

# LABORATORY MANUAL

## MAXIMO *Release 6.0*

IE 434 – MAINTENANCE ENGINEERING

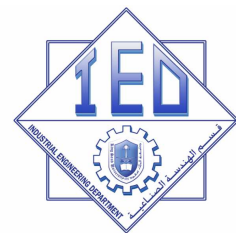


Version 6



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# **PART 1**

## **Concept and Theory**



## **Chapter 1: Introduction**

**MAXIMO** is Strategic Asset Management (SAM) software that manages all strategic asset to increase utilization and reduce operation cost so that the profit of the company is increased as well.

### **1. Strategic Asset:**

Strategic assets are those assets that are directly or closely associated with revenue generation or that are critical to the mission of the organization. They include the following types of assets:

- Tangible
- Fixed
- Physical
- Capital

For example, manufacturing companies depend on assets' uptime to meet production goals; for them, plant floor machinery is clearly strategic. Hotels hospitals, and airports require trouble-free facilities to deliver the quality of service their customers and users expect. Public transit and over-the-road transport companies depend on the reliability of their fleets to move people or goods. Financial services companies rely heavily on computer systems to manage transactions and maintain positive customer relationships that drive their business. All of these are strategic assets.

### **2. What Is SAM?**

- Manages and optimizes the business processes related to fixed, physical, or capital assets that have a direct and significant impact on achieving corporate objectives.
- Takes an enterprise-wide view of asset performance and the tools required to drive maximum return on asset investment.
- Drives corporate performance by extracting greater lifetime value from asset investment.

## ***Chapter 1: Introduction***

### **3. Four SAM Categories:**

SAM is focused on four broad categories of fixed, physical, and capital assets: Production, Facilities, Fleet, and IT.

#### **Asset Categories:**

Asset Category	Description
Production	Production assets are generally understood to be those involved in discrete or process manufacturing. This includes, for example, robots on the assembly line at an automobile plant, or the steppers used in computer chip manufacturing. However, the definition of production assets is considerably broader. In the utility industry, for example, production assets are turbines and compressors used for power generation; they also include the transmission and distribution assets that deliver output to end users. In the telecommunications industry, the antennas and microwave towers involved in producing and delivering output to customers are also production assets.
Facilities	Facilities assets include types of buildings, from corporate headquarters, casinos (e.g., MGM Grand), and museums (e.g., the Louvre), to stadiums, shipyards, and passenger terminals (e.g., Zurich Airport). Maintaining these facilities can involve mechanical, HVAC, and electrical systems, as well as landscaping and parking lots. There are also many specialized facilities, such as clean rooms, surgical theaters, laboratories, and satellite ground stations.
Fleet	Fleet assets are often over-the-road vehicles such as cars and trucks; however, this category also includes airborne fleets (aircraft), rolling stock (rail cars), and marine assets (passenger boats and ships). Companies might have mission-critical fleet assets around which the core of their business is built; for example, a commercial shipping company depends on its trucks and aircraft. Vehicles for a public transit organization like Long Island Railroad also fall into this first category. Additionally, companies might have enterprise fleet assets that are important to the overall function of an operation but do not directly generate revenue, such as employee shuttle buses, repair trucks, or forklifts.
IT	The operations of most companies today are critically dependent on the organization's IT infrastructure. On the hardware side this includes servers, desktops, laptops, cell phones, PDAs, hubs/routers, and telecom assets. Software is equally important in day-to-day operations, and ensuring software license compliance is an important part of IT asset management.

## ***Chapter 1: Introduction***

### **4. Why SAM?**

With pressure mounting to improve financial performance in the face of a difficult economic climate, companies are looking in all directions to increase revenue, reduce costs, and mitigate risks. SAM is a more sophisticated and comprehensive approach to extracting greater lifetime value from asset investment; it is one relatively unexplored avenue that offers an opportunity for significant gains.

### **5. Objectives of Strategic Asset Management**

There are five main objectives of asset management:

- Investment—Minimize funds invested to achieve business objectives.
- Ownership cost—Minimize cost to ensure a required level of performance.
- Commercial return—Maximize the value that the assets add to the business.
- Strategic value—Optimize the market value and flexibility of the asset base.

SAM and Maintenance, and Asset Performance

- Risk—Manage commercial, health, and environmental risks.

### **6. Some key performance indicators (KPIs) of SAM are:**

- Return on asset (ROA)
- Overall equipment effectiveness (OEE)
- Expenditure/capital replacement value
- Maintenance cost per unit of output
- Mean time between failures (MTBF)
- Mean time to repair (MTTR)
- Mean time between work orders (MTBWO)
- Maintenance cost/estimated replacement cost (ERV)

## ***Chapter 1: Introduction***

### **8. World-Class Benchmarks:**

Some world-class benchmarks and performance goals are: .

- Maintenance costs

Total maintenance costs/total manufacturing costs <~10%

- Planned maintenance

Planned maintenance/total maintenance >90%

- Maintenance overtime

Maintenance overtime/total maintenance time <5%

- Maintenance rework

Work orders reworked/total work orders 0%

- Inventory turns

Turns ratio of spare parts > 3

- Training

Maintenance workers receiving > 40 hours/year > 90%

- Safety

Injuries per 200,000 maintenance hours < 2

### **9. KPIs Do Not Give Answers**

While KPIs do not deliver magic answers, they will tell you what is happening in your organization. The excerpt below, written in response to an article on asset breakdowns, illustrates this point.

"A better picture would give, not simply the number of breakdowns, but the consequences of those breakdowns, such as:

- The financial value lost due to breakdowns (whether by lost production, lost customers, or other means)
- The number of injuries, labor-hours lost, and fatalities, caused by breakdowns
- The number of environmental infractions caused by breakdowns

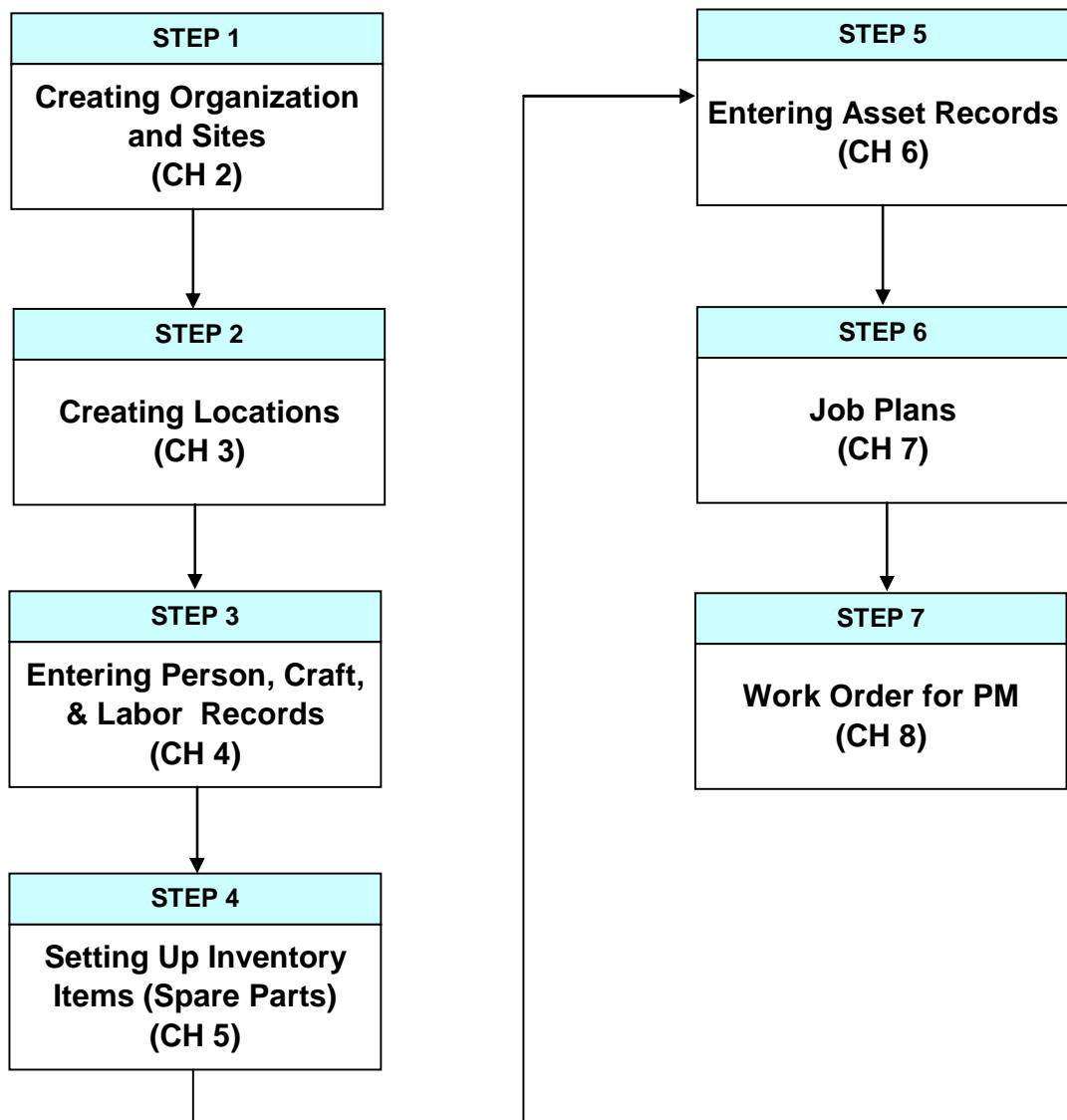
I can illustrate the importance of this by giving a catastrophic example. If you only had two breakdowns in the last three years, but if—because of these breakdowns—your plant is on the verge of being closed—then you should be examining your PM program, even though you "only had two breakdowns in three years."

**Chapter 1: Introduction**

Simply noting that the breakdowns are taking place is not likely to provide the information needed to prevent them. However, noting both the breakdowns and their consequences might provide the information you need to decide whether you need to conduct a more detailed review."

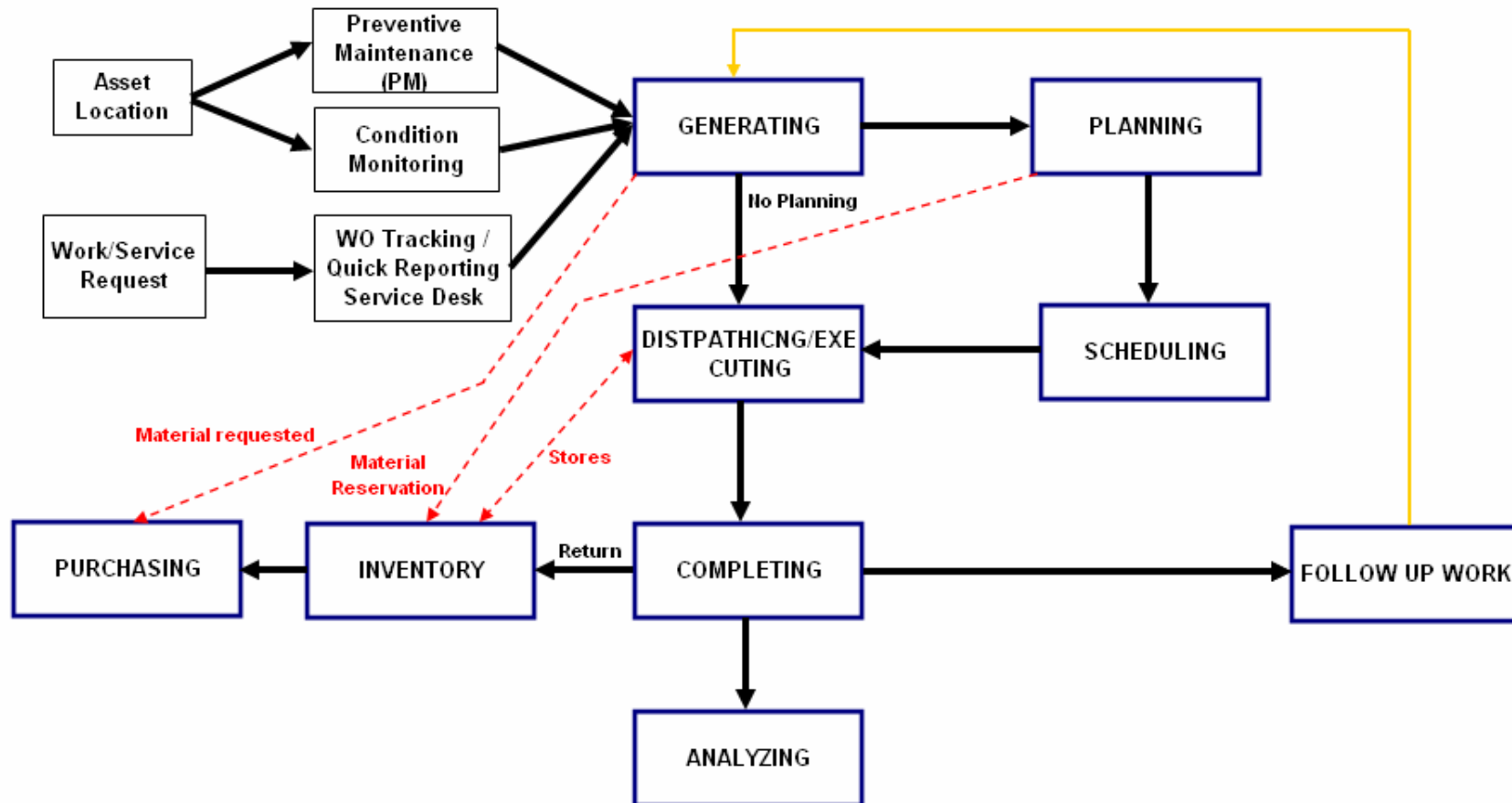
Dana Netheron, Jan. 2003 - Plant Maintenance Web site

**10. General Steps for MAXIMO:**





11. All Modules (applications) in MAXIMO are working together (Maintenance Activity):



## Chapter 1: Introduction

**MAXIMO (version 6 above):** is a web based application in which the application is installed in a server and client can access the MAXIMO application via web browser (IE 7 below for MAXIMO ver. 6).

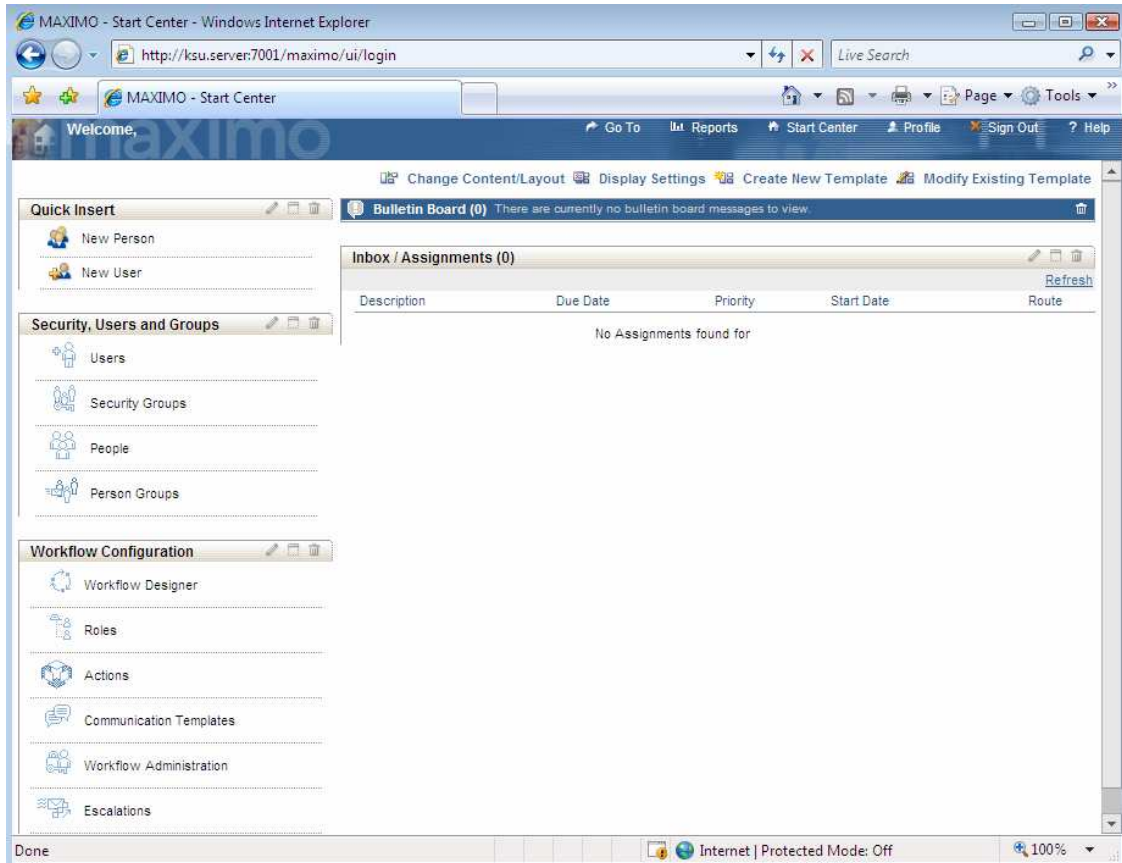
### 12. MAXIMO Screen Shoot:

#### a. Maximo Login Screen:



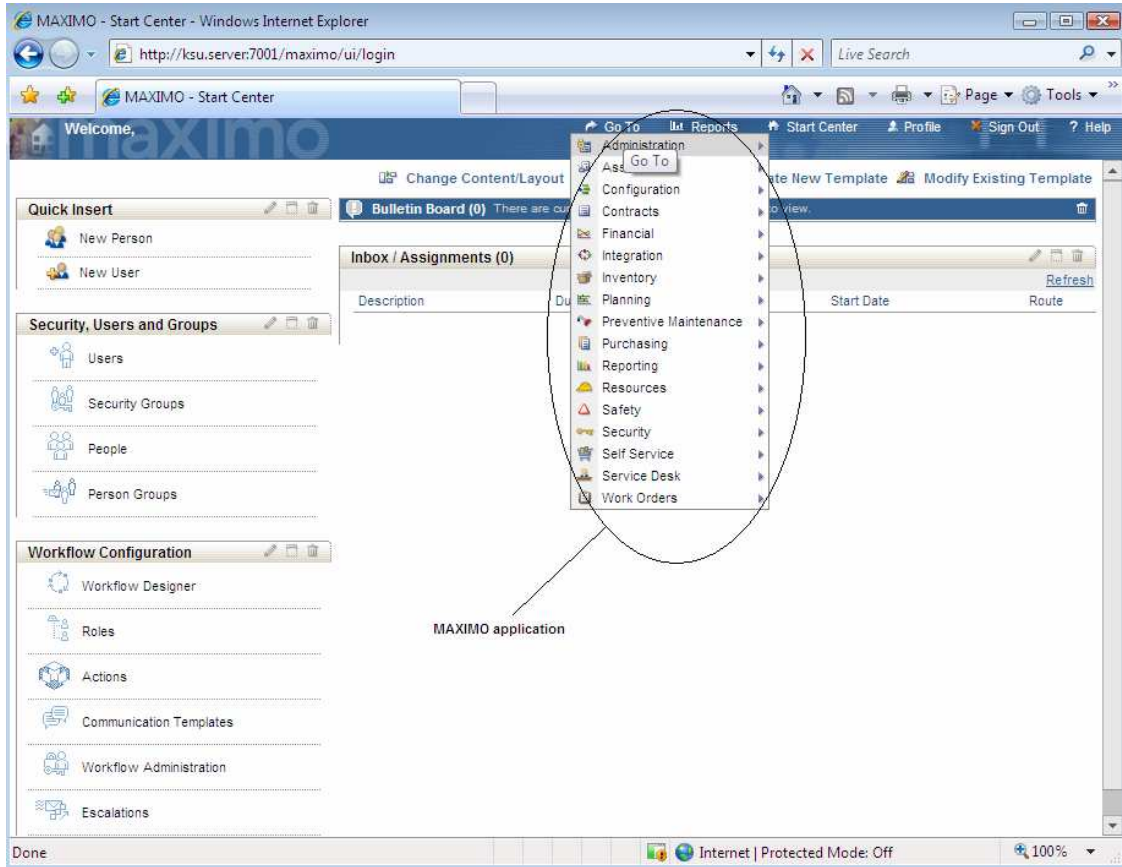
## Chapter 1: Introduction

### b. Maximo Main Screen and Application:



## Chapter 1: Introduction

### c. Maximo Applications:

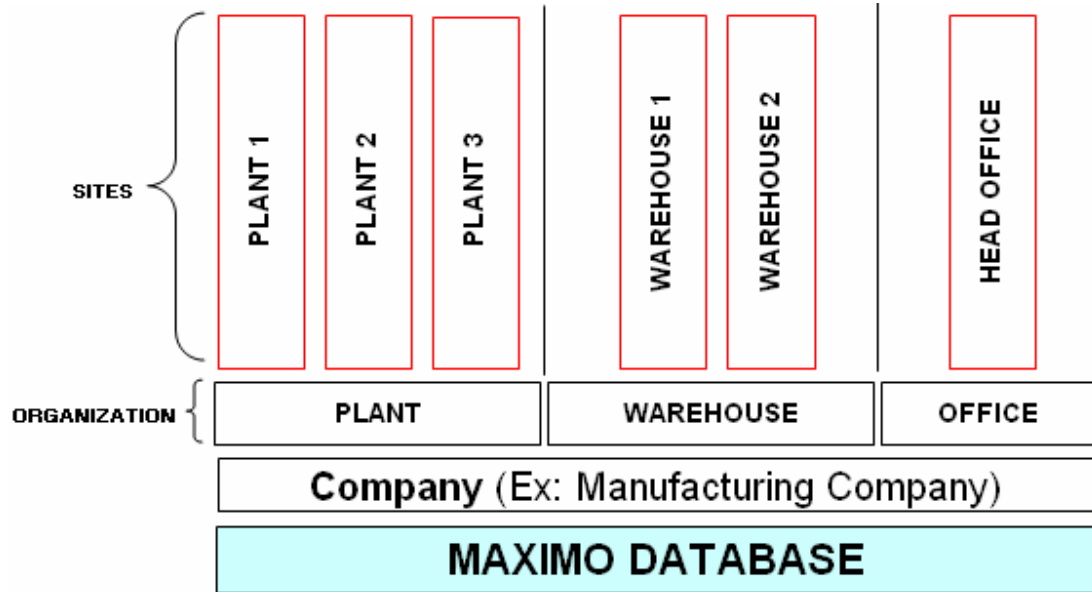


## Chapter 2: Organization and Sites

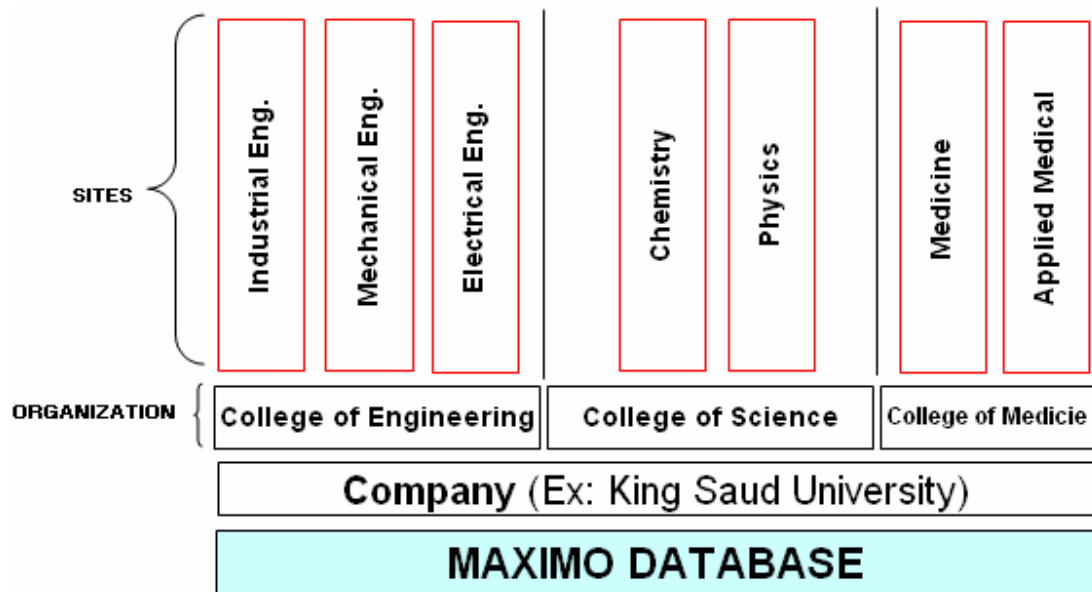
Organization is a group of sites that have similar business process.

Schematic view of Organization and sites:

Example 1:



Example 2:



## **Chapter 3: Locations**

### **1. Introduction**

One of the principal benefits to using Maximo is the ability to track maintenance costs against your various assets and operating locations. To track and monitor work and costs by location, you first need to create the location where the asset is to be located and based. A location is used to define where an asset physically is and what it is doing. Work orders can be written against a location only where the asset operates.

### **2. Learning Objectives**

When you have completed this chapter, you should be able to:

- Describe a location and location hierarchy;
- Describe a system and system hierarchy;
- Describe the advantages of implementing a system hierarchy;
- Navigate the Locations application;
- Create a location and a location hierarchy; and
- Associate locations with systems to create a system hierarchy

### **3. Implementation**

- Identify high-priority operating locations and enter them first. Low- ^ priority locations can be phased in later.
- Creating and using location hierarchies lets you track work and costs individually, as well as rolling up costs hierarchically.

Implementation Questions to Consider

Chapter Overview continued

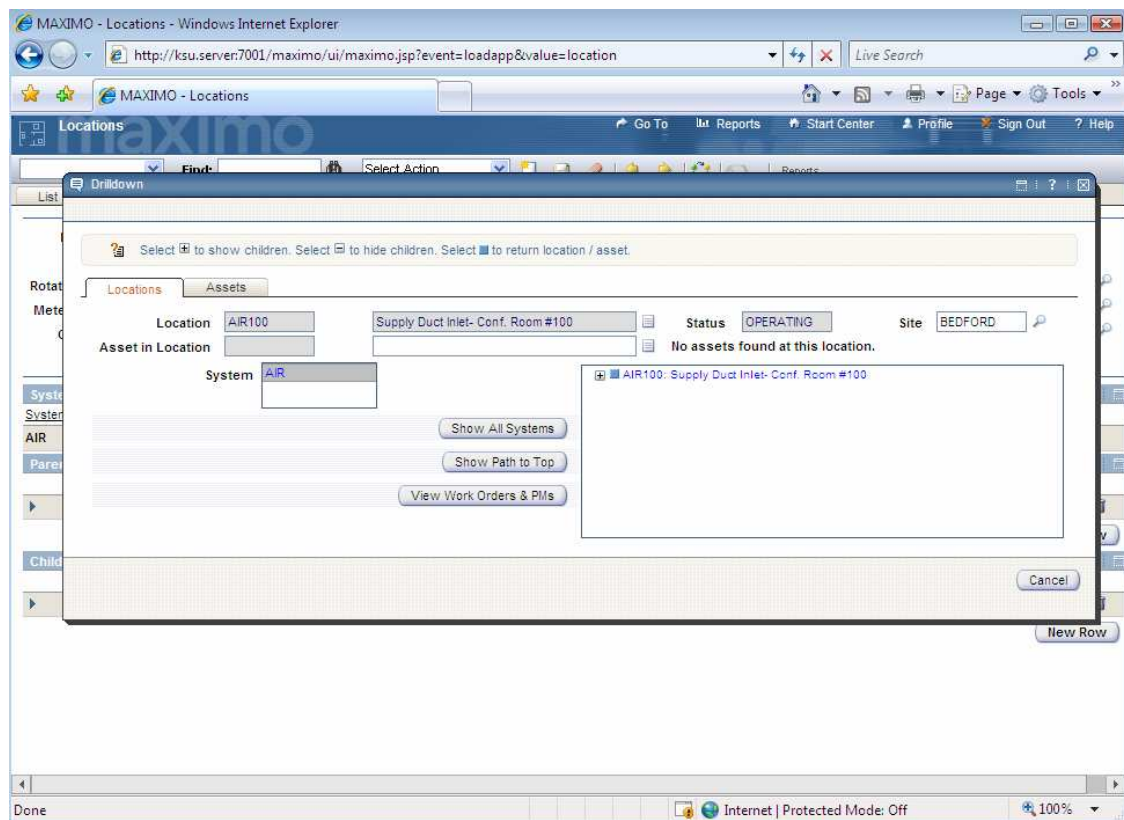
- Creating location hierarchies and systems will enable users to easily find locations, as well as any associated assets.
- Have a predefined formatting and identification procedure in place. The documentation should be graphically laid out well for your location hierarchy. This documentation can act as a map as you identify and enter locations and systems into Maximo.

### Chapter 3: Locations

Location and system hierarchies should be an integral piece of a site implementation; they are the backbone of the system. A well-thought-out hierarchical design makes it easier to track assets and costs as related to locations.

In addition, the time and thought you invest in planning the locations and systems creates a more strategic approach in navigating the Assets/Locations menus.

