

# FIXEdge SDK Developer Guide

## General statements

FIXEdge SDK allows developer to create custom plugins for FIXEdge: Transport Adaptors and Handlers.

## Structure of FIXEdge SDK

**cmakeModules** - CMake modules

**Headers** - C++ headers files for FIXAntenna C++ (FA) and for FIXEdge (FE)

**Libs** - release version of FA C++ static libraries

**src\_Handler** - source of sample Handler

**src\_TA** - source of sample Transport Adaptor

## Requirements

FIXEdge SDK is available for windows (MS Visual Studio 2010, x64) and linux (RHEL 6, gcc44, x64)

CMake v 2.8 should be used to prepare the solution of sample Handler and sample Transport Adaptor

Xerces-c 3.1.1 (headers and dynamic libraries) is required for building the sample Handler project.

## How to build samples

1. Export a system variable pointing to the XERCES-C: export XERCESROOT=/home/user/extlibs/xerces-c-src\_2\_8\_0
2. Create a folder for build:  
\$ mkdir ./build  
\$ cd ./build
3. Run CMake:  
\$ cmake -G "Unix Makefiles" ../  
or (Windows)  
> cmake.exe -G "Visual Studio 10 Win64" ../
4. Build shared libraries:  
\$ make  
or (Windows)  
build b2b\_fixserver\_development\_ta.sln (Release, MD)

## Handler and Transport Adaptor Features

Handler is a lightweight plugin for FIXEdge. It is suited for using in following scenarios:

- make some modifications on incoming FIX Messages (add|delete|modify some tags based on some conditions that is difficult to implement in BL XML or BL JS) and pass it back to BL or TransportAdaptor

There are already implemented Handlers - see [FIXEdge BL Handlers](#) for more info.

Transport Adaptor is more complicated plugin. It is suited for using in following scenarios where adapting FIX Session to any other kind of session is required:

- establish a connection to any non-FIX endpoints (such as SMTP - SMTP TA, IBM MQ, HTTPS, JMS and so on) and provide a data flow between these endpoints and FIX Sessions.
- periodically polling of any FIX or non-FIX endpoints

There are already implemented Transport Adaptors - see [FIXEdge Transport Adaptors](#) for more info.

Feature	Handler	Transport Adaptor
Load	reloads each time after BL Rules are reloaded  loads only if reference to Handler exists in some BL rule	once at FE start
ClientID	doesn't have a ClientID. Can't be referenced by another Handler or TA.	Can register several ClientIDs

Incoming messages	Can be addressed from BL Rules using <HandlerAction> tag only  message is coming to process method	Messages to each of ClientID can be passed from BL <Send> tag, or from another TA or Handler.  Message is coming into sendToClient method
Outgoing messages	Can just pass original or transformed message to the BL  Can send synchronously to any registered ClientID  Can send asynchronously to any registered ClientID	Can be send to BL only via onMessageFromClient method.  onMessageFromClient can't be called from the same thread as sendToClient
<a href="#">History</a> access	has direct access to any configured on BL History	for Bridge Adaptors only (see <a href="#">FIXEdge Transport Adaptors Developer Guide</a> ) for more details
Configuration	in BL_Config.xml	in FIXEdge.properties

More detailed info on developing custom Handler see [FIXEdge BL Handlers Developer Guide](#)

More detailed info on developing custom Transport Adaptor see [FIXEdge Transport Adaptors Developer Guide](#)