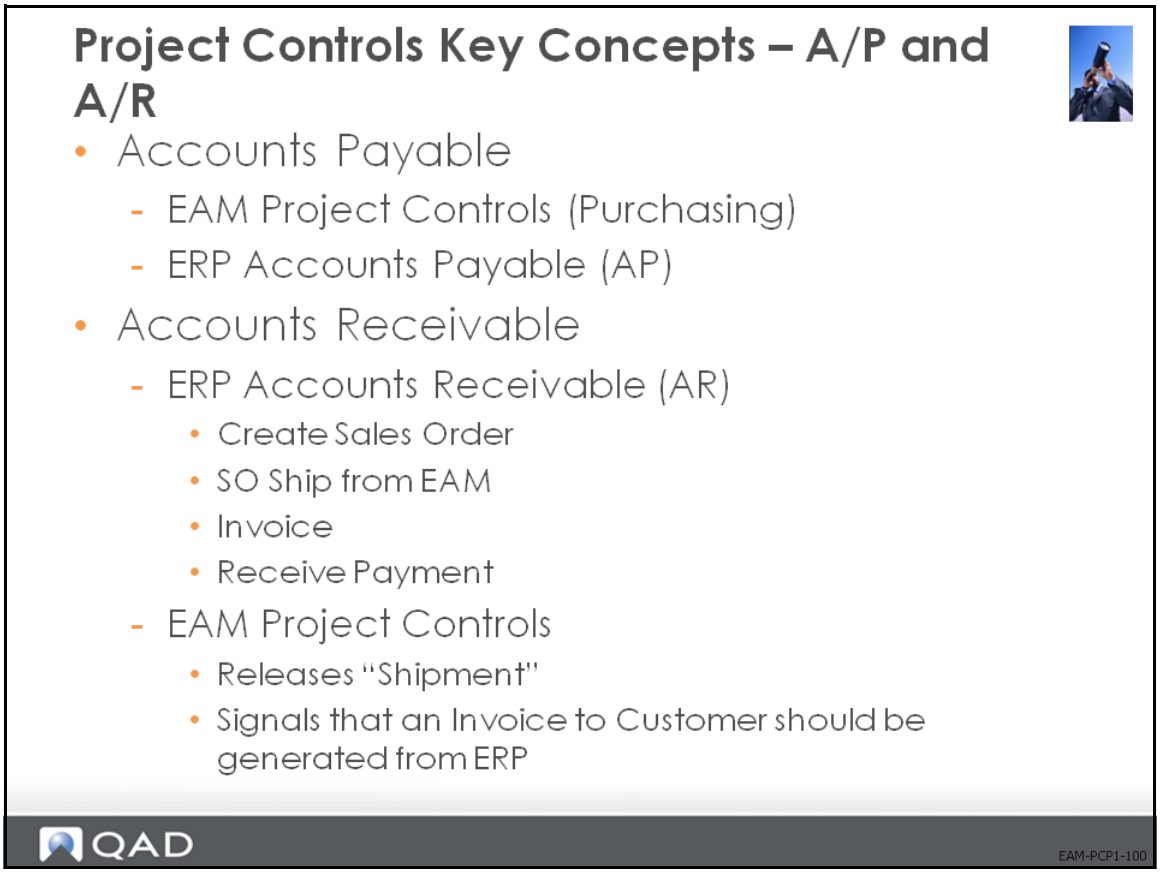
Project Controls in EAM



EAM Project Controls Key Concepts



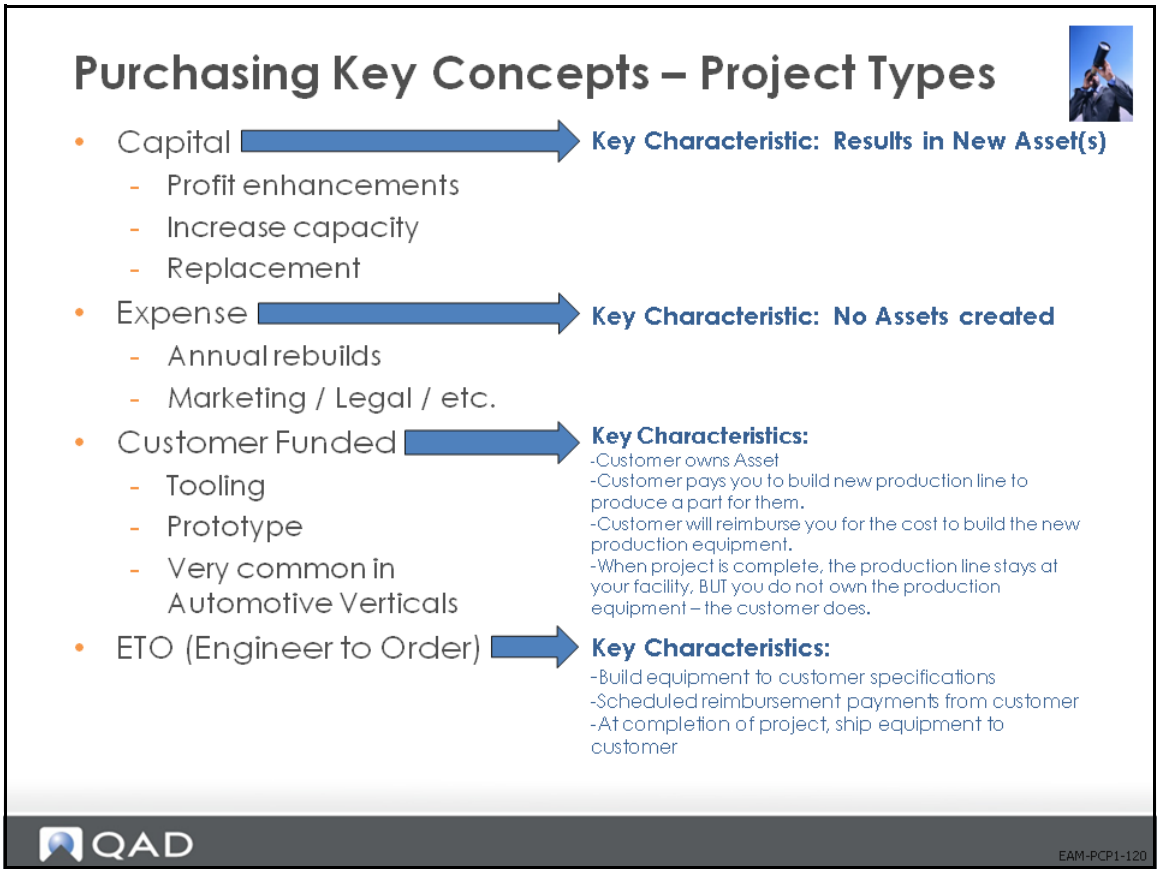
Accounts Payable and Receivable



Approvals


Project Controls Key Concepts - Approvals
• Electronic Approvals
- Project Approval Groups
- Project-Specific Requisition Approval Groups
- Job-Specific Requisition Approval Groups
• Similar Concepts to Requisition
- Capital, Expense and Project Limits
- Quality Approvers
- Money Approvers
- Horizontal Approvers
QAD
EAM-PCP1-110

Project Types



Best Practices Goals



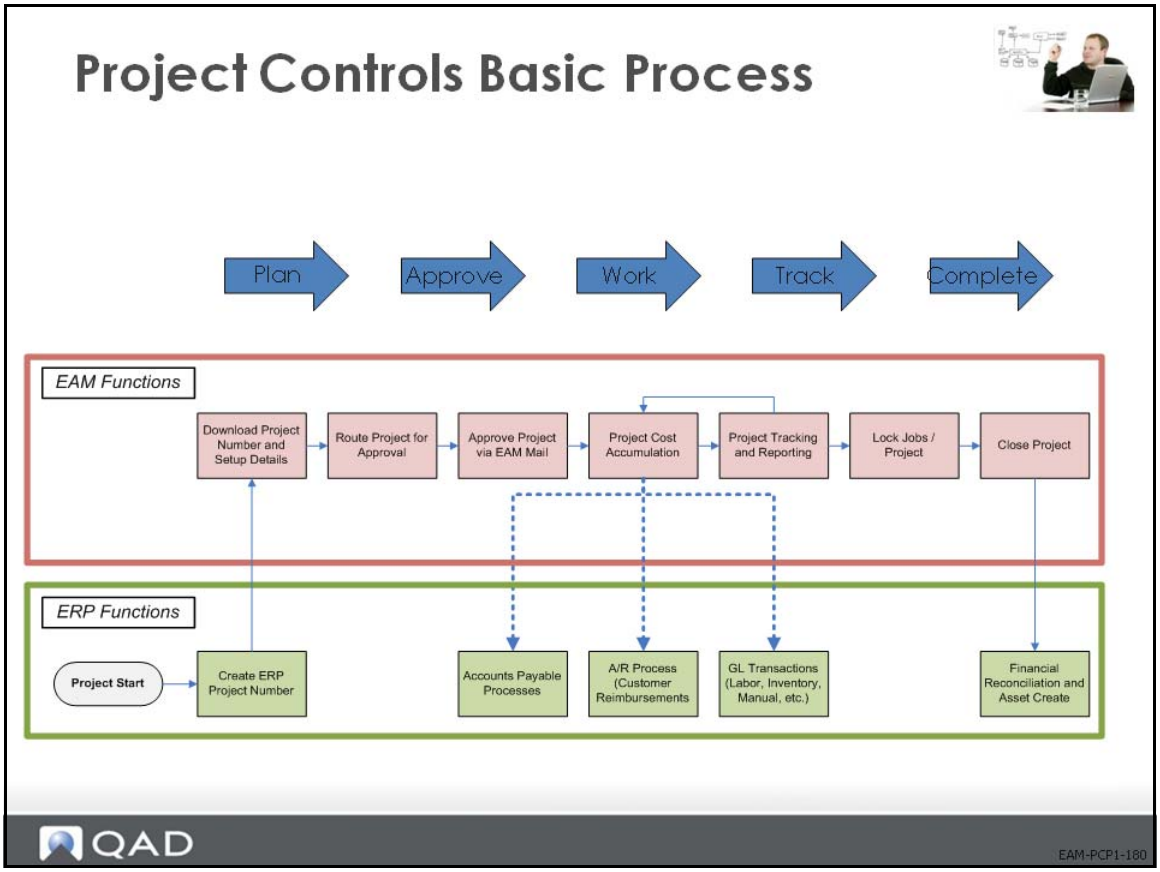
Key Settings



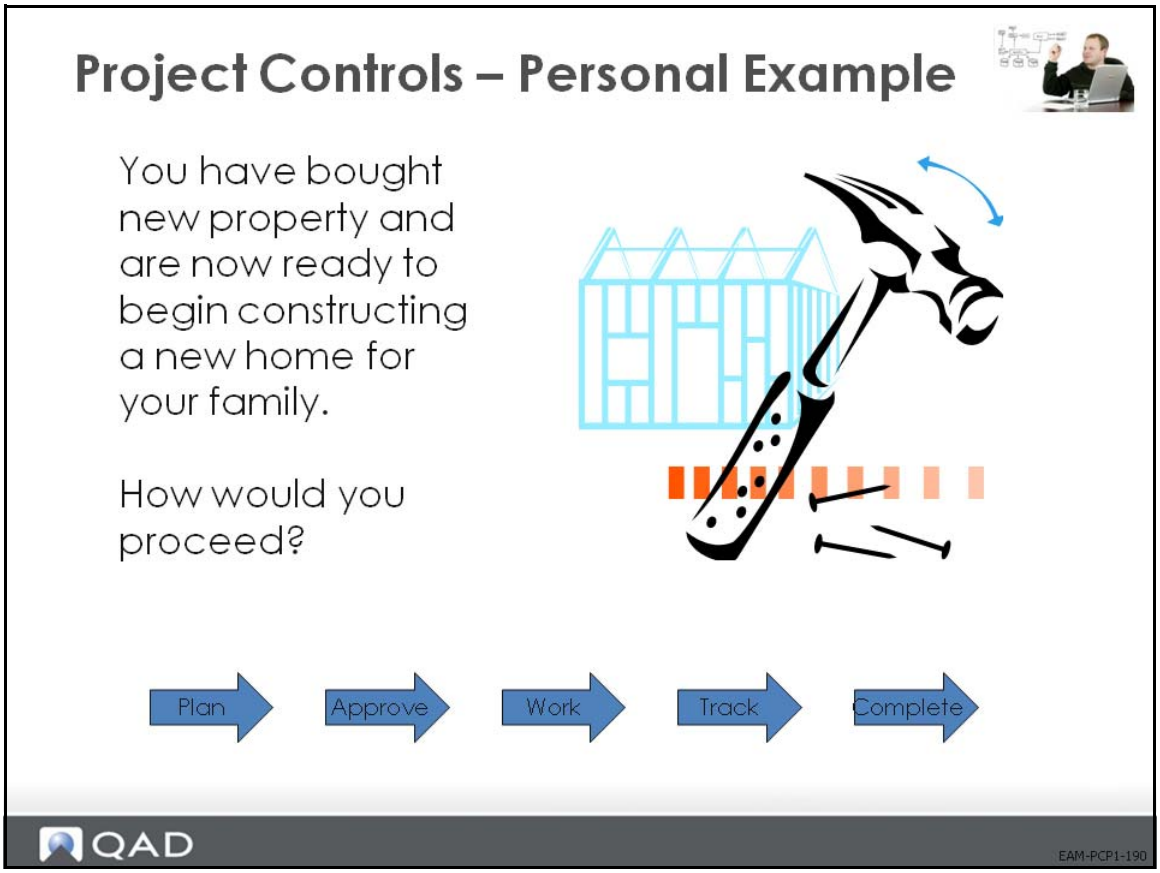
Key Settings 2



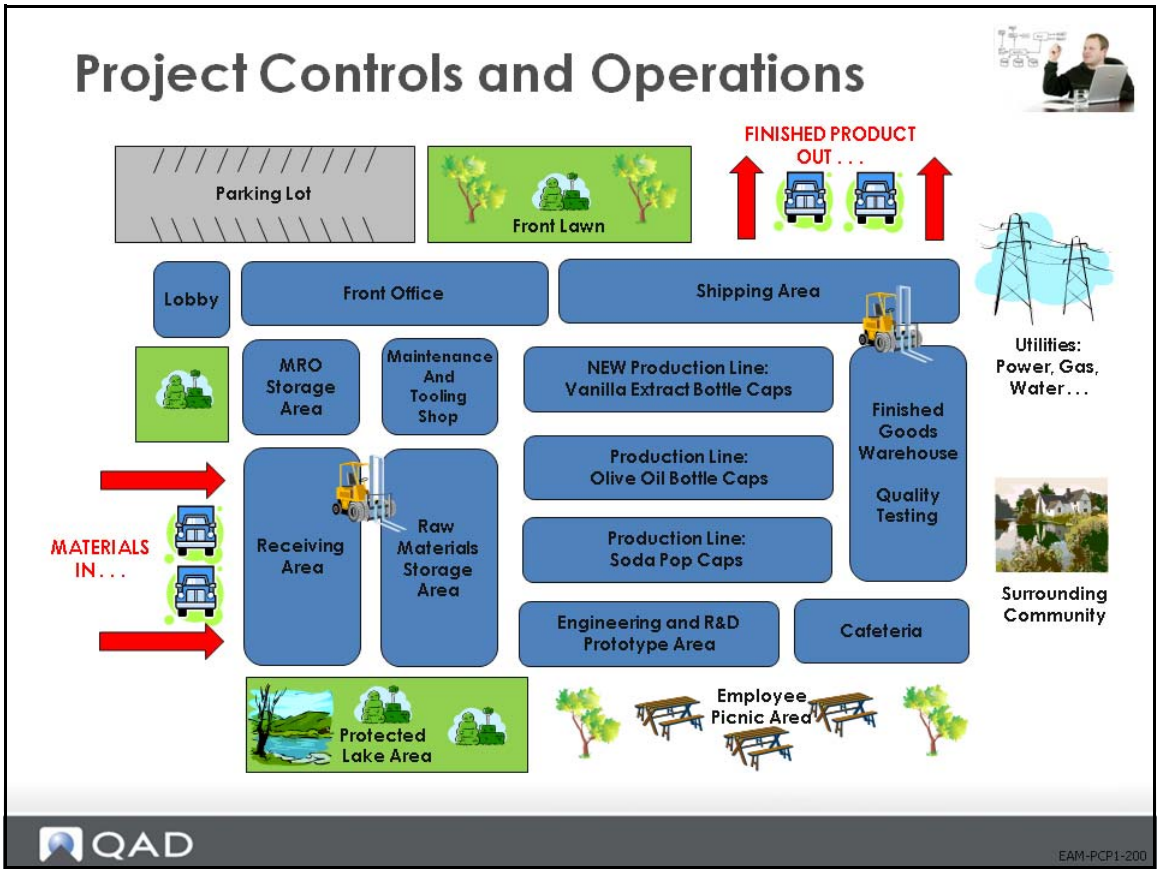
Project Controls Process



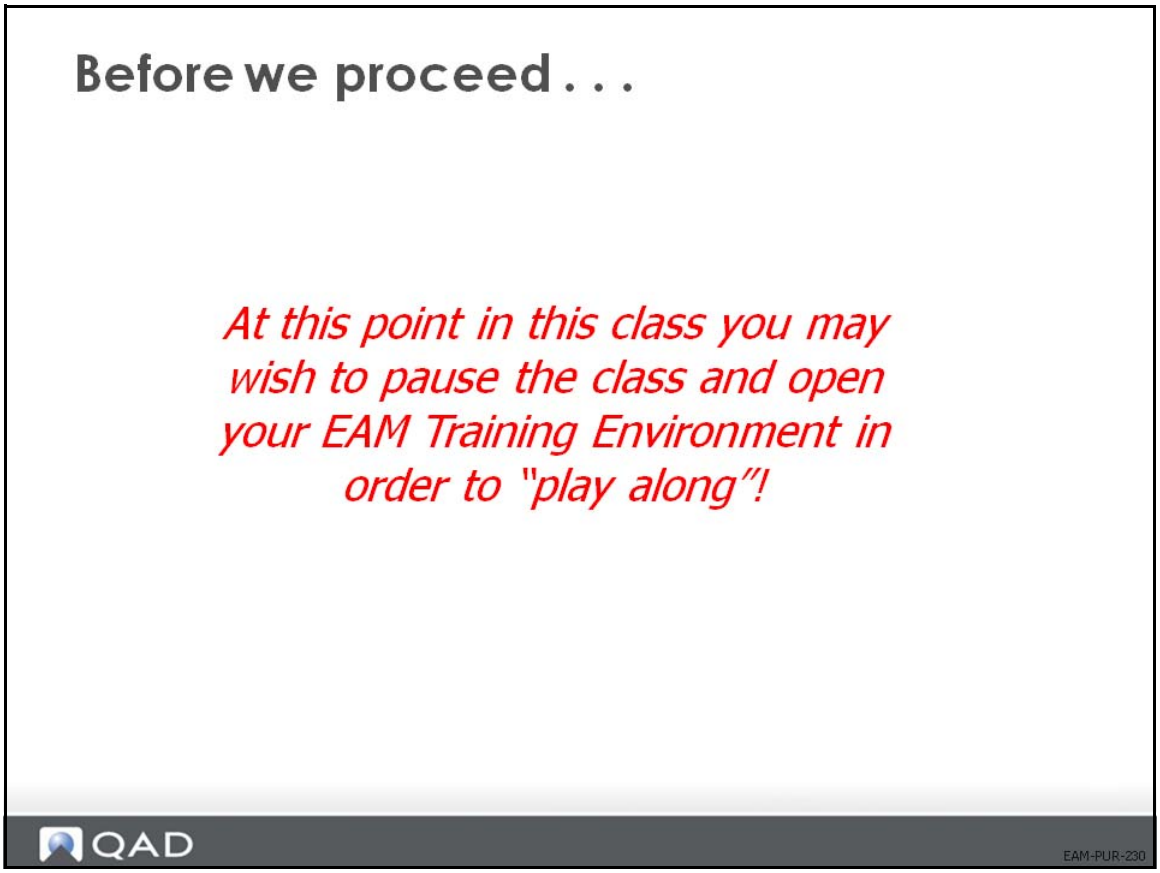
Project Controls: Personal Example



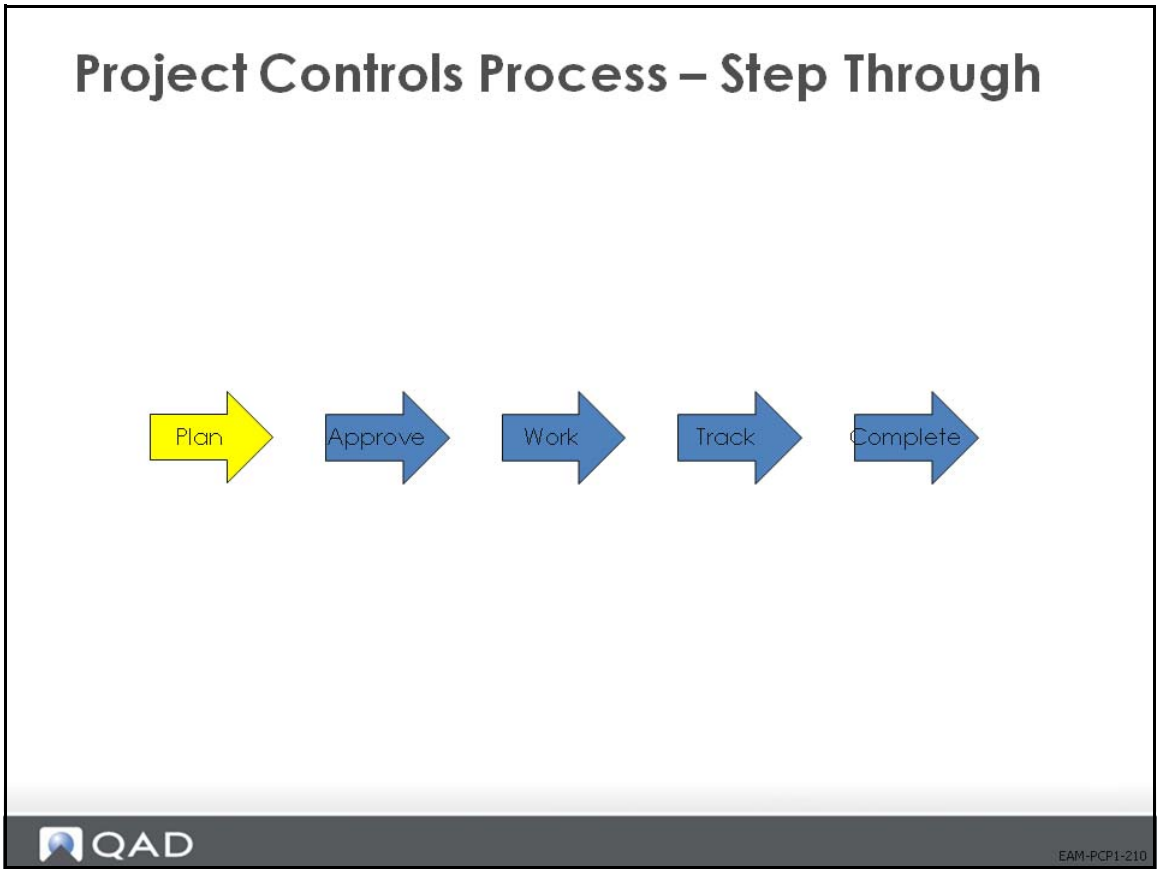
Project Controls and Operations



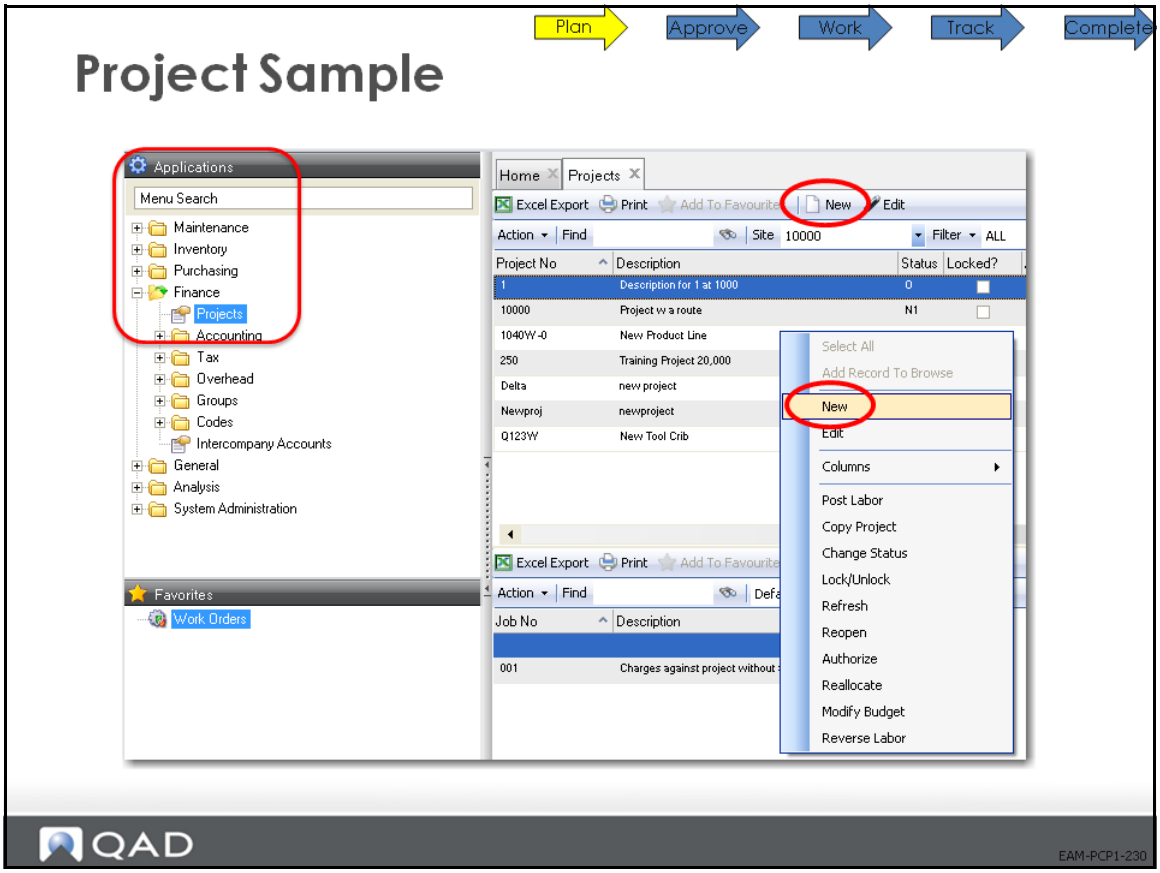
Training Environment



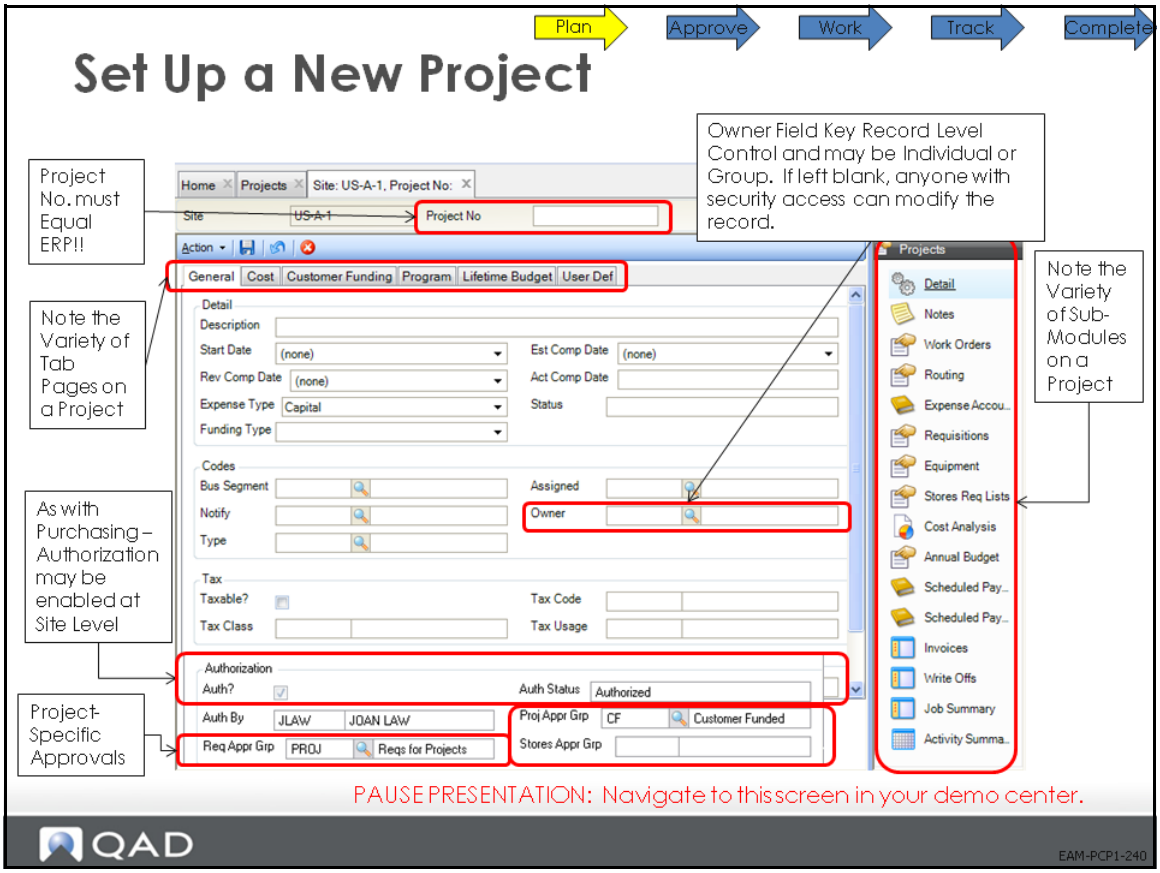
Project Controls Process Step Through: Plan