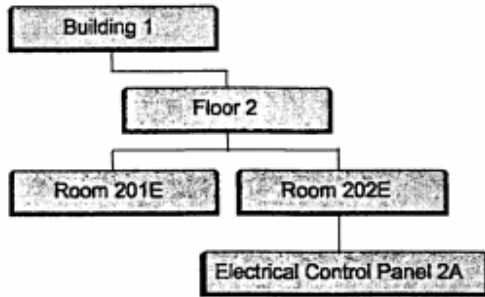
Locations are like addresses; for example, if you live at 5 Green Way Plaza, you may start out in a tent, then a trailer, then a building. So, even though the structure you are in changes, the address remains 5 Green Way Plaza. If you apply the same logic to locations and assets, locations normally do not change; however, the assets that reside at the location might change.



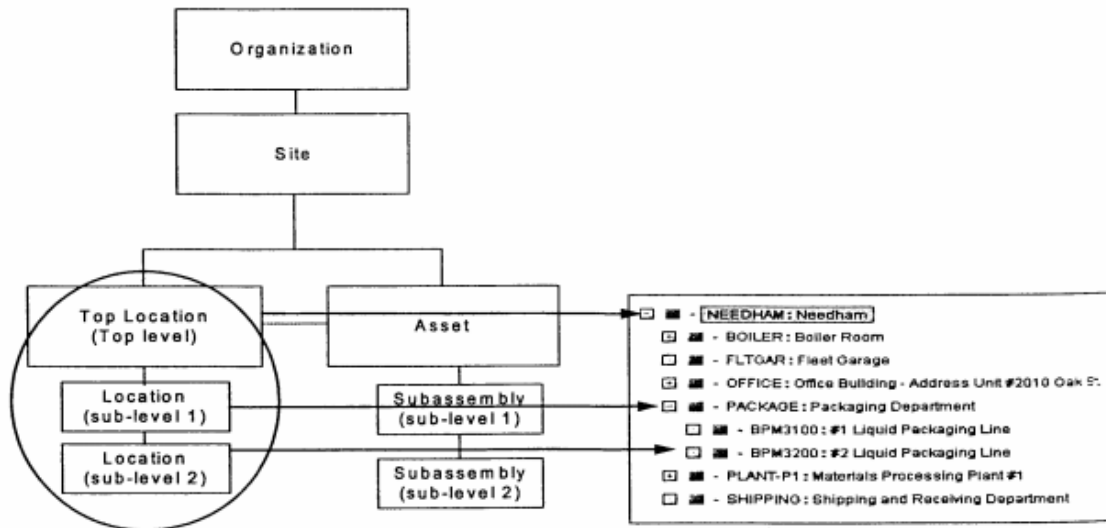
Location hierarchies let you group assets and locations into areas of responsibilities. A location hierarchy can be designed to include all location. in your plant against which work orders are written, and can track the movement of assets into and out of locations. Maximo identifies location hierarchies as systems.

### Chapter 3: Locations

#### 4. Location hierarchies as a system:



#### 5. Location and Asset relation (parent-child design):



System In Maximo, a system is an identifier or reference consisting of locations

Definition associated with a particular focus or responsibility. In most cases, a system functions to identify location hierarchies or location networks.

- Location hierarchies have a parent-child branching relationship.

Implementation Tip

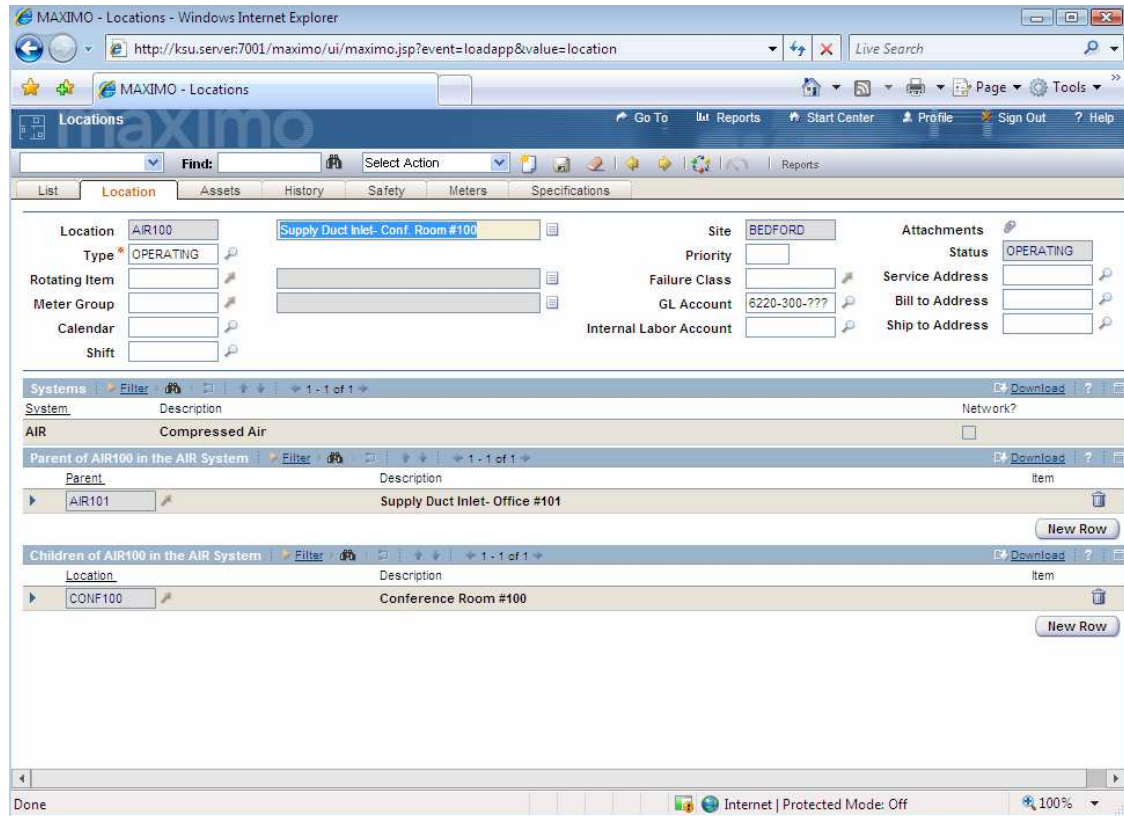
- Location networks can have multiple parents and have no defined branching relationships.



### Chapter 3: Locations

The Locations application lets you enter and maintain operating location w assets and organize these locations into a logical hierarchy. The Location application screen contains multiple pages designated by tabs, and is access^ from the Assets module in the Start Center.

Menu	Function
List	Enter and save searches.
Location	Enter or view detailed information specific to a location. The only required fields on this page are Location and Type.
Assets	Display the assets, if any, at the selected location.
History	Display the history of the asset's movement transactions into and out of the location.
Safety	View, add, or delete safety records associated with the selected location.
Meters	View, add, or modify meter records associated with a location.
Specifications	Enter or view specifications for the location as recorded in the Classifications application.



### Chapter 3: Locations

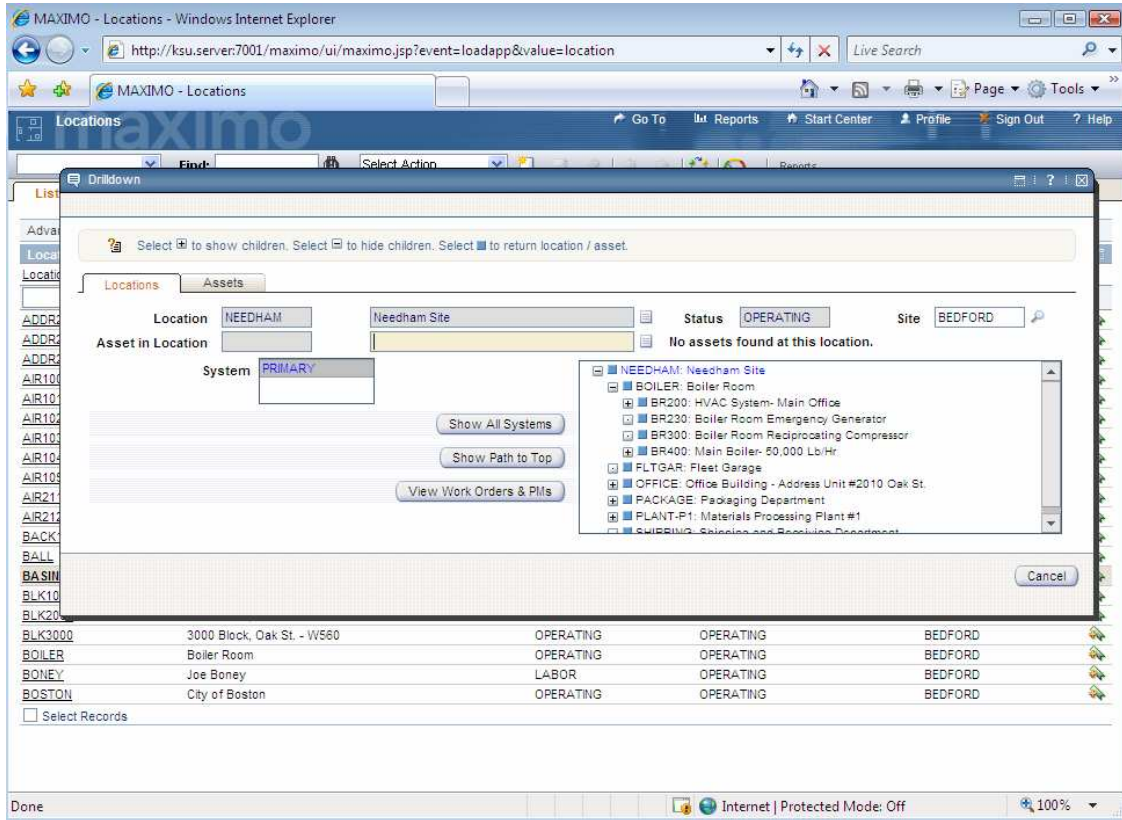
#### 6. Location Type:

Location Type	Description
Courier	Used to track assets that a courier is holding until they are received into another location.
Holding	Generally used to identify areas where assets are temporarily stored prior to tracking procedures such as serialization and inspection.
Labor	<i>Associated</i> as location records so that you can track assets and inventory issued to specific individuals, such as: <ul style="list-style-type: none"><li>• Expensive tools</li><li>• Safety gear</li></ul>
Operating	Generally used to identify the physical spaces where your assets operate.
Repair	Used to track assets when they have been removed from an operating location for repair.
Salvage	Used to track assets as they move to a salvage location.
Vendor	Used to track assets as they move to a vendor location.

### Chapter 3: Locations

#### 7. Drill Down Menu from “Select Action”:

The function of drill down menu is to show the hierarchy tree of the available locations.



## Chapter 3: Locations

### 8. Location Module main screen:

The screenshot shows the MAXIMO web application interface in Internet Explorer. The browser address bar displays the URL: `http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=location`. The page title is "MAXIMO - Locations".

The main content area is divided into several sections:

- Location Details:** A form with fields for Location (ADDR2001), Address Unit (#2001 Oak St. - W560), Site (BEDFORD), Type (OPERATING), Rotating Item, Meter Group, Calendar (DAY), Shift (DAY), Priority, Failure Class, GL Account (6290-300-??), Internal Labor Account, Attachments, Status (OPERATING), Service Address (LAREDO), Bill to Address (NASHUA), and Ship to Address (TEXAS).
- Systems:** A table with columns "System", "Description", and "Network?". It lists "GEO" (Geographical System) and "SANTARY" (Sanitary System).
- Parent of ADDR2001 in the GEO System:** A table with columns "Parent", "Description", and "Item". It lists "BLK2000" (2000 Block, Oak St. - W560).
- Children of ADDR2001 in the GEO System:** A table with columns "Location", "Description", and "Item". It shows "...No rows to display...".

The browser's status bar at the bottom indicates "Done" and "Internet | Protected Mode: Off".

## **Chapter 4: Person, Craft, and Labor**

### **1. Introduction**

Maximo helps you manage person records in your organization with the People, Crafts and Labor.

**In this module, the main goals are:**

1. to enter person record (data)
2. to enter labor
3. to enter Craft (the skill level of the labor, ex: trainee, apprentice, experts, etc)

### **2. Definitions**

The following terms are used in Maximo to manage person records:

- **People** - In Maximo, you use the People application to contain person records of all people associated with Maximo as users or labor or groups who might be involved in other ways, such as part of a work or owner group.
- **Labor** - Labor in Maximo is any employee or contractor specified on records and transactions in any of the work-related Maximo applications, such as work orders. Labor is identified by labor codes.
- **Person groups** - These consist of two or more persons who can be designated as a single entity on work orders as a work group or owner group, or on tickets as an owner group. The individuals in the group might or might not be users or labor.

**Labor and Users Are Persons**

- **Users** - A Maximo user is anyone who signs in to Maximo. Some people might only view information in Maximo, but they are still users. Users are identified by user names.

**Note: All labor and Maximo users must be associated with a person record.**

Person records are maintained using the People application in the Resources module.

**Chapter 4: Person, Craft, and Labor**

Every person who has a relationship with Maximo is entered as a person record using the People application. These relationships include:

- Labor personnel
- Users of Maximo
- Primary owners of assets
- Custodians of assets
- Users of assets (as opposed to Maximo users)
- Vendor contacts

**3. Performance metric for Labor and Craft (KPI):**

Metric Title	Metric Description
% Overtime of total hours worked	What percentage of all hours worked is overtime
Ratio of supervisors to craft persons	Number of supervisors divided by the number of craft persons
Ratio of planners to craft persons	Number of planners divided by the number of craft persons
Ratio of hourly maintenance personnel to overhead personnel	Number of hourly maintenance personnel divided by the number of overhead personnel
% Labor Cost Captured on Work Orders	What percentage of labor cost is captured on work orders
% Self Performed and Contract Maintenance Labor for: <ul style="list-style-type: none"> <li>• Total Asset Management Costs</li> <li>• Total Operational Labor Costs</li> <li>• Plant or Maintenance Engineering costs</li> </ul>	What is the percentage of internal and contract against different cost areas: Maintenance, Operational, Plant Engineering
Straight time and Overtime Labor costs per: <ul style="list-style-type: none"> <li>• Asset criticality classification</li> <li>• Specific Asset</li> <li>• Specific department or location .</li> </ul> Work type (PdM, PM, CM, Standing Work Order, etc)	What are the labor costs for straight time and overtime against critical assets, critical locations, and work types

## Chapter 4: Person, Craft, and Labor

<p>Self Performed versus Contract Labor Cost per:</p> <ul style="list-style-type: none"> <li>• Asset criticality classification</li> <li>• Specific Asset</li> <li>• Specific department or location</li> <li>• Work type (PdM, PM, CM, Standing Work Order, etc)</li> </ul>	<p>What are the labor costs for self-performed versus Contract Labor against critical assets, critical locations, and work types</p>
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### 4. Screen of people application:

The screenshot displays the MAXIMO People application interface in a Windows Internet Explorer browser. The page title is "MAXIMO - People". The browser address bar shows the URL: `http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=person`. The page content is organized into several sections:

- Person Information:** Includes fields for Person (BETHUNE), First Name (Base), Last Name (Kharobi), Display Name (Base Kharobi), Primary Phone (781-335-9667), and Primary E-mail (dave.bethune@mro.com).
- Address:** Includes fields for Address (22 Chieftain Cres.), City (Boston), State/Province (MA), ZIP/Postal Code (02130), and Country (USA).
- Attachments:** Includes fields for Status (ACTIVE), VIP, Calendar Organization, Primary Calendar, and Primary Shift.
- Employee Information:** Includes fields for Title, Job Code, Department, Employee Type, Supervisor, Person's Site, and Person's Location.
- Workplace Information:** Includes fields for Ship to Address, Drop Point, Bill to Address, Language (EN), Locale, and Time Zone.
- Workflow and Work Order:** Includes a checkbox for "Default Location to Service Request?" (checked), "Default WO Priority", "Notice of E-commerce Exceptions" (NEVER), "Workflow E-mail Notification" (PROCESS), "Workflow Delegate", "Delegate From", and "Delegate To".
- Dates:** Includes fields for Date of Birth, Hire Date, Termination Date, Next Evaluation, and Last Evaluation.
- Procurement Card:** Includes fields for Card #, Card Type, Verification Value, and Expiration Date.

## 5. The Crafts and Labor Applications

### a. Introduction

The Crafts and Labor applications are useful not only for labor tracking and analysis, but also for recovering labor costs associated with assets or parts under warranty.

## ***Chapter 4: Person, Craft, and Labor***

Crafts are used to identify the skill levels, standard rates, and premium pay codes for crafts for forecasting budget requirements. With crafts in place, you can create job plans and identify the skill type required for each task. This will help you in planning, scheduling, and assigning work.

Maximo allows a more granular approach to using crafts. You can define levels, and these levels can be applied to crafts.

Example: You need an electrician for a work order, but you don't need the top person—you just want a "newbie" to do some basic work. So, you look for an apprentice.

### **b. The benefits of this approach are as follows:**

- This functionality allows work orders and other types of records to call for more specific skills.
- It allows Maximo to track the various costs of crafts at different levels.
- With an accurately designed implementation, there would be no need to adjust rates when recording actuals.
- The right craft could be requested for the job, and the appropriate pay rate would automatically be in the cost structure.
- With the ability to ask for specific levels of crafts, you can avoid having the master electrician show up to do a simple job, thus more accurately controlling costs.



*Chapter 4: Person, Craft, and Labor*

Craft Tab Sections	Description
Skill Levels	Defines the skill levels available for this craft, along with associated costs. Note: The <b>Skill Level Rank</b> field is especially important because it allows the Assignment Manager application to choose skill levels at the desired rank and higher when finding labor for work.
Outside Rates	Describes the outside vendors who might also provide labor for this craft. It shows the vendors, craft levels, and contract numbers, where applicable.
Premium Pay	Shows the premium pay categories available for this craft. Existing premium categories can be added by clicking <b>New Row</b> . New categories can be added by choosing <b>Manage Premium Pay Codes</b> from the Select Action menu, then adding the new code to the craft record.

## Chapter 4: Person, Craft, and Labor

### c. Labor and Craft screen:

MAXIMO - Crafts - Windows Internet Explorer

http://ksu.server7001/maximo/ui/maximo.jsp?event=loadapp&value=craft

MAXIMO - Crafts

Go To | Reports | Start Center | Profile | Sign Out | Help

Find:  Select Action

List | Craft | Associated Labor

Craft: ELECT |  | Organization: EAGLENA | Standard Rate: 17.00 | Attachments

Skill Levels | Filter:  | 1 - 2 of 3 | Download

A lower numeric value for Rank indicates a higher Skill Level.

Skill Level	Description	Skill Level Rank	Standard Rate
▶ APPRENTICE	Electrician Apprentice	5	16.00
▶ FIRSTCLASS	Electrician - 1st Class	1	22.00
▶ SECONDCLASS	Electrician - 2nd Class	3	19.00

New Row

Outside Rates | Filter:  | 1 - 6 of 10 | Download

Skill Level	Vendor	Description	Contract	Revision	Status	Start Date	End Date	Standard Rate
▶ APPRENTICE	CMC	Changeover Management Company	1022	0	APPR	1/1/05	12/31/07	20.00
▶ APPRENTICE	EMI	Emergency Maintenance Inc.						30.00
▶ APPRENTICE	EMI	Emergency Maintenance Inc.	1008	0	APPR	1/1/04	12/31/04	22.00
▶ FIRSTCLASS	CMC	Changeover Management Company						33.00
▶ FIRSTCLASS	CMC	Changeover Management Company	1009	1	APPR	6/1/04	12/31/05	27.50
▶ FIRSTCLASS	EMI	Emergency Maintenance Inc.						41.00

New Row

Premium Pay | Filter:  | 1 - 4 of 4 | Download

Premium Pay Code	Description	Rate	Rate Type	Inherit?
▶ OT1	Greater than 8 hours per shift	1.50	MULTIPLIER	<input type="checkbox"/>
▶ OT2	Greater than 40 hours per week	1.50	MULTIPLIER	<input checked="" type="checkbox"/>
▶ OT3	Sunday hours	2.00	MULTIPLIER	<input checked="" type="checkbox"/>
▶ OT4	Holiday Hours	3.00	MULTIPLIER	<input checked="" type="checkbox"/>

New Row

Done

Internet | Protected Mode: Off | 100%

## **Chapter 5: Inventory Items (Spare Parts)**

Tracking inventory use and stocking levels can help your organization reduce costs.

Inventory items entered in Maximo can be tracked as they are received in the storeroom and as they are issued. Items can be automatically reordered, reducing "stock outs" for the storeroom. All inventory items are recorded for later usage detail. This should lead to improved purchase planning, allowing organizations to see reductions in wasted inventory levels.

When you have completed this chapter, you should be able to:

- discuss key performance indicator (KPI) inventory management,
- enter parts and inventory records,
- add alternate vendors,
- set up rotating items,
- describe the item kits and condition codes functions of the inventory applications
- discuss the relationship between the Inventory and Assets applications.

### **1. Key definitions in this module:**

Key Term	Definition
Item	The basic non-serialized unit for things/parts that are kept in inventory.
Item record	A record for an inventory item that does not include the location.
Item/location record	A record for an item at a storeroom location.
Rotating item	An inventory item, with a generic item number and a current balance (which can be greater than one), multiple instances of which can be used in multiple locations.
Rotating assets	An individual instance of a rotating item, identified by an individual asset number.
Alternate items	Items/parts that can be used interchangeably with other inventory items.

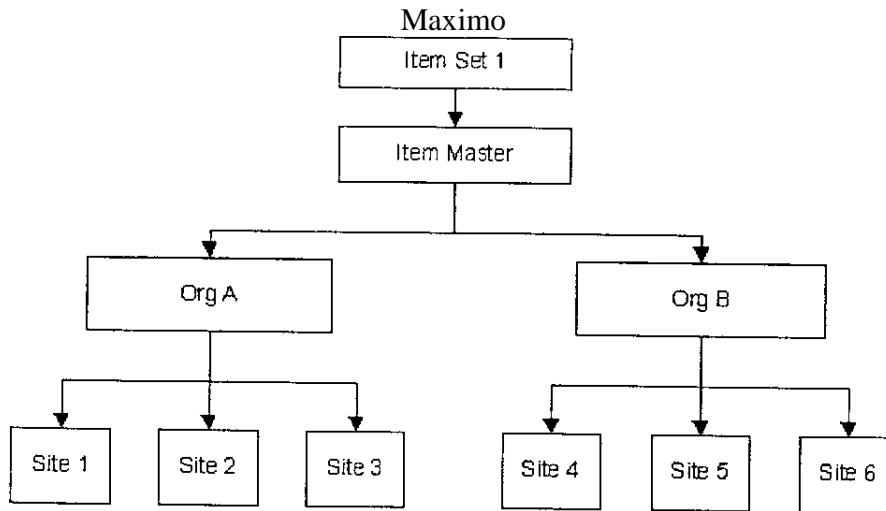
**Chapter 5: Inventory Items (Spare Parts)**

**2. Some Inventory KPIs to consider for your implementation are as follows:**

<b>Metric Title</b>	<b>Metric Description</b>
% Inactive stock items	Percentage of all stock items that have had no activity in the past 12 months.
% Controlled maintenance spares	Percentage of all parts used by maintenance that are in controlled warehouses.
% Items filled on demand	Number of items issued on demand divided by all items issued.
% Total orders filled on demand	Number of orders issued on demand divided by all orders filled.
Total inventory value	Total dollar value of all inventory items in stock.
% Annual stores investment used	Percentage of the inventory value that is used annually.
Inventory turn ratio	The value of total orders for inventory items annually, divided by the total value of inventory.
% Non-critical spares as a % of total inventory value	Percentage of all inventory items that are considered non-critical to the operation.
% Non-critical spares as a % of total inventory value	Percentage of all inventory items that are considered non-critical to the operation.
% Critical spares as a % of total inventory value	Percentage of all inventory items that are considered critical to the operation.
% Storeroom inventory value to total maintenance costs	Inventory value divided by total maintenance costs.
Total inventory value as a % of sales	Inventory value divided by total sales generate annually.
Total value of obsolete parts	Total value of obsolete parts.

*Chapter 5: Inventory Items (Spare Parts)*

**3. Item Set:**



There are three categories of inventory items in Maximo: stocked, non- Stocked, andstocked, and special order items.

Category	Description
Stocked Items	Items that you always need to have on hand because they have a regular turnover rate and are frequently needed. Stocked items have reorder criteria specific to each storeroom location.
Non-stocked Items	Items you need only occasionally and do not want to maintain in inventory throughout the year. Non-stocked items are not automatically reordered. However, you do want to keep records for non-stocked items in the database because you are likely to order these items again at some point.
Special Order Items	Typically items that are ordered only once, often for unexpected needs or for a one-time work order. These items are not kept in stock, and you do not need a permanent record of them in your database.

Maximo uses condition codes to enable you to represent a single item as existing in multiple conditions with corresponding condition values. For example:

- New
- Used
- Rebuilt

## ***Chapter 5: Inventory Items (Spare Parts)***

Condition codes are optional features of classifying inventory items as they are stocked in storerooms. In this course we will only be introducing the functions of the Condition Codes application. Consult your MRO instructor for more information.

### **4. Rotating Items (Equipment)**

#### **4.1 Introduction**

Your company might use interchangeable units of assets that are moved into and out of service as needed. These pieces of assets are often called rotating assets or rotating spares.

You can also set up items as rotating assets that are not necessarily moved into and out of service, such as a vehicle. These serialized assets (rotating assets) are typically high value and/or critical to your overall operations.

Identifying and tracking them allows you to monitor item performance, track the life-cycle costs, audit life-cycle movement, and analyze the impact of locations on the items.

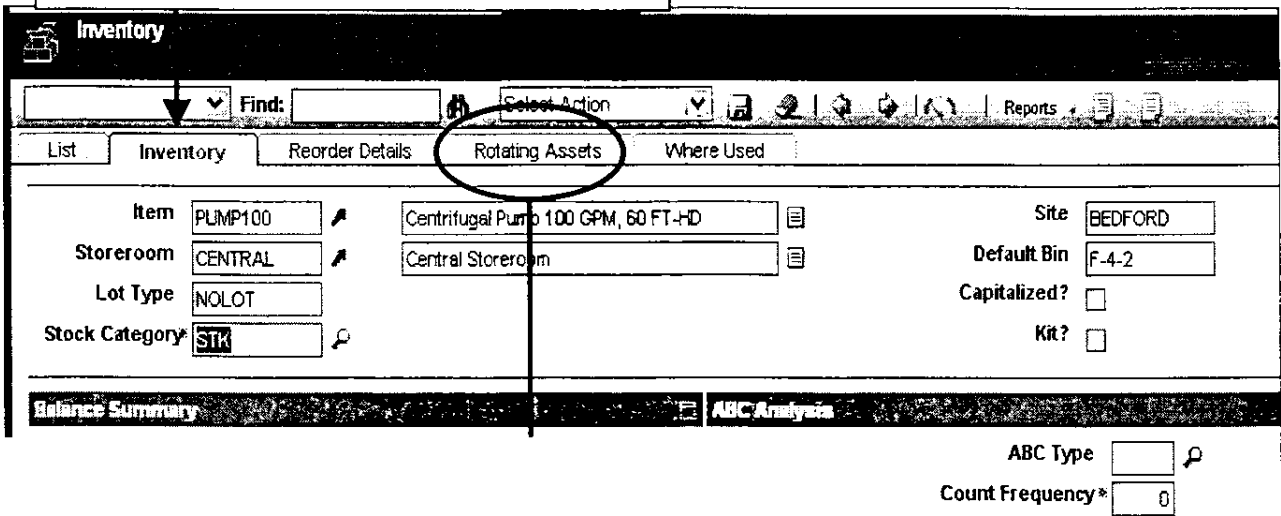
#### **4.2 Definitions Revisited**

A rotating item is an inventory item with a generic item number and a current balance (which can be greater than one). Multiple instances of rotating items can be used in multiple locations. For example, "450HPENG" is the generic item. A unit of rotating asset is an individual instance of a rotating item, identified by an individual asset number.

*Chapter 5: Inventory Items (Spare Parts)*

**5. Inventory module screen:**

In the **Inventory** application the rotating item is monitored on the **Inventory** tab and its rotating asset is tracked on the **Rotating Asset** tab.



Use this tab...	To...
List	Search for inventory records.
Inventory	Enter, display, and update inventory information. Alternate or interchangeable items can also be entered or viewed.
Reorder Details	Enter or view reorder details, such as: <ul style="list-style-type: none"> <li>• reorder point</li> <li>• lead time</li> <li>• issue units</li> </ul> In addition, you can enter or view information about one or more vendors for an item, as well as information about multiple manufacturers or models for each vendor.
Rotating Assets	Identify and track rotating assets—interchangeable pieces of assets that can be identified with a single item number.
Where Used	List all units of assets on which an item is listed as a subassembly or spare part.

