MAXIMO SCHEDULER 7.5.1
Bouke Spoelstra
Topics To Be Covered

- Scheduler - Our revised view of Work Management
- Licensing & Pricing
- Target Markets & Differentiators
- Detailed Functionality by Role
- Key Contacts
Scheduler – Revised Approach to Work Management

Scheduler is now not just a planning & scheduling tool!

- It is a means for simple labor assignments to be made
- It is a Dispatching application where the location of Crews and Labor, and the progress of work can all be monitored
- It is Maximo Everyplace templates designed to make the job of the field technician all that much easier
Roles That We Now Accommodate in Managing the Schedule

**Scheduler/Planner**
- Defines and adjusts labor/crew availability along with resource leveling
- Capacity Planning
- Assigns work orders to resources
- Continuously optimizes the schedule as the operational environment changes
- Sequence and route work assignments based on geography

**Dispatcher**
- Monitor field resources and work order progress and status
- Monitor the location of field resources compared to open orders
- Enter status and complete work orders on behalf of technicians who don’t have mobile devices
- Sequence and route ongoing work assignments based on geography and optimization

**Field Technician**
- Supervisor approves and assigns work on mobile devices
- Receive work orders in the field and provide real time status updates to dispatch
- Complete, edit and approve work orders on mobile devices along with viewing work on a map with optimal driving directions
- Notify dispatch of potentially dangerous situations, incomplete work
Maximo Scheduler Target Markets

Maximo’s strength has always been in organizations seeking a single product to maintain their assets across all asset classes!

- Utilities
- Manufacturing
- Facilities
- Federal, State, & Municipal gov’ts
- Oil & Gas
- Service Providers

These same organizations desire a single product to create:

- an optimal schedule that is meaningful and achievable
- Quick, easy to perform, and reliable labor assignments
- Be aware of Crew and Labor location, sequenced dispatched work, and be able to effectively deal with new incoming work
- Provide field technicians with a dynamic route of daily work, directions to work locations, a view of nearby work and co-workers, and a means to manage their work, all on a mobile device
IBM is investing in the natural evolution of products in a direction desired by our customers

Enhancements to Scheduler
- Graphical Assignment/Dispatching
- Provision of standard Work Order actions
- Additional Resources
  - Assets/Locations
  - Labor
  - Tools
  - Materials
- Schedule Compliance

Enhancements to Maximo
- Service Addresses
- Public Map UI Control
- Crews

Maximo Everyplace role based templates

All included as Maximo Scheduler 7.5.1
What is Maximo Scheduler?

Maximo

Scheduler is an add-on product to Maximo

Is installed when Maximo 7.5 is installed

Enabled by the Scheduler license key
Our Work Management Focus Areas

Capacity Planning

Resource Optimization

Assignment

Dispatching

Real-time Communication

Forecast Work

Identify Resource Gaps

Availability:
- Assets
- Location
- Material
- Tools
- Labor/Crews

Resource Leveling

Graphical UI
Labor and Crews

Graphical UI
Public Map Control
Route Optimization
Labor and Crews

Assign Emergency Work
Communication To Field Technicians

Schedule Compliance
Time Phased Functional Utilization

PM Application
Scheduler and Graphical Assignment
Graphical Assignment
Everyplace Applications

Forecast
Schedule
Dispatch
Mobile

PM Forecasting
Capacity Planning
Resource Optimization
Dispatching
Field Technician

Years to Months
Months
1-7 Days
1-3 Days
Logical Work Management Hand Off

Scheduler
- Create Schedule
- Forecast Work, Resource Demand / Availability

Graphical Assignment
- Make Assignments
- View availability (incl. breaks, vacation), Validate Craft/Skill,

Dispatching
- Assigned Routes visible & editable in a map
- Assign new work based on crew proximity

Communication
- Field tech can view assigned route & work
- Update work status & progress
Maximo Scheduler’s Roots Are Deep
Maximo Scheduler’s Pedigree

**Gantt View to visualize work orders and tasks**

- Drag & drop work orders & tasks
- Manage dependencies
- Perform CPM
- View resource load and availability

**Work Orders**

- Date constraints
- Task dependencies

**Gantt View to visualize PM forecasts**

- View and manage future PMs and Work Orders
- View resource load and availability for both future PMs and Work Orders