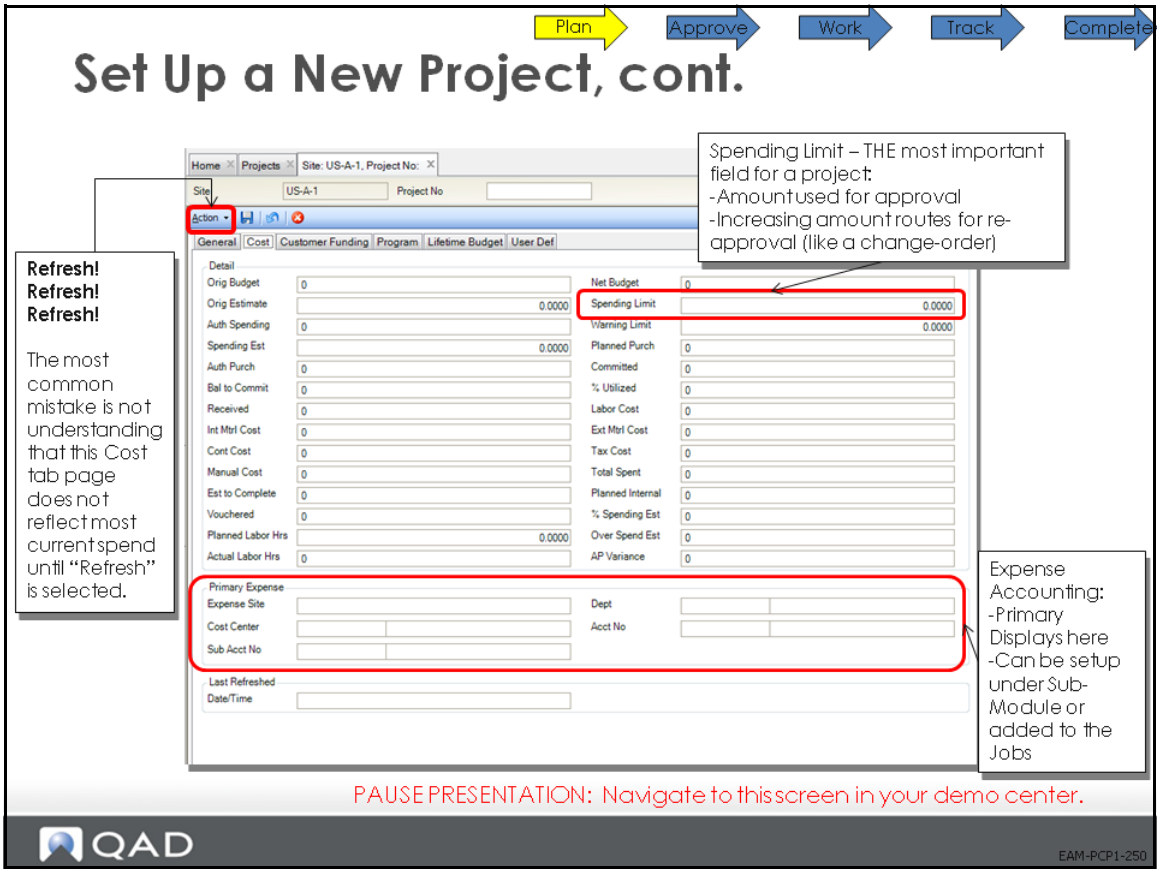
Project Sample



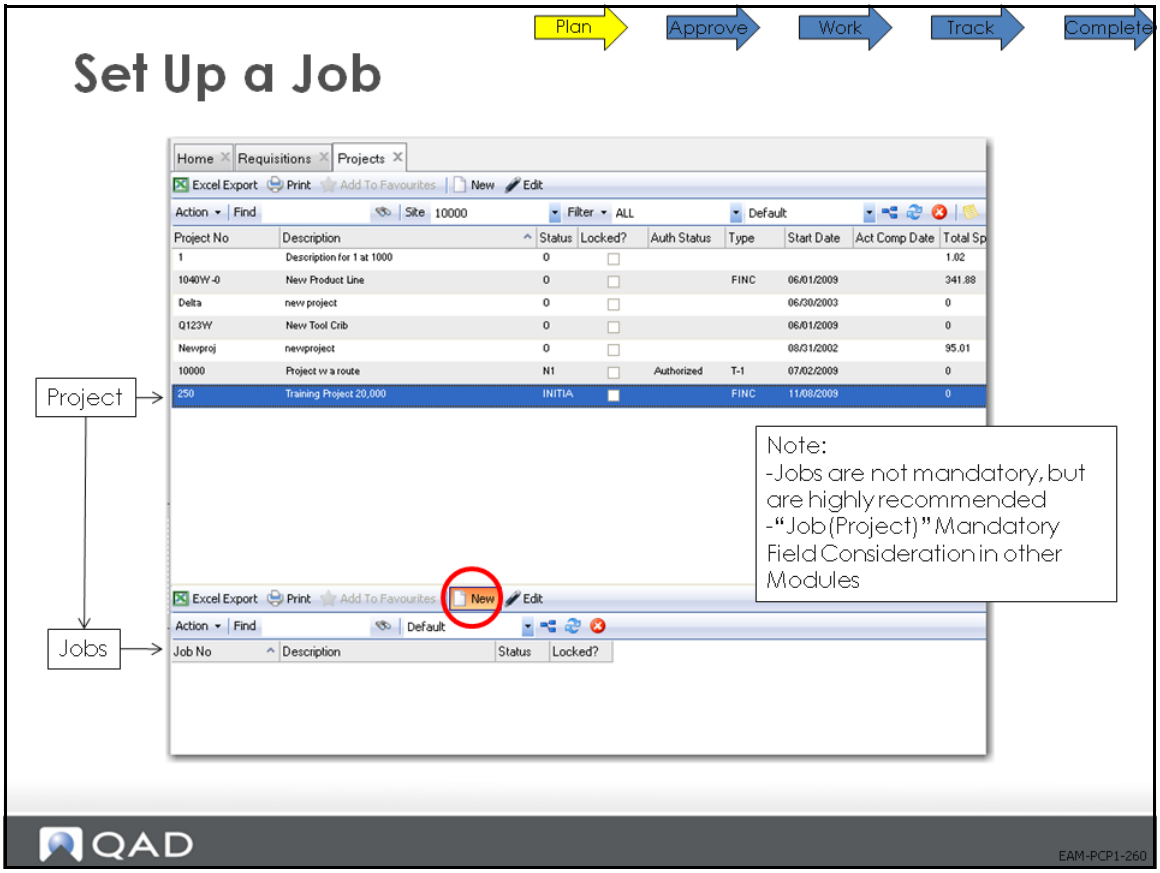
Set Up a New Project



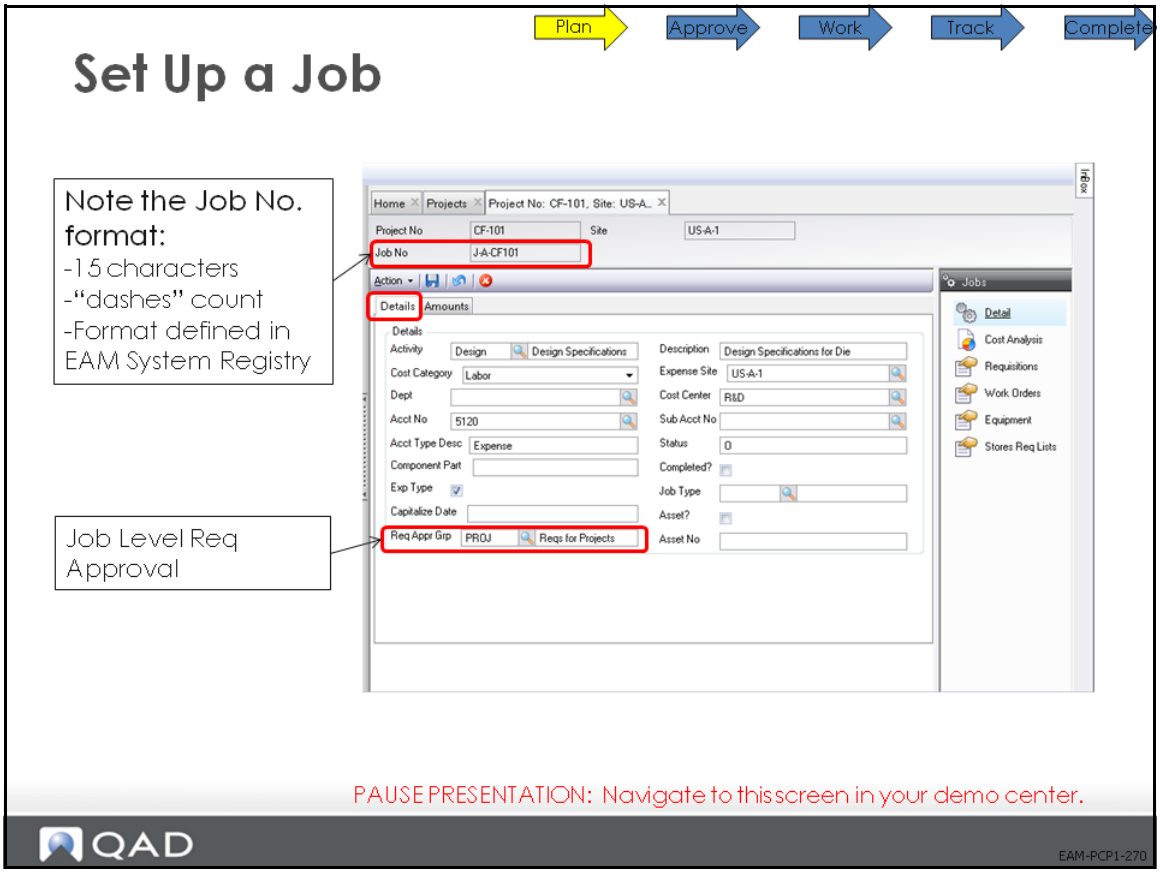
Set Up a New Project 2



Set Up a Job


Plan
Approve
Work
Track
Complete
Set Up a Job
Home
Requisitions
Projects
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site
10000
Filter
ALL
Default
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
Q123W
New Tool Crib
0
06/01/2009
0
Newproj
newproject
0
08/31/2002
95.01
10000
Project w a route
N1
Authorized
T-1
07/02/2009
0
250
Training Project 20,000
INITIA
FINC
11/08/2009
0
Project
Jobs
Job No
Description
Status
Locked?
Note:
-Jobs are not mandatory, but are highly recommended
-"Job (Project)" Mandatory Field Consideration in other Modules
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Set Up a Job


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
Home
Projects
Project No: CF-101, Site: US-A...
Project No
CF-101
Site
US-A-1
Job No
J-A-CF101
Action
Details
Amounts
Activity
Design
Design Specifications
Description
Design Specifications for Die
Cost Category
Labor
Expense Site
US-A-1
Dept
Cost Center
R&D
Acct No
5120
Sub Acct No
Acct Type Desc
Expense
Status
0
Component Part
Completed?
Exp Type
Job Type
Capitalize Date
Asset?
Req Appr Grp
PROJ
Reqs for Projects
Asset No
Jobs
Detail
Cost Analysis
Requisitions
Work Orders
Equipment
Stores Req Lists
PAUSE PRESENTATION: Navigate to this screen in your demo center.
QAD
EAM-PCP1-270

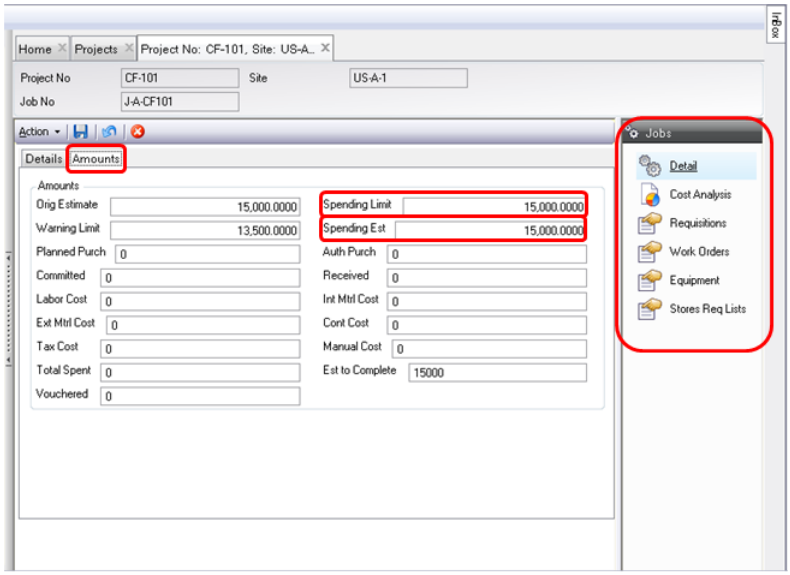
Set Up a Job 2

Plan Approve Work Track Complete

Set Up a Job, cont.

What rolls up to Parent and Project?

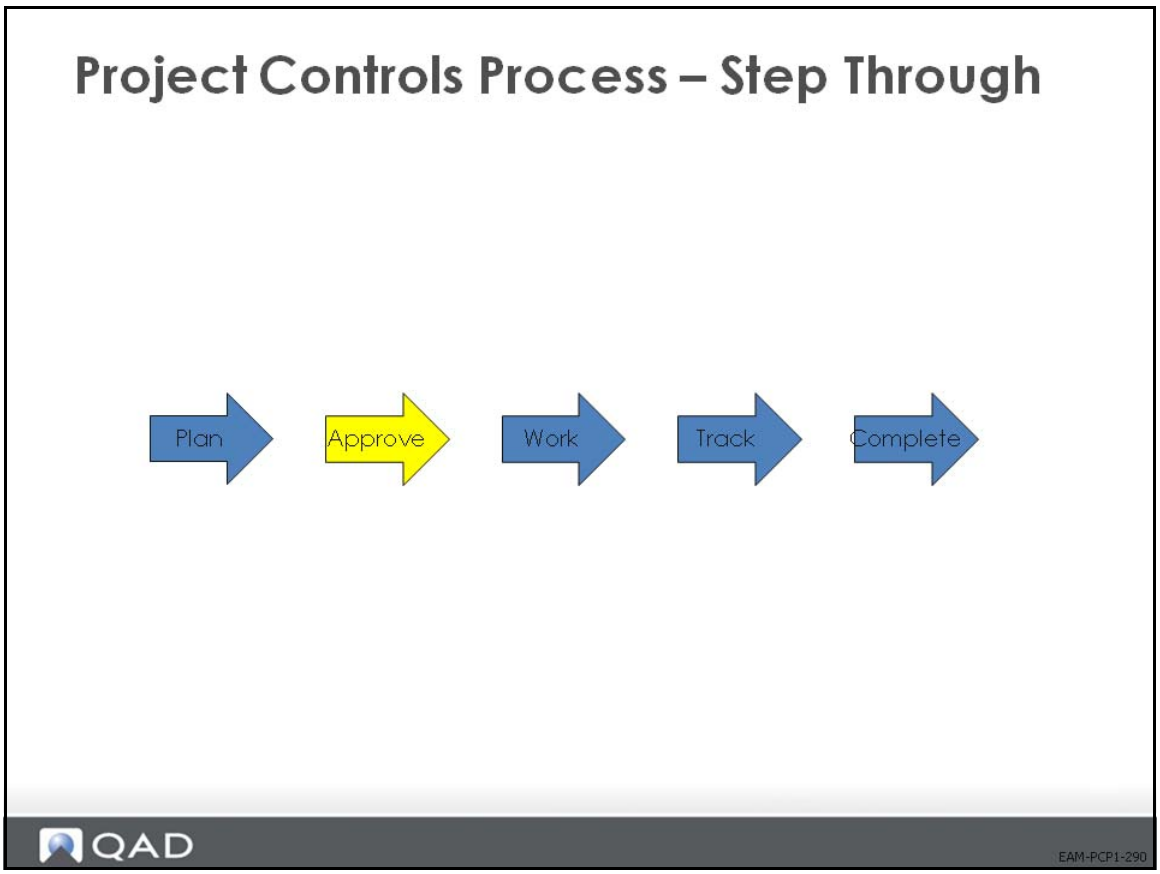
1. Spending Estimate
2. Actual Costs



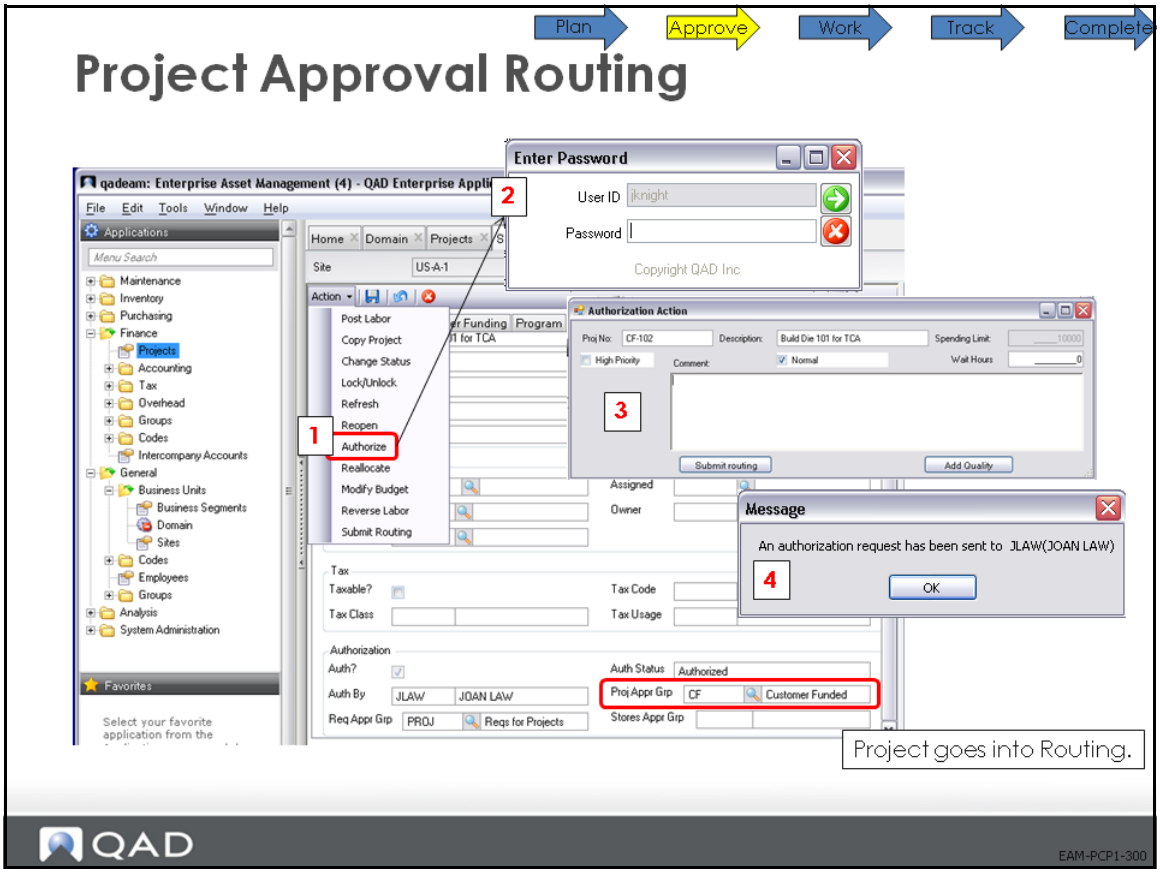
QAD

EAM-PCP1-280

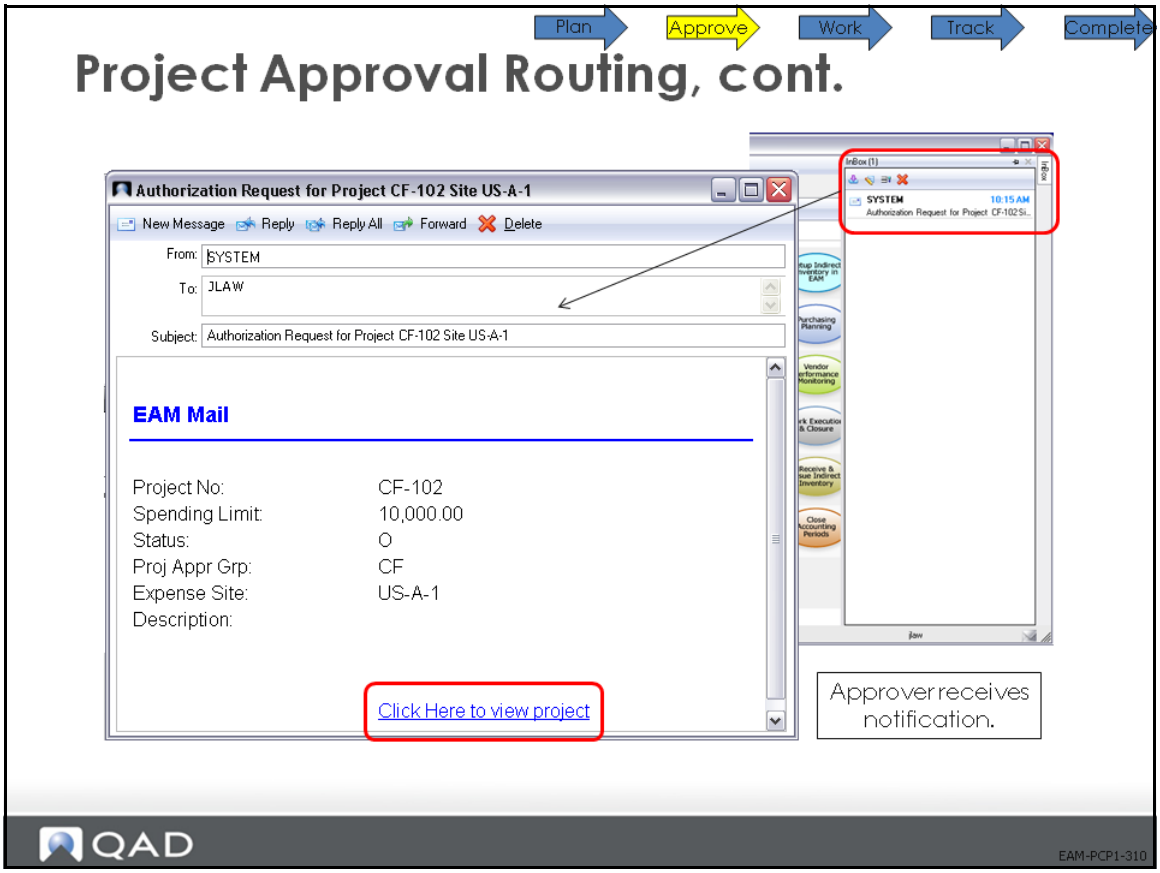
Project Controls Process Step Through: Approve



