MAXIMO
Project Manager
User’s Guide

Release 5.2
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maximo

mro software
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About This Guide

This guide provides information about using MAXIMO™ Project Manager to exchange information between Microsoft® Project and MAXIMO. It explains how MAXIMO Project Manager enhances Microsoft Project.

This guide does not explain how to use Microsoft Project, or how to use MAXIMO. It assumes that MAXIMO Project Manager users are already familiar with these products.

Who Should Read This Guide?

The MAXIMO Project Manager User’s Guide is for planners, forecasters, and other managers who want to use Microsoft Project to work with business data from the MAXIMO database.

How to Use This Guide

MAXIMO Project Manager contains Help that provides detailed instructions on using the application. Use this guide together with Help to help you master this application.

This guide contains the following chapters:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1: MAXIMO Project Manager Overview</td>
<td>Provides an overview of the design and use of MAXIMO Project Manager</td>
</tr>
<tr>
<td>Chapter 2: MAXIMO Project Manager Scenarios</td>
<td>Describes business application scenarios</td>
</tr>
<tr>
<td>Chapter 3: MAXIMO and Microsoft Project Integration</td>
<td>Describes the mapping between MAXIMO database tables and Microsoft Project fields, and provides tips for optimizing MAXIMO Project Manager’s performance</td>
</tr>
</tbody>
</table>
Notation Conventions

This guide uses the following typographical conventions:

<table>
<thead>
<tr>
<th>Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bold text</td>
<td>Denotes the following:</td>
</tr>
<tr>
<td></td>
<td>▼ dialog boxes</td>
</tr>
<tr>
<td></td>
<td>▼ field names</td>
</tr>
<tr>
<td></td>
<td>▼ buttons</td>
</tr>
<tr>
<td>italics</td>
<td>▼ denote titles of other documents</td>
</tr>
<tr>
<td></td>
<td>▼ emphasis</td>
</tr>
</tbody>
</table>

**NOTE** Precedes information of special importance

Related Documentation

Your documentation set includes this guide and the *MAXIMO Project Manager Installation Guide*, which provides information on your system requirements, preparations for a successful installation, and installation instructions.

Support

Chapter 1: MAXIMO Project Manager
Overview

MAXIMO Project Manager appends a MAXIMO menu to the Microsoft Project menu bar, providing a way to map work order and PM data from the MAXIMO database to Microsoft Project.

MAXIMO Menu

The added functionality lets you filter work order, PM, and calendar data from a MAXIMO database. After you filter the MAXIMO data, you can perform project planning tasks with the MAXIMO work orders and save schedule data back to existing work orders in the MAXIMO database.

Using MAXIMO Data In Microsoft Project

The following section details the steps required to transfer work order or PM data from a MAXIMO database into Microsoft Project. Detailed instructions on using MAXIMO data in Microsoft Project follow this section.

For examples of work flows using MAXIMO Project Manager, see Chapter 2, “MAXIMO Project Manager Scenarios.”
Process Overview

The following steps provide a high-level overview of how to create a project in Microsoft Project using MAXIMO data:

1. Create and save a MAXIMO query.
2. Create a new project in Microsoft Project.
3. Log in to MAXIMO from Microsoft Project.
4. Select a Work Order or PM query.
5. Modify the project.
6. If you selected a work order query, return schedule data to the MAXIMO database.

The following section describes this process in more detail.

Creating a Project in Microsoft Project Using MAXIMO Data

To create a project in Microsoft Project using MAXIMO data, complete the following steps:

1. Create and Save a MAXIMO Query

To create and save a MAXIMO query, complete the following steps:

1. Open MAXIMO.
2. From the Work Order Tracking or PM application, create and save a query for your project.
2. Create a New Project in Microsoft Project

To create a new project in Microsoft Project, complete the following steps:

1. Open Microsoft Project.
2. Create a new project.
3. Choose Select Work Orders or Select PMs from the MAXIMO menu.

MAXIMO Menu

3. Log in to MAXIMO from Microsoft Project

The MAXIMO Login dialog box opens when you choose Select Work Orders or Select PMs from the MAXIMO menu.

NOTE For more information about changing the defaults for fields in the MAXIMO Login dialog box, see “Customizing MAXIMO Project Manager” on page 47.
MAXIMO Login Dialog Box

To log in to MAXIMO, complete the following steps:

1. In the **Host** field, enter the name of MAXIMO Application Server machine and the MAXIMO Application Server name, if it is not MXServer (the default value).

   Example:
   
   If the MAXIMO Application Server machine name is **Vulcan** and the MAXIMO Application Server name is **MAXDEV**, you enter **Vulcan/MAXDEV** in the **Host** field.

   You can also specify a port on the application server machine. The format will be as follows:

   *machinename:port/AppServername*

   Example:

   **Vulcan:8080/MAXDEV**

   **NOTE**

   The mxe.name setting in the MXServer.Properties file defines the MAXIMO Application server name. The default is MXServer.

   The Application server name is case-sensitive.

   The mxe.registry.port setting in the MXServer.Properties file defines the port.
2. In the **User Name** and **Password** fields, enter the appropriate user name and password for your MAXIMO database.

3. Click **OK**.

**NOTE** When you log in, MAXIMO connects you to your default site. To change sites, click **Advanced...** from the **Select Work Orders** or **Select PMs** dialog box. From the Change Site drop-down menu, select the appropriate site.

**Select Work Orders Dialog Box**

4. **Select a Work Order or PM Query**

Select a query from the list. The list contains queries you saved in MAXIMO (in the Work Order Tracking or PM application) for that site, as well as public queries to which you have access.

After selecting a query, you can modify settings for processing the data transferred from MAXIMO and preview your selections.

**Set Advanced Options**

Click **Advanced...** from the **Select Work Orders** or **Select PMs** dialog box to choose the settings for processing data in MAXIMO Project Manager.

**Preview Your Selections**

Click **Preview** from the **Select Work Orders** or **Select PMs** dialog box to see the result set from the work orders or PMs that you have filtered.
## Using MAXIMO Data In Microsoft Project

### Launch

Click **Launch Now** from the **Select Work Orders** or **Select PMs** dialog box to begin populating Microsoft Project with work order or PM data from the MAXIMO database.

**NOTE**

Before transferring the data, MAXIMO Project Manager sets the calculation mode in Microsoft Project to manual, and then resets it. Therefore, you must calculate a schedule once the data transfer is complete.

To proceed with automatic scheduling after transferring the data, reset the mode in Microsoft Project.

### 5. Modify the Project

After you transfer the data from MAXIMO to Microsoft Project, you can modify schedules and assign laborers to work orders or tasks.

**Save as Microsoft Project File (optional)**

Save the project in a Microsoft Project file (.MPP) if you want to schedule it or update it at a later time. After saving the project, you still can save the data back to MAXIMO.

### 6. Return Schedule Data to the MAXIMO Database

Return work order schedule data from Microsoft Project to the MAXIMO database. From the MAXIMO menu, select **Save WO Schedule to MAXIMO**.

**NOTE**

If the active project includes several subprojects and you select **Save WO Schedule to MAXIMO**, you save all work order data for all the projects to MAXIMO. However, if the active project includes PM subprojects and work order subprojects, you can only save the work order information to MAXIMO; the PM data is ignored.

