



Software Group > Tivoli

User Experience Improvements for Maximo 7

Lori Landesman

Product Designer and Architect, Maximo User Interface

31` August, 2011

Why focus on the user experience?

- **Feedback from customers regarding Maximo performance and usability**
- **Site visits with customers that helped pinpoint some key areas for improvement**

Goal: Get work done more quickly and efficiently

Agenda

- **Maximo 7.5 efficiency enhancements:**
 - Table window refresh behavior
 - Asynchronous validation
 - New calendar control
 - Rich-text editor
 - Screen zooming with browser controls
 - Easier ID of controls with conditional security

Agenda, continued

- **Improvements with 7.1:**
 - Result sets link to apps
 - Time-out behavior
 - List page behavior
 - Images on records
 - Ad-hoc reporting
- **Fixpack additions to smooth rough edges:**
 - Run in background mode
 - Specific status buttons
 - Access to Advanced Search
 - Advanced Search improvements
 - QBE cancel capability



Software Group > Tivoli

The Latest: Version 7.5

When I save, focus remains on the last table row that I edited.

Work Order Tracking Bulletins: (0) Go To Reports Start Center Profile

BMXAA4205I - Record has been saved.

Find: Select Action [Icons]

List Work Order **Plans** Assignments Related Records Actuals Safety Plan Log Data Sheet Failure Reporting Specifications

Work Order: 1116 Issue PC Site: BEDFORD Status: WAPPR
Parent WO: >>

Children of Work Order 1116 Filter > 0 - 0 of 0

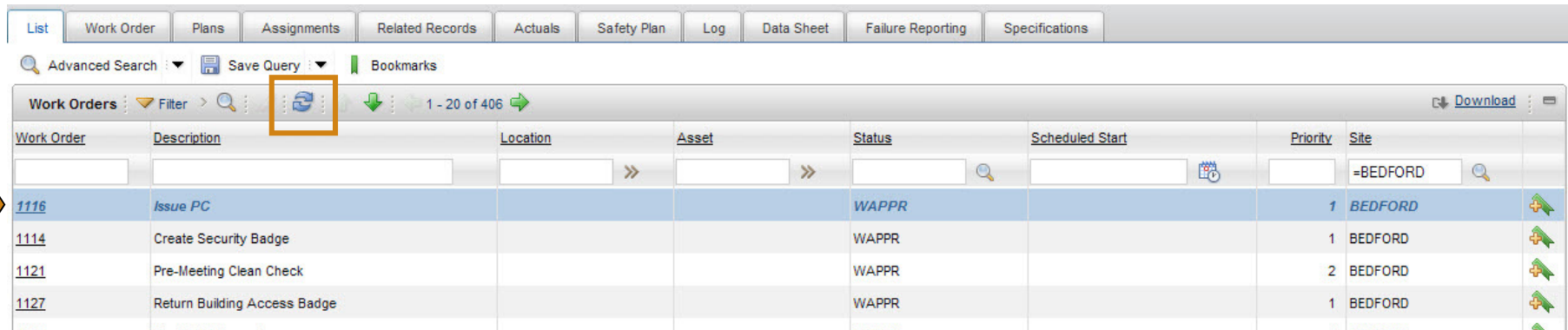
Sequence	Record	Record Class	Summary	Location	Asset
...No rows to display...					

Select Assets Select Locations Select

Tasks for Work Order 1116 Filter > 1 - 5 of 5

Sequence	Task	Summary	Estimated Duration	Status	Owner	Owner Group
▶ 1	10	this is plan 1	0:00	WAPPR	>>	HARDWARE
▶ 2	20	this is plan 2	0:00	WAPPR	>>	HARDWARE
▶ 3	30	this is plan 3	0:00	WAPPR	>>	HARDWARE
▶ 4	40	this is plan 4	0:00	WAPPR	>>	HARDWARE
▶ 5	50	this is plan 5	0:00	WAPPR	>>	HARDWARE

Done



Work Order	Description	Location	Asset	Status	Scheduled Start	Priority	Site
1116	<i>Issue PC</i>			WAPPR		1	BEDFORD
1114	Create Security Badge			WAPPR		1	BEDFORD
1121	Pre-Meeting Clean Check			WAPPR		2	BEDFORD
1127	Return Building Access Badge			WAPPR		1	BEDFORD

When I save a record and go back to the List, the result set is still in the state I left it until I hit refresh.

Records that have been touched are italicized to indicate they have changed.

Table Window Configuration

- **The new functionality is on by default, but can be turned off at the system level to make it function as it did in pre-7.5 releases**
 - `mxe.webclient.listtable.retainstate`
 - Defaults to 1, use new functionality
 - Set to 0 to revert to pre-7.5 functionality
 - Will also remove the table refresh button
 - `mxe.retainrecord`
 - Defaults to 1, use new functionality
 - Set to 0 to revert to pre-7.5 functionality
 - `mxe.retainrecordlimit`
 - Defaults to 200
 - Maximum number of records for which the table will retain state
 - Higher numbers can affect performance

I can enter data at my own pace, and address errors and warnings when I want to.

List Work Order Plans Assignments Related Records Actuals Safety Plan Log Data Sheet

Work Order: Issue PC Site:

Parent WO: >>

Children of Work Order 1116 Filter > 0 - 0 of 0

Sequence	Record	Record Class	Summary
...No rows to display...			


Tasks for Work Order 1116 Filter >

Sequence	Task	Summary
1	10	this is plan 1
2	20	this is plan 2

Work Order: Issue PC

Parent WO: >>

You entered: d

 BMXAA4566E - Parent WO D is not a valid parent work order.

Click "Edit My Value" to change the value you entered or "Go Back" to the value that was there before.

Configuring Asynchronous Validation

■ System level

- System property `mxe.webclient.async`
 - 1 – enable - default
 - 0 – disable

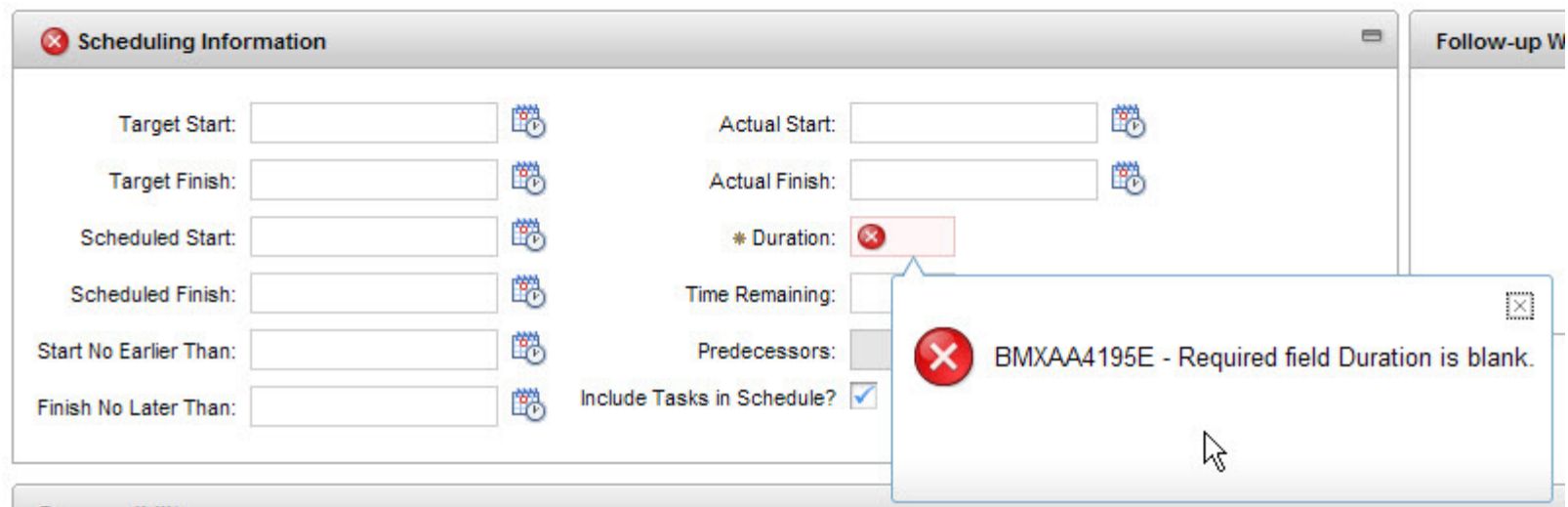
■ Application level

- Checks system level and:
 - Set `synchronous="true"` on the `presentation` control in the presentation xml.

■ Field Level

- Checks Application Level and:
 - Set `synchronous="true"` on an individual control in the presentation xml.


If I try to save without filling in required fields, those fields are called out to me, and their containers are marked so that I can see the path to fields I must fill in.



The screenshot shows a 'Scheduling Information' dialog box with the following fields:

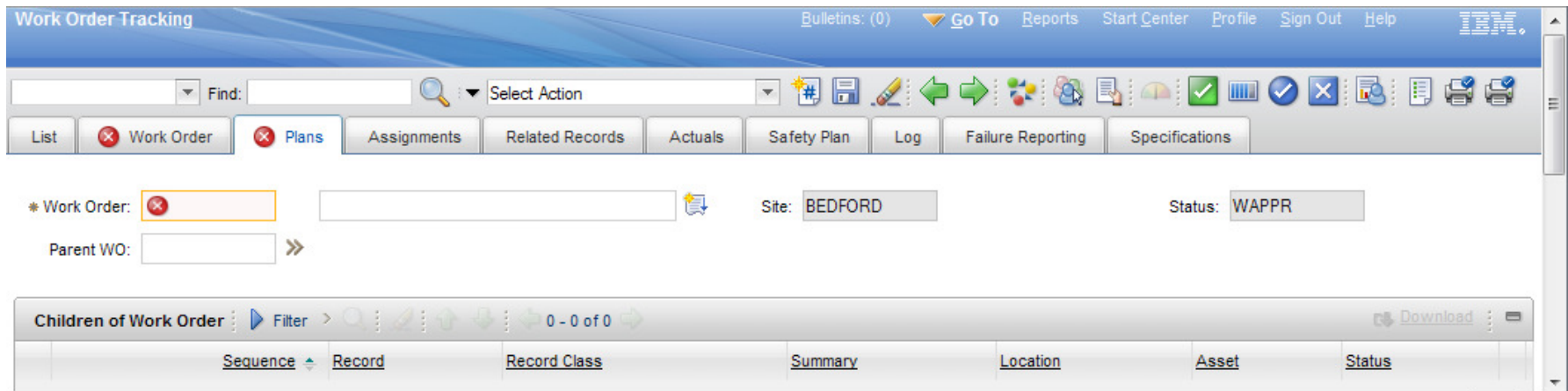
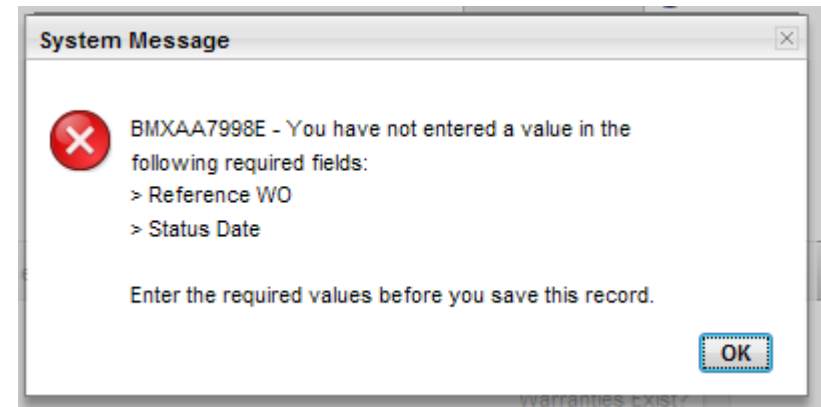
- Target Start:
- Actual Start:
- Target Finish:
- Actual Finish:
- Scheduled Start:
- * Duration: (highlighted in red)
- Scheduled Finish:
- Time Remaining:
- Start No Earlier Than:
- Predecessors:
- Finish No Later Than:
- Include Tasks in Schedule?

