PM | ELEVEN

SAP Silver Partner

Who is PM ELEVEN

PM Eleven helps customers improve, automate and optimise Maintenance processes…

Company based in Australia, delivering to customers all around the world, and a specialist in SAP Maintenance (PM-EAM), mobile solutions for SAP and a **silver partner of SAP**.

Offering **solutions for Planning, Scheduling, Execution of Maintenance Tasks** (desktop or mobile), with a results-oriented focus through **Analytics.**

Integrator of Works Management Mobility Solutions, with experience in fully integrating mobility solutions to SAP (all versions).

Delivering remotely or on-site all around the world

20+ years of experience

12+ solutions, several in the SAP Store

With a focus on **Asset Intensive Industries**, PM Eleven has implementations at many global companies including: Rio Tinto, Anglo American, Orica Mining Services, Fortescue Metals Group, Kirkland Lake Gold, INEOS Styrolution, OZ Minerals, Queensland Urban Utilities, BHP (BMA Coal), Origin Energy, KPOC (Petronus) Oil & Gas, EDL, Evolution Mining

Solutions for SAP EAM

Maintenance Plan Simulation, Long Term Scheduling, & Maintenance Budgeting

Planning & Optimising Work

Scheduling Work

Dispatch & Administering Work

Digital Dispatch, Executing & Analysing Work

Optimisation of Master Data

SAP Fiori **MPO**
Maintenance Plan Optimisation & Budgeting

KPI
KPI Snapshot

Pln
Maintenance Plan Recalculation

SAP Fiori **AnE**
Annual Estimates

SAP Fiori **WCR**
Work Centre Resourcing

SAP Fiori **Cap**
Capacity Planning by Shift

Prn
WO Print Solution

Scn
WO Scan Solution

SAP Fiori **MSC**
Mobile Supervisors Cockpit

Prg
Schedule Work Progress

BOM
Bill of Material Optimiser

TLR
Task List Optimiser

Services

ADVISORY EVALUATION REVIEW

Skills in:
- SAP Advisory
- Requirements gathering
- ERP – Upgrade direction
- Reviews (Systems & Frameworks)
- Asset Strategy (development, review and optimisation)
- Budgeting and Life Cycle Costing

Outcome:
Detailed and in-depth analysis of the alternatives based on experiences and comparisons with the industry on a global level

MASTER DATA MANAGEMENT

Skills in:
- Master Data Management MDM Standard Designs (ISPM)
- Develop master data strategies
- Data loading & management training
- Ongoing support for updates

Outcome:
We have extensive hands-on industry experience to ensure our clients and resources are fully supported.

SAP IMPLEMENT-ATION

Skills in:
- SAP skilled staff
- SAP "out-of-the-box" ideal configuration as per design
- Skilled personnel in all the main facets of implementation: ***design, configuration, training, testing, support***

Outcome:
Our clients are at different stages of the SAP journey, so our commitment is to provide value add services that deliver results

DATA CONVERSION

Skills in:
- Data extraction and mapping for SAP S4HANA
- LSMW Library
- Data conversion teams for embedding in projects

Outcome:
Delivering mapped and loaded master data into client systems, along with training on data management.

SAP TECHNICAL (ABAP, FIORI, INTEGRATION)

Skills in:
- ABAP
- FIORI
- OData
- Technical Integration to SAP

Outcome:
Our specialist development and support team are in place to support customers in the design and implementation of Apps, Programs and Interfaces which scale with the business and deliver a lower cost of ownership.

SUPPORT

Skills in:
- SAP Support
- Tailored SAP Support
- Testing / UAT Support
- Business Readiness Support with skilled personnel

Outcome:
Our specialist support team deliver tailored long-term sustainment and support of SAP solutions and related security, interfaces, enhancements and reports

PETRONAS

Rio Tinto

INEOS

GLENCORE

BUMA Australia

BHP

KESTREL COAL RESOURCES

FMG Fortescue The New Force in Iron Ore

ORICA

Holcim

LIBERTY

INDORAMA VENTURES

origin

RED 5 Limited

AURIZON

BEACH ENERGY

stanmore

COLLAHUASI

OKTEDI MINING

ILUKA

ROY HILL

ARCTIC CANADIAN DIAMOND COMPANY
Naturally Beautiful. Mined Right.

METRO

PM ELEVEN

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Planning & Optimising Work

Scheduling Work

Dispatch & Administering Work

Digital Dispatch, Executing & Analysing Work

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MPO Maintenance Plan Optimisation (& Budgeting)

