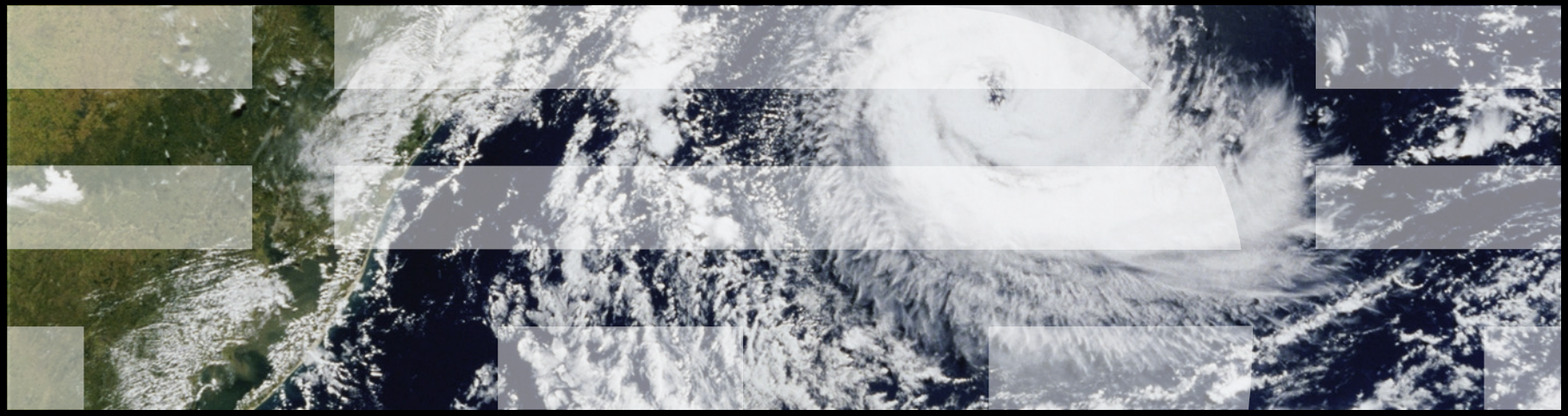
Nithiya Parameswaran, Product Architect
Brian Downey, Product Architect
Lisa Stuckless, Product Architect
Dave Calvert, Product Manager

IBM

AVKS
Maximo Scheduler Enhancement Plan & Road Map

February 2012



© 2012 IBM Corporation

Disclaimer

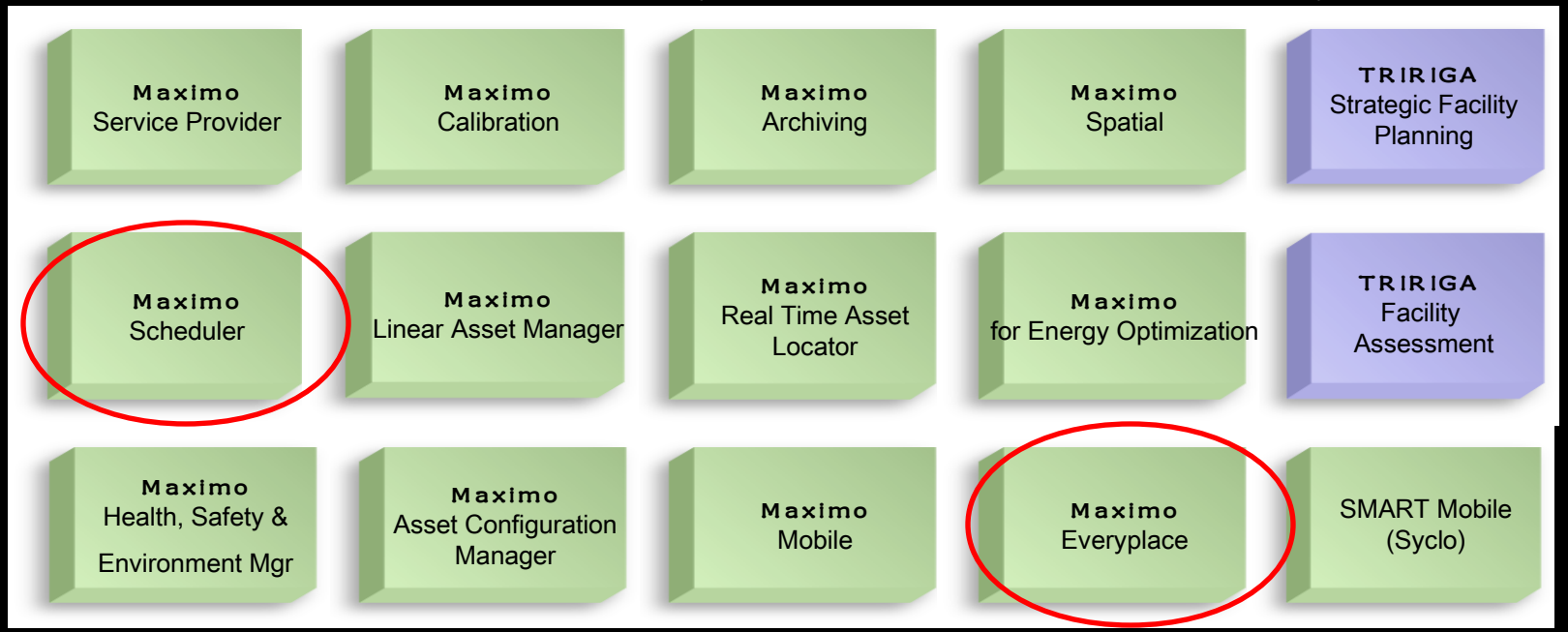
The information on new products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information on new products is for informational purposes only and may not be incorporated into any contract. The information on new products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. The development, release, and timing of any features or functionality described for our products remains at our sole discretion.