### 7. Update a Saved Project to MAXIMO (Optional)

If you saved the project in Microsoft Project and wish to update it later, select **Update Work Orders** from the MAXIMO menu.
Using the MAXIMO Menu

The following sections describe the MAXIMO menu options and dialog boxes added to Microsoft Project by MAXIMO Project Manager.

Select Work Orders

To select work orders, complete the following steps:

1. Choose Select Work Orders from the MAXIMO menu.

MAXIMO displays the queries you saved in MAXIMO's Work Order Tracking application for the current site, as well as public queries to which you have access. The queries available to you depend on the sites that allow you access.

2. To change sites, click Advanced... from the Select Work Orders dialog box. From the Current Site drop-down menu, select the appropriate site.

Select Work Orders Dialog Box
### Select Work Orders Dialog Box

The following table contains descriptions for the columns and buttons in the Select Work Orders dialog box.

<table>
<thead>
<tr>
<th>Dialog Box Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Shows the name of the queries you created for the selected site in MAXIMO's Work Order Tracking application, as well as any public queries.</td>
</tr>
<tr>
<td>Description</td>
<td>Shows the descriptions of the queries.</td>
</tr>
<tr>
<td>Query</td>
<td>Lets you display the SQL content of the query. Click the ellipsis to display the SQL content; the SQL content is read-only. To modify the query, you must modify it in MAXIMO.</td>
</tr>
<tr>
<td>Owner</td>
<td>Shows the name of the person who created the query.</td>
</tr>
<tr>
<td>Launch Now</td>
<td>Populates Microsoft Project with the selected work order data from the MAXIMO database, including assignments, craft and tool resources, and resource availability. After you click Launch Now, you might notice a difference in the amount of data displayed when you use the same query in MAXIMO and MAXIMO Project Manager. When you search the MAXIMO database, MAXIMO displays only the selected work orders, or PMs. MAXIMO Project Manager, on the other hand, displays the parent and the entire child hierarchy under that parent. Displaying parents and all their children gives you a more comprehensive and accurate schedule.</td>
</tr>
<tr>
<td>Close</td>
<td>Closes the dialog box.</td>
</tr>
<tr>
<td>Preview</td>
<td>Displays the Preview Selected Work Orders dialog box where you can view the selected set of work orders before initiating a full launch.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Displays the Advanced Options for Work Orders dialog box where you can access more ways to refine your work order selection.</td>
</tr>
<tr>
<td>Help</td>
<td>Opens the help topic for the dialog box.</td>
</tr>
</tbody>
</table>

**NOTE** You can also transfer Calendars, if you select the Calendars option on the Advanced Options for Work Orders dialog box.
Advanced Options for Work Orders Dialog Box

To set the Advanced Options for the Work Orders dialog box, complete the following steps:

1. Click Advanced... from the Select Work Orders dialog box.
2. In the Advanced Options for Work Orders dialog box, choose the settings for processing data in MAXIMO Project Manager.
3. If necessary, choose the status of the child work orders that you want to transfer.
4. Click OK.

Advanced Options for Work Orders Dialog Box
Advanced Options for Work Orders Dialog Box

The following table contains descriptions for the options available in the Advanced Options for Work Orders dialog box.

<table>
<thead>
<tr>
<th>Dialog Box Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constraints</td>
<td>Displays the following work order date selections:</td>
</tr>
<tr>
<td>Work Order Date</td>
<td>▼ Scheduled Start</td>
</tr>
<tr>
<td></td>
<td>▼ Scheduled Finish</td>
</tr>
<tr>
<td></td>
<td>▼ Target Start</td>
</tr>
<tr>
<td></td>
<td>▼ Target Finish</td>
</tr>
<tr>
<td></td>
<td>Select one of these choices. If a given work order has a value in the</td>
</tr>
<tr>
<td></td>
<td>selected date field, that value becomes a constraint for the</td>
</tr>
<tr>
<td></td>
<td>corresponding task.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE</strong> If you leave this field empty, MAXIMO Project Manager disables</td>
</tr>
<tr>
<td></td>
<td>the Task Constraint Type field.</td>
</tr>
<tr>
<td>Task Constraint Type</td>
<td>Displays the following list of constraint types depending on the</td>
</tr>
<tr>
<td></td>
<td>selection you made in the Work Order Date field:</td>
</tr>
<tr>
<td></td>
<td>▼ Must Start/Finish On</td>
</tr>
<tr>
<td></td>
<td>▼ Start/Finish Not Earlier Than</td>
</tr>
<tr>
<td></td>
<td>▼ Start/Finish Not Later Than</td>
</tr>
<tr>
<td></td>
<td>Select one of these choices to specify the type of constraint you want</td>
</tr>
<tr>
<td></td>
<td>to use for your project.</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE</strong> You can put constraints only on tasks that are not</td>
</tr>
<tr>
<td></td>
<td>summaries of other tasks. Mixing child and parent</td>
</tr>
<tr>
<td></td>
<td>constraints can violate Microsoft Project business rules and</td>
</tr>
<tr>
<td></td>
<td>cause problems with work order transfers.</td>
</tr>
<tr>
<td></td>
<td>In practice, when you constrain work orders, MAXIMO Project Manager</td>
</tr>
<tr>
<td></td>
<td>uses that constraint on all tasks down to the lowest level of the</td>
</tr>
<tr>
<td></td>
<td>hierarchy.</td>
</tr>
<tr>
<td></td>
<td>To manipulate groups of tasks, transfer the parent tasks from</td>
</tr>
<tr>
<td></td>
<td>MAXIMO, then set the constraints in Microsoft Project after you</td>
</tr>
<tr>
<td></td>
<td>transfer the work orders.</td>
</tr>
</tbody>
</table>
### MAXIMO Project Manager Overview

The MAXIMO Project Manager Overview provides instructions on transferring MAXIMO work orders to Microsoft Project. The following table describes various dialog box elements and their descriptions:

<table>
<thead>
<tr>
<th>Dialog Box Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Child Work Orders By Status</td>
<td>Select this check box to filter child work orders by status.</td>
</tr>
<tr>
<td>Status</td>
<td>Displays the work order status list. Select the Status check box to enable the list box, then select All and Clear.</td>
</tr>
<tr>
<td></td>
<td>When you transfer a work order hierarchy from MAXIMO to Microsoft Project, only children with the work order statuses you select come over with their parents. Parent work orders are not restricted by filtering the child status.</td>
</tr>
<tr>
<td></td>
<td>For example, if your query transfers a work order hierarchy into Microsoft Project, and the work is in progress, you can choose to transfer only open work orders (not closed work orders) in the work structure.</td>
</tr>
<tr>
<td>NOTE</td>
<td>If you do not select anything from this list, then MAXIMO Project Manager transfers all child work orders.</td>
</tr>
<tr>
<td>All</td>
<td>Selects all items in the Filter Child Work Orders By Status list box. Clear any statuses you do not want to include in the work order data from the MAXIMO database.</td>
</tr>
<tr>
<td>Clear</td>
<td>Clears all selected items in a filter list box.</td>
</tr>
<tr>
<td>Change Site</td>
<td>Displays the sites available to you. Click the Current Site drop-down menu to change to a different site. When you select a different site, the queries you saved for that site in MAXIMO, as well the public queries, become available in the Select Work Orders dialog box.</td>
</tr>
<tr>
<td>Calendars</td>
<td>Select the Transfer MAXIMO Calendars check box to transfer the MAXIMO calendars associated with work orders, or with the tools and crafts that accompany MAXIMO work orders. By selecting this option, you ensure that when tools and crafts become resources in Microsoft Project, their availability is based on the calendars you created in MAXIMO rather than the standard Microsoft Project calendars.</td>
</tr>
<tr>
<td>Task Priority Preference</td>
<td>You can assign a MAXIMO work order one of three different priorities. Microsoft Project requires a priority ranking for each transferred record. Select one of the following MAXIMO work order priority attributes for Microsoft Project to use for the work orders you transfer from MAXIMO.</td>
</tr>
</tbody>
</table>
Preview Dialog Boxes

The Select Work Orders and Select PMs options from the MAXIMO menu have a Preview button that launches a dialog box with a preview window. Use the preview feature to check the results of the query you select. You can launch MAXIMO data from the Preview Selected Work Orders or Preview Selected PMs dialog box or return to the main selection dialog box to modify the filter criteria for the data you want from the MAXIMO database.

