

Consuming SAP Enterprise Services with Microsoft .NET Framework 3.0 – Take It ESE!



Applies to:

SAP Enterprise Services Explorer 1.1 for Microsoft .NET (ES Explorer 1.1 for .NET, ESE 1.1 for .NET)

For more information, visit the [Interoperability - .NET homepage](#).

Summary

This document demonstrates how easily SAP Enterprise Services could be consumed with Visual Studio 2005 and Microsoft .NET Framework 3.0 using ES Explorer 1.1 for .NET. It includes an example of creating Windows Communication Foundation (WCF) client for SAP Enterprise Service.

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Author Bio



Rima Rudnik-Sirich is a software engineer in the SAP NetWeaver R&D organization in SAP Labs Israel, where she is actively involved in the development of tools for the .NET interoperability area (PDK for .NET, ES Explorer for .NET). Before joining SAP in 2003, she held software engineering positions in Israeli Defense Forces. Rima holds a B.A. degree in Mathematics and Computer Sciences from Israel Institute of Technology (Technion).

Table of Content

Requirements	3
Software	3
Connection and credentials	3
Configuring ES Explorer Settings	4
Developing an application.....	4
Discovering a service	4
Adding a Code	6
Setting App.config file	8
Testing Your Application.....	9
Related Content.....	9
Related Content.....	10
Copyright.....	11

Requirements

Software

- Microsoft Visual Studio 2005 Professional Edition
- Microsoft .NET Framework 3.0
- Windows SDK v.6.0
- SAP Enterprise Services Explorer 1.1 for .NET

Connection and credentials

- Connection and authentication parameters (user name and password) for the Services Registry from [ES Workplace Configuration](#) on SDN
- Credentials (user name and password) for HU2 ES Workplace back-end system. If you don't have credentials for HU2 obtain it by [requesting a user account](#)

Configuring ES Explorer Settings

Open Visual Studio, choose **Tools -> Options -> SAP ES Explorer -> Services Registry Settings**, and configure the ES Explorer properties as follows:

TASK	SERVICE DISCOVERY
Services Registry URL	http://sr.esworkplace.sap.com/ServicesRegistrySiService/ServicesRegistrySiPort
Authentication type	Basic
User name	sruser
Proxy	Use default proxy server
Service discovery mode	Search

