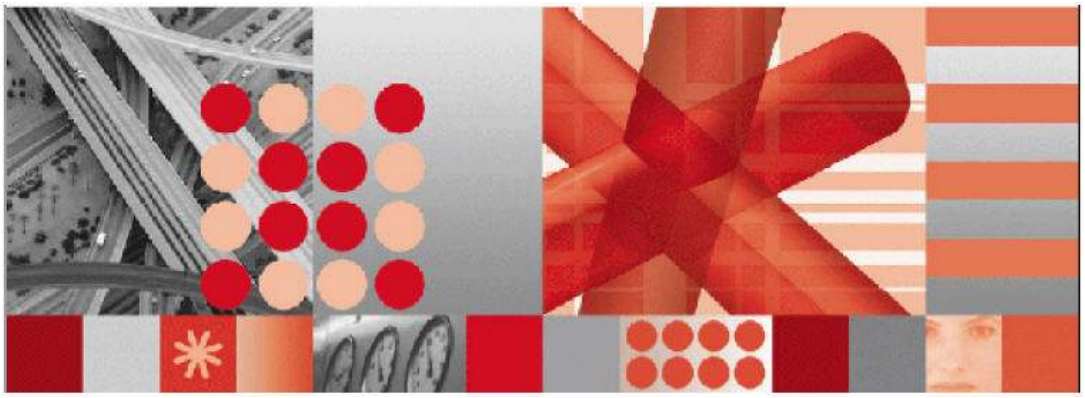
Tivoli. Software

# What's New in Release 7.1



Maximo Asset Management and Tivoli Asset Management for IT

# Overview of the Maximo Asset Management 7.1 and Tivoli Asset Management for IT 7.1 Enhancements

## Introduction:

This document is designed to provide an overview of new functionality that was created for the 7.1 Maximo Asset Management and 7.1 Tivoli Asset Management for IT products. As noted in this document, some of this functionality is also leveraged by the Service Request Manager and CCMDB products, but there is also a tremendous amount of 7.x functionality that was developed that is specific to those two products that is not acknowledged in this document.

## 1.0 Overview:

The following are the three main development areas of focus for the 7.1. Maximo and Tivoli Process Automation Platform release:

1. Continuing the strategy of one platform for the key processes that go hand in hand: Maximo Asset Management, Tivoli Asset Management for IT, Tivoli Service Request Manager and Configuration and Change Management Database
2. Lowering both the cost of ownership and the cost of environment migration
3. Specific market driven functionality such as Linear Assets, enhancements to work and process management and enhancements to usability

These enhancements are outlined in more detail below.

## *2.0Functional Enhancements*

### 2.1 Linear Assets (optional added on for Maximo):

Linear assets are assets that have linear properties and are often connected together within a network or system. For example, Linear Assets may include:

- Roads
- Pipelines
- Railways

The management of linear assets differs from the management of non-linear assets in that non linear assets occupy a defined space, and can often be tracked by their location, or be expressed as a part of a parent child hierarchy. Linear assets have linear properties that often change over the length of the asset (i.e. pavement type, number of lanes, guardrail presence). So a single linear asset record, such as a highway that is many miles long, can now possess characteristics that change over the span, allowing the linear asset to be virtually

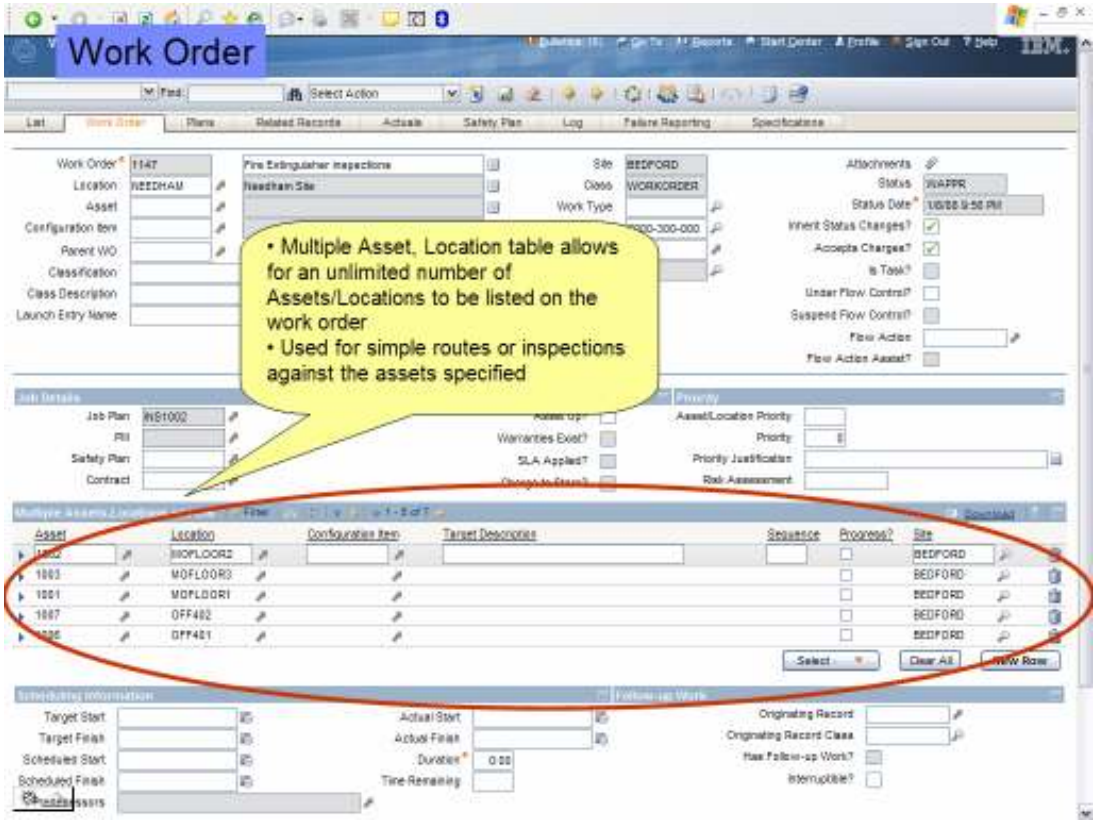
segmented without impacting the underlying geometry. In addition, relationships may be defined which articulate how linear assets join, cross, run in parallel, or pass over or under one another.