Differences in MAXIMO and MAXIMO Project Manager Query Results

You might notice a difference in the amount of data displayed when you use the same query in MAXIMO and MAXIMO Project Manager. When you search the MAXIMO database, MAXIMO displays only the selected work orders or PMs. MAXIMO Project Manager on the other hand, displays the parent and the entire child hierarchy under that parent. Displaying parents and all
their children creates a more comprehensive and accurate schedule.

**Preview Selected Work Orders Dialog Box**

The following table contains descriptions for the options available in the **Preview Selected Work Orders** and **Preview Selected PMs** dialog boxes.

<table>
<thead>
<tr>
<th>Dialog Box Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preview Selected Work Orders</strong></td>
<td>Displays a list of selected work orders. To view sub-levels in the hierarchy, click the plus sign (+) to the left of the current top-level work order; to close a hierarchy, click the minus (-) sign.</td>
</tr>
<tr>
<td><strong>Preview Selected PMs</strong></td>
<td>Displays a list of selected PMs. To view sub-levels in the list box, click the plus sign (+) to the left of the current top-level PM; to close the sub-levels, click the minus (-) sign.</td>
</tr>
</tbody>
</table>
**Update Work Orders**

Choose **Update Work Orders** from the MAXIMO menu to run a query that is identical to or based on the original MAXIMO query used to create the current project.

Use this menu option to update a project with current MAXIMO data on a periodic basis. MAXIMO Project Manager matches the data from the incoming work orders to the existing work orders and updates Microsoft Project with the incoming MAXIMO data.

**NOTE**
To make extensive changes to the structure of a project or bring over a new hierarchy from MAXIMO, create a new project rather than update the current project.

The **Update Work Orders** menu option offers features similar to the **Select Work Order** menu option with the following differences:

- When the MAXIMO work order already exists as a task in Microsoft Project, data from the MAXIMO work order is used to update the task in Microsoft Project.

- If a MAXIMO work order is not already in the current project as a task, MAXIMO Project Manager adds a new task to Microsoft Project’s work breakdown structure in the following manner:
  - Child work orders become sub-tasks and MAXIMO Project Manager places them after all of the existing children of the parent. No links are established for the new child work orders.
  - Top-level work orders become tasks and MAXIMO Project Manager adds them at the end of the project.
Save WO Schedule to MAXIMO

The Save WO Schedule to MAXIMO menu option works only when the current project in Microsoft Project is a work order project. It saves scheduling data from the current project in Microsoft Project to the MAXIMO database, including the Start Date, Finish Date, and Duration of each work order. If the [woupdate] section of the MaximoProject.ini was used, those fields will also be saved. A dialog box opens to confirm the save is completed. For more information, refer to “Transferring Data from Microsoft Project to MAXIMO” on page 55.

If the active project includes several subprojects and you select Save WO Schedule to MAXIMO, you save work order data for all projects to MAXIMO. However, if the active project includes PM subprojects and work order subprojects, you can save only the work order information to MAXIMO; MAXIMO ignores the PM data.

NOTE The dialog box indicates how many work orders were sent and/or rejected. Possible causes for rejected work orders are:

▼ work order status: The work order status was cancelled, completed, or closed.

▼ date format: The date format in Microsoft Project does not match the client workstation’s locale setting.
Select PMs

Choose **Select PMs** from the MAXIMO menu to display the queries you saved in the MAXIMO Preventive Maintenance application, as well as public queries to which you have access. The public queries available to you depend on the sites to which you have access. To change sites, click **Advanced...** and change the site from the **Advanced Options** dialog box.

**NOTE**  Forecasting works only on top-level PMs, which will forecast the complete hierarchical structure. You should build your queries with this in mind.

**NOTE**  Work orders are not actually created in the MAXIMO database, only forecasted as tasks for analysis in Microsoft Project.

**Select PMs Dialog Box**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Query</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM_FLY</td>
<td>Retrieves the PM_FLY PMs</td>
<td>WINSTON</td>
<td></td>
</tr>
<tr>
<td>PM_GEN</td>
<td>Retrieves the PM_GEN PMs</td>
<td></td>
<td>WINSTON</td>
</tr>
<tr>
<td>PM_PUMP</td>
<td>Retrieves the PM_PUMP PMs</td>
<td></td>
<td>WINSTON</td>
</tr>
</tbody>
</table>
**Select PMs Dialog Box**

The following table contains descriptions for the options available in the *Select PMs* dialog box.

<table>
<thead>
<tr>
<th>Dialog Box Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Shows the name of the queries you created for the selected site in the MAXIMO PM application, as well as any public queries.</td>
</tr>
<tr>
<td>Description</td>
<td>Shows the descriptions of the queries.</td>
</tr>
<tr>
<td>Query</td>
<td>Lets you display the SQL content of the query. Click the ellipsis to display the SQL content. The SQL content is read-only. You must use MAXIMO to modify the query.</td>
</tr>
<tr>
<td>Owner</td>
<td>Shows the name of the person who created the query.</td>
</tr>
<tr>
<td>Forecast Once</td>
<td>Forecasts one set of PM work orders from top-level PMs selected in the list box, starting from today’s date, and then populates Microsoft Project with the work order data.</td>
</tr>
</tbody>
</table>
Using the MAXIMO Menu

Forecast repeatedly until Forecasts sets of work orders from top-level PMs selected in the list box, starting from today's date until the date selected in the date drop-down list, and then populates Microsoft Project with the work order data. The number of work order sets depends on the controlling frequency of the hierarchy.

**NOTE** The number of sets of work orders forecasted depends on the controlling frequency of the hierarchy—any PM in the hierarchy can trigger all of the work orders to be forecasted as a set.

**NOTE** If all the Next due dates on the queried PMs are after the date you specify in the Forecast repeatedly until date look-up calendar, no work orders will be forecasted, and a message will appear telling you so.

Fields in the PM record that may affect your output are:

- Frequency
- Next Due Date
- First Start Date
- Use Target Start?
- Extended Date
- Active Season Start
- Active Season End

**Calendar Selection**

For more information, see Chapter 5, "Preventive Maintenance Module" in the MAXIMO User's Guide.
Launch Now Initiates the transfer of PM data (includes assignments, craft and tool resources, and resource availability) from MAXIMO to Microsoft Project. After you click Launch Now, you might notice a difference in the amount of data displayed when you use the same query in MAXIMO and MAXIMO Project Manager. When you search the MAXIMO database, MAXIMO displays only the selected work orders or PMs. MAXIMO Project Manager, on the other hand, displays the parent and the entire child hierarchy under that parent. Displaying parents and their children gives you a more comprehensive and accurate schedule.

