

User Report

SAP data integration with Cont4S Integrator at Mercedes-Benz Group AG

Excel Integration with variable interface usage

Cont4S Integrator, developed by Ratiosoft GmbH, substantially reduces the effort to transfer mass data. The Cont4S Integrator Service provides ready-to-run SAP interfaces to process data through SAP AIF. Furthermore, the Cont4S Integrator Engine allows the smooth integration of MS Excel into SAP interfaces processes. Data can be posted directly from an Excel file through SAP AIF by applying both, existing as well as from Ratiosoft delivered interfaces. Beside that Cont4S Integrator Engine allows also posting through SAP standard transactions or BAPIs. Thereby SAP data quality standards are ensured. Especially in interaction with SAP AIF the necessary transparency and documentation requirements are assured.

Global standardized accounting system

The worldwide spread Mercedes-Benz Group AG production centers are subject to local requirements and specifications, which leads to a heterogeneous system landscape and isolated solutions. In order to homogenize and standardize accounting processes worldwide a SAP template (cbFC – common basic Finance and Controlling) was developed. Through various rollout- and migration projects this template was deployed among others in the US, China, Brazil and just recently Japan. The cbFC template encounters not only typical accounting data: To meet the company's requirements and to provide a consistent data basis for e.g. costing, also logistic data like goods movements or material stocks are transferred into cbFC. SAP AIF (Application Interface Framework) was established as the central interface tool.

In the production centers some of the legacy systems remained in use, others were deactivated after a successful data migration into cbFC. The effort to integrate data from systems

Ratiosoft GmbH

Ratiosoft GmbH is a SAP-consulting company based in Mannheim, Germany. Our aim is to optimize and to shape our customers future business processes by using innovative state of the art technologies. As an IT provider with international project experience in Europe, America, Asia and Africa we are supporting customized rollouts in a holistic way. Our services range from a strategic consulting through SAP implementations to staff trainings.

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that are being replaced is quite high. In previous rollouts application data was manually transferred in case the volume was low and/or the complexity was high. To cover higher volumes, inbound interfaces were developed. These were required to reduce the overall effort, to increase data quality and to shorten the cutover phase. Additionally, these interfaces should be easy to adapt to different data and source system requirements.

Cont4S Integrator

The Cont4S Integrator turned out to be the ideal solution: It not only provides ready-to-run AIF interfaces, but can also connect to existing ones. Thus, even most diverse interface requirements can be met without any coding. The Cont4S Integrator consists of the Cont4S Integrator Engine and the Cont4S Integrator Service. The Cont4S Integrator Engine includes three components: The Configuration Engine which defines the different interface layouts, the Excel Engine which generates a corresponding Excel layout sheet and finally the Posting Engine which transfers the data into SAP. This Posting Engine uses SAP standard functionalities to ensure data consistency and to apply the existing authorization concept. Thereby, a complete logging and seamless data history are guaranteed. The Posting Engine can either process the data via SAP BAPIs or CALL TRANSACTION or make use of SAP AIF interfaces. Thereby existing customer specific SAP AIF interfaces are supported. On the other hand, with the Cont4S Integrator Service, ready-to-run AIF interfaces can be delivered as per requirement to cover all substantial SAP

business objects. These out-of-the-box AIF interfaces can also be connected to the existing customer's middleware landscape.

Cont4S Integrator usage

The various production plants are using different SAP and Non-SAP systems with different data standards in their respective system landscape. To apply common accounting standards, e.g. for inventory accounting, it is required to integrate logistic data and processes into cbFC. In addition, cbFC is used as the leading invoice verification and billing system.

cbFC needed to be embedded into a highly complex environment: more than 10 locations, each with more than 50 interfaces and different source systems. Most of these interfaces are used permanently others for data migration only. The related data volume to be transferred differed - from small volumes like GL Accounts or Cost Center up to high volumes for logistical data.

