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AppDomain.Load Method

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Definition

Namespace: [System](#)
Assembly: System.Runtime.dll

Loads an [Assembly](#) into this application domain.

Overloads

 Expand table

Load(Byte[])	Loads the Assembly with a common object file format (COFF) based image containing an emitted Assembly .
Load(AssemblyName)	Loads an Assembly given its AssemblyName .
Load(String)	Loads an Assembly given its display name.
Load(Byte[], Byte[])	Loads the Assembly with a common object file format (COFF) based image containing an emitted Assembly . The raw bytes representing the symbols for the Assembly are also loaded.

Load(Byte[])

Source: [AppDomain.cs](#) 

Loads the [Assembly](#) with a common object file format (COFF) based image containing an emitted [Assembly](#).

```
public:
    System::Reflection::Assembly ^ Load(cli::array
<System::Byte> ^ rawAssembly);
```

```
public System.Reflection.Assembly Load (byte[]  
rawAssembly);
```

```
member this.Load : byte[] ->  
System.Reflection.Assembly
```

```
Public Function Load (rawAssembly As Byte()) As  
Assembly
```

Parameters

rawAssembly [Byte\[\]](#)

An array of type [byte](#) that is a COFF-based image containing an emitted assembly.

Returns

[Assembly](#)

The loaded assembly.

Exceptions

[ArgumentNullException](#)

rawAssembly is `null`.

[BadImageFormatException](#)

rawAssembly is not a valid assembly for the currently loaded runtime.

[AppDomainUnloadedException](#)

The operation is attempted on an unloaded application domain.

FileLoadException

An assembly or module was loaded twice with two different evidences.

Examples

The following sample demonstrates the use of loading a raw assembly.