## ***Chapter 5: Inventory Items (Spare Parts)***

### **6. Reordering:**

Setting up and using reorder in Maximo reduces "stock outs" and also allows for improved purchase planning. Organizations can realize a 5% to 10% or higher reduction in inventory levels.

Example:

Satellite stores reordering from the Primary - hub storeroom will allow you to consolidate purchasing.

Depending on your business and how you keep inventory, you can use the Maximo reorder routine regularly to reorder inventory items. In Maximo, there are two actions that allow you to reorder items:

- Reorder Items
- Reorder for Direct Issue Items



## Chapter 6: Assets

### 1. Term:

#### 1. Non-Rotating Asset.

Assets for which you want to keep a repair history, but that will not be stored in inventory.

#### 2. Rotating Item/Rotating Asset.

Assets that are interchangeable, such as motors, pumps, fire extinguishers, or PC monitors. Rotating assets have both a unique asset number and an inventory item number. The item number lets you track assets as a group as they are moved into and out of inventory and other types of locations. Each piece will have the same item number and a different asset number.

For example, a company might have five similar centrifugal pumps in that all five are the same make and model. Therefore, they all have the same item number. However, each pump is a unique unit of asset with its own history of use and repair. Therefore, each pump has its own unique asset number, which enables you to track maintenance and related costs.

#### 3. Items.

Generic identifications of assets or spare parts. IT establishes the attributes of the rotating asset (asset) associated with it.

#### 4. Locations.

Functional identifications where assets can reside.

### 2. Performance Matrix (KPI):

Metric Title	Metric Description
% Total downtime	Percentage of the total operating hours resulting in downtime for all causes.
% Maintenance downtime	Percentage of the total operating hours resulting in downtime for maintenance reasons.

**Chapter 6: Assets**

% Planned/Scheduled downtime	Percentage of downtime that was planned or scheduled.
% Unscheduled downtime—mechanical	Percentage of unscheduled downtime that was for mechanical problems.
% Downtime caused by breakdowns	Percentage of downtime that was caused by breakdowns.
Direct costs of breakdown repairs	Direct costs for repairs of breakdowns.
% of breakdowns preventable	Percentage of breakdowns that were preventable.
% Asset uptime	Percentage of time the asset was up, ready to run.
% Time assets are utilized	Percentage of time that assets were utilized.
Asset availability	Asset run hours budgeted minus breakdown and overhaul hours divided by budgeted hours.
Mean Time Between Failure (MTBF)	A measure of the typical duration between any failures for a critical asset (breakdown).
Mean Time Between Repair (MTTR)	A measure of the average time it takes to correct failure on an asset.
% Root cause failure analysis performed	Percentage of asset failures that root cause failure analysis is performed per year.
Mean time between stops (MTBS)	Average time between stops for production.
% Repetitive asset failures	Percentage of asset failures that are repeat failures.
% Critical asset design studied	Percentage of critical asset design that has been studied for possible improvement in performance.

**3. Reports for Assets (Common):**

Report	Description
Details of an Asset's Failures	Summarizes the failures, by problem code, for an asset between the specified dates. Links are available to view these failures graphically. Problem codes are linked to the Drilldown into Asset's Failures report.
Drilldown into Asset's Failures	Displays problem causes and remedies for the selected problem code.

**Chapter 6: Assets**

Asset Cost Rollup	Displays an update of an asset's year-to-date and total costs. The list includes the option to update the database with the new asset cost values.
Summary of Asset Failures by Location	Displays the total number of failures reported against the selected assets during the specified time period.
Asset Measurement History	Displays meter readings and results for specified action/warning limits. Also accounts for characteristic meter readings. Counts for over specified time frame. Depending on meter type, a line or scatter graph is displayed.

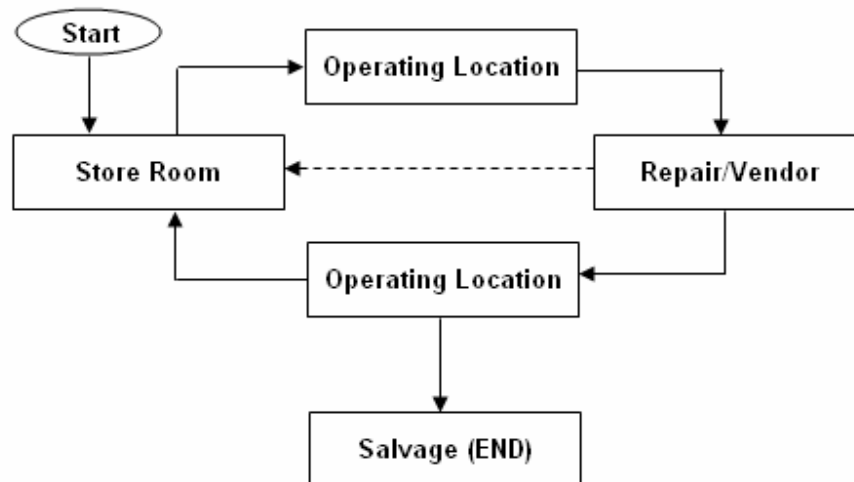
In MAXIMO, Asset can be divided into two groups:

1. Rotating Asset

Might start its lifecycle as a stocked item in a storeroom, to be issued and transferred.

Rotating asset can be tracked in inventory.

**4. Rotating asset scheme:**

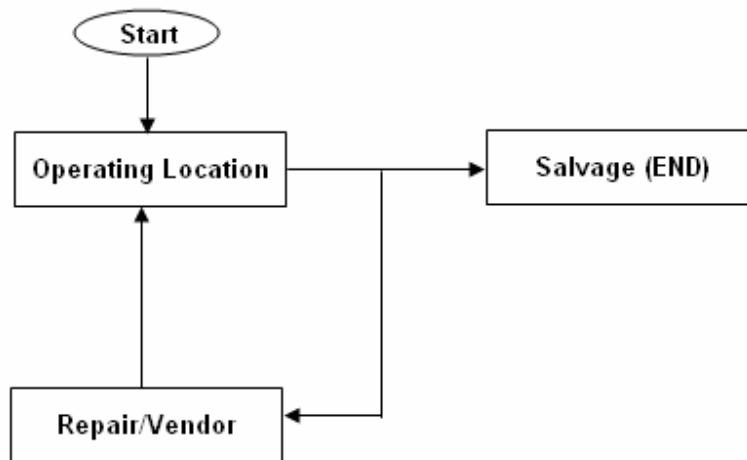


2. Non-Rotating Asset

Start its lifecycle at a location. Non-rotating assets do not move into and out of storerooms and are not tracked in inventory.

## Chapter 6: Assets

### 5. Non-Rotating asset scheme:



The Assets application enables you to keep and update the records of all of your assets and operating locations. Use the Assets application to add new assets to the database and define relationships among these assets.

### Asset Screen:

The screenshot shows the Maximo Asset Screen for asset 26020. The interface includes a search bar, navigation tabs (List, Asset, Spare Parts, Safety, Meters, Specifications), and a main content area with several sections:

- Asset Details:** Asset ID 26020, Status NOT READY, Site BEDFORD, Type [blank].
- Details:** Parent 26000 (Motor Controlled Valve), Location MTP100 (Materials Transfer Pipe), Rotating Item MOTR-24 (24 Volt-DC Motor), Serial # 781-76.
- Purchase Information:** Vendor WES (Westinghouse Electric Corporation), Manufacturer WES (Westinghouse Electric Corporation), Purchase Price 185.00, Replacement Cost 195.00.
- Costs:** Total Cost 0.00, YTD Cost 0.00, Budgeted 0.00, Inventory 0.00.
- Downtime:** Asset Up? , Last Changed Date 4/20/00 3:44 PM, Total Downtime 0.00.
- Modified:** Changed By G1, Changed Date 4/5/11 10:52 AM.

## **Chapter 6: Assets**

### **6. Asset Status:**

The Status field is used to indicate when an asset is:

- Not Ready - Default status for new asset records. Asset records can be created before assets have been received, installed, configured, inspected, or otherwise approved for their intended use.
- Decommissioned - Asset has been retired from service and moved to scrap or salvage.
- Operating - Asset has been received, installed, configured, inspected, or otherwise approved for use or operation.

### **7. Spare Parts (in this case: Sub Assembly):**

In Maximo there are several ways to associate spare parts to an asset:

- Use the Item Assembly Structure application to build and apply spare parts to an asset or to an item. You can also apply an IAS at the time of receiving an asset or item.
- On the Assets application's Spare Parts tab, associate those items as spare parts to the selected piece of assets.
- In the Item Master application, select the Add Spare Parts option to indicate that the item will be added as a spare part for the assets when issued, if the item is not already a spare part.

### **8. Asset Type:**

Asset Category	Description
Production	Production assets are generally understood to be those involved in discrete or process manufacturing. This includes, for example, robots on the assembly line at an automobile plant, or the steppers used in computer chip manufacturing. However, the definition of production assets is considerably broader. In the utility industry, for example, production assets are turbines and compressors used for power generation; they also include the transmission and distribution assets that deliver output to end users. In the telecommunications industry, the antennas and microwave towers involved in producing and delivering output to customers are also production assets.

## Chapter 6: Assets

Facilities	Facilities assets include types of buildings, from corporate headquarters, casinos (e.g., MGM Grand), and museums (e.g., the Louvre), to stadiums, shipyards, and passenger terminals (e.g., Zurich Airport). Maintaining these facilities can involve mechanical, HVAC, and electrical systems, as well as landscaping and parking lots. There are also many specialized facilities, such as clean rooms, surgical theaters, laboratories, and satellite ground stations.
Fleet	Fleet assets are often over-the-road vehicles such as cars and trucks; however, this category also includes airborne fleets (aircraft), rolling stock (rail cars), and marine assets (passenger boats and ships). Companies might have mission-critical fleet assets around which the core of their business is built; for example, a commercial shipping company depends on its trucks and aircraft. Vehicles for a public transit organization like Long Island Railroad also fall into this first category. Additionally, companies might have enterprise fleet assets that are important to the overall function of an operation but do not directly generate revenue, such as employee shuttle buses, repair trucks, or forklifts.
IT	The operations of most companies today are critically dependent on the organization's IT infrastructure. On the hardware side this includes servers, desktops, laptops, cell phones, PDAs, hubs/routers, and telecom assets. Software is equally important in day-to-day operations, and ensuring software license compliance is an important part of IT asset management.

## **Chapter 7: Job Plans**

A job plan is a detailed description of labor, materials, services, and tools to be performed on a work asset. It shows quantities, descriptions, and costs of the inventory items, labor, and tools you indicate that you will need for the job. Job plans can be used with any type of work order; they are most often used with preventive maintenance (PM) work orders, but they can also be used for unscheduled work such as emergency recovery, planned outages, annual overhauls, and winterization.

### **1. Job Plans Performance Matrix (KPI):**

Metric Title	Metric Description j
% of Planned Maintenance Work	Percentage of work orders that were j planned.
Weekly Plan Attainment %	Measure of the successful completion of the maintenance plan on a weekly basis.
% Planned/Scheduled downtime	What percentage of asset downtime was planned or scheduled.
Unplanned %	The level of unplanned maintenance activities against available time.
% of Work Orders with Job plans	Percentage of work order that had job plans associated to it.
% of Work Orders with Work plans independent of Job Plans	Percentage of work orders with work orders independent of a job plan being associated to it.

A job plan is the heart of a proactive maintenance program. It represents the accumulated knowledge of the manufacturer, skilled mechanic, and engineer. It indicates what to do, what to use, what to look for, how to do it, and when to do it.

In Maximo, job plans are used as templates for work orders that have been associated to a record in the Preventive Maintenance, Condition Monitoring, and Routes applications, or associated to a work order in a Waiting for Approval (WAPPR) status.

Use job plans to:

## Chapter 7: Job Plans

- estimate the operations, materials, labor, and tools required for maintenance tasks before the work is requested; and
- establish a template for maintenance work that is repetitive (e.g., major overhaul, monthly preventive maintenance program work).

A work plan describes the labor, materials, tools, and tasks needed to complete a specific work order. The work order contains tasks for each operation in the work plan. When you generate a work order, Maximo copies an associated job plan to the work order as a work plan. This allows you the flexibility to modify tasks in a work plan without modifying the original job plan; these changes do not affect the original job plan.

### 2. Job Plan Main screen:

The screenshot displays the Maximo Job Plans main screen. The interface includes a search bar at the top, navigation tabs (List, Job Plan, Work Assets), and a main content area with sections for Details, Job Plan Tasks, and Planned Labor.

**Job Plan Details:**

- Job Plan: APPLREQ
- Application Request: Application Request
- Organization: [Blank]
- Site: [Blank]
- Attachments: [Blank]
- Status: ACTIVE
- Duration: 0:00
- WO Priority: 3
- Interruptible?:
- Supervisor: WATTERS
- Crew: CREW2
- Lead: [Blank]
- Work Group: ENG
- Owner: SHANEP
- Owner Group: [Blank]

**Job Plan Tasks:**

Sequence	Task	Description	Duration	Meter
1	10	Write Mini Spec	2:00	O-PRESSUR
2	20	Write Functional Requirements	4:00	
3	30	Design Technical Spec	8:00	
4	40	Develop Solution	24:00	

**Planned Labor:**

Task	Craft	Skill Level	Labor	Quantity	Hours	Rate	Line Cost
...No rows to display...							



## **Chapter 8: Work Order and Preventive Maintenance**

The Work Orders module is the core maintenance tool of Maximo. Work orders are used to carry out work on your assets and are created for many reasons, including:

- Preventive maintenance,
- Emergency maintenance and
- Corrective maintenance.

Before work orders can be associated with an asset, the status of the asset must be Operating.

### **1. Maximo uses asset meters to generate PM work orders as follows:**

- Using the **Condition Monitoring application**, where PMs are generated when the assets' acceptable upper and lower limit meter readings are reached.

Introduction

- Using the **Preventive Maintenance application, meter-based PM tab**, where PM frequencies are based on defined meter units used since the last work order was completed or targeted to start.

### **2. Meter Types**

Three types of meters can be created:

- Continuous meters are cumulative and tend to measure consumption or accumulation.

Example: Miles, flight hours

- Gauge meters show a range of values.

Example: Fuel level, temperature, pressure, noise level, oil level

- Characteristic meters are observational and have a list of possible values

Example: Oil color, flame color

Maximo uses asset meters as one criterion to generate PM work orders. PM

### ***Chapter 8: Work Order and Preventive Maintenance***

Associating Assets and frequency is based on elapsed time in days or in meter units used since the last work order was completed or targeted to start. The Meters tab lets you enter multiple meter readings per asset record.

#### **3. Work Order Performance Matrix (KPI):**

Metric Title	Metric Description
% Maintenance labor \$ captured on work orders	The percentage of completed work orders that have labor entered.
% Maintenance material \$ captured on work orders	The percentage of completed work orders that have material entered.
% Maintenance contract \$ captured on work orders	The percentage of completed work orders that have contract \$ entered.
% Maintenance downtime captured on work orders	The percentage of work orders that have downtime information recorded on them. This is only maintenance related and not total asset downtime.
% Maintenance labor captured on standing work orders	The percentage of labor \$ entered on standing work orders.
% Maintenance material captured on standing work orders	The percentage of maintenance material \$ entered on standing work orders.
% Maintenance work orders planned	The percentage of all work orders that are planned.
% Maintenance hours scheduled	The percentage of all labor hours that are scheduled.
% Maintenance hours scheduled that were completed	The percentage of scheduled hours that were completed as scheduled.
Estimated hours/actual hours on planned work	The estimated hours for all work orders divided by the actual hours for the same.
% Work orders completed within 20% of estimated labor	What percentage of work orders were completed within plus or minus 20% of the labor estimate.
% Work orders completed within 20% of estimated material \$	What percentage of work orders were completed within plus or minus 20% of the material estimate.
% Work orders waiting on parts	What percentage of work orders are waiting on parts.

### ***Chapter 8: Work Order and Preventive Maintenance***

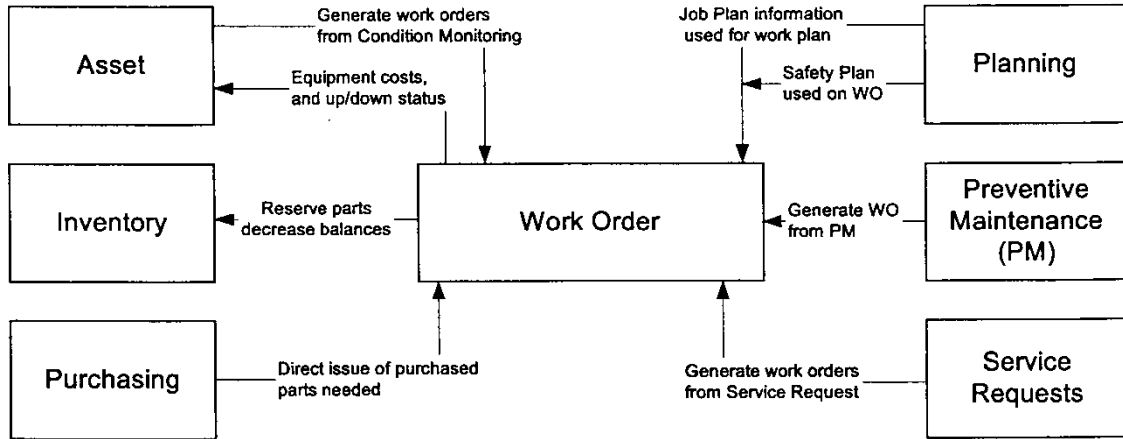
Outstanding work order backlog hours	What is the total remaining estimated hours for all work orders not yet completed or canceled.
Breakdown work orders during period	How many work orders were generated during the period for breakdowns.
% Emergency work labor hours	What percentage of all work orders were emergencies.
% Preventive work labor hours	What percentage of all work orders were PMs.
% Predictive work labor hours	What percentage of all work orders were predictive.
% Corrective work labor hours	What percentage of all work orders were corrective.
% Work orders overdue	What percentage of work orders were not completed by the due date.

#### **4. In Maximo, maintenance activities can be specified as different work types:**

- Corrective (CM): is repair work that can be planned and scheduled.
- Emergency (EM): is unplanned, unscheduled breakdown maintenance. EM also means Reactive Maintenance.
- Preventive (PM): is scheduled work (fully planned) that is based on either time or meter.
- Capital Project (CP): is fully planned scheduled project work.
- Event (EV): is an unscheduled event that stops work (production) but does not necessarily require a maintenance crew to fix.

*Chapter 8: Work Order and Preventive Maintenance*

**5. Work Order Module Relation:**



**6. Work Order Life Cycle:**

Stage	Description	Status
1	A work order is either manually or automatically generated. If manually generated, it will have a Waiting for Approval (WAPPR) status. If automatically generated, depending on how it is set up, the work order can have a status other than WAPPR. For example, you can set up the PM application to generate PM type work orders to have a Waiting to be Scheduled (WSCH) status. If emergency work is entered into the Quick Reporting application, the status is In-Progress (INPRG)	WAPPR WSCH INPRG
2	The planner reviews the work order. If applicable, depending on the type of work, the following can be attached or added to the work order: a job (work) plan, safety plan, or service contract. Upon an Approval (APPR) or Waiting to be Scheduled (WSCH) status, the Work Order materials and tools are reserved in inventory. If materials are not available, the work order status will be Waiting for Materials (WMATL). The work order is then scheduled, assigned, printed, and distributed to the staff	WMATL APPR WSCH
3	The supervisor or staff member initiates the work (INPRG). If necessary, the staff member goes to inventory and picks up needed parts and the physical work begins.	INPRG

**Chapter 8: Work Order and Preventive Maintenance**

4	<p>The work actuals (labor, materials, and tools) are entered into the system using either the Quick Reporting or Work Order Tracking application. If necessary, a follow-up work order is generated. Depending upon your business process, someone reviews the work and completes the work order ' (COMP) using either the Quick Reporting, Work Order Tracking, or Assignment Manager application. If necessary, issued but unused items are returned to inventory, and/or a follow-up work order is entered into the system. After all system data is entered, work order is closed (CLOSE) and stored in history.</p>	<p>COMP CLOSE</p>
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**7. Work Order Request (Service Request) Screen in MAXIMO:**

The screenshot displays the MAXIMO Service Requests interface. At the top, there is a navigation bar with options like 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below this is a search bar and a 'Select Action' dropdown. The main content area is divided into several sections:

- Service Request Summary:** Shows 'Service Request' 1001, 'Owner' CALDONE, 'Owner Group', 'Status' QUEUED, and 'Attachments'.
- User Information:** Contains two columns of fields. The left column is for the 'Reported By' (LIBERI, Diane Liberi, Phone: (617) 555-9087, E-mail: maximo57@hotmail.com). The right column is for the 'Affected Person' (LIBERI, Diane Liberi, Phone: (617) 555-9087, E-mail: maximo57@hotmail.com).
- Service Request Details:** Includes a 'Summary' (Request for OS upgrade to Windows XP), 'Details' (User is requesting an upgrade of her OS from Windows 2000 to Windows XP), 'Classification', 'Description', 'Reported Priority' (2), 'Internal Priority' (4), 'Service Group' (IT), 'Service' (PC), 'Vendor', 'Site' (BEDFORD), and 'SLA Applied?' (checkbox).
- Dates:** Features fields for 'Reported Date' (6/18/04 2:18 PM), 'Affected Date' (6/18/04 2:18 PM), 'Target Contact', 'Actual Contact', 'Target Start', 'Actual Start', 'Target Finish', and 'Actual Finish'. It also includes 'Is Global Issue?' (checkbox), 'Global Ticket', and 'Global Ticket Class'.
- Related Assets and Time Tracking:** At the bottom, there are sections for 'Related Assets' and 'Time Tracking', both showing '0 - 0 of 0' records.

*Chapter 8: Work Order and Preventive Maintenance*

**8. PREVENTIVE MAINTENANCE**

**8.1 Preventiv Maintenance (PM) Performance Matrix:**

Metric Title	Metric Description
% PM inspections overdue	What percentage of PMs was not completed b> the due date.
% PM inspections completed	What percentage of PMs was completed.
% PM inspections completed by due date	What percentage of PMs was compie&d by the due date.
% PM tasks audited annually	What percentage of PMs is audited! aMiuually.
% Corrective work orders generated from PM inspections	What percentage of all corrective woiil orders is generated from PM inspections amnally.
Metric Title	Metric Description
% PM inspections overdue	What percentage of PMs was not completed b> the due date.
% PM inspections completed	What percentage of PMs was completed.
% PM inspections completed by due date	What percentage of PMs was completed by the due date.
% PM tasks audited annually	What percentage of PMs is audited!
% Corrective work orders generated from PM inspections	What percentage of all corrective work orders is generated from PM inspections annually.

In Maximo, a PM record specifies work to be performed regularly, based on elapsed time or on meter readings that indicate service hours or mileage. PM records are templates that contain job plans, routes, and scheduling information. You can generate work orders from single PMs or from PMs that you group into a hierarchy. A PM hierarchy models your asset hierarchy as you generate sequenced work order hierarchies.

PM Generation As we said earlier, PM work orders are triggered by one or more conditions:

- Time-based PMs are based on elapsed time since previous work. For example, every 6 months.

## Chapter 8: Work Order and Preventive Maintenance

- Meter-based PMs are based on meter readings off an asset record. For example, every 7,000 miles.
- Seasonal-based PMs are based on seasonality defined by a period of time. For example, December 1 - February 1.
- Combination-based PMs are based on time and meter readings. For example, every 3,000 miles or 3 months.

Note: If a PM is both time-based and meter-based and a generated work order overlaps the setup of either method, both the meter and the time frequency are re-set to avoid unnecessary extra PMs.

### 8.2 Master PM

- Master PM (preventive maintenance) records are PM templates containing scheduling information you copy to other PMs, identified as associated PMs. You cannot use master PMs to generate work orders, nor can you add them to PM hierarchies.
- Benefits of Master PM: Though master PMs cannot generate work orders, using the master PM Using Master PM enables you to create PM plans for rotating items.

### 8.3 Preventive Maintenance Screen in MAXIMO:

The screenshot displays the MAXIMO Preventive Maintenance (PM) screen. The interface includes a navigation bar at the top with options like 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below this is a search bar and a 'Select Action' dropdown. The main content area is divided into several sections:

- PM Details:** Shows the PM ID 'CIRCFNPM', Description 'Circulation Fan PM (20,000 CFM)', Site 'BEDFORD', and Status 'DRAFT'. It also includes a 'Master PM' field and an 'Override Updates from Master PM?' checkbox.
- Details:** Contains fields for Location, Asset (11210), Route, Lead Time (Days) (0), Counter (0), Lead Time Active? (checked), Use Job Plan Sequences?, and Has Children?.
- Work Order Information:** Includes Job Plan (JPCRCFN), Description (Circulation Fan Maintenance), Supervisor (MILLER), Work Type (PM), Last Start Date, Work Order Status (WSCH), Last Completion Date, Priority (2), Earliest Next Due Date, and an Interruptible? checkbox.
- Resource Information:** Shows GL Account, Storeroom, Storeroom Site (BEDFORD), and checkboxes for 'Use this PM to Trigger PM Hierarchy?' and 'Child Work Orders and Tasks Will Inherit Status Changes?'.

## Chapter 8: Work Order and Preventive Maintenance

### 8.4 Master PM Screen in MAXIMO:

The screenshot displays the MAXIMO Master PM screen. The interface includes a top navigation bar with options like 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below this is a search bar with a 'Find:' label and a 'Select Action' dropdown. The main content area is divided into several sections:

- Master PM:** A field containing the value '1001'.
- Item:** A field containing 'PUMP100' and a description field containing 'Centrifugal Pump 100 GPM, 60 FT-HD'.
- Item Set:** A field containing 'SET1'.
- Work Order Information:** A section containing fields for 'Work Type', 'Work Order Status' (set to 'WSCH'), 'Work Order Priority' (set to '0'), and 'Interruptible?' (checkbox).
- Lead Time:** A section containing fields for 'Lead Time (Days)' and 'Lead Time Active?' (checkbox).
- Attachments:** A link icon for attachments.

Checkboxes for 'Create Associated PMs for Item's Location?' and 'Create Associated PMs for Item's Asset?' are both checked.



## **PART 2**

### **Practice and Lab Session**

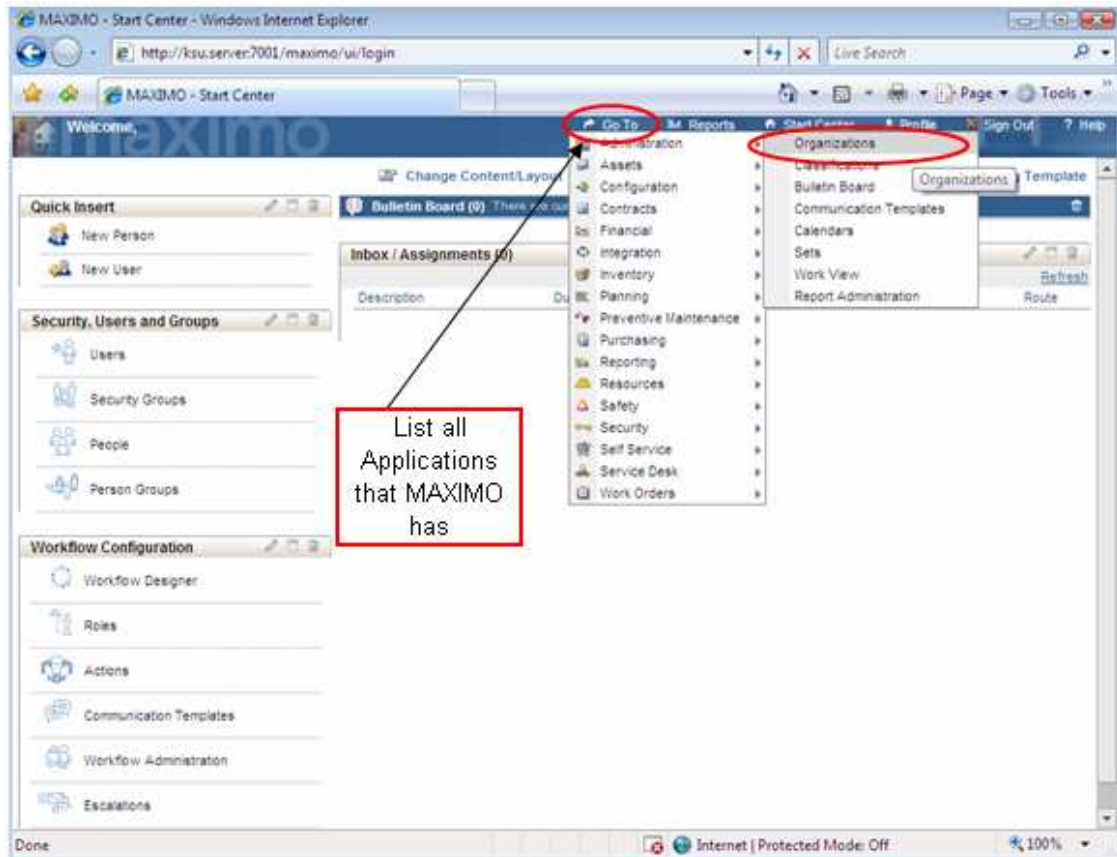


*Lab Session 1: Setting Up Organization and Sites*

## LAB SESSION 1: Setting Up Organization and Sites

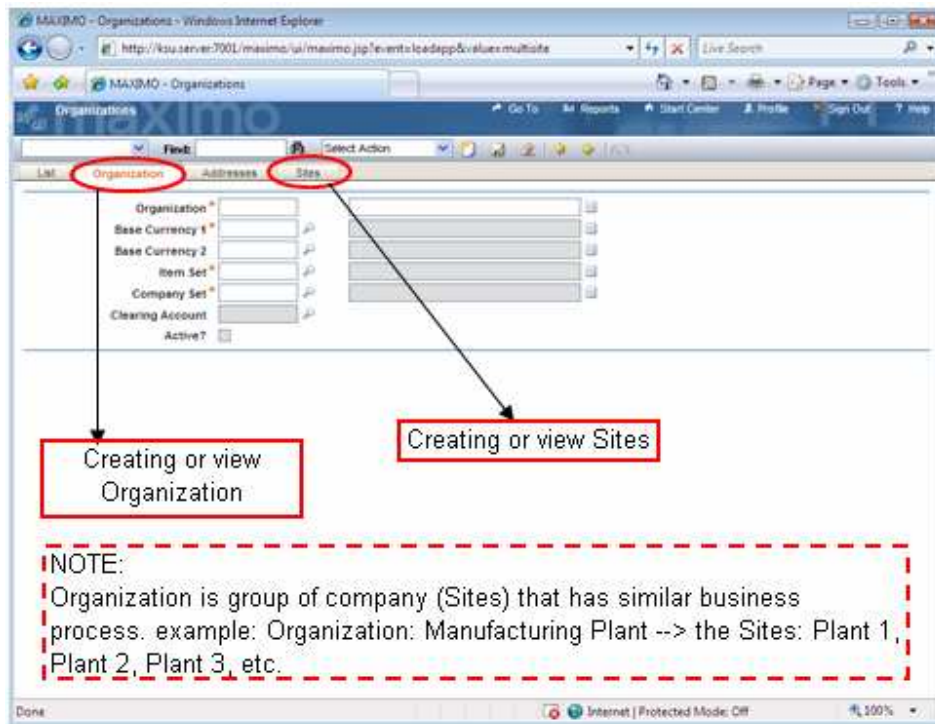
### Creating Organization and Sites in MAXIMO:

1. Goto Administration → Organizations.



Note: “Go to” menu list all applications that MAXIMO has. In each application, there are modules that we can use.