© 2012 IBM Corporation

Maximo and TRIRIGA Solutions

Add-on Solutions

Additional options, used with core or industry solutions, provide deeper functionality for specific needs.



Integration Adapters

Commercially-supported integration to other enterprise and 3rd party systems.

© 2012 IBM Corporation

The Cold Hard Truth

Maximo used to handle the demands of work management with a number of internal tools that accommodated complex work requirements, but required adaptors for true planning and scheduling.

- Microsoft Project Adaptor
- Primavera Adaptor

We have charted a path to eliminate the need for adaptors and place full work management control and visibility into the hands of the Planners & Schedulers leveraging our existing products:

- Maximo
- Maximo Scheduler
- Maximo Everyplace

© 2012 IBM Corporation

The Forces Behind our Strategy

- Industry driving forces are changing the way in which companies compete, maintain, and offer services to customers
- The demand for improved service levels (internal/external) and an increased focus on schedule and resource optimization
- Empowering the field technician
- Natural fit with Maximo's Industry Solutions

- **Why Now?**
  - Deregulation
  - Globalization
  - Rising customer expectations
  - Decreasing operational budgets
  - Reduced workforces
  - Technological changes
  - Do more with less - to increase customer satisfaction while reducing operating costs.

- **Who is telling us**
  - Development Partners
  - Beta customers
  - Scheduler users

© 2012 IBM Corporation

The Work Management Plan Forward

Objective: Invest in the natural evolution of our current products in a direction desired by our customers

Functionality Within Scheduler

- Graphical Assignment
- Dispatching
- Provision of standard Work Order actions
- Additional Resources
  - Assets/Locations
  - Labor
  - Tools
  - Materials
- Schedule Compliance
- Optimization (iLOG Optimization tools)

Functionality Within Maximo

- Service Addresses
- Public Map UI Control
- Crews

Additional Maximo Everyplace role based templates

© 2012 IBM Corporation

Focus Areas Moving Forward

Capacity Planning	Res. Optimization	Assignment	Dispatching	Real Time Comm.
Forecast Work Identify Resource Gaps	Asset Availability Location Availability Material &Tools Avail. Labor/Crew Avail. Resource Leveling	Graphical UI Automated Labor & Crew	Map Control Route Optimiz. Automated Labor & Crew	Assign Emergency Work Communicate to the Crew/Resource

Schedule Compliance

© 2012 IBM Corporation

Roles considered within the use cases

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

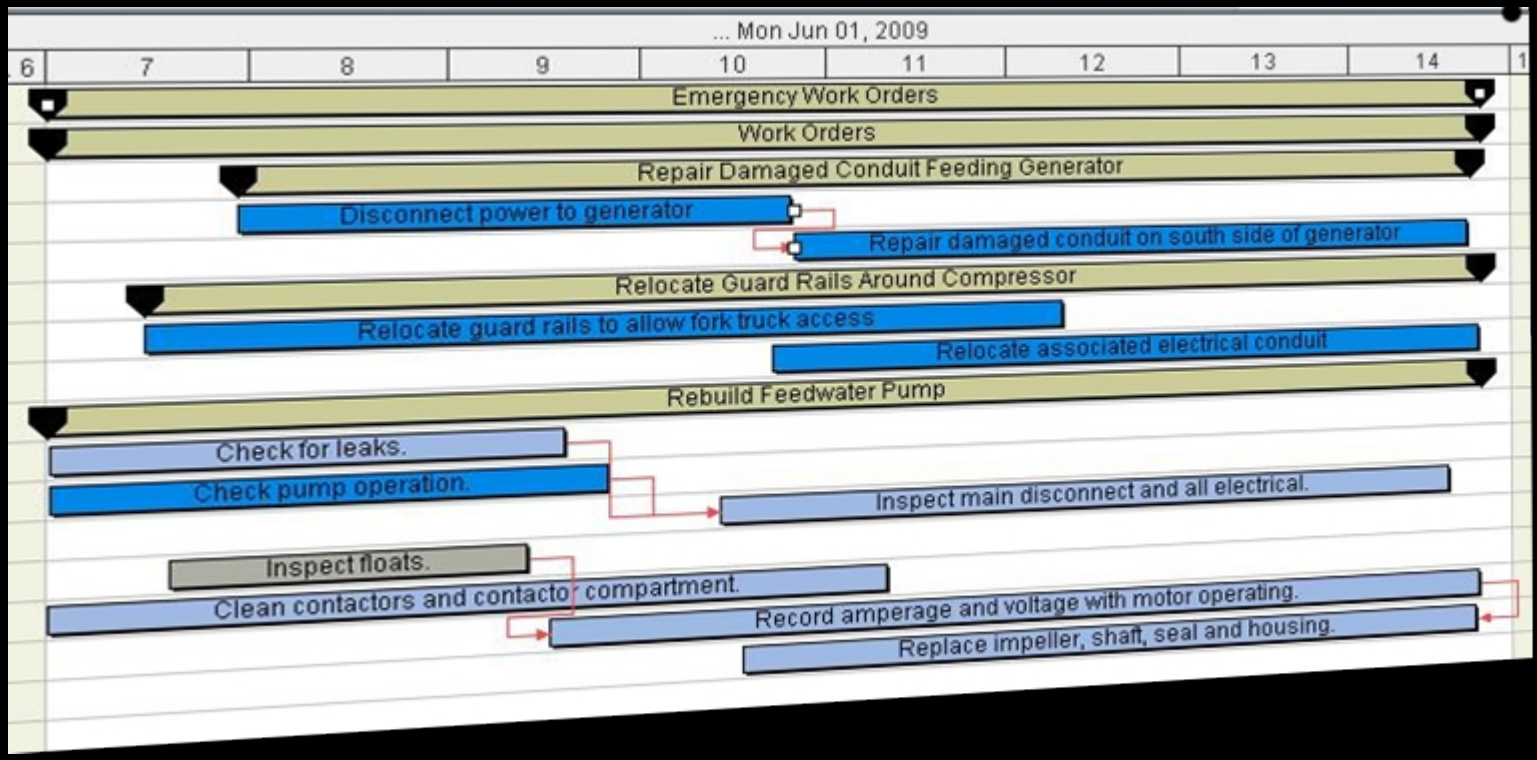
© 2012 IBM Corporation

Scheduler Work Management Components

© 2012 IBM Corporation

What is Maximo Asset Management Scheduler?

