SAPEX Installation from Transport Request



SAP Server Requirements

To analyze ABAP code with the Kiuwan Solutions, the source code and the information from the SAP system need to be exported before they can be analyzed.

The SAP Extractor (SAPEX) for Kiuwan performs these tasks.

NOTE: SAPEX is expected to run in any **SAP NetWeaver 7.4+** platform. Read below how to learn which version you are using.

Contact Kiuwan Technical Support Kiuwan Support if you have a previous platform version.

How to know the SAP NetWeaver version

- 1. Log on to the system using SAPGUI
- 2. On the main menu, choose System > Status...
- 3. In the System: Status window you'll see a section in the middle-right called SAP System data
- Click the icon next to Product version to show the details of all the components installed on your system

🔄 System: Status						
Usage data						
Client 001		Prev	rious logon	22.02.2017	22:04:35	
User DEVELO	PER	Log	on		22:04:10	
Language EN		Syst	em time		22:13:48	
Number of Failed Passwo	ord Logon Attem	npts:	0			
SAP data						
Repository data		(SAP System data			
Transaction	SESSION_M	ANA	Product Version	SAP NET	WEAVER	
Program (screen)	SAPLSMTR_N	VAV				
Screen number	100		Installation Number	DEMOSYS	DEMOSYSTEM	
Program (GUI)	SAPLSMTR_N	VAV	License Expires On 22.0		017	
GUI status	SESSION_AL	DMIN	Unicode System	Yes		
Host data			Database data			
Operating system	Linux		Database System	SYBASE		
Machine type	x86_64		Release	16.0.0	2.02	
Server name	vhcalnplci	NPL.	Name	NPL		
Platform ID	390		Host	vhcaln	plci	
			Owner	SAPSR3		
				Navi	gate 🛛 🚽 🕽	

5. Look for **SAP BASIS**

- a. **Release** = major release version of NetWeaver
 - b. **SP-Level** = installed support pack

로 Installed Software 🛛 🗙									
Installed Software Component Versions									
) (1) (1) (1)								
Component	Release	SP-Level	Support Package	Short Description of Component					
SAP_BASIS	750	0002	SAPK-75002INSAPBASIS	SAP Basis Component					
SAP_ABA	750	0002	SAPK-75002INSAPABA	Cross-Application Component					
SAP_GWFND	750	0002	SAPK-75002INSAPGWFND	SAP Gateway Foundation					
SAP_UI	750	0002	SAPK-75002INSAPUI	User Interface Technology					
ST-PI	740	0001	SAPK-74001INSTPI	SAP Solution Tools Plug-In					
BI_CONT	757	0007	SAPK-75707INBICONT	Business Intelligence Content					
SAP_BW	750	0002	SAPK-75002INSAPBW	SAP Business Warehouse					
DMIS	2011_1_731	0010	SAPK-11610INDMIS	DMIS 2011_1					
]				

What permissions are needed to run SAPEX in SAP

Depending on your use of SAPEX (Remote or Local) the permissions are different.

Remote usage of SAPEX means that the SAPEX functionality is executed within an external system. This means that you will use KLA to remotely connect to the SAP Server to extract the code and analyse it. In this remote scenario, the SAP Server acts as a pure server host. It provides the needed APB source files for KLA to analyze. Therefore, KLA will use an SAP user to connect to the SAP server to extract the code (i.e. to invoke the SAPEX RFCs).

In a **Local** usage of SAPEX, you will need to configure a SAP user with permissions to run the code extraction and execute the SAPEX programs.