Developing an application

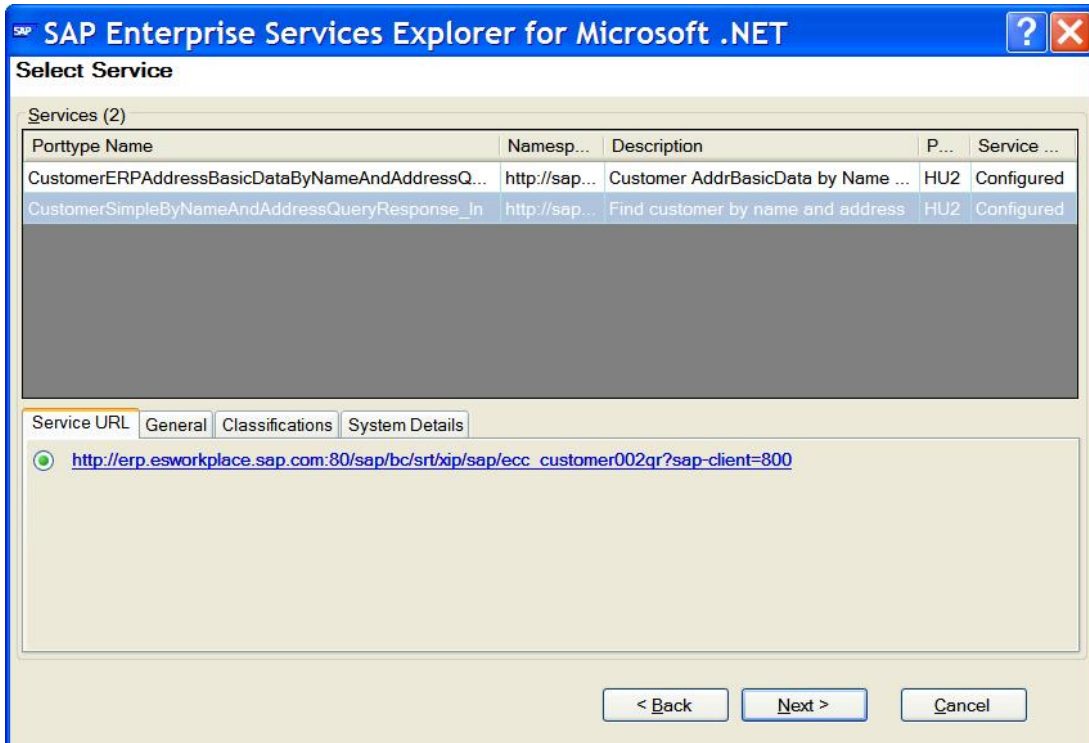
Discovering a service

1. In Visual Studio, create a Console Application project.
2. In the project context menu, choose **Add SAP Enterprise Service....**
3. In the logon screen of **SAP Enterprise Services Explorer for Microsoft .NET** wizard, enter the ES Workplace password and click **Next**.

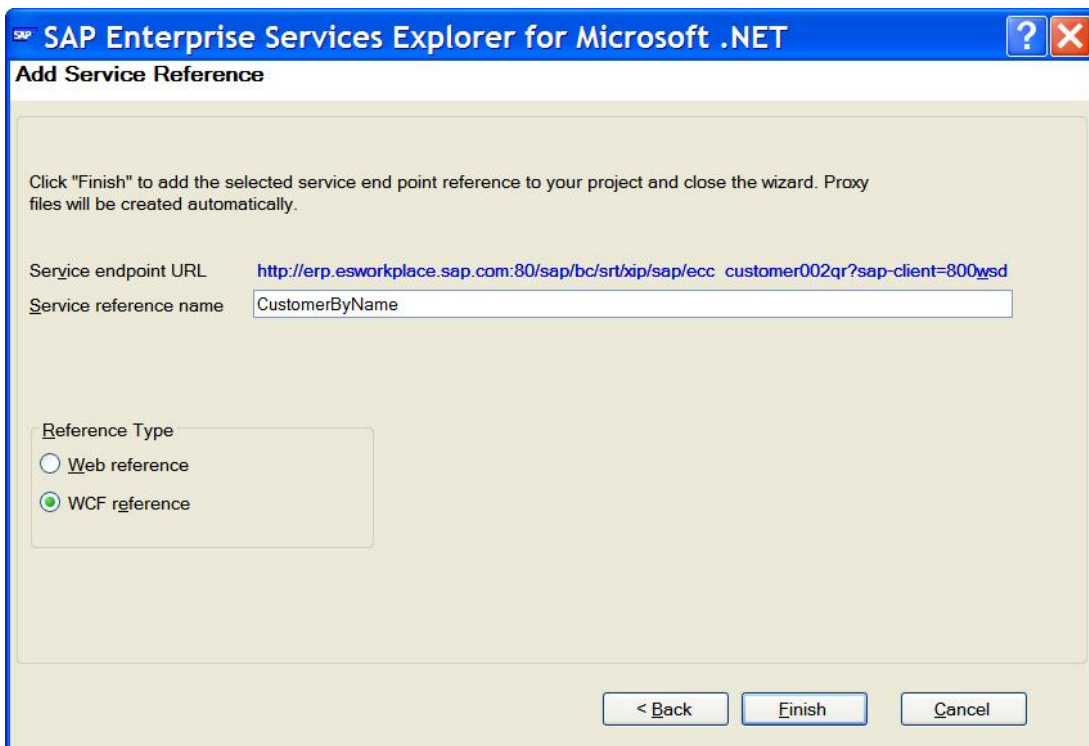
4. In the **Search Services Registry** screen, enter the following search parameters and click **Next**:

PROPERTY	VALUE	PROPERTY	VALUE
Search by	Porttype name	Service state	Configured
Search for	*customer*by*address*	Physical system	HU2

- From the table in the **Select Service** screen, choose **CustomerSimpleByNameAndAddressQueryResponse_In** and click **Next**.