**NOTE** You also can transfer Calendars if you select the Calendars option on the Advanced Filter Options dialog box.

Close Closes the dialog box.

Preview Displays the Preview Selected PMs dialog box, where you can view the selected set of PMs before initiating a full launch.

Advanced Displays the Advanced Options for PMs dialog box, where you can access more controls to refine your PM selection.

Help Opens the online Help for the dialog box.
Advanced Options for PMs Dialog Box

Use the Advanced Options for PMs dialog box to choose the settings for processing MAXIMO data in MAXIMO Project Manager.

Advanced Options for PMs Dialog Box

The following table describes the options available in the Advanced Options for PMs dialog box.

<table>
<thead>
<tr>
<th>Dialog Box Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendars</td>
<td>Select the Transfer MAXIMO Calendars check box to transfer the MAXIMO calendars associated with work orders, or with the tools and crafts that accompany MAXIMO work orders. By selecting this option, you ensure that when tools and crafts become resources in Microsoft Project, their availability is based on the calendars you created in MAXIMO rather than the standard Microsoft Project calendars.</td>
</tr>
<tr>
<td>Change Site</td>
<td>Click the Current Site drop-down menu to change to a different site from those available to you. When you select a different site, the queries you saved for that site in MAXIMO, as well the public queries, become available in the Select PMs dialog box.</td>
</tr>
<tr>
<td>OK</td>
<td>Applies the settings you configure in this dialog box.</td>
</tr>
<tr>
<td>Close</td>
<td>Closes the dialog box, keeping the current settings.</td>
</tr>
<tr>
<td>Reset</td>
<td>Resets the dialog box to its default settings.</td>
</tr>
<tr>
<td>Help</td>
<td>Opens the online Help for the dialog box.</td>
</tr>
</tbody>
</table>
Chapter 2: MAXIMO Project Manager
Scenarios

The MAXIMO Project Manager additions to Microsoft Project let you apply resource leveling and specialized scheduling tasks to MAXIMO work order and PM data. After you modify the project, you can return the schedule dates to existing MAXIMO work orders.

This chapter provides examples of how to use MAXIMO Project Manager to manage craft availability for work orders and PMs.

Planning Work for a Shut-down Period

Following are two examples on how to use MAXIMO Project Manager to plan work for a shut-down period.

Planning a Shut Down at a Specific Location

Suppose you have several pending hierarchical work order projects that must done in a specific location. To schedule projects that need to be included in a shut-down period that begins on December 10, 2003, complete the following steps:

1. In the MAXIMO Work Order Tracking application, create a work order hierarchy that contains all the shut down details; assign the top-level work orders a Work Order Type of CP, for a capital project.

2. On the Search tab of the MAXIMO Work Order Tracking application, create and save a query. Select CP for Work Order Type, and a Scheduled Start date of December 10, 2003, as shown in the following illustration.
Planning Work for a Shut-down Period

MAXIMO Query

3. Sign out from MAXIMO.

4. Open Microsoft Project and create a new project.

5. From the MAXIMO menu, choose Select Work Orders. The MAXIMO Login dialog box appears.

6. Log in to MAXIMO from Microsoft project. After you log in, the Select Work Orders dialog box appears.
7. Click the ellipsis in the **Query** column to display the SQL content of the query you want. The SQL content is read-only.

### Current Query Dialog Box

- **CAUTION**: Before performing advanced SQL searches on MAXIMO, you must be familiar with SQL and the MAXIMO database. Consult with your system administrator.

- **NOTE**: To modify your query, return to MAXIMO to modify it.

8. From the **Select Work Orders** dialog box, select the query you want.
9. Select **Preview** to view your new work order set. After checking the data, select **Launch Now** to retrieve the MAXIMO data. MAXIMO Project Manager transfer the data from MAXIMO.

10. Use Microsoft Project to level the project resources and adjust the work order dates.

11. Save the resulting schedule dates back to the work orders in the MAXIMO database for use in Work Order Tracking.
Planning a Shut Down by Using Customized MAXIMO Fields

Suppose your database administrator customized your MAXIMO database so that the first set of extra Work Order fields can be used to make a Yes or No selection field called “Shut Down Required.” You then can create a new project in Microsoft Project and filter for a list of work orders that have this field set to Y.

To plan the shut down, complete the following steps:

1. In the MAXIMO Work Order Tracking application, create a work order query to meet your criteria.
2. Sign out from MAXIMO.
3. Open Microsoft Project and create a new project.
4. From the MAXIMO menu, choose Select Work Orders. The MAXIMO Login dialog box opens.
5. Log in to MAXIMO from Microsoft Project. The Select Work Orders dialog box opens.
6. From the Select Work Orders dialog box, select the query you want.
7. Select Preview to view your new work order set. After checking the data, you can select Launch Now to retrieve the MAXIMO data.
8. Use Microsoft Project Manager to level the project resources and adjust the work order dates.
9. Create a schedule in Microsoft Project for the Shut Down Required work orders that need to be done during the shut-down period.
10. Save the resulting schedule dates back to the work orders in the MAXIMO database for use by Work Order Tracking.
Refreshing the Shut-down Project Data

Refresh the project once a week to include new MAXIMO work orders in the Work Shut Down schedule. To update the project, select the same query used to create the original project, then choose **Update Work Orders** from the MAXIMO menu.

To refresh the shut-down project data, complete the following steps:

1. In Microsoft Project, open the shut-down project.

2. From the MAXIMO menu, choose **Update Work Orders**. After you launch the query, the project is updated with the current MAXIMO data.

3. Repeat Steps 6 through 10 on page 25 to update the schedule.
Evaluating Schedule Dates of the Shut-down Project

In an ongoing project, you often want to compare the current schedule dates to those from the last scheduling session or to the original target dates.

Filtering, highlighting, or reporting on such date variances in Microsoft Project is a good way of seeing which tasks are slipping behind schedule from one scheduling session to the next.

To compare dates, complete the following steps:

1. In the MaximoProject.ini file, map the TARGSTARTDATE and SCHEDSTART fields in the MAXIMO WORKORDER table to the spare date fields in Microsoft Project (e.g., Date1 and Date2).

2. In Microsoft Project, create a filter to compare dates. For example, a filter where Start (the current task start date in the open session) is greater than Date1 (the schedule start date from the last save to the MAXIMO database).

3. In your open session (showing the latest update from MAXIMO and the latest schedule calculation), select the new filter and click **Highlight**.

All the tasks that show slippage from the last session are highlighted on the screen.
Scheduling a Work Order Backlog

You can manage a pending work order backlog for a location with MAXIMO Project Manager. Suppose you have many corrective maintenance work orders backlogged for the Shipping location. You want to create a project schedule that includes only work orders that are approved, waiting for approval, or waiting to be scheduled.

To schedule a work order backlog, complete the following steps:

1. Create and save a work order query in MAXIMO to filter work orders that meet the following criteria:
   - **Work Order Type** = CM
   - **Status** = APPR, WAPPR and WSCHED
   - **Location** = Shipping

2. Open Microsoft Project and create a new project.

3. Choose **Select Work Orders** from the MAXIMO menu. The **MAXIMO Login** dialog box opens.

4. Log in to MAXIMO from Microsoft project. The **Select Work Orders** dialog box opens.

5. From the **Select Work Orders** dialog box, select the query you want.

6. Select **Preview** to view the selected MAXIMO data. MAXIMO Project Manager shows you a preview of the work order set you filtered.