Common permissions for both (Local and Remote) usage

Regardless of local vs remote usage, there are some common permissions the SAPEX user needs to be granted:

- Object : S_DATASET
 - ACTVT = 06, 33, 34
 - FILENAME = DIR_HOME/sape4k/*
 - Note: if you configure the SAP instance to be balanced to a group of SAP servers, you will need to configure this permission in every SAP server (because DIR_HOME will be different for every SAP instance)
- Object : S_LOG_COM
 - COMMAND = 'ZKW_MKDIR', 'ZKW_RMDIR'
 - OPSYSTEM = Operating System type (SY-OPSYS system variable) established for SM69 commands (for example, Linux, UNIX, ANYOS, Windows NT, etc...)
 - HOST = SAP server where above commands will be executed ("*" or SY-HOST system variable, recommended *)
- Object : S_RZL_ADM
 - ACTVT = 03
 - ° Needed to remove export temporary directories of SAP server

Permissions for Remote usage

For SAPEX remote usage, SAP user must be type B (system) .

A type B user with above privileges should also be granted the following authorizations:

- Object : S_RFC
 - ACTVT = 16
 - RFC_TYPE = 'FUGR'
 - RFC_NAME = 'ZKW_SAPEX_FG', 'SYST',' RFC1',' SDIFRUNTIME'

The above permissions as displayed in SAP:

Cross-application Authorizatio	in Objects AAAB	
🗠 🗠 💭 🧟 Manually Authorization Check for	BFC Access 8_BFC	
m COM 🖉 Manually Authorization Check	for RFC Access	
4. Activity dy Name (Whitelist) of NFC object dy Type of RFC object to which ac	16 ACTVT NTCL, SDIFRUNTINE, SYST, IEN_SAPEX_FG NAME F06R RFC_TYPE	
D COM Manually Basis: Administration	BC_A	
	access 5_DATASET	
-Do COM S Nanually Authorization for s	tile access	
dy Activity dy Physical file name dy Program Name with Search Help	06, 33, 34 ACTIV /a ' /vet//work/sape4k/* FILINDAM 10000AM	
- m COB 🧟 Nanually Authorization to Execut	e Logical Operating System Commands 5_LOG_COM	
-Do COM S Nanually Authorization to Ex	ecute Logical Operating System Commands	
dy Name of Logical Command dy Application Server dy Operating System of Applicatio	ZRW_MKDIR, ZRW_RMDIR COMMAND * NOT * OPTITE	1
m COB 🧟 Manually COMS: System Administra	tion 5_RIL_ADM	
-Do COM S Manually CONS: System Admini	stration	
& Activity	03 ACTVT	

Permissions for Local usage

In a Local scenario, SAP user must be type A (dialog).

Besides the common authorizations (above explained), this SAP user must also have next ones:

- Object : S_TCODE
 - To execute SAPEX transactions :
 - ZKW_COD,
 - ZKW_MET
 - ZKW_ANA
- Object : S_PROGRAM
 - ° To execute ABAP programs through SA38 :
 - ZKW_SAPEX_CODE
 - ZKW_SAPEX_METADATA
 - ZKW_ANALYSIS
 - ZKW_ANALYSIS_TO

Distribution of SAPEX as a Transport Request



How to import the SAPEX Transport Request

In this section, we will import the Transport Request for SAPEX that is included in your Kiuwan Local Analyzer distribution.

1. Get the Transport Request files

Find the **Transport Request** as a zip file (**sapex_transport.zip**) in the \$(AGENT_HOME)/resourc es/abap directory of your Kiuwan Local Analyzer installation.

Unzip the file into your local system. This will extract two files :

- a data-file: R900039.NPL
- a co-file: K900039.NPL

Please note that the last 3 digits of the transport numbers might be different in the most recent versions.

2. Copy the Transport Request files to your SAP System

Next, you need to copy the extracted co-file and data-file to your SAP System.

- K900039.NPL to your /usr/sap/trans/cofiles directory
- R900039.NPL to your /usr/sap/trans/data directory

Please note that destination directories are for a unix sap system. In case of a SAP Windows system, it typically is <drive>:\usr\sap\trans

If you have direct access to your SAP system, you can copy them directly.