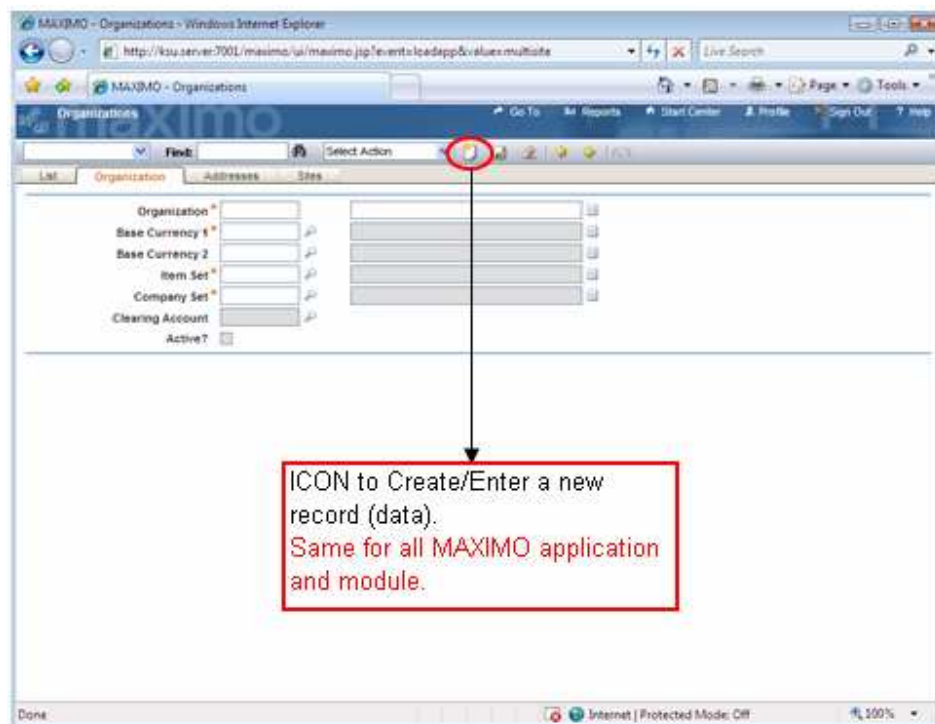
## Lab Session 1: Setting Up Organization and Sites



The screenshot shows the MAXIMO Organizations application interface. The 'Organization' and 'Sites' tabs are highlighted with red circles. Arrows point from these tabs to text boxes: 'Creating or view Organization' and 'Creating or view Sites'. A red dashed box contains a note explaining that an organization is a group of companies (sites) with similar business processes, with examples like 'Manufacturing Plant' and its sites 'Plant 1', 'Plant 2', and 'Plant 3'.

NOTE:  
Organization is group of company (Sites) that has similar business process. example: Organization: Manufacturing Plant --> the Sites: Plant 1, Plant 2, Plant 3, etc.

2. Click "New organization" -> a file Icon.

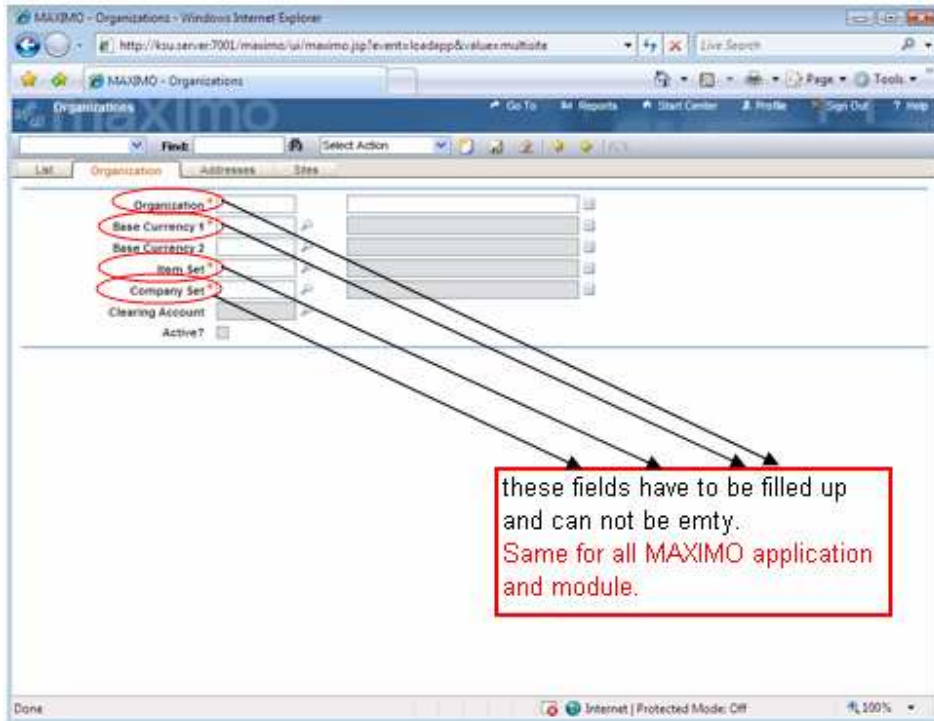


The screenshot shows the MAXIMO Organizations application interface. A red circle highlights the 'New organization' icon (a file icon) in the 'Select Action' menu. An arrow points from this icon to a text box explaining that it is the icon used to create or enter a new record (data) and is the same for all MAXIMO applications and modules.

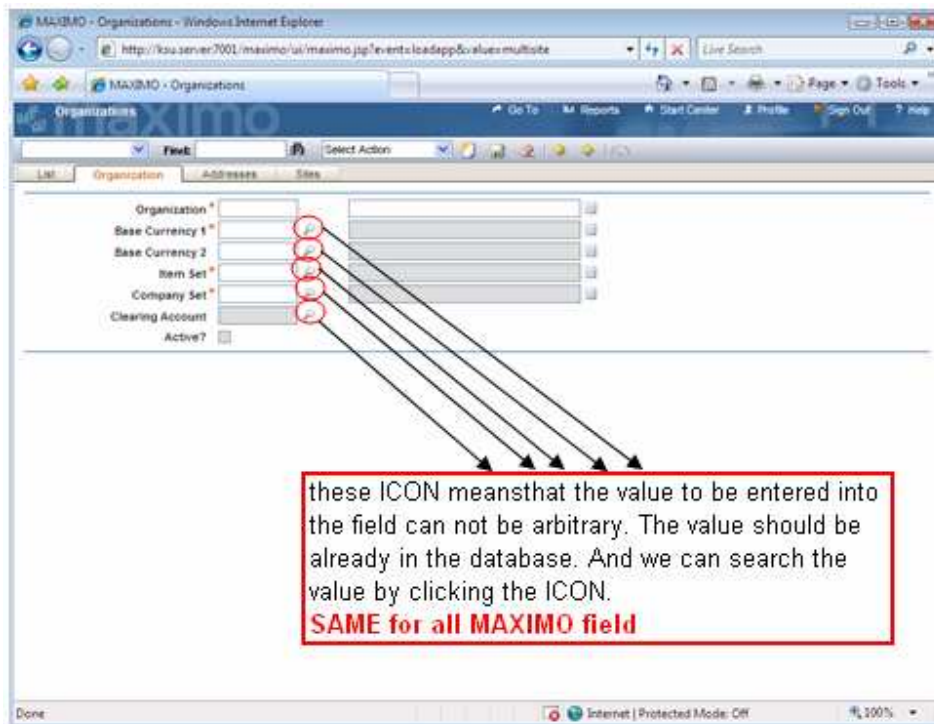
ICON to Create/Enter a new record (data).  
Same for all MAXIMO application and module.

## Lab Session 1: Setting Up Organization and Sites

In entering new record (data), some fields will have “red star” mark. It means that, that field should be filled up and can not be empty.

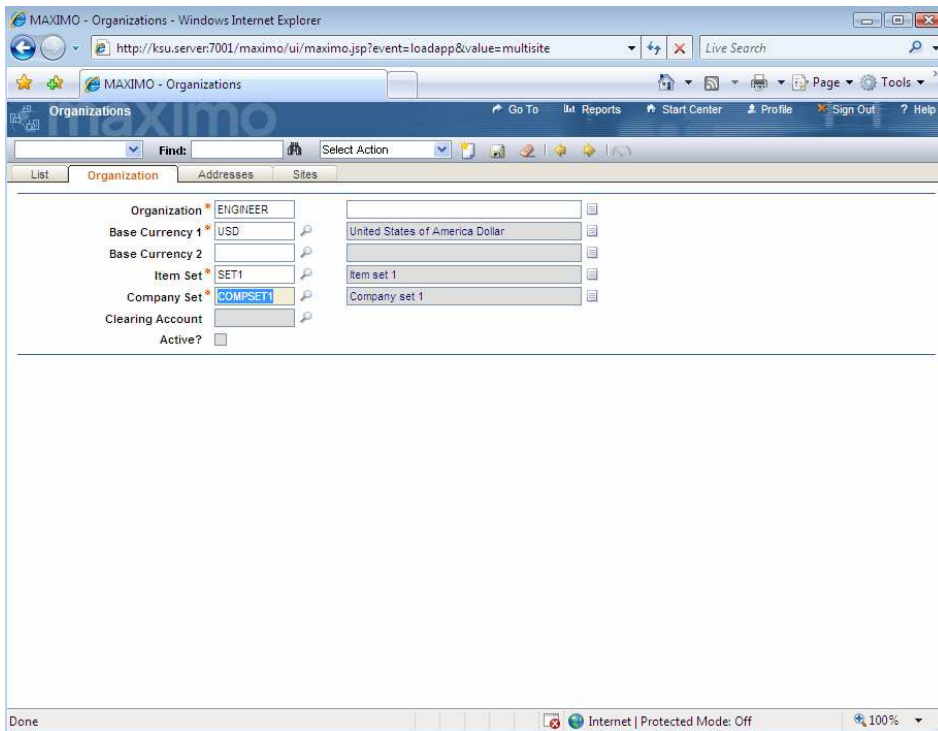


And

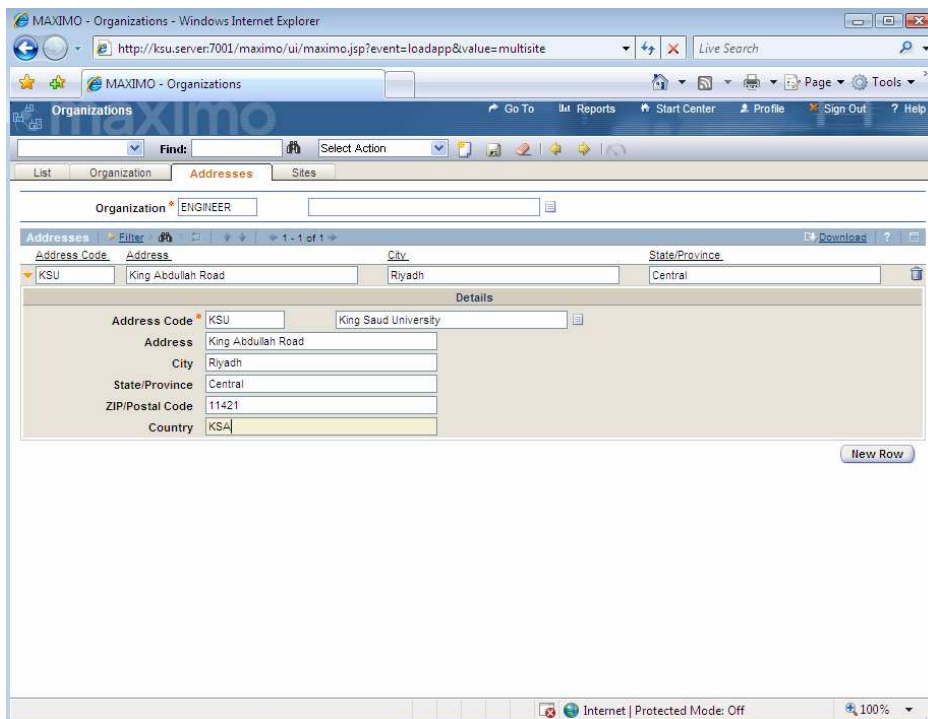


### Lab Session 1: Setting Up Organization and Sites

3. Input new data. The fields that have “red star” have to be filled up (compulsory).



4. Go to “Address” Tab. Click new row and filled up the address.



## Lab Session 1: Setting Up Organization and Sites

5. Go to Site tab. Click new row and enter its sites.

The screenshot shows the MAXIMO web application interface. The browser title is 'MAXIMO - Organizations - Windows Internet Explorer'. The address bar shows the URL: <http://kzu.server7001/maximo/ui/maximo.jsp?event=loadapp&value=multisite>. The page is titled 'MAXIMO - Organizations' and has a navigation bar with 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help' options. Below the navigation bar, there are tabs for 'List', 'Organization', 'Addresses', and 'Sites'. The 'Sites' tab is active, and the organization is set to 'ENGAEEER'. A table lists the sites:

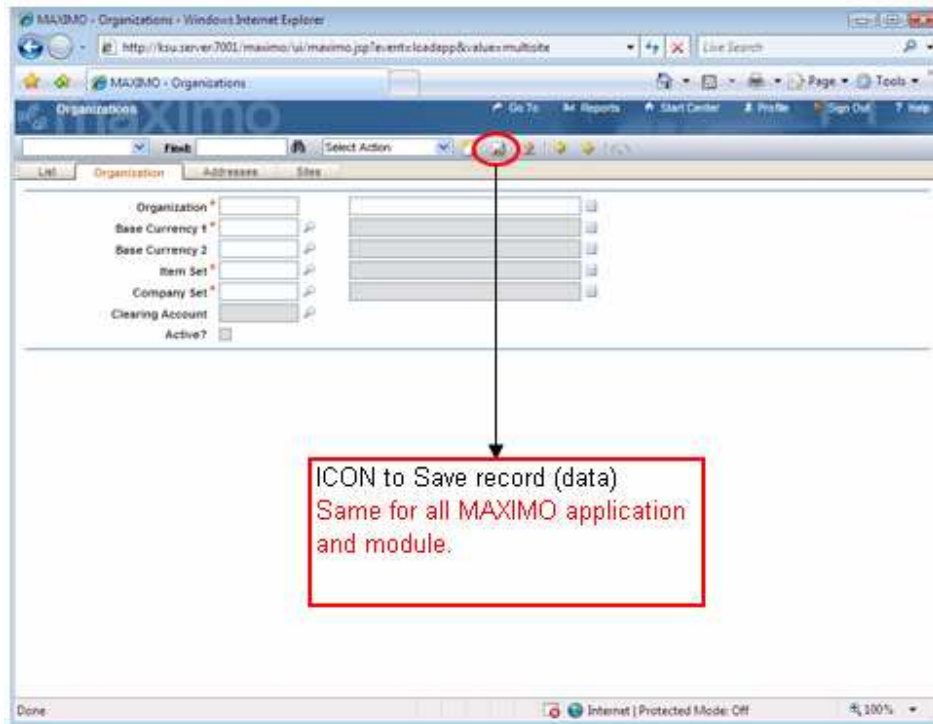
Site	Description	Ship To Address Code	Bill To Address Code	Active?
MECH	Mechanical Engineering			<input type="checkbox"/>
CHEM	Chemical Engineering			<input type="checkbox"/>
INDST	Industrial Engineering			<input type="checkbox"/>

Below the table, the details for the selected 'INDST' site are shown. The 'Site' field is 'INDST' and the 'Description' is 'Industrial Engineering'. There are fields for 'Ship to Contact', 'Ship to Address Code', 'Bill to Contact', 'Bill to Address Code', 'Site Contact', and 'Site Contact Group'. An 'Active?' checkbox is also present. A 'New Row' button is circled in red, and a red box with an arrow points to it with the text 'Click this ICON to enter new Sites record (data)'.

## Lab Session 1: Setting Up Organization and Sites

6. Save the record.

**Note: It is suggested that we save the record before moving to another tab event though we can do it later on after finishing all the data in some or all tabs.**



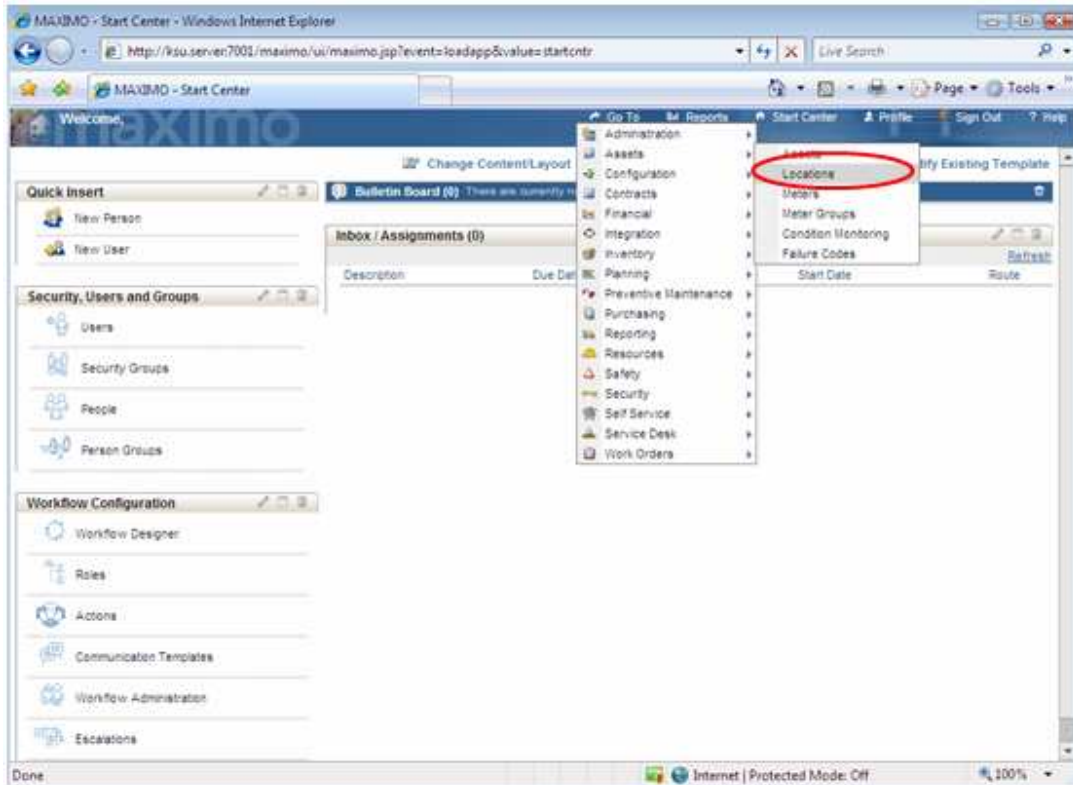


## Lab Session 2: Setting Up Locations

# LAB SESSION 2: Setting up Locations

### Creating Locations in MAXIMO:

1. Go to Asset → Location





## Lab Session 2: Setting Up Locations

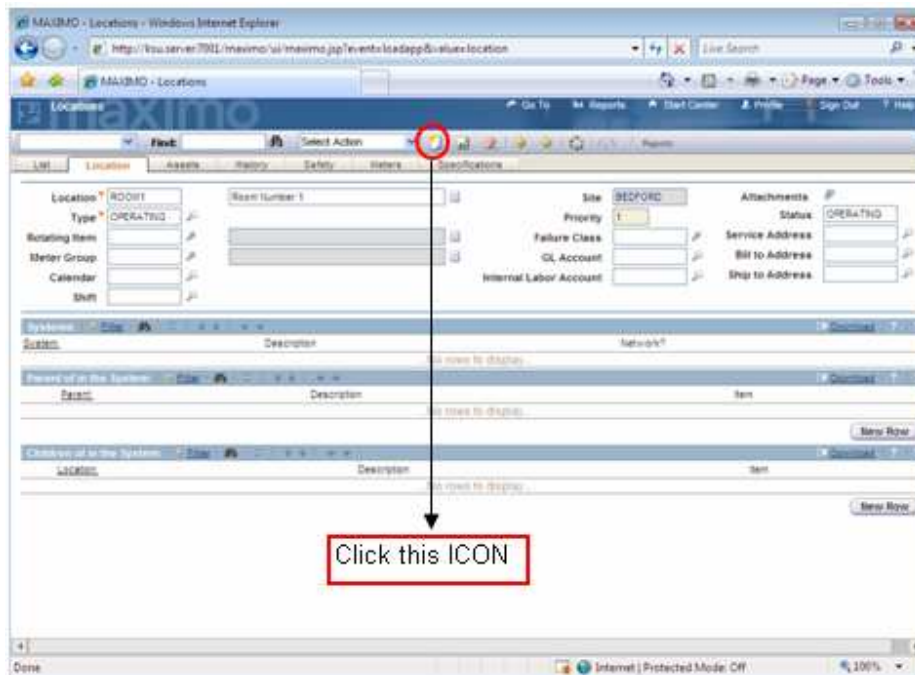
2. Click new record icon

The screenshot shows the MAXIMO web interface for setting up a location. The browser address bar shows the URL: <http://ksu.server2001/maximo/ui/maximo.jsp?event=loadapp&values=location>. The page title is "MAXIMO - Locations". The main content area is titled "Locations" and has a "Find:" search box and a "Select Action" dropdown. Below this are several tabs: "Location", "Assets", "History", "Safety", "Meters", and "Specifications". The "Location" tab is active, showing a form with fields for "Location \*", "Type \*", "Rotating Item", "Meter Group", "Calendar", and "Shift". To the right of these fields are fields for "Site" (BEDFORD), "Priority", "Failure Class", "GL Account", "Internal Labor Account", "Attachments", and "Status" (OPERATING). Below the form are three sections: "Systems", "Parent of in the System", and "Children of in the System". Each section has a table with columns for "System", "Description", and "Item". The "Systems" section has a "New Row" button. The "Parent of in the System" section has a "New Row" button. The "Children of in the System" section has a "New Row" button. A red dashed box highlights the "Systems" section and contains the text: "this section to set the system and Parent/child if any. NOTE: before setting parent/child, the location has to be associated first with a system".

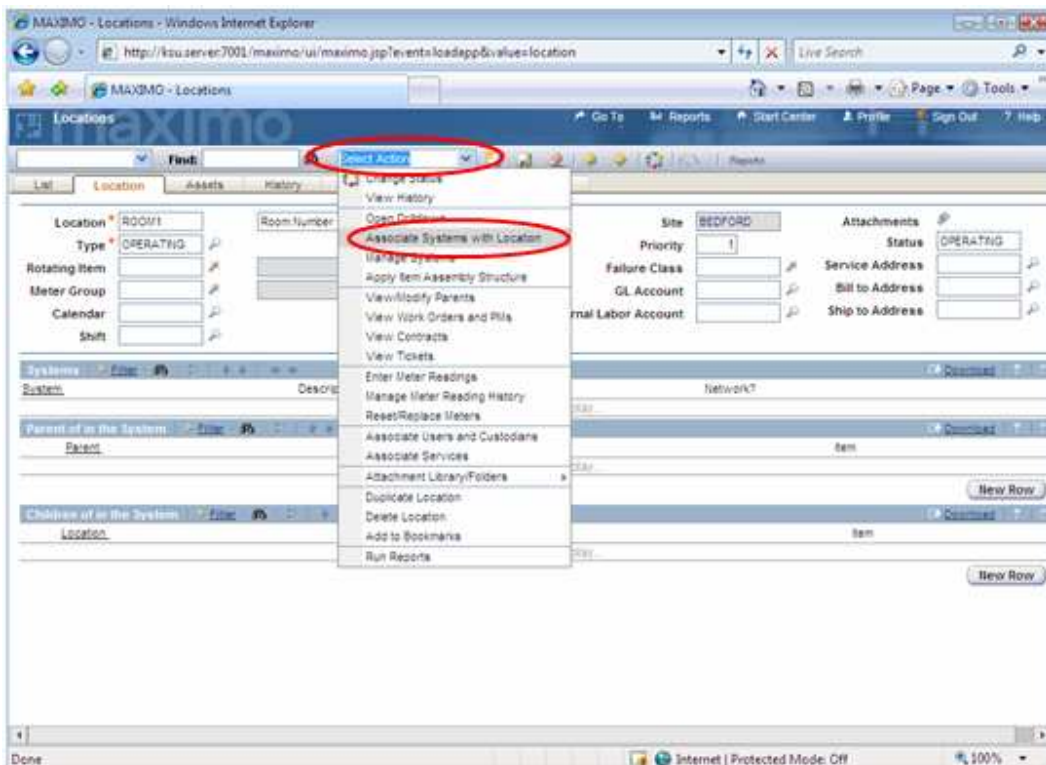
**Note:** for all MAXIMO field, the fields that are in Grey mean that we can not enter any value (the value is fixed by the system/filled up automatically by the system).