7. Click **Launch Now** to retrieve the data. MAXIMO Project Manager transfers the work orders from MAXIMO.

8. Use Microsoft Project to level the project resources. Save the resulting schedule dates back to MAXIMO.
**Holding the Schedule Dates from Session to Session**

You may want to hold the schedule dates for a set of work orders from session to session. Consider the following example:

You manually place the backlog tasks on the Microsoft Project Gantt chart where you want them to be done, but don’t want the dates overridden by a Microsoft Project schedule calculation.

To hold the schedule dates for a set of work orders from session to session, complete the following steps:

1. In the next MAXIMO Project Manager session, choose Advanced from the Select Work Orders dialog box.

2. In the Constraints section, choose an appropriate combination of Date and Constraint Type, e.g., Scheduled Start and Start No Earlier Than.

3. Launch the query.

Microsoft Project assigns the date constraints according to your specifications.

**Note**

Only the lowest-level tasks in any hierarchy of the project receive constraints, which roll up the hierarchy. To constrain a branch of a hierarchy, constrain its first detailed subtask.
Creating a Preventive Maintenance Workload Forecast

Creating a Preventive Maintenance Workload Forecast

You can use Microsoft Project to plan the human resources requirements for planned maintenance and for future preventive maintenance projects.

To create a preventive maintenance forecast, complete the following steps:

1. Create and save a PM query in the MAXIMO PM application.

2. Open Microsoft Project and create a new project.

3. Choose Select PMs from the MAXIMO menu. The MAXIMO Login dialog box opens.

4. Log in to MAXIMO from Microsoft project. The Select PMs dialog box opens.

5. In the Select PMs dialog box, select the query you want.

6. In the Forecast group box, select the Forecast repeatedly until option. Choose a future end date.

NOTE If all the Next due dates on the queried PMs are after the date you specify in the Forecast repeatedly until date look-up calendar, no work orders will be forecasted, and a message will appear telling you so.

Fields in the PM record that may affect your output are:

- Frequency
- Next Due Date
- First Start Date
- Use Target Start?
- Extended Date
- Active Season Start
- Active Season End
Calendar Selection

For more information, see Chapter 5, "Preventive Maintenance Module" in the MAXIMO User’s Guide.

7. Select **Preview** to view the selected MAXIMO data. MAXIMO Project Manager shows you a preview of the data set you filtered.

8. Click **Launch Now** to retrieve the data. MAXIMO Project Manager transfer the data from MAXIMO.

9. Use Microsoft Project to review your future workload checking for conflicts between craft availability and work.

10. Level the resources for upcoming projects to determine realistic dates for the work orders. Adjust the work order dates. Decide how to fix schedule overruns, add or subtract crafts, assign dependencies, etc.

11. Save the resulting project file as reference data.
Creating a Resource Leveled Total Workload Schedule

Creating a Resource Leveled Total Workload Schedule

Use Microsoft Project to combine two or more .mpp files containing work order or PM data from your MAXIMO database. You can save the resulting project file as reference data.

For example, you can use either of the following techniques:

▼ View the projects together. This method consolidates projects quickly and easily. To do so, complete the following steps:

1. Open both projects individually in Microsoft Project.

2. Choose New Window from the Window menu. The New Window dialog box opens.

3. Press Shift + click to select the projects. Both projects become highlighted.

4. Press OK to view them together in a new window.

▼ Consolidate the projects. This method establishes more permanent relationships between projects. To do so, complete the following steps:

1. Choose a project to be the “master project,” and open it.

2. On the Gantt chart, click the row where you want to insert the subproject.

3. Choose Insert from the Project menu and select the subproject(s).

For more information about any of the following tasks, refer to the Microsoft Project documentation.

▼ Merging projects
▼ Inserting subprojects into a master project
▼ Combining project views
▼ Sharing resources
Chapter 3: MAXIMO and Microsoft Project Integration Points

This chapter describes the mapping between MAXIMO database tables and Microsoft Project fields, and provides tips and guidelines for optimizing MAXIMO Project Manager's performance. The guidelines provide valuable information on ways you can reduce processing time.

Default Mapping

The following section describes the default field mapping between data in MAXIMO work orders and PMs and the standard Gantt chart view of Microsoft Project. Subsequent sections describe the conditional mapping logic for progress and the fields that you can customize in Microsoft Project.

Work Order Field Mapping

The following table describes how Work Order Tracking fields in MAXIMO are mapped to Microsoft Project.

<table>
<thead>
<tr>
<th>MAXIMO Fields</th>
<th>Corresponding Microsoft Project Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO Number (WONUM)</td>
<td>Task Notes</td>
</tr>
<tr>
<td>Description</td>
<td>Task Name</td>
</tr>
</tbody>
</table>
Default Mapping

**Child Work Orders**

Child work orders at the same level of any given work order hierarchy are linked together according to their MAXIMO work order sequence (WOSEQUENCE) numbers.

**Child Work Order Field Mapping**

<table>
<thead>
<tr>
<th>MAXIMO Field</th>
<th>Corresponding Microsoft Project Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child WOs</td>
<td>MSP Sub tasks</td>
</tr>
<tr>
<td>Task number sequencing</td>
<td>Links</td>
</tr>
<tr>
<td>(WOSEQUENCE) determines...</td>
<td>Smaller sequence numbers become predecessors to larger sequence numbers. MAXIMO Project Manager creates finish to start links between the numbered work orders.</td>
</tr>
</tbody>
</table>

**PM Field Mapping**

The following table describes how PM fields in MAXIMO are mapped to Microsoft Project.

**PM Field Mapping**

<table>
<thead>
<tr>
<th>MAXIMO Field</th>
<th>Corresponding Microsoft Project Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM Number (PMNUM)</td>
<td>Task Notes</td>
</tr>
<tr>
<td>Description</td>
<td>Task Name</td>
</tr>
</tbody>
</table>
Crafts and Tools

If you assign the same resource more than once to a task, MAXIMO Project Manager combines the multiple entries by adding the units and taking the maximum hours.

For example, when a resource appears more than once in a work plan, and you have assigned that resource multiple times to the same operation or to the work order itself, MAXIMO Project Manager adds those entries. Suppose a work plan contains the following assignments:

<table>
<thead>
<tr>
<th>Labor Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME1</td>
<td>Mechanic 1st Class</td>
<td>2</td>
<td>8:00</td>
</tr>
<tr>
<td>ME1</td>
<td>Mechanic 1st Class</td>
<td>1</td>
<td>6:00</td>
</tr>
</tbody>
</table>

With this plan, MAXIMO Project Manager assigns three mechanics for eight hours to complete the task.
Crafts

The following table describes how Crafts fields in MAXIMO are mapped to Microsoft Project.

