

FIX PUSHER

QUICKSTART

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Objectives

This guide gives you step-by-step instructions for working with the basic functions of FIX Pusher. The paper starts with the installation of the software and explains the setup for a simple NewOrderSingle - ExecutionReport workflow. If you are not familiar with the FIX protocol, it is a good idea to take a look at <http://www.fixprotocol.org>.

About FIX Pusher

FIX Pusher is a tool for developers and administrators 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.](http://www.fixprotocol.org)

FIX Pusher can send and receive FIX messages. It supports you simulating workflows with third party systems speaking the FIX protocol. The application acts as acceptor or initiator. FIX Pusher can interpret and modify customized data dictionaries containing user defined fields. The tool supports FIX versions 4.0 - 5.0 SP2.

The application ships with the option for exporting message details into Excel sheets and graphical analysis of message logs. FIX Pusher is a 100% Java open source implementation running on Windows, Linux/Unix and Mac OS. It requires JRE version of 1.6 or higher for proper functioning.

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

Download and Installation

Make sure you have a Java environment installed. The latest version is available here:

<http://www.java.com/en/download/manual.jsp>

FIX Pusher requires version 1.6 or higher for proper functioning.

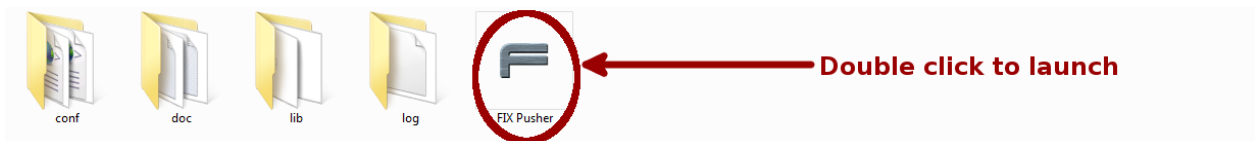
Download the latest Version of FIX Pusher that fits to your operating system from:

<http://fixpusher.sourceforge.net>

The further steps assume that you are working with a Windows OS. Extract the downloaded zip file into a local folder.

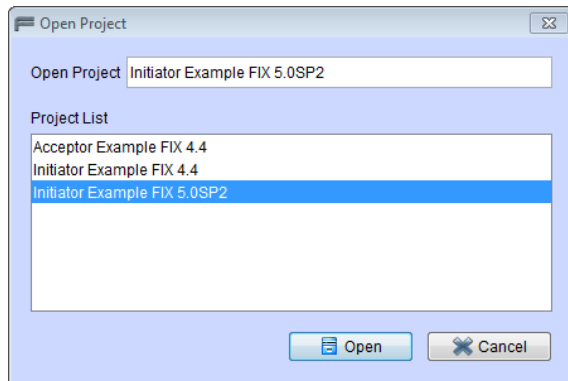
Launching the Application

Navigate into the folder named fixpusher and hit the “F” icon.