## Lab Session 2: Setting Up Locations

3. Enter the record data of the new location

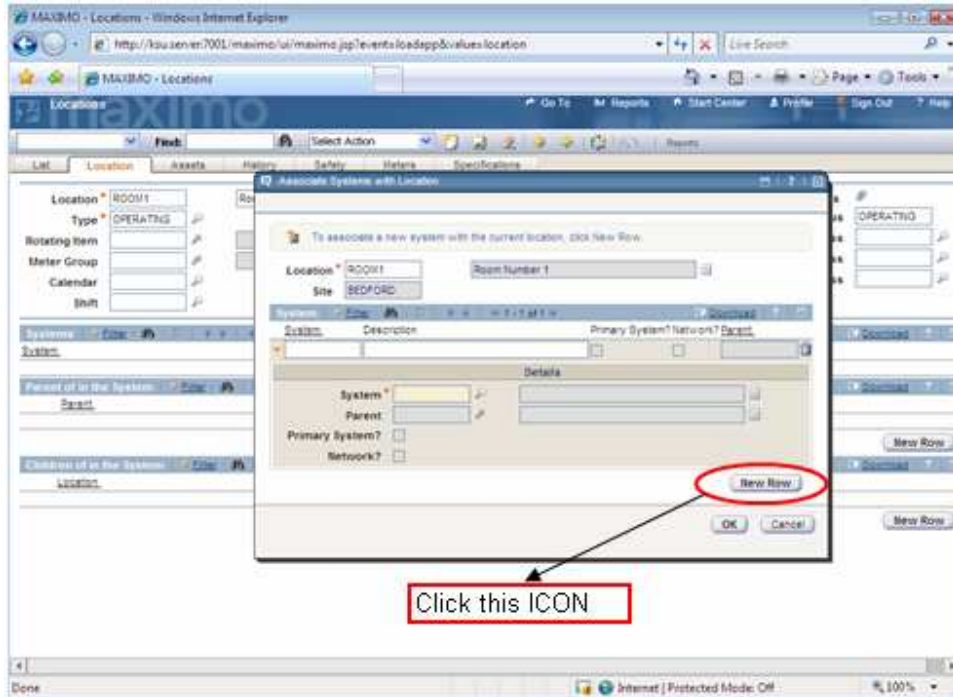


4. Associate Location with System. In “Select Action” → choose “associate Systems with location”

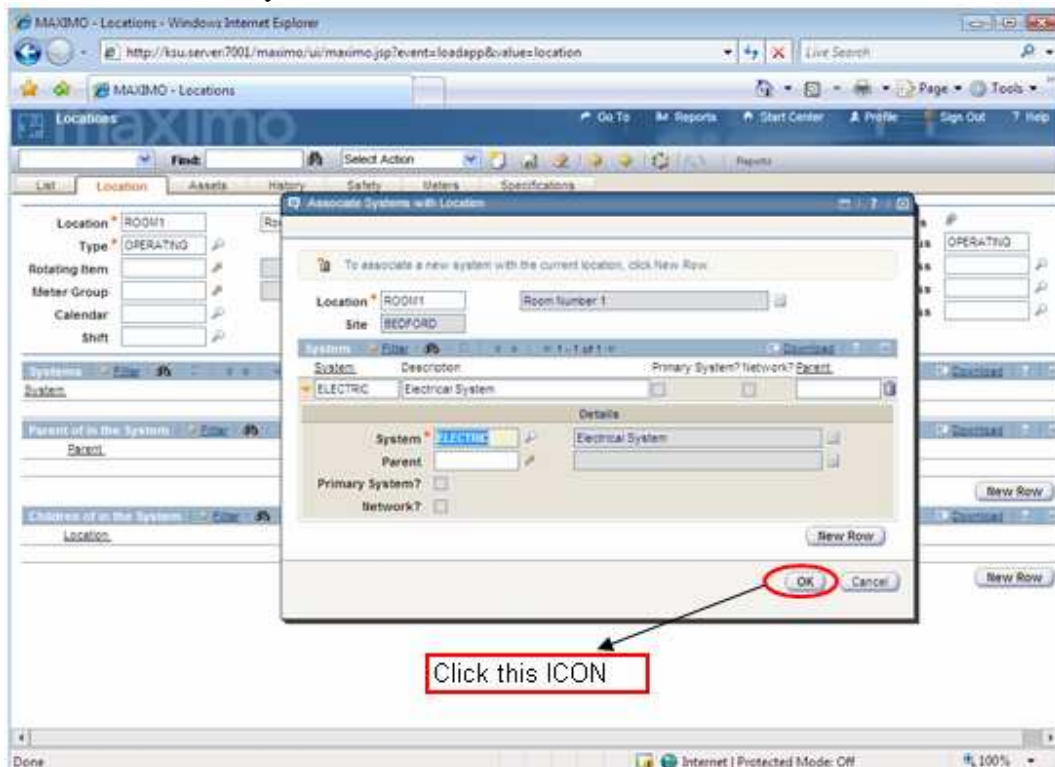


## Lab Session 2: Setting Up Locations

Click new row:



And select the system that we want to associate with

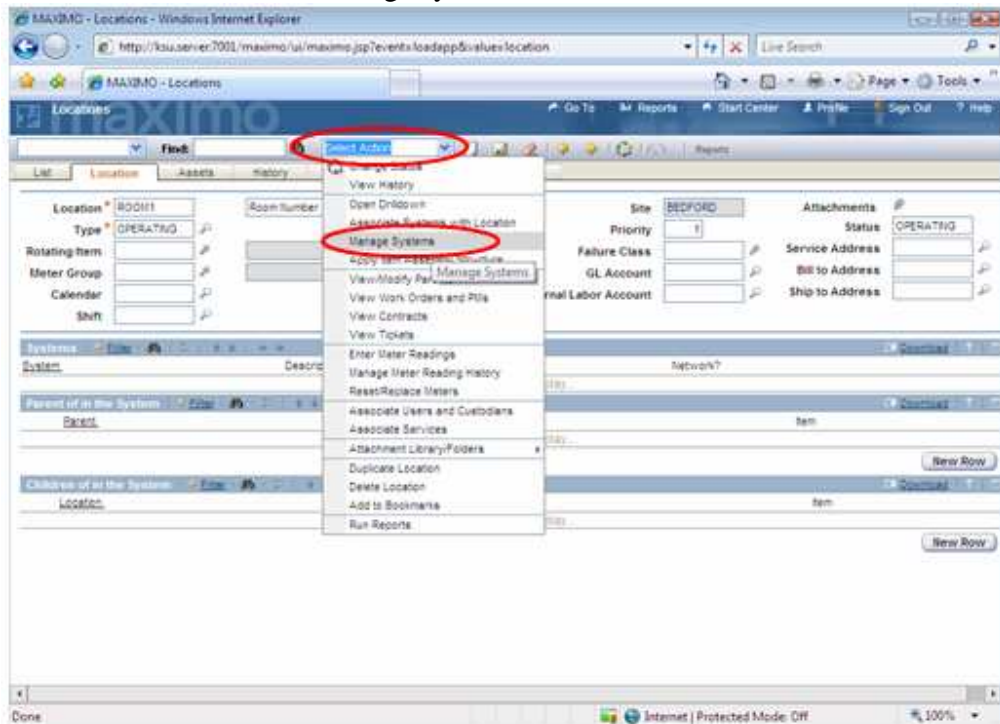


And press OK.

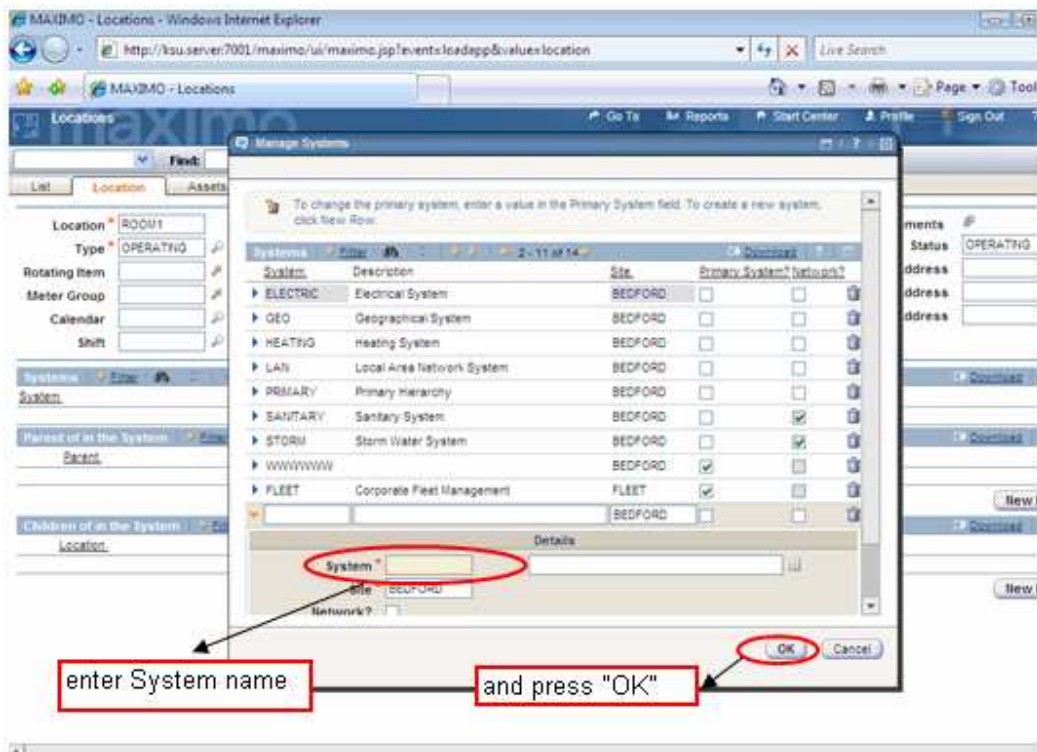
## Lab Session 2: Setting Up Locations

If we want to create or define new system:

- Go to select action → manage system

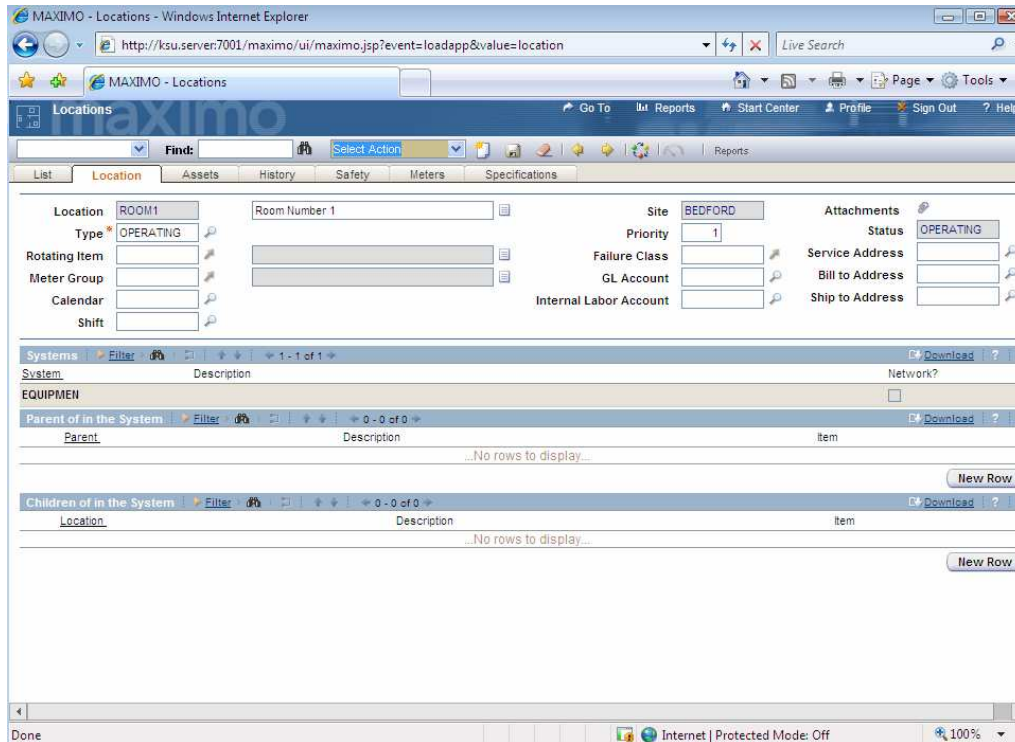


Select new row and insert the new system

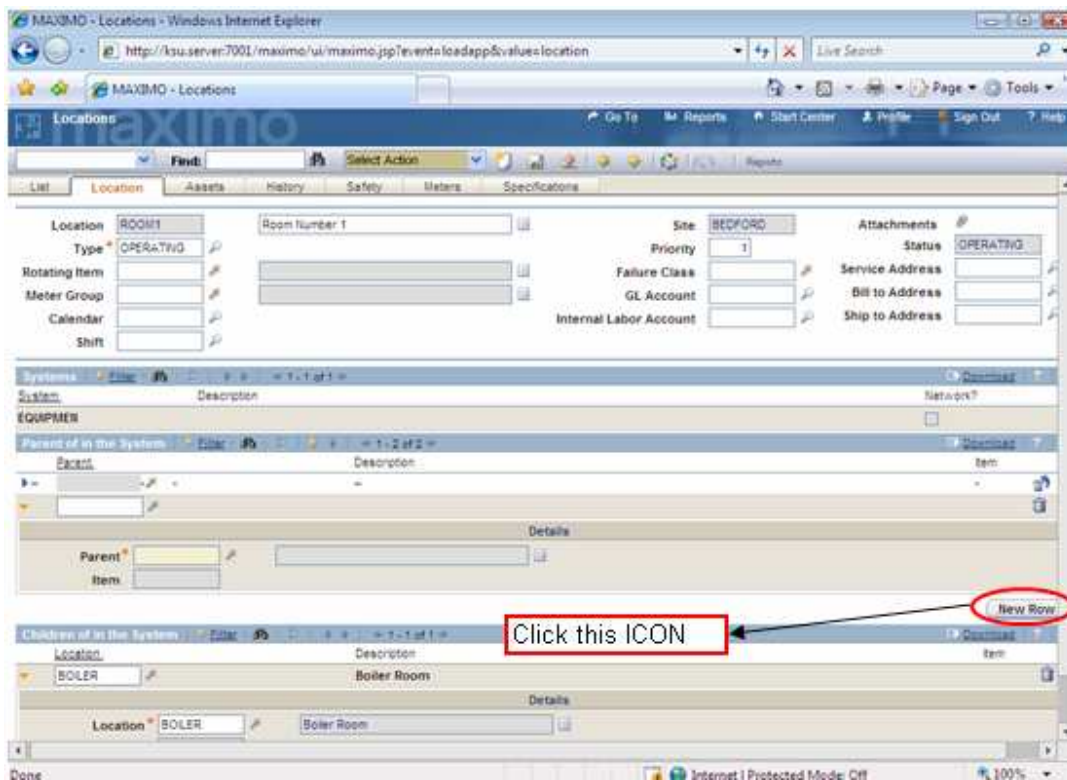




## Lab Session 2: Setting Up Locations



5. Set the parent (if it has) by clicking the new row in parent



## Lab Session 2: Setting Up Locations

6. Set the child (if it has) by clicking the new row in Children

The screenshot shows the MAXIMO web interface for the 'Locations' form. The 'Location' field is set to 'ROOM1' and the 'Room Number' is 'Room Number 1'. The 'Site' is 'BEDFORD' and the 'Priority' is '1'. The 'Status' is 'OPERATING'. The 'Children of in the System' section is expanded, showing a table with columns for 'Location', 'Description', and 'Item'. A row is added with 'BOILER' in the 'Location' field and 'Boiler Room' in the 'Description' field. A 'New Row' button is visible at the bottom right of the table.

7. Check Asset tab with the location (all the asset associate with the location will be shown)

8. Save the new record

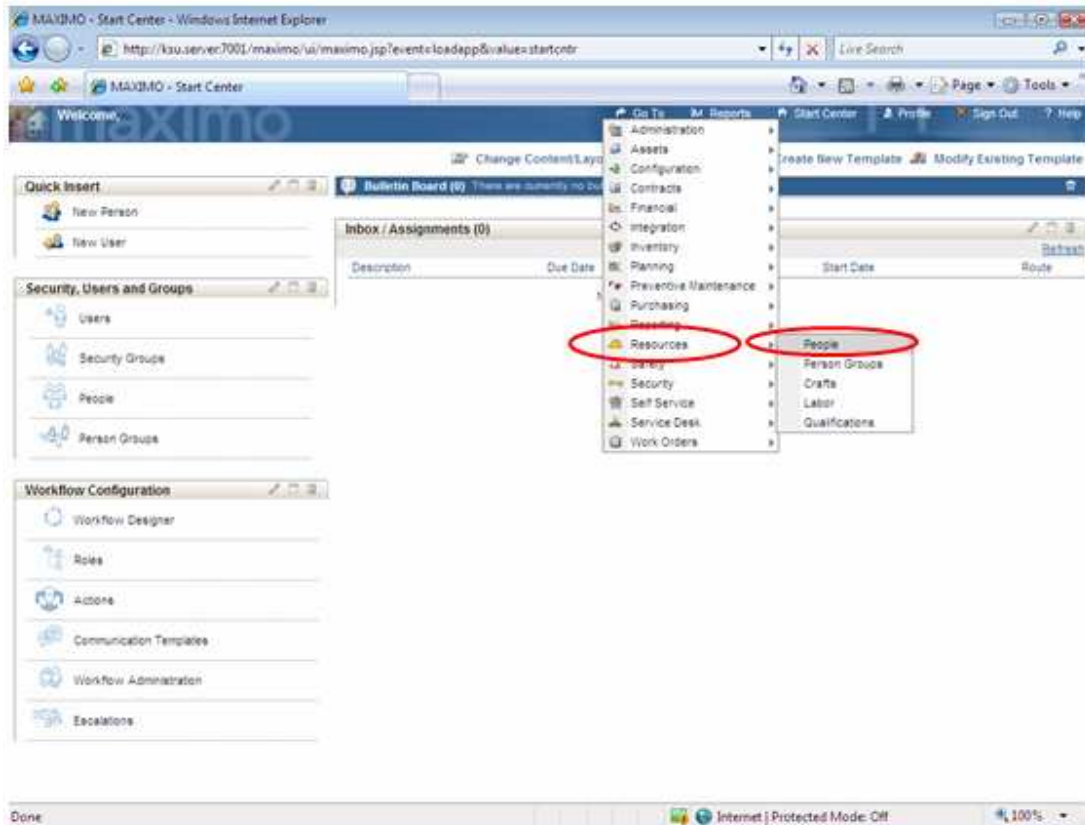
This screenshot is identical to the previous one, but with a red circle around the save icon (a floppy disk) in the top right corner of the form. A black arrow points from this icon to a red-bordered text box that says 'Click this ICON to save the record'.

*Lab Session 3: Setting Up Person, Craft, and Labor*

## LAB SESSION 3: Setting Up Person, Craft, and Labor

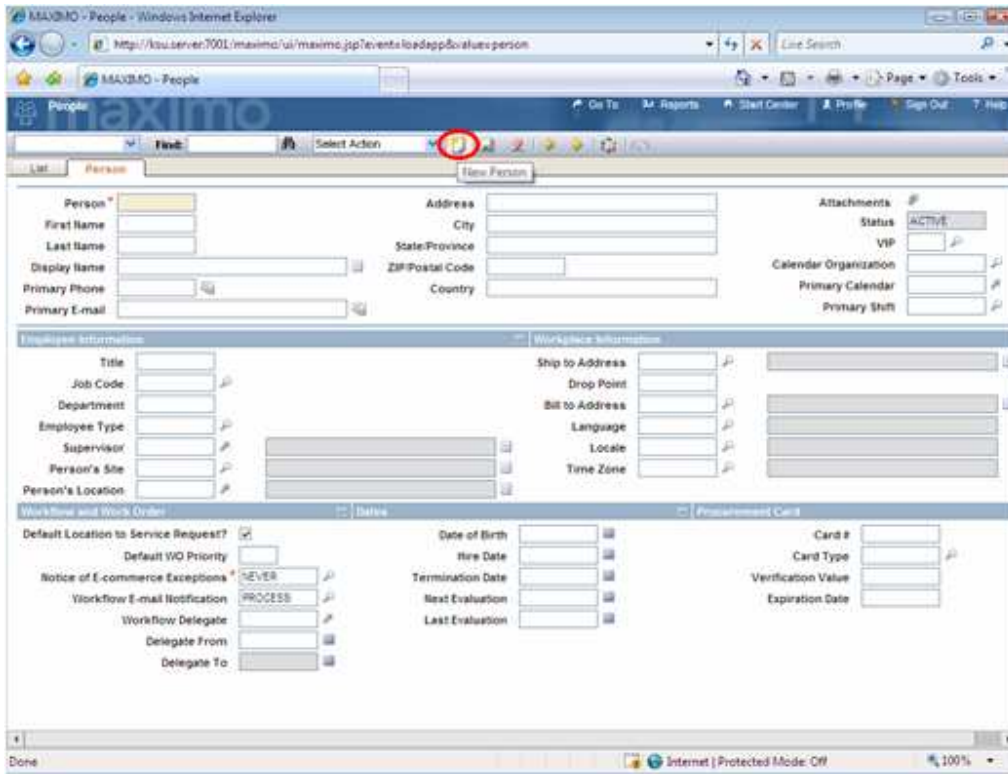
### Creating PERSON/PEOPLE in MAXIMO:

1. Go to Resource → People

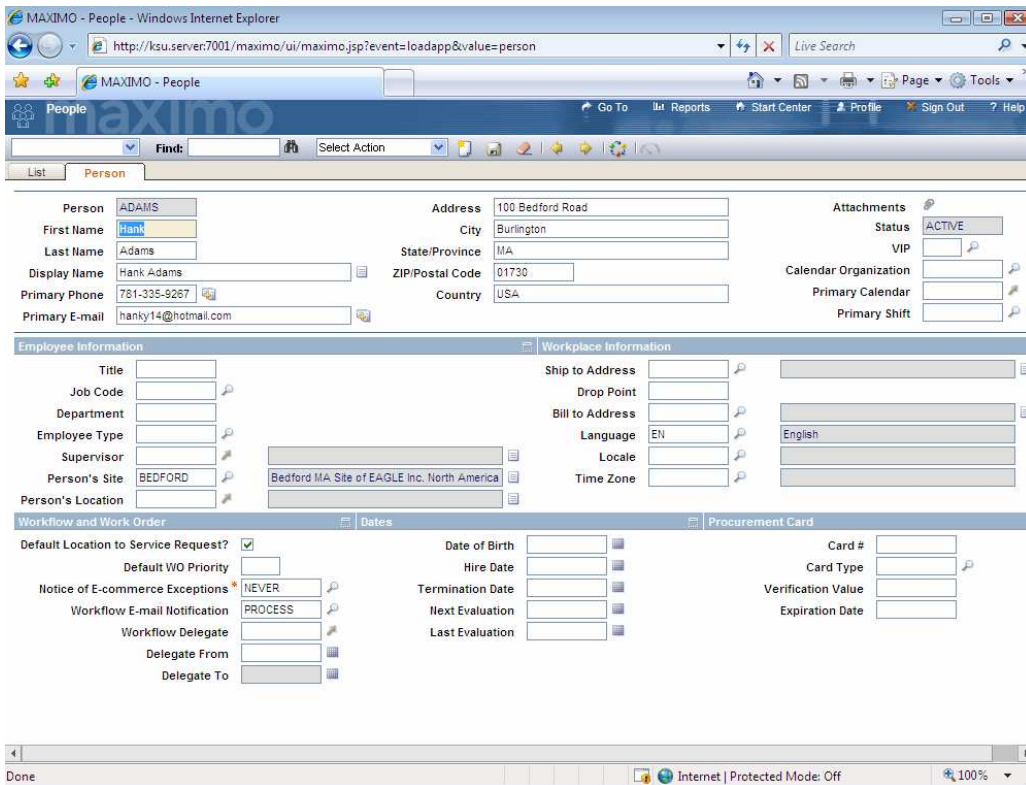


### Lab Session 3: Setting Up Person, Craft, and Labor

2. Go to person tab and Click the new record Icon



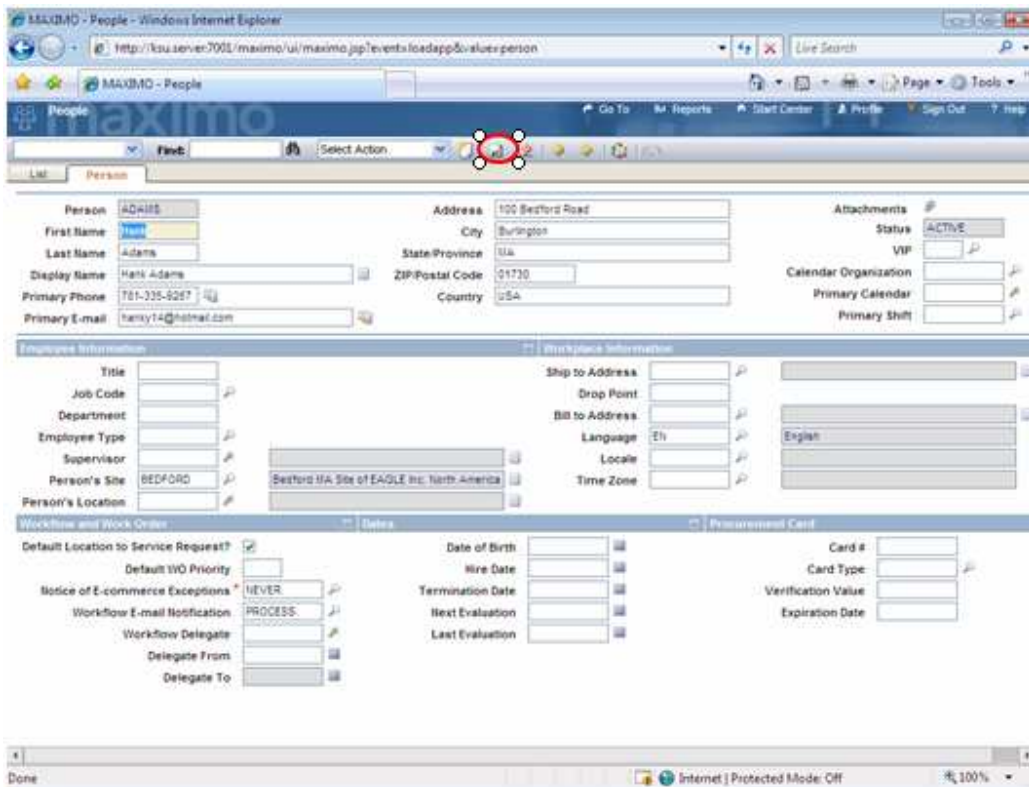
3. Enter the record data





### Lab Session 3: Setting Up Person, Craft, and Labor

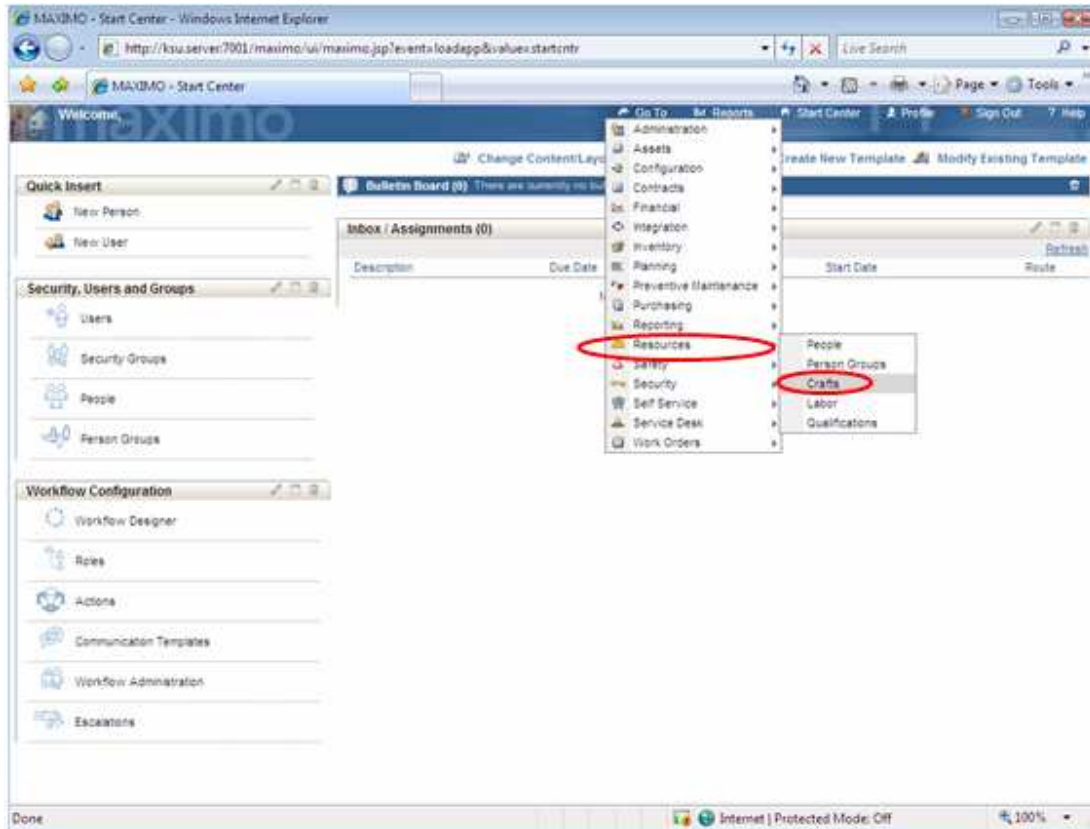
#### 4. Save the record (Disk Icon)



## Lab Session 3: Setting Up Person, Craft, and Labor

### Creating CRAFT in MAXIMO:

1. Go to Resource → Craft



## Lab Session 3: Setting Up Person, Craft, and Labor

2. Go to Craft and click new record

MAXIMO - Crafts - Windows Internet Explorer

http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=craft

MAXIMO - Crafts

Go To Reports Start Center Profile Sign Out Help

Find: Select Action Reports

List Craft Associated Labor

Craft \* Organization EAGLENA Standard Rate Attachments

Skill Levels Filter Download

A lower numeric value for Rank indicates a higher Skill Level.

Skill Level	Description	Skill Level Rank	Standard Rate
...No rows to display...			

New Row

Outside Rates Filter Download

Skill Level	Vendor	Description	Contract	Revision	Status	Start Date	End Date	Standard Rate
...No rows to display...								