PM ELEVEN

Corrective or fix when broken

REACTIVE

Scheduled Maintenance Activities

PLANNED

Defect elimination to improve performance

PREVENTIVE

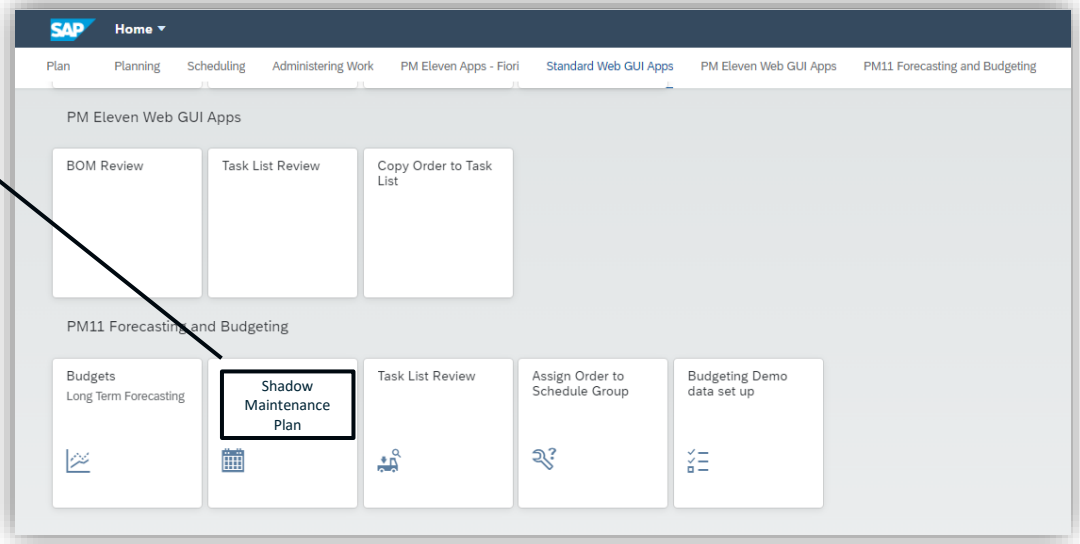
Condition Monitoring and Failure Prediction

PREDICTIVE

Solution

- Build your budget using SAP Maintenance Plans
- Add Budget $, labour, Materials & Services
- Use your cost driver levers to update budget prices
- Simulate without creating maintenance orders
- Extract in Cost Centre / Cost Element for Finance
- Simulate using methods other than linear (e.g. Condition Monitoring or Machine Learning)
- Build and simulate Long Term (Life of asset) Forecasts
- Have the capability to schedule with confidence in SAP regardless of maintenance type (Preventive, Condition Based, Predictive, Prescriptive) and driven by parameters defined by the customer.
- Make actual savings by following recommendations

Enhanced Digital Twin for Maintenance Plans



Results

- Information is constantly refreshed with accurate schedules from SAP
- The solution drives improvement in **Tasks Lists**
- ***Quickly update your Budget with new levers (process, material process, contracts)***
- Project out usage of key Materials for contract negotiations
- Use planning accuracy parameters to highlight where review is required
- **Hold plans for your desired window – Annual budget, 5 Year Plan, Life of Asset**

Benefits

- **Increase accuracy and efficiency in the building and maintaining of Maintenance Budgets**
- Provide links into Finance for Cost Centre/Cost Element budgets
- Simulate alternative maintenance strategies and ensure you have accurate stock through Materials availability checks
- Increase accuracy of bottom-up budgets
- Leverage the opportunity for machine learning to drove alternate maintenance strategies
- Deliver on lower costs and higher equipment availability
- Decrease in Raw Material Carrying Cost (Maintenance Spares in Store)

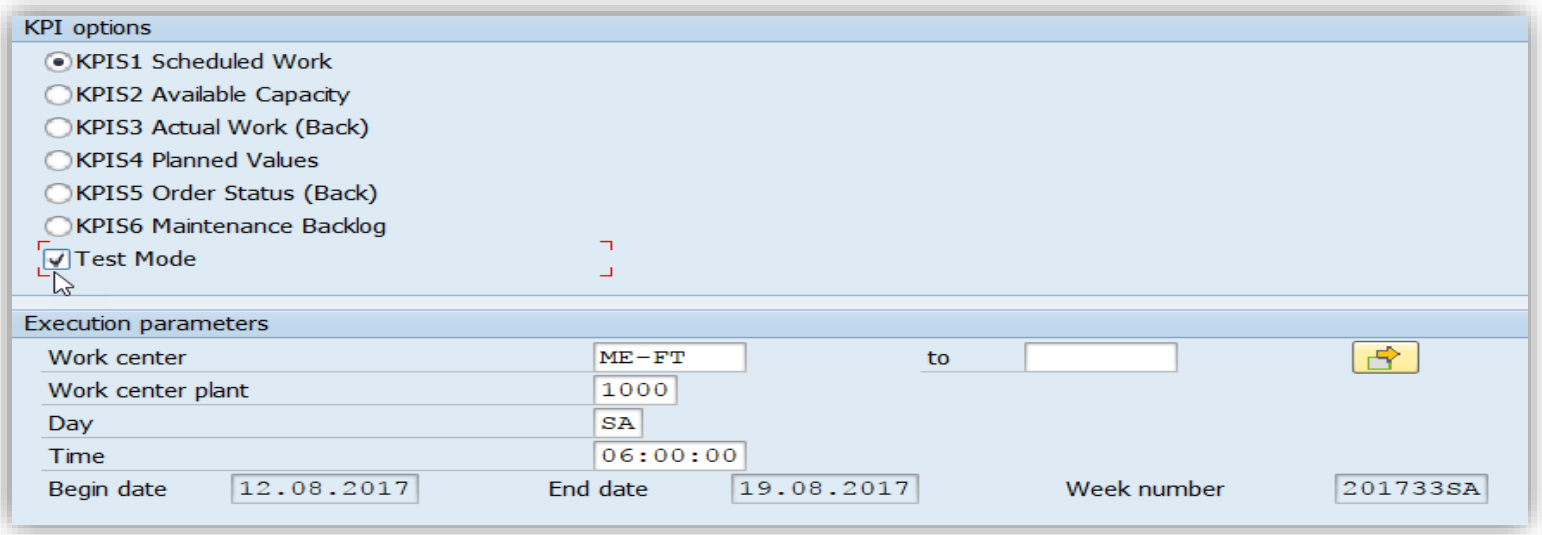
PM ELEVEN

KPI Snapshot

The KPI Snapshot solution facilitates a regular collection of SAP maintenance data at any given time, to ensure accurate work management KPIs.