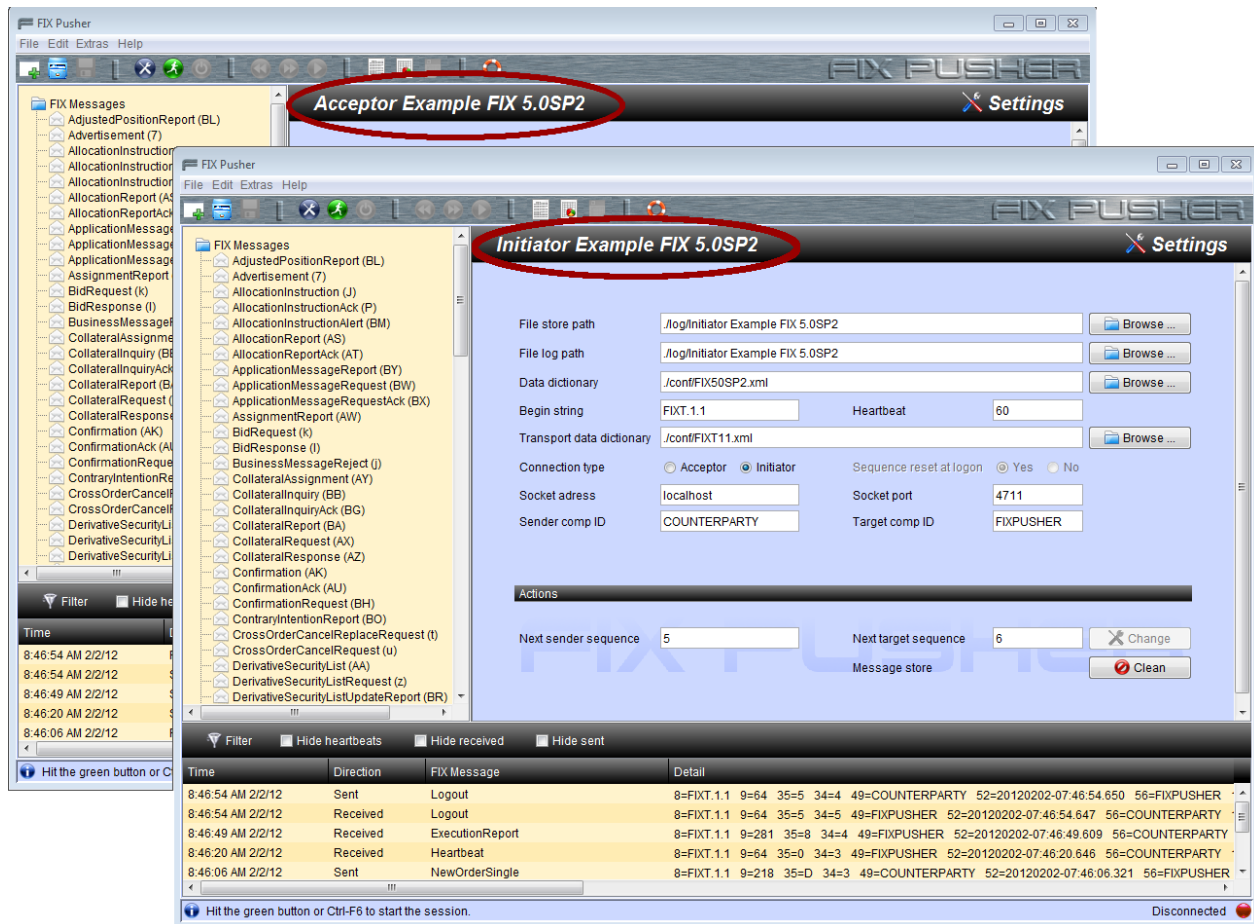
The Application starts and opens the project Acceptor Example FIX 5.0SP2.

To have someone to talk to, start a second instance of FIX Pusher by hitting the “F” icon once again.



Now open the project Initiator Example FIX 5.0SP2 by selecting:

File → Open Project



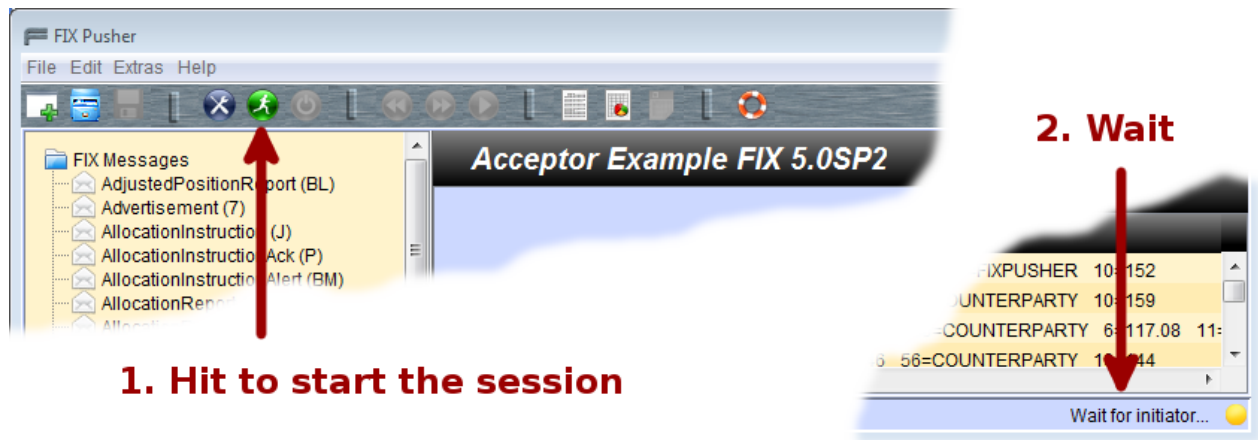
⚠ Notice: Ensure that you picked up the right protocol version 5.0SP2.

