
<JSTORM>

COM



JSTORM
<http://www.jstorm.pe.kr>

Document Information

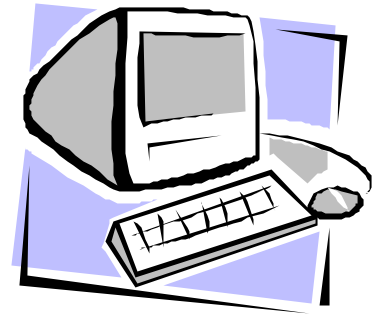
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Content Information

Audience	
Abstract	COM Java .
Reference	‘(www.maso.co.kr)
Benchmark information	.

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JSTORM <4/14>

COM

COM

COM

Active-X

JavaBeans Active-X

1 2

가 . 3 4

Active-X

<http://www.javasoft.com/beans/software/bridge/>

가

3가

Window NT 4.0 Visual J++ 6.0

. COM

COM

, COM

. COM MTS

가 (COM+ COM MTS

가?) MTS

COM

COM

DLL

가

. DLL

가

가

가

가

.

가 C++

가 DLL

. 1 MyClass

가 가 DLL

COM

COM

?

(Interface)

(Implementation)

가 가

. VC++ IDL

. VC++

가

2 struct

struct virtual

. IDL

C++

가

C++

가

COM

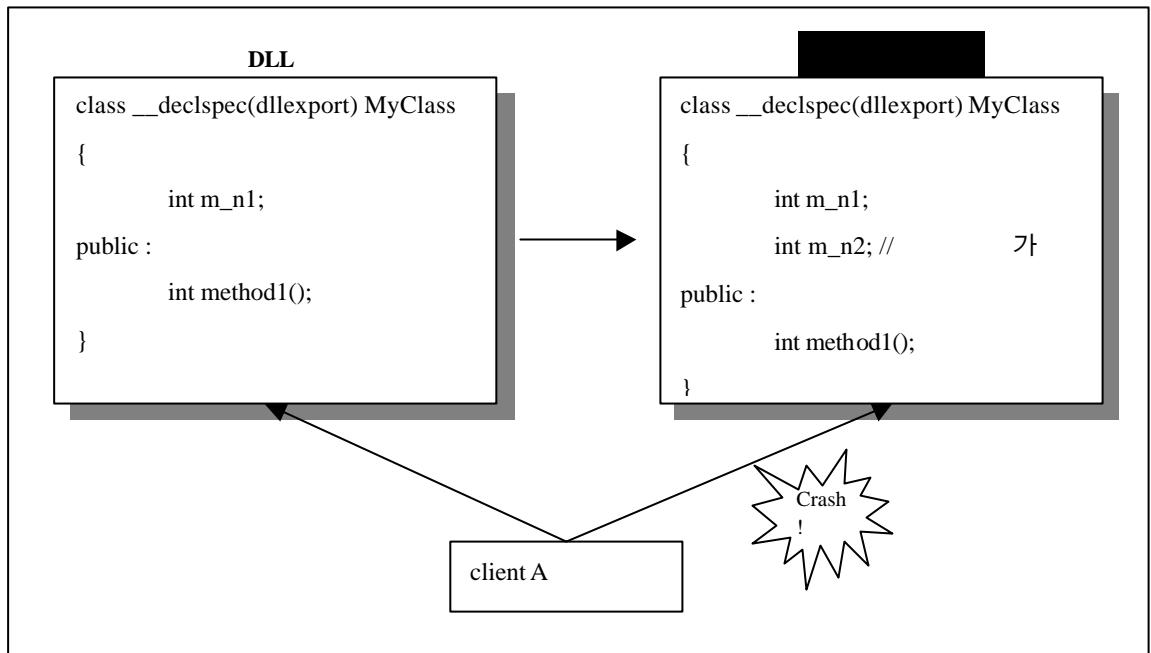
. 가

가

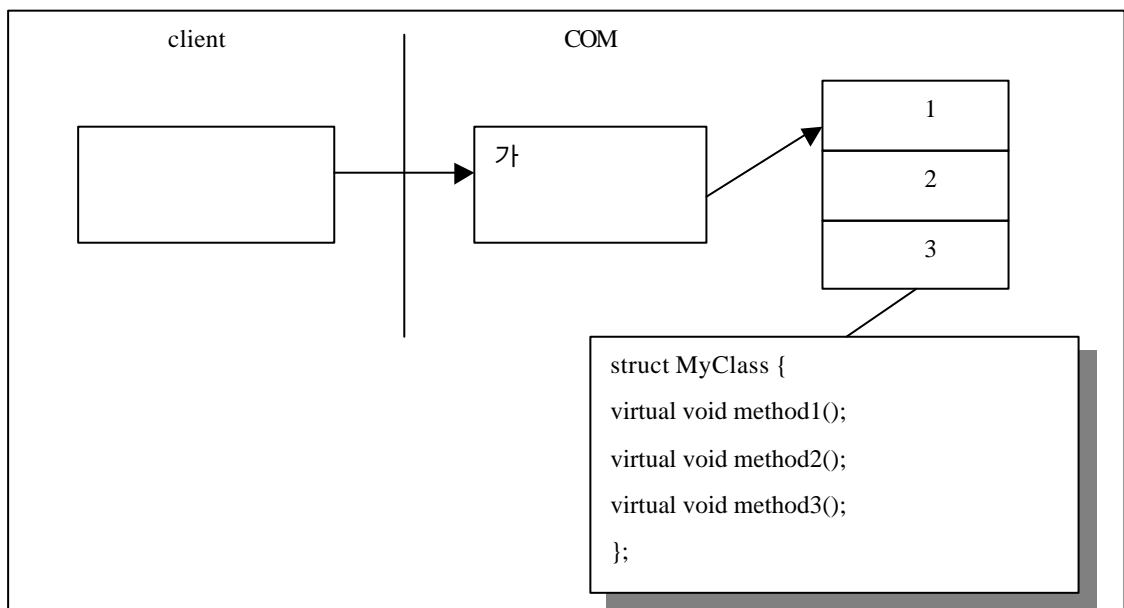
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.(3)

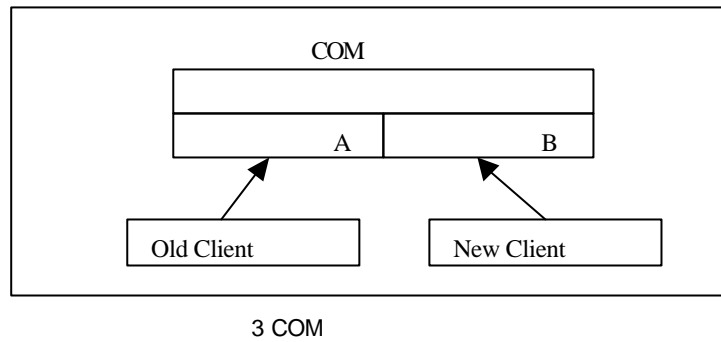
COM



1 DLL



2 COM



COM 가 COM
COM 가 . COM
COM COM
. VC++ 가
COM
interface Object Polymorphism
가 MyInterfaceA interface MyInterfaceA
MyClass
MyClass c = new MyClass();
MyInterfaceA iA = (MyInterfaceA)c; // object polymorphism
iA.method1();

COM interface COM COM
interface 가 . COM

COM

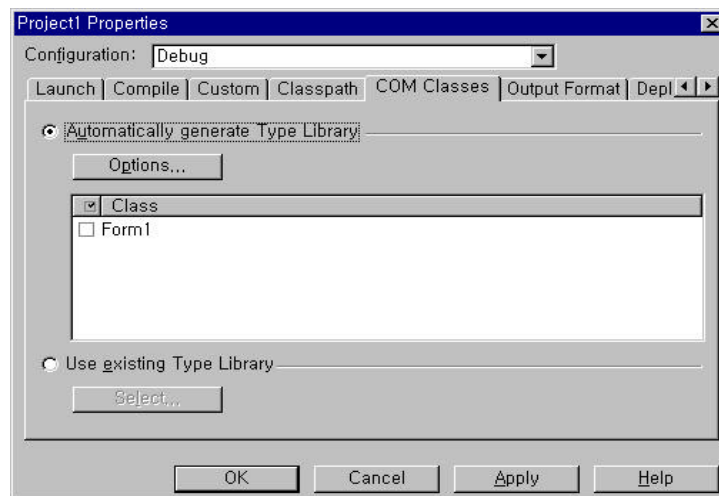
VJ++ 6.0 COM
가 COM COM JScript VBScript
가 Dual Interface
. VJ++ 가 DLL DLL 가
Native .
COM DLL
COM DLL 3
가 .

