# Consolidations with SAP BusinessObjects Planning and Consolidations (BPC)

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February 2013



## **Agenda**

- BPC Overview
- Planning vs Consolidations in BPC
- Consolidations with BPC
- More Information
- Q&A



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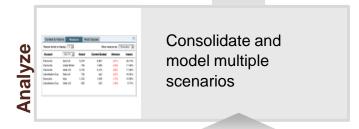
## What is SAP BusinessObjects Planning and Consolidation?

- SAP BusinessObjects Planning and Consolidation (BPC) is a part of SAP's
   Enterprise Performance Management (EPM) portfolio.
  - EPM is a suite of business applications to help accelerate the financial closing process and manage financial/operational performance.
- BPC provides everything you need to meet your planning, budgeting and forecasting requirements, as well as providing legal and management consolidations, and advanced reporting capabilities.
  - It enables this through a single unified business application with a user interface that puts the power in the hands of the business users so that they can effectively manage their business without the reliance on IT.

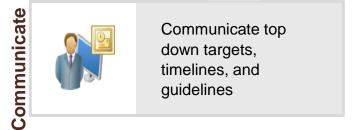


### **BPC Value Proposition**









#### Familiar, Easy to Use

 Enables rapid adoption by leveraging native Microsoft Office tools and web browsers

#### **Unified - Planning and Consolidation**

 Single business application reduces maintenance, improves data integrity, and simplifies deployment

#### **Owned and Managed by Business Users**

 Business users manage processes, models, and reports, with little dependence on IT

#### **Business process centric**

 Configurable Business Process Flows guide users, and drive process consistency

#### Open, adaptable application

 Extend the value of your investment in both SAP and non-SAP environments



## **BPC Value Proposition (2)**

Processing Speed

Simultaneous Legal and Management Reporting Views

No Compromise on Audit Trail

Power and Agility



Financial Compliance



Trusted Foundation



## **Accelerate Processing and Reporting for a Faster Close**

Helps recover critical time in closing and management reporting cycles without sacrificing any controls or auditing needed for today's global compliance environment

#### **Power and Agility**

- Combines the power to unify all legal and management reporting needs with the agility to blend corporate control with local flexibility
- Gives your organization the controls it needs to deliver trusted information to all stakeholders

#### Compliance, Trust, and Reliability

- Intelligent control and comprehensive process management
- Audit trail from source to disclosure
- Comprehensive data access security
- Transparent and auditable change management



## **Current Versioning**

• Upcoming new implementations should be looking to version 10.0.

EPM release 10.0 for Netweaver is generally available since 4/23/12.



## What Should a Consolidation System Do?

Prepare Time

Collect

Consolidate

Report

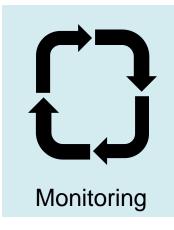
#### Prepare

- Dimensional Model
- Master Data
- Business Rules
- Security

#### Collect Reported Financial Data

- Manual Entry
- File Upload
- ERP Intergration

Manual Posting Validation Currency Translation



#### Consolidate

- Inter-unit Eliminations
- Ownership Eliminations
- Reclassifications
- Allocation

#### Report

- External Statutory Reporting (GAAP,IFRS)
- Consolidated Management Reporting



#### **BPC Features**

- Flexible data models
- Data processing
  - Highly flexible "rules based" design
  - Supports concept of reference categories (versions)
  - Support for automated task execution at time of data entry (currency translation, validations, etc.)
  - Parallel translation into multiple reporting/group currencies
  - Automated account transformation / reclassification capabilities
  - Manual adjustments (journal entries)
  - Intercompany matching and eliminations
  - Automated accounting for long-term investments using the purchase, equity, and proportionate techniques
  - Automated balance carry-forward
  - Ownership manager for maintaining ownership, and organizational hierarchies