Setting up the Connection

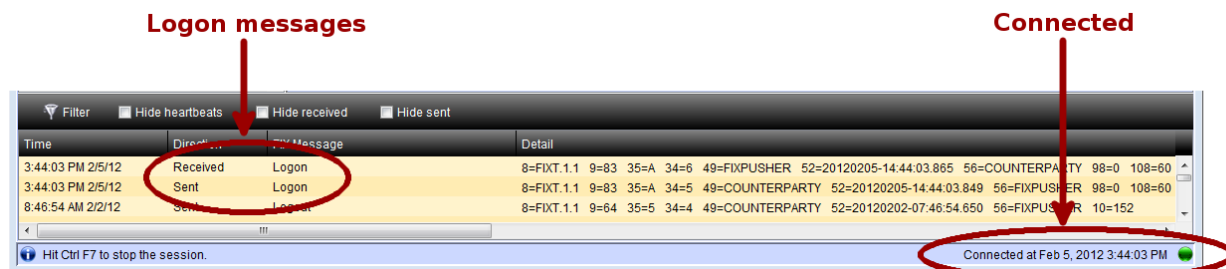
From this point the FIX Pusher application containing the project Acceptor Example FIX 5.0SP2 will be called “the acceptor” in this document. The application containing the project named Initiator Example FIX 5.0SP2 will be called “the initiator”. Switching between applications is highlighted bold in this tutorial.

Choose the acceptor and start the session by clicking:

Edit → Start Session



At this time the acceptor is waiting for an initiator to be connected with. **Choose the initiator** application and start the session the same way.

