



IBM Maximo Calibration

July, 2011

Tivoli software



Session Agenda

- Maximo Calibration Overview
- Upgrade to Maximo 7.5
- Product Demo
- Benefits
- Q & A

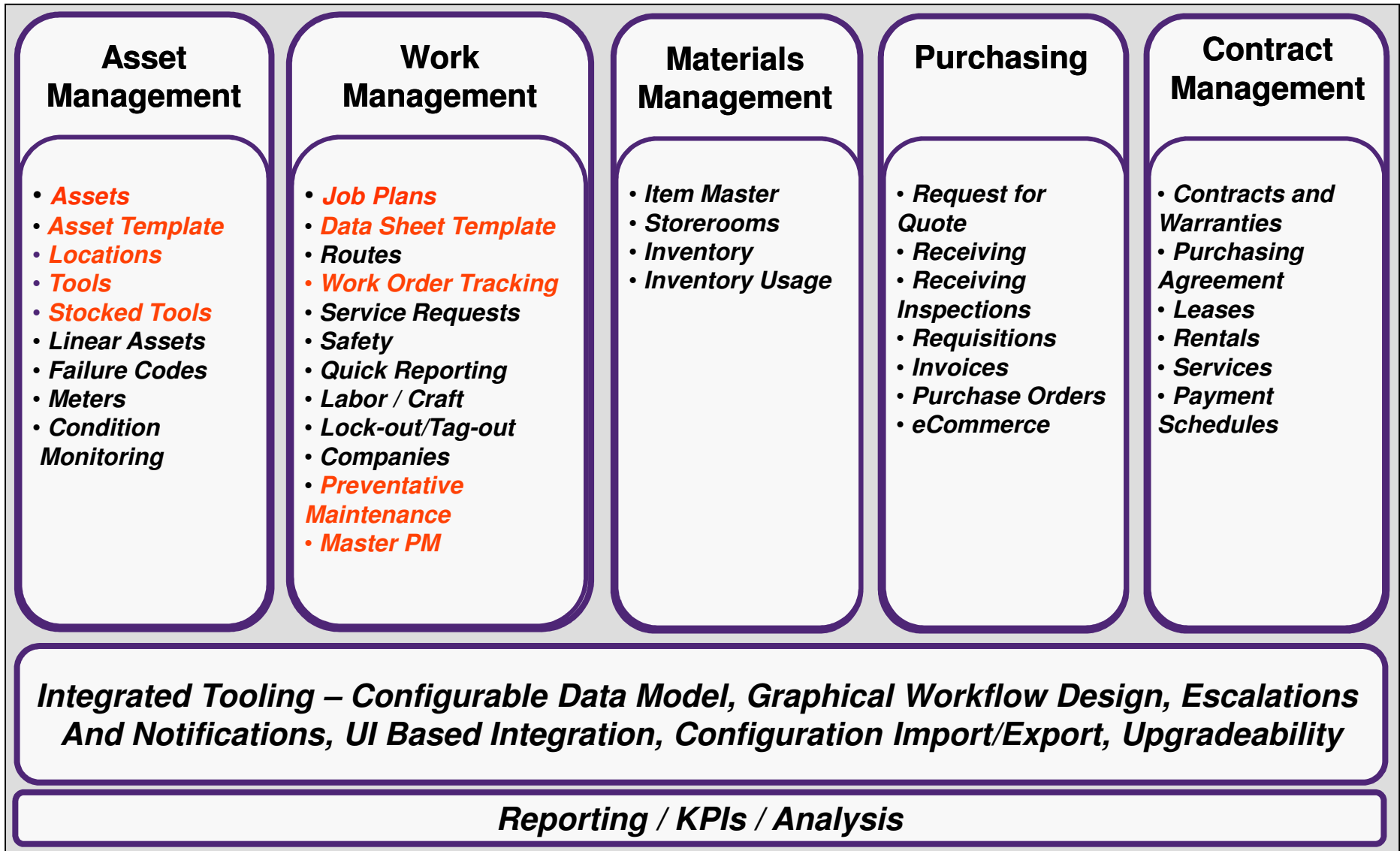


IBM Maximo Calibration Solution

IBM Maximo Calibration	IBM Maximo Change & Corrective Action	IBM Maximo Mobile Suite	Additional IBM Maximo Solutions
<ul style="list-style-type: none"> ▪ Manage and maintain critical instruments and standards ▪ Strong solution set: <ul style="list-style-type: none"> – User-defined Calibration Data Sheets – Fully 21 CFR Part 11 compliant – Revision Control on Job Plans and Data Sheets – Supports Loop Calibrations – Automatic Calibration WOs created based on interval set up – Notification of out-of-tolerance calibrations – Traceability and Reverse Traceability – Analyze Calibration Historical Trends ▪ Fully Integrated in Maximo process management ▪ Compliance assistance documentation to streamline validation effort 	<ul style="list-style-type: none"> ▪ Manage asset related changes, commitments, corrective and preventive actions <ul style="list-style-type: none"> – Track, manage and document every step of the Commitment Tracking and Change and Corrective Action processes (CAPA). – Increase operation efficiencies by identifying incidents before they turn into problems. – Reduce regulatory compliance burden through an established, documented process from root cause through corrective action release. – Enable personnel to focus on maximizing preventative actions by minimizing reactive and corrective tasks. – Leverage full asset traceability to close the loop from commitment to completion. 	<ul style="list-style-type: none"> ▪ Mobile Work Manager with Calibration <ul style="list-style-type: none"> – Handle work orders, incidents, changes and all related data efficiently – Record activity and resource data on the fly – Rounds / Inspection management including meter readings and observations – Calibration Data Entry Application ▪ Mobile Inventory manager <ul style="list-style-type: none"> – Spare