

Data Workflow and Consistency with SAP® Disclosure Management 10.0, Starter Kit for IFRS

June 2012



Copyright © 2012 SAP® BusinessObjects™. All rights reserved. SAP BusinessObjects and its logos, BusinessObjects, Crystal Reports®, SAP BusinessObjects Rapid Mart™, SAP BusinessObjects Data Insight™, SAP BusinessObjects Desktop Intelligence™, SAP BusinessObjects Rapid Marts®, SAP BusinessObjects Watchlist Security™, SAP BusinessObjects Web Intelligence®, and Xcelsius® are trademarks or registered trademarks of Business Objects, an SAP company and/or affiliated companies in the United States and/or other countries. SAP® is a registered trademark of SAP AG in Germany and/or other countries. All other names mentioned herein may be trademarks of their respective owners.
2012-04-30

Legal Disclaimer No part of this starter kit may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.
Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.
The information in this starter kit is proprietary to SAP. No part of this starter kit's content may be reproduced, copied, or transmitted in any form or for any purpose without the express prior permission of SAP AG. This starter kit is not subject to your license agreement or any other agreement with SAP. This starter kit contains only intended content, and pre-customized elements of the SAP® product and is not intended to be binding upon SAP to any particular course of business, product strategy, and/or development. Please note that this starter kit is subject to change and may be changed by SAP at any time without notice. SAP assumes no responsibility for errors or omissions in this starter kit. SAP does not warrant the accuracy or completeness of the information, text, pre-configured elements, or other items contained within this starter kit.

SAP DOES NOT PROVIDE LEGAL, FINANCIAL OR ACCOUNTING ADVISE OR SERVICES. SAP WILL NOT BE RESPONSIBLE FOR ANY NONCOMPLIANCE OR ADVERSE RESULTS AS A RESULT OF YOUR USE OR RELIANCE ON THE STARTER KIT. THIS STARTER KIT IS PROVIDED WITHOUT A WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. SAP SHALL HAVE NO LIABILITY FOR DAMAGES OF ANY KIND INCLUDING WITHOUT LIMITATION DIRECT, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES THAT MAY RESULT FROM THE USE OF THIS STARTER KIT. THIS LIMITATION SHALL NOT APPLY IN CASES OF INTENT OR GROSS NEGLIGENCE.

The statutory liability for personal injury and defective products (under German law) is not affected. SAP has no control over the use of pre-customized elements contained in this starter kit and does not endorse your use of the starter kit nor provide any warranty whatsoever relating to third-party use of the starter kit.



CONTENTS

INTRODUCTION	4
DATA WORKFLOW	5
Definitions	5
SAP Disclosure Management “integrated” with SAP consolidation	6
SAP Disclosure Management “bolt-on” with SAP consolidation	8
DATA CONSISTENCY	9
Consistency ensured in the Data Repository	9
Validation dashboard	10
XBRL instance consistency	11
Overview of the data consistency validation available in Financial Close Starter Kits	12
CONCLUSION	13

INTRODUCTION

According to Gartner® *Magic Quadrant for Corporate Performance Management Suites*¹ document, enterprise performance management (EPM) applications “require some of their output to be formatted as structured financial statements”. Therefore synchronization of data between disclosure management application and source applications – such as financial consolidation or transactional systems – is required to ensure database-level consistency across applications, including workflow approach of business processes that span applications. Moreover data consistency within the disclosure management application itself needs to be ensured.

Many researches and analysis papers focus on the decisive role of data consistency and workflow for a successful and secured processing of the “last mile of finance”. For example, in his article *Disclosure management: Streamlining the Last Mile*² Mike Willis explains that “disclosure management applications provide report-writer functionality through word processing and spreadsheet applications commonly used in manual reporting steps. However, fundamental functional differences between contemporary disclosure management applications and previous report writer applications can enable streamlining of common manual Last Mile processes:

- Disclosure management applications physically, or in some cases semantically, connect information within reports to the company report’s sources of information — consolidation applications, ERP systems, data warehouses, and a range of other information source applications. This feature empowers reporting professionals to create their own reports by mapping to information sources from a broad range of enterprise and external information sources.
- Disclosure Management applications provide discrete and reusable mapping from each information disclosure contained within a report to relevant XBRL (eXtensible Business Reporting Language) structures that enable automated production of reports in the XBRL format”.