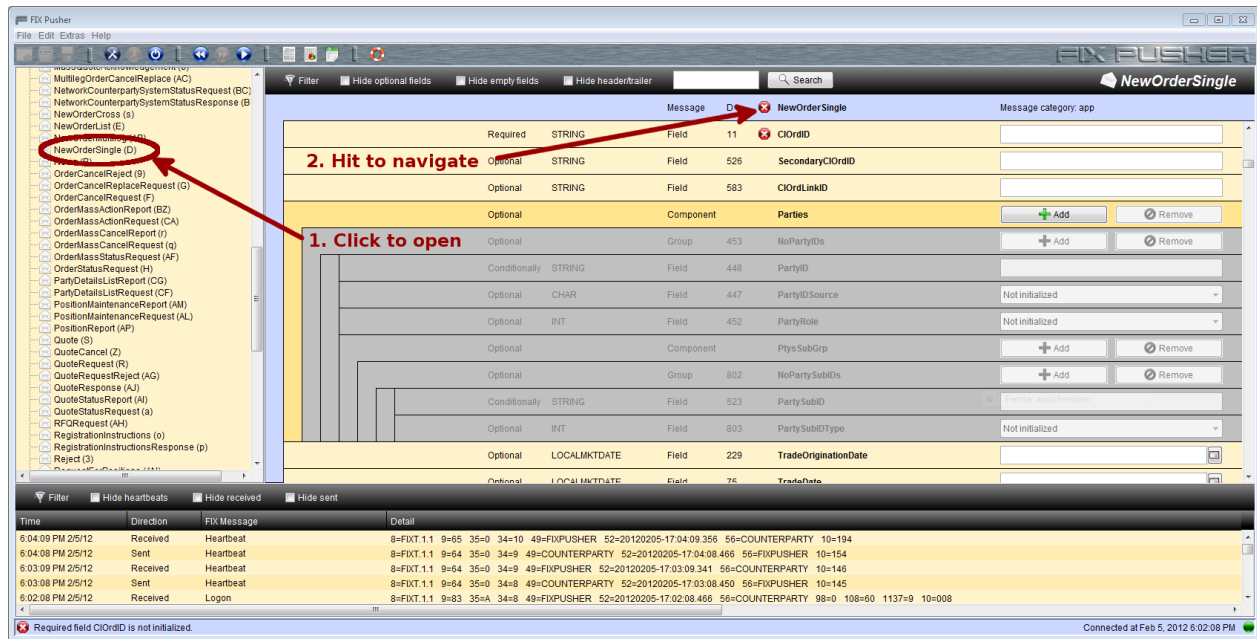


The initiator is sending a Logon FIX message to the acceptor and is receiving the Logon answer. The connection between acceptor and initiator is now established.

If you do not like the heartbeat messages, adjust the filter in the message blotter.

Sending a Message

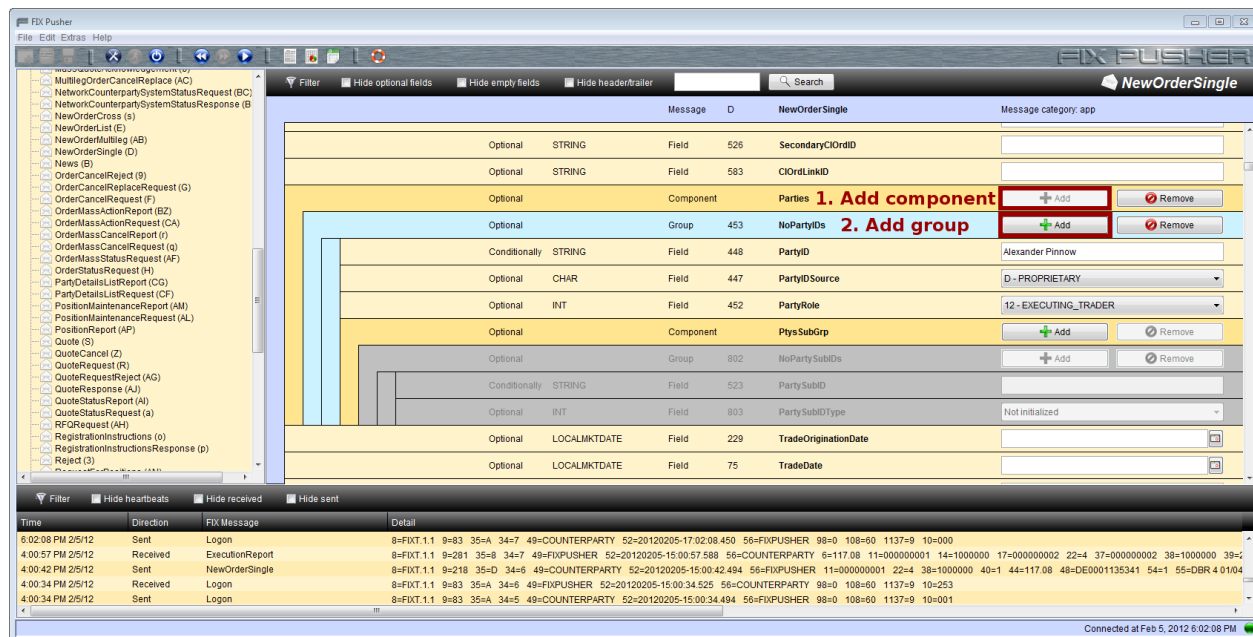
Choose the **initiator** application and click the node **NewOrderSingle** in the left tree.



An empty FIX message shows up in the main area. Now fill the message with the following values:

Name	Type	Number	Data Type	Required	Value
ClOrdID	Field	11	String	Required	000000001
Parties	Component			Optional	
NoPartyIDs	Group	453		Optional	1
PartyID	Field	448	String	Conditionally	Fill with your name
PartyIDSource	Field	447	Char	Optional	D
PartyRole	Field	452	Int	Optional	12
Instrument	Component			Required	
Symbol	Field	55	String	Optional	DBR 4 01/04/18
SecurityID	Field	48	String	Optional	DE0001135341
SecurityIDSource	Field	22	String	Optional	4
Side	Field	54	Char	Required	1
TransactTime	Field	60	Utctimestamp	Required	Fill with current time
OrderQtyData	Component			Required	
OrderQty	Field	38	Qty	Optional	1000000
OrdType	Field	40	Char	Required	1
PriceType	Field	423	Int	Optional	1
Price	Field	44	Price	Optional	117.08

You can navigate to missing fields by hitting the warning icon beside the message name.



