

FastDDS SHM communication between Publisher and Subscriber

Install FastDDS, FastCDR and FastDDS-Gen packages in terminal

Generate message related files in Fastdssgen with Java:

```
java -jar /Users/hanzhengwang/Fast-DDS/src/fastddsgen/share/fastddsgen/java/fastddsgen.jar  
/Users/hanzhengwang/Desktop/FastDDS_shm/HelloMsg.idl.cpp
```

Compile:

```
clang++ -std=c++17 publisher.cpp HelloMsg_idlPubSubTypes.cxx HelloMsg_idlTypeObjectSupport.cxx -o publisher \  
-I/Users/hanzhengwang/FastDDS/install/include \  
-L/Users/hanzhengwang/FastDDS/install/lib -lfastdds -lfastcdr -lpthread \  
-Wl,-rpath,/Users/hanzhengwang/FastDDS/install/lib
```

```
clang++ -std=c++17 subscriber.cpp HelloMsg_idlPubSubTypes.cxx HelloMsg_idlTypeObjectSupport.cxx -o subscriber \  
-I/Users/hanzhengwang/FastDDS/install/include \  
-L/Users/hanzhengwang/FastDDS/install/lib -lfastdds -lfastcdr -lpthread \  
-Wl,-rpath,/Users/hanzhengwang/FastDDS/install/lib
```

./publisher

./subscriber

```
[(base) hanzhengwang@Hanzhengs-MacBook-Pro FastDDS_shm % ./publisher  
Send: id: 0 with message: Message: Number 0  
Send: id: 1 with message: Message: Number 1  
Send: id: 2 with message: Message: Number 2  
Send: id: 3 with message: Message: Number 3  
Send: id: 4 with message: Message: Number 4  
Send: id: 5 with message: Message: Number 5  
Send: id: 6 with message: Message: Number 6  
Send: id: 7 with message: Message: Number 7  
Send: id: 8 with message: Message: Number 8  
Send: id: 9 with message: Message: Number 9
```

```
[(base) hanzhengwang@Hanzhengs-MacBook-Pro FastDDS_shm % ./subscriber  
Start running and waiting for messages...  
Received: 2 with Message: Number 2  
Received: 3 with Message: Number 3  
Received: 4 with Message: Number 4  
Received: 5 with Message: Number 5  
Received: 6 with Message: Number 6  
Received: 7 with Message: Number 7  
Received: 8 with Message: Number 8  
Received: 9 with Message: Number 9  
^C
```