parts and materials handling using barcode – Manage the location of rotating assets – Perform PO receiving and serialization of assets – Perform cycle counts ▪ Mobile Asset Manager <ul style="list-style-type: none"> – Manage production and facility assets – Create / Move / Swap assets – Asset auditing and status management 	<ul style="list-style-type: none"> ▪ IBM Maximo Scheduler <ul style="list-style-type: none"> – Graphically plan work and align resources using a Gantt chart view with graphical, drag and drop features ▪ Cognos integration <ul style="list-style-type: none"> – Leverage Cognos Business Intelligence to analyze Maximo data for better decision making. ▪ Filenet Integration <ul style="list-style-type: none"> – Use IBM Filenet to manage the lifecycle of critical documents associated with Asset and Maintenance in order to meet regulations. ▪ Archiving with Optim <ul style="list-style-type: none"> – Archive Maximo information according rules and regulations



Calibration Applications



Calibration Functionality

- Set-up

1 Define Instruments and Standards **Asset and Tools**

2 Define Instruments Specifications **Data Sheets**

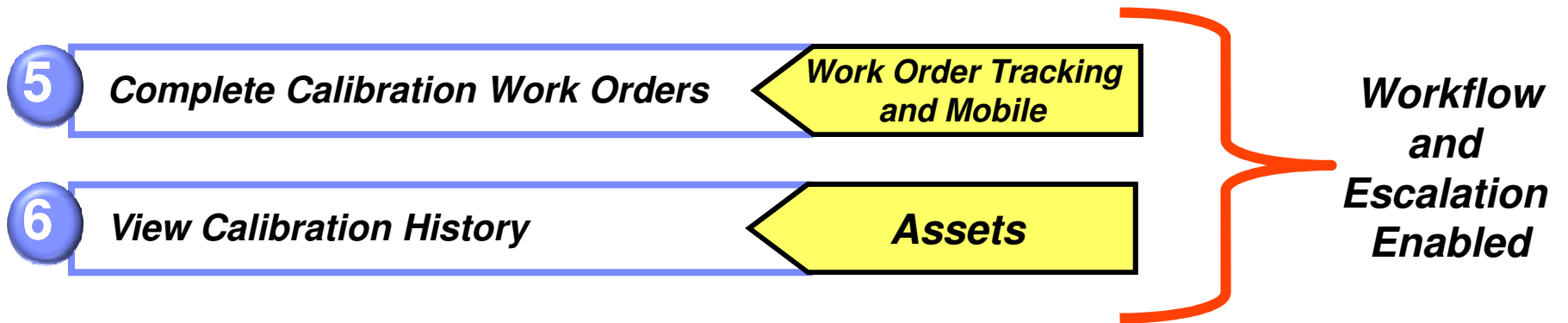
3 Create Calibration Procedures **Job Plans**

4 Define Calibration Specific Intervals **Preventative Maintenance**

Workflow and Escalation Enabled

Calibration Functionality

- Technician Work



User Defined Data Sheets

Calibration Test Points, Function Checks and Dynamic Checks

Configuration Tab

Linear & Non-Linear Instruments

Analog & Discrete Test Points

EU, %SPAN, %URV, %READING

Tolerance on Input or Output

Limits Clipped on Input or Output

Squared or Squared Root

Repeatable Test Points

Average & Standard Deviation

Manual Test Points

Asset Function	Description	Type	Calibration Points	Function Checks	Dynamic Checks	Input Units	Output Units
1	Pressure Transmitter	ANALOG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	psi	mA

Asset Function

Asset Function: 1 Pressure Transmitter Type: ANALOG Technician can Insert Points?