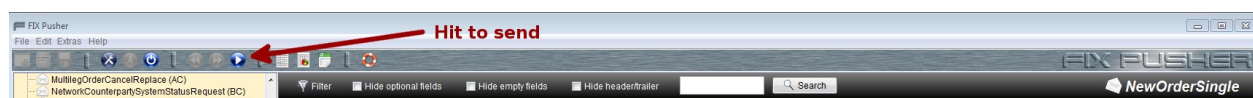
To insert party details, hit the add button in the component Parties. Next add an entry to the group NoParties by clicking the add button in this group.

Finally adjust the filter hiding all empty fields to check the message entries.

⚠ Notice: If the filter is set, it is not possible to add or remove groups and components.

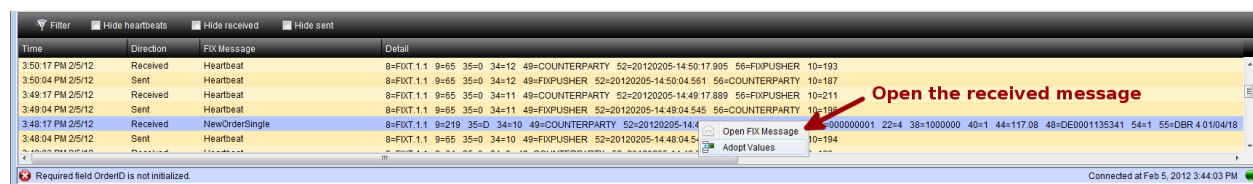
If the message contains no more errors or warnings, send it by clicking:

Edit → Send Message



Answering a Message

Choose the acceptor application. The message blotter now contains the received FIX message of type NewOrderSingle.

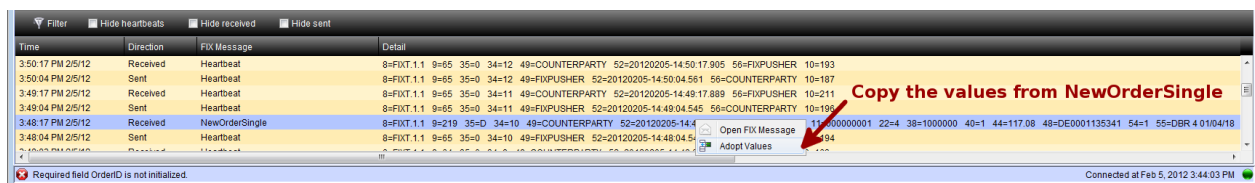


By right clicking the message and selecting Open FIX Message, you can inspect the message details.

Now select a FIX message of type ExecutionReport from the left tree. Fill the message with the following values:

Name	Type	Number	Data Type	Required	Value
OrderID	Field	37	String	Required	000000002
ClOrdID	Field	11	String	Optional	000000001
Parties	Component			Optional	
NoPartyIDs	Group	453		Optional	1
PartyID	Field	448	String	Conditionally	Fill with your name
PartyIDSrc	Field	447	Char	Optional	D
PartyRole	Field	452	Int	Optional	12
ExecID	Field	17	String	Required	000000002
ExecType	Field	150	Char	Required	F
OrdStatus	Field	39	Char	Required	2
Instrument	Component			Required	
Symbol	Field	55	String	Optional	DBR 4 01/04/18
SecurityID	Field	48	String	Optional	DE0001135341
SecurityIDSrc	Field	22	String	Optional	4
Side	Field	54	Char	Required	1
OrderQtyData	Component			Optional	
OrderQty	Field	38	Qty	Optional	1000000
OrdType	Field	40	Char	Optional	1
PriceType	Field	423	Int	Optional	1
Price	Field	44	Price	Optional	117.08
LeavesQty	Field	151	Qty	Required	0
CumQty	Field	14	Qty	Required	1000000
AvgPx	Field	6	Price	Optional	117.08
TransactTime	Field	60	Utctimestamp	Optional	Fill with current time

You can copy the values from the received NewOrderSingle by right clicking the message in the blotter and selecting Adopt Values.