Otherwise, execute **SE37** and execute the **ARCHIVFILE_CLIENT_TO_SERVER** function. Click on Test /Execute



Then select the files you want to import (in your local machine) and the target path (in the SAP server), check **Uppercase/Lowercase** and **Execute** it.

E Eunction modules Edit Goto	Utilities System Help	i x
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Test Function Module: Ini	itial Screen	
💿 🕸 Debugging 🛛 Test data dir	ectory	
Tes Execute (F8) on group OPTA Function module ABCR Uppercase/Lowercase	IVFILE_CLIENT_TO_SERVER	÷
Import parameters	Value	
PATH TARGETPATH	D:\D_LGV_SAP\vm_test_ot\N900039.NPL /usr/sap/trans/cofiles/K900039.NPL	
		33
		-
		*

In order to confirm the copy, you can use AL11 to check the transfer was done to the correct places.

Execute it and double click on the DIR_TRANS row.

SAP Directories (23.	02.2017 02:17:58 NPL vhcalnplci)	
9 16 🦻 🛎 🐺 🖓 🖧		
Name of Directory Parameter	Directory	
DIR_EXECUTABLE	/usr/sap/NPL/D00/exe	-
DIR_EXE_ROOT	/usr/sap/NPL/SYS/exe	
DIR_GEN	/usr/sap/NPL/SYS/exe/dbg	
DIR_GEN_ROOT	/usr/sap/NPL/SYS/gen	
DIR_GLOBAL	/usr/sap/NPL/SYS/global	
DIR_GRAPH_EXE	/usr/sap/NPL/D00/exe	
DIR_GRAPH_LIB	/usr/sap/NPL/D00/exe	
DIR_HOME	/usr/sap/NPL/D00/work	
DIR_INSTALL	/usr/sap/NPL/SYS	
DIR_INSTANCE	/usr/sap/NPL/D00	
DIR_LIBRARY	/usr/sap/NPL/D00/exe	
DIR_LOGGING	/usr/sap/NPL/D00/log	
DIR_MEMORY_INSPECTOR	/usr/sap/NPL/D00/data	
DIR_PAGING	/usr/sap/NPL/D00/data	
DIR_PERF	/usr/sap/tmp	
DIR_PROFILE	/usr/sap/NPL/SYS/profile	
DIR_PUT	/usr/sap/put	
DIR_REORG	/usr/sap/NPL/D00/data	
DIR_RSYN	/usr/sap/NPL/D00/exe	
DIR_SAPHOSTAGENT	/usr/sap/hostctrl	
DIR_SAPUSERS		
DIR_SETUPS	/usr/sap/NPL/SYS/profile	
DIR_SORTTMP	/usr/sap/NPL/D00/data	
DIR_SOURCE	/usr/sap/NPL/SYS/src	
DIR_TEMP	/tmp	
DIR_TRANS	Jusr/sap/trans	1
4 1 1 (

For **cofiles**, you should see something like the below image. Similarly to **data** directory.



3. Import the Transport Request files

Next, the SAPEX Transport Request must be imported into your SAP system

Execute STMS and click on Import Overview



Then you will see your Import Queue(s).

🕼 Jmport Queue Edit. Goto Extras Environment System Help			
✓			
Import Overview: Domain DOMAIN_NPL			
🔁 🖆 🛷 । 🛫 🛲 🔔 👔 🖺 🔝			
🞇 Number of import queues: 1	22.02.20	17 23:37:53	÷
Queue Description	Requests	Status	
NPL 🗓 NPL Local	0	5	
			88
			÷
SAP			٩

Double-click on the queue and you will see the requests for that queue.