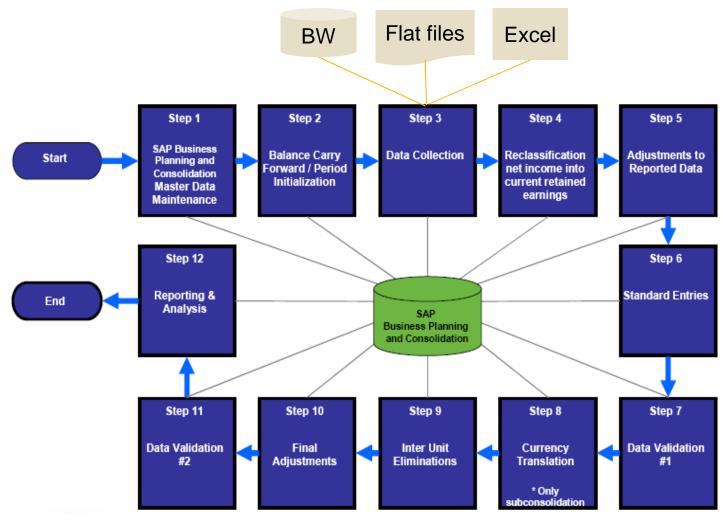
## **BPC Features (2)**

- Ability to load and transform data from multiple source systems
- Full support of major accounting principles (GAAP, IFRS, IAS, etc)
- Support for Sarbanes-Oxley compliance including audit tracking
- Guided business processes through advanced Business Process Flow (BPF) functionality
- Leverages standard SAP security features
- Reporting
  - Designed to be owned by the business inclusive of report creation and ongoing maintenance
  - Same functionality supports both reporting and data input
  - Support for easy report creation via the use of Dynamic Templates
  - Fully leverages the capabilities of Excel via the EPM add-in
  - "Full" Office Integration (Excel, PowerPoint, Word) and Web reporting
  - Strong support for "comments"



## **BPC Supports Consolidation Business Processes**

An example of a business process





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#### **Data Models**

 As this is a unified planning and consolidation tool, the main difference between planning and consolidation scenarios is the type of model deployed - it is the same technical approach to configuring either scenario.

REPORTING	DRIVERS AND RATES
Financial: used for reporting planning and management consolidation functions such as currency conversions, intercompany managerial eliminations, etc.  • Must reference an exchange rate model	Exchange Rate: stores exchange rates that support currency conversions for reporting models.  • Must include a currency type dimension to store the exchange rates by currency.
Consolidation: performs legal consolidations.  Similar to Financial models but with legal consolidation rules instead of managerial.  • Must reference both ownership and exchange rate models.	Ownership: stores information such as the consolidation methods, ownership percentages, and organizational hierarchy used for legal consolidation.
Standard: has no special requirements (other than to include the four minimally required dimensions).  No business rules	Generic: has no special requirements (other than to include the four minimally required dimensions).  No business rules

 One driver/rate model can support multiple reporting models (e.g. currency exchange rates)



## **Legal Consolidations Model Design**

- A consolidation environment requires at least three models in BPC
  - Consolidation Main model containing all financial transaction data
  - Ownership Used to manage the organization structure, method assignments and percent control/ownership
  - Exchange Rate Contains all currency exchange rates for FX conversions
- You can also create additional models to support other reporting needs
  - Intercompany matching
  - Cash flow
  - Supporting disclosures
- BPC is an account based approach for all models (only one key figure can be used in any model)
- Note: An IFRS starter kit can be downloaded from the Service Marketplace



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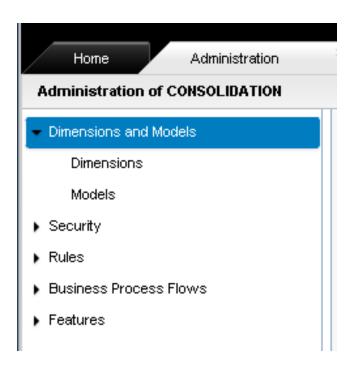
## **Typical Implementation Steps**

- Create the environment
- Set up master data in the dimensions
- Create models
- Set up business rules, logic scripts, and data manager packages
- Update rate and ownership data
- Set up work status
- Create the journal template
- Create reports or use delivered dynamic templates
- Set up security
- Create business process flows if desired