Snapshots can be taken at different times for each Work Centre within the same plant as needed. The data is stored in SAP and can then be consumed by BI, BO or mobile applications.

The KPI Snapshot tool is critical to simplify the processes of supervisors through Capacity by Shift Workbench.



*Collect and calculate your **critical KPI's at the source** (and minimise manipulation or interpretation)*

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Maintenance Plan Recalculation

In many instances more than one active (released) Call can exist for a Maintenance Plan.

Changes to Maintenance Plans that affect their scheduling do not change released Calls (or Calls on hold) to align with the change of information.

Several factors may result in a different due date being calculated, such as:

- New Measurement Documents as a result of altered usage patterns
- Updated Annual Estimates
- Early or late completion of previous Calls.

The **Maintenance Plan Recalculation Report** recalculates Maintenance Order due dates when changes to a Maintenance Plan affect future scheduled Calls.

Maintenance Plan Recalculation (continued)

Pln

The solution analyses Maintenance Calls and provides recommendations and observations:

- **Push xx days** – recommend pushing the Work Order out as the previous call was completed late (time-based); or machine output has reduced (performance-based)
- **Pull xx days** – recommend pulling the Work Order in as the previous call was completed early (time-based); or machine output has increased (performance based)
- **Subsequent Closed** – a Call with a later scheduled start date has already been closed
- **Overdue xx days** - the scheduled execution date has passed by XX days.

Maintenanc	Maintenanc	Total Actu	Total Plan	Recommendation	Opportu...	Maintenanc	Item in th	Item Short Text	Equipment	Maintenanc	Order Nu
3663156	1621350	0.00	91,945.41	Pull 32 days	61,296.94	TWH-	1			8	2982248
3548523	1543691	13,556....	24,829.96	Subsequent Closed	24,829.96	TWK	1			225	2981969
3663562	1621598	659.95	23,706.08	Plan Inactive	23,706.08	C0P120	3			217	2982019
3667499	1624465	0.00	174,086....	Pull 57 days	17,593.86	C0PH	1			6	2981433
3600155	1579304	17,259....	45,212.67	Overdue 2 days	15,326.33	TWH-	1			42	2982195
3667501	1624467	0.00	113,065....	Pull 42 days	13,764.52	C0PH	1			4	2981726
3669266	1625710	8,213.39	13,728.87	Overdue 12 days	13,728.87	TW030	3			43	2982245
3665705	1623175	59.41	11,234.72	Plan Inactive	11,234.72	C0PH-60	3			209	2981878
3668983	1625496	0.00	46,489.74	Overdue 24 days	10,673.66	TWK	1			10	2981889
3660776	1623190	0.00	9,398.67	Pull 16 days	9,398.67	C0PH-60	2			172	2982187
3670230	1626374	0.00	13,445.50	Push 19 days	8,809.12	C0P120	2			119	2982538
3660777	1623190	10,846....	11,115.61	Overdue 11 days	8,336.71	C0PH-60	3			170	2981933
EMF3616-...	1523959	6,743.55	7,337.15	Push 85 days	7,337.15	C0PH-60	8			182	2981838
3666511	1623701	0.00	25,887.37	Pull 99 days	7,040.80	TWK	1			5	2982436
3655436	1616294	1,696.48	6,437.75	Overdue 16 days	6,437.75	TW030	2			114	2982208
3664380	1622169	825.06	6,368.14	Overdue 12 days	6,368.14	C0PH-60	2			183	2981895
3658858	1618670	2,088.13	6,261.42	Overdue 16 days	6,261.42	TW030	2			109	2982208
3662387	1620856	0.00	12,389.55	Pull 2 days	6,194.77	DAILY7	1			674	2982230
3664381	1622169	0.00	13,379.24	Push 10 days	6,081.47	C0PH-60	3			185	2982444
3665805	1623251	2,162.13	5,985.03	Push 424 days	5,985.03	C0PH-60	3			184	2981918
3665911	1623337	2,414.53	5,982.21	Plan Inactive	5,982.21	C0PH-60	3			177	2981961
3658294	1618405	1,744.20	5,025.43	Plan Inactive	5,025.43		4			270	2981848
3659803	1619329	0.00	4,956.10	Push 42 days	4,956.10	C0PH-60	4			279	2982368
3670522	1626571	0.00	54,764.28	Overdue 7 days	4,563.69	TW02	1			53	2982150
3668316	1625046	478.54	9,442.79	Subsequent Restart	4,532.54	C0PH-60	3			165	2981860
3662217	1620743	0.00	4,493.02	Overdue 14 days	4,493.02	C0PH-60	2			242	2982196
3666190	1623525	0.00	4,084.40	Pull 21 days	4,084.40	TW020	2			101	2982436
3672295	1627845	1,427.81	5,680.11	Push 5 days	4,057.22	TW0-	1			38	2982193

3672606	1627945	0.00	13,990.85		0.00	TWH-	1	
3672607	1627945	0.00	13,990.85		0.00	TWH-	2	
3672809	1628019	232.55	237.25	Overdue 5 days	0.00	TWK	1	
3672810	1628020	126.54	237.25	Overdue 4 days				
					906,617.73			

Select & Action

Pushing this Work Order 85 days to the optimal date to potentially save over $7,000