COM

Project/Properties/COM Classes “Automatically generate type library”
가 COM
가

COM DLL

Project/Properties/Output Format “Enable Packaging”
. Package Type COM DLL



4 COM

DLL

COM MTS . MTS
COMObjectContext
ObjectContext SetComplete SetAbort

ObjectContext

IOBJECTCONTEXT i = MTX.GetObjectContext();

SetComplete

MTX.GetObjectContext().SetComplete()

SetAbort

MTX.GetObjectContext().SetAbort()

Server

MTS

가 가

. Server

@com.register

Server

COM class

COM DLL

가

. @com.transaction(required)

DLL

MTS

Server

COM

“

”(Transaction Required)

가
echo
가
“ from server”
Server COM MTS
가
putState
State
getState
echo
가
MTS
Server COM

VB

1 Server COM

```
import com.ms.mtx.*;

/**
 * @com.register ( clsid=47E6950F-784F-11D2-8E58-00C0263D213B,
 typelib=47E69510-784F-11D2-8E58-00C0263D213B )
 * @com.transaction (required)
 */
public class Server
{
    private boolean echoed=false;
    public String echo(String s)
    {
        String sRet=null;

        try
        {
            sRet = s + "from server";
            putState(true);
            MTx.GetObjectContext().SetComplete();
        } catch(Exception e)
        {
            MTx.GetObjectContext().SetAbort();
        }

        return sRet;
    }

    public void putState(boolean echoed)
    {
        this.echoed = echoed;
    }

    public boolean getState()
```

```
{
    return echoed;
}

private String echoPrivate(String s)
{
    return echo(s);
}
}
```

가 COM 가 . modifier가 private
COM . 1 echoPrivate
COM .COM 가
COM
(가 가 .) COM
.

COM

VJ++ COM . VJ++ COM
Wrapper Class 가 . Wrapper Class
COM
. Wrapper Class RNI .
COM DLL Project/Add Com
Wrappers .(5) DLL
가 가 .
import .
MTS 가 COM ? ObjectContext COM
COM SetComplete SetAbort
. COM MTx.GetObjectContext().CreateInstance (ID ,
ID); Wrapper Class COM Dispatch
. .
Server Client
Server Wrapper Class Server Server_Dispatch
가 . Server CreateInstance Server_Dispatch
가 Server_Dispatch Server
. echo 가 “ from client”
SetComplete SetAbort Client MTS .

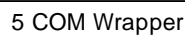
2 MTS COM

```
import com.ms.mtx.*;
import mtptestserver.*;

/**
 * @com.register ( clsid=47E69512-784F-11D2-8E58-00C0263D213B,
 typelib=47E69513-784F-11D2-8E58-00C0263D213B )
 * @com.transaction (required)
 */
public class Client
{
    public String echo(String s)
    {
        String sRet = null;

        mtptestserver.Server_Dispatch srv =
(mtxtestserver.Server_Dispatch) MTx.GetObjectContext ().CreateInstance
( mtxtestserver.Server.clsid , mtxtestserver.Server.iid);
        try
        {
            sRet = srv.echo (s) + " from client";
            MTx.GetObjectContext ().SetComplete ();
        } catch(Exception e)
        {
            MTx.GetObjectContext ().SetAbort ();
        }

        return sRet;
    }
}
```



```
COMDLL  MTS Explorer      MTS      .      regsvr32.exe

regsvr32 /s MtxTestServer.dll
regsvr32 /s MtxTestClient.dll
```

```

VB
.(                               VB  6.0      가                               .)
MtxVBProject.exe                6                . Server echo
    echo text                    “from server”
. Client.echo                    Server.echo                “from
client”                          “from server from client”가
Server.echo가                  Server COM   MTS              가                State
                                . Server.echo                Server.State=True
                                Server.putState                . Server COM   State   가
true                            . Server.echo                Server.getState
    Server.State=True          가                               . Server.echo
    Server COM   MTS          가                Server.getState                MTS
    가                State                false

```



- ✍✍ MSDN Visual J++
 - “Building COM Objects”, “Importing COM Objects”
- ✍✍ Active-X
 - <http://www.javasoft.com/beans/software/bridge/>
- ✍✍ MSDN Visual J++
- ✍✍ Inside ATL/COM with Visual C++ Programming

Active-X

가
Java Developer Connection(<http://www.javasoft.com/jdc>) 가
(<http://www.javaworld.com>)
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☞☞ “Design Techniques”, Bill Venners
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<http://www.artima.com/designtechniques/index.html>
☞☞ “Under the Hood”, Bill Venners
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12 19 <http://www.javaworld.com/javaworld/jw-12-1997/jw-12-hood.html>
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가 JDK 1.
1 Writer, Reader OutputStream, InputStream
An in-depth look at J
ava’s character type (<http://www.javaworld.com/javaworld/jw-01-1998/jw-01-indepth.html>) 98 1
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(www.maso.co.kr)