The present document describes how SAP® Disclosure Management, Starter Kit for IFRS (International Financial Reporting Standards) has been configured to streamline the data workflow from SAP® EPM applications – SAP® Business Planning and Consolidation, SAP® Financial Consolidation – up to SAP® Disclosure Management financial reports and XBRL filing, and how the starter kit helps control data consistency throughout this process.

About SAP® Disclosure Management

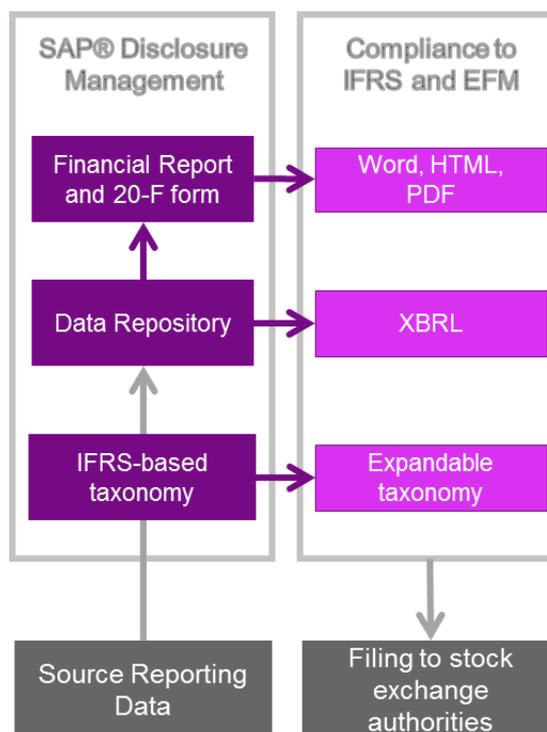
Our disclosure management software can provide you with a flexible, collaborative disclosure process across teams, geographies, systems, and data sources – so you can accelerate your close without sacrificing compliance. It comprises the following capabilities: manage the production, filing, and publication of financial and regulatory statements; automate workflows to assign responsibilities, share information, and reduce risk; foster collaboration by giving users autonomy and accountability; publish financial statements in a variety of formats, including XBRL submissions; ensure compliance with IFRS, GAAP, and other country-specific accounting standards.

¹ ©2012 Gartner, Magic Quadrant for Corporate Performance Management Suites, 19 March 2012 ID:G00219353

² ©2012 PwC, Disclosure management: Streamlining the Last Mile, March 2012

About SAP® Disclosure Management, Starter Kit for IFRS

Our starter kit for IFRS component delivers business logic for the “last mile of finance” on top of Disclosure Management. This pre-configuration assists you in setting up your application in order to publish financial and non-financial regulatory statements and notes as well as to file the corresponding data in XBRL format. The starter kit is based on the IFRS taxonomy as published on March 29th, 2012 by the IASB (International Accounting Standards Board) and includes a predefined financial report designed according to IAS 1 and IAS 7 requirements. In addition, the starter kit addresses U.S. SEC (United States Securities and Exchange Commission) requirements for Foreign Private Issuers through a pre-built 20-F form template compliant with the EFM (EDGAR® Filer Manual) rules and the IFRS Taxonomy 2012 Guide. SAP® Disclosure Management, starter kit for IFRS has been designed to maximize your time-to-value when used in combination with transactional and consolidation systems, in particular SAP® Business Planning and Consolidation and SAP® Financial Consolidation applications.