Savings available in 2-month selection window

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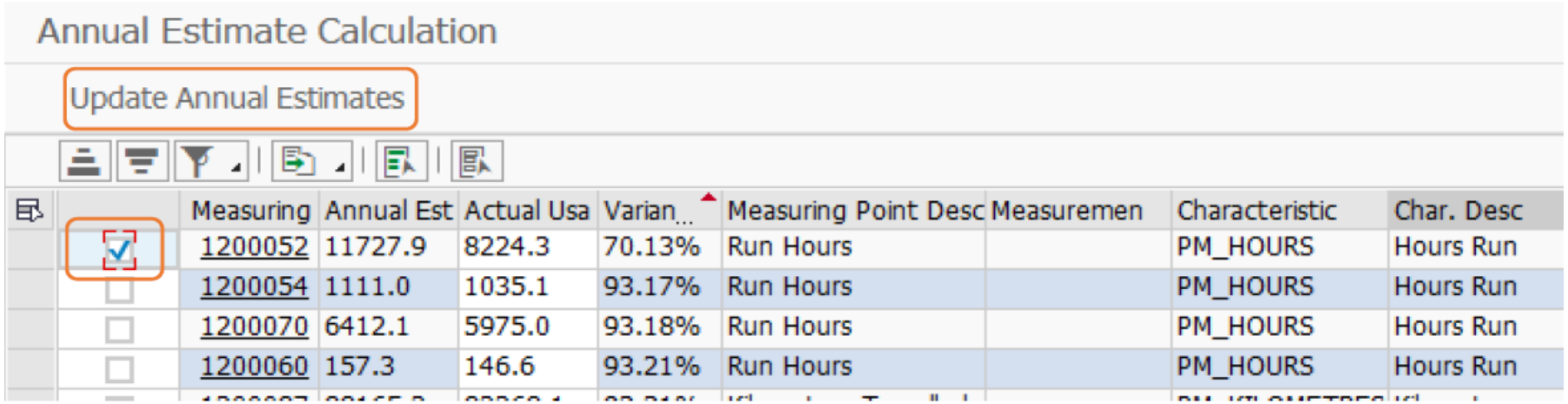
Annual Estimates Optimiser

The Annual Estimate Review solution allows the user to compare the historical use with the Annual Estimate and update the Annual Estimate as required.

An inaccurate Annual Estimate can lead to maintenance plans calling work orders at the wrong time. To ensure accurate annual estimates, historical data often provide the best reference for future use.



	Measuring	Annual Est	Actual Usa	Varian...	Measuring Point Desc	Measuremen	Characteristic	Char. Desc
☑	1200052	11727.9	8224.3	70.13%	Run Hours		PM_HOURS	Hours Run
☐	1200054	1111.0	1035.1	93.17%	Run Hours		PM_HOURS	Hours Run
☐	1200070	6412.1	5975.0	93.18%	Run Hours		PM_HOURS	Hours Run
☐	1200060	157.3	146.6	93.21%	Run Hours		PM_HOURS	Hours Run

To ensure accurate annual estimates, historical data often provide the best reference for future use.

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Work Centre Resourcing

Together with the Capacity by Shift Workbench, the Work Centre Resourcing solution delivers value by enabling Schedulers to capacity plan resources at a shift level.

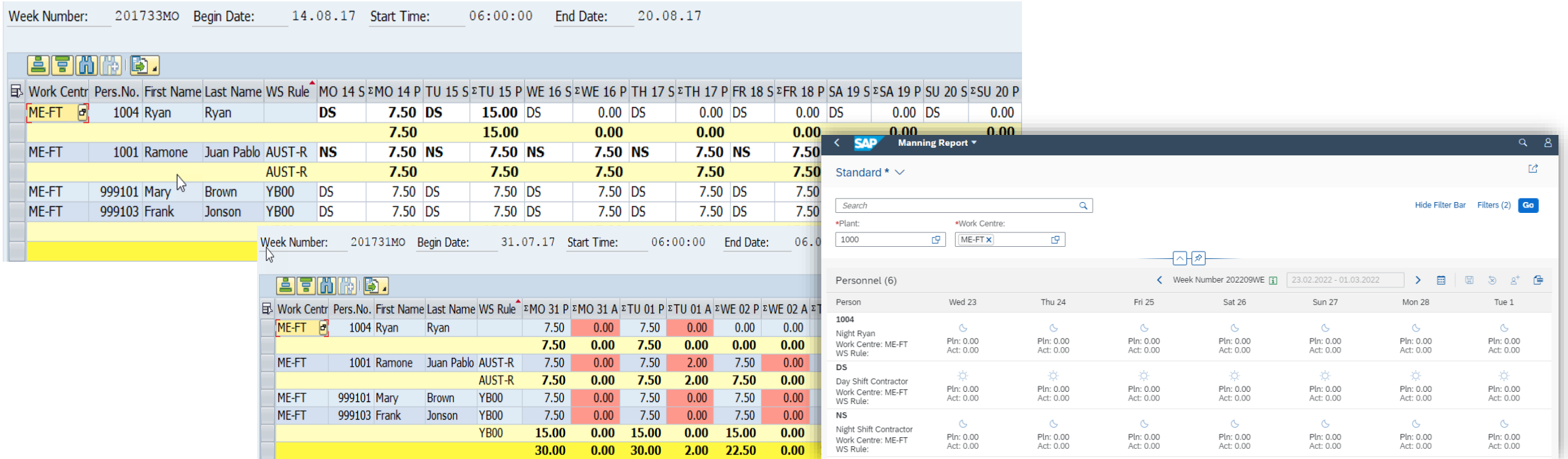
SAP FIORI

WCR

The **Work Centre Resourcing** solution enables you to manage your Resourcing capacities (night and day shift) in one place, saving significant time. PM Eleven's Work Centre Resourcing solution for SAP is the preferred planning solution for major sites using SAP PM.