Calibration Point? Repeatable? Manual?

Check Point? Non-Linear?

Check Point? No Adjustment Limit?

Information

Tolerance on Input? Input Limits Clipped? Tolerance on Output? Output Limits Clipped?

Min Field Resolution: 2 Range Limit From: -5.00 Min Field Resolution: 3 Square Root of Input?

Input Range From: 100.00 To: 5.00 Output Range From: 4.000 Reverse Flow?

To: 300.00 As: EU Units: psi Units: mA Process Units:

Scaling Factor:

Tolerance 1

Description: Adjust to Improve Summed EU +: Guardband Tolerance From:

Single From: -1.00 %Span +: To:

To: 1.00 %URV +: Applied As:

As: EU %Reading:

Status when Exceeded: ADJTOMP Applied As:

Tolerance 2

Description: Failure Summed EU +: Guardband Tolerance From:

Single From: -2.00 %Span +: To:

To: 2.00 %URV +: Applied As:

As: EU %Reading:

Status when Exceeded: FAIL Applied As:



Maximo Calibration v7.5

- Maximo Calibration now part of the core Maximo Install
- No longer any (Cal) Applications
 - Calibration fields and functionality enabled via license key and Conditional UI
- Migration of Calibration 7.1.2 - no new calibration functionality added to v7.5
- Asset Template application now a new application in core Maximo
- Job Plan Revision Control part of core Maximo functionality
- Calibration Fix Packs part of the core Maximo Fix Pack schedule



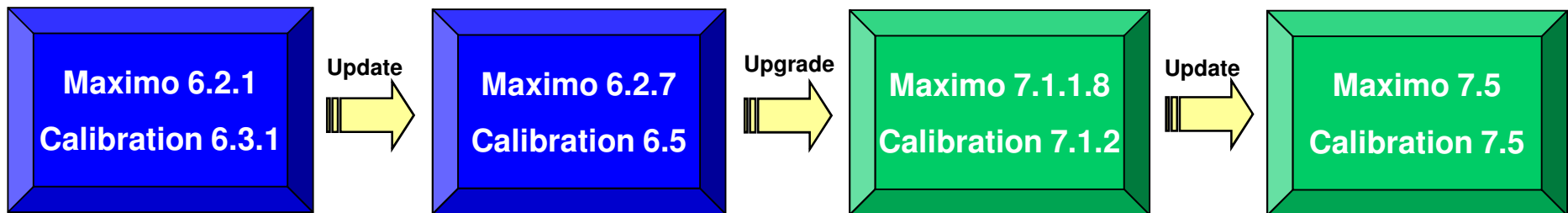
Asset – New ‘Calibration?’ field

- **Existing clients** new update scripts are provided in Upgrade documentation
- Manually run to determine which of the following impact your environment:
 - (1) If any Calibration detail fields are populated in the Asset application.
 - (2) If the Asset is associated to a Data Sheet.
 - (3) If the asset has a PM against it with a worktype of type = ‘CAL’.
 - (4) If a Work Order was generated against this asset with a worktype of type = ‘CAL’.

The screenshot displays the IBM Tivoli Asset application interface. The top navigation bar includes 'Assets', 'Bullets: (0)', 'Go To', 'Reports', 'Start Center', 'Profile', 'Sign Out', and 'Help'. Below the navigation bar is a search and action area with a 'Find:' field and a 'Select Action' dropdown. The main content area features a tabbed interface with 'Asset' selected. The 'Asset' tab shows details for 'CAL103' (Asset), 'ACTIVE' (Status), and 'Linear?' (checkbox). A yellow callout box points to the 'Calibration?' checkbox, which is checked. Other fields include 'Calibration Assets 103', 'Site: BEDFORD', and 'Type: PRODUCTION'. The bottom right corner shows 'Attachments', 'Moved?' (checkbox), and 'Returned To Vendor?' (checkbox).

Based on Calibration license key new Calibration checkbox is displayed.

Example Upgrade Path of v6.x to v7.x with Update to v7.5



➤ Upgrade v6.x to v7.1.x

1. 6.x platform installed to latest 6 versions
 - For example: Maximo v6.2.7 and Calibration v6.5
2. 7.1.x platform installed to latest 7 versions
 - For example: Maximo v7.1.1.8 and Calibration v7.1.2
3. Run Maximo 7.1 Upgrade Utility