**Crafts Field Mapping**

<table>
<thead>
<tr>
<th>MAXIMO Data</th>
<th>Corresponding Microsoft Project Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crafts from LABOR Table</strong></td>
<td>MSP Resources</td>
</tr>
<tr>
<td>LABORCODE</td>
<td>Resource Name</td>
</tr>
<tr>
<td>NAME</td>
<td>Resource Notes</td>
</tr>
<tr>
<td>Resource Quantity (RESQTY)</td>
<td>Availability</td>
</tr>
<tr>
<td>PAYRATE</td>
<td>Standard Rate</td>
</tr>
<tr>
<td>Payrate x Otscale</td>
<td>Overtime Rate</td>
</tr>
<tr>
<td>(calculation of these two fields)</td>
<td></td>
</tr>
<tr>
<td>'CRAFT'</td>
<td>Resource Code</td>
</tr>
<tr>
<td><strong>Work Plan Labor</strong></td>
<td>Assignments</td>
</tr>
<tr>
<td>Assignment work plan row</td>
<td>Assignment</td>
</tr>
<tr>
<td>Work Plan quantity (CRAFTQTY)</td>
<td>Assignment units</td>
</tr>
<tr>
<td>Work plan hours (LABORHRS) x</td>
<td>Assignment work hours</td>
</tr>
<tr>
<td>Work Plan Quantity (CRAFTQTY)</td>
<td></td>
</tr>
<tr>
<td>(calculation of these two fields)</td>
<td></td>
</tr>
</tbody>
</table>
### Tools

The following table describes how Tools fields in MAXIMO are mapped to Microsoft Project.

#### Tools Field Mapping

<table>
<thead>
<tr>
<th>MAXIMO Data</th>
<th>Corresponding Microsoft Project Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tools from TOOL Table</td>
<td>MSP Resources</td>
</tr>
<tr>
<td>TOOLNUM</td>
<td>Resource Name</td>
</tr>
<tr>
<td>Description</td>
<td>Resource Notes</td>
</tr>
<tr>
<td>Resource Quantity (RESQTY)</td>
<td>Availability</td>
</tr>
<tr>
<td>Tool Rate</td>
<td>Standard Rate</td>
</tr>
<tr>
<td>’TOOL’</td>
<td>Resource Code</td>
</tr>
<tr>
<td><strong>Work Plan Tools</strong></td>
<td>Assignments</td>
</tr>
<tr>
<td>Assignment work plan row</td>
<td>Assignment</td>
</tr>
<tr>
<td>Work plan quantity (TOOLQTY)</td>
<td>Assignment units</td>
</tr>
<tr>
<td>Work plan hours (TOOLHRS) x Work Plan Quantity (TOOLQTY) (calculation of these two fields)</td>
<td>Assignment work hours</td>
</tr>
</tbody>
</table>
Scheduling Constraints

When assigning scheduling constraints in the Advanced Options dialog boxes, constrain the schedule by using the following sequence:

1. Set a date constraint by defining one of the following:
   - start date constraint: **Scheduled Start** or **Target Start**
   - finish date constraint: **Scheduled Finish** or **Target Finish**.

2. Set a date constraint by defining one of the following:
   - start date constraint: **Must Start On**, **Start No Earlier Than**, or **Start No Later Than**.
   - finish date constraint: **Must End On**, **End No Earlier Than**, or **End No Later Than**.

   **NOTE** You can put constraints only on tasks that are not summaries of other tasks. Mixing child and parent constraints can violate Microsoft Project business rules and cause problems with work order transfers. In practice, if you request that all work orders be constrained, the transfer process will set constraints only on tasks that are at the lowest level of a hierarchy. To constrain parent tasks, set the constraints after you transfer the work orders from MAXIMO to Microsoft Project Manager.

The table below describes the start date constraints in MAXIMO and the corresponding Microsoft Project task data.

<table>
<thead>
<tr>
<th>MAXIMO Start Date Constraints</th>
<th>Microsoft Project Task Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled Start (SCHEDSTART)</td>
<td>ConstraintDate</td>
</tr>
<tr>
<td>Target Start (TARGSTARTDATE)</td>
<td>ConstraintDate</td>
</tr>
</tbody>
</table>
The following table describes the MAXIMO start date constraints.

**Start Date Constraint Types**

<table>
<thead>
<tr>
<th>MAXIMO Start Date Constraint Types</th>
<th>Microsoft Project Task data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must Start On</td>
<td>ConstraintType</td>
</tr>
<tr>
<td>Start No Earlier Than</td>
<td>ConstraintType</td>
</tr>
<tr>
<td>Start No Later Than</td>
<td>ConstraintType</td>
</tr>
</tbody>
</table>

The following table describes the finish date constraints in MAXIMO and the corresponding Microsoft Project task data.

**Finish Date Constraints**

<table>
<thead>
<tr>
<th>MAXIMO Finish Date Constraints</th>
<th>Microsoft Project Task data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled Finish (SCHEDFINISH)</td>
<td>ConstraintDate</td>
</tr>
<tr>
<td>Target Finish (TARGCOMPDATE)</td>
<td>ConstraintDate</td>
</tr>
</tbody>
</table>

The following table describes the MAXIMO finish date constraints.

**Finish Date Constraint Types**

<table>
<thead>
<tr>
<th>MAXIMO Finish Date Constraint Types</th>
<th>Microsoft Project Task data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must End On</td>
<td>ConstraintType</td>
</tr>
<tr>
<td>End No Earlier Than</td>
<td>ConstraintType</td>
</tr>
<tr>
<td>End No Later Than</td>
<td>ConstraintType</td>
</tr>
</tbody>
</table>
After using MAXIMO Project Manager for planning activities, you can return the work order scheduling dates to MAXIMO by selecting Save WO Schedule to MAXIMO from the MAXIMO menu.

The following table describes how data saved from Microsoft Project to MAXIMO is stored in both applications.

<table>
<thead>
<tr>
<th>Microsoft Project Field</th>
<th>Corresponding MAXIMO Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Field is saved to...</td>
<td>Work Orders</td>
</tr>
<tr>
<td>Duration</td>
<td>ESTDUR</td>
</tr>
<tr>
<td>Start</td>
<td>SCHEDSTART</td>
</tr>
<tr>
<td>Finish</td>
<td>SCHEDFINISH</td>
</tr>
</tbody>
</table>
Progress Mapping

Integrating progress data between the MAXIMO database and Microsoft Project is handled by MAXIMO according to the following conditions:

▼ If the MAXIMO Actual Start (ACTSTART) field contains a value, MAXIMO transfers progress-related information to Microsoft Project.

▼ If the MAXIMO Actual Start field is empty, MAXIMO transfers only the value in the MAXIMO Estimated Duration field.

The MAXIMO fields are mapped conditionally based on the MAXIMO Actual Start or Estimated Duration fields during the data transfer.

Progress Field Mapping

The following table describes the MAXIMO progress fields and the corresponding Microsoft Project fields.

<table>
<thead>
<tr>
<th>MAXIMO Field</th>
<th>Corresponding Microsoft Project Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Duration (ESTDUR)</td>
<td>Duration</td>
</tr>
<tr>
<td>Remaining Duration (REMDUR)</td>
<td>RemainingDuration</td>
</tr>
<tr>
<td>Actual Hours (ACTLABHRS)</td>
<td>ActualDuration</td>
</tr>
<tr>
<td>Actual Start (ACTSTART)</td>
<td>ActualStart</td>
</tr>
<tr>
<td>Actual Finish (ACTFINISH)</td>
<td>ActualFinish</td>
</tr>
</tbody>
</table>
Progress Logic Flow

The following table describes the logical flow for MAXIMO progress fields.