A Maximo application that contains a Gantt tool to schedule work orders, tasks and PM forecasts graphically



© 2012 IBM Corporation

Scheduler so far…

Scheduler 7.1

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

Scheduler 7.1.1

Gantt View to visualize PM forecasts

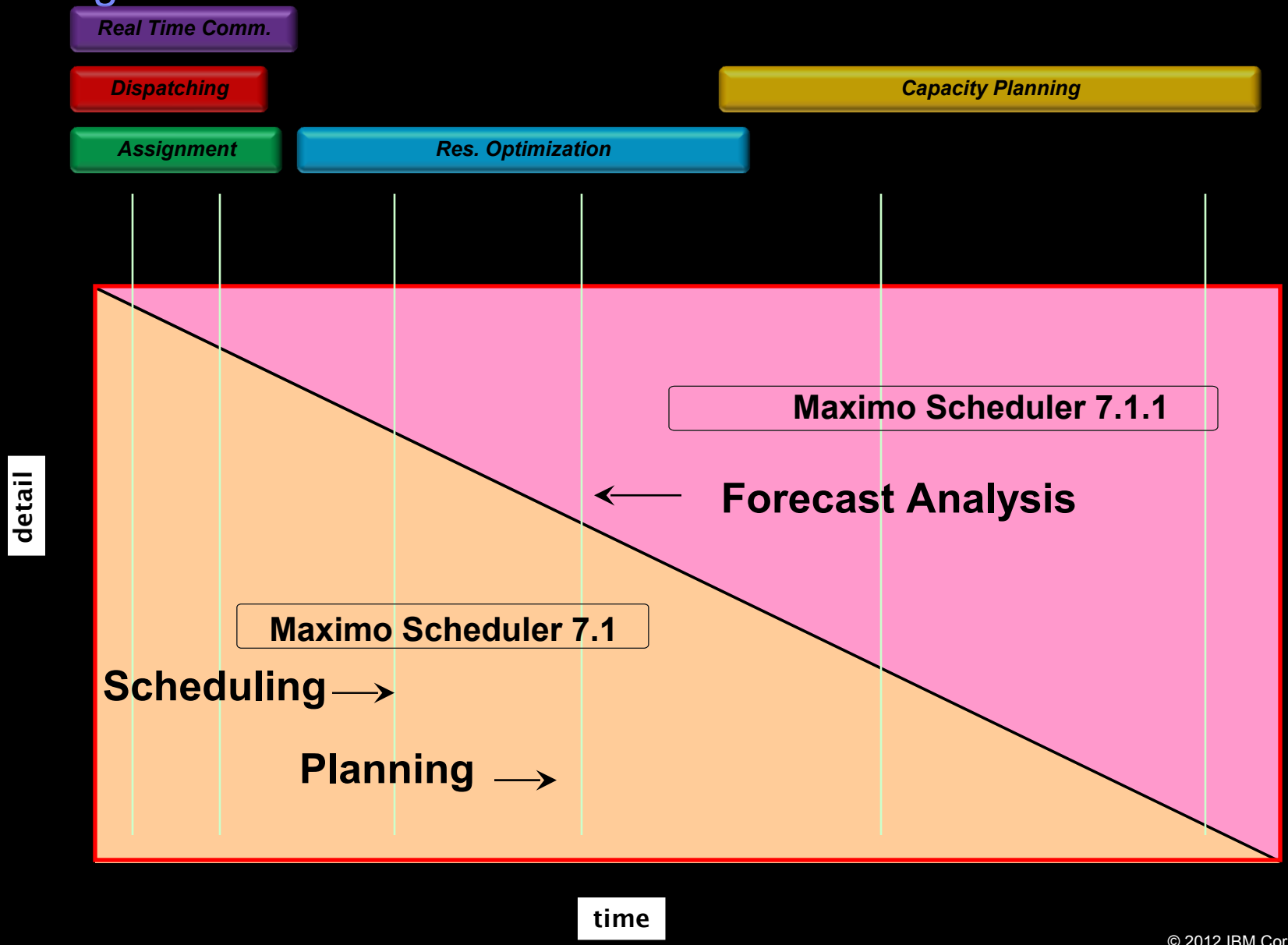
- View and manage future PMs and Work Orders
- View resource load and availability for both future PMs and Work Orders

Work Orders

- Bulk Reschedule
- Assignment Manager tab in Work Order application

© 2012 IBM Corporation

Planning Horizon



© 2012 IBM Corporation

Show Other Resources

- Following additional resources will also be shown in the Gantt
  - Assets
    - Show maintenance window when Asset is available
  - Locations
    - Show maintenance window when Location is available
  - Tools (both rotating and non rotating)
    - Show required vs available, similar to crafts
  - Materials
    - Indicate in green reserved items that are in stock
    - Show required vs available for non reserved items