It compares gross and net hours available for a supervisor, giving them the capability to easily plan their capacity by shift. It displays the available people/roles from HR and gives the planner/scheduler the ability to maintain real capacity versus real HR data. Time for contractors can also be entered so that Capacity Levelling is done with the right amount of total capacity.

Together with the Capacity by Shift Workbench it delivers value by enabling Schedulers to capacity plan resources at a shift level. Work Order Operations can be moved into, out of or within a scheduled week simply by dragging and dropping operations to where they need to be.



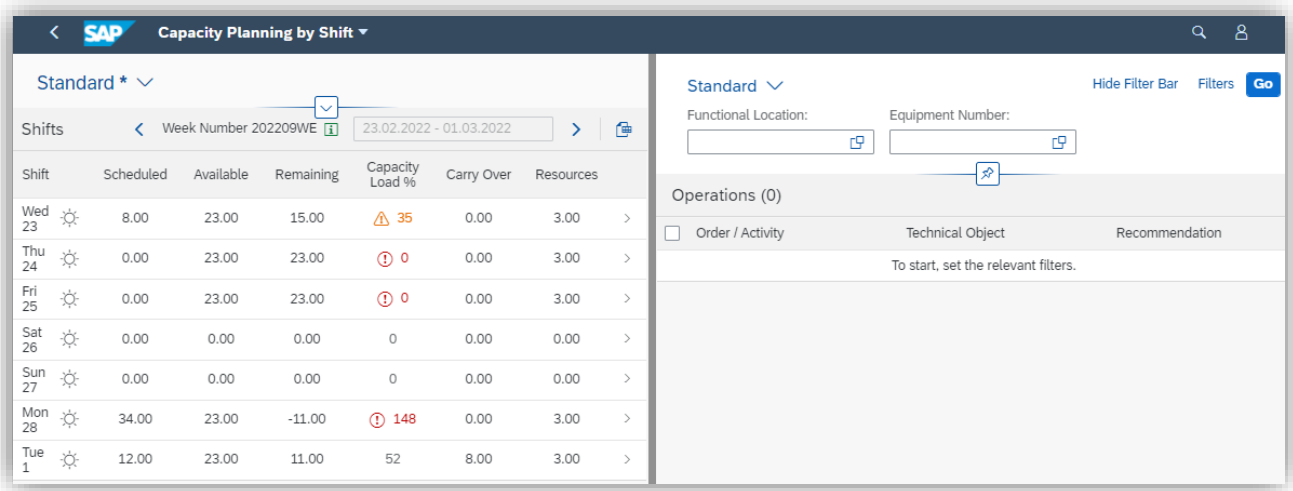
Capacity Planning by Shift

"We have been able to manage work capacity completely in one place, saving a significant amount of time in planning and execution".

The **Capacity by Shift Workbench** is a solution that allows planners to "plan their capacity" resources at the shift level. Work order operations can be moved in or out of a scheduled week, simply by dragging and dropping activities.

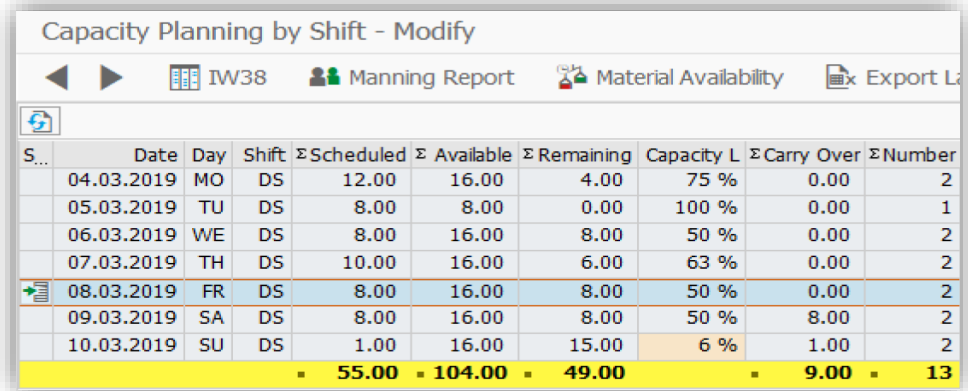
As a critical entry for the final Gantt chart, this solution performs a real-time check of the key variables, which include:

1. Other dependent operations that have been moved,
2. A material availability check,
3. Machines scheduled for other days / shifts in the same week
4. Verification of the relationships with other work orders



This tool is designed to support your planning outcomes by ensuring:

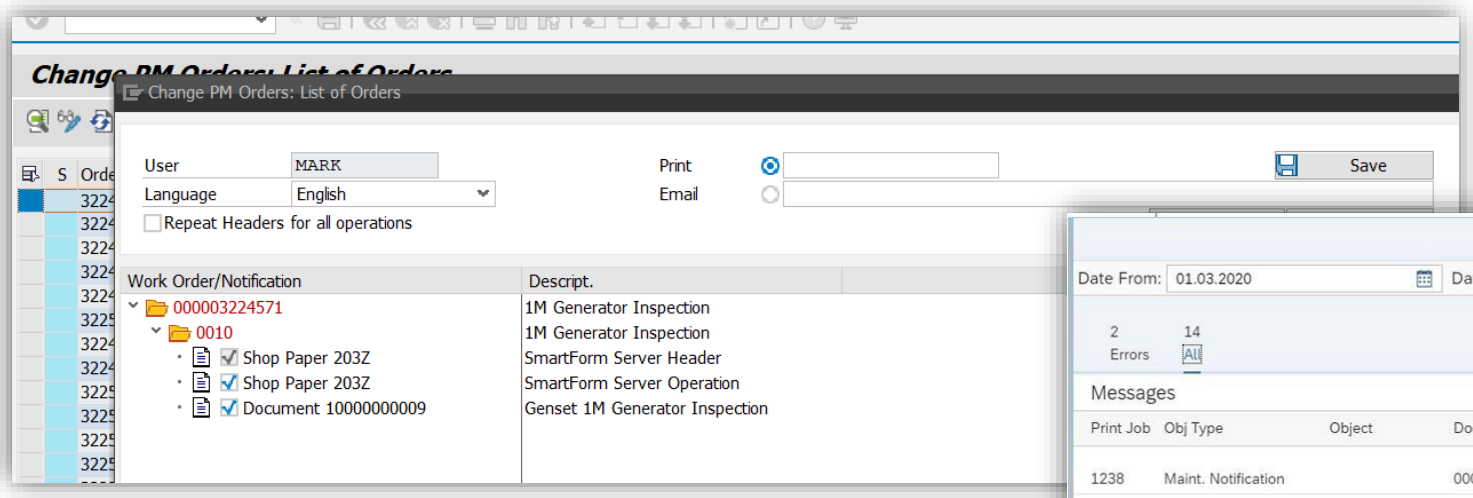
- An appropriate amount of scheduled work for any given week,
- All available parts / variables are catered for,
- Maximising the availability of equipment for production activities by scheduling pending work to the equipment available

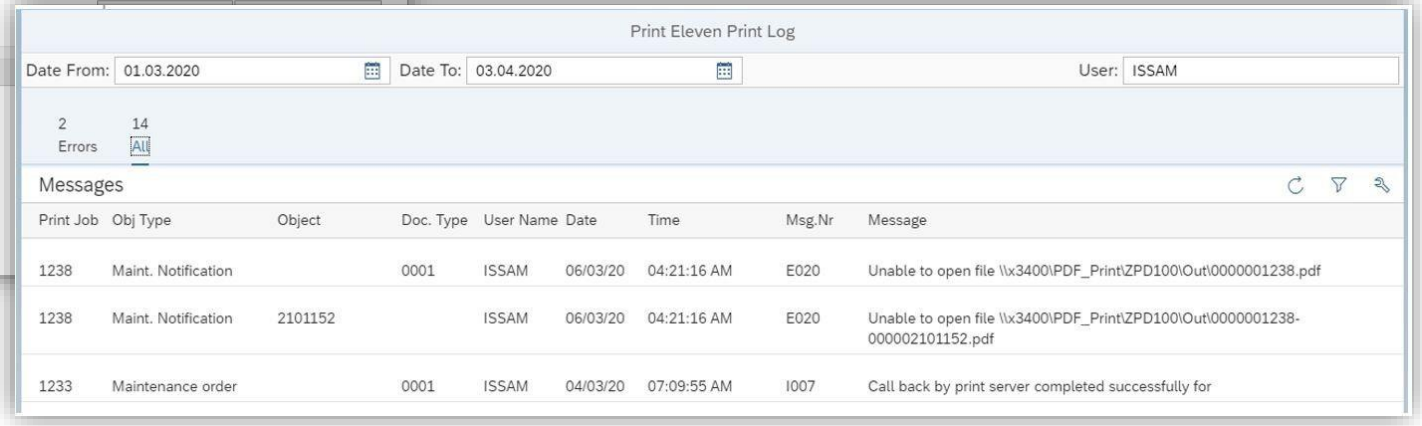


Integration with MS Project

Work Order Automated Print Solution

- The PM Eleven Work Order Printing solution provides an **efficient and effective way to automatically retrieve and combine SAP® generated Work Order Shop Papers together with supporting documents** delivering them in the correct sequence and as one single job.
- **Prints your Work Orders / Shop Papers and all attachments, in sequence**
- Is **SAP version agnostic** and able to run on S4HANA, ECC, SAP GUI, and Fiori (both on-premise and cloud)
- Is also capable to run on both **Windows and Linux servers**
- Connects with your current **document repository** (OpenText / xECM, SAP DMS, Sharepoint, others)
- Enterprise strength print solution
- Ability to be extended to bulk Sales Order/billing printing or other SAP documents
- Managed volumes and success through our ***PM Eleven Print Log***
- **Saves hours** of time-consuming printing, version control, matching, and filing