#### **Environments**

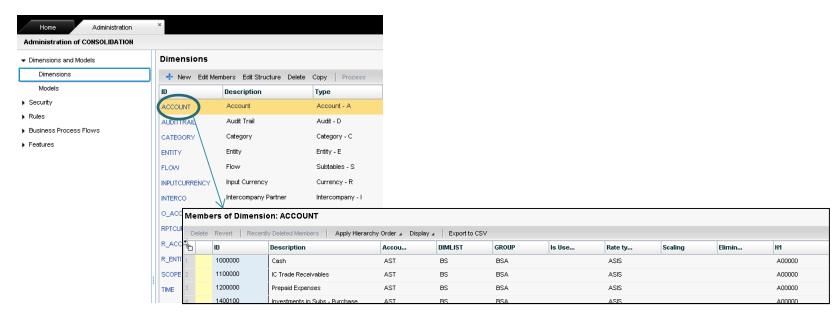
- An environment consists of one or more models and contains master data that controls the data in the environment.
- Models can share one or more dimensions with other models within the environment.





#### **Dimensions**

- Dimensions contain various master data to support reporting and processing of the data
  - Member values
  - Dimension properties (e.g., attributes)
- They are building blocks for creating the various models (certain models require certain types of dimensions)





## **Typical Dimensions**

- Planning and Consolidations models often share certain dimensions (e.g., entity, time) for consistency across processing and reporting
  - This is an example dimension framework for a consolidation scenario

Name	Dim Type	Consolidation	Intercomp Matching	Ownership	Rate
Account	Account	X			
AuditID	Audit	X	X		
Category	Category	X	X	X	X
Currency	Currency	X	X		
Entity	Entity	X	X	Х	
Flow	Subtables	X	X		
ICAccount	Account		Х		
InputCurrency	Currency				X
Interco	Intercompany	X	X	X	
OwnAccount	Account			X	
Rate	Account				X
RateEntity	Entity				X
Scope	Group	X	X	Х	
Time	Time	X	X	Х	X

 Flow and AuditID (a.k.a. datasource) are typically unique dimensions for consolidation scenarios



#### Flow Dimension

This dimension is used with the Account dimension to store additional

details for reporting or use in other processing

Closing balances

Flows (e.g., opening, increase, decrease)

Details for additional information

Aging categories

Split by currencies

F_OPE	Opening balance
F_ARES	Allocation net income (loss) of prior period
F_RES	Net income (loss) of current period
F_DIV	Dividends
F_INC	Increase
F_DEC	Decrease (-)
F_DEP	Depreciation
F_IMP	Impairement
F_SUB	Subscription
F_DIS	Investments/Capital decrease (-)
F_MER	Mergers
F_REC	Reclassifications
F_VAR	Operating changes during the period
F_VST	Total Change in scope of consolidation
F_VS	Change in scope of consolidation
F_VSM	Variation in Scope : Method
F_VSP	Variation in Scope : Percentage
F_VSN	Variation in Scope : New
F_VSS	Variation in Scope : Sold
F_CTA	Translation adjustments
F_CTAO	Translation adjustments On Opening
F_CTAF	Translation adjustments on Flows
F_CLO	Closing balance
F_TOT	End of Period Movement
F_ERR	Error

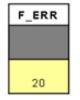
- An optional sub-assignment dimension you do not have to use flow in consolidations unless you need the sub-assignment details
  - Some customers implement using one flow (e.g., F\_CLO); others use several to support eliminations, currency translation methodologies, and reporting.
- Flow is similar in nature to movement type or transaction type in SAP ERP.
   However, BPC is delivered to handle flow structures with a single opening and closing flow.

## **A Sample Flow Approach**

- In BPC, you commonly see a dual flow setup with two equal closing flows
  - Input Closing Balance (e.g., F\_CLO)
    - All accounts have a value for this flow and it is usually used for most reporting
  - Calculated Closing Balance (e.g., F\_TOT)
    - More relevant for balance sheet accounts where movements are tracked for cash flow, footnotes, or other purposes
  - The difference between F\_CLO and F\_TOT is handled in two different ways depending on the account and its relevance to needing detailed movements
    - An error flow (F\_ERR) is calculated for those accounts with flow level details
    - A variation flow (F\_VAR) is calculated for other accounts that do not need details (e.g., cash, etc.)