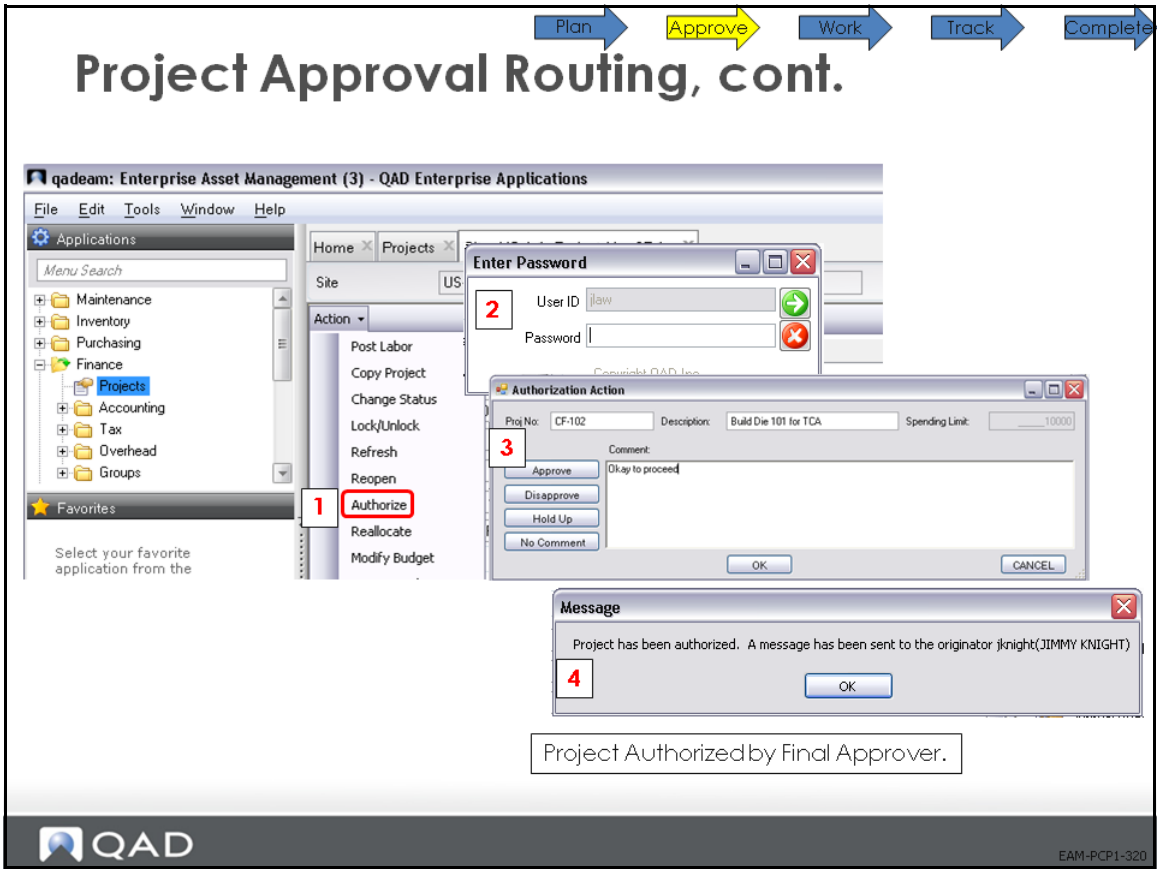
Project Approval Routing



Project Approval Routing 2



Project Approval Routing 3

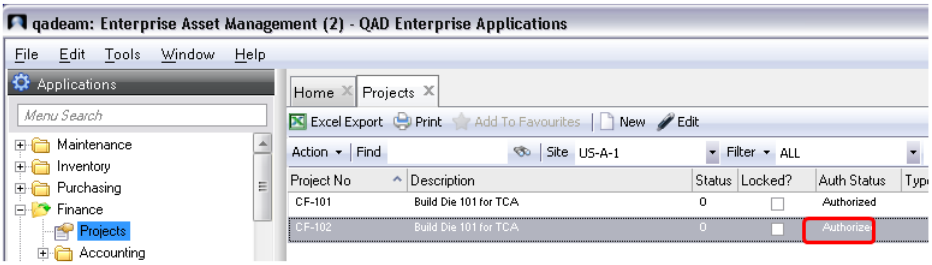


Project Approval Routing 4

Plan Approve Work Track Complete

Project Approval Routing

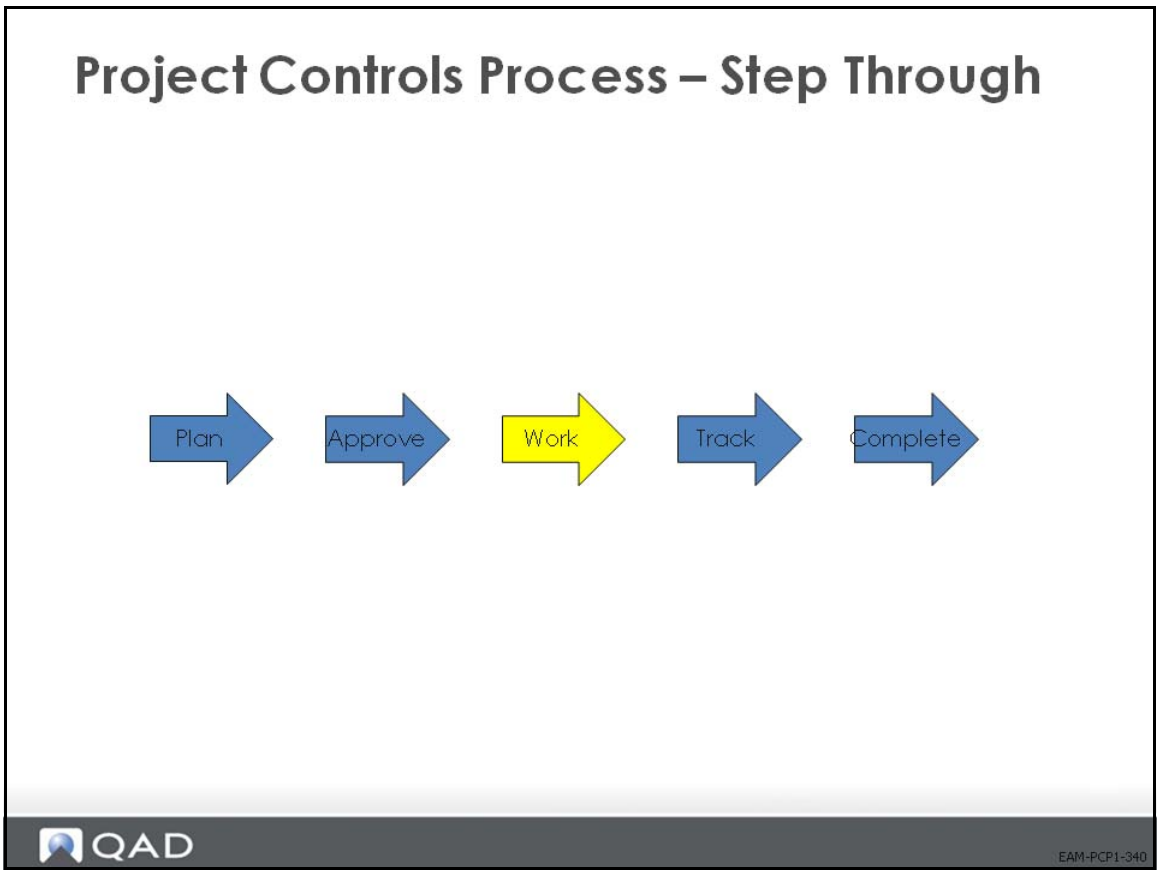
- Once a project is approved can begin:
  - Project Work (Cost Accumulation)
  - Project Tracking and Reporting



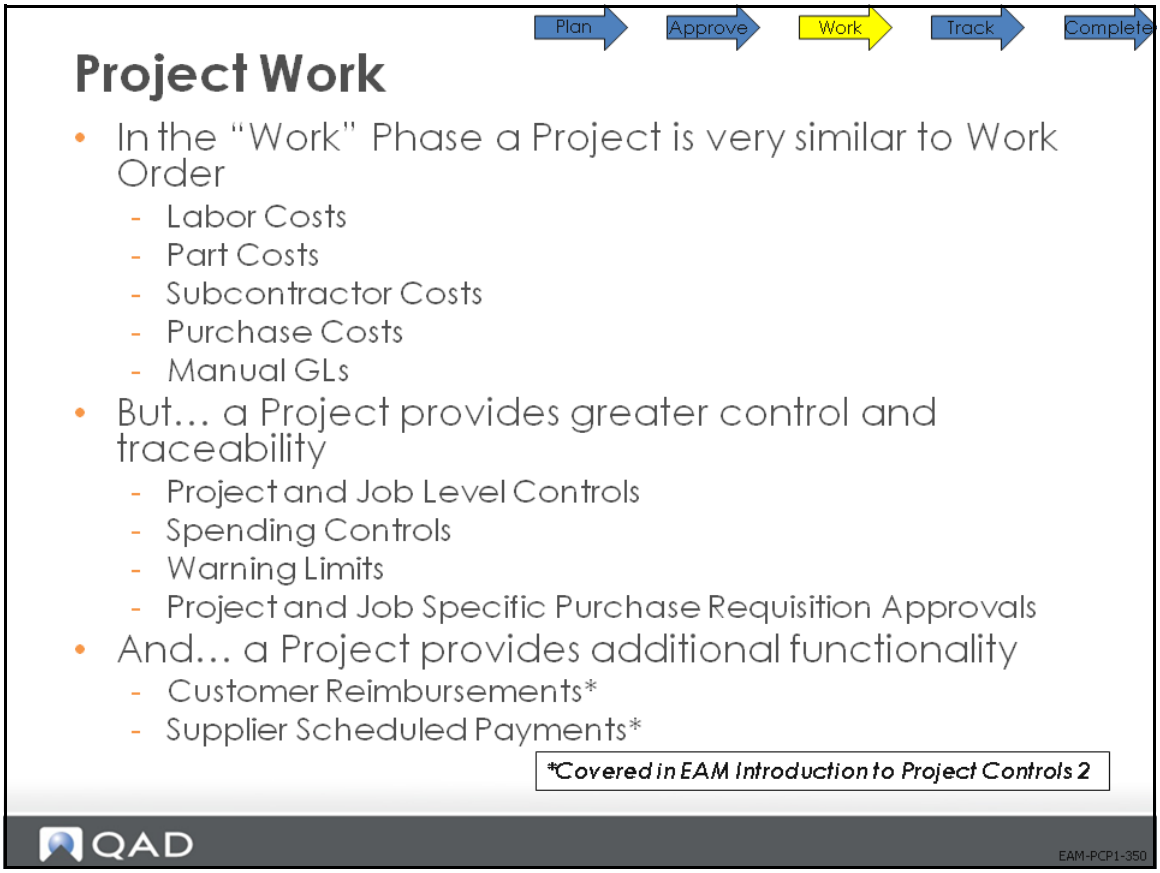
QAD

EAM-PCP1-330

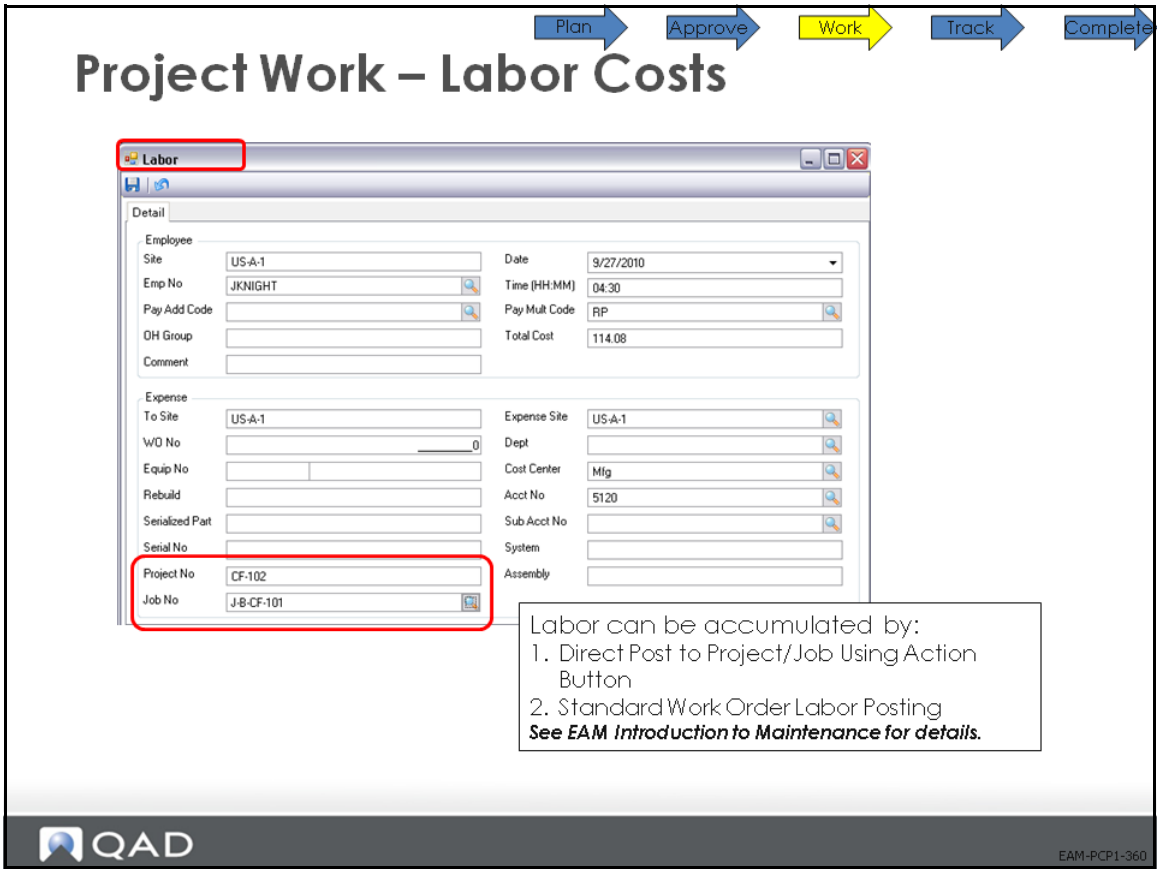
Project Controls Process Step Through: Work



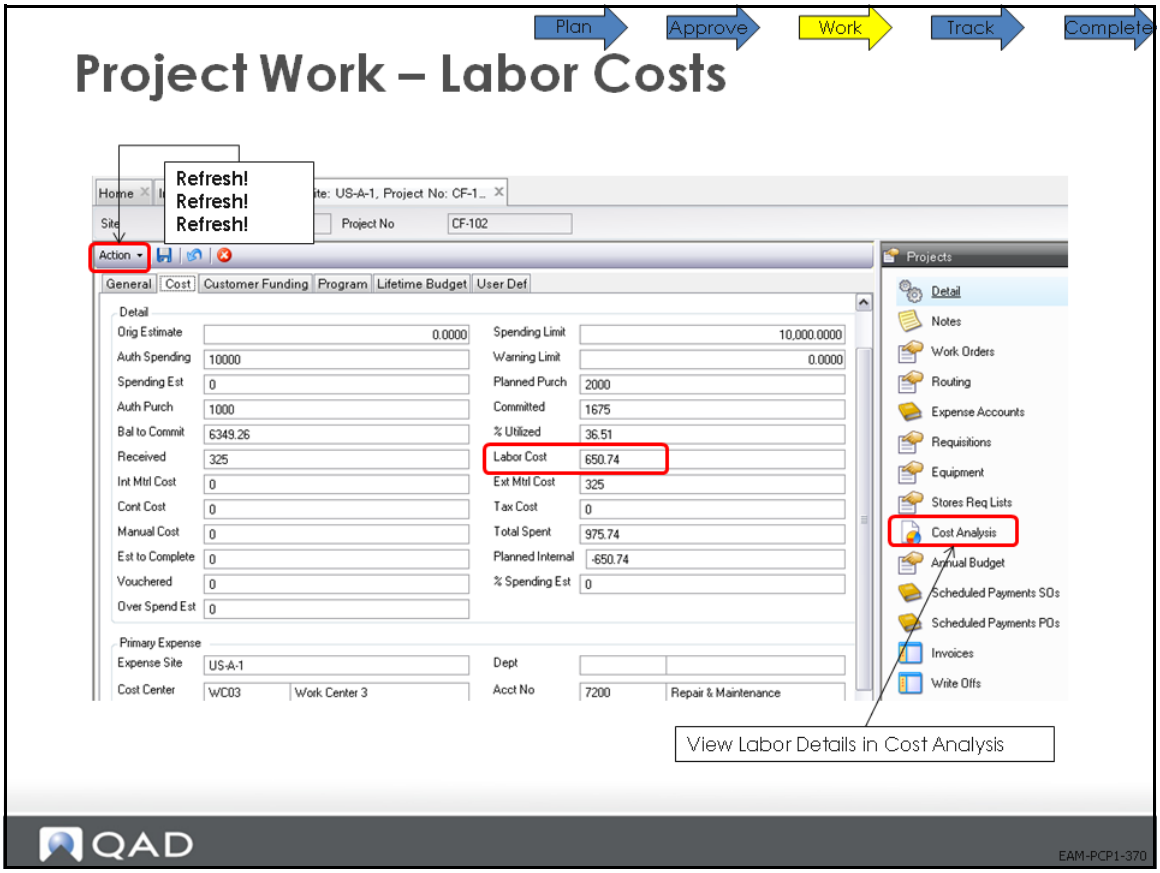
Project Work



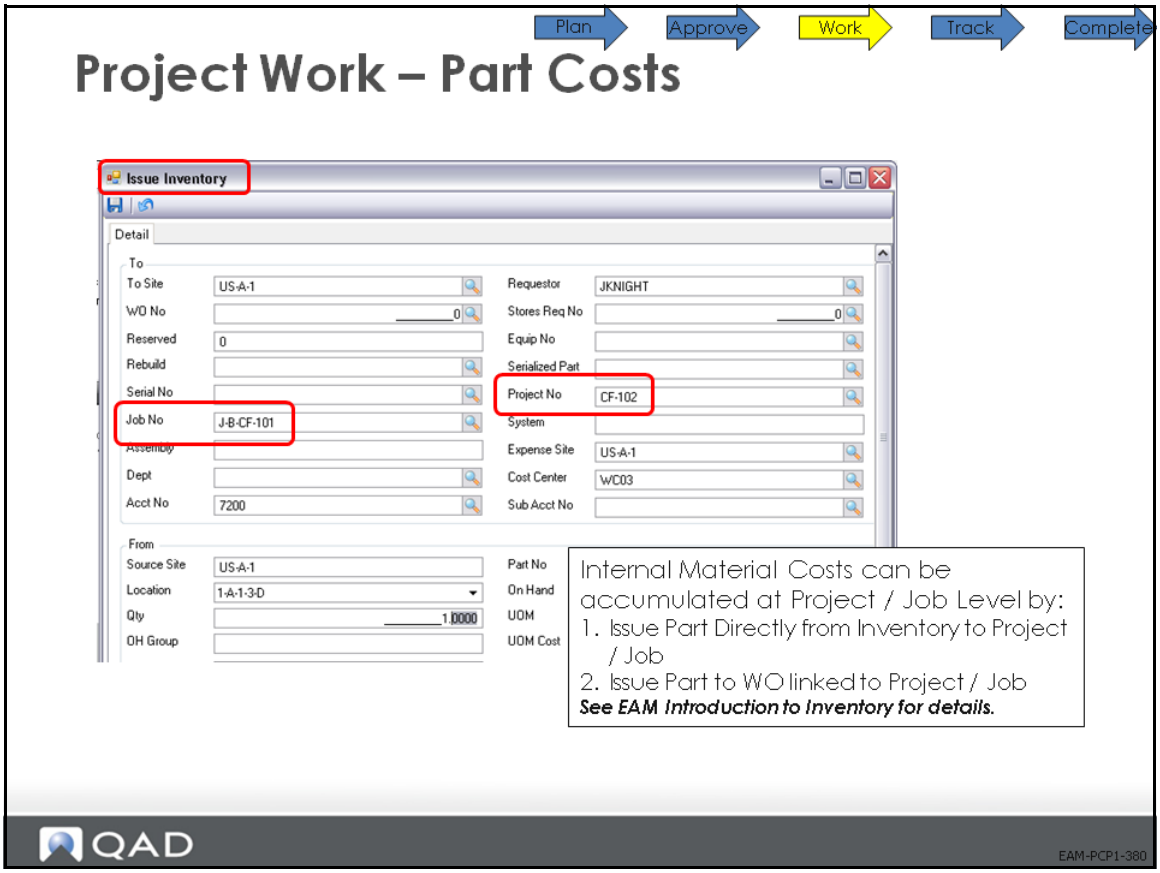
Labor Costs


Plan
Approve
Work
Track
Complete
Project Work – Labor Costs
Labor
Detail
Employee
Site
US-A-1
Emp No
JKNIGHT
Pay Add Code
OH Group
Comment
Date
9/27/2010
Time (HH:MM)
04:30
Pay Mult Code
RP
Total Cost
114.08
Expense
To Site
US-A-1
WO No
Equip No
Rebuild
Serialized Part
Serial No
Project No
CF-102
Job No
J-B-CF-101
Expense Site
US-A-1
Dept
Cost Center
Mfg
Acct No
5120
Sub Acct No
System
Assembly
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
EAM-PCP1-360

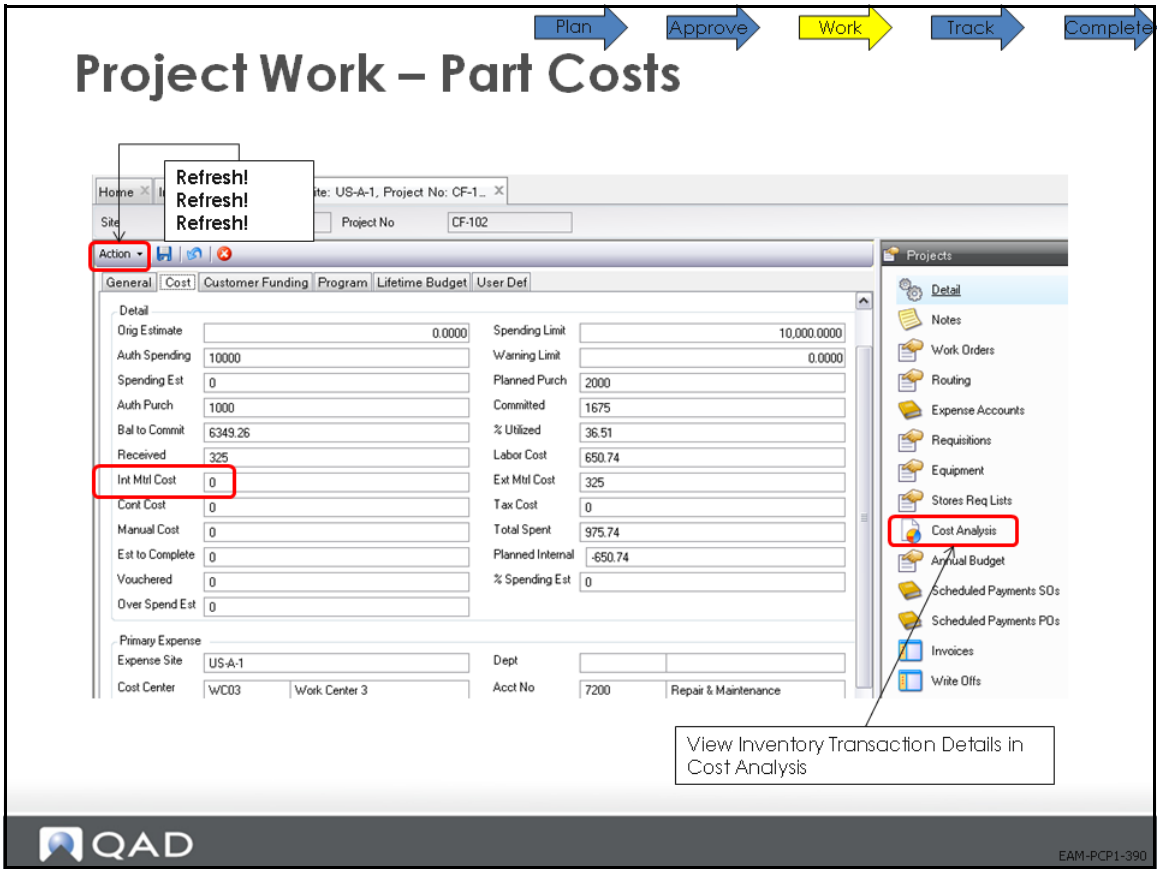
Labor Costs 2



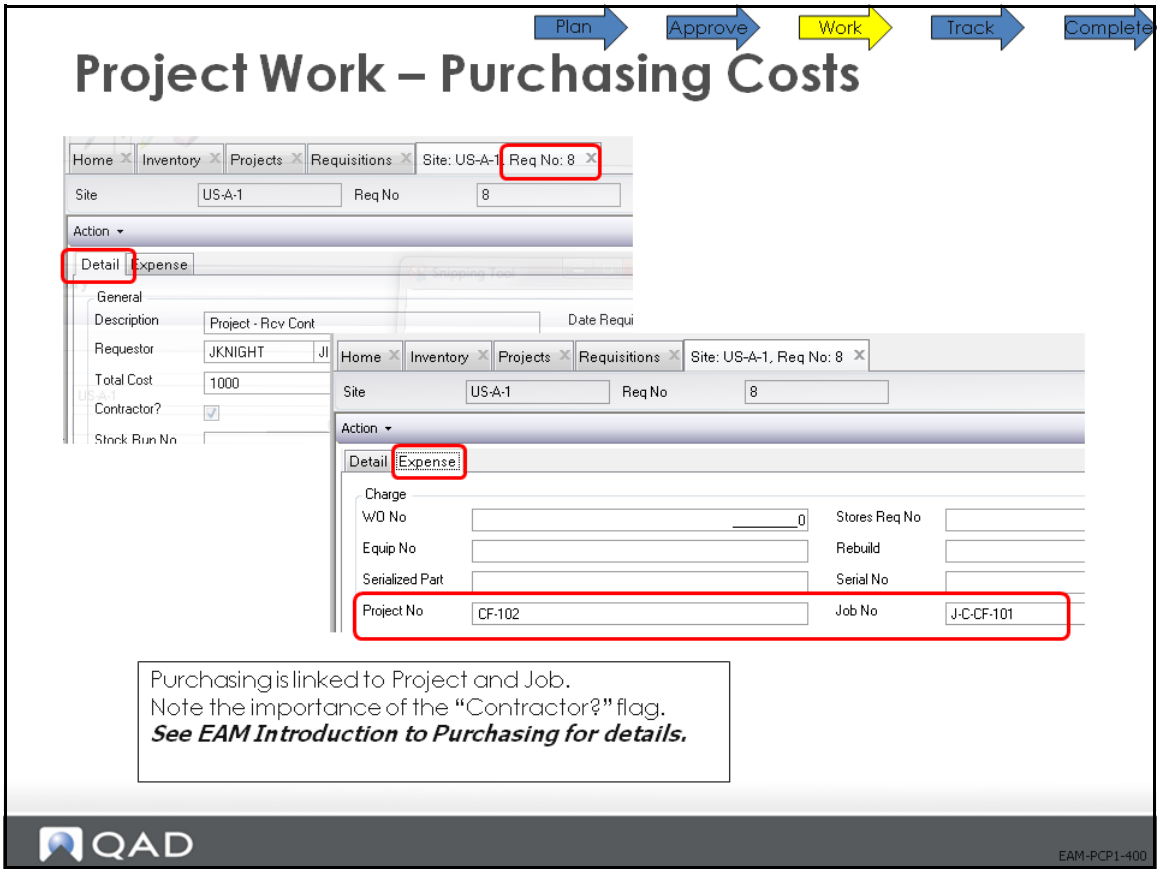
Part Costs


Plan
Approve
Work
Track
Complete
Project Work – Part Costs
Issue Inventory
Detail
To
To Site US-A-1
WO No 0
Reserved 0
Rebuild
Serial No
Job No J-B-CF-101
Assembly
Dept
Acct No 7200
Requestor JKNIGHT
Stores Req No 0
Equip No
Serialized Part
Project No CF-102
System
Expense Site US-A-1
Cost Center WC03
Sub Acct No
From
Source Site US-A-1
Location 1-A-1-3-D
Qty 1.0000
OH Group
Part No
On Hand
UOM
UOM Cost
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
EAM-PCP1-380

