

Integrating SAP® Financial Supply Chain Management

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Objectives

This guide gives step-by-step instructions for integrating FIX Agora into SAP® Financial Supply Chain Management. The paper starts with the installation of the SAP® Java Connector and describes the configuration of SAP Trade Capture Export to work with a SAP® IDES ECC 6.0 installation.

About FIX Agora

FIX Agora is a peer-to-peer OTC trading network for financial institutions with an integrated order management system. The application can act as buy side and sell side. FIX Agora supports indicative quoting and processing of order requests. It is equipped with multiuser spreadsheets for price calculations as market maker.

FIX Agora ships with the option for exporting trade reports into Excel® sheets and SAP® Financial Supply Chain Management (requires SAP® JCO). The application is client/server based, modular and extensible.



FIX Agora is working with the Financial Information eXchange ("FIX") protocol. The FIX protocol is an industry driven standard for the electronic communication of trade related messages, released and maintained by FIX Protocol, Ltd.

FIX Agora is a 100% Java open source implementation running on Windows, Linux/UNIX and Mac OS (client only). It requires Oracle® JRE version of 1.6 or higher.

This software is published under the GNU Lesser General Public License, Version 2.1 (LGPLv2.1).

Download and Installation

Download the version of SAP Java Connector that fits to your operating system from:

http://service.sap.com/connectors

The Java Connector is required by server to interact with the SAP System. The library sapjco.jar must be located in the folder:

fixagora-server/extlib

The library sapjco.jar requires various shared libraries depending on your operating system. Follow the installation instructions.

Open a console and switch in the extlib folder of the FIX Agora server. To check everything is configured right, run:

java -jar sapjco.jar

On a Linux system the output should look like this:

```
_____
                 SAP Java Connector (JCo)
            Copyright (c) 2000-2005 SAP AG. All rights reserved.
                                                                    Version Information
                                                                    Java Runtime:
Operating System: Linux 3.1.10-1.16-desktop for amd64
Java VM: 1.6.0_30 Sun Microsystems Inc.
Java Codepage: UTF8
/ersions:JCo API:2.1.8 (2006-12-11)JCo middleware:2.1.8 (2006-12-11)JCo library:2.1.8 (2006-12-11)RFC library:640.0.165
Versions:
Paths:
Paths:
JCo classes: local_path/fixagora-server/extlib/sapjco.jar
JCo library: local_path/fixagora-server/extlib/libsapjcorfc.so
RFC library: System-defined path
1
                              Manifest
                                                                    _____
Manifest-Version: 1.0
Ant-Version: Apache Ant 1.6.4
Created-By: 1.3.1_18-b01 (Sun Microsystems Inc.)
Specification-Title: SAP Java Connector
Specification-Version: 2.1.8
Specification-Vendor: SAP AG, Walldorf
Implementation-Title: com.sap.mw.jco
Implementation-Version: 20070108 2139 [2.1.8 (2006-12-11)]
Implementation-Vendor-Id: com.sap
Implementation-Vendor: SAP AG, Walldorf
Main-Class: com.sap.mw.jco.About
_____
```

Now you can start the FIX Agora Demo and the SAP Trade Capture Export is enabled.

Prerequisites

In this demo-case you will work with an IDES system. Create an account for client 800 that is enabled for the following functions:

• Accounting → Financial Supply Chain Management → Treasury and Risk management → Business Partners → Maintain Business Partner (transaction code BP)

- Accounting \rightarrow Financial Supply Chain Management \rightarrow Treasury and Risk management \rightarrow Business Partners \rightarrow Special Functions \rightarrow Transaction Authorization (transaction code TBI6)
- Accounting \rightarrow Financial Supply Chain Management \rightarrow Treasury and Risk management \rightarrow Transaction Manager \rightarrow Securities \rightarrow Trading \rightarrow Create (transaction code TS01)
- Accounting \rightarrow Financial Supply Chain Management \rightarrow Treasury and Risk management \rightarrow Transaction Manager \rightarrow Securities \rightarrow Trading \rightarrow Display (transaction code TS06)
- $Tools \rightarrow ABAP Workbench \rightarrow Development \rightarrow Function Builder (transaction code SE37)$

Check in the Function Builder (SE37) that your account is enabled to execute the following function modules:

- BAPI_FTR_SECURITY_CREATE
- BAPI_TRANSACTION_COMMIT

For the test scenario you need at least one of your counterparties defined in FIX Agora to be configured in the IDES system.

Create Bank of Aphrodite as follows:

1. Call transaction BP:

Accounting \rightarrow Financial Supply Chain Management \rightarrow Treasury and Risk management \rightarrow Business Partners \rightarrow Maintain Business Partner

1.1 In the menu bar choose:

Business Partner \rightarrow Create \rightarrow Organization

1.2 Fill the following fields:

Business Partner: BOA Grouping: TRO2 Create in BP Role: General Business Partner Name: Bank of Aphrodite Street/House number: Bank Street 47 Postal Code/City: E14 5EJ London Country: GB

Hit save and switch in change mode to add the BP Role Counterparty:

1.3 Fill the following fields:

Change in BP role: Counterparty (New) Search Term 1/2: APHRODITE Language: English

Hit save to add the new business partner role to Bank of Aphrodite.