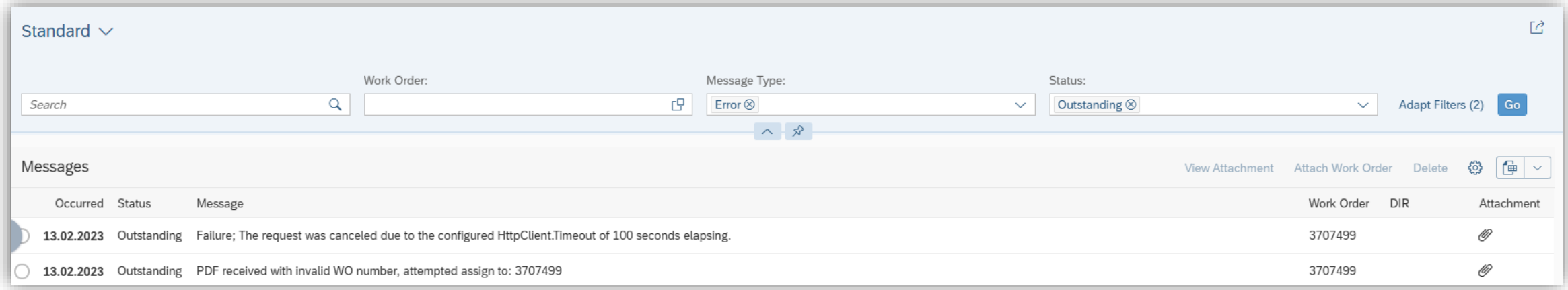




Work Order Automated Scan Solution

FEATURES OF THE SOLUTION INCLUDE:

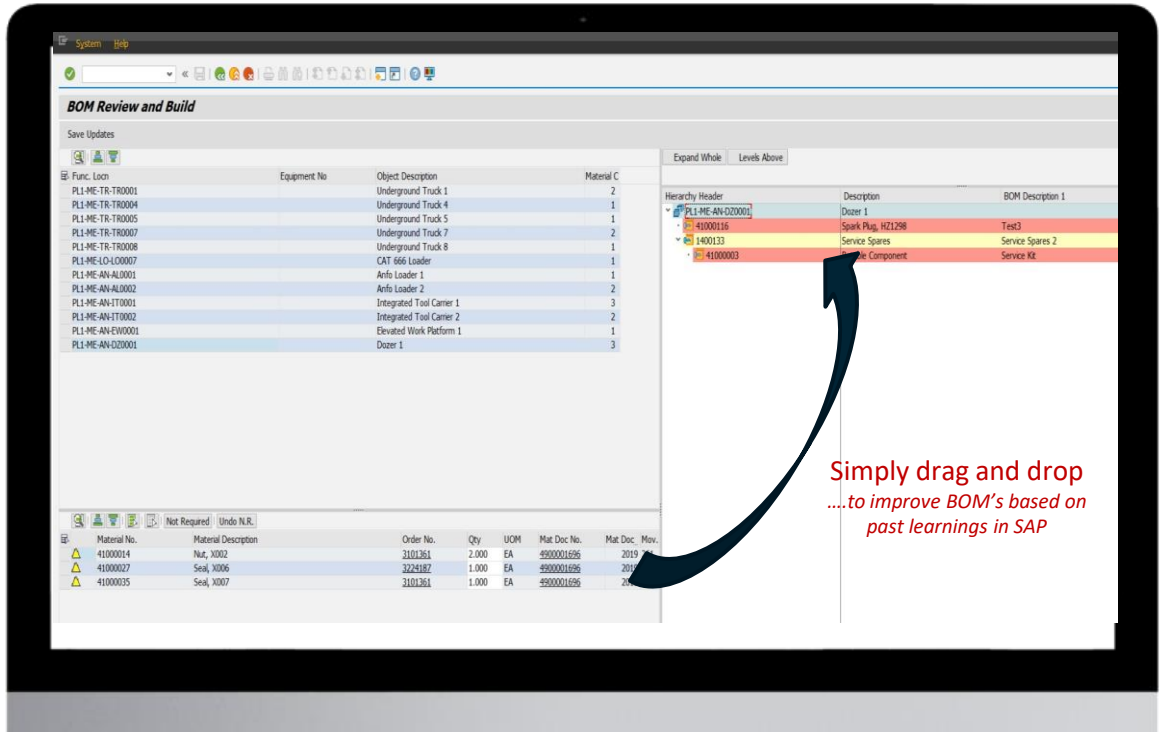
- Load all Work Order's in bulk in the scanning machine and sends to SAP.
- Solution automatically separates and attaches all documents in sequence to the right Work Order.
- If required, success/failure notification emails can be sent to the user
- Success/Error Logs available for troubleshooting
- Additional ability to send attachments directly from email to the SAP Work Order (e.g. documents like Quotes, PO's, other documents) which you would like to attach to the Work Order
- Can also attach the document to the Work Order or Notification GOS / ASA document type nominated.
- Has the capability of automatically attaching the PDF work pack to any SAP object (Notification, Purchase Order, etc)
- Provides visibility of users or technicians that fail to follow appropriate processes which leads to non-compliance (completion of checklists, etc.)
- Monitoring / Success Log



Bill of Material Optimiser

Bill of Material Optimiser Solution

- The BOM Optimiser displays the history of existing work orders. Allows the user to quickly and easily update their BOMs based on your actual material usage.
- Our solution also makes it possible to manage BOMs by:
    - Drag and drop to restructure bills of material
    - Insert new components
    - Remove components
    - Creation of PM construction / assembly types
    - Assignment of construction types to functional locations and equipment, and
    - Classification of BOMs



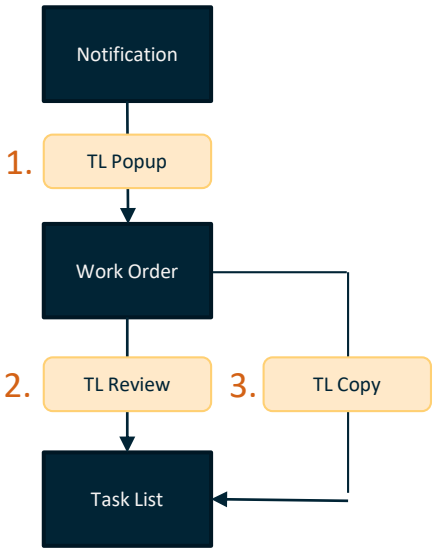
Results

- Information is automatically improved through constant learning from history
- Ensure Spare Parts are included in BOMs
- Utilize Work Order History to build BOMs
- Simplicity of Management of BOMs
- ***1 Transaction replaces 9 transactions***
- Only required fields are displayed