A validation error message is displayed in a tooltip over the 'Duration' field:

 BMXAA4195E - Required field Duration is blank.


Required Field Identification on Save


- **Dialog lists all missing values**
 - Note that labels now match the field label even if a custom label was specified in the presentation
- **Tab with error that is not current tab**
 - “Status Date” is on the Work Order tab



Configuring Required Field Checking

- **Controlled by the `mxe.webclient.deepRequiredCheck` system property.**
 - Valid values
 - 1 – enabled – default
 - 0 – disabled

Actual Start: 

Actual Finish: 

* Duration:

Time Remaining:

Predecessors:

Include Tasks in Schedule?

February

S	M	T	W	T	F	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	1	2	3	4	5
6	7	8	9	10	11	12

2010 2011 2012

OK Cancel

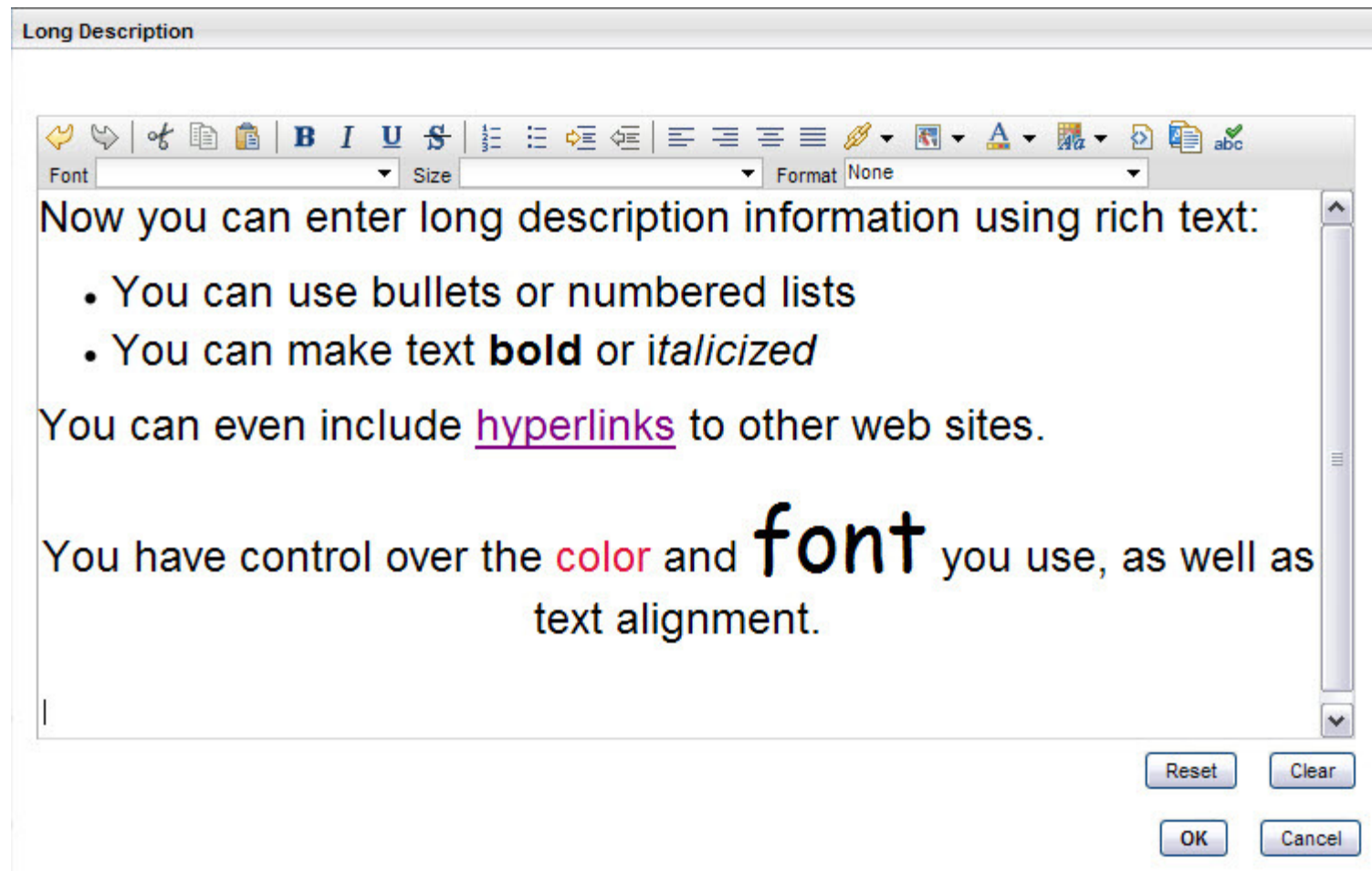
01:00:00 PM

02:00:00 PM

Date and Time Fields

When I choose a date or time, the delay between my click and the UI response onscreen is minimized. The server round-trip is eliminated. This is also true for the keyboard shortcuts to move forward and backward, or to insert the current date.

Rich-Text Editing



I can enter text in the format that I want on a Maximo screen. I don't need to rely on attachments for rich-text formatting.

Long Description Dialogs or Embedded Rich Text

Phone:

E-mail:

Affected User:

Location: >>

Configuration Item: >>

Reported Priority:

Reported Date:

Request Description

Please enter a summary and a more detailed description of your Service Request.

Summary:

Rich Text Editor

Font: Size: Format:

Details:

Classify

Click the detail menu to classify your Service Request.

Classification: >>

Class Description:

Attachments Filter > 0 - 0 of 0

Document	Description
...No rows to display...	

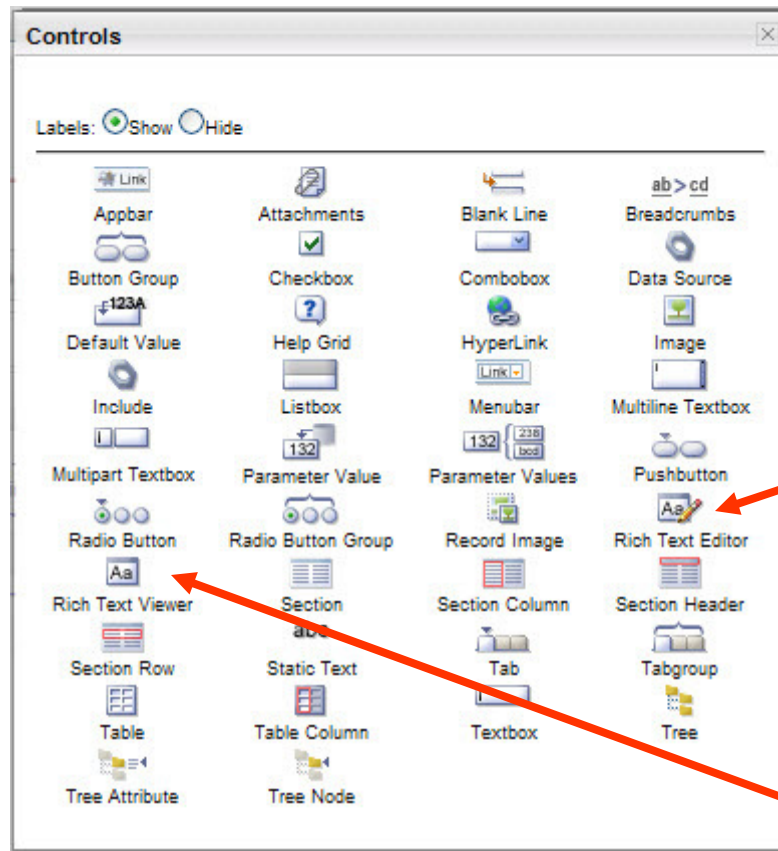
Attributes Filter > 0 - 0 of 0

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

More on the Rich-Text Editor

- **Out of the box it is enabled for Long Descriptions and Communication templates**
- **Markup language is HTML**
- **Control is built using the Dojo Editor**
 - <http://dojotoolkit.org/reference-guide/dijit/Editor.html>
- **Server removes all scripting and embedded objects (Java Applets, Adobe Flash, etc) before sending the value to the browser.**
- **Works with reporting**
- **Integration Frameworks handles rich text in and out too**

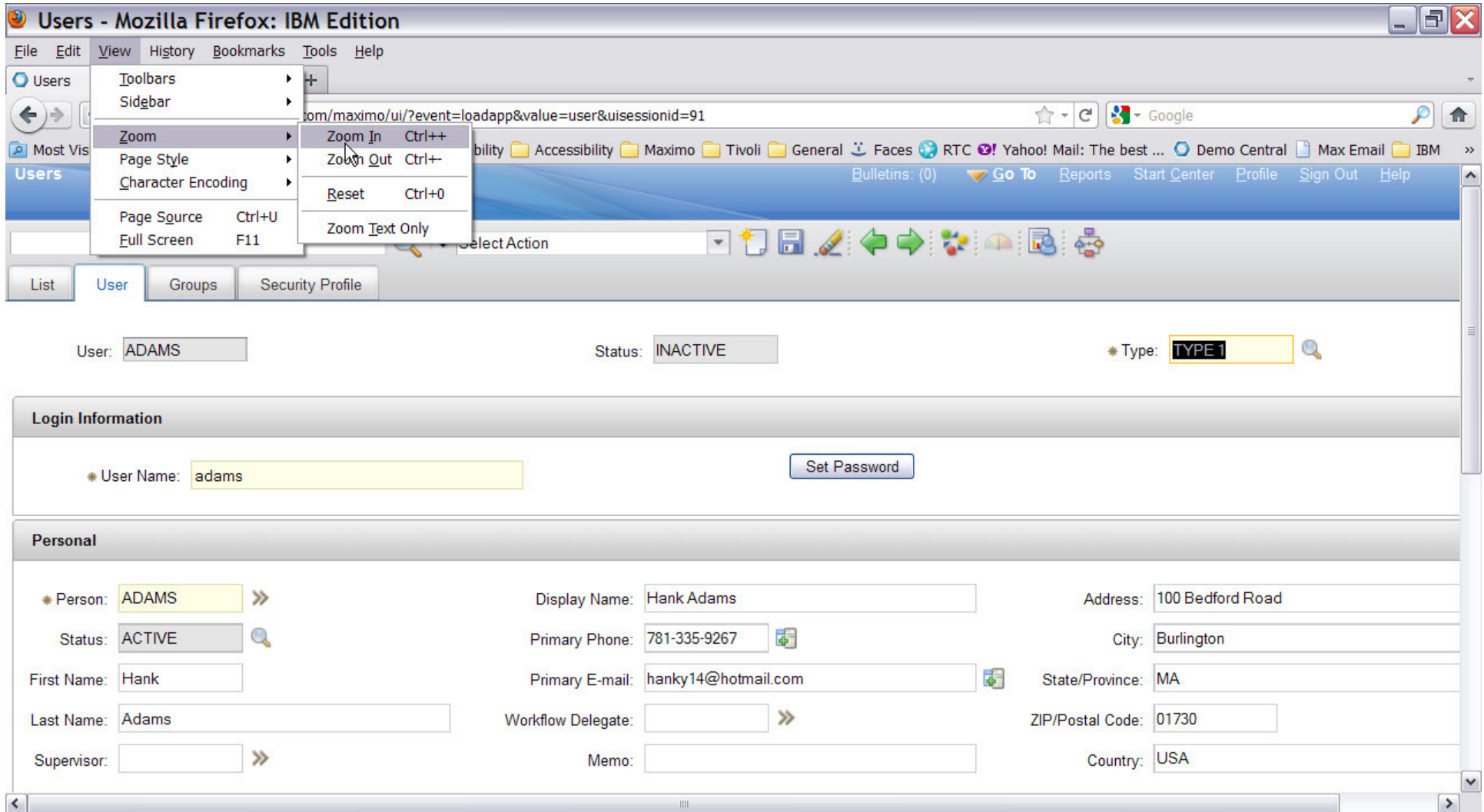
Rich Text – Application Design



The Rich Text Editor offers the full toolbar of editing capabilities

The Rich Text Viewer is a read-only version of the Editor, and omits the toolbar.