DATA WORKFLOW

SAP Disclosure Management, starter kit for IFRS can be used in combination with all types of financial consolidation applications. However, if you are using SAP consolidation software – Business Planning and Consolidation or SAP Financial Consolidation – you will get the most out of integration capabilities embedded in the starter kit. In either case data workflow has been defined to avoid any manual data replication between applications.

Definitions

According to the “integrated” approach, SAP Disclosure Management data repository is populated by directly extracting the reporting data from the source reporting system. To do so, the Microsoft Excel-based data retrieval methods for the underlying reporting application are leveraged: cell-based formulas or report definition. For example, SAP Financial Consolidation data is extracted directly into the data repository by using the CtGetData() cell-based formula of the software add-in for Microsoft Excel.

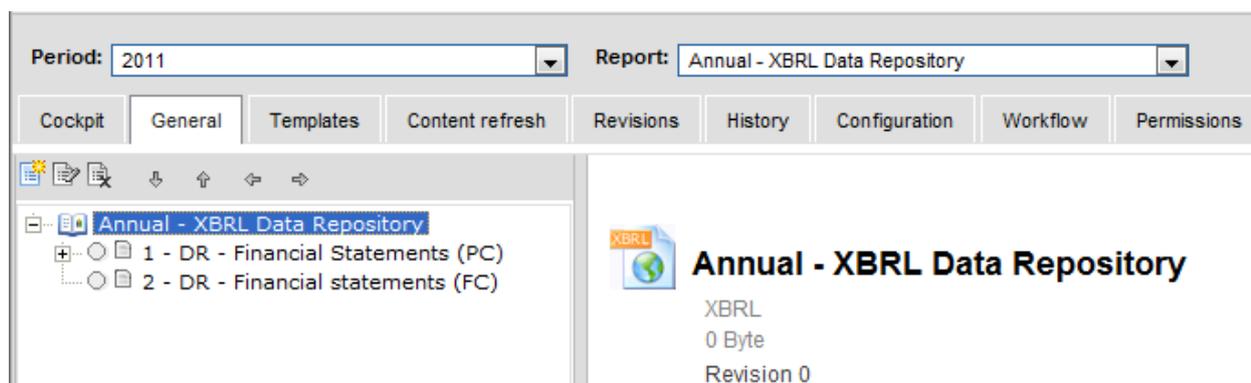
In the “bolt-on” approach, the data from the data repository is fetched from external Microsoft Excel-based reports extracted from or built for the underlying reporting application. For example, financial reports designed for SAP Business Planning and Consolidation application via the SAP EPM add-in for Microsoft Excel can be manually or automatically refreshed and stored in a Microsoft Windows file directory. They can then be used as data source for populating the SAP Disclosure Management data repository.

More information on this topic is available on the following documents: *SAP Disclosure Management, Starter Kit for IFRS Configuration Overview*¹ and *Secure Data Integration*².

SAP Disclosure Management “integrated” with SAP consolidation

This section explains how SAP Disclosure Management, starter kit for IFRS has been integrated with SAP consolidation starter kits.

When browsing SAP Disclosure Management data repository provided for the 2011 (or 2011_A) sample period of the starter kit, you can see two workbooks. You can use and adapt the one corresponding to your consolidation software, either SAP Business Planning and Consolidation (PC) or SAP Financial Consolidation (FC), and archive the other one.



If you open one workbook or the other, you will notice the three features and configuration principles that have been leveraged to fetch data from the source system: cell-based data retrieval formula, connection parameters / data source, data slice.

- Cell-based data retrieval formula

The workbooks are designed using data retrieval formulas of the underlying reporting software. SAP Business Planning and Consolidation 10.0 data is retrieved via the SAP EPM add-in for Excel; therefore the EPMRetrieveData() formula is used to pull out the consolidation amounts into the cells intended to populate the financial reports as illustrated below. The equivalent formula for SAP Financial Consolidation is GetCtData().

