**How to: Create a Request-Reply Contract**

A request-reply contract specifies a method that returns a reply. The reply must be sent and correlated to the request under the terms of this contract. Even if the method returns no reply (**void** in C#, or a **Sub** in Visual Basic), the infrastructure creates and sends an empty message to the caller. To prevent the sending of an empty reply message, use a one-way contract for the operation.

**To create a request-reply contract**

1. Create an interface in the programming language of your choice.
2. Apply the [ServiceContractAttribute](http://msdn.microsoft.com/en-us/library/system.servicemodel.servicecontractattribute.aspx) attribute to the interface.
3. Apply the [OperationContractAttribute](http://msdn.microsoft.com/en-us/library/system.servicemodel.operationcontractattribute.aspx) attribute to each method that clients can invoke.
4. Optional. Set the value of the [IsOneWay](http://msdn.microsoft.com/en-us/library/system.servicemodel.operationcontractattribute.isoneway.aspx) property to **true** to prevent the sending of an empty reply message. By default, all operations are request-reply contracts.

**Example**

The following sample defines a contract for a calculator service that provides **Add** and **Subtract** methods. The **Multiply** method is not part of the contract because it is not marked by the **OperationContractAttribute** class and so it is not accessible to clients.

[Copy Code](javascript:CopyCode('ctl00_MTCS_main_ctl04_code');" \o "Copy Code)

using System.ServiceModel;

[ServiceContract]

public interface ICalculator

{

[OperationContract]

// It would be equivalent to write explicitly:

// [OperationContract(IsOneWay=false)]

int Add(int a, int b);

[OperationContract]

int Subtract(int a, int b);

int Multiply(int a, int b)

}

* For more information about how to specify operation contracts, see the **OperationContractAttribute** class and the **IsOneWay** property.
* Applying the **ServiceContractAttribute** and **OperationContractAttribute** attributes causes the automatic generation of service contract definitions in a Web Services Description Language (WSDL) document once the service is deployed. The document is downloaded by appending **?wsdl** to the HTTP base address for the service. For example, http://microsoft/CalculatorService?wsdl