I can use Maximo without magnifying glasses!



Users - Mozilla Firefox: IBM Edition

File Edit View History Bookmarks Tools Help

Users

Toolbars
Sidebar

Zoom
Zoom In Ctrl++
Zoom Out Ctrl+-
Reset Ctrl+0
Zoom Text Only

Page Source Ctrl+U
Full Screen F11

tom/maximo/ui/?event=loadapp&value=user&uisessionid=91

Google

Ability Accessibility Maximo Tivoli General Faces RTC Yahoo! Mail: The best ... Demo Central Max Email IBM

Bulletins: (0) Go To Reports Start Center Profile Sign Out Help

List User Groups Security Profile

User: ADAMS Status: INACTIVE * Type: TYPE 1

Login Information

* User Name: adams Set Password

Personal

* Person: ADAMS >> Display Name: Hank Adams Address: 100 Bedford Road

Status: ACTIVE Primary Phone: 781-335-9267 City: Burlington

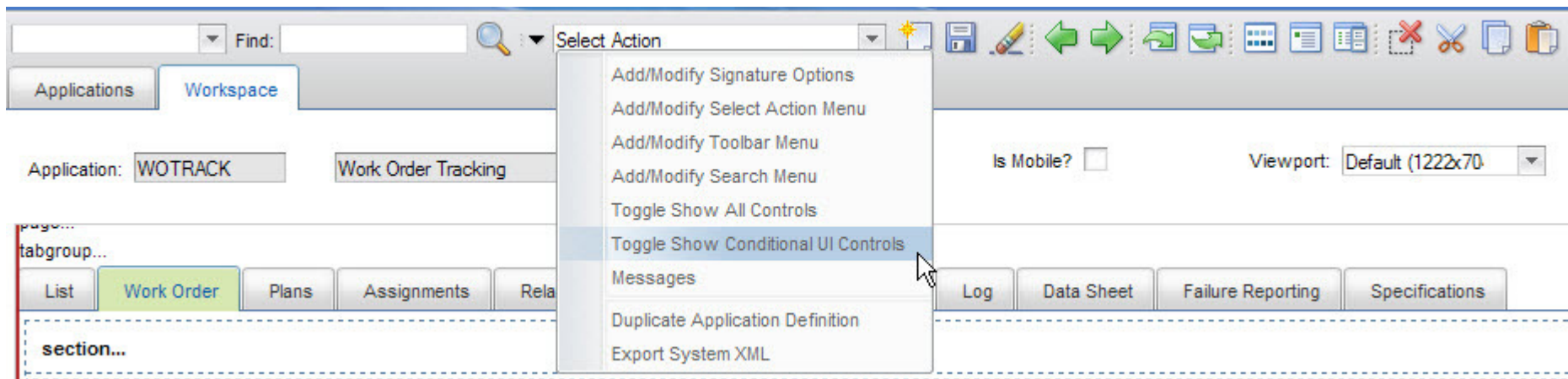
First Name: Hank Primary E-mail: hanky14@hotmail.com State/Province: MA

Last Name: Adams Workflow Delegate: >> ZIP/Postal Code: 01730

Supervisor: >> Memo: Country: USA

App Designer: Indicating Controls with Conditional Security

- **To see which controls are using conditional security:**
 - Select Action > Toggle Show Conditional UI Controls



App Designer: Onscreen Indicator for Conditional UI

- Note indicator next to UI controls
- Indicator may appear on containers (tabs, sections) if those are controlled by conditional UI. The container is not marked if it simply contains controls that have conditional security attached.

The screenshot displays the 'Work Order' form in the IBM App Designer. The form is organized into sections and includes the following fields:

- Work Order: [Text Field] [Indicator Icon]
- Location: [Text Field] >> [Text Field] [Indicator Icon]
- Asset: [Text Field] >> [Text Field] [Indicator Icon]
- Configuration Item: [Text Field] >> [Text Field] [Indicator Icon]
- Feature: [Text Field] >>
- Feature Label: [Text Field]
- Parent WO: [Text Field] >>
- Classification: [Text Field] >>
- Class Description: [Text Field] [Search Icon]
- Launch Entry Name: [Text Field] >>
- Repair Facility: [Text Field] >> [Text Field] [Indicator Icon]
- Repair Facility Site: [Text Field]

An orange arrow points from the text 'Note indicator next to UI controls' to the indicator icon next to the 'Configuration Item' field.



Software Group > Tivoli

Going Back to 7.1...



New Link between Result Sets and Apps


Welcome, Mike Wilson Bulletins: (1) [Go To](#) [Reports](#)

Administration **Report Admin**

[Change Content/Layout](#) [Display Settings](#) [Create New Template](#)

Report Admin Apps

-  Report Administration
-  KPI Manager

Reports with Limit Records Enabled [Filter](#) 

Description	Report File Name	Max Rec
Purchase Order Details Report	poprint.rptdesign	50
PO E-Commerce Details	ecom_details.rptdesign	50
PO Status Details	po_status.rptdesign	50
Purchase Requisition Details	prprint.rptdesign	50
Problem Details	ticketprint.rptdesign	50
Quick Reporting Details	woprint.rptdesign	50
Asset Link Result Detail	asset_link_result.rptdesign	50
Release Details	woprint.rptdesign	50
Request for Quotation Details	rfqprint.rptdesign	50
SLA Details	slaprint.rptdesign	50

[Set Graph Options](#) 1 to 10 of 40 | [Next Page](#) >>

I want to see a full result set from the Start Center in the app it applies to so that I can drill down into details on that set

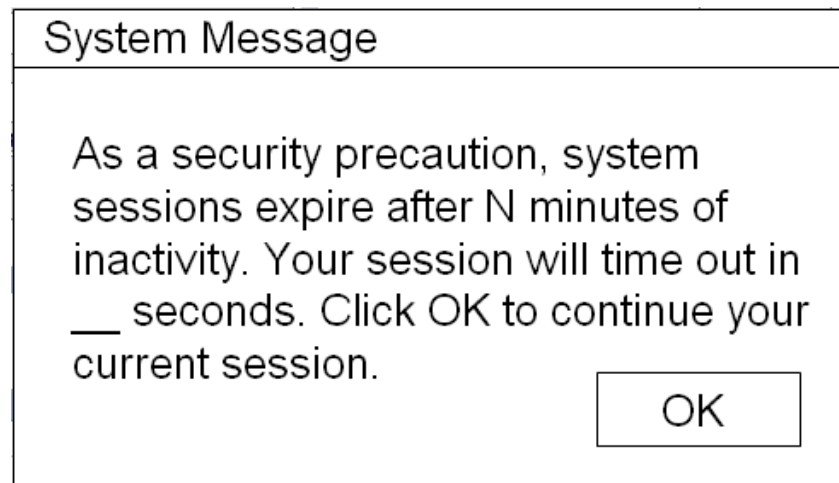
New Timeout Behavior

- **Why is the system not telling me what it already knows?**
- **Pre-6.2, you had to click on something to learn you had already timed out**
- **In 6.2, as soon as you time out, you're taken back to the login screen and shown a message explaining you've timed out**
- **The screen reflects the current state of the application**
- **Number of minutes before timing out set via `webclient.properties` file**

Time-out Improvement



- **Give me advance warning of a time out so that I can intervene without losing work.**
- **New warning message -- configurable in webclient.properties file to appear X minutes before time-out occurs**



Warning on the List Page

I've just performed a query and gotten my result set of Work Orders – there are a few hundred. Because the first record in the set is the one I'm interested in, I don't even need to go to the Main tab. I'll just change status right here on the List page.

- **Common misconception because of row highlighting**
- **Changing status (or performing any action from the toolbar or Select Action menu) affects all the records in the result set**
 - All of them, not just the ones on the first page
- **Recovering from the error is extremely difficult and time consuming**
- **In Maximo 7.1, a warning alerts users to the potential danger, and lets them continue with the action if they want to**

Row 1 Is Highlighted, but Not Selected

Work Order Tracking

Bulletins: (1) Go To List Reports Start Center Profile Sign Out Help

Find: Select Action

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

Advanced Search Save Query Bookmarks

Work Orders Filter 1 - 20 of 397

Work Order	Description	Location	Asset	Status	Scheduled Start	Priority	Site
							=BEDFORD
<u>1000</u>	Relocate Guard Rails Around Compressor	BR300	11300	WAPPR		2	BEDFORD
<u>1001</u>	12 Month Service on Shipping Dept #1 Con	SHIPPING	12600	INPRG		5	BEDFORD
<u>1002</u>	Rebuild Feedwater Pump	BR450	11450	APPR		9	BEDFORD
<u>1003</u>	Check for Plumbing Problem	BOILER		APPR		5	BEDFORD
<u>1004</u>	Generator Overhaul	BR230	11230	INPRG		1	BEDFORD
<u>1005</u>	Electric Cart Tune-Up	SHIPPING	12300	APPR		7	BEDFORD
<u>1006</u>	Feedwater Pump Service	BR450	11450	APPR		7	BEDFORD
<u>1007</u>	Packaging Mach. Elevator & Drainpan Insp	BPM3100	13141	APPR		8	BEDFORD
<u>1008</u>	Repair Damaged Conduit Feeding Generator	BR230	11230	WAPPR		7	BEDFORD
<u>1009</u>	12 Month Service on Shipping Dept #2 Con	SHIPPING	12700	INPRG		8	BEDFORD
<u>1013</u>	Inspect and Repair Pump as Required	REPAIR	11470	APPR		5	BEDFORD
<u>1018</u>	Paint Guard Rail Around #1 Fan	BR210	11210	WAPPR		4	BEDFORD
<u>1019</u>	Conveyor Overhaul- Pkg. Dept.	BPM3100	13140	COMP		8	BEDFORD
<u>1020</u>	Generator Overhaul	BR230	11230	WSCH	4/22/02 9:51 AM	2	BEDFORD
<u>1021</u>	Conveyor Overhaul- Conveyor #2	SHIPPING	12700	WSCH		8	BEDFORD
<u>1022</u>	Electric Cart Tune-Up	SHIPPING	12300	WSCH		3	BEDFORD
<u>1023</u>	Conveyor Overhaul- Conveyor #1	SHIPPING	12600	WSCH		8	BEDFORD