Work can now be carried out against single or multiple segments of a linear asset. For instance, grass cutting can be performed from mile post 10 to mile post 20 on Interstate 95. Customers can also query maintenance that has been performed against a specific segment (i.e. show me all work done from mile post 11 to mile post 18). This is a valuable tool to any operation demanding linear asset functionality.

**Product(s): Maximo 7.1 (as an add-on)**

### 2.2 Multiple Assets and/or Locations on Work Orders:

Multiple assets, locations, and CIs should be allowed on work orders without the need for child work orders or tasks. However, this solution will not support cost distribution at the asset/location level - the work order will still have a single GL Account.




**Product(s): Maximo 7.1, TAMIT 7.1, CCMDB 7.1, SRM 7.1**

### 2.3 Enhanced Swap capabilities:

With Maximo 6 an action in Work Order tracking was introduced to Plan Asset Moves as part of the work process. Upon completion of the work order, the Asset move transactions are recorded in Maximo. With Maximo 7 this capability is extended to support Planned Asset Swaps. An Asset Swap is a single transaction to replace one asset with another. In the past this took multiple Asset moves to perform this action. Once the Work Order is completed, the asset swap (moves) transactions are recorded in Maximo.

Optionally, this single step swap action can also be performed from the Asset application, and does not require a work order to accomplish this task. The swaps are captured within the Asset Move History just as multiple step Location changes have been in the past. The User and Custodian associated with Assets involved in the swap may also be modified at the time of the swap or move (planned or ad-hoc).

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1**

### 2.4 Configuration Item Functionality

Configuration Items (CIs) are an operational view of things you wish to manage. The CI lifecycle is a subset of the asset lifecycle and essentially the CI lifecycle represents assets in an operational state. New functionality is provided to manage an "Actual" or discovered view of this detailed configuration information as well as the ability to manage the "Authorized" view of this configuration data. Accordingly, one can also compare and contract these views and take appropriate actions based on these comparisons.

**Product(s): Maximo 7.1, TAMIT 7.1, CCMDB 7.1, SRM 7.1**

### 2.5 Automated Flow Control – Status Management:

Maximo 7.1 provides the capability to define precedence connections between work orders and tasks. This then initiates the resulting network of records automatically having a finish-to-start action applied to them, thus automating the flow of status changes between them. For example, if flow control sequencing is enabled at the Job Plan level, then all of the Tasks generated when applying the Job Plan to a work order, look to the one before it to see if it has been completed. If the predecessor has been completed, then its status is automatically changed to "In Progress". Any successive Tasks may not have their status changed to In Progress until their immediate predecessor has been completed. As such, the status on the work order can not be changed to Complete until all tasks have been completed in the order in which they are sequenced. At such time as when the Tasks are all completed, then the work order status can be automatically changed to "complete".

Product(s): **Maximo 7.1, TAMIT 7.1, CCMDB 7.1, SRM 7.1**

### 2.6 New Activities & Tasks Application:

A new Task application is available that is a subset of Work Order Tracking functionality to support the single task specific use case.

For example, a user is assigned Task 20 on a work order. This task is asking a labourer to install a new pump on a boiler. When this assignment appears in their inbox, they can click on that assignment and be brought to the Task application. At that point, they may simply select the "start" timer to indicate that they have now commenced work on the task assigned to them. Similarly, when the task is complete, they may select the task in the same manner, choose the "stop" timer, and have the system automatically post their elapsed time against the work order, including the extended cost of their labour. This entire booking will be visible within the Resources tab. All screens within this new application have been pared down to maintain simplicity. Additional information available includes the Plans and Actuals tabs, Related Records, and the Log tab.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.7 Attached Documents at task level:

The standard functional capability to attach documents will be applied to the Work Order Tasks and Job Plan Tasks. When on the work order, the user will see the attachments for the whole work order including the tasks. When at the Task level (via either Work Order or Job Plan), they will now see attachments applicable to the individual Task.

Attaching a doc to a task will occur in the detail section of the task table window. An attachment icon with a paper clip will be visible. All Task attached document functionality will remain the same as elsewhere in the Maximo product.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.8 Nested Job Plans:

This functionality will allow Job Plans to be nested within a hierarchical relationship. Users will have the ability to create a Job Plan that refers to other Job Plans. These will be nested and will generate a Work Order Hierarchy when applied to a Work Order (not just Tasks). Job Plans may be nested to as many levels as needed.

As an example, when a new pump is purchased and prepared for deployment within the plant, part of its preparation may include a number of unique steps. The remainder of the work may be exactly the same as the 90 day PM. With nested Job Plans, the 90 day PM Job Plan may now be specified as part of the pre deployment Job Plan without having to rewrite the entire 90 Day PM plan details. If your operation utilizes complex Job Plans with hundreds of line items, then this feature enables significant time savings. The Apply Job Plan and Create Job Plan from Work Plan actions will also be enhanced to support the new functionality.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.9 Classification-based attributes:

With Maximo release 6, Work Orders were enhanced so they could be classified, however they did not support Classification Attributes. With Maximo 7.1 Work Order Classifications will be enhanced to support the Attributes and all of the standard functionality that comes with this feature (the same as Assets, Locations and Items). Furthermore, classification functionality has also been added to Job Plan's Solutions and CI's. Additional steps were also taken to improve the overall usability with classifications and streamline the application.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.10 Work Order Detail

Maximo 7 provides a more comprehensive display of the View Work Orders and PM's view provided in prior versions of Maximo. It is now called View Work Details, and has been updated to include Tickets of all classes under the Work tab, Preventive Maintenance, Routes, and Collections.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.11 Classification Enhancements

The concept of Classification was introduced in Maximo 6. Enabling Classifications for the objects supporting them involved a tedious check box selection routine. For Maximo 7.1, the Classification functionality has been both enhanced, and made available to more objects (Job Plans, CI's, Service Items, Purchasing Documents and Items).

