

# Web Services with Windows Communication Foundation

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# Agenda

- The Basics of Web Services
- Consuming a Web Service in Diner Max 3000
- Windows Communication Foundation Basics
- Building a WCF Service in Diner Max 3000

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# The Basics of Web Services



Client

XML

Server  
Application

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# Web Service Description Language (WSDL)

## Abstract

Types, interfaces and operations

## Concrete

Bindings and service endpoints

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsu="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:wsaw="http://www.w3.org/2006/05/addressing/wsdl"
xmlns:wsp="http://schemas.xmlsoap.org/ws/2004/09/policy"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:wsx="http://schemas.xmlsoap.org/ws/2004/09/mex"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:msc="http://schemas.microsoft.com/ws/2005/12/wsdl/contract" xmlns:tns="http://tempuri.org/"
xmlns:wsa10="http://www.w3.org/2005/08/addressing"
xmlns:wsap="http://schemas.xmlsoap.org/ws/2004/08/addressing/policy"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" targetNamespace="http://tempuri.org/" name="MenuService">
  <wsdl:types>
    <xs:schema targetNamespace="http://tempuri.org/" xmlns:xs="http://www.w3.org/2001/XMLSchema"
      elementFormDefault="qualified">
      <xs:schema xmlns:tns="http://schemas.microsoft.com/2003/10/Serialization/"
        targetNamespace="http://schemas.microsoft.com/2003/10/Serialization/"
        xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"
        attributeFormDefault="qualified">
        <xs:schema xmlns:tns="http://schemas.datacontract.org/2004/07/DinerService"
          targetNamespace="http://schemas.datacontract.org/2004/07/DinerService"
          xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
          <xs:schema xmlns:tns="http://schemas.datacontract.org/2004/07/DinerMax3000.Business"
            targetNamespace="http://schemas.datacontract.org/2004/07/DinerMax3000.Business"
            xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
            </wsdl:types>
          <wsdl:message name="IMenuService_GetMenu_InputMessage">
          <wsdl:message name="IMenuService_GetMenu_OutputMessage">
          <wsdl:portType name="IMenuService">
          <wsdl:binding name="BasicHttpBinding_IMenuService" type="tns:IMenuService">
          <wsdl:service name="MenuService">
            <wsdl:port name="BasicHttpBinding_IMenuService" binding="tns:BasicHttpBinding_IMenuService">
              <soap:address location="http://localhost:8733/MenuService/">
            </wsdl:port>
          </wsdl:service>
        </wsdl:definitions>
```

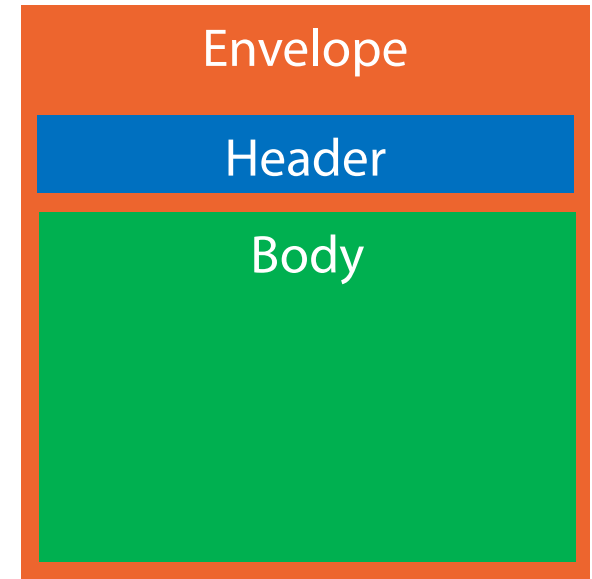
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# Simple Object Access Protocol (SOAP)

- Access to Web Services
- Envelope
- Encoding
- Convention



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# Example: Consuming a Web Service

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# Windows Communication Foundation

- Service Orient Applications
- Endpoints
- Behaviors
- Transactions

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# Example: Creating the Diner Max 3000 WCF Service

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# Summary

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