

Description of the SAP Interface

The interface generated to the connector follows the SAP ABAP conventions. All specifications described below are generated to the SAP connector automatically, though you can create them manually if needed.

Each SAP ABAP function has four parameter sections:

- import (input)
- export (output)
- changing (input/output)
- tables (input/output)

These parameters are mapped to the input and output parameters of the SAP adapter:

Name	Type	Direction	Description
connectionString	String	in	Supplies the connection string (optional).
import	Any	in	The class specifying the type of this parameter must have stereotype SAP Parameters . The attributes and associations of this class correspond to the parameters given by the import section of the ABAP function declaration.
export	Any	out	The class specifying the type of this parameter must have stereotype SAP Parameters . The attributes and associations of this class correspond to the parameters given by the export section of the ABAP function declaration (see the export parameters in SAP).
changing	Any	in/out	The class specifying the type of this parameter must have stereotype SAP Parameters . The attributes and associations of this class correspond to the parameters given by the changing section of the ABAP function declaration.
tables	Any	in/out	The class specifying the type of this parameter must have stereotype SAP Tables . The attributes and associations of this class correspond to the parameters given by the tables section of the ABAP function declaration.

On this Page:

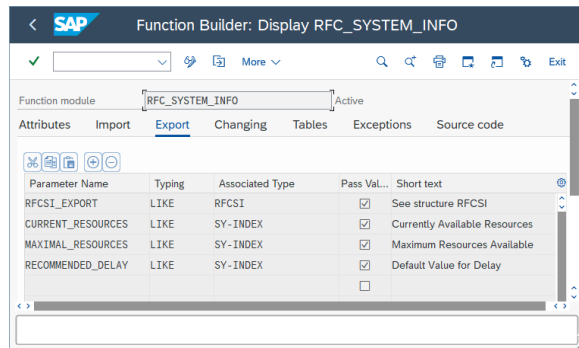
- [SAP Parameters](#)

Related Pages:

- [RFC Communication](#)
- [Description of the SAP Interface](#)
- [Native SAP - ABAP - xUML Base Type Mappings](#)
- [SAP Adapter Performance Considerations](#)
- [SAP Adapter Troubleshooting](#)
- [SAP Adapter Reference](#)
- [Native SAP - ABAP - xUML Base Type Mappings](#)

SAP Parameters

You need dedicated classes describing the interface of the RFC and the parameters. When calling for example the **RFC_SYSTEM_INFO** function, we need a set of **export** (output) parameters defined as properties on a dedicated class **Export**.



To specify the type mapping (see also [SAP - ABAP Types Mappings](#)), each property needs to have the stereotypes **SAPIDocAttribute** and **XMLElement**, that can have the following stereotype attributes:

Attribute	Description	Mandatory
nativeType	Specify the native ABAP type. For allowed types and valid internal /native type combinations see appendix beneath.	mandatory
internalLength	Specify the parameter length as given in the ABAP dictionary (except for FLT, INT, DATS, TIMS).	mandatory
decimals	Specify the number of decimals if there are any.	mandatory for native type DEC



In any case, the upper multiplicity of the properties or associations must NOT be greater than one. Otherwise, the classes cannot be mapped to SAP parameters and SAP tables should be used instead.

So, for the **RFC_SYSTEM_INFO** example, the structure would look like the following:

RFC_SYSTEM_INFO Example		Stereotype	Stereotype Attributes
	SAP		
	Interfaces		
		RFCPort_RFC_SYSTEM_INFO	SAPRFCModuleInterface
		RFC_SYSTEM_INFO	SOAPRPCOperation
		out export : Export	
	Types		
		Export	SAPPParameters
		CURRENT_RESOURCES : Integer	
		MAXIMAL_RESOURCES : Integer	
		RECOMMENDED_DELAY : Integer	
		RFCSI_EXPORT : RFCSI	
		RFCSI	SAPStructure
		RFCHARTYPE : String	SAPIDocAttribute
			- nativeType = CHAR - internalLength = 4
			XMLElement
			order = 2
		RFCDATABS : String	SAPIDocAttribute
			- nativeType = CHAR - internalLength = 8
			XMLElement
			order = 8
	...	...	...

The listed **order** attribute of the property derives from the order in the SAP data structure RFCSI.

SAP Dictionary: Display Structure					
Structure: RFCSI Active					
Short Description: RFC System Information (See RFC_SYSTEM_INFO Function Module)					
Attributes Components Entry help/check Currency/quantity fields					
1 / 20					
Component	Typing Method	Component Type	Data Type	Length	Short Description
☐ RECPROTO	Types	RECPROTO	CHAR	3	0 RFC Protocol Version
☒ RFCHARTYP	Types	RFCHARTYP	CHAR	4	0 Character set (SAP name)
☐ RECINTTYP	Types	RECINTTYP	CHAR	3	0 Integer format (1 / 2 = little / big endian)
☐ RECFLTYP	Types	RECFLTYP	CHAR	3	0 Floating point format (1=IEEE, 2=IBM/370 fo
☐ RFCDEST	Types	RFCDDEST	CHAR	32	0 Logical Destination (Specified in Function Cal
☐ RFCHOST	Types	RFCHCHARRB	CHAR	8	0 RFCHCHARRB
☐ RFCSYSID	Types	SYSYSID	CHAR	8	0 Name of the SAP System
☒ RFCDATABS	Types	SYSYSID	CHAR	8	0 Name of the SAP System
☐ RECDHOST	Types	RECDHOST	CHAR	32	0 Database host name
☐ RECDDBSYS	Types	SYSDBSYS	CHAR	10	0 Central Database System
☐ RECSAPPL	Types	SYSAPPL	CHAR	4	0 Release Status of SAP System
☐ RECMACH	Types	RFOMACH	CHAR	5	0 RFC: SAP machine ID
☐ RECOPOSYS	Types	SYSPOSYS	CHAR	10	0 Operating System of Application Server
☐ RECTZONE	Types	RECTZONE	CHAR	6	0 Time zone (difference from UTC in seconds)
☐ RECDAYST	Types	SYSDAYST	CHAR	1	0 Daylight Saving Time Selection
☐ RECPADDR	Types	RFCLPADDR	CHAR	15	0 IP Address
☐ RECKERNBL	Types	SYSERNBL	CHAR	4	0 Kernel Release
☐ RECHOST2	Types	SYSOST	CHAR	32	0 Name of Current Application Server
☐ RFCSI_RESV	Types	RFCSI_RESV	CHAR	12	0 Reserve field in RFCSI

The SAP types yet supported are listed on [Native SAP - ABAP - xUML Base Type Mappings](#). Each SAP native type is mapped to an xUML base type. Because SAP types are sometimes restricted in their length and number of decimals, use stereotype attributes to transport this meta information as shown in the table above.

For details on the native type definitions, refer to the SAP documentation.