For this code example to run, you must provide the fully qualified assembly name. For information about how to obtain the fully qualified assembly name, see [Assembly Names](#).

```
using namespace System;
using namespace System::IO;
using namespace System::Reflection;
using namespace System::Reflection::Emit;
void InstantiateMyType( AppDomain^ domain )
{
    try
    {
        // You must supply a valid fully qualified assembly
        domain->CreateInstance( "Assembly text name, Version"
    }
    catch ( Exception^ e )
    {
        Console::WriteLine( e->Message );
    }
}

// Loads the content of a file to a Byte array.
array<Byte>^ loadFile( String^ filename )
{
    FileStream^ fs = gcnew FileStream( filename, FileMode::
    array<Byte>^buffer = gcnew array<Byte>((int)fs->Length
    fs->Read( buffer, 0, buffer->Length );
    fs->Close();
    return buffer;
```

```
}

// Creates a dynamic assembly with symbol information
// and saves them to temp.dll and temp.pdb
void EmitAssembly( AppDomain^ domain )
{
    AssemblyName^ assemblyName = gcnew AssemblyName;
    assemblyName->Name = "MyAssembly";
    AssemblyBuilder^ assemblyBuilder = domain->DefineDynamicAssembly( assemblyName );
    ModuleBuilder^ moduleBuilder = assemblyBuilder->DefineModuleBuilder( "MyModule" );
    TypeBuilder^ typeBuilder = moduleBuilder->DefineType( "MyType" );
    ConstructorBuilder^ constructorBuilder = typeBuilder->DefineConstructor(
        BindingFlags.NonPublic, null, Type.EmptyTypes, null );
    ILGenerator^ ilGenerator = constructorBuilder->GetILGenerator();
    ilGenerator->EmitWriteLine( "MyType instantiated!" );
    ilGenerator->Emit( OpCodes::Ret );
    typeBuilder->CreateType();
    assemblyBuilder->Save( "temp.dll" );
}

ref class Resolver
{
public:
    static Assembly^ MyResolver( Object^ sender, ResolveEventArgs args )
    {
        AppDomain^ domain = dynamic_cast<AppDomain^>(sender);

        // Once the files are generated, this call is
        // actually no longer necessary.
        EmitAssembly( domain );
        array<Byte>^ rawAssembly = loadFile( "temp.dll" );
        array<Byte>^ rawSymbolStore = loadFile( "temp.pdb" );
        Assembly^ assembly = domain->Load( rawAssembly, rawSymbolStore );
        return assembly;
    }
};

int main()
{
    AppDomain^ currentDomain = AppDomain::CurrentDomain;
    InstantiateMyType( currentDomain ); // Failed!
    currentDomain->AssemblyResolve += gcnew ResolveEventHandler( MyResolver );
    InstantiateMyType( currentDomain ); // OK!
}
```

```
using System;
using System.IO;
using System.Reflection;
using System.Reflection.Emit;

class LoadRawSnippet {
    public static void Main() {
        AppDomain currentDomain = AppDomain.CurrentDomain;

        InstantiateMyType(currentDomain);    // Failed!

        currentDomain.AssemblyResolve += new ResolveEventHandler(
            InstantiateMyType(currentDomain);    // OK!
    }

    static void InstantiateMyType(AppDomain domain) {
        try {
            // You must supply a valid fully qualified assembly
            domain.CreateInstance("Assembly text name, Version",
                new object[] { 1 });
        } catch (Exception e) {
            Console.WriteLine(e.Message);
        }
    }

    // Loads the content of a file to a byte array.
    static byte[] loadFile(string filename) {
        FileStream fs = new FileStream(filename, FileMode.Open,
            FileAccess.Read);
        byte[] buffer = new byte[(int) fs.Length];
        fs.Read(buffer, 0, buffer.Length);
        fs.Close();

        return buffer;
    }

    static Assembly MyResolver(object sender, ResolveEventArgs args) {
        AppDomain domain = (AppDomain) sender;

        // Once the files are generated, this call is
        // actually no longer necessary.
        EmitAssembly(domain);

        byte[] rawAssembly = loadFile("temp.dll");
        byte[] rawSymbolStore = loadFile("temp.pdb");
        Assembly assembly = domain.Load(rawAssembly, rawSymbolStore);
    }
}
```

```
        return assembly;
    }

    // Creates a dynamic assembly with symbol information
    // and saves them to temp.dll and temp.pdb
    static void EmitAssembly(AppDomain domain) {
        AssemblyName assemblyName = new AssemblyName();
        assemblyName.Name = "MyAssembly";

        AssemblyBuilder assemblyBuilder = domain.DefineDynamicAssembly(assemblyName, AssemblyBuilderAccess.RunAndSave);
        ModuleBuilder moduleBuilder = assemblyBuilder.DefineModule("MyAssembly", "1.0.0.0");
        TypeBuilder typeBuilder = moduleBuilder.DefineType("MyType", TypeAttributes.Public);

        ConstructorBuilder constructorBuilder = typeBuilder.DefineConstructor(MethodAttributes.Public, CallingConventions.Standard, Type.EmptyTypes);
        ILGenerator ilGenerator = constructorBuilder.GetILGenerator();
        ilGenerator.EmitWriteLine("MyType instantiated!");
        ilGenerator.Emit(OpCodes.Ret);

        typeBuilder.CreateType();

        assemblyBuilder.Save("temp.dll");
    }
}
```

```
open System
open System.IO
open System.Reflection
open System.Reflection.Emit

let instantiateMyType (domain: AppDomain) =
    try
        // You must supply a valid fully qualified assembly name
        domain.CreateInstance("Assembly text name, Version 1.0.0.0", null, null, null, null, null, null, null, null, null)
    |> ignore
    with e ->
        printfn $"{e.Message}"

// Loads the content of a file to a byte array.
let loadFile filename =
    use fs = new FileStream(filename, FileMode.Open)
    let buffer = Array.zeroCreate<byte> (int fs.Length)
    fs.Read(buffer, 0, buffer.Length) |> ignore
    fs.Close()
```