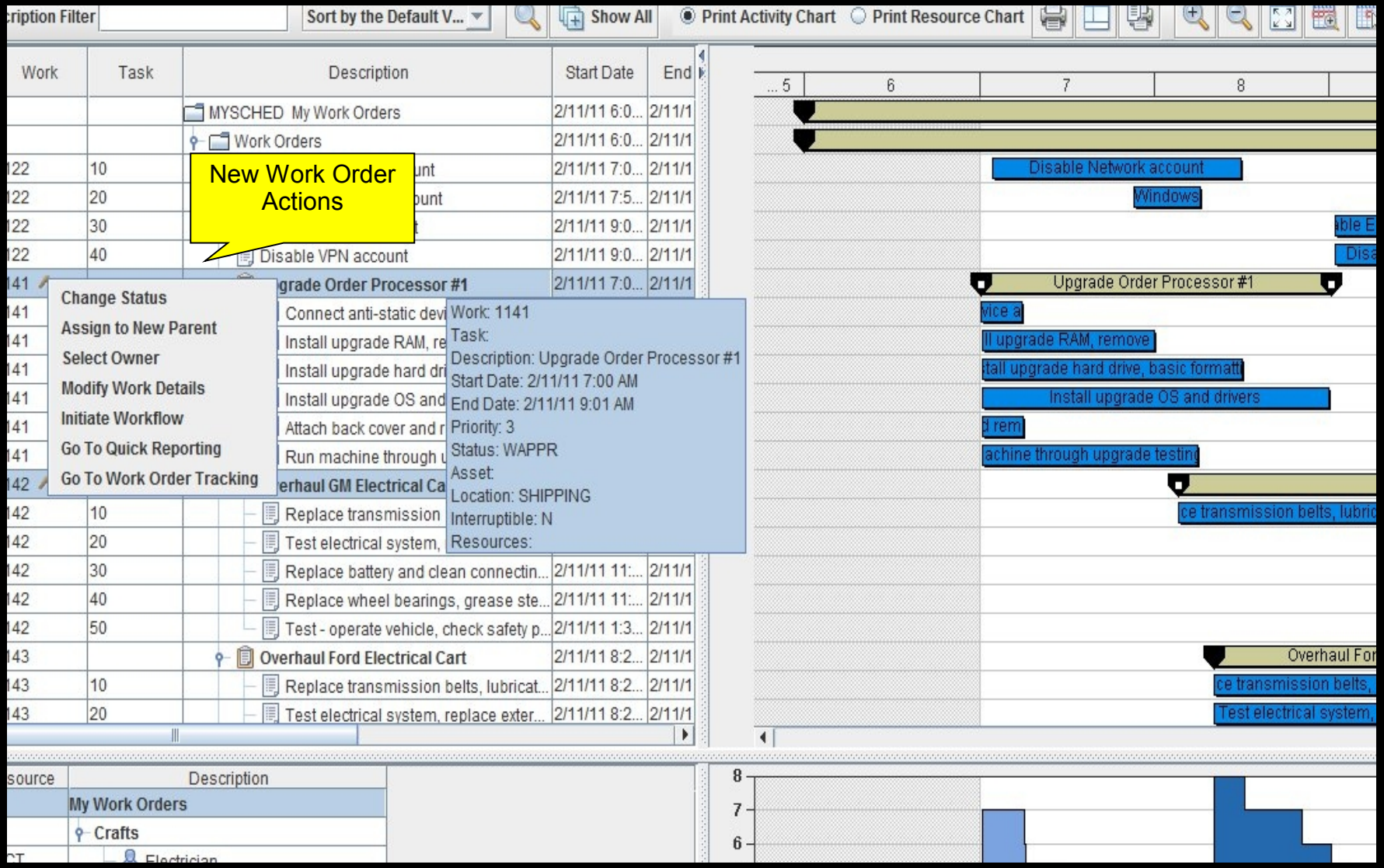
© 2012 IBM Corporation

Change Status and Other Options

- Provide the ability to change the status of the work order / task from Scheduler
  - Can select multiple work orders and change the status
  - Action available as a tool bar button
- Create follow up work order
- Create Job Plan
- Start Workflow

© 2012 IBM Corporation

Work Order Actions



© 2012 IBM Corporation

Resource Leveling & Optimization

- Support various optimization models
  - Input
    - Flexible resource combinations
    - Priorities: Asset, Work , Location, Material, Tools
    - Resource availability
    - Appointment request
  - Output
    - Optimal work schedule based on resource availability, time constraint and other user defined objectives such as minimize cost, schedule emergency work first, etc.