**Work Orders**

- Bulk Reschedule
- Assignment Manager tab in Work Order application
**Precedence Logic and Activity Constraints**

- Precedence logic added between work orders/tasks that have the same parent
- SNE/FNL date constraints calculated automatically from JP/PM offsets
PM Forecasting

- Generate a forecast based on the PM details. Allow a means to modify forecasted dates and have Maximo use the dates when generating PM based work orders.
- PM Forecast dates are graphically displayed in the Maximo Scheduler Gantt chart.
Maximo Scheduler 7.5.1 Focus

Detailed Functional Features by Role

Work Management
The Planner & Scheduler
Schedule Compliance

The ability to show Target, Scheduled and Actual Dates on the Gantt chart

- Allows Planners & Schedulers to get a view of how work is progressing, and the affect of the progress on related work
Load and Availability

Additional resource types

- Provides the Planner & Scheduler with the view of factors critical to achieving a realistic schedule
- Craft, Labour, Crew Types, Tool Items

Availability automatically derived for craft and crew in plan
Location and Asset Availability

New actions added to Locations and Assets applications

- Define and manage Maintenance/Operational Schedules (single or sets of schedules)
- Eliminates the chance of a Planner & Scheduler setting work to be done when the Asset/Location is not available (i.e. Asset in a production run, or Maintenance not available)
Asset & Location Availability

- 1142 - Overhaul GM Electrical Cart
  - Locations
    - SHIPPING - Shipping and Receiving Department

- 7331 - Engineering and layout drawings
  - Assets
    - 11300 - Reciprocating Compressor - Air Cooled/100 CFM
Material Availability

Other Resource Availability tab shows:

- Maintenance/Operational/Calendar availability of Asset and Location
- Material Availability for planned materials
  - Shows required quantity vs available quantity
  - Green bar shows materials are available, red bar shows materials are unavailable
- Planners & Schedulers know when not to schedule work based on material availability

<table>
<thead>
<tr>
<th>Load and Availability</th>
<th>Schedule Costs</th>
<th>Other Resources Availability</th>
<th>Group by Work Property</th>
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<th>Other Resources</th>
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<tr>
<td><strong>1217 - Analysis</strong></td>
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<td><strong>Assets</strong></td>
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<tr>
<td>- BOILER-01 - Main Boiler</td>
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<td><strong>Locations</strong></td>
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<td>- BOILER - Boiler Room</td>
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<td>- 12853 - Impeller- 4-1/2 Inch Dia</td>
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<td>- Special purchase filter</td>
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<td>- 111-5797 - SEAL KIT - M50A MOTOR</td>
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Group by Work Property

Group By Asset, Job Plan, Location, PM, Priority or Work Type

- Allows the logical grouping of work to recognize trends, ensure schedule suitability
Additional Actions and Buttons

Work Order Actions
– Allow status changes on multiple work orders/tasks

Additional Toolbar Buttons
– Zoom to Week
– Go To Day
– Constrain horizontal scrolling to the date range containing work
– Filter resources based on selected work orders
– Show/Hide Compliance
– Full Screen
Work Cost Tab

Calculate costs within schedule by week, month and year

- Illustrate Committed and Saved Estimated Labor, Materials, Services and Tools, as well as Actual Labor, Materials, Service and Tools
- Allows budget adherence

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<th>Saved Est. Material</th>
<th>Actual Material</th>
<th>Saved Est. Service</th>
<th>Actual Service</th>
<th>Saved Est. Tool</th>
<th>Actual Tool</th>
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Compliance Tab

Measure Planned Hours against Actual Hours for a period

- Illustrates a Compliance Factor
- Cron task(s) automatically calculate plan/actual hours at specified frequency
Making Labor Assignments With Graphical Assignment
Graphical Assignment

New application aimed at the process of assigning work to people

- Similar UI to Scheduler Gantt view for consistency
- Helps the Planner & Scheduler see non work time for a resource, as well as assignments made by other Foremen beyond the bounds of their schedule... eliminates duplicate labour assignments
Making an Assignment

Allows the Foreman to:

- Split Work According to Shifts, might be used if extending duration of the assignment across an end of shift
- Split Work, once split can drag second assignment to add a time gap
- Split Work into Three Records, creates two additional assignments
- Create Assignment
- Delete Assignment
The Dispatcher
**Dispatch View**