New Warning on List Page

Work Order Tracking

Bulletins: (1) Go To List Reports Start Center Profile Sign Out Help

Find: Select Action

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

Advanced Search Save Query Bookmarks

Work Orders Filter 1 - 20 of 397

Download

Work Order	Description	Part	Priority	Site
1000	Relocate Guard Rails Around Compres		2	BEDFORD
1001	12 Month Service on Shipping Dept #1		5	BEDFORD
1002	Rebuild Feedwater Pump		9	BEDFORD
1003	Check for Plumbing Problem		5	BEDFORD
1004	Generator Overhaul		1	BEDFORD
1005	Electric Cart Tune-Up		7	BEDFORD
1006	Feedwater Pump Service		7	BEDFORD
1007	Packaging Mach. Elevator & Drainpan		8	BEDFORD
1008	Repair Damaged Conduit Feeding Gene		7	BEDFORD
1009	12 Month Service on Shipping Dept #2		8	BEDFORD
1013	Inspect and Repair Pump as Required	REPAIR	11470	APPR
1018	Paint Guard Rail Around #1 Fan	BR210	11210	WAPPR
1019	Conveyor Overhaul- Pkg. Dept.	BPM3100	13140	COMP
1020	Generator Overhaul	BR230	11230	WSCH
1021	Conveyor Overhaul- Conveyor #2	SHIPPING	12700	WSCH
1022	Electric Cart Tune-Up	SHIPPING	12300	WSCH
1023	Conveyor Overhaul- Conveyor #1	SHIPPING	12600	WSCH

System Message

BMXAA2185E - This action affects all 397 records in this result set.

If you would like to select one or more records to apply this action to, click Cancel, then:

- select the desired records using check boxes on the List page
- select the action you would like to perform on them.

If you want to proceed with the action on the entire result set, click OK.

OK Cancel

Warning Appears Out of the Box

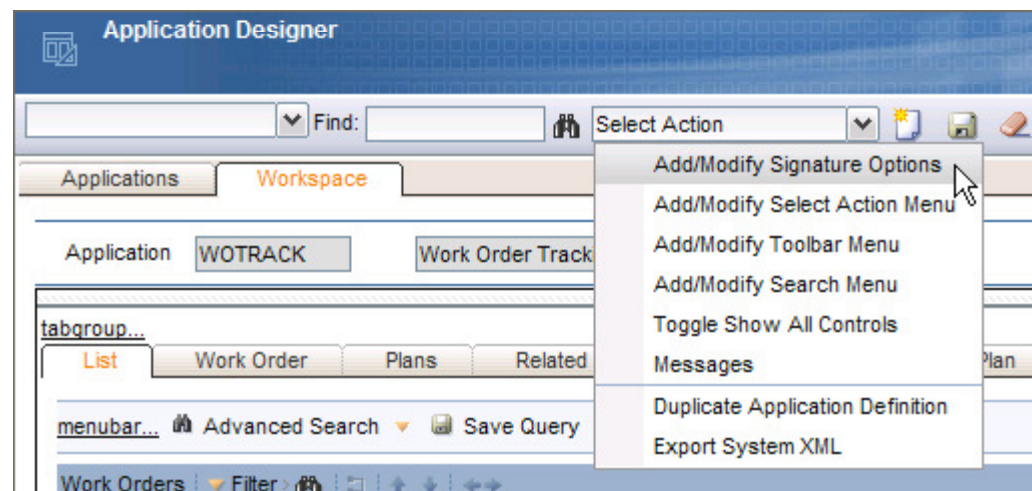
- **For most actions that can affect an entire result set**
- **On the List page only**
- **Only when NOT in select records mode**
- **Only when there is more than one record in the result set**

But:

- **It can be disabled in places where it has been enabled out of the box**
- **It can be enabled for other actions**

Working with the Flag

- **For the desired application, go to App Designer and choose Add/Modify Signature Options from the Select Action menu:**



The Flag Is Set

Application Designer

Add/Modify Signature Options

Filter > 1 - 1 of 1

Option	Description
status	
STATUS	Change Status

New Row

Advanced Signature Options

- None
- Warning appears when this action is selected from List page where multiple records are shown and no particular record is selected
- This is an action that must be invoked by user in the UI
- Associate to launch entry to enable launch in context

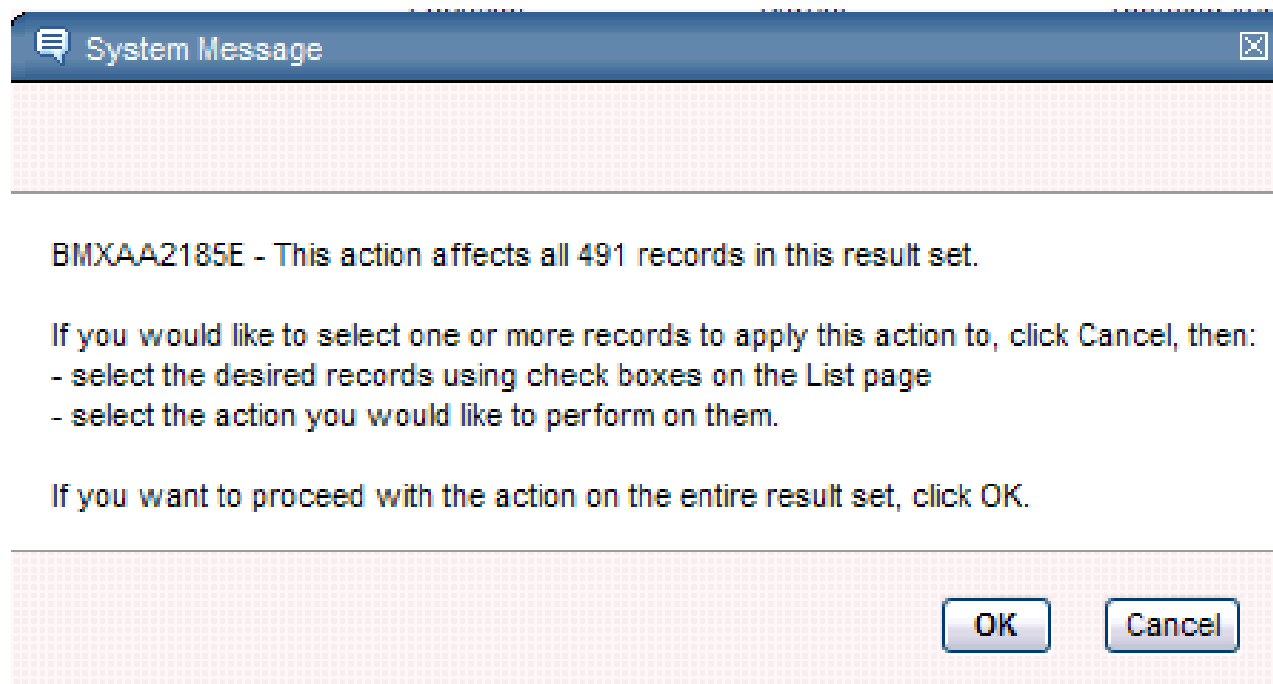
Launch Entry Name

OK Cancel

Bulk Action Improvement



New ability in to configure bulk action warning on List page so that it appears only if more than X records appear in result set



System Properties View

System Properties | Bulletins: (0) | Go To | Reports | Start Center | Profile | Sign Out | Help | IBM

Select Action

Global Properties | Filter | 1 - 8 of 13 | Download

<input type="checkbox"/>	Property Name	Description	Current Value	
<input type="checkbox"/>	webclient			
<input type="checkbox"/>	▶ webclient.ResultSetQueryTimeout	The number of seconds that query will timeout	360	
<input type="checkbox"/>	▶ webclient.changepwdapp	Webclient change password app	changepwd	
<input type="checkbox"/>	▶ webclient.designer.group	Default group to add generic sigoption/applicati	MAXADMIN	
<input type="checkbox"/>	▶ webclient.gcfilepath	Webclient garbage collection path		
<input type="checkbox"/>	▼ webclient.listwarningthreshold	Threshold number of result sets returned for w	1	
<input type="checkbox"/>	▶ webclient.loginerrorpage	Webclient login error page	../webclient/login/loginerror.jsp	
<input type="checkbox"/>	▶ webclient.loginpage	Webclient login page	../webclient/login/login.jsp	
<input type="checkbox"/>	▶ webclient.logoutpage	Webclient logout page	../webclient/login/login.jsp	

Global Properties Details

Property Name	webclient.listwarningthreshold	File Override?	<input type="checkbox"/>	Security Level	SECURE
Description*	Threshold number of result sets returned for w	Global Only?	<input checked="" type="checkbox"/>	User Defined?	<input type="checkbox"/>
Global Value	1	Instance Only?	<input type="checkbox"/>	Nulls Allowed?	<input type="checkbox"/>
Current Value	1	Online Changes Allowed?	<input checked="" type="checkbox"/>	Data Type	INTEGER
Maximo Default	1	Live Refresh?	<input checked="" type="checkbox"/>	Domain	
		Encrypted?	<input type="checkbox"/>		

[New Row](#)

Instance Properties | Filter | 1 - 2 of 2 | Download

Property Name	Description	Value
▶ mxs.com.port	Com port	

Thumbnail Image on Records

I can't remember which of the three types of X I'm supposed to reorder, but I'd recognize it if I saw it.

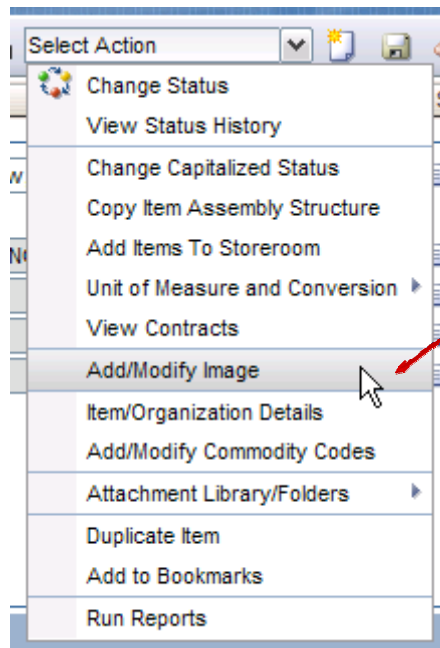
- **Sometimes, a picture provides more information than a textual description**
- **It takes many clicks to open an attachment; thumbnail images are always visible on record without clicking**
- **The same image can be placed on each tab, but there is only one image per record**

New Control for Item Master

The screenshot displays the 'Item Master' application interface. At the top, there is a navigation bar with 'Bullets: (1)', '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:

- Item Details:** Includes fields for Item (0-0031), Item Set (SET1), Commodity Group (FITTINGS), Commodity Code, Meter Group, Meter, Lot Type (NOLOT), Maximum Quantity Issued, Order Unit, Issue Unit, and MSDS.
- Description:** A text field containing 'Elbow, Street- 1-1/8 In X 90 Deg'.
- Attachments:** A section with a 'Status' dropdown set to 'ACTIVE' and several checkboxes for 'Rotating?', 'Condition Enabled?', 'Kit?', 'Outside?', 'Capitalized?', 'Inspect on Receipt?', 'Add as Spare Part?', and 'Attach to Parent Asset on Issue?'.
- Image Placeholder:** A red circle highlights a placeholder area with the text 'Click to see image in its actual size' and a small image icon with a red 'X' over it.
- Alternate Items Table:** A table with columns 'Item', 'Description', 'Commodity Group', 'Commodity Code', and 'Rotating?'. It currently shows '...No rows to display...' and a 'New Row' button.
- Condition Codes Table:** A table with columns 'Condition Code', 'Description', and 'Condition Rate'. It also shows '...No rows to display...' and a 'New Row' button.