The "Applies To" check boxes have been replaced with a table window where the objects that a particular Classification applies to may be selected as required. All objects that support Classifications also support Attributes. The Attributes can be defined for a Classification, and will be inherited down a Classification hierarchy. Duplicating a Classification will also include the duplication of the associated Attributes.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.12 Job Plan Template

Another enhancement to the Job Plan application includes the addition of the Job Plan Template field. This field will have a domain associated with it, pre-populated with three choices of:

- Maintenance
- Activity
- Process

The design function of this field is to enable logical grouping of Job Plans, so that UI's may be conditionally altered.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.13 Task & Work Order Ownership

Job Plans and Work Orders currently support the concept of Ownership (along with many other applications). I Maximo 7.1, Work Order tasks and Job Plan Tasks will also support the Ownership concept, and will function consistently with other applications possessing the ownership entity.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.14 Future Date Tolerance

Maximo 6 allows a user to report labour to any point in the future. While this may be convenient, it causes problems if a user tries to change the status of the work order prior to the date of the future labour entry.

Maximo 7.1 has a tolerance that can be made within the Administration Organization settings. Here, the administrator can set the number of hours in the future where a user may report their labour. Future tolerances ranging from o – 12 hours will be accepted.

**Product(s): Maximo 7.1**

### 2.15 Route Enhancements

Route stops have traditionally become Child Work Orders in prior versions of Maximo. In Maximo 7.1, the option will be available within the Route application to have Route Stops become:

- Child Work Orders
- Entries within the Work Orders Multi Asset, Location, or CI table
- Work Order Tasks

These selections are made at the header level of each Route, not at the application level.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1**

### 2.16 Assets

The many enhancements made to the Asset application can be broken down into the following subcategories:

*Report Downtime:*

In earlier releases of Maximo, Asset Downtime can be reported only with a work order reference. Now, users can now directly report downtime against an Asset from the Assets Application without a Work Order reference.

*Manage Downtime:*

Users can now edit asset downtime history from the assets application. This enables users to correct any erroneously entered downtime.

*Asset Collections:*

This is a new capability where a bunch of Assets can be grouped, called Collections. A collection can contain Asset from multiple Sites. In the Security Group Application the administrator can assign user groups to these collections so that users can have access to certain assets only.

*Issue Items from Inventory*

The Assets application now has a new capability where users who have access to storerooms can issue items directly to an asset from the Assets application. In cases where the issued item is a rotating asset the user can optionally choose the rotating asset to become a child of the current asset.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1**

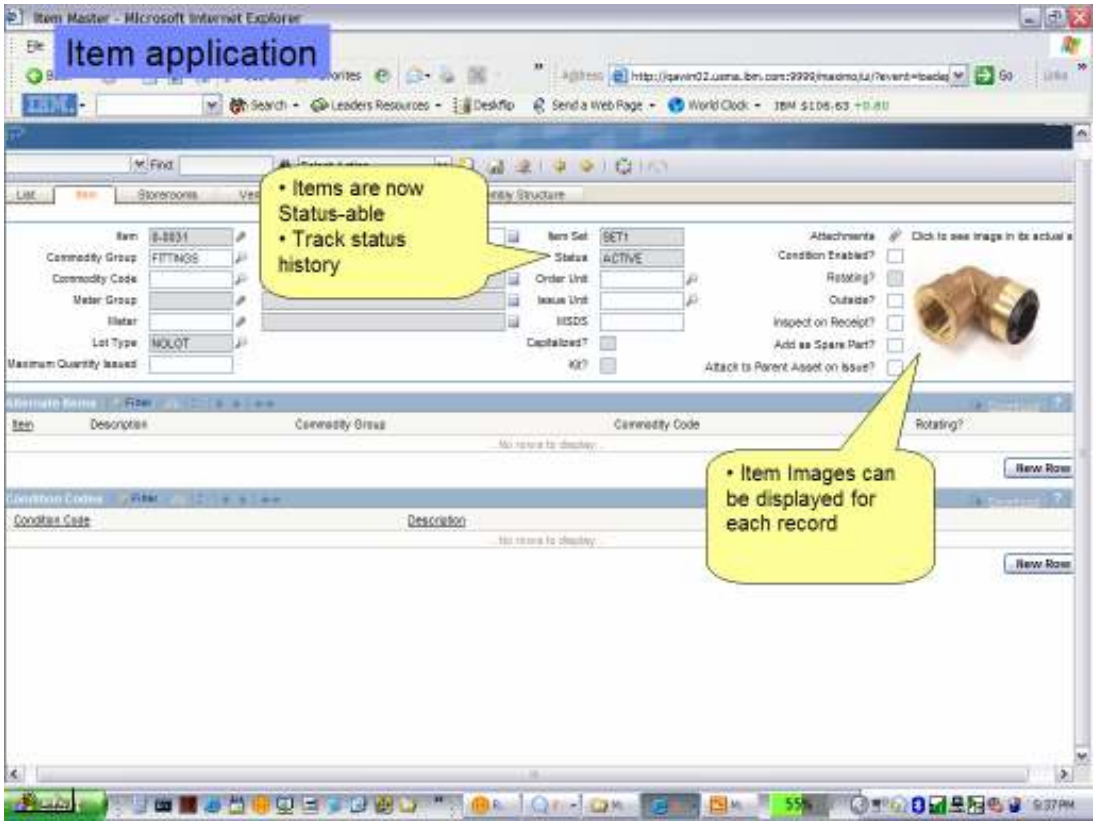
### 2.17 Item Status

Maximo 7.1 adds the ability to manage Items and Inventory based on a robust set of status rules and capabilities. Users can track and manage the lifecycle of items from creation to obsolescence at each of the functional areas for items (Item, Organization and Inventory). With the introduction of Item Status, item records can now be 'workflowed' to enforce a custom business process or scenario. Full status functionality has been added for Tools and Service Items as well.

**Product(s): Maximo 7.1, TAMIT 7.1**

### 2.18 Item Images

The Item Master, Tools and Service Items applications all support the ability to associate images with their main records. This differs from an attachment in that it is actually associated to the main definition in the database and is viewable within the application right from the main tab. These images can be used for quick visual identification of items when navigating through the records. In addition, the image can be called from detail menu of any item field throughout Maximo.