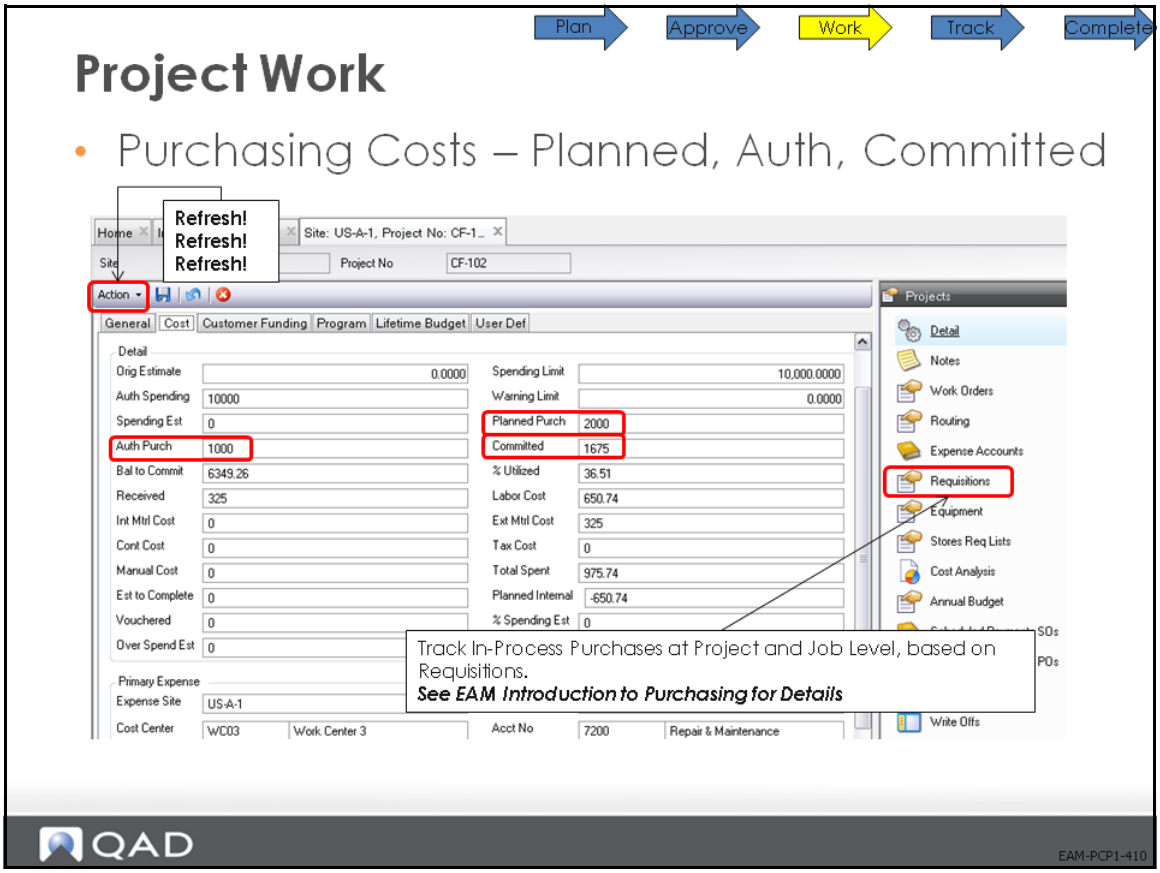
Part Costs 2


Plan
Approve
Work
Track
Complete
Project Work – Part Costs
Refresh!
Refresh!
Refresh!
Home
Site: US-A-1, Project No: CF-1...
Site
Project No
CF-102
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 Mtl Cost 0
Cont Cost 0
Manual Cost 0
Est to Complete 0
Vouchered 0
Over Spend Est 0
Spending Limit 10,000.0000
Warning Limit 0.0000
Planned Purch 2000
Committed 1675
% Utilized 36.51
Labor Cost 650.74
Ext Mtl Cost 325
Tax Cost 0
Total Spent 975.74
Planned Internal -650.74
% Spending Est 0
Primary Expense
Expense Site US-A-1
Cost Center WC03 Work Center 3
Dept
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
View Inventory Transaction Details in Cost Analysis
QAD
EAM-PCP1-390

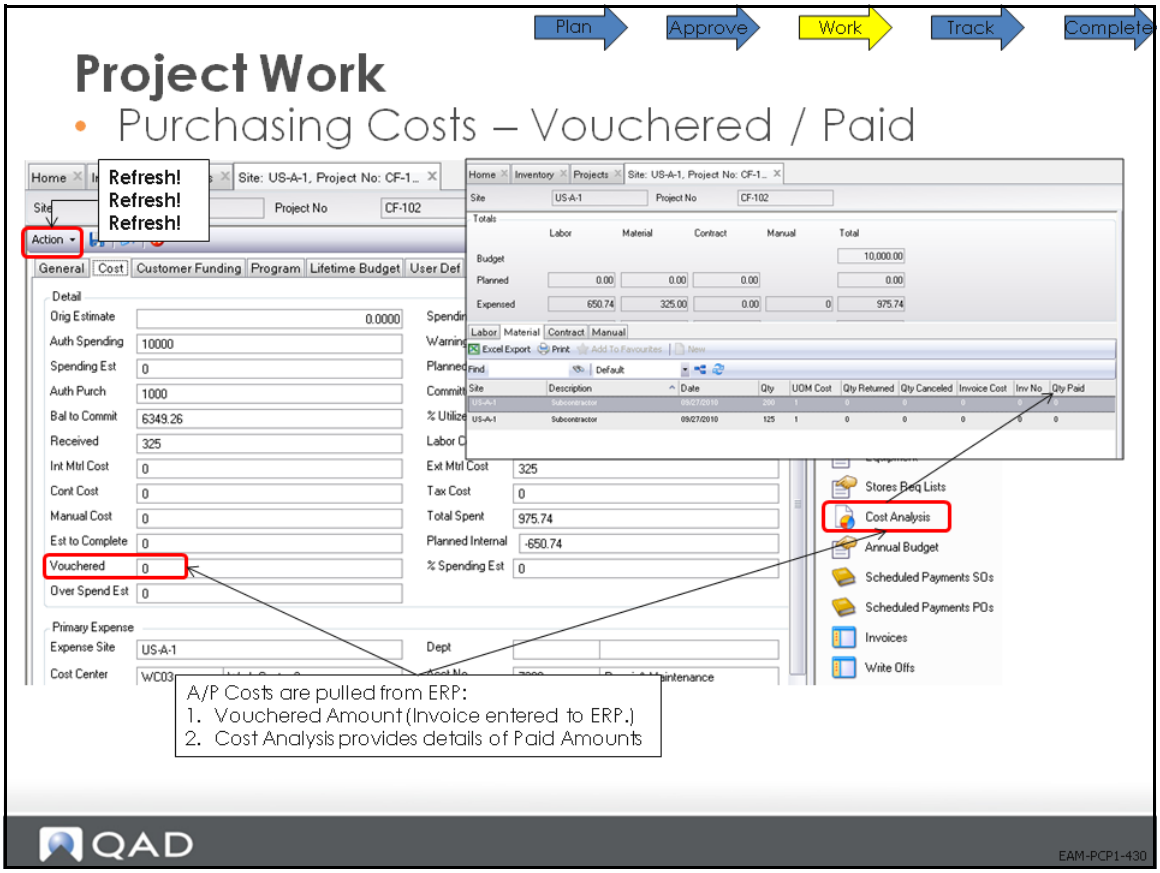
Purchasing Costs



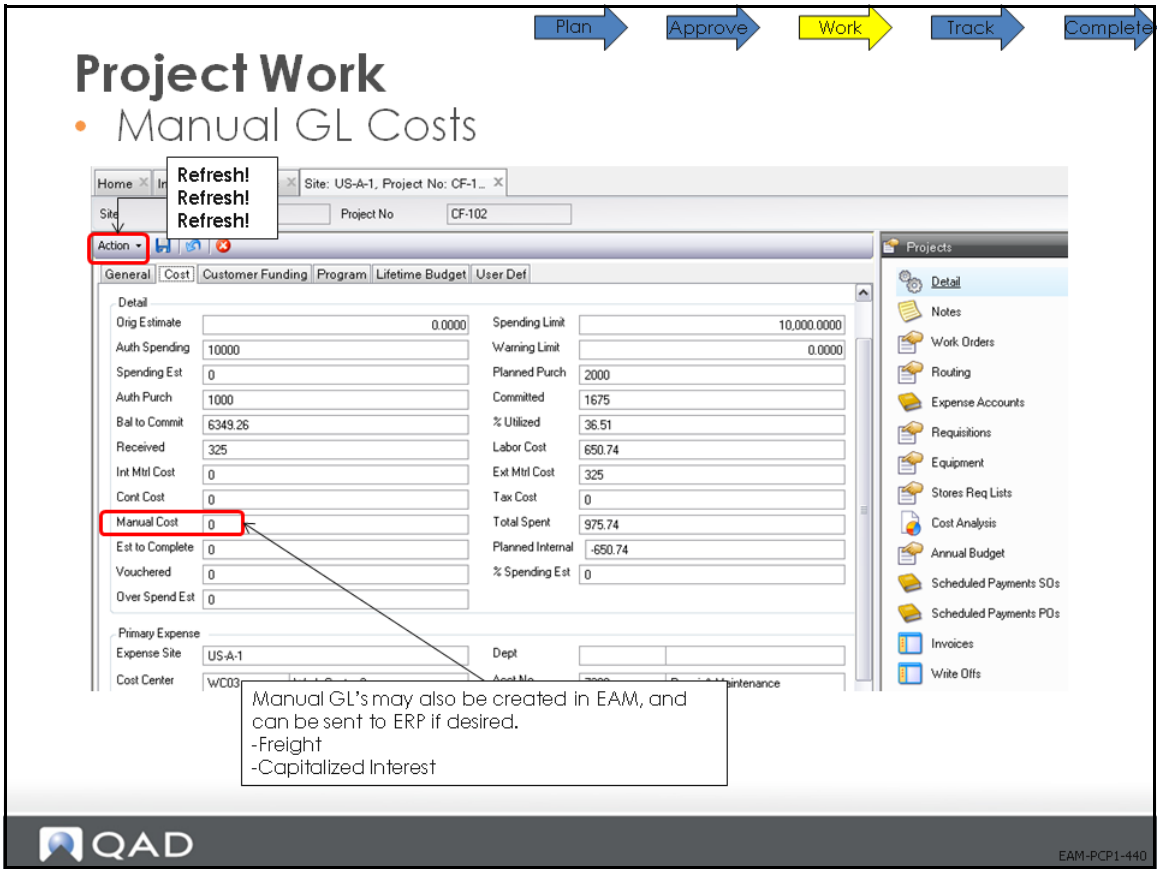
Purchasing Costs: Planned, Authorized, Committed



Purchased Costs: Vouchered/Paid



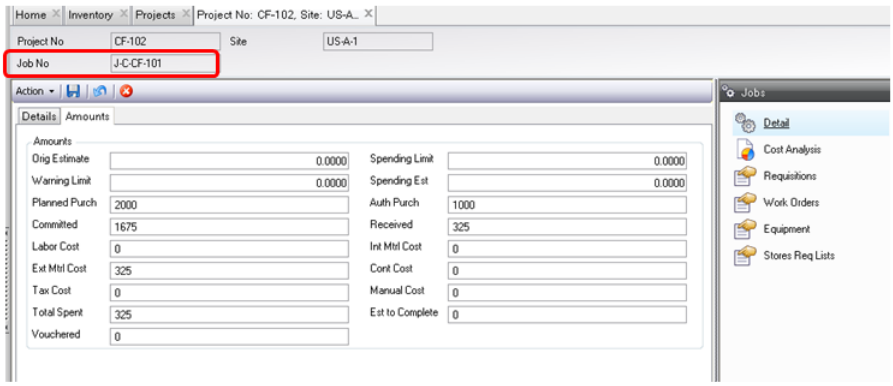
Manual GL Costs



Job Level Costs

Plan Approve Work Track Complete

Project Work – Job Level Costs

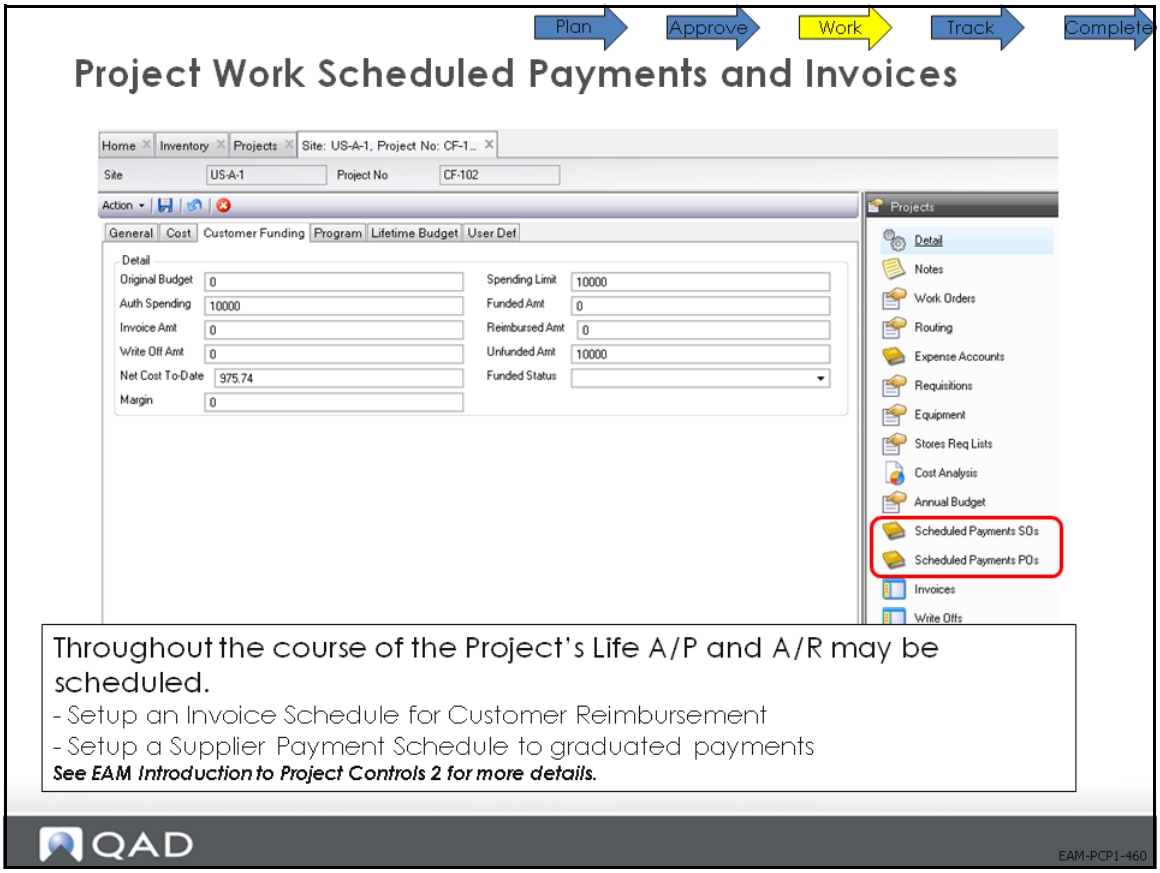


Note similar Cost tracking at Job Level

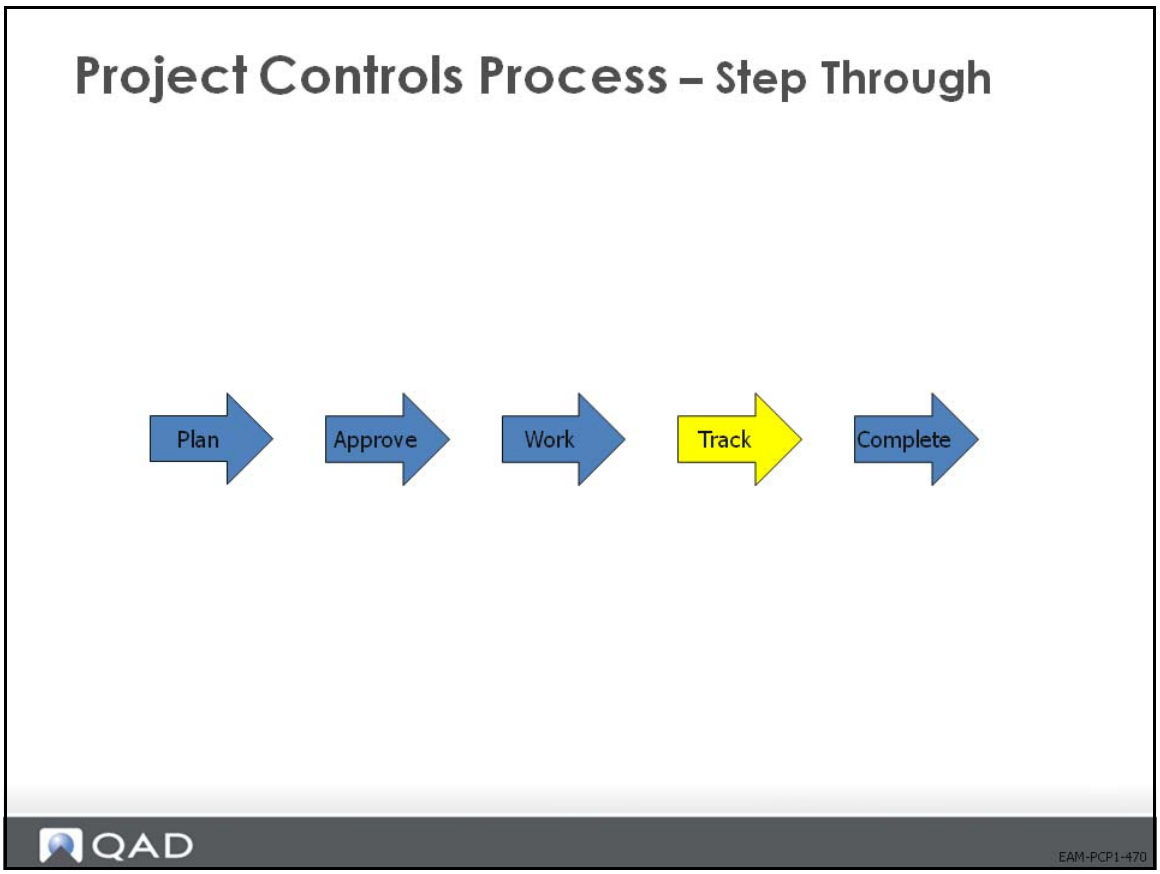
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Schedule Payments and Invoices



Project Controls Process Step Through: Track



Project Reporting

Plan Approve Work Track Complete

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 Browses / 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



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Custom Browses

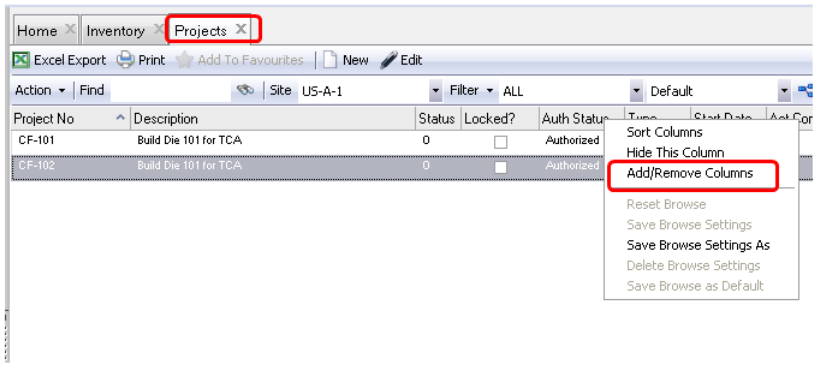
Plan Approve Work Track Complete

Project Track – Custom Browses

Using the Browse is the most powerful way to report on multiple projects.