- 2. Authorize Bank of Aphrodite by calling transaction TBI6: Accounting → Financial Supply Chain Management → Treasury and Risk management → Business Partners → Special Functions → Transaction Authorization
 - 2.1 Fill the following fields:

BusPartner: BOA Company Code: 1000

- 2.2 In tab SI: Authorizations select Securities and hit save.
- 3. To test if the counterparty is configured right call transaction TS01: Accounting → Financial Supply Chain Management → Treasury and Risk management → Transaction Manager → Securities → Trading → Create
 - 3.1 Fill the following fields:

Company Code: 1000 ID number: DE0005190003 Transactn Type: 100 Partner: BOA Activity: Contract

3.2 Hit enter. Fill the Structure tab with the values:

Partner: BOA Flow type: 0100 Securities Acct: DEUBA_01 Gen. Valn Class: 2. Trading Number of Units: 1000 Price: 60,95

Hit save.

4. Now check that the security transaction was created by calling transaction TS06: Accounting → Financial Supply Chain Management → Treasury and Risk management → Transaction Manager → Securities → Trading → Display

Just hit **enter** using the pre-filled values. You purchased 1000 BMW at 60.95 from partner Bank of Aphrodite. The trade is valued in the position management on securities account DEUBA_01.

The next section describes how you can create a trade from within FIX Agora.

SAP Trade Capture Export

Start the demo version of FIX Agora. Select the client for the *Admin* user. You can close the other clients. If the SAP Java Connector is installed and the trade export is not empty, the export and test buttons should be enabled in *IDES Trade Export* now.

Remove all previously captured trades in IDES Trade Export.

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	— 🌺 Bank of Hades Initiator Star		IDES 1	Trade Export	嬰 SAP® Trade	Export				
	— 端 Bank of Poseidon Initiator St	Stat	atus	Financial Transaction	Exchange	Transaction Type	Security ID Number	Partner	Contact Person	Price
	— 端 Bank of Zeus Initiator Starte	Nev	2W	uncommitted	FIX Agora	200 Sell	DE000A1EWWW0 adidas AG	BOZ Bank of Zeus	zoidberg John Zoidberg	67.026000
	🗕 🖏 Yahoo Finance Started	Nev	2W	uncommitted	FIX Agora	200 Sell	DE000A1EWWW0 adidas AG	BOZ Bank of Zeus	zoidberg John Zoidberg	67.026000
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	IDES Trade Export								Clean u	р
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Sample Excel Export										
	Sank Calendars							🕹 Test	Export 🖉) Remove
			Trades	🚺 Master Data	🔠 Roles					

Configure the trade export according to your SAP installation and save the new settings.

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IDES Trade Export 🧏 SAP® Trade Export								
Trade Capture Name	IDES Trade Export	Modified	7:48:35 AM 9/12/12 by Admin					
SAP Client	800	SAP Server	192.168.56.101					
SAP User	alex	SAP Password						
SAP System Number	00	SAP Company Code	1000					
SAP Securities Account	DEUBA_01	SAP General Valuation Class	0002					
SAP Transaction Type Buy	100	SAP Transaction Type Sell	200					
Security Identifier Source	ISIN number 🗸 🗸	Commit Exchange	v					
		Commit Trader						
🚺 Trades 🚺 Master Data 👔 Roles								

Open buy side quote page DAX Quotes and select BMW (Bayerische Motoren Werke Aktiengesellschaft).