**Product(s): Maximo 7.1, TAMIT 7.1**

### 2.19 Software Contracts

Software Contracts are managed as a subset of Purchase Contracts in Maximo 6.x. However, Contracts for Software Licenses have unique requirements, including specific attributes and associations. Therefore, in 7.1, a new 'Software Contract' application is being permanently added. In addition to capturing more Software specific attributes, this application will allow the association of Software License Compliance Summary data from TLCM and TACC. This integration will allow for a link between entitled License data and Software Contract data when the full Tivoli Asset Mgt for IT suite of products is deployed.

**Product(s): TAMIT 7.1**

### 2.20 Work Management Status Change Flow Control

An embedded status change workflow has been added to the work order applications. Precedence relationships can be defined between work orders, activities and tasks. Flow control can then be optionally set in either the job plan or work order applications to govern the status change rules in a hierarchy and/or network of records. Records under flow control are set into progress when their predecessors are completed, improving the timeliness of the ownership of eligible tasks, for notification purposes for example. Records in a branch of a hierarchy that are complete roll the completion up to the parent of that branch, moving progress to the next eligible phase of the project. Records that have

uncompleted predecessors may not be manually set into progress, preventing the inadvertent starting of tasks that are not ready.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.21 Extended Attributes with Service Requests

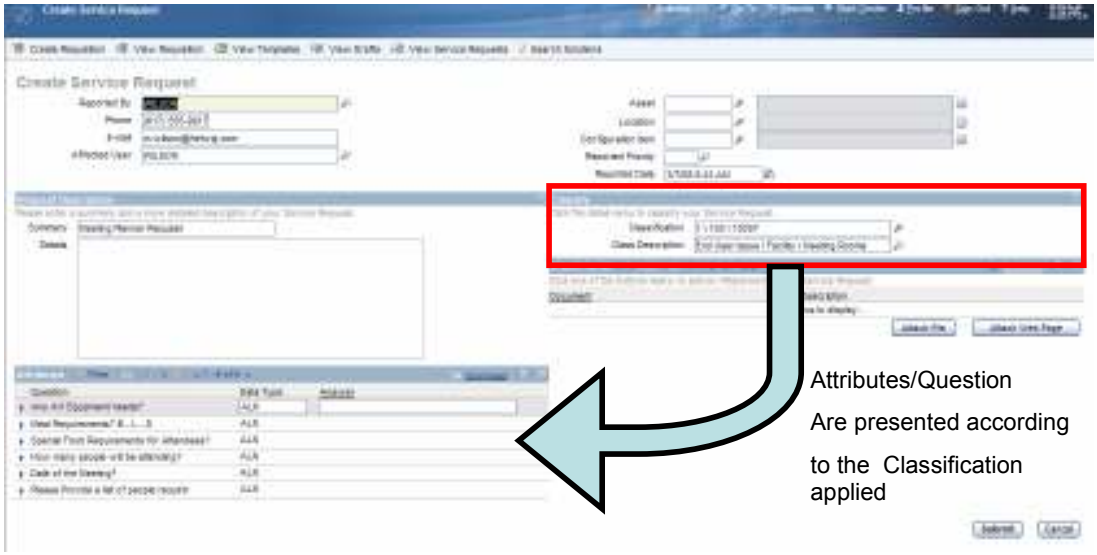
Self Service

Use of extended attributes with the Self Service Applications can greatly increase the quality of the information captured from the self-service user by presenting a set of questions related to the issue being reported.

Service Desk Power Apps

When coupled with the Service Request Power Application, you can drive the operator to consistently ask the appropriate questions and capture the required information to solve a particular classification of issue

Self Service User's Create Service Request UI

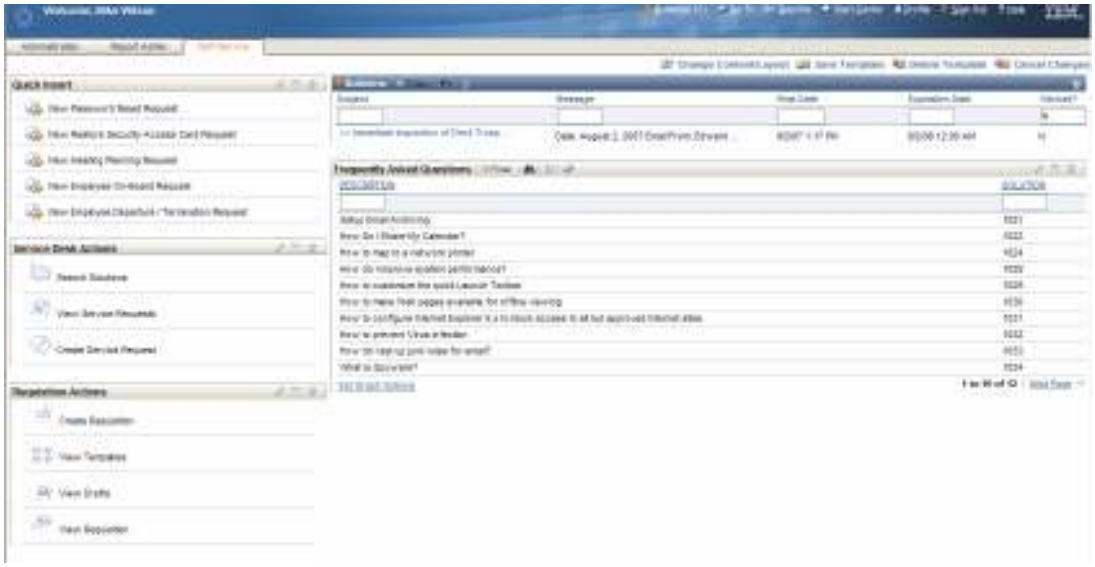



**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.22 New Quick Insert Functionality

New Quick insert functionality enables the rapid creation of SRs, Incidents and Problems by referencing a ticket template along with the quick insert action. In the past, the typical quick insert action would open an application and insert a blank record. In 7.1, we take the quick insert function one step further by applying a ticket template that is referenced as part of the quick insert on the record that is inserted.

We see customers using this new functionality to simplify the interaction a self-service user experiences by providing new quick inserts for the most commonly requested items/issues.