**Progress Logic Flow**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>If there is no ACTSTART</td>
<td>ESTDUR becomes Duration</td>
</tr>
<tr>
<td>If there is an ACTSTART</td>
<td>ACTSTART becomes Actual Start</td>
</tr>
<tr>
<td>If there is an ACTFINISH</td>
<td>ACTFINISH becomes Actual Finish</td>
</tr>
<tr>
<td>If there is no ACTFINISH</td>
<td>the following conditions affect the transfer:</td>
</tr>
<tr>
<td></td>
<td>▼ If there is a REMDUR,</td>
</tr>
<tr>
<td></td>
<td>REMDUR becomes Remaining Duration</td>
</tr>
<tr>
<td></td>
<td>▼ If there is no REMDUR,</td>
</tr>
<tr>
<td></td>
<td>ESTDUR becomes Duration</td>
</tr>
<tr>
<td></td>
<td>▼ If there are ACTLABHRS,</td>
</tr>
<tr>
<td></td>
<td>ACTLABHRS becomes Actual Duration</td>
</tr>
</tbody>
</table>
Optimizing MAXIMO Project Manager’s Performance

Many factors can determine data processing rates, such as:

- Machine type
- Network capacity and traffic
- Database server activity
- Local applications on the workstation

### Processing Rate Guidelines

The following guidelines can help you estimate the time required to transfer work order and PM data between MAXIMO and Microsoft Project. These guidelines reflect processing rates on minimal configurations with a Pentium® III, 450 MHz, 128 MB RAM and high-end configurations with a Pentium® 4, 1.8 GHz, 1 GB RAM machines.

- **Work Order:**
  - 400 tasks per minute on a low-end machine
  - 1000 tasks on a high-end machine

- **PM:**
  - 200 tasks per minute on a low-end machine
  - 500 tasks per minute on a high-end machine
Optimizing MAXIMO Project Manager’s Performance

**Recommendations for Improving Processing Time**

This section contains recommendations to reduce processing time.

**Use High-end Computers**

*Use high-end computers for both the application server and the Microsoft Project workstation.* Both machines affect overall performance. Testing shows that PM forecasting using high-end client machines (Pentium 4, 1.8 GHz, 1 GB RAM) can be twice as fast as forecasting with a low-end machine (Pentium III, 450 MHz, 128 MB RAM).

**Create Reasonable Size Queries**

*Be sure that the result set you generate with a single query is a reasonable size.* Limiting the size of queries minimizes processing time and makes it easier for planners to interpret and manage tasks effectively in Microsoft Project.

**NOTE**

Based on a broad range of testing, project management practices, and a conservative approach to utilizing the machines, you should use the following guidelines for query size:

- **Work Orders:** Limit the result set of tasks per launch to approximately 1,000 on a low-end client machine, and 3,000 on a high-end machine.

- **PMs:** Limit the result set of tasks per launch to approximately 1,000 on a low-end machine and 2,000 on a high-end machine.

**Run Analyze Tables Procedure**

*Run the Analyze Tables procedure regularly on an Oracle database.* The Analyze Table command in Oracle optimizes statistics on your database. Since MAXIMO builds queries dynamically based on user input, it benefits from cost-based optimization. With a cost-based optimizer, Oracle determines which indexes to use, based on the distribution of the data in the MAXIMO database.

For information on how to run the Analyze Tables procedure, refer to the **MAXIMO System Administrator’s Guide**.
Add Indexes and Update Database Statistics

Add indexes and update database statistics in MAXIMO. MAXIMO uses indexes to expedite access to the database. They provide pointers, or quick references, to frequently accessed data. You can create an index on the columns in a table that you frequently query. Updating database statistics improves database performance by reorganizing indexes.

See the MAXIMO System Administrator’s Guide for more information.
Appendix: Customizing MAXIMO Project Manager

The MaximoProject.ini file contains settings that you can use to customize how MAXIMO and Microsoft Project integrate.

The following section contains detailed information about the MaximoProject.ini file and describes how you can customize it.

MaximoProject.ini File

Use a text editor to change settings in the MaximoProject.ini file, which is located in the Windows or the WINNT directory of the machine where you installed MAXIMO Project Manager.

The following list describes the four sections of the MaximoProject.ini file:

<table>
<thead>
<tr>
<th>MAXIMOProject.ini Section</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>[system]</td>
<td>(Optional) Sets the login default values and automatic login for the MAXIMO Login dialog box that connects to the MAXIMO Application Server.</td>
</tr>
<tr>
<td>[wofieldmap]</td>
<td>Lets you map additional field pairs between Microsoft Project and MAXIMO's work order database columns.</td>
</tr>
<tr>
<td>[pmfieldmap]</td>
<td>Lets you map additional field pairs between Microsoft Project and MAXIMO's PM database columns.</td>
</tr>
<tr>
<td>[woupdate]</td>
<td>Lets you identify field map pairs between Microsoft Project and MAXIMO where you can transfer data from Microsoft Project field to a MAXIMO column.</td>
</tr>
</tbody>
</table>
MaximoProject.ini File

The following sample is a copy of the MaximoProject.ini file:

MaximoProject.ini

;;; MaximoProject.INI

; NOTE: Semicolons (;) placed before lines of text in this file indicate
; to the application that the text can be ignored. For the application to
; be able to read a value, you must remove the semicolon (if one exists)
; at the beginning of its line.

; The [system] section enables you to customize field defaults for the
; MAXIMO Login dialog box that connects your system to MAXIMO MXServer.
; You can set defaults for one or more of the fields. If you do not alter
; the values or remove the semicolons for any of the [system] parameters,
; the Host field displays "LocalHost" and the User Name and Password fields
; are empty.

; If the LOGINMODE=Auto line is uncommented, the login dialog box will not
; appear and you will be logged in automatically using the Hostname, Username,
; and Password values defined below.

[System]

LOGINMODE=Auto
HOSTNAME=LocalHost
;USERNAME=WINSTON
;PASSWORD=WINSTON

; The [wofieldmap] section enables you to map additional MAXIMO work order
; fields to specified Microsoft Project task fields. MAXIMO Project Manager
; uses these mapped field pairs to transfer data from MAXIMO to Microsoft
; Project. You can define up to 99 rows (field pairs) in this section. Each
; row starts with a numbered keyword (WOMAPROW1-WOMAPROW99). The parameters
; for each row include the work order field name, the Microsoft Project task
; field name, and the title that you want to appear as the column header in
; the Microsoft Project Gantt chart.
Below is a sample [wofieldmap] section. Note that these fields would not be mapped (and no data would be transferred) unless the semicolon were removed from the beginning of each line.

[wofieldmap]

;WOMAPROW1=eqnum text1 Equipment
;WOMAPROW2=location text2 Location
;WOMAPROW9=worktype text3 Type
;WOMAPROW14=wojo3 text4 JP Crossover
;WOMAPROW35=wopriority number7 WO Priority

The [pmfieldmap] section enables you to map additional PM work order fields to specified Microsoft Project task fields. MAXIMO Project Manager uses these mapped field pairs to transfer data from MAXIMO to Microsoft Project. The format is the same as in the [wofieldmap] section above, except MAXIMO PM fields are used instead of work order fields.

[pmfieldmap]

;PMMAPROW5=pmnum text5 PM Name
;PMMAPROW7=calendar text6 Calendar Name
;PMMAPROW10=lastcompdate date1 Last Completion Date

The [woupdate] section enables you to map Microsoft Project task fields to MAXIMO work order fields. MAXIMO Project Manager uses these mapped field pairs to transfer data from Microsoft Project to MAXIMO, where the MAXIMO work order fields are updated. Each row starts with a row number (WOUPDATEROW1-WOUPDATEROW40). The parameters for each row are the work order field name and the Microsoft Project field name.