- Remember characteristics:
  - Add / Remove Columns
  - Sort
  - Group
  - Export to Excel

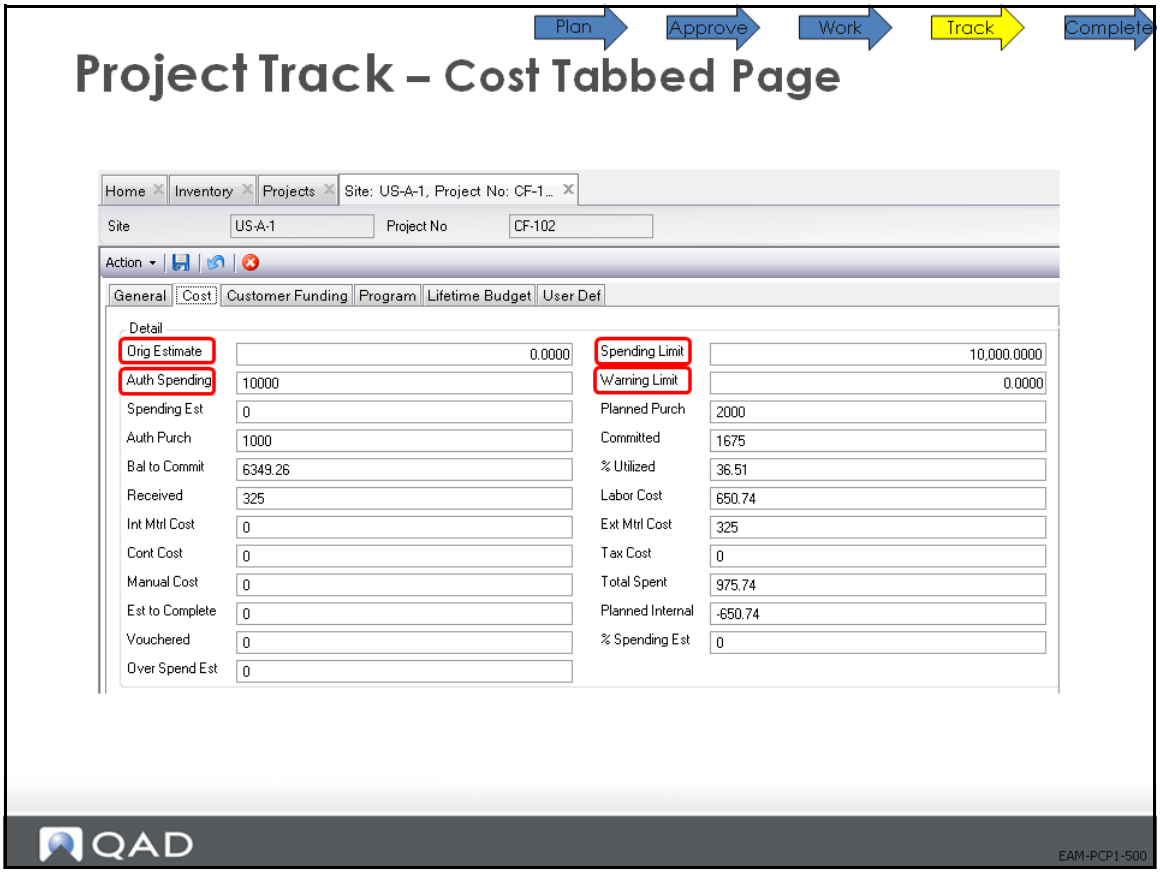
See EAM Introduction to UI for details



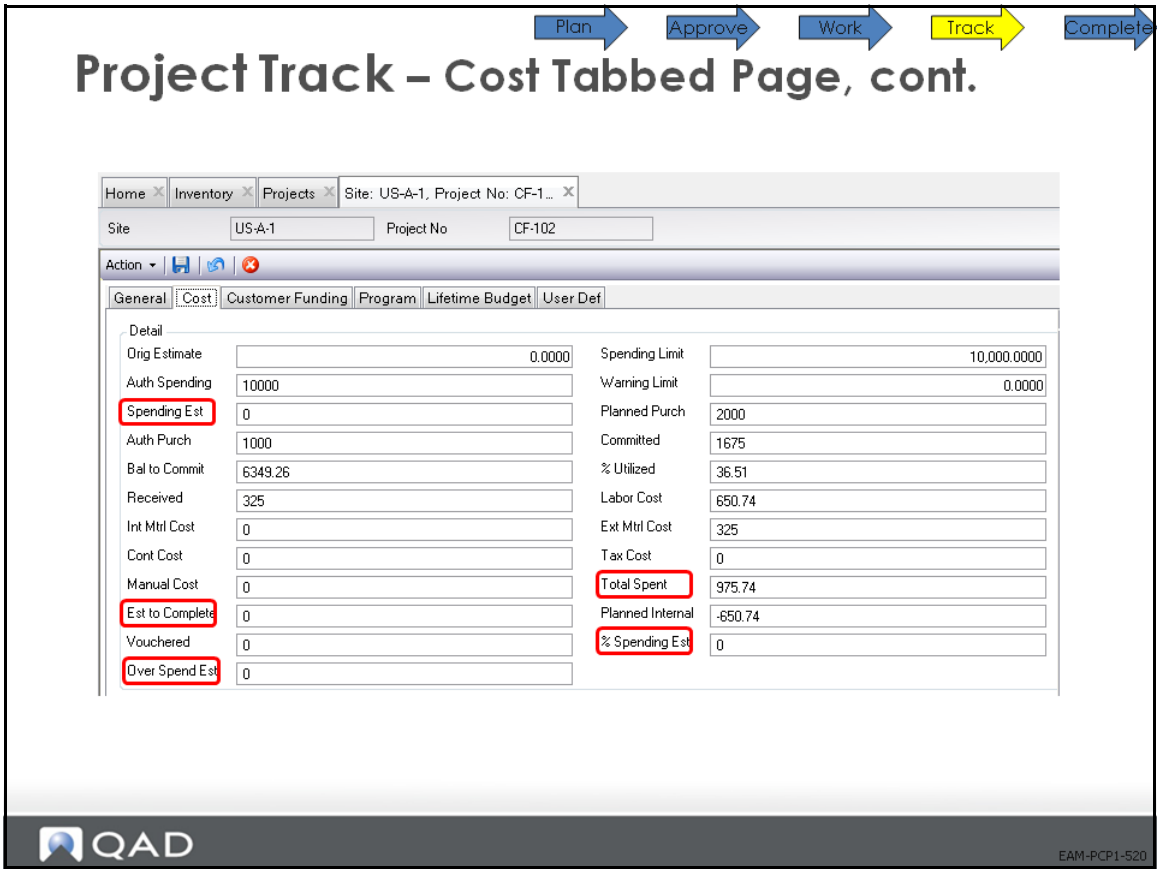
QAD

EAM-PCP1-490

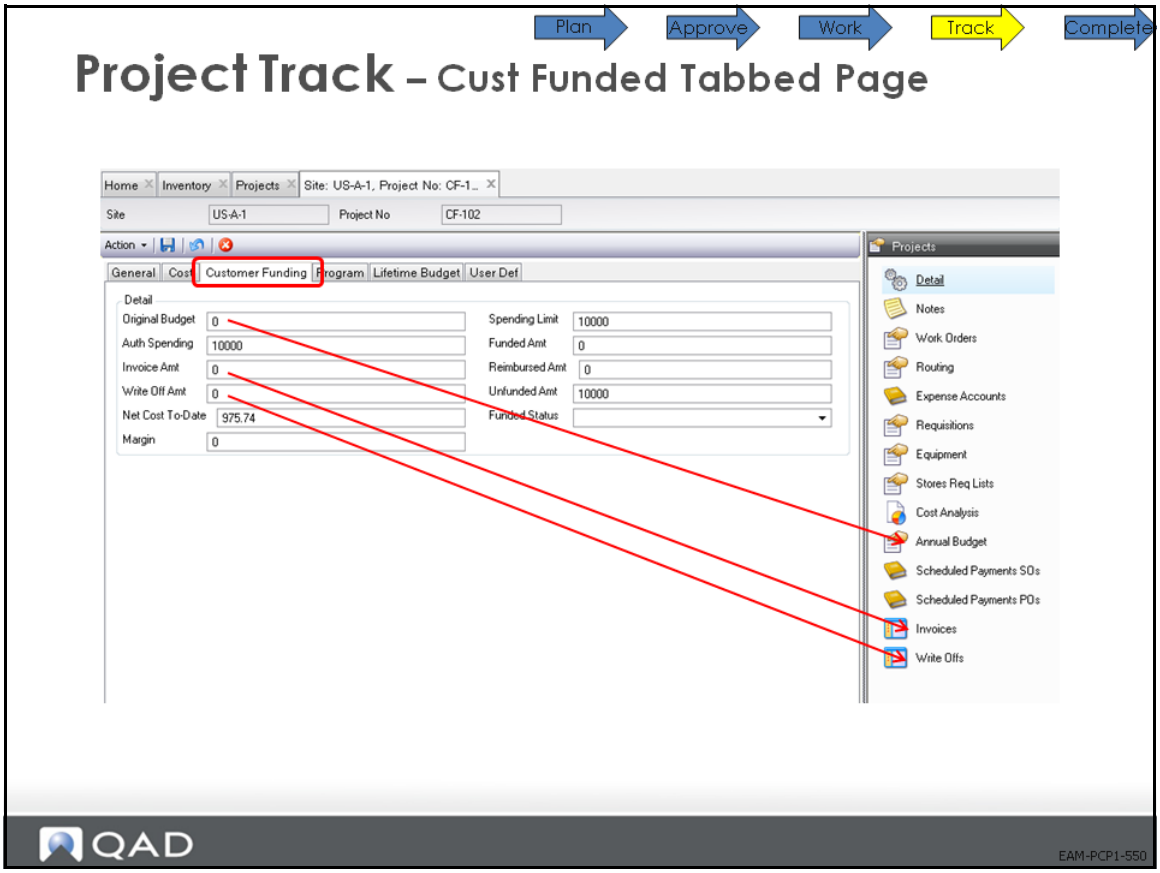
Cost Tabbed Page



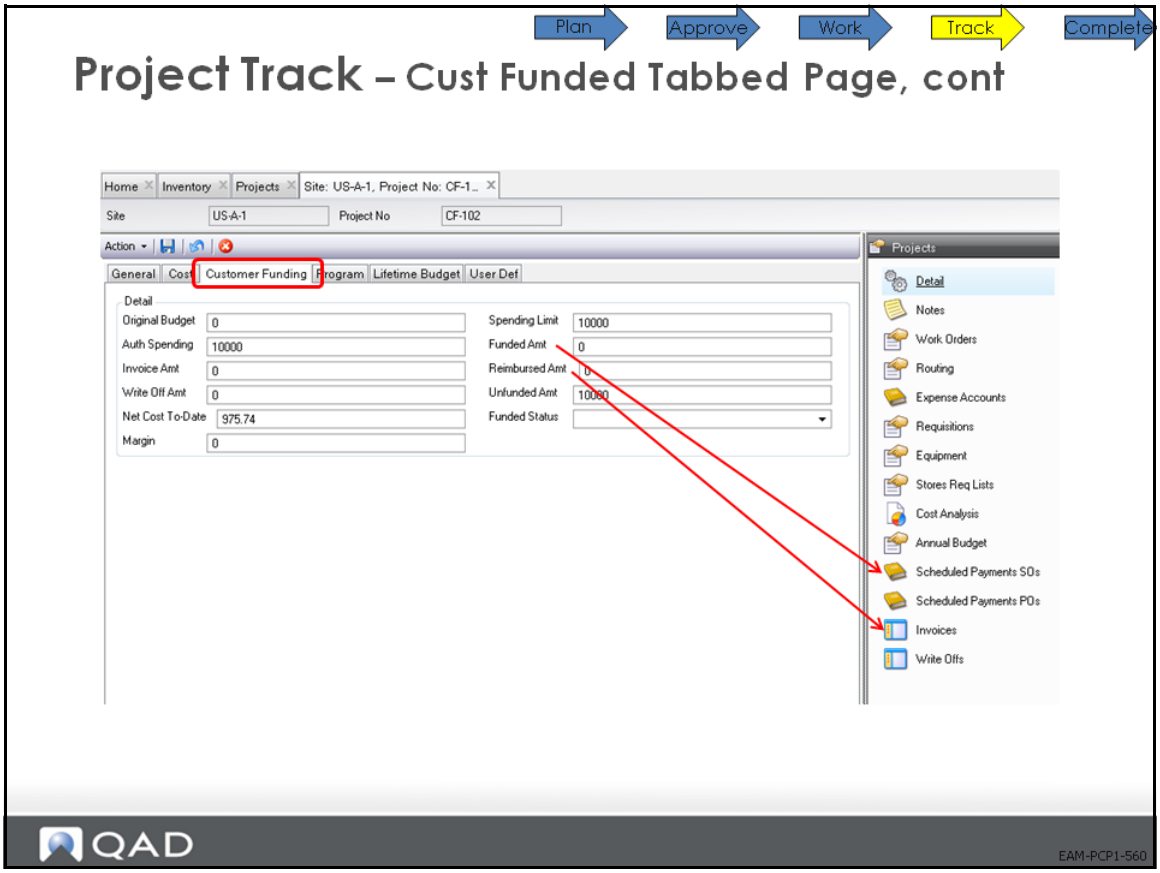
Cost Tabbed Page 2



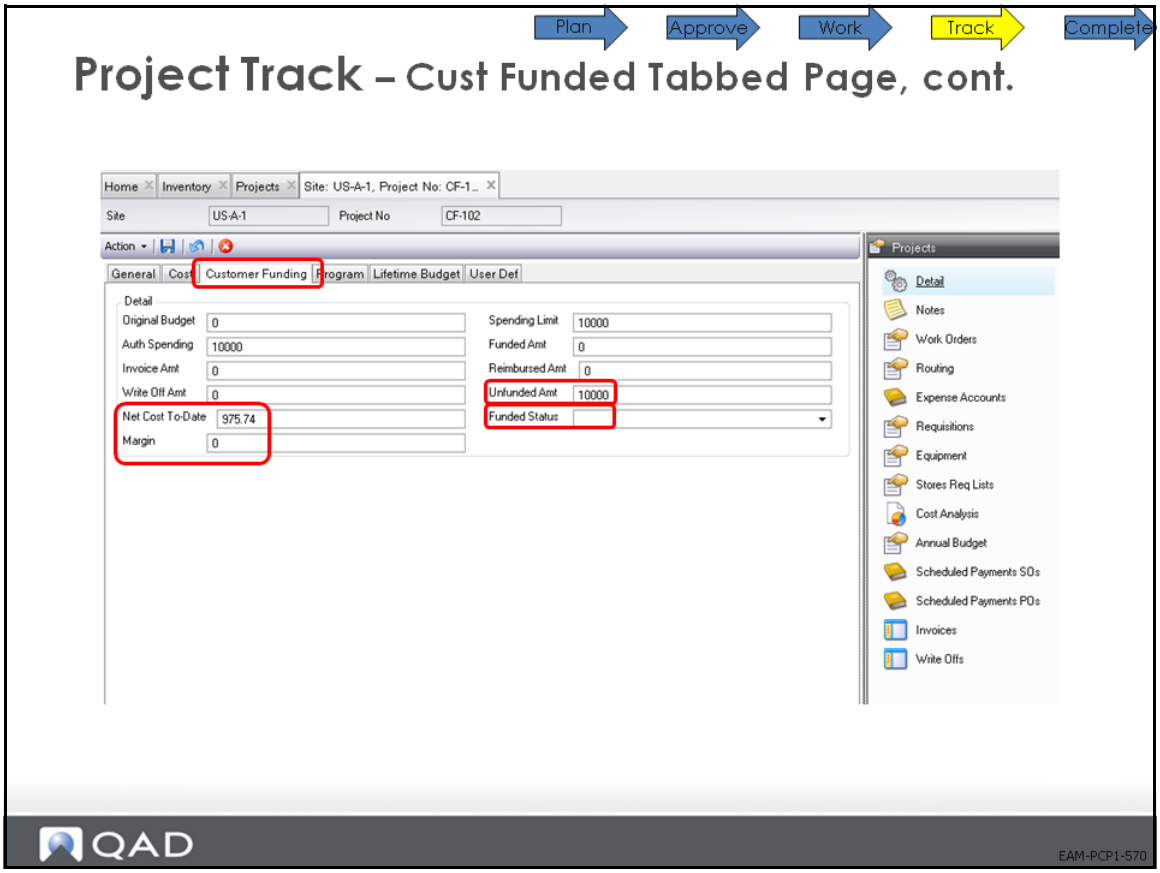
Customer-Funded Tabbed Page



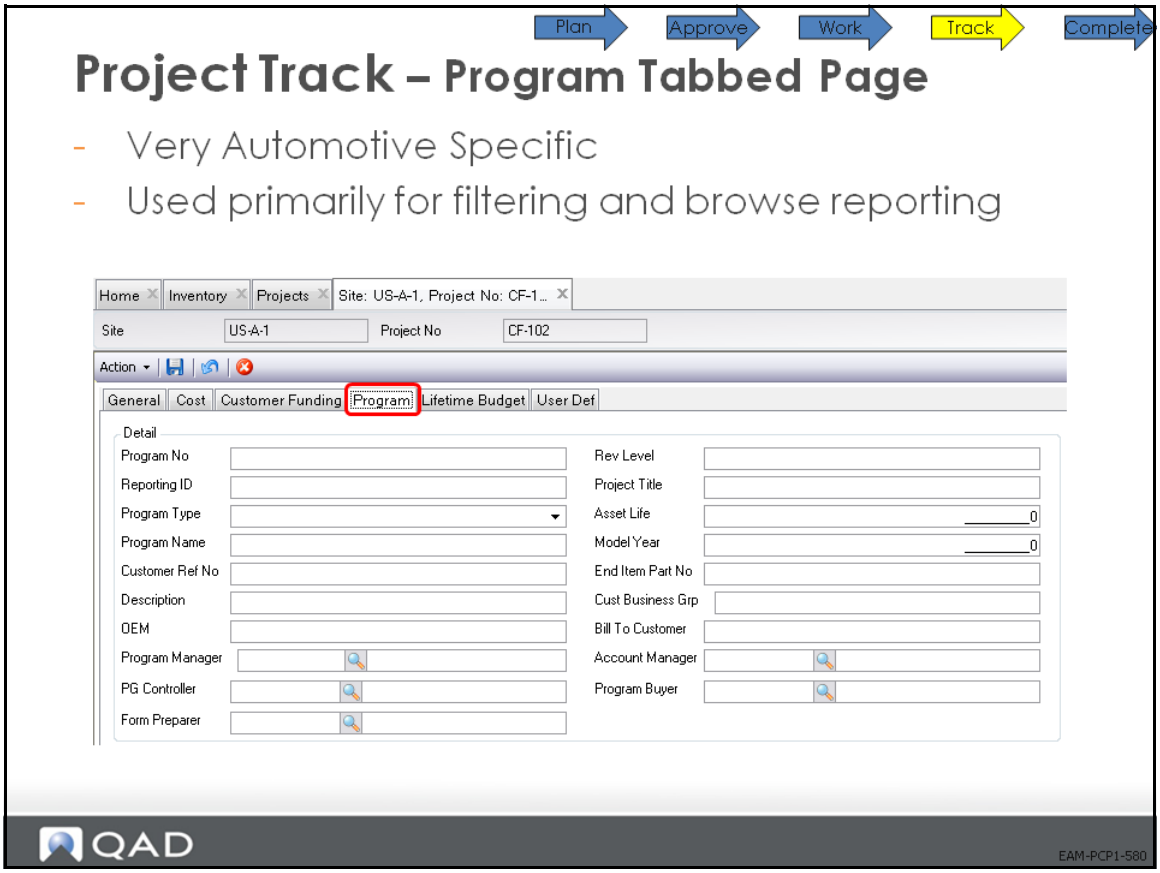
Customer-Funded Tabbed Page 2



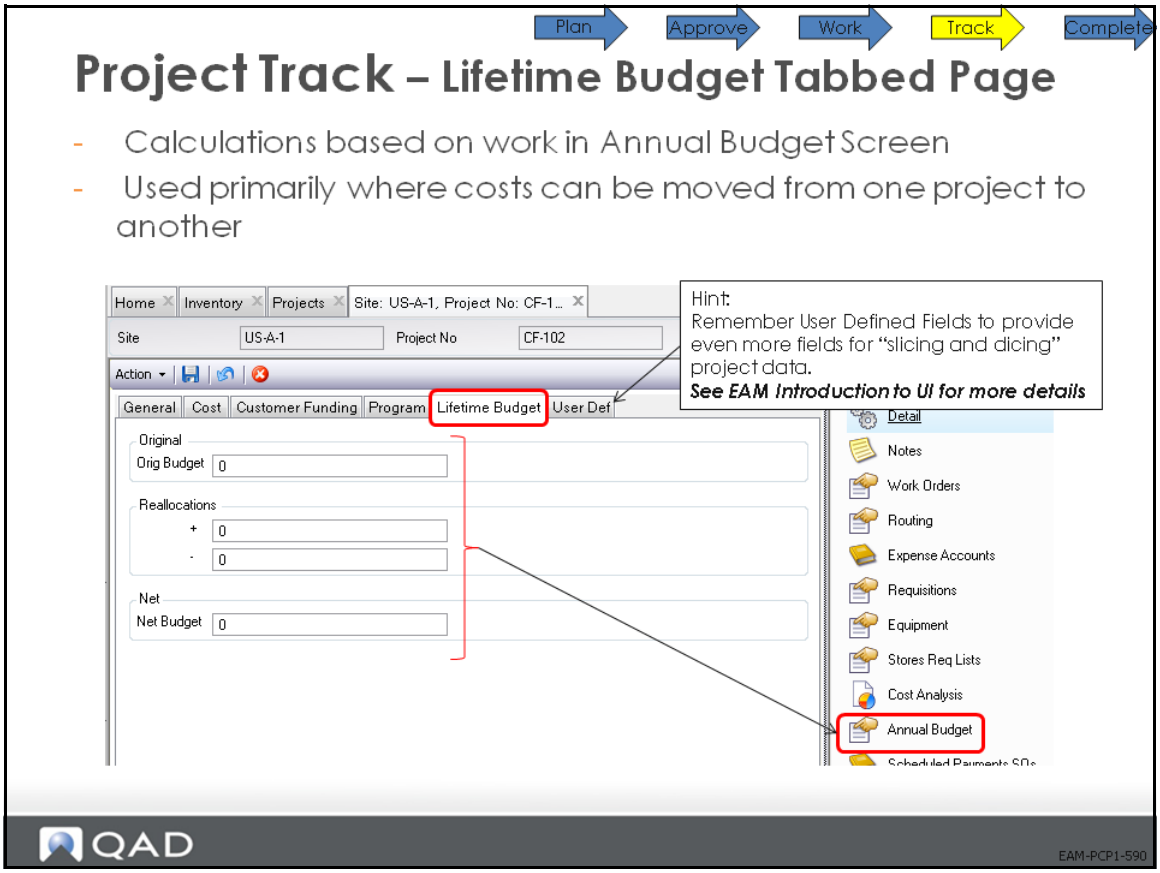
Customer-Funded Tabbed Page 3



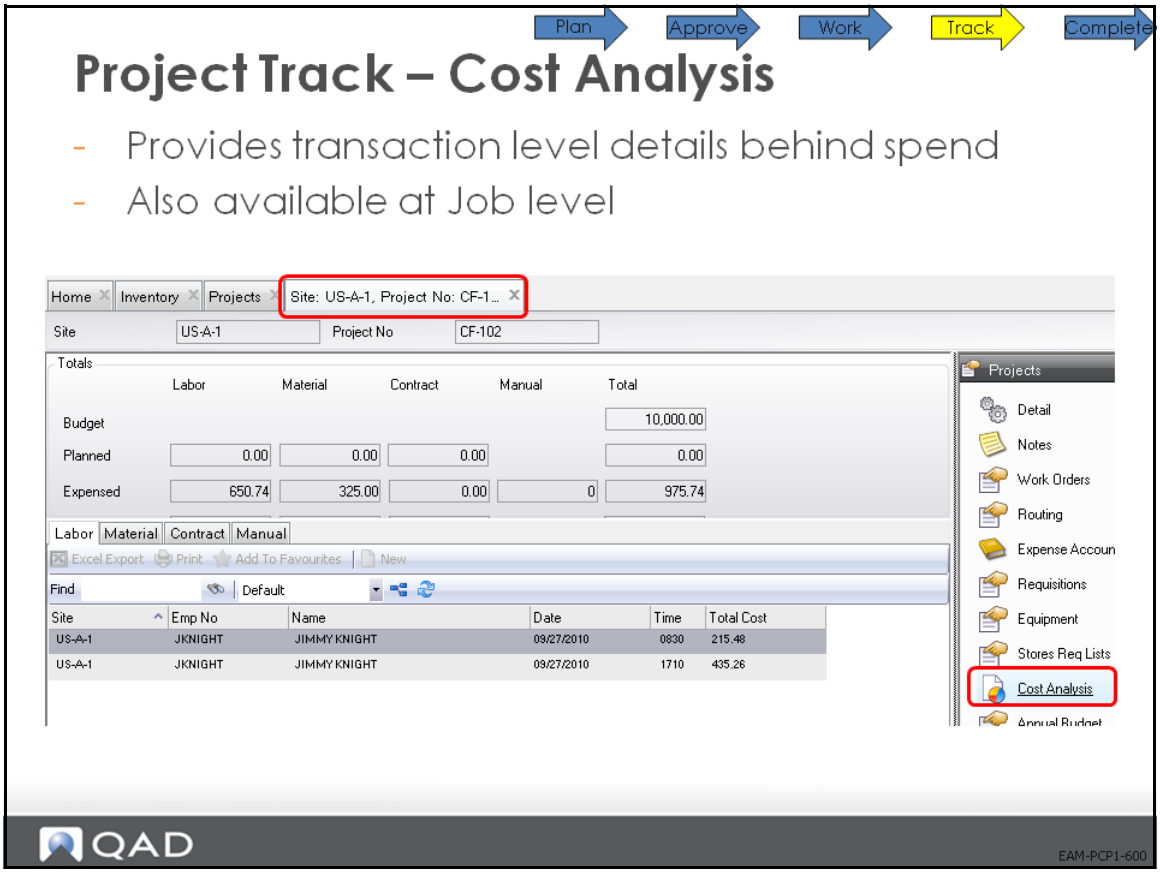
Program Tabbed Page



Lifetime Budget Tabbed Page



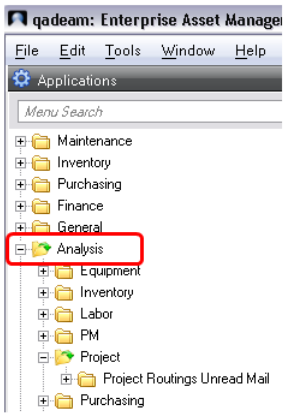
Cost Analysis



Standard Reports

Plan Approve Work Track Complete

Project Track – Standard Reports



As EAM moves toward "General Availability" Status, standard operational reports will be added.

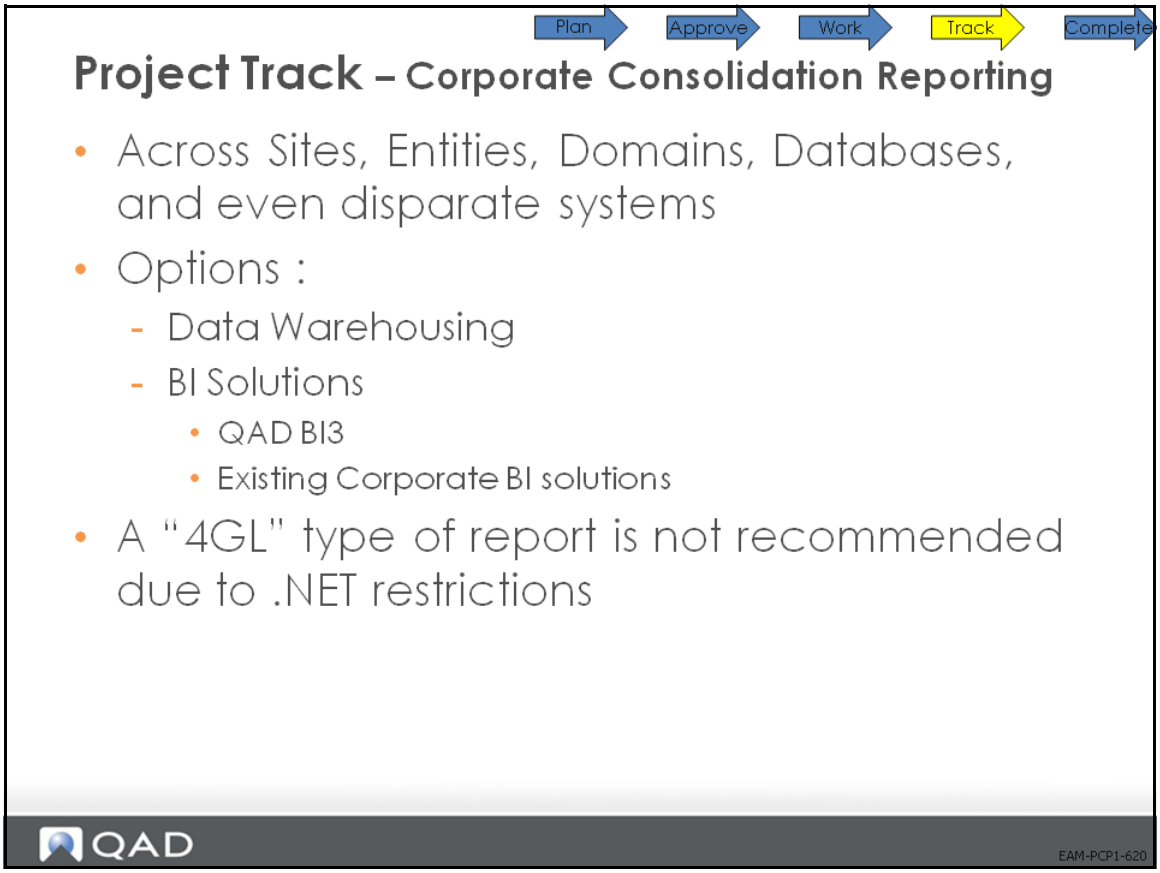
These reports can be modified via the EAM Report Developer.