buffer

```
// Creates a dynamic assembly with symbol information
// and saves them to temp.dll and temp.pdb
let emitAssembly (domain: AppDomain) =
    let assemblyName = AssemblyName()
    assemblyName.Name <- "MyAssembly"

    let assemblyBuilder = domain.DefineDynamicAssembly(as
    let moduleBuilder = assemblyBuilder.DefineDynamicModu
    let typeBuilder = moduleBuilder.DefineType("MyType",

    let constructorBuilder = typeBuilder.DefineConstructo
    let ilGenerator = constructorBuilder.GetILGenerator()
    ilGenerator.EmitWriteLine "MyType instantiated!"
    ilGenerator.Emit OpCodes.Ret

    typeBuilder.CreateType() |> ignore

    assemblyBuilder.Save "temp.dll"

let myResolver (sender: obj) (args: ResolveEventArgs) =
    let domain = sender :?> AppDomain

    // Once the files are generated, this call is
    // actually no longer necessary.
    emitAssembly domain

    let rawAssembly = loadFile "temp.dll"
    let rawSymbolStore = loadFile "temp.pdb"
    domain.Load(rawAssembly, rawSymbolStore)

let currentDomain = AppDomain.CurrentDomain

instantiateMyType currentDomain    // Failed!

currentDomain.add_AssemblyResolve (ResolveEventHandler my

instantiateMyType currentDomain    // OK!
```

```
Imports System.IO
Imports System.Reflection
Imports System.Reflection.Emit
```


Module Test

```
Sub Main()  
    Dim currentDomain As AppDomain = AppDomain.CurrentDomain  
  
    InstantiateMyType(currentDomain)      ' Failed!  
  
    AddHandler currentDomain.AssemblyResolve, AddressOf MyResolver  
  
    InstantiateMyType(currentDomain)      ' OK!  
End Sub
```

```
Sub InstantiateMyType(domain As AppDomain)  
    Try  
        ' You must supply a valid fully qualified assembly name  
        domain.CreateInstance("Assembly text name, Version 1.0.0.0", Nothing)  
    Catch e As Exception  
        Console.WriteLine(e.Message)  
    End Try  
End Sub
```

```
' Loads the content of a file to a byte array.  
Function loadFile(filename As String) As Byte()  
    Dim fs As New FileStream(filename, FileMode.Open)  
    Dim buffer(CInt(fs.Length - 1)) As Byte  
    fs.Read(buffer, 0, buffer.Length)  
    fs.Close()  
  
    Return buffer  
End Function 'loadFile
```

```
Function MyResolver(sender As Object, args As ResolveEventArgs)  
    Dim domain As AppDomain = DirectCast(sender, AppDomain)  
  
    ' Once the files are generated, this call is  
    ' actually no longer necessary.  
    EmitAssembly(domain)  
  
    Dim rawAssembly As Byte() = loadFile("temp.dll")  
    Dim rawSymbolStore As Byte() = loadFile("temp.pdb")  
    Dim myAssembly As System.Reflection.Assembly = domain.Load(rawAssembly)  
  
    Return myAssembly  
End Function 'MyResolver
```

```
' Creates a dynamic assembly with symbol information
' and saves them to temp.dll and temp.pdb
Sub EmitAssembly(domain As AppDomain)
    Dim assemblyName As New AssemblyName()
    assemblyName.Name = "MyAssembly"

    Dim assemblyBuilder As AssemblyBuilder = domain.DefineDynamicAssembly(assemblyName, AssemblyBuilderAccess.RunAndSave)
    Dim moduleBuilder As ModuleBuilder = assemblyBuilder.DefineDynamicModule("MyModule", "temp.dll")
    Dim typeBuilder As TypeBuilder = moduleBuilder.DefineDynamicType("MyType", TypeAttributes.Public)

    Dim constructorBuilder As ConstructorBuilder = typeBuilder.DefineConstructor(MethodAttributes.Public, CallingConventions.Standard, Type.EmptyTypes)
    Dim ilGenerator As ILGenerator = constructorBuilder.GetILGenerator()
    ilGenerator.EmitWriteLine("MyType instantiated!")
    ilGenerator.Emit(OpCodes.Ret)

    typeBuilder.CreateType()

    assemblyBuilder.Save("temp.dll")
End Sub

End Module 'Test
```

Remarks

For information that is common to all overloads of this method, see the [Load\(AssemblyName\)](#) method overload.