© 2012 IBM Corporation

Schedule Compliance

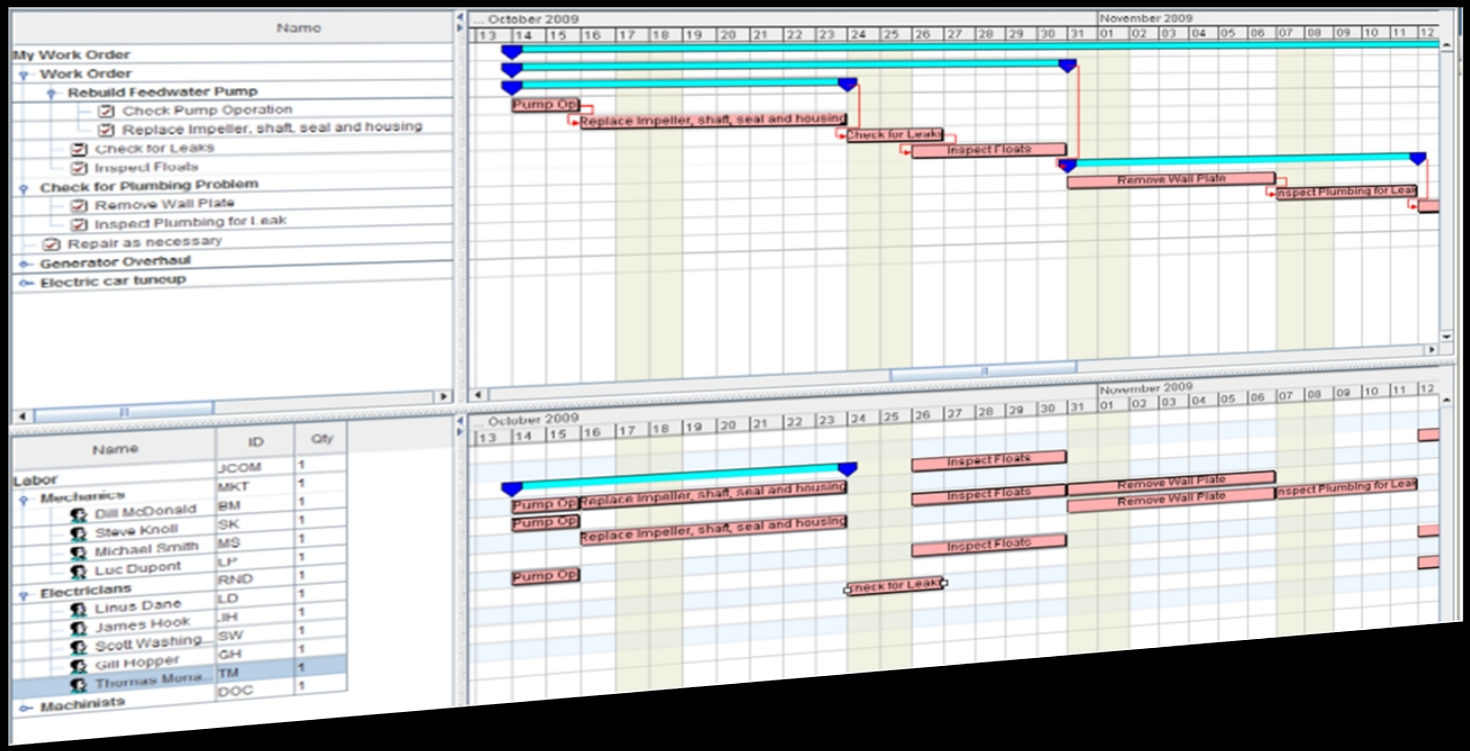
- How is my Schedule performing?
  - Quickly identify Work orders that are running late
    - In progress and scheduled but not started
  - Identify the cascading effect of delayed work orders
  - Reschedule pending work orders by CPM or via manual edits

