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Guide

GUIDE TO CONFIGURE CUSTOM SD OUTPUT TYPES IN S/4 HANA USING BRF+

BRF+ is part of SAP provided decision service management tool (DSM) and it is not new in SAP. But doing output management via BRF+ is new in S/4 HANA system. Before knowing how output determination and management is done in S/4 HANA system using BRF+, we must know what is BRF+ and how it works.

What is BRF+

BRF+ is comprehensive application programming interface (API) and user interface for defining and processing business rule. It allows us to model rules in an intuitive way and to reuse these rules in different applications.

Overview of BRF+

- BRF+ function provides an interface between a business rule modelled with BRFplus and an application using that rule. The BRF+ function serves as a container for the entire business logic of a rule.
- Rules are implemented as expressions which are assigned to a function. The rule input is known as context and the rule output is called result.
- Context and result consist of data object which is called decision table, structure, decision tree.
- BRFplus supports features such as simulation, trace, transport, XML export and import.



- In order to use BRF+ with your SAP ECC system, your system must be on SAP NetWeaver 7.02 SP6 or above.

Output Management using BRF+ in S/4 HANA

The new output management process allows for extensibility and has modification free configuration.

Output management based on NAST is not available for new documents in SD Billing from S/4HANA 1511 and is extended to sales order management from S/4 HANA 1602. Similarly, output management using BRF+ is mandatory for Purchase order from S/4 HANA 1511. Documents that are migrated from legacy system that are based on NACE, can also be processed using BRF+.



Output type configuration using BRF+

Here we will learn how to configure new output type 'ZSO' for sales document using new output management process BRF+ in SAP S/4 HANA system.

Below table is list of option available in BRF+ for output management in S/4 HANA system:

Channels	Printer, Email, XML, IDOC
Supported Technology	Fiori, SAP UI5, SAP GUI
Supported Forms	Adobe Forms, Smart Forms, SAP Script
Master form template	This defines universally valid layout and features reusable parts of a Form like header, logo, footer.
Determination of form template	Form template determined with preconfigured parameters such as company, sender country, channel, language.
Output determination	All output parameters can automatically determine via configuration.
Dispatched time	Immediately or scheduled
Application log	System created log per output request instance that can be viewed by SLG1.

Import XML output determination application in BRF+

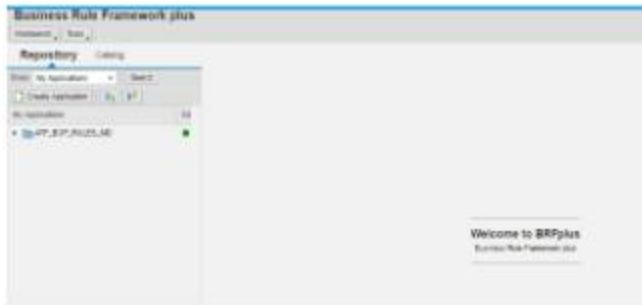
- Download XML Files to local drive from SAP note 2248229

The screenshot shows a file explorer window titled 'BRF_File_S4CORE_101SP02'. It contains a list of files with columns for Name, Date modified, Type, and Size. The files are all XML documents related to SAP output determination.

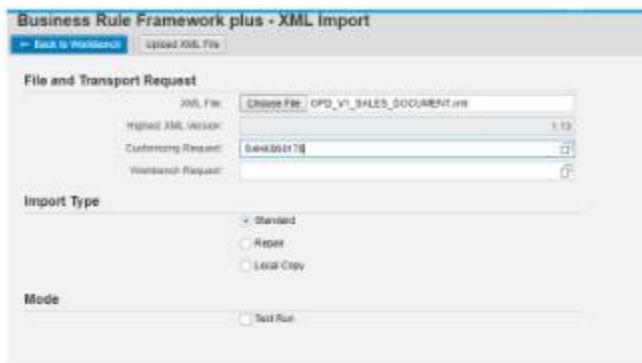
Name	Date modified	Type	Size
ORD_SF_PURCHASE_CONTRACT	22-02-2018 12:22	SAP Document	329 KB
ORD_SF_PURCHASE_ORDER	22-02-2018 12:22	SAP Document	257 KB
ORD_SF_REQUEST_FOR_QUOTATION	22-02-2018 12:22	SAP Document	212 KB
ORD_EXCISE_INVOICE	22-02-2018 12:22	SAP Document	250 KB
ORD_FFO_PAYMENT_ADVICE	22-02-2018 12:22	SAP Document	240 KB
ORD_FFO_PAYMENT_CHECK	22-02-2018 12:22	SAP Document	240 KB
ORD_FLACDDOC_ITEM	22-02-2018 12:22	SAP Document	203 KB
ORD_SMA_GOODS_MOVEMENT	22-02-2018 12:22	SAP Document	217 KB
ORD_SMA_INVENTORY_MANAGEMENT	22-02-2018 12:22	SAP Document	193 KB
ORD_SCHEDULING_AGREEMENT	22-02-2018 12:22	SAP Document	128 KB
ORD_SUPPLIER_INVOICE	22-02-2018 12:22	SAP Document	178 KB
ORD_V1_SALES_DOCUMENT	22-02-2018 12:22	SAP Document	475 KB
ORD_V1_BILLING_DOCUMENT.XML	22-02-2018 12:22	SAP Document	322 KB

Find file for different document type like Purchase order, Invoice, sales document. We can import all files or can choose as per requirement. XML file for sales document will be imported in our example.