➤ Update v7.1 to v7.5

1. Install Maximo 7.5
2. Install Calibration 7.5 license and help plug-ins
3. Run updatedb.bat



Product Demo

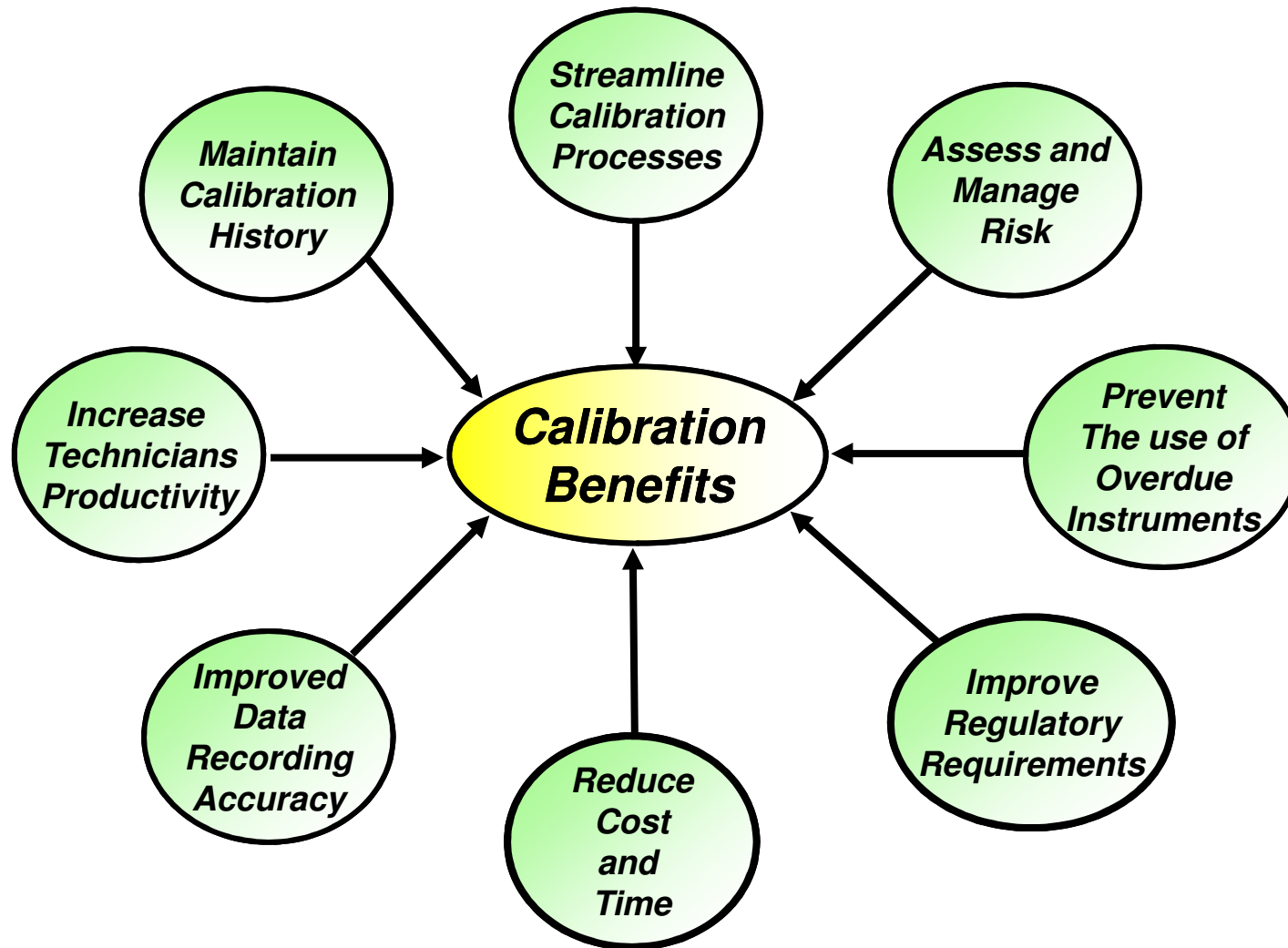


Calibration Functionality

						Features
	Assets	Assets defined as Calibration instruments	Tools defined as M&TE	Asset Templates	Locations as Tag Ids	Loop Calibration set-up
	Data Sheets	Customer defined resolution configurations	Linear and Non-Linear Instruments	Repeatable Test Points	EU, %SPAN, %URV, %READING	Function and Dynamic Checks
	Job Plans And PMs	Revision Control	Calibration Tasks	Planned Labor, Materials and Tools	Associated Data Sheets	Calibration Specific Intervals
	Work Orders	Workflow enabled	Overdue Standard Validation	Out-of-Tolerance Notifications	Ability to enter Uncertainty Data	Maximo Mobile with Calibration
	History and Reports	Calibration History	Tool Usage	Calibration Drift	Calibration Errors	Overdue Calibrations



What can it do for you?



Thank you

Questions?