**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.23 New Bulletin Board Functions

Hide viewed messages

A new flag has been added to Bulletin Board message which indicates if a message has been viewed by a particular user. By default the flag is set to N and the flag is automatically set to Y after a user has opened the details for a particular message. The default value for the Bulletin Board Portlet Viewed Filter is set to N. Only messages that have not been viewed will be presented by default. The user can change the value of the filter to view previously viewed messages or to view all messages, both viewed and not viewed.

Creating Email from a Bulletin Board Message

The Create Communication action has been added to the Bulletin Board Application. When the action is called, the details from the Bulletin Message automatically populate the Create Communication Dialog. The recipient list for the communication is derived from the targeted audience of the bulletin board message.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.24 New Create Ticket & Work Order Actions added to Assets, Locations, and Configuration Item Applications

Dialog based create actions have been added to the Asset, Locations and Configuration Item Applications allowing an operator to create a ticket or work order from a particular Asset, Location or Configuration Item.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.25 Communications Log Enhancement to allow for the capture of escalation and workflow driven communications

A new flag has been added to communication templates to drive the creation of communication log entries for communications that are generated as part of an escalation process or a work flow step. The communication log entry is exposed in the communication log of the targeted record.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.26 Enhanced Assign Ownership actions

- Enhanced Filtering Capabilities to make it easier to select the appropriate owner for a ticket or workorder
  - Filter by OwnerGroup
    - Automatic Crossover from Ownergroup on ticket to Person Group Filter in the Select Owner Dialog
    - Ad hoc Filtering – Clear or Change the Person Group Filter to refresh the result set
  - Filter for people who are available to work according to their assigned calendar / shift
    - Reported Date/Target Start Date/System Date from the ticket are used to filter person records
    - Configurable
      - Turn on/off the date field Crossover at the site level

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.27 Enhanced Related Record Functionality from multiple dialogs

Added ability to create related records from additional dialogs

- View Tickets and WOs
  - Detail Menu on Reported by / Affected by
- View Work Details
  - Detail Menu Launched from Asset, Location, CI
    - In 6.x used to be View Ticket / View Work Orders & PMs
- View Related Records for Service Group / Service
  - Tickets Tab
  - Work Order Tab

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.28 Global Ticket Management Enhancements

Global Ticket Functionality has been enhanced to enable global management of communications and solutions from the global ticket in addition to status management.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.29 Classification Description Field Lookup

Classification Description field is now a lookup to return all classifications that contain the description entered in the field. The classification is then selected from the result that is returned.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.30 List Page Functionality

The list page within all of the ticket applications now includes the ability to change status or ownership for a group of selected records.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 2.31 Solution Exposure in the View Service Request Application

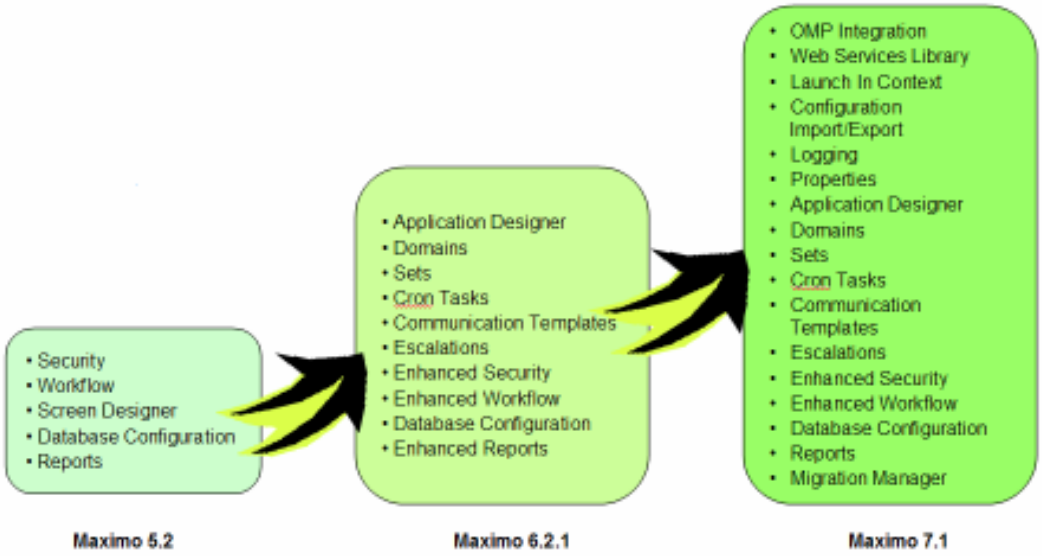
The self-service user now has the ability to view and print the details of the solution that was applied to a follow-up record in the View Service Request application.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

## 3.0 Technical Enhancements

Significant technical enhancements have been made to the core Maximo product within Version 6.x, and will continue to be made within subsequent releases.

The diagram below outlines some of these enhancements and displays the trend towards increased configuration tooling. Additional technical enhancements are described in more detail within this section:




**Configuration applications in Maximo**

### 3.1 System Properties

This is an application to manage system-wide properties for a Maximo product installation. Properties consist of keys and values that determine the configuration of the product and the behavior of many of its components. For example, the mail.smtp.host property and value represent an SMTP server to which Maximo-generated email notifications are sent.

In previous releases of Maximo, system properties were managed through files that were part of the Maximo EAR. When a system property was changed, an administrator would have to shutdown the application server, rebuild and re-deploy a new Maximo EAR file containing the appropriate updated properties file and restart the application server. With the System Properties application, this is no longer required. You can change a property value using the application and refresh it immediately into the product. This saves the customer considerable system administrator resources and time.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.2 Logging

This is a dedicated application to manage logging for Maximo. An administrator can configure various logging components, set log levels, associate logging with log files and specify a folder where log files are to be written. For example, you can enable the SQL logging component of Maximo, set its log level to 'INFO', configure it to write log statements into maximo.log file and place the file in c:\mx\logs folder.