© 2012 IBM Corporation

Scheduler Graphical Assignment

© 2012 IBM Corporation

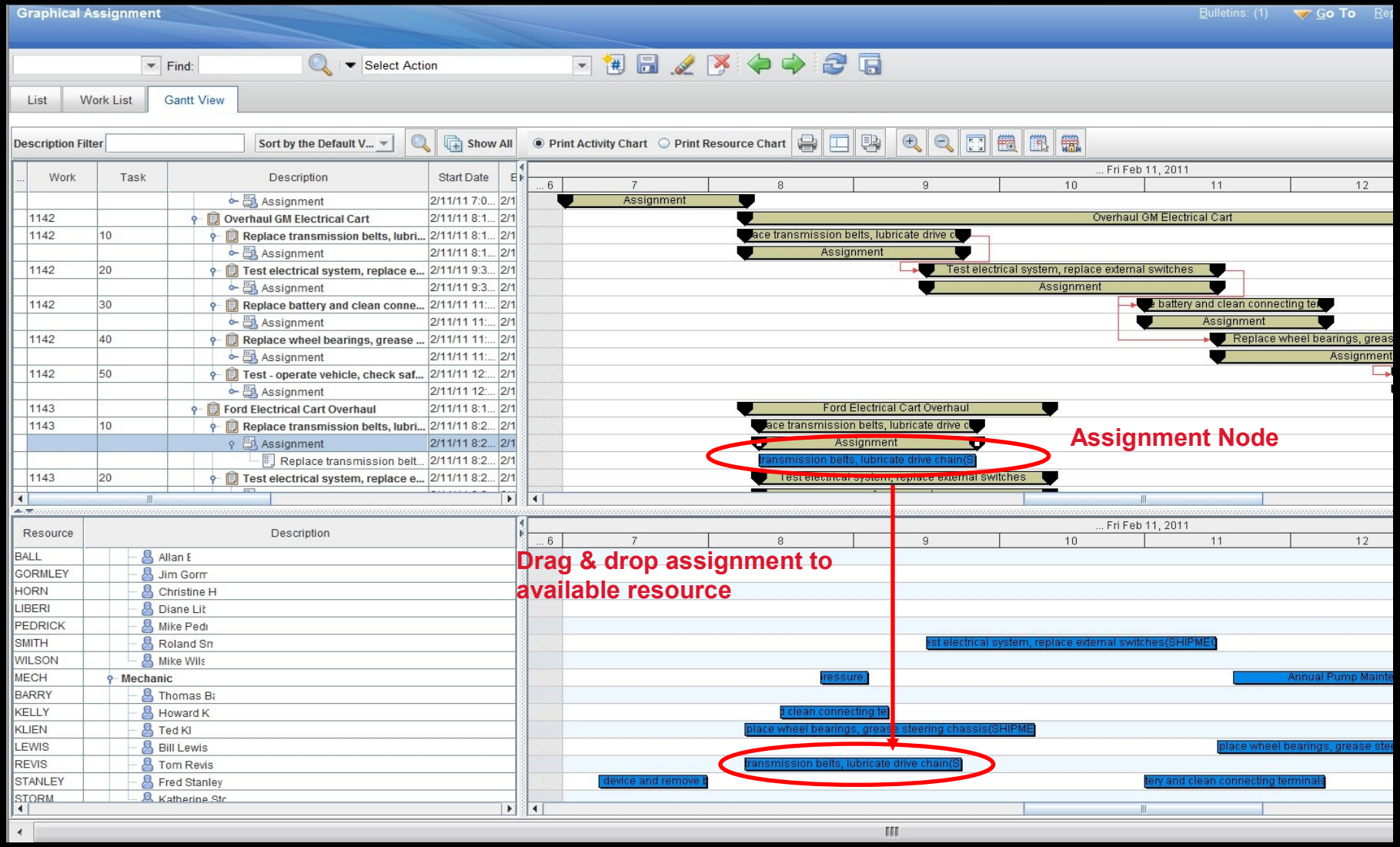
Assignments



- A new graphical UI to assign people to work orders and tasks
- Drag and drop capability
- Supports both Automatic and Manual Assignment
- Ability to view a person's existing assignments, vacation, work breaks etc.
- Ability to split assignments and reallocate to different people

© 2012 IBM Corporation

Graphical Assignment



© 2012 IBM Corporation

Dispatching With Maximo Scheduler

© 2012 IBM Corporation

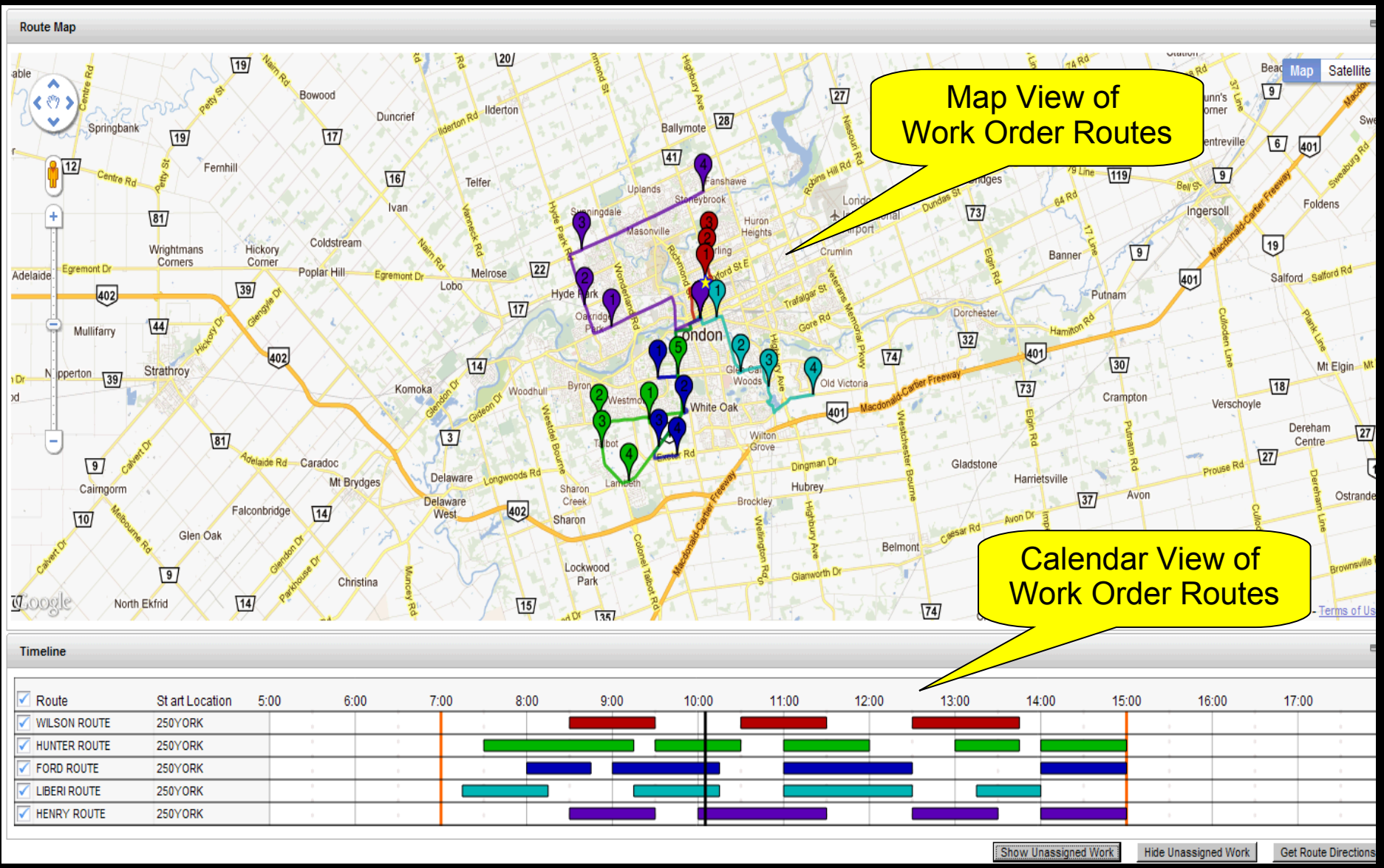
Dispatching Application

New Dispatching application will be created

- Quickly identify where resources and crews are located on maps
  - Current crew or resource assignments
  - Prioritized route
- View overall assignments and routes
  - Provision of directions where required
- View daily schedule of each resource
  - Include scheduled downtime, overtime

© 2012 IBM Corporation

Dispatching Application



© 2012 IBM Corporation

From the Technicians Perspective

© 2012 IBM Corporation

Revise the Technicians View

Create new mobile applications for the field technician

- Leverage existing Maximo Everyplace product
  - Ability to tailor the application with Application Designer tool
- New templates will be created for the field technician
  - View current and sequenced assignments for themselves or their crew
  - Obtain directions where required
- View and feedback on work order details
  - Tailorable content
- Dynamic updates of sequenced work reflecting newer higher priority work, reassignments, emergencies