Beginning with the .NET Framework 4, the trust level of an assembly that is loaded by using this method is the same as the trust level of the application domain.

Applies to



Load(AssemblyName)

Source: [AppDomain.cs](#)

Loads an [Assembly](#) given its [AssemblyName](#).

```
public:  
    System::Reflection::Assembly ^  
    Load(System::Reflection::AssemblyName ^ assemblyRef);
```

```
public System.Reflection.Assembly Load  
(System.Reflection.AssemblyName assemblyRef);
```

```
member this.Load : System.Reflection.AssemblyName ->  
    System.Reflection.Assembly
```

```
Public Function Load (assemblyRef As AssemblyName) As  
    Assembly
```

Parameters

assemblyRef [AssemblyName](#)

An object that describes the assembly to load.

Returns

[Assembly](#)

The loaded assembly.

Exceptions

[ArgumentNullException](#)

assemblyRef is **null**.

FileNotFoundException

`assemblyRef` is not found.

BadImageFormatException

`assemblyRef` is not a valid assembly for the currently loaded runtime.

AppDomainUnloadedException

The operation is attempted on an unloaded application domain.

FileLoadException

An assembly or module was loaded twice with two different evidences.

Remarks

This method should be used only to load an assembly into the current application domain. This method is provided as a convenience for interoperability callers who cannot call the static [Assembly.Load](#) method. To load assemblies into other application domains, use a method such as [CreateInstanceAndUnwrap](#).

If a version of the requested assembly is already loaded, this method returns the loaded assembly, even if a different version is requested.

Supplying a partial assembly name for `assemblyRef` is not recommended. (A partial name omits one or more of culture, version, or public key token. For overloads that take a string instead of an [AssemblyName](#) object, "MyAssembly, Version=1.0.0.0" is an example of a partial name and "MyAssembly, Version=1.0.0.0, Culture=neutral, PublicKeyToken=18ab3442da84b47" is an example of a full name.) Using partial names has a negative effect on performance. In addition, a partial assembly name can load an assembly from the global assembly cache only if there is an exact

copy of the assembly in the application base directory ([BaseDirectory](#) or [AppDomainSetup.ApplicationBase](#)).

If the current [AppDomain](#) object represents application domain **A**, and the [Load](#) method is called from application domain **B**, the assembly is loaded into both application domains. For example, the following code loads `MyAssembly` into the new application domain `ChildDomain` and also into the application domain where the code executes:

```
AppDomain^ ad = AppDomain::CreateDomain("ChildDomain");  
ad->Load("MyAssembly");
```

```
AppDomain ad = AppDomain.CreateDomain("ChildDomain");  
ad.Load("MyAssembly");
```

```
let ad = AppDomain.CreateDomain "ChildDomain"  
ad.Load "MyAssembly"
```

```
Dim ad As AppDomain = AppDomain.CreateDomain("ChildDomain")  
ad.Load("MyAssembly")
```

The assembly is loaded into both domains because [Assembly](#) does not derive from [MarshalByRefObject](#), and therefore the return value of the [Load](#) method cannot be marshaled. Instead, the common language runtime tries to load the assembly into the calling application domain. The assemblies that are loaded into the two application domains might be different if the path settings for the two application domains are different.

ⓘ Note

If both the [AssemblyName.Name](#) property and the [AssemblyName.CodeBase](#) property are set, the first attempt to load the assembly uses the display name (including version, culture, and so on, as returned by the [Assembly.FullName](#) property). If the file is not found, the [CodeBase](#) property is used to search for the assembly. If the assembly is found using [CodeBase](#), the display name is matched against the assembly. If the match fails, a [FileLoadException](#) is thrown.

Applies to



Load(String)

Source: [AppDomain.cs](#)

Loads an [Assembly](#) given its display name.

```
public:  
    System::Reflection::Assembly ^ Load(System::String ^  
        assemblyString);
```

```
public System.Reflection.Assembly Load (string  
    assemblyString);
```

```
member this.Load : string ->  
    System.Reflection.Assembly
```

```
Public Function Load (assemblyString As String) As  
    Assembly
```

Parameters

assemblyString [String](#)

The display name of the assembly. See [FullName](#).