Below is a sample [woupdate] section. In this case, the text7 field in each Microsoft Project task is saved to the wo15 field of the corresponding work order in MAXIMO.

NOTE: When defining Microsoft Project fields, you can only use the following fields: text1-text10, number1-number10, date1-date10, and cost1-cost10.

[woupdate]

;WOUPDATEROW1=wo15 text7
Saving Login Settings

Use the [system] section in the MaximoProject.ini file to set login default values (optional) and automatic login for the MAXIMO Login dialog box that connects to the MAXIMO Application Server. You can assign defaults for each login field (localhost, username, or password). To change a default for a field, enter a default value to the right of the equal sign.

If the LOGINMODE=Auto line is uncommented, the login dialog box will not appear, and you will be logged in automatically using the system values defined in the MaximoProject.ini file.

**[system] section**

The following sample shows the [system] parameters:

```ini
[system]
LOGINMODE=Auto
HOSTNAME=localhost
USERNAME=winston
PASSWORD=winston
```

**NOTE**  
For information on defining your HOSTNAME, refer to page 4.

**NOTE**  
If no defaults are set, enter values for the User Name and Password fields when you log in to the MAXIMO Application Server.
The [wofieldmap] and the [pmfieldmap] sections in the MaximoProject.ini file let you map field pairs between MAXIMO and Microsoft Project. Consequently, you can transfer data from specified work order or PM columns in MAXIMO to new fields in the corresponding task in Microsoft Project. Each specified task field appears in a new column of the Gantt Chart table. Since you can save these field pairs in the MaximoProject.ini file, you can choose Update Work Orders from the MAXIMO menu to refresh the data for your project.

For both sections, each map line contains the following information:

- Key name
- MAXIMO column name
- Microsoft Project task field name
- Title to be used as a column header in Microsoft Project’s Gantt Chart table.
MaximoProject.ini File

[wofieldmap] section

Use the [wofieldmap] section of the MaximoProject.ini file to transfer specific work order data in MAXIMO to Microsoft Project where the data resides with the current work order project and is displayed in the Gantt Chart table.

The following sample is an entry from the [wofieldmap] section:

[wofieldmap]
WOMAPROW1=leadcraft text1 Lead Craft

In the preceding sample, the map line contains the following information:

- WOMAPROW1 is the key name
- leadcraft is the MAXIMO column name
- text1 is the Microsoft Project task field
- Lead Craft is the column header in Microsoft Project.
The parameters for the [wofieldmap] section are defined below:

<table>
<thead>
<tr>
<th>Key Name</th>
<th>The key name always starts with WOMAPROW. You can define up to 99 rows (WOMAPROW1-WOMAPROW99) in this section. The key name must not be changed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Order Column Name</td>
<td>MAXIMO database column from where data is transferred to Microsoft Project and stored in the current project. The data from the MAXIMO column appears in the project's Gantt Chart table.</td>
</tr>
</tbody>
</table>

**NOTE** The transfer also supports MAXIMO data relationships. For example, EQNUM.DESCRIPTION will retrieve the description of the equipment associated with the work order.

<table>
<thead>
<tr>
<th>Microsoft Project Field</th>
<th>The Microsoft Project task field that holds the incoming MAXIMO work order column data. This field name is language-dependent; it must match the field name in Microsoft Project.</th>
</tr>
</thead>
</table>

**NOTE** Select a datatype for the Microsoft Project field that is compatible with the datatype of the MAXIMO Work Order column. Also, be sure to spell MAXIMO column names and Microsoft Project fields correctly.

| Title | Title of the column in Microsoft Project that displays the MAXIMO data. The title you enter here replaces the name of Microsoft Project’s extra field name and appears as the title in the appropriate column in the Microsoft Project Gantt chart. The name can be in any language. |
MaximoProject.ini File

[pmfieldmap] section

Use the [pmfieldmap] section of the MaximoProject.ini file to transfer specific PM data in MAXIMO to Microsoft Project where the data resides with the current PM project and appears in a Gantt Chart table.

The following sample is an entry from the [pmfieldmap] section:

```
[pmfieldmap]
PMMAPROW1=worktype text1 Work Type
```

In this sample, the map line contains the following information:

- PMMAPROW1 is the key name
- worktype is the MAXIMO column name
- text1 is the Microsoft Project task field
- Work Type is the column header in Microsoft Project.

The parameters for the [pmfieldmap] section are defined below:

Key Name
The key name always starts with PMMAPROW. You can define up to 99 rows (PMMAPROW1-PMAPROW99) in this section. You must not change the key name.

PM Column Name
The MAXIMO database column where MAXIMO stores PM column data that you transfer to Microsoft Project. The data from the MAXIMO column appears in the project’s Gantt Chart table.

NOTE The transfer also supports MAXIMO data relationships. For example, EQNUM.DESCRIPTION will retrieve the description of the equipment associated with the work order.

Microsoft Project Field
The Microsoft Project task field that contains the incoming MAXIMO work order column data. This field name is language dependent; it must match the field name in Microsoft Project.

NOTE Select a datatype for the Microsoft Project field that is compatible with the datatype of the MAXIMO PM column. Also, be sure to spell MAXIMO column names and Microsoft Project fields correctly.

Title
The column title of the field in Microsoft Project that contains the MAXIMO column data. The title you enter here replaces the name of Microsoft Project’s extra field name and appears as the title in
the appropriate column in the Microsoft Project Gantt chart. The name can be in any language.

**Transferring Data from Microsoft Project to MAXIMO**

The [woupdate] section of the MaximoProject.ini file lets you set up field map pairs to transfer data between Microsoft Project and MAXIMO. These fields will be transferred when you select **Save WO Schedule to MAXIMO** from the MAXIMO menu.

**[woupdate] section**

You can use the fields in the [woupdate] section to transfer data from a Microsoft Project task field to its counterpart work order field in MAXIMO. After you transfer the data, the data is saved and stored in the MAXIMO database.

Transferring data back to MAXIMO slows performance. For this reason, you should limit these mappings to necessary fields.

**CAUTION**

Since MAXIMO validates the data during the transfer process, use field types, such as extra fields, that have minimal business rule validations associated with them.

The following sample is an entry from the [work order update] section:

```
[woupdate]
WOUPDATEROW1=wo15 text2
```

In the preceding sample, WOUUPDATEROW1 is the key name, WO15 is the work order column name, and text2 is the Microsoft Project task field name.
## MaximoProject.ini File

<table>
<thead>
<tr>
<th>Key Name</th>
<th>The key name always starts with WOUPDATE. You can define up to 40 rows (WOUPDATE1-WOUPDATE40) in this section. You must not change the key name.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Order Column Name</td>
<td>The database column where MAXIMO stores data you transfer from Microsoft Project.</td>
</tr>
<tr>
<td>Microsoft Project Field</td>
<td>The Microsoft Project task field containing the data that you transfer to the MAXIMO work order column. This field name is language dependent; it must match the field name in Microsoft Project.</td>
</tr>
</tbody>
</table>

**WARNING**

You can use only the following Microsoft Project task fields:

- Date1-Date10
- Text1-Text10
- Cost1-Cost10
- Number1-Number10

**NOTE**

Select a datatype for the Microsoft Project field that is compatible with the datatype of the MAXIMO Work Order column.
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