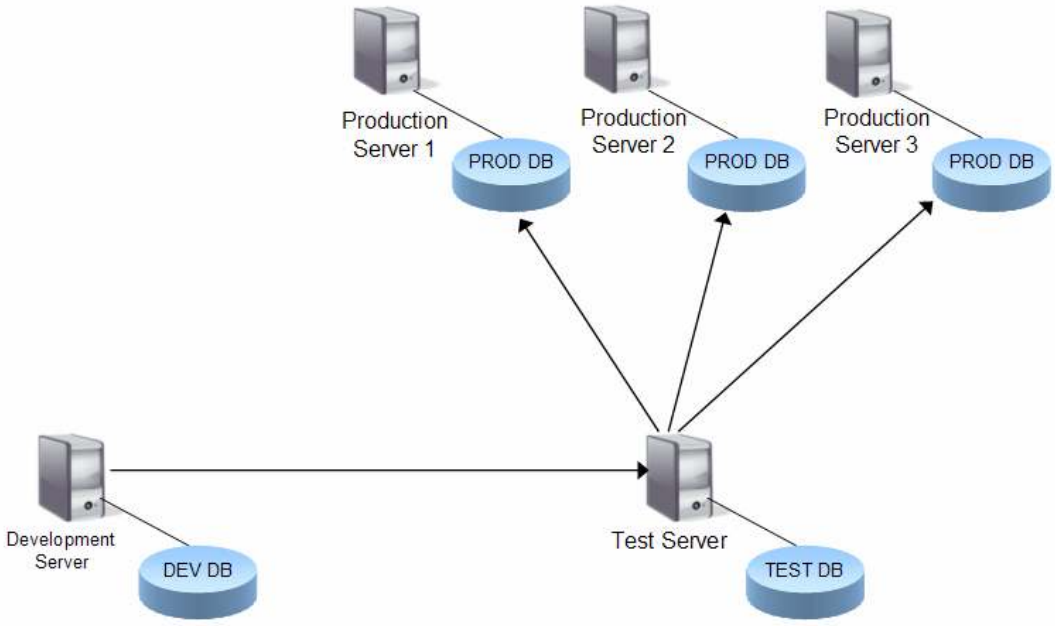
In previous releases of Maximo, logging was managed through files that were part of the Maximo EAR. When a logging parameter was configured or added an administrator would have to shutdown the application server, rebuild and re-deploy a new Maximo EAR file containing the appropriate updated file(s) and restart the application server. With the Logging application, this is no longer required. You can enable a new logger, set its log level and refresh this immediately into the product. This saves the customer considerable system administrator resources and time.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.3 Migration Manager

Migration Manager is a dedicated tool to promote Maximo configurations from pre-production to production environments. Accordingly, it is an engine which brings over your configurations and customizations from one environment to another environment.

Migration Manager enables more effective deployment of Maximo configurations across development, test and production environments as pictured below:



Migration Manager enables you to perform the following two key functions for deploying configurations into production:

1. Identify, control, create and organize the configuration content to be migrated into production

2. Plan, prepare, create, distribute and deploy migration packages that carry over configuration content from one environment to another

Migration Manager includes applications that enable you to assemble configuration content for migration and perform the steps involved in migrating that content from one product environment to another.

**Product(s): Maximo 7.1, TAMIT 7.1, CCMDB 7.1.1, SRM 7.1**

### 3.4 Enhanced User Interface

The enhancements to the user interface include accessibility and efficiency enhancements. For accessibility, users of the JAWS screen reader can interact with more aspects of the product once the screen-reader flag is set in their User record. To increase end-user efficiency, one-click printing is possible for both Actuate and BIRT report users. Additionally, thumbnail images can be included in records, so that JPEG and GIF files can be seen without having to open attachments.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.5 Conditional Expression Manager

In this release we have introduced the concept of a Maximo condition library. Within this library a user can define conditions, either as expressions or as custom class files that can be used to drive application behavior. Conditions within the library can be used for conditional option access, data restrictions and conditional UI. In future, it is expected that these conditions will be used in other areas as well. The expressions for these conditions use a syntax that is similar to SQL, but leverage bind variables for re-usability. A new application, Conditional Expression Manager, is also being delivered with this release to facilitate the management of these conditions.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.6 Conditional Option Access

With this release, it is possible to tie a condition to a security groups' access to an application option. For example, a security group could be given 'Read' access to the Asset application, but only in a certain condition, for example, if the status is operating. Conditional access is granted in the security groups application. A group can be granted access to an option unconditionally, as was the case in previous versions, or a condition can be added. If a user is in multiple groups, when they combine together the highest level of access will be granted.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.7 Data Restrictions

In previous versions of Maximo, user access to data could be restricted with User Restrictions and/or Group Restrictions. These types of restrictions had limitations in that they only applied to viewing data, not making modifications. In this release, Group Restrictions are being replaced with Data Restrictions which will allow clients to configure access to data for groups of users in many more ways. These restrictions will continue to be configured in the Security Groups application. An entire object or an entire object within the context of an application can be made hidden or read-only either conditionally or unconditionally for the entire system or for a security group. In addition, an object or object/application can be associated with a condition to 'qualify' the data to be returned. In this case, only data meeting the condition will be fetched from the database, which differs slightly from data that is fetched from the database but 'hidden' in a certain condition. Data restrictions can also be set for attributes within objects, either with or without an application specified. In these restrictions the attribute can be made hidden, required or read-only either conditionally or unconditionally for the entire system or for a security group.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.8 Conditional User Interface

In previous versions of Maximo, menu items and buttons were the only UI elements that could be bound to Sig Option records and therefore controlled by security. In this release, it will be possible to bind any UI control to a Sig Option and thereby grant or revoke it to groups of users as described in 'Conditional Option Access' above. In addition to this granular granting of access, we have added the ability to configure the properties of a control (label, color, value list, etc.) to be different from the default for specified groups of users unconditionally or when one or more conditions evaluates to true or false. The association of a control with a Sig Option and the configuration of 'conditional properties' will be done in Application Designer.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.9 Integration Framework

We have expanded the support of inbound interfaces (now called enterprise services) to include object structure services and standard services. These allow synchronous access to object structures (formerly called integration objects) using HTTP or SOAP. Using object structure services requires minimal configuration as there is no use of queues and requires no external system association.
Standard services are application service methods that are annotated and available to call using HTTP or SOAP. Methods such as 'Change Status' have been annotated in applications services to provide external applications the ability to invoke these fine-grained services.
We have introduced the invocation channel which is a synchronous outbound process that can invoke an external service and return the results back to the

invoker. Using Maximo Actions, an invocation channel can invoke an external service from a Workflow process, an Escalation process or from an application using a UI control (a button or select action menu).
Launch in Context provides a way to launch an external web-based application passing data (context) from the Maximo application to the external application. The Launch URLs are created using a Maximo application and can be configured to reference a MBO attribute that would be substituted into the URL at run-time.
ISM-specific enhancements provide framework support for Integration Modules which are used to perform integration to OMP products.
The 'out of the box ' content has increased by providing more object structures (formerly integration objects) and more Enterprise Services and Publish Channels (inbound and outbound interfaces).