Returns

[Assembly](#)

The loaded assembly.

Exceptions

[ArgumentNullException](#)

assemblyString is **null**

[FileNotFoundException](#)

assemblyString is not found.

[BadImageFormatException](#)

assemblyString is not a valid assembly for the currently loaded runtime.

[AppDomainUnloadedException](#)

The operation is attempted on an unloaded application domain.

[FileLoadException](#)

An assembly or module was loaded twice with two different evidences.

Remarks

For information that is common to all overloads of this method, see the [Load\(AssemblyName\)](#) method overload.

Applies to



Load(Byte[], Byte[])

Source: [AppDomain.cs](#)

Loads the [Assembly](#) with a common object file format (COFF) based image containing an emitted [Assembly](#). The raw bytes representing the symbols for the [Assembly](#) are also loaded.

```
public:  
    System::Reflection::Assembly ^ Load(cli::array  
    <System::Byte> ^ rawAssembly, cli::array  
    <System::Byte> ^ rawSymbolStore);
```

```
public System.Reflection.Assembly Load (byte[]  
rawAssembly, byte[]? rawSymbolStore);
```

```
member this.Load : byte[] * byte[] ->  
System.Reflection.Assembly
```



```
Public Function Load (rawAssembly As Byte(),  
rawSymbolStore As Byte()) As Assembly
```

Parameters

rawAssembly [Byte\[\]](#)

An array of type `byte` that is a COFF-based image containing an emitted assembly.

rawSymbolStore [Byte\[\]](#)

An array of type `byte` containing the raw bytes representing the symbols for the assembly.

Returns

[Assembly](#)

The loaded assembly.

Exceptions

[ArgumentNullException](#)

`rawAssembly` is `null`.

[BadImageFormatException](#)

`rawAssembly` is not a valid assembly for the currently loaded runtime.

[AppDomainUnloadedException](#)

The operation is attempted on an unloaded application domain.

[FileLoadException](#)

An assembly or module was loaded twice with two different evidences.

Examples

The following sample demonstrates the use of loading a raw assembly.