	F_CLO
Cash	100
Building	100

F_OPE	F_INC	F_DEC	F_VAR	F_TOT
90			10	100
50	40	-10		100





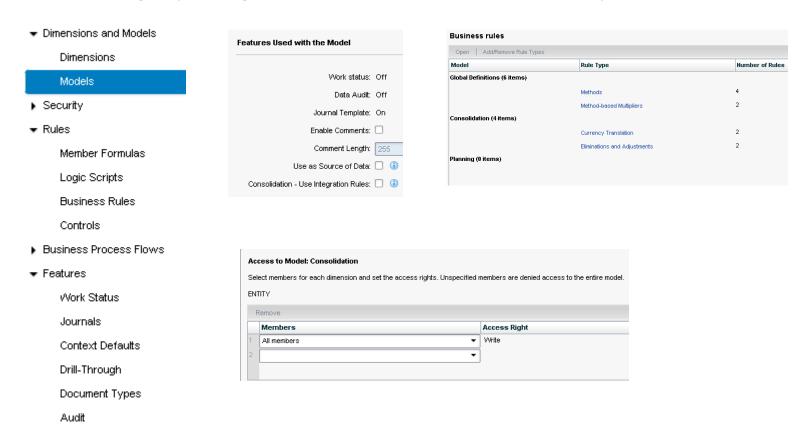
## AuditTrail (a.k.a AuditID or DataSource) Dimensions

- A user defined way to segregate the sources of data in BPC for financial reporting, processing, and audit purposes.
  - For example, all reported financial data may come in on "input" but my interunit eliminations are posted against "IC". This allows reporting on any audittrail regardless of how far the consolidation process has been processed.
    - 🕶 🦲 AuditTotal Audit Trail Total
      - ConsoJnlAdj Legal Consolidation Top Adjustments
        - CurrencyAdj Pre-consol CTA reclassification (in R currency, No Group).
        - EquityAdj Group vs Minority Post-consolidation Adjustments
      - Eliminations Intercompany Eliminations
        - Equity Group vs Minority Share Automatic Adjustments
        - IC Intercompany Eliminations
      - Input Input
      - 🔻 🦲 Journals Manual Adjustments
        - Leasing Leasing Adjustments
        - Other Other Adjustments



#### **Models**

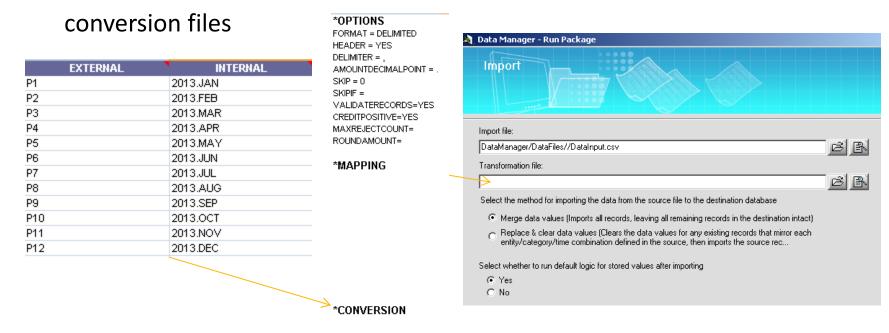
 Models hold transaction data but also have unique configuration to support the collection and processing of data (business rules, logic scripts, data manager packages, work status, member security, etc.)





## **Loading Transaction Data**

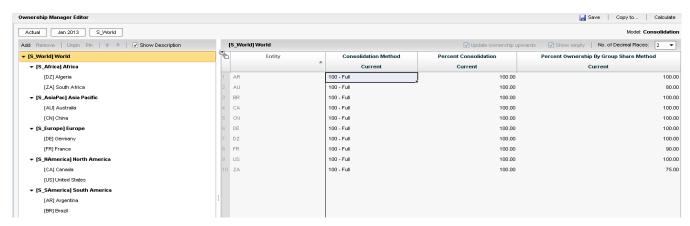
- Transaction data can be loaded to a model in many ways
  - From a BW infoprovider via a data manager package
  - From a flat file via a data manager package
  - Using input schedules
- Data manager packages can be processed using transformation and