Soon to be delivered: "Project Cost Analysis" Report.

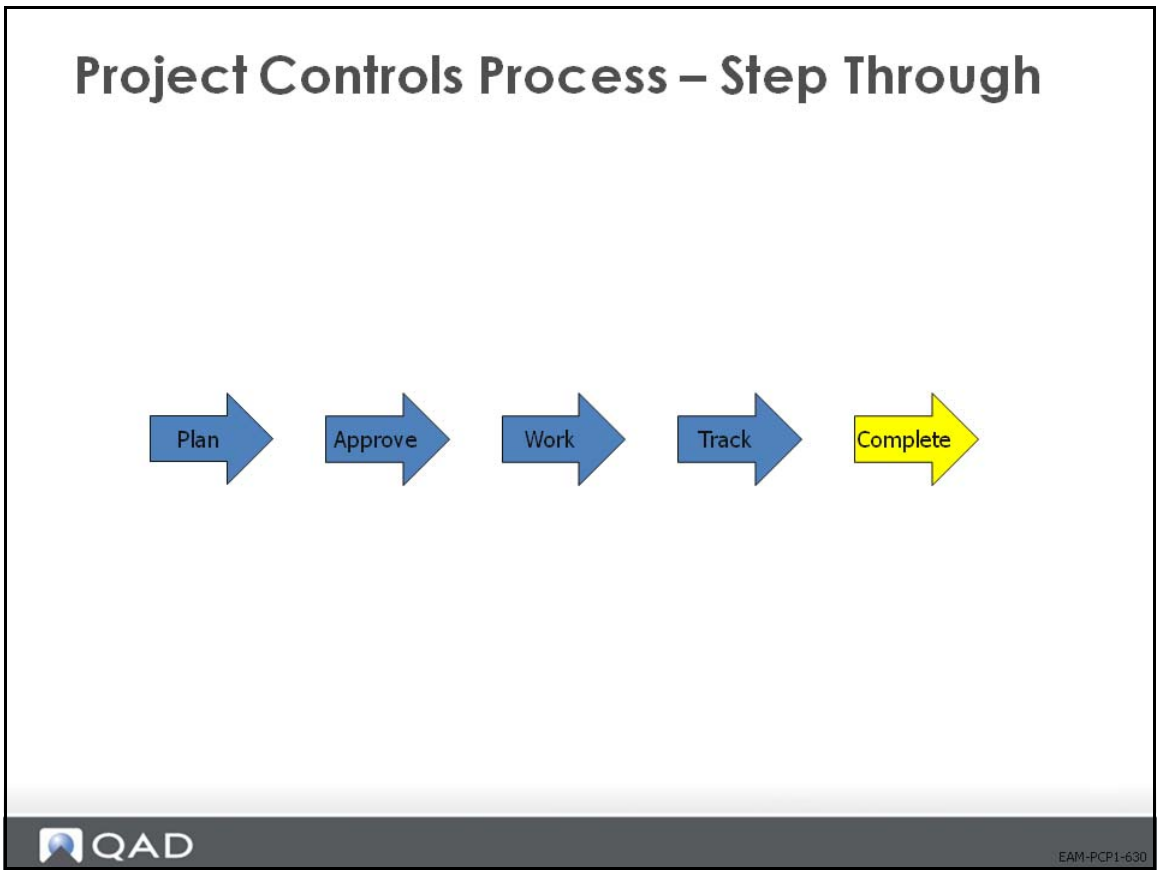
QAD

EAM-PCP1-610

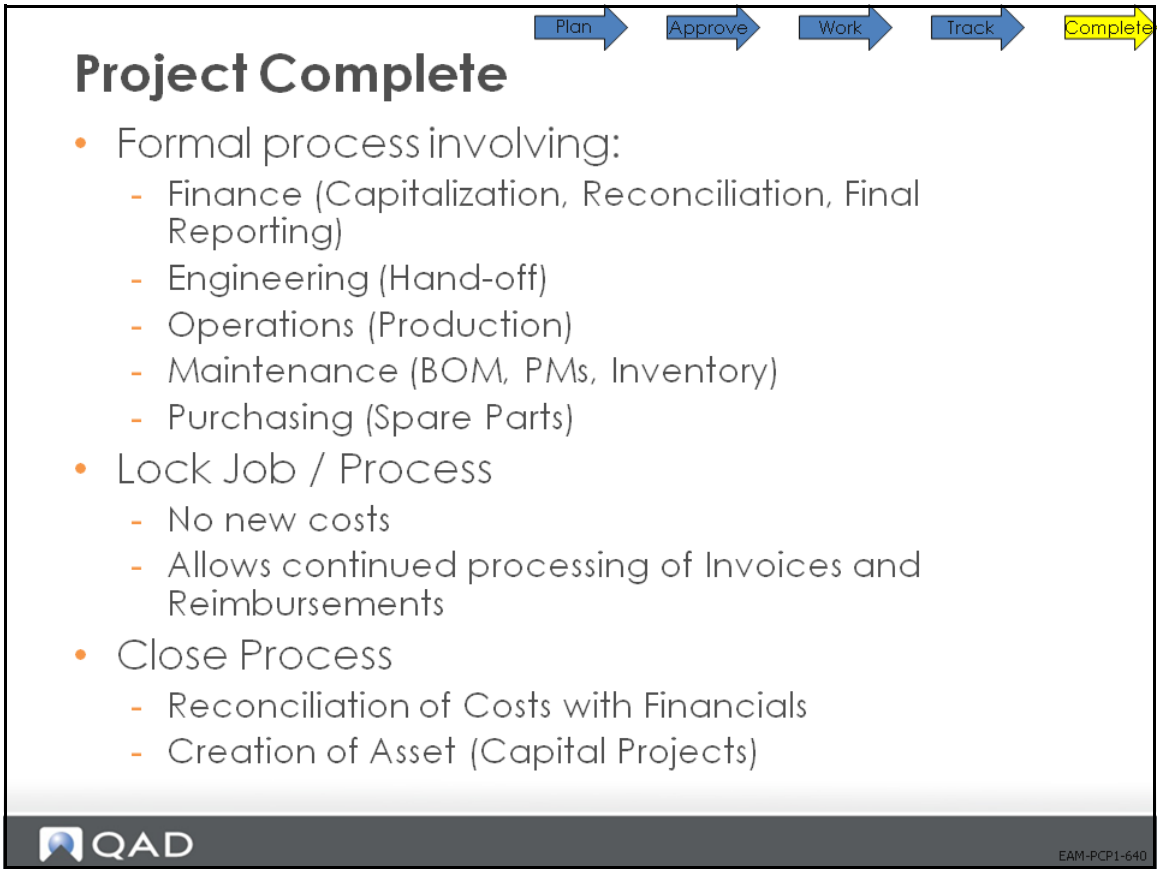
Corporate Consolidation Reporting



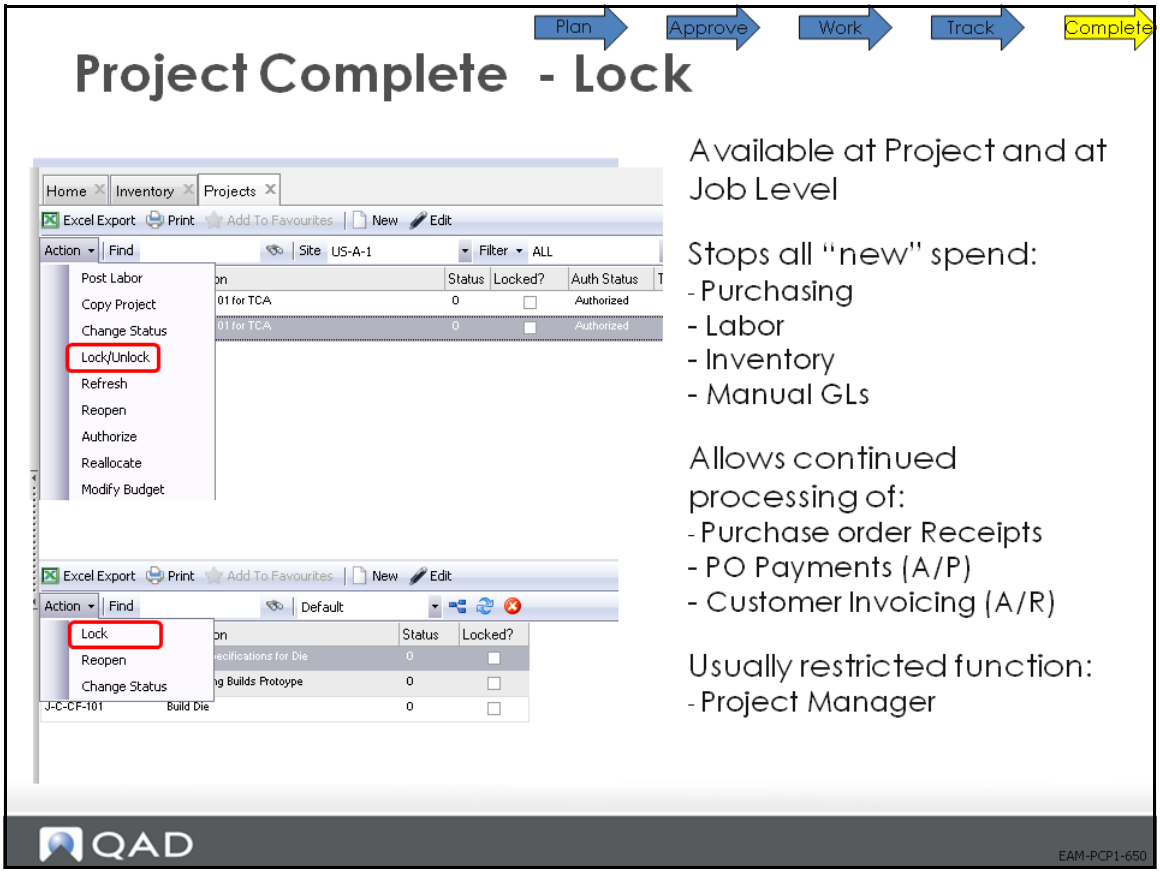
Project Controls Process Step Through: Complete



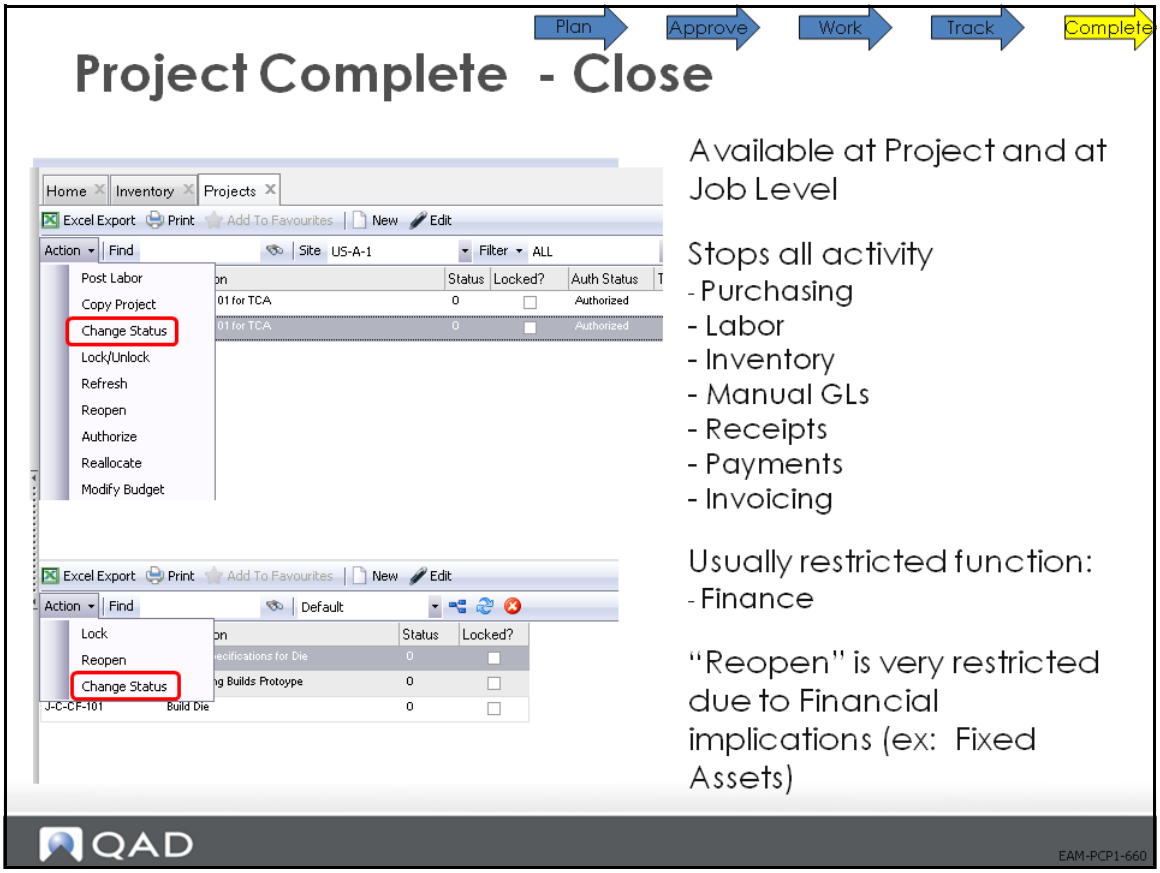
Project Complete



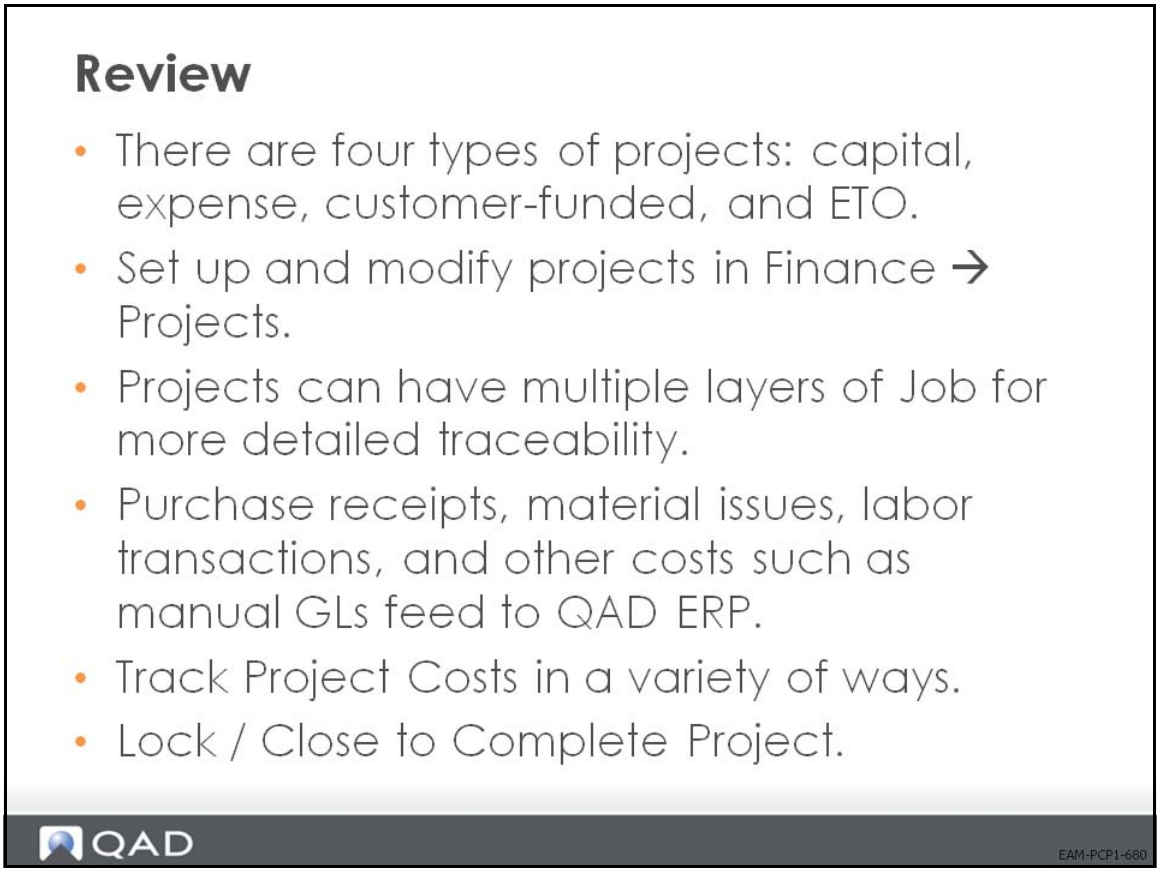
Lock


Plan
Approve
Work
Track
Complete
Project Complete - Lock
Home
Inventory
Projects
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site
US-A-1
Filter
ALL
Post Labor
Copy Project
Change Status
Lock/Unlock
Refresh
Reopen
Authorize
Reallocate
Modify Budget
Status
Locked?
Auth Status
01 for TCA
Authorized
Default
Lock
Reopen
Change Status
Build Die
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

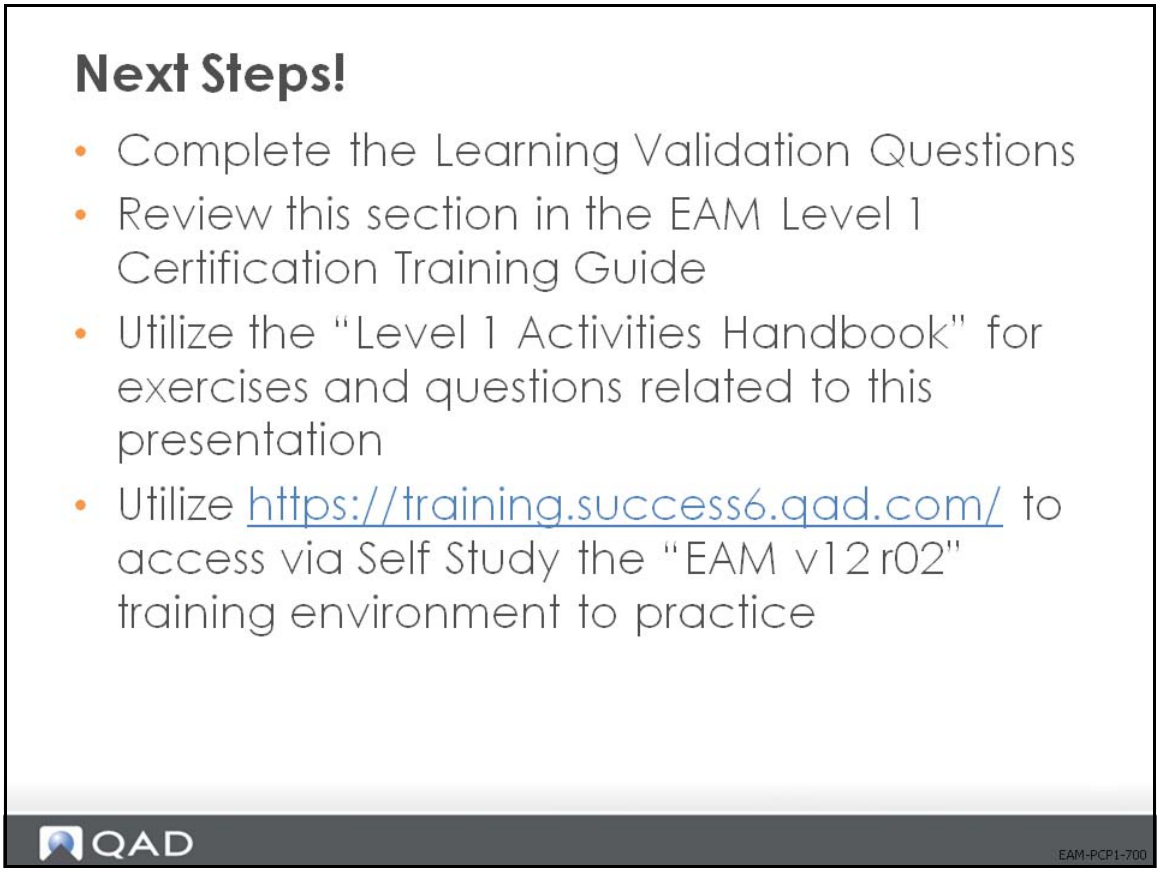
Close


Plan
Approve
Work
Track
Complete
Project Complete - Close
Home
Inventory
Projects
Excel Export
Print
Add To Favourites
New
Edit
Action
Find
Site
US-A-1
Filter
ALL
Post Labor
Copy Project
Change Status
Lock/Unlock
Refresh
Reopen
Authorize
Reallocate
Modify Budget
Status
Locked?
Auth Status
01 for TCA
Authorized
Default
Lock
Reopen
Change Status
Build Die
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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EAM-PCP1-660

Course Review



Next Steps


Next Steps!
• Complete the Learning Validation Questions
• Review this section in the EAM Level 1 Certification Training Guide
• Utilize the "Level 1 Activities Handbook" for exercises and questions related to this presentation
• Utilize https://training.success6.qad.com/ to access via Self Study the "EAM v12 r02" training environment to practice
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EAM-PCP1-700

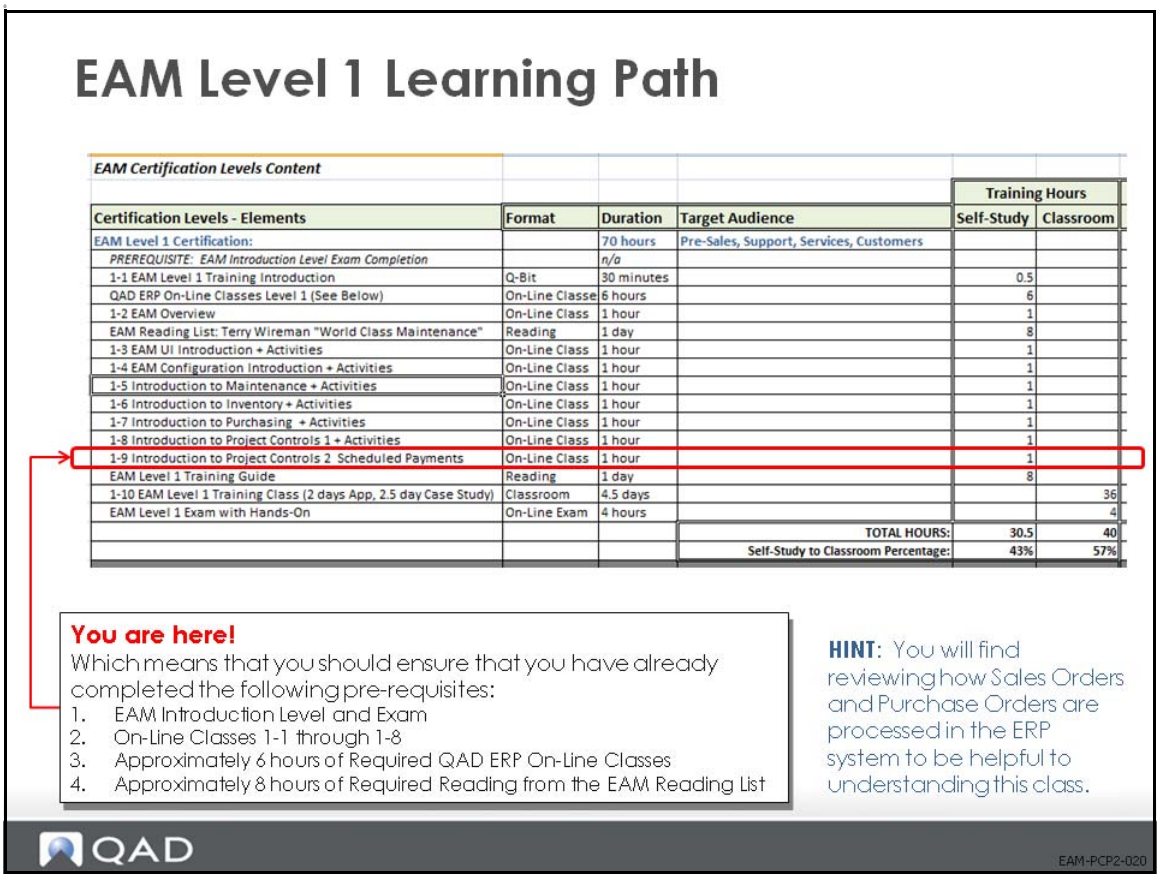
Chapter 9

Introduction to EAM Project Controls Part 2

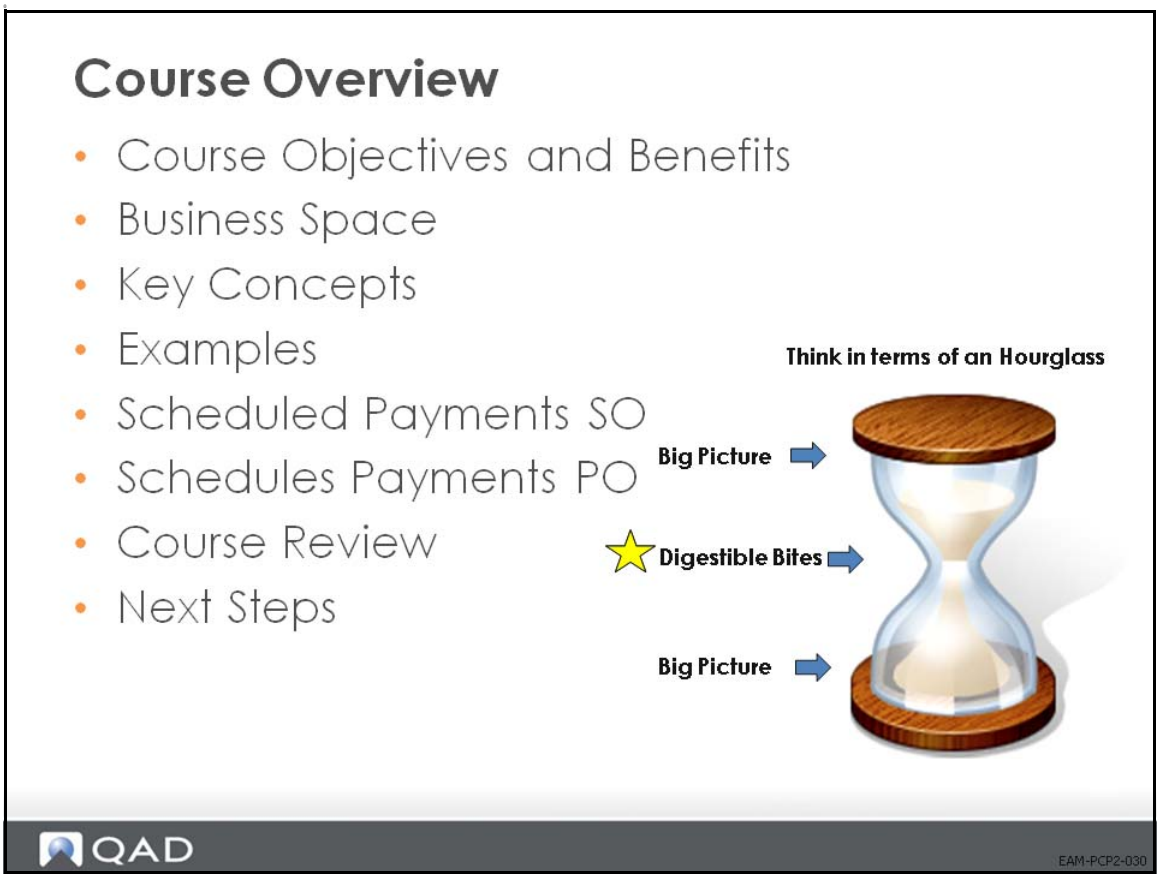
EAM Project Controls Intro: Scheduled Payments