Putting an Image on a Record



Choose Add/Modify Image from Select Action menu

Find the jpg or gif image on the system

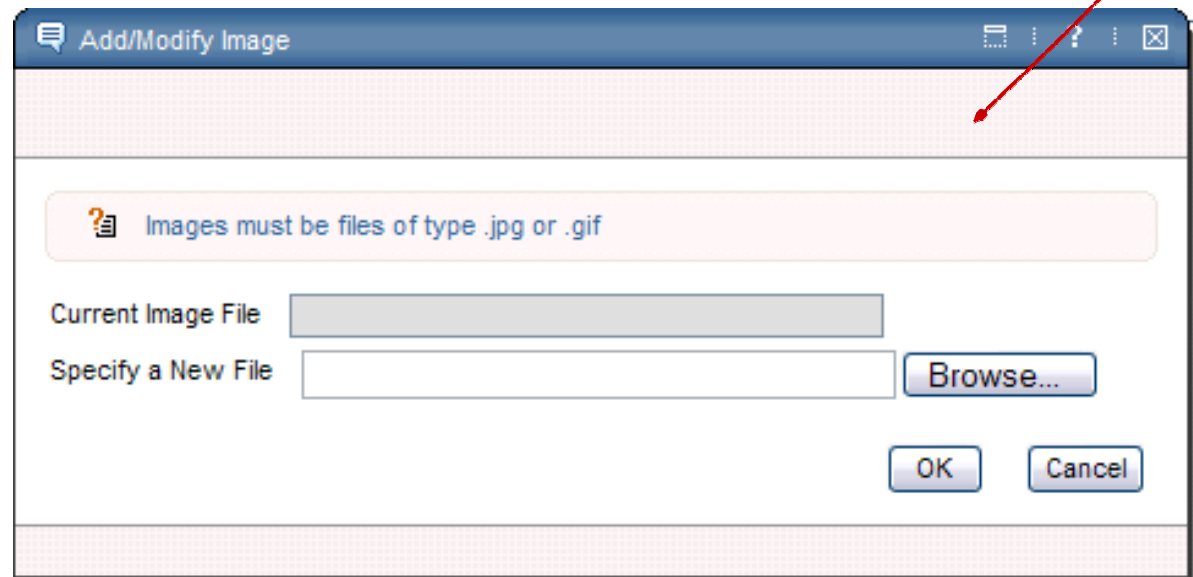


Image Can Be Removed via Same Process

Item Master

Bulletins: (1) Go To Lit Reports Start Center Profile Sign Out Help

Find: Select Action

List Item Storerooms Vendors Specifications Item Assembly Structure

Item: 0-0031 Elbow, Street- 1-1/8 In X 90 Deg

Item Set: SET1

Commodity Group: FITTINGS

Commodity Code:

Meter Group:

Meter:


Lot Type: NOLOT

Maximum Quantity Issued:

Order Unit:

Issue Unit:

MSDS:

Attachments: 

Status: ACTIVE

Rotating?:

Condition Enabled?:

Kit?:

Outside?:


Capitalized?:

Inspect on Receipt?:

Add as Spare Part?:

Attach to Parent Asset on Issue?:

Click to see image in its actual size



Alternate Items Filter

Item	Description	Commodity Group	Commodity Code	Rotating ?
...No rows to display...				

New Row

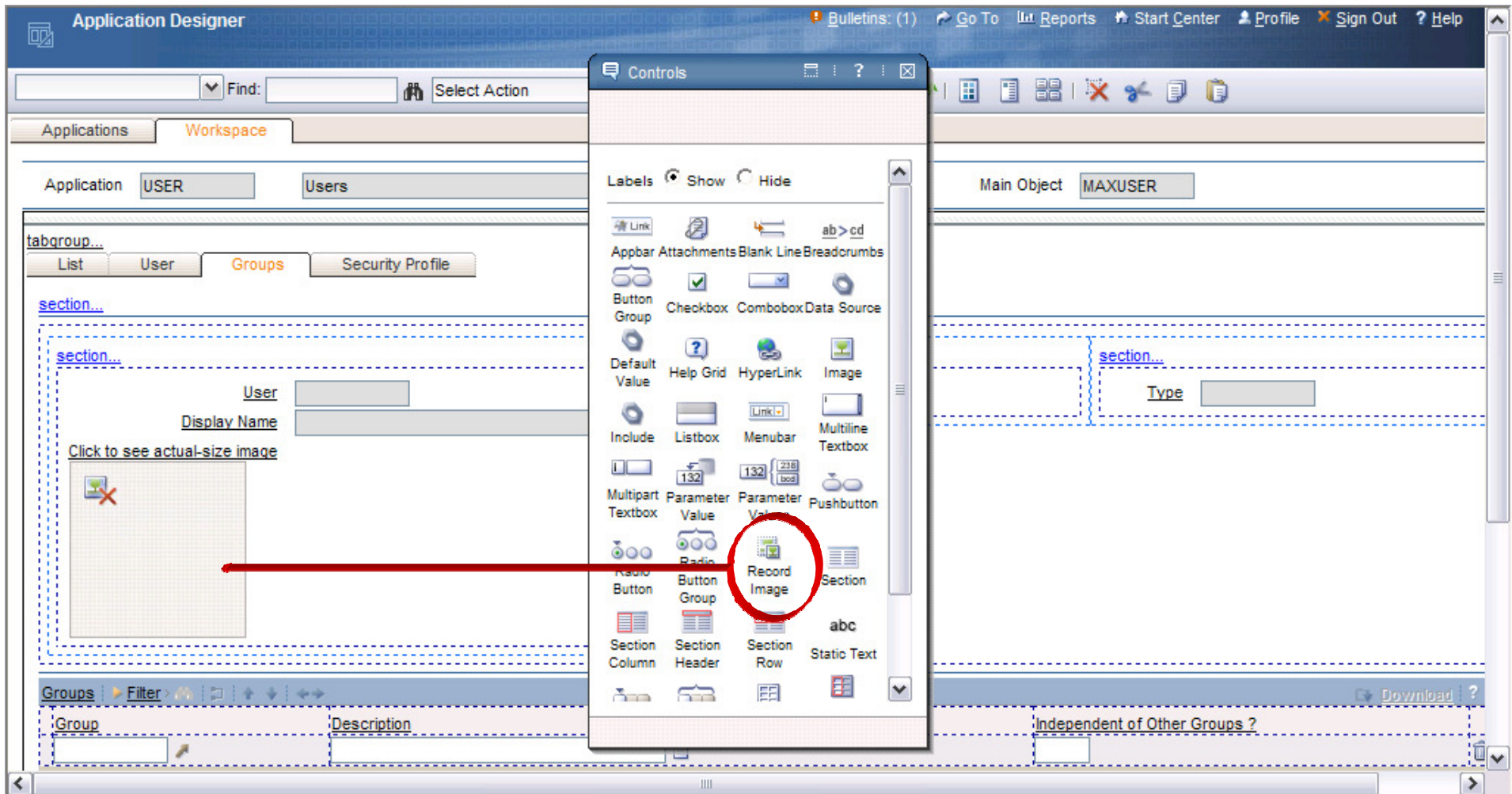
Condition Codes Filter

Condition Code	Description	Condition Rate
...No rows to display...		

New Row

Clicking image opens a new Maximo dialog with the image shown in its original size

Add the Image Control to Other Records



I'm adding the image control to the Users App, so I can insert a picture of each employee

Adding a Picture to a Record

- **In App Designer**

- Add image control
- Add 2 sigoptions: ITEMIMAGE and SHOWDELETE
- Add ITEMIMAGE option to Select Action Menu

- **In Security Groups**

- Grant access to ITEMIMAGE and SHOWDELETE for groups that are allowed to add or delete specific images