© 2012 IBM Corporation

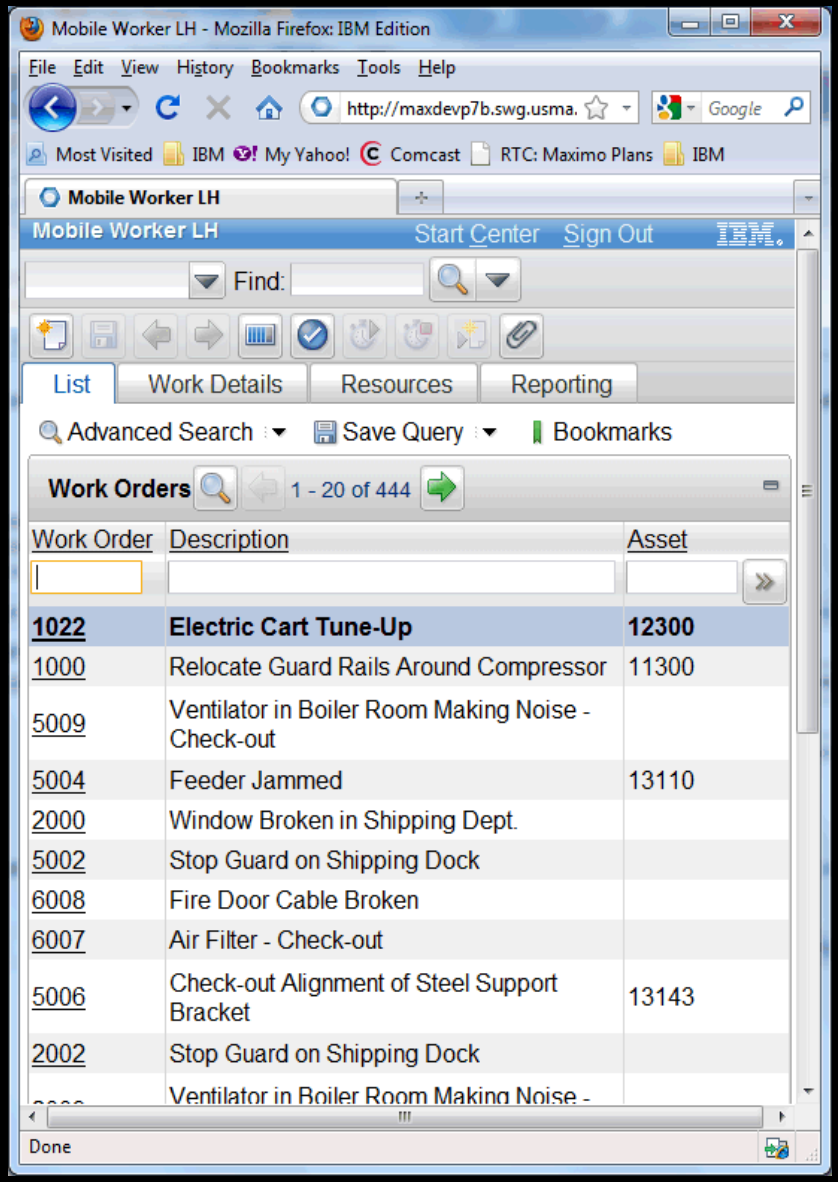
Field Technician Application

Route Details 1 - 3 of 3

Work Order	Location	Scheduled Start	Scheduled Finish	Hours
1195	**500OXFORD**	**10/27/11 8:30 AM**	**10/27/11 9:30 AM**	**1:00**
1167	999ADL	10/27/11 10:30 AM	10/27/11 11:30 AM	1:00
1169	700HURON	10/27/11 12:30 PM	10/27/11 1:45 PM	1:15