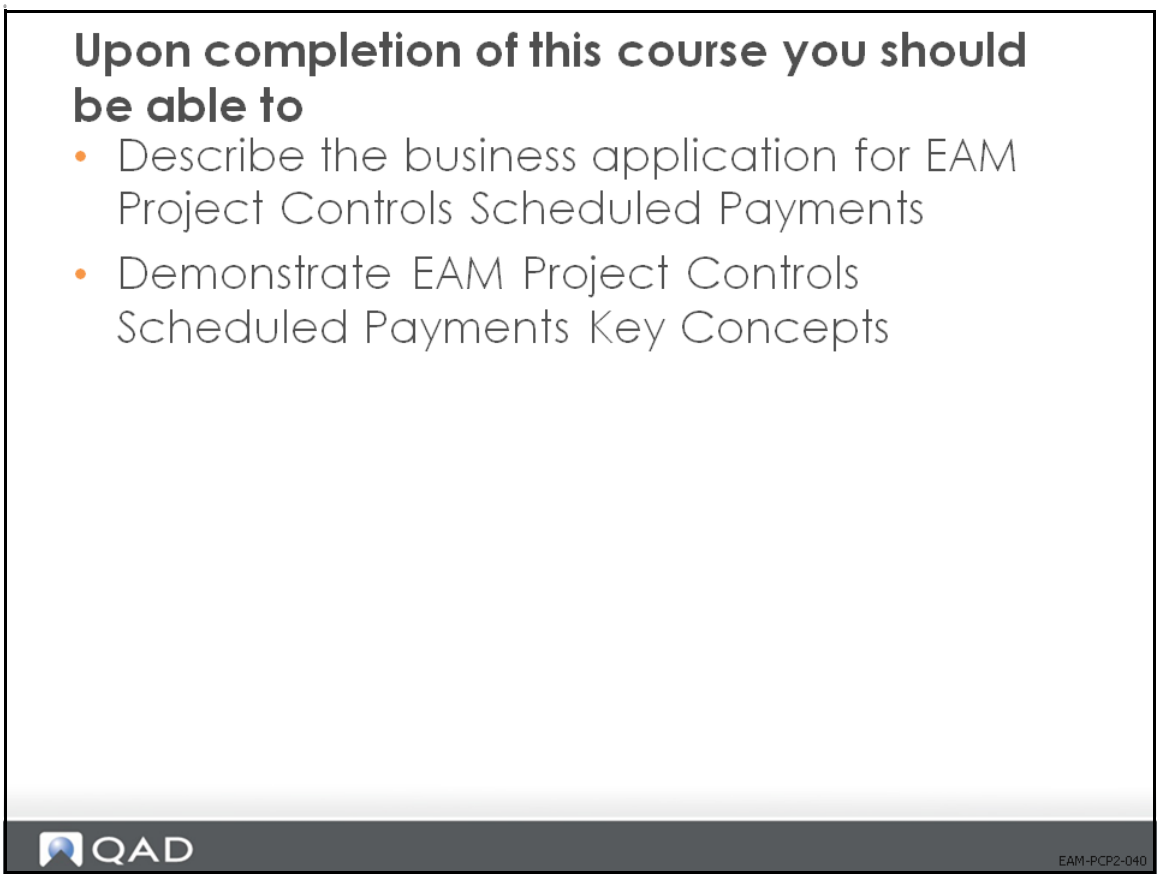
EAM Level 1 Learning Path



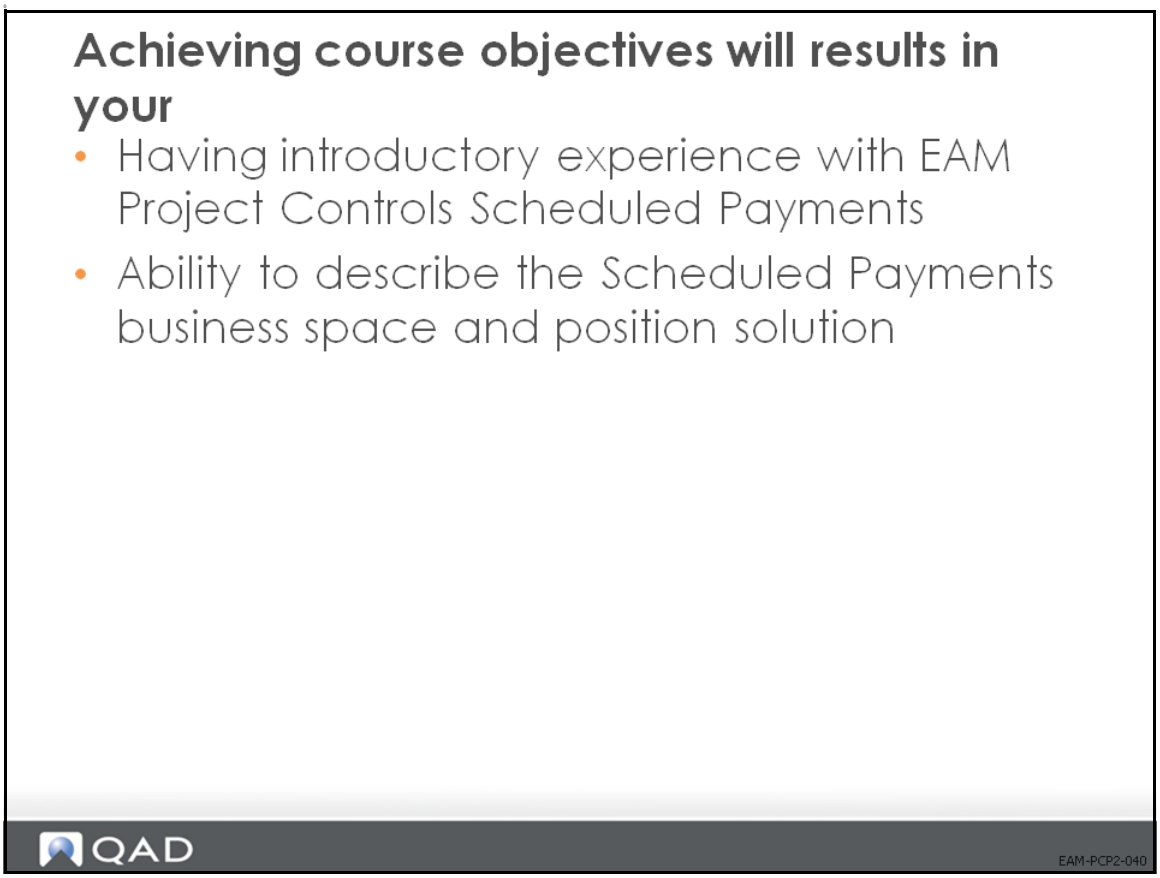
Course Overview



Course Goals



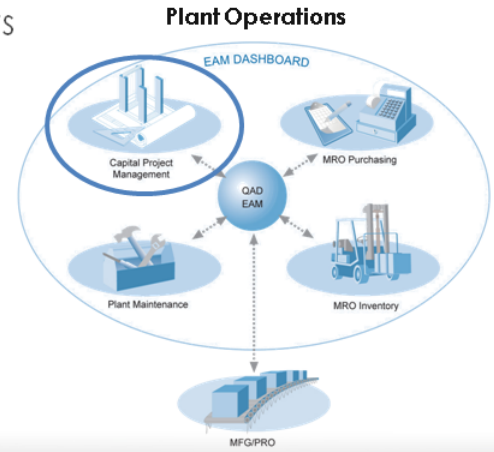
Course Objectives



Scheduled Payments

Project Controls - Scheduled Payments

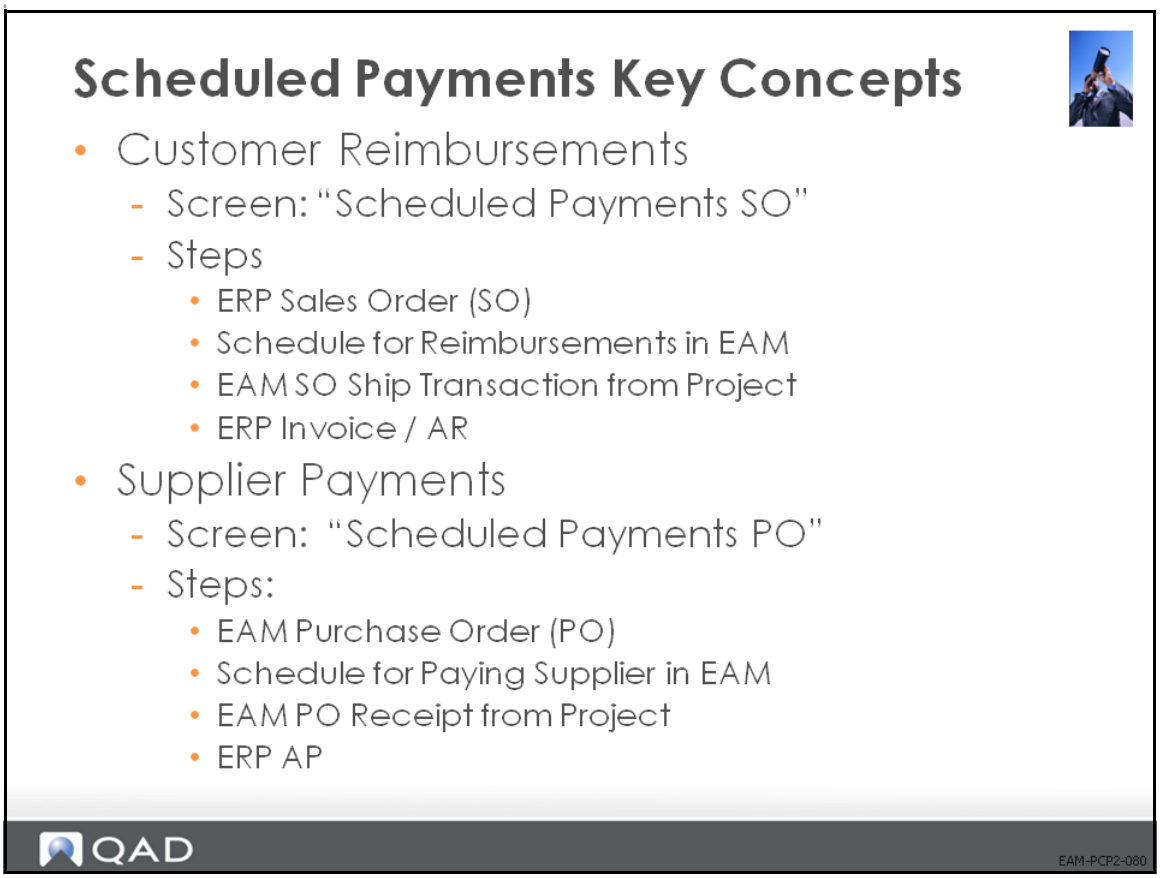
- Goal: Provide effective management of Customer and Supplier Payment Schedules against a Project Budget
  - Ensure on-time reimbursements
  - Track graduated payments
  - Provide cash flow visibility
  - Track Project Margin



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Scheduled Payments Key Concepts



Scheduled Payments Best Practices

Scheduled Payments Best Practices



- Provide single source of Project Performance tracking, including
  - Customer Reimbursements
  - Supplier Scheduled Payments
- Ensure on-time Invoicing for Reimbursement
- Track Project Profit Margin
- Ensure on-time scheduled Payments
- Provide visibility into all stages of the process
- Put control of scheduled payments into the proper role

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Schedule Payments Sales Orders

Scheduled Payment SO Personal Example



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

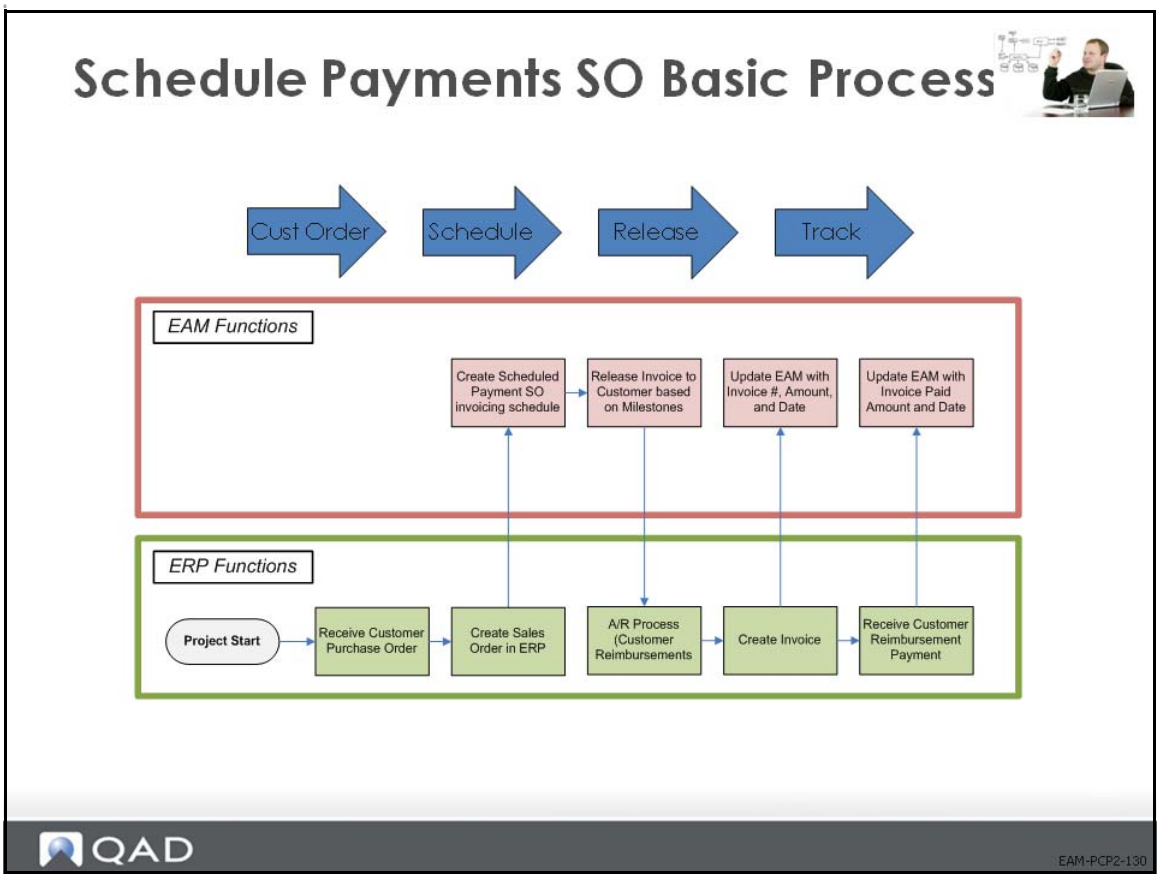
What part of this process could relate to "Customer Reimbursement"?



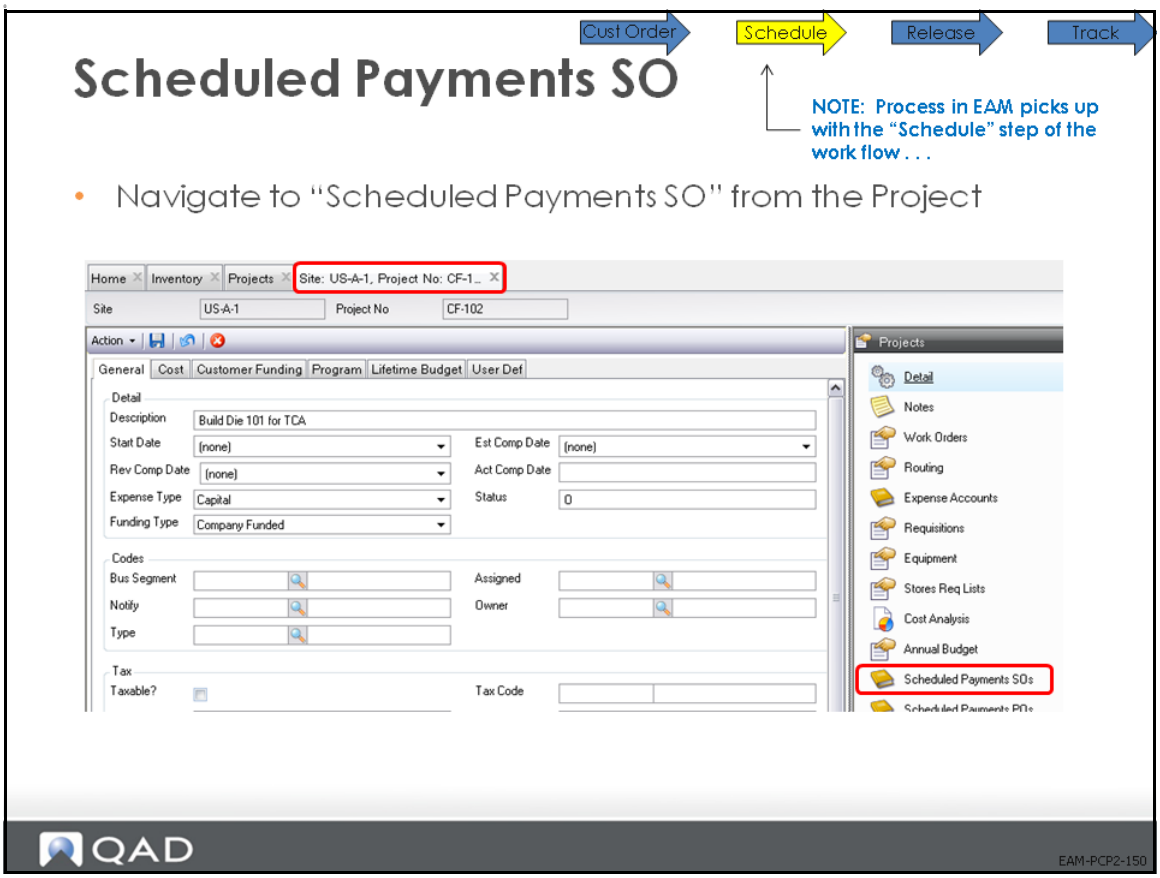
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Schedule Payments SO Basic Process



Schedule Payments SO Basic Process 2

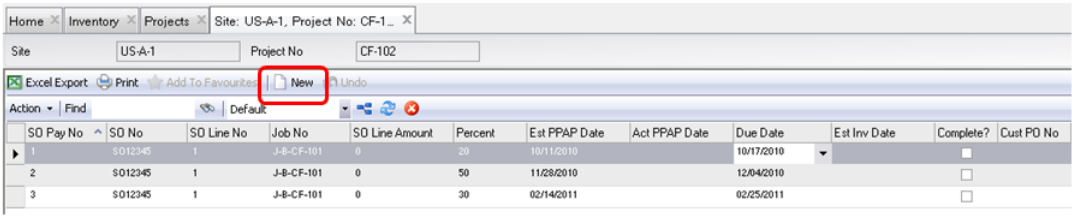


Schedule

Cust Order | Schedule | Release | Track

Scheduled Payments SO - Schedule

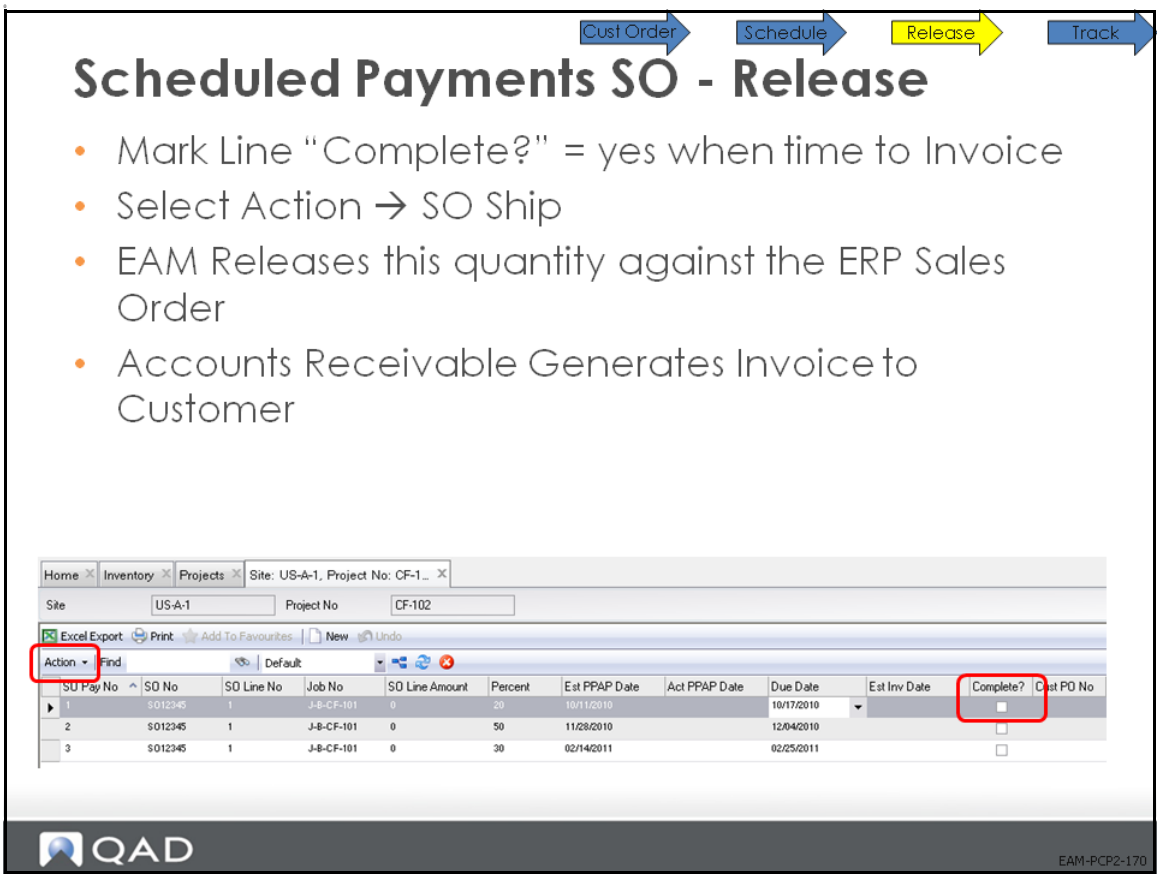
- SO No and Line from ERP
- Setup schedule per Contract
  - May have one SO/Line to Multiple Payments
  - May have multiple SO's/Line's to Multiple Payments
  - Can base upon Percentage of value or Amount
  - Can setup milestone dates (PPAP) and "Due Dates" for the Invoice