### **Ownership Manager**

- Ownership information can be entered using the new Ownership Manager (replaces BPC7.5 Dynamic Hierarchy Editor), using an input schedule, or by loading a flat file.
  - It can also perform ultimate ownership calculations if your organization has a lot of groups where indirect ownerships would need to be calculated.
  - It graphically represents the ownership data and allows the user to manage it in an editor. This includes managing ownership/control percentages and consolidation methodologies.
  - Ownership data must be maintained for each time period (copy feature exists)





## **Consolidations Logic**

- In BPC, you can use four different types of logic:
- Worksheet Logic local worksheet calculations
- Dimension Member Formulas on the fly calculations related to dimensions
- Logic Script calculations that result in data stored in a model
- Business Rules table based logic that results in data stored in a model

• The majority of logic used in a consolidation scenario is by business rules



#### **Business Rules**

The following business rules are available:

☐ Intercompany Bookings
Currency Translation
Eliminations and Adjustments
US Eliminations
Carry-Forward
Account-based Calculations

- No custom logic script is needed for these operations. Only a standard statement to call the ABAP function to perform the calculation based on the configuration found in the business rules tables (examples can be found in the online help documentation).
  - The only standard activity that would require a logic script if used is allocations.
- Business rule calculations can be merged into other custom logic scripts.



## **Carryforward Rules**

- Used to populate opening balances
  - Run for each period during the year (consolidation is typically a YTD model)
  - Different rules can be specified for Input and Manual audit trails
- Reads automatically from last period of prior year
- Allows you to specify destination account, flow, and audit trail





#### **Account Based Calculations**

- Essentially a reclassification function
  - Reads the values under a specific combination of account/flow/audit trail,
     aggregates the values, and posts the data under an alternate combination of account/flow/audit trail
- Commonly used for report reclassifications, creation of cash flows, etc.





## **Currency Translation**

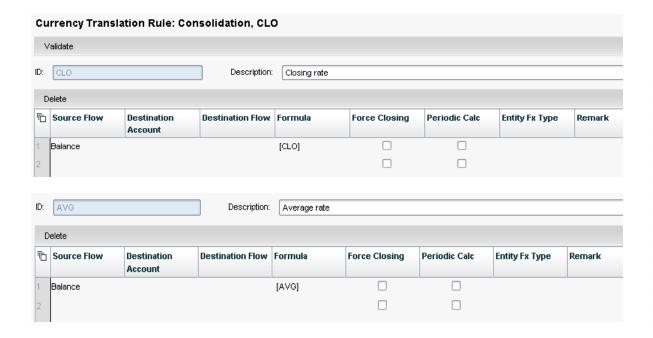
- Currency translation in BPC performs a cross-rate translation (multiplies or divides the local currency amount by the ratio between the destination/source currency rates)
- Works with a business rules table to support a translation methodology (e.g., FAS52)

Base Account	Base Flow	Per/Cum	Rate	Diff Account	Diff Flow
Non Current Assets	Opening Balance	YTD	Prior Yr Spot	Same	CTA_OB
Non Current Assets	Accumulated Depreciation	YTD	Prior Yr Spot	Same	CTA_AD
Non Current Assets	Remaining	YTD	Current	BS Diff Account	CTA_R
Other Assets, Liab, OE	All	YTD	Current	BS Diff Account	CTA_OLO
Annual Net Income	Not applicable	Period	Average	RE Account	CTA_ANI
Other P&L	Not applicable	Period	Average	RE Account	CTA_OPL



## **Currency Translation Business rules**

Translations occur only from local currency to reporting/group currency

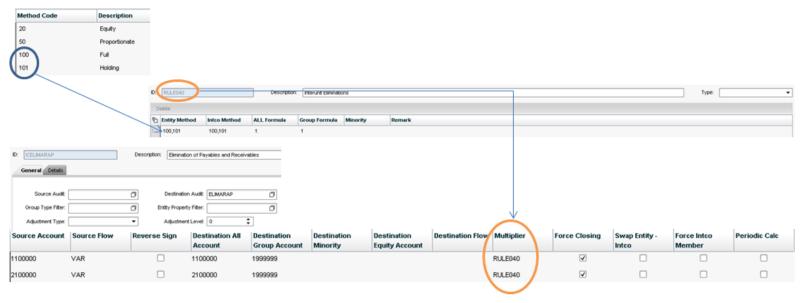


	End	Avg
Prior	1.20	718
Current	1.30	1.25
Retained	Farnings	
Retailled	LC	GC
F_OPE	1,000	1,100
F_INC	200	250
F_TOT	1,200	1,350
F_CLO	1,200	1,350
CTA		
	LC	GC
F_OPE		50
F_CTAO		150
F_CTAF		10
F_TOT		210
F_CLO		210