© 2012 IBM Corporation

Field Technician Application

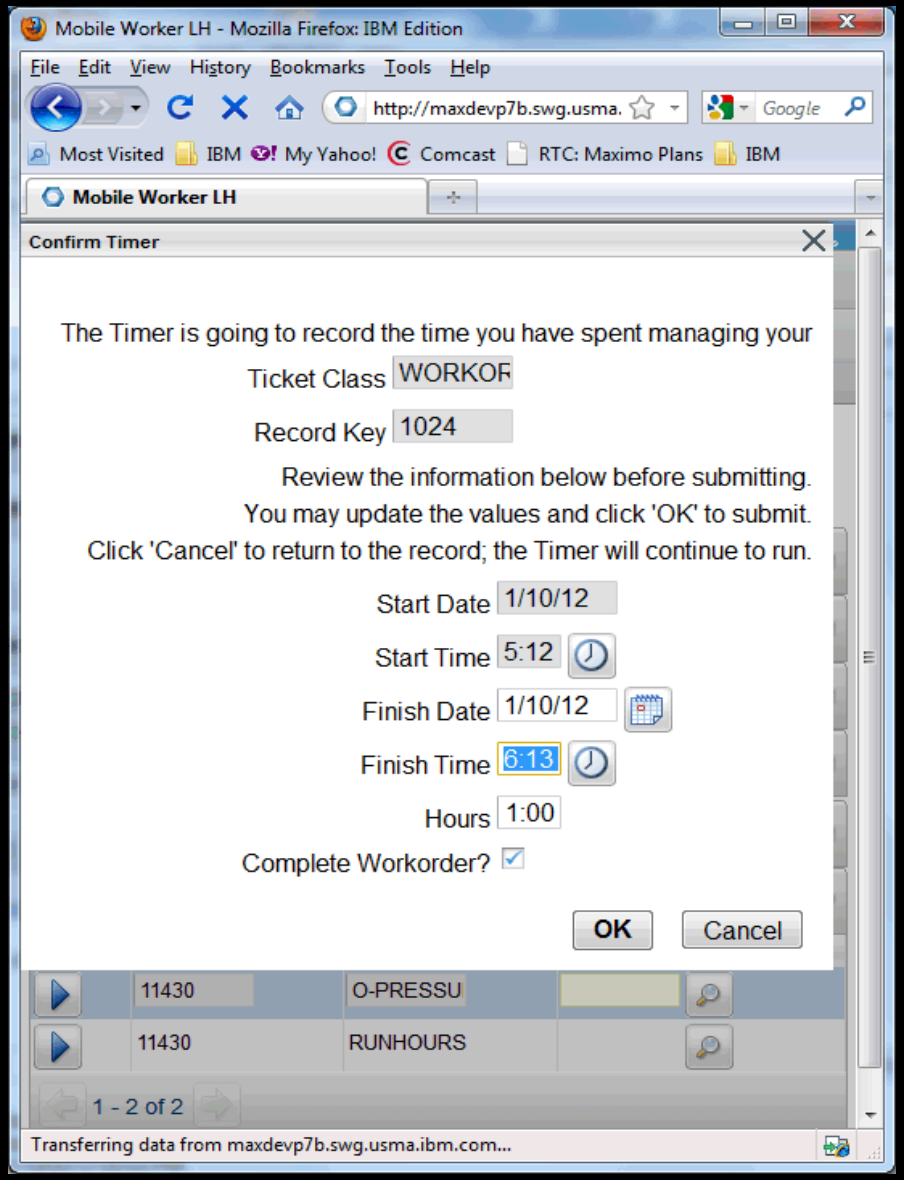


© 2012 IBM Corporation

Field Technician Application

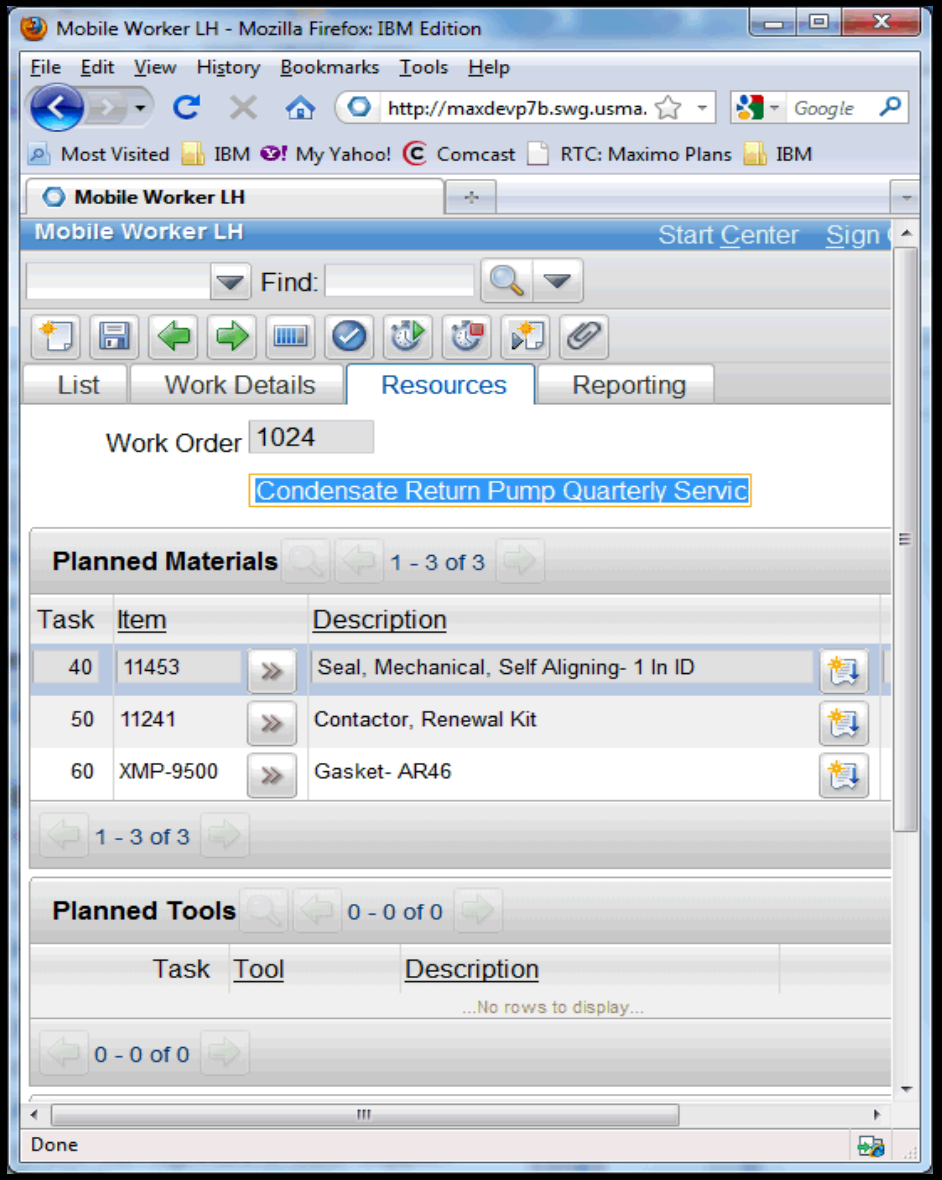
© 2012 IBM Corporation

Field Technician Application



© 2012 IBM Corporation

Field Technician Application



© 2012 IBM Corporation

Demo

© 2012 IBM Corporation

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

© 2012 IBM Corporation

For more information contact:

Dave Calvert – dcalvert@ca.ibm.com

© 2012 IBM Corporation

Questions

© 2012 IBM Corporation