- **In Database Configuration**

- Create the relationship between the app's object and IMGLIB

Result: People's Pictures in the User App

Users

Bulletins: (1) Go To Reports Start Center Profile Sign Out Help


Find: Select Action

List User **Groups** Security Profile

User: LIBERI Status: ACTIVE Type: TYPE 1

Display Name: Diane Liberi

Click to see actual-size image

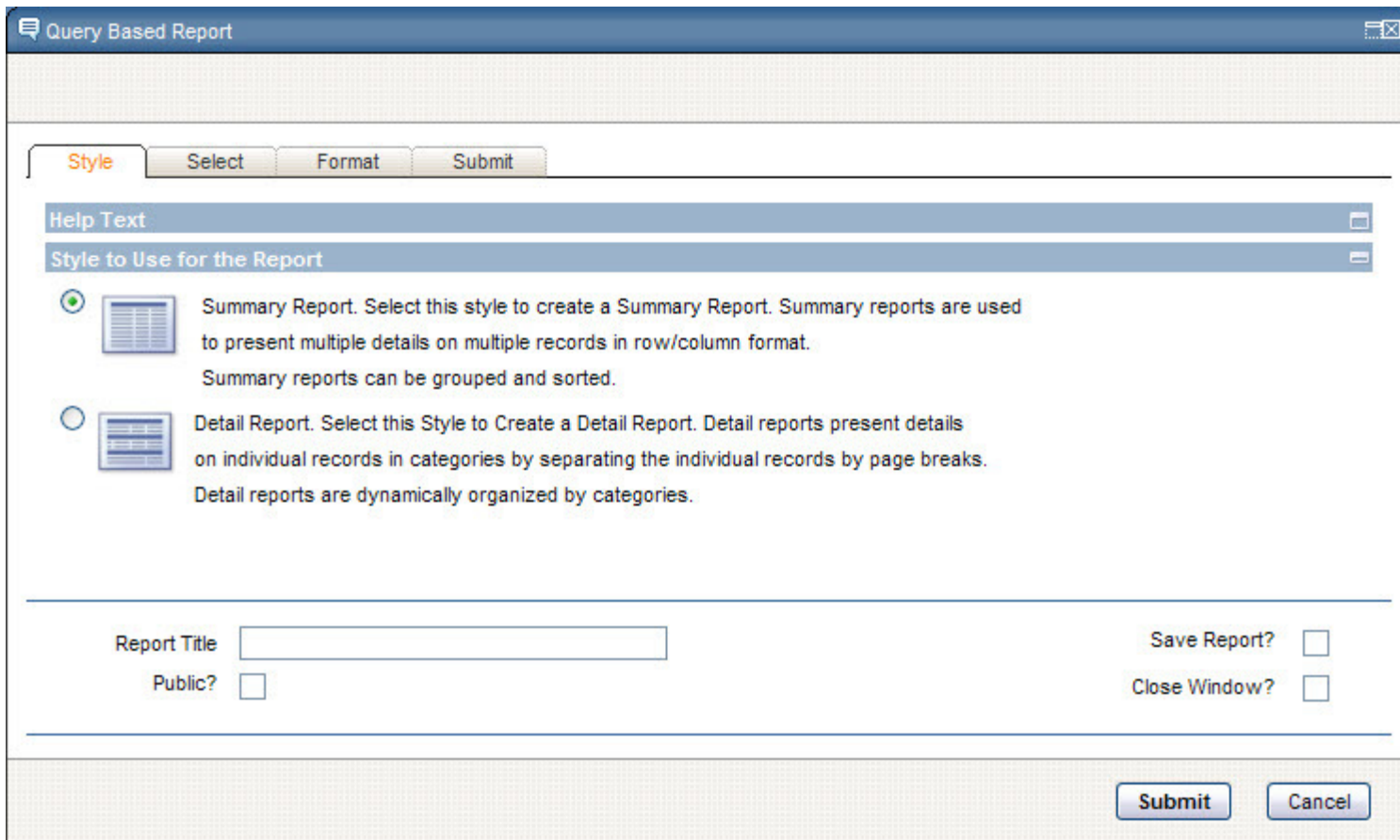


Groups Filter 1 - 11 of 11 Download

Group	Description	Independent of Other Groups ?
MGRAPPROVA	Manager Approvals	<input type="checkbox"/>
EVERYONE	All Maximo Users	<input type="checkbox"/>
ALLSITES	All Sites	<input type="checkbox"/>
FINANCE	Finance	<input checked="" type="checkbox"/>
PERSONALCOM	Personal Configuration	<input type="checkbox"/>
PURCHASING	Purchasing	<input checked="" type="checkbox"/>
SRVREQ	Service Requestor	<input type="checkbox"/>
CONTRACTMGR	Contract Manager	<input checked="" type="checkbox"/>
STDVCMGR	Standard Service Manager	<input type="checkbox"/>
TOOL MGR	Tool Manager	<input type="checkbox"/>

Ad-Hoc Reporting

I don't need a fully designed report, I just need to get some information





The screenshot shows a window titled "Query Based Report" with a close button in the top right corner. Below the title bar is a tabbed interface with four tabs: "Style" (selected), "Select", "Format", and "Submit".

Under the "Style" tab, there are two expandable sections:

- Help Text** (collapsed)
- Style to Use for the Report** (expanded)

The "Style to Use for the Report" section contains two radio button options:

-  **Summary Report.** Select this style to create a Summary Report. Summary reports are used to present multiple details on multiple records in row/column format. Summary reports can be grouped and sorted.
-  **Detail Report.** Select this Style to Create a Detail Report. Detail reports present details on individual records in categories by separating the individual records by page breaks. Detail reports are dynamically organized by categories.

At the bottom of the dialog, there are several input fields and checkboxes:

- Report Title**: A text input field.
- Public?**: A checkbox.
- Save Report?**: A checkbox.
- Close Window?**: A checkbox.

At the bottom right, there are two buttons: **Submit** and **Cancel**.

Ad-Hoc Reporting, cont'd.

Query Based Report

- Work Order Details
 - Asset
 - Locations
 - Multiple Assets Locations and Cl
 - Status
 - Job Plan
 - Planned Labor
 - Work Order Tasks
 - Planned Materials
 - Planned Services
 - Planned Tools
 - Actual Labor
 - Actual Materials
 - Actual Services
 - Actual Tools

Available Fields Filter > 1 - 10 of 110

Field Description	Field Value
Actual Finish	ACTFINISH
Actual Labor Cost	ACTLABCOST
Actual Labor Hours	ACTLABHRS
Actual Material Cost	ACTMATCOST
Actual Service Cost	ACTSERVCOST
Actual Start	ACTSTART
Actual Tool Cost	ACTTOOLCOST
Asset/Location Priority	ASSETLOCPRIORITY
Back Out Plan	BACKOUTPLAN
Calendar	CALCALENDAR

[Add All](#)

Selected Fields Filter > 1 - 8 of 8

Column Order	Report Label	Field Value	Category
1	Work Order	WONUM	Work Order Details
2	Description	DESCRIPTION	Work Order Details
3	Location	LOCATION	Work Order Details

[Submit](#) [Cancel](#)

Ad-Hoc Reporting, cont'd.

Reporting

Page 1 of 2

Tivoli software

Work Order	Description	Location	Asset	Status	Scheduled Start	Priority	Site
1124	Disable Windows account			WAPPR		1	BEDFORD
1125	Disable Email account			WAPPR		1	BEDFORD
T1030	Provide Report on Condition to Supervisor			COMP		2	BEDFORD
1123	Disable Network account			WAPPR		1	BEDFORD
1116	Issue PC			WAPPR		1	BEDFORD
T1013	Test electrical system, replace external switches	SHIPPING		WAPPR	2/1/05 3:35:00 PM	7	BEDFORD
T1014	Replace battery and clean connecting terminals	SHIPPING		WAPPR	2/1/05 3:35:00 PM	7	BEDFORD
1114	Create Security Badge			WAPPR		1	BEDFORD
1121	Pre-Meeting Clean Check			WAPPR		2	BEDFORD
1127	Return Building Access Badge			WAPPR		1	BEDFORD
1122	Disable IT Accounts			WAPPR		1	BEDFORD
T1008	Install upgrade hard drive, basic formatting	SHIPPING		WAPPR	2/1/05 3:38:00 PM	3	BEDFORD
T1015	Replace wheel bearings, grease steering chassis	SHIPPING		WAPPR	2/1/05 3:35:00 PM	7	BEDFORD

Fixpack Additions for Improving Efficiency

- **Run-in-background mode**
- **Change status with fewer clicks**
- **Easier access to advanced search**
- **Better advanced search dialog**
- **Ability to cancel out of a QBE**

Run-in-Background Mode

6.2.37.1.1.3

- **This approval is taking forever!**
- **Ability to have work order status changes run in background so that they don't keep you from moving forward with work**
- **User specifies whether task should run in background**
- **Follows same model as:**
 - Generate Work Orders in Preventive Maintenance
 - Reorder Items in Inventory

Running in the Background: WO Change Status

Change Status

Work Order: 1002 Rebuild Feedwater Pump

Status: APPR Approved

New Status * [dropdown]

Status Date * 10/2/08 2:15 PM

Memo [text box]

Print Work Order(s)?

Change work order status in back ground?

Notification E-mail for Work Order Generation: m.wilson@helwig.com

OK Cancel

**Check the box and enter email address for notification that task is complete
(Email is pre-filled, but you can change it)**

Changing Status in 7.1

One status button

The screenshot displays the 'Work Order Tracking' application interface. A 'Change Status' dialog box is open in the center, allowing for the modification of a work order's status. The dialog box contains the following fields:

- Work Order: 1000
- Status: WAPPR
- New Status: (dropdown menu)
- Status Date: 7/23/08 4:07 PM
- Memo: (text input field)
- Print Work Order(s)? (checkbox)

The background application window shows the following details:

- Work Order Details:** Work Order 1000, Location BR300, Asset 11300, Configuration Item, Parent WO, Classification, Class Description, Launch Entry Name.
- Job Details:** Job Plan, PM, Safety Plan (SPLAN1), Contract.
- Attachments:** Status WAPPR, Status Date 2/6/99 2:25 PM, Inherit Status Changes? (checked), Accepts Charges? (checked), Is Task? (unchecked), Under Flow Control? (unchecked), Suspend Flow Control? (unchecked), Flow Action, Flow Action Assist? (unchecked).
- Table:** Multiple Assets, Locations and CIs. Columns: Asset, Location, Configuration Item, Target Description, Sequence, Progress?, Site. Content: ...No rows to display...
- Scheduling Information:** Target Start 12/31/98 8:00 AM, Actual Start, Target Finish 12/31/98 3:00 PM, Actual Finish.
- Follow-up Work:** Originating Record, Originating Record Class.

Change Status: Buttons for Approve, Initiate, Complete, Close

7.1.1.3

Work Order Tracking

Bulletins: (113) Go To Reports Start Center Profile Sign Out Help

Find: Select Action

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

Work Order: 1000
 Location: BR300
 Asset: 11300
 Configuration Item:
 Parent WO:
 Classification:
 Class Description:
 Launch Entry Name:

Relocate Guard Rails Around Compressor
 Boiler Room Reciprocating Compressor
 Reciprocating Compressor- Air Cooled/100 CFI

Site: BEDFORD
 Class: WORKORDER
 Work Type: CM
 GL Account: 6210-300-???
 Failure Class:
 Problem Code:

Attachments
 Status: APPR
 Status Date: 7/14/08 1:05 PM
 Inherit Status Changes?
 Accepts Charges?
 Is Task?
 Under Flow Control?
 Suspend Flow Control?
 Flow Action:
 Flow Action Assist?

Job Details
 Job Plan:
 PM:
 Safety Plan: SPLAN1
 Contract:

Asset Details
 Asset Up?
 Warranties Exist?
 SLA Applied?
 Charge to Store?

Priority
 Asset/Location Priority: 5
 Priority: 2
 Priority Justification:
 Risk Assessment:

Multiple Assets, Locations and CIs Filter Download

Asset	Location	Configuration Item	Target Description	Sequence	Progress?	Site
...No rows to display...						

Select: Clear All New Row

Scheduling Information
 Target Start: 12/31/98 8:00 AM
 Actual Start:
 Originating Record:

Follow-up Work

The screenshot shows the 'Work Order Tracking' application interface. At the top, there is a navigation bar with 'Bullets: (0)', 'Go To', 'List Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below this is a toolbar with various icons, including a circled 'Init' button. The main content area displays details for Work Order 1000, titled 'Relocate Guard Rails Around Compressor' at Site BEDFORD. A 'Change Status' dialog box is open, showing the current status as 'WAPPR' (Waiting on Approval) and the new status as 'In Progress'. The status date is 10/2/08 2:45 PM. An orange arrow points from the 'Init' button in the toolbar to the 'In Progress' dropdown in the dialog. The background shows a table with columns for Asset, Location, Configuration Item, Target Description, Sequence, Progress?, and Site. The table is currently empty, displaying '...No rows to display...'. At the bottom, there are buttons for 'Select', 'Clear All', and 'New Row'.