- In the Connect to <server> dialog box, enter your credentials (user name and password) for HU2 back-end system.
- In the Add Service Reference screen, change the Service reference name to *CustomerByName*, in **Reference Type** group choose **WCF Reference** and click **Finish**.



Adding a Code

Add the following code to your Program module:

```

static CustomerSimpleByNameAndAddressQueryMessage_sync BuildQuery(string name)
{
    CustomerSimpleByNameAndAddressQueryMessage_sync query =
        new CustomerSimpleByNameAndAddressQueryMessage_sync();
    CustomerSimpleByNameAndAddressQueryMessage_sync querydata =
        new
    CustomerSimpleByNameAndAddressQueryMessage_syncCustomerSimpleSelectionByNameAndAddress
    s();
    OrganisationName oname = new OrganisationName();
    oname.FirstLineName = name;
    querydata.CustomerName = oname;
    querydata.CustomerAddressCountryCode = "DE";
    query.CustomerSimpleSelectionByNameAndAddress = querydata;
    return query;
}

static void PrintResults(CustomerSimpleByNameAndAddressResponseMessage_syncCustomer[]
customers)
{
    if (customers != null)
    {
        Console.WriteLine("Customers found: " + customers.Length.ToString() +
"\n");
        Console.WriteLine("CustomerID" + "\t" + "FirstLineName");
        Console.WriteLine("-----" + "\t" + "-----");
        foreach (CustomerSimpleByNameAndAddressResponseMessage_syncCustomer
customer in customers)
        {
            Console.WriteLine(customer.ID.Value + "\t" +
customer.BasicData.Common.Name.FirstLineName);
        }
    }
    else
    {
        Console.WriteLine("Customers found: 0");
    }
}

static void Main(string[] args)
{
    try
    {
        CustomerSimpleByNameAndAddressQueryResponse_InClient service =
new CustomerSimpleByNameAndAddressQueryResponse_InClient();
        service.ClientCredentials.UserName.UserName = "Your_HU2_user_name";
        service.ClientCredentials.UserName.Password = "Your_HU2_password";
        CustomerSimpleByNameAndAddressQueryMessage_sync query =
BuildQuery("Ju*");
        CustomerSimpleByNameAndAddressResponseMessage_sync results =
service.CustomerSimpleByNameAndAddressQueryResponse_In(query);
    }
}

```

```
        PrintResults(results.Customer);  
        Console.Read();  
    }  
    catch (Exception e)  
    {  
        Console.WriteLine(e.ToString());  
        Console.Read();  
    }  
}
```

Setting App.config file

Set the app.config file to following security settings:

```
<security mode="TransportCredentialOnly">  
  <transport clientCredentialType="Basic" proxyCredentialType="None" realm="" />  
  <message clientCredentialType="UserName" algorithmSuite="Default" />  
</security>
```


Testing Your Application

Build and start your application. The search results are displayed on the console:



The screenshot shows a Windows command prompt window titled "file:///C:/SAP/TakeItESE1/bin/Debug/TakeItESE1.EXE". The output of the application is displayed on a black background with white text. It shows "Customers found: 8" followed by a table of customer data.

CustomerID	FirstLineName
0000403825	Judith Essing
0000403871	Jutta Jesz
0000403891	Jutta Keil
0000404425	Julia Fleer
0000404529	Julia Oppermann
0000404568	Judith Singer
0000404582	Jutta Schießl
0000404655	Justina W?nsch

Related Content

[Download SAP Enterprise Services Explorer 1.1 for Microsoft .NET](#)

[Introducing SAP Enterprise Services Explorer for Microsoft .NET](#)

[How to Consume Enterprise Services with Microsoft .NET 3.0 and Visual Studio 2005](#)

For more information, visit the [Interoperability - .NET homepage](#).

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