# Eliminations and Adjustments (Interunit Eliminations and Consolidation of Investments)

- Used only when you have an ownership model (means your ownership structure has partially owned subsidiaries)
- An environment has method based multipliers to define the various methodologies and calculations for elimination entries (you can customize). These are referenced by eliminations and adjustments table.
- Postings are made by group on the entity; not to an elimination entity.





#### **US Eliminations**

- Used only when you do not use an ownership model and full legal eliminations are not required (either you are doing a managerial scenario or your ownership structure always has wholly owned subsidiaries)
- Posts occur at the first common parent according to eliminations accounts specified in the account dimension
- Postings are to an elimination entity included in the entity hierarchy





## **Intercompany Booking**

- Intercompany booking concentrates into each entity the declarations and reported balances of all other entities versus the particular entity. This then allows business users within each reporting entity to run a report that matches all of its declarations and reported balances against the balances the rest of the entities without the need to assign to each owner readaccess into other entities.
- Usually configured in a separate model from the financial data to have different security, work status, etc. (also makes reconciliation easier)
- You can choose to just perform a reconciliation or also book differences (most customers choose not to do either in BPC)





#### **Validations**

- Two ways of validating data exist in BPC
  - Characteristic validations
  - Controls

- Characteristic validations
  - Prevent "incorrect" records from being saved (e.g., ensure that a posting to an intercompany account has a trading partner).
  - One driver dimension per model (most commonly the account dimension)
  - Configured through the SAP application server and not the BPC user interface



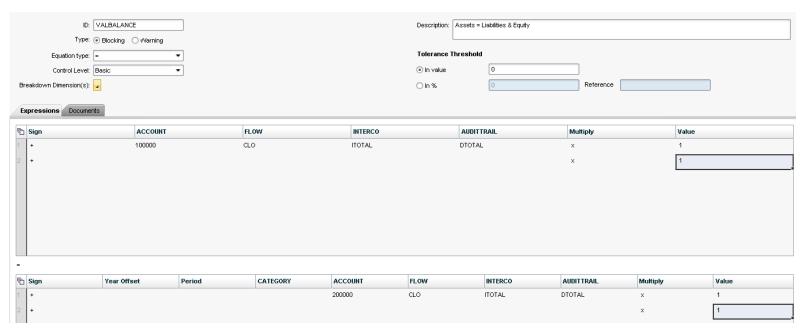
#### **Controls**

- Controls replace data validations found in BPC 7.5 NW and are run through a controls monitor instead of a data manager package
  - Validation calculations are no longer stored as transaction data
- After loading data or at subsequent points in the process, controls allow performing pre-defined checks in order to help ensure the completeness and accuracy of the data
  - Typically run after data collection or currency translation as they are only valid on pre-consolidated data of an entity; cannot run at the group levels.
  - Provides the ability using various operands to check the balance of one set of records against another set of records (e.g., does Assets = Liabilities and Equity?)
  - Validation failures can be set as warnings or errors
    - Errors prevent changing work status but they can be dismissed if needed



## Controls (2)

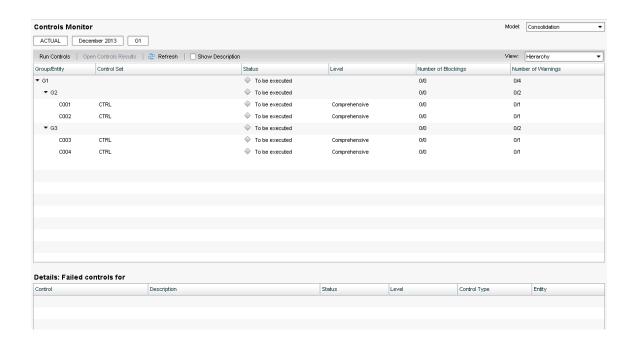
- Are linked to work status features and the ownership structure (in the case of consolidations)
  - Consolidation models are tied to group; Planning models are tied to entity
- Controls are defined in the administration console
  - Can be linked to various control levels





