



The Performance Management Exchange

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The Hockey Hall of Fame

Planning Transformation on BPC Embedded



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About Goldcorp

- Goldcorp is a leading gold producer focused on responsible mining practices with safe, low-cost production throughout the Americas
- Focus: high quality production; low cash costs; investment grade balance sheet; low political risk; and conducting business in a responsible manner
- 4 mines in Canada, 2 mines in Mexico, and 4 in Central and South America
- 15,000 employees
- \$4B revenue

Project Overview

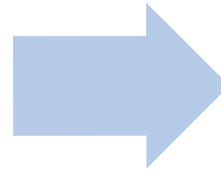
- Improving planning process is top corporate objective for 2016
- Multiple improvements underway including standardizing on BPC for driver-based planning model
- Project challenges:
 - ERP standardization in-flight
 - 36 month rolling forecast in-flight
 - Aggressive timeline to roll out

Evolution of Planning Approach

SHIFT IN APPROACH ENABLED BY BPC EMBEDDED VERSION

Traditional Planning

- Detailed budget assumptions from outside the planning system
- System captures model results in a static database
- Actuals vs Budget at high level, re-forecast quarterly
- Detailed variance root cause only possible vs budget – stale assumptions



Integrated Planning

- “Brings Planning closer to the ERP” – enabled by latest version of BPC
- Forecasting closely tied how costs flow in actuals, not standalone model – ‘assumptions’
- More visibility into actuals through the integrated reports
- Real-time – “soft close” to calibrate rolling forecast assumptions for quick turnaround after month-end
- Closer relationship between budgeting and forecasting processes

Requirements:

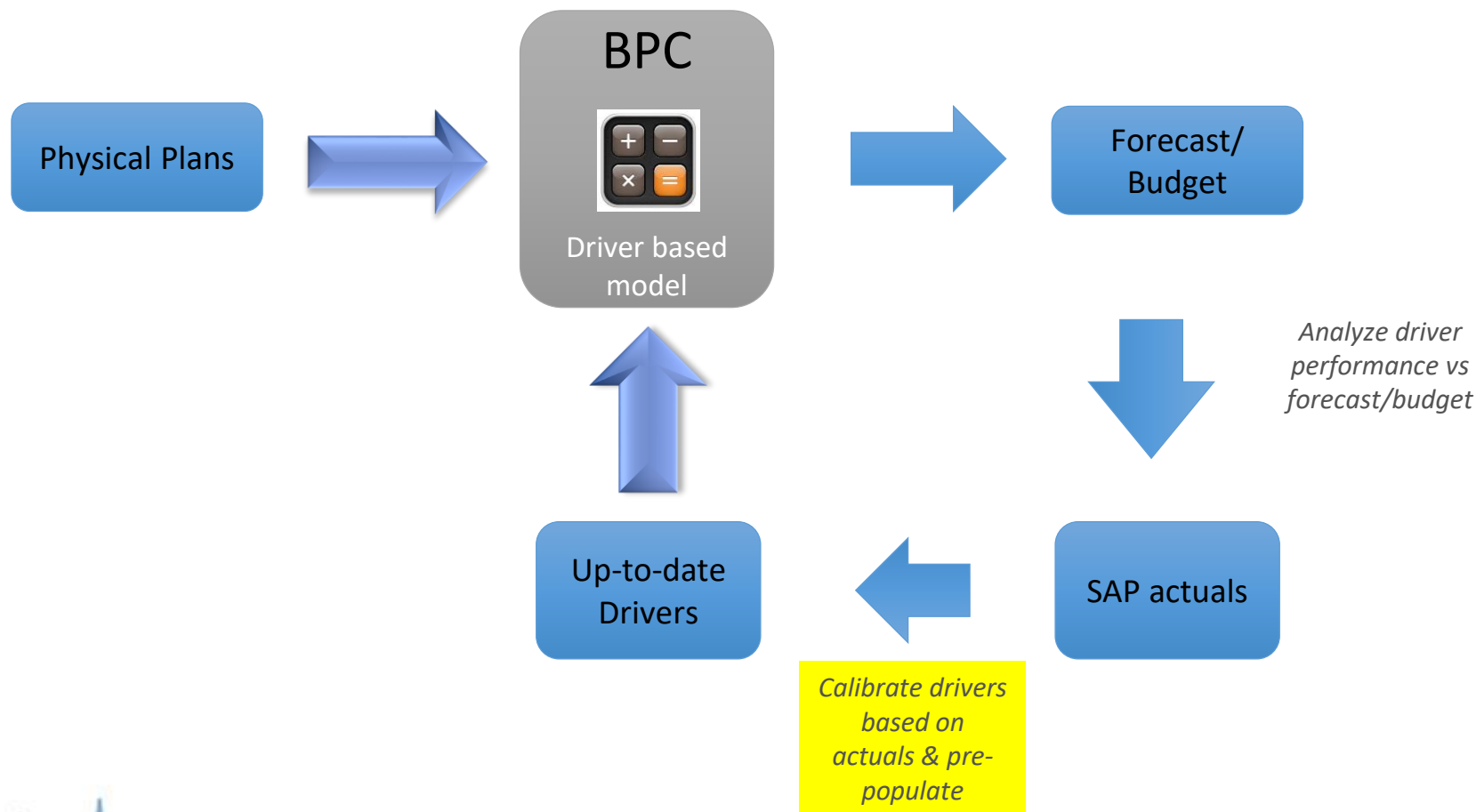
- Driver based rolling forecast
- Integrated Actuals & Forecast Detail
- Quantity vs Price Variance Analysis
- System flags key variances

Why 36 Month Rolling Forecast?