Formula												
f_x		=(ROUND(EPMRetrieveData(Connect_Conso, Mbr_Category, Mbr_Scope, Mbr_Currency, Mbr_AuditID, Mbr_Entity, Mbr_Interco, Mbr_FlowClo, Mbr_TimeC, \$C13)*\$F13/Scale_Disclose, 0)+K13)										
H	I	J	K	L	M	N	O	P	Q	R	S	
A119TF99	Property, plant and equipment	(3)		3,971			3,214					

- Connection parameters / data source

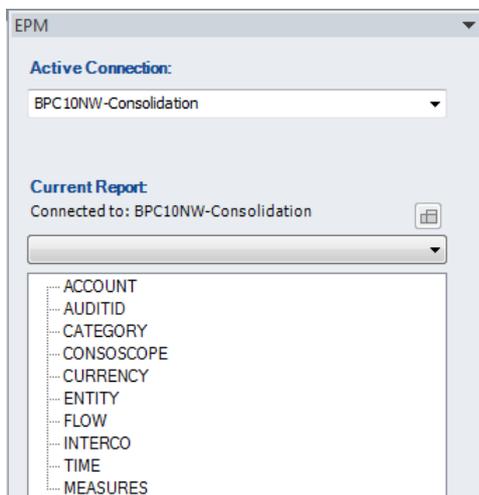
The workbook Setting tab includes a cell range where the names of connections to the useful SAP Business Planning and Consolidation applications or SAP Financial Consolidation data sources are defined.

¹ ©2012 SAP, Configuration Overview, May 2012, <http://help.sap.com/bodm#section6>

² ©2012 SAP, Data Integration, January 2012, <http://scn.sap.com/docs/DOC-20005>

B	C	D	E	F
Applications / Connections			Value	Description
	Reporting data		BPC10NW-Consolidation	Consolidation
	Ownership data		BPC10NW-Ownership	Ownership

For instance in the SAP Disclosure Management starter kit, the default name of the connection to SAP Business Planning and Consolidation starter kit for IFRS is BPC10NW-Consolidation.



- Data slice

Beside the connection and data source information, the Settings worksheet also includes a range of cells that contain the identifiers of the relevant data slices for the required financial information. Therefore SAP Disclosure Management starter kit defaults to the dimension members that correspond to the data set of the consolidation starter kits, for example ACTUAL category, CORPORATE scope or 2012.DEC as the current reporting period.

C	D	E	F
	Current Time Period	2012.DEC	
	Prior Year End	2011.DEC	

Applications / Connections	Value	Description
Reporting data	BPC10NW-Consolidation	Consolidation
Ownership data	BPC10NW-Ownership	Ownership

Dimensions		
Category	ACTUAL	Actual from GL
Consolidation Scope	CORPORATE	Corporate
Currency	EUR	Euro
AuditID	ALL_AUDITID	Total Adjusted
Entity	ALL_ENTITY	Total All Entities
Interco	I_NONE	No Intercompany
Closing flow	F99	Closing
Profit & Loss flow	PL99	Period to date
Income flow	F10	Net profit (loss) for the period
Measure	YTD	Year To Date

The dimension member names defined here are used as argument of the data retrieval formula explained above.

SAP Disclosure Management “bolt-on” with SAP consolidation

This section explains how SAP Disclosure Management, starter kit for IFRS has been bolt-on with SAP consolidation starter kits.

In addition to the “integrated” approach, you can also take a look at how the Disclosure Management starter kit leverages the “bolt-on” approach: some Excel-type data sources are defined in the starter kit in order to link the data repository with Excel-based reports created as part of the consolidation starter kits. This is the case with the data repository for the 2012 (or 2011_B) sample reporting period. If you open the corresponding workbook, you will notice the various “BD” worksheets that are automatically created and updated by SAP Disclosure Management add-in for Excel in case of a “datalinked” workbook. These worksheets are populated from the reports created as part of SAP consolidation starter kits. Not only amounts, but also members’ identifiers and descriptions are extracted from the consolidation reports posted in a dedicated directory.