## Controls (3)

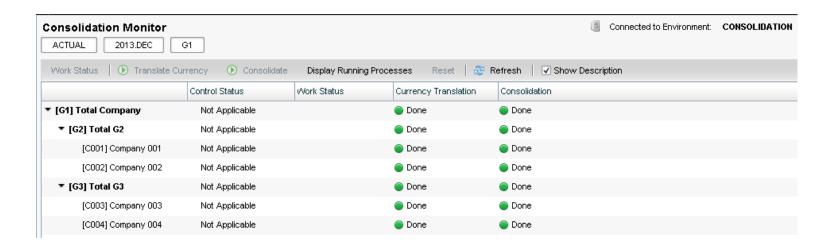
- There is a controls monitor for executing controls and tracking status
  - Shows number of blockings and warnings
  - Highlighting an entity will give details on the failed controls
  - Controls can be linked to reports for further analysis





#### **Consolidation Monitor**

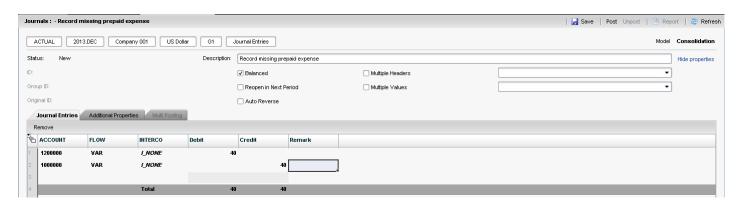
- BPC provides a consolidation monitor for tracking the status of processing.
  - Shows status of controls, currency conversions, eliminations, and work status in one view according to category, scope, and time
  - Can execute consolidations or change work status through the monitor





#### **Journal Entries**

- Every model can have one journal entry template for manual postings
  - You can restrict dimension members available for use
  - Work status can be set to lock data to only be modified via journal entries
  - Characteristic validation rules can prevent invalid entry
  - Security can define users who can administer, create, post, or un-post entries
- This the only feature in the system that has an underlying journal entry.
   Business rules and logic script do not produce anything other than totals as they are calculation driven





### Reporting

- There are many ways to report in BPC
  - BPC for Excel, Word, or Powerpoint
  - BPC web (content library and live reporting via workspaces)
  - BOBJ Integration via BICS (Dashboards, Crystal reports, Webi, Advanced Anaylzer, etc.)
- Meets all statutory, regulatory, and financial reporting requirements (e.g., GAAP, IFRS, IAS, etc) depending on how you design the reporting models



### **BPC for Excel**

- Most common way that BPC reporting is done for consolidations. Can make reports from scratch, by drag and drop, a reporting template, or integrate existing spreadsheets
- Reports are linked to the BPC database to ensure consistency and security
- Various features including:
  - Ability to use BPC functions
  - Ability to format
  - Ability to configure the layout
  - Ability to take reports offline
  - Ability to use comments

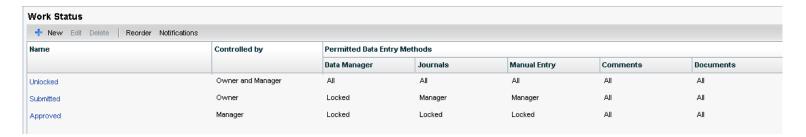
Actual Int'l Motors Corp Balance Sheet September 2006