- Proactively manage our business units with up to date information
- Change mindset to understand the impact from changes today on tomorrow's operations
- Support investor relations discussions and quarterly / annual market guidance
- Evolve of Business Performance Review discussions to forward looking
- Alignment with 36 month Budget being approved by the Board of Directors

Driver-based Approach Linked to Physical Plans and SAP

Standard Model Design Focused on Key Cost Drivers



General Driver Calculation Configuration

Driver Configuration Table

Cost Center	Cost Element	Driver	Calculation Parameter
Hauling	Diesel	Equipment Hours	A
Hauling	Diesel	Consumption Ratio Per Eq Hr	C
Hauling	Diesel	Non-Driven Consumption	E
Hauling	Diesel	Non-Driven \$ Amount	F
Milling	Power	Tonnes Milled	A
Milling	Power	Consumption Ratio per Tonne	D
Milling	Power	USD variable price component	P1
Milling	Power	Peso-based variable price component (USD)	P2
Milling	Power	USD fixed monthly cost	F
Milling	Power	Peso-based fixed monthly cost (USD)	G

Driver Calculation Functions

$$Q = (A+B)*C*D + E$$

$$\text{\$} = (P1+P2)*Q + F + G$$

$$P = (P1 + P2)$$

Examples:

Driver Calculations

(controlled by config table)

Hauling

Diesel

$$Q = ([Equipment\ Hours]) * [Consumption\ Ratio\ Per\ Eq\ Hr] + [Non-Driven\ Consumption]$$

$$\text{\$} = ([Price]) * Q + [Non-Driven\ \$\ Amount]$$

Driver Calculations

(controlled by config table)

Milling

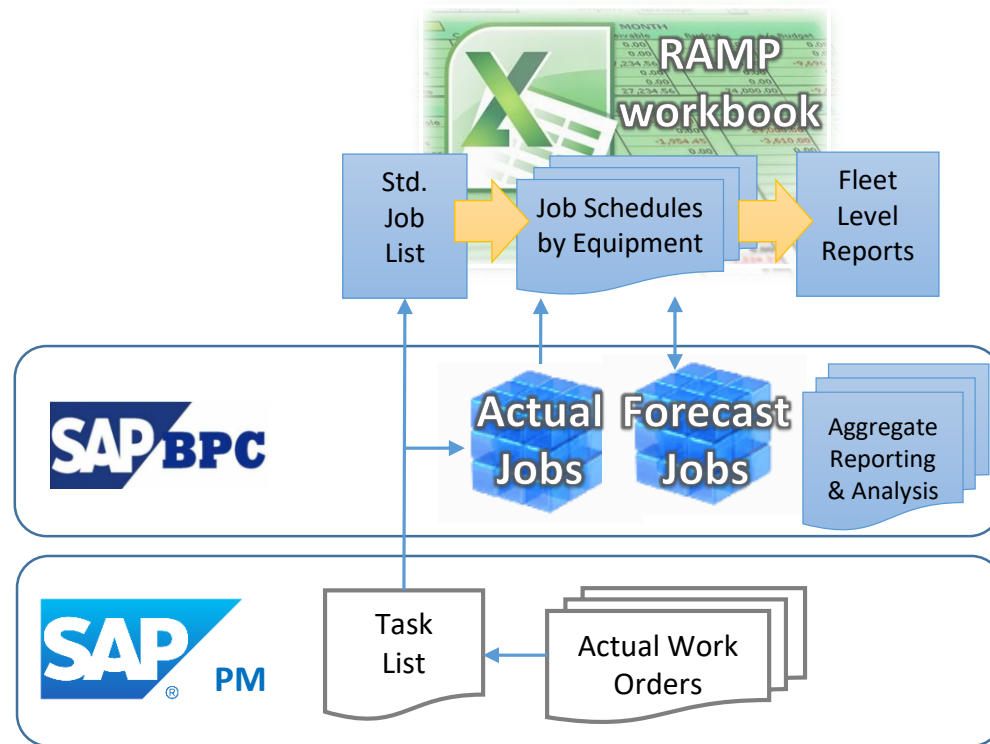
Power

$$Q = ([Tonnes\ Milled]) * [Consumption\ Ratio\ per\ Tonne]$$

$$\text{\$} = ([USD\ variable\ price\ component] + [Peso-based\ variable\ price\ component\ (USD)]) * Q + [USD\ fixed\ monthly\ cost] + [Peso-based\ fixed\ monthly\ cost\ (USD)]$$

Integration with Rolling Annual Maintenance Planning (RAMP) Process

BPC Maintenance Module will connect with RAMP Excel Model



- Allows maintenance planners who use RAMP to:
 - Aggregate RAMP forecasts across multiple fleets/productive units (e.g. for headcount planning at work center level)
 - Update with actuals for rolling forecast
 - Retain established Excel functionality and portability with added benefit of a back-end data model linked to SAP structure
- Data requirements from SAP PM:
 - **Minimum:** standard job lists need to be created as **Tasks** in SAP PM to enable cost and manpower calculations for forecast
 - **Additional:** new work orders assigned to **Tasks** for tracking against standard jobs in RAMP model

Thank you!