🔞 Business Object Browser	💷 Buy Side Bond Book 🗙 😃 IDES T	Trade Export 🗙 🔲 DAX Quotes	X 🔲 BuySide EquityBook 🗙		
Buy Side Equity Book	DAX Quotes			Buy Side	Quote Page
- DAX Quotes	Security	Price	Yield	Size	CI
Dow Jones Quotes	Bayer AG	68.851 / 68.871	- / -	400 / 400	-0.010 🔺
a Sell Side	Bayerische Motoren Werke Aktiengesellsch	haft 60.976 / 60.996		400 / 400	+ 0.005
Trade Captures	Beiersdorf AG	5,86 / 58.406			+0.010
Trade Capture All Assets	Commerzbank AG	1.441 / 1.461		400 / 400	-0.002
Spread Sheets	Daimler AG	39.321 / 39.341		400 / 400	+0.017
🖻 📄 Bond Sheets	Deutsche Bank AG		2. Double click	400 (100	-0.021
- Future Quotes	Deutsche Boerse AG	click 43 436 / 43 456		400 / 400	+0.003
German Government Bond Pricing	Deutsche Lufthansa Aktiengesellschaft	10.955 / 10.985		400 / 400	-0.003
Hungary Government Bond Pricing	Deutsche Eurmansa Aktiengesenschart	10.300 / 10.300		400 / 400	
U.S. T-Notes 10 Years Pricing				the station of the back state	Martine Darat
U.S. T-Notes 5 Years Pricing	Bayerische Motoren werke Aktie	ngesellschaft Bid Market Depth	Bayerische Motoren wer	ke Aktiengeselischaft. Ask	Market Depth
- 💼 U.S. T-Notes 7 Years Pricing	Counterparty (Market)	Price Yield	Counterparty (Market)	Price	Yield
U.S. Treasury Rates	Bank of Zeus (FIX Agora)	60.977 -	Bank of Poseidon (FIX Agora)	60.993	-
🖶 📄 Equity Sheets	Bank of Aphrodite (FIX Agora)		Bank of Hades (FIX Agora)	60.994	
- 📑 DAX Values Pricing	Bank of Hades (FIX Agora)	60.974 -	Bank of Aphrodite (FIX Agora)	60.996	
	📕 🚺 Quotes 🛛 🚺 Chart 🗐 Mast	ter data 🔳 Securities 🌗 Roles			

Buy 1,000 BMW from Bank of Aphrodite.

A 🕥 Submit New Order	\otimes \otimes
	ASK (YOU BUY)
Security	Bayerische Motoren Werke Aktiengesellsc
Market	FIX Agora 🗸
Counterparty	Bank of Aphrodite
Limit (Price)	60.996 🔺
Partials Accepted	V
Size	1,000 🔺
Time in Force	Fill Or Kill
Date (Settlement)	10/09/2012
	Submit Discard

The trade is reported to Trade Capture All Assets and routed to IDES Trade Export.

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FIX Agora Acceptor	IDES T	IDES Trade Export 🚽 SAP® Tr							
Fix Initiators	Status	Financial Transaction	Evchange	Transaction Type	Security ID Number	Partner	Contact Perso		
Bank of Aphrodite in	Status	Tinancial Transaction	Excitative	fransaction rype			Contact r ersc		
— 🐃 Bank of Hades Initia	New	uncommitted	FIX Agora	100 Buy	DE0005190003 Bayerische Motoren werke Aktiengesells	chaft BOA Bank of Aphrodit	abranam Adr		
— 端 Bank of Poseidon In									
— 端 Bank of Zeus Initiato									
🗕 🚢 Yahoo Finance Start									
- SAP Trade Capture Export:									
🖵 🧶 IDES Trade Export					Start simulation 🔪				
E- Excel Trade Capture Expo									
🗆 🖳 🐺 Sample Excel Export							-		
🗄 📄 Bank Calendars							•		
					Ф. Т	est 🔍 Export	🖉 Remove		
	🔳 Trades	📕 Master Data	Roles						

Now hit the test button in *IDES Trade Export*. FIX Agora is now simulating a transfer of trade data into the SAP System.



As next step, export the trade data into the SAP System.

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File Edit Format Extras Help								
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🔞 Business Object Browser	💷 Buy Side Bond Book 🗙 🖳 IDES Trac	le Export 🗙 📰 DAX Quotes 🗙 🛄 Buy Side Equity Book 🗙						
- 🚔 Bank of Hades Initi	IDES Trade Export		📙 SAP® Trade Export					
Bank of Posedon in	Status Financial Transaction Exchan	nge Transaction Type Security ID Number	Partner Contact Persor					
Yahoo Finance Star	Export done 200000000132 FIX Ag	ora 100 Buy DE0005190003 Bayerische Motoren Werke Aktiengesellschaft	BOA Bank of Aphrodite abraham Adri					
UDES Trade Export								
E- 📄 Excel Trade Capture Expo		Call TS06 in SAP for this	transaction.					
Sample Excel Export								
🕀 📄 Bank Calendars	•							
		🐺 Test	Export 🛛 🖉 Remove					
	🚺 Trades 🥼 Master Data 🥼 F	toles						
🚱 Blotter								
Time Level	Component	Message						
8:01:05 PM 10/5/12 👔 Info	IDES Trade Export	BAPI was executed successfully						
8:01:05 PM 10/5/12 🕡 Info	IDES Trade Export	Start SAP export for trade buy 1.000 Bayerische Motoren Werke Aktiengesellschaft fro	m Bank of Aphrodite (Adrian Abraham) s.					
8:01:04 PM 10/5/12 🕤 Info	IDES Trade Export	User Admin is starting sap export.						
		Admin	connected at Oct 5, 2012 4:20:24 PM					
		Admin	connected at oct 5, 2012 4.29.54 FM 👹 J					

Switch back in your SAP GUI and call transaction TS06. The trade is captured like the manually created one.