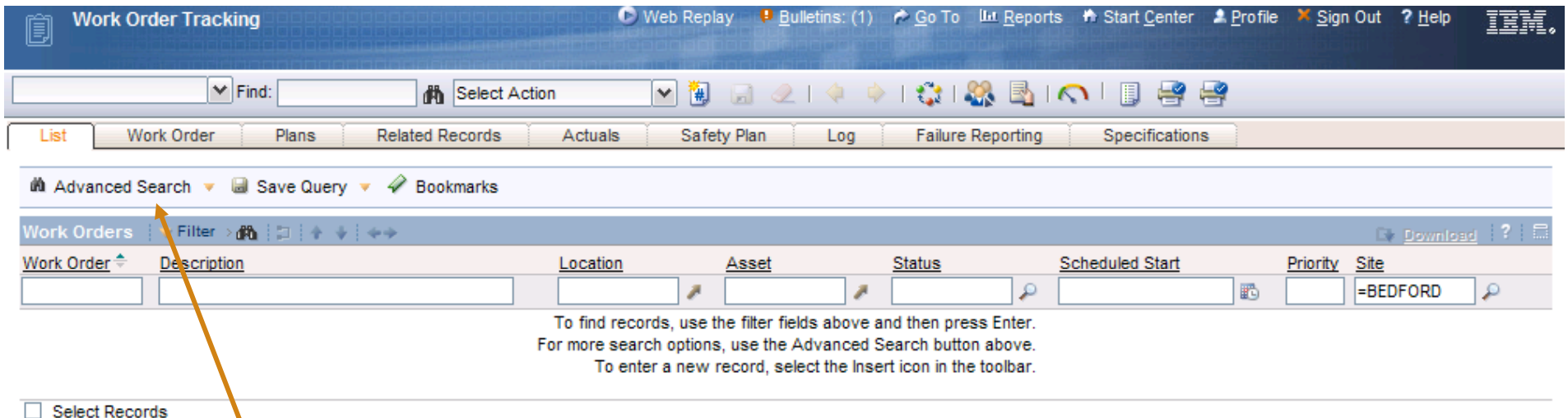
Init button brings up dialog with In Progress already showing

Applications Affected

APPLICATION	DESCRIPTION OF IMPACT
Work Order Tracking	Approve, In progress, Complete, Close buttons for toolbar
Activities and Tasks	Approve, In progress, Complete, Close buttons for toolbar
Change	Approve, In progress, Complete, Close buttons for toolbar
Release	Approve, In progress, Complete, Close buttons for toolbar
Quick Reporting	Approve, In progress, Complete, Close buttons for toolbar
Purchase Reqs	Approve, Close buttons for toolbar
Purchase Orders	Approve, Close buttons for toolbar
RFQ	Sent, Close buttons for toolbar
Invoices	Approve, Paid buttons for toolbar
Service Requests	Queue, In progress, Pending, Resolve buttons for toolbar
Incident	Queue, In progress, Pending, Resolve buttons for toolbar
Problem	Queue, In progress, Pending, Resolve buttons for toolbar

Only these statuses have a button; there is no generic capability to add a button for any status

Accessing More Search in 7.1



The screenshot displays the 'Work Order Tracking' application interface. At the top, there is a navigation bar with links for 'Web Replay', 'Bulletins: (1)', 'Go To', 'List Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below this is a toolbar with various icons for search and navigation. The main content area features a tabbed interface with 'List' selected. Underneath, there are buttons for 'Advanced Search', 'Save Query', and 'Bookmarks'. A table titled 'Work Orders' is visible, with columns for 'Work Order', 'Description', 'Location', 'Asset', 'Status', 'Scheduled Start', 'Priority', and 'Site'. The 'Site' column contains the value '=BEDFORD'. Below the table, there is a checkbox labeled 'Select Records'.

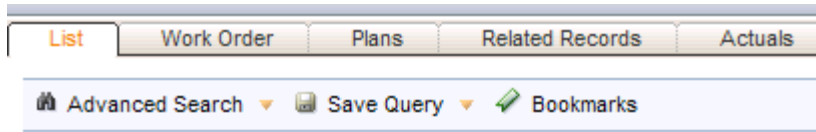
To find records, use the filter fields above and then press Enter.
For more search options, use the Advanced Search button above.
To enter a new record, select the Insert icon in the toolbar.

The Advanced Search button/drop-down was the only way to access the More Search dialog, and it was available only on the List page

Search Access



Former List-page-only searching options now available throughout power apps via drop-down menu



Work Order Tracking

Bulletins: (113) Go To Reports Start Center Profile Sign Out Help

Find: [] Select Action

- More Search Fields
- Filter by Linear Assets
- Where Clause
- Attribute Search
- View Search Tips
- Save Current Query
- View/Manage Queries
- Bookmarks

Work Order	1000	Relocate G	Site	BEDFORD	Attachments	
Location	BR300	Boiler Room	Class	WORKORDER	Status	APPR
Asset	11300	Reciprocating	Work Type	CM	Status Date	7/14/08 1:05 PM
Configuration Item			GL Account	6210-300-???	Inherit Status Changes?	<input checked="" type="checkbox"/>
Parent WO			Failure Class		Accepts Charges?	<input checked="" type="checkbox"/>
Classification			Problem Code		Is Task?	<input type="checkbox"/>
Class Description					Under Flow Control?	<input type="checkbox"/>
Launch Entry Name					Suspend Flow Control?	<input type="checkbox"/>
					Flow Action	
					Flow Action Assist?	<input type="checkbox"/>

Accessing More Search Specifically

- **List Page: Advanced Search Drop-Down**
- **Any Power App Page: Key Field Search Drop-Down**
- **Any Power App Page: Key Field Search Binoculars, when field is empty**
- **Any Power App Page:**
 - CTRL+ALT+F then Enter, when field is empty
 - Cursor in Key Field Search, then hit Enter, when field is empty

Note: Some single-page apps use a power-app header and get the same functionality described above (ex. Assignment Mgr)

The More Search Dialog

Changing queries requires closing the dialog

The screenshot shows the 'More Search Dialog' in a 'Work Order Tracking' application. The dialog is a modal window with a title bar and standard window controls. It contains several sections of search criteria:

- Work Order Section:** Fields for Work Order, Description, Parent WO, Location, Search Location Hierarchy, Asset, Configuration Item, PM, and Classification.
- Problem Code Section:** Fields for Problem Code, Failure Class, Service Group, Service, Vendor, Originating Record, Originating Record Class, and Risk Assessment.
- Work Type Section:** Fields for Work Type, Status, Class (set to 'WORKORDER'), Site (set to '=BEDFORD'), History?, Priority, and Is Task? (set to 'N').
- Plan Details Section:** Fields for Job Plan, Safety Plan, Assigned Labor, Plan Craft, Plan Materials, Plan Services, and Plan Tools.
- User Information Section:** Fields for Reported By, On Behalf Of, Supervisor, Lead, Owner, and Owner Group.
- Dates Section:** Fields for Reported Date, Target Start, Target Finish, Scheduled Start, and Scheduled Finish, each with 'From' and 'To' sub-fields.

At the bottom of the dialog, there are three buttons: 'Find', 'Clear', and 'Cancel'. The 'Clear' button is highlighted with an orange box, indicating that it is the key to changing queries by resetting the search criteria.

Clearer, Better Functionality in More Search



Formerly was the “Clear” button

The New “Revise” Button



- **Clear Query and Fields: Starts from scratch**
- **Clear All Fields: Retains current query**
- **Change Query: Brings up query-selection dialog**
- **Restore Default Query: Changes to user-designated query for that app (same as app's default query in some cases)**

Ability to Cancel a QBE



For Sys Admins:

Time out setting for system administrators stops a running query after a configurable amount of time: After X seconds, a message appears letting users know they need to refine their query

For End Users:

New “Stop Query” button to allow users to cancel a query without having to shut down the browser

Applies to filtering on List page, the More Search dialog, and the Where Clause dialog

System Properties

System Properties Bulletins: (0) Go To Reports Start Center Profile Sign Out Help IBM

Select Action

Global Properties Filter 1 - 6 of 6 Download

<input type="checkbox"/>	Property Name	Description	Current Value	
<input type="checkbox"/>	timeout			
<input type="checkbox"/>	▶ mxe.db.QueryTimeout	The number of seconds that query will timeout	300	
<input type="checkbox"/>	▶ mxe.dm.dmsessiontimeout	Migration Manager http session timeout value	120	
<input type="checkbox"/>	▶ mxe.reorder.previewtimeout	Timeout period for Reorder Service	30	
<input type="checkbox"/>	▶ mxe.sessiontoken.timeoutseconds	Token based session timeout in seconds, defa	180	
<input type="checkbox"/>	▶ mxe.usermonitor.timeout	Session timeout period on server (minutes) for	30	
<input type="checkbox"/>	▼ webclient.ResultSetQueryTimeout	The number of seconds that query will timeout	360	

Global Properties Details

Property Name	webclient.ResultSetQueryTimeout	File Override?	<input type="checkbox"/>	Security Level	SECURE
Description *	The number of seconds that query will timeout	Global Only?	<input checked="" type="checkbox"/>	User Defined?	<input type="checkbox"/>
Global Value	360	Instance Only?	<input type="checkbox"/>	Nulls Allowed?	<input type="checkbox"/>
Current Value	360	Online Changes Allowed?	<input checked="" type="checkbox"/>	Data Type	INTEGER
Maximo Default	360	Live Refresh?	<input checked="" type="checkbox"/>	Domain	<input type="text"/>
		Encrypted?	<input type="checkbox"/>		

[New Row](#)

Instance Properties Filter 1 - 2 of 2 Download

<input type="checkbox"/>	Property Name	Description	Value	
<input type="checkbox"/>	▶ mxe.com.port	Com port		
<input type="checkbox"/>	▶ mxe.hostname	Name of the machine and port hosting MXServer	localhost:7001	

Work Order Tracking

Bulletins: (0) Go To Reports Start Center Profile Sign Out Help

Find: Select Action

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

Advanced Search Save Query Bookmarks

Work Orders Filter 1 - 20 of 44107 Download

Work Order	Description	Priority	Site
1000	Relocate Guard Rails Around C	2	BEDFORD
1001	12 Month Service on Shipping D Conveyor	5	BEDFORD
1002	Rebuild Feedwater Pump	9	BEDFORD
1003	Check for Plumbing Problem	5	BEDFORD
1004	Generator Overhaul	1	BEDFORD
1005	Electric Cart Tune-Up	7	BEDFORD
1006	Feedwater Pump Service	7	BEDFORD
1007	Packaging Mach. Elevator & Dra Inspection	8	BEDFORD
1008	Repair Damaged Conduit Feedin	7	BEDFORD
1009	12 Month Service on Shipping Dept #2 Conveyor	8	BEDFORD
10100016	workorder description	8	BEDFORD
10100032	workorder description	8	BEDFORD
10100048	workorder description	8	BEDFORD
10100064	workorder description	8	BEDFORD
10100080	workorder description	8	BEDFORD
10100096	workorder description	8	BEDFORD

Please wait... Please Wait... Stop Query

Hitting "Stop Query" closes dialog, returns to empty List page with query showing