New Row

Premium Pay Filter Download

Premium Pay Code	Description	Rate	Rate Type	Inherit?
OT4	Holiday Hours	3.00	MULTIPLIER	<input checked="" type="checkbox"/>
OT3	Sunday hours.	2.00	MULTIPLIER	<input checked="" type="checkbox"/>
OT2	Greater than 40 hours per week.	1.50	MULTIPLIER	<input checked="" type="checkbox"/>
OT1	Greater than 8 hours per shift	1.50	MULTIPLIER	<input checked="" type="checkbox"/>

New Row

Done Internet | Protected Mode: Off 100%

## Lab Session 3: Setting Up Person, Craft, and Labor

### 3. Enter new record data

MAXIMO - Crafts - Windows Internet Explorer

http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=craft

MAXIMO - Crafts

Go To | It Reports | Start Center | Profile | Sign Out | Help

Find: | Select Action | Reports

List | Craft | Associated Labor

Craft: ELECT | Electrician | Organization: EAGLENA | Standard Rate: 17.00 | Attachments

Skill Levels | Filter | 1 - 3 of 3 | Download

A lower numeric value for Rank indicates a higher Skill Level.

Skill Level	Description	Skill Level Rank	Standard Rate
APPRENTICE	Electrician Apprentice	5	16.00
FIRSTCLASS	Electrician - 1st Class	1	22.00
SECONDCLASS	Electrician - 2nd Class	3	19.00

Outside Rates | Filter | 1 - 6 of 10 | Download

Skill Level	Vendor	Description	Contract	Revision	Status	Start Date	End Date	Standard Rate
APPRENTICE	CMC	Changeover Management Company	1022	0	APPR	1/1/05	12/31/07	20.00
APPRENTICE	EMI	Emergency Maintenance Inc.						30.00
APPRENTICE	EMI	Emergency Maintenance Inc.	1008	0	APPR	1/1/04	12/31/04	22.00
FIRSTCLASS	CMC	Changeover Management Company						33.00
FIRSTCLASS	CMC	Changeover Management Company	1009	1	APPR	6/1/04	12/31/05	27.50
FIRSTCLASS	EMI	Emergency Maintenance Inc.						41.00

Premium Pay | Filter | 1 - 4 of 4 | Download

Premium Pay Code	Description	Rate	Rate Type	Inherit?
OT1	Greater than 8 hours per shift	1.50	MULTIPLIER	<input checked="" type="checkbox"/>
OT2	Greater than 40 hours per week	1.50	MULTIPLIER	<input checked="" type="checkbox"/>
OT3	Sunday hours	2.00	MULTIPLIER	<input checked="" type="checkbox"/>
OT4	Holiday Hours	3.00	MULTIPLIER	<input checked="" type="checkbox"/>

Done | Internet | Protected Mode: Off | 100%

### Lab Session 3: Setting Up Person, Craft, and Labor

Enter skill level in the “Skill data” by clicking new row:

The screenshot displays the MAXIMO Crafts configuration interface. At the top, the Craft is set to 'ELECT' (Electrician) with a Standard Rate of 17.00. Below this, the 'Skill Levels' table is shown with columns for Skill Level, Description, Skill Level Rank, and Standard Rate. The table contains three rows: APPRENTICE (Rank 5, Rate 10.00), FIRSTCLASS (Rank 1, Rate 22.00), and SECONDCLASS (Rank 2, Rate 19.00). A 'New Row' button is circled in red at the end of this table. Below the Skill Levels table is a 'Details' section for the selected skill level, with fields for Skill Level, Skill Level Rank, and Standard Rate. The 'Outside Rates' table follows, with columns for Skill Level, Vendor, Description, Contract, Revision, Status, Start Date, End Date, and Standard Rate. It lists four rows for different skill levels and vendors. A 'New Row' button is also circled in red at the end of this table. Below the Outside Rates table is another 'Details' section with fields for Skill Level, Vendor, Contract, Revision, Status, Start Date, End Date, and Standard Rate. A red box highlights the text 'Click this ICON to enter additional/supporting data' with an arrow pointing to the 'New Row' button in the 'Outside Rates' table. At the bottom, the 'Premium Pay' table is visible with columns for Premium Pay Code, Description, Rate, and Rate Type, showing two rows for OT1 and OT2.

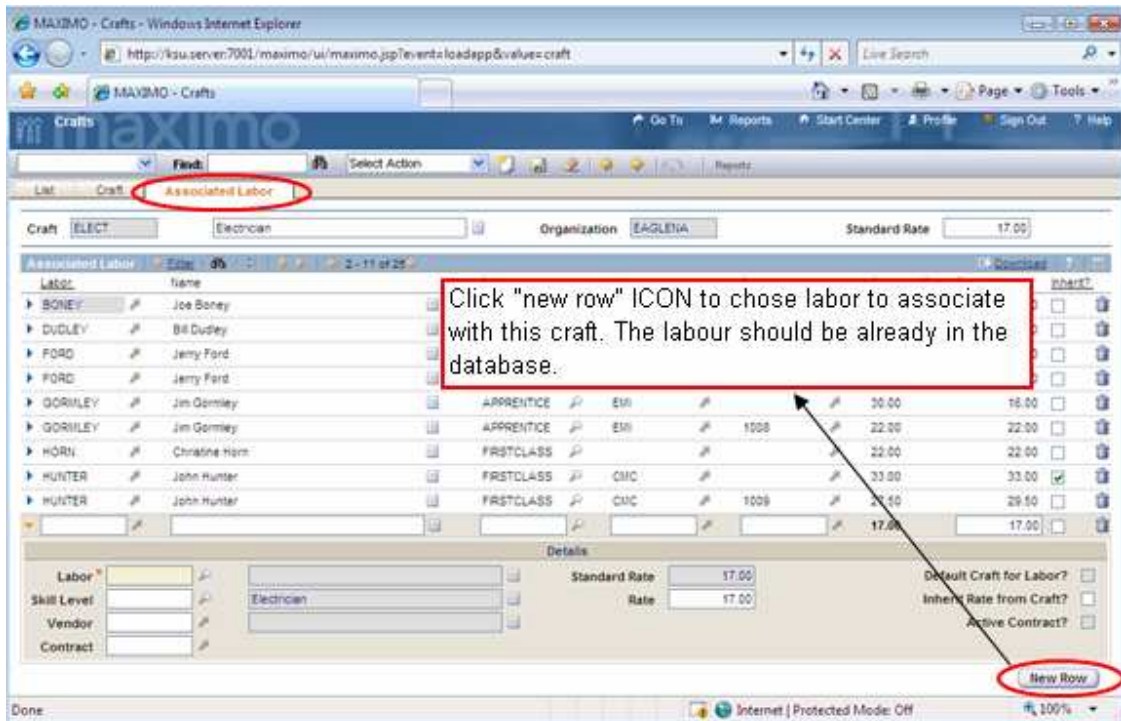
Skill Level	Description	Skill Level Rank	Standard Rate
APPRENTICE	Electrician Apprentice	5	10.00
FIRSTCLASS	Electrician - 1st Class	1	22.00
SECONDCLASS	Electrician - 2nd Class	2	19.00
	Electrician		

Skill Level	Vendor	Description	Contract	Revision	Status	Start Date	End Date	Standard Rate
APPRENTICE	EMI	Emergency Maintenance Inc.						30.00
APPRENTICE	EMI	Emergency Maintenance Inc.	1000	0	APPR	5/1/04	12/31/04	22.00
FIRSTCLASS	CMC	Changeover Management Company						33.00
FIRSTCLASS	CMC	Changeover Management Company	1000	1	APPR	6/1/04	12/31/05	27.50
FIRSTCLASS	EMI	Emergency Maintenance Inc.						41.00

Premium Pay Code	Description	Rate	Rate Type	Inherit?
OT1	Greater than 8 hours per shift	1.50	MULTIPLIER	<input checked="" type="checkbox"/>
OT2	Greater than 40 hours per week	1.50	MULTIPLIER	<input checked="" type="checkbox"/>

### Lab Session 3: Setting Up Person, Craft, and Labor

4. Go to Associate Labor Tab (we can associate labor in Craft or we can associate craft in Labor).



Click new row to associate craft to a labor

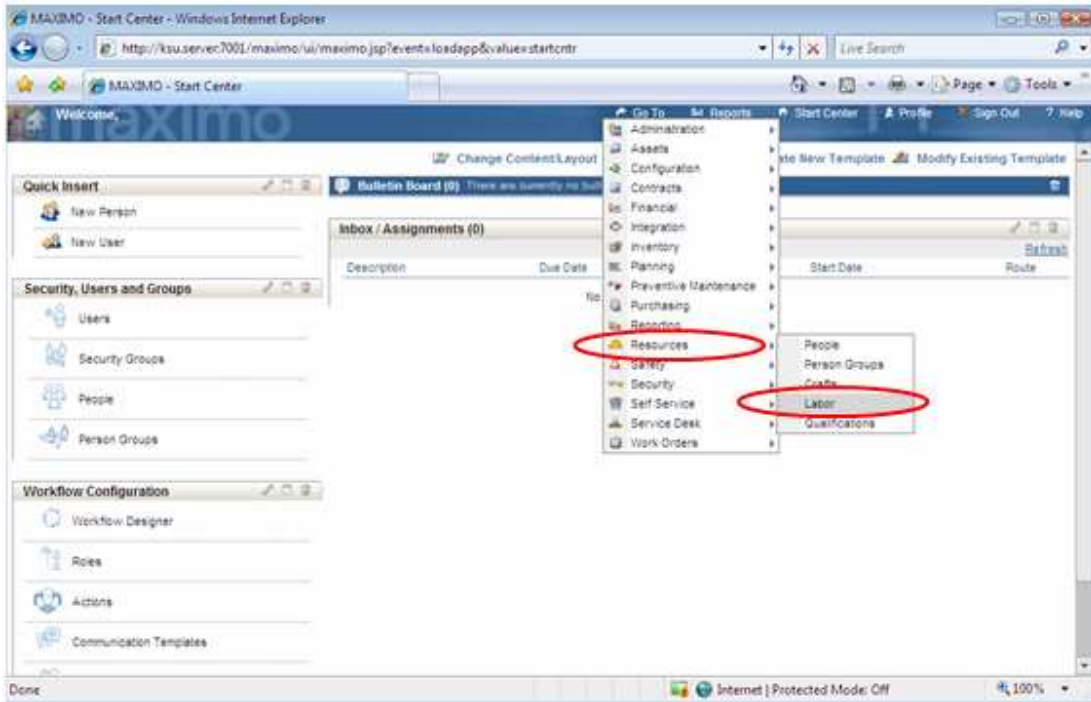
5. Save the record



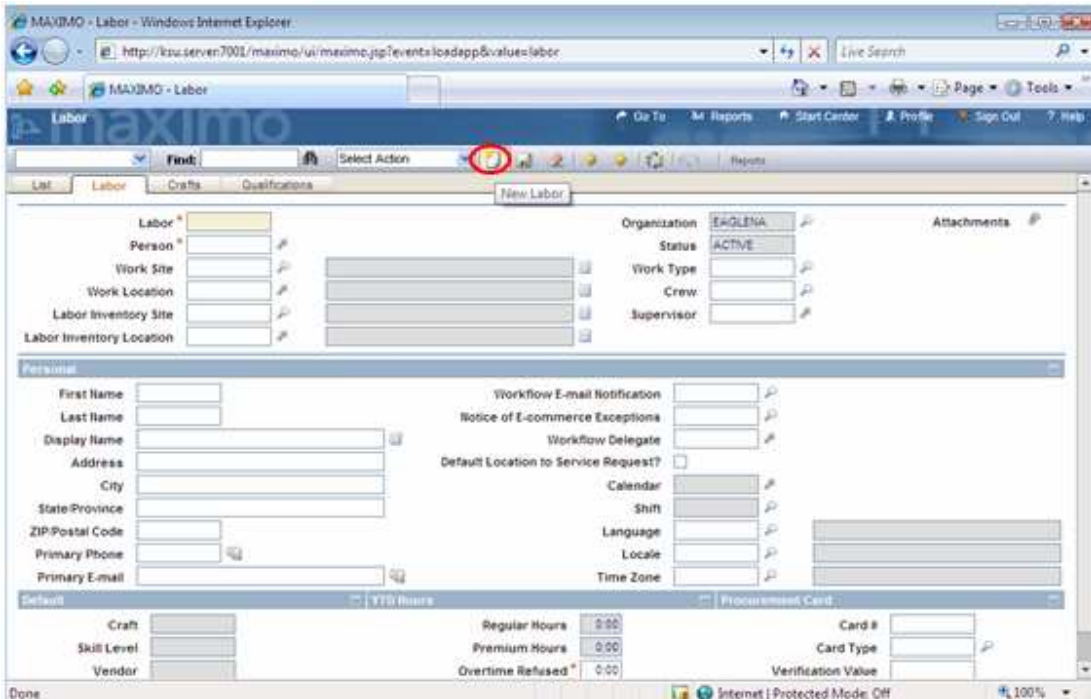
## Lab Session 3: Setting Up Person, Craft, and Labor

### Creating LABOR and Sites in MAXIMO:

1. Go to Resource → Labor



2. Go to Labor tab and Click the new record Icon



### Lab Session 3: Setting Up Person, Craft, and Labor

#### 3. Enter the record data

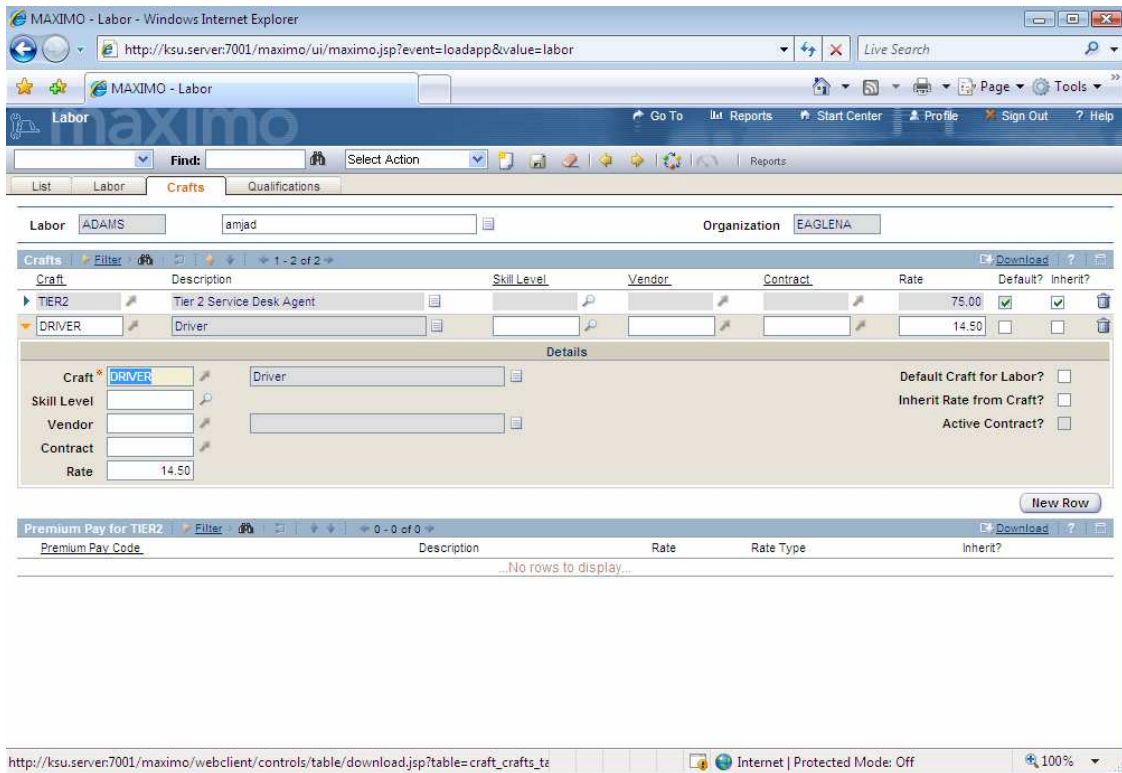
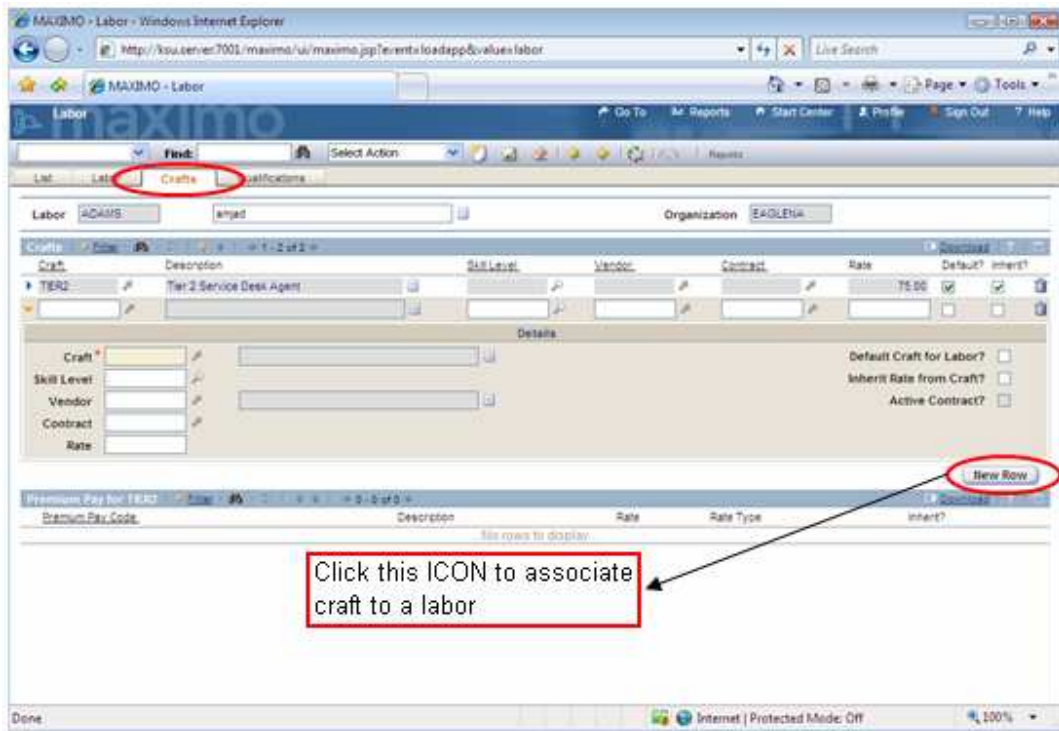
The screenshot shows the MAXIMO Labor record form in Internet Explorer. The browser address bar shows the URL: `http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=labor`. The page title is "MAXIMO - Labor". The form is divided into several sections:

- Labor Section:** Labor: ADAMS, Person: AMJAD, Organization: EAGLENA, Status: ACTIVE, Work Site, Work Location, Labor Inventory Site, Labor Inventory Location, Work Type, Crew, Supervisor.
- Personal Section:** First Name: amjad, Last Name, Display Name: amjad, Address, City, State/Province, ZIP/Postal Code, Primary Phone, Primary E-mail, Workflow E-mail Notification: PROCESS, Notice of E-commerce Exceptions: NEVER, Workflow Delegate, Default Location to Service Request? (checked), Calendar, Shift, Language, Locale, Time Zone.
- Default Section:** Craft: TIER2, Regular Hours: 0:00, Premium Hours: 0:00, Overtime Refused: 0:00, Card #, Card Type, Verification Value, Expiration Date.

#### 4. Go to Craft Tab (we can associate labor in Craft or we can associate craft in Labor).



### Lab Session 3: Setting Up Person, Craft, and Labor



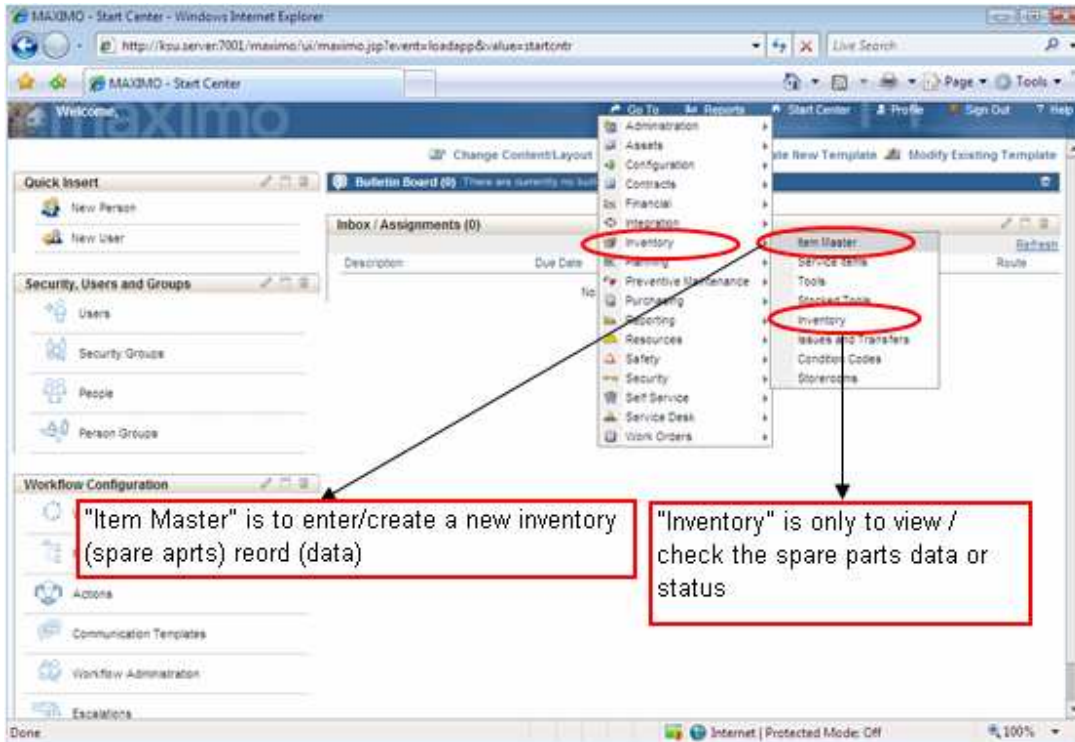
5. Save the record.

*Lab Session 4: Setting Up Inventory (Spare Parts)*

## LAB SESSION 4: Setting Up Inventory (Spare Parts)

### Creating INVENTORY for Spare Parts in MAXIMO:

1. Go to Inventory → Item Master Item



**NOTE:** Inventory is for spare parts (fast moving part), for example: seal, oil, oil filter, bolt, nut, washer, etc. and Asset is for the equipment, such as Generator, milling machine, pump, etc.

## Lab Session 4: Setting Up Inventory (Spare Parts)

2. Go to Item Tab and click new record

The screenshot shows the MAXIMO Item Master web application in Internet Explorer. The browser address bar displays the URL: `http://ksu.server7001/maximo/ui/maximo.jsp?event=loadapp&value=item`. The application header includes navigation links for 'Go To', 'List', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below the header, there is a search bar and a 'Select Action' dropdown menu. The main content area is divided into several sections:

- Item Form:** Contains fields for 'Item \*', 'Commodity Group', 'Commodity Code', 'Meter Group', 'Meter', and 'Lot Type \*' (set to 'NOLOT'). To the right, there are fields for 'Item Set' (set to 'SET1'), 'Order Unit', 'Issue Unit', 'MSDS', 'Capitalized?', and 'Kit?'. On the far right, there are several checkboxes under the 'Attachments' section: 'Condition Enabled?', 'Rotating?', 'Outside?', 'Inspect on Receipt?', 'Add as Spare Part?', and 'Attach to Parent Asset on Issue?'.
- Alternate Items Table:** A table with columns for 'Item', 'Description', 'Commodity Group', 'Commodity Code', and 'Rotating?'. It currently shows no rows and a 'New Row' button.
- Condition Codes Table:** A table with columns for 'Condition Code', 'Description', and 'Condition Rate'. It also shows no rows and a 'New Row' button.

The status bar at the bottom of the browser indicates 'Done' and 'Internet | Protected Mode: Off'.

3. Entering the new item set data

## Lab Session 4: Setting Up Inventory (Spare Parts)

MAXIMO - Item Master - Windows Internet Explorer  
 http://ksu.server7001/maximo/ui/maximo.jsp?event=loadapp&value=item

Item Master

Find: [ ] Select Action [ ] Reports

List Item Storerooms Vendors Specifications Item Assembly Structure

Item: BOLT125 1.25" Galvanized Steel Hex Bolt Item Set: SET1  
 Commodity Group: MECH MECHANICAL Order Unit: [ ]  
 Commodity Code: [ ] Issue Unit: EACH  
 Meter Group: [ ] MSDS: [ ]  
 Meter: [ ] Capitalized?: [ ]  
 Lot Type: NOLOT Kit?: [ ]

Attachments:  
 Condition Enabled?   
 Rotating?   
 Outside?   
 Inspect on Receipt?   
 Add as Spare Part?   
 Attach to Parent Asset on Issue?

Alternate Items: 0 - 0 of 0  
 Condition Codes: 0 - 0 of 0

4. Enter supporting data (not compulsory) in storeroom tab, vendors tab, specification tab, and item assembly structure.

Item Master

Item: BOLT125 1.25" Galvanized Steel Hex Bolt Item Set: SET1

Storeroom Information: 1 - 1 of 1

Storeroom	Stock Category	Standard Cost	Average Cost	Last Receipt Cost	Current Balance	Default Bin	Site
CENTRAL	STK	0.18	0.18	0.18	1,800.00		BEDFORD

Item Master

Item: BOLT125 1.25" Galvanized Steel Hex Bolt Item Set: SET1

Vendors: 0 - 0 of 0

Vendor	Manufacturer	Model	Catalog #	Last Price	Last Order Date	Order Unit	Organization	Site
...No rows to display...								

## Lab Session 4: Setting Up Inventory (Spare Parts)

Item Master - Specifications

Item: BOLT125 | 1.25" Galvanized Steel Hex Bolt

Classification: [Empty]

Attribute	Description	Data Type	Alphanumeric Value	Numeric Value	Unit of Measure	Section
...No rows to display...						

Item Master - Item Assembly Structure

Top Level Item: BOLT125 | 1.25" Galvanized Steel Hex Bolt

Current Level: BOLT125 | 1.25" Galvanized Steel Hex Bolt

Belongs To: [Empty]

Remarks: [Empty]

Item	Description	Quantity	Remarks
...No rows to display...			

New Row

5. Save the records.

6. Go to Inventory → Inventory to check the item and to set the property of the Inventory type

MAXIMO - Item Master - Windows Internet Explorer

http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=item

Item Master - Item Assembly Structure

Top Level Item: BOLT125 | 1.25" Galvanized Steel Hex Bolt

Current Level: BOLT125 | 1.25" Galvanized Steel Hex Bolt

Belongs To: [Empty]

Remarks: [Empty]

Children: [Empty]

Inventory



## Lab Session 4: Setting Up Inventory (Spare Parts)

The screenshot displays the MAXIMO Inventory application interface. The browser address bar shows the URL: `http://ksu.server7001/maximo/ui/maximo.jsp?event=loadapp&value=inventor`. The application title is "MAXIMO - Inventory".

The main content area shows the following details for item **BOLT125** (1.25" Galvanized Steel Hex Bolt) at site **BEDFORD**:

- Item: BOLT125
- Storeroom: CENTRAL
- Lot Type: NOLOT
- Stock Category: STK
- Site: BEDFORD
- Default Bin: [Empty]
- Capitalized?:
- Kit?:
- Attachments: Issue Unit: EACH
- Condition Enabled?:
- Rotating?:

Below the details are three summary sections:

- Balance Summary:** Current Balance: 1,800.00; Quantity Currently Reserved: 0.00; Expired Quantity in Stock: 0.00; Quantity Available: 1,800.00; Quantity in Holding Location: 0.00.
- ABC Analysis:** ABC Type: [Empty]; Count Frequency: 0.
- Issue History:** Last Issue Date: [Empty]; Year to Date: 0.00; Last Year: 0.00; 2 Years Ago: 0.00; 3 Years Ago: 0.00.

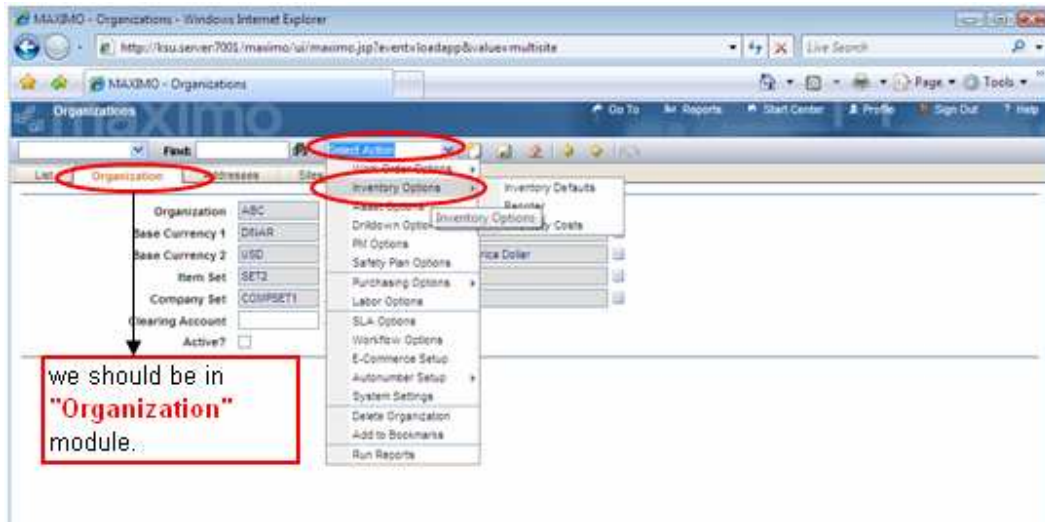
There are two tables below the summaries:

- Inventory Costs:** A table with columns: Condition Code, Description, Condition Rate, Standard Cost, Average Cost, Last Receipt Cost. One row is visible with Condition Code [Empty], Description [Empty], Condition Rate 100, Standard Cost 0.18, Average Cost 0.18, Last Receipt Cost 0.18.
- Inventory Balances:** A table with columns: Bin, Lot, Condition Code, Current Balance, Physical Count, Physical Count Date, Reconciled?, Shelf Life (Days), Expiration Date. One row is visible with Current Balance 1,800.00, Physical Count 1,800.00, Physical Count Date 10/20/04 2:17 PM, Reconciled? checked.