- II. Run Transaction code BRF+ or BRFPLUS in SAP GUI. Following screen would appear with BRF+ workbench in the web browser.



- III. Click on button personalize and change user mode to EXPERT and save it.
IV. Click on tools and select option XML IMPORT.
V. Following screen would appear. Choose file for SD output type.



Click on upload XML File. Uploaded file can be viewed in repository tab.

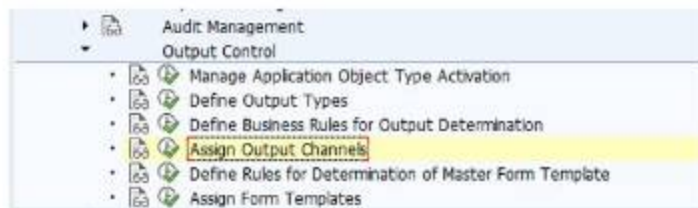
Configuration of BRF+ in SAP GUI

- I. Go to SRPO->IMG->cross application component->output control-> define output type. Create one new entry.

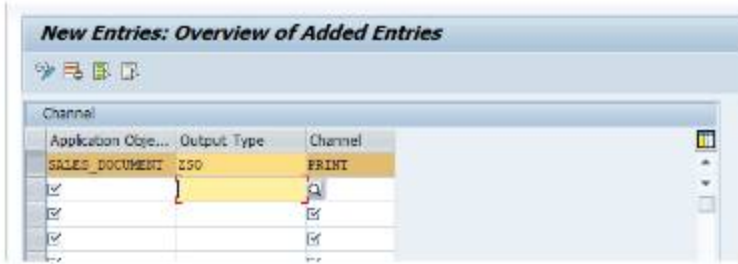


Save this.

- II. Now assign output channel to new output type.



Create new entry.



Save this. Choose Print channel to generate pool request. There are other options like Email, IDOC.

III. Now define determination of master form template.



Create new entry.

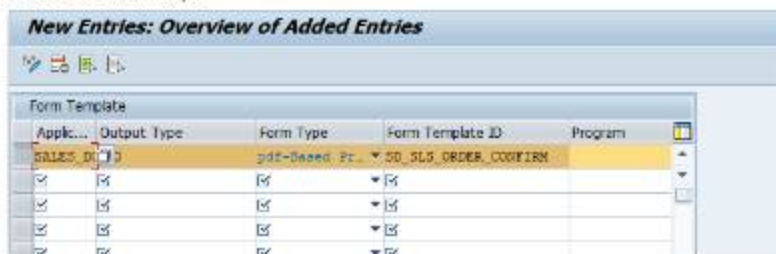


Here user can define footer, logo.

IV. Now assign form template.



Create new entry.

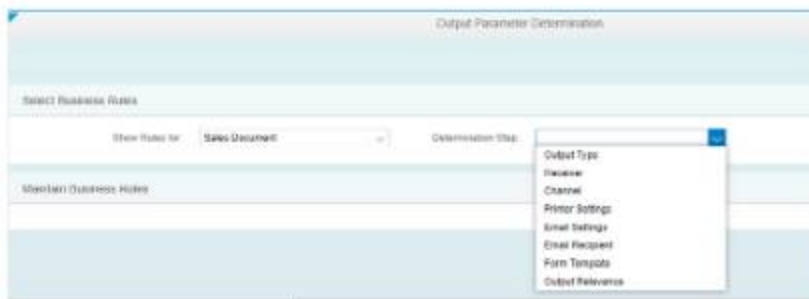


Save this.

V. Now define business rule for output determination.



It will open new window in the web browser. Different parameters for output type like receiver, channel, printer detail, print parameters, sender/receiver email address, form templates can be defined as shown below.