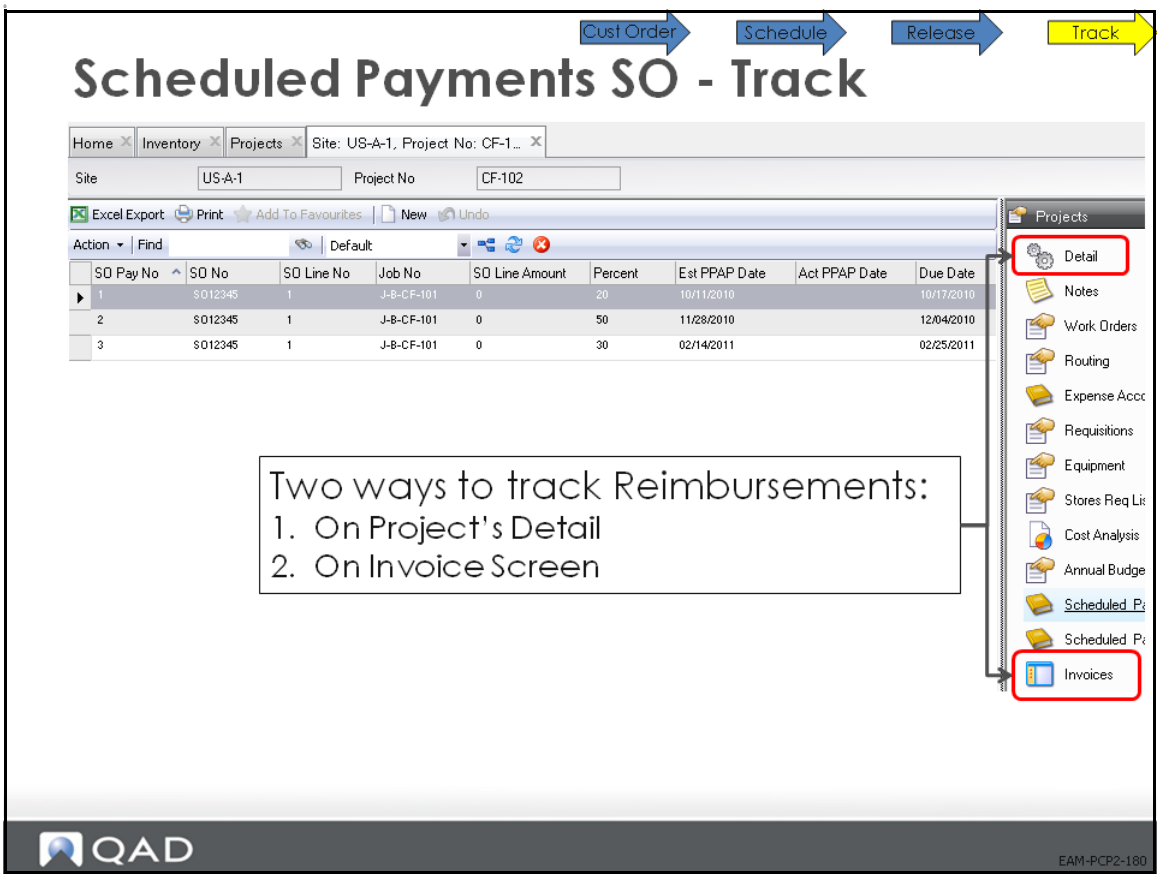
QAD

EAM-PCP2-160

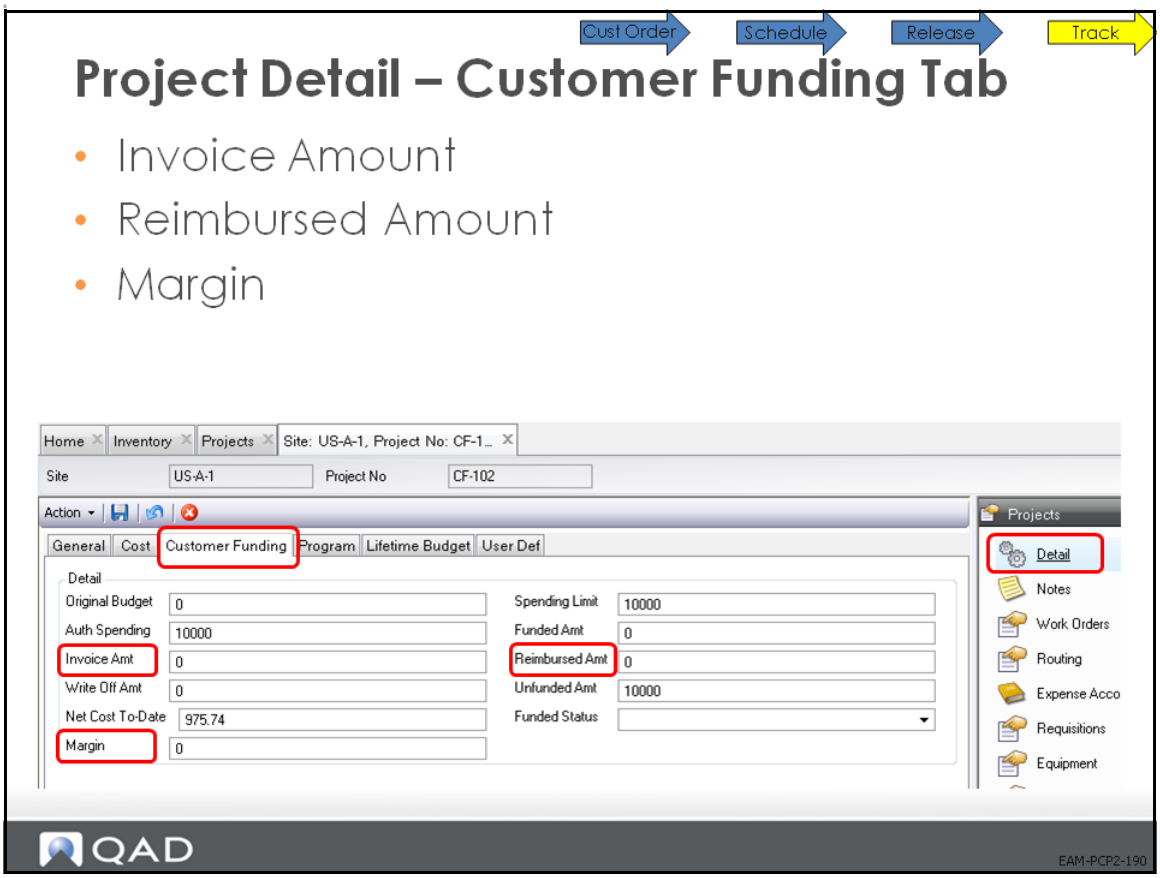
Release


Cust Order
Schedule
Release
Track
Scheduled Payments SO - Release
• Mark Line "Complete?" = yes when time to Invoice
• Select Action → SO Ship
• EAM Releases this quantity against the ERP Sales Order
• Accounts Receivable Generates Invoice to Customer
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
QAD
EAM-PCP2-170

Track


Cust Order
Schedule
Release
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
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
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
Two ways to track Reimbursements:
1. On Project's Detail
2. On Invoice Screen
Projects
Detail
Notes
Work Orders
Routing
Expense Acc
Requisitions
Equipment
Stores Req Li
Cost Analysis
Annual Budge
Scheduled P
Scheduled P
Invoices
QAD
EAM-PCP2-180

Customer Funding Tab

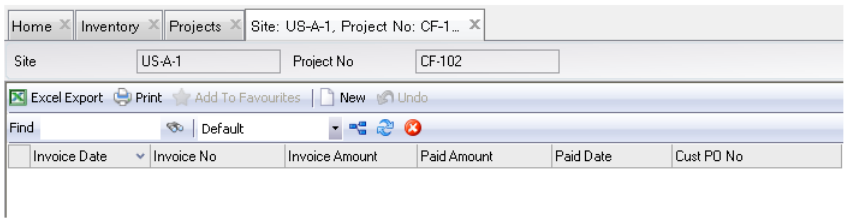


Project Invoices Screen

Cust Order | Schedule | Release | Track

Project Invoices Screen

- Each Individual Invoice
- Invoice Date
- Invoice Amount
- Paid Amount and Date
- Reference to Customer PO



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Schedule Payments Purchase Orders

Scheduled Payments PO Personal Example



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

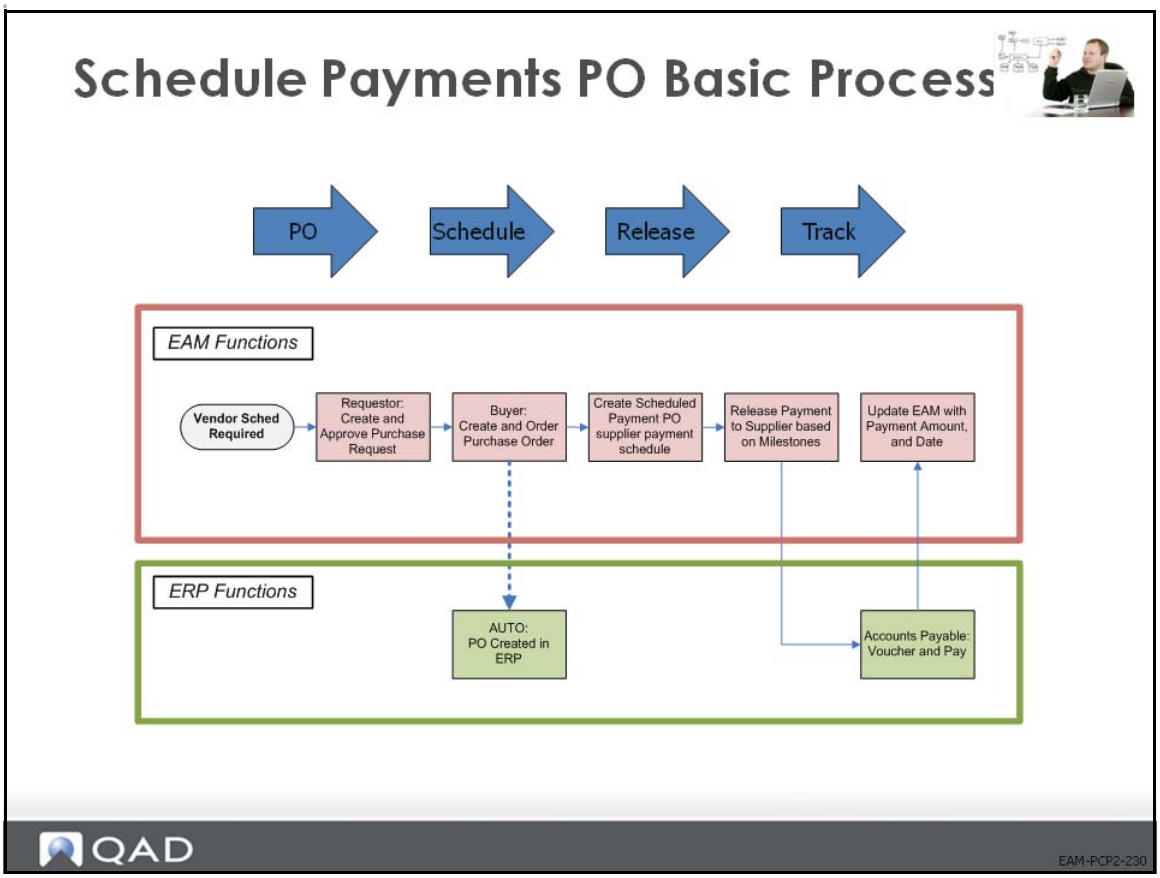
What part of this process could relate to "Supplier Scheduled Payments"?



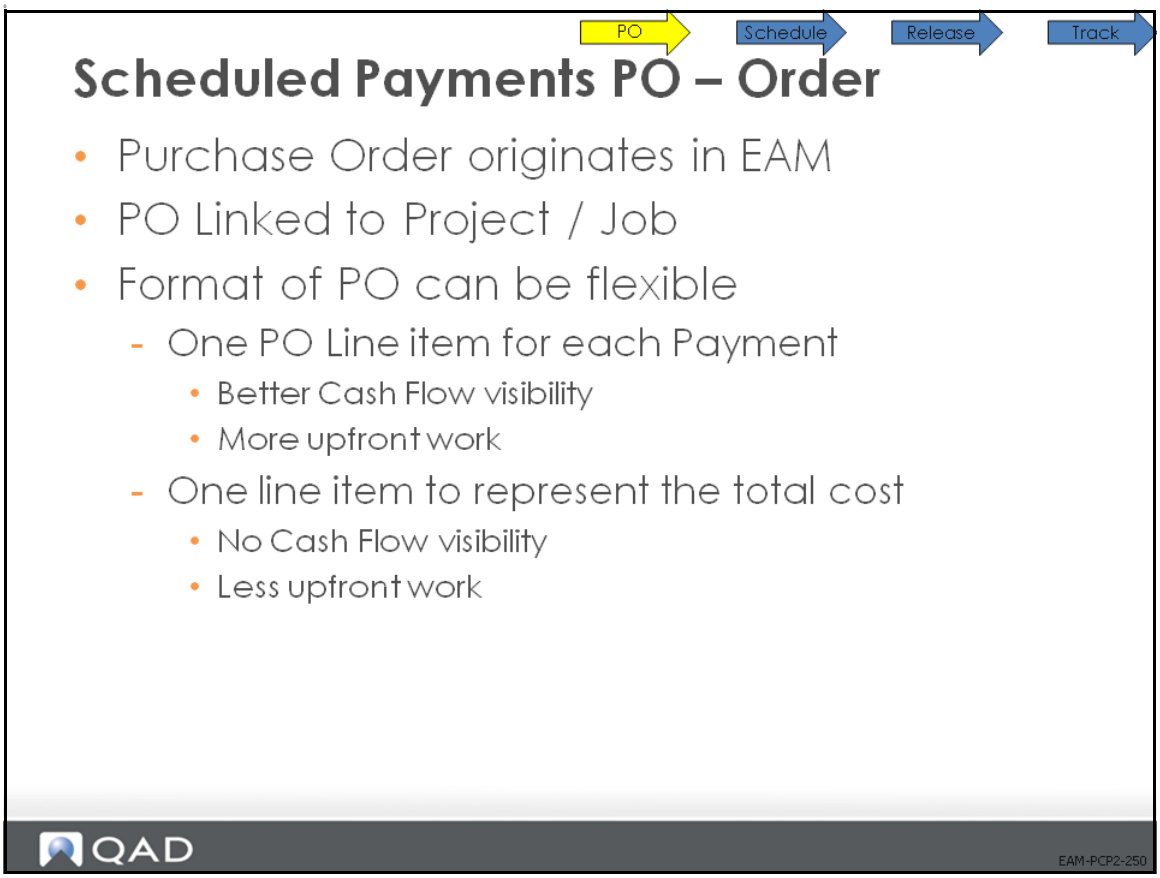
QAD

EAM-PCP2-220

Scheduled Payments PO Basic Process



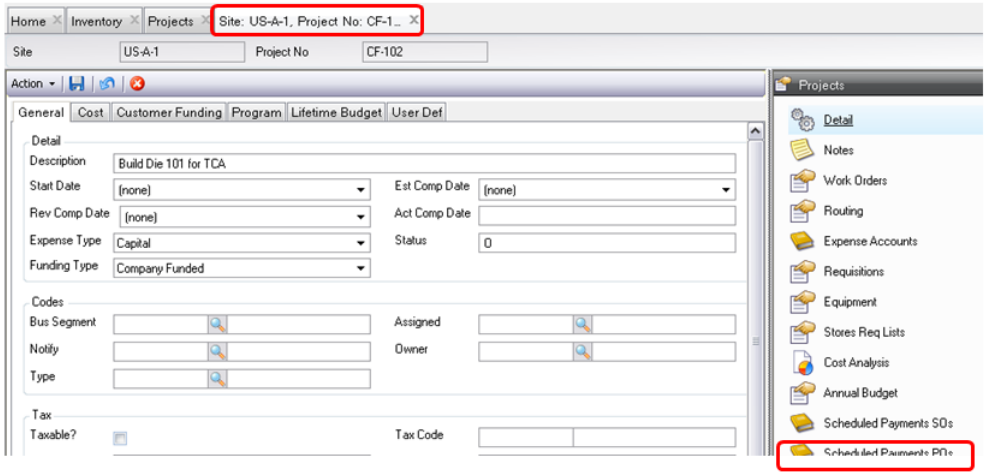
Order


PO
Schedule
Release
Track
Scheduled Payments PO – Order
Purchase Order originates in EAM
PO Linked to Project / Job
Format of PO can be flexible
One PO Line item for each Payment
Better Cash Flow visibility
More upfront work
One line item to represent the total cost
No Cash Flow visibility
Less upfront work
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EAM-PCP2-250

Navigate

PO Schedule Release Track

Scheduled Payments PO



Navigate to "Scheduled Payments PO" from the Project

QAD

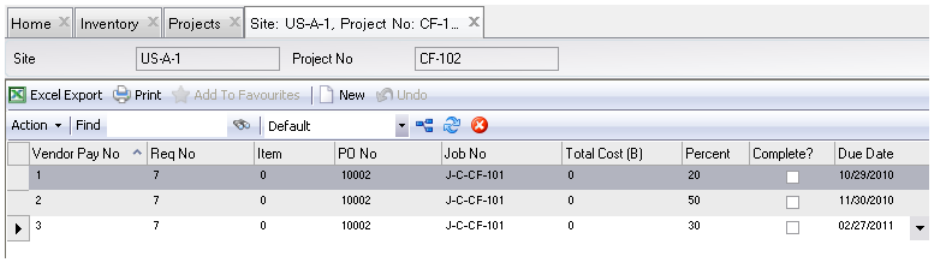
EAM-PCP2-260

Schedule

PO → Schedule → Release → Track

Scheduled Payments PO - Schedule

- Select Req No. – 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



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	☐	10/29/2010
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

QAD

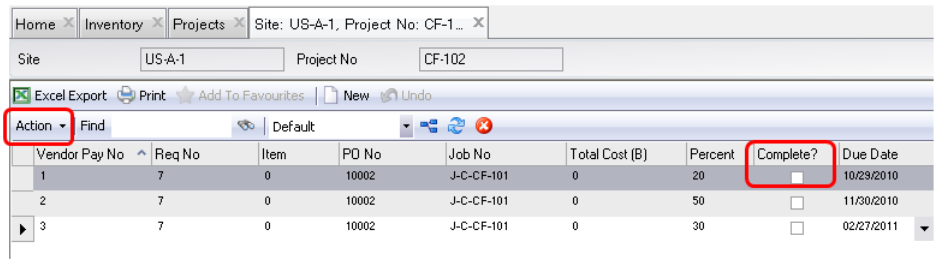
EAM-PCP2-270

Release

PO → Schedule → Release → Track

Scheduled Payments PO - Release

- Mark Line "Complete?" = yes when time to pay Supplier
- Select Action → Complete Payment
- EAM process a PO Receipt for this quantity
- Accounts Payable Generates Payment to Supplier



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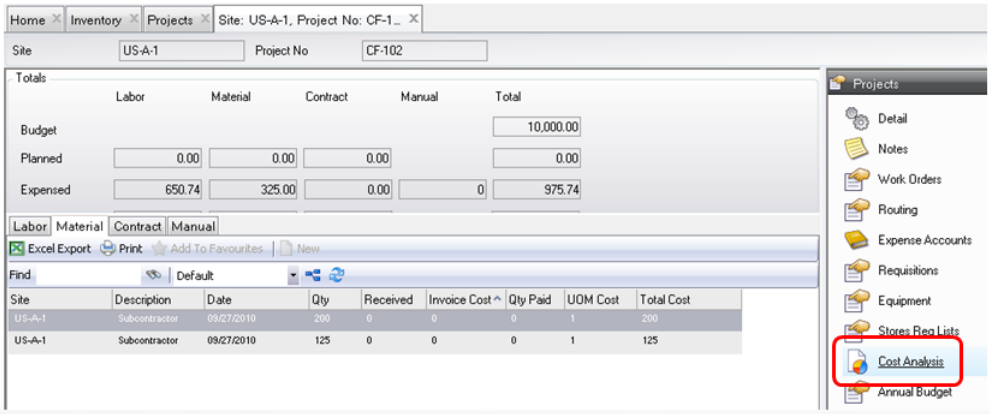
Project Cost Analysis Screen

PO → Schedule → Release → Track

Project Cost Analysis Screen

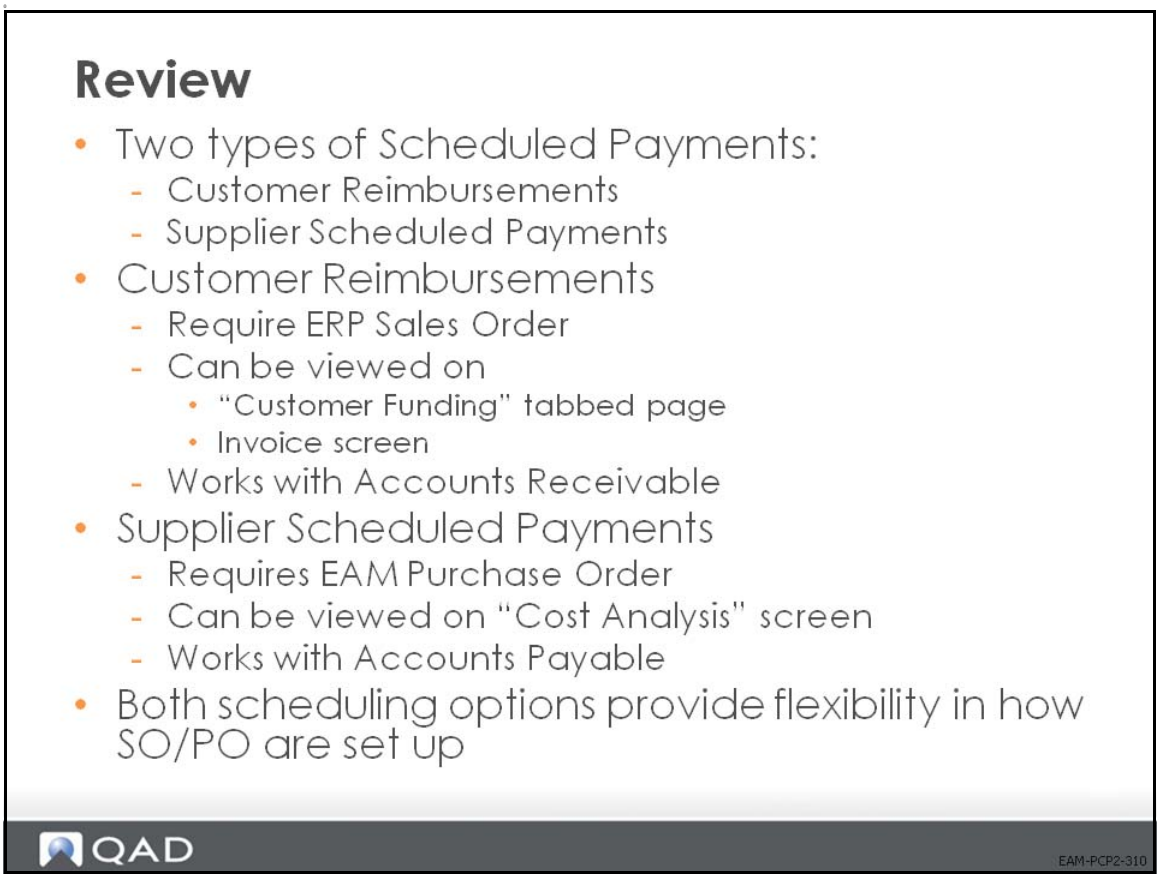
- Amount Released to Pay (Received column)
- Invoice Cost
- Qty Paid when payment processed

NOTE: You will have to Add/Remove Columns to see this view!

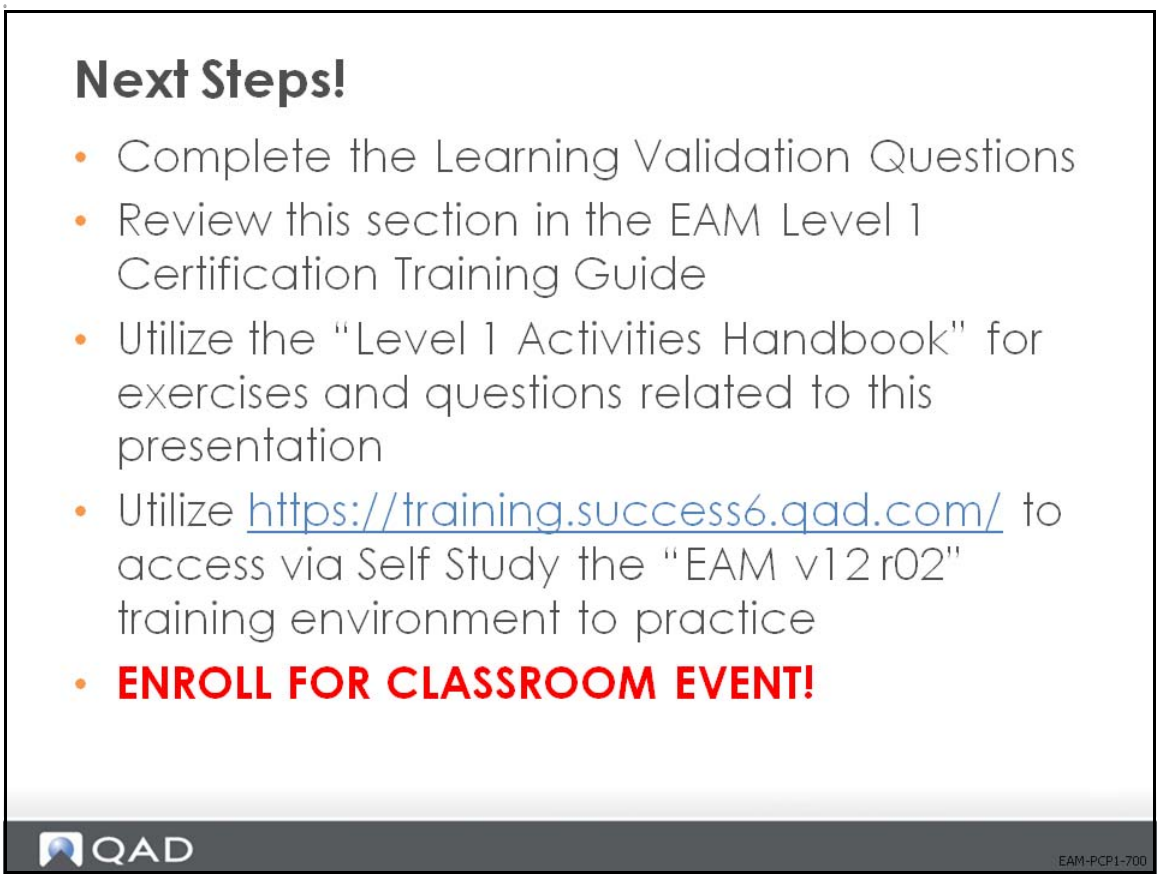


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Course Review



Next Steps


Next Steps!
Complete the Learning Validation Questions
Review this section in the EAM Level 1 Certification Training Guide
Utilize the "Level 1 Activities Handbook" for exercises and questions related to this presentation
Utilize https://training.success6.qad.com/ to access via Self Study the "EAM v12 r02" training environment to practice
ENROLL FOR CLASSROOM EVENT!
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