For this code example to run, you must provide the fully qualified assembly name. For information about how to obtain the fully qualified assembly name, see [Assembly Names](#).

```
using namespace System;
using namespace System::IO;
using namespace System::Reflection;
using namespace System::Reflection::Emit;
void InstantiateMyType( AppDomain^ domain )
{
    try
    {
        // You must supply a valid fully qualified assembly
        domain->CreateInstance( "Assembly text name, Version"
    }
    catch ( Exception^ e )
    {
        Console::WriteLine( e->Message );
    }
}

// Loads the content of a file to a Byte array.
array<Byte>^ loadFile( String^ filename )
{
    FileStream^ fs = gcnew FileStream( filename, FileMode::
    array<Byte>^buffer = gcnew array<Byte>((int)fs->Length
    fs->Read( buffer, 0, buffer->Length );
    fs->Close();
    return buffer;
}

// Creates a dynamic assembly with symbol information
// and saves them to temp.dll and temp.pdb
void EmitAssembly( AppDomain^ domain )
```

```
{
    AssemblyName^ assemblyName = gcnew AssemblyName;
    assemblyName->Name = "MyAssembly";
    AssemblyBuilder^ assemblyBuilder = domain->DefineDynamicModule(
        ModuleBuilder^ moduleBuilder = assemblyBuilder->DefineDynamicModule(
            TypeBuilder^ typeBuilder = moduleBuilder->DefineType(
                ConstructorBuilder^ constructorBuilder = typeBuilder->DefineConstructor(
                    ILGenerator^ ilGenerator = constructorBuilder->GetILGenerator(
                        ilGenerator->EmitWriteLine( "MyType instantiated!" );
                        ilGenerator->Emit( OpCodes::Ret );
                    typeBuilder->CreateType();
                    assemblyBuilder->Save( "temp.dll" );
                }
            }
        }
    }

ref class Resolver
{
public:
    static Assembly^ MyResolver( Object^ sender, ResolveEventArgs^ args )
    {
        AppDomain^ domain = dynamic_cast<AppDomain^>(sender);

        // Once the files are generated, this call is
        // actually no longer necessary.
        EmitAssembly( domain );
        array<Byte>^ rawAssembly = loadFile( "temp.dll" );
        array<Byte>^ rawSymbolStore = loadFile( "temp.pdb" );
        Assembly^ assembly = domain->Load( rawAssembly, rawSymbolStore );
        return assembly;
    }
};

int main()
{
    AppDomain^ currentDomain = AppDomain::CurrentDomain;
    InstantiateMyType( currentDomain ); // Failed!
    currentDomain->AssemblyResolve += gcnew ResolveEventHandler(
        InstantiateMyType( currentDomain ); // OK!
    }
}
```

```
using System;
using System.IO;
using System.Reflection;
using System.Reflection.Emit;
```

```
class LoadRawSnippet {
    public static void Main() {
        AppDomain currentDomain = AppDomain.CurrentDomain;

        InstantiateMyType(currentDomain);    // Failed!

        currentDomain.AssemblyResolve += new ResolveEventHandler(
            InstantiateMyType(currentDomain);    // OK!
    }

    static void InstantiateMyType(AppDomain domain) {
        try {
            // You must supply a valid fully qualified assembly
            domain.CreateInstance("Assembly text name, Version",
                new object[] { 1 });
        } catch (Exception e) {
            Console.WriteLine(e.Message);
        }
    }

    // Loads the content of a file to a byte array.
    static byte[] loadFile(string filename) {
        FileStream fs = new FileStream(filename, FileMode.Open,
            FileAccess.Read);
        byte[] buffer = new byte[(int) fs.Length];
        fs.Read(buffer, 0, buffer.Length);
        fs.Close();

        return buffer;
    }

    static Assembly MyResolver(object sender, ResolveEventArgs args) {
        AppDomain domain = (AppDomain) sender;

        // Once the files are generated, this call is
        // actually no longer necessary.
        EmitAssembly(domain);

        byte[] rawAssembly = loadFile("temp.dll");
        byte[] rawSymbolStore = loadFile("temp.pdb");
        Assembly assembly = domain.Load(rawAssembly, rawSymbolStore);

        return assembly;
    }

    // Creates a dynamic assembly with symbol information
    // and saves them to temp.dll and temp.pdb
    static void EmitAssembly(AppDomain domain) {
        // ...
    }
}
```

```
AssemblyName assemblyName = new AssemblyName();
assemblyName.Name = "MyAssembly";

AssemblyBuilder assemblyBuilder = domain.DefineDynamicAssembly(
    new AssemblyName(),
    AssemblyBuilderFlags.Dynamic);
ModuleBuilder moduleBuilder = assemblyBuilder.DefineDynamicModule(
    "MyModule",
    "MyModule.dll");
TypeBuilder typeBuilder = moduleBuilder.DefineType(