VI. Select output type and click on EDIT button. Create new entry for new output type ZSO and activate it.

Doc	Docum. Cat.	Doc. No.	Doc. No.	Output Type	Display
1	1	1	1	ORDER_CONFIRMATION	✓
2	2	2	2	CASH_SALE	✓
3	3	3	3	SALES_INQUIRY	✓
4	4	4	4	SALES_QUOTATION	✓
5	5	5	5	SALES_CONTRACT	✓
6	6	6	6	ORDER_NO_CHANGE	✓
7	7	7	7	CUSTOMER_RETURN	✓
8	8	8	8	ZSO	✓

VII. Select receiver. Create new entry for ZSO.

Doc	Output Type	Role	Exclude indicator
1	ORDER_CONFIRMATION	AD	✓
2	CASH_SALE	AC	✓
3	SALES_INQUIRY	AD	✓
4	SALES_QUOTATION	AD	✓
5	SALES_CONTRACT	AD	✓
6	ORDER_NO_CHANGE	AD	✓
7	CUSTOMER_RETURN	AD	✓
8	ZSO	AD	✓

VIII. Select channel. Create new entry for ZSO.

Doc	Output Type	Role	Recipient	Channel
1	ORDER_CONFIRMATION	AD		PRINT
2	CASH_SALE	AC		PRINT
3	SALES_INQUIRY	AD		PRINT
4	SALES_QUOTATION	AD		PRINT
5	SALES_CONTRACT	AD		PRINT
6	ORDER_NO_CHANGE	AD		PRINT
7	CUSTOMER_RETURN	AD		PRINT
8	ZSO	AD		PRINT

IX. Select printer settings. Create new entry for ZSO.

Output Type	Role	Recipient	Print Queue	Number of Copies
ORDER_NO_CHANGE	AD	AD	LP01	1
CUSTOMER_RETURN	AD	AD	LP01	1
ZSO	AD	AD	LP01	1

X. Select form template. Create new entry for ZSO.

Channel	Recipient Language	Sender Country	Recipient Country	Form Template
--	--	--	--	SD_SLS_ORDER_CONFIRM
--	--	--	--	SD_SLS_ORDER_CONFIRM
--	--	--	--	SD_SLS_INQUIRY
--	--	--	--	SD_SLS_INQUIRY
--	--	--	--	SD_SLS_CONTRACT
--	--	--	--	SD_SLS_ORDER_WMS_CHANGE
--	--	--	--	SD_SLS_CUSTOMER_RETURN
--	--	--	--	SD_SLS_ORDER_CONFIRM

XI. Select output relevance. Create new entry ZSO.

Output Type	Output Status	Header Data	Characteristics	Delivery Mode
SD_SLS_ORDER_CONFIRM	RELEVANT		customer-rel. only '01'	standard
SD_SLS_CUSTOMER_RETURN	RELEVANT		customer-rel. only '01'	standard
ZSO	RELEVANT			standard

BRF+ configuration is now complete. We can check our new output type

Testing of ZSO Output

Execute Transaction code VA01 to create a sales order. Display the sales order using Transaction code VA03. 2 output types can be seen in the Sales order. One is SAP standard and other is custom output type.

ID	Status	IL...	Output Type	IL... Review	Channel	Coun...	Lang...	Form Template
1	Completed	1	ORDERS_CONFIRMATION	AG 31110011	PRINT	DE	DE	SD_SLS_ORDERS_CONFIRM
2	In Preparation	1	ZSO	AG 31110011	PRINT	DE	DE	SD_SLS_ORDER_CONFIRM

Select 2nd row and click on display detail button and define output device.

Display Sales Document: Output

Document 000000217 (See Output To)

Output

Output Type	ZSO	Z Sales Document
Sender	1710	Dom. Sales Org US (Sales Organization)
Sender Country	US	USA
Role	AG	
Recipient	USCU_S08	Velocity Cycles
Form Template	SD_SLS_ORDER_CONFIRM	Sales Order Confirmation PDF Output
Form Country	US	USA
Form Language	EN	English
Channel	PRINT	Printout
Status	1	In Preparation
Changed On	03/06/2018 03:35:06	

Channel Details: Print

Number of Copies:

Print Queue:

Now go back and click on button send output



Is NAST no more in S/4 HANA

As per Note 2228611 – output management in SAP S/4 HANA.

'The new output management is going to be the successor of all other output management frameworks (SD Output Control, FI Correspondence, FI-CA Print Workbench, CRM Post-Processing). However, all other frameworks are still available and can be used. It is not mandatory to use the new output management. Via using SAP note or implementing enhancement point user can disable/enable other supported

Limitation of BRF+

There is some limitation using BRF+:

- IDocs
- IDocs are not fully supported by the new output management. Their use is restricted to business applications that previously used NAST.
 - Only output types which can be mapped 1:1 to the NAST-KSCHL can use IDoc.
 - Only business partner-based communication is supported, but no communication to logical systems
 - No ALE support

Conversion from NAST Output to BRF+

Considering the conversion of an existing SAP ECC system to SAP S/4HANA, there cannot be one generic approach to cover the conversion of all Output Management frameworks.

Therefore, the recommendation is not to carry out a conversion, but to establish a coexistence of old and new output management.

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