- Dispatcher views the map with applicable Crew or Resource routes as defined by assignments.
- View each Crew or Resource calendar
Dispatch Calendar View

Assist the Dispatcher by allowing to:

- Highlight resources to focus upon
- View travel time between work locations
- Know when scheduled work breaks are set to occur
Dispatch – Map View

- Show each sequence of assignments and relative location for each Labor or Crew
- View nearby Crews and Resources, unassigned work, prioritized work,
Browser geolocation API tracks the user
Allows Dispatcher to know the location of all resources and/or Crews – allows for making better dispatching decisions

- **Red** last update accuracy is over the limit
- **Blue** when last update was within 60 mins
- **Yellow** last update outside 60 mins
Map Tools Provide Visibility

Provide Dispatchers with visibility to allows supreme decision control

- Full screen, My location, layers, symbology selection, route directions, refresh, unassigned work orders and nearby labor & crews
- New tools specific to customers business requirements can be added by customization

Nearby Labors & Crews

Unassigned Work Orders
Map Symbology Selection

- Layers are added depending on what is on the map
- Each layer has its own symbology configuration
The Mobile Field Technician
Revise the Technicians View

A new mobile application for the field technician

• New Maximo Everyplace applications created for the field technician
  ▪ View current and sequenced assignments on map as sent by the Dispatcher
  ▪ Designed for Crew or single resource use
  ▪ Obtain directions to work locations
  ▪ View and feedback on Work Order details
  ▪ See location of nearby Crews or resources
  ▪ Pick up unassigned work from the map when opportunity presents itself

• Leverage the existing Maximo Everyplace product
  ▪ Application Designer provides ability to tailor existing templates or create your own

• Automatic updates of sequenced work reflecting newer higher priority work, reassignments, emergencies

• Applications for Supervisor, and Technician (Lite, Phone and Tablet versions)
Field Technician Application

Field Technician’s Work Order Route
Field Technician Application – My Work

Field Technician’s Street Level Route

Field Technician’s Material Requirements

Field Technician’s Tool Requirements
Field Technician Application – Details

Toolbar Actions:
- Query Tools
- New / Follow-up Work Order
- Status Change
- Stop / Start Timers
- Attach Documents

View work order details
Field Technician Application – Resources

Planned Materials, Tools and Labor/Crews
### Reporting of Work Order Results

<table>
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<th>Task</th>
<th>Value</th>
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<tr>
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<td>Asset Meter Readings</td>
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Field Technician Application – Time Reporting
The Summarized Work Management Vision

- Use Maximo Scheduler to:
  - Find the optimal time to schedule upcoming work by balancing:
    - Work order and Task relationships and constraints
    - Labor, Asset, Location, Craft, and Material availability
  - Drag and drop labor assignments (or automate)

- Increase the visibility of resources and crews by:
  - Leverage map UI control for dispatching of incoming work
  - Monitor progress of existing work
  - Manipulate crew and resource routes

- Improve efficiency of field technicians
  - Leveraging map UI control for viewing of route stops
  - Dynamic work list based on dispatched work and automated optimization
  - Communication with neighboring resources
  - Intuitive feedback from mobile applications
Differentiators

Where Maximo lead:

• Maximo Scheduler provides access to world class EAM application without integration. Other products require costly and complex integration which must be maintained over time.

• Clear visibility of critical factors influencing the creation of a good schedule
  • Asset and Location availability
  • Material availability
  • Tool availability
  • Labor vacation and other non work time
  • Simple integration to Production schedules

• Maximo Scheduler is an add-on product to Maximo, so customers can obtain desired enhancements at a much lower price point.

• Maximo customers indicated that they do not want the complexity of true Field Service Management vendor products
Licensing

Maximo Asset Management Scheduler 7.5.1 is a Maximo add-on

Sold as Authorized User only

• User must have license entitlement to Maximo as well (i.e. Authorized User or Limited Use Authorized User)

A Scheduler license is required for anyone occupying any of the “roles”

• Any user occupying more than one role (i.e. Planner and Dispatcher) requires only one Scheduler license

Maximo Everyplace Users do not need a Scheduler license to leverage the Everyplace field technician templates

• (i.e. if the customer has purchased any number of Scheduler licenses, then any licensed Everyplace user does not require a Scheduler license to use the new templates)