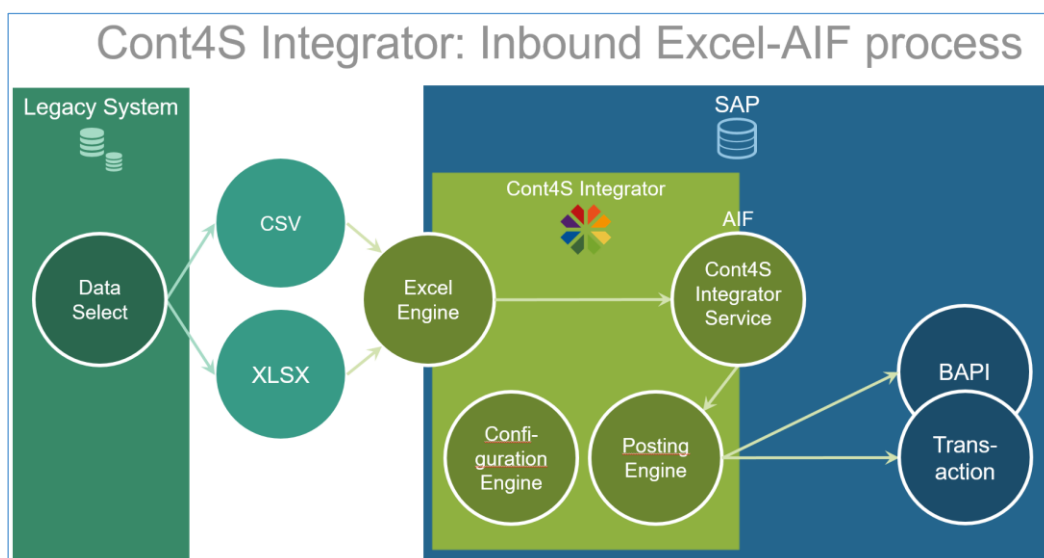


Figure 1: Cont4S Integrator Inbound Excel AIF process

Cont4S Integrator				
Generated example for an Excel worksheet to use with RatioPIN				
Application	cont4s_appl		REFX	AIF related
Worksheet type	cont4s_shttype		RE_CN_CREA	Create RE-F
*GeneralData	Company Code	Contract Type	Contract Number	Contract na
*GeneralData	COMP_CODE_EXT	CONTRACT_TYPE	CONTRACT_NUMBER_EXT	CONTRACT-
*PostingParameter	Term Number	Name of Term	Number of Frequency Units of Period	Frequency (
*PostingParameter	TERM_RHYTHM-TERM_NO	TERM_RHYTHM-TERM_TEXT	TERM_RHYTHM-FREQUENCY	TERM_RHYT
*Condition	Condition Type	Number of Frequency Term	Date from when condition is valid	Date up to v
*Condition	CONDITION-CONDITION_TYPE	CONDITION-TERM_NO_RHYTHM	CONDITION-VALID_FROM	CONDITION
*ValuationParameter	Valuation Rule	Name of Term	Interest Rate	Number of
*ValuationParameter	TERM_EVALUATION-VALUATION_RULE	TERM_EVALUATION-TERM_TEXT	TERM_EVALUATION-INTEREST_RATE	TERM_EVAL
*Term	Number of Renewals	Contract Renewed for Number of Years	Contract Renewed for Number of Months	Notification
*Term	TERM_RENEWAL_RULE-NUMBER_OF_RENEWALS	TERM_RENEWAL_RULE-RENEW_NUM_YEARS	TERM_RENEWAL_RULE-RENEW_NUM_MONTHS	TERM_RENE
GeneralData	0001	RE01	0001LANEXAMPL	Operating L
PostingParameter		10 Frequency 10		1
Condition	C100		10 01.02.2016	
	C100		10 01.01.2020	
	C600			
ValuationParameter	IFRS16	IFRS16		10,00
	CONTAX	Consumption Tax		0,00
	LOC GAAP	Local GAAP		30,00
Term		2	1	6

Abbildung 2: Cont4S Integrator Leasingvertrag

The FUSO integration in Kawasaki, Japan, for example required the transfer of more than 700.000 materials with around 300.000 material stocks and around one million purchasing documents. Here the Cont4S Integrator Service supported in various ways: From rather easy cases in which material- or vendor master data were updated, to complex cases in which purchasing documents or RE-FX leasing contracts (SAP Real Estate Flexible) were created.

Some thousand purchase orders needed to be created because their source system got deactivated after cbFC Go-Live. Due to this volume a manual creation was dropped out and a method for automated mass creation did not exist. Within one day an interface layout was defined applicable to an existing AIF interface, the respective Excel template was generated and the data transfer was tested successfully.

The required data structure, e.g. header and item data, can be defined as to the customer's needs within the Cont4S Integrator Engine. During the tests the number of interface fields was adapted to business requirements via customizing only. Finally 30 fields were transferred. Additionally the populated Excel file turned out to be a suitable basis for further discussions with the business department. The AIF integration enabled standardized and transparent monitoring and error handling. Apart from the rapid interface creation through the Cont4S Integrator, the effort to transfer the data was reduced massively.

The requirement to create the RE-FX contracts was even more complex. Beside the general contract data, the posting parameter, the conditions, the valuation parameter as well as the payment data had to be created for each contract. This led to an interface layout which is

structured into five hierarchy levels, all customized in the Cont4S Integrator Engine. Since there was no AIF interface available yet, this was delivered by the Cont4S Integrator Service. Finally, this new AIF interface and the Excel integration was not only used for data migration but also in the daily ongoing business. No development skills are required to configure the different interface layouts. Thus the business department is able to use the Cont4S Integrator, which reduces the effort for the IT department significantly.

Conclusion

In the past the data transfer had to deal with limited data quality, reduced safety measures, a high error rate and a huge effort. That fundamentally changed by use of the Cont4S Integrator. Once customized, the user is able to extract data from a source system into MS Excel, to analyse and modify the data if required, and to start an automated upload. Using MS Excel as a frontend tool leads to a high acceptance on the user side. The required Excel Add-in can be downloaded directly from the customer's SAP system. The interface dependent Excel template can be generated and downloaded from Cont4S Integrator customizing with just one click. No search procedure on corporate directories is required. All Excel functionalities like filter or data validations are available as usual.

The Cont4S Integrator is highly flexible and can be easily adapted to various customer requirements – just via customizing without any coding. It can be deployed for both, one-time migration interfaces, as well as for interfaces in day-to-day business. Additionally, it can also be used as an interface test tool or for data cleansing and correction purposes.

Within the Cont4S Integrator Service AIF interfaces can be provided for each SAP BAPI. This includes detailed field- and structure mappings as well as the related AIF posting action. These interfaces can be triggered either with data from MS Excel or from any middleware system like SAP PI.