

When the compiler emits the **FactorizingAsyncDelegate** delegate class after parsing its definition as shown below, it generates the **BeginInvoke** and **EndInvoke** methods using the [Asynchronous Method Signatures](#), in addition to the **Invoke** method as displayed in the following code:

```
public class FactorizingAsyncDelegate : delegate
```

```
{  
    public bool Invoke(  
        int factorizableNum,  
        ref int primefactor1,  
        ref int primefactor2);
```

// The following code was supplied by the compiler.

```
public IAsyncResult BeginInvoke(  
    int factorizableNum,  
    ref int primefactor1,  
    ref int primefactor2,  
    AsyncCallback cb,  
    Object AsyncState  
);
```

// The following code was supplied by the compiler.

```
public bool EndInvoke(  
    ref int primefactor1,  
    ref int primefactor2,  
    IAsyncResult ar);  
}
```