    "MyType",
    TypeAttributes.Public);

ConstructorBuilder constructorBuilder = typeBuilder.DefineConstructor(
    MethodAttributes.Public,
    Type.EmptyTypes,
    null);
ILGenerator ilGenerator = constructorBuilder.GetILGenerator();
ilGenerator.EmitWriteLine("MyType instantiated!");
ilGenerator.Emit(OpCodes.Ret);

typeBuilder.CreateType();

assemblyBuilder.Save("temp.dll");
}
```

```
open System
open System.IO
open System.Reflection
open System.Reflection.Emit

let instantiateMyType (domain: AppDomain) =
    try
        // You must supply a valid fully qualified assembly name
        domain.CreateInstance("Assembly text name, Version 1.0.0.0", null, null, null, null)
    |> ignore
    with e ->
        printfn $"{e.Message}"

// Loads the content of a file to a byte array.
let loadFile filename =
    use fs = new FileStream(filename, FileMode.Open)
    let buffer = Array.zeroCreate<byte> (int fs.Length)
    fs.Read(buffer, 0, buffer.Length) |> ignore
    fs.Close()
    buffer

// Creates a dynamic assembly with symbol information
// and saves them to temp.dll and temp.pdb
let emitAssembly (domain: AppDomain) =
    let assemblyName = AssemblyName()
    assemblyName.Name <- "MyAssembly"
```

```
let assemblyBuilder = domain.DefineDynamicAssembly(as
let moduleBuilder = assemblyBuilder.DefineDynamicModu
let typeBuilder = moduleBuilder.DefineType("MyType",

let constructorBuilder = typeBuilder.DefineConstructo
let ilGenerator = constructorBuilder.GetILGenerator()
ilGenerator.EmitWriteLine "MyType instantiated!"
ilGenerator.Emit(OpCodes.Ret)

typeBuilder.CreateType() |> ignore

assemblyBuilder.Save "temp.dll"

let myResolver (sender: obj) (args: ResolveEventArgs) =
    let domain = sender :?> AppDomain

    // Once the files are generated, this call is
    // actually no longer necessary.
    emitAssembly domain

let rawAssembly = loadFile "temp.dll"
let rawSymbolStore = loadFile "temp.pdb"
domain.Load(rawAssembly, rawSymbolStore)

let currentDomain = AppDomain.CurrentDomain

instantiateMyType currentDomain // Failed!

currentDomain.add_AssemblyResolve (ResolveEventHandler my

instantiateMyType currentDomain // OK!
```

```
Imports System.IO
Imports System.Reflection
Imports System.Reflection.Emit

Module Test

    Sub Main()
        Dim currentDomain As AppDomain = AppDomain.CurrentD

        InstantiateMyType(currentDomain) ' Failed!
```

```
AddHandler currentDomain.AssemblyResolve, AddressOf  
  
    InstantiateMyType(currentDomain)      ' OK!  
End Sub  
  
Sub InstantiateMyType(domain As AppDomain)  
    Try  
        ' You must supply a valid fully qualified assembly r  
        domain.CreateInstance("Assembly text name, Versi  
    Catch e As Exception  
        Console.WriteLine(e.Message)  
    End Try  
End Sub  
  
' Loads the content of a file to a byte array.  
Function loadFile(filename As String) As Byte()  
    Dim fs As New FileStream(filename, FileMode.Open)  
    Dim buffer(CInt(fs.Length - 1)) As Byte  
    fs.Read(buffer, 0, buffer.Length)  
    fs.Close()  
  
    Return buffer  
End Function 'loadFile  
  
Function MyResolver(sender As Object, args As ResolveF  
    Dim domain As AppDomain = DirectCast(sender, AppDom  
  
    ' Once the files are generated, this call is  
    ' actually no longer necessary.  
    EmitAssembly(domain)  
  
    Dim rawAssembly As Byte() = loadFile("temp.dll")  
    Dim rawSymbolStore As Byte() = loadFile("temp.pdb")  
    Dim myAssembly As System.Reflection.Assembly = doma  
  
    Return myAssembly  
End Function 'MyResolver  
  
' Creates a dynamic assembly with symbol information  
' and saves them to temp.dll and temp.pdb  
Sub EmitAssembly(domain As AppDomain)  
    Dim assemblyName As New AssemblyName()  
    assemblyName.Name = "MyAssembly"
```

```
Dim assemblyBuilder As AssemblyBuilder = domain.Def
Dim moduleBuilder As ModuleBuilder = assemblyBuilde
Dim typeBuilder As TypeBuilder = moduleBuilder.Defi

Dim constructorBuilder As ConstructorBuilder = type
Dim ilGenerator As ILGenerator = constructorBuilder
ilGenerator.EmitWriteLine("MyType instantiated!")
ilGenerator.Emit(OpCodes.Ret)

typeBuilder.CreateType()

assemblyBuilder.Save("temp.dll")
End Sub

End Module 'Test
```

Remarks

For information that is common to all overloads of this method, see the [Load\(AssemblyName\)](#) method overload.

Beginning with the .NET Framework 4, the trust level of an assembly that is loaded by using this method is the same as the trust level of the application domain.

Applies to




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
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