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

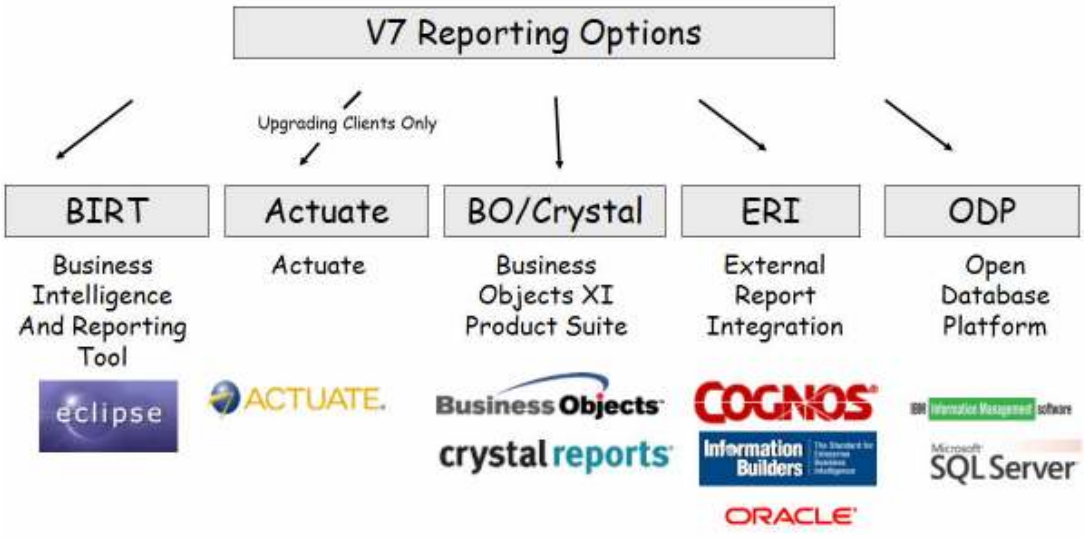
### 3.10 LDAP

The 6.x Maximo framework functionality allows for Maximo to authenticate a user with an external system. In 7.1 we have added additional "canned" or Out of the Box LDAP integrations to directory structures. There are now Out of the Box LDAP integrations to both Microsoft Active Directory and IBM Directory Server. In addition, configurations will now allow all users that pass LDAP authentication to proceed into Maximo by default, the creation of security groups to be performed in Maximo and user/group management to be performed in Maximo rather than in the directory.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.11 Reporting

With Maximo 7.1 we have introduced a new reporting tool option, BIRT. This will complement Maximo's existing reporting options which are (1) Actuate (2) Business Objects/Crystal (3) External Report Integration (4) Open Database Integration. Enabling multiple reporting options gives clients the flexibility and configurability to use the report tool of their choice. The reporting options in 7.1 are outlined in the graphic below:




BIRT is installed as part of the install process as the default reporting tool in version 7.1. BIRT is being leveraged for several reasons, some of which are outlined below:

- Reduces complexity of installs
- Eliminates platform dependencies
- Backed by Industry Analysts
- Based on familiar web architecture (Eclipse and Java)
- Increases growth and flexibility

Multiple report enhancements in V7 were made, focusing on the areas of Security, Performance and Configurability. Ad hoc Reporting, the ability of the end user to create their own report, will also be available. Furthermore, we have also added several new out of the box reports to the standard offering. A variety of report types are delivered including Drill down, Graphical, Hierarchical, Detail and Analysis reports.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.12 Oracle Integration

Oracle Integration has been enhanced to support the following new features:

- Oracle E-Business Suite Release 12: All MX7.1 pre-defined integration points (inbound & outbound) have been enhanced to support integration with Oracle E-Business Suite Release 12.
- Vendor Interface: The vendor inbound interface transfers new and updated vendor site contacts from Oracle Applications to Maximo.
- Purchasing and Contract Interfaces: The purchase order and contract inbound interfaces have been enhanced to support service procurement

line types in Oracle Applications. The purchase order and contract standard outbound interfaces have been enhanced to support transfer of updated purchase orders and contracts from Maximo to Oracle Applications using Oracle open interface tables and purchasing public APIs. Purchase order and contract CAI interfaces have been replaced with this enhanced standard purchase order and contract outbound Interfaces.

- Invoice Interface: The invoice inbound interface has been changed to support newly introduced invoice line entities in Oracle Applications. This change has resulted in a new invoice line format in Maximo which is a concatenation of 1, invoice line number, and invoice distribution number.
- Project Accounting Interface: Project accounting interface is available as part of standard Oracle Integration. No separate installation is required in this release.

*Note: These Oracle Integration enhancements will not be released until three months after general availability of the 7.1 product*

**Product(s): Maximo 7.1, TAMIT 7.1**

### 3.12 SAP Integration

SAP Integration has been enhanced to support the following new features:

- PR Outbound Interface: Has been enhanced to support new SAP PR BAPI (SAP Enjoy PR features) with Maximo PR header long description to SAP PR Long Description. Also supports the standard old SAP PR BAPI.
- Invoice Inbound Interface: Merged three Invoices, SAP FI Invoices, MM Invoices, and Invoice Variances interfaces into one invoice enterprise service in Maximo side.
- Supports both SAP XI 3.0 and 7.0 releases.