	A	B	C	D
4	Income Statement			
5	CATEGORY	ACTUAL		
6	CONSOSCOPE	CORPORATE		
7	TIME	2011.DEC		
8				
9				
10			2011.DEC	2010.DEC
11				
12	P1119T	Revenues	48,657,809	37,191,209
13	P1129T	Cost of sales	-16,633,884	-12,423,504
14	P119T	Gross profit	32,023,925	24,767,705
15	P129T	Other income	32,640	33,293
16	P1310	Distribution costs	-10,397,425	-8,758,756

The first worksheets contain the financial statements intended for creating the tables in the annual report chapters. These financial statements fetch the amounts from the BD worksheets via a Microsoft Excel lookup formula based on the account identifiers of the consolidation starter kits.

EOMONTH X ✓ fx =ROUND(VLOOKUP(\$B15,'BD2'!\$A\$12:\$L\$100,MATCH(F\$10,'BD2'!\$A\$10:\$L\$10,0),FALSE)*\$A15/Scale,0)+E15

A	B	C	D	E	F	G	H	I	J	K
1										
2										
3										
4	Income Statement									
5	CATEGORY	ACTUAL								
6	CONSOSCOPE	CORPORATE								
7	TIME	2011.DEC								
8										
9										
10										
11	BLANK1									
12	BLANK2	(in thousands of €)	Note		2011.DEC Twelve Months Ended Dec 31, 2011			2010.DEC Twelve Months Ended Dec 31, 2010	Control	Control
13	BLANK3									
14	BLANK4									
15	P1119T	Revenues			=ROUND(VLOOKUP(\$B15,'BD2'!\$A\$12:\$L\$100,MATCH(F\$10,'BD2'!\$A\$10:\$L\$10,0),FALSE)*\$A15/Scale,0)+E15			37,191		
16	P1129T	Cost of sales						12,423		
17	P119T	Gross profit						24,768	0	0
18	P129T	Other income								

This way the data is dynamically extracted from consolidation reports: in case of a change in the report structure, for instance when adding one account in row or one period in column, the formula would still return the correct amount.

DATA CONSISTENCY

This section deals with data consistency in SAP Disclosure Management, starter kit for IFRS. Once the data is extracted from the reporting system – by default the SAP consolidation starter kits – into the SAP Disclosure Management data repository, you can check the data consistency for different data layers: data repository, report and XBRL instance.

Consistency ensured in the Data Repository

Wherever possible, the starter kit's workbooks of the data repository include rows and columns dedicated to check that the total amounts equal the sum of the respective breakdown, taking into account the rounding and rounding adjustments.

For example, in the Statement of Changes in Equity, where variations are broken down by row, specific rows are dedicated to compute the difference between the closing position and the sum of the opening position and variations (one row per reporting period). As for components of equity which are broken down in columns, specific columns compute the difference between the totals items and the respective breakdown: (Equity attributable to owners of parents and Total equity).

P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
apters											Control		
Treasury shares	R	Other reserves	R	Retained earnings	R	Equity attributable to owners of parent	R	Non-controlling interests	R	Total Equity	Control Equity attributable to owners of parent	Control Total Equity	
0		0		0		0		0		0	0	0	
(1,734)		32		17,312		17,203		1,778		18,981	0	0	
0	(1)	4,911		3,934		8,845		2,770		11,615	0	0	
0		0		0		1		0		1	0	0	
0		0		0		0		(187)		(187)	0	0	
744		(19)		(677)		0		0		0	0	0	
0		0		0		0		0		0	0	0	
0		0		0		0		0		0	0	0	
0		0		(77)		(77)		1,745		1,668	0	0	
744		(19)		(754)		(77)		1,745		1,668	0	0	
(372)		0		0		(372)		0		(372)	0	0	
0		0		0		0		0		0	0	0	
372		4,892		3,180		8,397		4,328		12,725	0	0	
(1,362)		4,924		20,492		25,600		6,106		31,706	0	0	
0		0		0		0		0		0	0	0	