Benefits

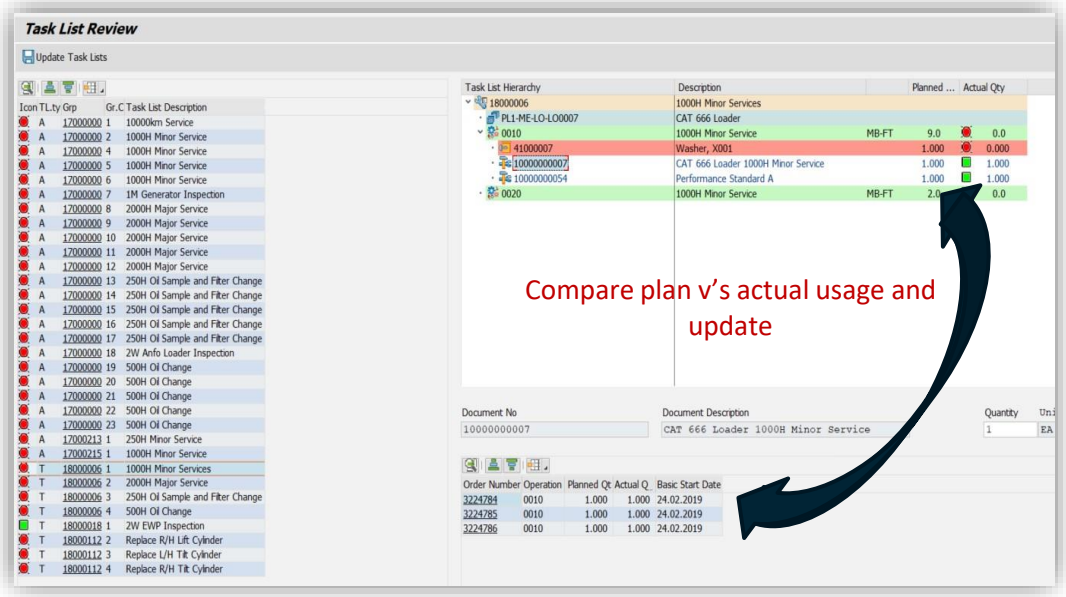
- Increase Production Capacity/Utilisation (Decrease in Unplanned Operational Delays)
- Increase Production Up time (Decreasing Unplanned Maintenance)
- Losses due to Low Stock Levels.
- Higher equipment availability
- Decrease in Raw Material Carrying Cost (Maintenance Spares in Store)
- Stock Loss Associated Cost (Transport)
- Material re-handling cost.

Task List Optimiser



3 Solutions in 1

- The Task List Optimiser includes 3 important components, including:
    1. a Task List selection box for new Work Orders
    2. a Task List copy function
    3. a Task List review and improvement function
- Highlights differences between Task List Planned Values v's Actual Values on Work Orders.
- Review and update scheduled hours for Work Order Operations
- Add, delete or modify components (materials) and/or PRT documents.
- Update and refine Tasks Lists on a single screen (rather than many), and utilise a completed WO to create a new Task List.



Results

- Information is automatically improved through constant learning from history
- The solution uses your historical data to calculate the **accuracy of Tasks Lists**
- ***Quickly update Task Lists based on actual usage on Work Orders***
- Find Tasks Lists which have WO's (within the parameters selected)
- Use planning accuracy parameters to highlight where review is required
- **Isolate differences between planned values and actuals on work orders**
- Isolate those Tasks Lists which require adjustment

Benefits

- Increase Production Capacity/Utilisation (Decrease in Unplanned Operational Delays)
- Increase Production Up time (Decreasing Unplanned Maintenance)
- Losses due to Low Stock Levels.
- Higher equipment availability
- Decrease in Raw Material Carrying Cost (Maintenance Spares in Store)
- Update Tasks Lists planned quantities, material components, labour and documents

Why PM Eleven?

- We provide cutting edge **solutions for SAP designed for the Asset intensive industry**.
- Our solutions are **used by 5 of the top 20 mining companies** in the world and have been designed by Maintenance specialists for maintenance personnel.
- **Solve practical problems** & closed functionality gaps
- Goaled on delivering **Efficiency / Productivity savings** for our customers
- Supported by **senior executive consulting / advisory**

Pricing and Payback

100k-300k+

ANNUAL PAYBACK PER SOLUTION

SAP SOLUTIONS

- Our pricing model is discounted for customer size and industry
- We offer our solutions on Subscription
- We offer discounts if multiple solutions are purchased

Measurable savings and increase in productivity

Fully up & running inside 10 days

5%

SAVING IN MAINTENANCE SPEND

MEASURES to assist calculate your savings

- PM Eleven provides measures to assist in calculating your savings
- In some cases, savings have been measured at $1m over 3 months
- Fixed and no more to pay with PM Eleven

Reduction in inefficiency

Savings delivered within 90 days

SPECIALIST SERVICES

- PM Eleven work closely with our customers to uplift their knowledge and improve usage of SAP

PM ELEVEN

PM|ELEVEN

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Commercial in confidence