*Note: These SAP Integration enhancements will not be released until three months after general availability of the 7.1 product*

**Product(s): Maximo 7.1, TAMIT 7.1**

### 3.13 Upgrade Utility

This utility is designed to assist with upgrading Maximo from version to Version. The 7.1 upgrade utility has streamlined upgrade workflow by integrating the database and screen upgrade functions into a single utility. Furthermore, consumability has also been improved by providing the upgrade utilities as part of the installation.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.14 Application Designer

Application Designer was introduced in the 6.x version of Maximo to assist with initiatives such as modifying the User Interface UI). The 7.1 version of Application

Designer continues to expand on this in two distinctive ways. First, new UI Framework controls have been introduced such as breadcrumb navigation and item images for enhancing the user experience of requesting services or searching for items in catalog-type applications. Furthermore, new features to support the creation of a more dynamic, condition based UI to improve the user experience have also been added

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.15 Email Listener

The Email Listener functionality has been significantly enhanced. The Email Listener processes incoming email and generates or updates Maximo objects such as Service Requests (SRs). With Maximo 7.1, Email Listener can process both formatted and non-formatted emails. A formatted email message contains attributes and values and specific commands that the Email Listener performs on behalf of the sender. Supported commands include 'create','update','query', and 'change status'. For example, the sender may want to query the status of three high priority SRs he had submitted. He prepares a formatted email where he specifies the Maximo object as 'SR', command as 'QUERY' and includes a comma-separated list of the SR numbers he wants to query. Email Listener will process the email he sent; query the specified SRs and return the results of the query to the sender. Email message formatting may be based on attribute-value pairs or XML.

Email Listener implements a security model which is used to determine the sender's authorizations before performing an operation on his behalf. The out of the box workflow process that is part of Email Listener has been enhanced to generate automatic confirmation notifications when requested operations are successfully completed. Finally, the Email Listener application now provides a detailed view of the incoming email messages. Using this view, administrators can monitor and review email messages being received and if necessary delete or resubmit specific messages.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.16 Manage Sessions

Enhancements have been made to tracking user session information and login history information in this release. A new action, 'Manage Sessions' has been added to the Users application that allows a user to view and download the information for current user sessions and login history. In addition, more detailed information is captured in the MAXSESSION table and persisted to the LOGINTRACKING table as relates to user connections. New reports and KPIs for user types, login history and session information are also being delivered. Accordingly, this functionality allows companies to accurately track their license counts.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.17 Adapter for Microsoft Project

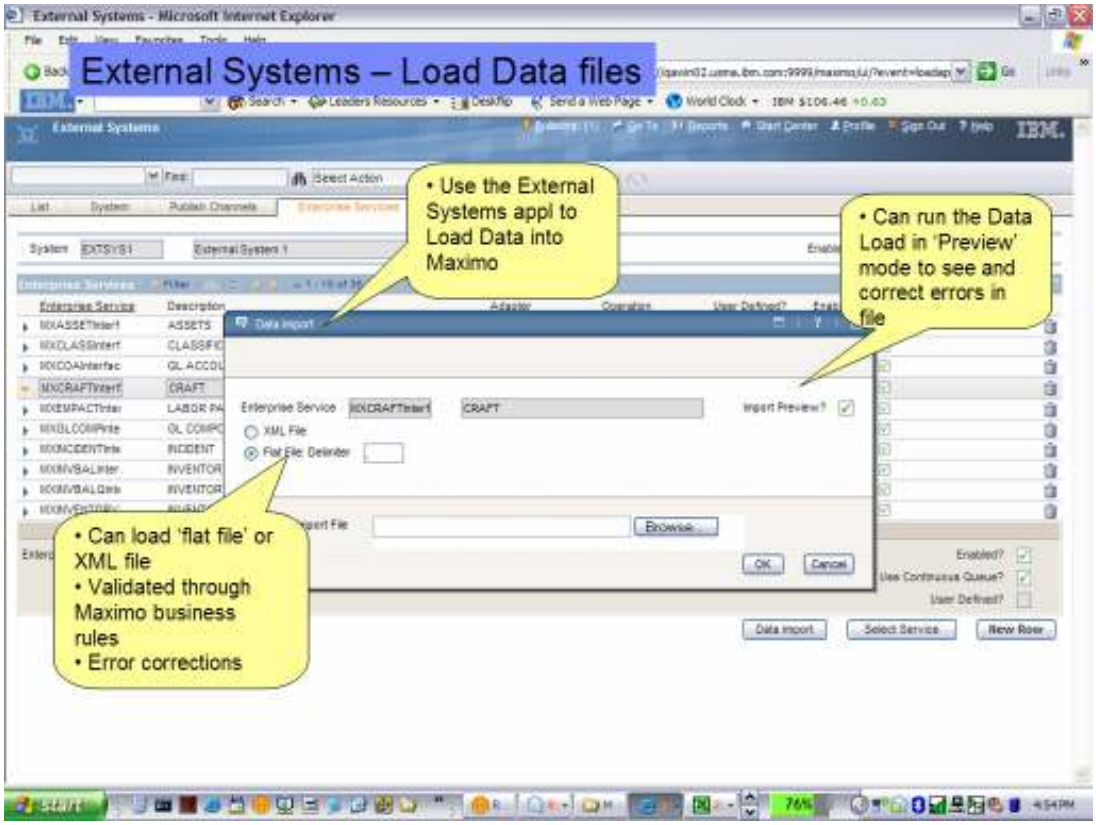
Support for the scheduling of Changes, Releases and Activities has been added with the 7.1 release. Furthermore, support for inserting new MS Project task rows as either Maximo work orders or tasks has been added.

**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

### 3.18 Data Import

New data loading functionality within the External Systems application, using the Import Data action:

- Load data into Maximo objects
- Can load 'flat' file or XML, validated through business objects (rules)
- Error correction and re-processing
- Run in 'Preview' mode, to identify errors, correct and re-run




**Product(s): Maximo 7.1, TAMIT 7.1, SRM 7.1, CCMDB 7.1**

## 4.0 Acronym Definition

4.1 LDAP: Lightweight Directory Access Protocol

4.2 ISM: IBM Service Management

4.3 BAPI: Business Application Program Interface

4.4 BIRT: Business Intelligence and Reporting Tools

4.5 MBO: Maximo Business Object

4.6 HTTP: Hypertext Transfer Protocol

4.7 SOAP: Simple Object Access Protocol

4.8 TLCM: Tivoli License Compliance Manager

4.9 TACC: Tivoli Asset Compliance Center