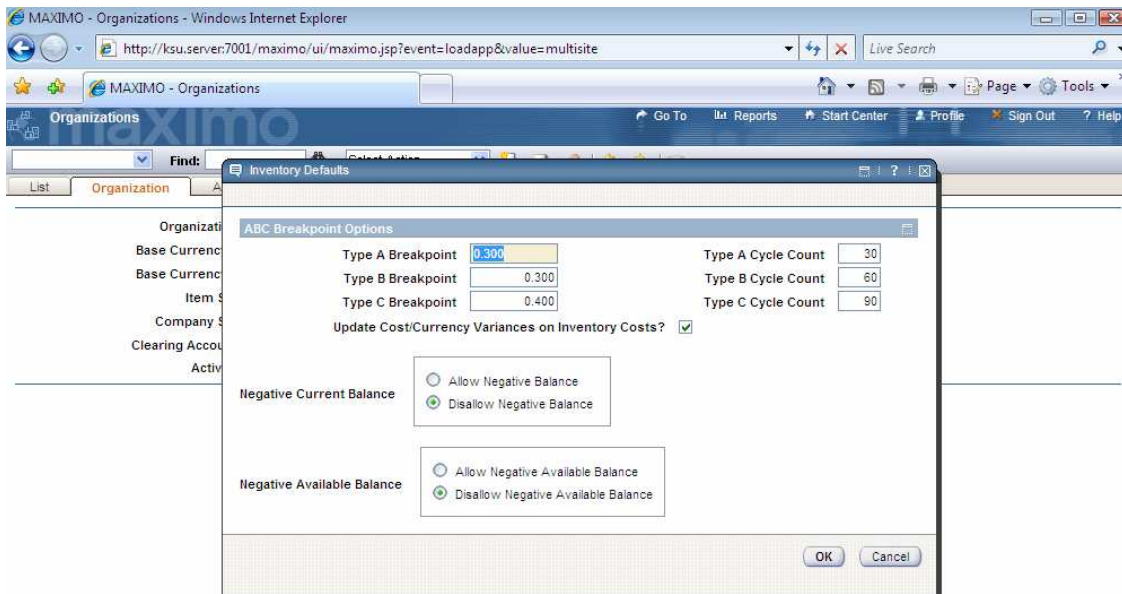
### 7. **Optional:** Changing Inventory Policy

- If we want to change the policy for the Inventory, we should go to **organization Module** and go to select action

## Leb Session 4: Setting Up Inventory (Spare Parts)

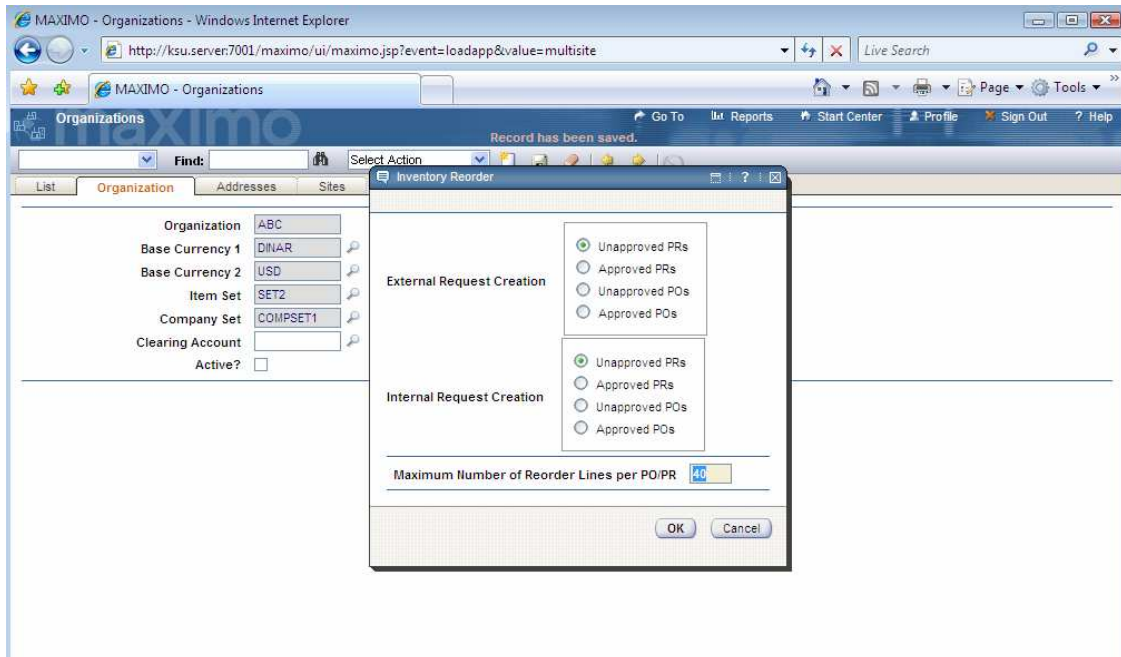


- Go to select action → inventory option → Inventory defaults

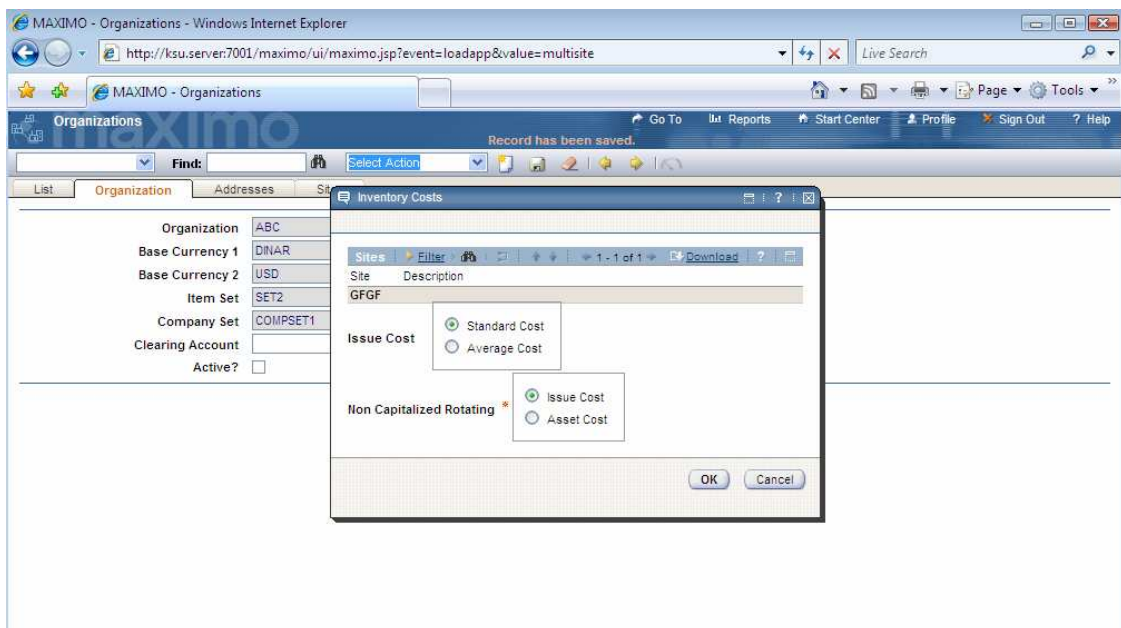


- Go to select action → inventory option → Reorder

## Lab Session 4: Setting Up Inventory (Spare Parts)



- Go to select action → inventory option → Inventory Cost



8. Save the record.

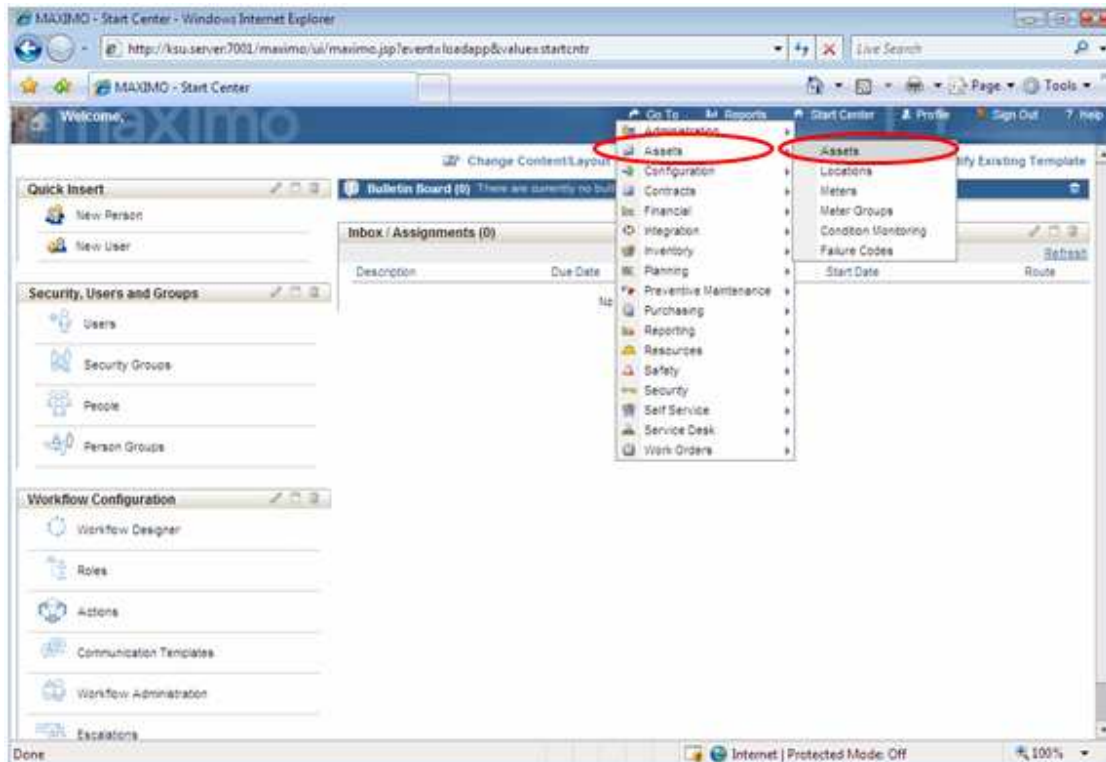


## Lab Session 5: Setting Up Assets

# LAB SESSION 5: Setting Up Assets

### Creating ASSET in MAXIMO:

1. Go to Assets → Assets



**NOTE:** Asset module is for equipments that the companies or organizations have. For example: **Production equipment, Facility equipment, Fleet, and IT equipment.**

## Lab Session 5: Setting Up Assets

### 2. Go to Assets Tab and click new record Icon

MAXIMO - Assets - Windows Internet Explorer  
http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=asset

Assets

Find: [ ] Select Action [ ] Reports

Asset: [ ] Status: NOT READY Site: BEDFORD Type: [ ] Attachments: Moved? [ ]

Details

Parent: [ ] Calendar: [ ]  
Maintain Hierarchy? [ ] Shift: [ ]  
Location: [ ] Bin: [ ] Priority: [ ]  
Rotating Item: [ ] Serial #: [ ]  
Condition Code: [ ] Failure Class: [ ]  
Meter Group: [ ] Item Type: [ ]  
Usage: [ ] Tool Rate: [ ]

Purchase Information

Vendor: [ ] Manufacturer: [ ]  
Installation Date: [ ] Purchase Price: 0.00  
Replacement Cost: 0.00

Costs

Total Cost: 0.00  
YTD Cost: 0.00  
Budgeted: 0.00  
Inventory: 0.00

Downtime

Asset Up? [checked] Changed By: G1  
Last Changed Date: 4/9/11 12:07 PM Changed Date: 4/9/11 12:07 PM  
Total Downtime: 0:00

### 3. Enter the Asset data

MAXIMO - Assets - Windows Internet Explorer  
http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=asset

Assets

Find: [ ] Select Action [ ] Reports

Asset: 13160 Status: NOT READY Site: BEDFORD Type: [ ] Attachments: Moved? [ ]

Details

Parent: [ ] Calendar: COMPANY1  
Maintain Hierarchy? [ ] Shift: [ ]  
Location: BPM3100 #1 Liquid Packaging Line Priority: 2  
Bin: [ ] Serial #: 2342VV  
Rotating Item: [ ] Failure Class: PKG  
Condition Code: [ ] Item Type: [ ]  
Meter Group: [ ] Tool Rate: [ ]  
Usage: [ ]

Purchase Information

Vendor: IPS Industrial Packaging Supply  
Manufacturer: IPS Industrial Packaging Supply  
Installation Date: 8/27/98  
Purchase Price: 4,000.00  
Replacement Cost: 5,000.00

Costs

Total Cost: 1,805.00  
YTD Cost: 956.00  
Budgeted: 750.00  
Inventory: 0.00

Downtime

Asset Up? [checked] Changed By: MAXIMO  
Last Changed Date: 8/29/01 10:18 AM Changed Date: 3/11/99 3:32 PM  
Total Downtime: 0:00

**Do not forget to fill up the "Type" Field for the asset.**

## Lab Session 5: Setting Up Assets

### 4. Set The parent ( if it has) for hierarchical Asset

The screenshot shows the Maximo Assets form for asset EQ1. The 'Details' section is expanded, and the 'Parent' field is set to 13160. A dropdown menu is open for the 'Parent' field, showing a list of assets. The 'Purchase Information' section shows a replacement cost of 0.00. The 'Downtime' section shows the asset is up and the last changed date is 4/9/11 12:09 PM.

The screenshot shows the Maximo Assets form for asset EQ1 with a 'Select Value' dialog box open. The dialog box displays a list of assets with columns for Asset, Description, Location, and Site. The asset 26020 is highlighted, with the description 'monthner' and location 'MTP100'. The 'Purchase Information' section shows a replacement cost of 0.00. The 'Downtime' section shows the asset is up and the last changed date is 4/9/11 12:09 PM.

Asset	Description	Location	Site
26020	monthner	MTP100	BEDFORD
52300	Electrical Service Pole #300/Wood/45 ft/Clas...	POLE300	BEDFORD
81003	Freightliner #81003	FLTGAR	BEDFORD
1004	Fire Extinguisher	MOPLOOR4	BEDFORD
1005	Fire Extinguisher	CONF400	BEDFORD
1006	Fire Extinguisher	OFF401	BEDFORD
1007	Fire Extinguisher	OFF402	BEDFORD
13144	Carton Escapement Assembly #1	BPM3100	BEDFORD
26200	Motor Controlled Valve		BEDFORD
LCD1	LCD Panel for Overhead	CONF100	BEDFORD
13150	Top Breaker System	BPM3100	BEDFORD
13160	Filler And Lifter System	BPM3100	BEDFORD
13143	Chain Wash Assembly	BPM3100	BEDFORD
12510	Brake Filler And Lifter System	SHIPPING	BEDFORD
81001	Freightliner #81001	FLTGAR	BEDFORD
12600	Conveyor System #1	SHIPPING	BEDFORD
12100	Forklift #1	SHIPPING	BEDFORD
11200	HVAC System- 50 Ton Cool Cap/ 450000 Btu...	BR200	BEDFORD
13130	Stripper System	BPM3100	BEDFORD
13120	Bottom Sealing System	BPM3100	BEDFORD

## Lab Session 5: Setting Up Assets

**Assets** | Go To | Reports | Start Center | Profile | Sign Out | Help

Find: [ ] Select Action [ ] Reports

List | **Asset** | Spare Parts | Safety | Meters | Specifications

Asset: EQ1 | Equipment number 1 | Site: BEDFORD | Attachments: [ ] Moved?: [ ]

Status: NOT READY | Type: PRODUCTION

**Details**

Parent: 13160 | Filler And Lifter System | Calendar: [ ]

Maintain Hierarchy? [ ] | Shift: [ ]

Location: BPM3100 | #1 Liquid Packaging Line | Priority: [ ]

Bin: [ ] | Serial #: [ ]

Rotating Item: [ ] | Failure Class: [ ]

Condition Code: [ ] | Item Type: [ ]

Meter Group: [ ] | Tool Rate: [ ]

Usage: [ ] | Meter Group Description: [ ]

**Purchase Information** | **Costs**

Vendor: [ ] | Total Cost: 0.00

Manufacturer: [ ] | YTD Cost: 0.00

Installation Date: [ ] | Budgeted: 0.00

Purchase Price: 0.00 | Inventory: 0.00

Replacement Cost: 0.00

**Downtime** | **Modified**

Asset Up?  | Changed By: G1

Last Changed Date: 4/9/11 12:09 PM | Changed Date: 4/9/11 12:09 PM

Total Downtime: 0:00

**Note:** when we chose a parent for an Asset, it means that the Asset will become as a Sub Assembly of the parent Asset.

### 5. Associating spare part (as Sub Assembly)

If we **have entered** the Sub Assembly record in Asset, we can associate an Asset (as a parent for its Sub Assembly) with available Sub Assembly in Spare Parts Tab

**Assets** | Go To | Reports | Start Center | Profile | Sign Out | Help

Find: [ ] Select Action [ ] Reports

List | **Asset** | Spare Parts | Safety | Meters | Specifications

Asset: EQ1 | Equipment number 1 | Site: BEDFORD

Parent: 13160 | Filler And Lifter System

**Spare Parts**

Asset	Description	Location	Description
[ ]	[ ]	[ ]	[ ]

Asset: [ ] | Select Value [ ]

Location: [ ] | Select Value [ ]

View Work Orders and PNs [ ]

Save To [ ]

**New Row**

Select Spare Parts | **New Row**

## Lab Session 5: Setting Up Assets

The screenshot displays the Maximo Assets application interface. At the top, there is a navigation bar with options like 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below this is a search bar with 'Find:' and a 'Select Action' dropdown. The main content area is divided into several sections:

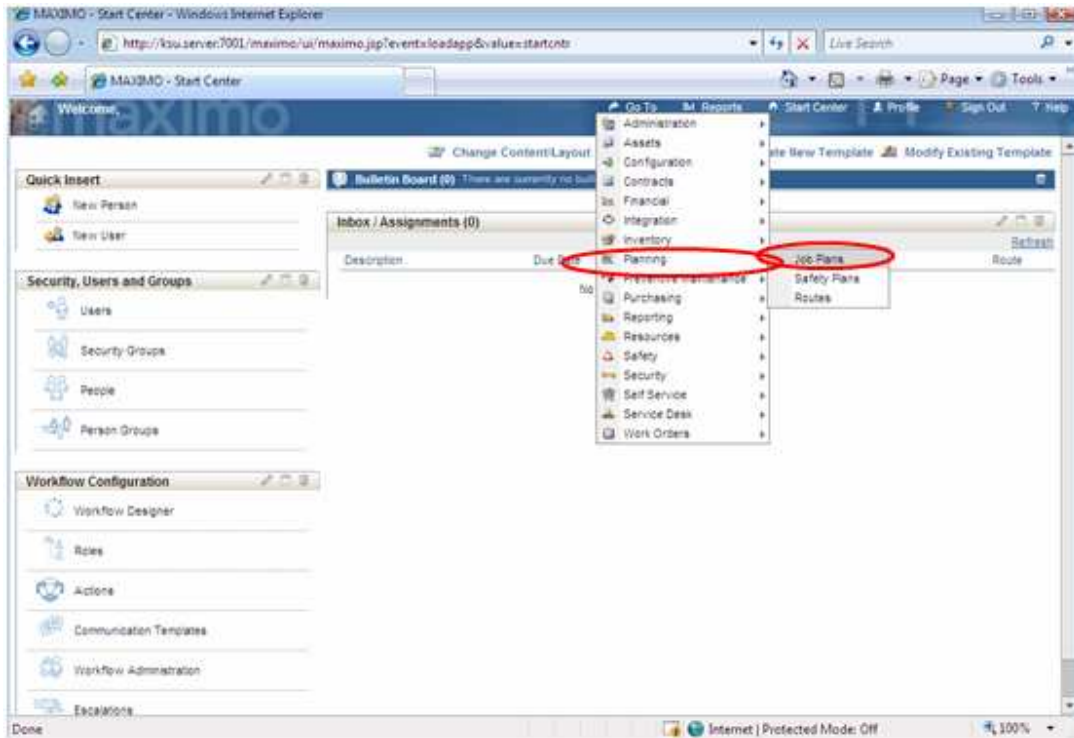
- Asset Information:** Fields for 'Asset' (EQ1), 'Equipment number 1', 'Parent' (13160), 'Filler And Lifter System', and 'Site' (BEDFORD).
- Subassemblies:** A table with columns 'Asset', 'Description', and 'Location'. It shows one entry: Asset 26200, Description 'Motor Controlled Valve', and an empty Location field. A 'Details' section below this table shows the selected asset (26200) and its description ('Motor Controlled Valve').
- Spare Parts:** A table with columns 'Item', 'Description', 'Quantity', and 'Remarks'. It currently shows no rows, with the text '...No rows to display...'. There are 'Select Spare Parts' and 'New Row' buttons at the bottom right of this section.

6. Save Record.

## LAB SESSION 6: Creating Job Plans

### Creating JOB PLAN in MAXIMO:

1. Go to Planning → Job Plan



**Job Plan** is a module that enable user to **define the sequence of a job**. For example: to change the oil filter, we can create 3 sequences:

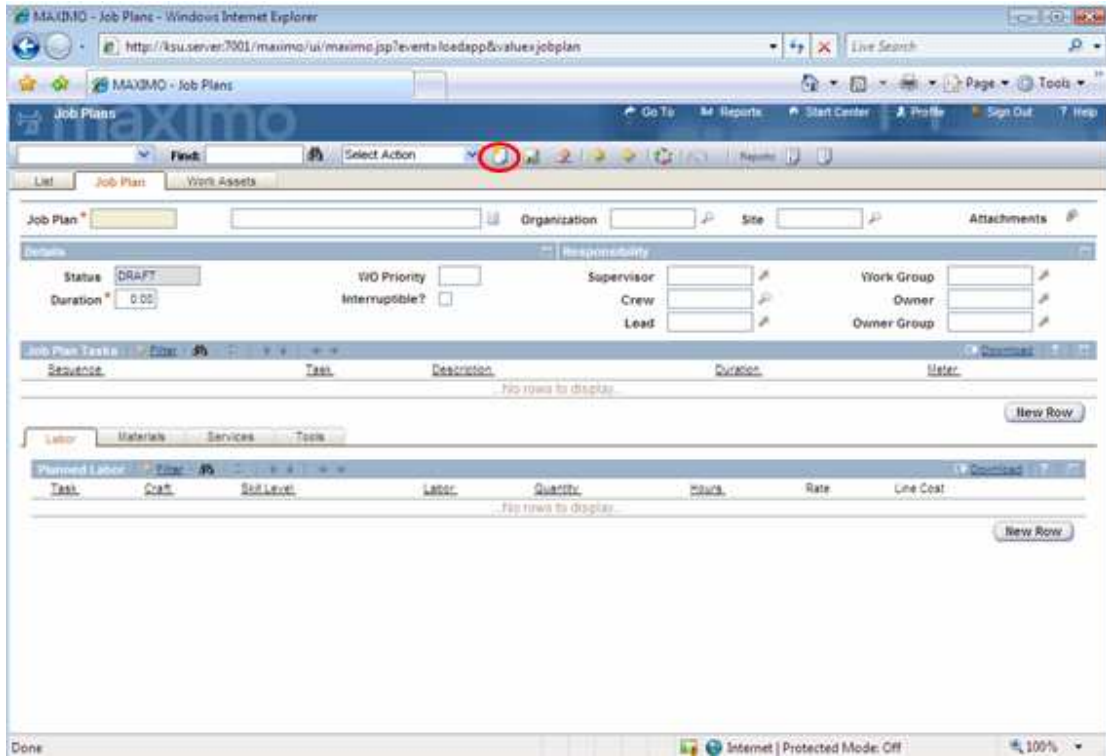
1. Open the machine cover.
2. change the oil filter.
3. Close the machine cover.

A job may have Job Plan or not. This Job plan is not a necessity for a job.

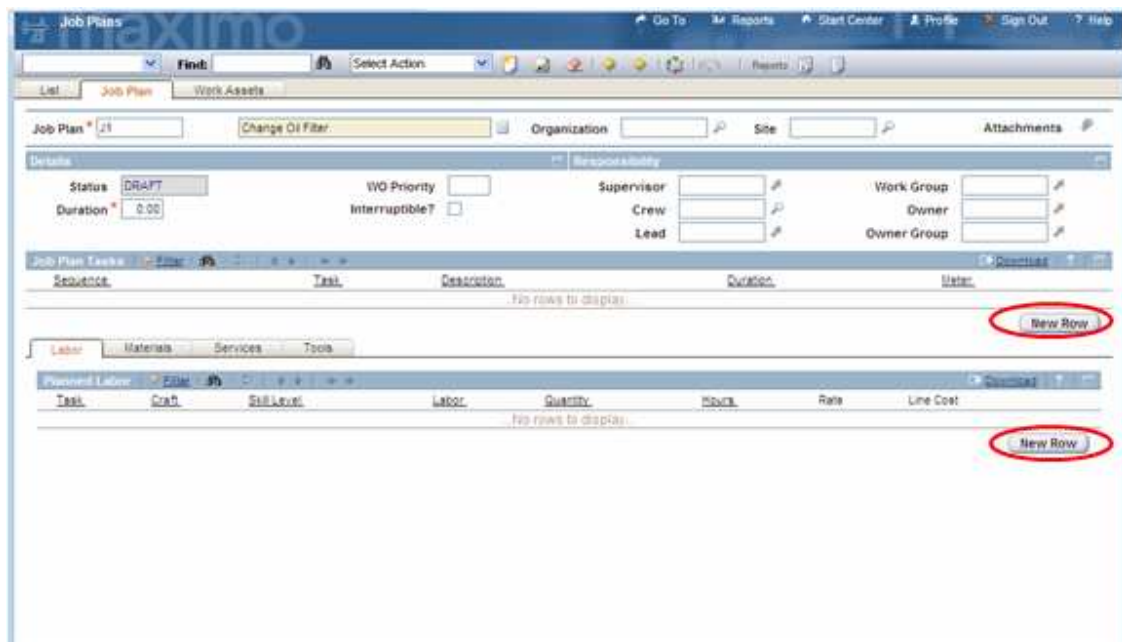


## Lab Session 6: Creating Job Plans

2. Go to Job Plan Tab and click New Record Item



3. Entering Job Plan Data (Job Plan CODE, Job Sequence, and Associating Labor, Material and Equipment/Tools to Job Sequence/task) and save record



## Lab Session 6: Creating Job Plans

- Job Sequence (Click new row in the Job Plan task)

The screenshot shows the Maximo Job Plans interface. The top navigation bar includes 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below the navigation bar, there are tabs for 'List', 'Job Plan', and 'Work Assets'. The main area displays details for a Job Plan with ID 'J1' and name 'Change Oil Filter'. The 'Details' section includes fields for Status (DRAFT), Duration (0:00), WO Priority, Interruptible?, Supervisor, Crew, Lead, Work Group, Owner, and Owner Group. The 'Job Plan Tasks' section shows a table with one row: Sequence 1, Task 1, Description 'Open Cover', Duration 0:10, and Meter. Below this is a 'Details' section for the task, showing Organization (EAGLENA), Site, Task (1), Sequence (1), and Duration (0:10). At the bottom, there are tabs for 'Labor', 'Materials', 'Services', and 'Tools'. The 'Planned Labor' section is empty, showing 'No rows to display...'.

The screenshot shows the Maximo Job Plans interface with three tasks. The 'Job Plan Tasks' section shows a table with three rows: Sequence 1, Task 1, Description 'Open Cover', Duration 0:10; Sequence 2, Task 2, Description 'Change filter', Duration 0:10; and Sequence 3, Task 3, Description 'Close Cover', Duration 0:00. The 'Details' section for the selected task (Sequence 3, Task 3, Description 'Close Cover') shows Organization (EAGLENA), Site (BEDFORD), Task (3), Sequence (3), and Duration (00:05). The 'Planned Labor' section remains empty, showing 'No rows to display...'.