User Experience Improvements Continue

- **Expect future efforts: site visits, usability tests, phone conversations**

Lori Landesman

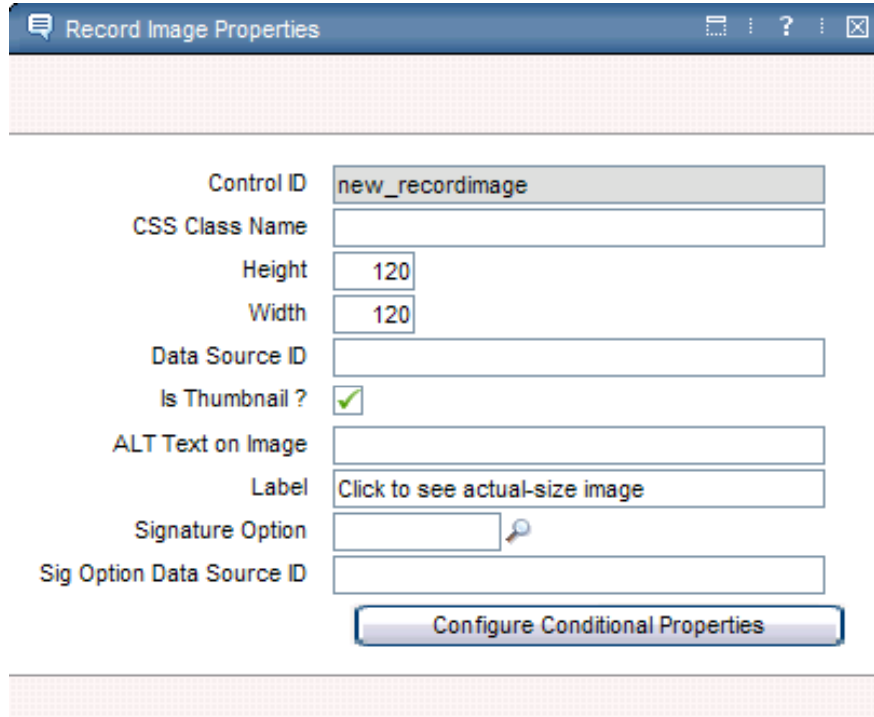
landesman@us.ibm.com



Software Group > Tivoli

Backup

Image Properties



Record Image Properties

Control ID: new_recordimage

CSS Class Name:

Height: 120


Width: 120

Data Source ID:

Is Thumbnail?:

ALT Text on Image:

Label: Click to see actual-size image

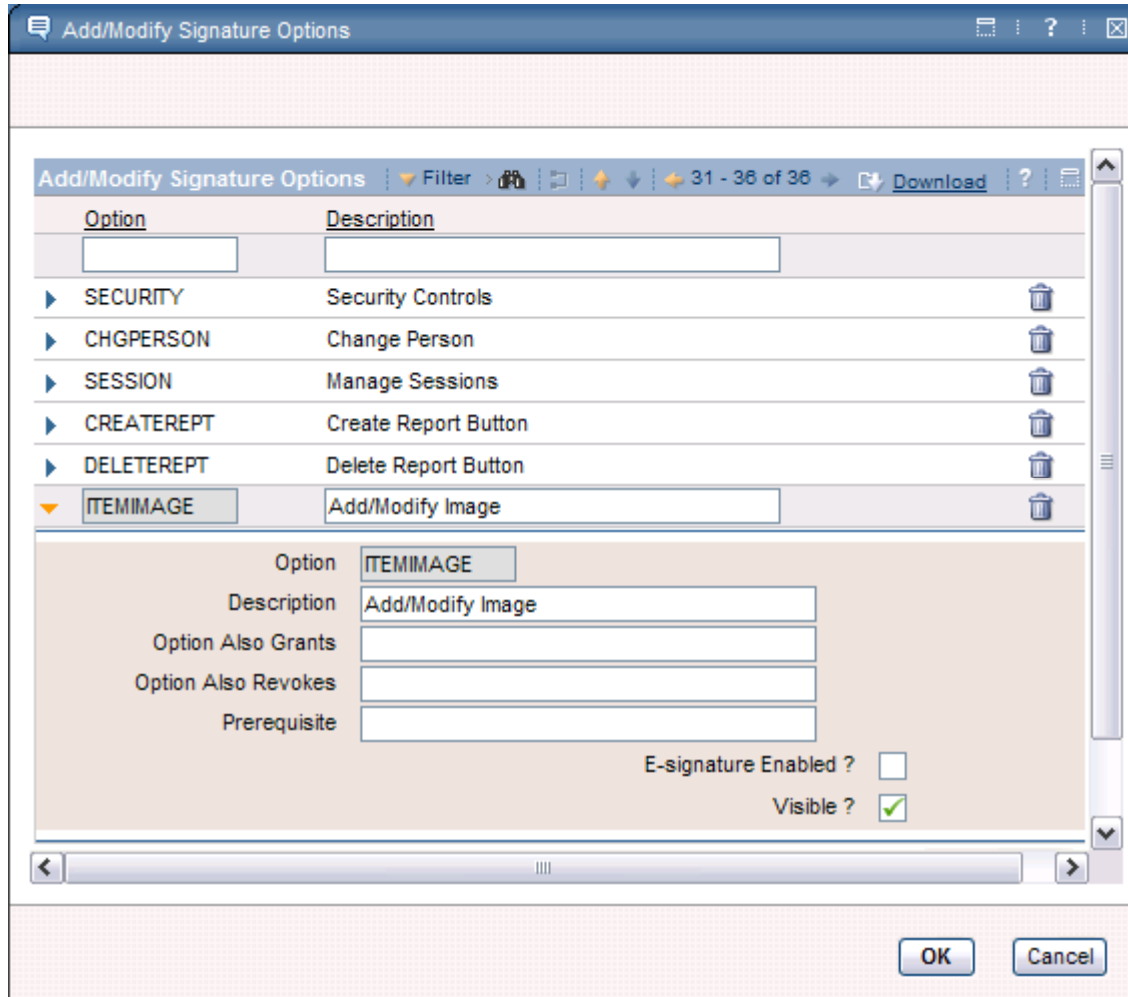
Signature Option: 

Sig Option Data Source ID:

Configure Conditional Properties

Image properties allow specification of size, label text, etc...

Adding to the Select Action Menu (1): Create ITEMIMAGE Sigoption



The screenshot shows the 'Add/Modify Signature Options' dialog box. The title bar reads 'Add/Modify Signature Options'. Below the title bar, there is a toolbar with a 'Filter' dropdown, a search icon, a refresh icon, a '31 - 36 of 36' indicator, and a 'Download' button. The main area contains a table with two columns: 'Option' and 'Description'. The table lists several options, with 'ITEMIMAGE' selected and highlighted. Below the table, there is a detailed view for the selected option, 'ITEMIMAGE'. This view includes fields for 'Option', 'Description', 'Option Also Grants', 'Option Also Revokes', and 'Prerequisite'. The 'Description' field contains the text 'Add/Modify Image'. There are also checkboxes for 'E-signature Enabled?' (unchecked) and 'Visible?' (checked). At the bottom right of the dialog, there are 'OK' and 'Cancel' buttons.

Option	Description
SECURITY	Security Controls
CHGPERSO	Change Person
SESSION	Manage Sessions
CREATEREPT	Create Report Button
DELETEREPT	Delete Report Button
ITEMIMAGE	Add/Modify Image

Option: ITEMIMAGE
Description: Add/Modify Image
Option Also Grants:
Option Also Revokes:
Prerequisite:
E-signature Enabled?
Visible?

The sigoption for the dialog is ITEMIMAGE

Adding to the Select Action Menu (2): Create SHOWDELETE Sigoption

Add/Modify Signature Options

Add/Modify Signature Options Filter 1 - 1 of 1 Download

Option	Description
show	
SHOWDELETE	Show Delete Button

Option: SHOWDELETE

Description: Show Delete Button

Option Also Grants:

Option Also Revokes:

Prerequisite:

E-signature Enabled ?

Visible ?

New Row

Advanced Signature Options

OK Cancel

SHOWDELETE creates the delete button in the dialog when an image has already been added

Adding to the Select Action Menu (3)

The screenshot shows the 'Add/Modify Select Action Menu' dialog box. The title bar reads 'Add/Modify Select Action Menu'. The main area contains a table with two columns: 'Key Value' and 'Header Description'. The table lists several menu items: AM9000, DBACCESS, HELPWF, SESSION, and ITEMIMAGE. The 'ITEMIMAGE' item is selected, and its configuration details are shown below the table. The configuration fields are:

Element Type	OPTION
Key Value	ITEMIMAGE
Header Description	
Position *	19
Subposition *	0
URL	
Image	
Visible ?	<input checked="" type="checkbox"/>
Access Key	
Tabs	ALL

At the bottom of the dialog, there are 'OK' and 'Cancel' buttons.

Grant Group Access to the ITEMIMAGE

Security Groups

Bulletins: (1) Go To Reports Start Center Profile Sign Out Help

Find: Select Action

List Group Sites Applications Storerooms Labor GL Components Limits and Tolerances Data Restrictions Users

Group MAXADMIN Maximo Administrators (Super Users)

Applications Filter 1 - 2 of 2

Grant Listed Applications Revoke Listed Applications

Description	Main Object/Table	Original Application (if copied)
user		
User Self Registration	Add User virtual object for adding a new	
Users	Users of the system	

Options for Users Filter 1 - 4 of 4

Grant Listed Options for This Application

Description	Grant Access ?	Condition
Delete User	<input checked="" type="checkbox"/>	
New User	<input checked="" type="checkbox"/>	
Read access to Users	<input checked="" type="checkbox"/>	
Save User	<input checked="" type="checkbox"/>	

Filter 1 - 10 of 27

Description	Grant Access ?	Condition
Add/Modify Image	<input checked="" type="checkbox"/>	
Authorize Group Reassignment	<input checked="" type="checkbox"/>	
Bookmarks	<input checked="" type="checkbox"/>	
Change Passwords	<input checked="" type="checkbox"/>	

Not everyone who sees the image should be allowed to add or delete the image

Grant Group Access to the SHOWDELETE Sigoption

The screenshot shows the 'Security Groups' application interface. The 'Applications' tab is selected, and the group 'MAXADMIN' (Maximo Administrators (Super Users)) is chosen. The 'Applications' table lists 'User Self Registration' and 'Users'. The 'Options for Users' table shows that 'Delete User', 'New User', 'Read access to Users', and 'Save User' all have 'Grant Access?' checked. The 'SHOWDELETE' sigoption is also visible in the bottom table, with 'Show Delete Button' having 'Grant Access?' checked.

Description	Main Object/Table	Original Application (if copied)
user		
User Self Registration	Add User virtual object for adding a new	
Users	Users of the system	

Description	Grant Access ?	Condition
Delete User	<input checked="" type="checkbox"/>	
New User	<input checked="" type="checkbox"/>	
Read access to Users	<input checked="" type="checkbox"/>	
Save User	<input checked="" type="checkbox"/>	

Description	Grant Access ?	Condition
show		
Show Delete Button	<input checked="" type="checkbox"/>	

SHOWDELETE should be granted to all the same groups as ITEMIMAGE

Create a Relationship

Database Configuration Bulletins: (1) Go To Reports Start Center Profile Sign Out Help

Find: Select Action

List Object Attributes Indexes Relationships

Object * Status

Relationships Filter 1 - 1 of 1 Download

Relationship	Child Object	Where Clause	Remarks
imglib			
IMGLIB	IMGLIB	refobject = 'MAXUSER' and refojectid = :maxu	'Relationship to the IMGLIB table, used to find th

Details

Relationship	IMGLIB	Child Object	IMGLIB
Where Clause	refobject = 'MAXUSER' and refojectid = :maxuserid	Remarks	Relationship to the IMGLIB table, used to find the image for a given item. (imglib.refobject="MAXUSER" and imglib.refobjectid=:maxuser\$MAXUSER.MAXUSERID). The resulting set will contain zero or one object.

[New Row](#)

Record images live in the IMGLIB table. Create a relationship between the object and IMGLIB.