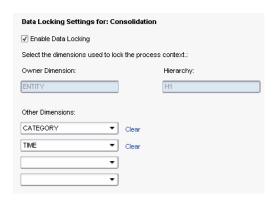
•	Comparative Balance Sheet				
	September	August		December	VARIANCE
	2006	2006	VARIANCE	2005	
Cash in Bank	75,971	74,882	1,089	78,409	(2,43)
Accounts Receivable	42,531	42,187	344	39,634	2,891
Intercompany Accounts Receivable	0	0	0	0	
Inventory	27,758	27,468	290	25,375	2,38
Total Current Assets	146,261	144,537	1,723	143,418	2,843
Property Plant & Equipment	181,001	178,440	2,561	151,560	29,44
Accumulated Depreciation	(72,396)	(71,312)	(1,084)	(60,106)	(12,290
Net Property, Plant & Equp	108,604	107,128	1,476	91,454	17,150
Investment in Subsidiary	8,363	8,363	0	8,363	(
Total Assets	263,228	260,029	3,200	243,235	19,993
Account Payable	16,274	16,440	166	15,153	(1,12)
Intercompany Accounts Payable	0	0	0	0	
Intercompany Out of Balance	0	(0)	(0)	(0)	(1
Accrued Expenses	14,016	13,948	(68)	12,721	(1,29-
Interest Payable	1,246	1,276	30	1,486	24
Short Term Portion of Long Term Debt	1,189	1,227	39	1,429	241
Other Current Liabilities	12,549	13,430	881	7,349	(5,20)
Total Current Liabilities	45,273	46,321	1,048	38,138	(7,135
Long Term Debt	31,579	32,292	713	37,334	5,75
Total Liabilites	76,852	78,613	1,761	75,472	(1,380
Common Stock	1,562	1,562	0	1,562	
Preferred Stock	3,185	3,185	0	3,185	
Additional Paid in Capital	8,183	8,183	0	8,183	
Total Capital Stock	12,929	12,929	0	12,929	0
Retained Earnings - Beginning	154,834	154,834	0	123,726	(31,10)
Current Year Net Income	17,516	11,996	(5,519)	34,678	17,16:
FX Equity Gain & Loss	1,142	1,688	546	(3,540)	(4,68)
FX CYNI Gain & Loss	(45)	(33)	13	(31)	14
Currency Translation Adjustment	1,097	1,656	559	(3,571)	(4,668
Retained Earnings - Ending	173,447	168,486	(4,961)	154,834	(18,613
Out of Balance	0	0	0	0	(0
Stockholder's Equity	186,376	181,415	(4,961)	167,763	(18,613
Total Liabilities and Equity	263,228	260,029	(3,200)	243,235	(19,993
Net Balance Sheet	(0)	0	(0)	(0)	0



#### **Work Status**

- The ability to lock data by various work states and roles exists via the work status features
  - Each model can have different dimensions for controlling work status but the environment can only have one set of work states







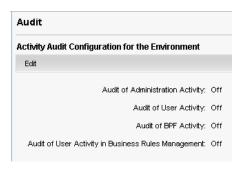
#### **Business Process Flows**

- Are guided procedures that can be set up to lead users through the business process each period
  - These are NOT workflows nothing forces users to actually use them
- Process steps can be linked to owners and reviewers
- Allow for email notifications of changes to process tasks
- The status of processes can be monitored from a process monitor



#### **Audit Features**

- The system has various audit functions that let you track changes to both configuration and transaction data
  - Activity audit lets you track configuration changes by administrators and work status changes by users



 Data audit allows you to enable audits by category for various data tasks (e.g., you can see who loaded data by method)





### **Security**

- Now linked to SAP user IDs and the SAP role authorization concept
  - No more Windows Active Directory authentications
- BPC security configuration is unchanged from BPC7.5NW
  - Users are assigned tasks and member access profiles, and can be on teams (not mandatory)
  - Teams You can set up and maintain teams of users. When you assign security to a team, the security works collectively on the team members. Teams also have unique folders for reports and input schedules
  - Task profiles Control what actions a user may perform in BPC such as execute a report or data manager package
  - Member access profiles Controls who can read from or write to any model with a secured dimension



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### **More Information**

- BPC online help <a href="http://help.sap.com/boepm">http://help.sap.com/boepm</a>
  - Contains guides and basic documentation
- SAP service marketplace <a href="http://service.sap.com">http://service.sap.com</a>
  - Notes, messages, how-to documentation
- Discussion forums like the SAP community network <a href="http://scn.sap.com">http://scn.sap.com</a>
- Training classes and seminars like the Mega Elite Training series



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- Planning vs Consolidations in BPC
- Consolidations with BPC
- More Information
- Q&A



# **Final Questions**















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