

Re: COM interop multithreading problem : Unable to cast COM object of type 'System.\_\_ComObject' to interface

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*Source:*

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You definately cannot invoke the COM object from an MTA thread. Ideally you want to just call methods from the STA thread that created the object. IIRC, you should be able to call from one STA thread to another if you have a typelib registered which allows the cirrect marshalling to happen.

ziph...@xxxxxxxxxx wrote:

Hi,

I have a DirectShow filter which implements a COM interface called IDVBSubtitle. It is defined like this on the C++ side (simplified version used to debug of course, real interface has more methods :)

```
// C19647D5-A861-4845-97A6-EBD0A135D0BF
DEFINE_GUID(IID_IDVBSubtitle,
0xc19647d5, 0xa861, 0x4845, 0x97, 0xa6, 0xeb, 0xd0, 0xa1, 0x35, 0xd0,
0xbf);
```

```
DECLARE_INTERFACE_( IDVBSubtitle, IUnknown )
{
STDMETHOD(Test)(int status) PURE;
};
```

On the C# side it looks like this:

```
[Guid( ... ),
InterfaceType(ComInterfaceType.InterfaceIsIUnknown)]
public interface IDVBSubtitle
{
void Test(int status);
}
```

When i create an instance of the filter in C# i can call test as much as i like succesfully, but ONLY from within the same thread that created it. If i try to call the Test method from any other thread i

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get this:

Unable to cast COM object of type 'System.\_\_ComObject' to interface type 'MediaPortal.Player.IDVBSSubtitle'. This operation failed because the QueryInterface call on the COM component for the interface with IID '{C19647D5-A861-4845-97A6-EBD0A135D0BF}' failed due to the following error: No such interface supported (Exception from HRESULT: 0x80004002 (E\_NOINTERFACE)).

Again, note that this ONLY occurs when the call is made from another thread than the one that created the filter. I have tried both creating a separate C# thread to call Test, and had a callback from the COM object call Test, both gave the above error.

Reading the thread referenced below lead me to believe this problem is related to thread apartment states, but unfortunately didn't give me a solution. I have tried creating the calling thread as both STA and MTA, but it makes no difference. Could someone give me a hint here, been stuck on this for a few days?

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