- Associating Labor
  - Click labor Tab and new row
  - We can Associate a Task (Base on Task number) with Labor or Craft



## Lab Session 6: Creating Job Plans

The screenshot displays the Maximo Job Plans interface. The top navigation bar includes 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below the navigation bar, there are tabs for 'List', 'Job Plan', and 'Work Assets'. The 'Job Plan' tab is active, showing a job plan with ID 'J1' and a 'Change Of Filter' description. The 'Details' section includes fields for Status (DRAFT), Duration (0.00), WO Priority, Interruptible?, Supervisor, Crew, Lead, Work Group, Owner, and Owner Group. The 'Job Plan Tasks' section shows a table with columns for Sequence, Task, Description, Duration, and Meter. The tasks listed are: 1. Open Cover (0.10), 2. Change filter (0.10), and 3. Close Cover (0.00). Below the tasks, there is a 'Details' section for the selected task, showing Organization (EAGLENA), Site (BEDFORD), Task (3), Sequence (3), and Duration (0.00). The 'Labor' and 'Materials' tabs are circled in red. The 'Planned Labor' section shows a table with columns for Task, Craft, Skill Level, Labor, Quantity, Hours, Rate, and Line Cost. The labor entry is for Task 1, Craft BONEY, Labor Joe Boney, Quantity 1, Hours 0.10, Rate 22.00, and Line Cost 3.87. The 'Details' section for the labor entry shows Organization (EAGLENA), Site (BEDFORD), Task (1), Labor (BONEY), Craft, Skill Level, Vendor, Labor Contract, Quantity (1), Hours (0.10), Rate (22.00), and Line Cost (3.87). The 'New Row' button is circled in red.

Sequence	Task	Description	Duration	Meter
1	1	Open Cover	0.10	
2	2	Change filter	0.10	
3	3	Close Cover	0.00	

Task	Craft	Skill Level	Labor	Quantity	Hours	Rate	Line Cost
1			BONEY	1	0.10	22.00	3.87

**Lab Session 6: Creating Job Plans**

The screenshot displays the Maximo Job Plans application. The top navigation bar includes 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. The main interface is divided into several sections:

- Job Plan Header:** Shows 'Job Plan J1' with a search field for 'Change Oil Filter', and dropdowns for 'Organization' and 'Site'. There are also 'Attachments' and 'Work Assets' tabs.
- Details Section:** Contains fields for 'Status' (DRAFT), 'Duration' (0:00), 'WO Priority', 'Interruptible?' (checkbox), 'Supervisor', 'Crew', 'Lead', 'Work Group', 'Owner', and 'Owner Group'.
- Job Plan Tasks Table:** A table with columns 'Sequence', 'Task', 'Description', 'Duration', and 'Meter'. It lists three tasks:
 

Sequence	Task	Description	Duration	Meter
1	1	Open Cover	0:10	
2	2	Change filter	0:10	
3	3	Close Cover	0:05	
- Task Details:** A sub-section for the selected task (Sequence 3) with fields for 'Organization', 'Site', 'Task', 'Sequence', 'Duration', and 'Meter'.
- Planned Labor Table:** A table with columns 'Task', 'Craft', 'Skill Level', 'Labor', 'Quantity', 'Hours', 'Rate', and 'Line Cost'. It shows two labor entries:
 

Task	Craft	Skill Level	Labor	Quantity	Hours	Rate	Line Cost
1			BONEY	1	0:10	22.00	3.67
2	LUB			1	0:10	14.00	2.33
- Labor Details:** A sub-section for the selected labor entry (Task 2) with fields for 'Organization' (EAGLENA), 'Site' (BEDFORD), 'Task' (2), 'Labor', 'Craft' (LUB), 'Skill Level', 'Vendor', 'Labor Contract', 'Quantity' (1), 'Hours' (0:10), 'Rate' (14.00), and 'Line Cost' (2.33).

**Note:**

We can associate 2 or more task with 1 Person or we can associate 2 or more person with 1 task

## Lab Session 6: Creating Job Plans

- Associating Material

Go to material Tab and Click New row

The screenshot shows the Maximo Job Plans interface. At the top, there are navigation tabs: Labor, **Materials** (highlighted with a red circle), Services, and Tools. Below the tabs is a table with columns: Task, Item, Description, Storeroom, Item Quantity, Unit Cost, Line Cost, and Vendor. The table contains one row with values: Task (1), Item (1), Description (Open Cover), Storeroom, Item Quantity (1.00), Unit Cost (0.00), Line Cost (0.00), and Vendor. Below the table is a 'Details' section with fields for Organization, Site, Task, Sequence, Item Set (SET1), Item, Item Quantity (1.00), Vendor, Direct Issue?, Storeroom, Storeroom Site, Unit Cost (0.00), Line Cost (0.00), Condition Enabled?, Condition Code, Condition Rate, and Stock Category. At the bottom right of the details section, there is a 'New Row' button highlighted with a red circle.

The screenshot shows the Maximo Job Plans interface with the 'Services' tab selected. The table has columns: Task, Service Item, Description, Quantity, Unit Cost, Line Cost, and Vendor. The table contains one row with values: Task, Service Item, Description, Quantity (1.00), Unit Cost (0.00), Line Cost (0.00), and Vendor. Below the table is a 'Details' section with fields for Organization, Site, Task, Item Set (SET1), Service Item, Quantity (1.00), Unit Cost (0.00), Line Cost (0.00), and Vendor. At the bottom right of the details section, there is a 'New Row' button.

## Lab Session 6: Creating Job Plans

### - Associating Equipment/Tool

The screenshot displays the MAXIMO 6.0 Job Plans interface. The top navigation bar includes 'Go To', 'M Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. The main window is titled 'Job Plans' and shows a 'Job Plan' for 'J1' with a 'Change Oil Filter' description. The 'Details' section includes fields for Status (DRAFT), Duration (0.00), WO Priority, Interruptible?, Supervisor, Crew, Lead, Work Group, Owner, and Owner Group. Below this is a 'Job Plan Tasks' table with three rows: 'Open Cover' (0.10), 'Change filter' (0.10), and 'Close Cover' (0.00). The 'Tool' tab is selected, showing a 'Planned Tools' table with one row: '1.00' quantity, '0.00' hours, '0.00' rate, and '0.00' line cost. The 'Details' section for the tool includes Organization, Site, Task, Sequence, Item Set (SET1), Tool, Tool Quantity (1.00), Tool Hours (0.00), Rate (0.00), Storeroom, Storeroom Site, Reservation Required?, and Line Cost (0.00). Two red circles highlight the 'Tool' tab and the 'New Row' button at the bottom right of the 'Planned Tools' section.

Sequence	Task	Description	Duration	Meter
1	1	Open Cover	0.10	
2	2	Change filter	0.10	
3	3	Close Cover	0.00	

Task	Tool	Description	Tool Quantity	Tool Hours	Rate	Line Cost
			1.00	0.00	0.00	0.00

4. Save the record.

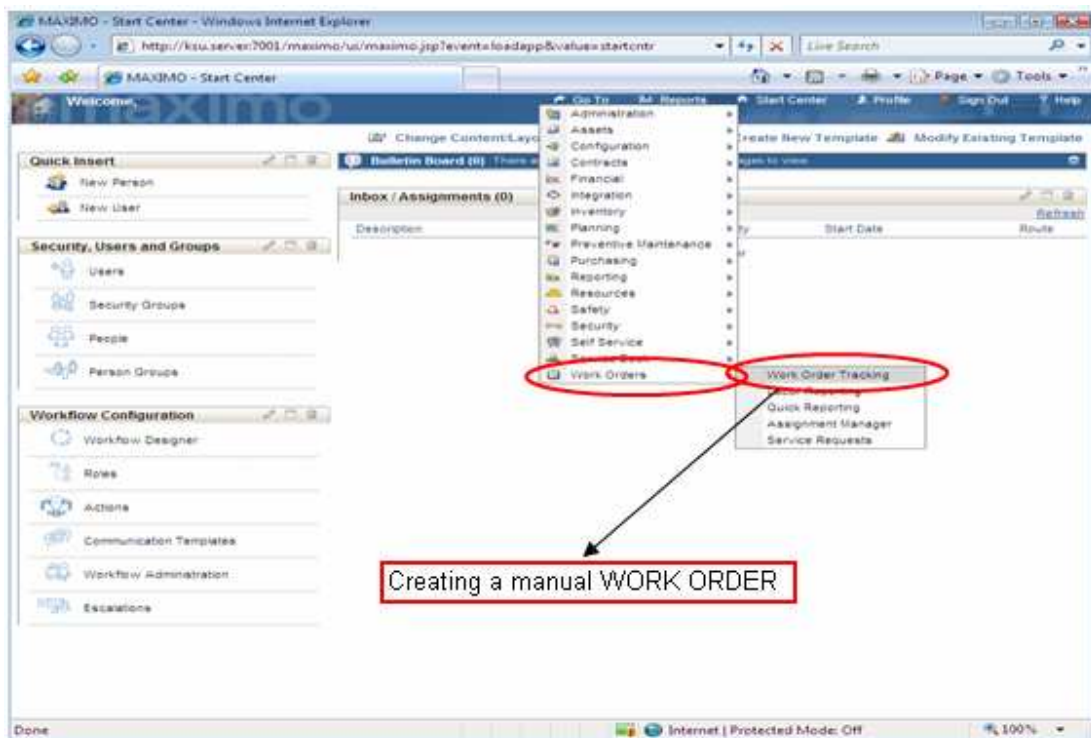
*Lab Session 7: Creating Work Order for PM*

## LAB SESSION 7: Creating Work Order for PM

### Creating WORK ORDER in MAXIMO:

- Work order can be create in two ways:
  - a. Manually → by using “Work Order tracking”, “Quick Reportind”, and “Service Request” applications.
  - b. Automatically → by using “Preventive Maintenance” and “Condition Monitoring” Applications.
- Work order process life cycle occur when a work order is automatically or manually generated.
- Work order tracking application is related to: Planning, Scheduling, and Reporting.

1. Go to Work Order Application:



## Lab Session 7: Creating Work Order for PM

2. Click new record:

The screenshot displays the Maximo Work Order Tracking application interface. The top navigation bar includes 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below the navigation bar is a search bar with 'Find:' and a 'Select Action' dropdown menu. The main content area is divided into several sections:

- Work Order Information:** Fields for Work Order (1146), Location, Asset, Parent WO, Classification, Description, Site (BEDFORD), Class (WORKORDER), Work Type, GL Account, Failure Class, Problem Code, Attachments, Status (WAPPR), Status Date (4/13/11 11:02 AM), Inherit Status Changes? (checked), Accepts Charges? (checked), and Is Task? (unchecked).
- Job Details:** Fields for Job Plan, PM, Safety Plan, Contract, Asset Up? (checkbox), Warranties Exist? (checkbox), SLA Applied? (checkbox), Charge to Store? (checkbox), Asset Location Priority, Priority, Priority Justification, and Risk Assessment.
- Scheduling Information:** Fields for Target Start, Target Finish, Scheduled Start, Scheduled Finish, Actual Start, Actual Finish, Duration (0:00), Time Remaining, Originating Record, Originating Record Class, Has Follow-up Work? (checkbox), and Interruptible? (checkbox).
- Responsibility:** Fields for Reported By (G1), Reported Date (4/13/11 11:02 AM), On Behalf Of, Phone, Supervisor, Crew, Lead, Work Group, Vendor, Owner, Owner Group, Service Group, and Service.

- Scheduling information:

The filed in the scheduling information determine the status change in the work order.

**Lab Session 7: Creating Work Order for PM**

Work Order Tracking

Go To | Reports | Start Center | Profile | Sign Out | Help

Find: [ ] Select Action [ ] Reports [ ]

List | **Work Order** | Plans | Related Records | Actuals | Safety Plan | Log | Failure Reporting

Work Order\* 1147 [ ] Site BEDFORD [ ] Attachments [ ]  
 Location [ ] [ ] Class WORKORDER [ ] Status WAPPR [ ]  
 Asset [ ] [ ] Work Type [ ] Status Date\* 4/13/11 11:18 AM [ ]  
 Parent WO [ ] [ ] GL Account [ ] Inherit Status Changes?   
 Classification [ ] [ ] Failure Class [ ] Accepts Charges?   
 Description [ ] [ ] Problem Code [ ] Is Task?

Job Details [ ] Asset Details [ ] Priority [ ]

Job Plan [ ] [ ] Asset Up?  Asset/Location Priority [ ]  
 PM [ ] [ ] Warranties Exist?  Priority [ ]  
 Safety Plan [ ] [ ] SLA Applied?  Priority Justification [ ]  
 Contract [ ] [ ] Charge to Store?  Risk Assessment [ ]

Scheduling Information [ ] Follow-up Work [ ]

Target Start [ ] [ ] Actual Start [ ] [ ] Originating Record [ ] [ ]  
 Target Finish [ ] [ ] Actual Finish [ ] [ ] Originating Record Class [ ] [ ]  
 Scheduled Start [ ] [ ] Duration\* 0:00 [ ] [ ] Has Follow-up Work?   
 Scheduled Finish [ ] [ ] Time Remaining [ ] [ ] Interruptible?

Responsibility [ ]

Reported by [ ] [ ] Supervisor [ ] [ ] Owner [ ] [ ]  
 Reported Date 4/13/11 11:18 AM [ ] [ ] Crew [ ] [ ] Owner Group [ ] [ ]  
 On Behalf Of [ ] [ ] Lead [ ] [ ] Service Group [ ] [ ]  
 Phone [ ] [ ] Work Group [ ] [ ] Service [ ] [ ]  
 Vendor [ ] [ ]



## Lab Session 7: Creating Work Order for PM

### 3. Entering record:

The screenshot displays the MAXIMO Work Order Tracking interface. The top navigation bar includes 'Go To', 'M Reports', 'Start Center', 'Profile', and 'Sign Out'. The main content area is divided into several sections:

- Work Order Summary:** Includes fields for Work Order (1004), Location (BR238), Asset (11220), Classification, Description, Site (BEDFORD), Class (WORKORDER), Work Type (CM), GL Account (E210-327-199), Failure Class, Problem Code, Attachments, Status (NPRO), Status Date (2/6/99 2:18 PM), Inherit Status Changes? (checked), Accepts Charges? (checked), and Is Task? (unchecked).
- Job Details:** Includes Job Plan (JP11210), PIA, Safety Plan, Contract, Asset Up? (checked), Warranties Exist? (unchecked), SLA Applied? (unchecked), Charge to Store? (unchecked), Asset Location Priority (3), Priority (1), and Priority Justification.
- Scheduling Information:** Includes Target Start (12/31/98 8:00 AM), Target Finish (12/31/98 3:00 PM), Scheduled Start, Scheduled Finish, Actual Start (2/6/99 2:18 PM), Actual Finish, Duration (7:00), Time Remaining, Originating Record, Originating Record Class, Has Follow-up Work? (unchecked), and Interruptible? (unchecked).
- Responsibility:** Includes Reported By (Dave Smith), Reported Date (12/31/98 10:50 AM), On Behalf Of, Phone (x3284), Supervisor (MILLER), Crew, Lead, Work Group, Vendor, Owner, Owner Group, Service Group, and Service.

A red box highlights the 'Job Details' and 'Asset Details' sections. A red box at the bottom contains the following text:

If the job has a job plan and the job plan already created in the "Job Plan module". Then, we just call the existing job plan.

#### Note:

- We can enter Job Plan in "Job Details" section if we have already define the job plan in "job plan" application.
- If not, we can define and create Job Plan in the Plans Tab.
- "Scheduling information" to determine the status change of the work order.
- "Responsibility" section is to enter person record related to work order.



## Lab Session 7: Creating Work Order for PM

4. Go to “Plans” tab → If we want to create a Job Plan or modify an existing Job Plan.

### NOTE:

This tab is the same like the one in “Job Plan” Module. Then, we can create Job Plan also from work order module (if the job has a certain sequence (job plan) to be followed).

The screenshot shows the 'Plans' tab for Work Order 1004, titled 'Generator Overhaul'. The status is 'INPRG' and the site is 'BEDFORD'. Below the header, there are two tables:

Sequence	Task	Summary	Estimated Duration	Status
10	Review generator test logs.		0:00	INPRG
20	Check all hose connections for tightness.		0:00	INPRG
30	Check coolant level.		0:00	INPRG
40	Take battery hydrometer readings.		0:00	INPRG
50	Check battery charge rate of each charger, re		0:00	INPRG
60	Check battery voltage and water level.		0:00	INPRG

Task	Craft	Skill Level	Vendor	Quantity	Labor	Regular Hours	Rate	Line Cost
10	MECH	FIRSTCLASS		1		6:00	18.50	111.00
20	ELECT	FIRSTCLASS		1		7:00	18.50	129.50
70	MECH	FIRSTCLASS		1		5:00	18.50	92.50

5. Go to “Safety Plan” Tab.

- the function of this data is to manage safety information needed for a work order.

The screenshot shows the 'Safety Plan' tab for Work Order 1004, titled 'Generator Overhaul'. The status is 'INPRG' and the site is 'BEDFORD'. Below the header, there are three sections:

**Hazards and Precautions**

Hazard	Hazard Description	Hazard Type	Related Location	Related Asset
...No rows to display...				

**Precautions for**

Precaution	Description
...No rows to display...	

## Lab Session 7: Creating Work Order for PM

6. Go to “Related Record” Tab → if we want to relate a work order to another.

The screenshot shows the MAXIMO Work Order Tracking interface. The 'Related Records' tab is selected. The main header shows 'Work Order 1004' with a description of 'Generator Overhaul' and 'Site BEDFORD'. Below this, there are two tables: 'Related Work Orders' and 'Related Tickets'. Both tables are currently empty, displaying the message '...No rows to display...'. Navigation buttons like 'Select Work Orders', 'New Row', 'Select Ticket', and 'New Row' are visible.

7. Go to “Actual” Tab → if we want to manage child work orders and task status as well as reporting the actual resources.

The screenshot shows the MAXIMO Work Order Tracking interface with the 'Actuals' tab selected. The main header shows 'Work Order 1004' with a description of 'Generator Overhaul' and 'Site BEDFORD'. Below this, there are two tables: 'Children of Work Order 1004' and 'Tasks for Work Order 1004'. The 'Tasks for Work Order 1004' table is populated with the following data:

Sequence	Task	Summary	Estimated Duration	Status
10		Review generator test logs.	0:00	INPRG
20		Check all hose connections for tightness.	0:00	INPRG
30		Check coolant level.	0:00	INPRG
40		Take battery hydrometer readings.	0:00	INPRG
50		Check battery charge rate of each charger, re	0:00	INPRG
60		Check battery voltage and water level.	0:00	INPRG

Below the tasks table, there are tabs for 'Labor', 'Materials', 'Services', and 'Tools'. The 'Labor' tab is selected, showing an empty table with columns: 'Task', 'Labor', 'Name', 'Approved?', 'Start Date', 'Start Time', 'End Time', 'Regular Hours', and 'Rate'. Navigation buttons like 'Select Labor', 'Select Planned Labor', and 'New Row' are visible.

## Lab Session 7: Creating Work Order for PM

8. Go to “Log” Tab .

The screenshot shows the Maximo Work Order Tracking application. The 'Log' tab is active. The work order details are: Work Order 1004, Generator Overhaul, Site BEDFORD, Status INPRG. The work log table shows one record with ID 1004, Class WORKORDER, Created By G1, Date 4/13/11 11:42 AM, Type CLIENTNOTE, and Viewable? N. Below the table, a 'Details' section is visible with fields for Record, Class, Created By, Date, Type, and Viewable?.

- This tab is used to enter work summary and detail

9. Go to “Failure Reporting” tab.

- This tab is used to display Failure Code hierarchy based on the Asset Failure Class.

The screenshot shows the Maximo Work Order Tracking application with the 'Failure Reporting' tab selected. The work order details are: Work Order 1004, Generator Overhaul, Site BEDFORD, Status INPRG. The 'Failure Details' section shows Failure Class BOLERS, Boiler Failures, Remarks, and Remark Date. Below this, a 'Failure Codes' table is displayed with columns for Type, Failure Code, and Description.

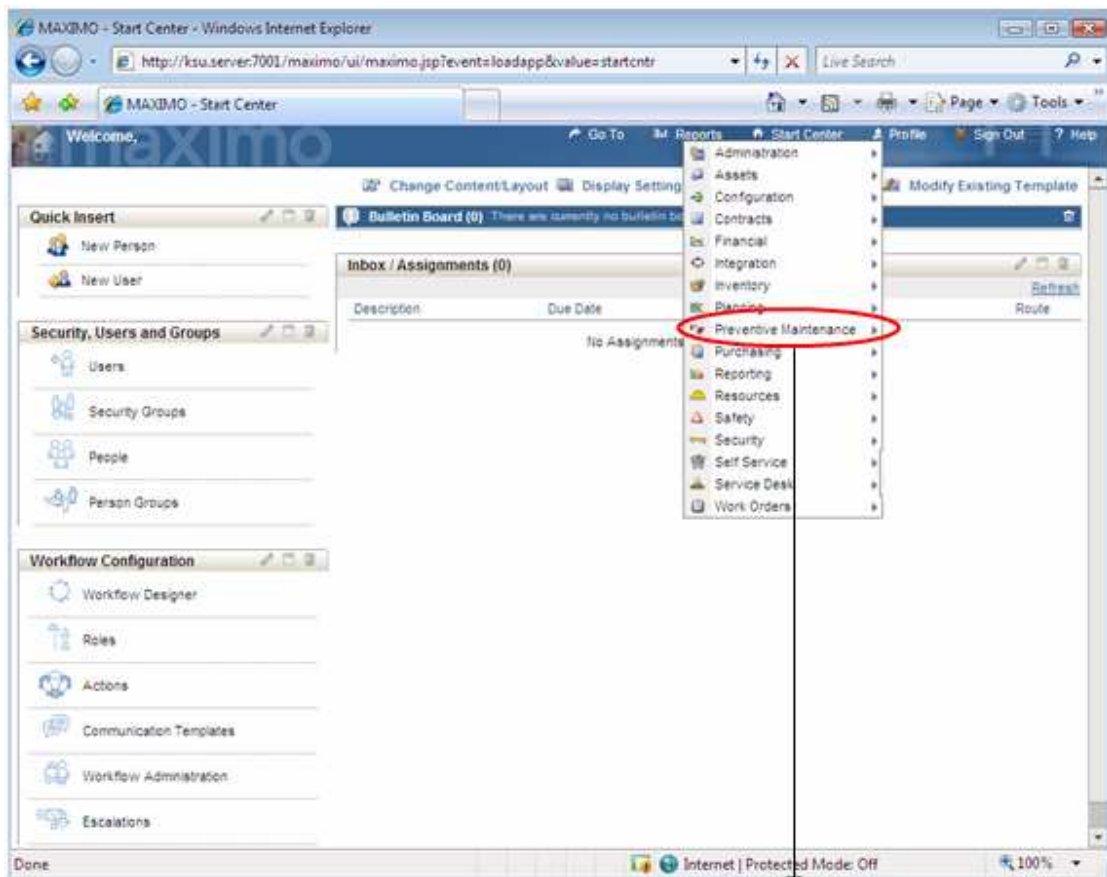
Type	Failure Code	Description
PROBLEM	STOPPED	Stopped
CAUSE	LOWVOL	Low Volume
REMEDY	INCWATER	Increased Water Level

10. Save the new record.

## Lab Session 7: Creating Work Order for PM

### Creating Preventive Maintenance (PM) in MAXIMO:

- PM application in MAXIMO can also be used to create and manage work orders. The record in PM is copied to work order module.
  - PM can be generated in two ways:
    - a. Based on Elapsed time
    - b. Based on meter reading (mileage)
1. Go to “Preventive Maintenance” → Preventive Maintenance.



by this way, we can generate WORK ORDER automatically (Automatic WORK ORDER)

## Lab Session 7: Creating Work Order for PM

2. Click new record to enter new data.

The screenshot shows the MAXIMO Preventive Maintenance form in a web browser. The form is titled "Preventive Maintenance" and has a navigation bar with "Go To", "Reports", "Start Center", "Profile", "Sign Out", and "Help". Below the navigation bar is a search bar and a "Select Action" dropdown. The form is divided into several sections:

- PM Details:** PM # 1008, Master PM, Site BEDFORD, Status DRAFT, Attachments.
- Details:** Location, Asset, Route, Lead Time (Days) 0, Lead Time Active? , Counter 0, Use Job Plan Sequences? , Has Children? .
- Work Order Information:** Job Plan, Work Type, Work Order Status \* WSCH, Priority, Interruptible? , Description, Last Start Date, Last Completion Date, Earliest Next Due Date, Supervisor, Crew, Lead, Work Group, Owner, Group Owner.
- Resource Information:** GL Account, Storeroom, Storeroom Site BEDFORD, Use this PM to Trigger PM Hierarchy? , Child Work Orders and Tasks Will Inherit Status Changes? .

3. Enter the necessary data.

The screenshot shows the MAXIMO Preventive Maintenance form in a web browser, displaying a record with data entered. The browser address bar shows "http://ksu.server:7001/maximo/ui/maximo.jsp?event=loadapp&value=pm". The form is titled "Preventive Maintenance" and has a navigation bar with "Go To", "Reports", "Start Center", "Profile", "Sign Out", and "Help". Below the navigation bar is a search bar and a "Select Action" dropdown. The form is divided into several sections:

- PM Details:** PM # IC-11300, Master PM, Site BEDFORD, Status DRAFT, Attachments. Description: Compressor Quarterly Inspection and Certificate.
- Details:** Location, Asset 11300, Route, Lead Time (Days), Lead Time Active? , Counter 1, Use Job Plan Sequences? , Has Children? .
- Work Order Information:** Job Plan INS11300, Work Type PM, Work Order Status \* WSCH, Priority 9, Interruptible? , Description Reciprocating Compressor Inspection, Last Start Date 3/30/99, Last Completion Date 11/13/98, Earliest Next Due Date 4/13/11, Supervisor WILSON, Crew, Lead, Work Group, Owner, Group Owner.
- Resource Information:** GL Account, Storeroom CENTRAL, Storeroom Site BEDFORD, Use this PM to Trigger PM Hierarchy? , Child Work Orders and Tasks Will Inherit Status Changes? .



## Lab Session 7: Creating Work Order for PM

4. Go to "Frequency" Tab.
  - This tab is to determine PM's frequency scheduled that related to how often the work orders are generated. It can be time-based (based on elapse time) and meter-based (based on mileage).

The screenshot shows the 'Frequency' tab in the MAXIMO Preventive Maintenance interface. The PM ID is IC-11200, the task is 'Compressor Quarterly Inspection and Certifica', and the site is BEDFORD. The status is DRAFT. Under 'Work Order Generation Information', there are checkboxes for 'Use Last WO's Start Information to Calculate Next Due Frequency?' (checked), 'Generate WO Based on Meter Reading (Do Not Estimate)?', and 'Generate WO When Meter Frequency is Reached?'. Two radio buttons are present: 'Time Based Frequency' (selected) and 'Meter Based Frequency'. Below these are fields for 'Frequency' (set to 90), 'Frequency Units' (set to DA=3), 'Alert Lead (Days)', 'Estimated Next Due Date' (set to 6/25/09), 'Extended Date', and 'Adjust Next Due Date?'.

5. Go to "Seasonal Dates" Tab.
  - We can determine active PM days and dates using "Seasonal" tab.
  - Active Days section → allow to select the days of the week on work order can be generated.
  - Active Dates section → allow numerous time period (seasons) of various durations to be added.

The screenshot shows the 'Seasonal Dates' tab in the MAXIMO Preventive Maintenance interface. The PM ID is IC-11300, the task is 'Compressor Quarterly Inspection and Certifica', and the site is BEDFORD. The status is DRAFT. The 'Active Days' section shows checkboxes for Sunday through Saturday, all of which are checked. The 'Active Dates' section has a table with columns for Start Month, Start Day, End Month, and End Day. Below this is a 'Details' section with input fields for Start Month, Start Day, End Month, and End Day. A 'New Row' button is located at the bottom right.

## Lab Session 7: Creating Work Order for PM

6. Go to “Job Plan Sequence” Tab.
  - More than 1 Job Plans can be used in PM

The screenshot shows the 'Job Plan Sequence' tab in the Preventive Maintenance system. The main form displays the following information:

- PM: IC-11300
- Description: Compressor Quarterly Inspection and Certifica
- Site: BEDFORD
- Status: DRAFT
- Location: [Empty]
- Asset: 11300
- Job Plan: INS11300
- Storeroom: CENTRAL
- Storeroom Site: BEDFORD

Below the main form is a table for 'Job Plan Sequence' with columns: Job Plan, Description, and Sequence. The table contains one row:

Job Plan	Description	Sequence
INS11300	Reciprocating Compressor Inspection	1

Below the table is a 'Details' section with fields for Job Plan\* and Sequence\*.

7. Go to “PM Hierarchy” Tab.
  - PM hierarchy is used to schedule a group of work orders for an asset or location hierarchy.

The screenshot shows the 'PM Hierarchy' tab in the Preventive Maintenance system. The main form displays the following information:

- PM: IC-11300
- Description: Compressor Quarterly Inspection and Certifica
- Site: BEDFORD
- Status: DRAFT
- Parent: [Empty]

Below the main form is a table for 'Children' with columns: Sequence, PM, Description, Asset, Location, and Status. The table is currently empty.

Below the table is a 'Details' section with fields for Sequence, PM\*, Asset, Location, and Status.

8. Save the new record.