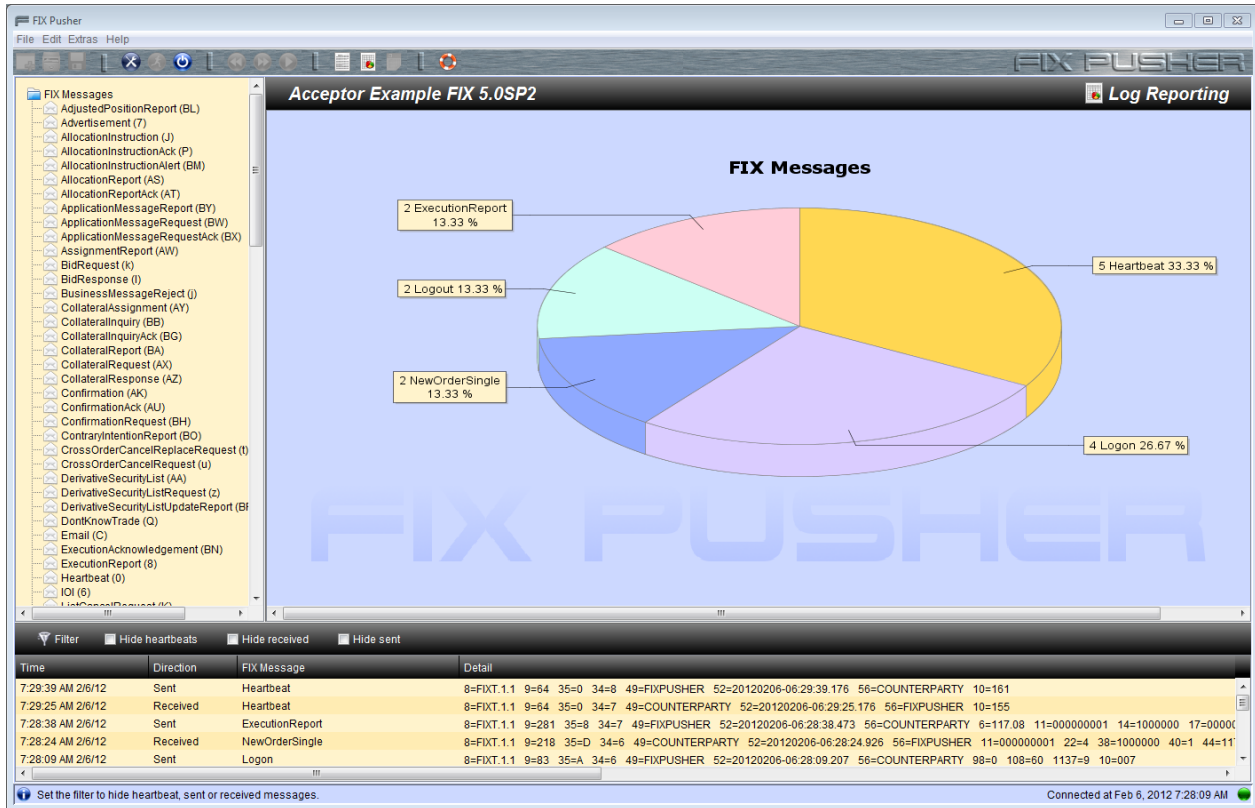
If the message contains no more errors or warnings, send it by clicking:

Edit → Send Message

Inspecting the Message Log

If you want to get an overview of the message blotter content, click:

Extras → Open Log Report



The main area shows you a pie chart with the top 5 messages. The report is according to the filter settings of the message blotter. If you just want to see the messages you sent, adjust the filter hiding received messages.

Exporting Message Details

Open the received NewOrderSingle once again from within the message blotter. Now export the message into an Excel sheet by choosing:

Extras → Export to Excel

A new sheet in the selected excel file will be created, according to the filter settings of the message detail. If you just want to generate a sheet containing all filled fields, adjust the filter hiding empty fields. The tables in this document are created with the export function.