In addition the starter kit includes a table of contents of the data repository where a column shows a summary of the data consistency. This column highlights the number of discrepancies between the totals and breakdowns by financial reports.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Table of Contents

	Errors
Document and Entity Information	-
Statement of Financial Position	0
Income Statement	0
Statement of Cash Flows	0
Statement of Comprehensive Income	0
Statement of Changes in Equity	0
Note 1: Business Combinations (817000)	0
Note 2: Intangible Assets (823180)	0
Note 3: Property, Plant and Equipment (822100)	0
Note 4: Consolidated and Separate Financial Statements (825480)	-

Validation dashboard

At report level, a validation dashboard has been configured in the starter kit through a dedicated technical chapter. This chapter is made up of two parts: the first part consists of the extract of the data repository table of contents. The second part is a summary of amounts inserted from the data repository into the various report's chapters and that should be consistent with one another.

This dashboard has been configured leveraging both the powerful floating text capabilities of SAP Disclosure Management combined with the flexible bookmark functionality of Microsoft Word. For instance, the totals for Assets and the totals for Equity & Liabilities are updated in the dashboard as shown on the face of the balance sheet. The difference is automatically computed and triggers an error message in case of a discrepancy. Similarly you can check the consistency of cash variations in the Statement of Cash Flow as well as the consistency of closing positions on the face of the balance sheet with the respective breakdown in notes (for example changes in Property, Plant and equipment).

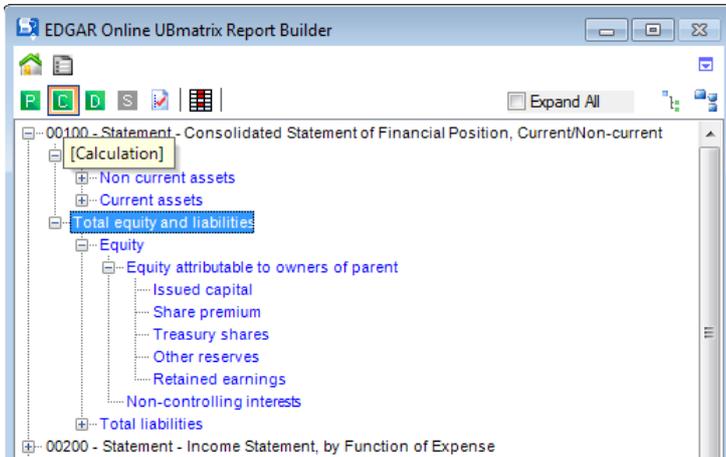
- Floating field-based controls in the report

- Cleared controls: ✓
- Controls returning errors: Error|

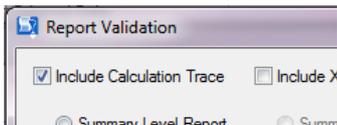
Control description	Item	Amount	Control status
Balance Sheet: Assets equals Equity and Liabilities	Assets	49,583	
	Equity and Liabilities	49,583	✓
Cash flows: Variation of cash	Cash, opening position	9,887	
	Net variation in cash	6,915	
	Cash, closing position	16,802	✓
Balance Sheet vs Notes: Goodwill	Goodwill, balance sheet	3,533	
	Goodwill, note 1	3,533	✓
Balance Sheet vs Notes: Intangible assets other than goodwill	Intangible assets other than goodwill, balance sheet	4,121	
	Intangible assets other than goodwill, note 2	4,121	✓
Balance Sheet vs Notes: Property, plant and equipment	Property, plant and equipment, balance sheet	3,971	
	Property, plant and equipment, note 3	3,971	✓

XBRL instance consistency

XBRL filing also requires checking the data consistency. A Discoverable Taxonomy Set (DTS) based on the IFRS 2012 taxonomy as published by the IFRS foundation is provided as part of the starter kit. The DTS includes a comprehensive calculation linkbase which allows you to validate the consistency of the rollup-type calculations with SAP Disclosure Management XBRL component, Report Builder.



The calculation linkbase is used by Report Builder when you activate the Calculation Trace before running the report validation, as shown below.