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Impor	t Queu	e: Syst	em NPL		
3 = 7	7 4, Q	V 🕫 🛛	&r 🗈 🗾 🎭	G A 🖊 🐺 🖾 🖾 🖉 🖉 🕼	ii 🙎
Reque	sts for 1	NPL: 0			22.02.2017 23:37:53
Uumbar	Partiant	* PC	Omer	Short Tart	C+
Terroret	Request		OWNER	SHOLE TEXE	50
Import (queue is	empty			

Now, you should add the SAPEX Transport Request (Extras > Other Requests > Add)

🖻 Queue	<u>E</u> dit <u>G</u> oto	Bequ	est Extras I	Environment	System Help Ctrl+Shift+F4		
Impor	t Oueue: S	veten	Persona Other B	I Settings	Ctrl+Shift+F12	> Add	1
a	• • • •	y sten	Activat	e Inactive Re	quests	Find in Other Groups	ł
2 = 1		a ∎ 08′	Delete	Imported Re	quests		ł
Reque:	sts for NPL:	0				22.02.2017 23:37:53	
Number	Request	RC	Owner	Short Te	xt	St	
Import (gueue is empt	v i					
							J
						*	
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Click Transp. Request to see available Transport Requests:

🔄 Add Transport Request to Import Queue					
Transp. Request					
Import Queue	NPL	NPL Local			
Import Again					

Select it

Transport requests (3)	1 Entry found	X
Restrictions		
	.	
Request/Task		
NPLK900039		
1 Entry found		

Click Yes.

By Queue Edt Goto Request Extras Envyronment System Help	×
Import Queue: System NPL	
2 4 7 9, 9, 7 4 & D 7 5, 0 A 5, 0 B 2 1 1 1 1 1 1 1 1	
Requests for NFL: 0 22.02.2017 23:37:53	÷
Number Request RC Owner Short Text St T27 Add Transport Request X	t .
Transport queue 18 empty Transport Request NPLK900039 to import queue NPL ?	
Ves No X Cancel	
	-
	4

Then you will see the SAPEX Transport Request, select it and click Import Request.



Select the **Options** tab as below.

🔄 Import Transport R	Request		
Transport Request Target System Target Client	NPLK900039 NPL 001	sfdsfs NPL Local Targ.Client=Source Client	
Import Options Leave Transport Import Transport Overwrite Origina Overwrite Object Ignore invalid tat Skip predecessor Ignore Invalid Co	Request in Qu t Request Agai als ts in Unconfirm nsport type le class relationships mponent Vers	eue for Later Import n ned Repairs	

P Queue	<u>E</u> dit <u>G</u> oto	Req	quest Extr <u>a</u> s I	ingronment System <u>H</u> elp		/
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Import	t Queue: S	yste	m NPL			
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뵺 Reques	ts for NPL:	1			23.02.2017 03:02:58	Ť
Number	Request	RC	Owner	Short Text	St	
1	NFLK900039		DEVELOPER	sfdsfs		
						÷
				SAP		4

Once the import process is finished, you can check it using **SE09**.



Use **Object Navigator** (**SE80**). You will see SAPEX installed on your SAP System.

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 [•] 	1 🗟 1 🔕 🔕 😡 1 🖨 🕅 🕅 1	212215215210) 💻
Object Navigator			
🗇 🔿 差 🚺 📫 Edit Object			
MIME Repository			
Repository Browser			- Welco
Repository Information System			
Package			
ZKW_SAPEX	× 🔻 63°		
VA			
Object Name	Description		
ZKW_SAPEX	Kiuwan SAP Extr	actor	
Class Library			
Function Groups			
 Transactions 			
Enhancements			
	< >		()

4. Create OS Commands (ZKW_MKDIR and ZKW_RMDIR)

After importing SAPEX Transport Request, you must create **OS commands** (ZKW_MKDIR and ZKW_RMDIR)

To do this, follow the instructions on Create OS commands (ZKW_MKDIR and ZKW_RMDIR)

Additional steps for local execution

5. Create OS command to launch the analysis (ZKW_KLA_AGENT)

If you decide on a local scenario, you must create an OS command (ZKW_KLA_AGENT)

To do this, follow the instructions on Create OS command to launch the analysis (ZKW_KLA_AGENT)