Then the validation window includes a dedicated tab in which you can check whether the reported fact equals the calculated value for each totaling concept. Below is a screenshot of the calculation trace for equity and liabilities based on the starter kit's data set.

Concept	Reported Value	Calculated Value	Instance	Status
Non current assets and disposal groups HFS	61000000	61,000,000	Instance	
Total equity and liabilities	49583000000	49,583,000,000	Instance	OK
Equity	31706000000	31,706,000,000	Instance	OK
Equity attributable to owners of parent	25600000000	25,600,000,000	Instance	OK
Issued capital	1226000000	1,226,000,000	Instance	
Share premium	320000000	320,000,000	Instance	
Treasury shares	1362000000	1,362,000,000	Instance	
Other reserves	4924000000	4,924,000,000	Instance	
Retained earnings	20492000000	20,492,000,000	Instance	
Non-controlling interests	6106000000	6,106,000,000	Instance	

In order to help you anticipate on possible discrepancies raised by the Report Builder validation engine, the data repository of SAP Disclosure Management starter kit for IFRS embeds specific columns including formulas based on the same calculation as the one defined in the calculation linkbase.

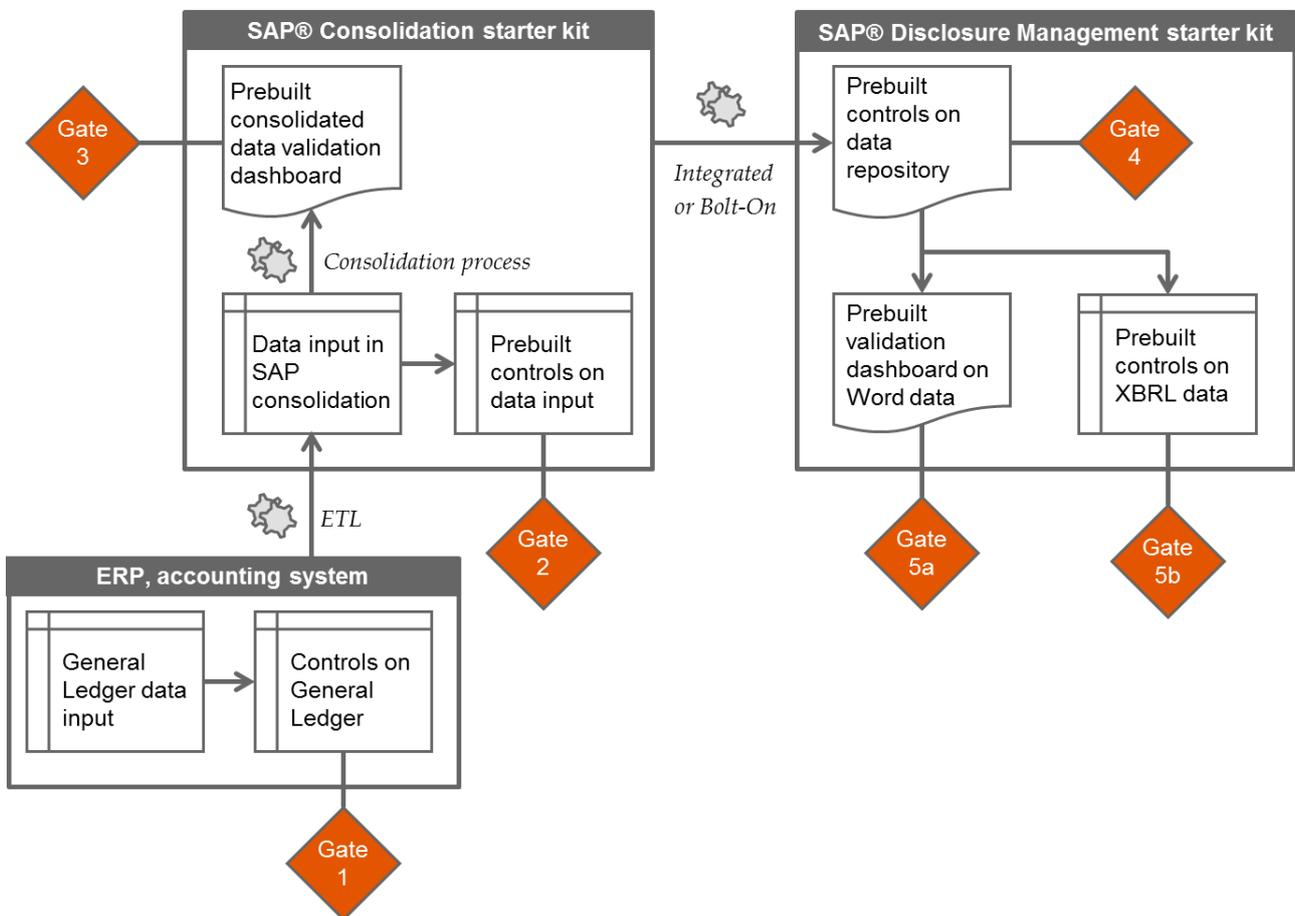
These visual controls are notably very useful to check that all rounding issues have been solved. Below is a screenshot of the predefined visual consistency checks:

	I	T	U	V	W	X	Y	Z	AA	AB
39										
40	(in millions of €)	Rv	W	Dec 31, 2012		Dec 31, 2011		Control		Control
41										
42										
43	Issued capital	1	1	1,226,000,000		1,246,000,000				
44	Share premium	1	1	320,000,000		347,000,000				
45	Treasury shares	(1)	(1)	1,362,000,000		1,734,000,000				
46	Other reserves	1	1	4,924,000,000		32,000,000				
47	Retained earnings	1	1	20,492,000,000		17,312,000,000				
48	Equity attributable to owners of parent	1	1	25,600,000,000		17,203,000,000		0		0
49	Non-controlling interests	1	1	6,106,000,000		1,778,000,000				
50	Total equity	1	1	31,706,000,000		18,981,000,000		0		0

Overview of the data consistency validation available in Financial Close Starter Kits

As explained above, the SAP Disclosure Management starter kit for IFRS has been designed to help you check the data consistency at the different steps of the data publication workflow. From a comprehensive EPM financial close perspective this configuration supplements the controls available in the SAP consolidation starter kits on the road to data quality.

The chart below gives an overview of the validation gates available for the financial close process throughout the consolidation and disclosure starter kits prebuilt data consistency controls.



CONCLUSION

One of the key requirements within IT is to ensure smooth data workflow and guarantee data consistency across applications. This is particularly true for the last mile of finance as the disclosure management application is being used at the end of the data-chain and consumes data from other sources of information within the company — consolidation applications, ERP systems, data warehouses, and a range of other information source applications.

SAP Disclosure Management, starter kit for IFRS has been designed to streamline data workflow and maximize data consistency when used in combination with transactional and consolidation systems, in particular SAP Planning and Consolidation and SAP Financial Consolidation applications.

The starter kit embeds best-practices to automatically extract data from consolidation systems, transforming and merging that data, and delivering it to integrated data structures for analytic purposes. The starter kit leverages both the “integrated” and “bolt-on” data synchronization approaches to automate and secure connectivity and access to the consolidation system; therefore no manual data replication between applications is needed and data workflow is simplified.

Moreover the starter kit contains a set of pre-defined validation gates to ensure data consistency within the SAP Disclosure Management application itself: pre-defined controls for the data repository, validation dashboard consistency check of Microsoft Office and XBRL data.

Find out more

To learn more, call your SAP representative or visit us on the Web at www.sap.com/epm and on our community network <http://scn.sap.com/blogs/financialclose.starterkits>.

For more information on SAP Disclosure Management, starter kit for IFRS, please contact:

Pierre-François Tchakedjian

SAP Enterprise Performance Management

pierre-francois.tchakedjian@sap.com

